Technical Package Cover Page

This file contains the following documents:

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

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

Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

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

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

Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §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

DOMESTIC WASTEWATER

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

Memorial Villages Water Authority (CN: 601359607) operates The Memorial Villages Water Authority WWTP (RN: 101520906). a wastewater treatment facility. The facility is located 11 Farnham Park Dr., in Houston, Harris County, Texas 77024.

This application is for a wastewater treatment facility

Discharges from the facility are expected to contain five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia Nitrogen (NH_3-N), Nitrate Nitrogen (NO_3-N), Total Kjeldahl Nitrogen (TKN), Sulfate (SO_4), Chloride (Cl^-), total Phosphorus (P_4), pH, Dissolved Oxygen (O_2), Chlorine Residual (Cl_2), *Escherichia coli,* Enterococci, Total Dissolved Solids (TDS), Electrical Conductivity, Oil & Grease, and Alkalinity ($CaCO_3$). Domestic water is treated by an activated sludge process plant and the treatment units include a mechanical screen, aeration basins, clarifiers, aerobic digesters, and chlorine contact chambers.

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

AGUAS RESIDUALES DOMÉSTICAS

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

Memorial Villages Water Authority (CN: 601359607) opera Memorial Villages Water Authority WWTP (RN: 101520906), una planta de tratamiento de aguas residuales. La instalación está ubicada en 11 Farnham Park Dr., en Houston, condado de Harris, Texas 77024.

Esta aplicación es para una planta de tratamiento de aguas residuales.

Se espera que los vertidos de la instalación contengan Demanda Bioquímica de Oxígeno Carbonáceo a los cinco días (CBOD5), Sólidos Suspendidos Totales (SST), Nitrógeno de Amoniaco (NH3-N), Nitrógeno de Nitrato (NO_3-N), Nitrógeno Kjeldahl Total (TKN), Sulfato (SO_4), Cloruro (Cl-), Fósforo Total (P_4), pH, Oxígeno Disuelto (O_2), Residual de Cloro (Cl_2), Escherichia coli, Enterococos, Sólidos Disueltos Totales (TDS), Conductividad Eléctrica, Aceites y Grasas, y Alcalinidad ($CaCO_3$). El agua doméstica se trata mediante un proceso de lodos activados y las unidades de tratamiento incluyen una criba mecánica, tanques de aireación, clarificadores, digestores aeróbicos y cámaras de contacto con cloro.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0010584001

APPLICATION. Memorial Villages Water Authority, 8955 Gaylord Drive, Houston, Texas 77024, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010584001 (EPA I.D. No. TX0047457) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 3,050,000 gallons per day. The domestic wastewater treatment facility is located at 11 Farnham Park Drive, Houston, in Harris County, Texas 77024. The discharge route is from the plant site via 36-inch pipe directly to Buffalo Bayou Above Tidal. TCEQ received this application on January 24, 2024. The permit application will be available for viewing and copying at Memorial Villages Water Authority Office Building, 8955 Gaylord Drive, Houston, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location, refer to application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.5075,29.746944&level=18

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

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

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

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a

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

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

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

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

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

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

AGENCY CONTACTS AND INFORMATION. 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 Memorial Villages Water Authority at the address stated above or by calling Mr. Trey Cantu at 713-465-8318.

Issuance Date: March 14, 2024

Comisión de Calidad Ambiental del Estado de Texas

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

PERMISO NO. WQ0010584001

SOLICITUD. Memorial Villages Water Authority, 8955 Gaylord Drive, Houston, Texas 77024 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010584001 (EPA I.D. No. TX0047457) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 3,050,000 galones por día. La planta está ubicada en 11 Farnham Park Drive en el Condado de Harris, Texas 77024. La ruta de descarga es del sitio de la planta a través de una tubería de 36 pulgadas directamente a Buffalo Bayou por encima de la marea. La TCEQ recibió esta solicitud el día 24 de enero en el año 2024. La solicitud para el permiso estará disponible para leerla y copiarla en la oficina de Memorial Villages Water Authority, 8955 Gaylord Drive, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.5075,29.746944&level=18

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida**

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

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

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

También se puede obtener información adicional del Memorial Villages Water Authority a la dirección indicada arriba o llamando a Trey Cantu al 713-465-8318

Fecha de emission: 14 de marzo de 2024

Texas Commission on Environmental Quality

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

RENEWAL

PERMIT NO. WQ0010584001

APPLICATION AND PRELIMINARY DECISION. Memorial Villages Water Authority, 8955 Gaylord Drive, Houston, Texas 77024, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010584001, which authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 3,050,000 gallons per day. TCEQ received this application on January 24, 2024.

The facility is located at 11 Farnham Park Drive, Houston, in Harris County, Texas 77024. The treated effluent is discharged through a 36-inch pipe directly to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The designated uses for Segment No. 1014 are primary contact recreation and limited aquatic life use. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.5075,29.746944&level=18

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Memorial Villages Water Authority Office Building, 8955 Gaylord Drive, Houston, Texas.

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from Memorial Villages Water Authority at the address stated above or by calling Mr. Trey Cantu at 713-465-8318.

Issuance Date: May 12, 2025

Comisión De Calidad Ambiental Del Estado De Texas

AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE ELIMINACION DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS RESIDUALES MUNICIPALES

RENOVACIÓN

PERMISO NO. WQ0010584001

SOLICITUD Y DECISIÓN PRELIMINAR. Memorial Villages Water Authority, 8955 Gaylord Drive, Houston, Texas 77024 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010584001 del Sistema de Eliminación de Descargas de Contaminantes de Texas, para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 3,050,000 galones por día. La TCEQ recibió esta solicitud el día 24 de enero en el año 2024.

La planta está ubicada en 11 Farnham Park Drive, Houston, en el Condado de Harris, Texas 77024. El efluente tratado es descargado a través de una tubería de 36 pulgadas directamente a Buffalo Bayou por encima de la marea, en el Segmento No. 1014 de la Cuenca del Río San Jacinto. Los usos designados para el Segmento No. 1014 son recreación de contacto primario y son limitados usos de la vida acuática.

El director ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El director ejecutivo ha tomado una decisión preliminar que, si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del director ejecutivo y el borrador del permiso están disponibles para leer y copiar en la oficina de Memorial Villages Water Autority, 8955 Gaylord Drive, Houston, Texas. 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=-95.5075,29.746944&level=18

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

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

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

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

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

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso para descargar aguas residuales sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del director ejecutivo, la Oficina del secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado 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.

Todos los comentarios escritos del público y los pedidos una reunión debe ser presentados durante los 30 días después de la publicación del aviso a la Oficina del secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet a www.tceq.texas.gov/about/comments.html. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a https://www14.tceq.texas.gov/epic/eComment/, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a al TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800- 687-4040.

También se puede obtener información adicional del Memorial Villages Water Authority a la dirección indicada arriba o llamando a Trey Cantu al 713-465-8318.

Fecha de emission: 12 de mayo de 2025

TPDES PERMIT NO.
WQ0010584001
[For TCEQ office use only - EPA I.D. No. TX0047457]

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

This is a renewal that replaces TPDES Permit No. WQ0010584001 issued on June 28, 2019.

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

Memorial Villages Water Authority

whose mailing address is

8955 Gaylord Drive
Houston, Texas 77024

is authorized to treat and discharge wastes from the Memorial Villages Water Authority Wastewater Treatment Facility, SIC Code 4952

located at 11 Farnham Park Drive, in the City of Houston, Harris County, Texas 77024

via 36-inch pipe directly to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin

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

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

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

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

   The annual average flow of effluent shall not exceed 3.05 million gallons per day (MGD), nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,422 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily Avg. & Daily Max.	
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (254)	15	25	35	Two/week	Composite
Total Suspended Solids	15 (382)	25	40	60	Two/week	Composite
Ammonia Nitrogen						
April - October	2 (51)	6	10	15	Two/week	Composite
November - March	3 (76)	7	10	15	Two/week	Composite
E. coli, colony-forming units or most probable number per 100 ml	63	N/A	200	N/A	One/week	Grab

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

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

Effluent Characteristic	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Avg	Daily Max	Single Grab	Measurement Frequency	Sample Type
Sublethal Whole Effluent Toxicity (WET) limit 40% (Parameter 51710)[1]					
Ceriodaphnia dubia (7-day chronic NOEC[3])	6%	6%	N/A	1/quarter	Composite

[1] The sublethal WET limit NOEC of not less than 6% is effective at the permit issue date.

[2] The NOEC is defined as the greatest effluent dilution at which no significant toxicity is demonstrated. Significant toxicity is defined as a statistically significant difference between a specified effluent dilution and the control for lethal or sublethal effects.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

    a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.

    b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

    c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

    d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

    e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

    f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

    a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

        i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

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

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

e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.

7. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

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

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;

ii. identity of individual who collected the sample or made the measurement.

iii. date and time of analysis;

iv. identity of the individual and laboratory who performed the analysis;

v. the technique or method of analysis; and

vi. the results of the analysis or measurement and quality assurance/quality control records.

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224).

7. Noncompliance Notification

   a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. Unauthorized discharges as defined in Permit Condition 2(g).

      ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.

      iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

   c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Compliance Monitoring Team of the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

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

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. One hundred micrograms per liter (100 μg/L);

   ii. Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

   iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

   i. Five hundred micrograms per liter (500 μg/L);

   ii. One milligram per liter (1 mg/L) for antimony;

   iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or

   iv. The level established by the TCEQ.

10. Signatories to Reports

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

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

    a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;

    b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

    c. For the purpose of this paragraph, adequate notice shall include information on:

       i. The quality and quantity of effluent introduced into the POTW; and

       ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

   a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

   b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

      i. Violation of any terms or conditions of this permit;

      ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

      iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

   c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

   a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

   b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

   c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

   d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

   e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.

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

4. Permit Amendment and/or Renewal

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

      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or

      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

   c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

   d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

   e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

   f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or

prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

   a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

   b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy

    a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

       i. the permittee;

       ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee;

ii. the permit number(s);

iii. the bankruptcy court in which the petition for bankruptcy was filed; and

iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

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

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

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

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

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

c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

    a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

    b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

    c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

    d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

    e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well,

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

f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

   i. Volume of waste and date(s) generated from treatment process;
   ii. Volume of waste disposed of on-site or shipped off-site;
   iii. Date(s) of disposal;
   iv. Identity of hauler or transporter;
   v. Location of disposal site; and
   vi. Method of final disposal.

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

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

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SLUDGE PROVISIONS

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

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

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.

2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

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

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

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

TABLE 1

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

* Dry weight basis

3. Pathogen Control

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

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

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

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

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

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

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

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

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

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

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

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

d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

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

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

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

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

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

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

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

i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.

v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.

vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.

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

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

4. Vector Attraction Reduction Requirements

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

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

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

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

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

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

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

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

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

Alternative 9 -

i. Biosolids shall be injected below the surface of the land.

ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

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

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

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

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

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

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

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

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

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

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

A. Pollutant Limits

Table 2

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

Table 3

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

*Dry weight basis

B. Pathogen Control

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

C. Management Practices

1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.

2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.

3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.

4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:

   a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.

   b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.

   c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:

   a. The location, by street address, and specific latitude and longitude, of each land application site.

   b. The approximate time period bulk biosolids will be applied to the site.

   c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.

2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the biosolids disposal practice.

E. Record Keeping Requirements

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

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

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.

2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).

3. A description of how the vector attraction reduction requirements are met.

4. A description of how the management practices listed above in Section II.C are being met.

5. The following certification statement:

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

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:

   a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.

   b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.

   c. The number of acres in each site on which bulk biosolids are applied.

   d. The date and time biosolids are applied to each site.

   e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.

   f. The total amount of biosolids applied to each site in dry tons.

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

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 12) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

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

3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.

4. The frequency of monitoring listed in Section I.C. that applies to the permittee.

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge or biosolids in mg/kg.

7. Identity of hauler(s) and TCEQ transporter number.

8. Date(s) of transport.

9. Texas Commission on Environmental Quality registration number, if applicable.

10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.

11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.

12. Level of pathogen reduction achieved (Class A, Class AB or Class B).

13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.

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

15. Vector attraction reduction alternative used as listed in Section I.B.4.

16. Amount of sludge or biosolids transported in dry tons/year.

17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.

18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.

    a. The location, by street address, and specific latitude and longitude.

    b. The number of acres in each site on which bulk biosolids are applied.

    c. The date and time bulk biosolids are applied to each site.

    d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.

    e. The amount of biosolids (i.e., dry tons) applied to each site.

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

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

A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge or biosolids disposed in a municipal solid waste landfill.

B. If the permittee generates sewage sludge and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge or biosolids disposal practice.

D. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

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

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

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

F. Record Keeping Requirements

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

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

2. The description (including procedures followed and results) of all TCLP tests performed.

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

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 12) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge or biosolids production in dry tons/year.

4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.

5. Amount of sludge or biosolids transported interstate in dry tons/year.

6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

7. Identity of hauler(s) and transporter registration number.

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

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

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

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

A. General Requirements

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

2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:

   a. the amount of sludge or biosolids transported;

   b. the date of transport;

   c. the name and TCEQ permit number of the receiving facility or facilities;

   d. the location of the receiving facility or facilities;

   e. the name and TCEQ permit number of the facility that generated the waste; and

   f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.

2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.

3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 12) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

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

2. the annual sludge or biosolids production;

3. the amount of sludge or biosolids transported;

4. the owner of each receiving facility;

5. the location of each receiving facility; and

6. the date(s) of disposal at each receiving facility.

OTHER REQUIREMENTS

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

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

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

3. The chronic aquatic life mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone.

4. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 1/week may be reduced to 2/month. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:

   a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, waste streams with a closed-cup flash point of less than 140° Fahrenheit (60° Celsius) using the test methods specified in 40 CFR § 261.21;

   b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with a pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., biochemical oxygen demand), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

   e. Heat in amounts which will inhibit biological activity in the POTW, resulting in Interference, but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;

   f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and

   h. Any trucked or hauled pollutants except at discharge points designated by the POTW.

2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403 [*rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798*].

3. The permittee shall provide adequate notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days subsequent to the permittee's knowledge of either of the following:

   a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and

   b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

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

Revised July 2007

BIOMONITORING REQUIREMENTS

48-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival of the test organisms.

b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update

1) Acute static renewal 48-hour definitive toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia)*. A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

2) Acute static renewal 48-hour definitive toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and submit a valid test for each test species during the required reporting period for that species. A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution. A repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 2%, 3%, 5%, 6%, and 8% effluent. The critical dilution, defined as 6% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.

d. The sublethality No Observed Effect Concentration (NOEC) effluent limitation of not less than 6% (see the EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section) is effective at the permit issue date for the water flea.

e. At the permit issue date, if a test fails to pass the sublethal endpoint for the water flea at the 6% effluent, the testing frequency will increase to monthly for that test species until such time compliance with the NOEC effluent limitation is

demonstrated for a period of three consecutive months, at which time the quarterly testing frequency may be resumed.

e. Testing Frequency Reduction

1) If none of the first four consecutive quarterly fathead minnow tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per year.

2) If one or more of the first four consecutive quarterly fathead minnow tests demonstrates significant toxicity, the permittee shall continue quarterly testing until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee shall resume a quarterly testing frequency for until this permit is reissued.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:

1) a control mean survival of 90% or greater; and

2) a coefficient of variation percent (CV%) of 40 or less for both the control and critical dilution. However, if significant lethality is demonstrated, a CV% greater than 40 shall not invalidate the test. The CV% requirement does not apply when significant lethality occurs.

b. Statistical Interpretation

1) For the water flea and fathead minnow tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.

2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled “Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)” (EPA 821-B-00-004) provides guidance on determining the validity of test results.

3) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 90% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

4) The NOEC is defined as the greatest effluent dilution at which no significant lethality is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which significant lethality is demonstrated. Significant lethality is defined as a statistically significant difference between the survival of the test organism in a specified effluent dilution when compared to the survival of the test organism in the control.

5) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 2.

6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 2 will be used when making a determination of test acceptability.

7) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:

a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or

b) use the closest downstream perennial water unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of preexisting instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;

b) the test indicating receiving water toxicity was carried out to completion; and

c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

1) The permittee shall collect a minimum of two composite samples from Outfall 001. The second composite sample will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for the subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

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

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.

1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.

2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TEM3D, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For the water flea, Parameter TOM3D, report the NOEC for survival.

3) For the water flea, Parameter TXM3D, report the LOEC for survival.

4) For the fathead minnow, Parameter TEM6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0.

5) For the fathead minnow, Parameter TOM6C, report the NOEC for survival.

6) For the fathead minnow, Parameter TXM6C, report the LOEC for survival.

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this part apply only when a toxicity test demonstrates significant lethality. Significant lethality was defined in Part 2.b.

a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates significant lethality. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not

substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

c. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show

significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality. i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of

intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond their control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.

h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

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

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent (%)					
		0%	17%	23%	30%	40%	53%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

*Coefficient of Variation = Standard Deviation x 100/mean

Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (6%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

1) NOEC survival = _____% effluent

2) LOEC survival = _____% effluent

TABLE 1 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

Dates and Times Composites Collected — Date Time / Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent (%)					
		0%	17%	23%	30%	40%	53%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

* Coefficient of Variation = standard deviation x 100/mean

Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (6%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

1) NOEC survival = _____% effluent

2) LOEC survival = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for WET testing.

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.

b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:

1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

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

c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

a. Test Acceptance – The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.

b. Dilution Water - In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the composite samples such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

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

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.

1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TIE3D, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”

2) For the fathead minnow, Parameter TIE6C, enter a “0” if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter “1.”

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

4. Persistent Mortality

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

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

b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple

characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in item 5.h. The report will also specify a corrective action schedule for implementing the selected control mechanism.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival

of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

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

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010584001, EPA I.D. No. TX0047457, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Memorial Villages Water Authority 8955 Gaylord Drive Houston, Texas 77024
Prepared By:	Venkata S. Kancharla Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-3342
Date:	6/16/2024
Permit Action:	Renewal

1. EXECUTIVE DIRECTOR RECOMMENDATION

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

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 3.05 million gallons per day (MGD). The existing wastewater treatment facility serves primarily residential, light commercial, and retail development, as well as vacant acreage within the boundaries of the City of Hedwig Village, City of Piney Point Village, City of Hunters Creek Village, and City of Bunker Hill Village.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 11 Farnham Park Drive, in the City of Houston, Harris County, Texas 77024.

Outfall Location:

Outfall Number	Latitude	Longitude
001	29.746833 N	95.507194 W

The treated effluent is discharged via 36-inch pipe directly to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The designated uses for Segment No. 1014 are primary contact recreation and limited aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Memorial Villages Water Authority Wastewater Treatment Facility is an activated sludge process plant operated in the complete mix mode with nitrification. Treatment units include a bar screen, a grit chamber, two rapid mix chambers, four aeration basins, two final clarifiers, a sludge digester, two sludge centrifuges, two chlorine contact chambers, and dechlorination facilities. The facility is in operation.

Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Coastal Plains Recycling and Disposal Facility, Permit No. 1721A, in Brazoria County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The Memorial Villages Water Authority WWTP does not appear to receive significant industrial wastewater contributions. Based on the information provided by the permittee in the most recent TPDES permit application, the TCEQ determined that there are no significant industrial wastewater contributions currently being discharged to the permittee's POTW.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period December 2021 through December 2023. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), and ammonia nitrogen (NH_3-N). The average of Daily Average value for *Escherichia coli* (*E. coli*) in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

Parameter	Average of Daily Avg
Flow, MGD	1.7
$CBOD_5$, mg/l	4.6
TSS, mg/l	2.9
NH_3-N, mg/l	0.86
E. coli, CFU or MPN per 100 ml	5

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

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

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 3.05 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 6,422 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	254	15	25
TSS	15	382	25	40
NH_3-N				
April–October	2	51	6	10
November–March	3	76	7	10
DO (minimum)	6.0 mg/l for April through October and 4.0 mg/l for November through March	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	63	N/A	N/A	200

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

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

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
DO	Two/week
E. coli	One/week

C. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Coastal Plains Recycling and Disposal Facility, Permit No. 1721A, in Brazoria County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

D. PRETREATMENT REQUIREMENTS

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

E. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

(1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 2%, 3%, 5%, 6%, and 8%. The low-flow effluent concentration (critical dilution) is defined as 6% effluent. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.

The permittee would normally be required to perform chronic testing. However, the critical dilution was calculated to be 6%. In accordance with the IPs, when the critical dilution is less than 5%, in lieu of chronic testing, we may require 48-hour acute testing by multiplying the chronic critical dilution by the acute-to-chronic ratio of 10, arriving at 40%.

(a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:

(a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).

(b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

F. SUMMARY OF CHANGES FROM APPLICATION

None.

I. SUMMARY OF CHANGES FROM EXISTING PERMIT

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated.
The bacteria limits in the draft permit are consistent with the requirements of the Total Maximum Daily Load (TMDL), Project No. 22, and any subsequent associated WQMP updates.

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

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

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

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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

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

Texas Surface Water Quality Standards (TSWQS) at 30 TAC Chapter 307 allow for consideration of the mixing of effluent and receiving water when evaluating discharge compliance with water quality criteria for pH. The discharge authorized by this permit shall meet the TSWQS pH criterion for Segment No. 1014 of 6.5 to 9.0 standard units at the edge of the chronic mixing zone.

A mixing zone evaluation for pH is included within Attachment 1 of this Fact Sheet. The evaluation has demonstrated that the technology based pH limitations of 6.0 to 9.0 standard units will ensure compliance with the TSWQS pH criterion at the edge of the chronic mixing zone. See Attachment A of this Fact Sheet.

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged via 36-inch pipe directly to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin. The designated uses for Segment No. 1014 are primary contact recreation and limited aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses.
All determinations are preliminary and subject to additional review and/or revisions.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1014 is not currently listed on the State's inventory of impaired and threatened waters (the 2022 Clean Water Act Section 303(d) list).

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

TMDL Project 22: *Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and White Oak Bayous and Tributaries Segments 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E* has been approved for this segment.

On April 8, 2009, the TCEQ adopted Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and Whiteoak Bayous and Tributaries. The EPA approved the TMDL on June 11, 2009. The total maximum daily load (TMDL) addresses elevated levels of bacteria in multiple segments and assessment units of these bayous and their tributaries. The waste load allocation (WLA) for wastewater treatment facilities was established as the permitted flow for each facility multiplied by one-half the geometric mean criterion for bacteria. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits of one-half the bacteria geometric mean criterion for *E. coli*. To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration based effluent

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

The pollutant analysis of treated effluent provided by the permittee in the application indicated 536 mg/l total dissolved solids (TDS), 45.9 mg/l sulfate, and 127 mg/l chloride present in the effluent. The segment criteria for Segment No. 1014 are 600 mg/l for TDS, 65 mg/l for sulfate, and 110 mg/l for chlorides. Based on dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment B of this Fact Sheet. The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000.

(2) CONVENTIONAL PARAMETERS

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

The effluent limits recommended above have been reviewed for consistency with the State of Texas WQMP. The recommended limits are consistent with the approved WQMP.

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

(3) COASTAL MANAGEMENT PLAN

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

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

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

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

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 3.05 MGD and the 7-day, 2-year (7Q2) flow of 70.69 cfs for Buffalo Bayou Above Tidal. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 3.05 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %:	21.08%	Chronic Effluent %:	6.26%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards." The segment values are 43 mg/l for hardness (as calcium carbonate), 70 mg/l chlorides, 7.2 standard units for pH, and 18 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

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

(b) PERMIT ACTION

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

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 3.05 MGD and the harmonic mean flow of 151.67 cfs for Buffalo Bayou Above Tidal. The following critical effluent percentage is being used:

Human Health Effluent %: 3.02%

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

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

(b) PERMIT ACTION

None.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1014, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

(b) PERMIT ACTION

None.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

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

The existing permit includes chronic freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed seventeen chronic tests, with zero demonstrations of significant toxicity (i.e., no failures).

A reasonable potential determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

(b) PERMIT ACTION

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

be the result of the permittee's discharge to the receiving stream or water body.

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

Sublethal wet limits for the water flea will be carried over from the current permit.

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

(a) SCREENING

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

(b) PERMIT ACTION

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

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

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

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

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.
The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

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

For additional information about this application, contact Venkata S. Kancharla at (512) 239-3342.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0010584001 issued on June 28, 2019.

B. APPLICATION

Application received on January 24, 2024, and additional information received on February 27, 2024.

C. MEMORANDA

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

D. MISCELLANEOUS

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

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

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

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

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

TMDL Project 22: *Eighteen Total Maximum Daily Loads for Bacteria in Buffalo and White Oak Bayous and Tributaries Segments 1013, 1013A, 1013C, 1014, 1014A, 1014B, 1014E, 1014H, 1014K, 1014L, 1014M, 1014N, 1014O, 1017, 1017A, 1017B, 1017D, and 1017E.*

Attachment A: pH Screening

Calculation of pH of a mixture of two flows. Based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady
State Modeling. USEPA Office of Water, Washington D.C.)

INPUT			
1. DILUTION FACTOR AT MIXING ZONE BOUNDARY	10.57		10.57
RECEIVING WATER CHARACTERISTICS			
2. Temperature (deg C):	25.00		30.00
3. pH:	7.10		7.10
4. Alkalinity (mg CaCO3/L):	40.00		200.00
EFFLUENT CHARACTERISTICS			
5. Temperature (deg C):	25.00		30.00
6. pH:	6.00		9.00
7. Alkalinity (mg CaCO3/L):	20.00	*	120.00

OUTPUT	
1. IONIZATION CONSTANTS	
Upstream/Background pKa:	6.35
Effluent pKa:	6.35
2. IONIZATION FRACTIONS	
Upstream/Background Ionization Fraction:	0.85

Effluent Ionization Fraction:	0.31	1.00
3. TOTAL INORGANIC CARBON		
Upstream/Background Total Inorganic Carbon (mg CaCO3/L):	47.11	233.50
Effluent Total Inorganic Carbon (mg CaCO3/L):	64.77	120.25
4. CONDITIONS AT MIXING ZONE BOUNDARY		
Temperature (deg C):	25.00	30.00
Alkalinity (mg CaCO3/L):	38.11	192.43
Total Inorganic Carbon (mg CaCO3/L):	48.78	222.79
pKa:	6.35	6.32
pH at Mixing Zone Boundary:	**6.90**	**7.13**

* Assume minimal total alkalinity at low effluent pH based on carbonate equilibrium chemistry of natural and treated waters

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

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	**Memorial Villages Water Authority**
Permit Number, Outfall:	**10584-001**
Segment Number:	**1014**

Enter values needed for screening:			**Data Source (edit if different)**
QE - Average effluent flow	**3.05**	MGD	
QS - Perennial stream harmonic mean flow	**115.00**	cfs	Critical conditions memo
QE - Average effluent flow	**4.7191**	cfs	Calculated
CA - TDS - ambient segment concentration	**368**	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	**64**	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	**23**	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	**600**	mg/L	2014 TSWQS, Appendix A
CC - chloride - segment criterion	**110**	mg/L	2014 TSWQS, Appendix A
CC - sulfate - segment criterion	**65**	mg/L	2014 TSWQS, Appendix A
CE - TDS - average effluent concentration	**536**	mg/L	Permit application
CE - chloride - average effluent concentration	**127**	mg/L	Permit application
CE - sulfate - average effluent concentration	**45.9**	mg/L	Permit application

Screening Equation

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

No further screening for TDS needed if:	**374.62**	**≤**	**600**
No further screening for chloride needed if:	**66.48**	**≤**	**110**
No further screening for sulfate needed if:	**23.90**	**≤**	**65**

Permit Limit Calculations

TDS

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE	6253.68
Calculate the LTA	LTA = WLA * 0.93	5815.92
Calculate the daily average	Daily Avg. = LTA * 1.47	**8549.40**

					18087.51
Calculate the daily maximum	Daily Max. = LTA * 3.11				
	70% of Daily Avg.				
Calculate 70% of the daily average	=				5984.58
	85% of Daily Avg.				
Calculate 85% of the daily average	=				7266.99
No permit limitations needed if:	**536**	**≤**	**5984.58**		
					7266.99
Reporting needed if:	**536**	**>**	**5984.58**	**but ≤**	
Permit limits may be needed if:	**536**	**>**	**7266.99**		

No permit limitations needed for TDS

Chloride

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE				1230.99
Calculate the LTA	LTA = WLA * 0.93				1144.82
Calculate the daily average	Daily Avg. = LTA * 1.47				**1682.88**
Calculate the daily maximum	Daily Max. = LTA * 3.11				**3560.39**
	70% of Daily Avg.				
Calculate 70% of the daily average	=				1178.02
	85% of Daily Avg.				
Calculate 85% of the daily average	=				1430.45
No permit limitations needed if:	**127**	**≤**	**1178.02**		
					1430.45
Reporting needed if:	**127**	**>**	**1178.02**	**but ≤**	
Permit limits may be needed if:	**127**	**>**	**1430.45**		

No permit limitations needed for chloride

Sulfate

Calculate the WLA	WLA= [CC(QE+QS) - (QS)(CA)]/QE				1088.51
Calculate the LTA	LTA = WLA * 0.93				1012.32
Calculate the daily average	Daily Avg. = LTA * 1.47				**1488.10**
Calculate the daily maximum	Daily Max. = LTA * 3.11				**3148.30**
	70% of Daily Avg.				
Calculate 70% of the daily average	=				1041.67
	85% of Daily Avg.				
Calculate 85% of the daily average	=				1264.89
No permit limitations needed if:	**45.9**	**≤**	**1041.67**		
					1264.89
Reporting needed if:	**45.9**	**>**	**1041.67**	**but ≤**	

Permit limits may be needed if:	**45.9**	**>**	**1264.89**

No permit limitations needed for sulfate

Attachment C: Calculated Water Quality Based Effluent Limitations

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

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

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

PERMIT INFORMATION

Permittee Name:	Memorial Villages Water Authority
TPDES Permit No.:	WQ0010584001
Outfall No.:	001
Prepared by:	Venkata Kancharla
Date:	5/15/2024

DISCHARGE INFORMATION

Receiving Waterbody:	Buffalo Bayou Above Tidal
Segment No.:	1014
TSS (mg/L):	18
pH (Standard Units):	7.2
Hardness (mg/L as $CaCO_3$):	43
Chloride (mg/L):	70
Effluent Flow for Aquatic Life (MGD):	3.05
Critical Low Flow [7Q2] (cfs):	70.69
% Effluent for Chronic Aquatic Life (Mixing Zone):	6.26
% Effluent for Acute Aquatic Life (ZID):	21.08
Effluent Flow for Human Health (MGD):	3.05
Harmonic Mean Flow (cfs):	151.67
% Effluent for Human Health:	3.02
Human Health Criterion (select: PWS, FISH, or INC)	**FISH**

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

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	58029.80	0.489		1.00	Assumed
Cadmium	6.60	-1.13	151894.51	0.268		1.00	Assumed
Chromium (total)	6.52	-0.93	225214.62	0.198		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	225214.62	0.198		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	123338.41	0.311		1.00	Assumed
Lead	6.45	-0.80	279114.24	0.166		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed

Nickel	5.69	-0.57	94296.30	0.371		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	122199.47	0.313		1.00	Assumed
Zinc	6.10	-0.70	166459.75	0.250		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*FW Chronic Criterion (µg/L)*	*WLAa (µg/L)*	*WLAc (µg/L)*	*LTAa (µg/L)*	*LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	N/A	14.2	N/A	8.16	N/A	11.9	25.3
Aluminum	991	N/A	4702	N/A	2694	N/A	3960	8379
Arsenic	340	150	3298	4901	1890	3774	2778	5877
Cadmium	3.8	0.137	66.9	8.16	38.3	6.28	9.23	19.5
Carbaryl	2.0	N/A	9.49	N/A	5.44	N/A	7.99	16.9
Chlordane	2.4	0.004	11.4	0.0639	6.53	0.0492	0.0723	0.153
Chlorpyrifos	0.083	0.041	0.394	0.655	0.226	0.504	0.331	0.701
Chromium (trivalent)	285	37	6845	2999	3922	2309	3394	7180
Chromium (hexavalent)	15.7	10.6	74.5	169	42.7	130	62.7	132
Copper	6.4	4.6	98.0	237	56.1	182	82.5	174
Cyanide (free)	45.8	10.7	217	171	125	132	183	387
4,4'-DDT	1.1	0.001	5.22	0.0160	2.99	0.0123	0.0180	0.0382
Demeton	N/A	0.1	N/A	1.60	N/A	1.23	1.80	3.82
Diazinon	0.17	0.17	0.807	2.72	0.462	2.09	0.679	1.43
Dicofol [Kelthane]	59.3	19.8	281	316	161	244	237	501
Dieldrin	0.24	0.002	1.14	0.0320	0.653	0.0246	0.0361	0.0765
Diuron	210	70	996	1119	571	861	839	1775
Endosulfan I (*alpha*)	0.22	0.056	1.04	0.895	0.598	0.689	0.879	1.86
Endosulfan II (*beta*)	0.22	0.056	1.04	0.895	0.598	0.689	0.879	1.86
Endosulfan sulfate	0.22	0.056	1.04	0.895	0.598	0.689	0.879	1.86
Endrin	0.086	0.002	0.408	0.0320	0.234	0.0246	0.0361	0.0765
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.160	N/A	0.123	0.180	0.382
Heptachlor	0.52	0.004	2.47	0.0639	1.41	0.0492	0.0723	0.153
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.08	5.34	1.28	3.06	0.984	1.44	3.06
Lead	25	0.99	728	95.6	417	73.6	108	228
Malathion	N/A	0.01	N/A	0.160	N/A	0.123	0.180	0.382
Mercury	2.4	1.3	11.4	20.8	6.53	16.0	9.59	20.2
Methoxychlor	N/A	0.03	N/A	0.479	N/A	0.369	0.542	1.14
Mirex	N/A	0.001	N/A	0.0160	N/A	0.0123	0.0180	0.0382
Nickel	229	25.5	2935	1098	1682	845	1242	2628
Nonylphenol	28	6.6	133	105	76.1	81.2	111	236
Parathion (ethyl)	0.065	0.013	0.308	0.208	0.177	0.160	0.235	0.497
Pentachlorophenol	10.7	8.2	50.6	131	29.0	101	42.6	90.1
Phenanthrene	30	30	142	479	81.6	369	119	253
Polychlorinated Biphenyls [PCBs]	2.0	0.014	9.49	0.224	5.44	0.172	0.253	0.535
Selenium	20	5	94.9	79.9	54.4	61.5	79.9	169
Silver	0.8	N/A	72.2	N/A	41.4	N/A	60.8	128
Toxaphene	0.78	0.0002	3.70	0.00320	2.12	0.00246	0.00361	0.00765

Tributyltin [TBT]	0.13	0.024	0.617	0.384	0.353	0.295	0.434	0.918
2,4,5 Trichlorophenol	136	64	645	1023	370	787	543	1149
Zinc	57	58	1087	3690	623	2842	915	1936

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Water and Fish Criterion (µg/L)*	*Fish Only Criterion (µg/L)*	*Incidental Fish Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	1.0	115	1150	3811	3544	5210	11022
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.000380	0.000354	0.000519	0.00109
Anthracene	1109	1317	13170	43646	40590	59667	126235
Antimony	6	1071	10710	35493	33009	48522	102656
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	19254	17907	26322	55689
Benzidine	0.0015	0.107	1.07	3.55	3.30	4.84	10.2
Benzo(*a*)anthracene	0.024	0.025	0.25	0.829	0.771	1.13	2.39
Benzo(*a*)pyrene	0.0025	0.0025	0.025	0.0829	0.0771	0.113	0.239
Bis(chloromethyl)ether	0.0024	0.2745	2.745	9.10	8.46	12.4	26.3
Bis(2-chloroethyl)ether	0.60	42.83	428.3	1419	1320	1940	4105
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	250	233	342	723
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	9114	8476	12459	26359
Bromoform [Tribromomethane]	66.9	1060	10600	35129	32670	48024	101602
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	1524	1418	2084	4409
Chlordane	0.0025	0.0025	0.025	0.0829	0.0771	0.113	0.239
Chlorobenzene	100	2737	27370	90704	84355	124002	262344
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	6065	5640	8290	17540
Chloroform [Trichloromethane]	70	7697	76970	255079	237224	348719	737766
Chromium (hexavalent)	62	502	5020	16636	15472	22743	48117
Chrysene	2.45	2.52	25.2	83.5	77.7	114	241
Cresols [Methylphenols]	1041	9301	93010	308236	286660	421389	891511
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.0663	0.0616	0.0906	0.191
4,4'-DDE	0.00013	0.00013	0.0013	0.00431	0.00401	0.00588	0.0124
4,4'-DDT	0.0004	0.0004	0.004	0.0133	0.0123	0.0181	0.0383
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	15675	14578	21429	45337
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	141	131	192	406
m-Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	19718	18338	26956	57031
o-Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	109329	101676	149464	316212
p-Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	74.2	69.0	101	214
1,2-Dichloroethane	5	364	3640	12063	11219	16491	34889
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	1826484	1698630	2496986	5282740
Dichloromethane [Methylene Chloride]	5	13333	133330	441857	410927	604062	1277983
1,2-Dichloropropane	5	259	2590	8583	7982	11734	24825
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	3944	3668	5391	11406
Dicofol [Kelthane]	0.30	0.30	3	9.94	9.25	13.5	28.7

Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.000663	0.000616	0.000906	0.00191
2,4-Dimethylphenol	444	8436	84360	279570	260000	382200	808600
Di-*n*-Butyl Phthalate	88.9	92.4	924	3062	2848	4186	8856
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	0.0000026	0.0000025	0.0000036	0.0000076
Endrin	0.02	0.02	0.2	0.663	0.616	0.906	1.91
Epichlorohydrin	53.5	2013	20130	66711	62041	91200	192948
Ethylbenzene	700	1867	18670	61873	57542	84586	178954
Ethylene Glycol	46744	1.68E+07	1.68E+08	556753952	517781175	761138327	161029955
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.00331	0.00308	0.00453	0.00958
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.00961	0.00894	0.0131	0.0277
Hexachlorobenzene	0.00068	0.00068	0.0068	0.0225	0.0210	0.0308	0.0651
Hexachlorobutadiene	0.21	0.22	2.2	7.29	6.78	9.96	21.0
Hexachlorocyclohexane (*alpha*)	0.0078	0.0084	0.084	0.278	0.259	0.380	0.805
Hexachlorocyclohexane (*beta*)	0.15	0.26	2.6	8.62	8.01	11.7	24.9
Hexachlorocyclohexane (*gamma*) [Lindane]	0.2	0.341	3.41	11.3	10.5	15.4	32.6
Hexachlorocyclopentadiene	10.7	11.6	116	384	358	525	1111
Hexachloroethane	1.84	2.33	23.3	77.2	71.8	105	223
Hexachlorophene	2.05	2.90	29	96.1	89.4	131	277
4,4'-Isopropylidenediphenol	1092	15982	159820	529645	492570	724078	1531893
Lead	1.15	3.83	38.3	765	711	1045	2211
Mercury	0.0122	0.0122	0.122	0.404	0.376	0.552	1.16
Methoxychlor	2.92	3.0	30	99.4	92.5	135	287
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	32874995	30573746	44943406	95084348
Methyl *tert*-butyl ether [MTBE]	15	10482	104820	347375	323058	474895	1004711
Nickel	332	1140	11400	101905	94771	139313	294738
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	62071	57726	84857	179529
N-Nitrosodiethylamine	0.0037	2.1	21	69.6	64.7	95.1	201
N-Nitroso-di-*n*-Butylamine	0.119	4.2	42	139	129	190	402
Pentachlorobenzene	0.348	0.355	3.55	11.8	10.9	16.0	34.0
Pentachlorophenol	0.22	0.29	2.9	9.61	8.94	13.1	27.7
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.0212	0.0197	0.0289	0.0613
Pyridine	23	947	9470	31384	29187	42904	90771
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	7.95	7.40	10.8	23.0
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	873	812	1193	2525
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	9279	8630	12685	26838
Thallium	0.12	0.23	2.3	7.62	7.09	10.4	22.0
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.365	0.339	0.498	1.05
2,4,5-TP [Silvex]	50	369	3690	12229	11373	16717	35369
1,1,1-Trichloroethane	200	784354	7843540	25993583	24174032	35535826	75181239
1,1,2-Trichloroethane	5	166	1660	5501	5116	7520	15911
Trichloroethylene [Trichloroethene]	5	71.9	719	2383	2216	3257	6891
2,4,5-Trichlorophenol	1039	1867	18670	61873	57542	84586	178954
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	547	509	747	1581

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

Aquatic Life	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Aldrin	8.39	10.1
Aluminum	2772	3366
Arsenic	1944	2361
Cadmium	6.46	7.85
Carbaryl	5.59	6.79
Chlordane	0.0506	0.0614
Chlorpyrifos	0.232	0.281
Chromium (trivalent)	2375	2884
Chromium (hexavalent)	43.9	53.3
Copper	57.7	70.1
Cyanide (free)	128	155
4,4'-DDT	0.0126	0.0153
Demeton	1.26	1.53
Diazinon	0.475	0.577
Dicofol [Kelthane]	165	201
Dieldrin	0.0253	0.0307
Diuron	587	713
Endosulfan I (*alpha*)	0.615	0.747
Endosulfan II (*beta*)	0.615	0.747
Endosulfan sulfate	0.615	0.747
Endrin	0.0253	0.0307
Guthion [Azinphos Methyl]	0.126	0.153
Heptachlor	0.0506	0.0614
Hexachlorocyclohexane (*gamma*) [Lindane]	1.01	1.22
Lead	75.7	91.9
Malathion	0.126	0.153
Mercury	6.71	8.15
Methoxychlor	0.379	0.461
Mirex	0.0126	0.0153
Nickel	869	1056
Nonylphenol	78.3	95.1
Parathion (ethyl)	0.164	0.199
Pentachlorophenol	29.8	36.2
Phenanthrene	83.9	101
Polychlorinated Biphenyls [PCBs]	0.177	0.215
Selenium	55.9	67.9
Silver	42.5	51.7
Toxaphene	0.00253	0.00307
Tributyltin [TBT]	0.303	0.368
2,4,5 Trichlorophenol	380	462
Zinc	640	778

Human Health	***70% of Daily Avg.***	***85% of Daily Avg.***
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	3647	4428
Aldrin	0.000363	0.000441
Anthracene	41767	50717
Antimony	33965	41244

Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	18425	22374
Benzidine	3.39	4.12
Benzo(*a*)anthracene	0.792	0.962
Benzo(*a*)pyrene	0.0792	0.0962
Bis(chloromethyl)ether	8.70	10.5
Bis(2-chloroethyl)ether	1358	1649
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	239	290
Bromodichloromethane [Dichlorobromomethane]	8721	10590
Bromoform [Tribromomethane]	33616	40820
Cadmium	N/A	N/A
Carbon Tetrachloride	1458	1771
Chlordane	0.0792	0.0962
Chlorobenzene	86801	105401
Chlorodibromomethane [Dibromochloromethane]	5803	7047
Chloroform [Trichloromethane]	244103	296411
Chromium (hexavalent)	15920	19332
Chrysene	79.9	97.0
Cresols [Methylphenols]	294972	358181
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0634	0.0770
4,4'-DDE	0.00412	0.00500
4,4'-DDT	0.0126	0.0154
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	15000	18215
1,2-Dibromoethane [Ethylene Dibromide]	134	163
m-Dichlorobenzene [1,3-Dichlorobenzene]	18869	22913
o-Dichlorobenzene [1,2-Dichlorobenzene]	104624	127044
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	71.0	86.2
1,2-Dichloroethane	11543	14017
1,1-Dichloroethylene [1,1-Dichloroethene]	1747890	2122438
Dichloromethane [Methylene Chloride]	422844	513453
1,2-Dichloropropane	8213	9974
1,3-Dichloropropene [1,3-Dichloropropylene]	3773	4582
Dicofol [Kelthane]	9.51	11.5
Dieldrin	0.000634	0.000770
2,4-Dimethylphenol	267540	324870
Di-*n*-Butyl Phthalate	2930	3558
Dioxins/Furans [TCDD Equivalents]	0.0000025	0.0000031
Endrin	0.634	0.770
Epichlorohydrin	63840	77520
Ethylbenzene	59210	71898
Ethylene Glycol	532796829	646967578
Fluoride	N/A	N/A
Heptachlor	0.00317	0.00385
Heptachlor Epoxide	0.00919	0.0111
Hexachlorobenzene	0.0215	0.0261

Hexachlorobutadiene	6.97	8.47
Hexachlorocyclohexane (*alpha*)	0.266	0.323
Hexachlorocyclohexane (*beta*)	8.24	10.0
Hexachlorocyclohexane (*gamma*) [Lindane]	10.8	13.1
Hexachlorocyclopentadiene	367	446
Hexachloroethane	73.8	89.7
Hexachlorophene	91.9	111
4,4'-Isopropylidenediphenol	506854	615466
Lead	731	888
Mercury	0.386	0.469
Methoxychlor	95.1	115
Methyl Ethyl Ketone	31460384	38201895
Methyl *tert*-butyl ether [MTBE]	332427	403661
Nickel	97519	118416
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	59400	72129
N-Nitrosodiethylamine	66.5	80.8
N-Nitroso-di-*n*-Butylamine	133	161
Pentachlorobenzene	11.2	13.6
Pentachlorophenol	9.19	11.1
Polychlorinated Biphenyls [PCBs]	0.0202	0.0246
Pyridine	30033	36468
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	7.61	9.24
1,1,2,2-Tetrachloroethane	835	1014
Tetrachloroethylene [Tetrachloroethylene]	8879	10782
Thallium	7.29	8.85
Toluene	N/A	N/A
Toxaphene	0.348	0.423
2,4,5-TP [Silvex]	11702	14210
1,1,1-Trichloroethane	24875078	30205452
1,1,2-Trichloroethane	5264	6392
Trichloroethylene [Trichloroethene]	2280	2768
2,4,5-Trichlorophenol	59210	71898
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	523	635

ORIGINAL

LANGFORD ENGINEERING INC.
Consulting Engineers

TBPE No F-449

December 22, 2023

Certified Mail – Return Receipt Requested

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

Subject: Memorial Villages Water Authority
TPDES WQ0010584001 Domestic Wastewater
Permit Renewal Application
LEI Job No. 032-142-101

Dear Applications Review & Processing Team:

The purpose of this letter is to provide the Texas Commission on Environmental Quality (TCEQ) with the information necessary to comply with the requirements. Enclosed are the original and two (2) copies of the subject permit renewal application. A copy of the payment voucher (No. 676413 & 676414) in the amount of Two Thousand Fifteen Dollars ($2,015.00) has been enclosed.

If there are any questions or further information needed, please contact Norman E. Gutierrez, EIT at (713) 461-3530 or norman.g@langfordeng.com

Sincerely,

LANGFORD ENGINEERING, INC.

John K. Davis, P.E.
Principal/President

RECEIVED
JAN 24 2024
Water Quality Applications Team

STATE OF TEXAS
JOHN K. DAVIS
60688
LICENSED
PROFESSIONAL ENGINEER

Dec. 22, 2023
TBPE F#449

Enclosures

cc: Kathleen R. Ellison – Norton Rose Fulbright US LLP (Cover Letter)
Trey Cantu – MVWA General Manager (Cover Letter)

1080 W. Sam Houston Pkwy. N. • Suite 200 • Houston, TX 77043-5014
Phone (713) 461-3530 • Fax (713) 932-7505
www.LangfordEng.com

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT RENEWAL

PERMIT NO. WQ0010584001

Applicant: Memorial Villages Water Authority

December 2023

Harris County, Texas

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

☐ New Permit, Registration or Authorization *(Core Data 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 601359607		RN 101520906

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:*

MEMORIAL VILLAGES WATER AUTHORITY

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
		74-1468906	

11. Type of Customer:
☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☒ Other: Public Municipality

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 ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

RECEIVED
JAN 24 2024
Water Quality Applications Team

15. Mailing Address: 8955 GAYLORD DRIVE

City	Houston	State	TX	ZIP	77024	ZIP + 4	

16. Country Mailing Information *(if outside USA)*

17. E-Mail Address *(if applicable)*
trey@mvwa.org

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

(713) 465-8318		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

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

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

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

Memorial Villages Water Authority Wastewater Treatment Facilities

23. Street Address of the Regulated Entity: *(No PO Boxes)*	11 Farnham Park Drive							
	City	Houston	**State**	TX	**ZIP**	77024	**ZIP + 4**	
24. County	Harris							

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

25. Description to Physical Location:	Approximately 2.6 miles south of Interstate 10, approximately 3 miles east of Texas Beltway 8, approximately 2 miles west of Interstate 610 and approximately 2.6 miles north of Interstate 69, in Harris County, Texas 77024.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Houston			TX	77024	

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

27. Latitude (N) In Decimal:	29.746833		**28. Longitude (W) In Decimal:**	-95.507194	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	44	48.6	-95	30	25.9

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4952		221320	

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

Wastewater Collection and Treatment

34. Mailing Address:	**8955 GAYLORD DRIVE**							
	City	Houston	**State**	TX	**ZIP**	77024	**ZIP + 4**	
35. E-Mail Address:	trey@mvwa.org							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(713) 465-8318		( ) -

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	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0010584001			

SECTION IV: Preparer Information

40. Name:	Khiem Hoang, EIT	41. Title:	Engineering Associate
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(713) 461-3530		( ) -	Khiem.h@langfordeng.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:	Langford Engineering Inc.	Job Title:	Project Manager
Name *(In Print)*:	Norman E. Gutierrez, EIT	Phone:	(713) 461- 3530
Signature:		Date:	12/27/2023

RECEIVED
JAN 24 2024
Water Quality Applications Team

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: MEMORIAL VILLAGES WATER AUTHORITY

PERMIT NUMBER: WQ0010584001

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

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

RECEIVED
JAN 24 2024
Water Quality Applications Team

For TCEQ Use Only

Segment Number 1014 County Harris
Expiration Date 6/28/2024 Region 12-Houston
Permit Number 0010584001

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 29)

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

Flow	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: Click here to enter text.

Check/Money Order Amount: Click here to enter text.

Name Printed on Check: Click here to enter text.

EPAY Voucher Number: 676413 & 676414

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 29)

☐ New TPDES

☐ Major Amendment *with* Renewal

☐ Major Amendment *without* Renewal

☒ Renewal without changes

☐ New TLAP

☐ Minor Amendment *with* Renewal

☐ Minor Amendment *without* Renewal

☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes: Click here to enter text.

For existing permits:

Permit Number: WQ0010584001

EPA I.D. (TPDES only): TX0047457

Expiration Date: June 28, 2024


PAYMENT VOUCHER

TCEQ ePay Receipt

Transaction Information

Trace Number:	582EA000582639
Date:	12/20/2023 11:11 AM
Payment Method:	CC - Authorization 0000208074
ePay Actor:	KHIEM HOANG
TCEQ Amount:	$2,015.00
Texas.gov Price::	$2,060.59*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name:	KHIEM HOANG
Company:	LANGFORD ENGINEERING INC
Address:	1080 W SAM HOUSTON N STE 200, HOUSTON, TX 77043
Phone:	713-461-3530

Cart Items

Voucher	Fee Description	AR Number	Amount
676413	WW PERMIT - FACILITY WITH FLOW >= 1.0 MGD - RENEWAL		$2,000.00
676414	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE		$15.00
		TCEQ Amount:	**$2,015.00**

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number:	676414
Trace Number:	582EA000582639
Date:	12/20/2023 11:11 AM
Payment Method:	CC - Authorization 0000208074
Voucher Amount:	$15.00
Fee Type:	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE
ePay Actor:	KHIEM HOANG

Payment Contact Information

Name:	KHIEM HOANG
Company:	LANGFORD ENGINEERING INC
Address:	1080 W SAM HOUSTON N STE 200, HOUSTON, TX 77043
Phone:	713-461-3530

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number:	676413
Trace Number:	582EA000582639
Date:	12/20/2023 11:11 AM
Payment Method:	CC - Authorization 0000208074
Voucher Amount:	$2,000.00
Fee Type:	WW PERMIT - FACILITY WITH FLOW >= 1.0 MGD - RENEWAL
ePay Actor:	KHIEM HOANG

Payment Contact Information

Name:	KHIEM HOANG
Company:	LANGFORD ENGINEERING INC
Address:	1080 W SAM HOUSTON N STE 200, HOUSTON, TX 77043
Phone:	713-461-3530

Site Information

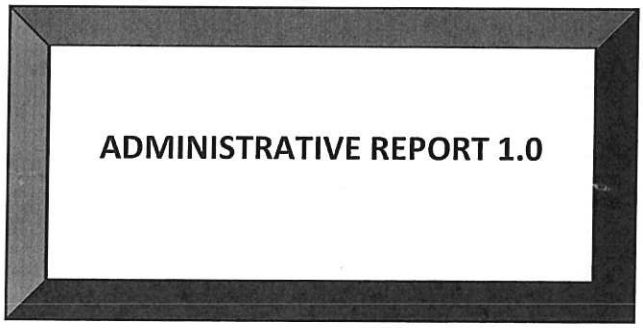
Site Name:	MEMORIAL VILLAGES WATER AUTHORITY WASTEWATER TREATMENT FACILITIES
Site Address:	11 FARNHAM PARK DRIVE, HOUSTON, TX 77024
Site Location:	2.6 MILES SOUTH OF I-10 3 MILES EAST OF BELTWAY 8

Customer Information

Customer Name:	MEMORIAL VILLAGES WATER AUTHORITY
Customer Address:	8955 GAYLORD DRIVE, HOUSTON, TX 77024

Other Information

Program Area ID:	0010584001


ADMINISTRATIVE REPORT 1.0

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

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

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

MEMORIAL VILLAGES WATER AUTHORITY

(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: 601359607

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

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

First and Last Name: TREY CANTU

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

Title: GENERAL MANAGER

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

First and Last Name: Click here to enter text.

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

Title: Click here to enter text.

Provide a brief description of the need for a co-permittee: Click here 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: Attachment A – TCEQ Core Data Form

Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

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

First and Last Name: JOHN K. DAVIS

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

Title: PRESIDENT

Organization Name: LANGFORD ENGINEERING INC.

Mailing Address: 1080 W. SAM HOUSTON PKWY N., SUITE 200

City, State, Zip Code: HOUSTON, TX 77043

Phone No.: 713-461-3530 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: john.d@langfordeng.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

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

First and Last Name: NORMAN E. GUTIERREZ

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

Title: PROJECT MANAGER

Organization Name: LANGFORD ENGINEERING, INC.

Mailing Address: 1080 W. SAM HOUSTON PKWY N., SUITE 200

City, State, Zip Code: HOUSTON, TX 77043

Phone No.: 713-461-3530 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: norman.g@langfordeng.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

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

First and Last Name: JOHN K. DAVIS

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

Title: PRESIDENT

Organization Name: LANGFORD ENGINEERING INC.

Mailing Address: 1080 W. SAM HOUSTON PKWY N., SUITE 200

City, State, Zip Code: HOUSTON, TX 77043

Phone No.: 713-461-3530 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: john.d@langfordeng.com

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

First and Last Name: NORMAN E. GUTIERREZ

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

Title: PROJECT MANAGER

Organization Name: LANGFORD ENGINEERING INC.

Mailing Address: 1010 W SAM HOUSTON PKWY N

City, State, Zip Code: HOUSTON, TX 77043

Phone No.: 713-461-3530 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: norman.g@langfordeng.com

Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

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

First and Last Name: TREY CANTU

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

Title: GENERAL MANAGER

Organization Name: MEMORIAL VILLAGES WATER AUTHORITY

Mailing Address: 8955 GAYLORD DR

City, State, Zip Code: HOUSTON, TX 77024

Phone No.: 713-465-8318 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: TREY@MVWA.ORG

Section 7. DMR/MER Contact Information (Instructions Page 31)

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

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

First and Last Name: PETE TORRES.

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

Title: CHIEF OPERATOR

Organization Name: MEMORIAL VILLAGES WATER AUTHORITY

Mailing Address: 8955 GAYLORD DR

City, State, Zip Code: HOUSTON, TX 77024

Phone No.: 832-917-8145 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: PETE@MVWA.ORG

DMR data is required to be submitted electronically. Create an account at: https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

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

First and Last Name: TREY CANTU

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

Title: GENERAL MANAGER

Organization Name: MEMORIAL VILLAGES WATER AUTHORITY

Mailing Address: 8955 GAYLORD DR

City, State, Zip Code: HOUSTON, TX 77024

Phone No.: 713-465-8318 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: TREY@MVWA.ORG

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

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

☒ E-mail Address

☐ Fax

☒ Regular Mail

C. Contact person to be listed in the Notices

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

First and Last Name: TREY CANTU

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

Title: GENERAL MANAGER

Organization Name: MEMORIAL VILLAGES WATER AUTHORITY

Phone No.: 713-465-8318 Ext.:

E-mail: TREY@MVWA.ORG

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: Memorial Villages Water Authority Office Building

Location within the building: Front Desk

Physical Address of Building: 8955 GAYLORD DR., HOUSTON, TX 77024

City: HOUSTON County: HARRIS

Contact Name: TREY CANTU

Phone No.: 713-465-8318 Ext.:

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. 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: N/A

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**101520906

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):

MEMORIAL VILLAGES WATER AUTHORITY WASTEWATER TREATMENT FACILITY

C. Owner of treatment facility: MEMORIAL VILLAGES WATER AUTHORITY

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

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

Prefix (Mr., Ms., Miss): N/A

First and Last Name: MEMORIAL VILLAGES WATER AUTHORITY

Mailing Address: 8955 GAYLORD DR

City, State, Zip Code: HOUSTON, TX 77024

Phone No.: 713-465-8318 E-mail Address: TREY@MVWA.ORG

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

Attachment: N/A

E. Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): N/A

First and Last Name: HARRIS COUNTY FLOOD CONTROL DISTRICT

Mailing Address: 9900 NORTHWEST FREEWAY

City, State, Zip Code: HOUSTON, TX 77092

Phone No.: 346-286-4000 E-mail Address: N/A

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

Attachment: N/A

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

Prefix (Mr., Ms., Miss): N/A

First and Last Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

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

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

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 34)

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

☒ Yes ☐ No

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

Click here to enter text

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

☒ Yes ☐ No

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

Click here to enter text

City nearest the outfall(s): CITY OF PINEY POINT VILLAGE

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

Outfall Latitude: 29° 44' 48.6" N Longitude: 95° 30' 25.9" W

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 ☒ Other: Buffalo Bayou

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

☒ Authorization granted ☐ Authorization pending

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

Attachment: Attachment B – HCFCD Discharge Authorization Letter

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 36)

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

☐ Yes ☐ No

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

N/A

B. City nearest the disposal site: N/A

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

D. Disposal Site Latitude: N/A Longitude: N/A

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

N/A

F. 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 37)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

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

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:

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Amount past due:

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Amount past due:

Section 13. Attachments (Instructions Page 38)

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

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

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

- 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: SPIF 7.5 MINUTE USGS QUADANGLE MAP, SPIF LOCATION MAP (SEE LIST BELOW)

List of Attachments

Attachment	Content	Application Item No
A.	TCEQ Core Data Form	Admin. 1.0, item 3.c
B.	HCFCD Discharge Authorization Letter	Admin. 1.0, Item 10.c
C.	7.5-Minute USGS Quadrangle Map	Admin. 1.0, Item 13.d
D.	Schematic Flow Diagram	Tech. 1.0, Item 2.c
E.	Site Drawing	Tech. 1.0, Item 3
F.	Laboratory Testing Results	Tech. 1.0, Item 7

Section 14. Signature Page (Instructions Page 39)

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

Permit Number: WQ0010584001

Applicant: MEMORIAL VILLAGES WATER AUTHORITY

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): Trey Cantu

Signatory title: General Manager

Signature: _____ Date: 12/27/2023

(Use blue ink)

Subscribed and Sworn to before me by the said General Manager

on this 27th day of December, 2023.

My commission expires on the 7th day of April, 2024.

_____

Notary Public

ARMIDA GALLEGOS NOTARY PUBLIC STATE OF TEXAS ID 128912514 EXP. 04-07-2024

[SEAL]

Harris

County, Texas

Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §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

DOMESTIC WASTEWATER

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

Memorial Villages Water Authority (CN: 601359607) operates The Memorial Villages Water Authority WWTP (RN: 101520906). a wastewater treatment facility. The facility is located 11 Farnham Park Dr., in Houston, Harris County, Texas 77024.

This application is for a wastewater treatment facility

Discharges from the facility are expected to contain five-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia Nitrogen (NH_3-N), Nitrate Nitrogen (NO_3-N), Total Kjeldahl Nitrogen (TKN), Sulfate (SO_4), Chloride (Cl^-), total Phosphorus (P_4), pH, Dissolved Oxygen (O_2), Chlorine Residual (Cl_2), *Escherichia coli,* Enterococci, Total Dissolved Solids (TDS), Electrical Conductivity, Oil & Grease, and Alkalinity ($CaCO_3$). Domestic water is treated by an activated sludge process plant and the treatment units include a mechanical screen, aeration basins, clarifiers, aerobic digesters, and chlorine contact chambers.

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

AGUAS RESIDUALES DOMÉSTICAS

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

Memorial Villages Water Authority (CN: 601359607) opera Memorial Villages Water Authority WWTP (RN: 101520906), una planta de tratamiento de aguas residuales. La instalación está ubicada en 11 Farnham Park Dr., en Houston, condado de Harris, Texas 77024.

Esta aplicación es para una planta de tratamiento de aguas residuales.

Se espera que los vertidos de la instalación contengan Demanda Bioquímica de Oxígeno Carbonáceo a los cinco días (CBOD5), Sólidos Suspendidos Totales (SST), Nitrógeno de Amoniaco (NH3-N), Nitrógeno de Nitrato (NO_3-N), Nitrógeno Kjeldahl Total (TKN), Sulfato (SO_4), Cloruro (Cl-), Fósforo Total (P_4), pH, Oxígeno Disuelto (O_2), Residual de Cloro (Cl_2), Escherichia coli, Enterococos, Sólidos Disueltos Totales (TDS), Conductividad Eléctrica, Aceites y Grasas, y Alcalinidad ($CaCO_3$). El agua doméstica se trata mediante un proceso de lodos activados y las unidades de tratamiento incluyen una criba mecánica, tanques de aireación, clarificadores, digestores aeróbicos y cámaras de contacto con cloro.

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 applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)

Correct and Current Industrial Wastewater Permit Application Forms ☒ 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.)
*<< **TRACE NO. 582EA000582639** >>*

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 Attached ☒ N/A ☐ Yes

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

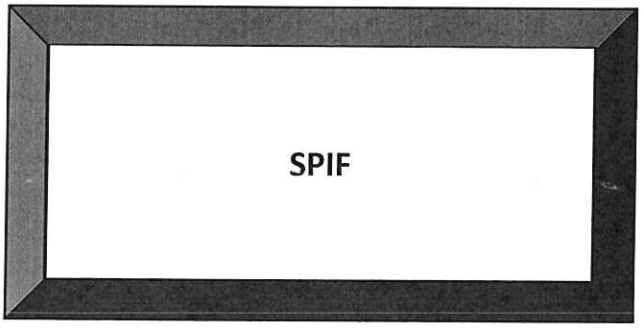
Things to Know:

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

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

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

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


SPIF

TECHNICAL REPORT 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications

Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): 3.05

2-Hr Peak Flow (MGD): 9.25

Estimated construction start date: Existing

Estimated waste disposal start date: Existing

B. Interim II Phase

Design Flow (MGD): Click here to enter text.

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

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

C. Final Phase

Design Flow (MGD): Click here to enter text.

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

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

D. Current operating phase: Final

Provide the startup date of the facility: 05/25/1984

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. **Include the type of**

treatment plant, mode of operation, and all treatment units. Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided.** Process description:

The raw wastewater which has been transported by the collection system first enters the plant through a 36" line at the lift station wet well in the facilities building. It is pumped into a 3' wide channel which flows through a mechanical bar screen which removes large objects and deposits them in a chute for subsequent disposal in a landfill. From there the flow goes through a manually cleaned bar screen. In the degritter, sand, silt, and other (mainly inorganic) suspended solids are allowed to settle out of the flow while the organic solids are maintained in suspension. The settled grit is pumped out of the degritter to a cyclone and classifier where it is dewatered for disposal in a landfill while the liquid removed is returned to the process flow at the lift station. After leaving the headworks, the flow is carried by a 24" pipe to the process unit area where it is split between the two identical sides of the main treatment facilities, entering one of the rapid mix chambers. In the rapid mix chamber, the raw sewage is mixed with return activated sludge from the final clarifier. The mixture is mixed by aerating for a period of approximately twenty-one minutes before it passes into the complete mix basin through two 30" sluice gates. A 16" diversion line between the rapid mix chambers has an airlift pump on each end which allows diversion of the return activated sludge from either clarifier into the other mix chamber. Mixed liquor, which enters the complete mix chamber is aerated and mixed as it flows through the tank. Upon reaching the end of the basin, the mixed liquor flows through a 42" sluice gate into stilling well of the clarifier. The mixed liquor which enters the clarifier stilling well is distributed evenly in all directions from the middle of the tank by the stilling well baffle. The treated water is collected by a double-sided weir trough at the liquid surface near the outside of the clarifier and carried by a 36" wide by 20" deep effluent trough to the chlorine pump basin. The activated sludge solids which have settled to the bottom of the clarifier are collected by a rotating collector arm and flow upwards through a series of open pipes into a sludge collector trough. The sludge collected by the trough flows to a collection well in the center of the tank, where it is pumped through a 16" line by an airlift pump into the rapid mix basin. The treated water which was collected by the clarifier effluent troughs in both clarifiers is carried by the two effluent troughs into a single chlorine pump basin. Chlorine gas is added in each nozzle by an externally mounted ejector. The solution from each nozzle enters a reactor tube where it is mixed very thoroughly with the portion which is not pumped. Both reactor tubes pass through a concrete wall into a single chlorine mixing basin where the chlorinated water is mixed before flowing into either of two chlorine contact basins. The finish water flows over a full-width weir plate in each basin into a single effluent box from which it is carried by a 36" line to Buffalo Bayou and then discharged, thus completing the wastewater treatment process.

Port or pipe diameter at the discharge point, in inches: 36 inches

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)
Rapid Mix Basins	2	24' x 8' x 15'
Complete Mix Basins	2	39' x 24' x 28'
Mix Basins	2	20' x 16' x 28'
Clarifiers	2	68' Diameter x 15' Depth
Aerobic Mixer	1	68' x 36' x 15'
Chlorine Contact Basin	2	36' x 11' x 15'
Chlorine Pump Basin	1	22 x 16' x 15'

C. Process flow diagrams

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

Attachment: Attachment D – Schematic Flow Diagram

Section 3. Site Drawing (Instructions Page 52)

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

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

Attachment: Attachment E – Site Drawing

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

The Memorial Villages Water Authority service area consists of primarily residential, light commercial and retail development as well as vacant acreage, within the boundaries of the City of Hedwig Village, City of Piney Point Village, City of Hunters Creek Village, and City of Bunker Hill Village.

Section 4. Unbuilt Phases (Instructions Page 52)

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.

Section 5. Closure Plans (Instructions Page 53)

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

Yes ☐ No ☒

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

Yes ☐ No ☐

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

Section 6. Permit Specific Requirements (Instructions Page 53)

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

A. Summary transmittal

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

Yes ☐ No ☐

If yes, provide the date(s) of approval for each phase: 05/25/1984 Interim Phase 1 & Final

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.

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

Yes ☐ No ☒

If yes, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

N/A

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

Yes ☐ No ☒

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

2. Grit and grease processing

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

Click here 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 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

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

N/A

E. Stormwater management

1. Applicability

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

Yes ☒ No ☐

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

Yes ☐ No ☒

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

2. MSGP coverage

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

Yes ☒ No ☐

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

TXR05 AF93 or TXRNE Click here to enter text.

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

Yes ☐ No ☐

3. Conditional exclusion

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

Yes ☐ No ☐

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

N/A

4. Existing coverage in individual permit

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

Yes ☐ No ☒

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

Click here 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 here 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 here 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, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

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

waste

1. Acceptance of sludge from other WWTPs

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

Yes ☐ No ☒

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

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

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☒

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

Yes ☐ No ☐

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

Yes ☐ No ☐

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

N/A

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

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

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

Yes ☐ No ☒

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

N/A

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

Is the facility in operation?

Yes ☒ No ☐

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

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

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

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l	3.9	2.0	1	Grab	8-3-23/0740

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	11.7	1.0	1	Grab	8-3-23/1154
Ammonia Nitrogen, mg/l	0.1	0.1	1	Grab	8-8-23/1530
Nitrate Nitrogen, mg/l	20,500	50	1	Grab	8-2-23/1500
Total Kjeldahl Nitrogen, mg/l	5.8	1.0	1	Grab	8-9-23/1152
Sulfate, mg/l	45.9	4.0	1	Grab	8-2-23/1500
Chloride, mg/l	127	5.0	1	Grab	8-2-23/1500
Total Phosphorus, mg/l	3.16	0.06	1	Grab	8-11-23/1341
pH, standard units	7.0		1	Grab	8-2-23/0846
Dissolved Oxygen*, mg/l	6.8		1	Grab	8-2-23/0846
Chlorine Residual, mg/l	<0.1	0.1	1	Grab	8-2-23/0846
E.coli (CFU/100ml) freshwater	10	2	1	Grab	8-2-23/1502
Entercocci (CFU/100ml) saltwater			1	Grab	
Total Dissolved Solids, mg/l	536	1.0	1	Grab	8-3-23/1605
Electrical Conductivity, µmohs/cm, †	988	10	1	Grab	8-3-23/1650
Oil & Grease, mg/l	<5.1	5.1	1	Grab	8-7-23/1030
Alkalinity ($CaCO_3$)*, mg/l	102	20	1	Grab	8-4-23/1438

*TPDES permits only

†TLAP permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

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

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 60)

Facility Operator Name: Pete Torres

Facility Operator's License Classification and Level: Class B

Facility Operator's License Number: WW0037166

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

A. Sludge disposal method

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

☒ Permitted landfill

☐ Permitted or Registered land application site for beneficial use

☐ Land application for beneficial use authorized in the wastewater permit

☐ Permitted sludge processing facility

☐ Marketing and distribution as authorized in the wastewater permit

☐ Composting as authorized in the wastewater permit

☐ Permitted surface disposal site (sludge monofill)

☐ Surface disposal site (sludge monofill) authorized in the wastewater permit

☐ Transported to another permitted wastewater treatment plant or

permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.

☐ Other: Click here to enter text.

B. Sludge disposal site

Disposal site name: Coastal Plains RDF

TCEQ permit or registration number: H1721

County where disposal site is located: Brazoria

C. Sludge transportation method

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

Name of the hauler: Waste Management

Hauler registration number: 23239

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

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

Yes ☐ No ☒

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

Yes ☐ No ☐

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

Yes ☐ No ☐

B. Sludge processing authorization

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

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

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

Yes ☐ No ☒

Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

  Attachment: N/A

- USDA Natural Resources Conservation Service Soil Map:

  Attachment: N/A

- Federal Emergency Management Map:

  Attachment: N/A

- Site map:

  Attachment: N/A

Discuss in a description if any of the following exist within the lagoon area.

Check all that apply.

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click here to enter text.

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

N/A

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

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

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

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

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

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

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

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

  Attachment: Click here to enter text.

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

  Attachment: Click here to enter text.

- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click here 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 here to enter text.

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

A. Additional authorizations

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

Yes ☐ No ☒

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

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

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

Yes ☐ No ☒

If yes to either question, provide a brief summary of the enforcement, the

implementation schedule, and the current status:

N/A

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

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

Yes ☐ No ☒

B. Remediation activity wastewater

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

Yes ☐ No ☒

C. Details about wastes received

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

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 64)

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

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

Title:

Signature: David Bower

Date: 9/26/23

WORKSHEET 2.0

DOMESTIC TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

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

Yes ☐ No ☒

If yes, provide the following:
Owner of the drinking water supply: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes ☒ **No** ☐

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

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: 35 feet

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

Yes ☐ No ☒

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

N/A

C. Sea grasses

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

Yes ☐ No ☒

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

N/A

Section 3. Classified Segments (Instructions Page 73)

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

Yes ☒ No ☐

If yes, this Worksheet is complete.

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

Section 4. Description of Immediate Receiving Waters (Instructions Page 75)

Name of the immediate receiving waters: Click here to enter text.

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 here to enter text.

Average depth of the entire water body, in feet: Click here to enter text.

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

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click here 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 here 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.

Click here to enter text.

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

Yes ☐ No ☐

If yes, discuss how.

Click here to enter text.

E. Normal dry weather characteristics

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

Click here to enter text.

Date and time of observation: Click here to enter text.

Was the water body influenced by stormwater runoff during observations?

Yes ☐ No ☐

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

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

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

B. Waterbody uses

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

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation

☐ Domestic water supply ☐ Industrial water supply

☐ Park activities ☐ Other(s), specify Click here to enter text.

C. Waterbody aesthetics

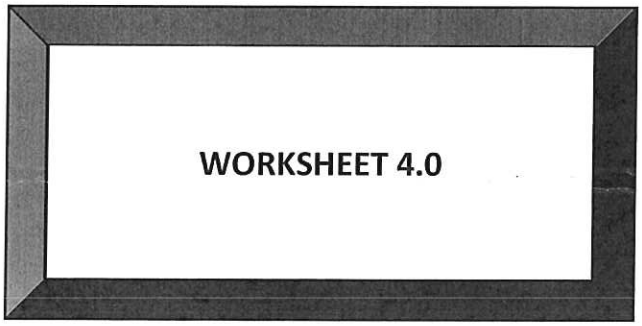
Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional

☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored

☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid

☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored


WORKSHEET 4.0

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

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

This worksheet is not required for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

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

Grab ☒ Composite ☒

Date and time sample(s) collected: 08/02/2023 - 08:40

Table 4.0(1) - Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<2.00	2.00	1	50
Aldrin	<0.010	0.010	1	0.01
Aluminum	ND	2.50	1	2.5
Anthracene	<1.01	1.01	1	10
Antimony	ND	5.00	1	5
Arsenic	ND	0.5	1	0.5
Barium	ND	3.00	1	3
Benzene	0.813	1.00	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Benzidine	<20.1	20.1	1	50
Benzo(a)anthracene	<1.01	1.01	1	5
Benzo(a)pyrene	<1.01	1.01	1	5
Bis(2-chloroethyl)ether	<1.01	1.01	1	10
Bis(2-ethylhexyl)phthalate	<1.01	1.01	1	10
Bromodichloromethane	<1.00	1.00	1	10
Bromoform	1.28	2.00	1	10
Cadmium	ND	3.00	1	1
Carbon Tetrachloride	<1.00	1.00	1	2
Carbaryl	<2.52	2.52	1	5
Chlordane*	<0.0101	0.0101	1	0.2
Chlorobenzene	<1.00	1.00	1	10
Chlorodibromomethane	<1.00	1.00	1	10
Chloroform	<1.00	1.00	1	10
Chlorpyrifos	<0.050	0.050	1	0.05
Chromium (Total)	<3.00	3.00	1	3
Chromium (Tri) **(*1)**	<3.00	3.00	1	N/A
Chromium (Hex)	<3.00	3.00	1	3
Copper	ND	2	1	2
Chrysene	<1.01	1.01	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
p-Chloro-m-Cresol	<2.41	2.41	1	10
4,6-Dinitro-o-Cresol	<50.0	50.0	1	50
p-Cresol	<6.23	6.23	1	10
Cyanide (*2)	<10.0	10.0	1	10
4,4'- DDD	<0.0101	0.0101	1	0.1
4,4'- DDE	<0.0101	0.0101	1	0.1
4,4'- DDT	<0.0101	0.0101	1	0.02
2,4-D	<0.700	0.700	1	0.7
Demeton (O and S)	<0.0503	0.0503	1	0.20
Diazinon	<0.0503	0.0503	1	0.5/0.1
1,2-Dibromoethane	<1.00	1.00	1	10
m-Dichlorobenzene	<1.00	1.00	1	10
o-Dichlorobenzene	<1.00	1.00	1	10
p-Dichlorobenzene	<1.00	1.00	1	10
3,3'-Dichlorobenzidine	<5.00	5.00	1	5
1,2-Dichloroethane	<1.00	1.00	1	10
1,1-Dichloroethylene	<1.00	1.00	1	10
Dichloromethane	<2.00	2.00	1	20
1,2-Dichloropropane	<1.01	1.01	1	10
1,3-Dichloropropene	<1.00	1.00	1	10
Dicofol	<0.101	0.101	1	1

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Dieldrin	<0.0101	0.0101	1	0.02
2,4-Dimethylphenol	<2.41	2.41	1	10
Di-n-Butyl Phthalate	<7.54	7.54	1	10
Diuron	<0.0453	0.0453	1	0.09
Endosulfan I (alpha)	<0.010	0.010	1	0.01
Endosulfan II (beta)	<0.0101	0.0101	1	0.02
Endosulfan Sulfate	<0.0101	0.0101	1	0.1
Endrin	<0.0101	0.0101	1	0.02
Ethylbenzene	<1.00	1.00	1	10
Fluoride	<1.01	1.01	1	500
Guthion	<0.100	0.100	1	0.1
Heptachlor	0.0112	0.0101	1	0.01
Heptachlor Epoxide	<0.010	0.010	1	0.01
Hexachlorobenzene	<1.01	1.01	1	5
Hexachlorobutadiene	<1.01	1.01	1	10
Hexachlorocyclohexane (alpha)	<0.05	0.05	1	0.05
Hexachlorocyclohexane (beta)	<0.05	0.05	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	<0.0101	0.0101	1	0.05
Hexachlorocyclopentadiene	<9.05	9.05	1	10
Hexachloroethane	<1.01	1.01	1	20

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Hexachlorophene	<5.13	5.13	1	10
Lead	ND	0.5	1	0.5
Malathion	<0.0503	0.0503	1	0.1
Mercury	0.00942	0.005	1	0.005
Methoxychlor	<0.0101	0.0101	1	2
Methyl Ethyl Ketone	<1.00	1.00	1	50
Mirex	<0.0151	0.0151	1	0.02
Nickel	ND	2.00	1	2
Nitrate-Nitrogen	<1.01	1.01	1	100
Nitrobenzene	<1.01	1.01	1	10
N-Nitrosodiethylamine	<1.01	1.01	1	20
N-Nitroso-di-n-Butylamine	<1.01	1.01	1	20
Nonylphenol	<30.2	30.2	1	333
Parathion (ethyl)	<0.0503	0.0503	1	0.1
Pentachlorobenzene	56800	50000	1	20
Pentachlorophenol	49400	50000	1	5
Phenanthrene	<1.01	1.01	1	10
Polychlorinated Biphenyls (PCB's) (*3)	<0.200	0.200	1	0.2
Pyridine	<5.43	5.43	1	20
Selenium	<5.00	5.00	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Silver	ND	0.5	1	0.5
1,2,4,5-Tetrachlorobenzene	<1.01	1.01	1	20
1,1,2,2-Tetrachloroethane	<2.00	2.00	1	10
Tetrachloroethylene	<1.00	1.00	1	10
Thallium	ND	0.5	1	0.5
Toluene	<1.00	1.00	1	10
Toxaphene	<0.300	0.300	1	0.3
2,4,5-TP (Silvex)	<0.300	0.300	1	0.3
Tributyltin (see instructions for explanation)	<0.01	0.01	1	0.01
1,1,1-Trichloroethane	<1.00	1.00	1	10
1,1,2-Trichloroethane	<2.00	2.00	1	10
Trichloroethylene	<1.00	1.00	1	10
2,4,5-Trichlorophenol	<1.01	1.01	1	50
TTHM (Total Trihalomethanes)	<1.00	1.00	1	10
Vinyl Chloride	<1.04	1.04	1	10
Zinc	ND	5.00	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: Click here to enter text.

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	<5.00	5.00	1	5
Arsenic	2.82	0.5	1	0.5
Beryllium	<0.50	0.50	1	0.5
Cadmium	<1.00	1.00	1	1
Chromium (Total)	<3.00	3.00	1	3
Chromium (Hex)	<3.00	3.00	1	3
Chromium (Tri) (*1)	<3.00	3.00	1	N/A
Copper	19.8	2.00	1	2
Lead	<0.500	0.500	1	0.5
Mercury	0.00942	0.005	1	0.005
Nickel	2.54	2.00	1	2
Selenium	<5.00	5.00	1	5
Silver	<0.500	0.500	1	0.5
Thallium	<0.500	0.500	1	0.5
Zinc	44.9	5.00	1	5
Cyanide (*2)	<10.0	10.0	1	10
Phenols, Total	<1.51	1.51	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	<4.00	4.00	1	50
Acrylonitrile	<2.00	2.00	1	50
Benzene	<1.00	1.00	1	10
Bromoform	<2.00	2.00	1	10
Carbon Tetrachloride	<1.00	1.00	1	2
Chlorobenzene	<1.00	1.00	1	10
Chlorodibromomethane	<1.00	1.00	1	10
Chloroethane	<5.00	5.00	1	50
2-Chloroethylvinyl Ether	<5.00	5.00	1	10
Chloroform	<1.00	1.00	1	10
Dichlorobromomethane [Bromodichloromethane]	<1.00	1.00	1	10
1,1-Dichloroethane	<1.00	1.00	1	10
1,2-Dichloroethane	<1.00	1.00	1	10
1,1-Dichloroethylene	<1.00	1.00	1	10
1,2-Dichloropropane	<1.01	1.01	1	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.00	1.00	1	10
1,2-Trans-Dichloroethylene	<1.00	1.00	1	10
Ethylbenzene	<1.00	1.00	1	10
Methyl Bromide	<1.00	1.00	1	50
Methyl Chloride	<1.00	1.00	1	50
Methylene Chloride	<1.00	1.00	1	20
1,1,2,2-Tetrachloroethane	<2.00	2.00	1	10
Tetrachloroethylene	<1.00	1.00	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene	<1.00	1.00	1	10
1,1,1-Trichloroethane	<1.00	1.00	1	10
1,1,2-Trichloroethane	<2.00	2.00	1	10
Trichloroethylene	<1.00	1.00	1	10
Vinyl Chloride	<1.04	1.04	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	<1.01	1.01	1	10
2,4-Dichlorophenol	<1.01	1.01	1	10
2,4-Dimethylphenol	<2.41	2.41	1	10
4,6-Dinitro-o-Cresol	<8.04	8.04	1	50
2,4-Dinitrophenol	<9.05	9.05	1	50
2-Nitrophenol	<1.01	1.01	1	20
4-Nitrophenol	<1.01	1.01	1	50
P-Chloro-m-Cresol	<2.41	2.41	1	10
Pentalchlorophenol	<1.00	1.00	1	5
Phenol	<1.51	1.51	1	10
2,4,6-Trichlorophenol	<1.00	1.00	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	<1.01	1.01	1	10
Acenaphthylene	<1.01	1.01	1	10
Anthracene	<1.01	1.01	1	10
Benzidine	<20.1	20.1	1	50
Benzo(a)Anthracene	<1.01	1.01	1	5
Benzo(a)Pyrene	<1.01	1.01	1	5
3,4-Benzofluoranthene	<1.01	1.01	1	10
Benzo(ghi)Perylene	<1.01	1.01	1	20
Benzo(k)Fluoranthene	<1.01	1.01	1	5
Bis(2-Chloroethoxy)Methane	<1.01	1.01	1	10
Bis(2-Chloroethyl)Ether	<1.01	1.01	1	10
Bis(2-Chloroisopropyl)Ether	<1.01	1.01	1	10
Bis(2-Ethylhexyl)Phthalate	<7.54	7.54	1	10
4-Bromophenyl Phenyl Ether	<1.01	1.01	1	10
Butyl benzyl Phthalate	<7.54	7.54	1	10
2-Chloronaphthalene	<1.01	1.01	1	10
4-Chlorophenyl phenyl ether	<1.01	1.01	1	10
Chrysene	<1.01	1.01	1	5
Dibenzo(a,h)Anthracene	<1.01	1.01	1	5
1,2-(o)Dichlorobenzene	<1.01	1.01	1	10
1,3-(m)Dichlorobenzene	<1.01	1.01	1	10
1,4-(p)Dichlorobenzene	<1.01	1.01	1	10
3,3-Dichlorobenzidine	<5.00	5.00	1	5
Diethyl Phthalate	<5.73	5.73	1	10
Dimethyl Phthalate	<4.82	4.82	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Di-n-Butyl Phthalate	<7.54	7.54	1	10
2,4-Dinitrotoluene	<3.52	3.52	1	10
2,6-Dinitrotoluene	<1.01	1.01	1	10
Di-n-Octyl Phthalate	<1.01	1.01	1	10
1,2-Diphenylhydrazine (as Azo-benzene)	<1.01	1.01	1	20
Fluoranthene	<1.01	1.01	1	10
Fluorene	<1.01	1.01	1	10
Hexachlorobenzene	<1.01	1.01	1	5
Hexachlorobutadiene	<10.0	10.0	1	10
Hexachlorocyclo-pentadiene	<9.01	9.01	1	10
Hexachloroethane	<1.01	1.01	1	20
Indeno(1,2,3-cd)pyrene	<1.01	1.01	1	5
Isophorone	<1.01	1.01	1	10
Naphthalene	<1.00	1.00	1	10
Nitrobenzene	<1.01	1.01	1	10
N-Nitrosodimethylamine	<7.04	7.04	1	50
N-Nitrosodi-n-Propylamine	<1.01	1.01	1	20
N-Nitrosodiphenylamine	<1.01	1.01	1	20
Phenanthrene	<1.01	1.01	1	10
Pyrene	<1.01	1.01	1	10
1,2,4-Trichlorobenzene	<1.01	1.01	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	<0.010	0.010	1	0.01
alpha-BHC (Hexachlorocyclohexane)	<0.0101	0.0101	1	0.05
beta-BHC (Hexachlorocyclohexane)	<0.0291	0.0291	1	0.05
gamma-BHC (Hexachlorocyclohexane)	<0.0101	0.0101	1	0.05
delta-BHC (Hexachlorocyclohexane)	<0.0101	0.0101	1	0.05
Chlordane	<0.0101	0.0101	1	0.2
4,4-DDT	<0.0101	0.0101	1	0.02
4,4-DDE	<0.0101	0.0101	1	0.1
4,4,-DDD	<0.0101	0.0101	1	0.1
Dieldrin	<0.0101	0.0101	1	0.02
Endosulfan I (alpha)	<0.010	0.010	1	0.01
Endosulfan II (beta)	<0.0101	0.0101	1	0.02
Endosulfan Sulfate	<0.0101	0.0101	1	0.1
Endrin	<0.0101	0.0101	1	0.02
Endrin Aldehyde	<0.0101	0.0101	1	0.1
Heptachlor	0.0112	0.0101	1	0.01
Heptachlor Epoxide	<0.010	0.010	1	0.01
PCB-1242	<0.200	0.200	1	0.2
PCB-1254	<0.200	0.200	1	0.2
PCB-1221	<0.200	0.200	1	0.2
PCB-1232	<0.200	0.200	1	0.2

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248	<0.200	0.200	1	0.2
PCB-1260	<0.200	0.200	1	0.2
PCB-1016	<0.200	0.200	1	0.2
Toxaphene	<0.300	0.300	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 here 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 here to enter text

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.

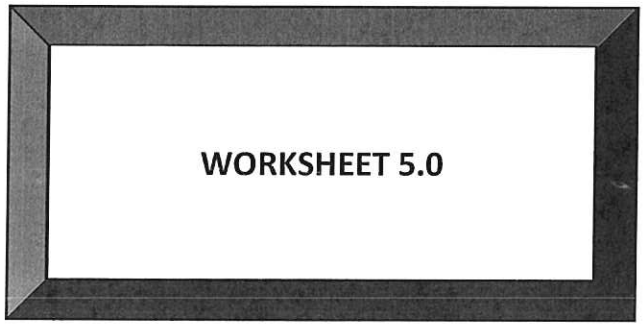
Grab ☐ Composite ☐

Date and time sample(s) collected: Click here 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	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	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5

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


WORKSHEET 5.0

DOMESTIC WORKSHEET 5.0

TOXICITY TESTING REQUIREMENTS

The following is required for facilities with a currently-operating design flow greater than or equal to 1.0 MGD, with an EPA-approved pretreatment program (or those that are required to have one under 40 CFR Part 403), or are required by the TCEQ to perform Whole Effluent Toxicity testing. This worksheet is not required for minor amendments without renewal.

Section 1. Required Tests (Instructions Page 97)

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

7-day Chronic: 18

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.

N/A

Section 3. Summary of WET Tests

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

Table 5.0(1) – Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal

WORKSHEET 6.0

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

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

Yes ☐ No ☒

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

N/A

C. Treatment plant pass through

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

Yes ☐ No ☒

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐ No ☒

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☒

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

A. Substantial modifications

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

Yes ☐ No ☒

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

N/A

B. Non-substantial modifications

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

Yes ☐ No ☒

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
Ecoli	1630	200	Mg/L	09/2023
Ammonia	12.8	7	Mg/L	02/2023
BOD	10.9	10	Mg/L	08/2022
BOD	13.1	10	Mg/L	08/2021
BOD	15.9	15	Mg/L	04/2021
BOD	11.3	10	Mg/L	03/2021

Pollutant	Concentration	MAL	Units	Date
TSS	19.8	15	Mg/L	02/2021
BOD	16.6	10	Mg/L	02/2021
TSS	62.4	40	Mg/L	11/2020
BOD	12.7	10	Mg/L	08/2020
Ecoli	280	200	Mpn/100ml	07/2020

D. Industrial user interruptions

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

Yes ☐ No ☐

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

N/A

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

A. General information

Company Name: N/A

SIC Code: N/A

Telephone number: N/A Fax number: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

B. Process information

Describe the industrial processes or other activities that affect or contribute to

the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in 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 instructions?

Yes ☐ No ☐

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

Yes ☐ No ☐

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

Category: Click here to enter text.

Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here 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

LIST OF ATTACHMENTS

MEMORIAL VILLAGES WATER AUTHORITY

Domestic Wastewater Permit Renewal Application

WQ0010584001

List of Attachments

Attachment	Content	Application Item No
A.	TCEQ Core Data Form	Admin. 1.0, item 3.c
B.	HCFCD Discharge Authorization Letter	Admin. 1.0, Item 10.c
C.	7.5-Minute USGS Quadrangle Map	Admin.1.0, Item 13.d
D.	Schematic Flow Diagram	Tech. 1.0, Item 2.c
E.	Site Drawing	Tech. 1.0, Item 3
F.	Laboratory Testing Results	Tech. 1.0, Item 7

ATTACHMENT A
Administrative Report 1.0

Item 3.c

TCEQ CORE DATA FORM

ATTACHMENT B
Administrative Report 1.0
Item 10.c

HCFCD DISCHARGE
AUTHORIZATION LETTER

Harris County
Flood Control District

9900 Northwest Freeway
Houston, Texas 77092
713 684-4000

September 7, 1999

Mr. Michael L. Montgomery
Memorial Villages Water Authority
8955 Gaylord Drive
Houston, Texas 77024

RE: Wastewater Discharge from Memorial Villages Water Authority
Discharge of 3.05 MGD
Applicant # 22699, Request # 108749
HCFC Project ID W100-00-00-Y010

Dear Mr. Montgomery:

The Harris County Flood Control District has received your application for discharge into a Flood Control or County facility. The application has been processed and we have no objection to a maximum of 3.05 MGD discharge of treated wastewater into or toward HCFC Unit W100-00-00-Y010.

Please note that construction plans designed in accordance with Harris County Flood Control District's criteria and other adopted policies must be submitted for review to the Watershed Dept.

If you have any questions or need additional information, please call 713-684-4124.

Sincerely,

Catherine A. Elliott

Catherine A. Elliott
NPDES Project Manager
Environmental Services Dept.

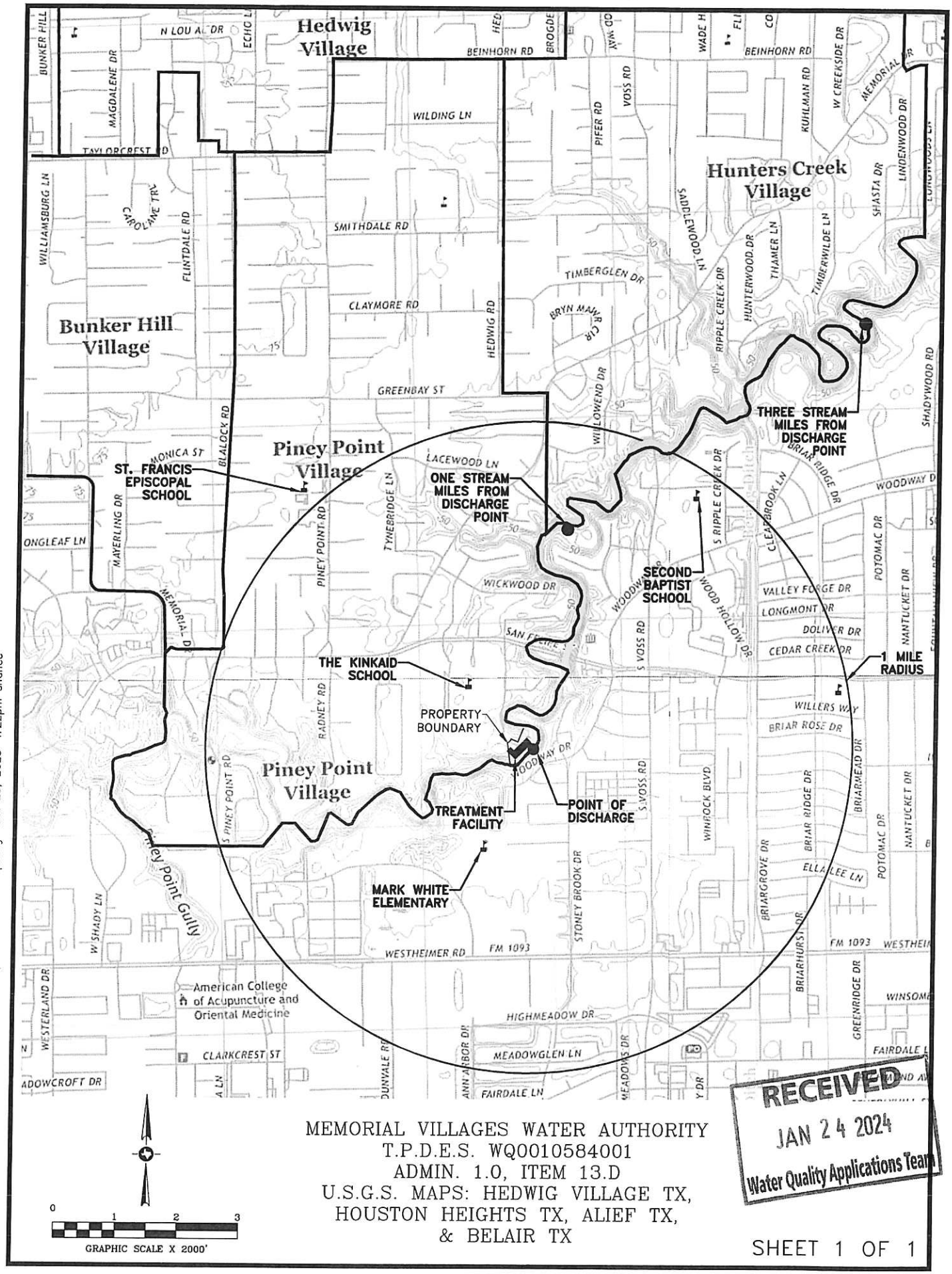
CAE:klr

cc: Tom Parker
John Blount

F:\SHARED\NVR\Master Documents (Forms)\Discharge Approval Ltr.doc

ATTACHMENT C
Administrative Report 1.0
Item 13.d
7.5-MINUTE USGS

QUADRANGLE MAP



MEMORIAL VILLAGES WATER AUTHORITY
T.P.D.E.S. WQ0010584001
ADMIN. 1.0, ITEM 13.D
U.S.G.S. MAPS: HEDWIG VILLAGE TX, HOUSTON HEIGHTS TX, ALIEF TX, & BELAIR TX

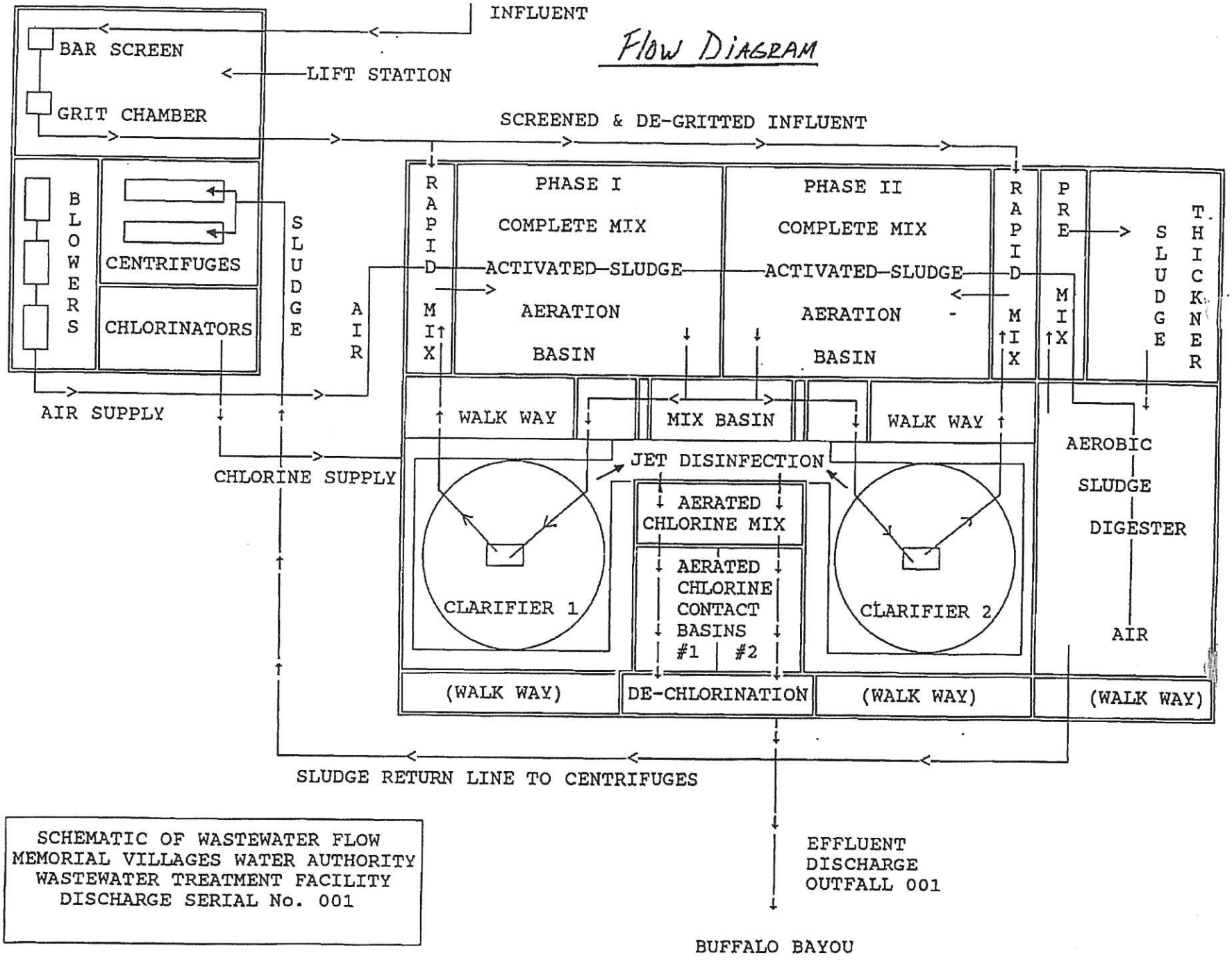
SHEET 1 OF 1

E:\Current Proj\032142101 - 2023 TPDES Permit\Tech U.S. GIS Map.dwg Oct 25, 2023-4:22pm shanec

ATTACHMENT D
Technical Report 1.0

Item 2.c

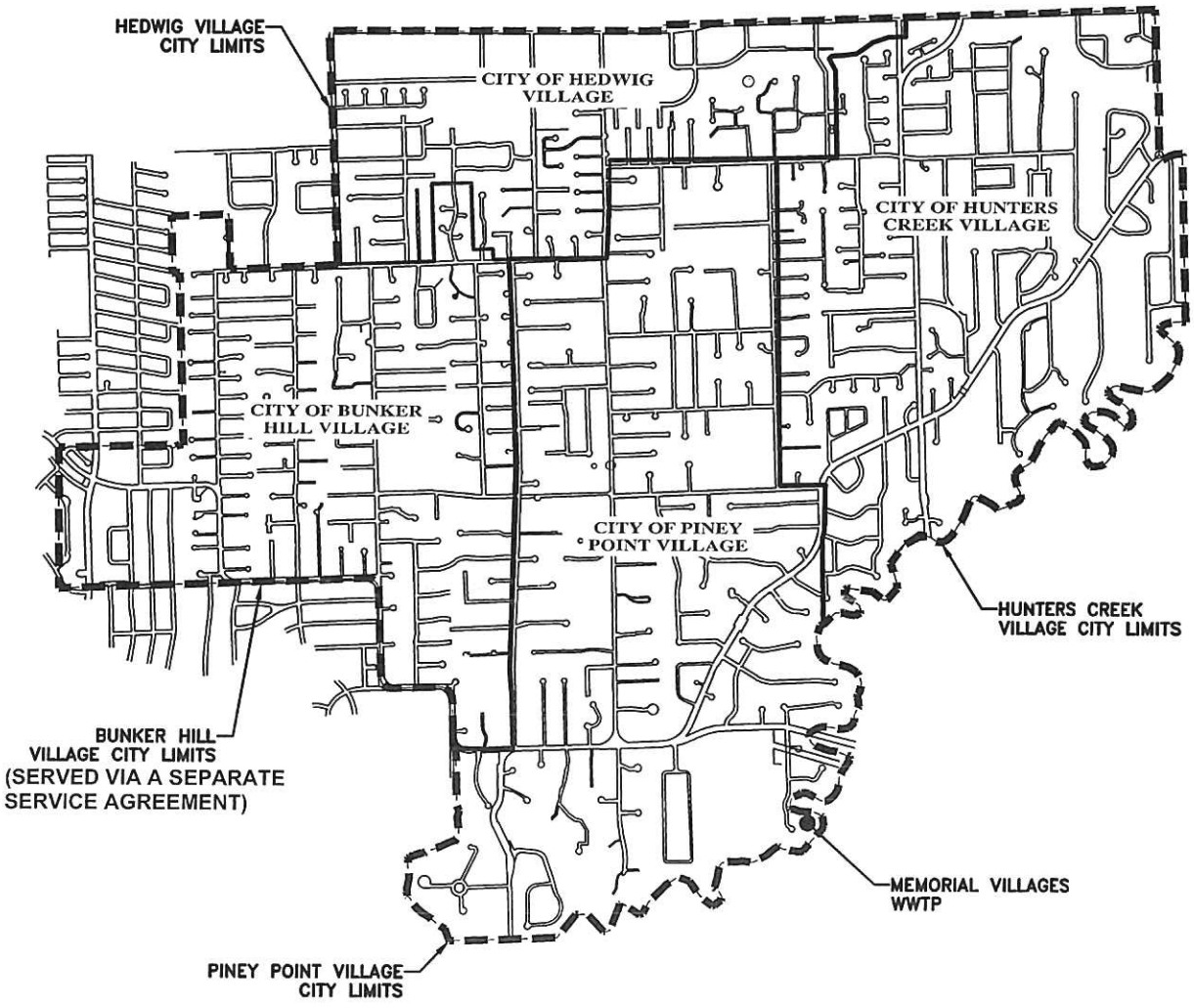
SCHEMATIC FLOW DIAGRAM

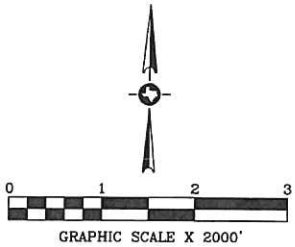


SCHEMATIC OF WASTEWATER FLOW
MEMORIAL VILLAGES WATER AUTHORITY
WASTEWATER TREATMENT FACILITY
DISCHARGE SERIAL No. 001

ATTACHMENT E
Technical Report 1.0
Item 3

SITE DRAWING





MEMORIAL VILLAGES WATER AUTHORITY
T.P.D.E.S. WQ0010584001
SITE DRAWING
N.T.S.

SHEET 1 OF 1

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ATTACHMENT F
Technical Report 1.0

Item 7

LABORATORY TESTING RESULTS

EASTEX
ENVIRONMENTAL LABS INC.

NELAP ACCREDITED TNI LABORATORY

31 August 2023

Memorial Villages Water Authority
Memorial Villages Water Authority
8955 Gaylord Drive
Houston, TX 77024

RE: Memorial Village Long Permit Renewal

Enclosed are the results of analyses for samples received by the laboratory on 08/02/23 11:20, with Lab ID Number C3H0212. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for

Mark Bourgeois
Special Projects Manager

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

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

LABORATORY ANALYTICAL REPORT

Project: Memorial Village Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 08/02/2023 00:00
Collector:
Sample Type:Composite
Print Date: 8/31/2023

Eff PR

C3H0212-01 (Water)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
Eastex Environmental Laboratory - Coldspring								
Aluminum - Total	73.6	2.50	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Antimony - Total	<5.00	5.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Arsenic, Total	2.82	0.500	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Barium, Total	68.0	3.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Beryllium, Total	<0.500	0.500	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Cadmium, Total	<1.00	1.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Chromium, (VI)	<3	3	ug/L	A	B3H1457	08/09/2023 15:30	SM 3500 Cr B	
Chromium, Total	<3.00	3.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Chromium, Trivalent	<3	3	ug/L	N	B3H1461	08/10/2023 07:50	-	
Copper, Total	19.8	2.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Fluoride	384	100	ug/L	A	B3H0309	08/02/2023 15:00	EPA 300.0	
Lead, Total	<0.500	0.500	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Nickel, Total	2.54	2.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Nitrate as N	25100	50.0	ug/L	A	B3H0309	08/02/2023 15:00	EPA 300.0	
Selenium, Total	<5.00	5.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Silver, Total	<0.500	0.500	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Thallium, Total	<0.500	0.500	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	
Zinc, Total	44.9	5.00	ug/L	A	B3H1073	08/08/2023 12:20	EPA 200.8	

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

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

NELAP ACCREDITED TNI LABORATORY

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

Project: Memorial Village Long Permit Renewal
Sample Matrix: Water
Client Matrix: Water

Sample Date and Time: 08/02/2023 08:40
Collector: CEW
Sample Type:Grab
Print Date: 8/31/2023

Eff PR

C3H0212-02 (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	B3H0377	08/02/2023 08:46	SM 4500 Cl F	
DO	6.8		mg/L	N	B3H0377	08/02/2023 08:46	SM 4500 O G	
pH	7.0		std unit	N	B3H0377	08/02/2023 08:46	SM 4500 H + B	
Alkalinity	102	20.0	mg CaCO3/L	A	B3H0949	08/04/2023 14:38	SM 2320 B	
Ammonia as N	3.7	0.1	mg/L	A	B3H0603	08/08/2023 15:30	SM 4500 NH3 G	
CBOD 5	3.9	2.0	mg/L	A	B3H0554	08/03/2023 07:40	SM 5210 B	1, 13
Chloride	127	5.0	mg/L	A	B3H0309	08/02/2023 15:00	EPA 300.0	
Conductivity	988	10	µmhos/cm @25C	A	B3H0635	08/03/2023 16:50	SM 2510 B	
Cyanide	<5.00	5.00	ug/L	A	B3H1419	08/09/2023 16:55	EPA 335.4	23
E coli IDEXX	10	2	mpn/100ml	A	B3H0639	08/02/2023 15:02	Colilert 18	
Nitrate as N	20500	50	ug/L	A	B3H0309	08/02/2023 15:00	EPA 300.0	
Oil Grease, HEM	<5.1	5.1	mg/L	A	B3H1005	08/07/2023 10:30	EPA 1664A	
Phenol, low level	<10.0	10.0	ppb	A	B3H2180	08/14/2023 14:00	EPA 420.1	
Sulfate	45.9	4.0	mg/L	A	B3H0309	08/02/2023 15:00	EPA 300.0	
TDS	536	10.0	mg/L	A	B3H0637	08/03/2023 16:05	SM 2540 C	
TKN	5.8	1.0	mg/L	A	B3H0959	08/09/2023 11:52	EPA 351.2	13
Total Phosphorus	3.16	0.0600	mg/L	A	B3H1602	08/11/2023 13:41	EPA 200.7	
TSS	11.7	1.0	mg/L	A	B3H0550	08/03/2023 11:54	SM 2540 D	

*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

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

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 B3H0309 - No Prep										
Blank (B3H0309-BLK1)				**Prepared & Analyzed:** 8/2/2023 9:30:00AM						
Chloride	ND	5.0	mg/L							
Sulfate	ND	4.0	mg/L							
Fluoride	ND	100	ug/L							
Nitrate as N	ND	50	ug/L							
Nitrate as N	ND	50.0	ug/L							
LCS (B3H0309-BS1)				**Prepared & Analyzed:** 8/2/2023 9:30:00AM						
Chloride	23.5		mg/L	25.0		94.1	90-110			
Fluoride	0.465		mg/L	0.500		92.9	90-110			
Nitrate as N	1.4627		mg/L	1.50		97.5	90-110			
Sulfate	19.0		mg/L	20.0		95.0	90-110			
Matrix Spike (B3H0309-MS1)	**Source: C3H0155-01**			**Prepared & Analyzed:** 8/2/2023 9:30:00AM						
Chloride	252	5.0	mg/L	125	154	78.6	80-120			23
Sulfate	143	4.0	mg/L	100	55.2	88.0	80-120			
Fluoride	3180	100	ug/L	2500	927	90.3	80-120			
Nitrate as N	25681.1	50	ug/L	7500	18359	97.6	80-120			
Nitrate as N	25681.1	50.0	ug/L	7500	18359	97.6	80-120			
Matrix Spike Dup (B3H0309-MSD1)	**Source: C3H0155-01**			**Prepared & Analyzed:** 8/2/2023 9:30:00AM						
Chloride	251	5.0	mg/L	125	154	77.6	80-120	0.504	20	
Sulfate	143	4.0	mg/L	100	55.2	87.9	80-120	0.0580	20	
Fluoride	3260	100	ug/L	2500	927	93.3	80-120	2.34	20	
Nitrate as N	25686.3	50	ug/L	7500	18359	97.7	80-120	0.0203	20	
Nitrate as N	25686.3	50.0	ug/L	7500	18359	97.7	80-120	0.0203	20	
Batch B3H0550 - No Prep										
Blank (B3H0550-BLK1)				**Prepared & Analyzed:** 8/3/2023 11:54:00AM						
TSS	ND	1.0	mg/L							
Duplicate (B3H0550-DUP1)	**Source: C3H0905-01**			**Prepared & Analyzed:** 8/3/2023 11:54:00AM						
TSS	252	1.0	mg/L		230			9.33	10	
Batch B3H0554 - No Prep										
Blank (B3H0554-BLK1)				**Prepared & Analyzed:** 8/3/2023 7:40:00AM						
CBOD 5	0.646	2.0	mg/L							1
LCS (B3H0554-BS1)				**Prepared & Analyzed:** 8/3/2023 7:40:00AM						
CBOD 5	238		mg/L	198		120	84.59-115.4			1, 13

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

EASTEX ENVIRONMENTAL LABS INC.

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Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

SM 5210 B - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3H0554 - No Prep										
Duplicate (B3H0554-DUP1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/3/2023 7:40:00AM						
CBOD 5	3.91	2.0	mg/L		3.87			1.03	30	1, 13
Batch B3H0603 - No Prep										
Blank (B3H0603-BLK1)				**Prepared & Analyzed:** 8/8/2023 3:30:00PM						
Ammonia as N	ND	0.1	mg/L							
LCS (B3H0603-BS1)				**Prepared & Analyzed:** 8/8/2023 3:30:00PM						
Ammonia as N	2.02		mg/L	2.00		101	90-110			
Matrix Spike (B3H0603-MS1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/8/2023 3:30:00PM						
Ammonia as N	6.6	0.1	mg/L	2.50	3.7	117	80-120			
Matrix Spike Dup (B3H0603-MSD1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/8/2023 3:30:00PM						
Ammonia as N	6.9	0.1	mg/L	2.50	3.7	129	80-120	4.28	20	
Batch B3H0635 - No Prep										
Blank (B3H0635-BLK1)				**Prepared & Analyzed:** 8/3/2023 4:50:00PM						
Conductivity	ND	10	µmhos/cm @25C							
LCS (B3H0635-BS1)				**Prepared & Analyzed:** 8/3/2023 4:50:00PM						
Conductivity	1003		µmhos/cm @25C	1000		100	80-120			
Duplicate (B3H0635-DUP1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/3/2023 4:50:00PM						
Conductivity	983	10	µmhos/cm @25C		988			0.507	20	
Batch B3H0637 - No Prep										
Blank (B3H0637-BLK1)				**Prepared & Analyzed:** 8/3/2023 4:05:00PM						
TDS	ND	10.0	mg/L							
LCS (B3H0637-BS1)				**Prepared & Analyzed:** 8/3/2023 4:05:00PM						
TDS	260		mg/L	300		86.7	80-120			
Duplicate (B3H0637-DUP1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/3/2023 4:05:00PM						
TDS	524	10.0	mg/L		536			2.26	10	
Batch B3H0639 - No Prep Micro										
Blank (B3H0639-BLK1)				**Prepared & Analyzed:** 8/2/2023 3:02:00PM						

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

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Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

Colilert 18 - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3H0639 - No Prep Micro										
Blank (B3H0639-BLK1)				Prepared & Analyzed: 8/2/2023 3:02:00PM						
E coli IDEXX	ND	1	mpn/100ml							
Duplicate (B3H0639-DUP1)	Source: C3H0685-01			Prepared & Analyzed: 8/2/2023 3:02:00PM						
E coli IDEXX	ND	2	mpn/100ml		ND				200	
Batch B3H0949 - No Prep										
Blank (B3H0949-BLK1)				Prepared & Analyzed: 8/4/2023 2:38:00PM						
Alkalinity	ND	20.0	mg CaCO3/L							
LCS (B3H0949-BS1)				Prepared & Analyzed: 8/4/2023 2:38:00PM						
Alkalinity	44.0		mg CaCO3/L	50.0		88.0	80-120			
Duplicate (B3H0949-DUP1)	Source: C3H0212-02			Prepared & Analyzed: 8/4/2023 2:38:00PM						
Alkalinity	104	20.0	mg CaCO3/L		102			1.94	20	
Batch B3H0959 - SM 4500 Norg C										
Blank (B3H0959-BLK1)				Prepared & Analyzed: 8/9/2023 11:52:00AM						
TKN	ND	1.0	mg/L							
LCS (B3H0959-BS1)				Prepared & Analyzed: 8/9/2023 11:52:00AM						
TKN	8.63		mg/L	10.0		86.3	90-110			13
Matrix Spike (B3H0959-MS1)	Source: C3H0212-02			Prepared & Analyzed: 8/9/2023 11:52:00AM						
TKN	16.3	1.0	mg/L	10.0	5.83	104	80-120			13
Matrix Spike Dup (B3H0959-MSD1)	Source: C3H0212-02			Prepared & Analyzed: 8/9/2023 11:52:00AM						
TKN	15.8	1.0	mg/L	10.0	5.83	99.7	80-120	2.83	20	13
Batch B3H1005 - No Prep										
Blank (B3H1005-BLK1)				Prepared & Analyzed: 8/7/2023 10:30:00AM						
Oil Grease, HEM	ND	5.0	mg/L							
LCS (B3H1005-BS1)				Prepared & Analyzed: 8/7/2023 10:30:00AM						
Oil Grease, HEM	40.5	5.0	mg/L	40.0		101	78-114			
Matrix Spike (B3H1005-MS1)	Source: C3H1088-02			Prepared & Analyzed: 8/7/2023 10:30:00AM						
Oil Grease, HEM	35.0	5.2	mg/L	40.0	ND	87.6	78-114			
Matrix Spike Dup (B3H1005-MSD1)	Source: C3H1088-02			Prepared & Analyzed: 8/7/2023 10:30:00AM						
Oil Grease, HEM	40.5	5.2	mg/L	40.0	ND	101	78-114	14.5	18	

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Email: eastexlab@eastex.net
Tel: 936 653 3249

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

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 B3H1073 - EPA 200.8										
Blank (B3H1073-BLK1)				**Prepared & Analyzed:** 8/8/2023 12:09:00PM						
Aluminum - Total	ND	2.50	ug/L							
Antimony - Total	ND	5.00	ug/L							
Arsenic, Total	ND	0.500	ug/L							
Barium, Total	ND	3.00	ug/L							
Beryllium, Total	ND	0.500	ug/L							
Cadmium, Total	ND	1.00	ug/L							
Chromium, Total	ND	3.00	ug/L							
Copper, Total	ND	2.00	ug/L							
Lead, Total	ND	0.500	ug/L							
Nickel, Total	ND	2.00	ug/L							
Selenium, Total	ND	5.00	ug/L							
Silver, Total	ND	0.500	ug/L							
Thallium, Total	ND	0.500	ug/L							
Zinc, Total	ND	5.00	ug/L							
LCS (B3H1073-BS1)				**Prepared & Analyzed:** 8/8/2023 12:14:00PM						
Aluminum - Total	102	2.50	ug/L	100		102	85-115			
Antimony - Total	95.4	5.00	ug/L	100		95.4	85-115			
Arsenic, Total	96.1	0.500	ug/L	100		96.1	85-115			
Barium, Total	98.9	3.00	ug/L	100		98.9	85-115			
Beryllium, Total	97.2	0.500	ug/L	100		97.2	85-115			
Cadmium, Total	97.2	1.00	ug/L	100		97.2	85-115			
Chromium, Total	97.1	3.00	ug/L	100		97.1	85-115			
Copper, Total	96.4	2.00	ug/L	100		96.4	85-115			
Lead, Total	96.7	0.500	ug/L	100		96.7	85-115			
Nickel, Total	96.6	2.00	ug/L	100		96.6	85-115			
Selenium, Total	95.3	5.00	ug/L	100		95.3	85-115			
Silver, Total	98.7	0.500	ug/L	100		98.7	85-115			
Thallium, Total	96.5	0.500	ug/L	100		96.5	85-115			
Zinc, Total	96.3	5.00	ug/L	100		96.3	85-115			
Matrix Spike (B3H1073-MS1)	**Source: C3H0212-01**			**Prepared & Analyzed:** 8/8/2023 12:31:00PM						
Aluminum - Total	148	2.50	ug/L	100	73.6	74.3	70-130			
Antimony - Total	93.6	5.00	ug/L	100	0.490	93.1	70-130			
Arsenic, Total	96.6	0.500	ug/L	100	2.82	93.8	70-130			
Barium, Total	164	3.00	ug/L	100	68.0	95.6	70-130			
Beryllium, Total	94.1	0.500	ug/L	100	ND	94.1	70-130			
Cadmium, Total	93.4	1.00	ug/L	100	ND	93.4	70-130			
Chromium, Total	95.5	3.00	ug/L	100	ND	95.5	70-130			

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

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Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

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 B3H1073 - EPA 200.8										
Matrix Spike (B3H1073-MS1)	**Source: C3H0212-01**			**Prepared & Analyzed:** 8/8/2023 12:31:00PM						
Copper, Total	112	2.00	ug/L	100	19.8	92.1	70-130			
Lead, Total	93.7	0.500	ug/L	100	0.349	93.3	70-130			
Nickel, Total	94.5	2.00	ug/L	100	2.54	92.0	70-130			
Selenium, Total	93.0	5.00	ug/L	100	ND	93.0	70-130			
Silver, Total	94.2	0.500	ug/L	100	ND	94.2	70-130			
Thallium, Total	94.5	0.500	ug/L	100	ND	94.5	70-130			
Zinc, Total	139	5.00	ug/L	100	44.9	93.7	70-130			
Matrix Spike Dup (B3H1073-MSD1)	**Source: C3H0212-01**			**Prepared & Analyzed:** 8/8/2023 12:36:00PM						
Aluminum - Total	172	2.50	ug/L	100	73.6	98.0	70-130	14.8	20	
Antimony - Total	95.1	5.00	ug/L	100	0.490	94.6	70-130	1.61	20	
Arsenic, Total	97.3	0.500	ug/L	100	2.82	94.5	70-130	0.729	20	
Barium, Total	172	3.00	ug/L	100	68.0	104	70-130	4.85	20	
Beryllium, Total	95.6	0.500	ug/L	100	ND	95.6	70-130	1.63	20	
Cadmium, Total	93.1	1.00	ug/L	100	ND	93.1	70-130	0.264	20	
Chromium, Total	96.5	3.00	ug/L	100	ND	96.5	70-130	1.04	20	
Copper, Total	111	2.00	ug/L	100	19.8	91.4	70-130	0.570	20	
Lead, Total	95.2	0.500	ug/L	100	0.349	94.9	70-130	1.67	20	
Nickel, Total	93.4	2.00	ug/L	100	2.54	90.8	70-130	1.22	20	
Selenium, Total	94.7	5.00	ug/L	100	ND	94.7	70-130	1.78	20	
Silver, Total	93.0	0.500	ug/L	100	ND	93.0	70-130	1.36	20	
Thallium, Total	96.3	0.500	ug/L	100	ND	96.3	70-130	1.93	20	
Zinc, Total	140	5.00	ug/L	100	44.9	95.0	70-130	0.963	20	
Batch B3H1419 - No Prep										
Blank (B3H1419-BLK1)				**Prepared & Analyzed:** 8/9/2023 4:55:00PM						
Cyanide	ND	5.00	ug/L							
LCS (B3H1419-BS1)				**Prepared & Analyzed:** 8/9/2023 4:55:00PM						
Cyanide	38.3		ug/L	40.0		95.7	90-110			
Matrix Spike (B3H1419-MS1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/9/2023 4:55:00PM						
Cyanide	28.1	5.00	ug/L	40.0	2.80	63.2	90-110			23
Matrix Spike Dup (B3H1419-MSD1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/9/2023 4:55:00PM						
Cyanide	23.6	5.00	ug/L	40.0	2.80	52.1	90-110	17.2	20	
Batch B3H1457 - No Prep										
Blank (B3H1457-BLK1)				**Prepared & Analyzed:** 8/9/2023 3:30:00PM						

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Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249

Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

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Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3H1457 - No Prep										
Blank (B3H1457-BLK1)				**Prepared & Analyzed:** 8/9/2023 3:30:00PM						
Chromium, (VI)	ND	3	ug/L							
LCS (B3H1457-BS1)				**Prepared & Analyzed:** 8/9/2023 3:30:00PM						
Chromium, (VI)	19.85		ug/L	20.0		99.2	90-110			
Matrix Spike (B3H1457-MS1)	**Source: C3H0212-01**			**Prepared & Analyzed:** 8/9/2023 3:30:00PM						
Chromium, (VI)	40.63	3	ug/L	44.6	ND	91.1	80-120			
Matrix Spike Dup (B3H1457-MSD1)	**Source: C3H0212-01**			**Prepared & Analyzed:** 8/9/2023 3:30:00PM						
Chromium, (VI)	38.18	3	ug/L	44.6	ND	85.6	80-120	6.22	20	
Batch B3H1602 - EPA 200.7										
Blank (B3H1602-BLK1)				**Prepared & Analyzed:** 8/11/2023 1:03:42PM						
Total Phosphorus	ND	0.0600	mg/L							
LCS (B3H1602-BS1)				**Prepared & Analyzed:** 8/11/2023 1:07:11PM						
Total Phosphorus	2.18	0.0600	mg/L	2.52		86.5	85-115			
Matrix Spike (B3H1602-MS1)	**Source: C3H0065-01**			**Prepared & Analyzed:** 8/11/2023 1:29:51PM						
Total Phosphorus	8.10	0.0600	mg/L	2.52	6.22	74.5	70-130			
Matrix Spike Dup (B3H1602-MSD1)	**Source: C3H0065-01**			**Prepared & Analyzed:** 8/11/2023 1:37:33PM						
Total Phosphorus	8.16	0.0600	mg/L	2.52	6.22	77.1	70-130	0.815	20	
Batch B3H2180 - No Prep										
Blank (B3H2180-BLK1)				**Prepared & Analyzed:** 8/14/2023 2:00:00PM						
Phenol, low level	ND	10.0	ppb							
LCS (B3H2180-BS1)				**Prepared & Analyzed:** 8/14/2023 2:00:00PM						
Phenol, low level	49.4		ppb	50.0		98.9	80-120			
Matrix Spike (B3H2180-MS1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/14/2023 2:00:00PM						
Phenol, low level	43.7	10.0	ppb	40.0	ND	109	80-120			
Matrix Spike Dup (B3H2180-MSD1)	**Source: C3H0212-02**			**Prepared & Analyzed:** 8/14/2023 2:00:00PM						
Phenol, low level	44.0	10.0	ppb	40.0	ND	110	80-120	0.762	20	

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ENVIRONMENTAL LABS INC.

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

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Memorial Villages Water Authority
8955 Gaylord Drive
Houston TX, 77024

Notes and Definitions

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.
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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2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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This report consists of this Table of Contents and the following pages:

Email: Kilgore.projectmanager@spl-inc.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

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SAMPLE CROSS REFERENCE

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MEMORIAL VILLAGES WATER AUTHORITY

Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Sample	Sample ID	Taken	Time	Received
2219449	*EFF PR*	08/02/2023	08:40:00	08/03/2023

Bottle 01 Client Supplied Amber Glass
Bottle 02 Client Supplied Amber Glass
Bottle 03 Client Supplied Amber Glass
Bottle 04 Client Supplied Amber Glass
Bottle 05 Client Supplied Amber Glass
Bottle 06 Client Supplied Amber Glass
Bottle 07 Client Supplied Amber Glass
Bottle 08 Client Supplied Amber Glass
Bottle 09 Client Supplied Amber Glass
Bottle 10 Client Supplied Amber Glass
Bottle 11 Client supplied H2SO4 Amber Glass
Bottle 12 Client supplied HCl Clean Metals Bottle
Bottle 13 Prepared Bottle: 632L\632S 2 mL Autosampler Vial (Batch 1075570) Volume: 1.00000 mL <== Derived from 01 (994 ml)
Bottle 14 Prepared Bottle: GCXL\GCXS 2 mL Autosampler Vial (Batch 1075571) Volume: 1.00000 mL <== Derived from 01 (994 ml)
Bottle 15 Prepared Bottle: OPXL/OPXS 2 mL Autosampler Vial (Batch 1075572) Volume: 1.00000 mL <== Derived from 01 (994 ml)
Bottle 16 Prepared Bottle:PCBL 2 mL Autosampler Vial (Batch 1075573) Volume: 1.00000 mL <== Derived from 01 (994 ml)
Bottle 17 Prepared Bottle: 2 mL Autosampler Vial (Batch 1076157) Volume: 1.00000 mL <== Derived from 04 (995 ml)
Bottle 18 Prepared Bottle: 2 mL Autosampler Vial (Batch 1076333) Volume: 5.00000 mL <== Derived from 03 (975 ml)
Bottle 19 Prepared Bottle: 2 mL Autosampler Vial (Batch 1076361) Volume: 10.00000 mL <== Derived from 02 (978 ml)
Bottle 20 Prepared Bottle: 2 mL Autosampler Vial (Batch 1076581) Volume: 1.00000 mL <== Derived from 11 (992 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 608.3	14	1075571	08/03/2023	1076885	08/11/2023
EPA 608.3	16	1075573	08/03/2023	1077057	08/11/2023
EPA 615	19	1076361	08/09/2023	1077958	08/14/2023
EPA 632	13	1075570	08/03/2023	1077062	08/09/2023
EPA 604.1	18	1076333	08/09/2023	1077875	08/17/2023
EPA 625.1	17	1076157	08/08/2023	1077149	08/12/2023
EPA 614	15	1075572	08/03/2023	1077754	08/10/2023
ASTM D7065-11	20	1076581	08/09/2023	1077235	08/11/2023
EPA 245.7 2 SUB			08/25/2023		08/25/2023
EPA 622	15	1075572	08/03/2023	1077751	08/10/2023

Sample	Sample ID	Taken	Time	Received
2219450	*EFF PR*	08/02/2023	08:40:00	08/03/2023

Email: Kilgore.projectmanager@spl-inc.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

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SAMPLE CROSS REFERENCE

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Bottle 01 Client supplied HCl to pH <2 glass 40 mL vial ZHE
Bottle 02 Client supplied HCl to pH <2 glass 40 mL vial ZHE
Bottle 03 Client supplied HCl to pH <2 glass 40 mL vial ZHE
Bottle 04 client supplied 40 ml glass vial(zero headspace)
Bottle 05 client supplied 40 ml glass vial(zero headspace)
Bottle 06 client supplied 40 ml glass vial(zero headspace)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 624.1	04	1075578	08/03/2023	1075578	08/03/2023
EPA 624.1	01	1076025	08/07/2023	1076025	08/07/2023

Sample	Sample ID	Taken	Time	Received
2219451	*EFF PR Hgl BLANK*	08/02/2023	08:40:00	08/03/2023

Bottle 01 Client supplied HCl Clean Metals Bottle

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 245.7 2 SUB			08/25/2023		08/25/2023

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Printed: 08/30/2023

MEMORIAL VILLAGES WATER AUTHORITY

RESULTS

Sample Results

2219449 EFF PR

Received: 08/03/2023

Non-Potable Water — Collected by: Client — Eastex Environmental — P.O. PO 080223A
Composite Stop 08:40 8/2/23 — Taken: 08/02/2023 08:40:00

ASTM D7065-11 — Prepared: 1076581 08/09/2023 14:00:00 — Analyzed 1077235 08/11/2023 14:19:00 DWU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
z	Nonylphenol	<30.2	ug/L	30.2		25154-52-3	20

EPA 245.7 2 SUB — Prepared: 08/25/2023 17:18:00 — Analyzed 08/25/2023 17:18:00 SUB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Hg (low level) SUB	0.00942	ug/L	0.005		SATL	

EPA 604.1 — Prepared: 1076333 08/09/2023 13:30:00 — Analyzed 1077875 08/17/2023 22:52:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
z	Hexachlorophene	<5.13	ug/L	5.13		70-30-4	18

EPA 608.3 — Prepared: 1075571 08/03/2023 14:30:00 — Analyzed 1076885 08/11/2023 21:37:00 BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	4,4-DDD	<0.0101	ug/L	0.0101		72-54-8	14
NELAC	4,4-DDE	<0.0101	ug/L	0.0101		72-55-9	14
NELAC	4,4-DDT	<0.0101	ug/L	0.0101		50-29-3	14
NELAC	Aldrin	<0.010	ug/L	0.010		309-00-2	14
NELAC	Alpha-BHC(hexachlorocyclohexane)	<0.0101	ug/L	0.0101		319-84-6	14
NELAC	alpha-Chlordane	<0.0101	ug/L	0.0101		5103-71-9	14
NELAC	Beta-BHC(hexachlorocyclohexane)	<0.0291	ug/L	0.0291	M	319-85-7	14
NELAC	Delta-BHC(hexachlorocyclohexane)	<0.0101	ug/L	0.0101		319-86-8	14
NELAC	Dieldrin	<0.0101	ug/L	0.0101		60-57-1	14
NELAC	Endosulfan I (alpha)	<0.010	ug/L	0.010		959-98-8	14
NELAC	Endosulfan II (beta)	<0.0101	ug/L	0.0101		33213-65-9	14
NELAC	Endosulfan sulfate	<0.0101	ug/L	0.0101		1031-07-8	14
NELAC	Endrin	<0.0101	ug/L	0.0101		72-20-8	14
NELAC	Endrin aldehyde	<0.0101	ug/L	0.0101		7421-93-4	14

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
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Printed: 08/30/2023

2219449 EFF PR

Received: 08/03/2023

Non-Potable Water — Collected by: Client — Eastex Environmental — PO: PO 080223A
Composite Stop 08:40 8/2/23 — Taken: 08/02/2023 08:40:00

EPA 608.3 — Prepared: 1075571 08/03/2023 14:30:00 — Analyzed: 1076885 08/11/2023 21:37:00 — BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Gamma-BHC(Lindane)	<0.0101	ug/L	0.0101		58-89-9	14
NELAC	gamma-Chlordane	<0.0101	ug/L	0.0101		5103-74-2	14
NELAC	Heptachlor	0.0112	ug/L	0.0101		76-44-8	14
NELAC	Heptachlor epoxide	<0.010	ug/L	0.010		1024-57-3	14
	Kelthane (Dicofol)	<0.101	ug/L	0.101	X	115-32-2	14
NELAC	Methoxychlor	<0.0101	ug/L	0.0101		72-43-5	14
	Mirex	<0.0151	ug/L	0.0151	S	2385-85-5	14
NELAC	Toxaphene	<0.300	ug/L	0.300		8001-35-2	14

EPA 608.3 — Prepared: 1075573 08/03/2023 14:30:00 — Analyzed: 1077057 08/11/2023 21:37:00 — BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	PCB-1016	<0.200	ug/L	0.200		12674-11-2	16
NELAC	PCB-1221	<0.200	ug/L	0.200		11104-28-2	16
NELAC	PCB-1232	<0.200	ug/L	0.200		11141-16-5	16
NELAC	PCB-1242	<0.200	ug/L	0.200		53469-21-9	16
NELAC	PCB-1248	<0.200	ug/L	0.200		12672-29-6	16
NELAC	PCB-1254	<0.200	ug/L	0.200		11097-69-1	16
NELAC	PCB-1260	<0.200	ug/L	0.200		11096-82-5	16

EPA 614 — Prepared: 1075572 08/03/2023 14:30:00 — Analyzed: 1077754 08/10/2023 19:16:00 — BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Azinphos-methyl (Guthion)	<0.0503	ug/L	0.0503		86-50-0	15
NELAC	Demeton	<0.0503	ug/L	0.0503		8065-48-3	15
NELAC	Diazinon	<0.0503	ug/L	0.0503		333-41-5	15
NELAC	Malathion	<0.0503	ug/L	0.0503		121-75-5	15
NELAC	Parathion, ethyl	<0.0503	ug/L	0.0503		56-38-2	15
NELAC	Parathion, methyl	<0.0503	ug/L	0.0503		298-00-0	15

EPA 615 — Prepared: 1076361 08/09/2023 15:00:00 — Analyzed: 1077958 08/14/2023 19:33:00 — BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	2,4 Dichlorophenoxyacetic acid	<0.511	ug/L	0.511	XD	94-75-7	19
NELAC	2,4,5-TP (Silvex)	<0.300	ug/L	0.300	X	93-72-1	19

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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Non-Potable Water | Collected by: Client | Eastex Environmental | PO: PO 080223A

Composite Stop 08:40 8/2/23 | Taken: 08/02/2023 | 08:40:00

EPA 622 Prepared: 1075522 08/03/2023 14:30:00 Analyzed 1077751 08/10/2023 19:16:00 BLF

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chlorpyrifos	<0.050	ug/L	0.050		2921-88-2	15

EPA 625.1 Prepared: 1076157 08/08/2023 15:45:00 Analyzed 1077149 08/12/2023 20:14:00 DWL

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	1,2,4,5-Tetrachlorobenzene	<1.01	ug/L	1.01		95-94-3	17
NELAC	1,2,4-Trichlorobenzene	<1.01	ug/L	1.01		120-82-1	17
NELAC	1,2-Dichlorobenzene	<1.01	ug/L	1.01		95-50-1	17
NELAC	1,2-DPH (as azobenzene)	<1.01	ug/L	1.01		122-66-7	17
NELAC	1,3-Dichlorobenzene	<1.01	ug/L	1.01		541-73-1	17
NELAC	1,4-Dichlorobenzene	<1.01	ug/L	1.01		106-46-7	17
NELAC	2,4,5-Trichlorophenol	<1.01	ug/L	1.01		95-95-4	17
NELAC	2,4,6-Trichlorophenol	<1.01	ug/L	1.01		88-06-2	17
NELAC	2,4-Dichlorophenol	<1.01	ug/L	1.01		120-83-2	17
NELAC	2,4-Dimethylphenol	<2.41	ug/L	2.41		105-67-9	17
NELAC	2,4-Dinitrophenol	<9.05	ug/L	9.05		51-28-5	17
NELAC	2,4-Dinitrotoluene	<3.52	ug/L	3.52		121-14-2	17
NELAC	2,6-Dinitrotoluene	<1.01	ug/L	1.01		606-20-2	17
NELAC	2-Chloronaphthalene	<1.01	ug/L	1.01		91-58-7	17
NELAC	2-Chlorophenol	<1.01	ug/L	1.01		95-57-8	17
NELAC	2-Methylphenol (o-Cresol)	<5.23	ug/L	5.23		95-48-7	17
NELAC	2-Nitrophenol	<1.01	ug/L	1.01		88-75-5	17
NELAC	3&4-Methylphenol (m&p-Cresol)	<6.23	ug/L	6.23		MEPH34	17
NELAC	3,3'-Dichlorobenzidine	<5.00	ug/L	5.00		91-94-1	17
NELAC	4,6-Dinitro-2-methylphenol	<8.04	ug/L	8.04		534-52-1	17
NELAC	4-Bromophenyl phenyl ether	<1.01	ug/L	1.01		101-55-3	17
NELAC	4-Chlorophenyl phenyl ethe	<1.01	ug/L	1.01		7005-72-3	17
NELAC	4-Nitrophenol	<1.01	ug/L	1.01		100-02-7	17
NELAC	Acenaphthene	<1.01	ug/L	1.01		83-32-9	17
NELAC	Acenaphthylene	<1.01	ug/L	1.01		208-96-8	17
2	Aniline	<1.01	ug/L	1.01		62-53-3	17
NELAC	Anthracene	<1.01	ug/L	1.01		120-12-7	17
NELAC	Benzidine	<20.1	ug/L	20.1	X	92-87-5	17
NELAC	Benzo(a)anthracene	<1.01	ug/L	1.01		56-55-3	17
NELAC	Benzo(a)pyrene	<1.01	ug/L	1.01		50-32-8	17
NELAC	Benzo(b)fluoranthene	<1.01	ug/L	1.01		205-99-2	17

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Non-Potable Water
Composite Stop 08:40 8/2/23
Collected by: Client
Taken: 08/02/2023
Eastex Environmental
08:40:00
PO:
PO 080223A

EPA 625.1 Prepared: 1026153 08/08/2023 15:45:00 Analyzed: 1027149 08/12/2023 20:14:00 DWL

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Benzo(ghi)perylene	<1.01	ug/L	1.01		191-24-2	17
NELAC	Benzo(k)fluoranthene	<1.01	ug/L	1.01		207-08-9	17
NELAC	Benzyl Butyl phthalate	<7.54	ug/L	7.54		85-68-7	17
NELAC	Bis(2-chloroethoxy)methane	<1.01	ug/L	1.01		111-91-1	17
NELAC	Bis(2-chloroethyl)ether	<1.01	ug/L	1.01		111-44-4	17
NELAC	Bis(2-chloroisopropyl)ether	<1.01	ug/L	1.01		108-60-1	17
NELAC	Bis(2-ethylhexyl)phthalate	<7.54	ug/L	7.54		117-81-7	17
NELAC	Chrysene (Benzo(a)phenanthrene)	<1.01	ug/L	1.01		218-01-9	17
NELAC	Dibenz(a,h)anthracene	<1.01	ug/L	1.01		53-70-3	17
NELAC	Diethyl phthalate	<5.73	ug/L	5.73		84-66-2	17
NELAC	Dimethyl phthalate	<4.82	ug/L	4.82		131-11-3	17
NELAC	Di-n-butylphthalate	<7.54	ug/L	7.54		84-74-2	17
NELAC	Di-n-octylphthalate	<1.01	ug/L	1.01		117-84-0	17
NELAC	Fluoranthene(Benzo(j,k)fluorene)	<1.01	ug/L	1.01		206-44-0	17
NELAC	Fluorene	<1.01	ug/L	1.01		86-73-7	17
NELAC	Hexachlorobenzene	<1.01	ug/L	1.01		118-74-1	17
NELAC	Hexachlorobutadiene	<1.01	ug/L	1.01	X	87-68-3	17
NELAC	Hexachlorocyclopentadiene	<9.05	ug/L	9.05	S	77-47-4	17
NELAC	Hexachloroethane	<1.01	ug/L	1.01	X	67-72-1	17
NELAC	Indeno(1,2,3-cd)pyrene	<1.01	ug/L	1.01		193-39-5	17
NELAC	Isophorone	<1.01	ug/L	1.01		78-59-1	17
NELAC	Naphthalene	<1.01	ug/L	1.01		91-20-3	17
NELAC	Nitrobenzene	<1.01	ug/L	1.01		98-95-3	17
NELAC	n-Nitrosodiethylamine	<1.01	ug/L	1.01	S	55-18-5	17
NELAC	N-Nitrosodimethylamine	<7.04	ug/L	7.04		62-75-9	17
NELAC	n-Nitroso-di-n-butylamine	<1.01	ug/L	1.01		924-16-3	17
NELAC	N-Nitrosodi-n-propylamine	<1.01	ug/L	1.01		621-64-7	17
NELAC	N-Nitrosodiphenylamine (as DPA	<1.01	ug/L	1.01		86-30-6	17
NELAC	p-Chloro-m-Cresol (4-Chloro-3-me	<2.41	ug/L	2.41		59-50-7	17
NELAC	Pentachlorobenzene	<1.01	ug/L	1.01		608-93-5	17
NELAC	Pentachlorophenol	<1.01	ug/L	1.01		87-86-5	17
NELAC	Phenanthrene	<1.01	ug/L	1.01		85-01-8	17
NELAC	Phenol	<1.51	ug/L	1.51		108-95-2	17
NELAC	Pyrene	<1.01	ug/L	1.01		129-00-0	17
NELAC	Pyridine	<5.43	ug/L	5.43		110-86-1	17

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Mark Bourgeois
PO Box 1089
35 Eastex Lane
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Non-Potable Water
Composite Stop 08:40 8/2/23
Collected by: Client
Taken: 08/02/2023
Eastex Environmental
08:40:00
Received: 08/03/2023
PO: PO 080223A

EPA 625.1 Prepared: 1076157 08/08/2023 15:45:00 Calculated 1077149 08/30/2023 12:30:44 CAL

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Cresols Total	<6.23	ug/L	6.23		1319-77-3, etc.	17

EPA 632 Prepared: 1075570 08/04/2023 14:30:00 Analyzed 1077062 08/09/2023 21:16:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Carbaryl (Sevin)	<2.52	ug/L	2.52	X	63-25-2	13
	Diuron	<0.0453	ug/L	0.0453	XD	330-54-1	13

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Non-Potable Water
Collected by: Client
Taken: 08/02/2023
Eastex Environmental
08:40:00
Received: 08/03/2023
PO: PO 080223A

EPA 624.1 Prepared: 1075578 08/03/2023 20:30:00 Analyzed 1075578 08/03/2023 20:30:00 PMI

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Acrolein	<4.00	ug/L	4.00		107-02-8	04
NELAC	Acrylonitrile	<2.00	ug/L	2.00		107-13-1	04

EPA 624.1 Prepared: 1076025 08/07/2023 14:02:00 Analyzed 1076025 08/07/2023 14:02:00 PMI

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	(MTBE) tert-Butylmethylether	<2.00	ug/L	2.00		1634-04-4	01
NELAC	1,1,1,2-Tetrachloroethane	<2.00	ug/L	2.00		630-20-6	01
NELAC	1,1,1-Trichloroethane	<1.00	ug/L	1.00		71-55-6	01
NELAC	1,1,2,2-Tetrachloroethane	<2.00	ug/L	2.00		79-34-5	01
NELAC	1,1,2-Trichloroethane	<2.00	ug/L	2.00		79-00-5	01
NELAC	1,1-Dichloroethane	<1.00	ug/L	1.00		75-34-3	01
NELAC	1,1-Dichloroethylene	<1.00	ug/L	1.00		75-35-4	01
NELAC	1,1-Dichloropropene	<1.00	ug/L	1.00		563-58-6	01
NELAC	1,2,3-Trichlorobenzene	<1.01	ug/L	1.01		87-61-6	01
NELAC	1,2,3-Trichloropropane	<2.00	ug/L	2.00		96-18-4	01
NELAC	1,2,4-Trichlorobenzene	<1.00	ug/L	1.00		120-82-1	01
NELAC	1,2,4-Trimethylbenzene	<1.00	ug/L	1.00		95-63-6	01
NELAC	1,2-Dibromo-3-chloropropane	<1.09	ug/L	1.09		96-12-8	01

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Non-Potable Water | Collected by: Client | Eastex Environmental | PO: PO 080223A
Taken: 08/02/2023 08:40:00

EPA 624.1 Prepared: 1076025 08/07/2023 14:02:00 Analyzed 1076025 08/07/2023 14:02:00 PM1

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	1,2-Dibromoethane (EDB)	<1.00	ug/L	1.00		106-93-4	01
NELAC	1,2-Dichloroethane	<1.00	ug/L	1.00		107-06-2	01
NELAC	1,2-Dichloropropane	<1.01	ug/L	1.01		78-87-5	01
NELAC	1,3,5-Trimethylbenzene	<1.00	ug/L	1.00		108-67-8	01
NELAC	1,3-Dichloropropane	<1.00	ug/L	1.00		142-28-9	01
NELAC	2,2-Dichloropropane	<1.07	ug/L	1.07		594-20-7	01
NELAC	2-Chloroethylvinyl ether	<5.00	ug/L	5.00		110-75-8	01
NELAC	2-Chlorotoluene	<1.00	ug/L	1.00		95-49-8	01
NELAC	4-Chlorotoluene	<1.00	ug/L	1.00		106-43-4	01
NELAC	Acetone	15.2	ug/L	2.00		67-64-1	01
NELAC	Benzene	<1.00	ug/L	1.00		71-43-2	01
NELAC	Bromobenzene	<1.06	ug/L	1.06		108-86-1	01
NELAC	Bromochloromethane	<1.02	ug/L	1.02		74-97-5	01
NELAC	Bromodichloromethane	1.97	ug/L	1.00		75-27-4	01
NELAC	Bromoform	<2.00	ug/L	2.00		75-25-2	01
NELAC	Bromomethane (Methyl Bromi	<1.01	ug/L	1.01		74-83-9	01
NELAC	Carbon Tetrachloride	<1.00	ug/L	1.00		56-23-5	01
NELAC	Chlorobenzene	<1.00	ug/L	1.00		108-90-7	01
NELAC	Chloroethane	<5.00	ug/L	5.00		75-00-3	01
NELAC	Chloroform	3.33	ug/L	1.00		67-66-3	01
NELAC	Chloromethane (Methyl Chloride)	<1.00	ug/L	1.00		74-87-3	01
NELAC	cis-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-59-2	01
NELAC	cis-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-01-5	01
NELAC	Dibromochloromethane	<1.00	ug/L	1.00		124-48- 1	01
NELAC	Dibromomethane	<2.00	ug/L	2.00		74-95-3	01
NELAC	Dichlorodifluoromethane	<1.00	ug/L	1.00		75-71-8	01
NELAC	Dichloromethane	<2.00	ug/L	2.00		75-09-2	01
NELAC	Ethylbenzene	<1.00	ug/L	1.00		100-41-4	01
NELAC	Hexachlorobutadiene	<10.0	ug/L	10.0		87-68-3	01
NELAC	Isopropylbenzene (Cumene)	<1.00	ug/L	1.00		98-82-8	01
NELAC	m- and p-Xylene	<1.00	ug/L	1.00		ARC-mpXyl	01
NELAC	m-Dichlorobenzene (1,3-DCB)	<1.00	ug/L	1.00		541-73-1	01
NELAC	Methyl ethyl ketone (Butanone)	<10.0	ug/L	10.0		78-93-3	01
NELAC	Methyl Isobutyl Ketone	<1.00	ug/L	1.00		108-10-1	01
NELAC	Naphthalene	<1.00	ug/L	1.00		91-20-3	01
NELAC	n-Butylbenzene	<1.00	ug/L	1.00		104-51-8	01

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Non-Potable Water | Collected by: Client | Eastex Environmental | Received: 08/03/2023
Taken: 08/02/2023 08:40:00 | PO: PO 080223A

EPA 624.1 Prepared: 1076025 08/07/2023 14:02:00 Analyzed: 1076025 08/07/2023 14:02:00 PM1

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	n-Propylbenzene	<1.00	ug/L	1.00		103-65-1	01
NELAC	o-Dichlorobenzene (1,2-DCB)	<1.00	ug/L	1.00		95-50-1	01
NELAC	o-Xylene	<1.00	ug/L	1.00		95-47-6	01
NELAC	p-Dichlorobenzene (1,4-DCB)	<1.00	ug/L	1.00		106-46-7	01
NELAC	p-Isopropyltoluene	<1.00	ug/L	1.00		99-87-6	01
NELAC	sec-Butylbenzene	<1.00	ug/L	1.00		135-98-8	01
NELAC	Styrene	<1.00	ug/L	1.00		100-42-5	01
NELAC	tert-Butylbenzene	<1.00	ug/L	1.00		98-06-6	01
NELAC	Tetrachloroethylene	<1.00	ug/L	1.00		127-18-4	01
NELAC	Toluene	<1.00	ug/L	1.00		108-88-3	01
NELAC	trans-1,2-Dichloroethylene	<1.00	ug/L	1.00		156-60-5	01
NELAC	trans-1,3-Dichloropropene	<1.00	ug/L	1.00		10061-02-6	01
NELAC	Trichloroethylene	<1.00	ug/L	1.00		79-01-6	01
NELAC	Trichlorofluoromethane	<1.00	ug/L	1.00		75-69-4	01
NELAC	Vinyl chloride	<1.04	ug/L	1.04		75-01-4	01

2219451 EFF PR Hgl BLANK

Non-Potable Water | Collected by: Client | Eastex Environmental | Received: 08/03/2023
Composite Stop 08:40 8/2/23 | Taken: 08/02/2023 08:40:00 | PO: PO 080223A

EPA 245.7 2 SUB Prepared: 08/25/2023 17:16:00 Analyzed: 08/25/2023 17:16:00 SUB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Hg (low level) SUB	0.00688	ug/L	0.005		SATL	

Sample Preparation

2219449 EFF PR

Composite Stop 08:40 8/2/23 08/02/2023 | Received: 08/03/2023
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Printed: 08/30/2023

2219449 EFF PR

Received: 08/03/2023
PO 080223A

Composite Stop 08:40 8/2/23 08/02/2023

		Prepared:		*08/04/2023*	*12:24:14*	*Calculated*		*08/04/2023*	*12:24:14*	*CAL*
	Environmental Fee (per Project)	**Verified**								
	ASTM D7065-11	*Prepared:*	*1076581*	*08/09/2023*	*14:00:00*	*Analyzed*	*1077235*	*08/11/2023*	*14:19:00*	*DWL*
	Nonyl Phenol Expansion	**Entered**								20
	EPA 245.7 2	*Prepared:*		*08/25/2023*	*14:18:00*	*Analyzed*		*08/25/2023*	*14:18:00*	*SUB*
NELAC	**Low Level Mercury Liquid Metals**	**SUB**								
	EPA 604.1	*Prepared:*	*1076333*	*08/09/2023*	*13:30:00*	*Analyzed*	*1076333*	*08/09/2023*	*13:30:00*	*CRS*
	Hexachlorophene Extraction	**5/975**	**ml**							03
	EPA 604.1	*Prepared:*	*1076333*	*08/09/2023*	*13:30:00*	*Analyzed*	*1077875*	*08/17/2023*	*22:52:00*	*BRU*
	Hexachlorophene Expansion	**Entered**						**70-30-4**		18
	EPA 608.3	*Prepared:*	*1075571*	*08/03/2023*	*14:30:00*	*Analyzed*	*1075571*	*08/03/2023*	*14:30:00*	*MCC*
	Liquid-Liquid Extr. W/Hex Ex	**1/994**	**ml**							01
	EPA 608.3	*Prepared:*	*1075571*	*08/03/2023*	*14:30:00*	*Analyzed*	*1076885*	*08/11/2023*	*21:37:00*	*BLF*
NELAC	**Pesticides Method 608.3 full lis**	**Entered**								14
	EPA 608.3	*Prepared:*	*1075572*	*08/03/2023*	*14:30:00*	*Analyzed*	*1075572*	*08/03/2023*	*14:30:00*	*MCC*
	Solvent Extraction	**1/994**	**ml**							01

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24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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EPA 608.3		*Prepared:*	*1075523*	*08/03/2023*	*14:30:00*	*Analyzed*	*1075523*	*08/03/2023*	*14:30:00*	*MCC*
	PCB Liq-Liq Extr. W/Hex Exch.	**1/994**		**ml**						01
EPA 608.3		*Prepared:*	*1075523*	*08/03/2023*	*14:30:00*	*Analyzed*	*1077057*	*08/11/2023*	*21:37:00*	*BLF*
NELAC	**Polychlorinated Biphenyls**	**Entered**								16
EPA 614		*Prepared:*	*1075522*	*08/03/2023*	*14:30:00*	*Analyzed*	*1077754*	*08/10/2023*	*19:16:00*	*BLF*
	Permit Organophos. Pesticides	**Entered**								15
EPA 615		*Prepared:*	*1076361*	*08/09/2023*	*15:00:00*	*Analyzed*	*1076361*	*08/09/2023*	*15:00:00*	*CRS*
NELAC	**Esterification of Sample**	**10/978**		**ml**						02
EPA 615		*Prepared:*	*1076361*	*08/09/2023*	*15:00:00*	*Analyzed*	*1077958*	*08/14/2023*	*19:33:00*	*BLF*
NELAC	**Herbicides by GC**	**Entered**								19
EPA 622		*Prepared:*	*1075572*	*08/03/2023*	*14:30:00*	*Analyzed*	*1077751*	*08/10/2023*	*19:16:00*	*BLF*
NELAC	**For use with EXP !CPP only**	**Entered**								15
EPA 625.1		*Prepared:*	*1076157*	*08/08/2023*	*15:45:00*	*Analyzed*	*1076157*	*08/08/2023*	*15:45:00*	*CRS*
	Liquid-Liquid Extraction, BNA	**1/995**		**ml**						04
EPA 625.1		*Prepared:*	*1076157*	*08/08/2023*	*15:45:00*	*Analyzed*	*1077149*	*08/12/2023*	*20:14:00*	*DWL*
NELAC	**Table D-1/ D-2 Semivolatiles Exp**	**Entered**								17

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EPA 625.1	*Prepared:*	*1076581*	*08/09/2023*	*14:00:00*	*Analyzed*	*1076581*	*08/09/2023*	*14:00:00*	*CRS*
Nonylphenol Liq-Liq Extract	1/992	ml							11
EPA 632	*Prepared:*	*1075570*	*08/04/2023*	*14:30:00*	*Analyzed*	*1075570*	*08/04/2023*	*14:30:00*	*MCC*
Liquid-Liquid Extr. W/Hex Ex	1/994	ml							01
EPA 632	*Prepared:*	*1075570*	*08/04/2023*	*14:30:00*	*Analyzed*	*1077062*	*08/09/2023*	*21:16:00*	*BRU*
NELAC Carbaryl/Diuron	Entered								13

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EPA 624.1	*Prepared:*	*1075578*	*08/03/2023*	*20:30:00*	*Analyzed*	*1075578*	*08/03/2023*	*20:30:00*	*PMI*
NELAC Acrolein/Acrylonitrile Exp.	Entered								04
EPA 624.1	*Prepared:*	*1076025*	*08/07/2023*	*14:02:00*	*Analyzed*	*1076025*	*08/07/2023*	*14:02:00*	*PMI*
NELAC Volatiles (WW)	Entered								01

2219451 EFF PR Hgl BLANK

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Mark Bourgeois
PO Box 1089
35 Eastex Lane
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EPA 245.7.2	*Prepared:*	*08/25/2023*	*17:16:00*	*Analyzed*	*08/25/2023*	*17:16:00*	*SUB*

NELAC **Low Level Mercury Liquid Metals** **SUB**

Qualifiers:

D - Duplicate RPD was higher than expected
X - Standard reads higher than desired.
M - High reporting level resulting from matrix interference.
S - Standard reads lower than desired

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery

Bill Peery, MS, VP Technical Services

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Mark Bourgeois
PO Box 1089
35 Eastex Lane
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Analytical Set 1075578

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1075578	174	18	0.7	0 - 2.00	125293782
BFB Mass 174	1075578	95.0	2568	68.5	50.0 - 100	125293782
BFB Mass 175	1075578	174	182	7.1	5.00 - 9.00	125293782
BFB Mass 176	1075578	174	2452	95.5	95.0 - 101	125293782
BFB Mass 177	1075578	176	152	6.2	5.00 - 9.00	125293782
BFB Mass 50	1075578	95.0	695	18.6	15.0 - 40.0	125293782
BFB Mass 75	1075578	95.0	1892	50.5	30.0 - 60.0	125293782
BFB Mass 95	1075578	95.0	3746	100.0	100 - 100	125293782
BFB Mass 96	1075578	95.0	244	6.5	5.00 - 9.00	125293782

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Acrolein	1075578	ND	3.14	4.00	ug/L	125293786
Acrylonitrile	1075578	ND	1.43	2.00	ug/L	125293786

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1075578	LCS	129900	123200	61580	184700	125293783	1075578
1,4-DichlorobenzeneD4 (ISTD)	1075578	LCS Dup	128300	123200	61580	184700	125293784	1075578
1,4-DichlorobenzeneD4 (ISTD)	1075578	Blank	118200	123200	61580	184700	125293786	1075578
ChlorobenzeneD5 (ISTD)	1075578	LCS	264800	259400	129700	389200	125293783	1075578
ChlorobenzeneD5 (ISTD)	1075578	LCS Dup	269900	259400	129700	389200	125293784	1075578
ChlorobenzeneD5 (ISTD)	1075578	Blank	256700	259400	129700	389200	125293786	1075578
1,4-DichlorobenzeneD4 (ISTD)	2216990	MS	125000	123200	61580	184700	125293788	1075578
1,4-DichlorobenzeneD4 (ISTD)	2216990	MSD	117500	123200	61580	184700	125293789	1075578
ChlorobenzeneD5 (ISTD)	2216990	MS	263400	259400	129700	389200	125293788	1075578
ChlorobenzeneD5 (ISTD)	2216990	MSD	245100	259400	129700	389200	125293789	1075578
1,4-DichlorobenzeneD4 (ISTD)	2219450	Unknown	109600	123200	61580	184700	125293795	1075578
ChlorobenzeneD5 (ISTD)	2219450	Unknown	244000	259400	129700	389200	125293795	1075578

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1075578	LCS	11.10	11.10	11.04	11.16	125293783	1075578
1,4-DichlorobenzeneD4 (ISTD)	1075578	LCS Dup	11.10	11.10	11.04	11.16	125293784	1075578
1,4-DichlorobenzeneD4 (ISTD)	1075578	Blank	11.10	11.10	11.04	11.16	125293786	1075578
ChlorobenzeneD5 (ISTD)	1075578	LCS	8.741	8.742	8.682	8.802	125293783	1075578
ChlorobenzeneD5 (ISTD)	1075578	LCS Dup	8.742	8.742	8.682	8.802	125293784	1075578
ChlorobenzeneD5 (ISTD)	1075578	Blank	8.742	8.742	8.682	8.802	125293786	1075578
1,4-DichlorobenzeneD4 (ISTD)	2216990	MS	11.10	11.10	11.04	11.16	125293788	1075578
1,4-DichlorobenzeneD4 (ISTD)	2216990	MSD	11.10	11.10	11.04	11.16	125293789	1075578
ChlorobenzeneD5 (ISTD)	2216990	MS	8.741	8.742	8.682	8.802	125293788	1075578
ChlorobenzeneD5 (ISTD)	2216990	MSD	8.742	8.742	8.682	8.802	125293789	1075578
1,4-DichlorobenzeneD4 (ISTD)	2219450	Unknown	11.10	11.10	11.04	11.16	125293795	1075578
ChlorobenzeneD5 (ISTD)	2219450	Unknown	8.741	8.742	8.682	8.802	125293795	1075578

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Acrolein	1075578	29.3	26.0	40.0	60.0 - 140	73.2	65.0	ug/L	11.9	30.0
Acrylonitrile	1075578	35.4	32.8	40.0	60.0 - 140	88.5	82.0	ug/L	7.62	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Acrolein	2216990	145	180	ND	400	40.0 - 160	36.2 *	45.0	ug/L	21.5	60.0
Acrylonitrile	2216990	362	399	ND	400	40.0 - 160	90.5	99.8	ug/L	9.72	60.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1075578	LCS	20.0	20.0	ug/L	100	70.0 - 130	125293783
1,2-DCA-d4 (SURR)	1075578	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	125293784
1,2-DCA-d4 (SURR)	1075578	Blank	19.6	20.0	ug/L	98.0	70.0 - 130	125293786
Bromofluorobenzene (SURR)	1075578	LCS	21.3	20.0	ug/L	106	70.0 - 130	125293783
Bromofluorobenzene (SURR)	1075578	LCS Dup	21.8	20.0	ug/L	109	70.0 - 130	125293784
Bromofluorobenzene (SURR)	1075578	Blank	21.4	20.0	ug/L	107	70.0 - 130	125293786
Dibromofluoromethane (SURR)	1075578	LCS	20.1	20.0	ug/L	100	70.0 - 130	125293783
Dibromofluoromethane (SURR)	1075578	LCS Dup	20.0	20.0	ug/L	100	70.0 - 130	125293784
Dibromofluoromethane (SURR)	1075578	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	125293786
TolueneD8 (SURR)	1075578	LCS	20.2	20.0	ug/L	101	70.0 - 130	125293783
TolueneD8 (SURR)	1075578	LCS Dup	20.4	20.0	ug/L	102	70.0 - 130	125293784
ToluneneD8 (SURR)	1075578	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	125293786
1,2-DCA-d4 (SURR)	2216990	MS	20.7	20.0	ug/L	104	70.0 - 130	125293788
1,2-DCA-d4 (SURR)	2216990	MSD	20.4	20.0	ug/L	102	70.0 - 130	125293789
Bromofluorobenzene (SURR)	2216990	MS	21.6	20.0	ug/L	108	70.0 - 130	125293788
Bromofluorobenzene (SURR)	2216990	MSD	21.9	20.0	ug/L	110	70.0 - 130	125293789
Dibromofluoromethane (SURR)	2216990	MS	19.9	20.0	ug/L	99.5	70.0 - 130	125293788
Dibromofluoromethane (SURR)	2216990	MSD	20.1	20.0	ug/L	100	70.0 - 130	125293789
ToluneneD8 (SURR)	2216990	MS	20.1	20.0	ug/L	100	70.0 - 130	125293788
ToluneneD8 (SURR)	2216990	MSD	20.1	20.0	ug/L	100	70.0 - 130	125293789
1,2-DCA-d4 (SURR)	2219450	Unknown	19.9	20.0	ug/L	99.5	70.0 - 130	125293795
Bromofluorobenzene (SURR)	2219450	Unknown	21.3	20.0	ug/L	106	70.0 - 130	125293795
Dibromofluoromethane (SURR)	2219450	Unknown	20.1	20.0	ug/L	100	70.0 - 130	125293795
ToluneneD8 (SURR)	2219450	Unknown	19.8	20.0	ug/L	99.0	70.0 - 130	125293795

Analytical Set 1076025

EPA 624.1

BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 173	1076025	174	25	0.7	0 - 2.00	125304681
BFB Mass 174	1076025	95.0	3383	68.7	50.0 - 100	125304681
BFB Mass 175	1076025	174	231	6.8	5.00 - 9.00	125304681
BFB Mass 176	1076025	174	3218	95.1	95.0 - 101	125304681
BFB Mass 177	1076025	176	196	6.1	5.00 - 9.00	125304681
BFB Mass 50	1076025	95.0	898	18.2	15.0 - 40.0	125304681
BFB Mass 75	1076025	95.0	2484	50.4	30.0 - 60.0	125304681

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BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 95	1076025	95.0	4927	100.0	100 - 100	125304681
BFB Mass 96	1076025	95.0	335	6.8	5.00 - 9.00	125304681

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
(MTBE) tert-Butylmethylether	1076025	ND	1.08	2.00	ug/L	125304685
1,1,1-Trichloroethane	1076025	ND	0.914	1.00	ug/L	125304685
1,1,2-Trichloroethane	1076025	ND	1.27	2.00	ug/L	125304685
1,1-Dichloroethane	1076025	ND	0.915	1.00	ug/L	125304685
1,1-Dichloroethylene	1076025	ND	0.812	1.00	ug/L	125304685
1,2,3-Trichloropropane	1076025	ND	1.54	2.00	ug/L	125304685
1,2-Dibromoethane (EDB)	1076025	ND	1.00	1.00	ug/L	125304685
1,2-Dichloroethane	1076025	ND	0.856	1.00	ug/L	125304685
1,2-Dichloropropane	1076025	ND	1.01	1.01	ug/L	125304685
Acetone	1076025	ND	1.12	2.00	ug/L	125304685
Benzene	1076025	ND	0.813	1.00	ug/L	125304685
Bromodichloromethane	1076025	ND	0.873	1.00	ug/L	125304685
Bromoform	1076025	ND	1.28	2.00	ug/L	125304685
Carbon Tetrachloride	1076025	ND	0.825	1.00	ug/L	125304685
Chlorobenzene	1076025	ND	0.945	1.00	ug/L	125304685
Chloroethane	1076025	ND	3.24	5.00	ug/L	125304685
Chloroform	1076025	ND	0.945	1.00	ug/L	125304685
Chloromethane (Methyl Chloride)	1076025	ND	0.968	1.00	ug/L	125304685
cis-1,3-Dichloropropene	1076025	ND	0.615	1.00	ug/L	125304685
Dibromochloromethane	1076025	ND	0.995	1.00	ug/L	125304685
Dichloromethane	1076025	ND	1.29	2.00	ug/L	125304685
Ethylbenzene	1076025	ND	0.545	1.00	ug/L	125304685
m- and p-Xylene	1076025	ND	0.689	1.00	ug/L	125304685
m-Dichlorobenzene (1,3-DCB)	1076025	ND	0.860	1.00	ug/L	125304685
Methyl ethyl ketone (Butanone)	1076025	ND	6.54	10.0	ug/L	125304685
o-Dichlorobenzene (1,2-DCB)	1076025	ND	0.960	1.00	ug/L	125304685
o-Xylene	1076025	ND	0.470	1.00	ug/L	125304685
p-Dichlorobenzene (1,4-DCB)	1076025	ND	0.865	1.00	ug/L	125304685
Styrene	1076025	ND	0.529	1.00	ug/L	125304685
Tetrachloroethylene	1076025	ND	0.921	1.00	ug/L	125304685
Toluene	1076025	ND	0.656	1.00	ug/L	125304685
trans-1,2-Dichloroethylene	1076025	ND	0.977	1.00	ug/L	125304685
trans-1,3-Dichloropropene	1076025	ND	0.695	1.00	ug/L	125304685
Trichloroethylene	1076025	ND	0.789	1.00	ug/L	125304685
Vinyl chloride	1076025	ND	1.04	1.04	ug/L	125304685

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1076025	LCS	165200	136200	68090	204300	125304683	1076025
1,4-DichlorobenzeneD4 (ISTD)	1076025	LCS Dup	136000	136200	68090	204300	125304684	1076025

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IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1076025	Blank	129600	136200	68090	204300	125304685	1076025
ChlorobenzeneD5 (ISTD)	1076025	LCS	290500	273000	136500	409500	125304683	1076025
ChlorobenzeneD5 (ISTD)	1076025	LCS Dup	280600	273000	136500	409500	125304684	1076025
ChlorobenzeneD5 (ISTD)	1076025	Blank	269500	273000	136500	409500	125304685	1076025
1,4-DichlorobenzeneD4 (ISTD)	2219450	Unknown	145400	136200	68090	204300	125304686	1076025
ChlorobenzeneD5 (ISTD)	2219450	Unknown	300400	273000	136500	409500	125304686	1076025
1,4-DichlorobenzeneD4 (ISTD)	2220030	MS	147400	136200	68090	204300	125304694	1076025
1,4-DichlorobenzeneD4 (ISTD)	2220030	MSD	150800	136200	68090	204300	125304695	1076025
ChlorobenzeneD5 (ISTD)	2220030	MS	312000	273000	136500	409500	125304694	1076025
ChlorobenzeneD5 (ISTD)	2220030	MSD	319800	273000	136500	409500	125304695	1076025

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1076025	LCS	11.10	11.10	11.04	11.16	125304683	1076025
1,4-DichlorobenzeneD4 (ISTD)	1076025	LCS Dup	11.10	11.10	11.04	11.16	125304684	1076025
1,4-DichlorobenzeneD4 (ISTD)	1076025	Blank	11.10	11.10	11.04	11.16	125304685	1076025
ChlorobenzeneD5 (ISTD)	1076025	LCS	8.741	8.742	8.682	8.802	125304683	1076025
ChlorobenzeneD5 (ISTD)	1076025	LCS Dup	8.742	8.742	8.682	8.802	125304684	1076025
ChlorobenzeneD5 (ISTD)	1076025	Blank	8.741	8.742	8.682	8.802	125304685	1076025
1,4-DichlorobenzeneD4 (ISTD)	2219450	Unknown	11.10	11.10	11.04	11.16	125304686	1076025
ChlorobenzeneD5 (ISTD)	2219450	Unknown	8.742	8.742	8.682	8.802	125304686	1076025
1,4-DichlorobenzeneD4 (ISTD)	2220030	MS	11.10	11.10	11.04	11.16	125304694	1076025
1,4-DichlorobenzeneD4 (ISTD)	2220030	MSD	11.10	11.10	11.04	11.16	125304695	1076025
ChlorobenzeneD5 (ISTD)	2220030	MS	8.741	8.742	8.682	8.802	125304694	1076025
ChlorobenzeneD5 (ISTD)	2220030	MSD	8.742	8.742	8.682	8.802	125304695	1076025

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
(MTBE) tert-Butylmethylether	1076025	16.6	16.3	20.0	70.8 - 125	83.0	81.5	ug/L	1.82	30.0
1,1,1,2-Tetrachloroethane	1076025	17.6	21.6	20.0	79.3 - 126	88.0	108	ug/L	20.4	30.0
1,1,1-Trichloroethane	1076025	17.6	18.7	20.0	70.0 - 130	88.0	93.5	ug/L	6.06	21.0
1,1,2,2-Tetrachloroethane	1076025	17.7	20.4	20.0	60.0 - 140	88.5	102	ug/L	14.2	36.0
1,1,2-Trichloroethane	1076025	18.2	18.9	20.0	70.0 - 130	91.0	94.5	ug/L	3.77	27.0
1,1-Dichloroethane	1076025	18.3	18.3	20.0	70.0 - 130	91.5	91.5	ug/L	0	24.0
1,1-Dichloroethylene	1076025	17.0	16.1	20.0	50.0 - 150	85.0	80.5	ug/L	5.44	40.0
1,1-Dichloropropene	1076025	17.3	18.3	20.0	79.7 - 127	86.5	91.5	ug/L	5.62	30.0
1,2,3-Trichlorobenzene	1076025	20.9	23.8	20.0	75.4 - 129	104	119	ug/L	13.5	30.0
1,2,3-Trichloropropane	1076025	17.9	20.4	20.0	78.4 - 127	89.5	102	ug/L	13.1	30.0
1,2,4-Trichlorobenzene	1076025	21.9	23.7	20.0	71.9 - 124	110	118	ug/L	7.02	30.0
1,2,4-Trimethylbenzene	1076025	20.5	21.4	20.0	82.7 - 120	102	107	ug/L	4.78	30.0
1,2-Dibromo-3-chloropropane	1076025	22.3	23.2	20.0	64.4 - 135	112	116	ug/L	3.51	30.0
1,2-Dibromoethane (EDB)	1076025	19.0	19.8	20.0	78.4 - 122	95.0	99.0	ug/L	4.12	30.0
1,2-Dichloroethane	1076025	17.4	18.3	20.0	70.0 - 130	87.0	91.5	ug/L	5.04	29.0
1,2-Dichloropropane	1076025	17.1	17.7	20.0	35.0 - 165	85.5	88.5	ug/L	3.45	69.0
1,3,5-Trimethylbenzene	1076025	18.8	20.6	20.0	83.2 - 123	94.0	103	ug/L	9.14	30.0

QUALITY CONTROL

EEL3-G

Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Project 1068296

Printed 08/30/2023

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,3-Dichloropropane	1076025	17.3	18.5	20.0	78.5 - 114	86.5	92.5	ug/L	6.70	30.0
2,2-Dichloropropane	1076025	18.4	19.2	20.0	77.4 - 138	92.0	96.0	ug/L	4.26	30.0
2-Chlorotoluene	1076025	18.8	21.3	20.0	81.2 - 125	94.0	106	ug/L	12.0	30.0
4-Chlorotoluene	1076025	18.8	21.4	20.0	78.2 - 119	94.0	107	ug/L	12.9	30.0
Acetone	1076025	16.7	17.0	20.0	43.0 - 170	83.5	85.0	ug/L	1.78	30.0
Benzene	1076025	17.8	18.8	20.0	65.0 - 135	89.0	94.0	ug/L	5.46	33.0
Bromobenzene	1076025	19.2	22.4	20.0	79.8 - 121	96.0	112	ug/L	15.4	30.0
Bromochloromethane	1076025	18.0	18.5	20.0	81.8 - 124	90.0	92.5	ug/L	2.74	30.0
Bromodichloromethane	1076025	17.4	18.7	20.0	65.0 - 135	87.0	93.5	ug/L	7.20	34.0
Bromoform	1076025	17.3	20.9	20.0	70.0 - 130	86.5	104	ug/L	18.4	25.0
Bromomethane (Methyl Bromi	1076025	16.8	16.7	20.0	15.0 - 185	84.0	83.5	ug/L	0.597	90.0
Carbon Tetrachloride	1076025	21.5	22.9	20.0	70.0 - 130	108	114	ug/L	5.41	26.0
Chlorobenzene	1076025	18.8	19.6	20.0	65.0 - 135	94.0	98.0	ug/L	4.17	29.0
Chloroethane	1076025	18.6	18.4	20.0	40.0 - 160	93.0	92.0	ug/L	1.08	47.0
Chloroform	1076025	17.6	18.1	20.0	70.0 - 135	88.0	90.5	ug/L	2.80	32.0
Chloromethane (Methyl Chloride)	1076025	22.2	20.4	20.0	0.100 - 205	111	102	ug/L	8.45	472
cis-1,2-Dichloroethylene	1076025	17.7	18.6	20.0	78.3 - 119	88.5	93.0	ug/L	4.96	30.0
cis-1,3-Dichloropropene	1076025	18.8	20.0	20.0	25.0 - 175	94.0	100	ug/L	6.19	79.0
Dibromochloromethane	1076025	19.2	20.1	20.0	70.0 - 135	96.0	100	ug/L	4.08	30.0
Dibromomethane	1076025	16.9	17.8	20.0	79.7 - 123	84.5	89.0	ug/L	5.19	30.0
Dichlorodifluoromethane	1076025	20.3	20.9	20.0	18.5 - 149	102	104	ug/L	1.94	30.0
Dichloromethane	1076025	16.9	17.4	20.0	60.0 - 140	84.5	87.0	ug/L	2.92	192
Ethylbenzene	1076025	18.9	19.6	20.0	60.0 - 140	94.5	98.0	ug/L	3.64	34.0
Hexachlorobutadiene	1076025	18.7	21.2	20.0	79.5 - 130	93.5	106	ug/L	12.5	30.0
Isopropylbenzene (Cumene)	1076025	19.0	21.9	20.0	75.6 - 117	95.0	110	ug/L	14.6	30.0
m- and p-Xylene	1076025	37.1	38.9	40.0	77.3 - 117	92.8	97.2	ug/L	4.63	30.0
m-Dichlorobenzene (1,3-DCB)	1076025	20.7	22.0	20.0	70.0 - 130	104	110	ug/L	5.61	24.0
Methyl ethyl ketone (Butanone)	1076025	19.6	20.0	20.0	62.3 - 136	98.0	100	ug/L	2.02	30.0
Methyl Isobutyl Ketone	1076025	22.4	23.7	20.0	62.2 - 129	112	118	ug/L	5.22	30.0
Naphthalene	1076025	21.9	23.9	20.0	69.6 - 133	110	120	ug/L	8.70	30.0
n-Butylbenzene	1076025	21.1	23.5	20.0	83.8 - 125	106	118	ug/L	10.7	30.0
n-Propylbenzene	1076025	18.5	21.5	20.0	81.8 - 127	92.5	108	ug/L	15.5	30.0
o-Dichlorobenzene (1,2-DCB)	1076025	20.8	22.3	20.0	65.0 - 135	104	112	ug/L	7.41	31.0
o-Xylene	1076025	18.8	19.5	20.0	76.8 - 116	94.0	97.5	ug/L	3.66	30.0
p-Dichlorobenzene (1,4-DCB)	1076025	20.2	21.2	20.0	65.0 - 135	101	106	ug/L	4.83	31.0
p-Isopropyltoluene	1076025	21.1	22.3	20.0	82.6 - 121	106	112	ug/L	5.50	30.0
sec-Butylbenzene	1076025	21.0	22.0	20.0	80.1 - 120	105	110	ug/L	4.65	30.0
Styrene	1076025	20.3	20.9	20.0	77.4 - 111	102	104	ug/L	1.94	30.0
tert-Butylbenzene	1076025	21.1	21.8	20.0	81.2 - 122	106	109	ug/L	2.79	30.0
Tetrachloroethylene	1076025	18.5	19.3	20.0	70.0 - 130	92.5	96.5	ug/L	4.23	23.0
Toluene	1076025	18.0	19.0	20.0	70.0 - 130	90.0	95.0	ug/L	5.41	22.0
trans-1,2-Dichloroethylene	1076025	16.1	15.3	20.0	70.0 - 130	80.5	76.5	ug/L	5.10	27.0
trans-1,3-Dichloropropene	1076025	18.1	18.9	20.0	50.0 - 150	90.5	94.5	ug/L	4.32	52.0
Trichloroethylene	1076025	17.7	18.7	20.0	65.0 - 135	88.5	93.5	ug/L	5.49	29.0
Trichlorofluoromethane	1076025	19.6	20.2	20.0	50.0 - 150	98.0	101	ug/L	3.02	50.0

QUALITY CONTROL

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Vinyl chloride	1076025	9.23	9.66	20.0	5.00 - 195	46.2	48.3	ug/L	4.44	100

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
(MTBE) tert-Butylmethylether	2220030	136	135	ND	200	28.8 - 124	68.0	67.5	ug/L	0.738	30.0
1,1,1,2-Tetrachloroethane	2220030	199	197	ND	200	29.6 - 126	99.5	98.5	ug/L	1.01	30.0
1,1,1-Trichloroethane	2220030	160	153	ND	200	52.0 - 162	80.0	76.5	ug/L	4.47	36.0
1,1,2,2-Tetrachloroethane	2220030	179	182	ND	200	46.0 - 157	89.5	91.0	ug/L	1.66	61.0
1,1,2-Trichloroethane	2220030	168	167	ND	200	52.0 - 150	84.0	83.5	ug/L	0.597	45.0
1,1-Dichloroethane	2220030	140	143	ND	200	59.0 - 155	70.0	71.5	ug/L	2.12	40.0
1,1-Dichloroethylene	2220030	143	136	ND	200	0.100 - 234	71.5	68.0	ug/L	5.02	32.0
1,1-Dichloropropene	2220030	157	154	ND	200	0.100 - 155	78.5	77.0	ug/L	1.93	30.0
1,2,3-Trichlorobenzene	2220030	144	152	ND	200	14.6 - 140	72.0	76.0	ug/L	5.41	30.0
1,2,3-Trichloropropane	2220030	189	185	ND	200	46.3 - 134	94.5	92.5	ug/L	2.14	30.0
1,2,4-Trichlorobenzene	2220030	153	158	ND	200	17.9 - 129	76.5	79.0	ug/L	3.22	30.0
1,2,4-Trimethylbenzene	2220030	162	160	ND	200	10.9 - 137	81.0	80.0	ug/L	1.24	30.0
1,2-Dibromo-3-chloropropane	2220030	193	193	ND	200	25.0 - 147	96.5	96.5	ug/L	0	30.0
1,2-Dibromoethane (EDB)	2220030	179	178	ND	200	49.3 - 120	89.5	89.0	ug/L	0.560	30.0
1,2-Dichloroethane	2220030	147	146	ND	200	49.0 - 155	73.5	73.0	ug/L	0.683	49.0
1,2-Dichloropropane	2220030	161	154	ND	200	0.100 - 210	80.5	77.0	ug/L	4.44	55.0
1,3,5-Trimethylbenzene	2220030	152	150	ND	200	0.100 - 160	76.0	75.0	ug/L	1.32	30.0
1,3-Dichloropropane	2220030	159	157	ND	200	38.7 - 125	79.5	78.5	ug/L	1.27	30.0
2,2-Dichloropropane	2220030	148	146	ND	200	0.100 - 153	74.0	73.0	ug/L	1.36	30.0
2-Chlorotoluene	2220030	170	171	ND	200	13.6 - 135	85.0	85.5	ug/L	0.587	30.0
4-Chlorotoluene	2220030	173	168	ND	200	16.4 - 133	86.5	84.0	ug/L	2.93	30.0
Acetone	2220030	1100	1120	ND	200	0.100 - 278	550 *	560 *	ug/L	1.80	30.0
Benzene	2220030	172	163	ND	200	37.0 - 151	86.0	81.5	ug/L	5.37	61.0
Bromobenzene	2220030	211	203	ND	200	34.6 - 127	106	102	ug/L	3.86	30.0
Bromochloromethane	2220030	177	173	ND	200	36.3 - 133	88.5	86.5	ug/L	2.29	30.0
Bromodichloromethane	2220030	160	155	ND	200	35.0 - 155	80.0	77.5	ug/L	3.17	56.0
Bromoform	2220030	190	190	ND	200	45.0 - 169	95.0	95.0	ug/L	0	42.0
Bromomethane (Methyl Bromi	2220030	184	170	ND	200	0.100 - 242	92.0	85.0	ug/L	7.91	61.0
Carbon Tetrachloride	2220030	179	171	ND	200	70.0 - 140	89.5	85.5	ug/L	4.57	41.0
Chlorobenzene	2220030	181	177	ND	200	37.0 - 160	90.5	88.5	ug/L	2.23	53.0
Chloroethane	2220030	137	129	ND	200	14.0 - 230	68.5	64.5	ug/L	6.02	78.0
Chloroform	2220030	194	191	ND	200	51.0 - 138	97.0	95.5	ug/L	1.56	54.0
Chloromethane (Methyl Chloride)	2220030	152	144	ND	200	0.100 - 273	76.0	72.0	ug/L	5.41	60.0
cis-1,2-Dichloroethylene	2220030	173	168	ND	200	9.47 - 116	86.5	84.0	ug/L	2.93	30.0
cis-1,3-Dichloropropene	2220030	172	166	ND	200	0.100 - 227	86.0	83.0	ug/L	3.55	58.0
Dibromochloromethane	2220030	183	183	ND	200	53.0 - 149	91.5	91.5	ug/L	0	50.0
Dibromomethane	2220030	168	150	ND	200	41.9 - 124	84.0	75.0	ug/L	11.3	30.0
Dichlorodifluoromethane	2220030	160	153	ND	200	53.0 - 149	80.0	76.5	ug/L	4.47	50.0
Dichloromethane	2220030	146	140	ND	200	0.100 - 221	73.0	70.0	ug/L	4.20	28.0
Ethylbenzene	2220030	166	160	ND	200	37.0 - 162	83.0	80.0	ug/L	3.68	63.0
Hexachlorobutadiene	2220030	134	140	ND	200	0.100 - 153	67.0	70.0	ug/L	4.38	30.0

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MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Isopropylbenzene (Cumene)	2220030	172	167	ND	200	0.100 - 139	86.0	83.5	ug/L	2.95	30.0
m- and p-Xylene	2220030	334	321	ND	400	3.93 - 113	83.5	80.2	ug/L	3.97	30.0
m-Dichlorobenzene (1,3-DCB)	2220030	177	175	ND	200	59.0 - 156	88.5	87.5	ug/L	1.14	43.0
Methyl ethyl ketone (Butanone)	2220030	224	222	ND	200	0.100 - 211	112	111	ug/L	0.897	30.0
Methyl Isobutyl Ketone	2220030	217	219	ND	200	22.1 - 155	108	110	ug/L	0.917	30.0
Naphthalene	2220030	189	200	ND	200	7.49 - 156	94.5	100	ug/L	5.66	30.0
n-Butylbenzene	2220030	142	148	ND	200	0.100 - 152	71.0	74.0	ug/L	4.14	30.0
n-Propylbenzene	2220030	155	153	ND	200	0.100 - 145	77.5	76.5	ug/L	1.30	30.0
o-Dichlorobenzene (1,2-DCB)	2220030	192	189	ND	200	18.0 - 190	96.0	94.5	ug/L	1.57	57.0
o-Xylene	2220030	171	169	ND	200	15.9 - 112	85.5	84.5	ug/L	1.18	30.0
p-Dichlorobenzene (1,4-DCB)	2220030	176	172	ND	200	18.0 - 190	88.0	86.0	ug/L	2.30	57.0
p-Isopropyltoluene	2220030	146	152	ND	200	0.100 - 143	73.0	76.0	ug/L	4.03	30.0
sec-Butylbenzene	2220030	147	150	ND	200	0.100 - 147	73.5	75.0	ug/L	2.02	30.0
Styrene	2220030	194	187	ND	200	25.1 - 117	97.0	93.5	ug/L	3.67	30.0
tert-Butylbenzene	2220030	158	159	ND	200	0.100 - 145	79.0	79.5	ug/L	0.631	30.0
Tetrachloroethylene	2220030	161	157	ND	200	64.0 - 148	80.5	78.5	ug/L	2.52	39.0
Toluene	2220030	174	167	ND	200	47.0 - 150	87.0	83.5	ug/L	4.11	41.0
trans-1,2-Dichloroethylene	2220030	132	124	ND	200	54.0 - 156	66.0	62.0	ug/L	6.25	45.0
trans-1,3-Dichloropropene	2220030	157	154	ND	200	17.0 - 183	78.5	77.0	ug/L	1.93	86.0
Trichloroethylene	2220030	162	156	ND	200	70.0 - 157	81.0	78.0	ug/L	3.77	48.0
Trichlorofluoromethane	2220030	159	148	ND	200	17.0 - 181	79.5	74.0	ug/L	7.17	84.0
Vinyl chloride	2220030	115	109	ND	200	0.100 - 251	57.5	54.5	ug/L	5.36	66.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
1,2-DCA-d4 (SURR)	1076025	LCS	19.6	20.0	ug/L	98.0	70.0 - 130	125304683
1,2-DCA-d4 (SURR)	1076025	LCS Dup	19.8	20.0	ug/L	99.0	70.0 - 130	125304684
1,2-DCA-d4 (SURR)	1076025	Blank	19.7	20.0	ug/L	98.5	70.0 - 130	125304685
Bromofluorobenzene (SURR)	1076025	LCS	20.0	20.0	ug/L	100	70.0 - 130	125304683
Bromofluorobenzene (SURR)	1076025	LCS Dup	21.2	20.0	ug/L	106	70.0 - 130	125304684
Bromofluorobenzene (SURR)	1076025	Blank	21.2	20.0	ug/L	106	70.0 - 130	125304685
Dibromofluoromethane (SURR)	1076025	LCS	19.7	20.0	ug/L	98.5	70.0 - 130	125304683
Dibromofluoromethane (SURR)	1076025	LCS Dup	20.6	20.0	ug/L	103	70.0 - 130	125304684
Dibromofluoromethane (SURR)	1076025	Blank	19.8	20.0	ug/L	99.0	70.0 - 130	125304685
ToluneneD8 (SURR)	1076025	LCS	19.7	20.0	ug/L	98.5	70.0 - 130	125304683
ToluneneD8 (SURR)	1076025	LCS Dup	20.1	20.0	ug/L	100	70.0 - 130	125304684
ToluneneD8 (SURR)	1076025	Blank	19.9	20.0	ug/L	99.5	70.0 - 130	125304685
1,2-DCA-d4 (SURR)	2219450	Unknown	17.4	20.0	ug/L	87.0	70.0 - 130	125304686
Bromofluorobenzene (SURR)	2219450	Unknown	20.0	20.0	ug/L	100	70.0 - 130	125304686
Dibromofluoromethane (SURR)	2219450	Unknown	19.3	20.0	ug/L	96.5	70.0 - 130	125304686
ToluneneD8 (SURR)	2219450	Unknown	19.7	20.0	ug/L	98.5	70.0 - 130	125304686
1,2-DCA-d4 (SURR)	2220030	MS	16.8	20.0	ug/L	84.0	70.0 - 130	125304694
1,2-DCA-d4 (SURR)	2220030	MSD	17.0	20.0	ug/L	85.0	70.0 - 130	125304695
Bromofluorobenzene (SURR)	2220030	MS	21.3	20.0	ug/L	106	70.0 - 130	125304694
Bromofluorobenzene (SURR)	2220030	MSD	21.4	20.0	ug/L	107	70.0 - 130	125304695

QUALITY CONTROL

EEL3-G

Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Project 1068296

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Dibromofluoromethane (SURR)	2220030	MS	19.5	20.0	ug/L	97.5	70.0 - 130	125304694
Dibromofluoromethane (SURR)	2220030	MSD	19.2	20.0	ug/L	96.0	70.0 - 130	125304695
TolueneD8 (SURR)	2220030	MS	20.0	20.0	ug/L	100	70.0 - 130	125304694
TolueneD8 (SURR)	2220030	MSD	19.6	20.0	ug/L	98.0	70.0 - 130	125304695

Analytical Set 1076885

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
4,4-DDD	1075571	ND	0.731	1.00	ug/L	125327375
4,4-DDE	1075571	ND	0.361	1.00	ug/L	125327375
4,4-DDT	1075571	ND	0.862	1.00	ug/L	125327375
Aldrin	1075571	ND	0.260	1.00	ug/L	125327375
Alpha-BHC(hexachlorocyclohexane)	1075571	ND	0.280	1.00	ug/L	125327375
alpha-Chlordane	1075571	ND	0.615	1.00	ug/L	125327375
Beta-BHC(hexachlorocyclohexane)	1075571	ND	0.579	1.00	ug/L	125327375
Delta-BHC(hexachlorocyclohexane)	1075571	ND	0.898	1.00	ug/L	125327375
Dieldrin	1075571	ND	0.162	1.00	ug/L	125327375
Endosulfan I (alpha)	1075571	ND	0.679	1.00	ug/L	125327375
Endosulfan II (beta)	1075571	ND	0.356	1.00	ug/L	125327375
Endosulfan sulfate	1075571	ND	0.588	1.00	ug/L	125327375
Endrin	1075571	ND	0.538	1.00	ug/L	125327375
Endrin aldehyde	1075571	ND	0.699	1.00	ug/L	125327375
Gamma-BHC(Lindane)	1075571	ND	0.385	1.00	ug/L	125327375
gamma-Chlordane	1075571	ND	0.415	1.00	ug/L	125327375
Heptachlor	1075571	ND	0.207	1.00	ug/L	125327375
Heptachlor epoxide	1075571	ND	0.660	1.00	ug/L	125327375
Kelthane (Dicofol)	1075571	ND	0.0208	0.100	ug/L	125327375
Methoxychlor	1075571	ND	0.898	1.00	ug/L	125327375
Mirex	1075571	ND	0.00889	0.015	ug/L	125327375
Toxaphene	1075571	ND	0.169	1.00	ug/L	125327375

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
4,4-DDD	54.0	50.0	ug/L	108	75.0 - 125	125327363
4,4-DDD	58.6	50.0	ug/L	117	75.0 - 125	125327374
4,4-DDD	56.0	50.0	ug/L	112	75.0 - 125	125327382
4,4-DDE	52.3	50.0	ug/L	105	75.0 - 125	125327363
4,4-DDE	53.0	50.0	ug/L	106	75.0 - 125	125327374
4,4-DDE	50.5	50.0	ug/L	101	75.0 - 125	125327382
4,4-DDT	54.0	50.0	ug/L	108	75.0 - 125	125327363
4,4-DDT	54.2	50.0	ug/L	108	75.0 - 125	125327374
4,4-DDT	45.5	50.0	ug/L	91.0	75.0 - 125	125327382
Aldrin	50.6	50.0	ug/L	101	75.0 - 125	125327363
Aldrin	51.0	50.0	ug/L	102	75.0 - 125	125327374
Aldrin	49.2	50.0	ug/L	98.4	75.0 - 125	125327382

QUALITY CONTROL

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EEL3-G

Project
1068296

Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%		File
Alpha-BHC(hexachlorocyclohexane)	49.5	50.0	ug/L	99.0	75.0 - 125		125327363
Alpha-BHC(hexachlorocyclohexane)	51.6	50.0	ug/L	103	75.0 - 125		125327374
Alpha-BHC(hexachlorocyclohexane)	52.1	50.0	ug/L	104	75.0 - 125		125327382
alpha-Chlordane	53.0	50.0	ug/L	106	75.0 - 125		125327363
alpha-Chlordane	54.0	50.0	ug/L	108	75.0 - 125		125327374
alpha-Chlordane	51.4	50.0	ug/L	103	75.0 - 125		125327382
Beta-BHC(hexachlorocyclohexane)	51.7	50.0	ug/L	103	75.0 - 125		125327363
Beta-BHC(hexachlorocyclohexane)	52.1	50.0	ug/L	104	75.0 - 125		125327374
Beta-BHC(hexachlorocyclohexane)	50.6	50.0	ug/L	101	75.0 - 125		125327382
Delta-BHC(hexachlorocyclohexane)	52.2	50.0	ug/L	104	75.0 - 125		125327363
Delta-BHC(hexachlorocyclohexane)	53.9	50.0	ug/L	108	75.0 - 125		125327374
Delta-BHC(hexachlorocyclohexane)	52.9	50.0	ug/L	106	75.0 - 125		125327382
Dieldrin	56.1	50.0	ug/L	112	75.0 - 125		125327363
Dieldrin	55.8	50.0	ug/L	112	75.0 - 125		125327374
Dieldrin	53.4	50.0	ug/L	107	75.0 - 125		125327382
Endosulfan I (alpha)	51.8	50.0	ug/L	104	75.0 - 125		125327363
Endosulfan I (alpha)	52.4	50.0	ug/L	105	75.0 - 125		125327374
Endosulfan I (alpha)	50.3	50.0	ug/L	101	75.0 - 125		125327382
Endosulfan II (beta)	54.3	50.0	ug/L	109	75.0 - 125		125327363
Endosulfan II (beta)	52.6	50.0	ug/L	105	75.0 - 125		125327374
Endosulfan II (beta)	48.7	50.0	ug/L	97.4	75.0 - 125		125327382
Endosulfan sulfate	56.5	50.0	ug/L	113	75.0 - 125		125327363
Endosulfan sulfate	60.2	50.0	ug/L	120	75.0 - 125		125327374
Endosulfan sulfate	59.9	50.0	ug/L	120	75.0 - 125		125327382
Endrin	57.2	50.0	ug/L	114	75.0 - 125		125327363
Endrin	59.9	50.0	ug/L	120	75.0 - 125		125327374
Endrin	56.7	50.0	ug/L	113	75.0 - 125		125327382
Endrin aldehyde	56.2	50.0	ug/L	112	75.0 - 125		125327363
Endrin aldehyde	56.7	50.0	ug/L	113	75.0 - 125		125327374
Endrin aldehyde	53.8	50.0	ug/L	108	75.0 - 125		125327382
Gamma-BHC(Lindane)	50.3	50.0	ug/L	101	75.0 - 125		125327363
Gamma-BHC(Lindane)	53.4	50.0	ug/L	107	75.0 - 125		125327374
Gamma-BHC(Lindane)	53.1	50.0	ug/L	106	75.0 - 125		125327382
gamma-Chlordane	52.4	50.0	ug/L	105	75.0 - 125		125327363
gamma-Chlordane	53.5	50.0	ug/L	107	75.0 - 125		125327374
gamma-Chlordane	51.2	50.0	ug/L	102	75.0 - 125		125327382
Heptachlor	51.2	50.0	ug/L	102	75.0 - 125		125327363
Heptachlor	54.8	50.0	ug/L	110	75.0 - 125		125327374
Heptachlor	49.7	50.0	ug/L	99.4	75.0 - 125		125327382
Heptachlor epoxide	50.0	50.0	ug/L	100	75.0 - 125		125327363
Heptachlor epoxide	52.2	50.0	ug/L	104	75.0 - 125		125327374
Heptachlor epoxide	50.6	50.0	ug/L	101	75.0 - 125		125327382
Kelthane (Dicofol)	110	100	ug/L	110	75.0 - 125		125327363
Kelthane (Dicofol)	239	100	ug/L	239	75.0 - 125	*	125327374
Kelthane (Dicofol)	75.9	100	ug/L	75.9	75.0 - 125		125327382

QUALITY CONTROL

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Project 1068296

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CCV

Parameter	Reading	Known	Units	Recovery%	Limits%	File
Methoxychlor	55.9	50.0	ug/L	112	75.0 - 125	125327363
Methoxychlor	55.3	50.0	ug/L	111	75.0 - 125	125327374
Methoxychlor	48.7	50.0	ug/L	97.4	75.0 - 125	125327382
Mirex	55.1	50.0	ug/L	110	75.0 - 125	125327363
Mirex	54.4	50.0	ug/L	109	75.0 - 125	125327374
Mirex	40.8	50.0	ug/L	81.6	75.0 - 125	125327382

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
4,4-DDD	1075571	111	91.2	100	31.0 - 141	111	91.2	ug/L	19.6	39.0
4,4-DDE	1075571	92.4	77.4	100	30.0 - 145	92.4	77.4	ug/L	17.7	35.0
4,4-DDT	1075571	92.9	70.4	100	25.0 - 160	92.9	70.4	ug/L	27.6	42.0
Aldrin	1075571	83.7	72.1	100	42.0 - 140	83.7	72.1	ug/L	14.9	35.0
Alpha-BHC(hexachlorocyclohexane)	1075571	87.9	79.3	100	37.0 - 140	87.9	79.3	ug/L	10.3	36.0
alpha-Chlordane	1075571	94.0	79.0	100	45.0 - 140	94.0	79.0	ug/L	17.3	35.0
Beta-BHC(hexachlorocyclohexane)	1075571	90.7	79.9	100	17.0 - 147	90.7	79.9	ug/L	12.7	44.0
Delta-BHC(hexachlorocyclohexane)	1075571	99.9	87.0	100	19.0 - 140	99.9	87.0	ug/L	13.8	52.0
Dieldrin	1075571	100	84.8	100	36.0 - 146	100	84.8	ug/L	16.5	49.0
Endosulfan I (alpha)	1075571	93.9	79.7	100	45.0 - 153	93.9	79.7	ug/L	16.4	28.0
Endosulfan II (beta)	1075571	101	84.1	100	0.100 - 202	101	84.1	ug/L	18.3	53.0
Endosulfan sulfate	1075571	107	86.8	100	26.0 - 144	107	86.8	ug/L	20.8	38.0
Endrin	1075571	108	90.7	100	30.0 - 147	108	90.7	ug/L	17.4	48.0
Endrin aldehyde	1075571	92.2	77.1	100	37.6 - 158	92.2	77.1	ug/L	17.8	30.0
Gamma-BHC(Lindane)	1075571	88.8	76.9	100	32.0 - 140	88.8	76.9	ug/L	14.4	39.0
gamma-Chlordane	1075571	103	87.4	100	45.0 - 140	103	87.4	ug/L	16.4	35.0
Heptachlor	1075571	89.1	75.5	100	34.0 - 140	89.1	75.5	ug/L	16.5	43.0
Heptachlor epoxide	1075571	91.9	78.2	100	37.0 - 142	91.9	78.2	ug/L	16.1	26.0
Kelthane (Dicofol)	1075571	3.05	2.69	1.00	70.0 - 130	305 *	269 *	ug/L	12.5	30.0
Methoxychlor	1075571	103	79.7	100	33.1 - 137	103	79.7	ug/L	25.5	30.0
Mirex	1075571	0.860	0.694	1.00	70.0 - 130	86.0	69.4 *	ug/L	21.4	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recovery%	Limits%	File
Decachlorobiphenyl		CCV	49.5	100	ug/L	49.5	0.100 - 144	125327363
Decachlorobiphenyl		CCV	45.7	100	ug/L	45.7	0.100 - 144	125327374
Decachlorobiphenyl		CCV	33.9	100	ug/L	33.9	0.100 - 144	125327382
Tetrachloro-m-Xylene (Surr)		CCV	49.5	100	ug/L	49.5	0.100 - 107	125327363
Tetrachloro-m-Xylene (Surr)		CCV	47.9	100	ug/L	47.9	0.100 - 107	125327374
Tetrachloro-m-Xylene (Surr)		CCV	47.9	100	ug/L	47.9	0.100 - 107	125327382
Decachlorobiphenyl	1075571	Blank	50.7	100	ug/L	50.7	0.100 - 144	125327375
Decachlorobiphenyl	1075571	LCS	103	100	ug/L	103	0.100 - 144	125327376
Decachlorobiphenyl	1075571	LCS Dup	71.0	100	ug/L	71.0	0.100 - 144	125327377
Tetrachloro-m-Xylene (Surr)	1075571	Blank	55.2	100	ug/L	55.2	0.100 - 107	125327375
Tetrachloro-m-Xylene (Surr)	1075571	LCS	78.9	100	ug/L	78.9	0.100 - 107	125327376
Tetrachloro-m-Xylene (Surr)	1075571	LCS Dup	73.6	100	ug/L	73.6	0.100 - 107	125327377

QUALITY CONTROL

EEL3-G

Eastex Environmental Lab
Mark Bourgeois
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35 Eastex Lane
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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	2219449	Unknown	0.0272	0.101	ug/L	26.9	0.100 - 144	125327378
Tetrachloro-m-Xylene (Surr)	2219449	Unknown	0.0545	0.101	ug/L	54.0	0.100 - 107	125327378

Analytical Set 1077057

EPA 608.3

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1075573	ND	0.149	0.200	ug/L	125330500
PCB-1221	1075573	ND	0.143	0.200	ug/L	125330500
PCB-1232	1075573	ND	0.143	0.200	ug/L	125330500
PCB-1242	1075573	ND	0.192	0.200	ug/L	125330500
PCB-1248	1075573	ND	0.143	0.200	ug/L	125330500
PCB-1254	1075573	ND	0.143	0.200	ug/L	125330500
PCB-1260	1075573	ND	0.134	0.200	ug/L	125330500

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	849	1000	ug/L	84.9	80.0 - 115	125330485
PCB-1016	1030	1000	ug/L	103	80.0 - 115	125330499
PCB-1016	1010	1000	ug/L	101	80.0 - 115	125330512
PCB-1260	830	1000	ug/L	83.0	80.0 - 115	125330485
PCB-1260	960	1000	ug/L	96.0	80.0 - 115	125330499
PCB-1260	1130	1000	ug/L	113	80.0 - 115	125330512

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1075573	7.18	7.90	10.0	39.8 - 135	71.8	79.0	ug/L	9.55	30.0
PCB-1260	1075573	8.81	9.76	10.0	36.1 - 134	88.1	97.6	ug/L	10.2	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl	1075573	Blank	50.7	100	ug/L	50.7	10.0 - 200	125330500
Tetrachloro-m-Xylene (Surr)	1075573	Blank	55.2	100	ug/L	55.2	10.0 - 200	125330500
Decachlorobiphenyl	2219449	Unknown	0.0272	0.101	ug/L	26.9	10.0 - 200	125330507
Tetrachloro-m-Xylene (Surr)	2219449	Unknown	0.0545	0.101	ug/L	54.0	10.0 - 200	125330507

Analytical Set 1077062

EPA 632

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Carbaryl (Sevin)	1075570	ND	66.1	2500	ug/L	125330608
Diuron	1075570	ND	44.4	45.0	ug/L	125330608

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbaryl (Sevin)	1040	1000	ug/L	104	70.0 - 130	125330607
Carbaryl (Sevin)	1090	1000	ug/L	109	70.0 - 130	125330611
Carbaryl (Sevin)	1220	1000	ug/L	122	70.0 - 130	125330612

QUALITY CONTROL

EEL3-G

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Carbaryl (Sevin)	1240	1000	ug/L	124	70.0 - 130	125330616
Carbaryl (Sevin)	1210	1000	ug/L	121	70.0 - 130	125330619
Carbaryl (Sevin)	9340	10000	ug/L	93.4	70.0 - 130	125330620
Carbaryl (Sevin)	964	1000	ug/L	96.4	70.0 - 130	125330624
Diuron	994	1000	ug/L	99.4	70.0 - 130	125330607
Diuron	1070	1000	ug/L	107	70.0 - 130	125330611
Diuron	1070	1000	ug/L	107	70.0 - 130	125330612
Diuron	1130	1000	ug/L	113	70.0 - 130	125330616
Diuron	1160	1000	ug/L	116	70.0 - 130	125330619
Diuron	8580	10000	ug/L	85.8	70.0 - 130	125330620
Diuron	943	1000	ug/L	94.3	70.0 - 130	125330624

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Carbaryl (Sevin)	1075570	1660	1600	1000	17.1 - 131	166 *	160 *	ug/L	3.68	30.0
Diuron	1075570	1540	615	1000	0.100 - 138	154 *	61.5	ug/L	85.8 *	30.0

Analytical Set 1077149

EPA 625.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
1,2,4,5-Tetrachlorobenzene	1076157	ND	0.517	1.00	ug/L	125332961
1,2,4-Trichlorobenzene	1076157	ND	0.720	1.00	ug/L	125332961
1,2-Dichlorobenzene	1076157	ND	0.598	1.00	ug/L	125332961
1,2-DPH (as azobenzene)	1076157	ND	0.695	1.00	ug/L	125332961
1,3-Dichlorobenzene	1076157	ND	0.686	1.00	ug/L	125332961
1,4-Dichlorobenzene	1076157	ND	0.633	1.00	ug/L	125332961
2,4,5-Trichlorophenol	1076157	ND	0.734	1.00	ug/L	125332961
2,4,6-Trichlorophenol	1076157	ND	0.704	1.00	ug/L	125332961
2,4-Dichlorophenol	1076157	ND	0.567	1.00	ug/L	125332961
2,4-Dimethylphenol	1076157	ND	2.32	2.40	ug/L	125332961
2,4-Dinitrophenol	1076157	ND	8.07	9.00	ug/L	125332961
2,4-Dinitrotoluene	1076157	ND	3.35	3.50	ug/L	125332961
2,6-Dinitrotoluene	1076157	ND	0.675	1.00	ug/L	125332961
2-Chloronaphthalene	1076157	ND	0.333	1.00	ug/L	125332961
2-Chlorophenol	1076157	ND	0.367	1.00	ug/L	125332961
2-Methylphenol (o-Cresol)	1076157	ND	5.13	5.20	ug/L	125332961
2-Nitrophenol	1076157	ND	0.495	1.00	ug/L	125332961
3&4-Methylphenol (m&p-Cresol)	1076157	ND	6.15	6.20	ug/L	125332961
3,3'-Dichlorobenzidine	1076157	ND	4.79	5.00	ug/L	125332961
4,6-Dinitro-2-methylphenol	1076157	ND	7.88	8.00	ug/L	125332961
4-Bromophenyl phenyl ether	1076157	ND	0.311	1.00	ug/L	125332961
4-Chlorophenyl phenyl ethe	1076157	ND	0.281	1.00	ug/L	125332961
4-Nitrophenol	1076157	ND	0.932	1.00	ug/L	125332961
Acenaphthene	1076157	ND	0.139	1.00	ug/L	125332961
Acenaphthylene	1076157	ND	0.202	1.00	ug/L	125332961

QUALITY CONTROL

EEL3-G

Eastex Environmental Lab
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35 Eastex Lane
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Project 1068296

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Parameter	PrepSet	Reading	MDL	MQL	Units	File
Anthracene	1076157	ND	0.538	1.00	ug/L	125332961
Benzidine	1076157	ND	19.9	20.0	ug/L	125332961
Benzo(a)anthracene	1076157	ND	0.627	1.00	ug/L	125332961
Benzo(a)pyrene	1076157	ND	0.478	1.00	ug/L	125332961
Benzo(b)fluoranthene	1076157	ND	0.517	1.00	ug/L	125332961
Benzo(ghi)perylene	1076157	ND	0.750	1.00	ug/L	125332961
Benzo(k)fluoranthene	1076157	ND	0.763	1.00	ug/L	125332961
Benzyl Butyl phthalate	1076157	ND	0.696	7.50	ug/L	125332961
Bis(2-chloroethoxy)methane	1076157	ND	0.312	1.00	ug/L	125332961
Bis(2-chloroethyl)ether	1076157	ND	0.434	1.00	ug/L	125332961
Bis(2-chloroisopropyl)ether	1076157	ND	0.448	1.00	ug/L	125332961
Bis(2-ethylhexyl)phthalate	1076157	ND	1.63	7.50	ug/L	125332961
Chrysene (Benzo(a)phenanthrene)	1076157	ND	0.575	1.00	ug/L	125332961
Dibenz(a,h)anthracene	1076157	ND	0.872	1.00	ug/L	125332961
Diethyl phthalate	1076157	ND	0.721	5.70	ug/L	125332961
Dimethyl phthalate	1076157	ND	0.497	4.80	ug/L	125332961
Di-n-butylphthalate	1076157	ND	0.834	7.50	ug/L	125332961
Di-n-octylphthalate	1076157	ND	0.782	1.00	ug/L	125332961
Fluoranthene(Benzo(j,k)fluorene)	1076157	ND	0.772	1.00	ug/L	125332961
Fluorene	1076157	ND	0.512	1.00	ug/L	125332961
Hexachlorobenzene	1076157	ND	0.187	1.00	ug/L	125332961
Hexachlorobutadiene	1076157	ND	0.618	1.00	ug/L	125332961
Hexachlorocyclopentadiene	1076157	ND	8.69	9.00	ug/L	125332961
Hexachloroethane	1076157	ND	0.789	1.00	ug/L	125332961
Indeno(1,2,3-cd)pyrene	1076157	ND	0.793	1.00	ug/L	125332961
Isophorone	1076157	ND	0.468	1.00	ug/L	125332961
Naphthalene	1076157	ND	0.387	1.00	ug/L	125332961
Nitrobenzene	1076157	ND	0.390	1.00	ug/L	125332961
n-Nitrosodiethylamine	1076157	ND	0.282	1.00	ug/L	125332961
n-Nitroso-di-n-butylamine	1076157	ND	0.403	1.00	ug/L	125332961
N-Nitrosodi-n-propylamine	1076157	ND	0.777	1.00	ug/L	125332961
N-Nitrosodiphenylamine (as DPA	1076157	ND	0.427	1.00	ug/L	125332961
p-Chloro-m-Cresol (4-Chloro-3-me	1076157	ND	2.35	2.40	ug/L	125332961
Pentachlorobenzene	1076157	ND	0.420	1.00	ug/L	125332961
Pentachlorophenol	1076157	ND	0.129	1.00	ug/L	125332961
Phenanthrene	1076157	ND	0.624	1.00	ug/L	125332961
Phenol	1076157	ND	1.50	1.50	ug/L	125332961
Pyrene	1076157	ND	0.587	1.00	ug/L	125332961
Pyridine	1076157	ND	5.33	5.40	ug/L	125332961

CCV

Parameter	Reading	Known	Units	Recovery%	Limits%	File
1,2,4,5-Tetrachlorobenzene	53600	50000	ug/L	107	60.0 - 140	125332960
1,2,4-Trichlorobenzene	59500	50000	ug/L	119	61.0 - 130	125332960
1,2-Dichlorobenzene	54400	50000	ug/L	109	60.0 - 140	125332960

QUALITY CONTROL

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EEL3-G

Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

Project
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CCV

Parameter	Reading	Known	Units	Recovery%	Limits%a		File
1,2-DPH (as azobenzene)	43100	50000	ug/L	86.2	60.0 - 140		125332960
1,3-Dichlorobenzene	56000	50000	ug/L	112	60.0 - 140		125332960
1,4-Dichlorobenzene	52700	50000	ug/L	105	60.0 - 140		125332960
2,4,5-Trichlorophenol	53200	50000	ug/L	106	69.0 - 130		125332960
2,4,6-Trichlorophenol	48900	50000	ug/L	97.8	69.0 - 130		125332960
2,4-Dichlorophenol	54200	50000	ug/L	108	64.0 - 130		125332960
2,4-Dimethylphenol	48500	50000	ug/L	97.0	58.0 - 130		125332960
2,4-Dinitrophenol	45700	50000	ug/L	91.4	39.0 - 173		125332960
2,4-Dinitrotoluene	55600	50000	ug/L	111	53.0 - 130		125332960
2,6-Dinitrotoluene	55700	50000	ug/L	111	68.0 - 137		125332960
2-Chloronaphthalene	51600	50000	ug/L	103	70.0 - 130		125332960
2-Chlorophenol	49600	50000	ug/L	99.2	55.0 - 130		125332960
2-Methylphenol (o-Cresol)	46800	50000	ug/L	93.6	60.0 - 140		125332960
2-Nitrophenol	45000	50000	ug/L	90.0	61.0 - 163		125332960
3&4-Methylphenol (m&p-Cresol)	44800	50000	ug/L	89.6	60.0 - 140		125332960
3,3'-Dichlorobenzidine	48400	50000	ug/L	96.8	18.0 - 213		125332960
4,6-Dinitro-2-methylphenol	43300	50000	ug/L	86.6	56.0 - 130		125332960
4-Bromophenyl phenyl ether	55900	50000	ug/L	112	70.0 - 130		125332960
4-Chlorophenyl phenyl ethe	57300	50000	ug/L	115	57.0 - 145		125332960
4-Nitrophenol	44600	50000	ug/L	89.2	35.0 - 135		125332960
Acenaphthene	52000	50000	ug/L	104	70.0 - 130		125332960
Acenaphthylene	31300	50000	ug/L	62.6	60.0 - 130		125332960
Anthracene	47200	50000	ug/L	94.4	58.0 - 130		125332960
Benzidine	49600	50000	ug/L	99.2	20.0 - 180		125332960
Benzo(a)anthracene	52400	50000	ug/L	105	42.0 - 133		125332960
Benzo(a)pyrene	51000	50000	ug/L	102	32.0 - 148		125332960
Benzo(b)fluoranthene	55800	50000	ug/L	112	42.0 - 140		125332960
Benzo(ghi)perylene	65200	50000	ug/L	130	13.0 - 195		125332960
Benzo(k)fluoranthene	57400	50000	ug/L	115	25.0 - 146		125332960
Benzyl Butyl phthalate	63700	50000	ug/L	127	43.0 - 140		125332960
Bis(2-chloroethoxy)methane	49200	50000	ug/L	98.4	52.0 - 164		125332960
Bis(2-chloroethyl)ether	46800	50000	ug/L	93.6	52.0 - 130		125332960
Bis(2-chloroisopropyl)ether	53200	50000	ug/L	106	63.0 - 139		125332960
Bis(2-ethylhexyl)phthalate	51600	50000	ug/L	103	43.0 - 137		125332960
Chrysene (Benzo(a)phenanthrene)	55400	50000	ug/L	111	44.0 - 140		125332960
Dibenz(a,h)anthracene	55400	50000	ug/L	111	13.0 - 200		125332960
Diethyl phthalate	60600	50000	ug/L	121	47.0 - 130		125332960
Dimethyl phthalate	61300	50000	ug/L	123	50.0 - 130		125332960
Di-n-butylphthalate	41000	50000	ug/L	82.0	52.0 - 130		125332960
Di-n-octylphthalate	48200	50000	ug/L	96.4	21.0 - 132		125332960
Fluoranthene(Benzo(j,k)fluorene)	52400	50000	ug/L	105	47.0 - 130		125332960
Fluorene	58700	50000	ug/L	117	70.0 - 130		125332960
Hexachlorobenzene	56000	50000	ug/L	112	38.0 - 142		125332960
Hexachlorobutadiene	68400	50000	ug/L	137	68.0 - 130	*	125332960
Hexachlorocyclopentadiene	14900	50000	ug/L	29.8	60.0 - 140	*	125332960

QUALITY CONTROL

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Parameter	Reading	Known	Units	Recover%	Limits%		File
Hexachloroethane	65500	50000	ug/L	131	55.0 - 130	*	125332960
Indeno(1,2,3-cd)pyrene	58800	50000	ug/L	118	13.0 - 151		125332960
Isophorone	50000	50000	ug/L	100	52.0 - 180		125332960
Naphthalene	50900	50000	ug/L	102	70.0 - 130		125332960
Nitrobenzene	48000	50000	ug/L	96.0	54.0 - 158		125332960
n-Nitrosodiethylamine	25900	50000	ug/L	51.8	60.0 - 140	*	125332960
N-Nitrosodimethylamine	49900	50000	ug/L	99.8	60.0 - 140		125332960
n-Nitroso-di-n-butylamine	54500	50000	ug/L	109	60.0 - 140		125332960
N-Nitrosodi-n-propylamine	54100	50000	ug/L	108	59.0 - 170		125332960
N-Nitrosodiphenylamine (as DPA	43400	50000	ug/L	86.8	60.0 - 140		125332960
p-Chloro-m-Cresol (4-Chloro-3-me	53200	50000	ug/L	106	68.0 - 130		125332960
Pentachlorobenzene	56800	50000	ug/L	114	60.0 - 140		125332960
Pentachlorophenol	49400	50000	ug/L	98.8	42.0 - 152		125332960
Phenanthrene	51400	50000	ug/L	103	67.0 - 130		125332960
Phenol	45100	50000	ug/L	90.2	48.0 - 130		125332960
Pyrene	61900	50000	ug/L	124	70.0 - 130		125332960
Pyridine	47300	50000	ug/L	94.6	60.0 - 140		125332960

DFTPP

Parameter		RefMass	Reading	%	Limits%	File
DFTPP Mass 127	619372	198	17817	51.4	40.0 - 60.0	125332958
DFTPP Mass 197	619372	198	0	0.0	0 - 1.00	125332958
DFTPP Mass 198	619372	198	34685	100.0	100 - 100	125332958
DFTPP Mass 199	619372	198	2342	6.8	5.00 - 9.00	125332958
DFTPP Mass 275	619372	198	9646	27.8	10.0 - 30.0	125332958
DFTPP Mass 365	619372	198	1850	5.3	1.00 - 100	125332958
DFTPP Mass 441	619372	443	2923	78.4	0 - 100	125332958
DFTPP Mass 442	619372	198	19743	56.9	40.0 - 100	125332958
DFTPP Mass 443	619372	442	3727	18.9	17.0 - 23.0	125332958
DFTPP Mass 51	619372	198	17799	51.3	30.0 - 60.0	125332958
DFTPP Mass 68	619372	69.0	195	1.1	0 - 2.00	125332958
DFTPP Mass 69	619372	198	17635	50.8	0 - 100	125332958
DFTPP Mass 70	619372	69.0	127	0.7	0 - 2.00	125332958

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
1,2,4,5-Tetrachlorobenzene	1076157	20.3	20.3	25.0	27.5 - 85.5	81.2	81.2	ug/L	0	50.0
1,2,4-Trichlorobenzene	1076157	18.7	18.6	25.0	44.0 - 142	74.8	74.4	ug/L	0.536	50.0
1,2-Dichlorobenzene	1076157	16.8	16.2	25.0	23.0 - 81.8	67.2	64.8	ug/L	3.64	50.0
1,2-DPH (as azobenzene)	1076157	17.0	17.8	25.0	12.6 - 110	68.0	71.2	ug/L	4.60	50.0
1,3-Dichlorobenzene	1076157	16.2	15.6	25.0	21.1 - 80.5	64.8	62.4	ug/L	3.77	50.0
1,4-Dichlorobenzene	1076157	16.0	15.6	25.0	21.4 - 76.9	64.0	62.4	ug/L	2.53	50.0
2,4,5-Trichlorophenol	1076157	20.3	18.7	25.0	51.3 - 109	81.2	74.8	ug/L	8.21	50.0
2,4,6-Trichlorophenol	1076157	19.8	18.8	25.0	37.0 - 144	79.2	75.2	ug/L	5.18	58.0
2,4-Dichlorophenol	1076157	20.7	18.6	25.0	39.0 - 135	82.8	74.4	ug/L	10.7	50.0

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
2,4-Dimethylphenol	1076157	9.37	10.6	25.0	23.0 - 120	37.5	42.4	ug/L	12.3	68.0
2,4-Dinitrophenol	1076157	11.6	6.39	25.0	0.100 - 191	46.4	25.6	ug/L	57.8	132
2,4-Dinitrotoluene	1076157	22.6	17.9	25.0	39.0 - 139	90.4	71.6	ug/L	23.2	42.0
2,6-Dinitrotoluene	1076157	19.8	18.5	25.0	50.0 - 158	79.2	74.0	ug/L	6.79	48.0
2-Chloronaphthalene	1076157	19.6	18.8	25.0	60.0 - 120	78.4	75.2	ug/L	4.17	24.0
2-Chlorophenol	1076157	17.3	16.7	25.0	23.0 - 134	69.2	66.8	ug/L	3.53	61.0
2-Methylphenol (o-Cresol)	1076157	14.4	14.1	25.0	38.9 - 76.1	57.6	56.4	ug/L	2.11	50.0
2-Nitrophenol	1076157	16.8	15.8	25.0	29.0 - 182	67.2	63.2	ug/L	6.13	55.0
3&4-Methylphenol (m&p-Cresol)	1076157	13.7	13.4	25.0	33.0 - 70.4	54.8	53.6	ug/L	2.21	50.0
3,3'-Dichlorobenzidine	1076157	16.7	15.4	25.0	0.100 - 262	66.8	61.6	ug/L	8.10	108
4,6-Dinitro-2-methylphenol	1076157	14.0	11.1	25.0	0.100 - 181	56.0	44.4	ug/L	23.1	203
4-Bromophenyl phenyl ether	1076157	19.8	20.3	25.0	53.0 - 127	79.2	81.2	ug/L	2.49	43.0
4-Chlorophenyl phenyl ethe	1076157	21.4	20.7	25.0	25.0 - 158	85.6	82.8	ug/L	3.33	61.0
4-Nitrophenol	1076157	8.70	7.67	25.0	0.100 - 132	34.8	30.7	ug/L	12.5	131
Acenaphthene	1076157	19.6	18.2	25.0	47.0 - 145	78.4	72.8	ug/L	7.41	48.0
Acenaphthylene	1076157	18.8	18.3	25.0	33.0 - 145	75.2	73.2	ug/L	2.70	74.0
Anthracene	1076157	20.0	18.9	25.0	27.0 - 133	80.0	75.6	ug/L	5.66	66.0
Benzidine	1076157	13.3	9.23	25.0	0.100 - 36.9	53.2 *	36.9	ug/L	36.2	90.0
Benzo(a)anthracene	1076157	21.5	20.8	25.0	33.0 - 143	86.0	83.2	ug/L	3.31	53.0
Benzo(a)pyrene	1076157	20.8	20.4	25.0	17.0 - 163	83.2	81.6	ug/L	1.94	72.0
Benzo(b)fluoranthene	1076157	23.7	22.7	25.0	24.0 - 159	94.8	90.8	ug/L	4.31	71.0
Benzo(ghi)perylene	1076157	26.5	25.6	25.0	0.100 - 219	106	102	ug/L	3.85	97.0
Benzo(k)fluoranthene	1076157	20.3	21.2	25.0	11.0 - 162	81.2	84.8	ug/L	4.34	63.0
Benzyl Butyl phthalate	1076157	23.3	22.2	25.0	0.100 - 152	93.2	88.8	ug/L	4.84	60.0
Bis(2-chloroethoxy)methane	1076157	19.8	19.1	25.0	33.0 - 184	79.2	76.4	ug/L	3.60	54.0
Bis(2-chloroethyl)ether	1076157	17.3	16.8	25.0	12.0 - 158	69.2	67.2	ug/L	2.93	108
Bis(2-chloroisopropyl)ether	1076157	13.8	13.2	25.0	36.0 - 166	55.2	52.8	ug/L	4.44	76.0
Bis(2-ethylhexyl)phthalate	1076157	19.2	19.2	25.0	8.00 - 158	76.8	76.8	ug/L	0	82.0
Chrysene (Benzo(a)phenanthrene)	1076157	23.0	22.0	25.0	17.0 - 168	92.0	88.0	ug/L	4.44	87.0
Dibenz(a,h)anthracene	1076157	24.9	24.1	25.0	0.100 - 227	99.6	96.4	ug/L	3.27	126
Diethyl phthalate	1076157	21.9	19.9	25.0	0.100 - 120	87.6	79.6	ug/L	9.57	100
Dimethyl phthalate	1076157	22.2	21.4	25.0	0.100 - 120	88.8	85.6	ug/L	3.67	183
Di-n-butylphthalate	1076157	19.6	19.3	25.0	1.00 - 120	78.4	77.2	ug/L	1.54	47.0
Di-n-octylphthalate	1076157	26.2	24.8	25.0	4.00 - 146	105	99.2	ug/L	5.68	69.0
Fluoranthene(Benzo(j,k)fluorene)	1076157	23.7	24.4	25.0	26.0 - 137	94.8	97.6	ug/L	2.91	66.0
Fluorene	1076157	20.4	18.5	25.0	59.0 - 121	81.6	74.0	ug/L	9.77	38.0
Hexachlorobenzene	1076157	19.8	20.6	25.0	0.100 - 152	79.2	82.4	ug/L	3.96	55.0
Hexachlorobutadiene	1076157	18.9	19.0	25.0	24.0 - 120	75.6	76.0	ug/L	0.528	62.0
Hexachlorocyclopentadiene	1076157	11.2	9.46	25.0	3.97 - 68.7	44.8	37.8	ug/L	16.9	50.0
Hexachloroethane	1076157	15.8	15.6	25.0	40.0 - 120	63.2	62.4	ug/L	1.27	52.0
Indeno(1,2,3-cd)pyrene	1076157	25.2	24.3	25.0	0.100 - 171	101	97.2	ug/L	3.83	99.0
Isophorone	1076157	19.5	19.5	25.0	21.0 - 196	78.0	78.0	ug/L	0	93.0
Naphthalene	1076157	17.9	17.8	25.0	21.0 - 133	71.6	71.2	ug/L	0.560	65.0
Nitrobenzene	1076157	18.6	19.1	25.0	35.0 - 180	74.4	76.4	ug/L	2.65	62.0
n-Nitrosodiethylamine	1076157	8.67	8.54	25.0	18.0 - 100	34.7	34.2	ug/L	1.45	50.0

QUALITY CONTROL

EEL3-G

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LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
N-Nitrosodimethylamine	1076157	12.6	12.8	25.0	30.2 - 74.9	50.4	51.2	ug/L	1.57	50.0
n-Nitroso-di-n-butylamine	1076157	20.9	19.1	25.0	48.4 - 98.5	83.6	76.4	ug/L	9.00	50.0
N-Nitrosodi-n-propylamine	1076157	18.3	17.3	25.0	0.100 - 230	73.2	69.2	ug/L	5.62	87.0
N-Nitrosodiphenylamine (as DPA	1076157	19.4	19.7	25.0	49.3 - 94.2	77.6	78.8	ug/L	1.53	50.0
p-Chloro-m-Cresol (4-Chloro-3-me	1076157	19.0	16.8	25.0	22.0 - 147	76.0	67.2	ug/L	12.3	70.0
Pentachlorobenzene	1076157	21.0	20.9	25.0	39.3 - 93.7	84.0	83.6	ug/L	0.477	50.0
Pentachlorophenol	1076157	17.4	13.9	25.0	14.0 - 176	69.6	55.6	ug/L	22.4	86.0
Phenanthrene	1076157	20.0	20.0	25.0	54.0 - 120	80.0	80.0	ug/L	0	39.0
Phenol	1076157	7.14	6.32	25.0	5.00 - 120	28.6	25.3	ug/L	12.2	64.0
Pyrene	1076157	22.1	21.4	25.0	52.0 - 120	88.4	85.6	ug/L	3.22	49.0
Pyridine	1076157	9.04	6.64	25.0	11.2 - 50.6	36.2	26.6	ug/L	30.6	50.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	619122	CCV	54900	100000	ug/L	54.9	10.0 - 150	125332960
2-Fluorophenol-SURR	619122	CCV	50400	100000	ug/L	50.4	10.0 - 150	125332960
4-Terphenyl-d14-SURR	619122	CCV	60300	50000	ug/L	121	30.0 - 150	125332960
Nitrobenzene-d5-SURR	619122	CCV	47700	50000	ug/L	95.4	30.0 - 150	125332960
Phenol-d6-SURR	619122	CCV	46500	100000	ug/L	46.5	10.0 - 150	125332960
2,4,6-Tribromophenol	1076157	Blank	45.0	100	ug/L	45.0	10.0 - 150	125332961
2,4,6-Tribromophenol	1076157	LCS	57.7	100	ug/L	57.7	10.0 - 150	125332962
2,4,6-Tribromophenol	1076157	LCS Dup	46.9	100	ug/L	46.9	10.0 - 150	125332963
2-Fluorophenol-SURR	1076157	Blank	28000	100000	ug/L	28.0	10.0 - 150	125332961
2-Fluorophenol-SURR	1076157	LCS	29600	100000	ug/L	29.6	10.0 - 150	125332962
2-Fluorophenol-SURR	1076157	LCS Dup	29400	100000	ug/L	29.4	10.0 - 150	125332963
4-Terphenyl-d14-SURR	1076157	Blank	23500	50000	ug/L	47.0	30.0 - 150	125332961
4-Terphenyl-d14-SURR	1076157	LCS	25900	50000	ug/L	51.8	30.0 - 150	125332962
4-Terphenyl-d14-SURR	1076157	LCS Dup	25000	50000	ug/L	50.0	30.0 - 150	125332963
Nitrobenzene-d5-SURR	1076157	Blank	20400	50000	ug/L	40.8	30.0 - 150	125332961
Nitrobenzene-d5-SURR	1076157	LCS	21200	50000	ug/L	42.4	30.0 - 150	125332962
Nitrobenzene-d5-SURR	1076157	LCS Dup	19900	50000	ug/L	39.8	30.0 - 150	125332963
Phenol-d6-SURR	1076157	Blank	16900	100000	ug/L	16.9	10.0 - 150	125332961
Phenol-d6-SURR	1076157	LCS	18100	100000	ug/L	18.1	10.0 - 150	125332962
Phenol-d6-SURR	1076157	LCS Dup	17000	100000	ug/L	17.0	10.0 - 150	125332963
2,4,6-Tribromophenol	2219449	Unknown	42.3	101	ug/L	41.9	10.0 - 150	125332967
2-Fluorophenol-SURR	2219449	Unknown	19.6	101	ug/L	19.4	10.0 - 150	125332967
4-Terphenyl-d14-SURR	2219449	Unknown	21.0	50.3	ug/L	41.7	30.0 - 150	125332967
Nitrobenzene-d5-SURR	2219449	Unknown	15.9	50.3	ug/L	31.6	30.0 - 150	125332967
Phenol-d6-SURR	2219449	Unknown	12.5	101	ug/L	12.4	10.0 - 150	125332967

Analytical Set 1077235

ASTM D7065-11

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nonylphenol	1076581	ND	5.00	30.0	ug/L	125334682

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PO Box 1089
35 Eastex Lane
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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Nonylphenol	137000	150000	ug/L	91.4	70.0 - 130	125334681
Nonylphenol	138000	150000	ug/L	92.1	70.0 - 130	125334702

IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High		File	PrepSet
Acenaphthene-d10-ISTD	617781	CCV	602000	602000	301000	903000		125334681	617781
Acenaphthene-d10-ISTD	617781	CCV	504900	602000	301000	903000		125334702	617781
Phenanthrene-d10-ISTD	617781	CCV	860900	860900	430400	1291000		125334681	617781
Phenanthrene-d10-ISTD	617781	CCV	714700	860900	430400	1291000		125334702	617781
Acenaphthene-d10-ISTD	1076581	Blank	338900	602000	301000	903000		125334682	1076581
Acenaphthene-d10-ISTD	1076581	LCS	341500	602000	301000	903000		125334683	1076581
Acenaphthene-d10-ISTD	1076581	LCS Dup	328800	602000	301000	903000		125334684	1076581
Phenanthrene-d10-ISTD	1076581	Blank	514100	860900	430400	1291000		125334682	1076581
Phenanthrene-d10-ISTD	1076581	LCS	498100	860900	430400	1291000		125334683	1076581
Phenanthrene-d10-ISTD	1076581	LCS Dup	481200	860900	430400	1291000		125334684	1076581
Acenaphthene-d10-ISTD	2219449	Unknown	249900	602000	301000	903000	*	125334690	1076581
Phenanthrene-d10-ISTD	2219449	Unknown	361700	860900	430400	1291000	*	125334690	1076581

IS RetTime

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Acenaphthene-d10-ISTD	617781	CCV	7.383	7.383	7.323	7.443	125334681	617781
Acenaphthene-d10-ISTD	617781	CCV	7.383	7.383	7.323	7.443	125334702	617781
Phenanthrene-d10-ISTD	617781	CCV	8.621	8.621	8.561	8.681	125334681	617781
Phenanthrene-d10-ISTD	617781	CCV	8.621	8.621	8.561	8.681	125334702	617781
Acenaphthene-d10-ISTD	1076581	Blank	7.383	7.383	7.323	7.443	125334682	1076581
Acenaphthene-d10-ISTD	1076581	LCS	7.383	7.383	7.323	7.443	125334683	1076581
Acenaphthene-d10-ISTD	1076581	LCS Dup	7.383	7.383	7.323	7.443	125334684	1076581
Phenanthrene-d10-ISTD	1076581	Blank	8.615	8.621	8.561	8.681	125334682	1076581
Phenanthrene-d10-ISTD	1076581	LCS	8.621	8.621	8.561	8.681	125334683	1076581
Phenanthrene-d10-ISTD	1076581	LCS Dup	8.621	8.621	8.561	8.681	125334684	1076581
Acenaphthene-d10-ISTD	2219449	Unknown	7.383	7.383	7.323	7.443	125334690	1076581
Phenanthrene-d10-ISTD	2219449	Unknown	8.621	8.621	8.561	8.681	125334690	1076581

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Nonylphenol	1076581	149	145	150	56.0 - 112	99.3	96.7	ug/L	2.65	30.0

MSD

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Nonylphenol	2218020	166	176	ND	165	56.0 - 112	101	107	ug/L	5.85	22.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	617781	CCV	20100	25000	ug/L	80.4	50.0 - 130	125334681
4-Nonylphenol-SURR	617781	CCV	21200	25000	ug/L	84.8	50.0 - 130	125334702
4-Nonylphenol-SURR	1076581	Blank	22000	25000	ug/L	88.0	50.0 - 130	125334682
4-Nonylphenol-SURR	1076581	LCS	23700	25000	ug/L	94.8	50.0 - 130	125334683

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Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
4-Nonylphenol-SURR	1076581	LCS Dup	22100	25000	ug/L	88.4	50.0 - 130	125334684
4-Nonylphenol-SURR	2219449	Unknown	22.7	25.2	ug/L	90.1	50.0 - 130	125334690

Analytical Set 1077751 — EPA 622

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chlorpyrifos	1075572	ND	0.0904	50.0	ug/L	125346554

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chlorpyrifos	1010	1000	ug/L	101	70.0 - 130	125346553
Chlorpyrifos	796	1000	ug/L	79.6	70.0 - 130	125346563
Chlorpyrifos	897	1000	ug/L	89.7	70.0 - 130	125346567
Chlorpyrifos	862	1000	ug/L	86.2	70.0 - 130	125346569

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Chlorpyrifos	1075572	910	692	1000	0.100 - 128	91.0	69.2	ug/L	27.2	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Tributylphosphate		CCV	1020	1000	ug/L	102	0.100 - 115	125346553
Tributylphosphate		CCV	1690	1000	ug/L	169 *	0.100 - 115	125346563
Tributylphosphate		CCV	1800	1000	ug/L	180 *	0.100 - 115	125346567
Tributylphosphate		CCV	984	1000	ug/L	98.4	0.100 - 115	125346569
Triphenylphosphate		CCV	1030	1000	ug/L	103	0.100 - 115	125346553
Triphenylphosphate		CCV	803	1000	ug/L	80.3	0.100 - 115	125346563
Triphenylphosphate		CCV	947	1000	ug/L	94.7	0.100 - 115	125346567
Triphenylphosphate		CCV	1050	1000	ug/L	105	0.100 - 115	125346569
Tributylphosphate	1075572	Blank	732	1000	ug/L	73.2	0.100 - 115	125346554
Tributylphosphate	1075572	LCS	1020	1000	ug/L	102	0.100 - 115	125346555
Tributylphosphate	1075572	LCS Dup	791	1000	ug/L	79.1	0.100 - 115	125346556
Triphenylphosphate	1075572	Blank	775	1000	ug/L	77.5	0.100 - 115	125346554
Triphenylphosphate	1075572	LCS	1010	1000	ug/L	101	0.100 - 115	125346555
Triphenylphosphate	1075572	LCS Dup	770	1000	ug/L	77.0	0.100 - 115	125346556

Analytical Set 1077754 — EPA 614

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Azinphos-methyl (Guthion)	1075572	ND	41.4	50.0	ug/L	125346594
Demeton	1075572	ND	31.9	50.0	ug/L	125346594
Diazinon	1075572	ND	19.7	50.0	ug/L	125346594
Malathion	1075572	ND	24.8	50.0	ug/L	125346594
Parathion, ethyl	1075572	ND	23.9	50.0	ug/L	125346594
Parathion, methyl	1075572	ND	27.4	50.0	ug/L	125346594

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Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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Parameter	Reading	Known	Units	Recovery%	Limits%	File
Azinphos-methyl (Guthion)	1050	1000	ug/L	105	37.5 - 164	125346593
Azinphos-methyl (Guthion)	809	1000	ug/L	80.9	37.5 - 164	125346603
Azinphos-methyl (Guthion)	870	1000	ug/L	87.0	37.5 - 164	125346607
Azinphos-methyl (Guthion)	689	1000	ug/L	68.9	37.5 - 164	125346609
Demeton	973	1000	ug/L	97.3	58.6 - 150	125346593
Demeton	860	1000	ug/L	86.0	58.6 - 150	125346603
Demeton	932	1000	ug/L	93.2	58.6 - 150	125346607
Demeton	830	1000	ug/L	83.0	58.6 - 150	125346609
Diazinon	1010	1000	ug/L	101	65.4 - 138	125346593
Diazinon	838	1000	ug/L	83.8	65.4 - 138	125346603
Diazinon	901	1000	ug/L	90.1	65.4 - 138	125346607
Diazinon	896	1000	ug/L	89.6	65.4 - 138	125346609
Malathion	1030	1000	ug/L	103	49.5 - 160	125346593
Malathion	779	1000	ug/L	77.9	49.5 - 160	125346603
Malathion	883	1000	ug/L	88.3	49.5 - 160	125346607
Malathion	849	1000	ug/L	84.9	49.5 - 160	125346609
Parathion, ethyl	1040	1000	ug/L	104	56.0 - 142	125346593
Parathion, ethyl	783	1000	ug/L	78.3	56.0 - 142	125346603
Parathion, ethyl	872	1000	ug/L	87.2	56.0 - 142	125346607
Parathion, ethyl	611	1000	ug/L	61.1	56.0 - 142	125346609
Parathion, methyl	1040	1000	ug/L	104	12.6 - 194	125346593
Parathion, methyl	777	1000	ug/L	77.7	12.6 - 194	125346603
Parathion, methyl	850	1000	ug/L	85.0	12.6 - 194	125346607
Parathion, methyl	551	1000	ug/L	55.1	12.6 - 194	125346609

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Azinphos-methyl (Guthion)	1075572	1160	905	1000	0.100 - 155	116	90.5	ug/L	24.7	30.0
Demeton	1075572	788	591	1000	0.100 - 109	78.8	59.1	ug/L	28.6	30.0
Diazinon	1075572	887	676	1000	0.100 - 125	88.7	67.6	ug/L	27.0	30.0
Malathion	1075572	963	741	1000	0.100 - 130	96.3	74.1	ug/L	26.1	30.0
Parathion, ethyl	1075572	968	741	1000	0.100 - 122	96.8	74.1	ug/L	26.6	30.0
Parathion, methyl	1075572	1000	766	1000	0.100 - 131	100	76.6	ug/L	26.5	30.0

Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recovery%	Limits%	File
Tributylphosphate		CCV	1020	2000	ug/L	51.0	0.100 - 106	125346593
Tributylphosphate		CCV	1690	2000	ug/L	84.5	0.100 - 106	125346603
Tributylphosphate		CCV	1800	2000	ug/L	90.0	0.100 - 106	125346607
Tributylphosphate		CCV	984	2000	ug/L	49.2	0.100 - 106	125346609
Triphenylphosphate		CCV	1030	2000	ug/L	51.5	0.100 - 172	125346593
Triphenylphosphate		CCV	803	2000	ug/L	40.2	0.100 - 172	125346603
Triphenylphosphate		CCV	947	2000	ug/L	47.4	0.100 - 172	125346607
Triphenylphosphate		CCV	1050	2000	ug/L	52.5	0.100 - 172	125346609
Tributylphosphate	1075572	Blank	732	2000	ug/L	36.6	0.100 - 106	125346594

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Mark Bourgeois
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35 Eastex Lane
Coldspring, TX 77331

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Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Tributylphosphate	1075572	LCS	1020	2000	ug/L	51.0	0.100 - 106	125346595
Tributylphosphate	1075572	LCS Dup	791	2000	ug/L	39.6	0.100 - 106	125346596
Triphenylphosphate	1075572	Blank	775	2000	ug/L	38.8	0.100 - 172	125346594
Triphenylphosphate	1075572	LCS	1010	2000	ug/L	50.5	0.100 - 172	125346595
Triphenylphosphate	1075572	LCS Dup	770	2000	ug/L	38.5	0.100 - 172	125346596
Tributylphosphate	2219449	Unknown	0.826	2.01	ug/L	41.1	0.100 - 106	125346602
Triphenylphosphate	2219449	Unknown	0.697	2.01	ug/L	34.7	0.100 - 172	125346602

Analytical Set 1077875 — EPA 604.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Hexachlorophene	1076333	ND	2.26	5.00	ug/L	125351513

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Hexachlorophene	4890	5000	ug/L	97.7	70.0 - 130	125351512
Hexachlorophene	4820	5000	ug/L	96.3	70.0 - 130	125351519
Hexachlorophene	4750	5000	ug/L	95.0	70.0 - 130	125351523
Hexachlorophene	4740	5000	ug/L	94.8	70.0 - 130	125351527
Hexachlorophene	4890	5000	ug/L	97.9	70.0 - 130	125351531
Hexachlorophene	4680	5000	ug/L	93.7	70.0 - 130	125351533

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Hexachlorophene	1076333	38.2	38.1	50.0	25.5 - 145	76.4	76.2	ug/L	0.262	50.0

Analytical Set 1077958 — EPA 615

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
2,4 Dichlorophenoxyacetic acid	1076361	ND	0.159	0.500	ug/L	125353660
2,4,5-TP (Silvex)	1076361	ND	0.0893	0.300	ug/L	125353660

CCV

Parameter	Reading	Known	Units	Recover%	Limits%		File
2,4 Dichlorophenoxyacetic acid	150	150	ug/L	99.7	80.0 - 115		125353659
2,4 Dichlorophenoxyacetic acid	195	150	ug/L	130	80.0 - 115	*	125353671
2,4 Dichlorophenoxyacetic acid	178	150	ug/L	119	80.0 - 115	*	125353673
2,4,5-TP (Silvex)	153	150	ug/L	102	80.0 - 115		125353659
2,4,5-TP (Silvex)	122	150	ug/L	81.6	80.0 - 115		125353671
2,4,5-TP (Silvex)	175	150	ug/L	116	80.0 - 115	*	125353673

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
2,4 Dichlorophenoxyacetic acid	1076361	3.59	6.63	1.00	0.100 - 319	359 *	663 *	ug/L	59.5 *	30.0
2,4,5-TP (Silvex)	1076361	0.650	0.629	1.00	0.100 - 244	65.0	62.9	ug/L	3.28	30.0

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Eastex Environmental Lab
Mark Bourgeois
PO Box 1089
35 Eastex Lane
Coldspring, TX 77331

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Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid		CCV	146	200	ug/L	73.0	0.100 - 313	125353659
2,4-Dichlorophenylacetic Acid		CCV	144	200	ug/L	72.0	0.100 - 313	125353671
2,4-Dichlorophenylacetic Acid		CCV	168	200	ug/L	84.0	0.100 - 313	125353673
2,4-Dichlorophenylacetic Acid	1076361	Blank	15.8	200	ug/L	7.90	0.100 - 313	125353660
2,4-Dichlorophenylacetic Acid	1076361	LCS	110	200	ug/L	55.0	0.100 - 313	125353674
2,4-Dichlorophenylacetic Acid	1076361	LCS Dup	130	200	ug/L	65.0	0.100 - 313	125353675
2,4-Dichlorophenylacetic Acid	2219449	Unknown	0.218	2.04	ug/L	10.7	0.100 - 313	125353665

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100% Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample, quantifies matrix bias and precision.); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental samples; added to analytical samples for QC purposes. **ANSI/ASQC E4 1994 Ref #4 TRADE QA Resources Guide.); IS Areas - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); DFTPP - GC/MS Tuning Compound

1068296 CoC Print Group 001 of 004

EASTEX
ENVIRONMENTAL LABS INC.

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

SUBCONTRACT ORDER

Sending Laboratory:

Eastex Environmental Laboratory - Coldspring
PO Box 1089
Coldspring, TX 77331
Phone: 936-653-3249
Fax: 936-653-3172

Subcontracted Laboratory:

Ana Lab
3306 State Highway 135 N.
Kilgore, TX 75662
Phone: (903) 984-0551
Fax:

PO 080223A

Received Iced (Y/N) Temp:_____

Released By	8.2.23 1055 Date & Time	Received By	8/2/23 1055 Date & Time
	8/2/23 1700	FedEx	8/2/23 1200
PRINT DATE/TIME: 7/31/2023 / 11:43:58AM	sco_PrimaryFormNAC.rpt 02122019	Jennifer Garrett SPL, Inc.	
FEDEX	8/3/23 1030		8/3/23 1030

EASTEX ENVIRONMENTAL LABS INC.

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

SUBCONTRACT ORDER

PROJECT NAME: PO 080223A
Memorial Villages Water Authority

Turnaround 10 DAYS

Matrix: **Water**

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
1	8/2/23	~~12:00~~ am 0840	Eff PR 2219419	Composite	C3H0212-01	**Nonylphenol**
1		451	Eff PR 2219449	Composite		**Mercury LL Blank**
1		45	Eff PR	Composite		**Acidic Herbicides-Permit**
2			Eff PR	Composite		**Carbaryl/Diuron EPA 632**
2			Eff PR	Composite		**Organophosphorus Pesticides**
1			Eff PR	Composite		**PCB-Permit 608.3**
1			Eff PR	Composite		**Pesticides Mirex,Dicofol 608.3**
1			Eff PR	Composite		**Pesticides-Permit 608.3**
2			Eff PR	Composite		**Semi-Volatiles-Permit (625.1)**
1			Eff PR	Composite		**Mercury LL**
6	8/2/23	~~12:00~~ am 0840	Eff PR 2219450	Grab	C3H0212-02	**Volatiles 624.1-Permit**

Special Instructions: * Watch short-hold VOCs

☒ See Attached

Received Iced (Y)/N Temp:______

[signature]	8-2-23 1055	[signature]	8/2/23 1055
Released By	Date & Time	~~Received By~~	Date & Time
[signature]	8/2/23 1700	FedEx	8/2/23 1700
FEDEX	8/3/23 1030	[signature] Jennifer Garrett SPL, Inc.	8/3/23 1030

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

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

This worksheet is not required for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

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

Grab ☐ Composite ☐

Date and time sample(s) collected:

Table 4.0(1) - Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
[redacted]				2.5
Anthracene				10
[redacted]				5
[redacted]				0.5
[redacted]				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
~~Cadmium~~				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
~~Chromium (Total)~~				3
~~Chromium (Tri) (*1)~~				N/A
~~Chromium (Hex)~~				3
~~Copper~~				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
~~Fluoride~~				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
~~Iron~~				0.5
Malathion				0.1

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
~~Nickel~~				2
~~Nitrate-Nitrogen~~				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
~~Selenium~~				5
~~Silver~~				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Tetrachloroethylene				10
~~Thallium~~				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
~~Tributyltin (see instructions for explanation)~~				~~0.01~~
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
~~Zinc~~				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: [redacted]

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

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

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

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

Table 4.0(2)B - Volatile Compounds

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				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
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D - Base/Neutral Compounds

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				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.

ORIGIN ID:LKSA (713) 882-4654
MATTHEW BROCKELMAN
ANA-LAB CORPORATION
16326 MUESCHKE RD
E8
CYPRESS, TX 77433
UNITED STATES US

SHIP DATE: 02AUG23
ACTWGT: 60.00 LB
CAD: 104810276/INET4535
DIMS: 13x24x14 IN

BILL SENDER

TO LOGIN/CORP
ANA-LAB COPORATION
2600 DUDLEY RD

KILGORE TX 75663
(903) 984-0551 REF:
INV:
PO: DEPT:

583J3/A1409AE3

8/3 1035 JL6
Date Time Tech
Temp: 0.6/0.6 °C
Therm#: 6443 Corr Fact: 0.0 C

FedEx. Express

1635 ON

2 of 5
MPS# 0263 7729 3017 1402
Mstr# 7729 3017 1398

THU - 03 AUG 10:30A
PRIORITY OVERNIGHT

0201

AH GGGA

75663
TX-US SHV

ORIGIN ID:LKSA (713) 882-4654
MATTHEW BROCKELMAN
ANA-LAB CORPORATION
16326 MUESCHKE RD
E8
CYPRESS, TX 77433
UNITED STATES US

SHIP DATE: 02AUG23
ACTWGT: 60.00 LB
CAD: 104810276/INET4535
DIMS: 13x24x14 IN

BILL SENDER

TO LOGIN/CORP
ANA-LAB COPORATION
2600 DUDLEY RD

KILGORE TX 75663
(903) 984-0551 REF:
INV:
PO: DEPT:

583J3/A1409AE3

FedEx. Express

1635 ON

5 of 5
MPS# 7729 3017 1435
Mstr# 7729 3017 1398

THU - 03 AUG 10:30A
PRIORITY OVERNIGHT

0201

AH GGGA

75663
TX-US SHV

8/3 1035 JL6
Date Time Tech
Temp: 1.5/1.5 °C
Therm#: 6443 Corr Fact: 0.0 C

ORIGIN ID:LKSA (713) 882-4654
MATTHEW BROCKELMAN
ANA-LAB CORPORATION
16326 MUESCHKE RD
E8
CYPRESS, TX 77433
UNITED STATES US

SHIP DATE: 02AUG23
ACTWGT: 60.00 LB
CAD: 104810276/INET4535
DIMS: 13x24x14 IN

BILL SENDER

TO LOGIN/CORP
ANA-LAB COPORATION
2600 DUDLEY RD

KILGORE TX 75663
(903) 984-0551 REF:
INV:
PO: DEPT:

FedEx Express

3 of 5
MPS# 0263 7729 3017 1413
Mstr# 7729 3017 1398

THU - 03 AUG 10:30A
PRIORITY OVERNIGHT

0201

AH GGGA

75663
TX-US SHV

8/3 1035 KL6
Date Time Tech
Temp: 0.6/0.6 C
Therm#: 6443 Corr Fact: 0.0 C

ORIGIN ID:LKSA (713) 882-4654
MATTHEW BROCKELMAN
ANA-LAB CORPORATION
16326 MUESCHKE RD
E8
CYPRESS, TX 77433
UNITED STATES US

SHIP DATE: 02AUG23
ACTWGT: 60.00 LB
CAD: 104810276/INET4535
DIMS: 13x24x14 IN

BILL SENDER

TO LOGIN/CORP
ANA-LAB COPORATION
2600 DUDLEY RD

KILGORE TX 75663
(903) 984-0551 REF:
INV:
PO: DEPT:

8/3 1035 JL6
Date Time Tech
Temp: 1.2/1.2 C
Therm#: 6443 Corr Fact: 0.0 C

FedEx Express

1 of 5
TRK# 0201 7729 3017 1398
MASTER

THU - 03 AUG 10:30A
PRIORITY OVERNIGHT

AH GGGA

75663
TX-US SHV

SAN ANTONIO TESTING LABORATORY

August 29, 2023

Tayna Chitwood
SPL, Inc.
3306 State Highway 135 N.
Kilgore, TX 75662

SATL Report No.: 2308491
RE: Low Level Hg

Dear Tayna Chitwood

SATL received 1 Sample(s) on 08/18/2023 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Sincerely,

For San Antonio Testing Laboratory, Inc.

Richard Hawk,
General Manager

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-9921
www.satestinglab.com

1068294

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308491

SAMPLE SUMMARY

Total Samples received in this work order: 1

The following samples were requested for analysis as per the CoC. Any re-runs or re-analyses requested are identified as such.

Sample ID	Laboratory ID	Matrix	Sampling Method	Date Sampled	Date Received
2219449 - EFF PR	2308491-01	Liquid	Composite	08/02/23 08:40	08/18/23 08:15

Notes

All quality control samples and checks are within acceptance limits unless otherwise indicated.
Test results pertain only to those items tested.
All samples were in good condition when received by the laboratory unless otherwise noted.

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308491

Sample ID #: 2219449 - EFF PR | **Sampling Method: Composite** | **Lab Sample ID #: 2308491-01**

Sample Matrix: Liquid | **Date/Time Collected: 08/02/23 08:40**

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
Total Mercury by EPA 245.7									
Mercury	9.42	ng/L	5.00	EPA 245.7	B334287	08/25/23 17:18	EPA 245.7	SG	

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308491

Total Mercury by EPA 245.7 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B334287 - EPA 245.7									
Blank (B334287-BLK1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:35					
Mercury	<5.00	5.00	ng/L						
LCS (B334287-BS1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:38					
Mercury	19.5	5.00	ng/L	25.0		78	75-125		
LCS Dup (B334287-BSD1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:41					
Mercury	19.9	5.00	ng/L	25.0		80	75-125	2	20
Matrix Spike (B334287-MS1)		Source: 2308488-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:47					
Mercury	23.0	5.00	ng/L	25.0	5.22	71	63-111		
Matrix Spike (B334287-MS2)		Source: 2308495-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 17:33					
Mercury	26.7	5.00	ng/L	25.0	10.1	67	63-111		
Matrix Spike Dup (B334287-MSD1)		Source: 2308488-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:50					
Mercury	21.9	5.00	ng/L	25.0	5.22	67	63-111	5	18
Matrix Spike Dup (B334287-MSD2)		Source: 2308495-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 17:36					
Mercury	26.2	5.00	ng/L	25.0	10.1	65	63-111	2	18

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308491

DEFINITIONS

*	TNI / NELAC accredited analyte
PQL	Practical Quantitation Limit
MCL	Maximum Contaminant Level
mg/Kg	Milligrams per Kilogram (Parts per Million)
mg/L	Milligrams per Liter (Parts per Million)
PPM	Parts per Million
L	LCS recovery is outside QC acceptance limits. the results may have a slight bias.
M	MS recovery is outside QC limits, the results may have a slight bias due to possible matrix interferences.
NR	Not Recovered due to source sample concentration exceeds spiked concentration.
RMCCL	Recommended Maximum Concentration of Contaminants Level
Surr L	Surrogate recovery is low outside QC limits.
Surr H	Surrogate recovery is high outside QC limits.
HT	Sample received past holdtime
IC	Improper Container for this analyte(s)
IP	Improper preservation for this analyte(s)
IT	Improper Temperature
V	Inssuficient Volume
B	Sample collected in Bulk
S	RPD is outside QC limits.
AB	VOA Vial contained air bubbles.
OP	ortho-Phosphate was not filtered in the field within 15minutes of collection.
CCV	Continuing Calibration Verification Standard.
ICV	Initial Calibration Verification Standard.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.
Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017
Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308491

Marcela Gracia Hawk For Sairam Abburu, Lab Director For

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.

Richard Hawk, General Manager

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

SUBCONTRACT CHAIN OF CUSTODY

Printed 08/17/2023 Page 1 of 1

Subcontract to:

San Antonio Testing Laboratory
1610 S. Laredo St.
San Antonio TX 78207
210/229-9920

2308491

Sample	2219449
Taken 08/02/2023	08:40:00
COMPOSITE	
Normal TAT	

EFF PR

1 Glass 500 ml /clean metals w/HCl

Requested Tests

LHgS	Mercuryl (low level) SUB	EPA 245.7 2 SUB

Previous Results:

Date Time	Relinquished	Date Time	Received
08/17/2023 17:51	Affiliation ANA-LAB; Printed Name Tayna Chitwood; Signature TChitwood	08/17/2023 17:51	Affiliation ANA-LAB; Printed Name Edith Payne; Signature Edith Payne
8/18/23 0600	Printed Name Edith Payne; Affiliation ANA-LAB; Signature Edith Payne	8/18/23 0600	Printed Name William Ward; Affiliation SPL; Signature William Ward
8/18/23 0810	Printed Name William Ward; Affiliation SPL; Signature William Ward		Printed Name Aimee Londo; Signature [signature]; AUG 18 2023 0815
	Printed Name; Affiliation; Signature		Printed Name; Affiliation; Signature

Sample Received on Ice? ☒ Yes ☐ No
Cooler/Sample Secure? ☒ Yes ☐ No

Method of Shipment: ☐ UPS ☐ Bus ☐ FedEx ☐ Lone Star ☒ Hand Delivered ☐ Other

If Shipped: Tracking Number & Temp - See Attached

Hand Delivered to Region [ ]

The accredited column designates accreditation by A - A2LA, N - NELAC ... Unless otherwise specified, ANA-LAB shall provide these ordered services pursuant to our Standard Terms & Conditions ... available for download from the welcome page at <http://www.ana-lab.com> ... Ana-Lab personnel collect samples as specified by Ana-Lab SOP ...

Comments

0.5°C / 0.5°C T#8

SAN ANTONIO TESTING LABORATORY

Sample Receipt Checklist

Client: SPL, Inc.	**Project Manager: Sairam Abburu**
Project: Low Level Hg	**Project Number: [none]**

Report To:
Tayna Chitwood

SATL Report Number: 2308491

Work Order Due by:	08/29/23 17:00 (7 day TAT)		
Received By:	Aimee Landon	Date Received:	08/18/23 08:15
Logged In By:	Aimee Landon	Date Logged In:	08/18/23 13:44

Sample(s) Received on ICE/evidence of Ice (cooler with melted ice,etc):	*Yes*
Sample temperature at receipt *:	*0.5°C*
Custody Seals Present:	*No*
All containers intact:	*Yes*
Sample labels/COC agree:	*Yes*
Samples Received within Holding time :	*No*
Samples appropriately preserved **:	*Yes*
Containers received broken/damaged/leaking:	*No*
Air bubbles present in VOA vials for VOC/TPH analyses, if applicable:	*Not Applicable*
TRRP 13 Reporting requested?	*No*
BacT Sample bottles filled to volume (100mL mark), if applicable:	*Not Applicable*
LCR Sample bottles filled to volume (1 Liter mark), if applicable:	*Not Applicable*
Subcontracting required for any analyses:	*No*
RUSH turnaround time requested:	*No*
Requested Turnaround Time:	*No*
Samples delivered via :	*Hand Delivered*
Air bill included if Samples were shipped:	*No*
Other deviations not meeting SATL sample acceptance criteria notated on CoC:	*Notated on CoC, if any*

Notes:
** Samples delivered to the laboratory on the same day that they are collected may not meet thermal preservation criteria (>0°C but <6°C) but are acceptable, if they arrive on ice.*
*** If improperly preserved, notate client authorization on CoC to proceed with analysis.*

Checked By : *Aimee Landon* Date : *08/18/23 08:15*

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-9921
www.satestinglab.com

SAN ANTONIO TESTING LABORATORY

August 29, 2023

Tayna Chitwood
SPL, Inc.
3306 State Highway 135 N.
Kilgore, TX 75662

SATL Report No.: 2308492
RE: Low Level Hg

Dear Tayna Chitwood

SATL received 1 Sample(s) on 08/18/2023 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Sincerely,

For San Antonio Testing Laboratory, Inc.

Richard Hawk,
General Manager

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-9921
www.satestinglab.com

1068296

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308492

SAMPLE SUMMARY

Total Samples received in this work order: 1

The following samples were requested for analysis as per the CoC. Any re-runs or re-analyses requested are identified as such.

Sample ID	Laboratory ID	Matrix	Sampling Method	Date Sampled	Date Received
2219451 - EFF PR Hgl Blank	2308492-01	Liquid	Composite	08/02/23 08:40	08/18/23 08:15

Notes

All quality control samples and checks are within acceptance limits unless otherwise indicated.
Test results pertain only to those items tested.
All samples were in good condition when received by the laboratory unless otherwise noted.

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662
Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308492

Sample ID #: 2219451 - EFF PR Hgl Blank | **Sampling Method: Composite** | **Lab Sample ID #: 2308492-01**

Sample Matrix: Liquid | **Date/Time Collected: 08/02/23 08:40**

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
Total Mercury by EPA 245.7									
Mercury	6.88	ng/L	5.00	EPA 245.7	B334287	08/25/23 17:16	EPA 245.7	SG	

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308492

Total Mercury by EPA 245.7 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B334287 - EPA 245.7									
Blank (B334287-BLK1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:35					
Mercury	<5.00	5.00	ng/L						
LCS (B334287-BS1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:38					
Mercury	19.5	5.00	ng/L	25.0		78	75-125		
LCS Dup (B334287-BSD1)				Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:41					
Mercury	19.9	5.00	ng/L	25.0		80	75-125	2	20
Matrix Spike (B334287-MS1)		Source: 2308488-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:47					
Mercury	23.0	5.00	ng/L	25.0	5.22	71	63-111		
Matrix Spike (B334287-MS2)		Source: 2308495-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 17:33					
Mercury	26.7	5.00	ng/L	25.0	10.1	67	63-111		
Matrix Spike Dup (B334287-MSD1)		Source: 2308488-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 16:50					
Mercury	21.9	5.00	ng/L	25.0	5.22	67	63-111	5	18
Matrix Spike Dup (B334287-MSD2)		Source: 2308495-01		Prepared: 08/23/23 16:00 Analyzed: 08/25/23 17:36					
Mercury	26.2	5.00	ng/L	25.0	10.1	65	63-111	2	18

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308492

DEFINITIONS

*	TNI / NELAC accredited analyte
PQL	Practical Quantitation Limit
MCL	Maximum Contaminant Level
mg/Kg	Milligrams per Kilogram (Parts per Million)
mg/L	Milligrams per Liter (Parts per Million)
PPM	Parts per Million
L	LCS recovery is outside QC acceptance limits, the results may have a slight bias.
M	MS recovery is outside QC limits, the results may have a slight bias due to possible matrix interferences.
NR	Not Recovered due to source sample concentration exceeds spiked concentration.
RMCCL	Recommended Maximum Concentration of Contaminants Level
Surr L	Surrogate recovery is low outside QC limits.
Surr H	Surrogate recovery is high outside QC limits.
HT	Sample received past holdtime
IC	Improper Container for this analyte(s)
IP	Improper preservation for this analyte(s)
IT	Improper Temperature
V	Inssuficient Volume
B	Sample collected in Bulk
S	RPD is outside QC limits.
AB	VOA Vial contained air bubbles.
OP	ortho-Phosphate was not filtered in the field within 15minutes of collection.
CCV	Continuing Calibration Verification Standard.
ICV	Initial Calibration Verification Standard.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.
Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017
Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996

SAN ANTONIO TESTING LABORATORY

LABORATORY REPORT

SPL, Inc.
3306 State Highway 135 N.
Kilgore TX, 75662

Additional Notes:

Project Manager: Tayna Chitwood
Project: Low Level Hg
Project Number: [none]

Reported:
08/29/23 14:51
Received:
08/18/23 08:15

Report No. 2308492

Marcela Gracia Hawk For Sairam Abburu, Lab Director For

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

Richard Hawk, General Manager

1
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3
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2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

SUBCONTRACT CHAIN OF CUSTODY

Printed 08/17/2023 Page 1 of 1

Subcontract to:

San Antonio Testing Laboratory
1610 S. Laredo St.
San Antonio TX 78207
210/229-9920

2308492

Sample	2219451
Taken 08/02/2023	08:40:00
COMPOSITE	
2023 PI	

EFF PR Hgl BLANK

1 Glass 500 ml /clean metals w/HCl

Requested Tests

LHgS Mercuryl (low level) SUB EPA 245.7 2 SUB

Previous Results:

Date Time	Relinquished	Date Time	Received
08/17/2023 17:51	Affiliation ANALAB; Printed Name Tayna Chitwood; Signature Chitwood	08/17/2023 17:51	Affiliation ANALAB; Printed Name Edith Payne; Signature Edith Payne
8/15/23 0600	Printed Name Edith Payne; Signature Edith Payne	8/18/23 0600	Printed Name William Ward; Affiliation SL; Signature William Ward
8/18/23 0810	Printed Name William Ward; Affiliation SL; Signature William Ward		Printed Name Armelando; AUG 18 2023; Signature; 0815
	Printed Name; Affiliation; Signature		Printed Name; Affiliation; Signature

Sample Received on Ice? ☒ Yes ☐ No
Cooler/Sample Secure? ☒ Yes ☐ No

Method of Shipment ☐ UPS ☐ Bus ☐ FedEx ☐ Lone Star ☒ Hand Delivered ☐ Other

If Shipped: Tracking Number & Temp - See Attached

Hand Delivered to Region [ ]

The accredited column designates accreditation by A2LA, NELAC ... Unless otherwise specified ANALAB shall provide these ordered services pursuant to our Standard Terms & Conditions ... available for download from the welcome page at www.ana-lab.com. Ana-Lab personnel collect samples as specified by Ana-Lab SOP.

Comments

0.5°C/0.5°C TG#8

SAN ANTONIO TESTING LABORATORY

Sample Receipt Checklist

Client: SPL, Inc.	**Project Manager: Sairam Abburu**
Project: Low Level Hg	**Project Number: [none]**

Report To:
Tayna Chitwood

SATL Report Number: 2308492

Work Order Due by:	08/29/23 17:00 (7 day TAT)		
Received By:	Aimee Landon	Date Received:	08/18/23 08:15
Logged In By:	Aimee Landon	Date Logged In:	08/18/23 13:44

Sample(s) Received on ICE/evidence of Ice (cooler with melted ice,etc):	*Yes*
Sample temperature at receipt *:	*0.5°C*
Custody Seals Present:	*No*
All containers intact:	*Yes*
Sample labels/COC agree:	*Yes*
Samples Received within Holding time :	*No*
Samples appropriately preserved **:	*Yes*
Containers received broken/damaged/leaking:	*No*
Air bubbles present in VOA vials for VOC/TPH analyses, if applicable:	*Not Applicable*
TRRP 13 Reporting requested?	*No*
BacT Sample bottles filled to volume (100mL mark), if applicable:	*Not Applicable*
LCR Sample bottles filled to volume (1 Liter mark), if applicable:	*Not Applicable*
Subcontracting required for any analyses:	*No*
RUSH turnaround time requested:	*No*
Requested Turnaround Time:	*No*
Samples delivered via :	*Hand Delivered*
Air bill included if Samples were shipped:	*No*
Other deviations not meeting SATL sample acceptance criteria notated on CoC:	*Notated on CoC, if any*

Notes:
** Samples delivered to the laboratory on the same day that they are collected may not meet thermal preservation criteria (>0°C but <6°C) but are acceptable, if they arrive on ice.*
*** If improperly preserved, notate client authorization on CoC to proceed with analysis.*

Checked By : *Aimee Landon* Date : *08/18/23 08:15*

SATL#FO001
Revised 09/15/2022

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-[illegible]
www.satestinglab.com

EASTEX
ENVIRONMENTAL LABS INC.

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

NELAP ACCREDITED LABORATORY

Memorial Villages Water Authority
Memorial Villages Water Authority
8955 Gaylord Drive
Houston, TX 77024

LABORATORY ANALYTICAL REPORT

Project: Memorial Village Short Permit Renewal

Sample Site:	Eff PR	Sample Number:		Collector:	BS
Sample Type:	Grab	**C3H5153-01**		Sampled:	08/17/2023 8:00
Sample Matrix:	Water			Received:	08/17/2023 16:37
Client Matrix:	Water				

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed	Analyst	Method	Notes
Nitrate as N	26.5	0.05	mg/L	A	B3H2986	08/23/2023 10:00	TDS	EPA 300.0	94

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 B3H2986 - No Prep										
Blank (B3H2986-BLK1)				Prepared & Analyzed: 08/23/23						
Nitrate as N	ND	0.05	mg/L							
LCS (B3H2986-BS1)				Prepared & Analyzed: 08/23/23						
Nitrate as N	1.039		mg/L	1.00		104	90-110			
Matrix Spike (B3H2986-MS1)	**Source: C3H4822-01**			Prepared & Analyzed: 08/23/23						
Nitrate as N	28.381	0.05	mg/L	1.00	28.25	13.1	80-120			23
Matrix Spike Dup (B3H2986-MSD1)	**Source: C3H4822-01**			Prepared & Analyzed: 08/23/23						
Nitrate as N	28.893	0.05	mg/L	1.00	28.25	64.3	80-120	1.79	20	

Mark Bourgeois, Special Projects Manager

Qualifiers

94 Sample analyzed by equivalent method.

23 Spike recovery outside of acceptance limits due to matrix interference.

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.

Alkalinity titrated to pH 4.5 endpoint.

*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: MEMORIAL VILLAGE WATER AUTH
Address: 11 1/2 FARNHAM PK
Attn:
Phone#: 713-974-6606
Email:
P.O. #:
Sampler's Name (print): BOB SALAZAR
Sampler's Signature: Bob Salazar
Project Name:

INVOICE TO:

Company:
Address:
Attn:
Phone#:

Remarks: No ecoli per CSW EHK 8-18-23

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: C-BOD - TSS	NH3N	MLSS - MLVSS	E COLI EHK 8-18-23	NH3N / NITRATE
4920-01	EFFLUENT	8-17-23	3:00 AM	WW	C						2	3	P	C	X				
					C						1	5		C/S		X			
4921-01	INFLUENT				C						2	3		C	X				
			3:00 AM		C						1	5		C/S		X			
4917-01	PHASE I CMB		8:00 AM		G						1	5		C			X		
-02	PHASE II - CMB		8:00 AM		G						1	5		C			X		
C3H52664	Field Grab		10:30		G	7.0	7.2		.180	30	1	6		C				X	
C3H5153	PERMIT	8-17-23	800 AM	WW	G						1	4	P	C					X

Relinquished By: Bob Salazar — Received By: — Date: 8-17-23 — Time: 1005 — Received Iced: (YES) / NO
Relinquished By: — Received By: — Date: — Time: — Received Iced: YES / NO
Relinquished By: — Received By and/or Checked In By: — Date: 8/17/23 — Time: 1437 — Received Iced: (YES) / NO

LAB USE ONLY

Alternate Check In: — Sample Condition Acceptable: (YES) / NO — Date: — Time:

Temp °C	*Therm ID	Logged In By:	Date	Time
2.6	15		8-17-23	1709

*Thermometer has 0.0 factor and recorded temperature is actual temperature

EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 * Coldspring, TX 77331
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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: Memorial Villages
Address: ON FILE
Attn:
Phone#:
Email:
P.O. #:
Sampler's Name (print): Chris Wirzberg
Sampler's Signature:
Project Name: Memorial Villages PR

INVOICE TO:

Company:
Address: SAME
Attn:
Phone#:

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

Work Order ID	Sample ID	Date	Time	Matrix	C or G	Field Data: DO	pH	Cl2	Flow	Temp	Containers: #	Size	Type	Pres
C3H0212	EFF	8-2-23	840	WW	G	6.8	7.0	0.0		29.4	5	3,4.5	P	C
	EFF	8-2-23	840	WW	G						5	3.4.5	P.G	ST.S. N.C
	EFF	8-2-23	840	WW	G						1	6	P.S	ST.C
	EFF	8-2-23	840	WW	G						6	8	G	H.C
	EFF	8-2-23	840	WW	G						1	4	P	Naoil C
	EFF	8-2-23	840	WW	C						1	4	P	N.C
	EFF	8-2-23	840	WW	C						2	4.5	P	C
	EFF	8-2-23	840	WW	C						10	3	G	C
	EFF	8-2-23	840	WW	C						1	3	G	S.C

ANALYSIS REQUESTED	
CBOD5, TSS, TDS, Alk, Cond, Cl, NH3-N, SO4	✓
NH3N, TKN, O&G, Phenol, TP	✓
E coli	✓
VOC-624.1	✓
CN-	✓
Metals	✓
Chrom VI, NO3-N, F	✓
SVOC-625.1, Pest-608.3, PCBs, Herb-615	✓
MTBE, OP Pest, Carb/Diuron	✓
Nonylphenol	✓

Relinquished By:
Received By:
Date
Time

Relinquished By:
Received By:
Date
Time

Relinquished By:
Received By and/or Checked in By:
Date 8-2-23
Time 1120

Received Iced: YES / NO
Received Iced: YES / NO
Received Iced: YES / NO

LAB USE ONLY

Alternate Check In:
Sample Condition Acceptable: (YES) / NO
Date
Time

Temp °C	*Therm ID	Logged In By:	Date	Time
	15		8-2-23	1206

*Thermometer has 0.0 factor and recorded temperature is actual temperature

EASTEX ENVIRONMENTAL LABORATORY, INC.

. Box 1089 * Coldspring, TX 77331
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(936) 569-8879 * FAX (936) 569-8951
www.eastexlabs.com

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

DICE TO:
mpany:
ldress: SAME
Attn:
Phone#:

Remarks: *LL Hg Samples flow-wt. composited into 1 sample

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	Field Data: C or G	DO	pH	Cl2	Flow	Temp	Containers: #	Size	Type	Pres	ANALYSIS REQUESTED: LL Hg	LL Hg Blank
C3H0212	EFF Grab #1	8-1-23	14[illegible]	WW	G				1.84		1	4	G	H,C	✓	
	EFF Grab #2	8-1-23	12[illegible]	WW	G				.70		1	4	G	H,C	✓	
	EFF Grab #3	8-1-23	10[illegible]	WW	G				.45		1	4	G	H,C	✓	
	EFF Grab #4	8-2-23	0844	WW	G				.55		1	4	G	H,C	✓	
	LL Hg Blank	8-2-23	0840	WW	G						1	4	G	H,C		✓

Relinquished By: Received By: Date Time
Relinquished By: Received By: Date Time
Relinquished By: Received By and/or Checked in By: 8-2-23 Date Time 1120

Received Iced: YES / NO
Received Iced: YES / NO
Received Iced: YES / NO

LAB USE ONLY
Alternate Check In: Sample Condition Acceptable: (YES) / NO
Date Time
Temp °C | *Therm ID: 15 | Logged In By: Date: 8-2-23 Time: 1206

*Thermometer has 0.0 factor and recorded temperature is actual temperature