



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 *
-



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 **



K-3 Resources LP CN603843426 operates WQ0004445000 Class B Municipal Biosolids and Water Treatment Residuals on approximately 208.2 acres at on the South Side of FM 529 .32 miles from the intersection of FM 362 and FM 529 Rd, near Brookshire, in Waller County, Texas 77423 (RN102913431).

To clarify, the purpose of this is for K-3 Resources LP CN603843426 to apply for a major amendment to Permit No. WQ0004445000 associated with Carl Miller Farms RN102913431.

K-3 Resources LP CN603843426 land applies Class B Municipal Biosolids and Water Treatment Residuals for beneficial use at a maximum rate of 12 dry tons per acre per year on 208.2 acres of land. This land application unit will not discharge of pollutants into water in the state. The following pollutants are expected in biosolids land application: Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium and Zinc. Examples of best management practices implemented by K-3 Resources LP include but are not limited to: monitoring of metal pollutants, pathogen reduction, vector attraction reduction, applicable land application unit buffer zones, soil monitoring and limiting application at the appropriate agronomic rate based on crop needs.



K-3 Resources LP CN603843426 opera WQ0004445000 Biosólidos Municipales de Clase B y Residuos de Tratamiento de Agua en 208.2 acres en el lado sur de FM 529 aproximadamente a 32 millas de la intersección de FM 362 y FM 529 Rd, cerca de Brookshire, en el condado de Waller, Texas 77423 (RN102913431).

Para aclarar, el propósito de esto es que K-3 Resources LP CN603843426 solicitar una enmienda importante al Permiso No. WQ0004445000 asociados con Carl Miller Farms RN102913431.

El terreno de K-3 Resources LP CN603843426 aplica Biosólidos Municipales y Residuos de Tratamiento de Agua Clase B para uso beneficioso a una tasa máxima de 12 toneladas secas por acre por año en 208.2 acres de terreno. Esta unidad de aplicación terrestre no descargará contaminantes en el agua del estado. Se esperan los siguientes contaminantes en la aplicación de biosólidos al suelo: Arsénico, Cadmio, Cromo, Cobre, Plomo, Mercurio, Molibdeno, Níquel, Selenio y Zinc, los ejemplos de las mejores prácticas de gestión implementadas por K-3 Resources LP incluyen, entre otros: monitoreo de contaminantes metálicos, reducción de patógenos, reducción de la atracción de vectores, zonas de amortiguamiento de la unidad de aplicación terrestre aplicable, monitoreo del suelo y aplicación limitada a la tasa agronómica adecuada basada en necesidades del cultivo.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN A BENEFICIAL LAND USE PERMIT RENEWAL

PERMIT NO. WQ0004445000

APPLICATION. K-3 Resources, L.P., 9458 Farm-to-Market Road 362, Pattison, Texas 77423, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew beneficial land use Permit No. WQ0004445000 to authorize the land application of wastewater treatment plant Class B biosolids and water treatment plant sludge for beneficial use on approximately 203.7 acres. The beneficial land use site is located at 34719 Farm-to-Market Road 529, near the city of Brookshire, in Waller County, Texas 77423. TCEQ received this application on November 12, 2024. The permit application will be available for viewing and copying at Waller County Courthouse, Suite 112, 836 Austin Street, Hempstead, Texas prior to the date this notice is published in the newspaper.

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

El aviso de idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from K-3 Resources, L.P. at the address stated above or by calling Mr. Andy Drennan, COO/VP, at 281-375-5778.

Issuance Date: December 12, 2024

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



AVISO DE RECIBIMIENTO DE LA SOLICITUD E INTENCIÓN DE OBTENER UN PERMISO DE USO BENÉFICO DEL SUELO RENOVACIÓN

DE PERMISO N.º WQ0004445000

SOLICITUD. K-3 Resources, L.P. 9458 Farm to Market Road 362, Pattison, Texas 77423, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) para renovar permiso de uso benéfico del suelo N.º WQ0004445000 para autorizar la solicitud de tierra de planta de tratamiento de aguas residuales clase B biosólidos, residuos de plantas de tratamiento de aguas residuales para uso benéfico en aproximadamente 203.7 acres. El sitio de uso de la tierra benéfico se encuentra aproximadamente en 34719 Farm-to-Market Road 529, cerca de la ciudad de Brookshire, en el condado de Waller, Texas 77423. TCEQ recibió esta solicitud el 12 de noviembre de 2024. El la solicitud de permiso estará disponible para ver y copiar en el Palacio de Justicia del Condado de Waller, Suite 112, 836 Austin Street, Hempstead, Texas antes de la fecha en que se publique este aviso en el periódico.

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no como parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo una revisión técnica de la solicitud. Una vez completada la revisión técnica de la solicitud, el Director Ejecutivo puede preparar un bosquejo del permiso y emitirá una decisión preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar se publicarán y enviarán por correo a aquellos que están en la lista de correo de todo el condado y a aquellos que están en la lista de correo para esta solicitud. Ese aviso contendrá la fecha límite para enviar comentarios públicos.**

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ convocará una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado.

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos relevantes y

materiales, o significativos. **A menos que la solicitud se remita directamente para una audiencia de caso impugnado, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los que hayan presentado comentarios públicos y a las personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y para solicitar una audiencia de caso impugnado. Una persona que pueda verse afectada por la solicitud puede solicitar una audiencia.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD: su nombre, dirección, número de teléfono; nombre del solicitante y número de permiso propuesto; la ubicación y distancia de su propiedad/actividades en relación con la instalación propuesta; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho controvertidas que presente durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/amos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad propuesta; proporcionar la información discutida anteriormente con respecto a la ubicación y distancia del miembro afectado de la instalación o actividad; explicar cómo y por qué el miembro se vería afectado; y explicar cómo los intereses que el grupo busca proteger están relacionados con el propósito del grupo.

Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

La Comisión sólo podrá conceder una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya presentado en sus observaciones oportunas que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios.**

La TCEQ puede actuar sobre una solicitud para renovar un permiso sin brindar la oportunidad de una audiencia de caso impugnado si se cumplen ciertos criterios.

LISTA DE CORREO. Si envían comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y/o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario

Oficial de la TCEQ a la dirección a continuación.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Busque en la base de datos utilizando el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a <http://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. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, se convertirá en parte del registro público de la agencia. 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 más información de K-3 Resources, L.P. en la dirección indicada anteriormente o llamando a Andy Drennan al 281-375-5778.

Fecha de emisión: 12 de diciembre de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR LAND APPLICATION OF BIOSOLIDS PERMIT

RENEWAL

PERMIT NO. WQ0004445000

APPLICATION AND PRELIMINARY DECISION. K-3 Resources, L.P., 9458 Farm-to-Market Road 362, Pattison, Texas 77423, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of TCEQ Permit No. WQ0004445000, which authorizes the land application of Class B wastewater treatment plant biosolids and water treatment plant residuals for beneficial use on 203.7 acres. This permit will not authorize a discharge of pollutants into water in the state. TCEQ received this application on November 12, 2024.

The land application unit is located at 34719 Farm-to-Market Road 529, Brookshire, in Waller County, Texas 77423.

The land application unit is located within the drainage basin of Bessie's Creek in Segment No. 1202 of the Brazos River Basin.

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 Waller County Courthouse, Suite 112, 836 Austin Street, Hempstead, Texas. This link to an electronic map of the facility's location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>

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

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 permit number; the location and distance of your property/activities relative to the 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 germane 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 the land application of biosolids 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 (2) the mailing list for a specific county. If you wish to be placed on the permanent and 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 K-3 Resources, L.P. at the address stated above or by calling Mr. Andy Drennan, CCO/VP, at 281-375-5778.

Issuance Date: May 13, 2025

Comisión De Calidad Ambiental Del Estado De Texas



ANUNCIO DE SOLICITUD Y DECISIÓN PRELIMINAR PARA LA APLICACIÓN TERRESTRE DE BIOSÓLIDOS PERMISO

RENOVACIÓN

PERMISO NO. WQ0004445000

SOLICITUD Y DECISIÓN PRELIMINAR. K-3 Resources, L.P., 9458 Farm-to-Market 362, Pattison, Texas 77423 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para una propuesta, para renovar el Permiso No. WQ0004445000 para uso beneficioso del suelo de lodos de la planta de tratamiento de aguas residuales, lodos del tratamiento de agua potable, y agua de fosas sépticas domésticas en aproximadamente 203.7 acres. Este permiso no autorizará la descarga de contaminantes a las aguas del estado. La TCEQ recibió esta solicitud el 12 de noviembre de 2024.

La unidad de aplicación de tierras está ubicada en 34719 Farm-to-Market Road 529, Brookshire, en el condado de Waller, Texas 77423.

La unidad de aplicación de tierra está ubicada dentro de la cuenca de drenaje de Bessie's Creek en el Segmento No. 1202 de la Cuenca del Río Brazos.

El Director Ejecutivo de la TCEQ ha completado el examen técnico de la solicitud y ha preparado un proyecto de permiso. El proyecto de permiso, de ser aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar en el sentido de que este permiso, si se concede, cumple con todos los requisitos legales y reglamentarios. La solicitud de permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para su visualización y copia en el Palacio de Justicia del Condado de Waller, 425 Camino de la granja al mercado 1488, Suite 112, Hempstead, Texas. Este enlace a un mapa electrónico de la ubicación de la instalación se proporciona como cortesía pública y no forma parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la aplicación.

<http://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

La solicitud, incluyendo cualquier actualización, y los avisos correspondientes están disponibles electrónicamente en la siguiente página web:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>

AVISO DE IDIOMA ALTERNATIVO. El aviso en idioma alternativo en español está disponible en

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>

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 persona que puede ser afectado por esta solicitud puede 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.

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 TCEQ 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 de 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 específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

Todos los comentarios escritos del público y los pedidos una reunión deben 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 or 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 TCEQ. Si necesita más información en Español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: www.tceq.texas.gov.

También se puede obtener información adicional del K-3 Resources, L.P. a la dirección indicada arriba o llamando a Sr. Andy Drennan al 281-375-5778.

Fecha de emisión: 13 de mayo de 2025



PERMIT NO. WQ0004445000

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

This is a renewal of Permit
No. WQ0004445000 issued
on January 6, 2020.

PERMIT TO LAND APPLY BIOSOLIDS AND WATER TREATMENT PLANT RESIDUALS

under provisions of Chapter 26 of the Texas Water Code,
Chapter 361 of the Texas Health and Safety Code,
and Chapter 312 of the Texas Administrative Code.

I. PERMITTEE

K-3 Resources, L.P.
9458 Farm-to-Market Road 362
Pattison, Texas 77423

II. AUTHORIZATION

Beneficial Land Application of Class B Wastewater Treatment Plant (WWTP) Biosolids and Water Treatment Plant (WTP) Residuals.

III. GENERAL DESCRIPTION AND LOCATION OF SITE

Description: The permittee is authorized to land apply Class B WWTP biosolids and WTP residuals at an annual rate not to exceed 12 dry tons per acre per year on 203.7 acres located within approximately 280.882 acres at this site*. * See Special Provision A.

Location: The land application unit is located at 34719 Farm-to-Market Road 529, Brookshire, in Waller County, Texas 77423 (see Attachment A).

SIC Code: 4952

Drainage Basin: The land application unit is located in the drainage basin of Bessie's Creek in Segment No. 1202 of the Brazos River Basin. No discharge of pollutants into water in the state is authorized by this permit.

This permit and the authorization contained herein shall expire at midnight five years from the date of issuance listed below.

ISSUED DATE:

For the Commission

IV. GENERAL REQUIREMENTS

- A. The permittee shall handle and dispose of Class B biosolids (including WTP residuals) in accordance with 30 Texas Administrative Code (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.
- B. An application for renewing this permit shall be submitted by the permittee at least 180 days prior to the expiration date of this permit.
- C. Class B WWTP Biosolids and WTP residuals
 1. In all cases, the generator or processor of biosolids and WTP residuals shall provide necessary analytical information to the parties who receive the biosolids and WTP residuals, including those receiving the biosolids and WTP residuals for land application, to assure compliance with these regulations.
 2. The permittee shall not accept biosolids and WTP residuals that fails the Toxicity Characteristic Leaching Procedure (TCLP) test per the method specified in both 40 Code of Federal Regulations (CFR) Part 261 and 40 CFR Part 268, or another method which receives the prior approval of the Texas Commission on Environmental Quality (TCEQ) for the contaminants listed in Table 1 of 40 CFR Section 261.24.
 3. Biosolids and WTP residuals shall not be applied to the land if the concentration of any metal exceeds the ceiling concentration listed in Table 1 below. Additional information on the frequency of testing for metals is found in Section IX.

Table 1

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

* Dry weight basis

4. When the total aggregate amount of any metal in Table 2 below in all biosolids or WTP residuals applied at the site during the entire use of this site) reaches the cumulative level listed in Table 2, only biosolids with metal levels at or below those shown in Table 3 below can be applied at the site. To compute this number, the total amount of each metal in all biosolids or WTP residuals applied must be summed on a continuing basis as biosolids and WTP residuals are applied.

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	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

5. Biosolids and WTP residuals also cannot be applied in excess of the most restrictive of the following criteria:
 - a. The maximum application rate (MAR) based on crop nitrogen needs (also referred to as the agronomic rate), which is calculated based on the total amount of nitrogen in the biosolids and WTP residuals and in the soils at the application site and on the nitrogen requirements of the vegetation in the application area.
 - b. The MAR for each metal pollutant in Table 1 above, which is calculated individually for each metal based on its concentration in the biosolids and water treatment residuals and in the soils in the application area.
6. All of the MARs above must be calculated using Appendix A of the "Application for Permit for Beneficial Land Use of Biosolids." These calculations must cover both biosolids and WTP residuals for areas where both are applied. If biosolids or WTP residuals are received from multiple sources, the average concentration of each of the elements above must be determined using "Table 2 - Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration" from the application form.
7. Anytime the permittee plans to accept Class B biosolids or WTP residuals from any source other than those listed in the application and approved for this permit, the permittee must notify and receive authorization from the Water Quality Division (MC 150) of the TCEQ prior to receiving the new source. The notification must include information to demonstrate that the biosolids or WTP residuals from the proposed new source meets the requirements of this permit. The permittee must provide a certification from each source that the biosolids meets the requirements for a Process to Significantly Reduce Pathogens (PSRP) or an alternative. The permittee must provide documentation that the biosolids does not exceed the limits for polychlorinated biphenyls (PCBs), vector attraction, and the metal pollutants in Table 1 above. No biosolids from sources other than the ones listed in the application can be land applied prior to receiving written authorization from the TCEQ.

- D. The permittee shall maintain a commercial liability insurance policy for the duration of the permit that:
1. is issued by an insurance company authorized to do business in this state that has a rating by the A.M. Best Company of A- or better;
 2. designates the commission as an additional insured; and
 3. is in an amount of not less than \$3 million.
- E. The permittee shall maintain an environmental impairment insurance policy for the duration of the permit that:
1. is issued by an insurance company authorized to do business in this state that has a rating by the A.M. Best Company of A- or better;
 2. designates the commission as an additional insured; and
 3. is in an amount of not less than \$3 million.

V. OPERATIONAL REQUIREMENTS

The operation and maintenance of this land application unit must be in accordance with 30 TAC Chapter 312 and 40 CFR Part 503 as they relate to land application for beneficial use. All applicable local and county ordinances must also be followed.

VI. REQUIRED MANAGEMENT PRACTICES

- A. Biosolids and WTP residuals applications must not cause or contribute to the harm of a threatened or endangered species of plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.
- B. Biosolids and WTP residuals must not be applied to land that is flooded, frozen, or snow-covered to prevent the entry of bulk biosolids and WTP residuals into wetlands or other water in the state.
- C. Biosolids and WTP residuals shall be land applied in a manner which complies with 30 TAC Section 312.44, Management Requirements, including maintaining the following buffer zones for each application area.
- | | |
|--|----------|
| 1. Established school, institution, business or residence | 750 feet |
| 2. Public water supply well, intake, spring, or similar source, public water treatment plant, or public water supply elevated or ground storage tank | 500 feet |
| 3. Solution channel, sinkhole, or other conduit to groundwater | 200 feet |
| 4. Water in the state - when biosolids are not incorporated | 200 feet |
| 5. Water in the state - when biosolids are incorporated within 48 hours of application and a vegetated cover is established | 33 feet |
| 6. Private water supply well | 150 feet |
| 7. Public right-of-way | 50 feet |
| 8. Property boundary | 50 feet |
| 9. Irrigation conveyance canal | 10 feet |

- D. Biosolids and WTP residuals must be applied to the land at an annual application rate that is equal to or less than the agronomic rate for the vegetation in the area on which the biosolids and WTP residuals are applied.
- E. The seasonally high water table, groundwater table, or depth to water-saturated soils must be at least three (3) feet below the treatment zone for soils with moderate to slow permeability (less than two inches per hour) or four (4) feet below the treatment zone for soils with rapid to moderately rapid permeability (between two and twenty inches per hour). Biosolids cannot be applied to soils with permeation rates greater than twenty inches per hour.
- F. Biosolids and WTP residuals must be applied by a method and under conditions that prevent runoff beyond the active application area and protect the quality of the surface water and the soils in the unsaturated zone. In addition, the following conditions must be met:
 - 1. Biosolids and WTP residuals must be applied uniformly over the surface of the land;
 - 2. Biosolids and WTP residuals must not be applied to areas where permeable surface soils are less than 2 feet thick;
 - 3. Biosolids and WTP residuals must not be applied during rainstorms or during periods in which surface soils are water-saturated;
 - 4. Biosolids and WTP residuals must not be applied to any areas having a slope in excess of 8%;
 - 5. where runoff from the active application area is evident, the operator must cease further biosolids and WTP residuals application until the condition is corrected;
 - 6. the site operator must prevent public health nuisances. Biosolids and WTP residuals debris must be prevented from blowing or running off site. To prevent nuisance conditions from occurring, the site operator shall minimize dust migration from the land application unit and access roadways and minimize offensive odor through incorporation of biosolids and domestic septage into the soil or by taking some other type of corrective action;
 - 7. Biosolids and WTP residuals application practices must not allow uncontrolled public access, so as to protect the public from potential health and safety hazards at the site; and
 - 8. Biosolids and WTP residuals can be applied only to the land application area shown on Attachment B. The buffer zones as listed on that map as well as the buffer zone distances listed in section VI.C. must not have any Biosolids and WTP residuals applied on them.
 - 9. Biosolids may not be applied on land within a designated floodway.
 - 10. The permittee shall develop and implement best management practices (BMPs) to minimize off-site tracking of biosolids and sediment during the transport of biosolids to and from the land application unit or storage area; and to include at a minimum, removing tracked material, to the extent practicable, by the end of each day of operation at the site and either returning it to the site or otherwise disposing of it properly. The documented BMPs shall be retained by the operator and made by readily available for review by a TCEQ representative.
- G. The permittee shall post a sign that is visible from a road or sidewalk that is adjacent to the premises where the land application unit is located stating that a beneficial land use application unit is located on the premises.

The sign shall include the operator name, telephone number, the classification of and the TCEQ authorization number.

- H. Biosolids and WTP residuals must be handled by a method that is consistent with the permittee's Adverse Weather and Alternative Plan. This plan shall detail procedures to address times when the biosolids cannot be applied to the land application unit due to adverse weather or other conditions such as wind, precipitation, field preparation delays, and access road limitations.

VII. PATHOGEN CONTROL

- A. All sewage sludge that is applied to agricultural land, a forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sewage sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.
1. For biosolids to be classified as Class A with respect to pathogens, the density of fecal coliform 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 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 biosolids must be maintained at a specific value for a specific period of time. See 30 TAC § 312.82(a)(3)(A) for specific information.

Alternative 5 (PFRP) - Biosolids 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.

Alternative 6 (PFRP Equivalent) – Biosolids 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.

2. For biosolids to be classified as Class AB with respect to pathogens, the density of fecal coliform 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 biosolids must be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

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

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

Alternative 3 - The biosolids must 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)(B)(i-iii) for specific information. Biosolids 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)(B)(iv-vi) for specific information.

Alternative 4 - The density of enteric viruses in the biosolids must be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the biosolids are used or disposed. The density of viable helminth ova in the biosolids must be less than one per four grams of total solids (dry weight basis). See 30 TAC §312.82(a)(2)(C) for specific information.

3. 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.
4. Three alternatives are available to demonstrate compliance for Class B biosolids.

Alternative 1

- i. A minimum of seven random samples of the biosolids must be collected within 48 hours of the time the biosolids are 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 must 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 Biosolids that are used or disposed of must be treated in one of the PSRP described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the biosolids.

- i. Prior to use or disposal, all the biosolids must have been generated from a single location, except as provided in subparagraph v. below;
- ii. An independent Texas licensed professional engineer must provide a certification to the generator of biosolids that the wastewater treatment facility generating the biosolids 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 must 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 biosolids 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 biosolids 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 EPA final guidance;
- iv. All certification records and operational records describing how the

requirements of this paragraph were met must 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 biosolids are generated from a mixture of sources, resulting from a person who prepares biosolids from more than one wastewater treatment facility, the resulting derived product must meet one of the PSRP, and must meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 Biosolids must be treated in an equivalent process that has been approved by the EPA so long as all of the following requirements are met by the generator of the sewage sludge:

- i. prior to use or disposal, all biosolids must have been generated from a single location, except as provided in subparagraph v. below;
- ii. prior to any off-site transportation or on-site use or disposal of any biosolids 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 biosolids 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 must be in accordance with established EPA final guidance;
- iii. all certification records and operational records describing how the requirements of this paragraph were met must 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 EPA a finding of equivalency to the defined PSRP; and
- v. if the biosolids are generated from a mixture of sources resulting from a person who prepares biosolids from more than one wastewater treatment facility, the resulting derived product must meet one of the PSRP and must meet the certification, operation, and record keeping requirements of this paragraph.

B. In addition, the following site restrictions must be met when Class B biosolids are land applied:

- 1. food crops with harvested parts that touch the biosolids /soil mixture and are totally above the land surface must not be harvested for 14 months after the application of biosolids;
- 2. food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remains on the land surface for 4 months or longer prior to incorporation into the soil;
- 3. food crops with harvested parts below the surface of the land shall not be harvested for 38 months after the application of biosolids when the biosolids remains on the land surface for less than 4 months prior to incorporation into the soil;

4. food crops, feed crops, and fiber crops shall not be harvested for 30 days after the application of biosolids;
5. domestic livestock shall not be allowed to graze on the land for 30 days after the application of biosolids;
6. turf grown on land where biosolids are applied shall not be harvested for 1 year after the application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn;
7. public access to land with a high potential for public exposure shall be restricted for 1 year after the application of biosolids;
8. public access to land with a low potential for public exposure shall be restricted for 30 days after the application of biosolids; and
9. land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC §312.44.

VIII. VECTOR ATTRACTION REDUCTION REQUIREMENTS

- A. All bulk biosolids that are applied to agricultural land, a forest, a public contact site, or a reclamation site shall be treated in accordance with one of the following alternatives for vector attraction reduction.

Alternative 1 The mass of volatile solids in the biosolids shall be reduced by a minimum of 38 percent [30 TAC §312.83(b)(1)].

Alternative 2 If Alternative 1 cannot be met for an anaerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance [30 TAC §312.83(b)(2)].

Alternative 3 If Alternative 1 cannot be met for an aerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance [30 TAC §312.83(b)(3)].

Alternative 4 The specific oxygen uptake rate (SOUR) for biosolids treated in an aerobic process must 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 degrees Celsius [30 TAC §312.83(b)(4)]. This test may only be run on sludge with a total percent solids of two percent or less.

Alternative 5 Biosolids shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the biosolids shall be higher than 40 degrees Celsius and the average temperature of the biosolids shall be higher than 45 degrees Celsius [30 TAC §312.83(b)(5)].

- Alternative 6 The pH of biosolids 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 [30 TAC §312.83(b)(6)]. This must be done at the time the biosolids are prepared for sale or given away in a bag or other container.
- Alternative 7 The percent solids of biosolids that do not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials [30 TAC §312.83(b)(7)]. 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 biosolids that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials [30 TAC §312.83(b)(8)]. This shall be done at the time the biosolids are used. Unstabilized solids are defined as organic materials in biosolids that have not been treated in either an aerobic or anaerobic treatment process.
- Alternative 9 Biosolids shall be injected below the surface of the land. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected. When biosolids that are 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 [30 TAC §312.83(b)(9)].
- Alternative 10 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. 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 [30 TAC §312.83(b)(10)].

IX. MONITORING REQUIREMENTS

The biosolids must be monitored according to 30 TAC §312.46(a)(1) for the ten metals in Table 1 of Section IV.C.3, pathogen reduction, and vector attraction reduction.

- A. If the concentration of nitrogen or any of the metals in Table 1 in Section IV.C.3 exceeds the concentration used to calculate any of the MARs in Section IV.C.5 and 6, the MAR for that element must be recalculated. If the biosolids come from multiple sources, the permittee must use Table 2 in Section IV.C.4 to calculate a volume weighted average of all biosolids that will be applied during the current monitoring period.
- B. After the biosolids have been monitored according to 30 TAC §312.46(a)(1) for a period of two years, an application may be submitted to amend this permit to reduce the frequency of monitoring.
- C. The frequency of monitoring will be increased if recalculation of the agronomic rate increases the amount of biosolids that can be applied to a higher threshold, as shown in 30 TAC §312.46(a)(1). The frequency of monitoring may also be increased if the TCEQ determines that

the level of pollutants or pathogens in the biosolids warrants such action.

- D. If WWTP biosolids and WTP residuals are received at this site for land application, the permittee must ensure that the test data for TCLP and PCBs is provided from the generators.
- E. All metal constituents and fecal coliform or *Salmonella* sp. bacteria (biosolids only) shall be monitored at the appropriate frequency pursuant to 30 TAC §312.46(a)(1).
- F. Representative samples of biosolids and WTP residuals shall be collected and analyzed in accordance with the methods referenced in 30 TAC §312.7.
- G. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

X. RECORD KEEPING REQUIREMENTS

The permittee shall fulfill record keeping requirements per 30 TAC §312.47. The documents shall be retained at the site and shall be readily available for review by a TCEQ representative.

- A. Records of the following general information must be kept for land application permits:
 - 1. a certification statement that all applicable requirements (specifically listed) have been met and the permittee understands that there are significant penalties for false certification, including fines and imprisonment. See 30 TAC §312.47(a)(4)(A)(ii) or (a)(5)(A)(ii), whichever is applicable;
 - 2. the location, by street address, and specific latitude and longitude, of each site on which biosolids (including WTP residuals if applicable) is applied;
 - 3. the number of acres;
 - 4. the dates, times, and quantities applied to each site;
 - 5. the cumulative amount of each pollutant in pounds per acre listed in Table 2 of Section IV.C.4 applied to each site;
 - 6. the total amount applied to each site in dry tons;
 - 7. the dates of harvesting activity;
 - 8. the amount harvested, excluding grazing and
 - 9. a description of how the management practices listed in Section IV.C., and 30 TAC §312.44 are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(viii).
- B. For biosolids with metal concentrations at or below levels in Table 3 of Section IV.C.4 that also meets the Class A or Class AB pathogen requirements in 30 TAC §312.82(a) and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of a description of how the vector attraction reduction requirements are met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).

- C. For biosolids with metal concentrations at or below levels in Table 3 of Section IV.C.4 that also meets the Class B pathogen requirements in 30 TAC §312.82(b), and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of:
1. a description of how site restrictions for Class B biosolids in 30 TAC §312.82(b)(3) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(x); and
 2. a description of how the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).
- D. For biosolids with metal concentrations at or below levels in Table 1 of Section IV.C.3 that also meets the Class B pathogen requirements in 30 TAC §312.82(b), and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of:
1. a description of how the requirements to obtain information from the biosolids generators in 30 TAC §312.42(e) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(vi);
 2. a description of how the site restrictions for Class B biosolids in 30 TAC §312.82(b)(3) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(x); and
 3. a description of how the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).

XI. REPORTING REQUIREMENTS

- A. The permittee shall submit a separate annual report by September 30th of each year per 30 TAC §312.48 for each site. The annual report must include all the information required under 30 TAC §312.48 (including the items listed below) for a period covering September 1st of the previous year through August 31st of the current year. Additionally, the “Annual Biosolids Land Application Summary Report Form” (Attachment C) should be filled out and submitted with the annual report. The permittee shall submit the report to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12). Record retention requirements must be followed in accordance with 30 TAC §312.47. The following information must be included in the report:
1. Annual Land Application Summary Report Form (a blank form is provided as Attachment C) with the following information:
 - i. permit number;
 - ii. the site location (address or latitude and longitude);
 - iii. operator address, contact person’s name, telephone number, and fax number;
 - iv. amount of biosolids and WTP residuals applied (dry metric tons) at each land application unit;

- v. number of acres on which biosolids and WTP residuals are land applied;
 - vi. vegetation grown and number of cuttings; and
 - vii. other items listed in the summary sheet.
2. If the concentration for any metal listed in Table 3 of Section IV.C.4 is exceeded, the report must include the following information:
- i. date and time of each application;
 - ii. all certification statements required under 30 TAC §312.47(a)(5)(B);
 - iii. a description of how the information from the generator was obtained, per 30 TAC §312.42(e);
 - iv. a description of how each of the management practices in 30 TAC §312.44 were met for this site;
 - v. a description of how the site restrictions in 30 TAC §312.82(b)(3) were met for this site;
 - vi. if the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) were met, a description of how this was done;
 - vii. soil and biosolids test reports, as required in Section XII of this permit; and
 - viii. calculations of the current agronomic rate and the life of the site based on metal loadings (Appendix A of the application, or a similar form).
3. If none of the concentrations for the metals exceed the values listed in Table 3 in Section IV.C.4:
- i. information per 30 TAC §312.47(a)(3)(B) for Class A biosolids; and
 - ii. information per 30 TAC §312.47(a)(4)(B) for Class B biosolids.
4. 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 in Section IV.C.4, the permittee shall provide the following additional information:
- i. date and time of each application;
 - ii. the information in 30 TAC §312.47(a)(5)(A) must be obtained from the generator and included in the report; and
 - iii. the cumulative amount in pounds per acre of each pollutant listed in Table 2 in Section IV.C.4 applied to each application field of this site through bulk biosolids.
5. The permittee shall submit evidence it is complying with the nutrient management plan developed by a certified nutrient management specialist in accordance with the practice standards of the Natural Resources Conservation Service of the United States Department of Agriculture.

- B. The permittee shall submit a quarterly report by the 15th day of the month following each quarter during the reporting period (ie. quarterly reports will be due December 15th, March 15th, June 15th, and September 15th). Additionally, the “Quarterly Land Application Report Form” (Attachment D) should be filled out and submitted with the quarterly report. The permittee shall submit the report to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12). Record retention requirements must be followed in accordance with 30 TAC §312.47. The Quarterly Land Application Report Form must include the following information:
1. the source, quality, and quantity applied to the land application unit;
 2. the location of the land application unit, either in terms of longitude and latitude or by physical address, including the county;
 3. the dates of delivery of Class B biosolids and WTP residuals;
 4. the dates of application of Class B biosolids and WTP residuals;
 5. the cumulative amount of metals applied to the land application unit through the application of Class B biosolids;
 6. crops grown at the land application unit site; and
 7. the suggested agronomic application rate.

XII. SOIL SAMPLING AND ANALYSIS

The permittee is required to notify the local TCEQ Regional Office 48 hours prior to taking annual soil samples at the permitted site.

The permittee shall obtain representative soil samples from the root zones of the land application area. Composite sampling techniques shall be used. Each composite sample shall represent no more than 80 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches and 6 to 24 inches below ground level per table below. Soil samples shall be analyzed within 30 days of sample collection.

The permittee shall submit the results of the annual soil sample analyses with copies of the laboratory reports and a map depicting the areas that have received biosolids within the permanent land application fields with the "Annual Land Application Report Form" (Attachment C) to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12) no later than September 30th of each sampling year. If biosolids /domestic septage are not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that biosolids have not been applied on the approved land application unit(s) during that year.

The permittee must monitor the soil-biosolids mixture for the site for the parameters listed below using the soil sampling requirements described in 30 TAC §312.11(d)(2) and (3). Analytical results must be provided on a dry weight basis. The Soil Sampling and Analysis plan shall be provided to the analytical laboratory prior to sample analysis.

No.	PARAMETER ⁷	NOTE	FREQUENCY	SAMPLE DEPTH	
				0" - 6"	6" - 24"
1.	Nitrate Nitrogen (NO ₃ -N, mg/kg)	1	1 per year	X	X
2.	Ammonium Nitrogen (NH ₄ -N, mg/kg)	1	1 per year	X	X
3.	Total Nitrogen (TKN, mg/kg)	2	1 per year	X	X
4.	Phosphorus (plant available, mg/kg)	3	1 per year	X	X
5.	Potassium (plant available, mg/kg)	3	1 per year	X	X
6.	Sodium (plant available, mg/kg)	3	1 per year	X	X
7.	Magnesium (plant available, mg/kg)	3	1 per year	X	X
8.	Calcium (plant available, mg/kg)	3	1 per year	X	X
9.	Electrical Conductivity	4	1 per year	X	X
10.	Soil Water pH (S.U.)	5	1 per year	X	X
11.	Total Arsenic (mg/kg)	6	1 per 5 years	X	N/A
12.	Total Cadmium (mg/kg)	6	1 per 5 years	X	N/A
13.	Total Chromium (mg/kg)	6	1 per 5 years	X	N/A
14.	Total Copper (mg/kg)	6	1 per 5 years	X	N/A
15.	Total Lead (mg/kg)	6	1 per 5 years	X	N/A
16.	Total Mercury (mg/kg)	6	1 per 5 years	X	N/A
17.	Total Molybdenum (mg/kg)	6	1 per 5 years	X	N/A
18.	Total Nickel (mg/kg)	6	1 per 5 years	X	N/A
19.	Total Selenium (mg/kg)	6	1 per 5 years	X	N/A
20.	Total Zinc (mg/kg)	6	1 per 5 years	X	N/A

1. Determined in a 1 N KCl soil extract (<http://soiltesting.tamu.edu/webpages/swftlmethods1209.html>).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determined from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method, Method 9045C, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA SW-846, as referenced in 40 CFR §260.11 - determined from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA SW-846; method 3050B.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

XIII. STANDARD PROVISIONS

- A. This permit is granted in accordance with the Texas Water Code, Texas Health and Safety Code, the rules and other Orders of the Commission and other applicable laws of the State of Texas.
- B. Unless specified otherwise, any noncompliance which may endanger human health or safety, or the environment shall be reported to the TCEQ. A report of such information must be provided orally or by facsimile transmission (FAX) to the TCEQ Regional Office (MC Region 12 12) within 24 hours of becoming aware of the noncompliance. A written submission of such information must also be provided to the TCEQ Regional Office (MC Region 12) and to the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission must 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 anticipated amount of 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.
- C. Any noncompliance other than that specified in Standard Provision B, or any required information not submitted or submitted incorrectly, must be reported to the TCEQ Enforcement Division (MC 224) as promptly as possible.
- D. Acceptance of this permit constitutes an acknowledgment and agreement that the permittee shall comply with all the terms, provisions, conditions, limitations and restrictions embodied in this permit and with the rules and other Orders of the Commission and the laws of the State of Texas. Agreement is a condition precedent to the granting of this permit.
- E. Prior to any transfer of this permit, Commission approval must be obtained. The Commission must 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.
- F. 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 will control.
- G. The permittee is subject to the provisions of 30 TAC §305.125, Consolidated Permits-Standard Permit Conditions.
- H. The permittee shall remit to the Commission annual fees per 30 TAC §312.9. Failure to pay the fees on time may result in revocation of this permit.
- I. The permittee does not have a vested right in this permit.
- J. The permittee may not accept Class B biosolids unless it has been transported to the land application unit in a covered container with the covering firmly secured at the front and back.
- K. This permit does not authorize 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, or WTP residuals unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

- L. This permit does not authorize the processing of biosolids or domestic septage at the land application site. Processing includes, but is not limited to, thickening, stabilization, initial alkali addition for pathogen or vector control, and dewatering of biosolids or WTP residuals.

XIV. SPECIAL PROVISIONS

- A. For the first year of this permit, the maximum application rate shall not exceed 7.28 dry tons per acre on Field 1, 4.11 dry tons per acre on Field 2, and 7.83 dry tons per acre on Field 3 dry tons per acre. On an annual basis, the application rate shall be calculated and adjusted based on current soil monitoring results. This application rate that is submitted in each annual report shall not exceed the overall maximum application rate of 12 dry tons per acre per year on Fields 1, 2, and 3.
- B. During times of land application, all buffer zones (including surface water buffers) and land application areas must be distinguished from each other by the use of flags, posting or fencing to ensure that buffer areas and land application areas are separated from each other.

The application areas Field 1, Field 2, and Field 3 must be distinguished from each other by the use of flags, posting, or fencing to ensure that each field is separated from each other.

- C. The permittee shall consider nutrient management practices appropriate for the land application of biosolids and assess the potential risk for nitrogen and phosphorus to contribute to water quality impairments. Information and assistance on a certification program for Nutrient Management Specialists is available online at <http://nmp.tamu.edu>.

Nutrient management shall be practiced within the context of the Natural Resources Conservation Service (NRCS) Code 590 Practice Standard, which addresses the kind, source, placement, form, amount, timing, and application method of nutrients and soil amendments. This is available online at:

https://nutrientmanagement.tamu.edu/wp-content/uploads/sites/25/legacy-files/content/tools/590_TX_CPS_Nutrient_Management_2021.pdf

The 590 Standard should be conducted using the Phosphorus Index, a simple screening tool used to rank the vulnerability of fields as sources of phosphorus loss to surface runoff.

Information on the Phosphorus Index is available online at:

https://nutrientmanagement.tamu.edu/wp-content/uploads/sites/25/legacy-files/content/tools/totechnote15_rev.pdf

The annual analysis of extractable phosphorus in soil samples shall be conducted using the Mehlich III extraction with inductively coupled plasma.

- D. All staging areas shall be located outside the buffer zones required by 30 TAC §312.44(c).
- E. For Katy (KaB) soil with permeability less than 2 inches per hour, the land application of sludge is prohibited if the soil is saturated or groundwater is present within a depth of 3 feet of the treatment zone, as demonstrated through the determination of the presence or absence of the perched or apparent water table. Records of monitoring data shall be maintained per 30 TAC §312.47. In the absence of groundwater monitoring, land application of sludge is prohibited during months that the most recently published soil survey data indicates that a perched or apparent water table may be present within 3 feet of the treatment zone.

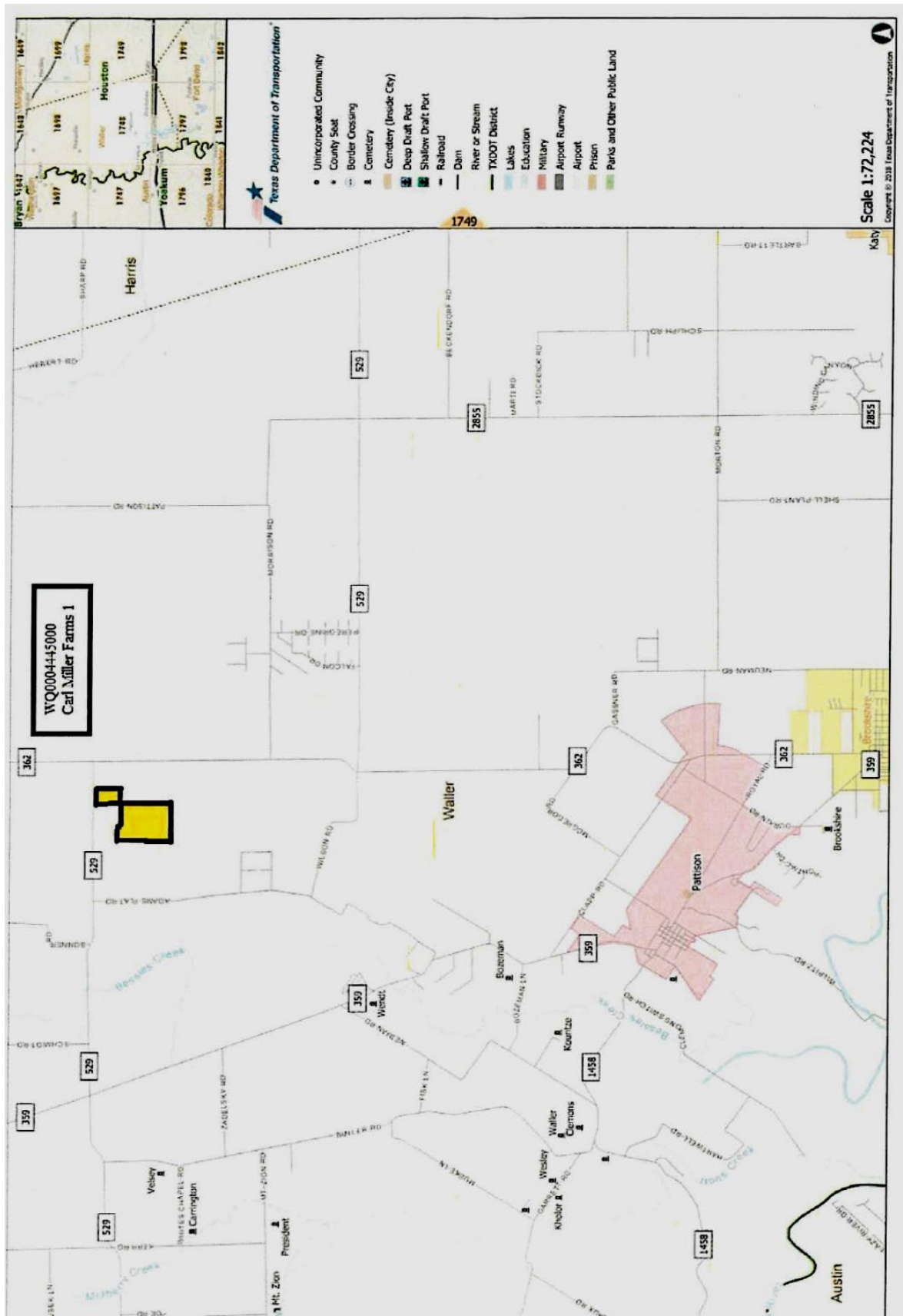
The permittee shall develop an updated Soil Water Monitoring Plan and submit the plan to the TCEQ Water Quality Assessment Team (MC 150) of the Water Quality Division for review and approval within 30 days of issuance of this permit. At a minimum, the plan shall include:

- 1) Installation of three suction piezometers, one up-gradient and two down-gradient within the 50-foot buffer zones of the Katy (KaB) soil sludge application site. The piezometers shall be

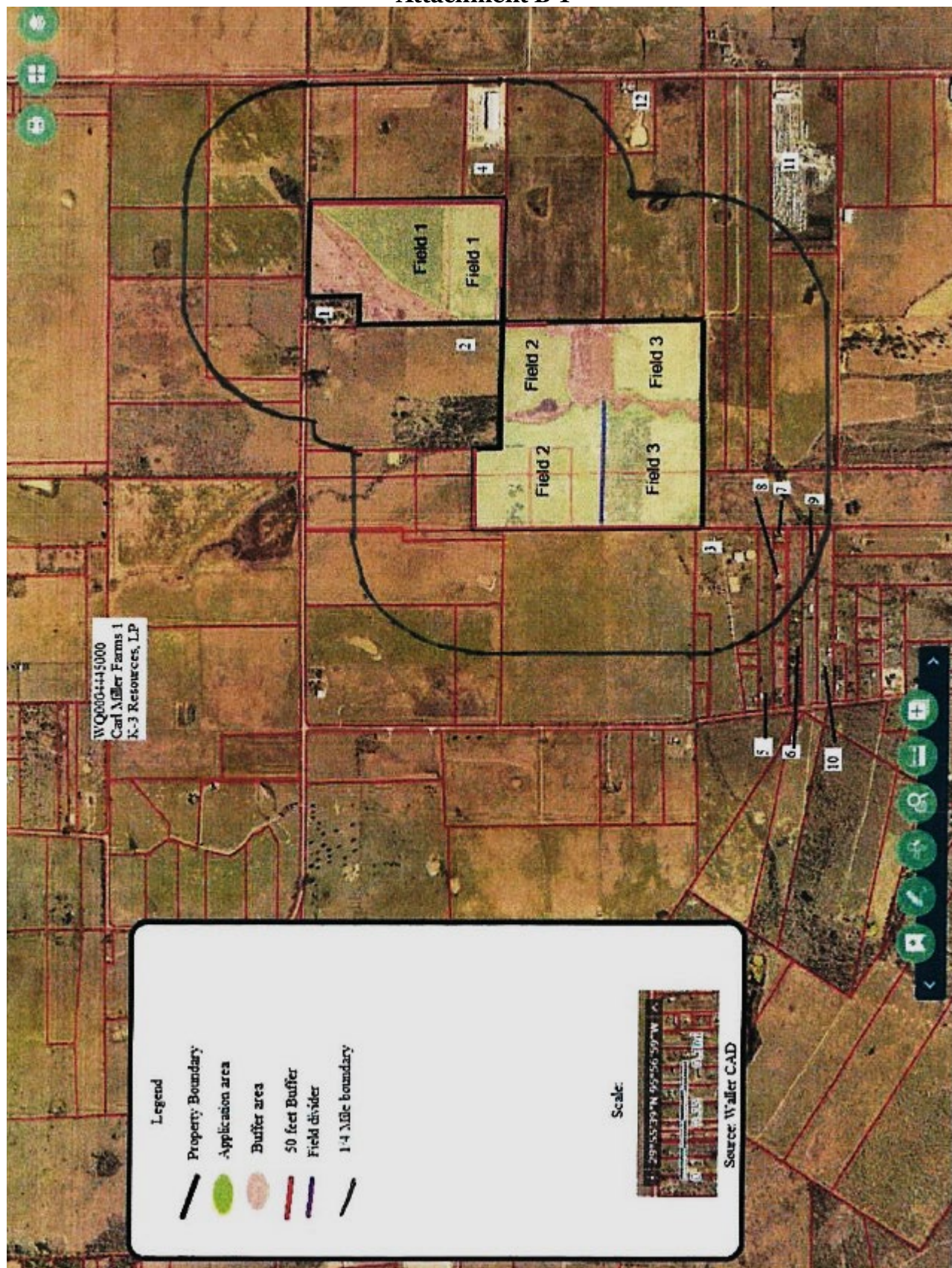
installed to a depth of 3.5 feet below ground surface with sufficient length of pipe above the soil surface for easy field identification. Sludge application is prohibited when the water table is within 3 feet of the soil surface. If a piezometer has water within 3 feet of the soil surface and the adjacent piezometer does not have water within 3 feet of the soil surface, sludge application can be applied in the area half way between the two adjacent piezometers on the side of the piezometer that does not have water within 3 feet of the surface.

- 2) Map of the sludge application site including the 3 piezometer locations.
 - 3) Collection of background data by sampling water from the piezometer outside the influence of the land application site using the frequency and parameters described in Items (4) and (5) below. Four background samples shall be collected from that piezometer.
 - 4) Analysis of shallow groundwater for nutrients including Nitrate-N + Nitrite-N, Total Kjeldahl Nitrogen (TKN), Ammonia-N, Total Nitrogen (= TKN + Nitrate-N + Nitrite-N), Total Phosphorus, and Specific Conductivity.
 - 5) Quarterly sampling of the piezometers with spring and fall sampling occurring after rainfall events producing 0.5 inches or more, if possible.
 - 6) Soil water monitoring and record keeping shall continue for the life of the sludge application site.
 - 7) The permittee shall implement the plan upon approval by the Water Quality Assessment Team. The Executive Director may request modification of the approved plan if future information indicates that it would be necessary for the protection of the environment.
 - 8) The permittee shall submit the data from the Soil Water Monitoring Plan to the Water Quality Assessment Team (MC 150), TCEQ Regional Office (MC Region 12), and the Compliance Monitoring Section (MC 224) during the month of September of each year for review.
- F. The permittee shall use cultural practices to promote and maintain the health and propagation of the Improved Coastal Bermuda Grass and Winter Pasture and avoid plant lodging. The permittee shall manage the established cover by grazing or cutting and removing the grass to ensure the health and long-term permanency of the approved vegetative cover. Grazing, cutting, and cutting and removing vegetation dates shall be recorded in a log book kept on-site to be made available to TCEQ personnel upon request.
- G. All staging areas for biosolids or WTP residuals must be located outside of buffers required by 30 TAC §312.44(c).

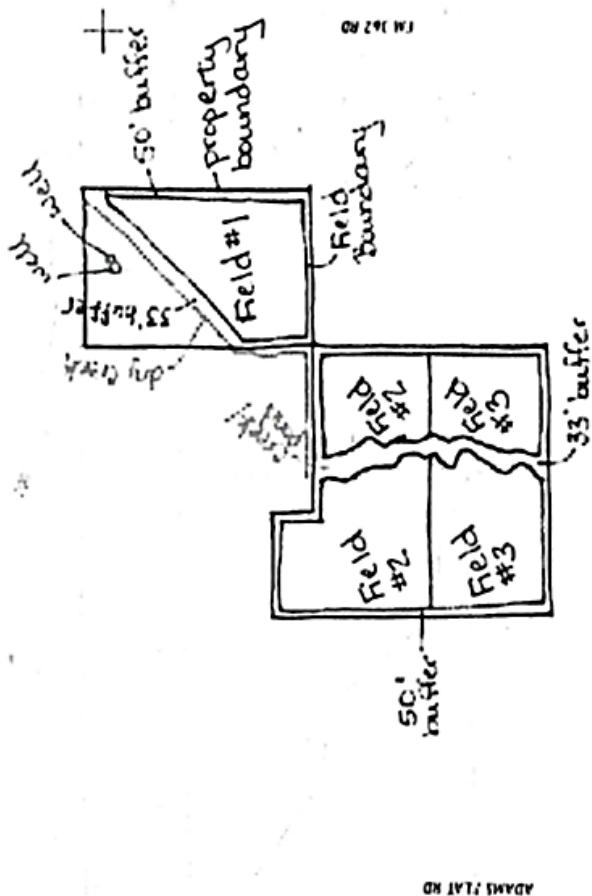
Attachment A



Attachment B-1



Attachment B-2



HOCKLEY MOUND QUADRANGLE
TEXAS
7.5-MINUTE SERIES

MORRISON RD



CONTOUR INTERVAL 5 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

FM 529
Loas Farm
Airport

MORRISON RD

ADAMS PLAT RD



Attachment C Annual Biosolids Land Application Summary Report

If you have questions on how to fill out this form or about the Biosolids program, please contact us at 512-239-4671. Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

TCEQ Fiscal Year: FY [] Reporting period from September 1, [] to August 31, []
 Class B Permit No.: [] Today's Date: []
 Permittee Name: []
 Permittee Mailing Address: []
 Contact Name: [] Contact Telephone No.: []

Field No. (if any): [] (Please submit a separate form for each field.)

Class B Biosolids:

1. Amount land applied: [] dry tons/year
2. Amount disposed of via monofill: [] dry tons/year
3. Amount disposed of via MSW landfill: [] dry tons/year

Treated Domestic Septage:

1. Amount land applied: [] gallons/year
2. Method used to treat domestic septage: []

Water Treatment Plant Residuals:

1. Amount land applied: [] dry tons/year
2. Amount disposed of via dedicated land disposal: [] dry tons/year
3. Amount disposed of via monofill: [] dry tons/year

Amount of Class A or AB Biosolids land applied: [] dry tons/year

Total area used for land application/disposal at this site: [] acres

Site vegetation (e.g. grass type) and number of cuttings: []

Biosolids only – Please provide information regarding the following three items (check yes or no):

1. Does any of the biosolids you have generated or received exceed the concentration limits for the metals listed in Table 3 of [30 TAC §312.43\(b\)](#)? Yes ☐ No ☐
2. Has your field/site reached or exceeded 90% of the cumulative metal loading rates for any metals as listed in Table 2 of [30 TAC §312.43\(b\)](#)? Yes ☐ No ☐
3. Have been applied to the field/site after 90% of cumulative metal loading rates for any of the metals per Table 2 of [30 TAC §312.43\(b\)](#) been reached? Yes ☐ No ☐

- If your site has multiple land application fields, please submit a separate form for each field.
- If you operate other land application sites, a form should be submitted for each site (regulated entity).
- In addition to this summary form, you need to submit all information as required by [30 TAC §312.48](#).
- Send one complete copy of your report and this form to the TCEQ regional office in your area.

PLEASE MAIL THE COMPLETED REPORT TO:

Texas Commission on Environmental Quality
 Land Application Team (MC 150)
 Water Quality Assessment Section
 P.O. Box 13087
 Austin, TX 78711-3087

OR VIA EMAIL TO:

biosolids@tceq.texas.gov



Attachment D Quarterly Biosolids Land Application Summary Report

If you have questions on how to fill out this form or about the Biosolids program, please contact us at 512-239-4671. Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.

TCEQ Fiscal Year: FY	Quarter:
Class B Permit No.:	Today's Date:
Permittee Name:	
Permittee Mailing Address:	
Contact Name:	Contact Telephone No.:

Field No. (if any): (Please submit a separate form for each field.)

Amount of Class B biosolids land applied: dry tons/quarter

Amount of treated domestic septage land applied: gallons/quarter

Method used to treat domestic septage:

Amount of water treatment plant residuals land applied: dry tons/quarter

Amount of Class A or AB Biosolids land applied: dry tons/quarter

Total area used for land application/disposal at this site: acres

Site vegetation (e.g. grass type) and number of cuttings:

Does any of the biosolids you have generated or received exceed the concentration limits for the metals listed in Table 3 of [30 TAC §312.43\(b\)](#)? Yes ☐ No ☐

Site location in decimal degrees: Latitude Longitude

Site physical address:

Please attach the following information as required by [30 TAC §312.48](#) (Biosolids only):

- Please note the following information shall be provided in computer generated report format.
- Please check mark before each item below to indicate you have attached that item with this report.
- ☐ 1. Metal concentration, pathogen analysis data, and vector attraction certifications of biosolids for each source.
- ☐ 2. Provide a list containing the name and permit number of each source of biosolids.
- ☐ 3. Date of delivery of each load of biosolids land applied.
- ☐ 4. Date of land application of each load of biosolids.
- ☐ 5. The cumulative metal loading rates for any metals as listed in Table 2 of [30 TAC §312.43\(b\)](#).
- ☐ 6. The suggested agronomic rate for the Class B biosolids.
- If your site has multiple land application fields, please submit a separate form for each field.
- If you operate other land application sites, a form should be submitted for each site (regulated entity).
- Send one complete copy of your report and this form to the TCEQ regional office in your area.

PLEASE MAIL THE COMPLETED REPORT TO:

Texas Commission on Environmental Quality
Land Application Team (MC 150)
Water Quality Assessment Section
P.O. Box 13087
Austin, TX 78711-3087

OR VIA EMAIL TO:

biosolids@tceq.texas.gov

SECTION 11. LAND APPLICATION INFORMATION

A. Provide the anticipated date (MM/DD/YY) of the first application of sludge after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. 1/01/2025

B. The application area is:

☐ within the city limit of:

☐ within the extraterritorial jurisdiction of:

☒ outside the extraterritorial jurisdiction of: Brookshire

C. Types of Sludge

Identify the types of sludge that will be land applied at this site.

☒ Wastewater Treatment Plant Sludge

☒ Water Treatment Plant Sludge

☐ Domestic Septage

D. Sources of Sludge

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Please See Attachment 1		

E. Property Acreage

Total acreage of the entire property, including the application area and buffer zones: 280.882 acres as per existing permit.

F. Application Area Acreage

Total acreage where the sludge may be applied, excluding the buffer zones: 203.7 acres as per existing permit.

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: K-3 Resources, L.P.

TCEQ Permit No.: WQ0004445000

Regulated Activity: Beneficial Land Application of Wastewater Treatment Plant (WWTP) Biosolids and Water Treatment Plant (WTP) Residuals

Type of Application: Renewal

Request: Renewal with no changes

Authority: Texas Water Code §26.027; 30 Texas Administrative Code (TAC) Chapters 281, 305, and 312; Texas Health and Safety Code (THSC) §361.121; and Commission policies.

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 shall expire at midnight five years from the date of issuance in accordance with 30 TAC §312.10 and THSC §361.121.

REASON FOR PROJECT PROPOSED

K-3 Resources, L.P. has applied to the Texas Commission on Environmental Quality (TCEQ or Commission) for a renewal of Permit No. WQ0004445000 to authorize the beneficial land application of Class B wastewater treatment plant (WWTP) biosolids and water treatment plant (WTP) residuals.

PROJECT DESCRIPTION AND LOCATION

The land application unit is located at 34719 Farm-to-Market Road 529, Brookshire in Waller County, Texas 77423.

The land application unit is located within the drainage basin of Bessie's Creek in Segment No. 1202 of the Brazos River Basin. No discharge of pollutants into water in the state is authorized by this permit.

Site Location Coordinates (in decimal degrees)	Latitude	Longitude
	29.917222	-95.963055

DRAFT PERMIT CONDITIONS

Sludge provisions are included in the draft permit according to the requirements of 30 TAC *Chapter 312, Sludge Use, Disposal, and Transportation*. The draft permit authorizes the land application of Class B WWTP biosolids and WTP residuals for beneficial use on 203.7 acres within 280.882 acres. The site, exclusive of buffer zones, consists of Field 1 (52.9 acres), Field 2 (71.6 acres) and Field 3 (72.9 acres).

K-3 Resources, L.P.

Permit No. WQ0004445000

Technical Summary and Executive Director's Preliminary Decision

For the first year of this permit, the maximum biosolids and water treatment residuals application rate shall not exceed 7.28 dry tons per acre (Field 1), 4.11 dry tons per acre (Field 2), and 7.83 dry tons per acre (Field 3).

On an annual basis, the application rate shall be calculated and adjusted based on current biosolids and soil monitoring results. This application rate that is submitted in each annual land application activity report shall not exceed the overall maximum application rate of 12 dry tons per acre per year.

SUMMARY OF CHANGES FROM APPLICATION

None.

SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee's mailing address has been updated per the information provided in the application.

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

More stringent limitations are required in Special Provision A of the draft permit than exist in the existing permit. The first year maximum biosolids and water treatment residuals application rate has been reduced from 9.01 dry tons per acre to 7.28 dry tons per acre (Field 1), 9.14 dry tons per acre to 4.11 dry tons per acre (Field 2), and 9.26 dry tons per acre to 7.83 dry tons per acre (Field 3). The application rates provided are based on the limiting agronomic nitrogen needs.

The Biosolids Provisions, Special Provisions and Standard Provisions have been revised in the draft permit. The Soil Sampling and Analysis section on Pages 15-16 of the draft permit has been updated. Existing Special Provisions F and G have been removed because they are included in Section XII, Soil Sampling and Analysis. New Special Provision F in the draft permit now pertains to cultural practices and vegetation management.

The maps of the land application site (Attachments A, B-1 and B-2) have been updated for accuracy and clarity. The annual and quarterly Biosolids Land Application Summary Report forms in the draft permit (Attachments C and D, respectively) have been updated for accuracy and compliance with the requirements in 30 TAC Chapter 312.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application submitted on November 12, 2024 and additional information submitted on November 28, 2024.
2. Existing TCEQ Permit No. WQ0004445000 issued on January 6, 2020.
3. Interoffice Memorandum from the Water Quality Assessment Team, Water Quality Division.

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

K-3 Resources, L.P.

Permit No. WQ0004445000

Technical Summary and Executive Director's Preliminary Decision

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 Sarah A. Johnson at (512) 239-4649.

Sarah Johnson

Sarah A. Johnson, Biosolids Coordinator
Land Application Team
Water Quality Assessment Section (MC 150)

April 4, 2025

Date

Abesha Michael

From: Kevin <erthraconsulting@gmail.com>
Sent: Thursday, November 28, 2024 4:20 AM
To: Abesha Michael
Cc: Kevin Seawright
Subject: Fwd: Fw: Application to Renew Permit No. WQ0004445000 - Notice of Deficiency Letter
Attachments: WQ0004445000-NOD1.pdf; WQ Sludge NORI 04232020- beneficial use (003) (Spanish).docx; 4445 CMF application maps qtr mile landowners map.pdf; 4445 CMF application Maps Landowner mailing list- labels page 2.docx; 4445 CMF application Maps Landowner mailing list.docx; 4445 CMF application Maps Landowner mailing list- labels.docx; 4445 CMF application publish NORI- spanish.docx; zApplication Instructions- Landowner.png

Abesha,

As regarding the NOD attached please see the following corrections:

1. Section 2- Payment in the form of the check # 37724 that has already been cashed.
2. Affected Land owner map: Attached is a land owner map of ALL living landowners in a quarter mile. Please correct me if I am wrong, but according to the instructions for this requirement it is up to the discretion of the applicant to not include landowners who do not have a living/working house on the property. Attached is the paper instructions that I was following. If this has changed, I will be happy to update the map. Please let me know.
3. landowner mailing list labels- please see attached documents
4. Insurance- will stand by if needed
5. There is a correction in the NORI as to the application area and the property size, as corrected in a previous NOD, below is the correct language:

APPLICATION. K-3 Resources, L.P., 9458 Farm-to-Market Road 362, Brookshire, Texas 77423, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew beneficial land use Permit No. WQ0004445000 to authorize the land application of wastewater treatment plant Class B biosolids, water treatment plant sludge for beneficial use on approximately 203.7 acres.

The beneficial land use site is located approximately 0.32 Miles west of intersection of Farm-to-Market Road 362 and Farm-to-Market Road 529 on the South Side of Farm-to-Market Road 529 Road, in Waller County, Texas 77423. TCEQ received this application on November 12, 2024. The permit application will be available for viewing and copying at Waller County Courthouse, Suite 112, 836 Austin Street, Hempstead, Texas prior to the date this notice is published in the newspaper. <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

This link to an electronic map of the site or facility's general location is provided as

a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

Further information may also be obtained from K-3 Resources, L.P. at the address stated above or by calling Mr. Andy Drennan, COO/VP, at 281-375-5778.

6. Attached is the corrected NORI in spanish.

If you need anything else, please let me know. I will be happy to correct/clarify/update any documents.

Kevin Seawright
Erthra Consulting, LLC
for
K-3 Resources, LP

----- Forwarded message -----

From: **Kevin Seawright** <kevins@k3bmi.com>
Date: Wed, Nov 27, 2024 at 11:49 AM
Subject: Fw: Application to Renew Permit No. WQ0004445000 - Notice of Deficiency Letter
To: Kevin <erthraconsulting@gmail.com>

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From: Compliance K3BMI <compliance@k3bmi.com>
Sent: Monday, November 25, 2024 9:11:49 AM
To: Kevin Seawright <kevins@k3bmi.com>
Subject: FW: Application to Renew Permit No. WQ0004445000 - Notice of Deficiency Letter

Thanks,

Renee

281-375-5778

From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Tuesday, November 19, 2024 4:07 PM
To: Compliance K3BMI <compliance@k3bmi.com>
Subject: Application to Renew Permit No. WQ0004445000 - Notice of Deficiency Letter

Dear Mr. Drennan:

The attached Notice of Deficiency letter sent on November 19, 2024, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by December 3, 2024.

Thank you,



Abesha H. Michael

Applications Review & Processing Team

Water Quality Division Support Section

Water Quality Division, MC 148

PO Box 13087

Austin, Texas 78711

Phone: o: 512-239-4912; c: 346-802-8446

Email: abesha.michael@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



AVISO DE RECIBIMIENTO DE LA SOLICITUD E INTENCIÓN DE OBTENER UN PERMISO DE USO BENÉFICO DEL SUELO (RENOVACIÓN)

PROPUESTA DE PERMISO N.º WQ0004445000

SOLICITUD. *K-3 Resources, L.P. 9458 Farm to Market Road 362, Pattison, Texas 77423*, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) *para renovar* permiso de uso benéfico del suelo N.º WQ0004445000 para autorizar la solicitud de tierra de *planta de tratamiento de aguas residuales clase B biosólidos, residuos de plantas de tratamiento de aguas residuales* para uso benéfico en aproximadamente 203.7 acres.

El sitio de uso de la tierra beneficioso se encuentra aproximadamente a 0.32 millas al oeste de la intersección de Farm-to-Market Road 362 y Farm-to-Market Road 529 en el lado sur de Farm-to-Market Road 529 Road, en el condado de Waller, Texas 77423. TCEQ recibió esta solicitud el 12 de noviembre de 2024. El la solicitud de permiso estará disponible para ver y copiar en el Palacio de Justicia del Condado de Waller, Suite 112, 836 Austin Street, Hempstead, Texas antes de la fecha en que se publique este aviso en el periódico.

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

Si corresponde: la autorización para la aplicación de suelos se permitió previamente mediante el permiso vencido N.º WQ0044450000. La TCEQ recibió esta solicitud el *fecha en que se recibió la solicitud*. Para solicitudes de nuevos permisos: La fecha anticipada de la primera aplicación de biosólidos Clase B, sujeto a la emisión del permiso es *fecha prevista para la primera aplicación de biosólidos Clase B que se indica en la solicitud*. La solicitud de permiso estará disponible para ver y copiar en Palacio de Justicia del Condado de Waller, Anexo Joe Kuciemba, 425 Farm-to-Market Road 1488, Hempstead, en el condado de Waller, 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 instalación se proporciona como cortesía pública y no como parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.963055,29.917222&level=18>

AVISO DE IDIOMA ALTERNATIVO. Aviso de idioma alternativo en **espano** está disponible en [\[https://www.....\]](https://www.....) **Repita la oración en idioma alt.**

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo una revisión técnica de la solicitud. Una vez completada la revisión técnica de la solicitud, el Director Ejecutivo puede preparar un bosquejo del permiso y emitirá una decisión preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar se publicarán y enviarán por correo a aquellos que están en la lista de correo de todo el condado y a aquellos que están en la lista de correo para**

esta solicitud. Ese aviso contendrá la fecha límite para enviar comentarios públicos.

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ convocará una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado.

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **A menos que la solicitud se remita directamente para una audiencia de caso impugnado, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los que hayan presentado comentarios públicos y a las personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y para solicitar una audiencia de caso impugnado. Una persona que pueda verse afectada por la solicitud puede solicitar una audiencia.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD: su nombre, dirección, número de teléfono; nombre del solicitante y número de permiso propuesto; la ubicación y distancia de su propiedad/actividades en relación con la instalación propuesta; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho controvertidas que presente durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/amos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad propuesta; proporcionar la información discutida anteriormente con respecto a la ubicación y distancia del miembro afectado de la instalación o actividad; explicar cómo y por qué el miembro se vería afectado; y explicar cómo los intereses que el grupo busca proteger están relacionados con el propósito del grupo.

Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

La Comisión sólo podrá conceder una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya presentado en sus observaciones oportunas que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de**

derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios. Para las solicitudes de renovación que no incluyen una enmienda importante, incluya: La TCEQ puede actuar sobre una solicitud para renovar un permiso sin brindar la oportunidad de una audiencia de caso impugnado si se cumplen ciertos criterios.

LISTA DE CORREO. Si envían comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y/o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Busque en la base de datos utilizando el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a <http://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. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, se convertirá en parte del registro público de la agencia. 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 más información de *K-3 Resources, L.P.* en la dirección indicada anteriormente o llamando a Andy Drennan al 281-375-5778.

Fecha de emisión: *fecha de emisión*

WQ0004445000 Carl Miller Farms 1 Landowners Mailing List:

- 1 Terry Pickering & Baker Ginny Miller
54719 FM 529 Brookshire, TX 77423
- 2 Miller W A
34861 FM 529 Brookshire, TX 77423
- 3 Mark Mills
8870 Adams Flat Rd Brookshire, TX 77423
- 4 Victoria Layne Properties
9541 FM 362 Brookshire, TX 77423
- 5 Gonzales Jorge Mario
13212 Dartmoor Terrace Dr. Houston, TX 77077
- 6 Perez Lucio & Oliveria
8742 Estancia Ln. Brookshire, TX 77423
- 7 Torres Juan Carlos
8744 Adams Flat Rd. Brookshire, TX 77423
- 8 Torres Ana Laura
355 Torres Ln. Brookshire, TX 77423
- 9 Sebastian Villa Trust
8720 Adams Flat Rd. Brookshire, TX 77423
- 10 Leal Enrique Gonzalez Et Al
8644 Adams Flat Rd. Brookshire, TX 77423
- 11 Legacy Precast LLC
P.O. Box 400 Brookshire, TX 77423
- 12 Andrew Drennan & Virginia B
9183 FM 362 Brookshire, TX 77423

Terry Pickering &
Baker Ginny Miller
54719 FM 529
Brookshire, TX 77423

Miller W A
34861 FM 529
Brookshire, TX 77423

Mark Mills
8870 Adams Flat Rd
Brookshire, TX 77423

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Torres Ana Laura
355 Torres Ln.
Brookshire, TX 77423

Sebastian Villa Trust
8720 Adams Flat Rd.
Brookshire, TX 77423

Torres Juan Carlos
8744 Adams Flat Rd.
Brookshire, TX 77423

Torres Ana Laura
355 Torres Ln.
Brookshire, TX 77423

Sebastian Villa Trust
8720 Adams Flat Rd.
Brookshire, TX 77423

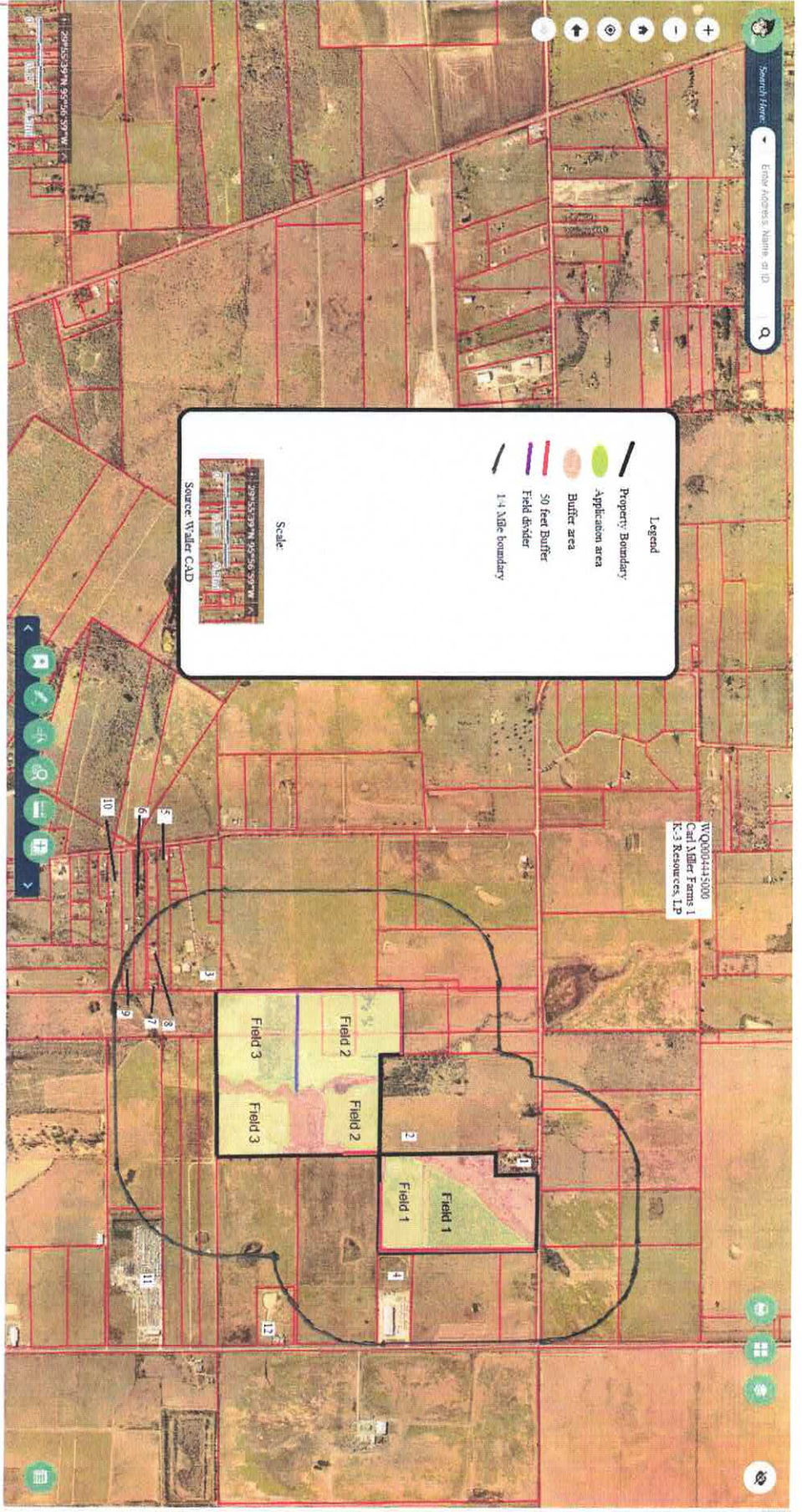
Legend

- Property Boundary
- Application area
- Buffer area
- 50 feet Buffer
- Field divider
- 1:4 NDE boundary

Scale

Source: Waller CAD

W0000445000
Ced Y. Ller Farms, L
K-3 Resources, L.P





Andy Drennan
K-3 Resources, LP
9458 FM 362
Brookshire, TX 77423
Email: andy@k3bmi.com
Office: (281) 375-5778

9/18/24

ARP Team, MC148
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Renewal

Water Quality Division,

K-3 Resources LP CN603843426 is applying for a renewal for a previously permitted land application site for Class B Municipal Biosolids and Water Treatment Residuals on approximately 208.2 acres of 246.4 acres total. The site is located .32 miles West from the intersection of Farm-to-Market Road 362 and Farm-to-Market Road 529, on the South side of Farm-to-Market Road 529, in Brookshire, Texas Waller County, Texas 77423. This letter contains the application for beneficial use of sewage sludge completed with requested attachments.

To clarify, the purpose of this application is to renew Permit No. WQ0004445000 associated with 102913431. The site will be 3 reporting field with boundaries described in further detail in this application.

I will be the primary administrative and technical contact for the application, and the primary contact for the operational processes of this permit. Feel free to contact me at any time.

Sincerely,

A handwritten signature in blue ink, appearing to be 'A. Drennan', is written over the name 'Andy Drennan'.

Andy Drennan





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A PERMIT
FOR BENEFICIAL LAND USE OF SEWAGE SLUDGE

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

SECTION 1. TYPE OF APPLICATION

- ☐ New (original, site not permitted)
- ☐ New (previously permitted but allowed to expire or canceled)
- ☐ Major Amendment (including renewals with changes to substantive provisions of the permit)
- ☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)
- ☒ Renewal
- ☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

none

For existing permits:

What is the permit number? WQ0004445000



SECTION 2. APPLICATION FEE

The application fee varies from \$1,000 to \$5,000 based on the quantity of sewage sludge to be applied annually. See instructions to determine the appropriate fee.

Provide your payment information below, for verification of payment

Check/Money Order Number:

Check/Money Order Amount: \$2000

Name Printed on Check: K-3 Resources LP

SECTION 3. APPLICANT INFORMATION

A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

K-3 Resources LP

B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 603843426

C. What is the contact information for this applicant?

Contact Name: Andy Drennan

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX, 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

- A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

N/A

- B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN N/A

- C. What is the contact information for this applicant?

Contact Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

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

Application Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX, 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

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

Application Contact First and Last Name: N/A

Title: N/A Credentials: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Andy Drennan

Title: Compliance Credentials: N/A

Organization Name: K-3 Resources LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX, 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

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

Permit Contact First and Last Name: Andy Drennan

Title: VP, COO Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: andy@k3bmi.com

SECTION 7. BILLING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

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

Billing Contact First and Last Name: Andy Drennan

Title: VP, COO Credentials: N/A

Organization Name: K-3 Resources LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

SECTION 8. REPORTING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual sludge reports.

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

Reporting Contact First and Last Name: Andy Drennan

Title: Compliance Credentials: N/A

Organization Name: K-3 Resources LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

SECTION 9. NOTICE INFORMATION

A. Individual responsible for publishing the notices in the newspaper

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

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Company Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

B. Method for receiving the notice package for the Notice of Receipt and Intent

☒ E-mail: compliance@k3bmi.com

☐ Fax Number:

☐ Regular Mail:

Mailing Address:

City, State, and Zip Code:

C. Contact person to be listed in the notice

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

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Company Name: K-3 Resources LP

Phone Number: 281-375-5778

D. Public viewing location

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

Public Building Name: Waller County Courthouse

Physical Address of Building: 425 FM 1488, Suite 112

City: Hempstead County: Waller

Phone Number: 979-826-7711

E. Bilingual Notice Requirement

For new, major amendment, and renewal applications. This information can be obtained by contacting the bilingual/ESL coordinator at the nearest elementary or middle school.

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

Yes ☒ No ☐

(If **No**, alternative language notice publication is not required; skip to Section 10. Regulated Entity (Site) Information.)

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 1, 2, 3, or 4, public notice in an alternative language is required. Which language is required by the bilingual program? Spanish

SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: Carl Miller Farms 1

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 102913431

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?



Yes



No

If YES, skip to D. If NO, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

N/A

D. County where the site is located: Waller

E. Latitude: 29°55'1.614"N Longitude: 95°57'50.784"W

F. Landowner Information:

Attach an additional sheet if more than one landowner.

Prefix (Mr., Ms., Miss):

First and Last Name: See Attached

Organization Name:

Mailing Address:

City, State, and Zip Code:

Phone Number:

G. County Judge

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

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

First and Last Name: Carbett "Trey" Duhon III

Mailing Address: 425 FM 1488 Suite 106

City, State, and Zip Code: Hempstead, TX 77445

Phone Number: 979-826-7700

Name of County: Waller

F. Landowner Information

A. Landowner Information:

Attach an additional sheet if more than one landowner.

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

First and Last Name: Ginny Baker

Organization Name:

Mailing Address: 34719 FM 529

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 979-826-2127

B. Landowner Information:

Attach an additional sheet if more than one landowner.

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

First and Last Name: Terry Pickering

Organization Name:

Mailing Address: 34719 FM 529

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 979-826-2127

SECTION 11. LAND APPLICATION INFORMATION

A. Provide the anticipated date (MM/DD/YY) of the first application of sludge after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. 1/01/2025

B. The application area is:

☐ within the city limit of:

☐ within the extraterritorial jurisdiction of:

☒ outside the extraterritorial jurisdiction of: Brookshire

C. Types of Sludge

Identify the types of sludge that will be land applied at this site.

☒ Wastewater Treatment Plant Sludge

☒ Water Treatment Plant Sludge

☐ Domestic Septage

D. Sources of Sludge

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Please See Attachment 1		

E. Property Acreage

Total acreage of the entire property, including the application area and buffer zones: 246.4

F. Application Area Acreage

Total acreage where the sludge may be applied, excluding the buffer zones: 208.2

Attachment 1

A. Sources of Biosolids or Residuals

Provide the samples of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Bilma Pud WWTP	WQ0012025002	Harris County
Cinco Central WWTP	WQ0013558001	Fort Bend County
Cinco MUD Southwest 1	WQ0014343001	Fort Bend County
FB 34 (1)	WQ0012298001	Fort Bend County
HC 418	WQ0014476001	Harris County
HC 70	WQ0011486001	Harris County
HC WCID 109	WQ0011026002	Harris County
Jackrabbit PUD	WQ0011290001	Harris County
MC112	WQ0014671001	Montgomery County
Northpark PUD	WQ0011855001	Harris County
NWHC 21,22,23	WQ0012144001	Harris County
West Memorial	WQ0011152001	Harris County
Williamsburg Regional WWTP	WQ0011598001	Harris County

SECTION 12. MISCELLANEOUS INFORMATION

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

Yes ☐ No ☒

If yes, provide the name(s) of the former TCEQ employee(s): N/A

B. Is the site located on Indian Lands?

Yes ☐ No ☒

C. Is any permanent school fund land affected by this application?

Yes ☐ No ☒

If yes, provide the location, foreseeable impacts, and effects this application has on the land(s). N/A

D. Delinquent Fees and Penalties:

Do you owe fees to the TCEQ? Yes ☐ No ☒

Do you owe any penalties to the TCEQ? Yes ☐ No ☒

If you answered yes to either of the above questions, provide the amount owed, the type of fee or penalty, and an identifying number. N/A

SECTION 13. AFFECTED LANDOWNER INFORMATION

A. Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.

Attachment Number: 2

B. Landowner list. Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: 3

C. Landowner list media. Indicate the format of the landowners list.

☐ Read/Writeable CD

☒ 4 sets of mailing labels

D. Landowner data source. Provide the source of the landowners' names and mailing addresses. Waller CAD

SECTION 14. INSURANCE INFORMATION

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: 5

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: 6

SECTION 15. MAPS AND ATTACHMENTS

A. TCEQ Core Data Form

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: 7

B. General Highway (County) Map

Submit an ORIGINAL General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: 8

C. United States Geological Survey (USGS) Topographic Map

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: 9

D. USDA-NRCS Soil Map

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: 10

E. Federal Emergency Management Agency (FEMA) Map

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and the appropriate legend.

Attachment Number: 11

F. Nutrient Management Plan

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: 11

G. TCEQ Transporters Registration Approval Documents

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: 12

H. Soil Analysis

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: 13

H. Sludge Analyses

Attach a sludge laboratory analysis for each source.

Attachment Number: 14

I. Metal and Nutrient Concentrations (Table 1)

Use the sludge laboratory analyses to complete Table 1 for each source.

J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)

If more than one source of sludge is land applied, complete Table 2.

K. Agronomic Rate Calculations (Appendix A)

Determine the agronomic application rate by completing and attaching Appendix A.

L. Pathogen Reduction Options (Appendix B)

Identify the pathogen reduction options by completing and attaching Appendix B.

M. Vector Attraction Reduction Options (Appendix C)

Identify the vector attraction reduction options by completing and attaching Appendix C.

N. On-Site Storage (Appendix D)

If on-site storage will occur at this site, complete and attach Appendix D.

LABORATORY ACCREDITATION

All laboratory tests performed must meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*, unless the laboratory meets 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;
 - located in another state and is accredited or inspected by that state;
 - 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.

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: Andy Drennan

Title: Environmental Compliance

Signature: _____

Date: _____

10/11/24

SITE OPERATOR SIGNATURE PAGE

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

Permit Number: WQ0004445000

Applicant: K-3 Resources LP

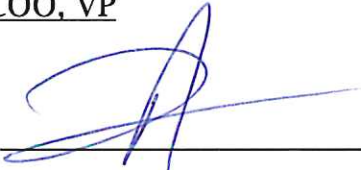
I understand that I am responsible for operating the site described in this permit application in accordance with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the Texas Commission on Environmental Quality.

I certify, under penalty of law, that all 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, imprisonment for violations, and revocation of this permit.

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: Andrew Drennan

Title: General Partner, COO, VP

Signature (use blue ink):  Date: 10/11/24

SUBSCRIBED AND SWORN to before me by the said Andy Drennan on
this 11th day of October, 20 24

My commission expires on the 16th day of September, 20 28

Renee D. Zorn



Notary Public

Walker

County, Texas

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: W00004445000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment & Water Treatment Plant (identify the type(s) of sludge). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Terry Pickering

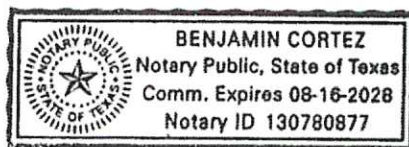
Title: Landowner

Signature (use blue ink): Ginny Baker Date: 9/12/2024

SUBSCRIBED AND SWORN to before me by the said Ginny Baker on
this 12th day of September, 20 24

My commission expires on the 16th day of August, 20 28

(Seal)



[Signature]
Notary Public

Hays
County, Texas

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: W00004445000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment & Water Treatment Plant (identify the type(s) of sludge). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

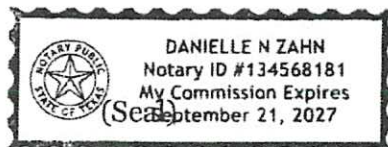
Signatory Name: Terry Pickering

Title: Landowner

Signature (use blue ink): Terry Pickering Date: 9/11/24

SUBSCRIBED AND SWORN to before me by the said Terry Pickering on this 11th day of September, 20 24

My commission expires on the 21st day of September, 20 27



Danielle N. Zahn
Notary Public
Waller
County, Texas

Attachment 1 Individual Information

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

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

Full Legal Name, including middle name: N/A

Driver's License or State Identification Number: N/A

State that Issued the License or Identification Number: N/A

Date of Birth: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

For TCEQ Use Only

Customer Number _____

Regulated Entity Number _____

Permit Number _____

TECHNICAL REPORT FOR BENEFICIAL LAND USE OF SEWAGE SLUDGE

SECTION 1. SITE HISTORY

Has sewage sludge or septage been previously land applied at this site?

☒ Yes ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous sludge application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Cattle grazing, forage, and hay production; no crops.
Six-inch spikes on chain drag incorporate biosolids, moderate tillage
Permit WQ0004445000
208.2 acres will be used for Class B Biosolid and Water Treatment Residuals
Maximum allotted rate: 12 dry metric tons per acre per year for 5-year permit
7540.92 dry metric tons of biosolids applied over 5-year permit period
12 dry metric tons applied per acre
7.24 dry metric tons per acre per year (well below the maximum allotted)
88.00 dry metric tons of water treatment residuals/year; No Domestic Septage

SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

Cattle grazing and forage will continue to be the primary land application activity. Secondary activity will be Hay production with at least 3 cuttings per year. Nitrogen levels will be monitored to determine biosolid application rates via annual soil analysis conducted by a NEALAP laboratory. Pollutant metals are also monitored, but they are rarely if ever the limiting factor when accounting for nitrogen. Nitrogen levels will be the determining factor for the frequency and rate of application. Biosolids are incorporated when spread via six-inch spikes attached to a chain drag that follows a tractor. This is a moderate tillage that occurs after each application of biosolids.

SECTION 3. SOIL INFORMATION

A. Soil Properties

Complete the table below using the Physical and Chemical Properties and the Engineering Tables found in the USDA Natural Resources Conservation Service (NRCS) soils descriptions.

Map Symbol	Soil Type	Slope	pH	Depth to Bedrock* (inches)	Depth to Groundwater (feet)	Permeability (inches/hour)	Soil Depth** (inches)
KaA	Katy Fine Sandy Loam	0-1%		>80	1-2	0.06 - 0.20	80
KaB	Katy Fine Sandy Loam	1-3%		>80	1-2	0.06 - 0.20	80
TefB	Telf Fine Sandy Loam	1-3%		>80	1-2	0.00 - 0.06	80
MdB	Midfield Loam	0-2%		>80	1.2	0.06 - 0.20	80

* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.

** If soil depth is less than two feet, provide rationale for using these shallow soils. The rationale should include site specific investigation results.

B. Restrictive Soil Characteristics

In the table below, identify all soils that have the following restrictive characteristics and the management practices to be used.

- Soils with at least an "occasional flooding" classification may flood between 5 to 50 times in 100 years;
- Soil permeability of >6 inches per hour; and
- Seasonal groundwater or groundwater table below the treatment zone at least:
 - 3 feet for soil with permeability of <2 inches per hour
 - 4 feet for soil with permeability of 2-6 inches per hour.

Soil Type	Restrictive Characteristic	Best Management Practices
Katy Fine Sandy Loam	Perched Water	Restrict Application when surface soil is saturated
Katy Fine Sandy Loam	Perched Water	Restrict Application when surface soil is saturated
Telf Fine Sandy Loam	Perched Water	Restrict Application when surface soil is saturated
Midfield Loam	Perched Water	Restrict Application when surface soil is saturated

SECTION 4. WELL INFORMATION

In the table below, provide information about each well located on-site and within 500 feet of the application area. Water well information is available from the Texas Water Development Board, 512-936-0837. Oil and gas well information is available from the Texas Railroad Commission, 512-463-6851.

Well Type (Water Well, Oil Well, Injection Well)	Producing or Non-Producing	Open, Cased, or Capped*	Protective Measures**
Water	Producing	Cased	Vegetative buffer of 150 feet
Water	Producing	Cased	Vegetative buffer of 150 feet

* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.

** The following protective measures are required prior to initial sludge/septage application:

- If the well is producing and cased, no action is needed.
- If the well is producing and not cased, the well must be cased or describe other protective measures.
- If the well is non-producing and cased, the well must be plugged or capped.
- If the well is non-producing and not cased, the well must be plugged.

SECTION 5. HYDROLOGIC CHARACTERISTICS

Submit information listed below, or equivalent documentation, regarding the hydrologic characteristics of the surface and groundwater at the application site and within one-quarter mile of the site.

- Aquifer identification per Texas Water Development Board Report 345
- Location of the area according to the Geologic Atlas of Texas, published by the University of Texas, Bureau of Economic Geology.
- Any feature that exhibits a direct hydrologic connection between surface and subsurface water.
- List periods of seasonal perched and/or high water table, if any.

Attachment Number: 14

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name:

TCEQ Authorization Number:

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75				
Cadmium (Cd)	85				
Chromium (Cr)	3000				
Copper (Cu)	4300				
Lead (Pb)	840				
Mercury (Hg)	57				
Molybdenum (Mo)	75				
Nickel (Ni)	420				
Selenium (Se)	100				
Zinc (Zn)	7500				
PCB (ppm)	50.0 ppm				

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)				
Ammonium Nitrogen (NH ₄ -N)				
Nitrate Nitrogen (NO ₃ -N)				
Total Phosphorus (P)				
Total Potassium (K)				

TABLE 2
Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration

Complete this table if more than one source is land applied at the site.

Directions:

1. For each pollutant, multiply the Pollutant Concentrations from Table 1 by the estimated number of dry tons you expect to apply from each facility.
2. Sum the individual columns. Enter results in last row of the table.
3. Divide the sum of each column by the dry tons sum (bottom of second column). Enter number in the appropriate Volume Weighted Average Box (row below table).
4. Use these final results to complete Appendix A, Step 1.

[illegible]

*Total estimated dry tons to be land applied from the source facility.

APPENDIX A AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of wastewater treatment plant sludge is 12 tons/acre/year.

APPENDIX A, PART 1. SEWAGE SLUDGE APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN SLUDGE IN LBS/TON

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)		x 20	
Ammonium Nitrogen (NH ₄ -N)		x 20	
Nitrate Nitrogen (NO ₃ -N)		x 20	
Total Phosphorus (P)		x 20	
Total Potassium (K)		x 20	

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)		x 0.002	
Total Cadmium (Cd)		x 0.002	
Total Chromium (Cr)		x 0.002	
Total Copper (Cu)		x 0.002	
Total Lead (Pb)		x 0.002	
Total Mercury (Hg)		x 0.002	
Total Molybdenum (Mo)		x 0.002	
Total Nickel (Ni)		x 0.002	
Total Selenium (Se)		x 0.002	
Total Zinc (Zn)		x 0.002	

**Values from sludge laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Forage

Yield Goal: 0 dry tons per acre
lbs/acre/yr.

Nitrogen Requirement, in lb/yr: 520

Cool Season Intended Crop(s): Forage

Yield Goal: 0 dry tons per acre
lbs/yr./acre

Nitrogen Requirement, in lb/yr: 150

Provide the data source for the nitrogen requirements above.

Please see nutrient management plan

Nitrogen needed by crop:

2A. Total Nitrogen Requirement*

/acre/yr.

2B. Nitrogen available in soil**

2C. Nitrogen amount still needed

Line 2A - Line 2B

*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 2B = $2 * \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 * \text{NO}_3\text{-N(ppm)(in the 6-24" soil depth)}$

STEP 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN) PROVIDED BY THE SLUDGE

Use the TKN, $\text{NH}_4\text{-N}$, and $\text{NO}_3\text{-N}$ from Step 1.

Organic Nitrogen = $\text{TKN} - (\text{NH}_4\text{-N}) - (\text{NO}_3\text{-N})$

Mineralization Rate (%) *

30%

3A. Organic Nitrogen x Mineralization Rate

3B. Ammonium Nitrogen = $(\text{NH}_4\text{-N}) \times V$

V = 0.5 if sludge is left on soil surface

V = 1.0 if sludge is worked into the soil

3C. Nitrate Nitrogen ($\text{NO}_3\text{-N}$)

3D. Total PAN = (Line 3A + Line 3B + Line 3C)=

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Sludge	40 %
Aerobically Digested Sludge	30 %
Anaerobically Digested Sludge	20 %
Composted Sludge	10 %

STEP 4. CALCULATE MAXIMUM SLUDGE APPLICATION RATES BASED ON CROP NITROGEN NEEDS (SAR_N)

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C.

4B. Total PAN (lbs/ton)

Enter amount from Step 3D.

4C. Sludge Application Rate (SAR_N) (tons/acre/year)

Line 4A $\div$ Line 4B

STEP 5. CALCULATE MAXIMUM SLUDGE APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals In Sludge (lbs/ton) (Step 1)	D Metals Applied Yearly at SAR _N (lbs/acre/yr) (C x SAR _N)	E Sludge Applied Yearly at SAR _M (tons/acre/yr) (B ÷ C)	F Max Sludge Loading Rate (tons/acre) (A ÷ C)
Arsenic	36	1.8				
Cadmium	35	1.7				
Chromium	2677	134				
Copper	1339	67				
Lead	268	13				
Mercury	15	0.76				
Molybdenum	Monitor	Monitor				
Nickel	375	18.7				
Selenium	89	4.5				
Zinc	2500	125				
Other						

Note: For each metal, if the value in column B is greater than the value in column D (B>D), the SAR_N dictates the maximum sludge application rate. Enter N/A in column E. If the value in column B is less than the value in column D (B<D), then the SAR_M dictates the maximum sludge application rate and the value of E = B ÷ C.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative sludge loading rate

Lowest value in Step 5, Column F (tons/acre) 2250

6B. Previous applications of sludge (tons/acre) 12

6C. Remaining sludge application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 2238

6D. Maximum allowable sludge application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)
23.29

6E. Years remaining to reach the maximum cumulative loading

Line 6C ÷ Line 6D (years) 96.09

APPENDIX A, PART 2: SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s):

Yield Goal: _____ Nitrogen Requirement, in lb/yr: _____ Cool Season

Intended Crop(s)

Yield Goal: _____ Nitrogen Requirement, in lb/yr: _____

Provide the data source for the nitrogen requirements.

Nitrogen needed by crop:

1A. Total Nitrogen Requirement* _____

1B. Nitrogen available in soil** _____

1C. Nitrogen amount still needed _____

Line A - Line B _____

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 1B = $2 \times \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 \times \text{NO}_3\text{-N(ppm)(in the 6-24" soil depth)}$

STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C _____

2B. Conversion Factor _____

0.0026

2C. Annual Application Rate (gal/acre/yr) _____

Line 2A ÷ Line 2B _____

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Sewage Sludge:

A. Sewage Sludge Application Rate (tons/acre/year)

B. Percentage of plant nutrient supplied by sludge

= ÷ 100

C. Multiple Line A by Line B (tons/acre/year)

Domestic Septage:

A. Sewage Sludge Application Rate (tons/acre/year)

0

B. Percentage of plant nutrient supplied by sludge

= 0 ÷ 100

0

C. Multiple Line A by Line B (tons/acre/year)

0

APPENDIX B PATHOGEN REDUCTION REQUIREMENTS

For each source, select the pathogen reduction alternative that will be used prior to land application of sewage sludge/septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?**(Yes/No/NA)
WQ0012025002	Option 1: Density of Fecal Coliform	316142.86	1/24/2024	N/A
WQ0013558001	Option 1: Density of Fecal Coliform	158142.86	3/22/2024	N/A
WQ0014343001	Option 1: Density of Fecal Coliform	33885.71	10/20/2023	N/A
WQ0012298001	Option 1: Density of Fecal Coliform	433000.00	10/27/2023	N/A
WQ0014476001	Option 1: Density of Fecal Coliform	1000.00	4/26/2024	N/A
WQ0011486001	Option 1: Density of Fecal Coliform	42485.71	3/12/2024	N/A
WQ0011026002	Option 1: Density of Fecal Coliform	156529.00	12/21/2023	N/A
WQ0011290001	Option 1: Density of Fecal Coliform	107685.71	7/1/2024	N/A
WQ0014671001	Option 1: Density of Fecal Coliform	5134.29	2/15/2024	N/A
WQ0011855001	Option 1: Density of Fecal Coliform	59500.00	3/4/2024	N/A
WQ0012144001	Option 1: Density of Fecal Coliform	1442.86	4/17/2024	N/A
WQ0011152001	Option 1: Density of Fecal Coliform	1211714.29	2/14/2024	N/A
WQ0011598001	Option 1: Density of Fecal Coliform	1000.00	6/21/2024	N/A

* Applicable to Option 1 only.

** Applicable to Option 2a - f.

If Other is selected as the Alternative Used, please explain:

APPENDIX C

VECTOR ATTRACTION REDUCTION REQUIREMENTS

For each source, provide the vector attraction reduction option that will be used prior to or after land application of sewage sludge/septage. Requirements for each alternative can be found in 30 TAC §312.83.

TCEQ Permit Number	Vector Attraction Reduction Alternative Used*	Monitoring Criteria and results needed for alternative
WQ0012025002	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0013558001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0014343001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0012298001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0014476001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011486001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011026002	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011290001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0014671001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011855001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0012144001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011152001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0011598001	Option 4: SOUR ≤1.5 mg O ₂ /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g

*Options 1-8 are sludge treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

APPENDIX D ON-SITE STORAGE

If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of sludge or septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per 30 TAC §312.50 unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. Materials cannot be treated without proper authorization from the TCEQ.

- A. Provide a complete description of operational plans for the temporary storage, including all steps to be taken to control odors, vectors and other nuisance conditions.

N/A

- B. The location of the temporary storage area(s) must be accurately shown on the USGS topographic map submitted with the application, including all main features of the storage area(s) (e.g. berms, tanks, pads, liners, storm water retention, etc.).

- C. Provide a copy of the liner and storage tank certification as per 30 TAC §312.50(a)(4) or 312.50(a)(8).

Attachment Number: N/A

- D. Describe the proposed spill prevention and cleanup methods.

N/A

- E. Provide a certification that the berm(s) will hold the required volume(s) without discharging as per 30 TAC §312.50 (a)(7).

Attachment Number: N/A

- F. Describe the method for stormwater runoff collection and disposal.

N/A

- G. Describe methods to be used to ensure no loads of sludge remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by 30 TAC §312.50), when needed.

N/A



TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
☐ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
☒ Renewal (Core Data Form should be submitted with the renewal form)		☐ Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 603843426		RN 102913431

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		9/29/2023	
☐ 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:	
K-3 Resources, LP					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0800593713		17603210539		76-0321053	
10. DUNS Number (if applicable)		N/A			
11. Type of Customer:		☒ Corporation		☐ Individual	
Partnership: ☐ General ☐ Limited					
Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other		☐ Sole Proprietorship		☐ Other:	
12. Number of Employees		☒ 101-250		13. Independently Owned and Operated?	
☐ 0-20 ☐ 21-100 ☐ 251-500 ☐ 501 and higher				☒ Yes ☐ No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
☐ Owner		☐ Operator		☐ Owner & Operator	
☐ Occupational Licensee		☒ Responsible Party		☐ Voluntary Cleanup Applicant ☐ Other:	
15. Mailing Address:					
9458 FM 362					
City		Brookshire		State TX ZIP 77423 ZIP + 4	
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				Compliance@k3bmi.com	
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	
(281) 375-5778				() -	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Carl Miller Farms 1	

23. Street Address of the Regulated Entity: (No PO Boxes)	34719 FM 529							
	City	Brookshire	State	TX	ZIP	77423	ZIP + 4	
24. County	Waller							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	.32 Miles West of intersection of FM 529 and FM 362 on the South Side of FM 529 Road.							
26. Nearest City				State		Nearest ZIP Code		
Brookshire				TX		77423		
27. Latitude (N) In Decimal:		29.917122468202933		28. Longitude (W) In Decimal:		-95.96410682840155		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29	55	1.614	95	57	50.784			
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)		
139		0212		111940		112111		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Hay and Forage production; cattle production								
34. Mailing Address:		34719 FM 529						
		City	Brookshire	State	TX	ZIP	77423	ZIP + 4
35. E-Mail Address:		compliance@k3bmi						
36. Telephone Number			37. Extension or Code			38. Fax Number (if applicable)		
(281) 375-5778						() -		

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

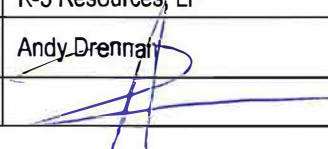
☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☒ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐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

SECTION IV: Preparer Information

40. Name:	Andy Drennan	41. Title:	COO
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(281) 375-5778		() -	compliance@k3bmi.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:	K-3 Resources, LP	Job Title:	Owner
Name (In Print):	Andy Drennan	Phone:	(281) 375- 5778
Signature:		Date:	10/11/24



K-3 Resources LP CN603843426 operates WQ0004445000 Class B Municipal Biosolids and Water Treatment Residuals on approximately 208.2 acres at on the South Side of FM 529 .32 miles from the intersection of FM 362 and FM 529 Rd, near Brookshire, in Waller County, Texas 77423 (RN102913431).

To clarify, the purpose of this is for K-3 Resources LP CN603843426 to apply for a major amendment to Permit No. WQ0004445000 associated with RN102913431.

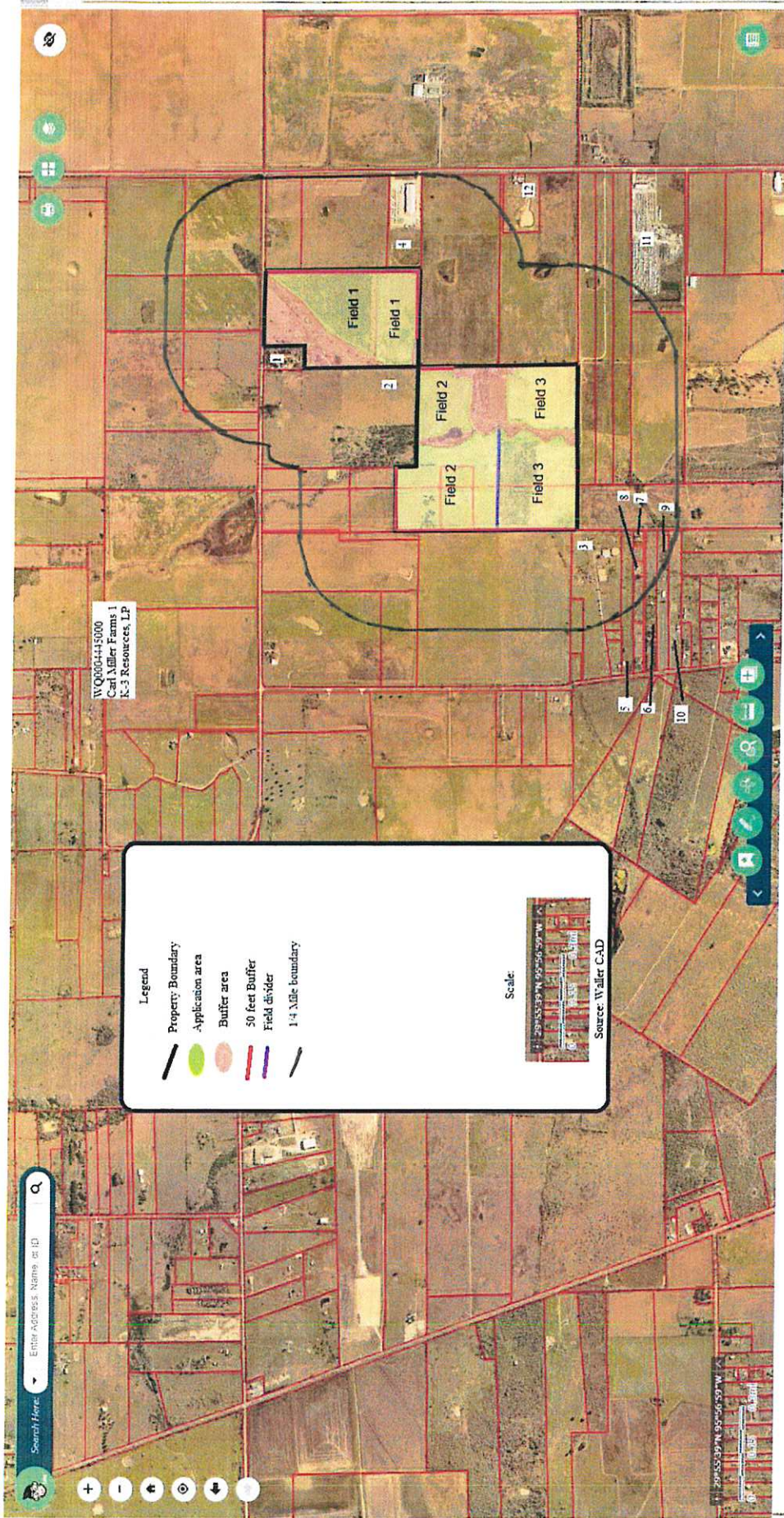
K-3 Resources LP CN603843426 land applies Class B Municipal Biosolids and Water Treatment Residuals for beneficial use at a maximum rate of 12 dry tons per acre per year on 208.2 acres of land. This land application unit will not discharge of pollutants into water in the state. The following pollutants are expected in biosolids land application: Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium and Zinc. Examples of best management practices implemented by K-3 Resources LP include but are not limited to: monitoring of metal pollutants, pathogen reduction, vector attraction reduction, applicable land application unit buffer zones, soil monitoring and limiting application at the appropriate agronomic rate based on crop needs.



K-3 Resources LP CN603843426 opera WQ0004445000 Biosólidos Municipales de Clase B y Residuos de Tratamiento de Agua en 208.2 acres en el lado sur de FM 529 aproximadamente a 32 millas de la intersección de FM 362 y FM 529 Rd, cerca de Brookshire, en el condado de Waller, Texas 77423 (RN102913431).

Para aclarar, el propósito de esto es que K-3 Resources LP CN603843426 solicitar una enmienda importante al Permiso No. WQ0004445000 asociados con RN102913431.

El terreno de K-3 Resources LP CN603843426 aplica Biosólidos Municipales y Residuos de Tratamiento de Agua Clase B para uso beneficioso a una tasa máxima de 12 toneladas secas por acre por año en 208.2 acres de terreno. Esta unidad de aplicación terrestre no descargará contaminantes en el agua del estado. Se esperan los siguientes contaminantes en la aplicación de biosólidos al suelo: Arsénico, Cadmio, Cromo, Cobre, Plomo, Mercurio, Molibdeno, Níquel, Selenio y Zinc, los ejemplos de las mejores prácticas de gestión implementadas por K-3 Resources LP incluyen, entre otros: monitoreo de contaminantes metálicos, reducción de patógenos, reducción de la atracción de vectores, zonas de amortiguamiento de la unidad de aplicación terrestre aplicable, monitoreo del suelo y aplicación limitada a la tasa agronómica adecuada basada en necesidades del cultivo.



WQ0004445000 Carl Miller Farms 1 Landowners Mailing List:

- 1 Terry Pickering & Baker Ginny Miller
54719 FM 529 Brookshire, TX 77423
- 2 Miller W A
34861 FM 529 Brookshire, TX 77423
- 3 Mark Mills
8870 Adams Flat Rd Brookshire, TX 77423
- 4 Victoria Layne Properties
9541 FM 362 Brookshire, TX 77423
- 5 Gonzales Jorge Mario
13212 Dartmoor Terrace Dr. Houston, TX 77077
- 6 Perez Lucio & Oliveria
8742 Estancia Ln. Brookshire, TX 77423
- 7 Torres Juan Carlos
8744 Adams Flat Rd. Brookshire, TX 77423
- 8 Torres Ana Laura
355 Torres Ln. Brookshire, TX 77423
- 9 Sebastian Villa Trust
8720 Adams Flat Rd. Brookshire, TX 77423
- 10 Leal Enrique Gonzalez Et Al
8644 Adams Flat Rd. Brookshire, TX 77423
- 11 Legacy Precast LLC
P.O. Box 400 Brookshire, TX 77423
- 12 Andrew Drennan & Virginia B
9183 FM 362 Brookshire, TX 77423

Terry Pickering &
 Baker Ginny Miller
 54719 FM 529
 Brookshire, TX 77423

Miller W A
 34861 FM 529
 Brookshire, TX 77423

Mark Mills
 8870 Adams Flat Rd
 Brookshire, TX 77423

Terry Pickering &
 Baker Ginny Miller
 54719 FM 529
 Brookshire, TX 77423

Miller W A
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 Brookshire, TX 77423

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Gonzales Jorge Mario
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 Houston, TX 77077

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 Brookshire, TX 77423

Victoria Layne Properties
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 Brookshire, TX 77423

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 Houston, TX 77077

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 Brookshire, TX 77423

Torres Ana Laura
 355 Torres Ln.
 Brookshire, TX 77423

Sebastian Villa Trust
 8720 Adams Flat Rd.
 Brookshire, TX 77423

Torres Juan Carlos
 8744 Adams Flat Rd.
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Torres Ana Laura
355 Torres Ln.
Brookshire, TX 77423

Sebastian Villa Trust
8720 Adams Flat Rd.
Brookshire, TX 77423

CERTIFICATE OF INSURANCE FOR COMMERCIAL LIABILITY

Name and address of insurer (herein called the "Insurer"):

Highpoint Insurance Group, LLC

Nautilus Insurance Company

Lloyds of London/Pantheon Specialty

4300 FM 2351 Road

7233 East Butherus Drive

2 India Street

Friendswood, TX 77546

Scottsdale, AZ 85260

London EC3N2PX, UK

Name, physical addresses and mailing address of Insured (herein called the "Insured"):

K-3 Resources, LP

9458 FM 362

Brookshire, TX 77423

Additional Insured:

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

Facilities Covered:

(1) #WQ0004445000, Carl Miller Farms 1: On the west side of FM 362, 1.3 miles south of the intersection of FM 362 and FM 529 in Waller County.

- Facility address: 34719 FM 529 Road, Brookshire, Texas 77423
- Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

Nautilus Per Occurrence Limit:	\$3,000,000	Annual Aggregate Limit:	\$3,000,000
Policy Number:	SSP-2025469-16	Effective Date:	02/26/2024
Lloyds Per Occurrence Limit:	\$3,000,000	Annual Aggregate Limit:	\$3,000,000
Policy Number:	B1881S240420	Effective Date:	02/26/2024

The Insurer hereby certifies that it has issued to the Insured a Commercial Liability and Excess Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Commercial Liability and Excess Liability Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

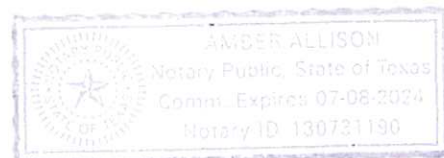
I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Commercial Liability and Excess Liability Insurance) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

Authorized Signature of Insurer:

Name and Title of Person Signing:

M. Brandon Smyrl, President

Signature of Witness or Notary:



Signed this 22nd day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.

CERTIFICATE OF INSURANCE FOR ENVIRONMENTAL IMPAIRMENT

Name and address of insurer (herein called the "Insurer"):

Highpoint Insurance Group, LLC
4300 FM 2351 Road
Friendswood, TX 77546

Nautilus Insurance Company
7233 East Butherus Drive
Scottsdale, AZ 85260

Name, physical addresses and mailing address of Insured (herein called the "Insured"):

K-3 Resources, LP
9458 FM 362
Brookshire, TX 77423

Additional Insured:

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

Facilities Covered:

- (1) #WQ0004445000, Carl Miller Farms 1: On the west side of FM 362. 1.3 miles south of the intersection of FM 362 and FM 529 in Waller County.
- Facility Address: 34719 FM 529 Road, Brookshire, Texas 77423
 - Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

Per Occurrence Limit:	\$3,000,000	Annual Aggregate Limit:	\$3,000,000
Policy Number:	SSP-2025469-16	Effective Date:	02/26/2024

The Insurer hereby certifies that it has issued to the Insured an Environmental Impairment Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Environmental Impairment Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

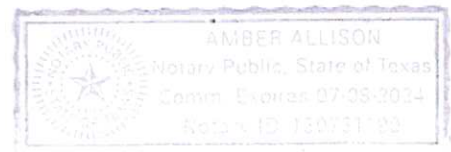
I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

Authorized Signature of Insurer:

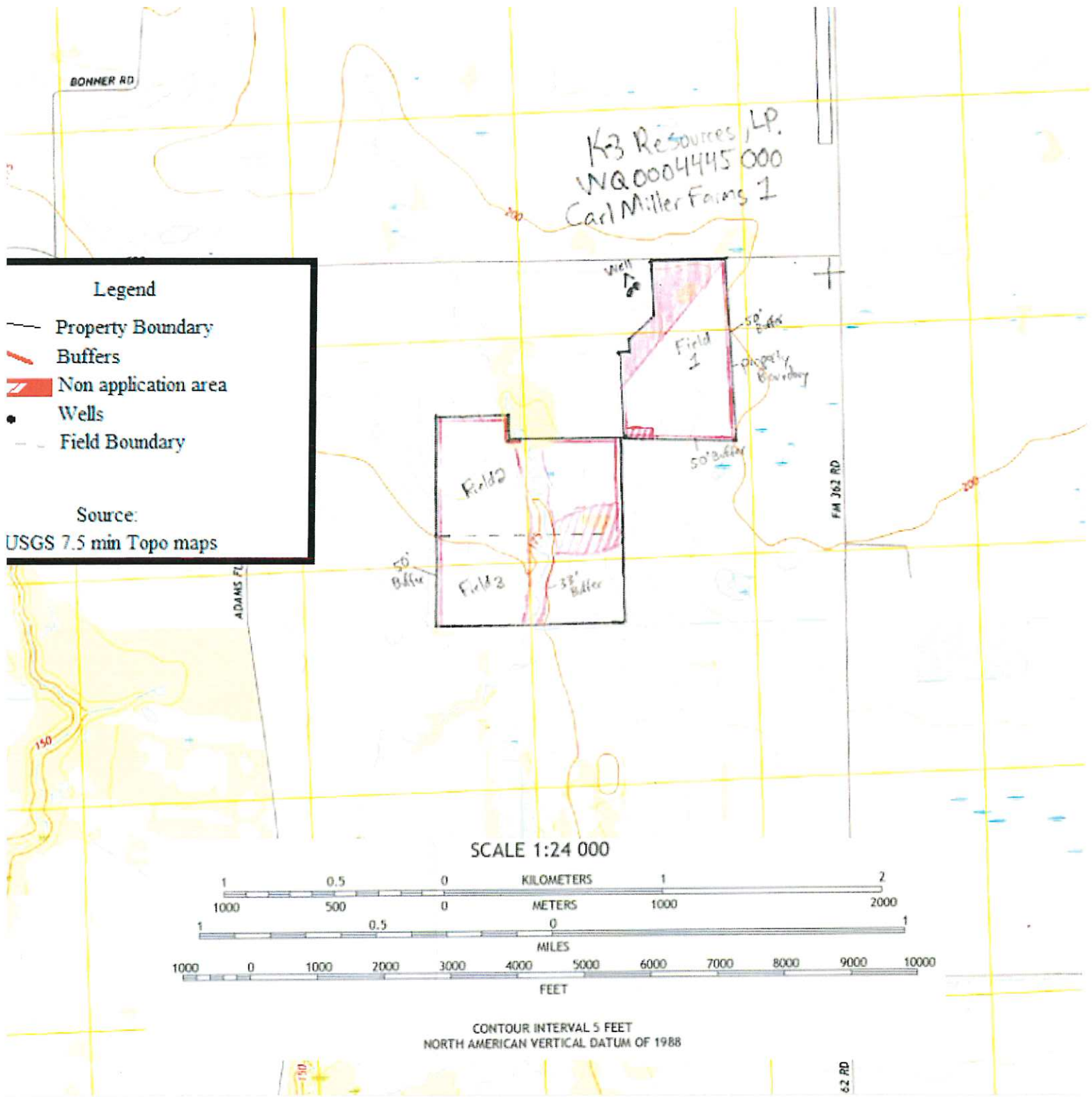
Name and Title of Person Signing: M. Brandon Smyrl, President

Signature of Witness or Notary:

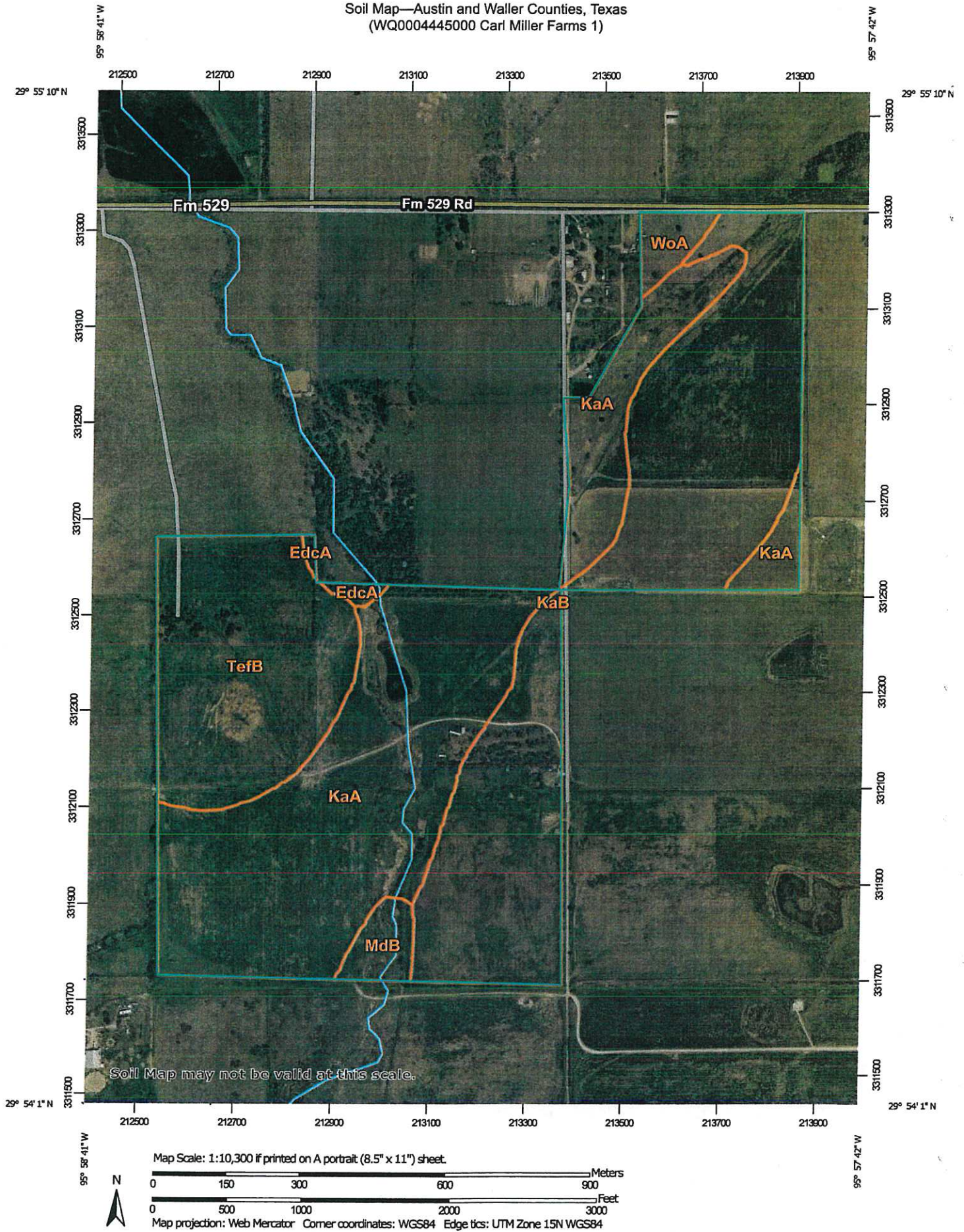
Amber Allison



Signed this 22nd day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.



Soil Map—Austin and Waller Counties, Texas
(WQ0004445000 Carl Miller Farms 1)

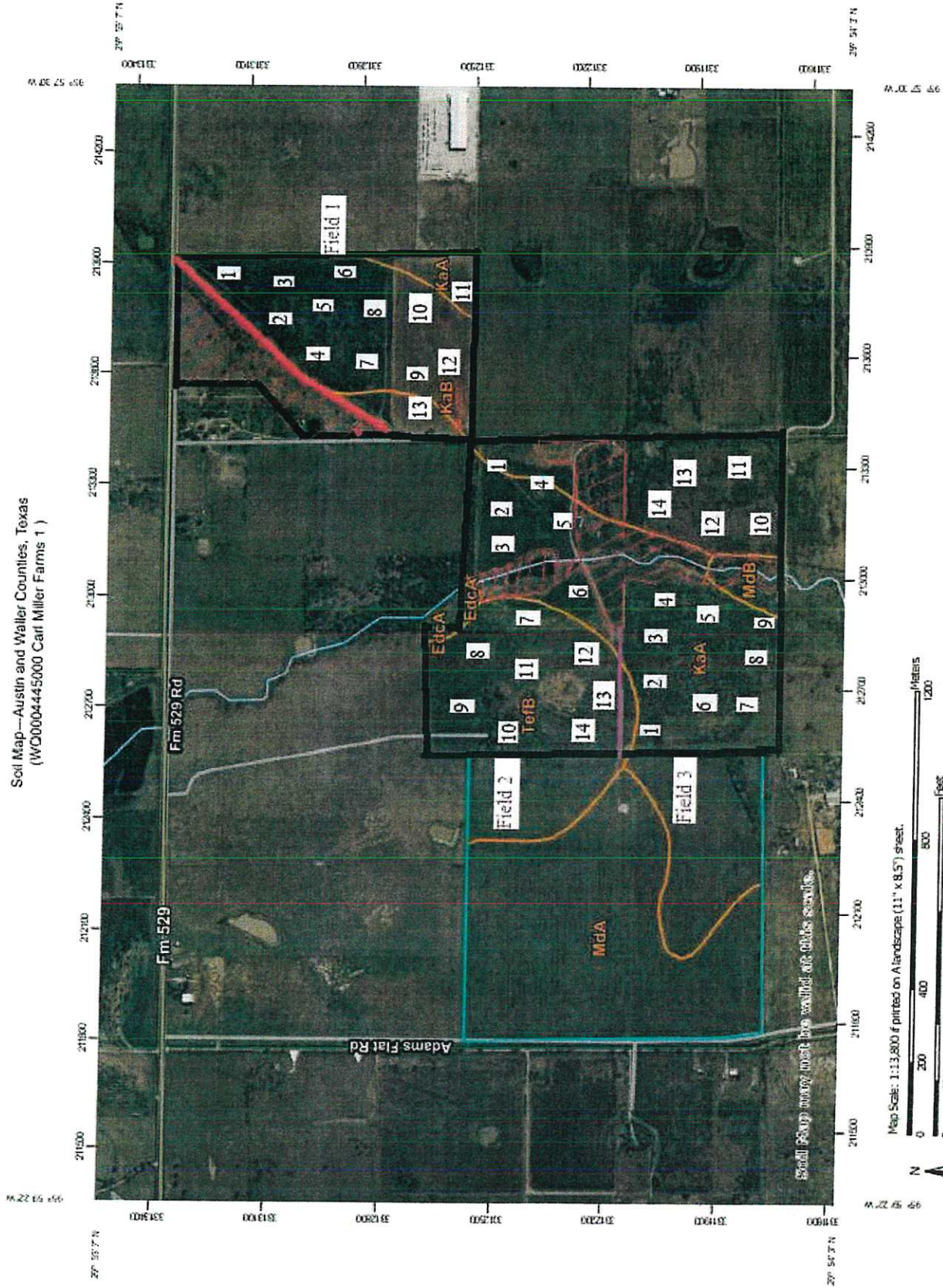


Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

9/10/2024
Page 1 of 3

Soil Map—Austin and Waller Counties, Texas
(W00004445000 Carl Miller Farms 1)



Map Scale: 1:13,200, printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)			Spoil Area
Area of Interest (AOI)			Stony Spot
Soils			Very Stony Spot
Soil Map Unit Polygons			Wet Spot
Soil Map Unit Lines			Other
Soil Map Unit Points			Special Line Features
Special Point Features			Water Features
Blowout			Streams and Canals
Borrow Pit			Transportation
Clay Spot			Rails
Closed Depression			Interstate Highways
Gravel Pit			US Routes
Gravelly Spot			Major Roads
Landfill			Local Roads
Lava Flow			Background
Marsh or swamp			Aerial Photography
Mine or Quarry			
Miscellaneous Water			
Perennial Water			
Rock Outcrop			
Saline Spot			
Sandy Spot			
Severely Eroded Spot			
Sinkhole			
Slide or Slip			
Sodic Spot			

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.
Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Austin and Waller Counties, Texas
Survey Area Data: Version 21, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—Mar 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EdcA	Edco fine sandy loam, 0 to 1 percent slopes	1.4	0.6%
KaA	Katy fine sandy loam, 0 to 1 percent slopes	105.1	40.3%
KaB	Katy fine sandy loam, 1 to 3 percent slopes	96.1	36.9%
MdB	Midfield loam, 0 to 2 percent slopes	5.0	1.9%
TefB	Telf fine sandy loam, 1 to 3 percent slopes	48.9	18.8%
WoA	Wockley fine sandy loam, 0 to 1 percent slopes	4.1	1.6%
Totals for Area of Interest		260.7	100.0%

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It is not a warranty, nor is it a statement of fact. The community map preparer should consult the Federal Emergency Management Agency for more information.

To obtain more detailed information in areas shown on this map, consult the Flood Insurance Rate Map (FIRM) for the community. The FIRM is the official map of the community showing flood hazard information. The FIRM is the official map of the community showing flood hazard information. The FIRM is the official map of the community showing flood hazard information.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures in the jurisdiction.

The projection used in the preparation of this map is the Texas State Plane, North Central zone (NAD83). The horizontal datum used is NAD83. The vertical datum used is the mean low water (MLW) datum. The map is based on the Flood Insurance Study report for the community.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structural and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, see the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NATIONAL GEODETIC SURVEY
1215 East West Highway
Silver Spring, MD 20910-2292

To obtain current elevation information for specific areas shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (202) 732-3242, or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was prepared by digital format by Voller County and Jackson County, Texas (VJC&JC). This ground was digitized at a scale of at least 1:24,000 from NGS aerial photographs dated 2002 and 2004.

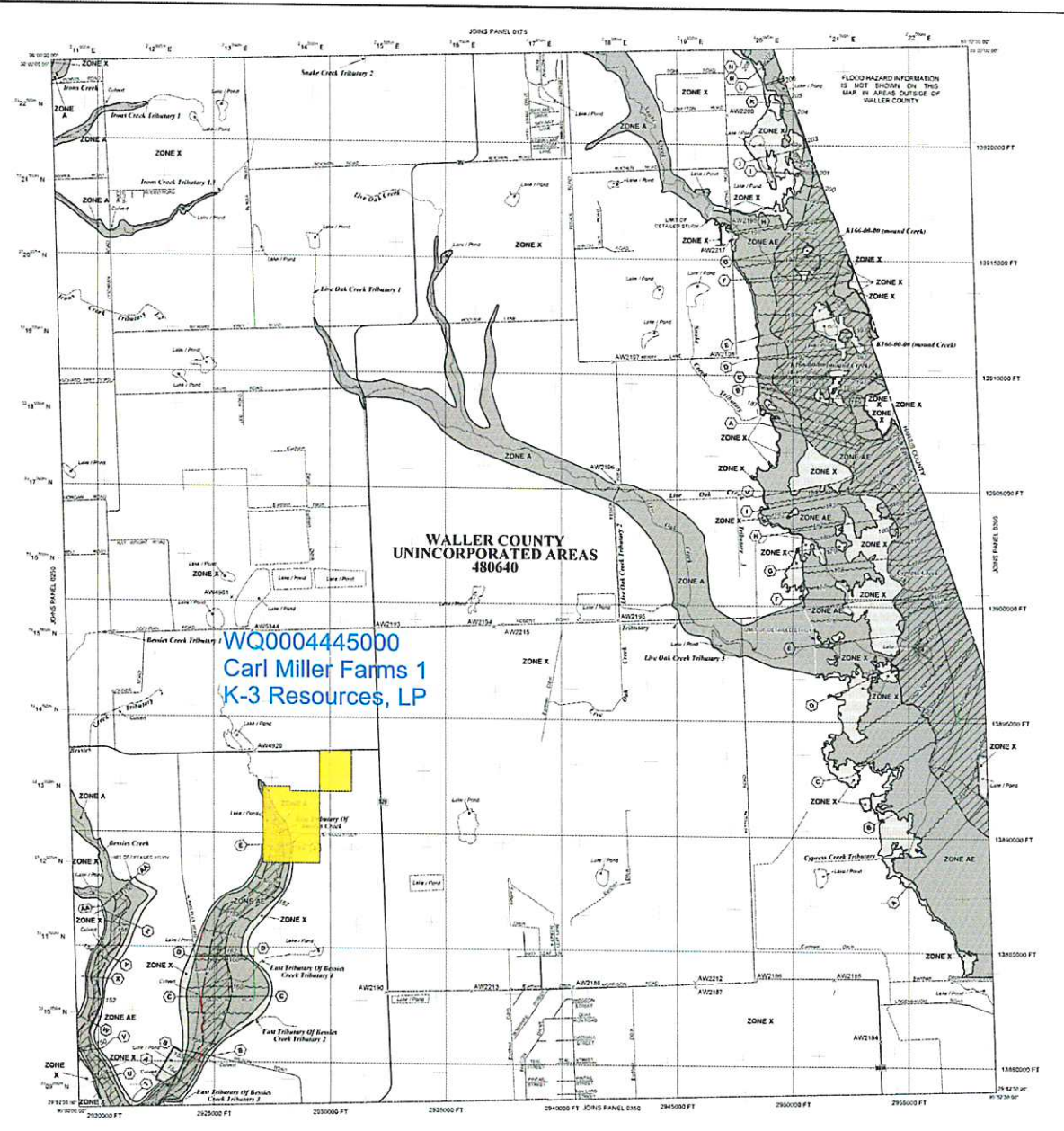
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The boundaries and locations that were transferred from the previous FIRM have been adjusted to conform to these new stream channel configurations. As a result, the Flood Insurance Rate Map (FIRM) data shown on the Flood Insurance Study report reflect current authoritative hydrologic data may reflect stream channel locations that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Boundaries shown on this map may not be exact. The boundaries shown on this map may not be exact. The boundaries shown on this map may not be exact.

Please refer to the registration period map index for an overview map of the county showing the location of map sheets. Community map sheets are available for purchase from the Federal Emergency Management Agency. The community map sheets are available for purchase from the Federal Emergency Management Agency.

Contact the FEMA Map Service Center at 1-800-254-2016 for information on purchasing products associated with this FIRM. Available products may include printed, digital, or electronic versions of the map. The FEMA Map Service Center may also be reached by fax at 1-800-254-2016, or by email at fema@fema.gov.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-NAP (1-877-362-7627) or visit the FEMA website at <http://www.fema.gov>.



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SPECIAL SUBJECT TO INSURANCE) IN THE 1% ANNUAL CHANCE FLOOD**
The 1% annual chance flood (100-year flood) also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. The Flood Insurance Study report provides information on the 1% annual chance flood.
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MAP SCALE 1" = 200'

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Waste Utilization and Nutrient Management Plan

Carl Miller Farms 1

34719 FM 529
Brookshire, TX
979-826-2127

TCEQ Permit Number:

WQ0004445000

Owner

Terry Pickering
34719 FM 529
Brookshire, TX
979-826-2127

Operator

Andy Drennan
9458 FM 362
Brookshire TX 77423
281-375-5778

Type of Organic Nutrient Management Plan:**Biosolids**

located in Waller County

Prepared By:

(Signature)

Kevin Seawright
Consultant

Certificate Number = 202311

Expiration Date = January 1, 2025

Erthra Consulting
3880 FM 3318 Rd
Pattison, TX 77423
832-504-2757

This plan is based on:
590 Organic Nutrient Management Plan V 5.0

10/24/24 2:26 PM

Waste Utilization and Nutrient Management Plan

EXECUTIVE SUMMARY:

Permit #: WQ0004445000

This Nutrient Management Plan has fields that meet NUPs requirements.

Based on a the 2023 soil samples from permit WQ0004445000 the following are allowed to be applied for the Coastal Bermuda grass with with cool season grazing at 1AU/acre (1000 lbs average) and having 14,100 lbs of dry matter total of hay production:

Field 1- .7 Tons/acre

Field 2 - .7 Tons/Acre

Field 3 - .7 Tons/Acre

The above amounts are the total Tons/ Acre that can be applied for the 2024 growing season.

The Phosphorous in the soil is already high at F2- 230 mg/kg and F3-279 mg/kg. The plant requirement for this growin season is 190 lbs of P₂O₅ required. The recommendations are to keep the P levels below 250 mg/kg in the soils. The excess is in the 0-6" soil layer. Removal of hay from the farm "system" needed in order to apply more biosolids. Also additional tillage is recommended.

LOCATION AND PURPOSE OF THE PLAN

Located in : Waller County

See plan map for location. The purpose of this plan is to outline the details of land application of biosolids on this land. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Nutrient Management Standard (590) and Waste Utilization Standard (633). When the appropriate land treatment practices needed to reduce runoff are fully implemented and maintained in each field the plan will provide the more comprehensive benefits of minimizing the affects of the land application of biosolids on the air, soil, water, and animal resources in and around the application area. Annual maximum application rates are determined using **Table 2 & 2a** depending on the current soil test P level and P index result for each field receiving biosolids.

Table 3 provides an estimate of the nutrients removed in the harvested portion of the crop at the planned yield goal for hay, grain, and fiber crops. The values used for grazed crops are the estimated amount of nutrients taken up in the above ground portion of the plants.

Waste Utilization and Nutrient Management Plan

ESTIMATED NUTRIENT AVAILABILITY

Permit #:

WQ0004445000

Refer to **Table 4** for field specific maximum biosolids application rates. Values in **Table 4** are based on the data in **Table 1**. Application will be based on biosolids analysis. Applying biosolids at **MAXIMUM** rates shown in **Table 4** will result in a more rapid build-up of phosphorus than if applied at lower rates. Phosphorus will build up more rapidly on pastureland than on hayland or cropland, since a much small amount of nutrients are actually removed from the farm by grazing animals. Biosolids may be applied to the same acreage every year, but if the soil test P level exceeds the critical level, or the Texas P Index result changes the rates of application will have to be reduced in accordance with Texas NRCS Nutrient Management Standard (590). This plan is valid only if the annual application of biosolids to the crops listed in **Table 4** does not exceed the per acre rates by more than 10%. If the yield of a crop does not meet the expected goal, the application rate should be adjusted accordingly the following year.

Recommended annual application amounts that are smaller than can physically be applied due to limitation of the application equipment should be doubled and applied to the field every other year. No other P fertilizer may be used the second year, but supplemental N and K₂O should be applied, if needed. If the P index critical P level is exceeded, it is recommended that no additional biosolids be applied to those fields until the level is reduced. Biosolids applications should be made at appropriate times to meet crop needs, but may be applied at any time as long as soils are not saturated, snow covered, or frozen, and the annual maximum is not exceeded.

SUPPLEMENTAL NUTRIENTS TO MEET YIELD GOAL

Table 5 shows the estimated amount of nutrients that are applied in pounds per acre for each field where biosolids are applied using per acre amounts shown in **Table 4**. Supplemental nitrogen (N) and potassium (K₂O) will be applied to achieve the yield goals noted in **Table 5**, when recommended based on soil analysis and the annual biosolids application does not meet the requirements as detailed in **Table 5**.

Deep soil sampling is recommended on application areas where loamy to clayey soils are present and biosolids have been applied previously. If this deep testing reveals accumulated nitrate N in the root zone, it should be deducted from any supplemental N to be applied to meet the planned yield goal. Sampling in 6 inch increments to a depth of 3 feet is sufficient for most crops.

ADJUSTMENTS TO APPLY LESS THAN THE MAXIMUM RATES

In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in **Table 6** can be reduced down to the level that does not exceed the amount of solids available. **Table 7** indicates the amount of nutrients provided and, if needed, the supplemental nutrients which must be applied when the application is based on these reduced rates. The amount of supplemental nutrients in **Table 7** are based on the actual amount of waste available rather than the maximum rate that "could" be applied.

The second line from the bottom of **Table 6** on the right has a box that will be "YES" or "NO". When the reduced rates uses all solids to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No", either more acreage is needed on which to apply the solids or the solids will need to be transported off-site.

Waste Utilization and Nutrient Management Plan

FILTER STRIPS, ETC

Permit #:

WQ0004445000

Acres of biosolids exclusion zones are noted in **Table 8**. Location of buffers and other exclusion zones are found on the application area map.

Filter Strips will meet the Texas USDA/NRCS standard (393). A minimum 100 foot wide grassed and/or wooded buffer providing at least 70% ground cover will be maintained between the application area and all water courses, ponds, lakes, wetlands, etc.

Riparian Forested Buffers (if used) will meet the Texas USDA/NRCS Standard (391). When planned, a minimum 50 foot wide wooded buffer will be maintained between the application area and the edge of streams, creeks, rivers, etc. to protect water quality, decrease water temperatures, improve aquatic organism habitat, reduce sediment and nutrient loading and reduce bank erosion. Select harvesting within this zone may be done in accordance with guidelines of the Texas Forest Service. If the wooded buffer is only 50 feet wide, there still must be a minimum 100 feet between biosolids application area and stream bank. Another vegetated buffer will be established or maintained to account for the remaining distance. Biosolids will not be applied within 100 feet of any waterway, stream, creek, pond, lake, or wetlands.

The minimum application distance from private or public wells will be 150 feet and 500 feet respectively. Private wells that are located within a field where biosolids are applied and are part of a center pivot irrigation system are exempt from the set-back requirement. The minimum suggested application distance from schools, institutions, and densely populated residential, business, or similar development is 1000 feet.

Biosolids will not be applied to any buffer areas or any frequently flooded areas, as designated by county soil survey.

PLANNED METHOD OF APPLICATION

Biosolids may be surface applied uniformly, injected, or incorporated below the surface of the soil within the root zone of the planned crop. To reduce soil compaction, applications should only be made when soil conditions are favorable. Biosolids should not be spread if heavy rains are forecast to occur within 1 day of a proposed application date.

ODOR MANAGEMENT

The following steps should be taken when spreading biosolids to reduce problems associated with odor.

1. Avoid spreading biosolids when wind will blow odors toward populated areas.
2. Avoid spreading biosolids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
3. Avoid spreading biosolids near heavily traveled highways.
4. Make biosolids applications in the morning when the air is warming, rather than in the late afternoon.

BIOSOLIDS TESTING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling and testing requirements of your permit. For applications not permitted by TCEQ, the biosolids need to be analyzed for percent moisture, total nitrogen, total phosphorus, and total potassium.

Waste Utilization and Nutrient Management Plan

BIOSOLIDS STORAGE

Permit #:

WQ0004445000

Biosolids may be temporarily stockpiled and covered with durable plastic or other suitable tarp material. Stockpiled biosolids must be sited on suitable soil, geology, and topography to prevent contamination of waterways. Runoff from stockpiled biosolids must be retained on-site by use of berms or other adequate structures where there is potential transport of biosolids into waterways.

COLLECTING SOIL SAMPLES FOR ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

Collect a composite sample for each field (or area of similar soils and management not more than about 40 acres) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface. Thoroughly mix each set of core samples, and select about a pint of the mixture as the sample for analysis. Label each sample for the field that it represents. Request that the samples be analyzed for nitrate nitrogen, available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity, and pH. Also note on the samples that they are from a biosolids application area.

SOIL ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

A base line soil analysis will be completed for all areas to be used for biosolids application. The area will be tested every year that biosolids are applied to monitor P build up. If soil test values rise to a higher category, i.e., Low to Medium, contact the local Soil and Water Conservation District or USDA/NRCS office to revise the Waste Utilization Plan and to assist in development of a plan to reduce P in the field(s).

RECORD KEEPING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the record keeping requirements of your permit. If application area is not regulated by TCEQ:

Detailed records should be maintained for all applications of biosolids for a period of at least 5 years. Records should include date, time, location, and amount of application; they could also include weather conditions, estimated wind speed and direction, etc. Keep all soil and biosolids analyses for the same period.

OPERATION AND MAINTENANCE

Application equipment should be maintained in good working order, and it should be calibrated at least once a year, so that the desired rate and amount of biosolids will be applied. Any changes in this system must be discussed with Texas Commission on Environmental Quality (TCEQ) prior to their initiation on permitted sites. If your site is not permitted by TCEQ, contact your local NRCS office for updates and assistance.

Waste Utilization and Nutrient Management Plan

SIGNATURE PAGE

WQ0004445000

Plan Prepared by:

Kevin Seawright

Date: 10/24/2024

Plan Approved by:

Keri Beauchamp

Date: 10/25/24

Producer Signature:

[Signature]

Date: 10/25/24

The producer's signature indicates that this plan has been discussed with him/her.

If this plan is not signed by the producer, indicate how the plan was provided to the producer.

PI Index by Field

Printed on: 10/24/24 2:27 PM
Client Name: Carl Miller Farms 1
Planner: Kevin Seawright

This plan is based on: Nutrient Management Plan V 5.0

Permit #: WQ0004445000
Date: 10/24/2024
Location: Waller
Rainfall: >25.0 inches

LMU or Fields	Crop	Slope	Runoff Curve	Soil Test P Level	Inorganic P ₂ O ₅ Appl Rate	Organic P ₂ O ₅ Appl Rate	Inorganic Method & Timing	Organic Method & Timing	Proximity of Appl to Named Stream	Runoff Class	Soil Erosion	Total Index Points	P Runoff Potential	Soil Test Date:
1	Coastal Hay 3 cut, SG mod graze	0-1%	74-N	2	0	0.75	0	0.5	0	0	1.5	4.75	Very Low - Low	12/27/24
2	Coastal Hay 3 cut, SG mod graze	0-1%	74-N	4	0	0.75	0	0.5	0	0	1.5	6.75	Very Low - Low	12/27/24
3	Coastal Hay 3 cut, SG mod graze	0-1%	74-N	8	0	0.75	0	0.5	0	0	1.5	10.75	Very Low - Low	12/27/24

Waste Utilization and Nutrient Management Plan

Table 1 - Est. Amount of Waste Allowed for Land Application

Permit #: WQ0004445000

Biosolids Type	Est. Max DRY tons applied annually
Other	10814.7

Contact your agronomic consultant, TCEQ or local USDA Natural Resources Conservation Service office, if the application quantities change by more than 10 percent so your plan can be revised.

Estimated Nutrient Availability

Solids

	pounds / yr	pounds / ton	
** N	73,356	6.8	**

P2O5 627,917 58.1

K2O 110,247 10.2

**** Effluent Values Based on Analysis**

**** Solids Values Based on Analysis**

Explanation of Other Biosolids Type:

Class B- aerobically digested meeting Pathogen and Vector requirements

Default values were used on all fields for plant removal of nutrients and yield levels.

Waste Utilization and Nutrient Management Plan

Table 3 - Crop Removal Rates (For Information Only)

Permit #:

WQ0004445000

LMU or Field No.	Acres	Crop and P Index Level	TCEQ Plan Type	Actual Crop Analysis or Default	Total Est. N Removal lbs/Ac/Yr	Total Est. P ₂ O ₅ Removal lbs/Ac/Yr	Total Est. K ₂ O Removal lbs/Ac/Yr
1	59.2	Coastal Hay 3 cut, SG mod graze VL - L	NMP	Default	319	96	284
2	71.6	Coastal Hay 3 cut, SG mod graze VL - L	NUP	Default	319	96	284
3	72.9	Coastal Hay 3 cut, SG mod graze VL - L	NUP	Default	319	96	284

NOTE: When crops are used for grazing, only a portion of the nutrients used by the crop are removed from the field in the live weight gain of the livestock, the remainder is returned to the land in manure and urine. The book "Southern Forages" estimates the N, P, & K removed in 100 pounds live weight gain as follows: **2.5 lbs N, 0.68 lbs P, 0.15 lbs K**

Waste Utilization and Nutrient Management Plan

Table 4 - Maximum Solids Application per Field

Permit #:

WQ0004445000

Est. Solids Produced Annually (wet tons)	LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P Level (ppm)	Max Annual P2O5 lbs/acre	Annual/Biennial	Maximum Solids Allowable Tons/Acre	Maximum Allowable Application Per field (Tons)
0	1	59.2	Coastal Hay 3 cut, SG mod graze VL - L	130	3938	A	67.8	4015
	2	71.6	Coastal Hay 3 cut, SG mod graze VL - L	230	2732	A	47.1	3369
	3	72.9	Coastal Hay 3 cut, SG mod graze VL - L	279	2732	A	47.1	3431
Total Solids Application Acres								
203.7								
Application Allowable on-site (tons)								
10814.7								
Adequate								
Solids to be used off-site (tons)								
0.0								

Waste Utilization and Nutrient Management Plan

Table 5 - Nutrients Applied/Needs at Maximum Solids Rates

Permit #:

WQ0004445000

Nutrients Applied When Application is at Maximum Rates				Supplemental Nutrients Needed When Application is at Maximum Rates			
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac
1	460	3938	691	0	0	0	0
2	319	2732	480	45	0	0	0
3	319	2732	480	95	0	0	0

Waste Utilization and Nutrient Management Plan

Table 6 - Planned Solids Application Rates

Permit #: WQ0004445000

LMU or Field No.	Double crop	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Max Rate tons/ac	% of Maximum to apply	Planned Solids tons/ac	Planned Solids per field (tons)
1		59.2	Coastal Hay 3 cut, SG mod graze VL - L	130	A	67.8	1	0.7	40.1
2		71.6	Coastal Hay 3 cut, SG mod graze VL - L	230	A	47.1	2	0.7	50.5
3		72.9	Coastal Hay 3 cut, SG mod graze VL - L	279	A	47.1	2	0.7	51.5
Acres			203.7	Will the planned per acre application rates use all of the Solids?					142.1
10815			Tons wet of solids to be used	NO					
0				Tons to be used off-site at planned rates					142

WQ0004445000

Red cells? Proceed to adjustment page and fix.

Nutrients Applied at Planned Rates				Supplemental Nutrients Needed at Planned Rates			
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac
1	5	39	7	405	0	120	0
2	5	41	7	355	0	180	0
3	5	41	7	410	0	85	0

Waste Utilization and Nutrient Management Plan

Table 8 - Non Application Areas by Field

Permit #:

WQ0004445000

FS = 393-Filter Strip; **FB** = 386-Field Border, **RFB** = 391-Riparian Forest Buffer; **OLEA** = Other Land Excluded Area

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
1	0.0	0.0			
2	0.0	0.0			
3	0.0	0.0			

See Application Map for location of buffers

Total 590-633 application acres: 203.7

Totals	0.0	0.0	0.0	0.0	0.0
---------------	-----	-----	-----	-----	-----

Total 590-633 Field Acres: ERROR

Waste Utilization and Nutrient Management Data Entries

General Data

Date :	10/24/2024
Farmer Name :	Carl Miller Farms 1
County in which the Land is located :	Waller
Type of Waste Plan :	Biosolids
Is this plan in a TMDL watershed for nutrients?	
Yes or No :	No
Is any field PERMITTED by TCEQ?	
Yes or No :	Yes
Permit # :	WQ0004445000

All other entries on General Page appear on the Cover Page

Biosolids Information

Plan Year :	2025	Explain Other: Class B- aerobically digested meeting Pathogen and Vector requirements
Biosolid Type :	Other	
Analysis Date:	May 15,2024	
Nitrogen % From Biosolids Analysis:	0.52	
Phosphorus % From Biosolids Analysis:	1.55	
Potassium % From Biosolids Analysis:	0.52	
Moisture % From Biosolids Analysis:	18.00	
Does this site generate biosolids?	No	
If B11 = "Yes", How many dry tons/year?		

This plan is based on: rganic Nutrient Management Plan V 5.0

Printed on: 10/24/24 2:28 PM

Field and Buffer Entries

Permit #: WQ0004445000

Printed on: 10/24/24 2:28 PM

Plan is based on: 590 Organic Nutrient Management Plan

FS = 393-Filter Strip, FB = 386-Field Border, RFB = 391-Riparian Forest Buffer, OLEA = Other Land Exclusion Areas or non-application areas (i.e. headquarters, freq. flooded areas, wooded areas, water bodies, etc)

NOTE: Field Border (FB) is expressed in ACRES on this spreadsheet, but as LINEAR FEET on the CPO.

[illegible]

[illegible]

Solids Application Rate Entries

Solids - Set the Planned Application Rates				Permit #:		WQ:	
10815		Maximum dry tons that may be applied.		Will the planned rates use the Maximum a			
				Dry Tons to be used on-site at plann			
LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Crop P ₂ O ₅ Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply
1	59.2	Coastal Hay 3 cut, SG mod graze VL - L	130	230	Annual	67.8	1.0
2	71.6	Coastal Hay 3 cut, SG mod graze VL - L	230	230	Annual	47.1	1.5
3	72.9	Coastal Hay 3 cut, SG mod graze VL - L	279	230	Annual	47.1	1.5

8. Hydrologic Characteristics Information.

a. According to the TWDB Report 345, the site is located in the area of the Gulf Coast Aquifer as it was in the last permit renewal. (See attached Description and Map from TWDB Report 345).

b. According to the Geologic Atlas of Texas, the site is still located in the area of the Lissie formation and has not changed since the last permit renewal.

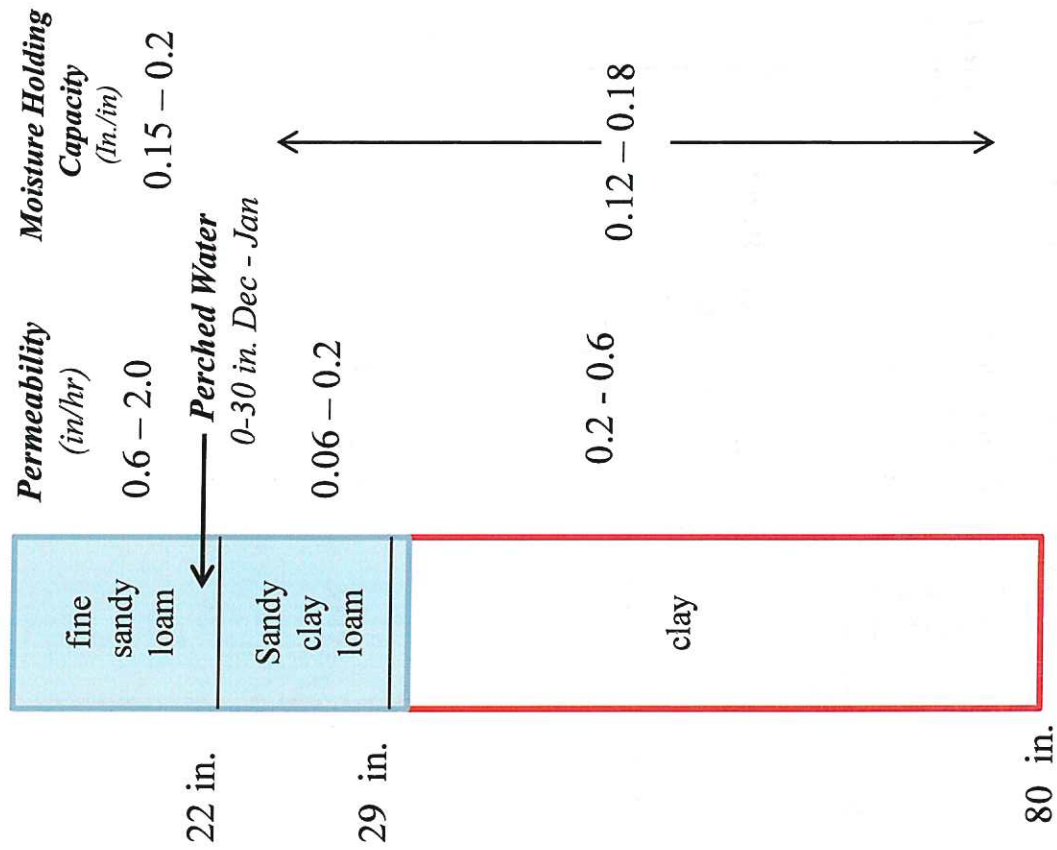
c. Other than the two wells listed on page 22 of there is no direct hydrologic connection between the surface and subsurface within ¼ mile of the site.

d. As stated page 21, the Midfield Loam soil has a seasonal perched water table a 1.0 foot depth. Katy Fine Sandy Loams series has a seasonal perched water table of 2 feet deep. Telf Fine Sandy Loam has a seasonal perched water table of 1.5 feet deep.

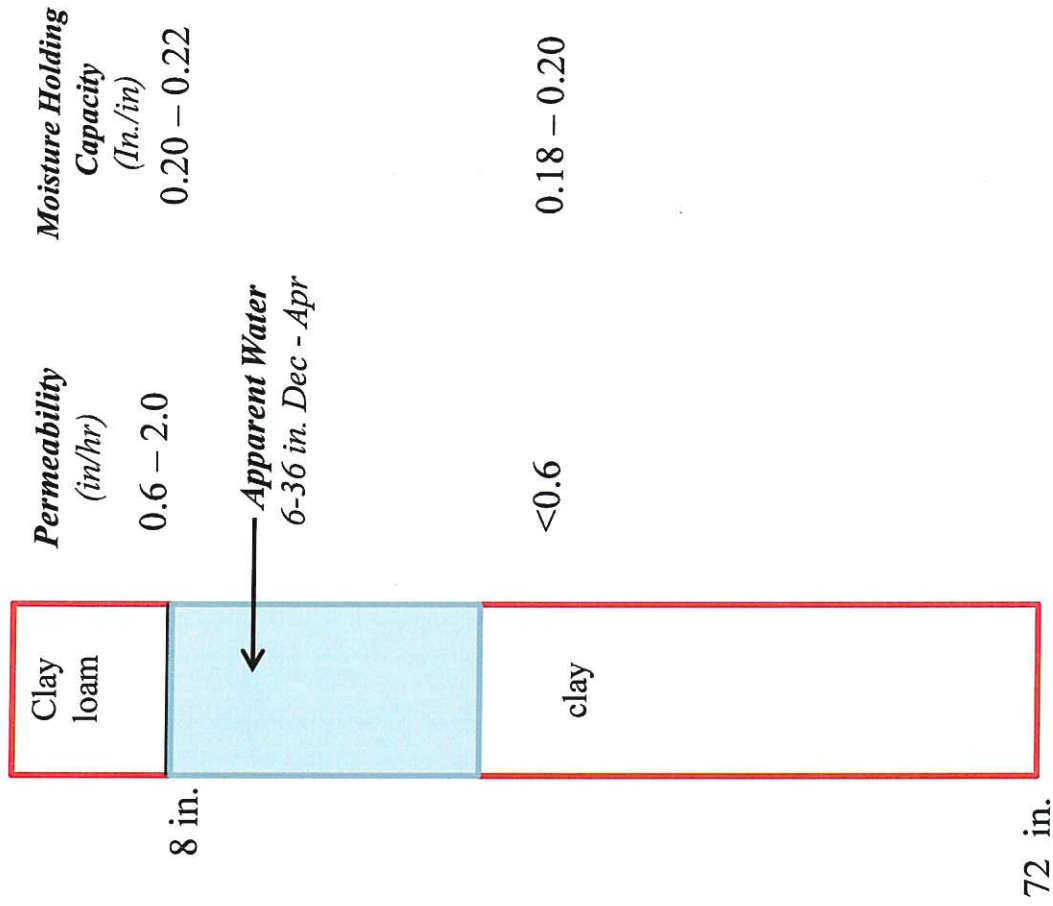
e. There are currently no other monitoring stations. The preventative measures are that no application is occurring during those seasonal months of perched water.

Seasonally perched water, Carl Miller Farms 1

Katy (77.2% of site soils)



Midfield (1.9% of site soils)



**Figure 2. Hydro geologic conditions, Carl Miller Farms 1
Waller, County, TX**

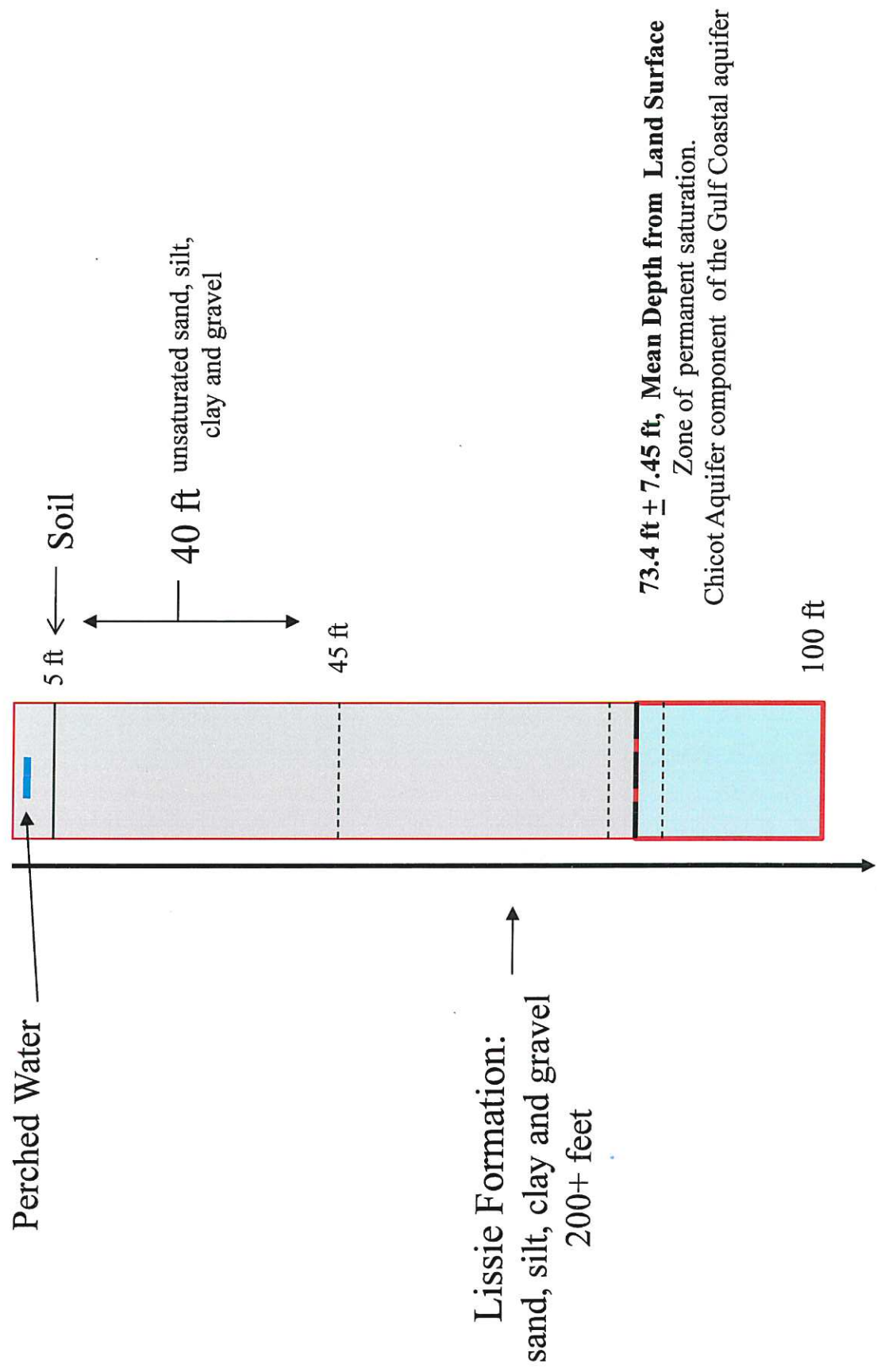


Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Bilma PUD

TCEQ Authorization Number: WQ0012025002

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	4.9	2/26/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.588	2/26/2024	0.005	EPA 7130
Chromium (Cr)	3000	11.9	2/26/2024	0.02	EPA 7190
Copper (Cu)	4300	200	2/26/2024	0.02	EPA 7210
Lead (Pb)	840	6	2/26/2024	0.1	EPA 7420
Mercury (Hg)	57	0.157	2/26/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	4.88	2/26/2024	0.03	EPA 7480
Nickel (Ni)	420	14.1	2/26/2024	0.03	EPA 7520
Selenium (Se)	100	6.89	2/26/2024	0.005	EPA 7740
Zinc (Zn)	7500	944	2/26/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.001873	2/26/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	7.13	2/26/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.336	2/26/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.167	2/26/2024	0.1	SM 4500D
Total Phosphorus (P)	1.29	2/26/2024	0.1	EPA 365.2
Total Potassium (K)	0.485	2/26/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Cinco Central WWTP

TCEQ Authorization Number: WQ0013558001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	2.1	1/19/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.333	1/19/2024	0.005	EPA 7130
Chromium (Cr)	3000	6.41	1/19/2024	0.02	EPA 7190
Copper (Cu)	4300	55	1/19/2024	0.02	EPA 7210
Lead (Pb)	840	4.25	1/19/2024	0.1	EPA 7420
Mercury (Hg)	57	0.262	1/19/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	3.15	1/19/2024	0.03	EPA 7480
Nickel (Ni)	420	5.01	1/19/2024	0.03	EPA 7520
Selenium (Se)	100	2.84	1/19/2024	0.005	EPA 7740
Zinc (Zn)	7500	947	1/19/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.00002	1/19/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	6.48	1/19/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.809	1/19/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	1.12	1/19/2024	0.1	SM 4500D
Total Phosphorus (P)	0.373	1/19/2024	0.1	EPA 365.2
Total Potassium (K)	0.176	1/19/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Cinco MUD Southwest 1

TCEQ Authorization Number: WQ0014343001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	8.15	11/29/2023	0.005	EPA 7060
Cadmium (Cd)	85	0.538	11/29/2023	0.005	EPA 7130
Chromium (Cr)	3000	13.7	11/29/2023	0.02	EPA 7190
Copper (Cu)	4300	376	11/29/2023	0.02	EPA 7210
Lead (Pb)	840	5.91	11/29/2023	0.1	EPA 7420
Mercury (Hg)	57	0.727	11/29/2023	0.0002	EPA 7471
Molybdenum (Mo)	75	8.82	11/29/2023	0.03	EPA 7480
Nickel (Ni)	420	11.6	11/29/2023	0.03	EPA 7520
Selenium (Se)	100	7.1	11/29/2023	0.005	EPA 7740
Zinc (Zn)	7500	1010	11/29/2023	0.5	EPA 7950
PCB (ppm)	50.0 ppm	2.55	11/29/2023	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	4.95	11/29/2023	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.411	11/29/2023	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.84	11/29/2023	0.1	SM 4500D
Total Phosphorus (P)	1.54	11/29/2023	0.1	EPA 365.2
Total Potassium (K)	0.54	11/29/2023	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: FBC MUD 34 Plant 1

TCEQ Authorization Number: WQ0012298001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.3	3/26/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.546	3/26/2024	0.005	EPA 7130
Chromium (Cr)	3000	8.56	3/26/2024	0.02	EPA 7190
Copper (Cu)	4300	254	3/26/2024	0.02	EPA 7210
Lead (Pb)	840	4.5	3/26/2024	0.1	EPA 7420
Mercury (Hg)	57	0.22	3/26/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	7.12	3/26/2024	0.03	EPA 7480
Nickel (Ni)	420	12.7	3/26/2024	0.03	EPA 7520
Selenium (Se)	100	7.29	3/26/2024	0.005	EPA 7740
Zinc (Zn)	7500	706	3/26/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.418	3/26/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	7.74	3/26/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.361	3/26/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.00973	3/26/2024	0.1	SM 4500D
Total Phosphorus (P)	2.33	3/26/2024	0.1	EPA 365.2
Total Potassium (K)	1	3/26/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: HC 70

TCEQ Authorization Number: WQ0011486001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	4.93	3/18/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.427	3/18/2024	0.005	EPA 7130
Chromium (Cr)	3000	7.39	3/18/2024	0.02	EPA 7190
Copper (Cu)	4300	206	3/18/2024	0.02	EPA 7210
Lead (Pb)	840	5	3/18/2024	0.1	EPA 7420
Mercury (Hg)	57	0.561	3/18/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	4.67	3/18/2024	0.03	EPA 7480
Nickel (Ni)	420	8.35	3/18/2024	0.03	EPA 7520
Selenium (Se)	100	5.3	3/18/2024	0.005	EPA 7740
Zinc (Zn)	7500	529	3/18/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.298	3/18/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.9	3/18/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.454	3/18/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.89	3/18/2024	0.1	SM 4500D
Total Phosphorus (P)	0.808	3/18/2024	0.1	EPA 365.2
Total Potassium (K)	0.251	3/18/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: HC 418 (1)

TCEQ Authorization Number: WQ0014476001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	8.79	1/2/2024	0.005	EPA 7060
Cadmium (Cd)	85	5.26	1/2/2024	0.005	EPA 7130
Chromium (Cr)	3000	14	1/2/2024	0.02	EPA 7190
Copper (Cu)	4300	227	1/2/2024	0.02	EPA 7210
Lead (Pb)	840	5.26	1/2/2024	0.1	EPA 7420
Mercury (Hg)	57	0.157	1/2/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	10	1/2/2024	0.03	EPA 7480
Nickel (Ni)	420	9.84	1/2/2024	0.03	EPA 7520
Selenium (Se)	100	5.26	1/2/2024	0.005	EPA 7740
Zinc (Zn)	7500	705	1/2/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.00001	1/2/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.855	1/2/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.526	1/2/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.00489	1/2/2024	0.1	SM 4500D
Total Phosphorus (P)	2.12	1/2/2024	0.1	EPA 365.2
Total Potassium (K)	0.653	1/2/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: HC WCID 109

TCEQ Authorization Number: WQ0011026002

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	11.1	12/21/2023	0.005	EPA 7060
Cadmium (Cd)	85	11.1	12/21/2023	0.005	EPA 7130
Chromium (Cr)	3000	19.7	12/21/2023	0.02	EPA 7190
Copper (Cu)	4300	336	12/21/2023	0.02	EPA 7210
Lead (Pb)	840	27.8	12/21/2023	0.1	EPA 7420
Mercury (Hg)	57	0.481	12/21/2023	0.0002	EPA 7471
Molybdenum (Mo)	75	11.1	12/21/2023	0.03	EPA 7480
Nickel (Ni)	420	16.3	12/21/2023	0.03	EPA 7520
Selenium (Se)	100	13.4	12/21/2023	0.005	EPA 7740
Zinc (Zn)	7500	1130	12/21/2023	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.0083	12/21/2023	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	2.8	12/21/2023	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	1.11	12/21/2023	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.811	12/21/2023	0.1	SM 4500D
Total Phosphorus (P)	1.43	12/21/2023	0.1	EPA 365.2
Total Potassium (K)	0.633	12/21/2023	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Jackrabbit PUD

TCEQ Authorization Number: WQ001129001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.67	1/19/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.842	1/19/2024	0.005	EPA 7130
Chromium (Cr)	3000	14.6	1/19/2024	0.02	EPA 7190
Copper (Cu)	4300	282	1/19/2024	0.02	EPA 7210
Lead (Pb)	840	15.4	1/19/2024	0.1	EPA 7420
Mercury (Hg)	57	0.382	1/19/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	7.75	1/19/2024	0.03	EPA 7480
Nickel (Ni)	420	15.4	1/19/2024	0.03	EPA 7520
Selenium (Se)	100	9.35	1/19/2024	0.005	EPA 7740
Zinc (Zn)	7500	967	1/19/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.00126	1/19/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	6.24	1/19/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.328	1/19/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.324	1/19/2024	0.1	SM 4500D
Total Phosphorus (P)	1.96	1/19/2024	0.1	EPA 365.2
Total Potassium (K)	0.444	1/19/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: MC 112

TCEQ Authorization Number: WQ0014671001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	3.43	3/18/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.462	3/18/2024	0.005	EPA 7130
Chromium (Cr)	3000	0.743	3/18/2024	0.02	EPA 7190
Copper (Cu)	4300	109	3/18/2024	0.02	EPA 7210
Lead (Pb)	840	3.17	3/18/2024	0.1	EPA 7420
Mercury (Hg)	57	0.467	3/18/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	4.8	3/18/2024	0.03	EPA 7480
Nickel (Ni)	420	7.8	3/18/2024	0.03	EPA 7520
Selenium (Se)	100	4.85	3/18/2024	0.005	EPA 7740
Zinc (Zn)	7500	755	3/18/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.687	3/18/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.9	3/18/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.42	3/18/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	1.11	3/18/2024	0.1	SM 4500D
Total Phosphorus (P)	1.05	3/18/2024	0.1	EPA 365.2
Total Potassium (K)	0.353	3/18/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: North Park PUD

TCEQ Authorization Number: WQ0011855001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	8.79	5/6/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.66	5/6/2024	0.005	EPA 7130
Chromium (Cr)	3000	17.7	5/6/2024	0.02	EPA 7190
Copper (Cu)	4300	286	5/6/2024	0.02	EPA 7210
Lead (Pb)	840	9.54	5/6/2024	0.1	EPA 7420
Mercury (Hg)	57	0.21	5/6/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	10.1	5/6/2024	0.03	EPA 7480
Nickel (Ni)	420	18.9	5/6/2024	0.03	EPA 7520
Selenium (Se)	100	7.64	5/6/2024	0.005	EPA 7740
Zinc (Zn)	7500	1350	5/6/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.681	5/6/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.89	5/6/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.45	5/6/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	1.09	5/6/2024	0.1	SM 4500D
Total Phosphorus (P)	1.44	5/6/2024	0.1	EPA 365.2
Total Potassium (K)	0.406	5/6/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: NWHC 21,22,23

TCEQ Authorization Number: WQ0012144001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	3.69	6/5/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.369	6/5/2024	0.005	EPA 7130
Chromium (Cr)	3000	4.02	6/5/2024	0.02	EPA 7190
Copper (Cu)	4300	57.4	6/5/2024	0.02	EPA 7210
Lead (Pb)	840	2.98	6/5/2024	0.1	EPA 7420
Mercury (Hg)	57	0.534	6/5/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	1.94	6/5/2024	0.03	EPA 7480
Nickel (Ni)	420	5.15	6/5/2024	0.03	EPA 7520
Selenium (Se)	100	3.69	6/5/2024	0.005	EPA 7740
Zinc (Zn)	7500	634	6/5/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.641	6/5/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.34	6/5/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.352	6/5/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	1.99	6/5/2024	0.1	SM 4500D
Total Phosphorus (P)	1.12	6/5/2024	0.1	EPA 365.2
Total Potassium (K)	0.611	6/5/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: West Memorial

TCEQ Authorization Number: WQ0011152001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	8.43	6/26/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.517	6/26/2024	0.005	EPA 7130
Chromium (Cr)	3000	10.9	6/26/2024	0.02	EPA 7190
Copper (Cu)	4300	237	6/26/2024	0.02	EPA 7210
Lead (Pb)	840	14.4	6/26/2024	0.1	EPA 7420
Mercury (Hg)	57	0.547	6/26/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	9.23	6/26/2024	0.03	EPA 7480
Nickel (Ni)	420	11.1	6/26/2024	0.03	EPA 7520
Selenium (Se)	100	4.84	6/26/2024	0.005	EPA 7740
Zinc (Zn)	7500	877	6/26/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	1.41	6/26/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.97	6/26/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	0.41	6/26/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.000652	6/26/2024	0.1	SM 4500D
Total Phosphorus (P)	2.05	6/26/2024	0.1	EPA 365.2
Total Potassium (K)	0.689	6/26/2024	0.5	EPA 258.1

Table 1
Pollutant and Nutrient Concentrations in
Sewage Sludge

Complete this table for each source of sludge.

Facility Name: Williamsburg Regional WWTP

TCEQ Authorization Number: WQ0011598001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	12	4/3/2024	0.005	EPA 7060
Cadmium (Cd)	85	0.54	4/3/2024	0.005	EPA 7130
Chromium (Cr)	3000	14.1	4/3/2024	0.02	EPA 7190
Copper (Cu)	4300	247	4/3/2024	0.02	EPA 7210
Lead (Pb)	840	5.87	4/3/2024	0.1	EPA 7420
Mercury (Hg)	57	0	4/3/2024	0.0002	EPA 7471
Molybdenum (Mo)	75	11	4/3/2024	0.03	EPA 7480
Nickel (Ni)	420	11.6	4/3/2024	0.03	EPA 7520
Selenium (Se)	100	4.27	4/3/2024	0.005	EPA 7740
Zinc (Zn)	7500	535	4/3/2024	0.5	EPA 7950
PCB (ppm)	50.0 ppm	0.000315	4/3/2024	2	EPA 8080

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	7.88	4/3/2024	0.1	EPA 351.2
Ammonium Nitrogen (NH ₄ -N)	1.01	4/3/2024	0.1	EPA 2350.3
Nitrate Nitrogen (NO ₃ -N)	0.000689	4/3/2024	0.1	SM 4500D
Total Phosphorus (P)	2.38	4/3/2024	0.1	EPA 365.2
Total Potassium (K)	0.771	4/3/2024	0.5	EPA 258.1

Table 2. - Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration

TCEQ		Est. Tons	Pollutant Concentrations x No. of Dry Tons													Nutrient Conc. x No. of Dry Tons				
Permit	Number	Yr.	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH4	NO3	P	K			
(mg/kg dry weight)																				
WQ00120	25002	5.50	27.0	3.2	65.5	1101	33	0.9	26.9	77.6	37.9	5197	39.2	1.8	0.9	7.1	2.7			
WQ00135	58001	69.98	146.9	23.3	449	3849	297	18.3	220.4	350.6	198.7	66267	453.4	56.6	78.4	26.1	12.3			
WQ00143	43001	16.51	134.59	8.88	226.25	6209	97.60	12.01	145.66	191.57	117.25	16680	81.75	6.79	13.87	25.43	8.92			
WQ00122	98001	30.95	194.96	16.90	264.90	7860	139.26	6.81	220.34	393.01	225.60	21848	239.52	11.17	0.30	72.10	30.95			
WQ00144	76001	31.19	274.19	164.08	436.71	7081	164.08	4.90	311.94	306.95	164.08	21992	26.67	16.41	0.15	66.13	20.37			
WQ00114	86001	31.19	153.79	13.32	230.52	6426	155.97	17.50	145.68	260.47	165.33	16502	184.04	14.16	27.76	25.20	7.83			
WQ00110	26002	19.82	219.97	219.97	390.40	6659	550.92	9.53	219.97	323.02	265.55	22394	55.49	22.00	16.07	28.34	12.54			
WQ00112	90001	69.73	465.08	58.71	1018.02	19663	1073.80	26.64	540.39	1073.80	651.95	67426	435.10	22.87	22.59	136.67	30.96			
WQ00146	71001	0.63	2.18	0.29	0.47	69	2.01	0.30	3.05	4.95	3.08	479	3.75	0.27	0.70	0.67	0.22			
WQ00118	55001	0.83	7.33	0.55	14.76	239	7.96	0.18	8.42	15.76	6.37	1126	4.91	0.38	0.91	1.20	0.34			
WQ00121	44001	14.93	55.11	5.51	60.0	857	44.5	8.0	29.0	76.9	55.1	9469	79.75	5.26	29.72	16.73	9.13			
WQ00111	52001	64.22	541.40	33.20	700	15221	924.81	35.13	592.78	712.87	310.84	56323	383.41	26.33	0.04	131.66	44.25			
WQ00115	98001	14.571	174.85	7.87	205.45	3599	85.53	2.21	160.28	169.03	62.22	7796	114.82	14.72	0.01	34.68	11.23			
370.07			2397	556	4062	78833	3577	142	2625	3957	2264	313497	2102	199	191	572	192			
Weighted Means			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(%)	(%)	(%)	(%)	(%)			
	6.5	1.5	11.0	213.0	9.7	0.4	7.1	10.7	6.1	847	5.68	0.54	0.52	1.55	0.52					

APPENDIX A

AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year

APPENDIX A, PART 1. APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	5.7	x 20	113.6
Ammonium Nitrogen (NH ₄ -N)	0.5	x 20	10.7
Nitrate Nitrogen (NO ₃ -N)	0.5	x 20	10.3
Total Phosphorus (P)	1.5	x 20	30.9
Total Potassium (K)	0.5	x 20	10.4

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.5	x 0.002	0.01296
Total Cadmium (Cd)	1.5	x 0.002	0.00300
Total Chromium (Cr)	11.0	x 0.002	0.02195
Total Copper (Cu)	213.0	x 0.002	0.42604
Total Lead (Pb)	9.7	x 0.002	0.01933
Total Mercury (Hg)	0.4	x 0.002	0.00077
Total Molybdenum (Mo)	7.1	x 0.002	0.01419
Total Nickel (Ni)	10.7	x 0.002	0.02138
Total Selenium (Se)	6.1	x 0.002	0.01224
Total Zinc (Zn)	847.1	x 0.002	1.69425

** Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb.N/ton of forage, Texas Agricultural Extension Service,Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement* 540

2B. Nitrogen available in soil** 157.8

2C. Nitrogen amount still needed
Line 2A - Line 2B 382.2

*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

** Line 2B = $2 \times \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth}) + 6 \times \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH₄-N, and NO₃-N from Step 1.

Organic Nitrogen = TKN - (NH₄-N + NO₃-N) 92.50491

Mineralization Rate (%)* 30%

3A. Organic Nitrogen x Mineralization Rate 27.751473

3B. Ammonium Nitrogen = (NH₄-N) x V 10.744087

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

3C. Nitrate Nitrogen (NO₃-N) = 10.345562

3D. Total PAN = (Line 3A + Line 3B + Line 3C)= 48.841123

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED
ON CROP NITROGEN NEEDS (SAR_N)**

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 382.2

4B. Total PAN (lbs/ton)

Enter amount from Step 3D. 48.841123

4C. Biosolids Application Rate (BAR_N) (tons/acre/year)

Line 4A ÷ Line 4B 7.83

STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at BAR_N (lbs/ac/yr) $C \times SAR_N$	E Metals Applied Annually at SAR_M (lb./ac./yr) B/C	F Max Sludge Loading Rate (ton/ac.) A/C
Arsenic	36	1.8	0.01296	0.10139	N/A	2778.56456
Cadmium	35	1.7	0.00300	0.02351	N/A	11651.50597
Chromium	2677	134	0.02195	0.17177	N/A	121956.52612
Copper	1339	67	0.42604	3.33394	N/A	3142.87975
Lead	268	13	0.01933	0.15127	N/A	13863.92942
Mercury	15	0.76	0.00077	0.00602	N/A	19495.38632
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.02138	0.16733	N/A	17537.58312
Selenium	89	4.5	0.01224	0.09575	N/A	7273.80122
Zinc	2500	125	1.69425	13.25816	N/A	1475.57633
Other						

Note: For each metal, if the value in column B is greater than the value in column D ($B > D$), the BAR_N dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ($B < D$), then the BAR_M dictates the maximum biosolids application rate and the value of $E = B \div C$.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1475.58

6B. Previous applications of biosolids (tons/acre) 4.56

6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1471.02

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)
7.83

6E. Years remaining to reach the maximum cumulative loading

Line 6C $\div$ Line 6D (years) 188

APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement*

N/A

1B. Nitrogen available in soil**

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 1B = $2 * \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 * \text{NO}_3\text{-N (ppm)}(\text{in the 6-24" soil depth})$

STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B

N/A

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{\quad}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{\quad}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

APPENDIX A AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year

APPENDIX A, PART 1. APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	5.7	x 20	113.6
Ammonium Nitrogen (NH ₄ -N)	0.5	x 20	10.7
Nitrate Nitrogen (NO ₃ -N)	0.5	x 20	10.3
Total Phosphorus (P)	1.5	x 20	30.9
Total Potassium (K)	0.5	x 20	10.4

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.5	x 0.002	0.01296
Total Cadmium (Cd)	1.5	x 0.002	0.00300
Total Chromium (Cr)	11.0	x 0.002	0.02195
Total Copper (Cu)	213.0	x 0.002	0.42604
Total Lead (Pb)	9.7	x 0.002	0.01933
Total Mercury (Hg)	0.4	x 0.002	0.00077
Total Molybdenum (Mo)	7.1	x 0.002	0.01419
Total Nickel (Ni)	10.7	x 0.002	0.02138
Total Selenium (Se)	6.1	x 0.002	0.01224
Total Zinc (Zn)	847.1	x 0.002	1.69425

** Values from laboratory analysis (dry weight only).

Conversions:

mg/kg ÷ 10,000 = %

ppm = mg/kg

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb N/ton of forage, Texas Agricultural Extension Service, Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement* 540

2B. Nitrogen available in soil** 339.4

2C. Nitrogen amount still needed
Line 2A - Line 2B 200.6

*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

** Line 2B = $2 \times \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{' soil depth}) + 6 \times \text{NO}_3\text{-N (ppm)}(6\text{-}24\text{' soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH₄-N, and NO₃-N from Step 1.

Organic Nitrogen = TKN - (NH ₄ -N + NO ₃ -N)	92.50491
Mineralization Rate (%)*	30%
3A. Organic Nitrogen x Mineralization Rate	27.751473
3B. Ammonium Nitrogen = (NH ₄ -N) x V	10.744087
V= 0.5 if biosolids are left on soil surface	
V= 1.0 if biosolids are worked into the soil	
3C. Nitrate Nitrogen (NO ₃ -N) =	10.345562
3D. Total PAN = (Line 3A + Line 3B + Line 3C)=	48.841123

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED
ON CROP NITROGEN NEEDS (SAR_N)**

4A. Nitrogen amount still needed (lbs/acre/year)	
Enter amount from Step 2C.	200.6
4B. Total PAN (lbs/ton)	
Enter amount from Step 3D.	48.841123
4C. Biosolids Application Rate (BAR _N) (tons/acre/year)	
Line 4A ÷ Line 4B	4.11

STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at BAR_N (lbs/ac/yr) $C \times SAR_N$	E Metals Applied Annually at SAR_M (lb./ac./yr) B/C	F Max Sludge Loading Rate (ton/ac.) A/C
Arsenic	36	1.8	0.01296	0.05321	N/A	2778.56456
Cadmium	35	1.7	0.00300	0.01234	N/A	11651.50597
Chromium	2677	134	0.02195	0.09015	N/A	121956.52612
Copper	1339	67	0.42604	1.74984	N/A	3142.87975
Lead	268	13	0.01933	0.07940	N/A	13863.92942
Mercury	15	0.76	0.00077	0.00316	N/A	19495.38632
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.02138	0.08782	N/A	17537.58312
Selenium	89	4.5	0.01224	0.05025	N/A	7273.80122
Zinc	2500	125	1.69425	6.95863	N/A	1475.57633
Other						

Note: For each metal, if the value in column B is greater than the value in column D ($B > D$), the BAR_N dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ($B < D$), then the BAR_M dictates the maximum biosolids application rate and the value of $E = B \div C$.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1475.58

6B. Previous applications of biosolids (tons/acre) 6.61

6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1468.96

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)
4.11

6E. Years remaining to reach the maximum cumulative loading

Line 6C $\div$ Line 6D (years) 358

APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement*

N/A

1B. Nitrogen available in soil**

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

Line 1B = $2 \times \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 \times \text{NO}_3\text{-N (ppm)}(\text{in the 6-24" soil depth})$ **STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)Line 2A $\div$ Line 2B

N/A

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

APPENDIX A AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year

APPENDIX A, PART 1. APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	5.7	x 20	113.6
Ammonium Nitrogen (NH ₄ -N)	0.5	x 20	10.7
Nitrate Nitrogen (NO ₃ -N)	0.5	x 20	10.3
Total Phosphorus (P)	1.5	x 20	30.9
Total Potassium (K)	0.5	x 20	10.4

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.5	x 0.002	0.01296
Total Cadmium (Cd)	1.5	x 0.002	0.00300
Total Chromium (Cr)	11.0	x 0.002	0.02195
Total Copper (Cu)	213.0	x 0.002	0.42604
Total Lead (Pb)	9.7	x 0.002	0.01933
Total Mercury (Hg)	0.4	x 0.002	0.00077
Total Molybdenum (Mo)	7.1	x 0.002	0.01419
Total Nickel (Ni)	10.7	x 0.002	0.02138
Total Selenium (Se)	6.1	x 0.002	0.01224
Total Zinc (Zn)	847.1	x 0.002	1.69425

** Values from laboratory analysis (dry weight only).

Conversions:

mg/kg ÷ 10,000 = %

ppm = mg/kg

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb.N/ton of forage, Texas Agricultural Extension Service,Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement* 540

2B. Nitrogen available in soil** 157.8

2C. Nitrogen amount still needed
Line 2A - Line 2B 382.2

*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

** Line 2B = $2 \times \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{'soil depth}) + 6 \times \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{'soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, $\text{NH}_4\text{-N}$, and $\text{NO}_3\text{-N}$ from Step 1.

Organic Nitrogen = $\text{TKN} - (\text{NH}_4\text{-N} + \text{NO}_3\text{-N})$	92.50491
Mineralization Rate (%)*	30%
3A. Organic Nitrogen x Mineralization Rate	27.751473
3B. Ammonium Nitrogen = $(\text{NH}_4\text{-N}) \times V$	10.744087
V= 0.5 if biosolids are left on soil surface	
V= 1.0 if biosolids are worked into the soil	
3C. Nitrate Nitrogen ($\text{NO}_3\text{-N}$) =	10.345562
3D. Total PAN = (Line 3A + Line 3B + Line 3C)=	48.841123

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED
ON CROP NITROGEN NEEDS (SAR_N)**

4A. Nitrogen amount still needed (lbs/acre/year)	
Enter amount from Step 2C.	355
4B. Total PAN (lbs/ton)	
Enter amount from Step 3D.	48.841123
4C. Biosolids Application Rate (BAR_N) (tons/acre/year)	
Line 4A ÷ Line 4B	7.27

STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at BAR_N (lbs/ac/yr) $C \times SAR_N$	E Metals Applied Annually at SAR_M (lb./ac./yr) B/C	F Max Sludge Loading Rate (ton/ac.) A/C
Arsenic	36	1.8	0.01296	0.09417	N/A	2778.56456
Cadmium	35	1.7	0.00300	0.02183	N/A	11651.50597
Chromium	2677	134	0.02195	0.15955	N/A	121956.52612
Copper	1339	67	0.42604	3.09667	N/A	3142.87975
Lead	268	13	0.01933	0.14050	N/A	13863.92942
Mercury	15	0.76	0.00077	0.00559	N/A	19495.38632
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.02138	0.15542	N/A	17537.58312
Selenium	89	4.5	0.01224	0.08893	N/A	7273.80122
Zinc	2500	125	1.69425	12.31462	N/A	1475.57633
Other						

Note: For each metal, if the value in column B is greater than the value in column D ($B > D$), the BAR_N dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ($B < D$), then the BAR_M dictates the maximum biosolids application rate and the value of $E = B \div C$.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1475.58

6B. Previous applications of biosolids (tons/acre) 5.66

6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1469.91

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)
7.27

6E. Years remaining to reach the maximum cumulative loading

Line 6C $\div$ Line 6D (years) 202

APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A

Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement*

N/A

1B. Nitrogen available in soil**

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 1B = $2 \times \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 \times \text{NO}_3\text{-N (ppm)}(\text{in the 6-24" soil depth})$

STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A $\div$ Line 2B

N/A

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

INSTRUCTIONS FOR PERMIT FOR BENEFICIAL LAND USE OF SEWAGE SLUDGE

GENERAL INFORMATION

Purpose of the Application

This form is to be used to:

- Permit a new site for beneficial land use of sewage sludge;
- Submit a Major Amendment to change acreage or to make any other substantive change to a permitted site for beneficial land use of sewage sludge; or
- Renew an existing permitted site for beneficial land use of sewage sludge.

NOTE: If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of sewage sludge. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

Who Should Apply?

This application must be submitted by the site operator. If there is more than one operator, then a co-applicant is required.

When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

Where to Send the Application Form

One original and three copies of the application, including attachments, must be provided to the address below:

Regular U.S. Mail:

TCEQ
ARP Team, MC 148
PO Box 13087
Austin TX 78711-3087

Express Mail or Hand Delivery:

TCEQ
ARP Team, MC 148
Building F Room 2101

12100 Park 35 Circle
Austin TX 78753

TCEQ Contact List

Permit Information and Application Forms: 512-239-4671
Technical Information, Sludge Permits Team: 512-239-4671
Environmental Law Division: 512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM

Section 1. Type of Application

Select the appropriate type of application.

For amendment applications, describe the proposed changes.

For existing permits, provide the TCEQ permit number.

Section 2. Application Fee

The permit application fee varies from \$1,000 to \$5,000, based on the quantity of sewage sludge to be applied annually under the permit.

Quantity of Sludge Applied Annually	Application Fee
2,000 dry tons or less	\$1,000
2,001 to 5,000 dry tons	\$2,000
5,001 to 10,000 dry tons	\$3,000
10,001 to 20,000 dry tons	\$4,000
20,001 dry tons or more	\$5,000

Application fees must be paid by check or money order made payable to the Texas Commission on Environmental Quality. Fees are to be sent under separate cover making reference to the type of application, name of applicant, and permit number of existing permit, and mailed to:

TCEQ
Revenues Section (MC 214)
P.O. Box 13088
Austin, Texas 78711-3088

To verify receipt of payment or any other questions you may have regarding payment of fees to the TCEQ, you may call the Revenues Section, Cashiers Office at (512) 239-0357.

Section 3. Applicant Information

Provide the full legal name of the site operator.

If the site operator is an existing TCEQ customer, provide the customer number (CN) for the site operator. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the site operator is not an existing TCEQ customer, leave blank.

Provide the following contact information for the site operator: mailing address, phone number, fax number, and email address.

Section 4. Co-Applicant Information

If there is more than one operator, then a co-applicant is required. Provide the full legal name of the co-applicant.

If the co-applicant is an existing TCEQ customer, provide the customer number (CN) for the co-applicant. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the co-applicant is not an existing TCEQ customer, leave blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number, and email address.

Explain the need for a co-applicant.

Section 5. Application Contact Information

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner.

Section 6. Permit Contact Information

Provide the name and contact information for two individuals that TCEQ can contact if additional information is needed during the term of the permit.

Section 7. Billing Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices.

Section 8. Reporting Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual sludge reports.

Section 9. Notice Information

A. Individual publishing the notices

Provide the name, company name, mailing address, telephone number and fax number of the person that will publish the public notices required during the processing of the application. Only one name can be provided. This individual will be contacted to publish the required public notices in a newspaper of the largest general circulation in the county where the facility is/will be located. This person must be available during the application processing since the first public notice. The "Notice of Receipt of Application and Intent to Obtain a Water Quality Permit" must be published within 30 days of the application being declared Administratively Complete.

B. Method of Receiving Notice Package

Provide the method of receiving the required public notice information. When the application is declared Administratively Complete, the notice package will be sent via the method selected. The notice package includes the TCEQ declaration of completeness, a notice ready for publication, instructions for publishing the notice, a publication affidavit, and a public notice verification form.

C. Contact Person in the Notice

Provide the person's name, company name, mailing address, telephone number and fax number of the one individual that will be identified as the notice contact in the two public notices that are published as part of the permitting process. This individual may be contacted by the public to answer questions about all aspects of the permit application.

D. Public Viewing Location

Provide the name and physical address for the public place where the complete application, draft permit, and Technical Summary/Fact Sheet will be made available for viewing and copying by the general public. Please verify with the proper authority they will make the application available for public viewing and copying. The address must be a physical address. Post office box addresses are not acceptable. The public place must be located within the county in which the facility is/will be located. If the facility is located in more than one county, a public viewing place for each county must be provided.

E. Bilingual Notice Requirement

Bilingual notice may be required for new, major amendment, and renewal applications if an elementary school or middle school nearest to the facility is required to make a bilingual education program available to qualifying students.

The applicant is required to call the bilingual/ESL coordinator at the nearest elementary and middle schools to obtain answers to questions 1. - 4. These questions will determine if an alternative language notice is required.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

Section 10. Regulated Entity (Site) Information

- A. Provide the name of the site as known by the public in the area where the site is located.
- B. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the site is not currently regulated by TCEQ, leave blank.
- C. If the location in the existing permit is not correct or if this is a new site, provide the physical address of the site. If a physical address is not available, provide a location description.
- D. Provide the county in which the site is located.
- E. Provide the latitude and longitude for the site.
- F. Provide the name and contact information for the landowner of the application site.
- G. Provide the name and contact information for the county judge in each county where the site is located. Attach an additional sheet if the site is located in more than one county.

Section 11. Land Application Information

If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of sewage sludge. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

- A. Provide the anticipated date that you plan to start sludge applications on this site. This date must be at least 330 days from the date TCEQ receives this application form.
- B. Indicate by a checkmark if the beneficial land use area is within the city limits, within the extraterritorial jurisdiction, or outside the extraterritorial jurisdiction of a city. Provide the city or municipality name in the space provided.
- C. Identify the types of sludge that will be land applied at this site.
- D. For each source, provide the facility name, TCEQ authorization number, and the location. Add additional rows to the table, if necessary.
- E. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.
- F. Provide the total acreage where sludge may be applied. Do not include buffer zones.

NOTE: A minimum buffer of 500 feet is required for water wells and surface water when land application of Class B Sewage Sludge occurs in a county that borders the Gulf of Mexico (Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties).

Section 12. Miscellaneous Information

- A. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.
- B. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the Sludge Permits Team at 512-239-4671.
- C. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.
- D. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties.

The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment:

<https://www.tceq.texas.gov/agency/fees/delin/index.html>. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

NOTE: TCEQ will not declare any application administratively complete or issue a permit if the applicant or co-applicant is delinquent on a fee or penalty.

Section 13. Affected Landowner Information

- A. Attach a landowner map or drawing that includes a scale, the applicant's property boundaries, the application area boundaries, the approximate property boundaries of all landowners located within 1/4 mile of the property boundaries. Assign a letter or number to each landowner.
- B. Attach a list of landowners that live on land within 1/4 mile of the property boundaries. The list must include the landowner's name and address, and include a cross-reference to the letter or number identified on the landowner map. The applicant may choose to attach a list of all landowners within 1/4 mile of the property boundary, regardless of whether the landowner lives on the land.
- C. Identify the format of the landowners list.
- D. Provide the source of the landowner's names and mailing addresses. Sources may include City or County Tax Records.

Section 14. Insurance Information

This information is not required for an applicant that is a political subdivision (e.g., city, county, state agency, water district, etc.).

Note: The insurance policies required by this section must be maintained for the duration of the permit which is normally issued for a term of five years.

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability, reflecting total coverage of not less than \$3 million per occurrence with an annual

aggregate of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9145 (relating to Certificate of Insurance for Commercial Liability) or an endorsement worded identically to the wording specified in 30 TAC §37.9150 (relating to Endorsement for Commercial Liability). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment, reflecting total coverage of not less than \$3 million per occurrence with a policy limit of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

Section 15. Maps and Attachments

- A. Complete and submit the TCEQ Core Data Form (TCEQ-10400).
- B. Submit an original General Highway (County) Map showing all boundaries of the site area and all areas within 1000 feet of the area boundaries. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: http://www.txdot.gov/travel/county_grid_search.htm
- C. Submit a full-sized USGS topographic map (1:24,000 scale). These are available by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:
 - the boundaries of the property(s) being permitted;
 - the boundaries of the application area within the property boundaries;
 - all areas within ¼ mile of the site (if the site is on the border of the USGS map, the adjoining map is also required); and
 - the location of all wells, springs, public water supply intakes, water treatment plants, potable water storage facilities, and wastewater treatment plants on-site and within ¼ mile of the application area (including off-site).
- D. Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries, the soil legend, necessary interpretative information, and the location of each grab sample of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.
- E. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries, the surrounding area within ¼ mile of the property boundaries, and the appropriate legend.
- F. Submit a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the practice standards of the USDA-NRCS.

- G.** Submit a copy of the TCEQ transporters registration approval documents.
- H.** Attach the soil laboratory analysis for the application area. Additional information about collecting and analyzing the soil samples is available at the end of these instructions.
- I.** Attach a sludge laboratory analysis for each source. Additional information about sludge testing is available at the end of these instructions.
- J.** Metal and Nutrient Concentrations (Table 1). Use the sludge laboratory analyses to complete Table 1 for each source.
- K.** Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2). If more than one source of sludge is land applied, complete Table 2.
- L.** Agronomic Rate Calculations (Appendix A). Determine the agronomic application rate by completing and attaching Appendix A.
- M.** Pathogen Reduction Requirements (Appendix B). Identify the pathogen reduction alternative for each source by completing and attaching Appendix B.
- N.** Vector Attraction Reduction Requirements (Appendix C). Identify the vector attraction reduction alternative for each source by completing and attaching Appendix C.
- O.** On-Site Storage (Appendix D). If on-site storage will occur at the site, complete and attach Appendix D.

Signature Page

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

SOIL TESTING INFORMATION

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

Parameter (7)		0- 6 "	6 -24"
Nitrate Nitrogen (NO ₃ -N, mg/kg)	(1)	x	x
Ammonium Nitrogen (NH ₄ -N, mg/kg)	(1)	x	x
Total Kjeldahl Nitrogen (TKN, mg/kg)	(2)	x	x
Phosphorus (plant available, mg/kg)	(3)	x	x
Potassium (plant available, mg/kg)	(3)	x	x
Sodium (plant available, mg/kg)	(3)	x	x
Magnesium (plant available, mg/kg)	(3)	x	x
Calcium (plant available, mg/kg)	(3)	x	x
Electrical Conductivity	(4)	x	x
Soil Water pH (S.U.)	(5)	x	x
Total Arsenic (mg/kg)	(6)	x	N/A
Total Cadmium (mg/kg)	(6)	x	N/A
Total Chromium (mg/kg)	(6)	x	N/A
Total Copper (mg/kg)	(6)	x	N/A
Total Lead (mg/kg)	(6)	x	N/A
Total Mercury (mg/kg)	(6)	x	N/A
Total Molybdenum (mg/kg)	(6)	x	N/A
Total Nickel (mg/kg)	(6)	x	N/A
Total Selenium (mg/kg)	(6)	x	N/A
Total Zinc (mg/kg)	(6)	x	N/A

1. Determined in a 1 N KCl soil extract (<http://soiltesting.tamu.edu/webpages/swftlmethods1209.html>).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

Please be advised that the maximum acceptable soil concentrations of metals are listed below. These rates are based on the maximum cumulative loading rates found in 30 TAC §312.43 Table 2- Cumulative Metal Loading Rate.

Metal	Soil Concentration Limit (mg/kg)
Total Arsenic	20.5
Total Cadmium	19.5
Total Chromium	1500
Total Copper	750
Total Lead	150
Total Mercury	8.5
Total Molybdenum	Monitor
Total Nickel	210
Total Selenium	50
Total Zinc	1,400

SLUDGE TESTING INFORMATION

Testing Parameters (dry weight basis) for
Municipal Wastewater Sludge and Water Treatment Plant Sludge

Nutrients (%)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen	Total Arsenic	Total PCBs
Ammonium-Nitrogen	Total Cadmium	
Nitrate-Nitrogen	Total Chromium	
Total Phosphorus	Total Copper	
Total Potassium	Total Lead	
	Total Mercury	
	Total Molybdenum	
	Total Nickel	
	Total Selenium	
	Total Zinc	

- If accepting sludge from multiple sources,
 - perform a new sludge analysis on the mixed sludge if blended before land application, or
 - use Table 2 of the application form to determine the volume weighted average (mass balance) which will accurately reflect the amount of metals contributed by each facility.
- The metal and nutrient tests shall be used to calculate the Maximum Sludge Application Rate and Site Life in Appendix A of the application form. These tests and calculations will also be required in an annual report for the permitted site.
- Copies of all laboratory test data with Quality Control (QA/QC) and Chain of Custody sheets must be kept on file at the site operator's place of business for at least five (5) years and can be requested by TCEQ at any time.
- Include the most recent full Toxicity Characteristic Leaching Procedure (TCLP) analysis for each wastewater treatment plant source.

Maximum Metal Loadings & Concentrations

If background soil concentrations exceed the values listed below, then land application is only possible if sludge concentrations are below the concentrations found in Table 3 of 30 TAC §312.43(b)(3).

If the concentration of any metal in the sewage sludge exceeds the metal ceiling concentration, then the land application of that sludge is prohibited.

Pollutant	Sludge Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Sludge Metal Ceiling Concentration (mg/kg)
Arsenic	36	41	75
Cadmium	35	39	85
Chromium	2,677	1,200	3,000

Pollutant	Sludge Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Sludge Metal Ceiling Concentration (mg/kg)
Copper	1,339	1,500	4,300
Lead	268	300	840
Mercury	15	17	57
Molybdenum	Monitor	Monitor	75
Nickel	375	420	420
Selenium	89	36	100
Zinc	2,500	2,800	7,500

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



Texas Commission on Environmental Quality

Protecting Texas by Reducing and Preventing Pollution

July 10, 2024

ANDY DRENNAN
K-3 RESOURCES INC
9458 FM 362 RD
PATTISON, TX 77423-1706

Re: Sludge Transportation Registration
K3 RESOURCES EL CELOSO RANCH
Registration Number: 22430

CN603111196

RN111333043

Dear Andy Drennan:

The Section Manager of the Registration and Reporting Section has issued the enclosed registration in accordance with Title 30 of the Texas Administrative Code (30 TAC) Chapter 312 Subsection (§) 312.147 (b). This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Issuance of this authorization is not an acknowledgment that your operation is in full compliance with state and federal rules and regulations. Failure to comply with all rules and regulations may result in enforcement action and/or the revocation of your registration.

Your registration number is required to appear on all tanks and containers used for the collection and transportation of sewage sludge and similar waste. It should also be used on all correspondence regarding your sludge registration.

A copy of your sludge transporter registration, a copy of your application for registration and copies of amendments to this registration must be available at all times and at all locations where business is being transacted under this registration, including all motorized vehicles operated under this registration.

If you have any questions or comments, please contact the Sludge Transporter Registration Program at (512) 239-6413.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon W. Frazier".

Shannon W. Frazier, Manager
Registration & Reporting Section

Enclosures

CC: TCEQ Region 12, HOUSTON



Texas Commission on Environmental Quality

SLUDGE TRANSPORTER

Registration Number: 22430

CN603111196

RN111333043

K Keel

For the Commission

Print Date: July 10, 2024

Company: K-3 RESOURCES INC

Registered Since: June 25, 2002

Expiration Date: August 31, 2026

Status: ACTIVE

Regulated Entity: K3 RESOURCES EL CELOSO RANCH

Organization Type: PARTNERSHIP

County: WALLER

Transport Waste into Texas: NO

TCEQ Region: 12

Transport Waste out of Texas: NO

Physical Address:

9458 FM 362 RD
PATTISON, TX 77423-1706

Contact Information

Contact: ANDY DRENNAN

Phone: 281-375-5778

Fax:

E-Mail: COMPLIANCE@K3BMI.COM

Mailing Address:

9458 FM 362 RD
PATTISON, TX 77423-1706

Sticker Numbers Issued and Listed below will expire on August 31, 2026:

08590	08591	08592	08593	08594	08595	08596	08597	08598
08599	08600	08601	08602	08603	08604	08605	08606	08607
08608	08609	08610	08611	08612	08613	08614	08615	08616
08617	08618	08619	08620	08621	08622	08623	08624	08625
08626	08627	08628	08629	08630	08631	08632	08633	08634
08635	08636	08637	08638	08639	08640	08641	08642	08643
08644	08645	08646	08647	08648	08649	08650	08651	08652
08653	08654	08655	08656	08657	08658	08659	08660	08661
08662	08663	08664	08665	08666	08667	08668		

This is your registration which reflects the information submitted on your application to the Register or Renew as a Transporter of Municipal Sludge(s) and Similar Wastes. Requirements for transportation are provided in accordance with 30 TAC Chapter 312. Issuance of this registration is not acknowledgement by the TCEQ that your operation is in full compliance with the rules and regulations of the TCEQ. Changes or additions referred to this notice require written notification to the TCEQ. Please keep a copy of this registration in every vehicle transporting sludge and all locations where business is being transacted under this registration.

**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

Print Date: July 10, 2024

For the Commission

Disposal Facility Information

<u>Facility ID</u>	<u>Waste Type</u>	<u>Facility Name</u>	<u>Program</u>
2234D	DS; GS; PP; WW	LIQUID ENVIRONMENTAL SOLUTIONS	SLUDGETR
2270	WT; WW	FORT BEND REGIONAL LANDFILL	MSWDISP
720056	WT; WW	K-3 RESOURCES	SLUDGETR
WQ0004445000	WT; WW	CARL MILLER FARMS	SLUDGE
WQ0004448000	WT; WW	CARL MILLER FARMS 4	SLUDGE
WQ0004450000	WT; WW	CARL MILLER FARMS	SLUDGETR
WQ0004454000	WT; WW	JEFFRIES RANCH	SLUDGE
WQ0004518000	DS; WT; WW	EL CELOSO RANCH	SLUDGE
WQ0004538000	DS; WT; WW	WALLER LIME STABILIZATION FACILITY	SLUDGE
WQ0005222000	WT; WW	ORTEGA RANCH	SLUDGETR
WQ0005248000	WT; WW	CARL MILLER FARMS SOUTH	SLUDGETR
WQ0010137033	DS; PP	STEVEN M CLOUSE WATER RECYCLING CENTER	WWPERMIT
WQ0010543011	DS; PP; WT; WW	WALNUT CREEK WWTP	WWPERMIT

Waste TypesDS - Septic Tank Waste
GS - Grease Trap WasteGT - Grit Trap Waste
PP - Chemical Toilet WasteWT - Water Treatment Residuals
WW- Sewage Sludge/Biosolids

**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

K. Keel

Print Date: July 10, 2024

For the Commission

Vehicle Information

<u>License Plate</u>	<u>Year</u>	<u>Vehicle Make</u>	<u>Sticker Issued</u>	<u>Vehicle Capacity</u>
KBP0146	2012	KENWORTH-T800	07/20/2012	30 CY
R181153	2015	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251143	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251144	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R091412	2013	KENWORTH-T800 DC	08/10/2018	7000 GAL
R337867	2018	KENWORTH-T800 DC	08/10/2018	7000 GAL
LPP7627	2018	KENWORTH-T800	08/10/2018	30 CY
R374785	2019	KENWORTH-T800 DC	08/10/2018	7000 GAL
R439393	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439394	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R732040	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439396	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439397	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439398	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R411512	2019	389 PETERBILT	10/29/2019	7000 GAL
R091413	2013	KENWORTH-T800 DC	10/29/2019	7000 GAL
R091433	2015	KENWORTH-T800 DC	10/29/2019	7000 GAL
R379075	2019	KENWORTH-T880 DC	10/29/2019	7000 GAL
R438741	2019	567 PETERBILT	06/11/2020	7000 GAL
R453415	2020	KENWORTH T-880	06/11/2020	7000 GAL
R411923	2018	KENWORTH T800 DC	03/03/2021	7000 GAL
R419006	2019	389 PETERBILT	06/23/2021	7000 GAL
R091400	2013	KENWORTH-T800 DC	09/01/2021	7000 GAL
R091423	2014	KENWORTH T800 DC	09/01/2021	7000 GAL
R337866	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R361379	2018	KENWORTH T880 DC	09/01/2021	7000 GAL
R374784	2019	KENWORTH-T880 DC	09/01/2021	7000 GAL
R391671	2018	KENWORTH-T800 DC	09/01/2021	7000 GAL
R411922	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R411513	2019	389 PETERBILT	09/01/2021	7000 GAL
R419007	2019	389 PETERBILT	09/27/2021	7000 GAL
R136782	2015	KENWORTH T880	09/27/2021	7000 GAL
BK10489	2005	INTERNATIONAL	06/16/2022	2100 GAL
MVW2388	2019	PETERBILT 348	06/16/2022	2100 GAL
R091422	2014	KENWORTH T800 DC	06/16/2022	7000 GAL
R356898	2018	KENWORTH-T800	06/16/2022	7000 GAL
R562815	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562816	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562817	2022	KENWORTH DC T880	06/16/2022	7000 GAL



Texas Commission on Environmental Quality

SLUDGE TRANSPORTER

Registration Number: 22430

CN603111196

RN111333043

K. Keel

Print Date: July 10, 2024

For the Commission

R562818	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R574005	2022	KENWORTH T-880	06/16/2022	7000 GAL
R574006	2022	KENWORTH T-880	06/16/2022	7000 GAL
R582315	2022	KENWORTH W 900	06/16/2022	7000 GAL
R582316	2022	KENWORTH W 900	06/16/2022	7000 GAL
R594541	2022	KENWORTH W 900	06/16/2022	7000 GAL
R604431	2019	KENWORTH T-880	06/16/2022	2100 GAL
RCP1653	2020	KENWORTH T-880	06/16/2022	30 CY
RCP1654	2021	KENWORTH T880	06/16/2022	30 CY
RCP1655	2021	KENWORTH T880	06/16/2022	30 CY
PPP7885	2016	KENWORTH	02/24/2023	7000 GAL
R356897	2018	KENWORTH	02/24/2023	7000 GAL
R391670	2018	KENWORTH	02/24/2023	7000 GAL
2604U32	2023	PETERBUILT	07/13/2023	7000 GAL
R379077	2019	KENWORTH	07/13/2023	7000 GAL
R720433	2018	KENWORTH	07/13/2023	7000 GAL
R667548	2024	PETERBILT	06/25/2024	7000 GAL
R668009	2024	KENWORTH	06/25/2024	7000 GAL
R668010	2024	KENWORTH	06/25/2024	7000 GAL
R668011	2024	KENWORTH	06/25/2024	7000 GAL
R668012	2024	KENWORTH	06/25/2024	7000 GAL
R668013	2024	KENWORTH	06/25/2024	7000 GAL
R668014	2024	KENWORTH	06/25/2024	7000 GAL
R668015	2024	KENWORTH	06/25/2024	7000 GAL
R677516	2024	KENWORTH	06/25/2024	7000 GAL
R691380	2024	PETERBILT	06/25/2024	7000 GAL
R655972	2024	PETERBILT	06/25/2024	7000 GAL
R667466	2024	PETERBILT	06/25/2024	7000 GAL
R667882	2024	PETERBILT	06/25/2024	7000 GAL
R695733	2017	KENWORTH	06/25/2024	7000 GAL
R348392	2018	KENWORTH	06/25/2024	7000 GAL
R439399	2019	PETERBILT	06/25/2024	7000 GAL
R439401	2019	PETERBILT	06/25/2024	7000 GAL
R668016	2024	KENWORTH	06/25/2024	7000 GAL
R668017	2024	KENWORTH	06/25/2024	7000 GAL
R677513	2024	KENWORTH	06/25/2024	7000 GAL
R677514	2024	KENWORTH	06/25/2024	7000 GAL
R677515	2024	KENWORTH	06/25/2024	7000 GAL
R667465	2024	PETERBILT	06/25/2024	7000 GAL
R667881	2024	PETERBILT	06/25/2024	7000 GAL



Texas Commission on Environmental Quality

SLUDGE TRANSPORTER

Registration Number: 22430

CN603111196

RN111333043

A handwritten signature in black ink, appearing to read "K. Keel".

Print Date: July 10, 2024

For the Commission

*UOM - Units of Measure



Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

21 January 2024

K-3 BMI
Renee Tom
P.O. Box 2236
Alvin, TX 77511

K-3BMI

Enclosed are the results of analyses for samples received by the laboratory on 15-Dec-23 09:57. The analytical data provided relates only to the samples as received in this laboratory report.

ELI certifies that all results are NELAP compliant and performed in accordance with the referenced method except as noted in the Case Narrative or as noted with a qualifier. Any reproductions of this laboratory report should be in full and only with the written authorization from the client.

The total number of pages in this report is 10

Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

A handwritten signature in cursive script, reading "Laura Bonjonia".

Laura Bonjonia For Sherry Walker
Office Manager



Certificate No: T104704265-22-20



Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: K-3 BMI
Project: K-3BMI
Work Order: 23L1587

Reported:
21-Jan-24 16:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
4445 Field 1 0"-6"	23L1587-01	Solids	12-Dec-23 14:30	15-Dec-23 09:57
4445 Field 1 6"-24"	23L1587-02	Solids	12-Dec-23 14:30	15-Dec-23 09:57
4445 Field 2 0"-6"	23L1587-03	Solids	12-Dec-23 14:30	15-Dec-23 09:57
4445 Field 2 6"-24"	23L1587-04	Solids	12-Dec-23 14:30	15-Dec-23 09:57
4445 Field 3 0"-6"	23L1587-05	Solids	12-Dec-23 14:30	15-Dec-23 09:57
4445 Field 3 6"-24"	23L1587-06	Solids	12-Dec-23 14:30	15-Dec-23 09:57

Envirodyne Laboratories, Inc.

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.

Laura Bonjonia For Sherry Walker, Office Manager



ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI
LOCATION: 4445 FIELD 1
SAMPLED BY: K-3
DATE COLLECTED: December 12, 2023

LAB NUMBER: 23L1587-01 and -02
DATE RECEIVED: December 14, 2023
DATE ANALYZED: December 27, 2023
DATE COMPLETED: December 27, 2023

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.32	6.01	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	1,020.00	960.00	Calc	0.01
TKN-N * (mg/kg)	990.00	910.00	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	25.60	22.30	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	79.00	67.00	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	83.70	74.10	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	130.00	182.00	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	230.00	174.00	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	1,810.00	1,460.00	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	194.00	171.00	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	72.00	64.00	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	585	462	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00585	0.00462	Calc	
ARSENIC * (mg/kg)	2.02	1.48	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	0.88	0.72	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	11.70	10.60	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	23.40	20.70	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	5.60	5.26	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.052	0.0518	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	<0.50	<0.50	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	2.81	2.47	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	0.67	0.58	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	68.90	47.90	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	91.40	92.60	SM 2540 B	



ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI
 LOCATION: 4445 FIELD 2
 SAMPLED BY: K-3
 DATE COLLECTED: December 12, 2023

LAB NUMBER: 23L1587-03 and -04
 DATE RECEIVED: December 14, 2023
 DATE ANALYZED: December 27, 2023
 DATE COMPLETED: December 27, 2023

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	5.74	6.02	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	1,150.00	850.00	Calc	0.01
TKN-N * (mg/kg)	1,100.00	800.00	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	49.10	40.20	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	110.00	64.00	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	116.50	67.80	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	230.00	138.00	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	174.00	564.00	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	2,510.00	2,280.00	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	1,100.00	885.00	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	86.00	72.00	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	880	779	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.0088	0.00779	Calc	
ARSENIC * (mg/kg)	3.8	2.13	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	0.58	<0.50	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	12.60	11.30	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	18.30	15.10	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	10.20	8.30	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.052	0.052	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	<0.50	<0.50	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	6.50	4.73	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	1.04	0.93	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	48.30	34.80	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	87.20	90.20	SM 2540 B	



ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI
 LOCATION: 4445 FIELD 3
 SAMPLED BY: K-3
 DATE COLLECTED: December 12, 2023

LAB NUMBER: 23L1587-05 and -06
 DATE RECEIVED: December 14, 2023
 DATE ANALYZED: December 27, 2023
 DATE COMPLETED: December 27, 2023

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.09	5.88	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	922.00	890.00	Calc	0.01
TKN-N * (mg/kg)	900.00	845.00	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	21.90	19.00	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	87.00	73.00	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	92.20	77.30	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	279.00	167.00	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	267.00	229.00	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	1,620.00	1,330.00	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	310.00	285.00	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	53.10	48.00	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	485	320	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00485	0.0062	Calc	
ARSENIC * (mg/kg)	2.49	2.21	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	<0.50	<0.50	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	11.80	10.00	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	22.70	17.10	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	12.60	10.30	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.055	0.0462	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	<0.50	<0.50	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	3.10	2.63	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	0.97	0.71	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	54.20	42.70	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	89.70	86.80	SM 2540 B	

Ray



Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: K-3 BMI
Project: K-3BMI
Work Order: 23L1587

Reported:
21-Jan-24 16:55

Wet Chemistry - Quality Control
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3L5252 - Inorganics

Duplicate (B3L5252-DUP1)		Source: 23L1586-01		Prepared & Analyzed: 19-Dec-23						
Total Solids	0.810	0.01	%		0.730			10.4	20	
Volatile Solids	0.630	0.01	"		0.570			10.0	20	

Batch B3L5530 - Inorganics

Blank (B3L5530-BLK1)		Prepared & Analyzed: 27-Dec-23								
Conductivity at 25 C	<30	30	umho/cm							
Duplicate (B3L5530-DUP1)		Source: 23L1452-01		Prepared & Analyzed: 27-Dec-23						
Conductivity at 25 C	456	30	umho/cm		465			1.95	20	
Reference (B3L5530-SRM1)		Prepared & Analyzed: 27-Dec-23								
Conductivity at 25 C	176		umho/cm	180		97.8	90-110			

Envirodyne Laboratories, Inc.

Laura Bonjonia

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.

Laura Bonjonia For Sherry Walker, Office Manager



Envirodyne Laboratories, Inc
11011 Brooklet Dr., # 230
Houston, TX 77099
281.568.7880 Phone
www.envirodyne.com

Client: K-3 BMI
Project: K-3BMI
Work Order: 23L1587

Reported:
21-Jan-24 16:55

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- < Result is less than the RL
- a Analyte not available for TNI/NELAP accreditation
- n Not accredited

Envirodyne Laboratories, Inc.

A handwritten signature in blue ink, reading 'Laura Bonjonia', is written over a horizontal line.

Laura Bonjonia For Sherry Walker, Office Manager

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.

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205036 (0) Instrument: ICPMS06 Method: METALS BY SW6020A

MBLK		Sample ID: MBLK-205036		Units: mg/Kg		Analysis Date: 21-Dec-2023 11:11				
Client ID:		Run ID: ICPMS06_454818		SeqNo: 7743042		PrepDate: 20-Dec-2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.491								
Cadmium	ND	0.491								
Calcium	ND	49.1								
Chromium	ND	0.491								
Copper	ND	0.196								
Lead	ND	0.491								
Magnesium	ND	49.1								
Molybdenum	ND	0.491								
Nickel	ND	0.491								
Potassium	ND	49.1								
Selenium	ND	0.491								
Zinc	ND	0.491								

LCS		Sample ID: LCS-205036		Units: mg/Kg		Analysis Date: 20-Dec-2023 20:18				
Client ID:		Run ID: ICPMS07_454697		SeqNo: 7741479		PrepDate: 20-Dec-2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	9.954	0.498	9.968	0	99.9	80 - 120				
Cadmium	10.04	0.498	9.968	0	101	80 - 120				
Calcium	1000	49.8	996.8	0	100	80 - 120				
Chromium	9.912	0.498	9.968	0	99.4	80 - 120				
Copper	10.36	0.199	9.968	0	104	80 - 120				
Lead	9.883	0.498	9.968	0	99.2	80 - 120				
Magnesium	1001	49.8	996.8	0	100	80 - 120				
Molybdenum	9.418	0.498	9.968	0	94.5	80 - 120				
Nickel	10.15	0.498	9.968	0	102	80 - 120				
Potassium	998.5	49.8	996.8	0	100	80 - 120				
Selenium	9.959	0.498	9.968	0	99.9	80 - 120				
Zinc	10.01	0.498	9.968	0	100	80 - 120				

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205036 (0)

Instrument: ICPMS06

Method: METALS BY SW6020A

MS		Sample ID: HS23121104-01MS		Units: mg/Kg		Analysis Date: 20-Dec-2023 20:25			
Client ID:		Run ID: ICPMS07_454697		SeqNo: 7741482		PrepDate: 20-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	11.04	0.475	9.502	1.85	96.7	75 - 125			
Cadmium	9.343	0.475	9.502	0.05822	97.7	75 - 125			
Calcium	2395	47.5	950.2	1134	133	75 - 125			S
Chromium	18.46	0.475	9.502	8.358	106	75 - 125			
Copper	12.79	0.190	9.502	3.551	97.2	75 - 125			
Lead	12.52	0.475	9.502	2.121	109	75 - 125			
Magnesium	3234	47.5	950.2	2012	129	75 - 125			S
Molybdenum	8.24	0.475	9.502	0.1255	85.4	75 - 125			
Nickel	22.11	0.475	9.502	11.01	117	75 - 125			
Potassium	1373	47.5	950.2	558.2	85.7	75 - 125			
Selenium	10.02	0.475	9.502	0.9566	95.4	75 - 125			
Zinc	50	0.475	9.502	37.49	132	75 - 125			S

MSD		Sample ID: HS23121104-01MSD		Units: mg/Kg		Analysis Date: 20-Dec-2023 20:28			
Client ID:		Run ID: ICPMS07_454697		SeqNo: 7741483		PrepDate: 20-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Arsenic	10.75	0.479	9.575	1.85	92.9	75 - 125	11.04	2.7	20
Cadmium	9.458	0.479	9.575	0.05822	98.2	75 - 125	9.343	1.23	20
Calcium	2237	47.9	957.5	1134	115	75 - 125	2395	6.81	20
Chromium	19.47	0.479	9.575	8.358	116	75 - 125	18.46	5.33	20
Copper	12.91	0.191	9.575	3.551	97.7	75 - 125	12.79	0.93	20
Lead	11.99	0.479	9.575	2.121	103	75 - 125	12.52	4.34	20
Magnesium	3160	47.9	957.5	2012	120	75 - 125	3234	2.33	20
Molybdenum	8.506	0.479	9.575	0.1255	87.5	75 - 125	8.24	3.18	20
Nickel	20.94	0.479	9.575	11.01	104	75 - 125	22.11	5.44	20
Potassium	1381	47.9	957.5	558.2	85.9	75 - 125	1373	0.571	20
Selenium	10.1	0.479	9.575	0.9566	95.5	75 - 125	10.02	0.779	20
Zinc	48.58	0.479	9.575	37.49	116	75 - 125	50	2.88	20

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205036 (0) Instrument: ICPMS06 Method: METALS BY SW6020A

PDS		Sample ID: HS23121104-01PDS			Units: mg/Kg		Analysis Date: 20-Dec-2023 20:30			
Client ID:		Run ID: ICPMS07_454697			SeqNo: 7741484		PrepDate: 20-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	10.5	0.488	9.752	1.85	88.7	75 - 125				
Cadmium	9.038	0.488	9.752	0.05822	92.1	75 - 125				
Calcium	1941	48.8	975.2	1134	82.8	75 - 125				
Chromium	16.95	0.488	9.752	8.358	88.1	75 - 125				
Copper	12.08	0.195	9.752	3.551	87.5	75 - 125				
Lead	11.25	0.488	9.752	2.121	93.6	75 - 125				
Magnesium	2775	48.8	975.2	2012	78.2	75 - 125				
Molybdenum	8.604	0.488	9.752	0.1255	86.9	75 - 125				
Nickel	19.06	0.488	9.752	11.01	82.5	75 - 125				
Potassium	1368	48.8	975.2	558.2	83.1	75 - 125				
Selenium	9.797	0.488	9.752	0.9566	90.6	75 - 125				

PDS		Sample ID: HS23121104-01PDS			Units: mg/Kg		Analysis Date: 21-Dec-2023 12:53			
Client ID:		Run ID: ICPMS06_454818			SeqNo: 7743232		PrepDate: 20-Dec-2023		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Zinc	125.2	4.88	97.52	38.59	88.8	75 - 125				

SD		Sample ID: HS23121104-01SD			Units: mg/Kg		Analysis Date: 20-Dec-2023 20:23			
Client ID:		Run ID: ICPMS07_454697			SeqNo: 7741481		PrepDate: 20-Dec-2023		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	1.839	2.44					1.85	0	10	J
Cadmium	ND	2.44					0.05822	0	10	
Calcium	1136	244					1134	0.225	10	
Chromium	8.672	2.44					8.358	3.77	10	
Copper	3.681	0.975					3.551	3.66	10	
Lead	2.151	2.44					2.121	0	10	J
Magnesium	2111	244					2012	4.9	10	
Molybdenum	0.1302	2.44					0.1255	0	10	J
Nickel	11.06	2.44					11.01	0.485	10	
Potassium	560.3	244					558.2	0.372	10	
Selenium	0.896	2.44					0.9566	0	10	J

Client: Envirodyne Laboratories, Inc.
Project: 23L1587 (4445)
WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205036 (0)

Instrument: ICPMS06

Method: METALS BY SW6020A

SD	Sample ID: HS23121104-01SD			Units: mg/Kg		Analysis Date: 21-Dec-2023 11:34			
Client ID:	Run ID: ICPMS06_454818			SeqNo: 7743054		PrepDate: 20-Dec-2023		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit Qual
Zinc	38.98	24.4					38.59	1.01	10

The following samples were analyzed in this batch: HS23121114-02 HS23121114-04 HS23121114-06

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205059 (0) Instrument: HG04 Method: MERCURY BY SW7471B

MBLK	Sample ID: MBLK-205059		Units: ug/Kg		Analysis Date: 21-Dec-2023 15:36				
Client ID:	Run ID: HG04_454885		SeqNo: 7744058		PrepDate: 21-Dec-2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Mercury ND 3.32

LCS	Sample ID: LCS-205059	Units: ug/Kg	Analysis Date: 21-Dec-2023 15:38						
Client ID:	Run ID: HG04_454885	SeqNo: 7744059	PrepDate: 21-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Mercury 317.3 3.32 333.3 0 95.2 85 - 115

MS	Sample ID: HS23121069-11MS			Units: ug/Kg		Analysis Date: 21-Dec-2023 15:41			
Client ID:	Run ID: HG04_454885			SeqNo: 7744061		PrepDate: 21-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Mercury 330.3 3.45 345.5 5.344 94.1 85 - 115

MSD	Sample ID: HS23121069-11MSD			Units: ug/Kg		Analysis Date: 21-Dec-2023 15:43			
Client ID:	Run ID: HG04_454885			SeqNo: 7744062		PrepDate: 21-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Mercury 323.5 3.39 339.8 5.344 93.6 85 - 115 330.3 2.06 20

The following samples were analyzed in this batch: HS23121114-02 HS23121114-04 HS23121114-06

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 204944 (0) Instrument: ICS-Integrion Method: ANIONS BY E300.0, REV 2.1, 1993
 MODIFIED FOR SOIL

MBLK	Sample ID: MBLK-204944	Units: mg/Kg	Analysis Date: 19-Dec-2023 09:14							
Client ID:	Run ID: ICS-Integrion_454601	SeqNo: 7737589	PrepDate: 18-Dec-2023	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Nitrogen, Nitrate (As N) ND 1.00

LCS	Sample ID: LCS-204944	Units: mg/Kg	Analysis Date: 19-Dec-2023 09:32						
Client ID:	Run ID: ICS-Integrion_454601	SeqNo: 7737590	PrepDate: 18-Dec-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Nitrate (As N) 43.21 1.00 40 0 108 90 - 110

MS	Sample ID: HS23121114-01MS	Units: mg/Kg	Analysis Date: 19-Dec-2023 12:09						
Client ID: 0-6" Field 1	Run ID: ICS-Integrion_454601	SeqNo: 7737610	PrepDate: 18-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Nitrate (As N) 47.23 0.940 18.8 25.65 115 75 - 125

MS	Sample ID: HS23120332-16MS	Units: mg/Kg	Analysis Date: 19-Dec-2023 09:44						
Client ID:	Run ID: ICS-Integrion_454601	SeqNo: 7737592	PrepDate: 18-Dec-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Nitrate (As N) 19.03 0.928 18.57 0.9746 97.2 75 - 125

MSD	Sample ID: HS23121114-01MSD	Units: mg/Kg	Analysis Date: 19-Dec-2023 12:15						
Client ID: 0-6" Field 1	Run ID: ICS-Integrion_454601	SeqNo: 7737611	PrepDate: 18-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Nitrate (As N) 47.11 0.939 18.77 25.65 114 75 - 125 47.23 0.245 20

MSD	Sample ID: HS23120332-16MSD	Units: mg/Kg	Analysis Date: 19-Dec-2023 09:49						
Client ID:	Run ID: ICS-Integrion_454601	SeqNo: 7737593	PrepDate: 18-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Nitrogen, Nitrate (As N) 18.94 0.924 18.49 0.9746 97.2 75 - 125 19.03 0.467 20

The following samples were analyzed in this batch: HS23121114-01 HS23121114-03 HS23121114-05

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205153 (0) Instrument: WetChem_HS Method: TOTAL KJELDAHL NITROGEN BY SM4500 NH3 D-2011

MBLK	Sample ID: MBLK-205153	Units: mg/Kg	Analysis Date: 27-Dec-2023 13:55						
Client ID:	Run ID: WetChem_HS_455218	SeqNo: 7751971	PrepDate: 22-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Total Kjeldahl ND 20

LCS	Sample ID: LCS-205153	Units: mg/Kg	Analysis Date: 27-Dec-2023 13:55						
Client ID:	Run ID: WetChem_HS_455218	SeqNo: 7751970	PrepDate: 22-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Total Kjeldahl 535 20 500 0 107 75 - 125

MS	Sample ID: HS23121098-01MS	Units: mg/Kg	Analysis Date: 27-Dec-2023 13:55						
Client ID:	Run ID: WetChem_HS_455218	SeqNo: 7751968	PrepDate: 22-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Total Kjeldahl 1640 20 495.5 1249 78.9 75 - 125

MSD	Sample ID: HS23121098-01MSD	Units: mg/Kg	Analysis Date: 27-Dec-2023 13:55						
Client ID:	Run ID: WetChem_HS_455218	SeqNo: 7751969	PrepDate: 22-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Total Kjeldahl 1616 20 488.2 1249 75.2 75 - 125 1640 1.46 35

The following samples were analyzed in this batch: HS23121114-01 HS23121114-03 HS23121114-05

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205154 (0) Instrument: UV-2450 Method: PHOSPHORUS BY E365.3-1978

MBLK	Sample ID: MBLK-205154			Units: mg/Kg		Analysis Date: 27-Dec-2023 15:50			
Client ID:	Run ID: UV-2450_455233			SeqNo: 7752415		PrepDate: 22-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Phosphorus, Total (As P) ND 2.00

LCS	Sample ID: LCS-205154	Units: mg/Kg	Analysis Date: 27-Dec-2023 15:50						
Client ID:	Run ID: UV-2450_455233	SeqNo: 7752414	PrepDate: 22-Dec-2023 DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Phosphorus, Total (As P) 12.6 2.00 12.5 0 101 80 - 120

MS	Sample ID: HS23121114-01MS		Units: mg/Kg	Analysis Date: 27-Dec-2023 15:50					
Client ID: 0-6" Field 1	Run ID: UV-2450_455233		SeqNo: 7752412	PrepDate: 22-Dec-2023		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Phosphorus, Total (As P) 368.9 19.6 122.5 129.9 195 80 - 120

S

MSD	Sample ID: HS23121114-01MSD			Units: mg/Kg		Analysis Date: 27-Dec-2023 15:50			
Client ID: 0-6" Field 1	Run ID: UV-2450_455233			SeqNo: 7752413		PrepDate: 22-Dec-2023		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Phosphorus, Total (As P) 375.2 20.0 124.9 129.9 196 80 - 120 368.9 1.69 20 S

The following samples were analyzed in this batch: HS23121114-01 HS23121114-02 HS23121114-03 HS23121114-04
 HS23121114-05 HS23121114-06

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: 205331 (0) Instrument: WetChem_HS Method: AMMONIA AS N BY MOD. SM4500 NH3-D-2011

MBLK	Sample ID: MBLK-205331	Units: mg/Kg	Analysis Date: 27-Dec-2023 11:40						
Client ID:	Run ID: WetChem_HS_455206	SeqNo: 7751764	PrepDate: 26-Dec-2023		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Nitrogen, Ammonia (as N) ND 10

LCS	Sample ID: LCS-205331	Units: mg/Kg	Analysis Date: 27-Dec-2023 11:40						
Client ID:	Run ID: WetChem_HS_455206	SeqNo: 7751763	PrepDate: 26-Dec-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Nitrogen, Ammonia (as N) 440.9 10 500 0 88.2 80 - 120

MS	Sample ID: HS23121098-01MS			Units: mg/Kg		Analysis Date: 27-Dec-2023 11:40			
Client ID:	Run ID: WetChem_HS_455206			SeqNo: 7751761		PrepDate: 26-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Ammonia (as N) 565.9 9.7 487.2 104.9 94.6 80 - 120

MSD	Sample ID: HS23121098-01MSD			Units: mg/Kg		Analysis Date: 27-Dec-2023 11:40			
Client ID:	Run ID: WetChem_HS_455206			SeqNo: 7751762		PrepDate: 26-Dec-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Nitrogen, Ammonia (as N) 586.2 9.8 488.4 104.9 98.6 80 - 120 565.9 3.52 25

The following samples were analyzed in this batch: HS23121114-01 HS23121114-03 HS23121114-05

Client: Envirodyne Laboratories, Inc.
Project: 23L1587 (4445)
WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: R454842 (0)

Instrument: WetChem_HS

Method: PH SOIL BY SW9045D

DUP	Sample ID: HS23121114-05DUP	Units: pH Units	Analysis Date: 21-Dec-2023 11:51							
Client ID: 0-6" Field 3	Run ID: WetChem_HS_454842	SeqNo: 7743030	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	5.59	0.100					6.09	8.56	10	
Temp Deg C @pH	21.4	0					21.3	0.468	10	

The following samples were analyzed in this batch: HS23121114-03 HS23121114-05

Client: Envirodyne Laboratories, Inc.
 Project: 23L1587 (4445)
 WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: R454981 (0) Instrument: WetChem_HS Method: PH SOIL BY SW9045D

DUP	Sample ID: HS23121069-01DUP	Units: pH Units	Analysis Date: 22-Dec-2023 10:04							
Client ID:	Run ID: WetChem_HS_454981	SeqNo: 7746359	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.81	0.100					7.84	0.383	10	
Temp Deg C @pH	21.2	0					21.3	0.471	10	

The following samples were analyzed in this batch: HS23121114-01

Client: Envirodyne Laboratories, Inc.
Project: 23L1587 (4445)
WorkOrder: HS23121114

QC BATCH REPORT

Batch ID: R455009 (0) Instrument: WetChem_HS Method: SPECIFIC CONDUCTIVITY, SOIL 10X EXTRACT

MBLK	Sample ID: MBLK-R455009	Units: umhos/cm	Analysis Date: 22-Dec-2023 16:48					
Client ID:	Run ID: WetChem_HS_455009	SeqNo: 7746928	PrepDate: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Conductance, Soil Extract ND 5.00

LCS	Sample ID: LCS-R455009	Units: umhos/cm	Analysis Date: 22-Dec-2023 16:48					
Client ID:	Run ID: WetChem_HS_455009	SeqNo: 7746927	PrepDate: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Conductance, Soil Extract 1427 5.00 1413 0 101 85 - 115

DUP	Sample ID: HS23121098-03DUP	Units: umhos/cm	Analysis Date: 22-Dec-2023 16:48					
Client ID:	Run ID: WetChem_HS_455009	SeqNo: 7746955	PrepDate: DF: 10					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD Limit Qual

Conductance, Soil Extract 729 50.0 728 0.137 20

The following samples were analyzed in this batch: HS23121114-01 HS23121114-03 HS23121114-05



ENVIRODYNE
LABORATORIES, INC.

Name: K-3 BMI
Address: 9458 FM 362
City: Brookshire
Contact: ~~Steve~~ Garreth Sinks
Project No. 4445

2321587

Envirodyne Laboratories, Inc.
11011 Brooklet Dr, Ste. 230
Houston, Texas 77099-3543

Phone (281) 568-7880 - Fax (281) 568-8004
Analysis Request and Chain of Custody Record

Work Order #:



ISO Certification # T104704265

Phone: ~~281-725-0121~~ or 281-375-5778 281-908-2710
Email: compliance@k3bmi.com garreth@k3bmi.com
Alternate Contact: -PO# CT271-

State: TX Zip: 77423

Client/Project K3bmi

Lab ID No.	Field Sample No. / Identification	Date & Time	Sample Container (Size/Type)	Sample Type (Liquid, Solid, etc.)	Preservative	ANALYSIS REQUESTED	pH	D.O.	Temp.	Analysis Time
	Field 1 0'-6"	12/12/23 2:30P	✓ 1 Gallon Bag	Soil	N/A	- See Attached Email - Land App 1-20 All				
	Field 1 6'-24"	12/12/23 2:30P								
	Field 2 0'-6"	12/12/23 2:30P								
	Field 2 6'-24"	12/12/23 2:30P								
	Field 3 0'-6"	12/12/23 2:30P								
	Field 3 6'-24"	12/12/23 2:30P								

Sampler (Signature)

Garreth Sinks
Rylan Froehel
Affiliation
Inst. Lab

Relinquished by (Signature)

Garreth Sinks
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Garreth Sinks
Relinquished by (Signature)

Remarks

Notes

CL - Presidual

Act 4.5

Received by (Signature)

Received by (Signature)

Received by (Signature)

Received by (Signature)

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?

Seal Intact?



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

January 24, 2024

LABORATORY REPORT

Natalia Espitia
H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Report ID: 20240124092642Sta..

RE: Bilma - Non Potable - Class B Annual

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid



Pass



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: Bilma - Non Potable - Class B Annual
Project Number: 31
Project Manager: Natalia Espitia

Reported:
01/24/2024 09:26

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24A4207-01

Sample Matrix: Solid
Date Collected: 01/18/2024 13:20
Collected by: Francisco Gutierrez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	390000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	309000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	328000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	236000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	368000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	368000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
Colilert-18	Fecal coliforms	214000	MPN/g TS dry	BHA3001	01/19/2024 12:34	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.343	mg O ₂ /hr/g TS @ 20°C dry	BHA2998	01/18/2024 16:44	AKA
SM 2550 B	Temperature °C Field	18.8	°C	BHA3123	01/18/2024 13:20	FG
SM 2540 G	% Solids	1.05	%	BHA3228	01/22/2024 11:06	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: Bilma - Non Potable - Class B Annual
Project Number: 31
Project Manager: Natalia Espitia

Reported:
01/24/2024 09:26

Quality Control

General Chemistry

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA3228 - Percent Solids									
Blank (BHA3228-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 1/19/2024 Analyzed: 1/22/2024									
Duplicate (BHA3228-DUP1)									
% Solids		0.100	%		1.78			0.994	10
Source: 24A0599-05 Prepared: 1/19/2024 Analyzed: 1/22/2024									
Duplicate (BHA3228-DUP2)									
% Solids		0.100	%		1.52			0.208	10
Source: 24A4214-04 Prepared: 1/19/2024 Analyzed: 1/22/2024									
Reference (BHA3228-SRM1)									
% Solids		0.100	%	0.350		103	78.9-118		
Prepared: 1/19/2024 Analyzed: 1/22/2024									



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: Bilma - Non Potable - Class B Annual
Project Number: 31
Project Manager: Natalia Espitia

Reported:
01/24/2024 09:26

Quality Control (Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA3001 - FC Quantitray

Blank (BHA3001-BLK1)

Prepared: 1/18/2024 Analyzed: 1/19/2024

Fecal coliforms <10.0U 10.0 MPN/g TS
wet

Duplicate (BHA3001-DUP1)

Source: 24A4207-01

Prepared: 1/18/2024 Analyzed: 1/19/2024

Fecal coliforms 950 MPN/g TS 390000 101 200
dry



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H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: Bilma - Non Potable - Class B Annual
Project Number: 31
Project Manager: Natalia Espitia

Reported:
01/24/2024 09:26

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24A4207

Lab PM : Deena Higginbotham		Project Name : Bilma - Non Potable - Class B Annual						Schedule Comments:	
H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809		Project Comments: 5520 Winding Ridge Dr., 77379 Jonathon - 832-702-0551 Combo - 1982							
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results	
24A4207-01	Digester		1/18/2024 1320	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field	18.82	

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:			
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation	Relinquished To Lab By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

North West

wko_NWDLs_COC_LS Revision 4.1 Effective: 2/17/2022



February 26, 2024

Laboratory Report

Natalia Espitia
H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Report ID: 20240226154159AEN

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Aundra Noe', written over a horizontal line.

Aundra Noe For Deena Higginbotham
Director of Client Services



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24A4208-01

Sample Matrix: Solid
Date Collected: 01/18/2024 13:20
Collected by: Francisco Gutierrez

Bilma - Non Potable - Sewage Sludge Annual

31

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	Aroclor-1016 (PCB-1016)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1221 (PCB-1221)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1232 (PCB-1232)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1242 (PCB-1242)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1248 (PCB-1248)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1254 (PCB-1254)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1260 (PCB-1260)	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1262 (PCB-1262)	N	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Aroclor-1268 (PCB-1268)	N	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	PCBs, Total	A	<1.83U	mg/kg (dry wt) dry	10	0.915	1.83	BHA4469	02/15/2024 11:25	SHU
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	85.3%		60-140					02/15/2024 11:25	
SW-8082	Surrogate: Decachlorobiphenyl-surr	63.8%		60-140					02/15/2024 11:25	

Metals, Total

SW-6010C	Arsenic	A	4.90	mg/kg dry	1	0.711	3.24	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Cadmium	A	0.588	mg/kg dry	1	0.0841	0.324	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Chromium	A	11.9	mg/kg dry	1	1.22	1.62	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Copper	A	200	mg/kg dry	20	6.92	64.8	BHA3671	01/29/2024 16:34	FAA
SW-7471B	Mercury	A	0.157	mg/kg dry	1	0.0195	0.0389	BHA3840	01/25/2024 16:45	ISS
SW-6010C	Lead	A	6.00	mg/kg dry	1	0.825	1.62	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Molybdenum	A	4.88	mg/kg dry	1	1.62	1.62	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Nickel	A	14.1	mg/kg dry	1	0.438	1.62	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Potassium	A	4850	mg/kg dry	1	27.8	324	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Selenium	A	6.89	mg/kg dry	1	1.26	3.24	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Total Phosphorus	A	12900	mg/kg dry	1	13.6	324	BHA3671	01/29/2024 15:11	FAA
SW-6010C	Zinc	A	944	mg/kg dry	20	32.5	32.5	BHA3671	01/29/2024 16:34	FAA

General Chemistry

EPA 350.2	Ammonia as N	A	3360	mg/kg dry	1	969	1940	BHA3931	01/25/2024 12:25	GIW
SW-9056A	Nitrate as N	A	1670	mg/kg dry	25	122	304	BHA3089	01/19/2024 11:50	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	71300	mg/kg dry	1	2380	2380	BHA3687	01/24/2024 12:30	GIW
SM 2540 G	% Solids	A	1.03	%	1	0.100	0.100	BHA3228	01/22/2024 11:06	ENR

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Reported:
02/26/2024 15:41

Sample Results
(Continued)

Client Sample ID: Digester (Continued)
Lab Sample ID: 24A4208-01
Bilma - Non Potable - Sewage Sludge Annual

31

Sample Matrix: Solid
Date Collected: 01/18/2024 13:20
Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP										
SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BHA4851	02/01/2024 11:27	FAA
SW-6010C	Barium	A	<100U, V2	mg/L	5	0.0500	100	BHA4851	02/01/2024 11:30	FAA
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BHA4851	02/01/2024 11:27	FAA
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BHA4851	02/01/2024 11:27	FAA
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BHA4742	02/02/2024 01:00	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BHA4742	02/02/2024 01:00	KRB
SW-8151	Surrogate: DCAA-surr		125%	70-130					02/02/2024 01:00	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BHA4847	01/30/2024 14:28	ISS
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BHA4851	02/01/2024 11:27	FAA
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BHA4393	01/31/2024 03:57	ALA
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BHA4393	01/31/2024 03:57	ALA
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BHA4393	01/31/2024 03:57	ALA
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHA4393	01/31/2024 03:57	ALA
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHA4393	01/31/2024 03:57	ALA
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BHA4393	01/31/2024 03:57	ALA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BHA4393	01/31/2024 03:57	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		141% S	60-140					01/31/2024 03:57	
SW-8081	Surrogate: Decachlorobiphenyl-surr		138%	60-140					01/31/2024 03:57	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BHA4851	02/01/2024 11:27	FAA
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BHA4851	02/02/2024 10:26	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BHA4312	01/27/2024 02:25	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BHA4312	01/27/2024 02:25	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BHA4312	01/27/2024 02:25	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHA4312	01/27/2024 02:25	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHA4312	01/27/2024 02:25	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BHA4312	01/27/2024 02:25	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHA4312	01/27/2024 02:25	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHA4312	01/27/2024 02:25	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHA4312	01/27/2024 02:25	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHA4312	01/27/2024 02:25	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BHA4312	01/27/2024 02:25	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		83.6%	54.6-148					01/27/2024 02:25	
SW-8270	Surrogate: 2-Fluorophenol-surr		101%	55-152					01/27/2024 02:25	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		94.8%	52.4-136					01/27/2024 02:25	
SW-8270	Surrogate: Nitrobenzene-d5-surr		102%	52-162					01/27/2024 02:25	

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02/26/2024 15:41

Sample Results
(Continued)

Client Sample ID: Digester (Continued)
Lab Sample ID: 24A4208-01
Bilma - Non Potable - Sewage Sludge Annual

31

Sample Matrix: Solid
Date Collected: 01/18/2024 13:20
Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP (Continued)

SW-8270	Surrogate: Phenol-d5-surr		101%	58.7-152					01/27/2024 02:25	
SW-8270	Surrogate: p-Terphenyl-d14-surr		79.7%	51.9-147					01/27/2024 02:25	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	1	0.000849	0.700	BHA4256	01/25/2024 21:57	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	1	0.000870	0.500	BHA4256	01/25/2024 21:57	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	1	0.000641	7.50	BHA4256	01/25/2024 21:57	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	1	0.00738	200	BHA4256	01/25/2024 21:57	EM
SW-8260	Benzene	A	<0.500U	mg/L	1	0.000604	0.500	BHA4256	01/25/2024 21:57	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	1	0.000500	0.500	BHA4256	01/25/2024 21:57	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	1	0.000724	100	BHA4256	01/25/2024 21:57	EM
SW-8260	Chloroform	A	<6.00U	mg/L	1	0.000688	6.00	BHA4256	01/25/2024 21:57	EM
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	1	0.000703	0.700	BHA4256	01/25/2024 21:57	EM
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	1	0.000744	0.500	BHA4256	01/25/2024 21:57	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	1	0.00130	0.200	BHA4256	01/25/2024 21:57	EM
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		98.5%	70-130					01/25/2024 21:57	
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		102%	70-130					01/25/2024 21:57	
SW-8260	Surrogate: Toluene-d8-surr		97.1%	70-130					01/25/2024 21:57	
SW-8260	Surrogate: Dibromofluoromethane-surr		111%	70-130					01/25/2024 21:57	

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02/26/2024 15:41

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4469 - SW-3570

Blank (BHA4469-BLK1)

Prepared: 1/26/2024 Analyzed: 2/14/2024

Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1221 (PCB-1221)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1232 (PCB-1232)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1242 (PCB-1242)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1248 (PCB-1248)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1254 (PCB-1254)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1262 (PCB-1262)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1268 (PCB-1268)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00440	mg/kg (dry wt) wet	0.00600		73.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00548	mg/kg (dry wt) wet	0.00600		91.4	60-140		

LCS (BHA4469-BS1)

Prepared: 1/26/2024 Analyzed: 2/14/2024

Aroclor-1016 (PCB-1016)	0.0507		0.0200	mg/kg (dry wt) wet	0.0600		84.5	60-140		
Aroclor-1260 (PCB-1260)	0.0582		0.0200	mg/kg (dry wt) wet	0.0600		97.0	60-140		
PCBs, Total	0.0560		0.0200	mg/kg (dry wt) wet	0.0600		93.4	60-140		
Surrogate: 2,4,5,6			0.00421	mg/kg (dry wt) wet	0.00600		70.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.00349	mg/kg (dry wt) wet	0.00600		58.2	60-140		

LCS Dup (BHA4469-BSD1)

Prepared: 1/26/2024 Analyzed: 2/14/2024

Aroclor-1016 (PCB-1016)	0.0509		0.0200	mg/kg (dry wt) wet	0.0600		84.8	60-140	0.281	40
Aroclor-1260 (PCB-1260)	0.0579		0.0200	mg/kg (dry wt) wet	0.0600		96.5	60-140	0.537	40
PCBs, Total	0.0559		0.0200	mg/kg (dry wt) wet	0.0600		93.1	60-140	0.317	40
Surrogate: 2,4,5,6			0.00412	mg/kg (dry wt) wet	0.00600		68.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00373	mg/kg (dry wt) wet	0.00600		62.2	60-140		

Matrix Spike (BHA4469-MS1)

Source: 24A4577-01

Prepared: 1/26/2024 Analyzed: 2/14/2024

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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHA4469 - SW-3570 (Continued)									
Matrix Spike (BHA4469-MS1)		Source: 24A4577-01		Prepared: 1/26/2024 Analyzed: 2/14/2024					
Aroclor-1016 (PCB-1016)	1.56		0.712	mg/kg (dry wt) dry	2.14	<0.712	73.2 60-140		
Aroclor-1260 (PCB-1260)	1.81		0.712	mg/kg (dry wt) dry	2.14	<0.712	84.8 60-140		
PCBs, Total	1.74		0.712	mg/kg (dry wt) dry	2.14	<0.712	81.4 60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.174	mg/kg (dry wt) dry	0.214		81.7 60-140		
Surrogate: Decachlorobiphenyl-surr			0.138	mg/kg (dry wt) dry	0.214		64.7 60-140		
Matrix Spike Dup (BHA4469-MSD1)		Source: 24A4577-01		Prepared: 1/26/2024 Analyzed: 2/15/2024					
Aroclor-1016 (PCB-1016)	1.41		0.710	mg/kg (dry wt) dry	2.13	<0.710	66.2 60-140	10.4	40
Aroclor-1260 (PCB-1260)	1.72		0.710	mg/kg (dry wt) dry	2.13	<0.710	80.9 60-140	5.00	40
PCBs, Total	1.63		0.710	mg/kg (dry wt) dry	2.13	<0.710	76.6 60-140	6.39	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.174	mg/kg (dry wt) dry	0.213		81.6 60-140		
Surrogate: Decachlorobiphenyl-surr			0.188	mg/kg (dry wt) dry	0.213		88.5 60-140		

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Reported:

02/26/2024 15:41

Quality Control
(Continued)**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA3671 - SW-3050 for 6010**Blank (BHA3671-BLK1)**

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	<1.95	U	1.95	mg/kg wet						
Cadmium	<0.195	U	0.195	mg/kg wet						
Chromium	<0.980	U	0.980	mg/kg wet						
Copper	<1.95	U	1.95	mg/kg wet						
Lead	<0.980	U	0.980	mg/kg wet						
Molybdenum	<0.980	U	0.980	mg/kg wet						
Nickel	<0.980	U	0.980	mg/kg wet						
Potassium	<195	U	195	mg/kg wet						
Selenium	<1.95	U	1.95	mg/kg wet						
Total Phosphorus	<195	U	195	mg/kg wet						
Zinc	<0.980	U	0.980	mg/kg wet						

LCS (BHA3671-BS1)

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	48.5		1.98	mg/kg wet	49.6		97.8	80-120
Cadmium	4.95		0.198	mg/kg wet	4.96		99.7	80-120
Chromium	24.1		0.994	mg/kg wet	24.8		97.3	80-120
Copper	49.0		1.98	mg/kg wet	49.6		98.7	80-120
Lead	24.6		0.994	mg/kg wet	24.8		99.0	80-120
Molybdenum	24.1		0.994	mg/kg wet	24.8		97.3	80-120
Nickel	24.3		0.994	mg/kg wet	24.8		98.1	80-120
Potassium	4930		198	mg/kg wet	4960		99.4	80-120
Selenium	49.0		1.98	mg/kg wet	49.6		98.8	80-120
Total Phosphorus	4880		198	mg/kg wet	4960		98.4	80-120
Zinc	24.4		0.994	mg/kg wet	24.8		98.3	80-120

Matrix Spike (BHA3671-MS1)

Source: 24A4208-01

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	86.8		3.24	mg/kg dry	81.0	4.90	101	75-125
Cadmium	8.95		0.324	mg/kg dry	8.10	0.588	103	75-125
Chromium	52.0		1.62	mg/kg dry	40.5	11.9	99.1	75-125
Copper	1770		64.7	mg/kg dry	1700	200	92.1	75-125
Lead	46.7		1.62	mg/kg dry	40.5	6.00	100	75-125
Molybdenum	44.2		1.62	mg/kg dry	40.5	4.88	97.2	75-125
Nickel	54.5		1.62	mg/kg dry	40.5	14.1	99.6	75-125
Potassium	14200		324	mg/kg dry	8100	4850	116	75-125
Selenium	91.2		3.24	mg/kg dry	81.0	6.89	104	75-125
Total Phosphorus	28400		1620	mg/kg dry	16200	12900	95.5	75-125
Zinc	2600		81.1	mg/kg dry	1660	944	99.9	75-125

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Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA3671 - SW-3050 for 6010 (Continued)

Matrix Spike Dup (BHA3671-MSD1)

Source: 24A4208-01

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	88.0		3.24	mg/kg dry	81.0	4.90	103	75-125	1.42	20
Cadmium	9.02		0.324	mg/kg dry	8.10	0.588	104	75-125	0.790	20
Chromium	52.0		1.62	mg/kg dry	40.5	11.9	99.1	75-125	0.0208	20
Copper	1770		64.7	mg/kg dry	1700	200	92.3	75-125	0.187	20
Lead	46.6		1.62	mg/kg dry	40.5	6.00	100	75-125	0.123	20
Molybdenum	44.4		1.62	mg/kg dry	40.5	4.88	97.7	75-125	0.428	20
Nickel	54.2		1.62	mg/kg dry	40.5	14.1	98.9	75-125	0.539	20
Potassium	14200		324	mg/kg dry	8100	4850	116	75-125	0.0480	20
Selenium	90.5		3.24	mg/kg dry	81.0	6.89	103	75-125	0.858	20
Total Phosphorus	28500		1620	mg/kg dry	16200	12900	96.3	75-125	0.483	20
Zinc	2770		81.2	mg/kg dry	1660	944	110	75-125	6.21	20

Post Spike (BHA3671-PS1)

Source: 24A4208-01

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	531			ug/L	500	28.6	101	80-120		
Cadmium	54.3			ug/L	50.0	3.43	102	80-120		
Chromium	318			ug/L	250	69.4	99.5	80-120		
Copper	1750			ug/L	500	1170	117	80-120		
Lead	282			ug/L	250	35.0	98.8	80-120		
Molybdenum	267			ug/L	250	28.5	95.2	80-120		
Nickel	327			ug/L	250	82.5	97.8	80-120		
Potassium	87100			ug/L	50000	28300	118	80-120		
Selenium	566			ug/L	500	40.2	105	80-120		
Total Phosphorus	124000			ug/L	50000	75300	97.9	80-120		
Zinc	5950	J1		ug/L	250	5510	178	80-120		

Dilution Check (BHA3671-SRL1)

Source: 24A4208-01

Prepared: 1/26/2024 Analyzed: 1/29/2024

Arsenic	4.94	U	16.2	mg/kg dry		4.90		0.676	10
Cadmium	0.738	U	1.62	mg/kg dry		0.588		22.5	10
Chromium	11.8		8.12	mg/kg dry		11.9		1.10	10
Copper	212		16.2	mg/kg dry		200		5.45	10
Lead	5.52	U	8.12	mg/kg dry		6.00		8.34	10
Molybdenum	<8.12	U	8.12	mg/kg dry		<8.12		200	10
Nickel	13.7		8.12	mg/kg dry		14.1		2.91	10
Potassium	4820		1620	mg/kg dry		4850		0.635	10
Selenium	<16.2	U	16.2	mg/kg dry		6.89		200	10
Total Phosphorus	12800		1620	mg/kg dry		12900		1.14	10

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02/26/2024 15:41

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA3840 - SW-7471

MDL Check (BHA3840-MRL1)

Mercury	<0.0196	J1, U	0.0196	mg/kg wet	0.00979	Prepared & Analyzed: 1/25/2024				
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Matrix Spike (BHA3840-MS1)

Mercury	0.264	Source: 24A0815-09			0.249	<0.0199	106	80-120	Prepared & Analyzed: 1/25/2024	
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Matrix Spike Dup (BHA3840-MSD1)

Mercury	0.246	Source: 24A0815-09			0.249	<0.0199	98.9	80-120	7.07	20
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H2O Innovation_Spring
P.O. Box 2718
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Reported:
02/26/2024 15:41

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA3089 - Solid Anions No Prep

Duplicate (BHA3089-DUP1)

Source: 24A4208-01

Prepared & Analyzed: 1/19/2024

Nitrate as N	1650		304	mg/kg dry		1670			1.17	15
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MRL Check (BHA3089-MRL1)

Prepared & Analyzed: 1/19/2024

Nitrate as N	0.127		0.125	mg/kg wet	0.100		127	50-150		
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Matrix Spike (BHA3089-MS1)

Source: 24A4208-01

Prepared & Analyzed: 1/19/2024

Nitrate as N	1840	J1	338	mg/kg dry	216	1670	77.1	80-120		
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Batch: BHA3228 - Percent Solids

Blank (BHA3228-BLK1)

Prepared: 1/19/2024 Analyzed: 1/22/2024

% Solids	<0.100	U	0.100	%						
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Duplicate (BHA3228-DUP1)

Source: 24A0599-05

Prepared: 1/19/2024 Analyzed: 1/22/2024

% Solids	1.80		0.100	%		1.78			0.994	10
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Duplicate (BHA3228-DUP2)

Source: 24A4214-04

Prepared: 1/19/2024 Analyzed: 1/22/2024

% Solids	1.52		0.100	%		1.52			0.208	10
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Reference (BHA3228-SRM1)

Prepared: 1/19/2024 Analyzed: 1/22/2024

% Solids	0.361		0.100	%	0.350		103	78.9-118		
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Batch: BHA3687 - TKN T

Blank (BHA3687-BLK1)

Prepared: 1/23/2024 Analyzed: 1/24/2024

Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
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P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHA3687 - TKN T (Continued)									
LCS (BHA3687-BS1)									
Total Kjeldahl Nitrogen - (TKN)	17.7		9.88	mg/kg wet	20.0		88.7 85-115		
Prepared: 1/23/2024 Analyzed: 1/24/2024									
Duplicate (BHA3687-DUP1)									
Total Kjeldahl Nitrogen - (TKN)	33500		1170	mg/kg dry		40200		18.1	20
Source: 24A3716-01 Prepared: 1/23/2024 Analyzed: 1/24/2024									
Matrix Spike (BHA3687-MS1)									
Total Kjeldahl Nitrogen - (TKN)	44200		1160	mg/kg dry	4630	40200	86.8 85-115		
Source: 24A3716-01 Prepared: 1/23/2024 Analyzed: 1/24/2024									
Batch: BHA3931 - TKN T									
Blank (BHA3931-BLK1)									
Ammonia as N	<9.97	U	9.97	mg/kg wet					
Prepared: 1/24/2024 Analyzed: 1/25/2024									
LCS (BHA3931-BS1)									
Ammonia as N	98.0		9.97	mg/kg wet	99.7		98.3 85-115		
Prepared: 1/24/2024 Analyzed: 1/25/2024									
Duplicate (BHA3931-DUP1)									
Ammonia as N	53.2		15.8	mg/kg dry		52.4		1.58	20
Source: 24A0815-09 Prepared: 1/24/2024 Analyzed: 1/25/2024									
MRL Check (BHA3931-MRL1)									
Ammonia as N	8.66	U	9.98	mg/kg wet	9.98		86.8 50-150		
Prepared: 1/24/2024 Analyzed: 1/25/2024									
Matrix Spike (BHA3931-MS1)									
Ammonia as N	192		15.8	mg/kg dry	158	52.4	87.9 85-115		
Source: 24A0815-09 Prepared: 1/24/2024 Analyzed: 1/25/2024									

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P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA4256 - EPA 624										
Blank (BHA4256-BLK1)					Prepared & Analyzed: 1/25/2024					
1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 4-Bromofluorobenzene-surr			50.9	ug/L	50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			50.6	ug/L	50.0		101	70-130		
Surrogate: Toluene-d8-surr			49.0	ug/L	50.0		97.9	70-130		
Surrogate: Dibromofluoromethane-surr			53.8	ug/L	50.0		108	70-130		
LCS (BHA4256-BS1)										
					Prepared & Analyzed: 1/25/2024					
1,1-Dichloroethylene	0.0406	U	0.700	mg/L	0.0500		81.1	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0383	U	0.500	mg/L	0.0500		76.6	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0395	U	7.50	mg/L	0.0500		79.1	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.440	U	200	mg/L	0.500		88.1	70-130		
Benzene	0.0406	U	0.500	mg/L	0.0500		81.2	70-130		
Carbon tetrachloride	0.0392	U	0.500	mg/L	0.0500		78.3	70-130		
Chlorobenzene	0.0402	U	100	mg/L	0.0500		80.4	70-130		
Chloroform	0.0420	U	6.00	mg/L	0.0500		84.0	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0395	U	0.700	mg/L	0.0500		79.1	70-130		
Trichloroethene (Trichloroethylene)	0.0393	U	0.500	mg/L	0.0500		78.6	70-130		
Vinyl chloride (Chloroethene)	0.0425	U	0.200	mg/L	0.0500		85.0	70-130		
Surrogate: 4-Bromofluorobenzene-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			46.6	ug/L	50.0		93.3	70-130		
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			49.1	ug/L	50.0		98.2	70-130		

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H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4256 - EPA 624 (Continued)

LCS Dup (BHA4256-BSD1)

Prepared & Analyzed: 1/25/2024

1,1-Dichloroethylene	0.0391	U	0.700	mg/L	0.0500		78.3	70-130	3.58	30
1,2-Dichloroethane (Ethylene dichloride)	0.0377	U	0.500	mg/L	0.0500		75.4	70-130	1.56	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0390	U	7.50	mg/L	0.0500		77.9	70-130	1.43	30
2-Butanone (Methyl ethyl ketone, MEK)	0.427	U	200	mg/L	0.500		85.5	70-130	3.03	30
Benzene	0.0395	U	0.500	mg/L	0.0500		78.9	70-130	2.76	30
Carbon tetrachloride	0.0378	U	0.500	mg/L	0.0500		75.5	70-130	3.65	30
Chlorobenzene	0.0390	U	100	mg/L	0.0500		78.0	70-130	3.00	30
Chloroform	0.0400	U	6.00	mg/L	0.0500		80.1	70-130	4.80	30
Tetrachloroethylene (Perchloroethylene)	0.0403	U	0.700	mg/L	0.0500		80.6	70-130	2.00	30
Trichloroethene (Trichloroethylene)	0.0392	U	0.500	mg/L	0.0500		78.4	70-130	0.291	30
Vinyl chloride (Chloroethene)	0.0415	U	0.200	mg/L	0.0500		83.0	70-130	2.34	30
Surrogate: 4-Bromofluorobenzene-surr			49.9	ug/L	50.0		99.8	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			46.8	ug/L	50.0		93.6	70-130		
Surrogate: Toluene-d8-surr			49.9	ug/L	50.0		99.7	70-130		
Surrogate: Dibromofluoromethane-surr			48.0	ug/L	50.0		96.0	70-130		

Matrix Spike (BHA4256-MS1)

Source: 24A5177-01

Prepared & Analyzed: 1/25/2024

1,1-Dichloroethylene	0.0542	U	0.700	mg/L	0.0500	<0.700	108	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0472	U	0.500	mg/L	0.0500	<0.500	94.5	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0500	U	7.50	mg/L	0.0500	<7.50	99.9	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.487	U	200	mg/L	0.500	<200	97.3	70-130		
Benzene	0.0517	U	0.500	mg/L	0.0500	<0.500	103	70-130		
Carbon tetrachloride	0.0498	U	0.500	mg/L	0.0500	<0.500	99.5	70-130		
Chlorobenzene	0.0505	U	100	mg/L	0.0500	<100	101	70-130		
Chloroform	0.0403	U	6.00	mg/L	0.0500	<6.00	80.5	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0517	U	0.700	mg/L	0.0500	<0.700	103	70-130		
Trichloroethene (Trichloroethylene)	0.0523	U	0.500	mg/L	0.0500	<0.500	105	70-130		
Vinyl chloride (Chloroethene)	0.0569	U	0.200	mg/L	0.0500	<0.200	114	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.6	ug/L	50.0		99.2	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			46.1	ug/L	50.0		92.3	70-130		
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			49.5	ug/L	50.0		99.0	70-130		

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P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA4256 - EPA 624 (Continued)										
Matrix Spike Dup (BHA4256-MSD1)			Source: 24A5177-01			Prepared & Analyzed: 1/25/2024				
1,1-Dichloroethylene	0.0521	U	0.700	mg/L	0.0500	<0.700	104	70-130	3.97	30
1,2-Dichloroethane (Ethylene dichloride)	0.0467	U	0.500	mg/L	0.0500	<0.500	93.4	70-130	1.15	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0505	U	7.50	mg/L	0.0500	<7.50	101	70-130	1.01	30
2-Butanone (Methyl ethyl ketone, MEK)	0.485	U	200	mg/L	0.500	<200	97.0	70-130	0.345	30
Benzene	0.0502	U	0.500	mg/L	0.0500	<0.500	100	70-130	3.12	30
Carbon tetrachloride	0.0484	U	0.500	mg/L	0.0500	<0.500	96.8	70-130	2.78	30
Chlorobenzene	0.0496	U	100	mg/L	0.0500	<100	99.2	70-130	1.77	30
Chloroform	0.0395	U	6.00	mg/L	0.0500	<6.00	78.9	70-130	1.96	30
Tetrachloroethylene (Perchloroethylene)	0.0499	U	0.700	mg/L	0.0500	<0.700	99.8	70-130	3.53	30
Trichloroethene (Trichloroethylene)	0.0532	U	0.500	mg/L	0.0500	<0.500	106	70-130	1.62	30
Vinyl chloride (Chloroethene)	0.0547	U	0.200	mg/L	0.0500	<0.200	109	70-130	4.01	30
<i>Surrogate: 4-Bromofluorobenzene-surr</i>			50.5	ug/L	50.0		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4-surr</i>			46.3	ug/L	50.0		92.6	70-130		
<i>Surrogate: Toluene-d8-surr</i>			50.3	ug/L	50.0		101	70-130		
<i>Surrogate: Dibromofluoromethane-surr</i>			49.7	ug/L	50.0		99.4	70-130		

Batch: BHA4312 - SW-3511

MB SV (BHA4312-BLK1)			Prepared & Analyzed: 1/26/2024							
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
<i>Surrogate: 2-Fluorobiphenyl-surr</i>			0.00845	mg/L	0.0100		84.5	54.6-148		
<i>Surrogate: 2-Fluorophenol-surr</i>			0.0188	mg/L	0.0200		93.9	55-152		
<i>Surrogate: 2,4,6-Tribromophenol-surr</i>			0.0190	mg/L	0.0200		95.2	52.4-136		
<i>Surrogate: Nitrobenzene-d5-surr</i>			0.00927	mg/L	0.0100		92.7	52-162		
<i>Surrogate: Phenol-d5-surr</i>			0.0190	mg/L	0.0200		95.1	58.7-152		
<i>Surrogate: p-Terphenyl-d14-surr</i>			0.00895	mg/L	0.0100		89.5	51.9-147		

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H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4312 - SW-3511 (Continued)

BS SV (BHA4312-BS1)

Prepared & Analyzed: 1/26/2024

2,4,5-Trichlorophenol	0.0224	U	400	mg/L	0.0200		112	60-140		
2,4,6-Trichlorophenol	0.0225	U	2.00	mg/L	0.0200		113	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0104	U	0.130	mg/L	0.0100		104	60-140		
2-Methylphenol	0.0191	U	200	mg/L	0.0200		95.3	60-140		
3,4-Methylphenol	0.0417	L, U	200	mg/L	0.0400		104	60-140		
Hexachlorobenzene	0.00993	U	0.130	mg/L	0.0100		99.3	60-140		
Hexachlorobutadiene	0.00703	U	0.500	mg/L	0.0100		70.3	60-140		
Hexachloroethane	0.00732	U	3.00	mg/L	0.0100		73.2	60-140		
Nitrobenzene	0.0107	U	2.00	mg/L	0.0100		107	60-140		
Pentachlorophenol	0.0239	U	100	mg/L	0.0200		120	36.8-149		
Pyridine	0.0279	U	5.00	mg/L	0.0500		55.9	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00860	mg/L	0.0100		86.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0200		96.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0184	mg/L	0.0200		92.1	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00929	mg/L	0.0100		92.9	52-162		
Surrogate: Phenol-d5-surr			0.0194	mg/L	0.0200		96.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00881	mg/L	0.0100		88.1	51.9-147		

BSD SV (BHA4312-BS1)

Prepared & Analyzed: 1/26/2024

2,4,5-Trichlorophenol	0.0228	U	400	mg/L	0.0200		114	60-140	1.75	40
2,4,6-Trichlorophenol	0.0225	U	2.00	mg/L	0.0200		113	60-140	0.0307	40
2,4-Dinitrotoluene (2,4-DNT)	0.0104	U	0.130	mg/L	0.0100		104	60-140	0.560	40
2-Methylphenol	0.0189	U	200	mg/L	0.0200		94.3	60-140	1.01	40
3,4-Methylphenol	0.0418	L, U	200	mg/L	0.0400		104	60-140	0.262	40
Hexachlorobenzene	0.0100	U	0.130	mg/L	0.0100		100	60-140	0.743	40
Hexachlorobutadiene	0.00674	U	0.500	mg/L	0.0100		67.4	60-140	4.31	40
Hexachloroethane	0.00715	U	3.00	mg/L	0.0100		71.5	60-140	2.27	40
Nitrobenzene	0.0106	U	2.00	mg/L	0.0100		106	60-140	0.698	40
Pentachlorophenol	0.0242	U	100	mg/L	0.0200		121	36.8-149	1.17	40
Pyridine	0.0281	U	5.00	mg/L	0.0500		56.2	2.5-101	0.549	40
Surrogate: 2-Fluorobiphenyl-surr			0.00869	mg/L	0.0100		86.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0192	mg/L	0.0200		96.2	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0186	mg/L	0.0200		93.0	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00934	mg/L	0.0100		93.4	52-162		
Surrogate: Phenol-d5-surr			0.0193	mg/L	0.0200		96.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00883	mg/L	0.0100		88.3	51.9-147		



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4312 - SW-3511 (Continued)

BHA3911-BLK1 (BHA4312-LBK1)

Prepared: 1/26/2024 Analyzed: 1/27/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00260	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0341	mg/L	0.0400		85.2	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0805	mg/L	0.0800		101	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0765	mg/L	0.0800		95.6	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0406	mg/L	0.0400		101	52-162		
Surrogate: Phenol-d5-surr			0.0850	mg/L	0.0800		106	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0280	mg/L	0.0400		70.0	51.9-147		

MDL SV (BHA4312-MRL1)

Prepared & Analyzed: 1/26/2024

2,4,5-Trichlorophenol	0.00127	U	400	mg/L	0.00100		127			
2,4,6-Trichlorophenol	0.00134	U	2.00	mg/L	0.00100		134			
2,4-Dinitrotoluene (2,4-DNT)	0.000633	U	0.130	mg/L	0.000500		127			
2-Methylphenol	0.00115	U	200	mg/L	0.00100		115			
3,4-Methylphenol	0.00233	U	200	mg/L	0.00200		117			
Hexachlorobenzene	0.000460	U	0.130	mg/L	0.000500		91.9			
Hexachlorobutadiene	0.000412	U	0.500	mg/L	0.000500		82.4			
Hexachloroethane	0.000465	U	3.00	mg/L	0.000500		92.9			
Nitrobenzene	0.000533	U	2.00	mg/L	0.000500		107			
Pentachlorophenol	0.00116	U	100	mg/L	0.00100		116			
Pyridine	0.00174	U	5.00	mg/L	0.00250		69.7			
Surrogate: 2-Fluorobiphenyl-surr			0.00862	mg/L	0.0100		86.2	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0190	mg/L	0.0200		94.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0186	mg/L	0.0200		92.8	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00919	mg/L	0.0100		91.9	52-162		
Surrogate: Phenol-d5-surr			0.0189	mg/L	0.0200		94.7	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00879	mg/L	0.0100		87.9	51.9-147		

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H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4312 - SW-3511 (Continued)

24A5109-01 MS (BHA4312-MS1)

Source: 24A5109-01

Prepared & Analyzed: 1/26/2024

2,4,5-Trichlorophenol	0.0224	U	400	mg/L	0.0200	<400	112	44.9-171		
2,4,6-Trichlorophenol	0.0231	U	2.00	mg/L	0.0200	<2.00	115	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0110	U	0.130	mg/L	0.0100	<0.130	110	50.3-144		
2-Methylphenol	0.0198	U	200	mg/L	0.0200	0.00172	90.6	17.3-182		
3,4-Methylphenol	0.0438	L, U	200	mg/L	0.0400	0.00264	103	43.4-188		
Hexachlorobenzene	0.00959	U	0.130	mg/L	0.0100	<0.130	95.9	56.1-137		
Hexachlorobutadiene	0.00800	U	0.500	mg/L	0.0100	<0.500	80.0	33.1-110		
Hexachloroethane	0.00787	U	3.00	mg/L	0.0100	<3.00	78.7	36.2-106		
Nitrobenzene	0.0123	U	2.00	mg/L	0.0100	<2.00	123	54.9-156		
Pentachlorophenol	0.0252	U	100	mg/L	0.0200	<100	126	42.2-151		
Pyridine	0.0176	U	5.00	mg/L	0.0500	<5.00	35.2	2-87.4		

Surrogate: 2-Fluorobiphenyl-surr			0.00888	mg/L	0.0100		88.8	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0203	mg/L	0.0200		101	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0195	mg/L	0.0200		97.3	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0107	mg/L	0.0100		107	52-162		
Surrogate: Phenol-d5-surr			0.0209	mg/L	0.0200		104	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00892	mg/L	0.0100		89.2	51.9-147		

24A5109-01 MSD (BHA4312-MSD1)

Source: 24A5109-01

Prepared: 1/26/2024 Analyzed: 1/27/2024

2,4,5-Trichlorophenol	0.0225	U	400	mg/L	0.0200	<400	113	44.9-171	0.526	40
2,4,6-Trichlorophenol	0.0233	U	2.00	mg/L	0.0200	<2.00	116	34.7-143	0.883	40
2,4-Dinitrotoluene (2,4-DNT)	0.0111	U	0.130	mg/L	0.0100	<0.130	111	50.3-144	1.25	40
2-Methylphenol	0.0191	U	200	mg/L	0.0200	0.00172	86.7	17.3-182	3.99	40
3,4-Methylphenol	0.0419	L, U	200	mg/L	0.0400	0.00264	98.2	43.4-188	4.41	40
Hexachlorobenzene	0.00936	U	0.130	mg/L	0.0100	<0.130	93.6	56.1-137	2.44	40
Hexachlorobutadiene	0.00749	U	0.500	mg/L	0.0100	<0.500	74.9	33.1-110	6.55	40
Hexachloroethane	0.00756	U	3.00	mg/L	0.0100	<3.00	75.6	36.2-106	4.01	40
Nitrobenzene	0.0115	U	2.00	mg/L	0.0100	<2.00	115	54.9-156	6.29	40
Pentachlorophenol	0.0249	U	100	mg/L	0.0200	<100	124	42.2-151	1.53	40
Pyridine	0.0196	U	5.00	mg/L	0.0500	<5.00	39.2	2-87.4	10.9	40

Surrogate: 2-Fluorobiphenyl-surr			0.00863	mg/L	0.0100		86.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0199	mg/L	0.0200		99.7	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0190	mg/L	0.0200		94.9	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.0100		103	52-162		
Surrogate: Phenol-d5-surr			0.0204	mg/L	0.0200		102	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00872	mg/L	0.0100		87.2	51.9-147		



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA4393 - SW-3511										
Blank (BHA4393-BLK1)										
					Prepared: 1/26/2024 Analyzed: 1/30/2024					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000125	mg/L	0.000120		104	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000163	mg/L	0.000120		136	60-140		
TOX LCS (BHA4393-BS1)										
					Prepared: 1/26/2024 Analyzed: 1/30/2024					
Toxaphene (Chlorinated Camphene)	0.00102	U	0.500	mg/L	0.00120		84.8	60-140		
Surrogate: 2,4,5,6			8.68E-5	mg/L	0.000120		72.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.05E-5	mg/L	0.000120		75.4	60-140		
LCS (BHA4393-BS2)										
					Prepared: 1/26/2024 Analyzed: 1/31/2024					
Chlordane (Total)	0.000515	U	0.0300	mg/L	0.000480		107	60-140		
Endrin	0.000144	U	0.0200	mg/L	0.000120		120	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000154	U	0.400	mg/L	0.000120		128	60-140		
Heptachlor	0.000136	U	0.00800	mg/L	0.000120		114	60-140		
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000120		98.7	60-140		
Methoxychlor	0.000160	U	10.0	mg/L	0.000120		133	60-140		
Surrogate: 2,4,5,6			0.000147	mg/L	0.000120		122	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000122	mg/L	0.000120		101	60-140		
TOX LCSD (BHA4393-BSD1)										
					Prepared: 1/26/2024 Analyzed: 1/31/2024					
Toxaphene (Chlorinated Camphene)	0.00102	U	0.500	mg/L	0.00120		84.8	60-140	0.000583	40
Surrogate: 2,4,5,6			9.95E-5	mg/L	0.000120		82.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000107	mg/L	0.000120		89.4	60-140		

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H2O Innovation_Spring
P.O. Box 2718
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Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4393 - SW-3511 (Continued)

LCS Dup (BHA4393-BSD2)

Prepared: 1/26/2024 Analyzed: 1/31/2024

Chlordane (Total)	0.000483	U	0.0300	mg/L	0.000480		101	60-140	6.57	40
Endrin	0.000126	U	0.0200	mg/L	0.000120		105	60-140	12.9	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000126	U	0.400	mg/L	0.000120		105	60-140	20.3	40
Heptachlor	0.000119	U	0.00800	mg/L	0.000120		99.0	60-140	13.9	40
Heptachlor epoxide	0.000125	U	0.00800	mg/L	0.000120		104	60-140	5.27	40
Methoxychlor	0.000128	U	10.0	mg/L	0.000120		107	60-140	22.0	40
Surrogate: 2,4,5,6			0.000123	mg/L	0.000120		103	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000161	mg/L	0.000120		134	60-140		

BHA3911-BLK1 (BHA4393-LBK1)

Prepared: 1/26/2024 Analyzed: 1/31/2024

Chlordane (Total)	1.17E-6	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.05E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	5.62E-6	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6	S		0.000176	mg/L	0.000120		147	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000180	mg/L	0.000120		150	60-140		

TOX MDL (BHA4393-MRL1)

Prepared: 1/26/2024 Analyzed: 1/30/2024

Toxaphene (Chlorinated Camphene)	0.000320	U	0.500	mg/L	0.000300		107			
Surrogate: 2,4,5,6			0.000108	mg/L	0.000120		90.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000117	mg/L	0.000120		97.2	60-140		

MRL Check (BHA4393-MRL2)

Prepared: 1/26/2024 Analyzed: 1/31/2024

Chlordane (Total)	4.79E-5	U	0.0300	mg/L	4.80E-5		99.7			
Endrin	1.26E-5	U	0.0200	mg/L	1.20E-5		105			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.28E-5	U	0.400	mg/L	1.20E-5		107			
Heptachlor	1.19E-5	U	0.00800	mg/L	1.20E-5		99.6			
Heptachlor epoxide	1.07E-5	U	0.00800	mg/L	1.20E-5		89.0			
Methoxychlor	1.69E-5	U	10.0	mg/L	1.20E-5		141			
Surrogate: 2,4,5,6			0.000136	mg/L	0.000120		113	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000140	mg/L	0.000120		117	60-140		



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4393 - SW-3511 (Continued)

Matrix Spike (BHA4393-MS1)

Source: 24A4577-01

Prepared: 1/26/2024 Analyzed: 1/31/2024

Chlordane (Total)	0.00271	U	0.0300	mg/L	0.00240	4.07E-5	111	60-140		
Endrin	0.000782	U	0.0200	mg/L	0.000600	6.77E-5	119	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000789	U	0.400	mg/L	0.000600	3.87E-5	125	60-140		
Heptachlor	0.000746	U	0.00800	mg/L	0.000600	3.59E-5	118	60-140		
Heptachlor epoxide	0.000734	U	0.00800	mg/L	0.000600	<0.00800	122	60-140		
Methoxychlor	0.00108	J1, U	10.0	mg/L	0.000600	0.000237	140	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000773	mg/L	0.000600		129	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000811	mg/L	0.000600		135	60-140		

Matrix Spike Dup (BHA4393-MSD1)

Source: 24A4577-01

Prepared: 1/26/2024 Analyzed: 1/31/2024

Chlordane (Total)	0.00324	U	0.0300	mg/L	0.00240	4.07E-5	133	60-140	17.9	40
Endrin	0.000924	J1, U	0.0200	mg/L	0.000600	6.77E-5	143	60-140	16.7	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.00100	J1, U	0.400	mg/L	0.000600	3.87E-5	161	60-140	23.7	40
Heptachlor	0.000934	J1, U	0.00800	mg/L	0.000600	3.59E-5	150	60-140	22.4	40
Heptachlor epoxide	0.000876	J1, U	0.00800	mg/L	0.000600	<0.00800	146	60-140	17.6	40
Methoxychlor	0.00127	J1, U	10.0	mg/L	0.000600	0.000237	172	60-140	15.9	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		0.00100	mg/L	0.000600		167	60-140		
Surrogate: Decachlorobiphenyl-surr	S		0.000849	mg/L	0.000600		141	60-140		

Batch: BHA4742 - SW-3511

Blank (BHA4742-BLK1)

Prepared: 1/29/2024 Analyzed: 2/1/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0242	mg/L	0.0250		97	70-130		

LCS (BHA4742-BS1)

Prepared: 1/29/2024 Analyzed: 2/1/2024

2,4-D	0.00482	U	10.0	mg/L	0.00515		94	70-130		
Silvex (2,4,5-TP)	0.00455	U	1.00	mg/L	0.00500		91	70-130		
Surrogate: DCAA-surr			0.0291	mg/L	0.0250		116	70-130		

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Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4742 - SW-3511 (Continued)

LCS Dup (BHA4742-BSD1)

Prepared: 1/29/2024 Analyzed: 2/1/2024

2,4-D	0.00459	U	10.0	mg/L	0.00515		89	70-130	5	30
Silvex (2,4,5-TP)	0.00426	U	1.00	mg/L	0.00500		85	70-130	6	30
Surrogate: DCAA-surr			0.0276	mg/L	0.0250		110	70-130		

BHA3911-BLK1 (BHA4742-LBK1)

Prepared: 1/29/2024 Analyzed: 2/2/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.0333	mg/L	0.0250		133	70-130		

Matrix Spike (BHA4742-MS1)

Source: 24A4695-01

Prepared: 1/29/2024 Analyzed: 2/1/2024

2,4-D	0.0208	U	10.0	mg/L	0.0206	<10.0	101	70-130		
Silvex (2,4,5-TP)	0.0193	U	1.00	mg/L	0.0200	<1.00	96	70-130		
Surrogate: DCAA-surr	S		0.134	mg/L	0.100		134	70-130		

Matrix Spike Dup (BHA4742-MSD1)

Source: 24A4695-01

Prepared: 1/29/2024 Analyzed: 2/1/2024

2,4-D	0.0204	U	10.0	mg/L	0.0206	<10.0	99	70-130	2	30
Silvex (2,4,5-TP)	0.0187	U	1.00	mg/L	0.0200	<1.00	94	70-130	3	30
Surrogate: DCAA-surr			0.119	mg/L	0.100		119	70-130		

Batch: BHA4847 - SW-7471 TCLP

Duplicate (BHA4847-DUP1)

Source: 24A4818-01

Prepared & Analyzed: 1/30/2024

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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BHA3911-BLK1 (BHA4847-LBK1)

Prepared & Analyzed: 1/30/2024

Mercury	<0.200	U	0.200	mg/L						
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P.O. Box 2718
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Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHA4847 - SW-7471 TCLP (Continued)

MDL Check (BHA4847-MRL1)

Prepared & Analyzed: 1/30/2024

Mercury	0.000198	U	0.200	mg/L	0.000200		99.0			
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Matrix Spike (BHA4847-MS1)

Source: 24A4818-01

Prepared & Analyzed: 1/30/2024

Mercury	0.00495	U	0.200	mg/L	0.00500	<0.200	99.0	80-120		
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Batch: BHA4851 - EPA 200.2 TCLP

Blank (BHA4851-BLK1)

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

LCS (BHA4851-BS1)

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	0.513	U	5.00	mg/L	0.500		103	80-120		
Barium	0.511	U	100	mg/L	0.500		102	80-120		
Cadmium	0.0504	U	1.00	mg/L	0.0500		101	80-120		
Chromium	0.254	U	5.00	mg/L	0.250		102	80-120		
Lead	0.256	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.509	U	1.00	mg/L	0.500		102	80-120		
Silver	0.0503	U	5.00	mg/L	0.0500		101	80-120		

Duplicate (BHA4851-DUP1)

Source: 24A4818-01

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	<5.00	U	5.00	mg/L	<5.00					20
Barium	1.07	U	100	mg/L	0.947			12.2		20
Cadmium	<1.00	U	1.00	mg/L	<1.00					20
Chromium	<5.00	U	5.00	mg/L	<5.00					20
Lead	<5.00	U	5.00	mg/L	<5.00					20
Selenium	<1.00	U	1.00	mg/L	<1.00					20
Silver	<5.00	U	5.00	mg/L	<5.00					20

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TCEQ T104704238-23-39

H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHA4851 - EPA 200.2 TCLP (Continued)

BHA3911-LBK1 (BHA4851-LBK1)

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.693	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						

BHA3911-LBK1 (BHA4851-LBK2)

Prepared: 1/30/2024 Analyzed: 2/2/2024

Silver	<5.00	U	5.00	mg/L						
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Matrix Spike (BHA4851-MS1)

Source: 24A4818-01

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	0.425	U	5.00	mg/L	0.500	<5.00	84.9	75-125		
Barium	1.23	J1, U	100	mg/L	0.500	0.947	56.2	75-125		
Cadmium	0.0403	U	1.00	mg/L	0.0500	<1.00	80.6	75-125		
Chromium	0.197	U	5.00	mg/L	0.250	<5.00	78.7	75-125		
Lead	0.199	U	5.00	mg/L	0.250	<5.00	79.5	75-125		
Selenium	0.423	U	1.00	mg/L	0.500	<1.00	84.7	75-125		
Silver	0.0430	U	5.00	mg/L	0.0500	<5.00	85.9	75-125		

Post Spike (BHA4851-PS1)

Source: 24A4818-01

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	527			ug/L	500	11.5	103	80-120		
Barium	1500			ug/L	500	923	115	80-120		
Cadmium	51.1			ug/L	50.0	0.166	102	80-120		
Chromium	253			ug/L	250	2.87	100	80-120		
Lead	245			ug/L	250	1.21	97.5	80-120		
Selenium	517			ug/L	500	2.92	103	80-120		
Silver	51.8			ug/L	50.0	0.254	103	80-120		

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Reported:
02/26/2024 15:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHA4851 - EPA 200.2 TCLP (Continued)

Dilution Check (BHA4851-SRL1)

Source: 24A4818-01

Prepared: 1/30/2024 Analyzed: 2/1/2024

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.16	J1, U	100	mg/L		0.947			20.4	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

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Spring, TX 77383

Reported:
02/26/2024 15:41

Sample Condition Checklist

Work Order: 24A4208

Check Points

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



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
02/26/2024 15:41

Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
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TCEQ T104704238-23-39

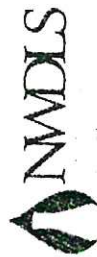


Page 1 of 2

24A4208

Lab PM : Deena Higginbotham		Project Name : Bilma - Non Potable - Sewage Sludge Annual		Schedule Comments:	
H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809		Project Comments: 5520 Winding Ridge Dr., 77379 Jonathon - 832-702-0551 Combo - 1982			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24A4208-01	Digester		1/18/2024 1320	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



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Page 2 of 2

24A4208

(Continued)

Lab PM : Deena Higginbotham	Project Name : Bilma - Non Potable - Sewage Sludge Annual	Schedule Comments:
H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809	Project Comments: 5520 Winding Ridge Dr., 77379 Jonathon - 832-702-0551 Combo - 1982	

Field Remarks:	Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>gy</i>	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Print Name Francisco Gutierrez	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Affiliation NWDL	Relinquished To Lab By: (Signature) <i>gy</i>	Received for Laboratory By: (Signature) <i>VNC</i>	Date/Time 1-18-24/1500	Date/Time 1-18-24/1500
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:

North West

wko_NWDLSCOC_LS Revision 4.1 Effective: 2/17/2022



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January 19, 2024

Laboratory Report

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Cinco Central

Report ID: 20240119153352AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ F/S ☐ & Solid



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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:33

Sample Results

Client Sample ID: Digester
Lab Sample ID: 23L2827-01

Sample Matrix: Solid
Date Collected: 12/12/2023 12:15
Collected by: Terry May

Cinco Central - Quarterly Sludge Analysis

161

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

SW-6010C	Arsenic	A	<2.10U	mg/kg dry	1	0.462	2.10	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Cadmium	A	0.333	mg/kg dry	1	0.0546	0.210	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Chromium	A	6.41	mg/kg dry	1	0.789	1.05	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Copper	A	55.0	mg/kg dry	1	0.225	2.10	BGL2221	12/19/2023 13:20	FAA
SW-7471B	Mercury	A	0.262	mg/kg dry	1	0.0125	0.0251	BGL2808	12/20/2023 17:28	ISS
SW-6010C	Lead	A	4.25	mg/kg dry	1	0.536	1.05	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Molybdenum	A	3.15	mg/kg dry	1	1.05	1.05	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Nickel	A	5.01	mg/kg dry	1	0.284	1.05	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Potassium	A	1760	mg/kg dry	1	18.1	210	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Selenium	A	2.84	mg/kg dry	1	0.821	2.10	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Total Phosphorus	A	3730	mg/kg dry	1	8.84	210	BGL2221	12/19/2023 13:20	FAA
SW-6010C	Zinc	A	947	mg/kg dry	20	21.1	21.1	BGL2221	01/02/2024 15:52	FAA

General Chemistry

EPA 350.2	Ammonia as N	A	8090	mg/kg dry	1	631	1260	BGL2990	12/19/2023 09:42	GIW
SW-9056A	Nitrate as N	A	11200	mg/kg dry	25	79.0	198	BGL2117	12/13/2023 13:07	ORP
SM 2540 G	% Solids	A	1.58V	%	1	0.100	0.100	BGL2184	12/14/2023 11:15	JRU

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Brookshire, TX 77423

Reported:
01/19/2024 15:33

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 23L2827-01RE1
Cinco Central - Quarterly Sludge Analysis

161

Sample Matrix: Solid
Date Collected: 12/12/2023 12:15
Collected by: Terry May

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	64800	mg/kg dry	1	1520	1520	BGL3141	12/20/2023 12:17	GIW
-----------	--	---	-------	-----------	---	------	------	---------	------------------	-----

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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:33

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BGL2221 - SW-3050 for 6010

Blank (BGL2221-BLK1)

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	<1.99	U	1.99	mg/kg wet						
Cadmium	<0.199	U	0.199	mg/kg wet						
Chromium	<0.998	U	0.998	mg/kg wet						
Copper	<1.99	U	1.99	mg/kg wet						
Lead	<0.998	U	0.998	mg/kg wet						
Molybdenum	<0.998	U	0.998	mg/kg wet						
Nickel	<0.998	U	0.998	mg/kg wet						
Potassium	<199	U	199	mg/kg wet						
Selenium	<1.99	U	1.99	mg/kg wet						
Total Phosphorus	<199	U	199	mg/kg wet						
Zinc	<0.998	U	0.998	mg/kg wet						

LCS (BGL2221-BS1)

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	48.3		2.00	mg/kg wet	50.0		96.7	80-120		
Cadmium	4.89		0.200	mg/kg wet	5.00		97.8	80-120		
Chromium	23.3		1.00	mg/kg wet	25.0		93.4	80-120		
Copper	48.0		2.00	mg/kg wet	50.0		96.0	80-120		
Lead	24.6		1.00	mg/kg wet	25.0		98.5	80-120		
Molybdenum	23.8		1.00	mg/kg wet	25.0		95.4	80-120		
Nickel	23.9		1.00	mg/kg wet	25.0		95.5	80-120		
Potassium	4580		200	mg/kg wet	5000		91.7	80-120		
Selenium	48.3		2.00	mg/kg wet	50.0		96.5	80-120		
Total Phosphorus	4820		200	mg/kg wet	5000		96.3	80-120		
Zinc	24.3		1.00	mg/kg wet	25.0		97.1	80-120		

Matrix Spike (BGL2221-MS1)

Source: 23K4598-01

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	99.6		4.57	mg/kg dry	114	5.36	82.5	75-125		
Cadmium	10.4		0.457	mg/kg dry	11.4	0.320	88.0	75-125		
Chromium	116		11.4	mg/kg dry	57.1	62.0	94.0	75-125		
Copper	1900		228	mg/kg dry	2400	54.9	77.0	75-125		
Lead	59.7		2.29	mg/kg dry	57.1	9.18	88.4	75-125		
Molybdenum	45.5		2.29	mg/kg dry	57.1	2.36	75.5	75-125		
Nickel	56.9		2.29	mg/kg dry	57.1	11.6	79.3	75-125		
Potassium	14800		457	mg/kg dry	11400	4360	91.0	75-125		
Selenium	99.1		4.57	mg/kg dry	114	<4.57	86.7	75-125		
Total Phosphorus	22900		2280	mg/kg dry	22800	5300	77.0	75-125		
Zinc	3410		114	mg/kg dry	2340	1210	94.3	75-125		

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Reported:
01/19/2024 15:33

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BGL2221 - SW-3050 for 6010 (Continued)

Matrix Spike Dup (BGL2221-MSD1)

Source: 23K4598-01

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	103		4.57	mg/kg dry	114	5.36	85.0	75-125	2.86	20
Cadmium	10.5		0.457	mg/kg dry	11.4	0.320	88.9	75-125	1.00	20
Chromium	153	J1	11.5	mg/kg dry	57.2	62.0	160	75-125	27.9	20
Copper	1930		228	mg/kg dry	2400	54.9	78.0	75-125	1.24	20
Lead	62.5		2.29	mg/kg dry	57.2	9.18	93.3	75-125	4.65	20
Molybdenum	45.6		2.29	mg/kg dry	57.2	2.36	75.6	75-125	0.226	20
Nickel	61.8		2.29	mg/kg dry	57.2	11.6	87.7	75-125	8.18	20
Potassium	15700		457	mg/kg dry	11400	4360	98.8	75-125	5.92	20
Selenium	102		4.57	mg/kg dry	114	<4.57	89.4	75-125	3.10	20
Total Phosphorus	24000		2280	mg/kg dry	22900	5300	81.9	75-125	4.86	20
Zinc	3810		115	mg/kg dry	2340	1210	111	75-125	11.1	20

Post Spike (BGL2221-PS1)

Source: 23K4598-01

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	531			ug/L	500	22.2	102	80-120		
Cadmium	51.5			ug/L	50.0	1.32	100	80-120		
Chromium	627	J1		ug/L	250	256	148	80-120		
Copper	844	J1		ug/L	500	227	123	80-120		
Lead	298			ug/L	250	37.9	104	80-120		
Molybdenum	257			ug/L	250	9.77	98.9	80-120		
Nickel	313			ug/L	250	48.0	106	80-120		
Potassium	78900	J1		ug/L	50000	18000	122	80-120		
Selenium	521			ug/L	500	-3.39	104	80-120		
Total Phosphorus	78600			ug/L	50000	21900	113	80-120		
Zinc	6160	J1		ug/L	250	4980	472	80-120		

Dilution Check (BGL2221-SRL1)

Source: 23K4598-01

Prepared: 12/13/2023 Analyzed: 12/19/2023

Arsenic	8.31	U	22.8	mg/kg dry		5.36		43.2	10
Cadmium	<2.28	U	2.28	mg/kg dry		<2.28		200	10
Chromium	94.1	J1	11.5	mg/kg dry		62.0		41.1	10
Copper	77.4	J1	22.8	mg/kg dry		54.9		34.0	10
Lead	14.0		11.5	mg/kg dry		-9.18		41.5	10
Molybdenum	<11.5	U	11.5	mg/kg dry		<11.5		200	10
Nickel	17.1		11.5	mg/kg dry		11.6		38.4	10
Potassium	6310	J1	2280	mg/kg dry		4360		36.7	10
Selenium	<22.8	U	22.8	mg/kg dry		<22.8			10
Total Phosphorus	7220	J1	2280	mg/kg dry		5300		30.7	10

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Brookshire, TX 77423

Reported:
01/19/2024 15:33

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGL2808 - SW-7471										
MDL Check (BGL2808-MRL1)										
Mercury	0.0143	U	0.0197	mg/kg wet	0.00987		144			
Prepared & Analyzed: 12/20/2023										
Matrix Spike (BGL2808-MS1)										
Mercury	0.682	J1	0.0518	mg/kg dry	0.648	0.183	77.1	80-120		
Source: 23K4610-01 Prepared & Analyzed: 12/20/2023										
Matrix Spike (BGL2808-MS2)										
Mercury	0.489	J1	0.0250	mg/kg dry	0.312	0.262	72.7	80-120		
Source: 23L2827-01 Prepared & Analyzed: 12/20/2023										
Matrix Spike Dup (BGL2808-MSD1)										
Mercury	0.682	J1	0.0522	mg/kg dry	0.652	0.183	76.4	80-120	0.0746	20
Source: 23K4610-01 Prepared & Analyzed: 12/20/2023										
Matrix Spike Dup (BGL2808-MSD2)										
Mercury	0.533		0.0252	mg/kg dry	0.315	0.262	85.8	80-120	8.45	20
Source: 23L2827-01 Prepared & Analyzed: 12/20/2023										

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



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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:33

Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGL2117 - Solid Anions No Prep										
Duplicate (BGL2117-DUP1)										
			Source: 23L2700-01		Prepared & Analyzed: 12/13/2023					
Nitrate as N	1570		222	mg/kg dry		1590			1.35	15
MRL Check (BGL2117-MRL1)										
					Prepared & Analyzed: 12/13/2023					
Nitrate as N	0.115	U	0.125	mg/kg wet	0.100		115	50-150		
Matrix Spike (BGL2117-MS1)										
			Source: 23L2700-01		Prepared & Analyzed: 12/13/2023					
Nitrate as N	1710	J1	247	mg/kg dry	158	1590	74.3	80-120		
Batch: BGL2184 - Percent Solids										
Blank (BGL2184-BLK1)										
			Prepared: 12/13/2023 Analyzed: 12/14/2023							
% Solids	<0.100	U	0.100	%						
Duplicate (BGL2184-DUP1)										
			Source: 23L2704-09		Prepared: 12/13/2023 Analyzed: 12/14/2023					
% Solids	1.70		0.100	%		1.69			0.691	20
Duplicate (BGL2184-DUP2)										
			Source: 23K4597-02		Prepared: 12/13/2023 Analyzed: 12/14/2023					
% Solids	0.719		0.100	%		0.727			1.06	20
Reference (BGL2184-SRM1)										
			Prepared: 12/13/2023 Analyzed: 12/14/2023							
% Solids	0.382		0.100	%	0.350		109	78.9-118		
Batch: BGL2989 - TKN T										
Blank (BGL2989-BLK1)										
			Prepared: 12/18/2023 Analyzed: 12/19/2023							
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						

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Brookshire, TX 77423

Reported:
01/19/2024 15:33

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGL2989 - TKN T (Continued)										
LCS (BGL2989-BS1)										
Total Kjeldahl Nitrogen - (TKN)	15.5		9.88	mg/kg wet	20.0		77.6	85-115		
Prepared: 12/18/2023 Analyzed: 12/19/2023										
Batch: BGL2990 - TKN T										
Blank (BGL2990-BLK1)										
Ammonia as N	<9.98	U	9.98	mg/kg wet						
Prepared: 12/18/2023 Analyzed: 12/19/2023										
LCS (BGL2990-BS1)										
Ammonia as N	93.8		9.97	mg/kg wet	99.7		94.1	85-115		
Prepared: 12/18/2023 Analyzed: 12/19/2023										
Duplicate (BGL2990-DUP1)										
Ammonia as N	2400	J1	2250	mg/kg dry		1760			30.5	20
Source: 23K4594-01 Prepared: 12/18/2023 Analyzed: 12/19/2023										
MRL Check (BGL2990-MRL1)										
Ammonia as N	8.93	U	9.97	mg/kg wet	9.97		89.6	50-150		
Prepared: 12/18/2023 Analyzed: 12/19/2023										
Matrix Spike (BGL2990-MS1)										
Ammonia as N	22800		2250	mg/kg dry	22500	1760	93.5	85-115		
Source: 23K4594-01 Prepared: 12/18/2023 Analyzed: 12/19/2023										
Batch: BGL3141 - TKN T										
Blank (BGL3141-BLK1)										
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
Prepared: 12/19/2023 Analyzed: 12/20/2023										
LCS (BGL3141-BS1)										
Total Kjeldahl Nitrogen - (TKN)	18.9		9.92	mg/kg wet	20.0		94.3	85-115		
Prepared: 12/19/2023 Analyzed: 12/20/2023										

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Reported:
01/19/2024 15:33

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGL3141 - TKN T (Continued)										
Duplicate (BGL3141-DUP1)										
			Source: 23K4598-01RE1		Prepared: 12/19/2023 Analyzed: 12/20/2023					
Total Kjeldahl Nitrogen - (TKN)	16800		3330	mg/kg dry		17000			0.976	20
Matrix Spike (BGL3141-MS1)										
			Source: 23K4598-01RE1		Prepared: 12/19/2023 Analyzed: 12/20/2023					
Total Kjeldahl Nitrogen - (TKN)	33100	J1	3360	mg/kg dry	13500	17000	120	85-115		



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Brookshire, TX 77423

Reported:
01/19/2024 15:33

Sample Condition Checklist

Work Order: 23L2827

Check Points

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



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32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:33

Term and Qualifier Definitions

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

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8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

March 22, 2024

LABORATORY REPORT

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20240322144849Sta..

RE: Cinco Central - Non Potable - Quarterly Class B

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

- ☐ Sludge Manager
- ☐ Master Spreadsheet
 - ☐ TCLP ☐ Metals
 - ☐ PCB ☒ F/S ☐ & Solid

Pass



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Central - Non Potable - Quarterly Class B
Project Number: 161
Project Manager: Patrick Bond

Reported:
03/22/2024 14:48

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24C2853-01

Sample Matrix: Solid
Date Collected: 03/12/2024 7:45
Collected by: Andrew Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	169000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	169000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	190000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	124000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	150000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	200000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
Colilert-18	Fecal coliforms	105000	MPN/g TS dry	BHC1914	03/13/2024 10:02	JVG
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.226	mg O ₂ /hr/g TS @ 20°C dry	BHC1907	03/12/2024 13:46	AKA
SM 2550 B	Temperature °C Field	21.6	°C	BHC2013	03/12/2024 07:45	ALR
SM 2540 G	% Solids	1.24	%	BHC1770	03/13/2024 09:58	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.

158,142
7 / 1,107,000



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Central - Non Potable - Quarterly Class B
Project Number: 161
Project Manager: Patrick Bond

Reported:
03/22/2024 14:48

Quality Control

General Chemistry

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1770 - Percent Solids									
Blank (BHC1770-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 3/12/2024 Analyzed: 3/13/2024									
Duplicate (BHC1770-DUP1)									
% Solids		0.100	%		0.882			0.799	20
Source: 24C2788-01 Prepared: 3/12/2024 Analyzed: 3/13/2024									
Duplicate (BHC1770-DUP2)									
% Solids		0.100	%		1.24			0.728	20
Source: 24C2853-01 Prepared: 3/12/2024 Analyzed: 3/13/2024									
Reference (BHC1770-SRM1)									
% Solids		0.100	%	0.350		107	78.9-118		



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Central - Non Potable - Quarterly Class B
Project Number: 161
Project Manager: Patrick Bond

Reported:
03/22/2024 14:48

Quality Control (Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	------------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHC1914 - FC Quantitray

Blank (BHC1914-BLK1)

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Prepared: 3/12/2024 Analyzed: 3/13/2024

Duplicate (BHC1914-DUP1)

Fecal coliforms

Source: 24C2853-01

804 MPN/g TS
dry

169000

Prepared: 3/12/2024 Analyzed: 3/13/2024

16.7

200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Central - Non Potable - Quarterly Class B
Project Number: 161
Project Manager: Patrick Bond

Reported:
03/22/2024 14:48

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24C2853

Lab PM : Deena Higginbotham		Project Name : Cinco Central - Non Potable - Quarterly Class B		Schedule Comments:	
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: 22615 Westheimer Pkwy ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Building Code & Sampler Combo: 5170 DO min: 6			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C2853-01	Digester		3/12/2024/0745	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H Glass 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C 4°C SOUR-2710 SOUR TS-2540 G 4°C TS-2540 G	Temp C Field 21.0°C

Field Remarks:		Lab Preservation: H2SO4 (Circle and Write ID Below)		HNO3		NaOH		Other:	
Sampler (Signature)		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Print Name Andrew Rodriguez		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Affiliation NWDLs		Relinquished To Lab By: (Signature)		Date/Time 3-12-24/1210		Received for Laboratory By: (Signature)		Date/Time 3-12-24/1210	
Custody Seal: Yes / No		COC Labels Agree Yes / No		Appropriate Volume: Yes / No		Received on Ice: Yes / No		Temperature: °C	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID: _____	

Katy South

wko_NWDLs_COC_LS Revision 4.1 Effective: 2/17/2022



130 S. Trade Center Parkway, Conroe TX 77385
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Email: lab@nwdls.com
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October 18, 2023

Laboratory Report

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20231018135451AEN

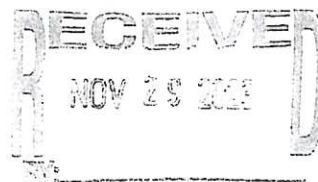
The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

Cinco Central



ENTERED NOV 29 2023

- ☐ Sludge Manager
- ☒ Master Spreadsheet
- ☒ TCLP
- ☒ PCB
- ☒ Metals
- ☐ F/S
- ☐ & Solid



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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
10/18/2023 13:54

Sample Results

Client Sample ID: Digester
Lab Sample ID: 23I2414-01
Cinco Central - Annual TCLP/PCB

161

Sample Matrix: Solid
Date Collected: 09/12/2023 10:35
Collected by: Andrew Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	PCBs, Total	A	<1.12 U	mg/kg (dry wt) dry	10	0.560	1.12	BGI3822	09/29/2023 01:23	ALA
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		82.6%	60-140					09/29/2023 01:23	
SW-8082	Surrogate: Decachlorobiphenyl-surr		109%	60-140					09/29/2023 01:23	

General Chemistry

SM 2540 G	% Solids	A	1.79 V	%	1	0.100	0.100	BGI1565	09/13/2023 10:50	JRU
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TCLP

SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.0200	5.00	BGI2600	09/19/2023 13:12	FAA
SW-6010C	Barium	A	<100 V2, U	mg/L	1	0.0100	100	BGI2600	09/19/2023 13:12	FAA
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.00100	1.00	BGI2600	09/19/2023 13:12	FAA
SW-6010C	Chromium	A	<5.00 U	mg/L	1	0.00500	5.00	BGI2600	09/19/2023 13:12	FAA
SW-8151	2,4-D	A	<10.0 U	mg/L	2	0.000476	10.0	BGI3553	09/28/2023 22:05	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00 U	mg/L	2	0.000476	1.00	BGI3553	09/28/2023 22:05	KRB
SW-8151	Surrogate: DCAA-surr		75%	70-130					09/28/2023 22:05	
SW-7471B	Mercury	A	<0.200 U	mg/L	1	0.000200	0.200	BGI2992	09/20/2023 15:24	AKR
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.0100	5.00	BGI2600	09/19/2023 13:12	FAA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		109%	60-140					09/25/2023 22:52	
SW-8081	Surrogate: Decachlorobiphenyl-surr		70.4%	60-140					09/25/2023 22:52	
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.0200	1.00	BGI2600	09/19/2023 13:12	FAA
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00200	5.00	BGI2600	09/19/2023 13:12	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400 U	mg/L	1	0.00250	400	BGI3552	09/28/2023 02:07	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00 U	mg/L	1	0.00250	2.00	BGI3552	09/28/2023 02:07	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U	mg/L	1	0.00250	0.130	BGI3552	09/28/2023 02:07	KRB
SW-8270	2-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGI3552	09/28/2023 02:07	KRB
SW-8270	3,4-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGI3552	09/28/2023 02:07	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U	mg/L	1	0.00250	0.130	BGI3552	09/28/2023 02:07	KRB
SW-8270	Hexachlorobutadiene	A	<0.500 U	mg/L	1	0.00250	0.500	BGI3552	09/28/2023 02:07	KRB
SW-8270	Hexachloroethane	A	<3.00 U	mg/L	1	0.00250	3.00	BGI3552	09/28/2023 02:07	KRB
SW-8270	Nitrobenzene	A	<2.00 U	mg/L	1	0.00250	2.00	BGI3552	09/28/2023 02:07	KRB
SW-8270	Pentachlorophenol	A	<100 U	mg/L	1	0.00250	100	BGI3552	09/28/2023 02:07	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		90.7%	54.6-148					09/28/2023 02:07	
SW-8270	Surrogate: 2-Fluorophenol-surr		65.1%	55-152					09/28/2023 02:07	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		125%	52.4-136					09/28/2023 02:07	
SW-8270	Surrogate: Nitrobenzene-d5-surr		99.4%	52-162					09/28/2023 02:07	
SW-8270	Surrogate: Phenol-d5-surr		84.0%	58.7-152					09/28/2023 02:07	
SW-8270	Surrogate: p-Terphenyl-d14-surr		86.7%	51.9-147					09/28/2023 02:07	

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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
10/18/2023 13:54

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 23I2414-01RE1
Cinco Central - Annual TCLP/PCB

161

Sample Matrix: Solid
Date Collected: 09/12/2023 10:35
Collected by: Andrew Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP

SW-8270	Pyridine (Rerun)	A	<5.00U	mg/L	1	0.00250	5.00	BGI3552	09/28/2023 13:37	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr (Rerun)	91.1%	54.6-148						09/28/2023 13:37	
SW-8270	Surrogate: 2-Fluorophenol-surr (Rerun)	90.5%	55-152						09/28/2023 13:37	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)	118%	52.4-136						09/28/2023 13:37	
SW-8270	Surrogate: Nitrobenzene-d5-surr (Rerun)	69.7%	52-162						09/28/2023 13:37	
SW-8270	Surrogate: Phenol-d5-surr (Rerun)	95.9%	58.7-152						09/28/2023 13:37	
SW-8270	Surrogate: p-Terphenyl-d14-surr (Rerun)	85.0%	51.9-147						09/28/2023 13:37	

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Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI3822 - SW-3570										
Blank (BGI3822-BLK1)										
Prepared: 9/21/2022 Analyzed: 9/28/2023										
Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00463	mg/kg (dry wt) wet	0.00600		77.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00574	mg/kg (dry wt) wet	0.00600		95.6	60-140		
LCS (BGI3822-BS1)										
Prepared: 9/21/2022 Analyzed: 9/28/2023										
Aroclor-1016 (PCB-1016)	0.0551		0.0200	mg/kg (dry wt) wet	0.0600		91.9	60-140		
Aroclor-1260 (PCB-1260)	0.0481		0.0200	mg/kg (dry wt) wet	0.0600		80.1	60-140		
PCBs, Total	0.0494		0.0200	mg/kg (dry wt) wet	0.0600		82.3	60-140		
Surrogate: 2,4,5,6			0.00496	mg/kg (dry wt) wet	0.00600		82.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00612	mg/kg (dry wt) wet	0.00600		102	60-140		
LCS Dup (BGI3822-BSD1)										
Prepared: 9/21/2022 Analyzed: 9/28/2023										
Aroclor-1016 (PCB-1016)	0.0538		0.0200	mg/kg (dry wt) wet	0.0600		89.6	60-140	2.49	40
Aroclor-1260 (PCB-1260)	0.0486		0.0200	mg/kg (dry wt) wet	0.0600		81.0	60-140	1.16	40
PCBs, Total	0.0496		0.0200	mg/kg (dry wt) wet	0.0600		82.7	60-140	0.395	40
Surrogate: 2,4,5,6			0.00453	mg/kg (dry wt) wet	0.00600		75.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00635	mg/kg (dry wt) wet	0.00600		106	60-140		
Matrix Spike (BGI3822-MS1)										
Source: 23I3053-01 Prepared: 9/21/2022 Analyzed: 9/28/2023										
Aroclor-1016 (PCB-1016)	1.90		0.759	mg/kg (dry wt) dry	2.28	<0.759	83.4	60-140		
Aroclor-1260 (PCB-1260)	1.79		0.759	mg/kg (dry wt) dry	2.28	<0.759	78.7	60-140		
PCBs, Total	1.81		0.759	mg/kg (dry wt) dry	2.28	<0.759	79.6	60-140		
Surrogate: 2,4,5,6			0.199	mg/kg (dry wt) dry	0.228		87.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.237	mg/kg (dry wt) dry	0.228		104	60-140		

Matrix Spike Dup (BGI3822-MSD1)

Source: 23I3053-01

Prepared: 9/21/2022 Analyzed: 9/29/2023

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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI3822 - SW-3570 (Continued)										
Matrix Spike Dup (BGI3822-MSD1)			Source: 23I3053-01			Prepared: 9/21/2022 Analyzed: 9/29/2023				
Aroclor-1016 (PCB-1016)	2.09		0.759	mg/kg (dry wt) dry	2.28	<0.759	92.0	60-140	9.79	40
Aroclor-1260 (PCB-1260)	1.87		0.759	mg/kg (dry wt) dry	2.28	<0.759	82.3	60-140	4.49	40
PCBs, Total	1.92		0.759	mg/kg (dry wt) dry	2.28	<0.759	84.1	60-140	5.59	40
Surrogate: 2,4,5,6			0.214	mg/kg (dry wt) dry	0.228		94.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.252	mg/kg (dry wt) dry	0.228		111	60-140		



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Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BGI1565 - Percent Solids									
Blank (BGI1565-BLK1)									
% Solids	<0.100	U	0.100	%					
Prepared: 9/12/2023 Analyzed: 9/13/2023									
Duplicate (BGI1565-DUP1)									
Source: 23I2417-01									
% Solids	1.75		0.100	%		1.74		0.960	20
Prepared: 9/12/2023 Analyzed: 9/13/2023									
Duplicate (BGI1565-DUP2)									
Source: 23I2553-04									
% Solids	1.79		0.100	%		1.84		2.75	20
Prepared: 9/12/2023 Analyzed: 9/13/2023									
Reference (BGI1565-SRM1)									
% Solids	0.350		0.100	%	0.350		99.9	78.9-118	
Prepared: 9/12/2023 Analyzed: 9/13/2023									



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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI2600 - EPA 200.2 TCLP

Blank (BGI2600-BLK1)

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

LCS (BGI2600-BS1)

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	0.503	U	5.00	mg/L	0.500		101	80-120		
Barium	0.504	U	100	mg/L	0.500		101	80-120		
Cadmium	0.0497	U	1.00	mg/L	0.0500		99.5	80-120		
Chromium	0.250	U	5.00	mg/L	0.250		99.9	80-120		
Lead	0.254	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.501	U	1.00	mg/L	0.500		100	80-120		
Silver	0.0497	U	5.00	mg/L	0.0500		99.5	80-120		

Duplicate (BGI2600-DUP1)

Source: 23I2735-01

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	<5.00	U	5.00	mg/L	<5.00					20
Barium	1.71	U	100	mg/L	1.65				3.49	20
Cadmium	<1.00	U	1.00	mg/L	<1.00					20
Chromium	<5.00	U	5.00	mg/L	<5.00					20
Lead	<5.00	U	5.00	mg/L	<5.00					20
Selenium	<1.00	U	1.00	mg/L	<1.00					20
Silver	<5.00	U	5.00	mg/L	<5.00					20

BGI2451-BLK1 (BGI2600-LBK1)

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.842	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI2600 - EPA 200.2 TCLP (Continued)

Matrix Spike (BGI2600-MS1)

Source: 23I2735-01

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	0.538	U	5.00	mg/L	0.500	<5.00	108	75-125		
Barium	2.20	U	100	mg/L	0.500	1.65	109	75-125		
Cadmium	0.0516	U	1.00	mg/L	0.0500	<1.00	103	75-125		
Chromium	0.245	U	5.00	mg/L	0.250	<5.00	98.2	75-125		
Lead	0.251	U	5.00	mg/L	0.250	<5.00	100	75-125		
Selenium	0.523	U	1.00	mg/L	0.500	<1.00	105	75-125		
Silver	0.0422	U	5.00	mg/L	0.0500	<5.00	84.5	75-125		

Post Spike (BGI2600-PS1)

Source: 23I2735-01

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	545			ug/L	500	10.2	107	80-120		
Barium	2190			ug/L	500	1610	116	80-120		
Cadmium	53.4			ug/L	50.0	0.156	106	80-120		
Chromium	252			ug/L	250	0.0975	101	80-120		
Lead	256			ug/L	250	3.44	101	80-120		
Selenium	526			ug/L	500	3.67	105	80-120		
Silver	52.7			ug/L	50.0	0.546	104	80-120		

Dilution Check (BGI2600-SRL1)

Source: 23I2735-01

Prepared: 9/18/2023 Analyzed: 9/19/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.65	U	100	mg/L		1.65			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

Batch: BGI2992 - SW-7471 TCLP

Duplicate (BGI2992-DUP1)

Source: 23I2735-01

Prepared & Analyzed: 9/20/2023

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI2992 - SW-7471 TCLP (Continued)										
BGI2451-LBK1 (BGI2992-LBK1)					Prepared & Analyzed: 9/20/2023					
Mercury	<0.200	U	0.200	mg/L						
MDL Check (BGI2992-MRL1)					Prepared & Analyzed: 9/20/2023					
Mercury	0.000202	U	0.200	mg/L	0.000200		101			
Matrix Spike (BGI2992-MS1)					Source: 2312735-01 Prepared & Analyzed: 9/20/2023					
Mercury	0.00519	U	0.200	mg/L	0.00500	<0.200	104	80-120		

Batch: BGI3552 - SW-3511

MB SV (BGI3552-BLK1)

Prepared: 9/22/2023 Analyzed: 9/27/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0100	mg/L	0.0100		100	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0265	mg/L	0.0200		133	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0294	mg/L	0.0200		147	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00722	mg/L	0.0100		72.2	52-162		
Surrogate: Phenol-d5-surr			0.0231	mg/L	0.0200		116	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00810	mg/L	0.0100		81.0	51.9-147		



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3552 - SW-3511 (Continued)

Blank (BGI3552-BLK2)

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	<200	U	200	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0113	mg/L	0.0100		113	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0200	mg/L	0.0200		100	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0118	mg/L	0.0200		59.0	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0124	mg/L	0.0100		124	52-162		
Surrogate: Phenol-d5-surr			0.0178	mg/L	0.0200		88.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00782	mg/L	0.0100		78.2	51.9-147		

BS SV (BGI3552-BS1)

Prepared: 9/22/2023 Analyzed: 9/27/2023

2,4,5-Trichlorophenol	0.0225	U	400	mg/L	0.0197		114	60-140		
2,4,6-Trichlorophenol	0.0213	U	2.00	mg/L	0.0197		108	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0122	U	0.130	mg/L	0.00986		123	60-140		
2-Methylphenol	0.0173	U	200	mg/L	0.0197		87.8	60-140		
3,4-Methylphenol	0.0326	U	200	mg/L	0.0394		82.7	60-140		
Hexachlorobenzene	0.0110	U	0.130	mg/L	0.00986		112	60-140		
Hexachlorobutadiene	0.00624	U	0.500	mg/L	0.00986		63.3	60-140		
Hexachloroethane	0.00626	U	3.00	mg/L	0.00986		63.5	60-140		
Nitrobenzene	0.00922	U	2.00	mg/L	0.00986		93.5	60-140		
Pentachlorophenol	0.0231	U	100	mg/L	0.0197		117	36.8-149		
Surrogate: 2-Fluorobiphenyl-surr			0.00937	mg/L	0.00986		95.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0185	mg/L	0.0197		93.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr		S	0.0272	mg/L	0.0197		138	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00752	mg/L	0.00986		76.2	52-162		
Surrogate: Phenol-d5-surr			0.0231	mg/L	0.0197		117	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.00986		110	51.9-147		

LCS (BGI3552-BS2)

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	0.0371	U	200	mg/L	0.0394		94.1	60-140		
Pyridine	0.0314	U	5.00	mg/L	0.0493		63.8	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00912	mg/L	0.00986		92.5	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0196	mg/L	0.0197		99.2	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0165	mg/L	0.0197		83.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00918	mg/L	0.00986		93.1	52-162		
Surrogate: Phenol-d5-surr			0.0200	mg/L	0.0197		101	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00764	mg/L	0.00986		77.5	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3552 - SW-3511 (Continued)

BSD SV (BGI3552-BS1)

Prepared: 9/22/2023 Analyzed: 9/27/2023

2,4,5-Trichlorophenol	0.0212	U	400	mg/L	0.0197		108	60-140	5.61	40
2,4,6-Trichlorophenol	0.0203	U	2.00	mg/L	0.0197		103	60-140	4.75	40
2,4-Dinitrotoluene (2,4-DNT)	0.00836	U	0.130	mg/L	0.00984		85.0	60-140	37.1	40
2-Methylphenol	0.0156	U	200	mg/L	0.0197		79.4	60-140	10.3	40
3,4-Methylphenol	0.0308	U	200	mg/L	0.0393		78.3	60-140	5.79	40
Hexachlorobenzene	0.0106	U	0.130	mg/L	0.00984		108	60-140	3.79	40
Hexachlorobutadiene	0.00795	U	0.500	mg/L	0.00984		80.9	60-140	24.2	40
Hexachloroethane	0.00811	U	3.00	mg/L	0.00984		82.5	60-140	25.8	40
Nitrobenzene	0.0119	U	2.00	mg/L	0.00984		121	60-140	25.7	40
Pentachlorophenol	0.0197	U	100	mg/L	0.0197		100	36.8-149	16.1	40

Surrogate: 2-Fluorobiphenyl-surr

0.00914 mg/L 0.00984 93.0 54.6-148

Surrogate: 2-Fluorophenol-surr

0.0171 mg/L 0.0197 86.8 55-152

Surrogate: 2,4,6-Tribromophenol-surr

0.0178 mg/L 0.0197 90.3 52.4-136

Surrogate: Nitrobenzene-d5-surr

0.0100 mg/L 0.00984 102 52-162

Surrogate: Phenol-d5-surr

0.0169 mg/L 0.0197 86.0 58.7-152

Surrogate: p-Terphenyl-d14-surr

0.0111 mg/L 0.00984 113 51.9-147

LCS Dup (BGI3552-BS2)

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	0.0346	U	200	mg/L	0.0393		88.0	60-140	6.96	40
Pyridine	0.0336	U	5.00	mg/L	0.0492		68.4	2.5-101	6.82	40

Surrogate: 2-Fluorobiphenyl-surr

0.00871 mg/L 0.00984 88.5 54.6-148

Surrogate: 2-Fluorophenol-surr

0.0187 mg/L 0.0197 95.2 55-152

Surrogate: 2,4,6-Tribromophenol-surr

0.0182 mg/L 0.0197 92.4 52.4-136

Surrogate: Nitrobenzene-d5-surr

0.00842 mg/L 0.00984 85.6 52-162

Surrogate: Phenol-d5-surr

0.0193 mg/L 0.0197 97.9 58.7-152

Surrogate: p-Terphenyl-d14-surr

0.00764 mg/L 0.00984 77.7 51.9-147

BGI2451-BLK1 (BGI3552-LBK1)

Prepared: 9/22/2023 Analyzed: 9/28/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00344	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						

Surrogate: 2-Fluorobiphenyl-surr

0.0483 mg/L 0.0400 121 54.6-148

Surrogate: 2-Fluorophenol-surr

0.0511 mg/L 0.0800 63.9 55-152

Surrogate: 2,4,6-Tribromophenol-surr

0.0960 mg/L 0.0800 120 52.4-136

Surrogate: Nitrobenzene-d5-surr

0.0417 mg/L 0.0400 104 52-162

Surrogate: Phenol-d5-surr

0.0672 mg/L 0.0800 84.0 58.7-152

Surrogate: p-Terphenyl-d14-surr

0.0222 mg/L 0.0400 55.4 51.9-147



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3552 - SW-3511 (Continued)

BGI3370-BLK1 (BGI3552-LBK2)

Prepared: 9/22/2023 Analyzed: 9/28/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	0.00259	U	200	mg/L						
3,4-Methylphenol	0.00399	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0444	mg/L	0.0400		111	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0593	mg/L	0.0800		74.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0981	mg/L	0.0800		123	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0433	mg/L	0.0400		108	52-162		
Surrogate: Phenol-d5-surr			0.0770	mg/L	0.0800		96.3	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0337	mg/L	0.0400		84.4	51.9-147		

BGI2451-BLK1 (BGI3552-LBK3)

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	<200	U	200	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0357	mg/L	0.0400		89.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0674	mg/L	0.0800		84.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0946	mg/L	0.0800		118	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0275	mg/L	0.0400		68.8	52-162		
Surrogate: Phenol-d5-surr			0.0749	mg/L	0.0800		93.7	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0299	mg/L	0.0400		74.8	51.9-147		

BGI3370-BLK1 (BGI3552-LBK4)

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	<200	U	200	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0342	mg/L	0.0400		85.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0678	mg/L	0.0800		84.7	55-152		
Surrogate: 2,4,6-Tribromophenol-surr		S	0.112	mg/L	0.0800		140	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0294	mg/L	0.0400		73.4	52-162		
Surrogate: Phenol-d5-surr			0.0737	mg/L	0.0800		92.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0292	mg/L	0.0400		73.0	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI3552 - SW-3511 (Continued)										
MDL SV (BGI3552-MRL1)			Prepared: 9/22/2023 Analyzed: 9/27/2023							
2,4,5-Trichlorophenol	0.00109	U	400	mg/L	0.000995		110			
2,4,6-Trichlorophenol	0.000832	U	2.00	mg/L	0.000995		83.6			
2,4-Dinitrotoluene (2,4-DNT)	0.000299	U	0.130	mg/L	0.000497		60.1			
2-Methylphenol	0.00146	U	200	mg/L	0.000995		146			
3,4-Methylphenol	0.00295	U	200	mg/L	0.00199		148			
Hexachlorobenzene	0.000550	U	0.130	mg/L	0.000497		110			
Hexachlorobutadiene	0.000306	U	0.500	mg/L	0.000497		61.5			
Hexachloroethane	0.000372	U	3.00	mg/L	0.000497		74.8			
Nitrobenzene	0.000511	U	2.00	mg/L	0.000497		103			
Pentachlorophenol	0.00124	U	100	mg/L	0.000995		125			
Surrogate: 2-Fluorobiphenyl-surr			0.00942	mg/L	0.00995		94.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0240	mg/L	0.0199		121	55-152		
Surrogate: 2,4,6-Tribromophenol-surr		S	0.0300	mg/L	0.0199		151	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00870	mg/L	0.00995		87.4	52-162		
Surrogate: Phenol-d5-surr			0.0207	mg/L	0.0199		104	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00947	mg/L	0.00995		95.2	51.9-147		

23I2735-01 MS (BGI3552-MS1)

Source: 23I2735-01

Prepared: 9/22/2023 Analyzed: 9/28/2023

2,4,5-Trichlorophenol	0.0932	U	400	mg/L	0.0800	<400	117	44.9-171
2,4,6-Trichlorophenol	0.0728	U	2.00	mg/L	0.0800	<2.00	91.1	34.7-143
2,4-Dinitrotoluene (2,4-DNT)	0.0487	U	0.130	mg/L	0.0400	<0.130	122	50.3-144
2-Methylphenol	0.0693	U	200	mg/L	0.0800	<200	86.6	17.3-182
3,4-Methylphenol	0.131	U	200	mg/L	0.160	0.00294	79.9	43.4-188
Hexachlorobenzene	0.0407	U	0.130	mg/L	0.0400	<0.130	102	56.1-137
Hexachlorobutadiene	0.0350	U	0.500	mg/L	0.0400	<0.500	87.5	33.1-110
Hexachloroethane	0.0335	U	3.00	mg/L	0.0400	<3.00	83.7	36.2-106
Nitrobenzene	0.0472	U	2.00	mg/L	0.0400	<2.00	118	54.9-156
Pentachlorophenol	0.0982	U	100	mg/L	0.0800	<100	123	42.2-151
Surrogate: 2-Fluorobiphenyl-surr			0.0378	mg/L	0.0400		94.4	54.6-148
Surrogate: 2-Fluorophenol-surr			0.0670	mg/L	0.0800		83.7	55-152
Surrogate: 2,4,6-Tribromophenol-surr			0.0881	mg/L	0.0800		110	52.4-136
Surrogate: Nitrobenzene-d5-surr			0.0378	mg/L	0.0400		94.5	52-162
Surrogate: Phenol-d5-surr			0.0758	mg/L	0.0800		94.8	58.7-152
Surrogate: p-Terphenyl-d14-surr			0.0420	mg/L	0.0400		105	51.9-147



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3552 - SW-3511 (Continued)

Matrix Spike (BGI3552-MS2)

Source: 23I2735-01RE1

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	0.133	U	200	mg/L	0.160	<200	82.9	43.4-188		
Pyridine	0.0912	U	5.00	mg/L	0.200	<5.00	45.6	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0332	mg/L	0.0400		83.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0733	mg/L	0.0800		91.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0875	mg/L	0.0800		109	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0292	mg/L	0.0400		73.1	52-162		
Surrogate: Phenol-d5-surr			0.0823	mg/L	0.0800		103	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0323	mg/L	0.0400		80.8	51.9-147		

23I2735-01 MSD (BGI3552-MSD1)

Source: 23I2735-01

Prepared: 9/22/2023 Analyzed: 9/28/2023

2,4,5-Trichlorophenol	0.0919	U	400	mg/L	0.0800	<400	115	44.9-171	1.43	40
2,4,6-Trichlorophenol	0.0755	U	2.00	mg/L	0.0800	<2.00	94.3	34.7-143	3.53	40
2,4-Dinitrotoluene (2,4-DNT)	0.0574	U	0.130	mg/L	0.0400	<0.130	144	50.3-144	16.5	40
2-Methylphenol	0.0763	U	200	mg/L	0.0800	<200	95.4	17.3-182	9.74	40
3,4-Methylphenol	0.143	U	200	mg/L	0.160	0.00294	87.4	43.4-188	8.74	40
Hexachlorobenzene	0.0410	U	0.130	mg/L	0.0400	<0.130	103	56.1-137	0.728	40
Hexachlorobutadiene	0.0378	U	0.500	mg/L	0.0400	<0.500	94.6	33.1-110	7.79	40
Hexachloroethane	0.0367	U	3.00	mg/L	0.0400	<3.00	91.7	36.2-106	9.10	40
Nitrobenzene	0.0488	U	2.00	mg/L	0.0400	<2.00	122	54.9-156	3.35	40
Pentachlorophenol	0.107	U	100	mg/L	0.0800	<100	134	42.2-151	8.62	40
Surrogate: 2-Fluorobiphenyl-surr			0.0416	mg/L	0.0400		104	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0519	mg/L	0.0800		64.9	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0978	mg/L	0.0800		122	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0410	mg/L	0.0400		103	52-162		
Surrogate: Phenol-d5-surr			0.0800	mg/L	0.0800		100	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0247	mg/L	0.0400		61.7	51.9-147		

Matrix Spike Dup (BGI3552-MSD2)

Source: 23I2735-01RE1

Prepared: 9/22/2023 Analyzed: 9/28/2023

3,4-Methylphenol	0.134	U	200	mg/L	0.160	<200	84.0	43.4-188	1.28	40
Pyridine	0.0812	U	5.00	mg/L	0.200	<5.00	40.6	2-87.4	11.6	40
Surrogate: 2-Fluorobiphenyl-surr			0.0331	mg/L	0.0400		82.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0717	mg/L	0.0800		89.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0870	mg/L	0.0800		109	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0298	mg/L	0.0400		74.5	52-162		
Surrogate: Phenol-d5-surr			0.0780	mg/L	0.0800		97.5	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		80.9	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI3553 - SW-3511										
Blank (BGI3553-BLK1)					Prepared: 9/22/2023 Analyzed: 9/28/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.0226	mg/L	0.0248	91	70-130		
LCS (BGI3553-BS1)										
					Prepared: 9/22/2023 Analyzed: 9/28/2023					
2,4-D	0.00419	U	10.0	mg/L	0.00513		82	70-130		
Silvex (2,4,5-TP)	0.00412	U	1.00	mg/L	0.00498		83	70-130		
Surrogate: DCAA-surr				0.0165	mg/L	0.0249	66	70-130		
LCS Dup (BGI3553-BSD1)										
					Prepared: 9/22/2023 Analyzed: 9/28/2023					
2,4-D	0.00413	U	10.0	mg/L	0.00512		81	70-130	1	30
Silvex (2,4,5-TP)	0.00398	U	1.00	mg/L	0.00497		80	70-130	4	30
Surrogate: DCAA-surr				0.0192	mg/L	0.0249	77	70-130		
BGI2451-BLK1 (BGI3553-LBK1)										
					Prepared: 9/22/2023 Analyzed: 9/29/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.0250	mg/L	0.0250	100	70-130		
BGI3370-BLK1 (BGI3553-LBK2)										
					Prepared: 9/22/2023 Analyzed: 9/29/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.0200	mg/L	0.0250	80	70-130		
Matrix Spike (BGI3553-MS1)										
			Source: 23I2414-01		Prepared: 9/22/2023 Analyzed: 9/28/2023					
2,4-D	0.0187	U	10.0	mg/L	0.0206	<10.0	91	70-130		
Silvex (2,4,5-TP)	0.0174	U	1.00	mg/L	0.0200	<1.00	87	70-130		
Surrogate: DCAA-surr				0.0799	mg/L	0.100	80	70-130		



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3553 - SW-3511 (Continued)

Matrix Spike Dup (BGI3553-MSD1)

Source: 23I2414-01

Prepared: 9/22/2023 Analyzed: 9/28/2023

2,4-D	0.0174	U	10.0	mg/L	0.0206	<10.0	84	70-130	7	30
Silvex (2,4,5-TP)	0.0157	U	1.00	mg/L	0.0200	<1.00	79	70-130	10	30
Surrogate: DCAA-surr			0.0747	mg/L	0.100		75	70-130		

Batch: BGI3609 - SW-3511

Blank (BGI3609-BLK1)

Prepared: 9/22/2023 Analyzed: 9/25/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000135	mg/L	0.000119		113	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000101	mg/L	0.000119		84.6	60-140		

BS TOX (BGI3609-BS1)

Prepared: 9/22/2023 Analyzed: 9/25/2023

Toxaphene (Chlorinated Camphene)	0.00148	U	0.500	mg/L	0.00119		125	60-140		
Surrogate: 2,4,5,6			0.000113	mg/L	0.000119		94.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.95E-5	mg/L	0.000119		83.9	60-140		

BS OCP (BGI3609-BS2)

Prepared: 9/22/2023 Analyzed: 9/25/2023

Chlordane (Total)	0.000481	U	0.0300	mg/L	0.000478		101	60-140		
Endrin	0.000124	U	0.0200	mg/L	0.000119		104	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000122	U	0.400	mg/L	0.000119		102	60-140		
Heptachlor	0.000117	U	0.00800	mg/L	0.000119		98.0	60-140		
Heptachlor epoxide	0.000121	U	0.00800	mg/L	0.000119		101	60-140		
Methoxychlor	0.000140	U	10.0	mg/L	0.000119		117	60-140		
Surrogate: 2,4,5,6			0.000144	mg/L	0.000119		121	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000122	mg/L	0.000119		102	60-140		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGI3609 - SW-3511 (Continued)										
BSD TOX (BGI3609-BS1)										
					Prepared: 9/22/2023 Analyzed: 9/25/2023					
Toxaphene (Chlorinated Camphene)	0.00148	U	0.500	mg/L	0.00120		124	60-140	0.0993	40
Surrogate: 2,4,5,6			0.000115	mg/L	0.000120		95.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		86.5	60-140		
BSD OCP (BGI3609-BS2)										
					Prepared: 9/22/2023 Analyzed: 9/25/2023					
Chlordane (Total)	0.000430	U	0.0300	mg/L	0.000475		90.6	60-140	11.2	40
Endrin	0.000114	U	0.0200	mg/L	0.000119		95.8	60-140	8.46	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.53E-5	U	0.400	mg/L	0.000119		71.9	60-140	35.6	40
Heptachlor	0.000104	U	0.00800	mg/L	0.000119		87.8	60-140	11.6	40
Heptachlor epoxide	8.95E-5	U	0.00800	mg/L	0.000119		75.4	60-140	29.6	40
Methoxychlor	0.000130	U	10.0	mg/L	0.000119		109	60-140	8.01	40
Surrogate: 2,4,5,6			0.000140	mg/L	0.000119		118	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000111	mg/L	0.000119		93.3	60-140		
BGI2451-BLK1 (BGI3609-LBK1)										
					Prepared: 9/22/2023 Analyzed: 9/26/2023					
Chlordane (Total)	3.78E-6	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.42E-5	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	1.28E-5	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000738	mg/L	0.000600		123	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000371	mg/L	0.000600		61.8	60-140		
BGI3370-BLK1 (BGI3609-LBK2)										
					Prepared: 9/22/2023 Analyzed: 9/26/2023					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.71E-5	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	6.66E-6	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000742	mg/L	0.000600		124	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000521	mg/L	0.000600		86.8	60-140		

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130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
10/18/2023 13:54

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGI3609 - SW-3511 (Continued)

MDL TOX (BGI3609-MRL1)

Prepared: 9/22/2023 Analyzed: 9/25/2023

Toxaphene (Chlorinated Camphene)	0.000518	U	0.500	mg/L	0.000296		175	50-150		
Surrogate: 2,4,5,6			0.000114	mg/L	0.000118		95.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000118		84.7	60-140		

MDL OCP (BGI3609-MRL2)

Prepared: 9/22/2023 Analyzed: 9/25/2023

Chlordane (Total)	4.97E-5	U	0.0300	mg/L	4.80E-5		104	50-150		
Endrin	9.59E-6	U	0.0200	mg/L	1.20E-5		80.0	50-150		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.13E-5	U	0.400	mg/L	1.20E-5		94.2	50-150		
Heptachlor	1.61E-5	U	0.00800	mg/L	1.20E-5		134	50-150		
Heptachlor epoxide	7.68E-6	U	0.00800	mg/L	1.20E-5		64.0	50-150		
Methoxychlor	1.35E-5	U	10.0	mg/L	1.20E-5		113	50-150		
Surrogate: 2,4,5,6			0.000138	mg/L	0.000120		115	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000107	mg/L	0.000120		89.5	60-140		

23I2438-01 MS (BGI3609-MS1)

Source: 23I2438-01

Prepared: 9/22/2023 Analyzed: 9/25/2023

Chlordane (Total)	0.00244	U	0.0300	mg/L	0.00240	5.28E-6	101	60-140		
Endrin	0.000659	U	0.0200	mg/L	0.000600	<0.0200	110	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000655	U	0.400	mg/L	0.000600	1.66E-5	106	60-140		
Heptachlor	0.000645	U	0.00800	mg/L	0.000600	<0.00800	108	60-140		
Heptachlor epoxide	0.000643	U	0.00800	mg/L	0.000600	<0.00800	107	60-140		
Methoxychlor	0.000808	U	10.0	mg/L	0.000600	2.42E-5	131	60-140		
Surrogate: 2,4,5,6			0.000755	mg/L	0.000600		126	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000649	mg/L	0.000600		108	60-140		

23I2438-01 MSD (BGI3609-MSD1)

Source: 23I2438-01

Prepared: 9/22/2023 Analyzed: 9/25/2023

Chlordane (Total)	0.00214	U	0.0300	mg/L	0.00240	5.28E-6	89.0	60-140	13.0	40
Endrin	0.000643	U	0.0200	mg/L	0.000600	<0.0200	107	60-140	2.52	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000455	U	0.400	mg/L	0.000600	1.66E-5	73.1	60-140	36.0	40
Heptachlor	0.000556	U	0.00800	mg/L	0.000600	<0.00800	92.7	60-140	14.9	40
Heptachlor epoxide	0.000485	U	0.00800	mg/L	0.000600	<0.00800	80.8	60-140	28.0	40
Methoxychlor	0.000689	U	10.0	mg/L	0.000600	2.42E-5	111	60-140	15.8	40
Surrogate: 2,4,5,6			0.000685	mg/L	0.000600		114	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000501	mg/L	0.000600		83.5	60-140		

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130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
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TCEQ TI04704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
10/18/2023 13:54

Sample Condition Checklist

Work Order: 2312414

Check Points

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



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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
10/18/2023 13:54

Term and Qualifier Definitions

Item	Definition
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

23I2414

Lab PM : Deena Higginbotham		Project Name : Cinco Central - Annual TCLP/PCB			Schedule Comments:		
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: 22615 Westheimer Pkwy ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Building Code & Sampler Combo: 5170 DO min: 6					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23I2414-01	Digester		9/12/2023 / 1035	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE 250mL C Glass Wide 1L w/ Teflon-lined Lid D Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>[Signature]</i>		Write ID Below			
Print Name <i>Andrew Rodriguez</i>		Date/Time	Received By: (Signature)	Date/Time	
Affiliation <i>NWDLs</i>		Date/Time	Received By: (Signature)	Date/Time	
		Date/Time	Received for Laboratory By: (Signature) <i>YMC</i>	Date/Time	9-12-23/1425
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Katy South

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022

Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23091308



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

Client Project Name :
23I2414

Report To : Client Name: NWDLS
Attn: Deena Higginbotham
Client Address: 130 S Trade Center Pkwy
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23I2414
Sample Collected By:
Date Collected: 09/12/23

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23I2414-01	Sludge	23091308.01

Released By: Senthilkumar Sevukan
Title: Vice President Operations
Date: 9/19/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 09/14/2023 08:10

LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23091308

Date: 9/19/2023

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



LABORATORY TEST RESULTS

Job ID : 23091308

Date 9/19/2023

Client Name: NWDLS

Project Name: 23I2414

Attn: Deena Higginbotham

Client Sample ID: 23I2414-01

Date Collected: 09/12/23

Time Collected: 10:35

Other Information:

Job Sample ID: 23091308.01

Sample Matrix Sludge

% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	09/18/23 17:48	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	09/18/23 17:48	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	09/18/23 17:48	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	09/18/23 17:48	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	09/18/23 17:48	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	09/18/23 17:48	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	09/18/23 17:48	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	09/18/23 17:48	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	09/18/23 17:48	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	09/18/23 17:48	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	09/18/23 17:48	ZQ
	1,2-Dichloroethane-d4(surr)	109	%	1.00		70-130			09/18/23 17:48	ZQ
	Dibromofluoromethane(surr)	107	%	1.00		70-130			09/18/23 17:48	ZQ
	p-Bromofluorobenzene(surr)	102	%	1.00		70-130			09/18/23 17:48	ZQ
	Toluene-d8(surr)	97.8	%	1.00		70-130			09/18/23 17:48	ZQ

ab-q212-0321

QUALITY CONTROL CERTIFICATE



Job ID : 23091308

Date : 9/19/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23091901

Created Date : 09/18/23

Created By : Zeeshan

Samples in This QC Batch : 23091308.01

Sample Preparation : PB23091901

Prep Method : SW-846 5030C

Prep Date : 09/18/23 10:00 Prep By : Zeeshan

TCLP Prep : PB23091701

Prep Method : SW-846 1311

Prep Date : 09/16/23 14:25 Prep By : Msoria

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	0.04	0.005	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	0.04	0.005	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	0.04	0.005	0.018	
Benzene	71-43-2	< MDL	mg/L	0.04	0.005	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	0.04	0.005	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	0.04	0.005	0.0173	
Chloroform	67-66-3	< MDL	mg/L	0.04	0.005	0.018	
MEK	78-93-3	< MDL	mg/L	0.04	0.005	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	0.04	0.005	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	0.04	0.005	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	0.04	0.005	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	109	%	0.04			
Dibromofluoromethane(surr)	1868-53-7	101	%	0.04			
p-Bromofluorobenzene(surr)	460-00-4	106	%	0.04			
Toluene-d8(surr)	2037-26-5	99.1	%	0.04			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	0.936	93.6	1	0.952	95.2	1.7	35	70-130	
1,2-Dichloroethane	1	0.956	95.6	1	1.00	100	4.5	35	70-130	
1,4-Dichlorobenzene	1	0.941	94.1	1	1.02	102	8.1	35	70-130	
Benzene	1	0.932	93.2	1	0.968	96.8	3.8	35	70-130	
Carbon tetrachloride	1	1.06	106	1	1.09	109	2.6	35	70-130	
Chlorobenzene	1	0.998	99.8	1	1.03	103	3.1	35	70-130	
Chloroform	1	0.999	99.9	1	0.995	99.5	0.4	35	70-130	
MEK	1	1.02	102	1	1.04	104	1.7	35	70-130	
Tetrachloroethylene	1	0.868	86.8	1	1.01	101	15.2	35	70-130	
Trichloroethylene	1	0.968	96.8	1	1.03	103	6.2	35	70-130	
Vinyl Chloride	1	0.890	89.1	1	0.923	92.3	3.6	35	70-130	

QC Type: MS and MSD

QC Sample ID: 23091137.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	0.933	93.3						70-130	

ab-q213-0321

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE



Job ID : 23091308

Date : 9/19/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23091901 Created Date : 09/18/23

Created By : Zeeshan

Samples in This QC Batch : 23091308.01

QC Type: MS and MSD

QC Sample ID: 23091137.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.995	99.5						70-130	
1,4-Dichlorobenzene	BRL	1	0.943	94.3						70-130	
Benzene	BRL	1	0.948	94.8						70-130	
Carbon tetrachloride	BRL	1	1.04	104						70-130	
Chlorobenzene	BRL	1	0.975	97.5						70-130	
Chloroform	BRL	1	0.994	99.4						70-130	
MEK	BRL	1	1.14	114						70-130	
Tetrachloroethylene	BRL	1	0.811	81.1						70-130	
Trichloroethylene	BRL	1	0.991	99.1						70-130	
Vinyl Chloride	BRL	1	0.897	89.7						70-130	



Job ID:23091308



08/14/2023

NWDLS

AMS

**SUBCONTRACT
ORDER****Sending Laboratory:**

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

A & B Labs
10100 East Freeway, Suite 100
Houston, TX 77029
Phone: (713) 453-6060
Fax: (713) 453-6091

Work Order: 23I2414

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23I2414-01 Solid Sampled: 09/12/2023 10:35

TCLP ZHE 09/26/2023 09/26/2023 10:35 Auto-Included

VOA-TCLP 09/26/2023 09/26/2023 10:35

Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr	01A
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr	
Benzene	Carbon tetrachloride	Chlorobenzene	
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)	
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)	

Containers Supplied:

Released By Sam Keadling 0810

Date 9-14-23

Received By Meg Clay

Date 9-14-23 08:10

3.4°C 1RS



Sample Condition Checklist

A&B JobID : 23091308		Date Received : 09/14/2023		Time Received : 8:10AM	
Client Name : NWDLS					
Temperature : 3.4°C		Sample pH : NA			
Thermometer ID : IR5		pH Paper ID : NA			
Perservative :					
Check Points					
		Yes	No	N/A	
1.	Cooler Seal present and signed.		X		
2.	Sample(s) in a cooler.	X			
3.	If yes, ice in cooler.	X			
4.	Sample(s) received with chain-of-custody.	X			
5.	C-O-C signed and dated.	X			
6.	Sample(s) received with signed sample custody seal.		X		
7.	Sample containers arrived intact. (If No comment)	X			
8.	Matrix: Water ☐ Soil ☐ Liquid ☐ Sludge ☐ Solid ☒ Cassette ☐ Tube ☐ Bulk ☐ Badge ☐ Food ☐ Other ☐				
9.	Samples were received in appropriate container(s)	X			
10.	Sample(s) were received with Proper preservative			X	
11.	All samples were tagged or labeled.	X			
12.	Sample ID labels match C-O-C ID's.	X			
13.	Bottle count on C-O-C matches bottles found.	X			
14.	Sample volume is sufficient for analyses requested.	X			
15.	Samples were received with in the hold time.	X			
16.	VOA vials completely filled.			X	
17.	Sample accepted.	X			
18.	Has client been contacted about sub-out			X	

Comments : Include actions taken to resolve discrepancies/problem:

COC shows solid, received sludge. ~JE 09/14/23

Brought by : Client

Received by : Jedralin

Check in by/date : Jedralin / 09/14/2023

ab-s005-0321



130 S. Trade Center Parkway, Conroe TX 77385
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Email: lab@nwdls.com
www. NWDLS.com

November 29, 2023

Laboratory Report

Ames SW

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20231129104150AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED JAN 11 2024

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☒ Metals
☒ PCB ☐ F/S ☐ & Solid



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TCEQ TI04704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/29/2023 10:41

Sample Results

Client Sample ID: Digester 1
Lab Sample ID: 23J2693-01
Cinco Southwest - Sewage Sludge Annual

162

Sample Matrix: Solid
Date Collected: 10/10/2023 7:55
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	Aroclor-1016 (PCB-1016)	A	<2550 C+, U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1221 (PCB-1221)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1232 (PCB-1232)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1242 (PCB-1242)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1248 (PCB-1248)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1254 (PCB-1254)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1260 (PCB-1260)	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1262 (PCB-1262)	N	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Aroclor-1268 (PCB-1268)	N	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	PCBs, Total	A	<2550 U	ug/kg dry	10	1270	2550	BGJ2074	10/16/2023 21:19	ALA
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	136%	60-140						10/16/2023 21:19	
SW-8082	Surrogate: Decachlorobiphenyl-surr	117%	60-140						10/16/2023 21:19	

Metals, Total

SW-6010C	Arsenic	A	8.15	mg/kg dry	1	0.929	4.23	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Cadmium	A	0.538	mg/kg dry	1	0.110	0.423	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Chromium	A	13.7	mg/kg dry	1	1.59	2.12	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Copper	A	376	mg/kg dry	10	4.52	42.3	BGJ1748	10/13/2023 16:55	FAA
SW-7471B	Mercury	A	0.727	mg/kg dry	1	0.0254	0.0508	BGJ4434	10/27/2023 15:48	AKR
SW-6010C	Lead	A	5.91	mg/kg dry	1	1.08	2.12	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Molybdenum	A	8.82	mg/kg dry	1	2.12	2.12	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Nickel	A	11.6	mg/kg dry	1	0.572	2.12	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Potassium	A	5400	mg/kg dry	1	36.3	423	BGJ1748	10/24/2023 11:21	FAA
SW-6010C	Selenium	A	7.10	mg/kg dry	1	1.65	4.23	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Total Phosphorus	A	15400	mg/kg dry	1	17.8	423	BGJ1748	10/13/2023 16:04	FAA
SW-6010C	Zinc	A	1010	mg/kg dry	10	21.2	21.2	BGJ1748	10/13/2023 16:55	FAA

General Chemistry

EPA 350.2	Ammonia as N	A	4110	mg/kg dry	1	1270	2530	BGJ1659	10/11/2023 12:09	GIW
SW-9056A	Nitrate as N	A	8400	mg/kg dry	25	159	398	BGJ1616	10/11/2023 11:20	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	49500	mg/kg dry	1	3090	3090	BGJ1727	10/12/2023 12:17	GIW
SM 2540 G	% Solids	A	0.786V	%	1	0.100	0.100	BGJ1563	10/12/2023 09:25	JRU

TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGJ3041	10/20/2023 14:19	FAA
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGJ3041	10/20/2023 14:22	FAA
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGJ3041	10/20/2023 14:19	FAA

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32259 Morton Road
Brookshire, TX 77423

Reported:
11/29/2023 10:41

Sample Results (Continued)

Client Sample ID: Digester 1 (Continued)
Lab Sample ID: 23J2693-01
Cinco Southwest - Sewage Sludge Annual

162

Sample Matrix: Solid
Date Collected: 10/10/2023 7:55
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCPL (Continued)

SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGJ3041	10/20/2023 14:19	FAA
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGJ2829	10/24/2023 02:35	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BGJ2829	10/24/2023 02:35	KRB
SW-8151	Surrogate: DCAA-surr		137% S	70-130					10/24/2023 02:35	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGK1044	11/07/2023 14:51	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGJ3041	10/20/2023 14:19	FAA
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGJ3693	10/28/2023 08:45	ALA
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500C+, U	mg/L	1	3.00E-6	0.500	BGJ3693	10/28/2023 08:45	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		75.4%	60-140					10/28/2023 08:45	
SW-8081	Surrogate: Decachlorobiphenyl-surr		86.1%	60-140					10/28/2023 08:45	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGJ3041	10/20/2023 14:19	FAA
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGJ3041	10/20/2023 14:19	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGJ3234	10/20/2023 04:29	krb
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 04:29	krb
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 04:29	krb
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 04:29	krb
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 04:29	krb
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 04:29	krb
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGJ3234	10/20/2023 04:29	krb
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGJ3234	10/20/2023 04:29	krb
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 04:29	krb
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGJ3234	10/20/2023 04:29	krb
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGJ3234	10/20/2023 04:29	krb
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		85.3%	54.6-148					10/20/2023 04:29	
SW-8270	Surrogate: 2-Fluorophenol-surr		103%	55-152					10/20/2023 04:29	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		104%	52.4-136					10/20/2023 04:29	
SW-8270	Surrogate: Nitrobenzene-d5-surr		123%	52-162					10/20/2023 04:29	
SW-8270	Surrogate: Phenol-d5-surr		103%	58.7-152					10/20/2023 04:29	
SW-8270	Surrogate: p-Terphenyl-d14-surr		81.9%	51.9-147					10/20/2023 04:29	

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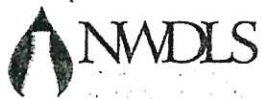
Reported:
11/29/2023 10:41

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ2074 - SW-3570										
Blank (BGJ2074-BLK1)										
Prepared: 10/12/2023 Analyzed: 10/16/2023										
Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1221 (PCB-1221)	<20.0	U	20.0	ug/kg wet						
Aroclor-1232 (PCB-1232)	<20.0	U	20.0	ug/kg wet						
Aroclor-1242 (PCB-1242)	<20.0	U	20.0	ug/kg wet						
Aroclor-1248 (PCB-1248)	<20.0	U	20.0	ug/kg wet						
Aroclor-1254 (PCB-1254)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
Aroclor-1262 (PCB-1262)	<20.0	U	20.0	ug/kg wet						
Aroclor-1268 (PCB-1268)	<20.0	U	20.0	ug/kg wet						
PCBs, Total	<20.0	U	20.0	ug/kg wet						
Surrogate: 2,4,5,6			6.84	ug/kg wet	6.00		114	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.83	ug/kg wet	6.00		97.2	60-140		
LCS (BGJ2074-BS1)										
Prepared: 10/12/2023 Analyzed: 10/16/2023										
Aroclor-1016 (PCB-1016)	66.0		20.0	ug/kg wet	60.0		110	60-140		
Aroclor-1260 (PCB-1260)	66.7		20.0	ug/kg wet	60.0		111	60-140		
PCBs, Total	66.6		20.0	ug/kg wet	60.0		111	60-140		
Surrogate: 2,4,5,6			7.18	ug/kg wet	6.00		120	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			6.56	ug/kg wet	6.00		109	60-140		
LCS Dup (BGJ2074-BSD1)										
Prepared: 10/12/2023 Analyzed: 10/16/2023										
Aroclor-1016 (PCB-1016)	69.8		20.0	ug/kg wet	60.0		116	60-140	5.59	40
Aroclor-1260 (PCB-1260)	73.8		20.0	ug/kg wet	60.0		123	60-140	10.1	40
PCBs, Total	72.9		20.0	ug/kg wet	60.0		121	60-140	9.05	40
Surrogate: 2,4,5,6			7.68	ug/kg wet	6.00		128	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			7.51	ug/kg wet	6.00		125	60-140		
Matrix Spike (BGJ2074-MS1)										
Source: 23J2352-01 Prepared: 10/12/2023 Analyzed: 10/16/2023										
Aroclor-1016 (PCB-1016)	5160		1380	ug/kg dry	4150	<1380	124	60-140		
Aroclor-1260 (PCB-1260)	4370		1380	ug/kg dry	4150	<1380	105	60-140		
PCBs, Total	4560		1380	ug/kg dry	4150	<1380	110	60-140		
Surrogate: 2,4,5,6	S		604	ug/kg dry	415		146	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			492	ug/kg dry	415		118	60-140		

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11/29/2023 10:41

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ2074 - SW-3570 (Continued)

Matrix Spike Dup (BGJ2074-MSD1)

Source: 23J2352-01

Prepared: 10/12/2023 Analyzed: 10/16/2023

Aroclor-1016 (PCB-1016)	4890		1380	ug/kg dry	4150	<1380	118	60-140	5.24	40
Aroclor-1260 (PCB-1260)	4310		1380	ug/kg dry	4150	<1380	104	60-140	1.48	40
PCBs, Total	4450		1380	ug/kg dry	4150	<1380	107	60-140	2.48	40
Surrogate: 2,4,5,6			576	ug/kg dry	415		139	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			487	ug/kg dry	415		117	60-140		

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Inframark
 32259 Morton Road
 Brookshire, TX 77423

Reported:
 11/29/2023 10:41

Quality Control
 (Continued)

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------

Batch: BGJ1748 - SW-3050 for 6010

Blank (BGJ1748-BLK1)

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	<0.0333	U	0.0333	mg/kg wet						
Cadmium	<0.00333	U	0.00333	mg/kg wet						
Chromium	<0.0167	U	0.0167	mg/kg wet						
Copper	<0.0333	U	0.0333	mg/kg wet						
Lead	<0.0167	U	0.0167	mg/kg wet						
Molybdenum	<0.0167	U	0.0167	mg/kg wet						
Nickel	<0.0167	U	0.0167	mg/kg wet						
Potassium	<3.33	U	3.33	mg/kg wet						
Selenium	<0.0333	U	0.0333	mg/kg wet						
Total Phosphorus	<3.33	U	3.33	mg/kg wet						
Zinc	<0.0167	U	0.0167	mg/kg wet						

LCS (BGJ1748-BS1)

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	0.793		0.0333	mg/kg wet	0.833		95.2	80-120		
Cadmium	0.0785		0.00333	mg/kg wet	0.0833		94.2	80-120		
Chromium	0.394		0.0167	mg/kg wet	0.417		94.4	80-120		
Copper	0.793		0.0333	mg/kg wet	0.833		95.1	80-120		
Lead	0.408		0.0167	mg/kg wet	0.417		97.9	80-120		
Molybdenum	0.392		0.0167	mg/kg wet	0.417		94.0	80-120		
Nickel	0.405		0.0167	mg/kg wet	0.417		97.1	80-120		
Potassium	83.9		3.33	mg/kg wet	83.3		101	80-120		
Selenium	0.789		0.0333	mg/kg wet	0.833		94.7	80-120		
Total Phosphorus	79.8		3.33	mg/kg wet	83.3		95.7	80-120		
Zinc	0.411		0.0167	mg/kg wet	0.417		98.7	80-120		

Matrix Spike (BGJ1748-MS1)

Source: 23J2352-01

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	63.6		2.30	mg/kg dry	57.6	9.76	93.5	75-125		
Cadmium	6.08		0.230	mg/kg dry	5.76	0.488	97.1	75-125		
Chromium	36.2		1.15	mg/kg dry	28.8	9.85	91.4	75-125		
Copper	1530		46.0	mg/kg dry	1210	407	93.0	75-125		
Lead	34.3		1.15	mg/kg dry	28.8	8.19	90.7	75-125		
Molybdenum	33.7		1.15	mg/kg dry	28.8	8.18	88.8	75-125		
Nickel	36.5		1.15	mg/kg dry	28.8	9.10	95.3	75-125		
Potassium	9290		230	mg/kg dry	5760	3120	107	75-125		
Selenium	65.6		2.30	mg/kg dry	57.6	8.98	98.3	75-125		
Total Phosphorus	12400	J1	4600	mg/kg dry	11500	12400	0.0415	75-125		
Zinc	1970		57.7	mg/kg dry	1180	737	105	75-125		

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Brookshire, TX 77423

Reported:
11/29/2023 10:41

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1748 - SW-3050 for 6010 (Continued)

Matrix Spike Dup (BGJ1748-MSD1)

Source: 23J2352-01

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	65.1		2.30	mg/kg dry	57.5	9.76	96.1	75-125	2.32	20
Cadmium	6.13		0.230	mg/kg dry	5.75	0.488	98.0	75-125	0.749	20
Chromium	36.8		1.15	mg/kg dry	28.8	9.85	93.6	75-125	1.69	20
Copper	1540		46.0	mg/kg dry	1210	407	93.6	75-125	0.395	20
Lead	35.1		1.15	mg/kg dry	28.8	8.19	93.4	75-125	2.12	20
Molybdenum	34.2		1.15	mg/kg dry	28.8	8.18	90.4	75-125	1.28	20
Nickel	36.6		1.15	mg/kg dry	28.8	9.10	95.7	75-125	0.259	20
Potassium	9640		230	mg/kg dry	5750	3120	113	75-125	3.64	20
Selenium	67.4		2.30	mg/kg dry	57.5	8.98	102	75-125	2.77	20
Total Phosphorus	23100	J1	4600	mg/kg dry	11500	12400	93.3	75-125	60.3	20
Zinc	1960		57.6	mg/kg dry	1180	737	104	75-125	0.603	20

Post Spike (BGJ1748-PS1)

Source: 23J2352-01

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	580			ug/L	500	80.3	99.9	80-120		
Cadmium	55.7			ug/L	50.0	4.02	103	80-120		
Chromium	328			ug/L	250	81.0	98.7	80-120		
Copper	3880			ug/L	500	3350	106	80-120		
Lead	312			ug/L	250	67.4	97.8	80-120		
Molybdenum	310			ug/L	250	67.3	97.2	80-120		
Nickel	329			ug/L	250	74.9	102	80-120		
Potassium	82500			ug/L	50000	25700	114	80-120		
Selenium	602			ug/L	500	73.8	106	80-120		
Total Phosphorus	148000			ug/L	50000	102000	91.2	80-120		
Zinc	6400	J1		ug/L	250	6060	136	80-120		

Dilution Check (BGJ1748-SRL1)

Source: 23J2352-01

Prepared: 10/11/2023 Analyzed: 10/13/2023

Arsenic	11.4	U	11.5	mg/kg dry		9.76			15.1	10
Cadmium	<1.15	U	1.15	mg/kg dry		0.488			200	10
Chromium	9.45		5.78	mg/kg dry		9.85			4.18	10
Copper	393		11.5	mg/kg dry		407			3.63	10
Lead	9.99		5.78	mg/kg dry		8.19			19.8	10
Molybdenum	8.33		5.78	mg/kg dry		8.18			1.90	10
Nickel	8.63		5.78	mg/kg dry		9.10			5.26	10
Potassium	3340		1150	mg/kg dry		3120			6.80	10
Selenium	7.15	U	11.5	mg/kg dry		8.98			22.7	10
Total Phosphorus	12500		1150	mg/kg dry		12400			0.379	10

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11/29/2023 10:41

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ4434 - SW-7471										
MDL Check (BGJ4434-MRL1)										
Mercury	0.00699	U	0.0195	mg/kg wet	0.00977		71.5			
Prepared & Analyzed: 10/27/2023										
Matrix Spike (BGJ4434-MS1)										
Mercury	0.677	J1	0.0508	mg/kg dry	0.635	0.727	NR	80-120		
Source: 23J2693-01 Prepared & Analyzed: 10/27/2023										
Matrix Spike (BGJ4434-MS2)										
Mercury	0.564	J1	0.0291	mg/kg dry	0.364	0.318	67.7	80-120		
Source: 23J2900-01 Prepared & Analyzed: 10/27/2023										
Matrix Spike Dup (BGJ4434-MSD1)										
Mercury	0.794	J1	0.0508	mg/kg dry	0.635	0.727	10.6	80-120	15.8	20
Source: 23J2693-01 Prepared & Analyzed: 10/27/2023										
Matrix Spike Dup (BGJ4434-MSD2)										
Mercury	0.517	J1	0.0291	mg/kg dry	0.364	0.318	54.6	80-120	8.83	20
Source: 23J2900-01 Prepared & Analyzed: 10/27/2023										

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11/29/2023 10:41

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1563 - Percent Solids

Blank (BGJ1563-BLK1)

Prepared: 10/11/2023 Analyzed: 10/12/2023

% Solids	<0.100	U	0.100	%						
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Duplicate (BGJ1563-DUP1)

Source: 23J0191-05

Prepared: 10/11/2023 Analyzed: 10/12/2023

% Solids	1.16		0.100	%		1.16			0.339	20
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Duplicate (BGJ1563-DUP2)

Source: 23J2628-02

Prepared: 10/11/2023 Analyzed: 10/12/2023

% Solids	1.82		0.100	%		1.82			0.240	20
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Reference (BGJ1563-SRM1)

Prepared: 10/11/2023 Analyzed: 10/12/2023

% Solids	0.372		0.100	%	0.350		106	78.9-118		
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Batch: BGJ1616 - Solid Anions No Prep

Duplicate (BGJ1616-DUP1)

Source: 23J2693-01

Prepared & Analyzed: 10/11/2023

Nitrate as N	8380		398	mg/kg dry		8400			0.266	15
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MRL Check (BGJ1616-MRL1)

Prepared & Analyzed: 10/11/2023

Nitrate as N	0.117	U	0.125	mg/kg wet	0.100		117	50-150		
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Matrix Spike (BGJ1616-MS1)

Source: 23J2693-01

Prepared & Analyzed: 10/11/2023

Nitrate as N	8680		442	mg/kg dry	283	8400	99.9	80-120		
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Batch: BGJ1659 - TKN T

Blank (BGJ1659-BLK1)

Prepared & Analyzed: 10/11/2023

Ammonia as N	<9.98	U	9.98	mg/kg wet						
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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ1659 - TKN T (Continued)										
LCS (BGJ1659-BS1)										
Ammonia as N	96.3		9.97	mg/kg wet	99.7		96.6	85-115		
Prepared & Analyzed: 10/11/2023										
Duplicate (BGJ1659-DUP1)										
Ammonia as N	3160	J1	1380	mg/kg dry		2470			24.7	20
Source: 23J2352-01 Prepared & Analyzed: 10/11/2023										
MRL Check (BGJ1659-MRL1)										
Ammonia as N	9.50	U	9.98	mg/kg wet	9.98		95.2	50-150		
Prepared & Analyzed: 10/11/2023										
Matrix Spike (BGJ1659-MS1)										
Ammonia as N	16800		1370	mg/kg dry	13700	2470	104	85-115		
Source: 23J2352-01 Prepared & Analyzed: 10/11/2023										
Batch: BGJ1727 - TKN T										
Blank (BGJ1727-BLK1)										
Total Kjeldahl Nitrogen - (TKN)	<9.96	U	9.96	mg/kg wet						
Prepared: 10/11/2023 Analyzed: 10/12/2023										
LCS (BGJ1727-BS1)										
Total Kjeldahl Nitrogen - (TKN)	17.8		9.92	mg/kg wet	20.0		88.7	85-115		
Prepared: 10/11/2023 Analyzed: 10/12/2023										
Duplicate (BGJ1727-DUP1)										
Total Kjeldahl Nitrogen - (TKN)	50900		1700	mg/kg dry		61700			19.2	20
Source: 23J2352-01 Prepared: 10/11/2023 Analyzed: 10/12/2023										
Matrix Spike (BGJ1727-MS1)										
Total Kjeldahl Nitrogen - (TKN)	68000		1660	mg/kg dry	6650	61700	94.7	85-115		
Source: 23J2352-01 Prepared: 10/11/2023 Analyzed: 10/12/2023										

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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ2829 - SW-3511										
MB HERB (BGJ2829-BLK1)					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0251	mg/L	0.0249		101	70-130		
BS HERB (BGJ2829-BS1)					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00480	U	10.0	mg/L	0.00508		94	70-130		
Silvex (2,4,5-TP)	0.00474	U	1.00	mg/L	0.00493		96	70-130		
Surrogate: DCAA-surr			0.0216	mg/L	0.0247		88	70-130		
BSD HERB (BGJ2829-BSD1)					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00492	U	10.0	mg/L	0.00511		96	70-130	2	30
Silvex (2,4,5-TP)	0.00463	U	1.00	mg/L	0.00497		93	70-130	2	30
Surrogate: DCAA-surr			0.0222	mg/L	0.0248		90	70-130		
BGJ1444-BLK1 (BGJ2829-LBK1)					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.120	mg/L	0.100		120	70-130		
BGJ2741-BLK1 (BGJ2829-LBK2)					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.142	mg/L	0.100		142	70-130		
23J2360-01 MS (BGJ2829-MS1)					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.0216	U	10.0	mg/L	0.0206	<10.0	105	70-130		
Silvex (2,4,5-TP)	0.0212	U	1.00	mg/L	0.0200	<1.00	106	70-130		
Surrogate: DCAA-surr			0.0951	mg/L	0.100		95	70-130		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ2829 - SW-3511 (Continued)

23J2360-01 MSD (BGJ2829-MSD1)

Source: 23J2360-01

Prepared: 10/18/2023 Analyzed: 10/23/2023

2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	70-130	0.5	30
Silvex (2,4,5-TP)	0.0204	U	1.00	mg/L	0.0200	<1.00	102	70-130	4	30
Surrogate: DCAA-surr			0.0967	mg/L	0.100		97	70-130		

Batch: BGJ3041 - EPA 200.2 TCLP

Blank (BGJ3041-BLK1)

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

LCS (BGJ3041-BS1)

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.515	U	5.00	mg/L	0.500		103	80-120		
Barium	0.518	U	100	mg/L	0.500		104	80-120		
Cadmium	0.0517	U	1.00	mg/L	0.0500		103	80-120		
Chromium	0.257	U	5.00	mg/L	0.250		103	80-120		
Lead	0.260	U	5.00	mg/L	0.250		104	80-120		
Selenium	0.513	U	1.00	mg/L	0.500		103	80-120		
Silver	0.0509	U	5.00	mg/L	0.0500		102	80-120		

Duplicate (BGJ3041-DUP1)

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L	<5.00					20
Barium	1.05	U	100	mg/L	1.12				6.61	20
Cadmium	<1.00	U	1.00	mg/L	<1.00					20
Chromium	<5.00	U	5.00	mg/L	<5.00					20
Lead	<5.00	U	5.00	mg/L	<5.00					20
Selenium	<1.00	U	1.00	mg/L	<1.00					20
Silver	<5.00	U	5.00	mg/L	<5.00					20

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3041 - EPA 200.2 TCLP (Continued)

BGJ2741-BLK1 (BGJ3041-LBK1)

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.669	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

Matrix Spike (BGJ3041-MS1)

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.547	U	5.00	mg/L	0.500	<5.00	109	75-125		
Barium	1.64	U	100	mg/L	0.500	1.12	104	75-125		
Cadmium	0.0559	U	1.00	mg/L	0.0500	<1.00	112	75-125		
Chromium	0.261	U	5.00	mg/L	0.250	<5.00	104	75-125		
Lead	0.258	U	5.00	mg/L	0.250	<5.00	103	75-125		
Selenium	0.530	U	1.00	mg/L	0.500	<1.00	106	75-125		
Silver	0.0524	U	5.00	mg/L	0.0500	<5.00	105	75-125		

Post Spike (BGJ3041-PS1)

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	537			ug/L	500	7.81	106	80-120		
Barium	1550			ug/L	500	1090	92.4	80-120		
Cadmium	53.9			ug/L	50.0	0.673	106	80-120		
Chromium	257			ug/L	250	1.17	102	80-120		
Lead	257			ug/L	250	1.42	102	80-120		
Selenium	521			ug/L	500	2.93	104	80-120		
Silver	51.3			ug/L	50.0	0.448	102	80-120		

Dilution Check (BGJ3041-SRL1)

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.12	U	100	mg/L		1.12			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ3234 - SW-3511										
MB SV (BGJ3234-BLK1)				Prepared & Analyzed: 10/19/2023						
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00862	mg/L	0.00978		88.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0189	mg/L	0.0196		96.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0210	mg/L	0.0196		108	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00980	mg/L	0.00978		100	52-162		
Surrogate: Phenol-d5-surr			0.0160	mg/L	0.0196		81.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00913	mg/L	0.00978		93.3	51.9-147		
BS SV (BGJ3234-BS1)										
				Prepared & Analyzed: 10/19/2023						
2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0197		109	60-140		
2,4,6-Trichlorophenol	0.0200	U	2.00	mg/L	0.0197		102	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0117	U	0.130	mg/L	0.00984		119	60-140		
2-Methylphenol	0.0182	U	200	mg/L	0.0197		92.7	60-140		
3,4-Methylphenol	0.0340	U	200	mg/L	0.0394		86.4	60-140		
Hexachlorobenzene	0.00901	U	0.130	mg/L	0.00984		91.6	60-140		
Hexachlorobutadiene	0.00718	U	0.500	mg/L	0.00984		73.0	60-140		
Hexachloroethane	0.00791	U	3.00	mg/L	0.00984		80.4	60-140		
Nitrobenzene	0.0102	U	2.00	mg/L	0.00984		104	60-140		
Pentachlorophenol	0.0221	U	100	mg/L	0.0197		112	36.8-149		
Pyridine	0.0223	U	5.00	mg/L	0.0492		45.3	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00847	mg/L	0.00984		86.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0191	mg/L	0.0197		97.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0162	mg/L	0.0197		82.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00906	mg/L	0.00984		92.0	52-162		
Surrogate: Phenol-d5-surr			0.0177	mg/L	0.0197		90.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00750	mg/L	0.00984		76.2	51.9-147		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511 (Continued)

BSD SV (BGJ3234-BSD1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0223	U	400	mg/L	0.0199		112	60-140	3.71	40
2,4,6-Trichlorophenol	0.0228	U	2.00	mg/L	0.0199		115	60-140	13.2	40
2,4-Dinitrotoluene (2,4-DNT)	0.0116	U	0.130	mg/L	0.00993		117	60-140	0.518	40
2-Methylphenol	0.0194	U	200	mg/L	0.0199		97.7	60-140	6.12	40
3,4-Methylphenol	0.0378	L, U	200	mg/L	0.0397		95.3	60-140	10.7	40
Hexachlorobenzene	0.00985	U	0.130	mg/L	0.00993		99.2	60-140	8.89	40
Hexachlorobutadiene	0.00817	U	0.500	mg/L	0.00993		82.3	60-140	13.0	40
Hexachloroethane	0.00891	U	3.00	mg/L	0.00993		89.7	60-140	11.8	40
Nitrobenzene	0.0111	U	2.00	mg/L	0.00993		112	60-140	8.31	40
Pentachlorophenol	0.0226	U	100	mg/L	0.0199		114	36.8-149	2.11	40
Pyridine	0.0234	U	5.00	mg/L	0.0497		47.1	2.5-101	4.85	40
Surrogate: 2-Fluorobiphenyl-surr			0.00896	mg/L	0.00993		90.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0203	mg/L	0.0199		102	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0177	mg/L	0.0199		88.9	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00919	mg/L	0.00993		92.5	52-162		
Surrogate: Phenol-d5-surr			0.0198	mg/L	0.0199		99.7	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00842	mg/L	0.00993		84.8	51.9-147		

BGJ2741-BLK1 (BGJ3234-LBK2)

Prepared: 10/19/2023 Analyzed: 10/20/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0360	mg/L	0.0400		90.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0836	mg/L	0.0800		105	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0926	mg/L	0.0800		116	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0406	mg/L	0.0400		102	52-162		
Surrogate: Phenol-d5-surr			0.0803	mg/L	0.0800		100	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0277	mg/L	0.0400		69.3	51.9-147		

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32259 Morton Road
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Reported:
11/29/2023 10:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511 (Continued)

MDL SV (BGJ3234-MRL1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.00135	U	400	mg/L	0.000985		137			
2,4,6-Trichlorophenol	0.00159	U	2.00	mg/L	0.000985		161			
2,4-Dinitrotoluene (2,4-DNT)	0.000941	U	0.130	mg/L	0.000492		191			
2-Methylphenol	0.00122	U	200	mg/L	0.000985		124			
3,4-Methylphenol	0.00231	U	200	mg/L	0.00197		117			
Hexachlorobenzene	0.000383	U	0.130	mg/L	0.000492		77.8			
Hexachlorobutadiene	0.000555	U	0.500	mg/L	0.000492		113			
Hexachloroethane	0.000388	U	3.00	mg/L	0.000492		78.8			
Nitrobenzene	0.000747	U	2.00	mg/L	0.000492		152			
Pentachlorophenol	0.00104	U	100	mg/L	0.000985		105			
Pyridine	0.00328	U	5.00	mg/L	0.00246		133			
Surrogate: 2-Fluorobiphenyl-surr			0.00930	mg/L	0.00985		94.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0197		98.0	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0233	mg/L	0.0197		118	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0110	mg/L	0.00985		112	52-162		
Surrogate: Phenol-d5-surr			0.0176	mg/L	0.0197		89.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00968	mg/L	0.00985		98.2	51.9-147		

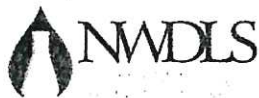
23J3307-02 MS (BGJ3234-MS1)

Source: 23J3307-02

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0201	U	400	mg/L	0.0199	<400	101	44.9-171		
2,4,6-Trichlorophenol	0.0204	U	2.00	mg/L	0.0199	<2.00	102	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0105	U	0.130	mg/L	0.00995	<0.130	106	50.3-144		
2-Methylphenol	0.0173	U	200	mg/L	0.0199	<200	86.8	17.3-182		
3,4-Methylphenol	0.0349	U	200	mg/L	0.0398	<200	87.6	43.4-188		
Hexachlorobenzene	0.00857	U	0.130	mg/L	0.00995	<0.130	86.1	56.1-137		
Hexachlorobutadiene	0.00723	U	0.500	mg/L	0.00995	<0.500	72.7	33.1-110		
Hexachloroethane	0.00752	U	3.00	mg/L	0.00995	<3.00	75.6	36.2-106		
Nitrobenzene	0.0109	U	2.00	mg/L	0.00995	<2.00	109	54.9-156		
Pentachlorophenol	0.0209	U	100	mg/L	0.0199	<100	105	42.2-151		
Pyridine	0.0346	U	5.00	mg/L	0.0497	<5.00	69.5	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.00775	mg/L	0.00995		77.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0188	mg/L	0.0199		94.5	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0155	mg/L	0.0199		77.8	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00839	mg/L	0.00995		84.4	52-162		
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0199		92.4	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00659	mg/L	0.00995		66.2	51.9-147		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511 (Continued)

23J3307-02 MSD (BGJ3234-MSD1)

Source: 23J3307-02

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0207	U	400	mg/L	0.0199	<400	104	44.9-171	2.80	40
2,4,6-Trichlorophenol	0.0215	U	2.00	mg/L	0.0199	<2.00	108	34.7-143	5.59	40
2,4-Dinitrotoluene (2,4-DNT)	0.0112	U	0.130	mg/L	0.00996	<0.130	112	50.3-144	5.75	40
2-Methylphenol	0.0178	U	200	mg/L	0.0199	<200	89.3	17.3-182	3.01	40
3,4-Methylphenol	0.0343	U	200	mg/L	0.0398	<200	86.0	43.4-188	1.75	40
Hexachlorobenzene	0.00865	U	0.130	mg/L	0.00996	<0.130	86.9	56.1-137	0.966	40
Hexachlorobutadiene	0.00765	U	0.500	mg/L	0.00996	<0.500	76.9	33.1-110	5.74	40
Hexachloroethane	0.00809	U	3.00	mg/L	0.00996	<3.00	81.2	36.2-106	7.39	40
Nitrobenzene	0.0110	U	2.00	mg/L	0.00996	<2.00	111	54.9-156	1.66	40
Pentachlorophenol	0.0215	U	100	mg/L	0.0199	<100	108	42.2-151	2.53	40
Pyridine	0.0332	U	5.00	mg/L	0.0498	<5.00	66.7	2-87.4	3.92	40

Surrogate: 2-Fluorobiphenyl-surr	0.00826	mg/L	0.00996	82.9	54.6-148
Surrogate: 2-Fluorophenol-surr	0.0183	mg/L	0.0199	92.1	55-152
Surrogate: 2,4,6-Tribromophenol-surr	0.0162	mg/L	0.0199	81.5	52.4-136
Surrogate: Nitrobenzene-d5-surr	0.00876	mg/L	0.00996	87.9	52-162
Surrogate: Phenol-d5-surr	0.0178	mg/L	0.0199	89.4	58.7-152
Surrogate: p-Terphenyl-d14-surr	0.00690	mg/L	0.00996	69.3	51.9-147

Batch: BGJ3693 - SW-3511

Blank (BGJ3693-BLK1)

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L
Endrin	<0.0200	U	0.0200	mg/L
gamma-BHC (Lindane,	<0.400	U	0.400	mg/L
gamma-HexachlorocyclohexanE)				
Heptachlor	<0.00800	U	0.00800	mg/L
Heptachlor epoxide	<0.00800	U	0.00800	mg/L
Methoxychlor	<10.0	U	10.0	mg/L
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L

Surrogate: 2,4,5,6	0.000102	mg/L	0.000120	85.2	60-140
Tetrachloro-m-xylene-surr					
Surrogate: Decachlorobiphenyl-surr	0.000100	mg/L	0.000120	83.7	60-140

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ3693 - SW-3511 (Continued)										
LCS TOX (BGJ3693-BS1)										
					Prepared: 10/23/2023 Analyzed: 10/28/2023					
Toxaphene (Chlorinated Camphene)	0.00114	U	0.500	mg/L	0.00120		94.7	60-140		
Surrogate: 2,4,5,6			9.30E-5	mg/L	0.000120		77.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		88.6	60-140		
LCS (BGJ3693-BS2)										
					Prepared: 10/23/2023 Analyzed: 10/28/2023					
Chlordane (Total)	0.000561	U	0.0300	mg/L	0.000480		117	60-140		
Endrin	0.000132	U	0.0200	mg/L	0.000120		110	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000136	U	0.400	mg/L	0.000120		113	60-140		
Heptachlor	0.000146	U	0.00800	mg/L	0.000120		121	60-140		
Heptachlor epoxide	0.000137	U	0.00800	mg/L	0.000120		114	60-140		
Methoxychlor	0.000109	U	10.0	mg/L	0.000120		90.7	60-140		
Surrogate: 2,4,5,6			9.70E-5	mg/L	0.000120		80.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.7	60-140		
LCSD TOX (BGJ3693-BSD1)										
					Prepared: 10/23/2023 Analyzed: 10/28/2023					
Toxaphene (Chlorinated Camphene)	0.00118	U	0.500	mg/L	0.00120		98.6	60-140	4.09	40
Surrogate: 2,4,5,6			8.65E-5	mg/L	0.000120		72.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.4	60-140		
LCS Dup (BGJ3693-BSD2)										
					Prepared: 10/23/2023 Analyzed: 10/28/2023					
Chlordane (Total)	0.000503	U	0.0300	mg/L	0.000480		105	60-140	11.0	40
Endrin	0.000114	U	0.0200	mg/L	0.000120		95.2	60-140	14.5	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000119	U	0.400	mg/L	0.000120		99.5	60-140	12.7	40
Heptachlor	0.000129	U	0.00800	mg/L	0.000120		107	60-140	12.3	40
Heptachlor epoxide	0.000122	U	0.00800	mg/L	0.000120		102	60-140	11.7	40
Methoxychlor	0.000113	U	10.0	mg/L	0.000120		94.3	60-140	3.92	40
Surrogate: 2,4,5,6			9.12E-5	mg/L	0.000120		76.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.5	60-140		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3693 - SW-3511 (Continued)

BGJ2741-BLK1 (BGJ3693-LBK1)

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	2.31E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			8.45E-5	mg/L	0.000120		70.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			7.75E-5	mg/L	0.000120		64.6	60-140		

MRL TOX (BGJ3693-MRL1)

Prepared: 10/23/2023 Analyzed: 10/28/2023

Toxaphene (Chlorinated Camphene)	0.000293	U	0.500	mg/L	0.000300		97.5			
Surrogate: 2,4,5,6			7.78E-5	mg/L	0.000120		64.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.79E-5	mg/L	0.000120		81.6	60-140		

MRL Check (BGJ3693-MRL2)

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	5.56E-5	U	0.0300	mg/L	4.80E-5		116			
Endrin	1.49E-5	U	0.0200	mg/L	1.20E-5		124			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.50E-5	U	0.400	mg/L	1.20E-5		125			
Heptachlor	1.71E-5	U	0.00800	mg/L	1.20E-5		143			
Heptachlor epoxide	1.36E-5	U	0.00800	mg/L	1.20E-5		114			
Methoxychlor	1.58E-5	U	10.0	mg/L	1.20E-5		131			
Surrogate: 2,4,5,6			9.14E-5	mg/L	0.000120		76.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.6	60-140		

Matrix Spike (BGJ3693-MS1)

Source: 23J2995-01

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	0.000462	U	0.0300	mg/L	0.000480	<0.0300	96.2	60-140		
Endrin	0.000115	U	0.0200	mg/L	0.000120	<0.0200	95.5	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000111	U	0.400	mg/L	0.000120	<0.400	92.5	60-140		
Heptachlor	0.000124	U	0.00800	mg/L	0.000120	<0.00800	103	60-140		
Heptachlor epoxide	0.000109	U	0.00800	mg/L	0.000120	<0.00800	91.0	60-140		
Methoxychlor	0.000121	U	10.0	mg/L	0.000120	<10.0	101	60-140		
Surrogate: 2,4,5,6			7.20E-5	mg/L	0.000120		60.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000115	mg/L	0.000120		95.5	60-140		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3693 - SW-3511 (Continued)

Matrix Spike Dup (BGJ3693-MSD1)

Source: 23J2995-01

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	0.000498	U	0.0300	mg/L	0.000480	<0.0300	104	60-140	7.46	40
Endrin	0.000122	U	0.0200	mg/L	0.000120	<0.0200	102	60-140	6.58	40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000119	U	0.400	mg/L	0.000120	<0.400	98.8	60-140	6.68	40
Heptachlor	0.000133	U	0.00800	mg/L	0.000120	<0.00800	111	60-140	7.50	40
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000120	<0.00800	98.2	60-140	7.61	40
Methoxychlor	0.000118	U	10.0	mg/L	0.000120	<10.0	98.8	60-140	2.07	40
Surrogate: 2,4,5,6	S		6.94E-5	mg/L	0.000120		57.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000109	mg/L	0.000120		91.2	60-140		

Batch: BGK1044 - SW-7471 TCLP

Duplicate (BGK1044-DUP1)

Source: 23J5785-02

Prepared & Analyzed: 11/7/2023

Mercury	<0.200	U	0.200	mg/L	<0.200					200
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Duplicate (BGK1044-DUP2)

Source: 23J2900-01

Prepared & Analyzed: 11/7/2023

Mercury	<0.200	U	0.200	mg/L	<0.200					200
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BGK0140-LBK1 (BGK1044-LBK1)

Prepared & Analyzed: 11/7/2023

Mercury	<0.200	U	0.200	mg/L						
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BGJ2741-LBK2 (BGK1044-LBK2)

Prepared & Analyzed: 11/7/2023

Mercury	<0.200	U	0.200	mg/L						
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MDL Check (BGK1044-MRL1)

Prepared & Analyzed: 11/7/2023

Mercury	0.000211	U	0.200	mg/L	0.000200		106			
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Matrix Spike (BGK1044-MS1)

Source: 23J5785-02

Prepared & Analyzed: 11/7/2023

Mercury	0.00490	U	0.200	mg/L	0.00500	<0.200	98.0	80-120		
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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGK1044 - SW-7471 TCLP (Continued)

Matrix Spike (BGK1044-MS2)

Source: 23J2900-01

Prepared & Analyzed: 11/7/2023

Mercury	0.00513	U	0.200	mg/L	0.00500	<0.200	103	80-120		
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Email: lab@nwdls.com
www. NWDLs.com
TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/29/2023 10:41

Sample Condition Checklist

Work Order: 23J2693

Check Points

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

Work Order: 23K3291

Check Points

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

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



Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/29/2023 10:41

Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

Page 1 of 2

23J2693

Lab PM : Deena Higginbotham		Project Name : Cinco Southwest - Sewage Sludge Annual		Schedule Comments:			
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Combo - 1408 Sampler Combo: 5170					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J2693-01	Digester 1		10/10/2023 07:55	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



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

TCEQ T104704238-23-39



Page 2 of 2

23J2693

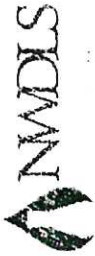
(Continued)

Lab PM : Deena Higginbotham	Project Name : Cinco Southwest - Sewage Sludge Annual	Schedule Comments:
Inframark Patrick Bond 32259 Morlon Road Brookshire, TX 77423 Phone: (281) 505-0452	Project Comments: ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Combo - 1408 Sampler Combo: 5170	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By: (Signature)	Date/Time			
Print Name	Relinquished By: (Signature)	Date/Time			
Affiliation	Relinquished to Lab By: (Signature)	Date/Time			
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Received for Laboratory By: (Signature)			
Container Intact: Yes / No	Appropriate Containers: Yes / No	Received on Ice: Yes / No			
		Samples Accepted: Yes / No			
		Thermometer ID:			
		Temperature: °C			

Katy South

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

23K3291

Lab PM : Deena Higginbotham	Project Name : Cinco Southwest - Non Potable - Sludge Recollect		Schedule Comments:	
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452	Project Comments: ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Combo - 1408 Sampler Combo: 5170			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23K3291-01	Digester 1		11/14/2023 / 10:00	S Grab	A Glass VOA 60mL	TCLP ZHE 4°C VOA-TCLP 4°C	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)		(Circle and Write ID Below)			
Print Name Andrew Rodriguez	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLSU	Relinquished To Lab By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Katy South

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022

Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23112424



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

Client Project Name :
23K3291

Report To : Client Name: NWDLS
Attn: Deena Higginbotham
Client Address: 130 S Trade Center Pkwy
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23K3291
Sample Collected By:
Date Collected: 11/14/23

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23K3291-01	Sludge	23112424.01

A handwritten signature in black ink, appearing to read 'S. C. W. K.'.

Released By: Senthilkumar Sevukan
Title: Vice President Operations
Date: 11/28/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 11/22/2023 08:11



LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 23112424

Date: 11/28/2023

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation. Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



LABORATORY TEST RESULTS

Job ID : 23112424

Date 11/28/2023

Client Name: NWDLS
Project Name: 23K3291

Attn: Deena Higginbotham

Client Sample ID: 23K3291-01
Date Collected: 11/14/23
Time Collected: 10:10
Other Information:Job Sample ID: 23112424.01
Sample Matrix: Sludge
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	11/27/23 14:02	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	11/27/23 14:02	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	11/27/23 14:02	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	11/27/23 14:02	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	11/27/23 14:02	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	11/27/23 14:02	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	11/27/23 14:02	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	11/27/23 14:02	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	11/27/23 14:02	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	11/27/23 14:02	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	11/27/23 14:02	ZQ
	1,2-Dichloroethane-d4(surr)	99.9	%	1.00		70-130			11/27/23 14:02	ZQ
	Dibromofluoromethane(surr)	115	%	1.00		70-130			11/27/23 14:02	ZQ
	p-Bromofluorobenzene(surr)	99.9	%	1.00		70-130			11/27/23 14:02	ZQ
	Toluene-d8(surr)	97.1	%	1.00		70-130			11/27/23 14:02	ZQ

ab-q212-0321

QUALITY CONTROL CERTIFICATE



Job ID : 23112424

Date : 11/28/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb231127110 Created Date : 11/27/23

Created By : Zeeshan

Samples in This QC Batch : 23112424.01

Sample Preparation : PB23112732

Prep Method : SW-846 5030C

Prep Date : 11/27/23 10:00 Prep By : Zeeshan

TCLP Prep : PB23112709

Prep Method : SW-846 1311

Prep Date : 11/26/23 15:15 Prep By : Msoria

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	100	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	104	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	95.4	%	1.00			
Toluene-d8(surr)	2037-26-5	96.2	%	1.00			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	0.976	97.6	1	0.990	99	1.4	35	70-130	
1,2-Dichloroethane	1	0.968	96.8	1	0.947	94.7	2.2	35	70-130	
1,4-Dichlorobenzene	1	0.925	92.5	1	0.938	93.8	1.4	35	70-130	
Benzene	1	0.960	96	1	0.947	94.7	1.4	35	70-130	
Carbon tetrachloride	1	1.01	101	1	1.01	101	0.3	35	70-130	
Chlorobenzene	1	0.989	98.9	1	0.977	97.7	1.2	35	70-130	
Chloroform	1	0.995	99.5	1	0.994	99.4	0.1	35	70-130	
MEK	1	1.04	104	1	0.985	98.5	5	35	70-130	
Tetrachloroethylene	1	0.973	97.3	1	0.939	93.9	3.5	35	70-130	
Trichloroethylene	1	0.981	98.1	1	0.978	97.8	0.3	35	70-130	
Vinyl Chloride	1	0.953	95.3	1	0.987	98.7	3.5	35	70-130	

QC Type: MS and MSD

QC Sample ID: 23112424.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.10	110						70-130	

ab-q213-0321

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE



Job ID : 23112424

Date : 11/28/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb231127110 Created Date : 11/27/23

Created By : Zeeshan

Samples in This QC Batch : 23112424.01

QC Type: MS and MSD

QC Sample ID: 23112424.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.999	99.9						70-130	
1,4-Dichlorobenzene	BRL	1	0.925	92.5						70-130	
Benzene	BRL	1	0.956	95.6						70-130	
Carbon tetrachloride	BRL	1	0.990	99						70-130	
Chlorobenzene	BRL	1	0.952	95.2						70-130	
Chloroform	BRL	1	1.10	110						70-130	
MEK	BRL	1	1.10	110						70-130	
Tetrachloroethylene	BRL	1	0.904	90.4						70-130	
Trichloroethylene	BRL	1	0.977	97.7						70-130	
Vinyl Chloride	BRL	1	1.08	108						70-130	

ab-q213-0321

Refer to the Definition page for terms.



* Job ID: 23112424



11/22/2023

NWDLS

AMS

SUBCONTRACT ORDER

Sending Laboratory:

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

A & B Labs
10100 East Freeway, Suite 100
Houston, TX 77029
Phone: (713) 453-6060
Fax: (713) 453-6091

Work Order: 23K3291

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23K3291-01 Solid Sampled: 11/14/2023 10:10

TCLP ZHE 11/28/2023 11/28/2023 10:10 Auto-Included

OIA

VOA-TCLP 11/28/2023 11/28/2023 10:10

Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Andrew Rodriguez
Released By

11-22-23 08:11
Date

Received By

11-22-23 08
Date

1.6°C
JMS
DM



Sample Condition Checklist

A&B JobID : 23112424		Date Received : 11/22/2023		Time Received : 8:11AM	
Client Name : NWDLS					
Temperature : 1.6°C		Sample pH : NA			
Thermometer ID : IR5		pH Paper ID : NA			
Perservative :		Lot# :			

	Check Points	Yes	No	N/A																						
1.	Cooler Seal present and signed.		X																							
2.	Sample(s) in a cooler.	X																								
3.	If yes, ice in cooler.	X																								
4.	Sample(s) received with chain-of-custody.	X																								
5.	C-O-C signed and dated.	X																								
6.	Sample(s) received with signed sample custody seal.		X																							
7.	Sample containers arrived intact. (If No comment)	X																								
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water</td><td>Soil</td><td>Liquid</td><td>Sludge</td><td>Solid</td><td>Cassette</td><td>Tube</td><td>Bulk</td><td>Badge</td><td>Food</td><td>Other</td> </tr> <tr> <td>☐</td><td>☐</td><td>☐</td><td>☒</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td><td>☐</td> </tr> </table>	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐			
Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other																
☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐																
9.	Samples were received in appropriate container(s)	X																								
10.	Sample(s) were received with Proper preservative			X																						
11.	All samples were tagged or labeled.	X																								
12.	Sample ID labels match C-O-C ID's.	X																								
13.	Bottle count on C-O-C matches bottles found.	X																								
14.	Sample volume is sufficient for analyses requested.	X																								
15.	Samples were received within the hold time.	X																								
16.	VOA vials completely filled.			X																						
17.	Sample accepted.	X																								
18.	Has client been contacted about sub-out			X																						

Comments : Include actions taken to resolve discrepancies/problem: COC shows solid, received sludge;received sample in 60ml vial. AM 11/22/23

Brought by : Client
 Received by : Amber

Check in by/date : Amber / 11/22/2023

ab-s005-0321



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

October 20, 2023

LABORATORY REPORT

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20231020155242DLH

RE: Cinco Southwest - Non Potable - Class B Annual

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

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

Sincerely,

Deena Higginbotham
Director of Client Services

ENTERED JAN 11 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid

Pass



8725 Fawn Trall The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Southwest - Non Potable - Class B Annual
Project Number: 162
Project Manager: Patrick Bond

Reported:
10/20/2023 15:52

Sample Results

Client Sample ID: Digester 1
Lab Sample ID: 23J2691-01

Sample Matrix: Solid
Date Collected: 10/10/2023 7:55
Collected by: Angel Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	39200	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	31400	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	31600	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	47400	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	27700	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	34500	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
Colilert-18	Fecal coliforms	25400	MPN/g TS dry	BGJ1514	10/11/2023 10:47	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	1.47	mg O ₂ /hr/g TS @ 20°C dry	BGJ1527	10/10/2023 16:18	TBB
SM 2550 B	Temperature °C Field	27.3	°C	BGJ1688	10/10/2023 07:55	AR
SM 2540 G	% Solids	0.768 V	%	BGJ1563	10/12/2023 09:25	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.

33885.71
237,200



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Southwest - Non Potable - Class B Annual
Project Number: 162
Project Manager: Patrick Bond

Reported:
10/20/2023 15:52

Quality Control

General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ1563 - Percent Solids									
Blank (BGJ1563-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 10/11/2023 Analyzed: 10/12/2023									
Duplicate (BGJ1563-DUP1)									
% Solids		0.100	%		1.16			0.339	20
Prepared: 10/11/2023 Analyzed: 10/12/2023									
Duplicate (BGJ1563-DUP2)									
% Solids		0.100	%		1.82			0.240	20
Prepared: 10/11/2023 Analyzed: 10/12/2023									
Reference (BGJ1563-SRM1)									
% Solids		0.100	%	0.350		106	78.9-118		



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Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Southwest - Non Potable - Class B Annual
Project Number: 162
Project Manager: Patrick Bond

Reported:
10/20/2023 15:52

Quality Control (Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	------------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BGJ1514 - FC Quantitray

Blank (BGJ1514-BLK1)

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Prepared: 10/10/2023 Analyzed: 10/11/2023

Duplicate (BGJ1514-DUP1)

Fecal coliforms

Source: 23J2691-01

1300 MPN/g TS
dry

Prepared: 10/10/2023 Analyzed: 10/11/2023

39200

36.1

200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Cinco Southwest - Non Potable - Class B Annual
Project Number: 162
Project Manager: Patrick Bond

Reported:
10/20/2023 15:52

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ T104704238-23-39



Page 1 of 1

23J2691

Lab PM : Deena Higginbotham		Project Name : Cinco Southwest - Non Potable - Class B Annual		Schedule Comments:	
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: ***IMPORTANT*** You must use the client's sample stick on-site to collect the effluent fecal samples! Combo - 1408 Sampler Combo: 5170			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J2691-01	Digester 1		10/10/2023 07:55	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H Glass 1L	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 27.3°C

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)		Write ID Below			
Print Name		Date/Time	Received By: (Signature)	Date/Time	
Affiliation		Date/Time	Received By: (Signature)	Date/Time	
Relinquished By: (Signature)		Date/Time	Received for Laboratory By: (Signature)	Date/Time	
Relinquished By: (Signature)		Date/Time	Received for Laboratory By: (Signature)	Date/Time	
Relinquished By: (Signature)		Date/Time	Received for Laboratory By: (Signature)	Date/Time	
COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Temperature: °C	
Container Intact: Yes / No		Coolers Intact: Yes / No		Thermometer ID:	

Katy South

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



March 26, 2024

Laboratory Report

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

Report ID: 20240326095145AEN

FBC 34 #1

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☐ TCLP
- ☐ PCB
- ☐ Metals
- ☐ F/S
- ☐ & Solid



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

Reported:
03/26/2024 09:51

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B3395-01

Sample Matrix: Solid
Date Collected: 02/14/2024 0:00
Collected by: andrew rodriguez

FBC MUD 34 Plant 1 - Sewage Sludge Annual

388

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total										
SW-6010C	Arsenic	A	6.30	mg/kg dry	1	0.562	2.56	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Cadmium	A	0.546	mg/kg dry	1	0.0665	0.256	BHB4193	03/21/2024 12:45	TBB
SW-6010C	Chromium	A	8.56	mg/kg dry	1	0.961	1.28	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Copper	A	254	mg/kg dry	10	2.74	25.6	BHB4193	03/11/2024 17:50	JKC
SW-7471B	Mercury	A	0.220	mg/kg dry	1	0.0156	0.0311	BHB4522	02/27/2024 15:51	ISS
SW-6010C	Lead	A	4.50	mg/kg dry	1	0.652	1.28	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Molybdenum	A	7.12	mg/kg dry	1	1.28	1.28	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Nickel	A	12.7	mg/kg dry	1	0.346	1.28	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Potassium	A	10000	mg/kg dry	1	22.0	256	BHB4193	03/11/2024 14:48	JKC
SW-6010C	Selenium	A	7.29	mg/kg dry	1	0.999	2.56	BHB4193	03/21/2024 12:45	TBB
SW-6010C	Total Phosphorus	A	23300	mg/kg dry	10	108	2560	BHB4193	03/11/2024 17:50	JKC
SW-6010C	Zinc	A	706	mg/kg dry	20	25.7	25.7	BHB4193	03/11/2024 17:53	JKC
General Chemistry										
EPA 350.2	Ammonia as N	A	3610	mg/kg dry	1	777	1550	BHB4461	02/27/2024 08:14	GIW
SW-9056A	Nitrate as N	A	<9.73H, U	mg/kg dry	1	3.89	9.73	BHB3786	02/22/2024 11:08	ORP
SM 2540 G	% Solids	A	1.29	%	1	0.100	0.100	BHB2735	02/16/2024 08:50	ENR

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



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TCEQ TX-C24-00086

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

Reported:
03/26/2024 09:51

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 24B3395-01RE1
FBC MUD 34 Plant 1 - Sewage Sludge Annual

388

Sample Matrix: Solid
Date Collected: 02/14/2024 0:00
Collected by: andrew rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	77400	mg/kg dry	1	1890	1890	BHB4644	02/29/2024 12:34	GIW
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TCEQ TX-C24-00086

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

Reported:
03/26/2024 09:51

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB4193 - SW-3050 for 6010

Blank (BHB4193-BLK1)

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	<1.99	U	1.99	mg/kg wet						
Chromium	<1.00	U	1.00	mg/kg wet						
Copper	<1.99	U	1.99	mg/kg wet						
Lead	<1.00	U	1.00	mg/kg wet						
Molybdenum	<1.00	U	1.00	mg/kg wet						
Nickel	<1.00	U	1.00	mg/kg wet						
Potassium	<199	U	199	mg/kg wet						
Total Phosphorus	<199	U	199	mg/kg wet						
Zinc	<1.00	U	1.00	mg/kg wet						

Blank (BHB4193-BLK2)

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	<0.199	U	0.199	mg/kg wet						
Selenium	<1.99	U	1.99	mg/kg wet						
Zinc	<1.00	U	1.00	mg/kg wet						

LCS (BHB4193-BS1)

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	45.5		1.82	mg/kg wet	45.5		99.9	80-120		
Chromium	23.4		0.913	mg/kg wet	22.8		103	80-120		
Copper	47.3		1.82	mg/kg wet	45.5		104	80-120		
Lead	23.2		0.913	mg/kg wet	22.8		102	80-120		
Molybdenum	23.0		0.913	mg/kg wet	22.8		101	80-120		
Nickel	23.3		0.913	mg/kg wet	22.8		102	80-120		
Potassium	4650		182	mg/kg wet	4550		102	80-120		
Total Phosphorus	4630		182	mg/kg wet	4550		102	80-120		
Zinc	23.0		0.913	mg/kg wet	22.8		101	80-120		

LCS (BHB4193-BS2)

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	5.04		0.182	mg/kg wet	4.55		111	80-120		
Selenium	50.1		1.82	mg/kg wet	45.5		110	80-120		
Zinc	25.8		0.913	mg/kg wet	22.8		113	80-120		

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

Reported:
03/26/2024 09:51

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHB4193 - SW-3050 for 6010 (Continued)

Matrix Spike (BHB4193-MS1)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	44.4		1.65	mg/kg dry	41.2	6.38	92.3	75-125		
Chromium	34.7		0.826	mg/kg dry	20.6	18.5	78.5	75-125		
Copper	977		32.9	mg/kg dry	865	263	82.5	75-125		
Lead	33.5		0.826	mg/kg dry	20.6	15.5	87.6	75-125		
Molybdenum	30.5		0.826	mg/kg dry	20.6	13.5	82.2	75-125		
Nickel	29.8		0.826	mg/kg dry	20.6	13.2	80.3	75-125		
Potassium	7250		165	mg/kg dry	4120	3250	97.1	75-125		
Total Phosphorus	18000		823	mg/kg dry	8240	11300	81.2	75-125		
Zinc	1460		41.3	mg/kg dry	845	745	84.9	75-125		

Matrix Spike (BHB4193-MS2)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	65.5		2.56	mg/kg dry	64.1	6.30	92.4	75-125		
Chromium	35.8		1.28	mg/kg dry	32.0	8.56	85.1	75-125		
Copper	1540		51.2	mg/kg dry	1350	254	95.6	75-125		
Lead	35.0		1.28	mg/kg dry	32.0	4.50	95.2	75-125		
Molybdenum	35.1		1.28	mg/kg dry	32.0	7.12	87.5	75-125		
Nickel	40.2		1.28	mg/kg dry	32.0	12.7	85.8	75-125		
Potassium	17000		1280	mg/kg dry	6410	10000	109	75-125		
Total Phosphorus	38600		1280	mg/kg dry	12800	23300	119	75-125		
Zinc	2120		64.2	mg/kg dry	1310	706	108	75-125		

Matrix Spike (BHB4193-MS3)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	5.02		0.165	mg/kg dry	4.12	0.903	99.8	75-125		
Selenium	54.5		1.65	mg/kg dry	41.2	12.1	103	75-125		

Matrix Spike (BHB4193-MS4)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	7.22		0.256	mg/kg dry	6.41	0.546	104	75-125		
Selenium	72.8		2.56	mg/kg dry	64.1	7.29	102	75-125		



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

Reported:
03/26/2024 09:51

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHB4193 - SW-3050 for 6010 (Continued)

Matrix Spike Dup (BHB4193-MSD1)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	45.7		1.65	mg/kg dry	41.2	6.38	95.6	75-125	2.89	20
Chromium	34.3		0.825	mg/kg dry	20.6	18.5	76.9	75-125	1.01	20
Copper	973		32.9	mg/kg dry	865	263	82.1	75-125	0.405	20
Lead	33.2		0.825	mg/kg dry	20.6	15.5	86.2	75-125	0.942	20
Molybdenum	30.7		0.825	mg/kg dry	20.6	13.5	83.4	75-125	0.805	20
Nickel	30.4		0.825	mg/kg dry	20.6	13.2	83.5	75-125	2.16	20
Potassium	7370		165	mg/kg dry	4120	3250	100	75-125	1.68	20
Total Phosphorus	18000		823	mg/kg dry	8240	11300	82.1	75-125	0.392	20
Zinc	1620		41.3	mg/kg dry	844	745	104	75-125	10.5	20

Matrix Spike Dup (BHB4193-MSD2)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	68.0		2.56	mg/kg dry	64.2	6.30	96.2	75-125	3.80	20
Chromium	37.8		1.29	mg/kg dry	32.1	8.56	91.1	75-125	5.34	20
Copper	1540		51.3	mg/kg dry	1350	254	95.7	75-125	0.221	20
Lead	34.9		1.29	mg/kg dry	32.1	4.50	94.8	75-125	0.271	20
Molybdenum	36.3		1.29	mg/kg dry	32.1	7.12	91.0	75-125	3.26	20
Nickel	41.6		1.29	mg/kg dry	32.1	12.7	89.9	75-125	3.31	20
Potassium	17000		1280	mg/kg dry	6420	10000	108	75-125	0.231	20
Total Phosphorus	38500		1280	mg/kg dry	12800	23300	118	75-125	0.341	20
Zinc	1960		64.3	mg/kg dry	1320	706	95.7	75-125	7.57	20

Matrix Spike Dup (BHB4193-MSD3)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	5.17		0.165	mg/kg dry	4.12	0.903	104	75-125	2.94	20
Selenium	54.9		1.65	mg/kg dry	41.2	12.1	104	75-125	0.683	20

Matrix Spike Dup (BHB4193-MSD4)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	7.45		0.256	mg/kg dry	6.42	0.546	108	75-125	3.02	20
Selenium	75.9		2.56	mg/kg dry	64.2	7.29	107	75-125	4.10	20

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TCEQ TX-C24-00086

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

Reported:
03/26/2024 09:51

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB4193 - SW-3050 for 6010 (Continued)

Post Spike (BHB4193-PS1)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	560			ug/L	500	73.6	97.2	80-120		
Chromium	461			ug/L	250	213	99.0	80-120		
Copper	3730	J1		ug/L	500	3030	139	80-120		
Lead	420			ug/L	250	179	96.6	80-120		
Molybdenum	390			ug/L	250	156	93.4	80-120		
Nickel	396			ug/L	250	153	97.2	80-120		
Potassium	87200			ug/L	50000	37400	99.4	80-120		
Total Phosphorus	184000			ug/L	50000	130000	109	80-120		
Zinc	9160	J1		ug/L	250	8590	225	80-120		

Post Spike (BHB4193-PS2)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	539			ug/L	500	46.5	98.5	80-120		
Chromium	315			ug/L	250	63.2	101	80-120		
Copper	2530	J1		ug/L	500	1870	132	80-120		
Lead	278			ug/L	250	33.2	97.9	80-120		
Molybdenum	307			ug/L	250	52.5	102	80-120		
Nickel	348			ug/L	250	93.9	102	80-120		
Potassium	74900	J1		ug/L	50000	74100	1.56	80-120		
Total Phosphorus	234000	J1		ug/L	50000	172000	124	80-120		
Zinc	5810	J1		ug/L	250	5210	240	80-120		

Post Spike (BHB4193-PS3)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	6.44	J1		ug/L	50.0	10.4	NR	80-120		
Selenium	57.9	J1		ug/L	500	139	NR	80-120		

Post Spike (BHB4193-PS4)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	6.22	J1		ug/L	50.0	4.03	4.39	80-120		
Selenium	55.8	J1		ug/L	500	53.8	0.409	80-120		



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

Reported:
03/26/2024 09:51

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB4193 - SW-3050 for 6010 (Continued)

Dilution Check (BHB4193-SRL1)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	7.38	U	8.18	mg/kg dry		6.38			14.5	10
Chromium	18.3		4.10	mg/kg dry		18.5			0.992	10
Copper	268		8.18	mg/kg dry		263			1.83	10
Lead	15.2		4.10	mg/kg dry		15.5			1.48	10
Molybdenum	13.7		4.10	mg/kg dry		13.5			0.833	10
Nickel	13.0		4.10	mg/kg dry		13.2			1.68	10
Potassium	3160		818	mg/kg dry		3250			2.70	10
Total Phosphorus	11200		818	mg/kg dry		11300			0.478	10

Dilution Check (BHB4193-SRL2)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/11/2024

Arsenic	8.13	U	12.8	mg/kg dry		6.30			25.3	10
Chromium	9.32		6.42	mg/kg dry		8.56			8.54	10
Copper	276		12.8	mg/kg dry		254			8.46	10
Lead	5.23	U	6.42	mg/kg dry		4.50			15.1	10
Molybdenum	7.63		6.42	mg/kg dry		7.12			6.85	10
Nickel	13.6		6.42	mg/kg dry		12.7			6.98	10
Potassium	10300		1280	mg/kg dry		10000			2.75	10
Total Phosphorus	24800		1280	mg/kg dry		23300			6.37	10

Dilution Check (BHB4193-SRL3)

Source: 24B3370-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	0.995		0.818	mg/kg dry		0.903			9.74	10
Selenium	11.2		8.18	mg/kg dry		12.1			7.76	10

Dilution Check (BHB4193-SRL4)

Source: 24B3395-01

Prepared: 2/23/2024 Analyzed: 3/21/2024

Cadmium	0.672	U	1.28	mg/kg dry		0.546			20.8	10
Selenium	8.64	U	12.8	mg/kg dry		7.29			16.9	10

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TCEQ TX-C24-00086

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

Reported:
03/26/2024 09:51

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB4522 - SW-7471										
MDL Check (BHB4522-MRL1)										
Mercury	0.00896	U	0.0198	mg/kg wet	0.00990		90.5			
Matrix Spike (BHB4522-MS1)										
			Source: 24B0941-44			Prepared & Analyzed: 2/27/2024				
Mercury	0.284		0.0200	mg/kg dry	0.250	0.0188	106	80-120		
Matrix Spike (BHB4522-MS2)										
			Source: 24B0941-56			Prepared & Analyzed: 2/27/2024				
Mercury	0.346		0.0198	mg/kg dry	0.248	0.0617	115	80-120		
Matrix Spike Dup (BHB4522-MSD1)										
			Source: 24B0941-44			Prepared & Analyzed: 2/27/2024				
Mercury	0.277		0.0200	mg/kg dry	0.250	0.0188	103	80-120	2.41	20
Matrix Spike Dup (BHB4522-MSD2)										
			Source: 24B0941-56			Prepared & Analyzed: 2/27/2024				
Mercury	0.379	J1	0.0199	mg/kg dry	0.248	0.0617	128	80-120	9.29	20

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Reported:
03/26/2024 09:51

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB2735 - Percent Solids										
Blank (BHB2735-BLK1)										
% Solids	<0.100	U	0.100	%		Prepared: 2/15/2024 Analyzed: 2/16/2024				
Duplicate (BHB2735-DUP1)										
% Solids	1.72		0.100	%		1.71			0.269	20
Duplicate (BHB2735-DUP2)										
% Solids	1.50		0.100	%		1.50			0.0842	20
Reference (BHB2735-SRM1)										
% Solids	0.351		0.100	%	0.350		100	78.9-118		
Batch: BHB3786 - Solid Anions No Prep										
Duplicate (BHB3786-DUP1)										
Nitrate as N	<9.73	U	9.73	mg/kg dry		<9.73				15
MRL Check (BHB3786-MRL1)										
Nitrate as N	0.115	U	0.125	mg/kg wet	0.100		115	50-150		
Matrix Spike (BHB3786-MS1)										
Nitrate as N	154		10.8	mg/kg dry	173	<10.8	89.3	80-120		
Batch: BHB4461 - TKN T										
Blank (BHB4461-BLK1)										
Ammonia as N	<9.98	U	9.98	mg/kg wet		Prepared: 2/26/2024 Analyzed: 2/27/2024				

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03/26/2024 09:51

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB4461 - TKN T (Continued)

LCS (BHB4461-BS1)

Prepared: 2/26/2024 Analyzed: 2/27/2024

Ammonia as N	94.8		9.99	mg/kg wet	99.9		94.9	85-115		
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Duplicate (BHB4461-DUP1)

Source: 24B2840-09

Prepared: 2/26/2024 Analyzed: 2/27/2024

Ammonia as N	<15.4	U	15.4	mg/kg dry		<15.4				20
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MRL Check (BHB4461-MRL1)

Prepared: 2/26/2024 Analyzed: 2/27/2024

Ammonia as N	9.21	U	9.97	mg/kg wet	9.97		92.4	50-150		
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Matrix Spike (BHB4461-MS1)

Source: 24B2840-09

Prepared: 2/26/2024 Analyzed: 2/27/2024

Ammonia as N	154		15.4	mg/kg dry	154	<15.4	100	85-115		
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Batch: BHB4462 - TKN T

Blank (BHB4462-BLK1)

Prepared: 2/26/2024 Analyzed: 2/27/2024

Total Kjeldahl Nitrogen - (TKN)	<9.96	U	9.96	mg/kg wet						
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LCS (BHB4462-BS1)

Prepared: 2/26/2024 Analyzed: 2/27/2024

Total Kjeldahl Nitrogen - (TKN)	<9.96	U	9.96	mg/kg wet	19.7			85-115		
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Batch: BHB4644 - TKN T

Blank (BHB4644-BLK1)

Prepared: 2/28/2024 Analyzed: 2/29/2024

Total Kjeldahl Nitrogen - (TKN)	<9.96	U	9.96	mg/kg wet						
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LCS (BHB4644-BS1)

Prepared: 2/28/2024 Analyzed: 2/29/2024

Total Kjeldahl Nitrogen - (TKN)	20.0		9.92	mg/kg wet	19.6		102	85-115		
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Reported:
03/26/2024 09:51

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB4644 - TKN T (Continued)

Duplicate (BHB4644-DUP1)

Source: 24B3370-01RE1

Prepared: 2/28/2024 Analyzed: 2/29/2024

Total Kjeldahl Nitrogen - (TKN)	61800	J1	1190	mg/kg dry		78900			24.2	20
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Matrix Spike (BHB4644-MS1)

Source: 24B3370-01RE1

Prepared: 2/28/2024 Analyzed: 2/29/2024

Total Kjeldahl Nitrogen - (TKN)	82400	J1	1190	mg/kg dry	4760	78900	72.8	85-115		
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Reported:
03/26/2024 09:51

Sample Condition Checklist

Work Order: 24B3395

Check Points

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



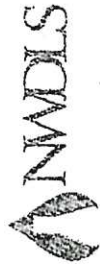
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Reported:
03/26/2024 09:51

Term and Qualifier Definitions

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

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



CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ T104704238-23-39



Page 1 of 1

24B33395

Lab PM : Deena Higginbotham		Project Name : FBC MUD 34 Plant 1 - Sewage Sludge Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 23760 Stratsborough Drive Katy 77494 Combo 8611 Javier Hernandez 281-638-5293 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL!					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B33395-01	Digester		2/14/2024/1055	S Grab	A HDPE IC 250mL B HDPE MET 250mL C HDPE WC 250mL D HDPE 250mL	Arsenic ICP 6010 4°C Cadmium ICP 6010 4°C Chromium ICP 6010 4°C Copper ICP 6010 4°C Hg-7471 4°C Lead ICP 6010 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:		
Sampler (Signature)		Received By: (Signature)		Date/Time
Print Name: Andrew Rodriguez		Received By: (Signature)		Date/Time
Affiliation: NWDLS		Received for Laboratory By: (Signature)		Date/Time
Custody Seal: Yes / No		Received on Ice: Yes / No		Temperature: °C
Container Intact: Yes / No		Coolers Intact: Yes / No		Thermometer ID:
Katy South				

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



April 01, 2024

Laboratory Report

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

Report ID: 20240401092640AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

- ☐ Sludge Manager
- ☐ Master Spreadsheet
 - ☐ TCLP ☐ Metals
 - ☐ PCB ☐ F/S ☐ & Solid



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TCEQ TX-C24-00086

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

Reported:
04/01/2024 09:26

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24C1896-01

Sample Matrix: Solid
Date Collected: 03/06/2024 8:20
Collected by: Eddie Blackshear

FBC MUD 34 Plant 1 - NP - Sewage Sludge - TCLP-PCB

388

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	PCBs, Total	A	<418U	ug/kg dry	10	11.9	418	BHC1276	03/13/2024 10:27	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	95.8%	60-140						03/13/2024 10:27	
SW-8082	Surrogate: Decachlorobiphenyl-surr	84.3%	60-140						03/13/2024 10:27	

General Chemistry

SM 2540 G	% Solids	A	1.42	%	1	0.100	0.100	BHC1222	03/08/2024 08:41	ENR
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TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.00367	5.00	BHC1773	03/15/2024 12:37	AKR
SW-6010C	Barium	A	<100V2, U	mg/L	1	0.00125	100	BHC1773	03/15/2024 12:37	AKR
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.000423	1.00	BHC1773	03/15/2024 12:37	AKR
SW-6010C	Chromium	A	<5.00B2, U	mg/L	1	0.00131	5.00	BHC1773	03/22/2024 11:53	AKR
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BHC2219	03/16/2024 16:54	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BHC2219	03/16/2024 16:54	KRB
SW-8151	Surrogate: DCAA-surr	101%	70-130						03/16/2024 16:54	
SW-7471B	Mercury	A	<0.200B2, U	mg/L	1	0.000200	0.200	BHC1765	03/12/2024 15:29	ISS
SW-6010C	Lead	A	<5.00U	mg/L	1	0.00341	5.00	BHC1773	03/15/2024 12:37	AKR
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BHC2446	03/19/2024 03:46	em
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BHC2446	03/19/2024 03:46	em
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BHC2446	03/19/2024 03:46	em
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 03:46	em
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 03:46	em
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BHC2446	03/19/2024 03:46	em
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BHC2446	03/19/2024 03:46	em
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	108%	60-140						03/19/2024 03:46	
SW-8081	Surrogate: Decachlorobiphenyl-surr	54.4% S	60-140						03/19/2024 03:46	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.00531	1.00	BHC1773	03/15/2024 12:37	AKR
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00142	5.00	BHC1773	03/28/2024 11:14	JKC
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BHC2126	03/19/2024 02:52	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 02:52	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 02:52	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHC2126	03/19/2024 02:52	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 02:52	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHC2126	03/19/2024 02:52	KRB

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Oak Ridge, TX 77385

Reported:
04/01/2024 09:26

Sample Results (Continued)

Client Sample ID: Digester (Continued)

Sample Matrix: Solid

Lab Sample ID: 24C1896-01

Date Collected: 03/06/2024 8:20

FBC MUD 34 Plant 1 - NP - Sewage Sludge - TCLP-PCB

388

Collected by: Eddie Blackshear

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP (Continued)

SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHC2126	03/19/2024 02:52	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 02:52	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHC2126	03/19/2024 02:52	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		101%	54.6-148					03/19/2024 02:52	
SW-8270	Surrogate: 2-Fluorophenol-surr		123%	55-152					03/19/2024 02:52	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		113%	52.4-136					03/19/2024 02:52	
SW-8270	Surrogate: Nitrobenzene-d5-surr		135%	52-162					03/19/2024 02:52	
SW-8270	Surrogate: Phenol-d5-surr		112%	58.7-152					03/19/2024 02:52	
SW-8270	Surrogate: p-Terphenyl-d14-surr		110%	51.9-147					03/19/2024 02:52	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHC2757	03/15/2024 20:23	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHC2757	03/15/2024 20:23	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	10	0.00641	7.50	BHC2757	03/15/2024 20:23	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHC2757	03/15/2024 20:23	EM
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHC2757	03/15/2024 20:23	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHC2757	03/15/2024 20:23	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHC2757	03/15/2024 20:23	EM
SW-8260	Chloroform	A	<6.00U	mg/L	10	0.00688	6.00	BHC2757	03/15/2024 20:23	EM
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	10	0.00703	0.700	BHC2757	03/15/2024 20:23	EM
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	10	0.00744	0.500	BHC2757	03/15/2024 20:23	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	10	0.0130	0.200	BHC2757	03/15/2024 20:23	EM
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		107%	70-130					03/15/2024 20:23	
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		102%	70-130					03/15/2024 20:23	
SW-8260	Surrogate: Toluene-d8-surr		99.0%	70-130					03/15/2024 20:23	
SW-8260	Surrogate: Dibromofluoromethane-surr		104%	70-130					03/15/2024 20:23	

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Oak Ridge, TX 77385

Reported:
04/01/2024 09:26

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 24C1896-01RE1

Sample Matrix: Solid
Date Collected: 03/06/2024 8:20
Collected by: Eddie Blackshear

FBC MUD 34 Plant 1 - NP - Sewage Sludge - TCLP-PCB

388

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP

SW-8270	3,4-Methylphenol (Rerun)	A	<200 U	mg/L	5	0.0125	200	BHC2126	03/20/2024 12:16	KRB
SW-8270	Surrogate: 2-Fluorophenol-surr (Rerun)	111%		55-152					03/20/2024 12:16	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)	131%		52.4-136					03/20/2024 12:16	
SW-8270	Surrogate: Phenol-d5-surr (Rerun)	113%		58.7-152					03/20/2024 12:16	

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/01/2024 09:26

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 24C1896-01RE2
FBC MUD 34 Plant 1 - NP - Sewage Sludge - TCLP-PCB 388
Sample Matrix: Solid
Date Collected: 03/06/2024 8:20
Collected by: Eddie Blackshear

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP

SW-8270	Pyridine (Rerun)	A	<5.00 U	mg/L	1	0.00250	5.00	BHC2126	03/23/2024 03:36	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr (Rerun)	106%	54.6-148						03/23/2024 03:36	
SW-8270	Surrogate: Nitrobenzene-d5-surr (Rerun)	116%	52-162						03/23/2024 03:36	
SW-8270	Surrogate: p-Terphenyl-d14-surr (Rerun)	82.0%	51.9-147						03/23/2024 03:36	

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Reported:
04/01/2024 09:26

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1276 - SW-3570										
MB PCB SLUDGE (BHC1276-BLK1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	<6.00	U	6.00	ug/kg wet						
Aroclor-1260 (PCB-1260)	<6.00	U	6.00	ug/kg wet						
PCBs, Total	<6.00	U	6.00	ug/kg wet						
Surrogate: 2,4,5,6			5.64	ug/kg wet	6.00		94.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.16	ug/kg wet	6.00		86.1	60-140		
BS PCB (BHC1276-BS1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	45.4		6.00	ug/kg wet	60.0		75.6	60-140		
Aroclor-1260 (PCB-1260)	49.7		6.00	ug/kg wet	60.0		82.8	60-140		
PCBs, Total	48.9		6.00	ug/kg wet	60.0		81.6	60-140		
Surrogate: 2,4,5,6			7.54	ug/kg wet	6.00		126	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			4.87	ug/kg wet	6.00		81.2	60-140		
BSD PCB (BHC1276-BS1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	43.8		6.00	ug/kg wet	60.0		73.0	60-140	3.57	40
Aroclor-1260 (PCB-1260)	49.8		6.00	ug/kg wet	60.0		82.9	60-140	0.157	40
PCBs, Total	48.7		6.00	ug/kg wet	60.0		81.2	60-140	0.440	40
Surrogate: 2,4,5,6			4.73	ug/kg wet	6.00		78.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.02	ug/kg wet	6.00		83.7	60-140		
24C1896-01 MS (BHC1276-MS1)										
			Source: 24C1896-01		Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	3480		418	ug/kg dry	4180	<418	83.4	60-140		
Aroclor-1260 (PCB-1260)	3720		418	ug/kg dry	4180	<418	89.0	60-140		
PCBs, Total	3680		418	ug/kg dry	4180	<418	88.0	60-140		
Surrogate: 2,4,5,6			397	ug/kg dry	418		95.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			373	ug/kg dry	418		89.3	60-140		
24C1896-01 MSD (BHC1276-MSD1)										
			Source: 24C1896-01		Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	3700		416	ug/kg dry	4160	<416	88.9	60-140	5.92	40
Aroclor-1260 (PCB-1260)	3810		416	ug/kg dry	4160	<416	91.7	60-140	2.53	40
PCBs, Total	3790		416	ug/kg dry	4160	<416	91.2	60-140	3.11	40
Surrogate: 2,4,5,6			408	ug/kg dry	416		98.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			362	ug/kg dry	416		87.2	60-140		

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Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1222 - Percent Solids										
Blank (BHC1222-BLK1)					Prepared: 3/7/2024 Analyzed: 3/8/2024					
% Solids	<0.100	U	0.100	%						
Duplicate (BHC1222-DUP1)					Prepared: 3/7/2024 Analyzed: 3/8/2024					
% Solids	45.5		0.100	%		44.8			1.61	10
Duplicate (BHC1222-DUP2)					Prepared: 3/7/2024 Analyzed: 3/8/2024					
% Solids	1.42		0.100	%		1.42			0.139	20
Reference (BHC1222-SRM1)					Prepared: 3/7/2024 Analyzed: 3/8/2024					
% Solids	0.385		0.100	%	0.350		110	78.9-118		



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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC1765 - SW-7471 TCLP

Duplicate (BHC1765-DUP1)

Source: 24C2327-01

Prepared & Analyzed: 3/12/2024

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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BHC1341-BLK1 (BHC1765-LBK1)

Prepared & Analyzed: 3/12/2024

Mercury	0.000421	U	0.200	mg/L						
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MDL Check (BHC1765-MRL1)

Prepared & Analyzed: 3/12/2024

Mercury	0.000179	U	0.200	mg/L	0.000200		89.5			
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Matrix Spike (BHC1765-MS1)

Source: 24C2327-01

Prepared & Analyzed: 3/12/2024

Mercury	0.00518	U	0.200	mg/L	0.00500	<0.200	104	80-120		
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Batch: BHC1773 - EPA 200.2 TCLP

Blank (BHC1773-BLK1)

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						

Blank (BHC1773-BLK3)

Prepared: 3/12/2024 Analyzed: 3/22/2024

Chromium	<5.00	U	5.00	mg/L						
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Blank (BHC1773-BLK5)

Prepared: 3/12/2024 Analyzed: 3/28/2024

Silver	<5.00	U	5.00	mg/L						
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LCS (BHC1773-BS1)

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	0.566	U	5.00	mg/L	0.500		113	80-120		
Barium	0.561	U	100	mg/L	0.500		112	80-120		
Cadmium	0.0560	U	1.00	mg/L	0.0500		112	80-120		
Lead	0.286	U	5.00	mg/L	0.250		114	80-120		
Selenium	0.579	U	1.00	mg/L	0.500		116	80-120		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1773 - EPA 200.2 TCLP (Continued)										
LCS (BHC1773-BS3)										
Chromium	0.257	U	5.00	mg/L	0.250		103	80-120		
Prepared: 3/12/2024 Analyzed: 3/22/2024										
LCS (BHC1773-BS5)										
Silver	0.0475	U	5.00	mg/L	0.0500		94.9	80-120		
Prepared: 3/12/2024 Analyzed: 3/28/2024										
Duplicate (BHC1773-DUP1)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	0.0162	U	5.00	mg/L		0.0167			3.22	20
Barium	1.46	U	100	mg/L		1.63			11.1	20
Cadmium	0.000640	U	1.00	mg/L		0.000660			3.08	20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Duplicate (BHC1773-DUP3)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	0.00211	U	5.00	mg/L		0.00176			18.1	20
Duplicate (BHC1773-DUP5)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/28/2024										
Silver	<5.00	U	5.00	mg/L		<5.00				20
BHC1341-LBK1 (BHC1773-LBK1)										
Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	0.0101	U	5.00	mg/L						
Barium	0.835	U	100	mg/L						
Cadmium	0.000700	U	1.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
BHC1341-LBK1 (BHC1773-LBK3)										
Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	0.00225	U	5.00	mg/L						



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1773 - EPA 200.2 TCLP (Continued)										
BHC1341-LBK1 (BHC1773-LBK5)										
Silver	<5.00	U	5.00	mg/L	Prepared: 3/12/2024 Analyzed: 3/28/2024					
Matrix Spike (BHC1773-MS1)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	0.591	U	5.00	mg/L	0.500	0.0167	115	75-125		
Barium	2.01	U	100	mg/L	0.500	1.63	75.1	75-125		
Cadmium	0.0573	U	1.00	mg/L	0.0500	0.000660	113	75-125		
Lead	0.277	U	5.00	mg/L	0.250	<5.00	111	75-125		
Selenium	0.589	U	1.00	mg/L	0.500	<1.00	118	75-125		
Matrix Spike (BHC1773-MS3)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	0.267	U	5.00	mg/L	0.250	0.00176	106	75-125		
Matrix Spike (BHC1773-MS5)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/28/2024										
Silver	0.0524	U	5.00	mg/L	0.0500	<5.00	105	75-125		
Post Spike (BHC1773-PS1)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	583			ug/L	500	16.3	113	80-120		
Barium	1950	J1		ug/L	500	1590	71.6	80-120		
Cadmium	56.3			ug/L	50.0	0.644	111	80-120		
Lead	271			ug/L	250	-1.03	108	80-120		
Selenium	578			ug/L	500	2.55	115	80-120		
Post Spike (BHC1773-PS3)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	254			ug/L	250	1.72	101	80-120		
Post Spike (BHC1773-PS5)										
Source: 24C2327-01										
Prepared: 3/12/2024 Analyzed: 3/28/2024										
Silver	52.7			ug/L	50.0	-0.156	105	80-120		

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Quality Control
(Continued)**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC1773 - EPA 200.2 TCLP (Continued)**Dilution Check (BHC1773-SRL1)**

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	0.0324	U	5.00	mg/L		<5.00			63.6	10
Barium	8.15	J1, U	100	mg/L		1.63			133	10
Cadmium	<1.00	U	1.00	mg/L		<1.00			200	10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10

Dilution Check (BHC1773-SRL3)

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/22/2024

Chromium	<5.00	U	5.00	mg/L		<5.00			200	10
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Dilution Check (BHC1773-SRL5)

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/28/2024

Silver	<5.00	U	5.00	mg/L		<5.00				10
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Batch: BHC2126 - SW-3511**MB SV (BHC2126-BLK1)**

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00941	mg/L	0.00980		96.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0205	mg/L	0.0196		104	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0239	mg/L	0.0196		122	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00929	mg/L	0.00980		94.8	52-162		
Surrogate: Phenol-d5-surr			0.0185	mg/L	0.0196		94.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.00980		111	51.9-147		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

Blank (BHC2126-BLK2)

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00978	mg/L	0.00980		99.8	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.00967	mg/L	0.00980		98.6	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00934	mg/L	0.00980		95.3	51.9-147		

BS SV (BHC2126-BS1)

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	0.0195	U	400	mg/L	0.0200		97.3	60-140		
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0200		107	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00898	U	0.130	mg/L	0.0100		89.8	60-140		
2-Methylphenol	0.0194	U	200	mg/L	0.0200		97.2	60-140		
3,4-Methylphenol	0.0343	U	200	mg/L	0.0400		85.8	60-140		
Hexachlorobenzene	0.0107	U	0.130	mg/L	0.0100		107	60-140		
Hexachlorobutadiene	0.00788	U	0.500	mg/L	0.0100		78.8	60-140		
Hexachloroethane	0.00812	U	3.00	mg/L	0.0100		81.3	60-140		
Nitrobenzene	0.0111	U	2.00	mg/L	0.0100		111	60-140		
Pentachlorophenol	0.0236	U	100	mg/L	0.0200		118	36.8-149		
Surrogate: 2-Fluorobiphenyl-surr			0.00918	mg/L	0.0100		91.8	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0214	mg/L	0.0200		107	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0204	mg/L	0.0200		102	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00928	mg/L	0.0100		92.8	52-162		
Surrogate: Phenol-d5-surr			0.0202	mg/L	0.0200		101	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00922	mg/L	0.0100		92.2	51.9-147		

LCS (BHC2126-BS2)

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.00472	U	5.00	mg/L	0.0500		9.45	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00893	mg/L	0.0100		89.3	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.00936	mg/L	0.0100		93.6	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00897	mg/L	0.0100		89.8	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

BSD SV (BHC2126-BSD1)

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0198		109	60-140	10.0	40
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0198		108	60-140	0.0564	40
2,4-Dinitrotoluene (2,4-DNT)	0.00977	U	0.130	mg/L	0.00988		98.9	60-140	8.48	40
2-Methylphenol	0.0198	U	200	mg/L	0.0198		100	60-140	2.04	40
3,4-Methylphenol	0.0354	U	200	mg/L	0.0395		89.6	60-140	3.25	40
Hexachlorobenzene	0.0112	U	0.130	mg/L	0.00988		114	60-140	5.26	40
Hexachlorobutadiene	0.00672	U	0.500	mg/L	0.00988		68.0	60-140	15.9	40
Hexachloroethane	0.00681	U	3.00	mg/L	0.00988		68.9	60-140	17.5	40
Nitrobenzene	0.0103	U	2.00	mg/L	0.00988		105	60-140	7.24	40
Pentachlorophenol	0.0256	U	100	mg/L	0.0198		130	36.8-149	8.39	40

Surrogate: 2-Fluorobiphenyl-surr

0.00963 mg/L 0.00988 97.4 54.6-148

Surrogate: 2-Fluorophenol-surr

0.0209 mg/L 0.0198 106 55-152

Surrogate: 2,4,6-Tribromophenol-surr

0.0214 mg/L 0.0198 108 52.4-136

Surrogate: Nitrobenzene-d5-surr

0.00991 mg/L 0.00988 100 52-162

Surrogate: Phenol-d5-surr

0.0204 mg/L 0.0198 103 58.7-152

Surrogate: p-Terphenyl-d14-surr

0.0100 mg/L 0.00988 101 51.9-147

LCS Dup (BHC2126-BSD2)

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.00352	U	5.00	mg/L	0.0494		7.11	2.5-101	29.3	40
Surrogate: 2-Fluorobiphenyl-surr			0.00926	mg/L	0.00988		93.7	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.00988		104	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00802	mg/L	0.00988		81.1	51.9-147		

BHC1341-BLK1 (BHC2126-LBK1)

Prepared: 3/13/2024 Analyzed: 3/19/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						

Surrogate: 2-Fluorobiphenyl-surr

0.0409 mg/L 0.0400 102 54.6-148

Surrogate: 2-Fluorophenol-surr

0.0963 mg/L 0.0800 120 55-152

Surrogate: 2,4,6-Tribromophenol-surr

0.0953 mg/L 0.0800 119 52.4-136

Surrogate: Nitrobenzene-d5-surr

0.0476 mg/L 0.0400 119 52-162

Surrogate: Phenol-d5-surr

0.0741 mg/L 0.0800 92.6 58.7-152

Surrogate: p-Terphenyl-d14-surr

0.0441 mg/L 0.0400 110 51.9-147



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27316 Spectrum Way
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Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

BHC1642-BLK1 (BHC2126-LBK2)

Prepared: 3/13/2024 Analyzed: 3/19/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0386	mg/L	0.0400		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0827	mg/L	0.0800		103	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.106	mg/L	0.0800		132	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0471	mg/L	0.0400		118	52-162		
Surrogate: Phenol-d5-surr			0.0682	mg/L	0.0800		85.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0452	mg/L	0.0400		113	51.9-147		

BHC1341-BLK1 (BHC2126-LBK3)

Prepared: 3/13/2024 Analyzed: 3/23/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0417	mg/L	0.0400		104	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0420	mg/L	0.0400		105	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		81.0	51.9-147		

BHC1642-BLK1 (BHC2126-LBK4)

Prepared: 3/13/2024 Analyzed: 3/23/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0473	mg/L	0.0400		118	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0428	mg/L	0.0400		107	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0320	mg/L	0.0400		80.0	51.9-147		

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27316 Spectrum Way
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Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

24C2028-01 MS (BHC2126-MS1)		Source: 24C2028-01			Prepared: 3/13/2024 Analyzed: 3/18/2024					
2,4,5-Trichlorophenol	0.120	U	400	mg/L	0.0800	<400	149	44.9-171		
2,4,6-Trichlorophenol	0.102	U	2.00	mg/L	0.0800	<2.00	127	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0529	U	0.130	mg/L	0.0400	<0.130	132	50.3-144		
2-Methylphenol	0.0833	U	200	mg/L	0.0800	<200	104	17.3-182		
3,4-Methylphenol	0.156	L, U	200	mg/L	0.160	<200	97.2	43.4-188		
Hexachlorobenzene	0.0392	U	0.130	mg/L	0.0400	<0.130	98.1	56.1-137		
Hexachlorobutadiene	0.0312	U	0.500	mg/L	0.0400	<0.500	78.1	33.1-110		
Hexachloroethane	0.0320	U	3.00	mg/L	0.0400	<3.00	80.1	36.2-106		
Nitrobenzene	0.0487	U	2.00	mg/L	0.0400	<2.00	122	54.9-156		
Pentachlorophenol	0.103	U	100	mg/L	0.0800	<100	129	42.2-151		
Surrogate: 2-Fluorobiphenyl-surr			0.0392	mg/L	0.0400		98.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0895	mg/L	0.0800		112	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0825	mg/L	0.0800		103	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0403	mg/L	0.0400		101	52-162		
Surrogate: Phenol-d5-surr			0.0901	mg/L	0.0800		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0488	mg/L	0.0400		122	51.9-147		

Matrix Spike (BHC2126-MS2)		Source: 24C2028-01RE1			Prepared: 3/13/2024 Analyzed: 3/22/2024					
Pyridine	0.0417	U	5.00	mg/L	0.200	<5.00	20.9	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0383	mg/L	0.0400		95.9	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0427	mg/L	0.0400		107	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0375	mg/L	0.0400		93.8	51.9-147		

24C2028-01 MSD (BHC2126-MSD1)		Source: 24C2028-01			Prepared: 3/13/2024 Analyzed: 3/18/2024					
2,4,5-Trichlorophenol	0.0984	U	400	mg/L	0.0800	<400	123	44.9-171	19.4	40
2,4,6-Trichlorophenol	0.0958	U	2.00	mg/L	0.0800	<2.00	120	34.7-143	6.12	40
2,4-Dinitrotoluene (2,4-DNT)	0.0517	U	0.130	mg/L	0.0400	<0.130	129	50.3-144	2.35	40
2-Methylphenol	0.0871	U	200	mg/L	0.0800	<200	109	17.3-182	4.46	40
3,4-Methylphenol	0.148	L, U	200	mg/L	0.160	<200	92.4	43.4-188	5.14	40
Hexachlorobenzene	0.0383	U	0.130	mg/L	0.0400	<0.130	95.8	56.1-137	2.32	40
Hexachlorobutadiene	0.0322	U	0.500	mg/L	0.0400	<0.500	80.5	33.1-110	3.06	40
Hexachloroethane	0.0277	U	3.00	mg/L	0.0400	<3.00	69.3	36.2-106	14.4	40
Nitrobenzene	0.0505	U	2.00	mg/L	0.0400	<2.00	126	54.9-156	3.56	40
Pentachlorophenol	0.104	U	100	mg/L	0.0800	<100	130	42.2-151	0.960	40
Surrogate: 2-Fluorobiphenyl-surr			0.0398	mg/L	0.0400		99.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0804	mg/L	0.0800		100	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0857	mg/L	0.0800		107	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0372	mg/L	0.0400		93.1	52-162		
Surrogate: Phenol-d5-surr			0.0839	mg/L	0.0800		105	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0444	mg/L	0.0400		111	51.9-147		

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27316 Spectrum Way
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04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

Matrix Spike Dup (BHC2126-MSD2)

Source: 24C2028-01RE1

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.0453	U	5.00	mg/L	0.200	<5.00	22.6	2-87.4	8.09	40
Surrogate: 2-Fluorobiphenyl-surr			0.0388	mg/L	0.0400		97.0	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0432	mg/L	0.0400		108	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		80.9	51.9-147		

Batch: BHC2219 - SW-3511

Blank (BHC2219-BLK1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0216	mg/L	0.0250		86	70-130		

LCS (BHC2219-BS1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.00414	U	10.0	mg/L	0.00515		80	70-130		
Silvex (2,4,5-TP)	0.00425	U	1.00	mg/L	0.00500		85	70-130		
Surrogate: DCAA-surr			0.0217	mg/L	0.0250		87	70-130		

LCS Dup (BHC2219-BSD1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.00418	U	10.0	mg/L	0.00515		81	70-130	1	30
Silvex (2,4,5-TP)	0.00418	U	1.00	mg/L	0.00500		84	70-130	2	30
Surrogate: DCAA-surr			0.0242	mg/L	0.0250		97	70-130		

BHC1642-BLK1 (BHC2219-LBK1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0896	mg/L	0.100		90	70-130		

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27316 Spectrum Way
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04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2219 - SW-3511 (Continued)

BHB1341-BLK1 (BHC2219-LBK2)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0932	mg/L	0.100		93	70-130		

Matrix Spike (BHC2219-MS1)

Source: 24C1678-01

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.0161	U	10.0	mg/L	0.0206	<10.0	78	70-130		
Silvex (2,4,5-TP)	0.0162	U	1.00	mg/L	0.0200	<1.00	81	70-130		
Surrogate: DCAA-surr			0.0925	mg/L	0.100		92	70-130		

Matrix Spike Dup (BHC2219-MSD1)

Source: 24C1678-01

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.0156	U	10.0	mg/L	0.0206	<10.0	76	70-130	3	30
Silvex (2,4,5-TP)	0.0157	U	1.00	mg/L	0.0200	<1.00	79	70-130	3	30
Surrogate: DCAA-surr			0.0941	mg/L	0.100		94	70-130		

Batch: BHC2446 - SW-3511

Blank (BHC2446-BLK1)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000109	mg/L	0.000120		91.0	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		88.3	60-140		



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Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2446 - SW-3511 (Continued)										
LCS TOX (BHC2446-BS1)										
					Prepared: 3/14/2024 Analyzed: 3/18/2024					
Toxaphene (Chlorinated Camphene)	0.00112	U	0.500	mg/L	0.00120		93.4	60-140		
Surrogate: 2,4,5,6			0.000111	mg/L	0.000120		92.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000129	mg/L	0.000120		107	60-140		
LCS (BHC2446-BS2)										
					Prepared: 3/14/2024 Analyzed: 3/18/2024					
Chlordane (Total)	0.000379	U	0.0300	mg/L	0.000480		79.0	60-140		
Endrin	8.98E-5	U	0.0200	mg/L	0.000120		74.9	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000115	U	0.400	mg/L	0.000120		95.8	60-140		
Heptachlor	0.000104	U	0.00800	mg/L	0.000120		87.0	60-140		
Heptachlor epoxide	9.28E-5	U	0.00800	mg/L	0.000120		77.3	60-140		
Methoxychlor	9.04E-5	U	10.0	mg/L	0.000120		75.3	60-140		
Surrogate: 2,4,5,6			0.000135	mg/L	0.000120		113	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		
LCSD TOX (BHC2446-BSD1)										
					Prepared: 3/14/2024 Analyzed: 3/18/2024					
Toxaphene (Chlorinated Camphene)	0.00117	U	0.500	mg/L	0.00120		97.4	60-140	4.19	40
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		85.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000117	mg/L	0.000120		97.1	60-140		
LCS Dup (BHC2446-BSD2)										
					Prepared: 3/14/2024 Analyzed: 3/18/2024					
Chlordane (Total)	0.000332	U	0.0300	mg/L	0.000480		69.3	60-140	13.1	40
Endrin	8.01E-5	U	0.0200	mg/L	0.000120		66.8	60-140	11.4	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.16E-5	U	0.400	mg/L	0.000120		68.0	60-140	33.9	40
Heptachlor	8.76E-5	U	0.00800	mg/L	0.000120		73.0	60-140	17.6	40
Heptachlor epoxide	8.36E-5	U	0.00800	mg/L	0.000120		69.6	60-140	10.5	40
Methoxychlor	8.30E-5	U	10.0	mg/L	0.000120		69.2	60-140	8.48	40
Surrogate: 2,4,5,6			0.000112	mg/L	0.000120		93.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		86.8	60-140		

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04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2446 - SW-3511 (Continued)

BHC1341-BLK1 (BHC2446-LBK1)

Prepared: 3/14/2024 Analyzed: 3/19/2024

Chlordane (Total)	1.48E-5	U	0.0300	mg/L						
Endrin	9.15E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	6.45E-6	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000622	mg/L	0.000600		104	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000343	mg/L	0.000600		57.1	60-140		

Matrix Spike (BHC2446-MS1)

Source: 24C1834-01

Prepared: 3/14/2024 Analyzed: 3/19/2024

Chlordane (Total)	0.00146	U	0.0300	mg/L	0.00240	2.44E-5	60.0	60-140		
Endrin	0.000390	U	0.0200	mg/L	0.000600	<0.0200	65.1	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000379	U	0.400	mg/L	0.000600	<0.400	63.2	60-140		
Heptachlor	0.000366	U	0.00800	mg/L	0.000600	<0.00800	61.0	60-140		
Heptachlor epoxide	0.000360	J1, U	0.00800	mg/L	0.000600	6.33E-6	58.9	60-140		
Methoxychlor	0.000436	U	10.0	mg/L	0.000600	<10.0	72.7	60-140		
Surrogate: 2,4,5,6			0.000523	mg/L	0.000600		87.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000534	mg/L	0.000600		89.1	60-140		

Matrix Spike Dup (BHC2446-MSD1)

Source: 24C1834-01

Prepared: 3/14/2024 Analyzed: 3/19/2024

Chlordane (Total)	0.00148	U	0.0300	mg/L	0.00240	2.44E-5	60.8	60-140	1.39	40
Endrin	0.000378	U	0.0200	mg/L	0.000600	<0.0200	63.0	60-140	3.22	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000392	U	0.400	mg/L	0.000600	<0.400	65.4	60-140	3.37	40
Heptachlor	0.000379	U	0.00800	mg/L	0.000600	<0.00800	63.1	60-140	3.40	40
Heptachlor epoxide	0.000371	U	0.00800	mg/L	0.000600	6.33E-6	60.8	60-140	3.20	40
Methoxychlor	0.000440	U	10.0	mg/L	0.000600	<10.0	73.4	60-140	0.842	40
Surrogate: 2,4,5,6			0.000554	mg/L	0.000600		92.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000525	mg/L	0.000600		87.6	60-140		

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



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

Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2757 - SW-5030

Blank (BHC2757-BLK1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 4-Bromofluorobenzene-surr			51.4	ug/L	50.0		103	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			49.7	ug/L	50.0		99.3	70-130		
Surrogate: Toluene-d8-surr			49.0	ug/L	50.0		97.9	70-130		
Surrogate: Dibromofluoromethane-surr			50.8	ug/L	50.0		102	70-130		

LCS (BHC2757-BS1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0426	U	0.700	mg/L	0.0500		85.2	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0404	U	0.500	mg/L	0.0500		80.7	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0418	U	7.50	mg/L	0.0500		83.6	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.414	U	200	mg/L	0.500		82.8	70-130		
Benzene	0.0420	U	0.500	mg/L	0.0500		84.0	70-130		
Carbon tetrachloride	0.0422	U	0.500	mg/L	0.0500		84.4	70-130		
Chlorobenzene	0.0426	U	100	mg/L	0.0500		85.3	70-130		
Chloroform	0.0394	U	6.00	mg/L	0.0500		78.9	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0451	U	0.700	mg/L	0.0500		90.3	70-130		
Trichloroethene (Trichloroethylene)	0.0432	U	0.500	mg/L	0.0500		86.5	70-130		
Vinyl chloride (Chloroethene)	0.0418	U	0.200	mg/L	0.0500		83.6	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.3	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			46.4	ug/L	50.0		92.8	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			48.0	ug/L	50.0		96.0	70-130		

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2757 - SW-5030 (Continued)

LCS Dup (BHC2757-BSD1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0412	U	0.700	mg/L	0.0500		82.4	70-130	3.36	30
1,2-Dichloroethane (Ethylene dichloride)	0.0397	U	0.500	mg/L	0.0500		79.4	70-130	1.60	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0420	U	7.50	mg/L	0.0500		83.9	70-130	0.335	30
2-Butanone (Methyl ethyl ketone, MEK)	0.409	U	200	mg/L	0.500		81.9	70-130	1.12	30
Benzene	0.0412	U	0.500	mg/L	0.0500		82.5	70-130	1.85	30
Carbon tetrachloride	0.0412	U	0.500	mg/L	0.0500		82.3	70-130	2.49	30
Chlorobenzene	0.0409	U	100	mg/L	0.0500		81.9	70-130	4.10	30
Chloroform	0.0378	U	6.00	mg/L	0.0500		75.6	70-130	4.21	30
Tetrachloroethylene (Perchloroethylene)	0.0403	U	0.700	mg/L	0.0500		80.7	70-130	11.3	30
Trichloroethene (Trichloroethylene)	0.0415	U	0.500	mg/L	0.0500		83.0	70-130	4.12	30
Vinyl chloride (Chloroethene)	0.0360	U	0.200	mg/L	0.0500		72.1	70-130	14.7	30
Surrogate: 4-Bromofluorobenzene-surr			49.8	ug/L	50.0		99.7	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			47.0	ug/L	50.0		93.9	70-130		
Surrogate: Toluene-d8-surr			49.3	ug/L	50.0		98.7	70-130		
Surrogate: Dibromofluoromethane-surr			47.7	ug/L	50.0		95.4	70-130		

BHC2495-BLK1 (BHC2757-LBK1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 4-Bromofluorobenzene-surr			51.9	ug/L	50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			50.5	ug/L	50.0		101	70-130		
Surrogate: Toluene-d8-surr			53.3	ug/L	50.0		107	70-130		
Surrogate: Dibromofluoromethane-surr			53.8	ug/L	50.0		108	70-130		

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

Reported:
04/01/2024 09:26

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2757 - SW-5030 (Continued)										
Matrix Spike (BHC2757-MS1)			Source: 24C2022-01			Prepared & Analyzed: 3/15/2024				
1,1-Dichloroethylene	0.0499	U	0.700	mg/L	0.0500	<0.700	99.7	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0469	U	0.500	mg/L	0.0500	<0.500	93.9	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0560	U	7.50	mg/L	0.0500	<7.50	112	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.555	U	200	mg/L	0.500	0.0819	94.6	70-130		
Benzene	0.0500	U	0.500	mg/L	0.0500	<0.500	99.9	70-130		
Carbon tetrachloride	0.0503	U	0.500	mg/L	0.0500	<0.500	101	70-130		
Chlorobenzene	0.0501	U	100	mg/L	0.0500	<100	100	70-130		
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00		70-130		
Tetrachloroethylene (Perchloroethylene)	0.0463	U	0.700	mg/L	0.0500	<0.700	92.5	70-130		
Trichloroethene (Trichloroethylene)	0.0525	U	0.500	mg/L	0.0500	<0.500	105	70-130		
Vinyl chloride (Chloroethene)	0.0465	U	0.200	mg/L	0.0500	<0.200	93.1	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.3	ug/L	50.0		98.6	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			50.4	ug/L	50.0		101	70-130		
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			51.4	ug/L	50.0		103	70-130		
Matrix Spike Dup (BHC2757-MSD1)										
			Source: 24C2022-01			Prepared & Analyzed: 3/15/2024				
1,1-Dichloroethylene	0.0369	U	0.700	mg/L	0.0500	<0.700	73.9	70-130	29.7	30
1,2-Dichloroethane (Ethylene dichloride)	0.0368	U	0.500	mg/L	0.0500	<0.500	73.5	70-130	24.3	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0400	J1, U	7.50	mg/L	0.0500	<7.50	80.0	70-130	33.4	30
2-Butanone (Methyl ethyl ketone, MEK)	0.383	J1, U	200	mg/L	0.500	0.0819	60.1	70-130	36.8	30
Benzene	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	22.0	30
Carbon tetrachloride	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	22.8	30
Chlorobenzene	0.0393	U	100	mg/L	0.0500	<100	78.6	70-130	24.2	30
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00		70-130		30
Tetrachloroethylene (Perchloroethylene)	0.0382	U	0.700	mg/L	0.0500	<0.700	76.3	70-130	19.2	30
Trichloroethene (Trichloroethylene)	0.0394	U	0.500	mg/L	0.0500	<0.500	78.8	70-130	28.5	30
Vinyl chloride (Chloroethene)	0.0307	J1, U	0.200	mg/L	0.0500	<0.200	61.5	70-130	40.9	30
Surrogate: 4-Bromofluorobenzene-surr			51.0	ug/L	50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			49.1	ug/L	50.0		98.3	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		99.9	70-130		
Surrogate: Dibromofluoromethane-surr			49.2	ug/L	50.0		98.5	70-130		

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TCEQ TX-C24-00086

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

Reported:
04/01/2024 09:26

Sample Condition Checklist

Work Order: 24C1896

Check Points

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



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

Reported:
04/01/2024 09:26

Term and Qualifier Definitions

Item	Definition
B2	The analyte was detected in the associated leach blank.
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24C1896

Lab PM : Deena Higginbotham		Project Name : FBC MUD 34 Plant 1 - NP - Sewage Sludge - TCLP-PCB		Schedule Comments:	
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 23760 Stratsborough Drive Katy 77494 Combo 8611 Javier Hernandez 281-638-5293 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL!			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1896-01	Digester		3/6/2024 / 08:20	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C HDPE 250mL D Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name Eddie Blackshear	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLs	Relinquished To Lab By: (Signature)	Date/Time 3/6/24	Received for Laboratory By: (Signature) ROR	Date/Time 3.6.24	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Katy South

wko_NWDLs_COC_LS Revision 4.1 Effective: 2/17/2022



8725 Fawn Trail The Woodlands, TX 77385
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www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

October 27, 2023

LABORATORY REPORT

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

Report ID: 20231027152538DLH

RE: FBC MUD 34 Plant 1 - Non Potable - Class B Annual

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

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

Sincerely,

Deena Higginbotham

Deena Higginbotham
Director of Client Services

ENTERED FEB 29 2024



☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid

Per



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: FBC MUD 34 Plant 1 - Non Potable - Class B Annual
Project Number: 388
Project Manager: John Montgomery

Reported:
10/27/2023 15:25

Sample Results

Client Sample ID: Digester
Lab Sample ID: 23J4138-01

Sample Matrix: Solid
Date Collected: 10/18/2023 9:55
Collected by: Andrew Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	253000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	447000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	398000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	473000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	398000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	531000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
Colilert-18	Fecal coliforms	531000	MPN/g TS dry	BGJ2981	10/19/2023 09:40	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.965	mg O2/hr/g TS @ 20°C dry	BGJ2992	10/18/2023 14:47	AKA
SM 2550 B	Temperature °C Field	24.0	°C	BGJ3121	10/18/2023 09:55	ALR
SM 2540 G	% Solids	1.03 V	%	BGJ2820	10/19/2023 09:31	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O2/hr/g TS.

Handwritten calculation:
$$\frac{433,000}{7} = 303,100$$



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: FBC MUD 34 Plant 1 - Non Potable - Class B Annual
Project Number: 388
Project Manager: John Montgomery

Reported:
10/27/2023 15:25

Quality Control

General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ2820 - Percent Solids									
Blank (BGJ2820-BLK1)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
% Solids	<0.100U	0.100	%						
Duplicate (BGJ2820-DUP1)									
Source: 23J0452-02 Prepared: 10/18/2023 Analyzed: 10/19/2023									
% Solids		0.100	%		1.28			2.77	20
Reference (BGJ2820-SRM1)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
% Solids		0.100	%	0.350		104	78.9-118		



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: FBC MUD 34 Plant 1 - Non Potable - Class B Annual
Project Number: 388
Project Manager: John Montgomery

Reported:
10/27/2023 15:25

Quality Control (Continued)

Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	-------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------

Batch: BGJ2981 - FC Quantitray

Blank (BGJ2981-BLK1)

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Prepared: 10/18/2023 Analyzed: 10/19/2023

Duplicate (BGJ2981-DUP1)

Fecal coliforms

Source: 23J4138-01

969 MPN/g TS
dry

Prepared: 10/18/2023 Analyzed: 10/19/2023

253000

60.6

200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: FBC MUD 34 Plant 1 - Non Potable - Class B Annual
Project Number: 388
Project Manager: John Montgomery

Reported:
10/27/2023 15:25

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

23J4138

Lab PM : Deena Higginbotham		Project Name : FBC MUD 34 Plant 1 - Non Potable - Class B Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 23760 Stratsborough Drive Katy 77494 Combo 3611 Javier Hernandez 281-638-5293 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL!					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J4138-01	Digester		10/18/2023/09:55	S Grab	A HDPE 5150mL Na2S2O3 B HDPE 5150mL Na2S2O3 C HDPE 5150mL Na2S2O3 D HDPE 5150mL Na2S2O3 E HDPE 5150mL Na2S2O3 F HDPE 5150mL Na2S2O3 G HDPE 5150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 74.0°C

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:		
Sampler (Signature) [Signature]		Received By: (Signature)		Date/Time
Print Name [Signature]		Received By: (Signature)		Date/Time
Affiliation NWDLs		Received for Laboratory By: (Signature) [Signature]		Date/Time 10-18-23/1310
Custody Seal: Yes / No		Received on Ice: Yes / No		Temperature
Container Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID:

Katy South

wko_NWDLs_COC_LS Revision 4.1 Effective: 2/17/2022



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(281) 858-5988 • Mobile: (713) 283-4528

Inframark

32259 Morton Road
Brookshire, TX 77423

April 26, 2024

Fecal and Sour Report

Page 1 of 2

Site **HC MUD 418**
Sample # W24.03715
Sample ID Digester 1
Sample Type Grab
Date 3/12/24
Time 0920
Sampled By AA

Analyses
Percent Solids
Fecals*
SOUR

Result
1.3
<1000
1.5

Units
%
MPN/g
mg O₂/hr/g

Analysis Date
03/13/23 1416
03/12/24 1751
03/12/24 1815

Analyst
Eastex**
Eastex**
Eastex**

Method
SM 2540 G
Colilert 18
TAC 312.83(b)(4)

Site **HC MUD 418**
Sample # W24.03716
Sample ID Digester 2
Sample Type Grab
Date 3/12/24
Time 0920
Sampled By AA

Analyses
Percent Solids
Fecals*
SOUR

Result
1.4
<1000
1.8

Units
%
MPN/g
mg O₂/hr/g

Analysis Date
03/13/24 1416
03/12/24 1742
03/12/24 1815

Analyst
Eastex**
Eastex**
Eastex**

Method
SM 2540 G
Colilert 18
TAC 312.83(b)(4)

Geometric Mean of 7 samples.

**Eastex is the subcontracted lab-See attached reports.
The results relate to these samples only.

Report shall not be reproduced, except in full, without written approval from laboratory.

Rhonda J. Scrogin

Quality Manager

R&C Joy Inc.

- ☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid

Pass

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2022

ben	ben	ben	ben
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Tel: 936 653 3249



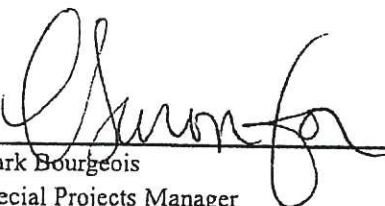
April 22, 2024

Ron Joy
R and C Joy
19020 W Little York Road
Katy, TX 77449

RE: R and C Joy Digester

Enclosed are the results of analyses for samples received by the laboratory on 03/12/24 14:25, with Lab ID Number C4C3197. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Bourgeois
Special Projects Manager



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R and C Joy
19020 W Little York Road
Katy TX, 77449

Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g
40 CFR 503 Criterion for Vector Class B = <1.5mg/O2/g Solids/hr
*Fecal Coliform result is a geometric mean of seven individual samples.

LABORATORY ANALYTICAL REPORT

Project: R and C Joy Digester
Client Matrix: Waste

Sample Date & Time: 03/12/2024 09:20

Collector:

Sample Type: Grab

Print Date: 4/22/2024

W24 03715

C4C3197-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	--------------------	-------	-----------------	-------	-------------------------	--------	-------

Microbiological Lab

Fecal Coliform IDEXX	<1000	1000	mpn/gram	N	B4C1960	03/12/2024 17:51	Colilert 18	
Vector	1.5	0.1	mg O2/hr/g	N	B4C2478	03/12/2024 18:15	TAC 312.83(b)(4)	

Wet Lab

Percent Solid	1.3	0.1	%	A	B4C1965	03/13/2024 14:16	SM 2540G	
Volatile Percent Solid	69.2	0.1	%	A	B4C1952	03/14/2024 15:50	SM 2540G	



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R and C Joy
19020 W Little York Road
Katy TX, 77449

SM 2540G - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4C1952 - No Prep Prepared: 03/14/24 15:50										
Blank (B4C1952-BLK1)					Analyzed: 3/14/2024 3:50:00PM					
Volatile Percent Solid	ND	0.1	%							
Duplicate (B4C1952-DUP1)					Source: C4C3039-01 Analyzed: 3/14/2024 3:50:00PM					
Volatile Percent Solid	70.5	0.1	%		70.8			0.425	10	
Batch B4C1965 - No Prep Prepared: 03/13/24 14:16										
Blank (B4C1965-BLK1)					Analyzed: 3/13/2024 2:16:00PM					
Percent Solid	ND	0.1	%							
Duplicate (B4C1965-DUP1)					Source: C4C3039-01 Analyzed: 3/13/2024 2:16:00PM					
Percent Solid	1.20	0.1	%		1.20			0.00	20	



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R and C Joy
19020 W Little York Road
Katy TX, 77449

Notes and Definitions

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



R&C Joy, Incorporated
19020 W. Little York Rd.
Katy, TX 77449
281-858-5988

VENDOR PURCHASE ORDER

VPO# 031224A
Send To Eastex Environmental Labs
Street PO Box 1089
City/State/Zip Coldspring, TX 77331

Sample Method
C = Composite
G = Grab
Sample Matrix
E = Effluent
I = Influent
S = Sludge
R = Reclaimed
SW = Stormwater
P = Potable
Codes
Container Type
P = Plastic
G = Glass
S = Sterile
V = Vial

Sample Information

Containers Preservation

Analyses

Special Notes

Sample ID

Sample Location

Date Collected

Time Collected

Sample Method

Sample Matrix

Container ID

Container Type

Ice/Refrig

H₂SO₄

HNO₃

Na₂S₂O₃

Land App

(No PCBs)

Fecals

Source

90 Solids

CUC3182

W24.03717

Digester

3/12/24

0920

G

S

a-c

P

X

X

X

X

X

X

X

X

X

X

CUC3197
CUC3198

W24.03715
W24.03716

Dig 1
Dig 2

3/12/24

0920

G

S

a-g

S

X

X

X

X

X

X

X

X

X

X

Additional Notes

Custody Changes

Relinquished By

Date

Time

Received By

Date

Time

Preservation Check

On Ice? Yes ☒ No ☐

pH (STU):

Cl₂ Absent Yes ☐ No ☐

Sample Temp (°C): 1.2

Chk w/:

DPD Lot:

Thermometer: 15

Bottle(s):

DPD Exp:

Bottle:

Initials:

Initials:



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April 22, 2024

Ron Joy
R and C Joy
19020 W Little York Road
Katy, TX 77449

RE: R and C Joy Digester

Enclosed are the results of analyses for samples received by the laboratory on 03/12/24 14:25, with Lab ID Number C4C3198. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois
Special Projects Manager



P.O. Box 1089 Coldspring Tx 77331
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R and C Joy
19020 W Little York Road
Katy TX, 77449

Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g
40 CFR 503 Criterion for Vector Class B = <1.5mg/O₂/g Solids/hr
*Fecal Coliform result is a geometric mean of seven individual samples.

LABORATORY ANALYTICAL REPORT

Project: R and C Joy Digester
Client Matrix: Waste

Sample Date & Time: 03/12/2024 09:20

Collector:

Sample Type: Grab

Print Date: 4/22/2024

W24 03716
C4C3198-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<u>Microbiological Lab</u>								
Fecal Coliform IDEXX	<1000	1000	mpn/gram	N	B4C1959	03/12/2024 17:42	Colilert 18	
Vector	1.8	0.1	mg O ₂ /hr/g	N	B4C2478	03/12/2024 18:15	TAC 312.83(b)(4)	
<u>Wet Lab</u>								
Percent Solid	1.4	0.1	%	A	B4C1965	03/13/2024 14:16	SM 2540G	
Volatile Percent Solid	70.2	0.1	%	A	B4C1952	03/14/2024 15:50	SM 2540G	



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R and C Joy
 19020 W Little York Road
 Katy TX, 77449

SM 2540G - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch B4C1952 - No Prep Prepared: 03/14/24 15:50									
Blank (B4C1952-BLK1)					Analyzed: 3/14/2024 3:50:00PM				
Volatile Percent Solid	ND	0.1	%						
Duplicate (B4C1952-DUP1)					Source: C4C3039-01 Analyzed: 3/14/2024 3:50:00PM				
Volatile Percent Solid	70.5	0.1	%		70.8		0.425	10	
Batch B4C1965 - No Prep Prepared: 03/13/24 14:16									
Blank (B4C1965-BLK1)					Analyzed: 3/13/2024 2:16:00PM				
Percent Solid	ND	0.1	%						
Duplicate (B4C1965-DUP1)					Source: C4C3039-01 Analyzed: 3/13/2024 2:16:00PM				
Percent Solid	1.20	0.1	%		1.20		0.00	20	



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R and C Joy
19020 W Little York Road
Katy TX, 77449

Notes and Definitions

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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Inframark
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Brookshire, TX 77423

January 2, 2024

Sludge Report for Land Application

Page 1 of 2

Site HC MUD 418
Sample # W23.13515
Sample ID Digesters
Sample Type Grab
Date 10/18/23
Time 0902
Sampled By PW

HC 418

Analyses	Result	Units	Date	Analyst	Method
pH	7.22	STU	10/18/23 0902	PW	SM 4500-H ⁺ B
Percent Solids	1.9	%	10/25/23 0800	Eastex*	SM 2540G
Ammonia	<0.526	% Dry Wt.	12/07/23 1217	Eastex*	EPA 350.2
Total Kjeldahl Nitrogen	0.855	% Dry Wt.	11/01/23 0756	Eastex*	EPA 351.2
Nitrogen, Nitrate (as N)	0.00489	% Dry Wt.	11/13/23 1220	Eastex*	SM 4500 NO3 D
Phosphorus	2.12	% Dry Wt.	11/17/23 1340	Eastex*	EPA SW 846-6010, 3050
Potassium	0.653	% Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Arsenic	8.79	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Cadmium	<5.26	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Chromium	14.0	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Copper	227	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Lead	<5.26	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Mercury, Total**	0.157	mg/Kg Dry Wt.	11/14/23 1318	Eastex*	EPA SW 846-7471B
Molybdenum	10.0	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Nickel	9.84	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Selenium	<5.26	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050
Zinc	705	mg/Kg Dry Wt.	11/17/23 1139	Eastex*	EPA SW 846-6010, 3050

* Eastex is the subcontracted labs-See attached report.
The results relate to these samples only.
Report shall not be reproduced, except in full, without written approval from laboratory.


Rhonda J. Scrogin
Quality Manager

R&C Joy Inc.

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ F/S ☐ Solid

ENTERED JAN 11 2024

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December 22, 2023

Ron Joy
R and C Joy
19020 W Little York Road
Katy, TX 77449

RE: R and C Joy Digester

Enclosed are the results of analyses for samples received by the laboratory on 10/18/23 16:30, with Lab ID Number C3J5296. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois
Special Projects Manager



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R and C Joy
 19020 W Little York Road
 Katy TX, 77449

LABORATORY ANALYTICAL REPORT

Project: R and C Joy Digester
 Client Matrix: Waste

Sample Date & Time: 10/18/2023 09:02

Collector:

Sample Type: Grab

Print Date: 12/22/2023

W23 13515
 C3J5296-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<u>Metals</u>								
Arsenic	8.79	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Cadmium	<5.26	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Chromium	14.0	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Copper	227	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Lead	<5.26	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Mercury, Total	0.157	0.105	mg/Kg dry	A	B3K1941	11/14/2023 13:18	EPA SW 846-7471B	
Molybdenum	10.0	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Nickel	9.84	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Phosphorus, %	2.12	1.00	% dry	A	B3K1946	11/17/2023 13:40	EPA SW 846-6010. 3050	
Potassium, %	0.653	0.263	% dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Selenium	<5.26	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
Zinc	705	5.26	mg/Kg dry	A	B3K1945	11/17/2023 11:39	EPA SW 846-6010. 3050	
<u>Wet Lab</u>								
NH3N %	<0.526	0.526	% dry	A	B3K3630	12/07/2023 12:17	EPA 350.2	3
Nitrate-N, %	0.00489	0.000105	% dry	N	B3K1740	11/13/2023 12:20	SM 4500 NO3 D	
Percent Solid	1.9	0.1	%	A	B3J3525	10/25/2023 08:00	SM 2540C	
pH-Sludge	6.78		std unit	A	B3J3210	10/19/2023 10:25	EPA SW 846-9040	
TKN %	0.855	0.0526	% dry	N	B3J3623	11/01/2023 07:56	EPA 351.2	



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R and C Joy
 19020 W Little York Road
 Katy TX, 77449

EPA SW 846-9040 - Quality Control
 Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3J3210 - No Prep		Prepared: 10/19/23 10:25								
LCS (B3J3210-BS1)		Analyzed: 10/19/2023 10:25:00AM								
pH-Sludge	6.89		std unit	6.86		100	0-200			
Duplicate (B3J3210-DUP1)		Source: C3J5296-01 Analyzed: 10/19/2023 10:25:00AM								
pH-Sludge	6.74		std unit	6.78				0.592	20	
Batch B3J3525 - No Prep		Prepared: 10/25/23 08:00								
Blank (B3J3525-BLK1)		Analyzed: 10/25/2023 8:00:00AM								
Percent Solid	ND	0.1	%							
Duplicate (B3J3525-DUP1)		Source: C3J4986-01 Analyzed: 10/25/2023 8:00:00AM								
Percent Solid	1.50	0.1	%		1.60			6.45	20	
Batch B3J3623 - SM 4500 Norg C		Prepared: 11/01/23 07:56								
Blank (B3J3623-BLK1)		Analyzed: 11/1/2023 7:56:00AM								
TKN %	ND	0.00100	% wet							
LCS (B3J3623-BS1)		Analyzed: 11/1/2023 7:56:00AM								
TKN %	9.954		mg/L	10.0		99.5	80-120			
Matrix Spike (B3J3623-MS1)		Source: C3I3195-01 Analyzed: 11/1/2023 7:56:00AM								
TKN %	6.114047	0.0476	% dry	0.238	4.564286	651	80-120			23
Matrix Spike Dup (B3J3623-MSD1)		Source: C3I3195-01 Analyzed: 11/1/2023 7:56:00AM								
TKN %	6.590476	0.0476	% dry	0.238	4.564286	851	80-120	7.50	20	
Batch B3K1740 - No Prep		Prepared: 11/13/23 12:20								
Blank (B3K1740-BLK1)		Analyzed: 11/13/2023 12:20:00PM								
Nitrate-N, %	ND	0.00000200	% wet							
LCS (B3K1740-BS1)		Analyzed: 11/13/2023 12:20:00PM								
Nitrate-N, %	1.028		mg/L	1.00		103	80-120			
Matrix Spike (B3K1740-MS1)		Source: C3J3802-01 Analyzed: 11/13/2023 12:20:00PM								
Nitrate-N, %	1.45025	0.000125	% dry	0.312	1.24175	66.7	80-120			23
Matrix Spike Dup (B3K1740-MSD1)		Source: C3J3802-01 Analyzed: 11/13/2023 12:20:00PM								
Nitrate-N, %	1.459062	0.000125	% dry	0.312	1.24175	69.5	80-120	0.606	20	

Eastex Environmental Laboratory - Coldspring

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

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

PromiumforCold.v5 W&O ; revision date 11192021



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 Tel: 936 653 3249



R and C Joy
 19020 W Little York Road
 Katy TX, 77449

EPA SW 846-7471B - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3K1941 - SW 846-7471B										
Prepared: 11/10/23 16:35										
Blank (B3K1941-BLK1)				Analyzed: 11/14/2023 1:12:21PM						
Mercury, Total	ND	0.00200	mg/Kg wet							
LCS (B3K1941-BS1)				Analyzed: 11/14/2023 1:14:52PM						
Mercury, Total	0.0251	0.00200	mg/Kg wet	0.0250		100	80-120			
Matrix Spike (B3K1941-MS1)				Analyzed: 11/14/2023 1:23:06PM						
Mercury, Total	1.33	0.105	mg/Kg dry	1.32	0.157	89.3	75-125			
Matrix Spike Dup (B3K1941-MSD1)				Analyzed: 11/14/2023 1:26:18PM						
Mercury, Total	1.31	0.105	mg/Kg dry	1.32	0.157	87.3	75-125	2.00	20	
Batch B3K1945 - SW846-3050										
Prepared: 11/10/23 16:39										
Blank (B3K1945-BLK1)				Analyzed: 11/17/2023 11:32:21AM						
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
LCS (B3K1945-BS1)				Analyzed: 11/17/2023 11:35:47AM						
Molybdenum	2.59	0.100	mg/Kg wet	2.50		104	80-120			
Arsenic	2.19	0.100	mg/Kg wet	2.50		87.6	80-120			
Cadmium	2.4	0.100	mg/Kg wet	2.50		94.8	80-120			
Chromium	2.36	0.100	mg/Kg wet	2.50		94.4	80-120			
Copper	2.48	0.100	mg/Kg wet	2.50		99.2	80-120			
Lead	2.32	0.100	mg/Kg wet	2.50		92.8	80-120			
Nickel	2.38	0.100	mg/Kg wet	2.50		95.2	80-120			
Potassium, %	0.0255	0.00500	% wet	0.0250		102	80-120			
Selenium	2.17	0.100	mg/Kg wet	2.50		86.8	80-120			
Zinc	2.51	0.100	mg/Kg wet	2.50		100	80-120			
Matrix Spike (B3K1945-MS1)				Analyzed: 11/17/2023 11:46:09AM						
Molybdenum	148.4211	5.26	mg/Kg dry	132	10	105	75-125			

Eastex Environmental Laboratory - Coldspring

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved



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 Website: eastexlabs.com
 Email: eastexlab@eastex.net
 Tel: 936 653 3249



R and C Joy
 19020 W Little York Road
 Katy TX, 77449

EPA SW 846-6010, 3050 - Quality Control
 Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3K1945 - SW846-3050 Prepared: 11/10/23 16:39										
Matrix Spike (B3K1945-MS1) Source: C3J5296-01 Analyzed: 11/17/2023 11:46:09AM										
Arsenic	133	5.26	mg/Kg dry	132	8.79	94.5	75-125			
Cadmium	130	5.26	mg/Kg dry	132	ND	100	75-125			
Chromium	144	5.26	mg/Kg dry	132	14.0	98.6	75-125			
Copper	369	5.26	mg/Kg dry	132	227	108	75-125			
Lead	134	5.26	mg/Kg dry	132	5.13	98.1	75-125			
Nickel	141	5.26	mg/Kg dry	132	9.84	99.3	75-125			
Potassium, %	1.96	0.263	% dry	1.32	0.653	99.6	75-125			
Selenium	124	5.26	mg/Kg dry	132	3.07	91.7	75-125			
Zinc	821.0526	5.26	mg/Kg dry	132	705.2632	88.0	75-125			
Matrix Spike Dup (B3K1945-MSD1) Source: C3J5296-01 Analyzed: 11/17/2023 11:49:39AM										
Molybdenum	151.5789	5.26	mg/Kg dry	132	10	108	75-125	2.11	20	
Arsenic	135	5.26	mg/Kg dry	132	8.79	96.1	75-125	1.57	20	
Cadmium	130	5.26	mg/Kg dry	132	ND	101	75-125	0.398	20	
Chromium	146	5.26	mg/Kg dry	132	14.0	100	75-125	1.45	20	
Copper	379	5.26	mg/Kg dry	132	227	116	75-125	2.81	20	
Lead	134	5.26	mg/Kg dry	132	5.13	98.1	75-125	0.00	20	
Nickel	141	5.26	mg/Kg dry	132	9.84	99.3	75-125	0.00	20	
Potassium, %	2.03	0.263	% dry	1.32	0.653	104	75-125	3.17	20	
Selenium	121	5.26	mg/Kg dry	132	3.07	89.7	75-125	2.15	20	
Zinc	847.3685	5.26	mg/Kg dry	132	705.2632	108	75-125	3.15	20	
Batch B3K1946 - SW846-3050 Prepared: 11/17/23 13:37										
Blank (B3K1946-BLK1) Analyzed: 11/17/2023 1:37:45PM										
Phosphorus, %	ND	1.00	% wet							
LCS (B3K1946-BS1) Analyzed: 11/17/2023 1:47:49PM										
Phosphorus, %	0.00235	1.00	% wet	0.00252		93.2	80-120			
Matrix Spike (B3K1946-MS1) Source: C3J5296-01 Analyzed: 11/17/2023 1:44:10PM										
Phosphorus, %	2.24	1.00	% dry	0.133	2.12	92.1	75-125			
Matrix Spike Dup (B3K1946-MSD1) Source: C3J5296-01 Analyzed: 11/17/2023 1:49:25PM										
Phosphorus, %	2.18	1.00	% dry	0.133	2.12	43.4	75-125	2.92	20	
Batch B3K3630 - No Prep Prepared: 12/07/23 12:17										
Blank (B3K3630-BLK1) Analyzed: 12/7/2023 12:17:00PM										

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R and C Joy
 19020 W Little York Road
 Katy TX, 77449

EPA 350.2 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3K3630 - No Prep		Prepared: 12/07/23 12:17								
Blank (B3K3630-BLK1)					Analyzed: 12/7/2023 12:17:00PM					
NH3N %	ND	0.0100	% wet							
LCS (B3K3630-BS1)					Analyzed: 12/7/2023 12:17:00PM					
NH3N %	2.02		mg/L	2.00		101	80-120			
Matrix Spike (B3K3630-MS1)					Source: C3J3802-01 Analyzed: 12/7/2023 12:17:00PM					
NH3N %	0.414	0.625	% dry	0.250	0.172	96.8	80-120			
Matrix Spike Dup (B3K3630-MSD1)					Source: C3J3802-01 Analyzed: 12/7/2023 12:17:00PM					
NH3N %	0.414	0.625	% dry	0.250	0.172	96.5	80-120	0.181	20	



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R and C Joy
19020 W Little York Road
Katy TX, 77449

Notes and Definitions

3	Sample analysis performed out of holding time.
23	Spike recovery outside of acceptance limits due to matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

R&C Joy Inc. 19020 W Little York Rd. Katy, Texas 77449 Phone 281-858-5988

Company										Samples Received on Ice										Sample Preservation Check																																																	
Address										Sample Temp. <u>5.9</u>										pH																																																	
Site ID										Bottle										Bottle(s)																																																	
Sampled by										Therm. used										Checked with:																																																	
VPO# 101823A										IS										By <u>DM</u>																																																	
Lab Number										Sample Information										Field Data																																																	
Sample ID										Date Collected										Time Collected																																																	
Sampling Method										Preservation										Matrix																																																	
Grab										Ice/Refrigerator										Sludge																																																	
F/Proportional										H ₂ SO ₄										Water																																																	
Ice/Refrigerator										HNO ₃										Eff																																																	
H ₂ SO ₄										NaOH										Inf																																																	
HNO ₃										Dechlor.										Other																																																	
NaOH										Other										ID																																																	
Dechlor.										Other										Type																																																	
Other										Other										B=Backl																																																	
Other										Other										V=VOA																																																	
Other										Other										P=Plastic																																																	
Other										Other										G=Glass																																																	
Other										Other										Samp.																																																	
Other										Other										Temp.																																																	
Other										Other										°C																																																	
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Other										Other										mg/L																																																	
Other										Other										LAND App																																																	
Other										Other										TCLP/PCB																																																	
Other										Other										FECALS/SMT/750LMS																																																	
Other										Other										Analyses																																																	
Other										Other										Date																																																	
Other										Other										Time																																																	
W23.13515										Digesters										10/14/23										0902										✓																													
W23.13515										Digesters										10/14/23										0902										✓																													
W23.13516										Digester 1										10/14/23										0905										✓																													
W23.13517										Digester 2										10/14/23										0906										✓																													
Special Notes										Relinquished By										Date										Time										Received By										Date										Time									
* SHOCK MOLD TIME *										[Signature]										10/18/23										1250										[Signature]										10/18/23										(210)									
																				10/11/23										1430										[Signature]										10/18/23										1753									



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Inframark
32259 Morton Road
Brookshire, TX 77423

January 2, 2024

Sludge Report

HC 418

Page 1 of 4

Site HC MUD 418
Sample # W23.13515
Sample ID Digester
Sample Type Grab
Date 10/18/23
Time 0902
Sampled By PW

ENTERED JAN 11 2024

PCBs	Analyses	Result	Units	Analysis Date	Analyst	Method
	PCB-Aroclor 1016	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1221	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1232	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1242	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1248	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1254	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	PCB-Aroclor 1260	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A
	Total PCBs	ND	mg/Kg dry	10/24/23 2222	*Eastex/Eurofins	SW 846 8082A

TCLP

ICP Metals, TCLP Leached	Antimony	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Arsenic	0.059	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Barium	0.18	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Beryllium	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Cadmium	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Chromium	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Lead	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Mercury	ND	mg/L	10/25/23 1820	*Eastex/Eurofins	SW 846 7470A
	Nickel	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Selenium	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B
	Silver	ND	mg/L	10/26/23 1651	*Eastex/Eurofins	SW 846 6010B

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☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ & Solid



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Sludge Report
TCLP

Page 2 of 4

Site HC MUD 418

Sample # W23.13515

Sample ID Digesters

Sample Type Grab

Date 10/18/23

Time 0902

Sampled By PW

	Analyses	Result	Units	Analysis Date	Analyst	Method
TCLP Herbicides	Silvex(2,4,5-TP)	ND	mg/L	10/30/23 1238	*Eastex/Eurofins	SW 846 8151A
	2,4-D	ND	mg/L	10/30/23 1238	*Eastex/Eurofins	SW 846 8151A
TCLP Pesticides	Chlordane	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Endrin	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Heptachlor	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Heptachlor epoxide	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Lindane	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Methoxychlor	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
	Toxaphene	ND	mg/L	10/25/23 1844	*Eastex/Eurofins	SW 846 8081B
TCLP Semivolatiles	3 & 4 Methylphenol	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	2,4-Dinitrotoluene	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Hexachlorobenzene	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Hexachlorobutadiene	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Hexachloroethane	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Nitrobenzene	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Pentachlorophenol	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	Pyridine	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	2,4,5-Trichlorophenol	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	2,4,6-Trichlorophenol	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	1, 4-Dichlorobenzene	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D
	2-Methylphenol	ND	mg/L	10/26/23 2211	*Eastex/Eurofins	SW 846 8270D

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Sludge Report

Page 3 of 4

TCLP

Site HC MUD 418
Sample # W23.13515
Sample ID Digesters
Sample Type Grab
Date 10/18/23
Time 0902
Sampled By PW

	Analyses	Result	Units	Analysis Date	Analyst	Method
TCLP Volatiles	1,1-Dichloroethene	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	1,2-Dichloroethane	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	2-Butonone (MEK)	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Benzene	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Carbon tetrachloride	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Chlorobenzene	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Chloroform	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Tetrachloroethylene	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Trichloroethylene	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C
	Vinyl chloride	ND	mg/L	10/26/23 1250	*Eastex/Eurofins	SW 846 8260C

* Eastex/Eurofins is the subcontracted lab-See attached report.

The results relate to these samples only.

Report shall not be reproduced, except in full, without written approval from laboratory.


Rhonda J. Scrogin
Quality Manager
R&C Joy, Inc.

ENVIRONMENTAL CONSULTING • LABORATORY • PROCESS CONTROL • PRETREATMENT

R&C Joy Inc. 19020 W Little York Rd. Katy, Texas 77449 Phone 281-858-5988

464

Company Infamark

Address

Site ID HC MUD 418

Sampled by P. Weller

PO#

Samples Received on Ice Yes

Sample Temp. 5.8 °C

Bottle 250ml A

Therm. used 12 By PW

Sample Preservation Check

pH _____

Bottle(s) _____

Checked with: _____

By: _____

Lab Number

Sample Information

Sampling Method

Preservation

Matrix

Containers

Field Data

Analyses

Sample ID

Date Collected

Time Collected

Grab

F/Proportional

Ice/Refrigerator

H₂SO₄

HNO₃

NaOH

Dechlor.

Other

Sludge

Water

Eff

Inf

Other

ID

Type

B=Bacti

V=VOA

P=Plastic

G=Glass

Samp. Temp. °C

pH

STU

DO mg/L

Cl₂ res mg/L

W3.13515

10/18/23

0902

✓

✓

✓

✓

✓

None

a-c

3P

215

7.12

W3.13515

10/18/23

0902

✓

✓

✓

✓

✓

d-g

4G

W3.13515

10/18/23

0902

✓

✓

✓

✓

✓

W3.13516

10/18/23

0855

✓

✓

✓

✓

✓

a-g

7B

W3.13517

10/18/23

0906

✓

✓

✓

✓

✓

a-g

7B

Special Notes

Relinquished By

Date

Time

Received By

Date

Time

Land App / TELP / PCBs

12/18/23

0933

Feeds / source % solids



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



November 03, 2023

Ron Joy
R and C Joy
19020 W Little York Road
Katy, TX 77449

RE: R and C Joy Digester

Enclosed are the results of analyses for samples received by the laboratory on 10/18/23 16:30, with Lab ID Number C3J5297. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois
Special Projects Manager



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Bourgeois
Eastex Environmental Laboratory Inc.

PO BOX 1089

Coldspring, Texas 77331

Generated 10/31/2023 4:54:24 PM

JOB DESCRIPTION

R and C Joy

JOB NUMBER

860-59808-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

See page two for job notes and contact information.

Page 1 of 35



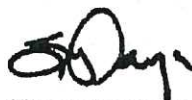
Eurofins Houston

Job Notes

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

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

Authorization



Generated
10/31/2023 4:54:24 PM

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

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	8
Surrogate Summary	10
QC Sample Results	13
QC Association Summary	26
Lab Chronicle	30
Certification Summary	31
Method Summary	32
Sample Summary	33
Chain of Custody	34
Receipt Checklists	35



Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Job ID: 860-59808-1

Laboratory: Eurofins Houston

Narrative

Job Narrative
860-59808-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The sample was received on 10/20/2023 2:31 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC/MS VOA

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

GC/MS Semi VOA

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

Herbicides

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

PCBs

Method 8082A: liquid sludge, weighed to 5 grams

R and C Joy Digester W23 13515 (860-59808-1)

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

Pesticides

Method 8081B: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: (LB 860-127803/1-B), (LCSD 860-127912/5-A) and (MB 860-127912/1-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: (LB 860-127803/1-B), (LCS 860-127912/4-A) and (LCSD 860-127912/5-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: R and C Joy Digester W23 13515 (860-59808-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: R and C Joy Digester W23 13515 (860-59808-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

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



Case Narrative

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Job ID: 860-59808-1 (Continued)

Laboratory: Eurofins Houston (Continued)

Metals

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

General Chemistry

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



Detection Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
A6byl9	0.059		0.050		mg/L	1		6010B	TCLP
Barium	0.18		0.050		mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Client Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Date Collected: 10/18/23 09:02

Matrix: Solid

Date Received: 10/20/23 14:31

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Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			10/26/23 12:50	50
Carbon tetrachloride	ND		0.25		mg/L			10/26/23 12:50	50
Chlorobenzene	ND		0.050		mg/L			10/26/23 12:50	50
Chloroform	ND		0.050		mg/L			10/26/23 12:50	50
1,2-Dichloroethane	ND		0.050		mg/L			10/26/23 12:50	50
1,1-Dichloroethene	ND		0.050		mg/L			10/26/23 12:50	50
2-Butanone	ND		2.5		mg/L			10/26/23 12:50	50
Tetrachloroethene	ND		0.050		mg/L			10/26/23 12:50	50
Trichloroethene	ND		0.25		mg/L			10/26/23 12:50	50
Vinyl chloride	ND		0.10		mg/L			10/26/23 12:50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144		10/26/23 12:50	50
4-Bromofluorobenzene (Surr)	106		74 - 124		10/26/23 12:50	50
Dibromofluoromethane (Surr)	104		75 - 131		10/26/23 12:50	50
Toluene-d8 (Surr)	102		80 - 120		10/26/23 12:50	50

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
2,4-Dinitrotoluene	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
2-Methylphenol	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
Hexachlorobenzene	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
Hexachlorobutadiene	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
Hexachloroethane	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
Nitrobenzene	ND		0.13		mg/L		10/26/23 07:13	10/26/23 22:11	5
Pentachlorophenol	ND		0.25		mg/L		10/26/23 07:13	10/26/23 22:11	5
Pyridine	ND		0.25		mg/L		10/26/23 07:13	10/26/23 22:11	5
3 & 4 Methylphenol	ND		0.25		mg/L		10/26/23 07:13	10/26/23 22:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	56		31 - 132	10/26/23 07:13	10/26/23 22:11	5
2-Fluorobiphenyl (Surr)	61		29 - 112	10/26/23 07:13	10/26/23 22:11	5
2-Fluorophenol (Surr)	46		21 - 114	10/26/23 07:13	10/26/23 22:11	5
Nitrobenzene-d5 (Surr)	41		26 - 110	10/26/23 07:13	10/26/23 22:11	5
p-Terphenyl-d14 (Surr)	68		20 - 141	10/26/23 07:13	10/26/23 22:11	5
Phenol-d5 (Surr)	36		16 - 117	10/26/23 07:13	10/26/23 22:11	5

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 18:44	1
Endrin	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 18:44	1
Heptachlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 18:44	1
Heptachlor epoxide	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 18:44	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 18:44	1
Methoxychlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 18:44	1
Toxaphene	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 18:44	1

Eurofins Houston

Client Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Date Collected: 10/18/23 09:02

Matrix: Solid

Date Received: 10/20/23 14:31

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	53		45 - 115	10/25/23 10:25	10/25/23 18:44	1
Tetrachloro-m-xylene	84		41 - 110	10/25/23 10:25	10/25/23 18:44	1

Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		10/26/23 12:49	10/30/23 12:38	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		10/26/23 12:49	10/30/23 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	119		42 - 150	10/26/23 12:49	10/30/23 12:38	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.059		0.050		mg/L		10/26/23 08:00	10/26/23 16:51	1
Antimony	ND		0.10		mg/L		10/26/23 08:00	10/26/23 16:51	1
Barium	0.18		0.050		mg/L		10/26/23 08:00	10/26/23 16:51	1
Cadmium	ND		0.025		mg/L		10/26/23 08:00	10/26/23 16:51	1
Chromium	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:51	1
Beryllium	ND		0.020		mg/L		10/26/23 08:00	10/26/23 16:51	1
Lead	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:51	1
Selenium	ND		0.15		mg/L		10/26/23 08:00	10/26/23 16:51	1
Silver	ND		0.10		mg/L		10/26/23 08:00	10/26/23 16:51	1
Nickel	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:51	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/25/23 13:51	10/25/23 18:20	1

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	97.3				%			10/24/23 17:24	1
Percent Solids (EPA Moisture)	2.7				%			10/24/23 17:24	1

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Date Collected: 10/18/23 09:02

Matrix: Solid

Date Received: 10/20/23 14:31

Percent Solids: 2.7

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1221	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1232	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1242	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1248	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1254	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1
PCB-1260	ND		3.7		mg/Kg		10/24/23 09:43	10/24/23 22:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		35 - 140	10/24/23 09:43	10/24/23 22:22	1
DCB Decachlorobiphenyl (Surr)	123		37 - 142	10/24/23 09:43	10/24/23 22:22	1

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-128055/3	Lab Control Sample	93	102	93	100
LCSD 860-128055/4	Lab Control Sample Dup	97	101	95	99
MB 860-128055/11	Method Blank	101	106	97	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-59808-1	R and C Joy Digester W23 13515	99	106	104	102
870-21710-A-1-F MS	Matrix Spike	94	101	97	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
LB 860-127996/1-A	Method Blank				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-128057/2-A	Lab Control Sample	83	80	44	81	96	30
LCSD 860-127959/3-A	Lab Control Sample Dup	111	101	53	90	110	36
LCSD 860-128057/3-A	Lab Control Sample Dup	87	75	37	74	97	26
MB 860-127959/1-A	Method Blank	119	107	58	105	119	39
MB 860-128057/1-A	Method Blank	75	95	51	90	100	31

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Job ID: 860-59808-1

Project/Site: R and C Joy

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-59808-1	R and C Joy Digester W23 13515	56	61	46	41	68	36
870-21667-B-1-M MS	Matrix Spike	59	51	39	50	67	33
LB 860-127803/1-D	Method Blank	114	106	75	98	116	59

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (45-115)	TCX1 (41-110)
LCS 860-127912/4-A	Lab Control Sample	69	104

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (45-115)	TCX2 (41-110)
LCSD 860-127912/5-A	Lab Control Sample Dup	64	83

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (45-115)	TCX2 (41-110)
MB 860-127912/1-A	Method Blank	46	81

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Job ID: 860-59808-1

Project/Site: R and C Joy

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB2 (45-115)	TCX2 (41-110)
860-59808-1	R and C Joy Digester W23 13515	53	84
LB 860-127803/1-B	Method Blank	67	86
Surrogate Legend			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (35-140)	DCB1 (37-142)
860-59808-1	R and C Joy Digester W23 13515	79	123
LCS 860-127690/2-A	Lab Control Sample	99	111
LCSD 860-127690/3-A	Lab Control Sample Dup	100	114
MB 860-127690/1-A	Method Blank	97	113
Surrogate Legend			
TCX = Tetrachloro-m-xylene			
DCB = DCB Decachlorobiphenyl (Surr)			

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
LCS 860-128170/2-A	Lab Control Sample	139	
LCSD 860-128170/3-A	Lab Control Sample Dup	123	
MB 860-128170/1-A	Method Blank	121	
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
860-59808-1	R and C Joy Digester W23 13515	119	
LB 860-127803/1-F	Method Blank	126	
Surrogate Legend			
DCPAA = 2,4-Dichlorophenylacetic acid			

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-128055/11

Matrix: Solid

Analysis Batch: 128055

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			10/26/23 09:59	1
Carbon tetrachloride	ND		0.0050		mg/L			10/26/23 09:59	1
Chlorobenzene	ND		0.0010		mg/L			10/26/23 09:59	1
Chloroform	ND		0.0010		mg/L			10/26/23 09:59	1
1,2-Dichloroethane	ND		0.0010		mg/L			10/26/23 09:59	1
1,1-Dichloroethene	ND		0.0010		mg/L			10/26/23 09:59	1
2-Butanone	ND		0.050		mg/L			10/26/23 09:59	1
Tetrachloroethene	ND		0.0010		mg/L			10/26/23 09:59	1
Trichloroethene	ND		0.0050		mg/L			10/26/23 09:59	1
Vinyl chloride	ND		0.0020		mg/L			10/26/23 09:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		63 - 144		10/26/23 09:59	1
4-Bromofluorobenzene (Surr)	106		74 - 124		10/26/23 09:59	1
Dibromofluoromethane (Surr)	97		75 - 131		10/26/23 09:59	1
Toluene-d8 (Surr)	100		80 - 120		10/26/23 09:59	1

Lab Sample ID: LCS 860-128055/3

Matrix: Solid

Analysis Batch: 128055

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0528		mg/L		106	75 - 125
Carbon tetrachloride	0.0500	0.0497		mg/L		99	70 - 130
Chlorobenzene	0.0500	0.0523		mg/L		105	65 - 135
Chloroform	0.0500	0.0492		mg/L		98	70 - 121
1,2-Dichloroethane	0.0500	0.0523		mg/L		105	72 - 130
1,1-Dichloroethene	0.0500	0.0517		mg/L		103	50 - 150
2-Butanone	0.250	0.259		mg/L		104	80 - 140
Tetrachloroethene	0.0500	0.0536		mg/L		107	71 - 125
Trichloroethene	0.0500	0.0542		mg/L		108	75 - 135
Vinyl chloride	0.0500	0.0526		mg/L		105	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	93		75 - 131
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: LCSD 860-128055/4

Matrix: Solid

Analysis Batch: 128055

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0532		mg/L		106	75 - 125	1	25
Carbon tetrachloride	0.0500	0.0509		mg/L		102	70 - 130	2	25
Chlorobenzene	0.0500	0.0510		mg/L		102	65 - 135	2	25
Chloroform	0.0500	0.0504		mg/L		101	70 - 121	3	25

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-128055/4
Matrix: Solid
Analysis Batch: 128055

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0519		mg/L		104	72 - 130	1	25
1,1-Dichloroethene	0.0500	0.0527		mg/L		105	50 - 150	2	25
2-Butanone	0.250	0.260		mg/L		104	60 - 140	0	25
Tetrachloroethene	0.0500	0.0529		mg/L		106	71 - 125	1	25
Trichloroethene	0.0500	0.0534		mg/L		107	75 - 135	2	25
Vinyl chloride	0.0500	0.0511		mg/L		102	60 - 140	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	95		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LB 860-127996/1-A
Matrix: Solid
Analysis Batch: 128055

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050		mg/L			10/26/23 09:40	5
Carbon tetrachloride	ND		0.025		mg/L			10/26/23 09:40	5
Chlorobenzene	ND		0.0050		mg/L			10/26/23 09:40	5
Chloroform	ND		0.0050		mg/L			10/26/23 09:40	5
1,2-Dichloroethane	ND		0.0050		mg/L			10/26/23 09:40	5
1,1-Dichloroethene	ND		0.0050		mg/L			10/26/23 09:40	5
2-Butanone	ND		0.25		mg/L			10/26/23 09:40	5
Tetrachloroethene	ND		0.0050		mg/L			10/26/23 09:40	5
Trichloroethene	ND		0.025		mg/L			10/26/23 09:40	5
Vinyl chloride	ND		0.010		mg/L			10/26/23 09:40	5

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)					10/26/23 09:40	5
4-Bromofluorobenzene (Surr)					10/26/23 09:40	5
Dibromofluoromethane (Surr)					10/26/23 09:40	5
Toluene-d8 (Surr)					10/26/23 09:40	5

Lab Sample ID: 870-21710-A-1-F MS
Matrix: Solid
Analysis Batch: 128055

Client Sample ID: Matrix Spike
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		2.50	2.46		mg/L		97	66 - 142
Carbon tetrachloride	ND		2.50	2.20		mg/L		88	62 - 125
Chlorobenzene	ND		2.50	2.42		mg/L		97	60 - 133
Chloroform	ND		2.50	2.43		mg/L		97	70 - 130
1,2-Dichloroethane	ND		2.50	2.48		mg/L		99	68 - 127
1,1-Dichloroethene	ND		2.50	2.51		mg/L		100	59 - 172
2-Butanone	ND		12.5	12.6		mg/L		101	60 - 140
Tetrachloroethene	ND		2.50	2.46		mg/L		99	71 - 125

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 870-21710-A-1-F MS							Client Sample ID: Matrix Spike		
Matrix: Solid							Prep Type: TCLP		
Analysis Batch: 128055									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethane	ND		2.50	2.56		mg/L		102	62 - 137
Vinyl chloride	ND		2.50	2.44		mg/L		98	60 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	94		63 - 144						
4-Bromofluorobenzene (Surr)	101		74 - 124						
Dibromofluoromethane (Surr)	97		75 - 131						
Toluene-d8 (Surr)	99		80 - 120						

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-127959/1-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 128064							Prep Batch: 127959		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
2-Methylphenol	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
Hexachlorobenzene	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
Hexachlorobutadiene	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
Hexachloroethane	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
Nitrobenzene	ND		0.0050		mg/L		10/25/23 13:55	10/26/23 10:15	1
Pentachlorophenol	ND		0.010		mg/L		10/25/23 13:55	10/26/23 10:15	1
Pyridine	ND		0.010		mg/L		10/25/23 13:55	10/26/23 10:15	1
3 & 4 Methylphenol	ND		0.010		mg/L		10/25/23 13:55	10/26/23 10:15	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
2,4,6-Tribromophenol (Surr)	119		31 - 132			10/25/23 13:55	10/26/23 10:15	1	
2-Fluorobiphenyl (Surr)	107		29 - 112			10/25/23 13:55	10/26/23 10:15	1	
2-Fluorophenol (Surr)	58		21 - 114			10/25/23 13:55	10/26/23 10:15	1	
Nitrobenzene-d5 (Surr)	105		26 - 110			10/25/23 13:55	10/26/23 10:15	1	
p-Terphenyl-d14 (Surr)	119		20 - 141			10/25/23 13:55	10/26/23 10:15	1	
Phenol-d5 (Surr)	39		16 - 117			10/25/23 13:55	10/26/23 10:15	1	

Lab Sample ID: LCSD 860-127959/3-A							Client Sample ID: Lab Control Sample Dup		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 128064							Prep Batch: 127959		
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0400	0.0338		mg/L		85	37 - 111	12	30
2,4,5-Trichlorophenol	0.0400	0.0428		mg/L		107	39 - 125	7	30
2,4,6-Trichlorophenol	0.0400	0.0445		mg/L		111	42 - 125	13	30
2,4-Dinitrotoluene	0.0400	0.0437		mg/L		109	41 - 128	1	30
2-Methylphenol	0.0400	0.0302		mg/L		76	36 - 105	8	30
Hexachlorobenzene	0.0400	0.0451		mg/L		113	39 - 128	2	30

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-127959/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 128064

Prep Batch: 127959

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexachlorobutadiene	0.0400	0.0352		mg/L		88	31 - 120	11	30
Hexachloroethane	0.0400	0.0309		mg/L		77	37 - 109	13	30
Nitrobenzene	0.0400	0.0377		mg/L		94	37 - 114	13	30
Pentachlorophenol	0.0400	0.0474		mg/L		119	10 - 137	2	40
Pyridine	0.0400	0.0113		mg/L		28	5 - 130	39	50
3 & 4 Methylphenol	0.0400	0.0287		mg/L		72	35 - 116	6	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
2,4,6-Tribromophenol (Surr)	111		31 - 132
2-Fluorobiphenyl (Surr)	101		29 - 112
2-Fluorophenol (Surr)	53		21 - 114
Nitrobenzene-d5 (Surr)	90		26 - 110
p-Terphenyl-d14 (Surr)	110		20 - 141
Phenol-d5 (Surr)	36		16 - 117

Lab Sample ID: MB 860-128057/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 128224						Prep Batch: 128057			
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dichlorobenzene	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
2-Methylphenol	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
Hexachlorobenzene	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
Hexachlorobutadiene	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
Hexachloroethane	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
Nitrobenzene	ND		0.0050		mg/L		10/26/23 07:13	10/26/23 21:53	1
Pentachlorophenol	ND		0.010		mg/L		10/26/23 07:13	10/26/23 21:53	1
Pyridine	ND		0.010		mg/L		10/26/23 07:13	10/26/23 21:53	1
3 & 4 Methylphenol	ND		0.010		mg/L		10/26/23 07:13	10/26/23 21:53	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2,4,6-Tribromophenol (Surr)	75		31 - 132				10/26/23 07:13	10/26/23 21:53	1
2-Fluorobiphenyl (Surr)	95		29 - 112				10/26/23 07:13	10/26/23 21:53	1
2-Fluorophenol (Surr)	51		21 - 114				10/26/23 07:13	10/26/23 21:53	1
Nitrobenzene-d5 (Surr)	90		26 - 110				10/26/23 07:13	10/26/23 21:53	1
p-Terphenyl-d14 (Surr)	100		20 - 141				10/26/23 07:13	10/26/23 21:53	1
Phenol-d5 (Surr)	31		16 - 117				10/26/23 07:13	10/26/23 21:53	1

Lab Sample ID: LCS 860-128057/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 128224				Prep Batch: 128057			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,4-Dichlorobenzene	0.0400	0.0297		mg/L		74	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0373		mg/L		93	39 - 125

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-128057/2-A

Matrix: Solid

Analysis Batch: 128224

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 128057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trichlorophenol	0.0400	0.0389		mg/L		97	42 - 125
2,4-Dinitrotoluene	0.0400	0.0374		mg/L		93	41 - 128
2-Methylphenol	0.0400	0.0272		mg/L		68	36 - 105
Hexachlorobenzene	0.0400	0.0382		mg/L		96	39 - 128
Hexachlorobutadiene	0.0400	0.0302		mg/L		75	31 - 120
Hexachloroethane	0.0400	0.0284		mg/L		71	37 - 109
Nitrobenzene	0.0400	0.0354		mg/L		88	37 - 114
Pentachlorophenol	0.0400	0.0327		mg/L		82	10 - 137
Pyridine	0.0400	0.00672	J	mg/L		17	5 - 130
3 & 4 Methylphenol	0.0400	0.0245		mg/L		61	35 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	83		31 - 132
2-Fluorobiphenyl (Surr)	80		29 - 112
2-Fluorophenol (Surr)	44		21 - 114
Nitrobenzene-d5 (Surr)	81		26 - 110
p-Terphenyl-d14 (Surr)	96		20 - 141
Phenol-d5 (Surr)	30		16 - 117

Lab Sample ID: LCSD 860-128057/3-A

Matrix: Solid

Analysis Batch: 128224

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 128057

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,4-Dichlorobenzene	0.0400	0.0241		mg/L		60	37 - 111	21	30
2,4,5-Trichlorophenol	0.0400	0.0352		mg/L		88	39 - 125	6	30
2,4,6-Trichlorophenol	0.0400	0.0357		mg/L		89	42 - 125	8	30
2,4-Dinitrotoluene	0.0400	0.0371		mg/L		93	41 - 128	1	30
2-Methylphenol	0.0400	0.0243		mg/L		61	36 - 105	11	30
Hexachlorobenzene	0.0400	0.0376		mg/L		94	39 - 128	2	30
Hexachlorobutadiene	0.0400	0.0263		mg/L		66	31 - 120	14	30
Hexachloroethane	0.0400	0.0237		mg/L		59	37 - 109	18	30
Nitrobenzene	0.0400	0.0322		mg/L		81	37 - 114	9	30
Pentachlorophenol	0.0400	0.0335		mg/L		84	10 - 137	2	40
Pyridine	0.0400	0.00832	J	mg/L		21	5 - 130	21	50
3 & 4 Methylphenol	0.0400	0.0218		mg/L		55	35 - 116	12	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	87		31 - 132
2-Fluorobiphenyl (Surr)	75		29 - 112
2-Fluorophenol (Surr)	37		21 - 114
Nitrobenzene-d5 (Surr)	74		26 - 110
p-Terphenyl-d14 (Surr)	97		20 - 141
Phenol-d5 (Surr)	26		16 - 117

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-127803/1-D

Matrix: Solid

Analysis Batch: 128064

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127959

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
2,4-Dinitrotoluene	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
2-Methylphenol	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
Hexachlorobenzene	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
Hexachlorobutadiene	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
Hexachloroethane	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
Nitrobenzene	ND		0.025		mg/L		10/25/23 13:55	10/26/23 11:14	1
Pentachlorophenol	ND		0.050		mg/L		10/25/23 13:55	10/26/23 11:14	1
Pyridine	ND		0.050		mg/L		10/25/23 13:55	10/26/23 11:14	1
3 & 4 Methylphenol	ND		0.050		mg/L		10/25/23 13:55	10/26/23 11:14	1

Surrogate	LB	LB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)			114		31 - 132	10/25/23 13:55	10/26/23 11:14	1
2-Fluorobiphenyl (Surr)			106		29 - 112	10/25/23 13:55	10/26/23 11:14	1
2-Fluorophenol (Surr)			75		21 - 114	10/25/23 13:55	10/26/23 11:14	1
Nitrobenzene-d5 (Surr)			98		26 - 110	10/25/23 13:55	10/26/23 11:14	1
p-Terphenyl-d14 (Surr)			116		20 - 141	10/25/23 13:55	10/26/23 11:14	1
Phenol-d5 (Surr)			59		16 - 117	10/25/23 13:55	10/26/23 11:14	1

Lab Sample ID: 870-21667-B-1-M MS

Matrix: Solid

Analysis Batch: 128224

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 128057

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier			Limits	
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		48	37 - 111
2,4,5-Trichlorophenol	ND		0.200	ND		mg/L		63	39 - 125
2,4,6-Trichlorophenol	ND		0.200	ND		mg/L		57	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.136		mg/L		68	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		52	36 - 105
Hexachlorobenzene	ND		0.200	ND		mg/L		65	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		52	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		49	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		56	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		72	10 - 137
Pyridine	ND		0.200	ND		mg/L		34	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		52	35 - 116

Surrogate	MS	MS	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)			59		31 - 132
2-Fluorobiphenyl (Surr)			51		29 - 112
2-Fluorophenol (Surr)			39		21 - 114
Nitrobenzene-d5 (Surr)			50		26 - 110
p-Terphenyl-d14 (Surr)			67		20 - 141
Phenol-d5 (Surr)			33		16 - 117

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-127912/1-A
Matrix: Solid
Analysis Batch: 127892

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127912

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 15:34	1
Endrin	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 15:34	1
Heptachlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 15:34	1
Heptachlor epoxide	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 15:34	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 15:34	1
Methoxychlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 15:34	1
Toxaphene	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 15:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	46		45 - 115				10/25/23 10:25	10/25/23 15:34	1
Tetrachloro-m-xylene	81		41 - 110				10/25/23 10:25	10/25/23 15:34	1

Lab Sample ID: LCS 860-127912/4-A
Matrix: Solid
Analysis Batch: 127892

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00128	0.00115		mg/L		90	55 - 102
Heptachlor	0.00128	0.00103		mg/L		80	55 - 106
Heptachlor epoxide	0.00128	0.00114		mg/L		89	56 - 109
gamma-BHC (Lindane)	0.00128	0.00114		mg/L		89	59 - 107
Methoxychlor	0.00128	0.000922		mg/L		72	53 - 102
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	69		45 - 115				
Tetrachloro-m-xylene	104		41 - 110				

Lab Sample ID: LCSD 860-127912/5-A
Matrix: Solid
Analysis Batch: 127892

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endrin	0.00130	0.00126		mg/L		97	55 - 102	9	25
Heptachlor	0.00130	0.00116		mg/L		89	55 - 106	12	25
Heptachlor epoxide	0.00130	0.00123		mg/L		94	56 - 109	7	25
gamma-BHC (Lindane)	0.00130	0.00123		mg/L		95	59 - 107	7	25
Methoxychlor	0.00130	0.00100		mg/L		77	53 - 102	8	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	64		45 - 115						
Tetrachloro-m-xylene	83		41 - 110						

Lab Sample ID: LB 860-127803/1-B
Matrix: Solid
Analysis Batch: 127892

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 127912

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 16:41	1

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LB 860-127803/1-B

Matrix: Solid

Analysis Batch: 127892

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127912

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 16:41	1
Heptachlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 16:41	1
Heptachlor epoxide	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 16:41	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 16:41	1
Methoxychlor	ND		0.000052		mg/L		10/25/23 10:25	10/25/23 16:41	1
Toxaphene	ND		0.0010		mg/L		10/25/23 10:25	10/25/23 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	67		45 - 115				10/25/23 10:25	10/25/23 16:41	1
Tetrachloro-m-xylene	86		41 - 110				10/25/23 10:25	10/25/23 16:41	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-127690/1-A

Matrix: Solid

Analysis Batch: 127680

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127690

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1221	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1232	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1242	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1248	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1254	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
PCB-1260	ND		0.017		mg/Kg		10/24/23 09:37	10/24/23 12:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		35 - 140				10/24/23 09:37	10/24/23 12:28	1
DCB Decachlorobiphenyl (Surr)	113		37 - 142				10/24/23 09:37	10/24/23 12:28	1

Lab Sample ID: LCS 860-127690/2-A

Matrix: Solid

Analysis Batch: 127680

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127690

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.167	0.151		mg/Kg		90	27 - 121
PCB-1260	0.167	0.161		mg/Kg		97	27 - 139
Surrogate	%Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	99		35 - 140				
DCB Decachlorobiphenyl (Surr)	111		37 - 142				

Lab Sample ID: LCSD 860-127690/3-A

Matrix: Solid

Analysis Batch: 127680

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127690

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	0.167	0.155		mg/Kg		93	27 - 121	3	20

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 860-127690/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 127680				Prep Batch: 127690						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
PCB-1260	0.167	0.166		mg/Kg		100	27 - 139	3	20	
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
Tetrachloro-m-xylene	100		35 - 140							
DCB Decachlorobiphenyl (Surr)	114		37 - 142							

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-128170/1-A				Client Sample ID: Method Blank						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 128089				Prep Batch: 128170						
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
2,4-D	ND		0.00020		mg/L		10/26/23 12:49	10/27/23 10:49	1	
2,4,5-TP (Silvex)	ND		0.00020		mg/L		10/26/23 12:49	10/27/23 10:49	1	
Surrogate	MB %Recovery	MB Qualifier	Limits							
2,4-Dichlorophenylacetic acid	121		42 - 150							
				Prepared Analyzed Dil Fac						
				10/26/23 12:49 10/27/23 10:49 1						

Lab Sample ID: LCS 860-128170/2-A				Client Sample ID: Lab Control Sample					
Matrix: Solid				Prep Type: Total/NA					
Analysis Batch: 128089				Prep Batch: 128170					
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D			0.00200	0.00211		mg/L		105	45 - 124
2,4,5-TP (Silvex)			0.00200	0.00240		mg/L		120	45 - 124
									</

Lab Sample ID: LCSD 860-128170/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 128089				Prep Batch: 128170						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
2,4-D	0.00199	0.00213		mg/L		107	45 - 124	1	25	
2,4,5-TP (Silvex)	0.00199	0.00247		mg/L		124	45 - 124	3	25	
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
2,4-Dichlorophenylacetic acid	123		42 - 150							

Lab Sample ID: LB 860-127803/1-F				Client Sample ID: Method Blank						
Matrix: Solid				Prep Type: TCLP						
Analysis Batch: 128089				Prep Batch: 128170						
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
2,4-D	ND		0.00020		mg/L		10/26/23 12:49	10/27/23 13:01	1	
2,4,5-TP (Silvex)	ND		0.00020		mg/L		10/26/23 12:49	10/27/23 13:01	1	

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 8151A - Herbicides (GC) (Continued)

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	126		42 - 150	10/26/23 12:49	10/27/23 13:01	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-128067/1-A
Matrix: Solid
Analysis Batch: 128351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 128067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		10/26/23 08:00	10/26/23 13:50	1
Antimony	ND		0.020		mg/L		10/26/23 08:00	10/26/23 13:50	1
Barium	ND		0.010		mg/L		10/26/23 08:00	10/26/23 13:50	1
Cadmium	ND		0.0050		mg/L		10/26/23 08:00	10/26/23 13:50	1
Chromium	ND		0.010		mg/L		10/26/23 08:00	10/26/23 13:50	1
Beryllium	ND		0.0040		mg/L		10/26/23 08:00	10/26/23 13:50	1
Lead	ND		0.010		mg/L		10/26/23 08:00	10/26/23 13:50	1
Selenium	ND		0.030		mg/L		10/26/23 08:00	10/26/23 13:50	1
Silver	ND		0.020		mg/L		10/26/23 08:00	10/26/23 13:50	1
Nickel	ND		0.010		mg/L		10/26/23 08:00	10/26/23 13:50	1

Lab Sample ID: LCS 860-128067/2-A
Matrix: Solid
Analysis Batch: 128351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 128067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.924		mg/L		92	80 - 120
Antimony	1.00	0.903		mg/L		90	80 - 120
Barium	1.00	0.935		mg/L		94	80 - 120
Cadmium	1.00	0.956		mg/L		96	80 - 120
Chromium	1.00	0.948		mg/L		95	80 - 120
Beryllium	1.00	0.984		mg/L		98	80 - 120
Lead	1.00	0.943		mg/L		94	80 - 120
Selenium	1.00	0.936		mg/L		94	80 - 120
Silver	0.500	0.492		mg/L		98	80 - 120
Nickel	1.00	0.935		mg/L		94	80 - 120

Lab Sample ID: LCSD 860-128067/3-A
Matrix: Solid
Analysis Batch: 128351

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 128067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	1.00	0.927		mg/L		93	80 - 120	0	20
Antimony	1.00	0.908		mg/L		91	80 - 120	1	20
Barium	1.00	0.939		mg/L		94	80 - 120	0	20
Cadmium	1.00	0.961		mg/L		96	80 - 120	1	20
Chromium	1.00	0.946		mg/L		95	80 - 120	0	20
Beryllium	1.00	0.989		mg/L		99	80 - 120	1	20
Lead	1.00	0.949		mg/L		95	80 - 120	1	20
Selenium	1.00	0.943		mg/L		94	80 - 120	1	20
Silver	0.500	0.494		mg/L		99	80 - 120	0	20
Nickel	1.00	0.940		mg/L		94	80 - 120	1	20

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 860-59227-A-1-C MSD						Client Sample ID: Matrix Spike Duplicate					
Matrix: Solid						Prep Type: Total/NA					
Analysis Batch: 128351						Prep Batch: 128067					
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	1.03		mg/L		102	75 - 125	1	20
Antimony	ND		1.00	0.992		mg/L		99	75 - 125	2	20
Barium	0.17		1.00	1.17		mg/L		101	75 - 125	1	20
Cadmium	ND		1.00	1.04		mg/L		104	75 - 125	1	20
Chromium	ND		1.00	1.02		mg/L		102	75 - 125	0	20
Beryllium	ND		1.00	1.07		mg/L		107	75 - 125	0	20
Lead	ND		1.00	1.02		mg/L		102	75 - 125	0	20
Selenium	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Silver	ND		0.500	0.537		mg/L		107	75 - 125	1	20
Nickel	ND		1.00	1.01		mg/L		101	75 - 125	0	20

Lab Sample ID: LB 860-127803/1-E						Client Sample ID: Method Blank					
Matrix: Solid						Prep Type: TCLP					
Analysis Batch: 128351						Prep Batch: 128067					
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Antimony	ND		0.10		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Barium	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Cadmium	ND		0.025		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Chromium	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Beryllium	ND		0.020		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Lead	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Selenium	ND		0.15		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Silver	ND		0.10		mg/L		10/26/23 08:00	10/26/23 16:27	1		
Nickel	ND		0.050		mg/L		10/26/23 08:00	10/26/23 16:27	1		

Lab Sample ID: 870-21763-A-1-G MS						Client Sample ID: Matrix Spike					
Matrix: Solid						Prep Type: TCLP					
Analysis Batch: 128351						Prep Batch: 128067					
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125		
Antimony	ND		1.00	0.980		mg/L		98	75 - 125		
Barium	ND		1.00	1.04		mg/L		100	75 - 125		
Cadmium	ND		1.00	1.05		mg/L		105	75 - 125		
Chromium	ND		1.00	1.03		mg/L		103	75 - 125		
Beryllium	ND		1.00	1.08		mg/L		108	75 - 125		
Lead	ND		1.00	1.04		mg/L		104	75 - 125		
Selenium	ND		1.00	1.02		mg/L		102	75 - 125		
Silver	ND		0.500	0.540		mg/L		108	75 - 125		
Nickel	ND		1.00	1.05		mg/L		105	75 - 125		

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-127957/10-A
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/25/23 13:51	10/25/23 18:01	1

Lab Sample ID: LCS 860-127957/11-A
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00191		mg/L		96	80 - 120

Lab Sample ID: LCSD 860-127957/12-A
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127957

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00185		mg/L		93	80 - 120	3	20

Lab Sample ID: LB 860-127803/1-C
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 127957

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/25/23 13:51	10/25/23 18:05	1

Lab Sample ID: 860-59913-B-1-F MS
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Matrix Spike
Prep Type: TCLP
Prep Batch: 127957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00200	0.00201		mg/L		101	75 - 125

Lab Sample ID: 860-59913-B-1-G MSD
Matrix: Solid
Analysis Batch: 128048

Client Sample ID: Matrix Spike Duplicate
Prep Type: TCLP
Prep Batch: 127957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00196		mg/L		98	75 - 125	3	20

Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-127837/1
Matrix: Solid
Analysis Batch: 127837

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.07				%			10/24/23 17:24	1
Percent Solids	100.1				%			10/24/23 17:24	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-59807-C-1 DU
Matrix: Solid
Analysis Batch: 127837

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU		Unit	D	RPD	
			Result	Qualifier			RPD	Limit
Percent Moisture	98.8		98.6		%		0.2	20
Percent Solids	1.2		1.4		%		15	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

GC/MS VOA

Leach Batch: 127996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	1311	
LB 860-127996/1-A	Method Blank	TCLP	Solid	1311	
870-21710-A-1-F MS	Matrix Spike	TCLP	Solid	1311	

Analysis Batch: 128055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	8260C	127996
LB 860-127996/1-A	Method Blank	TCLP	Solid	8260C	127996
MB 860-128055/11	Method Blank	Total/NA	Solid	8260C	
LCS 860-128055/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-128055/4	Lab Control Sample Dup	Total/NA	Solid	8260C	
870-21710-A-1-F MS	Matrix Spike	TCLP	Solid	8260C	127996

GC/MS Semi VOA

Leach Batch: 127396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
870-21667-B-1-M MS	Matrix Spike	TCLP	Solid	1311	

Leach Batch: 127803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	1311	
LB 860-127803/1-D	Method Blank	TCLP	Solid	1311	

Prep Batch: 127959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-127803/1-D	Method Blank	TCLP	Solid	3510C	127803
MB 860-127959/1-A	Method Blank	Total/NA	Solid	3510C	
LCSD 860-127959/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Prep Batch: 128057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	3510C	127803
MB 860-128057/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-128057/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-128057/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
870-21667-B-1-M MS	Matrix Spike	TCLP	Solid	3510C	127396

Analysis Batch: 128064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-127803/1-D	Method Blank	TCLP	Solid	8270D	127959
MB 860-127959/1-A	Method Blank	Total/NA	Solid	8270D	127959
LCSD 860-127959/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	127959

Analysis Batch: 128173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	8270D	128057

Analysis Batch: 128224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-128057/1-A	Method Blank	Total/NA	Solid	8270D	128057

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QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

GC/MS Semi VOA (Continued)

Analysis Batch: 128224 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-128057/2-A	Lab Control Sample	Total/NA	Solid	8270D	128057
LCSD 860-128057/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	128057
870-21667-8-1-M MS	Matrix Spike	TCLP	Solid	8270D	128057

GC Semi VOA

Analysis Batch: 127680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	Total/NA	Solid	8082A	127690
MB 860-127690/1-A	Method Blank	Total/NA	Solid	8082A	127690
LCS 860-127690/2-A	Lab Control Sample	Total/NA	Solid	8082A	127690
LCSD 860-127690/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	127690

Prep Batch: 127690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	Total/NA	Solid	3550C	
MB 860-127690/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-127690/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-127690/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Leach Batch: 127803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	1311	
LB 860-127803/1-B	Method Blank	TCLP	Solid	1311	
LB 860-127803/1-F	Method Blank	TCLP	Solid	1311	

Analysis Batch: 127892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	8081B	127912
LB 860-127803/1-B	Method Blank	TCLP	Solid	8081B	127912
MB 860-127912/1-A	Method Blank	Total/NA	Solid	8081B	127912
LCS 860-127912/4-A	Lab Control Sample	Total/NA	Solid	8081B	127912
LCSD 860-127912/5-A	Lab Control Sample Dup	Total/NA	Solid	8081B	127912

Prep Batch: 127912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	3511	127803
LB 860-127803/1-B	Method Blank	TCLP	Solid	3511	127803
MB 860-127912/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-127912/4-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-127912/5-A	Lab Control Sample Dup	Total/NA	Solid	3511	

Analysis Batch: 128089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-127803/1-F	Method Blank	TCLP	Solid	8151A	128170
MB 860-128170/1-A	Method Blank	Total/NA	Solid	8151A	128170
LCS 860-128170/2-A	Lab Control Sample	Total/NA	Solid	8151A	128170
LCSD 860-128170/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	128170

Eurofins Houston

QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

GC Semi VOA

Prep Batch: 128170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	3511	127803
LB 860-127803/1-F	Method Blank	TCLP	Solid	3511	127803
MB 860-128170/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-128170/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-128170/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

Analysis Batch: 128541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	8151A	128170

Metals

Leach Batch: 127803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	1311	
LB 860-127803/1-C	Method Blank	TCLP	Solid	1311	
LB 860-127803/1-E	Method Blank	TCLP	Solid	1311	
860-59913-B-1-F MS	Matrix Spike	TCLP	Solid	1311	
860-59913-B-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
870-21763-A-1-G MS	Matrix Spike	TCLP	Solid	1311	

Prep Batch: 127957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	7470A	127803
LB 860-127803/1-C	Method Blank	TCLP	Solid	7470A	127803
MB 860-127957/10-A	Method Blank	Total/NA	Solid	7470A	
LCS 860-127957/11-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-127957/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
860-59913-B-1-F MS	Matrix Spike	TCLP	Solid	7470A	127803
860-59913-B-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	127803

Analysis Batch: 128048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	7470A	127957
LB 860-127803/1-C	Method Blank	TCLP	Solid	7470A	127957
MB 860-127957/10-A	Method Blank	Total/NA	Solid	7470A	127957
LCS 860-127957/11-A	Lab Control Sample	Total/NA	Solid	7470A	127957
LCSD 860-127957/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	127957
860-59913-B-1-F MS	Matrix Spike	TCLP	Solid	7470A	127957
860-59913-B-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	127957

Prep Batch: 128067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	3010A	127803
LB 860-127803/1-E	Method Blank	TCLP	Solid	3010A	127803
MB 860-128067/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-128067/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-128067/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
860-59227-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3010A	
870-21763-A-1-G MS	Matrix Spike	TCLP	Solid	3010A	127803

Eurofins Houston

QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Metals

Analysis Batch: 128351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	TCLP	Solid	6010B	128067
LB 860-127803/1-E	Method Blank	TCLP	Solid	6010B	128067
MB 860-128067/1-A	Method Blank	Total/NA	Solid	6010B	128067
LCS 860-128067/2-A	Lab Control Sample	Total/NA	Solid	6010B	128067
LCSD 860-128067/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	128067
860-59227-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010B	128067
870-21763-A-1-G MS	Matrix Spike	TCLP	Solid	6010B	128067

General Chemistry

Analysis Batch: 127837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59808-1	R and C Joy Digester W23 13515	Total/NA	Solid	Moisture	
MB 860-127837/1	Method Blank	Total/NA	Solid	Moisture	
860-59807-C-1 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Date Collected: 10/18/23 09:02

Matrix: Solid

Date Received: 10/20/23 14:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	127996	10/25/23 17:30	JCM	EET HOU
							Completed:	10/26/23 09:30		
TCLP	Analysis	8260C		50	5 mL	5 mL	128055	10/26/23 12:50	NA	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	127803	10/24/23 13:00	EMC	EET HOU
							Completed:	10/25/23 05:00		
TCLP	Prep	3510C			200 mL	1.00 mL	128057	10/26/23 07:13	DR	EET HOU
TCLP	Analysis	8270D		5			128173	10/26/23 22:11	PXS	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	127803	10/24/23 13:00	EMC	EET HOU
							Completed:	10/25/23 05:00		
TCLP	Prep	3511			48.2 mL	5 mL	127912	10/25/23 10:25	SYB	EET HOU
TCLP	Analysis	8081B		1			127892	10/25/23 18:44	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	127803	10/24/23 13:00	EMC	EET HOU
							Completed:	10/25/23 05:00		
TCLP	Prep	3511			49.6 mL	4 mL	128170	10/26/23 12:49	TH	EET HOU
TCLP	Analysis	8151A		1			128541	10/30/23 12:38	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	127803	10/24/23 13:00	EMC	EET HOU
							Completed:	10/25/23 05:00		
TCLP	Prep	3010A			10 mL	50 mL	128067	10/26/23 08:00	MD	EET HOU
TCLP	Analysis	6010B		1			128351	10/26/23 16:51	JDM	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	127803	10/24/23 13:00	EMC	EET HOU
							Completed:	10/25/23 05:00		
TCLP	Prep	7470A			50 mL	50 mL	127957	10/25/23 13:51	AGR	EET HOU
TCLP	Analysis	7470A		1			128048	10/25/23 18:20	SHZ	EET HOU
Total/NA	Analysis	Moisture		1			127837	10/24/23 17:24	JM	EET HOU

Client Sample ID: R and C Joy Digester W23 13515

Lab Sample ID: 860-59808-1

Date Collected: 10/18/23 09:02

Matrix: Solid

Date Received: 10/20/23 14:31

Percent Solids: 2.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.06 g	5 mL	127690	10/24/23 09:43	BH	EET HOU
Total/NA	Analysis	8082A		1			127680	10/24/23 22:22	A1S	EET HOU

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

Eurofins Houston

Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-26-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston

Method Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Eurofins Houston



Sample Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: R and C Joy

Job ID: 860-59808-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-59808-1	R and C Joy Digester W23 13515	Solid	10/18/23 09:02	10/20/23 14:31





SUBCONTRACT ORDER

Sending Laboratory:

Eastex Environmental Laboratory - Coldspring
PO Box 1089
Coldspring, TX 77331

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

Subcontracted Laboratory:

Eurofins Xenco LLC

4147 Greenbriar Dr
Stafford, TX 77477

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

OB 10/19/23

PO 102023C

Requested Turnaround 10 Days

Sample ID: R and C Joy Digester W23 13515

Sample No: C3J5297-01

Waste Sampled: 10/18/2023 09:02

- 2 TCLP SUBCONTRACT
- 2 PCB SUBCONTRACT

Containers Supplied: 4

Special Instructions. FULL TCLP REPORT
PCB MG/KG & SOLIDS



660-59808 Chain of Custody

Temp 16 IR ID HOU-369
C/F -0.0
Corrected Temp 1.6

Received Iced Y/N Temp _____

R and C Joy

☐ See Attached

Released By [Signature]

10/20/23
Date & Time

Received By [Signature]

10/20/23
Date & Time

Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-69808-1

Login Number: 59808

List Number: 1

List Source: Eurofins Houston

Creator: Rubio, Yuri

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



C355296, 5297, 5298, 5331
R&C Joy Inc. 19020 W Little York Rd. Katy, Texas 77449 Phone 281-858-5988

Company

Address

Site ID

Sampled by

VPO# 1018234

Therm. used

By

By

Sample Preservation Check

pH

Bottle(s)

Checked with:

By:

*
Analyses

Lab Number

Sample Information

Sampling Method

Preservation

Matrix

Containers

Type

Field Data

DO

Cl₂ res

Analyses

Sample ID

Date Collected

Time Collected

Grab

F/Proportional

Ice/Refrigerator

H₂SO₄

HNO₃

NaOH

Dechlor.

Other

Sludge

Water

Eff

Inf

Other

B=Bacti

V=VOA

P=Plastic

G=Glass

Temp.

°C

pH

STU

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Digesters

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Special Notes

Relinquished By

Date

Time

Received By

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Time

* STOP WORK TIME *

[Signature]

10/16/23

1500

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10/17/23

1210

04-28-1030

1753



April 01, 2024

Laboratory Report

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

HC 70

Report ID: 20240401094111AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

- ☒ Sludge Manager
- ☒ Master Spreadsheet
 - ☒ TCLP ☐ Metals
 - ☒ PCB ☐ F/S ☐ & Solid



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

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

Reported:
04/01/2024 09:41

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24C1834-01
HC MUD 70 - Non Potable - TCLP-PCB

Sample Matrix: Solid
Date Collected: 03/06/2024 6:00
Collected by: Angel Rodriguez

9134

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	PCBs, Total	A	<298 U	ug/kg dry	10	8.50	298	BHC1276	03/13/2024 11:22	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	107%	60-140						03/13/2024 11:22	
SW-8082	Surrogate: Decachlorobiphenyl-surr	92.3%	60-140						03/13/2024 11:22	

General Chemistry

SM 2540 G	% Solids	A	1.95	%	1	0.100	0.100	BHC0916	03/07/2024 10:08	ENR
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TCLP

SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.00367	5.00	BHC1773	03/15/2024 13:26	AKR
SW-6010C	Barium	A	<100 V2, U	mg/L	1	0.00125	100	BHC1773	03/15/2024 13:26	AKR
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.000423	1.00	BHC1773	03/15/2024 13:26	AKR
SW-6010C	Chromium	A	<5.00 B2, U	mg/L	1	0.00131	5.00	BHC1773	03/22/2024 12:59	AKR
SW-8151	2,4-D	A	<10.0 C+, U	mg/L	2	0.000476	10.0	BHC2219	03/16/2024 15:23	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00 U	mg/L	2	0.000476	1.00	BHC2219	03/16/2024 15:23	KRB
SW-8151	Surrogate: DCAA-surr	107%	70-130						03/16/2024 15:23	
SW-7471B	Mercury	A	<0.200 B2, U	mg/L	1	0.000200	0.200	BHC1765	03/12/2024 15:26	ISS
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.00341	5.00	BHC1773	03/15/2024 13:26	AKR
SW-8081	Chlordane (Total)	A	<0.0300 U	mg/L	1	3.00E-6	0.0300	BHC2446	03/19/2024 01:05	em
SW-8081	Endrin	N	<0.0200 U	mg/L	1	3.00E-6	0.0200	BHC2446	03/19/2024 01:05	em
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400 U	mg/L	1	3.00E-6	0.400	BHC2446	03/19/2024 01:05	em
SW-8081	Heptachlor	A	<0.00800 U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 01:05	em
SW-8081	Heptachlor epoxide	A	<0.00800 U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 01:05	em
SW-8081	Methoxychlor	A	<10.0 U	mg/L	1	3.00E-6	10.0	BHC2446	03/19/2024 01:05	em
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U	mg/L	1	3.00E-6	0.500	BHC2446	03/19/2024 01:05	em
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	92.4%	60-140						03/19/2024 01:05	
SW-8081	Surrogate: Decachlorobiphenyl-surr	92.1%	60-140						03/19/2024 01:05	
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.00531	1.00	BHC1773	03/15/2024 13:26	AKR
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00142	5.00	BHC1773	03/28/2024 12:05	JKC
SW-8270	2,4,5-Trichlorophenol	A	<400 U	mg/L	1	0.00250	400	BHC2126	03/19/2024 00:33	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00 U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 00:33	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 00:33	KRB
SW-8270	2-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BHC2126	03/19/2024 00:33	KRB
SW-8270	3,4-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BHC2126	03/19/2024 00:33	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 00:33	KRB

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



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

Reported:
04/01/2024 09:41

Sample Results
(Continued)

Client Sample ID: Digester (Continued)

Lab Sample ID: 24C1834-01

HC MUD 70 - Non Potable - TCLP-PCB

9134

Sample Matrix: Solid

Date Collected: 03/06/2024 6:00

Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP (Continued)										
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHC2126	03/19/2024 00:33	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHC2126	03/19/2024 00:33	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 00:33	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHC2126	03/19/2024 00:33	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		117%	54.6-148					03/19/2024 00:33	
SW-8270	Surrogate: 2-Fluorophenol-surr		101%	55-152					03/19/2024 00:33	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		111%	52.4-136					03/19/2024 00:33	
SW-8270	Surrogate: Nitrobenzene-d5-surr		104%	52-162					03/19/2024 00:33	
SW-8270	Surrogate: Phenol-d5-surr		99.6%	58.7-152					03/19/2024 00:33	
SW-8270	Surrogate: p-Terphenyl-d14-surr		107%	51.9-147					03/19/2024 00:33	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHC2757	03/15/2024 21:11	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHC2757	03/15/2024 21:11	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	10	0.00641	7.50	BHC2757	03/15/2024 21:11	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHC2757	03/15/2024 21:11	EM
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHC2757	03/15/2024 21:11	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHC2757	03/15/2024 21:11	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHC2757	03/15/2024 21:11	EM
SW-8260	Chloroform	A	<6.00U	mg/L	10	0.00688	6.00	BHC2757	03/15/2024 21:11	EM
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	10	0.00703	0.700	BHC2757	03/15/2024 21:11	EM
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	10	0.00744	0.500	BHC2757	03/15/2024 21:11	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	10	0.0130	0.200	BHC2757	03/15/2024 21:11	EM
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		102%	70-130					03/15/2024 21:11	
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		108%	70-130					03/15/2024 21:11	
SW-8260	Surrogate: Toluene-d8-surr		98.9%	70-130					03/15/2024 21:11	
SW-8260	Surrogate: Dibromofluoromethane-surr		113%	70-130					03/15/2024 21:11	

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04/01/2024 09:41

Sample Results (Continued)

Client Sample ID: Digester
Lab Sample ID: 24C1834-01RE1
HC MUD 70 - Non Potable - TCLP-PCB

9134

Sample Matrix: Solid
Date Collected: 03/06/2024 6:00
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP

SW-8270	Pyridine (Rerun)	A	<5.00U	mg/L	1	0.00250	5.00	BHC2126	03/23/2024 01:17	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr (Rerun)	96.2%	54.6-148						03/23/2024 01:17	
SW-8270	Surrogate: Nitrobenzene-d5-surr (Rerun)	110%	52-162						03/23/2024 01:17	
SW-8270	Surrogate: p-Terphenyl-d14-surr (Rerun)	87.6%	51.9-147						03/23/2024 01:17	

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Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1276 - SW-3570										
MB PCB SLUDGE (BHC1276-BLK1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	<6.00	U	6.00	ug/kg wet						
Aroclor-1260 (PCB-1260)	<6.00	U	6.00	ug/kg wet						
PCBs, Total	<6.00	U	6.00	ug/kg wet						
Surrogate: 2,4,5,6			5.64	ug/kg wet	6.00		94.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.16	ug/kg wet	6.00		86.1	60-140		
BS PCB (BHC1276-BS1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	45.4		6.00	ug/kg wet	60.0		75.6	60-140		
Aroclor-1260 (PCB-1260)	49.7		6.00	ug/kg wet	60.0		82.8	60-140		
PCBs, Total	48.9		6.00	ug/kg wet	60.0		81.6	60-140		
Surrogate: 2,4,5,6			7.54	ug/kg wet	6.00		126	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			4.87	ug/kg wet	6.00		81.2	60-140		
BSD PCB (BHC1276-BSD1)										
					Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	43.8		6.00	ug/kg wet	60.0		73.0	60-140	3.57	40
Aroclor-1260 (PCB-1260)	49.8		6.00	ug/kg wet	60.0		82.9	60-140	0.157	40
PCBs, Total	48.7		6.00	ug/kg wet	60.0		81.2	60-140	0.440	40
Surrogate: 2,4,5,6			4.73	ug/kg wet	6.00		78.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.02	ug/kg wet	6.00		83.7	60-140		
24C1896-01 MS (BHC1276-MS1)										
			Source: 24C1896-01		Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	3480		418	ug/kg dry	4180	<418	83.4	60-140		
Aroclor-1260 (PCB-1260)	3720		418	ug/kg dry	4180	<418	89.0	60-140		
PCBs, Total	3680		418	ug/kg dry	4180	<418	88.0	60-140		
Surrogate: 2,4,5,6			397	ug/kg dry	418		95.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			373	ug/kg dry	418		89.3	60-140		
24C1896-01 MSD (BHC1276-MSD1)										
			Source: 24C1896-01		Prepared: 3/8/2024 Analyzed: 3/13/2024					
Aroclor-1016 (PCB-1016)	3700		416	ug/kg dry	4160	<416	88.9	60-140	5.92	40
Aroclor-1260 (PCB-1260)	3810		416	ug/kg dry	4160	<416	91.7	60-140	2.53	40
PCBs, Total	3790		416	ug/kg dry	4160	<416	91.2	60-140	3.11	40
Surrogate: 2,4,5,6			408	ug/kg dry	416		98.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			362	ug/kg dry	416		87.2	60-140		

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Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC0916 - Percent Solids										
Blank (BHC0916-BLK1)										
% Solids	<0.100	U	0.100	%						
					Prepared: 3/6/2024 Analyzed: 3/7/2024					
Duplicate (BHC0916-DUP1)										
% Solids	2.60		0.100	%		2.60			0.0242	10
					Source: 24C1769-10 Prepared: 3/6/2024 Analyzed: 3/7/2024					
Duplicate (BHC0916-DUP2)										
% Solids	1.95		0.100	%		1.95			0.115	20
					Source: 24C1834-01 Prepared: 3/6/2024 Analyzed: 3/7/2024					
Reference (BHC0916-SRM1)										
% Solids	0.358		0.100	%	0.350		102	78.9-118		

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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC1765 - SW-7471 TCLP

Duplicate (BHC1765-DUP1)

Source: 24C2327-01

Prepared & Analyzed: 3/12/2024

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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BHC1341-BLK1 (BHC1765-LBK1)

Prepared & Analyzed: 3/12/2024

Mercury	0.000421	U	0.200	mg/L						
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MDL Check (BHC1765-MRL1)

Prepared & Analyzed: 3/12/2024

Mercury	0.000179	U	0.200	mg/L	0.000200		89.5			
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Matrix Spike (BHC1765-MS1)

Source: 24C2327-01

Prepared & Analyzed: 3/12/2024

Mercury	0.00518	U	0.200	mg/L	0.00500	<0.200	104	80-120		
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Batch: BHC1773 - EPA 200.2 TCLP

Blank (BHC1773-BLK1)

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						

Blank (BHC1773-BLK3)

Prepared: 3/12/2024 Analyzed: 3/22/2024

Chromium	<5.00	U	5.00	mg/L						
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Blank (BHC1773-BLK5)

Prepared: 3/12/2024 Analyzed: 3/28/2024

Silver	<5.00	U	5.00	mg/L						
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LCS (BHC1773-BS1)

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	0.566	U	5.00	mg/L	0.500		113	80-120		
Barium	0.561	U	100	mg/L	0.500		112	80-120		
Cadmium	0.0560	U	1.00	mg/L	0.0500		112	80-120		
Lead	0.286	U	5.00	mg/L	0.250		114	80-120		
Selenium	0.579	U	1.00	mg/L	0.500		116	80-120		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1773 - EPA 200.2 TCLP (Continued)										
LCS (BHC1773-BS3)					Prepared: 3/12/2024 Analyzed: 3/22/2024					
Chromium	0.257	U	5.00	mg/L	0.250		103	80-120		
LCS (BHC1773-BS5)					Prepared: 3/12/2024 Analyzed: 3/28/2024					
Silver	0.0475	U	5.00	mg/L	0.0500		94.9	80-120		
Duplicate (BHC1773-DUP1)					Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/15/2024					
Arsenic	0.0162	U	5.00	mg/L		0.0167			3.22	20
Barium	1.46	U	100	mg/L		1.63			11.1	20
Cadmium	0.000640	U	1.00	mg/L		0.000660			3.08	20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Duplicate (BHC1773-DUP3)					Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/22/2024					
Chromium	0.00211	U	5.00	mg/L		0.00176			18.1	20
Duplicate (BHC1773-DUP5)					Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/28/2024					
Silver	<5.00	U	5.00	mg/L		<5.00				20
BHC1341-LBK1 (BHC1773-LBK1)					Prepared: 3/12/2024 Analyzed: 3/15/2024					
Arsenic	0.0101	U	5.00	mg/L						
Barium	0.835	U	100	mg/L						
Cadmium	0.000700	U	1.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
BHC1341-LBK1 (BHC1773-LBK3)					Prepared: 3/12/2024 Analyzed: 3/22/2024					
Chromium	0.00225	U	5.00	mg/L						

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC1773 - EPA 200.2 TCLP (Continued)										
BHC1341-LBK1 (BHC1773-LBK5)										
Silver	<5.00	U	5.00	mg/L						
Prepared: 3/12/2024 Analyzed: 3/28/2024										
Matrix Spike (BHC1773-MS1)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	0.591	U	5.00	mg/L	0.500	0.0167	115	75-125		
Barium	2.01	U	100	mg/L	0.500	1.63	75.1	75-125		
Cadmium	0.0573	U	1.00	mg/L	0.0500	0.000660	113	75-125		
Lead	0.277	U	5.00	mg/L	0.250	<5.00	111	75-125		
Selenium	0.589	U	1.00	mg/L	0.500	<1.00	118	75-125		
Matrix Spike (BHC1773-MS3)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	0.267	U	5.00	mg/L	0.250	0.00176	106	75-125		
Matrix Spike (BHC1773-MS5)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/28/2024										
Silver	0.0524	U	5.00	mg/L	0.0500	<5.00	105	75-125		
Post Spike (BHC1773-PS1)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/15/2024										
Arsenic	583			ug/L	500	16.3	113	80-120		
Barium	1950	J1		ug/L	500	1590	71.6	80-120		
Cadmium	56.3			ug/L	50.0	0.644	111	80-120		
Lead	271			ug/L	250	-1.03	108	80-120		
Selenium	578			ug/L	500	2.55	115	80-120		
Post Spike (BHC1773-PS3)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/22/2024										
Chromium	254			ug/L	250	1.72	101	80-120		
Post Spike (BHC1773-PS5)										
Source: 24C2327-01 Prepared: 3/12/2024 Analyzed: 3/28/2024										
Silver	52.7			ug/L	50.0	-0.156	105	80-120		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC1773 - EPA 200.2 TCLP (Continued)

Dilution Check (BHC1773-SRL1)

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/15/2024

Arsenic	0.0324	U	5.00	mg/L		<5.00			63.6	10
Barium	8.15	J1, U	100	mg/L		1.63			133	10
Cadmium	<1.00	U	1.00	mg/L		<1.00			200	10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10

Dilution Check (BHC1773-SRL3)

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/22/2024

Chromium	<5.00	U	5.00	mg/L		<5.00			200	10
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Dilution Check (BHC1773-SRL5)

Source: 24C2327-01

Prepared: 3/12/2024 Analyzed: 3/28/2024

Silver	<5.00	U	5.00	mg/L		<5.00				10
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Batch: BHC2126 - SW-3511

MB SV (BHC2126-BLK1)

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00941	mg/L	0.00980		96.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0205	mg/L	0.0196		104	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0239	mg/L	0.0196		122	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00929	mg/L	0.00980		94.8	52-162		
Surrogate: Phenol-d5-surr			0.0185	mg/L	0.0196		94.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.00980		111	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

Blank (BHC2126-BLK2)

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00978	mg/L	0.00980		99.8	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.00967	mg/L	0.00980		98.6	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00934	mg/L	0.00980		95.3	51.9-147		

BS SV (BHC2126-BS1)

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	0.0195	U	400	mg/L	0.0200		97.3	60-140		
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0200		107	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00898	U	0.130	mg/L	0.0100		89.8	60-140		
2-Methylphenol	0.0194	U	200	mg/L	0.0200		97.2	60-140		
3,4-Methylphenol	0.0343	U	200	mg/L	0.0400		85.8	60-140		
Hexachlorobenzene	0.0107	U	0.130	mg/L	0.0100		107	60-140		
Hexachlorobutadiene	0.00788	U	0.500	mg/L	0.0100		78.8	60-140		
Hexachloroethane	0.00812	U	3.00	mg/L	0.0100		81.3	60-140		
Nitrobenzene	0.0111	U	2.00	mg/L	0.0100		111	60-140		
Pentachlorophenol	0.0236	U	100	mg/L	0.0200		118	36.8-149		
Surrogate: 2-Fluorobiphenyl-surr			0.00918	mg/L	0.0100		91.8	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0214	mg/L	0.0200		107	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0204	mg/L	0.0200		102	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00928	mg/L	0.0100		92.8	52-162		
Surrogate: Phenol-d5-surr			0.0202	mg/L	0.0200		101	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00922	mg/L	0.0100		92.2	51.9-147		

LCS (BHC2126-BS2)

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.00472	U	5.00	mg/L	0.0500		9.45	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00893	mg/L	0.0100		89.3	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.00936	mg/L	0.0100		93.6	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00897	mg/L	0.0100		89.8	51.9-147		

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Reported:
04/01/2024 09:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2126 - SW-3511 (Continued)										
BSD SV (BHC2126-BS01)										
Prepared: 3/13/2024 Analyzed: 3/18/2024										
2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0198		109	60-140	10.0	40
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0198		108	60-140	0.0564	40
2,4-Dinitrotoluene (2,4-DNT)	0.00977	U	0.130	mg/L	0.00988		98.9	60-140	8.48	40
2-Methylphenol	0.0198	U	200	mg/L	0.0198		100	60-140	2.04	40
3,4-Methylphenol	0.0354	U	200	mg/L	0.0395		89.6	60-140	3.25	40
Hexachlorobenzene	0.0112	U	0.130	mg/L	0.00988		114	60-140	5.26	40
Hexachlorobutadiene	0.00672	U	0.500	mg/L	0.00988		68.0	60-140	15.9	40
Hexachloroethane	0.00681	U	3.00	mg/L	0.00988		68.9	60-140	17.5	40
Nitrobenzene	0.0103	U	2.00	mg/L	0.00988		105	60-140	7.24	40
Pentachlorophenol	0.0256	U	100	mg/L	0.0198		130	36.8-149	8.39	40
Surrogate: 2-Fluorobiphenyl-surr			0.00963	mg/L	0.00988		97.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0209	mg/L	0.0198		106	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0214	mg/L	0.0198		108	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00991	mg/L	0.00988		100	52-162		
Surrogate: Phenol-d5-surr			0.0204	mg/L	0.0198		103	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0100	mg/L	0.00988		101	51.9-147		
LCS Dup (BHC2126-BS02)										
Prepared: 3/13/2024 Analyzed: 3/22/2024										
Pyridine	0.00352	U	5.00	mg/L	0.0494		7.11	2.5-101	29.3	40
Surrogate: 2-Fluorobiphenyl-surr			0.00926	mg/L	0.00988		93.7	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.00988		104	52-162		
Surrogate: p-Terphenyl-d14-surr			0.00802	mg/L	0.00988		81.1	51.9-147		
BHC1341-BLK1 (BHC2126-LBK1)										
Prepared: 3/13/2024 Analyzed: 3/19/2024										
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0409	mg/L	0.0400		102	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0963	mg/L	0.0800		120	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0953	mg/L	0.0800		119	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0476	mg/L	0.0400		119	52-162		
Surrogate: Phenol-d5-surr			0.0741	mg/L	0.0800		92.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0441	mg/L	0.0400		110	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

BHC1642-BLK1 (BHC2126-LBK2)

Prepared: 3/13/2024 Analyzed: 3/19/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0386	mg/L	0.0400		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0827	mg/L	0.0800		103	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.106	mg/L	0.0800		132	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0471	mg/L	0.0400		118	52-162		
Surrogate: Phenol-d5-surr			0.0682	mg/L	0.0800		85.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0452	mg/L	0.0400		113	51.9-147		

BHC1341-BLK1 (BHC2126-LBK3)

Prepared: 3/13/2024 Analyzed: 3/23/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0417	mg/L	0.0400		104	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0420	mg/L	0.0400		105	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		81.0	51.9-147		

BHC1642-BLK1 (BHC2126-LBK4)

Prepared: 3/13/2024 Analyzed: 3/23/2024

Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0473	mg/L	0.0400		118	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0428	mg/L	0.0400		107	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0320	mg/L	0.0400		80.0	51.9-147		

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04/01/2024 09:41

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

24C2028-01 MS (BHC2126-MS1)

Source: 24C2028-01

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	0.120	U	400	mg/L	0.0800	<400	149	44.9-171		
2,4,6-Trichlorophenol	0.102	U	2.00	mg/L	0.0800	<2.00	127	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0529	U	0.130	mg/L	0.0400	<0.130	132	50.3-144		
2-Methylphenol	0.0833	U	200	mg/L	0.0800	<200	104	17.3-182		
3,4-Methylphenol	0.156	L, U	200	mg/L	0.160	<200	97.2	43.4-188		
Hexachlorobenzene	0.0392	U	0.130	mg/L	0.0400	<0.130	98.1	56.1-137		
Hexachlorobutadiene	0.0312	U	0.500	mg/L	0.0400	<0.500	78.1	33.1-110		
Hexachloroethane	0.0320	U	3.00	mg/L	0.0400	<3.00	80.1	36.2-106		
Nitrobenzene	0.0487	U	2.00	mg/L	0.0400	<2.00	122	54.9-156		
Pentachlorophenol	0.103	U	100	mg/L	0.0800	<100	129	42.2-151		
Surrogate: 2-Fluorobiphenyl-surr			0.0392	mg/L	0.0400		98.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0895	mg/L	0.0800		112	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0825	mg/L	0.0800		103	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0403	mg/L	0.0400		101	52-162		
Surrogate: Phenol-d5-surr			0.0901	mg/L	0.0800		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0488	mg/L	0.0400		122	51.9-147		

Matrix Spike (BHC2126-MS2)

Source: 24C2028-01RE1

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.0417	U	5.00	mg/L	0.200	<5.00	20.9	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0383	mg/L	0.0400		95.9	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0427	mg/L	0.0400		107	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0375	mg/L	0.0400		93.8	51.9-147		

24C2028-01 MSD (BHC2126-MSD1)

Source: 24C2028-01

Prepared: 3/13/2024 Analyzed: 3/18/2024

2,4,5-Trichlorophenol	0.0984	U	400	mg/L	0.0800	<400	123	44.9-171	19.4	40
2,4,6-Trichlorophenol	0.0958	U	2.00	mg/L	0.0800	<2.00	120	34.7-143	6.12	40
2,4-Dinitrotoluene (2,4-DNT)	0.0517	U	0.130	mg/L	0.0400	<0.130	129	50.3-144	2.35	40
2-Methylphenol	0.0871	U	200	mg/L	0.0800	<200	109	17.3-182	4.46	40
3,4-Methylphenol	0.148	L, U	200	mg/L	0.160	<200	92.4	43.4-188	5.14	40
Hexachlorobenzene	0.0383	U	0.130	mg/L	0.0400	<0.130	95.8	56.1-137	2.32	40
Hexachlorobutadiene	0.0322	U	0.500	mg/L	0.0400	<0.500	80.5	33.1-110	3.06	40
Hexachloroethane	0.0277	U	3.00	mg/L	0.0400	<3.00	69.3	36.2-106	14.4	40
Nitrobenzene	0.0505	U	2.00	mg/L	0.0400	<2.00	126	54.9-156	3.56	40
Pentachlorophenol	0.104	U	100	mg/L	0.0800	<100	130	42.2-151	0.960	40
Surrogate: 2-Fluorobiphenyl-surr			0.0398	mg/L	0.0400		99.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0804	mg/L	0.0800		100	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0857	mg/L	0.0800		107	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0372	mg/L	0.0400		93.1	52-162		
Surrogate: Phenol-d5-surr			0.0839	mg/L	0.0800		105	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0444	mg/L	0.0400		111	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2126 - SW-3511 (Continued)

Matrix Spike Dup (BHC2126-MSD2)

Source: 24C2028-01RE1

Prepared: 3/13/2024 Analyzed: 3/22/2024

Pyridine	0.0453	U	5.00	mg/L	0.200	<5.00	22.6	2-87.4	8.09	40
Surrogate: 2-Fluorobiphenyl-surr			0.0388	mg/L	0.0400		97.0	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0432	mg/L	0.0400		108	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		80.9	51.9-147		

Batch: BHC2219 - SW-3511

Blank (BHC2219-BLK1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0216	mg/L	0.0250		86	70-130		

LCS (BHC2219-BS1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.00414	U	10.0	mg/L	0.00515		80	70-130		
Silvex (2,4,5-TP)	0.00425	U	1.00	mg/L	0.00500		85	70-130		
Surrogate: DCAA-surr			0.0217	mg/L	0.0250		87	70-130		

LCS Dup (BHC2219-BSD1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	0.00418	U	10.0	mg/L	0.00515		81	70-130	1	30
Silvex (2,4,5-TP)	0.00418	U	1.00	mg/L	0.00500		84	70-130	2	30
Surrogate: DCAA-surr			0.0242	mg/L	0.0250		97	70-130		

BHC1642-BLK1 (BHC2219-LBK1)

Prepared: 3/13/2024 Analyzed: 3/16/2024

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0896	mg/L	0.100		90	70-130		



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2219 - SW-3511 (Continued)										
BHB1341-BLK1 (BHC2219-LBK2)										
					Prepared: 3/13/2024 Analyzed: 3/16/2024					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0932	mg/L	0.100		93	70-130		
Matrix Spike (BHC2219-MS1)										
			Source: 24C1678-01		Prepared: 3/13/2024 Analyzed: 3/16/2024					
2,4-D	0.0161	U	10.0	mg/L	0.0206	<10.0	78	70-130		
Silvex (2,4,5-TP)	0.0162	U	1.00	mg/L	0.0200	<1.00	81	70-130		
Surrogate: DCAA-surr			0.0925	mg/L	0.100		92	70-130		
Matrix Spike Dup (BHC2219-MSD1)										
			Source: 24C1678-01		Prepared: 3/13/2024 Analyzed: 3/16/2024					
2,4-D	0.0156	U	10.0	mg/L	0.0206	<10.0	76	70-130	3	30
Silvex (2,4,5-TP)	0.0157	U	1.00	mg/L	0.0200	<1.00	79	70-130	3	30
Surrogate: DCAA-surr			0.0941	mg/L	0.100		94	70-130		
Batch: BHC2446 - SW-3511										
Blank (BHC2446-BLK1)										
					Prepared: 3/14/2024 Analyzed: 3/18/2024					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000109	mg/L	0.000120		91.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		88.3	60-140		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2446 - SW-3511 (Continued)

LCS TOX (BHC2446-BS1)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Toxaphene (Chlorinated Camphene)	0.00112	U	0.500	mg/L	0.00120		93.4	60-140		
Surrogate: 2,4,5,6			0.000111	mg/L	0.000120		92.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000129	mg/L	0.000120		107	60-140		

LCS (BHC2446-BS2)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Chlordane (Total)	0.000379	U	0.0300	mg/L	0.000480		79.0	60-140		
Endrin	8.98E-5	U	0.0200	mg/L	0.000120		74.9	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000115	U	0.400	mg/L	0.000120		95.8	60-140		
Heptachlor	0.000104	U	0.00800	mg/L	0.000120		87.0	60-140		
Heptachlor epoxide	9.28E-5	U	0.00800	mg/L	0.000120		77.3	60-140		
Methoxychlor	9.04E-5	U	10.0	mg/L	0.000120		75.3	60-140		
Surrogate: 2,4,5,6			0.000135	mg/L	0.000120		113	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		

LCSD TOX (BHC2446-BSD1)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Toxaphene (Chlorinated Camphene)	0.00117	U	0.500	mg/L	0.00120		97.4	60-140	4.19	40
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		85.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000117	mg/L	0.000120		97.1	60-140		

LCS Dup (BHC2446-BSD2)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Chlordane (Total)	0.000332	U	0.0300	mg/L	0.000480		69.3	60-140	13.1	40
Endrin	8.01E-5	U	0.0200	mg/L	0.000120		66.8	60-140	11.4	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.16E-5	U	0.400	mg/L	0.000120		68.0	60-140	33.9	40
Heptachlor	8.76E-5	U	0.00800	mg/L	0.000120		73.0	60-140	17.6	40
Heptachlor epoxide	8.36E-5	U	0.00800	mg/L	0.000120		69.6	60-140	10.5	40
Methoxychlor	8.30E-5	U	10.0	mg/L	0.000120		69.2	60-140	8.48	40
Surrogate: 2,4,5,6			0.000112	mg/L	0.000120		93.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		86.8	60-140		

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

Reported:
04/01/2024 09:41

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2446 - SW-3511 (Continued)										
BHC1341-BLK1 (BHC2446-LBK1)				Prepared: 3/14/2024 Analyzed: 3/19/2024						
Chlordane (Total)	1.48E-5	U	0.0300	mg/L						
Endrin	9.15E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	6.45E-6	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000622	mg/L	0.000600		104	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000343	mg/L	0.000600		57.1	60-140		
Matrix Spike (BHC2446-MS1)				Source: 24C1834-01	Prepared: 3/14/2024 Analyzed: 3/19/2024					
Chlordane (Total)	0.00146	U	0.0300	mg/L	0.00240	2.44E-5	60.0	60-140		
Endrin	0.000390	U	0.0200	mg/L	0.000600	<0.0200	65.1	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000379	U	0.400	mg/L	0.000600	<0.400	63.2	60-140		
Heptachlor	0.000366	U	0.00800	mg/L	0.000600	<0.00800	61.0	60-140		
Heptachlor epoxide	0.000360	J1, U	0.00800	mg/L	0.000600	6.33E-6	58.9	60-140		
Methoxychlor	0.000436	U	10.0	mg/L	0.000600	<10.0	72.7	60-140		
Surrogate: 2,4,5,6			0.000523	mg/L	0.000600		87.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000534	mg/L	0.000600		89.1	60-140		
Matrix Spike Dup (BHC2446-MSD1)				Source: 24C1834-01	Prepared: 3/14/2024 Analyzed: 3/19/2024					
Chlordane (Total)	0.00148	U	0.0300	mg/L	0.00240	2.44E-5	60.8	60-140	1.39	40
Endrin	0.000378	U	0.0200	mg/L	0.000600	<0.0200	63.0	60-140	3.22	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000392	U	0.400	mg/L	0.000600	<0.400	65.4	60-140	3.37	40
Heptachlor	0.000379	U	0.00800	mg/L	0.000600	<0.00800	63.1	60-140	3.40	40
Heptachlor epoxide	0.000371	U	0.00800	mg/L	0.000600	6.33E-6	60.8	60-140	3.20	40
Methoxychlor	0.000440	U	10.0	mg/L	0.000600	<10.0	73.4	60-140	0.842	40
Surrogate: 2,4,5,6			0.000554	mg/L	0.000600		92.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000525	mg/L	0.000600		87.6	60-140		

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/01/2024 09:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2757 - SW-5030										
Blank (BHC2757-BLK1)					Prepared & Analyzed: 3/15/2024					
1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 4-Bromofluorobenzene-surr			51.4	ug/L	50.0		103	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			49.7	ug/L	50.0		99.3	70-130		
Surrogate: Toluene-d8-surr			49.0	ug/L	50.0		97.9	70-130		
Surrogate: Dibromofluoromethane-surr			50.8	ug/L	50.0		102	70-130		
LCS (BHC2757-BS1)										
					Prepared & Analyzed: 3/15/2024					
1,1-Dichloroethylene	0.0426	U	0.700	mg/L	0.0500		85.2	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0404	U	0.500	mg/L	0.0500		80.7	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0418	U	7.50	mg/L	0.0500		83.6	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.414	U	200	mg/L	0.500		82.8	70-130		
Benzene	0.0420	U	0.500	mg/L	0.0500		84.0	70-130		
Carbon tetrachloride	0.0422	U	0.500	mg/L	0.0500		84.4	70-130		
Chlorobenzene	0.0426	U	100	mg/L	0.0500		85.3	70-130		
Chloroform	0.0394	U	6.00	mg/L	0.0500		78.9	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0451	U	0.700	mg/L	0.0500		90.3	70-130		
Trichloroethene (Trichloroethylene)	0.0432	U	0.500	mg/L	0.0500		86.5	70-130		
Vinyl chloride (Chloroethene)	0.0418	U	0.200	mg/L	0.0500		83.6	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.3	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			46.4	ug/L	50.0		92.8	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			48.0	ug/L	50.0		96.0	70-130		

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Oak Ridge, TX 77385

Reported:
04/01/2024 09:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2757 - SW-5030 (Continued)

LCS Dup (BHC2757-BSD1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0412	U	0.700	mg/L	0.0500		82.4	70-130	3.36	30
1,2-Dichloroethane (Ethylene dichloride)	0.0397	U	0.500	mg/L	0.0500		79.4	70-130	1.60	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0420	U	7.50	mg/L	0.0500		83.9	70-130	0.335	30
2-Butanone (Methyl ethyl ketone, MEK)	0.409	U	200	mg/L	0.500		81.9	70-130	1.12	30
Benzene	0.0412	U	0.500	mg/L	0.0500		82.5	70-130	1.85	30
Carbon tetrachloride	0.0412	U	0.500	mg/L	0.0500		82.3	70-130	2.49	30
Chlorobenzene	0.0409	U	100	mg/L	0.0500		81.9	70-130	4.10	30
Chloroform	0.0378	U	6.00	mg/L	0.0500		75.6	70-130	4.21	30
Tetrachloroethylene (Perchloroethylene)	0.0403	U	0.700	mg/L	0.0500		80.7	70-130	11.3	30
Trichloroethene (Trichloroethylene)	0.0415	U	0.500	mg/L	0.0500		83.0	70-130	4.12	30
Vinyl chloride (Chloroethene)	0.0360	U	0.200	mg/L	0.0500		72.1	70-130	14.7	30
Surrogate: 4-Bromofluorobenzene-surr			49.8	ug/L	50.0		99.7	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			47.0	ug/L	50.0		93.9	70-130		
Surrogate: Toluene-d8-surr			49.3	ug/L	50.0		98.7	70-130		
Surrogate: Dibromofluoromethane-surr			47.7	ug/L	50.0		95.4	70-130		

BHC2495-BLK1 (BHC2757-LBK1)

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 4-Bromofluorobenzene-surr			51.9	ug/L	50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			50.5	ug/L	50.0		101	70-130		
Surrogate: Toluene-d8-surr			53.3	ug/L	50.0		107	70-130		
Surrogate: Dibromofluoromethane-surr			53.8	ug/L	50.0		108	70-130		

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Oak Ridge, TX 77385

Reported:
04/01/2024 09:41

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHC2757 - SW-5030 (Continued)

Matrix Spike (BHC2757-MS1)

Source: 24C2022-01

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0499	U	0.700	mg/L	0.0500	<0.700	99.7	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0469	U	0.500	mg/L	0.0500	<0.500	93.9	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0560	U	7.50	mg/L	0.0500	<7.50	112	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.555	U	200	mg/L	0.500	0.0819	94.6	70-130		
Benzene	0.0500	U	0.500	mg/L	0.0500	<0.500	99.9	70-130		
Carbon tetrachloride	0.0503	U	0.500	mg/L	0.0500	<0.500	101	70-130		
Chlorobenzene	0.0501	U	100	mg/L	0.0500	<100	100	70-130		
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00		70-130		
Tetrachloroethylene (Perchloroethylene)	0.0463	U	0.700	mg/L	0.0500	<0.700	92.5	70-130		
Trichloroethene (Trichloroethylene)	0.0525	U	0.500	mg/L	0.0500	<0.500	105	70-130		
Vinyl chloride (Chloroethene)	0.0465	U	0.200	mg/L	0.0500	<0.200	93.1	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.3	ug/L	50.0		98.6	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			50.4	ug/L	50.0		101	70-130		
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			51.4	ug/L	50.0		103	70-130		

Matrix Spike Dup (BHC2757-MSD1)

Source: 24C2022-01

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0369	U	0.700	mg/L	0.0500	<0.700	73.9	70-130	29.7	30
1,2-Dichloroethane (Ethylene dichloride)	0.0368	U	0.500	mg/L	0.0500	<0.500	73.5	70-130	24.3	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0400	J1, U	7.50	mg/L	0.0500	<7.50	80.0	70-130	33.4	30
2-Butanone (Methyl ethyl ketone, MEK)	0.383	J1, U	200	mg/L	0.500	0.0819	60.1	70-130	36.8	30
Benzene	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	22.0	30
Carbon tetrachloride	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	22.8	30
Chlorobenzene	0.0393	U	100	mg/L	0.0500	<100	78.6	70-130	24.2	30
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00		70-130		30
Tetrachloroethylene (Perchloroethylene)	0.0382	U	0.700	mg/L	0.0500	<0.700	76.3	70-130	19.2	30
Trichloroethene (Trichloroethylene)	0.0394	U	0.500	mg/L	0.0500	<0.500	78.8	70-130	28.5	30
Vinyl chloride (Chloroethene)	0.0307	J1, U	0.200	mg/L	0.0500	<0.200	61.5	70-130	40.9	30
Surrogate: 4-Bromofluorobenzene-surr			51.0	ug/L	50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			49.1	ug/L	50.0		98.3	70-130		
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		99.9	70-130		
Surrogate: Dibromofluoromethane-surr			49.2	ug/L	50.0		98.5	70-130		



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TCEQ TX-C24-00086

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
04/01/2024 09:41

Sample Condition Checklist

Work Order: 24C1834

Check Points

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

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

Reported:
04/01/2024 09:41

Term and Qualifier Definitions

Item	Definition
B2	The analyte was detected in the associated leach blank.
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24C1834

Lab PM : Deena Higginbotham	Project Name : HC MUD 70 - Non Potable - TCLP-PCB	
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 18540 Prairie Bend Ct Cypress 77433 ***Collect 1 gallon from East Outfall Sampler & West Outfall Sampler to be composited into Outfall 001 Composite at the lab*** Tony Overstreet 713-542-6983 MUST CALL 30 MIN BEFORE ARRIVAL	

Schedule Comments:

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1834-01	Digester		3/6/2024 06:00	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C HDPE 250mL D Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	

Field Remarks:

Lab Preservation: H2SO4 HNO3 NaOH Other:	
Sampler (Signature)	Received By: (Signature)
Print Name	Received By: (Signature)
Affiliation	Received for Laboratory By: (Signature)
Custody Seal	Received on Ice: Yes / No
Container Intact: Yes / No	Samples Accepted: Yes / No
Appropriate Containers: Yes / No	Temperature: °C
	Thermometer ID:

Katy North

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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March 18, 2024

Laboratory Report

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

HC 70

Report ID: 20240318084750AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services



ENTERED APR 19 2024

- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☐ TCLP
- ☒ Metals
- ☐ PCB
- ☐ F/S
- ☐ & Solid



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

Reported:
03/18/2024 08:47

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B3344-01

Sample Matrix: Solid
Date Collected: 02/14/2024 6:00
Collected by: Angel Rodriguez

HC MUD 70 - Non Potable - Sewage Sludge Annual

9134

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

SW-6010C	Arsenic	A	4.93	mg/kg dry	1	0.432	1.97	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Cadmium	A	0.427	mg/kg dry	1	0.0511	0.197	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Chromium	A	7.39	mg/kg dry	1	0.739	0.987	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Copper	A	206	mg/kg dry	5	1.05	9.84	BHB3291	02/21/2024 15:35	FAA
SW-7471B	Mercury	A	0.561	mg/kg dry	1	0.0118	0.0237	BHB3375	02/20/2024 15:49	ISS
SW-6010C	Lead	A	5.00	mg/kg dry	1	0.502	0.987	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Molybdenum	A	4.67	mg/kg dry	1	0.987	0.987	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Nickel	A	8.35	mg/kg dry	1	0.266	0.987	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Potassium	A	2510	mg/kg dry	1	16.9	197	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Selenium	A	5.30	mg/kg dry	1	0.768	1.97	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Total Phosphorus	A	8080	mg/kg dry	1	8.27	197	BHB3291	02/21/2024 12:01	FAA
SW-6010C	Zinc	A	529	mg/kg dry	20	19.7	19.7	BHB3291	02/21/2024 15:38	FAA

General Chemistry

EPA 350.2	Ammonia as N	A	4540	mg/kg dry	1	587	1170	BHB3442	02/21/2024 08:27	GIW
SW-9056A	Nitrate as N	A	8900	mg/kg dry	25	74.0	185	BHB2461	02/14/2024 21:00	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	59000	mg/kg dry	1	1450	1450	BHB2765	02/16/2024 09:31	GIW
SM 2540 G	% Solids	A	1.69	%	1	0.100	0.100	BHB2735	02/16/2024 08:50	ENR

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

Reported:
03/18/2024 08:47

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010

Blank (BHB3291-BLK1)

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	<1.92	U	1.92	mg/kg wet						
Cadmium	<0.192	U	0.192	mg/kg wet						
Chromium	<0.965	U	0.965	mg/kg wet						
Copper	<1.92	U	1.92	mg/kg wet						
Lead	<0.965	U	0.965	mg/kg wet						
Molybdenum	<0.965	U	0.965	mg/kg wet						
Nickel	<0.965	U	0.965	mg/kg wet						
Potassium	<192	U	192	mg/kg wet						
Selenium	<1.92	U	1.92	mg/kg wet						
Total Phosphorus	<192	U	192	mg/kg wet						
Zinc	<0.965	U	0.965	mg/kg wet						

LCS (BHB3291-BS1)

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	48.2		1.93	mg/kg wet	48.3		99.9	80-120		
Cadmium	4.92		0.193	mg/kg wet	4.83		102	80-120		
Chromium	24.2		0.967	mg/kg wet	24.1		100	80-120		
Copper	50.4		1.93	mg/kg wet	48.3		104	80-120		
Lead	24.5		0.967	mg/kg wet	24.1		101	80-120		
Molybdenum	24.7		0.967	mg/kg wet	24.1		102	80-120		
Nickel	24.4		0.967	mg/kg wet	24.1		101	80-120		
Potassium	4850		193	mg/kg wet	4830		100	80-120		
Selenium	48.5		1.93	mg/kg wet	48.3		101	80-120		
Total Phosphorus	4980		193	mg/kg wet	4830		103	80-120		
Zinc	24.6		0.967	mg/kg wet	24.1		102	80-120		

Matrix Spike (BHB3291-MS1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	40.9	J1	1.99	mg/kg dry	49.9	6.50	69.0	75-125		
Cadmium	4.10	J1	0.199	mg/kg dry	4.99	0.533	71.6	75-125		
Chromium	46.3	J1	0.999	mg/kg dry	24.9	30.3	64.2	75-125		
Copper	950	J1	39.9	mg/kg dry	1050	264	65.5	75-125		
Lead	28.2	J1	0.999	mg/kg dry	24.9	11.5	67.0	75-125		
Molybdenum	18.9	J1	0.999	mg/kg dry	24.9	2.66	65.3	75-125		
Nickel	32.0	J1	0.999	mg/kg dry	24.9	16.3	63.1	75-125		
Potassium	5570	J1	199	mg/kg dry	4990	1980	71.9	75-125		
Selenium	39.9	J1	1.99	mg/kg dry	49.9	3.57	72.9	75-125		
Total Phosphorus	20100		996	mg/kg dry	9970	11800	82.9	75-125		
Zinc	3380		99.9	mg/kg dry	1020	2260	109	75-125		

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Matrix Spike (BHB3291-MS2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	53.8		2.23	mg/kg dry	55.8	6.86	84.2	75-125		
Cadmium	5.18		0.223	mg/kg dry	5.58	0.523	83.5	75-125		
Chromium	32.9		1.12	mg/kg dry	27.9	9.50	84.0	75-125		
Copper	1370		44.6	mg/kg dry	1170	333	88.3	75-125		
Lead	30.2		1.12	mg/kg dry	27.9	7.22	82.4	75-125		
Molybdenum	45.0		1.12	mg/kg dry	27.9	19.7	90.9	75-125		
Nickel	35.7		1.12	mg/kg dry	27.9	11.6	86.4	75-125		
Potassium	8460		223	mg/kg dry	5580	3480	89.4	75-125		
Selenium	63.1		2.23	mg/kg dry	55.8	12.2	91.3	75-125		
Total Phosphorus	25200		1110	mg/kg dry	11200	13200	108	75-125		
Zinc	1780		55.9	mg/kg dry	1140	628	101	75-125		

Matrix Spike Dup (BHB3291-MSD1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	42.0	J1	1.99	mg/kg dry	49.9	6.50	71.0	75-125	2.46	20
Cadmium	4.28		0.199	mg/kg dry	4.99	0.533	75.1	75-125	4.17	20
Chromium	47.4	J1	1.00	mg/kg dry	24.9	30.3	68.6	75-125	2.32	20
Copper	1030	J1	39.9	mg/kg dry	1050	264	73.0	75-125	8.03	20
Lead	29.0	J1	1.00	mg/kg dry	24.9	11.5	70.3	75-125	2.91	20
Molybdenum	19.4	J1	1.00	mg/kg dry	24.9	2.66	67.1	75-125	2.35	20
Nickel	33.2	J1	1.00	mg/kg dry	24.9	16.3	68.0	75-125	3.74	20
Potassium	5690	J1	199	mg/kg dry	4990	1980	74.4	75-125	2.18	20
Selenium	41.5		1.99	mg/kg dry	49.9	3.57	76.0	75-125	3.92	20
Total Phosphorus	19700		997	mg/kg dry	9980	11800	79.1	75-125	1.91	20
Zinc	3570	J1	100	mg/kg dry	1020	2260	128	75-125	5.54	20

Matrix Spike Dup (BHB3291-MSD2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	48.8		2.23	mg/kg dry	55.9	6.86	75.2	75-125	9.69	20
Cadmium	4.79		0.223	mg/kg dry	5.59	0.523	76.5	75-125	7.73	20
Chromium	30.2	J1	1.12	mg/kg dry	27.9	9.50	74.1	75-125	8.66	20
Copper	1260		44.6	mg/kg dry	1170	333	78.6	75-125	8.59	20
Lead	27.8	J1	1.12	mg/kg dry	27.9	7.22	73.8	75-125	8.24	20
Molybdenum	41.1		1.12	mg/kg dry	27.9	19.7	76.6	75-125	9.17	20
Nickel	32.6	J1	1.12	mg/kg dry	27.9	11.6	74.9	75-125	9.35	20
Potassium	7860		223	mg/kg dry	5590	3480	78.4	75-125	7.40	20
Selenium	57.8		2.23	mg/kg dry	55.9	12.2	81.6	75-125	8.87	20
Total Phosphorus	22000		1120	mg/kg dry	11200	13200	79.5	75-125	13.3	20
Zinc	1750		56.0	mg/kg dry	1140	628	97.6	75-125	2.13	20

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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Post Spike (BHB3291-PS1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	607			ug/L	500	61.6	109	80-120		
Cadmium	60.0			ug/L	50.0	5.05	110	80-120		
Chromium	698	J1		ug/L	250	287	164	80-120		
Copper	4960	J1		ug/L	500	2500	492	80-120		
Lead	405			ug/L	250	109	118	80-120		
Molybdenum	286			ug/L	250	25.2	104	80-120		
Nickel	481	J1		ug/L	250	154	131	80-120		
Potassium	85300	J1		ug/L	50000	18800	133	80-120		
Selenium	592			ug/L	500	33.9	112	80-120		
Total Phosphorus	241000	J1		ug/L	50000	112000	258	80-120		

Post Spike (BHB3291-PS2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	600			ug/L	500	58.1	108	80-120		
Cadmium	57.9			ug/L	50.0	4.43	107	80-120		
Chromium	369			ug/L	250	80.4	115	80-120		
Copper	5270	J1		ug/L	500	2820	490	80-120		
Lead	334			ug/L	250	61.1	109	80-120		
Molybdenum	514	J1		ug/L	250	167	139	80-120		
Nickel	401	J1		ug/L	250	98.6	121	80-120		
Selenium	701			ug/L	500	103	119	80-120		
Total Phosphorus	231000	J1		ug/L	50000	111000	239	80-120		

Post Spike (BHB3291-PS3)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 3/11/2024

Zinc	40500	J1		ug/L	250	21400	NR	80-120		
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Post Spike (BHB3291-PS4)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 3/11/2024

Potassium	107000	J1		ug/L	50000	29400	154	80-120		
Zinc	9380	J1		ug/L	250	5320	NR	80-120		

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Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Dilution Check (BHB3291-SRL1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	13.3		9.96	mg/kg dry		6.50			68.8	10
Cadmium	0.908	U	0.996	mg/kg dry		0.533			51.9	10
Chromium	56.1	J1	5.00	mg/kg dry		30.3			59.7	10
Lead	20.1		5.00	mg/kg dry		11.5			54.6	10
Molybdenum	<5.00	U	5.00	mg/kg dry		<5.00			200	10
Nickel	30.3	J1	5.00	mg/kg dry		16.3			60.1	10
Potassium	3780	J1	996	mg/kg dry		1980			62.4	10
Selenium	4.90	U	9.96	mg/kg dry		<9.96			31.3	10
Total Phosphorus	23100	J1	996	mg/kg dry		11800			64.9	10

Dilution Check (BHB3291-SRL2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	13.1		11.2	mg/kg dry		6.86			62.7	10
Cadmium	0.777	U	1.12	mg/kg dry		0.523			38.9	10
Chromium	16.1		5.60	mg/kg dry		9.50			51.8	10
Lead	12.8		5.60	mg/kg dry		7.22			55.6	10
Molybdenum	32.8		5.60	mg/kg dry		19.7			50.0	10
Nickel	19.9	J1	5.60	mg/kg dry		11.6			52.2	10
Potassium	6120	J1	1120	mg/kg dry		3480			55.1	10
Selenium	19.5		11.2	mg/kg dry		12.2			45.8	10
Total Phosphorus	22400	J1	1120	mg/kg dry		13200			52.0	10

Batch: BHB3375 - SW-7471

MDL Check (BHB3375-MRL1)

Prepared & Analyzed: 2/20/2024

Mercury	0.0103	U	0.0199	mg/kg wet	0.00995	104
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Matrix Spike (BHB3375-MS1)

Source: 24B3114-01

Prepared & Analyzed: 2/20/2024

Mercury	1.82		0.134	mg/kg dry	0.334	1.52	89.9	80-120
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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3375 - SW-7471 (Continued)

Matrix Spike (BHB3375-MS2)

Source: 24B0869-22

Prepared & Analyzed: 2/20/2024

Mercury	0.448	J1	0.0201	mg/kg dry	0.251	0.128	128	80-120		
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Matrix Spike Dup (BHB3375-MSD1)

Source: 24B3114-01

Prepared & Analyzed: 2/20/2024

Mercury	1.74	J1	0.134	mg/kg dry	0.334	1.52	64.1	80-120	4.84	20
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Matrix Spike Dup (BHB3375-MSD2)

Source: 24B0869-22

Prepared & Analyzed: 2/20/2024

Mercury	0.447	J1	0.0201	mg/kg dry	0.251	0.128	127	80-120	0.179	20
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Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB2461 - Solid Anions No Prep										
Duplicate (BHB2461-DUP1)		Source: 24B3492-01		Prepared & Analyzed: 2/14/2024						
Nitrate as N	97.4		12.1	mg/kg dry		97.2			0.198	15
MRL Check (BHB2461-MRL1)		Source: 24B3492-01		Prepared & Analyzed: 2/14/2024						
Nitrate as N	0.124	U	0.125	mg/kg wet	0.100		124	50-150		
Matrix Spike (BHB2461-MS1)		Source: 24B3492-01		Prepared & Analyzed: 2/14/2024						
Nitrate as N	298		13.4	mg/kg dry	215	97.2	93.7	80-120		
Batch: BHB2735 - Percent Solids										
Blank (BHB2735-BLK1)		Prepared: 2/15/2024 Analyzed: 2/16/2024								
% Solids	<0.100	U	0.100	%						
Duplicate (BHB2735-DUP1)		Source: 24B3271-01		Prepared: 2/15/2024 Analyzed: 2/16/2024						
% Solids	1.72		0.100	%		1.71			0.269	20
Duplicate (BHB2735-DUP2)		Source: 24B3291-01		Prepared: 2/15/2024 Analyzed: 2/16/2024						
% Solids	1.50		0.100	%		1.50			0.0842	20
Reference (BHB2735-SRM1)		Prepared: 2/15/2024 Analyzed: 2/16/2024								
% Solids	0.351		0.100	%	0.350		100	78.9-118		
Batch: BHB2765 - TKN T										
Blank (BHB2765-BLK1)		Prepared: 2/15/2024 Analyzed: 2/16/2024								
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						

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Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB2765 - TKN T (Continued)

LCS (BHB2765-BS1)

Prepared: 2/15/2024 Analyzed: 2/16/2024

Total Kjeldahl Nitrogen - (TKN)	22.3		9.96	mg/kg wet	19.7		113	85-115		
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Duplicate (BHB2765-DUP1)

Source: 24B2874-01

Prepared: 2/15/2024 Analyzed: 2/16/2024

Total Kjeldahl Nitrogen - (TKN)	47200		2230	mg/kg dry		51000			7.63	20
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Matrix Spike (BHB2765-MS1)

Source: 24B2874-01

Prepared: 2/15/2024 Analyzed: 2/16/2024

Total Kjeldahl Nitrogen - (TKN)	59400		2210	mg/kg dry	8840	51000	95.1	85-115		
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Batch: BHB3442 - TKN T

Blank (BHB3442-BLK1)

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	<9.97	U	9.97	mg/kg wet						
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LCS (BHB3442-BS1)

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	90.7		10.0	mg/kg wet	100		90.7	85-115		
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Duplicate (BHB3442-DUP1)

Source: 24A5242-27

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	63.2	J1	19.3	mg/kg dry		50.3			22.8	20
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MRL Check (BHB3442-MRL1)

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	9.52	U	10.0	mg/kg wet	10.0		95.2	50-150		
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Matrix Spike (BHB3442-MS1)

Source: 24A5242-27

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	252		19.3	mg/kg dry	193	50.3	104	85-115		
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03/18/2024 08:47

Sample Condition Checklist

Work Order: 24B3344

Check Points

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

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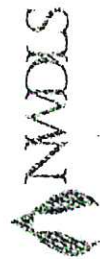
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Term and Qualifier Definitions

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

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CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24B3344

Lab PM : Deena Higginbotham		Project Name : HC MUD 70 - Non Potable - Sewage Sludge Annual				Schedule Comments:	
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 18540 Prairie Bend Ct Cypress 77433 ***Collect 1 gallon from East Outfall Sampler & West Outfall Sampler to be composited into Outfall 001 Composite at the lab*** Tony Overstreet 713-542-6983 MUST CALL 30 MIN BEFORE ARRIVAL					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B3344-01	Digester		2/14/2024 06:00	S Grab	A HDPE 250mL B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E HDPE 250mL	Arsenic ICP 6010 4°C Cadmium ICP 6010 4°C Chromium ICP 6010 4°C Copper ICP 6010 4°C Hg-7471 4°C Lead ICP 6010 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By: (Signature)	Write ID Below			
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation	Relinquished To Lab By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Date/Time	Received for Laboratory By: (Signature)	Date/Time	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Date/Time	Received on Ice: Yes / No	Date/Time	
	Cooler's Intact: Yes / No	Date/Time	Samples Accepted: Yes / No	Date/Time	
		Date/Time	Thermometer ID:	Date/Time	

Katy North

wko_NWDLs_COC_L_S Revision 4.1 Effective: 2/17/2022



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

March 12, 2024

LABORATORY REPORT

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

Report ID: 20240312105655Sta..

RE: HC MUD 70 - Non Potable - Class B Annual

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☐ F/S ☐ & Solid



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: HC MUD 70 - Non Potable - Class B Annual
Project Number: 9134
Project Manager: John Montgomery

Reported:
03/12/2024 10:56

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24C1832-01

Sample Matrix: Solid
Date Collected: 03/06/2024 6:00
Collected by: Angel Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	44100	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	39400	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	40800	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	41600	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	47700	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	31900	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
Colilert-18	Fecal coliforms	51900	MPN/g TS dry	BHC0921	03/07/2024 10:40	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.112	mg O ₂ /hr/g TS @ 20°C dry	BHC0927	03/06/2024 14:36	AKA
SM 2550 B	Temperature °C Field	23.6	°C	BHC1117	03/06/2024 06:00	AR
SM 2540 G	% Solids	1.95	%	BHC0916	03/07/2024 10:08	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R must be less than or equal to 1.5 mg O₂/hr/g TS.

42485
71 297400



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: HC MUD 70 - Non Potable - Class B Annual
Project Number: 9134
Project Manager: John Montgomery

Reported:
03/12/2024 10:56

Quality Control

General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC0916 - Percent Solids									
Blank (BHC0916-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 3/6/2024 Analyzed: 3/7/2024									
Duplicate (BHC0916-DUP1)									
% Solids		0.100	%		2.60			0.0242	10
Source: 24C1769-10 Prepared: 3/6/2024 Analyzed: 3/7/2024									
Duplicate (BHC0916-DUP2)									
% Solids		0.100	%		1.95			0.115	20
Source: 24C1834-01 Prepared: 3/6/2024 Analyzed: 3/7/2024									
Reference (BHC0916-SRM1)									
% Solids		0.100	%	0.350		102	78.9-118		
Prepared: 3/6/2024 Analyzed: 3/7/2024									



8725 Fawn Trail The Woodlands, TX 77385
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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: HC MUD 70 - Non Potable - Class B Annual
Project Number: 9134
Project Manager: John Montgomery

Reported:
03/12/2024 10:56

Quality Control (Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	------------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHC0921 - FC Quantitray

Blank (BHC0921-BLK1)

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Prepared: 3/6/2024 Analyzed: 3/7/2024

Duplicate (BHC0921-DUP1)

Fecal coliforms

Source: 24C1832-01

512 MPN/g TS
dry

Prepared: 3/6/2024 Analyzed: 3/7/2024

44100

19.7

200



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Email: lab@nwdsls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: HC MUD 70 - Non Potable - Class B Annual
Project Number: 9134
Project Manager: John Montgomery

Reported:
03/12/2024 10:56

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24C1832

Lab PM : Deena Higginbotham	Project Name : HC MUD 70 - Non Potable - Class B Annual		Schedule Comments
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 18540 Prairie Bend Ct Cypress 77433 ***Collect 1 gallon from East Outfall Sampler & West Outfall Sampler to be composited into Outfall 001 Composite at the lab*** Tony Overstreet 713-542-6983 MUST CALL 30 MIN BEFORE ARRIVAL		

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1832-01	Digester		3/6/2024 06:00	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 23.6°C

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other
Sampler (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Print Name	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Affiliation	Relinquished By (Signature)	Date/Time	Received for Laboratory By (Signature)	Date/Time	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	
Katy North					

wko_NWDLs_COC_LS Revision 4.1 Effective 2/17/2022



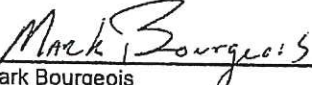
05 January 2024

Harris County WCID 109
Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy, TX 77449

RE: HC WCID 109 Digester b

Enclosed are the results of analyses for samples received by the laboratory on 12/21/23 14:54, with Lab ID Number C3L5296. If you have any questions concerning this report, please feel free to contact me.

Sincerely,


Mark Bourgeois
Special Projects Manager

ENTERED FEB 29 2024

☒ Sludge Manager
☐ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid

Vase



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



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

LABORATORY ANALYTICAL REPORT

Project: HC WCID 109 Digester b
Sample Matrix: Waste
Client Matrix: Waste

Sample Date and Time: 12/21/2023 10:19

Collector: TLT

Sample Type: Grab

Print Date: 1/5/2024

Digester C3LS296-01 (Waste)

Analyte	Result	Reporting		Nelac Status	Batch	Analyzed Date & Time	Method	Notes
		Limit	Units					
Eastex Environmental Laboratory - Coldspring								
Fecal Coliform IDEXX	156529	1000	mpn/gram	N	B3L3600	12/21/2023 15:30	Colilert 18	
Percent Solid	0.9	0.1	%	A	B3L3641	12/22/2023 10:42	SM 2540G	
Vector	1.1	0.1	mg O2/hr/g	N	B4A0269	12/21/2023 15:50	TAC 312.83(b)(4)	
Volatile Percent Solid	75.5	0.1	%	A	B3L3637	12/27/2023 13:18	SM 2540G	



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

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Tel: 936 653 3249



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 B3L3600 - No Prep Micro										
Blank (B3L3600-BLK1)					Prepared & Analyzed: 12/21/2023 3:30:00PM					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
Duplicate (B3L3600-DUP1)					Source: C3L5877-01 Prepared & Analyzed: 12/21/2023 3:30:00PM					
Fecal Coliform IDEXX	387300	1000	mpn/gram		275500			33.7	200	
Batch B3L3637 - No Prep										
Blank (B3L3637-BLK1)					Prepared & Analyzed: 12/27/2023 1:18:00PM					
Volatile Percent Solid	ND	0.1	%							
Duplicate (B3L3637-DUP1)					Source: C3L5296-01 Prepared & Analyzed: 12/27/2023 1:18:00PM					
Volatile Percent Solid	75.9	0.1	%		75.5			0.528	10	
Batch B3L3641 - No Prep										
Blank (B3L3641-BLK1)					Prepared & Analyzed: 12/22/2023 10:42:00AM					
Percent Solid	ND	0.1	%							
Duplicate (B3L3641-DUP1)					Source: C3L5296-01 Prepared & Analyzed: 12/22/2023 10:42:00AM					
Percent Solid	0.900	0.1	%		0.900			0.00	20	
Batch B4A0269 - No Prep Micro										
Blank (B4A0269-BLK1)					Prepared & Analyzed: 12/21/2023 3:50:00PM					
Vector	ND	0.1	mg O2/hr/g							
Duplicate (B4A0269-DUP1)					Source: C3L5296-01 Prepared & Analyzed: 12/21/2023 3:50:00PM					
Vector	0.930	0.1	mg O2/hr/g		1.00			15.8	200	



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

P.O. Box 1089 Coldspring Tx 77331
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Tel: 936 653 3249



Notes and Definitions

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



16 January 2024

Harris County WCID 109
Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy, TX 77449

RE: HC WCID 109 Digester c

Enclosed are the results of analyses for samples received by the laboratory on 12/21/23 14:54, with Lab ID Number C3L5297. If you have any questions concerning this report, please feel free to contact me.

Sincerely,


Mark Bourgeois
Special Projects Manager

ENTERED FEB 29 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☒ PCB ☐ F/S ☐ & Solid



P.O. Box 1089 Coldspring Tx 77331
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Tel: 936 653 3249



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

LABORATORY ANALYTICAL REPORT

Project: HC WCID 109 Digester c
Sample Matrix: Waste
Client Matrix: Waste

Sample Date and Time: 12/21/2023 10:19
Collector: TLT
Sample Type: Grab
Print Date: 1/16/2024

Digester C3L5297-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
Eastex Environmental Laboratory - Coldspring								
Arsenic	<11.1	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Cadmium	<11.1	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Chromium	19.7	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Copper	336	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Lead	27.8	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Mercury, Total	0.481	0.222	mg/Kg dry	A	B4A1142	01/09/2024 14:13	EPA SW 846-7471B	
Molybdenum	<11.1	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
NH3N %	<1.11	1.11	% dry	A	B4A0016	01/05/2024 16:32	EPA 350.2	
Nickel	16.3	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Nitrate-N, %	0.811	0.000222	% dry	N	B3L4302	12/28/2023 20:00	SM 4500 NO3 D	
Percent Solid	0.9	0.1	%	A	B3L3648	12/22/2023 11:18	SM 2540G	
Phosphorus, %	1.43	1.00	% dry	A	B3L3713	01/05/2024 13:08	EPA SW 846-6010, 3050	
pH-Sludge	5.24		std unit	A	B3L3751	12/22/2023 16:37	EPA SW 846-9040	
Potassium, %	0.633	0.556	% dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Selenium	13.4	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	
Zinc	1130	11.1	mg/Kg dry	A	B3L3712	12/22/2023 17:11	EPA SW 846-6010, 3050	

Eastex Environmental Laboratory - Coldspring

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

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

PromiumforCold.v5_shortened QC.rpt ; revision date 06/08/2018



P.O. Box 1089 Coldspring Tx 77331

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Email: eastexlab@eastex.net

Tel: 936 653 3249



Harris County WCTD 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

SM 2540G - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B3L3648 - No Prep

Blank (B3L3648-BLK1)

Prepared & Analyzed: 12/22/2023 11:18:00AM

Percent Solid	ND	0.1	%							
Duplicate (B3L3648-DUP1)		Source: C3L4472-01								
Percent Solid	1.50	0.1	%		1.60			6.45	20	

Batch B3L3712 - SW846-3050

Blank (B3L3712-BLK1)

Prepared & Analyzed: 12/22/2023 4:47:11PM

Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							

LCS (B3L3712-BS1)

Prepared & Analyzed: 12/22/2023 4:50:39PM

Molybdenum	2.75	0.100	mg/Kg wet	2.50		110	80-120			
Arsenic	2.14	0.100	mg/Kg wet	2.50		85.6	80-120			
Cadmium	2.2	0.100	mg/Kg wet	2.50		87.6	80-120			
Chromium	2.36	0.100	mg/Kg wet	2.50		94.4	80-120			
Copper	2.51	0.100	mg/Kg wet	2.50		100	80-120			
Lead	2.29	0.100	mg/Kg wet	2.50		91.6	80-120			
Nickel	2.25	0.100	mg/Kg wet	2.50		90.0	80-120			
Potassium, %	0.0239	0.00500	% wet	0.0250		95.6	80-120			
Selenium	2.36	0.100	mg/Kg wet	2.50		94.4	80-120			
Zinc	2.15	0.100	mg/Kg wet	2.50		86.0	80-120			

Matrix Spike (B3L3712-MS1)

Source: C3L4471-01

Prepared & Analyzed: 12/22/2023 5:01:05PM

Molybdenum	178.125	6.25	mg/Kg dry	156	8.1875	109	75-125			
Arsenic	144	6.25	mg/Kg dry	156	4.38	89.2	75-125			
Cadmium	140	6.25	mg/Kg dry	156	0.64	90.8	75-125			
Chromium	168	6.25	mg/Kg dry	156	15.8	97.1	75-125			
Copper	424	6.25	mg/Kg dry	156	263	103	75-125			
Lead	152	6.25	mg/Kg dry	156	6.44	93.5	75-125			
Nickel	162	6.25	mg/Kg dry	156	16.6	93.4	75-125			
Potassium, %	1.91	0.312	% dry	1.56	0.429	94.9	75-125			

Eastex Environmental Laboratory - Coldspring

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

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

PromiumforCold.v5_shortened QC.rpt ; revision date 06/08/2018



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

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



EPA SW 846-6010, 3050 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3L3712 - SW846-3050										
Matrix Spike (B3L3712-MS1)		Source: C3L4471-01			Prepared & Analyzed: 12/22/2023 5:01:05PM					
Selenium	138	6.25	mg/Kg dry	156	11.3	81.2	75-125			
Zinc	956.2499	6.25	mg/Kg dry	156	818.7499	88.0	75-125			
Matrix Spike Dup (B3L3712-MSD1)		Source: C3L4471-01			Prepared & Analyzed: 12/22/2023 5:04:35PM					
Molybdenum	175	6.25	mg/Kg dry	156	8.1875	107	75-125	1.77	20	
Arsenic	141	6.25	mg/Kg dry	156	4.38	87.6	75-125	1.75	20	
Cadmium	140	6.25	mg/Kg dry	156	0.64	88.0	75-125	3.12	20	
Chromium	163	6.25	mg/Kg dry	156	15.8	94.3	75-125	2.65	20	
Copper	422	6.25	mg/Kg dry	156	263	102	75-125	0.591	20	
Lead	148	6.25	mg/Kg dry	156	6.44	90.3	75-125	3.33	20	
Nickel	157	6.25	mg/Kg dry	156	16.6	89.8	75-125	3.52	20	
Potassium, %	1.92	0.312	% dry	1.56	0.429	95.3	75-125	0.326	20	
Selenium	134	6.25	mg/Kg dry	156	11.3	78.8	75-125	2.75	20	
Zinc	962.4999	6.25	mg/Kg dry	156	818.7499	92.0	75-125	0.651	20	
Batch B3L3713 - SW846-3050										
Blank (B3L3713-BLK1)		Prepared & Analyzed: 1/5/2024 12:57:34PM								
Phosphorus, %	ND	1.00	% wet							
LCS (B3L3713-BS1)		Prepared & Analyzed: 1/5/2024 2:20:35PM								
Phosphorus, %	0.00237	1.00	% wet	0.00252	1.12	108	75-125			
Matrix Spike (B3L3713-MS1)		Source: C3L4471-01			Prepared & Analyzed: 1/5/2024 1:03:58PM					
Phosphorus, %	1.29	1.00	% dry	0.158	1.12	117	75-125	1.02	20	
Matrix Spike Dup (B3L3713-MSD1)		Source: C3L4471-01			Prepared & Analyzed: 1/5/2024 1:05:34PM					
Phosphorus, %	1.30	1.00	% dry	0.158	1.12	117	75-125	1.02	20	
Batch B3L3751 - No Prep										
LCS (B3L3751-BS1)		Prepared & Analyzed: 12/22/2023 4:37:00PM								
pH-Sludge	6.86		std unit	6.86		100	0-200			
Duplicate (B3L3751-DUP1)		Source: C3L5297-01			Prepared & Analyzed: 12/22/2023 4:37:00PM					
pH-Sludge	5.22		std unit	5.24				0.382	20	
Batch B3L4302 - No Prep										
Blank (B3L4302-BLK1)		Prepared & Analyzed: 12/28/2023 8:00:00PM								
Nitrate-N, %	ND	0.00000200	% wet							

Eastex Environmental Laboratory - Coldspring

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

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

PremiumforCold.v5_shortened QC.rpt ; revision date 06/08/2018



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

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



SM 4500 NO3 D - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3L4302 - No Prep										
LCS (B3L4302-BS1)					Prepared & Analyzed: 12/28/2023 8:00:00PM					
Nitrate-N, %	0.947		mg/L	1.00		94.7	80-120			
Matrix Spike (B3L4302-MS1)					Source: C3L4471-01 Prepared & Analyzed: 12/28/2023 8:00:00PM					
Nitrate-N, %	0.3384375	0.000125	% dry	0.312	0.0225	101	80-120			
Matrix Spike Dup (B3L4302-MSD1)					Source: C3L4471-01 Prepared & Analyzed: 12/28/2023 8:00:00PM					
Nitrate-N, %	0.3734375	0.000125	% dry	0.312	0.0225	112	80-120	9.83	20	
Batch B4A0016 - No Prep										
Blank (B4A0016-BLK1)					Prepared & Analyzed: 1/5/2024 4:32:00PM					
NH3N %	ND	0.0100	% wet							
LCS (B4A0016-BS1)					Prepared & Analyzed: 1/5/2024 4:32:00PM					
NH3N %	1.83		mg/L	2.00		91.4	80-120			
Matrix Spike (B4A0016-MS1)					Source: C3L4472-01 Prepared & Analyzed: 1/5/2024 4:32:00PM					
NH3N %	4.05		mg/L	4.00	0.0637	99.7	80-120			
Matrix Spike Dup (B4A0016-MSD1)					Source: C3L4472-01 Prepared & Analyzed: 1/5/2024 4:32:00PM					
NH3N %	4.02		mg/L	4.00	0.0637	99.0	80-120	0.694	20	
Batch B4A1142 - SW 846-7471B										
Blank (B4A1142-BLK1)					Prepared & Analyzed: 1/9/2024 1:43:09PM					
Mercury, Total	ND	0.00200	mg/Kg wet							
LCS (B4A1142-BS1)					Prepared & Analyzed: 1/9/2024 1:45:40PM					
Mercury, Total	0.0242	0.00200	mg/Kg wet	0.0250		96.8	80-120			
Matrix Spike (B4A1142-MS1)					Source: C3L0218-01 Prepared & Analyzed: 1/9/2024 1:53:16PM					
Mercury, Total	2.22	0.154	mg/Kg dry	1.92	0.198	105	75-125			
Matrix Spike Dup (B4A1142-MSD1)					Source: C3L0218-01 Prepared & Analyzed: 1/9/2024 1:55:48PM					
Mercury, Total	2.09	0.154	mg/Kg dry	1.92	0.198	98.5	75-125	5.71	20	

Eastex Environmental Laboratory - Coldspring

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PremiumforCold.v5_shortened QC.rpt ; revision date 06/08/2018



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Tel: 936 653 3249



Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy TX, 77449

Notes and Definitions

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



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Bourgeois
Eastex Environmental Laboratory Inc.
PO BOX 1089
Coldspring, Texas 77331

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JOB DESCRIPTION

Harris County WCID 109

JOB NUMBER

860-64505-1

Eurofins Houston
4145 Greenbriar Dr
Stafford TX 77477

See page two for job notes and contact information.

Page 1 of 18



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

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Job Notes

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

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

Authorization



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

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Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	12
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18



Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

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1
2
3
4
5
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7
8
9
10
11
12
13
14
15

Case Narrative

Client: Eastex Environmental Laboratory Inc.
Project: Harris County WCID 109

Job ID: 860-64505-1

Job ID: 860-64505-1

Eurofins Houston

Job Narrative
860-64505-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The sample was received on 12/28/2023 12:15 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

PCBs

Method 8082A: liquid sludge. weighed to 5 grams

HC WCID 109 Digester (860-64505-1)

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

General Chemistry

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-140299 and analytical batch 860-140500 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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Detection Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-64505-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Kjeldahl	28000		3100		mg/Kg	5	*	351.2	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-64505-1

Date Collected: 12/21/23 10:19

Matrix: Solid

Date Received: 12/28/23 12:15

Percent Solids: 1.2

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1221	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1232	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1242	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1248	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1254	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
PCB-1260	ND		8.3		mg/Kg	□	12/29/23 14:20	01/02/24 11:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		35 - 140				12/29/23 14:20	01/02/24 11:35	1
DCB Decachlorobiphenyl (Surr)	112		37 - 142				12/29/23 14:20	01/02/24 11:35	1

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.8				%			12/29/23 14:49	1
Percent Solids (EPA Moisture)	1.2				%			12/29/23 14:49	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl (EPA 351.2)	28000		3100		mg/Kg	□	01/11/24 19:41	01/12/24 15:00	5

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Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (35-140)	DCB1 (37-142)
860-64505-1	HC WCID 109 Digester	90	112
LCS 860-138665/4-A	Lab Control Sample	104	122
LCSD 860-138665/5-A	Lab Control Sample Dup	108	120
MB 860-138665/1-A	Method Blank	91	121

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-138665/1-A

Matrix: Solid

Analysis Batch: 138825

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 138665

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1221	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1232	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1242	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1248	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1254	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1
PCB-1260	ND		0.017		mg/Kg		12/29/23 14:20	01/02/24 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		35 - 140	12/29/23 14:20	01/02/24 10:45	1
DCB Decachlorobiphenyl (Surr)	121		37 - 142	12/29/23 14:20	01/02/24 10:45	1

Lab Sample ID: LCS 860-138665/4-A

Matrix: Solid

Analysis Batch: 138825

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 138665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.152		mg/Kg		91	27 - 121
PCB-1260	0.167	0.181		mg/Kg		109	27 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	104		35 - 140
DCB Decachlorobiphenyl (Surr)	122		37 - 142

Lab Sample ID: LCSD 860-138665/5-A

Matrix: Solid

Analysis Batch: 138825

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 138665

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.161		mg/Kg		97	27 - 121	6	20
PCB-1260	0.167	0.184		mg/Kg		111	27 - 139	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	108		35 - 140
DCB Decachlorobiphenyl (Surr)	120		37 - 142

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 860-140299/48-A

Matrix: Solid

Analysis Batch: 140500

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 140299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	ND		0.20		mg/Kg		01/11/24 19:41	01/12/24 14:32	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: MB 860-140299/4-A
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140299

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	ND		0.20		mg/Kg		01/11/24 19:41	01/12/24 14:11	1

Lab Sample ID: LCS 860-140299/49-A
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140299

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	2.00	2.06		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 860-140299/50-A
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140299

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	2.00	1.97		mg/Kg		98	90 - 110	5	20

Lab Sample ID: LLCSD 860-140299/5-A
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140299

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	0.200	0.229		mg/Kg		115	50 - 150

Lab Sample ID: 860-64271-A-1-B MS
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 140299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	33000		4280	23500	4	mg/Kg	11	-230	90 - 110

Lab Sample ID: 860-64271-A-1-C MSD
Matrix: Solid
Analysis Batch: 140500

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 140299

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	33000		4280	22500	4	mg/Kg	11	-253	90 - 110	4	20

Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-138710/1
Matrix: Solid
Analysis Batch: 138710

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.02				%			12/29/23 14:49	1
Percent Solids	100.0				%			12/29/23 14:49	1

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-64504-B-1 DU

Matrix: Solid

Analysis Batch: 138710

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	98.9		99.0		%		0.1	20
Percent Solids	1.1		1.0		%		10	20

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Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

QC Association Summary

Job ID: 860-64505-1

GC Semi VOA

Prep Batch: 138665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64505-1	HC WCID 109 Digester	Total/NA	Solid	3550C	
MB 860-138665/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-138665/4-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-138665/5-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 138825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64505-1	HC WCID 109 Digester	Total/NA	Solid	8082A	138665
MB 860-138665/1-A	Method Blank	Total/NA	Solid	8082A	138665
LCS 860-138665/4-A	Lab Control Sample	Total/NA	Solid	8082A	138665
LCSD 860-138665/5-A	Lab Control Sample Dup	Total/NA	Solid	8082A	138665

General Chemistry

Analysis Batch: 138710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64505-1	HC WCID 109 Digester	Total/NA	Solid	Moisture	
MB 860-138710/1	Method Blank	Total/NA	Solid	Moisture	
860-64504-B-1 DU	Duplicate	Total/NA	Solid	Moisture	

Prep Batch: 140299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64505-1	HC WCID 109 Digester	Total/NA	Solid	351.2	
MB 860-140299/48-A	Method Blank	Total/NA	Solid	351.2	
MB 860-140299/4-A	Method Blank	Total/NA	Solid	351.2	
LCS 860-140299/49-A	Lab Control Sample	Total/NA	Solid	351.2	
LCSD 860-140299/50-A	Lab Control Sample Dup	Total/NA	Solid	351.2	
LLCS 860-140299/5-A	Lab Control Sample	Total/NA	Solid	351.2	
860-64271-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	
860-64271-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	

Analysis Batch: 140500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-64505-1	HC WCID 109 Digester	Total/NA	Solid	351.2	140299
MB 860-140299/48-A	Method Blank	Total/NA	Solid	351.2	140299
MB 860-140299/4-A	Method Blank	Total/NA	Solid	351.2	140299
LCS 860-140299/49-A	Lab Control Sample	Total/NA	Solid	351.2	140299
LCSD 860-140299/50-A	Lab Control Sample Dup	Total/NA	Solid	351.2	140299
LLCS 860-140299/5-A	Lab Control Sample	Total/NA	Solid	351.2	140299
860-64271-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	140299
860-64271-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	140299

Eurofins Houston

Lab Chronicle

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-64505-1

Date Collected: 12/21/23 10:19

Matrix: Solid

Date Received: 12/28/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			138710	12/29/23 14:49	JM	EET HOU

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-64505-1

Date Collected: 12/21/23 10:19

Matrix: Solid

Date Received: 12/28/23 12:15

Percent Solids: 1.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.03 g	5 mL	138665	12/29/23 14:20	BH	EET HOU
Total/NA	Analysis	8082A		1			138825	01/02/24 11:35	A1S	EET HOU
Total/NA	Prep	351.2			0.53 mL	20 mL	140299	01/11/24 19:41	ALL	EET HOU
Total/NA	Analysis	351.2		5			140500	01/12/24 15:00	AA	EET HOU

Laboratory References:

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

Eurofins Houston

Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

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Method Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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



Sample Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: Harris County WCID 109

Job ID: 860-64505-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-64505-1	HC WCID 109 Digester	Solid	12/21/23 10:19	12/28/23 12:15

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SUBCONTRACT ORDER

Sending Laboratory:

Eastex Environmental Laboratory - Coldspring
PO Box 1089
Coldspring, TX 77331

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

Subcontracted Laboratory:

Eurofins Xenco LLC

4147 Greenbriar Dr.
Stafford, TX 77477

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

PO 122823B

Requested Turnaround 10 Days

Sample ID: HC WCID 109 Digester c Digester

Sample No: C3L5297-01

Waste Sampled: 12/21/2023 10:10

TKN %
PCB 8082

Containers Supplied: 2

Special Instructions, PCB MG/KG & SOLIDS



860-64505 Chain of Custody

Temp: 02 IR ID HQU-369
C/F -0.0
Corrected Temp: 02

See Attached

Received Iced Y/N

Temp. _____

Harris County WCID 109

Prepared By: _____

Date & Time: 12/28/23

Received By: YARDS

Date & Time: 12/28/23 12:15

2023SubcontractOrder rpt 10062023

Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-64505-1

Login Number: 64505

List Number: 1

List Source: Eurofins Houston

Creator: Rubio, Yuri

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

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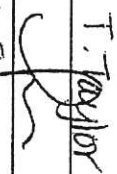
EASTEX ENVIRONMENTAL LABORATORY, INC.
P.O. Box 1089 * Goldspring, TX 77331 P.O. Box 631375 * Nacogdoches, TX 75963-1375
(936) 653-3249 * (800) 525-0508 (936) 569-8879 * FAX (936) 569-9951

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

REPORT TO:

INVOICE TO:

www.eastexlabs.com

Company:		Information		Remarks:	
Address:		on file			
Attn:					
Phone#:					
Email:					
P.O. #:					
Sampler's Name (print):		T. Taylor			
Sampler's Signature:					
Project Name:		HC WCID 109			
Work Order ID		Sample ID			
Date		Time			
Matrix		C or G			
DO		pH			
Cl2		Flow			
Temp		#			
Size		Type			
Pres					
Containers					
Field Data					
C=Composite G=Grab					
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					
C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z=Zn Acetate					
ST=Sodium Thiosulfate H=HCL O=Other					
Received By:		Received By:			
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Date		Date			



26 October 2023

Harris County WCID 109
Harris County WCID 109
2002 N Grand Parkway N Suite 100
Katy, TX 77449

RE: HC WCID 109 Digester

Enclosed are the results of analyses for samples received by the laboratory on 10/13/23 13:58, with Lab ID Number C3J2855. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Bourgeois
Special Projects Manager

RECEIVED
DEC 22 2023

ENTERED DEC 22 2023

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ Ph

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Bourgeois
Eastex Environmental Laboratory Inc.
PO BOX 1089
Coldspring, Texas 77331
Generated 10/26/2023 12:38:03 PM

JOB DESCRIPTION

HC WCID 109

JOB NUMBER

860-59416-1

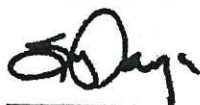
Eurofins Houston

Job Notes

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

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

Authorization



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

Generated
10/26/2023 12:38:03 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	7
Client Sample Results	8
Surrogate Summary	10
QC Sample Results	13
QC Association Summary	26
Lab Chronicle	30
Certification Summary	31
Method Summary	32
Sample Summary	33
Chain of Custody	34
Receipt Checklists	35



Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

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

Case Narrative

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Job ID: 860-59416-1

Laboratory: Eurofins Houston

Narrative

Job Narrative 860-59416-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the Individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The sample was received on 10/17/2023 10:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC/MS VOA

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

GC/MS Semi VOA

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

Herbicides

Method 8151A_MOD: The surrogate recovery for the blank associated with preparation batch 860-127375 and analytical batch 860-127462 was outside the upper control limits.

(MB 860-127375/1-A)

Method 8151A_MOD: The surrogate recovery for the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) associated with preparation batch 860-127375 and analytical batch 860-127462 was outside the upper control limits.

(LCS 860-127375/2-A) and (LCSD 860-127375/3-A)

Method 8151A_MOD: The 2,4-Dichlorophenylacetic acid surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: (LB 860-126999/1-F). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8151A_MOD: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 860-127375 and analytical batch 860-127462 recovered outside control limits for the following analytes: 2,4-D and 2,4,5-TP (Silvex). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8151A_MOD: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-127375 and analytical batch 860-127462 recovered outside control limits for the following analytes: 2,4-D.

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

PCBs

Method 8082A: liquid sludge, weighed to 5 grams

HC WCID 109 Digester (860-59416-1)



Case Narrative

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Job ID: 860-59416-1 (Continued)

Laboratory: Eurofins Houston (Continued)

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

Pesticides

Method 8081B: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column: (LCS 860-127276/4-A), (LCSD 860-127276/5-A) and (MB 860-127276/1-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: (LCS 860-127276/4-A), (LCSD 860-127276/5-A) and (MB 860-127276/1-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: HC WCID 109 Digester (860-59416-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The DCB (Decachlorobiphenyl) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: (LB 860-126999/1-I), (LCS 860-127577/2-A), (LCSD 860-127577/3-A) and (MB 860-127577/1-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

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

Metals

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

General Chemistry

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



Detection Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-59416-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30		0.050		mg/L	50		8260C	TCLP
Barium	0.15		0.050		mg/L	1		8010B	TCLP



This Detection Summary does not include radiochemical test results.

Eurofins Houston

Client Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-59416-1

Date Collected: 10/13/23 10:59

Matrix: Solid

Date Received: 10/17/23 10:00

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.30		0.050		mg/L			10/24/23 11:31	50
Carbon tetrachloride	ND		0.25		mg/L			10/24/23 11:31	50
Chlorobenzene	ND		0.050		mg/L			10/24/23 11:31	50
Chloroform	ND		0.050		mg/L			10/24/23 11:31	50
1,2-Dichloroethane	ND		0.050		mg/L			10/24/23 11:31	50
1,1-Dichloroethene	ND		0.050		mg/L			10/24/23 11:31	50
2-Butanone	ND		2.5		mg/L			10/24/23 11:31	50
Tetrachloroethene	ND		0.050		mg/L			10/24/23 11:31	50
Trichloroethene	ND		0.25		mg/L			10/24/23 11:31	50
Vinyl chloride	ND		0.10		mg/L			10/24/23 11:31	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		63 - 144					10/24/23 11:31	50
4-Bromofluorobenzene (Surr)	92		74 - 124					10/24/23 11:31	50
Dibromofluoromethane (Surr)	103		75 - 131					10/24/23 11:31	50
Toluene-d8 (Surr)	100		80 - 120					10/24/23 11:31	50

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
2,4-Dinitrotoluene	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
2-Methylphenol	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
Hexachlorobenzene	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
Hexachlorobutadiene	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
Hexachloroethane	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
Nitrobenzene	ND		0.13		mg/L		10/20/23 08:21	10/20/23 19:29	5
Pentachlorophenol	ND		0.25		mg/L		10/20/23 08:21	10/20/23 19:29	5
Pyridine	ND		0.25		mg/L		10/20/23 08:21	10/20/23 19:29	5
3 & 4 Methylphenol	ND		0.25		mg/L		10/20/23 08:21	10/20/23 19:29	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	59		31 - 132				10/20/23 08:21	10/20/23 19:29	5
2-Fluorobiphenyl (Surr)	76		29 - 112				10/20/23 08:21	10/20/23 19:29	5
2-Fluorophenol (Surr)	51		21 - 114				10/20/23 08:21	10/20/23 19:29	5
Nitrobenzene-d5 (Surr)	73		26 - 110				10/20/23 08:21	10/20/23 19:29	5
p-Terphenyl-d14 (Surr)	76		20 - 141				10/20/23 08:21	10/20/23 19:29	5
Phenol-d5 (Surr)	42		16 - 117				10/20/23 08:21	10/20/23 19:29	5

Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/20/23 09:36	10/20/23 15:12	1
Endrin	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 15:12	1
Heptachlor	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 15:12	1
Heptachlor epoxide	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 15:12	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 15:12	1
Methoxychlor	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 15:12	1
Toxaphene	ND		0.0010		mg/L		10/20/23 09:36	10/20/23 15:12	1

Eurofins Houston

Client Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-59416-1

Date Collected: 10/13/23 10:59

Matrix: Solid

Date Received: 10/17/23 10:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	57		45 - 115	10/20/23 09:36	10/20/23 15:12	1
Tetrachloro-m-xylene	102		41 - 110	10/20/23 09:36	10/20/23 15:12	1

Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND	*+ *1	0.00020		mg/L		10/20/23 16:19	10/23/23 14:20	1
2,4,5-TP (Silvex)	ND	*+	0.00020		mg/L		10/20/23 16:19	10/23/23 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	137		42 - 150	10/20/23 16:19	10/23/23 14:20	1

Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:45	1
Antimony	ND		0.10		mg/L		10/19/23 10:30	10/19/23 17:45	1
Barium	0.15		0.050		mg/L		10/19/23 10:30	10/19/23 17:45	1
Cadmium	ND		0.025		mg/L		10/19/23 10:30	10/19/23 17:45	1
Chromium	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:45	1
Beryllium	ND		0.020		mg/L		10/19/23 10:30	10/19/23 17:45	1
Lead	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:45	1
Selenium	ND		0.15		mg/L		10/19/23 10:30	10/19/23 17:45	1
Silver	ND		0.10		mg/L		10/19/23 10:30	10/19/23 17:45	1
Nickel	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:45	1

Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		10/19/23 14:31	10/19/23 20:44	1

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	99.0				%			10/17/23 16:31	1
Percent Solids (EPA Moisture)	1.0				%			10/17/23 16:31	1

Client Sample ID: HC WCID 109 Digester

Lab Sample ID: 860-59416-1

Date Collected: 10/13/23 10:59

Matrix: Solid

Date Received: 10/17/23 10:00

Percent Solids: 1.0

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1221	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1232	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1242	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1248	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1254	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1
PCB-1260	ND		10		mg/Kg		10/18/23 08:31	10/18/23 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		35 - 140	10/18/23 08:31	10/18/23 15:37	1
DCB Decachlorobiphenyl (Surr)	122		37 - 142	10/18/23 08:31	10/18/23 15:37	1

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-127662/3	Lab Control Sample	99	104	101	102
LCSD 860-127662/4	Lab Control Sample Dup	97	101	97	99
MB 860-127662/9	Method Blank	106	95	103	97

Surrogate Legend
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-59416-1	HC WCID 109 Digester	107	92	103	100

Surrogate Legend
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-127232/2-A	Lab Control Sample	87	68	34	62	87	24
LCSD 860-127221/3-A	Lab Control Sample Dup	105	83	41	74	108	30
LCSD 860-127232/3-A	Lab Control Sample Dup	82	58	28	53	85	20
MB 860-127221/1-A	Method Blank	115	107	53	104	118	37
MB 860-127232/1-A	Method Blank	76	75	35	76	87	24

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

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-59416-1	HC WCID 109 Digester	59	76	51	73	76	42
860-59416-1 MS	HC WCID 109 Digester	69	59	37	55	76	35

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LB 860-126999/1-E	Method Blank	61	85	62	88	95	49

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (45-115)	TCX2 (41-110)
LCS 860-127276/4-A	Lab Control Sample	71	95
LCSD 860-127276/5-A	Lab Control Sample Dup	75	87
MB 860-127276/1-A	Method Blank	75	100

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (45-115)	TCX1 (41-110)
LCSD 860-127577/3-A	Lab Control Sample Dup	51	93
MB 860-127577/1-A	Method Blank	56	104

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (45-115)	TCX1 (41-110)
860-59416-1	HC WCID 109 Digestor	57	102
LB 860-126999/1-I	Method Blank	66	109

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Eurofins Houston

Surrogate Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (35-140)	DCB1 (37-142)
860-59416-1	HC WCID 109 Digester	94	122
LCS 860-126842/4-A	Lab Control Sample	105	131
LCSD 860-126842/5-A	Lab Control Sample Dup	104	129
MB 860-126842/1-A	Method Blank	88	116
Surrogate Legend			
TCX = Tetrachloro-m-xylene			
DCB = DCB Decachlorobiphenyl (Surr)			

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)				
LCS 860-127375/2-A	Lab Control Sample	276 S1+				
LCSD 860-127375/3-A	Lab Control Sample Dup	239 S1+				
MB 860-127375/1-A	Method Blank	157 S1+				
Surrogate Legend						
DCPAA = 2,4-Dichlorophenylacetic acid						

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)				
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)				
860-59416-1	HC WCID 109 Digester	137				
LB 860-126999/1-F	Method Blank	168 S1+				
Surrogate Legend						
DCPAA = 2,4-Dichlorophenylacetic acid						

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-127662/9
Matrix: Solid
Analysis Batch: 127662

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			10/24/23 09:49	1
Carbon tetrachloride	ND		0.0050		mg/L			10/24/23 09:49	1
Chlorobenzene	ND		0.0010		mg/L			10/24/23 09:49	1
Chloroform	ND		0.0010		mg/L			10/24/23 09:49	1
1,2-Dichloroethane	ND		0.0010		mg/L			10/24/23 09:49	1
1,1-Dichloroethene	ND		0.0010		mg/L			10/24/23 09:49	1
2-Butanone	ND		0.050		mg/L			10/24/23 09:49	1
Tetrachloroethene	ND		0.0010		mg/L			10/24/23 09:49	1
Trichloroethene	ND		0.0050		mg/L			10/24/23 09:49	1
Vinyl chloride	ND		0.0020		mg/L			10/24/23 09:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		63 - 144					10/24/23 09:49	1
4-Bromofluorobenzene (Surr)	95		74 - 124					10/24/23 09:49	1
Dibromofluoromethane (Surr)	103		75 - 131					10/24/23 09:49	1
Toluene-d8 (Surr)	97		80 - 120					10/24/23 09:49	1

Lab Sample ID: LCS 860-127662/3
Matrix: Solid
Analysis Batch: 127662

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0501		mg/L		100	75 - 125
Carbon tetrachloride	0.0500	0.0511		mg/L		102	70 - 130
Chlorobenzene	0.0500	0.0520		mg/L		104	65 - 135
Chloroform	0.0500	0.0499		mg/L		100	70 - 121
1,2-Dichloroethane	0.0500	0.0490		mg/L		98	72 - 130
1,1-Dichloroethene	0.0500	0.0498		mg/L		100	50 - 150
2-Butanone	0.250	0.294		mg/L		117	60 - 140
Tetrachloroethene	0.0500	0.0525		mg/L		105	71 - 125
Trichloroethene	0.0500	0.0511		mg/L		102	75 - 135
Vinyl chloride	0.0500	0.0530		mg/L		106	60 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	99		63 - 144				
4-Bromofluorobenzene (Surr)	104		74 - 124				
Dibromofluoromethane (Surr)	101		75 - 131				
Toluene-d8 (Surr)	102		80 - 120				

Lab Sample ID: LCSD 860-127662/4
Matrix: Solid
Analysis Batch: 127662

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0476		mg/L		95	75 - 125	5	25
Carbon tetrachloride	0.0500	0.0480		mg/L		96	70 - 130	6	25
Chlorobenzene	0.0500	0.0479		mg/L		96	65 - 135	8	25
Chloroform	0.0500	0.0472		mg/L		94	70 - 121	6	25

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-127662/4

Matrix: Solid

Analysis Batch: 127662

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0471		mg/L		94	72 - 130	4	25
1,1-Dichloroethene	0.0500	0.0441		mg/L		88	50 - 150	12	25
2-Butanone	0.250	0.270		mg/L		108	60 - 140	9	25
Tetrachloroethene	0.0500	0.0480		mg/L		96	71 - 125	9	25
Trichloroethene	0.0500	0.0484		mg/L		97	75 - 135	5	25
Vinyl chloride	0.0500	0.0494		mg/L		99	60 - 140	7	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	97		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	97		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-127221/1-A

Matrix: Solid

Analysis Batch: 127258

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127221

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
2-Methylphenol	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
Hexachlorobenzene	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
Hexachlorobutadiene	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
Hexachloroethane	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
Nitrobenzene	ND		0.0050		mg/L		10/20/23 06:18	10/20/23 13:40	1
Pentachlorophenol	ND		0.010		mg/L		10/20/23 06:18	10/20/23 13:40	1
Pyridine	ND		0.010		mg/L		10/20/23 06:18	10/20/23 13:40	1
3 & 4 Methylphenol	ND		0.010		mg/L		10/20/23 06:18	10/20/23 13:40	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	115		31 - 132	10/20/23 06:18	10/20/23 13:40	1
2-Fluorobiphenyl (Surr)	107		29 - 112	10/20/23 06:18	10/20/23 13:40	1
2-Fluorophenol (Surr)	53		21 - 114	10/20/23 06:18	10/20/23 13:40	1
Nitrobenzene-d5 (Surr)	104		26 - 110	10/20/23 06:18	10/20/23 13:40	1
p-Terphenyl-d14 (Surr)	118		20 - 141	10/20/23 06:18	10/20/23 13:40	1
Phenol-d5 (Surr)	37		16 - 117	10/20/23 06:18	10/20/23 13:40	1

Lab Sample ID: LCSD 860-127221/3-A

Matrix: Solid

Analysis Batch: 127258

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127221

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0400	0.0234		mg/L		58	37 - 111	6	30
2,4,5-Trichlorophenol	0.0400	0.0363		mg/L		91	39 - 125	3	30

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-127221/3-A

Matrix: Solid

Analysis Batch: 127258

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127221

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	0.0400	0.0358		mg/L		89	42 - 125	2	30
2,4-Dinitrotoluene	0.0400	0.0386		mg/L		96	41 - 128	4	30
2-Methylphenol	0.0400	0.0221		mg/L		55	36 - 105	5	30
Hexachlorobenzene	0.0400	0.0382		mg/L		95	39 - 128	1	30
Hexachlorobutadiene	0.0400	0.0259		mg/L		65	31 - 120	8	30
Hexachloroethane	0.0400	0.0211		mg/L		53	37 - 109	5	30
Nitrobenzene	0.0400	0.0285		mg/L		71	37 - 114	2	30
Pentachlorophenol	0.0400	0.0359		mg/L		90	10 - 137	5	40
Pyridine	0.0400	0.00412	J	mg/L		10	5 - 130	17	50
3 & 4 Methylphenol	0.0400	0.0203		mg/L		51	35 - 116	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	105		31 - 132
2-Fluorobiphenyl (Surr)	83		29 - 112
2-Fluorophenol (Surr)	41		21 - 114
Nitrobenzene-d5 (Surr)	74		26 - 110
p-Terphenyl-d14 (Surr)	108		20 - 141
Phenol-d5 (Surr)	30		16 - 117

Lab Sample ID: MB 860-127232/1-A

Matrix: Solid

Analysis Batch: 127376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
2-Methylphenol	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
Hexachlorobenzene	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
Hexachlorobutadiene	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
Hexachloroethane	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
Nitrobenzene	ND		0.0050		mg/L		10/20/23 08:21	10/20/23 18:11	1
Pentachlorophenol	ND		0.010		mg/L		10/20/23 08:21	10/20/23 18:11	1
Pyridine	ND		0.010		mg/L		10/20/23 08:21	10/20/23 18:11	1
3 & 4 Methylphenol	ND		0.010		mg/L		10/20/23 08:21	10/20/23 18:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		31 - 132	10/20/23 08:21	10/20/23 18:11	1
2-Fluorobiphenyl (Surr)	75		29 - 112	10/20/23 08:21	10/20/23 18:11	1
2-Fluorophenol (Surr)	35		21 - 114	10/20/23 08:21	10/20/23 18:11	1
Nitrobenzene-d5 (Surr)	76		26 - 110	10/20/23 08:21	10/20/23 18:11	1
p-Terphenyl-d14 (Surr)	87		20 - 141	10/20/23 08:21	10/20/23 18:11	1
Phenol-d5 (Surr)	24		16 - 117	10/20/23 08:21	10/20/23 18:11	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-127232/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 127376				Prep Batch: 127232			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0239		mg/L		60	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0331		mg/L		83	39 - 125
2,4,6-Trichlorophenol	0.0400	0.0330		mg/L		83	42 - 125
2,4-Dinitrotoluene	0.0400	0.0357		mg/L		89	41 - 128
2-Methylphenol	0.0400	0.0205		mg/L		51	36 - 105
Hexachlorobenzene	0.0400	0.0351		mg/L		88	39 - 128
Hexachlorobutadiene	0.0400	0.0254		mg/L		64	31 - 120
Hexachloroethane	0.0400	0.0210		mg/L		53	37 - 109
Nitrobenzene	0.0400	0.0276		mg/L		69	37 - 114
Pentachlorophenol	0.0400	0.0360		mg/L		90	10 - 137
Pyridine	0.0400	0.00972	J	mg/L		24	5 - 130
3 & 4 Methylphenol	0.0400	0.0188		mg/L		47	35 - 116
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4,6-Tribromophenol (Surr)	87		31 - 132				
2-Fluorobiphenyl (Surr)	68		29 - 112				
2-Fluorophenol (Surr)	34		21 - 114				
Nitrobenzene-d5 (Surr)	62		26 - 110				
p-Terphenyl-d14 (Surr)	87		20 - 141				
Phenol-d5 (Surr)	24		16 - 117				

Lab Sample ID: LCSD 860-127232/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 127376				Prep Batch: 127232						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec	RPD	RPD Limit	
							Limits			
1,4-Dichlorobenzene	0.0400	0.0198		mg/L		50	37 - 111	18	30	
2,4,5-Trichlorophenol	0.0400	0.0296		mg/L		74	39 - 125	11	30	
2,4,6-Trichlorophenol	0.0400	0.0288		mg/L		72	42 - 125	14	30	
2,4-Dinitrotoluene	0.0400	0.0344		mg/L		86	41 - 128	4	30	
2-Methylphenol	0.0400	0.0179		mg/L		45	36 - 105	14	30	
Hexachlorobenzene	0.0400	0.0331		mg/L		83	39 - 128	6	30	
Hexachlorobutadiene	0.0400	0.0198		mg/L		50	31 - 120	25	30	
Hexachloroethane	0.0400	0.0176		mg/L		44	37 - 109	18	30	
Nitrobenzene	0.0400	0.0233		mg/L		58	37 - 114	17	30	
Pentachlorophenol	0.0400	0.0318		mg/L		80	10 - 137	12	40	
Pyridine	0.0400	0.00779	J	mg/L		19	5 - 130	22	50	
3 & 4 Methylphenol	0.0400	0.0161		mg/L		40	35 - 116	15	30	
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
2,4,6-Tribromophenol (Surr)	82		31 - 132							
2-Fluorobiphenyl (Surr)	58		29 - 112							
2-Fluorophenol (Surr)	28		21 - 114							
Nitrobenzene-d5 (Surr)	53		26 - 110							
p-Terphenyl-d14 (Surr)	85		20 - 141							
Phenol-d5 (Surr)	20		16 - 117							

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-126999/1-E

Matrix: Solid

Analysis Batch: 127255

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127221

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
2,4-Dinitrotoluene	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
2-Methylphenol	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
Hexachlorobenzene	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
Hexachlorobutadiene	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
Hexachloroethane	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
Nitrobenzene	ND		0.025		mg/L		10/20/23 06:21	10/20/23 12:11	1
Pentachlorophenol	ND		0.050		mg/L		10/20/23 06:21	10/20/23 12:11	1
Pyridine	ND		0.050		mg/L		10/20/23 06:21	10/20/23 12:11	1
3 & 4 Methylphenol	ND		0.050		mg/L		10/20/23 06:21	10/20/23 12:11	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	61		31 - 132				10/20/23 06:21	10/20/23 12:11	1
2-Fluorobiphenyl (Surr)	85		29 - 112				10/20/23 06:21	10/20/23 12:11	1
2-Fluorophenol (Surr)	62		21 - 114				10/20/23 06:21	10/20/23 12:11	1
Nitrobenzene-d5 (Surr)	88		26 - 110				10/20/23 06:21	10/20/23 12:11	1
p-Terphenyl-d14 (Surr)	95		20 - 141				10/20/23 06:21	10/20/23 12:11	1
Phenol-d5 (Surr)	49		16 - 117				10/20/23 06:21	10/20/23 12:11	1

Lab Sample ID: 860-59416-1 MS

Matrix: Solid

Analysis Batch: 127376

Client Sample ID: HC WCID 109 Digester

Prep Type: TCLP

Prep Batch: 127232

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		55	37 - 111
2,4,5-Trichlorophenol	ND		0.200	0.134		mg/L		67	39 - 125
2,4,6-Trichlorophenol	ND		0.200	0.136		mg/L		68	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.156		mg/L		78	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		57	36 - 105
Hexachlorobenzene	ND		0.200	0.157		mg/L		78	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		59	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		51	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		63	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		97	10 - 137
Pyridine	ND		0.200	ND		mg/L		24	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		54	35 - 116
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4,6-Tribromophenol (Surr)	69		31 - 132						
2-Fluorobiphenyl (Surr)	59		29 - 112						
2-Fluorophenol (Surr)	37		21 - 114						
Nitrobenzene-d5 (Surr)	55		26 - 110						
p-Terphenyl-d14 (Surr)	76		20 - 141						
Phenol-d5 (Surr)	35		16 - 117						

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-127276/1-A

Matrix: Solid

Analysis Batch: 127249

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/20/23 09:36	10/20/23 14:16	1
Endrin	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 14:16	1
Heptachlor	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 14:16	1
Heptachlor epoxide	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 14:16	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 14:16	1
Methoxychlor	ND		0.000052		mg/L		10/20/23 09:36	10/20/23 14:16	1
Toxaphene	ND		0.0010		mg/L		10/20/23 09:36	10/20/23 14:16	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	75		45 - 115				10/20/23 09:36	10/20/23 14:16	1
Tetrachloro-m-xylene	100		41 - 110				10/20/23 09:36	10/20/23 14:16	1

Lab Sample ID: LCS 860-127276/4-A

Matrix: Solid

Analysis Batch: 127249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00131	0.00133		mg/L		102	55 - 102
Heptachlor	0.00131	0.00114		mg/L		87	55 - 106
Heptachlor epoxide	0.00131	0.00131		mg/L		101	56 - 109
gamma-BHC (Lindane)	0.00131	0.00130		mg/L		100	59 - 107
Methoxychlor	0.00131	0.000856		mg/L		65	53 - 102
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl (Surr)	71		45 - 115				
Tetrachloro-m-xylene	95		41 - 110				

Lab Sample ID: LCSD 860-127276/5-A

Matrix: Solid

Analysis Batch: 127249

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127276

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Endrin	0.00129	0.00131		mg/L		102	55 - 102	1	25
Heptachlor	0.00129	0.00111		mg/L		86	55 - 106	3	25
Heptachlor epoxide	0.00129	0.00129		mg/L		101	56 - 109	2	25
gamma-BHC (Lindane)	0.00129	0.00128		mg/L		100	59 - 107	2	25
Methoxychlor	0.00129	0.000857		mg/L		67	53 - 102	0	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	75		45 - 115						
Tetrachloro-m-xylene	87		41 - 110						

Lab Sample ID: MB 860-127577/1-A

Matrix: Solid

Analysis Batch: 127676

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		10/23/23 13:01	10/24/23 10:27	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 860-127577/1-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 127676							Prep Batch: 127577		
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Endrin	ND		0.000052		mg/L		10/23/23 13:01	10/24/23 10:27	1
Heptachlor	ND		0.000052		mg/L		10/23/23 13:01	10/24/23 10:27	1
Heptachlor epoxide	ND		0.000052		mg/L		10/23/23 13:01	10/24/23 10:27	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		10/23/23 13:01	10/24/23 10:27	1
Methoxychlor	ND		0.000052		mg/L		10/23/23 13:01	10/24/23 10:27	1
Toxaphene	ND		0.0010		mg/L		10/23/23 13:01	10/24/23 10:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	DII Fac
DCB Decachlorobiphenyl (Surr)	56		45 - 115				10/23/23 13:01	10/24/23 10:27	1
Tetrachloro-m-xylene	104		41 - 110				10/23/23 13:01	10/24/23 10:27	1

Lab Sample ID: LCSD 860-127577/3-A							Client Sample ID: Lab Control Sample Dup		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 127676							Prep Batch: 127577		
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD
Endrin		0.00129	0.00104		mg/L		80	55 - 102	3
Heptachlor		0.00129	0.000974		mg/L		76	55 - 106	4
Heptachlor epoxide		0.00129	0.00106		mg/L		82	56 - 109	3
gamma-BHC (Lindane)		0.00129	0.00106		mg/L		82	59 - 107	2
Methoxychlor		0.00129	0.000852		mg/L		66	53 - 102	7
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	51		45 - 115						
Tetrachloro-m-xylene	93		41 - 110						

Lab Sample ID: LB 860-126999/1-I							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: TCLP		
Analysis Batch: 127676							Prep Batch: 127577		
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Chlorodane	ND		0.0011		mg/L		10/23/23 13:01	10/24/23 11:34	1
Endrin	ND		0.000053		mg/L		10/23/23 13:01	10/24/23 11:34	1
Heptachlor	ND		0.000053		mg/L		10/23/23 13:01	10/24/23 11:34	1
Heptachlor epoxide	ND		0.000053		mg/L		10/23/23 13:01	10/24/23 11:34	1
gamma-BHC (Lindane)	ND		0.000053		mg/L		10/23/23 13:01	10/24/23 11:34	1
Methoxychlor	ND		0.000053		mg/L		10/23/23 13:01	10/24/23 11:34	1
Toxaphene	ND		0.0011		mg/L		10/23/23 13:01	10/24/23 11:34	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	DII Fac
DCB Decachlorobiphenyl (Surr)	66		45 - 115				10/23/23 13:01	10/24/23 11:34	1
Tetrachloro-m-xylene	109		41 - 110				10/23/23 13:01	10/24/23 11:34	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-126842/1-A

Matrix: Solid

Analysis Batch: 126837

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 126842

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1221	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1232	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1242	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1248	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1254	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
PCB-1260	ND				0.017		mg/Kg		10/18/23 08:31	10/18/23 14:11	1
Surrogate											
	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene			88		35 - 140				10/18/23 08:31	10/18/23 14:11	1
DCB Decachlorobiphenyl (Surr)			116		37 - 142				10/18/23 08:31	10/18/23 14:11	1

Lab Sample ID: LCS 860-126842/4-A

Matrix: Solid

Analysis Batch: 126837

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 126842

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec	Limits
PCB-1016	Added			0.167		mg/Kg		86		27 - 121
PCB-1260				0.167		mg/Kg		92		27 - 139
Surrogate										
	LCS	LCS	%Recovery	Qualifier	Limits					
Tetrachloro-m-xylene			105		35 - 140					
DCB Decachlorobiphenyl (Surr)			131		37 - 142					

Lab Sample ID: LCSD 860-126842/5-A

Matrix: Solid

Analysis Batch: 126837

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 126842

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	%Rec	Limits	RPD	Limit
PCB-1016	Added			0.167		mg/Kg		86		27 - 121	0	20
PCB-1260				0.167		mg/Kg		93		27 - 139	1	20
Surrogate												
	LCSD	LCSD	%Recovery	Qualifier	Limits							
Tetrachloro-m-xylene			104		35 - 140							
DCB Decachlorobiphenyl (Surr)			129		37 - 142							

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-127375/1-A

Matrix: Solid

Analysis Batch: 127462

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127375

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND				0.00020		mg/L		10/20/23 16:19	10/23/23 11:13	1
2,4,5-TP (Silvex)	ND				0.00020		mg/L		10/20/23 16:19	10/23/23 11:13	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: MB 860-127375/1-A
Matrix: Solid
Analysis Batch: 127462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127375

Surrogate	MB MB %Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
2,4-Dichlorophenylacetic acid	157	S1+	42 - 150	10/20/23 16:19	10/23/23 11:13	1

Lab Sample ID: LCS 860-127375/2-A
Matrix: Solid
Analysis Batch: 127462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 127375

Analyte		Spike	LCS	LCS	Unit	D	%Rec	%Rec		
		Added	Result	Qualifier				Limits		
2,4-D		0.00201	0.00339	*+	mg/L		169	45 - 124		
2,4,5-TP (Silvex)		0.00201	0.00392	*+	mg/L		195	45 - 124		

Lab Sample ID: LCSD 860-127375/3-A
Matrix: Solid
Analysis Batch: 127462

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127375

Report Date: 12/07/20										
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D		0.00203	0.00262	*+ *1	mg/L		129	45 - 124	26	25
2,4,5-TP (Silvex)		0.00203	0.00341	*+	mg/L		168	45 - 124	14	25
Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits							
2,4-Dichlorophenylacetic acid	239	S1+	42 - 150							

Lab Sample ID: LB 860-126999/1-F
Matrix: Solid
Analysis Batch: 127462

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 127375

Prep Batch: 12/3/23									
Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
	Result	Qualifier							
2,4-D	ND		0.00020		mg/L		10/20/23 16:19	10/23/23 13:54	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		10/20/23 16:19	10/23/23 13:54	1
Surrogate	LB	LB	Limits				Prepared	Analyzed	DII Fac
	%Recovery	Qualifier							
2,4-Dichlorophenylacetic acid	168	S1+	42 - 150				10/20/23 16:19	10/23/23 13:54	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-127097/1-A
Matrix: Solid
Analysis Batch: 127270

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127097

Analyte	MB MB Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
Arsenic	ND		0.010		mg/L		10/19/23 10:30	10/19/23 16:44	1
Antimony	ND		0.020		mg/L		10/19/23 10:30	10/19/23 16:44	1
Barium	ND		0.010		mg/L		10/19/23 10:30	10/19/23 16:44	1
Cadmium	ND		0.0050		mg/L		10/19/23 10:30	10/19/23 16:44	1
Chromium	ND		0.010		mg/L		10/19/23 10:30	10/19/23 16:44	1
Beryllium	ND		0.0040		mg/L		10/19/23 10:30	10/19/23 16:44	1

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 860-127097/1-A

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 127097

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.010		mg/L		10/19/23 10:30	10/19/23 16:44	1
Selenium	ND		0.030		mg/L		10/19/23 10:30	10/19/23 16:44	1
Silver	ND		0.020		mg/L		10/19/23 10:30	10/19/23 16:44	1
Nickel	ND		0.010		mg/L		10/19/23 10:30	10/19/23 16:44	1

Lab Sample ID: LCS 860-127097/2-A

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 127097

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	1.05		mg/L		105	80 - 120
Antimony	1.00	1.05		mg/L		105	80 - 120
Barium	1.00	1.04		mg/L		104	80 - 120
Cadmium	1.00	1.05		mg/L		105	80 - 120
Chromium	1.00	1.06		mg/L		106	80 - 120
Beryllium	1.00	1.06		mg/L		106	80 - 120
Lead	1.00	1.09		mg/L		109	80 - 120
Selenium	1.00	1.06		mg/L		106	80 - 120
Silver	0.500	0.535		mg/L		107	80 - 120
Nickel	1.00	1.07		mg/L		107	80 - 120

Lab Sample ID: LCSD 860-127097/3-A

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 127097

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.00	1.05		mg/L		105	80 - 120	0	20
Antimony	1.00	1.06		mg/L		106	80 - 120	1	20
Barium	1.00	1.04		mg/L		104	80 - 120	0	20
Cadmium	1.00	1.05		mg/L		105	80 - 120	0	20
Chromium	1.00	1.06		mg/L		106	80 - 120	0	20
Beryllium	1.00	1.06		mg/L		106	80 - 120	0	20
Lead	1.00	1.09		mg/L		109	80 - 120	0	20
Selenium	1.00	1.07		mg/L		107	80 - 120	1	20
Silver	0.500	0.535		mg/L		107	80 - 120	0	20
Nickel	1.00	1.07		mg/L		107	80 - 120	0	20

Lab Sample ID: LB 860-126998/1-B

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127097

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		10/19/23 10:30	10/19/23 16:55	1
Antimony	ND		0.10		mg/L		10/19/23 10:30	10/19/23 16:55	1
Barium	ND		0.050		mg/L		10/19/23 10:30	10/19/23 16:55	1
Cadmium	ND		0.025		mg/L		10/19/23 10:30	10/19/23 16:55	1
Chromium	ND		0.050		mg/L		10/19/23 10:30	10/19/23 16:55	1
Beryllium	ND		0.020		mg/L		10/19/23 10:30	10/19/23 16:55	1
Lead	ND		0.050		mg/L		10/19/23 10:30	10/19/23 16:55	1

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 860-126998/1-B

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127097

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.15		mg/L		10/19/23 10:30	10/19/23 16:55	1
Silver	ND		0.10		mg/L		10/19/23 10:30	10/19/23 16:55	1
Nickel	ND		0.050		mg/L		10/19/23 10:30	10/19/23 16:55	1

Lab Sample ID: LB 860-126999/1-B

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 127097

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:38	1
Antimony	ND		0.10		mg/L		10/19/23 10:30	10/19/23 17:38	1
Barium	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:38	1
Cadmium	ND		0.025		mg/L		10/19/23 10:30	10/19/23 17:38	1
Chromium	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:38	1
Beryllium	ND		0.020		mg/L		10/19/23 10:30	10/19/23 17:38	1
Lead	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:38	1
Selenium	ND		0.15		mg/L		10/19/23 10:30	10/19/23 17:38	1
Silver	ND		0.10		mg/L		10/19/23 10:30	10/19/23 17:38	1
Nickel	ND		0.050		mg/L		10/19/23 10:30	10/19/23 17:38	1

Lab Sample ID: 880-34437-A-1-D MS

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 127097

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1.00	1.07		mg/L		102	75 - 125
Antimony	ND		1.00	1.08		mg/L		108	75 - 125
Barium	1.7		1.00	2.69		mg/L		94	75 - 125
Cadmium	ND		1.00	1.06		mg/L		106	75 - 125
Chromium	ND		1.00	1.07		mg/L		107	75 - 125
Beryllium	ND		1.00	1.07		mg/L		107	75 - 125
Lead	ND		1.00	1.07		mg/L		107	75 - 125
Selenium	ND		1.00	1.00		mg/L		100	75 - 125
Silver	ND		0.500	0.540		mg/L		108	75 - 125
Nickel	ND		1.00	1.10		mg/L		108	75 - 125

Lab Sample ID: 880-34437-A-1-E MSD

Matrix: Solid

Analysis Batch: 127270

Client Sample ID: Matrix Spike Duplicate

Prep Type: TCLP

Prep Batch: 127097

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	1.08		mg/L		103	75 - 125	1	20
Antimony	ND		1.00	1.09		mg/L		109	75 - 125	1	20
Barium	1.7		1.00	2.73		mg/L		98	75 - 125	1	20
Cadmium	ND		1.00	1.08		mg/L		108	75 - 125	2	20
Chromium	ND		1.00	1.08		mg/L		108	75 - 125	1	20
Beryllium	ND		1.00	1.09		mg/L		109	75 - 125	1	20
Lead	ND		1.00	1.08		mg/L		108	75 - 125	1	20
Selenium	ND		1.00	1.08		mg/L		108	75 - 125	8	20

Eurofins Houston

QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 880-34437-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 127270				Prep Batch: 127097							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		0.500	0.550		mg/L		110	75 - 125	2	20
Nickel	ND		1.00	1.11		mg/L		109	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-127158/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	ND		0.00020		mg/L		10/19/23 14:31	10/19/23 20:14	1		

Lab Sample ID: LCS 860-127158/2-A				Client Sample ID: Lab Control Sample							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00220	0.00248		mg/L		113	80 - 120		

Lab Sample ID: LCSD 860-127158/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury			0.00220	0.00219		mg/L		100	80 - 120	12	20

Lab Sample ID: LB 860-126999/1-D				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	ND		0.00020		mg/L		10/19/23 14:31	10/19/23 20:18	1		

Lab Sample ID: 880-34478-A-1-F MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	ND		0.00200	0.00213		mg/L		106	75 - 125		

Lab Sample ID: 880-34478-A-1-G MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: TCLP							
Analysis Batch: 127220				Prep Batch: 127158							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00218		mg/L		109	75 - 125	2	20

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QC Sample Results

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-126791/1
Matrix: Solid
Analysis Batch: 126791

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	DII Fac
Percent Moisture	0.07				%			10/17/23 16:31	1
Percent Solids	99.9				%			10/17/23 16:31	1

Lab Sample ID: 860-59211-A-1 DU
Matrix: Solid
Analysis Batch: 126791

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	11.9		9.8		%		19	20
Percent Solids	88.1		90.2		%		2	20



QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

GC/MS VOA

Leach Batch: 127390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	1311	

Analysis Batch: 127662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	8260C	127390
MB 860-127662/9	Method Blank	Total/NA	Solid	8260C	
LCS 860-127662/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-127662/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Leach Batch: 126999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	1311	
LB 860-126999/1-E	Method Blank	TCLP	Solid	1311	
860-59416-1 MS	HC WCID 109 Digester	TCLP	Solid	1311	

Prep Batch: 127221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-126999/1-E	Method Blank	TCLP	Solid	3510C	126999
MB 860-127221/1-A	Method Blank	Total/NA	Solid	3510C	
LCSD 860-127221/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Prep Batch: 127232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	3510C	126999
MB 860-127232/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-127232/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-127232/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
860-59416-1 MS	HC WCID 109 Digester	TCLP	Solid	3510C	126999

Analysis Batch: 127255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-126999/1-E	Method Blank	TCLP	Solid	8270D	127221

Analysis Batch: 127258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-127221/1-A	Method Blank	Total/NA	Solid	8270D	127221
LCSD 860-127221/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	127221

Analysis Batch: 127376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	8270D	127232
MB 860-127232/1-A	Method Blank	Total/NA	Solid	8270D	127232
LCS 860-127232/2-A	Lab Control Sample	Total/NA	Solid	8270D	127232
LCSD 860-127232/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	127232
860-59416-1 MS	HC WCID 109 Digester	TCLP	Solid	8270D	127232

QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

GC Semi VOA

Analysis Batch: 126837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	Total/NA	Solid	8082A	126842
MB 860-126842/1-A	Method Blank	Total/NA	Solid	8082A	126842
LCS 860-126842/4-A	Lab Control Sample	Total/NA	Solid	8082A	126842
LCSD 860-126842/5-A	Lab Control Sample Dup	Total/NA	Solid	8082A	126842

Prep Batch: 126842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	Total/NA	Solid	3550C	
MB 860-126842/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-126842/4-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-126842/5-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Leach Batch: 126999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	1311	
LB 860-126999/1-F	Method Blank	TCLP	Solid	1311	
LB 860-126999/1-I	Method Blank	TCLP	Solid	1311	

Analysis Batch: 127249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	8081B	127276
MB 860-127276/1-A	Method Blank	Total/NA	Solid	8081B	127276
LCS 860-127276/4-A	Lab Control Sample	Total/NA	Solid	8081B	127276
LCSD 860-127276/5-A	Lab Control Sample Dup	Total/NA	Solid	8081B	127276

Prep Batch: 127276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	3511	126999
MB 860-127276/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-127276/4-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-127276/5-A	Lab Control Sample Dup	Total/NA	Solid	3511	

Prep Batch: 127375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	3511	126999
LB 860-126999/1-F	Method Blank	TCLP	Solid	3511	126999
MB 860-127375/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-127375/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-127375/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

Analysis Batch: 127462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	8151A	127375
LB 860-126999/1-F	Method Blank	TCLP	Solid	8151A	127375
MB 860-127375/1-A	Method Blank	Total/NA	Solid	8151A	127375
LCS 860-127375/2-A	Lab Control Sample	Total/NA	Solid	8151A	127375
LCSD 860-127375/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	127375

Prep Batch: 127577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-126999/1-I	Method Blank	TCLP	Solid	3511	126999

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QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

GC Semi VOA (Continued)

Prep Batch: 127577 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-127577/1-A	Method Blank	Total/NA	Solid	3511	
LCSD 860-127577/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

Analysis Batch: 127676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-126999/1-I	Method Blank	TCLP	Solid	8081B	127577
MB 860-127577/1-A	Method Blank	Total/NA	Solid	8081B	127577
LCSD 860-127577/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	127577

Metals

Leach Batch: 126998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-126998/1-B	Method Blank	TCLP	Solid	1311	
880-34437-A-1-D MS	Matrix Spike	TCLP	Solid	1311	
880-34437-A-1-E MSD	Matrix Spike Duplicate	TCLP	Solid	1311	

Leach Batch: 126999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	1311	
LB 860-126999/1-B	Method Blank	TCLP	Solid	1311	
LB 860-126999/1-D	Method Blank	TCLP	Solid	1311	
880-34478-A-1-F MS	Matrix Spike	TCLP	Solid	1311	
880-34478-A-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	1311	

Prep Batch: 127097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	3010A	126999
LB 860-126998/1-B	Method Blank	TCLP	Solid	3010A	126999
LB 860-126999/1-B	Method Blank	TCLP	Solid	3010A	126999
MB 860-127097/1-A	Method Blank	Total/NA	Solid	3010A	126999
LCS 860-127097/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-127097/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
880-34437-A-1-D MS	Matrix Spike	TCLP	Solid	3010A	126998
880-34437-A-1-E MSD	Matrix Spike Duplicate	TCLP	Solid	3010A	126998

Prep Batch: 127158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	7470A	126999
LB 860-126999/1-D	Method Blank	TCLP	Solid	7470A	126999
MB 860-127158/1-A	Method Blank	Total/NA	Solid	7470A	126999
LCS 860-127158/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-127158/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
880-34478-A-1-F MS	Matrix Spike	TCLP	Solid	7470A	126999
880-34478-A-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	126999

Analysis Batch: 127220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	7470A	127158
LB 860-126999/1-D	Method Blank	TCLP	Solid	7470A	127158
MB 860-127158/1-A	Method Blank	Total/NA	Solid	7470A	127158

Eurofins Houston

QC Association Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Metals (Continued)

Analysis Batch: 127220 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-127158/2-A	Lab Control Sample	Total/NA	Solid	7470A	127158
LCSD 860-127158/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	127158
880-34478-A-1-F MS	Matrix Spike	TCLP	Solid	7470A	127158
880-34478-A-1-G MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	127158

Analysis Batch: 127270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	TCLP	Solid	6010B	127097
LB 860-126998/1-B	Method Blank	TCLP	Solid	6010B	127097
LB 860-126999/1-B	Method Blank	TCLP	Solid	6010B	127097
MB 860-127097/1-A	Method Blank	Total/NA	Solid	6010B	127097
LCS 860-127097/2-A	Lab Control Sample	Total/NA	Solid	6010B	127097
LCSD 860-127097/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	127097
880-34437-A-1-D MS	Matrix Spike	TCLP	Solid	6010B	127097
880-34437-A-1-E MSD	Matrix Spike Duplicate	TCLP	Solid	6010B	127097

General Chemistry

Analysis Batch: 126791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-59416-1	HC WCID 109 Digester	Total/NA	Solid	Moisture	
MB 860-126791/1	Method Blank	Total/NA	Solid	Moisture	
860-59211-A-1 DU	Duplicate	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Client Sample ID: HC WCID 109 Digester

Date Collected: 10/13/23 10:59

Date Received: 10/17/23 10:00

Lab Sample ID: 860-59416-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	127390	10/20/23 18:00	JCM	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	Completed: 127662	10/21/23 10:00 ¹	NA	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	126999	10/24/23 11:31	EMC	EET HOU
TCLP	Prep	3510C			200 mL	1.00 mL	Completed: 127232	10/19/23 05:00 ¹	DR	EET HOU
TCLP	Analysis	8270D		5	1 mL	1 mL	127376	10/20/23 08:21	PXS	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	126999	10/20/23 19:29	EMC	EET HOU
TCLP	Prep	3511			48.2 mL	5 mL	Completed: 127276	10/18/23 13:00	SYB	EET HOU
TCLP	Analysis	8081B		1			127249	10/19/23 05:00 ¹	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	126999	10/20/23 15:12	EMC	EET HOU
TCLP	Prep	3511			49.7 mL	4 mL	Completed: 127375	10/18/23 13:00	JN	EET HOU
TCLP	Analysis	8151A		1			127462	10/19/23 05:00 ¹	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	126999	10/20/23 14:20	EMC	EET HOU
TCLP	Prep	3010A			10 mL	50 mL	Completed: 127097	10/19/23 10:30	MD	EET HOU
TCLP	Analysis	6010B		1			127270	10/18/23 13:00	JDM	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	126999	10/19/23 17:45	EMC	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	Completed: 127158	10/19/23 05:00 ¹	AGR	EET HOU
TCLP	Analysis	7470A		1			127220	10/18/23 13:00	SHZ	EET HOU
Total/NA	Analysis	Moisture		1			126791	10/19/23 20:44	JM	EET HOU

Client Sample ID: HC WCID 109 Digester

Date Collected: 10/13/23 10:59

Date Received: 10/17/23 10:00

Lab Sample ID: 860-59416-1

Matrix: Solid

Percent Solids: 1.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			4.97 g	5 mL	126842	10/18/23 08:31	BH	EET HOU
Total/NA	Analysis	8082A		1			126837	10/18/23 15:37	WP	EET HOU

¹ This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

Eurofins Houston

Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston

Method Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Eurofins Houston

Sample Summary

Client: Eastex Environmental Laboratory Inc.
Project/Site: HC WCID 109

Job ID: 860-59416-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-59416-1	HJ8/VJ rs B r y&tg -D 4	Solid	10/13/23 10:59	10/17/23 10:00





BDS
10-16-23

SUBCONTRACT ORDER

Sending Laboratory:

Eastex Environmental Laboratory - Coldspring
PO Box 1089
Coldspring, TX 77331

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

Subcontracted Laboratory:

Eurofins Xenco LLC

4147 Greenbriar Dr
Stafford, TX 77477

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

PO 101723D

Requested Turnaround 10 Days

Sample ID: HC WCID 109 Digester Digester

Sample No: C3J2855-01

Waste Sampled: 10/13/2023 10:59

TCLP SUBCONTRACT
PCB SUBCONTRACT

Containers Supplied: 4

Special Instructions FULL TCLP REPORT
PCB MG/KG & SOLIDS



880-59416 Chain of Custody

Temp: 2.0 IR ID: HOU-369

C/F: -0.0

Corrected Temp: 2.0

☒ See Attached

Received Iced Y/N

Temp. _____

Harris County WCID 109

Released By [Signature]

Date & Time 10/17/23 1000

Received By [Signature]

Date & Time 10/17/23 1000

acc_2023SubcontractOrder rpt 10062023

Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-59416-1

Login Number: 59416

List Number: 1

Creator: Rubio, Yuri

List Source: Eurofins Houston

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



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



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

July 01, 2024

LABORATORY REPORT

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20240701140548AEN

RE: Jackrabbit Road PUD - Non Potable - Qtrly Class B

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ % Solid

pass



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark

32259 Morton Road

Brookshire, TX 77423

Project: Jackrabbit Road PUD - Non Potable - Qtrly Class B

Project Number:

Project Manager: Patrick Bond

Reported:

07/01/2024 14:05

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24F1829-01

Sample Matrix: Solid
Date Collected: 06/06/2024 9:15
Collected by: Tyler Henderson

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	103000	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	115000	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	120000	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	145000	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	65500	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	99300	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
Colilert-18	Fecal coliforms	106000	MPN/g TS dry	BHF0880	06/07/2024 10:10	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.753	mg O ₂ /hr/g TS @ 20°C dry	BHF0963	06/07/2024 07:44	AKA
SM 2550 B	Temperature °C Field	22.6	°C	BHF0985	06/06/2024 09:15	TWH
SM 2540 G	% Solids	1.39	%	BHF0717	06/07/2024 09:16	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Jackrabbit Road PUD - Non Potable - Qtrly Class B
Project Number:
Project Manager: Patrick Bond

Reported:
07/01/2024 14:05

Quality Control

General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHF0717 - Percent Solids									
Blank (BHF0717-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 6/6/2024 Analyzed: 6/7/2024									
Duplicate (BHF0717-DUP1)									
% Solids		0.100	%		1.18			1.44	20
Source: 24F0281-03 Prepared: 6/6/2024 Analyzed: 6/7/2024									
Duplicate (BHF0717-DUP2)									
% Solids		0.100	%		1.39			0.381	20
Source: 24F1829-01 Prepared: 6/6/2024 Analyzed: 6/7/2024									
Reference (BHF0717-SRM1)									
% Solids		0.100	%	0.350		107	78.9-118		



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Jackrabbit Road PUD - Non Potable - Qtrly Class B
Project Number:
Project Manager: Patrick Bond

Reported:
07/01/2024 14:05

Quality Control (Continued)

Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	-------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------

Batch: BHF0880 - FC Quantitray

Blank (BHF0880-BLK1)

Prepared: 6/6/2024 Analyzed: 6/7/2024

Fecal coliforms <10.0U 10.0 MPN/g TS wet

Duplicate (BHF0880-DUP1)

Source: 24F1829-01

Prepared: 6/6/2024 Analyzed: 6/7/2024

Fecal coliforms 722 MPN/g TS dry 103000 17.9 200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark
32259 Morton Road
Brookshire, TX 77423

Project: Jackrabbit Road PUD - Non Potable - Qtrly Class B
Project Number:
Project Manager: Patrick Bond

Reported:
07/01/2024 14:05

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ TX-C24-00185



Page 1 of 1

24F1829

Lab PM : Deena Higginbotham		Project Name : Jackrabbit Road PUD - Non Potable - Qtrly Class B						Schedule Comments:	
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: 16720 Pine Forest Lane - 77084 - Codes - 0128 CALL Steve Potter 30 MIN BEFORE YOU ARRIVE Steven Potter - 281-830-6237 Cullen Brotherton - 832-523-5558							
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results	
24F1829-01	Digester		6/6/2024/09:15	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 SOUR-2710 SOUR TS-2540 G TS-2540 G	<10°C 4°C 4°C 4°C	Temp C Field	22.6

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:				
Sampler (Signature)		Relinquished By: (Signature)		Date/Time	Received By: (Signature)	Date/Time
Print Name Tyler Henderson		Relinquished By: (Signature)		Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS		Relinquished To Lab By: (Signature)		Date/Time 6-6-24/12:55	Received for Laboratory By: (Signature)	Date/Time 6/6/24/12:55
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C		
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:		

Spring Branch



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

January 19, 2024

Laboratory Report

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20240119153520AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED APR 19 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ F/S ☐ & Solid



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24A1110-01

Sample Matrix: Solid
Date Collected: 01/02/2024 11:15
Collected by: Fernando Alvarez

Jackrabbit Road PUD - Non Potable - Qtrly Sludge

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total										
SW-6010C	Arsenic	A	6.67	mg/kg dry	1	0.437	1.99	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Cadmium	A	0.842	mg/kg dry	1	0.0517	0.199	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Chromium	A	14.6	mg/kg dry	1	0.747	0.998	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Copper	A	282	mg/kg dry	5	1.06	9.95	BHA0682	01/09/2024 10:19	FAA
SW-7471B	Mercury	A	0.382	mg/kg dry	5	0.0467	0.0933	BHA0834	01/05/2024 14:33	ISS
SW-6010C	Lead	A	15.4	mg/kg dry	1	0.507	0.998	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Molybdenum	A	7.75	mg/kg dry	1	0.998	0.998	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Nickel	A	15.7	mg/kg dry	1	0.269	0.998	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Potassium	A	4440	mg/kg dry	1	17.1	199	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Selenium	A	9.35	mg/kg dry	1	0.777	1.99	BHA0682	01/09/2024 10:16	FAA
SW-6010C	Total Phosphorus	A	19600	mg/kg dry	5	41.8	995	BHA0682	01/09/2024 10:19	FAA
SW-6010C	Zinc	A	967	mg/kg dry	25	25.0	25.0	BHA0682	01/09/2024 11:01	FAA
General Chemistry										
EPA 350.2	Ammonia as N	A	3280	mg/kg dry	1	465	929	BHA2447	01/15/2024 13:05	GIW
SW-9056A	Nitrate as N	A	3240	mg/kg dry	25	58.3	146	BHA0156	01/02/2024 16:24	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	62400	mg/kg dry	1	1130	1130	BHA2491	01/17/2024 12:55	GIW
SM 2540 G	% Solids	A	2.14	%	1	0.100	0.100	BHA0294	01/04/2024 09:13	JRU

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



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Email: lab@nwdls.com
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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHA0682 - SW-3050 for 6010

Blank (BHA0682-BLK1)

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	<1.98	U	1.98	mg/kg wet						
Cadmium	<0.198	U	0.198	mg/kg wet						
Chromium	<0.992	U	0.992	mg/kg wet						
Copper	<1.98	U	1.98	mg/kg wet						
Lead	<0.992	U	0.992	mg/kg wet						
Molybdenum	<0.992	U	0.992	mg/kg wet						
Nickel	<0.992	U	0.992	mg/kg wet						
Potassium	<198	U	198	mg/kg wet						
Selenium	<1.98	U	1.98	mg/kg wet						
Total Phosphorus	<198	U	198	mg/kg wet						
Zinc	<0.992	U	0.992	mg/kg wet						

LCS (BHA0682-BS1)

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	47.7		1.94	mg/kg wet	48.5		98.4	80-120		
Cadmium	4.71		0.194	mg/kg wet	4.85		97.0	80-120		
Chromium	23.6		0.973	mg/kg wet	24.3		97.2	80-120		
Copper	47.1		1.94	mg/kg wet	48.5		97.0	80-120		
Lead	24.6		0.973	mg/kg wet	24.3		101	80-120		
Molybdenum	24.6		0.973	mg/kg wet	24.3		101	80-120		
Nickel	24.0		0.973	mg/kg wet	24.3		98.8	80-120		
Potassium	4530		194	mg/kg wet	4850		93.3	80-120		
Selenium	48.8		1.94	mg/kg wet	48.5		101	80-120		
Total Phosphorus	4860		194	mg/kg wet	4850		100	80-120		
Zinc	24.6		0.973	mg/kg wet	24.3		101	80-120		

Matrix Spike (BHA0682-MS1)

Source: 24A1110-01

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	57.4		1.99	mg/kg dry	49.8	6.67	102	75-125		
Cadmium	5.91		0.199	mg/kg dry	4.98	0.842	102	75-125		
Chromium	37.6		0.998	mg/kg dry	24.9	14.6	92.4	75-125		
Copper	1230		49.7	mg/kg dry	1050	282	90.6	75-125		
Lead	40.3		0.998	mg/kg dry	24.9	15.4	100	75-125		
Molybdenum	32.3		0.998	mg/kg dry	24.9	7.75	98.6	75-125		
Nickel	40.2		0.998	mg/kg dry	24.9	15.7	98.2	75-125		
Potassium	9860		199	mg/kg dry	4980	4440	109	75-125		
Selenium	62.5		1.99	mg/kg dry	49.8	9.35	107	75-125		
Total Phosphorus	29300		995	mg/kg dry	9960	19600	97.5	75-125		
Zinc	2060		49.9	mg/kg dry	1020	967	107	75-125		

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



Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHA0682 - SW-3050 for 6010 (Continued)

Matrix Spike Dup (BHA0682-MSD1)

Source: 24A1110-01

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	57.3		1.99	mg/kg dry	49.8	6.67	102	75-125	0.249	20
Cadmium	5.86		0.199	mg/kg dry	4.98	0.842	101	75-125	0.774	20
Chromium	38.4		0.998	mg/kg dry	24.9	14.6	95.7	75-125	2.16	20
Copper	1230		49.7	mg/kg dry	1050	282	91.2	75-125	0.431	20
Lead	41.3		0.998	mg/kg dry	24.9	15.4	104	75-125	2.26	20
Molybdenum	32.1		0.998	mg/kg dry	24.9	7.75	97.7	75-125	0.717	20
Nickel	40.4		0.998	mg/kg dry	24.9	15.7	99.2	75-125	0.563	20
Potassium	9480		995	mg/kg dry	4980	4440	101	75-125	3.89	20
Selenium	62.7		1.99	mg/kg dry	49.8	9.35	107	75-125	0.240	20
Total Phosphorus	29000		995	mg/kg dry	9960	19600	93.9	75-125	1.23	20
Zinc	2010		49.9	mg/kg dry	1020	967	102	75-125	2.45	20

Post Spike (BHA0682-PS1)

Source: 24A1110-01

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	581			ug/L	500	63.3	104	80-120		
Cadmium	61.3			ug/L	50.0	7.99	107	80-120		
Chromium	400			ug/L	250	138	105	80-120		
Copper	3370	J1		ug/L	500	2670	139	80-120		
Lead	407			ug/L	250	146	105	80-120		
Molybdenum	330			ug/L	250	73.5	103	80-120		
Nickel	416			ug/L	250	149	107	80-120		
Potassium	96000			ug/L	50000	42100	108	80-120		
Selenium	644			ug/L	500	88.7	111	80-120		
Total Phosphorus	245000			ug/L	50000	186000	118	80-120		
Zinc	10400	J1		ug/L	250	9180	505	80-120		

Dilution Check (BHA0682-SRL1)

Source: 24A1110-01

Prepared: 1/4/2024 Analyzed: 1/9/2024

Arsenic	7.02	U	9.95	mg/kg dry		6.67			5.11	10
Cadmium	0.767	U	0.995	mg/kg dry		0.842			9.29	10
Chromium	15.3		4.99	mg/kg dry		14.6			5.04	10
Copper	282		9.95	mg/kg dry		282			0.00	10
Lead	16.1		4.99	mg/kg dry		15.4			4.63	10
Molybdenum	7.70		4.99	mg/kg dry		7.75			0.619	10
Nickel	16.7		4.99	mg/kg dry		15.7			6.08	10
Potassium	4650		995	mg/kg dry		4440			4.62	10
Selenium	8.36	U	9.95	mg/kg dry		9.35			11.1	10
Total Phosphorus	19600		995	mg/kg dry		19600			0.00	10

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



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA0834 - SW-7471										
MDL Check (BHA0834-MRL1)										
Mercury	0.0141	U	0.0199	mg/kg wet	0.00993		142			
Matrix Spike (BHA0834-MS1)										
			Source: 23K4860-07			Prepared & Analyzed: 1/5/2024				
Mercury	0.300		0.0199	mg/kg dry	0.249	0.0261	110	80-120		
Matrix Spike Dup (BHA0834-MSD1)										
			Source: 23K4860-07			Prepared & Analyzed: 1/5/2024				
Mercury	0.298		0.0199	mg/kg dry	0.249	0.0261	109	80-120	0.850	20

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



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TCEQ T104704238-23-39

Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA0156 - Solid Anions No Prep										
Duplicate (BHA0156-DUP1)			Source: 24A1110-01		Prepared & Analyzed: 1/2/2024					
Nitrate as N	3160		146	mg/kg dry		3240			2.66	15
MRL Check (BHA0156-MRL1)					Prepared & Analyzed: 1/2/2024					
Nitrate as N	0.0910	U	0.125	mg/kg wet	0.100		91.0	50-150		
Matrix Spike (BHA0156-MS1)			Source: 24A1110-01		Prepared & Analyzed: 1/2/2024					
Nitrate as N	3220	J1	162	mg/kg dry	104	3240	NR	80-120		
Batch: BHA0294 - Percent Solids										
Blank (BHA0294-BLK1)					Prepared: 1/3/2024 Analyzed: 1/4/2024					
% Solids	<0.100	U	0.100	%						
Duplicate (BHA0294-DUP1)			Source: 24A0434-06		Prepared: 1/3/2024 Analyzed: 1/4/2024					
% Solids	0.917		0.100	%		0.909			0.877	20
Duplicate (BHA0294-DUP2)			Source: 24A1181-02		Prepared: 1/3/2024 Analyzed: 1/4/2024					
% Solids	1.26		0.100	%		1.24			1.11	20
Reference (BHA0294-SRM1)					Prepared: 1/3/2024 Analyzed: 1/4/2024					
% Solids	0.374		0.100	%	0.350		107	78.9-118		
Batch: BHA2447 - TKN T										
Blank (BHA2447-BLK1)					Prepared & Analyzed: 1/15/2024					
Ammonia as N	<9.99	U	9.99	mg/kg wet						

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Reported:
01/19/2024 15:35

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHA2447 - TKN T (Continued)										
LCS (BHA2447-BS1)										
Ammonia as N	95.2		9.97	mg/kg wet	99.7		95.5	85-115		
Prepared & Analyzed: 1/15/2024										
Duplicate (BHA2447-DUP1)										
Ammonia as N	4460	J1	931	mg/kg dry		3280			30.5	20
Source: 24A1110-01 Prepared & Analyzed: 1/15/2024										
MRL Check (BHA2447-MRL1)										
Ammonia as N	8.66	U	9.98	mg/kg wet	9.98		86.8	50-150		
Prepared & Analyzed: 1/15/2024										
Matrix Spike (BHA2447-MS1)										
Ammonia as N	12700		929	mg/kg dry	9290	3280	102	85-115		
Source: 24A1110-01 Prepared & Analyzed: 1/15/2024										
Batch: BHA2491 - TKN T										
Blank (BHA2491-BLK1)										
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
Prepared: 1/16/2024 Analyzed: 1/17/2024										
LCS (BHA2491-BS1)										
Total Kjeldahl Nitrogen - (TKN)	19.9		9.88	mg/kg wet	20.0		99.8	85-115		
Prepared: 1/16/2024 Analyzed: 1/17/2024										
Duplicate (BHA2491-DUP1)										
Total Kjeldahl Nitrogen - (TKN)	51100		1150	mg/kg dry		62400			19.9	20
Source: 24A1110-01 Prepared: 1/16/2024 Analyzed: 1/17/2024										
Matrix Spike (BHA2491-MS1)										
Total Kjeldahl Nitrogen - (TKN)	65700	J1	1140	mg/kg dry	4570	62400	72.2	85-115		
Source: 24A1110-01 Prepared: 1/16/2024 Analyzed: 1/17/2024										

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Reported:
01/19/2024 15:35

Sample Condition Checklist

Work Order: 24A1110

Check Points

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

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32259 Morton Road
Brookshire, TX 77423

Reported:
01/19/2024 15:35

Term and Qualifier Definitions

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

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CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe TX 77385
(936) 321-6060 - lab@nwdls.com
TCEQ T104704238-23-39



Page 1 of 1

24A1110

Lab PM : Deena Higginbotham		Project Name : Jackrabbit Road PUD - Non Potable - Qtrly Sludge		Schedule Comments:			
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: 16720 Pine Forest Lane - 77084 - Codes - 0128 CALL CULLEN 30 MIN BEFORE YOU ARRIVE Steven Potter - 281-830-6237 Cullen Brotherton - 832-523-5558					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24A1110-01	Digester		1/2/2024	S Grab	A HDPE IC 250mL B HDPE MET 250mL C HDPE WC 250mL	Arsenic ICP 6010 4°C Cadmium ICP 6010 4°C Chromium ICP 6010 4°C Copper ICP 6010 4°C Hg-7471 4°C Lead ICP 6010 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	
Field Remarks:							
Sampler (Signature)		Requisitioned By: (Signature)		Lab Preservation: H2SO4 HNO3 NaOH Other:			
Print Name		Requisitioned By: (Signature)		Date/Time		Received By: (Signature)	
Affiliation		Requisitioned By: (Signature)		Date/Time		Received By: (Signature)	
Custody Seal: Yes / No		COC Label's Agree: Yes / No		Appropriate Volume: Yes / No		Received on ce: Yes / No	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers intact: Yes / No		Samples Accepted: Yes / No	
						Temperature: °C	
						Thermometer ID:	

Spring Branch

WAC_NWDLs_COC_LS Revision 4.1 Effective: 2/17/2022



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November 17, 2023

Laboratory Report

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20231117095044AEN

*Jackrabbit
PUD*

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services



ENTERED NOV 29 2023

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ & Solid



Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Sample Results

Client Sample ID: Digester
Lab Sample ID: 23J1094-01
Jackrabbit Road PUD - Non Potable - PCB - TCLP [none]
Sample Matrix: Solid
Date Collected: 10/02/2023 9:30
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC										
SW-8082	Aroclor-1016 (PCB-1016)	A	<1.26 C+, U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1221 (PCB-1221)	A	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1232 (PCB-1232)	A	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1242 (PCB-1242)	A	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1248 (PCB-1248)	A	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1254 (PCB-1254)	A	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1260 (PCB-1260)	A	<1.26 C+, U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1262 (PCB-1262)	N	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Aroclor-1268 (PCB-1268)	N	<1.26 U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	PCBs, Total	A	<1.26 C+, U	mg/kg (dry wt) dry	10	0.631	1.26	BGJ1114	10/13/2023 00:15	Ala
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		106%	60-140					10/13/2023 00:15	
SW-8082	Surrogate: Decachlorobiphenyl-surr		107%	60-140					10/13/2023 00:15	
General Chemistry										
SM 2540 G	% Solids	A	1.58 V	%	1	0.100	0.100	BGJ0237	10/04/2023 09:32	JRU
TCLP										
SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.0200	5.00	BGJ1566	10/12/2023 14:10	FAA
SW-6010C	Barium	A	<100 V2, U	mg/L	1	0.0100	100	BGJ1566	10/12/2023 14:10	FAA
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.00100	1.00	BGJ1566	10/12/2023 14:10	FAA
SW-6010C	Chromium	A	<5.00 U	mg/L	1	0.00500	5.00	BGJ1566	10/12/2023 14:10	FAA
SW-8151	2,4-D	A	<10.0 C+, U	mg/L	2	0.000476	10.0	BGJ1417	10/13/2023 20:42	cdg
SW-8151	Silvex (2,4,5-TP)	A	<1.00 U	mg/L	2	0.000476	1.00	BGJ1417	10/13/2023 20:42	cdg
SW-8151	Surrogate: DCAA-surr		107%	70-130					10/13/2023 20:42	
SW-7471B	Mercury	A	<0.200 U	mg/L	1	0.000200	0.200	BGJ1194	10/09/2023 16:21	AKR
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.0100	5.00	BGJ1566	10/12/2023 14:10	FAA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 C+, R, U	mg/L	1	3.00E-6	0.500	BGJ1081	10/14/2023 01:55	CDG
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.0200	1.00	BGJ1566	10/12/2023 14:10	FAA
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00200	5.00	BGJ1566	10/12/2023 14:10	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400 U	mg/L	1	0.00250	400	BGJ1263	10/12/2023 06:22	KRB

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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Sample Results (Continued)

Client Sample ID: Digester (Continued)
Lab Sample ID: 23J1094-01

Sample Matrix: Solid
Date Collected: 10/02/2023 9:30
Collected by: Jacob Smith

Jackrabbit Road PUD - Non Potable - PCB - TCLP

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

TCLP (Continued)

SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGJ1263	10/12/2023 06:22	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGJ1263	10/12/2023 06:22	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ1263	10/12/2023 06:22	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGJ1263	10/12/2023 06:22	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		77.9%	54.6-148					10/12/2023 06:22	
SW-8270	Surrogate: 2-Fluorophenol-surr		95.8%	55-152					10/12/2023 06:22	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		91.3%	52.4-136					10/12/2023 06:22	
SW-8270	Surrogate: Nitrobenzene-d5-surr		96.5%	52-162					10/12/2023 06:22	
SW-8270	Surrogate: Phenol-d5-surr		84.1%	58.7-152					10/12/2023 06:22	
SW-8270	Surrogate: p-Terphenyl-d14-surr		73.6%	51.9-147					10/12/2023 06:22	

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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 23J1094-01RE1

Sample Matrix: Solid
Date Collected: 10/02/2023 9:30
Collected by: Jacob Smith

Jackrabbit Road PUD - Non Potable - PCB - TCLP

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP										
SW-8081	Chlordane (Total) (Rerun)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Endrin (Rerun)	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGJ1081	10/28/2023 01:36	ALA
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane) (Rerun)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Heptachlor (Rerun)	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Heptachlor epoxide (Rerun)	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Methoxychlor (Rerun)	A	<10.0U	mg/L	1	3.00E-6	10.0	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Toxaphene (Chlorinated Camphene) (Rerun)	A	<0.500C+, U	mg/L	1	3.00E-6	0.500	BGJ1081	10/28/2023 01:36	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	109%		60-140					10/28/2023 01:36	
SW-8081	Surrogate: Decachlorobiphenyl-surr (Rerun)	55.3% S		60-140					10/28/2023 01:36	

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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BGJ1114 - SW-3570

Blank (BGJ1114-BLK1)

Prepared: 10/7/2023 Analyzed: 10/12/2023

Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1221 (PCB-1221)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1232 (PCB-1232)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1242 (PCB-1242)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1248 (PCB-1248)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1254 (PCB-1254)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1262 (PCB-1262)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1268 (PCB-1268)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00552	mg/kg (dry wt) wet	0.00600		92.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00651	mg/kg (dry wt) wet	0.00600		108	60-140		

LCS (BGJ1114-BS1)

Prepared: 10/7/2023 Analyzed: 10/12/2023

Aroclor-1016 (PCB-1016)	0.0534		0.0200	mg/kg (dry wt) wet	0.0600		89.0	60-140		
Aroclor-1260 (PCB-1260)	0.0572		0.0200	mg/kg (dry wt) wet	0.0600		95.4	60-140		
PCBs, Total	0.0561		0.0200	mg/kg (dry wt) wet	0.0600		93.6	60-140		
Surrogate: 2,4,5,6			0.00503	mg/kg (dry wt) wet	0.00600		83.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00637	mg/kg (dry wt) wet	0.00600		106	60-140		

LCS Dup (BGJ1114-BSD1)

Prepared: 10/7/2023 Analyzed: 10/12/2023

Aroclor-1016 (PCB-1016)	0.0627		0.0200	mg/kg (dry wt) wet	0.0600		105	60-140	16.1	40
Aroclor-1260 (PCB-1260)	0.0624		0.0200	mg/kg (dry wt) wet	0.0600		104	60-140	8.73	40
PCBs, Total	0.0625		0.0200	mg/kg (dry wt) wet	0.0600		104	60-140	10.8	40
Surrogate: 2,4,5,6			0.00587	mg/kg (dry wt) wet	0.00600		97.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00689	mg/kg (dry wt) wet	0.00600		115	60-140		

Matrix Spike (BGJ1114-MS1)

Source: 23J1094-01

Prepared: 10/7/2023 Analyzed: 10/12/2023

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Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ1114 - SW-3570 (Continued)										
Matrix Spike (BGJ1114-MS1)										
			Source: 23J1094-01		Prepared: 10/7/2023 Analyzed: 10/12/2023					
Aroclor-1016 (PCB-1016)	3.25		1.26	mg/kg (dry wt) dry	3.79	<1.26	85.9	60-140		
Aroclor-1260 (PCB-1260)	3.05		1.26	mg/kg (dry wt) dry	3.79	<1.26	80.5	60-140		
PCBs, Total	3.10		1.26	mg/kg (dry wt) dry	3.79	<1.26	82.0	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.398	mg/kg (dry wt) dry	0.379		105	60-140		
Surrogate: Decachlorobiphenyl-surr			0.417	mg/kg (dry wt) dry	0.379		110	60-140		
			Source: 23J1094-01		Prepared: 10/7/2023 Analyzed: 10/12/2023					
Aroclor-1016 (PCB-1016)	3.58		1.26	mg/kg (dry wt) dry	3.79	<1.26	94.6	60-140	9.59	40
Aroclor-1260 (PCB-1260)	3.13		1.26	mg/kg (dry wt) dry	3.79	<1.26	82.7	60-140	2.66	40
PCBs, Total	3.26		1.26	mg/kg (dry wt) dry	3.79	<1.26	86.0	60-140	4.74	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.429	mg/kg (dry wt) dry	0.379		113	60-140		
Surrogate: Decachlorobiphenyl-surr			0.433	mg/kg (dry wt) dry	0.379		114	60-140		

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11/17/2023 09:50

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ0237 - Percent Solids										
Blank (BGJ0237-BLK1)										
% Solids	<0.100	U	0.100	%						
Prepared: 10/3/2023 Analyzed: 10/4/2023										
Duplicate (BGJ0237-DUP1)										
% Solids	1.25		0.100	%		1.27			1.29	20
Source: 23J1159-05 Prepared: 10/3/2023 Analyzed: 10/4/2023										
Duplicate (BGJ0237-DUP2)										
% Solids	1.83		0.100	%		1.80			1.46	20
Source: 23J1332-04 Prepared: 10/3/2023 Analyzed: 10/4/2023										
Reference (BGJ0237-SRM1)										
% Solids	0.354		0.100	%	0.350		101	78.9-118		
Prepared: 10/3/2023 Analyzed: 10/4/2023										

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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1081 - SW-3511

Blank (BGJ1081-BLK1)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000128	mg/L	0.000120		107	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000130	mg/L	0.000120		109	60-140		

LCS (BGJ1081-BS1)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Toxaphene (Chlorinated Camphene)	0.00118	U	0.500	mg/L	0.00120		98.5	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000113	mg/L	0.000120		94.1	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000114	mg/L	0.000120		94.6	60-140		

LCS (BGJ1081-BS2)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	0.000500	U	0.0300	mg/L	0.000480		104	60-140		
Endrin	0.000161	U	0.0200	mg/L	0.000120		134	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000151	U	0.400	mg/L	0.000120		126	60-140		
Heptachlor	0.000144	U	0.00800	mg/L	0.000120		120	60-140		
Heptachlor epoxide	0.000126	U	0.00800	mg/L	0.000120		105	60-140		
Methoxychlor	0.000128	U	10.0	mg/L	0.000120		107	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000148	mg/L	0.000120		124	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000136	mg/L	0.000120		113	60-140		

LCS Dup (BGJ1081-BSD1)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Toxaphene (Chlorinated Camphene)	0.00102	U	0.500	mg/L	0.00120		85.3	60-140	14.4	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000102	mg/L	0.000120		85.0	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.8	60-140		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1081 - SW-3511 (Continued)

LCS Dup (BGJ1081-BSD2)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	0.000572	U	0.0300	mg/L	0.000480		119	60-140	13.4	40
Endrin	0.000136	U	0.0200	mg/L	0.000120		113	60-140	16.8	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000137	U	0.400	mg/L	0.000120		114	60-140	9.61	40
Heptachlor	0.000147	U	0.00800	mg/L	0.000120		123	60-140	2.48	40
Heptachlor epoxide	0.000140	U	0.00800	mg/L	0.000120		117	60-140	10.7	40
Methoxychlor	0.000147	U	10.0	mg/L	0.000120		123	60-140	13.9	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000156	mg/L	0.000120		130	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000141	mg/L	0.000120		118	60-140		

BGJ0527-BLK1 (BGJ1081-LBK1)

Prepared: 10/6/2023 Analyzed: 10/14/2023

Chlordane (Total)	2.90E-5	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	5.52E-6	U	0.400	mg/L						
Heptachlor	2.90E-5	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000802	mg/L	0.000600		134	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000562	mg/L	0.000600		93.6	60-140		

MRL Check (BGJ1081-MRL1)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Toxaphene (Chlorinated Camphene)	0.000221	U	0.500	mg/L	0.000300		73.8			
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000111	mg/L	0.000120		92.7	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000103	mg/L	0.000120		85.9	60-140		

MRL Check (BGJ1081-MRL2)

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	6.19E-5	U	0.0300	mg/L	4.80E-5		129			
Endrin	1.56E-5	U	0.0200	mg/L	1.20E-5		130			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.46E-5	U	0.400	mg/L	1.20E-5		121			
Heptachlor	1.56E-5	U	0.00800	mg/L	1.20E-5		130			
Heptachlor epoxide	1.54E-5	U	0.00800	mg/L	1.20E-5		128			
Methoxychlor	1.61E-5	U	10.0	mg/L	1.20E-5		134			
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000133	mg/L	0.000120		111	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000132	mg/L	0.000120		110	60-140		



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1081 - SW-3511 (Continued)

Matrix Spike (BGJ1081-MS1)

Source: 23J1350-01

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	0.00277	U	0.0300	mg/L	0.00240	<0.0300	115	60-140		
Endrin	0.000754	U	0.0200	mg/L	0.000600	2.11E-5	122	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000765	U	0.400	mg/L	0.000600	<0.400	127	60-140		
Heptachlor	0.000750	U	0.00800	mg/L	0.000600	<0.00800	125	60-140		
Heptachlor epoxide	0.000639	U	0.00800	mg/L	0.000600	<0.00800	107	60-140		
Methoxychlor	0.00103	J1, U	10.0	mg/L	0.000600	<10.0	171	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000829	mg/L	0.000600		138	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000542	mg/L	0.000600		90.3	60-140		

Matrix Spike Dup (BGJ1081-MSD1)

Source: 23J1350-01

Prepared: 10/6/2023 Analyzed: 10/13/2023

Chlordane (Total)	0.00289	U	0.0300	mg/L	0.00240	<0.0300	120	60-140	4.26	40
Endrin	0.000791	U	0.0200	mg/L	0.000600	2.11E-5	128	60-140	4.79	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000782	U	0.400	mg/L	0.000600	<0.400	130	60-140	2.30	40
Heptachlor	0.000760	U	0.00800	mg/L	0.000600	<0.00800	127	60-140	1.31	40
Heptachlor epoxide	0.000666	U	0.00800	mg/L	0.000600	<0.00800	111	60-140	4.11	40
Methoxychlor	0.00102	J1, U	10.0	mg/L	0.000600	<10.0	169	60-140	1.09	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000812	mg/L	0.000600		135	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000548	mg/L	0.000600		91.3	60-140		

Batch: BGJ1194 - SW-7471 TCLP

Duplicate (BGJ1194-DUP1)

Source: 23J1298-02

Prepared & Analyzed: 10/9/2023

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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BGJ0527-LBK1 (BGJ1194-LBK1)

Prepared & Analyzed: 10/9/2023

Mercury	<0.200	U	0.200	mg/L						
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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1194 - SW-7471 TCLP (Continued)

MDL Check (BGJ1194-MRL1)

Mercury 0.000212 U 0.200 mg/L 0.000200 Prepared & Analyzed: 10/9/2023

106

Matrix Spike (BGJ1194-MS1)

Source: 23J1298-02

Prepared & Analyzed: 10/9/2023

Mercury 0.00494 U 0.200 mg/L 0.00500 <0.200 98.8 80-120

Batch: BGJ1263 - SW-3511

Blank (BGJ1263-BLK2)

Prepared: 10/9/2023 Analyzed: 10/11/2023

2,4,5-Trichlorophenol	<400 U	400	mg/L						
2,4,6-Trichlorophenol	<2.00 U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130 U	0.130	mg/L						
2-Methylphenol	<200 U	200	mg/L						
3,4-Methylphenol	<200 U	200	mg/L						
Hexachlorobenzene	<0.130 U	0.130	mg/L						
Hexachlorobutadiene	<0.500 U	0.500	mg/L						
Hexachloroethane	<3.00 U	3.00	mg/L						
Nitrobenzene	<2.00 U	2.00	mg/L						
Pentachlorophenol	<100 U	100	mg/L						
Pyridine	<5.00 U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr		0.0105	mg/L	0.0100		105	54.6-148		
Surrogate: 2-Fluorophenol-surr		0.0245	mg/L	0.0200		123	55-152		
Surrogate: 2,4,6-Tribromophenol-surr		0.0249	mg/L	0.0200		124	52.4-136		
Surrogate: Nitrobenzene-d5-surr		0.0111	mg/L	0.0100		111	52-162		
Surrogate: Phenol-d5-surr		0.0218	mg/L	0.0200		109	58.7-152		
Surrogate: p-Terphenyl-d14-surr		0.00876	mg/L	0.0100		87.6	51.9-147		

LCS (BGJ1263-BS2)

Prepared: 10/9/2023 Analyzed: 10/11/2023

2,4,5-Trichlorophenol	0.0211 U	400	mg/L	0.0200		106	60-140		
2,4,6-Trichlorophenol	0.0192 U	2.00	mg/L	0.0200		96.1	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00855 U	0.130	mg/L	0.0100		85.5	60-140		
2-Methylphenol	0.0191 U	200	mg/L	0.0200		95.5	60-140		
3,4-Methylphenol	0.0356 L, U	200	mg/L	0.0400		88.9	60-140		
Hexachlorobenzene	0.00987 U	0.130	mg/L	0.0100		98.7	60-140		
Hexachlorobutadiene	0.00676 U	0.500	mg/L	0.0100		67.6	60-140		
Hexachloroethane	0.00756 U	3.00	mg/L	0.0100		75.6	60-140		
Nitrobenzene	0.0110 U	2.00	mg/L	0.0100		110	60-140		
Pentachlorophenol	0.0164 U	100	mg/L	0.0200		82.0	36.8-149		
Pyridine	<5.00 J1, U	5.00	mg/L	0.0500			2.5-101		
Surrogate: 2-Fluorobiphenyl-surr		0.00876	mg/L	0.0100		87.6	54.6-148		
Surrogate: 2-Fluorophenol-surr		0.0198	mg/L	0.0200		98.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr		0.0175	mg/L	0.0200		87.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr		0.00910	mg/L	0.0100		91.0	52-162		
Surrogate: Phenol-d5-surr		0.0174	mg/L	0.0200		87.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr		0.00596	mg/L	0.0100		59.6	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1263 - SW-3511 (Continued)

LCS Dup (BGJ1263-BSD2)

Prepared: 10/9/2023 Analyzed: 10/12/2023

2,4,5-Trichlorophenol	0.0216	U	400	mg/L	0.0200		108	60-140	2.44	40
2,4,6-Trichlorophenol	0.0202	U	2.00	mg/L	0.0200		101	60-140	5.11	40
2,4-Dinitrotoluene (2,4-DNT)	0.00947	U	0.130	mg/L	0.0100		94.7	60-140	10.3	40
2-Methylphenol	0.0193	U	200	mg/L	0.0200		96.4	60-140	0.939	40
3,4-Methylphenol	0.0368	L, U	200	mg/L	0.0400		92.1	60-140	3.53	40
Hexachlorobenzene	0.0104	U	0.130	mg/L	0.0100		104	60-140	4.94	40
Hexachlorobutadiene	0.00682	U	0.500	mg/L	0.0100		68.2	60-140	0.849	40
Hexachloroethane	0.00745	U	3.00	mg/L	0.0100		74.5	60-140	1.50	40
Nitrobenzene	0.0109	U	2.00	mg/L	0.0100		109	60-140	0.762	40
Pentachlorophenol	0.0174	U	100	mg/L	0.0200		87.2	36.8-149	6.19	40
Pyridine	0.00249	U, U	5.00	mg/L	0.0500		4.98	2.5-101	200	40

Surrogate: 2-Fluorobiphenyl-surr			0.00879	mg/L	0.0100		87.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0211	mg/L	0.0200		105	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0180	mg/L	0.0200		90.2	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0101	mg/L	0.0100		101	52-162		
Surrogate: Phenol-d5-surr			0.0180	mg/L	0.0200		90.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00695	mg/L	0.0100		69.5	51.9-147		

BGJ0527-BLK1 (BGJ1263-LBK1)

Prepared: 10/9/2023 Analyzed: 10/12/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						

Surrogate: 2-Fluorobiphenyl-surr			0.0317	mg/L	0.0400		79.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0860	mg/L	0.0800		108	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0803	mg/L	0.0800		100	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0419	mg/L	0.0400		105	52-162		
Surrogate: Phenol-d5-surr			0.0729	mg/L	0.0800		91.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0321	mg/L	0.0400		80.3	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1263 - SW-3511 (Continued)

MRL Check (BGJ1263-MRL2)

Prepared: 10/9/2023 Analyzed: 10/11/2023

2,4,5-Trichlorophenol	0.000895	U	400	mg/L	0.00100		89.5			
2,4,6-Trichlorophenol	0.00119	U	2.00	mg/L	0.00100		119			
2,4-Dinitrotoluene (2,4-DNT)	0.000588	U	0.130	mg/L	0.000500		118			
2-Methylphenol	0.00101	U	200	mg/L	0.00100		101			
3,4-Methylphenol	0.00201	U	200	mg/L	0.00200		101			
Hexachlorobenzene	0.000544	U	0.130	mg/L	0.000500		109			
Hexachlorobutadiene	0.000337	U	0.500	mg/L	0.000500		67.4			
Hexachloroethane	0.000341	U	3.00	mg/L	0.000500		68.3			
Nitrobenzene	0.000558	U	2.00	mg/L	0.000500		112			
Pentachlorophenol	0.00103	U	100	mg/L	0.00100		103			
Pyridine	<5.00	J1, U	5.00	mg/L	0.00250					
Surrogate: 2-Fluorobiphenyl-surr			0.00775	mg/L	0.0100		77.5	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0201	mg/L	0.0200		101	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0176	mg/L	0.0200		87.9	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00912	mg/L	0.0100		91.2	52-162		
Surrogate: Phenol-d5-surr			0.0163	mg/L	0.0200		81.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00676	mg/L	0.0100		67.6	51.9-147		

Matrix Spike (BGJ1263-MS1)

Source: 2315454-01

Prepared: 10/9/2023 Analyzed: 10/12/2023

2,4,5-Trichlorophenol	0.0966	U	400	mg/L	0.0800	<400	121	44.9-171		
2,4,6-Trichlorophenol	0.0815	U	2.00	mg/L	0.0800	<2.00	102	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0435	U	0.130	mg/L	0.0400	<0.130	109	50.3-144		
2-Methylphenol	0.0809	U	200	mg/L	0.0800	<200	101	17.3-182		
3,4-Methylphenol	0.212	L, U	200	mg/L	0.160	0.0634	93.0	43.4-188		
Hexachlorobenzene	0.0432	U	0.130	mg/L	0.0400	<0.130	108	56.1-137		
Hexachlorobutadiene	0.0292	U	0.500	mg/L	0.0400	<0.500	73.1	33.1-110		
Hexachloroethane	0.0323	U	3.00	mg/L	0.0400	<3.00	80.9	36.2-106		
Nitrobenzene	0.0511	U	2.00	mg/L	0.0400	<2.00	128	54.9-156		
Pentachlorophenol	0.0770	U	100	mg/L	0.0800	<100	96.3	42.2-151		
Pyridine	<5.00	J1, U	5.00	mg/L	0.200	<5.00		2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0354	mg/L	0.0400		88.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0823	mg/L	0.0800		103	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0765	mg/L	0.0800		95.6	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0388	mg/L	0.0400		96.9	52-162		
Surrogate: Phenol-d5-surr			0.0753	mg/L	0.0800		94.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0284	mg/L	0.0400		71.1	51.9-147		



Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1263 - SW-3511 (Continued)

Matrix Spike Dup (BGJ1263-MSD1)

Source: 23I5454-01

Prepared: 10/9/2023 Analyzed: 10/12/2023

2,4,5-Trichlorophenol	0.102	U	400	mg/L	0.0800	<400	127	44.9-171	5.13	40
2,4,6-Trichlorophenol	0.0777	U	2.00	mg/L	0.0800	<2.00	97.1	34.7-143	4.83	40
2,4-Dinitrotoluene (2,4-DNT)	0.0489	U	0.130	mg/L	0.0400	<0.130	122	50.3-144	11.6	40
2-Methylphenol	0.0752	U	200	mg/L	0.0800	<200	94.0	17.3-182	7.27	40
3,4-Methylphenol	0.205	L, U	200	mg/L	0.160	0.0634	88.3	43.4-188	3.59	40
Hexachlorobenzene	0.0410	U	0.130	mg/L	0.0400	<0.130	103	56.1-137	5.13	40
Hexachlorobutadiene	0.0246	U	0.500	mg/L	0.0400	<0.500	61.5	33.1-110	17.2	40
Hexachloroethane	0.0315	U	3.00	mg/L	0.0400	<3.00	78.6	36.2-106	2.78	40
Nitrobenzene	0.0472	U	2.00	mg/L	0.0400	<2.00	118	54.9-156	7.92	40
Pentachlorophenol	0.0899	U	100	mg/L	0.0800	<100	112	42.2-151	15.4	40
Pyridine	<5.00	J1, U	5.00	mg/L	0.200	<5.00		2-87.4		40
Surrogate: 2-Fluorobiphenyl-surr			0.0307	mg/L	0.0400		76.7	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0742	mg/L	0.0800		92.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0672	mg/L	0.0800		84.0	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0362	mg/L	0.0400		90.5	52-162		
Surrogate: Phenol-d5-surr			0.0729	mg/L	0.0800		91.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0314	mg/L	0.0400		78.6	51.9-147		

Batch: BGJ1417 - SW-3511

Blank (BGJ1417-BLK1)

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0229	mg/L	0.0250		91	70-130		

LCS (BGJ1417-BS1)

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	0.00502	U	10.0	mg/L	0.00515		98	70-130		
Silvex (2,4,5-TP)	0.00508	U	1.00	mg/L	0.00500		102	70-130		
Surrogate: DCAA-surr			0.0267	mg/L	0.0250		107	70-130		

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Reported:
11/17/2023 09:50

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1417 - SW-3511 (Continued)

LCS Dup (BGJ1417-BSD1)

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	0.00465	U	10.0	mg/L	0.00515		90	70-130	8	30
Silvex (2,4,5-TP)	0.00473	U	1.00	mg/L	0.00500		95	70-130	7	30
Surrogate: DCAA-surr			0.0246	mg/L	0.0250		98	70-130		

BGJ0527-BLK1 (BGJ1417-LBK1)

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0987	mg/L	0.100		99	70-130		

Matrix Spike (BGJ1417-MS1)

Source: 2314650-01

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	0.0187	U	10.0	mg/L	0.0206	<10.0	91	70-130		
Silvex (2,4,5-TP)	0.0188	U	1.00	mg/L	0.0200	<1.00	94	70-130		
Surrogate: DCAA-surr			0.0891	mg/L	0.100		89	70-130		

Matrix Spike Dup (BGJ1417-MSD1)

Source: 2314650-01

Prepared: 10/10/2023 Analyzed: 10/13/2023

2,4-D	0.0195	U	10.0	mg/L	0.0206	<10.0	95	70-130	4	30
Silvex (2,4,5-TP)	0.0198	U	1.00	mg/L	0.0200	<1.00	99	70-130	5	30
Surrogate: DCAA-surr			0.0963	mg/L	0.100		96	70-130		

Batch: BGJ1566 - EPA 200.2 TCLP

Blank (BGJ1566-BLK1)

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						



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32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ1566 - EPA 200.2 TCLP (Continued)

LCS (BGJ1566-BS1)

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	0.516	U	5.00	mg/L	0.500		103	80-120		
Barium	0.506	U	100	mg/L	0.500		101	80-120		
Cadmium	0.0503	U	1.00	mg/L	0.0500		101	80-120		
Chromium	0.259	U	5.00	mg/L	0.250		103	80-120		
Lead	0.261	U	5.00	mg/L	0.250		104	80-120		
Selenium	0.512	U	1.00	mg/L	0.500		102	80-120		
Silver	0.0502	U	5.00	mg/L	0.0500		100	80-120		

Duplicate (BGJ1566-DUP1)

Source: 23J1298-02

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	0.0389	U	5.00	mg/L		0.0375			3.74	20
Barium	0.664	U	100	mg/L		0.653			1.74	20
Cadmium	0.00659	U	1.00	mg/L		0.00646			1.99	20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		0.0202			200	20
Silver	<5.00	U	5.00	mg/L		<5.00				20

BGJ0527-BLK1 (BGJ1566-LBK1)

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.716	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

Matrix Spike (BGJ1566-MS1)

Source: 23J1298-02

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	0.580	U	5.00	mg/L	0.500	0.0375	108	75-125		
Barium	1.11	U	100	mg/L	0.500	0.653	92.0	75-125		
Cadmium	0.0598	U	1.00	mg/L	0.0500	0.00646	107	75-125		
Chromium	0.257	U	5.00	mg/L	0.250	<5.00	103	75-125		
Lead	0.256	U	5.00	mg/L	0.250	<5.00	103	75-125		
Selenium	0.552	U	1.00	mg/L	0.500	0.0202	106	75-125		
Silver	0.0544	U	5.00	mg/L	0.0500	<5.00	109	75-125		

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Brookshire, TX 77423

Reported:
11/17/2023 09:50

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BGJ1566 - EPA 200.2 TCLP (Continued)

Post Spike (BGJ1566-PS1)

Source: 23J1298-02

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	576			ug/L	500	36.5	108	80-120		
Barium	1140			ug/L	500	637	101	80-120		
Cadmium	59.0			ug/L	50.0	6.30	105	80-120		
Chromium	256			ug/L	250	4.25	101	80-120		
Lead	252			ug/L	250	6.28	98.2	80-120		
Selenium	545			ug/L	500	19.7	105	80-120		
Silver	53.2			ug/L	50.0	0.322	106	80-120		

Dilution Check (BGJ1566-SRL1)

Source: 23J1298-02

Prepared: 10/11/2023 Analyzed: 10/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00			200	10
Barium	0.692	U	100	mg/L		0.653			5.77	10
Cadmium	0.00665	U	1.00	mg/L		0.00646			2.90	10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00			200	10
Silver	<5.00	U	5.00	mg/L		<5.00				10



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32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Sample Condition Checklist

Work Order: 23J1094

Check Points

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

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



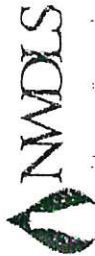
Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 09:50

Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
R	The sample result was rejected. A rerun is being performed.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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CHAIN OF CUSTODY RECORD

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



Page 1 of 1

23J1094

TCEQ T104704238-23-39

Lab PM : Deena Higginbotham		Project Name : Jackrabbit Road PUD - Non Potable - PCB - TCLP			Schedule Comments:		
Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452		Project Comments: 16720 Pine Forest Lane - 77084 - Codes - 0128 CALL CULLEN 30 MIN BEFORE YOU ARRIVE Steven Potter - 281-830-6237 Cullen Brotherton - 832-523-5558					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J1094-01	Digester		10/2/2023	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	
5930							
Field Remarks:							
Sampler (Signature)		Relinquished By: (Signature)		Lab Preservation: H2SO4 HNO3 NaOH Other:			
Print Name		Relinquished By: (Signature)		Write ID Below			
Affiliation		Relinquished To Lab By: (Signature)		Date/Time		Date/Time	
Custody Seal: Yes / No		COC Labels Agree: Yes / No		Received By: (Signature)		Date/Time 11SS	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Received By: (Signature)		Date/Time 10.02.23	
Appropriate Volume: Yes / No		Coolers Intact: Yes / No		Received for Laboratory By: (Signature)		Date/Time 11SS	
Samples Accepted: Yes / No		Thermometer ID: _____		Temperature: _____ °C			

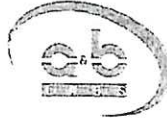
wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022

Spring Branch

Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23100524



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

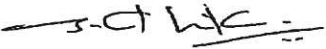
Client Project Name :
23J1094

Report To : Client Name: NWDLS
Attn: Deena Higginbotham
Client Address: 130 S Trade Center Pkwy
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23J1094
Sample Collected By:
Date Collected: 10/02/23

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23J1094-01	Sludge	23100524.01


Released By: Senthil Kumar Sevukan
Title: Vice President Operations
Date: 10/11/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 10/05/2023 08:00

LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23100524

Date: 10/11/2023

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation. Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



LABORATORY TEST RESULTS

Job ID : 23100524

Date 10/11/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23J1094

Client Sample ID: 23J1094-01

Job Sample ID: 23100524.01

Date Collected: 10/02/23

Sample Matrix Sludge

Time Collected: 09:30

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	10/09/23 15:23	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	10/09/23 15:23	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	10/09/23 15:23	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	10/09/23 15:23	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	10/09/23 15:23	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	10/09/23 15:23	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	10/09/23 15:23	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	10/09/23 15:23	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	10/09/23 15:23	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	10/09/23 15:23	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	10/09/23 15:23	ZQ
	1,2-Dichloroethane-d4(surr)	106	%	1.00		70-130			10/09/23 15:23	ZQ
	Dibromofluoromethane(surr)	112	%	1.00		70-130			10/09/23 15:23	ZQ
	p-Bromofluorobenzene(surr)	95.9	%	1.00		70-130			10/09/23 15:23	ZQ
	Toluene-d8(surr)	101	%	1.00		70-130			10/09/23 15:23	ZQ

ab-q212-0321

QUALITY CONTROL CERTIFICATE



Job ID : 23100524

Date : 10/11/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23101001 Created Date : 10/09/23

Created By : Zeeshan

Samples in This QC Batch : 23100524.01

Sample Preparation : PB23100949

Prep Method : SW-846 5030C

Prep Date : 10/09/23 10:00 Prep By : Zeeshan

TCLP Prep : PB23100706

Prep Method : SW-846 1311

Prep Date : 10/06/23 16:51 Prep By : JCoku

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	107	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	106	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	97.6	%	1.00			
Toluene-d8(surr)	2037-26-5	96.8	%	1.00			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	0.962	96.2	1	1.01	101	4.9	35	70-130	
1,2-Dichloroethane	1	0.945	94.5	1	0.975	97.5	3.2	35	70-130	
1,4-Dichlorobenzene	1	0.946	94.6	1	0.967	96.7	2.2	35	70-130	
Benzene	1	0.941	94.1	1	0.997	99.7	5.8	35	70-130	
Carbon tetrachloride	1	1.01	101	1	1.09	109	7.8	35	70-130	
Chlorobenzene	1	0.958	95.8	1	1.01	101	5.2	35	70-130	
Chloroform	1	0.954	95.4	1	0.971	97.1	1.8	35	70-130	
MEK	1	0.989	98.9	1	0.969	96.9	2.1	35	70-130	
Tetrachloroethylene	1	0.965	96.5	1	1.02	102	5.5	35	70-130	
Trichloroethylene	1	0.966	96.6	1	1.03	103	6.4	35	70-130	
Vinyl Chloride	1	0.987	98.7	1	1.03	103	4.3	35	70-130	

QC Type: MS and MSD

QC Sample ID: 23100732.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.07	107						70-130	

ab-q213-0321

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE



Job ID : 23100524

Date : 10/11/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23101001

Created Date : 10/09/23

Created By : Zeeshan

Samples in This QC Batch : 23100524.01

QC Type: MS and MSD

QC Sample ID: 23100732.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.977	97.7						70-130	
1,4-Dichlorobenzene	BRL	1	0.965	96.5						70-130	
Benzene	BRL	1	1.02	102						70-130	
Carbon tetrachloride	BRL	1	1.07	107						70-130	
Chlorobenzene	BRL	1	0.992	99.2						70-130	
Chloroform	BRL	1	1.07	107						70-130	
MEK	BRL	1	1.01	101						70-130	
Tetrachloroethylene	BRL	1	0.995	99.5						70-130	
Trichloroethylene	BRL	1	1.06	106						70-130	
Vinyl Chloride	BRL	1	1.06	106						70-130	

ab-q213-0321

Refer to the Definition page for terms.



Job ID:23100524
10/05/2023 NWDLS AMS

SUBCONTRACT ORDER

Sending Laboratory:

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

A & B Labs
10100 East Freeway, Suite 100
Houston, TX 77029
Phone: (713) 453-6060
Fax: (713) 453-6091

Work Order: 23J1094

Analysis	Due	Expires	Comments
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Sample ID: 23J1094-01 Solid Sampled: 10/02/2023 09:30

TCLP ZHE 10/16/2023 10/16/2023 09:30 Auto-Included

OR

VOA-TCLP

10/16/2023 10/16/2023 09:30

Analyte(s):

1,1-Dichloroethylene
1,4-Dichlorobenzene (p-Dichlorobenzene)
Benzene
Chloroform
Toluene-d8-surr

1,2-Dichloroethane (Ethylene dichloride)
2-Butanone (Methyl ethyl ketone, MEK)
Carbon tetrachloride
Dibromofluoromethane-surr
Trichloroethene (Trichloroethylene)

1,2-Dichloroethane-d4-surr
4-Bromofluorobenzene-surr
Chlorobenzene
Tetrachloroethylene (Perchloroethylene)
Vinyl chloride (Chloroethene)

Containers Supplied:

Andrew Rodriguez

Released By

10-5-23

Date

Received By

10/05/23 ORA

Date

1.8°C

Sample Condition Checklist



A&B JobID : 23100524		Date Received : 10/05/2023		Time Received : 8:00AM	
Client Name : NWDLS					
Temperature : 1.8°C		Sample pH : NA			
Thermometer ID : IRS		pH Paper ID : NA			
Preservative :					

Check Points				Yes	No	N/A
1.	Cooler Seal present and signed.				X	
2.	Sample(s) in a cooler.			X		
3.	If yes, ice in cooler.			X		
4.	Sample(s) received with chain-of-custody.			X		
5.	C-O-C signed and dated.			X		
6.	Sample(s) received with signed sample custody seal.				X	
7.	Sample containers arrived intact. (If No comment)			X		
8.	Matrix:					
	Water	☐				
	Soil	☐				
	Liquid	☐				
	Sludge	☒				
	Solid	☐				
	Cassette	☐				
	Tube	☐				
	Bulk	☐				
	Badge	☐				
	Food	☐				
	Other	☐				
9.	Samples were received in appropriate container(s)			X		
10.	Sample(s) were received with Proper preservative					X
11.	All samples were tagged or labeled.			X		
12.	Sample ID labels match C-O-C ID's.			X		
13.	Bottle count on C-O-C matches bottles found.			X		
14.	Sample volume is sufficient for analyses requested.			X		
15.	Samples were received with in the hold time.			X		
16.	VOA vials completely filled.					X
17.	Sample accepted.			X		
18.	Has client been contacted about sub-out					X

Comments : Include actions taken to resolve discrepancies/problem:
COC shows solid, received sludge. AM 10/05/23

Brought by : Client
Received by : Jedralin
Check in by/date : Amber / 10/05/2023
ab-5005-0321
www.ablabs.com
Phone : 713-453-6060



SUBCONTRACT ORDER

Sending Laboratory:

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

A & B Labs
10100 East Freeway, Suite 100
Houston, TX 77029
Phone: (713) 453-6060
Fax: (713) 453-6091

Work Order: 23J1094

Analysis	Due	Expires	Comments
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Sample ID: 23J1094-01 Solid Sampled: 10/02/2023 09:30

TCLP ZHE 10/16/2023 10/16/2023 09:30 Auto-Included

VOA-TCLP 10/16/2023 10/16/2023 09:30

Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Andrew Rodriguez

Released By

10-5-23

Date

Received By

10/05/23 0800

Date

1.8°C



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

March 18, 2024

Laboratory Report

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

MC 112

Report ID: 20240318085343AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services



ENTERED APR 19 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ F/S ☐ & Solid



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

Reported:
03/18/2024 08:53

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B3587-01

Sample Matrix: Solid
Date Collected: 02/15/2024 11:54
Collected by: Bruce White

MC MUD 112 - Non Potable-Sewage Sludge Annual

198

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total										
SW-6010C	Arsenic	A	3.43	mg/kg dry	1	0.567	2.58	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Cadmium	A	0.462	mg/kg dry	1	0.0671	0.258	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Chromium	A	7.43	mg/kg dry	1	0.970	1.30	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Copper	A	109	mg/kg dry	1	0.276	2.58	BHB3291	02/21/2024 12:13	FAA
SW-7471B	Mercury	A	0.467	mg/kg dry	1	0.0155	0.0311	BHB3375	02/20/2024 16:19	ISS
SW-6010C	Lead	A	3.17	mg/kg dry	1	0.659	1.30	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Molybdenum	A	4.80	mg/kg dry	1	1.30	1.30	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Nickel	A	7.80	mg/kg dry	1	0.349	1.30	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Potassium	A	3530	mg/kg dry	1	22.2	258	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Selenium	A	4.85	mg/kg dry	1	1.01	2.58	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Total Phosphorus	A	10500	mg/kg dry	1	10.9	258	BHB3291	02/21/2024 12:13	FAA
SW-6010C	Zinc	A	755	mg/kg dry	20	25.9	25.9	BHB3291	02/21/2024 16:13	FAA
General Chemistry										
EPA 350.2	Ammonia as N	A	4200	mg/kg dry	1	774	1550	BHB3443	02/21/2024 12:28	GIW
SW-9056A	Nitrate as N	A	11100	mg/kg dry	25	97.1	243	BHB2898	02/16/2024 11:00	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	59000	mg/kg dry	1	1920	1920	BHB3684	02/22/2024 12:50	GIW
SM 2540 G	% Solids	A	1.29	%	1	0.100	0.100	BHB2736	02/16/2024 08:42	ENR

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



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

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

Reported:
03/18/2024 08:53

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010

Blank (BHB3291-BLK1)

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	<1.92	U	1.92	mg/kg wet					
Cadmium	<0.192	U	0.192	mg/kg wet					
Chromium	<0.965	U	0.965	mg/kg wet					
Copper	<1.92	U	1.92	mg/kg wet					
Lead	<0.965	U	0.965	mg/kg wet					
Molybdenum	<0.965	U	0.965	mg/kg wet					
Nickel	<0.965	U	0.965	mg/kg wet					
Potassium	<192	U	192	mg/kg wet					
Selenium	<1.92	U	1.92	mg/kg wet					
Total Phosphorus	<192	U	192	mg/kg wet					
Zinc	<0.965	U	0.965	mg/kg wet					

LCS (BHB3291-BS1)

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	48.2		1.93	mg/kg wet	48.3		99.9	80-120	
Cadmium	4.92		0.193	mg/kg wet	4.83		102	80-120	
Chromium	24.2		0.967	mg/kg wet	24.1		100	80-120	
Copper	50.4		1.93	mg/kg wet	48.3		104	80-120	
Lead	24.5		0.967	mg/kg wet	24.1		101	80-120	
Molybdenum	24.7		0.967	mg/kg wet	24.1		102	80-120	
Nickel	24.4		0.967	mg/kg wet	24.1		101	80-120	
Potassium	4850		193	mg/kg wet	4830		100	80-120	
Selenium	48.5		1.93	mg/kg wet	48.3		101	80-120	
Total Phosphorus	4980		193	mg/kg wet	4830		103	80-120	
Zinc	24.6		0.967	mg/kg wet	24.1		102	80-120	

Matrix Spike (BHB3291-MS1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	40.9	J1	1.99	mg/kg dry	49.9	6.50	69.0	75-125	
Cadmium	4.10	J1	0.199	mg/kg dry	4.99	0.533	71.6	75-125	
Chromium	46.3	J1	0.999	mg/kg dry	24.9	30.3	64.2	75-125	
Copper	950	J1	39.9	mg/kg dry	1050	264	65.5	75-125	
Lead	28.2	J1	0.999	mg/kg dry	24.9	11.5	67.0	75-125	
Molybdenum	18.9	J1	0.999	mg/kg dry	24.9	2.66	65.3	75-125	
Nickel	32.0	J1	0.999	mg/kg dry	24.9	16.3	63.1	75-125	
Potassium	5570	J1	199	mg/kg dry	4990	1980	71.9	75-125	
Selenium	39.9	J1	1.99	mg/kg dry	49.9	3.57	72.9	75-125	
Total Phosphorus	20100		996	mg/kg dry	9970	11800	82.9	75-125	
Zinc	3380		99.9	mg/kg dry	1020	2260	109	75-125	

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



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

Reported:
03/18/2024 08:53

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Matrix Spike (BHB3291-MS2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	53.8		2.23	mg/kg dry	55.8	6.86	84.2	75-125		
Cadmium	5.18		0.223	mg/kg dry	5.58	0.523	83.5	75-125		
Chromium	32.9		1.12	mg/kg dry	27.9	9.50	84.0	75-125		
Copper	1370		44.6	mg/kg dry	1170	333	88.3	75-125		
Lead	30.2		1.12	mg/kg dry	27.9	7.22	82.4	75-125		
Molybdenum	45.0		1.12	mg/kg dry	27.9	19.7	90.9	75-125		
Nickel	35.7		1.12	mg/kg dry	27.9	11.6	86.4	75-125		
Potassium	8460		223	mg/kg dry	5580	3480	89.4	75-125		
Selenium	63.1		2.23	mg/kg dry	55.8	12.2	91.3	75-125		
Total Phosphorus	25200		1110	mg/kg dry	11200	13200	108	75-125		
Zinc	1780		55.9	mg/kg dry	1140	628	101	75-125		

Matrix Spike Dup (BHB3291-MSD1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	42.0	J1	1.99	mg/kg dry	49.9	6.50	71.0	75-125	2.46	20
Cadmium	4.28		0.199	mg/kg dry	4.99	0.533	75.1	75-125	4.17	20
Chromium	47.4	J1	1.00	mg/kg dry	24.9	30.3	68.6	75-125	2.32	20
Copper	1030	J1	39.9	mg/kg dry	1050	264	73.0	75-125	8.03	20
Lead	29.0	J1	1.00	mg/kg dry	24.9	11.5	70.3	75-125	2.91	20
Molybdenum	19.4	J1	1.00	mg/kg dry	24.9	2.66	67.1	75-125	2.35	20
Nickel	33.2	J1	1.00	mg/kg dry	24.9	16.3	68.0	75-125	3.74	20
Potassium	5690	J1	199	mg/kg dry	4990	1980	74.4	75-125	2.18	20
Selenium	41.5		1.99	mg/kg dry	49.9	3.57	76.0	75-125	3.92	20
Total Phosphorus	19700		997	mg/kg dry	9980	11800	79.1	75-125	1.91	20
Zinc	3570	J1	100	mg/kg dry	1020	2260	128	75-125	5.54	20

Matrix Spike Dup (BHB3291-MSD2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	48.8		2.23	mg/kg dry	55.9	6.86	75.2	75-125	9.69	20
Cadmium	4.79		0.223	mg/kg dry	5.59	0.523	76.5	75-125	7.73	20
Chromium	30.2	J1	1.12	mg/kg dry	27.9	9.50	74.1	75-125	8.66	20
Copper	1260		44.6	mg/kg dry	1170	333	78.6	75-125	8.59	20
Lead	27.8	J1	1.12	mg/kg dry	27.9	7.22	73.8	75-125	8.24	20
Molybdenum	41.1		1.12	mg/kg dry	27.9	19.7	76.6	75-125	9.17	20
Nickel	32.6	J1	1.12	mg/kg dry	27.9	11.6	74.9	75-125	9.35	20
Potassium	7860		223	mg/kg dry	5590	3480	78.4	75-125	7.40	20
Selenium	57.8		2.23	mg/kg dry	55.9	12.2	81.6	75-125	8.87	20
Total Phosphorus	22000		1120	mg/kg dry	11200	13200	79.5	75-125	13.3	20
Zinc	1750		56.0	mg/kg dry	1140	628	97.6	75-125	2.13	20

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

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

Reported:
03/18/2024 08:53

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Post Spike (BHB3291-PS1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	607			ug/L	500	61.6	109	80-120		
Cadmium	60.0			ug/L	50.0	5.05	110	80-120		
Chromium	698	J1		ug/L	250	287	164	80-120		
Copper	4960	J1		ug/L	500	2500	492	80-120		
Lead	405			ug/L	250	109	118	80-120		
Molybdenum	286			ug/L	250	25.2	104	80-120		
Nickel	481	J1		ug/L	250	154	131	80-120		
Potassium	85300	J1		ug/L	50000	18800	133	80-120		
Selenium	592			ug/L	500	33.9	112	80-120		
Total Phosphorus	241000	J1		ug/L	50000	112000	258	80-120		

Post Spike (BHB3291-PS2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	600			ug/L	500	58.1	108	80-120		
Cadmium	57.9			ug/L	50.0	4.43	107	80-120		
Chromium	369			ug/L	250	80.4	115	80-120		
Copper	5270	J1		ug/L	500	2820	490	80-120		
Lead	334			ug/L	250	61.1	109	80-120		
Molybdenum	514	J1		ug/L	250	167	139	80-120		
Nickel	401	J1		ug/L	250	98.6	121	80-120		
Selenium	701			ug/L	500	103	119	80-120		
Total Phosphorus	231000	J1		ug/L	50000	111000	239	80-120		

Post Spike (BHB3291-PS3)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 3/11/2024

Zinc	40500	J1		ug/L	250	21400	NR	80-120		
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Post Spike (BHB3291-PS4)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 3/11/2024

Potassium	107000	J1		ug/L	50000	29400	154	80-120		
Zinc	9380	J1		ug/L	250	5320	NR	80-120		



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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
03/18/2024 08:53

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3291 - SW-3050 for 6010 (Continued)

Dilution Check (BHB3291-SRL1)

Source: 24B3112-01

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	13.3		9.96	mg/kg dry		6.50			68.8	10
Cadmium	0.908	U	0.996	mg/kg dry		0.533			51.9	10
Chromium	56.1	J1	5.00	mg/kg dry		30.3			59.7	10
Lead	20.1		5.00	mg/kg dry		11.5			54.6	10
Molybdenum	<5.00	U	5.00	mg/kg dry		<5.00			200	10
Nickel	30.3	J1	5.00	mg/kg dry		16.3			60.1	10
Potassium	3780	J1	996	mg/kg dry		1980			62.4	10
Selenium	4.90	U	9.96	mg/kg dry		<9.96			31.3	10
Total Phosphorus	23100	J1	996	mg/kg dry		11800			64.9	10

Dilution Check (BHB3291-SRL2)

Source: 24B3291-02

Prepared: 2/19/2024 Analyzed: 2/21/2024

Arsenic	13.1		11.2	mg/kg dry		6.86			62.7	10
Cadmium	0.777	U	1.12	mg/kg dry		0.523			38.9	10
Chromium	16.1		5.60	mg/kg dry		9.50			51.8	10
Lead	12.8		5.60	mg/kg dry		7.22			55.6	10
Molybdenum	32.8		5.60	mg/kg dry		19.7			50.0	10
Nickel	19.9	J1	5.60	mg/kg dry		11.6			52.2	10
Potassium	6120	J1	1120	mg/kg dry		3480			55.1	10
Selenium	19.5		11.2	mg/kg dry		12.2			45.8	10
Total Phosphorus	22400	J1	1120	mg/kg dry		13200			52.0	10

Batch: BHB3375 - SW-7471

MDL Check (BHB3375-MRL1)

Prepared & Analyzed: 2/20/2024

Mercury	0.0103	U	0.0199	mg/kg wet	0.00995	104
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Matrix Spike (BHB3375-MS1)

Source: 24B3114-01

Prepared & Analyzed: 2/20/2024

Mercury	1.82		0.134	mg/kg dry	0.334	1.52	89.9	80-120
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27316 Spectrum Way
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Reported:
03/18/2024 08:53

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB3375 - SW-7471 (Continued)										
Matrix Spike (BHB3375-MS2)										
			Source: 24B0869-22			Prepared & Analyzed: 2/20/2024				
Mercury	0.448	J1	0.0201	mg/kg dry	0.251	0.128	128	80-120		
Matrix Spike Dup (BHB3375-MSD1)										
			Source: 24B3114-01			Prepared & Analyzed: 2/20/2024				
Mercury	1.74	J1	0.134	mg/kg dry	0.334	1.52	64.1	80-120	4.84	20
Matrix Spike Dup (BHB3375-MSD2)										
			Source: 24B0869-22			Prepared & Analyzed: 2/20/2024				
Mercury	0.447	J1	0.0201	mg/kg dry	0.251	0.128	127	80-120	0.179	20

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Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB2736 - Percent Solids										
Blank (BHB2736-BLK1)										
% Solids	<0.100	U	0.100	%						
Prepared: 2/15/2024 Analyzed: 2/16/2024										
Duplicate (BHB2736-DUP1)										
Source: 24B3636-03										
% Solids	1.40		0.100	%		1.40			0.0849	20
Prepared: 2/15/2024 Analyzed: 2/16/2024										
Duplicate (BHB2736-DUP2)										
Source: 24B0769-07										
% Solids	1.09		0.100	%		1.09			0.238	20
Prepared: 2/15/2024 Analyzed: 2/16/2024										
Reference (BHB2736-SRM1)										
% Solids	0.353		0.100	%	0.350		101	78.9-118		
Prepared: 2/15/2024 Analyzed: 2/16/2024										
Batch: BHB2898 - Solid Anions No Prep										
Duplicate (BHB2898-DUP1)										
Source: 24B3587-01										
Nitrate as N	10600		243	mg/kg dry		11100			5.15	15
Prepared & Analyzed: 2/16/2024										
MRL Check (BHB2898-MRL1)										
Nitrate as N	0.109	U	0.125	mg/kg wet	0.100		109	50-150		
Prepared & Analyzed: 2/16/2024										
Matrix Spike (BHB2898-MS1)										
Source: 24B3587-01										
Nitrate as N	10800	J1	270	mg/kg dry	173	11100	NR	80-120		
Prepared & Analyzed: 2/16/2024										
Batch: BHB3443 - TKN T										
Blank (BHB3443-BLK1)										
Ammonia as N	<10.0	U	10.0	mg/kg wet						
Prepared: 2/20/2024 Analyzed: 2/21/2024										

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03/18/2024 08:53

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHB3443 - TKN T (Continued)

LCS (BHB3443-BS1)

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	95.9		9.99	mg/kg wet	99.9		96.0	85-115		
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Duplicate (BHB3443-DUP1)

Source: 24A5242-16

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	142	J1	15.2	mg/kg dry		81.1			54.9	20
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MRL Check (BHB3443-MRL1)

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	9.79	U	9.99	mg/kg wet	9.99		98.0	50-150		
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Matrix Spike (BHB3443-MS1)

Source: 24A5242-16

Prepared: 2/20/2024 Analyzed: 2/21/2024

Ammonia as N	255		15.2	mg/kg dry	152	81.1	114	85-115		
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Batch: BHB3684 - TKN T

Blank (BHB3684-BLK1)

Prepared: 2/21/2024 Analyzed: 2/22/2024

Total Kjeldahl Nitrogen - (TKN)	<10.0	U	10.0	mg/kg wet						
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LCS (BHB3684-BS1)

Prepared: 2/21/2024 Analyzed: 2/22/2024

Total Kjeldahl Nitrogen - (TKN)	20.2		10.0	mg/kg wet	19.7		102	85-115		
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Duplicate (BHB3684-DUP1)

Source: 24B0941-55

Prepared: 2/21/2024 Analyzed: 2/22/2024

Total Kjeldahl Nitrogen - (TKN)	493		16.8	mg/kg dry		487			1.16	20
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MRL Check (BHB3684-MRL1)

Prepared: 2/21/2024 Analyzed: 2/22/2024

Total Kjeldahl Nitrogen - (TKN)	35.7		9.96	mg/kg wet	39.8		89.6	50-150		
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Matrix Spike (BHB3684-MS1)

Source: 24B0941-55

Prepared: 2/21/2024 Analyzed: 2/22/2024

Total Kjeldahl Nitrogen - (TKN)	671	J1	16.7	mg/kg dry	66.9	487	274	85-115		
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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
03/18/2024 08:53

Sample Condition Checklist

Work Order: 24B3587

Check Points

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

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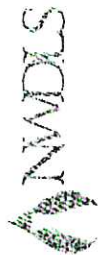
Municipal Operations and Consulting
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Oak Ridge, TX 77385

Reported:
03/18/2024 08:53

Term and Qualifier Definitions

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

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CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
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TCEQ T104704238-23-39



Page 1 of 1

24B3587

Lab PM : Deena Higginbotham	Project Name : MC MUD 112 - Non Potable-Sewage Sludge Annual		Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 104 Chestnut Meadow - Behind Welch Park off Jacobs Lake Blvd Conroe 77384 Combo 1984 Bo Brewer 281-850-2568 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL		

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B3587-01	Digester		2/15/2024 / 1154	S Grab	A HDPE IC 250mL B HDPE MET 250mL C HDPE WC 250mL D HDPE 250mL	Arsenic ICP 6010 4°C Cadmium ICP 6010 4°C Chromium ICP 6010 4°C Copper ICP 6010 4°C Hg-7471 4°C Lead ICP 6010 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	

Field Remarks:	Lab Preservation: H2SO4 (Circle and Write ID Below)	HNO3	NaOH	Other:
Sample Signature: <i>Deena White</i>	Date/Time: <i>2/15/24</i>	Received By: (Signature)	Date/Time	
Print Name: <i>Deena White</i>	Date/Time: <i>2/15/24</i>	Received By: (Signature)	Date/Time	
Affiliation: <i>NWD 15</i>	Date/Time: <i>2/15/24</i>	Received for Laboratory By: (Signature)	Date/Time: <i>2.15.24</i>	<i>WMC</i>
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:

City of Conroe

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

February 23, 2024

LABORATORY REPORT

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

Report ID: 20240223144848Sta..

RE: MC MUD 112 - Non Potable - Class B Annual

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

ENTERED FEB 29 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ & Solid

Passing



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: MC MUD 112 - Non Potable - Class B Annual
Project Number: 198
Project Manager: John Montgomery

Reported:
02/23/2024 14:48

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B3585-01

Sample Matrix: Solid
Date Collected: 02/15/2024 11:54
Collected by: Bruce White

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	10500	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	1550	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	6670	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	4030	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	3180	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	2410	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
Colilert-18	Fecal coliforms	7600	MPN/g TS dry	BHB2771	02/16/2024 09:22	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.0668	mg O ₂ /hr/g TS @ 20°C dry	BHB2795	02/15/2024 15:03	AKA
SM 2550 B	Temperature °C Field	20.6	°C	BHB2959	02/15/2024 11:54	BDW
SM 2540 G	% Solids	1.29	%	BHB2736	02/16/2024 08:42	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.

5134.29
7 135940



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: MC MUD 112 - Non Potable - Class B Annual
Project Number: 198
Project Manager: John Montgomery

Reported:
02/23/2024 14:48

Quality Control

General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB2736 - Percent Solids									
Blank (BHB2736-BLK1)									
% Solids	<0.100U	0.100	%						
Prepared: 2/15/2024 Analyzed: 2/16/2024									
Duplicate (BHB2736-DUP1)									
% Solids		0.100	%		1.40			0.0849	20
Prepared: 2/15/2024 Analyzed: 2/16/2024									
Duplicate (BHB2736-DUP2)									
% Solids		0.100	%		1.09			0.238	20
Prepared: 2/15/2024 Analyzed: 2/16/2024									
Reference (BHB2736-SRM1)									
% Solids		0.100	%	0.350		101	78.9-118		



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Municipal Operations and Consulting
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Oak Ridge, TX 77385

Project: MC MUD 112 - Non Potable - Class B Annual
Project Number: 198
Project Manager: John Montgomery

Reported:
02/23/2024 14:48

Quality Control (Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
---------	------------	--------------------	-------	----------------	------------------	----------------	-----	--------------

Batch: BHB2771 - FC Quantitray

Blank (BHB2771-BLK1)

Prepared: 2/15/2024 Analyzed: 2/16/2024

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Duplicate (BHB2771-DUP1)

Source: 24B3585-01

Prepared: 2/15/2024 Analyzed: 2/16/2024

Fecal coliforms

776 MPN/g TS
dry

10500

84.1

200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: MC MUD 112 - Non Potable - Class B Annual
Project Number: 198
Project Manager: John Montgomery

Reported:
02/23/2024 14:48

Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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TCEQ T104704238-23-39



Page 1 of 1

24B35585

Lab PM : Deena Higginbotham		Project Name : MC MUD 112 - Non Potable - Class B Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 104 Chestnut Meadow - Behind Welch Park off Jacobs Lake Blvd Conroe 77384. Combo 1984. Bo Brewer 281-850-2568 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B35585-01	Digester		2/15/2024 / 1154	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 20.6°C

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:	
Signature: <i>Deena Montgomery</i>		(Circle and Write ID Below)	
Reinquired By: (Signature)		Date/Time	Received By: (Signature)
Reinquired By: (Signature)		Date/Time	Received By: (Signature)
Reinquired To Lab By: (Signature)		Date/Time	Received for Laboratory By: (Signature)
Signature: <i>NWDLS</i>		Date/Time: 2/15/24 / 1150	Signature: <i>VMC</i>
Custody Seal: Yes / No	COC Label's Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No
Container Intact: Yes / No	Appropriate Containers: Yes / No	Covers Intact: Yes / No	Samples Accepted: Yes / No
City of Conroe		wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022	



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July 03, 2024

Laboratory Report

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

Report ID: 20240703131736JKW

MO 112
5/9/24

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

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

Sincerely,

Justin Wood For Deena Higginbotham
Director of Client Services

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ & Solid



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

Reported:
07/03/2024 13:17

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24E2669-01

Sample Matrix: Solid
Date Collected: 05/09/2024 9:30
Collected by: Aaron Bond

MC MUD 112 - Non Potable - Sludge Recollect

198

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	PCBs, Total	A	<687 U	ug/kg dry	10	19.6	687	BHE5144	06/11/2024 20:12	cdg
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	70.4%	60-140						06/11/2024 20:12	
SW-8082	Surrogate: Decachlorobiphenyl-surr	64.9%	60-140						06/11/2024 20:12	

General Chemistry

SM 2540 G	% Solids	A	0.856	%	1	0.100	0.100	BHE1567	05/10/2024 10:34	ENR
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TCLP

SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.00367	5.00	BHE4667	06/11/2024 12:41	TBB
SW-6010C	Barium	A	<100 U	mg/L	5	0.00625	100	BHE4667	06/11/2024 13:29	TBB
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.000423	1.00	BHE4667	06/11/2024 12:41	TBB
SW-6010C	Chromium	A	<5.00 U	mg/L	1	0.00131	5.00	BHE4667	06/11/2024 12:41	TBB
SW-8151	2,4-D	A	<10.0 C+, U	mg/L	2	0.000471	10.0	BHE2617	06/08/2024 14:09	cdg
SW-8151	Silvex (2,4,5-TP)	A	<1.00 C+, U	mg/L	2	0.000471	1.00	BHE2617	06/08/2024 14:09	cdg
SW-8151	Surrogate: DCAA-surr	118%	70-130						06/08/2024 14:09	
SW-7471B	Mercury	A	<0.200 U	mg/L	1	0.000200	0.200	BHE2247	06/03/2024 14:31	ISS
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.00341	5.00	BHE4667	06/11/2024 12:41	TBB
SW-8081	Chlordane (Total)	A	<0.0300 U	mg/L	1	2.97E-6	0.0300	BHE2338	06/12/2024 04:16	cdg
SW-8081	Endrin	N	<0.0200 U	mg/L	1	2.97E-6	0.0200	BHE2338	06/12/2024 04:16	cdg
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	A	<0.400 U	mg/L	1	2.97E-6	0.400	BHE2338	06/12/2024 04:16	cdg
SW-8081	Heptachlor	A	<0.00800 U	mg/L	1	2.97E-6	0.00800	BHE2338	06/12/2024 04:16	cdg
SW-8081	Heptachlor epoxide	A	<0.00800 U	mg/L	1	2.97E-6	0.00800	BHE2338	06/12/2024 04:16	cdg
SW-8081	Methoxychlor	A	<10.0 U	mg/L	1	2.97E-6	10.0	BHE2338	06/12/2024 04:16	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U	mg/L	1	2.97E-6	0.500	BHE2338	06/12/2024 04:16	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	98.6%	60-140						06/12/2024 04:16	
SW-8081	Surrogate: Decachlorobiphenyl-surr	96.0%	60-140						06/12/2024 04:16	
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.00531	1.00	BHE4667	06/11/2024 12:41	TBB
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00142	5.00	BHE4667	06/11/2024 17:32	TBB
SW-8270	2,4,5-Trichlorophenol	A	<400 U	mg/L	1	0.00248	400	BHE3331	06/04/2024 19:49	cdg
SW-8270	2,4,6-Trichlorophenol	A	<2.00 U	mg/L	1	0.00248	2.00	BHE3331	06/04/2024 19:49	cdg
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U	mg/L	1	0.00248	0.130	BHE3331	06/04/2024 19:49	cdg
SW-8270	2-Methylphenol	A	<200 U	mg/L	1	0.00248	200	BHE3331	06/04/2024 19:49	cdg
SW-8270	3,4-Methylphenol	A	<200 U	mg/L	1	0.00248	200	BHE3331	06/04/2024 19:49	cdg
SW-8270	Hexachlorobenzene	A	<0.130 U	mg/L	1	0.00248	0.130	BHE3331	06/04/2024 19:49	cdg
SW-8270	Hexachlorobutadiene	A	<0.500 U	mg/L	1	0.00248	0.500	BHE3331	06/04/2024 19:49	cdg
SW-8270	Hexachloroethane	A	<3.00 U	mg/L	1	0.00248	3.00	BHE3331	06/04/2024 19:49	cdg

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Oak Ridge, TX 77385

Reported:
07/03/2024 13:17

Sample Results
(Continued)

Client Sample ID: Digester (Continued)

Lab Sample ID: 24E2669-01

Sample Matrix: Solid

Date Collected: 05/09/2024 9:30

MC MUD 112 - Non Potable - Sludge Recollect

198

Collected by: Aaron Bond

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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TCLP (Continued)

SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00248	2.00	BHE3331	06/04/2024 19:49	cdg
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00248	100	BHE3331	06/04/2024 19:49	cdg
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00248	5.00	BHE3331	06/04/2024 19:49	cdg
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		125%	54.6-148					06/04/2024 19:49	
SW-8270	Surrogate: 2-Fluorophenol-surr		113%	55-152					06/04/2024 19:49	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		148% S	52.4-136					06/04/2024 19:49	
SW-8270	Surrogate: Nitrobenzene-d5-surr		136%	52-162					06/04/2024 19:49	
SW-8270	Surrogate: Phenol-d5-surr		125%	58.7-152					06/04/2024 19:49	
SW-8270	Surrogate: p-Terphenyl-d14-surr		147%	51.9-147					06/04/2024 19:49	

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Reported:
07/03/2024 13:17

Sample Results
(Continued)

Client Sample ID: Digester
Lab Sample ID: 24E5430-01

Sample Matrix: Solid
Date Collected: 05/23/2024 10:30
Collected by: Heath Reinke

MC MUD 112 - Non Potable - Sludge Recollect

198

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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General Chemistry

SM 2540 G	% Solids	A	1.72	%	1	0.100	0.100	BHE3901	05/24/2024 08:51	ENR
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TCLP

SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHE4933	05/30/2024 14:41	DDB
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHE4933	05/30/2024 14:41	DDB
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	10	0.00641	7.50	BHE4933	05/30/2024 14:41	DDB
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHE4933	05/30/2024 14:41	DDB
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHE4933	05/30/2024 14:41	DDB
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHE4933	05/30/2024 14:41	DDB
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHE4933	05/30/2024 14:41	DDB
SW-8260	Chloroform	A	<6.00U	mg/L	10	0.00688	6.00	BHE4933	05/30/2024 14:41	DDB
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	10	0.00703	0.700	BHE4933	05/30/2024 14:41	DDB
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	10	0.00744	0.500	BHE4933	05/30/2024 14:41	DDB
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	10	0.0130	0.200	BHE4933	05/30/2024 14:41	DDB
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		108%	70-130					05/30/2024 14:41	
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		98.2%	70-130					05/30/2024 14:41	
SW-8260	Surrogate: Toluene-d8-surr		99.6%	70-130					05/30/2024 14:41	
SW-8260	Surrogate: Dibromofluoromethane-surr		107%	70-130					05/30/2024 14:41	

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Reported:
07/03/2024 13:17

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE5144 - SW-3570										
Blank (BHE5144-BLK1)										
					Prepared: 5/31/2024 Analyzed: 6/11/2024					
Aroclor-1016 (PCB-1016)	<5.92	U	5.92	ug/kg wet						
Aroclor-1260 (PCB-1260)	<5.92	U	5.92	ug/kg wet						
PCBs, Total	<5.92	U	5.92	ug/kg wet						
Surrogate: 2,4,5,6			4.05	ug/kg wet	5.92		68.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.11	ug/kg wet	5.92		86.4	60-140		
LCS (BHE5144-BS1)										
					Prepared: 5/31/2024 Analyzed: 6/11/2024					
Aroclor-1016 (PCB-1016)	51.6		5.80	ug/kg wet	58.0		89.1	60-140		
Aroclor-1260 (PCB-1260)	56.4		5.80	ug/kg wet	58.0		97.2	60-140		
PCBs, Total	54.0		5.80	ug/kg wet	58.0		93.2	60-140		
Surrogate: 2,4,5,6			3.63	ug/kg wet	5.80		62.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.29	ug/kg wet	5.80		91.3	60-140		
LCS Dup (BHE5144-BSD1)										
					Prepared: 5/31/2024 Analyzed: 6/11/2024					
Aroclor-1016 (PCB-1016)	44.4		5.96	ug/kg wet	59.6		74.5	60-140	15.0	40
Aroclor-1260 (PCB-1260)	56.8		5.96	ug/kg wet	59.6		95.2	60-140	0.729	40
PCBs, Total	50.6		5.96	ug/kg wet	59.6		84.9	60-140	6.49	40
Surrogate: 2,4,5,6			3.78	ug/kg wet	5.96		63.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			4.66	ug/kg wet	5.96		78.1	60-140		
Matrix Spike (BHE5144-MS1)										
			Source: 24E3266-01		Prepared: 5/31/2024 Analyzed: 6/11/2024					
Aroclor-1016 (PCB-1016)	4970		603	ug/kg dry	6030	<603	82.5	60-140		
Aroclor-1260 (PCB-1260)	6080		603	ug/kg dry	6030	<603	101	60-140		
PCBs, Total	5530		603	ug/kg dry	6030	<603	91.7	60-140		
Surrogate: 2,4,5,6			517	ug/kg dry	603		85.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			500	ug/kg dry	603		83.0	60-140		
Matrix Spike Dup (BHE5144-MSD1)										
			Source: 24E3266-01		Prepared: 5/31/2024 Analyzed: 6/11/2024					
Aroclor-1016 (PCB-1016)	4500		600	ug/kg dry	6000	<600	75.0	60-140	10.1	40
Aroclor-1260 (PCB-1260)	5790		600	ug/kg dry	6000	<600	96.6	60-140	4.86	40
PCBs, Total	5140		600	ug/kg dry	6000	<600	85.8	60-140	7.17	40
Surrogate: 2,4,5,6			471	ug/kg dry	600		78.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			463	ug/kg dry	600		77.1	60-140		

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Reported:
07/03/2024 13:17

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE1567 - Percent Solids										
Blank (BHE1567-BLK1)										
% Solids	<0.100	U	0.100	%						
					Prepared: 5/9/2024 Analyzed: 5/10/2024					
Duplicate (BHE1567-DUP1)										
					Source: 24E2552-01					
% Solids	1.65		0.100	%		1.66			0.968	20
Duplicate (BHE1567-DUP2)										
					Source: 24E2751-05					
% Solids	1.57		0.100	%		1.57			0.231	20
Reference (BHE1567-SRM1)										
% Solids	0.377		0.100	%	0.350		108	78.9-118		
Batch: BHE3901 - Percent Solids										
Blank (BHE3901-BLK1)										
% Solids	<0.100	U	0.100	%						
					Prepared: 5/23/2024 Analyzed: 5/24/2024					
Duplicate (BHE3901-DUP1)										
					Source: 24E5035-07					
% Solids	1.42		0.100	%		1.42			0.219	20
Duplicate (BHE3901-DUP2)										
					Source: 24E5430-01					
% Solids	1.72		0.100	%		1.72			0.187	20
Reference (BHE3901-SRM1)										
% Solids	0.350		0.100	%	0.350		99.9	78.9-118		

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Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE2247 - SW-7471 TCLP

Duplicate (BHE2247-DUP1)

Source: 24E3012-01

Prepared & Analyzed: 6/3/2024

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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BHE1928-BLK1 (BHE2247-LBK1)

Prepared & Analyzed: 6/3/2024

Mercury	<0.200	U	0.200	mg/L						
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MDL Check (BHE2247-MRL1)

Prepared & Analyzed: 6/3/2024

Mercury	0.000254	U	0.200	mg/L	0.000200		127			
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Matrix Spike (BHE2247-MS1)

Source: 24E3012-01

Prepared & Analyzed: 6/3/2024

Mercury	0.00509	U	0.200	mg/L	0.00500	<0.200	102	80-120		
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Batch: BHE2338 - SW-3511

MB OCP (BHE2338-BLK1)

Prepared: 5/15/2024 Analyzed: 6/11/2024

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			9.58E-5	mg/L	0.000120		79.8	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000130	mg/L	0.000120		109	60-140		

TOX BS (BHE2338-BS1)

Prepared: 5/15/2024 Analyzed: 6/11/2024

Toxaphene (Chlorinated Camphene)	0.00123	U	0.500	mg/L	0.00120		102	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000149	mg/L	0.000120		124	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000122	mg/L	0.000120		102	60-140		



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07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE2338 - SW-3511 (Continued)										
OCP BS (BHE2338-BS2)										
Prepared: 5/15/2024 Analyzed: 6/11/2024										
Chlordane (Total)	0.000412	U	0.0300	mg/L	0.000480		85.9	60-140		
Endrin	0.000100	U	0.0200	mg/L	0.000120		83.7	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000112	U	0.400	mg/L	0.000120		93.5	60-140		
Heptachlor	0.000104	U	0.00800	mg/L	0.000120		86.7	60-140		
Heptachlor epoxide	0.000105	U	0.00800	mg/L	0.000120		87.3	60-140		
Methoxychlor	8.84E-5	U	10.0	mg/L	0.000120		73.7	60-140		
Surrogate: 2,4,5,6			9.59E-5	mg/L	0.000120		80.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000118	mg/L	0.000120		98.1	60-140		
TOX BSD (BHE2338-BSD1)										
Prepared: 5/15/2024 Analyzed: 6/11/2024										
Toxaphene (Chlorinated Camphene)	0.00113	U	0.500	mg/L	0.00120		94.4	60-140	8.07	40
Surrogate: 2,4,5,6			0.000129	mg/L	0.000120		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000129	mg/L	0.000120		108	60-140		
OCP BSD (BHE2338-BSD2)										
Prepared: 5/15/2024 Analyzed: 6/11/2024										
Chlordane (Total)	0.000414	U	0.0300	mg/L	0.000480		86.3	60-140	0.564	40
Endrin	0.000100	U	0.0200	mg/L	0.000120		83.7	60-140	0.103	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000108	U	0.400	mg/L	0.000120		90.3	60-140	3.49	40
Heptachlor	0.000102	U	0.00800	mg/L	0.000120		84.7	60-140	2.33	40
Heptachlor epoxide	0.000109	U	0.00800	mg/L	0.000120		90.5	60-140	3.57	40
Methoxychlor	0.000101	U	10.0	mg/L	0.000120		84.0	60-140	13.1	40
Surrogate: 2,4,5,6			9.50E-5	mg/L	0.000120		79.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140		
BHE1560-BLK1 (BHE2338-LBK1)										
Prepared: 5/15/2024 Analyzed: 6/12/2024										
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000445	mg/L	0.000599		74.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000225	mg/L	0.000599		37.6	60-140		

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TCEQ TX-C24-00185

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

Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE2338 - SW-3511 (Continued)										
BHE1928-BLK1 (BHE2338-LBK2)			Prepared: 5/15/2024 Analyzed: 6/12/2024							
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000467	mg/L	0.000596		78.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000359	mg/L	0.000596		60.2	60-140		
24E2039-01 MS (BHE2338-MS1)										
			Source: 24E2039-01		Prepared: 5/15/2024 Analyzed: 6/11/2024					
Chlordane (Total)	0.00208	U	0.0300	mg/L	0.00239	<0.0300	87.1	60-140		
Endrin	0.000581	U	0.0200	mg/L	0.000597	<0.0200	97.3	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000509	U	0.400	mg/L	0.000597	<0.400	85.3	60-140		
Heptachlor	0.000510	U	0.00800	mg/L	0.000597	<0.00800	85.5	60-140		
Heptachlor epoxide	0.000551	U	0.00800	mg/L	0.000597	<0.00800	92.3	60-140		
Methoxychlor	0.000504	U	10.0	mg/L	0.000597	<10.0	84.4	60-140		
Surrogate: 2,4,5,6			0.000452	mg/L	0.000597		75.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000532	mg/L	0.000597		89.2	60-140		
24E2039-01 MSD (BHE2338-MSD1)										
			Source: 24E2039-01		Prepared: 5/15/2024 Analyzed: 6/11/2024					
Chlordane (Total)	0.00203	U	0.0300	mg/L	0.00239	<0.0300	84.7	60-140	2.62	40
Endrin	0.000519	U	0.0200	mg/L	0.000598	<0.0200	86.8	60-140	11.2	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000568	U	0.400	mg/L	0.000598	<0.400	95.0	60-140	11.0	40
Heptachlor	0.000513	U	0.00800	mg/L	0.000598	<0.00800	85.7	60-140	0.469	40
Heptachlor epoxide	0.000538	U	0.00800	mg/L	0.000598	<0.00800	90.0	60-140	2.36	40
Methoxychlor	0.000472	U	10.0	mg/L	0.000598	<10.0	78.8	60-140	6.65	40
Surrogate: 2,4,5,6			0.000489	mg/L	0.000598		81.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000483	mg/L	0.000598		80.7	60-140		

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Reported:
07/03/2024 13:17

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE2617 - SW-3511										
MB HERB (BHE2617-BLK1)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.0286	mg/L	0.0250	114	70-130		
BS HERB (BHE2617-BS1)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
2,4-D	0.00541	U	10.0	mg/L	0.00515		105	70-130		
Silvex (2,4,5-TP)	0.00421	U	1.00	mg/L	0.00500		84	70-130		
Surrogate: DCAA-surr				0.0280	mg/L	0.0250	112	70-130		
BSD HERB (BHE2617-BSD1)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
2,4-D	0.00529	U	10.0	mg/L	0.00515		103	70-130	2	30
Silvex (2,4,5-TP)	0.00412	U	1.00	mg/L	0.00500		82	70-130	2	30
Surrogate: DCAA-surr				0.0296	mg/L	0.0250	118	70-130		
BHE1928-BLK1 (BHE2617-LBK1)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.118	mg/L	0.0981	120	70-130		
BHE2079-BLK1 (BHE2617-LBK2)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr				0.120	mg/L	0.0969	124	70-130		
24E3514-01 MS (BHE2617-MS1)										
					Prepared: 5/16/2024 Analyzed: 6/8/2024					
					Source: 24E3514-01					
2,4-D	0.00584	U	10.0	mg/L	0.00511	<10.0	114	70-130		
Silvex (2,4,5-TP)	0.00368	U	1.00	mg/L	0.00497	<1.00	74	70-130		
Surrogate: DCAA-surr				0.0235	mg/L	0.0248	94	70-130		

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Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE2617 - SW-3511 (Continued)

24E3514-01 MSD (BHE2617-MSD1)

Source: 24E3514-01

Prepared: 5/16/2024 Analyzed: 6/8/2024

2,4-D	0.00571	U	10.0	mg/L	0.00509	<10.0	112	70-130	2	30
Silvex (2,4,5-TP)	0.00354	U	1.00	mg/L	0.00494	<1.00	72	70-130	4	30
Surrogate: DCAA-surr			0.0223	mg/L	0.0247		90	70-130		

Batch: BHE3331 - SW-3511

MB SV (BHE3331-BLK1)

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0138	mg/L	0.0100		138	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0248	mg/L	0.0200		124	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0289	mg/L	0.0200		144	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0130	mg/L	0.0100		130	52-162		
Surrogate: Phenol-d5-surr			0.0227	mg/L	0.0200		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0144	mg/L	0.0100		144	51.9-147		

BS SV (BHE3331-BS1)

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	0.0319	J1, U	400	mg/L	0.0200		159	60-140		
2,4,6-Trichlorophenol	0.0311	J1, U	2.00	mg/L	0.0200		155	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0162	J1, U	0.130	mg/L	0.0100		162	60-140		
2-Methylphenol	0.0293	J1, U	200	mg/L	0.0200		146	60-140		
3,4-Methylphenol	0.0523	L, U	200	mg/L	0.0400		131	60-140		
Hexachlorobenzene	0.0174	J1, U	0.130	mg/L	0.0100		174	60-140		
Hexachlorobutadiene	0.0110	U	0.500	mg/L	0.0100		110	60-140		
Hexachloroethane	0.0105	U	3.00	mg/L	0.0100		105	60-140		
Nitrobenzene	0.0162	J1, U	2.00	mg/L	0.0100		162	60-140		
Pentachlorophenol	0.0342	J1, U	100	mg/L	0.0200		171	36.8-149		
Pyridine	0.0359	U	5.00	mg/L	0.0500		71.9	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.0134	mg/L	0.0100		134	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0286	mg/L	0.0200		143	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0312	mg/L	0.0200		156	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0157	mg/L	0.0100		157	52-162		
Surrogate: Phenol-d5-surr			0.0295	mg/L	0.0200		148	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0132	mg/L	0.0100		132	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE3331 - SW-3511 (Continued)

BSD SV (BHE3331-BS01)

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	0.0305	J1, U	400	mg/L	0.0200		152	60-140	4.45	40
2,4,6-Trichlorophenol	0.0307	J1, U	2.00	mg/L	0.0200		154	60-140	1.19	40
2,4-Dinitrotoluene (2,4-DNT)	0.0170	J1, U	0.130	mg/L	0.0100		170	60-140	4.60	40
2-Methylphenol	0.0317	J1, U	200	mg/L	0.0200		158	60-140	7.91	40
3,4-Methylphenol	0.0570	J1, L, U	200	mg/L	0.0400		143	60-140	8.71	40
Hexachlorobenzene	0.0162	J1, U	0.130	mg/L	0.0100		162	60-140	7.04	40
Hexachlorobutadiene	0.00937	U	0.500	mg/L	0.0100		93.7	60-140	15.7	40
Hexachloroethane	0.0101	U	3.00	mg/L	0.0100		101	60-140	3.68	40
Nitrobenzene	0.0169	J1, U	2.00	mg/L	0.0100		169	60-140	4.38	40
Pentachlorophenol	0.0300	J1, U	100	mg/L	0.0200		150	36.8-149	12.9	40
Pyridine	0.0397	U	5.00	mg/L	0.0500		79.5	2.5-101	10.1	40
Surrogate: 2-Fluorobiphenyl-surr			0.0136	mg/L	0.0100		136	54.6-148		
Surrogate: 2-Fluorophenol-surr	S		0.0328	mg/L	0.0200		164	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0297	mg/L	0.0200		148	52.4-136		
Surrogate: Nitrobenzene-d5-surr	S		0.0179	mg/L	0.0100		179	52-162		
Surrogate: Phenol-d5-surr	S		0.0331	mg/L	0.0200		166	58.7-152		
Surrogate: p-Terphenyl-d14-surr	S		0.0167	mg/L	0.0100		167	51.9-147		

BHE1928-BLK1 (BHE3331-LBK1)

Prepared: 5/20/2024 Analyzed: 6/5/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00298	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0548	mg/L	0.0396		138	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0848	mg/L	0.0793		107	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.127	mg/L	0.0793		160	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0562	mg/L	0.0396		142	52-162		
Surrogate: Phenol-d5-surr			0.0897	mg/L	0.0793		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0550	mg/L	0.0396		139	51.9-147		

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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BHE3331 - SW-3511 (Continued)

MDL SV (BHE3331-MRL1)

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	0.00194	U	400	mg/L	0.00100		194		
2,4,6-Trichlorophenol	0.00159	U	2.00	mg/L	0.00100		159		
2,4-Dinitrotoluene (2,4-DNT)	0.000948	U	0.130	mg/L	0.000500		190		
2-Methylphenol	0.00190	U	200	mg/L	0.00100		190		
3,4-Methylphenol	0.00356	U	200	mg/L	0.00200		178		
Hexachlorobenzene	0.000725	U	0.130	mg/L	0.000500		145		
Hexachlorobutadiene	0.000447	U	0.500	mg/L	0.000500		89.4		
Hexachloroethane	0.000622	U	3.00	mg/L	0.000500		124		
Nitrobenzene	0.000743	U	2.00	mg/L	0.000500		149		
Pentachlorophenol	0.00159	U	100	mg/L	0.00100		159		
Pyridine	<5.00	J1, U	5.00	mg/L	0.00250				
Surrogate: 2-Fluorobiphenyl-surr	S		0.0159	mg/L	0.0100		159	54.6-148	
Surrogate: 2-Fluorophenol-surr	S		0.0307	mg/L	0.0200		153	55-152	
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0294	mg/L	0.0200		147	52.4-136	
Surrogate: Nitrobenzene-d5-surr	S		0.0167	mg/L	0.0100		167	52-162	
Surrogate: Phenol-d5-surr			0.0277	mg/L	0.0200		139	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0130	mg/L	0.0100		130	51.9-147	

24E2469-02 MS (BHE3331-MS1)

Source: 24E2469-02

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	0.0316	U	400	mg/L	0.0198	<400	159	44.9-171	
2,4,6-Trichlorophenol	0.0281	U	2.00	mg/L	0.0198	<2.00	142	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0151	J1, U	0.130	mg/L	0.00992	<0.130	153	50.3-144	
2-Methylphenol	0.0297	U	200	mg/L	0.0198	<200	150	17.3-182	
3,4-Methylphenol	0.0534	L, U	200	mg/L	0.0397	<200	135	43.4-188	
Hexachlorobenzene	0.0144	J1, U	0.130	mg/L	0.00992	<0.130	146	56.1-137	
Hexachlorobutadiene	0.0117	J1, U	0.500	mg/L	0.00992	<0.500	118	33.1-110	
Hexachloroethane	0.0118	J1, U	3.00	mg/L	0.00992	<3.00	119	36.2-106	
Nitrobenzene	0.0181	J1, L, U	2.00	mg/L	0.00992	<2.00	183	54.9-156	
Pentachlorophenol	0.0306	J1, U	100	mg/L	0.0198	<100	154	42.2-151	
Pyridine	0.0489	J1, U	5.00	mg/L	0.0496	<5.00	98.6	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.0133	mg/L	0.00992		135	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0288	mg/L	0.0198		145	55-152	
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0283	mg/L	0.0198		143	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0150	mg/L	0.00992		151	52-162	
Surrogate: Phenol-d5-surr			0.0276	mg/L	0.0198		139	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.00992		110	51.9-147	



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE3331 - SW-3511 (Continued)

24E2469-02 MSD (BHE3331-MSD1)

Source: 24E2469-02

Prepared: 5/20/2024 Analyzed: 6/4/2024

2,4,5-Trichlorophenol	0.0298	U	400	mg/L	0.0197	<400	152	44.9-171	5.55	40
2,4,6-Trichlorophenol	0.0302	J1, U	2.00	mg/L	0.0197	<2.00	153	34.7-143	7.14	40
2,4-Dinitrotoluene (2,4-DNT)	0.0162	J1, U	0.130	mg/L	0.00984	<0.130	165	50.3-144	6.93	40
2-Methylphenol	0.0294	U	200	mg/L	0.0197	0.000615	146	17.3-182	0.884	40
3,4-Methylphenol	0.0534	L, U	200	mg/L	0.0394	<200	136	43.4-188	0.0701	40
Hexachlorobenzene	0.0133	U	0.130	mg/L	0.00984	<0.130	135	56.1-137	8.39	40
Hexachlorobutadiene	0.0121	J1, U	0.500	mg/L	0.00984	<0.500	123	33.1-110	3.17	40
Hexachloroethane	0.0117	J1, U	3.00	mg/L	0.00984	<3.00	119	36.2-106	1.00	40
Nitrobenzene	0.0190	J1, L, U	2.00	mg/L	0.00984	<2.00	193	54.9-156	4.71	40
Pentachlorophenol	0.0303	J1, U	100	mg/L	0.0197	<100	154	42.2-151	0.709	40
Pyridine	0.0464	J1, U	5.00	mg/L	0.0492	<5.00	94.4	2-87.4	5.10	40
Surrogate: 2-Fluorobiphenyl-surr			0.0132	mg/L	0.00984		135	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0292	mg/L	0.0197		149	55-152		
Surrogate: 2,4,6-Tribromophenol-surr	S		0.0278	mg/L	0.0197		141	52.4-136		
Surrogate: Nitrobenzene-d5-surr	S		0.0162	mg/L	0.00984		164	52-162		
Surrogate: Phenol-d5-surr			0.0277	mg/L	0.0197		141	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0113	mg/L	0.00984		115	51.9-147		

Batch: BHE4667 - EPA 200.2 TCLP

Blank (BHE4667-BLK1)

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L

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27316 Spectrum Way
Oak Ridge, TX 77385

Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE4667 - EPA 200.2 TCLP (Continued)

LCS (BHE4667-BS1)

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	0.523	U	5.00	mg/L	0.500		105	80-120		
Barium	0.519	U	100	mg/L	0.500		104	80-120		
Cadmium	0.0525	U	1.00	mg/L	0.0500		105	80-120		
Chromium	0.259	U	5.00	mg/L	0.250		103	80-120		
Lead	0.260	U	5.00	mg/L	0.250		104	80-120		
Selenium	0.533	U	1.00	mg/L	0.500		107	80-120		
Silver	0.0527	U	5.00	mg/L	0.0500		105	80-120		

Duplicate (BHE4667-DUP1)

Source: 24E3012-01

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	0.0115	U	5.00	mg/L	0.0199				53.3	20
Barium	1.26	U	100	mg/L	1.29				2.65	20
Cadmium	0.000540	U	1.00	mg/L	<1.00				200	20
Chromium	<5.00	U	5.00	mg/L	<5.00					20
Lead	<5.00	U	5.00	mg/L	<5.00					20
Selenium	<1.00	U	1.00	mg/L	<1.00					20
Silver	<5.00	U	5.00	mg/L	<5.00					20

BHE1928-LBK1 (BHE4667-LBK1)

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	0.0136	U	5.00	mg/L						
Barium	0.863	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						

BHE1928-LBK1 (BHE4667-LBK2)

Prepared: 5/29/2024 Analyzed: 6/11/2024

Silver	<5.00	U	5.00	mg/L						
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Oak Ridge, TX 77385

Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE4667 - EPA 200.2 TCLP (Continued)

Matrix Spike (BHE4667-MS1)

Source: 24E3012-01

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	0.572	U	5.00	mg/L	0.500	0.0199	110	75-125		
Barium	1.89	U	100	mg/L	0.500	1.29	121	75-125		
Cadmium	0.0573	U	1.00	mg/L	0.0500	<1.00	115	75-125		
Chromium	0.261	U	5.00	mg/L	0.250	<5.00	105	75-125		
Lead	0.261	U	5.00	mg/L	0.250	<5.00	104	75-125		
Selenium	0.571	U	1.00	mg/L	0.500	<1.00	114	75-125		
Silver	0.0581	U	5.00	mg/L	0.0500	<5.00	116	75-125		

Post Spike (BHE4667-PS1)

Source: 24E3012-01

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	507			ug/L	500	19.4	97.5	80-120		
Barium	1720			ug/L	500	1260	92.4	80-120		
Cadmium	49.7			ug/L	50.0	0.205	98.9	80-120		
Chromium	233			ug/L	250	0.312	93.2	80-120		
Lead	228			ug/L	250	-0.107	91.3	80-120		
Selenium	498			ug/L	500	4.99	98.5	80-120		

Post Spike (BHE4667-PS2)

Source: 24E3012-01

Prepared: 5/29/2024 Analyzed: 6/11/2024

Silver	53.3			ug/L	50.0	0.497	106	80-120		
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Dilution Check (BHE4667-SRL1)

Source: 24E3012-01

Prepared: 5/29/2024 Analyzed: 6/11/2024

Arsenic	0.0506	U	5.00	mg/L		0.0199			87.1	10
Barium	1.29	U	100	mg/L		1.29			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

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Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHE4933 - EPA 624										
Blank (BHE4933-BLK1)					Prepared & Analyzed: 5/30/2024					
1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 1,2-Dichloroethane-d4-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: 4-Bromofluorobenzene-surr			50.8	ug/L	50.0		102	70-130		
Surrogate: Toluene-d8-surr			49.3	ug/L	50.0		98.5	70-130		
Surrogate: Dibromofluoromethane-surr			51.1	ug/L	50.0		102	70-130		
LCS (BHE4933-BS1)										
					Prepared & Analyzed: 5/30/2024					
1,1-Dichloroethylene	0.0400	U	0.700	mg/L	0.0500		80.0	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0378	U	0.500	mg/L	0.0500		75.6	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0405	U	7.50	mg/L	0.0500		81.1	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.368	U	200	mg/L	0.500		73.6	70-130		
Benzene	0.0395	U	0.500	mg/L	0.0500		79.1	70-130		
Carbon tetrachloride	0.0402	U	0.500	mg/L	0.0500		80.4	70-130		
Chlorobenzene	0.0394	U	100	mg/L	0.0500		78.9	70-130		
Chloroform	0.0316	U	6.00	mg/L	0.0500		63.2	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0395	U	0.700	mg/L	0.0500		79.1	70-130		
Trichloroethene (Trichloroethylene)	0.0406	U	0.500	mg/L	0.0500		81.2	70-130		
Vinyl chloride (Chloroethene)	0.0391	U	0.200	mg/L	0.0500		78.3	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			47.7	ug/L	50.0		95.5	70-130		
Surrogate: 4-Bromofluorobenzene-surr			51.3	ug/L	50.0		103	70-130		
Surrogate: Toluene-d8-surr			51.0	ug/L	50.0		102	70-130		
Surrogate: Dibromofluoromethane-surr			47.3	ug/L	50.0		94.5	70-130		

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Reported:
07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE4933 - EPA 624 (Continued)

LCS Dup (BHE4933-BSD1)

Prepared & Analyzed: 5/30/2024

1,1-Dichloroethylene	0.0401	U	0.700	mg/L	0.0500		80.3	70-130	0.308	30
1,2-Dichloroethane (Ethylene dichloride)	0.0393	U	0.500	mg/L	0.0500		78.5	70-130	3.81	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0388	U	7.50	mg/L	0.0500		77.7	70-130	4.28	30
2-Butanone (Methyl ethyl ketone, MEK)	0.390	U	200	mg/L	0.500		78.0	70-130	5.80	30
Benzene	0.0399	U	0.500	mg/L	0.0500		79.8	70-130	0.944	30
Carbon tetrachloride	0.0413	U	0.500	mg/L	0.0500		82.6	70-130	2.69	30
Chlorobenzene	0.0399	U	100	mg/L	0.0500		79.8	70-130	1.19	30
Chloroform	0.0324	U	6.00	mg/L	0.0500		64.8	70-130	2.54	30
Tetrachloroethylene (Perchloroethylene)	0.0399	U	0.700	mg/L	0.0500		79.7	70-130	0.824	30
Trichloroethene (Trichloroethylene)	0.0407	U	0.500	mg/L	0.0500		81.4	70-130	0.215	30
Vinyl chloride (Chloroethene)	0.0392	U	0.200	mg/L	0.0500		78.5	70-130	0.251	30
Surrogate: 1,2-Dichloroethane-d4-surr			48.5	ug/L	50.0		97.0	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.3	70-130		
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100	70-130		
Surrogate: Dibromofluoromethane-surr			48.0	ug/L	50.0		96.0	70-130		

BHE4832-BLK1 (BHE4933-LBK1)

Prepared & Analyzed: 5/30/2024

1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L						
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 1,2-Dichloroethane-d4-surr			53.3	ug/L	50.0		107	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.6	ug/L	50.0		99.2	70-130		
Surrogate: Toluene-d8-surr			49.8	ug/L	50.0		99.7	70-130		
Surrogate: Dibromofluoromethane-surr			53.4	ug/L	50.0		107	70-130		

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07/03/2024 13:17

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHE4933 - EPA 624 (Continued)

Matrix Spike (BHE4933-MS1)

Source: 24E1792-01

Prepared & Analyzed: 5/30/2024

1,1-Dichloroethylene	0.0464	U	0.700	mg/L	0.0500	<0.700	92.8	70-130		
1,2-Dichloroethane (Ethylene dichloride)	0.0429	U	0.500	mg/L	0.0500	<0.500	85.8	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0439	U	7.50	mg/L	0.0500	<7.50	87.9	70-130		
2-Butanone (Methyl ethyl ketone, MEK)	0.508	U	200	mg/L	0.500	<200	102	70-130		
Benzene	0.0449	U	0.500	mg/L	0.0500	<0.500	89.8	70-130		
Carbon tetrachloride	0.0430	U	0.500	mg/L	0.0500	<0.500	86.0	70-130		
Chlorobenzene	0.0446	U	100	mg/L	0.0500	<100	89.3	70-130		
Chloroform	0.0243	U	6.00	mg/L	0.0500	<6.00	48.5	70-130		
Tetrachloroethylene (Perchloroethylene)	0.0518	U	0.700	mg/L	0.0500	<0.700	104	70-130		
Trichloroethene (Trichloroethylene)	0.0460	U	0.500	mg/L	0.0500	<0.500	91.9	70-130		
Vinyl chloride (Chloroethene)	0.0446	U	0.200	mg/L	0.0500	<0.200	89.2	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			48.6	ug/L	50.0		97.1	70-130		
Surrogate: 4-Bromofluorobenzene-surr			49.1	ug/L	50.0		98.3	70-130		
Surrogate: Toluene-d8-surr			50.5	ug/L	50.0		101	70-130		
Surrogate: Dibromofluoromethane-surr			47.9	ug/L	50.0		95.8	70-130		

Matrix Spike Dup (BHE4933-MSD1)

Source: 24E1792-01

Prepared & Analyzed: 5/30/2024

1,1-Dichloroethylene	0.0465	U	0.700	mg/L	0.0500	<0.700	92.9	70-130	0.158	30
1,2-Dichloroethane (Ethylene dichloride)	0.0422	U	0.500	mg/L	0.0500	<0.500	84.5	70-130	1.50	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0442	U	7.50	mg/L	0.0500	<7.50	88.3	70-130	0.522	30
2-Butanone (Methyl ethyl ketone, MEK)	0.505	U	200	mg/L	0.500	<200	101	70-130	0.626	30
Benzene	0.0444	U	0.500	mg/L	0.0500	<0.500	88.9	70-130	1.02	30
Carbon tetrachloride	0.0404	U	0.500	mg/L	0.0500	<0.500	80.8	70-130	6.16	30
Chlorobenzene	0.0443	U	100	mg/L	0.0500	<100	88.5	70-130	0.833	30
Chloroform	0.0231	U	6.00	mg/L	0.0500	<6.00	46.1	70-130	4.99	30
Tetrachloroethylene (Perchloroethylene)	0.0529	U	0.700	mg/L	0.0500	<0.700	106	70-130	2.12	30
Trichloroethene (Trichloroethylene)	0.0457	U	0.500	mg/L	0.0500	<0.500	91.5	70-130	0.502	30
Vinyl chloride (Chloroethene)	0.0445	U	0.200	mg/L	0.0500	<0.200	89.0	70-130	0.138	30
Surrogate: 1,2-Dichloroethane-d4-surr			48.4	ug/L	50.0		96.8	70-130		
Surrogate: 4-Bromofluorobenzene-surr			50.2	ug/L	50.0		100	70-130		
Surrogate: Toluene-d8-surr			50.5	ug/L	50.0		101	70-130		
Surrogate: Dibromofluoromethane-surr			47.2	ug/L	50.0		94.5	70-130		

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Reported:
07/03/2024 13:17

Sample Condition Checklist

Work Order: 24E2669

Check Points

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

Work Order: 24E5430

Check Points

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

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Municipal Operations and Consulting
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Oak Ridge, TX 77385

Reported:
07/03/2024 13:17

Term and Qualifier Definitions

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

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Page 1 of 1

24E2669

Lab PM : Deena Higginbotham Municipal Operations and Consulting John Taylor 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Name : MC MUD 112 - Non Potable - Sludge Recollect Project Comments: 104 Chestnut Meadow - Behind Welch Park off Jacobs Lake Blvd Conroe 77384 Combo 1984 Bo Brewer 281-850-2568 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL						Schedule Comments:	
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results		
24E2669-01	Digester		5/9/2024 0930	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C HDPE 250mL D Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C			

Field Remarks:				Lab Preservation: H2SO4 HNO3 NaOH Other:					
Sampler (Signature)		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Print Name		Relinquished By: (Signature)		Date/Time		Received By: (Signature)		Date/Time	
Affiliation		Relinquished To Lab By: (Signature)		Date/Time		Received for Laboratory By: (Signature)		Date/Time	
Custody Seal: Yes / No		COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Received on Ice: Yes / No		Temperature: °C	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID:	

City of Conroe

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



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TCEQ TX-C24-00185



Page 1 of 1

24E5430

Lab PM : Deena Higginbotham		Project Name : MC MUD 112 - Non Potable - Sludge Recollect					
Municipal Operations and Consulting John Taylor 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 104 Chestnut Meadow - Behind Welch Park off Jacobs Lake Blvd Conroe 77384 Combo 1984 Bo Brewer 281-850-2568 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL				Schedule Comments:	
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
4E5430-01	Digester		5/23/2024 1030	S Grab	A HDPE 250mL B Glass VOA 60mL	TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:			
Sampler (Signature) <i>HWR</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Int Name <i>Heath Reinke</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Initiation <i>m028</i>	Relinquished To Lab By: (Signature) <i>HWR</i>	Date/Time <i>5-23-24</i>	Received for Laboratory By: (Signature)	Date/Time <i>5/23/24 1:54</i>	
Isody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: _____ °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID: _____	
City of Conroe					

wko_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



130 S. Trade Center Parkway, Conroe TX 77385
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TCEQ TX-C24-00086

May 06, 2024

LAB REPORT

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

Report ID: 20240506103511AEN

RE: North Park PUD - Non Potable-Sewage Sludge Annual

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

*Collection:
2/27/24*

ENTERED MAY 31 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ F/S ☐ & Solid



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

Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
Project Manager: John Taylor

Reported:
05/06/2024 10:35

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B5382-01
Sample Alias:

Sample Matrix: Solid
Date Collected: 02/27/2024 9:45
Collected by: Aaron Bond

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total										
SW-6010C	Arsenic	A	8.79	mg/kg dry	1	0.765	3.49	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Cadmium	A	0.660	mg/kg dry	1	0.0906	0.349	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Chromium	A	17.7	mg/kg dry	1	1.31	1.75	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Copper	A	286	mg/kg dry	20	7.45	69.7	BHD2160	05/02/2024 20:29	TBB
SW-7471B	Mercury	A	<0.210U	mg/kg dry	5	0.105	0.210	BHD0527	04/04/2024 14:41	ISS
SW-6010C	Lead	A	9.54	mg/kg dry	1	0.889	1.75	BHD2160	05/02/2024 20:00	TBB
SW-6010C	Molybdenum	A	10.1	mg/kg dry	1	1.75	1.75	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Nickel	A	18.9	mg/kg dry	1	0.471	1.75	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Potassium	A	4060	mg/kg dry	1	29.9	349	BHD2160	05/02/2024 20:00	TBB
SW-6010C	Selenium	A	7.64	mg/kg dry	1	1.36	3.49	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Total Phosphorus	A	14400	mg/kg dry	1	14.7	349	BHD2160	04/23/2024 13:20	TBB
SW-6010C	Zinc	A	1350	mg/kg dry	20	35.0	35.0	BHD2160	05/02/2024 20:29	TBB
General Chemistry										
EPA 350.2	Ammonia as N	A	4500H	mg/kg dry	1	1040	2090	BHD0894	04/05/2024 12:06	GIW
SW-9056A	Nitrate as N	A	10900	mg/kg dry	25	132	329	BHB4864	02/28/2024 16:23	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	58900H	mg/kg dry	1	2600	2600	BHD1474	04/09/2024 12:09	GIW
SM 2540 G	% Solids	A	0.951	%	1	0.100	0.100	BHB4625	02/28/2024 10:01	ENR



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27316 Spectrum Way
Oak Ridge, TX 77385

Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
Project Manager: John Taylor

Reported:
05/06/2024 10:35

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD0527 - SW-7471									
MDL Check (BHD0527-MRL1)									
Mercury	0.0118	U	0.0198	mg/kg wet	0.00988		119		
Matrix Spike (BHD0527-MS1)									
			Source: 24B5382-01			Prepared & Analyzed: 4/4/2024			
Mercury	0.552		0.210	mg/kg dry	0.526	0.128	80.6	80-120	
Matrix Spike (BHD0527-MS2)									
			Source: 24C1581-08			Prepared & Analyzed: 4/4/2024			
Mercury	0.432		0.0981	mg/kg dry	0.245	0.222	85.7	80-120	
Matrix Spike Dup (BHD0527-MSD1)									
			Source: 24B5382-01			Prepared & Analyzed: 4/4/2024			
Mercury	0.559		0.210	mg/kg dry	0.526	0.128	81.9	80-120	1.23 20
Matrix Spike Dup (BHD0527-MSD2)									
			Source: 24C1581-08			Prepared & Analyzed: 4/4/2024			
Mercury	0.460		0.0951	mg/kg dry	0.238	0.222	100	80-120	6.29 20

Batch: BHD2160 - SW-3050 for 6010

Blank (BHD2160-BLK1)									
					Prepared: 4/11/2024 Analyzed: 4/23/2024				
Arsenic	<0.0333	U	0.0333	mg/kg wet					
Cadmium	<0.00333	U	0.00333	mg/kg wet					
Chromium	<0.0167	U	0.0167	mg/kg wet					
Copper	<0.0333	U	0.0333	mg/kg wet					
Molybdenum	<0.0167	U	0.0167	mg/kg wet					
Nickel	<0.0167	U	0.0167	mg/kg wet					
Selenium	<0.0333	U	0.0333	mg/kg wet					
Total Phosphorus	<3.33	U	3.33	mg/kg wet					
Zinc	<0.0167	U	0.0167	mg/kg wet					



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Project: North Park PUD - Non Potable-Sewage Sludge Annual
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Reported:
05/06/2024 10:35

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	--------	------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------

Batch: BHD2160 - SW-3050 for 6010 (Continued)

Blank (BHD2160-BLK2)

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	<0.0167	U	0.0167	mg/kg wet						
Potassium	<3.33	U	3.33	mg/kg wet						

LCS (BHD2160-BS1)

Prepared: 4/11/2024 Analyzed: 4/23/2024

Arsenic	0.807		0.0333	mg/kg wet	0.833		96.8	80-120		
Cadmium	0.0816		0.00333	mg/kg wet	0.0833		97.9	80-120		
Chromium	0.404		0.0167	mg/kg wet	0.417		96.9	80-120		
Copper	0.809		0.0333	mg/kg wet	0.833		97.1	80-120		
Molybdenum	0.399		0.0167	mg/kg wet	0.417		95.7	80-120		
Nickel	0.404		0.0167	mg/kg wet	0.417		96.9	80-120		
Selenium	0.802		0.0333	mg/kg wet	0.833		96.2	80-120		
Total Phosphorus	81.0		3.33	mg/kg wet	83.3		97.2	80-120		
Zinc	0.416		0.0167	mg/kg wet	0.417		99.7	80-120		

LCS (BHD2160-BS2)

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	0.423		0.0167	mg/kg wet	0.417		101	80-120		
Potassium	84.2		3.33	mg/kg wet	83.3		101	80-120		

Matrix Spike (BHD2160-MS1)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 4/23/2024

Arsenic	56.2		1.99	mg/kg dry	49.9	8.26	96.0	75-125		
Cadmium	5.75		0.199	mg/kg dry	4.99	1.17	91.7	75-125		
Chromium	57.2		5.00	mg/kg dry	25.0	33.5	94.9	75-125		
Copper	1150		39.9	mg/kg dry	1050	209	90.1	75-125		
Molybdenum	32.6		1.00	mg/kg dry	25.0	11.9	83.0	75-125		
Nickel	43.6		1.00	mg/kg dry	25.0	23.3	81.3	75-125		
Selenium	53.1		1.99	mg/kg dry	49.9	4.08	98.2	75-125		
Total Phosphorus	22300		997	mg/kg dry	9980	13700	85.9	75-125		
Zinc	2040		50.0	mg/kg dry	1020	975	105	75-125		



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Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
Project Manager: John Taylor

Reported:
05/06/2024 10:35

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHD2160 - SW-3050 for 6010 (Continued)

Matrix Spike (BHD2160-MS2)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	58.2		5.00	mg/kg dry	25.0	36.0	89.0	75-125		
Potassium	8700		997	mg/kg dry	4990	4040	93.3	75-125		

Matrix Spike Dup (BHD2160-MSD1)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 4/23/2024

Arsenic	56.5		1.99	mg/kg dry	49.9	8.26	96.7	75-125	0.514	20
Cadmium	5.82		0.199	mg/kg dry	4.99	1.17	93.0	75-125	1.12	20
Chromium	55.5		5.00	mg/kg dry	25.0	33.5	88.0	75-125	3.04	20
Copper	1210		39.9	mg/kg dry	1050	209	95.6	75-125	4.86	20
Molybdenum	32.4		1.00	mg/kg dry	25.0	11.9	82.3	75-125	0.523	20
Nickel	43.3		1.00	mg/kg dry	25.0	23.3	80.2	75-125	0.646	20
Selenium	55.0		1.99	mg/kg dry	49.9	4.08	102	75-125	3.50	20
Total Phosphorus	21600		997	mg/kg dry	9980	13700	79.3	75-125	3.03	20
Zinc	1820		50.0	mg/kg dry	1020	975	82.2	75-125	11.9	20

Matrix Spike Dup (BHD2160-MSD2)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	65.9		5.00	mg/kg dry	25.0	36.0	120	75-125	12.3	20
Potassium	9840		997	mg/kg dry	4990	4040	116	75-125	12.2	20

Post Spike (BHD2160-PS1)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 4/23/2024

Arsenic	563			ug/L	500	78.2	97.0	80-120		
Cadmium	59.1			ug/L	50.0	11.1	96.0	80-120		
Chromium	611			ug/L	250	317	118	80-120		
Copper	2540	J1		ug/L	10500	1980	5.29	80-120		
Molybdenum	347			ug/L	250	112	93.9	80-120		
Nickel	461			ug/L	250	220	96.5	80-120		
Selenium	558			ug/L	500	38.6	104	80-120		
Total Phosphorus	183000	J1		ug/L	100000	130000	53.3	80-120		
Zinc	9140	J1		ug/L	10200	9230	NR	80-120		



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Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
Project Manager: John Taylor

Reported:
05/06/2024 10:35

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BHD2160 - SW-3050 for 6010 (Continued)

Post Spike (BHD2160-PS2)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	614			ug/L	250	341	109	80-120		
Potassium	88200			ug/L	50000	38300	99.8	80-120		

Dilution Check (BHD2160-SRL1)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 4/23/2024

Arsenic	10.9		9.99	mg/kg dry		8.26			27.3	10
Cadmium	1.16		0.999	mg/kg dry		1.17			1.15	10
Chromium	36.8		5.01	mg/kg dry		33.5			9.43	10
Copper	209		9.99	mg/kg dry		209			0.139	10
Molybdenum	12.8		5.01	mg/kg dry		11.9			7.93	10
Nickel	25.4		5.01	mg/kg dry		23.3			8.63	10
Selenium	<9.99	U	9.99	mg/kg dry		4.08			200	10
Total Phosphorus	13700		999	mg/kg dry		13700			0.139	10

Dilution Check (BHD2160-SRL2)

Source: 24D2493-02

Prepared: 4/11/2024 Analyzed: 5/2/2024

Lead	38.1		5.01	mg/kg dry		36.0			5.50	10
Potassium	4000		999	mg/kg dry		4040			1.05	10



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

Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
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Reported:
05/06/2024 10:35

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHB4625 - Percent Solids										
Blank (BHB4625-BLK1)										
						Prepared: 2/27/2024 Analyzed: 2/28/2024				
% Solids	<0.100	U	0.100	%						
Duplicate (BHB4625-DUP1)										
			Source: 24B5312-01			Prepared: 2/27/2024 Analyzed: 2/28/2024				
% Solids	2.00		0.100	%		1.99			0.536	10
Duplicate (BHB4625-DUP2)										
			Source: 24B5394-01			Prepared: 2/27/2024 Analyzed: 2/28/2024				
% Solids	1.50		0.100	%		1.51			0.477	20
Reference (BHB4625-SRM1)										
						Prepared: 2/27/2024 Analyzed: 2/28/2024				
% Solids	0.386		0.100	%	0.350		110	78.9-118		
Batch: BHB4864 - Solid Anions No Prep										
Duplicate (BHB4864-DUP1)										
			Source: 24B5397-01			Prepared & Analyzed: 2/28/2024				
Nitrate as N	2870		225	mg/kg dry		2880			0.250	15
MRL Check (BHB4864-MRL1)										
						Prepared & Analyzed: 2/28/2024				
Nitrate as N	0.122	U	0.125	mg/kg wet	0.100		122	50-150		
Matrix Spike (BHB4864-MS1)										
			Source: 24B5397-01			Prepared & Analyzed: 2/28/2024				
Nitrate as N	3020		250	mg/kg dry	160	2880	87.4	80-120		
Batch: BHD0894 - TKN T										
Blank (BHD0894-BLK1)										
						Prepared: 4/4/2024 Analyzed: 4/5/2024				
Ammonia as N	<9.98	U	9.98	mg/kg wet						



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Project: North Park PUD - Non Potable-Sewage Sludge Annual
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Reported:
05/06/2024 10:35

Quality Control (Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BHD0894 - TKN T (Continued)

LCS (BHD0894-BS1)

Prepared: 4/4/2024 Analyzed: 4/5/2024

Ammonia as N	94.7		9.98	mg/kg wet	99.8		94.9	85-115	
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Duplicate (BHD0894-DUP1)

Source: 24B5382-01

Prepared: 4/4/2024 Analyzed: 4/5/2024

Ammonia as N	5810	J1	2100	mg/kg dry		4500		25.4	20
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MRL Check (BHD0894-MRL1)

Prepared: 4/4/2024 Analyzed: 4/5/2024

Ammonia as N	8.66	U	9.98	mg/kg wet	9.98		86.8	50-150	
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Matrix Spike (BHD0894-MS1)

Source: 24B5382-01

Prepared: 4/4/2024 Analyzed: 4/5/2024

Ammonia as N	26000		2090	mg/kg dry	20900	4500	103	85-115	
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Batch: BHD1474 - TKN T

Blank (BHD1474-BLK1)

Prepared: 4/8/2024 Analyzed: 4/9/2024

Total Kjeldahl Nitrogen - (TKN)	<9.88	U	9.88	mg/kg wet					
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LCS (BHD1474-BS1)

Prepared: 4/8/2024 Analyzed: 4/9/2024

Total Kjeldahl Nitrogen - (TKN)	18.9		9.92	mg/kg wet	19.6		96.5	85-115	
---------------------------------	------	--	------	-----------	------	--	------	--------	--

Duplicate (BHD1474-DUP1)

Source: 24B5382-01

Prepared: 4/8/2024 Analyzed: 4/9/2024

Total Kjeldahl Nitrogen - (TKN)	57700		2600	mg/kg dry		58900		2.00	20
---------------------------------	-------	--	------	-----------	--	-------	--	------	----

Matrix Spike (BHD1474-MS1)

Source: 24B5382-01

Prepared: 4/8/2024 Analyzed: 4/9/2024

Total Kjeldahl Nitrogen - (TKN)	66900	J1	2550	mg/kg dry	10200	58900	78.4	85-115	
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Project: North Park PUD - Non Potable-Sewage Sludge Annual
Project Number: 80
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Reported:
05/06/2024 10:35

Sample Condition Checklist

Work Order: 24B5382

Check Points

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



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Term and Qualifier Definitions

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



CHAIN OF CUSTODY RECORD

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

TCEQ TX-C24-00086



Page 1 of 1

24B5382

Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Name : North Park PUD - Non Potable-Sewage Sludge Annual Project Comments: 22913 Imperial Valley Dr, Houston 77073 Combo 2006 Coy King 832-642-6053 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL	Schedule Comments:
--	--	--------------------

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B5382-01	Digester		0945 02.22.24	S Grab	A HDPE IC 250mL B HDPE MET 250mL C HDPE WC 250mL D HDPE 250mL	Arsenic ICP 6010 4°C Cadmium ICP 6010 4°C Chromium ICP 6010 4°C Copper ICP 6010 4°C Hg-7471 4°C Lead ICP 6010 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	

Field Remarks:		Preservation: H2SO4 HNO3 NaOH Other:
Sampler (Signature)	Relinquished By: (Signature)	Date/Time
Print Name	Relinquished By: (Signature)	Date/Time
Affiliation	Relinquished To: (Signature)	Date/Time
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Date/Time
Container Intact: Yes / No	Appropriate Containers: Yes / No	Date/Time
Appropriate Volume: Yes / No		Date/Time
Coolers Intact: Yes / No		Date/Time
Received on Ice: Yes / No		Date/Time
Samples Accepted: Yes / No		Date/Time
Temperature: °C		Date/Time
Thermometer ID:		Date/Time

Sprina South

wko_NWDLs_COC_noDate_LS version 4: 02/22/2021



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdsls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

March 04, 2024

LABORATORY REPORT

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

Report ID: 20240304120339DLH

RE: North Park PUD - Non Potable - Class B Annual

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

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

Sincerely,

Deena Higginbotham

Deena Higginbotham
Director of Client Services



ENTERED MAR 22 2024

- ☐ Sludge Manager
- ☒ Master Spreadsheet
 - ☐ TCLP
 - ☐ Metals
 - ☐ PCB
 - ☒ F/S
 - ☐ & Solid

pass



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Email: lab@nwdsls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: North Park PUD - Non Potable - Class B Annual
Project Number: 80
Project Manager: John Montgomery

Reported:
03/04/2024 12:03

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24B5380-01

Sample Matrix: Solid
Date Collected: 02/27/2024 9:45
Collected by: Aaron Bond

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	54800	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	60300	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	57700	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	71100	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	85100	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	44400	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
Colilert-18	Fecal coliforms	43100	MPN/g TS dry	BHB4639	02/28/2024 09:27	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.131	mg O ₂ /hr/g TS @ 20°C dry	BHB4630	02/27/2024 12:13	AKA
SM 2550 B	Temperature °C Field	21.6	°C	BHC0396	02/27/2024 09:45	BAR
SM 2540 G	% Solids	0.950	%	BHB4625	02/28/2024 10:01	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O₂/hr/g TS.

59,500
7 | 416,500



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: North Park PUD - Non Potable - Class B Annual

Project Number: 80

Project Manager: John Montgomery

Reported:

03/04/2024 12:03

Quality Control

General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHB4625 - Percent Solids								
Blank (BHB4625-BLK1)								
% Solids	<0.100U	0.100	%	Prepared: 02/27/2024 Analyzed: 02/28/2024				
Duplicate (BHB4625-DUP1)								
% Solids		0.100	%		1.99		0.536	10
Duplicate (BHB4625-DUP2)								
% Solids		0.100	%		1.51		0.477	20
Reference (BHB4625-SRM1)								
% Solids		0.100	%		0.350	110	78.9-118	



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27316 Spectrum Way
Oak Ridge, TX 77385

Project: North Park PUD - Non Potable - Class B Annual
Project Number: 80
Project Manager: John Montgomery
Reported:
03/04/2024 12:03

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Quality Control (Continued)

Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHB4639 - FC Quantitray								
Blank (BHB4639-BLK1)								
Fecal coliforms	<10.0U	10.0	MPN/g TS wet					
Prepared: 02/27/2024 Analyzed: 02/28/2024								
Duplicate (BHB4639-DUP1)								
Fecal coliforms		1050	MPN/g TS dry		54800		30.3	200
Source: 24B5380-01 Prepared: 02/27/2024 Analyzed: 02/28/2024								



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

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

Project: North Park PUD - Non Potable - Class B Annual

Project Number: 80

Project Manager: John Montgomery

Reported:

03/04/2024 12:03

Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe TX 77385
(936) 321-6060 - lab@nwdls.com
TCEQ T104704238-23-39



Page 1 of 1

24B5380

Lab PM : Deena Higginbotham	Project Name : North Park PUD - Non Potable - Class B Annual	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 22913 Imperial Valley Dr, Houston 77073 Combo 2006 Coy King 832-642-6053 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24B5380-01	Digester		2/27/2024 0845	S Grab	A HDPE 5150mL Na2S2O3 B HDPE 5150mL Na2S2O3 C HDPE 5150mL Na2S2O3 D HDPE 5150mL Na2S2O3 E HDPE 5150mL Na2S2O3 F HDPE 5150mL Na2S2O3 G HDPE 5150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 SOUR-2710 SOUR TS-2540 G TS-2540 G 4°C 4°C 4°C <10°C	Temp C Field 21.6

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other		Write ID Below	
Sampler (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	Relinquished By (Signature)
Print Name	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	Relinquished By (Signature)
Affiliation	Relinquished To Lab By (Signature)	Date/Time	Received for Laboratory By (Signature)	Date/Time	Relinquished To Lab By (Signature)
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Samples Accepted: Yes / No	Temperature
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Thermometer ID:	C	



130 S. Trade Center Parkway, Conroe TX 77385
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Email: lab@nwdls.com
www. NWDLS.com

July 03, 2024

Laboratory Report

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

Report ID: 20240703101339AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

*North Water
District
3/5/24*

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ Solid



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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Reported:
07/03/2024 10:13

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24C1567-01
North Park PUD - Non Potable - Sludge Recollect

Sample Matrix: Solid
Date Collected: 03/05/2024 9:37
Collected by: Carolyn Reese

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC										
SW-8082	Aroclor-1016 (PCB-1016)	A	<618U	ug/kg dry	10	20.7	618	BHC3024	03/28/2024 06:59	cdg
SW-8082	Aroclor-1221 (PCB-1221)	A	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1232 (PCB-1232)	A	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1242 (PCB-1242)	A	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1248 (PCB-1248)	A	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1254 (PCB-1254)	A	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1260 (PCB-1260)	A	<618U	ug/kg dry	10	22.3	618	BHC3024	03/28/2024 06:59	cdg
SW-8082	Aroclor-1262 (PCB-1262)	N	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	Aroclor-1268 (PCB-1268)	N	<618U	ug/kg dry	10	618	618	BHC3024	03/28/2024 06:59	KRB
SW-8082	PCBs, Total	A	<618U	ug/kg dry	10	17.6	618	BHC3024	03/28/2024 06:59	cdg
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		69.7%	60-140					03/28/2024 06:59	
SW-8082	Surrogate: Decachlorobiphenyl-surr		69.5%	60-140					03/28/2024 06:59	

General Chemistry

SM 2540 G	% Solids	A	0.948	%	1	0.100	0.100	BHC0695	03/06/2024 10:21	ENR
TCLP										
SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.00367	5.00	BHE3631	05/28/2024 17:03	TBB
SW-6010C	Barium	A	<100U	mg/L	5	0.00625	100	BHE3631	05/29/2024 10:22	TBB
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.000423	1.00	BHE3631	05/28/2024 17:03	TBB
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00131	5.00	BHE3631	05/29/2024 10:19	TBB
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BHC2219	03/16/2024 20:18	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BHC2219	03/16/2024 20:18	KRB
SW-8151	Surrogate: DCAA-surr		84%	70-130					03/16/2024 20:18	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BHC2033	03/13/2024 14:41	ISS
SW-6010C	Lead	A	<5.00U	mg/L	1	0.00341	5.00	BHE3631	05/28/2024 17:03	TBB
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BHC2446	03/19/2024 08:38	em
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BHC2446	03/19/2024 08:38	em
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BHC2446	03/19/2024 08:38	em
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 08:38	em
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHC2446	03/19/2024 08:38	em
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BHC2446	03/19/2024 08:38	em
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BHC2446	03/19/2024 08:38	em
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		99.4%	60-140					03/19/2024 08:38	
SW-8081	Surrogate: Decachlorobiphenyl-surr		35.9% S	60-140					03/19/2024 08:38	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.00531	1.00	BHE3631	05/28/2024 17:03	TBB

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



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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.nwdls.com
TCEQ TX-C24-00185

Reported:
07/03/2024 10:13

Sample Results (Continued)

Client Sample ID: Digester (Continued)
Lab Sample ID: 24C1567-01
North Park PUD - Non Potable - Sludge Recollect

Sample Matrix: Solid
Date Collected: 03/05/2024 9:37
Collected by: Carolyn Reese

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCPLP (Continued)										
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00142	5.00	BHE3631	05/28/2024 17:03	TBB
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BHC2126	03/19/2024 05:46	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 05:46	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 05:46	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHC2126	03/19/2024 05:46	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHC2126	03/19/2024 05:46	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BHC2126	03/19/2024 05:46	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHC2126	03/19/2024 05:46	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHC2126	03/19/2024 05:46	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHC2126	03/19/2024 05:46	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHC2126	03/19/2024 05:46	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		99.3%	54.6-148					03/19/2024 05:46	
SW-8270	Surrogate: 2-Fluorophenol-surr		109%	55-152					03/19/2024 05:46	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		123%	52.4-136					03/19/2024 05:46	
SW-8270	Surrogate: Nitrobenzene-d5-surr		112%	52-162					03/19/2024 05:46	
SW-8270	Surrogate: Phenol-d5-surr		90.4%	58.7-152					03/19/2024 05:46	
SW-8270	Surrogate: p-Terphenyl-d14-surr		99.0%	51.9-147					03/19/2024 05:46	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHC2440	03/14/2024 17:26	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHC2440	03/14/2024 17:26	EM
SW-8260	1,4-Dichlorobenzene	A	<7.50U	mg/L	10	0.00641	7.50	BHC2440	03/14/2024 17:26	EM
SW-8260	(p-Dichlorobenzene)									
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHC2440	03/14/2024 17:26	EM
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHC2440	03/14/2024 17:26	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHC2440	03/14/2024 17:26	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHC2440	03/14/2024 17:26	EM
SW-8260	Chloroform	A	<6.00B, U	mg/L	10	0.00688	6.00	BHC2440	03/14/2024 17:26	EM
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	10	0.00744	0.500	BHC2440	03/14/2024 17:26	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	10	0.0130	0.200	BHC2440	03/14/2024 17:26	EM
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		109%	70-130					03/14/2024 17:26	
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		103%	70-130					03/14/2024 17:26	
SW-8260	Surrogate: Toluene-d8-surr		102%	70-130					03/14/2024 17:26	
SW-8260	Surrogate: Dibromofluoromethane-surr		105%	70-130					03/14/2024 17:26	

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TCEQ TX-C24-00185

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

Reported:
07/03/2024 10:13

Sample Results (Continued)

Client Sample ID: Digester
Lab Sample ID: 24C1567-01RE1

Sample Matrix: Solid
Date Collected: 03/05/2024 9:37
Collected by: Carolyn Reese

North Park PUD - Non Potable - Sludge Recollect

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP											
SW-8270	Pyridine (Rerun)	A	<5.00U		mg/L	1	0.00250	5.00	BHC2126	03/23/2024 06:30	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr (Rerun)		103%		54.6-148					03/23/2024 06:30	
SW-8270	Surrogate: Nitrobenzene-d5-surr (Rerun)		108%		52-162					03/23/2024 06:30	
SW-8270	Surrogate: p-Terphenyl-d14-surr (Rerun)		85.5%		51.9-147					03/23/2024 06:30	
SW-8260	1,1-Dichloroethylene (Rerun)	A	<0.700U		mg/L	4	0.00340	0.700	BHC2757	03/15/2024 21:39	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride) (Rerun)	A	<0.500U		mg/L	4	0.00348	0.500	BHC2757	03/15/2024 21:39	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene) (Rerun)	A	<7.50U		mg/L	4	0.00256	7.50	BHC2757	03/15/2024 21:39	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK) (Rerun)	A	<200U		mg/L	4	0.0295	200	BHC2757	03/15/2024 21:39	EM
SW-8260	Benzene (Rerun)	A	<0.500U		mg/L	4	0.00242	0.500	BHC2757	03/15/2024 21:39	EM
SW-8260	Carbon tetrachloride (Rerun)	A	<0.500U		mg/L	4	0.00200	0.500	BHC2757	03/15/2024 21:39	EM
SW-8260	Chlorobenzene (Rerun)	A	<100U		mg/L	4	0.00290	100	BHC2757	03/15/2024 21:39	EM
SW-8260	Chloroform (Rerun)	A	<6.00U		mg/L	4	0.00275	6.00	BHC2757	03/15/2024 21:39	EM
SW-8260	Tetrachloroethylene (Perchloroethylene) (Rerun)	A	<0.700U		mg/L	4	0.00281	0.700	BHC2757	03/15/2024 21:39	EM
SW-8260	Trichloroethene (Trichloroethylene) (Rerun)	A	<0.500U		mg/L	4	0.00298	0.500	BHC2757	03/15/2024 21:39	EM
SW-8260	Vinyl chloride (Chloroethene) (Rerun)	A	<0.200U		mg/L	4	0.00520	0.200	BHC2757	03/15/2024 21:39	EM
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr (Rerun)		100%		70-130					03/15/2024 21:39	
SW-8260	Surrogate: 4-Bromofluorobenzene-surr (Rerun)		104%		70-130					03/15/2024 21:39	
SW-8260	Surrogate: Toluene-d8-surr (Rerun)		97.2%		70-130					03/15/2024 21:39	
SW-8260	Surrogate: Dibromofluoromethane-surr (Rerun)		104%		70-130					03/15/2024 21:39	

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Municipal Operations and Consulting
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Oak Ridge, TX 77385

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Tel: (936) 321-6060
Email: lab@nwdl.com
www. NWDLs.com
TCEQ TX-C24-00185

Reported:

07/03/2024 10:13

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHC3024 - SW-3570									
Blank (BHC3024-BLK1)									
Prepared: 3/18/2024 Analyzed: 3/28/2024									
Aroclor-1016 (PCB-1016)	<6.00	U	6.00	ug/kg wet					
Aroclor-1221 (PCB-1221)	<6.00	U	6.00	ug/kg wet					
Aroclor-1232 (PCB-1232)	<6.00	U	6.00	ug/kg wet					
Aroclor-1242 (PCB-1242)	<6.00	U	6.00	ug/kg wet					
Aroclor-1248 (PCB-1248)	<6.00	U	6.00	ug/kg wet					
Aroclor-1254 (PCB-1254)	<6.00	U	6.00	ug/kg wet					
Aroclor-1260 (PCB-1260)	<6.00	U	6.00	ug/kg wet					
Aroclor-1262 (PCB-1262)	<6.00	U	6.00	ug/kg wet					
Aroclor-1268 (PCB-1268)	<6.00	U	6.00	ug/kg wet					
PCBs, Total	<6.00	U	6.00	ug/kg wet					
Surrogate: 2,4,5,6	S		3.27	ug/kg wet	6.00		54.6		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			3.74	ug/kg wet	6.00		62.4		60-140

LCS (BHC3024-BS1)									
Prepared: 3/18/2024 Analyzed: 3/28/2024									
Aroclor-1016 (PCB-1016)	42.8		6.00	ug/kg wet	60.0		71.4		60-140
Aroclor-1260 (PCB-1260)	44.2		6.00	ug/kg wet	60.0		73.6		60-140
PCBs, Total	42.6		6.00	ug/kg wet	60.0		71.0		60-140
Surrogate: 2,4,5,6	S		3.18	ug/kg wet	6.00		52.9		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr	S		3.56	ug/kg wet	6.00		59.4		60-140

LCS Dup (BHC3024-BSD1)									
Prepared: 3/18/2024 Analyzed: 3/28/2024									
Aroclor-1016 (PCB-1016)	46.9		6.00	ug/kg wet	60.0		78.2		60-140
Aroclor-1260 (PCB-1260)	49.8		6.00	ug/kg wet	60.0		83.0		60-140
PCBs, Total	47.4		6.00	ug/kg wet	60.0		79.0		60-140
Surrogate: 2,4,5,6			3.79	ug/kg wet	6.00		63.2		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			4.40	ug/kg wet	6.00		73.3		60-140

Matrix Spike (BHC3024-MS1)									
Source: 24B4417-01									
Prepared: 3/18/2024 Analyzed: 3/28/2024									
Aroclor-1016 (PCB-1016)	2760		331	ug/kg dry	3310	<331	83.2		60-140
Aroclor-1260 (PCB-1260)	2850		331	ug/kg dry	3310	<331	86.1		60-140
PCBs, Total	2750		331	ug/kg dry	3310	<331	83.0		60-140
Surrogate: 2,4,5,6			244	ug/kg dry	331		73.6		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			253	ug/kg dry	331		76.5		60-140



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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	Limit
Batch: BHC3024 - SW-3570 (Continued)										
Matrix Spike Dup (BHC3024-MSD1)										
Source: 24B4417-01										
Prepared: 3/18/2024 Analyzed: 3/28/2024										
Aroclor-1016 (PCB-1016)	2840		333	ug/kg dry	3330	<333	85.2	60-140	2.94	40
Aroclor-1260 (PCB-1260)	3000		333	ug/kg dry	3330	<333	90.1	60-140	5.15	40
PCBs, Total	2870		333	ug/kg dry	3330	<333	86.0	60-140	4.14	40
Surrogate: 2,4,5,6			258	ug/kg dry	333		77.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			264	ug/kg dry	333		79.1	60-140		

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Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BHC0695 - Percent Solids										
Blank (BHC0695-BLK1)										
% Solids	<0.100	U	0.100	%	Prepared: 3/5/2024 Analyzed: 3/6/2024					
Duplicate (BHC0695-DUP1)										
% Solids	0.850		Source: 24C1482-06 0.100	%		0.871			2.41	20
Duplicate (BHC0695-DUP2)										
% Solids	1.52		Source: 24C1652-02 0.100	%		1.52			0.143	20
Reference (BHC0695-SRM1)										
% Solids	0.394		0.100	%	0.350	Prepared: 3/5/2024 Analyzed: 3/6/2024				
					113	78.9-118				



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Quality Control (Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2033 - SW-7471 TCLP									
Duplicate (BHC2033-DUP1)									
Mercury	<0.200	U	Source: 24C1750-01 0.200	mg/L	Prepared & Analyzed: 3/13/2024	<0.200			200
BHC1642-BLK1 (BHC2033-LBK1)									
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 3/13/2024				
MDL Check (BHC2033-MRL1)									
Mercury	0.000304	U	0.200	mg/L	Prepared & Analyzed: 3/13/2024 0.000200		152		
Matrix Spike (BHC2033-MS1)									
Mercury	0.00488	U	Source: 24C1750-01 0.200	mg/L	Prepared & Analyzed: 3/13/2024 0.00500	<0.200	97.7	80-120	
Batch: BHC2126 - SW-3511									
MB SV (BHC2126-BLK1)									
2,4,5-Trichlorophenol	<400	U	400	mg/L	Prepared: 3/13/2024	Analyzed: 3/18/2024			
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L					
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L					
2-Methylphenol	<200	U	200	mg/L					
3,4-Methylphenol	<200	U	200	mg/L					
Hexachlorobenzene	<0.130	U	0.130	mg/L					
Hexachlorobutadiene	<0.500	U	0.500	mg/L					
Hexachloroethane	<3.00	U	3.00	mg/L					
Nitrobenzene	<2.00	U	2.00	mg/L					
Pentachlorophenol	<100	U	100	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.00941	mg/L	0.00980		96.0	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0205	mg/L	0.0196		104	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0239	mg/L	0.0196		122	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00929	mg/L	0.00980		94.8	52-162	
Surrogate: Phenol-d5-surr			0.0185	mg/L	0.0196		94.2	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.00980		111	51.9-147	



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Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2126 - SW-3511 (Continued)									
Blank (BHC2126-BLK2)									
Prepared: 3/13/2024 Analyzed: 3/22/2024									
Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.00978	mg/L	0.00980		99.8	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.00967	mg/L	0.00980		98.6	52-162	
Surrogate: p-Terphenyl-d14-surr			0.00934	mg/L	0.00980		95.3	51.9-147	

BS SV (BHC2126-BS1)

Prepared: 3/13/2024 Analyzed: 3/18/2024									
2,4,5-Trichlorophenol	0.0195	U	400	mg/L	0.0200		97.3	60-140	
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0200		107	60-140	
2,4-Dinitrotoluene (2,4-DNT)	0.00898	U	0.130	mg/L	0.0100		89.8	60-140	
2-Methylphenol	0.0194	U	200	mg/L	0.0200		97.2	60-140	
3,4-Methylphenol	0.0343	U	200	mg/L	0.0400		85.8	60-140	
Hexachlorobenzene	0.0107	U	0.130	mg/L	0.0100		107	60-140	
Hexachlorobutadiene	0.00788	U	0.500	mg/L	0.0100		78.8	60-140	
Hexachloroethane	0.00812	U	3.00	mg/L	0.0100		81.3	60-140	
Nitrobenzene	0.0111	U	2.00	mg/L	0.0100		111	60-140	
Pentachlorophenol	0.0236	U	100	mg/L	0.0200		118	36.8-149	
Surrogate: 2-Fluorobiphenyl-surr			0.00918	mg/L	0.0100		91.8	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0214	mg/L	0.0200		107	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0204	mg/L	0.0200		102	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00928	mg/L	0.0100		92.8	52-162	
Surrogate: Phenol-d5-surr			0.0202	mg/L	0.0200		101	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00922	mg/L	0.0100		92.2	51.9-147	

LCS (BHC2126-BS2)

Prepared: 3/13/2024 Analyzed: 3/22/2024									
Pyridine	0.00472	U	5.00	mg/L	0.0500		9.45	2.5-101	
Surrogate: 2-Fluorobiphenyl-surr			0.00893	mg/L	0.0100		89.3	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.00936	mg/L	0.0100		93.6	52-162	
Surrogate: p-Terphenyl-d14-surr			0.00897	mg/L	0.0100		89.8	51.9-147	



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Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	Limit
Batch: BHC2126 - SW-3511 (Continued)										
BSD SV (BHC2126-BS01)										
2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0198		60-140	109	10.0	40
2,4,6-Trichlorophenol	0.0214	U	2.00	mg/L	0.0198		60-140	108	0.0564	40
2,4-Dinitrotoluene (2,4-DNT)	0.00977	U	0.130	mg/L	0.00988		60-140	98.9	8.48	40
2-Methylphenol	0.0198	U	200	mg/L	0.0198		60-140	100	2.04	40
3,4-Methylphenol	0.0354	U	200	mg/L	0.0395		60-140	89.6	3.25	40
Hexachlorobenzene	0.0112	U	0.130	mg/L	0.00988		60-140	114	5.26	40
Hexachlorobutadiene	0.00672	U	0.500	mg/L	0.00988		60-140	68.0	15.9	40
Hexachloroethane	0.00681	U	3.00	mg/L	0.00988		60-140	68.9	17.5	40
Nitrobenzene	0.0103	U	2.00	mg/L	0.00988		60-140	105	7.24	40
Pentachlorophenol	0.0256	U	100	mg/L	0.0198		36.8-149	130	8.39	40
Surrogate: 2-Fluorobiphenyl-surr			0.00963	mg/L	0.00988		54.6-148	97.4		
Surrogate: 2-Fluorophenol-surr			0.0209	mg/L	0.0198		55-152	106		
Surrogate: 2,4,6-Tribromophenol-surr			0.0214	mg/L	0.0198		52.4-136	108		
Surrogate: Nitrobenzene-d5-surr			0.00991	mg/L	0.00988		52-162	100		
Surrogate: Phenol-d5-surr			0.0204	mg/L	0.0198		58.7-152	103		
Surrogate: p-Terphenyl-d14-surr			0.0100	mg/L	0.00988		51.9-147	101		

LCS Dup (BHC2126-BS02)

Pyridine	0.00352	U	5.00	mg/L	0.0494		2.5-101	7.11	29.3	40
Surrogate: 2-Fluorobiphenyl-surr			0.00926	mg/L	0.00988		54.6-148	93.7		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.00988		52-162	104		
Surrogate: p-Terphenyl-d14-surr			0.00802	mg/L	0.00988		51.9-147	81.1		

BHC1341-BLK1 (BHC2126-LBK1)

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0409	mg/L	0.0400		54.6-148	102		
Surrogate: 2-Fluorophenol-surr			0.0963	mg/L	0.0800		55-152	120		
Surrogate: 2,4,6-Tribromophenol-surr			0.0953	mg/L	0.0800		52.4-136	119		
Surrogate: Nitrobenzene-d5-surr			0.0476	mg/L	0.0400		52-162	119		
Surrogate: Phenol-d5-surr			0.0741	mg/L	0.0800		58.7-152	92.6		
Surrogate: p-Terphenyl-d14-surr			0.0441	mg/L	0.0400		51.9-147	110		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BHC2126 - SW-3511 (Continued)									
BHC1642-BLK1 (BHC2126-LBK2)									
2,4,5-Trichlorophenol	<400	U	400	mg/L					
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L					
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L					
2-Methylphenol	<200	U	200	mg/L					
3,4-Methylphenol	<200	U	200	mg/L					
Hexachlorobenzene	<0.130	U	0.130	mg/L					
Hexachlorobutadiene	<0.500	U	0.500	mg/L					
Hexachloroethane	<3.00	U	3.00	mg/L					
Nitrobenzene	<2.00	U	2.00	mg/L					
Pentachlorophenol	<100	U	100	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.0386	mg/L	0.0400		96.4	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0827	mg/L	0.0800		103	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.106	mg/L	0.0800		132	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0471	mg/L	0.0400		118	52-162	
Surrogate: Phenol-d5-surr			0.0682	mg/L	0.0800		85.2	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0452	mg/L	0.0400		113	51.9-147	

BHC1341-BLK1 (BHC2126-LBK3)

Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.0417	mg/L	0.0400		104	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0420	mg/L	0.0400		105	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		81.0	51.9-147	

BHC1642-BLK1 (BHC2126-LBK4)

Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.0473	mg/L	0.0400		118	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0428	mg/L	0.0400		107	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0320	mg/L	0.0400		80.0	51.9-147	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHC2126 - SW-3511 (Continued)									
Source: 24C2028-01									
Prepared: 3/13/2024 Analyzed: 3/18/2024									
24C2028-01 MS (BHC2126-MS1)									
2,4,5-Trichlorophenol	0.120	U	400	mg/L	0.0800	<400	149	44.9-171	
2,4,6-Trichlorophenol	0.102	U	2.00	mg/L	0.0800	<2.00	127	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0529	U	0.130	mg/L	0.0400	<0.130	132	50.3-144	
2-Methylphenol	0.0833	U	200	mg/L	0.0800	<200	104	17.3-182	
3,4-Methylphenol	0.156	L, U	200	mg/L	0.160	<200	97.2	43.4-188	
Hexachlorobenzene	0.0392	U	0.130	mg/L	0.0400	<0.130	98.1	56.1-137	
Hexachlorobutadiene	0.0312	U	0.500	mg/L	0.0400	<0.500	78.1	33.1-110	
Hexachloroethane	0.0320	U	3.00	mg/L	0.0400	<3.00	80.1	36.2-106	
Nitrobenzene	0.0487	U	2.00	mg/L	0.0400	<2.00	122	54.9-156	
Pentachlorophenol	0.103	U	100	mg/L	0.0800	<100	129	42.2-151	
Surrogate: 2-Fluorobiphenyl-surr			0.0392	mg/L	0.0400		98.0	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0895	mg/L	0.0800		112	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0825	mg/L	0.0800		103	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0403	mg/L	0.0400		101	52-162	
Surrogate: Phenol-d5-surr			0.0901	mg/L	0.0800		113	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0488	mg/L	0.0400		122	51.9-147	

Matrix Spike (BHC2126-MS2)

Source: 24C2028-01RE1									
Prepared: 3/13/2024 Analyzed: 3/22/2024									
Pyridine	0.0417	U	5.00	mg/L	0.200	<5.00	20.9	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.0383	mg/L	0.0400		95.9	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0427	mg/L	0.0400		107	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0375	mg/L	0.0400		93.6	51.9-147	

24C2028-01 MSD (BHC2126-MSD1)

Source: 24C2028-01									
Prepared: 3/13/2024 Analyzed: 3/18/2024									
2,4,5-Trichlorophenol	0.0984	U	400	mg/L	0.0800	<400	123	44.9-171	40
2,4,6-Trichlorophenol	0.0958	U	2.00	mg/L	0.0800	<2.00	120	34.7-143	40
2,4-Dinitrotoluene (2,4-DNT)	0.0517	U	0.130	mg/L	0.0400	<0.130	129	50.3-144	40
2-Methylphenol	0.0871	U	200	mg/L	0.0800	<200	109	17.3-182	40
3,4-Methylphenol	0.148	L, U	200	mg/L	0.160	<200	92.4	43.4-188	40
Hexachlorobenzene	0.0383	U	0.130	mg/L	0.0400	<0.130	95.8	56.1-137	40
Hexachlorobutadiene	0.0322	U	0.500	mg/L	0.0400	<0.500	80.5	33.1-110	40
Hexachloroethane	0.0277	U	3.00	mg/L	0.0400	<3.00	69.3	36.2-106	40
Nitrobenzene	0.0505	U	2.00	mg/L	0.0400	<2.00	126	54.9-156	40
Pentachlorophenol	0.104	U	100	mg/L	0.0800	<100	130	42.2-151	40
Surrogate: 2-Fluorobiphenyl-surr			0.0398	mg/L	0.0400		99.6	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0804	mg/L	0.0800		100	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0857	mg/L	0.0800		107	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0372	mg/L	0.0400		93.1	52-162	
Surrogate: Phenol-d5-surr			0.0839	mg/L	0.0800		105	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0444	mg/L	0.0400		111	51.9-147	



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07/03/2024 10:13

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHC22126 - SW-3511 (Continued)									
Matrix Spike Dup (BHC22126-MSD2)									
Source: 24C2028-01RE1 Prepared: 3/13/2024 Analyzed: 3/22/2024									
Pyridine	0.0453	U	5.00	mg/L	0.200	<5.00	22.6	2-87.4	8.09 40
Surrogate: 2-Fluorobiphenyl-surr			0.0388	mg/L	0.0400		97.0	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0432	mg/L	0.0400		108	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0324	mg/L	0.0400		80.9	51.9-147	

Batch: BHC22219 - SW-3511

Blank (BHC22219-BLK1)

2,4-D	<10.0	U	10.0	mg/L					
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0216	mg/L	0.0250		86	70-130	

Prepared: 3/13/2024 Analyzed: 3/16/2024

LCS (BHC22219-BS1)

2,4-D	0.00414	U	10.0	mg/L	0.00515		80	70-130	
Silvex (2,4,5-TP)	0.00425	U	1.00	mg/L	0.00500		85	70-130	
Surrogate: DCAA-surr			0.0217	mg/L	0.0250		87	70-130	

Prepared: 3/13/2024 Analyzed: 3/16/2024

LCS Dup (BHC22219-BSD1)

2,4-D	0.00418	U	10.0	mg/L	0.00515		81	70-130	1 30
Silvex (2,4,5-TP)	0.00418	U	1.00	mg/L	0.00500		84	70-130	2 30
Surrogate: DCAA-surr			0.0242	mg/L	0.0250		97	70-130	

Prepared: 3/13/2024 Analyzed: 3/16/2024

BHC1642-BLK1 (BHC22219-LBK1)

2,4-D	<10.0	U	10.0	mg/L					
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0896	mg/L	0.100		90	70-130	

Prepared: 3/13/2024 Analyzed: 3/16/2024



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC22219 - SW-3511 (Continued)									
BHB1341-BLK1 (BHC22219-LBK2)									
2,4-D	<10.0	U	10.0	mg/L	Prepared: 3/13/2024 Analyzed: 3/16/2024				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0932	mg/L	0.100		93		70-130
Matrix Spike (BHC22219-MS1)									
Source: 24C1678-01									
2,4-D	0.0161	U	10.0	mg/L	0.0206	<10.0	78		70-130
Silvex (2,4,5-TP)	0.0162	U	1.00	mg/L	0.0200	<1.00	81		70-130
Surrogate: DCAA-surr			0.0925	mg/L	0.100		92		70-130
Matrix Spike Dup (BHC22219-MSD1)									
Source: 24C1678-01									
2,4-D	0.0156	U	10.0	mg/L	0.0206	<10.0	76		70-130
Silvex (2,4,5-TP)	0.0157	U	1.00	mg/L	0.0200	<1.00	79	3	30
Surrogate: DCAA-surr			0.0941	mg/L	0.100		94	3	30

Batch: BHC2440 - EPA 624

Blank (BHC2440-BLK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L	Prepared & Analyzed: 3/14/2024				
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L					
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr			53.2	ug/L	50.0		106		70-130
Surrogate: 4-Bromofluorobenzene-surr			51.7	ug/L	50.0		103		70-130
Surrogate: Toluene-d8-surr			49.1	ug/L	50.0		98.3		70-130
Surrogate: Dibromofluoromethane-surr			53.4	ug/L	50.0		107		70-130



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Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)									
LCS (BHC2440-BS1)									
1,1-Dichloroethylene	0.0424	U	0.700	mg/L	Prepared & Analyzed: 3/14/2024				
1,2-Dichloroethane (Ethylene dichloride)	0.0433	U	0.500	mg/L	0.0500		84.9		70-130
1,4-Dichlorobenzene	0.0407	U	7.50	mg/L	0.0500		86.7		70-130
(p-Dichlorobenzene)							81.5		70-130
2-Butanone (Methyl ethyl ketone, MEK)	0.448	U	200	mg/L	0.500		89.7		70-130
Benzene	0.0420	U	0.500	mg/L	0.0500		84.1		70-130
Carbon tetrachloride	0.0426	U	0.500	mg/L	0.0500		85.2		70-130
Chlorobenzene	0.0412	U	100	mg/L	0.0500		82.4		70-130
Chloroform	0.0408	U	6.00	mg/L	0.0500		81.5		70-130
Trichloroethene (Trichloroethylene)	0.0426	U	0.500	mg/L	0.0500		85.1		70-130
Vinyl chloride (Chloroethene)	0.0410	U	0.200	mg/L	0.0500		82.1		70-130
Surrogate: 1,2-Dichloroethane-d4-surr			50.9	ug/L	50.0		102		70-130
Surrogate: 4-Bromofluorobenzene-surr			49.0	ug/L	50.0		97.9		70-130
Surrogate: Toluene-d8-surr			49.8	ug/L	50.0		99.5		70-130
Surrogate: Dibromofluoromethane-surr			50.3	ug/L	50.0		101		70-130

LCS Dup (BHC2440-BS1)

1,1-Dichloroethylene	0.0442	U	0.700	mg/L	Prepared & Analyzed: 3/14/2024				
1,2-Dichloroethane (Ethylene dichloride)	0.0447	U	0.500	mg/L	0.0500		88.5		70-130
1,4-Dichlorobenzene	0.0434	U	7.50	mg/L	0.0500		89.3		70-130
(p-Dichlorobenzene)							86.7		70-130
2-Butanone (Methyl ethyl ketone, MEK)	0.463	U	200	mg/L	0.500		92.7		70-130
Benzene	0.0442	U	0.500	mg/L	0.0500		88.4		70-130
Carbon tetrachloride	0.0447	U	0.500	mg/L	0.0500		89.3		70-130
Chlorobenzene	0.0437	U	100	mg/L	0.0500		87.4		70-130
Chloroform	0.0420	U	6.00	mg/L	0.0500		84.0		70-130
Trichloroethene (Trichloroethylene)	0.0437	U	0.500	mg/L	0.0500		87.3		70-130
Vinyl chloride (Chloroethene)	0.0435	U	0.200	mg/L	0.0500		86.9		70-130
Surrogate: 1,2-Dichloroethane-d4-surr			51.5	ug/L	50.0		103		70-130
Surrogate: 4-Bromofluorobenzene-surr			49.5	ug/L	50.0		99.1		70-130
Surrogate: Toluene-d8-surr			51.0	ug/L	50.0		102		70-130
Surrogate: Dibromofluoromethane-surr			49.7	ug/L	50.0		99.3		70-130



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)									
BHC1180-BLK1 (BHC2440-LBK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L	Prepared & Analyzed: 3/14/2024				
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L					
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr			56.5	ug/L	50.0		113	70-130	
Surrogate: 4-Bromofluorobenzene-surr			49.5	ug/L	50.0		99.0	70-130	
Surrogate: Toluene-d8-surr			47.6	ug/L	50.0		95.3	70-130	
Surrogate: Dibromofluoromethane-surr			57.0	ug/L	50.0		114	70-130	

Matrix Spike (BHC2440-MS1)

1,1-Dichloroethylene	0.0309	J1, U	0.700	mg/L	Prepared & Analyzed: 3/14/2024				
1,2-Dichloroethane (Ethylene dichloride)	0.0297	J1, U	0.500	mg/L					
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0298	J1, U	7.50	mg/L					
2-Butanone (Methyl ethyl ketone, MEK)	0.302	J1, U	200	mg/L					
Benzene	0.0298	J1, U	0.500	mg/L					
Carbon tetrachloride	0.0314	J1, U	0.500	mg/L					
Chlorobenzene	0.0300	J1, U	100	mg/L					
Trichloroethene (Trichloroethylene)	0.0297	J1, U	0.500	mg/L					
Vinyl chloride (Chloroethene)	0.0240	J1, U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr			52.9	ug/L	50.0		106	70-130	
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.5	70-130	
Surrogate: Toluene-d8-surr			49.8	ug/L	50.0		99.6	70-130	
Surrogate: Dibromofluoromethane-surr			50.2	ug/L	50.0		100	70-130	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)										
Matrix Spike Dup (BHC2440-MSD1)										
Source: 24C3241-04										
Prepared & Analyzed: 3/14/2024										
1,1-Dichloroethylene	0.0404	U	0.700	mg/L	0.0500	<0.700	70-130	80.9	26.7	30
1,2-Dichloroethane (Ethylene dichloride)	0.0380	U	0.500	mg/L	0.0500	<0.500	70-130	75.9	24.3	30
1,4-Dichlorobenzene	0.0363	U	7.50	mg/L	0.0500	<7.50	70-130	72.5	19.6	30
(p-Dichlorobenzene)										
2-Butanone (Methyl ethyl ketone, MEK)	0.395	U	200	mg/L	0.500	<200	70-130	79.1	26.7	30
Benzene	0.0385	U	0.500	mg/L	0.0500	<0.500	70-130	77.0	25.3	30
Carbon tetrachloride	0.0405	U	0.500	mg/L	0.0500	<0.500	70-130	81.0	25.2	30
Chlorobenzene	0.0378	U	100	mg/L	0.0500	<100	70-130	75.6	22.9	30
Trichloroethene (Trichloroethylene)	0.0386	U	0.500	mg/L	0.0500	<0.500	70-130	77.1	26.1	30
Vinyl chloride (Chloroethene)	0.0247	J1, U	0.200	mg/L	0.0500	<0.200	70-130	49.4	2.93	30
Surrogate: 1,2-Dichloroethane-d4-surr			50.4	ug/L	50.0		70-130	101		
Surrogate: 4-Bromofluorobenzene-surr			48.9	ug/L	50.0		70-130	97.7		
Surrogate: Toluene-d8-surr			49.0	ug/L	50.0		70-130	98.0		
Surrogate: Dibromofluoromethane-surr			50.1	ug/L	50.0		70-130	100		

Batch: BHC2446 - SW-3511

Blank (BHC2446-BLK1)

Prepared: 3/14/2024 Analyzed: 3/18/2024

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane,	<0.400	U	0.400	mg/L						
gamma-HexachlorocyclohexanE)										
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000109	mg/L	0.000120		60-140	91.0		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		60-140	88.3		



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2446 - SW-3511 (Continued)									
LCS TOX (BHC2446-BS1)									
Toxaphene (Chlorinated Camphene)	0.00112	U	0.500	mg/L	0.00120		93.4	60-140	
Surrogate: 2,4,5,6			0.000111	mg/L	0.000120		92.2	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000129	mg/L	0.000120		107	60-140	
LCS (BHC2446-BS2)									
Chlordane (Total)	0.000379	U	0.0300	mg/L	0.000480		79.0	60-140	
Endrin	8.98E-5	U	0.0200	mg/L	0.000120		74.9	60-140	
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000115	U	0.400	mg/L	0.000120		95.8	60-140	
Heptachlor	0.000104	U	0.00800	mg/L	0.000120		87.0	60-140	
Heptachlor epoxide	9.28E-5	U	0.00800	mg/L	0.000120		77.3	60-140	
Surrogate: 2,4,5,6			0.000135	mg/L	0.000120		113	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140	
LCSD TOX (BHC2446-BSD1)									
Toxaphene (Chlorinated Camphene)	0.00117	U	0.500	mg/L	0.00120		97.4	60-140	40
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		85.0	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000117	mg/L	0.000120		97.1	60-140	
LCS Dup (BHC2446-BSD2)									
Chlordane (Total)	0.000332	U	0.0300	mg/L	0.000480		69.3	60-140	40
Endrin	8.01E-5	U	0.0200	mg/L	0.000120		66.8	60-140	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.16E-5	U	0.400	mg/L	0.000120		68.0	60-140	40
Heptachlor	8.76E-5	U	0.00800	mg/L	0.000120		73.0	60-140	40
Heptachlor epoxide	8.36E-5	U	0.00800	mg/L	0.000120		69.6	60-140	40
Methoxychlor	8.30E-5	U	10.0	mg/L	0.000120		69.2	60-140	40
Surrogate: 2,4,5,6			0.000112	mg/L	0.000120		93.0	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		86.8	60-140	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHC2446 - SW-3511 (Continued)								
BHC1341-BLK1 (BHC2446-LBK1)								
Prepared: 3/14/2024 Analyzed: 3/19/2024								
Chlordane (Total)	1.48E-5	U	0.0300	mg/L				
Endrin	9.15E-6	U	0.0200	mg/L				
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L				
Heptachlor	<0.00800	U	0.00800	mg/L				
Heptachlor epoxide	6.45E-6	U	0.00800	mg/L				
Methoxychlor	<10.0	U	10.0	mg/L				
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L				
Surrogate: 2,4,5,6			0.000622	mg/L	0.000600		104	60-140
Tetrachloro-m-xylene-surr								
Surrogate: Decachlorobiphenyl-surr		S	0.000343	mg/L	0.000600		57.1	60-140

BHC1642-BLK1 (BHC2446-LBK2)

Prepared: 3/14/2024 Analyzed: 4/3/2024								
Chlordane (Total)	<0.0300	U	0.0300	mg/L				
Endrin	<0.0200	U	0.0200	mg/L				
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L				
Heptachlor	<0.00800	U	0.00800	mg/L				
Heptachlor epoxide	<0.00800	U	0.00800	mg/L				
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L				
Surrogate: 2,4,5,6			0.000801	mg/L	0.000600		133	60-140
Tetrachloro-m-xylene-surr								
Surrogate: Decachlorobiphenyl-surr			0.000583	mg/L	0.000600		97.2	60-140

BHC1642-BLK1 (BHC2446-LBK3)

Prepared: 3/14/2024 Analyzed: 4/16/2024								
Methoxychlor	<10.0	U	10.0	mg/L				
Surrogate: 2,4,5,6			0.000564	mg/L	0.000600		93.9	60-140
Tetrachloro-m-xylene-surr								
Surrogate: Decachlorobiphenyl-surr			0.000369	mg/L	0.000600		61.4	60-140

Matrix Spike (BHC2446-MS1)

Source: 24C1834-01								
Prepared: 3/14/2024 Analyzed: 3/19/2024								
Chlordane (Total)	0.00146	U	0.0300	mg/L	0.00240	2.44E-5	60.0	60-140
Endrin	0.000390	U	0.0200	mg/L	0.000600	<0.0200	65.1	60-140
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000379	U	0.400	mg/L	0.000600	<0.400	63.2	60-140
Heptachlor	0.000366	U	0.00800	mg/L	0.000600	<0.00800	61.0	60-140
Heptachlor epoxide	0.000360	J1, U	0.00800	mg/L	0.000600	6.33E-6	58.9	60-140
Surrogate: 2,4,5,6			0.000523	mg/L	0.000600		87.2	60-140
Tetrachloro-m-xylene-surr								



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit
Batch: BHC2446 - SW-3511 (Continued)										
Matrix Spike Dup (BHC2446-MSD1)										
Chlordane (Total)	0.00148	U	0.0300	mg/L	0.00240	2.44E-5	60.8	60-140	1.39	40
Endrin	0.000378	U	0.0200	mg/L	0.000600	<0.0200	63.0	60-140	3.22	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000392	U	0.400	mg/L	0.000600	<0.400	65.4	60-140	3.37	40
Heptachlor	0.000379	U	0.00800	mg/L	0.000600	<0.00800	63.1	60-140	3.40	40
Heptachlor epoxide	0.000371	U	0.00800	mg/L	0.000600	6.33E-6	60.8	60-140	3.20	40
Methoxychlor	0.000440	U	10.0	mg/L	0.000600	<10.0	73.4	60-140	0.842	40
Surrogate: 2,4,5,6			0.000554	mg/L	0.000600		92.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000525	mg/L	0.000600		87.6	60-140		
Batch: BHC2757 - SW-5030										
Blank (BHC2757-BLK1)										
Prepared & Analyzed: 3/15/2024										
1,1-Dichloroethylene	<0.700	U	0.700	mg/L						
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L						
1,4-Dichlorobenzene	<7.50	U	7.50	mg/L						
(p-Dichlorobenzene)										
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L						
Benzene	<0.500	U	0.500	mg/L						
Carbon tetrachloride	<0.500	U	0.500	mg/L						
Chlorobenzene	<100	U	100	mg/L						
Chloroform	<6.00	U	6.00	mg/L						
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L						
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L						
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L						
Surrogate: 1,2-Dichloroethane-d4-surr	49.7		49.7	ug/L	50.0		99.3	70-130		
Surrogate: 4-Bromofluorobenzene-surr	51.4		51.4	ug/L	50.0		103	70-130		
Surrogate: Toluene-d8-surr	49.0		49.0	ug/L	50.0		97.9	70-130		
Surrogate: Dibromofluoromethane-surr	50.8		50.8	ug/L	50.0		102	70-130		



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2757 - SW-5030 (Continued)									
LCS (BHC2757-BS1)									
1,1-Dichloroethylene	0.0426	U	0.700	mg/L	Prepared & Analyzed: 3/15/2024				
					0.0500		85.2	70-130	
1,2-Dichloroethane (Ethylene dichloride)	0.0404	U	0.500	mg/L	0.0500		80.7	70-130	
1,4-Dichlorobenzene	0.0418	U	7.50	mg/L	0.0500		83.6	70-130	
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.414	U	200	mg/L	0.500		82.8	70-130	
Benzene	0.0420	U	0.500	mg/L	0.0500		84.0	70-130	
Carbon tetrachloride	0.0422	U	0.500	mg/L	0.0500		84.4	70-130	
Chlorobenzene	0.0426	U	100	mg/L	0.0500		85.3	70-130	
Chloroform	0.0394	U	6.00	mg/L	0.0500		78.9	70-130	
Tetrachloroethylene (Perchloroethylene)	0.0451	U	0.700	mg/L	0.0500		90.3	70-130	
Trichloroethene (Trichloroethylene)	0.0432	U	0.500	mg/L	0.0500		86.5	70-130	
Vinyl chloride (Chloroethene)	0.0418	U	0.200	mg/L	0.0500		83.6	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr			46.4	ug/L	50.0		92.8	70-130	
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.3	70-130	
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		100	70-130	
Surrogate: Dibromofluoromethane-surr			48.0	ug/L	50.0		96.0	70-130	

LCS Dup (BHC2757-BSD1)

1,1-Dichloroethylene	0.0412	U	0.700	mg/L	Prepared & Analyzed: 3/15/2024				
					0.0500		82.4	70-130	30
1,2-Dichloroethane (Ethylene dichloride)	0.0397	U	0.500	mg/L	0.0500		79.4	70-130	30
1,4-Dichlorobenzene	0.0420	U	7.50	mg/L	0.0500		83.9	70-130	30
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.409	U	200	mg/L	0.500		81.9	70-130	30
Benzene	0.0412	U	0.500	mg/L	0.0500		82.5	70-130	30
Carbon tetrachloride	0.0412	U	0.500	mg/L	0.0500		82.3	70-130	30
Chlorobenzene	0.0409	U	100	mg/L	0.0500		81.9	70-130	30
Chloroform	0.0378	U	6.00	mg/L	0.0500		75.6	70-130	30
Tetrachloroethylene (Perchloroethylene)	0.0403	U	0.700	mg/L	0.0500		80.7	70-130	30
Trichloroethene (Trichloroethylene)	0.0415	U	0.500	mg/L	0.0500		83.0	70-130	30
Vinyl chloride (Chloroethene)	0.0360	U	0.200	mg/L	0.0500		72.1	70-130	30
Surrogate: 1,2-Dichloroethane-d4-surr			47.0	ug/L	50.0		93.9	70-130	
Surrogate: 4-Bromofluorobenzene-surr			49.8	ug/L	50.0		99.7	70-130	
Surrogate: Toluene-d8-surr			49.3	ug/L	50.0		98.7	70-130	
Surrogate: Dibromofluoromethane-surr			47.7	ug/L	50.0		95.4	70-130	



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHC2757 - SW-5030 (Continued)									
BHC2495-BLK1 (BHC2757-LBK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L	Prepared & Analyzed: 3/15/2024				
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene	<7.50	U	7.50	mg/L					
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr			50.5	ug/L	50.0		101		70-130
Surrogate: 4-Bromofluorobenzene-surr			51.9	ug/L	50.0		104		70-130
Surrogate: Toluene-d8-surr			53.3	ug/L	50.0		107		70-130
Surrogate: Dibromofluoromethane-surr			53.8	ug/L	50.0		108		70-130

Matrix Spike (BHC2757-MS1)

Source: 24C2022-01

Prepared & Analyzed: 3/15/2024

1,1-Dichloroethylene	0.0499	U	0.700	mg/L	0.0500	<0.700	99.7		70-130
1,2-Dichloroethane (Ethylene dichloride)	0.0469	U	0.500	mg/L	0.0500	<0.500	93.9		70-130
1,4-Dichlorobenzene	0.0560	U	7.50	mg/L	0.0500	<7.50	112		70-130
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.555	U	200	mg/L	0.500	0.0819	94.6		70-130
Benzene	0.0500	U	0.500	mg/L	0.0500	<0.500	99.9		70-130
Carbon tetrachloride	0.0503	U	0.500	mg/L	0.0500	<0.500	101		70-130
Chlorobenzene	0.0501	U	100	mg/L	0.0500	<100	100		70-130
Chloroform	<6.00	11, U	6.00	mg/L	0.0500	<6.00			70-130
Tetrachloroethylene (Perchloroethylene)	0.0463	U	0.700	mg/L	0.0500	<0.700	92.5		70-130
Trichloroethene (Trichloroethylene)	0.0525	U	0.500	mg/L	0.0500	<0.500	105		70-130
Vinyl chloride (Chloroethene)	0.0465	U	0.200	mg/L	0.0500	<0.200	93.1		70-130
Surrogate: 1,2-Dichloroethane-d4-surr			50.4	ug/L	50.0		101		70-130
Surrogate: 4-Bromofluorobenzene-surr			49.3	ug/L	50.0		98.6		70-130
Surrogate: Toluene-d8-surr			50.1	ug/L	50.0		100		70-130
Surrogate: Dibromofluoromethane-surr			51.4	ug/L	50.0		103		70-130



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Reported:
07/03/2024 10:13

Quality Control (Continued)

TCPLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHC2757 - SW-5030 (Continued)									
Matrix Spike Dup (BHC2757-MSD1)									
Source: 24C2022-01									
1,1-Dichloroethylene	0.0369	U	0.700	mg/L	Prepared & Analyzed: 3/15/2024				
1,2-Dichloroethane (Ethylene dichloride)	0.0368	U	0.500	mg/L	0.0500	<0.700	73.9	70-130	30
1,4-Dichlorobenzene	0.0400	J1, U	7.50	mg/L	0.0500	<0.500	73.5	70-130	30
(p-Dichlorobenzene)					0.0500	<7.50	80.0	70-130	30
2-Butanone (Methyl ethyl ketone, MEK)	0.383	J1, U	200	mg/L	0.500	0.0819	60.1	70-130	30
Benzene	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	30
Carbon tetrachloride	0.0401	U	0.500	mg/L	0.0500	<0.500	80.1	70-130	30
Chlorobenzene	0.0393	U	100	mg/L	0.0500	<100	78.6	70-130	30
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00		70-130	30
Tetrachloroethylene (Perchloroethylene)	0.0382	U	0.700	mg/L	0.0500	<0.700	76.3	70-130	30
Trichloroethene (Trichloroethylene)	0.0394	U	0.500	mg/L	0.0500	<0.500	78.8	70-130	30
Vinyl chloride (Chloroethene)	0.0307	J1, U	0.200	mg/L	0.0500	<0.200	61.5	70-130	30
Surrogate: 1,2-Dichloroethane-d4-surr			49.1	ug/L	50.0		98.3	70-130	
Surrogate: 4-Bromofluorobenzene-surr			51.0	ug/L	50.0		102	70-130	
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		99.9	70-130	
Surrogate: Dibromofluoromethane-surr			49.2	ug/L	50.0		98.5	70-130	

Batch: BHE3631 - EPA 200.2 TCPLP

Blank (BHE3631-BLK1)

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L

Prepared: 5/22/2024 Analyzed: 5/28/2024

Blank (BHE3631-BLK2)

Chromium	<0.00500	U	0.00500	mg/L
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Prepared: 5/22/2024 Analyzed: 5/29/2024



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Reported:
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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHE3631 - EPA 200.2 TCLP (Continued)									
LCS (BHE3631-BS1)									
Arsenic	0.462	U	5.00	mg/L	Prepared: 5/22/2024 Analyzed: 5/28/2024				
Barium	0.459	U	100	mg/L	0.500	92.5	80-120		
Cadmium	0.0457	U	1.00	mg/L	0.500	91.8	80-120		
Lead	0.225	U	5.00	mg/L	0.0500	91.5	80-120		
Selenium	0.473	U	1.00	mg/L	0.250	89.9	80-120		
Silver	0.0475	U	5.00	mg/L	0.500	94.6	80-120		
					0.0500	95.0	80-120		
LCS (BHE3631-BS2)									
Chromium	0.245		0.00500	mg/L	Prepared: 5/22/2024 Analyzed: 5/29/2024				
					0.250	97.9	80-120		
Duplicate (BHE3631-DUP1)									
Arsenic	0.0123	U	5.00	mg/L	Prepared: 5/22/2024 Analyzed: 5/28/2024				
Cadmium	<1.00	U	1.00	mg/L	0.00955	25.1	20		
Lead	<5.00	U	5.00	mg/L	<1.00	<5.00	20		
Selenium	<1.00	U	1.00	mg/L	<5.00	<1.00	20		
Silver	<5.00	U	5.00	mg/L	<5.00	<5.00	20		
Duplicate (BHE3631-DUP2)									
Barium	1.47	U	100	mg/L	Prepared: 5/22/2024 Analyzed: 5/29/2024				
Chromium	<0.00500	U	0.00500	mg/L	1.39	5.22	20		
					<0.00500	<0.00500	20		
BHC1642-LBK1 (BHE3631-LBK1)									
Arsenic	0.0119	U	5.00	mg/L	Prepared: 5/22/2024 Analyzed: 5/29/2024				
Barium	0.760	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Chromium	0.00259	U	0.00500	mg/L					
Lead	<5.00	U	5.00	mg/L					
Selenium	<1.00	U	1.00	mg/L					
Silver	<5.00	U	5.00	mg/L					



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Reported:
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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BHE3631 - EPA 200.2 TCLP (Continued)										
Matrix Spike (BHE3631-MS1)										
Source: 24C1750-01 Prepared: 5/22/2024 Analyzed: 5/28/2024										
Arsenic	0.492	U	5.00	mg/L	0.500	0.00955	96.5	75-125		
Cadmium	0.0473	U	1.00	mg/L	0.0500	<1.00	94.7	75-125		
Lead	0.219	U	5.00	mg/L	0.250	<5.00	87.5	75-125		
Selenium	0.489	U	1.00	mg/L	0.500	<1.00	97.7	75-125		
Silver	0.0499	U	5.00	mg/L	0.0500	<5.00	99.8	75-125		
Matrix Spike (BHE3631-MS2)										
Source: 24C1750-01 Prepared: 5/22/2024 Analyzed: 5/29/2024										
Barium	2.03	J1, U	100	mg/L	0.500	1.39	127	75-125		
Chromium	0.255		0.00500	mg/L	0.250	<0.00500	102	75-125		
Post Spike (BHE3631-PS1)										
Source: 24C1750-01 Prepared: 5/22/2024 Analyzed: 5/28/2024										
Arsenic	500			ug/L	500	9.31	98.1	80-120		
Cadmium	48.5			ug/L	50.0	0.00975	97.0	80-120		
Lead	227			ug/L	250	1.79	90.2	80-120		
Selenium	493			ug/L	500	1.90	98.2	80-120		
Silver	49.3			ug/L	50.0	-0.712	98.6	80-120		
Post Spike (BHE3631-PS2)										
Source: 24C1750-01 Prepared: 5/22/2024 Analyzed: 5/29/2024										
Barium	1910			ug/L	500	1360	111	80-120		
Chromium	253			ug/L	250	1.25	101	80-120		
Dilution Check (BHE3631-SRL1)										
Source: 24C1750-01 Prepared: 5/22/2024 Analyzed: 5/28/2024										
Arsenic	0.0320	U	5.00	mg/L		<5.00		108	10	
Barium	1.39	U	100	mg/L		1.39		0.00	10	
Cadmium	<1.00	U	1.00	mg/L		<1.00			10	
Lead	<5.00	U	5.00	mg/L		<5.00			10	
Selenium	<1.00	U	1.00	mg/L		<1.00			10	
Silver	<5.00	U	5.00	mg/L		<5.00			10	



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHE3631 - EPA 200.2 TCLP (Continued)									
Dilution Check (BHE3631-SRL2)									
Source: 24C1750-01									
Chromium	<0.0250	U	0.0250	mg/L		<0.0250			10
Prepared: 5/22/2024 Analyzed: 5/29/2024									

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



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Sample Condition Checklist

Work Order: 24C1567

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



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Term and Qualifier Definitions

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

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CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39



Page 1 of 1

24C1567

Lab PM : Deena Higginbotham		Project Name : North Park PUD - Non Potable - Sludge Recollect		Schedule Comments			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 22913 Imperial Valley Dr, Houston 77073 Combo 2006 Coy King 832-642-6053 MUST CALL OPERATOR 30 MIN BEFORE ARRIVAL					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C1567-01	Digester		3/5/2024 / 10937	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C HDPE 250mL D Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	
Field Remarks:							
Sampler (Signature) <i>CR</i>		Relinquished By: (Signature)		Lab Preservation: H2SO4 HNO3 NaOH Other:			
Print Name <i>CR</i>		Relinquished By: (Signature)		Date/Time		Received By: (Signature)	
Affiliation <i>NWDLs</i>		Relinquished To Lab By: (Signature)		Date/Time		Received for Laboratory By: (Signature)	
Custody Seal Yes / No		COC Labels Agree Yes / No		Appropriate Volume Yes / No		Received on Ice Yes / No	
Container Intact Yes / No		Appropriate Containers Yes / No		Coolers Intact Yes / No		Samples Accepted Yes / No	
						Temperature: °C	
						Thermometer ID	

Spring South

wfo_NWDLs_COC_LS Revision 4.1 Effective 2/17/2022



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com
TCEQ Lab ID #: TX204, Accreditation ID: T104704238

April 17, 2024

LABORATORY REPORT

Natalia Espitia
H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Report ID: 20240417160330Sta..

RE: MUD 21, 22, 23 - Non Potable - Class B Annual

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

4/15/24

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ PF/S ☐ & Solid

Pass



H2O Innovation_Spring	Project: MUD 21, 22, 23 - Non Potable - Class B Annual	Reported:
P.O. Box 2718	Project Number: 37	04/17/2024 16:03
Spring, TX 77383	Project Manager: Natalia Espitia	

Sample Results

Client Sample ID: Digester 3
Lab Sample ID: 24D3619-01

Sample Matrix: Solid
Date Collected: 04/15/2024 8:30
Collected by: Tyler Henderson

Method	Analyte	Result	Q	Units	Batch	Date Analyzed	Analyst
Colliert-18	Fecal coliforms	1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	<1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	<1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	3440		MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
Colliert-18	Fecal coliforms	<1110	U	MPN/g TS dry	BHD2618	04/16/2024 10:35	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.0367		mg O2/hr/g TS @ 20°C dry	BHD2658	04/15/2024 14:16	AKA
SM 2550 B	Temperature °C Field	24.7		°C	BHD2729	04/15/2024 08:30	TWH
SM 2540 G	% Solids	0.901		%	BHD2650	04/16/2024 09:01	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O2/hr/g TS.



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: MUD 21, 22, 23 - Non Potable - Class B Annual

Project Number: 37

Project Manager: Natalia Espitia

Reported:

04/17/2024 16:03

Quality Control

General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD2650 - Percent Solids								
Blank (BHD2650-BLK1)								
% Solids	<0.100U	0.100	%	Prepared: 4/15/2024 Analyzed: 4/16/2024				
Duplicate (BHD2650-DUP1)								
% Solids		0.100	%		1.13		0.374	20
Reference (BHD2650-SRM1)								
% Solids		0.100	%		0.350	115	78.9-118	



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Project: MUD 21, 22, 23 - Non Potable - Class B Annual
Project Number: 37
Project Manager: Natalia Espitia

Reported:
04/17/2024 16:03

Quality Control
(Continued)

Microbiology

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
---------	-------------	-----------------	-------	-------------	---------------	-------------	-----	-----------

Batch: BHD2618 - FC Quantitray

Blank (BHD2618-BLK1)

Fecal coliforms

<10.0U

10.0 MPN/g TS
wet

Prepared: 4/15/2024 Analyzed: 4/16/2024

Duplicate (BHD2618-DUP1)

Fecal coliforms

<1110U

1110 MPN/g TS
dry

Prepared: 4/15/2024 Analyzed: 4/16/2024

200

200



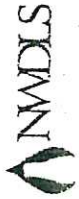
8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 6061
Email: lab@nwdls.com
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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

H2O Innovation_Spring	Project: MUD 21, 22, 23 - Non Potable - Class B Annual	Reported:
P.O. Box 2718	Project Number: 37	04/17/2024 16:03
Spring, TX 77383	Project Manager: Natalia Espitia	

Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ TX-C24-00086



Page 1 of 1

24D3619

Lab PM : Deena Higginbotham		Project Name : MUD 21, 22, 23 - Non Potable - Class B Annual		Schedule Comments:	
H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809		Project Comments: 4103 East Peachfield Lane V. 832-458-9144			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24D3619-01	Digester 3		4/15/2024 / 08:30	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 24.7

Field Remarks:

Sampler (Signature) 	Lab Preservation: H2SO4 (Circle and Write ID Below)	HNO3	NaOH	Other:
Print Name Tyler Henderson	Date/Time 4-15-24/10:45	Received By: (Signature)	Received By: (Signature)	Date/Time
Affiliation NWDLs	Relinquished To Lab By: (Signature)	Relinquished By: (Signature)	Received for Laboratory By: (Signature)	Date/Time
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Date/Time 4-15-24
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Temperature: Thermometer ID:

North West

WQO_NWDLS_COC_LS Revision 4.1 Effective: 2/17/2022



June 05, 2024

Laboratory Report

Natalia Espitia
H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Report ID: 20240605152401Sta..

Handwritten:
4/15/24
21.221
23

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

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

Sincerely,

Stations For Deena Higginbotham
Director of Client Services

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP
☒ PCB
☒ Metals
☐ F/S
☐ & Solid



130 S. Trade Center Parkway, Courro TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www: NWDLs.com
TCEQ TX-C24-00185

H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

10,000

Reported:
06/05/2024 15:24

Sample Results

Client Sample ID: Digester 3
Lab Sample ID: 24D3621-01
MUD 21, 22, 23 - Sewage Sludge Annual

Sample Matrix: Solid
Date Collected: 04/15/2024 8:30
Collected by: Tyler Henderson

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Organics by GC

SW-8082	PCBs, Total	A	<643U	ug/kg dry	10	18.3	643	BHD3838	05/14/2024 03:34	CDG
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		67.1%	60-140					05/14/2024 03:34	
SW-8082	Surrogate: Decachlorobiphenyl-surr		85.0%	60-140					05/14/2024 03:34	

Metals, Total

SW-6010C	Arsenic	A	<3.69U	mg/kg dry	1	0.811	3.69	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Cadmium	A	<0.369U	mg/kg dry	1	0.0959	0.369	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Chromium	A	4.02	mg/kg dry	1	1.39	1.85	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Copper	A	57.4	mg/kg dry	1	0.395	3.69	BHE2798	05/30/2024 10:40	TBB
SW-7471B	Mercury	A	0.534	mg/kg dry	1	0.0222	0.0443	BHD3971	04/30/2024 15:48	ISS
SW-6010C	Lead	A	2.98	mg/kg dry	1	0.942	1.85	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Molybdenum	A	1.94	mg/kg dry	1	1.85	1.85	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Nickel	A	5.15	mg/kg dry	1	0.499	1.85	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Potassium	A	6110	mg/kg dry	1	31.7	369	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Selenium	A	<3.69U	mg/kg dry	1	1.44	3.69	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Total Phosphorus	A	11200	mg/kg dry	1	15.5	369	BHE2798	05/30/2024 10:40	TBB
SW-6010C	Zinc	A	634	mg/kg dry	10	18.5	18.5	BHE2798	05/30/2024 12:44	TBB

General Chemistry

EPA 350.2	Ammonia as N	A	3520	mg/kg dry	1	1100	2210	BHD3759	04/22/2024 09:00	GIW
SW-9056A	Nitrate as N	A	19900	mg/kg dry	25	139	347	BHD2740	04/16/2024 12:06	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	53400	mg/kg dry	1	2690	2690	BHD2820	04/17/2024 12:29	GIW
SM 2540 G	% Solids	A	0.901	%	1	0.100	0.100	BHD2650	04/16/2024 09:01	JRU

TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.00367	5.00	BHD4565	05/10/2024 17:07	AKR
SW-6010C	Barium	A	<100U	mg/L	5	0.00625	100	BHD4565	05/10/2024 17:45	AKR
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.000423	1.00	BHD4565	05/10/2024 17:07	AKR
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00131	5.00	BHD4565	05/13/2024 18:05	AKR
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BHD4488	06/04/2024 20:01	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00C+, U	mg/L	2	0.000476	1.00	BHD4488	06/04/2024 20:01	KRB

SW-8151 Surrogate: DCAA-surr

SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BHD4468	06/04/2024 20:01	ISS
SW-6010C	Lead	A	<5.00U	mg/L	1	0.00341	5.00	BHD4565	05/10/2024 17:07	AKR
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BHD4674	05/17/2024 18:29	KRB
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BHD4674	05/17/2024 18:29	KRB

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



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
06/05/2024 15:24

Sample Results (Continued)

Client Sample ID: Digester 3 (Continued)
Lab Sample ID: 24D3621-01

Sample Matrix: Solid
Date Collected: 04/15/2024 8:30
Collected by: Tyler Henderson

MUD 21, 22, 23 - Sewage Sludge Annual 37

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCPLP (Continued)										
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexaneE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BHD4674	05/17/2024 18:29	KRB
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHD4674	05/17/2024 18:29	KRB
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHD4674	05/17/2024 18:29	KRB
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BHD4674	05/17/2024 18:29	KRB
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BHD4674	05/17/2024 18:29	KRB
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		73.9%	60-140					05/17/2024 18:29	
SW-8081	Surrogate: Decachlorobiphenyl-surr		119%	60-140					05/17/2024 18:29	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.00531	1.00	BHD4565	05/10/2024 17:07	AKR
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00142	5.00	BHD4565	05/29/2024 11:55	TBB
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BHD4477	05/14/2024 14:03	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BHD4477	05/14/2024 14:03	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BHD4477	05/14/2024 14:03	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHD4477	05/14/2024 14:03	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHD4477	05/14/2024 14:03	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BHD4477	05/14/2024 14:03	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHD4477	05/14/2024 14:03	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHD4477	05/14/2024 14:03	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHD4477	05/14/2024 14:03	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHD4477	05/14/2024 14:03	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		108%	54.6-148					05/14/2024 14:03	
SW-8270	Surrogate: 2-Fluorophenol-surr		102%	55-152					05/14/2024 14:03	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		117%	52.4-136					05/14/2024 14:03	
SW-8270	Surrogate: Nitrobenzene-d5-surr		141%	52-162					05/14/2024 14:03	
SW-8270	Surrogate: Phenol-d5-surr		142%	58.7-152					05/14/2024 14:03	
SW-8270	Surrogate: p-Terphenyl-d14-surr		99.5%	51.9-147					05/14/2024 14:03	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHD4002	04/23/2024 19:05	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHD4002	04/23/2024 19:05	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	10	0.00641	7.50	BHD4002	04/23/2024 19:05	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHD4002	04/23/2024 19:05	EM
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHD4002	04/23/2024 19:05	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHD4002	04/23/2024 19:05	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHD4002	04/23/2024 19:05	EM
SW-8260	Chloroform	A	<6.00B, U	mg/L	10	0.00688	6.00	BHD4002	04/23/2024 19:05	EM
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	10	0.00703	0.700	BHD4002	04/23/2024 19:05	EM

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TCEQ TX-C24-00185

H2O Innovation_Spring

P.O. Box 2718

Spring, TX 77383

Reported:

06/05/2024 15:24

Sample Results (Continued)

Client Sample ID: Digester 3 (Continued)

Lab Sample ID: 24D3621-01

MUD 21, 22, 23 - Sewage Sludge Annual

37

Sample Matrix: Solid

Date Collected: 04/15/2024 8:30

Collected by: Tyler Henderson

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP (Continued)										
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500 U	mg/L	10	0.00744	0.500	BHD4002	04/23/2024 19:05	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200 U	mg/L	10	0.0130	0.200	BHD4002	04/23/2024 19:05	EM
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		97.7%	70-130					04/23/2024 19:05	
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		97.2%	70-130					04/23/2024 19:05	
SW-8260	Surrogate: Toluene-d8-surr		95.9%	70-130					04/23/2024 19:05	
SW-8260	Surrogate: Dibromofluoromethane-surr		98.4%	70-130					04/23/2024 19:05	

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TCEQ TX-C24-00185

H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

Reported:
06/05/2024 15:24

Sample Results
(Continued)

Client Sample ID: Digester 3
Lab Sample ID: 24D3621-01RE1
MUD 21, 22, 23 - Sewage Sludge Annual

Sample Matrix: Solid
Date Collected: 04/15/2024 8:30
Collected by: Tyler Henderson

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCPLP										
SW-8270	Pyridine (Rerun)	A	<5.00U	mg/L	1	0.00250	5.00	BHD4477	05/16/2024 11:23	KRB
.....										
SW-8270	Surrogate: 2-Fluorobiphenyl-surr (Rerun)		110%	54.6-148					05/16/2024 11:23	
SW-8270	Surrogate: Nitrobenzene-d5-surr (Rerun)		127%	52-162					05/16/2024 11:23	
SW-8270	Surrogate: p-Terphenyl-d14-surr (Rerun)		112%	51.9-147					05/16/2024 11:23	



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

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Email: lah@nwdls.com
www. NWDLs.com
TCEQ TX-C24-00185

Reported:
06/05/2024 15:24

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit
Batch: BHD3838 - SW-3570										
MB PCB SLUDGE (BHD3838-BLK1)										
PCBs, Total	<6.00	U	6.00	ug/kg wet	Prepared: 4/22/2024 Analyzed: 5/14/2024					
Surrogate: 2,4,5,6										
Tetrachloro-m-xylene-surr			4.11	ug/kg wet	6.00		68.5		60-140	
Surrogate: Decachlorobiphenyl-surr										
BS PCB SLUDGE (BHD3838-BS1)			4.91	ug/kg wet	6.00		81.8		60-140	
Aroclor-1016 (PCB-1016)	45.7		5.96	ug/kg wet	59.6		76.6		60-140	
Aroclor-1260 (PCB-1260)	44.5		5.96	ug/kg wet	59.6		74.6		60-140	
PCBs, Total	45.1		5.96	ug/kg wet	59.6		75.6		60-140	
Surrogate: 2,4,5,6		S	3.47	ug/kg wet	5.96		58.2		60-140	
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			4.56	ug/kg wet	5.96		76.4		60-140	
BSD PCB SLUDGE (BHD3838-BSD1)										
Aroclor-1016 (PCB-1016)	51.9		5.95	ug/kg wet	59.5		87.3		60-140	40
Aroclor-1260 (PCB-1260)	49.4		5.95	ug/kg wet	59.5		83.1		60-140	40
PCBs, Total	50.7		5.95	ug/kg wet	59.5		85.2		60-140	40
Surrogate: 2,4,5,6			4.26	ug/kg wet	5.95		71.7		60-140	
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.10	ug/kg wet	5.95		85.7		60-140	
24D3310-01 MS (BHD3838-MS1)										
Source: 24D3310-01										
Aroclor-1016 (PCB-1016)	2530		316	ug/kg dry	3160	<316	80.1		60-140	
Aroclor-1260 (PCB-1260)	2360		316	ug/kg dry	3160	<316	74.7		60-140	
PCBs, Total	2530		316	ug/kg dry	3160	<316	80.0		60-140	
Surrogate: 2,4,5,6			227	ug/kg dry	316		72.0		60-140	
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			250	ug/kg dry	316		79.2		60-140	
24D3310-01 MSD (BHD3838-MSD1)										
Source: 24D3310-01										
Aroclor-1016 (PCB-1016)	2540		313	ug/kg dry	3130	<313	80.9		60-140	0.0951
Aroclor-1260 (PCB-1260)	2480		313	ug/kg dry	3130	<313	79.2		60-140	4.99
PCBs, Total	2510		313	ug/kg dry	3130	<313	80.1		60-140	0.786
Surrogate: 2,4,5,6			221	ug/kg dry	313		70.6		60-140	
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			259	ug/kg dry	313		82.8		60-140	



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Quality Control (Continued)

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHD3971 - SW-7471								
MDL Check (BHD3971-MRL1)								
Mercury	0.00856	U	0.0198	mg/kg wet	0.00990		86.5	
Matrix Spike (BHD3971-MS1)								
Mercury	0.280		0.0196	mg/kg dry	0.245	0.0208	106	80-120
Matrix Spike Dup (BHD3971-MSD1)								
Mercury	0.290		0.0194	mg/kg dry	0.243	0.0208	111	80-120 3.40 20

Batch: BHE2798 - SW-3050 for 6010

Blank (BHE2798-BLK1)

Arsenic	<0.0333	U	0.0333	mg/kg wet				
Cadmium	<0.00333	U	0.00333	mg/kg wet				
Chromium	<0.0167	U	0.0167	mg/kg wet				
Copper	<0.0333	U	0.0333	mg/kg wet				
Lead	<0.0167	U	0.0167	mg/kg wet				
Molybdenum	<0.0167	U	0.0167	mg/kg wet				
Nickel	<0.0167	U	0.0167	mg/kg wet				
Potassium	<3.33	U	3.33	mg/kg wet				
Selenium	<0.0333	U	0.0333	mg/kg wet				
Total Phosphorus	<3.33	U	3.33	mg/kg wet				
Zinc	<0.0167	U	0.0167	mg/kg wet				

Prepared: 5/16/2024 Analyzed: 5/30/2024

LCS (BHE2798-BS1)

Arsenic	0.813		0.0333	mg/kg wet	0.833		97.5	80-120
Cadmium	0.0811		0.00333	mg/kg wet	0.0833		97.3	80-120
Chromium	0.400		0.0167	mg/kg wet	0.417		96.0	80-120
Copper	0.805		0.0333	mg/kg wet	0.833		96.6	80-120
Lead	0.406		0.0167	mg/kg wet	0.417		97.3	80-120
Molybdenum	0.398		0.0167	mg/kg wet	0.417		95.6	80-120
Nickel	0.398		0.0167	mg/kg wet	0.417		95.4	80-120
Potassium	80.5		3.33	mg/kg wet	83.3		96.6	80-120
Selenium	0.819		0.0333	mg/kg wet	0.833		98.3	80-120
Total Phosphorus	81.5		3.33	mg/kg wet	83.3		97.8	80-120
Zinc	0.400		0.0167	mg/kg wet	0.417		95.9	80-120

Prepared: 5/16/2024 Analyzed: 5/30/2024



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Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	Limit
Batch: BHE2798 - SW-3050 for 6010 (Continued)										
Matrix Spike (BHE2798-MS1)										
Source: 24E3334-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	45.4		1.74	mg/kg dry	43.6	3.85	95.3	75-125		
Cadmium	4.73		0.174	mg/kg dry	4.36	0.405	99.1	75-125		
Chromium	33.5		0.874	mg/kg dry	21.8	7.19	121	75-125		
Copper	848		87.2	mg/kg dry	916	53.1	86.7	75-125		
Lead	40.4 J1		0.874	mg/kg dry	21.8	11.4	133	75-125		
Molybdenum	22.1		0.874	mg/kg dry	21.8	1.66	93.7	75-125		
Nickel	27.0		0.874	mg/kg dry	21.8	4.52	103	75-125		
Potassium	7420		174	mg/kg dry	4360	2200	120	75-125		
Selenium	44.1		1.74	mg/kg dry	43.6	1.58	97.5	75-125		
Total Phosphorus	16300 J1		8720	mg/kg dry	8730	5120	129	75-125		
Zinc	1380		43.7	mg/kg dry	895	394	110	75-125		
Matrix Spike (BHE2798-MS2)										
Source: 24E2136-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	52.1		2.34	mg/kg dry	58.5	7.12	76.8	75-125		
Cadmium	5.69		0.234	mg/kg dry	5.85	0.712	85.1	75-125		
Chromium	30.6 J1		1.17	mg/kg dry	29.3	11.6	64.9	75-125		
Copper	1510		117	mg/kg dry	1230	309	97.5	75-125		
Lead	33.0		1.17	mg/kg dry	29.3	8.43	84.1	75-125		
Molybdenum	26.9 J1		1.17	mg/kg dry	29.3	5.90	71.7	75-125		
Nickel	30.2 J1		1.17	mg/kg dry	29.3	11.1	65.1	75-125		
Potassium	8560		234	mg/kg dry	5850	3510	86.4	75-125		
Selenium	56.4		2.34	mg/kg dry	58.5	6.56	85.2	75-125		
Total Phosphorus	25200		11700	mg/kg dry	11700	11300	119	75-125		
Zinc	2020		58.6	mg/kg dry	1200	787	103	75-125		
Matrix Spike Dup (BHE2798-MSD1)										
Source: 24E3334-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	50.5		1.93	mg/kg dry	48.3	3.85	96.6	75-125	10.5	20
Cadmium	5.12		0.193	mg/kg dry	4.83	0.405	97.5	75-125	7.91	20
Chromium	35.8		0.968	mg/kg dry	24.2	7.19	118	75-125	6.44	20
Copper	1030		96.5	mg/kg dry	1010	53.1	96.2	75-125	19.3	20
Lead	44.0 J1		0.968	mg/kg dry	24.2	11.4	135	75-125	8.62	20
Molybdenum	24.7		0.968	mg/kg dry	24.2	1.66	95.2	75-125	10.9	20
Nickel	29.9		0.968	mg/kg dry	24.2	4.52	105	75-125	10.1	20
Potassium	8440 J1		193	mg/kg dry	4830	2200	129	75-125	12.8	20
Selenium	49.3		1.93	mg/kg dry	48.3	1.58	98.9	75-125	11.2	20
Total Phosphorus	19600 J1		9650	mg/kg dry	9660	5120	150	75-125	18.0	20
Zinc	1640 J1		48.4	mg/kg dry	990	394	126	75-125	17.3	20

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Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	Limit
Batch: BHE2798 - SW-3050 for 6010 (Continued)										
Matrix Spike Dup (BHE2798-MSD2)										
Source: 24E2136-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	56.8		2.34	mg/kg dry	58.6	7.12	84.8	75-125	8.67	20
Cadmium	6.01		0.234	mg/kg dry	5.86	0.712	90.4	75-125	5.36	20
Chromium	34.8		1.17	mg/kg dry	29.3	11.6	79.2	75-125	12.8	20
Copper	1380		117	mg/kg dry	1230	309	87.3	75-125	8.59	20
Lead	33.6		1.17	mg/kg dry	29.3	8.43	85.8	75-125	1.53	20
Molybdenum	29.8		1.17	mg/kg dry	29.3	5.90	81.5	75-125	10.1	20
Nickel	34.0		1.17	mg/kg dry	29.3	11.1	78.2	75-125	12.0	20
Potassium	8960		234	mg/kg dry	5860	3510	93.1	75-125	4.56	20
Selenium	61.5		2.34	mg/kg dry	58.6	6.56	93.9	75-125	8.71	20
Total Phosphorus	23200		11700	mg/kg dry	11700	11300	101	75-125	8.28	20
Zinc	1870		58.7	mg/kg dry	1200	787	90.6	75-125	7.62	20

Post Spike (BHE2798-PS1)

Source: 24E3334-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	499			ug/L	500	39.4	92.0	80-120		
Cadmium	51.2			ug/L	50.0	4.15	94.1	80-120		
Chromium	314			ug/L	250	73.6	96.4	80-120		
Copper	1090			ug/L	500	544	110	80-120		
Lead	358			ug/L	250	117	96.4	80-120		
Molybdenum	256			ug/L	250	17.0	95.5	80-120		
Nickel	280			ug/L	250	46.3	93.4	80-120		
Potassium	75300			ug/L	50000	22500	106	80-120		
Selenium	502			ug/L	500	16.1	97.1	80-120		
Total Phosphorus	108000			ug/L	50000	52300	112	80-120		
Zinc	4190 J1			ug/L	250	4030	62.6	80-120		

Post Spike (BHE2798-PS2)

Source: 24E2136-01										
Prepared: 5/16/2024 Analyzed: 5/30/2024										
Arsenic	555			ug/L	500	57.4	99.6	80-120		
Cadmium	56.3			ug/L	50.0	5.74	101	80-120		
Chromium	351			ug/L	250	93.7	103	80-120		
Copper	3080			ug/L	500	2490	117	80-120		
Lead	320			ug/L	250	68.0	101	80-120		
Molybdenum	299			ug/L	250	47.6	101	80-120		
Nickel	341			ug/L	250	89.6	101	80-120		
Potassium	81300			ug/L	50000	28300	106	80-120		
Selenium	582			ug/L	500	52.9	106	80-120		
Total Phosphorus	154000 J1			ug/L	50000	91000	126	80-120		
Zinc	6390 J1			ug/L	250	6340	17.1	80-120		



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Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHE2798 - SW-3050 for 6010 (Continued)									
Dilution Check (BHE2798-SRL1)									
Source: 24E3334-01 Prepared: 5/16/2024 Analyzed: 5/30/2024									
Arsenic	5.92	U	9.01	mg/kg dry		3.85		42.4	10
Cadmium	0.388	U	0.901	mg/kg dry		0.405		4.39	10
Chromium	6.65		4.52	mg/kg dry		7.19		7.81	10
Copper	49.1		9.01	mg/kg dry		53.1		7.98	10
Lead	11.0		4.52	mg/kg dry		11.4		3.83	10
Molybdenum	<4.52	U	4.52	mg/kg dry		<4.52		200	10
Nickel	4.56		4.52	mg/kg dry		4.52		0.765	10
Potassium	2050		901	mg/kg dry		2200		7.07	10
Selenium	<9.01	U	9.01	mg/kg dry		<9.01		200	10
Total Phosphorus	4760		901	mg/kg dry		5120		7.16	10
Dilution Check (BHE2798-SRL2)									
Source: 24E2136-01 Prepared: 5/16/2024 Analyzed: 5/30/2024									
Arsenic	5.51	U	11.7	mg/kg dry		7.12		25.5	10
Cadmium	0.656	U	1.17	mg/kg dry		0.712		8.19	10
Chromium	11.6		5.87	mg/kg dry		11.6		0.0804	10
Copper	260	JI	11.7	mg/kg dry		309		17.2	10
Lead	7.87		5.87	mg/kg dry		8.43		6.90	10
Molybdenum	<5.87	U	5.87	mg/kg dry		5.90		200	10
Nickel	11.1		5.87	mg/kg dry		11.1		0.276	10
Potassium	3430		1170	mg/kg dry		3510		2.13	10
Selenium	<11.7	U	11.7	mg/kg dry		6.56		200	10
Total Phosphorus	11100		1170	mg/kg dry		11300		1.38	10

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Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BHD2650 - Percent Solids										
Blank (BHD2650-BLK1)										
% Solids	<0.100	U	0.100	%						
Prepared: 4/15/2024 Analyzed: 4/16/2024										
Duplicate (BHD2650-DUP1)										
% Solids	1.13		0.100	%		1.13			0.374	20
Source: 24D3758-03 Prepared: 4/15/2024 Analyzed: 4/16/2024										
Reference (BHD2650-SRM1)										
% Solids	0.401		0.100	%	0.350			115	78.9-118	
Prepared: 4/15/2024 Analyzed: 4/16/2024										
Batch: BHD2740 - Solid Anions No Prep										
Duplicate (BHD2740-DUP1)										
Nitrate as N	19200		347	mg/kg dry		19900			3.53	15
Source: 24D3621-01 Prepared & Analyzed: 4/16/2024										
MRL Check (BHD2740-MRL1)										
Nitrate as N	0.107	U	0.125	mg/kg wet	0.100			107	50-150	
Prepared & Analyzed: 4/16/2024										
Matrix Spike (BHD2740-MS1)										
Nitrate as N	19700	J1	385	mg/kg dry	247	19900		NR	80-120	
Source: 24D3621-01 Prepared & Analyzed: 4/16/2024										
Batch: BHD2820 - TKN T										
Blank (BHD2820-BLK1)										
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
Prepared: 4/16/2024 Analyzed: 4/17/2024										
LCS (BHD2820-BS1)										
Total Kjeldahl Nitrogen - (TKN)	17.7		9.88	mg/kg wet	19.5			90.8	85-115	
Prepared: 4/16/2024 Analyzed: 4/17/2024										



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Quality Control (Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BHD2820 - TKN T (Continued)										
Duplicate (BHD2820-DUP1)										
Total Kjeldahl Nitrogen - (TKN)	55700		Source: 24D2468-01		1280	mg/kg dry	Prepared: 4/16/2024 Analyzed: 4/17/2024		59700	6.95 20
Matrix Spike (BHD2820-MS1)										
Total Kjeldahl Nitrogen - (TKN)	70800	J1	Source: 24D2468-01		1280	mg/kg dry	Prepared: 4/16/2024 Analyzed: 4/17/2024		59700	218 85-115
Batch: BHD3759 - TKN T										
Blank (BHD3759-BLK1)										
Ammonia as N	<9.99	U	9.99		mg/kg wet		Prepared & Analyzed: 4/22/2024			
LCS (BHD3759-BS1)										
Ammonia as N	95.3		9.98		mg/kg wet		99.8	95.5		85-115
Duplicate (BHD3759-DUP1)										
Ammonia as N	11700	J1	Source: 24D2917-01		2050	mg/kg dry	Prepared & Analyzed: 4/22/2024		8930	26.9 20
MRL Check (BHD3759-MRL1)										
Ammonia as N	8.94	U	9.98		mg/kg wet		9.98	89.6		50-150
Matrix Spike (BHD3759-MS1)										
Ammonia as N	30900		Source: 24D2917-01		2040	mg/kg dry	Prepared & Analyzed: 4/22/2024		8930	108 85-115



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Quality Control (Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4002 - SW-5030									
Blank (BHD4002-BLK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L					
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene	<7.50	U	7.50	mg/L					
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 4-Bromofluorobenzene-surr			46.2	ug/L	50.0		92.3	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr			48.1	ug/L	50.0		96.2	70-130	
Surrogate: Toluene-d8-surr			47.9	ug/L	50.0		95.7	70-130	
Surrogate: Dibromofluoromethane-surr			50.2	ug/L	50.0		100	70-130	

LCS (BHD4002-B51)

1,1-Dichloroethylene	0.0344	11, U	0.700	mg/L	0.0500		68.8	70-130	
1,2-Dichloroethane (Ethylene dichloride)	0.0371	U	0.500	mg/L	0.0500		74.2	70-130	
1,4-Dichlorobenzene	0.0402	U	7.50	mg/L	0.0500		80.5	70-130	
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.440	U	200	mg/L	0.500		88.1	70-130	
Benzene	0.0393	U	0.500	mg/L	0.0500		78.5	70-130	
Carbon tetrachloride	0.0359	U	0.500	mg/L	0.0500		71.9	70-130	
Chlorobenzene	0.0394	U	100	mg/L	0.0500		78.8	70-130	
Chloroform	0.0383	U	6.00	mg/L	0.0500		76.5	70-130	
Tetrachloroethylene (Perchloroethylene)	0.0464	U	0.700	mg/L	0.0500		92.9	70-130	
Trichloroethene (Trichloroethylene)	0.0397	U	0.500	mg/L	0.0500		79.3	70-130	
Vinyl chloride (Chloroethene)	0.0377	U	0.200	mg/L	0.0500		75.3	70-130	
Surrogate: 4-Bromofluorobenzene-surr			49.6	ug/L	50.0		99.1	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr			43.6	ug/L	50.0		87.1	70-130	
Surrogate: Toluene-d8-surr			50.2	ug/L	50.0		100	70-130	
Surrogate: Dibromofluoromethane-surr			45.5	ug/L	50.0		91.0	70-130	



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Reported:
06/05/2024 15:24

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHD4002 - SW-5030 (Continued)									
LCS Dup (BHD4002-BSD1)									
1,1-Dichloroethylene	0.0350	U	0.700	mg/L	0.0500	Prepared & Analyzed: 4/23/2024	70.1	70-130	1.86
1,2-Dichloroethane (Ethylene dichloride)	0.0365	U	0.500	mg/L	0.0500		72.9	70-130	1.72
1,4-Dichlorobenzene	0.0384	U	7.50	mg/L	0.0500		76.7	70-130	4.76
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.437	U	200	mg/L	0.500		87.3	70-130	0.816
Benzene	0.0394	U	0.500	mg/L	0.0500		78.8	70-130	0.355
Carbon tetrachloride	0.0352	U	0.500	mg/L	0.0500		70.5	70-130	1.96
Chlorobenzene	0.0396	U	100	mg/L	0.0500		79.2	70-130	0.489
Chloroform	0.0373	U	6.00	mg/L	0.0500		74.6	70-130	2.54
Tetrachloroethylene (Perchloroethylene)	0.0470	U	0.700	mg/L	0.0500		94.0	70-130	1.18
Trichloroethene (Trichloroethylene)	0.0404	U	0.500	mg/L	0.0500		80.7	70-130	1.78
Vinyl chloride (Chloroethene)	0.0389	U	0.200	mg/L	0.0500		77.7	70-130	3.09
Surrogate: 4-Bromofluorobenzene-surr			48.6	ug/L	50.0		97.3	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr			44.1	ug/L	50.0		88.1	70-130	
Surrogate: Toluene-d8-surr			49.3	ug/L	50.0		98.6	70-130	
Surrogate: Dibromofluoromethane-surr			43.7	ug/L	50.0		87.4	70-130	
BHD3764-BLK1 (BHD4002-LBK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L		Prepared & Analyzed: 4/23/2024			
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene	<7.50	U	7.50	mg/L					
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 4-Bromofluorobenzene-surr			47.5	ug/L	50.0		95.0	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr			46.3	ug/L	50.0		92.6	70-130	
Surrogate: Toluene-d8-surr			48.6	ug/L	50.0		97.1	70-130	
Surrogate: Dibromofluoromethane-surr			47.1	ug/L	50.0		94.1	70-130	



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06/05/2024 15:24

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHD4002 - SW-5030 (Continued)								
Matrix Spike (BHD4002-MS1)								
1,1-Dichloroethylene	0.0255	J1, U	0.700	mg/L	0.0500	<0.700	50.9	70-130
1,2-Dichloroethane (Ethylene dichloride)	0.0247	J1, U	0.500	mg/L	0.0500	<0.500	49.3	70-130
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0281	J1, U	7.50	mg/L	0.0500	<7.50	56.3	70-130
2-Butanone (Methyl ethyl ketone, MEK)	0.241	J1, U	200	mg/L	0.500	<200	48.3	70-130
Benzene	0.0274	J1, U	0.500	mg/L	0.0500	<0.500	54.8	70-130
Carbon tetrachloride	0.0258	J1, U	0.500	mg/L	0.0500	<0.500	51.6	70-130
Chlorobenzene	0.0272	J1, U	100	mg/L	0.0500	0.00207	50.2	70-130
Chloroform	0.0116	J1, U	6.00	mg/L	0.0500	<6.00	23.2	70-130
Tetrachloroethylene (Perchloroethylene)	0.0277	J1, U	0.700	mg/L	0.0500	<0.700	55.4	70-130
Trichloroethene (Trichloroethylene)	0.0283	J1, U	0.500	mg/L	0.0500	<0.500	56.5	70-130
Vinyl chloride (Chloroethene)	0.0317	J1, U	0.200	mg/L	0.0500	<0.200	63.3	70-130
Surrogate: 4-Bromofluorobenzene-surr			47.7	ug/L	50.0		95.5	70-130
Surrogate: 1,2-Dichloroethane-d4-surr			43.7	ug/L	50.0		87.3	70-130
Surrogate: Toluene-d8-surr			50.0	ug/L	50.0		99.9	70-130
Surrogate: Dibromofluoromethane-surr			46.0	ug/L	50.0		92.0	70-130

Matrix Spike Dup (BHD4002-MSD1)

1,1-Dichloroethylene	0.0388	J1, U	0.700	mg/L	0.0500	<0.700	77.6	70-130	41.5	30
1,2-Dichloroethane (Ethylene dichloride)	0.0379	J1, U	0.500	mg/L	0.0500	<0.500	75.9	70-130	42.4	30
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0423	J1, U	7.50	mg/L	0.0500	<7.50	84.7	70-130	40.3	30
2-Butanone (Methyl ethyl ketone, MEK)	0.388	J1, U	200	mg/L	0.500	<200	77.7	70-130	46.7	30
Benzene	0.0408	J1, U	0.500	mg/L	0.0500	<0.500	81.5	70-130	39.1	30
Carbon tetrachloride	0.0392	J1, U	0.500	mg/L	0.0500	<0.500	78.5	70-130	41.3	30
Chlorobenzene	0.0407	J1, U	100	mg/L	0.0500	0.00207	77.3	70-130	39.9	30
Chloroform	0.0256	J1, U	6.00	mg/L	0.0500	<6.00	51.2	70-130	75.2	30
Tetrachloroethylene (Perchloroethylene)	0.0435	J1, U	0.700	mg/L	0.0500	<0.700	87.1	70-130	44.5	30
Trichloroethene (Trichloroethylene)	0.0411	J1, U	0.500	mg/L	0.0500	<0.500	82.3	70-130	37.1	30
Vinyl chloride (Chloroethene)	0.0414	U	0.200	mg/L	0.0500	<0.200	82.8	70-130	26.6	30
Surrogate: 4-Bromofluorobenzene-surr			47.9	ug/L	50.0		95.9	70-130		
Surrogate: 1,2-Dichloroethane-d4-surr			45.5	ug/L	50.0		91.1	70-130		
Surrogate: Toluene-d8-surr			50.8	ug/L	50.0		102	70-130		
Surrogate: Dibromofluoromethane-surr			46.4	ug/L	50.0		92.7	70-130		



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Reported:
06/05/2024 15:24

Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4468 - SW-7471 TCLP									
Duplicate (BHD4468-DUP1)			Source: 24D2762-01						
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	<0.200			200
Duplicate (BHD4468-DUP2)			Source: 24D3737-01						
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	<0.200			200
BHD2500-BLK1 (BHD4468-LBK1)									
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024				
BHD3763-BLK1 (BHD4468-LBK2)									
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024				
MDL Check (BHD4468-MRL1)									
Mercury	0.000225	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	0.000200	112		
Matrix Spike (BHD4468-MS1)			Source: 24D2762-01						
Mercury	0.00502	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	<0.200	100	80-120	
Matrix Spike (BHD4468-MS2)			Source: 24D3737-01						
Mercury	0.00499	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	<0.200	99.8	80-120	

Batch: BHD4477 - SW-3511

MB SV (BHD4477-BLK1)

Prepared: 4/25/2024 Analyzed: 5/14/2024

2,4,5-Trichlorophenol	<400	U	400	mg/L
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L
2-Methylphenol	<200	U	200	mg/L
3,4-Methylphenol	<200	U	200	mg/L
Hexachlorobenzene	<0.130	U	0.130	mg/L
Hexachlorobutadiene	<0.500	U	0.500	mg/L
Hexachloroethane	<3.00	U	3.00	mg/L
Nitrobenzene	<2.00	U	2.00	mg/L
Pentachlorophenol	<100	U	100	mg/L
Surrogate: 2-Fluorobiphenyl-surr			0.00942	mg/L
Surrogate: 2-Fluorophenol-surr			0.0217	mg/L
Surrogate: 2,4,6-Tribromophenol-surr			0.0219	mg/L
Surrogate: Nitrobenzene-d5-surr			0.0120	mg/L
Surrogate: Phenol-d5-surr			0.0244	mg/L
Surrogate: p-Terphenyl-d14-surr			0.0124	mg/L



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06/05/2024 15:24

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHD4477 - SW-3511 (Continued)								
Blank (BHD4477-BLK2)								
Prepared: 4/25/2024 Analyzed: 5/16/2024								
Pyridine	<5.00	U	5.00	mg/L				
Surrogate: 2-Fluorobiphenyl-surr			0.00956	mg/L	0.0100		95.6	54.6-148
Surrogate: Nitrobenzene-d5-surr			0.0102	mg/L	0.0100		102	52-162
Surrogate: p-Terphenyl-d14-surr			0.0116	mg/L	0.0100		116	51.9-147

BS SV (BHD4477-BS1)

Prepared: 4/25/2024 Analyzed: 5/14/2024								
2,4,5-Trichlorophenol	0.0233	U	400	mg/L	0.0200		116	60-140
2,4,6-Trichlorophenol	0.0248	U	2.00	mg/L	0.0200		124	60-140
2,4-Dinitrotoluene (2,4-DNT)	0.0126	U	0.130	mg/L	0.0100		126	60-140
2-Methylphenol	0.0218	U	200	mg/L	0.0200		109	60-140
3,4-Methylphenol	0.0537	L, U	200	mg/L	0.0400		134	60-140
Hexachlorobenzene	0.0109	U	0.130	mg/L	0.0100		109	60-140
Hexachlorobutadiene	0.00700	U	0.500	mg/L	0.0100		70.0	60-140
Hexachloroethane	0.00748	U	3.00	mg/L	0.0100		74.8	60-140
Nitrobenzene	0.0127	U	2.00	mg/L	0.0100		127	60-140
Pentachlorophenol	0.0236	U	100	mg/L	0.0200		118	36.8-149
Surrogate: 2-Fluorobiphenyl-surr			0.0114	mg/L	0.0100		114	54.6-148
Surrogate: 2-Fluorophenol-surr		S	0.0310	mg/L	0.0200		155	55-152
Surrogate: 2,4,6-Tribromophenol-surr			0.0214	mg/L	0.0200		107	52.4-136
Surrogate: Nitrobenzene-d5-surr			0.0122	mg/L	0.0100		122	52-162
Surrogate: Phenol-d5-surr			0.0238	mg/L	0.0200		119	58.7-152
Surrogate: p-Terphenyl-d14-surr			0.0101	mg/L	0.0100		101	51.9-147

LCS (BHD4477-BS2)

Prepared: 4/25/2024 Analyzed: 5/16/2024								
Pyridine	0.0368	U	5.00	mg/L	0.0500		73.5	2.5-101
Surrogate: 2-Fluorobiphenyl-surr			0.00960	mg/L	0.0100		96.0	54.6-148
Surrogate: Nitrobenzene-d5-surr			0.0116	mg/L	0.0100		116	52-162
Surrogate: p-Terphenyl-d14-surr			0.0106	mg/L	0.0100		106	51.9-147



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06/05/2024 15:24

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	Limit
Batch: BHD4477 - SW-3511 (Continued)										
BSD SV (BHD4477-BSD1)										
Prepared: 4/25/2024 Analyzed: 5/14/2024										
2,4,5-Trichlorophenol	0.0208	U	400	mg/L	0.0200		104	60-140	11.1	40
2,4,6-Trichlorophenol	0.0222	U	2.00	mg/L	0.0200		111	60-140	10.9	40
2,4-Dinitrotoluene (2,4-DNT)	0.0127	U	0.130	mg/L	0.0100		127	60-140	0.327	40
2-Methylphenol	0.0210	U	200	mg/L	0.0200		105	60-140	3.58	40
3,4-Methylphenol	0.0414	L, U	200	mg/L	0.0400		104	60-140	25.8	40
Hexachlorobenzene	0.0112	U	0.130	mg/L	0.0100		112	60-140	3.01	40
Hexachlorobutadiene	0.00828	U	0.500	mg/L	0.0100		82.8	60-140	16.8	40
Hexachloroethane	0.00860	U	3.00	mg/L	0.0100		86.0	60-140	13.9	40
Nitrobenzene	0.0126	U	2.00	mg/L	0.0100		126	60-140	1.01	40
Pentachlorophenol	0.0236	U	100	mg/L	0.0200		118	36.8-149	0.00512	40
Surrogate: 2-Fluorobiphenyl-surr			0.0102	mg/L	0.0100		102	54.6-148		
Surrogate: 2-Fluorophenol-surr		S	0.0312	mg/L	0.0200		156	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0222	mg/L	0.0200		111	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0120	mg/L	0.0100		120	52-162		
Surrogate: Phenol-d5-surr			0.0280	mg/L	0.0200		140	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.0100		109	51.9-147		

LCS Dup (BHD4477-BSD2)

Pyridine	0.0366	U	5.00	mg/L	0.0500		73.2	2.5-101	0.445	40
Prepared: 4/25/2024 Analyzed: 5/16/2024										
Surrogate: 2-Fluorobiphenyl-surr			0.00949	mg/L	0.0100		94.9	54.6-148		
Surrogate: Nitrobenzene-d5-surr			0.0108	mg/L	0.0100		108	52-162		
Surrogate: p-Terphenyl-d14-surr			0.0104	mg/L	0.0100		104	51.9-147		

BHD3763-BLK1 (BHD4477-LBK1)

Prepared: 4/25/2024 Analyzed: 5/14/2024										
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00973	mg/L	0.0100		97.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0171	mg/L	0.0200		85.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0197	mg/L	0.0200		98.3	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0120	mg/L	0.0100		120	52-162		
Surrogate: Phenol-d5-surr			0.0232	mg/L	0.0200		116	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00924	mg/L	0.0100		92.4	51.9-147		



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Reported:

06/05/2024 15:24

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4477 - SW-3511 (Continued)									
BHD3763-BLK1 (BHD4477-LBK2)									
Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.00952	mg/L	0.0100		95.2	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0109	mg/L	0.0100		109	52-162	
Surrogate: p-Terphenyl-d14-surr			0.00959	mg/L	0.0100		95.9	51.9-147	

MDL SV (BHD4477-MRL1)

2,4,5-Trichlorophenol	0.00143	U	400	mg/L	0.00100		143		
2,4,6-Trichlorophenol	0.00120	U	2.00	mg/L	0.00100		120		
2,4-Dinitrotoluene (2,4-DNT)	0.000427	U	0.130	mg/L	0.000500		85.3		
2-Methylphenol	0.00143	U	200	mg/L	0.00100		143		
3,4-Methylphenol	0.00204	U	200	mg/L	0.00200		102		
Hexachlorobenzene	0.000623	U	0.130	mg/L	0.000500		125		
Hexachlorobutadiene	0.000338	U	0.500	mg/L	0.000500		67.5		
Hexachloroethane	0.000303	U	3.00	mg/L	0.000500		60.7		
Nitrobenzene	0.000694	U	2.00	mg/L	0.000500		139		
Pentachlorophenol	0.00121	U	100	mg/L	0.00100		121		
Surrogate: 2-Fluorobiphenyl-surr			0.00983	mg/L	0.0100		98.3	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0176	mg/L	0.0200		88.0	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0221	mg/L	0.0200		110	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0119	mg/L	0.0100		119	52-162	
Surrogate: Phenol-d5-surr			0.0226	mg/L	0.0200		113	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0135	mg/L	0.0100		135	51.9-147	

24D2762-01 MS (BHD4477-MS1)

2,4,5-Trichlorophenol	0.0240	U	400	mg/L	0.0200	<400	120	44.9-171	
2,4,6-Trichlorophenol	0.0219	U	2.00	mg/L	0.0200	<2.00	110	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0119	U	0.130	mg/L	0.0100	<0.130	119	50.3-144	
2-Methylphenol	0.0260	U	200	mg/L	0.0200	0.00263	117	17.3-182	
3,4-Methylphenol	0.0417	L, U	200	mg/L	0.0400	0.00210	99.1	43.4-188	
Hexachlorobenzene	0.0102	U	0.130	mg/L	0.0100	<0.130	102	56.1-137	
Hexachlorobutadiene	0.00774	U	0.500	mg/L	0.0100	<0.500	77.4	33.1-110	
Hexachloroethane	0.00692	U	3.00	mg/L	0.0100	<3.00	69.2	36.2-106	
Nitrobenzene	0.0125	U	2.00	mg/L	0.0100	<2.00	125	54.9-156	
Pentachlorophenol	0.0247	U	100	mg/L	0.0200	<100	124	42.2-151	
Surrogate: 2-Fluorobiphenyl-surr			0.0101	mg/L	0.0100		101	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0201	mg/L	0.0200		100	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0219	mg/L	0.0200		110	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0124	mg/L	0.0100		124	52-162	
Surrogate: Phenol-d5-surr			0.0291	mg/L	0.0200		145	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0105	mg/L	0.0100		105	51.9-147	



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Quality Control (Continued)

TCPL (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BHD4477 - SW-3511 (Continued)									
Matrix Spike (BHD4477-MS2)									
Pyridine	0.0153	U	5.00	mg/L	0.0500	<5.00	30.6	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.00912	mg/L	0.0100		91.2	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0117	mg/L	0.0100		117	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0112	mg/L	0.0100		112	51.9-147	
24D2762-01 MSD (BHD4477-MSD1)									
Source: 24D2762-01									
Prepared: 4/25/2024 Analyzed: 5/14/2024									
2,4,5-Trichlorophenol	0.0235	U	400	mg/L	0.0200	<400	117	44.9-171	2.17
2,4,6-Trichlorophenol	0.0217	U	2.00	mg/L	0.0200	<2.00	109	34.7-143	0.738
2,4-Dinitrotoluene (2,4-DNT)	0.0126	U	0.130	mg/L	0.0100	<0.130	126	50.3-144	5.85
2-Methylphenol	0.0221	U	200	mg/L	0.0200	0.00263	97.3	17.3-182	16.1
3,4-Methylphenol	0.0388	L, U	200	mg/L	0.0400	0.00210	91.6	43.4-188	7.40
Hexachlorobenzene	0.0101	U	0.130	mg/L	0.0100	<0.130	101	56.1-137	0.267
Hexachlorobutadiene	0.00644	U	0.500	mg/L	0.0100	<0.500	64.4	33.1-110	18.3
Hexachloroethane	0.00674	U	3.00	mg/L	0.0100	<3.00	67.4	36.2-106	2.53
Nitrobenzene	0.0117	U	2.00	mg/L	0.0100	<2.00	117	54.9-156	6.21
Pentachlorophenol	0.0242	U	100	mg/L	0.0200	<100	121	42.2-151	2.12
Surrogate: 2-Fluorobiphenyl-surr			0.00900	mg/L	0.0100		90.0	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0231	mg/L	0.0200		116	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0218	mg/L	0.0200		109	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0113	mg/L	0.0100		113	52-162	
Surrogate: Phenol-d5-surr			0.0251	mg/L	0.0200		126	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00933	mg/L	0.0100		93.3	51.9-147	
Matrix Spike Dup (BHD4477-MSD2)									
Source: 24D2762-01RE1									
Prepared: 4/25/2024 Analyzed: 5/16/2024									
Pyridine	0.0166	U	5.00	mg/L	0.0500	<5.00	33.2	2-87.4	7.99
Surrogate: 2-Fluorobiphenyl-surr			0.00892	mg/L	0.0100		89.2	54.6-148	
Surrogate: Nitrobenzene-d5-surr			0.0113	mg/L	0.0100		113	52-162	
Surrogate: p-Terphenyl-d14-surr			0.0107	mg/L	0.0100		107	51.9-147	

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4488 - SW-3511									
Blank (BHD4488-BLK1)									
2,4-D	<10.0	U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0254	mg/L	0.0250		102	70-130	
LCS (BHD4488-BS1)									
2,4-D	0.00629	U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	0.00616	U	1.00	mg/L	0.00515		122	70-130	
Surrogate: DCAA-surr			0.0268	mg/L	0.00500		123	70-130	
					0.0250		107	70-130	
LCS Dup (BHD4488-BSD1)									
2,4-D	0.00682	J1, U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	0.00662	J1, U	1.00	mg/L	0.00515		132	70-130	8 30
Surrogate: DCAA-surr			0.0314	mg/L	0.00500		132	70-130	7 30
					0.0250		126	70-130	
BHD3763-BLK1 (BHD4488-LBK1)									
2,4-D	<10.0	U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.127	mg/L	0.100		127	70-130	
Matrix Spike (BHD4488-MS1)									
Source: 24D3310-01									
2,4-D	0.0294	J1, U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	0.0269	J1, U	1.00	mg/L	0.0206	<10.0	142	70-130	
Surrogate: DCAA-surr		S	0.131	mg/L	0.0200	<1.00	134	70-130	
					0.100		131	70-130	
Matrix Spike Dup (BHD4488-MSD1)									
Source: 24D3310-01									
2,4-D	0.0297	J1, U	10.0	mg/L	Prepared: 4/25/2024 Analyzed: 6/4/2024				
Silvex (2,4,5-TP)	0.0268	J1, U	1.00	mg/L	0.0206	<10.0	144	70-130	1 30
Surrogate: DCAA-surr		S	0.131	mg/L	0.0200	<1.00	134	70-130	0.2 30
					0.100		131	70-130	



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHD4565 - EPA 200.2 TCLP									
Blank (BHD4565-BLK1)									
				Prepared: 4/26/2024 Analyzed: 5/10/2024					
Arsenic	<5.00	U	5.00	mg/L					
Barium	<100	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Lead	<5.00	U	5.00	mg/L					
Selenium	<1.00	U	1.00	mg/L					
Blank (BHD4565-BLK2)									
				Prepared: 4/26/2024 Analyzed: 5/13/2024					
Chromium	<5.00	U	5.00	mg/L					
Blank (BHD4565-BLK5)									
				Prepared: 4/26/2024 Analyzed: 5/29/2024					
Silver	<5.00	U	5.00	mg/L					
LCS (BHD4565-BS1)									
				Prepared: 4/26/2024 Analyzed: 5/10/2024					
Arsenic	0.496	U	5.00	mg/L	0.500		99.3		80-120
Barium	0.494	U	100	mg/L	0.500		98.8		80-120
Cadmium	0.0496	U	1.00	mg/L	0.0500		99.1		80-120
Lead	0.246	U	5.00	mg/L	0.250		98.6		80-120
Selenium	0.492	U	1.00	mg/L	0.500		98.4		80-120
LCS (BHD4565-BS2)									
				Prepared: 4/26/2024 Analyzed: 5/13/2024					
Chromium	0.260		0.00500	mg/L	0.250		104		80-120
LCS (BHD4565-BS5)									
				Prepared: 4/26/2024 Analyzed: 5/29/2024					
Silver	0.0474	U	5.00	mg/L	0.0500		94.8		80-120
Duplicate (BHD4565-DUP1)									
				Source: 24D2762-01 Prepared: 4/26/2024 Analyzed: 5/10/2024					
Arsenic	0.0109	U	5.00	mg/L		0.0129			20
Barium	1.50	U	100	mg/L		1.54			20
Cadmium	<1.00	U	1.00	mg/L		<1.00			20
Lead	<5.00	U	5.00	mg/L		<5.00			20
Selenium	0.00853	U	1.00	mg/L		0.00601			20



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4565 - EPA 200.2 TCLP (Continued)									
Duplicate (BHD4565-DUP2)									
Source: 24D2762-01 Prepared: 4/26/2024 Analyzed: 5/13/2024									
Chromium	0.00293	U	5.00	mg/L		0.00265		10.0	20
Duplicate (BHD4565-DUP5)									
Source: 24D2762-01 Prepared: 4/26/2024 Analyzed: 5/29/2024									
Silver	<5.00	U	5.00	mg/L		<5.00			20
BHD3763-LBK1 (BHD4565-LBK1)									
Prepared: 4/26/2024 Analyzed: 5/10/2024									
Arsenic	0.0140	U	5.00	mg/L					
Barium	0.813	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Lead	0.00358	U	5.00	mg/L					
Selenium	0.00734	U	1.00	mg/L					
BHD3763-LBK1 (BHD4565-LBK2)									
Prepared: 4/26/2024 Analyzed: 5/13/2024									
Chromium	0.00378	U	5.00	mg/L					
BHD3763-LBK1 (BHD4565-LBK5)									
Prepared: 4/26/2024 Analyzed: 5/29/2024									
Silver	<5.00	U	5.00	mg/L					
Matrix Spike (BHD4565-MS1)									
Source: 24D2762-01 Prepared: 4/26/2024 Analyzed: 5/10/2024									
Arsenic	0.537	U	5.00	mg/L	0.500	0.0129	105	75-125	
Barium	3.86	1L, U	100	mg/L	0.500	1.54	464	75-125	
Cadmium	0.0543	U	1.00	mg/L	0.0500	<1.00	109	75-125	
Lead	0.263	U	5.00	mg/L	0.250	<5.00	105	75-125	
Selenium	0.529	U	1.00	mg/L	0.500	0.00601	105	75-125	
Matrix Spike (BHD4565-MS2)									
Source: 24D2762-01 Prepared: 4/26/2024 Analyzed: 5/13/2024									
Chromium	0.268		0.00500	mg/L	0.250	0.00265	106	75-125	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4565 - EPA 200.2 TCLP (Continued)									
Matrix Spike (BHD4565-MS5)									
Silver	0.0507	U	5.00	mg/L	0.0500	<5.00	101	75-125	
Prepared: 4/26/2024 Analyzed: 5/29/2024									
Post Spike (BHD4565-PS1)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/10/2024									
Arsenic	513			ug/L	500	12.6	100	80-120	
Barium	2020			ug/L	500	1500	105	80-120	
Cadmium	50.4			ug/L	50.0	0.254	100	80-120	
Lead	237			ug/L	250	1.03	94.4	80-120	
Selenium	496			ug/L	500	5.86	98.0	80-120	
Post Spike (BHD4565-PS2)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/13/2024									
Chromium	247			ug/L	250	2.58	97.7	80-120	
Post Spike (BHD4565-PS5)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/29/2024									
Silver	54.7			ug/L	50.0	-0.458	109	80-120	
Dilution Check (BHD4565-SRL1)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/10/2024									
Arsenic	0.0386	U	5.00	mg/L		<5.00		99.9	10
Barium	1.54	U	100	mg/L		1.54		0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00			10
Lead	<5.00	U	5.00	mg/L		<5.00			10
Selenium	0.0365	U	1.00	mg/L		<1.00		143	10
Dilution Check (BHD4565-SRL2)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/13/2024									
Chromium	0.00960	U	5.00	mg/L		<5.00		113	10
Dilution Check (BHD4565-SRL5)									
Source: 24D2762-01									
Prepared: 4/26/2024 Analyzed: 5/29/2024									
Silver	<5.00	U	5.00	mg/L		<5.00			10



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD4674 - SW-3511									
Blank (BHD4674-BLK1)									
Prepared: 4/26/2024 Analyzed: 5/17/2024									
Chlordane (Total)	<0.0300	U	0.0300	mg/L					
Endrin	<0.0200	U	0.0200	mg/L					
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L					
Heptachlor	<0.00800	U	0.00800	mg/L					
Heptachlor epoxide	<0.00800	U	0.00800	mg/L					
Methoxychlor	<10.0	U	10.0	mg/L					
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L					
Surrogate: 2,4,5,6			0.000128	mg/L	0.000120		107	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000141	mg/L	0.000120		117	60-140	

TOX LCS (BHD4674-B51)

Toxaphene (Chlorinated Camphene)	0.00127	U	0.500	mg/L	0.00120		106	60-140	
Surrogate: 2,4,5,6			9.04E-5	mg/L	0.000120		75.4	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000133	mg/L	0.000120		111	60-140	

LCS (BHD4674-B52)

Prepared: 4/26/2024 Analyzed: 5/17/2024									
Chlordane (Total)	0.000531	U	0.0300	mg/L	0.000480		111	60-140	
Endrin	0.000147	U	0.0200	mg/L	0.000120		122	60-140	
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000127	U	0.400	mg/L	0.000120		106	60-140	
Heptachlor	0.000126	U	0.00800	mg/L	0.000120		105	60-140	
Heptachlor epoxide	0.000127	U	0.00800	mg/L	0.000120		106	60-140	
Methoxychlor	0.000132	U	10.0	mg/L	0.000120		110	60-140	
Surrogate: 2,4,5,6			9.04E-5	mg/L	0.000120		75.4	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000134	mg/L	0.000120		111	60-140	

TOX LCSD (BHD4674-BSD1)

Prepared: 4/26/2024 Analyzed: 5/17/2024									
Toxaphene (Chlorinated Camphene)	0.00125	U	0.500	mg/L	0.00120		104	60-140	40
Surrogate: 2,4,5,6			0.000100	mg/L	0.000120		83.6	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000141	mg/L	0.000120		118	60-140	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD4674 - SW-3511 (Continued)										
LCS Dup (BHD4674-BSD2)										
Prepared: 4/26/2024 Analyzed: 5/17/2024										
Chlordane (Total)	0.000576	U	0.0300	mg/L	0.000480		120	60-140	8.14	40
Endrin	0.000152	U	0.0200	mg/L	0.000120		127	60-140	3.62	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000151	U	0.400	mg/L	0.000120		126	60-140	16.8	40
Heptachlor	0.000135	U	0.00800	mg/L	0.000120		112	60-140	7.08	40
Heptachlor epoxide	0.000144	U	0.00800	mg/L	0.000120		120	60-140	12.1	40
Methoxychlor	0.000134	U	10.0	mg/L	0.000120		111	60-140	0.872	40
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		84.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000142	mg/L	0.000120		118	60-140		
BHD3783-BLK1 (BHD4674-LBK1)										
Prepared: 4/26/2024 Analyzed: 5/17/2024										
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000448	mg/L	0.000600		74.7	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000677	mg/L	0.000600		113	60-140		
TOX MRL (BHD4674-MRL1)										
Prepared: 4/26/2024 Analyzed: 5/17/2024										
Toxaphene (Chlorinated Camphene)	0.000350	U	0.500	mg/L	0.000300		117			
Surrogate: 2,4,5,6		S	0.000184	mg/L	0.000120		153	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000137	mg/L	0.000120		114	60-140		
MRL Check (BHD4674-MRL2)										
Prepared: 4/26/2024 Analyzed: 5/17/2024										
Chlordane (Total)	4.51E-5	U	0.0300	mg/L	4.80E-5		94.0			
Endrin	1.14E-5	U	0.0200	mg/L	1.20E-5		94.6			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.09E-5	U	0.400	mg/L	1.20E-5		91.2			
Heptachlor	1.02E-5	U	0.00800	mg/L	1.20E-5		85.1			
Heptachlor epoxide	1.02E-5	U	0.00800	mg/L	1.20E-5		85.3			
Methoxychlor	1.12E-5	U	10.0	mg/L	1.20E-5		93.3			
Surrogate: 2,4,5,6			9.42E-5	mg/L	0.000120		78.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000139	mg/L	0.000120		116	60-140		

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD4674 - SW-3511 (Continued)										
Matrix Spike (BHD4674-MS1)										
Source: 24D2832-01 Prepared: 4/26/2024 Analyzed: 5/17/2024										
Chlordane (Total)	0.00307	U	0.0300	mg/L	0.00240	<0.0300	128	60-140		
Endrin	0.000910	11, U	0.0200	mg/L	0.000600	<0.0200	152	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000815	U	0.400	mg/L	0.000600	<0.400	136	60-140		
Heptachlor	0.000690	U	0.00800	mg/L	0.000600	<0.00800	115	60-140		
Heptachlor epoxide	0.000804	U	0.00800	mg/L	0.000600	<0.00800	134	60-140		
Methoxychlor	0.000763	U	10.0	mg/L	0.000600	<10.0	127	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000562	mg/L	0.000600		93.7	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000681	mg/L	0.000600		113	60-140		
Matrix Spike Dup (BHD4674-MSD1)										
Source: 24D2832-01 Prepared: 4/26/2024 Analyzed: 5/17/2024										
Chlordane (Total)	0.00285	U	0.0300	mg/L	0.00240	<0.0300	119	60-140	7.44	40
Endrin	0.000832	U	0.0200	mg/L	0.000600	<0.0200	139	60-140	8.85	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000714	U	0.400	mg/L	0.000600	<0.400	119	60-140	13.2	40
Heptachlor	0.000662	U	0.00800	mg/L	0.000600	<0.00800	110	60-140	4.20	40
Heptachlor epoxide	0.000786	U	0.00800	mg/L	0.000600	<0.00800	131	60-140	2.21	40
Methoxychlor	0.000678	U	10.0	mg/L	0.000600	<10.0	113	60-140	11.7	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000448	mg/L	0.000600		74.6	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000709	mg/L	0.000600		118	60-140		



H2O Innovation_Spring
P.O. Box 2718
Spring, TX 77383

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Reported:
06/05/2024 15:24

Sample Condition Checklist

Work Order: 24D3621

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

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



H2O Innovation_Spring

P.O. Box 2718

Spring, TX 77383

Reported:

06/05/2024 15:24

Term and Qualifier Definitions

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



CHAIN OF CUSTODY RECORD

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

TCEQ TX-C24-00086



Page 1 of 2

24D3621

Lab PM : Deena Higginbotham H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809		Project Name : MUD 21, 22, 23 - Sewage Sludge Annual Project Comments: 4103 East Peachfield Lane V, 832-458-9144		Schedule Comments:			
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24D3621-01	Digester 3		4/15/2024/08:30	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE 250mL C HDPE IC 250mL D HDPE MET 250mL E HDPE WC 250mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL H Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



CHAIN OF CUSTODY RECORD

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TCEQ TX-C24-00086



Page 2 of 2

24D3621

(Continued)

Lab PM : Deena Higginbotham	Project Name : MUD 21, 22, 23 - Sewage Sludge Annual	Schedule Comments:
H2O Innovation_Spring Natalia Espitia P.O. Box 2718 Spring, TX 77383 Phone: 281-353-9809	Project Comments: 4103 East Peachfield Lane V, 832-458-9144	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sample (Signature) <i>[Signature]</i>	Relinquished By: (Signature)	(Check and Write ID Below)			
Signature <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)		Date/Time
Signature <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)		Date/Time
Signature <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time	Received for Laboratory By: (Signature)		Date/Time
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	4-15-24/10:45	Signature <i>[Signature]</i>		4-15-24/10:45
Justify Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	
North West					
who_NWDLS_GOC_LS Revision 4.1 Effective: 2/17/2022					



130 S. Trade Center Parkway, Conroe TX 77385
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TCEQ TX-C24-00185

June 26, 2024

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20240626130849RUW

*West Memorial
4/8/24*

Enclosed are the results of analyses for samples received by our laboratory on 04/08/2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Wills For Deena Higginbotham
Director of Client Services



ENTERED JUN 27 2024

☒ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☒ Metals
☐ PCB ☐ H/S ☐ & Solid



Inframark 32259 Morton Road Brookshire, TX 77423	West Memorial MUD - Non Potable										Reported: 06/26/2024 13:08
--	---------------------------------	--	--	--	--	--	--	--	--	--	-------------------------------

Digester		Received	% Sol	Hg	NH3	NO3N	TKN	As	Cd	Cr	Cu	Pb	Mo	Ni
Sampled				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
04/08 08:30	04/08 12:10		1.92	0.547	4100	<6.52 [2]	59700	8.43	0.517	10.9	237	14.4	9.23	11.1
Monthly Maximum Value:			1.92	0.547	9.23	6.52	4.84	8.43	0.517	10.9	10.9	14.4	9.23	11.1
Monthly Average Value:			1.92	0.547	4100.201	6.52	59679.57	8.43	0.517	10.9	236.5692	14.4	9.23	11.1



Inframark
32259 Morton Road
Brookshire, TX 77423

West Memorial MUD - Non Potable

Reported:
06/26/2024 13:08

Digester

Sampled	Received	K	Se	Phos	Zn
		mg/kg	mg/kg	mg/kg	mg/kg
04/08 08:30	04/08 12:10	6890	4.84	20500	877
Monthly Maximum Value:		0.547	4.84	14.4	4.84
Monthly Average Value:		6894.859	4.84	20485.33	877.4874

Special Notes

- 1 - J1 = Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
2 - U = Non-detected compound.



8725 Fawn Trail The Woodlands, TX 77385
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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

February 14, 2024

LABORATORY REPORT

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20240214120339DLH

RE: West Memorial MUD - Non Potable - Qtrly Class B

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

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

Sincerely,

Deena Higginbotham

Deena Higginbotham
Director of Client Services



☐ Sludge Manager
☒ Master Spreadsheet
☐ TCLP
☐ PCB
☐ Metals
☒ F/S
☐ & Solid

Pass



8725 Fawn Trail The Woodlands, TX 77385
Tel: (936) 321-6060 | Fax: (936) 321 606~
Email: lab@nwdls.com
www. NWDLs.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark	Project: West Memorial MUD - Non Potable - Qtrly Class B	Reported:
32259 Morton Road	Project Number:	02/14/2024 12:03
Brookshire, TX 77423	Project Manager: Patrick Bond	

Sample Results

Client Sample ID: Digester
Lab Sample ID: 24A5927-01

Sample Matrix: Solid
Date Collected: 01/29/2024 9:35
Collected by: Eddie Blackshear

Method	Analyte	Result	Q	Units	Batch	Date Analyzed	Analyst
Colliert-18	Fecal coliforms	835000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	1550000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	1280000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	998000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	1550000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	719000		MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
Colliert-18	Fecal coliforms	>1550000	TNTC	MPN/g TS dry	BHA4740	01/30/2024 10:53	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.772		mg O2/hr/g TS @ 20°C dry	BHA4741	01/29/2024 14:30	AKA
SM 2550 B	Temperature °C Field	17.6		°C	BHA4975	01/29/2024 09:35	EEB
SM 2540 G	% Solids	1.56		%	BHA4682	01/30/2024 10:54	ENR

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O2/hr/g TS.

11,155,233
6/23/2024



8725 Fawn Trail The Woodlands, TX 77385
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Inframark
32259 Morton Road
Brookshire, TX 77423

Project: West Memorial MUD - Non Potable - Qtrly Class B
Project Number:
Project Manager: Patrick Bond

Reported:
02/14/2024 12:03

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Quality Control

General Chemistry

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BHA4682 - Percent Solids								
Blank (BHA4682-BLK1)								
% Solids	<0.100U	0.100	%					
Prepared: 01/29/2024 Analyzed: 01/30/2024								
Duplicate (BHA4682-DUP1)								
% Solids		0.100	%		1.97			20
Source: 24A5536-06								
Prepared: 01/29/2024 Analyzed: 01/30/2024								
Duplicate (BHA4682-DUP2)								
% Solids		0.100	%		1.30			20
Source: 24A5791-04								
Prepared: 01/29/2024 Analyzed: 01/30/2024								
Reference (BHA4682-SRM1)								
% Solids		0.100	%	0.350		108	78.9-118	
Prepared: 01/29/2024 Analyzed: 01/30/2024								



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark 32259 Morton Road Brookshire, TX 77423	Project: West Memorial MUD - Non Potable - Qtrly Class B Project Number: Project Manager: Patrick Bond	Reported: 02/14/2024 12:03
--	--	-------------------------------

Quality Control
(Continued)

Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHA4740 - FC Quantitray							
Blank (BHA4740-BLK1) Fecal coliforms	<10.0U	10.0	MPN/g TS wet	Prepared: 01/29/2024 Analyzed: 01/30/2024			
Duplicate (BHA4740-DUP1) Fecal coliforms		642	MPN/g TS dry	Source: 24A5927-01 Prepared: 01/29/2024 Analyzed: 01/30/2024 835000			
					8.40	RPD	200



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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark

32259 Morton Road
Brookshire, TX 77423

Project: West Memorial MUD - Non Potable - Qtrly Class B

Project Number:

Project Manager: Patrick Bond

Reported:

02/14/2024 12:03

Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24A5927

Page 1 of 1



Lab PM : Deena Higginbotham	Project Name : West Memorial MUD - Non Potable - Qtrly Class B	Schedule Comments:
InfraMark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452	Project Comments: 22023 Kingsland Blvd - Katy 77450 Greg Prudhomme - 281-917-9262 Codes - 1960 - Sampler Combo - 000	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24A5927-01	Digester	1/29/2024/09:35	S Grab	A HDPE S150mL B HDPE S150mL C HDPE S150mL D HDPE S150mL E HDPE S150mL F HDPE S150mL G HDPE S150mL H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 TS-2540 G SOUR TS-2540 G SOUR-2710 4°C 4°C 4°C 4°C 4°C	Na2S2O3 FC/CB-QT-LR TS-2540 G SOUR TS-2540 G SOUR-2710 4°C 4°C 4°C 4°C 4°C	Temp C Field 176

Field Remarks:		Lab Preservation: H2SO4 HNO3 NaOH Other:		Write ID Below		Date/Time		Received By: (Signature)		Date/Time		Relinquished To Lab By: (Signature)		Date/Time		Received for Laboratory By: (Signature)		Date/Time		Temperature: °C		Thermometer ID:	
Sampler (Signature)																							
Print Name		Katie Blockshear																					
Affiliation		NWDLIS																					
Relinquished By: (Signature)																							
Relinquished By: (Signature)																							
COC Label's Agree: Yes / No		Yes / No		Appropriate Volume: Yes / No		Yes / No		Received on Ice: Yes / No		Yes / No		Samples Accepted: Yes / No		Yes / No		Coolers Intact: Yes / No		Appropriate Containers: Yes / No		Yes / No		Container Intact: Yes / No	
Custody Seal: Yes / No		Yes / No		COC Label's Agree: Yes / No		Yes / No		Appropriate Volume: Yes / No		Yes / No		Received on Ice: Yes / No		Yes / No		Samples Accepted: Yes / No		Yes / No		Appropriate Containers: Yes / No		Yes / No	
Container Intact: Yes / No		Yes / No		COC Label's Agree: Yes / No		Yes / No		Appropriate Volume: Yes / No		Yes / No		Received on Ice: Yes / No		Yes / No		Samples Accepted: Yes / No		Yes / No		Appropriate Containers: Yes / No		Yes / No	



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November 17, 2023

Laboratory Report

Patrick Bond
Inframark
32259 Morton Road
Brookshire, TX 77423

Report ID: 20231117110809AEN

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

ENTERED JAN 11 2024

☒ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☐ Metals
☒ PCB ☐ F/S ☐ % Solid



Inframark
32259 Morton Road
Brookshire, TX 77423

Reported:
11/17/2023 11:08

Sample Results

Client Sample ID: Digestor
Lab Sample ID: 23J2360-01
West Memorial MUD - Non Potable - PCB - TCLP

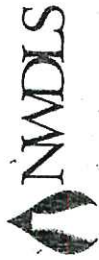
Sample Matrix: Solid
Date Collected: 10/09/2023 13:15
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC										
SW-8082	Aroclor-1016 (PCB-1016)	A	<1410C+, U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1221 (PCB-1221)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1232 (PCB-1232)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1242 (PCB-1242)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1248 (PCB-1248)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1254 (PCB-1254)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1260 (PCB-1260)	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1262 (PCB-1262)	N	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Aroclor-1268 (PCB-1268)	N	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	PCBs, Total	A	<1410U	ug/kg dry	10	707	1410	BGJ2074	10/16/2023 22:11	ALA
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		136%	60-140					10/16/2023 22:11	
SW-8082	Surrogate: Decachlorobiphenyl-surr		119%	60-140					10/16/2023 22:11	

General Chemistry

SM 2540 G	% Solids	A	1.41 V	%	1	0.100	0.100	BGJ1370	10/11/2023 09:22	JRU
TCLP										
SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGJ1807	10/12/2023 16:35	FAA
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGJ1807	10/12/2023 16:38	FAA
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGJ1807	10/12/2023 16:35	FAA
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGJ1807	10/12/2023 16:35	FAA
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGJ2829	10/23/2023 23:04	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BGJ2829	10/23/2023 23:04	KRB
SW-8151	Surrogate: DCAA-surr		91%	70-130					10/23/2023 23:04	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGJ2593	10/17/2023 14:57	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGJ1807	10/12/2023 16:35	FAA
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGJ3029	10/20/2023 01:58	ALA
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexaneE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BGJ3029	10/20/2023 01:58	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		111%	60-140					10/20/2023 01:58	
SW-8081	Surrogate: Decachlorobiphenyl-surr		82.0%	60-140					10/20/2023 01:58	

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11/17/2023 11:08

Sample Results (Continued)

Client Sample ID: Digester (Continued)

Lab Sample ID: 23J2360-01

Sample Matrix: Solid

Date Collected: 10/09/2023 13:15

West Memorial MUD - Non Potable - PCB - TCLP

Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP (Continued)										
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGJ1807	10/12/2023 16:35	FAA
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGJ1807	10/12/2023 16:35	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGJ1722	10/13/2023 11:36	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGJ1722	10/13/2023 11:36	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGJ1722	10/13/2023 11:36	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ1722	10/13/2023 11:36	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGJ1722	10/13/2023 11:36	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGJ1722	10/13/2023 11:36	KRB
.....										
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		77.3%	54.6-148					10/13/2023 11:36	
SW-8270	Surrogate: 2-Fluorophenol-surr		91.4%	55-152					10/13/2023 11:36	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		88.5%	52.4-136					10/13/2023 11:36	
SW-8270	Surrogate: Nitrobenzene-d5-surr		86.9%	52-162					10/13/2023 11:36	
SW-8270	Surrogate: Phenol-d5-surr		82.4%	58.7-152					10/13/2023 11:36	
SW-8270	Surrogate: p-Terphenyl-d14-surr		72.8%	51.9-147					10/13/2023 11:36	

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Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	Limit
---------	--------	------	-----------------	-------	-------------	---------------	-------------	-------------	-----	-------

Batch: BGJ2074 - SW-3570

Blank (BGJ2074-BLK1)

Prepared: 10/12/2023 Analyzed: 10/16/2023

Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1221 (PCB-1221)	<20.0	U	20.0	ug/kg wet						
Aroclor-1232 (PCB-1232)	<20.0	U	20.0	ug/kg wet						
Aroclor-1242 (PCB-1242)	<20.0	U	20.0	ug/kg wet						
Aroclor-1248 (PCB-1248)	<20.0	U	20.0	ug/kg wet						
Aroclor-1254 (PCB-1254)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
Aroclor-1262 (PCB-1262)	<20.0	U	20.0	ug/kg wet						
Aroclor-1268 (PCB-1268)	<20.0	U	20.0	ug/kg wet						
PCBs, Total	<20.0	U	20.0	ug/kg wet						
Surrogate: 2,4,5,6			6.84	ug/kg wet	6.00		114			60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.83	ug/kg wet	6.00		97.2			60-140

LCS (BGJ2074-BS1)

Prepared: 10/12/2023 Analyzed: 10/16/2023

Aroclor-1016 (PCB-1016)	66.0		20.0	ug/kg wet	60.0		110			60-140
Aroclor-1260 (PCB-1260)	66.7		20.0	ug/kg wet	60.0		111			60-140
PCBs, Total	66.6		20.0	ug/kg wet	60.0		111			60-140
Surrogate: 2,4,5,6			7.18	ug/kg wet	6.00		120			60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			6.56	ug/kg wet	6.00		109			60-140

LCS Dup (BGJ2074-BSD1)

Prepared: 10/12/2023 Analyzed: 10/16/2023

Aroclor-1016 (PCB-1016)	69.8		20.0	ug/kg wet	60.0		116		5.59	40
Aroclor-1260 (PCB-1260)	73.8		20.0	ug/kg wet	60.0		123		10.1	40
PCBs, Total	72.9		20.0	ug/kg wet	60.0		121		9.05	40
Surrogate: 2,4,5,6			7.68	ug/kg wet	6.00		128			60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			7.51	ug/kg wet	6.00		125			60-140

Matrix Spike (BGJ2074-MS1)

Prepared: 10/12/2023 Analyzed: 10/16/2023

Aroclor-1016 (PCB-1016)	5160		1380	ug/kg dry	4150	<1380	124			60-140
Aroclor-1260 (PCB-1260)	4370		1380	ug/kg dry	4150	<1380	105			60-140
PCBs, Total	4560		1380	ug/kg dry	4150	<1380	110			60-140
Surrogate: 2,4,5,6		S	604	ug/kg dry	415		146			60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			492	ug/kg dry	415		118			60-140

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Quality Control (Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BG12074 - SW-3570 (Continued)										
Matrix Spike Dup (BG12074-MSD1)										
Source: 23J2352-01 Prepared: 10/12/2023 Analyzed: 10/16/2023										
Aroclor-1016 (PCB-1016)	4890		1380	ug/kg dry	4150	<1380	118	60-140	5.24	40
Aroclor-1260 (PCB-1260)	4310		1380	ug/kg dry	4150	<1380	104	60-140	1.48	40
PCBs, Total	4450		1380	ug/kg dry	4150	<1380	107	60-140	2.48	40
Surrogate: 2,4,5,6			576	ug/kg dry	415		139	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			487	ug/kg dry	415		117	60-140		



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Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BGJ1370 - Percent Solids									
Blank (BGJ1370-BLK1)									
% Solids	<0.100	U	0.100	%	Prepared: 10/10/2023 Analyzed: 10/11/2023				
Duplicate (BGJ1370-DUP1)									
% Solids	0.866		0.100	%	Prepared: 10/10/2023 Analyzed: 10/11/2023				
						0.852		1.68	20
Reference (BGJ1370-SRM1)									
% Solids	0.363		0.100	%	Prepared: 10/10/2023 Analyzed: 10/11/2023				
						0.350	104	78.9-118	

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Quality Control
(Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BG11722 - SW-3511									
MB SV (BG11722-BLK1)									
2,4,5-Trichlorophenol	<400	U	400	mg/L					
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L					
2,4-Dinitrobluene (2,4-DNT)	<0.130	U	0.130	mg/L					
2-Methylphenol	<200	U	200	mg/L					
3,4-Methylphenol	<200	U	200	mg/L					
Hexachlorobenzene	<0.130	U	0.130	mg/L					
Hexachlorobutadiene	<0.500	U	0.500	mg/L					
Hexachloroethane	<3.00	U	3.00	mg/L					
Nitrobenzene	<2.00	U	2.00	mg/L					
Pentachlorophenol	<100	U	100	mg/L					
Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.00916	mg/L	0.00999		91.7	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0212	mg/L	0.0200		106	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0203	mg/L	0.0200		101	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0107	mg/L	0.00999		107	52-162	
Surrogate: Phenol-d5-surr			0.0185	mg/L	0.0200		92.6	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00811	mg/L	0.00999		81.3	51.9-147	

BS SV (BG11722-BS1)

2,4,5-Trichlorophenol	0.0231	U	400	mg/L	0.0200		116	60-140	
2,4,6-Trichlorophenol	0.0224	U	2.00	mg/L	0.0200		112	60-140	
2,4-Dinitrotoluene (2,4-DNT)	0.0113	U	0.130	mg/L	0.00998		113	60-140	
2-Methylphenol	0.0199	U	200	mg/L	0.0200		99.8	60-140	
3,4-Methylphenol	0.0382	U	200	mg/L	0.0399		95.5	60-140	
Hexachlorobenzene	0.0101	U	0.130	mg/L	0.00998		101	60-140	
Hexachlorobutadiene	0.00693	U	0.500	mg/L	0.00998		69.4	60-140	
Hexachloroethane	0.00744	U	3.00	mg/L	0.00998		74.5	60-140	
Nitrobenzene	0.0120	U	2.00	mg/L	0.00998		121	60-140	
Pentachlorophenol	0.0184	U	100	mg/L	0.0200		92.1	36.8-149	
Pyridine	0.0137	U	5.00	mg/L	0.0499		27.5	2.5-101	
Surrogate: 2-Fluorobiphenyl-surr			0.00870	mg/L	0.00998		87.2	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0209	mg/L	0.0200		105	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0159	mg/L	0.0200		79.8	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00891	mg/L	0.00998		89.2	52-162	
Surrogate: Phenol-d5-surr			0.0186	mg/L	0.0200		93.0	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00670	mg/L	0.00998		67.1	51.9-147	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BGJ1722 - SW-3511 (Continued)									
Prepared: 10/11/2023 Analyzed: 10/13/2023									
BSD SV (BGJ1722-BSD1)									
2,4,5-Trichlorophenol	0.0231	U	400	mg/L	0.0199		116	60-140	0.0490
2,4,6-Trichlorophenol	0.0201	U	2.00	mg/L	0.0199		101	60-140	11.1
2,4-Dinitrotoluene (2,4-DNT)	0.0110	U	0.130	mg/L	0.00995		111	60-140	3.00
2-Methylphenol	0.0202	U	200	mg/L	0.0199		102	60-140	1.42
3,4-Methylphenol	0.0371	U	200	mg/L	0.0398		93.3	60-140	2.78
Hexachlorobenzene	0.0101	U	0.130	mg/L	0.00995		102	60-140	0.210
Hexachlorobutadiene	0.00732	U	0.500	mg/L	0.00995		73.5	60-140	5.44
Hexachloroethane	0.00808	U	3.00	mg/L	0.00995		81.2	60-140	8.25
Nitrobenzene	0.0125	U	2.00	mg/L	0.00995		126	60-140	3.88
Pentachlorophenol	0.0185	U	100	mg/L	0.0199		93.2	36.8-149	0.843
Pyridine	0.0232	11, U	5.00	mg/L	0.0497		46.7	2.5-101	51.4
Surrogate: 2-Fluorobiphenyl-surr			0.00867	mg/L	0.00995		87.2	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0196	mg/L	0.0199		98.6	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0157	mg/L	0.0199		78.7	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00941	mg/L	0.00995		94.6	52-162	
Surrogate: Phenol-d5-surr			0.0179	mg/L	0.0199		90.0	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00684	mg/L	0.00995		68.8	51.9-147	

BGJ1444-BLK1 (BGJ1722-LBK1)

Prepared: 10/11/2023 Analyzed: 10/13/2023									
2,4,5-Trichlorophenol	<400	U	400	mg/L					
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L					
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L					
2-Methylphenol	<200	U	200	mg/L					
3,4-Methylphenol	<200	U	200	mg/L					
Hexachlorobenzene	<0.130	U	0.130	mg/L					
Hexachlorobutadiene	<0.500	U	0.500	mg/L					
Hexachloroethane	<3.00	U	3.00	mg/L					
Nitrobenzene	<2.00	U	2.00	mg/L					
Pentachlorophenol	<100	U	100	mg/L					
Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.0302	mg/L	0.0400		75.6	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0778	mg/L	0.0800		97.3	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0692	mg/L	0.0800		86.5	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0357	mg/L	0.0400		89.3	52-162	
Surrogate: Phenol-d5-surr			0.0678	mg/L	0.0800		84.7	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0263	mg/L	0.0400		65.7	51.9-147	



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Quality Control
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BGJ1722 - SW-3511 (Continued)									
MDL SV (BGJ1722-MRL1)									
2,4,5-Trichlorophenol	0.000906	U	400	mg/L	0.000992		91.3		
2,4,6-Trichlorophenol	0.00151	U	2.00	mg/L	0.000992		153		
2,4-Dinitrotoluene (2,4-DNT)	0.000934	U	0.130	mg/L	0.000496		188		
2-Methylphenol	0.00117	U	200	mg/L	0.000992		118		
3,4-Methylphenol	0.00240	U	200	mg/L	0.00198		121		
Hexachlorobenzene	0.000519	U	0.130	mg/L	0.000496		105		
Hexachlorobutadiene	0.000447	U	0.500	mg/L	0.000496		90.1		
Hexachloroethane	0.000334	U	3.00	mg/L	0.000496		67.3		
Nitrobenzene	0.000612	U	2.00	mg/L	0.000496		123		
Pentachlorophenol	0.00121	U	100	mg/L	0.000992		122		
Pyridine	0.00149	U	5.00	mg/L	0.00248		60.1		
Surrogate: 2-Fluorobiphenyl-surr			0.00828	mg/L	0.00992		83.4	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0190	mg/L	0.0198		95.9	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0171	mg/L	0.0198		86.4	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00981	mg/L	0.00992		98.8	52-162	
Surrogate: Phenol-d5-surr			0.0173	mg/L	0.0198		86.9	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00729	mg/L	0.00992		73.5	51.9-147	

23J1899-01 MS (BGJ1722-MS1)

Source: 23J1899-01									
Prepared: 10/11/2023 Analyzed: 10/13/2023									
2,4,5-Trichlorophenol	0.117	U	400	mg/L	0.0800	<400	146	44.9-171	
2,4,6-Trichlorophenol	0.0867	U	2.00	mg/L	0.0800	<2.00	108	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0557	U	0.130	mg/L	0.0400	<0.130	139	50.3-144	
2-Methylphenol	0.0900	U	200	mg/L	0.0800	<200	112	17.3-182	
3,4-Methylphenol	0.173	U	200	mg/L	0.160	<200	108	43.4-188	
Hexachlorobenzene	0.0440	U	0.130	mg/L	0.0400	<0.130	110	56.1-137	
Hexachlorobutadiene	0.0345	U	0.500	mg/L	0.0400	<0.500	86.3	33.1-110	
Hexachloroethane	0.0359	U	3.00	mg/L	0.0400	<3.00	89.8	36.2-106	
Nitrobenzene	0.0581	U	2.00	mg/L	0.0400	<2.00	145	54.9-156	
Pentachlorophenol	0.0926	U	100	mg/L	0.0800	<100	116	42.2-151	
Pyridine	0.00608	U	5.00	mg/L	0.200	<5.00	3.04	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.0366	mg/L	0.0400		91.6	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0811	mg/L	0.0800		101	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0675	mg/L	0.0800		84.4	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0388	mg/L	0.0400		97.1	52-162	
Surrogate: Phenol-d5-surr			0.0780	mg/L	0.0800		97.5	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0300	mg/L	0.0400		75.0	51.9-147	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BGJ1722 - SW-3511 (Continued)										
Source: 23J1899-01										
Prepared: 10/11/2023 Analyzed: 10/13/2023										
23J1899-01 MSD (BGJ1722-MSD1)										
2,4,5-Trichlorophenol	0.102	U	400	mg/L	0.0800	<400	127	44.9-171	13.7	40
2,4,6-Trichlorophenol	0.0888	U	2.00	mg/L	0.0800	<2.00	111	34.7-143	2.39	40
2,4-Dinitrotoluene (2,4-DNT)	0.0493	U	0.130	mg/L	0.0400	<0.130	123	50.3-144	12.3	40
2-Methylphenol	0.0944	U	200	mg/L	0.0800	<200	118	17.3-182	4.85	40
3,4-Methylphenol	0.187	U	200	mg/L	0.160	<200	117	43.4-188	7.66	40
Hexachlorobenzene	0.0418	U	0.130	mg/L	0.0400	<0.130	105	56.1-137	5.12	40
Hexachlorobutadiene	0.0349	U	0.500	mg/L	0.0400	<0.500	87.2	33.1-110	1.11	40
Hexachloroethane	0.0333	U	3.00	mg/L	0.0400	<3.00	83.2	36.2-106	7.69	40
Nitrobenzene	0.0550	U	2.00	mg/L	0.0400	<2.00	138	54.9-156	5.41	40
Pentachlorophenol	0.0832	U	100	mg/L	0.0800	<100	104	42.2-151	10.7	40
Pyridine	0.0626	J1, U	5.00	mg/L	0.200	<5.00	31.3	2-87.4	165	40
Surrogate: 2-Fluorobiphenyl-surr			0.0327	mg/L	0.0400		81.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0755	mg/L	0.0800		94.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0630	mg/L	0.0800		78.8	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0409	mg/L	0.0400		102	52-162		
Surrogate: Phenol-d5-surr			0.0629	mg/L	0.0800		78.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0277	mg/L	0.0400		69.2	51.9-147		

Batch: BGJ1807 - EPA 200.2 TCLP

Blank (BGJ1807-BLK1)

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L

Prepared & Analyzed: 10/12/2023



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Quality Control (Continued)

TCPLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BGJ1807 - EPA 200.2 TCPLP (Continued)									
LCS (BGJ1807-BS1)									
Arsenic	0.493	U	5.00	mg/L	Prepared & Analyzed: 10/12/2023 0.500		98.5	80-120	
Barium	0.479	U	100	mg/L	0.500		95.8	80-120	
Cadmium	0.0474	U	1.00	mg/L	0.0500		94.8	80-120	
Chromium	0.242	U	5.00	mg/L	0.250		96.7	80-120	
Lead	0.246	U	5.00	mg/L	0.250		98.2	80-120	
Selenium	0.488	U	1.00	mg/L	0.500		97.5	80-120	
Silver	0.0478	U	5.00	mg/L	0.0500		95.6	80-120	

Duplicate (BGJ1807-DUP1)

Source: 23J2352-01									
Arsenic	<5.00	U	5.00	mg/L	Prepared & Analyzed: 10/12/2023 <5.00				20
Barium	1.06	U	100	mg/L	0.976		8.54		20
Cadmium	<1.00	U	1.00	mg/L	<1.00				20
Chromium	<5.00	U	5.00	mg/L	<5.00				20
Lead	<5.00	U	5.00	mg/L	<5.00				20
Selenium	<1.00	U	1.00	mg/L	<1.00				20
Silver	<5.00	U	5.00	mg/L	<5.00				20

BGJ1444-BLK1 (BGJ1807-LBK1)

Source: 23J2352-01									
Arsenic	<5.00	U	5.00	mg/L	Prepared & Analyzed: 10/12/2023 <5.00				
Barium	0.790	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Chromium	<5.00	U	5.00	mg/L					
Lead	<5.00	U	5.00	mg/L					
Selenium	<1.00	U	1.00	mg/L					
Silver	<5.00	U	5.00	mg/L					

Matrix Spike (BGJ1807-MS1)

Source: 23J2352-01									
Arsenic	0.497	U	5.00	mg/L	Prepared & Analyzed: 10/12/2023 0.500	<5.00	99.4	75-125	
Barium	1.58	U	100	mg/L	0.500	0.976	122	75-125	
Cadmium	0.0486	U	1.00	mg/L	0.0500	<1.00	97.2	75-125	
Chromium	0.224	U	5.00	mg/L	0.250	<5.00	89.6	75-125	
Lead	0.238	U	5.00	mg/L	0.250	<5.00	95.1	75-125	
Selenium	0.477	U	1.00	mg/L	0.500	<1.00	95.5	75-125	
Silver	0.0474	U	5.00	mg/L	0.0500	<5.00	94.9	75-125	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	Limit
Batch: BGJ1807 - EPA 200.2 TCLP (Continued)										
Post Spike (BGJ1807-PS1) Source: 23J2352-01										
Arsenic	527			ug/L	500	7.77	104	80-120		
Barium	1470			ug/L	500	952	104	80-120		
Cadmium	50.5			ug/L	50.0	0.702	99.6	80-120		
Chromium	245			ug/L	250	0.858	97.6	80-120		
Lead	250			ug/L	250	-1.14	100	80-120		
Selenium	501			ug/L	500	1.72	99.9	80-120		
Silver	50.1			ug/L	50.0	0.195	99.9	80-120		
Dilution Check (BGJ1807-SRL1) Source: 23J2352-01										
Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.11	J1, U	100	mg/L		0.976			12.6	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

Batch: BGJ2593 - SW-7471 TCLP

Duplicate (BGJ2593-DUP1) Source: 23J2352-01										
Mercury	<0.200	U	0.200	mg/L		<0.200				200
BGJ1444-LBK1 (BGJ2593-LBK1)										
Mercury	<0.200	U	0.200	mg/L						
MDL Check (BGJ2593-MRL1)										
Mercury	0.000191	U	0.200	mg/L						95.5

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BGJ2593 - SW-7471 TCLP (Continued)									
Matrix Spike (BGJ2593-MS1) Source: 23J2352-01 Prepared & Analyzed: 10/17/2023									
Mercury	0.00628	J1, U	0.200	mg/L	0.00500	<0.200	126	80-120	

Batch: BGJ2829 - SW-3511

MB HERB (BGJ2829-BLK1)

2,4-D	<10.0	U	10.0	mg/L	Prepared: 10/18/2023 Analyzed: 10/23/2023				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCA4-surr			0.0251	mg/L	0.0249		101	70-130	

BS HERB (BGJ2829-BS1)

2,4-D	0.00480	U	10.0	mg/L	Prepared: 10/18/2023 Analyzed: 10/23/2023				
Silvex (2,4,5-TP)	0.00474	U	1.00	mg/L	0.00508		94	70-130	
Surrogate: DCA4-surr			0.0216	mg/L	0.00493		96	70-130	
					0.0247		88	70-130	

BSD HERB (BGJ2829-BSD1)

2,4-D	0.00492	U	10.0	mg/L	Prepared: 10/18/2023 Analyzed: 10/23/2023				
Silvex (2,4,5-TP)	0.00463	U	1.00	mg/L	0.00511		96	70-130	2
Surrogate: DCA4-surr			0.0222	mg/L	0.00497		93	70-130	2
					0.0248		90	70-130	

BGJ1444-BLK1 (BGJ2829-LBK1)

2,4-D	<10.0	U	10.0	mg/L	Prepared: 10/18/2023 Analyzed: 10/24/2023				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCA4-surr			0.120	mg/L	0.100		120	70-130	

BGJ2741-BLK1 (BGJ2829-LBK2)

2,4-D	<10.0	U	10.0	mg/L	Prepared: 10/18/2023 Analyzed: 10/24/2023				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCA4-surr	S		0.142	mg/L	0.100		142	70-130	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BGJ2829 - SW-3511 (Continued)									
23J2360-01 MS (BGJ2829-MS1)									
Source: 23J2360-01 Prepared: 10/18/2023 Analyzed: 10/23/2023									
2,4-D	0.0216	U	10.0	mg/L	0.0206	<10.0	105		70-130
Silvex (2,4,5-TP)	0.0212	U	1.00	mg/L	0.0200	<1.00	106		70-130
Surrogate: DCA-surr			0.0951	mg/L	0.100		95		70-130
23J2360-01 MSD (BGJ2829-MSD1)									
Source: 23J2360-01 Prepared: 10/18/2023 Analyzed: 10/23/2023									
2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	0.5	30
Silvex (2,4,5-TP)	0.0204	U	1.00	mg/L	0.0200	<1.00	102	4	30
Surrogate: DCA-surr			0.0967	mg/L	0.100		97		70-130

Batch: BGJ3029 - SW-3511

Blank (BGJ3029-BLK1)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
Chlordane (Total)	<0.0300	U	0.0300	mg/L					
Endrin	<0.0200	U	0.0200	mg/L					
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L					
Heptachlor	<0.00800	U	0.00800	mg/L					
Heptachlor epoxide	<0.00800	U	0.00800	mg/L					
Methoxychlor	<10.0	U	10.0	mg/L					
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L					
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000124	mg/L	0.000119		104		60-140
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000119		87.3		60-140
LCS TOX (BGJ3029-BS1)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
Toxaphene (Chlorinated Camphene)	0.000938	U	0.500	mg/L	0.00119		79.0		60-140
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000115	mg/L	0.000119		96.9		60-140
Surrogate: Decachlorobiphenyl-surr			9.04E-5	mg/L	0.000119		76.1		60-140

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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BGJ3029 - SW-3511 (Continued)									
LCS (BGJ3029-BS2)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
Chlordane (Total)	0.000484	U	0.0300	mg/L	0.000473		102	60-140	
Endrin	0.000123	U	0.0200	mg/L	0.000118		104	60-140	
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000125	U	0.400	mg/L	0.000118		106	60-140	
Heptachlor	0.000121	U	0.00800	mg/L	0.000118		103	60-140	
Heptachlor epoxide	0.000122	U	0.00800	mg/L	0.000118		103	60-140	
Methoxychlor	0.000125	U	10.0	mg/L	0.000118		106	60-140	
Surrogate: 2,4,5,6			0.000131	mg/L	0.000118		111	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000119	mg/L	0.000118		101	60-140	
LCSD TOX (BGJ3029-BSD1)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
Toxaphene (Chlorinated Camphene)	0.00116	U	0.500	mg/L	0.00119		96.8	60-140	20.8 40
Surrogate: 2,4,5,6			0.000125	mg/L	0.000119		105	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000109	mg/L	0.000119		91.4	60-140	
LCSD (BGJ3029-BSD2)									
Prepared: 10/18/2023 Analyzed: 10/19/2023									
Chlordane (Total)	0.000458	U	0.0300	mg/L	0.000478		95.8	60-140	5.45 40
Endrin	0.000115	U	0.0200	mg/L	0.000120		96.4	60-140	6.40 40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000119	U	0.400	mg/L	0.000120		99.2	60-140	5.13 40
Heptachlor	0.000117	U	0.00800	mg/L	0.000120		97.5	60-140	4.09 40
Heptachlor epoxide	0.000115	U	0.00800	mg/L	0.000120		96.1	60-140	6.08 40
Methoxychlor	0.000208	J1, U	10.0	mg/L	0.000120		174	60-140	49.7 40
Surrogate: 2,4,5,6			0.000130	mg/L	0.000120		108	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000114	mg/L	0.000120		95.6	60-140	
BGJ1444-BLK1 (BGJ3029-LBK1)									
Prepared: 10/18/2023 Analyzed: 10/20/2023									
Chlordane (Total)	<0.0300	U	0.0300	mg/L					
Endrin	<0.0200	U	0.0200	mg/L					
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L					
Heptachlor	<0.00800	U	0.00800	mg/L					
Heptachlor epoxide	<0.00800	U	0.00800	mg/L					
Methoxychlor	6.63E-6	U	10.0	mg/L					
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L					
Surrogate: 2,4,5,6			0.000688	mg/L	0.000600		115	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000447	mg/L	0.000600		74.4	60-140	



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Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BGJ3029 - SW-3511 (Continued)									
MRL TOX (BGJ3029-MRL1)									
Toxaphene (Chlorinated Camphene)	0.000263	U	0.500	mg/L	0.000299		87.9		
Surrogate: 2,4,5,6			0.000125	mg/L	0.000120		104		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.5		60-140
MRL Check (BGJ3029-MRL2)									
Chlordane (Total)	6.05E-5	U	0.0300	mg/L	4.74E-5		128		
Endrin	1.38E-5	U	0.0200	mg/L	1.18E-5		116		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.34E-5	U	0.400	mg/L	1.18E-5		114		
Heptachlor	1.55E-5	U	0.00800	mg/L	1.18E-5		131		
Heptachlor epoxide	1.46E-5	U	0.00800	mg/L	1.18E-5		123		
Methoxychlor	1.52E-5	U	10.0	mg/L	1.18E-5		128		
Surrogate: 2,4,5,6			0.000135	mg/L	0.000118		114		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000117	mg/L	0.000118		99.2		60-140
Matrix Spike (BGJ3029-MS1)									
Source: 23J3307-02									
Chlordane (Total)	0.000414	U	0.0300	mg/L	0.000479	<0.0300	86.4		60-140
Endrin	0.000115	U	0.0200	mg/L	0.000120	<0.0200	96.1		60-140
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000112	U	0.400	mg/L	0.000120	<0.400	93.5		60-140
Heptachlor	0.000110	U	0.00800	mg/L	0.000120	<0.00800	92.1		60-140
Heptachlor epoxide	0.000107	U	0.00800	mg/L	0.000120	<0.00800	89.6		60-140
Methoxychlor	0.000125	U	10.0	mg/L	0.000120	1.10E-5	95.1		60-140
Surrogate: 2,4,5,6			0.000128	mg/L	0.000120		107		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			8.91E-5	mg/L	0.000120		74.4		60-140
Matrix Spike Dup (BGJ3029-MSD1)									
Source: 23J3307-02									
Chlordane (Total)	0.000393	U	0.0300	mg/L	0.000476	<0.0300	82.4	5.26	40
Endrin	0.000108	U	0.0200	mg/L	0.000119	<0.0200	91.1	5.87	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000115	U	0.400	mg/L	0.000119	<0.400	96.6	2.66	40
Heptachlor	0.000106	U	0.00800	mg/L	0.000119	<0.00800	88.9	4.08	40
Heptachlor epoxide	0.000102	U	0.00800	mg/L	0.000119	<0.00800	85.8	4.84	40
Methoxychlor	0.000116	U	10.0	mg/L	0.000119	1.10E-5	88.2	7.36	40
Surrogate: 2,4,5,6			0.000120	mg/L	0.000119		101		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			7.28E-5	mg/L	0.000119		61.2		60-140



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Sample Condition Checklist

Work Order: 23J2360

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

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Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
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DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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

Lab PM : Deena Higginbotham	Project Name : West Memorial MUD - Non Potable - PCB - TCLP Project Comments: 22023 Kingsland Blvd - Katy 77450 Greg Prudhomme - 281-917-9262 Codes - 1960 - Sampler Combo - 000	Inframark Patrick Bond 32259 Morton Road Brookshire, TX 77423 Phone: (281) 505-0452
Schedule Comments:		

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J2360-01	Digester		10/9/2023 13:15	S Grab	A Glass 250mL w/ Teflon-lined Lid B Glass Wide 1L w/ Teflon-lined Lid C Glass VOA 60mL	Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP TCLP 4°C Chromium ICP TCLP 4°C Hg-7471-TCLP 4°C Lead ICP TCLP 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C TS-2540 G 4°C	

Field Remarks:					
Lab Preservation: H2SO4 HNO3 NaOH Other: _____		(Circle and Write ID Below)			
Sampler (Signature)	Date/Time	Received By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
<i>[Signature]</i>					
Print Name	Date/Time	Received By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
<i>[Signature]</i>					
Affiliation	Date/Time	Received for Laboratory By: (Signature)	Date/Time		
<i>[Signature]</i>					
COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Coolers Intact: Yes / No	
Container Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID: _____	
				Temperature: _____ °C	
Katy South					

Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23101272



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

Client Project Name :
23J2360

Report To :	Client Name:	NWDLS	P.O.#:	23J2360
	Attn:	Deena Higginbotham	Sample Collected By:	
	Client Address:	130 S Trade Center Pkwy	Date Collected:	10/09/23
	City, State, Zip:	Conroe, Texas, 77385		

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23J2360-01	Sludge	23101272.01


Released By: Senthilkumar Sevukan
Title: Vice President Operations
Date: 10/18/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 10/11/2023 11:00



LABORATORY TERM AND QUALIFIER DEFINITION REPORT

Job ID : 23101272

Date: 10/18/2023

General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation, Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
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LABORATORY TEST RESULTS

Job ID : 23101272

Date 10/18/2023

Client Name: NWDLs		Attn: Deena Higginbotham								
Project Name: 23J2360										
Client Sample ID: 23J2360-01		Job Sample ID: 23101272.01								
Date Collected: 10/09/23		Sample Matrix Sludge								
Time Collected: 13:15		% Moisture								
Other Information:										
Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C TCLP VOC										
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	10/17/23 14:07	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	10/17/23 14:07	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	10/17/23 14:07	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	10/17/23 14:07	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	10/17/23 14:07	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	10/17/23 14:07	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	10/17/23 14:07	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	10/17/23 14:07	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	10/17/23 14:07	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	10/17/23 14:07	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	10/17/23 14:07	ZQ
	1,2-Dichloroethane-d4(surr)	106	%	1.00		70-130			10/17/23 14:07	ZQ
	Dibromofluoromethane(surr)	103	%	1.00		70-130			10/17/23 14:07	ZQ
	p-Bromofluorobenzene(surr)	100	%	1.00		70-130			10/17/23 14:07	ZQ
	Toluene-d8(surr)	100	%	1.00		70-130			10/17/23 14:07	ZQ

ab-q212-0321

QUALITY CONTROL CERTIFICATE



Job ID : 23101272

Date : 10/18/2023

Analysis : TCLP VOC

Method : SW-846 8260C Reporting Units : mg/L

QC Batch ID : Qb23101769 Created Date : 10/17/23 Created By : Zeeshan

Samples in This QC Batch : 23101272.01

Sample Preparation : PB23101735 Prep Method : SW-846 5030C Prep Date : 10/17/23 10:00 Prep By : Zeeshan
 TCLP Prep : PB23101733 Prep Method : SW-846 1311 Prep Date : 10/16/23 16:51 Prep By : JCoku

QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MDL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	105	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	102	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	101	%	1.00			
Toluene-d8(surr)	2037-26-5	98	%	1.00			

QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD RPD	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	0.986	98.6	1	0.982	98.2	35	70-130	
1,2-Dichloroethane	1	0.939	93.9	1	0.975	97.5	35	70-130	
1,4-Dichlorobenzene	1	0.975	97.5	1	0.983	98.3	35	70-130	
Benzene	1	0.945	94.5	1	0.969	96.9	35	70-130	
Carbon tetrachloride	1	0.972	97.2	1	0.976	97.6	35	70-130	
Chlorobenzene	1	0.990	99	1	0.979	97.9	35	70-130	
Chloroform	1	0.968	96.8	1	0.976	97.6	35	70-130	
MEK	1	0.957	95.7	1	0.953	95.3	35	70-130	
Tetrachloroethylene	1	0.975	97.5	1	0.977	97.7	35	70-130	
Trichloroethylene	1	0.980	98	1	0.986	98.6	35	70-130	
Vinyl Chloride	1	0.971	97.1	1	0.960	96	35	70-130	

QC Type: MS and MSD

QC Sample ID: 23101758.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD RPD	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	0.993	99.3					70-130	

ab-q213-0321

Refer to the Definition page for terms.

QUALITY CONTROL CERTIFICATE



Job ID : 23101272

Date : 10/18/2023

Analysis : TCLP VOC	Method : SW-846 8260C	Reporting Units : mg/L
QC Batch ID : Qb23101769	Created Date : 10/17/23	Created By : Zeeshan
Samples in This QC Batch : 23101272.01		

QC Type: MS and MSD										
QC Sample ID: 23101758.01										
Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit Qual
1,2-Dichloroethane	BRL	1	1.02	102						70-130
1,4-Dichlorobenzene	BRL	1	0.945	94.5						70-130
Benzene	BRL	1	0.948	94.8						70-130
Carbon tetrachloride	BRL	1	0.933	93.3						70-130
Chlorobenzene	BRL	1	0.966	96.6						70-130
Chloroform	BRL	1	1.03	103						70-130
MEK	BRL	1	0.935	93.5						70-130
Tetrachloroethylene	BRL	1	0.914	91.4						70-130
Trichloroethylene	BRL	1	0.936	93.6						70-130
Vinyl Chloride	BRL	1	0.939	93.9						70-130



Job ID:23101272



10/11/2023

NWDLS

AMS

SUBCONTRACT ORDER

Sending Laboratory:

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Deena Higginbotham

Subcontracted Laboratory:

A & B Labs
10100 East Freeway, Suite 100
Houston, TX 77029
Phone: (713) 453-6060
Fax: (713) 453-6091

Work Order: 23J23360

Analysis	Due	Expires	Comments
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Sample ID: 23J23360-01 Solid Sampled: 10/09/2023 13:15

TCLP ZHE	10/23/2023	10/23/2023 13:15	Auto-Included DIA
VOA-TCLP	10/23/2023	10/23/2023 13:15	
Analyte(s):			
1,1-Dichloroethylene			1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)			4-Bromofluorobenzene-surr
Benzene			Chlorobenzene
Chloroform			Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr			Vinyl chloride (Chloroethene)

Containers Supplied:

Released By AS Date 10-11-23

Received By admiral Date 10/11/23

11:00

11:00

3.0°C
IPG
ANS



Sample Condition Checklist

A&B JobID : 23101272	Date Received : 10/11/2023	Time Received : 11:00AM												
Client Name : NWDLS														
Temperature : 3.0°C	Sample pH : NA													
Thermometer ID : IR5	pH Paper ID : NA													
Preservative :														
Check Points										Yes	No	N/A		
1. Cooler Seal present and signed.											X			
2. Sample(s) in a cooler.										X				
3. If yes, ice in cooler.										X				
4. Sample(s) received with chain-of-custody.										X				
5. C-O-C signed and dated.										X				
6. Sample(s) received with signed sample custody seal.											X			
7. Sample containers arrived intact. (If No comment)										X				
8. Matrix:	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other			
					✓									
9. Samples were received in appropriate container(s)										X				
10. Sample(s) were received with Proper preservative												X		
11. All samples were tagged or labeled.														
12. Sample ID labels match C-O-C ID's.										X				
13. Bottle count on C-O-C matches bottles found.										X				
14. Sample volume is sufficient for analyses requested.										X				
15. Samples were received with in the hold time.										X				
16. VOA vials completely filled.												X		
17. Sample accepted.										X				
18. Has client been contacted about sub-out												X		

Comments : Include actions taken to resolve discrepancies/problem:

COC shows solid, received sludge. ~ANS 10/11/23

Brought by : Client
Received by : ASmith

Check in by/date : ASmith / 10/11/2023

Phone : 713-453-6060

ab-s005-0321

www.ablabs.com



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

July 03, 2024

LAB REPORT

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

Report ID: 20240703105059AEN

RE: Williamsburg Regional - Quarterly Sewage Sludge

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

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

Sincerely,

Aundra Noe For Deena Higginbotham
Director of Client Services

4/3/24

☐ Sludge Manager
☒ Master Spreadsheet
☒ TCLP ☒ Metals ☐ F/S ☐ & Solid
☒ PCB



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Sample Results

Client Sample ID: Digester 3
Lab Sample ID: 24D1639-01
Sample Alias:

Sample Matrix: Solid
Date Collected: 04/03/2024 7:20
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Organics by GC

SW-8082	PCBs, Total	A	<0.315U	mg/kg (dry wt) dry	10	0.00898	0.315	BHD2046	04/30/2024 10:54	CDG
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		53.4% S	60-140					04/30/2024 10:54	
SW-8082	Surrogate: Decachlorobiphenyl-surr		69.0%	60-140					04/30/2024 10:54	

Metals, Total

SW-6010C	Arsenic	A	12.0	mg/kg dry	1	0.437	1.99	BHD2146	06/04/2024 14:37	TBB
SW-6010C	Cadmium	A	0.540	mg/kg dry	1	0.0517	0.199	BHD2146	05/15/2024 10:59	TBB
SW-6010C	Chromium	A	14.1	mg/kg dry	1	0.748	0.999	BHD2146	05/15/2024 10:59	TBB
SW-6010C	Copper	A	247	mg/kg dry	5	1.06	9.96	BHD2146	05/15/2024 14:46	TBB
SW-7471B	Mercury	A	0.152	mg/kg dry	1	0.0110	0.0220	BHD1467	04/10/2024 16:18	ISS
SW-6010C	Lead	A	5.87	mg/kg dry	5	2.54	4.99	BHD2146	05/15/2024 14:46	TBB
SW-6010C	Molybdenum	A	11.0	mg/kg dry	1	0.999	0.999	BHD2146	05/15/2024 10:59	TBB
SW-6010C	Nickel	A	11.6	mg/kg dry	1	0.269	0.999	BHD2146	05/15/2024 10:59	TBB
SW-6010C	Potassium	A	7710	mg/kg dry	1	17.1	199	BHD2146	05/30/2024 17:12	TBB
SW-6010C	Selenium	A	4.27	mg/kg dry	1	0.777	1.99	BHD2146	05/30/2024 17:12	TBB
SW-6010C	Total Phosphorus	A	23800	mg/kg dry	5	41.9	996	BHD2146	05/15/2024 14:46	TBB
SW-6010C	Zinc	A	535	mg/kg dry	20	20.0	20.0	BHD2146	05/15/2024 15:41	TBB

General Chemistry

EPA 350.2	Ammonia as N	A	10100	mg/kg dry	1	550	1100	BHD0894	04/05/2024 12:06	GIW
SW-9056A	Nitrate as N	A	<6.89U	mg/kg dry	1	2.76	6.89	BHD0520	04/03/2024 15:48	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	78800	mg/kg dry	1	1360	1360	BHD1474	04/09/2024 12:09	GIW
SW 2540 G	% Solids	A	1.81	%	1	0.100	0.100	BHD0511	04/04/2024 10:11	ENR

TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.00367	5.00	BHD2215	05/29/2024 12:48	TBB
SW-6010C	Barium	A	<100U	mg/L	5	0.00625	100	BHD2215	05/09/2024 17:32	AKR
SW-6010C	Cadmium	A	<1.00U -	mg/L	1	0.000423	1.00	BHD2215	05/09/2024 16:58	AKR
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00131	5.00	BHD2215	05/09/2024 16:58	AKR
SW-8151	2,4-D	A	<10.0U	mg/L	2	0.000476	10.0	BHD2630	04/18/2024 02:46	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BHD2630	04/18/2024 02:46	KRB
SW-8151	Surrogate: DCA4-surr		107%	70-130					04/18/2024 02:46	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BHD3030	04/26/2024 14:58	ISS
SW-6010C	Lead	A	<5.00U	mg/L	1	0.00341	5.00	BHD2215	05/09/2024 16:58	AKR
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BHD2114	05/11/2024 05:20	cdg
SW-8081	cis-Chlordane (alpha-Chlordane)	N	3.29E-5V	mg/L	1	3.00E-6	6.00E-6	BHD2114	05/11/2024 05:20	cdg
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BHD2114	05/11/2024 05:20	cdg



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Sample Results (Continued)

Client Sample ID: Digester 3 (Continued)
Lab Sample ID: 24D1639-01
Sample Alias:

Sample Matrix: Solid
Date Collected: 04/03/2024 7:20
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP (Continued)										
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexa nE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BHD2114	05/11/2024 05:20	cdg
SW-8081	gamma-Chlordane	N	2.37E-SV	mg/L	1	3.00E-6	6.00E-6	BHD2114	05/11/2024 05:20	cdg
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHD2114	05/11/2024 05:20	cdg
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BHD2114	05/11/2024 05:20	cdg
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BHD2114	05/11/2024 05:20	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BHD2114	05/11/2024 05:20	cdg
.....										
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		70.0%	60-140					05/11/2024 05:20	
SW-8081	Surrogate: Decachlorobiphenyl-surr		49.8% S	60-140					05/11/2024 05:20	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.00531	1.00	BHD2215	05/09/2024 16:58	AKR
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00142	5.00	BHD2215	05/29/2024 12:48	TBB
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BHD2602	04/16/2024 06:23	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BHD2602	04/16/2024 06:23	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BHD2602	04/16/2024 06:23	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BHD2602	04/16/2024 06:23	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	5	0.0125	200	BHD2602	04/16/2024 15:29	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BHD2602	04/16/2024 06:23	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BHD2602	04/16/2024 06:23	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BHD2602	04/16/2024 06:23	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BHD2602	04/16/2024 06:23	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BHD2602	04/16/2024 06:23	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BHD2602	04/16/2024 06:23	KRB
.....										
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		90.4%	54.6-148					04/16/2024 06:23	
SW-8270	Surrogate: 2-Fluorophenol-surr		97.9%	55-152					04/16/2024 06:23	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		131%	52.4-136					04/16/2024 06:23	
SW-8270	Surrogate: Nitrobenzene-d5-surr		101%	52-162					04/16/2024 06:23	
SW-8270	Surrogate: Phenol-d5-surr		101%	58.7-152					04/16/2024 06:23	
SW-8270	Surrogate: p-Terphenyl-d14-surr		94.7%	51.9-147					04/16/2024 06:23	
SW-8260	1,1-Dichloroethylene	A	<0.700U	mg/L	10	0.00849	0.700	BHD2844	04/17/2024 02:09	EM
SW-8260	1,2-Dichloroethane (Ethylene dichloride)	A	<0.500U	mg/L	10	0.00870	0.500	BHD2844	04/17/2024 02:09	EM
SW-8260	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<7.50U	mg/L	10	0.00641	7.50	BHD2844	04/17/2024 02:09	EM
SW-8260	2-Butanone (Methyl ethyl ketone, MEK)	A	<200U	mg/L	10	0.0738	200	BHD2844	04/17/2024 02:09	EM
SW-8260	Benzene	A	<0.500U	mg/L	10	0.00604	0.500	BHD2844	04/17/2024 02:09	EM
SW-8260	Carbon tetrachloride	A	<0.500U	mg/L	10	0.00500	0.500	BHD2844	04/17/2024 02:09	EM
SW-8260	Chlorobenzene	A	<100U	mg/L	10	0.00724	100	BHD2844	04/17/2024 02:09	EM



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Sample Results
(Continued)

Client Sample ID: Digester 3 (Continued)
Lab Sample ID: 24D1639-01
Sample Alias:

Sample Matrix: Solid
Date Collected: 04/03/2024 7:20
Collected by: Angel Rodriguez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
TCLP (Continued)										
SW-8260	Chloroform	A	<6.00U	mg/L	10	0.00688	6.00	BHD2844	04/17/2024 02:09	EM
SW-8260	Tetrachloroethylene (Perchloroethylene)	A	<0.700U	mg/L	10	0.00703	0.700	BHD2844	04/17/2024 02:09	EM
SW-8260	Trichloroethene (Trichloroethylene)	A	<0.500U	mg/L	10	0.00744	0.500	BHD2844	04/17/2024 02:09	EM
SW-8260	Vinyl chloride (Chloroethene)	A	<0.200U	mg/L	10	0.0130	0.200	BHD2844	04/17/2024 02:09	EM
SW-8260	Surrogate: 1,2-Dichloroethane-d4-surr		98.6%	70-130					04/17/2024 02:09	
SW-8260	Surrogate: 4-Bromofluorobenzene-surr		99.1%	70-130					04/17/2024 02:09	
SW-8260	Surrogate: Toluene-d8-surr		95.6%	70-130					04/17/2024 02:09	
SW-8260	Surrogate: Dibromofluoromethane-surr		96.3%	70-130					04/17/2024 02:09	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD2046 - SW-3570									
MB PCB SLUDGE (BHD2046-BLK1)									
Aroclor-1016 (PCB-1016)	<0.00600	U	0.00600	mg/kg (dry wt) wet	Prepared: 4/11/2024 Analyzed: 4/30/2024				
Aroclor-1260 (PCB-1260)	<0.00600	U	0.00600	mg/kg (dry wt) wet					
PCBs, Total	<0.00600	U	0.00600	mg/kg (dry wt) wet					
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		0.00309	mg/kg (dry wt) wet	0.00600		51.6		60-140
Surrogate: Decachlorobiphenyl-surr			0.00391	mg/kg (dry wt) wet	0.00600		65.2		60-140

BS PCB SLUDGE (BHD2046-BS1)

Aroclor-1016 (PCB-1016)	0.0378		0.00600	mg/kg (dry wt) wet	0.0600		63.0		60-140
Aroclor-1260 (PCB-1260)	0.0370		0.00600	mg/kg (dry wt) wet	0.0600		61.6		60-140
PCBs, Total	0.0374		0.00600	mg/kg (dry wt) wet	0.0600		62.3		60-140
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		0.00249	mg/kg (dry wt) wet	0.00600		41.5		60-140
Surrogate: Decachlorobiphenyl-surr			0.00387	mg/kg (dry wt) wet	0.00600		64.5		60-140

BSD PCB SLUDGE (BHD2046-BSD1)

Aroclor-1016 (PCB-1016)	0.0345	J1	0.00600	mg/kg (dry wt) wet	0.0600		57.6		60-140	8.95	40
Aroclor-1260 (PCB-1260)	0.0370		0.00600	mg/kg (dry wt) wet	0.0600		61.6		60-140	0.00657	40
PCBs, Total	0.0358	J1	0.00600	mg/kg (dry wt) wet	0.0600		59.6		60-140	4.42	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		0.00182	mg/kg (dry wt) wet	0.00600		30.3		60-140		
Surrogate: Decachlorobiphenyl-surr			0.00385	mg/kg (dry wt) wet	0.00600		64.2		60-140		

24D1187-01 MS (BHD2046-MS1)

Aroclor-1016 (PCB-1016)	1.43		0.212	mg/kg (dry wt) dry	2.12	<0.212	67.4		60-140		
Aroclor-1260 (PCB-1260)	1.34		0.212	mg/kg (dry wt) dry	2.12	<0.212	63.2		60-140		
PCBs, Total	1.39		0.212	mg/kg (dry wt) dry	2.12	<0.212	65.3		60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		0.109	mg/kg (dry wt) dry	0.212		51.3		60-140		
Surrogate: Decachlorobiphenyl-surr			0.139	mg/kg (dry wt) dry	0.212		65.4		60-140		

24D1187-01 MSD (BHD2046-MSD1)

Source: 24D1187-01 Prepared: 4/11/2024 Analyzed: 4/30/2024



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	RPD Limit
Batch: BHD2046 - SW-3570 (Continued)										
24D1187-01 MSD (BHD2046-MSD1)			Source: 24D1187-01 Prepared: 4/11/2024 Analyzed: 4/30/2024							
Aroclor-1016 (PCB-1016)	1.39		0.208	mg/kg (dry wt) dry	2.08	<0.208	66.7	60-140	3.00	40
Aroclor-1260 (PCB-1260)	1.56		0.208	mg/kg (dry wt) dry	2.08	<0.208	74.7	60-140	14.8	40
PCBs, Total	1.47		0.208	mg/kg (dry wt) dry	2.08	<0.208	70.7	60-140	6.01	40
Surrogate: 2,4,5,6		S	0.122	mg/kg (dry wt) dry	0.208		58.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.137	mg/kg (dry wt) dry	0.208		65.8	60-140		



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD1467 - SW-7471									
MDL Check (BHD1467-MRL1)									
Mercury	0.151		0.0192	mg/kg wet	0.00962		NR		
Matrix Spike (BHD1467-MS1)									
Mercury	0.563		0.0996	mg/kg dry	0.249	0.353	84.2	80-120	
Matrix Spike Dup (BHD1467-MSD1)									
Mercury	0.487	J1	0.0978	mg/kg dry	0.244	0.353	54.5	80-120	14.6
									20

Batch: BHD2146 - SW-3050 for 6010

Blank (BHD2146-BLK1)

Prepared: 4/11/2024 Analyzed: 5/15/2024									
Cadmium	<0.00333	U	0.00333	mg/kg wet					
Chromium	<0.0167	U	0.0167	mg/kg wet					
Copper	<0.0333	U	0.0333	mg/kg wet					
Lead	<0.0167	U	0.0167	mg/kg wet					
Molybdenum	<0.0167	U	0.0167	mg/kg wet					
Nickel	<0.0167	U	0.0167	mg/kg wet					
Total Phosphorus	<3.33	U	3.33	mg/kg wet					
Zinc	<0.0167	U	0.0167	mg/kg wet					

Blank (BHD2146-BLK2)

Prepared: 4/11/2024 Analyzed: 5/30/2024									
Potassium	<3.33	U	3.33	mg/kg wet					
Selenium	<0.0333	U	0.0333	mg/kg wet					

Blank (BHD2146-BLK3)

Prepared: 4/11/2024 Analyzed: 6/4/2024									
Arsenic	<0.0333	U	0.0333	mg/kg wet					



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD2146 - SW-3050 for 6010 (Continued)									
LCS (BHD2146-BS1)									
Prepared: 4/11/2024 Analyzed: 5/15/2024									
Cadmium	0.0944		0.00333	mg/kg wet	0.0833		113	80-120	
Chromium	0.471		0.0167	mg/kg wet	0.417		113	80-120	
Copper	0.932		0.0333	mg/kg wet	0.833		112	80-120	
Lead	0.475		0.0167	mg/kg wet	0.417		114	80-120	
Molybdenum	0.401		0.0167	mg/kg wet	0.417		96.3	80-120	
Nickel	0.466		0.0167	mg/kg wet	0.417		112	80-120	
Total Phosphorus	94.8		3.33	mg/kg wet	83.3		114	80-120	
Zinc	0.483		0.0167	mg/kg wet	0.417		116	80-120	
LCS (BHD2146-BS2)									
Prepared: 4/11/2024 Analyzed: 5/30/2024									
Potassium	95.6		3.33	mg/kg wet	83.3		115	80-120	
Selenium	0.962		0.0333	mg/kg wet	0.833		115	80-120	
LCS (BHD2146-BS3)									
Prepared: 4/11/2024 Analyzed: 6/4/2024									
Arsenic	0.875		0.0333	mg/kg wet	0.833		105	80-120	
Matrix Spike (BHD2146-MS1)									
Source: 24D1306-02									
Prepared: 4/11/2024 Analyzed: 5/15/2024									
Cadmium	19.7		0.711	mg/kg dry	17.8	1.12	105	75-125	
Chromium	108		3.57	mg/kg dry	89.0	29.0	89.1	75-125	
Molybdenum	93.6		3.57	mg/kg dry	89.0	10.2	93.7	75-125	
Nickel	103		3.57	mg/kg dry	89.0	23.8	88.9	75-125	
Matrix Spike (BHD2146-MS2)									
Source: 24D1306-02									
Prepared: 4/11/2024 Analyzed: 5/15/2024									
Copper	4180		142	mg/kg dry	3740	615	95.4	75-125	
Lead	113 J1		71.3	mg/kg dry	89.0	<71.3	127	75-125	
Total Phosphorus	53500 J1		14200	mg/kg dry	35600	26900	74.9	75-125	
Zinc	4580		178	mg/kg dry	3650	1310	89.7	75-125	



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD	Limit
Batch: BHD2146 - SW-3050 for 6010 (Continued)										
Matrix Spike (BHD2146-MS3) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/30/2024										
Potassium	28600		711	mg/kg dry	17800	8330	114	107	75-125	
Selenium	209		7.11	mg/kg dry	178	18.1			75-125	
Matrix Spike (BHD2146-MS4) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 6/4/2024										
Arsenic	197		7.11	mg/kg dry	178	13.3	103		75-125	
Matrix Spike Dup (BHD2146-MSD1) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/15/2024										
Cadmium	20.1		0.713	mg/kg dry	17.8	1.12	107		75-125	1.97 20
Chromium	108		3.57	mg/kg dry	89.2	29.0	88.7		75-125	0.175 20
Molybdenum	98.6		3.57	mg/kg dry	89.2	10.2	99.1		75-125	5.22 20
Nickel	104		3.57	mg/kg dry	89.2	23.8	90.2		75-125	1.34 20
Matrix Spike Dup (BHD2146-MSD2) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/15/2024										
Copper	4050		143	mg/kg dry	3740	615	91.7		75-125	3.09 20
Lead	111		71.5	mg/kg dry	89.2	<71.5	124		75-125	1.62 20
Total Phosphorus	50900 J1		14300	mg/kg dry	35700	26900	67.5		75-125	5.00 20
Zinc	4710		179	mg/kg dry	3660	1310	93.2		75-125	2.95 20
Matrix Spike Dup (BHD2146-MSD3) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/30/2024										
Potassium	28200		713	mg/kg dry	17800	8330	111		75-125	1.68 20
Selenium	201		7.13	mg/kg dry	178	18.1	103		75-125	3.64 20
Matrix Spike Dup (BHD2146-MSD4) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 6/4/2024										
Arsenic	194		7.13	mg/kg dry	178	13.3	102		75-125	1.19 20
Post Spike (BHD2146-PS1) Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/15/2024										
Cadmium	56.5			ug/L	50.0	2.97	107		80-120	
Chromium	331			ug/L	250	77.0	102		80-120	
Molybdenum	293			ug/L	250	27.1	107		80-120	
Nickel	316			ug/L	250	63.1	101		80-120	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD	RPD Limit
Batch: BHD2146 - SW-3050 for 6010 (Continued)										
Post Spike (BHD2146-PS2)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/15/2024										
Copper	1900	J1		ug/L	500	1630	54.2	80-120		
Lead	330			ug/L	250	62.2	107	80-120		
Total Phosphorus	118000			ug/L	50000	71300	93.4	80-120		
Zinc	3620	J1		ug/L	250	3470	60.2	80-120		
Post Spike (BHD2146-PS3)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/30/2024										
Potassium	80100			ug/L	50000	22100	116	80-120		
Selenium	592			ug/L	500	48.0	109	80-120		
Post Spike (BHD2146-PS4)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 6/4/2024										
Arsenic	72.7	J1		ug/L	500	35.2	7.51	80-120		
Dilution Check (BHD2146-SRL1)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/15/2024										
Cadmium	1.18	U	3.56	mg/kg dry		1.12		5.02	10	
Chromium	31.3		17.9	mg/kg dry		29.0		7.54	10	
Copper	615		35.6	mg/kg dry		615		0.0499	10	
Molybdenum	<17.9	U	17.9	mg/kg dry		<17.9		200	10	
Nickel	24.9		17.9	mg/kg dry		23.8		4.44	10	
Total Phosphorus	29600		3560	mg/kg dry		26900		9.62	10	
Dilution Check (BHD2146-SRL2)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 5/30/2024										
Potassium	8480		3560	mg/kg dry		8330		1.74	10	
Selenium	23.6	U	35.6	mg/kg dry		18.1		26.5	10	
Dilution Check (BHD2146-SRL3)										
Source: 24D1306-02 Prepared: 4/11/2024 Analyzed: 6/4/2024										
Arsenic	18.6	U	35.6	mg/kg dry		13.3		33.7	10	



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Quality Control (Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD0511 - Percent Solids									
Blank (BHD0511-BLK1)									
% Solids	<0.100	U	0.100	%					
Prepared: 4/3/2024 Analyzed: 4/4/2024									
Duplicate (BHD0511-DUP1)			Source: 24D1401-10						
% Solids	1.33		0.100	%		1.33		0.0903	20
Duplicate (BHD0511-DUP2)			Source: 24C2592-01						
% Solids	3.78		0.100	%		3.79		0.224	10
Reference (BHD0511-SRM1)									
% Solids	0.353		0.100	%					
Prepared: 4/3/2024 Analyzed: 4/4/2024									
					0.350		101	78.9-118	
Batch: BHD0520 - Solid Anions No Prep									
Duplicate (BHD0520-DUP1)			Source: 24D1306-01						
Nitrate as N	2020		27.8	mg/kg dry		2040		0.923	15
MRL Check (BHD0520-MRL1)									
Nitrate as N	0.0990	U	0.125	mg/kg wet	0.100		99.0	50-150	
Matrix Spike (BHD0520-MS1)			Source: 24D1306-01						
Nitrate as N	2530		30.9	mg/kg dry	495	2040	99.0	80-120	
Batch: BHD0894 - TKN T									
Blank (BHD0894-BLK1)									
Ammonia as N	<9.98	U	9.98	mg/kg wet					
Prepared: 4/4/2024 Analyzed: 4/5/2024									



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHD0894 - TKN T (Continued)									
LCS (BHD0894-BS1)									
Ammonia as N	94.7		9.98	mg/kg wet	99.8		85-115	94.9	
Prepared: 4/4/2024 Analyzed: 4/5/2024									
Duplicate (BHD0894-DUP1)									
Ammonia as N	58.10	J1	2100	mg/kg dry		4500		25.4	20
Source: 2485382-01 Prepared: 4/4/2024 Analyzed: 4/5/2024									
MRL Check (BHD0894-MRL1)									
Ammonia as N	8.66	U	9.98	mg/kg wet	9.98		50-150	86.8	
Prepared: 4/4/2024 Analyzed: 4/5/2024									
Matrix Spike (BHD0894-MS1)									
Ammonia as N	26000		2090	mg/kg dry	20900	4500	85-115	103	
Source: 2485382-01 Prepared: 4/4/2024 Analyzed: 4/5/2024									
Batch: BHD1474 - TKN T									
Blank (BHD1474-BLK1)									
Total Kjeldahl Nitrogen - (TKN)	<9.88	U	9.88	mg/kg wet					
Prepared: 4/8/2024 Analyzed: 4/9/2024									
LCS (BHD1474-BS1)									
Total Kjeldahl Nitrogen - (TKN)	18.9		9.92	mg/kg wet	19.6		85-115	96.5	
Prepared: 4/8/2024 Analyzed: 4/9/2024									
Duplicate (BHD1474-DUP1)									
Total Kjeldahl Nitrogen - (TKN)	57700		2600	mg/kg dry		58900		2.00	20
Source: 2485382-01 Prepared: 4/8/2024 Analyzed: 4/9/2024									
Matrix Spike (BHD1474-MS1)									
Total Kjeldahl Nitrogen - (TKN)	66900	J1	2550	mg/kg dry	10200	58900	85-115	78.4	
Source: 2485382-01 Prepared: 4/8/2024 Analyzed: 4/9/2024									



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD21114 - SW-3511									
Blank (BHD21114-BLK1)									
Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	<0.0300	U	0.0300	mg/L					
cis-Chlordane (alpha-Chlordane)	1.02E-5		1.20E-6	mg/L					
Endrin	<0.0200	U	0.0200	mg/L					
gamma-BHC (Lindane,	<0.400	U	0.400	mg/L					
gamma-HexachlorocyclohexaneE)									
gamma-Chlordane	9.58E-6		1.20E-6	mg/L					
Heptachlor	<0.00800	U	0.00800	mg/L					
Heptachlor epoxide	<0.00800	U	0.00800	mg/L					
Methoxychlor	<10.0	U	10.0	mg/L					
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L					
Surrogate: 2,4,5,6			9.28E-5	mg/L	0.000120		77.3		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000134	mg/L	0.000120		111		60-140

TOX LCS (BHD21114-BS1)

Prepared: 4/11/2024 Analyzed: 5/11/2024									
Toxaphene (Chlorinated Camphene)	0.000931	U	0.500	mg/L	0.00120		77.6		60-140
Surrogate: 2,4,5,6			9.46E-5	mg/L	0.000120		78.8		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000129	mg/L	0.000120		107		60-140

LCS (BHD21114-BS2)

Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	0.000386	U	0.0300	mg/L	0.000480		80.4		60-140
cis-Chlordane (alpha-Chlordane)	9.76E-5		1.20E-6	mg/L	0.000120		81.4		60-140
Endrin	0.000112	U	0.0200	mg/L	0.000120		93.6		60-140
gamma-BHC (Lindane,	0.000104	U	0.400	mg/L	0.000120		86.9		60-140
gamma-HexachlorocyclohexaneE)									
gamma-Chlordane	9.98E-5		1.20E-6	mg/L	0.000120		83.2		60-140
Heptachlor	9.16E-5	U	0.00800	mg/L	0.000120		76.3		60-140
Heptachlor epoxide	9.69E-5	U	0.00800	mg/L	0.000120		80.6		60-140
Methoxychlor	0.000101	U	10.0	mg/L	0.000120		84.0		60-140
Surrogate: 2,4,5,6			8.63E-5	mg/L	0.000120		71.9		60-140
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000132	mg/L	0.000120		110		60-140



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD21114 - SW-3511 (Continued)									
TOX LCSD (BHD21114-BSD1)									
Toxaphene (Chlorinated Camphene)	0.000984	U	0.500	mg/L	0.00120		82.0	60-140	40
Surrogate: 2,4,5,6			8.36E-5	mg/L	0.000120		69.7	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140	

LCS Dup (BHD21114-BSD2)

Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	0.000392	U	0.0300	mg/L	0.000480		81.6	60-140	40
cis-Chlordane (alpha-Chlordane)	9.65E-5		1.20E-6	mg/L	0.000120		80.4	60-140	40
Endrin	0.000102	U	0.0200	mg/L	0.000120		84.7	60-140	40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000108	U	0.400	mg/L	0.000120		89.9	60-140	40
gamma-Chlordane	0.000101		1.20E-6	mg/L	0.000120		83.8	60-140	40
Heptachlor	9.04E-5	U	0.00800	mg/L	0.000120		75.4	60-140	40
Heptachlor epoxide	0.000104	U	0.00800	mg/L	0.000120		86.8	60-140	40
Methoxychlor	0.000105	U	10.0	mg/L	0.000120		87.2	60-140	40
Surrogate: 2,4,5,6			8.97E-5	mg/L	0.000120		74.8	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000131	mg/L	0.000120		109	60-140	

BHD1427-BLK1 (BHD21114-LBK1)

Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	2.61E-5	U	0.0300	mg/L					
cis-Chlordane (alpha-Chlordane)	6.60E-6		1.20E-6	mg/L					
Endrin	3.91E-6	U	0.0200	mg/L					
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	5.49E-6	U	0.400	mg/L					
gamma-Chlordane	6.31E-6		1.20E-6	mg/L					
Heptachlor	6.48E-6	U	0.00800	mg/L					
Heptachlor epoxide	6.75E-6	U	0.00800	mg/L					
Methoxychlor	6.28E-6	U	10.0	mg/L					
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L					
Surrogate: 2,4,5,6			8.65E-5	mg/L	0.000120		72.1	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr		S	6.81E-5	mg/L	0.000120		56.8	60-140	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD
Batch: BHD2114 - SW-3511 (Continued)									
Matrix Spike (BHD2114-MS1)									
Source: 24D1368-01									
Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	0.00215	U	0.0300	mg/L	0.00240	0.000137	83.8	60-140	
cis-Chlordane (alpha-Chlordane)	0.000504		6.00E-6	mg/L	0.000600	3.31E-5	78.5	60-140	
Endrin	0.000571	U	0.0200	mg/L	0.000600	2.25E-5	91.4	60-140	
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000633	U	0.400	mg/L	0.000600	2.70E-5	101	60-140	
gamma-Chlordane	0.000501		6.00E-6	mg/L	0.000600	3.08E-5	78.4	60-140	
Heptachlor	0.000577	U	0.00800	mg/L	0.000600	3.21E-5	90.9	60-140	
Heptachlor epoxide	0.000564	U	0.00800	mg/L	0.000600	4.12E-5	87.2	60-140	
Methoxychlor	0.000525	U	10.0	mg/L	0.000600	3.63E-5	81.5	60-140	
Surrogate: 2,4,5,6			0.000398	mg/L	0.000600		66.3	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000412	mg/L	0.000600		68.7	60-140	
Matrix Spike Dup (BHD2114-MSD1)									
Source: 24D1368-01									
Prepared: 4/11/2024 Analyzed: 5/11/2024									
Chlordane (Total)	0.00201	U	0.0300	mg/L	0.00240	0.000137	78.1	60-140	40
cis-Chlordane (alpha-Chlordane)	0.000485		6.00E-6	mg/L	0.000600	3.31E-5	75.3	60-140	40
Endrin	0.000509	U	0.0200	mg/L	0.000600	2.25E-5	81.0	60-140	40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000524	U	0.400	mg/L	0.000600	2.70E-5	82.9	60-140	40
gamma-Chlordane	0.000507		6.00E-6	mg/L	0.000600	3.08E-5	79.4	60-140	40
Heptachlor	0.000498	U	0.00800	mg/L	0.000600	3.21E-5	77.6	60-140	40
Heptachlor epoxide	0.000523	U	0.00800	mg/L	0.000600	4.12E-5	80.3	60-140	40
Methoxychlor	0.000478	U	10.0	mg/L	0.000600	3.63E-5	73.7	60-140	40
Surrogate: 2,4,5,6			0.000421	mg/L	0.000600		70.1	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000539	mg/L	0.000600		89.8	60-140	

Batch: BHD2215 - EPA 200.2 TCLP

Blank (BHD2215-BLK1)

Barium	<100	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Chromium	<0.00500	U	0.00500	mg/L					
Lead	<5.00	U	5.00	mg/L					
Selenium	<1.00	U	1.00	mg/L					

Prepared: 4/12/2024 Analyzed: 5/9/2024



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD2215 - EPA 200.2 TCLP (Continued)									
Blank (BHD2215-BLK2)									
Silver	<5.00	U	5.00	mg/L	Prepared: 4/12/2024 Analyzed: 5/17/2024				
Blank (BHD2215-BLK4)									
Arsenic	<5.00	U	5.00	mg/L	Prepared: 4/12/2024 Analyzed: 5/29/2024				
LCS (BHD2215-BS1)									
Barium	0.512	U	100	mg/L	0.500	102	80-120		
Cadmium	0.0506	U	1.00	mg/L	0.0500	101	80-120		
Chromium	0.254		0.00500	mg/L	0.250	101	80-120		
Lead	0.253	U	5.00	mg/L	0.250	101	80-120		
Selenium	0.509	U	1.00	mg/L	0.500	102	80-120		
LCS (BHD2215-BS2)									
Silver	0.0514	U	5.00	mg/L	0.0500	103	80-120		
LCS (BHD2215-BS4)									
Arsenic	0.544	U	5.00	mg/L	0.500	109	80-120		
Duplicate (BHD2215-DUP1)									
Barium	0.727	U	100	mg/L	Prepared: 4/12/2024 Analyzed: 5/9/2024				
Cadmium	<1.00	U	1.00	mg/L	0.701	3.64	20		
Chromium	<0.00500	U	0.00500	mg/L	<1.00	200	20		
Lead	<5.00	U	5.00	mg/L	0.00288	200	20		
Selenium	0.00558	U	1.00	mg/L	<5.00	0.714	20		
Duplicate (BHD2215-DUP2)									
Silver	<5.00	U	5.00	mg/L	Prepared: 4/12/2024 Analyzed: 5/17/2024				
					<5.00				20



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BHD2215 - EPA 200.2 TCCLP (Continued)

Duplicate (BHD2215-DUP4) Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/29/2024

Arsenic	0.0111	U	5.00	mg/L		0.0118		5.51	20
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BHD1427-LBK1 (BHD2215-LBK1)

Prepared: 4/12/2024 Analyzed: 5/9/2024

Barium	0.700	U	100	mg/L					
Cadmium	<1.00	U	1.00	mg/L					
Chromium	0.00188	U	0.00500	mg/L					
Lead	0.00605	U	5.00	mg/L					
Selenium	0.00625	U	1.00	mg/L					

BHD1427-LBK1 (BHD2215-LBK2)

Prepared: 4/12/2024 Analyzed: 5/17/2024

Silver	<5.00	U	5.00	mg/L					
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BHD1427-LBK1 (BHD2215-LBK4)

Prepared: 4/12/2024 Analyzed: 5/29/2024

Arsenic	0.0126	U	5.00	mg/L					
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Matrix Spike (BHD2215-MS1)

Prepared: 4/12/2024 Analyzed: 5/9/2024

Barium	1.30	U	100	mg/L	0.500	0.701	120	75-125	
Cadmium	0.0527	U	1.00	mg/L	0.0500	<1.00	105	75-125	
Chromium	0.254		0.00500	mg/L	0.250	0.00288	100	75-125	
Lead	0.258	U	5.00	mg/L	0.250	<5.00	103	75-125	
Selenium	0.531	U	1.00	mg/L	0.500	0.00562	105	75-125	

Matrix Spike (BHD2215-MS2)

Prepared: 4/12/2024 Analyzed: 5/17/2024

Silver	0.0543	U	5.00	mg/L	0.0500	<5.00	109	75-125	
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Matrix Spike (BHD2215-MS4)

Prepared: 4/12/2024 Analyzed: 5/29/2024

Arsenic	0.607	U	5.00	mg/L	0.500	0.0118	119	75-125	
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Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	Limit
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Batch: BHD22215 - EPA 200.2 TCLP (Continued)

Post Spike (BHD22215-PS1)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/9/2024

Barium	1220	ug/L	500	683	107	80-120
Cadmium	44.4	ug/L	50.0	0.156	88.4	80-120
Chromium	215	ug/L	250	2.81	84.7	80-120
Lead	219	ug/L	250	2.09	86.6	80-120
Selenium	447	ug/L	500	5.48	88.3	80-120

Post Spike (BHD22215-PS2)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/17/2024

Silver	53.6	ug/L	50.0	0.224	107	80-120
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Post Spike (BHD22215-PS4)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/29/2024

Arsenic	530	ug/L	500	11.5	104	80-120
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Dilution Check (BHD22215-SRL1)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/9/2024

Barium	0.701 U	100	mg/L	0.701	0.00	10
Cadmium	<1.00 U	1.00	mg/L	<1.00		10
Chromium	<0.0250 U	0.0250	mg/L	<0.0250	200	10
Lead	<5.00 U	5.00	mg/L	<5.00		10
Selenium	0.0439 U	1.00	mg/L	<1.00	155	10

Dilution Check (BHD22215-SRL2)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/17/2024

Silver	<5.00 U	5.00	mg/L	<5.00	10
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Dilution Check (BHD22215-SRL4)

Source: 24D1306-02

Prepared: 4/12/2024 Analyzed: 5/29/2024

Arsenic	<5.00 U	5.00	mg/L	<5.00	200	10
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Batch: BHD2602 - SW-3511

MB SV (BHD2602-BLK1)

Prepared: 4/15/2024 Analyzed: 4/16/2024

2,4,5-Trichlorophenol	<400 U	400	mg/L	
2,4,6-Trichlorophenol	<2.00 U	2.00	mg/L	
2,4-Dinitrotoluene (2,4-DNT)	<0.130 U	0.130	mg/L	
2-Methylphenol	<200 U	200	mg/L	
3,4-Methylphenol	<200 U	200	mg/L	
Hexachlorobenzene	<0.130 U	0.130	mg/L	
Hexachlorobutadiene	<0.500 U	0.500	mg/L	
Hexachloroethane	<3.00 U	3.00	mg/L	
Nitrobenzene	<2.00 U	2.00	mg/L	
Pentachlorophenol	<100 U	100	mg/L	
Pyridine	<5.00 U	5.00	mg/L	

Surrogate: 2-Fluorobiphenyl-surr

Surrogate: 2-Fluorobiphenyl-surr	0.00918	mg/L	0.0100	91.8	54.6-148
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Surrogate: 2-Fluorophenol-surr

Surrogate: 2-Fluorophenol-surr	0.0215	mg/L	0.0200	108	55-152
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Surrogate: 2,4,6-Tribromophenol-surr

Surrogate: 2,4,6-Tribromophenol-surr	0.0198	mg/L	0.0200	98.9	52.4-136
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Surrogate: Nitrobenzene-d5-surr

Surrogate: Nitrobenzene-d5-surr	0.0102	mg/L	0.0100	102	52-162
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Surrogate: Phenol-d5-surr

Surrogate: Phenol-d5-surr	0.0213	mg/L	0.0200	107	58.7-152
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Surrogate: p-Terphenyl-d14-surr

Surrogate: p-Terphenyl-d14-surr	0.0106	mg/L	0.0100	106	51.9-147
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Municipal Operations and Consulting
27316 Spectrum Way
Oak Ridge, TX 77385

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD2602 - SW-3511 (Continued)									
BS SV (BHD2602-BS1)									
Prepared: 4/15/2024 Analyzed: 4/16/2024									
2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0200		107	60-140	
2,4,6-Trichlorophenol	0.0213	U	2.00	mg/L	0.0200		107	60-140	
2,4-Dinitrotoluene (2,4-DNT)	0.0103	U	0.130	mg/L	0.0100		103	60-140	
2-Methylphenol	0.0199	U	200	mg/L	0.0200		99.3	60-140	
3,4-Methylphenol	0.0359	U	200	mg/L	0.0400		89.9	60-140	
Hexachlorobenzene	0.00910	U	0.130	mg/L	0.0100		91.0	60-140	
Hexachlorobutadiene	0.00662	U	0.500	mg/L	0.0100		66.2	60-140	
Hexachloroethane	0.00675	U	3.00	mg/L	0.0100		67.5	60-140	
Nitrobenzene	0.0104	U	2.00	mg/L	0.0100		104	60-140	
Pentachlorophenol	0.0200	U	100	mg/L	0.0200		99.9	36.8-149	
Pyridine	0.0331	U	5.00	mg/L	0.0500		66.2	2.5-101	
Surrogate: 2-Fluorobiphenyl-surr			0.00947	mg/L	0.0100		94.7	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0220	mg/L	0.0200		110	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0196	mg/L	0.0200		98.1	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0106	mg/L	0.0100		106	52-162	
Surrogate: Phenol-d5-surr			0.0220	mg/L	0.0200		110	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00782	mg/L	0.0100		78.2	51.9-147	

BSD SV (BHD2602-BSD1)

Prepared: 4/15/2024 Analyzed: 4/16/2024									
2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0200		108	60-140	0.293
2,4,6-Trichlorophenol	0.0201	U	2.00	mg/L	0.0200		101	60-140	5.73
2,4-Dinitrotoluene (2,4-DNT)	0.0102	U	0.130	mg/L	0.0100		102	60-140	0.998
2-Methylphenol	0.0200	U	200	mg/L	0.0200		99.9	60-140	0.588
3,4-Methylphenol	0.0360	U	200	mg/L	0.0400		90.0	60-140	0.189
Hexachlorobenzene	0.00989	U	0.130	mg/L	0.0100		98.9	60-140	8.28
Hexachlorobutadiene	0.00690	U	0.500	mg/L	0.0100		69.0	60-140	4.18
Hexachloroethane	0.00746	U	3.00	mg/L	0.0100		74.6	60-140	9.99
Nitrobenzene	0.0106	U	2.00	mg/L	0.0100		106	60-140	2.19
Pentachlorophenol	0.0203	U	100	mg/L	0.0200		101	36.8-149	1.44
Pyridine	0.0318	U	5.00	mg/L	0.0500		63.6	2.5-101	4.01
Surrogate: 2-Fluorobiphenyl-surr			0.00917	mg/L	0.0100		91.7	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0219	mg/L	0.0200		110	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0190	mg/L	0.0200		95.1	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0104	mg/L	0.0100		104	52-162	
Surrogate: Phenol-d5-surr			0.0229	mg/L	0.0200		114	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00768	mg/L	0.0100		76.8	51.9-147	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC Limits	RPD Limit
Batch: BHD2602 - SW-3511 (Continued)									
BHD1427-BLK1 (BHD3602-LBK1)									
2,4,5-Trichlorophenol	<400	U	400	mg/L					
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L					
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L					
2-Methylphenol	<200	U	200	mg/L					
3,4-Methylphenol	0.00260	U	200	mg/L					
Hexachlorobenzene	<0.130	U	0.130	mg/L					
Hexachlorobutadiene	<0.500	U	0.500	mg/L					
Hexachloroethane	<3.00	U	3.00	mg/L					
Nitrobenzene	<2.00	U	2.00	mg/L					
Pentachlorophenol	<100	U	100	mg/L					
Pyridine	<5.00	U	5.00	mg/L					
Surrogate: 2-Fluorobiphenyl-surr			0.0358	mg/L	0.0400		89.4	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0774	mg/L	0.0800		96.8	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0995	mg/L	0.0800		124	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0420	mg/L	0.0400		105	52-162	
Surrogate: Phenol-d5-surr			0.0836	mg/L	0.0800		105	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0398	mg/L	0.0400		99.5	51.9-147	

Prepared: 4/15/2024 Analyzed: 4/16/2024

MDL SV (BHD2602-MRL1)

2,4,5-Trichlorophenol	0.00109	U	400	mg/L	0.00100		109		
2,4,6-Trichlorophenol	0.00134	U	2.00	mg/L	0.00100		134		
2,4-Dinitrotoluene (2,4-DNT)	0.000238	U	0.130	mg/L	0.000500		47.5		
2-Methylphenol	0.000986	U	200	mg/L	0.00100		98.6		
3,4-Methylphenol	0.00202	U	200	mg/L	0.00200		101		
Hexachlorobenzene	0.000449	U	0.130	mg/L	0.000500		89.7		
Hexachlorobutadiene	0.000258	U	0.500	mg/L	0.000500		51.6		
Hexachloroethane	0.000315	U	3.00	mg/L	0.000500		63.0		
Nitrobenzene	0.000639	U	2.00	mg/L	0.000500		128		
Pentachlorophenol	0.000602	U	100	mg/L	0.00100		60.2		
Pyridine	<5.00	U	5.00	mg/L	0.00250				
Surrogate: 2-Fluorobiphenyl-surr			0.00881	mg/L	0.0100		88.1	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0223	mg/L	0.0200		112	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0178	mg/L	0.0200		89.1	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0105	mg/L	0.0100		105	52-162	
Surrogate: Phenol-d5-surr			0.0214	mg/L	0.0200		107	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00968	mg/L	0.0100		96.8	51.9-147	

Prepared: 4/15/2024 Analyzed: 4/16/2024



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	Limit
Batch: BHD2602 - SW-3511 (Continued)									
24D1306-02 MS (BHD2602-MS1) Source: 24D1306-02 Prepared: 4/15/2024 Analyzed: 4/16/2024									
2,4,5-Trichlorophenol	0.102	U	400	mg/L	0.0800	<400	127	44.9-171	
2,4,6-Trichlorophenol	0.0901	U	2.00	mg/L	0.0800	<2.00	113	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0486	U	0.130	mg/L	0.0400	<0.130	122	50.3-144	
2-Methylphenol	0.0854	U	200	mg/L	0.0800	<200	107	17.3-182	
3,4-Methylphenol	0.135	U	200	mg/L	0.160	<200	84.4	43.4-188	
Hexachlorobenzene	0.0396	U	0.130	mg/L	0.0400	<0.130	98.9	56.1-137	
Hexachlorobutadiene	0.0259	U	0.500	mg/L	0.0400	<0.500	64.7	33.1-110	
Hexachloroethane	0.0210	U	3.00	mg/L	0.0400	<3.00	52.5	36.2-106	
Nitrobenzene	0.0463	U	2.00	mg/L	0.0400	<2.00	116	54.9-156	
Pentachlorophenol	0.0939	U	100	mg/L	0.0800	<100	117	42.2-151	
Pyridine	0.0842	U	5.00	mg/L	0.200	<5.00	42.1	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.0382	mg/L	0.0400		95.6	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0824	mg/L	0.0800		103	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.102	mg/L	0.0800		127	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0436	mg/L	0.0400		109	52-162	
Surrogate: Phenol-d5-surr			0.0952	mg/L	0.0800		119	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0363	mg/L	0.0400		90.7	51.9-147	

24D1306-02 MSD (BHD2602-MSD1)

Source: 24D1306-02 Prepared: 4/15/2024 Analyzed: 4/16/2024									
2,4,5-Trichlorophenol	0.0945	U	400	mg/L	0.0800	<400	118	44.9-171	40
2,4,6-Trichlorophenol	0.0878	U	2.00	mg/L	0.0800	<2.00	110	34.7-143	40
2,4-Dinitrotoluene (2,4-DNT)	0.0452	U	0.130	mg/L	0.0400	<0.130	113	50.3-144	40
2-Methylphenol	0.0812	U	200	mg/L	0.0800	<200	101	17.3-182	40
3,4-Methylphenol	0.126	U	200	mg/L	0.160	<200	79.0	43.4-188	40
Hexachlorobenzene	0.0383	U	0.130	mg/L	0.0400	<0.130	95.7	56.1-137	40
Hexachlorobutadiene	0.0273	U	0.500	mg/L	0.0400	<0.500	68.2	33.1-110	40
Hexachloroethane	0.0288	U	3.00	mg/L	0.0400	<3.00	71.9	36.2-106	40
Nitrobenzene	0.0464	U	2.00	mg/L	0.0400	<2.00	116	54.9-156	40
Pentachlorophenol	0.0919	U	100	mg/L	0.0800	<100	115	42.2-151	40
Pyridine	0.0867	U	5.00	mg/L	0.200	<5.00	43.4	2-87.4	40
Surrogate: 2-Fluorobiphenyl-surr			0.0361	mg/L	0.0400		90.3	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0836	mg/L	0.0800		104	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0954	mg/L	0.0800		119	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0420	mg/L	0.0400		105	52-162	
Surrogate: Phenol-d5-surr			0.0924	mg/L	0.0800		116	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.0360	mg/L	0.0400		90.0	51.9-147	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD2630 - SW-3511									
Blank (BHD2630-BLK1)									
2,4-D	<10.0	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0184	mg/L	0.0250		74	70-130	
LCS (BHD2630-BS1)									
2,4-D	0.00480	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Silvex (2,4,5-TP)	0.00490	U	1.00	mg/L	0.00515		93	70-130	
Surrogate: DCAA-surr					0.00500		98	70-130	
LCS Dup (BHD2630-BSD1)			0.0247	mg/L	0.0250		99	70-130	
2,4-D	0.00504	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Silvex (2,4,5-TP)	0.00512	U	1.00	mg/L	0.00515		98	70-130	5
Surrogate: DCAA-surr					0.00500		102	70-130	4
LCS Dup (BHD2630-BSD1)			0.0239	mg/L	0.0250		95	70-130	
BHD1427-BLK1 (BHD2630-LBK1)									
2,4-D	<10.0	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L					
Surrogate: DCAA-surr			0.0246	mg/L	0.0250		98	70-130	
Matrix Spike (BHD2630-MS1)									
2,4-D			Source: 24D1639-01						
Silvex (2,4,5-TP)	0.00514	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Surrogate: DCAA-surr	0.00503	U	1.00	mg/L	0.00515	<10.0	100	70-130	
					0.00500	<1.00	101	70-130	
LCS Dup (BHD2630-MSD1)			0.0263	mg/L	0.0250		105	70-130	
Matrix Spike Dup (BHD2630-MSD1)									
2,4-D	0.00510	U	10.0	mg/L	Prepared: 4/15/2024 Analyzed: 4/18/2024				
Silvex (2,4,5-TP)	0.00509	U	1.00	mg/L	0.00515	<10.0	99	70-130	0.8
Surrogate: DCAA-surr					0.00500	<1.00	102	70-130	1
			0.0266	mg/L	0.0250		106	70-130	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHD2844 - SW-5030									
Blank (BHD2844-BLK1)									
1,1-Dichloroethylene	<0.700	U	0.700	mg/L					
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene	<7.50	U	7.50	mg/L					
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr									
Surrogate: 4-Bromofluorobenzene-surr			49.7	ug/L	50.0		99.5	70-130	
Surrogate: Toluene-d8-surr			48.2	ug/L	50.0		96.4	70-130	
Surrogate: Dibromofluoromethane-surr			50.1	ug/L	50.0		100	70-130	
			46.7	ug/L	50.0		93.5	70-130	

Prepared & Analyzed: 4/17/2024

LCS (BHD2844-B51)

1,1-Dichloroethylene	0.0362	U	0.700	mg/L	0.0500		72.3	70-130	
1,2-Dichloroethane (Ethylene dichloride)	0.0391	U	0.500	mg/L	0.0500		78.3	70-130	
1,4-Dichlorobenzene	0.0398	U	7.50	mg/L	0.0500		79.6	70-130	
(p-Dichlorobenzene)									
2-Butanone (Methyl ethyl ketone, MEK)	0.433	U	200	mg/L	0.500		86.6	70-130	
Benzene	0.0400	U	0.500	mg/L	0.0500		80.1	70-130	
Carbon tetrachloride	0.0358	U	0.500	mg/L	0.0500		71.6	70-130	
Chlorobenzene	0.0408	U	100	mg/L	0.0500		81.6	70-130	
Chloroform	0.0363	U	6.00	mg/L	0.0500		72.6	70-130	
Tetrachloroethylene (Perchloroethylene)	0.0698	11, U	0.700	mg/L	0.0500		140	70-130	
Trichloroethene (Trichloroethylene)	0.0437	U	0.500	mg/L	0.0500		87.3	70-130	
Vinyl chloride (Chloroethene)	0.0368	U	0.200	mg/L	0.0500		73.7	70-130	
Surrogate: 1,2-Dichloroethane-d4-surr									
Surrogate: 4-Bromofluorobenzene-surr			46.7	ug/L	50.0		93.3	70-130	
Surrogate: Toluene-d8-surr			48.3	ug/L	50.0		96.6	70-130	
Surrogate: Dibromofluoromethane-surr			50.9	ug/L	50.0		102	70-130	
			44.1	ug/L	50.0		88.1	70-130	

Prepared & Analyzed: 4/17/2024



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	%REC	RPD Limit
Batch: BHD2844 - SW-5030 (Continued)									
LCS Dup (BHD2844-BSD1)									
1,1-Dichloroethylene	0.0357	U	0.700	mg/L	0.0500	Prepared & Analyzed: 4/17/2024	70-130	71.3	1.41
1,2-Dichloroethane (Ethylene dichloride)	0.0374	U	0.500	mg/L	0.0500		70-130	74.8	4.50
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0403	U	7.50	mg/L	0.0500		70-130	80.5	1.15
2-Butanone (Methyl ethyl ketone, MEK)	0.441	U	200	mg/L	0.500		70-130	88.2	1.83
Benzene	0.0397	U	0.500	mg/L	0.0500		70-130	79.5	0.752
Carbon tetrachloride	0.0360	U	0.500	mg/L	0.0500		70-130	72.1	0.644
Chlorobenzene	0.0399	U	100	mg/L	0.0500		70-130	79.8	2.23
Chloroform	0.0355	U	6.00	mg/L	0.0500		70-130	70.9	2.31
Tetrachloroethylene (Perchloroethylene)	0.0707	J1, U	0.700	mg/L	0.0500		70-130	141	1.27
Trichloroethene (Trichloroethylene)	0.0428	U	0.500	mg/L	0.0500		70-130	85.6	1.97
Vinyl chloride (Chloroethene)	0.0366	U	0.200	mg/L	0.0500		70-130	73.1	0.802
Surrogate: 1,2-Dichloroethane-d4-surr									
Surrogate: 4-Bromofluorobenzene-surr			44.5	ug/L	50.0		70-130	89.0	
Surrogate: Toluene-d8-surr			48.1	ug/L	50.0		70-130	96.2	
Surrogate: Dibromofluoromethane-surr			49.4	ug/L	50.0		70-130	98.8	
			42.8	ug/L	50.0		70-130	85.7	

BHD1782-BLK1 (BHD2844-LBK1)

1,1-Dichloroethylene	<0.700	U	0.700	mg/L		Prepared & Analyzed: 4/17/2024			
1,2-Dichloroethane (Ethylene dichloride)	<0.500	U	0.500	mg/L					
1,4-Dichlorobenzene (p-Dichlorobenzene)	<7.50	U	7.50	mg/L					
2-Butanone (Methyl ethyl ketone, MEK)	<200	U	200	mg/L					
Benzene	<0.500	U	0.500	mg/L					
Carbon tetrachloride	<0.500	U	0.500	mg/L					
Chlorobenzene	<100	U	100	mg/L					
Chloroform	<6.00	U	6.00	mg/L					
Tetrachloroethylene (Perchloroethylene)	<0.700	U	0.700	mg/L					
Trichloroethene (Trichloroethylene)	<0.500	U	0.500	mg/L					
Vinyl chloride (Chloroethene)	<0.200	U	0.200	mg/L					
Surrogate: 1,2-Dichloroethane-d4-surr									
Surrogate: 4-Bromofluorobenzene-surr			50.1	ug/L	50.0		70-130	100	
Surrogate: Toluene-d8-surr			48.5	ug/L	50.0		70-130	97.1	
Surrogate: Dibromofluoromethane-surr			46.5	ug/L	50.0		70-130	93.0	
			48.4	ug/L	50.0		70-130	96.7	



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Quality Control (Continued)

TCCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD
Batch: BHD2844 - SW-5030 (Continued)								
Matrix Spike (BHD2844-MS1)								
Source: 24C5178-01								
Prepared & Analyzed: 4/17/2024								
1,1-Dichloroethylene	0.0264	J1, U	0.700	mg/L	0.0500	<0.700	52.9	70-130
1,2-Dichloroethane (Ethylene dichloride)	0.0263	J1, U	0.500	mg/L	0.0500	<0.500	52.5	70-130
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0295	J1, U	7.50	mg/L	0.0500	<7.50	58.9	70-130
2-Butanone (Methyl ethyl ketone, MEK)	0.671	J1, U	200	mg/L	0.500	0.419	50.6	70-130
Benzene	0.0286	J1, U	0.500	mg/L	0.0500	<0.500	57.2	70-130
Carbon tetrachloride	0.0257	J1, U	0.500	mg/L	0.0500	<0.500	51.5	70-130
Chlorobenzene	0.0286	J1, U	100	mg/L	0.0500	<100	57.2	70-130
Chloroform	0.0126	J1, U	6.00	mg/L	0.0500	<6.00	25.3	70-130
Tetrachloroethylene (Perchloroethylene)	0.0284	J1, U	0.700	mg/L	0.0500	<0.700	56.7	70-130
Trichloroethylene (Trichloroethylene)	0.0299	J1, U	0.500	mg/L	0.0500	<0.500	59.8	70-130
Vinyl chloride (Chloroethene)	0.0260	J1, U	0.200	mg/L	0.0500	<0.200	51.9	70-130
Surrogate: 1,2-Dichloroethane-d4-surr	45.6	ug/L	50.0	ug/L	50.0		91.3	70-130
Surrogate: 4-Bromofluorobenzene-surr	49.0	ug/L	50.0	ug/L	50.0		97.9	70-130
Surrogate: Toluene-d8-surr	50.2	ug/L	50.0	ug/L	50.0		100	70-130
Surrogate: Dibromofluoromethane-surr	45.6	ug/L	50.0	ug/L	50.0		91.2	70-130

Matrix Spike Dup (BHD2844-MSD1)

Source: 24C5178-01								
Prepared & Analyzed: 4/17/2024								
1,1-Dichloroethylene	0.0103	J1, U	0.700	mg/L	0.0500	<0.700	20.7	70-130
1,2-Dichloroethane (Ethylene dichloride)	0.0116	J1, U	0.500	mg/L	0.0500	<0.500	23.2	70-130
1,4-Dichlorobenzene (p-Dichlorobenzene)	0.0117	J1, U	7.50	mg/L	0.0500	<7.50	23.5	70-130
2-Butanone (Methyl ethyl ketone, MEK)	0.579	J1, U	200	mg/L	0.500	0.419	32.2	70-130
Benzene	0.0125	J1, U	0.500	mg/L	0.0500	<0.500	24.9	70-130
Carbon tetrachloride	0.0105	J1, U	0.500	mg/L	0.0500	<0.500	21.0	70-130
Chlorobenzene	0.0118	J1, U	100	mg/L	0.0500	<100	23.6	70-130
Chloroform	<6.00	J1, U	6.00	mg/L	0.0500	<6.00	20.1	70-130
Tetrachloroethylene (Perchloroethylene)	0.0100	J1, U	0.700	mg/L	0.0500	<0.700	20.1	70-130
Trichloroethylene (Trichloroethylene)	0.0121	J1, U	0.500	mg/L	0.0500	<0.500	24.2	70-130
Vinyl chloride (Chloroethene)	0.0247	J1, U	0.200	mg/L	0.0500	<0.200	49.3	70-130
Surrogate: 1,2-Dichloroethane-d4-surr	47.8	ug/L	50.0	ug/L	50.0		95.5	70-130
Surrogate: 4-Bromofluorobenzene-surr	48.6	ug/L	50.0	ug/L	50.0		97.2	70-130
Surrogate: Toluene-d8-surr	49.6	ug/L	50.0	ug/L	50.0		99.2	70-130
Surrogate: Dibromofluoromethane-surr	48.0	ug/L	50.0	ug/L	50.0		95.9	70-130



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Quality Control
(Continued)

TCPLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit
Batch: BHD3030 - SW-7471 TCPLP								
Duplicate (BHD3030-DUP1)	Source: 24D1695-01							
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	<0.200		200
BHD1427-BLK1 (BHD3030-LBK1)	Source: 24D1695-01							
Mercury	<0.200	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024			
MDL Check (BHD3030-MRL1)	Source: 24D1695-01							
Mercury	0.000226	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	0.000200	113	
Matrix Spike (BHD3030-MS1)	Source: 24D1695-01							
Mercury	0.00501	U	0.200	mg/L	Prepared & Analyzed: 4/26/2024	0.00500	100	80-120



Municipal Operations and Consulting 27316 Spectrum Way Oak Ridge, TX 77385	Project: Williamsburg Regional - Quarterly Sewage Sludge Project Number: 12 Project Manager: John Taylor	Reported: 07/03/2024 10:50
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Work Order: 24D1639

Sample Condition Checklist

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



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

Project: Williamsburg Regional - Quarterly Sewage Sludge
Project Number: 12
Project Manager: John Taylor

Reported:
07/03/2024 10:50

Term and Qualifier Definitions

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



CHAIN OF CUSTODY RECORD

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

TCEO TX-C24-00086



Page 2 of 2

24D1639

(Continued)

Lab PM : Deena Higginbotham	Project Name : Williamsburg Regional - Quarterly Sewage Sludge	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 22823 Franz Rd Houston 77449 Gate Combo - 1515 Jacob Gutierrez 832-392-5358 MUST CALL OPERATOR 30 MINUTES BEFORE ARRIVAL	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Print Name	Relinquished By (Signature)	Date/Time	Received By (Signature)	Date/Time	
Affiliation	Relinquished To Lab By (Signature)	Date/Time	Received for Laboratory By (Signature)	Date/Time	
Custody Seal: Yes / No	COC Label Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID	

Katy North

wko_NWDLs_COC_LS Revision 4.1 Effective 2/17/2022



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Page 1 of 2

24D1639

Lab PM : Deena Higginbotham		Project Name : Williamsburg Regional - Quarterly Sewage Sludge		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 22823 Franz Rd Houston 77449 Gate Combo - 1515 Jacob Gutierrez 832-392-5358 MUST CALL OPERATOR 30 MINUTES BEFORE ARRIVAL					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24D1639-01	Digester 3		4/3/2024 <i>4:20</i>	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCPI-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N-T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



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Williamsburg Regional Water
20141 Schiel Road
Cypress TX, 77433

Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g
40 CFR 503 Criterion for Vector Class B = <1.5mg/O2/g Solids/hr
*Fecal Coliform result is a geometric mean of seven individual samples.

LABORATORY ANALYTICAL REPORT

Project: Williamsburg Sludge b
Client Matrix: Waste

Sample Date & Time: 06/21/2024 12:25
Collector: VLH
Sample Type: Grab
Print Date: 7/22/2024

Digester

C4F6984-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
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Microbiological Lab

Fecal Coliform IDEXX Vector	<1000	1000	mpn/gran	N	B4F4640	06/21/2024 16:43	Colilert 18	
	0.2	0.1	mg O2/hr/g	N	B4F5684	06/21/2024 16:50	TAC 312.83(b)(4)	

Wet Lab

Percent Solid	1.1	0.1	%	A	B4F4591	06/24/2024 10:37	SM 2540G	
Volatile Percent Solid	54.9	0.1	%	A	B4F4587	06/25/2024 09:45	EPA 160.4	

☐ Sludge Manager
☒ Master Spreadsheet
☐ TCLP ☐ Metals
☐ PCB ☒ F/S ☐ Solid

pass

DRAFT REPORT

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Williamsburg Regional Water
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EPA 160.4 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch B4F4587 - No Prep Prepared: 06/25/24 09:45								
Blank (B4F4587-BLK1)	Analyzed: 6/25/2024 9:45:00AM							
Volatile Percent Solid	ND	0.1	%					
Source: C4F6693-01 Analyzed: 6/25/2024 9:45:00AM								
Duplicate (B4F4587-DUP1)	58.1	0.1	%		58.3		0.344	10
Volatile Percent Solid								
Batch B4F4591 - No Prep Prepared: 06/24/24 10:37								
Blank (B4F4591-BLK1)	Analyzed: 6/24/2024 10:37:00AM							
Percent Solid	ND	0.1	%					
Source: C4F6693-01 Analyzed: 6/24/2024 10:37:00AM								
Duplicate (B4F4591-DUP1)	2.50	0.1	%		2.60		3.92	20
Percent Solid								
Batch B4F4640 - No Prep Micro Prepared: 06/21/24 16:43								
Blank (B4F4640-BLK1)	Analyzed: 6/21/2024 4:43:00PM							
Fecal Coliform IDEXX	ND	1000	mpn/gram					
Source: C4F6984-01 Analyzed: 6/21/2024 4:43:00PM								
Duplicate (B4F4640-DUP1)	ND	1000	mpn/gram		ND			200
Fecal Coliform IDEXX								
Batch B4F5684 - No Prep Micro Prepared: 06/21/24 16:50								
Blank (B4F5684-BLK1)	Analyzed: 6/21/2024 4:50:00PM							
Vector	ND	0.1	mg O2/hr/g					
Source: C4F6984-01 Analyzed: 6/21/2024 4:50:00PM								
Duplicate (B4F5684-DUP1)	0.230	0.1	mg O2/hr/g		0.220		4.44	200
Vector								

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Williamsburg Regional Water
20141 Schiel Road
Cypress TX, 77433

Notes and Definitions

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

DRAFT REPORT

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Williamsburg Regional Water
20141 Schiel Road
Cypress TX, 77433

LABORATORY ANALYTICAL REPORT

Project: Williamsburg Sludge a
Client Matrix: Waste

Sample Date & Time: 06/21/2024 12:25
Collector: VLH
Sample Type: Grab
Print Date: 7/22/2024

Digester

C4F6983-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<u>Metals</u>								
Arsenic	<8.33	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Cadmium	<8.33	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Chromium	12.0	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Copper	239	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Lead	<8.33	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	B
Mercury, Total	<0.167	0.167	mg/Kg dry	A	B4F4738	06/26/2024 13:33	EPA SW 846-7471B	
Molybdenum	<8.33	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Nickel	11.9	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Phosphorus, %	2.44	1.00	% dry	A	B4F4735	06/26/2024 11:09	EPA SW 846-6010, 3050	
Potassium, %	0.827	0.417	% dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Selenium	<8.33	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	
Zinc	681	8.33	mg/Kg dry	A	B4F4719	06/25/2024 14:41	EPA SW 846-6010, 3050	B

Wet Lab

Percent Solid	1.2	0.1	%	A	B4F4593	06/24/2024 10:59	SM 2540G
pH-Sludge	3.31		std unit	A	B4G0324	07/02/2024 11:52	EPA SW 846-9040
TKN %	9.21	0.0833	% dry	N	B4G0342	07/02/2024 11:00	EPA 351.2

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Williamsburg Regional Water
20141 Schiel Road
Cypress TX, 77433

SM 2540G - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch B4F4593 - No Prep								
Prepared: 06/24/24 10:59								
Blank (B4F4593-BLK1)								
Analyzed: 6/24/2024 10:59:00AM								
Percent Solid	ND	0.1	%					
Duplicate (B4F4593-DUP1)								
Source: C4F6539-02								
Analyzed: 6/24/2024 10:59:00AM								
Percent Solid	2.50	0.1	%		2.30		8.33	20
Batch B4F4719 - SW846-3050								
Prepared: 06/24/24 13:10								
Blank (B4F4719-BLK1)								
Analyzed: 6/25/2024 1:35:57PM								
Molybdenum	ND	0.100	mg/Kg wet					
Arsenic	ND	0.100	mg/Kg wet					
Cadmium	ND	0.100	mg/Kg wet					
Chromium	ND	0.100	mg/Kg wet					
Copper	ND	0.100	mg/Kg wet					
Lead	0.0943	0.100	mg/Kg wet					
Nickel	ND	0.100	mg/Kg wet					B
Potassium, %	ND	0.00500	% wet					
Selenium	ND	0.100	mg/Kg wet					
Zinc	0.0557	0.100	mg/Kg wet					B
LCS (B4F4719-BS1)								
Analyzed: 6/25/2024 1:39:25PM								
Molybdenum	2.62	0.100	mg/Kg wet	2.50		105	80-120	
Arsenic	2.42	0.100	mg/Kg wet	2.50		96.8	80-120	
Cadmium	2.3	0.100	mg/Kg wet	2.50		90.4	80-120	
Chromium	2.41	0.100	mg/Kg wet				80-120	
Copper	2.56	0.100	mg/Kg wet	2.50		102	80-120	
Lead	2.23	0.100	mg/Kg wet	2.50		89.2	80-120	
Nickel	2.59	0.100	mg/Kg wet	2.50		104	80-120	B
Potassium, %	0.0266	0.00500	% wet	0.0250		106	80-120	
Selenium	2.20	0.100	mg/Kg wet	2.50		88.0	80-120	
Zinc	2.3	0.100	mg/Kg wet	2.50		92.0	80-120	B
Matrix Spike (B4F4719-MS1)								
Source: C4D3768-01								
Analyzed: 6/25/2024 1:49:35PM								
Molybdenum	2.63	0.100	mg/Kg wet	2.50	ND	105	75-125	
Arsenic	2.47	0.100	mg/Kg wet	2.50	ND	98.8	75-125	
Cadmium	2.3	0.100	mg/Kg wet	2.50	ND	92.4	75-125	
Chromium	2.39	0.100	mg/Kg wet		ND		75-125	
Copper	2.51	0.100	mg/Kg wet	2.50	ND	100	75-125	
Lead	2.25	0.100	mg/Kg wet	2.50	0.0183	89.3	75-125	B
DRAFT REPORT								

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Williamsburg Regional Water
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EPA SW 846-6010, 3050 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch B4F4719 - SW846-3050 Prepared: 06/24/24 13:10								
Matrix Spike (B4F4719-MS1) Source: C4D3768-01 Analyzed: 6/25/2024 1:49:35PM								
Nickel	2.58	0.100	mg/Kg wet	2.50	ND	103	75-125	
Potassium, %	0.0265	0.00500	% wet	0.0250	0.00137	101	75-125	
Selenium	2.30	0.100	mg/Kg wet	2.50	ND	92.0	75-125	
Zinc	2.29	0.100	mg/Kg wet	2.50	0.0202	90.8	75-125	B
Matrix Spike Dup (B4F4719-MSD1) Source: C4D3768-01 Analyzed: 6/25/2024 1:53:02PM								
Molybdenum	2.59	0.100	mg/Kg wet	2.50	ND	104	75-125	
Arsenic	2.43	0.100	mg/Kg wet	2.50	ND	97.2	75-125	
Cadmium	2.3	0.100	mg/Kg wet	2.50	ND	90.8	75-125	
Chromium	2.36	0.100	mg/Kg wet	ND	ND		75-125	
Copper	2.47	0.100	mg/Kg wet	2.50	ND	98.8	75-125	
Lead	2.22	0.100	mg/Kg wet	2.50	0.0183	88.1	75-125	
Nickel	2.55	0.100	mg/Kg wet	2.50	ND	102	75-125	
Potassium, %	0.0261	0.00500	% wet	0.0250	0.00137	98.9	75-125	
Selenium	2.25	0.100	mg/Kg wet	2.50	ND	90.0	75-125	
Zinc	2.26	0.100	mg/Kg wet	2.50	0.0202	89.6	75-125	B
Batch B4F4735 - SW846-3050 Prepared: 06/26/24 10:57								
Blank (B4F4735-BLK1) Analyzed: 6/26/2024 10:57:03AM								
Phosphorus, %	ND	1.00	% wet					
LCS (B4F4735-BS1) Analyzed: 6/26/2024 10:58:39AM								
Phosphorus, %	0.00244	1.00	% wet	0.00252		96.7	80-120	
Matrix Spike (B4F4735-MS1) Source: C4D3768-01 Analyzed: 6/26/2024 10:51:14AM								
Phosphorus, %	0.00275	1.00	% wet	0.00252	ND	109	75-125	
Matrix Spike Dup (B4F4735-MSD1) Source: C4D3768-01 Analyzed: 6/26/2024 10:52:50AM								
Phosphorus, %	0.00279	1.00	% wet	0.00252	ND	111	75-125	
Batch B4F4738 - SW 846-7471B Prepared: 06/24/24 13:15								
Blank (B4F4738-BLK1) Analyzed: 6/26/2024 1:00:50PM								
Mercury, Total	ND	0.00200	mg/Kg wet					
LCS (B4F4738-BS1) Analyzed: 6/26/2024 1:03:21PM								
Mercury, Total	0.0258	0.00200	mg/Kg wet	0.0250		103	80-120	

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Cypress TX, 77433

EPA SW 846-7471B - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Batch B4F4738 - SW 846-7471B Prepared: 06/24/24 13:15								
Matrix Spike (B4F4738-MS1) Source: C4D3768-01 Analyzed: 6/26/2024 1:10:57PM								
Mercury, Total	0.0257	0.00200	mg/Kg wet	0.0250	ND	103	80-120	
Matrix Spike Dup (B4F4738-MSD1) Source: C4D3768-01 Analyzed: 6/26/2024 1:13:29PM								
Mercury, Total	0.0258	0.00200	mg/Kg wet	0.0250	ND	103	80-120	20
Batch B4G0324 - No Prep Prepared: 07/02/24 11:52								
LCS (B4G0324-BS1) Analyzed: 7/2/2024 11:52:00AM								
pH-Sludge	6.87		std unit	6.86		100	0-200	
Duplicate (B4G0324-DUP1) Source: C4F0146-01 Analyzed: 7/2/2024 11:52:00AM								
pH-Sludge	4.13		std unit	4.15		0.483	20	
Batch B4G0342 - No Prep Prepared: 07/02/24 11:00								
Blank (B4G0342-BLK1) Analyzed: 7/2/2024 11:00:00AM								
TKN %	ND	0.00100	% wet					
LCS (B4G0342-BS1) Analyzed: 7/2/2024 11:00:00AM								
TKN %	11.54		mg/L	10.0		115	80-120	
Matrix Spike (B4G0342-MS1) Source: C4F0146-01 Analyzed: 7/2/2024 11:00:00AM								
TKN %	4.538667	0.0476	% dry	0.476	3.845333	146	80-120	23
Matrix Spike Dup (B4G0342-MSD1) Source: C4F0146-01 Analyzed: 7/2/2024 11:00:00AM								
TKN %	4.434667	0.0476	% dry	0.476	3.845333	124	80-120	20

DRAFT REPORT

The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved

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20141 Schiel Road
Cypress TX, 77433

Notes and Definitions

B	Analyte detected in Method Blank.
23	Spike recovery outside of acceptance limits due to matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

DRAFT REPORT

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