



Technical Package Cover Page

This file contains the following documents:

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

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



Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

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

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

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

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

Pilgrim's Pride Corporation (CN601276660) operates the Pilgrim's Pride Southwest Wastewater Treatment Plant RN102184041, a wastewater treatment plant treating industrial wastewater from poultry processing operations and a number of private residences. The facility is located at 664 FM 127 W, in Mt. Pleasant, Titus County, Texas 75455. This application is for a renewal of Wastewater Permit W0003017000 to discharge 3,500,000 gallons per day of treated effluent via Outfall 001.

Discharges from the facility are expected to contain pollutants listed in 40 CFR Part 432 including: 5-day biochemical oxygen demand, fecal coliform, oil and grease, total suspended solids, ammonia, total nitrogen, pH, and temperature. Additional potential pollutants from this discharge are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0. Wastewater treated at this facility consists of a combination of process wastewaters from poultry first and further processing and protein conversion (rendering) operations along with industrial stormwater discharges from these operations and sanitary wastewater from a small number of private residences. Wastewater from these sources is treated by initial screening, biological treatment via anaerobic, anoxic/oxic, and aeration basins/lagoons, final clarification, tertiary filtration, chlorination, and dechlorination prior to discharge.

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

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

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

Pilgrim's Pride Corporation (CN601276660) opera la planta de tratamiento de aguas residuales de Pilgrim's Pride Southwest RN102184041, una planta de tratamiento de aguas residuales que trata las aguas residuales industriales de las operaciones de procesamiento de aves y varias residencias privadas. La instalación está ubicada en 664 FM 127 W, en Mt. Pleasant, condado de Titus, Texas 75455. Esta solicitud es para renovar el permiso de aguas residuales W0003017000 para descargar 3,500,000 galones por día de efluentes tratados a través del Outfall 001.

Se espera que las descargas de la instalación contengan contaminantes enumerados en 40 CFR Part 432, que incluyen: demanda bioquímica de oxígeno de 5 días, coliformes fecales, aceite y grasa, sólidos suspendidos totales, amoníaco, nitrógeno total, pH y temperatura. Los posibles contaminantes adicionales de esta descarga se incluyen en el Industrial Wastewater Application Technical Report, Worksheet 2.0. Las aguas residuales tratadas en esta instalación son una combinación de aguas residuales de proceso de las operaciones de conversión (rendimiento) de proteínas y primer procesamiento de aves de corral junto con descargas de aguas pluviales industriales de estas operaciones y aguas residuales sanitarias de una pequeña cantidad de residencias privadas. Las aguas residuales de estas fuentes son tratadas mediante procesos físicos/químicos y biológicos de tratamiento de aguas residuales.

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose "is" for an existing facility or "will be" for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0002546000

APPLICATION. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, which owns a polyethylene manufacturing and catalyst production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000 (EPA I.D. No. TX0089125) to authorize the removal of the limits/conditions for *C. dubia* 7-day lethal whole effluent toxicity for Outfall 001, to remove of the limits/conditions for *C. dubia* 7-day sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7. The facility is located at 13330 Hatcherville Road, Mont Belvieu, in Chambers County, Texas 77521. The discharge route is from the plant site directly to Cedar Bayou Above Tidal. TCEQ received this application on December 27, 2023. The permit application will be available for viewing and copying at Sam and Carmena Goss Memorial Branch Library at 1 John Hall Drive, Mont Belvieu, in Chambers County, Texas, and at Dayton Police Department, 2004 North Cleveland Street, Dayton, in Liberty County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from Exxon Mobil Corporation at the address stated above or by calling Ms. Jessica Eastburn, BTA Environmental Water Advisor, at 832-864-4924.

Issuance Date: February 22, 2024

Comisión de Calidad Ambiental del Estado de Texas



MODIFICADO AVISO DE RECEPCIÓN DE LA SOLICITUD Y LA INTENCIÓN DE OBTENER CALIDAD DEL AGUA PERMISO MODIFICACION

PERMISO NO. WQ0002546000

SOLICITUD. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, que posee una planta de fabricación de polietileno y producción de catalizadores, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES) Permiso No. WQ0002546000 (EPA I.D. No. TX0089125) para autorizar la eliminación de los límites / condiciones para C. dubia 7 días de toxicidad letal efluente total para Outfall 001, eliminar los límites/condiciones para el monitoreo de toxicidad subletal de 7 días de C. dubia en todo el efluente para Outfall 001, aumentar los límites de concentración máxima diaria y de una sola toma y los límites de masa promedio diaria para sólidos disueltos totales y sulfato para Outfall 001, utilice un coeficiente de partición específico del sitio para el aluminio para el emisario 001, y modificar Otro Requisito No. 7. La instalación está ubicada en 13330 Hatcherville Road, Mont Belvieu, en el Condado de Chambers, Texas 77521. La ruta de descarga es desde el sitio de la planta directamente a Cedar Bayou Above Tidal. La TCEQ recibió esta solicitud el 27 de diciembre de 2023. La solicitud de permiso estará disponible para ver y copiar en Biblioteca sucursal en memoria de Sam y Carmena Goss en 1 John Hall Drive, Mont Belvieu, en el Condado de Chambers, Texas, y en Dayton Police Department, 2004 North Cleveland Street, Dayton, en el Condado de Liberty, Texas, antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía pública y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

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

comentarios públicos.

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los

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

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.

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

También se puede obtener información adicional del Exxon Mobil Corporation a la dirección indicada arriba o llamando a Sra. Jessica Eastburn, BTA Environmental Water Advisor al 832-864-4924.

Fecha de emisión 22 de febrero de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

AMENDMENT

PERMIT NO. WQ0002546000

APPLICATION AND PRELIMINARY DECISION. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, which operates Mont Belvieu Plastics Plant, a polyethylene manufacturing and catalyst production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000 to remove the limits/conditions for C. dubia 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7 relating to treatment chemicals in impoundments. The draft permit authorizes the discharge of process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastes, and stormwater at a daily average flow not to exceed 5,013,000 gallons per day via Outfall 001. The TCEQ received this application on December 27, 2023.

The facility is located at 13330 Hatcherville Road, in the City of Mont Belvieu, Chambers County, Texas 77521. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

The effluent is discharged directly to Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin. The designated uses for Segment No. 0902 are primary contact recreation and high aquatic life use.

In accordance with Title 30 Texas Administrative Code Section 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Cedar Bayou Above Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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 West Chambers County Branch Library, 10616 Eagle Drive, Mont Belvieu, in Chambers County, Texas, and Dayton Police Department, 111 North Church Street, Dayton, in Liberty County, Texas.

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

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 written or oral comment or to ask questions about the application. Generally, the 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 public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **The response to comments, along with the Executive Director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

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

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

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

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or a timely 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 requests 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 added to: (1) the permanent 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, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://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 <https://www.tceq.texas.gov/goto/cid/>. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at <https://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. 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 <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Exxon Mobil Corporation at the address stated above or by calling Ms. Jessica Eastburn, BTA Environmental Water Advisor, at 832-864-4924.

Issued: June 4, 2025

Comisión De Calidad Ambiental Del Estado De Texas



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

MODIFICACIÓN

PERMISO NO. WQ0002546000

SOLICITUD Y DECISIÓN PRELIMINAR. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, que opera la planta Mont Belvieu Plastics, una instalación de fabricación de polietileno y producción de catalizadores, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) una modificación principal del Permiso del Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES) No. WQ0002546000 para eliminar los límites/condiciones para el monitoreo de la toxicidad letal y subletal de C. dubia en efluentes totales durante 7 días para el Outfall 001, para aumentar los límites de concentración máxima diaria y de una sola muestra, y los límites de masa promedio diaria para los sólidos disueltos totales y el sulfato para el Outfall 001, para utilizar un coeficiente de partición específico del sitio para el aluminio para el Outfall 001, y para modificar las disposiciones de notificación del Requisito Otro No. 7 sobre productos químicos para el tratamiento en embalses. El borrado del permiso autoriza la descarga de aguas residuales de procesos, purgas de torres de enfriamiento, purgas de calderas, desechos de tratamiento de agua y aguas pluviales con un caudal promedio diario que no exceda los 5,013,000 galones por día a través del Outfall 001. La TCEQ recibió esta solicitud el 27 de diciembre de 2023.

La planta está ubicada en 13330 Hatcherville Road, en la ciudad de Mont Belvieu, en el Condado de Chambers, Texas 77521. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía pública y no es parte de la solicitud o del aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

El efluente se descarga directamente en Cedar Bayou Above Tidal, en el Segmento No. 0902 de la cuenca costera Trinity-San Jacinto. Los usos designados para el Segmento No. 0902 son la recreación de contacto primario y el uso alto de la vida acuática.

De acuerdo con la 30 TAC §307.5 y los procedimientos de implementación de la TCEQ (Enero 2010) para las Normas de Calidad de Aguas Superficiales en Texas, fue realizada una revisión de la antidegradación de las aguas recibidas. Una revisión de antidegradación del Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existente no serán perjudicados por la acción de este permiso. Se mantendrá un criterio narrativo y numérico para proteger los usos existentes. Una revisión del Nivel 2 ha determinado preliminarmente que no

se espera ninguna degradación significativa en Cedar Bayou Above Tidal, el cual se ha identificado que tiene un uso alto en la vida acuática. Los usos existentes serán mantenidos y protegidos. La determinación preliminar puede ser reexaminada y puede ser modificada, si se recibe alguna información nueva.

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en West Chambers County Branch Library, 10616 Eagle Drive, Mont Belvieu, en Condado de Chambers, Texas, y en Dayton Police Department, 111 North Church Street, Dayton, en Condado de Liberty, Texas.

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

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 escritos u orales o hacer preguntas acerca de la solicitud. En general, la TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

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

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

respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y por qué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

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

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

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, se le agregará a la lista de correo para esta solicitud específica para recibir futuros avisos públicos enviados por la Oficina del Secretario Principal. Además, puede pedir que la TCEQ ponga su nombre en (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y (2) la lista de correo de todas las solicitudes en un condado específico. Si desea ser incluido en la lista de correo permanente y del condado, especifique claramente cuál(es) lista(s) y envíe su solicitud a la Oficina del Secretario Principal de la TCEQ a la dirección que figura a continuación.

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 <https://www.tceq.texas.gov/goto/comment>.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener más información sobre el estado de la solicitud, visite la Base de Datos Integrada de Comisionados en <https://www.tceq.texas.gov/goto/cid/>. Busque en la base de datos el número de permiso de esta solicitud, que se encuentra en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a <https://www.tceq.texas.gov/goto/comment/>, 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 personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más

información 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 <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Exxon Mobil Corporation a la dirección indicada arriba o llamando a Sra. Jessica Eastburn, BTA Water Advisor, al 832-864-4924.

Fecha de emission: 4 de junio de 2025



TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY

P.O. Box 13087
Austin, Texas 78711-3087

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

TPDES PERMIT NO.
WQ0002546000
*[For TCEQ office use only -
EPA I.D. No. TX0089125]*

This major amendment replaces
TPDES Permit No.
WQ0002546000, issued on July 2,
2019.

Exxon Mobil Corporation

whose mailing address is

P.O. Box 1653
Mont Belvieu, Texas 77580

is authorized to treat and discharge wastes from Mont Belvieu Plastics Plant, a polyethylene manufacturing and catalyst production facility (SIC 2821 and 2819)

located at 13330 Hatcherville Road, in the City of Mont Belvieu, in Chambers County, Texas 77521

directly to Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin

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

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

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

- During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastewaters, and stormwater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 5.013 million gallons per day (MGD). The daily maximum flow shall not exceed 13.0 MGD.

Parameter	Discharge Limitations				Minimum Self-Monitoring Requirements		
	Daily Average		Daily Maximum		Single Grab	Report Daily Avg and Daily Max.	
	lbs/day	mg/L	lbs/day	mg/L		Measurement Frequency	Sample type
Flow	5.013 MGD		13.0 MGD		N/A	Continuous	Recorder
Carbonaceous Biochemical Oxygen Demand (5-day)	393	N/A	996	N/A	21	2/Week	Composite
Total Suspended Solids	1,518	N/A	4,346	N/A	156	2/Week	Composite
Oil and Grease	628	N/A	837	N/A	31	2/Week	Grab
Chemical Oxygen Demand	11,259	N/A	28,530	N/A	1,023	2/Week	Composite
Total Dissolved Solids	23,624	N/A	N/A	1,418	2,126	1/Week	Composite
Sulfate	7,904	N/A	N/A	475	712	1/Week	Composite
Ammonia-nitrogen	126	N/A	252	N/A	9.0	1/Week	Composite
Acenaphthene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Acenaphthylene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Acrylonitrile	2.47	N/A	6.09	N/A	0.218	1/Year	Composite
Anthracene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Benzene	1.50	N/A	3.52	N/A	0.126	1/Year	Composite
Benzo(a)anthracene	0.0029	N/A	0.0060	N/A	0.005	1/Year	Composite
3,4-Benzofluoranthene	0.525	N/A	1.26	N/A	0.045	1/Year	Composite
Benzo(k)fluoranthene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Benzo(a)pyrene	0.00018	N/A	0.0004	N/A	0.005	1/Year	Composite
Bis(2-ethylhexyl) phthalate	0.858	N/A	1.82	N/A	0.065	1/Year	Composite
Carbon Tetrachloride	3.73	N/A	9.98	N/A	0.358	1/Year	Composite
Chlorobenzene	3.73	N/A	9.98	N/A	19.27	1/Year	Composite
Chloroethane	2.89	N/A	7.74	N/A	0.278	1/Year	Composite
Chloroform	2.91	N/A	8.53	N/A	0.306	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Parameter	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Avg. and Daily Max.	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample type
Chrysene ²	0.287	N/A	0.607	N/A	0.021	1/Year	Composite
Di-n-butyl phthalate	0.525	N/A	1.13	N/A	0.040	1/Year	Composite
1,2-Dichlorobenzene	5.15	N/A	20.85	N/A	0.747	1/Year	Composite
1,3-Dichlorobenzene	3.73	N/A	9.98	N/A	0.358	1/Year	Composite
1,4-Dichlorobenzene	3.73	N/A	9.98	N/A	0.358	1/Year	Composite
1,1-Dichloroethane	0.578	N/A	1.55	N/A	0.056	1/Year	Composite
1,2-Dichloroethane	4.73	N/A	15.07	N/A	0.540	1/Year	Composite
1,1-Dichloroethylene	0.578	N/A	1.58	N/A	0.056	1/Year	Composite
1,2-trans Dichloroethylene	0.656	N/A	1.73	N/A	0.062	1/Year	Composite
1,2-Dichloropropane	5.15	N/A	20.85	N/A	0.747	1/Year	Composite
1,3-Dichloropropylene	5.15	N/A	20.85	N/A	0.747	1/Year	Composite
Diethyl phthalate	1.21	N/A	2.97	N/A	0.106	1/Year	Composite
2,4-Dimethylphenol	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Dimethyl phthalate	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
4,6-Dinitro-o-cresol	2.05	N/A	7.27	N/A	0.261	1/Year	Composite
2,4-Dinitrophenol	31.69	N/A	112.7	N/A	4.04	1/Year	Composite
Ethylbenzene	3.73	N/A	9.98	N/A	0.358	1/Year	Composite
Fluoranthene	0.578	N/A	1.42	N/A	0.051	1/Year	Composite
Fluorene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Hexachlorobenzene	0.00008	N/A	0.0002	N/A	0.005	1/Year	Composite
Hexachlorobutadiene	0.0251	N/A	0.0527	N/A	0.010	1/Year	Composite
Hexachloroethane	0.266	N/A	0.561	N/A	0.020	1/Year	Composite
Methyl Chloride	2.89	N/A	7.74	N/A	0.278	1/Year	Composite
Methylene Chloride	0.945	N/A	4.46	N/A	0.160	1/Year	Composite
Naphthalene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Nitrobenzene	58.73	N/A	168.1	N/A	6.027	1/Year	Composite

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

Parameter	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Avg and Daily Max.	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample type
2-Nitrophenol	1.71	N/A	6.06	N/A	0.217	1/Year	Composite
4-Nitrophenol	4.25	N/A	15.12	N/A	0.542	1/Year	Composite
Phenanthrene	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Phenol	0.499	N/A	1.23	N/A	0.044	1/Year	Composite
Pyrene	0.525	N/A	1.26	N/A	0.045	1/Year	Composite
Tetrachloroethylene	1.37	N/A	4.31	N/A	0.154	1/Year	Composite
Toluene	0.735	N/A	1.94	N/A	0.070	1/Year	Composite
1,2,4-Trichlorobenzene	5.15	N/A	20.85	N/A	0.747	1/Year	Composite
1,1,1-Trichloroethane	0.578	N/A	1.55	N/A	0.056	1/Year	Composite
1,1,2-Trichloroethane	0.840	N/A	3.33	N/A	0.120	1/Year	Composite
Trichloroethylene	0.683	N/A	1.81	N/A	0.065	1/Year	Composite
Vinyl Chloride	1.88	N/A	3.98	N/A	0.143	1/Year	Composite

2. The pH shall not be less than 6.5 standard units nor greater than 9.0 standard units and shall be monitored 1/day by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. The effluent shall contain a minimum dissolved oxygen of 5.0 mg/l and shall be monitored 1/week by grab sample.
5. Effluent monitoring samples shall be taken at the following locations: Outfall 001 at the outlet of the Firewater/Equalization Basin before mixing with any other waters and before leaving company property in Chambers County.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

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

2. Concentration Measurements

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

mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the sampling day.

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

- e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the *n*th root of the product of all measurements made in a calendar month, where *n* equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD × Concentration, mg/L × 8.34).
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).
 - b. Grab sample - an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
 - 5. The term “sewage sludge” is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
 - 6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

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

3. Records of Results

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

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. unauthorized discharges as defined in Permit Condition 2(g).
 - ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

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

9. Changes in Discharges of Toxic Substances

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

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

- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. five hundred micrograms per liter (500 µg/L);
 - ii. one milligram per liter (1 mg/L) for antimony;
 - iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

10. Signatories to Reports

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

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

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

PERMIT CONDITIONS

1. General

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

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

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

4. Permit Amendment or Renewal

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

5. Permit Transfer

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

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy.

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).
7. Documentation

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

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

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

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

- iv. identity of hauler or transporter;
- v. location of disposal site; and
- vi. method of final disposal.

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

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

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OTHER REQUIREMENTS

1. Chronic toxic criteria apply at the edge of the chronic aquatic life mixing zone. The chronic aquatic life mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
2. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.
3. All wastewater and firewater retention ponds shall be operated to maintain a minimum freeboard of two feet.
4. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 12 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 12 and Compliance Monitoring Team (MC 224):

Pollutant	MAL (mg/L)
Acenaphthene	0.010
Acenaphthylene	0.010
Acrylonitrile	0.050
Anthracene	0.010
Benzene	0.010
Benzo(a)anthracene	0.005
3,4-Benzofluoranthene (Benzo(b)fluoranthene)	0.010
Benzo(k)fluoranthene	0.005
Benzo(a)pyrene	0.005
Bis(2-Ethylhexyl) Phthalate	0.010
Carbon Tetrachloride	0.002
Chlorobenzene	0.010
Chloroethane	0.050
Chloroform	0.010
Chrysene	0.005
Di-n-Butyl Phthalate	0.010
1,2-Dichlorobenzene	0.010
1,3-Dichlorobenzene	0.010
1,4-Dichlorobenzene	0.010
1,1-Dichloroethane	0.010
1,2-Dichloroethane	0.010
1,1-Dichloroethylene	0.010
1,2-trans-Dichloroethylene	0.010
1,2-Dichloropropane	0.010
1,3-Dichloropropylene	0.010
Diethyl Phthalate	0.010
2,4-Dimethylphenol	0.010
Dimethyl Phthalate	0.010
4,6-Dinitro-o-Cresol	0.050
2,4-Dinitrophenol	0.050
Ethylbenzene	0.010
Fluoranthene	0.010
Fluorene	0.010
Hexachlorobenzene	0.005

Pollutant	MAL (mg/L)
Hexachlorobutadiene	0.010
Hexachloroethane	0.020
Methylene Chloride	0.020
Methyl Chloride	0.050
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Phenanthrene	0.010
Phenol	0.010
Pyrene	0.010
Tetrachloroethylene	0.010
Toluene	0.010
1,2,4-Trichlorobenzene	0.010
1,1,1-Trichloroethane	0.010
1,1,2-Trichloroethane	0.010
Trichloroethylene	0.010
Vinyl Chloride	0.010

Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations. If an effluent limit for a pollutant is less than the MAL, then the test method for that pollutant must be sensitive enough to demonstrate compliance at the MAL. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit, with consideration given to the MAL for the pollutants specified above.

<u>CONVENTIONAL POLLUTANT</u>	<u>MAL (mg/L)</u>
Oil and Grease	5

When an analysis of an effluent sample for a pollutant listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero shall be used for that measurement when making calculations for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form:

“The reported value(s) of zero for [list pollutant(s)] on the self-reporting form for [monitoring period date range] is based on the following conditions: (1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and (2) the analytical results contained no detectable levels above the specified MAL.”

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

5. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A wastewater pond (or lagoon) is an earthen structure used to evaporate, hold, store, or treat water that contains a *waste* or *pollutant*

or that would cause *pollution* upon *discharge* as those terms are defined in Texas Water Code § 26.001, but does not include a pond that contains only stormwater.

- A. A wastewater pond **subject to 40 CFR Part 257, Subpart D** (related to coal combustion residuals) must comply with those requirements in lieu of the requirements in B through G of POND REQUIREMENTS.
- B. An **existing** wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharges of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the facility or in a reasonably accessible location and make the information available to the executive director upon request.
- C. A **new** wastewater pond constructed after the issuance date of this permit must be lined in compliance with one of the following requirements if it will contain process wastewater as defined in 40 CFR § 122.2. The executive director will review ponds that will contain only non-process wastewater on a case-by-case basis to determine whether the pond must be lined. If a pond will contain only non-process wastewater, the owner shall notify the Industrial Permits Team (MC 148) to obtain a written determination at least 90 days before the pond is placed into service and copy the TCEQ Compliance Monitoring Team (MC 224) and regional office. The permittee must submit all information about the proposed pond contents that is reasonably necessary for the executive director to make a determination. If the executive director determines that a pond does not need to be lined, then the pond is exempt from C(1) through C(3) and D through G of POND REQUIREMENTS.

A wastewater pond that only contains domestic wastewater must comply with the design requirements in 30 TAC Chapter 217 and 30 TAC § 309.13(d) in lieu of items C(1) through C(3) of this subparagraph.

- (1) Soil liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to 1×10^{-7} (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.
 - (2) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that completely covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.
 - (3) Alternate liner: The permittee shall submit plans signed and sealed by a Texas-licensed professional engineer for any other equivalently protective pond lining method to the TCEQ Industrial Permits Team (MC 148) and copy the regional office.
- D. For a pond that must be lined according to subparagraph C (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed

professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in subparagraph C(1) – C(3) before using the pond. The certification shall include the following minimum details about the pond lining system: (1) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative), (2) materials used, (3) thickness of materials, and (4) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC 150), Industrial Permits Team (MC 148), and regional office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post construction testing) must be kept on-site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

- E. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).
- (1) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.
 - (2) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.
 - (3) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.
 - (4) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas-licensed professional engineer or Texas-licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.
 - a. A Texas-licensed professional engineer or Texas-licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.
 - b. Pond liner damage must be repaired at the recommendation of a Texas-licensed professional engineer or Texas-licensed professional geoscientist. If the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas-licensed professional engineer. Within 60 days after a repair is completed, the liner certification must be provided to the TCEQ Water Quality Assessments Team (MC 150) and regional office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.
 - c. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.
- F. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall have a Texas-licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include: (1) a physical

inspection of the pond liner to check for structural integrity, damage, and evidence of leaking; (2) a review of the liner documentation for the pond; and (3) a review of all documentation related to liner repair and maintenance performed since the last evaluation. For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

G. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:

- (1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;
- (2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or
- (3) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.

6. The permittee is authorized to use United States Environmental Protection Agency (EPA)-approved dye/colorant-based treatment chemicals such as Aquashade and Azure Blue to control algae and aquatic plants in surface impoundments. This authorization includes commercial products that have an EPA-approved colorant chemical as the active ingredient. These treatment chemicals shall be used only as necessary, and only as directed on the product label. The effluent discharge shall comply with 30 TAC Chapter 307 (relating to Texas Surface Water Quality Standards), specifically 30 TAC § 307.4(b)(5) which states that waste discharges shall not cause substantial and persistent changes from ambient conditions of turbidity or color.

The permittee shall maintain a log of the application of dye/colorant-based treatment chemicals used and of the discharge from the surface impoundments that have been treated. The log shall denote the following for each treatment event:

- a) date(s) of treatment;
- b) volume of dye/colorant-based treatment chemicals used in treatment; and
- c) date(s) of discharge from pond that have been treated, as determined based on detention time.

The log shall be maintained on-site for three (3) years and made available to TCEQ or EPA personnel for review, upon request.

7. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 12 Office of any changes in the method by which the facility obtains water for cooling purposes. This notification must be submitted 30 days prior to any such change and must include a description of the planned changes. The TCEQ may, upon review of the notification, reopen the permit to include additional terms and conditions as necessary.

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

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

1. Scope, Frequency, and Methodology

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

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

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 29%, 39%, 52%, 69%, and 100% effluent. The critical dilution, defined as 69% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a chemical-specific effluent limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation (TRE) after multiple toxic events.
- e. Testing Frequency Reduction
 - 1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.
 - 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been

previously granted and a subsequent test demonstrates significant toxicity, the permittee shall resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

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

- 1) a control mean survival of 80% or greater;
- 2) a control mean number of water flea neonates per surviving adult of 15 or greater;
- 3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;
- 4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
- 5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
- 6) a percent minimum significant difference of 47 or less for water flea reproduction; and
- 7) a percent minimum significant difference of 30 or less for fathead minnow growth.

b. Statistical Interpretation

- 1) For the water flea survival test, the statistical analyses used to determine the inhibition concentration of effluent that would cause a 25% reduction (IC₂₅) in survival or mean young per female shall be as described in the methods manual referenced above, or the most recent update.
- 2) For the fathead minnow larval survival and growth tests, the statistical analyses used to determine the IC₂₅ in survival or growth shall be as described in the methods manual referenced above, or the most recent update.
- 3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The EPA manual, "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004)", provides guidance on determining the validity of test results.
- 4) If significant lethality is demonstrated (that is, the lethal IC₂₅ is less than the critical dilution), the conditions of test acceptability are met, and survival of the test organisms is equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival IC₂₅ of not less

than the critical dilution for the reporting requirements.

- 5) Most point estimates are derived from a mathematical model that assumes a continuous dose-response relationship. For any test result that demonstrates a non-continuous (threshold) response, or a non-monotonic dose-response relationship, the IC25 should be determined based on the method guidance manual referenced in Item 3 of this part.
- 6) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic dose-response relationship may be submitted, prior to the due date, for technical review of test validity and acceptability. The method guidance manual referenced in Item 3 of this part will be used as the basis, along with best professional judgment, for making a determination of test validity and acceptability.

c. Dilution Water

In lieu of receiving water, the dilution water used in the toxicity tests may be synthetic dilution water. The synthetic dilution water shall consist of standard, moderately hard, reconstituted water.

d. Samples and Composites

- 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
- 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

3. Reporting

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter T4P3B, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter T6P3B, report the IC25 for survival.
 - 3) For the water flea, Parameter T5P3B, enter a "1" if the IC25 for reproduction is less than the critical dilution; otherwise, enter a "0."
 - 4) For the water flea, Parameter T7P3B, report the IC25 for reproduction.
 - 5) For the fathead minnow, Parameter T4P6C, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 6) For the fathead minnow, Parameter T6P6C, report the IC25 for survival.
 - 7) For the fathead minnow, Parameter T5P6C, enter a "1" if the IC25 for growth is less than the critical dilution; otherwise, enter a "0."
 - 8) For the fathead minnow, Parameter T7P6C, report the IC25 for growth.
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this Part apply only when a test demonstrates a significant effect at the

critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction in the control.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any test that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity

characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

- 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
- 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.
- h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

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

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	29%	39%	52%	69%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						

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

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

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	29%	39%	52%	69%	100%
24h						
48h						
End of Test						

- Is the IC₂₅ for reproduction less than the critical dilution (69%)? _____ YES _____ NO
- Is the IC₂₅ for survival less than the critical dilution (69%)? _____ YES _____ NO
- Enter percent effluent corresponding to each IC₂₅ below:
 IC₂₅ survival = _____ %
 IC₂₅ reproduction = _____ %

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

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

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
29%							
39%							
52%							
69%							
100%							

* Coefficient of Variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
29%									
39%									
52%									
69%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

- Is the IC₂₅ for growth less than the critical dilution (69%)? _____ YES _____ NO
- Is the IC₂₅ for survival less than the critical dilution (69%)? _____ YES _____ NO
- Enter percent effluent corresponding to each IC₂₅ below:
 IC₂₅ survival = _____%
 IC₂₅ growth = _____%

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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

1. Scope, Frequency, and Methodology

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

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

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

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if

the control fails to meet a mean survival equal to or greater than 90%.

- b. Dilution Water - In accordance with item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.
 - 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

3. Reporting

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at

24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

d. Enter the following codes for retests only:

- 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. Persistent Mortality

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

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

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity

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

- 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

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

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

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

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

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

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon

proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

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

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC₅₀ below:

24 hour LC₅₀ = _____% effluent

TABLE 2 (SHEET 2 OF 2)
FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC₅₀ below:

24 hour LC₅₀ = _____% effluent]

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For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000, U.S. Environmental Protection Agency (EPA) ID No. TX0089125, to discharge to water in the state

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

Applicant: Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

Prepared By: Thomas E. Starr, P.E.
Wastewater Permitting Section
Water Quality Division
(512) 239-4570

Date: April 16, 2025

Permit Action: Major amendment with renewal to remove the limits/conditions for *C. dubia* 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7 relating to treatment chemicals in impoundments

I. 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 will expire at midnight, five years from the date of permit issuance according to the requirements of 30 Texas Administrative Code (TAC) §305.127(1)(C)(i).

II. APPLICANT ACTIVITY

The applicant currently operates Mont Belvieu Plastics Plant, a polyethylene manufacturing and catalyst production facility.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 13330 Hatcherville Road, in the City of Mont Belvieu, Chambers County, Texas 77521. Discharge is directly to Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin.

IV. RECEIVING STREAM USES

The designated uses for Segment No. 0902 are primary contact recreation and high aquatic life use.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period January 2019 through December 2023. The “average of daily average” values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The “maximum of daily maximum” values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU).

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	2.035	8.4

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Carbonaceous Biochemical Oxygen Demand, 5-day (CBOD ₅)	42.0	-	544	-
	Nitrogen, ammonia total (as N)	3.75	-	12.0	-
	Oil & Grease	3.03	-	120	-
	Chemical Oxygen Demand (COD)	547	-	3230	-
	Total Dissolved Solids (TDS)	8150	-	-	958
	Total Suspended Solids (TSS)	396	-	4440	-
	Total Sulfate (as SO ₄)	2530	-	-	311
	Dissolved Oxygen (DO)	-	5.4, minimum	-	-
	pH	6.0 SU, minimum		9.0 SU	
	Acenaphthene	0.0	-	0.0	-
	Acenaphthylene	0.0	-	0.0	-
	Acrylonitrile	0.0	-	0.0	-
	Anthracene	0.0	-	0.0	-
	Benzene	0.0	-	0.0	-
	Benzo[a]anthracene	0.0	-	0.0	-
	3,4-Benzofluoranthene	0.0	-	0.0	-
	Benzo[k]fluoranthene	0.0	-	0.0	-
	Benzo[a]pyrene	0.0	-	0.0	-
	Carbon tetrachloride	0.0	-	0.0	-
	Chlorobenzene	0.0	-	0.0	-
	Chloroethane	0.0	-	0.0	-
	Chloroform	0.0	-	0.0	-
	Chrysene	0.0	-	0.0	-
	Di-n-butyl phthalate	0.0	-	0.0	-
	1,2-Dichlorobenzene	0.0	-	0.0	-
	1,3-Dichlorobenzene	0.0	-	0.0	-

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B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	1,4-Dichlorobenzene	0.0	-	0.0	-
	1,1-Dichloroethane	0.0	-	0.0	-
	1,2-Dichloroethane	0.0	-	0.0	-
	1,1-Dichloroethylene	0.0	-	0.0	-
	1,2-trans-Dichloroethylene	0.0	-	0.0	-
	1,2-Dichloropropane	0.0	-	0.0	-
	1,3-Dichloropropylene	0.0	-	0.0	-
	Diethyl phthalate	0.0	-	0.0	-
	2,4-Dimethylphenol	0.0	-	0.0	-
	Dimethyl phthalate	0.0	-	0.0	-
	4,6-Dinitro-o-cresol	0.0	-	0.0	-
	2,4-Dinitrophenol	0.0	-	0.0	-
	Di-n-butyl phthalate	0.0	-	0.0	-
	Ethylbenzene	0.0	-	0.0	-
	Fluoranthene	0.0	-	0.0	-
	Fluorene	0.0	-	0.0	-
	Hexachlorobenzene	0.0	-	0.0	-
	Hexachlorobutadiene	0.0	-	0.0	-
	Hexachloroethane	0.0	-	0.0	-
	Methyl chloride [Chloromethane]	0.0	-	0.0	-
	Methylene chloride	0.0	-	0.0	-
	Naphthalene	0.0	-	0.0	-
	Nitrobenzene	0.0	-	0.0	-
	2-Nitrophenol	0.0	-	0.0	-
	4-Nitrophenol	0.0	-	0.0	-
	Phenanthrene	0.0	-	0.0	-
	Phenol	0.0	-	0.0	-
	Pyrene	0.0	-	0.0	-
	Tetrachloroethylene	0.0	-	0.0	-
	Toluene	0.0	-	0.0	-
	1,2,4-Trichlorobenzene	0.0	-	0.0	-
	1,1,1-Trichloroethane	0.0	-	0.0	-
	1,1,2-Trichloroethane	0.0	-	0.0	-
	Trichloroethylene	0.0	-	0.0	-
	Vinyl chloride	0.0	-	0.0	-

The reported value of zero (0.0) for priority pollutants is either because the analytical method used had a method detection level as sensitive as the Minimum Analytical Level (MAL) specified in the permit, or the analytical results contained no detectable levels above the specified MAL.

No effluent limit violations were documented in the monthly effluent reports.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as noted in Appendix E:

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.854979 N	94.952506 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the Executive Director recommends granting:

1. To remove the limits/conditions for *C. dubia* 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001. The lethal and sublethal limits were removed from page 2b.
2. To modify the notification to TCEQ provision in Other Requirement No. 7 (now No. 6.). Only the existing logbook is required to be maintained on site.
3. To use a site-specific partition coefficient for aluminum for Outfall 001. Documentation was provided in separate correspondence to warrant this change.
4. To increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001.

The following additional changes have been made to the draft permit:

1. Pages 3-13 were updated (May 2021 version).
2. The COD limits were changed to the technology-based effluent limits based on the updated ratio of 14.3 of COD to BOD from the 2017 application ratio of 8.66.
3. The limits for bis-(2-ethylhexyl)phthalate and vinyl chloride were changed to the water-quality based limits from the existing permit limits due to the removal of public water supply from the segment uses since last permit cycle. This is in compliance with EPA's antibacksliding regulation 40 CFR § 122.44(l). The individual single grab limits on pages 2 – 2b were adjusted up to the MAL where ever they had been posted lower than the MAL.
4. The limits for acrylonitrile, benzene, carbon tetrachloride, 1-1 dichloroethylene, 1-2 dichloropropane, 1-3 dichloropropylene, nitrobenzene, tetrachloroethylene, and 1-1-2 trichloroethane have been moved to their technology-based limits from the existing permit limits due the removal of public water supply from the segment uses per the EPA's antibacksliding regulation 40 CFR § 122.44(l).
5. The TSS daily maximum limit was changed from 4,348 to 4,346 mg/L.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

6. Limits were updated for Benzo(a)anthracene, Benzo(a)pyrene, Chrysene, Hexachlorobenzene, Hexachlorobutadiene, and Hexachloroethane at Outfall 001 on pages 2-2a. The permittee accepted these new limits without a compliance period.
7. Other Requirement No. 1 has been met and is not carried forward to the draft permit.
8. Other Requirement Nos. 2-8 from the existing permit have been carried forward to the draft permit and renumbered Nos. 1-7.
9. Other Requirement No. 2 was updated to current language.
10. Other Requirement No. 5, Pond Requirements, was updated to current language.
11. The dilution series was changed.

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a major amendment to TPDES Permit No. WQ0002546000 to authorize the removal of the limits/conditions for *C. dubia* 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7 relating to treatment chemicals in impoundments. The existing permit authorizes the discharge of process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastes, and stormwater at a daily average flow not to exceed 5,013,000 gallons per day via Outfall 001.

B. WATER QUALITY SUMMARY**Discharge Route**

The discharge route is directly to Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin. The designated uses for Segment No. 0902 are primary contact recreation and high aquatic life use. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

Antidegradation Review

In accordance with 30 TAC § 307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Cedar Bayou Above Tidal, which has been identified as having high aquatic

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life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

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

Impaired Water Bodies

Segment No. 0902 is currently listed on the state's inventory of impaired and threatened waters, the 2014 Clean Water Act Section 303(d) list. The listing is for bacteria in water and depressed dissolved oxygen from a point 2.2 km (1.4 mi) upstream of IH 10 in Chambers/Harris County to a point 7.4 km (4.6 mi) upstream of FM 1960 in Liberty County (AU 0902_01). The draft permit prohibits the discharge of domestic wastewater. This application is an amendment and renewal of its existing permit. However, the proposed amendment wouldn't change the existing flow or pollution loading and does not represent an increase in the permitted levels of oxygen demanding constituents to Segment No. 0902. The existing effluent limits of 393 lbs/day CBOD₅, 126 lbs/day NH₃-N, and 5.0 mg/L DO are recommended for the reissued permit.

Completed Total Maximum Daily Loads (TMDLs)

There are no completed TMDLs for Segment No. 0902.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS**1. GENERAL COMMENTS**

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

The draft permit authorizes the discharge of process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastewaters, and stormwater via Outfall 001 at a daily average flow not to exceed 5.013 MGD.

The discharge of process wastewater via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR 414 Subpart D (Thermoplastic Resins) and Subpart J (Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment). A new source determination was performed, and the

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

discharge is not a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are not required for this discharge.

The discharge of cooling tower blowdown, boiler blowdown, water treatment wastes, and stormwater via Outfall 001 is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgment.

The wastewater system consists of two treatment plants, the South plant and the North plant.

SOUTH PLANT***Water Treatment***

Raw water for utility and process use is treated to remove particulates and dissolved solids. Silt and other particulates are removed in clarifiers and gravity filters. Settled solids from the clarifiers and filter backwash water are transferred to the South Plant Sludge Pond, which has two bays. Dried solids are removed periodically. Normally, water in the Sludge Pond is recycled to the clarifier; however, any excess water / stormwater is returned to the wastewater system. Clarified / filtered water is used in the South Plant Cooling Tower. Some of the clarified / filtered water is sent to additional filtration and a reverse osmosis (RO) unit. The RO reject is sent to the South Plant Stormwater Pond. RO water is softened further in a zeolite-based filter system. The zeolite-based filter system is regenerated offsite by a third-party vendor.

Polyethylene Sewer

The polyethylene (PE) sewer collects polymer resin-contaminated water from hopper car washing, bin and blender washing, and runoff from the South Plant LLDPE resin handling, storage, and loading area. The sewer routes this resin granules- contaminated water to a three-channel gravity separator system (South Plant Skimmer Ponds). The gravity separator separates the resin granules from the water by flotation, with the lighter granules rising to the surface of the water by density difference. Resin is periodically removed by a third-party service company. The clarified water flows via an underflow weir to pump suction, whereby it is pumped to the South Plant Settling Ponds (two bays, 2- million-gallon capacity) for further flotation separation. Effluent from the settling ponds then flows to the South Plant Stormwater Pond.

Oily Water Sewer

The oily water sewer collects oil contaminated wastewater from the North and South Plant flare drum effluent and the Quality Control Laboratory sinks; runoff from the chemicals unloading area, compressor/ reactor area, service (shop and stores) area, HDPE¹ process slab area, fire training area, and railcar drain pans. Minor amounts of firefighting foam may exist in run-off from the fire training area. These wastewater streams are routed to a parallel-plate Oil-Water Separator. Oil from the separator is transferred via vacuum truck to a storage container and hauled offsite by a third party contractor for reuse. Residual solids and oil are periodically removed from the oily water sewer by a third-party service

¹ HDPE – high density polyethylene

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company. The clarified water in the separator underflows a weir and is pumped to the South Plant Stormwater Pond.

Storm Sewer

The South Plant storm sewer collects stormwater from process areas that do not handle polymer resin powder or pellets. Boiler and cooling tower blowdown are also sent to this sewer. These streams are routed to the South Plant Stormwater Pond.

Stormwater Pond

The South Plant Stormwater Pond receives process wastewater, process area stormwater, cooling tower blowdown, boiler blowdown, and water treatment wastewaters from the South Plant.

Firewater/Equalization Basin

Water from the South Plant Stormwater Pond is pumped to the Firewater/Equalization Basin. Water from the basin supplies the firewater system and serves to equalize effluent volumes and characteristics. Carbon dioxide is added to the basin to control pH prior to discharge at Outfall 001. Effluent from this basin is then pumped from Outfall 001 through a 3-mile (approximate) pipeline to Cedar Bayou (Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin).

Sanitary Sewer

Sanitary sewage from the Administration Building, Service Center, Control Buildings, Additives Warehouse, Security Buildings, Packaging and Shipping Building, and Quality Control Laboratory flows through a system of lift stations and is pumped by pipeline to the City of Mont Belvieu Cotton Bayou Wastewater Treatment Facility (TPDES Permit No. WQ0014807000) POTW. Sanitary wastewater from the new North Plant PE Unit also discharges to the South Plant sanitary sewer system and thence to the POTW.

NORTH PLANT

Sources of wastewater from the LLDPE North Unit include process wastewater, process area stormwater, cooling tower blowdown, boiler blowdown, and water treatment wastes. Sanitary wastewater is discharged to the sanitary sewer and sent offsite to the Mont Belvieu POTW.

Wastewater units include a North Plant Polymer Retention Basin and Stormwater Pond. Non-process area stormwater is routed to the Retention Pond, the effluent of which discharges through a multi-sector general stormwater outfall.

Water Treatment

Treatment of raw water for the North Plant is similar to the water treatment system at the South Plant. Raw water for utility and process use is treated to remove particulates and dissolved solids. Silt and other particulates are removed in clarifiers and gravity filters. Settled solids from the clarifiers and filter backwash water are transferred to the North Plant Sludge Pond, which has two bays. Dried solids are removed periodically from the Sludge Pond. Normally, water in the Sludge Pond is recycled to the clarifier; however, any excess water/stormwater is returned to the wastewater system.

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Clarified/filtered water is used in the North Plant Cooling Tower. Some of the clarified/filtered water is sent to additional filtration and an RO unit. The RO reject is sent to the cooling tower. RO water is softened further in a zeolite-based filter system. Wastewater generated from the zeolite softener regeneration cycle is discharged to the North Plant Stormwater Pond.

Oily Water Sewer

Oily water from the North Plant flare seal drum is routed via the North Plant oily water sewer to the South Plant Oil-Water Separator.

Polymer Retention Basin

Process area stormwater that has the greatest potential to contain polymer resin from the North Plant is routed through the Polymer Retention Basin. This stormwater is pumped from the basin to a rotary sieve for removal of the polymer resin. Filtrate from the rotary sieve is normally routed back to the basin inlet channel, but it may also be routed to the North Stormwater Pond. Within the inlet channel of the Polymer Retention Basin, stormwater can be diverted through a sluice gate then through mesh screens before discharging to the North Plant Stormwater Pond.

Stormwater Pond

The North Plant Stormwater Pond receives stormwater from the Polymer Retention Basin and other stormwater directly from North Plant LLD PE process areas that do not handle polymer resin powder or pellets. In addition, the North Plant Stormwater Pond receives cooling tower blowdown, boiler blowdown, and water softening regenerate wastewaters. Water from the North Plant Stormwater Pond discharges to the South Plant Stormwater Pond; it may also be diverted directly to the South Plant Firewater/ Equalization Basin.

Treatment Chemicals

Treatment chemicals are used in the cooling tower, boiler, and water/wastewater treatment systems to maintain water quality and/or provide specific treatments. United States Environmental Protection Agency (EPA)-approved dye/colorant-based treatment chemicals such as Aquashade and Azure Blue to control algae and aquatic plants are used as needed in surface impoundments. This authorization includes commercial products that have an EPA-approved colorant chemical as the active ingredient.

2. CALCULATIONS

See Appendix A of this fact sheet for calculations and further discussion of technology-based effluent limitations proposed in the draft permit.

3. 316(B) COOLING WATER INTAKE STRUCTURES**a. SCREENING**

The facility obtains water from a public water system (PWS No. TX1010013), for cooling purposes. The use of water obtained from a public water system for cooling purposes does not constitute the use of a cooling water intake structure; therefore, the facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

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b. PERMIT ACTION

The Other Requirement No. 7 (No. 8 in existing permit) has been carried forward in the draft to require the permittee to notify the TCEQ of any changes in the method by which cooling water is obtained. Upon receipt of such notification, the TCEQ may reopen the permit to include additional terms and conditions as necessary.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix D of this fact sheet.

2. AQUATIC LIFE CRITERIAa. SCREENING

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

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

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TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using two-year maximum monthly average flow of 2.60 MGD and the seven-day, two-year low-flow (7Q2) of 1.83 cfs for Cedar Bayou Above Tidal. The estimated dilution at the edge of the ZID is calculated using the two-year maximum monthly average flow of 2.60 MGD and 25% of the 7Q2. The following critical effluent percentages are being used:

Acute Effluent %	89.79%	Chronic Effluent %	68.73%
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General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include segment-specific values for TSS, pH, hardness, and chloride according to the *IPs*. The segment values are 4 mg/L for TSS, 7.1 standard units for pH, 90 mg/L for hardness (as calcium carbonate, CaCO_3), and 88 mg/L for chloride. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. No additional limits or monitoring requirements were added.

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3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA (7-DAY CHRONIC)a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic freshwater biomonitoring requirements at Outfall 001.

In the past three years, the permittee has performed thirteen chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures).

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

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

The permittee has filed a major amendment to, among other things, remove the lethal WET limit for the water flea. With no failures in the past three years and the anti-degradation review, the request is proposed to be granted.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent(s) that may have the potential to cause toxic conditions in the receiving stream.

Whole effluent toxicity testing (biomonitoring) is the most direct measure of potential toxicity, which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing shall be once per quarter
- ii) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of testing shall be once per quarter

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Toxicity tests shall be performed in accordance with protocols described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition (EPA-821-R-02-013) or the latest revision. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

This permit may be reopened to require effluent limits, additional testing, or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

If none of the first four consecutive quarterly tests demonstrates significant lethal or sublethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species. If one or more of the first four consecutive quarterly tests demonstrates significant sublethal effects, the permittee is required by the permit to continue quarterly testing for that species until four consecutive quarterly tests demonstrate no significant sublethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction for that species. If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee is required by the permit to continue quarterly testing for that species until the permit is reissued.

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 29%, 39%, 52%, 69%, and 100%. The low-flow effluent concentration (critical dilution) is defined as 69% effluent.

The dilution series outlined above was calculated using a 0.75 factor applied to the critical dilution. The critical dilution is the estimated effluent dilution at the edge of the aquatic life mixing zone, which is discussed in Section X.D.2.a. of this fact sheet.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

a. SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring requirements for Outfall 001. Minimum 24-hour acute freshwater biomonitoring requirements are proposed in the draft permit as outlined below.

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b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall 001 at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Acute 24-hour static toxicity test using the water flea (*Ceriodaphnia dubia* or *Daphnia pulex*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.
- ii) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA-821-R-02-012) or the latest revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIAa. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the two-year average monthly average flow of 1.74 MGD and the harmonic mean flow of 2.68 cfs for Cedar Bayou Above Tidal. The following critical effluent percentage is being used:

Human Health Effluent %: 50.11%

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

Significant potential is again determined by comparing reported analytical data against 70 percent and 85 percent of the calculated daily average water quality-based effluent limitation.

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b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The existing limits for benzo(a)anthracene, benzo(a)pyrene, chrysene, hexachlorobenzene, hexachlorobutadiene, and hexachloroethane are less stringent than the calculated water quality-based limits. The new limits are placed in the draft permit.

The limits for bis-(2-ethylhexyl)phthalate and vinyl chloride were changed to the water-quality based limits from the existing permit limits due to the removal of public water supply from the segment uses since last permit cycle. This is in compliance with EPA's antibacksliding regulation 40 CFR § 122.44(l).

6. DRINKING WATER SUPPLY PROTECTIONa. SCREENING

Segment No. 0902, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTIONa. SCREENING

The average concentration of TDS and sulfate in the effluent is greater than the segment criterion. Screening procedures and effluent limitations for TDS, chloride, and sulfate are calculated using the methodology in the *IPs* and criteria in the *Texas Surface Water Quality Standards* (30 TAC Chapter 307). A request to increase the limits for TDS and sulfate by 25% was made in the application. Detailed calculations are presented in Appendix C.

b. PERMIT ACTION

Limits for TDS and sulfate are increased by 25% per the major amendment request. The calculated limits are significantly higher than

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the existing more stringent limits which have been in place since 1999. Local area water conservation efforts as well as increased levels in the incoming raw water supply have resulted in higher concentration. This change meets the anti-backsliding exception of 40 CFR 122.44(l)(1).

8. PROTECTION OF pH STANDARDSa. SCREENING

No screening is necessary as the existing permit established pH limits set at the segment criteria which are being continued in the draft permit.

b. PERMIT ACTION

The existing effluent limits of 6.5 – 9.0 SU are adequate to ensure that the discharge will not violate the pH criteria in Cedar Bayou Above Tidal.

9. DISSOLVED OXYGEN PROTECTIONa. SCREENING

Segment No. 0902 is currently listed on the State's inventory of impaired and threatened waters (the 2022 Clean Water Section 303(d) list). The listing is for depressed dissolved oxygen from a point 2.2 km (1.4 mi) upstream of IH 10 in Chambers/Harris County to a point 7.4 km (4.6 mi) upstream of FM 1960 in Liberty County (AU 0902_01). This discharge is into the DO impaired portion of Segment No. 0902. This application is an amendment and renewal of its permit. However, the proposed amendment does not represent an increase in the permitted levels of oxygen demanding constituents to Segment No. 0902.

b. PERMIT ACTION

The existing effluent limits of 393 lbs/day CBOD₅, 126 lbs/day NH₃-N, and 5.0 mg/L DO are recommended for the reissued permit.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment

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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 Thomas E. Starr at (512) 239-4570.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0002546000 issued on July 2, 2019.

B. APPLICATION

TPDES wastewater permit application received on December 27, 2023 and additional information received on January 19, 2024 and February 28, 2025.

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C. 40 CFR CITATION(S)

40 CFR Part 414, Subpart D, Thermoplastic Resins and Subpart J, Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment (BPT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).

Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

Letter dated December 28, 2015, from L'Oreal Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).

Letter dated December 28, 2015, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).

TCEQ Interoffice Memorandum dated September 5, 2024, from M. A. Wallace, PhD of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated March 14, 2024, from Josi Robertson of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

TCEQ Interoffice Memorandum dated October 2, 2024, from Orlando M. Vasquez, Jr., P.E. of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated June 19, 2024, from Michael B. Pfeil of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

Additional correspondence dated February 28, 2025, from Jessica Eastburn of ExxonMobil Product Solutions, to the Industrial Permits Team, Wastewater Permitting Section (Aluminum Partition Coefficient Study Report).

E. MISCELLANEOUS

The State of Texas 2022 Integrated Report – Texas 303(d) List (Category 5), TCEQ, July 7, 2022.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

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Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

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Appendix A Calculated Technology-Based Effluent Limits

The discharge of process wastewater via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR 414 Subpart D (Thermoplastic Resins) and Subpart J (Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment). The proposed discharge is not a new source as defined at 40 CFR §122.2. Therefore, new source performance standards (NSPS) are not applicable. Effluent limitations were developed using the ELGs at 40 CFR §414.41—Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT) and 40 CFR §414.101—Toxic pollutant effluent limitations and standards for direct discharge point sources that do not use end-of-pipe biological treatment.

Flow Used:

Wastewater	Daily Average Flow (MGD)		
	South Plant	North Plant	Total
Process wastewater ¹	2.000	1.146	3.146
PE sewer	0.400	N/A	0.400
Oily water sewer	0.002	0.006	0.008
Process area stormwater	0.949	1.139	2.088
Utility/plant water ²	0.650	0.001	0.651
Cooling tower blowdown	0.250	1.530 ³	1.780
Boiler blowdown	0.043	0.011	0.054
Reverse osmosis (RO) reject	N/A	³	⁴
Water treatment wastewaters	0.031	0.002	0.033
Permitted Daily Average Flow	2.324	2.689	5.013

¹ Process wastewaters include wastewaters directly from the process, process-area stormwater, washdown, *de minimis* cleaning of equipment and maintenance activities, passivation of process equipment, vessel washouts, equipment hydroblasting, condensate traps, washout of RCRA-empty containers, quality control lab sinks, runoff from fire training area and fire main flushing, firewater for external cooling of equipment, railcar polymer washdown, water used externally on equipment to provide cooling as needed, and wastewater from railyard drain pans.

² Miscellaneous utility wastewaters include maintenance activities for cooling towers, boilers, RO system and wastewater treatment maintenance; steam condensates and air conditioning condensates; hydrostatic test water; groundwater; lawn watering and irrigation drainage; and passivation wastewaters from utility systems.

³ RO reject is used as part of makeup water for cooling tower and thus will be part of cooling tower blowdown.

⁴ RO reject is sent to the South Plant Stormwater Pond.

BOD₅ and TSSProcess Wastewater

Except as provided in 40 CFR 125.30 through 125.32, and in 40 CFR 414.11(i) for point sources with production in two or more subcategories, any existing point source subject to this subpart must achieve discharges not exceeding the quantity (mass) determined by multiplying the process wastewater flow

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subject to this subpart times the concentration listed in the following table.

Effluent characteristics	BPT Effluent Limitations ¹	
	Maximum for any one day	Maximum for monthly average
BOD ₅	64	24
TSS	130	40
pH	²	²

¹ All units except pH are milligrams per liter.

² Within the range of 6.0 to 9.0 at all times.

The following equation was used to calculate loadings:

$$\text{Loading (lbs/day)} = \text{Concentration (mg/L)} \times \text{Flow (MGD)} \times \text{Conversion Factor (8.345)}$$

$$\begin{aligned} \text{Daily Average BOD}_5 &= 24 \text{ mg/L} \times 3.146 \text{ MGD} \times 8.345 = 630 \text{ lbs/day} \\ \text{Daily Maximum BOD}_5 &= 64 \text{ mg/L} \times 3.146 \text{ MGD} \times 8.345 = 1,680 \text{ lbs/day} \\ \text{Daily Average TSS} &= 40 \text{ mg/L} \times 3.146 \text{ MGD} \times 8.345 = 1,050 \text{ lbs/day} \\ \text{Daily Maximum TSS} &= 130 \text{ mg/L} \times 3.146 \text{ MGD} \times 8.345 = 3,412 \text{ lbs/day} \end{aligned}$$

Utility Wastewater

The utility wastewater effluent limitations for BOD₅ and TSS were based on BPJ and continued from the existing permit.

$$\begin{aligned} \text{Daily Average BOD}_5 &= 10 \text{ mg/L} \times 1.867 \text{ MGD} \times 8.345 = 155 \text{ lbs/day} \\ \text{Daily Maximum BOD}_5 &= 20 \text{ mg/L} \times 1.867 \text{ MGD} \times 8.345 = 311 \text{ lbs/day} \\ \text{Daily Average TSS} &= 30 \text{ mg/L} \times 1.867 \text{ MGD} \times 8.345 = 467 \text{ lbs/day} \\ \text{Daily Maximum TSS} &= 60 \text{ mg/L} \times 1.867 \text{ MGD} \times 8.345 = 934 \text{ lbs/day} \end{aligned}$$

COD

The BPJ for COD is based on the relationship established between BOD₅ and COD as used in Metcalf & Eddy, Inc. Wastewater Engineering: Treatment and Reuse. Boston: McGraw-Hill, 2003. The ratio of the average of four samples provided in the application has been used in this calculation:

$$\text{Effluent test result in the application} = \text{COD/BOD}_5 = 43/3 = 14.3$$

This ratio was then multiplied with the BOD₅ given in the ELG and adopted for use in calculating the wastewater COD loadings as follows:

Process Wastewater

$$\begin{aligned} 24 \text{ mg/L} \times 14.3 &= 344 \text{ mg/L} \\ 64 \text{ mg/L} \times 14.3 &= 917 \text{ mg/L} \end{aligned}$$

Utility Wastewater

$$\begin{aligned} 10 \text{ mg/L} \times 14.3 &= 143 \text{ mg/L} \\ 20 \text{ mg/L} \times 14.3 &= 286 \text{ mg/L} \end{aligned}$$

These concentrations were then used to calculate mass allocations as follows:

Process Wastewater

$$\text{Daily Average COD} = 344 \text{ mg/L} \times 3.146 \text{ MGD} \times 8.345 = 9,031 \text{ lbs/day}$$

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Daily Maximum COD	=	917 mg/L	×	3.146 MGD	×	8.345	=	24,074 lbs/day
<u>Utility Wastewater</u>								
Daily Average COD	=	143 mg/L	×	1.867 MGD	×	8.345	=	2,228 lbs/day
Daily Maximum COD	=	286 mg/L	×	1.867 MGD	×	8.345	=	4,456 lbs/day

Oil and Grease

The oil and grease effluent limitations are based on BPJ and continued from the existing permit. It is assumed that all wastestreams could contain oil and grease, and, therefore loadings were recalculated using the entire permitted flow of 5.013 MGD.

All Waste Streams

Daily Average Oil & Grease	=	15 mg/L	×	5.013 MGD	×	8.345	=	628 lbs/day
Daily Maximum Oil & Grease	=	20 mg/L	×	5.013 MGD	×	8.345	=	837 lbs/day

Summations:Daily Average BOD₅

Process Wastewater	630 lbs/day
Utility Wastewater	155 lbs/day
TOTAL	785 lbs/day

Daily Maximum BOD₅

Process Wastewater	1,680 lbs/day
Utility Wastewater	311 lbs/day
TOTAL	1,992 lbs/day

Daily Average TSS

Process Wastewater	1,050 lbs/day
Utility Wastewater	467 lbs/day
TOTAL	1,518 lbs/day

Daily Maximum TSS

Process Wastewater	3,412 lbs/day
Utility Wastewater	934 lbs/day
TOTAL	4,346 lbs/day

Daily Average COD

Process Wastewater	9,031 lbs/day
Utility Wastewater	2,228 lbs/day
TOTAL	11,259 lbs/day

Daily Maximum COD

Process Wastewater	24,074 lbs/day
Utility Wastewater	4,456 lbs/day
TOTAL	28,530 lbs/day

Daily Average Oil & Grease

TOTAL	628 lbs/day
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Daily Maximum Oil & Grease

TOTAL	837 lbs/day
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FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Calculations for COD are used instead of existing permit limits as the ratio of COD to BOD has changed from 8.66 to 14.3 and meets the EPA's antibacksliding regulations in 40 CFR § 122.44(l).

Toxic Pollutants

Total Flow from Outfall (MGD) =	5.013
Process Wastewater Flow (MGD) =	3.146
Metal Bearing Wastewater Flow (MGD) =	0.00
Cyanide Bearing Wastewater Flow (MGD) =	0.00

Parameter	Daily Avg (ug/L)	Daily Max (ug/L)	Daily Avg (lbs/day)	Daily Max (lbs/day)	Single Grab (mg/L)
Chromium ¹	1,110	2,770	0.000	0.000	0.000
Copper ¹	1,450	3,380	0.000	0.000	0.000
Cyanide ²	420	1,200	0.000	0.000	0.000
Lead ¹	320	690	0.000	0.000	0.000
Nickel ¹	1,690	3,980	0.000	0.000	0.000
Zinc ¹	1,050	2,610	0.000	0.000	0.000
Acenaphthene	19	47	0.499	1.23	0.044
Acenaphthylene	19	47	0.499	1.23	0.044
Acrylonitrile	94	232	2.47	6.09	0.218
Anthracene	19	47	0.499	1.23	0.044
Benzene	57	134	1.50	3.52	0.126
Benzo(a)anthracene	19	47	0.499	1.23	0.044
3,4-Benzofluoranthene	20	48	0.525	1.26	0.045
Benzo(k)fluoranthene	19	47	0.499	1.23	0.044
Benzo(a)pyrene	20	48	0.525	1.26	0.045
Bis(2-ethylhexyl) phthalate	95	258	2.49	6.77	0.243
Carbon Tetrachloride	142	380	3.73	9.98	0.358
Chlorobenzene	142	380	3.73	9.98	0.358
Chloroethane	110	295	2.89	7.74	0.278
Chloroform	111	325	2.91	8.53	0.306
Chrysene	19	47	0.499	1.23	0.044
Di-n-butyl phthalate	20	43	0.525	1.13	0.040
1,2-Dichlorobenzene	196	794	5.15	20.85	0.747
1,3-Dichlorobenzene	142	380	3.73	9.98	0.358
1,4-Dichlorobenzene	142	380	3.73	9.98	0.358
1,1-Dichloroethane	22	59	0.578	1.55	0.056
1,2-Dichloroethane	180	574	4.73	15.07	0.540
1,1-Dichloroethylene	22	60	0.578	1.58	0.056
1,2-trans Dichloroethylene	25	66	0.656	1.73	0.062
1,2-Dichloropropane	196	794	5.15	20.85	0.747
1,3-Dichloropropylene	196	794	5.15	20.85	0.747
Diethyl phthalate	46	113	1.21	2.97	0.106
2,4-Dimethylphenol	19	47	0.499	1.23	0.044
Dimethyl phthalate	19	47	0.499	1.23	0.044
4,6-Dinitro-o-cresol	78	277	2.05	7.27	0.261
2,4-Dinitrophenol	1,207	4,291	31.69	112.7	4.039

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Parameter	Daily Avg (ug/L)	Daily Max (ug/L)	Daily Avg (lbs/day)	Daily Max (lbs/day)	Single Grab (mg/L)
Ethylbenzene	142	380	3.73	9.98	0.358
Fluoranthene	22	54	0.578	1.42	0.051
Fluorene	19	47	0.499	1.23	0.044
Hexachlorobenzene	196	794	5.15	20.85	0.747
Hexachlorobutadiene	142	380	3.73	9.98	0.358
Hexachloroethane	196	794	5.15	20.85	0.747
Methyl Chloride	110	295	2.89	7.74	0.278
Methylene Chloride	36	170	0.945	4.46	0.160
Naphthalene	19	47	0.499	1.23	0.044
Nitrobenzene	2,237	6,402	58.73	168.1	6.027
2-Nitrophenol	65	231	1.71	6.06	0.217
4-Nitrophenol	162	576	4.25	15.12	0.542
Phenanthrene	19	47	0.499	1.23	0.044
Phenol	19	47	0.499	1.23	0.044
Pyrene	20	48	0.525	1.26	0.045
Tetrachloroethylene	52	164	1.37	4.31	0.154
Toluene	28	74	0.735	1.94	0.070
1,2,4-Trichlorobenzene	196	794	5.15	20.85	0.747
1,1,1-Trichloroethane	22	59	0.578	1.55	0.056
1,1,2-Trichloroethane	32	127	0.840	3.33	0.120
Trichloroethylene	26	69	0.683	1.81	0.065
Vinyl Chloride	97	172	2.55	4.52	0.162

¹ The permittee indicated that the discharge does not contain metal-bearing wastes; therefore, the ELG for total chromium, total copper, total lead, total nickel, and total zinc is not applicable.

² Polyethylene production is not a cyanide-bearing process identified in Appendix A of 40 CFR 414, and therefore the ELG for cyanide is not applicable.

Daily average and daily maximum mass effluent limitations are calculated using the following formula: Limit (lbs/day) = Limit (mg/L) × permitted daily average flow (MGD) × 8.345

Single grab effluent limitations in the draft permit are calculated using the following equation:

Single Grab (mg/L) = Daily Max (mg/L) × 1.5 × 3.146 MGD/5.013 MGD

The limits for acrylonitrile, benzene, carbon tetrachloride, 1-1 dichloroethylene, 1-2 dichloropropane, 1-3 dichloropropylene, nitrobenzene, tetrachloroethylene, and 1-1-2 trichloroethane have been moved to their technology-based limits from the existing permit limits due the removal of public water supply from the segment uses per the EPA's antibacksliding regulation 40 CFR § 122.44(l).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B

Calculated Water Quality-Based Effluent Limits

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

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

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

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

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

PERMIT INFORMATION

Permittee Name:	Exxon Mobil Corporation
TPDES Permit No.:	WQ0002546000
Outfall No.:	001
Prepared by:	Thomas Starr
Date:	September 5, 2024

DISCHARGE INFORMATION

Receiving Waterbody:	Cedar Bayou Above Tidal
Segment No.:	0902
TSS (mg/L):	4
pH (Standard Units):	7.1
Hardness (mg/L as CaCO ₃):	90
Chloride (mg/L):	88
Effluent Flow for Aquatic Life (MGD):	2.6
Critical Low Flow [7Q2] (cfs):	1.83
% Effluent for Chronic Aquatic Life (Mixing Zone):	68.73
% Effluent for Acute Aquatic Life (ZID):	89.79
Effluent Flow for Human Health (MGD):	1.74
Harmonic Mean Flow (cfs):	2.68
% Effluent for Human Health:	50.11
Human Health Criterion (select: PWS, FISH, or INC)	FISH

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

<i>Stream/River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	0.1192	Assumed	1.00	Study
Arsenic	5.68	-0.73	173978.75	0.590		1.00	Assumed
Cadmium	6.60	-1.13	831136.22	0.231		1.00	Assumed
Chromium (total)	6.52	-0.93	912187.69	0.215		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	912187.69	0.215		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	375383.87	0.400		1.00	Assumed
Lead	6.45	-0.80	929719.64	0.212		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	222241.83	0.529		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	575278.59	0.303		1.00	Assumed
Zinc	6.10	-0.70	477043.53	0.344		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (µg/L)</i>	<i>Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Aldrin	3.0	N/A	3.34	N/A	1.91	N/A	2.81	5.95
Aluminum	8313.7586	N/A	9259	N/A	5306	N/A	7799	16500
Arsenic	340	150	642	370	368	285	418	886
Cadmium	7.7	0.229	37.3	1.44	21.4	1.11	1.62	3.44
Carbaryl	2.0	N/A	2.23	N/A	1.28	N/A	1.87	3.96
Chlordane	2.4	0.004	2.67	0.00582	1.53	0.00448	0.00658	0.0139
Chlorpyrifos	0.083	0.041	0.0924	0.0597	0.0530	0.0459	0.0675	0.142
Chromium (trivalent)	523	68	2706	460	1551	354	520	1101
Chromium (hexavalent)	15.7	10.6	17.5	15.4	10.0	11.9	14.7	31.1
Copper	12.9	8.7	35.8	31.5	20.5	24.3	30.1	63.8
Cyanide (free)	45.8	10.7	51.0	15.6	29.2	12.0	17.6	37.2
4,4'-DDT	1.1	0.001	1.23	0.00145	0.702	0.00112	0.00164	0.00348
Demeton	N/A	0.1	N/A	0.145	N/A	0.112	0.164	0.348
Diazinon	0.17	0.17	0.189	0.247	0.108	0.190	0.159	0.337
Dicofol [Kelthane]	59.3	19.8	66.0	28.8	37.8	22.2	32.6	68.9
Dieldrin	0.24	0.002	0.267	0.00291	0.153	0.00224	0.00329	0.00696
Diuron	210	70	234	102	134	78.4	115	243
Endosulfan I (<i>alpha</i>)	0.22	0.056	0.245	0.0815	0.140	0.0627	0.0922	0.195
Endosulfan II (<i>beta</i>)	0.22	0.056	0.245	0.0815	0.140	0.0627	0.0922	0.195
Endosulfan sulfate	0.22	0.056	0.245	0.0815	0.140	0.0627	0.0922	0.195
Endrin	0.086	0.002	0.0958	0.00291	0.0549	0.00224	0.00329	0.00696
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0145	N/A	0.0112	0.0164	0.0348
Heptachlor	0.52	0.004	0.579	0.00582	0.332	0.00448	0.00658	0.0139
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	1.126	0.08	1.25	0.116	0.719	0.0896	0.131	0.278
Lead	58	2.24	303	15.4	173	11.9	17.4	36.8
Malathion	N/A	0.01	N/A	0.0145	N/A	0.0112	0.0164	0.0348
Mercury	2.4	1.3	2.67	1.89	1.53	1.46	2.14	4.52
Methoxychlor	N/A	0.03	N/A	0.0436	N/A	0.0336	0.0494	0.104
Mirex	N/A	0.001	N/A	0.00145	N/A	0.00112	0.00164	0.00348
Nickel	428	47.6	901	131	516	101	147	313
Nonylphenol	28	6.6	31.2	9.60	17.9	7.39	10.8	22.9
Parathion (ethyl)	0.065	0.013	0.0724	0.0189	0.0415	0.0146	0.0214	0.0452
Pentachlorophenol	9.6	7.4	10.7	10.8	6.16	8.29	9.04	19.1
Phenanthrene	30	30	33.4	43.6	19.1	33.6	28.1	59.5
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.23	0.0204	1.28	0.0157	0.0230	0.0487
Selenium	20	5	22.3	7.27	12.8	5.60	8.23	17.4
Silver	0.8	N/A	21.7	N/A	12.4	N/A	18.2	38.6
Toxaphene	0.78	0.0002	0.869	0.000291	0.498	0.000224	0.000329	0.000696
Tributyltin [TBT]	0.13	0.024	0.145	0.0349	0.0830	0.0269	0.0395	0.0836
2,4,5 Trichlorophenol	136	64	151	93.1	86.8	71.7	105	222
Zinc	107	108	347	457	199	352	292	618

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion</i>	<i>Fish Only Criterion (µg/L)</i>	<i>Incidental Fish Criterion</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	1.0	115	1150	229	213	313	663
Aldrin	1.146E-05	1.147E-05	1.147E-04	0.0000229	0.0000213	0.0000312	0.0000661
Anthracene	1109	1317	13170	2628	2444	3592	7601
Antimony	6	1071	10710	2137	1988	2921	6181
Arsenic	10	N/A	N/A	N/A	N/A	N/A	N/A
Barium	2000	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	5	581	5810	1159	1078	1584	3353
Benzidine	0.0015	0.107	1.07	0.214	0.199	0.291	0.617
Benzo(a)anthracene	0.024	0.025	0.25	0.0499	0.0464	0.0682	0.144
Benzo(a)pyrene	0.0025	0.0025	0.025	0.00499	0.00464	0.00682	0.0144
Bis(chloromethyl)ether	0.0024	0.2745	2.745	0.548	0.509	0.748	1.58
Bis(2-chloroethyl)ether	0.60	42.83	428.3	85.5	79.5	116	247
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	6	7.55	75.5	15.1	14.0	20.5	43.5
Bromodichloromethane [Dichlorobromomethane]	10.2	275	2750	549	510	750	1587
Bromoform [Tribromomethane]	66.9	1060	10600	2115	1967	2891	6117
Cadmium	5	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	4.5	46	460	91.8	85.4	125	265
Chlordane	0.0025	0.0025	0.025	0.00499	0.00464	0.00682	0.0144
Chlorobenzene	100	2737	27370	5462	5079	7466	15796
Chlorodibromomethane [Dibromochloromethane]	7.5	183	1830	365	340	499	1056
Chloroform [Trichloromethane]	70	7697	76970	15359	14284	20997	44423
Chromium (hexavalent)	62	502	5020	1002	932	1369	2897
Chrysene	2.45	2.52	25.2	5.03	4.68	6.87	14.5
Cresols [Methylphenols]	1041	9301	93010	18560	17261	25373	53681
Cyanide (free)	200	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.002	0.02	0.00399	0.00371	0.00545	0.0115
4,4'-DDE	0.00013	0.00013	0.0013	0.000259	0.000241	0.000354	0.000750
4,4'-DDT	0.0004	0.0004	0.004	0.000798	0.000742	0.00109	0.00230
2,4'-D	70	N/A	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	262	473	4730	944	878	1290	2729
1,2-Dibromoethane [Ethylene Dibromide]	0.17	4.24	42.4	8.46	7.87	11.5	24.4
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	322	595	5950	1187	1104	1623	3434
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	600	3299	32990	6583	6122	8999	19040
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	75	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	0.79	2.24	22.4	4.47	4.16	6.11	12.9
1,2-Dichloroethane	5	364	3640	726	676	993	2100
1,1-Dichloroethylene [1,1-Dichloroethene]	7	55114	551140	109979	102280	150352	318092
Dichloromethane [Methylene Chloride]	5	13333	133330	26606	24743	36372	76951
1,2-Dichloropropane	5	259	2590	517	481	706	1494
1,3-Dichloropropene [1,3-Dichloropropylene]	2.8	119	1190	237	221	324	686
Dicofol [Kelthane]	0.30	0.30	3	0.599	0.557	0.818	1.73
Dieldrin	2.0E-05	2.0E-05	2.0E-04	0.0000399	0.0000371	0.0000545	0.000115
2,4-Dimethylphenol	444	8436	84360	16834	15656	23013	48688
Di- <i>n</i> -Butyl Phthalate	88.9	92.4	924	184	171	252	533
Dioxins/Furans [TCDD Equivalents]	7.80E-08	7.97E-08	7.97E-07	1.59E-07	1.48E-07	2.17E-07	4.59E-07
Endrin	0.02	0.02	0.2	0.0399	0.0371	0.0545	0.115
Epichlorohydrin	53.5	2013	20130	4017	3736	5491	11618
Ethylbenzene	700	1867	18670	3726	3465	5093	10775
Ethylene Glycol	46744	1.68E+07	1.68E+08	33524087	31177401	45830779	96961717
Fluoride	4000	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	8.0E-05	0.0001	0.001	0.000200	0.000186	0.000272	0.000577
Heptachlor Epoxide	0.00029	0.00029	0.0029	0.000579	0.000538	0.000791	0.00167
Hexachlorobenzene	0.00068	0.00068	0.0068	0.00136	0.00126	0.00185	0.00392
Hexachlorobutadiene	0.21	0.22	2.2	0.439	0.408	0.600	1.26

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

<i>Parameter</i>	<i>Water and Fish Criterion</i>	<i>Fish Only Criterion (µg/L)</i>	<i>Incidental Fish Criterion</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Hexachlorocyclohexane (<i>alpha</i>)	0.0078	0.0084	0.084	0.0168	0.0156	0.0229	0.0484
Hexachlorocyclohexane (<i>beta</i>)	0.15	0.26	2.6	0.519	0.483	0.709	1.50
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.2	0.341	3.41	0.680	0.633	0.930	1.96
Hexachlorocyclopentadiene	10.7	11.6	116	23.1	21.5	31.6	66.9
Hexachloroethane	1.84	2.33	23.3	4.65	4.32	6.35	13.4
Hexachlorophene	2.05	2.90	29	5.79	5.38	7.91	16.7
4,4'-Isopropylidenediphenol	1092	15982	159820	31892	29659	43599	92240
Lead	1.15	3.83	38.3	36.1	33.5	49.3	104
Mercury	0.0122	0.0122	0.122	0.0243	0.0226	0.0332	0.0704
Methoxychlor	2.92	3.0	30	5.99	5.57	8.18	17.3
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	1979518	1840951	2706198	5725358
Methyl <i>tert</i> -butyl ether [MTBE]	15	10482	104820	20917	19452	28595	60497
Nickel	332	1140	11400	4297	3996	5874	12428
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	3738	3476	5109	10810
N-Nitrosodiethylamine	0.0037	2.1	21	4.19	3.90	5.72	12.1
N-Nitroso-di- <i>n</i> -Butylamine	0.119	4.2	42	8.38	7.79	11.4	24.2
Pentachlorobenzene	0.348	0.355	3.55	0.708	0.659	0.968	2.04
Pentachlorophenol	0.22	0.29	2.9	0.579	0.538	0.791	1.67
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.00128	0.00119	0.00174	0.00369
Pyridine	23	947	9470	1890	1757	2583	5465
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.479	0.445	0.654	1.38
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	52.6	48.9	71.8	152
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	559	520	763	1616
Thallium	0.12	0.23	2.3	0.459	0.427	0.627	1.32
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.0220	0.0204	0.0300	0.0634
2,4,5-TP [Silvex]	50	369	3690	736	685	1006	2129
1,1,1-Trichloroethane	200	784354	7843540	1565164	1455602	2139735	4526923
1,1,2-Trichloroethane	5	166	1660	331	308	452	958
Trichloroethylene [Trichloroethene]	5	71.9	719	143	133	196	414
2,4,5-Trichlorophenol	1039	1867	18670	3726	3465	5093	10775
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	32.9	30.6	45.0	95.2

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Aquatic Life	70% of	85% of
Parameter	Daily Avg.	Daily Avg.
	(µg/L)	(µg/L)
Aldrin	1.97	2.39
Aluminum	5459	6629
Arsenic	293	356
Cadmium	1.13	1.38
Carbaryl	1.31	1.59
Chlordane	0.00461	0.00559
Chlorpyrifos	0.0472	0.0573
Chromium (trivalent)	364	442
Chromium (hexavalent)	10.3	12.5
Copper	21.1	25.6
Cyanide (free)	12.3	14.9
4,4'-DDT	0.00115	0.00139
Demeton	0.115	0.139
Diazinon	0.111	0.135
Dicofol [Kelthane]	22.8	27.7
Dieldrin	0.00230	0.00279
Diuron	80.6	97.9
Endosulfan I (<i>alpha</i>)	0.0645	0.0783
Endosulfan II (<i>beta</i>)	0.0645	0.0783
Endosulfan sulfate	0.0645	0.0783
Endrin	0.00230	0.00279
Guthion [Azinphos Methyl]	0.0115	0.0139
Heptachlor	0.00461	0.00559
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.0922	0.111
Lead	12.2	14.8
Malathion	0.0115	0.0139
Mercury	1.49	1.81
Methoxychlor	0.0345	0.0419
Mirex	0.00115	0.00139
Nickel	103	125
Nonylphenol	7.60	9.23
Parathion (ethyl)	0.0149	0.0181
Pentachlorophenol	6.33	7.69
Phenanthrene	19.7	23.9
Polychlorinated Biphenyls [PCBs]	0.0161	0.0195
Selenium	5.76	6.99
Silver	12.7	15.5
Toxaphene	0.000230	0.000279
Tributyltin [TBT]	0.0276	0.0335
2,4,5 Trichlorophenol	73.7	89.5
Zinc	204	248

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Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Acrylonitrile	219	266
Aldrin	0.0000219	0.0000265
Anthracene	2514	3053
Antimony	2045	2483
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	1109	1347
Benzidine	0.204	0.248
Benzo(a)anthracene	0.0477	0.0579
Benzo(a)pyrene	0.00477	0.00579
Bis(chloromethyl)ether	0.524	0.636
Bis(2-chloroethyl)ether	81.7	99.3
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	14.4	17.5
Bromodichloromethane [Dichlorobromomethane]	525	637
Bromoform [Tribromomethane]	2024	2457
Cadmium	N/A	N/A
Carbon Tetrachloride	87.8	106
Chlordane	0.00477	0.00579
Chlorobenzene	5226	6346
Chlorodibromomethane [Dibromochloromethane]	349	424
Chloroform [Trichloromethane]	14698	17847
Chromium (hexavalent)	958	1164
Chrysene	4.81	5.84
Cresols [Methylphenols]	17761	21567
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00381	0.00463
4,4'-DDE	0.000248	0.000301
4,4'-DDT	0.000763	0.000927
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	903	1096
1,2-Dibromoethane [Ethylene Dibromide]	8.09	9.83
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	1136	1379
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	6299	7649
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	4.27	5.19
1,2-Dichloroethane	695	844
1,1-Dichloroethylene [1,1-Dichloroethene]	105246	127799
Dichloromethane [Methylene Chloride]	25460	30916
1,2-Dichloropropane	494	600
1,3-Dichloropropene [1,3-Dichloropropylene]	227	275
Dicofol [Kelthane]	0.572	0.695
Dieldrin	0.0000381	0.0000463
2,4-Dimethylphenol	16109	19561
Di- <i>n</i> -Butyl Phthalate	176	214
Dioxins/Furans [TCDD Equivalents]	1.52E-07	1.84E-07
Endrin	0.0381	0.0463
Epichlorohydrin	3844	4667
Ethylbenzene	3565	4329
Ethylene Glycol	32081545	38956162
Fluoride	N/A	N/A
Heptachlor	0.000190	0.000231
Heptachlor Epoxide	0.000553	0.000672
Hexachlorobenzene	0.00129	0.00157
Hexachlorobutadiene	0.420	0.510

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Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Hexachlorocyclohexane (<i>alpha</i>)	0.0160	0.0194
Hexachlorocyclohexane (<i>beta</i>)	0.496	0.602
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.651	0.790
Hexachlorocyclopentadiene	22.1	26.8
Hexachloroethane	4.44	5.40
Hexachlorophene	5.53	6.72
4,4'-Isopropylidenediphenol	30519	37059
Lead	34.5	41.9
Mercury	0.0232	0.0282
Methoxychlor	5.72	6.95
Methyl Ethyl Ketone	1894338	2300268
Methyl <i>tert</i> -butyl ether [MTBE]	20016	24305
Nickel	4112	4993
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	3576	4343
N-Nitrosodiethylamine	4.01	4.86
N-Nitroso-di- <i>n</i> -Butylamine	8.02	9.73
Pentachlorobenzene	0.677	0.823
Pentachlorophenol	0.553	0.672
Polychlorinated Biphenyls [PCBs]	0.00122	0.00148
Pyridine	1808	2195
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.458	0.556
1,1,2,2-Tetrachloroethane	50.3	61.1
Tetrachloroethylene [Tetrachloroethylene]	534	649
Thallium	0.439	0.533
Toluene	N/A	N/A
Toxaphene	0.0210	0.0255
2,4,5-TP [Silvex]	704	855
1,1,1-Trichloroethane	1497814	1818775
1,1,2-Trichloroethane	316	384
Trichloroethylene [Trichloroethene]	137	166
2,4,5-Trichlorophenol	3565	4329
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	31.5	38.2

Mass Limits Calculations:

Daily average and daily maximum mass effluent limitations are calculated using the following formula: Limit (lbs/day) = Limit (mg/L) × permitted daily average flow (MGD) × 8.345

Single grab effluent limitations in the draft permit are calculated using the following equation:

Single Grab (mg/L) = Daily Max (mg/L) × 1.5

<i>Parameter</i>	Daily Avg (mg/L)	Daily Avg (lbs/day)	Daily Max (mg/L)	Daily Max (lbs/day)	Single Grab (mg/L)
Acrylonitrile	0.313	13.1	0.663	27.7	0.995
Anthracene	3.592	150	7.601	318	11.4
Benzene	1.584	66.3	3.353	140	5.03
Benzo(a)anthracene	0.000068	0.0029	0.000144	0.0060	0.0059
Benzo(a)pyrene	0.000007	0.00018	0.000014	0.0004	0.00022
Bis(2-ethylhexyl)phthalate	0.0205	0.858	0.0435	1.82	0.0653
Carbon Tetrachloride	0.125	5.23	0.265	11.1	0.398
Chloroform	20.997	878	44.423	1,858	66.6
Chrysene	0.00687	0.287	0.0145	0.607	0.0212

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<i>Parameter</i>	Daily Avg (mg/L)	Daily Avg (lbs/day)	Daily Max (mg/L)	Daily Max (lbs/day)	Single Grab (mg/L)
m-Dichlorobenzene (1,3-Dichlorobenzene)	1.623	67.90	3.434	143.7	5.15
o-Dichlorobenzene (1,2-Dichlorobenzene)	8.999	376.5	19.04	796.5	28.6
1,2-Dichloroethane	0.993	41.54	2.10	87.85	3.15
1,1-Dichloroethylene	150.352	6,290	318.01	13,307	477
Dichloromethane (Methylene Chloride)	36.372	1,522	76.951	3,219	115
1,2-Dichloropropane	0.706	29.53	1.494	62.5	2.24
1,3-Dichloropropene (1,3-Dichloropropylene)	0.324	13.55	0.686	28.7	1.03
2,4-Dimethylphenol	23.013	963	48.688	2,037	73.0
Di-n-Butyl Phthalate	0.252	10.5	0.533	22.3	0.800
Ethylbenzene	5.093	213	10.775	451	16.2
Hexachlorobenzene	0.0000019	0.000077	0.0000039	0.000164	0.0000059
Hexachlorobutadiene	0.0006	0.0251	0.00126	0.0527	0.00189
Hexachloroethane	0.00635	0.266	0.0134	0.561	0.0201
Nitrobenzene	5.109	214	10.81	452	16.2
Tetrachloroethylene	0.763	31.9	1.616	67.6	2.42
1,1,1-Trichloroethane	2,140	89,513	4,527	189,377	6,790
1,1,2-Trichloroethane	0.452	18.9	0.958	40.1	1.44
Trichloroethylene	0.196	8.20	0.414	17.3	0.621
Vinyl Chloride	0.045	1.88	0.0952	3.98	0.143

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Appendix C TDS, Chloride, and Sulfate Screening Calculations

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 3 - Discharge to a Perennial Stream or River

Applicant Name:	Exxon Mobil Corp.
Permit Number, Outfall:	02546000, 001
Segment Number:	0902

Enter values needed for screening:		Data Source (edit if different)
QE - Average effluent flow	2.6 MGD	
QS - Perennial stream harmonic mean flow	2.68 cfs	Critical conditions memo
QE - Average effluent flow	4.0228 cfs	Calculated
CA - TDS - ambient segment concentration	373 mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	83 mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	17 mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	700 mg/L	2022 TSWQS, Appendix A
CC - chloride - segment criterion	200 mg/L	2022 TSWQS, Appendix A
CC - sulfate - segment criterion	150 mg/L	2022 TSWQS, Appendix A
CE - TDS - average effluent concentration	859 mg/L	Permit application
CE - chloride - average effluent concentration	187 mg/L	Permit application
CE - sulfate - average effluent concentration	251 mg/L	Permit application

Screening Equation

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

TDS

Calculate the WLA	WLA = [CC(QE+QS) - (QS)(CA)]/QE	917.85
Calculate the LTA	LTA = WLA * 0.93	853.60
Calculate the daily average	Daily Avg. = LTA * 1.47	1254.79
Calculate the daily maximum	Daily Max. = LTA * 3.11	2654.69
Calculate 70% of the daily average	70% of Daily Avg. =	878.35
Calculate 85% of the daily average	85% of Daily Avg. =	1066.57
No permit limitations needed if:	859 ≤ 878.35	
Reporting needed if:	859 > 878.35	but ≤ 1066.57
Permit limits may be needed if:	859 > 1066.57	

No permit limitations needed for TDS

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Chloride

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	277.95		
Calculate the LTA	$LTA = WLA * 0.93$	258.49		
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	379.98		
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	803.90		
Calculate 70% of the daily average	70% of Daily Avg. =	265.99		
Calculate 85% of the daily average	85% of Daily Avg. =	322.98		
No permit limitations needed if:	187	≤	265.99	
Reporting needed if:	187	>	265.99	but ≤ 322.98
Permit limits may be needed if:	187	>	322.98	

No permit limitations needed for chloride**Sulfate**

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	238.60		
Calculate the LTA	$LTA = WLA * 0.93$	221.90		
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	326.20		
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	690.12		
Calculate 70% of the daily average	70% of Daily Avg. =	228.34		
Calculate 85% of the daily average	85% of Daily Avg. =	277.27		
No permit limitations needed if:	251	≤	228.34	
Reporting needed if:	251	>	228.34	but ≤ 277.27
Permit limits may be needed if:	251	>	277.27	

Reporting needed for sulfate

Major amendment request to raise the TDS and sulfate limits by 25% for Outfall 001. This equates to daily average of 564.71 mg/L and daily maximum of 1,417.5 mg/L for TDS and daily average of 188.94 mg/L and daily maximum 475 mg/L which are still below the calculated daily average and daily maximum above. These increases are requested due to the local water conservation efforts as well as increased levels in incoming raw water supply require allowance for higher concentrations.

The mass calculations are: TDS 564.71 mg/L x 8.345 x 5.013 MGD = 23,624 lbs/day
Sulfate 188.94 mg/L x 8.345 x 5.013 MGD = 7,904 lbs/day

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix D Comparison of Effluent Limits

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit (Technology-Based), calculated/assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit). Effluent limitations appearing in bold are the most stringent of the three and are included in the draft permit.

Parameter	Technology-Based		Water Quality-Based		Existing Permit	
	Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Flow	-	-	-	-	5.013	13.0
Biochemical Oxygen Demand (BOD), 5-day	785	1,992	-	-	N/A	N/A
Carbonaceous BOD, 5-day	-	-	-	-	393	996
Total Suspended Solids	1,518	4,346	-	-	1,518	4,348
Oil and Grease	628	837	-	-	628	837
Chemical Oxygen Demand	11,259	28,530	-	-	6,816	14,544
Total Dissolved Solids	23,624	1,417.5 (mg/L)	52,492	111,055	18,899	1,134 (mg/L)
Sulfate	7,904	475 (mg/L)	13,646	28,870	6,323	380 (mg/L)
Ammonia-nitrogen	-	-	126	252	126	252
Dissolved Oxygen, Minimum	-	-	5.0 mg/L (min)		5.0 mg/L (min)	
pH, SU	6.0 SU, minimum	9.0 SU	6.5 SU, minimum	9.0 SU	6.5 SU, minimum	9.0 SU
Acenaphthene	0.499	1.23	-	-	0.499	1.23
Acenaphthylene	0.499	1.23	-	-	0.499	1.23
Acrylonitrile	2.47	6.09	13.1	27.7	0.0486	0.103
Anthracene	0.499	1.23	150	318	0.499	1.23
Benzene	1.50	3.52	66.3	140	0.304	0.642
Benzo(a)anthracene	0.499	1.23	0.0029	0.0060	0.0413	0.0874
3,4-Benzofluoranthene	0.525	1.26	-	-	0.525	1.26
Benzo(k)fluoranthene	0.499	1.23	-	-	0.499	1.23
Benzo(a)pyrene	0.525	1.26	0.00018	0.0004	0.0041	0.0087
Bis(2-ethylhexyl) phthalate	2.49	6.77	0.858	1.82	0.364	0.771
Carbon Tetrachloride	3.73	9.98	5.23	11.1	0.261	0.552
Chlorobenzene	3.73	9.98	-	-	3.73	9.98
Chloroethane	2.89	7.74	-	-	2.89	7.74
Chloroform	2.91	8.53	878	1,858	2.91	8.53
Chrysene	0.499	1.23	0.287	0.607	0.499	1.23
Di-n-butyl phthalate	0.525	1.13	10.5	22.3	0.525	1.13
1,2-Dichlorobenzene	5.15	20.85	376.5	796.5	5.15	20.85

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Parameter	Technology-Based		Water Quality-Based		Existing Permit	
	Daily Avg	Daily Max	Daily Avg	Daily Max	Daily Avg	Daily Max
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
1,3-Dichlorobenzene	3.73	9.98	67.9	143.7	3.73	9.98
1,4-Dichlorobenzene	3.73	9.98	-	-	3.73	9.98
1,1-Dichloroethane	0.578	1.55	-	-	0.578	1.55
1,2-Dichloroethane	4.73	15.07	41.54	87.85	4.73	15.07
1,1-Dichloroethylene	0.578	1.58	6,290	13,307	0.425	0.899
1,2-trans Dichloroethylene	0.656	1.73	-	-	0.656	1.73
1,2-Dichloropropane	5.15	20.85	29.53	62.5	0.304	0.642
1,3-Dichloropropylene	5.15	20.85	13.55	28.7	0.206	0.437
Diethyl phthalate	1.21	2.97	-	-	1.21	2.97
2,4-Dimethylphenol	0.499	1.23	963	2,037	0.499	1.23
Dimethyl phthalate	0.499	1.23	-	-	0.499	1.23
4,6-Dinitro-o-cresol	2.05	7.27	-	-	2.05	7.27
2,4-Dinitrophenol	31.69	112.7	-	-	31.69	112.7
Ethylbenzene	3.73	9.98	213	451	3.73	9.98
Fluoranthene	0.578	1.42	-	-	0.578	1.42
Fluorene	0.499	1.23	-	-	0.499	1.23
Hexachlorobenzene	5.15	20.85	0.000077	0.000164	0.0003	0.0006
Hexachlorobutadiene	3.73	9.98	0.0251	0.0527	0.395	0.835
Hexachloroethane	5.15	20.85	0.266	0.561	0.302	0.639
Methyl Chloride	2.89	7.74	1,522	3,219	2.89	7.74
Methylene Chloride	0.945	4.46	-	-	0.945	4.46
Naphthalene	0.499	1.23	-	-	0.499	1.23
Nitrobenzene	58.73	168.1	214	452	2.73	5.78
2-Nitrophenol	1.71	6.06	-	-	1.71	6.06
4-Nitrophenol	4.25	15.12	-	-	4.25	15.12
Phenanthrene	0.499	1.23	-	-	0.499	1.23
Phenol	0.499	1.23	-	-	0.499	1.23
Pyrene	0.525	1.26	-	-	0.525	1.26
Tetrachloroethylene	1.37	4.31	31.9	67.6	0.304	0.642
Toluene	0.735	1.94	-	-	0.735	1.94
1,2,4-Trichlorobenzene	5.15	20.85	-	-	5.15	20.85
1,1,1-Trichloroethane	0.578	1.55	89,513	189,377	0.578	1.55
1,1,2-Trichloroethane	0.840	3.33	18.9	40.1	0.304	0.642
Trichloroethylene	0.683	1.81	8.20	17.3	0.683	1.81
Vinyl Chloride	2.55	4.52	1.88	3.98	0.015	0.032

Exxon Mobil Corporation
ExxonMobil Mont Belvieu Plastics Plant
TPDES Permit No. WQ0002546000 Application 2023

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Cross-reference Key

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 TR Technical Report
 SPIF Supplemental Permit Information Form
 W# Worksheet #



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ INDUSTRIAL WASTEWATER PERMIT APPLICATION

INDUSTRIAL ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report

Item 1. Application Information and Fees (Instructions, Page 25)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Exxon Mobil Corporation EPA ID No.: TX0089125

Permit No.: WO0002546000 Expiration Date: July 2, 2024

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☒ TPDES Permit

☐ TLAP

- e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes

☐ Renewal without changes

☒ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: The application includes amendment requests to 1) remove the limits/conditions for C. dubia 7-day lethal whole effluent toxicity for Outfall 001; 2) remove limits/conditions for C. dubia 7-day sublethal whole effluent toxicity monitoring for Outfall 001; 3) increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001; 4) use a site-specific partition coefficient for aluminum for Outfall 001; and 2) to modify the notification provisions in Other Requirement No. 7. For additional information see Item 13 in the application Technical Report.

- g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150



EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Major facility	N/A ¹	<input checked="" type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

For TCEQ Use Only

Segment Number 0902 County Chambers
Expiration Date 07/02/2024 Region 12-Houston
Permit Number 0002546000

h. Payment Information

Mailed

Check or money order No.: N/A Check or money order amt.: N/A

Named printed on check or money order: N/A

Epay

Voucher number: 674523, 674524

Copy of voucher attachment: See below.

TCEQ ePay Receipt

Transaction Information	
Trace Number:	582EA000580799
Date:	12/08/2023 02:37 PM
Payment Method:	CC - Authorization 0000043812
ePay Actor:	DANN SCHIMMING
TCEQ Amount:	\$2,050.00
Texas.gov Price:	\$2,096.38*
* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.	

Payment Contact Information	
Name:	DANN SCHIMMING
Company:	EXXONMOBIL MONT BELVIEU
Address:	13330 HATCHERVILLE ROAD, BAYTOWN, TX 77521
Phone:	281-425-4025

Cart Items			
Voucher	Fee Description	AR Number	Amount
674523	WW PERMIT - MAJOR INDUSTRIAL FACILITY - MAJOR AMENDMENT		\$2,000.00
674524	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$2,050.00

Item 2. Applicant Information (Instructions, Pages 25)

- a. Customer Number, if applicant is an existing customer: CN600123939

Note: Locate the customer number using the TCEQ's Central Registry Customer Search².

- b. Legal name of the entity (applicant) applying for this permit: Exxon Mobil Corporation

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☐ Mr. ☒ Ms. First/Last Name: Jessica Vasquez Title: Mont Belvieu Plant Manager

Credential: See Attachment A-2 Delegation of Authority for signature

¹ All facilities are designated as minors until formally classified as a major by EPA.

² <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 26)

☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: N/A

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): CN N/A

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☐ Mr. ☐ Ms. First/Last Name: N/A

Title: N/A

Credential: N/A

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 26)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: A-1 Core Data Form

Item 5. Application Contact Information (Instructions, Page 26)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. ☒ Administrative Contact ☐ Technical Contact

☐ Mr. ☒ Ms. Full Name (First and Last): Mesha Gardner

Title: BTA Senior Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 346-424-5029

Fax No: N/A

Email: mesha.c.gardner@exxonmobil.com

b. ☐ Administrative Contact ☒ Technical Contact

☐ Mr. ☒ Ms. Full Name (First and Last): Jessica Eastburn

Title: BTA Environmental Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

Attachment: N/A

Item 6. Permit Contact Information (Instructions, Pages 26)

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

- a. ☐ Mr. ☒ Ms. Full Name (First and Last): Jessica Eastburn

Title: BTA Environmental Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

- b. ☐ Mr. ☒ Ms. Full Name (First and Last): Mesha Gardner

Title: BTA Senior Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 346-424-5029

Fax No: N/A

Email: mesha.c.gardner@exxonmobil.com

Attachment: N/A

Item 7. Billing Contact Information (Instructions, Page 27)

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

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

- ☐ Mr. ☒ Ms. Full Name (First and Last): Jessica Eastburn

Title: BTA Environmental Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

Item 8. DMR/MER Contact Information (Instructions, Page 27)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

- ☒ Mr. ☐ Ms. Full Name (First and Last): John J. Rinaudo II

Title: BTA Environmental Department Head Credential: P.E.

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4807

Fax No: N/A

Email: john.j.rinaudo@exxonmobil.com

Item 9. NOTICE INFORMATION (Instructions, Pages 27

a. Individual Publishing the Notices

☐ Mr. ☒ Ms. Full Name (First and Last): Jessica Eastburn

Title: BTA Environmental Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

☒ E-mail: jessica.a.eastburn@exxonmobil.com

☐ Fax: N/A

☐ Regular Mail (USPS)

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

c. Contact in the Notice

☐ Mr. ☒ Ms. Full Name (First and Last): Jessica Eastburn

Title: BTA Environmental Water Advisor Credential: N/A

Organization Name: Exxon Mobil Corporation

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

The facility property lies in both Chambers and Liberty Counties, so a location in each county is provided.

Public building name: [1] Chambers County Public Library - West Chambers Branch, [2] Dayton Police Department (for Liberty County)

Location within the building: N/A

Physical Address of Building: [1] Chambers County - 10616 Eagle Drive, [2] Liberty County - 111 N. Church Street

City: [1] Chambers County - Mont Belvieu, TX [2] Liberty County - Dayton, TX

County: [1] Chambers County, [2] Liberty County

e. Bilingual Notice Requirements

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

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

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

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

☒ Yes ☐ No

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted 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 ☐ N/A

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

- f. Plain Language Summary Template - Complete the Plain Language Summary at the end of this application.

- g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: A-5 Public Involvement Plan

Item 10. Regulated Entity and Permitted Site Information (Instructions Pages 28-30)

- a. TCEQ issued Regulated Entity Number (RN), if available: RN102501020

Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

- b. Name of project or site (the name known by the community where located): ExxonMobil Mont Belvieu Plastics Plant

- c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

- d. Owner of treatment facility:

☐ Mr. ☐ Ms. Full Name (First and Last): N/A

or Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: N/A

Fax No: N/A

Email: N/A

e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

f. Owner of land where treatment facility is or will be: N/A

☐ Mr. ☐ Ms. Full Name (First and Last): N/A or Organization Name: Exxon Mobil Corporation

Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: N/A

Fax No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: N/A

g. Owner of effluent TLAP disposal site (if applicable): N/A

☐ Mr. ☐ Ms. Full Name (First and Last): N/A or Organization Name: N/A

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

Phone No: N/A

Fax No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

h. Owner of sewage sludge disposal site (if applicable):

☐ Mr. ☐ Ms. Full Name (First and Last): N/A or Organization Name: N/A

Mailing Address: N/A

City: N/A

State: N/A

Zip Code: N/A

Phone No: N/A

Fax No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Pages 30-32)

a. Is the facility located on or does the treated effluent cross Native American Land?

☐ Yes ☒ No

b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.

☒ One-mile radius

☒ Three-miles downstream information

☒ Applicant's property boundaries

☒ Treatment facility boundaries

☒ Labeled point(s) of discharge

☒ Highlighted discharge route(s)

☐ Effluent disposal site boundaries

☒ All wastewater ponds

☐ Sewage sludge disposal site

☐ New and future construction

Attachment: A-3 USGS Map

c. Is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No or New Permit N/A

If no, or a new application, provide an accurate location description: N/A

d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

e. Are the discharge route(s) in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: N/A

f. City nearest the outfall(s): Mont Belvieu

g. County in which the outfalls(s) is/are located: Chambers

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

☐ Yes ☒ No

If yes, indicate by a check mark if: ☐ Authorization granted ☐ Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: N/A

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

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

☐ Yes ☐ No or New Permit N/A

If no, or a new application, provide an accurate location description: N/A

j. City nearest the disposal site: N/A

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

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

m. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: N/A

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

Item 12. MISCELLANEOUS INFORMATION (Instructions, Page 32)

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

☐ Yes ☒ No

If yes, list each person: N/A

b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the account no.: N/A and total amount due: N/A

c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the enforcement order no.: N/A and amount due: N/A

Item 13. SIGNATURE PAGE (Instructions, Pages 32-33)

Permit No: WQ0002546000

Applicant Name: Exxon Mobil Corporation

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

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

Signatory name (typed or printed): Jessica Vasquez

Signatory title: Plant Manager

Signature: _____

Jessica Vasquez
(Use blue ink)

Date: _____

12/21/2023

Subscribed and Sworn to before me by the said _____

STACEY KING

on this _____

21st

day of _____

December

, 20 23

My commission expires on the _____

25th

day of _____

January

, 20 26

Stacey King
Notary Public

[SEAL]



CHAMBERS COUNTY
County, Texas

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

INDUSTRIAL ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. AFFECTED LANDOWNER INFORMATION (Instructions, Pages 34-35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☐ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☐ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: A-4-1 Landowner Map

- b. Check the box next to the format of the landowners list:

☒ Readable/Writeable CD ☐ Four sets of labels

Attachment: A-4-2 Landowner List (table), A-4-3 Landowner Mailing Labels (on CD)

- d. Provide the source of the landowners' names and mailing addresses: Tax appraisal districts: Chambers County, Liberty County, Harris County
- e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

☐ Yes ☒ No

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

Item 2. Public Involvement Plan Form (Instructions, Page 36)

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.

See Attachment A-5 Public Involvement Plan.

Item 3. ORIGINAL PHOTOGRAPHS (Instructions, Page 36)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site.
- ☒ A plot plan or map showing the location and direction of each photograph.

Attachment: A-6 Outfall Photos

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

**FOR AGENCIES REVIEWING INDUSTRIAL
TPDES WASTEWATER PERMIT APPLICATIONS**

TCEQ USE ONLY:

Application type: ____ Renewal ☒ Major Amendment ____ Minor Amendment ____ New

County: Chambers Segment Number: 0902

Admin Complete Date: 02/15/2024

Agency Receiving SPIF:

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

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

This form applies to TPDES permit applications only. (Instructions, Page 36)

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

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

The following applies to all applications:

1. Permittee Name: Exxon Mobil Corporation
2. Permit No.: WQ0002546000 EPA ID No.: TX0089125
3. Address of the project (location description that includes street/highway, city/vicinity, and county):
13330 Hatcherville Road, Mont Belvieu, Chambers County, Texas 77521
4. Provide the name, address, phone and fax number, and email address of an individual that can be contacted to answer specific questions about the property.

Full Name (First and Last): Jessica Eastburn

Organization Name: Exxon Mobil Corporation Mailing Address: P.O. Box 1653

City: Mont Belvieu State: TX Zip Code: 77580

Phone No: 832-864-4924

Fax No: N/A

Email: jessica.a.eastburn@exxonmobil.com

5. List the county in which the facility is located: Chambers and Liberty Counties
6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property: N/A
7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge

to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number: Via Outfall 001 directly to Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin

8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report.) Attachment: SPIF-1 USGS Map
9. Provide original photographs of any structures 50 years or older on the property. Attachment: N/A
10. Does your project involve any of the following? Check all that apply.

N/A

- ☐ Proposed access roads, utility lines, construction easements
 - ☐ Visual effects that could damage or detract from a historic property's integrity
 - ☐ Vibration effects during construction or as a result of project design
 - ☐ Additional phases of development that are planned for the future
 - ☐ Sealing caves, fractures, sinkholes, other karst features
 - ☐ Disturbance of vegetation or wetlands
11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): N/A. No new construction is proposed.
 12. Describe existing disturbances, vegetation, and land use: Industrial facilities, utilities, impoundments, ditches/canals, pipelines, rail lines, roadways, and fencing. Undeveloped areas include open vegetated and wooded areas.

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

13. List construction dates of all buildings and structures on the property: The facility was originally constructed around 1980 and began operating in 1982.
14. Provide a brief history of the property, and name of the architect/builder, if known: Prior to construction of the facility, the land was rural with the surrounding areas associated with rice farming and oil and gas wells.

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

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

Exxon Mobil Corporation (CN600123939) operates the Exxon Mobil Mont Belvieu Plastics Plant (RN102501020), which manufactures polyethylene and catalyst. The facility is located at 13330 Hatcherville Road, Mont Belvieu, Chambers County, Texas 77521. The renewal application for TPDES Permit No. WQ0002546000 includes amendment requests to remove the limits/conditions for *C. dubia* lethal whole effluent toxicity for Outfall 001; remove the limits/conditions for *C. dubia* sublethal whole effluent toxicity monitoring for Outfall 001; increase the limits for total dissolved solids and sulfate for Outfall 001; use a site-specific partition coefficient for aluminum for Outfall 001; and to modify the notification requirements for dye/colorant treatment chemicals.

Outfall 001 discharges process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastewaters, and stormwater not to exceed a maximum daily average flow of 5.013 million gallons per day. Wastewater treatment processes include oil and solids removal and neutralization. The discharge is expected to contain suspended and dissolved solids, oil and grease, carbon-based compounds, and ammonia. Other pollutants that may be present in the discharge can be found in Worksheet 2 of the application.

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

AGUAS RESIDUALES INDUSTRIALES/AGUAS PLUVIALES

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

Exxon Mobil Corporation (CN600123939) opera la planta Exxon Mobil Mont Belvieu Plastics Plant (RN102501020), que fabrica polietileno y catalizador. La instalación está ubicada en 13330 Hatcherville Road, Mont Belvieu, Condado de Chambers, Texas 77521. La solicitud de renovación del permiso TPDES No. WQ0002546000 incluye peticiones de modificación para eliminar los límites/condiciones de toxicidad letal de C. dubia en todo el efluente para el punto de descarga 001; eliminar los límites/condiciones de control de toxicidad subletal de C. dubia en todo el efluente para el punta de descarga 001; para aumentar los límites de sólidos disueltos totales y sulfato para el punto de descarga 001; utilizar un coeficiente de partición específico del emplazamiento para el aluminio para el punta de descarga 001; y para modificar los requisitos de notificación para los productos químicos de tratamiento de tintes/colorantes.

El punto de descarga 001 vierte aguas residuales de procesos, purgas de torres de refrigeración, purgas de calderas, aguas residuales de tratamiento de aguas y aguas pluviales sin superar un caudal medio diario máximo de 5.013 millones de galones al día. Los procesos de tratamiento de aguas residuales incluyen la eliminación de aceite y sólidos y la neutralización. Se prevé que el vertido contenga sólidos en suspensión y disueltos, aceites y grasas, compuestos a base de carbono y amoníaco. En la Worksheet 2 de la solicitud figuran otros contaminantes que pueden estar presentes en el vertido.

TECHNICAL REPORT 1.0

INDUSTRIAL

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For additional information or clarification on the requested information, refer to the Instructions for Completing the Industrial Wastewater Permit Application¹ available on the TCEQ website.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

1. FACILITY/SITE INFORMATION (Instructions, Pages 39-40)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

ExxonMobil Mont Belvieu Plastics Plant (MBPP) is a manufacturer of linear low density and high density polyethylene plastic resins (SIC 2821). Polyethylene is produced by co-polymerizing ethylene and low molecular weight olefins in the presence of a catalyst under low pressure. The catalyst produced at MBPP is used on-site, exported to other ExxonMobil sites, and sold commercially (SIC 2819).

- b. Describe all wastewater-generating processes at the facility.

See Attachment T-1 Facility Description, Wastewater System.

- c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
See Attachment T-1 Facility Description, Table 1 List of Process Materials.	N/A	Low density polyethylene resin or pellets
		High density polyethylene resin or pellets
		Catalyst

Attachment: T-1 Facility Description, Table 1 List of Process Materials

- d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.



¹ https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: T-4A MBPP Site Plan, T-4B NAG Project Site Plan

e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: N/A

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: FEMA Map Community Panels 48071C0020E and 48071C0160E

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: N/A

Attachment: N/A

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☒ No ☐ N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: N/A

If **no**, provide an approximate date of application submittal to the USACE: N/A

2. TREATMENT SYSTEM (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

See Attachment T-1 Facility Description, Wastewater System.

b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: T-1 Facility Description, Figure 1 MBPP Water Balance, Figure 2 North Plant Water Balance

3. IMPOUNDMENTS (Instructions, Pages 40-42)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a – 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment:

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond #1 South Plant Stormwater Pond	Pond #2 Firewater / Equalization Basin	Pond #3 South Plant Sludge Pond	Pond #4 North Plant Stormwater Pond	Pond #5 North Plant Stormwater Retention Pond	Pond #6 North Plant Sludge Pond
Use Designation: (T) (D) (C) or (E)	C	C	C,E	C	C	C,E
Associated Outfall Number	N/A	001	N/A	N/A	N/A	N/A
Liner Type (C) (I) (S) or (A)	C	C	C	C	*	C
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	N/A	N/A	N/A	N/A	N/A	N/A
Length (ft)	620	750	280	470	1250	280
Width (ft)	635	240	182	440	880	180
Max Depth From Water Surface (ft), Not Including Freeboard	4	10	1	7	10	4
Freeboard (ft)	2	2	2	12	6	2
Surface Area (acres)	9	6	1.2	4.7	25.3	1.2
Storage Capacity (gallons)	48 million	24.8 million	2 million	12 million	49 million	1.9 million
40 CFR Part 257, Subpart D, Y/N	N	N	N	N	N	N
Date of Construction	1981	1981	1981	2017	2017	2017

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

- b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

N/A. No new or proposed impoundments.

- i. Liner data

☐ Yes ☐ No ☐ Not yet designed

ii. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

iii. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.iii is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within 1/2-mile of the impoundments.

Attachment: N/A

d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A

e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A

4. OUTFALL/DISPOSAL METHOD INFORMATION (Instructions, Pages 42-43)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge operations, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

Outfall Latitude and Longitude

Outfall Number	Latitude-decimal degrees	Longitude-decimal degrees
001 (at Firewater/Equalization Basin)	29.873708	-94.914717
001 (at discharge into Cedar Bayou)	29.853889	-94.951389

Outfall Location Description

Outfall Number	Location Description
001	At the outlet of the Firewater/Equalization Basin before mixing with any other wastes and before leaving company property in Chambers County

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point
001	Same as outfall location

Outfall Flow Information – Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	5.013	13.0	5.013	13.0	N/A

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	Y	N	Flow meter

Outfall Discharge – Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	N	Y	N	24	31	12

Wastestream Contributions**Outfall No.: 001**

Contributing Wastestreams	Volume (MGD)	% of Total Flow
See Attachment T-1 Facility Description, Table 2 Outfall 001 Wastewaters.		

Attachment: N/A

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, Page 44)

- a. Does the facility use/propose to use any cooling towers which discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

NOTE: If the facility uses or plans to use cooling towers, Item 12 **is required**.

- b. Does the facility use or plan to use any boilers that discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

- c. Does or will the facility discharge once-through cooling water to the outfall(s)?

☐ Yes ☒ No

NOTE: If the facility uses or plans to use once-through cooling water, Item 12 **is required**.

- d. If **yes** to Items 5.a, 5.b, **or** 5.c, attach the SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

Attach a summary of this information in addition to the submittal of the SDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected.

Attachment: T-5 Treatment Chemicals and SDSs

- e. Cooling Towers and Boilers

If **yes** to either Item 5.a **or** 5.b, complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)
Cooling Towers	2	1,780,000	5,340,000
Boilers	5	54,000	162,000

6. STORMWATER MANAGEMENT (Instructions, Page 44)

Are there any existing/proposed outfalls which discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

☒ Yes ☐ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in some manner which may result in exposure of the activities or materials to stormwater: See Attachment T-1 Facility Description, Wastewater System.

7. DOMESTIC SEWAGE, SEWAGE SLUDGE, AND SEPTAGE MANAGEMENT AND DISPOSAL (Instructions, Page 45)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- ☒ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. **Complete Item 7.b.**
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. **Complete Item 7.b.**
 - ☐ Domestic and industrial treatment sludge **ARE commingled** prior to use or disposal.
 - ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge **IS NOT commingled** prior to sludge use or disposal. **Complete Worksheet 5.0.**
 - ☐ Facility is a POTW. **Complete Worksheet 5.0.**
 - ☐ Domestic sewage is not generated on-site.
 - ☐ Other (e.g., portable toilets), specify and **Complete Item 7.b:**
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
City of Mont Belvieu Cotton Bayou Wastewater Treatment Facility	WQ0014807001

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
- ☐ Yes ☒ No See note in Item c below.
- b. Has the permittee completed or planned for any improvements or construction projects?
- ☐ Yes ☒ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: Although the TPDES permit does not include a compliance schedule, it does include Other Requirement No.1, which requires completion of a study on the receiving water for Outfall 001, Cedar Bayou Above Tidal. The study report must be submitted to the TCEQ Water Quality Division's Standards Implementation Team and Water Quality Standards Group at least 180 days before the expiration date of the TPDES permit. The study report will be submitted to the TCEQ separately from this TPDES application.

9. TOXICITY TESTING (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☒ Yes ☐ No

If **yes**, identify the tests and describe their purposes: Routine monitoring is conducted on Outfall 001 per the TPDES permit and all results are submitted to the TCEQ.

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA.

Attachment: N/A

10. OFF-SITE/THIRD PARTY WASTES (Instructions, Page 45)

a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☐ Yes ☒ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: N/A

c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☐ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: N/A

d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☐ No

If **yes**, **Worksheet 6.0** of this application is required.

11. RADIOACTIVE MATERIALS (Instructions, Pages 46)

a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material	Concentration (pCi/L)
N/A	

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material	Concentration (pCi/L)
N/A	

12. COOLING WATER (Instructions, Pages 46-47)

- a. Does the facility use or propose to use water for cooling purposes?

☒ Yes ☐ No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

- b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

☐ Yes ☒ No

If **yes**, stop here. If **no**, continue.

- c. Cooling Water Supplier

- i. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	Trinity River (multiple intakes)
Owner	City of Houston
Operator	General Distribution System (Houston) and Coastal Water Authority (CWA) Systems

- ii. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☒ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. TX1010013

- iii. Cooling water is/will be obtained from a reclaimed water source?

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: N/A

iv. Cooling water is/will be obtained from an Independent Supplier

☐ Yes ☐ No

If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes to the facility and proceed: N/A

If **no**, proceed to Item 12.d.

d. 316(b) General Criteria

- i. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

☐ Yes ☐ No

- ii. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

- iii. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☐ Yes ☐ No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: N/A

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

- e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

- i. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☐ No

If **yes**, continue. If **no**, skip to Item 12.g.

- ii. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☐ No

If **yes**, complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.iii.

g. Compliance Phase and Track Selection

i. Phase I – New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

- ☐ Track I – AIF greater than 2 MGD, but less than 10 MGD
 - Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.
- ☐ Track I – AIF greater than 10 MGD
 - Attach information required by *40 CFR § 125.86(b)*.
- ☐ Track II
 - Attach information required by *40 CFR § 125.86(c)*.

Attachment: N/A

ii. Phase II – Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes ☐ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

iii. Phase III – New facility subject to 40 CFR Part 125, Subpart N

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection and provide the requested information.

- ☐ Track I – Fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.
- ☐ Track I – Not a fixed facility
 - Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except the CWIS latitude and longitude under Item 2.a).
- ☐ Track II – Fixed facility
 - Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: N/A

NOTE: Item 13 is required only for existing permitted facilities.

13. PERMIT CHANGE REQUESTS (Instructions, Pages 49-50)

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

1) Remove the limits/conditions for *C. dubia* 7-day lethal whole effluent toxicity for Outfall 001.

2) Remove the limits/conditions for *C. dubia* 7-day sublethal whole effluent toxicity monitoring for Outfall 001.

3) Increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001.

4) Use a site-specific partition coefficient for aluminum for Outfall 001.

5) Modify Other Requirement No. 7 (use of treatment chemicals in impoundments) to remove the notification requirements prior to use.

For additional information, see Attachment T-2 Amendment Requests.

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

N/A

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

N/A

WORKSHEET 1.0

EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

1. CATEGORICAL INDUSTRIES (Instructions, Pages 50-52)

Is this facility subject to any of the 40 CFR categorical ELGs outlined on page 53 of the instructions?

☒ Yes ☐ No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information in the table below.

40 CFR Effluent Guidelines

Industry	40 CFR Part
Organic Chemicals, Plastics, and Synthetic Fibers	414

2. PRODUCTION/PROCESS DATA (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide the appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by *40 CFR Part 414, Appendices A and B*.

Percentages of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metal	Appendix A - Cyanide
Subpart D Thermoplastic Resins	100%	N/A	N/A

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

N/A

3. PROCESS/NON-PROCESS WASTEWATER FLOWS (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

See Attachment T-1 Facility Description, Table 2 Outfall 001 Wastewaters.

4. NEW SOURCE DETERMINATION (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater-generating Processes Subject to Effluent Guidelines

Process	EPA Guideline: Part	EPA Guideline: Subpart	Date Process/ Construction Commenced
High density polyethylene	414	D	1991
Linear low density polyethylene	414	D	1981
Linear low density polyethylene	414	D	2016 (construction) 2017 (process)

WORKSHEET 2.0

POLLUTANT ANALYSES REQUIREMENTS

Worksheet 2.0 **is required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

1. LABORATORY ACCREDITATION (Instructions, Page 56)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification* with the following general exemptions:

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

Review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 34, for a list of approved signatories.

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

Jessica Vasquez
(Signature)

2. GENERAL TESTING REQUIREMENTS (Instructions, Pages 56-58)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 10/26/2023 – 11/28/2023
- b. ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** T-3 Laboratories for Outfall Analyses

3. SPECIFIC TESTING REQUIREMENTS (Instructions, Pages 58-69)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** N/A

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 **is required** for **all external outfalls** for all TPDES permit applications.
Table 1 for Outfall No.: 001

Samples are (check one): ☒ **Composite** ☒ **Grab**

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	2.	3.	4.	3.
CBOD (5-day)	<2.	<2.	<2.	<2.
Chemical oxygen demand	34.	42.	49.	47.
Total organic carbon	14.4	15.	16.3	15.
Dissolved oxygen	11.3	9.8	8.2	9.2
Ammonia nitrogen	<0.25	<0.25	<0.25	0.31
Total suspended solids	30.	24.	58.	40.
Nitrate nitrogen	<0.5	<0.5	<0.5	<0.5
Total organic nitrogen	3.05	1.32	0.9	1.2
Total phosphorus	0.97	1.05	1.01	1.04
Oil and grease	<5.	<5.	<5.	<5.
Total residual chlorine	0.	-	0.07	0.09
Total dissolved solids	802.	864.	900.	870.
Sulfate	241.	252.	241.	269.
Chloride	166.	187.	197.	198.
Fluoride	0.62	0.73	0.67	0.71
Total alkalinity (mg/L as CaCO ₃)	108.	108.	108.	102.
Temperature (°F)	77.8	64.	73.2	68.6
pH (standard units)	7.6	7.69	7.51	7.41

Table 2 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☒ **Grabs**

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	1620.	1340.	2710.	1970.	2.5
Antimony, total	0.9	1.	1.1	1.	5
Arsenic, total	8.1	8.1	8.7	7.	0.5
Barium, total	115.	125.	147.	123.	3
Beryllium, total	<0.4	<0.4	<0.4	<0.4	0.5
Cadmium, total	<0.4	<0.4	<0.4	<0.4	1
Chromium, total	1.9	1.5	3.1	2.2	3
Chromium, hexavalent	<4.7	<4.7	<4.7	<4.7	3
Chromium, trivalent	1.9	1.5	3.1	2.2	N/A
Copper, total	9.1	4.7	9.6	4.2	2
Cyanide, available	<0.69	<0.69	<0.69	<0.69	2/10
Lead, total	1.3	0.8	1.7	1.1	0.5
Mercury, total	0.001745	0.00147	0.001765	0.00185	0.005/0.0005
Nickel, total	3.4	3.4	4.5	3.6	2
Selenium, total	<3.2	<3.2	<3.2	<3.2	5
Silver, total	<0.4	<0.4	<0.4	<0.4	0.5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Thallium, total	<0.4	<0.4	<0.4	<0.4	0.5
Zinc, total	56.3	40.6	65.	49.4	5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	Sample 5 (µg/L)*	MAL (µg/L)*
Acrylonitrile	-	<43.	<43.	<43.	<43.	50
Anthracene	<0.35	<0.35	<0.35	<0.35	-	10
Benzene	-	<1.	<1.	<1.	<1.	10
Benzidine	<0.66	<0.66	<0.66	<0.66	-	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	-	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	-	5
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	-	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	-	10
Bromodichloromethane [Dichlorobromomethane]	-	<1.	<1.	<1.	<1.	10
Bromoform	-	<2.	<2.	<2.	<2.	10
Carbon tetrachloride	-	<2.	<2.	<2.	<2.	2
Chlorobenzene	-	<1.	<1.	<1.	<1.	10
Chlorodibromomethane [Dibromochloromethane]	-	<1.	<1.	<1.	<1.	10
Chloroform	-	<2.	<2.	<2.	<2.	10
Chrysene	<0.57	<0.57	<0.57	<0.57	-	5
m-Cresol [3-Methylphenol]	<4.	<4.	<4.	<4.	-	10
o-Cresol [2-Methylphenol]	<2.	<2.	<2.	<2.	-	10
p-Cresol [4-Methylphenol]	<4.	<4.	<4.	<4.	-	10
1,2-Dibromoethane	-	<1.	<1.	<1.	<1.	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	-	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	-	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	-	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	-	5
1,2-Dichloroethane	-	<1.	<1.	<1.	<1.	10
1,1-Dichloroethene [1,1-Dichloroethylene]	-	<1.	<1.	<1.	<1.	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	Sample 5 (µg/L)*	MAL (µg/L)*
Dichloromethane [Methylene chloride]	-	<1.	<1.	<1.	<1.	20
1,2-Dichloropropane	-	<1.	<1.	<1.	<1.	10
1,3-Dichloropropene [1,3-Dichloropropylene]	-	<2.	<2.	<2.	<2.	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	-	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.2	<1.2	-	10
Ethylbenzene	-	<1.	<1.	<1.	<1.	10
Fluoride	620.	730.	670.	710.	-	500
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	-	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	-	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	-	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	-	20
Methyl ethyl ketone	-	<4.	<4.	<4.	<4.	50
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	-	10
N-Nitrosodiethylamine	<5.	<5.	<5.	<5.	-	20
N-Nitroso-di-n-butylamine	<5.	<5.	<5.	<5.	-	20
Nonylphenol	<5.	<5.	<5.	<5.	-	333
Pentachlorobenzene	<3.	<3.	<3.	<3.	-	20
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	-	5
Phenanthrene	<0.44	<0.44	<0.44	<0.44	-	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	-	0.2
Pyridine	<0.35	<0.35	<0.35	<0.35	-	20
1,2,4,5-Tetrachlorobenzene	<5.	<5.	<5.	<5.	-	20
1,1,2,2-Tetrachloroethane	-	<1.	<1.	<1.	<1.	10
Tetrachloroethene [Tetrachloroethylene]	-	<1.	<1.	<1.	<1.	10
Toluene	-	<1.	3.	<1.	<1.	10
1,1,1-Trichloroethane	-	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	-	<1.	<1.	<1.	<1.	10
Trichloroethene [Trichloroethylene]	-	<1.	<1.	<1.	<1.	10
2,4,5-Trichlorophenol	<0.85	<0.85	<0.85	<0.85	-	50
TTHM (Total trihalomethanes)	-	<2.	<2.	<2.	<2.	10
Vinyl chloride	-	<1.	<1.	<1.	<1.	10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

- i. This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

- ii. Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

- i. This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

- ii. Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: N/A

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin ($\mu\text{g/L}$)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters which may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 **is required** for all **external outfalls**.

Table 6 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☒ **Grabs**

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.5	-	-	-	400
Color (PCU)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15.	-	-	-	—
Nitrate-Nitrite (as N)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<0.5	-	-	-	—
Sulfide (as S)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.05	-	-	-	—
Sulfite (as SO ₃)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5.	1.	5.	4.	—
Surfactants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.065	-	-	-	—
Boron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.208	-	-	-	20
Cobalt, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0005	-	-	-	0.3
Iron, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.869	-	-	-	7
Magnesium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9.98	-	-	-	20
Manganese, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0508	-	-	-	0.5
Molybdenum, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.0255	-	-	-	1
Tin, total	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<0.004	-	-	-	5
Titanium, total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.055	-	-	-	30

* Indicate units if different from µg/L.

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input checked="" type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: 001 : Volatile Compounds

Samples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	Sample 5 (µg/L)*	MAL (µg/L)
Acrolein	-	<8.	<8.	<8.	<8.	50
Acrylonitrile	-	<43.	<43.	<43.	<43.	50
Benzene	-	<1.	<1.	<1.	<1.	10
Bromoform	-	<2.	<2.	<2.	<2.	10
Carbon tetrachloride	-	<2.	<2.	<2.	<2.	2
Chlorobenzene	-	<1.	<1.	<1.	<1.	10
Chlorodibromomethane	-	<1.	<1.	<1.	<1.	10
Chloroethane	-	<1.	<1.	<1.	<1.	50
2-Chloroethylvinyl ether	-	<10.	<10.	<10.	<10.	10
Chloroform	-	<2.	<2.	<2.	<2.	10
Dichlorobromomethane [Bromodichloromethane]	-	<1.	<1.	<1.	<1.	10
1,1-Dichloroethane	-	<1.	<1.	<1.	<1.	10
1,2-Dichloroethane	-	<1.	<1.	<1.	<1.	10
1,1-Dichloroethylene [1,1-Dichloroethene]	-	<1.	<1.	<1.	<1.	10
1,2-Dichloropropane	-	<1.	<1.	<1.	<1.	10
1,3-Dichloropropylene [1,3-Dichloropropene]	-	<2.	<2.	<2.	<2.	10
Ethylbenzene	-	<1.	<1.	<1.	<1.	10
Methyl bromide [Bromomethane]	-	<2.	<2.	<2.	<2.	50
Methyl chloride [Chloromethane]	-	<1.	<1.	<1.	<1.	50
Methylene chloride [Dichloromethane]	-	<1.	<1.	<1.	<1.	20
1,1,2,2-Tetrachloroethane	-	<1.	<1.	<1.	<1.	10
Tetrachloroethylene [Tetrachloroethene]	-	<1.	<1.	<1.	<1.	10
Toluene	-	<1.	3.	<1.	<1.	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	-	<1.	<1.	<1.	<1.	10
1,1,1-Trichloroethane	-	<1.	<1.	<1.	<1.	10
1,1,2-Trichloroethane	-	<1.	<1.	<1.	<1.	10
Trichloroethylene [Trichloroethene]	-	<1.	<1.	<1.	<1.	10
Vinyl chloride	-	<1.	<1.	<1.	<1.	10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: 001 : Acid CompoundsSamples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol	<0.5	<0.5	<0.5	<0.5	10
2,4-Dichlorophenol	<0.69	<0.69	<0.69	<0.69	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
4,6-Dinitro-o-cresol	<0.66	<0.66	<0.66	<0.66	50
2,4-Dinitrophenol	<1.4	<1.4	<1.4	<1.4	50
2-Nitrophenol	<0.88	<0.88	<0.88	<0.88	20
4-Nitrophenol	<1.1	<1.1	<1.1	<1.1	50
p-Chloro-m-cresol	<0.53	<0.53	<0.53	<0.53	10
Pentachlorophenol	<0.5	<0.5	<0.5	<0.5	5
Phenol	<0.44	<0.44	<0.44	<0.44	10
2,4,6-Trichlorophenol	<0.79	<0.79	<0.79	<0.79	10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: 001 : Base/Neutral CompoundsSamples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene	<0.28	<0.28	<0.28	<0.28	10
Acenaphthylene	<0.47	<0.47	<0.47	<0.47	10
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.85	<0.85	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	<0.57	<0.57	<0.57	10
Benzo(ghi)perylene	<0.63	<0.63	<0.63	<0.63	20
Benzo(k)fluoranthene	<0.57	<0.57	<0.57	<0.57	5
Bis(2-chloroethoxy)methane	<0.35	<0.35	<0.35	<0.35	10
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	<0.85	<0.85	<0.85	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	10
4-Bromophenyl phenyl ether	<0.41	<0.41	<0.41	<0.41	10
Butylbenzyl phthalate	<0.69	<0.69	<0.69	<0.69	10
2-Chloronaphthalene	<0.28	<0.28	<0.28	<0.28	10
4-Chlorophenyl phenyl ether	<0.66	<0.66	<0.66	<0.66	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
Dibenzo(a,h)anthracene	<0.69	<0.69	<0.69	<0.69	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Diethyl phthalate	<0.63	<0.63	<0.63	<0.63	10
Dimethyl phthalate	<0.72	<0.72	<0.72	<0.72	10
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
2,4-Dinitrotoluene	<0.97	<0.97	<0.97	<0.97	10
2,6-Dinitrotoluene	<1.2	<1.2	<1.2	<1.2	10
Di-n-octyl phthalate	<2.8	<2.8	<2.8	<2.8	10
1,2-Diphenylhydrazine (as Azobenzene)	<0.22	<0.22	<0.22	<0.22	20
Fluoranthene	<0.44	<0.44	<0.44	<0.44	10
Fluorene	<0.47	<0.47	<0.47	<0.47	10
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
Indeno(1,2,3-cd)pyrene	<0.22	<0.22	<0.22	<0.22	5
Isophorone	<0.28	<0.28	<0.28	<0.28	10
Naphthalene	<0.31	<0.31	<0.31	<0.31	10
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodimethylamine	<0.79	<0.79	<0.79	<0.79	50
N-Nitrosodi-n-propylamine	<0.72	<0.72	<0.72	<0.72	20
N-Nitrosodiphenylamine	<0.47	<0.47	<0.47	<0.47	20
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Pyrene	<0.57	<0.57	<0.57	<0.57	10
1,2,4-Trichlorobenzene	<0.53	<0.53	<0.53	<0.53	10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: 001 : Pesticides

Samples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin	<0.004	-	-	-	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	-	-	-	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	-	-	-	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	-	-	-	0.05
Chlordane	<0.1	-	-	-	0.2
4,4'-DDT	<0.004	-	-	-	0.02
4,4'-DDE	<0.009	-	-	-	0.1
4,4'-DDD	<0.002	-	-	-	0.1
Dieldrin	<0.005	-	-	-	0.02
Endosulfan I (alpha)	<0.007	-	-	-	0.01
Endosulfan II (beta)	<0.004	-	-	-	0.02
Endosulfan sulfate	<0.005	-	-	-	0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Endrin	<0.004	-	-	-	0.02
Endrin aldehyde	<0.003	-	-	-	0.1
Heptachlor	<0.004	-	-	-	0.01
Heptachlor epoxide	<0.004	-	-	-	0.01
PCB 1242	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1254	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1221	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1232	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1248	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.1	-	-	-	0.3

* Indicate units if different from µg/L.

Attachment: N/A

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 60-61)

- a. Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
☐ o,o-dimethyl o-(2,4,5-trichlorophenyl) phosphorothioate (Rannel) CASRN 299-84-3
☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
☐ hexachlorophene (HCP) CASRN 70-30-4
☐ None of the above

Description: N/A

- b. Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

☐ Yes ☒ No

Description: N/A

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: N/ASamples are (check one): ☐ Composites ☐ Grabs

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Page 61)

a. Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

b. Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☐ Yes ☒ NoIf **yes** to either Items a **or** b, complete Table 13 as instructed.Table 13 for Outfall No.: 001Samples are (check one): ☒ Composites ☐ Grabs

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Sample 5 (µg/L)	Analytical Method
Vanadium, total	7440-62-2	10.1	9.9	11.8	9.2	-	EPA 200.8
Asbestos (million fibers/L)	12001-29-5	-	-	-	-	<0.2	EPA 100.2
Cyclohexane	110-82-7	-	-	-	-	<5	EPA 624.1
m+p-Xylene	108-38-3 106-42-3	-	-	-	-	<2	EPA 624.1
o-Xylene	95-47-6	-	-	-	-	<1	EPA 624.1
Pyrethroids	N/A	-	-	-	-	-	-

WORKSHEET 4.0 RECEIVING WATERS

This worksheet **is required** for all TPDES permit applications.

1. DOMESTIC DRINKING WATER SUPPLY (Instructions, Page 81)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

i. The legal name of the owner of the drinking water supply intake: N/A

v. The distance and direction from the outfall to the drinking water supply intake: N/A

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

2. DISCHARGE INTO TIDALLY INFLUENCED WATERS (Instructions, Page 81)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: N/A

- c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: N/A

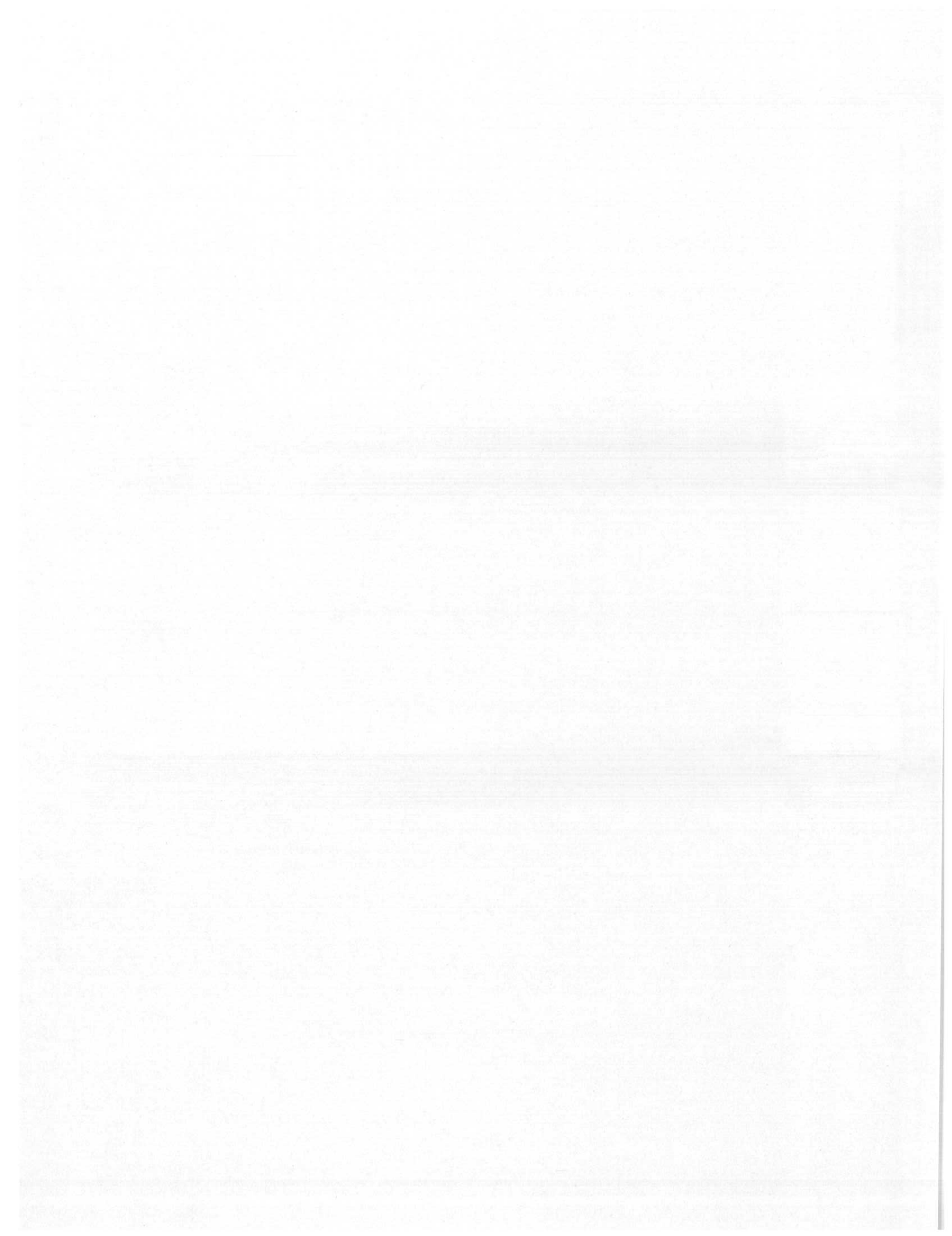
3. CLASSIFIED SEGMENT (Instructions, Page 81)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☒ Yes ☐ No

If **yes**, stop here. It is not necessary to complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.



ATTACHMENT A-2

INCUMBENT POWER OF ATTORNEY EXXON MOBIL CORPORATION CHEMICAL PLANTS

EXXON MOBIL CORPORATION, a New Jersey corporation, having an office in Spring, Texas, acting by and through J. J. Matsushita, Senior Vice President of ExxonMobil Product Solutions Company, does hereby nominate, constitute and appoint each incumbent of the following positions in ExxonMobil Product Solutions Company (hereinafter called "Company"), a division of Exxon Mobil Corporation:

<u>Site</u>	<u>Position</u>
Baton Rouge Chemical Plant ("BRCP")	BRCP Site Manager
Baton Rouge Resin Finishing Plant ("BRFP")	BRFP Plant Manager
Baton Rouge Plastics Plant ("BRPP")	BRPP Plant Manager
Baton Rouge Polyolefins Plant ("BRPO")	BRPO Plant Manager
Baytown Chemical Plant ("BTCP")	BTCP Plant Manager
Baytown Olefins Plant ("BOP")	BOP Plant Manager
Baytown Technology & Engineering Complex ("BTEC")	BTEC Site Manager
Mont Belvieu Plastics Plant ("MBPP")	MBPP Plant Manager

as Agent and Attorney-in-Fact of Exxon Mobil Corporation for purposes of executing and delivering instruments and documents as more particularly described below, and does hereby grant, delegate, and invest each of said incumbents with power and authority to execute and deliver in the name and on behalf of Exxon Mobil Corporation instruments and documents of the following types pertaining to the conduct of business, operations and affairs of the above-named Sites:

- (i) ALL permit applications, reports, instruments, and documents of a similar nature, and all other information required or requested by a regulatory agency within the jurisdiction of the United States, whether federal, state, or promulgated by local government, to the extent execution of such document by said incumbents is otherwise authorized or allowed by applicable law or regulation; and
- (ii) All other instruments and documents EXCEPT the following:
 - (1) any mortgage, assignment, conveyance or release of real property or equipment valued at more than Five Hundred Thousand Dollars (\$500,000) by any taxing authority; or
 - (2) any instrument authorizing, permitting or evidencing the borrowing of money from any person or entity; or

Exxon 7/24/12

(3) any instrument authorizing or permitting the issuance of corporate bonds of indebtedness (secured or unsecured), or capital share of Exxon Mobil Corporation, or effecting any change in the capital structure of Exxon Mobil Corporation; or

(4) except as provided in the attached "Signatories to Environmental Permit Applications and Reports" document, any instrument delegating the power of authority conferred herein to execute and deliver instruments.

Each incumbent of said position in said Company may exercise the power and authority herein granted, delegated, and invested, in any particular and appropriate transaction or matter, as an Agent and Attorney-in-Fact of Exxon Mobil Corporation. Any action taken as authorized under this Incumbent Power of Attorney shall be an act of Exxon Mobil Corporation and binding upon it. Each incumbent shall observe the procedures set forth in the attached "Signatories to Environmental Permit Applications and Reports" document.

Certificates of incumbency confirming that, on the dates set out therein, the individual named therein was an incumbent of said position may be issued by the Secretary or any Assistant Secretary of Exxon Mobil Corporation and may be relied upon by third parties dealing with Exxon Mobil Corporation or said Company.

In the event there is a subsequent change in the names or descriptions of the above positions and/or sites, the preceding authority shall continue in full force and effect except that the same shall be deemed to refer to the above positions and/or sites as so changed in name or description.

This Power of Attorney replaces the corresponding Incumbent Power of Attorney executed on November 26, 2019, to the incumbent positions of BRCP Site Manager, BRFP Plant Manager, BRPP Plant Manager, BRPO Plant Manager, BTCP Plant Manager, BOP Plant Manager, BTEC Site Manager, and MBPP Plant Manager, in ExxonMobil Chemical Company, a Division of Exxon Mobil Corporation, which Power expires August 24, 2022. However, all acts lawfully done or performed pursuant to such prior Power of Attorney by any incumbent of the said position prior to such replacement shall be, and the same hereby are, ratified and confirmed.

This Incumbent Power of Attorney hereby ratifies and confirms actions as described above taken by the incumbents of the above positions, including any such actions taken by the incumbents prior to the date of this Incumbent Power of Attorney.

This Power of Attorney shall be effective as of the date herein and shall expire on July 15, 2025, unless duly revoked, provided, however, that all acts lawfully done or performed pursuant to this

Power of Attorney by each incumbent of the positions listed herein, prior to such revocation shall be, and the same hereby are, ratified and confirmed.

APPROVED AND EXECUTED this 25 day of July, 2022.



ExxonMobil Product Solutions Company
a division of Exxon Mobil Corporation

By: J. J. Matsushita
J. J. Matsushita, Senior Vice President,

STATE OF TEXAS
COUNTY OF HARRIS
UNITED STATES OF AMERICA

Sworn to and subscribed to me at Spring, Texas, U.S.A. on the 25th day of JULY, 2022.



Maricon Corpuz Hicks
Notary Public, State of Texas

ATTACHMENT A-4-2
Landowner List
Mont Belvieu Plastics Plant
TPDES WQ0002546000

MAP ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
1	BELVIEU ENVIRONMENTAL FUELS LLC	P O BOX 4018	HOUSTON	TX	77210
2	COASTAL INDUSTRIAL WATER AUTHORITY	1801 MAIN ST STE 800	HOUSTON	TX	77002
3	CHAMBERS COUNTY COUNTY JUDGE	P O BOX 939	ANAHUAC	TX	77514
4	CLIP PROPERTY OWNER LLC	228 MAIN STREET SUITE 10	LOS ANGELES	CA	90291
5	ENTERPRISE PRODUCTS OPERATING LLC	PO BOX 4018	HOUSTON	TX	77210
6	LONE STAR NGL MONT BELVIEU LP	1300 MAIN ST	HOUSTON	TX	77002
7	MARS PARTNERS LTD	2000 WEST MARSHALL DRIVE	GRAND PRARIE	TX	75051
8	MOGONYE STEPHEN & TRISH	PO BOX 991	MONT BELVIEU	TX	77580
9	MONT BELVIEU CAVERNS, LLC	PO BOX 4018	HOUSTON	TX	77210
10	SPEER LAND COMPANY LLC	P O BOX 265	MONT BELVIEU	TX	77580
11	SUNOCO PIPELINE LP	1801 MARKET STREET	PHILADELPHIA	PA	19103
12	TARGA DOWNSTREAM LLC	2424 RIDGE RD	ROCKWALL	TX	75087
13	WESTLAKE PETROCHEMICALS CORP	1614 AVENUE B	KATY	TX	77493
14	ULRICH JOE CARROLL	6011 FM 1942	BAYTOWN	TX	77523
15	ULRICH PETE JR	6318 S. FM RD 565	BAYTOWN	TX	77523
16	UNION PACIFIC RAILROAD CO	1400 DOUGLAS STREET STOP 1640	OMAHA	NE	68179
17	WACKER ANN & GIRARDEAU JAMES JR & TERRY DOROTHY	526 VILLA DRIVE	SEABROOK	TX	77586
18	ZORN JOSEPH R	9202 WESTVIEW CIRCLE	DALLAS	TX	75231
19	CARR KODY D	7406 FM 1942 RD	BAYTOWN	TX	77521
20	CAVAZOS HOMERO A & ROSA M	10722 GARRICK LN	HOUSTON	TX	77013
21	COUNTY OF HARRIS	PO BOX 1525	HOUSTON	TX	77251
22	JONES DAVID LEE JR	1804 LAKESIDE LANE	FRIENDSWOOD	TX	77546
23	KOENIG RICHARD	7419 FM 1942 RD	BAYTOWN	TX	77521
24	MISSOURI PACIFIC RAILROAD COMPANY	1400 DOUGLAS STREET STOP 1640	OMAHA	NE	68179

12/19/23

ATTACHMENT A-5



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

- ☐ New Permit or Registration Application
☒ New Activity - modification, registration, amendment, facility, etc. (see instructions)

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

Section 2. Secondary Screening

- ☒ Requires public notice,
☐ Considered to have significant public interest, and
☒ Located within any of the following geographical locations:

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

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

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

The facility does not meet the secondary screening criteria for significant public interest.

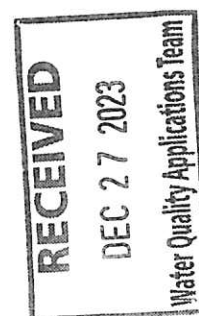
Attachment A-6 Outfall Photos
ExxonMobil Chemical Mont Belvieu Plastics Plant
TPDES Permit No. WQ0002546000



Aerial view showing direction of photos



Photo 1 - Outfall 001 discharge structure, looking upstream



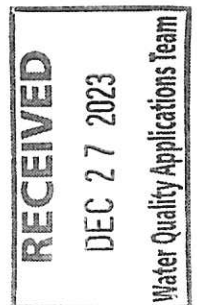
Attachment A-6 Outfall Photos
ExxonMobil Chemical Mont Belvieu Plastics Plant
TPDES Permit No. WQ0002546000



Photo 2 - Upstream of Outfall 001, facing upstream.



Photo 3 - Downstream of Outfall 001, facing upstream.



ATTACHMENT T-1

EXXONMOBIL CHEMICAL MONT BELVIEU PLASTICS PLANT WQ0002546000 FACILITY DESCRIPTION

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**EXXONMOBIL CHEMICAL
MONT BELVIEU PLASTICS PLANT
WQ0002546000
FACILITY DESCRIPTION**

This document is a description of the ExxonMobil Chemical Mont Belvieu Plastics Plant (MBPP) in relation to its wastewater discharge permit, TPDES Permit No. WQ0002546000. This description covers the wastewaters discharged through the outfall, wastewater and stormwater management, and applicability of national effluent guidelines. This document was prepared as part of MBPP's 2023 TPDES renewal application.

FACILITY OVERVIEW

The ExxonMobil Chemical Mont Belvieu Plastics Plant manufactures polyethylene. Current operations include both High Density Polyethylene (HDPE) and Linear Low Density Polyethylene (LLDPE) Units, as well as storage, transfer, and utility facilities. Process materials handled at the facility are listed in Table 1. The Plant produces a catalyst, which it uses in its on-site production of polyethylene and which it also exports to other ExxonMobil sites and sells commercially.

WASTEWATER SYSTEM

The overall wastewater management system at MBPP is shown in Figure 1. Details on the North Plant LLDPE Unit are shown in Figure 2. MBPP has one wastewater outfall (Outfall 001) authorized under TPDES Permit No. WQ0002546000. MBPP also has a stormwater outfall authorized under the multi-sector general stormwater permit TXR05AS44, which is not included in the description here.

Wastewater sources and flows for Outfall 001 are listed in Table 2. The following sections describe these wastewaters for both of the existing manufacturing units, the South Plant and the North Plant.

SOUTH PLANT

WATER TREATMENT

Raw water for utility and process use is treated to remove particulates and dissolved solids. Silt and other particulates are removed in clarifiers and gravity filters. Settled solids from the clarifiers and filter backwash water are transferred to the South Plant Sludge Pond, which has two bays. Dried solids are removed periodically. One stream of clarified water is softened in a zeolite-based filter system and is distributed for boiler feedwater and pellet cooling water makeup. The remaining clarified water is sent to the South Plant Cooling Tower or distributed for intermittent utility consumption. High total dissolved solids wastewater generated during the zeolite softener regeneration cycle is discharged to the City of Mont Belvieu Cotton Bayou Wastewater Treatment Facility (TPDES Permit No. WQ0014807000), Publicly-Owned Treatment Works (POTW). Dilute rinse water from zeolite regeneration can be sent to the plant sewer system or the City of Mont Belvieu POTW. The zeolite system is expected to be

replaced by a reverse osmosis (RO) system by the end of 2024. Dilute rinse water will be routed to the plant sewer system.

POLYETHYLENE SEWER

The polyethylene (PE) sewer collects polymer resin-contaminated water from hopper car washing, bin and blender washing, and runoff from the South Plant LLDPE resin handling, storage, and loading area. The sewer routes this resin granules-contaminated water to a three-channel gravity separator system (South Plant Skimmer Ponds). The gravity separator separates the resin granules from the water by flotation, with the lighter granules rising to the surface of the water by density difference. Resin is periodically removed by a third party service company. The clarified water flows via an underflow weir to pump suction, whereby it is pumped to the South Plant Settling Ponds (two bays, 2-million gallon capacity) for further flotation separation. Effluent from the settling ponds then flows to the South Plant Stormwater Pond.

OILY WATER SEWER

The oily water sewer collects oil contaminated wastewater from the North and South Plant flare drum effluent and the Quality Control Laboratory sinks; runoff from the chemicals unloading area, compressor / reactor area, service (shop and stores) area, HDPE process slab area, fire training area, and railcar drain pans. Minor amounts of firefighting foam may exist in run-off from the fire training area. These wastewater streams are routed to a parallel-plate Oil-Water Separator. Oil from the separator is pumped to the Oily Water Skimmings Tank to be drummed or bulk-loaded for disposal off-site. Residual solids and oil are periodically removed from the oily water sewer by a third party service company. The clarified water in the separator underflows a weir and is pumped to the South Plant Stormwater Pond.

STORM SEWER

The South Plant storm sewer collects stormwater from process areas that do not handle polymer resin powder or pellets. Boiler and cooling tower blowdown are also sent to this sewer. These streams are routed to the South Plant Stormwater Pond.

SOUTH PLANT STORMWATER POND

The South Plant Stormwater Pond receives process wastewater, process area stormwater, cooling tower blowdown, boiler blowdown, and water treatment wastewaters from the South Plant.

FIREWATER / EQUALIZATION BASIN

Water from the South Plant Stormwater Pond is pumped to the Firewater / Equalization Basin. Water from the basin supplies the firewater system and serves to equalize effluent volumes and characteristics. Carbon dioxide is added to the basin to control pH prior to discharge at Outfall 001. Effluent from this basin is then pumped from Outfall 001 through a 3-mile (approximate) pipeline to Cedar Bayou (Cedar Bayou Above Tidal in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin).

SANITARY SEWER

Sanitary sewage from the Administration Building, Service Center, Control Buildings, Additives Warehouse, Security Buildings, Packaging and Shipping Building and Quality Control Laboratory flows through a system of lift stations and is pumped by pipeline to the City of Mont Belvieu Cotton Bayou Wastewater Treatment Facility (TPDES Permit No. WQ0014807000) POTW. Sanitary wastewater from the new North Plant PE Unit also discharges to the South Plant sanitary sewer system and thence to the POTW.

NORTH PLANT

Sources of wastewater from the LLDPE North Unit include process wastewater, process area stormwater, cooling tower blowdown, boiler blowdown, and water treatment wastes. Sanitary wastewater is discharged to the sanitary sewer and sent off-site to the Mont Belvieu POTW.

Wastewater units include a North Plant Polymer Retention Basin and Stormwater Pond. Non-process area stormwater is routed to the Retention Pond, the effluent of which discharges through a multi-sector general stormwater outfall.

WATER TREATMENT

Treatment of raw water for the North Plant is similar to the water treatment system at the South Plant. Raw water for utility and process use is treated to remove particulates and dissolved solids. Silt and other particulates are removed in clarifiers and gravity filters. Settled solids from the clarifiers and filter backwash water are transferred to the North Plant Sludge Pond, which has two bays. Dried solids are removed periodically from the Sludge Pond. Normally, water in the Sludge Pond is recycled to the clarifier; however, any excess water / stormwater is returned to the wastewater system.

Clarified / filtered water is used in the North Plant Cooling Tower. Some of the clarified / filtered water is sent to additional filtration and a reverse osmosis (RO) unit. The RO reject is sent to the cooling tower. RO water is softened further in a zeolite-based filter system. Wastewater generated from the zeolite softener regeneration cycle is discharged to the North Plant Stormwater Pond. The zeolite system is expected to be replaced by a reverse osmosis (RO) system by the end of 2024.

OILY WATER SEWER

Oily water from the North Plant flare seal drum is routed via the North Plant oily water sewer to the South Plant Oil-Water Separator.

POLYMER RETENTION BASIN

Process area stormwater that has the greatest potential to contain polymer resin from the North Plant is routed through the Polymer Retention Basin. This stormwater is pumped from the basin to a rotary sieve for removal of the polymer resin. Filtrate from the rotary sieve is normally routed back to the basin inlet channel, but it may also be routed to the North Stormwater Pond. Within the inlet channel of the Polymer Retention Basin, stormwater can be diverted

through a sluice gate then through mesh screens before discharging to the North Plant Stormwater Pond.

NORTH PLANT STORMWATER POND

The North Plant Stormwater Pond receives stormwater from the Polymer Retention Basin and other stormwater directly from North Plant LLDPE process areas that do not handle polymer resin powder or pellets. In addition, the North Plant Stormwater Pond receives cooling tower blowdown, boiler blowdown, and water softening regenerate wastewaters. Water from the North Plant Stormwater Pond discharges to the South Plant Stormwater Pond; it may also be diverted directly to the South Plant Firewater / Equalization Basin.

TREATMENT CHEMICALS

Treatment chemicals are used in the cooling tower, boiler, and water/wastewater treatment systems to maintain water quality and/or provide specific treatments. Dye/colorant-based treatment chemicals for the control of algae and aquatic plants in surface impoundments are used as needed. Various insecticides are also used around the facility as needed and may be in contact with stormwater.

EFFLUENT GUIDELINES

National effluent guidelines for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) industry at 40 CFR 414 apply to process wastewaters at MBPP. Specific guidelines are Subpart D (Thermoplastic Resins) and Subpart J (Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment). Table 2 is a summary of wastewaters that may be discharged through Outfall 001.

Table 1. List of Process Materials

Process Material	CAS
13-Docosenamide, (Z)-	112-84-5
1-Hexene	592-41-6
Aluminum compound	300-92-5
Aluminum oxide	1344-28-1
Amorphous silica	7631-86-9
Bis(1,3-n-butylmethylcyclopentadienyl) zirconium dichloride	151840-68-5
1-Butene	106-98-9
Calcium carbonate	471-34-1
Calcium stearate	1592-23-0
Carbon dioxide	124-38-9
Chlorodiethylaluminum	96-10-6
Erucamide	NA
Ethanol, 2,2'-(octadecylimino)bis	10213-78-2
Ethanol, 2,2'-(octadecylimino)bis	10213-78-2
Ethylene	74-85-1
Hydrogen	1333-74-0
IRGAFOS 168 FF	NA
IRGANOX 1010 FF	NA
IRGANOX 1076 FD	NA
IRGANOX 1076 MELT	NA
Isobutane	75-28-5
Isopentane	78-78-4
Lead	7439-92-1
Magnesium aluminum	234-319-3
Magnesium chloride	77896-30-3
Magnesium oxide	1309-48-4
Natural gas	74-82-8
n-Hexane	110-54-3
Nitrogen	7727-37-9
n-Pentane	109-66-0
Phenol, 4-nonyl-, branched	84852-15-3
Polyethylene glycol	25322-68-3
Quartz (fine fraction)	14808-60-7
Silica gel	1343-98-2
Synthetic amorphous silica	112926-00-8
Talc	14807-96-6
Tetrahydrofuran	109-99-9
Titanium tetrachloride	7550-45-0
Titanium trichloride	7705-07-9
Toluene	108-88-3
Tributylaluminum	1116-70-7
Triethylaluminum	97-93-8
Trimethylaluminum	75-24-1
Tri-n-hexylaluminum	1116-73-0
Tris(nonylphenyl) phosphite	26523-78-4
Vinylidene fluoride-hexafluoropropylene polymer	9011-17-0
Zeolite, cuboidal, crystalline, synthetic, non-fibrous	1318-02-1
Zinc oxide	1314-13-2
Zinc stearate	557-05-1

Table 2. Outfall 001 Wastewaters

Wastewater	Maximum Monthly Average Flow (MGD)		
	South Plant	North Plant	Total (South + North)
Process wastewater (1)	2.000	1.146	3.146
PE sewer	0.400	N/A	0.400
Oily water sewer	0.002	0.006	0.008
Process area stormwater	0.949	1.139	2.088
Utility/plant water (2)	0.650	0.001	0.651
Cooling tower blowdown	0.250	1.530 (3)	1.780
Boiler blowdown	0.043	0.011	0.054
Reverse osmosis (RO) reject	N/A	(3)	N/A
Water treatment wastewaters	0.031	0.002	0.033
Total	2.324	2.689	5.013

(1) Process wastewaters includes wastewaters directly from the process, process area stormwater, washdown, de minimis cleaning of equipment and maintenance activities, passivation of process equipment, vessel washouts, equipment hydroblasting, condensate traps, washout of RCRA empty containers, QC lab sinks, runoff from fire training area and fire main flushing, firewater for external cooling of equipment, railcar polymer washdown, water used externally on equipment to provide cooling as needed, and wastewater from railyard drain pans.

(2) Miscellaneous utility wastewaters include maintenance activities for cooling towers, boilers, RO system and wastewater treatment maintenance; steam condensates and air conditioning condensates; hydrostatic test water; groundwater; lawn watering and irrigation drainage; passivation wastewaters from utility systems.

(3) RO reject used as part of makeup water for cooling tower and thus will be part of cooling tower blowdown.

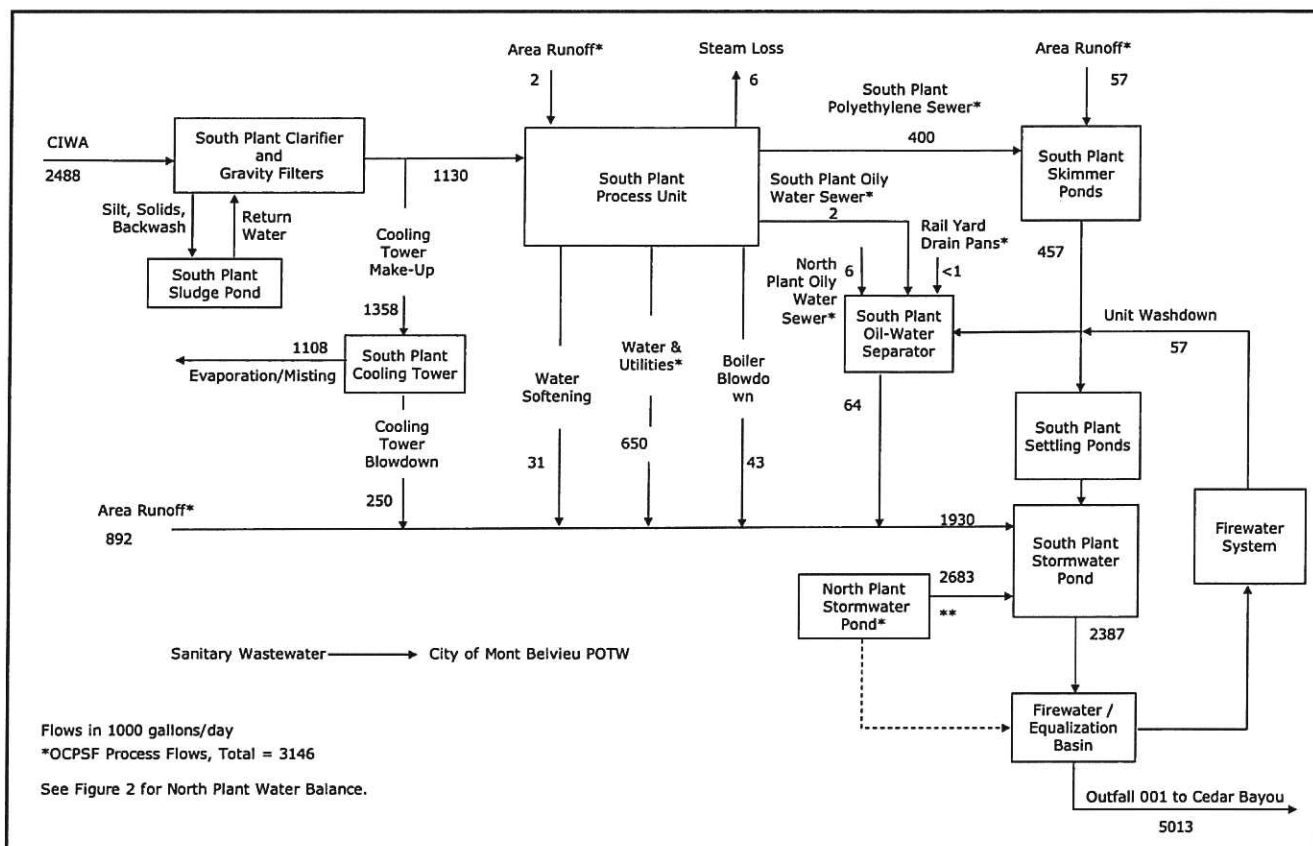


Figure 1. MBPP Water Balance

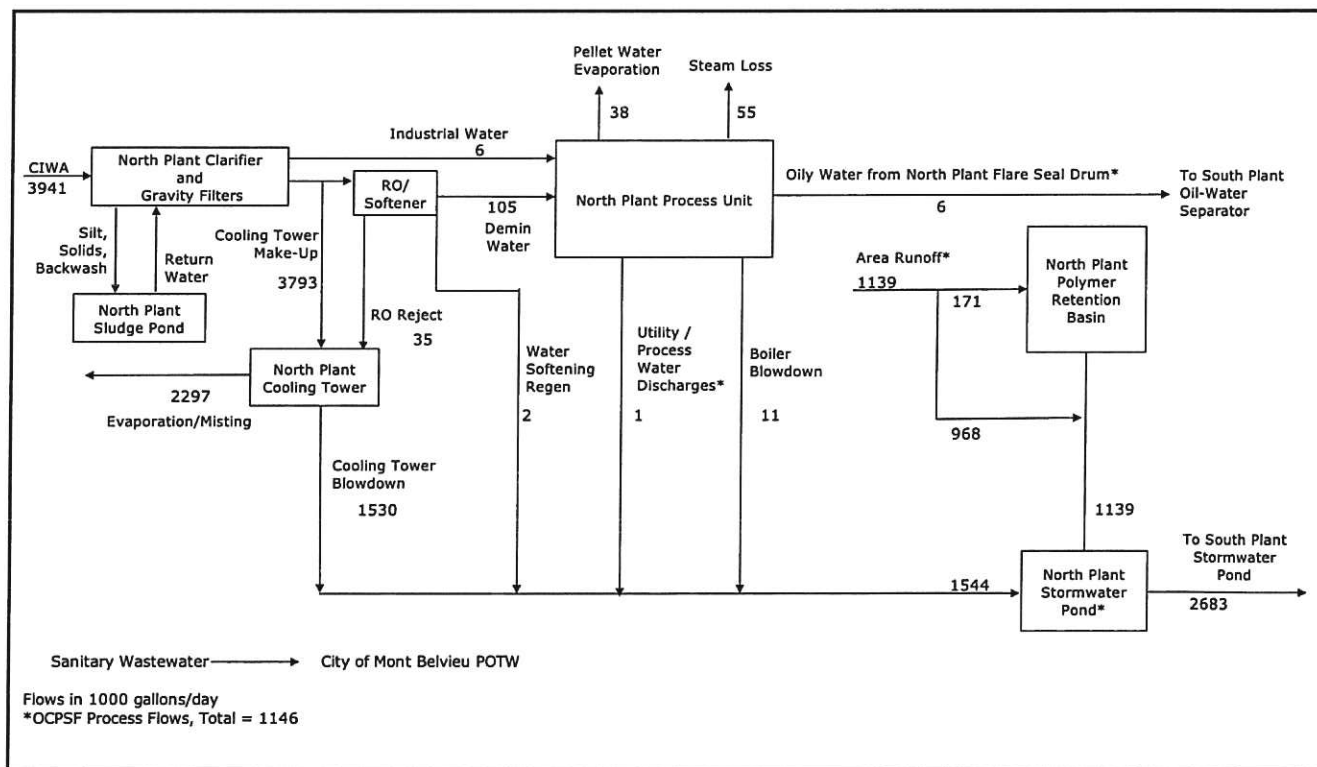


Figure 2. North Plant Water Balance

ATTACHMENT T-2

EXXONMOBIL CHEMICAL MONT BELVIEU PLASTICS PLANT

AMENDMENT REQUESTS

REMOVE LIMITS/CONDITIONS FOR C. DUBIA 7-DAY LETHAL WHOLE EFFLUENT TOXICITY	2
REMOVE LIMITS/CONDITIONS FOR C. DUBIA 7-DAY SUBLETHAL WHOLE EFFLUENT TOXICITY MONITORING	2
INCREASE OUTFALL 001 LIMITS FOR TDS AND SULFATE	3
USE SITE-SPECIFIC PARTITION COEFFICIENT FOR ALUMINUM FOR OUTFALL 001	3
MODIFY OTHER REQUIREMENT NO. 7 – TREATMENT CHEMICALS FOR ALGAE AND AQUATIC PLANT CONTROL	4

ATTACHMENT T-2

EXXONMOBIL CHEMICAL MONT BELVIEU PLASTICS PLANT

AMENDMENT REQUESTS

Exxon Mobil Corporation (ExxonMobil) requests the following amendments to TPDES Permit No. WQ0002546000 for the ExxonMobil Chemical Mont Belvieu Plastics Plants (MBPP).

1. Remove limits/conditions for *Ceriodaphnia dubia* 7-day lethal whole effluent toxicity.
2. Remove limits/conditions for *Ceriodaphnia dubia* 7-day sublethal whole effluent toxicity monitoring.
3. Increase the concentration and mass limits for total dissolved solids (TDS) and sulfate for Outfall 001.
4. Use a site-specific partition coefficient for aluminum for Outfall 001.
5. Modify Other Requirement No. 7, which authorizes use of treatment chemicals to control algae and aquatic plants.

Further discussion of the requested amendments is provided in the following sections.

REMOVE LIMITS/CONDITIONS FOR C. DUBIA 7-DAY LETHAL WHOLE EFFLUENT TOXICITY

The TPDES permit issued in 2019 has a permit limit of 97% effluent for lethal toxicity in the *Ceriodaphnia dubia* (*C. dubia*) whole effluent toxicity (WET) test. As shown in the MBPP discharge monitoring reports (DMR), Outfall 001 WET test results since permit issuance on July 19, 2019 and through October 18, 2023 have shown no lethal toxicity to *C. dubia* at the critical dilution of 97% effluent. ExxonMobil is therefore requesting that the TCEQ remove the lethal chronic WET test limit of 97% effluent. This request is consistent with the TCEQ's WET testing policy in Procedures to Implement the Texas Surface Water Quality Standards, RG-194, June 2010 (IP) (page 114) that authorizes removal of WET limits when there are three consecutive years of tests with no observed toxicity.

REMOVE LIMITS/CONDITIONS FOR C. DUBIA 7-DAY SUBLETHAL WHOLE EFFLUENT TOXICITY MONITORING

In the current TPDES permit, sublethal WET testing for *C. dubia* for Outfall 001 is listed on the outfall limits and monitoring table (page 2b) as a WET limit but actual is a report-only requirement. This report-only requirement is also duplicative of the same reporting requirements in the permit biomonitoring section (page 24). Although ExxonMobil has no objection to continued sublethal WET testing with *C. dubia* and reporting test results as required in the current TPDES permit, it requests that the sublethal monitoring

requirement be removed from the effluent limits table on page 2b because it is currently described as a permit limit. This request includes retaining the existing report-only requirement with no requirement for an increased test frequency and a potential toxicity reduction evaluation (permit, pages 20-21) because, as described in the next paragraph, in-stream testing has documented that the *C. dubia* chronic sublethal WET test endpoint is not a meaningful measure of toxicity potential in Cedar Bayou.

This request is supported by the *2021 – 2023 Use Attainability Analysis: Cedar Bayou in the Vicinity of the Mont Belvieu Plastics Plant Outfall 001* (Freese and Nichols, Inc, December 2023) (UAA). This study was required by Other Requirement No. 1 in the current TPDES permit and was submitted as required to the TCEQ's Water Quality Division's Standards Implementation Team and Water Quality Standards Group. The UAA, that consisted of three intensive biological and water quality surveys of Cedar Bayou upstream and downstream of Outfall 001, conclusively shows that the discharge has no adverse effects on the aquatic ecosystem on Cedar Bayou. The UAA also documents that during low streamflow periods, the Outfall 001 discharge positively impacts water quality and aquatic life.

The UAA supports the 2019 TCEQ determination that the chronic sublethal *C. dubia* WET test is not a suitable indicator of toxicity in the Outfall 001 effluent or in Cedar Bayou upstream of the discharge. As stated in the UAA, in reference to the analyses of chronic *C. dubia* WET test samples collected in Cedar Bayou upstream of Outfall 001, ...“While survival and reproduction demonstrated no significant difference between the control and Cedar Bayou dilutions in 2022 and 2023, the results from 2021 indicate that water quality factors independent of Outfall 001 can influence *C. dubia* reproduction in biomonitoring studies.” (UAA, page 22) This failure of the sublethal endpoint in the chronic *C. dubia* test in the upstream sections of Cedar Bayou, while the UAA evaluation of water quality and the biota upstream and downstream of Outfall 001 documents a healthy albeit habitat-limited aquatic ecosystem, demonstrates that in this instance the *C. dubia* sublethal test is not a suitable toxicity indicator for effluent testing.

INCREASE OUTFALL 001 LIMITS FOR TDS AND SULFATE

ExxonMobil requests a 25% increase in the limits for TDS and sulfate for Outfall 001. This would include the daily maximum concentration limits and daily average mass limits, as well as the corresponding single grab limits to be based on the TCEQ's typical calculation of 2 times the daily maximum concentration. These increases are needed to allow higher concentrations due to local area water conservation efforts as well as increased levels in the incoming raw water supply. The daily maximum concentration limits for TDS (1,134 milligrams per liter, mg/L) and sulfate (380 mg/L) have been unchanged in the TPDES permit since at least 1999.

USE SITE-SPECIFIC PARTITION COEFFICIENT FOR ALUMINUM FOR OUTFALL 001

Outfall analyses that were prepared for the 2023 TPDES permit renewal application show that aluminum levels in the outfall effluent have increased since the prior renewal application in 2017. The average of the four application analyses is 1.91 milligrams per

liter (mg/L), as compared to the daily average water quality-based effluent limit (WQBEL) (0.84 mg/L) that MBPP expects the TCEQ would use to screen the application data.¹

MBPP is planning to develop a site-specific partition coefficient to replace the default of 1.0 (dissolved to total aluminum) that the TCEQ uses when screening effluent data against water quality-based effluent limits (WQBELs). It has prepared a work plan and will begin the study in January 2024. It is targeting to complete the study in August 2024. ExxonMobil requests that the TCEQ use the site-specific partition coefficient when evaluating the aluminum WQBELs for Outfall 001 for this permit application.

MODIFY OTHER REQUIREMENT NO. 7 – TREATMENT CHEMICALS FOR ALGAE AND AQUATIC PLANT CONTROL

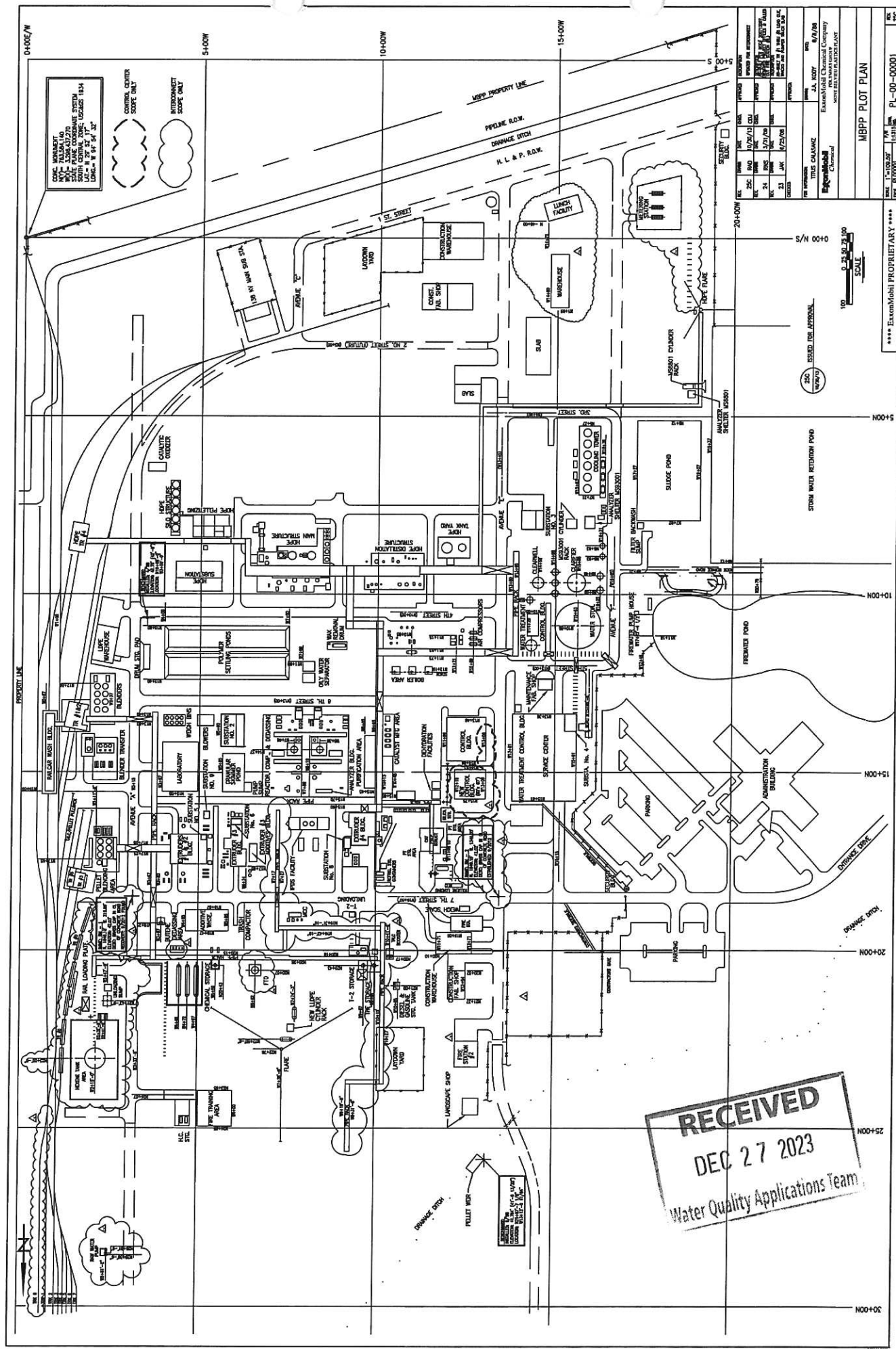
Other Requirement No. 7 in the TPDES permit authorizes the use of dye/colorant-based treatment chemicals to control algae and aquatic plants in surface impoundments. The provision requires recordkeeping on usage and notification to the TCEQ Water Quality Division and Region 12 prior to application and prior to anticipated discharge from Outfall 001.

This provision was placed in the permit in 2019. MBPP believes that its use of these treatment chemicals since then has not raised any issues with the TCEQ and that the notification requirement is no longer needed. ExxonMobil requests that the notification requirement be removed from the provision, while retaining the recordkeeping requirement.

¹ Based on the fact sheet for TPDES Permit No. WQ0002546000, March 27, 2019, Appendix B, Calculated Water Quality-Based Effluent Limits, pg. 27.

ATTACHMENT T-3
Laboratories for Outfall Analyses

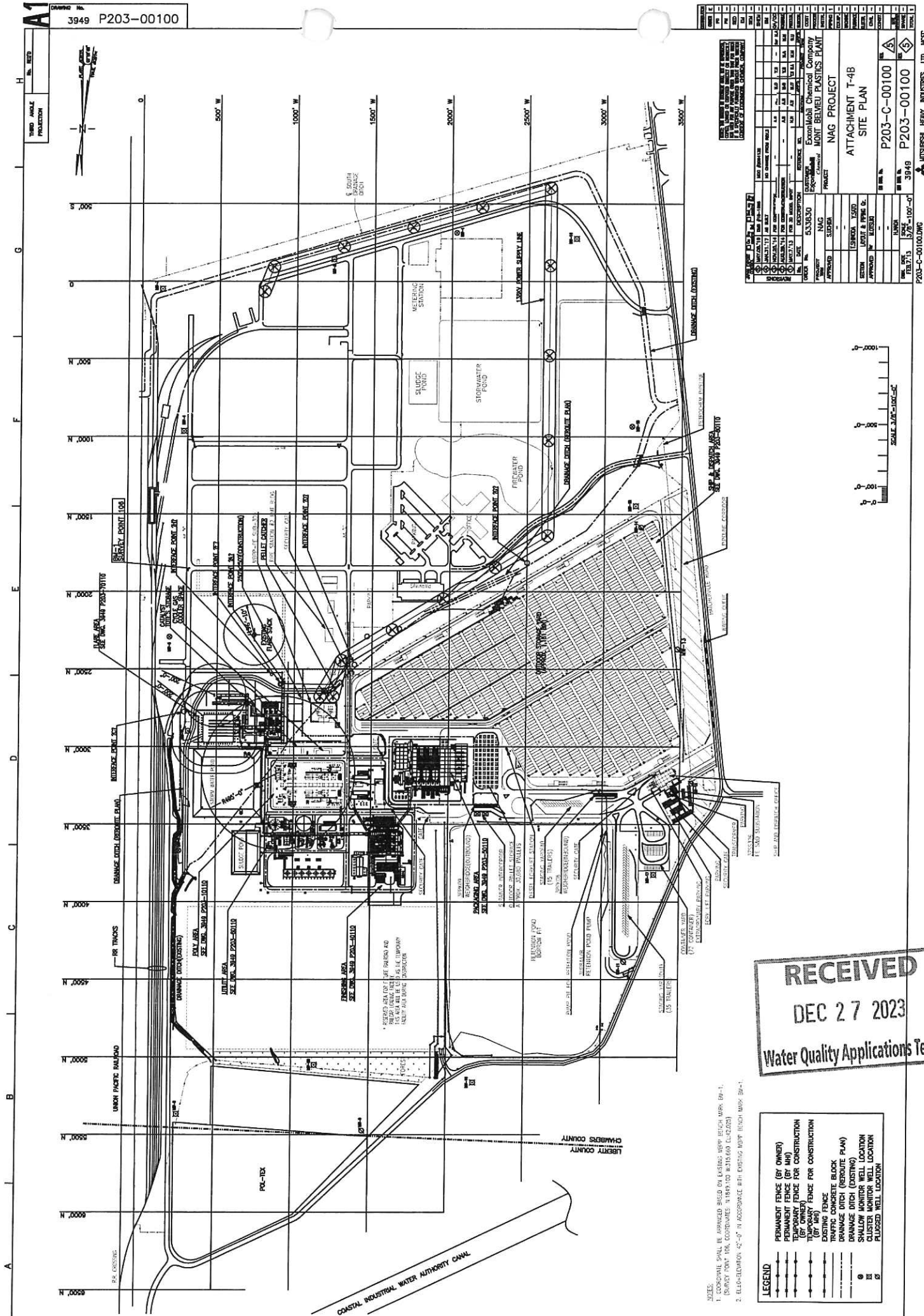
Parameters	Laboratory
Dissolved oxygen, pH, sulfite, temperature, total residual chlorine	Exxon Mobil Corporation Mont Belvieu Plastics Plant (permittee)
Color, cyanide, Kjeldahl nitrogen, nonylphenol, PCBs, pesticides, semivolatiles	A&B Labs 10100 East Freeway, Suite 100 Houston, TX 77029 Accreditation Certificate: T104704213-23-32
Mercury	Albion Environmental 4505 Boyett Street Bryan, TX 77801-4614 Accreditation Certificate: T104704391-23-15
Surfactants	ALS Laboratory Group – Houston 10450 Stancliff Road, Suite 115 Houston, TX 77099-4338 Accreditation Certificate: T104704231-23-32
Asbestos	Eurofins J3 Resources, Inc. 6110 West 34th Street Houston, TX 77092-6408 Accreditation Certificate: T104704553-22-4
All others	Enthalpy Analytical 2525 West Bellfort, Suite 175 Houston, TX 77054 Accreditation Certificate: T104704226-23-26



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DEC 27 2023
Water Quality Applications Team

REV	DATE	DESCRIPTION	BY	CHKD
250	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
24	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
23	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
22	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
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4	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
3	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
2	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY
1	10/25/13	ISSUED FOR APPROVAL	JA, KOTY	JA, KOTY

MBPP PLOT PLAN
Scale: 1"=100'-0"
Date: 10/25/13
By: JA, KOTY
Checked: JA, KOTY
Title: MBPP PLOT PLAN
Project: MBPP PLOT PLAN
Sheet: 1 of 1

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DEC 27 2023
Water Quality Applications Team

- [illegible]

ATTACHMENT T-5
Treatment Chemicals
ExxonMobil Chemical Mont Belvieu Plastics Plant
TPDES Permit No. WQ0002546000

Product ID	Usage	Components Listed in SDS	Frequency	Aquatic Toxicity Data in SDS	Persistence / Bioaccumulative Data in SDS
Optisperse AP0200	Boilers	No hazardous ingredients listed	Continuous	Yes	Yes
Optisperse AP0300	Boilers	Sodium hydroxide [1310-73-2]	Continuous	Yes	Yes
		Sodium nitrate [7631-99-4]			
Inhibitor AZ8104	Cooling towers	Chlorotolyltriazole sodium salt [202420-04-0]	Continuous	Yes	Yes
		Dichlorotolyltriazole [N/A]			
		Sodium 4(or 5)-methyl-1H-benzotriazole [64665-57-2]			
		Sodium hydroxide [1310-73-2]			
BetzDearborn DCL30	Reverse osmosis	Sodium bisulfite [7631-90-5]	Continuous	Yes	Yes
Gengard GN8020	Cooling towers	Maleic acid [110-16-7]	Continuous	Yes	Yes
		Carboxylic acid polymer [N/A]			
Hypersperse MDC775	Reverse osmosis	Sodium diethylenetriamine penta(methylenephosphonate) [22042-96-2]	Continuous	Yes	Yes
Flogard MS6222	Cooling towers	Phosphoric acid [7664-38-2]	Continuous	Yes	Yes
Steamate NA0560	Boilers	Cyclohexylamine [108-91-8]	Continuous	Yes	Yes
		Morpholine [110-91-8]			
Cortrol OS9990	Boilers	Ascorbic acid [50-81-7]	Continuous	Yes	Yes
		Morpholine [110-91-8]			
Klaraid PC1192	Clarifiers	N,N-Dimethyl-N-2-propenyl-2-propen-1-ammonium chloride homopolymer [26062-79-3]	Continuous	Yes	Yes
Sodium hypochlorite	Clarifiers, cooling towers	Hypochlorous acid, sodium salt [7681-52-9]	Continuous	Yes	No
		Sodium hydroxide [1310-73-2]			
SS-Lagoon Shade	Firewater / Equalization Basin	Acid Blue 9 [3844-45-9]	As needed	No	Yes
Sulfuric acid	Cooling towers	Sulfuric acid [7664-93-9]	Continuous	Yes	No

12/8/23



SAFETY DATA SHEET

OPTISPERSE* AP0200

1. Identification

Product identifier	OPTISPERSE AP0200
Other means of identification	None.
Recommended use	Water based internal boiler treatment chemical.
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container to approved local facility.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

This product does not contain hazardous components according to the U.S. OSHA Hazard Communication Standard (OSHA 2012). Refer to additional sections of this SDS for an assessment of the potential hazards of this formulation and classifications under other regulatory guidelines.

Composition comments	Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.
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4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Not available.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. See Section 8 of the SDS for Personal Protective Equipment. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Use care in handling/storage.
Conditions for safe storage, including any incompatibilities	Avoid freezing. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Adequate ventilation to maintain air contaminants below exposure limits. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Splash proof chemical goggles.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.
Other	Rubber, butyl, viton or neoprene gloves. Wash off after each use. Replace as necessary.

Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Color	Light yellow to amber
Physical state	Liquid
Odor	Mild
Odor threshold	Not available.
pH (concentrated product)	11.2
pH in aqueous solution	9.4 (5% SOL.)
Melting point/freezing point	19 °F (-7 °C)
Initial boiling point and boiling range	220 °F (104 °C)
Flash point	> 200 °F (> 93 °C) P-M(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.09
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	31 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	24 °F (-4 °C)
Specific gravity	1.085
VOC	0 % (Estimated)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Protect from freezing. Avoid contact with strong oxidizers. Reacts violently with strong acids.
Incompatible materials	Contact with strong acids may cause a violent reaction releasing heat.
Hazardous decomposition products	Oxides of carbon evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to respiratory organs.
Skin contact	Prolonged or repeated contact may cause irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause slight gastrointestinal irritation.

Symptoms related to the physical, chemical and toxicological characteristics Prolonged and repetitive exposure, depending on the route(s), may develop transient irritation on skin, eyes, ingestion tract, and/or respiratory tract.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
OPTISPERSE AP0200 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hour, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard May be harmful if swallowed and enters airways. Based on available data, the classification criteria are not met.

Further information This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
OPTISPERSE AP0200 (CAS Mixture)	0% Mortality Ceriodaphnia	4000 mg/L, Static Acute Bioassay, 48 hour
	Fathead Minnow	5000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour
	LC50 Ceriodaphnia	5460 mg/L, Static Acute Bioassay, 48 hour
Aquatic Crustacea	0% Mortality Daphnia magna	5000 mg/L, Static Screen, 48 hour

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

No data is available on the degradability of this product.

- COD (mgO ₂ /g)	339 (calculated data)
- BOD 5 (mgO ₂ /g)	0 (calculated data)
- BOD 28 (mgO ₂ /g)	0 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	11 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	8 (calculated data)
- TOC (mg C/g)	91 (calculated data)

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration This product can be used as a boiler water additive in applications requiring compliance with FDA regulation 21 CFR 173.310.

NSF Registered and/or meets USDA (according to 1998 guidelines):
Registration No. – 141068
Category Code(s):
G5 Cooling and retort water treatment products
G6 Boiler treatment products, steam line products – food contact

US state regulations**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Ethylene oxide (oxirane) (CAS 75-21-8) Listed: July 1, 1987

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene oxide (oxirane) (CAS 75-21-8) Listed: August 7, 2009

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Ethylene oxide (oxirane) (CAS 75-21-8) Listed: February 27, 1987

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Ethylene oxide (oxirane) (CAS 75-21-8) Listed: August 7, 2009

US - Massachusetts RTK - Substance List

Not regulated.

US - Pennsylvania RTK - Hazardous Substances

Not regulated.

US - Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

16. Other information, including date of preparation or last revision

Issue date Nov-14-2014
Revision date Dec-17-2017
Version # 2.1

Material name: OPTISPERSE* AP0200

Version number: 2.1

List of abbreviations

CAS: Chemical Abstract Service Registration Number
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
EC50: Effect Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

OPTISPERSE* AP0300

1. Identification

Product identifier	OPTISPERSE AP0300
Other means of identification	None.
Recommended use	Water based internal boiler treatment chemical.
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage.
Precautionary statement	
Prevention	Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Wear eye protection/face protection.
Response	If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.
Storage	Store locked up. Store in a corrosion resistant container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNO C)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Sodium hydroxide	1310-73-2	2.5 - 10
Sodium nitrate	7631-99-4	2.5 - 10

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Environmental precautions Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not freeze. If frozen, thaw completely and mix thoroughly prior to use.

8. Exposure controls/personal protection**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Bulk tanks should be vented externally.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE. If air-purifying respirator use is appropriate, use organic vapor cartridges and any of the following particulate respirators: R95, R99, R100, P95, P99 or P100.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Color**

Yellow to amber

Physical state

Liquid

Odor

Slight

Odor threshold

Not available.

pH (concentrated product)

> 13

pH in aqueous solution

12.6 (5% SOL.)

Melting point/freezing point

22 °F (-6 °C)

Initial boiling point and boiling range

212 °F (100 °C)

Flash point

Not applicable.

Evaporation rate

< 1 (Ether = 1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.1
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	16 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	27 °F (-3 °C)
Specific gravity	1.095
VOC	0 % (Calculated)

10. Stability and reactivity

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Metals.
Hazardous decomposition products	Oxides of carbon and nitrogen evolved in fire.

11. Toxicological information**Information on likely routes of exposure**

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
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Information on toxicological effects**Acute toxicity**

Product	Species	Test Results
OPTISPERSE AP0300 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Sodium hydroxide (CAS 1310-73-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1350 mg/kg
<i>Oral</i>		
LD50	Rabbit	> 500 mg/kg
Sodium nitrate (CAS 7631-99-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3236 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization This product is not expected to cause respiratory sensitization.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Based on available data, the classification criteria are not met.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
OPTISPERSE AP0300 (CAS Mixture)		
NOEL	Fathead Minnow	5000 mg/L, Acute Toxicity, 96 hour, (Estimated)

Product	Species		Test Results
Aquatic Crustacea	NOEL	Daphnia magna	5000 mg/L, Acute Toxicity, 48 hour, (Estimated)
Bioaccumulative potential	No data available.		
Mobility in soil	No data available.		
Other adverse effects	Not available.		
Persistence and degradability			
- COD (mgO ₂ /g)	160 (calculated data)		
- BOD 5 (mgO ₂ /g)	0 (calculated data)		
- BOD 28 (mgO ₂ /g)	0 (calculated data)		
- Closed Bottle Test (% Degradation in 28 days)	12 (calculated data)		
- Zahn-Wellens Test (% Degradation in 28 days)	9 (calculated data)		
- TOC (mg C/g)	43 (calculated data)		

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company. D002= Corrosive
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN1824
UN proper shipping name	Sodium hydroxide solution, RQ
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1824
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UN proper shipping name SODIUM HYDROXIDE SOLUTION, RQ
Transport hazard class(es)
 Class 8
 Subsidiary risk -
Packing group II
Environmental hazards
 Marine pollutant No.
EmS F-A, S-B
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
 Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - No
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Sodium nitrate	7631-99-4	2.5 - 10

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration This product can be used as a boiler water additive in applications requiring compliance with FDA regulation 21 CFR 173.310.

NSF Registered and/or meets Registration No. – 141531
USDA (according to 1998 Category Code(s):
guidelines): G5 Cooling and retort water treatment products
G6 Boiler treatment products, steam line products – food contact

US state regulations**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

US - Massachusetts RTK - Substance List

Sodium hydroxide (CAS 1310-73-2)

Sodium nitrate (CAS 7631-99-4)

US - Pennsylvania RTK - Hazardous Substances

Sodium hydroxide (CAS 1310-73-2)

Listed.

Sodium nitrate (CAS 7631-99-4)

Listed.

US - Rhode Island RTK

Sodium hydroxide (CAS 1310-73-2)

Sodium nitrate (CAS 7631-99-4)

US. New Jersey Worker and Community Right-to-Know Act

Sodium hydroxide (CAS 1310-73-2)

Listed.

Sodium nitrate (CAS 7631-99-4)

Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Sodium nitrate (CAS 7631-99-4)

Hazardous substance

US. California Proposition 65

Not Listed.

16. Other information, including date of preparation or last revision

Issue date Oct-14-2014
Revision date May-24-2018
Version # 4.0

List of abbreviations

COD: Chemical Oxygen Demand
IATA: International Air Transport Association
CAS: Chemical Abstract Service Registration Number
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
LD50: Lethal Dose, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IMDG: International Maritime Dangerous Goods Code

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Transport Information: Agency Name, Packaging Type, and Transport Mode Selection

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

INHIBITOR AZ8104

1. Identification

Product identifier	INHIBITOR AZ8104
Other means of identification	None.
Recommended use	Water-based corrosion inhibitor
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material-damage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

3. Composition/information on ingredients**Mixtures**

Components	CAS #	Percent
Chlorotolyltriazole sodium salt	202420-04-0	10 - 20
DICHLOROTOLYLTRIAZOLE	NOT ASSIGNED	2.5 - 10
Sodium 4(or 5)-methyl-1H-benzotriazolide	64665-57-2	1 - 2.5
Sodium hydroxide	1310-73-2	1 - 2.5

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.
Environmental precautions	Never return spills to original containers for re-use. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
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Conditions for safe storage, including any incompatibilities

Store locked up. Keep only in the original container. Store away from oxidizers. Store away from acids. Store in a cool, dry place out of direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide adequate ventilation. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.34 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Color

Yellow to amber

Physical state

Liquid

Odor

Slight

Odor threshold

Not available.

Melting point/freezing point

12 °F (-11 °C)

Initial boiling point and boiling range

210 °F (99 °C)

Flash point

Not applicable.

Evaporation rate

< 1 (Ether = 1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

18 mm Hg

Vapor pressure temp.

70 °F (21 °C)

Vapor density	< 1 (Air = 1)
Relative density	1.13
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	5 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	17 °F (-8 °C)
Specific gravity	1.132
VOC	0 % (Estimated)
pH (concentrated product)	12.7
pH in aqueous solution	11.6 (5% SOL.)

10. Stability and reactivity

Reactivity	May be corrosive to metals. May react violently with acidic materials.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Metals.
Hazardous decomposition products	Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
INHIBITOR AZ8104 (CAS Mixture)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Chlorotolyltriazole sodium salt (CAS 202420-04-0)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Rat	3100 mg/kg
DICHLOROTOLYLTRIAZOLE (CAS NOT ASSIGNED)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Rat	3100 mg/kg
Sodium 4(or 5)-methyl-1H-benzotriazolidine (CAS 64665-57-2)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Oral		
LD50	Rat	735 mg/kg
Sodium hydroxide (CAS 1310-73-2)		
Acute		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rabbit	> 500 mg/kg
* Estimates for product may be based on additional component data not shown.		
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	This product is not expected to cause respiratory sensitization.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)		
Not regulated.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause respiratory irritation.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity

Product		Species	Test Results	
INHIBITOR AZ8104 (CAS Mixture)	LC50	Annelida(Lumbriculus variegatus)	138 mg/L, Static Acute Bioassay, 96 hour	
		Benthic Crustacean(Gammerus pseutolimnaeus)	42.1 mg/L, Static Acute Bioassay, 96 hour	
		Freshwater Snail(Physa sp.)	47.4 mg/L, Static Acute Bioassay, 96 hour	
		Midge larvae (Chironomus tentans)	95.8 mg/L, Static Acute Bioassay, 96 hour	
	NOEL	Annelida(Lumbriculus variegatus)	62.5 mg/L, Static Acute Bioassay, 96 hour	
		Benthic Crustacean(Gammerus pseutolimnaeus)	25 mg/L, Static Acute Bioassay, 96 hour	
		Freshwater Snail(Physa sp.)	25 mg/L, Static Acute Bioassay, 96 hour	
		Midge larvae (Chironomus tentans)	62.5 mg/L, Static Acute Bioassay, 96 hour	
	Other	EC50	Pseudokirchnerella subcapitata	132 mg/l, 96 Hours
	Aquatic Crustacea	EC0	Daphnia magna	155 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
		EC50	Daphnia magna	210 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)
				50 mg/L, Chronic Bioassay, 21 day, (pH adjusted)
		LC50	Ceriodaphnia	124 mg/L, Static Renewal Bioassay, 48 hour
Daphnia magna			217 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)	
Mysid Shrimp			53 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)	
LOEL		Ceriodaphnia	40 mg/L, Chronic Bioassay, 7 day	
NOEL		Ceriodaphnia	75 mg/L, Static Renewal Bioassay, 48 hour	
			20 mg/L, Chronic Bioassay, 7 day	
		Daphnia magna	148 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)	
			27 mg/L, Chronic Bioassay, 21 day, (pH adjusted)	
		Mysid Shrimp	25 mg/L, Static Acute Bioassay, 48 hour, (pH adjusted)	
Fish	LC50	Bluegill Sunfish	36.6 mg/L, Static Acute Bioassay, 96 hour	
		Fathead Minnow	135 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)	
			50.7 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)	
		Menidia beryllina (Silversides)	41 mg/L, Static Acute Bioassay, 96 hour	
		Rainbow Trout	15.4 mg/L, Static Renewal Bioassay, 96 hour	
		Sheepshead Minnow	132 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)	

Product		Species	Test Results
	LOEL	Fathead Minnow	8.3 mg/L, Chronic Flow-Thru Bioassay, 28 day, (pH adjusted)
	NOEL	Bluegill Sunfish	25 mg/L, Static Acute Bioassay, 96 hour
		Fathead Minnow	21.8 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
			15 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)
			4.2 mg/L, Chronic Flow-Thru Bioassay, 28 day, (pH adjusted)
		Menidia beryllina (Siversides)	25 mg/L, Static Acute Bioassay, 96 hour
		Rainbow Trout	6.3 mg/L, Static Renewal Bioassay, 96 hour
		Sheepshead Minnow	100 mg/L, Static Acute Bioassay, 96 hour, (pH adjusted)

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects Nutrients: N: 13,3 mg/g

Persistence and degradability

- COD (mgO ₂ /g)	300
- BOD 5 (mgO ₂ /g)	15
- BOD 28 (mgO ₂ /g)	15
- Closed Bottle Test (%)	6
Degradation in 28 days	
- Zahn-Wellens Test (%)	0
Degradation in 28 days	
- TOC (mg C/g)	100

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1760
UN proper shipping name	Corrosive liquids, n.o.s. (SODIUM HYDROXIDE, HALOGENATED AROMATIC HETEROCYCLE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Not available.
ERG number	154

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (SODIUM HYDROXIDE, HALOGENATED AROMATIC HETEROCYCLE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE, HALOGENATED AROMATIC HETEROCYCLE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Corrosive to metal
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Hazardous substance

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 141530
Category Code(s):
G5 Cooling and retort water treatment products
G7 Boiler, steam line treatment products – nonfood contact

US state regulations**California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Oct-24-2014
Revision date Apr-19-2021
Version # 4.1
NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings

List of abbreviations

CAS: Chemical Abstract Service Registration Number
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
ACGIH: American Conference of Governmental Industrial Hygienists
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Product and Company Identification: Commercial Names
Hazard(s) identification: Supplemental information
Composition / Information on Ingredients: Ingredients
Composition/information on ingredients: Composition comments
Exposure controls/personal protection: Hand protection
Exposure controls/personal protection: Respiratory protection
Exposure controls/personal protection: Other
Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information
Other information, including date of preparation or last revision: Bibliography
HazReg Data: Europe - EU
GHS: Classification
REACH: Associated Exposure Scenarios

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).



SAFETY DATA SHEET

BETZDEARBORN* DCL30

1. Identification

Product identifier	BETZDEARBORN DCL30
Other means of identification	None.
Recommended use	Dechlorination agent
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 2B
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Causes eye irritation. May cause respiratory irritation.
Precautionary statement	
Prevention	Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.
Response	Call a poison center/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Sodium bisulphite	7631-90-5	20 - 40

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Never return spills to original containers for re-use.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling	Vent carefully before opening. Sulfur dioxide can be formed during the normal use and handling of this product. Avoid breathing mist or vapor. Avoid contact with eyes. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.
Conditions for safe storage, including any incompatibilities	Store locked up. Avoid freezing. If frozen, thaw completely and mix thoroughly prior to use. Keep container tightly closed. Shelf life 180 days.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium bisulphite (CAS 7631-90-5)	TWA	5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium bisulphite (CAS 7631-90-5)	TWA	5 mg/m3
Biological limit values	No biological exposure limits noted for the ingredient(s).	
Appropriate engineering controls	Provide eyewash station.	
Individual protection measures, such as personal protective equipment		
Eye/face protection	Wear safety glasses with side shields (or goggles).	
Skin protection		
Hand protection	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.	
Other	Wear appropriate chemical resistant clothing.	
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.	

9. Physical and chemical properties

Appearance

Color	Colorless to light yellow
Physical state	Liquid
Odor	Strong odor
Odor threshold	Not available.
pH (concentrated product)	4.5 Neat
pH in aqueous solution	4.9 (5% Solution)
Melting point/freezing point	18 °F (-8 °C)
Initial boiling point and boiling range	219 °F (104 °C)
Flash point	Not applicable.
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	18 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1
Relative density	1.27
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.

Decomposition temperature	Not available.
Viscosity	6 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	23 °F (-5 °C)
Specific gravity	1.268
VOC	0 % CALCULATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Not available.
Conditions to avoid	Contact with incompatible materials. None under normal conditions.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Oxides of sulphur evolved in fire. No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation.

Information on toxicological effects

Acute toxicity	Not known.
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Product	Species	Test Results
BETZDEARBORN DCL30 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 hours, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	3320 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Sodium bisulphite (CAS 7631-90-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.5 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	1420 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Causes eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
ACGIH Carcinogens	
Sodium bisulphite (CAS 7631-90-5)	A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Sodium bisulphite (CAS 7631-90-5)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
BETZDEARBORN DCL30 (CAS Mixture)			
Aquatic			
Algae	EC50	Scenedesmus (algae)	154 mg/l, Growth Inhibition, 72 hour, (Estimated)
Crustacea	LC50	Daphnia magna	225 mg/l, Static Renewal Bioassay, 48 hour
		Mysid Shrimp	370 mg/l, Static Acute Bioassay, 48 hour, (pH adjusted)
	NOEL	Daphnia magna	160 mg/l, Static Renewal Bioassay, 48 hour
		Mysid Shrimp	156 mg/l, Static Acute Bioassay, 48 hour, (pH adjusted)
Fish	0% Mortality	Rainbow Trout	100 mg/l, Static Screen, 48 hour
	100% Mortality	Rainbow Trout	500 mg/l, Static Screen, 48 hour
	LC50	Fathead Minnow	225 mg/l, Static Renewal Bioassay, 96 hour
		Menidia beryllina (Siversides)	930 mg/l, Static Acute Bioassay, 96 hour, (pH adjusted)
	NOEL	Fathead Minnow	160 mg/l, Static Renewal Bioassay, 96 hour
		Menidia beryllina (Siversides)	156 mg/l, Static Acute Bioassay, 96 hour, (pH adjusted)

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

- COD (mgO2/g) 47,7

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (SODIUM BISULFITE), RQ
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Special precautions for user	Not available.
ERG number	171
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

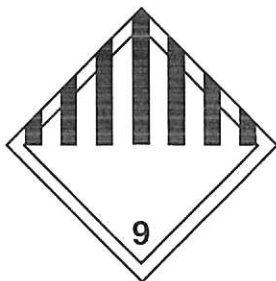
IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

DOT



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium bisulphite (CAS 7631-90-5) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories

Acute toxicity (any route of exposure)
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 147820
Category Code(s):
G5 Cooling and retort water treatment products
G6 Boiler treatment products, steam line products – food contact

US state regulations

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Oct-16-2014
Revision date May-29-2019
Version # 2.0
NFPA ratings Health: 2
Flammability: 0
Instability: 0

NFPA ratings



List of abbreviations

CAS: Chemical Abstract Service Registration Number
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
EC50: Effect Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
ACGIH: American Conference of Governmental Industrial Hygienists
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
NFPA: National Fire Protection Association

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Product and Company Identification: Commercial Names
Hazard(s) identification: Supplemental information
First-aid measures: Inhalation
First-aid measures: Skin contact
Accidental release measures: Personal precautions, protective equipment and emergency procedures
Handling and storage: Conditions for safe storage, including any incompatibilities
Exposure controls/personal protection: Hand protection
Exposure controls/personal protection: Respiratory protection
Stability and reactivity: Conditions to avoid
Regulatory information: California Prop 65
Regulatory information: US state regulations
Other information, including date of preparation or last revision: Bibliography
GHS: Classification

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

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SAFETY DATA SHEET

GENGARD* GN8020

1. Identification

Product identifier GENGARD GN8020
Other means of identification None.
Recommended use Deposit control agent
Recommended restrictions None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
 4636 Somerton Road
 Treviso, PA 19053
 T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Sensitization, skin	Category 1A
OSHA defined hazards	Not classified.	

Label elements



Signal word Warning
Hazard statement Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.

Precautionary statement

Prevention Avoid breathing mist/vapor. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves.

Response If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Maleic acid	110-16-7	0.1 - 1
CARBOXYLIC ACID POLYMER		TSRN 125438 - 5052P
Composition comments	Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.	
4. First-aid measures		
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.	
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.	
Eye contact	Immediately flush eyes with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.	
Ingestion	Rinse mouth. Get medical attention if symptoms occur.	
Most important symptoms/effects, acute and delayed	Severe eye irritation. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash.	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.	
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.	
5. Fire-fighting measures		
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.	
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.	
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray. Use standard firefighting procedures and consider the hazards of other involved materials.	
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.	
General fire hazards	No unusual fire or explosion hazards noted.	
6. Accidental release measures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with spilled material. Ensure adequate ventilation. Avoid breathing mist/vapor. For personal protection, see section 8 of the SDS.	
Methods and materials for containment and cleaning up	Small Spills: Place in waste disposal container. Wet area may be slippery. Spread sand/grit. Following product recovery, flush area with water. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Large Spills: Cover with plastic sheet to prevent spreading. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Ventilate the area. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.	
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.	
7. Handling and storage		
Precautions for safe handling	Observe good industrial hygiene practices. Do not get in eyes, on skin, on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling.	

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store in cool, well ventilated area. Store containers closed when not in use. Avoid high temperatures. Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

8. Exposure controls/personal protection

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended. Wash off after each use. Replace as necessary.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Color

Amber to brown

Physical state

Liquid

Odor

Slight sweet

Odor threshold

Not available.

pH (concentrated product)

2.6

pH in aqueous solution

3 (5% SOL.)

Melting point/freezing point

27 °F (-3 °C)

Initial boiling point and boiling range

212 °F (100 °C)

Flash point

Not applicable.

Evaporation rate

< 1 (Water = 1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

18 mm Hg

Vapor pressure temp.

70 °F (21 °C)

Vapor density

< 1 (Air = 1)

Relative density

1.17

Relative density temperature

70 °F (21 °C)

Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	17 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	32 °F (0 °C)
Specific gravity	1.166
VOC	0 % (Estimated)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon, nitrogen, and sulphur evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
GENGARD GN8020 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)
Components	Species	Test Results
CARBOXYLIC ACID POLYMER (CAS TSN 125438 - 5052P)		
Acute		
<i>Oral</i>		
LD50	Rat	4563 mg/kg

Components	Species	Test Results
Maleic acid (CAS 110-16-7)		
Acute		
Dermal		
LD50	Rabbit	1560 mg/kg
Inhalation		
LC50	Rat	> 2.88 mg/L, 4 Hour
Oral		
LD50	Rat	708 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	This product is not expected to cause respiratory sensitization.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	Not classified.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)		
Not regulated.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	Not classified.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Based on available data, the classification criteria are not met.	

12. Ecological information

Ecotoxicity

Product	Species	Test Results
GENGARD GN8020 (CAS Mixture)		
IC50	Selenastrum (algae)	3872 mg/l, Growth Inhibition, 96 hour, (pH adjusted)
LC50	Fathead Minnow	5814 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
NOEL	Fathead Minnow	5000 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
	Selenastrum (algae)	2000 mg/l, Growth Inhibition, 96 hour, (pH adjusted)
Aquatic		
<i>Crustacea</i>		
LC50	Daphnia magna	3628 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
NOEL	Daphnia magna	1250 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
<i>Fish</i>		
LC50	Rainbow Trout	7071 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
NOEL	Rainbow Trout	5000 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)

Persistence and degradability Not available.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
Maleic acid	-0.48
Mobility in soil	No data available.
Other adverse effects	Not available.
Persistence and degradability	
- COD (mgO2/g)	359
- BOD 5 (mgO2/g)	21
- BOD 28 (mgO2/g)	3
- Closed Bottle Test (%)	1 OECD 301D
Degradation in 28 days)	
- TOC (mg C/g)	142 (calculated data)

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Via an authorized waste disposal contractor to an approved waste disposal site, observing all local and national regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)		
Not regulated.		
CERCLA Hazardous Substance List (40 CFR 302.4)		
Maleic acid (CAS 110-16-7)		Listed.
SARA 304 Emergency release notification		
Not regulated.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)		
Not regulated.		
Superfund Amendments and Reauthorization Act of 1986 (SARA)		
SARA 302 Extremely hazardous substance		
Not listed.		
SARA 311/312 Hazardous chemical	Yes	
Classified hazard categories	Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization	
SARA 313 (TRI reporting)		
Not regulated.		

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Acrylic acid (CAS 79-10-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 144523

Category Code(s):

G5 Cooling and retort water treatment products

G7 Boiler, steam line treatment products – nonfood contact

US state regulations

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date	Sep-26-2014
Revision date	Feb-19-2019
Version #	5.0
NFPA ratings	Health: 2 Flammability: 0 Instability: 0
NFPA ratings	



List of abbreviations

CAS: Chemical Abstract Service Registration Number
NFPA: National Fire Protection Association
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
EC50: Effect Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
CEN: European Committee for Standardisation
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References:

No data available

Material name: GENGARD* GN8020

Version number: 5.0

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Hazard(s) identification: Prevention
Composition / Information on Ingredients: Disclosure Overrides
Accidental release measures: Methods and materials for containment and cleaning up
Accidental release measures: Personal precautions, protective equipment and emergency procedures
Handling and storage: Conditions for safe storage, including any incompatibilities
Exposure controls/personal protection: Appropriate engineering controls
Physical & Chemical Properties: Multiple Properties
Stability and reactivity: Conditions to avoid
Regulatory information: California Prop 65
Other information, including date of preparation or last revision: Bibliography
HazReg Data: Europe - EU
GHS: Classification

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

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SAFETY DATA SHEET

HYPERSPERSE* MDC775

1. Identification

Product identifier	HYPERSPERSE MDC775
Other means of identification	None.
Recommended use	Membrane Deposit Control Agent
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
OSHA defined hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Causes skin irritation. Causes serious eye irritation.
Precautionary statement	
Prevention	Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.
Response	If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Sodium diethylenetriamine penta(methylenephosphonate)	22042-96-2	20 - 40

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Biological limit values	No biological exposure limits noted for the ingredient(s).
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Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance****Color**

Yellow

Physical state

Liquid

Odor

Slight

Odor threshold

Not available.

pH (concentrated product)

2.6

pH in aqueous solution

3 (5% SOL.)

Melting point/freezing point

27 °F (-3 °C)

Initial boiling point and boiling range

220 °F (104 °C)

Flash point

> 213 °F (> 101 °C) P-M(CC)

Evaporation rate

< 1 (Ether = 1)

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits**Flammability limit - lower (%)**

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

18 mm Hg

Vapor pressure temp.

70 °F (21 °C)

Vapor density

< 1 (Air = 1)

Relative density

1.2

Relative density temperature

70 °F (21 °C)

Solubility(ies)**Solubility (water)**

100 %

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

10 cps

Material name: HYPERSPERSE* MDC775

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Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	32 °F (0 °C)
Specific gravity	1.195
VOC	0 % (Estimated)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Bases.
Hazardous decomposition products	Oxides of carbon, nitrogen and phosphorus evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Mists or aerosols cause irritation to upper respiratory tract.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May cause gastrointestinal irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
HYPERSPERSE MDC775 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 5 mg/l, 4 Hour, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information**Ecotoxicity**

Product		Species	Test Results
HYPERSPERSE MDC775 (CAS Mixture)			
	LC50	Fathead Minnow	6817 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
	NOEL	Fathead Minnow	4000 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
Aquatic			
Crustacea	LC50	Daphnia magna	2462 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
	NOEL	Daphnia magna	1000 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
Fish	LC50	Rainbow Trout	> 10000 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
	NOEL	Rainbow Trout	10000 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)

Bioaccumulative potential**Bioconcentration factor (BCF)**

Sodium diethylenetriamine penta(methylenephosphonate) < 10, OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)
Species: Carp (Cyprinus carpio carpio)
Test Duration: 28 days

Mobility in soil	No data available.
Other adverse effects	Nutrients: P= 62 mg/g; N= 17 mg/g
Persistence and degradability	No data available
- COD (mgO2/g)	174
- TOC (mg C/g)	51

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (CAS 50-00-0)

Listed: January 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

US - Massachusetts RTK - Substance List

Not regulated.

US - Pennsylvania RTK - Hazardous Substances

Not regulated.

US - Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

16. Other information, including date of preparation or last revision

Issue date Dec-03-2014

Revision date Dec-20-2017

Version # 3.2

List of abbreviations CAS: Chemical Abstract Service Registration Number
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
ACGIH: American Conference of Governmental Industrial Hygienists
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References: No data available

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Physical & Chemical Properties: Multiple Properties
Regulatory information: US state regulations

Prepared by This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

FLOGARD* MS6222

1. Identification

Product identifier	FLOGARD MS6222
Other means of identification	None.
Recommended use	Water-based corrosion inhibitor
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation. May cause damage to organs.
Precautionary statement	
Prevention	Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see on this label). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant/ container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Phosphoric Acid	7664-38-2	60 - 80

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Acidic. Do not mix with alkaline material. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Do not freeze. If frozen, thaw completely and mix thoroughly prior to use. Contact with metals may release flammable hydrogen gas. Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	PEL	1 mg/m ³

US. ACGIH Threshold Limit Values

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m ³
	TWA	1 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Phosphoric Acid (CAS 7664-38-2)	STEL	3 mg/m ³
	TWA	1 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary. Not applicable.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Color

Colorless to light yellow

Physical state

Liquid

Odor

Mild

pH (concentrated product)

< 1 Neat

pH in aqueous solution

1.2 (5% Solution)

Initial boiling point and boiling range

Not available.

Flash point

> 199 °F (> 93 °C) P-M(CC)

Material name: FLOGARD* MS6222

Version number: 2.4

Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	15 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	> 1
Relative density	1.58
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Viscosity	44 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Percent volatile	25
Pour point	< -25 °F (< -32 °C)
Specific gravity	1.579
VOC	0 % ESTIMATED

10. Stability and reactivity

Reactivity	May be corrosive to metals. The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur. Contact with water reactive compounds may cause fire or explosion.
Conditions to avoid	Protect from freezing. Contact with metals may release flammable hydrogen gas.
Incompatible materials	Strong oxidizing agents. Metals. Avoid contact with strong bases.
Hazardous decomposition products	Oxides of carbon and phosphorus evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs by inhalation. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
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Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
FLOGARD MS6222 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	3650 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	400 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Phosphoric Acid (CAS 7664-38-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2740 mg/kg
<i>Oral</i>		
LD50	Rat	300 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Not listed.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause damage to organs. May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Based on available data, the classification criteria are not met.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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Product	Species	Test Results
FLOGARD MS6222 (CAS Mixture)		
IC25	Ceriodaphnia	416.7 mg/l, Chronic Bioassay, 7 day, (pH adjusted)
	LC50	1387 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
	Fathead Minnow	4200 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
	NOEL	625 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
		125 mg/l, Chronic Bioassay, 7 day, (pH adjusted)
	Fathead Minnow	2100 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
Aquatic		
Crustacea	LC50	3540 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)
	NOEL	2100 mg/l, Static Renewal Bioassay, 48 hour, (pH adjusted)

Product	Species	Test Results
Fish	LC50	Rainbow Trout
	NOEL	Rainbow Trout
		7382 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
		5000 mg/l, Static Renewal Bioassay, 96 hour, (pH adjusted)
Bioaccumulative potential	No information available.	
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	
Environmental fate	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Persistence and degradability	Product contains only inorganics that are not subject to typical biological degradation. Assimilation by microbes may occur in waste treatment or the environment. This product, being inorganic, has no TOC, BOD.	

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1805
UN proper shipping name	Phosphoric acid solution, RQ(Phosphoric acid)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN1805
UN proper shipping name	PHOSPHORIC ACID, SOLUTION
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1805
UN proper shipping name	PHOSPHORIC ACID SOLUTION, RQ(Phosphoric acid)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III

Environmental hazards

Marine pollutant

No.

EmS

F-A, S-B

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Phosphoric Acid (CAS 7664-38-2)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Clean Water Act (CWA)
Section 112(r) (40 CFR
68.130)**

Hazardous substance

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

US - Massachusetts RTK - Substance List

Phosphoric Acid (CAS 7664-38-2)

US - Pennsylvania RTK - Hazardous Substances

Phosphoric Acid (CAS 7664-38-2) Listed.

US - Rhode Island RTK

Phosphoric Acid (CAS 7664-38-2)

US. New Jersey Worker and Community Right-to-Know Act

Phosphoric Acid (CAS 7664-38-2) Listed.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

16. Other information, including date of preparation or last revision

Issue date Jun-15-2015
Revision date Dec-20-2017
Version # 2.4

List of abbreviations

CAS: Chemical Abstract Service Registration Number
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
ACGIH: American Conference of Governmental Industrial Hygienists
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.

References: No data available

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Physical & Chemical Properties: Multiple Properties

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

STEAMATE* NA0560

1. Identification

Product identifier STEAMATE NA0560
Other means of identification None.
Recommended use Neutralizing amine
Recommended restrictions None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 3
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. Harmful if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation. Suspected of damaging fertility or the unborn child.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Cyclohexylamine	108-91-8	20 - 40
Morpholine	110-91-8	20 - 40

Composition comments	Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.
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4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Dizziness. Nausea, vomiting. Diarrhea. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Irritation of nose and throat. May cause respiratory irritation. Coughing.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Vapors may form explosive mixtures with air. Do not use around sparks or flames. Use non-sparking tools and explosion-proof equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Store locked up. Store away from oxidizers. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Keep in an area equipped with sprinklers. Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Morpholine (CAS 110-91-8)	PEL	70 mg/m3 20 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Cyclohexylamine (CAS 108-91-8)	TWA	10 ppm
Morpholine (CAS 110-91-8)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Cyclohexylamine (CAS 108-91-8)	TWA	40 mg/m3 10 ppm
Morpholine (CAS 110-91-8)	STEL	105 mg/m3 30 ppm
	TWA	70 mg/m3 20 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

Morpholine (CAS 110-91-8)

Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Morpholine (CAS 110-91-8)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation.
Eye wash facilities and emergency shower must be available when handling this product. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection

Splash proof chemical goggles. Face shield.

Skin protection

Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Color

Colorless to amber

Physical state

Liquid

Odor

Amine odor

Odor threshold

Not available.

pH (concentrated product)

13.1 Neat

pH in aqueous solution

11.9 (5% Solution)

Melting point/freezing point

< -30 °F (< -34 °C)

Initial boiling point and boiling range

219 °F (104 °C)

Flash point

133 °F (56 °C) P-M(CC)

Evaporation rate

Slower than Ether

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)

Not available.

Flammability limit - upper (%)

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

18 mmHg

Vapor pressure temp.

70 °F (21 °C)

Vapor density

< 1

Relative density

0.99

Relative density temperature

70 °F (21 °C)

Solubility(ies)

Solubility (water)

100 %

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	10 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Pour point	< -30 °F (< -34 °C)
Specific gravity	0.988
VOC	60 % CALCULATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Friction, heat or other sources of ignition may cause a violent reaction releasing heat and toxic fumes. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Contact with strong acids causes violent reaction and release of chlorine gas. Contact with oxidizers may cause fire or explosion.
Hazardous decomposition products	Elemental oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Toxic in contact with skin. Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns. Harmful if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Dizziness. Nausea, vomiting. Diarrhea. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Irritation of nose and throat. May cause respiratory irritation. Coughing.

Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
STEAMATE NA0560 (CAS Mixture)		
Acute		
Dermal		
LD50	Rabbit	595 mg/kg, (Calculated according to GHS additivity formula (Category 3))
Oral		
LD50	Rat	477 mg/kg, (Calculated according to GHS additivity formula (Category 4))
Components	Species	Test Results
Cyclohexylamine (CAS 108-91-8)		
Acute		
Dermal		
LD50	Rabbit	277 mg/kg
Oral		
LD50	Rat	156 mg/kg
Morpholine (CAS 110-91-8)		
Acute		
Dermal		
LD50	Rabbit	505 mg/kg

Components	Species	Test Results
<i>Inhalation</i>		
LC50	Rat	11 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	1050 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
ACGIH Carcinogens	
Cyclohexylamine (CAS 108-91-8)	A4 Not classifiable as a human carcinogen.
Morpholine (CAS 110-91-8)	A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Morpholine (CAS 110-91-8)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	

Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Based on available data, the classification criteria are not met. May be harmful if swallowed and enters airways.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product	Species		Test Results
STEAMATE NA0560 (CAS Mixture)			
Aquatic			
Crustacea	LC50	Daphnia magna	54 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
	NOEL	Daphnia magna	8 mg/L, Static Renewal Bioassay, 48 hour, (pH adjusted)
Fish	LC50	Fathead Minnow	104 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)
	NOEL	Fathead Minnow	50 mg/L, Static Renewal Bioassay, 96 hour, (pH adjusted)

Bioaccumulative potential	No data available.
Partition coefficient n-octanol / water (log Kow)	
Cyclohexylamine	1.49
Morpholine	-0.86
Mobility in soil	No data available.
Other adverse effects	Not available.
Persistence and degradability	
- COD (mgO2/g)	1443 (calculated data)

- BOD 5 (mgO2/g)	1 (calculated data)
- BOD 28 (mgO2/g)	296 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	28 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	87 (calculated data)
- TOC (mg C/g)	354 (calculated data)

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN2734
UN proper shipping name	Amines, liquid, corrosive, flammable, n.o.s. (CYCLOHEXYLAMINE, MORPHOLINE), RQ(CYCLOHEXYLAMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	3
Packing group	II
Special precautions for user	Not available.
ERG number	132

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

UN number	UN2734
UN proper shipping name	Amines, liquid, corrosive, flammable, n.o.s. (CYCLOHEXYLAMINE, MORPHOLINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	3
Packing group	II
Environmental hazards	No.
ERG Code	132
Special precautions for user	Not available.

IMDG

UN number	UN2734
UN proper shipping name	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S. (CYCLOHEXYLAMINE, MORPHOLINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	3
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-C
Special precautions for user	Not available.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Cyclohexylamine (CAS 108-91-8) 10000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Cyclohexylamine	108-91-8	10000	10000		

SARA 311/312 Hazardous chemical Yes

Classified hazard categories

Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Aniline (CAS 62-53-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Cyclohexylamine (CAS 108-91-8)

Safe Drinking Water Act (SDWA) Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives where the steam may contact food.

**NSF Registered and/or meets
USDA (according to 1998
guidelines):** Registration No. – 146005
Category Code(s):
G5 Cooling and retort water treatment products
G6 Boiler treatment products, steam line products – food contact

US state regulations

California Proposition 65



WARNING: WARNING: This product can expose you to Aniline, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Aniline (CAS 62-53-3) Listed: January 1, 1990

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Oct-31-2014
Revision date Apr-23-2020
Version # 2.0
NFPA ratings Health: 3
Flammability: 3
Instability: 0

NFPA ratings



List of abbreviations

CAS: Chemical Abstract Service Registration Number
NFPA: National Fire Protection Association
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
OSHA: Occupational Safety & Health Administration.

References: No data available

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

Product and Company Identification: Commercial Names
Composition/information on ingredients: Composition comments
Exposure controls/personal protection: Appropriate engineering controls
Exposure controls/personal protection: Exposure guidelines
Physical and chemical properties: Color
Disposal considerations: Hazardous waste code
Regulatory information: California Proposition 65
Other information, including date of preparation or last revision: Disclaimer
Other information, including date of preparation or last revision: List of abbreviations

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

CORTROL* OS9990

1. Identification

Product identifier	CORTROL OS9990
Other means of identification	None.
Recommended use	Water based dissolved oxygen scavenger
Recommended restrictions	None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.
Precautionary statement	
Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear eye protection/face protection.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Ascorbic acid	50-81-7	10 - 20
Morpholine	110-91-8	2.5 - 10

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention immediately.
Ingestion	Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. Rinse mouth. Call a physician or poison control center immediately. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. May cause respiratory irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.
General information	If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

Suitable extinguishing media	Powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Use water spray to reduce vapors or divert vapor cloud drift. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities

Store in accordance with local/regional/national/international regulation. Store in original tightly closed container. Protect from freezing. Do not store at elevated temperatures. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Morpholine (CAS 110-91-8)	PEL	70 mg/m3 20 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Morpholine (CAS 110-91-8)	TWA	20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Morpholine (CAS 110-91-8)	STEL	105 mg/m3 30 ppm
	TWA	70 mg/m3 20 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

Morpholine (CAS 110-91-8)

Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Morpholine (CAS 110-91-8)

Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Splash proof chemical goggles. Face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Color

Colorless to light brown

Physical state

Liquid

Odor

Mild

Odor threshold

Not available.

pH (concentrated product)	6.9
Melting point/freezing point	27 °F (-3 °C)
Initial boiling point and boiling range	220 °F (104 °C)
Flash point	> 212 °F (> 100 °C) SETA(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1 (Air = 1)
Relative density	1.08
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	11 cps
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pour point	32 °F (0 °C)
Specific gravity	1.082
VOC	8 % (Calculated)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Protect from freezing. Keep away from heat. Contact with incompatible materials. None under normal conditions.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Oxides of carbon and nitrogen evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation.

Information on toxicological effects**Acute toxicity** May cause respiratory irritation.

Product	Species	Test Results
CORTROL OS9990 (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Inhalation</i>		
LC50	Rat	> 20 mg/l, 4 Hour, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
Ascorbic acid (CAS 50-81-7)		
Acute		
<i>Oral</i>		
LD50	Rat	11900 mg/kg
Morpholine (CAS 110-91-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	504 mg/kg
<i>Inhalation</i>		
LC50	Rat	8 mg/l, 4 Hour
<i>Oral</i>		
LD50	Rat	1680 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes severe skin burns and eye damage.**Serious eye damage/eye irritation** Causes serious eye damage.**Respiratory or skin sensitization****Respiratory sensitization** This product is not expected to cause respiratory sensitization.**Skin sensitization** This product is not expected to cause skin sensitization.**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.**IARC Monographs. Overall Evaluation of Carcinogenicity**

Morpholine (CAS 110-91-8) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.**Specific target organ toxicity - single exposure** May cause respiratory irritation.**Specific target organ toxicity - repeated exposure** Not classified.**Aspiration hazard** Based on available data, the classification criteria are not met. Aspiration of this product may cause the same corrosiveness/irritation impacts as if it were ingested.**Chronic effects** Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
CORTROL OS9990 (CAS Mixture)		
	0% Mortality Fathead Minnow	1000 mg/L, Static Bioassay with 48-Hour Renewal, 96 hour
Aquatic		
Crustacea	0% Mortality Daphnia magna	1000 mg/L, Static Screen, 48 hour
	60% Mortality Daphnia magna	2000 mg/L, Static Screen, 48 hour

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
Morpholine	-0.86

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

- COD (mgO ₂ /g)	277 (calculated data)
- BOD 5 (mgO ₂ /g)	24 (calculated data)
- BOD 28 (mgO ₂ /g)	147 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	55 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	80 (calculated data)
- TOC (mg C/g)	101 (calculated data)

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Dispose of in accordance with local regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (MORPHOLINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	153
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (MORPHOLINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	153
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (MORPHOLINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Yes
--	-----

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives where the steam may contact food.

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 145980

Category Code(s):

G5 Cooling and retort water treatment products

G6 Boiler treatment products, steam line products – food contact

US state regulations**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

2-methoxyethanol (CAS 109-86-4)

Listed: January 1, 1989

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

2-methoxyethanol (CAS 109-86-4)

Listed: January 1, 1989

US - Massachusetts RTK - Substance List

Morpholine (CAS 110-91-8)

US - Pennsylvania RTK - Hazardous Substances

Morpholine (CAS 110-91-8)

Listed.

US - Rhode Island RTK

Morpholine (CAS 110-91-8)

US. New Jersey Worker and Community Right-to-Know Act

Morpholine (CAS 110-91-8)

Listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Morpholine (CAS 110-91-8)

Hazardous substance

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

16. Other information, including date of preparation or last revision**Issue date** Nov-12-2014**Revision date** Dec-15-2017**Version #** 3.1**List of abbreviations**

CAS: Chemical Abstract Service Registration Number

TWA: Time Weighted Average

STEL: Short Term Exposure Limit

LD50: Lethal Dose, 50%

LC50: Lethal Concentration, 50%

NOEL: No Observed Effect Level

COD: Chemical Oxygen Demand

BOD: Biochemical Oxygen Demand

TOC: Total Organic Carbon

IATA: International Air Transport Association

IMDG: International Maritime Dangerous Goods Code

ACGIH: American Conference of Governmental Industrial Hygienists

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

KLARAID* PC1192

1. Identification

Product identifier KLARAID PC1192
Other means of identification None.
Recommended use Coagulant
Recommended restrictions None known.

Company/undertaking identification

SUEZ WTS USA, Inc.
4636 Somerton Road
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Not classified.
OSHA defined hazards Not classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification. The material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard's (29CFR 1910.1200) implementation of the Globally Harmonized System (GHS), i.e., material is not a dangerous substance or mixture requiring GHS classification.

Precautionary statement

Prevention Wash thoroughly after handling.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 18% of the mixture consists of component(s) of unknown acute dermal toxicity. 18% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
N,N-Dimethyl-N-2-propenyl-2-propen- 1-amonium chloride homopolymer	26062-79-3	10 - 20

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers / tanks with water spray.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling	Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Protect from freezing. If frozen, thaw completely and mix thoroughly prior to use. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Not available.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.
Other	Wear suitable protective clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Appearance**

Color Yellow

Physical state Liquid

Odor Mild

Odor threshold Not available.

pH (concentrated product) 6.3

pH in aqueous solution 6.2 (5% SOL.)

Melting point/freezing point 30 °F (-1 °C)

Initial boiling point and boiling range Not available.

Flash point Not applicable.

Evaporation rate < 1 (Ether = 1)

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 18 mm Hg

Vapor pressure temp. 70 °F (21 °C)

Vapor density < 1 (Air = 1)

Relative density 1.03

Relative density temperature 70 °F (21 °C)

Solubility(ies)

Solubility (water) 100 %

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity 168 cps

Viscosity temperature 70 °F (21 °C)

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Pour point 35 °F (2 °C)

Specific gravity 1.032

VOC 0 % (ASTM 3960-93)

10. Stability and reactivity**Reactivity**

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hydrogen chloride, oxides of carbon and nitrogen evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
KLARAID PC1192 (CAS Mixture)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
N,N-Dimethyl-N-2-propenyl-2-propen- 1-amonium chloride homopolymer (CAS 26062-79-3)		
Acute		
Oral		
LD50	Rat	3000 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	This product is not expected to cause respiratory sensitization.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity

Product		Species	Test Results
KLARAID PC1192 (CAS Mixture)			
Aquatic			
Crustacea	LC50	Ceriodaphnia	9.3 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
		Daphnia magna	32 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
		Mysid Shrimp	628.5 mg/l, Static Renewal Bioassay, 48 hour
	LOEL	Ceriodaphnia	2 mg/l, Chronic Bioassay, 7 day
	NOEL	Ceriodaphnia	6.25 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
			1 mg/l, Chronic Bioassay, 7 day
		Daphnia magna	15.6 mg/l, Static Acute Bioassay, 48 hour, (With Humic Acid)
		Mysid Shrimp	125 mg/l, Static Renewal Bioassay, 48 hour
	LC50	Fathead Minnow	3.8 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
		Rainbow Trout	14.1 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
Fish	LOEL	Fathead Minnow	2 mg/l, Chronic Bioassay, 7 day
	NOEL	Fathead Minnow	2.5 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
			1 mg/l, Chronic Bioassay, 7 day
		Rainbow Trout	10 mg/l, Static Acute Bioassay, 96 hour, (With Humic Acid)
		Sheepshead Minnow	2000 mg/l, Static Renewal Bioassay, 96 hour

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

No data is available on the degradability of any ingredients in the mixture.

- COD (mgO ₂ /g)	270
- BOD 5 (mgO ₂ /g)	0
- BOD 28 (mgO ₂ /g)	7
- Closed Bottle Test (% Degradation in 28 days)	3
- Zahn-Wellens Test (% Degradation in 28 days)	6
- TOC (mg C/g)	90

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration 21 CFR 176.170 (components of paper and paperboard in contact with aqueous and fatty foods)

US state regulations

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

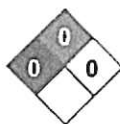
US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Oct-20-2014
Revision date Jun-24-2019
Version # 4.0
NFPA ratings Health: 0
Flammability: 0
Instability: 0

NFPA ratings



List of abbreviations

CAS: Chemical Abstract Service Registration Number
ACGIH: American Conference of Governmental Industrial Hygienists
TWA: Time Weighted Average
STEL: Short Term Exposure Limit
LD50: Lethal Dose, 50%
LC50: Lethal Concentration, 50%
NOEL: No Observed Effect Level
COD: Chemical Oxygen Demand
BOD: Biochemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
NFPA: National Fire Protection Association

References:

No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Prepared by

This SDS has been prepared by SUEZ Regulatory Department (1-215-355-3300).

* Trademark of SUEZ. May be registered in one or more countries.



SAFETY DATA SHEET

1. Identification

Product identifier AQUACHLOR 12.5% NSF SODIUM HYPOCHLORITE
Other means of identification None.
Recommended use ALL PROPER AND LEGAL PURPOSES
Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Skyhawk Chemicals, Inc.
Address 701 N. Post Oak Rd. Ste. 540
Houston, TX 77024

Telephone 713-957-2200/800-535-2847
E-mail order@skyhawkchemicals.com

Emergency phone number CHEMTREC (24 hrs.), 800-424-9300 (USA), ACCT#: CCN721839

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Environmental hazards Not classified.
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 12.5% of the mixture consists of component(s) of unknown acute dermal toxicity. 99.3% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
HYPOCHLOROUS ACID, SODIUM SALT (1:1)		7681-52-9	12.5
SODIUM HYDROXIDE (NA(OH))		1310-73-2	0.7
Other components below reportable levels			86.8

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Foam. Powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)	STEL	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.

Odor CHLORINE

Odor threshold Not available.

pH 11.5 - 13.5

Melting point/freezing point 10 °F (-12.22 °C)

Initial boiling point and boiling range 230.55 °F (110.3 °C) estimated

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	10.14 lbs/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	86.8 % estimated
Specific gravity	1.22

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)		
Aquatic		
Fish	LC50	Chinook salmon (<i>Oncorhynchus tshawytscha</i>) 0.038 - 0.065 mg/l, 96 hours
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)		
Aquatic		
Crustacea	EC50	Water flea (<i>Ceriodaphnia dubia</i>) 34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (<i>Gambusia affinis</i>) 125 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1791
UN proper shipping name	HYPOCHLORITE SOLUTIONS MARINE POLLUTANT (SODIUM HYPOCHLORITE) RQ
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	154

Transport information on packaging may be different from that listed. Transportation information on packaging may be different from that listed.

IATA

UN number	UN1791
UN proper shipping name	HYPOCHLORITE SOLUTIONS MARINE POLLUTANT (SODIUM HYPOCHLORITE) RQ
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	154
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

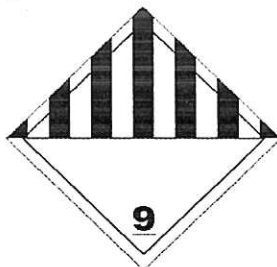
IMDG

UN number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYPOCHLOROUS ACID, SODIUM SALT (1:1)), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

DOT; IATA



IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9) Listed.

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Toxic Chemical Substances (TCS)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	07-02-2015
Revision date	10-24-2018
Version #	17
HMIS® ratings	Health: 3 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 3 Flammability: 0 Instability: 0

Disclaimer

The information contained in this Safety Data Sheet (SDS) is believed by Skyhawk Chemicals, Inc. to be accurate on the date issued. However, materials may present unknown hazards and should be used with caution. Final determination of suitability and use of any material is the sole responsibility of the user. Neither Skyhawk nor any of its subsidiaries or affiliated companies assumes any liability whatsoever for the accuracy or completeness of the information contained herein or reliance thereto. If the material is repackaged, the user is responsible and must ensure that proper health, safety and other necessary information is included with the material and/or on the container. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING THE MATERIALS OR THE INFORMATION CONTAINED IN THIS SDS. ALTERATION OF THIS DOCUMENT IS STRICTLY PROHIBITED.

Safety Data Sheet



Sulfuric Acid (77 to 100%)

Version 3.0

Revision Date 08/01/2015

Ref. 150000002271

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Sulfuric Acid (77 to 100%)
Product Use	:	Raw material, Manufacture of inorganic basic chemicals, Catalyst for oil refining industry, For the manufacturing of pharmaceutical products., Textile products (incl. nonwoven fabric processing) - Bleaching agents, discharging agents, Paper and board products - Bleaching agents, stabilizers for bleaching bath, Chemical plating of metals
Restrictions on use	:	Not to be used as a biocidal product., Not to be used as a drain cleaner., Not to be used as a direct component of a cleaning product., Not to be used for cleaning sludge out of oil tanks.
Supplier	:	Skyhawk Chemicals, Inc. 701 N. Post Oak Rd., Ste. 540 Houston, TX 77024 Phone: 713-957-2200 / 800-535-2847 Fax: 713-957-0345 Email: order@skyhawkchemicals.com
Emergency Contact	:	CHEMTREC USA 800-424-9300 ACCT#: CCN721839

SECTION 2. HAZARDS IDENTIFICATION

Product hazard category

Acute toxicity (Inhalation)	Category 1
Acute toxicity (Dermal)	Category 4
Skin corrosion	Category 1A
Serious eye damage/eye irritation	Category 1

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Carcinogenicity	Category 2
Specific target organ toxicity - single exposure	Category 1
Specific target organ toxicity - repeated exposure	Category 1

Label content

Pictogram

:



Signal word

: Danger

Hazardous warnings

: Harmful in contact with skin.
Causes severe skin burns and eye damage.
Fatal if inhaled.
Suspected of causing cancer.
Causes damage to organs. (Respiratory system)
Causes damage to organs through prolonged or repeated exposure.
(Respiratory system)

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Hazardous prevention measures

: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Use personal protective equipment as required.
Wear respiratory protection.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed: Call a POISON CENTER or doctor/ physician.
Immediately call a POISON CENTER/doctor.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

No applicable data available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Sulfuric Acid	7664-93-9	77 - 100 %

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Water	7732-18-5	0 - 23 %
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SECTION 4. FIRST AID MEASURES

General advice	: When symptoms persist or in all cases of doubt seek medical advice.
Inhalation	: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Skin contact	: Wash off with plenty of water. Remove contaminated clothing and shoes. Consult a physician. Wash contaminated clothing before re-use. Discard contaminated shoes.
Eye contact	: Immediately flush eyes for at least 15 minutes. Get medical attention.
Ingestion	: Do NOT induce vomiting. Immediately give large quantities of water to drink. Call a physician immediately. Never give anything by mouth to an unconscious person.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	: No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: The product itself does not burn., Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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- Unsuitable extinguishing media : None known.
- Specific hazards : Does not readily burn or support combustion.
- Special protective equipment for firefighters : No applicable data available.
- Further information : Do not get water inside any containers.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel) : Use personal protective equipment. Keep people away from and upwind of spill/leak.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Spill Cleanup : Clean-up methods - small spillage
Soak up with sand, oil dry, or other noncombustible absorbent materials.
Clean-up methods - large spillage
Dam up.
Carefully apply fine water mist or mid-expansion foam to slowly dilute to non-fuming sulfuric acid. This process may release sulfuric acid mists into the air.

Neutralize with: lime soda ash other alkali material
- Accidental Release Measures : No applicable data available.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Do not get in eyes. Do not get on skin or clothing. Do not breathe vapours or spray mist. Wash hands thoroughly after handling.

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Handling (Physical Aspects) : No applicable data available.
Dust explosion class : No applicable data available.
Storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination. Protect containers from damage. Never allow product to get in contact with water during storage.
Never allow product to get in contact with water during storage.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection : Wear NIOSH approved respiratory protection as appropriate.

Eye protection : Wear chemical splash goggles in combination with a full-length face shield or an acid hood.

Skin and body protection : Where there is potential for skin contact have available and wear as appropriate:
Full body chemical protective clothing.
Chemical-resistant gloves
Chemical-resistant boots

Protective measures : All Personal Protection Equipment should be checked before use to confirm it is compatible with the chemicals you are handling.

Exposure Guidelines

Exposure Limit Values

Sulfuric Acid			
Permissible exposure limit:	(OSHA)	1 mg/m3	8 hr. TWA
TLV	(ACGIH)	0.2 mg/m3	TWA Thoracic fraction.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state : liquid
Form : liquid, oily
Color : colourless, to, light grey

Odor : acrid

Odor threshold : No applicable data available.

pH : < 1

Melting point/freezing point : Freezing point
-35 - 11 °C (-31 - 52 °F)

Boiling point/boiling range : Boiling point/boiling range
193 - 327 °C (379 - 621 °F) at 760 mm Hg

Flash point : does not flash

Evaporation rate : < 1
(Butyl Acetate=1.0)

Flammability (solid, gas) : No applicable data available.

Upper explosion limit : No applicable data available.

Lower explosion limit : No applicable data available.

Vapor pressure : < 0.3 mm Hg at 25 °C (77 °F)
: < 0.6 mm Hg at 38 °C (100 °F)

Vapor density : 3.4
(Air = 1.0)

Specific gravity (Relative density) : 1.706 - 1.844 at 15.6 °C (60.1 °F)

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Water solubility	: completely soluble, Reacts violently with water liberating sulfuric acid mist cloud.
Solubility(ies)	: No applicable data available.
Partition coefficient: n-octanol/water	: No applicable data available.
Auto-ignition temperature	: No applicable data available.
Decomposition temperature	: No applicable data available.
Viscosity, kinematic	: No applicable data available.
Viscosity, dynamic	: No applicable data available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: Stable at normal temperatures and storage conditions.
Possibility of hazardous reactions	: Reacts violently with water.
Conditions to avoid	: Avoid excessive heat.
Incompatible materials	: Water Organic materials, nitrates, chlorates, perchlorates, carbides, picrates, strong oxidizers, Reducing agents, Powdered metals, Cyanides, sulphides
Hazardous decomposition products	: Hazardous decomposition products: Sulphur dioxide

SECTION 11. TOXICOLOGICAL INFORMATION

Sulfuric Acid

Inhalation 4 h LC50	: 0.375 mg/l , Rat Target Organs: Respiratory system Respiratory effects
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Dermal LD50	: 2,000 mg/kg , Rabbit
Oral LD50	: 2,140 mg/kg , Rabbit
Skin irritation	: Corrosive after 3 minutes or less of exposure, Rabbit
Eye irritation	: Corrosive, Rabbit
Skin sensitization	: Does not cause skin sensitisation., Not tested on animals Does not cause respiratory sensitisation., human
Repeated dose toxicity	: Inhalation Rat - 28 dMethod: OECD Test Guideline 412 No toxicologically significant effects were found.
Carcinogenicity	: Suspected human carcinogens An increased risk of cancer in humans has been shown in workplace-based studies.
Mutagenicity	: Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.
Reproductive toxicity	: No toxicity to reproduction Evidence suggests the substance is not a reproductive toxin in animals.
Teratogenicity	: Animal testing showed no developmental toxicity.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

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Material	IARC	NTP	OSHA
Sulfuric Acid	1	X	

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Sulfuric Acid

96 h LC50	:	Lepomis macrochirus (Bluegill sunfish) 16 mg/l
72 h ErC50	:	Desmodesmus subspicatus (green algae) > 100 mg/l OECD Test Guideline 201
48 h EC50	:	Daphnia magna (Water flea) > 100 mg/l OECD Test Guideline 202
65 d	:	NOEC Fish (unspecified species) 0.025 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product : In accordance with local and national regulations. Discarded material is a RCRA Hazardous Waste.

Contaminated packaging : No applicable data available.

SECTION 14. TRANSPORT INFORMATION

DOT	UN number	:	1830
	Proper shipping name	:	Sulfuric acid
	Class	:	8
	Packing group	:	II
	Labelling No.	:	8
IATA_C	UN number	:	1830

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IMDG	Proper shipping name	: Sulphuric acid
	Class	: 8
	Packing group	: II
	Labelling No.	: 8
	UN number	: 1830
	Proper shipping name	: SULPHURIC ACID
	Class	: 8
	Packing group	: II
Labelling No.	: 8	

SECTION 15. REGULATORY INFORMATION

TSCA : On the inventory, or in compliance with the inventory

SARA 313 Regulated Chemical(s) : Sulfuric Acid

Sulfuric Acid

PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Sulfuric Acid

NJ Right to Know Regulated Chemical(s) : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Sulfuric Acid

SARA Reportable Quantity : 1000 lbs
Based on the percentage composition of this chemical in the product.: Sulphuric acid

California Prop. 65 : WARNING! This product contains a chemical or chemicals known to the State of California to cause cancer. Sulfuric Acid

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SECTION 16. OTHER INFORMATION

Revision Date : 08/01/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Significant change from previous version is denoted with a double bar.

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SAFETY DATA SHEET

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System.

THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD)

IMPORTANT: Read this SDS before handling & disposing of this product.
Pass this information on to employees, customers, & users of this product.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

PRODUCT IDENTITY: SS-LAGOON SHADE
COMPANY IDENTITY: S & S Supplies, Inc.
COMPANY ADDRESS: 10368 Mammoth Drive
COMPANY CITY: Baton Rouge, LA 70814
COMPANY PHONE: 1-225-924-3405
EMERGENCY PHONES: CHEMTREC: 1-800-424-9300 (USA)
CANUTEC: 1-613-996-6666 (CANADA)



SECTION 2. HAZARDS IDENTIFICATION

CAUTION

HAZARD STATEMENTS:

H100s = General, H200s = Physical, H300s = Health, H400s = Environmental

H315 Causes skin irritation.

H320 Causes eye irritation.

PRECAUTIONARY STATEMENTS:

P100s = General, P200s = Prevention, P300s = Response, P400s = Storage, P500s = Disposal

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION.

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL	CAS#	EINECS#	VOL %
Water	7732-18-5	231-791-2	60-80
Acid Blue 9	3844-45-9	-	20-40

SECTION 4. FIRST AID MEASURES

EYE CONTACT:

For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:

In case of contact with skin immediately remove contaminated clothing.
Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING:

Rinse mouth. Do NOT give liquids to an unconscious or convulsing person.

SECTION 5. FIRE FIGHTING MEASURES

FIRE & EXPLOSION PREVENTIVE MEASURES

Isolate from oxidizers.

EXTINGUISHING MEDIA

Foam, carbon dioxide, dry chemical, or water spray extinguishing media.

SPECIAL FIRE FIGHTING PROCEDURES

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used.
Do not enter confined fire-space without full bunker gear.
(Helmet with face shield, bunker coats, gloves & rubber boots).
Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES

Closed containers may explode if exposed to extreme heat.
Applying to hot surfaces requires special precautions.

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE MEASURES:

Keep unprotected personnel away.
Wear appropriate personal protective equipment given in Section 8.

ENVIRONMENTAL PRECAUTIONS:

Keep from entering storm sewers and ditches which lead to waterways.

CONTAINMENT AND CLEAN-UP MEASURES:

Stop spill at source. Dike and contain.
Collect leaking & spilled liquid in sealable containers as far as possible.

SECTION 7. HANDLING AND STORAGE

HANDLING

Use only with adequate ventilation. Avoid prolonged or repeated contact with skin.
Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

STORAGE

Do not store above 49 C/120 F.
Keep container tightly closed & upright when not in use to prevent leakage.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MATERIAL	CAS#	EINECS#	TWA (OSHA)	TLV (ACGIH)
Water	7732-18-5	231-791-2	None Known	None Known
Acid Blue 9	3844-45-9	-	None Known	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

VENTILATION

LOCAL EXHAUST: Necessary MECHANICAL (GENERAL): Acceptable
SPECIAL: None OTHER: None
Please refer to ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

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PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	Dark Blue Liquid
ODOR:	None
ODOR THRESHOLD:	Not Available
pH (Neutrality):	Not Available
MELTING POINT/FREEZING POINT:	Not Available
BOILING RANGE (IBP,50%,Dry Point):	Not Available
FLASH POINT (TEST METHOD):	Not Available
EVAPORATION RATE (n-BUTYL ACETATE=1):	Not Available
FLAMMABILITY CLASSIFICATION:	Not Available
LOWER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
UPPER FLAMMABLE LIMIT IN AIR (% by vol):	Not Available
VAPOR PRESSURE (mm of Hg)@20 C	Not Available
VAPOR DENSITY (air=1):	Not Available
GRAVITY @ 68/68F / 20/20C:	
SPECIFIC GRAVITY (Water=1):	1.1 - 1.2
POUNDS/GALLON:	9 - 10
WATER SOLUBILITY:	Appreciable
PARTITION COEFFICIENT (n-Octane/Water):	Not Available
AUTO IGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available

SECTION 10. STABILITY & REACTIVITY

STABILITY

Stable under normal conditions.

CONDITIONS TO AVOID

Isolate from extreme heat and open flame.

MATERIALS TO AVOID

Isolate from oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of Carbon and Nitrogen from burning.

HAZARDOUS POLYMERIZATION

Will not occur.

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
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SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS

EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis.
Primary irritation to eyes, redness, tearing, blurred vision.
Solid can cause eye irritation. Wash thoroughly after handling.

INHALATION:

Vapor harmful.

SWALLOWING:

Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:

None Known.

CHRONIC HAZARDS

CANCER, REPRODUCTIVE & OTHER CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

SECTION 11. TOXICOLOGICAL INFORMATION (CONTINUED)

IRRITANCY OF PRODUCT: This product is irritating to contaminated tissue.

SENSITIZATION TO THE PRODUCT: No component of this product is known to be a sensitizer.

MUTAGENICITY: This product is not reported to produce mutagenic effects in humans.

EMBRYOTOXICITY: This product is not reported to produce embryotoxic effects in humans.

TERATOGENICITY: This product is not reported to produce teratogenic effects in humans.

REPRODUCTIVE TOXICITY: This product is not reported to cause reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generational lines. An embryotoxin is a chemical which causes damage to a developing embryo (such as: within the eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with the reproductive process.

MAMMALIAN TOXICITY INFORMATION

No mammalian information is available on this product.

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PRODUCT IDENTITY: SS-LAGOON SHADE

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SECTION 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

EFFECT OF MATERIAL ON PLANTS AND ANIMALS:

This product may be harmful or fatal to plant and animal life if released into the environment. Refer to Section 11 (Toxicological Information) for further data on the effects of this product's components on test animals.

EFFECT OF MATERIAL ON AQUATIC LIFE:

No aquatic environmental information is available on this product.

MOBILITY IN SOIL

Mobility of this material has not been determined.

DEGRADABILITY

This product is completely biodegradable.

ACCUMULATION

Bioaccumulation of this product has not been determined.

SECTION 13. DISPOSAL CONSIDERATIONS

Processing, use or contamination may change the waste management options. Recycle / dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

SECTION 14. TRANSPORT INFORMATION

DOT/TDG SHIP NAME: Not Regulated
DRUM LABEL: None
IATA / ICAO: Not Regulated
IMO / IMDG: Not Regulated
EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

SECTION 15. REGULATORY INFORMATION

EPA REGULATION:

SARA SECTION 311/312 HAZARDS: None Known

All components of this product are on the TSCA list.

This material contains no known products restricted under SARA Title III, Section 313 in amounts greater or equal to 1%.

STATE REGULATIONS:

CALIFORNIA SAFE DRINKING WATER & TOXIC ENFORCEMENT ACT (PROPOSITION 65):

This product contains no chemicals known to the State of California to cause cancer or reproductive toxicity.

INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries:

Australia (AICS), Canada (DSL or NDSL), China (IECSC), Europe (EINECS, ELINCS),
Japan (METI/CSCL, MHLW/ISHL), South Korea (KECI), New Zealand (NZIoC),
Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

D2B: Irritating to skin / eyes.

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 1, FLAMMABILITY: 0, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals
trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware
of all hazards of this material (as stated in this SDS) before handling it.

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness
for a specific use, with respect to the product or the information provided herein,
except for conformation to contracted specifications. All information appearing herein
is based upon data obtained from manufacturers and/or recognized technical sources.
While the information is believed to be accurate, we make no representations as to its
accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for
verifying the data under their own operating conditions to determine whether the product
is suitable for their particular purposes and they assume all risks of their handling,
and disposal of the product. Users also assume all risks in regards to the publication
or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to
its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 04/01/2020.

ExxonMobil Chemical Company
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil
Chemical

October 25, 2023

Mr. Michael Lindner (MC-148)
Water Quality Division, Industrial Permits Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

**Re: Notification of the Use of a Treatment Chemical
TPDES Permit No. WQ0002546000**

RECEIVED
DEC 06 2023
TCEQ CENTRAL FILE ROOM

Dear Mr. Lindner:

In accordance with "Other Requirements, Provision 7" of the subject TPDES permit, Exxon Mobil Mont Belvieu Plastics Plant is submitting notification, that as of October 25, 2023 the periodic addition of the treatment chemical, SS-Lagoon Shade™ concluded.

As required by the aforementioned provision of the TPDES permit, ExxonMobil will *"maintain a log of the dye/colorant based treatment chemicals used and of the discharge from the surface impoundments that have been treated."* If you have any questions regarding this submittal, please call me at (281) 868-0204.

Sincerely,



Nick Lowe, EIT
Baytown Area Water Advisor

RECEIVED

OCT 31 2023

WATER QUALITY DIVISION
TCEQ

cc:

Mr. Westin Massey (Region 12)
Water Section
Texas Commission on Environmental Quality
5425 Polk Street, Suite H
Houston, Texas 77023-1452

ExxonMobil Chemical Company
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

Nate

IND-02546-PA-2023

ExxonMobil
Chemical

June 20, 2023

CERTIFIED MAIL # 7022 1670 0001 4500 6630
TCEQ Water Quality Division
Water Quality Standards Team (MC-150)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Freshwater Biomonitoring for Reporting Period 2Q23
TPDES No. WQ0002546000
Customer No. 600123939
Regulated Entity No. 102501020

RECEIVED

SEP 28 2023

TCEQ CENTRAL FILE ROOM

Dear Mr. Pfeil:

ExxonMobil Chemical Company Mont Belvieu Plastics Plant is submitting the chronic biomonitoring results for the reporting period April 1, 2023 to June 30, 2023.

If you have any questions, please contact Mesha Gardner at 346-424-5029 or mesha.c.gardner@exxonmobil.com.

Sincerely,

Mesha C. Gardner

Mesha C. Gardner
Baytown Area Water Advisor

RECEIVED

JUN 26 2023

WATER QUALITY DIVISION
TCEQ

cc: Env. File Room

ExxonMobil Product Solutions
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil
Chemical

March 03, 2023

CERTIFIED MAIL # 7021 2720 0002 2226 4832

Mr. Michael Lindner (MC-148)
Water Quality Division, Industrial Permits Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

**Re: Notification of the Use of a Treatment Chemical
TPDES Permit No. WQ0002546000**

Dear Mr. Lindner:

In accordance with Other Requirements, Provision 7 of the subject TPDES permit, Exxon Mobil Corporation (ExxonMobil) is submitting this initial notification of intent to add a treatment chemical, SS-Lagoon Shade™, on a periodic basis, to the wastewater system to control algae growth within the wastewater system at the Mont Belvieu Plastics Plant (MBPP).

Algae growth in the wastewater system occurs periodically in warmer conditions and may necessitate algae control in order to assure compliance with the limits and conditions in the subject TPDES permit. Since algae growth may require application of this chemical more frequently than every 5 days, we are notifying the TCEQ with this communication that we will use the chemical to control algae, as needed, until a time when it is determined that periodic treatment can conclude.

The application of the treatment chemical will commence on March 10, 2023 and began discharging as early as March 11, 2023. A separate notice will be sent when the treatment period is over and the chemical discharge has ceased for the year. If you have any questions regarding this submittal, please call me at 832-864-4924.

Sincerely,



Jessica Eastburn
Environmental Advisor

cc: **CERTIFIED MAIL # 7021 2720 0002 2226 4849**
Mr. Westin Massey (Region 12)
Water Section
Texas Commission on Environmental Quality
5425 Polk Street, Suite H,
Houston, Texas 77023-1452

RECEIVED

MAR 27 2023

TCEQ
CENTRAL FILE ROOM

RECEIVED

MAR 06 2023
WATER QUALITY DIVISION
TCEQ

COMPANY IDENTITY: S & S Supplies, Inc.
PRODUCT IDENTITY: SS-LAGOON SHADE

SDS DATE: 04/01/2017
ORIGINAL: 12/11/2015

SECTION 16. OTHER INFORMATION

HAZARD RATINGS:

HEALTH (NFPA): 1, HEALTH (HMIS): 1, FLAMMABILITY: 0, PHYSICAL HAZARD: 0
(Personal Protection Rating to be supplied by user based on use conditions.)
This information is intended solely for the use of individuals
trained in the NFPA & HMIS hazard rating systems.

EMPLOYEE TRAINING

See Section 2 for Risk & Safety Statements. Employees should be made aware
of all hazards of this material (as stated in this SDS) before handling it.

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness
for a specific use, with respect to the product or the information provided herein,
except for conformation to contracted specifications. All information appearing herein
is based upon data obtained from manufacturers and/or recognized technical sources.
While the information is believed to be accurate, we make no representations as to its
accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for
verifying the data under their own operating conditions to determine whether the product
is suitable for their particular purposes and they assume all risks of their handling,
and disposal of the product. Users also assume all risks in regards to the publication
or use of, or reliance upon information contained herein.

This information relates only to the product designated herein, and does not relate to
its use in combination with any other material or process.

Unless updated, the Safety Data Sheet is valid until 04/01/2020.

ExxonMobil Chemical Company
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil
Chemical

October 25, 2023

Mr. Michael Lindner (MC-148)
Water Quality Division, Industrial Permits Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

**Re: Notification of the Use of a Treatment Chemical
TPDES Permit No. WQ0002546000**

RECEIVED
DEC 06 2023
TCEQ CENTRAL FILE ROOM

Dear Mr. Lindner:

In accordance with "Other Requirements, Provision 7" of the subject TPDES permit, Exxon Mobil Mont Belvieu Plastics Plant is submitting notification, that as of October 25, 2023 the periodic addition of the treatment chemical, SS-Lagoon Shade™ concluded.

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Sincerely,



Nick Lowe, EIT
Baytown Area Water Advisor

RECEIVED

OCT 31 2023

WATER QUALITY DIVISION
TCEQ

cc:

Mr. Westin Massey (Region 12)
Water Section
Texas Commission on Environmental Quality
5425 Polk Street, Suite H
Houston, Texas 77023-1452

ExxonMobil Chemical Company
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil
Chemical

June 20, 2023

CERTIFIED MAIL # 7022 1670 0001 4500 6630

TCEQ Water Quality Division
Water Quality Standards Team (MC-150)
P.O. Box 13087
Austin, Texas 78711-3087

Re: Freshwater Biomonitoring for Reporting Period 2Q23
TPDES No. WQ0002546000
Customer No. 600123939
Regulated Entity No. 102501020

RECEIVED

SEP 28 2023

TCEQ CENTRAL FILE ROOM

Dear Mr. Pfeil:

ExxonMobil Chemical Company Mont Belvieu Plastics Plant is submitting the chronic biomonitoring results for the reporting period April 1, 2023 to June 30, 2023.

If you have any questions, please contact Mesha Gardner at 346-424-5029 or mesha.c.gardner@exxonmobil.com.

Sincerely,

Mesha C. Gardner

Mesha C. Gardner
Baytown Area Water Advisor

RECEIVED

JUN 26 2023

WATER QUALITY DIVISION
TCEQ

cc: Env. File Room

L:\MBP\MBP\ENV\300 Water Series\303 AGENCY REQUIRED REPORTING\303.2
Biomonitoring - quarterly and semiannual\~Effluent Sampling_WET Compliance\2023
Toxicity\2Q23

BIOMONITORING REPORT

Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TESTPermittee: ExxonMobil - Mont Belvieu Plastics PlantPermit No.: 02546Outfall No.: 001

	Date/Time	Date/Time
Dates and times	FROM: <u>5/14/2023 @ 12:00</u>	TO: <u>5/15/2023 @ 11:00</u>
Composites were collected:	FROM: <u>5/16/2023 @ 11:00</u>	TO: <u>5/17/2023 @ 10:00</u>
	FROM: <u>5/18/2023 @ 10:00</u>	TO: <u>5/19/2023 @ 09:00</u>

Test Initiation: Time: 15:30 Date: 5/16/2023Dilution Water Used: ☐ Receiving Water ☒ Synthetic Dilution WaterNUMBER OF YOUNG PRODUCED PER ADULT AT TEST TERMINATION

REPLICATE	EFFLUENT CONCENTRATION (%)					
	0%	30 %	41 %	54 %	75 %	100 %
A	32	25	23	23	19	36
B	29	35	33	29	28	27
C	32	24	27	36	24	24
D	28	27	30	36	29	29
E	36	20	29	27	32	22
F	26	35	15	23	22	44
G	21	29	32	26	28	36
H	27	35	18	33	22	24
I	21	43	27	25	30	19
J	19	24	38	23	25	24
Surv. MEAN	27.1	29.7	27.2	28.1	25.9	28.5
Total MEAN	27.1	29.7	27.2	28.1	25.9	28.5
CV % ¹	20.3	23.8	25.5	18.4	16	27.3
PMSD	Acceptable Range 47 or Less					23.8 %

¹ Coefficient of Variation = (standard deviation/mean) x 100) Calculations are based on young of the surviving females. Males are designated (M), and dead females are designated (D) along with the number of neonates released prior to death.

Table 1 (Sheet 2 of 2)
BIOMONITORING REPORT

Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

Permittee: ExxonMobil - Mont Belvieu Plastics Plant
Permit No.: '02546
Outfall No.: 001

PERCENT SURVIVAL

Time of Reading	EFFLUENT CONCENTRATION (%)					
	0%	30 %	41 %	54 %	75 %	100 %
24 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
48 HOURS	100.0	100.0	100.0	100.0	100.0	100.0
7-DAY	100.0	100.0	100.0	100.0	100.0	100.0

1. Is the IC25 for reproduction less than the critical dilution?

CRITICAL DILUTION (97 %) : _____ YES _____ ☒ NO

If you report NO, enter a '0' on the DMR form for Parameter No. T5P3B, other wise enter a '1'. This parameter is also referred to as the IC25 Low Flow Pass/Fail Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia.

2. Is the IC25 for survival less than the critical dilution?

CRITICAL DILUTION (97 %) : _____ YES _____ ☒ NO

If you report NO, enter a '0' on the DMR form for Parameter No. T4P3B, other wise enter a '1'. This parameter is also referred to as the IC25 Low Flow Pass/Fail Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia.

3. Enter the percent effluent corresponding to the IC25 below:

- a. IC25 Survival = >100 % Effluent (Parameter T6P3B)
b. IC25 Reproduction = >100 % Effluent (Parameter T7P3B)

Q* refers to a value that is not calculable

ExxonMobil Product Solutions
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil
Chemical

March 03, 2023

CERTIFIED MAIL # 7021 2720 0002 2226 4832

Mr. Michael Lindner (MC-148)
Water Quality Division, Industrial Permits Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

**Re: Notification of the Use of a Treatment Chemical
TPDES Permit No. WQ0002546000**

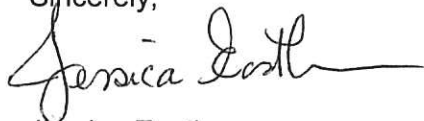
Dear Mr. Lindner:

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Sincerely,



Jessica Eastburn
Environmental Advisor

cc: **CERTIFIED MAIL # 7021 2720 0002 2226 4849**
Mr. Westin Massey (Region 12)
Water Section
Texas Commission on Environmental Quality
5425 Polk Street, Suite H,
Houston, Texas 77023-1452

RECEIVED

MAR 27 2023

TCEQ
CENTRAL FILE ROOM

RECEIVED

MAR 06 2023
WATER QUALITY DIVISION
TCEQ

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Matthew Kennington, Team Leader
Industrial Permits Team, Wastewater Permitting Section

DATE: October 10, 2024

Thru: Peer Reviewer: Chris Linendoll,
Industrial Permits Team, Wastewater Permitting Section

From: Thomas E. Starr, Permit Writer
Industrial Permits Team, Wastewater Permitting Section

Subject:

Applicant:	Exxon Mobil Corporation			
Facility Name:	Mont Belvieu Plastics Plant			
<input checked="" type="checkbox"/> TPDES	<input type="checkbox"/> TCEQ	WQ0002546000	EPA ID. No.	TX0089125
Industrial:	<input type="checkbox"/> Minor	<input checked="" type="checkbox"/> Major		
Toxic Rating:	5	Stream Segment:	0902	
Received:	December 27, 2023	Administratively Complete:	February 15, 2024	
Assigned:	July 23, 2024	To Team Leader:	October 10, 2024	
Tech Complete:				

ATTACHMENTS:	State-Only	TPDES
New	<input type="checkbox"/>	<input type="checkbox"/>
Renewal	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Major Amendment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Staff Initiated Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Fact Sheet	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SOB/Technical Summary	<input type="checkbox"/>	<input type="checkbox"/>

RATIONALE Used to Draft Permit:		
<input checked="" type="checkbox"/>	Federal Guidelines:	414, Subpart D, Thermoplastic Resins and Subpart J
<input type="checkbox"/>	Waste Load Evaluation:	
<input checked="" type="checkbox"/>	TCEQ Rules:	30 TAC Chapters 305, 307, and 319
<input checked="" type="checkbox"/>	Existing Permit(s):	WQ0002546000, issued July 2, 2019
<input checked="" type="checkbox"/>	Other:	<i>Procedures to Implement the Texas Surface Water Quality Standards, BPJ</i>

Company's Rep: Ms Jessica Eastburn

Phone #: 832-864-4924

Email: jessica.a.eastburn@exxonmobil.com

Known Opposition: ☐ Yes ☒ No

If yes, briefly explain: _____

Comments: None.

☐ Permit is **reclassified** per the major/minor determination worksheet. ARP Team to be notified during ED Sub.

INDUSTRIAL EPA REVIEW CHECKLIST

Permittee Name: Exxon Mobil Corporation

Permittee Number: WQ0002546000

IS THIS A MINOR AMENDMENT WITHOUT RENEWAL?

- ☐ **EPA review is waived per the MOA**, because this is a minor amendment without renewal. SKIP TO THE END.

For all other application types, check all that apply:

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge to territorial seas (within 3 miles of the coastline) of the United States? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge or sewage sludge management may affect another state or the Republic of Mexico? For sewage sludge management, "may affect" means accepts sewage sludge from another state or Mexico. For discharge, it means a discharge within 3 miles of a boundary with another state or Mexico. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge of uncontaminated cooling tower blowdown with a permitted daily average flow >500 MGD? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge from a designated major facility? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge from a categorical industry as listed in 40 CFR Part 122, Appendix A? (see Attachment A) <i>with wastestreams subject to federal ELGs?</i> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from source other than a categorical industry as listed in 40 CFR Part 122, Appendix A with a permitted daily average flow >0.5 MGD, except for facilities that discharge non-process wastewater? Non-process wastewater is water that (during manufacturing or processing) does not come into direct contact with, or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | minor facility discharge to critical concern species watersheds (see WQ Standards review) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (Prior to a final TMDL) discharge from a new or expanding facility to a 303(d) listed segment which has the potential to discharge any pollutant which is causing or contributing to the impairment of the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) discharge from a new or expanding discharge to a 303(d) listed segment where the TMDL does not allocate the loadings described in the draft permit? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) a permit with effluent limits which allow loadings in excess of those prescribed by the TMDL for the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) permit allows a three-year compliance schedule for limits based on the TMDL allocations? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the main purpose of the facility to desalinate either seawater or salty ground water? |

Per the screening above, choose one:

- ☒ **Yes, EPA review is required.** ☐ No, EPA review is not required.

Thomas E. Starr, P.E.

Permit Writer's Name

October 10, 2024

Date

ATTACHMENT A

PRIMARY INDUSTRIAL CATEGORIES

Adhesives and sealants.....	N/A
Aluminum forming.....	Part 467
Auto and other laundries.....	N/A
Battery and manufacturing.....	Part 461
Coal mining.....	Part 434
Coil coating.....	Part 465
Copper forming.....	Part 468
Electrical and electronic components.....	Part 469
Electroplating.....	Part 413
Explosives manufacturing.....	Part 457
Foundries.....	N/A
Gum and wood chemicals.....	Part 454
Inorganic chemicals manufacturing.....	Part 415
Iron and steel manufacturing.....	Part 420
Leather tanning and finishing.....	Part 425
Mechanical products manufacturing.....	N/A
Nonferrous metals manufacturing.....	Part 421
Ore mining.....	Part 440
Organic chemicals manufacturing.....	Part 414
Paint and ink formulation.....	Part 446
Pesticides.....	Part 455
Petroleum refining.....	Part 419
Pharmaceutical preparation.....	Part 439
Photographic equipment and supplies.....	Part 459
Plastics processing.....	Part 463
Plastic and synthetic material manufacturing.....	Part 414
Porcelain enameling.....	Part 466
Printing and publishing.....	N/A
Pulp and paper mills.....	Part 430
Rubber processing.....	Part 428
Soap and detergent manufacturing.....	Part 417
Steam electric power plants.....	Part 423
Textile mills.....	Part 410
Timber products processing.....	Part 429

Request for Comments – Draft Conditions

TCEQ – Water Quality Division

Phone: (512) 239-4671

Fax: (512) 239-4430

Mailing Address: TCEQ, Water Quality Division, P.O. Box 13087, Austin, TX 78711-3087

TO: Region 12

Submitted by: Thomas E. Starr, P.E. **E-Mail ID:** thomas.starr@tceq.texas.gov **Phone:** (512) 239-4570

Date request submitted:

Comments deadline: within 7 calendar days

Date application received by TCEQ in Austin: December 27, 2023

REGIONAL OFFICES: The entity below has submitted an application for the project referenced below in accordance with regulations of the TCEQ. Please return comments ASAP, but no later than the comments deadline which is 7 calendar days from the submittal date. Permit disposition will proceed after comments are received or after the comments deadline has passed. If no comments are received within this time frame, we will assume you have no comments or objections to the project as proposed. Please return a complete copy of the form (both sides) with your comments.

Project type: Major amendment with renewal

Team assigned: Industrial

TPDES/TLAP: TPDES

Regulated Entity No.: RN102501020

Permit No.: WQ0002546000

Company name: Exxon Mobil Corporation

Customer Reference No.:
CN600123939

Facility name: Mont Belvieu Plastics Plant

Address: 13330 Hatcherville Road, Mont Belvieu, Texas 77521

Segment: 0902

County: Chambers

Technical contact: Ms Jessica Eastburn

Phone: 832-864-4924

Major/Minor: Major

Compliance rating: Customer – Satisfactory (6.31) / Site – Satisfactory (2.66)

Summary of application request:

Major amendment with renewal for removal of the limits/conditions for C. dubia 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7 relating to treatment chemicals in impoundments .

Permit writer comments: See section on changes to existing permit in Fact Sheet.

**Request for Comments -- Draft Permit
RESPONSE**

TO: Permit Writer, Thomas E. Starr, P.E.

FROM:

Region:

Copy of Application Received by your Office: ☐ YES ☐ NO Date Received: _____

COMPANY NAME: Exxon Mobil Corporation

PERMIT NO.: WQ0002546000

REGULATED ENTITY NO: RN102501020

Investigator's/Compliance Officer's Name (Please Print): _____

Phone: _____

Comments Deadline (from pg. 1):

Date of Last Site Visit: _____

COMMENTS ON CONDITIONS: (Please mark up draft special conditions with your comments. Please address applicability and enforceability. List any additional conditions below):

Compliance Determination Conditions: _____

Operational Limitations: _____

GENERAL COMMENTS: _____

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Ms Jessica Eastburn, BTA Environmental Water Advisor
Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

Re: Exxon Mobil Corporation
Draft TPDES Permit No. WQ0002546000, EPA ID No. TX0089125
(CN600123939), (RN102501020)

Dear Ms Eastburn:

A draft permit and fact sheet for the above-referenced operation are enclosed for your review and comment. The drafts are subject to further staff review and modification; however, they generally include the terms and conditions that are appropriate for your discharge. **Please read the entire draft carefully, because there are changes from the existing permit.** Also enclosed for your review and comment is a copy of the draft second notice, the Notice of Application and Preliminary Decision. Please provide comments if there are inaccuracies or information that is not consistent with your application. After the draft permit is filed with the Office of the Chief Clerk, you will receive instructions for publishing this notice in a newspaper, unless notice is only required in the *Texas Register*.

Please submit your comments before the deadline provided in the e-mail. If your comments are not received by the deadline, the draft permit will be transferred to the Office of the Chief Clerk and comments received after the deadline will not be considered.

This application was declared administratively complete on February 15, 2024. Please note, a translated copy of the NAPD in the alternative language must be submitted with your comments on the draft permit. If a translated NAPD is not received, the draft permit cannot be filed with the Office of the Chief Clerk. For notice templates in Spanish, please visit:

https://www.tceq.texas.gov/permitting/wastewater/review/napd/wqspanish_napd.html.

If you have comments or questions, please contact me before the comment deadline at (512) 239-4570, by e-mail at thomas.starr@tceq.texas.gov, or, if by correspondence, include "MC 148" following my name in the letterhead address.

Sincerely,

Thomas Starr

Thomas E. Starr, P.E.
Wastewater Permitting Section
Water Quality Division

TES
Enclosure

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Date, 2025

Ms. Jessica Eastburn, BTA Environmental Water Advisor
Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

RE: Notice of Preliminary Decision and Draft Permit
Applicant Name: Exxon Mobil Corporation
Facility Name: Mont Belvieu Plastics Plant
Permit No.: WQ0002546000
Customer Reference Number: CN600123939
Regulated Entity Number: RN102501020
Type of Application: Major amendment with renewal

Dear Ms. Eastburn:

The executive director has completed the technical review of the above referenced application, received on December 27, 2023 and has prepared a preliminary decision and draft permit.

You are now required to publish another notice of your proposed activity. To help you meet the requirements associated with this notice, we have included the following items:

Instructions for Public Notice
Notice for Newspaper Publication
Publisher's Affidavits
Draft Permit
Executive Director's Preliminary Decision
Public Notice Verification Form

You must follow all the directions in the enclosed instructions. The most common mistakes are the unauthorized changing of notice, wording, or font. If you fail to follow these instructions, you may be required to republish the notices.

The following requirements are also described in the enclosed instructions. However, due to their importance, they are highlighted here as well.

1. You must publish the enclosed notice within as soon as possible, but no later than 45 days from the date on the cover letter. **You may be required to publish the notice in more than one newspaper, including a newspaper published in an alternative language, to satisfy all of the notice requirements.**

2. On or before the date you publish notice, you must place the following items in a public place in the county where the facility is or will be located.
 - (a) a copy of your permit application, including any subsequent revisions;
 - (b) the executive director's preliminary decision as contained in the fact sheet; and
 - (c) the draft permit, including any subsequent revisions.

These items must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place until the commission has taken action on the application or the commission refers issues to the State Office of Administrative Hearings.

3. For each publication, submit proof of publication of the notice that shows the publication date and newspaper name to the Office of the Chief Clerk within **30 calendar days** after notice is published in the newspaper.
4. Return the original enclosed Public Notice Verification and the Publisher's Affidavits to the Office of the Chief Clerk within **30 calendar days** after the notice is published in the newspaper.

If you do not comply with **all** the requirements described in the instructions, further processing of your application may be suspended or the agency may take other actions.

If you have any questions regarding publication requirements, please contact the Office of Legal Services at (512) 239-0600. If you have any questions regarding the content of the notice, please contact the individual in the permitting area assigned to your application.

Sincerely,

Laurie Gharis
Chief Clerk
Office of the Chief Clerk

LG/TES/CIA team member initials

Enclosures

Ms. Eastburn Page 3
Date, 2025
Permit No. WQ0002546000

bcc: TCEQ Region 12, Water Program Manager

Brooke T. Paup, *Chairwoman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Date, 2025

Ms. Jessica Eastburn, BTA Environmental Water Advisor
Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

RE: Permit Application
Permit No.: WQ0002546000
Exxon Mobil Corporation
Mont Belvieu Plastics Plant
Mont Belvieu, Chambers County
Customer Reference Number: CN600123939
Regulated Entity Number: RN102501020

Dear Ms. Eastburn:

The Texas Commission on Environmental Quality (TCEQ) has made a preliminary decision on the above-referenced permit applications. In accordance with Title 30 Texas Administrative Code § 39.419(b), you are now required to publish Notice of Application and Preliminary Decision. You must provide a copy of the preliminary decision letter with the draft permit at the public place referenced in the public notice.

If you have any questions, please contact Thomas E. Starr at 512-239-4570, by email at thomas.starr@tceq.texas.gov, or write to the TCEQ, Office of Water, Water Quality Division, MC-148, Austin, Texas, 78711-3087.

Sincerely,

Matthew Udenenwu
Section Manager, Wastewater Permitting
Office of Water

MU/TES/CIA team member initials

Enclosures

cc: TCEQ Region 12, Water Program Manager

AGENDA CAPTION FOR PERMIT NO. WQ0002546000

Exxon Mobil Corporation, which operates Mont Belvieu Plastics Plant, a polyethylene manufacturing and catalyst production facility, has applied for a major amendment of Texas Pollutant Discharge Elimination System Permit No. WQ0002546000 to remove the limits/conditions for *C. dubia* 7-day lethal and sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7 relating to treatment chemicals in impoundments. The draft permit authorizes the discharge of process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastes, and stormwater at a daily average flow not to exceed 5,013,000 gallons per day via Outfall 001. The facility is located at 13330 Hatcherville Road, in the City of Mont Belvieu, Chambers County, Texas 77521.

Senate Bill 709 (84th Legislative Session, 2015) amended the Texas Water Code by adding new Section 5.5553, which requires the Texas Commission on Environmental Quality (TCEQ) to provide written notice to you at least thirty (30) days prior to the TCEQ's issuance of draft permits for applications that are located in your district.

Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, which owns a polyethylene manufacturing and catalyst production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000 (EPA I.D. No. TX0089125) to authorize the removal of the limits/conditions for C. dubia 7-day lethal whole effluent toxicity for Outfall 001, to remove of the limits/conditions for C. dubia 7-day sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7. The facility is located at 13330 Hatcherville Road, Mont Belvieu, in Chambers County, Texas 77521. The discharge route is from the plant site directly to Cedar Bayou Above Tidal. TCEQ received this application on December 27, 2023. The permit application will be available for viewing and copying at West Chambers County Branch Library, 10616 Eagle Drive, Mont Belvieu, in Chambers County, Texas, and Dayton Police Department, 111 North Church Street, Dayton, in Liberty County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

TCEQ is preparing the initial draft permit. At the time the draft permit is issued, the applicant will be required to publish notice in a newspaper of general circulation, and the TCEQ will provide a copy of the notice of draft permit to persons who have requested to be on a mailing list.

Questions regarding this application may be directed to Mr. Matthew Kennington by calling 512-239-4524.

Issuance Date: _____

CMP THRESHOLD REVIEW SHEET
INDUSTRIAL WASTEWATER DISCHARGE PERMITS

PERMITTEE: Exxon Mobil Corporation
TPDES PERMIT NO.: WQ0002546000
CLASSIFIED SEGMENT: _____
NAME: Cedar Bayou Above Tidal
NUMBER: 0902
COUNTY: Chambers

Is the facility located within the Coastal Zone?

Yes ☐ No ☒

If "Yes," complete Section A and, if directed to do so, Section B. If "No," this worksheet is not required.

SECTION A

- | <u>Yes</u> | <u>No</u> | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. This is a new permit application which would authorize the discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. This is an amendment permit application which would authorize an increase in the mass loading of pollutants from the discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. This is an amendment permit application which would change the point of discharge of a wastewater subject to EPA Categorical Effluent Standards (40 CFR Parts 400-471) into a priority segment (see Appendix B). |

IF "YES" TO ANY OF THE ABOVE THEN THE PERMIT ACTION IS CONSIDERED ABOVE THRESHOLD, COMPLETE SECTION B.

IF "NO" TO ALL OF THE ABOVE, THEN THE PERMIT ACTION IS CONSIDERED BELOW THRESHOLD, STOP HERE.

SECTION B

- ☐ 1. The IOM from standards states that "no significant degradation of high quality receiving waters is anticipated" (if receiving water has a designated high quality aquatic life use).
- ☐ 2. The IOM from standards states that "no loss of designated uses is anticipated."
- ☐ 3. The draft permit complies with all applicable provisions of 30 TAC 307, 309, and 319.

Thomas E. Starr, P.E.
PERMIT WRITER

October 10, 2024
DATE

**30 TAC Chapter 281
APPENDIX B**

**TIDAL SEGMENTS DESIGNATED AS TCEQ PRIORITY WATERBODIES
COASTAL MANAGEMENT PROGRAM**

<u>Segment Number</u>	<u>Name</u>
2412.....	Sabine Lake
2411.....	Sabine Pass
2423.....	East Bay
2439.....	Lower Galveston Bay
0801.....	Trinity River Tidal
1113.....	Armand Bayou Tidal
2431.....	Moses Lake
2424.....	West Bay
2432.....	Chocolate Bay
2433.....	Bastrop Bay/Oyster Lake
2434.....	Christmas Bay
2435.....	Drum Bay
2442.....	Cedar Lakes
2441.....	East Matagorda Bay
2451.....	Matagorda Bay/Powderhorn Lake
2452.....	Tres Palacios Bay/Turtle Bay
2456.....	Carancahua Bay
2455.....	Keller Bay
2461.....	Espiritu Santo Bay
2462.....	San Antonio Bay/Hynes Bay/Guadalupe Bay
1801.....	Guadalupe River Tidal
2463.....	Mesquite Bay/Carlos Bay/Ayres Bay
2473.....	St. Charles Bay
2471.....	Aransas Bay
2472.....	Copano Bay/Port Bay/Mission Bay
2483.....	Redfish Bay
2482.....	Nueces Bay
2492.....	Baffin Bay/Alazan Bay/Cayo Del Grullo/Laguna Salada
2491.....	Laguna Madre
2493.....	South Bay

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0002546000

NPDES No.: TX0089125

Facility Name: Exxon Mobil Corporation

City/County: Mont Belvieu / Chambers

Receiving Water (Name/Segment No.):

Cedar Bayou Above Tidal 0902

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (no cooling pond/lake).
2. A nuclear power plant.
3. Cooling water discharge greater than 25% of the receiving waters 7Q2 flow rate.

☐ YES (score is 600, stop here).
☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ YES (score is 700, stop here).
☒ NO (continue)

FACTOR 1: Toxic Pollutant Potential

Primary SIC Code: 2821

Other SIC Codes: 2819 _____

Industrial Subcategory Code 2

Determine the Toxicity potential from Appendix A of Major-Minor Rating Instructions. Be sure to use the TOTAL toxicity potential column and check one.

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process			<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> wastestreams	0	0	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 5.	5	25	<input checked="" type="checkbox"/> 9.	9	45
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

CODE NUMBER CHECKED 9
TOTAL POINTS FACTOR 1: 45

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or B; check only one)

SECTION A - Wastewater Flow Only Considered

	Code	Points
Type I:		
Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50	<input type="checkbox"/> 14	30
Type II:		
Flow <1 MGD	<input type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III		
Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

SECTION B - Wastewater & Stream Flow Considered

	Percent Effluent @ Mixing Zone	Code	Points
Type I/III:	< 10%	<input type="checkbox"/> 41	0
	10% to 50%	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10%	<input type="checkbox"/> 51	0
	10% to 50%	<input type="checkbox"/> 52	20
	> 50%	<input checked="" type="checkbox"/> 53	30

CODE NUMBER CHECKED 53
TOTAL POINTS FACTOR 2: 30

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0002546000

FACTOR 3: Conventional Pollutants (Only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) ☒ BOD/CBOD ☒ COD ☐ Other:

Permit Limits: (check one)			Code	Points
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 3000 lbs/day		3	15
<input checked="" type="checkbox"/>	> 3000 lbs/day		4	20

B. Total Suspended Solids (TSS)

Permit Limits: (check one)			Code	Points
<input type="checkbox"/>	< 100 lbs/day		1	0
<input type="checkbox"/>	100 to 1000 lbs/day		2	5
<input checked="" type="checkbox"/>	1000 to 5000 lbs/day		3	15
<input type="checkbox"/>	> 5000 lbs/day		4	20

C. Nitrogen Pollutant: (check one) ☒ Ammonia ☐ Other:

Permit Limits: (check one)		Nitrogen Equivalent	Code	Points
<input checked="" type="checkbox"/>	< 300 lbs/day		1	0
<input type="checkbox"/>	300 to 1000 lbs/day		2	5
<input type="checkbox"/>	1000 to 3000 lbs/day		3	15
<input type="checkbox"/>	> 3000 lbs/day		4	20

CODE NUMBER CHECKED
POINTS FACTOR 3:

A	<u>4</u>		B	<u>3</u>		C	<u>1</u>	
A	<u>20</u>	+	B	<u>15</u>	+	C	<u>0</u>	= <u>35</u> Total

FACTOR 4: Public Health Impacts

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

- ☐ YES (If yes, check toxicity potential number below)
☒ NO (If no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column - check one below.)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process wastestreams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

CODE NUMBER CHECKED
TOTAL POINTS FACTOR 4:

-
0

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0002546000

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

<input checked="" type="checkbox"/> YES	Code 1	Points 10
<input type="checkbox"/> NO	Code 2	Points 0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

<input checked="" type="checkbox"/> YES	Code 1	Points 0
<input type="checkbox"/> NO	Code 2	Points 5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

<input type="checkbox"/> YES	Code 1	Points 10
<input checked="" type="checkbox"/> NO	Code 2	Points 0

CODE NUMBER CHECKED

POINT FACTOR 5:

A	<u>1</u>	B	<u>1</u>	C	<u>2</u>					
A	<u>10</u>	+	B	<u>0</u>	+	C	<u>0</u>	=	<u>10</u>	Total

FACTOR 6: Proximity to Near Coastal Waters

Base Score: Enter flow code here (from Factor 2): 53

Enter the multiplication factor that corresponds to the flow code: 0.60

Check appropriate facility HPRI Code (from PCS):

HPRI#	CODE	HPRI Score
<input type="checkbox"/> 1	1	20
<input checked="" type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	0

HPRI code checked: | 2 |

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

Base Score: (HPRI Score) 0 X (Multiplication Factor) 0.60 = 0 (Total Points)

- B. *Additional Points -- NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions and [National Estuary Program Map viewer](#))?

<input type="checkbox"/> YES	Code 1	Points 10
<input type="checkbox"/> NO	Code 2	Points 0

- C. *Additional Points -- Great Lakes Area of Concern*

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern?

<input type="checkbox"/> YES	Code 1	Points 10
<input type="checkbox"/> NO	Code 2	Points 0

CODE NUMBER CHECKED

POINT FACTOR 6:

A	<u>2</u>	B	<u>-</u>	C	<u>-</u>					
A	<u>0</u>	+	B	<u>0</u>	+	C	<u>0</u>	=	<u>0</u>	Total

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0002546000

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	45
2	Flow/Streamflow Volume	30
3	Conventional Pollutants	35
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		120

S1. Is the total score equal to or greater than 80?

- ☒ YES - Facility is a major, stop here.
☐ NO - Facility is NOT a major, proceed to S2.

S2. Do you want the facility to be designated a discretionary major?

- ☐ YES - Add 500 points to the score above and provide justification below.
☐ NO - Stop here

Justification:

Check appropriate classification:

- ☒ Major
☐ Minor
☐ Discretionary Major

Thomas E. Starr, P.E.
Permit Reviewer

512-239-4570
Phone Number

October 10, 2024
Date Reviewed

NEW SOURCE DETERMINATION WORKSHEET

PERMITTEE:	<u>Exxon Mobil Corporation</u>
TPDES PERMIT NUMBER:	<u>WQ0002546000</u>
NPDES PERMIT NUMBER:	<u>TX0089125</u>
TYPE OF INDUSTRIAL ACTIVITY:	<u>a polyethylene manufacturing and catalyst production facility</u>
SIC CODE:	<u>2821 and 2819</u>
CATEGORICAL GUIDELINES:	<u>414, Subpart D, Thermoplastic Resins and Subpart J</u>

A. NEW SOURCE DETERMINATION - SCREENING

ANSWER EITHER "YES" OR "NO" TO THE FOLLOWING QUESTIONS AND PROCEED AS DIRECTED:

1. Is there an applicable new source performance standard for this facility?

Yes ☒ No ☐ If YES, proceed to Item No. 2. If NO proceed to Section B, the facility is not a new source.
2. Was the current production facility in existence prior to the promulgation of the applicable new source performance standard?

Yes ☒ No ☐ If NO, proceed to Item No. 3. If YES proceed to Section B, the facility is not a new source.
3. This facility MAY be classified as a new source. Additional information will be required to conduct an evaluation and make a final determination. Please refer to 40 CFR 122.29.

B. NEW SOURCE DETERMINATION - DETERMINATION

PLEASE CHECK THE APPROPRIATE DETERMINATION:

- ☒ Facility IS NOT a new source. Determination made via screening in Section A above.
- ☐ Facility IS NOT a new source. Determination made via evaluation. Please see evaluation in Appendix A of the Statement of Basis/Technical Summary.
- ☐ Facility IS a new source. Determination made via evaluation. Please see evaluation in Appendix A of the Statement of Basis/Technical Summary.

Thomas E. Starr, P.E.
REVIEWER

October 10, 2024
DATE

TOXIC RATING WORKSHEET

TPDES Permit No.:	WQ0002546000		
NPDES Permit No.:	TX0089125		
Permittee:	Exxon Mobil Corporation		
Facility:	Mont Belvieu Plastics Plant		
SIC Codes:	1. 2821	2. 2819	3. 4.
40 CFR Section:	414, Subpart D, Thermoplastic Resins and Subpart J		
Toxic Rating for Facility:	5		
Permit Writer:	Thomas E. Starr, P.E.	Date: October 10, 2024	

CALCULATE TOXIC RATING FOR THE FACILITY

For each outfall listed below, list the percent contribution to the total wastewater flow from the facility and the toxic rating for the outfall.

OUTFALL No.	% Contribution	Toxic Rating	Rating × Percent
001	100	5	500
Total:			500

Toxic Rating for Facility = Total/100 = 5 (round to nearest whole #)

OUTFALL NO.: 001

List waste streams in order of percent contribution to outfall and toxic rating for each waste stream:

Description of Waste Stream	%	Toxic Rating	Rating × Percent
Process wastewater	63	6	378
Cooling tower blowdown	35.2	4	140.8
Boiler blowdown	1.1	1	1.1
Water treatment wastewaters	0.7	1	0.7

Total 100

Total: 520.6

Toxic Rating for Outfall = Total/100 = 5 (round to nearest whole #)

OUTFALL CONTAMINATION DETERMINATION

Permittee Name: Exxon Mobil Corporation

Permittee Number: WQ0002546000

Use this worksheet to make a determination for each internal and external Outfall. Enter the determination (i.e., contaminated or uncontaminated) into the space provided for each outfall.

If any box is checked "YES", the outfall is classified as "CONTAMINATED" for billing and PARIS.

If no boxes are checked "YES", the outfall is classified as "UNCONTAMINATED" for billing and PARIS.

Outfall No.: 001

Yes No

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | toxic rating is greater than or equal to three |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge requires limits based on water quality factors of the receiving stream |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge is greater than 10% (or more than 1 MGD) process wastewater |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge requires monitoring and reporting or limits for radioactive materials |

Outfall Determination: Contaminated

Thomas Starr

From: Michael Pfeil
Sent: Tuesday, March 4, 2025 9:38 AM
To: Thomas Starr
Subject: RE: WQ0002546000

Te-

I am good with the use of the derived dissolved fraction value.

Mike

From: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Sent: Friday, February 28, 2025 4:47 PM
To: Thomas Starr <Thomas.Starr@Tceq.Texas.Gov>
Cc: Michael Pfeil <michael.pfeil@tceq.texas.gov>; Gardner, Mesha Covington <mesha.c.gardner@exxonmobil.com>
Subject: RE: WQ0002546000

Mr. Starr,

Attached you will find the final report for the Mont Belvieu Plastics Plant Aluminum Partition Coefficient Study. Please let me know if this document should be submitted in another format or to a specific contact at TCEQ. Do not hesitate to reach out should you need further information or have any questions.

Kind Regards,

Jessica Eastburn
Baytown Area Water & OCS Advisor
ExxonMobil Product Solutions
BaytownWater@exxonmobil.com

Office: 832-864-4924
Cell: 832-784-4252



From: Thomas Starr <Thomas.Starr@Tceq.Texas.Gov>
Sent: Tuesday, October 22, 2024 11:50 AM
To: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Subject: WQ0002546000

Jessica,

Has the aluminum study been completed yet?

I have drafted the permit but without the results of the study an aluminum limit will need to be placed in the draft.

Thomas

Sincerely,

Thomas E. Starr, P.E.

**ALUMINUM PARTITION COEFFICIENT
STUDY REPORT
EXXONMOBIL MONT BELVIEU PLASTICS PLANT
TPDES WQ0002546000**

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OUTFALL SAMPLING AND ANALYSIS.....	3
SITE-SPECIFIC WQBELS	6

Table 1 Outfall 001 Sample Analyses

Table 2. WET Test Results

USGS Map

Appendix – Outfall 001 WET Test Reports

ALUMINUM PARTITION COEFFICIENT STUDY REPORT

EXXONMOBIL MONT BELVIEU PLASTICS PLANT TPDES WQ0002546000

INTRODUCTION

This report presents the results of a partition coefficient study for aluminum for ExxonMobil Mont Belvieu Plastics Plant's (MBPP) Outfall 001. MBPP manufactures polyethylene. Outfall 001 is authorized under TPDES WQ0002546000 to discharge process wastewater, cooling tower blowdown, boiler blowdown, water treatment wastewaters, and stormwater. The outfall discharges into Cedar Bayou Above Tidal (see USGS Map) in Segment No. 0902 of the Trinity-San Jacinto Coastal Basin. The outfall effluent is piped to Cedar Bayou from the facility's firewater/equalization basin.

Outfall analyses that were prepared for the 2023 TPDES permit renewal application showed that aluminum levels in the outfall effluent had increased since the prior renewal application in 2017. The average of the four application analyses was 1.91 milligrams per liter (mg/L), as compared to the daily average water quality-based effluent limit (WQBEL) (0.840 mg/L) that MBPP expects the TCEQ would use to screen the application data.¹

Outfall 001 data for aluminum indicate that the discharge has the potential to be greater than the WQBEL; however, this WQBEL is based on a default partition coefficient (dissolved to total metal fraction) of 1.0 set by the TCEQ. A partition coefficient of 1.0 assumes that all of the aluminum in the effluent is in the dissolved phase and is 100% bioavailable relative to toxicity effects, but this is generally not the case with actual wastewater effluents. Other partition coefficient studies of wastewater effluents in Texas have demonstrated that the fraction of dissolved aluminum is typically less than 1.0 and that site-specific WQBELs adjusted by partition coefficients are significantly higher than the default.

A partition coefficient study provides additional data to better characterize the range and variability of aluminum levels in the effluent and how a site-specific partition coefficient is acceptable to develop a site-specific aluminum water quality criterion.

The work plan for an aluminum partition coefficient study was prepared following the guidance in the TCEQ's Procedures to Implement the Texas Surface Water Quality Standards, RG-194, June 2010 (IP). The work plan was submitted to the Texas Commission on Environmental Quality (TCEQ) on December 20, 2023 for review. The TCEQ agreed with the work plan on December 21, 2023.²

¹ Based on the fact sheet for TPDES Permit No. WQ0002546000, March 27, 2019, Appendix B, Calculated Water Quality-Based Effluent Limits, pg. 27.

² Email from Michael Pfeil, TCEQ, to Dianna Kocurek, Tischler/Kocurek, December 21, 2023.

OUTFALL SAMPLING AND ANALYSIS

Effluent Dilution

The Texas water quality standards have only an acute freshwater criterion for aluminum.³ Acute criteria are applied at the edge of the zone of initial dilution (ZID). When calculating WQBELs for Outfall 001 for the 2019 TPDES permit, the TCEQ calculated a ZID of 99.36% effluent.⁴ Because the receiving water (Cedar Bayou) is such a small fraction of the ZID (0.64%), its effect on the partition coefficient is expected to be negligible. It was proposed in the work plan to use 100% effluent as the critical dilution for this study and the TCEQ agreed with this approach.

Sample Collection Points

The sample collection point for Outfall 001 was the same as the TPDES monitoring point at the outlet of the Firewater / Equalization Basin.

Number of Samples

The IP requires at least thirty (30) samples to be collected from an outfall for a complete partition coefficient study. To represent any seasonal effects in the discharge, the IP recommends that the 30 samples be collected at least a week apart (IP, pg. 161). Thirty samples of the Outfall 001 effluent were collected approximately one week apart during February – September 2024.

Sample Analyses

The effluent samples were analyzed for total and dissolved aluminum, hardness, total suspended solids, and pH. Table 1 summarizes the analytical results and effluent flow for each sample date. Flow measurement at the time of sample collection was taken from the Outfall 001 continuous meter and pH from the regular Outfall 001 grab sample measurement. Samples were analyzed for total and dissolved aluminum, hardness, and TSS by Enthalpy Analytical.⁵

Partition Coefficient

The ratio of dissolved to total aluminum for each sample is shown in Table 1. As required by the IP, the partition coefficient is calculated as the 85th percentile of the dissolved to total aluminum ratios, ranked lowest to highest. The 85th percentile ratio for Outfall 001 was 0.1192.

³ 30 TAC (Texas Administrative Code) 307.6(c)(1), Table 1 Criteria in Water for Specific Toxic Materials, Aquatic Life Protection.

⁴ Fact sheet for TPDES Permit No. WQ0002546000, March 27, 2019, pg. 11.

⁵ Enthalpy Analytical, 2525 West Bellfort, Suite 175, Houston, Texas 77054, TCEQ accreditation no. T104704226-23-27.

Table 1. Outfall 001 Sample Analyses

Sample Date	Total Aluminum (µg/L)	Dissolved Aluminum (µg/L)	Ratio Dissolved to Total Aluminum	Hardness (mg/L CaCO3)	TSS (mg/L)	pH (SU)	Flow (gpm)
02/11/24	761	<20	0.0263	221	22	7.4	909
02/18/24	338	33	0.0976	255	11	7.51	929
02/25/24	694	25.3	0.0365	234	24	7.58	920
03/03/24	1310	328	0.2504	259	23	7.45	931
03/10/24	1190	70.2	0.0590	411	18	7.75	945
03/19/24	963	302	0.3136	295	25	8.37	960
03/31/24	2020	226	0.1119	273	27	7.52	926
04/09/24	3260	343	0.1052	295	28	7.53	915
04/16/24	3980	86.6	0.0218	264	79	7.61	905
04/23/24	1000	35	0.0350	271	14	7.65	941
05/07/24	2120	58.2	0.0275	165	29	7.34	932
05/14/24	1190	77.9	0.0655	159	21	7.42	905
05/21/24	922	64.7	0.0702	171	17	7.6	909
05/28/24	1910	30	0.0157	206	38	7.55	912
06/04/24	2240	53.4	0.0238	192	38	7.69	910
06/11/24	912	52.7	0.0578	195	19	7.62	971
06/18/24	1150	81.2	0.0706	231	17	7.76	897
06/25/24	1430	52.8	0.0369	293	27	7.77	973
07/09/24	873	<20	0.0229	249	14	7.67	900
07/16/24	1050	48.4	0.0461	194	14	7.51	915
07/23/24	1840	51.2	0.0278	208	23	7.14	913
07/30/24	1100	39.1	0.0355	208	12	7.71	897
08/06/24	1220	68	0.0557	219	20	7.77	880
08/13/24	1270	35.5	0.0280	246	21	7.61	809
08/20/24	1590	87.1	0.0548	264	28	7.69	932
09/01/24	2190	288	0.1315	311	45	7.77	934
09/08/24	1730	213	0.1231	313	34	7.35	945
09/15/24	1490	274	0.1839	330	33	7.47	943
09/22/24	399	32.2	0.0807	335	12	7.61	990
09/29/24	1880	64.6	0.0344	336	73	7.65	997
Days in sample period	232						
Average sample frequency (days)	8						
Count	30	30	30	30	30	30	30
Average	1467	105	0.0750	253	27	7.60	925
Median	1245	61	0.0553	252	23	7.61	923
Minimum	338	20	0.0157	159	11	7.14	809
Maximum	3980	343	0.3136	411	79	8.37	997
Coefficient of variance (COV)	0.53	0.98	0.92	0.23	0.59	0.03	0.04
85% Percentile Partition Coefficient (PC)			0.1192				
Daily average WQBEL without partition coefficient	840						
Daily average WQBEL with partition coefficient	7048	21% - Effluent average (1467 mg/L) / daily average WQBEL with partition coefficient (7048 mg/L)					
Daily maximum WQBEL without partition coefficient	1777						
Daily maximum WQBEL with partition coefficient	14909						
µg/L – micrograms per liter							
Notes: Where the dissolved aluminum result was less than the reporting limit, that value was used in the calculations.							

Whole Effluent Toxicity Testing

The IP requires whole effluent toxicity (WET) testing as demonstration that the site-specific WQBEL will be protective of receiving water quality. The expected site-specific daily maximum WQBEL was used as the nominal mid-range aluminum concentration in the WET testing. Without a site-specific partition coefficient and assuming 100% effluent, the daily maximum WQBEL for total aluminum calculated by the TCEQ is 1.766 milligrams per liter (mg/L). The mid-range aluminum concentration for the WET testing was 1.766 mg/L divided by the outfall partition coefficient (0.1192), or approximately 14.8 mg/L.

The 100% effluent, 48-hour acute WET test, using *Ceriodaphnia dubia* as the test organism, was performed on effluent samples collected for Outfall 001 on three different days during November 2024. For each test, the laboratory prepared five 100% effluent test solutions with nominal total aluminum concentrations by spiking with aluminum trichloride. The laboratory reports for the WET tests are included in the Appendix.

The WET test results are shown in Table 2. The no observable effect concentrations (NOEC) for the three tests were 29.6 mg/L, 59.6 mg/L, and 59.6 mg/L, resulting in an average of 49.6 mg/L.

**Table 2. WET Test Results – Outfall 001
(Total Aluminum)**

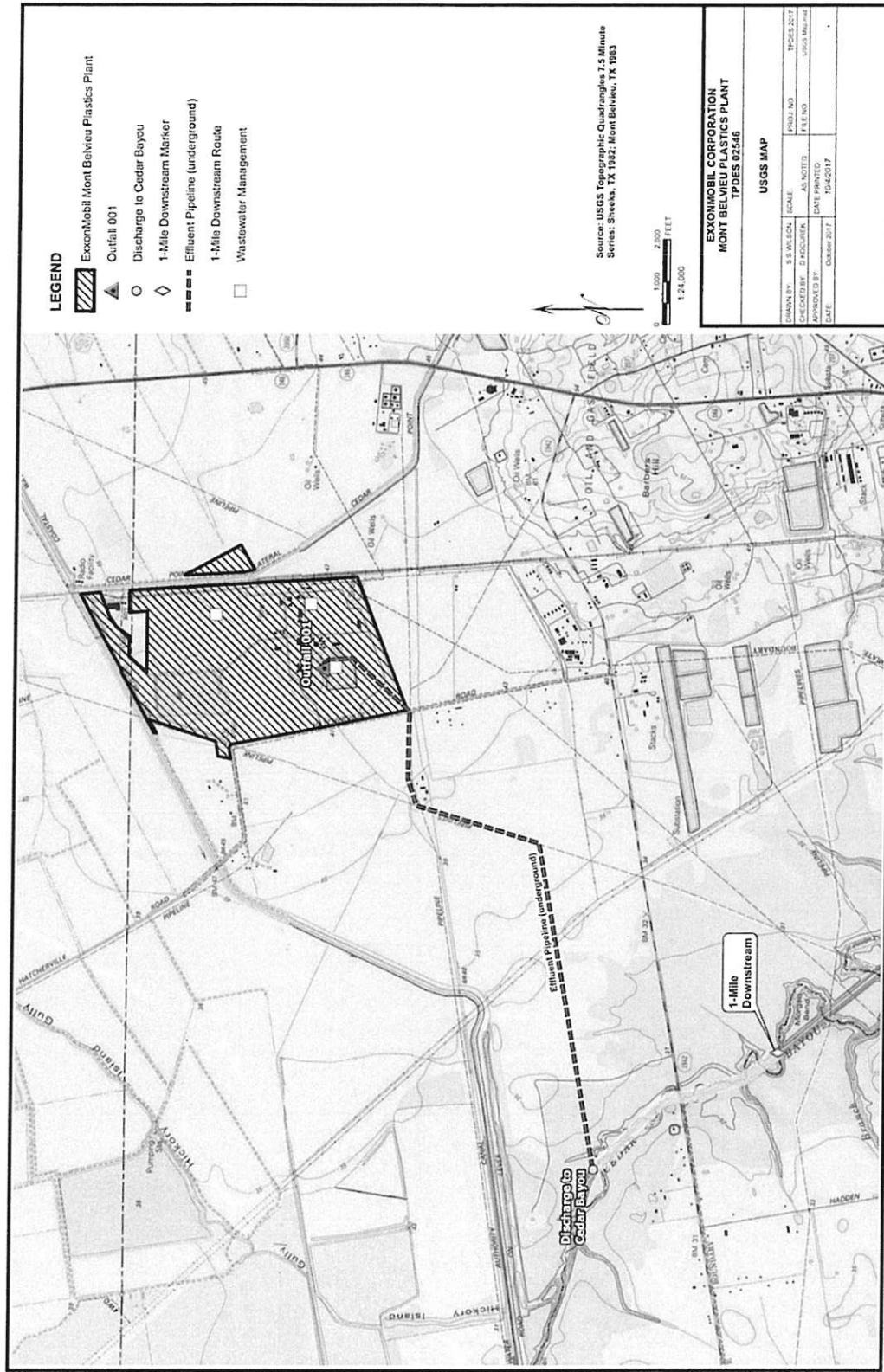
Outfall 001	
Site-specific daily average WQBEL	7.048 mg/L
Site-specific daily maximum WQBEL	14.909 mg/L
WET Test Results	
Concentration Series	3.7, 7.4, 14.8, 29.6, 59.3 mg/L
Sample Date	NOEC (mg/L)
11/10-11/2024	29.6
11/17-18/2024	59.6
11/24-25/2024	59.6
Mean	49.6

SITE-SPECIFIC WQBELS

Without a site-specific partition coefficient, the aluminum WQBELS for Outfall 001 are 0.840 mg/L daily average and 1.777 mg/L daily maximum. Site-specific daily average and daily maximum WQBELS calculated with the study partition coefficient are compared with the WET test results in Table 2. The WET results in Table 2 demonstrate that these site-specific WQBELS are well below the NOECs and would be expected to be protective of water quality in the receiving water.

The TCEQ typically screens the average concentration in the effluent discharge against the daily average WQBEL to determine if permit monitoring and/or limits are needed. If the effluent average is less than 70% of the daily average WQBEL, then no limit or monitoring for the parameter is required. If the average is more than 85%, monitoring and limits are usually placed in the permit.

Table 1 shows the comparison of the site-specific daily average WQBEL to the Outfall 001 data. For Outfall 001, the site-specific daily average WQBEL is 7.048 mg/L. The Outfall 001 average total aluminum concentration is 1.467 mg/L, which is 21% of the WQBEL, indicating that neither monitoring nor a limit for total aluminum should be required.



Appendix
Outfall 001 WET Test Reports

EXXON ANALYTICAL RESULTS SUMMARY

INITIAL WATER ANALYSIS ACTUAL TOTAL VALUES

Sample	Total Al (mg/L)	Dissolved Al (mg/L)	pH	TSS (mg/L)	Hardness
Effluent #1	2.17	0.048	7.0	54.0	226.0
Effluent #2	0.74	0.007	7.5	15.3	232.0
Effluent #3	1.22	0.040	7.1	16.8	194.0

SPIKED 100% EFFLUENT ROUND #1

Concentration	TOTAL Al (mg/L)
Lab Control	0.000
3.7 mg/L	1.76
7.4 mg/L	5.49
14.8 mg/L	13.50
29.6 mg/L	32.90
59.3 mg/L	62.30

SPIKED 100% EFFLUENT ROUND #2

Concentration	TOTAL Al (mg/L)
Lab Control	0.00
3.7 mg/L	3.43
7.4 mg/L	7.98
14.8 mg/L	15.80
29.6 mg/L	29.60
59.3 mg/L	55.90

SPIKED 100% EFFLUENT ROUND #3

Concentration	TOTAL Al (mg/L)
Lab Control	0.00
3.7 mg/L	2.67
7.4 mg/L	6.13
14.8 mg/L	13.50
29.6 mg/L	29.70
59.3 mg/L	61.20

ROUND #1 EXXON AI Study		
Aluminum Spiked Concentrations	Percent Survival	
	48-Hour Spiked 100% Effluent	
	Control	100%
	Base	100%
	3.7 mg/L	100%
	7.4 mg/L	100%
	14.8 mg/L	100%
	29.6 mg/L	100%
	59.3 mg/L	28%
No Observed Effect Concentration (NOEC)		29.6 mg/L

ROUND #2 EXXON AI Study		
Aluminum Spiked Concentrations	Percent Survival	
	48-Hour Spiked 100% Effluent	
	Control	100%
	Base	100%
	3.7 mg/L	100%
	7.4 mg/L	100%
	14.8 mg/L	98%
	29.6 mg/L	100%
	59.3 mg/L	100%
No Observed Effect Concentration (NOEC)		59.6 mg/L

ROUND #3 EXXON AI Study		
Aluminum Spiked Concentrations	Percent Survival	
	48-Hour Spiked 100% Effluent	
	Control	100%
	Base	93%
	3.7 mg/L	95%
	7.4 mg/L	95%
	14.8 mg/L	98%
	29.6 mg/L	95%
	59.3 mg/L	93%
No Observed Effect Concentration (NOEC)		59.6 mg/L

DATA FOR Aluminum Study Canceled Round
Aluminum Spiked 100% Effluent
Ceriodaphnia dubia
LAB ID: 93700

BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVAL

Organism: Ceriodaphnia dubia 48 Hr Acute

Client: ExxonMobil - Mont Belvieu Plastics Plant

Lab ID: 93700

Outfall: Aluminum Spiked 100%

TEST INSTRUCTIONS: IC25 / Critical Dilutions 97%

*test ended early due to
incorrect initial Al value - cat*

Culture No. :

Bio 11072024

RANDOMIZATION:

1ExC-4

1

Units	No. Surviving Organisms, 0 Hrs.				No. Surviving Organisms, 24 Hrs.				No. Surviving Organisms, 48 Hrs.				
	Concentration	A	B	C	D	A	B	C	D	A	B	C	D
Control	10	—	—	—									
Base	10	—	—										
3.7	10	—	—	—									
7.4	10	—	—	—									
14.8	10	—	—										
29.6	10	—	—	—									
59.3	10	—	—	—									
Date/Time	1739 11-7-24												
Technician	QA												

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVAL

Organism: Ceriodaphnia dubia 48 Hr Acute

Client: ExxonMobil - Mont Belvieu Plastics Plant

Lab ID: 93700

Outfall: Aluminum Spiked 100%

Test Temperatures

	0Hr	24Hr		48Hr
	new	old / new		old
Control	<i>26.0</i>			
Base	<i>28.9</i>			
3.7				
7.4				
14.8				
29.6				
59.3	<i>✓</i>			
TIME/DATE TECH	<i>11-7-24</i> <i>AK 1739</i>			
IR GUN ID #	<i>021</i>			

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

CHAIN OF CUSTODY CANCELED ROUND



BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only:
No Sample Left

Lab Id: **93700**

Please Review & Complete Sections A, B, C, & D.

Sample No: **93700**

Check Sample No.: ____ First, ____ Second, or ____ Third.

P.O. No: **4553333184**

Client: **ExxonMobil**

Facility: **Mont Belvieu Plastics Plant**

Permit No: **02546**

Outfall: **Aluminum Spiked 100%**

Client Contact: **JESSICA EASTBURN**

Client Phone: **281-425-4212** *AK06037-01*

A. REVIEW SCHEDULED TEST(s):

Chronic	Ceriodaphnia dubia

To Ship the
1st Sample on:
11/6/2024

Concentration:

(For TX) Setup separate 24hr Acute Test? ☐ No

Notes: Aluminum Study #1

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species

Saltwater Species

C. dubia (water flea)	D. pullex (water flea)	D. magna (water flea)	P. promelas (minnow)	Selenastrum (green algae)	M. beryllina (minnow)	Mysidopsis (shrimp)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Sample Time (military)		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To	From	To			
1 001	E	11-5-24	11-6-24	11:00	10:00	Comp	<i>Michael</i> Michael Norris	1
2								
3								

Relinquished By:		Date	Time	Received By:		Date	Time
<i>Michael</i>		11-6-24	1210	<i>Chris</i>		11-7-24	1015
2							
3							

Bio-Aquatic Sample Login

Lab FW:
pH: 7.4 Cond: 540
DO: 7.6 Hd: AK: 59

BAT sample personnel:

☒ Yes ☐ No
Dechlorinate Sample:
☐ Yes ☐ No
Dilution Water:
☐ Receiving Stream
☒ Synthetic Lab

Date: 11-7-24	Time: 1624	By: UA	Temperature: 6.0 (C) IR# 026
Chlorine: 20.10 mg/l	Ammonia: 20.25 mg/l	Int. Sal Cond: 1287 ppt/uS	Adj. Salinity: ____ ppt
pH: 6.4	Hardness: 222 mg/l (MR)	Other	
DO: 11.8 mg/l	Alkalinity: 111 mg/l (OK)	Condition: good	

SUBCONTRACT ORDER
Earth Analytical Sciences, Inc.
Project Number: 4K06037

SENDING LABORATORY:

Earth Analytical Sciences, Inc.

4825 Ward Dr.

Beaumont, TX 77705

Phone: 409-842-0658

Fax: 409-842-9793

Project Manager: Bradley W Rader

brad@earthanalytical.com

RECEIVING LABORATORY:

Bio-Aquatic Testing, Inc.

2501 Mayes Road, Ste. 100

Carrollton, TX 75006

Phone : (972) 242-7750

Fax:

State of Origin : TX

Due Date: 11/18/24 11:00

PO Number : 4K06037

Sample ID	SampleName	Matrix	Sampled	Container type & ID	Analysis	Comments
4K06037-01	001 - Comp.	Water	11/06/24 10:00	Containers and Unique ID: Analyses CUBE (A)	SUB. - Biomonitoring	

4K06037-01 A

ExxonMobil Mont Belvieu Plastic Plant

001 - Comp.

Sampled: 11/06/24 10:00

Water-CUBE



1 - Biomonitoring

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Canceled Round
Aluminum Concentration Spiking Calculations

PARTITION COEFFICIENT STUDY CALCULATIONS

STOCK SOLUTION PREPARATION:

Calculate the milligrams of metal per gram of salt. There are 111.75 mg of Al in 1 gram of AlCl₃.

Make a 10000 mg/L solution of the metal salt required by adding 44.725 grams into 500 mLs.

The actual amount weighed for the stock solution: 44.727 grams. * Diluted 1:10 for analytical.

STOCK SOLUTION SPIKING CALCULATIONS:

Stock solution conc.: 1010 mg/L * 10 = 10,100.

Effluent Baseline Amount: 6.39 mg/L *value incorrect test already started - ok*

To calculate: $\frac{\text{Target concentration}}{\text{stock concentration}}$ in mg/L * volume in uL = uL to add to each replicate

Specified Spike Values (mg/L)	Actual Spike Value - Background (mg/L)	Spiked Value Calculation		Total Volume Spiked in uL		Amount of Stock Solution to Add	Post Addition pH	Adjusted Final pH
3.7	Diluted to by 42%	N/A	*	250,000 uL	=	N/A Added: <u>25</u> uL	6.4	—
7.4	1.01	1.01	*		=	25 Added: <u>25</u> uL	6.4	—
14.8	8.41	8.41	*		=	208.2 Added: <u>208</u> uL	6.4	—
29.6	23.2	23.2	*		=	574.3 Added: <u>574</u> uL	5.2	6.7
59.3	52.91	52.91	*		=	1309.7 Added: <u>1310</u> uL	4.6	6.6

DATA FOR Aluminum Study Round #1

Aluminum Spiked 100% Effluent

Ceriodaphnia dubia

LAB ID: 93768

BIO-AQUATIC TESTING, INC.

TOXICITY TEST

48 Hr Acute *Ceriodaphnia dubia*

Client: ExxonMobil Mont Belvieu Plastics Plant
Permit Number: TPDES '02546
Sample Type: Composite **Outfall Name:** Aluminum Spiked 100%
Receiving Water Name: Cedar Bayou above Tidal

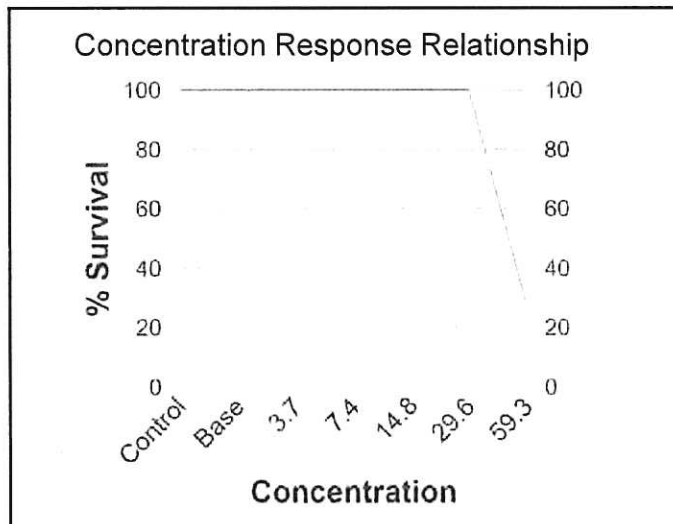
Lab ID: 93768
Test Temperature (oC): 25 ± 1
Photo Period: 16 hours light
 8 hours dark
Begin Date: 11/12/2024
End Date: 11/14/2024

Test Start Time: 17:34 Test End Time: 16:00

SURVIVAL

Effluent Con.	SURVIVAL															Avg% Surv.
	Number Of Alive Per Replicate															
	11/12					11/13					11/14					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Control	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
Base	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
3.7	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
7.4	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
14.8	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
29.6	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
59.3	10	10	10	10		6	5	5	6		4	3	2	2		27.5%

*spilled cup



BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVALOrganism: Ceriodaphnia dubia 48 Hr AcuteClient: ExxonMobil - Mont Belvieu Plastics PlantLab ID: 93768Outfall: Aluminum Spiked 100%

TEST INSTRUCTIONS: IC25 / Critical Dilutions 97%

LC₅₀: 47.80
98% NR

Culture No. :

Bio 11122024

RANDOMIZATION:

1ExC-4 0

Units	No. Surviving Organisms, 0 Hrs.				No. Surviving Organisms, 24 Hrs.				No. Surviving Organisms, 48 Hrs.			
Concentration	A	B	C	D	A	B	C	D	A	B	C	D
Control	10	---	---	---	10	---	---	---	10	---	---	---
Base	10	---	---	---	10	---	---	---	10	---	---	---
3.7	10	---	---	---	10	---	---	---	10	---	---	---
7.4	10	---	---	---	10	---	---	---	10	---	---	---
14.8	10	---	---	---	10	---	---	---	10	9	10	10
29.6	10	---	---	---	10	---	---	---	10	---	---	---
59.3	10	---	---	---	6	5	5	6	4	3	2	2
Date/Time	11-12-24 1734				11-13-24 1530				11-14-24 1600			
Technician	OK				OK				OK			

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BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVALOrganism: Ceriodaphnia dubia 48 Hr AcuteClient: ExxonMobil - Mont Belvieu Plastics PlantLab ID: 93768Outfall: Aluminum Spiked 100%**Test Temperatures**

	0Hr	24Hr		48Hr
	new	old / new	old	old
Control	41.0	24.9	N/A	28.9
Base	-	-	-	-
3.7	23.9	-	-	-
7.4	-	23.9	-	-
14.8	-	-	-	-
29.6	-	-	-	-
59.3	-	-	-	-
	-	-	-	-
TIME/DATE TBCH	11-12-24 Alt 1734	11-13-24 Alt 1530	11-14-24 Alt 1600	
IR GUN ID #	021	021	021	

Lined through spaces precoded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

93768

Bio-Aquatic Testing, Inc.

FRESH WATER TEST SETUP FORM

Client: ExxonMobilPermit '02546Facility: Mont Belvieu Plastics PlantLab Number 93768Outfall Name: Aluminum Spiked 100%Number of samples 1Dilution Water: Synthetic LabReceiving Water Name: Cedar Bayou above Tidal

Dechlorinate Sample: _____

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Time	
			Begin Date	End Date	Start	Er
1	11/12/24	09:30	11/10/24	11/11/24	11:00	10:

Type of Test(s)

Ceriodaphnia dubia 48 Hr Acute
Start Sx # 1 Date: 11/12/2024

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Test Start Date: _____ Test End Date: _____

11/12/2024 11/14/2024

Dilution Water

Sample #	Hardness	Alkalinity
	As mg/L CaCO ₃	as mg/L CaCO ₃
1	130	64

Ceriodaphnia dubia Test Set Up: 4 Reps & 10 Organisms per Rep

Test Set Up: _____

Concentrations: Base 3.7 7.4 14.8 29.6 59.3Test Chemistry on these dilutions: Base 3.7 7.4 14.8 29.6 59.3
 Samples received by:
 ☐ Express Delivery
 ☐ UPS Next Day
 ☐ via Air Cargo
 ☐ DHL
 ☒ Federal Express
 ☐ the Client
 ☐ Bio-Aquatic personnel
Other: Sample was filtered at 60um.

BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

Client: ExxonMobil

Lab ID: 93768

Facility: Mont Belvieu Plastics Plant

Outfall: Aluminum Spiked 100%

Dilution Water(s): Synthetic Lab

Test Date: November 12, 2024

EFFLUENT PARAMETERS

Effluent Sample #	Received		Residual Cl ₂ (mg/L)	DeChlor (ml/L) ¹	Ammonia (mg/L)	Analyst Initials	Temp. Received
	Date	Time					
1	11/12/24	09:30	<0.10	N/A	<0.25	CH	5.6

¹Dechlorination Reagent: 0.025 N Sodium Thiosulfate

Effluent Sample #	pH	DO (mg/L)	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	Conductivity (umhos/cm)	Analyst Initials
1	7.0	10.3	226	110	1230	CH

DAILY RENEWAL CONDUCTIVITY**

Date		Sample #	Values are at Highest Dilution		Analyst
			Specific Conductivity as umhos/cm	Salinity (ppt)	
11/12	Lab H2O		469	0.3	JS
11/13	Lab H2O				
11/14	Lab H2O				
11/15	Lab H2O				CAP
11/16	Lab H2O				
11/17	Lab H2O				
11/18	Lab H2O				
11/12	OUTFALL*	1	2179	1.1	JS
11/13	OUTFALL*				
11/14	OUTFALL*				
11/15	OUTFALL*				CAP
11/16	OUTFALL*				
11/17	OUTFALL*				
11/18	OUTFALL*				

**Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

Analysis Methods: Chlorine: Hanna Colorimeter #HI711, Ammonia: Hanna Colorimeter #HI733, Hardness: Hanna Photometer #HI96735, Alkalinity: Hanna Colorimeter #HI775 pH DO: Conductivity: Thermo Versa Star Benchtop Meter

pH, Dissolved Oxygen

Ceriodaphnia dubia

Lab ID: 93768

Dilution Water(s): Synthetic Lab

Test Begin Date: November 12, 2024

Concentration

[illegible]

CHAIN OF CUSTODY ROUND #1



BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only:
No Sample Left

Lab Id: **93768**

Please Review & Complete Sections A, B, C, & D.

Sample No: **93768**

Check Sample No.: ____ First, ____ Second, or ____ Third.

P.O. No: **4553333184**

Client: **ExxonMobil**

Facility: **Mont Belvieu Plastics Plant**

Permit No: **02546**

Outfall: **Aluminum Spiked 100%**

Client Contact: **JESSICA EASTBURN**

Client Phone: **281-425-4212 4K11060-01**

A. REVIEW SCHEDULED TEST(s):

48 Hr Acute	Ceriodaphnia dubia

To Ship the
1st Sample on:
11/13/2024

Concentration: Base 3.7 7.4 14.8 29.6 59.3

(For TX) Setup separate 24hr Acute Test? ☐ No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species					Saltwater Species	
C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	P. promelas (minnow)	Selenastrum (green algae)	M. beryllina (minnow)	Mysidopsis (shrimp)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour

Notes: Aluminum Study #1 2nd attempt-CH

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Sample Time (military)		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To	From	To			
01A 1001 STUDY	E	11-10-24	11-11-24	11:00	18:00	Comp	Michael Norris	1
2								
3								

Relinquished By:		Date	Time	Received By:		Date	Time
Michael		11-11-24	1200	Michael Norris		11-12-24	930
2							
3							

Bio-Aquatic Sample Login

BAT sample personnel:

☒ Yes ☐ No

Dechlorinate Sample:

☐ Yes ☐ No

Dilution Water:

☐ Receiving Stream

☒ Synthetic Lab

Date: 11-12-24	Time: 1400	By: CAA	Temperature: 5.6 (C) IR# 026
Chlorine: 20.10 mg/l	Ammonia: 6.25 mg/l	Int. Sal Cond: 1230 ppb/US	Adj. Salinity: — ppt
pH: 7.0	Hardness: 226 mg/l (M)	Other: 60um Filtered	
DO: 10.3 mg/l	Alkalinity: 110 mg/l (K)	Condition: good	

Lab FW: **1**
pH: **7.4** Cond: **461**
DO: **8.3** H₂O: **130** Alk: **44**

SUBCONTRACT ORDER

Earth Analytical Sciences, Inc.

Project Number: 4K11060

SENDING LABORATORY:

Earth Analytical Sciences, Inc.

4825 Ward Dr.

Beaumont, TX 77705

Phone: 409-842-0658

Fax: 409-842-9793

Project Manager: Bradley W Rader

brad@earthanalytical.com

RECEIVING LABORATORY:

Bio-Aquatic Testing, Inc.

2501 Mayes Road, Ste. 100

Carrollton, TX 75006

Phone : (972) 242-7750

Fax:

State of Origin : TX

Due Date: 11/21/24 11:00

PO Number : 4K11060

Sample ID	SampleName	Matrix	Sampled	Container type & ID	Analysis	Comments
4K11060-01	001 Study - Comp.	Water	11/11/24 10:00	Containers and Unique ID: CUBE (A)	Analyses SUB. - Blomonitoring	

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Round #1

Aluminum Concentration Spiking Calculations

PARTITION COEFFICIENT STUDY CALCULATIONS

STOCK SOLUTION PREPARATION:

Calculate the milligrams of metal per gram of salt. There are 111.75 mg of Al in 1 gram of AlCl₃.

Make a 10000 mg/L solution of the metal salt required by adding 44.725 grams into 500 mLs.

The actual amount weighed for the stock solution: 44.727 grams. Diluted 1:10 for analysis

STOCK SOLUTION SPIKING CALCULATIONS:

Stock solution conc.: 1010 mg/L * 10 = 10,100.

Effluent Baseline Amount: 2.17 mg/L

To calculate: $\frac{\text{Target concentration}}{\text{stock concentration}}$ in mg/L * volume in uL = uL to add to each replicate

Specified Spike Values (mg/L)	Actual Spike Value - Background (mg/L)	Spiked Value Calculation		Total Volume Spiked in uL		Amount of Stock Solution to Add	Post Addition pH	Adjusted Final pH
3.7	1.53	1.53 10,100	*	250,000 uL	=	37.9 uL Added: 38	5.9	7.4
7.4	5.23	5.23 10,100	*	uL	=	129.4 uL Added: 129	5.7	7.3
14.8	12.63	12.63 10,100	*	uL	=	312.6 uL Added: 313	5.9	7.4
29.6	27.43	27.43 10,100	*	uL	=	678.9 uL Added: 679	5.6	7.6
59.3	57.13	57.13 10,100	*	uL	=	1414.1 uL Added: 1414	4.3	7.6

Round #1
Analytical Lab Data



EAS

4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

12 November 2024

EAS NO.: 4K11059

Scotty Martin
ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu, TX 77521
RE: Biomonitoring

Project No.: Biomonitoring

Enclosed are the results of analyses for samples received by the laboratory on 11/11/24 12:00. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

Bradley W Rader
Vice President

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EAS is a NELAP accredited laboratory and meets the guidance requirements put forth by "The NELAC Institute" (2016) for NELAP accredited parameters at EAS, unless noted otherwise. NELAP analyte certifications are considered to be approved in Texas and Louisiana for all analytes, unless denoted with an (E-1) under "Certification". Those analytes certified in either Texas or Louisiana, but not both, will be noted by "Case Narrative".

4825 Ward Drive
Beaumont, TX 77705

Tel: (409) 842-0658
Fax: (409) 842-9793
www.earthanalytical.com



4825 Ward Drive
Beaumont, TX 77705
(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/12/24 15:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Cooler Temp C	Date Sampled	Date Received
Outfall - Comp.	4K11059-01	Wastewater	2.2	11/11/24 10:00	11/11/24 12:00

Sample Receipt Checklist

COC complete w/ required dates, times, signatures?	Yes
Chain of Custody Seal on Shipping Container?	No
If yes, is seal intact?	No
COC Seals on containers?	No
If yes, is seal intact?	No
Samples received with evidence of chilling?	Yes
Was a temperature blank used?	Yes
Samples received were not frozen & acceptable?	Yes
Are samples received on ice?	Yes
Therm. ID#200787226. Bias temp. (if appl.) on chain	Yes
Cooler temperature was acceptable and recorded?	Yes
Proof of chilling, sampled same day & acceptable?	Yes
Are sample containers intact (not damaged)?	Yes
Are acceptable containers used?	Yes
Were EnCore-Type samplers used, where applicable?	No
Is volume of samples sufficient for all analyses?	Yes
Are required preservatives documented acceptable?	Yes
Preserved samples checked for pH and acceptable?	Yes
Are samples that require adjusted pH documented?	No
VOAs requiring zero headspace have none or <6mm?	No
Are samples received within holding times?	Yes
Containers properly labeled and COC match labels?	Yes



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(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/12/24 15:16

Outfall - Comp.

Work Order # : 4K11059-01

Collection Date & Time : 11/11/2024 10:00:00AM

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Method	Cert	Analyst	Notes
Total Metals by ICP-MS - EPA Method 200.8/6020									
Aluminum	2170	2.50	ug/L	11/11/24 14:14	11/12/24 13:16	EPA 200.8/6020		TDM	E, ME3



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13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/12/24 15:16

Total Metals by ICP-MS - EPA Method 200.8/6020 - Quality Control
Earth Analytical Sciences, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyst	Notes
Batch B4K0178 - 3015A											
Blank (B4K0178-BLK1)											
						Prepared: 11/11/24 Analyzed: 11/12/24					
Aluminum	<2.50	2.50	ug/L							TDM	ME3
LCS (B4K0178-BS1)											
						Prepared: 11/11/24 Analyzed: 11/12/24					
Aluminum	137	2.50	ug/L	139		99	85-115			TDM	ME3
Matrix Spike (B4K0178-MS1)											
		Source: 4K05053-05		Prepared: 11/11/24 Analyzed: 11/12/24							
Aluminum	6870	125	ug/L	6940	ND	99	70-130			TDM	ME3
Matrix Spike Dup (B4K0178-MSD1)											
		Source: 4K05053-05		Prepared: 11/11/24 Analyzed: 11/12/24							
Aluminum	6850	125	ug/L	6940	ND	99	70-130	0.4	20	TDM	ME3



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13330 Hatcherville Rd
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Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/12/24 15:16

Qualifiers, Definitions & Notes

ME3 The Low Level Continuing Calibration Verification (LLCCV) % Recovery was outside of QC Acceptance Criteria for this analysis method.

E Estimated Value reported above the Upper Quantitation Limit (UQL), which is the highest calibration standard in the laboratory's initial calibration curve & adjusted for initial sample volume or weight.

mg/L	milligrams per liter	<	Results are less than the reporting limit
mg/kg	milligrams per kilogram	ND	Non Detected at reporting limit
ug/g	microgram per gram	LCS	Laboratory Control Sample
ug/kg	microgram per kilogram	RPD	Relative Percent Difference
ug/L	microgram per liter		

All results are reported on a wet weight basis unless otherwise requested by the client.

If the Blank and/or LCS is qualified, a Case Narrative is included providing details for reporting decisions based on discussions of project management, technical operations and the end data user(Client).

MS/MSD and/or Surrogate results, that are qualified, are sample matrix driven anomalies and therefore, as defined by TNI Standards, not used to determine the validity of the analysis batch.

CHAIN OF CUSTODY RECORD

4825 Ward Drive
Beaumont, Texas 77705
Phone: (409) 842-0658 Fax: (409) 842-9793

Analysis Requested

[illegible]

COMMENTS:

LAB USE ONLY:

RECEIVED ON ICE: Y 0 N Cooler Temperature: 22

TAT - Working Days (Routine): 10 Day (STD) 3-5 Day (RUSH) XX 24 Hr.(ASAP)

TAT - Working Days (TCLP): 10 Day(STD) 5 Day(RUSH) 2-3 Day(ASAP)

SAMPLED BY: N. J. [Signature]

SAMPLED BY PRINT NAME: Michael Norris

RELINQUISHED BY:

DATE:

RECEIVED BY:

ORGANIZATION:

TIME:

ORGANIZATION:

RELINQUISHED BY:

DATE:

RECEIVED BY:

ORGANIZATION:

TIME:

ORGANIZATION:

RELINQUISHED BY:

DATE: 11/11/24

RECEIVED AT LABORATORY BY:

ORGANIZATION: *FAS*

TIME: 1200

ORGANIZATION: Earth Analytical Sciences, Inc.

MATRIX: (W) Water (WW) Wastewater (L) Liquid (SL) Sludge (S) Soil (SD) Solid (O) Oil

CONTAINER: (GA) Glass Amber (G) Glass (P) Plastic (VOA) 40ml Glass Vial w/Teflon Septum

(EC) *EnCore*-type Samplers

PRESERVATIVE: (1) H_2SO_4 (2) HNO_3 (3) NaOH/Zinc Acetate (4) HCl (5) $Na_2S_2O_3$ (6) NaOH (7) NaHSO₄ (8) $H_2SO_4/CuSO_4$ (9) NaOH/Ascorbic Acid

FRM-SC1
Revision 5
12/28/2009
Exxon Mt Belvieu-AI



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

January 03, 2025

Laboratory Report

Chris Robason
Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Report ID: 20250103145220JKW

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 Monica O. Martin
Chief Executive Officer



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Work Order Case Narrative

This report is a supplement to the original Test Report ID: 20241205153639AEN



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results

Client Sample ID: Effluent
Lab Sample ID: 24K3070-01

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Dissolved

EPA 200.8	Aluminum	A	0.0480	mg/L	1	0.000167	0.00625	BHK2492	11/23/2024 10:25	JKC
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General Chemistry

SM 2540 D	Residue-nonfilterable (TSS)	A	54.0	mg/L	1	1.00	1.00	BHK1902	11/18/2024 07:04	BP
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* A = Accredited, N = Not Accredited or Accreditation not available



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Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: Lab FW
Lab Sample ID: 24K3070-02

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	<0.00625U	mg/L	1	0.000167	0.00625	BHK2946	11/23/2024 11:29	JKC
-----------	----------	---	-----------	------	---	----------	---------	---------	------------------	-----

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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 3.7 Eff
Lab Sample ID: 24K3070-03

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	1.76	mg/L	5	0.000835	0.0312	BHK1890	11/22/2024 12:12	ISS
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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 7.4 Eff
Lab Sample ID: 24K3070-04

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	5.49	mg/L	100	0.0167	0.625	BHK3190	11/27/2024 09:53	ISS
-----------	----------	---	------	------	-----	--------	-------	---------	------------------	-----

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Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 14.8 Eff
Lab Sample ID: 24K3070-05

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	13.5	mg/L	50	0.00835	0.312	BHK1890	11/22/2024 11:58	ISS
-----------	----------	---	------	------	----	---------	-------	---------	------------------	-----

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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 29.6 Eff
Lab Sample ID: 24K3070-06

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	32.9	mg/L	100	0.0167	0.500	BHK2491	11/25/2024 11:01	JKC
-----------	----------	---	------	------	-----	--------	-------	---------	------------------	-----

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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 59.3 Eff Sample Matrix: Aqueous
Lab Sample ID: 24K3070-07 Date Collected: 11/12/2024 17:15
Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none] Collected by: Christina Henderson

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	0.247	mg/L	1	0.000167	0.00625	BHK1890	11/22/2024 11:56	ISS
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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Sample Results
(Continued)

Client Sample ID: 59.3 Eff
Lab Sample ID: 24K3070-07RE1

Sample Matrix: Aqueous
Date Collected: 11/12/2024 17:15
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum (Rerun)	A	62.3	mg/L	200	0.0334	1.25	BHL1962	12/17/2024 11:33	JKC
-----------	------------------	---	------	------	-----	--------	------	---------	------------------	-----

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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHK1890 - EPA 200.8									
Blank (BHK1890-BLK1)					Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	<0.00625	U	0.00625	mg/L					
LCS (BHK1890-BS1)					Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	0.232		0.00625	mg/L	0.250		92.7 85-115		
Duplicate (BHK1890-DUP1)					Source: 24K2921-04 Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	0.0943	J1	0.00625	mg/L		0.0673		33.4	20
Duplicate (BHK1890-DUP2)					Source: 24K2960-02 Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	0.00777		0.00625	mg/L		0.00739		4.92	20
Matrix Spike (BHK1890-MS1)					Source: 24K2921-04 Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	0.366		0.00625	mg/L	0.250	0.0673	120 75-125		
Matrix Spike (BHK1890-MS2)					Source: 24K2960-02 Prepared: 11/15/2024 Analyzed: 11/20/2024				
Aluminum	0.260		0.00625	mg/L	0.250	0.00739	101 75-125		
Batch: BHK2491 - EPA 200.8									
Blank (BHK2491-BLK2)					Prepared: 11/20/2024 Analyzed: 11/25/2024				
Aluminum	<0.00500	U	0.00500	mg/L					
LCS (BHK2491-BS2)					Prepared: 11/20/2024 Analyzed: 11/25/2024				
Aluminum	0.268		0.00500	mg/L	0.250		107 85-115		
Duplicate (BHK2491-DUP3)					Source: 24J5480-01 Prepared: 11/20/2024 Analyzed: 11/25/2024				
Aluminum	0.0824		0.00500	mg/L		0.0905		9.42	20

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Email: lab@nwdls.com
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TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:52

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK2491 - EPA 200.8 (Continued)										
Duplicate (BHK2491-DUP9)		Source: 24K3426-02		Prepared: 11/20/2024 Analyzed: 11/26/2024						
Aluminum	0.0311	J1	0.00500	mg/L		0.0235			28.1	20
Matrix Spike (BHK2491-MS3)		Source: 24J5480-01		Prepared: 11/20/2024 Analyzed: 11/25/2024						
Aluminum	0.368		0.00500	mg/L	0.250	0.0905	111	75-125		
Matrix Spike (BHK2491-MS9)		Source: 24K3426-02		Prepared: 11/20/2024 Analyzed: 11/26/2024						
Aluminum	0.275		0.00500	mg/L	0.250	0.0235	100	75-125		
Batch: BHK2946 - EPA 200.8										
Blank (BHK2946-BLK1)		Prepared: 11/22/2024 Analyzed: 11/23/2024								
Aluminum	<0.00625	U	0.00625	mg/L						
LCS (BHK2946-BS1)		Prepared: 11/22/2024 Analyzed: 11/23/2024								
Aluminum	0.249		0.00625	mg/L	0.250		99.5	85-115		
Duplicate (BHK2946-DUP1)		Source: 24K3402-02		Prepared: 11/22/2024 Analyzed: 11/23/2024						
Aluminum	0.0324		0.00625	mg/L		0.0317			2.05	20
Duplicate (BHK2946-DUP2)		Source: 24K3631-02		Prepared: 11/22/2024 Analyzed: 11/23/2024						
Aluminum	0.0178		0.00625	mg/L		0.0162			9.06	20
Matrix Spike (BHK2946-MS1)		Source: 24K3402-02		Prepared: 11/22/2024 Analyzed: 11/23/2024						
Aluminum	0.282		0.00625	mg/L	0.250	0.0317	100	75-125		
Matrix Spike (BHK2946-MS2)		Source: 24K3631-02		Prepared: 11/22/2024 Analyzed: 11/23/2024						
Aluminum	0.276		0.00625	mg/L	0.250	0.0162	104	75-125		

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Reported:
01/03/2025 14:52

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK3190 - EPA 200.8										
Blank (BHK3190-BLK2)					Prepared: 11/23/2024 Analyzed: 11/26/2024					
Aluminum	<0.00250	U	0.00250	mg/L						
LCS (BHK3190-BS2)					Prepared: 11/23/2024 Analyzed: 11/26/2024					
Aluminum	0.267		0.00625	mg/L	0.250		107	85-115		
Duplicate (BHK3190-DUP4)					Prepared: 11/23/2024 Analyzed: 11/26/2024					
Aluminum	0.0114		0.00250	mg/L		0.00994			13.4	20
Duplicate (BHK3190-DUP5)					Prepared: 11/23/2024 Analyzed: 11/26/2024					
Aluminum	0.186	J1	0.00250	mg/L		0.147			23.6	20
Matrix Spike (BHK3190-MS4)					Prepared: 11/23/2024 Analyzed: 11/26/2024					
Aluminum	0.679	J1	0.312	mg/L	0.250	0.147	213	75-125		
Matrix Spike (BHK3190-MS5)					Prepared: 11/23/2024 Analyzed: 11/27/2024					
Aluminum	0.254		0.00625	mg/L	0.250	0.00994	97.6	75-125		
Batch: BHL1962 - EPA 200.8										
Blank (BHL1962-BLK2)					Prepared: 12/16/2024 Analyzed: 12/17/2024					
Aluminum	<0.00625	U	0.00625	mg/L						
LCS (BHL1962-BS2)					Prepared: 12/16/2024 Analyzed: 12/17/2024					
Aluminum	0.256		0.00625	mg/L	0.250		103	85-115		
Duplicate (BHL1962-DUP2)					Prepared: 12/16/2024 Analyzed: 12/17/2024					
Aluminum	0.715		0.0312	mg/L		0.700			2.11	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: BHL1962 - EPA 200.8 (Continued)

Matrix Spike (BHL1962-MS2)

Source: 24L2849-01

Prepared: 12/16/2024 Analyzed: 12/17/2024

Aluminum	0.934		0.0312	mg/L	0.250	0.700	93.4	75-125		
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01/03/2025 14:52

Quality Control
(Continued)

Metals, Dissolved

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK2492 - EPA 200.8 Dissolved										
Blank (BHK2492-BLK1)										
Aluminum	<0.00625	U	0.00625	mg/L						
Prepared: 11/20/2024 Analyzed: 11/23/2024										
LCS (BHK2492-BS1)										
Aluminum	0.254		0.00625	mg/L	0.250		102	85-115		
Prepared: 11/20/2024 Analyzed: 11/23/2024										
Duplicate (BHK2492-DUP1)										
Aluminum	0.0272		0.00625	mg/L		0.0270			0.882	20
Prepared: 11/20/2024 Analyzed: 11/23/2024										
Matrix Spike (BHK2492-MS1)										
Aluminum	0.266		0.00625	mg/L	0.250	0.0270	95.5	75-125		
Prepared: 11/20/2024 Analyzed: 11/23/2024										

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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: BHK1902 - TSS										
Blank (BHK1902-BLK1)										
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L						
Prepared: 11/15/2024 Analyzed: 11/18/2024										
LCS (BHK1902-BS1)										
Residue-nonfilterable (TSS)	99.2		1.00	mg/L	100		99.2	85-115		
Prepared: 11/15/2024 Analyzed: 11/18/2024										
Duplicate (BHK1902-DUP1)										
Residue-nonfilterable (TSS)	4.00		1.00	mg/L		4.21			5.13	10
Source: 24I3669-01 Prepared: 11/15/2024 Analyzed: 11/18/2024										
Duplicate (BHK1902-DUP2)										
Residue-nonfilterable (TSS)	6.53		1.00	mg/L		6.74			3.17	10
Source: 24K1062-04 Prepared: 11/15/2024 Analyzed: 11/18/2024										

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2501 Mayes Road, Suite 100
Carrollton, TX 75006

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01/03/2025 14:52

Sample Condition Checklist

Work Order: 24K3070

Check Points

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

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Carrollton, TX 75006

Reported:
01/03/2025 14:52

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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BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

ANALYTICAL CHAIN OF CUSTODY

Bio-Aquatic Lab ID: 24 - 603

Bio Project ID:

ANALYTICAL PROJECT: ANALYT

24K3070



Client: BIO-AQUATIC TESTING, INC Phone: 972-242-7750 TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d

Project/ID: Exxon Aluminum Study #1

Project Manager: Christina Project State: TX

Bill To: Accounting Quote/PO#:

Sampled By: (Sign and Print Name)

Chub C. Henderson

MATRIX:	CONTAINER SIZE:	CONTAINER TYPE:	PRESERVATIVES:
AIR: <u>A</u>	4 oz: <u>4</u>	GLASS AMB: <u>A</u>	VARIOUS: <u>V</u>
	8 oz: <u>8</u>		HCl (pH<2): <u>V</u>
PRODUCT: <u>P</u>	32 oz: <u>32</u>	GLASS CLEAR: <u>C</u>	H2SO4 (pH <2): <u>S</u>
	500 mL: <u>5</u>		HNO3(pH <2): <u>N</u>
SOLID: <u>S</u>	1000 mL: <u>1</u>	PLASTIC: <u>P</u>	Cool/Ice(<4C): <u>C</u>
	VOA: <u>V</u>		NONE: <u>NA</u>
WATER: <u>W</u>	Other: <u> </u>	OTHER: <u>O</u>	Other: <u> </u>

Sample ID or Location: (Outfall No. or Name)	Sample Date	Time	Matrix	Composite	Grab	# Containers	Container Size	Container Type	PRESERVATIVES	Total Aluminum	Dissolved Aluminum	TSS
1 EFFLUENT	11-22-24	1715	W			2	18	P	C	✓	✓	✓
2 Lab FW						1	8		N	✓		
3 3.7 EFF						1				✓		
4 7.4 EFF						1				✓		
5 14.8 EFF						1				✓		
6 29.6 EFF						1				✓		
7 59.3 EFF						1				✓		
8												
9												
10												

Relinquished By:		Date & Time	Received By:		Date & Time	NOTES/SPECIAL REQUESTS:
Signature	Initials		Signature	Initials		
1 <u>Chub</u>	<u>CH</u>	1737 11-22-24	<u>FedEx</u>	<u>FedEx</u>	11-22-24/1737	
2						
3 <u>FedEx</u>	<u>FedEx</u>	11-24-24/0730	<u>FEK</u>	<u>FEK</u>	11/24/2020	* All values range from ND to 59.3 mg/L

DATA FOR Aluminum Study Round #2

Aluminum Spiked 100% Effluent

Ceriodaphnia dubia

LAB ID: 93831

BIO-AQUATIC TESTING, INC.

TOXICITY TEST

48 Hr Acute *Ceriodaphnia dubia*

Client: ExxonMobil Mont Belvieu Plastics Plant

Permit Number: TPDES '02546

Sample Type: Composite Outfall Name: Aluminum Spiked 100%

Receiving Water Name: Cedar Bayou above Tidal

Lab ID: 93831

Test Temperature (oC): 25 ± 1

Photo Period: 16 hours light
8 hours dark

Begin Date: 11/19/2024

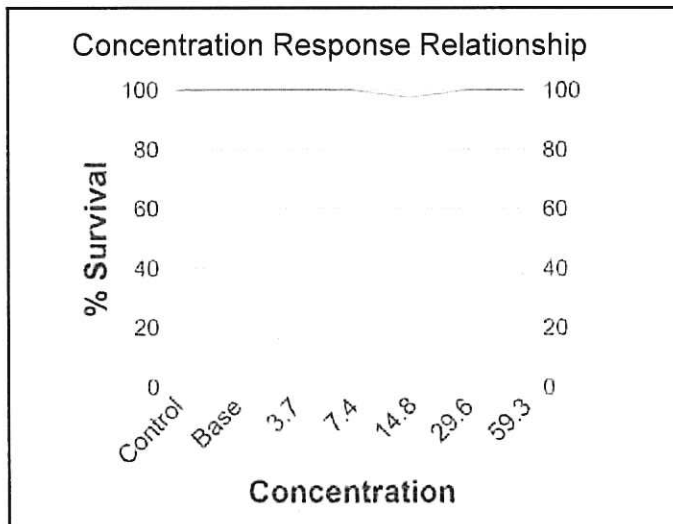
End Date: 11/21/2024

Test Start Time: 15:30 Test End Time: 16:00

SURVIVAL

Effluent Con.	SURVIVAL															Avg% Surv.
	Number Of Alive Per Replicate															
	11/19					11/20					11/21					
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Control	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
Base	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
3.7	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
7.4	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
14.8	10	10	10	10		10	10	10	10		10	10	9	10		97.5%
29.6	10	10	10	10		10	10	10	10		10	10	10	10		100.0%
59.3	10	10	10	10		10	10	10	10		10	10	10	10		100.0%

*spilled cup



BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVALOrganism: Ceriodaphnia dubia 48 Hr AcuteClient: ExxonMobil - Mont Belvieu Plastics PlantLab ID: 93831Outfall: Aluminum Spiked 100%

TEST INSTRUCTIONS: IC25 / Critical Dilutions 97%

Culture No. : Bio 11192024RANDOMIZATION: 1ExC-4 1

Units	No. Surviving Organisms, 0 Hrs.				No. Surviving Organisms, 24 Hrs.				No. Surviving Organisms, 48 Hrs.				
	Concentration	A	B	C	D	A	B	C	D	A	B	C	D
Control	10	---	---	---	---	10	---	---	---	10	---	---	---
Base	16	---	---	---	---	10	---	---	---	10	---	---	---
3.7	10	---	---	---	---	10	---	---	---	10	---	---	---
7.4	10	---	---	---	---	10	---	---	---	10	---	---	---
14.8	10	---	---	---	---	10	---	---	---	10	10	9	10
29.6	10	---	---	---	---	10	---	---	---	10	---	---	---
59.3	10	---	---	---	---	10	---	---	---	10	---	---	---
Date/Time	11-19-24 1530				11-20-24 1330				11-21-24 1600				
Technician	CA				CA				CA				

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable.

BIO-AQUATIC TESTING, INC.

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Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVALOrganism: Ceriodaphnia dubia 48 Hr AcuteClient: ExxonMobil - Mont Belvieu Plastics PlantLab ID: 93831Outfall: Aluminum Spiked 100%**Test Temperatures**

	0Hr	24Hr		48Hr
	new	old / new	old	old
Control	21.5	24.3	N/A	21.5
Base	-	-	-	-
3.7	-	-	-	-
7.4	-	-	-	-
14.8	-	-	-	-
29.6	-	-	-	-
59.3	-	-	-	-
	-	-	-	-
TIME/DATE TECH	11-19-24 OA 1530	11-20-24 OA 1330	11-21-24 OA 1600	
IR GUN ID #	021	021	021	

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

93831

Bio-Aquatic Testing, Inc.

FRESH WATER TEST SETUP FORM

Client: ExxonMobilPermit '02546Facility: Mont Belvieu Plastics PlantLab Number 93831Outfall Name: Aluminum Spiked 100%Number of samples 1Dilution Water: Synthetic LabReceiving Water Name: Cedar Bayou above Tidal

Dechlorinate Sample: _____

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Time	
			Begin Date	End Date	Start	End
1	11/19/24	10:30	11/17/24	11/18/24	10:00	09:00

Type of Test(s)

Ceriodaphnia dubia 48 Hr Acute
Start Sx # 1 Date: 11/19/2024

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Test Start Date: _____ Test End Date: _____

11/19/2024 11/21/2024

Dilution Water

Sample #	Hardness	Alkalinity
	As mg/L CaCO ₃	as mg/L CaCO ₃
1	110	62

Ceriodaphnia dubia Test Set Up: 4 Reps & 10 Organisms per Rep

Test Set Up: _____

Concentrations: Base 3.7 7.4 14.8 29.6 59.3Test Chemistry on these dilutions: Base 3.7 7.4 14.8 29.6 59.3
 Samples received by: ☐ Express Delivery ☐ UPS Next Day ☐ via Air Cargo ☐ DHL
☒ Federal Express ☐ the Client ☐ Bio-Aquatic personnel

 Other: _____

BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

Client: ExxonMobil

Lab ID: 93831

Facility: Mont Belvieu Plastics Plant

Outfall: Aluminum Spiked 100%

Dilution Water(s): Synthetic Lab

Test Date: November 19, 2024

EFFLUENT PARAMETERS

Effluent Sample #	Received		Residual Cl ₂ (mg/L)	DeChlor (ml/L) ¹	Ammonia (mg/L)	Analyst Initials	Temp. Received
	Date	Time					
1	11/19/24	10:30	<0.10	N/A	<0.25	CH	3.9

¹Dechlorination Reagent: 0.025 N Sodium Thiosulfate

Effluent Sample #	pH	DO (mg/L)	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	Conductivity (umhos/cm)	Analyst Initials
1	7.5	10.3	232	113	1680	CH

DAILY RENEWAL CONDUCTIVITY**

Date		Sample #	Values are at Highest Dilution		Analyst
			Specific Conductivity as umhos/cm	Salinity (ppt)	
11/19	Lab H2O		589	0.3	MS
11/20	Lab H2O				
11/21	Lab H2O				
11/22	Lab H2O				
11/23	Lab H2O				
11/24	Lab H2O				
11/25	Lab H2O				
11/19	OUTFALL*	1	3350	1.7	MS
11/20	OUTFALL*				
11/21	OUTFALL*				
11/22	OUTFALL*				
11/23	OUTFALL*				
11/24	OUTFALL*				
11/25	OUTFALL*				

**Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

Analysis Methods: Chlorine: Hanna Colorimeter #HI711, Ammonia: Hanna Colorimeter #HI733, Hardness: Hanna Photometer #HI96735, Alkalinity: Hanna Colorimeter #HI775, pH: DO: Conductivity: Thermo Versa Star Benchtop Meter

pH, Dissolved Oxygen

Ceriodaphnia dubia

Lab ID: 93831

Dilution Water(s): Synthetic Lab

Test Begin Date: November 19, 2024

Concentration

[illegible]

CHAIN OF CUSTODY ROUND #2



BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ Bio Only
No Sample Left

Lab Id: **93831**

Please Review & Complete Sections A, B, C, & D.

Sample No: **93831**

Check Sample No.: ____ First, ____ Second, or ____ Third.

P.O. No: 455333184

Client: **ExxonMobil**

Facility: **Mont Belvieu Plastics Plant**

Permit No: **02546**

Outfall: **Aluminum Spiked 100%**

Client Contact: **JESSICA EASTBURN**

Client Phone: **281-425-4212** *4K18036-01*

A. REVIEW SCHEDULED TEST(s):

48 Hr Acute	Ceriodaphnia dubia

To Ship the
1st Sample on:
11/18/2024

Concentration: Base 3.7 7.4 14.8 29.6 59.3

(For TX) Setup separate 24hr Acute Test? ☐ No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species

Saltwater Species

C. dubia (water flea)	D. pulex (water flea)	D. magna (water flea)	P. promelas (minnow)	Selenastrum (green algae)	M. beryllina (minnow)	Mysidopsis (shrimp)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour

Notes: Aluminum Study #2

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Sample Time (military)		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To	From	To			
1 001	E	11-17-24	11-18-24	10:00	09:00	Comp	<i>Michael Norris</i> Michael Norris	1
2								
3								

Relinquished By:	Date	Time	Received By:	Date	Time
1 <i>Michael</i>	11-18-24	1230	<i>Michael</i>	11-19-24	1030
2					
3					

Bio-Aquatic Sample Login

FW: pH: 8.0 DO: 7.9
Cond: 452 Hcl: 110 Alk: 62

BAT sample personnel:

☐ Yes ☐ No
Dechlorinate Sample:
☐ Yes ☐ No
Dilution Water:
☐ Receiving Stream
☒ Synthetic Lab

Date: **11-19-24** Time: **1330** By: *CA* Temperature: **3.9** (C) IR: **026**
Chlorine: **20.1** mg/l Ammonia: **10.25** mg/l Int. Sal Cond: **1680** ppt/US Adj. Salinity: **—** ppt
pH: **7.5** Hardness: **232** mg/l (M) Other:
DO: **10.3** mg/l Alkalinity: **113** mg/l (M) Condition: *good*

SUBCONTRACT ORDER
Earth Analytical Sciences. Inc.
Project Number: 4K18036

SENDING LABORATORY:

Earth Analytical Sciences, Inc.
4825 Ward Dr.
Beaumont, TX 77705
Phone: 409-842-0658
Fax: 409-842-9793
Project Manager: Bradley W Rader

brad@earthanalytical.com

RECEIVING LABORATORY:

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Ste. 100
Carrollton, TX 75006
Phone : (972) 242-7750
Fax:

State of Origin : TX

Due Date: 12/02/24 11:00

PO Number : 4K18036

Sample ID	SampleName	Matrix	Sampled	Container type & ID	Analysis	Comments
4K18036-01	001 / E - Comp.	Water	11/18/24 09:00	Containers and Unique ID: <i>Analyses</i> CUBE (A)	SUB. - Biomonitoring	

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Round #2

Aluminum Concentration Spiking Calculations

PARTITION COEFFICIENT STUDY CALCULATIONS

STOCK SOLUTION PREPARATION:

Calculate the milligrams of metal per gram of salt. There are 111.75 mg of Al in 1 gram of AlCl₃.

Make a 10000 mg/L solution of the metal salt required by adding 44.725 grams into 500 mLs.

The actual amount weighed for the stock solution: 44.727 grams.

STOCK SOLUTION SPIKING CALCULATIONS:

Stock solution conc.: 1010 mg/L * 10 = 10,100.

Effluent Baseline Amount: 0.744 mg/L

To calculate: $\frac{\text{Target concentration}}{\text{stock concentration}}$ in mg/L * volume in uL = uL to add to each replicate

Specified Spike Values (mg/L)	Actual Spike Value - Background (mg/L)	Spiked Value Calculation		Total Volume Spiked in uL		Amount of Stock Solution to Add	Post Addition pH	Adjusted Final pH
3.7	2.96	2.96	*	250,000 uL	=	73.3 uL	7.5	—
		10,100				Added: 73		
7.4	6.66	6.66	*	uL	=	164.9 uL	7.3	—
		10,100				Added: 165		
14.8	14.06	14.06	*	uL	=	348.0 uL	6.2	7.3
		10,100				Added: 348		
29.6	28.86	28.86	*	uL	=	714.4 uL	5.3	7.5
		10,100				Added: 714		
59.3	58.56	58.56	*	uL	=	1449.5 uL	4.6	7.6
		10,100				Added: 1450		

Round #2
Analytical Lab Data



EAS

4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

19 November 2024

EAS NO.: 4K18037

Scotty Martin
ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu, TX 77521
RE: Biomonitoring

Project No.: Biomonitoring

Enclosed are the results of analyses for samples received by the laboratory on 11/18/24 12:30. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

Bradley W Rader
Vice President

Earth Analytical Sciences, Inc. (EAS) warrants that work will be performed in accordance with sound laboratory practice and professional standards, but makes no other warranty, expressed or implied. In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of EAS shall be to re-perform the work at its own expense, and EAS shall have no other liability whatsoever. In no event shall EAS be liable, whether in contract or tort, including negligence, for any incidental or consequential damages. If this provision is in conflict with other contractual terms, it is understood that this provision will, in all cases, prevail. This report can only be reproduced in full with written approval and consent of Earth Analytical Sciences, Inc.



EAS is a NELAP accredited laboratory and meets the guidance requirements put forth by "The NELAC Institute" (2016) for NELAP accredited parameters at EAS, unless noted otherwise. NELAP analyte certifications are considered to be approved in Texas and Louisiana for all analytes, unless denoted with an (E-1) under "Certification". Those analytes certified in either Texas or Louisiana, but not both, will be noted by "Case Narrative".

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(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/19/24 12:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Cooler Temp C	Date Sampled	Date Received
Outfall - Comp.	4K18037-01	Wastewater	2.3	11/18/24 09:00	11/18/24 12:30

Sample Receipt Checklist

COC complete w/ required dates, times, signatures?	Yes
Chain of Custody Seal on Shipping Container?	No
If yes, is seal intact?	No
COC Seals on containers?	No
If yes, is seal intact?	No
Samples received with evidence of chilling?	Yes
Was a temperature blank used?	Yes
Samples received were not frozen & acceptable?	Yes
Are samples received on ice?	Yes
Therm. ID#200787226. Bias temp. (if appl.) on chain	Yes
Cooler temperature was acceptable and recorded?	Yes
Proof of chilling, sampled same day & acceptable?	Yes
Are sample containers intact (not damaged)?	Yes
Are acceptable containers used?	Yes
Were EnCore-Type samplers used, where applicable?	No
Is volume of samples sufficient for all analyses?	Yes
Are required preservatives documented acceptable?	Yes
Preserved samples checked for pH and acceptable?	Yes
Are samples that require adjusted pH documented?	No
VOAs requiring zero headspace have none or <6mm?	No
Are samples received within holding times?	Yes
Containers properly labeled and COC match labels?	Yes



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Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/19/24 12:10

Outfall - Comp.

Work Order # : **4K18037-01**

Collection Date & Time : **11/18/2024 9:00:00AM**

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Method	Cert	Analyst	Notes
Total Metals by ICP-MS - EPA Method 200.8/6020									
Aluminum	744	2.50	ug/L	11/18/24 14:30	11/19/24 10:39	EPA 200.8/6020		TDM	E



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Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/19/24 12:10

Total Metals by ICP-MS - EPA Method 200.8/6020 - Quality Control
Earth Analytical Sciences, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyst	Notes
Batch B4K0322 - 3015A											
Blank (B4K0322-BLK1)											
						Prepared: 11/18/24 Analyzed: 11/19/24					
Aluminum	<2.50	2.50	ug/L							TDM	
LCS (B4K0322-BS1)											
						Prepared: 11/18/24 Analyzed: 11/19/24					
Aluminum	112	2.50	ug/L	139		81	85-115			TDM	Q1
Matrix Spike (B4K0322-MS1)											
		Source: 4K14050-01		Prepared: 11/18/24 Analyzed: 11/19/24							
Aluminum	7020	125	ug/L	6940	ND	101	70-130			TDM	
Matrix Spike Dup (B4K0322-MSD1)											
		Source: 4K14050-01		Prepared: 11/18/24 Analyzed: 11/19/24							
Aluminum	6930	125	ug/L	6940	ND	100	70-130	1	20	TDM	



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Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/19/24 12:10

Qualifiers, Definitions & Notes

Q1 **The Laboratory Control Sample (LCS) % Recovery was outside of QC acceptance criteria for this analysis method.**

E **Estimated Value reported above the Upper Quantitation Limit (UQL), which is the highest calibration standard in the laboratory' initial calibration curve & adjusted for initial sample volume or weight.**

mg/L	milligrams per liter	<	Results are less than the reporting limit
mg/kg	milligrams per kilogram	ND	Non Detected at reporting limit
ug/g	microgram per gram	LCS	Laboratory Control Sample
ug/kg	microgram per kilogram	RPD	Relative Percent Difference
ug/L	microgram per liter		

All results are reported on a wet weight basis unless otherwise requested by the client.

If the Blank and/or LCS is qualified, a Case Narrative is included providing details for reporting decisions based on discussions of project management, technical operations and the end data user(Client).

MS/MSD and/or Surrogate results, that are qualified, are sample matrix driven anomalies and therefore, as defined by TNI Standards, not used to determine the validity of the analysis batch.

CHAIN OF CUSTODY RECORD

Project: **Aluminum Study**
 Project #: _____
 Location: _____
 P.O. #: _____
 Fax #: _____

Phone: (409) 842-0658 Fax: (409) 842-9793

Analysis Requested

[illegible]

LAB USE ONLY:

Cooler Temperature:

TAT - Working Days (TCLP): 10 Day(STD) 5 Day(RUSH) 2-3 Day(ASAP)

SAMPLED BY PRINT NAME: Michael Morris

DATE:

RECEIVED BY:

TIME:

ORGANIZATION:

DATE:

RECEIVED BY:

TIME:

ORGANIZATION:

DATE: 11-18-21

RECEIVED AT LABORATORY BY:

TIME: 1230

ORGANIZATION: **Earth Analytical Sciences, Inc.**

CONTAINER: (GA) Glass Amber (G) Glass (P) Plastic (V/A) 40ml Glass Vial w/Teflon Septum

(EC) EnCore-type Samplers

FRM-SC1
Revision 5

Page 6 of 6



December 05, 2024

Laboratory Report

Chris Robason
Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Report ID: 20241205154121AEN

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 Monica O. Martin
Chief Executive Officer



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Sample Results

Client Sample ID: Effluent Sample Matrix: Aqueous
Lab Sample ID: 24K4031-01 Date Collected: 11/19/2024 16:20
Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none] Collected by: Christina Henderson

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Dissolved										
EPA 200.8	Aluminum	A	0.00705	mg/L	1	0.000167	0.00625	BHK2947	11/23/2024 10:58	JKC
General Chemistry										
SM 2540 D	Residue-nonfilterable (TSS)	A	15.3	mg/L	1	1.00	1.00	BHK2971	11/25/2024 07:08	JRU

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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: Lab FW
Lab Sample ID: 24K4031-02

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	<0.00625U	mg/L	1	0.000167	0.00625	BHK3190	12/03/2024 14:39	ISS
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Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: 3.7 Eff
Lab Sample ID: 24K4031-03

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	3.43	mg/L	50	0.00835	0.125	BHK3190	11/26/2024 15:12	JKC
-----------	----------	---	------	------	----	---------	-------	---------	------------------	-----

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Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: 7.4 Eff
Lab Sample ID: 24K4031-04

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	7.98	mg/L	50	0.00835	0.125	BHK3190	11/26/2024 15:14	JKC
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2501 Mayes Road, Suite 100
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Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: 14.8 Eff
Lab Sample ID: 24K4031-05

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	15.8	mg/L	50	0.00835	0.125	BHK3190	11/26/2024 15:17	JKC
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Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: 29.6 Eff
Lab Sample ID: 24K4031-06

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	29.6	mg/L	100	0.0167	0.625	BHK3190	11/27/2024 09:55	ISS
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Reported:
12/05/2024 15:41

Sample Results
(Continued)

Client Sample ID: 59.3 Eff
Lab Sample ID: 24K4031-07

Sample Matrix: Aqueous
Date Collected: 11/19/2024 16:20
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Total

EPA 200.8	Aluminum	A	55.9	mg/L	250	0.0418	1.56	BHK3191	11/27/2024 09:57	ISS
-----------	----------	---	------	------	-----	--------	------	---------	------------------	-----

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Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK3190 - EPA 200.8										
Blank (BHK3190-BLK2)										
Aluminum	<0.00250	U	0.00250	mg/L						
Prepared: 11/23/2024 Analyzed: 11/26/2024										
LCS (BHK3190-BS2)										
Aluminum	0.267		0.00625	mg/L	0.250		107	85-115		
Prepared: 11/23/2024 Analyzed: 11/26/2024										
Duplicate (BHK3190-DUP4)										
Aluminum	0.0114		0.00250	mg/L		0.00994			13.4	20
Prepared: 11/23/2024 Analyzed: 11/26/2024										
Duplicate (BHK3190-DUP5)										
Aluminum	0.186	J1	0.00250	mg/L		0.147			23.6	20
Prepared: 11/23/2024 Analyzed: 11/26/2024										
Matrix Spike (BHK3190-MS4)										
Aluminum	0.679	J1	0.312	mg/L	0.250	0.147	213	75-125		
Prepared: 11/23/2024 Analyzed: 11/26/2024										
Matrix Spike (BHK3190-MS5)										
Aluminum	0.254		0.00625	mg/L	0.250	0.00994	97.6	75-125		
Prepared: 11/23/2024 Analyzed: 11/27/2024										
Batch: BHK3191 - EPA 200.8										
Blank (BHK3191-BLK1)										
Aluminum	<0.00500	U	0.00500	mg/L						
Prepared: 11/23/2024 Analyzed: 11/25/2024										
LCS (BHK3191-BS1)										
Aluminum	0.250		0.00625	mg/L	0.250		100	85-115		
Prepared: 11/23/2024 Analyzed: 11/25/2024										
Duplicate (BHK3191-DUP1)										
Aluminum	0.00283	U	0.00500	mg/L		0.00291			2.86	20
Prepared: 11/23/2024 Analyzed: 11/25/2024										

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Carrollton, TX 75006

Reported:
12/05/2024 15:41

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK3191 - EPA 200.8 (Continued)										
Duplicate (BHK3191-DUP2)										
Aluminum	0.0135		0.00500	mg/L		0.0134			1.08	20
Matrix Spike (BHK3191-MS1)										
Aluminum	0.241		0.00625	mg/L	0.250	0.00291	95.4	75-125		
Matrix Spike (BHK3191-MS2)										
Aluminum	0.261		0.00625	mg/L	0.250	0.0134	99.2	75-125		

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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Quality Control
(Continued)

Metals, Dissolved

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHK2947 - EPA 200.8 Dissolved									
Blank (BHK2947-BLK1)									
Aluminum	<0.00625	U	0.00625	mg/L					
Prepared: 11/22/2024 Analyzed: 11/23/2024									
LCS (BHK2947-BS1)									
Aluminum	0.254		0.00625	mg/L	0.250		102 85-115		
Prepared: 11/22/2024 Analyzed: 11/23/2024									
Duplicate (BHK2947-DUP1)									
Aluminum	0.00132	U	0.00625	mg/L		0.00165		21.9	20
Prepared: 11/22/2024 Analyzed: 11/23/2024									
Matrix Spike (BHK2947-MS1)									
Aluminum	0.239		0.00625	mg/L	0.250	0.00165	95.0 75-125		
Prepared: 11/22/2024 Analyzed: 11/23/2024									

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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK2971 - TSS										
Blank (BHK2971-BLK1)										
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L						
Prepared: 11/22/2024 Analyzed: 11/25/2024										
LCS (BHK2971-BS1)										
Residue-nonfilterable (TSS)	99.3		1.00	mg/L	100		99.3	85-115		
Prepared: 11/22/2024 Analyzed: 11/25/2024										
Duplicate (BHK2971-DUP1)										
Residue-nonfilterable (TSS)	3.79		1.00	mg/L		3.79			0.00	10
Source: 24K3670-01 Prepared: 11/22/2024 Analyzed: 11/25/2024										
Duplicate (BHK2971-DUP2)										
Residue-nonfilterable (TSS)	4.21		1.00	mg/L		4.21			0.00	10
Source: 24K3837-02 Prepared: 11/22/2024 Analyzed: 11/25/2024										

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



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

Sample Condition Checklist

Work Order: 24K4031

Check Points

No	Custody Seals
Yes	Containers Intact
No	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



Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
12/05/2024 15:41

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.

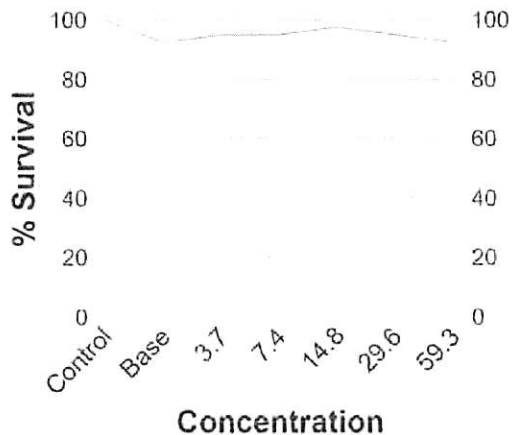
* A = Accredited, N = Not Accredited or Accreditation not available

DATA FOR Aluminum Study Round #3

Aluminum Spiked 100% Effluent

Ceriodaphnia dubia

LAB ID: 93832



BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVALOrganism: Ceriodaphnia dubia 48 Hr AcuteClient: ExxonMobil - Mont Belvieu Plastics PlantLab ID: 93832Outfall: Aluminum Spiked 100%TEST INSTRUCTIONS: IC25 / Critical Dilutions 97%Culture No. : Bio 11262024RANDOMIZATION: 1ExC-4 0

Units	No. Surviving Organisms, 0 Hrs.				No. Surviving Organisms, 24 Hrs.				No. Surviving Organisms, 48 Hrs.			
	A	B	C	D	A	B	C	D	A	B	C	D
Concentration												
Control	10	—	—	—	10	—	—	—	10	—	—	10
Base	10	—	—	—	10	—	—	—	8 ₂	9 ₁	10	10
3.7	10	—	—	—	10	—	—	—	8 ₂	10	—	10
7.4	10	—	—	—	10	—	—	—	10	10	9 ₁	9 ₁
14.8	10	—	—	—	10	—	—	—	10	9 ₁	10	10
29.6	10	—	—	—	10	—	—	—	10	10	8 ₂	10
59.3	10	—	—	—	10	—	—	—	7 ₃	10	—	10
Date/Time	11-26-24 1430				11-27-24 1355				11-28-24 1105			
Technician	CH				CH				MH			

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable.

BIO-AQUATIC TESTING, INC.

2501 Mayes Road, Suite 100

Carrollton, Texas 75006

Tel: 972-242-7750

Fax: 972-242-7749

48 HOUR ACUTE SURVIVAL

Organism: Ceriodaphnia dubia 48 Hr Acute

Client: ExxonMobil - Mont Belvieu Plastics Plant

Lab ID: 93832

Outfall: Aluminum Spiked 100%

Test Temperatures

	0Hr	24Hr		48Hr
	new	old / new	old	
Control	21.0 21.0	21.2 21.2	21.5 21.5	25.5
Base	-	-	-	-
3.7	-	-	-	-
7.4	-	-	-	-
14.8	-	-	-	-
29.6	-	-	-	-
59.3	-	-	-	-
	-	-	-	-
TIME/DATE TECH	11-26-24 CA 1430	11-27-24 CA 1355	11-28-24 MH 1105	
IR GUN ID #	021	021	021	

Lined through spaces preceded by a number represent the same number. Lined spaces without a preceding number indicate unused or not applicable spaces.

93832

Bio-Aquatic Testing, Inc.

FRESH WATER TEST SETUP FORM

Client: ExxonMobilPermit '02546Facility: Mont Belvieu Plastics PlantLab Number 93832Outfall Name: Aluminum Spiked 100%Number of samples 1Dilution Water: Synthetic LabReceiving Water Name: Cedar Bayou above Tidal

Dechlorinate Sample: _____

Sx #	Rcvd Date	Rcvd Time	Sampling Dates		Sampling Time	
			Begin Date	End Date	Start	End
1	11/26/24	10:30	11/24/24	11/25/24	12:00	11:00

Type of Test(s)

Ceriodaphnia dubia 48 Hr AcuteStart Sx # 1 Date: 11/26/2024

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Renew Sx # _____ Date: _____

Test Start Date: _____ Test End Date: _____

11/26/2024 11/28/2024

Dilution Water

Sample #	Hardness	Alkalinity
	As mg/L CaCO ₃	as mg/L CaCO ₃
1	122	65

Ceriodaphnia dubia Test Set Up: 4 Reps & 10 Organisms per Rep

Test Set Up: _____

Concentrations: Base 3.7 7.4 14.8 29.6 59.3Test Chemistry on these dilutions: Base 3.7 7.4 14.8 29.6 59.3

Samples received by: ☐ Express Delivery ☐ UPS Next Day ☐ via Air Cargo ☐ DHL
☒ Federal Express ☐ the Client ☐ Bio-Aquatic personnel

Other: _____

BIO-AQUATIC TESTING, INC.

Hardness, Alkalinity, Residual Chlorine, Specific Conductivity, and Salinity Analysis Data

Client: ExxonMobil

Lab ID: 93832

Facility: Mont Belvieu Plastics Plant

Outfall: Aluminum Spiked 100%

Dilution Water(s): Synthetic Lab

Test Date: November 26, 2024

EFFLUENT PARAMETERS

Effluent Sample #	Received		Residual Cl ₂ (mg/L)	DeChlor (ml/L) ¹	Ammonia (mg/L)	Analyst Initials	Temp. Received
	Date	Time					
1	11/26/24	10:30	<0.10	N/A	<0.25	CH	3.9

¹Dechlorination Reagent: 0.025 N Sodium Thiosulfate

Effluent Sample #	pH	DO (mg/L)	Hardness (mg/L CaCO ₃)	Alkalinity (mg/L CaCO ₃)	Conductivity (umhos/cm)	Analyst Initials
1	7.1	11.0	194	123	982	CH

DAILY RENEWAL CONDUCTIVITY**

Date		Sample #	Values are at Highest Dilution		Analyst
			Specific Conductivity as umhos/cm	Salinity (ppt)	
11/26	Lab H2O		499	0.3	MS
11/27	Lab H2O				JS
11/28	Lab H2O				
11/29	Lab H2O				
11/30	Lab H2O				
12/1	Lab H2O				
12/2	Lab H2O				
11/26	OUTFALL*	1	1844	1.0	MS
11/27	OUTFALL*				JS
11/28	OUTFALL*				
11/29	OUTFALL*				
11/30	OUTFALL*				
12/1	OUTFALL*				
12/2	OUTFALL*				

**Conductivity is taken on the highest remaining effluent concentration used for test renewal, not necessarily 100%

Analysis Methods: Chlorine: Hanna Colorimeter #HI711, Ammonia: Hanna Colorimeter #HI733, Hardness: Hanna Photometer #HI96735, Alkalinity: Hanna Colorimeter #HI775, pH DO Conductivity: Thermo Versa Star Benchtop Meter

pH, Dissolved Oxygen

Ceriodaphnia dubia

Lab ID: 93832

Dilution Water(s): Synthetic Lab

Test Begin Date: November 26, 2024

Concentration

[illegible]

CHAIN OF CUSTODY ROUND #3



BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

CHAIN OF CUSTODY

☐ No Only: No Sample Left Lab Id: **93832**

Please Review & Complete Sections A, B, C, & D.

Sample No: **93832**

Check Sample No.: ____ First, ____ Second, or ____ Third.

P.O. No: 455333184

Client: ExxonMobil

Facility: Mont Belvieu Plastics Plant

Permit No: 02546

Outfall: Aluminum Spiked 100%

Client Contact: JESSICA EASTBURN

Client Phone: 281-425-4212 **425-25047-01**

A. REVIEW SCHEDULED TEST(S):

48 Hr Acute	Ceriodaphnia dubia

To Ship the
1st Sample on:
11/25/2024

Concentration: Base 3.7 7.4 14.8 29.6 59.3

(For TX) Setup separate 24hr Acute Test? ☐ No

B. Use area below to make changes, if the Scheduled Test(s) in "A" are incorrect:

Freshwater Species					Saltwater Species	
C. dubia (water flea)	D. pullex (water flea)	D. magna (water flea)	P. promelas (minnow)	Selenastrum (green algae)	M. beryllina (minnow)	Mysidopsis (shrimp)
<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour	<input type="checkbox"/> Chronic <input type="checkbox"/> 96 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 24 Hour

Notes: Aluminum Study #3

Sample ID or Location: (Outfall No. or Name)	Sample Type: E = Effluent RS = Rec. Stream S = Sediment	Sample Date		Sample Time (military)		Grab or Composite	Sampled By: (Sign and Print Name)	Number Of Containers Shipped
		From	To	From	To			
1 001	E	11-24-24	11-25-24	12:00	11:00	Comp	<i>Michael Norris</i> Michael Norris	1
2								
3								

Relinquished By:		Date	Time	Received By:		Date	Time
<i>Michael Norris</i>		11-25-24	1330	<i>Michael Norris</i>		11-26-24	1030

Bio-Aquatic Sample Login

BAT sample personnel:

☒ Yes ☐ No

Dechlorinate Sample:

☐ Yes ☐ No

Dilution Water:

☐ Receiving Stream

☒ Synthetic Lab

Date: 11-26-24 Time: 1030 By: *Michael Norris* Temperature: 3.9 (C) IR# 0212
Chlorine: 20.1 mg/l Ammonia: 20.75 mg/l Int. SalCond: 982 ppt/uS Adj. Salinity: — ppt
pH: 7.1 Hardness: 194 mg/l (CaCO₃) Other:
DO: 11.0 mg/l Alkalinity: 123 mg/l (CaCO₃) Condition: good

Lab FW:
PH: 7.7 Cond: 334
DO: 8.7 H₂O: 122 ALK: 65

SUBCONTRACT ORDER
Earth Analytical Sciences, Inc.
Project Number: 4K25047

SENDING LABORATORY:

Earth Analytical Sciences, Inc.
4825 Ward Dr.
Beaumont, TX 77705
Phone: 409-842-0658
Fax: 409-842-9793
Project Manager: Bradley W Rader

brad@earthanalytical.com

RECEIVING LABORATORY:

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Ste. 100
Carrollton, TX 75006
Phone : (972) 242-7750
Fax:

State of Origin : TX

Due Date: 12/09/24 11:00

PO Number : 4K25047

Sample ID	SampleName	Matrix	Sampled	Container type & ID	Analysis	Comments
4K25047-01	001 / E - Comp.	Water	11/25/24 11:00	Containers and Unique ID: CUBE (A)	Analyses SUB - Biomonitoring	

Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Round #3

Aluminum Concentration Spiking Calculations

PARTITION COEFFICIENT STUDY CALCULATIONS

STOCK SOLUTION PREPARATION:

Calculate the milligrams of metal per gram of salt. There are 111.75 mg of Al in 1 gram of AlCl₃.

Make a 10000 mg/L solution of the metal salt required by adding 44.725 grams into 500 mLs.

The actual amount weighed for the stock solution: 44.727 grams.

STOCK SOLUTION SPIKING CALCULATIONS:

Stock solution conc.: 1010 mg/L * 10 = 10,100.

Effluent Baseline Amount: 1.22 mg/L

To calculate: $\frac{\text{Target concentration}}{\text{stock concentration}}$ in mg/L * volume in uL = uL to add to each replicate

Specified Spike Values (mg/L)	Actual Spike Value - Background (mg/L)	Spiked Value Calculation		Total Volume Spiked in uL		Amount of Stock Solution to Add	Post Addition pH	Adjusted Final pH
3.7	2.48	2.48	*	250,000 uL	=	61.4 uL	7.1	—
		10,100				Added: 61		
7.4	6.18	6.18	*	uL	=	153.0 uL	7.1	—
		10,100				Added: 153		
14.8	13.58	13.58	*	uL	=	336.1 uL	5.9 7.0	7.4
		10,100				Added: 336		
29.6	28.38	28.38	*	uL	=	702.5 uL	4.9	7.2
		10,100				Added: 703		
59.3	58.08	58.08	*	uL	=	1437.6 uL	4.5	7.2
		10,100				Added: 1438		

Round #3
Analytical Lab Data



4825 Ward Drive, Beaumont, TX 77705 (p) 409-842-0658 (f) 409-842-9793

25 November 2024

EAS NO.: 4K25048

Scotty Martin
ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu, TX 77521
RE: Biomonitoring
Project No.: Biomonitoring

Enclosed are the results of analyses for samples received by the laboratory on 11/25/24 13:30. If you have any questions concerning this report, please feel free to contact me.

Reviewed and Approved:

Bradley W Rader
Vice President

Earth Analytical Sciences, Inc. (EAS) warrants that work will be performed in accordance with sound laboratory practice and professional standards, but makes no other warranty, expressed or implied. In the event of any error, omission or other professional negligence, the sole and exclusive responsibility of EAS shall be to re-perform the work at its own expense, and EAS shall have no other liability whatsoever. In no event shall EAS be liable, whether in contract or tort, including negligence, for any incidental or consequential damages. If this provision is in conflict with other contractual terms, it is understood that this provision will, in all cases, prevail. This report can only be reproduced in full with written approval and consent of Earth Analytical Sciences, Inc.



EAS is a NELAP accredited laboratory and meets the guidance requirements put forth by "The NELAC Institute" (2016) for NELAP accredited parameters at EAS, unless noted otherwise. NELAP analyte certifications are considered to be approved in Texas and Louisiana for all analytes, unless denoted with an (E-1) under "Certification". Those analytes certified in either Texas or Louisiana, but not both, will be noted by "Case Narrative".



4825 Ward Drive
Beaumont, TX 77705
(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/25/24 16:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Cooler Temp C	Date Sampled	Date Received
Outfall - Comp.	4K25048-01	Wastewater	2.2	11/25/24 11:00	11/25/24 13:30

Sample Receipt Checklist

COC complete w/ required dates, times, signatures?	Yes
Chain of Custody Seal on Shipping Container?	No
If yes, is seal intact?	No
COC Seals on containers?	No
If yes, is seal intact?	No
Samples received with evidence of chilling?	Yes
Was a temperature blank used?	Yes
Samples received were not frozen & acceptable?	Yes
Are samples received on ice?	Yes
Therm. ID#200787226. Bias temp. (if appl.) on chain	Yes
Cooler temperature was acceptable and recorded?	Yes
Proof of chilling, sampled same day & acceptable?	Yes
Are sample containers intact (not damaged)?	Yes
Are acceptable containers used?	Yes
Were EnCore-Type samplers used, where applicable?	No
Is volume of samples sufficient for all analyses?	Yes
Are required preservatives documented acceptable?	Yes
Preserved samples checked for pH and acceptable?	Yes
Are samples that require adjusted pH documented?	No
VOAs requiring zero headspace have none or <6mm?	No
Are samples received within holding times?	Yes
Containers properly labeled and COC match labels?	Yes



4825 Ward Drive
Beaumont, TX 77705
(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/25/24 16:18

Outfall - Comp.

Work Order # : 4K25048-01

Collection Date & Time : 11/25/2024 11:00:00AM

Analyte	Result	Reporting Limit	Units	Prepared	Analyzed	Method	Cert	Analyst	Notes
Total Metals by ICP-MS - EPA Method 200.8/6020									
Aluminum	1220	2.50	ug/L	11/25/24 14:00	11/25/24 15:29	EPA 200.8/6020		TDM	E



4825 Ward Drive
Beaumont, TX 77705
(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/25/24 16:18

Total Metals by ICP-MS - EPA Method 200.8/6020 - Quality Control
Earth Analytical Sciences, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Analyst	Notes
Batch B4K0409 - 3015A											
Blank (B4K0409-BLK1)											
Prepared & Analyzed: 11/25/24											
Aluminum	<2.50	2.50	ug/L							TDM	
LCS (B4K0409-BS1)											
Prepared & Analyzed: 11/25/24											
Aluminum	152	2.50	ug/L	139		109	85-115			TDM	
Matrix Spike (B4K0409-MS1)											
Source: 4K21020-01 Prepared & Analyzed: 11/25/24											
Aluminum	7530	125	ug/L	6940	171	106	70-130			TDM	
Matrix Spike Dup (B4K0409-MSD1)											
Source: 4K21020-01 Prepared & Analyzed: 11/25/24											
Aluminum	7340	125	ug/L	6940	171	103	70-130	3	20	TDM	



4825 Ward Drive
Beaumont, TX 77705
(p) 409-842-0658
(f) 409-842-9793

ExxonMobil Mont Belvieu Plastic Plant
13330 Hatcherville Rd
Mont Belvieu TX, 77521

Project: Biomonitoring
Project Number: Biomonitoring
Project Manager: Scotty Martin

Reported:
11/25/24 16:18

Qualifiers, Definitions & Notes

E Estimated Value reported above the Upper Quantitation Limit (UQL), which is the highest calibration standard in the laboratory's initial calibration curve & adjusted for initial sample volume or weight.

mg/L	milligrams per liter	<	Results are less than the reporting limit
mg/kg	milligrams per kilogram	ND	Non Detected at reporting limit
ug/g	microgram per gram	LCS	Laboratory Control Sample
ug/kg	microgram per kilogram	RPD	Relative Percent Difference
ug/L	microgram per liter		

All results are reported on a wet weight basis unless otherwise requested by the client.

If the Blank and/or LCS is qualified, a Case Narrative is included providing details for reporting decisions based on discussions of project management, technical operations and the end data user(Client).

MS/MSD and/or Surrogate results, that are qualified, are sample matrix driven anomalies and therefore, as defined by TNI Standards, not used to determine the validity of the analysis batch.

Project: Aluminum Study
 Project #: _____
 Location: _____
 P.O. #: _____
 Fax #: _____

4825 Ward Drive
Beaumont, Texas 77705
Phone: (409) 842-0658 Fax: (409) 842-9793

Client: Exxon Mont Belvieu Plastics
Address: 13330 Hatcherville Rd
Mont Belvieu, TX 77521
Contact: Jessica Eastburn
Phone #: 281-425-4212
E.A.S.# 4825048

[illegible]

LAB USE ONLY:

RECEIVED ON ICE: Y or N

Cooler Temperature:

22^e

TAT - Working Days (Round)	10 Day (STD)	3-5 Day (RUSH)	XX 24 Hr. (ASAP)
----------------------------	--------------	----------------	------------------

TAT - Working Days (TCLP): 10 Day(STD) 5 Day(RUSH) 2-3 Day(ASAP)

SAMPLED BY: *MLW*

SAMPLED BY PRINT NAME:

RELINQUISHED BY:

DATE:

RECEIVED BY:

ORGANIZATION:

TIME:

ORGANIZATION:

RELINQUISHED BY

DATE: _____

RECEIVED BY:

ORGANIZATION:

TIME:

ORGANIZATION:

RELINQUISHED E

DATE:

RECEIVED AT LABORATORY BY:

ORGANIZATION:

TIME:

ORGANIZATION: Earth Analytics Sciences, Inc.

MATRIX: (W) Water (WW) Wastewater (L) Liquid (SL) Sludge (S) Soil (SD) Solid (O) Oil

CONTAINER: (G/A) Glass Amber (G) Glass (P) Plastic (VOA) 40ml Glass Vial w/Teflon Septum

PRESERVATIVE: (1) H_2SO_4 (2) HNO_3 (3) $NaOH/Zinc\ Acetate$ (4) HCl (5) $Na_2S_2O_3$ (6) $NaOH$ (7) $NaHSO_4$ (8) $H_2SO_4/CuSO_4$ (9) $NaOH/Ascorbic\ Acid$

FRM-SC1

Revision 5

12/28/2009
Erion MI Belvieu-Al



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

January 03, 2025

Laboratory Report

Chris Robason
Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Report ID: 20250103145659JKW

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 Monica O. Martin
Chief Executive Officer



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:56

Sample Results

Client Sample ID: Effluent
Lab Sample ID: 24K4885-01

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

Metals, Dissolved

EPA 200.8	Aluminum	A	0.0401	mg/L	1	0.000167	0.00625	BHL0579	12/08/2024 09:30	JKC
-----------	----------	---	--------	------	---	----------	---------	---------	------------------	-----

General Chemistry

SM 2540 D	Residue-nonfilterable (TSS)	A	16.8	mg/L	1	1.00	1.00	BHL0096	12/03/2024 13:07	BP
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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: Lab FW
Lab Sample ID: 24K4885-02

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	<0.00500U	mg/L	1	0.000167	0.00500	BHL0345	12/06/2024 10:49	JKC
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 3.7 Eff
Lab Sample ID: 24K4885-03

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	2.67	mg/L	10	0.00167	0.0500	BHL0345	12/06/2024 11:13	JKC
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 7.4 Eff
Lab Sample ID: 24K4885-04

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	6.13	mg/L	20	0.00334	0.100	BHL0345	12/06/2024 11:15	JKC
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01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 14.8 Eff
Lab Sample ID: 24K4885-05

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	13.5	mg/L	50	0.00835	0.250	BHL0210	12/04/2024 17:10	ISS
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 29.6 Eff
Lab Sample ID: 24K4885-06

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	4.68	mg/L	100	0.0167	0.500	BHL0345	12/06/2024 11:17	JKC
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 29.6 Eff
Lab Sample ID: 24K4885-06RE1

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study

[none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum (Rerun)	A	29.7	mg/L	200	0.0334	1.25	BHL1962	12/17/2024 11:35	JKC
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 59.3 Eff
Lab Sample ID: 24K4885-07

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	1.63	mg/L	250	0.0418	1.25	BHL0345	12/06/2024 11:22	JKC
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Reported:
01/03/2025 14:56

Sample Results
(Continued)

Client Sample ID: 59.3 Eff
Lab Sample ID: 24K4885-07RE1

Sample Matrix: Aqueous
Date Collected: 11/26/2024 15:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum (Rerun)	A	61.2	mg/L	200	0.0334	1.25	BHL1962	12/17/2024 11:37	JKC
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Reported:
01/03/2025 14:56

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHL0210 - EPA 200.8										
Blank (BHL0210-BLK2)										
Aluminum	<0.00500	U	0.00500	mg/L	Prepared: 12/3/2024 Analyzed: 12/4/2024					
LCS (BHL0210-BS2)										
Aluminum	0.260		0.00500	mg/L	0.250		104	85-115		
Duplicate (BHL0210-DUP3)										
Aluminum	<0.00500	U	0.00500	mg/L	Prepared: 12/3/2024 Analyzed: 12/4/2024				200	20
Duplicate (BHL0210-DUP4)										
Aluminum	0.0153		0.00500	mg/L	Prepared: 12/3/2024 Analyzed: 12/4/2024				19.1	20
Matrix Spike (BHL0210-MS3)										
Aluminum	0.259		0.00500	mg/L	0.250	0.000276	104	75-125		
Matrix Spike (BHL0210-MS4)										
Aluminum	0.270		0.00500	mg/L	0.250	0.0185	101	75-125		
Batch: BHL0345 - EPA 200.8										
Blank (BHL0345-BLK2)										
Aluminum	<0.00500	U	0.00500	mg/L	Prepared: 12/4/2024 Analyzed: 12/6/2024					
LCS (BHL0345-BS2)										
Aluminum	0.249		0.00500	mg/L	0.250		99.6	85-115		
Duplicate (BHL0345-DUP3)										
Aluminum	0.00175	U	0.00500	mg/L	Prepared: 12/4/2024 Analyzed: 12/6/2024				52.1	20

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Reported:
01/03/2025 14:56

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHL0345 - EPA 200.8 (Continued)										
Duplicate (BHL0345-DUP4)		Source: 24L1249-01		Prepared: 12/4/2024 Analyzed: 12/6/2024						
Aluminum	0.00209	U	0.00500	mg/L		0.0474			183	20
Matrix Spike (BHL0345-MS3)		Source: 24K5052-02		Prepared: 12/4/2024 Analyzed: 12/6/2024						
Aluminum	0.267		0.00500	mg/L	0.250	0.00298	106	75-125		
Matrix Spike (BHL0345-MS4)		Source: 24L1249-01		Prepared: 12/4/2024 Analyzed: 12/6/2024						
Aluminum	0.264		0.00500	mg/L	0.250	0.0474	86.8	75-125		
Batch: BHL1962 - EPA 200.8										
Blank (BHL1962-BLK2)		Prepared: 12/16/2024 Analyzed: 12/17/2024								
Aluminum	<0.00625	U	0.00625	mg/L						
LCS (BHL1962-BS2)		Prepared: 12/16/2024 Analyzed: 12/17/2024								
Aluminum	0.256		0.00625	mg/L	0.250		103	85-115		
Duplicate (BHL1962-DUP2)		Source: 24L2849-01		Prepared: 12/16/2024 Analyzed: 12/17/2024						
Aluminum	0.715		0.0312	mg/L		0.700			2.11	20
Matrix Spike (BHL1962-MS2)		Source: 24L2849-01		Prepared: 12/16/2024 Analyzed: 12/17/2024						
Aluminum	0.934		0.0312	mg/L	0.250	0.700	93.4	75-125		

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Reported:
01/03/2025 14:56

Quality Control
(Continued)

Metals, Dissolved

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHL0579 - EPA 200.8 Dissolved										
Blank (BHL0579-BLK1)										
Aluminum	<0.00625	U	0.00625	mg/L						
Prepared: 12/5/2024 Analyzed: 12/8/2024										
LCS (BHL0579-BS1)										
Aluminum	0.245		0.00625	mg/L	0.250		98.0	85-115		
Prepared: 12/5/2024 Analyzed: 12/8/2024										
Duplicate (BHL0579-DUP1)										
Source: 24K4630-02										
Aluminum	0.0243		0.00625	mg/L		0.0248			1.94	20
Prepared: 12/5/2024 Analyzed: 12/8/2024										
Matrix Spike (BHL0579-MS1)										
Source: 24K4630-02										
Aluminum	0.269		0.00625	mg/L	0.250	0.0248	97.8	75-125		
Prepared: 12/5/2024 Analyzed: 12/8/2024										

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Reported:
01/03/2025 14:56

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch: BHL0096 - TSS									
Blank (BHL0096-BLK1)									
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L					
Prepared: 12/2/2024 Analyzed: 12/3/2024									
LCS (BHL0096-BS1)									
Residue-nonfilterable (TSS)	98.7		1.00	mg/L	100		98.7 85-115		
Prepared: 12/2/2024 Analyzed: 12/3/2024									
Duplicate (BHL0096-DUP1)									
Residue-nonfilterable (TSS)	8.21		1.00	mg/L		8.21		0.00	10
Source: 24K0645-01 Prepared: 12/2/2024 Analyzed: 12/3/2024									
Duplicate (BHL0096-DUP2)									
Residue-nonfilterable (TSS)	4.21	J1	1.00	mg/L		3.58		16.2	10
Source: 24K4706-01 Prepared: 12/2/2024 Analyzed: 12/3/2024									

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2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:56

Sample Condition Checklist

Work Order: 24K4885

Check Points

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

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Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
01/03/2025 14:56

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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BIO-AQUATIC TESTING, INC.
2501 MAYES RD., STE. 100
CARROLLTON, TX 75006
PH: 972-242-7750 FAX: 972-242-7749

ANALYTICAL CHAIN OF CUSTODY

Bio-Aquatic Lab ID: 24 - 628

Bio Project ID:

ANALYTICAL PROJECT: ANALY

24K4885



Client: BIO-AQUATIC TESTING, INC Phone: 972-242-7750 TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d

Project/ID: Exxon Aluminum Study #3

Project Manager: Christina Project State: TX

Bill To: Accounting Quote/PO#:

Sampled By: (Sign and Print Name)

Chick C. Henderson

MATRIX:	CONTAINER SIZE:	CONTAINER TYPE:	PRESERVATIVES:
AIR: <u>A</u>	4 oz: <u>4</u>	GLASS AMB: <u>A</u>	VARIOUS: <u>V</u>
PRODUCT: <u>P</u>	8 oz: <u>8</u>	GLASS CLEAR: <u>C</u>	HCl (pH<2): <u>H</u>
SOLID: <u>S</u>	32 oz: <u>32</u>	PLASTIC: <u>P</u>	H2SO4 (pH<2): <u>S</u>
WATER: <u>W</u>	500 mL: <u>5</u>	OTHER: <u>O</u>	HNO3(pH<2): <u>N</u>
	1000 mL: <u>1</u>		Cool/Ice(<4C): <u>C</u>
	VOA: <u>V</u>		NONE: <u>NA</u>
	Other: <u> </u>		Other: <u> </u>

Sample ID or Location: (Outfall No. or Name)	Sample Date	Time	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	Total	Dissol	TSS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Relinquished By:		Date & Time	Received By:		Date & Time	NOTES/SPECIAL REQUESTS: <u>* Target Al values range from</u> <u>ND to 59.3 mg/L</u> <u>112°C</u>
Signature	Initials		Signature	Initials		
1 <u>Chick</u>	<u>CHA</u>	<u>11-26-24 1530</u>		<u>FedEx</u>	<u>11/26/24 1530</u>	
2						
3	<u>FedEx</u>	<u>11/27/24 0938</u>		<u>LFK</u>	<u>11/27/24 0938</u>	

Aluminum Stock Solution
Analytical Data



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

November 07, 2024

Laboratory Report

Chris Robason
Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Report ID: 20241107150611AEN

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 cursive script, appearing to read "Aundra Noe".

Aundra Noe For Monica O. Martin
Chief Executive Officer



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
11/07/2024 15:06

Sample Results

Client Sample ID: AI Stock
Lab Sample ID: 24K1539-01

Sample Matrix: Aqueous
Date Collected: 11/04/2024 16:00
Collected by: Christina Henderson

Bio-Aquatic Testing Inc. -NP- Exxon Aluminum Study [none]

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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Metals, Total

EPA 200.8	Aluminum	A	1010	mg/L	5000	0.835	12.5	BHK0468	11/07/2024 10:30	TBB
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* A = Accredited, N = Not Accredited or Accreditation not available



130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www.NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
11/07/2024 15:06

Quality Control

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHK0468 - EPA 200.8										
Blank (BHK0468-BLK1)										
Aluminum	<0.00250	U	0.00250	mg/L						
Prepared: 11/6/2024 Analyzed: 11/7/2024										
LCS (BHK0468-BS1)										
Aluminum	0.259		0.00250	mg/L	0.250		103	85-115		
Prepared: 11/6/2024 Analyzed: 11/7/2024										
Duplicate (BHK0468-DUP1)										
			Source: 24K1382-02			Prepared: 11/6/2024 Analyzed: 11/7/2024				
Aluminum	0.0310		0.00250	mg/L		0.0308			0.563	20
Prepared: 11/6/2024 Analyzed: 11/7/2024										
Duplicate (BHK0468-DUP2)										
			Source: 24K1494-02			Prepared: 11/6/2024 Analyzed: 11/7/2024				
Aluminum	0.0153		0.00250	mg/L		0.0128			17.5	20
Prepared: 11/6/2024 Analyzed: 11/7/2024										
Matrix Spike (BHK0468-MS1)										
			Source: 24K1382-02			Prepared: 11/6/2024 Analyzed: 11/7/2024				
Aluminum	0.273		0.00250	mg/L	0.250	0.0308	97.0	75-125		
Prepared: 11/6/2024 Analyzed: 11/7/2024										
Matrix Spike (BHK0468-MS2)										
			Source: 24K1494-02			Prepared: 11/6/2024 Analyzed: 11/7/2024				
Aluminum	0.268		0.00250	mg/L	0.250	0.0128	102	75-125		
Prepared: 11/6/2024 Analyzed: 11/7/2024										

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130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
11/07/2024 15:06

Sample Condition Checklist

Work Order: 24K1539

Check Points

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



Bio-Aquatic Testing, Inc.
2501 Mayes Road, Suite 100
Carrollton, TX 75006

Reported:
11/07/2024 15:06

Term and Qualifier Definitions

Item	Definition
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

Thomas Starr

From: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Sent: Friday, February 28, 2025 4:47 PM
To: Thomas Starr
Cc: Michael Pfeil; Gardner, Mesha Covington
Subject: RE: WQ0002546000
Attachments: MBPP Outfall 001 PC Study Report 2-26-25.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Starr,

Attached you will find the final report for the Mont Belvieu Plastics Plant Aluminum Partition Coefficient Study. Please let me know if this document should be submitted in another format or to a specific contact at TCEQ. Do not hesitate to reach out should you need further information or have any questions.

Kind Regards,

Jessica Eastburn
Baytown Area Water & OCS Advisor
ExxonMobil Product Solutions
BaytownWater@exxonmobil.com

Office: 832-864-4924
Cell: 832-784-4252



From: Thomas Starr <Thomas.Starr@Tceq.Texas.Gov>
Sent: Tuesday, October 22, 2024 11:50 AM
To: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Subject: WQ0002546000

Jessica,

Has the aluminum study been completed yet?

I have drafted the permit but without the results of the study an aluminum limit will need to be placed in the draft.
Thomas

Sincerely,

Thomas E. Starr, P.E.

Permit Writer
Water Quality Division
Wastewater Permitting, Industrial Permits
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg F, Room 2101
Phone: 512-239-4570



Customer Satisfaction Survey

Thomas Starr

From: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Sent: Wednesday, October 23, 2024 12:12 PM
To: Thomas Starr
Cc: Gardner, Mesha Covington
Subject: RE: WQ0002546000

Good Afternoon Mr. Star,
We have completed the 30-week sample portion of the study and should have the WET Study Plan by EOB today.
We will conduct the WET testing as soon as we align on a date with our 3rd party sampling vendors.

Kind Regards,

Jessica Eastburn
Baytown Area Water & OCS Advisor
ExxonMobil Product Solutions
BaytownWater@exxonmobil.com

Office: 832-864-4924
Cell: 832-784-4252



From: Thomas Starr <Thomas.Starr@Tceq.Texas.Gov>
Sent: Tuesday, October 22, 2024 11:50 AM
To: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Subject: WQ0002546000

Jessica,
Has the aluminum study been completed yet?
I have drafted the permit but without the results of the study an aluminum limit will need to be placed in the draft.
Thomas

Sincerely,

Thomas E. Starr, P.E.

Permit Writer
Water Quality Division
Wastewater Permitting, Industrial Permits
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg F, Room 2101
Phone: 512-239-4570



Customer Satisfaction Survey

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: Orlando M. Vasquez, Jr., P.E.
Water Quality Assessment Team
Water Quality Assessment Section

Date: October 02, 2024

Subject: Exxon Mobil Corporation
Permit Amendment (WQ0002546000, TX0089125)
Discharge to tributary of Cedar Bayou Above Tidal (Segment No. 0902) of the
Trinity-San Jacinto Coastal Basin

This memo supersedes the previous memo dated July 19, 2024.

The referenced applicant is proposing to amend and renew its permit authorizing discharge from a polyethylene manufacturing and catalyst production facility into the watershed of Cedar Bayou Above Tidal (Segment No. 0902). The discharge includes process wastewater, boiler and cooling tower blowdown, water treatment wastewater, and stormwater at 5.013 MGD via Outfall 001. The amendment includes removing the whole effluent toxicity (WET) testing and various changes to recordkeeping for Outfall 001. The facility is located in Chambers County.

303(d) Listings and Permit Recommendations

Segment No. 0902 is currently listed on the State's inventory of impaired and threatened waters (the **2022** Clean Water Section 303(d) list). The listing is for bacteria in water and **depressed dissolved oxygen** from a point 2.2 km (1.4 mi) upstream of IH 10 in Chambers/Harris County to a point 7.4 km (4.6 mi) upstream of FM 1960 in Liberty County (AU 0902_01). This discharge is into the DO impaired portion of Segment No. 0902. This application is an amendment and renewal of its permit. However, the proposed amendment wouldn't change the existing authorization and does not represent an increase in the permitted levels of oxygen demanding constituents to Segment No. 0902. The existing effluent limits of 393 lbs/day CBOD₅, 126 lbs/day NH₃-N, and 5.0 mg/L DO are recommended for the reissued permit.



Compliance History Report

Compliance History Report for CN600123939, RN102501020, Rating Year 2023 which includes Compliance History (CH) components from September 1, 2018, through August 31, 2023.

Customer, Respondent, or Owner/Operator: CN600123939, Exxon Mobil Corporation **Classification:** SATISFACTORY **Rating:** 6.31

Regulated Entity: RN102501020, EXXONMOBIL CHEMICAL MONT BELVIEU PLASTICS PLANT **Classification:** SATISFACTORY **Rating:** 2.66

Complexity Points: 25 **Repeat Violator:** NO

CH Group: 05 - Chemical Manufacturing

Location: 13330 HATCHERVILLE RD MONT BELVIEU, TX 77521-8748, CHAMBERS COUNTY

TCEQ Region: REGION 12 - HOUSTON

ID Number(s):

AIR OPERATING PERMITS ACCOUNT NUMBER CI0009P

AIR OPERATING PERMITS PERMIT 3995

AIR NEW SOURCE PERMITS ACCOUNT NUMBER CI0009P

AIR NEW SOURCE PERMITS AFS NUM 4807100016

AIR NEW SOURCE PERMITS REGISTRATION 123967

AIR NEW SOURCE PERMITS REGISTRATION 153086

AIR NEW SOURCE PERMITS REGISTRATION 165990

AIR NEW SOURCE PERMITS REGISTRATION 168992

AIR NEW SOURCE PERMITS REGISTRATION 162698

AIR NEW SOURCE PERMITS REGISTRATION 165992

AIR NEW SOURCE PERMITS PERMIT AMOC4

AIR NEW SOURCE PERMITS REGISTRATION 147496

AIR NEW SOURCE PERMITS REGISTRATION 149196

AIR NEW SOURCE PERMITS REGISTRATION 160521

AIR NEW SOURCE PERMITS REGISTRATION 153789

AIR NEW SOURCE PERMITS REGISTRATION 162548

AIR NEW SOURCE PERMITS EPA PERMIT PAL58

AIR NEW SOURCE PERMITS REGISTRATION 172502

AIR NEW SOURCE PERMITS REGISTRATION 175556

AIR NEW SOURCE PERMITS REGISTRATION 177109

STORMWATER PERMIT TXR05AS44

WASTEWATER PERMIT WQ0002546000

AIR EMISSIONS INVENTORY ACCOUNT NUMBER CI0009P

INDUSTRIAL AND HAZARDOUS WASTE EPA ID FXT000618090

TAX RELIEF ID NUMBER 23734

TAX RELIEF ID NUMBER 23735

AIR OPERATING PERMITS PERMIT 2276

AIR NEW SOURCE PERMITS PERMIT 19016

AIR NEW SOURCE PERMITS REGISTRATION 53389

AIR NEW SOURCE PERMITS PERMIT 103048

AIR NEW SOURCE PERMITS EPA PERMIT GHGPSDTX19

AIR NEW SOURCE PERMITS REGISTRATION 164223

AIR NEW SOURCE PERMITS REGISTRATION 163815

AIR NEW SOURCE PERMITS REGISTRATION 162871

AIR NEW SOURCE PERMITS REGISTRATION 163891

AIR NEW SOURCE PERMITS REGISTRATION 163246

AIR NEW SOURCE PERMITS REGISTRATION 151227

AIR NEW SOURCE PERMITS REGISTRATION 148325

AIR NEW SOURCE PERMITS REGISTRATION 154874

AIR NEW SOURCE PERMITS REGISTRATION 161134

AIR NEW SOURCE PERMITS REGISTRATION 157623

AIR NEW SOURCE PERMITS REGISTRATION 155768

AIR NEW SOURCE PERMITS REGISTRATION 172156

AIR NEW SOURCE PERMITS REGISTRATION 175548

AIR NEW SOURCE PERMITS REGISTRATION 170124

PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 36975

STORMWATER PERMIT TXR05EB61

WASTEWATER EPA ID TX0089125

POLLUTION PREVENTION PLANNING ID NUMBER P00230

INDUSTRIAL AND HAZARDOUS WASTE SOLID WASTE REGISTRATION # (SWR) 32238

TAX RELIEF ID NUMBER 23736

Compliance History Period: September 01, 2018 to August 31, 2023 **Rating Year:** 2023 **Rating Date:** 09/01/2023

Date Compliance History Report Prepared: August 29, 2024

Agency Decision Requiring Compliance History: Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

Component Period Selected: September 01, 2018 to August 31, 2023

TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.

Name: Thomas Starr

Phone: (512) 239-4570

Site and Owner/Operator History:

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:

- 1 Effective Date: 01/31/2023 ADMINORDER 2022-0232-AIR-E (1660 Order-Agreed Order With Denial)
Classification: Moderate
Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)
30 TAC Chapter 122, SubChapter B 122.143(4)
5C THSC Chapter 382 382.085(b)
Rqmt Prov Special Condition (18) PERMIT
Special condition 1 PERMIT
Description: Failure to prevent unauthorized emissions. Specifically, the Respondent released 1,075.00 pounds of volatile organic compounds as fugitive emissions, during an emissions event (Incident No. 369981) that occurred on November 12, 2021 and lasted 58 minutes. The emissions event occurred due to the manner of the nut and ferrule connection that caused the tubing to separate from the nut during the first repair attempt on a fugitive component, resulting in the release to the atmosphere.

B. Criminal convictions:

N/A

C. Chronic excessive emissions events:

N/A

D. The approval dates of investigations (CCEDS Inv. Track. No.):

Item 1	September 17, 2018	(1528479)
Item 2	October 17, 2018	(1534817)
Item 3	November 16, 2018	(1542670)
Item 4	December 17, 2018	(1546413)
Item 5	January 10, 2019	(1563317)
Item 6	February 20, 2019	(1563315)
Item 7	March 18, 2019	(1563316)
Item 8	April 16, 2019	(1573036)
Item 9	May 17, 2019	(1585674)
Item 10	May 20, 2019	(1554615)
Item 11	June 19, 2019	(1585675)
Item 12	July 19, 2019	(1594393)
Item 13	August 19, 2019	(1600686)
Item 14	September 20, 2019	(1607601)
Item 15	October 17, 2019	(1614471)
Item 16	November 15, 2019	(1620260)
Item 17	December 17, 2019	(1627609)
Item 18	January 20, 2020	(1635240)
Item 19	February 20, 2020	(1641855)
Item 20	March 17, 2020	(1648369)
Item 21	April 16, 2020	(1654721)
Item 22	May 15, 2020	(1661287)
Item 23	June 19, 2020	(1667814)
Item 24	July 17, 2020	(1674762)
Item 25	August 18, 2020	(1681532)
Item 26	September 09, 2020	(1669830)
Item 27	September 16, 2020	(1688110)
Item 28	October 16, 2020	(1694466)
Item 29	November 13, 2020	(1716006)
Item 30	December 16, 2020	(1716007)

Compliance History Report for CN600123939, RN102501020, Rating Year 2023 which includes Compliance History (CH) components from September 01, 2018, through August 31, 2023.

Item 31	January 11, 2021	(1692406)
Item 32	January 18, 2021	(1716008)
Item 33	February 18, 2021	(1729079)
Item 34	March 10, 2021	(1729080)
Item 35	April 19, 2021	(1729081)
Item 36	May 07, 2021	(1708534)
Item 37	June 16, 2021	(1741837)
Item 38	July 19, 2021	(1752882)
Item 39	August 02, 2021	(1739879)
Item 40	August 13, 2021	(1758290)
Item 41	September 16, 2021	(1767563)
Item 42	October 20, 2021	(1778077)
Item 43	November 18, 2021	(1784808)
Item 44	December 17, 2021	(1791840)
Item 45	February 16, 2022	(1807525)
Item 46	March 18, 2022	(1814566)
Item 47	March 24, 2022	(1775982)
Item 48	April 19, 2022	(1821134)
Item 49	May 19, 2022	(1829971)
Item 50	June 17, 2022	(1836281)
Item 51	July 20, 2022	(1843467)
Item 52	August 26, 2022	(1849631)
Item 53	September 09, 2022	(1857398)
Item 54	October 12, 2022	(1863753)
Item 55	November 17, 2022	(1870661)
Item 56	December 14, 2022	(1876518)
Item 57	February 09, 2023	(1866189)
Item 58	February 16, 2023	(1891146)
Item 59	March 17, 2023	(1899715)
Item 60	March 28, 2023	(1893443)
Item 61	April 17, 2023	(1885966)
Item 62	May 16, 2023	(1913671)
Item 63	May 30, 2023	(1898218)
Item 64	June 15, 2023	(1920280)
Item 65	July 17, 2023	(1927265)
Item 66	August 16, 2023	(1934209)

E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

1	Date:	06/09/2023	(1881191)	
	Self Report?	NO		Classification: Moderate
	Citation:	30 TAC Chapter 116, SubChapter B 116.115(c) 30 TAC Chapter 122, SubChapter B 122.143(4) 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)(3)(ii) 5C THSC Chapter 382 382.085(b) Special Condition 66 PERMIT Special Condition 67 PERMIT Special Term and Condition 18 OP Special Term and Condition 1A OP		
	Description:	Failure to maintain HDPE Flare net heating values (NHV) (EPN: HDFLARE). (Category B18(g)(1))		
	Self Report?	NO		Classification: Moderate
	Citation:	30 TAC Chapter 122, SubChapter B 122.143(4) 5C THSC Chapter 382 382.085(b) Special Term and Condition 1A OP Special Term and Condition 28 OP		
	Description:	Failure to conduct daily mid-level calibration check on gas chromatograph for Multi-Point Ground Flare (EPN: 3UFLARE63). (Category B1)		
	Self Report?	NO		Classification: Moderate
	Citation:	30 TAC Chapter 111, SubChapter A 111.111(a)(4)(A) 30 TAC Chapter 116, SubChapter B 116.115(c)		

Compliance History Report for CN600123939, RN102501020, Rating Year 2023 which includes Compliance History (CH) components from September 01, 2018, through August 31, 2023.

30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)
 40 CFR Chapter 63, SubChapter C, PT 63, SubPT A 63.11(b)(4)
 5C THSC Chapter 382 382.085(b)
 Special Condition 37 PERMIT
 Special Condition 5(C) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Special Term and Condition 28 OP
 Description: Failure to prevent visible emissions from the Multi-Point Ground Flare (EPN: 3UFLARE63). (Category B13)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)(2)
 5C THSC Chapter 382 382.085(b)
 Special Condition 7(A)(2) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Description: Failure to maintain HDPE Flare pilot flame (EPN: HDFLARE). (Category C4)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 111, SubChapter A 111.111(a)(4)(A)
 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)(1)
 40 CFR Chapter 63, SubChapter C, PT 63, SubPT A 63.11(b)(4)
 5C THSC Chapter 382 382.085(b)
 Special Condition 58(C) PERMIT
 Special Condition 7(A)(3) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Description: Failure to prevent visible emissions from the Low-Density Polyethylene Flare (LPE) Process Flare (EPN: LDFLARE). (Category B13)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 5C THSC Chapter 382 382.085(b)
 Special Condition 1 PERMIT
 Special Term and Condition 18 OP
 Description: Failure to prevent exceedance of the Particulate Matter (PM) maximum allowable emission rate (MAER) hourly limit for LPE Process Flare (EPN: LDFLARE). (Category B13)
 Self Report? NO Classification: Minor
 Citation: 30 TAC Chapter 115, SubChapter H 115.725(d)(4)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 5C THSC Chapter 382 382.085(b)
 Special Term and Condition 15 OP
 Special Term and Condition 1A OP
 Description: Failure to collect sample after HRVOC analyzer downtime from HDPE Flare (EPN: HDFLARE). (Category B1)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 122, SubChapter B 122.143(4)
 5C THSC Chapter 382 382.085(b)
 Special Term and Condition 1A OP
 Special Term and Condition 3(C)(iii)(2) OP
 Description: Failure to keep records of quarterly visible emission observation. (Category B3)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 115, SubChapter D 115.352(4)
 30 TAC Chapter 115, SubChapter H 115.783(5)
 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 63, SubChapter C, PT 63, SubPT UU 63.1033(b)(1)
 5C THSC Chapter 382 382.085(b)
 Special Condition 17(E) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Description: Failure to prevent Open-Ended Lines (OELs). (Category C10)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 115, SubChapter D 115.352(2)

30 TAC Chapter 115, SubChapter H 115.782(b)(2)
 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 63, SubChapter C, PT 63, SubPT UU 63.1024(a)
 5C THSC Chapter 382 382.085(b)
 Special Condition 17(H) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Description: Failure to repair components in the required timeframe. (Category C4)
 Self Report? NO Classification: Moderate
 Citation: 30 TAC Chapter 115, SubChapter D 115.352(2)
 30 TAC Chapter 115, SubChapter H 115.782(d)(2)
 30 TAC Chapter 116, SubChapter B 116.115(c)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 40 CFR Chapter 63, SubChapter C, PT 63, SubPT UU 63.1025(d)(2)
 5C THSC Chapter 382 382.085(b)
 Special Condition 17(F) PERMIT
 Special Term and Condition 18 OP
 Special Term and Condition 1A OP
 Description: Failure to re-monitor for fugitive components. (Category B1)
 Self Report? NO Classification: Minor
 Citation: 30 TAC Chapter 101, SubChapter A 101.10(e)
 30 TAC Chapter 122, SubChapter B 122.143(4)
 5C THSC Chapter 382 382.085(b)
 Special Term and Condition 1A OP
 Special Term and Condition 2E OP
 Description: Failure to submit Annual Emissions Inventory Report by March 31, 2022 due date. (Category C9(d))

F. Environmental audits:

Notice of Intent Date: 10/13/2022 (1854037)
 No DOV Associated

Notice of Intent Date: 04/24/2023 (1897399)
 No DOV Associated

G. Type of environmental management systems (EMSs):

N/A

H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: Michael B. Pfeil, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: June 19, 2024

Subject: Exxon Mobil Corporation
Mont Belvieu Plastics Plant
Permit No. WQ0002546000

WHOLE EFFLUENT TOXICITY (WET) TESTING (BIOMONITORING)

The following information applies to Outfall 001. We recommend freshwater chronic and 24-hour acute testing. For chronic testing, we recommend the water flea (*Ceriodaphnia dubia*) and the fathead minnow (*Pimephales promelas*) as test species and a testing frequency of once per quarter for both test species. We recommend a dilution series of 29%, 39%, 52%, 69%, and 100% with a critical dilution of 69%. The critical dilution is in accordance with the "Aquatic Life Criteria" section of the "Water Quality Based Effluent Limitations/Conditions" section.

For 24-hour acute testing, we recommend a water flea (*Ceriodaphnia dubia* or *Daphnia pulex*) and the fathead minnow as test species and a testing frequency of once per six months for both test species. In the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant mortality (i.e., zero failures).

REASONABLE POTENTIAL (RP) DETERMINATION

In the past three years, the permittee has performed thirteen chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures).

The permittee has filed a major amendment to, among other things, remove the lethal WET limit for the water flea. With no failures in the past three years, the request is granted.

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

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

ExxonMobil, WQ0002546000, Three-year WET testing history

Chronic

Outfall	Sp	Due date	Test date	Lethal Results	NOECsurv	Sub-Lethal Results	NOEC Subleth
001	cd	10/20/2021	8/3/2021	Pass	>100	Pass	>100
001	cd	1/20/2022	11/2/2021	Pass	>100	Pass	>100
001	cd	4/20/2022	3/1/2022	Pass	>100	Pass	>100
001	cd	7/20/2022	5/17/2022	Pass	>100	Pass	>100
001	cd	10/20/2022	8/11/2022	Pass	>100	Pass	>100
001	cd	1/20/2023	11/1/2022	Pass	>100	Pass	>100
001	pp	1/20/2023	3/1/2022	Pass	>100	Pass	>100
001	cd	4/20/2023	2/14/2023	Pass	>100	Pass	>100
001	cd	10/20/2023	8/17/2023	Pass	>100	Pass	>100
001	cd	1/20/2024	11/14/2023	Pass	>100	Pass	>100
001	pp	1/20/2024	2/14/2023	Pass	>100	Pass	>100
001	cd	4/20/2024	2/27/2024	Pass	>100	Pass	>100
001	pp	1/20/2025	2/27/2024	Pass	>100	Pass	>100

24-hour Acute

Outfall	Sp	Due date	Test date	Results	LC50
001	dp	1/20/2022	8/3/2021	Pass	>100
001	pp	1/20/2022	8/3/2021	Pass	>100
001	dp	7/20/2022	3/1/2022	Pass	>100
001	pp	7/20/2022	3/1/2022	Pass	>100
001	dp	1/20/2023	8/11/2022	Pass	>100
001	pp	1/20/2023	8/11/2022	Pass	>100
001	dp	7/20/2023	2/14/2023	Pass	>100
001	pp	7/20/2023	2/14/2023	Pass	>100
001	dp	1/20/2024	8/17/2023	Pass	>100
001	pp	1/20/2024	8/17/2023	Pass	>100
001	dp	7/20/2024	2/27/2024	Pass	>100
001	pp	7/20/2024	2/27/2024	Pass	>100

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: Josi Robertson, Water Quality Assessment Team
Water Quality Assessment Section

Date: March 14, 2024

Subject: Exxon Mobil Corporation
Wastewater Permit No. WQ0002546000
Critical Conditions Recommendation Memo

The following information applies to **Outfall 001**.

The TexTox menu number is **3** for a perennial freshwater ditch, stream, or river.

This discharge is to Cedar Bayou Above Tidal (Segment 0902)

Segment No.	0902
Effluent Flow for Aquatic Life (MGD)	2.60 (2-yr max)
Critical Low Flow [7Q2] (cfs)	1.83
Effluent Flow for Human Health (MGD)	1.74 (2-yr avg)
Harmonic Mean Flow (cfs)	2.68

Human Health criteria apply for Water and Fish.

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

OUTFALL LOCATION¹

Outfall Number	Latitude	Longitude
001	29.854979 N	94.952506 W

¹ Latitude and Longitude values are approximations of the location for administrative purposes.

TCEQ Interoffice Memorandum

To: Industrial Permits Team
Wastewater Permitting Section

From: M. A. Wallace, PhD, Standards Implementation Team
Water Quality Assessment Section
Water Quality Division

Date: 9/5/2024

Subject: Exxon Mobile Corp.; Permit No. 02546-000
Amendment; Application Received: 12/29/2023

This memo supersedes my memo dated 3/6/2024.

The discharge route for the above referenced permit is directly to Cedar Bayou Above Tidal in Segment 0902 of the Trinity-San Jacinto Coastal Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code (TAC) §307.10) for Segment 0902 are primary contact recreation, high aquatic life use, and 5.0 mg/L dissolved oxygen.

Based on pH screening, the current permit limits (6.5 to 9.0 standard units) are protective of segment pH criteria.

The submitted effluent results passed the dissolved solids screening.

The Aluminum partition coefficient study is approved and currently being conducted for the result to be incorporated into the draft permit. The Standards reviewer will supercede this memo when the results have been submitted and analyzed for their inclusion if completed by the draft permit timeframe.

In accordance with 30 Texas Administrative Code §307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Cedar Bayou Above Tidal, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. Though the piping plover, *Charadrius melodus* Ord, can occur in Chambers County, the county is north of Copano Bay and not a watershed of high priority per Appendix A of the biological opinion. The determination is

subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

ATTACHMENT A-4-2
Landowner List
Mont Belvieu Plastics Plant
TPDES WQ0002546000

MAP ID	OWNER NAME	ADDRESS	CITY	STATE	ZIP CODE
1	BELVIEU ENVIRONMENTAL FUELS LLC	P O BOX 4018	HOUSTON	TX	77210
2	COASTAL INDUSTRIAL WATER AUTHORITY	1801 MAIN ST STE 800	HOUSTON	TX	77002
3	CHAMBERS COUNTY COUNTY JUDGE	P O BOX 939	ANAHUAC	TX	77514
4	CLIP PROPERTY OWNER LLC	228 MAIN STREET SUITE 10	LOS ANGELES	CA	90291
5	ENTERPRISE PRODUCTS OPERATING LLC	PO BOX 4018	HOUSTON	TX	77210
6	LONE STAR NGL MONT BELVIEU LP	1300 MAIN ST	HOUSTON	TX	77002
7	MARS PARTNERS LTD	2000 WEST MARSHALL DRIVE	GRAND PRARIE	TX	75051
8	MOGONYE STEPHEN & TRISH	PO BOX 991	MONT BELVIEU	TX	77580
9	MONT BELVIEU CAVERNS, LLC	PO BOX 4018	HOUSTON	TX	77210
10	SPEER LAND COMPANY LLC	P O BOX 265	MONT BELVIEU	TX	77580
11	SUNOCO PIPELINE LP	1801 MARKET STREET	PHILADELPHIA	PA	19103
12	TARGA DOWNSTREAM LLC	2424 RIDGE RD	ROCKWALL	TX	75087
13	WESTLAKE PETROCHEMICALS CORP	1614 AVENUE B	KATY	TX	77493
14	ULRICH JOE CARROLL	6011 FM 1942	BAYTOWN	TX	77523
15	ULRICH PETE JR	6318 S. FM RD 565	BAYTOWN	TX	77523
16	UNION PACIFIC RAILROAD CO	1400 DOUGLAS STREET STOP 1640	OMAHA	NE	68179
17	WACKER ANN & GIRARDEAU JAMES JR & TERRY DOROTHY	526 VILLA DRIVE	SEABROOK	TX	77586
18	ZORN JOSEPH R	9202 WESTVIEW CIRCLE	DALLAS	TX	75231
19	CARR KODY D	7406 FM 1942 RD	BAYTOWN	TX	77521
20	CAVAZOS HOMERO A & ROSA M	10722 GARRICK LN	HOUSTON	TX	77013
21	COUNTY OF HARRIS	PO BOX 1525	HOUSTON	TX	77251
22	JONES DAVID LEE JR	1804 LAKESIDE LANE	FRIENDSWOOD	TX	77546
23	KOENIG RICHARD	7419 FM 1942 RD	BAYTOWN	TX	77521
24	MISSOURI PACIFIC RAILROAD COMPANY	1400 DOUGLAS STREET STOP 1640	OMAHA	NE	68179

12/19/23

ExxonMobil Product Solutions
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77521

ExxonMobil

February 21, 2024

CERTIFIED MAIL # 7021 2720 0002 2226 4986

Mr. Michael Lindner (MC-148)
Water Quality Division, Industrial Permits Team
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

**Re: Notification of the Use of a Treatment Chemical
TPDES Permit No. WQ0002546000**

Dear Mr. Lindner:

In accordance with Other Requirements, Provision 7 of the subject TPDES permit, Exxon Mobil Corporation (ExxonMobil) is submitting this initial notification of intent to add a treatment chemical, SS-Lagoon Shade™, on a periodic basis, to the wastewater system to control algae growth within the wastewater system at the Mont Belvieu Plastics Plant (MBPP).

Algae growth in the wastewater system occurs periodically in warmer conditions and may necessitate algae control in order to assure compliance with the limits and conditions in the subject TPDES permit. Since algae growth may require application of this chemical more frequently than every 5 days, we are notifying the TCEQ with this communication that we will use the chemical to control algae, as needed, until a time when it is determined that periodic treatment can conclude.

The application of the treatment chemical will commence on March 1, 2024 and began discharging as early as March 2, 2024. A separate notice will be sent when the treatment period is over and the chemical discharge has ceased for the year. If you have any questions regarding this submittal, please call me at 832-864-4924.

Sincerely,



Jessica Eastburn
Environmental Advisor

RECEIVED

FEB 27 2024

WATER QUALITY DIVISION
TCEQ

cc:

CERTIFIED MAIL # 7021 2720 0002 2226 4993

Mr. Westin Massey (Region 12)
Water Section
Texas Commission on Environmental Quality
5425 Polk Street, Suite H,
Houston, Texas 77023-1452

ExxonMobil Pipeline Company, LLC

301 Old Choate Rd.
Houston, TX 77034
281-922-2122 Telephone

Ryan J. Magruder

Environmental Advisor
Safety, Security, Health, & Environment



February 20, 2024

Executive Director
Texas Commission on Environmental Quality
Building F
12100 Park 35 Circle
Austin, TX 78753

OVERNIGHT

**Re: ExxonMobil Pipeline Company LLC
Wink Terminal
Notification of 10 year IFR Inspection and NSPS Kb to MACT WW Compliance
Tanks 230, 240, 250 & 260
Account No: WMA007G
RN106522477 / CN600125710**

To Whom It May Concern:

ExxonMobil Pipeline Company LLC (EMPCo) is providing notification of IFR tank inspections being conducted in accordance with 40 CFR 63.1063(c)(1)(i)(B), (d)(1), and (d)(2) for the tanks listed above. This 30-day advance notification is in accordance with 40 CFR 63.1066(b)(1) and 40 CFR 60.110b(e)(5)(iv)(A). The inspections will take place no earlier than 30 days from the date of this communication.

In addition, going forward EMPCo is electing to comply with 40 CFR Part 63, Subpart WW in lieu of 40 CFR Part 60, Subpart Kb for IFR tank inspections of the tanks listed above as allowed per 40 CFR 60.110b(e)(5).

Please contact me at (281) 299-8002 or ryan.j.magruder@exxonmobil.com if you have any questions.

Sincerely,

Ryan Magruder
Field Environmental Advisor

RECEIVED

FEB 22 2024

**WATER QUALITY DIVISION
TCEQ**

cc: TCEQ, Region 7, Air Section Manager (via email TCEQR7@tceq.texas.gov)
Mr. Jimmy Simmons, ExxonMobil Pipeline Company, Wink, TX
Mr. Eddie Valdez, ExxonMobil Pipeline Company, Wink, TX

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

February 15, 2024

Ms. Jessica Eastburn
BTA Environmental Water Advisor
Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

RE: Declaration of Administrative Completeness
Applicant Name: Exxon Mobil Corporation (CN600123939)
Permit No.: WQ0002546000 (EPA I.D. No. TX0089125)
Site Name: Mont Belvieu Plastics Plant (RN102501020)
Type of Application: Amendment

Dear Ms. Eastburn:

The executive director has declared the above referenced application, received on December 27, 2023 administratively complete on February 15, 2024.

You are now required to publish notice of your proposed activity and make a copy of the application available for public review. The following items are included to help you meet the regulatory requirements associated with this notice:

- Instructions for Public Notice
- Notice for Newspaper Publication
- Public Notice Verification Form
- Publisher's Affidavits

You must follow all the directions in the enclosed instructions. The most common mistakes are the unauthorized changing of notice, wording, or font. If you fail to follow these instructions, you may be required to republish the notices.

The following requirements are also described in the enclosed instructions. However, due to their importance, they are highlighted here as well.

1. Publish the enclosed notice within **30 calendar days** after your application is declared administratively complete. (See this letter's first paragraph for the declaration date.) **You may be required to publish the notice in more than one newspaper, including a newspaper published in an alternative language, to satisfy all of the notice requirements.**

Declaration of Administrative Completeness

Page 2

February 15, 2024

2. On or before the date you publish notice, place a copy of your permit application in a public place in the county where the facility is or will be located. This copy must be accessible to the public for review and copying, must be updated to reflect changes to the application, and must remain in place throughout the comment period.
3. For each publication, submit proof of publication of the notice that shows the publication date and newspaper name to the Office of the Chief Clerk within **30 calendar days** after notice is published in the newspaper.
4. Return the original enclosed Public Notice Verification and the Publisher's Affidavits to the Office of the Chief Clerk within **30 calendar days** after the notice is published in the newspaper.

If you do not comply with all the requirements described in the instructions, further processing of your application may be suspended or the agency may take other actions.

If you have any questions regarding publication requirements, please contact the Office of Legal Services at (512) 239-0600. If you have any questions regarding the content of the notice, please contact Ms. Abesha Michael at (512) 239-4912.

Sincerely,



Jennifer E. Bowers, Section Manager
Water Quality Division Support
Office of Water
Texas Commission on Environmental Quality

JEB/ahm

Enclosures

Texas Commission on Environmental Quality
Instructions for Public Notice for a Water Quality Permit
Notice of Receipt of Application and Intent to Obtain Permit (NORI)

Your application has been declared administratively complete. You must comply with the following instructions. There are seven (7) steps involved in publishing notice. Complete each step.

1. REVIEW THE NOTICE FOR ACCURACY

Read the enclosed notice carefully and notify the Application Review and Processing Team at 512-239-4671 immediately if it contains any errors or omissions. You are responsible for ensuring the accuracy of all information published. Do not change the text or formatting of the notice or affidavit of publication without prior approval from the TCEQ. Changing the text or formatting of the notice may require new publication at your expense and delay processing of your application.

2. PUBLISH THE NOTICE IN THE NEWSPAPER

You must publish the enclosed notice within 30 days after the date of administrative completeness. Refer to the cover letter for the date of administrative completeness.

You must publish the enclosed notice at your expense, at least once in the newspaper of largest circulation within each county where the facility and discharge point are located or will be located. If the facility and discharge point are located or will be located in a municipality, the enclosed notice must be published at least once in a newspaper of general circulation in the municipality. These requirements may be satisfied by one publication if the newspaper meets all of the above requirements.

The bold text of the enclosed notice must be printed in the newspaper in a font style or size that distinguishes it from the rest of the notice (i.e., bold, italics). Failure to do so may require re-notice.

3. PUBLISH THE NOTICE IN AN ALTERNATIVE LANGUAGE

You must publish notice in an alternative language IF: either the elementary or middle school nearest to the facility or proposed facility is required to provide a "bilingual education program" (BEP) as required by Texas Education Code (TEC), Chapter 29, Subchapter B, and 19 Tex. Admin. Code §89.1205(a) AND one of the following conditions is met:

- students are enrolled in a program at that school;
- students from that school attend a bilingual education program at another location; or
- the school that otherwise would be required to provide a bilingual education program has been granted an exception from the requirements to provide the program as provided for in 19 Tex. Admin. Code §89.1207(a).

A "bilingual education program" is different from an "English as a second language program" (ESL). An ESL program alone, will not require public notice in an alternative language.

If triggered, you must publish the notice in a newspaper or publication primarily published in the alternative language taught in the bilingual education program. Publication in an alternative language section or insert within a large publication which is not printed primarily in that alternative language does not satisfy these requirements. The newspaper or publication must be of general circulation in the county in which the facility and discharge point are located or proposed to be located. If the facility and discharge point are located or proposed to be located in a municipality, and there exists a newspaper or publication of general circulation in the municipality, you must publish the notice only in the newspaper or publication in the municipality.

You must demonstrate a good faith effort to identify a newspaper or publication in the required language. If there is no general circulation newspaper or publication printed in such language, then publishing in that language is not required. You have the burden to demonstrate compliance with these requirements.

If you are required to publish notice in Spanish, you must translate the site-specific information in the notice that is specific to your application, at your own expense. You may then insert the Spanish translation of your site-specific information into a Spanish template developed by the TCEQ. The Spanish templates are available on the TCEQ website at

http://www.tceq.texas.gov/permitting/wastewater/review/wqspanish_nori.html. If you are required to publish notice in a language other than Spanish, you must translate the entire public notice, at your own expense.

4. PUT THE APPLICATION IN A PUBLIC PLACE

You must put a copy of the administratively complete application in the public place identified in the enclosed notice.

This copy must be accessible to the public for review and copying beginning on the first day of newspaper publication and remain in place for the publication's designated comment period.

During the technical review, you must update the publicly available application so that it includes all application revisions within 10 business days from the date the revision is transmitted to the TCEQ.

For confidential information contained in the application, you must indicate which specific portions of the application cannot be made available to the public. These portions of the application must be accompanied with the following statement: "Any request for portions of this application that are marked as confidential must be submitted in writing, pursuant to the Public Information Act, to the TCEQ Public Information Coordinator, MC 197, P.O. Box 13087, Austin, Texas 78711-3087."

5. PROVIDE PROOF OF PUBLICATION

For each newspaper in which you published, you must submit proof of publication. Proof of publication must include the following:

- a completed Publisher's Affidavit (enclosed); and
- a copy of the published notice which shows the notice, the date published, and the newspaper name. The copy must be on standard-size 8½ x 11" paper and must show the actual size of the published notice. Do not reduce the

image when making copies. Published notices longer than 11" must be copied onto multiple 8½ x 11" pages. Or you can submit the original newspaper clipping.

If you are required to publish notice in an alternative language and are unable to do so, complete and submit the Alternative Language Exemption form (enclosed).

6. PROVIDE PROOF OF APPLICATION VIEWING LOCATION

You must submit a completed Public Notice Verification Form (enclosed) which certifies that the administratively complete application was placed at the public place identified in the enclosed notice.

7. SUBMIT PROOFS TO TCEQ

The proof of publication documents (Step 5) and the completed Public Notice Verification Form (Step 6) must be submitted to TCEQ within 30 days of publication.

By email to: PROOFS@tceq.texas.gov

OR by mail at:
TCEQ
Office of the Chief Clerk, MC 105
Attn: Notice Team
P.O. Box 13087
Austin, Texas 78711-3087

NOTE: If proofs are submitted by email, you do not have to mail in the original documents.

Additional Information

If you fail to publish the notice or submit proofs within the timeframes noted above, the TCEQ may suspend further processing on your application or take other actions in accordance with 30 Tex. Admin. Code §39.405(a).

If you have any questions regarding publication requirements, please contact the Office of Legal Services at 512-239-0600. If you have any questions regarding the content of the notice, please contact the Wastewater Permitting Section at 512-239-4671. When contacting TCEQ regarding this application, please refer to the permit number at the top of the enclosed notice.

If you wish to obtain an electronic copy of the notice, please visit our web site at http://www.tceq.texas.gov/agency/cc/cc_db.html or <http://www.tceq.texas.gov/agency/cc/eda.html>. Please be aware that formatting codes may be lost and that any notices downloaded from these web sites must be reformatted by you so that your downloaded copy looks like the notice document you received from us.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0002546000

APPLICATION. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, which owns a polyethylene manufacturing and catalyst production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000 (EPA I.D. No. TX0089125) to authorize the removal of the limits/conditions for C. dubia 7-day lethal whole effluent toxicity for Outfall 001, to remove of the limits/conditions for C. dubia 7-day sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition coefficient for aluminum for Outfall 001, and to modify the notification provisions in Other Requirement No. 7. The facility is located at 13330 Hatcherville Road, Mont Belvieu, in Chambers County, Texas 77521. The discharge route is from the plant site directly to Cedar Bayou Above Tidal. TCEQ received this application on December 27, 2023. The permit application will be available for viewing and copying at West Chambers County Branch Library, 10616 Eagle Drive, Mont Belvieu, in Chambers County, Texas, and Dayton Police Department, 111 North Church Street, Dayton, in Liberty County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from Exxon Mobil Corporation at the address stated above or by calling Ms. Jessica Eastburn, BTA Environmental Water Advisor, at 832-864-4924.

Issuance Date: February 15, 2024



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Public Notice Verification Form
Notice of Receipt of Application and Intent to Obtain Permit
(NORI)
Water Quality Permit

All applicants must complete this page.

Applicant Name: _____

Site or Facility Name: _____

Water Quality Permit Number: _____

Regulated Entity Number: RN _____ Customer Number: CN _____

PUBLIC VIEWING LOCATION

I certify that a copy of the complete water quality application, and all revisions, were placed at the following public place for public viewing and copying. I understand that the copy will remain available at the public place from the 1st day of publication of the NORI until the end of the designated comment period. I further understand that the copy will be updated with any revisions to the application.

Name of Public Place: _____

Address of Public Place: _____

Applicant or Applicant Representative Signature: _____

Title: _____ Date: _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Public Notice Verification Form
Notice of Receipt of Application and Intent to Obtain Permit
(NORI)
Water Quality Permit

Complete this page only if you are required to publish in an alternative language and are not able to do so.

Applicant Name: _____

Site or Facility Name: _____

Water Quality Permit Number: _____

Regulated Entity Number: RN _____ Customer Number: CN _____

ALTERNATIVE LANGUAGE EXEMPTION

I certify that I have conducted a diligent search for a newspaper or publication of general circulation in both the municipality and county in which the facility is located or proposed to be located and was unable to publish the notice in the required alternative language because:

- ☐ A newspaper or publication could not be found in any of the alternative languages in which notice is required.
- ☐ The publishers of the newspapers listed below refused to publish the notice as requested, and another newspaper or publication in the same language and of general circulation could not be found in the municipality or county in which the facility is located or proposed to be located.

Newspaper Name: _____

Language: _____

Applicant or Applicant Representative Signature: _____

Title: _____ Date: _____

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Exxon Mobil Corporation
Permit No.: WQ0002546000

PUBLISHER'S AFFIDAVIT FOR WATER QUALITY PERMITS

STATE OF TEXAS §
COUNTY OF _____§

Before me, the undersigned authority, on this day personally appeared

_____ who being by me duly sworn, deposes
(name of person representing newspaper)

and says that (s)he is the _____
(title of person representing newspaper)

of the _____; that this newspaper is a newspaper of
(name of newspaper)

largest circulation in _____ County, Texas or is
(name of county)

a newspaper of general circulation in _____,
(name of municipality)

Texas; and that the enclosed notice was published in said newspaper on the following date(s):

(newspaper representative's signature)

Subscribed and sworn to before me this the _____ day of _____,
20____.

(Seal)

Notary Public in and for the State of Texas

Print or Type Name of Notary Public

My Commission Expires _____

TCEQ-OFFICE OF THE CHIEF CLERK

MC-105 Attn: Notice Team
P.O. BOX 13087
AUSTIN, TX 78711-3087

Applicant Name: Exxon Mobil
Corporation
Permit No.: WQ0002546000

**ALTERNATIVE LANGUAGE
PUBLISHER'S AFFIDAVIT**

STATE OF TEXAS §
COUNTY OF _____ §

Before me, the undersigned notary public, on this day personally appeared

_____, who being by me duly sworn, deposes
(name of person representing newspaper)

and says that (s)he is the _____ of the
(title of person representing newspaper)

_____; that said newspaper is
(name of newspaper)

generally circulated in _____ County, Texas and
(same county as proposed facility)

is published primarily in _____ language; that the
(alternative language)

enclosed notice was published in said newspaper on the following date(s):

_____.

Subscribed and sworn to before me this the _____ day of _____,

20____, by _____
(newspaper representative's signature)

(Seal)

Notary Public in and for the State of Texas

Print or Type Name of Notary Public

My Commission Expires _____

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECEPCIÓN DE LA SOLICITUD Y LA INTENCIÓN DE OBTENER CALIDAD DEL AGUA PERMISO MODIFICACION

PERMISO NO. WQ0002546000

SOLICITUD. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, que posee una planta de fabricación de polietileno y producción de catalizadores, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES) Permiso No. WQ0002546000 (EPA I.D. No. TX0089125) para autorizar la eliminación de los límites / condiciones para C. dubia 7 días de toxicidad letal efluente total para Outfall 001, eliminar los límites/condiciones para el monitoreo de toxicidad subletal de 7 días de C. dubia en todo el efluente para Outfall 001, aumentar los límites de concentración máxima diaria y de una sola toma y los límites de masa promedio diaria para sólidos disueltos totales y sulfato para Outfall 001, utilice un coeficiente de partición específico del sitio para el aluminio para el emisario 001, y modificar Otro Requisito No. 7. La instalación está ubicada en 13330 Hatcherville Road, Mont Belvieu, en el Condado de Chambers, Texas 77521. La ruta de descarga es desde el sitio de la planta directamente a Cedar Bayou Above Tidal. La TCEQ recibió esta solicitud el 27 de diciembre de 2023. La solicitud de permiso estará disponible para ver y copiar en West Chambers County Branch Library, 10616 Eagle Drive, Mont Belvieu, en el Condado de Chambers, Texas, y en Dayton Police Department, 111 North Church Street, Dayton, en el Condado de Liberty, Texas, antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía pública y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

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

comentarios públicos.

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los

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

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

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

También se puede obtener información adicional del Exxon Mobil Corporation a la dirección indicada arriba o llamando a Sra. Jessica Eastburn, BTA Environmental Water Advisor al 832-864-4924.

Fecha de emisión 15 de febrero de 2024

Abesha Michael

From: Gardner, Mesha Covington <mesha.c.gardner@exxonmobil.com>
Sent: Friday, January 19, 2024 1:40 PM
To: Abesha Michael
Cc: Eastburn, Jessica A
Subject: RE: Application to Amend Permit No. WQ0002546000, Exxon Mobil Corporation - Notice of Deficiency Letter
Attachments: MBPP response to TPDES Application Review.pdf; WQ0002546000 Spanish NORI.docx
Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon Ms. Michael,

Please see the attached documents in response to the NOD letter dated January 9, 2024.

Please do not hesitate to reach out in the event that you need any additional information.

Regards,

Mesha C. Gardner, CHMM
Baytown Area Water Advisor

ExxonMobil Product Solutions
5000 Bayway Drive, CAB SE-168
Baytown, Texas 77520
346-424-5029 Office
281-628-4573 Mobile

From: Abesha Michael <Abesha.Michael@tceq.texas.gov>
Sent: Tuesday, January 9, 2024 2:49 PM
To: Gardner, Mesha Covington <mesha.c.gardner@exxonmobil.com>
Cc: Eastburn, Jessica A <jessica.a.eastburn@exxonmobil.com>
Subject: Application to Amend Permit No. WQ0002546000, Exxon Mobil Corporation - Notice of Deficiency Letter

External Email - Think Before You Click

Dear Ms. Gardner:

The attached Notice of Deficiency (NOD) letter dated January 9, 2024, requests additional information needed to declare the application administratively complete. Please email the complete response to my attention by January 23, 2024.

Please Note: the alternative language requirements addressed in the attached letter include new items that can be sent by email attachment.

Please let me know if you have any questions.
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

ExxonMobil Products Solutions
Mont Belvieu Plastics Plant
13330 Hatcherville Road
Mont Belvieu, Texas 77580-9532



SUBMITTED VIA E-MAIL
ABESHA.MICHAEL@TCEQ.TEXAS.GOV

January 19, 2024

Ms. Abesha H. Michael
Water Quality Division
Applications Review and Processing Team (MC-148)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Exxon Mobil Corporation (CN600123939)
Mont Belvieu Plastics Plant (RN102501020)
Application to renew/amend TPDES Permit No. WQ0002546000 (EPA ID TX0089125)
Response to letter dated January 9, 2024

Dear Ms. Michael:

The ExxonMobil Mont Belvieu Plastics Plant is in receipt of your January 9, 2024 letter, which requested additional information for the TPDES renewal/amendment application for the Mont Belvieu Plastics Plant that was submitted on December 27, 2023. Below are our responses to the requested information.

TCEQ Item 1

Item 12. B on page 8 of the administrative report: Thank you for paying \$2,050.00 for the Application fee. However, Item 12.b shows that you do not owe any fee to the TCEQ. We have found that there is an additional outstanding fee that must be paid before we can process your application and issue the permit (Account No. 23000883, \$65,317.70). Please submit payment to TCEQ, Revenue Section (MC 214), P.O. Box 13088, Austin, Texas 78711-3088. You may contact our Revenue Section at (512) 239-0300. Also, provide a copy of the check or any proof of payment along with the response to this letter.

Response to Item 1

The fee has been paid and a copy of the receipt is below.

 PAID

TEXAS COMMISSION ON ENVIRONMENTAL Q

\$65,317.70 USD

 Paid Jan 5, 2024  Invoice Number: CWQ0072452

TCEQ Item 2

The following is a portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI), which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

Response to Item 2

The name and city of the second public location for application viewing needs to be corrected as shown below.

"APPLICATION. Exxon Mobil Corporation...has applied to...amend...TPDES Permit No. WQ0002546000...The permit application will be available for viewing and copying at...Dayton City Police Department, 111 North Church Street, ~~Cayton~~ Dayton..."

TCEQ Item 3


Item 9E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. After confirming the portion of the NORI contained in item No. 2 of this letter does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Response to Item 3

The translated Spanish NORI is enclosed and includes the edits in the English version noted in Item 2.

Please do not hesitate to contact me at 346-424-5029 or mesha.c.gardner@exxonmobil.com if you have any questions.

Sincerely,



Mesha C. Gardner
Senior Water Advisor

Enclosures

Spanish NORI (Word docx file emailed)

Abesha Michael

From: Abesha Michael
Sent: Tuesday, January 9, 2024 2:49 PM
To: mesha.c.gardner@exxonmobil.com
Cc: jessica.a.eastburn@exxonmobil.com
Subject: Application to Amend Permit No. WQ0002546000, Exxon Mobil Corporation - Notice of Deficiency Letter
Attachments: WQ0002546000 NOD Letter.pdf; Industrial Discharge Amendment Spanish NORI.docx

Dear Ms. Gardner:

The attached Notice of Deficiency (NOD) letter dated January 9, 2024, requests additional information needed to declare the application administratively complete. Please email the complete response to my attention by January 23, 2024.

Please Note: the alternative language requirements addressed in the attached letter include new items that can be sent by email attachment.

Please let me know if you have any questions.
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

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 9, 2024

VIA EMAIL

Ms. Mesha Gardner
BTA Senior Water Advisor
Exxon Mobil Corporation
P.O. Box 1653
Mont Belvieu, Texas 77580

Re: Application to Amend Permit No. WQ0002546000 (EPA I.D TX0089125)
Issued to Exxon Mobil Corporation
CN600123939, RN102501020

Dear Ms. Gardner:

We have received the application for the above-referenced permit, and it is currently under review. Your attention to the following items is requested before we can declare the application administratively complete. Please email the complete response.

1. Item 12. B on page 8 of the administrative report: Thank you for paying \$2,050.00 for the Application fee. However, Item 12.b shows that you do not owe any fee to the TCEA. We have found that there is an additional outstanding fee that must be paid before we can process your application and issue the permit.

Account No.	Fee Type	Amount Owed
23000883	Delinquent transactions (account)	\$65,317.70
	Total	\$65,317.70

Please submit payment to TCEQ, Revenue Section (MC 214), P.O. Box 13088, Austin, Texas 78711-3088. You may contact our Revenue Section at (512) 239-0300. Also, provide a copy of the check or any proof of payment along with the response to this letter.

2. The following is a portion of the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580, which owns a polyethylene manufacturing and catalyst production facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002546000 (EPA I.D. No. TX0089125) to authorize the removal of the limits/conditions for *C. dubia* 7-day lethal whole effluent toxicity for Outfall 001,

Ms. Mesha Gardner
Page 2
January 9, 2024
Permit No. WQ0002546000

to remove of the limits/conditions for C. dubia 7-day sublethal whole effluent toxicity monitoring for Outfall 001, to increase the daily maximum, and single grab concentration limits and daily average mass limits for total dissolved solids and sulfate for Outfall 001, use a site-specific partition for aluminum for Outfall 001, and to modify Other Requirement No. 7. The facility is located at 13330 Hatcherville Road, Mont Belvieu, in Chambers County, Texas 77521. The discharge route is from the plant site directly to Cedar Bayou Above Tidal. TCEQ received this application on December 27, 2023. The permit application will be available for viewing and copying at West Chambers County Branch Library, 10616 Eagle Drive, Mount Belvieu, in Chambers County, Texas, and Dayton City Department, 111 North Church Street, Cayton, in Liberty County, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.914722,29.876111&level=18>

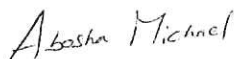
Further information may also be obtained from Exxon Mobil Corporation at the address stated above or by calling Ms. Jessica Eastburn, BTA Environmental Water Advisor, at 832-864-4924.

New rule requirements under Title 30 Texas Administrative Code (TAC) Chapter 39 relating to public notices have been implemented. The deficiencies listed below are new items that need to be provided to meet the alternative language requirements.

3. Item 9E.5 on page 6 of Administrative Report 1.0 indicates that public notices in Spanish are required. After confirming the portion of the English NORI contained in item No. 2 of this letter does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please email the translated Spanish NORI in a **Microsoft Word document**.

Please submit the complete response, addressed to my attention by January 23, 2024. If you should have any questions, please do not hesitate to call me at (512) 239-4912.

Sincerely,



Abesha H. Michael
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

Enclosure(s)
Attachment 1 - Industrial Discharge/Disposal Spanish NORI

cc: Ms. Jessica Eastburn, BTA Environmental Water Advisor, Exxon Mobil Corporation, P.O. Box 1653, Mont Belvieu, Texas 77580

CHECKLIST FOR ADMIN REVIEW OF INDUSTRIAL INDIVIDUAL PERMIT APPLICATIONS

Permit No. <u>WQ0002546000</u>	EPA ID <u>TX0089125</u>	MGD <u>5.03</u>
CN <u>600123939</u>	RN <u>102501020</u>	County <u>Chambers</u> Region No. <u>12</u>
EPA Class. <input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	App Received Date <u>12/27/23</u>	Expiration Date <u>07/02/2024</u>
Status <input type="checkbox"/> Inactive <input checked="" type="checkbox"/> Active	Segment No. <u>0902</u>	Permit Type <input checked="" type="checkbox"/> TPDES <input type="checkbox"/> TLAP
Authorization Type <u>MAJ AMEND</u>	Application Type <u>REN</u>	

Note: A minor facility is generally one in which the final flow is less than 1.0 MGD.

Application Review Date: 01/09/2023

- ☐ A copy of the **groundwater review** was provided (for TLAP new, major amendment, SADD minor amendment, and all applications with (or proposing) Class B sludge provisions).
- ☒ For **new and major amendment applications that propose surface water discharge (TPDES)**, the standards review for RWA comments is included.
- ☒ Coastal Zone sheet is included.

Fees or Penalties Owed: ☒ No ☐ Yes Amount Owed: 65,317.70

Verified in Basis2 Report: Outstanding Past Due Transactions Detail Report by Customer Name

ADMINISTRATIVE REPORT 1.0 – FOR ALL APPLICATIONS

1. APPLICATION INFORMATION AND FEES

- ☒ Current version of form used
- ☒ Type of application is marked
- ☒ Reason for amendment or modification (if applicable) Also Check Tech Report 1.0, Section 13.

Application Fees: Correct item is checked **and** payment verified in Basis2 Report: Water Quality Receipt Report.
Note: copies of checks should be removed and shredded.

Industrial Application Fee Table

EPA Classification	New	Major Amend.	Renewal	Minor Amendment or Modification without Renewal
Minor, not subject to categ stds	<input type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor, subject to categ stds	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A *	<input checked="" type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

* All new industrial facilities are designated as minor.

2. APPLICANT INFORMATION

- ☒ CN is listed for existing customer.
- ☒ Legal name of applicant is listed (**the owner of the facility must apply for the permit**)
- ☒ Name and title of the person signing the application is listed and matches signature page.
- ☒ Indicated if applicant has overall financial responsibility

Notes: _____

3. CO-APPLICANT INFORMATION

- ☒ N/A – No Co-applicant.
- ☐ CN is listed for existing customer.
- ☐ Legal name of co-applicant is listed
- ☐ Name and title of the person signing the application is listed and matches signature page.
- ☐ Indicated if co-applicant has overall financial responsibility
- ☐ Legal name of co-applicant is listed (*if required*)

4. CORE DATA FORM

- ☒ Core Data Form (CDF) is provided. A separate CDF is required for each customer.

Section I – General Information

- ☒ Reason for submittal is marked.
- ☒ Customer (CN) and Regulated Entity (RN) Reference Nos. provided – verify with Central Registry

Section II – Customer Information

- ☒ Customer legal name is provided and it matches name on admin report
- ☒ Texas SOS/Filing number is provided – verify with SOS
- ☒ Texas State Tax ID is provided – verify with Texas Comptroller
- ☒ Type of customer is marked – refer to information below
- ☒ **Corporation:** Check with Secretary of State (SOS). Verify the entity status and charter number – print page. Verify correct legal spelling of applicant's name. Check spelling with SOS against the name listed in the application. (Permit must be issued in name as filed with SOS.) The applicant must be "**In existence and active**" before the application can be processed further.
- ☐ **Those entities subject to state franchise taxes:** If applicable, check with Comptroller of Public Accounts (CPA) Verify the tax identification number is correct. Note: Non-profit organizations and partnerships are not subject to the state franchise tax
- ☐ **Individual: Complete Attachment 1 of Admin Report 1.0** The complete legal name, including the middle name; and all other information is required. This info is required by Chapter 26.027C of the Texas Water Code. A separate attachment is required for each individual.
- ☐ **Utility District:** Check iWDD to verify that district is not dissolved (inactive is O.K. to process)
- ☐ **Trust:** A copy of an executed trust agreement is provided. Verify that applicant's name is the same as the name in the trust agreement. NOTE: Executed trust must show signatures of trustees or beneficiaries forming the trust and in which county it is recorded.
- ☐ **Partnership:** Verify with Secretary of State (SOS) that partnership is registered, active, and has a filing number. Check spelling with SOS against the name listed in admin report; Check that SOS # is correct; Print page from SOS website. OR if the partnership is not listed with the SOS, the applicant must provide a copy of the partnership agreement. The agreement must: give the name of the partnership as provided on the application for permit; list names of partners; bear signatures of the partners; and state the terms of the partnership.
- ☐ **Municipality/Governmental Agencies/School Districts:** City, County, ISD, Fed, etc. – applicable info is listed.
- ☐ Other _____
- ☒ Number of employees is marked
- ☒ Customer role is marked
- ☒ Mailing address for the applicant is provided - verify on USPS. This address is for mailing the permit.
- ☒ Email address is provided
- ☒ Telephone number is provided

Section III – Regulated Entity Information

- ☒ Regulated Entity Name is provided and it matches name on admin report
- ☒ Street address or location description of facility is adequately described. If different from current permit, new permit may be required. Use GIS mapping to confirm street address.
- ☒ The county where the facility is located is provided
- ☒ The name of the nearest city is provided
- ☒ The zip code is provided
- ☒ The longitude and latitude of the facility is provided – check Map It link by searching for the Additional ID “AI” (WQ permit number) in Central Registry Internal Reporting Tool
- ☒ Primary SIC Code is provided
- ☒ Permit No. listed under TCEQ Programs and ID numbers - if not listed, add it
- ☒ **NOTE:** If other program ID numbers are listed and Update to Regulated Entity is checked in Section III, a copy of the CDF should be emailed to Central Registry EAMT at registry@tceq.texas.gov.

Section IV – Preparer Information

- ☒ Name, title, telephone number, and email address are provided

Section V – Authorized Signature

- ☒ Company name, title, printed name, phone number, signature, and date are provided

5. APPLICATION CONTACT INFORMATION

- ☒ Administrative and Technical contact name and address information is provided (must have at least one)

6. PERMIT CONTACT INFORMATION

- ☒ Permit (2) contact name(s) and address information is provided

7. BILLING CONTACT INFORMATION

- ☒ Billing contact name and address information is provided

8. DMR/MER CONTACT INFORMATION

- ☒ DMR contact name and address information is provided

9. NOTICE INFORMATION

- ☐ **Minor Amendment without Renewal** – NORI not required. Skip review of notice information.
- ☒ Name, address and phone number of one person responsible for publishing NORI is provided.
- ☒ Method of sending NORI package is provided.
- ☒ Name and phone number of contact to be in the NORI is provided.
- ☒ Location where application will be available is provided and is in the county where the facility is located - the location must be a building supported by taxpayer funds. Note: If discharge is directly into water body that borders two counties, application must be placed in a public facility in both counties and the notice must be published in both counties.
- ☒ Bilingual Items 1 – 5 are completed. If “Yes” to question 1 and “Yes” to either question 2, 3 or 4, then e.5 must be completed. Language: SPANISH
- ☒ Plain Language Summary in English is provided for all applications. Verify the customer’s name, facility name and location, type of facility, and flow are consistent with the application and notice.
- ☒ Plain Language Summary is provided for any alternative language listed in Section 9, Item E, No. 5, if applicable.

Public Involvement Plan (PIP) All New or Major Amendment Applications

For all PIP forms:

- ☒ Section 1 is completed.
- ☒ Section 2 is completed. All municipal new and major amendment applications require public notice. Verify the geographic location responses are correct using the statistical area map.

If ALL boxes in Section 2 are checked and verified:

- ☐ Sections 3, 6, and 7 are completed.
- ☐ Section 4 is completed, or plain language summary was provided by separate attachment for Section 15.
- ☐ Section 5 is completed. Any languages over 5% in items d and e will require alternative language notice and plain language summary.

10. REGULATED ENTITY and PERMITTED SITE INFORMATION

- ☒ Regulated Entity No. is listed. If not, it is not a deficiency. Verify with Central Registry and PARIS.
- ☒ Name of project or site is provided. Should match AI name (Alt RE name) in Central Registry and PARIS.
- ☒ Marked if location address of the facility in the existing permit the same
- ☒ Owner of the facility identified in the application is the same as the name given in Section 3.A **NOTE: THE OWNER OF THE FACILITY IS REQUIRED TO APPLY FOR THE PERMIT**
(Refer to legal policy memo for complete definition and discussion of facility.)
- ☒ Marked whether ownership of the facility is public, private or both
- ☒ Owner of the land where permitted facility is or will be located is the **SAME** as the applicant.
- ☐ The owner of the land on which the facility is located is **DIFFERENT FROM** the owner of the facility: A copy of a lease agreement or easement, with a term for the duration of the permit, between applicant and landowner, has been provided. See Lease Agreement/Easement Memo dated 2/14/06, that states that a lease is sufficient for pond systems, and that details the provisions that a lease agreement or easement must contain. Lease must identify property by legal description or map.
OR landowner can apply as a co-permittee.

Effluent Disposal Site Owner:

- ☒ N/A - (no effluent disposal proposed)
- ☐ If land disposal is authorized in permit or proposed, the applicant **OWNS** land on which site is located
- ☐ If applicant **DOES NOT OWN** land where site is located, a long-term lease agreement is provided which includes: a term of at least 5 years; is current or it includes an option to renew the term; is between the current applicant and the landowner; and includes description of property by legal description or map.
- ☐ (**For new TLAP permits only:** A copy of an executed option to purchase agreement may be provided to show that applicant will have ownership of the land upon permit approval.)

Sewage Sludge Disposal Site Owner:

- ☒ N/A - (no sludge disposal proposed)
- ☐ If sludge is authorized in permit or proposed, the applicant **OWNS** land on which disposal site is located, otherwise lease is needed unless Class B sludge is land applied. Check the permit under Sludge Provisions to determine if sludge is authorized. Note: For BLU sludge application - lease is not needed; landowner just needs to sign sludge affidavit (if different from applicant).

11. DISCHARGE/DISPOSAL INFORMATION

- ☒ Identified whether or not facility or discharge are on Native American Land (If yes, we do not have permit authority.)
- ☒ An ORIGINAL or equivalent FULL-SIZED USGS 7.5-minute topographic map (8½ x 11 acceptable for amendment and renewal applications) is provided and labeled showing:
 - ☒ applicant's property boundary
 - ☒ treatment facility boundaries
 - ☒ point(s) of discharge (outfalls)
 - ☒ discharge route for three miles downstream or until it reaches a classified segment
 - ☐ effluent disposal site(s)
 - ☐ pond(s)
 - ☐ sludge disposal/land application site
 - ☒ one-mile radius

All original or equivalent full-sized maps must show:

- ☐ Color map
 - ☐ Clear contour lines
 - ☐ Upper left corner must identify map as USGS
 - ☐ Lower left corner, datum & project information
 - ☐ Bottom, magnetic declination
 - ☐ Bottom, must show scale
 - ☐ Bottom, identify contour intervals
 - ☐ Bottom, national map accuracy std.
 - ☐ Bottom, show State of TX and quad location
 - ☐ Around map, lat and long coordinates
 - ☐ Bottom, quadrangle name
 - ☐ Bottom, must identify map date
- ☒ For permits that allow sewage disposal the location description is adequately described. For an already-existing permit, check to see that the location has not changed.

Discharge Information:

- ☒ Checked if discharge info in permit is correct. If applicable, the discharge route description is adequately described and describes the discharge route to the nearest major watercourse. Changing the point of discharge and route from the current permit description requires a major amendment.
- ☒ The name of the city (or nearest city) where the outfall(s) is/will be located has been provided.
- ☒ The county where the outfall is located is provided.
- ☒ Marked item regarding authorization for discharge into a city, county, state or federal ditch. If applicable, correspondence is provided. Email TXDOT if discharge is to a **state** highway right-of-way or roadside ditch.
- ☒ For a daily average flow of 5 MGD or more: the names of all counties in Texas that are located within 100 miles downstream from the point of discharge.

Disposal Information:

- ☐ The written location description of the disposal site is adequately described. **(NOTE: A CHANGE IN LOCATION OR INCREASE IN ACREAGE REQUIRES A MAJOR AMENDMENT. A decrease in acreage may also be a major amendment (due to flow rate) - check with permit writer)**
- ☐ The name of the city (or nearest city) has been provided.
- ☐ The county where the disposal site is located is provided
- ☐ The longitude and latitude of the disposal site is provided.
- ☐ The written flow of effluent from the facility to the effluent disposal site is adequately described.
- ☐ The nearest watercourse to the disposal site is listed.

12. MISCELLANEOUS INFORMATION

- ☒ Indicates whether any former TCEQ employees who were paid for services regarding this application.
- ☒ Fees or Penalties Owed: ☐ No ☒ Yes - See page 1 of checklist 65,317.70

13. SIGNATURE PAGE

Note: The signature information below lists the proper signatories for the various entities; however, the current version of the application contains a paragraph referencing 30 TAC 305.44. The person signing the application verifies that he or she is authorized, under this rule, to sign the application. We must verify that the title meets the requirements or signatory authority has been delegated and proof has been provided.

- ☒ **Original Signature Page is required.**
- ☒ **Signature must be properly notarized – check that signature date and notarized date are the same.**

Applicant

Co-Applicant

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> City - Elected official or principle executive officer of the city may be public works director. |
| <input type="checkbox"/> | <input type="checkbox"/> Individual: only the individual signs for himself/herself. |
| <input type="checkbox"/> | <input type="checkbox"/> Partnership: General Partner or exec officer |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Corporation: at least the level of vice president (CEO, Chairman of Board, Secretary) |
| <input type="checkbox"/> | <input type="checkbox"/> Utility District: at least the level of vice president, on Board of Directors or District Manager |
| <input type="checkbox"/> | <input type="checkbox"/> Water Authority: Regional managers. |
| <input type="checkbox"/> | <input type="checkbox"/> School Districts: at least level of the Assistant Superintendent or board members. |
| <input type="checkbox"/> | <input type="checkbox"/> Governmental Agencies: Division Directors or Regional Directors. |
| <input type="checkbox"/> | <input type="checkbox"/> Trust: The trustee that has been identified in the trust agreement. |
| <input type="checkbox"/> | <input type="checkbox"/> Other: _____ |

ADMIN REPORT 1.1 For All New or Major Amendment Applications

1. AFFECTED LANDOWNER INFORMATION

Landowner Map:

- ☒ The applicant's complete property boundaries are delineated which includes boundaries of all contiguous property owned by the applicant and the co-applicant
- ☒ The property boundaries of the landowners surrounding the applicant's complete property boundaries have been clearly delineated on the map (for lignite mines, see below).
- ☒ The location of the facility within applicant's property is shown.

For TPDES applications:

- ☒ The point(s) of discharge is clearly identified on the map and the discharge route(s) is highlighted.
- ☒ The scale of map is provided to measure one mile downstream **or** if discharge is into a lake, bay estuary, or affected by tides, 1/2 mile up & down stream is measured.
- ☒ The property boundaries of landowners adjacent to the discharge route(s) for one mile downstream from the point of discharge have been clearly delineated and the route is clearly delineated. **OR** If discharge is into a lake, bay estuary, or affected by tides, the property boundaries of landowners 1/2 mile up & downstream and those property owners across the lake along the shore line that fall within a 1/2 mile radius of the point of discharge are clearly delineated on the map.

(Note 1) If the application is a major amendment for a **lignite mine**, the map shall include the property boundaries of all landowners within a 1/2 mile radius of the newly proposed pond(s)/outfall(s). If notice has previously been given to all landowners within the 1/2 mile radius of the newly proposed pond(s)/outfall(s), identification of landowners isn't required; however, a written statement confirming that notice was previously given is required. (Note 2) For all other mines, all landowner's adjacent to the property boundaries where the mine is located must be identified.

For TLAP - land disposal of effluent (i.e., irrigation, evaporation, etc.):

- ☐ The boundaries of the disposal site are clearly identified on the map.
- ☐ The boundaries of all landowners surrounding the disposal site.

For All New and Major Amendment

- ☒ Cross-referenced list of landowners is provided
- ☒ USB with Microsoft Word document formatted for mailing labels (Avery 5160) or four sets of mailing labels were provided.
- ☒ Source of landowners' info was provided.
- ☒ Provided response regarding permanent school fund land. If information filled out on General Land Office, then indicate so on the contact sheet.

For All TPDES Permit Applications

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

- ☒ SPIF is provided (TPDES only)
- ☒ SPIF Map is included or confirm USGS map is sufficient

TECHNICAL REPORT – INDUSTRIAL APPLICATIONS

- ☐ **Minor Amendment without Renewal.** Review not required. Just make sure report is provided.
- ☒ Description of type of activity and general nature of business.
- ☒ The flow volume for all outfalls is indicated in tables – Tech Report 1.0 Section 4
 - ☐ Flow indicated is greater than permitted, a major amendment is required
 - ☐ Flow indicated is less than permitted, confirm with applicant that they are requesting to reduce flow
- ☒ Amendment and Modification Requests in Tech Report 1.0 Section 13: Check to see if there are any amendment or modification requests.
- ☐ The permit authorizes irrigation/evaporation/subsurface disposal method, and the irrigation/evaporation/subsurface information has been addressed in the technical report. If the acreage is more than is currently permitted, a major amendment is required.
 - The applicable worksheets must be completed:
 - ☐ Worksheet 3.0 - required for land disposal of effluent
 - ☐ Worksheet 3.1 - required for surface land disposal (new and major amendment only)
 - ☐ Worksheet 3.2 - required for subsurface land disposal (new and major amendment only)
 - ☐ Worksheet 3.3 - required for subsurface area drip dispersal systems (SADDS) (new and major amendment); may be required for renewal on a case-by-case basis.
 - ☐ SADDS Applications: When the application is administratively complete, a copy of the application and a transmittal letter must be sent to the State Department of Health Services. See the folder titled "SADDS" (under the Individual Permit Review folder) for a template of the letter.
- ☐ Worksheet 9.0 – required for SADD applications

The Following Items Only Apply to Quarries in The John Graves Scenic Riverway

- ☐ Worksheet 10 must be completed
- ☐ Restoration plan must be submitted. Plan must be certified by a licensed Texas PE or a licensed Texas professional geoscientist.
- ☐ Reclamation plan must be submitted for a quarry located 200 - 1,500 feet from a perennial water body. Plan must be certified by a licensed Texas PE or a licensed Texas professional geoscientist.
- ☐ A technical demonstration document must be submitted for a quarry located 200 - 1,500 feet from a perennial water body.
- ☐ Financial Assurance documents must be submitted:
 - ☐ Financial Assurance for the Restoration plan
 - ☐ Financial Assurance for the Reclamation plan (if reclamation plan must be submitted)
 - ☐ A copy of the original financial assurance documents (make a copy for our file) must be sent, via interoffice mail, to Jacob Engelke, of the Financial Assurance team. Accompanying the financial assurance documents, send the first 5 pages of the application, along with a copy of the restoration plan and a copy of the reclamation plan (if a reclamation plan is submitted). We must have confirmation from Jacob stating that the financial assurance is satisfactory, before we can declare the application administratively complete.

WHEN APPLICATION IS NOT ADMINISTRATIVELY COMPLETE:

- ☒ Complete NOD. See NOD SOP

WHEN APPLICATION IS ADMINISTRATIVELY COMPLETE:

NORI not required for minor amendment. Complete the Routing and Contact (list "n/a" for item about person responsible for publication of the notice) Blue sheets only.

- ☒ Complete NORI package. See NORI SOP

- ☒ Prepare SPIF forms (only for TPDES permits)

☒ checked application type

☒ entered county name

☒ entered administrative completeness date

☒ ensured permit number is on form

☒ *check agency receiving SPIF

☐ **Minor amendments** - ALL agencies **BUT** Texas Historical Commission and Army Corps of Engineers

☒ **Renewals** - All agencies **BUT** Texas Historical Commission

☒ **New and Major Amendments** - All agencies

☒ check that the segment number (if known) is entered in receiving water body information.

☒ On the accompanying map, delineate the discharge route in such a way that copies will reflect the highlighted discharge route.

***NOTE:** Copy of SPIFs not required for Houston - US Fish and Wildlife and Galveston-US Army Corps of Engineers. Reference SPIF Routing Sheet.

Admin Complete PARIS Entry and Other Reminders

WQ Folder - Application Search

Application Summary Tab

- ☒ Verify application Summary and Details. Update as needed.

Admin Review Tab

- ☒ Admin Review Begin Date
- ☒ Admin Complete Date
- ☒ All NOD Sent, Response Received, Response Complete Dates
- ☒ SPIF Required (Yes/No)
- ☒ NORI Required (Yes/No)

Public Participation Tab -

- ☒ NORI - Date notice is filed with CCO
- ☒ Public Notice Details - Notice Contact Information

CR Folder - RE Search

AI Detail Screen - Verify AI Details and Physical Address. Update as needed.

View Contact List - Enter or Update Contact Information for these roles:

- ☒ Owner
- ☒ Applicant
- ☒ Technical
- ☒ Billing
- ☒ MER (TLAP only)
- ☒ Remove CN affiliation for MER contact (TLAP and TPDES)

View EPA ID from AI List

- ☒ View Customer List and verify CN is affiliated to EPA ID or add affiliation.

OTHER

- ☒ Copy notice (and labels for New and Major Amendments), to H:\EVERYONEWQ\Water Quality App Team\Notice of Receipts
- ☒ Copy NORI and PLS to H:\EVERYONEWQ\WQD Notices
- ☒ Copy contact sheet to H:\EVERYONEWQ\Blue Contact Sheets
- ☒ SADDs - Send letter and copy of complete application to Dept. of Health Services
- ☒ Email TXDOT if discharge is to a state highway right-of-way or roadside ditch

Central Registry Internal Reporting

Main Query Page

Program Area Search

Additional ID Detail

Additional ID Program	WWPERMIT		Legacy System (Code)	(WQ)	
Additional ID	WQ0002546000	Status	ACTIVE		ID Type PERMIT
Name	MONT BELVIEU PLASTICS PLANT			Sec. Addn Id	TX0089125, EPA ID
Physical Address	13330 HATCHERVILLE RD, MONT BELVIEU, TX 77521 8748				
Description					
County	CHAMBERS	Region	REGION 12 - HOUSTON		
Nearest City	MONT BELVIEU	State	TX	Nearest Zip	77521
Latitude	29° 52 min 34 sec (29.876111)		Longitude	94° 54 min 53 sec (-94.914722)	

Map It

Copy Map It URL

Industry Types

Classification System	Code	Name	Primary Flag
NAICS	325211	Plastics Material and Resin Manufacturing	Y
SIC	2821	Plastics Materials	Y

Industry Type: (1-2 of 2 Records)

Site Classifications

Program	Site Classification	Begin Date	End Date	CMS Min Freq Qty
WASTEWATER	INDUSTRIAL MAJOR	01/1/1800	12/31/3000	0

Site Classification: (1-1 of 1 Record)

Customers

List All

CN Number	Name ▲	Role
CN600123939	EXXON MOBIL CORPORATION	OWN

Customers: (1-1 of 1 Record)

Issued To

CN Number	Issued To Name	Start Date	'Issued To' History
CN600123939	EXXON MOBIL CORPORATION	05/15/2000	View

Issued To: (1-1 of 1 Record)

Regulated Entity

Reference Number	RN102501020	Name	EXXONMOBIL CHEMICAL MONT BELVIEU PLASTICS PLANT	Stand-Alone	N
Business Description	INDUSTRIAL CHEMICAL MANUFACTURING PLANT				

Location

Address	13330 HATCHERVILLE RD, MONT BELVIEU, TX 77521 8748				
Description					
County	CHAMBERS	Region	REGION 12 - HOUSTON		
Nearest City	MONT BELVIEU	State	TX	Nearest Zip	77580
Latitude	29° 52 min 29 sec (29.874722)		Longitude	94° 54 min 58 sec (-94.916111)	

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Statewide Links: [Texas.gov](#) | [Texas Homeland Security](#) | [TRAIL Statewide Archive](#) | [Texas Veterans Portal](#)

TEXAS SECRETARY of STATE
JANE NELSON

BUSINESS ORGANIZATIONS INQUIRY - VIEW ENTITY

Filing Number: 3362806
Original Date of Filing: December 18, 1972
Formation Date: N/A
Tax ID: 11354090059
Entity Type: Foreign For-Profit Corporation
Entity Status: In existence
FEIN:
Name: EXXON MOBIL CORPORATION
Address: 22777 Springwoods Village Parkway
Spring, TX 77389 USA
Fictitious Name: N/A
Jurisdiction: NJ, USA
Foreign Formation Date: N/A

<u>REGISTERED AGENT</u>	<u>FILING HISTORY</u>	<u>NAMES</u>	<u>MANAGEMENT</u>	<u>ASSUMED NAMES</u>	<u>ASSOCIATED ENTITIES</u>	<u>INITIAL ADDRESS</u>
Name			Address			Inactive Date
Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company			211 E. 7th Street, Suite 620 Austin, TX 78701-3218 USA			

Order

Return to Search

Instructions:

- To place an order for additional information about a filing press the 'Order' button.



Franchise Tax Account Status

As of : 01/09/2024 10:44:35

This page is valid for most business transactions but is not sufficient for filings with the Secretary of State

EXXON MOBIL CORPORATION	
Texas Taxpayer Number	11354090059
Mailing Address	22777 SPRINGWOODS VILLAGE PKWY # 126 SPRING, TX 77389-1425
② Right to Transact Business in Texas	ACTIVE
State of Formation	NJ
Effective SOS Registration Date	12/18/1972
Texas SOS File Number	0003362806
Registered Agent Name	CORPORATION SERVICE COMPANY D/B/A CSC-LAWYERS INCO
Registered Office Street Address	211 E. 7TH STREET SUITE 620 AUSTIN, TX 78701



Basis 2 A/R Outstanding Past Due Transactions Detail Report By Customer Name

FEB-14-24 06:30 AM

Customer Name: EXTRUSION PLUS LLCAccount #: 23502835Debtcollpath Stage: WHOLD:REFERRED,UNCOL:EXHAUSTCalls: ADDRCHNG,NOTES

CAV	SC00101430	ADMIN PENALTY-MAY 2013	10-MAY-13	10-MAY-13	\$12.65
CAV	SC00103163	ADMIN PENALTY-JUN 2013	10-JUN-13	10-JUN-13	\$12.65
CAV	SC00104699	ADMIN PENALTY-JUL 2013	10-JUL-13	10-JUL-13	\$12.65
CAV	SC00106089	ADMIN PENALTY-AUG 2013	12-AUG-13	12-AUG-13	\$12.65
CAV	SC00107785	ADMIN PENALTY-SEP 2013	10-SEP-13	10-SEP-13	\$12.65
CAV	SC00109344	ADMIN PENALTY-OCT 2013	10-OCT-13	10-OCT-13	\$12.65
CAV	SC00111010	ADMIN PENALTY-NOV 2013	13-NOV-13	13-NOV-13	\$12.65
CAV	SC00112901	ADMIN PENALTY-DEC 2013	10-DEC-13	10-DEC-13	\$12.65
CAV	SC00114840	ADMIN PENALTY-JAN 2014	10-JAN-14	10-JAN-14	\$12.65
CAV	SC00117328	ADMIN PENALTY-FEB 2014	10-FEB-14	10-FEB-14	\$12.65
CAV	SC00120309	ADMIN PENALTY-MAR 2014	10-MAR-14	10-MAR-14	\$12.65
CAV	SC00122552	ADMIN PENALTY-APR 2014	10-APR-14	10-APR-14	\$12.65
CAV	SC00124351	ADMIN PENALTY-MAY 2014	12-MAY-14	12-MAY-14	\$12.65
CAV	SC00126088	ADMIN PENALTY-JUN 2014	10-JUN-14	10-JUN-14	\$12.65
CAV	SC00127600	ADMIN PENALTY-JUL 2014	10-JUL-14	10-JUL-14	\$12.65
CAV	SC00128987	ADMIN PENALTY-AUG 2014	11-AUG-14	11-AUG-14	\$12.65
CAV	SC00130602	ADMIN PENALTY-SEP 2014	10-SEP-14	10-SEP-14	\$12.65
CAV	SC00132182	ADMIN PENALTY-OCT 2014	10-OCT-14	10-OCT-14	\$12.65

Total of delinquent transactions (Account): \$3554.90

Total of delinquent transactions (Customer): \$3554.90

Customer Name: EXXONMOBIL LOW CARBON SOLUTIONAccount #: 20049215Debtcollpath Stage:Calls:

GPS	GPS0267596	SW WQ ANNUAL FEE	FY24	TXR05GF22	31-DEC-23	31-JAN-24	\$200.00
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Total of delinquent transactions (Account): \$200.00

Total of delinquent transactions (Customer): \$200.00

Customer Name: EYC CORPORATIONAccount #: 23705757Debtcollpath Stage: WHOLD:REFERRED,ATTGEN:REFAGCalls: ADDRCHNG,HOLD

WDV	WDV0028723	ADMIN PENALTY	FY12	102026PSTE	31-JAN-12	29-FEB-12	\$.05
WDV	WDV0028723	COLLECTION COST RECOVERY			01-JUN-12	01-JUN-12	\$27.75
WDV	WDV0031424	ADMIN PENALTY	FY12	102026PSTE	30-JUN-12	31-JUL-12	\$111.00
WDV	WDV0032077	ADMIN PENALTY	FY12	102026PSTE	31-JUL-12	31-AUG-12	\$111.00
WDV	WDV0032786	ADMIN PENALTY	FY12	102026PSTE	31-AUG-12	30-SEP-12	\$111.00
WDV	WDV0033426	ADMIN PENALTY	FY13	102026PSTE	30-SEP-12	31-OCT-12	\$111.00
WDV	SC00086646	ADMIN PENALTY-OCT 2012			10-OCT-12	10-OCT-12	\$.55
WDV	WDV0034075	ADMIN PENALTY	FY13	102026PSTE	30-OCT-12	30-NOV-12	\$111.00
WDV	WDV0034534	ADMIN PENALTY	FY13	102026PSTE	31-OCT-12	30-NOV-12	\$777.00
WDV	WDV0031424	COLLECTION COST RECOVERY			02-NOV-12	02-NOV-12	\$27.75
WDV	SC00088536	ADMIN PENALTY-NOV 2012			12-NOV-12	12-NOV-12	\$1.10
WDV	WDV0032077	COLLECTION COST RECOVERY			30-NOV-12	30-NOV-12	\$27.75
WDV	SC00090845	ADMIN PENALTY-DEC 2012			10-DEC-12	10-DEC-12	\$1.65
WDV	WDV0032786	COLLECTION COST RECOVERY			04-JAN-13	04-JAN-13	\$27.75
WDV	SC00093179	ADMIN PENALTY-JAN 2013			10-JAN-13	10-JAN-13	\$2.20
WDV	WDV0033426	COLLECTION COST RECOVERY			01-FEB-13	01-FEB-13	\$27.75
WDV	SC00095802	ADMIN PENALTY-FEB 2013			11-FEB-13	11-FEB-13	\$6.63
WDV	WDV0034075	COLLECTION COST RECOVERY			01-MAR-13	01-MAR-13	\$27.75
WDV	WDV0034534	COLLECTION COST RECOVERY			01-MAR-13	01-MAR-13	\$194.25
WDV	SC00098453	ADMIN PENALTY-MAR 2013			11-MAR-13	11-MAR-13	\$6.63
WDV	SC00100532	ADMIN PENALTY-APR 2013			10-APR-13	10-APR-13	\$6.63
WDV	SC00102353	ADMIN PENALTY-MAY 2013			10-MAY-13	10-MAY-13	\$6.63

Total of delinquent transactions (Account): \$1724.82

Account #: 23706393Debtcollpath Stage: WHOLD:REFERRED,UNCOL:EXHAUSTCalls:

WDV	WDV0034591	ADMIN PENALTY	FY13	111951PSTE	30-OCT-12	30-NOV-12	\$200.00
WDV	WDV0034932	ADMIN PENALTY	FY13	111951PSTE	30-NOV-12	31-DEC-12	\$200.00
WDV	WDV0035605	ADMIN PENALTY	FY13	111951PSTE	31-DEC-12	31-JAN-13	\$200.00
WDV	WDV0036618	ADMIN PENALTY	FY13	111951PSTE	31-JAN-13	28-FEB-13	\$200.00
WDV	SC00096043	ADMIN PENALTY-FEB 2013			11-FEB-13	11-FEB-13	\$1.00
WDV	WDV0036922	ADMIN PENALTY	FY13	111951PSTE	28-FEB-13	31-MAR-13	\$200.00
WDV	WDV0034607	COLLECTION COST RECOVERY			01-MAR-13	01-MAR-13	\$50.00



Basis 2 A/R Outstanding Past Due Transactions Detail Report By Customer Name

JAN-05-24 06:30 AM

Customer Name: EXTRUSION PLUS LLCAccount #: 23502835Debtcollpath Stage: WHOLD:REFERRED,UNCOL:EXHAUSTCalls: ADDRCHNG,NOTES

CAV	CAV0003852	COLLECTION COST RECOVERY			30-SEP-11	30-SEP-11	\$27.75
CAV	CAV0004069	ADMIN PENALTY	FY12	081493AIRE	30-SEP-11	31-OCT-11	\$111.00
CAV	SC00062277	ADMIN PENALTY-OCT 2011			10-OCT-11	10-OCT-11	\$9.90
CAV	CAV0003929	COLLECTION COST RECOVERY			28-OCT-11	28-OCT-11	\$27.75
CAV	CAV0004118	ADMIN PENALTY	FY12	081493AIRE	30-OCT-11	30-NOV-11	\$111.00
CAV	SC00064025	ADMIN PENALTY-NOV 2011			10-NOV-11	10-NOV-11	\$10.45
CAV	CAV0004163	ADMIN PENALTY	FY12	081493AIRE	30-NOV-11	31-DEC-11	\$111.00
CAV	CAV0003983	COLLECTION COST RECOVERY			02-DEC-11	02-DEC-11	\$27.75
CAV	SC00066170	ADMIN PENALTY-DEC 2011			12-DEC-11	12-DEC-11	\$11.00
CAV	CAV0004008	COLLECTION COST RECOVERY			30-DEC-11	30-DEC-11	\$27.75
CAV	SC00067999	ADMIN PENALTY-JAN 2012			10-JAN-12	10-JAN-12	\$11.55
CAV	CAV0004069	COLLECTION COST RECOVERY			03-FEB-12	03-FEB-12	\$27.75
CAV	SC00070061	ADMIN PENALTY-FEB 2012			10-FEB-12	10-FEB-12	\$12.10
CAV	CAV0004118	COLLECTION COST RECOVERY			02-MAR-12	02-MAR-12	\$27.75
CAV	SC00072664	ADMIN PENALTY-MAR 2012			12-MAR-12	12-MAR-12	\$12.65
CAV	CAV0004163	COLLECTION COST RECOVERY			30-MAR-12	30-MAR-12	\$27.75
CAV	SC00075146	ADMIN PENALTY-APR 2012			10-APR-12	10-APR-12	\$12.65
CAV	SC00077126	ADMIN PENALTY-MAY 2012			10-MAY-12	10-MAY-12	\$12.65
CAV	SC00079003	ADMIN PENALTY-JUN 2012			11-JUN-12	11-JUN-12	\$12.65
CAV	SC00080809	ADMIN PENALTY-JUL 2012			10-JUL-12	10-JUL-12	\$12.65
CAV	SC00082443	ADMIN PENALTY-AUG 2012			10-AUG-12	10-AUG-12	\$12.65
CAV	SC00084232	ADMIN PENALTY-SEP 2012			10-SEP-12	10-SEP-12	\$12.65
CAV	SC00085822	ADMIN PENALTY-OCT 2012			10-OCT-12	10-OCT-12	\$12.65
CAV	SC00087620	ADMIN PENALTY-NOV 2012			12-NOV-12	12-NOV-12	\$12.65
CAV	SC00089898	ADMIN PENALTY-DEC 2012			10-DEC-12	10-DEC-12	\$12.65
CAV	SC00091818	ADMIN PENALTY-JAN 2013			10-JAN-13	10-JAN-13	\$12.65
CAV	SC00094402	ADMIN PENALTY-FEB 2013			11-FEB-13	11-FEB-13	\$12.65
CAV	SC00097385	ADMIN PENALTY-MAR 2013			11-MAR-13	11-MAR-13	\$12.65
CAV	SC00099631	ADMIN PENALTY-APR 2013			10-APR-13	10-APR-13	\$12.65
CAV	SC00101430	ADMIN PENALTY-MAY 2013			10-MAY-13	10-MAY-13	\$12.65
CAV	SC00103163	ADMIN PENALTY-JUN 2013			10-JUN-13	10-JUN-13	\$12.65
CAV	SC00104699	ADMIN PENALTY-JUL 2013			10-JUL-13	10-JUL-13	\$12.65
CAV	SC00106089	ADMIN PENALTY-AUG 2013			12-AUG-13	12-AUG-13	\$12.65
CAV	SC00107785	ADMIN PENALTY-SEP 2013			10-SEP-13	10-SEP-13	\$12.65
CAV	SC00109344	ADMIN PENALTY-OCT 2013			10-OCT-13	10-OCT-13	\$12.65
CAV	SC00111010	ADMIN PENALTY-NOV 2013			13-NOV-13	13-NOV-13	\$12.65
CAV	SC00112901	ADMIN PENALTY-DEC 2013			10-DEC-13	10-DEC-13	\$12.65
CAV	SC00114840	ADMIN PENALTY-JAN 2014			10-JAN-14	10-JAN-14	\$12.65
CAV	SC00117328	ADMIN PENALTY-FEB 2014			10-FEB-14	10-FEB-14	\$12.65
CAV	SC00120309	ADMIN PENALTY-MAR 2014			10-MAR-14	10-MAR-14	\$12.65
CAV	SC00122552	ADMIN PENALTY-APR 2014			10-APR-14	10-APR-14	\$12.65
CAV	SC00124351	ADMIN PENALTY-MAY 2014			12-MAY-14	12-MAY-14	\$12.65
CAV	SC00126088	ADMIN PENALTY-JUN 2014			10-JUN-14	10-JUN-14	\$12.65
CAV	SC00127600	ADMIN PENALTY-JUL 2014			10-JUL-14	10-JUL-14	\$12.65
CAV	SC00128987	ADMIN PENALTY-AUG 2014			11-AUG-14	11-AUG-14	\$12.65
CAV	SC00130602	ADMIN PENALTY-SEP 2014			10-SEP-14	10-SEP-14	\$12.65
CAV	SC00132182	ADMIN PENALTY-OCT 2014			10-OCT-14	10-OCT-14	\$12.65

Total of delinquent transactions (Account): \$3554.90

Total of delinquent transactions (Customer): \$3554.90

Customer Name: EXXON MOBIL CORPORATIONAccount #: 23000883Debtcollpath Stage:Calls: HOLD

CWQ	CWQ0072452	PERMIT	FY24	0002546000	31-OCT-23	30-NOV-23	\$62051.82
CWQ	SC00336750	LATE FEE - DEC 2023			10-DEC-23	10-DEC-23	\$3265.88

Total of delinquent transactions (Account): \$65317.70

Total of delinquent transactions (Customer): \$65317.70

Customer Name: EXXONMOBIL FULLERTONAccount #: 90020011Debtcollpath Stage: AGENCY:REFERRED,WHOLD:REFERREDCalls: NOTES

PHS	SC00285542	LATE FEE - JAN 2022			10-JAN-22	10-JAN-22	\$6.25
PHS	PHS0206101	WATER SYSTEM FEE	FY23	0020011	30-NOV-22	31-DEC-22	\$125.00
PHS	SC00320760	LATE FEE - FEB 2023			10-FEB-23	10-FEB-23	\$6.25

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[Cities by ZIP Code™ \(/zip-code-lookup.htm?citybyzipcode\)](#)

[FAQs](#)

<https://www.usps.com/zip-code-lookup.htm>

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Go to

ZIP Code™ by Address

You entered:

PO BOX 1653
MONT BELVIEU TX

If more than one address matches the information provided, try narrowing your search by entering a street address and, if applicable, a unit number. **Edit and search again. ([zip-code-lookup.htm?byaddress](#))**

PO BOX 1653
MONT BELVIEU TX **77580-1653**

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[Edit and Search Again \(/zip-code-lookup.htm?byaddress\)](#)

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search:

West Chambers County Branch Library

Chambers County, TX

Address: 10616 Eagle Drive
Mont Belvieu, Texas
77580-1289
United States

County: Chambers

Region: Houston Area

Phone: 281-576-2243

Connect to: [Library Web Site](#) ✓ [Online Catalog](#)

Library details: West Chambers County Branch Library is a Public library.
This library is affiliated with Chambers County Library System ([view map](#)) .

Permalink: <https://librarytechnology.org/library/24181>
(Use this link to refer back to this listing.)

Organizational structure: This is a publicly funded and managed library.

See also: [Directory of Public Libraries in the United States](#)

See also: [Directory of Public Libraries in Texas](#)

Technology Profile

	Product Name	Year Contracted
Current Automation System	VERSO	1998
Previous Automation System	Winnebago Spectrum	1998

[View Privacy and Security Report](#)

Automation Survey: We are conducting a study on the automation systems used in libraries.
This survey should be completed by a person familiar with your libraries use of
VERSO.

[Respond to the 2023 Library Automation Perceptions Survey](#)

Identifiers

libraries.org ID	24181
NCES FSCSKEY	TX0002
NCES LIBID	10.8



West Chambers County Branch Library



[map location](#) ✓

Related Libraries

- Libraries located in **Mont Belvieu** (Texas)
- Libraries located in **Chambers county** (Texas)
- [View map of libraries in Chambers County](#)
- all Public libs in Texas**
- United States**
- Automation systems in Texas**

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Contact Information

Dayton City - Police Department

☆☆☆☆ 0 Votes

111 N Church St, Dayton, TX, 77535

(936) 258-7621

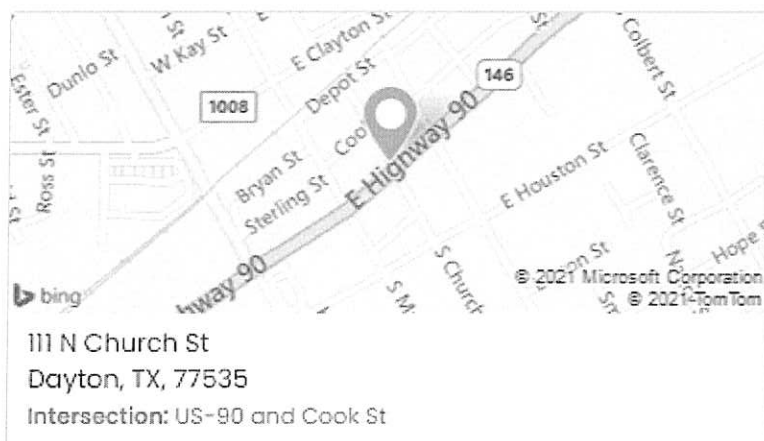
Category: Government Offices

Website: N/A

Email: N/A

★ Rate 📷 Add Photo 📺 Add Video ➦ Share ✎ Edit

Map & Directions



Directions

What is your departure address?

Address, City, State:

Get Directions

Hours of Operation

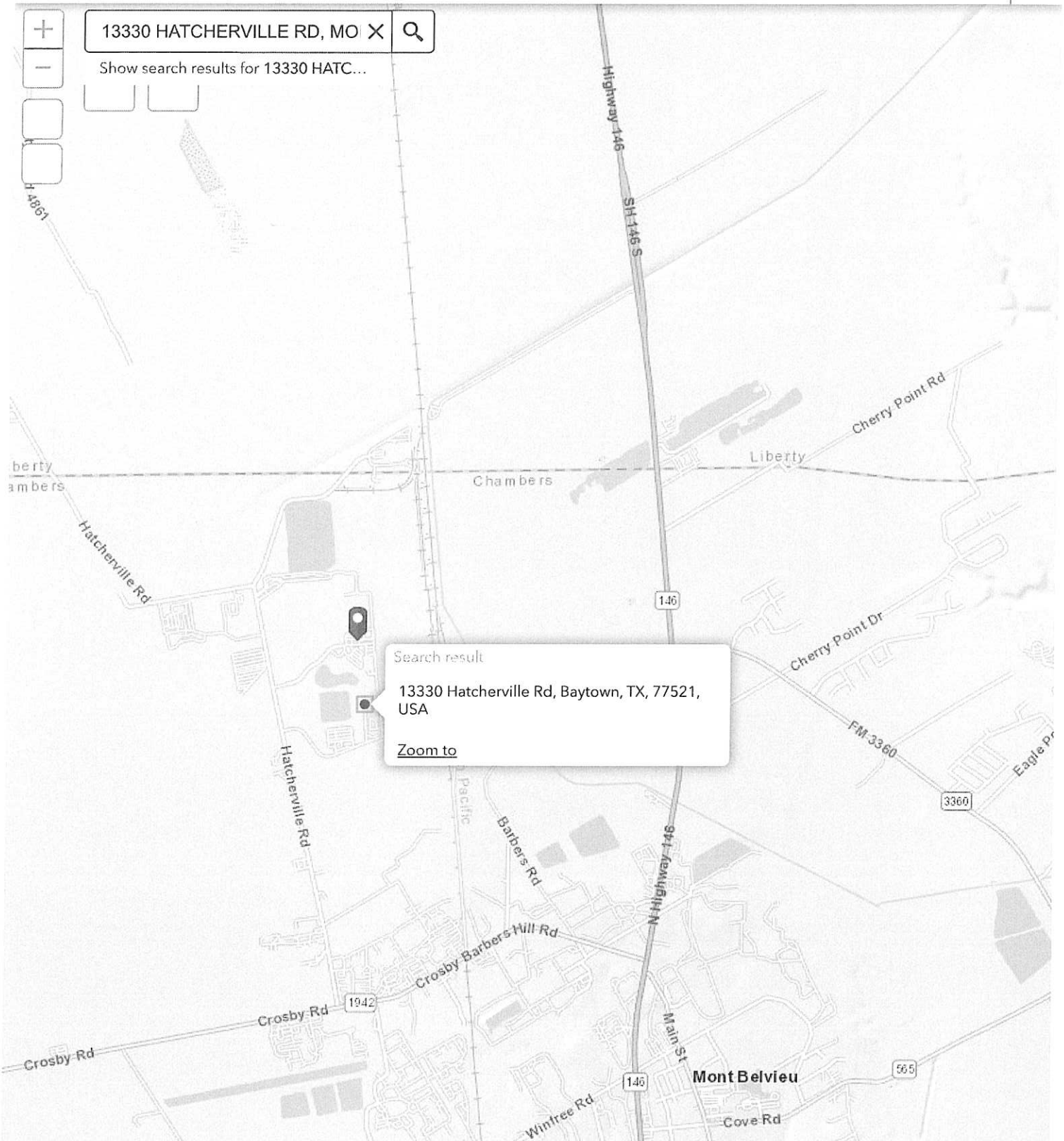
Opening hours not available. Please contact **Dayton City - Police Department** at 936-258-7621.



13330 HATCHERVILLE RD, MO X



Show search results for 13330 HATC...



0.6mi

-94.784 29.913 Degrees



ATTACHMENT A-1

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600123939		RN 102501020

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
<input type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership			
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
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:	
EXXON MOBIL CORPORATION			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0003362806	11354090059	135409005	001213214
11. Type of Customer:	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:			
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant			
15. Mailing Address:	PO BOX 1653		
	City	State	ZIP
MONT BELVIEU	TX	77580	ZIP + 4 1653
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	
(985) 616-4788		() -	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
EXXONMOBIL MONT BELVIEU PLASTICS PLANT	

RECEIVED

DEC 27 2023

Water Quality Applications Team

23. Street Address of the Regulated Entity: (No PO Boxes)	13330 HATCHERVILLE ROAD						
	City	MONT BELVIEU	State	TX	ZIP	77521	ZIP + 4
24. County	CHAMBERS						

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

25. Description to Physical Location:							
26. Nearest City	State				Nearest ZIP Code		
MONT BELVIEU	TX				77580		
Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).							
27. Latitude (N) In Decimal:	29.876111			28. Longitude (W) In Decimal:	94.914722		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
29	52	34	94	54	53		
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)		
2821	2819		325211		325998		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
POLYETHYLENE PRODUCTION							
34. Mailing Address:	PO BOX 1653						
	City	MONT BELVIEU	State	TX	ZIP	77580	ZIP + 4
35. E-Mail Address:							
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)				
(985) 616-4788			() -				

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

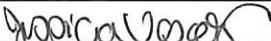
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
WQ0002546000				

SECTION IV: Preparer Information

40. Name:	JESSICA EASTBURN	41. Title:	BAYTOWN AREA ENV WATER ADVISOR
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(832) 864-4924		() -	JESSICA.A.EASTBURN@EXXONMOBIL.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:	EXXON MOBIL CORPORATION	Job Title:	PLANT MANAGER
Name (In Print):	JESSICA VASQUEZ	Phone:	(985) 616- 4788
Signature:		Date:	12/21/2023



Receiving Water Assessment Determination Form for new and amended TPDES permit applications

Submit to Standards Implementation Team for review.

WQ Permit Number 02546-000

Applicant Exxon Mobil Corp.

Region 12

County Chambers

() New Application

(X) Major Amendment

Discharge route for 1 (one) mile from point of discharge does contain water affected by tidal?

() Yes (X) No

Receiving Water Assessment Required () Yes (X) No

Segment 0902

Discharge route description: directly to Cedar Bayou Above Tidal (Seg. 0902).

Additional Comments see prev. review. Outfall 001: Q= 5.013 MGD. **Proposed amendments** listed on pg. 13 of tech. report and Att. T-2, re: WET changes, site-specific aluminum partition coefficient, and TDS/sulfate limit changes.

Dissolved solids screening: TDS/chloride/sulfate results submitted on pg. 17 of tech. report. Note: pg. 8 of tech. report mentions other requirement no. 1's report to be submitted separately from application.

M. A. Wallace, PhD; 12/29/23

INDUSTRIAL/MUNICIPAL APPLICATIONS ROUTE SHEET

New _____

Major Amend X

Minor Amend _____

Renewal X

Major Facility X

Application Reviewer ✓ Technical Reviewer _____

Final Flow ≥ 1MGD _____

DATE APPLICATION RECEIVED 12/27/2023

PERMIT NUMBER 0002546000

PRE PREVIEW BY STANDARDS (RWA) 12/27/23

Route original application of new and major amendments, discharge only. The original application must be returned to the applications team within 4 hours of receipt.

N/A _____

PRE PREVIEW BY GROUNDWATER _____
TLAP Only: Route copy of new and major amend.

N/A X

PRE TECH REVIEW REQUIRED _____
Route copy of new, major amendments, major facilities or final flow ≥ 1MGD for Municipal.

N/A X

COASTAL ZONE DETERMINATION _____
Route copy of new application or major amendment when the facility is located in the noted county

N/A X

COMMENTS ARE DUE TO APPLICATIONS TEAM BY CLOSING ON _____

PRE TECH REVIEW PERFORMED BY _____

THE ATTACHMENT SHOULD BE PROVIDED TO THE APPLICATIONS TEAM AT THE END OF THE 5TH WORKING DAY

Coastal Zone Determination

(To Be Verified Upon Receipt Of The Application)

Permit Number 0002546000

County Chambers

Indicate Type of Application:

☒ **Renewal** ☐ **Minor Amendment** ☒ **Major Amendment**

Is the facility on the Coastal Zone list?

☐ **YES** (Coastal Zone statement will be included in the "Notice of Draft Permit") (If a major amendment - statement will be included in the "Notice of Receipt")

☒ **NO** (Do not include statement in any notice)

☐ **New** ☐ **Major Amendment**

Is the facility located in one of the following counties?

- | | | | |
|-----------------------------------|------------------------------------|------------------------------------|---------------------------------------|
| <input type="checkbox"/> Aransas | <input type="checkbox"/> Galveston | <input type="checkbox"/> Kleberg | <input type="checkbox"/> San Patricio |
| <input type="checkbox"/> Brazoria | <input type="checkbox"/> Harris | <input type="checkbox"/> Matagorda | <input type="checkbox"/> Victoria |
| <input type="checkbox"/> Calhoun | <input type="checkbox"/> Jackson | <input type="checkbox"/> Nueces | <input type="checkbox"/> Willacy |
| <input type="checkbox"/> Cameron | <input type="checkbox"/> Jefferson | <input type="checkbox"/> Orange | |
| <input type="checkbox"/> Chambers | <input type="checkbox"/> Kenedy | <input type="checkbox"/> Refugio | |

☐ **YES** Send the application to Water Quality Assessment Team for Coastal Zone Determination.

☐ **NO** No further review needed (Do not include statement in any notice)

Water Quality Assessment Team's determination:

Is the discharge in the Coastal Zone?

☐ **YES** Coastal Zone statement shall be included in the Admin Complete Notice

☐ **NO** Do not include statement in the Admin Complete Notice

Return to Applications Team by _____