

This file contains the following documents:

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



Este archivo contiene los siguientes documentos:

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

PLAIN LANGUAGE SUMMARY – ENGLISH TPDES RENEWAL APPLICATION 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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Chevron Phillips Chemical Company LP (CN600303614) operates Chevron Phillips Chemical Borger Plant RN (RN102320850), a chemical manufacturing facility. The facility is located at 600 State Spur 119 North, in Borger, Hutchinson County, Texas 79007. Chevron Phillips Chemical Borger Plant has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002484000 (EPA I.D. No. TX0095869) to authorize the discharge of wastewater and stormwater at an intermittent and flow-variable volume.

Discharges from the facility are expected to contain total organic carbon, oil and grease, volatile and semi-volatile compounds, and total suspended solids. Process wastewater, cooling tower blowdown, and off-site stormwater will be treated by wastewater pretreatment units located at the Borger Plant for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000. The pre-treatment system consists of seal pot tank, phase separator vessel, a hydrocarbon accumulation tank, and a surge tank. A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.

RESUMEN EN LENGUAJE SENCILLO – ESPAÑOL APLICACIÓN DE RENOVACIÓN TPDES 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 TAC 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

Chevron Phillips Chemical Company LP (CN600303614) opera Chevron Phillips Chemical Borger Plant RN (RN102320850), una instalación de fabricación de productos químicos. La instalación está ubicada en 600 State Spur 119 North, en Borger, condado de Hutchinson, Texas 79007. La Planta Perforadora Química de Chevron Phillips ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso No. WQ0002484000 (EPA, I.D. No. TX0095869) Autorizar el vertido de aguas residuales y pluviales a volumen intermitente y de caudal variable.

Se espera que las descargas de la instalación contengan carbono orgánico total, aceite y grasa, compuestos volátiles y semivolátiles, y sólidos suspendidos totales. Las aguas residuales de proceso, la purga de la torre de enfriamiento y las aguas pluviales fuera del sitio serán tratadas por unidades de pretratamiento de aguas residuales ubicadas en la planta Borger para los flujos transferidos a la refinería adyacente de WRB Refining, LLC para su posterior tratamiento y descarga a través del Permiso TPDES No. W0001064000. El sistema de pretratamiento consta de un tanque de sellado, un recipiente separador de fase, un tanque de acumulación de hidrocarburos y un tanque de compensación. Un separador de fase de concreto que opera en paralelo a lo anterior envía material aceitoso al mismo tanque de acumulación de hidrocarburos y aguas residuales a través de la cuenca de concreto de aguas residuales de la Unidad 5 al mismo tanque de compensación de aguas residuales.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0002484000

APPLICATION. Chevron Phillips Chemical Company LP, P.O. Box 968, Borger, Texas 79008, which owns an organic chemical manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WO0002484000 (EPA I.D. No. TX0095869) to authorize the discharge of treated wastewater and stormwater at an intermittent and flow-variable volume. The facility is located at 600 State Spur 119 North, near the city of Borger, in Hutchinson County, Texas 79007. The discharge route is from the plant site to an unnamed tributary of Dixon Creek, thence to Dixon Creek, thence to the Canadian River below Lake Meredith. TCEQ received this application on July 23, 2025. The permit application will be available for viewing and copying at Hutchinson County Public Library, 625 Weatherly Street, Borger, in Hutchinson County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.356666,35.699166&level=18

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

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public

interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

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

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

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

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

Further information may also be obtained from Chevron Phillips Chemical Company LP at the address stated above or by calling Mr. Tyler Norris, Environmental Specialist, at 806-275-5886.

Issuance Date: August 26, 2025

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0002484000

SOLICITUD. Chevron Phillips Chemical Company LP, P.O. Box 968, Borger, Texas 79008, el cual tiene una instalación de manufactura de químicos orgánicos, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0002484000 (EPA I.D. No. TX0095869) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas y aguas pluviales de volumen intermitente y flujo variable. La planta está ubicada en 600 Spur 119 North, cerca de la ciudad de Borger en el Condado de Hutchinson, Texas 79007. La ruta de descarga es del sitio de la planta a una tributaria sin nombre del arroyo Dixon, de allí al arroyo Dixon y de allí al rio Canadian debajo del lago Meredith. La solicitud para el permiso estará disponible para leerla y copiarla en la Hutchinson County Public Library, 625 Weatherly Street, Borger, Condado de Hutchinson, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.356666,35.699166&level=18

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

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ

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

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

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

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo,

la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y

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 Chevron Chemical Company LP a la

dirección indicada arriba o llamando al Sr. Tyler Norris, especialista ambiental, al 806-275-

5886.

Fecha de emisión: 26 de agosto de 2025

Leah Whallon

From: Norris, Tyler S <tyler.norris@cpchem.com>

Sent: Monday, August 11, 2025 1:55 PM

To: Leah Whallon Cc: McGhee, Adam

Subject: RE: Application to Renew Permit No. WQ0002484000; Chevron Phillips Chemical

Company LP; Chevron Phillips Chemical Borger Plant [**EXTERNAL**]

Attachments: Response and Attachments to TCEQ (2025 0805) with letter.pdf; Industrial Discharge

Renewal Spanish NORI (003).docx

Follow Up Flag: Follow up Flag Status: Completed

Leah,

Attached is our response and word document of the translated NORI. The Confidential lease was mailed separately from the application and certified mail shows it was received by the TCEQ July 31st. Let me know you have any questions. If you still cant locate the lease I will see about emailing it to you.

Thanks

Tyler Norris

Environmental Specialist

Direct: 806.275.5886 Cell: 806.930.4437

Email: tyler.norris@cpchem.com

Chevron Phillips Chemical Company LP

Spur 119 East, Borger, TX 79008

Performance by design. Caring by choice.™

This message is subject to disclaimers.

From: Leah Whallon < Leah. Whallon@Tceq.Texas.Gov>

Sent: Tuesday, July 29, 2025 4:38 PM

To: Norris, Tyler S <tyler.norris@cpchem.com> **Cc:** McGhee, Adam <MCGHEA@cpchem.com>

Subject: Application to Renew Permit No. WQ0002484000; Chevron Phillips Chemical Company LP; Chevron Phillips

Chemical Borger Plant [**EXTERNAL**]

Good Afternoon,

Please see the attached Notice of Deficiency letter dated July 29, 2025 requesting additional information needed to declare the application administratively complete. Please send the complete response by August 12, 2025.

Please let me know if you have any questions.

Thank you,



Leah Whallon

Texas Commission on Environmental Quality Water Quality Division 512-239-0084 leah.whallon@tceq.texas.gov

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



Tyler Norris Environmental Specialist

Borger Plant P. O. Box 968 Borger, Texas 79008-0968

(806) 275-5886 Fax: (806) 275-5914 Tyler.nornis@cpchem.com

www.cpchem.com

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 11, 2025

Ms. Leah Whallon Applications Review and Processing Team (MC148) Water Quality Division Texas Commission on Environmental Quality Austin, Texas 78711-3087

Re: Application to Renew Permit No. WQ0002484000 (EPA ID TX0095869)
Response to TCEQ Notice of Deficiency Letter dated July 29, 2025
Chevron Phillips Chemical Company LP
Chevron Phillips Chemical Borger Plant
Borger, Hutchinson County Texas
CN600303614; RN102320850

Dear Ms. Whallon:

Chevron Phillips Chemical Company LP (CPChem) is submitting this response to your Notice of Deficiency Letter dated July 29, 2025. The letter requested additional information needed to declare the application administratively complete.

Attached please find a response to each of the items listed in your correspondence. Copies of revised pages in the application are included as attachments to this letter. Also included as attachments are copies of the 1) CPChem submittal letter for the Lease Agreement; and 2) Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) – Spanish Language. This response includes an electronic copy of the translated Spanish NORI in a Microsoft Word document. We thank you in advance for your consideration of this application. If you have any questions or comments, please feel free to contact me at 806-

Sincerely,

Tyler Norris

Environmental Specialist

275-5886; tyler.norris@cpchem.com.

Cc: Mr. Adam McGhee, Environmental Supervisor, Chevron Phillips Chemical Company, Borger Plant

Attachments

RESPONSE TO COMMENTS

TCEQ Notice of Deficiency Letter dated July 29, 2025 Application to Renew Permit No. WQ0002484000 (EPA ID TX0095869)

TCEQ Comment Item 1.

Administrative Report 1.0, Item 10.f. The lease agreement was not found in the electronic copy of the application. Please provide a copy of the lease agreement.

CPChem Response 1.

CPChem submitted the lease documentation to the TCEQ Application Review and Processing Team separately from the renewal application. The lease documentation is a confidential document and CPChem requests that the confidential information be handled accordingly. The cover letter and lease agreement were submitted by certified mail to TCEQ. According the certified mail receipt, the document was delivered on July 31, 2025. A copy of the submittal letter is included with this correspondence as Attachment A.

TCEO Comment Item 2.

The following is a portion of the 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.

APPLICATION. Chevron Phillips Chemical Company LP, P.O. Box 968, Borger, Texas 79008, which owns an organic chemical manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002484000 (EPA I.D. No. TX0095869) to authorize the discharge of treated wastewater and stormwater at an intermittent and flow-variable volume. The facility is located at 600 State Spur 119 North, near the city of Borger, in Hutchinson County, Texas 79007. The discharge route is from the plant site to an unnamed tributary of Dixon Creek, thence to Dixon Creek, thence to the Canadian River below Lake Meredith. TCEQ received this application on July 23, 2025. The permit application will be available for viewing and copying at Hutchinson County Public Library, 625 Weatherly Street, Borger, in Hutchinson County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.356666,35.699166&level=18

Further information may also be obtained from Chevron Phillips Chemical Company LP and at the address stated above or by calling Mr. Tyler Norris, Environmental Specialist, at 806-275-5886.

CPChem Response 2.

CPChem has reviewed the information in the portion of the NORI submitted to CPChem on July 29, 2025. There are no errors or omissions.

TCEQ Comment Item 3.

The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above 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.

CPChem Response 3.

A copy of the translated Spanish NORI is included with this correspondence as Attachment B. An electronic copy of the translated Spanish NORI in a Microsoft Word document has been attached to the email transmitting this correspondence.

Attachment A

Copy of the Transmittal Letter for the Long-Term Lease Agreement

Attachment B Spanish Language NORI

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ000

SOLICITUD. [Name of applicant(s), mailing address, and description of business], ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ00_____ (EPA I.D. No. TX _____) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de [daily average flow in gallons per day] galones por día. La planta está ubicada [plant site location] en el Condado de [County], Texas [zip code]. La ruta de descarga es del sitio de la planta a [description of the discharge route]. La TCEQ recibió esta solicitud el [date application received by TCEQ]. La solicitud para el permiso estará disponible para leerla y copiarla en [name and street address of public place where the application is available in the county] antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

[Insert web link from English notice]

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

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés

público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

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

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

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la

solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

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

También se puede obtener información adicional del [name of applicant] a la dirección indicada arriba o llamando a [name of applicant's representative] al [applicant's telephone number].

Fecha de emisión: [Date notice issued]

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

July 23, 2025

Re: Confirmation of Submission of the Renewal without changes for Industrial Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Renewal without changes for the Industrial Wastewater authorization.

ER Account Number: ER031275

Application Reference Number: 802962 Authorization Number: WQ0002484000

Site Name: Chevron Phillips Chemical Borger Plant

Regulated Entity: RN102320850 - Chevron Phillips Chemical Borger Plant Customer(s): CN600303614 - Chevron Phillips Chemical Company LP

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely, Applications Review and Processing Team Water Quality Division

Texas Commission on Environmental Quality

Update Domestic or Industrial Individual Permit WQ0002484000

Site Information (Regulated Entity)

What is the name of the site to be authorized? CHEVRON PHILLIPS CHEMICAL

BORGER PLANT

Does the site have a physical address?

Yes

Physical Address

Number and Street 600 STATE SPUR 119 N

City BORGER
State TX
ZIP 79007

County HUTCHINSON
Latitude (N) (##.#####) 35.699166
Longitude (W) (-###.######) -101.356666

Primary SIC Code 2821 Secondary SIC Code 2869

Primary NAICS Code Secondary NAICS Code

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)? RN102320850

What is the name of the Regulated Entity (RE)? CHEVRON PHILLIPS CHEMICAL

BORGER PLANT

Does the RE site have a physical address?

Physical Address

Because there is no physical address, describe how to locate this site: FROM INTX OF SH SPURS 119 & 245

GO 2 MI NE ON PRIVATE RD

BORGER TX

City BORGER
State TX
ZIP 79007

County HUTCHINSON
Latitude (N) (##.#####) 35.696666
Longitude (W) (-###.#####) -101.359722

Facility NAICS Code

What is the primary business of this entity? INDUSTRIAL

Chevron-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?

Owner

What is the applicant's Customer Number (CN)?

CN600303614

Type of Customer

Corporation

Full legal name of the applicant:

Legal Name Chevron Phillips Chemical Company LP

Texas SOS Filing Number 13487011
Federal Tax ID 731587712
State Franchise Tax ID 17315877120

State Sales Tax ID

Local Tax ID

DUNS Number 152975665

Number of Employees 501+

Independently Owned and Operated?

I certify that the full legal name of the entity applying for this permit has

been provided and is legally authorized to do business in Texas.

Responsible Authority Contact

Organization Name Chevron Phillips Chemical Company LP

Yes

Prefix MR First Ron

Middle

Last Bradford

Suffix

Credentials

Title PLANT MANAGER

Responsible Authority Mailing Address

Enter new address or copy one from list:

Address Type Domestic

Mailing Address (include Suite or Bldg. here, if applicable) PO BOX 968

Routing (such as Mail Code, Dept., or Attn:)

City BORGER

State TX ZIP 79008

Phone (###-####) 8062755886

Extension

Alternate Phone (###-###-###)

Fax (###-###-###)

E-mail ron.bradford@cpchem.com

Billing Contact

Responsible contact for receiving billing statements:

Select the permittee that is responsible for payment of the annual fee.

CN600303614, Chevron Phillips

Chemical Company LP

Organization Name CHEVRON PHILLIPS CHEMICAL

COMPANY LP

Prefix MR

First TYLER

Middle

Last NORRIS

Suffix

Credentials

Title ENVIRONMENTAL SPECIALIST

Enter new address or copy one from list:

Mailing Address

Address Type Domestic

Mailing Address (include Suite or Bldg, here, if applicable) PO BOX 968

Routing (such as Mail Code, Dept., or Attn:)

City BORGER

State TX

ZIP 79008

Phone (###-####) 8062755886

Extension

Alternate Phone (###-###-)

Fax (###-###-###)

E-mail TYLER.NORRIS@CPCHEM.COM

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Billing Contact

Organization Name CHEVRON PHILLIPS CHEMICAL

COMPANY LP

Prefix MR First TYLER

Middle

Last NORRIS

Suffix

Credentials

Title ENVIRONMENTAL SPECIALIST

Enter new address or copy one from list:

Mailing Address

Address Type Domestic

Mailing Address (include Suite or Bldg. here, if applicable) PO BOX 968

Routing (such as Mail Code, Dept., or Attn:)

City BORGER

State TX ZIP 79008

Phone (###-###) 8062755886

Extension

Alternate Phone (###-###-)

Fax (###-###-####)

E-mail TYLER.NORRIS@CPCHEM.COM

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name CHEVRON PHILLIPS CHEMICAL

COMPANY LP

Prefix MR First TYLER

Middle

Last NORRIS

Suffix

Credentials

Title ENVIRONMENTAL SPECIALIST

Enter new address or copy one from list:

Mailing Address

Address Type Domestic

Mailing Address (include Suite or Bldg. here, if applicable) PO BOX 968

Routing (such as Mail Code, Dept., or Attn:)

City

State TX ZIP 79008

Phone (###-####) 8062755886

Extension

Alternate Phone (###-###-)

Fax (###-###-###)

E-mail TYLER.NORRIS@CPCHEM.COM

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

i Oillis.

Same as another contact?

Technical Contact

Organization Name CHEVRON PHILLIPS CHEMICAL

COMPANY LP

Prefix MR
First TYLER

Middle

Last NORRIS

Suffix

Credentials

Title ENVIRONMENTAL SPECIALIST

Enter new address or copy one from list:

Mailing Address:

Address Type Domestic

Mailing Address (include Suite or Bldg. here, if applicable) PO BOX 968

Routing (such as Mail Code, Dept., or Attn:)

City BORGER
State TX
ZIP 79008

Phone (###-###) 8062755886

Extension

Alternate Phone (###-###-)

Fax (###-###-###)

E-mail TYLER.NORRIS@CPCHEM.COM

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact? Technical Contact

2) Organization Name CHEVRON PHILLIPS CHEMICAL

COMPANY LP

3) Prefix MR

4) First **TYLER** 5) Middle **NORRIS** 6) Last 7) Suffix 8) Credentials 9) Title **ENVIRONMENTAL SPECIALIST Mailing Address** 10) Enter new address or copy one from list 11) Address Type Domestic 11.1) Mailing Address (include Suite or Bldg. here, if applicable) **PO BOX 968** 11.2) Routing (such as Mail Code, Dept., or Attn:) **BORGER** 11.3) City 11.4) State TX 79008 11.5) ZIP 8062755886 12) Phone (###-###-###) 13) Extension 14) Alternate Phone (###-###-) 15) Fax (###-###-###) 16) E-mail tyler.norris@cpchem.com Owner Information

Owner of Treatment Facility

1) Prefix

2) First and Last Name

3) Organization Name Chevron Phillips Chemical Company LP

4) Mailing Address P.O. Box 968

 5) City
 Borger

 6) State
 TX

 7) Zip Code
 79008

8) Phone (###-####) 8062755886

9) Extension

10) Email ron.bradford@cpchem.com

11) What is ownership of the treatment facility?

Private

Owner of Land (where treatment facility is or will be)

12) Prefix

13) First and Last Name

14) Organization Name Phillips Petroleum Company

15) Mailing AddressP.O. Box 27116) CityBorger17) StateTX

18) Zip Code 79008 19) Phone (###-####) 8062751201

20) Extension

21) Email sean.smith@p66.com

22) Is the landowner the same person as the facility owner or co-

applicant?

General Information Renewal-Amendment

1) Current authorization expiration date: 01/29/2026 2) Current Facility operational status: Active 3) Is the facility located on or does the treated effluent cross American No Indian Land? 4) What is the application type that you are seeking? Renewal without changes 5) Current Authorization type: Industrial Wastewater 5.1) What is your EPA facility classification? Minor 5.1.1) Are the discharges at your facility subjected to federal effluent Yes limitation guidelines (ELG) 40 CFR Part 400-471? 5.1.1.1) Select the applicable fee for the Minor facility that is subjected to Renewal - \$1,215 40 CFR 400-471: 6) What is the classification for your authorization? **TPDES** 6.1) What is the EPA Identification Number? TX0095869 Yes 6.2) Is the wastewater treatment facility location in the existing permit accurate? 6.3) Are the point(s) of discharge and the discharge route(s) in the Yes existing permit correct? 6.4) City nearest the outfall(s): Borger **HUTCHINSON** 6.5) County where the outfalls are located: 6.6) Is or will the treated wastewater discharge to a city, county, or state No highway right-of-way, or a flood control district drainage ditch? 6.7) Is the daily average discharge at your facility of 5 MGD or more? No 7) Did any person formerly employed by the TCEQ represent your No company and get paid for service regarding this application? **Public Notice Information Individual Publishing the Notices** 1) Prefix 2) First and Last Name Tyler Norris 3) Credential 4) Title **Environmental Specialist** 5) Organization Name Chevron Phillips Chemical Company LP 6) Mailing Address PO BOX 968 7) Address Line 2 8) City **BORGER** TX 9) State 10) Zip Code 79008 11) Phone (###-###) 8062755886 12) Extension 13) Fax (###-###-###) 14) Email tyler.norris@cpchem.com Contact person to be listed in the Notices 15) Prefix 16) First and Last Name Tyler Norris

Environmental Specialist

8062755886

Chevron Phillips Chemical Company LP

19) Organization Name 20) Phone (###-###-####) 21) Fax (###-###-####)

17) Credential18) Title

22) Email tyler.norris@cpchem.com
Bilingual Notice Requirements

23) Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or

proposed facility?

23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

23.2) Do the students at these schools attend a bilingual education program at another location?

23.3) 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)?

23.4) Which language is required by the bilingual program?

Yes

Yes

No

No

Spanish

Section 1# Public Viewing Information

County#: 1

1) County HUTCHINSON

2) Public building name Hutchinson County Public Library

3) Location within the building Reference Section
4) Physical Address of Building 625 Weatherly St

5) City Borger

6) Contact Name

7) Phone (###-####) 8062730126

8) Extension

9) Is the location open to the public?

Lease Agreement or Deed Attachment

1) Attach a lease agreement or deed recorded easement

[File Properties]

File Name LEASE_Long-Term Lease Agreement.pdf

Hash FA008BD54C47DAAAFECE36726EC09B83C605F42203D4AD7237E136D5CD784925

MIME-Type application/pdf

Plain Language

1) Plain Language

[File Properties]

File Name LANG_Attachment AR-9.f. Plain Lang Sum

English.pdf

Hash 9C8C244442DF9109E03763ECE876CB5C6944F2188FE1F1C9775E7D70C33CFC1E

MIME-Type application/pdf

[File Properties]

File Name LANG_Attachment AR-9.f. Plain Lang Sum

Spanish.pdf

Hash 7A3899EF1F8D2B1D72C74657CBB8511385E4D818DA5D67A0DC07362931B4A04B

MIME-Type application/pdf

[File Properties]

File Name LANG_Attachment AR-9.f. Plain Lang Sum

English.docx

Hash 6A27DC11200CC9BE5520CD905BBFCDAB91EB1A93067529F1D1A51D5E272C9AA8

MIME-Type application/vnd.openxmlformats-

officedocument.wordprocessingml.document

[File Properties]

File Name LANG Attachment AR-9.f. Plain Lang Sum

Spanish.docx

Hash DEF9936CDC82FB35BA53DA7BC1405A76E4FC82BBBB1C5FF92FF966928F6E860A

MIME-Type application/vnd.openxmlformats-

officedocument.wordprocessingml.document

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)

[File Properties]

File Name SPIF CPCHEM TPDES APP SPIF (2025

0722).pdf

Hash 9E58F187D9A6CCAB5FB45AC673F7CF40374EDAC4E2C8963C21AA06AFBC8C770A

MIME-Type application/pdf

Industrial Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.

[File Properties]

File Name MAP_Attachment AR-11.b. USGS Topographic

Map.pdf

Hash 86A3F1C96340CB56E9971AD65DD00E84239DD5E3DE253B08F9B74E6BE11A7F1C

MIME-Type application/pdf

,,,,,,	
2) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
2.1) I confirm that Worksheet 1.0 (EPA Categorical Effluent Guidelines) is complete and included in the Technical Attachment.	Yes
2.2) I confirm that Worksheet 2.0 (Pollutant Analyses Requirements) is complete and included in the Technical Attachment.	Yes
2.3) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment.	Yes
2.4) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment?	No
2.5) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment?	No
2.6) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment?	Yes

2.7) Are you planning to include Worksheet 8.0 (Aquaculture) in the No Technical Attachment?

2.8) Are you planning to include Worksheet 9.0 (Class V Injection Well No Inventory/Authorization) in the Technical Attachment?

2.9) Are you planning to include Worksheet 10.0 (Quarries in the John No Graves Scenic Riverway) in the Technical Attachment?

2.10) Are you planning to include Worksheet 11.0 (Cooling Water No System Information) in the Technical Attachment? 2.11) Are you planning to include Worksheet 11.1 (Impingement No Mortality) in the Technical Attachment? 2.12) Are you planning to include Worksheet 11.2 (Source Water No Biological Data) in the Technical Attachment? 2.13) Are you planning to include Worksheet 11.3 (Entrainment) in the No Technical Attachment? 2.14) Technical Attachment [File Properties] File Name TECH CPCHEM TPDES APP Tech (2025 0722).pdf 3F621B84BF145F4ACE8EB3CEC16E450C4AFBAEDE053BBD09E10817CE3A2FFE94 Hash MIME-Type application/pdf 3) Flow Diagram [File Properties] File Name FLDIA Attachment TR-2.b. Flow Schematic.pdf 10DDBAF121F25B41B03C5E5FF38E2D4F0821D1740CB5AFA755FFD73CCA8EF66E Hash MIME-Type application/pdf 4) Site Drawing [File Properties] File Name SITEDR Attachment TR-1.d. Facility Maps.pdf Hash 757E8E0DE65DA90F81203908D499B4C87738C15BA62E898F8F09BBE71ECC44CB MIME-Type application/pdf [File Properties] File Name SITEDR Attachment TR-1.d. Facilty Maps -Narrative.pdf 98650757FB499746697EE693EB1DB8D574E119773A09197EF84963C7E2FBB9CB Hash MIME-Type application/pdf 5) Design Calculations [File Properties] File Name DES CAL Attachment TR-2.a. Treatment System.pdf 6AFD4FB2496244A9E3A79DCD8EEA5CBBD72872848C631D9B0EA6A0B5F4DE14EF Hash MIME-Type application/pdf [File Properties] File Name DES_CAL_Attachment TR-2.b. Flow Schematic.pdf 10DDBAF121F25B41B03C5E5FF38E2D4F0821D1740CB5AFA755FFD73CCA8EF66E Hash MIME-Type application/pdf

6) Solids Management Plan

7) Water Balance [File Properties]

File Name WB_Attachment TR-2.b. Flow Schematic.pdf

Hash 10DDBAF121F25B41B03C5E5FF38E2D4F0821D1740CB5AFA755FFD73CCA8EF66E

MIME-Type application/pdf

8) Other Attachments

[File Properties]

File Name OTHER_CPCHEM TPDES APP FINAL (2025

0722).pdf

Hash 930590091CD436500C92D96DC2F4558FE7D0DA16A92BA468EF0F4E55B0A487E3

MIME-Type application/pdf

Certification

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

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

- 1. I am Ronald G Bradford, the owner of the STEERS account ER102277.
- 2. I have the authority to sign this data on behalf of the applicant named above.
- 3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
- 4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
- 5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
- 6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
- 7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
- 8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0002484000.
- 9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Ronald G Bradford OWNER

Customer Number: CN600303614

Legal Name: Chevron Phillips Chemical Company LP

Account Number: ER102277
Signature IP Address: 69.94.2.15
Signature Date: 2025-07-23

Signature Hash: 5B6FC6D598CF7F416CD280B23B45830B6D75C469FD845144E8BAC8B82FE5BCC4

Form Hash Code at time of

Signature:

62838C7B0B206E8C3A1C7084A4530F9C6D26C46B0962A08E360ED368113430E7

Fee Payment

Transaction by: The application fee payment transaction was

made by ER031275/Tyler S Norris

Paid by: The application fee was paid by TYLER S

NORRIS

Fee Amount: \$1200.00

Paid Date: The application fee was paid on 2025-07-23

Transaction/Voucher number: The transaction number is 582EA000677638 and

the voucher number is 776157

Submission

Reference Number: The application reference number is 802962

Submitted by:

The application was submitted by ER031275/Tyler S Norris

The application was submitted on 2025-07-23 at

14:00:31 CDT

The application was submitted from IP address

69.94.2.15

The confirmation number is 666473

The STEERS version is 6.92

The permit number is WQ0002484000

Additional Information

Submitted Timestamp:

Confirmation Number:

Submitted From:

Steers Version:

Permit Number:

Application Creator: This account was created by Carroll T Payne



Tyler Norris Environmental Specialist

Borger Plant P. O. Box 968 Borger, Texas 79008-0968

(806) 275-5886 Fax: (806) 275-5914 Tyler.nornis@cpchem.com

www.cpchem.com

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 22, 2025

Texas Commission on Environmental Quality Water Quality Division Application Review and Processing Team (MC-148) P.O. Box 13087 Austin, Texas 78711-3088

Re: Texas Pollution Discharge Elimination System (TPDES) Industrial Wastewater Permit Renewal Application Attachment AR-10.f. – Long-Term Lease Agreement Chevron Phillips Chemical Company LP. (CN600303614) Chevron Phillips Chemical Borger Plant (RN102320850) TPDES Permit No. WQ0002484000 EPA I.D. No. TX0095869

To whom it may concern:

Chevron Phillips Chemical Company LP (CPChem) is submitting the enclosed long term lease agreement documentation (Attachment AR-10.f.) for the renewal application for TPDES Permit No WQ0002484000. The application has been submitted under a separate cover letter to the Application Review and Processing Team.

This lease documentation is a **confidential document** and CPChem requests that the confidential information be handled accordingly.

If you have any questions or need additional information, please contact me at (806) 275-5886 or via email at tyler.norris@cpchem.com.

Sincerely,

Tyler Norris

Environmental Specialist

Enclosure

Texas Pollutant Discharge Elimination System Application for a Renewal Permit No. WQ0002484000



Chevron Phillips Chemical Company LP Borger Plant Borger, Texas

July 2025

TRINITY CONSULTANTS

1 Copley Pkwy, Ste 205 Morrisville, NC 27560 919.561.7055

Project 253401.0086



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Industrial Wastewater Permit Application Checklist of Common Deficiencies

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Attachment AR-9.f. Plain Language Summary (English and Spanish)

Attachment AR-9.g. Public Involvement Plan Form

Attachment AR-10.f. Long-Term Lease Agreement

Attachment AR-11.b. USGS Topographic Map

Supplemental Permit Information Form and Attachments

Industrial Technical Report 1.0

Worksheet 1.0 EPA Categorical Effluent Guidelines

Worksheet 2.0 Pollutant Analyses

Worksheet 4.0 Receiving Waters

Worksheet 7.0 Stormwater Discharges Associated with Industrial Activities

Attachment TR-1.c. List of Raw Materials, Major Intermediates, and Final Products

Attachment TR-1.d. Facility Map

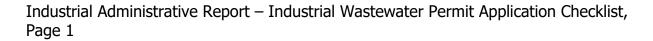
Attachment TR-2.a. Treatment System

Attachment TR-2.b. Flow Schematic-Water Balance

Attachment TR-5.b. Safety Data Sheets and Summary

Attachment TR-10.b. Off-Site/Third Party Wastes

Submission Checklists



Industrial Administrative Report – Industrial Wastewater Permit Application Checklist of Common Deficiencies, Page 19



For TCFO Has Only

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the industrial wastewater permit application.

APPLICANT NAME: <u>Chevron Phillips Chemical Company LP</u> PERMIT NUMBER (If new, leave blank): WQ00 <u>02484000</u>

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

	Y	N		Y	N
Administrative Report 1.0	\boxtimes		Worksheet 8.0		\boxtimes
Administrative Report 1.1		\boxtimes	Worksheet 9.0		\boxtimes
SPIF	\boxtimes		Worksheet 10.0		\boxtimes
Core Data Form	\boxtimes		Worksheet 11.0		\boxtimes
Summary of Application (PLS)	\boxtimes		Worksheet 11.1		\boxtimes
Public Involvement Plan Form	\boxtimes		Worksheet 11.2		\boxtimes
Technical Report 1.0			Worksheet 11.3		\boxtimes
Worksheet 1.0	\boxtimes		Original USGS Map		
Worksheet 2.0	\boxtimes		Affected Landowners Map		\boxtimes
Worksheet 3.0		\boxtimes	Landowner Disk or Labels		\boxtimes
Worksheet 3.1		\boxtimes	Flow Diagram		
Worksheet 3.2		\boxtimes	Site Drawing		
Worksheet 3.3		\boxtimes	Original Photographs	\boxtimes	
Worksheet 4.0			Design Calculations		\boxtimes
Worksheet 4.1		\boxtimes	Solids Management Plan		\boxtimes
Worksheet 5.0		\boxtimes	Water Balance	\boxtimes	
Worksheet 6.0		\boxtimes			
Worksheet 7.0					

	FOR TCEQ USE OTHY		
	Segment Number	County	
Donmit Number	Expiration Date	Region	
erinit Number	Permit Number		

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

- ☑ Correct and Current Industrial Wastewater Permit Application Forms (*TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.*)
- Water Quality Permit Payment Submittal Form (Page 14) (Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
- ∑ 7.5 Minute USGS Quadrangle Topographic Map Attached (Full-size map if seeking "New" permit.

 ½ x 11 acceptable for Renewals and Amendments.)
- □ N/A ☑ Current/Non-Expired, Executed Lease Agreement or Easement Attached
- N/A ☐ Landowners Map (See instructions for landowner requirements.)

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.
- ☑ Electronic Application Submittal (See application submittal requirements on page 23 of the instructions.)
- ☑ Original signature per 30 TAC § 305.44 Blue Ink Preferred (If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached.)
- ⊠ Summary of Application (in Plain Language)



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION **ADMINISTRATIVE REPORT 1.0**

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

	Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use Oil and Gas Exploration and Production Administrative Report (<u>TCEQ Form-20893 and 20893-inst</u> 1).									
Ito	em 1. Application Information and Fees (Instructions, Page 26)									
a.	Complete each field with the requested information, if applicable.									
	Applicant Name: Chevron Phillips Chemical Company LP									
	Permit No.: <u>WQ0002484000</u>									
	EPA ID No.: <u>TX0095869</u>									
	Expiration Date: <u>January 29, 2026</u>									
b.	Check the box next to the appropriate authorization type.									
	☑ Industrial Wastewater (wastewater and stormwater)									
	☐ Industrial Stormwater (stormwater only)									
	\square Reverse Osmosis Water Treatment (reverse osmosis water treatment wastewaters only)									
c.	Check the box next to the appropriate facility status.									
	□ Inactive									
d.	Check the box next to the appropriate permit type.									
	$oxed{oxed}$ TPDES Permit $oxed{\Box}$ TLAP $oxed{\Box}$ TPDES with TLAP component									
e.	Check the box next to the appropriate application type.									
	□ New									
	☐ Renewal with changes ☐ Renewal without changes									
	\square Major amendment with renewal \square Major amendment without renewal									
	☐ Minor amendment without renewal									
	☐ Minor modification without renewal									
f.	If applying for an amendment or modification, describe the request: $\underline{N/A}$									
	r TCEQ Use Only									
Ex]	gment NumberCounty piration DateRegion rmit Number									

¹ https://www.tceq.texas.gov/publications/search_forms.html

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)	□ \$350	\$350	□ \$315	\$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	□ \$1,250	\$1,250	⊠ \$1,215	□ \$150
Major facility	N/A ²	□ \$2,050	□ \$2,015	□ \$450

h. Payment Information

Mailed

Check or money order No.: <u>N/A</u> Check or money order amt.: <u>N/A</u>

Named printed on check or money order: N/A

Epay

Voucher number: The application will be submitted and paid via STEERS.

Copy of voucher attachment: N/A

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: <u>CN600303614</u> **Note:** Locate the customer number using the TCEQ's Central Registry Customer Search³.

b. Legal name of the entity (applicant) applying for this permit: <u>Chevron Phillips Chemical</u> Company LP

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.)

Prefix: Mr. Full Name (Last/First Name): Bradford, Ron

Title: Plant Manager Credential: See Attachment AR-2.c. for delegation of authority letter.

² All facilities are designated as minors until formally classified as a major by EPA.

³ https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch

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

Item 3. Co-applicant Information (Instructions, Page 27)

☑ 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): <u>CN N/A</u>

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.)

Prefix: $\underline{N/A}$ Full Name (Last/First Name): $\underline{N/A}$

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 coapplicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 27)

a. Complete and attach one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)). If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: AR-4.a.

Item 5. Application Contact Information (Instructions, Page 27)

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

a. oxtimes Administrative Contact . oxtimes Technical Contact

Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>

Organization Name: Chevron Phillips Chemical Company LP

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.com

Prefix: Mr. Full Name (Last/First Name): McGhee, Adam

Title: <u>Environmental Superintendent</u> Credential: <u>N/A</u>

Organization Name: Chevron Phillips Chemical Company LP

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5710 Email: mcghea@cpchem.com

Attachment: N/A

Item 6. Permit Contact Information (Instructions, Page 28)

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

a. Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>
Organization Name: <u>Chevron Phillips Chemical Company LP</u>

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.com

b. Prefix: Mr. Full Name (Last/First Name): McGhee, Adam

Title: <u>Environmental Superintendent</u> Credential: <u>N/A</u>
Organization Name: <u>Chevron Phillips Chemical Company LP</u>

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5710 Email: mcghea@cpchem.com

Attachment: N/A

Item 7. Billing Contact Information (Instructions, Page 28)

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.

Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>
Organization Name: <u>Chevron Phillips Chemical Company LP</u>

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.com

Item 8. DMR/MER Contact Information (Instructions, Page 28)

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.

Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>
Organization Name: <u>Chevron Phillips Chemical Company LP</u>

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>

Organization Name: Chevron Phillips Chemical Company LP

Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.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: <u>tyler.norris@cpchem.com</u>

☐ Fax: N/A

⊠ Regular Mail (USPS)

Mailing Address: P.O. Box 968

City/State/Zip Code: Borger, TX 79008

c. Contact in the Notice

Prefix: Mr. Full Name (Last/First Name): Norris, Tyler

Title: <u>Environmental Specialist</u> Credential: <u>N/A</u>
Organization Name: <u>Chevron Phillips Chemical Company LP</u>

Phone No: (806) 275-5886 Email: tyler.norris@cpchem.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.

Public building name: <u>Hutchinson County Public Library</u> Location within the building:

Reference Section

Physical Address of Building: 625 Weatherly St

City: Borger County: Hutchinson

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.

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is 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 Summary of Application in Plain Language Template - Complete and attach the Summary of Application in Plain Language Template (TCEO Form 20972), also known as the plain language summary or PLS. Attachment: AR-9.f. g. Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment. Attachment: AR-9.g. Item 10. Regulated Entity and Permitted Site Information (Instructions **Page 29)** a. TCEO issued Regulated Entity Number (RN), if available: RN102320850 **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 TCEO'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 (name known by the community where located): Chevron Phillips Chemical Borger Plant c. Is the location address of the facility in the existing permit the same? \boxtimes Yes \square No \square 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: Prefix: N/A Full Name (Last/First Name): N/A or Organization Name: Chevron Phillips Chemical Company LP Mailing Address: P.O. Box 968 City/State/Zip: Borger, TX 79008 Email: tyler.norris@cpchem.com Phone No: (806) 275-5886 e. Ownership of facility: ☐ Public □ Private □ Both ☐ Federal

f.	Owner of land where treatment	facility is or will be: Phillips Petroleum Con	<u>npany</u>			
Prefix: <u>N/A</u> Full Name (Last/First Name): <u>N/A</u>						
	or Organization Name: Phillips	Petroleum Company				
	Mailing Address: P.O. Box 271	City/State/Zip: <u>Borger, T</u>	<u>X 79008</u>			
	Phone No: <u>(806) 275-1201</u> E	mail: <u>N/A</u>				
		lity owner, attach a long-term lease agreem, a lease may not suffice - see instructions).				
g.	Owner of effluent TLAP disposa	l site (if applicable): <u>N/A</u>				
	Prefix: N/A Full Name (Last/Fi	rst Name): <u>N/A</u>				
	or Organization Name: <u>N/A</u>					
	Mailing Address: <u>N/A</u>	City/State/Zip: <u>N/A</u>				
	Phone No: N/A	nail: <u>N/A</u>				
	Note: If not the same as the fact at least six years. Attachment: Note:	lity owner, attach a long-term lease agreem $1/A$	ent in effect for			
h.	Owner of sewage sludge disposa	al site (if applicable):				
	Prefix: N/A Full Name (Last/First Name): <u>N/A</u>				
	or Organization Name: <u>N/A</u>					
	Mailing Address: <u>N/A</u>	City/State/Zip: <u>N/A</u>				
	Phone No: <u>N/A</u> En	nail: <u>N/A</u>				
	Note: If not the same as the fact at least six years. Attachment: <u>N</u>	lity owner, attach a long-term lease agreem $1/A$	ent in effect for			
Ite		/TLAP Disposal Information (Ins	tructions,			
	Page 31)					
a.	Is the facility located on or does	the treated effluent cross Native American	ı Land?			
	□ Yes ⊠ No					
b.		Topographic Map (or an $8.5"\times11"$ reprodutions) with all required information. Check this been included on the map.				
	⊠ One-mile radius	lacktriangle Three-miles downstream inf	ormation			
	☑ Applicant's property bounda	ries 🛮 Treatment facility boundarie	28			
	□ Labeled point(s) of discharge		(s)			
	☐ Effluent disposal site bounda	ries 🗵 All wastewater ponds				
	☐ Sewage sludge disposal site	☐ New and future construction	1			
	Attachment: <u>AR-11.b.</u>	_				
C	Is the location of the sewage slu	dge disposal site in the existing permit acc	gurato?			
С.	☐ Yes ☐ No or New Permit	age disposal site in the existing permit dec	urate:			
TC		water Application Administrative Report	Page 9 of 18			
		•	=			

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): <u>Borger</u>
g.	County in which the outfalls(s) is/are located: <u>Hutchinson</u>
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: \square Authorization granted \square Authorization pending
	For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: $\underline{N/A}$
	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: $\underline{\text{N/A}}$
i.	For TLAPs, is the location of the effluent disposal site in the existing permit accurate?
	\square Yes No or New Permit \boxtimes <u>N/A</u>
	If no, or a new application, provide an accurate location description: $\underline{N/A}$
j.	City nearest the disposal site: N/A
k.	County in which the disposal site is located: N/A
1.	For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: $\underline{\text{N/A}}$
m.	For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: $\underline{\text{N/A}}$

If no, or a new application, provide an accurate location description: $\underline{N/A}$

Item 12. Miscellaneous Information (Instructions, Page 33)

α.	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 following information:
	Account no.: <u>N/A</u>
	Total amount due: <u>N/A</u>
c.	Do you owe any penalties to the TCEQ?
	□ Yes ⋈ No
	If yes, provide the following information:
	Enforcement order no.: N/A
	Amount due: <u>N/A</u>

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0002484000

Applicant Name: Chevron Phillips Chemical Company LP

Certification: I, <u>Ron Bradford</u>, 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): Ron Bradford

Signatory title: <u>Plant Manager</u>
Signature: Ron Bradford Date: 7/22/25
Subscribed and Sworn to before me by the said Notary Nyura Turnzs
on this
My commission expires on the $17th$ day of may , $20 21$.
Meagan Turner Notary Public Meagan Turner Notary ID #132017887 My Commission Expires May 17, 2027 May 17, 2027 May 17, 2027
County, Texas

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: <u>Supplemental Permit Information Form and Attachments</u>

Attachment AR-2.c. Delegation of Authority Letter

Delegation of Authority	Lottoi
Industrial Administrative Report 1.0 - Item 2.c., Page 4	



Bryan Canfield Senior Vice President Manufacturing

10001 Six Pines Dr. The Woodlands, TX 77380

P.O. Box 4910 The Woodlands, TX 77387

Tel: 832-813-4445 canficb@cpchem.com

March 19, 2020

To Whom IT May Concern:

Acting in the capacity of Senior Vice President, Manufacturing for Chevron Phillips Company LP, I hereby authorize the Plant Manager of the Chevron Phillips Chemical Borger Plant to act as a Responsible Official or as a duly authorized representative for purposes of making all necessary certifications and submissions in connection with environmental permits. The Plant Manager of the Chevron Phillips Chemical Borger Plant is also authorized (within the limits of the other applicable delegations of expenditure authority) to take all other actions and to make any required representations in connection with satisfying environmental laws and regulations.

I also hereby authorize the EHSS Manager and the Environmental Superintendent of the Chevron Phillips Chemical Borger Plant (within the limits of applicable law and within the limits of the other applicable delegations of company expenditure authority) to take any and all actions and to make any required representations in connection with satisfying environmental laws and regulations.

Sincerely,

Bryan Canfield

BC/TSN

Attachment AR-4.a. Core Data Form

	Core	Data	Form
Industrial Administrative Report 1.0 - Item 4.a., Page	5		



TCEQ Core Data Form

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

SECTION I: General Information

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

Renewal (Core Data Form should be subr	m)	Other								
2. Customer Reference Number (if issued	is link to search RN numbers in Il Registry**	-								
ECTION II: Custome										
4. General Customer Information	5. Effective Date for	Customer Info	ormation	Updates (mm/dd/	['] уууу)		04/21/2025			
New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership ☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)										
The Customer Name submitted here ma (SOS) or Texas Comptroller of Public Acc	·	ally based on	what is o	current and active	with th	e Texas Secr	etary of State			
6. Customer Legal Name (If an individual, p	orint last name first: eg: Doe	e, John)		If new Customer,	enter pre	vious Custome	er below:			
Chevron Phillips Chemical Company LP										
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11	te Tax ID (11 digits)			9. Federal Tax ID 10. DUNS I					
13487011	17315877120	17315877120				applicable)				
				73-1587712		15-297-5665)			
11. Type of Customer: Corpo	ration		☐ Indivi	dual	Partne	rship: 🔲 Gen	eral 🔀 Limited			
Government: 🗌 City 🔲 County 🔲 Federal [Local State Other		☐ Sole P	roprietorship	Oth	ner:				
12. Number of Employees				13. Independer	ntly Owi	ned and Ope	rated?			
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 25	1-500 🔀 501 and higher	r			☐ No					
14. Customer Role (Proposed or Actual) – <i>a</i>	s it relates to the Regulated	Entity listed on	this form.	Please check one of	the follo	wing				
Owner Operator Occupational Licensee Responsible	Owner & Operarty VCP/BSA A			☐ Other:						
15. Mailing PO Box 968										
Address: City Borger	State	ТХ	ZIP	79008		ZIP + 4				
50.861	State									
16. Country Mailing Information (if outside	In LICAL	17	E Mail A	ddress (if applicabl	(0)					

TCEQ-10400 (11/22) Page 1 of 3

18. Telephone Number			19. Ext	ension or (Code		20. Fa	x Number (if a	applicable)	
(806) 275-5886							() -			
ECTION III:	Regula	ted Ent	tity I	nform	ation					
21. General Regulated En	tity Informat	tion (If 'New Re	gulated Ent	ity" is select	ed, a new p	ermit applica	ition is al	lso required.)		
☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information										
The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).										
22. Regulated Entity Nam	n e (Enter name	e of the site whe	re the regul	lated action	is taking pla	ıce.)				
Chevron Phillips Chemical Bo	orger Plant									
23. Street Address of the Regulated Entity:	600 State Sp	ur 119 North								
(No PO Boxes)	City	Borger	Sta	te	TX	ZIP	7900	7	ZIP + 4	
24. County	Hutchinson						I			I
		If no Stre	et Addres	s is provide	ed, fields 2	25-28 are re	quired.			
25. Description to										
Physical Location:	FROM INTX (OF SH SPURS 119	9 & 245 GO	2 MI NE ON	PRIVATE RE	BORGER TX				
26. Nearest City State Nearest ZIP Code										
Borger							TX		7900)7
Latitude/Longitude are re used to supply coordinate	-	-	-			Oata Stando	ards. (G	eocoding of th	ne Physical	Address may be
27. Latitude (N) In Decim	al:	35.6991667		28. Longitude (\				ecimal:	-101.3566	66667
Degrees	Minutes		Seconds	Seconds Degrees			es Minutes			Seconds
25	4	1 1		57		101	21			24
29. Primary SIC Code 4 digits)	30. 9	Secondary SIC	Code		31. Prima (5 or 6 digi	ry NAICS Co	ode	32. Seco (5 or 6 dig	ndary NAI	CS Code
2869	2821		325211				325199			
33. What is the Primary E	Business of th	his entity? (D	o not repea	nt the SIC or	NAICS descr	iption.)				
Chemical manufacturing										
34. Mailing	PO Box 968	3								
Address:					1	 1		1		
	City	Borger		State	TX	ZIP	79008	8	ZIP + 4	
35. E-Mail Address:			•				•			
36. Telephone Number	•		37. Exte	ension or C	ode	38. F	ax Num	iber (if applicab	ole)	
() -						() -			

TCEQ-10400 (11/22) Page 2 of 3

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance. Dam Safety Districts Edwards Aquifer Emissions Inventory Air Industrial Hazardous Waste New Source Municipal Solid Waste ☐ OSSF Petroleum Storage Tank □ PWS Review Air Sludge Storm Water ☐ Title V Air Tires Used Oil ☐ Voluntary Cleanup ■ Water Rights Other: ₩ Wastewater ■ Wastewater Agriculture WQ0002484000 **SECTION IV: Preparer Information** 40. Name: Tyler Norris 41. Title: **Environmental Specialist** 42. Telephone Number 43. Ext./Code 44. Fax Number 45. E-Mail Address (806) 275-5886) tyler.norris@cpchem.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: Job Title: Chevron Phillps Chemical Company LP **Environmental Specialist** Tyler Norris Name (in Print): Phone: (806) 275-5886 Signature: Date:

TCEQ-10400 (11/22) Page 3 of 3

Attachment AR-9.f. Plain Language Summary (English and Spanish)

Industrial Administrative Report 1.0 - Item 9.f., Page 8									

PLAIN LANGUAGE SUMMARY – ENGLISH TPDES RENEWAL APPLICATION 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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Chevron Phillips Chemical Company LP (CN600303614) operates Chevron Phillips Chemical Borger Plant RN (RN102320850), a chemical manufacturing facility. The facility is located at 600 State Spur 119 North, in Borger, Hutchinson County, Texas 79007. Chevron Phillips Chemical Borger Plant has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002484000 (EPA I.D. No. TX0095869) to authorize the discharge of wastewater and stormwater at an intermittent and flow-variable volume.

Discharges from the facility are expected to contain total organic carbon, oil and grease, volatile and semi-volatile compounds, and total suspended solids. Process wastewater, cooling tower blowdown, and off-site stormwater will be treated by wastewater pretreatment units located at the Borger Plant for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000. The pre-treatment system consists of seal pot tank, phase separator vessel, a hydrocarbon accumulation tank, and a surge tank. A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.

RESUMEN EN LENGUAJE SENCILLO – ESPAÑOL APLICACIÓN DE RENOVACIÓN TPDES 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 TAC 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

Chevron Phillips Chemical Company LP (CN600303614) opera Chevron Phillips Chemical Borger Plant RN (RN102320850), una instalación de fabricación de productos químicos. La instalación está ubicada en 600 State Spur 119 North, en Borger, condado de Hutchinson, Texas 79007. La Planta Perforadora Química de Chevron Phillips ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso No. WQ0002484000 (EPA, I.D. No. TX0095869) Autorizar el vertido de aguas residuales y pluviales a volumen intermitente y de caudal variable.

Se espera que las descargas de la instalación contengan carbono orgánico total, aceite y grasa, compuestos volátiles y semivolátiles, y sólidos suspendidos totales. Las aguas residuales de proceso, la purga de la torre de enfriamiento y las aguas pluviales fuera del sitio serán tratadas por unidades de pretratamiento de aguas residuales ubicadas en la planta Borger para los flujos transferidos a la refinería adyacente de WRB Refining, LLC para su posterior tratamiento y descarga a través del Permiso TPDES No. W0001064000. El sistema de pretratamiento consta de un tanque de sellado, un recipiente separador de fase, un tanque de acumulación de hidrocarburos y un tanque de compensación. Un separador de fase de concreto que opera en paralelo a lo anterior envía material aceitoso al mismo tanque de acumulación de hidrocarburos y aguas residuales a través de la cuenca de concreto de aguas residuales de la Unidad 5 al mismo tanque de compensación de aguas residuales.

Attachment AR-9.g. Public Involvement Plan Form

T dbiic 1117017	
Industrial Administrative Report 1.0 - Item 9.g., Pag	ne 8

Attachment AR-9.g.



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.

New Permit or Registration Applicati	Completion of this form is not necessary since the application is for a renewal only. on tion, amendment, facility, etc. (see instructions)
	eked, 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 Located within any of the following g Austin Dallas Fort Worth Houston San Antonio West Texas Texas Panhandle Along the Texas/Mexico Border Other geographical locations sho	
Stop after	necked, a Public Involvement Plan is not necessary. Section 2 and submit the form.
Public Involvement Plan not applicab	le to this application. Provide brief explanation.

Section 5. Community and Demographic Information
Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.
Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.
(City)
(County)
(Census Tract)
Please indicate which of these three is the level used for gathering the following information.
City County Census Tract
(a) Percent of people over 25 years of age who at least graduated from high school
(b) Per capita income for population near the specified location
(c) Percent of minority population and percent of population by race within the specified location
(d) Percent of Linguistically Isolated Households by language within the specified location
(a)
(e) Languages commonly spoken in area by percentage
(f) Community and/or Stakeholder Groups
(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities
(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39? Yes No
(b) If yes, do you intend at this time to provide public outreach other than what is required by rule? Yes No If Yes, please describe.
If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.
(c) Will you provide notice of this application in alternative languages?
Yes No
Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.
If yes, how will you provide notice in alternative languages?
Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)
(d) Is there an opportunity for some type of public meeting, including after notice?
Yes No
(e) If a public meeting is held, will a translator be provided if requested?
Yes No
(f) Hard copies of the application will be available at the following (check all that apply):
TCEQ Regional Office TCEQ Central Office
Public Place (specify)
Section 7. Voluntary Submittal
For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.
Will you provide notice of this application, including notice in alternative languages?
Yes No
What types of notice will be provided?
Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)

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Attachment AR-10.f. Long-Term Lease Agreement

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Chevron Phillips Chemical Company LP (CPChem) will submit the lease documentation to the TCEQ Application Review and Processing Team separately from the renewal application. The lease documentation is a confidential document and CPChem requests that the confidential information be handled accordingly.

A copy of the submittal letter is included within this attachment.



Tyler Norris Environmental Specialist

Borger Plant P. O. Box 968 Borger, Texas 79008-0968

(806) 275-5886 Fax: (806) 275-5914 Tyler.nornis@cpchem.com

www.cpchem.com

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 22, 2025

Texas Commission on Environmental Quality Water Quality Division Application Review and Processing Team (MC-148) P.O. Box 13087 Austin, Texas 78711-3088

Re: Texas Pollution Discharge Elimination System (TPDES) Industrial Wastewater Permit Renewal Application Chevron Phillips Chemical Company LP. (CN600303614) Chevron Phillips Chemical Borger Plant (RN102320850) TPDES Permit No. WQ0002484000 EPA I.D. No. TX0095869

To whom it may concern:

Chevron Phillips Chemical Company LP (CPChem) is submitting the enclosed renewal application for TPDES Permit No. WQ0002484000. Enclosed you will find the original and three copies for your review. The application fee has been submitted directly to the Revenues Section under separate copy and a copy of the payment is presented in Attachment A of the enclosed application.

The lease documentation has been submitted under a separate cover letter to the Application Review and Processing Team as a confidential document. CPChem requests that the confidential information be handled correctly.

If you have any questions or need additional information, please contact me at (806) 275-5886 or via email at tyler_norris@cpchem.com. We look forward to working with you in processing this application.

Sincerely,

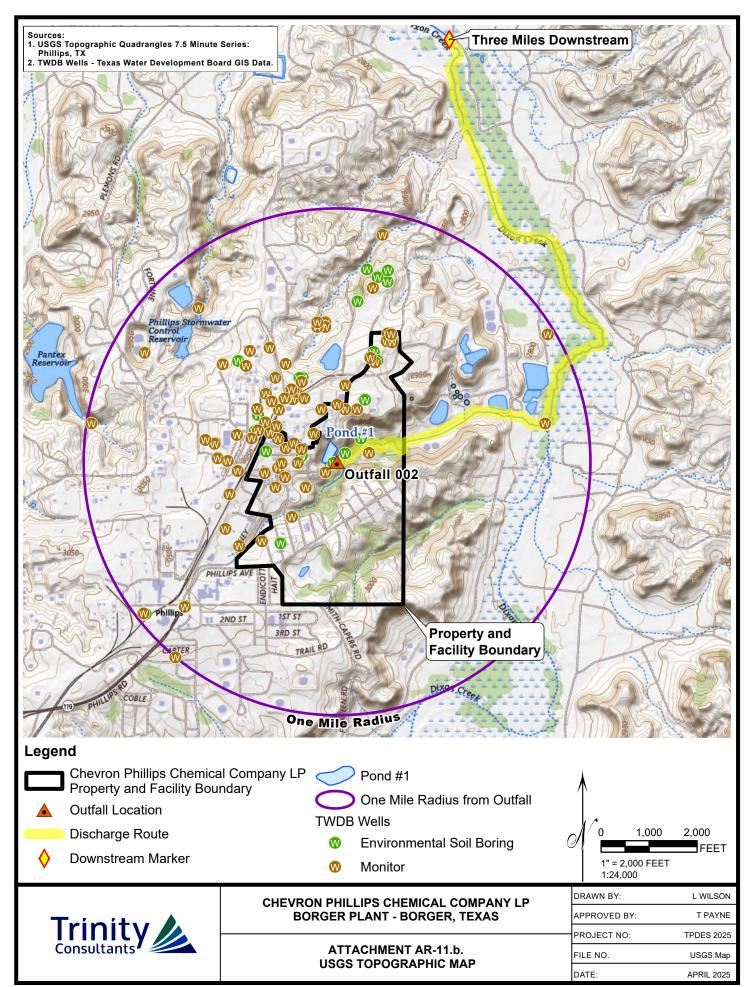
Tyler Norris

Environmental Specialist

Enclosure

Attachment AR-11.b. USGS Topographic Map

	USGS	Topographic	Мар
Industrial Administrative Report 1.0 -	Item 11.b., P	Page 9	



Supplemental Permit Information Form and Attachments

	and Attachments
Industrial Administrative Report 1.0 - Page 15	

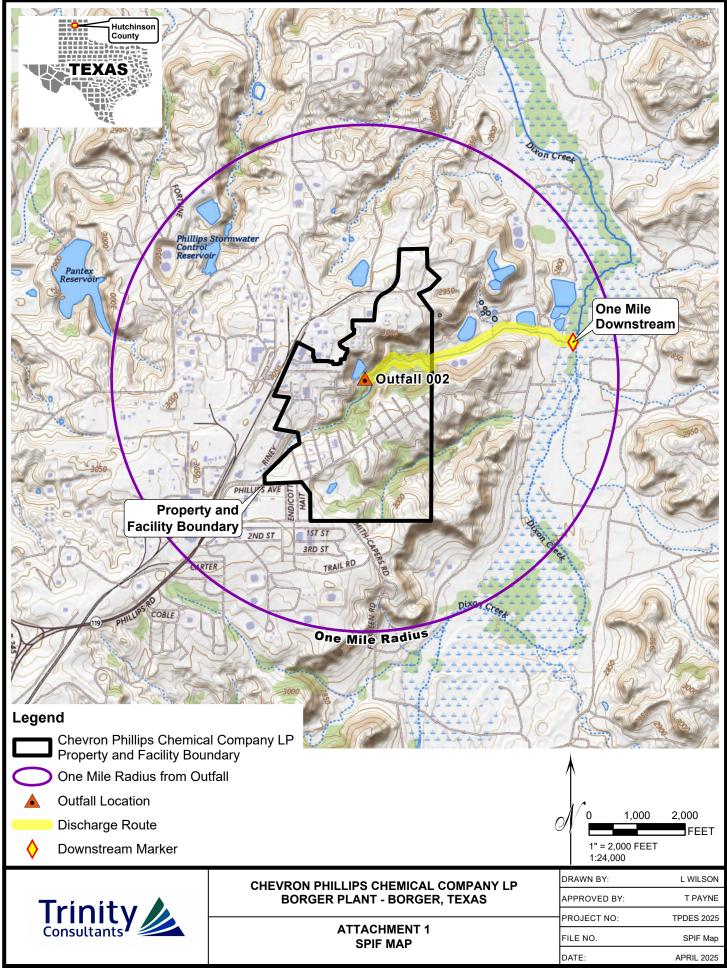
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TOPO LICE ONLY	
TCEQ USE ONLY: Application type: Paperval Maio	or Amendment Miner Amendment New
	or AmendmentNinor AmendmentNew Segment Number:
Admin Complete Date:	
Agency Receiving SPIF:	II C Figh and Wildlife
Texas Historical Commission	
rexas Parks and whome Departme	ent U.S. Army Corps of Engineers
This form applies to TPDES permit applic	ations only. (Instructions, Page 53)
our agreement with EPA. If any of the items	at. TCEQ will mail a copy to each agency as required by s are not completely addressed or further information ne information before issuing the permit. Address
attachment for this form separately from t application will not be declared administra completed in its entirety including all attac	n in the permit application form. Provide each he Administrative Report of the application. The tively complete without this SPIF form being chments. Questions or comments concerning this form ion's Application Review and Processing Team by y phone at (512) 239-4671.
The following applies to all applications:	
1. Permittee: <u>Chevron Phillips Chemical Co</u>	ompany LP
Permit No. WQ00 <u>02484000</u>	EPA ID No. TX <u>0095869</u>
and county):	scription that includes street/highway, city/vicinity,
600 State Spur 119 N. Borger, TX 7900	<u>7, Hutchinson County</u>

		e the name, address, phone and fax number of an individual that can be contacted to specific questions about the property.
	Prefix	(Mr., Ms., Miss): <u>Mr.</u>
	First a	nd Last Name: <u>Tyler Norris</u>
	Creder	ntial (P.E, P.G., Ph.D., etc.): <u>N/A</u>
	Title: <u>E</u>	nvironmental Specialist
	Mailing	g Address: <u>P.O. Box 968</u>
	City, St	tate, Zip Code: <u>Borger, TX 79008</u>
	Phone	No.: <u>(806) 275-5886</u> Ext.: <u>N/A</u> Fax No.: <u>(806)275-5912</u>
	E-mail	Address: tyler.norris@cpchem.com
2.	List the	e county in which the facility is located: <u>Hutchinson</u>
3.		property is publicly owned and the owner is different than the permittee/applicant, list the owner of the property.
	N/A	
4.	of effludischar	e a description of the effluent discharge route. The discharge route must follow the flow tent from the point of discharge to the nearest major watercourse (from the point of trge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify ssified segment number.
	Creek	astewater is discharged to an unnamed tributary of Dixon Creek; thence to Dixon; thence to Canadian River below Lake Meredith in Segment No. 0101 of the Canadian Basin.
5.	plotted route f	provide a separate 7.5-minute USGS quadrangle map with the project boundaries and a general location map showing the project area. Please highlight the discharge from the point of discharge for a distance of one mile downstream. (This map is ed in addition to the map in the administrative report).
Provide original photographs of any structures 50 years or older on the property.		
	Does y	our project involve any of the following? Check all that apply.
		Proposed access roads, utility lines, construction easements
		Visual effects that could damage or detract from a historic property's integrity
		Vibration effects during construction or as a result of project design
		Additional phases of development that are planned for the future
		Sealing caves, fractures, sinkholes, other karst features

	☐ Disturbance of vegetation or wetlands
1.	List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):
	N/A
2.	Describe existing disturbances, vegetation, and land use:
	The facility is a chemical manufacturing plant.
	HE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR MENDMENTS TO TPDES PERMITS
3.	List construction dates of all buildings and structures on the property: The chemical plant was constructed in the 1940s.
	The chemical plant was constructed in the 1940s.
4.	Provide a brief history of the property, and name of the architect/builder, if known.
1.	The chemical plant was initially constructed in the 1940s and has been operated as a chemical manufacturing plant since that time.



Supplemental Permit Information Form Attachment 2 - Photos of Structures 50 Years or Older Chevron Phillips Chemical Company LP – Borger Plant

"Central Control Building" Unknown origin date but greater than 50 years







TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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, please refer to the <u>Instructions for Completing the Industrial Wastewater Permit Application</u>¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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.

Item 1. Facility/Site Information (Instructions, Page 39)

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

A chemical manufacturing plant with a wide range of specialty chemicals, such as sulfur chemicals, aliphatic solvents, and laboratory reagents. (SIC Codes: 2869, 2821)

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

Domestic sewage and process wastewater generated from the manufacturing of organic chemicals and polyphenylene sulfide are managed within the chemical sewer system. The process wastewater is provided primary treatment and then stored in tanks prior to being routed to the adjacent WRB Refining, LLC (WRB) Borger Refinery for additional treatment and discharge under TPDES Permit No. WQ0001064000. Domestic sewage from the site is also routed to WRB Borger Refinery for treatment and discharge. Stormwater from some non-process areas is authorized under the Multi-Sector General Permit. Stormwater runoff from process areas is typically collected and routed to WRB Borger Refinery for treatment and discharge. Discharge of process area stormwater through Outfall 002 may occur as a result of extreme rain events when the pumping and storage capacity of the stormwater collection system is exceeded. Stormwater discharges via Outfall 002 may contain de-minimus amounts of process wastewater and cooling tower blowdown.

 $\underline{https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_st\\ \underline{eps.html}$

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 Attachmer	See Attachment TR-1.c. for the list of materials and products.				

Attachment: TR-1.c.

- 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.
 - 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: TR-1.d.

Yes

No

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.

List source(s) used to determine 100-year frequency flood plain: <u>Flood Hazard Boundary Map, Hutchinson County, Unincorporated Area, Pg 11 of 12, Jan. 10, 1978</u>

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?

	\square Yes \square No \boxtimes 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: <u>N/A</u>
T4	ore 7. Treatment Creatons (Instrumetions Dogs 40)
П	em 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 TR-2.a.
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: <u>TR-2.b.</u>
It	em 3. Impoundments (Instructions, Page 40)
Do	oes the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)
	⊠ Yes □ No
3.6	no, proceed to Item 4. If yes, complete Item 3.a for existing impoundments and Items 3.a - e for new or proposed impoundments. NOTE: See instructions, Pages 40-42, for additional formation 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. Attach additional copies of the Impoundment Information table, if needed.

Disposal (**D**), Containment (**C**), or Evaporation (**E**).

Use Designation: Indicate the use designation for each impoundment as Treatment (T),

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	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	С			
Associated Outfall Number	002			
Liner Type (C) (I) (S) or (A)	S			
Alt. Liner Attachment Reference	N/A			
Leak Detection System, Y/N	N			
Groundwater Monitoring Wells, Y/N	N			
Groundwater Monitoring Data Attachment	N/A			
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y			
Length (ft)	440			
Width (ft)	240			
Max Depth From Water Surface (ft), Not Including Freeboard	3			
Freeboard (ft)	3			
Surface Area (acres)	6.6			
Storage Capacity (gallons)	6,790,000			
40 CFR Part 257, Subpart D, Y/N	N/A			
Date of Construction	Unknown			

Attachment: N/A

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

items. If attached, check yes in the appropriate box. Otherwise, check no or not yet designed .
1. Liner data
\square Yes \square No \square Not yet designed N/A
2. Leak detection system or groundwater monitoring data
\square Yes \square No \square Not yet designed N/A
3. Groundwater impacts
\square Yes \square No \square Not yet designed N/A
NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal highwater table in the shallowest water-bearing zone.

b. For new or proposed impoundments, attach any available information on the following

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 ½-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

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, 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/0r 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 Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	
002	35.698928	-101.353522	

Outfall Location Description

Outfall No.	Location Description
002	At discharge pipe for overflow from stormwater reservoir

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point		
002	At outfall 002; at the overflow from the stormwater reservoir.		

Outfall Flow Information - Permitted and Proposed

Outfall No.	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)
002	Intermittent	Intermittent	Intermittent	Intermittent	Intermittent

Outfall Discharge - Method and Measurement

Outfall No. Pumped Discharge? Y/N		Gravity Discharge? Y/N	Type of Flow Measurement Device Used	
002	N	Y	Estimate	

Outfall Discharge - Flow Characteristics

Outfall No.		Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
002	Y	N	N	24	31	12

Outfall Wastestream Contributions

Outfall No. 002

Volume (MGD)	Percent (%) of Total Flow
Variable	~95
Variable	~2
Variable	~2
Variable	~1
	Variable Variable Variable

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: Click to enter text.

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

	Yes \square	No	Use cooling towers	s that discharge	blowdown o	or other	wastestreams
--	---------------	----	--------------------	------------------	------------	----------	--------------

- ☐ Yes ☑ No Use boilers that discharge blowdown or other wastestreams
- □ Yes ⊠ No Discharge once-through cooling water

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

- b. If **yes** to any of the above, attach an 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.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: TR-5.b.

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers	2	6,048	13,248
Boilers	N/A	N/A	N/A

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at $40 \ CFR \ \S \ 122.26(b)(14)$, commingled with any other wastestream?

⊠ Yes □ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: <u>See</u> Technical Report page 1 of 70, Items 1.a. and 1.b.

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

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 dom sludge treatment or disposal. Complete Worksheet 5.0				
	☑ Domestic sewage is routed (i.e., connected to or tra receive domestic sewage for treatment, disposal, or				
	☐ Domestic sewage disposed of by an on-site septic to Item 7.b.	ank and drainfield system. Complete			
	☐ Domestic and industrial treatment sludge ARE com	mingled prior to use or disposal.			
	☐ Industrial wastewater and domestic sewage are treasludge IS NOT commingled prior to sludge use or d	<u> </u>			
	☐ 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: Click to enter text.			
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.				
Do	omestic Sewage Plant/Hauler Name				
P	lant/Hauler Name	Permit/Registration No.			
	WRB Refining LLC Borger Refinery and NGL Processing Center	WQ0001064000			
It	em 8. Improvements or Compliance, Requirements (Instructions, Pa				
a.	Is the permittee currently required to meet any imple enforcement?	mentation schedule for compliance o			
	□ Yes ⊠ No				
b.	Has the permittee completed or planned for any impr \square Yes \boxtimes No	ovements or construction projects?			
c.	If yes to either 8.a or 8.b, provide a brief summary of update: N/A	the requirements and a status			

Item 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: N/A
Additionally, attach a copy of all tests performed which have not been submitted to the TCEQ or EPA. Attachment: N/A
Item 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? Xes 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: <u>TR-10.b.</u>
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: <u>N/A</u>
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.
Item 11. Radioactive Materials (Instructions, Page 46)
a. Are/will radioactive materials be mined, used, stored, or processed at this facility?
a. The, will radioactive materials be limited, used, stored, or processed at this facility!

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.

No

Yes

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)
N/A	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 Name	Concentration (pCi/L)
N/A	N/A

Item 12. Cooling Water (Instructions, Page 46)

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

	Yes
	No
	Decommissioned: <u>N/A</u>
	To Be Decommissioned: <u>N/A</u>
T C	

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

If **decommissioned**, provide the date operation ceased and stop here.

If to **be decommissioned**, provide the date operation is anticipated to cease and stop here.

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

d.

1. 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	N/A	N/A	N/A	N/A
Owner	N/A	N/A	N/A	N/A
Operator	N/A	N/A	N/A	N/A

2.	Cooling water is/will be obtained from a Public Water Supplier (PWS)
	□ No □ Yes; PWS No.: <u>N/A</u>
	If no , continue. If yes , provide the PWS Registration No. and stop here.
3.	Cooling water is/will be obtained from a reclaimed water source?
	□ No □ Yes; Auth No.: <u>N/A</u>
	If no , continue. If yes , provide the Reuse Authorization No. and stop here.
4.	Cooling water is/will be obtained from an Independent Supplier
	□ No □ Yes; AIF: <u>N/A</u>
	If no , proceed to Item 12.d. If yes , provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed.
31	6(b) General Criteria N/A
1.	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 N/A
2.	At least 25% of the total water withdrawn by the CWIS(s) is/will be used at the facility exclusively for cooling purposes on an annual average basis.
	□ Yes □ No N/A
3.	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. Explanation: <u>N/A</u>
	If no , provide an explanation of how the waterbody does not meet the definition of Waters of the United States in <i>40 CFR § 122.2</i> .

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.

a

e.		Section 316(b) and uses /proposes to use cooling towers .
		Yes □ No
		yes , stop here. If no , complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to ow for a determination based upon BPJ.
f.	Oi	l and Gas Exploration and Production N/A
	1.	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.
	2.	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.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If no , skip to Item 12.g.3.
g.	Co	ompliance Phase and Track Selection N/A
	1.	Phase I – New facility subject to 40 CFR Part 125, Subpart I
		□ Yes □ No
		If yes , check the box next to the 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
	2.	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.
	3.	Phase III - New facility subject to 40 CFR Part 125, Subpart N
		□ Yes □ No
		If \mathbf{yes} , check the box next to the 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.

		• Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/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.
	Att	achment: <u>N/A</u>
It	em 13	3. Permit Change Requests (Instructions, Page 48)
Th	is item	is only applicable to existing permitted facilities.
a.	Is the f	Cacility requesting a major amendment of an existing permit?
		Yes 🗵 No
	inform	list each request individually and provide the following information: 1) detailed ation regarding the scope of each request and 2) a justification for each request. any supplemental information or additional data to support each request.
	N/A	
b.	Is the f	Cacility requesting any minor amendments to the permit?
		Yes No
	If yes,	list and describe each change individually.
	N/A	
c.	Is the f	Cacility requesting any minor modifications to the permit?
		Yes ⊠ No
	If yes,	list and describe each change individually.

☐ Track I - Not a fixed facility

ě.		

Item 14. Laboratory Accreditation (Instructions, Page 49)

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

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

The applicant should review 30 TAC Chapter 25 for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

Printed Name: Ron Bradford

Title: Plant Manager

Date: 7/22/

Worksheet 1.0 EPA Categorical Effluent Guidelines

INDUSTRIAL WASTEWATER PERMIT APPLICATION 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).

Item 1. Categorical Industries (Instructions, Page 53)

reem in eatego	rical madefiles	(moti actions, ra	Se 99)
Is this facility subject	to any 40 CFR categorica	al ELGs outlined on page	53 of the instructions?
⊠ Yes □ No			
If no , this worksheet i	is not required. If yes , pr	ovide the appropriate in	formation below.
40 CFR Effluent Guideli	ine		
Industry		40	CFR Part
Organic Chemicals at	nd Specialty Chemicals	414	1
L		<u>'</u>	
Item 2. Produc	ction/Process Da	ta (Instructions,	Page 54)
of oil and gas explora	tion and production was or the Oil and Gas Extract	esting individual permit tewater (discharges into ion Effluent Guidelines -	or adjacent to water in
a. Production Data			
Provide appropriate d	ata for effluent guidelin	es with production-based	l effluent limitations.
Production Data			
Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A	N/A	N/A	N/A
	†	<u> </u>	<u> </u>

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.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
F-Commodity Organic Chemicals	~5	None	None
G-Bulk Organic Chemicals	~20	None	None
H-Specialty Organic Chemical	~75	None	None

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

N/A			

Item 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.

The Borger Plant generates approximately 50 gallons per minute (gpm) of wastewater, which is typically sent to the adjacent WRB Refining LLC Borger Refinery for treatment with stormwater from process areas. It is not possible to estimate the amount of process wastewater which may be present in the intermittent discharges from Outfall 002 covered under this permit.

Item 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
Commodity Organic Chemicals	414	F	1940's
Bulk Organic Chemicals	414	G	1940's
Specialty Organic Chemicals	414	Н	1940's

Worksheet 2.0 Pollutant Analyses

Outfall 002 only discharges during extreme precipitation events. The lastest sampling of Outfall 002 occurred on 6/9/25. Prior to that date, the last sampling date occurred in June 2023. There have been no other discharges from Outfall 002 since application preparation through application submittal.

Pollutant analyses will be submitted to the TCEQ Industrial Wastewater Permits Team if and when there is an additional discharge from this outfall during the application process. The pollutant analyses will consist of those pollutants listed in Tables 1, 2, 3, 6, 8, 9, 10, and 11.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

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.

Item 1. General Testing Requirements (Instructions, Page 55)

- **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): **The discharge from 002 is intermittent. The latest sampling of 002 occurred on 6/9/25. Prior to that date, the last sampling date occurred in June 2023.**
- b. \boxtimes <u>N/A</u> 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:** No sampling was conducted for this renewal.

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** Click to enter text.

Complete are (check one)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Table 1 for Ortfall No. 000

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: <u>002</u>	Sample	s are (check one	e): Composite	e 🛛 Grab
Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	36.6			
CBOD (5-day)				
Chemical oxygen demand				
Total organic carbon	19.8			
Dissolved oxygen				
Ammonia nitrogen				
Total suspended solids	81.0			
Nitrate nitrogen				
Total organic nitrogen				
Total phosphorus				
Oil and grease	<1.57			

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total residual chlorine				
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO3)				
Temperature (°F)	22.7			
pH (standard units)	7.1			

Table 2 for Outfall No.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5
Barium, total					3
Beryllium, total					0.5
Cadmium, total					1
Chromium, total					3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total					2
Cyanide, available					2/10
Lead, total					0.5
Mercury, total					0.005/0.0005
Nickel, total					2
Selenium, total					5
Silver, total					0.5
Thallium, total					0.5
Zinc, total					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.: <u>oo2</u> Samples are (check one): ☐ Composite ☒ Grab

Table 3 for Outfall No.: <u>002</u>	Sample	Samples are (check one): Composite Grab				
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*	
Acrylonitrile	<14.3				50	
Anthracene	<0.0938				10	
Benzene	<0.460				10	
Benzidine					50	
Benzo(a)anthracene	<0.0821				5	
Benzo(a)pyrene	<0.0700				5	
Bis(2-chloroethyl)ether					10	
Bis(2-ethylhexyl)phthalate	<0.900				10	
Bromodichloromethane [Dichlorobromomethane]					10	
Bromoform					10	
Carbon tetrachloride	<0.896				2	
Chlorobenzene	<0.455				10	
Chlorodibromomethane [Dibromochloromethane]					10	
Chloroform	<0.464				10	
Chrysene	< 0.0815				5	
m-Cresol [3-Methylphenol]					10	
o-Cresol [2-Methylphenol]					10	
p-Cresol [4-Methylphenol]					10	
1,2-Dibromoethane					10	
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.102				10	
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.0941				10	
p-Dichlorobenzene [1,4-Dichlorobenzene]	4.79				10	
3,3'-Dichlorobenzidine					5	
1,2-Dichloroethane	<0.372				10	

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738				10
Dichloromethane [Methylene chloride]	<1.73				20
1,2-Dichloropropane	< 0.556				10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27				10
2,4-Dimethylphenol	<0.192				10
Di-n-Butyl phthalate	<0.765				10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)					
Ethylbenzene	0.750				10
Ethylene Glycol					
Fluoride					500
Hexachlorobenzene	< 0.0975				5
Hexachlorobutadiene	<0.103				10
Hexachlorocyclopentadiene					10
Hexachloroethane	<0.102				20
4,4'-Isopropylidenediphenol (bisphenol A)					1
Methyl ethyl ketone					50
Methyl tert-butyl ether (MTBE)					
Nitrobenzene	< 0.0736				10
N-Nitrosodiethylamine					20
N-Nitroso-di-n-butylamine					20
Nonylphenol					333
Pentachlorobenzene					20
Pentachlorophenol					5
Phenanthrene	0.989				10
Polychlorinated biphenyls (PCBs) (**)					0.2
Pyridine					20
1,2,4,5-Tetrachlorobenzene					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethene [Tetrachloroethylene]	<0.655				10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Toluene	2.06				10
1,1,1-Trichloroethane	<0.585				10
1,1,2-Trichloroethane	<0.411				10
Trichloroethene [Trichloroethylene]	<1.50				10
2,4,5-Trichlorophenol					50
TTHM (Total trihalomethanes)					10
Vinyl chloride	<0.428				10

^(*) Indicate units if different from μ g/L.

TABLE 4 (Instructions, Pages 58-59)

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

a. Tributyltin

Yes

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?

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.							

- \square Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.

No

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)

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	\boxtimes	No

^(**) 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 "<".

Domestic wastewater is,	/will be dis	scharged.				
□ Yes ⊠ No)					
If yes to either question	ı, provide t	he appropr	iate testing r	esults in Ta	ble 4 below	
c. E. coli (discharge to fre	shwater)					
This facility discharges/ E. coli bacteria are exped						
□ Yes ⊠ No)					
Domestic wastewater is,	/will be dis	scharged.				
□ Yes ⊠ No)					
If yes to either question	ı, provide t	he appropr	iate testing r	esults in Ta	ble 4 below	
Гable 4 for Outfall No.: <u>N/A</u>		Sampl	les are (check	one): 🗆 Co	omposite [☐ Grab
Pollutant		Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (μg/L)		N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/1	00 mL)	N/A	N/A	N/A	N/A	N/A
E. coli (cfu or MPN/100 mI	.)	N/A	N/A	N/A	N/A	N/A
TABLE 5 (Instructions, Pag Completion of Table 5 is rewastewater from a facility wastewaters which may con	equired for which man	ufactures o	r formulates			s or other
If this facility does not/will not/will not discharge othe			_			
⊠ N/A						
Гable 5 for Outfall No.: <u>N/A</u>		Sampl	les are (check	one): 🗆 Co	omposite [□ Grab
Pollutant	Sample 1 (µg/L)*	Sample (µg/L)*	_		-	AL g/L)*
Aldrin					0.0	01
Carbaryl					5	
Chlordane					0.2	2
Chlorpyrifos					0.0	05
4,4'-DDD					0.2	1

Ponutant	(μg/L)*	(μg/L)*	(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

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
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 (alpha)					0.05
Hexachlorocyclohexane (beta)					0.05
Hexachlorocyclohexane (gamma) [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.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

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							400
Color (PCU)							_
Nitrate-Nitrite (as N)							_
Sulfide (as S)							_
Sulfite (as SO3)							_
Surfactants							_
Boron, total							20
Cobalt, total							0.3
Iron, total							7
Magnesium, total							20
Manganese, total							0.5
Molybdenum, total							1
Tin, total							5
Titanium, total							30

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

Ind	ustrial Category	40 CFR Part		latiles ble 8	Aci Tal	ds ole 9	Net	es/ atrals ole 10		sticides ole 11
	Adhesives and Sealants			Yes		Yes		Yes	No	
	Aluminum Forming	467		Yes		Yes		Yes	No	
	Auto and Other Laundries			Yes		Yes		Yes		Yes
	Battery Manufacturing	461		Yes	No			Yes	No	
	Coal Mining	434	No		No		No		No	
	Coil Coating	465		Yes		Yes		Yes	No	
	Copper Forming	468		Yes		Yes		Yes	No	
	Electric and Electronic Components	469		Yes		Yes		Yes		Yes
	Electroplating	413		Yes		Yes		Yes	No	
	Explosives Manufacturing	457	No			Yes		Yes	No	
	Foundries			Yes		Yes		Yes	No	
	Gum and Wood Chemicals - Subparts A,B,C,E	454		Yes		Yes	No		No	
	Gum and Wood Chemicals - Subparts D,F	454		Yes		Yes		Yes	No	
	Inorganic Chemicals Manufacturing	415		Yes		Yes		Yes	No	
	Iron and Steel Manufacturing	420		Yes		Yes		Yes	No	
	Leather Tanning and Finishing	425		Yes		Yes		Yes	No	
	Mechanical Products Manufacturing			Yes		Yes		Yes	No	
	Nonferrous Metals Manufacturing	421,471		Yes		Yes		Yes		Yes
	Oil and Gas Extraction - Subparts A, D, E, F, G, H	435		Yes		Yes		Yes	No	
	Ore Mining - Subpart B	440	No			Yes	No		No	
\boxtimes	Organic Chemicals Manufacturing	414	\boxtimes	Yes	\boxtimes	Yes	\boxtimes	Yes		Yes
	Paint and Ink Formulation	446,447		Yes		Yes		Yes	No	
	Pesticides	455		Yes		Yes		Yes		Yes
	Petroleum Refining	419		Yes	No		No		No	
	Pharmaceutical Preparations	439		Yes		Yes		Yes	No	
	Photographic Equipment and Supplies	459		Yes		Yes		Yes	No	
	Plastic and Synthetic Materials Manufacturing	414		Yes		Yes		Yes		Yes
	Plastic Processing	463		Yes	No		No		No	
	Porcelain Enameling	466	No		No		No		No	
	Printing and Publishing			Yes		Yes		Yes		Yes
	Pulp and Paperboard Mills - Subpart C	430		*		Yes		*		Yes
	Pulp and Paperboard Mills - Subparts F, K	430		*		Yes		*		*
	Pulp and Paperboard Mills - Subparts A, B, D, G, H	430		Yes		Yes		*		*
	Pulp and Paperboard Mills - Subparts I, J, L	430		Yes		Yes		*		Yes
	Pulp and Paperboard Mills - Subpart E	430		Yes		Yes		Yes		*
	Rubber Processing	428		Yes		Yes		Yes	No	
	Soap and Detergent Manufacturing	417		Yes		Yes		Yes	No	
	Steam Electric Power Plants	423		Yes		Yes	No		No	
	Textile Mills (Not Subpart C)	410		Yes		Yes		Yes	No	
	Timber Products Processing	429		Yes		Yes		Yes		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.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Table 8 for Outfall No.: <u>002</u>		ples are (chec		omposite 🗆	Grab
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acrolein					50
Acrylonitrile	<14.3				50
Benzene	<0.460				10
Bromoform					10
Carbon tetrachloride	<0.896				2
Chlorobenzene	<0.455				10
Chlorodibromomethane					10
Chloroethane	<1.98				50
2-Chloroethylvinyl ether					10
Chloroform	<0.464				10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane	< 0.635				10
1,2-Dichloroethane	<0.372				10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738				10
1,2-Dichloropropane	<0.556				10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27				10
Ethylbenzene	0.750				10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]	<2.04				50
Methylene chloride [Dichloromethane]	<1.73				20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]	<0.655				10
Toluene	2.06				10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368				10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
1,1,1-Trichloroethane	<0.585				10
1,1,2-Trichloroethane	< 0.411				10
Trichloroethylene [Trichloroethene]	<1.50				10
Vinyl chloride	<0.428				10

^{*} Indicate units if different from µg/L.

Table 9 for Outfall No.: **002**

Samples are (check one): \square Composite \boxtimes Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol	<0.192				10
4,6-Dinitro-o-cresol	<1.00				50
2,4-Dinitrophenol	<0.311				50
2-Nitrophenol	<0.136				20
4-Nitrophenol	<0.440				50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol	4.27				10
2,4,6-Trichlorophenol					10

^{*} Indicate units if different from µg/L.

Table 10 for Outfall No.: **002** Samp

Table 10 for Outfall No.: <u>002</u>	Samp	les are (check	cone): ☐ Co	mposite 🛚	Grab
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acenaphthene	0.265				10
Acenaphthylene	0.121				10
Anthracene	<0.0938				10
Benzidine					50
Benzo(a)anthracene	<0.0821				5
Benzo(a)pyrene	< 0.0700				5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.0664				10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene	< 0.0473				5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate	< 0.900				10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene	< 0.0815				5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate	<0.155				10
Dimethyl phthalate	<0.108				10
Di-n-butyl phthalate	<0.765				10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene	0.0886				10
Fluorene	0.480				10
Hexachlorobenzene	< 0.0975				5
Hexachlorobutadiene	<0.103				10
Hexachlorocyclopentadiene					10
Hexachloroethane	<0.102				20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene	1.14				10
Nitrobenzene	< 0.0736				10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene	0.989				10
Pyrene	0.0880				10
1,2,4-Trichlorobenzene	<1.75				10

^{*} Indicate units if different from µg/L.

Table 11 for Outfall No.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (μg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

^{*} Indicate units if different from $\mu g/L$.

Attachment: Click to enter text.

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

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
- □ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) 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

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/A Samples are (check one): ☐ Composite ☐ Grab

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

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
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, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

□ Yes ⊠ No

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 ⊠ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: <u>N/A</u>		Sampl	□ Grab			
Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

Worksheet 4.0 Receiving Waters

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is required for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

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:
1. The legal name of the owner of the drinking water supply intake: N/A
2. 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.
\square Check this box to confirm the above requested information is provided. N/A
Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)
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: $\underline{N/A}$ 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: $\underline{N/A}$
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
Item 3. Classified Segment (Instructions, Page 80)
The discharge is/will be directly into (or within 300 feet of) a classified segment.
□ Yes ⊠ No
If yes , stop here and do not 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.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

		(Instructions, Page 80)
a.	Name	of the immediate receiving waters: <u>Unnamed tributary of Dixon Creek</u>
b.	Checl	the appropriate description of the immediate receiving waters:
		ake or Pond
	•	Surface area (acres): Click to enter text.
	•	Average depth of the entire water body (feet): Click to enter text.
	•	Average depth of water body within a 500-foot radius of the discharge point (feet): <u>Click to enter text.</u>
		Ian-Made Channel or Ditch
	\boxtimes S	Stream or Creek
		reshwater Swamp or Marsh
	П	idal Stream, Bayou, or Marsh
		open Bay
		Other, specify:
		ade Channel or Ditch or Stream or Creek were selected above, provide responses to – 4.g below:
c.		xisting discharges , check the description below that best characterizes the area eam of the discharge.
		ew discharges, check the description below that best characterizes the area astream of the discharge.
		Intermittent (dry for at least one week during most years)
		Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
	\boxtimes	Perennial (normally flowing)
		the source(s) of the information used to characterize the area upstream (existing arge) or downstream (new discharge):
		USGS flow records
	\boxtimes	personal observation
		historical observation by adjacent landowner(s)
		other, specify: <u>N/A</u>
d.		ne names of all perennial streams that join the receiving water within three miles stream of the discharge point: <u>Dixon Creek</u>
e.		eceiving water characteristics change within three miles downstream of the discharge natural or man-made dams, ponds, reservoirs, etc.).
	\boxtimes	Yes No

If **yes**, describe how: <u>The volume of water increases due to the continuous discharge of treated wastewater from the WRB Refining, LLC Borger Refinery.</u>

f. General observations of the water body during normal dry weather conditions: Continuous flow during dry weather. Date and time of observation: April 15, 2025; 9:00 am g. The water body was influenced by stormwater runoff during observations. Yes If **yes**, describe how: N/A Item 5. General Characteristics of Water Body (Instructions, **Page 81)** a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply): oil field activities urban runoff agricultural runoff septic tanks other, specify: The adjacent refinery upstream discharges and cogeneration plant discharge into the unnamed tributary. b. Uses of water body observed or evidence of such uses (check all that apply): livestock watering industrial water supply irrigation withdrawal non-contact recreation domestic water supply navigation contact recreation picnic/park activities other, specify: No uses were observed. fishing c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one): **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional Natural Area: trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas: water discolored

Worksheet 7.0 Stormwater Discharges Associated with Industrial Activities

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in 40 CFR § 122.26(b)(14)(i-xi), **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in 40 CFR § 122.26 (b)(13) are not required to obtain authorization under a TPDES permit (see exceptions at 40 CFR §§ 122.26(a)(1) and (9)). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

⊠ Yes □ No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
SW001		
SW002		
SW003		
SW004		
SW005		

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit, proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90) N/A

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility's boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

Check the box to confirm all above information was provided on the facility site map(s)
Attachment: N/A

Item 4. Facility/Site Information (Instructions, Page 90) N/A

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
N/A	N/A	N/A

b. Provide the following local area rainfall information and the source of the information.

Wettest month: N/A

Average rainfall for wettest month (total inches): N/A

25-year, 24-hour rainfall (inches): N/A

Source: N/A

- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** N/A
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** N/A
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: N/A

Item 5. Pollutant Analysis (Instructions, Page 91) N/A

- 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): N/A
- b. \square Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	(max)	_	(min)	_		_
Total suspended solids						_
Chemical oxygen demand						_
Total organic carbon						_
Oil and grease						_
Arsenic, total						0.0005
Barium, total						0.003
Cadmium, total						0.001
Chromium, total						0.003
Chromium, trivalent						_
Chromium, hexavalent						0.003
Copper, total						0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total						0.0005
Mercury, total						0.000005
Nickel, total						0.002
Selenium, total						0.005
Silver, total						0.0005
Zinc, total						0.005

^{*} Taken during first 30 minutes of storm event

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

^{*} Taken during first 30 minutes of storm event

Attachment: N/A

^{**} Flow-weighted composite sample

^{**} Flow-weighted composite sample

Item 6. Storm Event Data (Instructions, Page 93) N/A

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: N/A

Duration of storm event (minutes): N/A

Total rainfall during storm event (inches): N/A

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): N/A

Maximum flow rate during rain event (gallons/minute): N/A

Total stormwater flow from rain event (gallons): N/A

Provide a description of the method of flow measurement or estimate:

N/A

- a. A list of the data requested at 40 CFR § 122.21(r)(4)(ii) through (vi) that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at 40 CFR § 125.92(m), at the facility. The applicant need only identify those species not already identified as fragile at 40 CFR § 125.92(m).

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

Attachment TR-1.c. List of Raw Materials, Major Intermediates, and Final Products

Industrial Technical Report 1.0 - Item 1.a., Page 2

Name	Raw Materials	Major Intermediates	Products or Byproducts
A.R.B. CERT FUEL			Х
A.R.B. CERTIFICATION FUEL			Χ
ACETIC ACID	Х		
Acetic acid, C11-14-branched alkyl esters	Х		
ACETIC ANHYDRIDE	Х		
acetone	Х		
ACETONE OXIME	X		
ACETYLENE	X		
AIR	X		
alcohol ethoxylates	X		
alcohols, C11-15 secondary, ethoxylated	X		
ALKANES (C4 - C16), n.o.s.	X		Х
alkanes, C17 and higher	X		X
ALKANES, C17+	X		X
	X		^
alkyl dimethylethyl ammonium bromide			
alkyl dimethylbenzyl ammonium bromide	X		
ALKYLATE HEAVY HYDROTREATED	X		.,
ALKYLATE HF 400F PLU			X
ALKYLATE HF 450+ INV			X
ALKYLATE HF 500+			Х
ALKYLATE HF HEAVY	Х		
ALKYLATE, 450+			Х
ALKYLATE, HF HEAVY, (C9-C12)			Х
alkylated phenolic polyamine	X		
alkylates	X		Χ
ALLYL ALCOHOL	X		
ALLYL CHLORIDE	Х		
ALT PHASE I FUEL			Χ
ALT PHASE II FUEL			Χ
ALT PHASE II FUEL A			Χ
ALT PHASE II FUEL B			Χ
ALUMINUM	Х		
aminoalkyl naphthalene	Х		
AMS 2629A			Х
AMS 2639A TYPE 1			Х
AMYLENES	Х		
amyl methyl ether, t-	X		
anisole	X		
antioxidant (CAS 101-96-2)	X		
API/ATL FUELS	^		Х
API/ATL FUELS W/MTBE			X
ARB ETHANOL TEST FUEL	+		X
ARB SPECIAL TST FUEL	+		X
			^
ARGON	X		
AROMATIC DISTILLATE, HEAVY			
AROMATIC COLVENT 104	X		
AROMATIC SOLVENT 104	X		,,
ASTM D-2887 REF GAS	1		X
ASTM IC8 + 1.25 TEL			X
ASTM IC8 + 2.00 TEL			Х
ASTM IC8 + TEL			Χ

Name	Raw Materials	Major Intermediates	Products or Byproducts
AUTO OILS LPG FUELS (LPG)	Х		Χ
AVGAS 82 UNLEADED			Χ
AVGAS100/130MILF5572			Χ
AVIATION CHECK FUEL 100/130			Х
AVIATION GAS 115/145			Х
AVIATION GAS 115/145			Х
AVIATION GAS, LEADED			X
AVL .05 SULFUR DIESEL T			X
B-35A RACE FUEL			X
BDO 47			X
benzaldehyde	Х		
benzeneamine	X		
BENZENE	X		
benzonitrile	X		
benzyl allyl chloride	^	Х	
· · · · ·	X	۸	
BENZYL CHLORIDE			
BENZYL DICHLORIDE	X		
BENZYL MERCAPTAN			X
BENZYL MERCAPTAN, CRUDE		X	
BIS(2-METHOXYCARBONYL PROPYL) SULFIDE		X	
bis(4-chlorophenyl) ether		X	
bis(4-chlorophenyl) sulfide		Х	
bis(tributyltin) oxide	X		
BMW FUELS			Χ
BMW FUELS W/ALCOHOL			Χ
BRAZILIAN YELLOW GASOLINE			Χ
BUTADIENE, 1,3-	X		
BUTADIENE, 1,3-	X		
BUTANE, N-	X		Χ
butanone, 2-	X		
BUTENE, 1-	X		Χ
BUTENE, 1-, POLYMERIZATION GRADE	X		Χ
butene, 1-			Χ
Butene, 2-	Х		Χ
BUTENE-1 & ISOBUTYLENE	Х		Х
BUTENE-2 C & T TECH	Х		Χ
BUTENE-2 CIS PURE	Х		Х
BUTENE-2 TRANS PURE	Х		Х
BUTENE-2 TRANS TECH	Х		Х
BUTENE-2 C & T PURE	X		X
BUTENE-2 CIS TECH	X		X
butenes, 2-	X		
BUTYL MERCAPTOPROPIONATE	X		
butyl sulfides	^	Х	
butylaniline, p-tert-	Х	^	
butyl toluene, p-tert-	^		Х
BUTYLATED HYDROXYTOLUENE	X		^
	^		
C.A.R.B.A293 LPG CERT FUEL (LPG)			X
C-1 CERTIFICATION FUELS	V		۸
C10 olefins	X		

Name	Raw Materials	Major Intermediates	Products or Byproducts
C10+ AROMATICS	Х		Χ
C10+ PARAFFINS	Х		Χ
C104 SOLVENT (HEAVY REFORMATE)	Х		
C11 olefins	Х		
C12 olefins	Х		
C13 olefins	Х		
C6 olefins	Х		
C7 olefins	Х		
C8 olefins	Х		
C9 AROMATICS (ISOPROPYLBENZENE)	Х		Х
C9 olefins	Х		
CA PII CERT F W/O OX			Х
CAL P-II CERT FU N/O			X
CAL P-II CERT FU N/O			X
calcium acetate	Х		Λ
calcium carbonate	X		
calcium hypochlorite	X		
CALIF P-11 RVO GASO	Λ		Х
CALIF P-11 RVP GASOL			X
CALIF PHASE 1 CER FU			X
CALIF FIASL I CER FO			X
CALIFORNIA CERTIFICATION FUEL			X
CALIFORNIA P.1 CERT FUEL			X
CALIFORNIA P.II CERT FUEL W/ET			X
CALIFORNIA P-II CERT FUEL W/O			
CARB FUELS			X X
CARB LPG CERT FUEL	V		Χ
CARBON DIOXIDE	X		V
carbon disulfide	X		X
CARBONYL SULFIDE	Х		X
CAT CR LT GASOLINE			X
CEC DIESEL (RF-03-A-84)			X
CELITE	X		
chlorinated paraffin	X		
CHLORINE	Х		
chlorine dioxide		Х	
chlorobenzene	Х		
chlorobenzotriazole, 5-	X		
CHLOROETHANE	Х		
chloro-n-butylbenzeneamine, 4-	X		
chloro-n-ethylbenzeneamine, 4-	Х		
chloro-n-methylbenzeneamine, 4-	X		
chloro-n-propylbenzeneamine, 4-	Х		
chlorophenol, 4-	Х		
chlorophenyl phenyl ether	X		
chloroquinoline	Х		
chlorothioanisole, 4-	X		
CHLOROTOLUENE	Х		
CHRYSLER BLENDS			Χ
CIS-BUTENE-2	Х		Х
clay	Х		

Name	Raw Materials	Major Intermediates	Products or Byproducts
CK FUEL 100/130 AVIA			Χ
cobalt naphthenate	Х		
cobalt neodecanoate	Х		
COLD CO. TEST GAS			Х
COLD CO. TEST GAS PREM			Х
COMBAT GASOLINE			Х
COSDENOL (REFORMATE)	Х		
COSDENOL 104	X		
cottonseed oil	X		
cracked gasoil	X		
CRC DRIVABILITY FUEL			Х
CRC DRIVE FUEL W ETH			X
CRC DRIVEABILITY FUELS WITH MT			X
CRC TEST FUEL			X
CRC TEST FUEL/SPECIALTY FUEL		V	Х
CRUDE ETHYLCYCLOHEXYL DIMERCAPTAN		Х	
CUMENE	X		
CUMMINS SPECIAL DIESEL			X
CYCLOHEXANE	X		
CYCLOHEXENE	Х		
cyclohexene, 4-(2-mercaptoethyl)	Х		
Cyclohexene, 4-ethenyl-	Х		
CYCLOHEXYL MERCAPTAN, CRUDE		Χ	
CYCLOHEXYL MERCAPTAN			Χ
CYCLOPENTANE	X		
D-2 DCF CUSTOM			Χ
D-2 DIESEL REF FUEL			Χ
D-2887 REFERENCE GAS OIL #1	Х		
DECADIENE, 1,9-	Х		
DECALIN	Х		
DECANE/DODECANE CRUDE	Х	Х	
DECENE	Х		
DECENE-1	Х		
DHT-4A (CAS 11097-59-9)			
di(2-hydroxyethyl) disulfide	Х		
DI-4-THIA-7-HEPTANOL ETHER	X		
DIALLYL DISULFIDE			Х
DIALLYL POLYSUFLIDE			X
DIALLYL SULFIDE			X
DIALLYL TETRASULFIDE			X
DIALLYL TETRASULFIDE			X
DIALLYL TRISULFIDE			X
	V		^
DIATOMACEOUS EARTH	Х		v
DIBENZYL SULFIDE, 1,2-			X
DIBENZYLDISULFIDE			X
DIBENZYLSULFIDE	V		Х
DIBUTYL ETHER	X		
DICHLOROBENZENE, 1,4-	X		
DICHLOROETHANE, 1,2-	X		
DIESEL .05 SULFUR TYPE 1			X
DIESEL .05 SULFUR TYPE 2			Χ

Name	Raw Materials	Major Intermediates	Products or Byproducts
DIESEL .1 SULFUR TYPE 2			Χ
DIESEL 10% AROMATIC TYPE 2			Χ
DIESEL CEC (RF-73-T-90)			Χ
DIESEL CHECK FUEL HC			Χ
DIESEL D-2 CONTROL FUEL			Χ
DIESEL REF FUEL T-18			Χ
DIESEL REF FUEL T-20			Χ
DIESEL REF FUEL T-21			Χ
DIESEL REF FUEL U-13			Χ
DIESEL REF FUEL U-14			Х
DIESEL ULTRA LOW SULFUR TYPE 2			Х
DIESEL, 0.01 SULFUR			Х
DIESEL, 0.05 SULFUR			Х
DIESEL, 0.05 SULFUR, 38 CET			Х
DIESEL, 10% AROMATIC			X
diethyl dimethyl indane		Х	
DIETHYL DISULFIDE			Х
DIETHYL ETHER	Х		Λ
DIETHYL SULFIDE			Х
diethylene glycol	Х		Λ
diethylene glycol methyl ether	X		
diethylhydroxylamine	X		
DIISOBUTENE	X		Х
DIISOBUTYLENE (25167-70-8)	X		X
DI-ISOPROPYL DISULFIDE	Λ		X
DIISOPROPYL SULFIDE			X
DIMETHYLAMINE	Х		Λ
DIMETHYLBUTYLAMINE	X		
dimethyl disulfide	Λ		Х
DIMETHYLETHYLINDANE	Х		Λ
DIMETHYLINDANE	X		
DIMETHYLPENTANE, 2,3-	X		
DIMETHYL SULFIDE	^		Х
dimethyl trisulfide			X
DIMETHYL-1-BUTENE, 2,3-	Х		^
dimethyl-1-butene, 2,3-	X		
dimethyl-1-butene, 3,3-			
	X		
dimethyl-1-butene, 3,3-, Technical DIMETHYL-3-ETHYLINDANE(DMEI), 1,1-			
	X		
dimethylbenzimidazole	X		
DIMETHYLBUTANE, 2,2-	X		
DIMETHYLBUTANE, 2,3-	X		
DIMETHYLBUTANE, 2,3-, PURE	Х		
dimethylcyclohexane, 1,2-			X
dimethylcyclohexane, 1,3-	V		X
DIMETHYLCYCLOPENTANE, 1,2-	Х		V
DIMETHYL DISULFIDE			Х
DIMETHYLHEXANE, 2,2-	X		
DIMETHYLHEXANE, 2,4-	X		
DIMETHYLHEXANE, 2,5-	X		
DIMETHYLINDANE, 1,1-	X		

Name	Raw Materials	Major Intermediates	Products or Byproducts
DIMETHYLPENTANE, 2,2-	Х		
DIMETHYLPENTANE, 2,4-	Х		
DIMETHYLPENTANE, 3,3-	Х		
dimethylpyridine	Х		
dimethylpyridinone	Х		
dimethylpyrrole	Х		
DIMETHYLTHIAMORPHOLENE, 2,6-	Х		
dimethylthiophene	Х		
DI-N-BUTYL DISULFIDE			Χ
DI-N-BUTYL ETHER	Х		
DI-N-BUTYL SULFIDE			Χ
DI-N-DODECYL DISULFIDE			Χ
di-n-octyl disulfide			Χ
DI-N-OCTYL SULFIDE			Χ
DI-NORMAL PROPYL MERCAPTAN			Χ
DI-NORMAL-PROPYL DISULFIDE			Χ
DI-N-PROPYL DISULFIDE			Χ
DIPENTENE DIMERCAPTAN			Χ
DIPENTENE DIMERCAPTAN, CRUDE		Х	Χ
DIPENTENE DIMERCAPTAN, TECH			Χ
DIPENTENE MONOMERCAPTAN		Х	
dipenyl ether		Х	
DIPHENYL OXIDE	Х		
DIPHENYLETHANE, 1,2-	Х		
dipropyl disulfide			Χ
DI-S-BUTYL DISULFIDE			Χ
DI-SEC-BUTYL DISULFIDE			Χ
DI-SEC-BUTYL SULFIDE			Χ
DI-S-OCTYL-SULFIDE			Χ
DISTILLATE, 42			Χ
distillates (petroleum) hydrotreated middle	Х		
distillates (petroleum), hydrotreated heavy naphthenic	Х		
distillates (petroleum), hydrotreated light naphthenic	Х		
distillates (petroleum), light hydrocracked	Х		
DI-T-BUTYL BENZENE			Χ
DI-T-BUTYL SULFIDE			Χ
DI-T-BUTYL TRISULFIDE			Χ
DI-TERT-BUTYL DISULFIDE			Χ
di-tert-butyl-4-methylphenol, 2,6-	Х		
di-tert-butylphenol	Х		
DI-TERT-DODECYL DISULFIDE			Χ
DI-TERT-DODECYL POLYSULFIDE 532			Х
DI-TERT-NONYL DISULFIDE			Х
DI-TERT-NONYL POLYSULFIDE 327			Х
DI-TERT-NONYL POLYSULFIDE 537			Х
DI-TERT-OCTYL DIPHENYL OXIDE	Х		
di-tert-octyl diphenyl oxide and related compounds	Х		Х
DITHIO-3-THIAPENTANE, 1,2-		Х	

Name	Raw Materials	Major Intermediates	Products or Byproducts
DITHIO-3-THIAPENTANE, 1,2-		Χ	
DITHIO-3-THIAPENTANE, 1,5-		Χ	
D-LIMONENE	Х		Χ
D-N-OCTYL SULFIDE			Х
DODECANOL, 1-	Х		
DODECENE-1	Х		
DODECYL MERCAPTOPROPIONATE	Х		
DODECYL METHYL SULFIDE	Х		Х
DSL CEC(RF-73-T-90)			Х
D-S-OCTYL SULFIDE			X
E G & G, RFC			X
E-10 GASOLINE			X
E-10A FUEL			X
E-30A FUEL			X
E-50 A FUEL			X
E-70A FUEL			X
E-85 A FUEL			X
E-85 FUEL			X
EFF-RFC			X
EPA PHASE I GASOHOL			X
EPA PHASE I OXYGENATED			X
ETHANE	X		
ETHANE DICHLORIDE	Х		
ETHANEDITHIOL, 1,2-			Х
ETHANEDITHIOL, 1,2-			Χ
ETHANEDITHIOL, 1,2-, CRUDE		X	
ETHANOL	X		
ethanolamine	X		
ETHER	X		
ETHYCYCLOHEXYL DIMERCAPTAN	Χ		Χ
ETHYL 2-OCTYL SULFIDE	X		Χ
ETHYL AMINE	X		
ETHYL BENZENE (100-41-4)	Х		
ETHYL CHLORIDE	Х		
ETHYL CYCLOHEXYL DIMERCAPTAN	Х		Х
ETHYL MERCAPTAN	Х		Х
ETHYL MERCAPTAN, 2-(BENZYLTHIO)-	Х		
ETHYL N-OCTYL SULFIDE			Х
ETHYL N-OCTYL SULFIDE, CRUDE		Х	
ETHYL N-OCTYL SULFIDE, SPEC			Х
ETHYL S-OCTYL SULFIDE			X
ETHYL SULFIDE			X
ETHYL TERT-BUTYL ETHER, SPEC	Х		X
ETHYL TERTIARY BUTYL ETHER	X		X
ETHYL THIOACETATE, CRUDE	^	Х	^
ETHYL THIOACETATE, CROBE		Λ	Х
ETHYL THIOACLTATE, SPEC	Х		X
ETHYL THIOETHANOL ETHYL THIOPROPANOL	X		X
ETHYL-1,3-HEXANEDIOL, 2-	X		۸
	۸	V	
ETHYLCYCLHEXYL DIMERCAPTAN CR		Х	
ETHYLCYCLOHEXYL DIMERCAPTAN			X

Name	Raw Materials	Major Intermediates	Products or Byproducts
ETHYLCYCLOHEXYL SULFIDES			Х
ETHYLENE	Х		
Ethylene Dibromide	Х		
Ethylene Dichloride	Х		
ethylene glycol	Х		
ETHYLHEXYL MERCAPTOPROPIONATE	X		Х
ETHYLTHIOACETATE			X
ETHYOXYLATED ALCOHOL (TERGITOL)	Х		Α
EUR LEADED RACE FUEL	^		Х
EUR UNLEAD RACE FUEL			X
EUROSUPER ESP GASOLINE			X
EXXON CERTIFICATION FUEL			X
FAA FUEL 3			X
	V		۸
fatty acids	X		
fatty acids methyl esters	X		
fatty oils	Х		
FEDERAL EXP CERTIFICATION FUEL			Χ
FORD HI-OCTANE FUEL			Χ
FORD HI-OCTANE GAS			Χ
FORD OCTANE FUELS			Χ
FUEL GAS (sweet)	X		
FUEL OILS	X		
FUEL W/ETOH (IVD), 65TH PERCENTILE			Χ
FUEL W/MTBE (IVD), 65TH PERCENTILE			Х
FUEL-HC ONLY (IVD), 65TH PERCENTILE			Х
FULL RANGE REFORMATE	Х		
GAS BLEND 29-A-8-91			Х
GAS BLEND 29-A-8-91 (LPG)			Х
GAS MIXTURE CUSTOM BLEND			Х
GAS MIXTURE G-6			X
GAS MIXTURE G-7 (LPG)			X
GAS MIXTURE G-8 (LPG)			X
GAS MIXTURE, CUSTOM (LPG)			X
gasoil	Х		Λ
GASOLINE, 11# RVP	^		Х
GASOLINE, 11# RVP			X
· · · · · · · · · · · · · · · · · · ·	V	V	۸
GASOLINE, CAT CR HV	X	X	
GASOLINE, CAT CR HVS	X	X	
GASOLINE, CAT CR LT	X	X	
GASOLINE, HEAVY CUT	X	X	
GASOLINE, INTER CUT	Х	Х	
GASOLINE, LIGHT CUT	Х	Х	
GASOLINE, OFF-COLOR			Χ
GASOLINE, PREM UNLEADED NOAD			Χ
GASOLINE, REG UNLEADED NOAD			X
GM 6134M LOW VOLATILITY			Χ
GM 6135M HIGH VOLATILITY			Χ
GM 6144 FUEL			X
GM CEC GASOLINE			Х
GM DRIVABILITY FUEL HI			Х
GM DRIVABILITY FUEL LO			Х

		Intermediate s	Byproducts
GM FUEL-SPECIAL OPEL			Χ
GM LEADED FUEL			Χ
GM MATRIX FL W/ETHAN			Х
GM MATRIX FL W/MTBE			Х
GM MATRIX FUEL (NEAT)			Х
GM OCTANE FUELS			X
GPA NGL MIX NO. 1			X
GPA NGL MIX NO. 2			X
GPA NGL MIX NO. 3			X
GPA NGL MIX NO. 4			X
GPA NGL MIX NO. 5			X
GPA NGL MIX NO. 6			X
HE DRIVEINDEX (DI) F			X
HEAVIES (>377 DEGREES F BP)			X
HEAVIES (2,2,4 trimethyl pentane dist)			X
HEAVIES (3,3-dimethyl butane dist)			X
HEAVIES (Alkylaromatics dist)			X
HEAVIES (C11+)(n-Decane dist)			Х
HEAVIES (C13+)(n-Dodecane dist)			X
HEAVIES (DIALKYLAROMATICS)			Х
HEAVIES (di-butyl ether dist)			Χ
HEAVIES (isobutylbenzene dist)			Χ
HEAVIES (n amyl benzene dist)			Χ
HEAVIES (n-Heptane dist)			Χ
HEAVIES (para-t-butyl toluene dist)			Χ
HEAVIES (Q3, DINC3S, & Q4)(Di-n-propyl			V
mercaptan dist)			Х
HEAVIES (Q5) (n-dodecyl mercaptan dist)			Χ
HEAVY ALKYLATE	Χ		
heavy aromatic solvent naphtha	Х		
HEAVY CUT GASOLINE	Х		Χ
heavy paraffinic distillate	Х		
HEAVY REFORMATE	Х		
HELIUM	X		
HEPTANES	X		Х
HEPTENE	X		
HEXADECYL MERCAPTAN	X		Х
HEXAMETHYLENETETRAAMINE	X		^
HEXANE, OTHER ISOMERS	X		Х
HEXENE			^
	X		
hexene (all isomers)	X		
HEXENE, 1-	X		
HEXENE-1	X		
HEXENE-1 TECH	X		
HEXYL MERCAPTAN			Х
HF HEAVY ALKYLATE (C9 - C12)	Х		
HF LIGHT ALKYLATE	Χ		
HFLA UNLEADED AVIATION			Χ
HI DRIVEABILITY INDEX (DI) FUEL			Χ
High Flash Aromatic Naphtha (Aromatic 150)	Х		
High Flash Aromatic Naphtha (Aromatic 200)	Χ		

Name	Raw Materials	Major Intermediates	Products or Byproducts
HIGH SULFUR DIESEL			Χ
HIGH SULFUR GASOLINE			Χ
HiTec 6421 Fuel Additive	Х		
HONDA/EPA/ECE TEST			Χ
HP-7 PLATFORMATE	Х		
hydraulic oil	Х		
HYDROCARBON MIX 31 (LPG)			Х
HYDROCARBON MIX 33 (LPG)			Х
HYDROCARBON MIX 34 (LPG)			Х
HYDROCARBON MIX 35 (LPG)			Х
HYDROCARBON MIX 36			Х
HYDROCARBON MIX 37			X
HYDROCARBON MIX 38 (LPG)			X
HYDROCARBON MIX 40 (LPG)			X
HYDROCARBON MIX 41 (LPG)			X
HYDROCARBON MIX 42 (LGP)			X
HYDROCARBON MIX 43 (LPG)			X
HYDROCARBON MIX 44 (LPG)			X
HYDROGEN	Х		^
HYDROGEN CHLORIDE	X		
HYDROGEN PEROXIDE	X		V
HYDROGEN SULFIDE	X		X
HYDROGENATE POLYBUTENE	X		
hydrotreated distillate	X		
hydrotreated light distillate petroleum	X		
hydrotreated mixed aliphatic hydrocarbon	X		
hydrotreated petroleum distillates	X		
HYDROXY ETHYL PHENYL SULFIDE			
hydroxypropyl disulfide, 3-			
hydroxypropyl sulfide, 3-			
IBB HEAVIES			X
IC8 + 0.15 TEL			Χ
IC8 + 0.2 TEL			Χ
IC8 + 1.25 TEL			Χ
INDOPOL (POLYBUTENE)			Χ
INJECTOR FOULING FUEL			Χ
INT'L DIESEL FUEL			Χ
INTER CUT GASOLINE			Χ
IPHA	Χ		
IRON	Х		
ISOBUTANE	Х		Χ
ISOBUTANE PURE			Х
ISOBUTANE,INSTRUMENT			Х
Isobutene	Х		
ISOBUTYL MERCAPTAN			Х
ISOBUTYLBENZENE			Х
ISOBUTYLBENZENE, CRUDE		Х	-
ISOBUTYLBENZENE, PURE			Х
ISOBUTYLENE	Х		- `
ISOBUTYLENE PURE			Х
ISOBUTYLENE TRIMERS	Х		
TOODO (TEENE TIMENO	^		

Name	Raw Materials	Major Intermediates	Products or Byproducts
ISOHEXANES	Х		
ISOHEXANES COMM	Х		
ISOMERATE	Х		
ISOMERATE	Х		
ISOOCTANE	Х		Х
ISOOCTANE CONCENTRAT			Х
ISOOCTANE PRF & TEL			Х
ISOOCTANE PRF & TEL			X
ISOOCTANE PRIMARY REF FUEL			X
ISOOCTANE PURE			X
ISOOCTANE, ASTM - TEL			X
ISOOCTANE, ASTM FEE			X
ISOOCTANE, ASTM REF FUEL			X
ISOOCTANE, ASTM-KEL TOLE ISOOCTANE, ASTM-TEL			X
ISOOCTANE, ASTM+TEL ISOOCTANE, PRF			
		V	X
ISOOCTANES		Х	X
ISOOCTANES (Iso-olefin mix from 2,4,4 trimethylpentene)		Х	X
ISOOLEFINS (C8 HC MIXTURE)	X		
ISOPENTANE	Х		
ISOPENTANE COMM			Χ
ISOPENTANE PURE			Х
ISOPRENE	Х		
ISOPROPANOL (CAS 67-63-0)	Х		
ISOPROPYL BENZENE	Х		Х
ISOPROPYL HYDROXYL AMINE	Х		
ISOPROPYL MERCAPTAN TECH			Х
ISOPROPYL MERCAPTAN, SPEC			X
ISOPROPYL SULFANYL ETHER	Х		
ISOPROPYL SULFIDE			Х
ISOPROPYL THIOETHANOL			X
ISOPROPYLAMINE	Х		X
JET A	Λ		Х
JET RF			X
JET RF(AMS 2629A TYPE 1)			X
JP.4 MIL-T-5624 JET			X
JP-5 (MIL-T-5624)			
			X
JP-5/JP-8			X
JP-8 MIL-T-83133A JET			Х
kerosene	X		
Light aromatic solvent naphtha	X		
light base oils	X		
LIGHT CUT GASOLINE	X		
LIGHT GROUP 2	X		
LIGHTS (C10-C11)			Χ
LIGHTS (C8-)			X
LIGHTS (Q0) ETC			Χ
LIQUID MIX,CUSTOM BL			X
LOW SULFUR DIESEL			Х
LOW SULFUR DIESEL			Х
LPG Fuels			Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
LPG REFERENCE STD A ASTM (LPG)			Χ
LPG REFERENCE STD B ASTM (LPG)			Χ
LPG REFERENCE STD C ASTM (LPG)			Χ
LPG REFERENCE STD D ASTM (LPG)			Χ
LPG REFERENCE STD E ASTM (LPG)			Х
lube oil and additives	Х		
LUBRIZOL 84RON	Х		
LUBRIZOL 85RON	X		
LUBRIZOL 86RON	X		
LUBRIZOL 87RON	X		
LUBRIZOL 88RON	X		
LUBRIZOL 89RON	X		
LUBRIZOL 90RON	X		
LUBRIZOL 91RON	X		
LUBRIZOL 92RON	X		
LUBRIZOL 93RON	X		
LUBRIZOL 94RON	X		
LUBRIZOL 95RON	X		
LUBRIZOL 96RON	X		
LUBRIZOL 97RON	X		
LUBRIZOL 98RON	X		
M-10A FUEL			Х
M-20 FUEL			Χ
M-30A FUEL			Χ
M-50 A FUEL			Χ
M-65 FUEL			Χ
M-70A FUEL			Χ
M-85 FUEL			Χ
M-85A FUEL			Χ
MERCAPTO-1-PROPANOL, 2-			Χ
mercapto-1-propanol, 3-			Χ
mercapto-1-propanol, 3-, crude		Х	
MERCAPTOETHANOL, 2-			Х
MERCAPTOPROPRIONATE, 3-	Х		Х
MERCURY MARINE			Х
MERCURY MARINE FM0300			X
MERCURY MARINE FM1100			X
META-T-BUTYL BENZENE (M-TBB)			X
METAXYLENE TECH	Х		X
METHANE	X		Λ
METHANE BLENDS	^		Х
	Х		^
methanesulfonic acid			
methanesulfonyl chloride	X		
METHANOL The strain of the str			
methoxyfuran, 2-	X		
methoxyphenol, 4-	X		
METHYL CARBITOL	X		
METHYL CYCLOPENTANE	X		X
methyl disulfide			Х
METHYL ETHYL AMINE	X		
METHYL ETHYL SULFIDE			X

		Intermediates	Products or Byproducts
METHYL HEPTANE	Х		
METHYL ISOPROPYL KETONE	Х		
METHYL ISOPROPYL SULFIDE			Χ
METHYL MERCAPTAN			Χ
METHYL MERCAPTIDE			Χ
METHYL NAPHTHALENES	Х		
methyl pentane, 3-	Х		Χ
METHYL TERT-BUTYL ETHER	Х		
METHYL-1,3-BUTADIENE, 2-	Х		
METHYL-1-BUTENE, 2-	Х		
METHYL-1-BUTENE, 3-	Х		
METHYL-1-PENTENE, 3-	Х		
methyl-1-pentene, 4-	Х		
methyl-2-butanol, 3-	X		
METHYL-2-BUTENE, 2-	X		
METHYL-2-BUTENE, 2-, COMMERCIAL	^		Х
METHYL-3-MERCAPTOPROPRIONATE	Х		X
METHYL-3-PHENYLPENTANE, 3-	^		X
methylbenzofuran, 2-	Х		Λ
METHYLCYCLOHEXANE, COMMERCIAL GRADE	^		Х
METHYLCYCLOHEXANE, PURE			X
			X
METHYLCYCLOHEXANE, TECH	V		^
Methylcyclopentadienyl manganese tricarbonyl	X		
METHYLCYCLOPENTANE METHYLLEVANE 2	X		
METHYLHEXANE, 3-			
methyllindole, 3- (scatole)	X		
METHYLNONANE, 3-	X		
METHYLNONANE, 5-	X		
METHYLPENTANE, 2-	X	Х	
METHYLPENTANE, 2-, PURE			X
methylpentane, 3-	X	Х	.,
methylpentane, 3-, Pure			Х
METHYLSULFOLANE, 3-			X
MIL S3136B TYPE 1 TEST FLUID			Х
MIL VVF-800 DF-A			Х
MIL-C-7024D SOLT170M			X
MIL-F-38299B PURGING FLUID			X
MIL-F-46162C DIES RF			Х
MILS3136B TYPE 2 TES			Х
MILS3136B TYPE 3 TES			Χ
MILS3136B TYPE 7 TES			Χ
MIL-VVF-800 DF-2			Χ
mineral oil (vapor)	X		
MINERAL SPIRITS (CAS 8032-32-4)	X		
MIXED HEXANES	X		
monoethanolamine	X		
MTBE TEST STANDARD			Х
MTBT			Х
M-TERTIARY BUTYL TOLUENE (M-TBT)			Х
M-XYLENE			Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
N- HEXANE, TECH			Χ
Na2SO3	Х		
N-AMYL AMINE	Х		
N-AMYL BENZENE			Х
N-AMYL BENZENE/N-PENTENYL BENZENE			Х
NAPHTHA, VM&P	Х		
NAPHTHALENE	X		
naphthenic oil	X		
NAPTHENES (>120F)	X		
NATURAL GAS CONDENSATE	X		
NATURAL GAS STD CALI (LPG)	^		Х
NATURAL GAS STD CALL (EL G)			X
N-BUTANE	Х		Λ
N-BUTANE PURE	^		Х
N-BUTANE, INSTRUMENT			X
N-BUTANE/ISOBUTANE BLEND (80/20)			X
N-BUTYL MERCAPTAN		.,	Х
N-BUTYL MERCAPTAN, CRUDE		X	
N-BUTYL MERCAPTAN, TECH			Х
N-BUTYLBENZENE, PURE			Χ
N-DECANE, COMM	X		Χ
N-DECANE, PURE	X		Χ
N-DECYL MERCAPTAN			X
N-DECYL MERCAPTAN, CR		Χ	
N-DECYL MERCAPTAN, TECH			Χ
N-DODECANE	Х		
N-DODECANE, CRUDE		X	
N-DODECANE, TECH			Χ
N-DODECYL MERCAPTAN 92			Х
N-DODECYL MERCAPTAN 98			X
N-DODECYL MERCAPTAN COMM			Х
N-DODECYL MERCAPTAN HEAVIES (PRIMARY			
C24 SULFIDES)			Х
N-DODECYL MERCAPTAN, CRUDE		Х	
N-DODECYL METHYL SULFIDE		Λ	Х
N-DODECYL METHYL SULFIDE, CRUDE		Х	Λ
N-DODECYL METHYL SULFIDE, DDM		Λ	Х
N-DODECYL-3-MERCAPTOPROPIONATE			X
N-DODECYL-3-MERCAPTOPROPIONATE			X
NEOHEXANE			۸
	X		V
NEOHEXANE PURE	- V		Х
NEOPENTANE	X		
N-ETHYL-1,2-DIMETHYL-PROPYLAMINE	Х		.,
NGPA NGL MIX NO 1 (LPG)	_		X
NGPA NGL MIX NO 2 (LPG)			X
NGPA NGL MIX NO 3 (LPG)			X
NGPA NGL MIX NO 4 (LPG)	1		Х
NGPA NGL MIX NO 5 (LPG)			Х
NGPA NGL MIX NO 6 (LPG)			Χ
N-HEPTANE BLEND	X		
N-HEPTANE LOW AROMATIC	X		

N-HEPTANE PRIMARY REF FUEL
N-HEPTANE, ASTM REF FUEL
N-HEPTANE, COMM X N-HEPTANE, PRIMARY REF FUEL X N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTANE, PRIMARY REF FUEL X N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X X X X X
N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X NICKEL X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE X X N-HEXANE BLEND X X N-HEXANE HIGH PURITY X X N-HEXANE, PURE X X N-HEXYL MERCAPTAN X X N-HEXYL MERCAPTAN, CRUDE X X N-HEXYL MERCAPTAN, TECH X X nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X X NICKEL SULFITE X X NISO4 . 6 H2O X X NISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
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N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXYL MERCAPTAN, TECH X nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X X NICKEL SULFITE X X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X X
NICKEL COMPOUNDS X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NICKEL SULFITE X NiSO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NiSO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X X
NISSAN GASOLINE X NITROGEN X X
NITROGEN X X
'
N-METHYL PYROLIDONE X X
N-METHYL-2-PYRROLIDONE X X
N-METHYLPYROLIDONE BOTTOMS X
N-NONANE X X
NO SULFUR GASOLINE X
N-OCTADECYL MERCAPTAN X
N-OCTADIENE X
N-OCTANE X X
N-OCTANE 97% X
N-OCTANE, CRUDE X
N-OCTANE, TECH X
N-OCTYL MERCAPTAN X
N-OCTYL MERCAPTAN, TECH X
N-OCTYL MERCAPTAN,CRUDE X
N-OCTYL POLYSULFIDE X
N-OCTYL S-OCTYL SULFIDE X
NONANE (CAS 111-84-2) X X
NONENE X
NONENYL BENZENE X
NOSE GUARD ^(R) (D-LIMONENE + ISOPROPANOL) X
N-PENTANE X X
N-PENTANE & I-PENTANE BLEND X
N-PENTANE COMM X
N-PENTANE PURE X
N-PENTANE/N-HEXANE X
N-PENTENYL BENZENE X

N-PROPYL BENZENE N-PROPYL BENZENE N-PROPYL MERCAPTAN, CRUDE N-PROPYL MERCAPTAN, TCCH OCTANE NO 50 REF FUE	Name	Raw Materials	Major Intermediates	Products or Byproducts
N-PROPYL MERCAPTAN, TCCH N-PROPYL MERCAPTAN, TECH N-PROPYL MERCAPTAN, T	N-PROPYL BENZENE		Χ	
NPROPPL MERCAPTAN, TECH OCTANE NO 60 REF FUE OCTANE NO 80 REF FUE OCTANE NO 80 REF FUE OCTANE NO 81 REF FUE OCTANE NO 83 REF FUE OCTANE NO 85 REF FUE OCTANE NO 87 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE	N-PROPYL MERCAPTAN			Χ
OCTANE NO 60 REF FUE X OCTANE NO 80 REF FUE X OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO 99 REF FUE X	N-PROPYL MERCAPTAN, CRUDE		X	
OCTANE NO 80 REF FUE X OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X	N-PROPYL MERCAPTAN, TECH			Χ
OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO 99 REF FUE X	OCTANE NO 60 REF FUE			Χ
OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X	OCTANE NO 80 REF FUE			Χ
OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 94 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X	OCTANE NO 81 REF FUE			Χ
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IBB process	OLIGOMERS (propylene dimers, trimers, etc from		v	v
ORTHOXYLENE TECH X oxo-alcohol acetic acid ester X OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	IBB process)		^	^
oxo-alcohol acetic acid ester X OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	ORTHOXYLENE PURE			Χ
OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	ORTHOXYLENE TECH			Χ
O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	oxo-alcohol acetic acid ester	X		
PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	OXYGEN	X		
Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	O-XYLENE, PURE			Х
Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X		Х		
PARAFFIN OIL X PARAFINIC DISTILLATE X				Х
PARAFINIC DISTILLATE X		Х		
	PARAFINIC DISTILLATE			
	PARA-TERT-BUTYL TOLUENE (P-TBT)	Х		Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
PARAXYLENE FLASH POINT CHECK			Χ
PARAXYLENE PURE			Χ
PENTADIENE, 1,3-	Х	Χ	
PENTANE, N-	Х	Х	
pentene (all isomers)	Х		
PENTENE-1	Х		
PERF A FUEL			Χ
PERF N FUEL			Х
PERF R FUEL			Х
PETROLEUM DISTILLATES	Х		
PETROLEUM ETHER	Х		
PETROLEUM ETHER 30-60C	Х		
PETROLEUM OIL (CAS 8002-05-9)	X		
PETROLEUM SPIRITS (CAS 8032-32-4)	X		
PHASE III TEXT GAS	^		Х
PHENOL		Х	X
phenyl ether, (4-chlorophenyl)		X	^
phenyl sulfide, (4-chlorophenyl)		X	
phenylpentane, 3-	Х	۸	
PHILLIPS 142 SOLVENT (CAS 68551-18-1)	X		
PHILLIPS 142 SOLVENT (CAS 66551-16-1) PHILLIPS 142 SOLVENT (CAS 68551-18-8)	X		
, , , , , , , , , , , , , , , , , , ,	^		
PINANYL MERCAPTAN 10			X
PINANYL MERCAPTAN, 10-			X
PINANYL MERCAPTAN, 2-			X
pinanyl mercaptan, 3-			X
PINANYL MERCAPTAN-2			X
PINANYL MERCAPTAN-3	.,		X
PINENE, ALPHA-	X		
PINENE, ALPHA & BETA	X		
PINENE, BETA-	Х		
piperazine, 1-(2-aminoethyl)-	Х		
PIPERIDINE			X
PIPERLYENE	X		Χ
PLATFORMATE HP-7 (HEAVY REFORMATE)	X		
Platformate HP-7 LP-7	X		
PLATFORMATE RICE HVY	Х		
PLATFORMATE UNIT 19 CUT 1	Х		
POLYBUTADIENE (CAS 9003-17-2)			Χ
POLYBUTENE	X		Χ
Polyethylbenzene Residue	X		
polyethylene glycol nonophenyl ether	Х		
POLYMER (FROM SULFOLANE/SULFOLENE)			Χ
Polymercaptan			Х
Polyphenylene sulfide resin			Χ
Polysulfone Polymer		Х	
polythioamidoamine			Х
potassium hydroxide	Х		
PRECIPITATION NAPHTHA	Х		
PREMIUM UNLEADED GA			Х
PREMIUM UNLEADED GAS			X
PROPANE	Х		
	^		

Name	Raw Materials	Major Intermediates	Products or Byproducts
PROPANE PURE			Χ
PROPANE, INSTRUMENT			Χ
PROPANEDITHIOL, 1,2-			Χ
propanol sulfides		X	
propanol, 1-	Х		
propylbenzene, n-	Х		
PROPYLENE	Х	Х	
propylene dimers		Х	
propylene glycol	Х		
PROPYLENE OXIDE	Х	Х	
PROPYLENE TETRAMER	Х	Х	
PROSTOCK FUEL			Х
P-TERTIARY BUTYL TOLUENE			X
P-XYLENE			X
PYRIDINE	Х		X
PYRROLIDONE	Λ		Х
RACING FUEL	 		X
RACING FUEL RACING FUEL 100 OCTANE UL			
			X
RACING FUEL 100 OCTANE UL-A			X
RACING FUEL 108 OCTANE LEADED			X
RACING FUEL 114 OCTANE LEADED			X
RACING FUEL B-32			X
RACING FUEL B-32-LL			Х
RACING FUEL B-33			Х
RACING FUEL B-35			Х
RACING FUEL B-35-A			Х
RACING FUEL B-35-B			Χ
RACING FUEL B-37			Χ
RACING FUEL B-38			Χ
RACING FUEL B-42			Χ
RACING FUEL MOBIL			Χ
REF FUEL C +25% ETH			Χ
REFERENCE FUEL A			Χ
REFERENCE FUEL B			Χ
REFERENCE FUEL C			Χ
REFERENCE FUEL C + 25% ETHANOL			Χ
REFERENCE FUEL D			Х
REJECTS HIGH SULFUR (B11)			Х
RELATED COMPOUNDS (CONTAMINANT IN N-			
DODECYL METHYL SULFIDE)			Χ
RELATED COMPOUNDS (CONTAMINANTS IN			
DIPENTENE DIMERCAPTAN)			Х
RELATED ISOMERS (CONTAMINANT IN			
ETHYLCYCLOHEXYL DIMERCAPTAN)	1		X
RENAULT ESP	 		Х
RENAULT EUROSUPER ESP GASOLINE	-		X
	V		٨
Renoil 31 (lubricant)	X		
Renoil 36-S (lubricant)	X		V
RF-A	 		X
RF-A (RVP FUELS)			X
RF-A (W/O ADDITIVES)	Í		Χ

SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	Name	Raw Materials	Major Intermediates	Products or Byproducts
RF-C4 RF-C46 RF-C56 RF-C5 RF-C6 RF-C7 RF-C8 RF-C8 RF-C7 RF-C8 RF-F RF-C8 RF-F RF-S0 RF-S1 RF-S0 RF-S1 RF-S2 RF-S2 RF-S4 RF-S9	RF-C3			Χ
RF-C46 RF-C5 RF-C6 RF-C7 RF-C7 RF-C8 RF-C7 RF-C8 RF-C8 RF-C9	RF-C35			Χ
RF-C5 RF-C6 RF-C7 RF-C8 RF-C7 RF-C8 RF-F RF-F RF-F RF-F RF-F RF-S0 RF-S1 RF-S1 RF-S2 RF-S45 RF-S45 RF-S90 RMFD 386 RMFD 386 RMFD 386 RMFD 387 RMFD 388 RMFD 389 RMFD 393 RMFD 399 RMFD 391 RMFD 393 RMFD 394 RMFD 395 RMFD 395 RMFD 396 RMFD 397 RMFD 398 RMFD 397 RMFD 398 RMFD 399 RMFD 390 RMFD 391 RMFD 392 RMFD 393 RMFD 393 RMFD 394 RMFD 395 RMFD 395 RMFD 396 RMFD 397 RMFD 397 RMFD 398 RMFD 397 RMFD 398 RMFD 398 RMFD 399 RMFD 397 RMFD 398 RMFD 399 RMFD 395 RMFD 396 RMFD 397 RMFD 397 RMFD 398 RMFD 399 RMFD 400 RMFD	RF-C4			Χ
RF-66 RF-C7 RF-C8 RF-C8 RF-C8 RF-F RF-F RF-S0 RF-S1 RF-S0 RF-S1 RF-S2 RF-S2 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-	RF-C46			Χ
RF-66 RF-C7 RF-C8 RF-C8 RF-C8 RF-F RF-F RF-S0 RF-S1 RF-S0 RF-S1 RF-S2 RF-S2 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-S45 RF-S90 RF-	RF-C5			Χ
RF-C7 RF-C8 RF-C8 RF-F RF-F RF-F RF-S0 RF-S0 RF-S1 RF-S1 RF-S2 RF-S4 RF-S90 RF-				
RF-C8 RF-F RF-I RF-1 RF-1 RF-1 RF-1 RF-1 RF-1 RF-1 RF-1				
RF-F RF-1 RF-1 RF-50 RF-51 RF-52 RF-52 RF-545 RF-590 RF-52 RF-590	RF-C8			
RF-1 RF-50 RF-50 RF-50 RF-51 RF-52 RF-545 RF-545 RF-590 RF				
RF-50 RF-51 RF-52 RF-545 RF-545 RF-545 RF-590 X RF-590 X RRFD 386 X RMFD 386 X RMFD 387 X RMFD 387 X RMFD 389 X RMFD 399 X RMFD 390 X RMFD 391 X RMFD 391 X RMFD 392 X RMFD 393 X RMFD 393 X RMFD 395 X RMFD 395 X RMFD 396 X RMFD 397 X RMFD 396 X RMFD 397 X RMFD 397 X RMFD 398				
RF-S1				
RF-52				
RF-S45 RF-S90 RF-S90 X RF-S90 X RRF-S90 X RRFD 386 X RMFD 386 X RMFD 387 X RMFD 388 X RMFD 389 X RMFD 390 X RMFD 390 X RMFD 391 X RMFD 391 X RMFD 392 X RMFD 393 X RMFD 393 X RMFD 393 X RMFD 393 X RMFD 394 X RMFD 395 X RMFD 396 X RMFD 397 X RMFD 398 X RMFD 399 X RMFD 399 X RMFD 399 X RMFD 399 X RMFD 400 X RMFD 399 X RMFD 400 X RVP GASOLINE X RVP GASOLINE X RVP GASOLINE X RVP GASOLINE X S-BUTYL BENZENE X S-BUTYL BENZENE X S-BUTYL BENZENE X S-BUTYL BENZENE X SCENTINEL (R) BLENDS X SCENTINEL 0-10-M X SCENTINEL 0-10-M X SCENTINEL 0-10-M X SCENTINEL A-10 X SCENTINEL C X SCENTINEL C X SCENTINEL C X SCENTINEL F-20 X X X SCENTINEL F-20 X X X X X SCENTINEL F-20 X X X X X X X X X X X X X X X X X X X				
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RMFD 388				
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RMFD 390 RMFD 391 RMFD 392 RMFD 393 RMFD 393 RMFD 394 X RMFD 395 RMFD 396 RMFD 397 RMFD 397 RMFD 398 X RMFD 399 X RMFD 400 X RVP GASOLINE X RVP GASOLINE X S-BUTYL BENZENE X S-BUTYL MERCAPTAN, CRUDE X SCENTINEL 0-10 X SCENTINEL 0-10-M X SCENTINEL 0-10-M X SCENTINEL A (ETHYL MERCAPTAN) SCENTINEL C X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-26 X SCENTINEL F-26 X SCENTINEL F-25 X SCENTINEL F-26 X SCENTINEL F-26 X SCENTINEL F-25 X SCENTINEL F-25 X SCENTINEL F-26 X X SCENTINEL F-26 X X SCENTINEL F-26 X X SCENTINEL F-26 X X SCENTINEL F-2				
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RMFD 400 X RVP GASOLINE X RVP GASOLINES X SAUDI CERTIFICATION FUEL X S-BUTYL BENZENE X S-BUTYL MERCAPTAN, 99% COM X S-BUTYL MERCAPTAN, CRUDE X SCENTINEL (R) BLENDS X SCENTINEL 0-10 X SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL B X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X				
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S-BUTYL MERCAPTAN, CRUDE X SCENTINEL (R) BLENDS X SCENTINEL 0-10 X SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X				
SCENTINEL (R) BLENDS X SCENTINEL 0-10 X SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X				Х
SCENTINEL 0-10 X SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X			X	
SCENTINEL 0-10-M X SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X				Х
SCENTINEL 0-10-SB X SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL 0-10			Χ
SCENTINEL A (ETHYL MERCAPTAN) X SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL 0-10-M			Χ
SCENTINEL A-10 X SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL 0-10-SB			Χ
SCENTINEL C X SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL A (ETHYL MERCAPTAN)			Χ
SCENTINEL D X SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL A-10			Χ
SCENTINEL E X SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL C			Х
SCENTINEL F-20 X SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL D			X
SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL E			X
SCENTINEL F-25 X SCENTINEL F-35 X SCENTINEL F-40 X				Х
SCENTINEL F-35 X SCENTINEL F-40 X	SCENTINEL F-25			
SCENTINEL F-40 X				
	SCENTINEL F-50			Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
SCENTINEL F-80			Χ
SCENTINEL H-85			Χ
SCENTINEL I			Х
SCENTINEL N			Х
SCENTINEL P			Х
SCENTINEL P-T			X
SCENTINEL Q			X
SCENTINEL S-20			X
SCENTINEL S-35			X
SCENTINEL S-50			X
SCENTINEL T			X
SCENTINEL T-50			X
S-DODECYL METHYL SULFIDE			X
SECONDARY DODECYL MERCAPTAN			X
SECONDARY HEXYL MERCAPTAN			X
SECONDARY OCTYL MERCAPTAN			X
SECTION L BLEND NO 5 ASTM (LPG)			X
SECTION L BLEND NO 6 (LPG)			X
SECTION L BLEND NO 6 ASTM (LPG)			Х
SHELL FLEX			Х
SHELL FLEX			Χ
S-OCTYL MERCAPTAN		X	Χ
SODA ASH	X		
SODIUM ACETATE	Χ		
sodium bisulfite	Χ		
sodium carbonate	X		Χ
SODIUM CHLORIDE	Х		Х
sodium chlorite	X		
SODIUM HYDROSULFIDE	Х		Χ
SODIUM HYDROXIDE	Х		
sodium hypochlorite	Х		
sodium methanethiolate	Х	Х	Х
sodium methyl mercaptide	Х	Х	Х
sodium methylaminobutyrate	,	X	
sodium n-butyl mercaptide		X	
sodium potassium	Х	X	
sodium s-butyl mercaptide	^	Х	
SODIUM SULFATE	Х	X	
SODIUM SULFIDE	X	X	
sodium tolytriazole	X	^	
SOLTROL 10 (C7-C8)	^		Х
SOLTROL 10 + 6 TEL			X
SOLTROL 10 + 6 TEL			X
SOLTROL 100 (C9-C11)			X
SOLTROL 100+LIGHTS			X
SOLTROL 100H			X
SOLTROL 10-3 TEL			X
SOLTROL 10-6 TEL			X
SOLTROL 130 (C10-C13 ISOALKANES)			X
SOLTROL 145B (C10-C14 ISOALKANES)			X
SOLTROL 170 (C12-C14 ISOALKANES)			Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
SOLTROL 220 (C13-C17 ISOALKANES)			Χ
SOLTROL 50 (C8-C10 ISOALKANES)			Χ
SOLTROL HEAVIES			Χ
solvent naphtha (petroleum), heavy aromatic	Х		
soybean oil	Х		
SRF CETANE CHECK FUEL - HIGH			Χ
SRF CETANE CHECK FUEL - LOW			Χ
STDZN FUEL 1137			Х
STDZN FUEL 934			Х
STDZN FUEL 996			Х
stoddard solvent	Х		
straight run gas oil	X		
SULFOLANE			Х
SULFOLANE ANHYDROUS			X
SULFOLANE ANHYDROUS LOW COLOR			X
SULFOLANE MEDICAL GRADE			X
SULFOLANE, ELECTRONIC GRADE			X
SULFOLANE, LOW COLOR			X
SULFOLANE, MEDICAL G/TONER			X
,			
SULFOLANE-W			X
SULFOLE 120 (TDM)			X
SULFOLE 90 (TDM)			X
SULFOLE(R) 100 (MIXED T-DODECYL			Χ
MERCAPTAN & T-NONYL MERCAPTAN)			
SULFOLENE		Х	Х
SULFUR	X		
SULFUR CALIB. STANDARD			X
SULFUR DIOXIDE	X		Χ
SULFURIC ACID	Х	Х	
SWRI #2 GASOLINE			Χ
SWRI #2 GASOLINE			Χ
SWRI GAS (CUSTOM)			Χ
SYNTHETIC DISTILLATION STD-DSL			Χ
SYNTHETIC DISTILLATION STD-GAS			Χ
T DECYL MERCAPTAN		Χ	Χ
T-AMYL BENZENE			Χ
T-AMYL BENZENE, CRUDE		Χ	
T-AMYL BENZENE, TECH			Χ
T-BUTYL BENZENE			Χ
T-BUTYL MERCAPTAN			Χ
T-BUTYL MERCAPTAN, CRUDE		Х	
T-BUTYL MERCAPTAN, TECH			Х
T-BUTYL POLYSULFIDE			X
T-BUTYL TOLUENE, CRUDE		Х	
T-BUTYL TOLUENE, TECH		-	Х
T-BUTYLTOLUENE			X
TC10SH			X
TC11SH			X
TC12SH			X
TC13SH			X
TC6SH			X
100011	<u> </u>		Λ

Name	Raw Materials	Major Intermediates	Products or Byproducts
TC7SH			Χ
TC8SH			Χ
TC9SH			Χ
T-DODECYL MERCAPTAN (Sulfole(R) 120)		Х	Χ
T-DODECYL MERCAPTAN HEAVIES			Χ
T-DODECYL POLYSULFIDE			Х
Tergitol	Х		
TERT-AMYL METHYL ETHER	Х		
TERT-BUTYL ALCOHOL	X	Х	
TERT-METHYL ETHYL DI-AMINE (TMEDA)	X		
TERT-METHYL ETHYL DI-AMINE (TMEDA)*2HCL	X		
TEST FUEL MTBE, 65% IVD	,		Х
TEST FUEL, 65% DETERGENT			X
tetrabutyltin	Х		
TETRADECADIENE, 1, 13-	X		
TETRADECANE	X		
TETRAETHYL LEAD	X		
		V	
TETRAHYDROFUKAN	X	Х	
TETRAHYDROTHIOPHENE	V		Х
TEXACO LSR	X		
TF-1			X
TF-2			X
T-HEXADECYL MERCAPTAN	.,		Х
thiaheptane-1,7-diol, 4-	X		
Thianaphthene	X		
thioanisole	X		
THIODIGLYCOL	X		
THIODIGLYCOL ACID	X		
THIOPHANE	X		Χ
thiophenol			Χ
tin compounds, organic	X		
T-NONYL MERCAPTAN (Sulfole (R) 90)		X	Χ
T-NONYL POLYSULFIDE			Χ
TNPS 537			Χ
T-OCTYL MERCAPTAN		Χ	Χ
T-OCTYL POLYSULFIDE			Χ
TOLUENE	Χ	X	Χ
TOLUENE PURE			Χ
TOLUENE REFERENCE FUEL	Х		Χ
TOLUENE STANDARD FUEL 113.7			Χ
TOLUENE STANDARD FUEL 65.2			Χ
TOLUENE STANDARD FUEL 85			Х
TOLUENE STANDARD FUEL 93.4			Х
TOLUENE STANDARD FUEL 96.9			Х
TOLUENE STANDARD FUEL 99.6			Х
TOLUENE STANDFUEL 85			X
TOLUENE STD FL 102.5			X
TOLUENE STD FL 103.3			X
TOLUENE STD FL 108			X
TOLUENE STD FL 89.3			X
- OCOCITE OTD TE OSIO	I		^

Name	Raw Materials	Major Intermediates	Products or Byproducts
TOLUENE STD FL 94.8			Χ
TOLUENE STD FL 98.3			Χ
TOLUENE STD FL 99.9			Χ
TOLUENE STD FUEL 969			Х
TOYOTA FUELS			Х
TRANS-BUTENE-2	Х		Х
TRANS-BUTENE-2, PURE			Х
TRANS-BUTENE-2, TECH			Х
TRIBUTYL PHOSPHATE	Х		
TRIBUTYL PHOSPHITE	Х		
tricarbonyl	X		
trichlorobenzene	X		
TRIDECANE	X		
triethanolamine	X		
TRIETHYLAMINE	X	Х	
	X	۸	V
trimethyl-1-pentene, 2,4,4-	X		X
TRIMETHYL-2-PENTENE, 2,4,4-			Χ
TRIMETHYLBENZENE (25551-13-7)	X		
trimethylbenzene, 1,2,3-	X		
trimethylbenzene, 1,2,4-	X		
trimethylbenzene, 1,3,5-	X		
TRIMETHYLBUTANE, 2,2,3-	X		X
TRIMETHYLPENTANE, 2,2,3-	X		X
TRIMETHYLPENTANE, 2,2,4-	X		Х
TRIMETHYLPENTANE, 2,3,3-	X		Х
TRIMETHYLPENTANE, 2,3,4-	X		Х
tris[(dimethylamino)methyl]phenol, 2,4,6-	Х		
TT-S-735 TYPE 7 TEST FLUID			Х
UL BLENDSTOCK MIX			X
ULTRA LOW DIESEL			Χ
UNDECYL MERCAPTAN			Χ
UNIT 19 PLAT CUT 1		X	
UNIT 19 PLAT CUT 2		Χ	
UNIT 19 PLAT CUT 3		X	
UNIT 19 PLAT CUT LITES		Χ	
UNIT 19 PLATFORMATE (REFORMATE)	Х		
UNIT 19 TURBINE FUEL (FROM 19.3)	Х		
UNIT 26 CAT CRACKER GASOLINE	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 1	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 2	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 3	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS A	X		
UNIT 28 GAS OIL	X		
UNKNOWN Q0 (n-Butyl mercaptan dist)		Х	
UNKNOWN Q1(n-Butyl mercaptan dist)		Х	
UNKNOWN Q2(n-Butyl mercaptan dist)		X	
UNKNOWN Q3(n-Butyl mercaptan dist)		X	
UNLEADED AVIAT. HFL			Х
UNLEADED AVIATION FUEL (HF LIGHT ALKYLATE)			X
UNLEADED GASOLINE			X
OTTER IDED OF BOLLITE	I		^

Name	Raw Materials	Major Intermediates	Products or Byproducts
UNLEADED GASOLINE (WITHOUT BENZENE)			Χ
UTG 91 + TEL			Χ
UTG 91/SPEC FUEL # 91			Χ
UTG 93			Χ
UTG 93 + ALCOHOLS			Χ
UTG 93 + TEL			Χ
UTG 96			Χ
UTG 96 + 3 TEL			Χ
UTG 96 + TEL			Х
vegetable oil	Х		
vinyl cyclohexanethiol, 4-	Х		
VINYL CYCLOHEXENE	Х		
VINYL-1-CYCLOHEXENE, 4-	Х		
VOLKSWAGEN FUELS			Χ
WATER	Х		Χ
WSPA FUELS			Χ
xylene, m-	Х	Х	Χ
XYLENE, MIXED ISOMERS	Х		
xylene, o-	Х	Х	Х
xylene, p-			Х
xylene, p-	Х	Χ	Χ
ZECOL HI-OCTANE	Х		

Attachment TR-1.d. Facility Map

Industrial Technical Report 1.0 – Item 1.d., Page 2

Attachment TR-1.d. Facility Maps Chevron Phillips Chemical Company LP – Borger Plant

Attachment TR-1.d. presents facility maps of the Chevron Phillips Chemical Company LP – Borger Plant (CPChem – Borger Plant). The maps are copies of those presented in the December 23, 2020 document "Spill Prevention, Control, and Countermeasure Plan" (SPCC Plan).

Included within this attachment are the following excerpts from the SPCC Plan:

- Cover sheet of the Plan;
- Table of Contents;
- Professional Engineer Certification;
- Section 3 General Facility Information;
- Tables 4 through 8;
- Figures; and
- Appendix C.

Section 3 discusses the facility layout maps, facility locations and operations, hazardous waste storage sites, portable bulk storage tanks, rail car and truck loading/unloading areas and stormwater retention ponds.

As mentioned in Section 3, Figures 1, 3, and 5 are the site location maps for the Borger Complex, Transportation Office and Copoly Warehouse, respectively. Figure 2 provides a building legend where each building is numbered and referenced on the figure. Figure 2 also provides a facility layout depicting the areas represented by Figures 2-A, 2-B, 2-C, 2-D, and 2-E, which depict the locations of tanks and storage containers. The enclosed tables and Appendix C provide a reference number or letter which corresponds to each tank location and storage container depicted on each figure.



Spill Prevention, Control, and Countermeasure Plan

Chevron Phillips Chemical Company Borger Plant Borger, Texas

December 23, 2020

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Appendix C Borger Plant Bulk Storage Tanks

Professional Engineer Certification

The undersigned registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the Code of Federal Regulations (40 CFR Part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and the requirements of 40 CFR Part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the CPChem Borger Plant.

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR Part 112.

Signature C.		
Chris C. Stanford		7E OF 76.11.
9		5 5 L 70 1
68515	Texas	CHRIS C. STANFORD
Registration Number	Issuing State	68515
		CENSED WELL

Section 3 General Facility Information

Name: Borger Plant

Spur 119 North Borger, Texas 79008 (806) 275-5500

Transportation Office 901 N. Florida St. Borger, Texas 79008 (806) 275-5810

Copoly Warehouse

0.3 mile north of intersection of Highway 36 and Highway 1551

Borger, Texas 79008 (806) 275-5500

Type: Borger Plant - Chemical Production Facility

Transportation Office – Vehicle Maintenance **Copoly Warehouses –** Warehouse and Storage

Location: Borger Plant Lat. 35 deg 41 min 48 sec

Long. 101 deg 21 min 35 sec

Transportation Lat. 35 deg 40 min 34 sec **Office** Long. 101 deg 22 min 52 sec

CopolyLat.25 deg 39 min29 secWarehouseLong.101 deg 26 min50 sec

Owner/Operator: Chevron Phillips Chemical Company

Spur 119 North Borger, Texas 79008

Person in Charge: Michael J. Dykhouse

Work: (806) 275-5885

3.1 Facility Layout Diagrams

Figures 1, 3 and 5 are the site location maps for the Borger Complex, Transportation Office, and Copoly Warehouse, respectively. The site plans show the site topography and the location of the facilities relative to waterways, roads, and inhabited areas. Figures 2, 2-A, 2-B, 2-C, 2-D, 2-E, 4, and 6 indicate the locations of oil storage tanks, transfer areas, and oil storage containers equal to or greater than 55-gallons in capacity.

The main objective of a facility diagram is to provide sufficient detail for facility personnel to undertake oil spill prevention activities, for EPA to perform effective inspections, and most importantly for responders to take effective measures to prevent an oil leak or spill from leaving the property boundaries and entering waters of the state. Due to the physical layout at the complex, it may not be practical to indicate all oil storage containers, 55 gallons or greater, oil transfer piping, valves, mobile and portable containers, and oil-containing equipment on the diagrams. EPA allows flexibility in the way the facility diagrams are drawn as long as more detailed diagrams of specific systems are maintained at the complex. More detailed information and drawings of specific systems are available upon request.

3.2 Facility Locations and Operations

Borger Plant

The Borger Complex includes facilities owned and operated by three different companies, WRB Refining, Chevron Phillips Chemical Company, and Solvay Specialty Polymers. Phillips 66 owns 50% of both WRB and Chevron Phillips. The West Complex is the WRB Borger Refinery and NGL Processing Center. The East Complex is the Chevron Phillips Borger Plant. The Borger Plant is a specialty chemical manufacturing plant. Solvay Specialty Polymers manufactures high-grade plastics in the Ryton unit. Other products produced at the Borger Plant include high-purity hydrocarbons and solvents, performance and reference fuels, and mining chemicals. Raw materials are transported to the facility via rail, truck, and pipeline (from WRB Refinery). Finished products are shipped out mainly by rail and truck. The daily combined production of specialty chemicals at the Chevron Phillips Borger Plant is about 1.2 MM lbs/day.

Philtex began operations in 1944 and Ryton began operations in 1972. Both were acquired by CPChem in 2000 as part of a joint venture between Chevron and Phillips Companies. The Ryton area was expanded in 2008/2009 to include a Quench process unit. The Packaged

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Products Unit (PPU) was permanently shutdown in December 2010, except for Still 26 which was shutdown in mid-2011. Also shutdown were the tanks in G-Battery which stored PPU feedstocks and products. The Ryton unit was sold to Solvay Specialty Polymers in 2015.

The November 2008 amendments to the SPCC rules apply, in part, to facility diagrams. These amendments alter facility diagram requirements and allow for flexibility in identifying fixed and mobile containers on facility diagrams (112.7(a)(3)). When a figure or diagram get complicated due to multiple mobile or fixed oil storage containers, or complex piping/transfer areas, the owner/operator can include this information separately in the Plan in an accompanying table/key. CPChem utilizes this technique in this Plan.

The site location map and facility layout maps are included as Figures 1, 2, 2-A, 2-B, 2-C, 2-D, and 2-E. The facility layout maps show the location of bulk storage containers, iso-containers, totes, 55-gallon containers, and loading/unloading areas for rail cars and tankers. There are no underground storage tanks at the plant. The facility layout maps also show connecting piping. In addition to the piping shown, there is piping within tank batteries and process areas.

Transportation Office

The Transportation Office is located on N. Florida St. approximately 2 miles southwest of the Borger Plant. The main part of the building is used by a contractor to conduct vehicle maintenance for CPChem vehicles. Truck and trailers are maintained and serviced at this facility. Figures 3 and 4 show the site location and facility layout for the Transportation Office. The building and facility are shared with another businesses (Hydrochem and Evergreen). This SPCC Plan only includes the CPChem equipment.

Copoly Warehouse

The Copoly Warehouse is located 0.3 mile north of the intersection of Highway 136 and Highway 1551, approximately 5.5 miles southwest of the Borger Plant. The warehouse is used solely for transitional storage for Philtex raw materials and products in 55-gallon to 500-gallon containers. Drums, totes and other product storage containers are properly stored in the warehouse.

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3.3 Oil Storage, Potential Spills, and Discharge Prevention

3.3.1 Borger Plant

Oil storage at the Borger Plant can occur throughout the plant in large fixed bulk storage tanks, mobile containers, totes, iso-containers, cylinders, and 55-gallons drums. A list of the larger, fixed bulk storage tanks is provided in Appendix C. Oil-field operational equipment is identified in Table 4. Table 5 provides a list of mobile storage tanks (trailers, totes, iso-containers, cylinders, and drums). The tank numbers listed in Appendix C correspond to the tank numbers shown on Figure 2. Figures 2-A through 2-E show the locations of mobile tanks and different storage containers listed on Table 5.

The location of the Borger Plant is shown on Figure 1. Figures 2 through 2-E are layout maps and show hazardous waste storage sites, fixed and portable bulk storage tanks, rail car and truck loading/unloading areas, and stormwater retention ponds.

Hazardous Waste Storage Sites

In accordance with 40 CFR 262.34 (a)(4), which references 40 CFR 265 Subparts C and D, the SPCC Plan contains hazardous waste management provisions provided for the units listed in Table 6. Active hazardous waste units which would require spill control in the event of a release are listed with their location. Waste units that are inactive but have not been closed are also listed. Hazardous Waste storage site locations are identified on Figures 2 and 2-C.

Used Oil Management

In accordance with 40 CFR 279.52(b)(2), the SPCC Plan includes provisions for used oil management. Used oil is collected throughout the Borger Plant at locations listed on Table 5 and shown on Figures 2-A through 2-C. Dowtherm heat transfer fluid is collected in drums as needed near the CPU heat transfer systems.

Loading/Unloading Areas

Loading/unloading areas include locations where truck tankers, railcars and bulk products in 55-gallons drums, iso-containers, cylinders, and totes are loaded and/or unloaded. Table 7 lists loading/unloading areas and corresponding locations are shown on Figures 2-A through 2-C. Rail car and truck loading/unloading racks have either concrete catch basins with drains to the

chemical sewer to capture spills or leaks from the transfer process or are located such that spills or leaks will be contained on site.

Portable Containers and Truck Trailers

Portable containers used at the facility range in storage capacities from less than 55 to 20,000 gallons. Portable and mobile containers and truck trailers are staged only in areas that provide a secondary means of containment, such as a chemical sewer drain, catchment basin or dike. Table 5 lists portable containers and contents, and Figures 2-A through 2-E show container locations.

Portable containers/equipment may be present at the facility and are covered under this plan without the need to update the plan for an "increase in oil storage capacity" or "changes in the handling/storage areas" provided that the following conditions are met:

- The individual container/equipment capacity cannot exceed 250-gallons;
- The container/equipment is either equipped with secondary containment or is located within an area that drains into a pond or containment area and can be visually inspected on a daily basis; and
- The container/equipment is not being stored directly adjacent to a navigable waters and adjoining shorelines.
- Chevron Phillips Chemical personnel shall perform a survey of the facility to locate and identify portable containers and shop-built tanks during the monthly inspections. A copy of the inventory shall be maintained onsite.

Phillips Avenue Trailer Lot

The Phillips Avenue Trailer Lot is a parking lot for truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. The parking area was extended in 2008 to the east by adding a separate trailer storage lot. For purposes of drainage, surface water capture and secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems.

The north end of the trailer lot slopes to the north and the south end slopes to the south.

Engineered berms have been constructed around the trailer lot so that stormwater runoff in the northern part drains into stormwater collection ponds. The southern part of the trailer lot does not have surface runoff containment structures. Operational procedures disallow the parking of

oil-containing truck trailers, or the placing of mobile oil-containing storage containers at the southern end of the parking lot.

Bulk Storage Tanks

40 CFR 112.7(b) requires that "where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure."

Most reportable oil spills that have occurred since 1989 were attributed to equipment failure (e.g., pipeline breaches, tank overflows due to failure of high-level monitoring devices) and overfilling of tanks and transportation containers.

A tank failure in the "L" Battery occurred in 2005. The L-4 tank exploded and the tank contents were released to the stormwater reservoir. The affected soil was cleaned to Texas Risk Reduction Program standards. None of the product left the site other than the associated air release. The L-4 tank was used to store brine but also had a floating hydrocarbon layer.

Table 8 is a summary of spill predictions and potential spill pathways for bulk storage tanks.

Because numerous products are produced at the Borger Plant by batch processes (specialty chemicals portion of the plant) tank service may change frequently. The following discussion is a summary of the tank battery contents (see Figure 2 for tank battery locations and Appendix C for bulk storage tank information).

a) A-Battery

A-Battery tanks contain raw materials and final products of specialty fuels. Some tanks also contain high purity hydrocarbons. A curb provides spill containment. The curbed area is manually drained to the chemical sewer.

b) <u>B-Battery</u>

B-Battery tanks contain olefins, crude and on-spec/off-spec mercaptans, sulfides, and other materials. Some of the tanks are curbed. Containment drains are closed unless stormwater is being drained to the H-battery sump by gravity, then to the chemical sewer. The plant surface water drainage and stormwater reservoir serve as secondary containment for all of B-Battery.

c) <u>C-Battery</u>

C-Battery tanks mainly contain olefins, crude and on-spec/off-spec mercaptans. The plant surface water drain system and stormwater reservoir serves as secondary containment for C-Battery.

d) <u>D-Battery</u>

D-Battery tanks contain materials similar to A-battery for raw materials and finished blends of specialty fuels. It also contains high purity hydrocarbons. This tank battery drains to the stormwater reservoir except for the manifold area, which drains to the chemical sewer.

e) <u>E-Battery</u>

E-Battery tanks contain n-heptane and iso-octane. Tank dikes are constructed with stabilized earth. Tanks dike drains are closed, unless stormwater is drained to the plant wastewater system.

f) F-Battery

F-Battery tanks contain alkylate fractions from HF Hevy Alkylate (HFHA), olefins, mercaptan crudes and spec products, isooctane, and two specialty fuel tanks. Stabilized earth dikes surround the tanks. Tank dike drains are closed, unless stormwater is being drained to the Philtex stormwater reservoir.

g) <u>H-Battery</u>

H-Battery tanks contain mercaptans, specialty diesel fuels and gasolines. Stabilized earth and concrete dikes provide containment. Tank dike drains are closed, unless stormwater is being drained to the stormwater reservoir.

h) I-Battery

I-Battery tanks contain sulfolane, NaOH, ethyl chlorides, sodium methyl mercaptide, and methyl ethyl sulfide. Most I-Battery tanks are within a concrete containment system. The stormwater reservoir serves as secondary or tertiary containment for all of I-Battery.

i) J-Battery

J-Battery is the process tankage for MPU (Multi-Purpose Unit). It contains mercaptans/sulfides, sulfuric acid, and sulfolane. The plant surface water drainage and stormwater reservoir serve as secondary containment.

j) <u>K-Battery</u>

K-Battery units are decommissioned and out of service.

k) <u>L-Battery</u>

L-Battery contains mercaptans, olefins, and fuels. Tanks are diked by stabilized earth and concrete to contain small spills and/or leaks. The stormwater reservoir serves as secondary containment for Tanks L-1, L-2 and L-3. Brine water storage tank is now in L-2.

I) M-Battery

M-Battery is now operated by Solvay Specialty Polymers. This area is not under the control of CPChem and is no longer subject to this plan.

m) N-Battery

N-Battery tanks units are decommissioned and out of service.

n) P-Battery

P-Battery tanks contain the process tankage for Unit 5. These tanks also store specialty fuels, crude and on-spec mercaptans, 1,3-butadiene, propylene, 20% caustic, and dimethyl sulfide. The process tanks include those used to blend chemicals for the Mining Chemical Division of CPChem. Tanks are located in concrete containment systems that were designed to drain to the 250,000-gallon concrete stormwater basin in Unit 5, which can be drained to the stormwater reservoir.

Gasoline Dispenser

A concrete containment dike protects a 250-gallon gasoline tank located in the northwest corner of P-Battery for fueling plant vehicles. Stormwater is removed from the dike with a vacuum truck.

Oil-Filled Equipment and Oil-Containing Transformers - General

The definition of bulk storage container specifically excludes oil-filled electrical, operating, and manufacturing equipment ("oil-filled equipment"). Therefore, oil-filled equipment is not subject to the bulk storage container requirements in 40 CFR 112.8(c). However, oil-filled equipment must meet the general requirements of 40 CFR 112.7.

Oil-filled operational equipment includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or device. Oil-filled operational equipment does not include manufacturing equipment. Examples of oil-filled operational equipment include hydraulic systems, lubricating systems, gear boxes, machining coolant systems, heat transfer systems, transformers, other electrical equipment, and other systems containing oil to enable operation.

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Oil-filled manufacturing equipment is distinct from bulk storage containers in its purpose. Oil-filled manufacturing equipment stores oil only as an ancillary element of performing a mechanical or chemical operation to create or modify an intermediate or finished product. Examples of oil-filled manufacturing equipment may include reaction vessels, high-pressure vessels, mixing tanks, dryers, heat exchangers, and distillation columns. Under the SPCC rule, flow-through process vessels are generally considered oil-filled manufacturing equipment since they are not intended to store oil.

Active containment measures may include:

- Placing a properly designed storm drain cover over a drain to contain a potential spill in an area where an oil transfer occurs, prior to the transfer activity;
- Placing a storm drain cover over a drain in reaction to a discharge, before the oil reaches the drain;
- Using spill kits in the event of a discharge;
- Use of a spill response capability (e.g. spill response team) in the event of an oil discharge; and
- Closing the valve that controls drainage from an area prior to a discharge.

Such measures will be implemented effectively and in a timely manner to prevent oil from leaving the plant property. All oil-filled operational equipment is located within the plant boundaries. If such active measures fail to contain an oil spill or leak from any oil-filled operational equipment at the immediate location of the equipment, the facility's drainage features will ultimately contain any such spill or leak on site. The Plant provides for visual inspection and/or monitoring for oil-filled equipment to prevent discharges.

This SPCC Plan is used in conjunction with other facility plans (e.g. FRP) to respond to all emergencies, including oil spills, as regulated by the Federal CWA and applicable state and federal laws and regulations. The structure of an oil spill response is based on training, planning and organizational needs to manage emergency situations.

Oil Filled Operational Equipment - Electrical Transformers

Electrical transformers located within the Borger Plant contain between 171 to 4,584 gallons of transformer oil. None of the transformers contain oil classified as PCB oil. A location and

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description index for the Borger Plant transformers are shown below. Transformers are identified on Figures 2-A and 2-B.

Oil Filled Operational Equipment – Miscellaneous

Other oil-filled operational equipment is located within process unit areas. The equipment includes oil mist supply tanks, seal oil, coolant oil, and compressor oil supply tanks. These tanks are included in Table 4. All of the units are located within areas that drain either to the chemical sewer or the storm water pond.

Methyl Mercaptan Storage and Railcar Loading Area

This area is located north of the Borger Plant laydown yard, just east of Taubman Yard. There are 5 horizontal pressure vessels for the storage of methyl mercaptan. There is an associated rail car loading rack at this area also. The loading rack, tanks and associated equipment are located within a containment area. Methyl mercaptan is a gas at ambient temperatures, and there is no potential for off-site hydrocarbon contamination from this storage area. Spills or leaks of methyl mercaptan would be treated as a toxic gas release; responses to toxic gas releases are covered under separate sections of the Borger Complex FRP. The Methyl Mercaptan Storage and Loading areas will not be addressed further under this SPCC plan.

Firewater Pump Building (North of MeSH Storage Area)

A firewater tank pump building located north of the MeSH Storage Area houses two 550-gallon diesel tanks and 55-gallon drums of oil, used oil, and used glycol. The diesel tanks are contained within thick plastic secondary containments. The 55-gallon drums have containment boxes.

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Borger Plant Oil-Filled Electrical Transformers

Transformer ID	Rating	Gallons of Oil					
Substation 4 (South of CPU Reactor Building)							
TC-404	1,000 kVA	356					
TC-405	1,500 kVA	311					
Substation 5 (North of Services B	uilding)						
TC-401	1,000 kVA	173					
TC-402	1,000 kVA	171					
TC-403	1,000 kVA	590					
Substation 7 (North of Oxygen Sp	here)						
TC-406	1,000 kVA	173					
Substation 8 (East of Unit 5 Air Co	ompressor Building)						
TC-416	1,000 kVA	370					
TC-417	1,000 kVA	357					
TC-418	1,000 kVA	370					
TC-419	1,000 kVA	370					
TC-420	1,000 kVA	357					
TC-498	1,500 kVA	639					
Substation 10 (CCB)							
TC 500	1,000 kVA	586					
Substation 13 (SOC 2&3)							
TC 499	1,000 kVA	516					

A spill at Substations 4, 5, or 7 would drain into the stormwater reservoir or to the wastewater system. Substations 6 and 8 transformers are inside curbed areas to contain small spills or leaks. Potential oil leaks at Substation 9 and the Hughes Street Main Substation will be completely contained within the curbed design of each substation. Based on plant experience, electrical transformers do not have a reasonable potential of equipment failure leading to a discharge of oil to a navigable watercourse. Absorbent is available to respond to an electrical transformer spill.

Philtex Wastewater System

The Philtex wastewater system was designed to capture chemical wastewaters from the processing units. All chemical wastewaters from the north side plant chemical drains flow to a seal tank (Seal Pot) and subsequently to an oil/water separator. Water from the oil/water

separator flows to a weir and joins with wastewater from Unit 5.1 Basin and is pumped to Wastewater Surge Tank H-20. Any excess wastewater not pumped into H-20 is directed into the Triangular Basin at the wastewater facility. Water is pumped or overflows from the Triangular Basin to the large stormwater reservoir, east of the plant. Wastewater from H-20 is sent to WRB Refinery wastewater treatment plant.

3.3.1.1 Spill Control

Secondary Containment (Structures and Equipment)

Secondary containment is provided for bulk oil storage tanks. It appears that tank dike capacities are generally designed to contain at least the single largest tank volume of a multitank dike enclosure plus precipitation. Some secondary containment systems (e.g., P Battery) do not have storage capacities for the largest tank inside containment, but as discussed earlier overflow from the secondary containment system would be contained onsite in the Unit 5 stormwater basin. Although secondary containment volume calculations are not available for review, tank batteries appear to have been constructed under applicable industry standards. Regardless of secondary containment storage capacities for all bulk oil storage tanks located on site, either smaller on-site stormwater retention ponds or the 6.5 million gallons stormwater pond provides for ultimate containment for any spills or leaks from any of the bulk storage tanks at the facility.

The Phillips Avenue Trailer Lot has a west lot and a separate east lot for parking truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. For purposes of secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems that can container the volume of the largest storage container (8,800 gallons) plus a 24-hour, 25-year storm event.

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Equipment is purged and cleared prior to dismantling for maintenance. Temporary secondary containment is put into place whenever maintenance is performed on equipment that could result in an oil spill to the ground. The containment device may consist of a partial barrel or large pan that is capable of holding the maximum amount of material that is drained from the equipment. If it is not known how much liquid is in the equipment, or the amount exceeds the volume of the containment device, a vacuum truck is used to remove the material from the containment device as soon as the equipment is opened.

Procedures for the Control of a Discharge

Procedures for the control of a discharge vary according to the equipment characteristic of the specific area. Valves on drainage systems for tank dikes outside the plant drainage system are kept closed. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by portable pump or vacuum truck.

The Unit Operator will do the following to drain containment systems that drain outside the plant wastewater system (e.g., Phillips Ave. Trailer Lot and Unit 5 Area):

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean;
- Drain the accumulated stormwater outside of the containment area; and
- Complete the "Quarterly Visual Storm Water Monitoring" form and forward to Environmental. The latest version of this form can be found in the Hummingbird Document Management System under Forms/Environmental.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

3.3.2 Transportation Office

Oil storage at the Transportation Office include the following: a 5,000-gallon diesel tank, a 530-gallon used oil tank, a 488-gallon used oil tank, 55-gallon drums of used oil, and a 200-gallon oil

tank. The location of the Transportation Office is shown on Figure 3. Figure 4 is layout map and shows tank locations and surface runoff directions.

The natural topography of the facility slopes to the southeast to drainage ditches along N. Florida St. The drainage ditches appear to eventually discharge into tributaries that lead into Dixon Creek.

Diesel and Used Oil Tanks

The 5,000-gallon diesel tank is located outside, on the west side of the Main Shop. It is a single-walled aboveground tank located inside a concrete secondary containment that has a valved discharge pipe.

The 488-gallon used oil tank is located outside under a lean-to, on the west side of the Main Shop. The tank is a single-walled aboveground tank that is used to store used motor oil from the vehicle maintenance business. The tank is located inside a concrete secondary containment structure.

The 530-gallon used oil tank is located to the east of the Truck Shop. The tank is actually hard piped to the Truck Shop so oil is only introduced into the tank from this pipe. The tank is located inside a concrete secondary containment structure.

A 55-gallon drum is used to store used oil mixed with mercaptans. Truck engine oil filters are drained in this drum. The drum, located on the west side of the Truck Shop, is situated inside a plastic spill containment booth with a rain cover. Other 55-gallon drums are used to store oil, used oil, and transmission fluid.

The 200-gallon motor oil tank is located inside the truck shop and supplies new motor oil to the trucks serviced there. The tank is located inside a metal spill containment box. The spill containment box is located on the concrete floor of the shop.

Table 9 is a summary of spill predictions and potential spill pathways for the storage tanks.

Under the worst-case scenario, the hose connection to a supply truck off-loading diesel into the 5,000-gallon diesel tank would accidentally disconnect. But because the transfer process is manned at all times, the cause of the spill would be terminated quickly. Any spilled diesel would most likely be contained on site before entering the drainage ditches along N. Florida St.

3.3.2.1 Spill Control

Secondary Containment (Structures and Equipment)

Adequate secondary containment systems are provided for each of the storage tanks. The approximate available secondary containment capacities for each tank are shown in Table 10.

In transfer areas and other parts of the facility where a discharge could occur, the following containment and mitigation measures are used:

- <u>Drip pans.</u> Fill ports for all ASTs are equipped with drip pans to contain small leaks from the piping/hose connections.
- <u>Sorbent material</u>. Spill cleanup kits that include absorbent material, booms, and other portable barriers are located in the Spill Mitigation Building (old Joy building). Also spill kits are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.
- <u>Containment pallets.</u> Drum spill containment pallets, with at least 110% containment capacity for a single drum.

Procedures for the Control of a Discharge

Valves on the secondary containment systems are kept closed except when draining storm water. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by a portable pump or vacuum truck.

Oil-handling personnel will do the following to drain containment systems:

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean:
- Drain the accumulated stormwater outside of the containment area.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

Bulk storage tanks and secondary containment systems appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage tank

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through visual observations and it is determined that it may reduce a tank's integrity, the affected tank will be taken out of service and repaired or replaced. No tank is used for the storage of any oil product until the compatibility of the product and the tank materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the ASTs or the 55-gallon storage drum. All shop-built tanks are equipped with individualized secondary containments, and the 55-gallon drums are located within catch basins. Oil discharges would be contained within secondary containments and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The drum storage area is routinely inspected by on-site workers to provide an effective means of verifying container integrity.

3.3.3 Copoly Warehouse

The Philtex Copoly Warehouse is a large metal building used to stored 55-gallon to 500-gallon sealed final products containers. A portion of the warehouse is also used for storage of plant warehouse stock material, including lubrication oils in 55-gallon drums. The lubrication oils are stored on spill containment pallets.

The location of the Copoly Warehouse is shown on Figure 5. Figure 6 show container locations and surface runoff directions for the Philtex Warehouse.

The topography of the general area is a natural grade to the north. Tributaries in this area eventually discharge into the Canadian River located approximately 4.5 miles to the north of the warehouse.

Product Storage Containers

Fifty-five-gallon to 500-gallon product storage containers are properly stored along rows inside the Copoly (Philtex) Warehouse. All containers are properly sealed and ready for final distribution. Fifty-five-gallon drums are stored up right on pallets. A forklift is used to move the pallets. Other size containers are properly stored on the floor in the warehouse. All products are stored in rows so that a forklift has easy access through the warehouse.

Table 11 is a summary of spill predictions and potential spill pathways for the storage tanks.

29

Under the worst-case scenario, a container of product may get punctured with the fork of a forklift, or ruptured during transfer to or from a truck. Any oil release would normally occur inside the warehouse building on the concrete floor. If oil were to leave the warehouse, the site topography would eventually channel the discharge to the northwest. In all likelihood, if the oil left the building, it would leak down the side of the concrete foundation and accumulate on the natural ground.

3.3.3.1 Spill Control

Secondary Containment (Structures and Equipment)

The warehouse itself has a concrete foundation and metal walls. Spills inside the warehouse will be contained within the building itself. The surface inside the main access door slopes down towards the inside of the building. All other door locations are contained with angle or channel iron installed at potential leak points to provide a raised threshold. All floor drains have been plugged with concrete.

Absorbent pads are located inside the warehouse. The pads are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.

Procedures for the Control of a Discharge

The floor drains have been permanently sealed, and the interior metal walls and diversion strips along the doors and access ways act as containment for any spill or leak. Spilled or leaked oil shall be removed manually with mops, squeegees, absorbent materials, etc., or a vacuum truck can be used to evacuate the oil.

Oil-handling personnel will conduct visual inspections for signs of an oil release. If oil is detected inside the building, the following procedures will be followed:

- Remove oil via response equipment or vacuum truck, and contaminated absorbent material as it is used, and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area:
- Take appropriate corrective actions to repair defects; and
- · Report the discharge as appropriate.

The storage containers appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage container through visual observations

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and it is determined that it may reduce a container's integrity, the affected container will be taken out of service and repaired or replaced. No container will be used for the storage of any oil product until the compatibility of the product and the container materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the containers or 55-gallon drums. Oil discharges would be contained within the warehouse itself and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The storage areas in the warehouse are inspected monthly. This is in accordance with accepted industry practice for drum storage and provides an effective means of verifying container integrity.

Tables

Table 4 Oil-Filled Operational Equipment

Unit ID	Stored Material	Oil Capacity (gallons)
Miscellaneous I	Units	
CPW-56	Mineral Oils (Isoparaffins)	7000
CPW-57	Mineral Oils (Isoparaffins)	7000
CPW-58	Mineral Oils (Isoparaffins)	7000
CPW-59	Mineral Oils (Isoparaffins)	7000
Oil-Filled Opera	tional Equipment	
V4053	W. CPU Seal Oil Storage (Soltrol 220)	345
None	E. CPU Soltrol Coolant Oil Tank (Soltrol 220)	1,234
None	E. CPU Magnus 100 Oil Tank at Compressor Building	1,234
95-4067	CPU East Dowtherm Accumulator (Dowtherm G)	1,504
95-4069	CPU Dowtherm Hold Tank	940
95-XB3	CPU Olefin Feed Pump Seal Oil Reservoir	55
95-XB4	CPU Mixed Feed Pump Seal Oil Reservoir	55
95-1P13	U5.2 Reactor Seal Oil Surge Tank	83

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
Blending	g			1	
А	Drums	425	55 gallons	Various blendstocks and products.	A Battery
А	Trailers/Isocontainers	3	5500 - 7500 gallons	Various blendstocks and products.	A Battery
А	Totes	6	250 gallons	Various blendstocks and products.	A Battery
В	Drums	20	55 gallons	Various blendstocks and products.	D Battery
В	Trailers/Isocontainers	4	5500 - 7500 gallons	Various blendstocks and products.	D Battery
С	Drums	5	55 gallons	Various blendstocks and products.	F Battery
С	Trailers/Isocontainers	1	5500 - 7500 gallons	Various blendstocks and products.	F Battery
D	Drums	15	55 gallons	Various blendstocks and products.	P Battery
05::	Drums	100	55 gallons	Various blendstocks and products	North Paint Yard Area
CPU					
F	Tote	1	200 gallons	Iso VG 32 oil	CPU East End CPU East near Frick
F	Cylinders	6	500 lb.	Propane	Compressor
F	Drums	1	55 gallons	Compressor Oil	CPU East near Frick Compressor
F	Tote	1	250 gallons	Isoparaffins 220	South of Compressor Building
G	Drums	20	55 gallons	Slop Oil for B-11	C-Manifold
Н	Drums	16	55 gallons	Dowtherm G	Dowtherm Furnace Area
I	Drums	2	55 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Totes	1	300 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Drums	1	55 gallons	Isoparaffins 220	Column 6
I	Drums	1	55 gallons	Isoparaffins 220	Column 2
I	Drums	1	55 gallons	MEA	North of CPU FIC
I	Drums	50	55 gallons	Various Products	Column 10 Area
I	Drums	50	55 gallons	Various Products	Column 11 Area
J	Drums	4	55 gallons	Tri-butyl phosphite	B-Manifold
G	Drums	4	55 gallons	Tri-butyl phosphite	C-Manifold
	Portable Tank	1	300 gallons	Magnus Oil	Sundyne Pump Area
MPU				, <u>, ,</u>	
K	Tote	1	300 gallons	Triphenylphosphene	MPU: I-20/21/22
K	Cylinder	4	250 gallons	Dimethylamine	MPU: R-18
K	Tote	2	300 gallons	Sulfolane	MPU: F-80
K	Drums	8	55 gallons	Sulfolane	MPU: F-80
K	Dumpster	1	0-500 lb	Sulolene flake	MPU: Flaker Building
	Van	1	0-42,000 lb	Sulfolene flake	MPU: Dock

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
Е	Cylinders	10	250 gallons	Dimethylamine, Propylene Oxide	North of E-4
С	Trailer	1	8000 gallons	F-81 Water Wash (contains sulfolane, cat res.)	North of Butarez Building
С	Drums	50	55 gallons	Various Products	North of Butarez Building
Services E	Building				
N	Drums	2	55 gallons	Recycle Hydrocarbon	Outside Development Lab
N	Drums	20	55 gallons	Trans Oil, Lube Oil, Ethylene Glycol	Inside chiller room
N	Tank	3	300 gallons	Gear Oil	Inside chiller room
N	Drums	4	55 gallons	Used Oil, Soltrol	Outside Bay 3
Transport	ation Office				
LL	Tank	1	5000 gallons	Diesel	Transportation Office (N. Florida Ave.)
LL	Tank	1	530 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Tank	1	488 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Drum	2	55 gallons	Used Oil with Mercaptan	Transportation Office (N. Florida Ave.)
LL	Tank	1	200 gallons	Motor Oil	Transportation Office (N. Florida Ave.)
LL	Drums	3	55 gallons	Used Oil, Trans Fluid, Oil	Transportation Office (N. Florida)
Shipping					
0	Drums, Totes, Cylinders	250	55-500 gallons	Philtex Products	Dock 1
Р	Drums, Totes, Cylinders	4700	55-500 gallons	Philtex Products	Dock 2
Q	Drums, Totes, Cylinders	800	55-500 gallons	Philtex Products, Flush Material	East of Dock 2
R	Drums, Totes, Cylinders	160	55-500 gallons	Philtex Products	Dock 3

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
NN	Totes	10	250 gallons	Sulfolane	Spot 3 or East Side of B-50
MM	Drums, Totes	7000	55-500 gallons	Philtex Products	Copoly Warehouse
KK	Truck Vans (with drums), Trailers	81	55-8000 gallons	Philtex Products	Phillips Ave. Trailer Lot
Т	Cylinders	25	500 lb.	Antifoulant	West of Pallet Warehouse
U	Drums	35	55 gallons	Mineral Oil, Dowtherm	Inside Pallet Warehouse
V	Drums, Totes, Isocontainers, Trailers	5	55-8000 gallons	Products, Feedstocks	Spot 15
W	Drums	15	55 gallons	Flush Material	Unit 5 Truck Rack
Х	Drums	6	55 gallons	Masking Agent, Bacteria	Blend Manifold
Х	Totes, Isocontainers, Trailers	2	500 to 8000 gallons	Gas Odorants	Blend Manifold
R	Drums, Totes	10	55 to 500 gallons	Flush Material, Slop Oil	Southeast Corner Dock 3 Building
Y	Drums	4	55 gallons	Slop Oil	Southside of Shipping Bldg. Dock 1
SU					
Z	Drums, Totes	40	55-500 gallons	TDPS 320, Tergitol, Glycol Ether, Disulfides	Eastside of Unit 17 Building
AA	Cylinders	10	250 gallons	Propylene Oxide	North of E-4 and at SU RX Bldg.
Unit 5.1/5.	2				
BB	Drums	1	55 gallons	Compressor Oil	Air Compressor Building
СС	Drums	35	55 gallons	Lube Oil, Isoparaffins, Slop Oil, CT Chem	Drum Pad East of Unit 5
DD	Drums	1	55 gallons	Soltrol 220	Near P-16
EE	Drums	10	55 gallons	Miscellaneous	Concrete Pad South of Unit 5
FF	Drums	4	55 gallons	Oleic Acid, Barrier Fluid	Inside Unit 5 Building
GG	Cylinders	6	500 lb.	Propane	Refrigeration Skid at P-66
GG	Drums	3	55 gallons	Isoparaffins	Refrigeration Skid at P-66
НН	Drums	1	55 gallons	Oily Trash Sat. Accumulation	Phase Separator
II	Drum	1	55 gallons	Sample Slop	Inside Dike at P- 60, P-61

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location	
Zachry Ya	ard & Warehouse					
JJ	Drums	8	55 gallons	Kerosene, Road Asphalt, Oil	Northside of Laydown Area	
	Drums	20	55 gallons	Lubrication Oils	Inside Zachry Warehouse on Containment Pallets	
Nitrogen		20	Jo gallons	Lubrication Oils	Fallets	
	Drums	4	55 gallons	Compressor Oil	Inside curbed areas each plant	
	orage Area and Firewater F			Disease	In tide Desigling	
RR RR	Tank Drum	10	550 gallons 55 gallons	Diesel Oil	Inside Building Inside Building	
Hazardou	Hazardous Waste Drum Pad					
	Drums	100	55 gallons	Used Oil, Wastes	Near N-Battery	

^{*} Examples Only. Content may vary.

Table 6 Borger Plant Hazardous Waste Units

Site Location	NOR 30131* TNRCC Unit No.	Predicted Flow Direction	Status
Hazardous Waste Drum Pad	7	Covered, collection sump capacity 10,000 gallons, trucked to chemical sewer.	Active 90 day Accumulation
C-18 (Figure 2)	14	Secondary Containment	Inactive
C-19 (Figure 2)	15	Secondary Containment	Inactive
C-20 (Figure 2)	16	Secondary Containment	Inactive

^{*}NOR for the Borger Plant is located in Environmental Team files.

Table 7 Loading and Unloading Areas

Map ID	Loading/Unloading Location	Container Type	Content	General Area Location				
Blending								
Α	A Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa					
В	D Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loading	Southeast corner of D Battery				
С	F Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa	ading				
D	P Battery	Drums	Blending Products Loa	ading				
		CPU						
F	CPU	Truck Trailers	Allyl Alcohol	Near C-18				
		Hazardous Waste Tanks	3					
	N Battery	Truck Trailers	Hazardous Wastes	N-2,				
		Shipping						
	Drums are loaded at the following	j:	1					
	Dock #2							
	Dock #3 (Mercaptan dock)							
R	Tote Fill Building							
	Totes are loaded at the following:							
	Dock 2 (south side overhead doo	r)						
	Tote Fill Building							
Trailers a	nd Iso's are loaded/unloaded at the	following:	<u>, </u>					
W	5.1 truck rack							
WI	South side of "A" battery							

Table 7 Loading and Unloading Areas

Map ID	Loading/Unloading Location	Container Type	Content	General Area Location			
MM	Spot #1						
NN	Spot #2						
NN	Spot #3						
S	Spot #4						
00	Spot #5						
SM	Spot #6			West and South Sides of I Battery			
V	Spot #15						
G	CPU (west of "C" battery manifold)						
GI	CPU (north of C-17)						
Railcars a	re loaded/unloaded at the following	areas:	•	•			
PP	Spot #2						
PP	Spot #3						
PP	Spot #4						
PP	Spot #5						
PP	Spot #6						
PP	Spot #7						
PP	Spot #9						
PP	Spot #11						
PP	Spot #13						
PP	Spot #14						
PP	Spot #15						
QQ	Spot #21						
	Unit 5						
		Drums, Isocontainers, Truck					
	Unit 5.1	Trailers	Products and Feedstocks	Westside Unit 5.1			

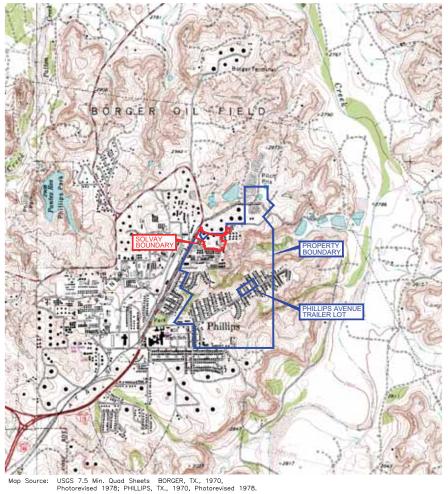
Table 8 Borger Plant Summary of Potential Spill Prediction & Flow Paths

	Major Type of Failure	Largest Single Tank (bbls)	Rate (bbls/hr) *	Direction of Flow	Secondary Containment
A Battery	Tank Rupture	284	568	East	Containment Curb which is drained to Chemical Sewer
B Battery		1,300	2,600	South	Chemical Sewer H-Battery sump
C Battery		600	1,200	South	Stormwater Reservoir
D Battery		1,150	2,300	East	Stormwater Reservoir
E Battery		3,000	6,000	NA	Tank dikes
Tanks F-16 – 24		5,476	10,952	East	F-Battery Spill Containment Pit
Tanks F-2 – 15, 27, 28		15,500	31,000	N/A	Tank Dikes
Tanks F-1, 4		10,113	20,226	South	Stormwater Reservoir
Tanks H-1 – 4		5,037	10,074	East	Stormwater Reservoir
Tanks H-6, 7		6,000	12,000	N/A	Tank Dike
Tank H-8		10,156	20,312	N/A	Tank Dike
Tank H-20		10,715	21,430	N/A	A berm provides secondary containment. The contents get pumped back into the Chemical Sewer or drained to the canyon as appropriate
I-Battery		211	422	East	Concrete Curb
J-Battery		580	1,160	East	Chemical Sewer - H-Battery sump
K-Battery		1,343	2,686	South	Chemical Sewer-H-Battery Sump
L-Battery		3,005	6,010	East	Stormwater Reservoir
M-Battery		1,444	2,888	East	Stormwater Reservoir
N-Battery		1,212	2,424	N/A	Tank Dike
P-Battery		8,000	16,000	N/A	Concrete Dike/Stormwater Reservoir
Gasoline Dispenser		6	12	N/A	Concrete Dike

^{*} Rate for 30 minutes, based on largest tank draining. N/A -Not Applicable.

Figures





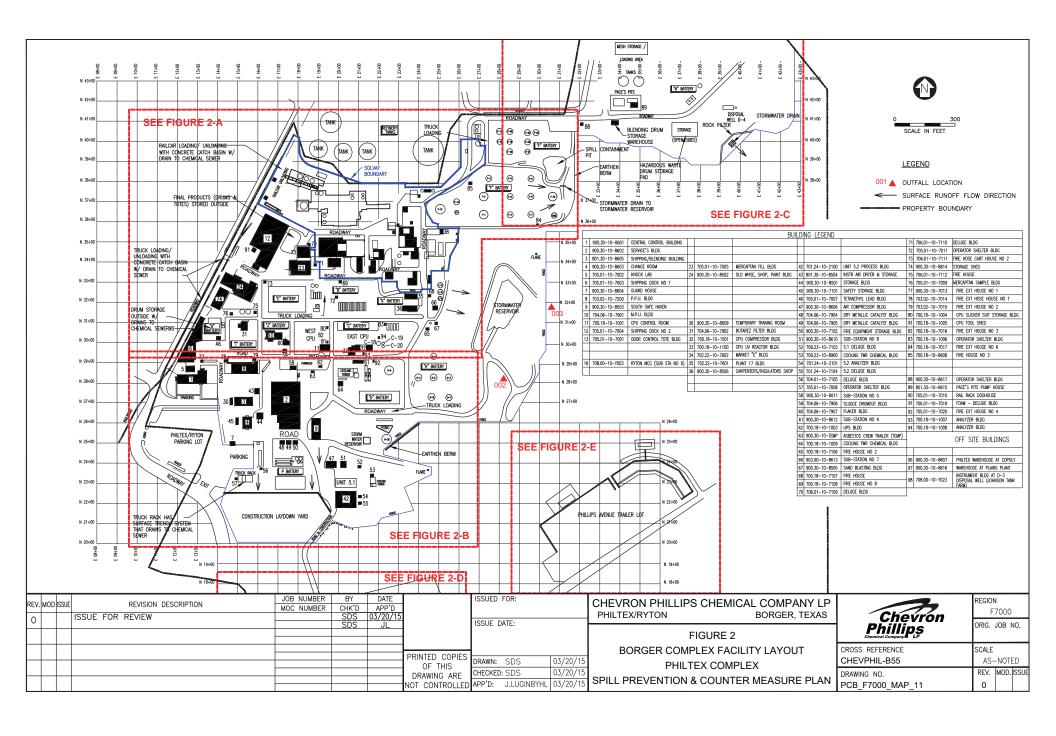


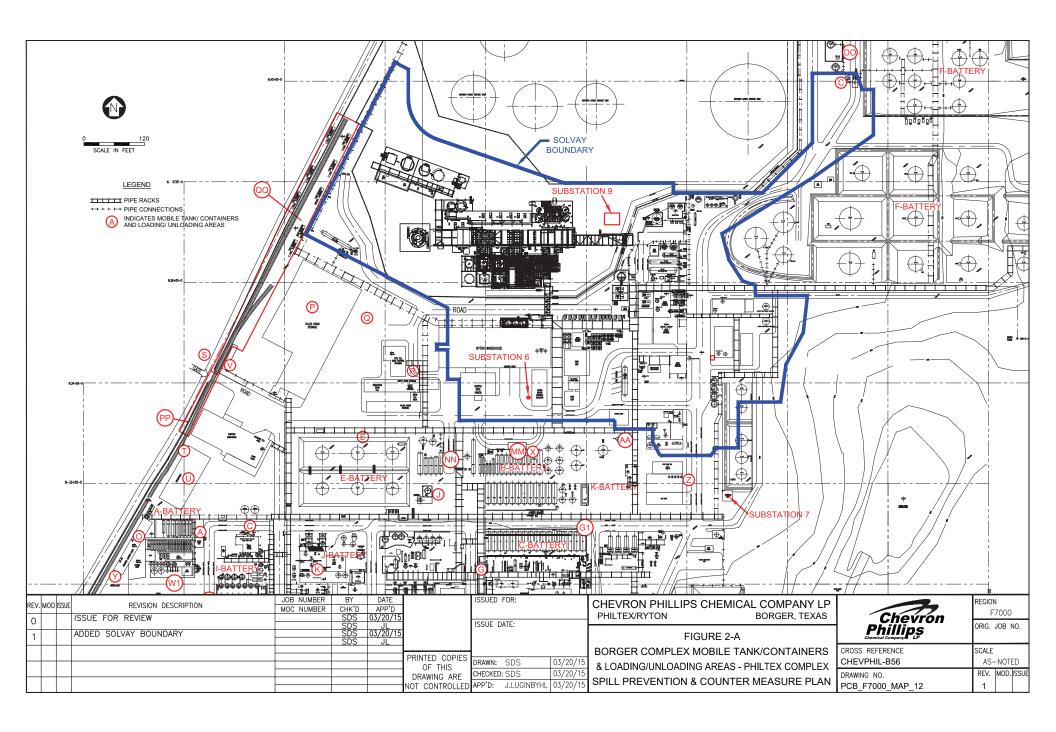
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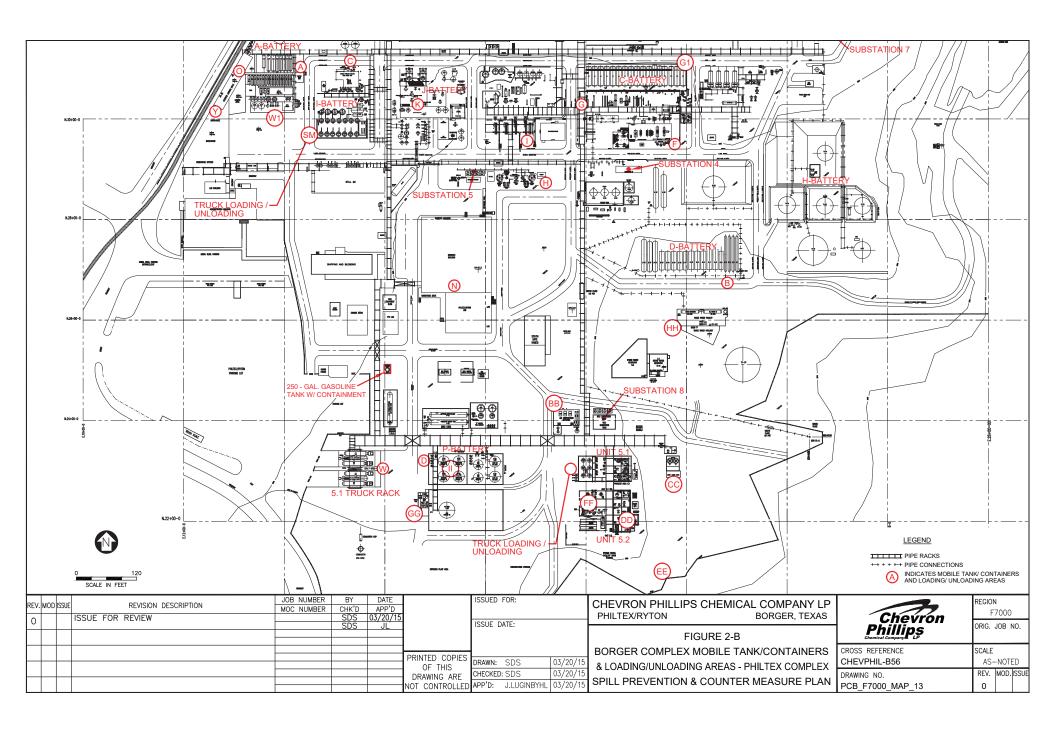
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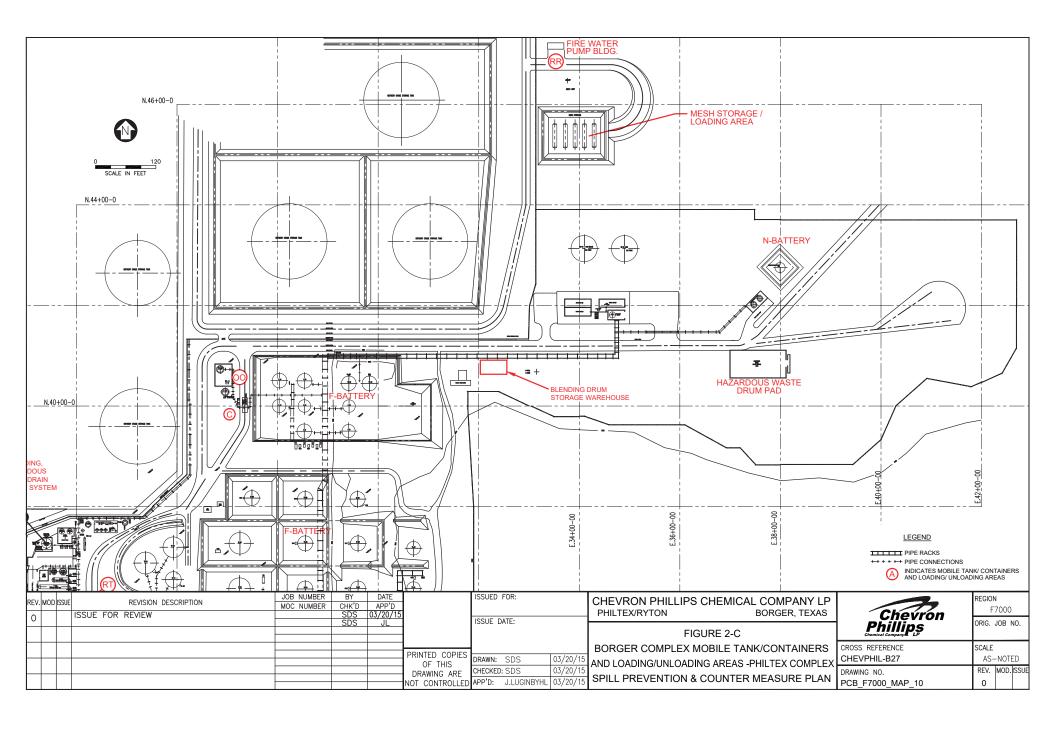
BORGER COMPLEX SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

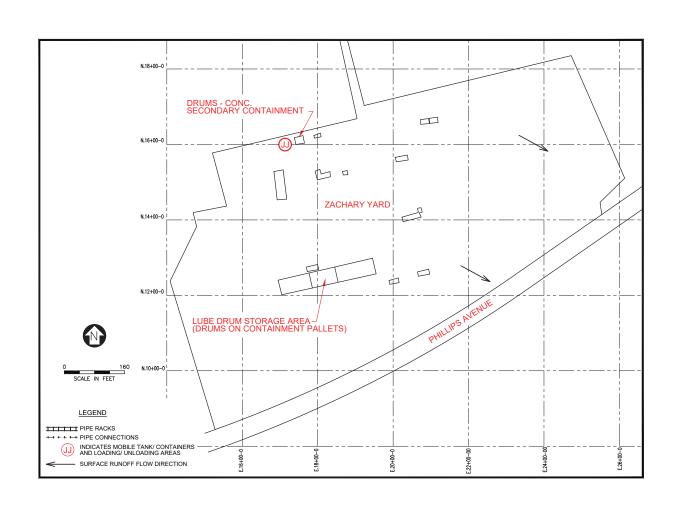
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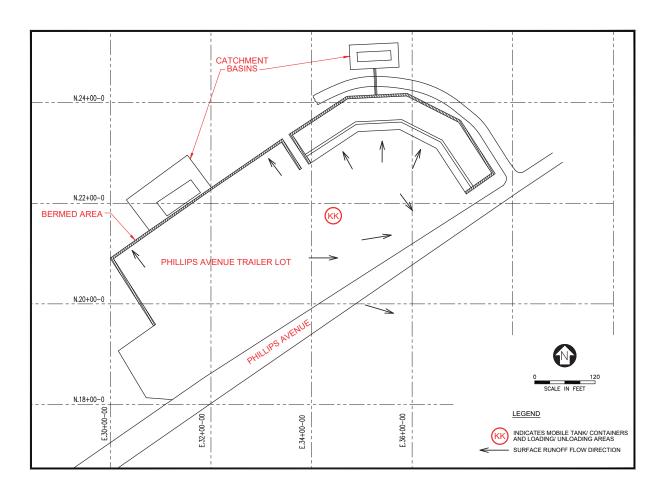
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FIGURE 2-D
BORGER COMPLEX MOBILE TANK/CONTAINERS
AND LOADING/UNLOADING AREAS - PHILTEX COMPLEX
SPILL PREVENTION CONTROL & COUNTER MEASURE PLAN

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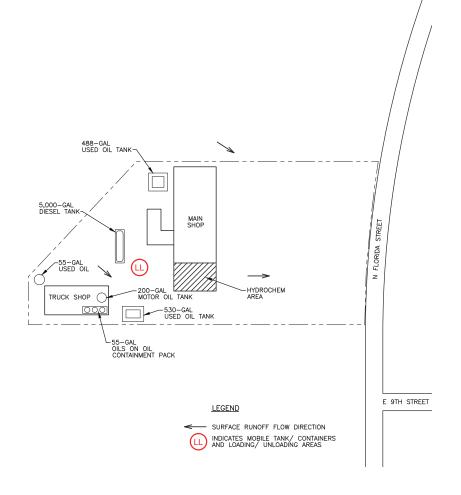
CHEVRON PHILLIPS CHEMICAL COMPANY LP PHILTEX/RYTON BORGER, TEXAS

FIGURE 3 BORGER COMPLEX SITE LOCATION MAP PHILTEX COMPLEX - SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN PC

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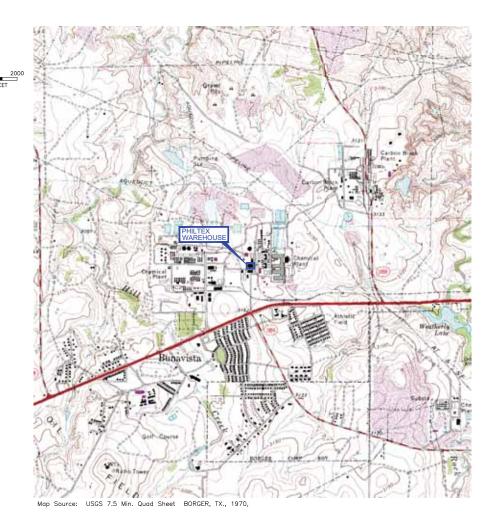


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				303	JL.	1	JOSE BAIL.		FIGURE 4	Phillips Chemical Company	ORIG. JOB NO.
						PRINTED COPIES	DRAWN: SDS	07/00/15	1	CROSS REFERENCE CHEVPHIL-A31	SCALE AS-NOTED
							CHECKED: SDS	03/20/15	PHILTEX COMPLEX - SPILL PREVENTION CONTROL	DRAWING NO.	REV. MOD. ISSU
L						NOT CONTROLLED	APP'D: J.LUGINBYHL	03/20/15	AND COUNTER MEASURE PLAN	PCB_F7000_MAP_4	0



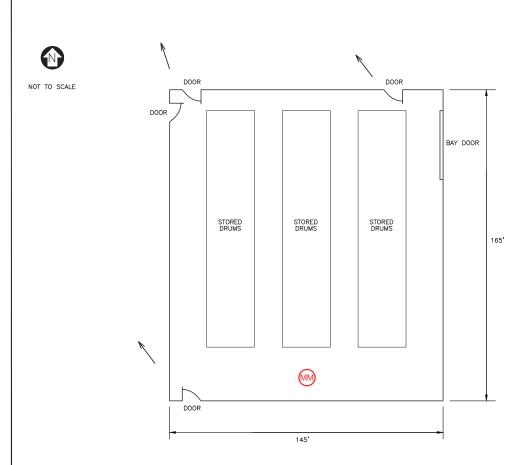


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	FIGURE	-
-	PHILTEX/RYTON	BORGER, TEXAS
	CHEVRON PHILLIPS CHEM	ICAL COMPANY LE

FIGURE 5
COPOLY WAREHOUSES SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

Chevron	REGIOI F	N 7000	
Phillips Chemical Company LP	ORIG.	JOB I	۷0.
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DRAWING NO.	REV.	MOD.	ISSUE
PCB F7000 MAP 5	0		



LOCATED 1/3 MILE NORTH OF INTERSECTION HWY 136 AND HWY 1551

<u>LEGEND</u>

SURFACE RUNOFF FLOW DIRECTION

INDICATES MOBILE TANK/ CONTAINERS
AND LOADING/ UNLOADING AREAS

RE\ O	/. MOD ISSUE	REVISION DESCRIPTION ISSUE FOR REVIEW	MOC NUMBER	CHK'D SDS SDS	APP'D 03/20/15		ISSUE DATE:	CHEVRON PHILLIPS CHEMICAL COMPANY LP PHILTEX/RYTON BORGER, TEXAS	Chevron	F7000 ORIG. JOB NO.
				303	JL		ISSE BALL.	FIGURE 6	Phillips Chemical Company P LP	ORIG. JUB NO.
						PRINTED COPIES		PHILTEX COPOY WAREHOUSE FACILITY LAYOUT		SCALE
							DRAWN: SDS 03/20/15	PHILTEX COMPLEX - SPILL PREVENTION CONTROL	CHEVPHIL-A39	AS-NOTED
						DRAWING ARE NOT CONTROLLED	CHECKED: SDS 03/20/15 APP'D: J.LUGINBYHL 03/20/15		DRAWING NO. PCB_F7000_MAP_7	REV. MOD. ISSUE

Borger Plant Bulk Storage Tanks

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
			Α	Battery			
A-1	Diesel/Gasoline Blending	Yes	10,380				
A-2	Diesel/Gasoline Blending	Yes	10,380				
A-3	Diesel/Gasoline Blending, Alkylate, ETBE, Toluene	Yes	1,650				
A-4	Diesel/Gasoline Blending	Yes	913				
A-5	Diesel/Gasoline Blending	Yes	913				
A-6	Diesel/Gasoline Blending, Isobutane, Heptane, Toluene	Yes	342				
A-7	Diesel/Gasoline Blending	Yes	342				
A-8	Diesel/Gasoline Blending	Yes	1,462	Concrete			This area drains directly to the
A-9	Diesel/Gasoline Blending	Yes	1,462	Curb around	48,230	24,275	Chemical Sewer; therefore,
A-14	Diesel/Gasoline Blending	Yes	8,958	all tanks			capacity is not a problem.
A-15	Diesel/Gasoline Blending	Yes	10,606				
A-16	Diesel/Gasoline Blending	Yes	1,504				
A-17	Toluene	Yes	1,504				
A-18	Diesel/Gasoline Blending	Yes	1,504				
A-19	Diesel/Gasoline Blending	Yes	1,504				
A-20	Alkylate, Isohexanes	Yes	1,504				
A-36	Diesel/Gasoline Blending	Yes	1,087				
A-37	Diesel/Gasoline Blending	Yes	1,087				
A-38	Diesel/Gasoline Blending	Yes	1,087				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-39	Diesel/Gasoline Blending, Isohexane, Soltrol, Toluene	Yes	1,087				
A-40	Diesel/Gasoline Blending, Cyclopentane, Ethanol	Yes	1,087				
A-41	Diesel/Gasoline Blending, Cyclopentane, Heptane	Yes	1,087				
A-42	Diesel/Gasoline Blending, Diisopropyl Ether, Ethanol, Hexene	Yes	1,087				
A-43	Diesel/Gasoline Blending	Yes	1,087				
A-44	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-45	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-46	Diesel/Gasoline Blending, Dimethylbutene, Diisopropyl Ether, Hexane	Yes	888				
A-47	Diesel/Gasoline Blending, Heptane	Yes	1,952				
A-48	Out of Service	No	1,952				
A-49	Diisopropyl Ether, Isohexane, Heptane, Cyclopentane	Yes	1,952				
A-50	Diesel/Gasoline BlendingHeptane, Isoheptane	Yes	1,952				
A-51	Butane	Yes	1,858				
A-52	Diesel/Gasoline Blending	Yes	1,858				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-54	Out of Service	No	4,401				
A-55	Diesel/Gasoline Blending	Yes	4,401				
A-56	Diesel/Gasoline Blending	Yes	4,401				
A-57	Out of Service	No	4,018				
A-58	Out of Service	No	4,842				
A-59	Out of Service	No	11,941				
A-60	Out of Service	No	11,941				
A-61	Out of Service	No	7,374				
			В	Battery			
B-1	Mercaptan	No	23,700				
B-2	Mercaptan	No	23,700				
B-3	Methyl Ethyl Sulfide	No	24,221				
B-4	Mercaptan/Sulfide	No	24,221				
B-5	Mercaptan/Sulfide	No	24,370				
B-6	Mercaptan/Sulfide	No	24,192				This area drains directly to the
B-7	Out of Service	No	24,192	None			Stormwater Pond; therefore, the Stormwater pond provides
B-8	Mercaptan/Sulfide	No	24,330	None			the necessary secondary
B-9	Mercaptan/Sulfide	No	24,635				containment.
B-10	Mercaptan/Sulfide	No	25,000				
B-11	High Sulfur Slop Oil	No	25,000				
B-12	High Sulfur Slop Oil	No	25,000				
B-13	Sulfur Dioxide	No	30,000				
B-14	Butene, Propylene	No	31,317				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-15	Butene	No	29,491				
B-16	Out of Service	No	4,900				
B-17	Out of Service	No	3,624				
B-18	Mercaptan/Sulfide, High Sulfur Rejects	No	1,989				
B-20	Mercaptan/Sulfide	No	4,494				
B-21	Mercaptan/Sulfide	No	11,691				
B-22	Mercaptan, Thiophane	No	11,691				
B-23	Mercaptan/Sulfide	No	11,691				
B-24	Mercaptan/Sulfide	No	11,691				
B-25	Mercaptan/Sulfide	No	11,691				
B-26	Methyl Ethyl Sulfide	No	11,691				
B-27	Mercaptan/Sulfide	No	12,477				
B-28	Mercaptan, Dimethyl Sulfide	No	10,578				
B-29	Out of Service	No	15,165				
B-30	Out of Service	No	28,435				
B-31	Sulfolane	No	33,776				
B-32	Mercaptan	No	33,890				
B-33	Mercaptan	No	22,715				
B-34A	Mercaptan	No	51,500				
B-35	Mercaptan/Sulfide	No	11,614				This area drains directly to the
B-36	Out of Service	No	11,614				Stormwater Pond; therefore,
B-37	Out of Service	No	12,850	None			the Stormwater pond provides
B-38	Mercaptan/Sulfide, High Sulfur Slop	No	12,348				the necessary secondary containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-39	Out of service	No	8,878				
B-43	Out of Service	No	25,600				
B-45	Mercaptan	No	44,800				
B-46	Mercaptan	No	44,800				
B-47	Mercaptan	No	44,800				
B-49	Mercaptan/Sulfide High Sulfur Slop	No	9,063				
B-50	Out of Service	No	20,700				
B-51	Mercaptan/Sulfide	No	10,870				
B-52	Sulfolane	No	16,000				
B-53	Sulfolane	No	16,000				
B-54	Sulfolane	No	16,000				
B-40	Sulfolane	No	52,800				This area drains directly to the
B-41	Sulfolane	No	52,800	Concrete	11,960	51,590	Stormwater pond; therefore, capacity is not a problem
B-44	Sulfolane	No	22,700	Concrete	13,144	86,355	Capacity is sufficient
B-48	Sulfolane	No	50,081	Concrete	13,144	80,333	Capacity is sufficient
			CI	Battery			
C-1	Butenes, Isobutylene	No	25,000				
C-2	Mercaptan/Sulfide	No	23,818				This area drains directly to the
C-3	Mercaptan/Sulfide	No	23,818				Stormwater Pond; therefore,
C-4	Mercaptan/Sulfide	No	23,818	None			the Stormwater pond provides
C-5	Mercaptan/Sulfide	No	23,818				the necessary secondary
C-6	Mercaptan/Sulfide/Propylene Tetramer	No	25,000				containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
C-7	Propylene Tetramer, Mercaptan	No	23,818				
C-8	Nonene, Mercaptan	No	23,818				
C-9	Mercaptan/Sulfide	No	23,818				
C-10	Mercaptan	No	23,818				
C-11	Mercaptan	No	23,818				
C-12	Mercaptan/Sulfide, Octene	No	15,338				
C-13	Mercaptan/Sulfide	No	15,338				
C-14	Mercaptan/Sulfide, Propylene, Butene, Hexene, Octene, Dodecene	No	25,000				
C-15	Mercaptan/Sulfide	No	23,818				
C-16	Mercaptan/Sulfide	No	25,000				
C-17	Butenes, Isobutylene	No	25,000				
C-18	Mercaptan, Allyl Alcohol	No	10,000				This area drains directly to the
C-19	Mercaptan/Sulfide	No	1,234	Concrete	1,117	1,315	Stormwater pond; therefore,
C-20	Mercaptan/Sulfide	No	2,300			ŕ	capacity is not a problem
			D	Battery	•		
D-1	Diesel/Gasoline Blending, Toluene	Yes	10,243				This area drains directly to the
D-2	Diesel/Gasoline Blending, Ethanol	Yes	10,243				Stormwater Pond; therefore, the Stormwater pond provides
D-3	Diesel/Gasoline Blending	Yes	10,243	None			the necessary secondary containment. The manifold
D-4	Diesel/Gasoline Blending, Isopentane, Toluene	Yes	10,243				area drains to the Chemical Sewer.
D-5	Out of Service	Yes	12,913				GOWGI.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
D-6	Diesel/Gasoline Blending	Yes	24,377				
D-7	Toluene	Yes	24,377				
D-8	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-9	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-10	Diesel/Gasoline Blending	Yes	33,000				
D-11	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-12	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-13	Diesel/Gasoline Blending, Isoparaffins	Yes	22,614				
D-14	Diesel/Gasoline Blending, Alkylate, Isoparaffins	Yes	33,000				
D-15	Diesel/Gasoline Blending	Yes	33,000				
D-16	Diesel/Gasoline Blending, Toluene, Isooctane	Yes	34,613				
D-17	Diesel/Gasoline Blending,	Yes	34,613				
D-18	Diesel/Gasoline Blending	Yes	29,991				
D-19	Diesel/Gasoline Blending, Isooctane, Toluene	Yes	48,223	Concrete	9,632	63,793	Canacity is sufficient
D-20	Diesel/Gasoline Blending, Isoparaffins, Isooctane	Yes	29,971	Concrete	9,032	03,783	Capacity is sufficient
E Battery							
E-1	N-Heptane	No	126,065	Earthen	14,623	79,700	
E-2	N-Heptane	No	126,065	Earthen	14,623	71,056	

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
E-3	Isooctane	No	126,065	Earthen	14,623	85,168	
E-4	Isooctane	No	126,065	Earthen	14,623	68,670	This area drains to the
E-5	Octane Reference Fuel	No	126,065	Earthen	14,623	88,005	Stormwater pond; therefore, capacity is not a problem
E-6	N-Heptane	No	126,065	Earthen	14,623	90,848	capacity is not a problem
			F	Battery			
F-1	Isoparaffins, Alkylate	No	424,750	Earthen	37,512	18,268	
F-2	HF Alkylate	No	424,750	Earthen	71,686	143,693	This area drains to the
F-3	Isoparaffins	No	215,953	Earmen	7 1,000	143,093	
F-5	Isoparaffins	No	215,895	Earthen	56,109	272,034	
F-6	Propylene Tetramer	No	215,930	Larmen	50,109	272,034	
F-4	Alkylate	No	216,061				
F-7	Alkylate	No	215,843				
F-8	Isoparaffins, Alkylate	No	215,868	Earthen			
F-9	Isooctane, Alkylate, Isoparaffins	No	212,385	(Flow to Ditch)	259,260	134,060	
F-10	Isoparaffins	No	220,951				Stormwater pond; therefore, capacity is not a problem
F-14	Diesel/Gasoline Blending	Yes	128,289				capacity is not a problem
F-11	Diesel, SX-80	Yes	84,428				
F-12	Isoparaffins	No	650,382	Earthen	68,428	641,030	
F-13	Isoparaffins	No	216,624				
F-16	Mercaptan	No	141,983				
F-17	Mercaptan	No	230,009	Earthen	205,046		
F-18	Mercaptan	No	230,009	(Flow to Pond)		1,558,035	
F-19	Mercaptan	No	141,983	1 3114)			
F-20	Mercaptan	No	230,009]		 	

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
F-21	Mercaptan, Dodecane	No	141,983				
F-22	Mercaptan	No	230,009				
F-23	Nonene	No	126,822				
F-24	Diesel/Gasoline Blending, Alkylate, Isopentane, Isoparaffins	Yes	126,966				
F-27	Diesel/Gasoline Blending	Yes	15,750	Concrete	1,932	10,608	
F-28	Diesel/Gasoline Blending	Yes	30,081	Concrete	4,662	58,502	
			HI	Battery			
H-1	Mercaptan	No	211,566	Earthen	17,103	13,467	
H-3	Mercaptan	No	210,492	Earthen	13,988	48,344	This area drains to the Stormwater pond; therefore, capacity is not a problem
H-4	Diesel/Gasoline Blending	Yes	198,411	Earthen	28,455	48,319	
H-6	Diesel/Gasoline Blending	Yes	252,000	Earthen	56,682	377,341	
H-7	Mercaptan	No	146,560	Latitlett	30,062	377,341	
H-8	Mercaptan	No	426,532	Earthen	40,771	297,484	
H-20	Wastewater	No	450,030	Earthen			
I Battery							
I-1	Out of Service	No	8,872				
I-2	Ethyl Chloride	No	8,872				
I-3	Out of Service	No	8,872	Small			
I-4	Out of Service	No	8,872	Concrete	28,862	56,575	Secondary Containment is
I-5	Out of Service	No	8,872	curb around		50,575	sufficient
I-6	Out of Service	No	8,872	all tanks			
I-7	Out of Service	No	8,872				
I-8	Sulfolane	No	8,872				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
I-9	Out of Service	No	8,872				
I-10	Out of Service	No	8,872				
I-11	Out of Service	No	8,872				
I-12	Out of Service	No	8,872				
I-14	Methylethylsulfide	No	8,872				
I-15	Out of Service	No	4,018				
I-17	Out of Service	No	3,091				
I-20	Sodium Methyl Mercaptide	No	7,790				
I-21	Sodium Methyl Mercaptide	No	7,790				
I-22	Sodium Methyl Mercaptide	No	7,790				
I-23	Methyl Ethyl Sulfide	No	8,872				
			JI	Battery			
J-5	R-17 Crude Product	No	5,656				
J-9	R-15 Dump Tank	No	5,887				This area drains directly to the
J-20	Sulfolane	No	1,073				Stormwater Pond; therefore,
J-36	Sulfolane	No	24,315	None			the Stormwater pond provides
J-37	Sulfolane	No	24,315				the necessary secondary
J-43A	Sulfolene	No	627				containment.
J-43B	Sulfolene	No	5,656				
			LI	Battery			
L-1	Diesel, Octene	Yes	63,149	is and Candle and			Coordon contain mantic
L-2	Brine/Wastewater	No	126,221	part Earthen / part Concrete	32,982	173,546	Secondary containment is sufficient
L-3	Mercaptan	No	126,003	Part Concrete			Sunicient
			PI	Battery			

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-1	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-2	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-3	Light Cycle Oil	Yes	16,499	Concrete	20,675	60,650	Secondary containment is sufficient
P-4	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,380				sunicient
P-5	Dimethyl Sulfide	No	16,380				
P-6	Dimethyl Sulfide	No	16,380				
P-50	Diesel/Gasoline Blending	Yes	40,000			8,795 10,928	Containments in P Battery drain to the 250,000 gallon Unit 5 stormwater reservoir,
P-51	Diesel/Gasoline Blending, Cyclopentane	Yes	40,000				
P-52	Diesel/Gasoline Blending, Cyclopentane	Yes	15,000	Concrete	8,795		
P-53	Diesel/Gasoline Blending, Heptane, Isoparaffin	Yes	10,000				
P-54	Caustic	No	30,827	Concrete	5,800	27,266	which in turn is drained to the
P-55	Out of Service	No	100,000				stormwater pond.
P-56	Mercaptan/Sulfide	No	100,000	Camarata	42.500	64.760	
P-57	TBM	No	100,000	Concrete	13,592	64,762	
P-58	Toluene, Soltrol	Yes	73,000				
P-59	Propylene	No	43,080	Concrete	11,048	77,990	Secondary containment is
P-65	Mercaptan	No	43,080	Concrete	11,040	11,990	sufficient
P-60	Mercaptan	No	100,000				Containment drains to the
P-61	Slop Gasoline	Yes	100,000	Concrete	14,493	65,595	250,000-gal. Unit 5
P-62	Mercaptans, Isoparaffins	No	100,000			,	stormwater reservoir, which in

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-63	Butadiene	No	100,000				turn is drained to the stormwater pond.
P-66	Dimethylsulfide	No	210,588	Concrete	37,646	310,455	Secondary containment is sufficient

Notes:

- (1) The stored materials listed are historical use. The material stored in the tanks may vary due to the flexible/batch process nature of the plant. Additional materials not listed may be stored to meet production requirements.
- (2) The maximum 24-hour rainfall event with a 25-year frequency from the Department of Commerce Technical Bulletin No. 40 is 5.1 inches of rain.

Attachment TR-2.a. Treatment System

Industrial Technical Report 1.0 – Item 2.a., Page 3

Attachment TR-2.a. Treatment System Chevron Phillips Chemical Company LP – Borger Plant

Stormwater treatment units at Chevron Phillips Chemical Company LP Borger Plant include the following:

Plastic-lined Stormwater Pond – 6.5 million gallons

The stormwater pond provides containment and holding of stormwater from the Borger Plant. Subsequently, the pond provides settling and attenuation for captured flows. Stormwater is discharged via Outfall 002.

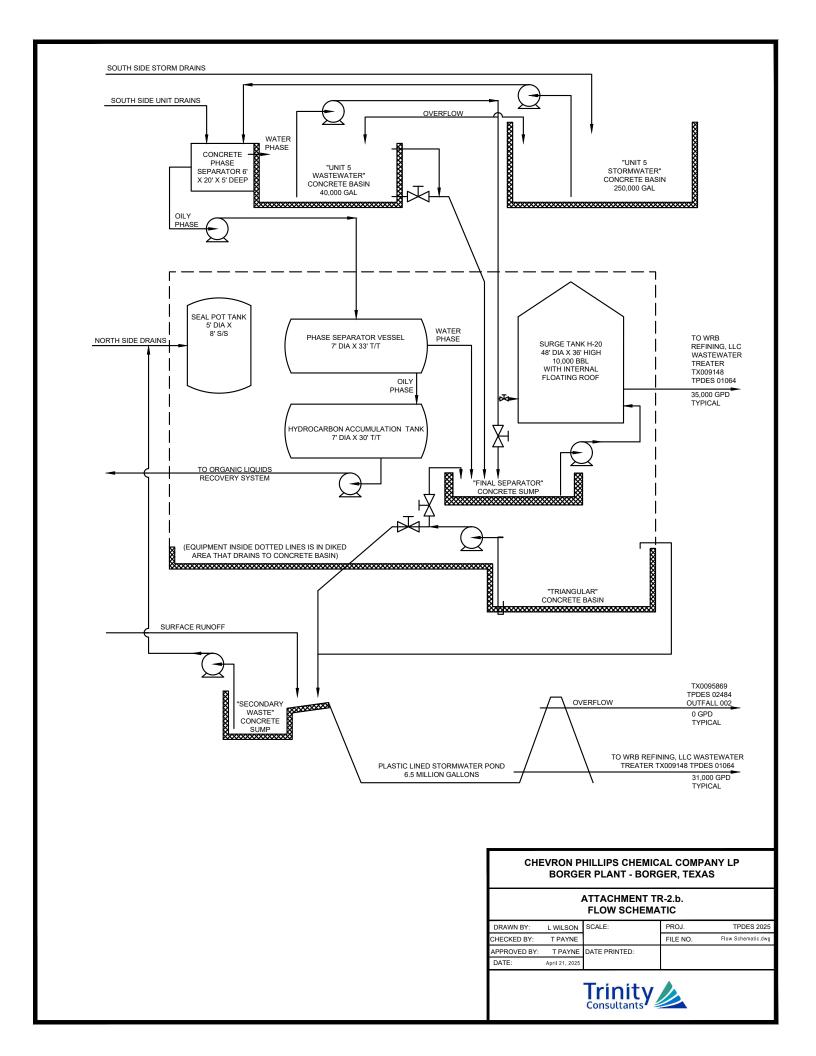
- Unit 5 Wastewater Concrete Basin 40,000 gallons
- Unit 5 Stormwater Concrete Basin 250,000 gallons

Process wastewater pre-treatment units located at the Borger Plant are utilized for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000.

The pre-treatment system consists of seal pot tank (5' diameter X 8' height), phase separator vessel (7' diameter X 33' length), a hydrocarbon accumulation tank (7' diameter X 30' length), and a surge tank (48' diameter X 36' height). A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.

Attachment TR-2.b. Flow Schematic-Water Balance

Industrial Technical Report 1.0 – Item 2.b., Page 3



Attachment TR-5.b. Safety Data Sheets and Summary

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3D TRASAR™ 3DT129

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT129

Other means of identification : Not applicable.

Recommended use : COOLING WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company : Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630) 305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 07/10/2024

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1
Serious eye damage : Category 1

GHS Label element

Hazard pictograms :





Signal Word : Danger

Hazard Statements : May be corrosive to metals.

Harmful if swallowed.

Causes severe skin burns and eye damage.

Precautionary Statements : Prevention:

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/

eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. 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. Immediately call a POISON CENTER/doctor. 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

3D TRASAR™ 3DT129

CENTER or doctor/physician. Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name CAS-No. Concentration: (%)

Phosphoric Acid 7664-38-2 10 - 30 Zinc Chloride 7646-85-7 10 - 30

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing

before reuse. Thoroughly clean shoes before reuse. Get medical attention

immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by

mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put

yourself at risk of injury. If in doubt, contact emergency responders. Use

personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing

media

None known.

Specific hazards during

firefighting

Not flammable or combustible.

Hazardous combustion

products

: Decomposition products may include the following materials: Carbon oxides

nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

3D TRASAR™ 3DT129

for firefighters

Special protective equipment: Use personal protective equipment.

Specific extinguishing

methods

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

Advice on safe handling

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not mix with bleach or other chlorinated products - will cause chlorine gas. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage

Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

The following compatibility data is suggested based on similar product data

and/or industry experience:

Unsuitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Aluminum, Brass, Carbon steel, Nickel, Stainless Steel 304, Stainless Steel 316L, Plasite 4005, Plasite 6000, Plasite 7122The following compatibility data is suggested based on similar product data and/or industry experience:

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components CAS-No.	Form of exposure	Permissible concentration	Basis
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3D TRASAR™ 3DT129

Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		STEL	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1
Zinc Chloride	7646-85-7	TWA (Fumes)	1 mg/m3	ACGIH
		STEL (Fumes)	2 mg/m3	ACGIH
		TWA (Fumes)	1 mg/m3	NIOSH REL
		STEL (Fumes)	2 mg/m3	NIOSH REL
		TWA (Fumes)	1 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below

occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles

Face-shield

Hand protection : Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety

goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove

and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : yellow light brown

Odour : odourless

Flash point : does not flash pH : 1.0,(100.0 %)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -31.67 °C

Initial boiling point and boiling:

range

no data available

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Evaporation rate no data available Flammability (solid, gas) Not applicable. Upper explosion limit no data available Lower explosion limit no data available Vapour pressure no data available Relative vapour density no data available Relative density 1.37, (15.6 °C), Density no data available Water solubility completely soluble

Partition coefficient: n-

Solubility in other solvents

octanol/water

no data available no data available

no data available

Auto-ignition temperature Not applicable Thermal decomposition no data available Viscosity, dynamic 20 mPa.s (25 °C) Viscosity, kinematic no data available Molecular weight no data available VOC

Section: 10. STABILITY AND REACTIVITY

No dangerous reaction known under conditions of normal use. Reactivity

Stable under normal conditions. Chemical stability

Possibility of hazardous

reactions

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions to avoid None known.

Incompatible materials Strong bases

Hazardous decomposition

products

In case of fire, hazardous decomposition products may be produced such as:

Carbon oxides

nitrogen oxides (NOx) Sulphur oxides

Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact, Ingestion

exposure

Potential Health Effects

Eyes Causes serious eye damage.

3D TRASAR™ 3DT129

Skin Causes severe skin burns.

Ingestion Harmful if swallowed. Causes digestive tract burns.

Inhalation Harmful if inhaled. May cause nose, throat, and lung irritation.

Chronic Exposure Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact Redness, Pain, Corrosion

Skin contact Redness, Pain, Corrosion

Ingestion Corrosion, Abdominal pain

Inhalation Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity Acute toxicity estimate: 1,500 mg/kg

Acute inhalation toxicity no data available no data available Acute dermal toxicity Skin corrosion/irritation no data available

Serious eye damage/eye

irritation

no data available

Respiratory or skin

sensitization

no data available

Carcinogenicity no data available Reproductive effects no data available Germ cell mutagenicity no data available Teratogenicity no data available STOT - single exposure no data available STOT - repeated exposure no data available no data available

Components

Aspiration toxicity

Acute dermal toxicity Phosphoric Acid

LD50 rabbit: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Environmental Effects : Toxic to aquatic life.

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Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3.5 mg/l

Exposure time: 96 hrs Test substance: Product

NOEC Pimephales promelas (fathead minnow): 1.25 mg/l

Exposure time: 96 hrs
Test substance: Product

LC50 Inland Silverside: 50.9 mg/l

Exposure time: 24 hrs Test substance: Product

LC50 Inland Silverside: 44.9 mg/l

Exposure time: 48 hrs Test substance: Product

LC50 Inland Silverside: 212 mg/l

Exposure time: 96 hrs Test substance: Product

NOEC Inland Silverside: 75 mg/l

Exposure time: 96 hrs Test substance: Product

Toxicity to daphnia and other

aquatic invertebrates

: LC50 Mysid Shrimp (Mysidopsis bahia): 8.42 mg/l

Exposure time: 96 hrs Test substance: Product

EC50 Daphnia magna (Water flea): 4.06 mg/l

Exposure time: 48 hrs
Test substance: Product

NOEC Daphnia magna (Water flea): 2.5 mg/l

Exposure time: 48 hrs
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 12.5 mg/l

Exposure time: 96 hrs Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 74.9 mg/l

Exposure time: 24 hrs Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 18.5 mg/l

Exposure time: 48 hrs
Test substance: Product

Toxicity to fish (Chronic

toxicity)

: EC25 / IC25: 35.8 mg/l End point: Survival

Exposure time: 7 d
Species: Inland Silverside
Test substance: Product

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NOEC: 25 mg/l End point: Growth Exposure time: 7 d

Species: Inland Silverside Test substance: Product

LOAEC: 50 mg/l End point: Growth Exposure time: 7 d Species: Inland Silverside Test substance: Product

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity)

: EC25 / IC25: 4.6 mg/l End point: Survival Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

NOEC: 3.1 mg/l End point: Growth Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

LOAEC: 6.3 mg/l End point: Growth Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

Components

Toxicity to algae : Phosphoric Acid

EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

Exposure time: 72 h

Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC): 30,000 mg/l

Chemical Oxygen Demand (COD): 110,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period Value Test Descriptor

5 d 7 mg/l Product

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is

3D TRASAR™ 3DT129

intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5% Water : 30 - 50% Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Do not contaminate storm water drains, natural waterways or

soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste

disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per : 7,930 lbs

3D TRASAR™ 3DT129

package)

RQ Component : ZINC CHLORIDE

Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per

package)

: 7,930 lbs

RQ Component : ZINC CHLORIDE

Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

*Marine pollutant : ZINC CHLORIDE

Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Zinc Chloride	7646-85-7	1000	7936

CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals

Acute toxicity (any route of exposure)

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302

EHS TPQ.

^{*} Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

3D TRASAR™ 3DT129

SARA 313 : The following components are subject to reporting levels established

by SARA Title III, Section 313:

Zinc Chloride 7646-85-7 10 - 20 %

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS:

United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

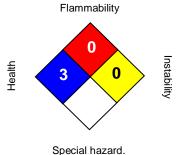
Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

Section: 16. OTHER INFORMATION

3D TRASAR™ 3DT129

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date : 07/10/2024

Version Number : 2.0

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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. For additional copies of an SDS visit www.ecolab.com/sds and request access.



3D TRASAR™ 3DT304

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

: 3D TRASAR™ 3DT304

Other means of identification :

Not applicable.

Restrictions on use

Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Nalco Company 1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630)305-1000

Emergency telephone

number

Company

: (800) 424-9300 (24 Hours) CHEMTREC

Issuing date

: 12/11/2014

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals

: Category 1

Skin corrosion

Category 1A

Serious eye damage/eve

: Category 1

irritation

GHS Label element

Hazard pictograms

Signal Word

: Danger

Hazard Statements

: May be corrosive to metals.

Causes severe skin burns and eye damage.

Precautionary Statements

: Prevention:

Keep only in original container. Wash skin 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): 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. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage:

3D TRASAR™ 3DT304

Store locked up. Store in corrosive resistant stainless steel

container with a resistant inner liner.

Disposal:

Dispose of contents/ container to an approved waste disposal

plant.

Other hazards

: None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

: Mixture

Chemical Name

CAS-No.

Concentration: (%)

Sodium Hydroxide

1310-73-2

5 - 10

substituted aromatic amine salt

Proprietary

5 - 10

Section: 4. FIRST AID MEASURES

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Get medical attention

immediately.

If swallowed

: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention

immediately.

If inhaled

: Remove to fresh air. Treat symptomatically. Get medical attention if

symptoms occur.

Protection of first-aiders

: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician

: Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

: See Section 11 for more detailed information on health effects and

symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: None known.

Specific hazards during

firefighting

: Not flammable or combustible.

Hazardous combustion

products

: Decomposition products may include the following materials:

Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of

3D TRASAR™ 3DT304

phosphorus

for firefighters

Special protective equipment : Use personal protective equipment.

Specific extinguishing

methods

: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the

event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions. protective equipment and emergency procedures

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth,

diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure

runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

Advice on safe handling

: Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after

handling. Use only with adequate ventilation.

Conditions for safe storage

: Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Suitable material

: Keep in properly labelled containers.

Unsuitable material

: not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z1

Engineering measures

: Effective exhaust ventilation system Maintain air concentrations

below occupational exposure standards.

3D TRASAR™ 3DT304

Eye protection : Safety goggles

Face-shield

Hand protection : Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective

gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit

they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes

and body in case of contact or splash hazard.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear Yellow

Odour : slight

Flash point : > 93.3 °C

pH : 12.0 - 13.5

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -8.2 °C

Initial boiling point and boiling

range

: approximately 208 °C estimated

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 3.73 hPa (0 °C)

: 3.73 hPa (0 °C) 18.7 hPa (20 °C)

49.3 hPa (37.8 °C)

200 hPa (65.6 °C)

637 hPa (93.3 °C)

1,010 hPa (121 °C)

Relative vapour density : no data available

Relative density : 1.1873 (15.6 °C)

Density : 1.1731 - 1.1732 g/cm3

Water solubility : Complete

Solubility in other solvents : no data available

3D TRASAR™ 3DT304

Partition coefficient: n-

octanol/water

: no data available

Auto-ignition temperature

: no data available

Thermal decomposition

: no data available

temperature

Viscosity, dynamic

: no data available

Viscosity, kinematic

: no data available

VOC

: 43.8 %

Section: 10. STABILITY AND REACTIVITY

Chemical stability

: Stable under normal conditions.

Possibility of hazardous

: No dangerous reaction known under conditions of normal use.

reactions

Conditions to avoid

: None known.

Hazardous decomposition

products

: Decomposition products may include the following materials:

Carbon oxides

nitrogen oxides (NOx)

Sulphur oxides

Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact

exposure

Potential Health Effects

Eyes

: Causes serious eye damage.

Skin

: Causes severe skin burns.

Ingestion

: Causes digestive tract burns.

Inhalation

: May cause nose, throat, and lung irritation.

Chronic Exposure

: Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact

: Redness, Pain, Corrosion

Skin contact

: Redness, Pain, Corrosion

Ingestion

: Corrosion, Abdominal pain

Inhalation

: Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity

: Acute toxicity estimate > 5,000 mg/kg

3D TRASAR™ 3DT304

Acute inhalation toxicity

: no data available

Acute dermal toxicity

: no data available

Skin corrosion/irritation

: no data available

Serious eye damage/eye

irritation

: no data available

Respiratory or skin

sensitization

: no data available

Carcinogenicity

: no data available

Reproductive effects

: no data available

Germ cell mutagenicity

: no data available

Teratogenicity

: no data available

STOT - single exposure

: no data available

STOT - repeated exposure

: no data available

Aspiration toxicity

: no data available

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects

: Harmful to aquatic life with long lasting effects.

Components

Toxicity to fish

: substituted aromatic amine salt

LC50 : 50 mg/l Exposure time: 96 h

Components

Toxicity to daphnia and other

aquatic invertebrates

: substituted aromatic amine salt

EC50: 31 mg/l Exposure time: 48 h

Components

Toxicity to algae

: substituted aromatic amine salt

EC50 : 66 mg/l Exposure time: 72 h

Components

Toxicity to bacteria

: substituted aromatic amine salt

1,060 mg/l

Components

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: substituted aromatic amine salt

0.97 mg/l

Exposure time: 21 d

3D TRASAR™ 3DT304

Persistence and degradability

Chemical Oxygen Demand (COD): 300,000 mg/l

Mobility

no data available

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : The product should not be allowed to enter drains, water

courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in

an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Proper shipping name

Technical name(s)

SODIUM HYDROXIDE SOLUTION

UN/ID No.

: UN 1824

Transport hazard class(es)

: 8

Packing group

: 111

Air transport (IATA)

Proper shipping name

: SODIUM HYDROXIDE SOLUTION

Technical name(s)

: UN 1824

UN/ID No.

: 8

Transport hazard class(es) Packing group

: 111

Sea transport (IMDG/iMO)

Proper shipping name Technical name(s)

SODIUM HYDROXIDE SOLUTION

UN/ID No.

: UN 1824

Transport hazard class(es)

: 8

3D TRASAR™ 3DT304

Packing group

: 111

Section: 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hydroxide	1310-73-2	1000	16724

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

: Acute Health Hazard

SARA 302

: No chemicals in this material are subject to the reporting requirements

of SARA Title III, Section 302.

SARA 313

: This material does not contain any chemical components with known

CAS numbers that exceed the threshold (De Minimis) reporting levels

established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

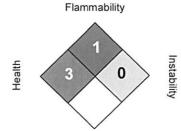
INTERNATIONAL CHEMICAL CONTROL LAWS:

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

Section: 16. OTHER INFORMATION

NFPA:



Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date Version Number Prepared By : 12/11/2014

: 1.1

: Regulatory Affairs

3D TRASAR™ 3DT304

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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.

For additional copies of an MSDS visit www.nalco.com and request access.



Version 1.2 Revision Date: 03/26/2024

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : LIQUICHLOR® 12.5% SOLUTION

Recommended use of the chemical and restrictions on use

Recommended use : refer to EPA registered label for specific uses

Manufacturer or supplier's details

Company : Univar Solutions USA

Address 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300) CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

Skin corrosion : Category 1B

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :

T.

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**

P234 Keep only in original container. P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection. **Response:**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT

induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately

all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON

CENTER/ doctor.

SDS Number: 100000072639 1 / 11 LIQUICHLOR® 12.5% SOLUTION



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P305 + P351 + P338 + P310 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.

P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.

Storage

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

liner. **Disposal:**

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7681-52-9	Sodium hypochlorite	12.5
1310-73-2	Sodium hydroxide	0 - 5

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

Synonyms : Bleach,

SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Take victim immediately to hospital.

Move to fresh air.

If breathing has stopped, apply artificial respiration.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing

and shoes.

Remove contaminated clothing. If irritation develops, get med-

ical attention.

Burns must be treated by a physician.

In case of eye contact : In case of eye contact

Immediately flush eye(s) with plenty of water.

Rinse thoroughly with plenty of water for at least 15 minutes

and consult a physician.

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If easy to do, remove contact lens, if worn.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

If swallowed Take victim immediately to hospital.

> Do NOT induce vomiting. Rinse mouth with water.

If victim is fully conscious, give a cupful of water.

If a person vomits when lying on his back, place him in the

recovery position.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)

> Foam Drv powder

Unsuitable extinguishing

media

Specific hazards during fire-

fighting

: High volume water jet

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion prod-

ucts

: No hazardous combustion products are known

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emer-

gency procedures

Personal precautions, protec- : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

: Neutralise with acid.

Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.

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Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7681-52-9	Sodium hypochlorite	STEL	2 mg/m3	US WEEL
1310-73-2	Sodium hydroxide	С	2 mg/m3	ACGIH
		С	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		С	2 mg/m3	OSHA P0
		С	2 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to

maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid Colour : clear

yellow

Odour : Chlorine

Odour Threshold : No data available

pH : 11.5 - 13

Freezing Point (Melting : -20 - -15 °C (-4 - 5 °F)

point/freezing point)

Boiling Point () : 230 °F (230 °F)

Decomposition: Decomposition temperature

Flash point : Not Flammable

Evaporation rate : No data available Flammability (solid, gas) : No data available Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : 12 - 17.5 mmHg @ 20 °C (68 °F)

Relative vapour density : No data available Relative density : 1.17 @ 20 °C (68 °F)

Reference substance: (water = 1)

Density : 1.17 g/cm3

Solubility(ies)
Water solubility

Water solubility : completely soluble Solubility in other solvents : No data available Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : No data available Thermal decomposition : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable

Possibility of hazardous reac- : No hazards to be specially mentioned.

tions

Conditions to avoid : Keep away from heat, flame, sparks and other ignition

sources.

Incompatible materials : Acids

Combustible material Halogenated compounds

Metals metal salts Organic materials

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organic nitro compounds

Zinc

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Components:

7681-52-9:

Acute oral toxicity : LD50 (Rat, male): > 2,000 mg/kg

Skin corrosion/irritation

Components:

7681-52-9: Species: Rabbit Result: Causes burns.

1310-73-2: Species: Rabbit

Result: Causes severe burns.

Serious eye damage/eye irritation

Components:

7681-52-9: Species: Rabbit

Result: Risk of serious damage to eyes.

1310-73-2: Species: Rabbit

Result: Risk of serious damage to eyes.

Carcinogenicity

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

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STOT - single exposure

Components:

7681-52-9:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

7681-52-9:

Toxicity to fish : LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l

Exposure time: 96 h

Test Type: flow-through test

LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 0.141 mg/l

Exposure time: 48 h

Test Type: flow-through test

EC50 (Ceriodaphnia dubia): 0.035 mg/l

Exposure time: 48 h

Test Type: flow-through test

Toxicity to algae : IC50: 0.023 mg/l

Exposure time: 7 d

Test Type: flow-through test

M-Factor (Acute aquatic tox-

icity)

: 10

Acute aquatic toxicity- As-

sessment

: Very toxic to aquatic life.

Chronic aquatic toxicity- As-

: Toxic to aquatic life with long lasting effects.

sessment

Persistence and degradability

No data available

Bioaccumulative potential

No data available

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Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and

federal regulations.

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-

var Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1791, Hypochlorite solutions, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

IATA (International Air Transport Association):

UN1791, Hypochlorite solution, 8, III

IMDG (International Maritime Dangerous Goods):

UN1791, HYPOCHLORITE SOLUTION, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)

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Safety Data Sheet

LIQUICHLOR® 12.5% SOLUTION

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Sodium hypochlorite	7681-52-9	100	800
Sodium hydroxide	1310-73-2	1000	20000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section

302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

Pennsylvania Right To Know

7732-18-5 Water

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

California Prop 65 : This product does not contain any chemicals known to State

of California to cause cancer, birth defects, or any other re-

productive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

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NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

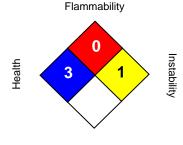
KECI: On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



Special hazard

HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	1

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 03/26/2024

Material number:

16215731, 16214071, 16211872, 16212037, 16211065, 16210830, 16210117, 16206617, 16204823, 16179440, 16173035, 16172686, 16173104, 16185315, 16172598, 16146040, 16151002, 16149524, 16158615, 16145640, 16148059, 16144666, 16147989, 16163791, 16180800, 16164756, 16164592, 16164731, 16164730, 16203820, 16203821, 16203184, 16194505, 16158853, 16151253, 16149870, 16148071, 16148060, 16147684, 16145965, 16145895, 16145890, 16145584, 16145144, 16145142, 16145140, 16145138, 16145137, 16145133, 16145130, 16145079, 16159810, 16150495, 16149123, 16147041, 16145471, 16144665, 16145772, 16148183, 16145046, 16143737, 16135287, 16163624, 16148721, 16155765, 16158840, 16145484, 16166710, 16148748, 16148260, 16166763, 16166591, 16145834, 16166014, 16159793, 16162934, 16165524, 16165444, 16165066, 16137823, 16137455, 16137753, 16147687, 16144215, 16150496, 16149504, 16145673, 16149243, 16136536, 16160181, 16160290, 16144046, 16145139, 16150462, 16149046, 16149516.



Version 1.2 Revision Date: 03/26/2024

16148083, 16150461, 16135216, 16156005

Key or le	Key or legend to abbreviations and acronyms used in the safety data sheet				
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%		
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level		
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency		
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health		
CNS	Central Nervous System	NTP	National Toxicology Program		
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals		
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level		
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration		
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration		
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit		
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances		
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic		
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act		
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit		
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.		
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value		
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average		
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act		
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials		
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System		
LC50	Lethal Concentration 50%				



Version 1.9 Revision Date: 01/24/2024

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SULFURIC ACID 66 BE°

Recommended use of the chemical and restrictions on use

Recommended use : Industrial Chemical

Manufacturer or supplier's details

Company : Univar Solutions USA

Address 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300) CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

Skin corrosion : Category 1A

Serious eye damage : Category 1

Carcinogenicity : Category 1A

Specific target organ toxicity

- single exposure

: Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :







Signal word : Danger

Hazard statements : H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H350 May cause cancer.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P234 Keep only in original container.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

SDS Number: 100000039101 1 / 12 SULFURIC ACID 66 BE°



Version 1.9 Revision Date: 01/24/2024

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT

induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 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.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

liner.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7664-93-9	Sulfuric acid	90 - 100

Any Concentration shown as a range is due to batch variation.

Molecular formula : H2-O4-S

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

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In case of skin contact : Immediate medical treatment is necessary as untreated

wounds from corrosion of the skin heal slowly and with difficul-

If on skin, rinse well with water. If on clothes, remove clothes.

: Small amounts splashed into eyes can cause irreversible tis-In case of eye contact

sue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

If swallowed Clean mouth with water and drink afterwards plenty of water.

> Keep respiratory tract clear. Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

: Dry chemical Suitable extinguishing media

> Carbon dioxide (CO2) : High volume water jet

Unsuitable extinguishing

media

Water

Hazardous combustion prod-

ucts

: sulfur oxides

Gases hazardous to health may be formed.

Sulphuric acid

Specific extinguishing meth-

: Use a water spray to cool fully closed containers.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if nec-

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emer-

gency procedures

Personal precautions, protec- : Use personal protective equipment.

: Prevent product from entering drains. **Environmental precautions**

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up acid

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7664-93-9	Sulfuric acid	TWA (Thoracic particulate matter)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z-1
		TWA	1 mg/m3	OSHA P0
		PEL	0.1 mg/m3	CAL PEL
		STEL	3 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to

maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air

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purifying respirators may not provide adequate protection.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

: -31 - 10.56 °C (-24 - 51.01 °F)

: 217 - 330 °C (423 - 626 °F)

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, colorless, amber

Odour : pungent

Odour Threshold : No data available pH : 0.3 @ 25 °C (77 °F)

Freezing Point (Melting

point/range)

Boiling Point (Boiling

point/boiling range)

Flash point : does not flash

Evaporation rate : No data available Flammability (solid, gas) : No data available Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : < 0.3 mmHg @ 25 °C (77 °F)

Relative vapour density : 3.4 @ 20 °C (68 °F)

(Air = 1.0)

Relative density : 1.8347 - 1.8437 @ 25 °C (77 °F)

Reference substance: (water = 1)

Density : Estimated 1.837 g/cm3 @ 20 °C (68 °F)

15.3 - 15.4 lb/gal @ 25 °C (77 °F)

Solubility(ies)

Water solubility : completely miscible Solubility in other solvents : No data available Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : No data available

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: 340 °C Thermal decomposition

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reac-

Acid reacts with most metals to release hydrogen gas which

can form explosive mixtures with air.

tions

Reacts with organic materials and may cause ignition of finely

divided materials on contact.

Conditions to avoid Incompatible materials Avoid contact with combustible material (paper, wool, oil).

Alkalis Metals

carbide chlorates fuminates

nitrates Organic materials

Strong oxidizing agents strong reducing agents

water

Sulphur compounds

acetylenes Acids Ammonia

Combustible material Flammable materials

Metals nitrates **Nitriles** nitrites

Organic materials Oxidizing agents phosphorus Powdered metals Reducing agents

water

Peroxides

Hazardous decomposition

products

: corrosive vapors Sulphur oxides toxic fumes

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

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7664-93-9:

Acute oral toxicity : LC50 (Rat, male and female): 2,140 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): mg/m3 375

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

7664-93-9:

Species: Rabbit

Result: Causes severe burns.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components:

7664-93-9:

Remarks: No data available

Respiratory or skin sensitisation

Components:

7664-93-9:

Remarks: No data available

Germ cell mutagenicity

Components:

7664-93-9:

Genotoxicity in vitro : Test Type: Ames test

Species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Germ cell mutagenicity -

Assessment

: Not mutagenic in Ames Test

Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: Human carcinogen.

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Components:

7664-93-9:

Species: Mouse, (male and female)

Application Route: Oral Exposure time: lifetime

Dose: 0.2 mL of 0.2% aq solution Frequency of Treatment: 1 days/week Symptoms: Local irritation, Tumors

Carcinogenicity - Assess-

ment

: Weight of evidence does not support classification as a car-

cinogen

IARC Group 1: Carcinogenic to humans

7664-93-9 Sulfuric acid

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP Known to be human carcinogen

7664-93-9 Sulfuric acid

Reproductive toxicity

Components:

7664-93-9:

Reproductive toxicity - As-

sessment

Fertility classification not possible from current data.

Teratogenicity - Assessment : Did not show teratogenic effects in animal experiments.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

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Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and

federal regulations.

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-

var Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1830, SULFURIC ACID, 8, II

IATA (International Air Transport Association):

UN1830, SULPHURIC ACID, 8, II

IMDG (International Maritime Dangerous Goods):

UN1830, SULPHURIC ACID, 8, II

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : D2A: Very Toxic Material Causing Other Toxic Effects

D2B: Toxic Material Causing Other Toxic Effects

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E: Corrosive Material

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 311/312 Hazards : Corrosive to metals

Skin corrosion or irritation

Serious eye damage or eye irritation

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SARA 302 :

7664-93-9 Sulfuric acid

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

7664-93-9 Sulfuric acid

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7664-93-9 Sulfuric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7664-93-9 Sulfuric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7664-93-9 Sulfuric acid

Pennsylvania Right To Know

7664-93-9 Sulfuric acid 7732-18-5 Water

California Prop 65

WARNING: This product can expose you to chemicals including Sulfuric acid, which is/are known to the State of California to cause cancer. For more information go to

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www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

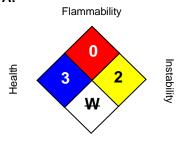
KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



Special hazard

HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 01/24/2024

Material number:

16212914, 16212048, 16211576, 16208309, 16207590, 16206988, 16202647, 16140266, 16187970, 16186715, 16177232, 16178973, 16178227, 16176163, 16176386, 16176196,

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Safety Data Sheet SULFURIC ACID 66 BE°

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16177166, 16162887, 16169706, 16173568, 16173209, 16152466, 16172838, 16145761, 16145532, 16145325, 16145036, 16144466, 16158800, 16152844, 16146037, 16147599, 16147477, 16158884, 16158841, 16145294, 16144737, 16143905, 16148041, 16144253, 16148755, 16163605, 16163600, 16148558, 16166436, 16166263, 16149587, 16138737, 16144430, 16159796, 16144634, 16144492, 16148416, 16152198, 16151380, 16151346, 16148456, 16148188, 16144447, 16144280, 16144100, 16144089, 16159794, 16143770, 16143771, 16160331, 16136043, 16149274, 16158943, 16149737, 16149062, 16148018, 16147993, 16145633, 16145526, 16144840, 16144220, 16143768, 16147033, 16147042, 16144370, 16144451, 16142210, 16140162, 16141097, 16140348, 16141851, 16141877, 16140763, 16143767, 16143769, 16142063, 16142367, 16142360, 16140603, 16142270
```

Key or le	gend to abbreviations and acronym	s used in	the safety data sheet
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		

Attachment TR-5.b. SDS Summary Table

Manufacturer	Nalco Company	Nalco Company
Name	Nalco Company 3D TRASAR 3DT129	Nalco Company 3D TRASAR 3DT304
Name	SD TRASAR SDT129	3D TRASAR 3DT304
Product Use	Cooling Tower Treatment	Cooling Tower Treatment
Chemical composition including CASRN for each ingredient		Sodium Hydroxide - 5-10%, 131073-2; Substituted aromatic amine salt - 5-10%, Proprietary
1	Biodegradability: Result: Readily biodegradable. The organic portion of this preparation is expected to be inherently biodegradable. Total Organic Carbon (TOC): 30,000 mg/l Chemical Oxygen Demand (COD): 110,000 mg/l Biochemical Oxygen Demand (BOD): Incubation Period 5 d, Value: 7 mg/l; Test Descriptor Product	Chemical Oxygen Demand (COD): 110,000 mg/l - No other data available
Product or active ingredient half-life	No data available	No data available
Frequency of product use. (GPD)	~1.7 gpd	~2.3 gpd
Product toxicity data specific to fish and aquatic invertebrate organisms	LC50 Pimephales promelas (fathead minnow): 3.5 mg/lExposure time: 96 hrs Test substance: Product LC50 Inland Silverside: 50.9 mg/l Exposure time: 24 hrs Test substance: Product LC50 Inland Silverside: 44.9 mg/l Exposure time: 48 hrs Test substance: Product LC50 Inland Silverside: 212 mg/l Exposure time: 96 hrs Test substance: Product NOEC Inland Silverside: 75 mg/l Exposure time: 96 hrs Test substance: Product Toxicity to daphnia and other aquatic invertebrates LC50 Mysid Shrimp (Mysidopsis bahia): 8.42 mg/l Exposure time: 96 hrs Test substance: Product EC50 Daphnia magna (Water flea): 4.06 mg/l Exposure time: 48 hrs Test substance: Product NOEC Daphnia magna (Water flea): 2.5 mg/l Exposure time: 48 hrs Test substance: Product	Toxicity to fish Substituted aromatic amine salt LC50: 50 mg/L Exposure time 96 h Toxicity to daphnia and other aquatic invertebrates Substituted aromatic amine salt LC50: 31 mg/L Exposure time 48 hrs Toxicity to daphnia and other aquatic invertebrates (Chronic Toxicity) Substituted aromatic amine salt LC50: 0.97 mg/l Exposure time 21 days

Attachment TR-5.b. SDS Summary Table

Manufacturer	Univar Solutions USA	Univar Solutions USA
Name	LIQUICHLORO 12.5% SOLUTION	SULFURIC ACID 66 BE
Product Use Cooling Tower Treatment		Cooling Tower Treatment
Chemical composition including CASRN for each ingredient	Sodium hypochlorite 12.5% 7681-52-9; Sodium hydroxide 0-5% 1310-73-2	Sulfuric acid - 90 - 100%, 7664-93-9
Classify product as non- persistent, persistent, or bioaccumulative	No data available	No data available
Product or active ingredient half-life	No data available	No data available
Frequency of product use. (GPD)	~ 7.5 gpd (avg) - ~ 11 gpd (max)	~ 17 gpd (avg) - ~ 25 gpd (max)
Product toxicity data specific to fish and aquatic invertebrate organisms	Toxicity to fish Sodium Hypochlorite LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l Exposure time: 96 h Test Type: flow-through test LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l Exposure time: 96 h Test Type: static test Toxicity to daphnia and other aquatic invertebrates EC50 (Daphnia magna (Water flea)): 0.141 mg/l Exposure time: 48 h Test Type: flow-through test EC50 (Ceriodaphnia dubia): 0.035 mg/l Exposure time: 48 h Test Type: flow-through test M-Factor (Acute aquatic toxicity) - 10 Acute aquatic toxicity- Assessment - Very toxic to aquatic life. Chronic aquatic toxicity-Assessment - Toxic to aquatic life with long lasting effects	No data available

Attachment TR-10.b. Off-Site/Third Party Wastes

Industrial Technical Report 1.0 – Item 10.b., Page 10

Attachment TR-10.b. Off-Site/Third Party Wastes Chevron Phillips Chemical Company LP – Borger Plant

Process area stormwater from the Syensqo Borger Plant (Solvay Specialty Polymers USA, L.L.C. (Solvay)). Solvay owns and operates the Ryton Unit which is co-located unit within the footprint of the Chevron Phillips Chemical Company LP (CPChem) Borger Plant at 600 Spur 119 North, Borger, Texas 79007. The Ryton Unit was previously owned and operated by CPChem. The stormwater conveyances from the Ryton Unit were designed and have always flowed through the CPChem Borger Plant. It was not feasible to re-route the stormwater drainage structures with the sale of the unit. The Ryton Unit stormwater flows have historically been authorized to discharge via CPChem Borger Plant's Outfall 002. Since the Ryton Unit's sale to Solvay, the stormwater flows have become an off-site third party waste. Solvay is separately authorized to discharge other utility wastewater flows under TPDES Permit No. WQ0005164000.

Process area stormwater from the Ryton Unit is normally collected with all process area stormwater from within CPChem Borger Plant facility boundary and transferred to the wastewater treatment system at the adjacent WRB Refining, LLC Refinery for treatment and discharge under TPDES Permit No. WQ0001064000, but there is potential for overflows of stormwater to the CPChem Borger Plant stormwater pond and Outfall 002 when the capacity of the storm sewer system is exceeded due to extreme rainfall events. Stormwater is the only off-site waste received which is intermittent and flow variable.

The process area stormwater received from the Ryton Unit is characteristically the same as the process area stormwater already collected and treated at the CPChem Borger Plant. Coverage of the Ryton Unit stormwater flows does not constitute authorization of new flows to Outfall 002 that have not been historically authorized. The request to authorize these flows as a third party off-site waste was requested due to the change in ownership and operation of the Ryton Unit.

PLAIN LANGUAGE SUMMARY – ENGLISH TPDES RENEWAL APPLICATION 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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Chevron Phillips Chemical Company LP (CN600303614) operates Chevron Phillips Chemical Borger Plant RN (RN102320850), a chemical manufacturing facility. The facility is located at 600 State Spur 119 North, in Borger, Hutchinson County, Texas 79007. Chevron Phillips Chemical Borger Plant has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002484000 (EPA I.D. No. TX0095869) to authorize the discharge of wastewater and stormwater at an intermittent and flow-variable volume.

Discharges from the facility are expected to contain total organic carbon, oil and grease, volatile and semi-volatile compounds, and total suspended solids. Process wastewater, cooling tower blowdown, and off-site stormwater will be treated by wastewater pretreatment units located at the Borger Plant for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000. The pre-treatment system consists of seal pot tank, phase separator vessel, a hydrocarbon accumulation tank, and a surge tank. A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.

PLAIN LANGUAGE SUMMARY – ENGLISH TPDES RENEWAL APPLICATION INDUSTRIAL WASTEWATER/STORMWATER

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RESUMEN EN LENGUAJE SENCILLO – ESPAÑOL APLICACIÓN DE RENOVACIÓN TPDES 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 TAC 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

Chevron Phillips Chemical Company LP (CN600303614) opera Chevron Phillips Chemical Borger Plant RN (RN102320850), una instalación de fabricación de productos químicos. La instalación está ubicada en 600 State Spur 119 North, en Borger, condado de Hutchinson, Texas 79007. La Planta Perforadora Química de Chevron Phillips ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso No. WQ0002484000 (EPA, I.D. No. TX0095869) Autorizar el vertido de aguas residuales y pluviales a volumen intermitente y de caudal variable.

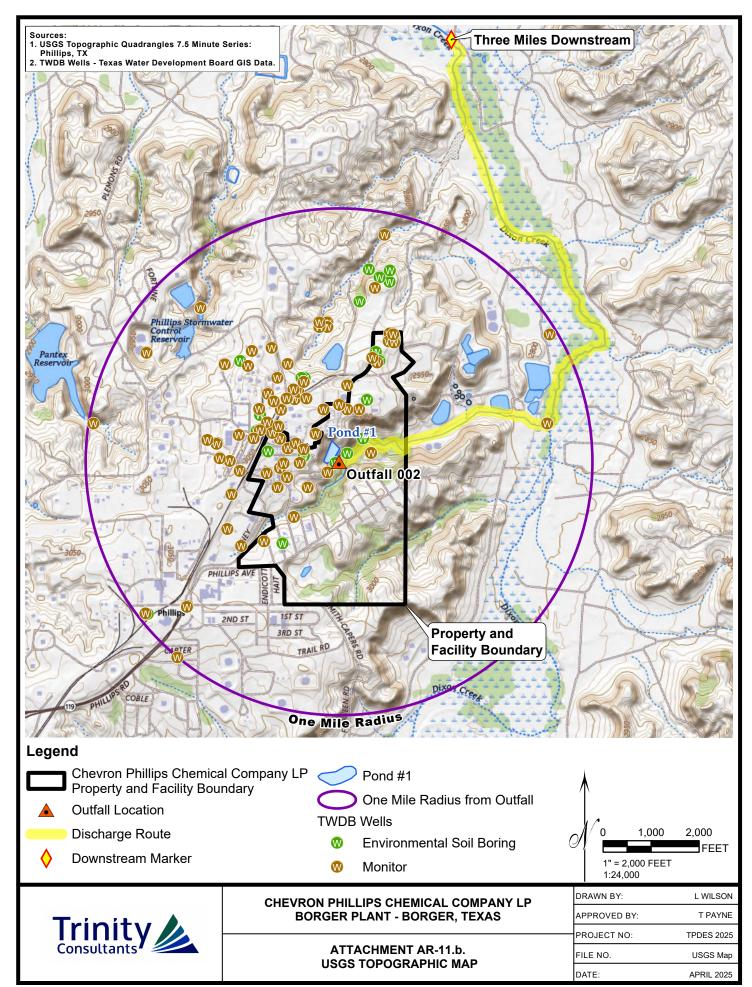
Se espera que las descargas de la instalación contengan carbono orgánico total, aceite y grasa, compuestos volátiles y semivolátiles, y sólidos suspendidos totales. Las aguas residuales de proceso, la purga de la torre de enfriamiento y las aguas pluviales fuera del sitio serán tratadas por unidades de pretratamiento de aguas residuales ubicadas en la planta Borger para los flujos transferidos a la refinería adyacente de WRB Refining, LLC para su posterior tratamiento y descarga a través del Permiso TPDES No. W0001064000. El sistema de pretratamiento consta de un tanque de sellado, un recipiente separador de fase, un tanque de acumulación de hidrocarburos y un tanque de compensación. Un separador de fase de concreto que opera en paralelo a lo anterior envía material aceitoso al mismo tanque de acumulación de hidrocarburos y aguas residuales a través de la cuenca de concreto de aguas residuales de la Unidad 5 al mismo tanque de compensación de aguas residuales.

RESUMEN EN LENGUAJE SENCILLO – ESPAÑOL APLICACIÓN DE RENOVACIÓN TPDES 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 TAC 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

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Supplemental Permit Information Form and Attachments

	and Attachments
Industrial Administrative Report 1.0 - Page 15	

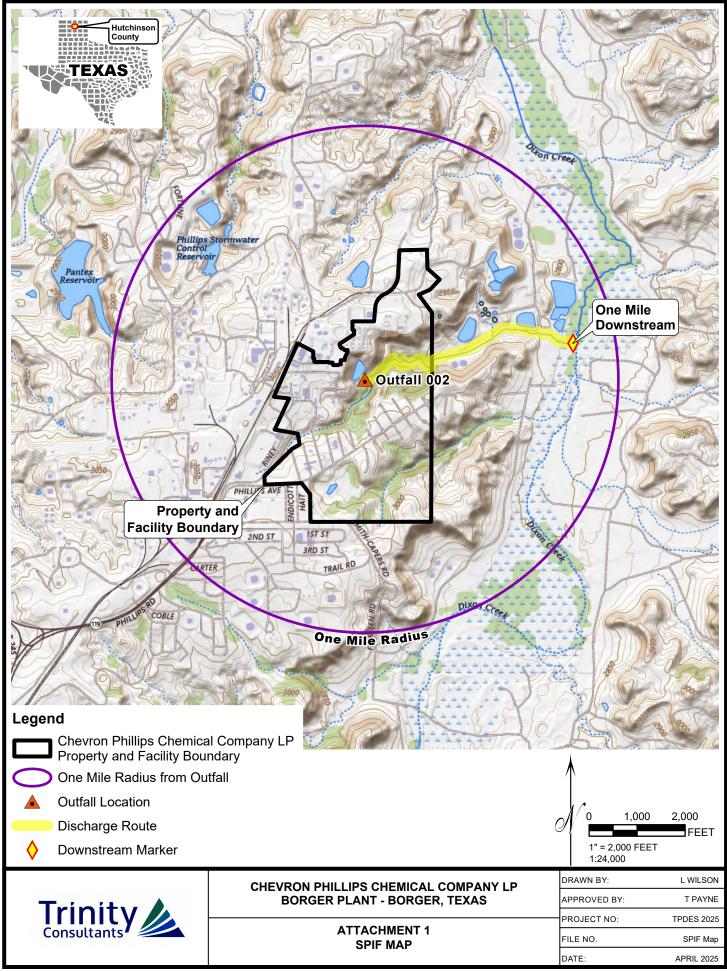
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TOTO LICE ONLY.	
TCEQ USE ONLY: Application type: Denoted Major	ar Amendment Miner Amendment New
	or AmendmentNinor AmendmentNew Segment Number:
Admin Complete Date:	
Agency Receiving SPIF:	
	U.S. Figh and Wildlife
Texas Historical Commission	ent U.S. Army Corps of Engineers
reas ranks and whome Departing	ent 0.3. Army corps of Engineers
This form applies to TPDES permit applications	ations only. (Instructions. Page 53)
our agreement with EPA. If any of the items	t. TCEQ will mail a copy to each agency as required by are not completely addressed or further information ne information before issuing the permit. Address
attachment for this form separately from tl application will not be declared administra completed in its entirety including all attac	in the permit application form. Provide each he Administrative Report of the application. The tively complete without this SPIF form being hments. Questions or comments concerning this form on's Application Review and Processing Team by y phone at (512) 239-4671.
The following applies to all applications:	
1. Permittee: <u>Chevron Phillips Chemical Co</u>	ompany LP
Permit No. WQ00 <u>02484000</u>	EPA ID No. TX <u>0095869</u>
and county):	scription that includes street/highway, city/vicinity,
600 State Spur 119 N. Borger, TX 7900	7, Hutchinson County

		e the name, address, phone and fax number of an individual that can be contacted to specific questions about the property.
	Prefix	(Mr., Ms., Miss): <u>Mr.</u>
	First a	nd Last Name: <u>Tyler Norris</u>
	Creder	ntial (P.E, P.G., Ph.D., etc.): <u>N/A</u>
	Title: <u>E</u>	nvironmental Specialist
	Mailing	g Address: <u>P.O. Box 968</u>
	City, St	ate, Zip Code: <u>Borger, TX 79008</u>
	Phone	No.: <u>(806) 275-5886</u> Ext.: <u>N/A</u> Fax No.: <u>(806)275-5912</u>
	E-mail	Address: tyler.norris@cpchem.com
2.	List the	e county in which the facility is located: <u>Hutchinson</u>
3.		property is publicly owned and the owner is different than the permittee/applicant, list the owner of the property.
	N/A	
4.	of effludischar	e a description of the effluent discharge route. The discharge route must follow the flow tent from the point of discharge to the nearest major watercourse (from the point of rge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify ssified segment number.
	Creek	vastewater is discharged to an unnamed tributary of Dixon Creek; thence to Dixon; thence to Canadian River below Lake Meredith in Segment No. 0101 of the Canadian Basin.
5.	plotted route f	provide a separate 7.5-minute USGS quadrangle map with the project boundaries and a general location map showing the project area. Please highlight the discharge from the point of discharge for a distance of one mile downstream. (This map is ed in addition to the map in the administrative report).
	Provide	e original photographs of any structures 50 years or older on the property.
	Does y	our project involve any of the following? Check all that apply.
		Proposed access roads, utility lines, construction easements
		Visual effects that could damage or detract from a historic property's integrity
		Vibration effects during construction or as a result of project design
		Additional phases of development that are planned for the future
		Sealing caves, fractures, sinkholes, other karst features

	☐ Disturbance of vegetation or wetlands
1.	List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):
	N/A
2.	Describe existing disturbances, vegetation, and land use:
	The facility is a chemical manufacturing plant.
AN	HE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR MENDMENTS TO TPDES PERMITS
3.	List construction dates of all buildings and structures on the property: The chemical plant was constructed in the 1940s.
	The chemical plant was constructed in the 15 ros.
4.	Provide a brief history of the property, and name of the architect/builder, if known.
	The chemical plant was initially constructed in the 1940s and has been operated as a chemical manufacturing plant since that time.



Supplemental Permit Information Form Attachment 2 - Photos of Structures 50 Years or Older Chevron Phillips Chemical Company LP – Borger Plant

"Central Control Building" Unknown origin date but greater than 50 years







TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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, please refer to the <u>Instructions for Completing the Industrial Wastewater Permit Application</u>¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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.

Item 1. Facility/Site Information (Instructions, Page 39)

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

A chemical manufacturing plant with a wide range of specialty chemicals, such as sulfur chemicals, aliphatic solvents, and laboratory reagents. (SIC Codes: 2869, 2821)

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

Domestic sewage and process wastewater generated from the manufacturing of organic chemicals and polyphenylene sulfide are managed within the chemical sewer system. The process wastewater is provided primary treatment and then stored in tanks prior to being routed to the adjacent WRB Refining, LLC (WRB) Borger Refinery for additional treatment and discharge under TPDES Permit No. WQ0001064000. Domestic sewage from the site is also routed to WRB Borger Refinery for treatment and discharge. Stormwater from some non-process areas is authorized under the Multi-Sector General Permit. Stormwater runoff from process areas is typically collected and routed to WRB Borger Refinery for treatment and discharge. Discharge of process area stormwater through Outfall 002 may occur as a result of extreme rain events when the pumping and storage capacity of the stormwater collection system is exceeded. Stormwater discharges via Outfall 002 may contain de-minimus amounts of process wastewater and cooling tower blowdown.

 $\underline{https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_st\\ \underline{eps.html}$

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 Attachmer	t TR-1.c. for the list of materia	als and products.

Attachment: TR-1.c.

- 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.
 - 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: TR-1.d.

Yes

No

e.	Is this a new permit application for an existing facility?
	□ Yes ⊠ No
	If yes , provide background discussion: <u>N/A</u>
f.	Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

List source(s) used to determine 100-year frequency flood plain: <u>Flood Hazard Boundary Map, Hutchinson County, Unincorporated Area, Pg 11 of 12, Jan. 10, 1978</u>

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?

	\square Yes \square No \boxtimes 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: <u>N/A</u>
T4	ore 7. Treatment Creatons (Instrumetions Dogs 40)
П	em 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 TR-2.a.
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: <u>TR-2.b.</u>
It	em 3. Impoundments (Instructions, Page 40)
Do	oes the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)
	⊠ Yes □ No
3.6	no, proceed to Item 4. If yes, complete Item 3.a for existing impoundments and Items 3.a - e for new or proposed impoundments. NOTE: See instructions, Pages 40-42, for additional formation 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. Attach additional copies of the Impoundment Information table, if needed.

Disposal (**D**), Containment (**C**), or Evaporation (**E**).

Use Designation: Indicate the use designation for each impoundment as Treatment (T),

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	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	С			
Associated Outfall Number	002			
Liner Type (C) (I) (S) or (A)	S			
Alt. Liner Attachment Reference	N/A			
Leak Detection System, Y/N	N			
Groundwater Monitoring Wells, Y/N	N			
Groundwater Monitoring Data Attachment	N/A			
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y			
Length (ft)	440			
Width (ft)	240			
Max Depth From Water Surface (ft), Not Including Freeboard	3			
Freeboard (ft)	3			
Surface Area (acres)	6.6			
Storage Capacity (gallons)	6,790,000			
40 CFR Part 257, Subpart D, Y/N	N/A			
Date of Construction	Unknown			

Attachment: N/A

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

tems. If attached, check yes in the appropriate box. Otherwise, check no or not yet lesigned.
. Liner data
\square Yes \square No \square Not yet designed N/A
. Leak detection system or groundwater monitoring data
\square Yes \square No \square Not yet designed N/A
. Groundwater impacts
\square Yes \square No \square Not yet designed N/A
NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal highwater table in the shallowest water-bearing zone.

b. For new or proposed impoundments, attach any available information on the following

Attachment: <u>N/A</u>

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 ½-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

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, 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/0r 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 Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
002	35.698928	-101.353522

Outfall Location Description

Outfall No.	Location Description	
002	At discharge pipe for overflow from stormwater reservoir	

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point	
002	At outfall 002; at the overflow from the stormwater reservoir.	

Outfall Flow Information - Permitted and Proposed

Outfall No.	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)
002	Intermittent	Intermittent	Intermittent	Intermittent	Intermittent

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
002	N	Y	Estimate

Outfall Discharge - Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
002	Y	N	N	24	31	12

Outfall Wastestream Contributions

Outfall No. 002

Volume (MGD)	Percent (%) of Total Flow
Variable	~95
Variable	~2
Variable	~2
Variable	~1
	Variable Variable Variable

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: Click to enter text.

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

	Yes \square	No	Use cooling towers	s that discharge	blowdown o	or other	wastestreams
--	---------------	----	--------------------	------------------	------------	----------	--------------

- ☐ Yes ☒ No Use boilers that discharge blowdown or other wastestreams
- □ Yes ⊠ No Discharge once-through cooling water

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

- b. If **yes** to any of the above, attach an 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.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: TR-5.b.

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

I VOE ALLINII		Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers	2	6,048	13,248
Boilers	N/A	N/A	N/A

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at $40 \ CFR \ \S \ 122.26(b)(14)$, commingled with any other wastestream?

⊠ Yes □ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: <u>See</u> Technical Report page 1 of 70, Items 1.a. and 1.b.

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

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 don sludge treatment or disposal. Complete Worksheet 5.0			
	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 t Item 7.b.	ank and drainfield system. Complete		
	☐ Domestic and industrial treatment sludge ARE com	mingled prior to use or disposal.		
	☐ Industrial wastewater and domestic sewage are treasludge IS NOT commingled prior to sludge use or d			
	\square 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: Click to enter text.		
b.	Provide the name and TCEQ, NPDES, or TPDES Permit which receives the domestic sewage/septage. If haule name and TCEQ Registration No. of the hauler.			
Do	omestic Sewage Plant/Hauler Name			
P	lant/Hauler Name	Permit/Registration No.		
	VRB Refining LLC Borger Refinery and NGL Processing lenter	WQ0001064000		
_				
It	em 8. Improvements or Compliance, Requirements (Instructions, Pa			
a.	Is the permittee currently required to meet any imple enforcement?	mentation schedule for compliance or		
	□ Yes ⊠ No			
b.	Has the permittee completed or planned for any impr \square Yes \boxtimes No	rovements or construction projects?		
	If yes to either 8.a or 8.b, provide a brief summary of			
c.				

Item 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: N/A
Additionally, attach a copy of all tests performed which have not been submitted to the TCEQ or EPA. Attachment: N/A
Item 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? Xes 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: <u>TR-10.b.</u>
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: <u>N/A</u>
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.
Item 11. Radioactive Materials (Instructions, Page 46)
a. Are/will radioactive materials be mined, used, stored, or processed at this facility?
a. The, will radioactive materials be limited, used, stored, or processed at this racinty!

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.

No

Yes

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)
N/A	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 Name	Concentration (pCi/L)
N/A	N/A

Item 12. Cooling Water (Instructions, Page 46)

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

⊠ Yes

□ No

□ Decommissioned: <u>N/A</u>

□ To Be Decommissioned: <u>N/A</u>

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

If **decommissioned**, provide the date operation ceased and stop here.

If to **be decommissioned**, provide the date operation is anticipated to cease and stop here.

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

d.

1. 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	N/A	N/A	N/A	N/A
Owner	N/A	N/A	N/A	N/A
Operator	N/A	N/A	N/A	N/A

2.	Cooling water is/will be obtained from a Public Water Supplier (PWS)
	□ No □ Yes; PWS No.: <u>N/A</u>
	If no , continue. If yes , provide the PWS Registration No. and stop here.
3.	Cooling water is/will be obtained from a reclaimed water source?
	□ No □ Yes; Auth No.: <u>N/A</u>
	If no , continue. If yes , provide the Reuse Authorization No. and stop here.
4.	Cooling water is/will be obtained from an Independent Supplier
	\square No \square Yes; AIF: $\underline{N/A}$
	If no , proceed to Item 12.d. If yes , provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed.
31	6(b) General Criteria N/A
1.	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 N/A
2.	At least 25% of the total water withdrawn by the CWIS(s) is/will be used at the facility exclusively for cooling purposes on an annual average basis.
	□ Yes □ No N/A
3.	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. Explanation: <u>N/A</u>
	If no , provide an explanation of how the waterbody does not meet the definition of Waters of the United States in <i>40 CFR § 122.2</i> .

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.

a

e.		Section 316(b) and uses /proposes to use cooling towers .
		Yes □ No
		yes , stop here. If no , complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to ow for a determination based upon BPJ.
f.	Oi	l and Gas Exploration and Production N/A
	1.	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.
	2.	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.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If no , skip to Item 12.g.3.
g.	Co	ompliance Phase and Track Selection N/A
	1.	Phase I – New facility subject to 40 CFR Part 125, Subpart I
		□ Yes □ No
		If yes , check the box next to the 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
	2.	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.
	3.	Phase III - New facility subject to 40 CFR Part 125, Subpart N
		□ Yes □ No
		If \mathbf{yes} , check the box next to the 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.

		• Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/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.
	Att	achment: <u>N/A</u>
It	em 13	3. Permit Change Requests (Instructions, Page 48)
Th	is item	is only applicable to existing permitted facilities.
a.	Is the f	Cacility requesting a major amendment of an existing permit?
		Yes 🗵 No
	inform	list each request individually and provide the following information: 1) detailed ation regarding the scope of each request and 2) a justification for each request. any supplemental information or additional data to support each request.
	N/A	
b.	Is the f	Cacility requesting any minor amendments to the permit?
		Yes No
	If yes,	list and describe each change individually.
	N/A	
c.	Is the f	Cacility requesting any minor modifications to the permit?
		Yes ⊠ No
	If yes,	list and describe each change individually.

☐ Track I - Not a fixed facility

ě.		

Item 14. Laboratory Accreditation (Instructions, Page 49)

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

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

The applicant should review 30 TAC Chapter 25 for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

Printed Name: Ron Bradford

Title: Plant Manager

Date: 7/22

Worksheet 1.0 EPA Categorical Effluent Guidelines

INDUSTRIAL WASTEWATER PERMIT APPLICATION 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).

Item 1. Categorical Industries (Instructions, Page 53)

rem 1. catego	rical madstrics	(III) ti dettolio, i d	5C 33)		
Is this facility subject	to any 40 CFR categorica	al ELGs outlined on page	53 of the instructions?		
⊠ Yes □ No					
If no , this worksheet i	is not required. If yes , pr	ovide the appropriate in	formation below.		
40 CFR Effluent Guideli	ine				
Industry		40	CFR Part		
Organic Chemicals a	Organic Chemicals and Specialty Chemicals 41				
		-			
Item 2. Produc	ction/Process Da	ta (Instructions,	Page 54)		
of oil and gas explora	tion and production was or the Oil and Gas Extract	esting individual permit tewater (discharges into ion Effluent Guidelines -	or adjacent to water in		
a. Production Data					
Provide appropriate d	ata for effluent guidelin	es with production-based	l effluent limitations.		
Production Data					
Subcategory	Actual Quantity/Day	Design Quantity/Day	Units		
N/A	N/A	N/A	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.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
F-Commodity Organic Chemicals	~5	None	None
G-Bulk Organic Chemicals	~20	None	None
H-Specialty Organic Chemical	~75	None	None

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

N/A			

Item 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.

The Borger Plant generates approximately 50 gallons per minute (gpm) of wastewater, which is typically sent to the adjacent WRB Refining LLC Borger Refinery for treatment with stormwater from process areas. It is not possible to estimate the amount of process wastewater which may be present in the intermittent discharges from Outfall 002 covered under this permit.

Item 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
Commodity Organic Chemicals	414	F	1940's
Bulk Organic Chemicals	414	G	1940's
Specialty Organic Chemicals	414	Н	1940's

Worksheet 2.0 Pollutant Analyses

Outfall 002 only discharges during extreme precipitation events. The lastest sampling of Outfall 002 occurred on 6/9/25. Prior to that date, the last sampling date occurred in June 2023. There have been no other discharges from Outfall 002 since application preparation through application submittal.

Pollutant analyses will be submitted to the TCEQ Industrial Wastewater Permits Team if and when there is an additional discharge from this outfall during the application process. The pollutant analyses will consist of those pollutants listed in Tables 1, 2, 3, 6, 8, 9, 10, and 11.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

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.

Item 1. General Testing Requirements (Instructions, Page 55)

- **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): **The discharge from 002 is intermittent. The latest sampling of 002 occurred on 6/9/25. Prior to that date, the last sampling date occurred in June 2023.**
- b. \boxtimes <u>N/A</u> 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:** No sampling was conducted for this renewal.

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** Click to enter text.

Complete are (check one)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Table 1 for Ortfall No. 000

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: <u>002</u>	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)	36.6						
CBOD (5-day)							
Chemical oxygen demand							
Total organic carbon	19.8						
Dissolved oxygen							
Ammonia nitrogen							
Total suspended solids	81.0						
Nitrate nitrogen							
Total organic nitrogen							
Total phosphorus							
Oil and grease	<1.57						

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total residual chlorine				
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO3)				
Temperature (°F)	22.7			
pH (standard units)	7.1			

Table 2 for Outfall No.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5
Barium, total					3
Beryllium, total					0.5
Cadmium, total					1
Chromium, total					3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total					2
Cyanide, available					2/10
Lead, total					0.5
Mercury, total					0.005/0.0005
Nickel, total					2
Selenium, total					5
Silver, total					0.5
Thallium, total					0.5
Zinc, total					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.: <u>oo2</u> Samples are (check one): ☐ Composite ☒ Grab

Table 3 for Outfall No.: <u>002</u>	Samples are (check one): \square Composite \square					
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*	
Acrylonitrile	<14.3				50	
Anthracene	<0.0938				10	
Benzene	<0.460				10	
Benzidine					50	
Benzo(a)anthracene	<0.0821				5	
Benzo(a)pyrene	<0.0700				5	
Bis(2-chloroethyl)ether					10	
Bis(2-ethylhexyl)phthalate	<0.900				10	
Bromodichloromethane [Dichlorobromomethane]					10	
Bromoform					10	
Carbon tetrachloride	<0.896				2	
Chlorobenzene	<0.455				10	
Chlorodibromomethane [Dibromochloromethane]					10	
Chloroform	<0.464				10	
Chrysene	< 0.0815				5	
m-Cresol [3-Methylphenol]					10	
o-Cresol [2-Methylphenol]					10	
p-Cresol [4-Methylphenol]					10	
1,2-Dibromoethane					10	
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.102				10	
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.0941				10	
p-Dichlorobenzene [1,4-Dichlorobenzene]	4.79				10	
3,3'-Dichlorobenzidine					5	
1,2-Dichloroethane	<0.372				10	

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.738				10
Dichloromethane [Methylene chloride]	<1.73				20
1,2-Dichloropropane	< 0.556				10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.27				10
2,4-Dimethylphenol	<0.192				10
Di-n-Butyl phthalate	<0.765				10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)					
Ethylbenzene	0.750				10
Ethylene Glycol					
Fluoride					500
Hexachlorobenzene	< 0.0975				5
Hexachlorobutadiene	<0.103				10
Hexachlorocyclopentadiene					10
Hexachloroethane	<0.102				20
4,4'-Isopropylidenediphenol (bisphenol A)					1
Methyl ethyl ketone					50
Methyl tert-butyl ether (MTBE)					
Nitrobenzene	< 0.0736				10
N-Nitrosodiethylamine					20
N-Nitroso-di-n-butylamine					20
Nonylphenol					333
Pentachlorobenzene					20
Pentachlorophenol					5
Phenanthrene	0.989				10
Polychlorinated biphenyls (PCBs) (**)					0.2
Pyridine					20
1,2,4,5-Tetrachlorobenzene					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethene [Tetrachloroethylene]	<0.655				10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Toluene	2.06				10
1,1,1-Trichloroethane	<0.585				10
1,1,2-Trichloroethane	<0.411				10
Trichloroethene [Trichloroethylene]	<1.50				10
2,4,5-Trichlorophenol					50
TTHM (Total trihalomethanes)					10
Vinyl chloride	<0.428				10

^(*) Indicate units if different from μ g/L.

TABLE 4 (Instructions, Pages 58-59)

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

a. Tributyltin

Yes

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?

 check the box next to each of the following criteria which apply and provide the priate 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.

No

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)

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	\boxtimes	No

^(**) 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 "<".

Domestic wastewater is,	/will be dis	scharged.				
□ Yes ⊠ No)					
If yes to either question	ı, provide t	he appropr	iate testing r	esults in Ta	ble 4 below	
c. E. coli (discharge to fre	shwater)					
This facility discharges/ E. coli bacteria are exped						
□ Yes ⊠ No)					
Domestic wastewater is,	/will be dis	scharged.				
□ Yes ⊠ No)					
If yes to either question	ı, provide t	he appropr	iate testing r	esults in Ta	ble 4 below	
Гable 4 for Outfall No.: <u>N/A</u>		Sampl	les are (check	one): 🗆 Co	omposite [☐ Grab
Pollutant		Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (μg/L)		N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/1	00 mL)	N/A	N/A	N/A	N/A	N/A
E. coli (cfu or MPN/100 mL) N/A N/A N/A N/A N/A N						N/A
TABLE 5 (Instructions, Pag Completion of Table 5 is rewastewater from a facility wastewaters which may con	equired for which man	ufactures o	r formulates			s or other
If this facility does not/will not/will not discharge othe			_			
⊠ N/A						
Гable 5 for Outfall No.: <u>N/A</u>		Sampl	les are (check	one): 🗆 Co	omposite [□ Grab
Pollutant	Sample 1 (µg/L)*	Sample (µg/L)*	_		-	AL g/L)*
Aldrin					0.0	01
Carbaryl					5	
Chlordane					0.2	2
Chlorpyrifos					0.0	05
4,4'-DDD					0.2	1

Ponutant	(μg/L)*	(μg/L)*	(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

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
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 (alpha)					0.05
Hexachlorocyclohexane (beta)					0.05
Hexachlorocyclohexane (gamma) [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.: <u>oo2</u> Samples are (check one): □ Composite □ Grab

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							400
Color (PCU)							_
Nitrate-Nitrite (as N)							_
Sulfide (as S)							_
Sulfite (as SO3)							_
Surfactants							_
Boron, total							20
Cobalt, total							0.3
Iron, total							7
Magnesium, total							20
Manganese, total							0.5
Molybdenum, total							1
Tin, total							5
Titanium, total							30

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

Ind	ustrial Category	40 CFR Part		latiles ole 8	Aci Tal	ds ole 9	Net	es/ atrals ole 10		sticides ole 11
	Adhesives and Sealants			Yes		Yes		Yes	No	
	Aluminum Forming	467		Yes		Yes		Yes	No	
	Auto and Other Laundries			Yes		Yes		Yes		Yes
	Battery Manufacturing	461		Yes	No			Yes	No	
	Coal Mining	434	No		No		No		No	
	Coil Coating	465		Yes		Yes		Yes	No	
	Copper Forming	468		Yes		Yes		Yes	No	
	Electric and Electronic Components	469		Yes		Yes		Yes		Yes
	Electroplating	413		Yes		Yes		Yes	No	
	Explosives Manufacturing	457	No			Yes		Yes	No	
	Foundries			Yes		Yes		Yes	No	
	Gum and Wood Chemicals - Subparts A,B,C,E	454		Yes		Yes	No		No	
	Gum and Wood Chemicals - Subparts D,F	454		Yes		Yes		Yes	No	
	Inorganic Chemicals Manufacturing	415		Yes		Yes		Yes	No	
	Iron and Steel Manufacturing	420		Yes		Yes		Yes	No	
	Leather Tanning and Finishing	425		Yes		Yes		Yes	No	
	Mechanical Products Manufacturing			Yes		Yes		Yes	No	
	Nonferrous Metals Manufacturing	421,471		Yes		Yes		Yes		Yes
	Oil and Gas Extraction - Subparts A, D, E, F, G, H	435		Yes		Yes		Yes	No	
	Ore Mining - Subpart B	440	No			Yes	No		No	
\boxtimes	Organic Chemicals Manufacturing	414	\boxtimes	Yes	\boxtimes	Yes	\boxtimes	Yes		Yes
	Paint and Ink Formulation	446,447		Yes		Yes		Yes	No	
	Pesticides	455		Yes		Yes		Yes		Yes
	Petroleum Refining	419		Yes	No		No		No	
	Pharmaceutical Preparations	439		Yes		Yes		Yes	No	
	Photographic Equipment and Supplies	459		Yes		Yes		Yes	No	
	Plastic and Synthetic Materials Manufacturing	414		Yes		Yes		Yes		Yes
	Plastic Processing	463		Yes	No		No		No	
	Porcelain Enameling	466	No		No		No		No	
	Printing and Publishing			Yes		Yes		Yes		Yes
	Pulp and Paperboard Mills - Subpart C	430		*		Yes		*		Yes
	Pulp and Paperboard Mills - Subparts F, K	430		*		Yes		*		*
	Pulp and Paperboard Mills - Subparts A, B, D, G, H	430		Yes		Yes		*		*
	Pulp and Paperboard Mills - Subparts I, J, L	430		Yes		Yes		*		Yes
	Pulp and Paperboard Mills - Subpart E	430		Yes		Yes		Yes		*
	Rubber Processing	428		Yes		Yes		Yes	No	
	Soap and Detergent Manufacturing	417		Yes		Yes		Yes	No	
	Steam Electric Power Plants	423		Yes		Yes	No		No	
	Textile Mills (Not Subpart C)	410		Yes		Yes		Yes	No	
	Timber Products Processing	429		Yes		Yes		Yes		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.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Table 8 for Outfall No.: <u>002</u>		ples are (chec		omposite 🗆	Grab	
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)	
Acrolein					50	
Acrylonitrile	<14.3				50	
Benzene	<0.460				10	
Bromoform					10	
Carbon tetrachloride	<0.896				2	
Chlorobenzene	<0.455				10	
Chlorodibromomethane					10	
Chloroethane	<1.98				50	
2-Chloroethylvinyl ether					10	
Chloroform	<0.464				10	
Dichlorobromomethane [Bromodichloromethane]					10	
1,1-Dichloroethane	< 0.635				10	
1,2-Dichloroethane	<0.372				10	
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.738				10	
1,2-Dichloropropane	<0.556				10	
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.27				10	
Ethylbenzene	0.750				10	
Methyl bromide [Bromomethane]					50	
Methyl chloride [Chloromethane]	<2.04				50	
Methylene chloride [Dichloromethane]	<1.73				20	
1,1,2,2-Tetrachloroethane					10	
Tetrachloroethylene [Tetrachloroethene]	<0.655				10	
Toluene	2.06				10	
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.368				10	

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (μg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
1,1,1-Trichloroethane	<0.585				10
1,1,2-Trichloroethane	< 0.411				10
Trichloroethylene [Trichloroethene]	<1.50				10
Vinyl chloride	<0.428				10

^{*} Indicate units if different from µg/L.

Table 9 for Outfall No.: **002**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol	<0.192				10
4,6-Dinitro-o-cresol	<1.00				50
2,4-Dinitrophenol	<0.311				50
2-Nitrophenol	<0.136				20
4-Nitrophenol	<0.440				50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol	4.27				10
2,4,6-Trichlorophenol					10

^{*} Indicate units if different from µg/L.

Table 10 for Outfall No.: **002**

Samples are (check one): □ C	Composite	×	Grab
------------------------------	-----------	----------	------

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acenaphthene	0.265				10
Acenaphthylene	0.121				10
Anthracene	<0.0938				10
Benzidine					50
Benzo(a)anthracene	< 0.0821				5
Benzo(a)pyrene	<0.0700				5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.0664				10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene	< 0.0473				5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate	< 0.900				10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene	<0.0815				5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate	<0.155				10
Dimethyl phthalate	<0.108				10
Di-n-butyl phthalate	<0.765				10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene	0.0886				10
Fluorene	0.480				10
Hexachlorobenzene	< 0.0975				5
Hexachlorobutadiene	<0.103				10
Hexachlorocyclopentadiene					10
Hexachloroethane	<0.102				20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene	1.14				10
Nitrobenzene	< 0.0736				10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene	0.989				10
Pyrene	0.0880				10
1,2,4-Trichlorobenzene	<1.75				10

^{*} Indicate units if different from µg/L.

Table 11 for Outfall No.: <u>oo2</u> Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

^{*} Indicate units if different from $\mu g/L$.

Attachment: Click to enter text.

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

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
- □ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) 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

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/A Samples are (check one): ☐ Composite ☐ Grab

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

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
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, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

□ Yes ⊠ No

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 ⊠ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: N/A		Samples are (check one): ☐ Composite				□ Grab
Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

Worksheet 4.0 Receiving Waters

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is required for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

 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:
1. The legal name of the owner of the drinking water supply intake: $\underline{N/A}$
2. The distance and direction from the outfall to the drinking water supply intake: $\underline{N/A}$
b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.
\square Check this box to confirm the above requested information is provided. N/A
Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)
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: $\underline{N/A}$ 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: $\underline{N/A}$
Item 3. Classified Segment (Instructions, Page 80)
The discharge is/will be directly into (or within 300 feet of) a classified segment. \square Yes \boxtimes No
If yes , stop here and do not 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

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

		(Instructions, Page 80)
a.	Name	of the immediate receiving waters: <u>Unnamed tributary of Dixon Creek</u>
b.	Check	the appropriate description of the immediate receiving waters:
	□ La	ike or Pond
	•	Surface area (acres): Click to enter text.
	•	Average depth of the entire water body (feet): Click to enter text.
	•	Average depth of water body within a 500-foot radius of the discharge point (feet): <u>Click to enter text.</u>
	□ M	an-Made Channel or Ditch
	⊠ St	ream or Creek
	□ Fr	eshwater Swamp or Marsh
	□ Ti	dal Stream, Bayou, or Marsh
	□ O:	pen Bay
	□ O	ther, specify:
		de Channel or Ditch or Stream or Creek were selected above, provide responses to - 4.g below:
c.		isting discharges, check the description below that best characterizes the area cam of the discharge.
		w discharges, check the description below that best characterizes the area stream of the discharge.
		Intermittent (dry for at least one week during most years)
		Intermittent with Perennial Pools (enduring pools containing habitat to maintain equatic life uses)
	\boxtimes	Perennial (normally flowing)
		the source(s) of the information used to characterize the area upstream (existing rge) or downstream (new discharge):
		USGS flow records
	\boxtimes	personal observation
		historical observation by adjacent landowner(s)
		other, specify: <u>N/A</u>
d.		e names of all perennial streams that join the receiving water within three miles tream of the discharge point: <u>Dixon Creek</u>
e.		ceiving water characteristics change within three miles downstream of the discharge atural or man-made dams, ponds, reservoirs, etc.).
	\boxtimes	Yes No

If **yes**, describe how: <u>The volume of water increases due to the continuous discharge of treated wastewater from the WRB Refining, LLC Borger Refinery.</u>

f.		General observations of the water body during normal dry weather conditions: <u>Continuous flow during dry weather.</u>					
	Date	e and time of observation: <u>April 15, 2025; 9:</u>	<u>oo a</u>	<u>m</u>			
g.	[water body was influenced by stormwater in Yes No es, describe how: N/A	runo	ff during observations.			
It		5. General Characteristics of Page 81)	Wa	ater Body (Instructions,			
a.		ne receiving water upstream of the existing uenced by any of the following (check all the					
		oil field activities		urban runoff			
		agricultural runoff		septic tanks			
		upstream discharges		other, specify: <u>The adjacent refinery</u> logeneration plant discharge into the named tributary.			
b.	Use	s of water body observed or evidence of suc	h us	es (check all that apply):			
		livestock watering		industrial water supply			
		non-contact recreation		irrigation withdrawal			
		domestic water supply		navigation			
		contact recreation		picnic/park activities			
		fishing	\boxtimes	other, specify: No uses were observed.			
c.		cription which best describes the aesthetics a (check only one):	of t	he receiving water and the surrounding			
		Wilderness: outstanding natural beauty; us clarity exceptional	sually	y wooded or un-pastured area: water			
		Natural Area: trees or native vegetation confields, pastures, dwellings); water clarity d		· -			
		Common Setting: not offensive, developed turbid	but	uncluttered; water may be colored or			
		Offensive: stream does not enhance aesthe areas; water discolored	etics;	cluttered; highly developed; dumping			

Worksheet 7.0 Stormwater Discharges Associated with Industrial Activities

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in 40 CFR § 122.26(b)(14)(i-xi), **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in 40 CFR § 122.26 (b)(13) are not required to obtain authorization under a TPDES permit (see exceptions at 40 CFR §§ 122.26(a)(1) and (9)). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

⊠ Yes □ No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
SW001		
SW002		
SW003		
SW004		
SW005		

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit, proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90) N/A

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility's boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in 30 TAC § 327.4) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

Check the box to confirm all above information was provided on the facility site ma	ıp(s)
ttachment: N/A	

Item 4. Facility/Site Information (Instructions, Page 90) N/A

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
N/A	N/A	N/A

b. Provide the following local area rainfall information and the source of the information.

Wettest month: N/A

Average rainfall for wettest month (total inches): N/A

25-year, 24-hour rainfall (inches): N/A

Source: N/A

- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** N/A
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** N/A
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: N/A

Item 5. Pollutant Analysis (Instructions, Page 91) N/A

- 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): N/A
- b. \square Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	(max)	_	(min)	_		_
Total suspended solids						_
Chemical oxygen demand						_
Total organic carbon						_
Oil and grease						_
Arsenic, total						0.0005
Barium, total						0.003
Cadmium, total						0.001
Chromium, total						0.003
Chromium, trivalent						_
Chromium, hexavalent						0.003
Copper, total						0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total						0.0005
Mercury, total						0.000005
Nickel, total						0.002
Selenium, total						0.005
Silver, total						0.0005
Zinc, total						0.005

^{*} Taken during first 30 minutes of storm event

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: N/A

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

^{*} Taken during first 30 minutes of storm event

Attachment: N/A

^{**} Flow-weighted composite sample

^{**} Flow-weighted composite sample

Item 6. Storm Event Data (Instructions, Page 93) N/A

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: N/A

Duration of storm event (minutes): N/A

Total rainfall during storm event (inches): N/A

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): N/A

Maximum flow rate during rain event (gallons/minute): N/A

Total stormwater flow from rain event (gallons): N/A

Provide a description of the method of flow measurement or estimate:

N/A

- a. A list of the data requested at 40 CFR § 122.21(r)(4)(ii) through (vi) that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at 40 CFR § 125.92(m), at the facility. The applicant need only identify those species not already identified as fragile at 40 CFR § 125.92(m).

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

Attachment TR-1.c. List of Raw Materials, Major Intermediates, and Final Products

Industrial Technical Report 1.0 - Item 1.a., Page 2

Name	Raw Materials	Major Intermediates	Products or Byproducts
A.R.B. CERT FUEL			Х
A.R.B. CERTIFICATION FUEL			Χ
ACETIC ACID	Х		
Acetic acid, C11-14-branched alkyl esters	Х		
ACETIC ANHYDRIDE	Х		
acetone	Х		
ACETONE OXIME	X		
ACETYLENE	X		
AIR	X		
alcohol ethoxylates	X		
alcohols, C11-15 secondary, ethoxylated	X		
ALKANES (C4 - C16), n.o.s.	X		Х
alkanes, C17 and higher	X		X
ALKANES, C17+	X		X
	X		^
alkyl dimethylethyl ammonium bromide			
alkyl dimethylbenzyl ammonium bromide	X		
ALKYLATE HEAVY HYDROTREATED	X		.,
ALKYLATE HF 400F PLU			X
ALKYLATE HF 450+ INV			X
ALKYLATE HF 500+			Х
ALKYLATE HF HEAVY	Х		
ALKYLATE, 450+			Х
ALKYLATE, HF HEAVY, (C9-C12)			Х
alkylated phenolic polyamine	X		
alkylates	X		Χ
ALLYL ALCOHOL	X		
ALLYL CHLORIDE	Х		
ALT PHASE I FUEL			Χ
ALT PHASE II FUEL			Χ
ALT PHASE II FUEL A			Χ
ALT PHASE II FUEL B			Χ
ALUMINUM	Х		
aminoalkyl naphthalene	Х		
AMS 2629A			Х
AMS 2639A TYPE 1			Х
AMYLENES	Х		
amyl methyl ether, t-	X		
anisole	X		
antioxidant (CAS 101-96-2)	X		
API/ATL FUELS	^		Х
API/ATL FUELS W/MTBE			X
ARB ETHANOL TEST FUEL	+		X
ARB SPECIAL TST FUEL	+		X
	V		^
ARGON	X		
AROMATIC DISTILLATE, HEAVY			
AROMATIC COLVENT 104	X		
AROMATIC SOLVENT 104	X		,,
ASTM D-2887 REF GAS	1		X
ASTM IC8 + 1.25 TEL			X
ASTM IC8 + 2.00 TEL			Х
ASTM IC8 + TEL			Χ

Name	Raw Materials	Major Intermediates	Products or Byproducts
AUTO OILS LPG FUELS (LPG)	Х		Χ
AVGAS 82 UNLEADED			Χ
AVGAS100/130MILF5572			Х
AVIATION CHECK FUEL 100/130			Х
AVIATION GAS 115/145			Х
AVIATION GAS 115/145			Х
AVIATION GAS, LEADED			X
AVL .05 SULFUR DIESEL T			X
B-35A RACE FUEL			X
BDO 47			X
benzaldehyde	X		
benzeneamine	X		
BENZENE	X		
benzonitrile	X		
benzyl allyl chloride	^	Х	
· · · · ·	X	۸	
BENZYL CHLORIDE			
BENZYL DICHLORIDE	Х		
BENZYL MERCAPTAN			X
BENZYL MERCAPTAN, CRUDE		X	
BIS(2-METHOXYCARBONYL PROPYL) SULFIDE		X	
bis(4-chlorophenyl) ether		X	
bis(4-chlorophenyl) sulfide		X	
bis(tributyltin) oxide	X		
BMW FUELS			Χ
BMW FUELS W/ALCOHOL			Χ
BRAZILIAN YELLOW GASOLINE			Χ
BUTADIENE, 1,3-	X		
BUTADIENE, 1,3-	Χ		
BUTANE, N-	X		Χ
butanone, 2-	X		
BUTENE, 1-	X		Χ
BUTENE, 1-, POLYMERIZATION GRADE	X		Χ
butene, 1-			Χ
Butene, 2-	Х		Χ
BUTENE-1 & ISOBUTYLENE	Х		Χ
BUTENE-2 C & T TECH	Х		Х
BUTENE-2 CIS PURE	Х		Х
BUTENE-2 TRANS PURE	Х		Х
BUTENE-2 TRANS TECH	Х		Х
BUTENE-2 C & T PURE	X		X
BUTENE-2 CIS TECH	X		X
butenes, 2-	X		
BUTYL MERCAPTOPROPIONATE	X		
butyl sulfides	^	Х	
butylaniline, p-tert-	Х	^	
butyl toluene, p-tert-	^		Х
BUTYLATED HYDROXYTOLUENE	X		^
	^		
C.A.R.B.A293 LPG CERT FUEL (LPG)			X
C-1 CERTIFICATION FUELS	V		۸
C10 olefins	X		

Name	Raw Materials	Major Intermediates	Products or Byproducts
C10+ AROMATICS	Х		Χ
C10+ PARAFFINS	Х		Χ
C104 SOLVENT (HEAVY REFORMATE)	Х		
C11 olefins	Х		
C12 olefins	Х		
C13 olefins	Х		
C6 olefins	Х		
C7 olefins	Х		
C8 olefins	Х		
C9 AROMATICS (ISOPROPYLBENZENE)	Х		Х
C9 olefins	Х		
CA PII CERT F W/O OX			Х
CAL P-II CERT FU N/O			X
CAL P-II CERT FU N/O			X
calcium acetate	Х		Λ
calcium carbonate	X		
calcium hypochlorite	X		
CALIF P-11 RVO GASO	Λ		Х
CALIF P-11 RVP GASOL			X
CALIF PHASE 1 CER FU			X
CALIF FIASL I CER FO			X
CALIFORNIA CERTIFICATION FUEL			X
CALIFORNIA P.1 CERT FUEL			X
CALIFORNIA P.II CERT FUEL W/ET			X
CALIFORNIA P-II CERT FUEL W/O			
CARB FUELS			X X
CARB LPG CERT FUEL	V		Χ
CARBON DIOXIDE	X		V
carbon disulfide	X		X
CARBONYL SULFIDE	Х		X
CAT CR LT GASOLINE			X
CEC DIESEL (RF-03-A-84)			X
CELITE	X		
chlorinated paraffin	X		
CHLORINE	X		
chlorine dioxide		Х	
chlorobenzene	Х		
chlorobenzotriazole, 5-	Х		
CHLOROETHANE	Х		
chloro-n-butylbenzeneamine, 4-	X		
chloro-n-ethylbenzeneamine, 4-	Х		
chloro-n-methylbenzeneamine, 4-	Х		
chloro-n-propylbenzeneamine, 4-	Х		
chlorophenol, 4-	Х		
chlorophenyl phenyl ether	X		
chloroquinoline	Х		
chlorothioanisole, 4-	X		
CHLOROTOLUENE	Х		
CHRYSLER BLENDS			Χ
CIS-BUTENE-2	Х		Х
clay	Х		

Name	Raw Materials	Major Intermediates	Products or Byproducts
CK FUEL 100/130 AVIA			Χ
cobalt naphthenate	Х		
cobalt neodecanoate	Х		
COLD CO. TEST GAS			Х
COLD CO. TEST GAS PREM			Х
COMBAT GASOLINE			Х
COSDENOL (REFORMATE)	Х		
COSDENOL 104	X		
cottonseed oil	X		
cracked gasoil	X		
CRC DRIVABILITY FUEL	^		Х
CRC DRIVE FUEL W ETH			X
CRC DRIVEABILITY FUELS WITH MT			X
CRC TEST FUEL			X
CRC TEST FUEL/SPECIALTY FUEL		Х	Х
CRUDE ETHYLCYCLOHEXYL DIMERCAPTAN		X	
CUMENE	Х		
CUMMINS SPECIAL DIESEL			X
CYCLOHEXANE	X		
CYCLOHEXENE	Х		
cyclohexene, 4-(2-mercaptoethyl)	X		
Cyclohexene, 4-ethenyl-	X		
CYCLOHEXYL MERCAPTAN, CRUDE		Χ	
CYCLOHEXYL MERCAPTAN			Χ
CYCLOPENTANE	X		
D-2 DCF CUSTOM			Χ
D-2 DIESEL REF FUEL			Χ
D-2887 REFERENCE GAS OIL #1	Х		
DECADIENE, 1,9-	X		
DECALIN	Х		
DECANE/DODECANE CRUDE	Х	Х	
DECENE	Х		
DECENE-1	Х		
DHT-4A (CAS 11097-59-9)			
di(2-hydroxyethyl) disulfide	Х		
DI-4-THIA-7-HEPTANOL ETHER	X		
DIALLYL DISULFIDE	,		Х
DIALLYL POLYSUFLIDE			X
DIALLYL SULFIDE			X
DIALLYL TETRASULFIDE			X
DIALLYL TETRASULFIDE			X
DIALLYL TRISULFIDE			X
	V		^
DIATOMACEOUS EARTH	Х		V
DIBENZYL SULFIDE, 1,2-			X
DIBENZYLDISULFIDE			X
DIBENZYLSULFIDE			X
DIBUTYL ETHER	X		
DICHLOROBENZENE, 1,4-	X		
DICHLOROETHANE, 1,2-	X		
DIESEL .05 SULFUR TYPE 1			X
DIESEL .05 SULFUR TYPE 2			Χ

Name	Raw Materials	Major Intermediates	Products or Byproducts
DIESEL .1 SULFUR TYPE 2			Χ
DIESEL 10% AROMATIC TYPE 2			Χ
DIESEL CEC (RF-73-T-90)			Χ
DIESEL CHECK FUEL HC			Χ
DIESEL D-2 CONTROL FUEL			Χ
DIESEL REF FUEL T-18			Χ
DIESEL REF FUEL T-20			Χ
DIESEL REF FUEL T-21			Χ
DIESEL REF FUEL U-13			Χ
DIESEL REF FUEL U-14			Х
DIESEL ULTRA LOW SULFUR TYPE 2			Х
DIESEL, 0.01 SULFUR			Х
DIESEL, 0.05 SULFUR			Х
DIESEL, 0.05 SULFUR, 38 CET			Х
DIESEL, 10% AROMATIC			X
diethyl dimethyl indane		Х	
DIETHYL DISULFIDE			Х
DIETHYL ETHER	Х		Λ
DIETHYL SULFIDE			Х
diethylene glycol	Х		Λ
diethylene glycol methyl ether	X		
diethylhydroxylamine	X		
DIISOBUTENE	X		Х
DIISOBUTYLENE (25167-70-8)	X		X
DI-ISOPROPYL DISULFIDE	Λ		X
DIISOPROPYL SULFIDE			X
DIMETHYLAMINE	Х		Λ
DIMETHYLBUTYLAMINE	X		
dimethyl disulfide	Λ		Х
DIMETHYLETHYLINDANE	Х		Λ
DIMETHYLINDANE	X		
DIMETHYLPENTANE, 2,3-	X		
DIMETHYL SULFIDE	^		Х
dimethyl trisulfide			X
DIMETHYL-1-BUTENE, 2,3-	Х		^
dimethyl-1-butene, 2,3-	X		
dimethyl-1-butene, 3,3-			
	X		
dimethyl-1-butene, 3,3-, Technical DIMETHYL-3-ETHYLINDANE(DMEI), 1,1-			
	X		
dimethylbenzimidazole	X		
DIMETHYLBUTANE, 2,2-	X		
DIMETHYLBUTANE, 2,3-	X		
DIMETHYLBUTANE, 2,3-, PURE	Х		
dimethylcyclohexane, 1,2-			X
dimethylcyclohexane, 1,3-	V		Х
DIMETHYLCYCLOPENTANE, 1,2-	Х		V
DIMETHYL DISULFIDE			Х
DIMETHYLHEXANE, 2,2-	X		
DIMETHYLHEXANE, 2,4-	X		
DIMETHYLHEXANE, 2,5-	X		
DIMETHYLINDANE, 1,1-	X		

Name	Raw Materials	Major Intermediates	Products or Byproducts
DIMETHYLPENTANE, 2,2-	Х		
DIMETHYLPENTANE, 2,4-	Х		
DIMETHYLPENTANE, 3,3-	Х		
dimethylpyridine	Х		
dimethylpyridinone	Х		
dimethylpyrrole	Х		
DIMETHYLTHIAMORPHOLENE, 2,6-	Х		
dimethylthiophene	Х		
DI-N-BUTYL DISULFIDE			Χ
DI-N-BUTYL ETHER	Х		
DI-N-BUTYL SULFIDE			Χ
DI-N-DODECYL DISULFIDE			X
di-n-octyl disulfide			X
DI-N-OCTYL SULFIDE			Х
DI-NORMAL PROPYL MERCAPTAN			Χ
DI-NORMAL-PROPYL DISULFIDE			Х
DI-N-PROPYL DISULFIDE			Χ
DIPENTENE DIMERCAPTAN			Х
DIPENTENE DIMERCAPTAN, CRUDE		Х	Х
DIPENTENE DIMERCAPTAN, TECH			Х
DIPENTENE MONOMERCAPTAN		Х	
dipenyl ether		Х	
DIPHENYL OXIDE	Х		
DIPHENYLETHANE, 1,2-	Х		
dipropyl disulfide			Χ
DI-S-BUTYL DISULFIDE			Χ
DI-SEC-BUTYL DISULFIDE			Х
DI-SEC-BUTYL SULFIDE			Х
DI-S-OCTYL-SULFIDE			Χ
DISTILLATE, 42			Χ
distillates (petroleum) hydrotreated middle	Х		
distillates (petroleum), hydrotreated heavy naphthenic	Х		
distillates (petroleum), hydrotreated light naphthenic	Х		
distillates (petroleum), light hydrocracked	Х		
DI-T-BUTYL BENZENE			Χ
DI-T-BUTYL SULFIDE			Χ
DI-T-BUTYL TRISULFIDE			Χ
DI-TERT-BUTYL DISULFIDE			Χ
di-tert-butyl-4-methylphenol, 2,6-	Х		
di-tert-butylphenol	Х		
DI-TERT-DODECYL DISULFIDE			Χ
DI-TERT-DODECYL POLYSULFIDE 532			Х
DI-TERT-NONYL DISULFIDE			Х
DI-TERT-NONYL POLYSULFIDE 327			X
DI-TERT-NONYL POLYSULFIDE 537			X
DI-TERT-OCTYL DIPHENYL OXIDE	Х		
di-tert-octyl diphenyl oxide and related compounds	X		Х
DITHIO-3-THIAPENTANE, 1,2-		Х	

Name	Raw Materials	Major Intermediates	Products or Byproducts
DITHIO-3-THIAPENTANE, 1,2-		Χ	
DITHIO-3-THIAPENTANE, 1,5-		Χ	
D-LIMONENE	Х		Χ
D-N-OCTYL SULFIDE			Х
DODECANOL, 1-	Х		
DODECENE-1	Х		
DODECYL MERCAPTOPROPIONATE	Х		
DODECYL METHYL SULFIDE	Х		Х
DSL CEC(RF-73-T-90)			Х
D-S-OCTYL SULFIDE			X
E G & G, RFC			X
E-10 GASOLINE			X
E-10A FUEL			X
E-30A FUEL			X
E-50 A FUEL			X
E-70A FUEL			X
E-85 A FUEL			X
E-85 FUEL			X
EFF-RFC			X
EPA PHASE I GASOHOL			X
EPA PHASE I OXYGENATED			X
ETHANE	Х		
ETHANE DICHLORIDE	Х		
ETHANEDITHIOL, 1,2-			Х
ETHANEDITHIOL, 1,2-			Χ
ETHANEDITHIOL, 1,2-, CRUDE		X	
ETHANOL	X		
ethanolamine	X		
ETHER	X		
ETHYCYCLOHEXYL DIMERCAPTAN	Χ		Χ
ETHYL 2-OCTYL SULFIDE	X		Χ
ETHYL AMINE	X		
ETHYL BENZENE (100-41-4)	Х		
ETHYL CHLORIDE	Х		
ETHYL CYCLOHEXYL DIMERCAPTAN	Х		Х
ETHYL MERCAPTAN	Х		Х
ETHYL MERCAPTAN, 2-(BENZYLTHIO)-	Х		
ETHYL N-OCTYL SULFIDE			Х
ETHYL N-OCTYL SULFIDE, CRUDE		Х	
ETHYL N-OCTYL SULFIDE, SPEC			Х
ETHYL S-OCTYL SULFIDE			X
ETHYL SULFIDE			X
ETHYL TERT-BUTYL ETHER, SPEC	Х		X
ETHYL TERTIARY BUTYL ETHER	X		X
ETHYL THIOACETATE, CRUDE	^	Х	^
ETHYL THIOACETATE, CROBE		Λ	Х
ETHYL THIOACLTATE, SPEC	Х		X
ETHYL THIOETHANOL ETHYL THIOPROPANOL	X		X
ETHYL-1,3-HEXANEDIOL, 2-	X		۸
	۸	V	
ETHYLCYCLHEXYL DIMERCAPTAN CR		Х	
ETHYLCYCLOHEXYL DIMERCAPTAN			X

Name	Raw Materials	Major Intermediates	Products or Byproducts
ETHYLCYCLOHEXYL SULFIDES			Χ
ETHYLENE	Х		
Ethylene Dibromide	Х		
Ethylene Dichloride	Х		
ethylene glycol	Х		
ETHYLHEXYL MERCAPTOPROPIONATE	X		Х
ETHYLTHIOACETATE			X
ETHYOXYLATED ALCOHOL (TERGITOL)	Х		,
EUR LEADED RACE FUEL			Х
EUR UNLEAD RACE FUEL			X
EUROSUPER ESP GASOLINE			X
EXXON CERTIFICATION FUEL			X
FAA FUEL 3			X
			۸
fatty acids	X		
fatty acids methyl esters	X		
fatty oils	X		
FEDERAL EXP CERTIFICATION FUEL			Χ
FORD HI-OCTANE FUEL			Χ
FORD HI-OCTANE GAS			Χ
FORD OCTANE FUELS			Χ
FUEL GAS (sweet)	Χ		
FUEL OILS	Х		
FUEL W/ETOH (IVD), 65TH PERCENTILE			Χ
FUEL W/MTBE (IVD), 65TH PERCENTILE			Х
FUEL-HC ONLY (IVD), 65TH PERCENTILE			Χ
FULL RANGE REFORMATE	Х		
GAS BLEND 29-A-8-91			Х
GAS BLEND 29-A-8-91 (LPG)			Х
GAS MIXTURE CUSTOM BLEND			Х
GAS MIXTURE G-6			X
GAS MIXTURE G-7 (LPG)			X
GAS MIXTURE G-8 (LPG)			X
GAS MIXTURE, CUSTOM (LPG)			X
gasoil	Х		Λ
GASOLINE, 11# RVP	Λ		Х
GASOLINE, 11# RVP			^ X
		V	۸
GASOLINE, CAT CR HV	X	X	
GASOLINE, CAT CR HVS	X	X	
GASOLINE, CAT CR LT	X	X	
GASOLINE, HEAVY CUT	X	X	
GASOLINE, INTER CUT	X	Х	
GASOLINE, LIGHT CUT	X	Х	
GASOLINE, OFF-COLOR			Χ
GASOLINE, PREM UNLEADED NOAD			Χ
GASOLINE, REG UNLEADED NOAD			Χ
GM 6134M LOW VOLATILITY			Χ
GM 6135M HIGH VOLATILITY			Χ
GM 6144 FUEL			Χ
GM CEC GASOLINE			Χ
GM DRIVABILITY FUEL HI			Х
GM DRIVABILITY FUEL LO			Х

		Intermediate s	Byproducts
GM FUEL-SPECIAL OPEL			Χ
GM LEADED FUEL			Χ
GM MATRIX FL W/ETHAN			Х
GM MATRIX FL W/MTBE			Х
GM MATRIX FUEL (NEAT)			Х
GM OCTANE FUELS			X
GPA NGL MIX NO. 1			X
GPA NGL MIX NO. 2			X
GPA NGL MIX NO. 3			X
GPA NGL MIX NO. 4			X
GPA NGL MIX NO. 5			X
GPA NGL MIX NO. 6			X
HE DRIVEINDEX (DI) F			X
HEAVIES (>377 DEGREES F BP)			X
HEAVIES (2,2,4 trimethyl pentane dist)			X
HEAVIES (3,3-dimethyl butane dist)			X
HEAVIES (Alkylaromatics dist)			X
HEAVIES (C11+)(n-Decane dist)			Х
HEAVIES (C13+)(n-Dodecane dist)			X
HEAVIES (DIALKYLAROMATICS)			Х
HEAVIES (di-butyl ether dist)			Х
HEAVIES (isobutylbenzene dist)			Χ
HEAVIES (n amyl benzene dist)			Χ
HEAVIES (n-Heptane dist)			Χ
HEAVIES (para-t-butyl toluene dist)			Χ
HEAVIES (Q3, DINC3S, & Q4)(Di-n-propyl			V
mercaptan dist)			Х
HEAVIES (Q5) (n-dodecyl mercaptan dist)			Χ
HEAVY ALKYLATE	Χ		
heavy aromatic solvent naphtha	Х		
HEAVY CUT GASOLINE	Х		Χ
heavy paraffinic distillate	Х		
HEAVY REFORMATE	Х		
HELIUM	X		
HEPTANES	X		Х
HEPTENE	X		
HEXADECYL MERCAPTAN	X		Х
HEXAMETHYLENETETRAAMINE	X		^
HEXANE, OTHER ISOMERS	X		Х
HEXENE			^
	X		
hexene (all isomers)	X		
HEXENE, 1-	X		
HEXENE-1	X		
HEXENE-1 TECH	X		
HEXYL MERCAPTAN			Х
HF HEAVY ALKYLATE (C9 - C12)	Х		
HF LIGHT ALKYLATE	Х		
HFLA UNLEADED AVIATION			Χ
HI DRIVEABILITY INDEX (DI) FUEL			Χ
High Flash Aromatic Naphtha (Aromatic 150)	Х		
High Flash Aromatic Naphtha (Aromatic 200)	Χ		

Name	Raw Materials	Major Intermediates	Products or Byproducts
HIGH SULFUR DIESEL			Χ
HIGH SULFUR GASOLINE			Χ
HiTec 6421 Fuel Additive	Х		
HONDA/EPA/ECE TEST			Χ
HP-7 PLATFORMATE	Х		
hydraulic oil	Х		
HYDROCARBON MIX 31 (LPG)			Х
HYDROCARBON MIX 33 (LPG)			Х
HYDROCARBON MIX 34 (LPG)			Х
HYDROCARBON MIX 35 (LPG)			Х
HYDROCARBON MIX 36			Х
HYDROCARBON MIX 37			X
HYDROCARBON MIX 38 (LPG)			X
HYDROCARBON MIX 40 (LPG)			X
HYDROCARBON MIX 41 (LPG)			X
HYDROCARBON MIX 42 (LGP)			X
HYDROCARBON MIX 43 (LPG)			X
HYDROCARBON MIX 44 (LPG)			X
HYDROGEN	Х		^
HYDROGEN CHLORIDE	X		
HYDROGEN PEROXIDE	X		V
HYDROGEN SULFIDE	X		X
HYDROGENATE POLYBUTENE	X		
hydrotreated distillate	X		
hydrotreated light distillate petroleum	X		
hydrotreated mixed aliphatic hydrocarbon	X		
hydrotreated petroleum distillates	X		
HYDROXY ETHYL PHENYL SULFIDE			
hydroxypropyl disulfide, 3-			
hydroxypropyl sulfide, 3-			
IBB HEAVIES			Χ
IC8 + 0.15 TEL			Χ
IC8 + 0.2 TEL			Χ
IC8 + 1.25 TEL			Χ
INDOPOL (POLYBUTENE)			Χ
INJECTOR FOULING FUEL			Χ
INT'L DIESEL FUEL			Χ
INTER CUT GASOLINE			Χ
IPHA	Χ		
IRON	Х		
ISOBUTANE	Х		Χ
ISOBUTANE PURE			Х
ISOBUTANE,INSTRUMENT			Х
Isobutene	Х		
ISOBUTYL MERCAPTAN			Х
ISOBUTYLBENZENE			Х
ISOBUTYLBENZENE, CRUDE		Х	-
ISOBUTYLBENZENE, PURE			Х
ISOBUTYLENE	Х		- `
ISOBUTYLENE PURE			Х
ISOBUTYLENE TRIMERS	Х		
TOODO (TEENE TIMENO	^		

Name	Raw Materials	Major Intermediates	Products or Byproducts
ISOHEXANES	Х		
ISOHEXANES COMM	Х		
ISOMERATE	Х		
ISOMERATE	Х		
ISOOCTANE	Х		Х
ISOOCTANE CONCENTRAT			Х
ISOOCTANE PRF & TEL			Х
ISOOCTANE PRF & TEL			Х
ISOOCTANE PRIMARY REF FUEL			Х
ISOOCTANE PURE			Х
ISOOCTANE, ASTM - TEL			Х
ISOOCTANE, ASTM REF F			Х
ISOOCTANE, ASTM REF FUEL			X
ISOOCTANE, ASTM+TEL			X
ISOOCTANE, PRF			X
ISOOCTANES		Х	X
ISOOCTANES (Iso-olefin mix from 2,4,4 trimethylpentene)		X	X
		^	^
ISOOLEFINS (C8 HC MIXTURE)	Х		
ISOPENTANE	Х		
ISOPENTANE COMM			Х
ISOPENTANE PURE			Х
ISOPRENE	Х		
ISOPROPANOL (CAS 67-63-0)	Х		
ISOPROPYL BENZENE	X		X
ISOPROPYL HYDROXYL AMINE	X		
ISOPROPYL MERCAPTAN TECH			X
ISOPROPYL MERCAPTAN, SPEC			X
ISOPROPYL SULFANYL ETHER	Х		
ISOPROPYL SULFIDE			Х
ISOPROPYL THIOETHANOL			Χ
ISOPROPYLAMINE	Х		
JET A			Х
JET RF			Х
JET RF(AMS 2629A TYPE 1)			Х
JP.4 MIL-T-5624 JET			Х
JP-5 (MIL-T-5624)			Χ
JP-5/JP-8			Х
JP-8 MIL-T-83133A JET			Х
kerosene	Х		
Light aromatic solvent naphtha	X		
light base oils	X		
LIGHT CUT GASOLINE	X		
LIGHT GROUP 2	X		
LIGHTS (C10-C11)	,		Х
LIGHTS (C8-)			X
LIGHTS (Q0) ETC	†		X
LIQUID MIX,CUSTOM BL			X
LOW SULFUR DIESEL			X
LOW SULFUR DIESEL			X
LPG Fuels			X
Li O i della	<u> </u>		٨

Name	Raw Materials	Major Intermediates	Products or Byproducts
LPG REFERENCE STD A ASTM (LPG)			Χ
LPG REFERENCE STD B ASTM (LPG)			Χ
LPG REFERENCE STD C ASTM (LPG)			Χ
LPG REFERENCE STD D ASTM (LPG)			Х
LPG REFERENCE STD E ASTM (LPG)			Х
lube oil and additives	Х		
LUBRIZOL 84RON	Х		
LUBRIZOL 85RON	X		
LUBRIZOL 86RON	X		
LUBRIZOL 87RON	X		
LUBRIZOL 88RON	X		
LUBRIZOL 89RON	X		
LUBRIZOL 90RON	X		
LUBRIZOL 91RON	X		
LUBRIZOL 92RON	X		
LUBRIZOL 93RON	X		
LUBRIZOL 94RON	X		
LUBRIZOL 95RON	X		
LUBRIZOL 96RON	X		
LUBRIZOL 97RON	Х		
LUBRIZOL 98RON	X		
M-10A FUEL			Х
M-20 FUEL			Χ
M-30A FUEL			Χ
M-50 A FUEL			Χ
M-65 FUEL			Χ
M-70A FUEL			Χ
M-85 FUEL			Χ
M-85A FUEL			Χ
MERCAPTO-1-PROPANOL, 2-			Χ
mercapto-1-propanol, 3-			Χ
mercapto-1-propanol, 3-, crude		Х	
MERCAPTOETHANOL, 2-			Х
MERCAPTOPROPRIONATE, 3-	Х		Х
MERCURY MARINE			Х
MERCURY MARINE FM0300			X
MERCURY MARINE FM1100			X
META-T-BUTYL BENZENE (M-TBB)			X
METAXYLENE TECH	Х		X
METHANE	X		Λ
METHANE BLENDS	^		Х
	Х		^
methanesulfonic acid			
methanesulfonyl chloride	X		
METHANOL The strain of the str			
methoxyfuran, 2-	X		
methoxyphenol, 4-	X		
METHYL CARBITOL	X		
METHYL CYCLOPENTANE	X		X
methyl disulfide			Х
METHYL ETHYL AMINE	X		
METHYL ETHYL SULFIDE			X

		Intermediates	Products or Byproducts
METHYL HEPTANE	Х		
METHYL ISOPROPYL KETONE	Х		
METHYL ISOPROPYL SULFIDE			Χ
METHYL MERCAPTAN			Χ
METHYL MERCAPTIDE			Χ
METHYL NAPHTHALENES	Х		
methyl pentane, 3-	Х		Χ
METHYL TERT-BUTYL ETHER	Х		
METHYL-1,3-BUTADIENE, 2-	Х		
METHYL-1-BUTENE, 2-	Х		
METHYL-1-BUTENE, 3-	Х		
METHYL-1-PENTENE, 3-	Х		
methyl-1-pentene, 4-	Х		
methyl-2-butanol, 3-	X		
METHYL-2-BUTENE, 2-	X		
METHYL-2-BUTENE, 2-, COMMERCIAL	^		Х
METHYL-3-MERCAPTOPROPRIONATE	Х		X
METHYL-3-PHENYLPENTANE, 3-	^		X
methylbenzofuran, 2-	Х		Λ
METHYLCYCLOHEXANE, COMMERCIAL GRADE	^		Х
METHYLCYCLOHEXANE, PURE			X
			X
METHYLCYCLOHEXANE, TECH	V		^
Methylcyclopentadienyl manganese tricarbonyl	X		
METHYLCYCLOPENTANE METHYLLEVANE 2	X		
METHYLHEXANE, 3-			
methyllindole, 3- (scatole)	X		
METHYLNONANE, 3-	X		
METHYLNONANE, 5-	X		
METHYLPENTANE, 2-	X	Х	
METHYLPENTANE, 2-, PURE			X
methylpentane, 3-	X	Х	.,
methylpentane, 3-, Pure			Х
METHYLSULFOLANE, 3-			X
MIL S3136B TYPE 1 TEST FLUID			Х
MIL VVF-800 DF-A			Χ
MIL-C-7024D SOLT170M			X
MIL-F-38299B PURGING FLUID			X
MIL-F-46162C DIES RF			Х
MILS3136B TYPE 2 TES			Х
MILS3136B TYPE 3 TES			Х
MILS3136B TYPE 7 TES			Х
MIL-VVF-800 DF-2			Χ
mineral oil (vapor)	X		
MINERAL SPIRITS (CAS 8032-32-4)	X		
MIXED HEXANES	X		
monoethanolamine	X		
MTBE TEST STANDARD			Х
MTBT			Х
M-TERTIARY BUTYL TOLUENE (M-TBT)			Х
M-XYLENE			Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
N- HEXANE, TECH			Χ
Na2SO3	X		
N-AMYL AMINE	Х		
N-AMYL BENZENE			Χ
N-AMYL BENZENE/N-PENTENYL BENZENE			Χ
NAPHTHA, VM&P	Х		
NAPHTHALENE	Х		
naphthenic oil	Х		
NAPTHENES (>120F)	Х		
NATURAL GAS CONDENSATE	X		
NATURAL GAS STD CALI (LPG)			Х
NATURAL GAS STD NGPA (LPG)			X
N-BUTANE	Х		Λ
N-BUTANE PURE	Λ		Х
N-BUTANE, INSTRUMENT			X
			X
N-BUTANE/ISOBUTANE BLEND (80/20)			X
N-BUTYL MERCAPTAN COURS		V	Χ
N-BUTYL MERCAPTAN, CRUDE		Х	
N-BUTYL MERCAPTAN, TECH			X
N-BUTYLBENZENE, PURE	.,		X
N-DECANE, COMM	X		X
N-DECANE, PURE	Х		X
N-DECYL MERCAPTAN			X
N-DECYL MERCAPTAN, CR		Х	
N-DECYL MERCAPTAN, TECH			Х
N-DODECANE	Х		
N-DODECANE, CRUDE		Χ	
N-DODECANE, TECH			Χ
N-DODECYL MERCAPTAN 92			Χ
N-DODECYL MERCAPTAN 98			Χ
N-DODECYL MERCAPTAN COMM			Χ
N-DODECYL MERCAPTAN HEAVIES (PRIMARY			Х
C24 SULFIDES)			^
N-DODECYL MERCAPTAN, CRUDE		Χ	
N-DODECYL METHYL SULFIDE			Χ
N-DODECYL METHYL SULFIDE, CRUDE		Х	
N-DODECYL METHYL SULFIDE, DDM			Χ
N-DODECYL-3-MERCAPTOPROPIONATE			Χ
N-DODECYL-3-MERCAPTOPROPIONATE			Х
NEOHEXANE	Х		
NEOHEXANE PURE			Х
NEOPENTANE	Х		
N-ETHYL-1,2-DIMETHYL-PROPYLAMINE	X		
NGPA NGL MIX NO 1 (LPG)	^		Х
NGPA NGL MIX NO 2 (LPG)			X
NGPA NGL MIX NO 3 (LPG)	 		X
NGPA NGL MIX NO 4 (LPG)	 		X
· ,			
NGPA NGL MIX NO 5 (LPG)	 		X
NGPA NGL MIX NO 6 (LPG)	V		X
N-HEPTANE BLEND	X		
N-HEPTANE LOW AROMATIC	X		

N-HEPTANE PRIMARY REF FUEL
N-HEPTANE, ASTM REF FUEL
N-HEPTANE, COMM X N-HEPTANE, PRIMARY REF FUEL X N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTANE, PRIMARY REF FUEL X N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X X X
N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTANE, PURE X N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSAN GASOLINE X NITROGEN X NITROGEN X
N-HEPTYL MERCAPTAN X N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X NICKEL X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISSOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXADIENE X N-HEXANE X N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE X X N-HEXANE BLEND X X N-HEXANE HIGH PURITY X X N-HEXANE, PURE X X N-HEXYL MERCAPTAN X X N-HEXYL MERCAPTAN, CRUDE X X N-HEXYL MERCAPTAN, TECH X X nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X X NICKEL SULFITE X X NISO4 . 6 H2O X X NISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
N-HEXANE BLEND X N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X NISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE HIGH PURITY X N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXANE, PURE X N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXYL MERCAPTAN X N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXYL MERCAPTAN, CRUDE X N-HEXYL MERCAPTAN, TECH X nickel X NICKEL COMPOUNDS X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
N-HEXYL MERCAPTAN, TECH X nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X X NICKEL SULFITE X X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
nickel X X NICKEL COMPOUNDS X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X X
NICKEL COMPOUNDS X X NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NICKEL SULFATE X NICKEL SULFITE X NISO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NICKEL SULFITE X NiSO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X
NiSO4 . 6 H2O X X N-ISOPROPYLHYDROXYLAMINE X X NISSAN GASOLINE X X NITROGEN X X
N-ISOPROPYLHYDROXYLAMINE X NISSAN GASOLINE X NITROGEN X X
NISSAN GASOLINE X NITROGEN X X
NITROGEN X X
'
N-METHYL PYROLIDONE X X
N-METHYL-2-PYRROLIDONE X X
N-METHYLPYROLIDONE BOTTOMS X
N-NONANE X X
NO SULFUR GASOLINE X
N-OCTADECYL MERCAPTAN X
N-OCTADIENE X
N-OCTANE X X
N-OCTANE 97% X
N-OCTANE, CRUDE X
N-OCTANE, TECH X
N-OCTYL MERCAPTAN X
N-OCTYL MERCAPTAN, TECH X
N-OCTYL MERCAPTAN,CRUDE X
N-OCTYL POLYSULFIDE X
N-OCTYL S-OCTYL SULFIDE X
NONANE (CAS 111-84-2) X X
NONENE X
NONENYL BENZENE X
NOSE GUARD ^(R) (D-LIMONENE + ISOPROPANOL) X
N-PENTANE X X
N-PENTANE & I-PENTANE BLEND X
N-PENTANE COMM X
N-PENTANE PURE X
N-PENTANE/N-HEXANE X
N-PENTENYL BENZENE X

N-PROPYL BENZENE N-PROPYL BENZENE N-PROPYL MERCAPTAN, CRUDE N-PROPYL MERCAPTAN, TCCH OCTANE NO 50 REF FUE	Name	Raw Materials	Major Intermediates	Products or Byproducts
N-PROPYL MERCAPTAN, TCCH N-PROPYL MERCAPTAN, TECH N-PROPYL MERCAPTAN, T	N-PROPYL BENZENE		Χ	
NPROPPL MERCAPTAN, TECH OCTANE NO 60 REF FUE OCTANE NO 80 REF FUE OCTANE NO 80 REF FUE OCTANE NO 81 REF FUE OCTANE NO 83 REF FUE OCTANE NO 85 REF FUE OCTANE NO 87 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE NO 97 REF FUE OCTANE NO 98 REF FUE OCTANE	N-PROPYL MERCAPTAN			Χ
OCTANE NO 60 REF FUE X OCTANE NO 80 REF FUE X OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO 99 REF FUE X	N-PROPYL MERCAPTAN, CRUDE		X	
OCTANE NO 80 REF FUE X OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X	N-PROPYL MERCAPTAN, TECH			Χ
OCTANE NO 81 REF FUE X OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO 99 REF FUE X	OCTANE NO 60 REF FUE			Χ
OCTANE NO 82 REF FUE X OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X	OCTANE NO 80 REF FUE			Χ
OCTANE NO 83 REF FUE X OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 94 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X	OCTANE NO 81 REF FUE			Χ
OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 98 REF FUE X OCTANE, NO 98 REF FUE X OCTANE, NO 99 REF FUE X </td <td>OCTANE NO 82 REF FUE</td> <td></td> <td></td> <td>Χ</td>	OCTANE NO 82 REF FUE			Χ
OCTANE NO 84 REF FUE X OCTANE NO 85 REF FUE X OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 98 REF FUE X OCTANE, NO 98 REF FUE X OCTANE, NO 99 REF FUE X </td <td>OCTANE NO 83 REF FUE</td> <td></td> <td></td> <td>Х</td>	OCTANE NO 83 REF FUE			Х
OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE <td< td=""><td>OCTANE NO 84 REF FUE</td><td></td><td></td><td>Х</td></td<>	OCTANE NO 84 REF FUE			Х
OCTANE NO 86 REF FUE X OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE <td< td=""><td>OCTANE NO 85 REF FUE</td><td></td><td></td><td>Х</td></td<>	OCTANE NO 85 REF FUE			Х
OCTANE NO 87 REF FUE X OCTANE NO 88 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 94 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 90 REF FUE X OCTENE, NO 90 REF FUE <	OCTANE NO 86 REF FUE			
OCTANE NO 88 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE SET FUEL X OCTALE SET FUEL X OCTALE SET FUEL				
OCTANE NO 89 REF FUE X OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE TEST FUEL X OCTANE, N- X OCTENE, 1- X OCTENE, 1- X OCTENE, 1- X OCTYL SULFIDES X OGA 293 Diesel Fuel Additive X OII, lube (vapor) X OIIs (misc. vapor) X OLIGOMERS (isobutylene dimers, trimers, etc from X TST process) X OLIGOMERS (propylene dimers, trimers, etc from X IBB process) X OLIGOMERS (propylene dimers, trimers, etc from			_	
OCTANE NO 90 REF FUE X OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 94 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 98 REF FUE X OCTALENE, NO X				
OCTANE NO 91 REF FUE X OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE FOR YELL X OCTANE NO 99 REF FUE X OCTANE, N. X X OCTENE, 1- X X OCTENE, 1- X X OCTENE, 1- X X OCTYL, MERCAPTAN X X OCTYL SULFIDES X X OGA 293 Diesel Fuel Additive X X oil, Jube (vapor) X X oils (misc. vapor) X X OLEFINS < 300F				
OCTANE NO 92 REF FUE X OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO 99 REF FUE X OCTANE, NO YANDER X OCTENE, 1- X OCTENE, 1- X OCTENE, 1- X OCTYL MERCAPTAN X OCTYL SULFIDES X OGA 293 Diesel Fuel Additive X oil, lube (vapor) X oils (misc. vapor) X OLEFINS < 300F				
OCTANE NO 93 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO X X OCTENE, NO X X OCTENE, 1- X X OCTENE, 1- X X OCTENE, 1- X X OCTYL MERCAPTAN X X OCTYL SULFIDES X X OGA 293 Diesel Fuel Additive X X oil, lube (vapor) X X oils (misc. vapor) X X OLIEFINS < 300F				
OCTANE NO 94 REF FUE X OCTANE NO 95 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE, NO 99 REF FUE X X X OCTYLL WARD X OCTALE, NO 99 REF FUE X X X OLTCALD X <				
OCTANE NO 95 REF FUE X OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE NO 99 REF FUE X OCTANE TEST FUEL X OCTANE, N- X X OCTENE, 1- X X OCTENE, 1- X X OCTENE, 1- X X OCTYL MERCAPTAN X X OCTY. SULFIDES X X OGA 293 Diesel Fuel Additive X X oil, lube (vapor) X X oils (misc. vapor) X X OLEFINS < 300F				
OCTANE NO 96 REF FUE X OCTANE NO 97 REF FUE X OCTANE NO 99 REF FUE X OCTANE NO 99 REF FUE X OCTANE REST FUEL X OCTANE, N- X X OCTENE -4-RECYCLE X X OCTENE, 1- X X OCTENE, 1- X X OCTYL MERCAPTAN X X OCTYL SULFIDES X X OGA 293 Diesel Fuel Additive X X OII, lube (vapor) X X Oils (misc. vapor) X X OLEFINS < 300F				
OCTANE NO 97 REF FUE X OCTANE NO 98 REF FUE X OCTANE TEST FUEL X OCTANE, N- X X OCTENE, A-RECYCLE X X OCTENE, 1- X X OCTYL MERCAPTAN X X OCTYL SULFIDES X X OGA 293 Diesel Fuel Additive X OI, lube (vapor) oil, lube (vapor) X OI oils (misc. vapor) X OLEFINS < 300F				
OCTANE NO 99 REF FUE X OCTANE TEST FUEL X OCTANE, N- X OCTENE, 1- X OCTENE, 1- X OCTYL MERCAPTAN X OCTYL SULFIDES X OGA 293 Diesel Fuel Additive X oil, lube (vapor) X oils (misc. vapor) X OLEFINS < 300F				
OCTANE NO 99 REF FUE X OCTANE, N- X X OCTENE -A-RECYCLE X X OCTENE, 1- X X OCTENE-1 X X OCTYL MERCAPTAN X X OCTYL SULFIDES X X OGA 293 Diesel Fuel Additive X OI, lube (vapor) oil, lube (vapor) X OIGENIS oils (misc. vapor) X ODEFINS OLEFINS < 300F				
OCTANE TEST FUEL X OCTANE, N- X X X OCTENE -A-RECYCLE X X X OCTENE, 1- X X X OCTYL SULFIDES X X X OGA 293 Diesel Fuel Additive X X OGA 293 Diesel Fuel Additive X X A OGA 293 Diesel Fuel Additive X X X X X X X X X X X X X X <td></td> <td></td> <td></td> <td></td>				
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IBB process	OLIGOMERS (propylene dimers, trimers, etc from		v	v
ORTHOXYLENE TECH X oxo-alcohol acetic acid ester X OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	IBB process)		^	^
oxo-alcohol acetic acid ester X OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	ORTHOXYLENE PURE			Χ
OXYGEN X O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	ORTHOXYLENE TECH			Χ
O-XYLENE, PURE X PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	oxo-alcohol acetic acid ester	X		
PALLADIUM X Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	OXYGEN	X		
Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X	O-XYLENE, PURE			Х
Panalane (hydrogenated polybutene) X PARAFFIN OIL X PARAFINIC DISTILLATE X		Х		
PARAFFIN OIL X PARAFINIC DISTILLATE X				Х
PARAFINIC DISTILLATE X		Х		
	PARAFINIC DISTILLATE			
	PARA-TERT-BUTYL TOLUENE (P-TBT)	Х		Х

Name	Raw Materials	Major Intermediates	Products or Byproducts
PARAXYLENE FLASH POINT CHECK			Χ
PARAXYLENE PURE			Χ
PENTADIENE, 1,3-	Х	Χ	
PENTANE, N-	Х	Х	
pentene (all isomers)	Х		
PENTENE-1	Х		
PERF A FUEL			Х
PERF N FUEL			Х
PERF R FUEL			Х
PETROLEUM DISTILLATES	Х		
PETROLEUM ETHER	Х		
PETROLEUM ETHER 30-60C	Х		
PETROLEUM OIL (CAS 8002-05-9)	X		
PETROLEUM SPIRITS (CAS 8032-32-4)	X		
PHASE III TEXT GAS	^		Х
PHENOL		Х	X
phenyl ether, (4-chlorophenyl)		X	^
phenyl sulfide, (4-chlorophenyl)		X	
phenylpentane, 3-	Х	^	
PHILLIPS 142 SOLVENT (CAS 68551-18-1)	X		
PHILLIPS 142 SOLVENT (CAS 68551-16-1) PHILLIPS 142 SOLVENT (CAS 68551-18-8)	X		
·	X		
PINANYL MERCAPTAN			X
PINANYL MERCAPTAN, 10-			X
PINANYL MERCAPTAN, 2-			X
pinanyl mercaptan, 3-			X
PINANYL MERCAPTAN-2			X
PINANYL MERCAPTAN-3			X
PINENE, ALPHA-	Х		
PINENE, ALPHA & BETA	X		
PINENE, BETA-	X		
piperazine, 1-(2-aminoethyl)-	X		
PIPERIDINE			X
PIPERLYENE	X		X
PLATFORMATE HP-7 (HEAVY REFORMATE)	Х		
Platformate HP-7 LP-7	Х		
PLATFORMATE RICE HVY	Х		
PLATFORMATE UNIT 19 CUT 1	Х		
POLYBUTADIENE (CAS 9003-17-2)			Χ
POLYBUTENE	Х		Χ
Polyethylbenzene Residue	Х		
polyethylene glycol nonophenyl ether	Х		
POLYMER (FROM SULFOLANE/SULFOLENE)			Х
Polymercaptan			Χ
Polyphenylene sulfide resin			Χ
Polysulfone Polymer		Х	
polythioamidoamine			Х
potassium hydroxide	Х		
PRECIPITATION NAPHTHA	X		
PREMIUM UNLEADED GA			Х
PREMIUM UNLEADED GAS			X
PROPANE	Х		
TROTAIL	^		

Name	Raw Materials	Major Intermediates	Products or Byproducts
PROPANE PURE			Χ
PROPANE, INSTRUMENT			Χ
PROPANEDITHIOL, 1,2-			Χ
propanol sulfides		Χ	
propanol, 1-	Х		
propylbenzene, n-	Х		
PROPYLENE	Х	Х	
propylene dimers		Х	
propylene glycol	Х		
PROPYLENE OXIDE	Х	Х	
PROPYLENE TETRAMER	Х	Х	
PROSTOCK FUEL			Х
P-TERTIARY BUTYL TOLUENE			X
P-XYLENE			X
PYRIDINE	Х		X
PYRROLIDONE	Λ		Х
RACING FUEL	 		X
RACING FUEL RACING FUEL 100 OCTANE UL			
			X
RACING FUEL 100 OCTANE UL-A			X
RACING FUEL 108 OCTANE LEADED			X
RACING FUEL 114 OCTANE LEADED			X
RACING FUEL B-32			X
RACING FUEL B-32-LL			Х
RACING FUEL B-33			Х
RACING FUEL B-35			Х
RACING FUEL B-35-A			Χ
RACING FUEL B-35-B			Χ
RACING FUEL B-37			Χ
RACING FUEL B-38			Χ
RACING FUEL B-42			Χ
RACING FUEL MOBIL			Χ
REF FUEL C +25% ETH			Χ
REFERENCE FUEL A			Χ
REFERENCE FUEL B			Χ
REFERENCE FUEL C			Χ
REFERENCE FUEL C + 25% ETHANOL			Χ
REFERENCE FUEL D			Х
REJECTS HIGH SULFUR (B11)			Х
RELATED COMPOUNDS (CONTAMINANT IN N-			
DODECYL METHYL SULFIDE)			Х
RELATED COMPOUNDS (CONTAMINANTS IN			
DIPENTENE DIMERCAPTAN)			Х
RELATED ISOMERS (CONTAMINANT IN			
ETHYLCYCLOHEXYL DIMERCAPTAN)	1		X
RENAULT ESP	 		Х
RENAULT EUROSUPER ESP GASOLINE	-		X
	V		٨
Renoil 31 (lubricant)	X		
Renoil 36-S (lubricant)	Х		V
RF-A	 		X
RF-A (RVP FUELS)			X
RF-A (W/O ADDITIVES)	ĺ		Χ

Name	Raw Materials	Major Intermediates	Products or Byproducts
RF-C3			Χ
RF-C35			Χ
RF-C4			Χ
RF-C46			Χ
RF-C5			Χ
RF-C6			Χ
RF-C7			Х
RF-C8			Х
RF-F			Х
RF-I			Х
RF-S0			Х
RF-S1			X
RF-S2			X
RF-S45			X
RF-S90			X
RMFD 340-82 REF FUEL			X
RMFD 386			X
RMFD 387			X
RMFD 388			X
RMFD 389			
RMFD 390			X
			X
RMFD 391			X
RMFD 392			X
RMFD 393			X
RMFD 394			X
RMFD 395			X
RMFD 396			Х
RMFD 397			Х
RMFD 398			Х
RMFD 399			Χ
RMFD 400			Х
RVP GASOLINE			Х
RVP GASOLINES			Χ
SAUDI CERTIFICATION FUEL			Χ
S-BUTYL BENZENE			Χ
S-BUTYL MERCAPTAN, 99% COM			Χ
S-BUTYL MERCAPTAN, CRUDE		Χ	
SCENTINEL (R) BLENDS			Χ
SCENTINEL 0-10			Χ
SCENTINEL 0-10-M			Χ
SCENTINEL 0-10-SB			Χ
SCENTINEL A (ETHYL MERCAPTAN)			Χ
SCENTINEL A-10			Χ
SCENTINEL C			Х
SCENTINEL D			Х
SCENTINEL E			Х
SCENTINEL F-20			X
SCENTINEL F-25			X
SCENTINEL F-35			X
SCENTINEL F-40			X
SCENTINEL F-50			X
OCCUPATION OF THE PROPERTY OF	<u> </u>		Λ

Name	Raw Materials	Major Intermediates	Products or Byproducts
SCENTINEL F-80			Χ
SCENTINEL H-85			Χ
SCENTINEL I			Х
SCENTINEL N			Х
SCENTINEL P			X
SCENTINEL P-T			X
SCENTINEL Q			X
SCENTINEL S-20			X
SCENTINEL S-35			X
SCENTINEL S-50			X
SCENTINEL T			X
SCENTINEL T-50			X
S-DODECYL METHYL SULFIDE			X
SECONDARY DODECYL MERCAPTAN			X
SECONDARY HEXYL MERCAPTAN			X
SECONDARY OCTYL MERCAPTAN			X
SECTION L BLEND NO 5 ASTM (LPG)			X
SECTION L BLEND NO 6 (LPG)			Х
SECTION L BLEND NO 6 ASTM (LPG)			Х
SHELL FLEX			Х
SHELL FLEX			Χ
S-OCTYL MERCAPTAN		Х	Χ
SODA ASH	X		
SODIUM ACETATE	Χ		
sodium bisulfite	Χ		
sodium carbonate	X		Χ
SODIUM CHLORIDE	Х		Х
sodium chlorite	X		
SODIUM HYDROSULFIDE	Х		Χ
SODIUM HYDROXIDE	Х		
sodium hypochlorite	Х		
sodium methanethiolate	Х	Х	Х
sodium methyl mercaptide	Х	Х	Х
sodium methylaminobutyrate	,	X	
sodium n-butyl mercaptide		X	
sodium potassium	Х	Λ	
sodium s-butyl mercaptide	^	Х	
SODIUM SULFATE	Х	X	
SODIUM SULFIDE	X	X	
sodium tolytriazole	X	^	
SOLTROL 10 (C7-C8)	^		Х
SOLTROL 10 + 6 TEL			X
SOLTROL 10 + 6 TEL			X
SOLTROL 100 (C9-C11)			X
SOLTROL 100+LIGHTS			X
SOLTROL 100H			X
SOLTROL 10-3 TEL			X
SOLTROL 10-6 TEL			X
SOLTROL 130 (C10-C13 ISOALKANES)			X
SOLTROL 145B (C10-C14 ISOALKANES)			X
SOLTROL 170 (C12-C14 ISOALKANES)			X

Name	Raw Materials	Major Intermediates	Products or Byproducts
SOLTROL 220 (C13-C17 ISOALKANES)			Χ
SOLTROL 50 (C8-C10 ISOALKANES)			Χ
SOLTROL HEAVIES			Χ
solvent naphtha (petroleum), heavy aromatic	Х		
soybean oil	Х		
SRF CETANE CHECK FUEL - HIGH			Χ
SRF CETANE CHECK FUEL - LOW			Χ
STDZN FUEL 1137			Х
STDZN FUEL 934			Х
STDZN FUEL 996			Х
stoddard solvent	Х		
straight run gas oil	X		
SULFOLANE			Х
SULFOLANE ANHYDROUS			X
SULFOLANE ANHYDROUS LOW COLOR			X
SULFOLANE MEDICAL GRADE			X
SULFOLANE, ELECTRONIC GRADE			X
SULFOLANE, LOW COLOR			X
SULFOLANE, MEDICAL G/TONER			X
, ,			
SULFOLANE-W			X
SULFOLE 120 (TDM)			X
SULFOLE 90 (TDM)			Х
SULFOLE(R) 100 (MIXED T-DODECYL			Χ
MERCAPTAN & T-NONYL MERCAPTAN)			
SULFOLENE		Х	Х
SULFUR	X		
SULFUR CALIB. STANDARD			X
SULFUR DIOXIDE	Х		Χ
SULFURIC ACID	Х	Х	
SWRI #2 GASOLINE			Χ
SWRI #2 GASOLINE			Χ
SWRI GAS (CUSTOM)			Χ
SYNTHETIC DISTILLATION STD-DSL			Χ
SYNTHETIC DISTILLATION STD-GAS			Χ
T DECYL MERCAPTAN		Χ	Χ
T-AMYL BENZENE			Χ
T-AMYL BENZENE, CRUDE		Χ	
T-AMYL BENZENE, TECH			Χ
T-BUTYL BENZENE			Χ
T-BUTYL MERCAPTAN			Χ
T-BUTYL MERCAPTAN, CRUDE		Х	
T-BUTYL MERCAPTAN, TECH			Х
T-BUTYL POLYSULFIDE			X
T-BUTYL TOLUENE, CRUDE		Х	
T-BUTYL TOLUENE, TECH		-	Х
T-BUTYLTOLUENE			X
TC10SH			X
TC11SH			X
TC12SH			X
TC13SH			X
TC6SH			X
100011	<u> </u>		Λ

Name	Raw Materials	Major Intermediates	Products or Byproducts
TC7SH			Χ
TC8SH			Χ
TC9SH			Χ
T-DODECYL MERCAPTAN (Sulfole(R) 120)		Х	Χ
T-DODECYL MERCAPTAN HEAVIES			Χ
T-DODECYL POLYSULFIDE			Χ
Tergitol	Х		
TERT-AMYL METHYL ETHER	Х		
TERT-BUTYL ALCOHOL	X	Х	
TERT-METHYL ETHYL DI-AMINE (TMEDA)	X		
TERT-METHYL ETHYL DI-AMINE (TMEDA)*2HCL	X		
TEST FUEL MTBE, 65% IVD	,		Х
TEST FUEL, 65% DETERGENT			X
tetrabutyltin	Х		
TETRADECADIENE, 1, 13-	X		
TETRADECANE	X		
TETRAETHYL LEAD	X		
		V	
TETRAHYDROFUKAN	X	Х	
TETRAHYDROTHIOPHENE	V		Х
TEXACO LSR	X		
TF-1			X
TF-2			X
T-HEXADECYL MERCAPTAN	.,		Х
thiaheptane-1,7-diol, 4-	X		
Thianaphthene	X		
thioanisole	X		
THIODIGLYCOL	X		
THIODIGLYCOL ACID	X		
THIOPHANE	X		Χ
thiophenol			Χ
tin compounds, organic	X		
T-NONYL MERCAPTAN (Sulfole (R) 90)		X	Χ
T-NONYL POLYSULFIDE			Χ
TNPS 537			Χ
T-OCTYL MERCAPTAN		Χ	Χ
T-OCTYL POLYSULFIDE			Χ
TOLUENE	Χ	X	Χ
TOLUENE PURE			Χ
TOLUENE REFERENCE FUEL	Х		Χ
TOLUENE STANDARD FUEL 113.7			Χ
TOLUENE STANDARD FUEL 65.2			Χ
TOLUENE STANDARD FUEL 85			Х
TOLUENE STANDARD FUEL 93.4			Х
TOLUENE STANDARD FUEL 96.9			Х
TOLUENE STANDARD FUEL 99.6			Х
TOLUENE STANDFUEL 85			X
TOLUENE STD FL 102.5			X
TOLUENE STD FL 103.3			X
TOLUENE STD FL 108			X
TOLUENE STD FL 89.3			X
- OCOCITE OTD TE OSIO	I		^

Name	Raw Materials	Major Intermediates	Products or Byproducts
TOLUENE STD FL 94.8			Χ
TOLUENE STD FL 98.3			Х
TOLUENE STD FL 99.9			Х
TOLUENE STD FUEL 969			Х
TOYOTA FUELS			Х
TRANS-BUTENE-2	Х		Х
TRANS-BUTENE-2, PURE			Х
TRANS-BUTENE-2, TECH			Х
TRIBUTYL PHOSPHATE	Х		
TRIBUTYL PHOSPHITE	Х		
tricarbonyl	X		
trichlorobenzene	X		
TRIDECANE	X		
triethanolamine	X		
TRIETHYLAMINE	X	Х	
	X	۸	V
trimethyl-1-pentene, 2,4,4-	X		X
TRIMETHYL-2-PENTENE, 2,4,4-			Χ
TRIMETHYLBENZENE (25551-13-7)	X		
trimethylbenzene, 1,2,3-	X		
trimethylbenzene, 1,2,4-	X		
trimethylbenzene, 1,3,5-	X		
TRIMETHYLBUTANE, 2,2,3-	X		X
TRIMETHYLPENTANE, 2,2,3-	X		X
TRIMETHYLPENTANE, 2,2,4-	X		Х
TRIMETHYLPENTANE, 2,3,3-	X		Х
TRIMETHYLPENTANE, 2,3,4-	X		Х
tris[(dimethylamino)methyl]phenol, 2,4,6-	Х		
TT-S-735 TYPE 7 TEST FLUID			Х
UL BLENDSTOCK MIX			Χ
ULTRA LOW DIESEL			Χ
UNDECYL MERCAPTAN			Χ
UNIT 19 PLAT CUT 1		X	
UNIT 19 PLAT CUT 2		Χ	
UNIT 19 PLAT CUT 3		X	
UNIT 19 PLAT CUT LITES		Χ	
UNIT 19 PLATFORMATE (REFORMATE)	Х		
UNIT 19 TURBINE FUEL (FROM 19.3)	Х		
UNIT 26 CAT CRACKER GASOLINE	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 1	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 2	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS 3	Х		
UNIT 26 CAT CRACKER GASOLINE CUTS A	X		
UNIT 28 GAS OIL	X		
UNKNOWN Q0 (n-Butyl mercaptan dist)		Х	
UNKNOWN Q1(n-Butyl mercaptan dist)		Х	
UNKNOWN Q2(n-Butyl mercaptan dist)		X	
UNKNOWN Q3(n-Butyl mercaptan dist)		X	
UNLEADED AVIAT. HFL			Х
UNLEADED AVIATION FUEL (HF LIGHT ALKYLATE)			X
UNLEADED GASOLINE			X
OTTER IDED OF BOLLITE	I		^

Name	Raw Materials	Major Intermediates	Products or Byproducts
UNLEADED GASOLINE (WITHOUT BENZENE)			Χ
UTG 91 + TEL			Χ
UTG 91/SPEC FUEL # 91			Χ
UTG 93			Χ
UTG 93 + ALCOHOLS			Χ
UTG 93 + TEL			Χ
UTG 96			Χ
UTG 96 + 3 TEL			Χ
UTG 96 + TEL			Χ
vegetable oil	X		
vinyl cyclohexanethiol, 4-	X		
VINYL CYCLOHEXENE	X		
VINYL-1-CYCLOHEXENE, 4-	X		
VOLKSWAGEN FUELS			Χ
WATER	Χ		Χ
WSPA FUELS			Χ
xylene, m-	X	Χ	Χ
XYLENE, MIXED ISOMERS	Χ	_	
xylene, o-	Χ	Х	Χ
xylene, p-		_	Χ
xylene, p-	Х	Х	Χ
ZECOL HI-OCTANE	X		

Attachment TR-1.d. Facility Map

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Attachment TR-1.d. Facility Maps Chevron Phillips Chemical Company LP – Borger Plant

Attachment TR-1.d. presents facility maps of the Chevron Phillips Chemical Company LP – Borger Plant (CPChem – Borger Plant). The maps are copies of those presented in the December 23, 2020 document "Spill Prevention, Control, and Countermeasure Plan" (SPCC Plan).

Included within this attachment are the following excerpts from the SPCC Plan:

- Cover sheet of the Plan;
- Table of Contents;
- Professional Engineer Certification;
- Section 3 General Facility Information;
- Tables 4 through 8;
- Figures; and
- Appendix C.

Section 3 discusses the facility layout maps, facility locations and operations, hazardous waste storage sites, portable bulk storage tanks, rail car and truck loading/unloading areas and stormwater retention ponds.

As mentioned in Section 3, Figures 1, 3, and 5 are the site location maps for the Borger Complex, Transportation Office and Copoly Warehouse, respectively. Figure 2 provides a building legend where each building is numbered and referenced on the figure. Figure 2 also provides a facility layout depicting the areas represented by Figures 2-A, 2-B, 2-C, 2-D, and 2-E, which depict the locations of tanks and storage containers. The enclosed tables and Appendix C provide a reference number or letter which corresponds to each tank location and storage container depicted on each figure.



Spill Prevention, Control, and Countermeasure Plan

Chevron Phillips Chemical Company Borger Plant Borger, Texas

December 23, 2020

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Appendix C Borger Plant Bulk Storage Tanks

Professional Engineer Certification

The undersigned registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the Code of Federal Regulations (40 CFR Part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and the requirements of 40 CFR Part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the CPChem Borger Plant.

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR Part 112.

Signature C.		
Chris C. Stanford		TEOF TE !!
9		2 5 1 A 10 1
68515	Texas	CHRIS O. STANFORD
Registration Number	Issuing State	68515
		CENSED WES

Section 3 General Facility Information

Name: Borger Plant

Spur 119 North Borger, Texas 79008 (806) 275-5500

Transportation Office 901 N. Florida St. Borger, Texas 79008 (806) 275-5810

Copoly Warehouse

0.3 mile north of intersection of Highway 36 and Highway 1551

Borger, Texas 79008 (806) 275-5500

Type: Borger Plant - Chemical Production Facility

Transportation Office – Vehicle Maintenance **Copoly Warehouses –** Warehouse and Storage

Location: Borger Plant Lat. 35 deg 41 min 48 sec

Long. 101 deg 21 min 35 sec

Transportation Lat. 35 deg 40 min 34 sec **Office** Long. 101 deg 22 min 52 sec

CopolyLat.25 deg 39 min29 secWarehouseLong.101 deg 26 min50 sec

Owner/Operator: Chevron Phillips Chemical Company

Spur 119 North Borger, Texas 79008

Person in Charge: Michael J. Dykhouse

Work: (806) 275-5885

3.1 Facility Layout Diagrams

Figures 1, 3 and 5 are the site location maps for the Borger Complex, Transportation Office, and Copoly Warehouse, respectively. The site plans show the site topography and the location of the facilities relative to waterways, roads, and inhabited areas. Figures 2, 2-A, 2-B, 2-C, 2-D, 2-E, 4, and 6 indicate the locations of oil storage tanks, transfer areas, and oil storage containers equal to or greater than 55-gallons in capacity.

The main objective of a facility diagram is to provide sufficient detail for facility personnel to undertake oil spill prevention activities, for EPA to perform effective inspections, and most importantly for responders to take effective measures to prevent an oil leak or spill from leaving the property boundaries and entering waters of the state. Due to the physical layout at the complex, it may not be practical to indicate all oil storage containers, 55 gallons or greater, oil transfer piping, valves, mobile and portable containers, and oil-containing equipment on the diagrams. EPA allows flexibility in the way the facility diagrams are drawn as long as more detailed diagrams of specific systems are maintained at the complex. More detailed information and drawings of specific systems are available upon request.

3.2 Facility Locations and Operations

Borger Plant

The Borger Complex includes facilities owned and operated by three different companies, WRB Refining, Chevron Phillips Chemical Company, and Solvay Specialty Polymers. Phillips 66 owns 50% of both WRB and Chevron Phillips. The West Complex is the WRB Borger Refinery and NGL Processing Center. The East Complex is the Chevron Phillips Borger Plant. The Borger Plant is a specialty chemical manufacturing plant. Solvay Specialty Polymers manufactures high-grade plastics in the Ryton unit. Other products produced at the Borger Plant include high-purity hydrocarbons and solvents, performance and reference fuels, and mining chemicals. Raw materials are transported to the facility via rail, truck, and pipeline (from WRB Refinery). Finished products are shipped out mainly by rail and truck. The daily combined production of specialty chemicals at the Chevron Phillips Borger Plant is about 1.2 MM lbs/day.

Philtex began operations in 1944 and Ryton began operations in 1972. Both were acquired by CPChem in 2000 as part of a joint venture between Chevron and Phillips Companies. The Ryton area was expanded in 2008/2009 to include a Quench process unit. The Packaged

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Products Unit (PPU) was permanently shutdown in December 2010, except for Still 26 which was shutdown in mid-2011. Also shutdown were the tanks in G-Battery which stored PPU feedstocks and products. The Ryton unit was sold to Solvay Specialty Polymers in 2015.

The November 2008 amendments to the SPCC rules apply, in part, to facility diagrams. These amendments alter facility diagram requirements and allow for flexibility in identifying fixed and mobile containers on facility diagrams (112.7(a)(3)). When a figure or diagram get complicated due to multiple mobile or fixed oil storage containers, or complex piping/transfer areas, the owner/operator can include this information separately in the Plan in an accompanying table/key. CPChem utilizes this technique in this Plan.

The site location map and facility layout maps are included as Figures 1, 2, 2-A, 2-B, 2-C, 2-D, and 2-E. The facility layout maps show the location of bulk storage containers, iso-containers, totes, 55-gallon containers, and loading/unloading areas for rail cars and tankers. There are no underground storage tanks at the plant. The facility layout maps also show connecting piping. In addition to the piping shown, there is piping within tank batteries and process areas.

Transportation Office

The Transportation Office is located on N. Florida St. approximately 2 miles southwest of the Borger Plant. The main part of the building is used by a contractor to conduct vehicle maintenance for CPChem vehicles. Truck and trailers are maintained and serviced at this facility. Figures 3 and 4 show the site location and facility layout for the Transportation Office. The building and facility are shared with another businesses (Hydrochem and Evergreen). This SPCC Plan only includes the CPChem equipment.

Copoly Warehouse

The Copoly Warehouse is located 0.3 mile north of the intersection of Highway 136 and Highway 1551, approximately 5.5 miles southwest of the Borger Plant. The warehouse is used solely for transitional storage for Philtex raw materials and products in 55-gallon to 500-gallon containers. Drums, totes and other product storage containers are properly stored in the warehouse.

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3.3 Oil Storage, Potential Spills, and Discharge Prevention

3.3.1 Borger Plant

Oil storage at the Borger Plant can occur throughout the plant in large fixed bulk storage tanks, mobile containers, totes, iso-containers, cylinders, and 55-gallons drums. A list of the larger, fixed bulk storage tanks is provided in Appendix C. Oil-field operational equipment is identified in Table 4. Table 5 provides a list of mobile storage tanks (trailers, totes, iso-containers, cylinders, and drums). The tank numbers listed in Appendix C correspond to the tank numbers shown on Figure 2. Figures 2-A through 2-E show the locations of mobile tanks and different storage containers listed on Table 5.

The location of the Borger Plant is shown on Figure 1. Figures 2 through 2-E are layout maps and show hazardous waste storage sites, fixed and portable bulk storage tanks, rail car and truck loading/unloading areas, and stormwater retention ponds.

Hazardous Waste Storage Sites

In accordance with 40 CFR 262.34 (a)(4), which references 40 CFR 265 Subparts C and D, the SPCC Plan contains hazardous waste management provisions provided for the units listed in Table 6. Active hazardous waste units which would require spill control in the event of a release are listed with their location. Waste units that are inactive but have not been closed are also listed. Hazardous Waste storage site locations are identified on Figures 2 and 2-C.

Used Oil Management

In accordance with 40 CFR 279.52(b)(2), the SPCC Plan includes provisions for used oil management. Used oil is collected throughout the Borger Plant at locations listed on Table 5 and shown on Figures 2-A through 2-C. Dowtherm heat transfer fluid is collected in drums as needed near the CPU heat transfer systems.

Loading/Unloading Areas

Loading/unloading areas include locations where truck tankers, railcars and bulk products in 55-gallons drums, iso-containers, cylinders, and totes are loaded and/or unloaded. Table 7 lists loading/unloading areas and corresponding locations are shown on Figures 2-A through 2-C. Rail car and truck loading/unloading racks have either concrete catch basins with drains to the

chemical sewer to capture spills or leaks from the transfer process or are located such that spills or leaks will be contained on site.

Portable Containers and Truck Trailers

Portable containers used at the facility range in storage capacities from less than 55 to 20,000 gallons. Portable and mobile containers and truck trailers are staged only in areas that provide a secondary means of containment, such as a chemical sewer drain, catchment basin or dike. Table 5 lists portable containers and contents, and Figures 2-A through 2-E show container locations.

Portable containers/equipment may be present at the facility and are covered under this plan without the need to update the plan for an "increase in oil storage capacity" or "changes in the handling/storage areas" provided that the following conditions are met:

- The individual container/equipment capacity cannot exceed 250-gallons;
- The container/equipment is either equipped with secondary containment or is located within an area that drains into a pond or containment area and can be visually inspected on a daily basis; and
- The container/equipment is not being stored directly adjacent to a navigable waters and adjoining shorelines.
- Chevron Phillips Chemical personnel shall perform a survey of the facility to locate and identify portable containers and shop-built tanks during the monthly inspections. A copy of the inventory shall be maintained onsite.

Phillips Avenue Trailer Lot

The Phillips Avenue Trailer Lot is a parking lot for truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. The parking area was extended in 2008 to the east by adding a separate trailer storage lot. For purposes of drainage, surface water capture and secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems.

The north end of the trailer lot slopes to the north and the south end slopes to the south.

Engineered berms have been constructed around the trailer lot so that stormwater runoff in the northern part drains into stormwater collection ponds. The southern part of the trailer lot does not have surface runoff containment structures. Operational procedures disallow the parking of

oil-containing truck trailers, or the placing of mobile oil-containing storage containers at the southern end of the parking lot.

Bulk Storage Tanks

40 CFR 112.7(b) requires that "where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure."

Most reportable oil spills that have occurred since 1989 were attributed to equipment failure (e.g., pipeline breaches, tank overflows due to failure of high-level monitoring devices) and overfilling of tanks and transportation containers.

A tank failure in the "L" Battery occurred in 2005. The L-4 tank exploded and the tank contents were released to the stormwater reservoir. The affected soil was cleaned to Texas Risk Reduction Program standards. None of the product left the site other than the associated air release. The L-4 tank was used to store brine but also had a floating hydrocarbon layer.

Table 8 is a summary of spill predictions and potential spill pathways for bulk storage tanks.

Because numerous products are produced at the Borger Plant by batch processes (specialty chemicals portion of the plant) tank service may change frequently. The following discussion is a summary of the tank battery contents (see Figure 2 for tank battery locations and Appendix C for bulk storage tank information).

a) A-Battery

A-Battery tanks contain raw materials and final products of specialty fuels. Some tanks also contain high purity hydrocarbons. A curb provides spill containment. The curbed area is manually drained to the chemical sewer.

b) <u>B-Battery</u>

B-Battery tanks contain olefins, crude and on-spec/off-spec mercaptans, sulfides, and other materials. Some of the tanks are curbed. Containment drains are closed unless stormwater is being drained to the H-battery sump by gravity, then to the chemical sewer. The plant surface water drainage and stormwater reservoir serve as secondary containment for all of B-Battery.

c) <u>C-Battery</u>

C-Battery tanks mainly contain olefins, crude and on-spec/off-spec mercaptans. The plant surface water drain system and stormwater reservoir serves as secondary containment for C-Battery.

d) <u>D-Battery</u>

D-Battery tanks contain materials similar to A-battery for raw materials and finished blends of specialty fuels. It also contains high purity hydrocarbons. This tank battery drains to the stormwater reservoir except for the manifold area, which drains to the chemical sewer.

e) <u>E-Battery</u>

E-Battery tanks contain n-heptane and iso-octane. Tank dikes are constructed with stabilized earth. Tanks dike drains are closed, unless stormwater is drained to the plant wastewater system.

f) F-Battery

F-Battery tanks contain alkylate fractions from HF Hevy Alkylate (HFHA), olefins, mercaptan crudes and spec products, isooctane, and two specialty fuel tanks. Stabilized earth dikes surround the tanks. Tank dike drains are closed, unless stormwater is being drained to the Philtex stormwater reservoir.

g) <u>H-Battery</u>

H-Battery tanks contain mercaptans, specialty diesel fuels and gasolines. Stabilized earth and concrete dikes provide containment. Tank dike drains are closed, unless stormwater is being drained to the stormwater reservoir.

h) I-Battery

I-Battery tanks contain sulfolane, NaOH, ethyl chlorides, sodium methyl mercaptide, and methyl ethyl sulfide. Most I-Battery tanks are within a concrete containment system. The stormwater reservoir serves as secondary or tertiary containment for all of I-Battery.

i) J-Battery

J-Battery is the process tankage for MPU (Multi-Purpose Unit). It contains mercaptans/sulfides, sulfuric acid, and sulfolane. The plant surface water drainage and stormwater reservoir serve as secondary containment.

j) <u>K-Battery</u>

K-Battery units are decommissioned and out of service.

k) <u>L-Battery</u>

L-Battery contains mercaptans, olefins, and fuels. Tanks are diked by stabilized earth and concrete to contain small spills and/or leaks. The stormwater reservoir serves as secondary containment for Tanks L-1, L-2 and L-3. Brine water storage tank is now in L-2.

I) M-Battery

M-Battery is now operated by Solvay Specialty Polymers. This area is not under the control of CPChem and is no longer subject to this plan.

m) N-Battery

N-Battery tanks units are decommissioned and out of service.

n) P-Battery

P-Battery tanks contain the process tankage for Unit 5. These tanks also store specialty fuels, crude and on-spec mercaptans, 1,3-butadiene, propylene, 20% caustic, and dimethyl sulfide. The process tanks include those used to blend chemicals for the Mining Chemical Division of CPChem. Tanks are located in concrete containment systems that were designed to drain to the 250,000-gallon concrete stormwater basin in Unit 5, which can be drained to the stormwater reservoir.

Gasoline Dispenser

A concrete containment dike protects a 250-gallon gasoline tank located in the northwest corner of P-Battery for fueling plant vehicles. Stormwater is removed from the dike with a vacuum truck.

Oil-Filled Equipment and Oil-Containing Transformers - General

The definition of bulk storage container specifically excludes oil-filled electrical, operating, and manufacturing equipment ("oil-filled equipment"). Therefore, oil-filled equipment is not subject to the bulk storage container requirements in 40 CFR 112.8(c). However, oil-filled equipment must meet the general requirements of 40 CFR 112.7.

Oil-filled operational equipment includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or device. Oil-filled operational equipment does not include manufacturing equipment. Examples of oil-filled operational equipment include hydraulic systems, lubricating systems, gear boxes, machining coolant systems, heat transfer systems, transformers, other electrical equipment, and other systems containing oil to enable operation.

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Oil-filled manufacturing equipment is distinct from bulk storage containers in its purpose. Oil-filled manufacturing equipment stores oil only as an ancillary element of performing a mechanical or chemical operation to create or modify an intermediate or finished product. Examples of oil-filled manufacturing equipment may include reaction vessels, high-pressure vessels, mixing tanks, dryers, heat exchangers, and distillation columns. Under the SPCC rule, flow-through process vessels are generally considered oil-filled manufacturing equipment since they are not intended to store oil.

Active containment measures may include:

- Placing a properly designed storm drain cover over a drain to contain a potential spill in an area where an oil transfer occurs, prior to the transfer activity;
- Placing a storm drain cover over a drain in reaction to a discharge, before the oil reaches the drain;
- Using spill kits in the event of a discharge;
- Use of a spill response capability (e.g. spill response team) in the event of an oil discharge; and
- Closing the valve that controls drainage from an area prior to a discharge.

Such measures will be implemented effectively and in a timely manner to prevent oil from leaving the plant property. All oil-filled operational equipment is located within the plant boundaries. If such active measures fail to contain an oil spill or leak from any oil-filled operational equipment at the immediate location of the equipment, the facility's drainage features will ultimately contain any such spill or leak on site. The Plant provides for visual inspection and/or monitoring for oil-filled equipment to prevent discharges.

This SPCC Plan is used in conjunction with other facility plans (e.g. FRP) to respond to all emergencies, including oil spills, as regulated by the Federal CWA and applicable state and federal laws and regulations. The structure of an oil spill response is based on training, planning and organizational needs to manage emergency situations.

Oil Filled Operational Equipment - Electrical Transformers

Electrical transformers located within the Borger Plant contain between 171 to 4,584 gallons of transformer oil. None of the transformers contain oil classified as PCB oil. A location and

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description index for the Borger Plant transformers are shown below. Transformers are identified on Figures 2-A and 2-B.

Oil Filled Operational Equipment – Miscellaneous

Other oil-filled operational equipment is located within process unit areas. The equipment includes oil mist supply tanks, seal oil, coolant oil, and compressor oil supply tanks. These tanks are included in Table 4. All of the units are located within areas that drain either to the chemical sewer or the storm water pond.

Methyl Mercaptan Storage and Railcar Loading Area

This area is located north of the Borger Plant laydown yard, just east of Taubman Yard. There are 5 horizontal pressure vessels for the storage of methyl mercaptan. There is an associated rail car loading rack at this area also. The loading rack, tanks and associated equipment are located within a containment area. Methyl mercaptan is a gas at ambient temperatures, and there is no potential for off-site hydrocarbon contamination from this storage area. Spills or leaks of methyl mercaptan would be treated as a toxic gas release; responses to toxic gas releases are covered under separate sections of the Borger Complex FRP. The Methyl Mercaptan Storage and Loading areas will not be addressed further under this SPCC plan.

Firewater Pump Building (North of MeSH Storage Area)

A firewater tank pump building located north of the MeSH Storage Area houses two 550-gallon diesel tanks and 55-gallon drums of oil, used oil, and used glycol. The diesel tanks are contained within thick plastic secondary containments. The 55-gallon drums have containment boxes.

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Borger Plant Oil-Filled Electrical Transformers

Transformer ID	Rating	Gallons of Oil		
Substation 4 (South of CPU Reactor Building)				
TC-404	1,000 kVA	356		
TC-405	1,500 kVA	311		
Substation 5 (North of Services B	uilding)			
TC-401	1,000 kVA	173		
TC-402	1,000 kVA	171		
TC-403	1,000 kVA	590		
Substation 7 (North of Oxygen Sp	here)			
TC-406	1,000 kVA	173		
Substation 8 (East of Unit 5 Air Co	ompressor Building)			
TC-416	1,000 kVA	370		
TC-417	1,000 kVA	357		
TC-418	1,000 kVA	370		
TC-419	1,000 kVA	370		
TC-420	1,000 kVA	357		
TC-498	1,500 kVA	639		
Substation 10 (CCB)				
TC 500	1,000 kVA	586		
Substation 13 (SOC 2&3)				
TC 499	1,000 kVA	516		

A spill at Substations 4, 5, or 7 would drain into the stormwater reservoir or to the wastewater system. Substations 6 and 8 transformers are inside curbed areas to contain small spills or leaks. Potential oil leaks at Substation 9 and the Hughes Street Main Substation will be completely contained within the curbed design of each substation. Based on plant experience, electrical transformers do not have a reasonable potential of equipment failure leading to a discharge of oil to a navigable watercourse. Absorbent is available to respond to an electrical transformer spill.

Philtex Wastewater System

The Philtex wastewater system was designed to capture chemical wastewaters from the processing units. All chemical wastewaters from the north side plant chemical drains flow to a seal tank (Seal Pot) and subsequently to an oil/water separator. Water from the oil/water

separator flows to a weir and joins with wastewater from Unit 5.1 Basin and is pumped to Wastewater Surge Tank H-20. Any excess wastewater not pumped into H-20 is directed into the Triangular Basin at the wastewater facility. Water is pumped or overflows from the Triangular Basin to the large stormwater reservoir, east of the plant. Wastewater from H-20 is sent to WRB Refinery wastewater treatment plant.

3.3.1.1 Spill Control

Secondary Containment (Structures and Equipment)

Secondary containment is provided for bulk oil storage tanks. It appears that tank dike capacities are generally designed to contain at least the single largest tank volume of a multitank dike enclosure plus precipitation. Some secondary containment systems (e.g., P Battery) do not have storage capacities for the largest tank inside containment, but as discussed earlier overflow from the secondary containment system would be contained onsite in the Unit 5 stormwater basin. Although secondary containment volume calculations are not available for review, tank batteries appear to have been constructed under applicable industry standards. Regardless of secondary containment storage capacities for all bulk oil storage tanks located on site, either smaller on-site stormwater retention ponds or the 6.5 million gallons stormwater pond provides for ultimate containment for any spills or leaks from any of the bulk storage tanks at the facility.

The Phillips Avenue Trailer Lot has a west lot and a separate east lot for parking truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. For purposes of secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems that can container the volume of the largest storage container (8,800 gallons) plus a 24-hour, 25-year storm event.

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Equipment is purged and cleared prior to dismantling for maintenance. Temporary secondary containment is put into place whenever maintenance is performed on equipment that could result in an oil spill to the ground. The containment device may consist of a partial barrel or large pan that is capable of holding the maximum amount of material that is drained from the equipment. If it is not known how much liquid is in the equipment, or the amount exceeds the volume of the containment device, a vacuum truck is used to remove the material from the containment device as soon as the equipment is opened.

Procedures for the Control of a Discharge

Procedures for the control of a discharge vary according to the equipment characteristic of the specific area. Valves on drainage systems for tank dikes outside the plant drainage system are kept closed. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by portable pump or vacuum truck.

The Unit Operator will do the following to drain containment systems that drain outside the plant wastewater system (e.g., Phillips Ave. Trailer Lot and Unit 5 Area):

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean;
- Drain the accumulated stormwater outside of the containment area; and
- Complete the "Quarterly Visual Storm Water Monitoring" form and forward to Environmental. The latest version of this form can be found in the Hummingbird Document Management System under Forms/Environmental.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

3.3.2 Transportation Office

Oil storage at the Transportation Office include the following: a 5,000-gallon diesel tank, a 530-gallon used oil tank, a 488-gallon used oil tank, 55-gallon drums of used oil, and a 200-gallon oil

tank. The location of the Transportation Office is shown on Figure 3. Figure 4 is layout map and shows tank locations and surface runoff directions.

The natural topography of the facility slopes to the southeast to drainage ditches along N. Florida St. The drainage ditches appear to eventually discharge into tributaries that lead into Dixon Creek.

Diesel and Used Oil Tanks

The 5,000-gallon diesel tank is located outside, on the west side of the Main Shop. It is a single-walled aboveground tank located inside a concrete secondary containment that has a valved discharge pipe.

The 488-gallon used oil tank is located outside under a lean-to, on the west side of the Main Shop. The tank is a single-walled aboveground tank that is used to store used motor oil from the vehicle maintenance business. The tank is located inside a concrete secondary containment structure.

The 530-gallon used oil tank is located to the east of the Truck Shop. The tank is actually hard piped to the Truck Shop so oil is only introduced into the tank from this pipe. The tank is located inside a concrete secondary containment structure.

A 55-gallon drum is used to store used oil mixed with mercaptans. Truck engine oil filters are drained in this drum. The drum, located on the west side of the Truck Shop, is situated inside a plastic spill containment booth with a rain cover. Other 55-gallon drums are used to store oil, used oil, and transmission fluid.

The 200-gallon motor oil tank is located inside the truck shop and supplies new motor oil to the trucks serviced there. The tank is located inside a metal spill containment box. The spill containment box is located on the concrete floor of the shop.

Table 9 is a summary of spill predictions and potential spill pathways for the storage tanks.

Under the worst-case scenario, the hose connection to a supply truck off-loading diesel into the 5,000-gallon diesel tank would accidentally disconnect. But because the transfer process is manned at all times, the cause of the spill would be terminated quickly. Any spilled diesel would most likely be contained on site before entering the drainage ditches along N. Florida St.

3.3.2.1 Spill Control

Secondary Containment (Structures and Equipment)

Adequate secondary containment systems are provided for each of the storage tanks. The approximate available secondary containment capacities for each tank are shown in Table 10.

In transfer areas and other parts of the facility where a discharge could occur, the following containment and mitigation measures are used:

- <u>Drip pans.</u> Fill ports for all ASTs are equipped with drip pans to contain small leaks from the piping/hose connections.
- <u>Sorbent material</u>. Spill cleanup kits that include absorbent material, booms, and other portable barriers are located in the Spill Mitigation Building (old Joy building). Also spill kits are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.
- <u>Containment pallets.</u> Drum spill containment pallets, with at least 110% containment capacity for a single drum.

Procedures for the Control of a Discharge

Valves on the secondary containment systems are kept closed except when draining storm water. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by a portable pump or vacuum truck.

Oil-handling personnel will do the following to drain containment systems:

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean;
- Drain the accumulated stormwater outside of the containment area.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

Bulk storage tanks and secondary containment systems appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage tank

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through visual observations and it is determined that it may reduce a tank's integrity, the affected tank will be taken out of service and repaired or replaced. No tank is used for the storage of any oil product until the compatibility of the product and the tank materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the ASTs or the 55-gallon storage drum. All shop-built tanks are equipped with individualized secondary containments, and the 55-gallon drums are located within catch basins. Oil discharges would be contained within secondary containments and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The drum storage area is routinely inspected by on-site workers to provide an effective means of verifying container integrity.

3.3.3 Copoly Warehouse

The Philtex Copoly Warehouse is a large metal building used to stored 55-gallon to 500-gallon sealed final products containers. A portion of the warehouse is also used for storage of plant warehouse stock material, including lubrication oils in 55-gallon drums. The lubrication oils are stored on spill containment pallets.

The location of the Copoly Warehouse is shown on Figure 5. Figure 6 show container locations and surface runoff directions for the Philtex Warehouse.

The topography of the general area is a natural grade to the north. Tributaries in this area eventually discharge into the Canadian River located approximately 4.5 miles to the north of the warehouse.

Product Storage Containers

Fifty-five-gallon to 500-gallon product storage containers are properly stored along rows inside the Copoly (Philtex) Warehouse. All containers are properly sealed and ready for final distribution. Fifty-five-gallon drums are stored up right on pallets. A forklift is used to move the pallets. Other size containers are properly stored on the floor in the warehouse. All products are stored in rows so that a forklift has easy access through the warehouse.

Table 11 is a summary of spill predictions and potential spill pathways for the storage tanks.

29

Under the worst-case scenario, a container of product may get punctured with the fork of a forklift, or ruptured during transfer to or from a truck. Any oil release would normally occur inside the warehouse building on the concrete floor. If oil were to leave the warehouse, the site topography would eventually channel the discharge to the northwest. In all likelihood, if the oil left the building, it would leak down the side of the concrete foundation and accumulate on the natural ground.

3.3.3.1 Spill Control

Secondary Containment (Structures and Equipment)

The warehouse itself has a concrete foundation and metal walls. Spills inside the warehouse will be contained within the building itself. The surface inside the main access door slopes down towards the inside of the building. All other door locations are contained with angle or channel iron installed at potential leak points to provide a raised threshold. All floor drains have been plugged with concrete.

Absorbent pads are located inside the warehouse. The pads are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.

Procedures for the Control of a Discharge

The floor drains have been permanently sealed, and the interior metal walls and diversion strips along the doors and access ways act as containment for any spill or leak. Spilled or leaked oil shall be removed manually with mops, squeegees, absorbent materials, etc., or a vacuum truck can be used to evacuate the oil.

Oil-handling personnel will conduct visual inspections for signs of an oil release. If oil is detected inside the building, the following procedures will be followed:

- Remove oil via response equipment or vacuum truck, and contaminated absorbent material as it is used, and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area:
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

The storage containers appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage container through visual observations

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and it is determined that it may reduce a container's integrity, the affected container will be taken out of service and repaired or replaced. No container will be used for the storage of any oil product until the compatibility of the product and the container materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the containers or 55-gallon drums. Oil discharges would be contained within the warehouse itself and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The storage areas in the warehouse are inspected monthly. This is in accordance with accepted industry practice for drum storage and provides an effective means of verifying container integrity.

Tables

Table 4 Oil-Filled Operational Equipment

Unit ID	Stored Material	Oil Capacity (gallons)
Miscellaneous I	Units	
CPW-56	Mineral Oils (Isoparaffins)	7000
CPW-57	Mineral Oils (Isoparaffins)	7000
CPW-58	Mineral Oils (Isoparaffins)	7000
CPW-59	Mineral Oils (Isoparaffins)	7000
Oil-Filled Opera	tional Equipment	
V4053	W. CPU Seal Oil Storage (Soltrol 220)	345
None	E. CPU Soltrol Coolant Oil Tank (Soltrol 220)	1,234
None	E. CPU Magnus 100 Oil Tank at Compressor Building	1,234
95-4067	CPU East Dowtherm Accumulator (Dowtherm G)	1,504
95-4069	CPU Dowtherm Hold Tank	940
95-XB3	CPU Olefin Feed Pump Seal Oil Reservoir	55
95-XB4	CPU Mixed Feed Pump Seal Oil Reservoir	55
95-1P13	U5.2 Reactor Seal Oil Surge Tank	83

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
Blending	g			1	
А	Drums	425	55 gallons	Various blendstocks and products.	A Battery
А	Trailers/Isocontainers	3	5500 - 7500 gallons	Various blendstocks and products.	A Battery
А	Totes	6	250 gallons	Various blendstocks and products.	A Battery
В	Drums	20	55 gallons	Various blendstocks and products.	D Battery
В	Trailers/Isocontainers	4	5500 - 7500 gallons	Various blendstocks and products.	D Battery
С	Drums	5	55 gallons	Various blendstocks and products.	F Battery
С	Trailers/Isocontainers	1	5500 - 7500 gallons	Various blendstocks and products.	F Battery
D	Drums	15	55 gallons	Various blendstocks and products.	P Battery
05::	Drums	100	55 gallons	Various blendstocks and products	North Paint Yard Area
CPU					
F	Tote	1	200 gallons	Iso VG 32 oil	CPU East End CPU East near Frick
F	Cylinders	6	500 lb.	Propane	Compressor
F	Drums	1	55 gallons	Compressor Oil	CPU East near Frick Compressor
F	Tote	1	250 gallons	Isoparaffins 220	South of Compressor Building
G	Drums	20	55 gallons	Slop Oil for B-11	C-Manifold
Н	Drums	16	55 gallons	Dowtherm G	Dowtherm Furnace Area
I	Drums	2	55 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Totes	1	300 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Drums	1	55 gallons	Isoparaffins 220	Column 6
I	Drums	1	55 gallons	Isoparaffins 220	Column 2
I	Drums	1	55 gallons	MEA	North of CPU FIC
I	Drums	50	55 gallons	Various Products	Column 10 Area
I	Drums	50	55 gallons	Various Products	Column 11 Area
J	Drums	4	55 gallons	Tri-butyl phosphite	B-Manifold
G	Drums	4	55 gallons	Tri-butyl phosphite	C-Manifold
	Portable Tank	1	300 gallons	Magnus Oil	Sundyne Pump Area
MPU				, <u>, ,</u>	
K	Tote	1	300 gallons	Triphenylphosphene	MPU: I-20/21/22
K	Cylinder	4	250 gallons	Dimethylamine	MPU: R-18
K	Tote	2	300 gallons	Sulfolane	MPU: F-80
K	Drums	8	55 gallons	Sulfolane	MPU: F-80
K	Dumpster	1	0-500 lb	Sulolene flake	MPU: Flaker Building
	Van	1	0-42,000 lb	Sulfolene flake	MPU: Dock

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
Е	Cylinders	10	250 gallons	Dimethylamine, Propylene Oxide	North of E-4
С	Trailer	1	8000 gallons	F-81 Water Wash (contains sulfolane, cat res.)	North of Butarez Building
С	Drums	50	55 gallons	Various Products	North of Butarez Building
Services E	Building				
N	Drums	2	55 gallons	Recycle Hydrocarbon	Outside Development Lab
N	Drums	20	55 gallons	Trans Oil, Lube Oil, Ethylene Glycol	Inside chiller room
N	Tank	3	300 gallons	Gear Oil	Inside chiller room
N	Drums	4	55 gallons	Used Oil, Soltrol	Outside Bay 3
Transport	ation Office				
LL	Tank	1	5000 gallons	Diesel	Transportation Office (N. Florida Ave.)
LL	Tank	1	530 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Tank	1	488 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Drum	2	55 gallons	Used Oil with Mercaptan	Transportation Office (N. Florida Ave.)
LL	Tank	1	200 gallons	Motor Oil	Transportation Office (N. Florida Ave.)
LL	Drums	3	55 gallons	Used Oil, Trans Fluid, Oil	Transportation Office (N. Florida)
Shipping					
0	Drums, Totes, Cylinders	250	55-500 gallons	Philtex Products	Dock 1
Р	Drums, Totes, Cylinders	4700	55-500 gallons	Philtex Products	Dock 2
Q	Drums, Totes, Cylinders	800	55-500 gallons	Philtex Products, Flush Material	East of Dock 2
R	Drums, Totes, Cylinders	160	55-500 gallons	Philtex Products	Dock 3

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
NN	Totes	10	250 gallons	Sulfolane	Spot 3 or East Side of B-50
MM	Drums, Totes	7000	55-500 gallons	Philtex Products	Copoly Warehouse
KK	Truck Vans (with drums), Trailers	81	55-8000 gallons	Philtex Products	Phillips Ave. Trailer Lot
Т	Cylinders	25	500 lb.	Antifoulant	West of Pallet Warehouse
U	Drums	35	55 gallons	Mineral Oil, Dowtherm	Inside Pallet Warehouse
V	Drums, Totes, Isocontainers, Trailers	5	55-8000 gallons	Products, Feedstocks	Spot 15
W	Drums	15	55 gallons	Flush Material	Unit 5 Truck Rack
Х	Drums	6	55 gallons	Masking Agent, Bacteria	Blend Manifold
Х	Totes, Isocontainers, Trailers	2	500 to 8000 gallons	Gas Odorants	Blend Manifold
R	Drums, Totes	10	55 to 500 gallons	Flush Material, Slop Oil	Southeast Corner Dock 3 Building
Y	Drums	4	55 gallons	Slop Oil	Southside of Shipping Bldg. Dock 1
SU					
Z	Drums, Totes	40	55-500 gallons	TDPS 320, Tergitol, Glycol Ether, Disulfides	Eastside of Unit 17 Building
AA	Cylinders	10	250 gallons	Propylene Oxide	North of E-4 and at SU RX Bldg.
Unit 5.1/5.	2				
BB	Drums	1	55 gallons	Compressor Oil	Air Compressor Building
СС	Drums	35	55 gallons	Lube Oil, Isoparaffins, Slop Oil, CT Chem	Drum Pad East of Unit 5
DD	Drums	1	55 gallons	Soltrol 220	Near P-16
EE	Drums	10	55 gallons	Miscellaneous	Concrete Pad South of Unit 5
FF	Drums	4	55 gallons	Oleic Acid, Barrier Fluid	Inside Unit 5 Building
GG	Cylinders	6	500 lb.	Propane	Refrigeration Skid at P-66
GG	Drums	3	55 gallons	Isoparaffins	Refrigeration Skid at P-66
НН	Drums	1	55 gallons	Oily Trash Sat. Accumulation	Phase Separator
II	Drum	1	55 gallons	Sample Slop	Inside Dike at P- 60, P-61

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
Zachry Ya	rd & Warehouse				
JJ	Drums	8	55 gallons	Kerosene, Road Asphalt, Oil	Northside of Laydown Area
					Inside Zachry Warehouse on Containment
	Drums	20	55 gallons	Lubrication Oils	Pallets
Nitrogen I	Plants				
	Drums	4	55 gallons	Compressor Oil	Inside curbed areas each plant
MESH Sto	orage Area and Firewater I	Pump Building]	-	
RR	Tank	2	550 gallons	Diesel	Inside Buidling
RR	Drum	10	55 gallons	Oil	Inside Building
Hazardou	s Waste Drum Pad			•	
	Drums	100	55 gallons	Used Oil, Wastes	Near N-Battery

^{*} Examples Only. Content may vary.

Table 6 Borger Plant Hazardous Waste Units

Site Location	NOR 30131* TNRCC Unit No.	Predicted Flow Direction	Status
Hazardous Waste Drum Pad	7	Covered, collection sump capacity 10,000 gallons, trucked to chemical sewer.	Active 90 day Accumulation
C-18 (Figure 2)	14	Secondary Containment	Inactive
C-19 (Figure 2)	15	Secondary Containment	Inactive
C-20 (Figure 2)	16	Secondary Containment	Inactive

^{*}NOR for the Borger Plant is located in Environmental Team files.

Table 7 Loading and Unloading Areas

Map ID	Loading/Unloading Location	Container Type	Content	General Area Location
		Blending		
Α	A Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa	
В	D Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loading	Southeast corner of D Battery
С	F Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa	ading
D	P Battery	Drums	Blending Products Loa	ading
		CPU		
F	CPU	Truck Trailers	Allyl Alcohol	Near C-18
		Hazardous Waste Tanks	3	
	N Battery	Truck Trailers	Hazardous Wastes	N-2,
		Shipping		
	Drums are loaded at the following	j:	1	
	Dock #2			
	Dock #3 (Mercaptan dock)			
R	Tote Fill Building			
	Totes are loaded at the following:			
	Dock 2 (south side overhead doo	r)		
	Tote Fill Building			
Trailers a	nd Iso's are loaded/unloaded at the	following:	,	
W	5.1 truck rack			
WI	South side of "A" battery			

Table 7 Loading and Unloading Areas

Map ID	Loading/Unloading Location	Container Type	Content	General Area Location
MM	Spot #1			
NN	Spot #2			
NN	Spot #3			
S	Spot #4			
00	Spot #5			
SM	Spot #6			West and South Sides of I Battery
V	Spot #15			
G	CPU (west of "C" battery manifole	d)		
GI	CPU (north of C-17)			
Railcars a	re loaded/unloaded at the following	areas:		
PP	Spot #2			
PP	Spot #3			
PP	Spot #4			
PP	Spot #5			
PP	Spot #6			
PP	Spot #7			
PP	Spot #9			
PP	Spot #11			
PP	Spot #13			
PP	Spot #14			
PP	Spot #15			
QQ	Spot #21			
		Unit 5		
		Drums, Isocontainers, Truck		
	Unit 5.1	Trailers	Products and Feedstocks	Westside Unit 5.1

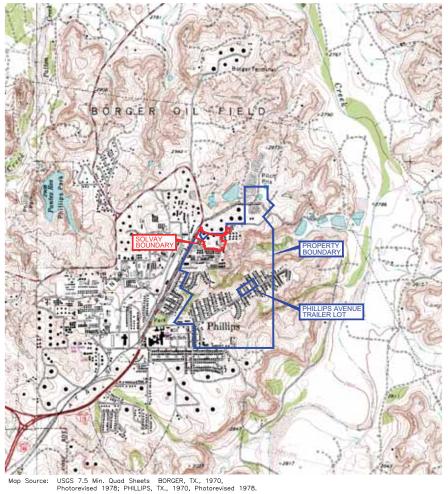
Table 8 Borger Plant Summary of Potential Spill Prediction & Flow Paths

	Major Type of Failure	Largest Single Tank (bbls)	Rate (bbls/hr) *	Direction of Flow	Secondary Containment
A Battery	Tank Rupture	284	568	East	Containment Curb which is drained to Chemical Sewer
B Battery		1,300	2,600	South	Chemical Sewer H-Battery sump
C Battery		600	1,200	South	Stormwater Reservoir
D Battery		1,150	2,300	East	Stormwater Reservoir
E Battery		3,000	6,000	NA	Tank dikes
Tanks F-16 – 24		5,476	10,952	East	F-Battery Spill Containment Pit
Tanks F-2 – 15, 27, 28		15,500	31,000	N/A	Tank Dikes
Tanks F-1, 4		10,113	20,226	South	Stormwater Reservoir
Tanks H-1 – 4		5,037	10,074	East	Stormwater Reservoir
Tanks H-6, 7		6,000	12,000	N/A	Tank Dike
Tank H-8		10,156	20,312	N/A	Tank Dike
Tank H-20		10,715	21,430	N/A	A berm provides secondary containment. The contents get pumped back into the Chemical Sewer or drained to the canyon as appropriate
I-Battery		211	422	East	Concrete Curb
J-Battery		580	1,160	East	Chemical Sewer - H-Battery sump
K-Battery		1,343	2,686	South	Chemical Sewer-H-Battery Sump
L-Battery		3,005	6,010	East	Stormwater Reservoir
M-Battery		1,444	2,888	East	Stormwater Reservoir
N-Battery		1,212	2,424	N/A	Tank Dike
P-Battery		8,000	16,000	N/A	Concrete Dike/Stormwater Reservoir
Gasoline Dispenser		6	12	N/A	Concrete Dike

^{*} Rate for 30 minutes, based on largest tank draining. N/A -Not Applicable.

Figures





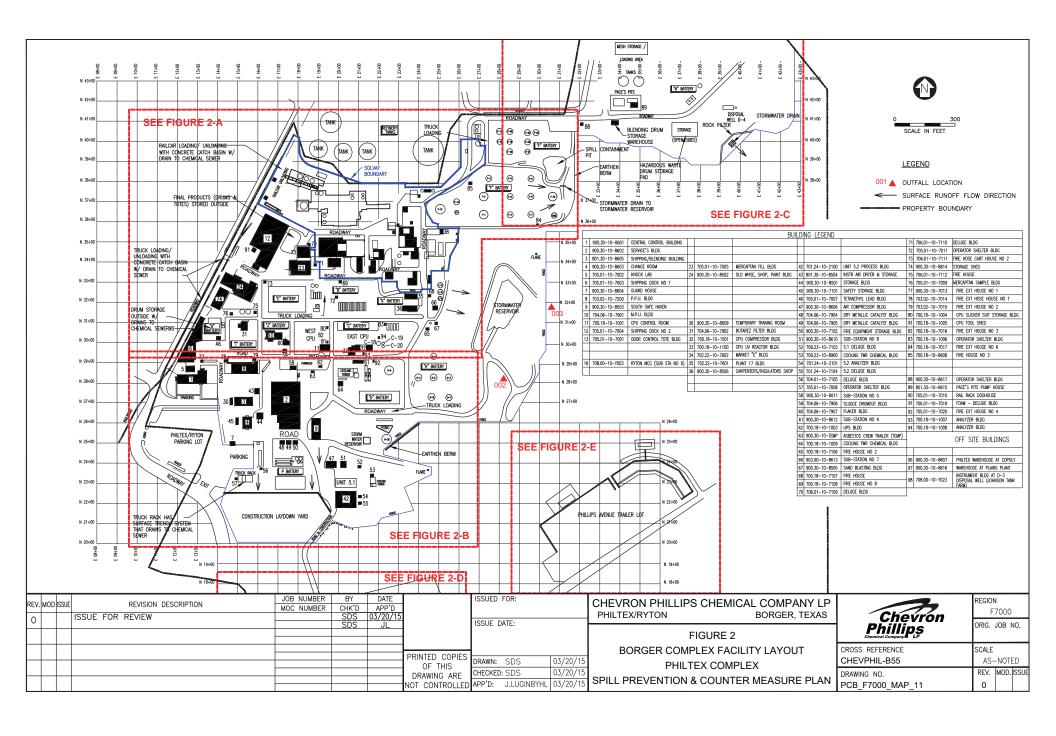


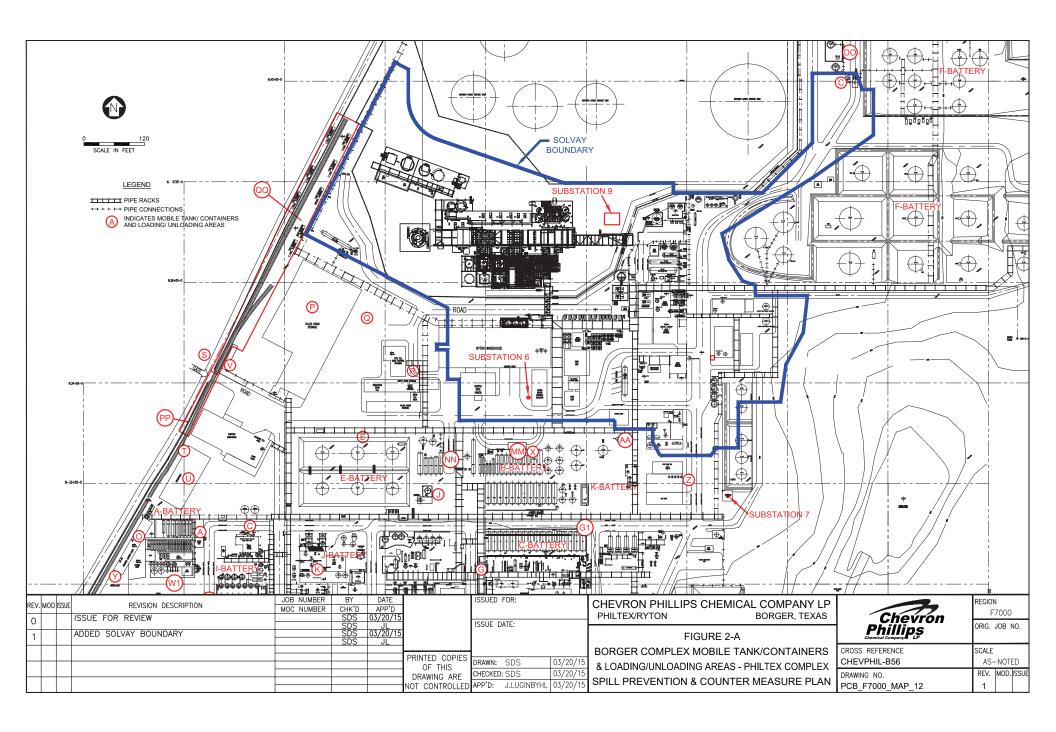
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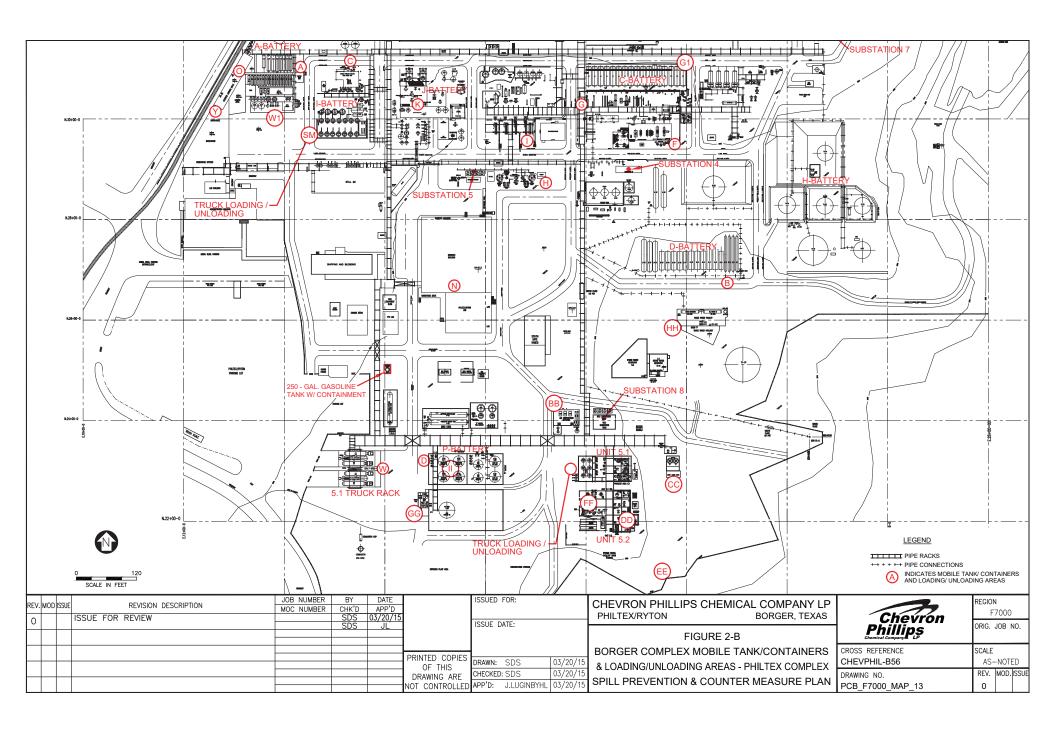
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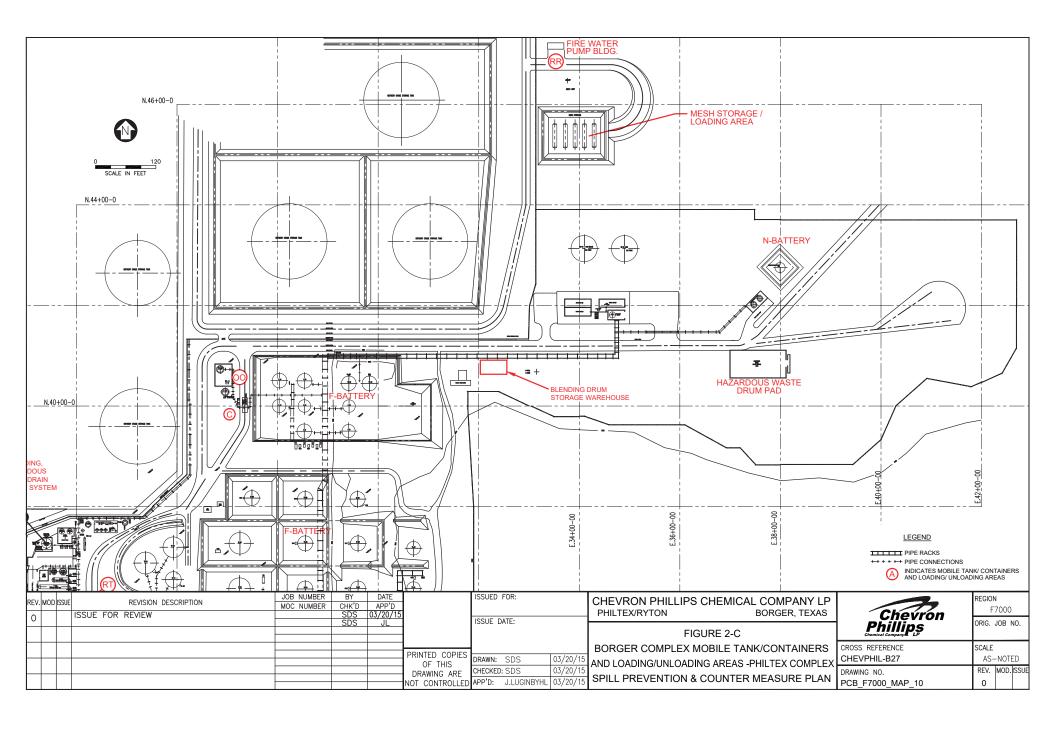
BORGER COMPLEX SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

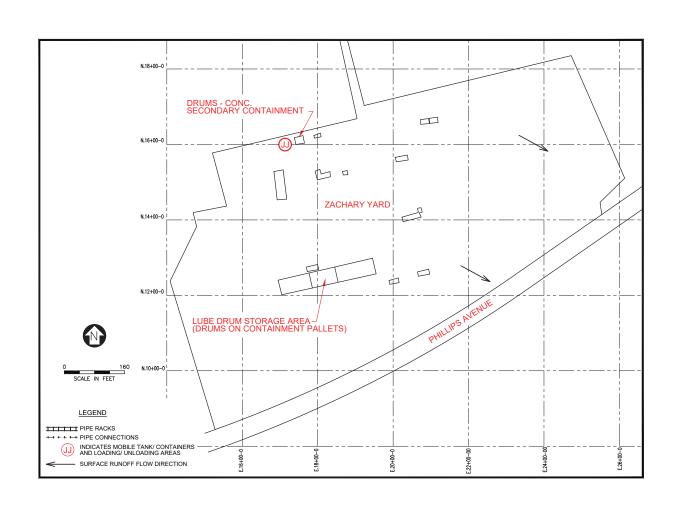
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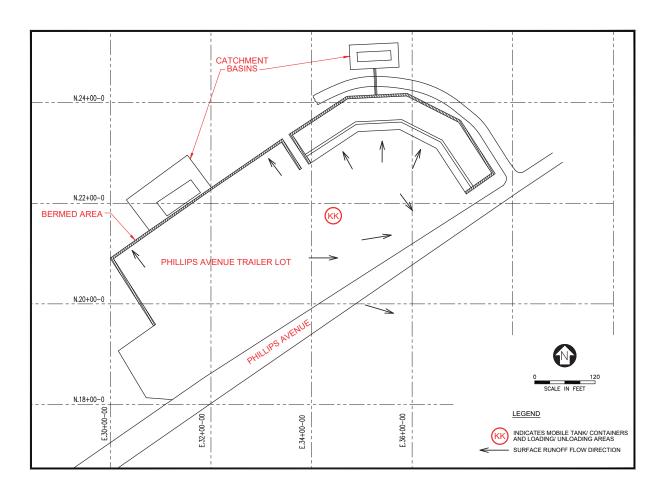
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FIGURE 2-D
BORGER COMPLEX MOBILE TANK/CONTAINERS
AND LOADING/UNLOADING AREAS - PHILTEX COMPLEX
SPILL PREVENTION CONTROL & COUNTER MEASURE PLAN

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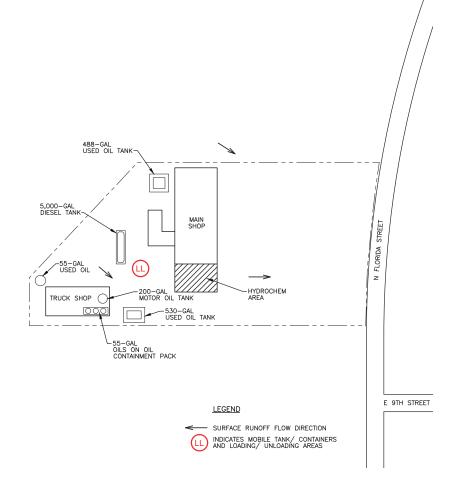
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FIGURE 3 BORGER COMPLEX SITE LOCATION MAP PHILTEX COMPLEX - SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN PC

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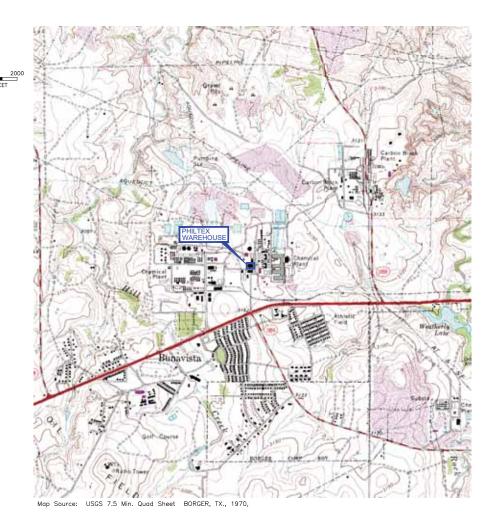


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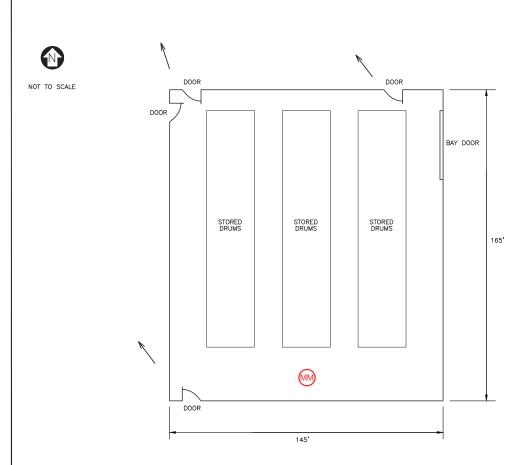


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_	_												-

	FIGURE	-
-	PHILTEX/RYTON	BORGER, TEXAS
	CHEVRON PHILLIPS CHEM	ICAL COMPANY LE

FIGURE 5
COPOLY WAREHOUSES SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

Chevron	REGIOI F	N 7000	
Phillips Chemical Company LP	ORIG.	JOB I	۷0.
CROSS REFERENCE	SCALE		
CHEVPHIL-A35	AS-	-NOTI	ED
DRAWING NO.	REV.	MOD.	ISSUE
PCB F7000 MAP 5	0		



LOCATED 1/3 MILE NORTH OF INTERSECTION HWY 136 AND HWY 1551

<u>LEGEND</u>

SURFACE RUNOFF FLOW DIRECTION

INDICATES MOBILE TANK/ CONTAINERS
AND LOADING/ UNLOADING AREAS

RE\ O	/. MOD ISSUE	REVISION DESCRIPTION ISSUE FOR REVIEW	MOC NUMBER	CHK'D SDS SDS	APP'D 03/20/15		ISSUE DATE:	CHEVRON PHILLIPS CHEMICAL COMPANY LP PHILTEX/RYTON BORGER, TEXAS	Chevron	F7000 ORIG. JOB NO.
				303	JL		ISSE BALL.	FIGURE 6	Phillips Chemical Company P LP	ORIG. JUB NO.
						PRINTED COPIES		PHILTEX COPOY WAREHOUSE FACILITY LAYOUT		SCALE
							DRAWN: SDS 03/20/15	PHILTEX COMPLEX - SPILL PREVENTION CONTROL	CHEVPHIL-A39	AS-NOTED
						DRAWING ARE NOT CONTROLLED	CHECKED: SDS 03/20/15 APP'D: J.LUGINBYHL 03/20/15		DRAWING NO. PCB_F7000_MAP_7	REV. MOD. ISSUE

Borger Plant Bulk Storage Tanks

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
			Α	Battery			
A-1	Diesel/Gasoline Blending	Yes	10,380				
A-2	Diesel/Gasoline Blending	Yes	10,380				
A-3	Diesel/Gasoline Blending, Alkylate, ETBE, Toluene	Yes	1,650				
A-4	Diesel/Gasoline Blending	Yes	913				
A-5	Diesel/Gasoline Blending	Yes	913				
A-6	Diesel/Gasoline Blending, Isobutane, Heptane, Toluene	Yes	342				
A-7	Diesel/Gasoline Blending	Yes	342				
A-8	Diesel/Gasoline Blending	Yes	1,462	Concrete			This area drains directly to the
A-9	Diesel/Gasoline Blending	Yes	1,462	Curb around	48,230	24,275	Chemical Sewer; therefore,
A-14	Diesel/Gasoline Blending	Yes	8,958	all tanks			capacity is not a problem.
A-15	Diesel/Gasoline Blending	Yes	10,606				
A-16	Diesel/Gasoline Blending	Yes	1,504				
A-17	Toluene	Yes	1,504				
A-18	Diesel/Gasoline Blending	Yes	1,504				
A-19	Diesel/Gasoline Blending	Yes	1,504				
A-20	Alkylate, Isohexanes	Yes	1,504				
A-36	Diesel/Gasoline Blending	Yes	1,087				
A-37	Diesel/Gasoline Blending	Yes	1,087				
A-38	Diesel/Gasoline Blending	Yes	1,087				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-39	Diesel/Gasoline Blending, Isohexane, Soltrol, Toluene	Yes	1,087				
A-40	Diesel/Gasoline Blending, Cyclopentane, Ethanol	Yes	1,087				
A-41	Diesel/Gasoline Blending, Cyclopentane, Heptane	Yes	1,087				
A-42	Diesel/Gasoline Blending, Diisopropyl Ether, Ethanol, Hexene	Yes	1,087				
A-43	Diesel/Gasoline Blending	Yes	1,087				
A-44	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-45	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-46	Diesel/Gasoline Blending, Dimethylbutene, Diisopropyl Ether, Hexane	Yes	888				
A-47	Diesel/Gasoline Blending, Heptane	Yes	1,952				
A-48	Out of Service	No	1,952				
A-49	Diisopropyl Ether, Isohexane, Heptane, Cyclopentane	Yes	1,952				
A-50	Diesel/Gasoline BlendingHeptane, Isoheptane	Yes	1,952				
A-51	Butane	Yes	1,858				
A-52	Diesel/Gasoline Blending	Yes	1,858				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-54	Out of Service	No	4,401				
A-55	Diesel/Gasoline Blending	Yes	4,401				
A-56	Diesel/Gasoline Blending	Yes	4,401				
A-57	Out of Service	No	4,018				
A-58	Out of Service	No	4,842				
A-59	Out of Service	No	11,941				
A-60	Out of Service	No	11,941				
A-61	Out of Service	No	7,374				
			В	Battery			
B-1	Mercaptan	No	23,700				
B-2	Mercaptan	No	23,700				
B-3	Methyl Ethyl Sulfide	No	24,221				
B-4	Mercaptan/Sulfide	No	24,221				
B-5	Mercaptan/Sulfide	No	24,370				
B-6	Mercaptan/Sulfide	No	24,192				This area drains directly to the
B-7	Out of Service	No	24,192	None			Stormwater Pond; therefore, the Stormwater pond provides
B-8	Mercaptan/Sulfide	No	24,330	None			the necessary secondary
B-9	Mercaptan/Sulfide	No	24,635				containment.
B-10	Mercaptan/Sulfide	No	25,000				
B-11	High Sulfur Slop Oil	No	25,000				
B-12	High Sulfur Slop Oil	No	25,000				
B-13	Sulfur Dioxide	No	30,000				
B-14	Butene, Propylene	No	31,317				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-15	Butene	No	29,491				
B-16	Out of Service	No	4,900				
B-17	Out of Service	No	3,624				
B-18	Mercaptan/Sulfide, High Sulfur Rejects	No	1,989				
B-20	Mercaptan/Sulfide	No	4,494				
B-21	Mercaptan/Sulfide	No	11,691				
B-22	Mercaptan, Thiophane	No	11,691				
B-23	Mercaptan/Sulfide	No	11,691				
B-24	Mercaptan/Sulfide	No	11,691				
B-25	Mercaptan/Sulfide	No	11,691				
B-26	Methyl Ethyl Sulfide	No	11,691				
B-27	Mercaptan/Sulfide	No	12,477				
B-28	Mercaptan, Dimethyl Sulfide	No	10,578				
B-29	Out of Service	No	15,165				
B-30	Out of Service	No	28,435				
B-31	Sulfolane	No	33,776				
B-32	Mercaptan	No	33,890				
B-33	Mercaptan	No	22,715				
B-34A	Mercaptan	No	51,500				
B-35	Mercaptan/Sulfide	No	11,614				This area drains directly to the
B-36	Out of Service	No	11,614				Stormwater Pond; therefore,
B-37	Out of Service	No	12,850	None			the Stormwater pond provides
B-38	Mercaptan/Sulfide, High Sulfur Slop	No	12,348				the necessary secondary containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-39	Out of service	No	8,878				
B-43	Out of Service	No	25,600				
B-45	Mercaptan	No	44,800				
B-46	Mercaptan	No	44,800				
B-47	Mercaptan	No	44,800				
B-49	Mercaptan/Sulfide High Sulfur Slop	No	9,063				
B-50	Out of Service	No	20,700				
B-51	Mercaptan/Sulfide	No	10,870				
B-52	Sulfolane	No	16,000				
B-53	Sulfolane	No	16,000				
B-54	Sulfolane	No	16,000				
B-40	Sulfolane	No	52,800				This area drains directly to the
B-41	Sulfolane	No	52,800	Concrete	11,960	51,590	Stormwater pond; therefore, capacity is not a problem
B-44	Sulfolane	No	22,700	Concrete	13,144	86,355	Capacity is sufficient
B-48	Sulfolane	No	50,081	Concrete	13,144	80,333	Capacity is sufficient
			CI	Battery			
C-1	Butenes, Isobutylene	No	25,000				
C-2	Mercaptan/Sulfide	No	23,818				This area drains directly to the
C-3	Mercaptan/Sulfide	No	23,818				Stormwater Pond; therefore,
C-4	Mercaptan/Sulfide	No	23,818	None			the Stormwater pond provides
C-5	Mercaptan/Sulfide	No	23,818				the necessary secondary
C-6	Mercaptan/Sulfide/Propylene Tetramer	No	25,000				containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
C-7	Propylene Tetramer, Mercaptan	No	23,818				
C-8	Nonene, Mercaptan	No	23,818				
C-9	Mercaptan/Sulfide	No	23,818				
C-10	Mercaptan	No	23,818				
C-11	Mercaptan	No	23,818				
C-12	Mercaptan/Sulfide, Octene	No	15,338				
C-13	Mercaptan/Sulfide	No	15,338				
C-14	Mercaptan/Sulfide, Propylene, Butene, Hexene, Octene, Dodecene	No	25,000				
C-15	Mercaptan/Sulfide	No	23,818				
C-16	Mercaptan/Sulfide	No	25,000				
C-17	Butenes, Isobutylene	No	25,000				
C-18	Mercaptan, Allyl Alcohol	No	10,000				This area drains directly to the
C-19	Mercaptan/Sulfide	No	1,234	Concrete	1,117	1,315	Stormwater pond; therefore,
C-20	Mercaptan/Sulfide	No	2,300				capacity is not a problem
			D	Battery	•		
D-1	Diesel/Gasoline Blending, Toluene	Yes	10,243				This area drains directly to the
D-2	Diesel/Gasoline Blending, Ethanol	Yes	10,243				Stormwater Pond; therefore, the Stormwater pond provides
D-3	Diesel/Gasoline Blending	Yes	10,243	None			the necessary secondary containment. The manifold
D-4	Diesel/Gasoline Blending, Isopentane, Toluene	Yes	10,243				area drains to the Chemical Sewer.
D-5	Out of Service	Yes	12,913				GOVVOI.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
D-6	Diesel/Gasoline Blending	Yes	24,377				
D-7	Toluene	Yes	24,377				
D-8	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-9	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-10	Diesel/Gasoline Blending	Yes	33,000				
D-11	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-12	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-13	Diesel/Gasoline Blending, Isoparaffins	Yes	22,614				
D-14	Diesel/Gasoline Blending, Alkylate, Isoparaffins	Yes	33,000				
D-15	Diesel/Gasoline Blending	Yes	33,000				
D-16	Diesel/Gasoline Blending, Toluene, Isooctane	Yes	34,613				
D-17	Diesel/Gasoline Blending,	Yes	34,613				
D-18	Diesel/Gasoline Blending	Yes	29,991				
D-19	Diesel/Gasoline Blending, Isooctane, Toluene	Yes	48,223	Concrete	9,632	63,793	Canacity is sufficient
D-20	Diesel/Gasoline Blending, Isoparaffins, Isooctane	Yes	29,971	Concrete	9,032	03,783	Capacity is sufficient
E Battery							
E-1	N-Heptane	No	126,065	Earthen	14,623	79,700	
E-2	N-Heptane	No	126,065	Earthen	14,623	71,056	

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
E-3	Isooctane	No	126,065	Earthen	14,623	85,168	This area drains to the Stormwater pond; therefore, capacity is not a problem
E-4	Isooctane	No	126,065	Earthen	14,623	68,670	
E-5	Octane Reference Fuel	No	126,065	Earthen	14,623	88,005	
E-6	N-Heptane	No	126,065	Earthen	14,623	90,848	
F Battery							
F-1	Isoparaffins, Alkylate	No	424,750	Earthen	37,512	18,268	This area drains to the Stormwater pond; therefore, capacity is not a problem
F-2	HF Alkylate	No	424,750	Earthen	71,686 143,693	142 602	
F-3	Isoparaffins	No	215,953	Earmen	7 1,000	143,693	
F-5	Isoparaffins	No	215,895	Earthen 56,	56,109	272,034	
F-6	Propylene Tetramer	No	215,930		50,109		
F-4	Alkylate	No	216,061	Earthen (Flow to Ditch)	259,260	134,060	
F-7	Alkylate	No	215,843				
F-8	Isoparaffins, Alkylate	No	215,868				
F-9	Isooctane, Alkylate, Isoparaffins	No	212,385				
F-10	Isoparaffins	No	220,951				
F-14	Diesel/Gasoline Blending	Yes	128,289				
F-11	Diesel, SX-80	Yes	84,428	Earthen	68,428	641,030	
F-12	Isoparaffins	No	650,382				
F-13	Isoparaffins	No	216,624				
F-16	Mercaptan	No	141,983	Earthen (Flow to Pond)	205,046	1,558,035	
F-17	Mercaptan	No	230,009				
F-18	Mercaptan	No	230,009				
F-19	Mercaptan	No	141,983				
F-20	Mercaptan	No	230,009				

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
F-21	Mercaptan, Dodecane	No	141,983				
F-22	Mercaptan	No	230,009				
F-23	Nonene	No	126,822				
F-24	Diesel/Gasoline Blending, Alkylate, Isopentane, Isoparaffins	Yes	126,966				
F-27	Diesel/Gasoline Blending	Yes	15,750	Concrete	1,932	10,608	
F-28	Diesel/Gasoline Blending	Yes	30,081	Concrete	4,662	58,502	
			HI	Battery			
H-1	Mercaptan	No	211,566	Earthen	17,103	13,467	
H-3	Mercaptan	No	210,492	Earthen	13,988	48,344	
H-4	Diesel/Gasoline Blending	Yes	198,411	Earthen	28,455	48,319	This area drains to the
H-6	Diesel/Gasoline Blending	Yes	252,000	Earthen	EG 600	277 244	Stormwater pond; therefore,
H-7	Mercaptan	No	146,560	Larmen	56,682	377,341	capacity is not a problem
H-8	Mercaptan	No	426,532	Earthen	40,771	297,484	
H-20	Wastewater	No	450,030	Earthen			
I Battery			•		•		
I-1	Out of Service	No	8,872				
I-2	Ethyl Chloride	No	8,872				
I-3	Out of Service	No	8,872	Small			
I-4	Out of Service	No	8,872	Concrete	00.000	56 E7E	Secondary Containment is
I-5	Out of Service	No	8,872	curb around	28,862	56,575	sufficient
I-6	Out of Service	No	8,872	all tanks			
I-7	Out of Service	No	8,872				
I-8	Sulfolane	No	8,872				

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
I-9	Out of Service	No	8,872				
I-10	Out of Service	No	8,872				
I-11	Out of Service	No	8,872				
I-12	Out of Service	No	8,872				
I-14	Methylethylsulfide	No	8,872				
I-15	Out of Service	No	4,018				
I-17	Out of Service	No	3,091				
I-20	Sodium Methyl Mercaptide	No	7,790				
I-21	Sodium Methyl Mercaptide	No	7,790				
I-22	Sodium Methyl Mercaptide	No	7,790				
I-23	Methyl Ethyl Sulfide	No	8,872				
			JE	Battery	•		
J-5	R-17 Crude Product	No	5,656				
J-9	R-15 Dump Tank	No	5,887				This area drains directly to the
J-20	Sulfolane	No	1,073				Stormwater Pond; therefore,
J-36	Sulfolane	No	24,315	None			the Stormwater pond provides
J-37	Sulfolane	No	24,315				the necessary secondary
J-43A	Sulfolene	No	627				containment.
J-43B	Sulfolene	No	5,656				
			LI	Battery			
L-1	Diesel, Octene	Yes	63,149	and Foutbook			0
L-2	Brine/Wastewater	No	126,221	part Earthen / part Concrete	32,982	173,546	Secondary containment is sufficient
L-3	Mercaptan	No	126,003	part Concrete			Sunicient
		•	PI	Battery	•	•	

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-1	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-2	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-3	Light Cycle Oil	Yes	16,499	Concrete	20,675	60,650	Secondary containment is
P-4	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,380				sufficient
P-5	Dimethyl Sulfide	No	16,380				
P-6	Dimethyl Sulfide	No	16,380				
P-50	Diesel/Gasoline Blending	Yes	40,000			9,795 10,928	Containments in P Battery drain to the 250,000 gallon Unit 5 stormwater reservoir,
P-51	Diesel/Gasoline Blending, Cyclopentane	Yes	40,000				
P-52	Diesel/Gasoline Blending, Cyclopentane	Yes	15,000	Concrete	8,795		
P-53	Diesel/Gasoline Blending, Heptane, Isoparaffin	Yes	10,000				
P-54	Caustic	No	30,827	Concrete	5,800	27,266	which in turn is drained to the
P-55	Out of Service	No	100,000				stormwater pond.
P-56	Mercaptan/Sulfide	No	100,000	Concrete	12 500	64.760	
P-57	TBM	No	100,000	Concrete	13,592	64,762	
P-58	Toluene, Soltrol	Yes	73,000				
P-59	Propylene	No	43,080	Concrete	11,048	77,990	Secondary containment is
P-65	Mercaptan	No	43,080	Concrete	11,040	11,990	sufficient
P-60	Mercaptan	No	100,000				Containment drains to the
P-61	Slop Gasoline	Yes	100,000	Concrete	14,493	65,595	250,000-gal. Unit 5
P-62	Mercaptans, Isoparaffins	No	100,000				stormwater reservoir, which in

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-63	Butadiene	No	100,000				turn is drained to the stormwater pond.
P-66	Dimethylsulfide	No	210,588	Concrete	37,646	310,455	Secondary containment is sufficient

Notes:

- (1) The stored materials listed are historical use. The material stored in the tanks may vary due to the flexible/batch process nature of the plant. Additional materials not listed may be stored to meet production requirements.
- (2) The maximum 24-hour rainfall event with a 25-year frequency from the Department of Commerce Technical Bulletin No. 40 is 5.1 inches of rain.

Attachment TR-2.a. Treatment System

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Attachment TR-2.a. Treatment System Chevron Phillips Chemical Company LP – Borger Plant

Stormwater treatment units at Chevron Phillips Chemical Company LP Borger Plant include the following:

Plastic-lined Stormwater Pond – 6.5 million gallons

The stormwater pond provides containment and holding of stormwater from the Borger Plant. Subsequently, the pond provides settling and attenuation for captured flows. Stormwater is discharged via Outfall 002.

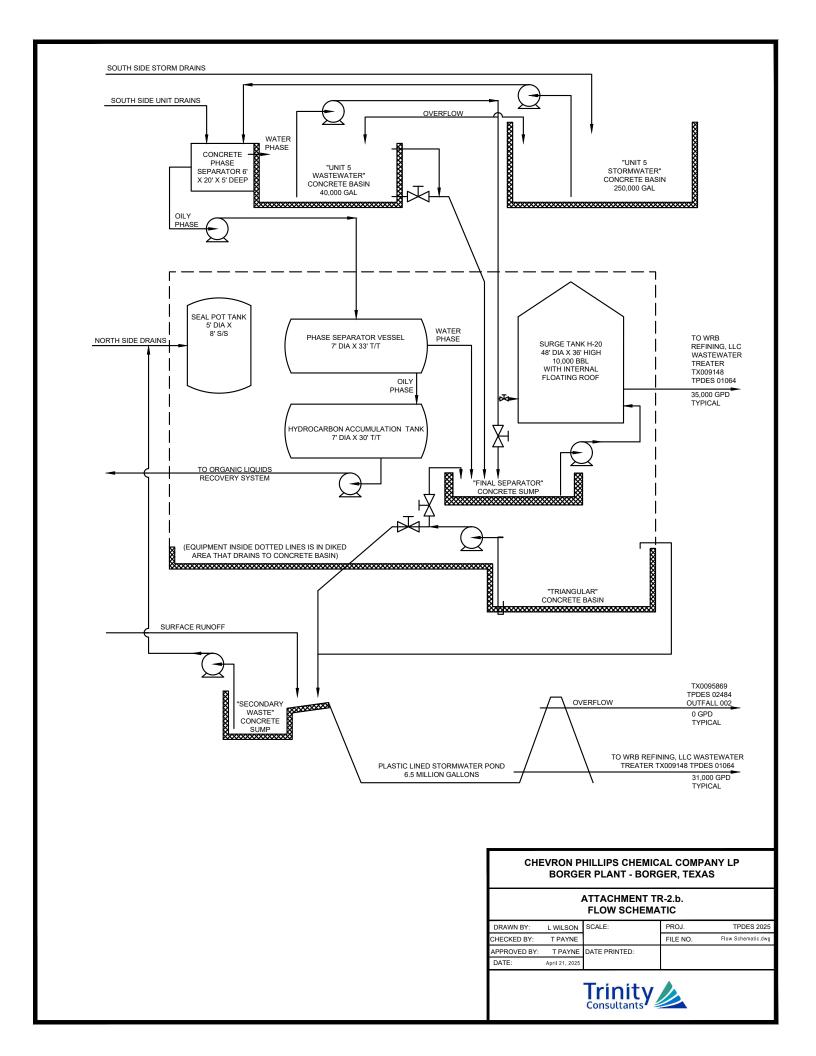
- Unit 5 Wastewater Concrete Basin 40,000 gallons
- Unit 5 Stormwater Concrete Basin 250,000 gallons

Process wastewater pre-treatment units located at the Borger Plant are utilized for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000.

The pre-treatment system consists of seal pot tank (5' diameter X 8' height), phase separator vessel (7' diameter X 33' length), a hydrocarbon accumulation tank (7' diameter X 30' length), and a surge tank (48' diameter X 36' height). A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.

Attachment TR-2.b. Flow Schematic-Water Balance

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Attachment TR-5.b. Safety Data Sheets and Summary

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3D TRASAR™ 3DT129

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : 3D TRASAR™ 3DT129

Other means of identification : Not applicable.

Recommended use : COOLING WATER TREATMENT

Restrictions on use : Refer to available product literature or ask your local Sales Representative for

restrictions on use and dose limits.

Company : Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630) 305-1000

Emergency telephone

number

(800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 07/10/2024

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1
Serious eye damage : Category 1

GHS Label element

Hazard pictograms :





Signal Word : Danger

Hazard Statements : May be corrosive to metals.

Harmful if swallowed.

Causes severe skin burns and eye damage.

Precautionary Statements : Prevention:

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/

eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. 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. Immediately call a POISON CENTER/doctor. 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

3D TRASAR™ 3DT129

CENTER or doctor/physician. Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name CAS-No. Concentration: (%)

Phosphoric Acid 7664-38-2 10 - 30 Zinc Chloride 7646-85-7 10 - 30

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing

before reuse. Thoroughly clean shoes before reuse. Get medical attention

immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by

mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put

yourself at risk of injury. If in doubt, contact emergency responders. Use

personal protective equipment as required.

Notes to physician : Treat symptomatically.

Most important symptoms and effects, both acute and

delayed

See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

Unsuitable extinguishing

media

None known.

Specific hazards during

firefighting

Not flammable or combustible.

Hazardous combustion

products

: Decomposition products may include the following materials: Carbon oxides

nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

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for firefighters

Special protective equipment: Use personal protective equipment.

Specific extinguishing

methods

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up Stop leak if safe to do so. Contain spillage, and then collect with noncombustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

Advice on safe handling

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not mix with bleach or other chlorinated products - will cause chlorine gas. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage

Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Compatibility with Plastic Materials can vary; we therefore recommend that compatibility is tested prior to use.

The following compatibility data is suggested based on similar product data

and/or industry experience:

Unsuitable material

The following compatibility data is suggested based on similar product data and/or industry experience: Aluminum, Brass, Carbon steel, Nickel, Stainless Steel 304, Stainless Steel 316L, Plasite 4005, Plasite 6000, Plasite 7122The following compatibility data is suggested based on similar product data and/or industry experience:

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
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Phosphoric Acid	7664-38-2	TWA	1 mg/m3	ACGIH
		STEL	3 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		STEL	3 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z1
Zinc Chloride	7646-85-7	TWA (Fumes)	1 mg/m3	ACGIH
		STEL (Fumes)	2 mg/m3	ACGIH
		TWA (Fumes)	1 mg/m3	NIOSH REL
		STEL (Fumes)	2 mg/m3	NIOSH REL
		TWA (Fumes)	1 mg/m3	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below

occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles

Face-shield

Hand protection : Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety

goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove

and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid

Colour : yellow light brown

Odour : odourless

Flash point : does not flash pH : 1.0,(100.0 %)

Odour Threshold : no data available

Melting point/freezing point : Freezing Point: -31.67 °C

Initial boiling point and boiling:

range

no data available

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Evaporation rate no data available Flammability (solid, gas) Not applicable. Upper explosion limit no data available Lower explosion limit no data available Vapour pressure no data available Relative vapour density no data available Relative density 1.37, (15.6 °C), Density no data available Water solubility completely soluble

Partition coefficient: n-

Solubility in other solvents

octanol/water

no data available no data available

no data available

Auto-ignition temperature Not applicable Thermal decomposition no data available Viscosity, dynamic 20 mPa.s (25 °C) Viscosity, kinematic no data available Molecular weight no data available VOC

Section: 10. STABILITY AND REACTIVITY

No dangerous reaction known under conditions of normal use. Reactivity

Stable under normal conditions. Chemical stability

Possibility of hazardous

reactions

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions to avoid None known.

Incompatible materials Strong bases

Hazardous decomposition

products

In case of fire, hazardous decomposition products may be produced such as:

Carbon oxides

nitrogen oxides (NOx) Sulphur oxides

Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact, Ingestion

exposure

Potential Health Effects

Eyes Causes serious eye damage.

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Skin Causes severe skin burns.

Ingestion Harmful if swallowed. Causes digestive tract burns.

Inhalation Harmful if inhaled. May cause nose, throat, and lung irritation.

Chronic Exposure Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact Redness, Pain, Corrosion

Skin contact Redness, Pain, Corrosion

Ingestion Corrosion, Abdominal pain

Inhalation Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity Acute toxicity estimate: 1,500 mg/kg

Acute inhalation toxicity no data available no data available Acute dermal toxicity Skin corrosion/irritation no data available

Serious eye damage/eye

irritation

no data available

Respiratory or skin

sensitization

no data available

Carcinogenicity no data available Reproductive effects no data available Germ cell mutagenicity no data available Teratogenicity no data available STOT - single exposure no data available STOT - repeated exposure no data available no data available

Components

Aspiration toxicity

Acute dermal toxicity Phosphoric Acid

LD50 rabbit: > 2,000 mg/kg

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Environmental Effects : Toxic to aquatic life.

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Product

Toxicity to fish : LC50 Pimephales promelas (fathead minnow): 3.5 mg/l

Exposure time: 96 hrs Test substance: Product

NOEC Pimephales promelas (fathead minnow): 1.25 mg/l

Exposure time: 96 hrs
Test substance: Product

LC50 Inland Silverside: 50.9 mg/l

Exposure time: 24 hrs Test substance: Product

LC50 Inland Silverside: 44.9 mg/l

Exposure time: 48 hrs Test substance: Product

LC50 Inland Silverside: 212 mg/l

Exposure time: 96 hrs Test substance: Product

NOEC Inland Silverside: 75 mg/l

Exposure time: 96 hrs Test substance: Product

Toxicity to daphnia and other

aquatic invertebrates

: LC50 Mysid Shrimp (Mysidopsis bahia): 8.42 mg/l

Exposure time: 96 hrs Test substance: Product

EC50 Daphnia magna (Water flea): 4.06 mg/l

Exposure time: 48 hrs
Test substance: Product

NOEC Daphnia magna (Water flea): 2.5 mg/l

Exposure time: 48 hrs
Test substance: Product

NOEC Mysid Shrimp (Mysidopsis bahia): 12.5 mg/l

Exposure time: 96 hrs Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 74.9 mg/l

Exposure time: 24 hrs Test substance: Product

LC50 Mysid Shrimp (Mysidopsis bahia): 18.5 mg/l

Exposure time: 48 hrs
Test substance: Product

Toxicity to fish (Chronic

toxicity)

: EC25 / IC25: 35.8 mg/l End point: Survival

Exposure time: 7 d
Species: Inland Silverside
Test substance: Product

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NOEC: 25 mg/l End point: Growth Exposure time: 7 d

Species: Inland Silverside Test substance: Product

LOAEC: 50 mg/l End point: Growth Exposure time: 7 d Species: Inland Silverside Test substance: Product

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity)

: EC25 / IC25: 4.6 mg/l End point: Survival Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

NOEC: 3.1 mg/l End point: Growth Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

LOAEC: 6.3 mg/l End point: Growth Exposure time: 7 d

Species: Mysid Shrimp (Mysidopsis bahia)

Test substance: Product

Components

Toxicity to algae : Phosphoric Acid

EC50 Desmodesmus subspicatus (green algae): > 100 mg/l

Exposure time: 72 h

Persistence and degradability

Biodegradability : Result: Readily biodegradable.

The organic portion of this preparation is expected to be inherently biodegradable.

Total Organic Carbon (TOC): 30,000 mg/l

Chemical Oxygen Demand (COD): 110,000 mg/l

Biochemical Oxygen Demand (BOD):

Incubation Period Value Test Descriptor

5 d 7 mg/l Product

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is

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intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : <5% Water : 30 - 50% Soil : 50 - 70%

The portion in water is expected to be soluble or dispersible.

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it could meet the criteria of a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Before disposal, it should be determined if the waste meets the criteria of a hazardous waste.

Hazardous Waste: : D002

Disposal methods : Do not contaminate storm water drains, natural waterways or

soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations. Dispose of wastes in an approved waste

disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per : 7,930 lbs

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package)

RQ Component : ZINC CHLORIDE

Air transport (IATA)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

Reportable Quantity (per

package)

: 7,930 lbs

RQ Component : ZINC CHLORIDE

Sea transport (IMDG/IMO)

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

Technical name(s) : Zinc Chloride, Phosphoric Acid

UN/ID No. : UN 3264

Transport hazard class(es) : 8
Packing group : III

*Marine pollutant : ZINC CHLORIDE

Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification

requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Zinc Chloride	7646-85-7	1000	7936

CERCLA Reportable Quantity

This product does not contain a RQ substance, or this product contains a substance with a RQ, however the calculated RQ exceeds the reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals

Acute toxicity (any route of exposure)

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302

EHS TPQ.

^{*} Note: This product is regulated as a Marine Pollutant when shipped by Rail or Highway (in bulk quantities), and when shipped by water in all quantities.

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SARA 313 : The following components are subject to reporting levels established

by SARA Title III, Section 313:

Zinc Chloride 7646-85-7 10 - 20 %

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

INTERNATIONAL CHEMICAL CONTROL LAWS:

United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

All substances in this product comply with the Australian Industrial Chemicals Introduction Scheme (AICIS)

Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

Japan. ENCS - Existing and New Chemical Substances Inventory

All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Existing and New Chemical Substances list (ENCS).

Korea. Korean Existing Chemicals Inventory (KECI)

On the Korea Existing Chemicals Inventory.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippines Inventory of Chemicals & Chemical Substances (PICCS).

China Inventory of Existing Chemical Substances

All substances in this product comply with the Provisions on the Environmental Administration of New Chemical Substances and are listed on or exempt from the Inventory of Existing Chemical Substances China (IECSC).

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

All substances in this product comply with the Hazardous Substances and New Organisms (HSNO) Act 1996, and are listed on or are exempt from the New Zealand Inventory of Chemicals.

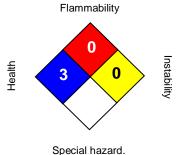
Taiwan Chemical Substance Inventory

All substances in this product comply with the Taiwan Existing Chemical Substances Inventory (ECSI).

Section: 16. OTHER INFORMATION

3D TRASAR™ 3DT129

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date : 07/10/2024

Version Number : 2.0

Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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. For additional copies of an SDS visit www.ecolab.com/sds and request access.



3D TRASAR™ 3DT304

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name

: 3D TRASAR™ 3DT304

Other means of identification :

Not applicable.

Restrictions on use

Refer to available product literature or ask your local Sales

Representative for restrictions on use and dose limits.

Company

Nalco Company

1601 W. Diehl Road

Naperville, Illinois 60563-1198

USA

TEL: (630)305-1000

Emergency telephone

number

: (800) 424-9300 (24 Hours) CHEMTREC

Issuing date

: 12/11/2014

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals

Skin corrosion

Serious eye damage/eve

irritation

: Category 1

Category 1A

: Category 1

GHS Label element

Hazard pictograms

Signal Word

: Danger

Hazard Statements

: May be corrosive to metals.

Causes severe skin burns and eye damage.

Precautionary Statements

: Prevention:

Keep only in original container. Wash skin 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): 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. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage:

3D TRASAR™ 3DT304

Store locked up. Store in corrosive resistant stainless steel

container with a resistant inner liner.

Disposal:

Dispose of contents/ container to an approved waste disposal

plant.

Other hazards

: None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

: Mixture

Chemical Name

CAS-No.

Concentration: (%)

Sodium Hydroxide

1310-73-2

5 - 10

substituted aromatic amine salt

Proprietary

5 - 10

Section: 4. FIRST AID MEASURES

In case of eye contact

: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical attention immediately.

In case of skin contact

: Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention

immediately.

If swallowed

: Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention

immediately.

If inhaled

: Remove to fresh air. Treat symptomatically. Get medical attention if

symptoms occur.

Protection of first-aiders

: In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

: See Section 11 for more detailed information on health effects and

Notes to physician

: Treat symptomatically.

Most important symptoms and effects, both acute and delayed

symptoms.

Section: 5. FIREFIGHTING MEASURES

Suitable extinguishing media

: Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Unsuitable extinguishing

media

: None known.

Specific hazards during

firefighting

: Not flammable or combustible.

Hazardous combustion

products

: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of

3D TRASAR™ 3DT304

phosphorus

for firefighters

Special protective equipment : Use personal protective equipment.

Specific extinguishing

methods

: Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the

event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions. protective equipment and emergency procedures

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth,

diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure

runoff does not reach a waterway.

Section: 7. HANDLING AND STORAGE

Advice on safe handling

: Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after

handling. Use only with adequate ventilation.

Conditions for safe storage

: Do not store near acids. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Suitable material

: Keep in properly labelled containers.

Unsuitable material

: not determined

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Sodium Hydroxide	1310-73-2	Ceiling	2 mg/m3	ACGIH
		Ceiling	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z1

Engineering measures

: Effective exhaust ventilation system Maintain air concentrations

below occupational exposure standards.

3D TRASAR™ 3DT304

Eye protection : Safety goggles

Face-shield

Hand protection : Wear the following personal protective equipment:

Standard glove type.

Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective

gloves, safety goggles and protective clothing

Respiratory protection : When workers are facing concentrations above the exposure limit

they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes

and body in case of contact or splash hazard.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear Yellow

Odour : slight

Flash point : > 93.3 °C

pH : 12.0 - 13.5

Odour Threshold : no data available

Melting point/freezing point : FREEZING POINT: -8.2 °C

Initial boiling point and boiling

range

: approximately 208 °C estimated

Evaporation rate : no data available

Flammability (solid, gas) : no data available

Upper explosion limit : no data available

Lower explosion limit : no data available

Vapour pressure : 3.73 hPa (0 °C)

: 3.73 hPa (0 °C) 18.7 hPa (20 °C)

49.3 hPa (37.8 °C)

200 hPa (65.6 °C)

637 hPa (93.3 °C)

1,010 hPa (121 °C)

Relative vapour density : no data available

Relative density : 1.1873 (15.6 °C)

Density : 1.1731 - 1.1732 g/cm3

Water solubility : Complete

Solubility in other solvents : no data available

3D TRASAR™ 3DT304

Partition coefficient: n-

octanol/water

: no data available

Auto-ignition temperature

: no data available

Thermal decomposition

: no data available

temperature

Viscosity, dynamic

: no data available

Viscosity, kinematic

: no data available

VOC

: 43.8 %

Section: 10. STABILITY AND REACTIVITY

Chemical stability

Conditions to avoid

: Stable under normal conditions.

Possibility of hazardous

: No dangerous reaction known under conditions of normal use.

reactions

: None known.

Hazardous decomposition

products

: Decomposition products may include the following materials:

Carbon oxides

nitrogen oxides (NOx)

Sulphur oxides

Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation, Eye contact, Skin contact

exposure

Potential Health Effects

Eyes

: Causes serious eye damage.

Skin

: Causes severe skin burns.

Ingestion

: Causes digestive tract burns.

Inhalation

: May cause nose, throat, and lung irritation.

Chronic Exposure

: Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact

: Redness, Pain, Corrosion

Skin contact

: Redness, Pain, Corrosion

Ingestion

: Corrosion, Abdominal pain

Inhalation

: Respiratory irritation, Cough

Toxicity

Product

Acute oral toxicity

: Acute toxicity estimate > 5,000 mg/kg

3D TRASAR™ 3DT304

Acute inhalation toxicity

: no data available

Acute dermal toxicity

: no data available

Skin corrosion/irritation

: no data available

Serious eye damage/eye

irritation

: no data available

Respiratory or skin

sensitization

: no data available

Carcinogenicity

: no data available

Reproductive effects

: no data available

Germ cell mutagenicity

: no data available

Teratogenicity

: no data available

STOT - single exposure

: no data available

STOT - repeated exposure

: no data available

Aspiration toxicity

: no data available

Section: 12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental Effects

: Harmful to aquatic life with long lasting effects.

Components

Toxicity to fish

: substituted aromatic amine salt

LC50: 50 mg/l Exposure time: 96 h

Components

Toxicity to daphnia and other

aquatic invertebrates

: substituted aromatic amine salt

EC50: 31 mg/l Exposure time: 48 h

Components

Toxicity to algae

: substituted aromatic amine salt

EC50: 66 mg/l Exposure time: 72 h

Components

Toxicity to bacteria

: substituted aromatic amine salt

1,060 mg/l

Components

(Chronic toxicity)

Toxicity to daphnia and other aquatic invertebrates

: substituted aromatic amine salt

0.97 mg/l

Exposure time: 21 d

3D TRASAR™ 3DT304

Persistence and degradability

Chemical Oxygen Demand (COD): 300,000 mg/l

Mobility

no data available

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Disposal methods : The product should not be allowed to enter drains, water

courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in

an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be

taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Proper shipping name

Technical name(s)

SODIUM HYDROXIDE SOLUTION

UN/ID No.

: UN 1824

Transport hazard class(es)

: 8

Packing group

: 111

Air transport (IATA)

Proper shipping name

SODIUM HYDROXIDE SOLUTION

Technical name(s)

: UN 1824

UN/ID No.

: 8

Transport hazard class(es)

: 111

Packing group

Sea transport (IMDG/IMO)

Proper shipping name Technical name(s)

: SODIUM HYDROXIDE SOLUTION

UN/ID No.

UN 1824

Transport hazard class(es)

: 8

3D TRASAR™ 3DT304

Packing group

: 111

Section: 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Sodium Hydroxide	1310-73-2	1000	16724

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards

: Acute Health Hazard

SARA 302

: No chemicals in this material are subject to the reporting requirements

of SARA Title III, Section 302.

SARA 313

: This material does not contain any chemical components with known

CAS numbers that exceed the threshold (De Minimis) reporting levels

established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

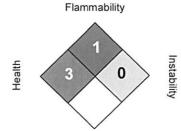
INTERNATIONAL CHEMICAL CONTROL LAWS:

TOXIC SUBSTANCES CONTROL ACT (TSCA)

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

Section: 16. OTHER INFORMATION

NFPA:



Special hazard.

HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date Version Number Prepared By : 12/11/2014

: 1.1

: Regulatory Affairs

3D TRASAR™ 3DT304

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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.

For additional copies of an MSDS visit www.nalco.com and request access.



Version 1.2 Revision Date: 03/26/2024

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : LIQUICHLOR® 12.5% SOLUTION

Recommended use of the chemical and restrictions on use

Recommended use : refer to EPA registered label for specific uses

Manufacturer or supplier's details

Company : Univar Solutions USA

Address 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300) CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

Skin corrosion : Category 1B

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :

LE.

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements : **Prevention:**

P234 Keep only in original container. P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection. **Response:**

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT

induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately

all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON

CENTER/ doctor.

SDS Number: 100000072639 1 / 11 LIQUICHLOR® 12.5% SOLUTION



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P305 + P351 + P338 + P310 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.

P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.

Storage

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

liner. **Disposal:**

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7681-52-9	Sodium hypochlorite	12.5
1310-73-2	Sodium hydroxide	0 - 5

Actual concentration is withheld as a trade secret

Any Concentration shown as a range is due to batch variation.

Synonyms : Bleach,

SECTION 4. FIRST AID MEASURES

General advice : Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Take victim immediately to hospital.

Move to fresh air.

If breathing has stopped, apply artificial respiration.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing

and shoes.

Remove contaminated clothing. If irritation develops, get med-

ical attention.

Burns must be treated by a physician.

In case of eye contact : In case of eye contact

Immediately flush eye(s) with plenty of water.

Rinse thoroughly with plenty of water for at least 15 minutes

and consult a physician.

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If easy to do, remove contact lens, if worn.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

If swallowed Take victim immediately to hospital.

> Do NOT induce vomiting. Rinse mouth with water.

If victim is fully conscious, give a cupful of water.

If a person vomits when lying on his back, place him in the

recovery position.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)

> Foam Drv powder

Unsuitable extinguishing

media

Specific hazards during fire-

fighting

: High volume water jet

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion prod-

ucts

: No hazardous combustion products are known

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment

for firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

tive equipment and emer-

gency procedures

Personal precautions, protec- : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for containment and cleaning up

: Neutralise with acid.

Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.

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Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7681-52-9	Sodium hypochlorite	STEL	2 mg/m3	US WEEL
1310-73-2	Sodium hydroxide	С	2 mg/m3	ACGIH
		С	2 mg/m3	NIOSH REL
		TWA	2 mg/m3	OSHA Z-1
		С	2 mg/m3	OSHA P0
		С	2 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to

maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid Colour : clear

yellow

Odour : Chlorine

Odour Threshold : No data available

pH : 11.5 - 13

Freezing Point (Melting : -20 - -15 °C (-4 - 5 °F)

point/freezing point)

Boiling Point () : 230 °F (230 °F)

Decomposition: Decomposition temperature

Flash point : Not Flammable

Evaporation rate : No data available Flammability (solid, gas) : No data available Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : 12 - 17.5 mmHg @ 20 °C (68 °F)

Relative vapour density : No data available Relative density : 1.17 @ 20 °C (68 °F)

Reference substance: (water = 1)

Density : 1.17 g/cm3

Solubility(ies)
Water solubility

Water solubility : completely soluble Solubility in other solvents : No data available Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : No data available Thermal decomposition : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable

Possibility of hazardous reac- : No hazards to be specially mentioned.

tions

Conditions to avoid : Keep away from heat, flame, sparks and other ignition

sources.

Incompatible materials : Acids

Combustible material Halogenated compounds

Metals metal salts Organic materials

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organic nitro compounds

Zinc

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg

Components:

7681-52-9:

Acute oral toxicity : LD50 (Rat, male): > 2,000 mg/kg

Skin corrosion/irritation

Components:

7681-52-9: Species: Rabbit

Result: Causes burns.

1310-73-2: Species: Rabbit

Result: Causes severe burns.

Serious eye damage/eye irritation

Components:

7681-52-9: Species: Rabbit

Result: Risk of serious damage to eyes.

1310-73-2: Species: Rabbit

Result: Risk of serious damage to eyes.

Carcinogenicity

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.



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STOT - single exposure

Components:

7681-52-9:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

7681-52-9:

Toxicity to fish : LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l

Exposure time: 96 h

Test Type: flow-through test

LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l

Exposure time: 96 h Test Type: static test

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 0.141 mg/l

Exposure time: 48 h

Test Type: flow-through test

EC50 (Ceriodaphnia dubia): 0.035 mg/l

Exposure time: 48 h

Test Type: flow-through test

Toxicity to algae : IC50: 0.023 mg/l

Exposure time: 7 d

Test Type: flow-through test

M-Factor (Acute aquatic tox-

icity)

: 10

Acute aquatic toxicity- As-

: Very toxic to aquatic life.

sessment

Chronic aquatic toxicity- As-

: Toxic to aquatic life with long lasting effects.

sessment

Persistence and degradability

No data available

Bioaccumulative potential

No data available

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Safety Data Sheet LIQUICHLOR® 12.5% SOLUTION

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Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

: An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and

federal regulations.

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-

var Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1791, Hypochlorite solutions, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

IATA (International Air Transport Association):

UN1791, Hypochlorite solution, 8, III

IMDG (International Maritime Dangerous Goods):

UN1791, HYPOCHLORITE SOLUTION, 8, III, Marine Pollutant (SODIUM HYPOCHLORITE)

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)

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Safety Data Sheet

LIQUICHLOR® 12.5% SOLUTION

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Sodium hypochlorite	7681-52-9	100	800
Sodium hydroxide	1310-73-2	1000	20000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Corrosive to metals

Skin corrosion or irritation

Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section

302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

Pennsylvania Right To Know

7732-18-5 Water

7681-52-9 Sodium hypochlorite 1310-73-2 Sodium hydroxide

California Prop 65 : This product does not contain any chemicals known to State

of California to cause cancer, birth defects, or any other re-

productive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

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Safety Data Sheet LIQUICHLOR® 12.5% SOLUTION

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NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

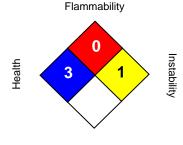
KECI: On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



Special hazard

HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	1

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 03/26/2024

Material number:

16215731, 16214071, 16211872, 16212037, 16211065, 16210830, 16210117, 16206617, 16204823, 16179440, 16173035, 16172686, 16173104, 16185315, 16172598, 16146040, 16151002, 16149524, 16158615, 16145640, 16148059, 16144666, 16147989, 16163791, 16180800, 16164756, 16164592, 16164731, 16164730, 16203820, 16203821, 16203184, 16194505, 16158853, 16151253, 16149870, 16148071, 16148060, 16147684, 16145965, 16145895, 16145890, 16145584, 16145144, 16145142, 16145140, 16145138, 16145137, 16145133, 16145130, 16145079, 16159810, 16150495, 16149123, 16147041, 16145471, 16144665, 16145772, 16148183, 16145046, 16143737, 16135287, 16163624, 16148721, 16155765, 16158840, 16145484, 16166710, 16148748, 16148260, 16166763, 16166591, 16145834, 16166014, 16159793, 16162934, 16165524, 16165444, 16165066, 16137823, 16137455, 16137753, 16147687, 16144215, 16150496, 16149504, 16145673, 16149243, 16136536, 16160181, 16160290, 16144046, 16145139, 16150462, 16149046, 16149516.



Safety Data Sheet LIQUICHLOR® 12.5% SOLUTION

Version 1.2 Revision Date: 03/26/2024

16148083, 16150461, 16135216, 16156005

Key or le	Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%	
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level	
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency	
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health	
CNS	Central Nervous System	NTP	National Toxicology Program	
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals	
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level	
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration	
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration	
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit	
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances	
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic	
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act	
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit	
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.	
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value	
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average	
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act	
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials	
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System	
LC50	Lethal Concentration 50%			



Version 1.9 Revision Date: 01/24/2024

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SULFURIC ACID 66 BE°

Recommended use of the chemical and restrictions on use

Recommended use : Industrial Chemical

Manufacturer or supplier's details

Company : Univar Solutions USA

Address 3075 Highland Pkwy Suite 200

Downers Grove, IL 60515 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300) CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department

E-mail: SDSNA@univarsolutions.com SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals : Category 1

Skin corrosion : Category 1A

Serious eye damage : Category 1

Carcinogenicity : Category 1A

Specific target organ toxicity

- single exposure

: Category 3 (Respiratory system)

GHS label elements

Hazard pictograms :







Signal word : Danger

Hazard statements : H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

H350 May cause cancer.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P234 Keep only in original container.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

SDS Number: 100000039101 1 / 12 SULFURIC ACID 66 BE°



Version 1.9 Revision Date: 01/24/2024

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT

induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 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.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container

tightly closed.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner

liner.

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture

: Mixture

Hazardous components

CAS-No.	Chemical name	Weight percent
7664-93-9	Sulfuric acid	90 - 100

Any Concentration shown as a range is due to batch variation.

Molecular formula : H2-O4-S

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

SDS Number: 100000039101 2 / 12 SULFURIC ACID 66 BE°



Version 1.9 Revision Date: 01/24/2024

In case of skin contact : Immediate medical treatment is necessary as untreated

wounds from corrosion of the skin heal slowly and with difficul-

ty.

If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

Take victim immediately to hospital.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Keep respiratory tract clear. Do NOT induce vomiting.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Dry chemical

Carbon dioxide (CO2)
: High volume water jet

Unsuitable extinguishing

media

Water

: sulfur oxides

Hazardous combustion products

sultur oxides

Gases hazardous to health may be formed.

Sulphuric acid

Specific extinguishing meth-

ods

: Use a water spray to cool fully closed containers.

Further information : Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if nec-

essary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emer-

gency procedures

Personal precautions, protec- : Use personal protective equipment.

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up a

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against

fire and explosion

: Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.

Avoid contact with skin and eyes. For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national

regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7664-93-9	Sulfuric acid	TWA (Thoracic particulate matter)	0.2 mg/m3	ACGIH
		TWA	1 mg/m3	NIOSH REL
		TWA	1 mg/m3	OSHA Z-1
		TWA	1 mg/m3	OSHA P0
		PEL	0.1 mg/m3	CAL PEL
		STEL	3 mg/m3	CAL PEL

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to

maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air

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purifying respirators may not provide adequate protection.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Wear face-shield and protective suit for abnormal processing

problems.

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concen-

tration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

: -31 - 10.56 °C (-24 - 51.01 °F)

: 217 - 330 °C (423 - 626 °F)

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : Clear, colorless, amber

Odour : pungent

Odour Threshold : No data available pH : 0.3 @ 25 °C (77 °F)

Freezing Point (Melting

point/range)

Boiling Point (Boiling

point/boiling range)

Flash point : does not flash

Evaporation rate : No data available Flammability (solid, gas) : No data available Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : < 0.3 mmHg @ 25 °C (77 °F)

Relative vapour density : 3.4 @ 20 °C (68 °F)

(Air = 1.0)

Relative density : 1.8347 - 1.8437 @ 25 °C (77 °F)

Reference substance: (water = 1)

Density : Estimated 1.837 g/cm3 @ 20 °C (68 °F)

15.3 - 15.4 lb/gal @ 25 °C (77 °F)

Solubility(ies)

Water solubility : completely miscible Solubility in other solvents : No data available Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : No data available

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: 340 °C Thermal decomposition

SECTION 10. STABILITY AND REACTIVITY

Reactivity

: No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reac-

Acid reacts with most metals to release hydrogen gas which

can form explosive mixtures with air.

tions

Reacts with organic materials and may cause ignition of finely

divided materials on contact.

Conditions to avoid Incompatible materials Avoid contact with combustible material (paper, wool, oil).

Alkalis

Metals carbide chlorates fuminates

nitrates

Organic materials Strong oxidizing agents strong reducing agents

water

Sulphur compounds

acetylenes Acids Ammonia

Combustible material Flammable materials

Metals nitrates **Nitriles** nitrites

Organic materials Oxidizing agents phosphorus Powdered metals Reducing agents

water

Peroxides

Hazardous decomposition

products

: corrosive vapors Sulphur oxides

toxic fumes

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

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7664-93-9:

Acute oral toxicity : LC50 (Rat, male and female): 2,140 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): mg/m3 375

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

7664-93-9:

Species: Rabbit

Result: Causes severe burns.

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Components:

7664-93-9:

Remarks: No data available

Respiratory or skin sensitisation

Components:

7664-93-9:

Remarks: No data available

Germ cell mutagenicity

Components:

7664-93-9:

Genotoxicity in vitro : Test Type: Ames test

Species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Germ cell mutagenicity -

Assessment

: Not mutagenic in Ames Test

Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: Human carcinogen.

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Components:

7664-93-9:

Species: Mouse, (male and female)

Application Route: Oral Exposure time: lifetime

Dose: 0.2 mL of 0.2% aq solution Frequency of Treatment: 1 days/week Symptoms: Local irritation, Tumors

Carcinogenicity - Assess-

ment

: Weight of evidence does not support classification as a car-

cinogen

IARC Group 1: Carcinogenic to humans

7664-93-9 Sulfuric acid

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP Known to be human carcinogen

7664-93-9 Sulfuric acid

Reproductive toxicity

Components:

7664-93-9:

Reproductive toxicity - As-

sessment

Fertility classification not possible from current data.

Teratogenicity - Assessment : Did not show teratogenic effects in animal experiments.

STOT - single exposure

Product:

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

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Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

tection of Stratospheric Ozone - CAA Section 602 Class I

Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and

federal regulations.

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-

var Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1830, SULFURIC ACID, 8, II

IATA (International Air Transport Association):

UN1830, SULPHURIC ACID, 8, II

IMDG (International Maritime Dangerous Goods):

UN1830, SULPHURIC ACID, 8, II

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : D2A: Very Toxic Material Causing Other Toxic Effects

D2B: Toxic Material Causing Other Toxic Effects

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E: Corrosive Material

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
Sulfuric acid	7664-93-9	1000	1000

SARA 311/312 Hazards : Corrosive to metals

Skin corrosion or irritation

Serious eye damage or eye irritation

Carcinogenicity

Specific target organ toxicity (single or repeated exposure)

SARA 302 :

7664-93-9 Sulfuric acid

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

7664-93-9 Sulfuric acid

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

7664-93-9 Sulfuric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

7664-93-9 Sulfuric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

7664-93-9 Sulfuric acid

Pennsylvania Right To Know

7664-93-9 Sulfuric acid 7732-18-5 Water

California Prop 65

WARNING: This product can expose you to chemicals including Sulfuric acid, which is/are known to the State of California to cause cancer. For more information go to

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www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

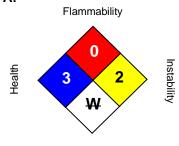
KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

SECTION16. OTHER INFORMATION

NFPA:



Special hazard

HMIS III:

HEALTH	3/
FLAMMABILITY	0
PHYSICAL HAZARD	2

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 01/24/2024

Material number:

16212914, 16212048, 16211576, 16208309, 16207590, 16206988, 16202647, 16140266, 16187970, 16186715, 16177232, 16178973, 16178227, 16176163, 16176386, 16176196,

SDS Number: 100000039101 11 / 12 SULFURIC ACID 66 BE°



Version 1.9 Revision Date: 01/24/2024

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16177166, 16162887, 16169706, 16173568, 16173209, 16152466, 16172838, 16145761, 16145532, 16145325, 16145036, 16144466, 16158800, 16152844, 16146037, 16147599, 16147477, 16158884, 16158841, 16145294, 16144737, 16143905, 16148041, 16144253, 16148755, 16163605, 16163600, 16148558, 16166436, 16166263, 16149587, 16138737, 16144430, 16159796, 16144634, 16144492, 16148416, 16152198, 16151380, 16151346, 16148456, 16148188, 16144447, 16144280, 16144100, 16144089, 16159794, 16143770, 16143771, 16160331, 16136043, 16149274, 16158943, 16149737, 16149062, 16148018, 16147993, 16145633, 16145526, 16144840, 16144220, 16143768, 16147033, 16147042, 16144370, 16144451, 16142210, 16140162, 16141097, 16140348, 16141851, 16141877, 16140763, 16143767, 16143769, 16142063, 16142367, 16142360, 16140603, 16142270
```

Key or le	Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%	
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level	
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency	
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health	
CNS	Central Nervous System	NTP	National Toxicology Program	
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals	
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level	
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration	
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration	
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit	
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances	
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic	
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act	
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit	
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.	
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value	
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average	
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act	
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials	
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System	
LC50	Lethal Concentration 50%			

Attachment TR-5.b. SDS Summary Table

Manufacturer	Nalco Company	Nalco Company
Name	Nalco Company 3D TRASAR 3DT129	Nalco Company 3D TRASAR 3DT304
Name	SD TRASAR SDT129	3D TRASAR 3DT304
Product Use	Cooling Tower Treatment	Cooling Tower Treatment
Chemical composition including CASRN for each ingredient		Sodium Hydroxide - 5-10%, 131073-2; Substituted aromatic amine salt - 5-10%, Proprietary
1	Biodegradability: Result: Readily biodegradable. The organic portion of this preparation is expected to be inherently biodegradable. Total Organic Carbon (TOC): 30,000 mg/l Chemical Oxygen Demand (COD): 110,000 mg/l Biochemical Oxygen Demand (BOD): Incubation Period 5 d, Value: 7 mg/l; Test Descriptor Product	Chemical Oxygen Demand (COD): 110,000 mg/l - No other data available
Product or active ingredient half-life	No data available	No data available
Frequency of product use. (GPD)	~1.7 gpd	~2.3 gpd
Product toxicity data specific to fish and aquatic invertebrate organisms	LC50 Pimephales promelas (fathead minnow): 3.5 mg/lExposure time: 96 hrs Test substance: Product LC50 Inland Silverside: 50.9 mg/l Exposure time: 24 hrs Test substance: Product LC50 Inland Silverside: 44.9 mg/l Exposure time: 48 hrs Test substance: Product LC50 Inland Silverside: 212 mg/l Exposure time: 96 hrs Test substance: Product NOEC Inland Silverside: 75 mg/l Exposure time: 96 hrs Test substance: Product Toxicity to daphnia and other aquatic invertebrates LC50 Mysid Shrimp (Mysidopsis bahia): 8.42 mg/l Exposure time: 96 hrs Test substance: Product EC50 Daphnia magna (Water flea): 4.06 mg/l Exposure time: 48 hrs Test substance: Product NOEC Daphnia magna (Water flea): 2.5 mg/l Exposure time: 48 hrs Test substance: Product	Toxicity to fish Substituted aromatic amine salt LC50: 50 mg/L Exposure time 96 h Toxicity to daphnia and other aquatic invertebrates Substituted aromatic amine salt LC50: 31 mg/L Exposure time 48 hrs Toxicity to daphnia and other aquatic invertebrates (Chronic Toxicity) Substituted aromatic amine salt LC50: 0.97 mg/l Exposure time 21 days

Attachment TR-5.b. SDS Summary Table

Manufacturer	Univar Solutions USA	Univar Solutions USA
Name	LIQUICHLORO 12.5% SOLUTION	SULFURIC ACID 66 BE
Product Use	Cooling Tower Treatment	Cooling Tower Treatment
Chemical composition including CASRN for each ingredient	Sodium hypochlorite 12.5% 7681-52-9; Sodium hydroxide 0-5% 1310-73-2	Sulfuric acid - 90 - 100%, 7664-93-9
Classify product as non- persistent, persistent, or bioaccumulative	No data available	No data available
Product or active ingredient half-life	No data available	No data available
Frequency of product use. (GPD)	~ 7.5 gpd (avg) - ~ 11 gpd (max)	~ 17 gpd (avg) - ~ 25 gpd (max)
Product toxicity data specific to fish and aquatic invertebrate organisms	Toxicity to fish Sodium Hypochlorite LC50 (Salmo gairdneri (Rainbow Fish)): 0.06 mg/l Exposure time: 96 h Test Type: flow-through test LC50 (Pimephales promelas (fathead minnow)): 5.9 mg/l Exposure time: 96 h Test Type: static test Toxicity to daphnia and other aquatic invertebrates EC50 (Daphnia magna (Water flea)): 0.141 mg/l Exposure time: 48 h Test Type: flow-through test EC50 (Ceriodaphnia dubia): 0.035 mg/l Exposure time: 48 h Test Type: flow-through test M-Factor (Acute aquatic toxicity) - 10 Acute aquatic toxicity- Assessment - Very toxic to aquatic life. Chronic aquatic toxicity-Assessment - Toxic to aquatic life with long lasting effects	No data available

Attachment TR-10.b. Off-Site/Third Party Wastes

Industrial Technical Report 1.0 – Item 10.b., Page 10

Attachment TR-10.b. Off-Site/Third Party Wastes Chevron Phillips Chemical Company LP – Borger Plant

Process area stormwater from the Syensqo Borger Plant (Solvay Specialty Polymers USA, L.L.C. (Solvay)). Solvay owns and operates the Ryton Unit which is co-located unit within the footprint of the Chevron Phillips Chemical Company LP (CPChem) Borger Plant at 600 Spur 119 North, Borger, Texas 79007. The Ryton Unit was previously owned and operated by CPChem. The stormwater conveyances from the Ryton Unit were designed and have always flowed through the CPChem Borger Plant. It was not feasible to re-route the stormwater drainage structures with the sale of the unit. The Ryton Unit stormwater flows have historically been authorized to discharge via CPChem Borger Plant's Outfall 002. Since the Ryton Unit's sale to Solvay, the stormwater flows have become an off-site third party waste. Solvay is separately authorized to discharge other utility wastewater flows under TPDES Permit No. WQ0005164000.

Process area stormwater from the Ryton Unit is normally collected with all process area stormwater from within CPChem Borger Plant facility boundary and transferred to the wastewater treatment system at the adjacent WRB Refining, LLC Refinery for treatment and discharge under TPDES Permit No. WQ0001064000, but there is potential for overflows of stormwater to the CPChem Borger Plant stormwater pond and Outfall 002 when the capacity of the storm sewer system is exceeded due to extreme rainfall events. Stormwater is the only off-site waste received which is intermittent and flow variable.

The process area stormwater received from the Ryton Unit is characteristically the same as the process area stormwater already collected and treated at the CPChem Borger Plant. Coverage of the Ryton Unit stormwater flows does not constitute authorization of new flows to Outfall 002 that have not been historically authorized. The request to authorize these flows as a third party off-site waste was requested due to the change in ownership and operation of the Ryton Unit.

Attachment TR-2.a. Treatment System Chevron Phillips Chemical Company LP – Borger Plant

Stormwater treatment units at Chevron Phillips Chemical Company LP Borger Plant include the following:

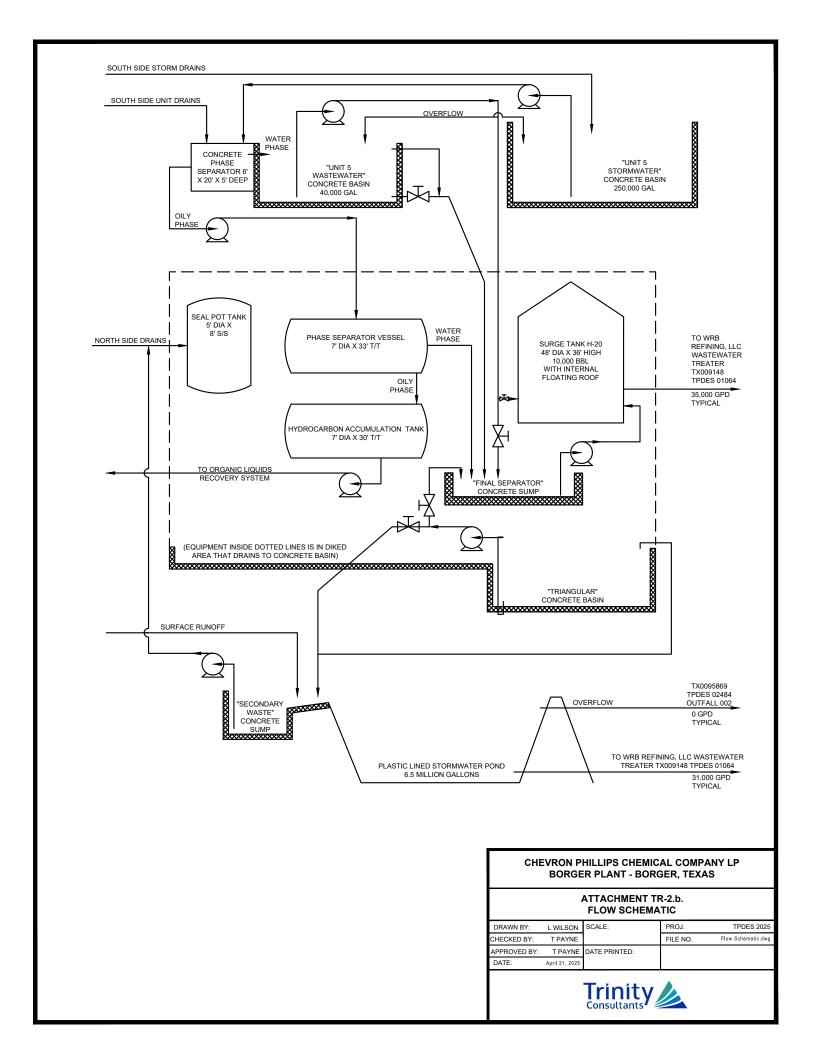
Plastic-lined Stormwater Pond – 6.5 million gallons

The stormwater pond provides containment and holding of stormwater from the Borger Plant. Subsequently, the pond provides settling and attenuation for captured flows. Stormwater is discharged via Outfall 002.

- Unit 5 Wastewater Concrete Basin 40,000 gallons
- Unit 5 Stormwater Concrete Basin 250,000 gallons

Process wastewater pre-treatment units located at the Borger Plant are utilized for flows transferred to the adjacent WRB Refining, LLC Refinery for further treatment and discharge via TPDES Permit No. W0001064000.

The pre-treatment system consists of seal pot tank (5' diameter X 8' height), phase separator vessel (7' diameter X 33' length), a hydrocarbon accumulation tank (7' diameter X 30' length), and a surge tank (48' diameter X 36' height). A concrete phase separator operating in parallel to the above sends oily material to the same hydrocarbon accumulation tank, and wastewater through the Unit 5 Wastewater Concrete Basin to the same wastewater surge tank.





Tyler Norris Environmental Specialist

Borger Plant P. O. Box 968 Borger, Texas 79008-0968

(806) 275-5886 Fax: (806) 275-5914 Tyler.nornis@cpchem.com

www.cpchem.com

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 22, 2025

Texas Commission on Environmental Quality Water Quality Division Application Review and Processing Team (MC-148) P.O. Box 13087 Austin, Texas 78711-3088

Re: Texas Pollution Discharge Elimination System (TPDES) Industrial Wastewater Permit Renewal Application Attachment AR-10.f. – Long-Term Lease Agreement Chevron Phillips Chemical Company LP. (CN600303614) Chevron Phillips Chemical Borger Plant (RN102320850) TPDES Permit No. WQ0002484000 EPA I.D. No. TX0095869

To whom it may concern:

Chevron Phillips Chemical Company LP (CPChem) is submitting the enclosed long term lease agreement documentation (Attachment AR-10.f.) for the renewal application for TPDES Permit No WQ0002484000. The application has been submitted under a separate cover letter to the Application Review and Processing Team.

This lease documentation is a **confidential document** and CPChem requests that the confidential information be handled accordingly.

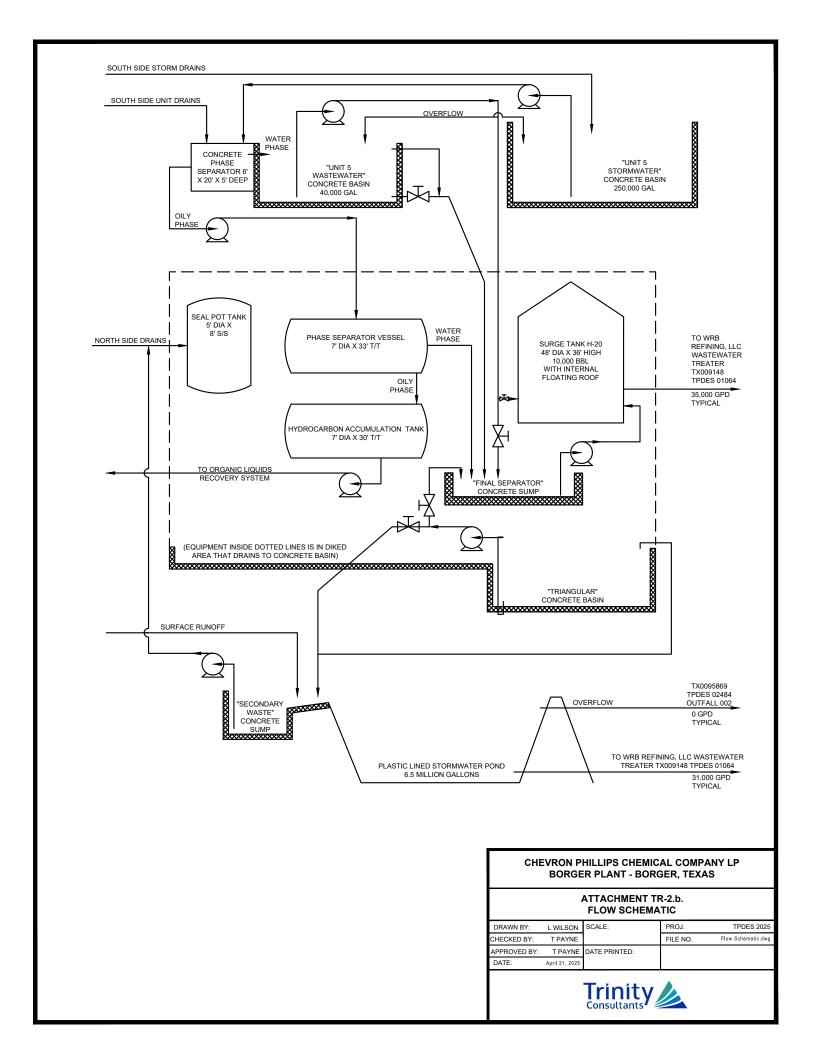
If you have any questions or need additional information, please contact me at (806) 275-5886 or via email at tyler.norris@cpchem.com.

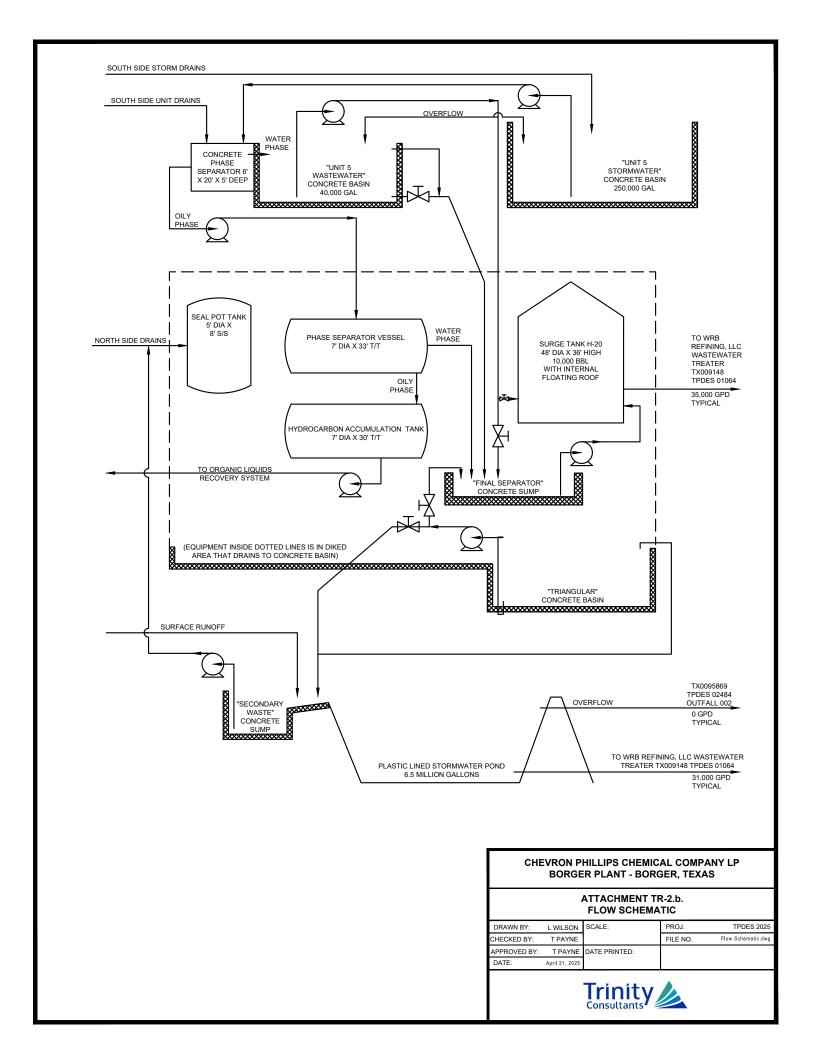
Sincerely,

Tyler Norris

Environmental Specialist

Enclosure





Attachment TR-1.d. Facility Maps Chevron Phillips Chemical Company LP – Borger Plant

Attachment TR-1.d. presents facility maps of the Chevron Phillips Chemical Company LP – Borger Plant (CPChem – Borger Plant). The maps are copies of those presented in the December 23, 2020 document "Spill Prevention, Control, and Countermeasure Plan" (SPCC Plan).

Included within this attachment are the following excerpts from the SPCC Plan:

- Cover sheet of the Plan;
- Table of Contents;
- Professional Engineer Certification;
- Section 3 General Facility Information;
- Tables 4 through 8;
- Figures; and
- Appendix C.

Section 3 discusses the facility layout maps, facility locations and operations, hazardous waste storage sites, portable bulk storage tanks, rail car and truck loading/unloading areas and stormwater retention ponds.

As mentioned in Section 3, Figures 1, 3, and 5 are the site location maps for the Borger Complex, Transportation Office and Copoly Warehouse, respectively. Figure 2 provides a building legend where each building is numbered and referenced on the figure. Figure 2 also provides a facility layout depicting the areas represented by Figures 2-A, 2-B, 2-C, 2-D, and 2-E, which depict the locations of tanks and storage containers. The enclosed tables and Appendix C provide a reference number or letter which corresponds to each tank location and storage container depicted on each figure.



Spill Prevention, Control, and Countermeasure Plan

Chevron Phillips Chemical Company Borger Plant Borger, Texas

December 23, 2020

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Appendix C Borger Plant Bulk Storage Tanks

Professional Engineer Certification

The undersigned registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the Code of Federal Regulations (40 CFR Part 112) and has visited and examined the facility or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practices, including consideration of applicable industry standards and the requirements of 40 CFR Part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the CPChem Borger Plant.

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR Part 112.

Signature C.	12/23/2020 Date	
Chris C. Stanford		TEOF TE !!
9		2 5 1 A 10 1
68515	Texas	CHRIS O. STANFORD
Registration Number	Issuing State	68515
		CENSED WES

Section 3 General Facility Information

Name: Borger Plant

Spur 119 North Borger, Texas 79008 (806) 275-5500

Transportation Office 901 N. Florida St. Borger, Texas 79008 (806) 275-5810

Copoly Warehouse

0.3 mile north of intersection of Highway 36 and Highway 1551

Borger, Texas 79008 (806) 275-5500

Type: Borger Plant - Chemical Production Facility

Transportation Office – Vehicle Maintenance **Copoly Warehouses –** Warehouse and Storage

Location: Borger Plant Lat. 35 deg 41 min 48 sec

Long. 101 deg 21 min 35 sec

Transportation Lat. 35 deg 40 min 34 sec **Office** Long. 101 deg 22 min 52 sec

CopolyLat.25 deg 39 min29 secWarehouseLong.101 deg 26 min50 sec

Owner/Operator: Chevron Phillips Chemical Company

Spur 119 North Borger, Texas 79008

Person in Charge: Michael J. Dykhouse

Work: (806) 275-5885

3.1 Facility Layout Diagrams

Figures 1, 3 and 5 are the site location maps for the Borger Complex, Transportation Office, and Copoly Warehouse, respectively. The site plans show the site topography and the location of the facilities relative to waterways, roads, and inhabited areas. Figures 2, 2-A, 2-B, 2-C, 2-D, 2-E, 4, and 6 indicate the locations of oil storage tanks, transfer areas, and oil storage containers equal to or greater than 55-gallons in capacity.

The main objective of a facility diagram is to provide sufficient detail for facility personnel to undertake oil spill prevention activities, for EPA to perform effective inspections, and most importantly for responders to take effective measures to prevent an oil leak or spill from leaving the property boundaries and entering waters of the state. Due to the physical layout at the complex, it may not be practical to indicate all oil storage containers, 55 gallons or greater, oil transfer piping, valves, mobile and portable containers, and oil-containing equipment on the diagrams. EPA allows flexibility in the way the facility diagrams are drawn as long as more detailed diagrams of specific systems are maintained at the complex. More detailed information and drawings of specific systems are available upon request.

3.2 Facility Locations and Operations

Borger Plant

The Borger Complex includes facilities owned and operated by three different companies, WRB Refining, Chevron Phillips Chemical Company, and Solvay Specialty Polymers. Phillips 66 owns 50% of both WRB and Chevron Phillips. The West Complex is the WRB Borger Refinery and NGL Processing Center. The East Complex is the Chevron Phillips Borger Plant. The Borger Plant is a specialty chemical manufacturing plant. Solvay Specialty Polymers manufactures high-grade plastics in the Ryton unit. Other products produced at the Borger Plant include high-purity hydrocarbons and solvents, performance and reference fuels, and mining chemicals. Raw materials are transported to the facility via rail, truck, and pipeline (from WRB Refinery). Finished products are shipped out mainly by rail and truck. The daily combined production of specialty chemicals at the Chevron Phillips Borger Plant is about 1.2 MM lbs/day.

Philtex began operations in 1944 and Ryton began operations in 1972. Both were acquired by CPChem in 2000 as part of a joint venture between Chevron and Phillips Companies. The Ryton area was expanded in 2008/2009 to include a Quench process unit. The Packaged

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Products Unit (PPU) was permanently shutdown in December 2010, except for Still 26 which was shutdown in mid-2011. Also shutdown were the tanks in G-Battery which stored PPU feedstocks and products. The Ryton unit was sold to Solvay Specialty Polymers in 2015.

The November 2008 amendments to the SPCC rules apply, in part, to facility diagrams. These amendments alter facility diagram requirements and allow for flexibility in identifying fixed and mobile containers on facility diagrams (112.7(a)(3)). When a figure or diagram get complicated due to multiple mobile or fixed oil storage containers, or complex piping/transfer areas, the owner/operator can include this information separately in the Plan in an accompanying table/key. CPChem utilizes this technique in this Plan.

The site location map and facility layout maps are included as Figures 1, 2, 2-A, 2-B, 2-C, 2-D, and 2-E. The facility layout maps show the location of bulk storage containers, iso-containers, totes, 55-gallon containers, and loading/unloading areas for rail cars and tankers. There are no underground storage tanks at the plant. The facility layout maps also show connecting piping. In addition to the piping shown, there is piping within tank batteries and process areas.

<u>Transportation Office</u>

The Transportation Office is located on N. Florida St. approximately 2 miles southwest of the Borger Plant. The main part of the building is used by a contractor to conduct vehicle maintenance for CPChem vehicles. Truck and trailers are maintained and serviced at this facility. Figures 3 and 4 show the site location and facility layout for the Transportation Office. The building and facility are shared with another businesses (Hydrochem and Evergreen). This SPCC Plan only includes the CPChem equipment.

Copoly Warehouse

The Copoly Warehouse is located 0.3 mile north of the intersection of Highway 136 and Highway 1551, approximately 5.5 miles southwest of the Borger Plant. The warehouse is used solely for transitional storage for Philtex raw materials and products in 55-gallon to 500-gallon containers. Drums, totes and other product storage containers are properly stored in the warehouse.

3.3 Oil Storage, Potential Spills, and Discharge Prevention

3.3.1 Borger Plant

Oil storage at the Borger Plant can occur throughout the plant in large fixed bulk storage tanks, mobile containers, totes, iso-containers, cylinders, and 55-gallons drums. A list of the larger, fixed bulk storage tanks is provided in Appendix C. Oil-field operational equipment is identified in Table 4. Table 5 provides a list of mobile storage tanks (trailers, totes, iso-containers, cylinders, and drums). The tank numbers listed in Appendix C correspond to the tank numbers shown on Figure 2. Figures 2-A through 2-E show the locations of mobile tanks and different storage containers listed on Table 5.

The location of the Borger Plant is shown on Figure 1. Figures 2 through 2-E are layout maps and show hazardous waste storage sites, fixed and portable bulk storage tanks, rail car and truck loading/unloading areas, and stormwater retention ponds.

Hazardous Waste Storage Sites

In accordance with 40 CFR 262.34 (a)(4), which references 40 CFR 265 Subparts C and D, the SPCC Plan contains hazardous waste management provisions provided for the units listed in Table 6. Active hazardous waste units which would require spill control in the event of a release are listed with their location. Waste units that are inactive but have not been closed are also listed. Hazardous Waste storage site locations are identified on Figures 2 and 2-C.

Used Oil Management

In accordance with 40 CFR 279.52(b)(2), the SPCC Plan includes provisions for used oil management. Used oil is collected throughout the Borger Plant at locations listed on Table 5 and shown on Figures 2-A through 2-C. Dowtherm heat transfer fluid is collected in drums as needed near the CPU heat transfer systems.

Loading/Unloading Areas

Loading/unloading areas include locations where truck tankers, railcars and bulk products in 55-gallons drums, iso-containers, cylinders, and totes are loaded and/or unloaded. Table 7 lists loading/unloading areas and corresponding locations are shown on Figures 2-A through 2-C. Rail car and truck loading/unloading racks have either concrete catch basins with drains to the

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chemical sewer to capture spills or leaks from the transfer process or are located such that spills or leaks will be contained on site.

Portable Containers and Truck Trailers

Portable containers used at the facility range in storage capacities from less than 55 to 20,000 gallons. Portable and mobile containers and truck trailers are staged only in areas that provide a secondary means of containment, such as a chemical sewer drain, catchment basin or dike. Table 5 lists portable containers and contents, and Figures 2-A through 2-E show container locations.

Portable containers/equipment may be present at the facility and are covered under this plan without the need to update the plan for an "increase in oil storage capacity" or "changes in the handling/storage areas" provided that the following conditions are met:

- The individual container/equipment capacity cannot exceed 250-gallons;
- The container/equipment is either equipped with secondary containment or is located within an area that drains into a pond or containment area and can be visually inspected on a daily basis; and
- The container/equipment is not being stored directly adjacent to a navigable waters and adjoining shorelines.
- Chevron Phillips Chemical personnel shall perform a survey of the facility to locate and identify portable containers and shop-built tanks during the monthly inspections. A copy of the inventory shall be maintained onsite.

Phillips Avenue Trailer Lot

The Phillips Avenue Trailer Lot is a parking lot for truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. The parking area was extended in 2008 to the east by adding a separate trailer storage lot. For purposes of drainage, surface water capture and secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems.

The north end of the trailer lot slopes to the north and the south end slopes to the south.

Engineered berms have been constructed around the trailer lot so that stormwater runoff in the northern part drains into stormwater collection ponds. The southern part of the trailer lot does not have surface runoff containment structures. Operational procedures disallow the parking of

oil-containing truck trailers, or the placing of mobile oil-containing storage containers at the southern end of the parking lot.

Bulk Storage Tanks

40 CFR 112.7(b) requires that "where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure."

Most reportable oil spills that have occurred since 1989 were attributed to equipment failure (e.g., pipeline breaches, tank overflows due to failure of high-level monitoring devices) and overfilling of tanks and transportation containers.

A tank failure in the "L" Battery occurred in 2005. The L-4 tank exploded and the tank contents were released to the stormwater reservoir. The affected soil was cleaned to Texas Risk Reduction Program standards. None of the product left the site other than the associated air release. The L-4 tank was used to store brine but also had a floating hydrocarbon layer.

Table 8 is a summary of spill predictions and potential spill pathways for bulk storage tanks.

Because numerous products are produced at the Borger Plant by batch processes (specialty chemicals portion of the plant) tank service may change frequently. The following discussion is a summary of the tank battery contents (see Figure 2 for tank battery locations and Appendix C for bulk storage tank information).

a) A-Battery

A-Battery tanks contain raw materials and final products of specialty fuels. Some tanks also contain high purity hydrocarbons. A curb provides spill containment. The curbed area is manually drained to the chemical sewer.

b) <u>B-Battery</u>

B-Battery tanks contain olefins, crude and on-spec/off-spec mercaptans, sulfides, and other materials. Some of the tanks are curbed. Containment drains are closed unless stormwater is being drained to the H-battery sump by gravity, then to the chemical sewer. The plant surface water drainage and stormwater reservoir serve as secondary containment for all of B-Battery.

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c) <u>C-Battery</u>

C-Battery tanks mainly contain olefins, crude and on-spec/off-spec mercaptans. The plant surface water drain system and stormwater reservoir serves as secondary containment for C-Battery.

d) <u>D-Battery</u>

D-Battery tanks contain materials similar to A-battery for raw materials and finished blends of specialty fuels. It also contains high purity hydrocarbons. This tank battery drains to the stormwater reservoir except for the manifold area, which drains to the chemical sewer.

e) <u>E-Battery</u>

E-Battery tanks contain n-heptane and iso-octane. Tank dikes are constructed with stabilized earth. Tanks dike drains are closed, unless stormwater is drained to the plant wastewater system.

f) F-Battery

F-Battery tanks contain alkylate fractions from HF Hevy Alkylate (HFHA), olefins, mercaptan crudes and spec products, isooctane, and two specialty fuel tanks. Stabilized earth dikes surround the tanks. Tank dike drains are closed, unless stormwater is being drained to the Philtex stormwater reservoir.

g) <u>H-Battery</u>

H-Battery tanks contain mercaptans, specialty diesel fuels and gasolines. Stabilized earth and concrete dikes provide containment. Tank dike drains are closed, unless stormwater is being drained to the stormwater reservoir.

h) I-Battery

I-Battery tanks contain sulfolane, NaOH, ethyl chlorides, sodium methyl mercaptide, and methyl ethyl sulfide. Most I-Battery tanks are within a concrete containment system. The stormwater reservoir serves as secondary or tertiary containment for all of I-Battery.

i) J-Battery

J-Battery is the process tankage for MPU (Multi-Purpose Unit). It contains mercaptans/sulfides, sulfuric acid, and sulfolane. The plant surface water drainage and stormwater reservoir serve as secondary containment.

j) <u>K-Battery</u>

K-Battery units are decommissioned and out of service.

k) <u>L-Battery</u>

L-Battery contains mercaptans, olefins, and fuels. Tanks are diked by stabilized earth and concrete to contain small spills and/or leaks. The stormwater reservoir serves as secondary containment for Tanks L-1, L-2 and L-3. Brine water storage tank is now in L-2.

I) M-Battery

M-Battery is now operated by Solvay Specialty Polymers. This area is not under the control of CPChem and is no longer subject to this plan.

m) N-Battery

N-Battery tanks units are decommissioned and out of service.

n) P-Battery

P-Battery tanks contain the process tankage for Unit 5. These tanks also store specialty fuels, crude and on-spec mercaptans, 1,3-butadiene, propylene, 20% caustic, and dimethyl sulfide. The process tanks include those used to blend chemicals for the Mining Chemical Division of CPChem. Tanks are located in concrete containment systems that were designed to drain to the 250,000-gallon concrete stormwater basin in Unit 5, which can be drained to the stormwater reservoir.

Gasoline Dispenser

A concrete containment dike protects a 250-gallon gasoline tank located in the northwest corner of P-Battery for fueling plant vehicles. Stormwater is removed from the dike with a vacuum truck.

Oil-Filled Equipment and Oil-Containing Transformers - General

The definition of bulk storage container specifically excludes oil-filled electrical, operating, and manufacturing equipment ("oil-filled equipment"). Therefore, oil-filled equipment is not subject to the bulk storage container requirements in 40 CFR 112.8(c). However, oil-filled equipment must meet the general requirements of 40 CFR 112.7.

Oil-filled operational equipment includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or device. Oil-filled operational equipment does not include manufacturing equipment. Examples of oil-filled operational equipment include hydraulic systems, lubricating systems, gear boxes, machining coolant systems, heat transfer systems, transformers, other electrical equipment, and other systems containing oil to enable operation.

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Oil-filled manufacturing equipment is distinct from bulk storage containers in its purpose. Oil-filled manufacturing equipment stores oil only as an ancillary element of performing a mechanical or chemical operation to create or modify an intermediate or finished product. Examples of oil-filled manufacturing equipment may include reaction vessels, high-pressure vessels, mixing tanks, dryers, heat exchangers, and distillation columns. Under the SPCC rule, flow-through process vessels are generally considered oil-filled manufacturing equipment since they are not intended to store oil.

Active containment measures may include:

- Placing a properly designed storm drain cover over a drain to contain a potential spill in an area where an oil transfer occurs, prior to the transfer activity;
- Placing a storm drain cover over a drain in reaction to a discharge, before the oil reaches the drain;
- Using spill kits in the event of a discharge;
- Use of a spill response capability (e.g. spill response team) in the event of an oil discharge; and
- Closing the valve that controls drainage from an area prior to a discharge.

Such measures will be implemented effectively and in a timely manner to prevent oil from leaving the plant property. All oil-filled operational equipment is located within the plant boundaries. If such active measures fail to contain an oil spill or leak from any oil-filled operational equipment at the immediate location of the equipment, the facility's drainage features will ultimately contain any such spill or leak on site. The Plant provides for visual inspection and/or monitoring for oil-filled equipment to prevent discharges.

This SPCC Plan is used in conjunction with other facility plans (e.g. FRP) to respond to all emergencies, including oil spills, as regulated by the Federal CWA and applicable state and federal laws and regulations. The structure of an oil spill response is based on training, planning and organizational needs to manage emergency situations.

Oil Filled Operational Equipment - Electrical Transformers

Electrical transformers located within the Borger Plant contain between 171 to 4,584 gallons of transformer oil. None of the transformers contain oil classified as PCB oil. A location and

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description index for the Borger Plant transformers are shown below. Transformers are identified on Figures 2-A and 2-B.

Oil Filled Operational Equipment – Miscellaneous

Other oil-filled operational equipment is located within process unit areas. The equipment includes oil mist supply tanks, seal oil, coolant oil, and compressor oil supply tanks. These tanks are included in Table 4. All of the units are located within areas that drain either to the chemical sewer or the storm water pond.

Methyl Mercaptan Storage and Railcar Loading Area

This area is located north of the Borger Plant laydown yard, just east of Taubman Yard. There are 5 horizontal pressure vessels for the storage of methyl mercaptan. There is an associated rail car loading rack at this area also. The loading rack, tanks and associated equipment are located within a containment area. Methyl mercaptan is a gas at ambient temperatures, and there is no potential for off-site hydrocarbon contamination from this storage area. Spills or leaks of methyl mercaptan would be treated as a toxic gas release; responses to toxic gas releases are covered under separate sections of the Borger Complex FRP. The Methyl Mercaptan Storage and Loading areas will not be addressed further under this SPCC plan.

Firewater Pump Building (North of MeSH Storage Area)

A firewater tank pump building located north of the MeSH Storage Area houses two 550-gallon diesel tanks and 55-gallon drums of oil, used oil, and used glycol. The diesel tanks are contained within thick plastic secondary containments. The 55-gallon drums have containment boxes.

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Borger Plant Oil-Filled Electrical Transformers

Transformer ID	Rating	Gallons of Oil				
Substation 4 (South of CPU Reactor Building)						
TC-404	1,000 kVA	356				
TC-405	1,500 kVA	311				
Substation 5 (North of Services Bu	ilding)					
TC-401	1,000 kVA	173				
TC-402	1,000 kVA	171				
TC-403	1,000 kVA	590				
Substation 7 (North of Oxygen Sph	nere)					
TC-406	1,000 kVA	173				
Substation 8 (East of Unit 5 Air Co	mpressor Building)					
TC-416	1,000 kVA	370				
TC-417	1,000 kVA	357				
TC-418	1,000 kVA	370				
TC-419	1,000 kVA	370				
TC-420	1,000 kVA	357				
TC-498	1,500 kVA	639				
Substation 10 (CCB)						
TC 500	1,000 kVA	586				
Substation 13 (SOC 2&3)	Substation 13 (SOC 2&3)					
TC 499	1,000 kVA	516				

A spill at Substations 4, 5, or 7 would drain into the stormwater reservoir or to the wastewater system. Substations 6 and 8 transformers are inside curbed areas to contain small spills or leaks. Potential oil leaks at Substation 9 and the Hughes Street Main Substation will be completely contained within the curbed design of each substation. Based on plant experience, electrical transformers do not have a reasonable potential of equipment failure leading to a discharge of oil to a navigable watercourse. Absorbent is available to respond to an electrical transformer spill.

Philtex Wastewater System

The Philtex wastewater system was designed to capture chemical wastewaters from the processing units. All chemical wastewaters from the north side plant chemical drains flow to a seal tank (Seal Pot) and subsequently to an oil/water separator. Water from the oil/water

separator flows to a weir and joins with wastewater from Unit 5.1 Basin and is pumped to Wastewater Surge Tank H-20. Any excess wastewater not pumped into H-20 is directed into the Triangular Basin at the wastewater facility. Water is pumped or overflows from the Triangular Basin to the large stormwater reservoir, east of the plant. Wastewater from H-20 is sent to WRB Refinery wastewater treatment plant.

3.3.1.1 Spill Control

Secondary Containment (Structures and Equipment)

Secondary containment is provided for bulk oil storage tanks. It appears that tank dike capacities are generally designed to contain at least the single largest tank volume of a multitank dike enclosure plus precipitation. Some secondary containment systems (e.g., P Battery) do not have storage capacities for the largest tank inside containment, but as discussed earlier overflow from the secondary containment system would be contained onsite in the Unit 5 stormwater basin. Although secondary containment volume calculations are not available for review, tank batteries appear to have been constructed under applicable industry standards. Regardless of secondary containment storage capacities for all bulk oil storage tanks located on site, either smaller on-site stormwater retention ponds or the 6.5 million gallons stormwater pond provides for ultimate containment for any spills or leaks from any of the bulk storage tanks at the facility.

The Phillips Avenue Trailer Lot has a west lot and a separate east lot for parking truck tanker trailers, intermodal containers, and box trailers of smaller containers either waiting to be loaded or unloaded, or full of product waiting to be transported to final destinations. For purposes of secondary containment requirements, the two separate parking areas have their individual surface runoff collection systems that can container the volume of the largest storage container (8,800 gallons) plus a 24-hour, 25-year storm event.

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Equipment is purged and cleared prior to dismantling for maintenance. Temporary secondary containment is put into place whenever maintenance is performed on equipment that could result in an oil spill to the ground. The containment device may consist of a partial barrel or large pan that is capable of holding the maximum amount of material that is drained from the equipment. If it is not known how much liquid is in the equipment, or the amount exceeds the volume of the containment device, a vacuum truck is used to remove the material from the containment device as soon as the equipment is opened.

Procedures for the Control of a Discharge

Procedures for the control of a discharge vary according to the equipment characteristic of the specific area. Valves on drainage systems for tank dikes outside the plant drainage system are kept closed. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by portable pump or vacuum truck.

The Unit Operator will do the following to drain containment systems that drain outside the plant wastewater system (e.g., Phillips Ave. Trailer Lot and Unit 5 Area):

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean;
- Drain the accumulated stormwater outside of the containment area; and
- Complete the "Quarterly Visual Storm Water Monitoring" form and forward to Environmental. The latest version of this form can be found in the Hummingbird Document Management System under Forms/Environmental.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

3.3.2 Transportation Office

Oil storage at the Transportation Office include the following: a 5,000-gallon diesel tank, a 530-gallon used oil tank, a 488-gallon used oil tank, 55-gallon drums of used oil, and a 200-gallon oil

tank. The location of the Transportation Office is shown on Figure 3. Figure 4 is layout map and shows tank locations and surface runoff directions.

The natural topography of the facility slopes to the southeast to drainage ditches along N. Florida St. The drainage ditches appear to eventually discharge into tributaries that lead into Dixon Creek.

Diesel and Used Oil Tanks

The 5,000-gallon diesel tank is located outside, on the west side of the Main Shop. It is a single-walled aboveground tank located inside a concrete secondary containment that has a valved discharge pipe.

The 488-gallon used oil tank is located outside under a lean-to, on the west side of the Main Shop. The tank is a single-walled aboveground tank that is used to store used motor oil from the vehicle maintenance business. The tank is located inside a concrete secondary containment structure.

The 530-gallon used oil tank is located to the east of the Truck Shop. The tank is actually hard piped to the Truck Shop so oil is only introduced into the tank from this pipe. The tank is located inside a concrete secondary containment structure.

A 55-gallon drum is used to store used oil mixed with mercaptans. Truck engine oil filters are drained in this drum. The drum, located on the west side of the Truck Shop, is situated inside a plastic spill containment booth with a rain cover. Other 55-gallon drums are used to store oil, used oil, and transmission fluid.

The 200-gallon motor oil tank is located inside the truck shop and supplies new motor oil to the trucks serviced there. The tank is located inside a metal spill containment box. The spill containment box is located on the concrete floor of the shop.

Table 9 is a summary of spill predictions and potential spill pathways for the storage tanks.

Under the worst-case scenario, the hose connection to a supply truck off-loading diesel into the 5,000-gallon diesel tank would accidentally disconnect. But because the transfer process is manned at all times, the cause of the spill would be terminated quickly. Any spilled diesel would most likely be contained on site before entering the drainage ditches along N. Florida St.

3.3.2.1 Spill Control

Secondary Containment (Structures and Equipment)

Adequate secondary containment systems are provided for each of the storage tanks. The approximate available secondary containment capacities for each tank are shown in Table 10.

In transfer areas and other parts of the facility where a discharge could occur, the following containment and mitigation measures are used:

- <u>Drip pans.</u> Fill ports for all ASTs are equipped with drip pans to contain small leaks from the piping/hose connections.
- <u>Sorbent material</u>. Spill cleanup kits that include absorbent material, booms, and other portable barriers are located in the Spill Mitigation Building (old Joy building). Also spill kits are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.
- <u>Containment pallets.</u> Drum spill containment pallets, with at least 110% containment capacity for a single drum.

Procedures for the Control of a Discharge

Valves on the secondary containment systems are kept closed except when draining storm water. In the event that containment areas do not contain drain valves, effluent may be evacuated from containment areas by a portable pump or vacuum truck.

Oil-handling personnel will do the following to drain containment systems:

- Conduct visual inspection for signs of oil or oil impact, and if stormwater appears to be clean:
- Drain the accumulated stormwater outside of the containment area.

If oil is detected in the containment area, the following procedures will be followed:

- Remove oil and contaminated stormwater via response equipment or vacuum truck and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area;
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

Bulk storage tanks and secondary containment systems appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage tank

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through visual observations and it is determined that it may reduce a tank's integrity, the affected tank will be taken out of service and repaired or replaced. No tank is used for the storage of any oil product until the compatibility of the product and the tank materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the ASTs or the 55-gallon storage drum. All shop-built tanks are equipped with individualized secondary containments, and the 55-gallon drums are located within catch basins. Oil discharges would be contained within secondary containments and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The drum storage area is routinely inspected by on-site workers to provide an effective means of verifying container integrity.

3.3.3 Copoly Warehouse

The Philtex Copoly Warehouse is a large metal building used to stored 55-gallon to 500-gallon sealed final products containers. A portion of the warehouse is also used for storage of plant warehouse stock material, including lubrication oils in 55-gallon drums. The lubrication oils are stored on spill containment pallets.

The location of the Copoly Warehouse is shown on Figure 5. Figure 6 show container locations and surface runoff directions for the Philtex Warehouse.

The topography of the general area is a natural grade to the north. Tributaries in this area eventually discharge into the Canadian River located approximately 4.5 miles to the north of the warehouse.

Product Storage Containers

Fifty-five-gallon to 500-gallon product storage containers are properly stored along rows inside the Copoly (Philtex) Warehouse. All containers are properly sealed and ready for final distribution. Fifty-five-gallon drums are stored up right on pallets. A forklift is used to move the pallets. Other size containers are properly stored on the floor in the warehouse. All products are stored in rows so that a forklift has easy access through the warehouse.

Table 11 is a summary of spill predictions and potential spill pathways for the storage tanks.

29

Under the worst-case scenario, a container of product may get punctured with the fork of a forklift, or ruptured during transfer to or from a truck. Any oil release would normally occur inside the warehouse building on the concrete floor. If oil were to leave the warehouse, the site topography would eventually channel the discharge to the northwest. In all likelihood, if the oil left the building, it would leak down the side of the concrete foundation and accumulate on the natural ground.

3.3.3.1 Spill Control

Secondary Containment (Structures and Equipment)

The warehouse itself has a concrete foundation and metal walls. Spills inside the warehouse will be contained within the building itself. The surface inside the main access door slopes down towards the inside of the building. All other door locations are contained with angle or channel iron installed at potential leak points to provide a raised threshold. All floor drains have been plugged with concrete.

Absorbent pads are located inside the warehouse. The pads are located within close proximity of the oil product storage tanks for rapid deployment should a spill occur.

Procedures for the Control of a Discharge

The floor drains have been permanently sealed, and the interior metal walls and diversion strips along the doors and access ways act as containment for any spill or leak. Spilled or leaked oil shall be removed manually with mops, squeegees, absorbent materials, etc., or a vacuum truck can be used to evacuate the oil.

Oil-handling personnel will conduct visual inspections for signs of an oil release. If oil is detected inside the building, the following procedures will be followed:

- Remove oil via response equipment or vacuum truck, and contaminated absorbent material as it is used, and properly dispose of or recycle waste;
- Locate defects that allowed the oil or contaminants to enter the area:
- Take appropriate corrective actions to repair defects; and
- Report the discharge as appropriate.

The storage containers appear to be designed and constructed in accordance with accepted industry standards. If corrosion is detected on a storage container through visual observations

30 December 2020

and it is determined that it may reduce a container's integrity, the affected container will be taken out of service and repaired or replaced. No container will be used for the storage of any oil product until the compatibility of the product and the container materials have been evaluated for compatibility.

Non-destructive integrity evaluation is not performed on any of the containers or 55-gallon drums. Oil discharges would be contained within the warehouse itself and most likely would not leave the property. Corrosion poses minimal risk of barrel failure since drums are typically single-use and remain on site for a relatively short period of time (most likely less than one year). The storage areas in the warehouse are inspected monthly. This is in accordance with accepted industry practice for drum storage and provides an effective means of verifying container integrity.

Tables

Table 4 Oil-Filled Operational Equipment

Unit ID	Stored Material	Oil Capacity (gallons)
Miscellaneous I	Units	
CPW-56	Mineral Oils (Isoparaffins)	7000
CPW-57	Mineral Oils (Isoparaffins)	7000
CPW-58	Mineral Oils (Isoparaffins)	7000
CPW-59	Mineral Oils (Isoparaffins)	7000
Oil-Filled Opera	tional Equipment	
V4053	W. CPU Seal Oil Storage (Soltrol 220)	345
None	E. CPU Soltrol Coolant Oil Tank (Soltrol 220)	1,234
None	E. CPU Magnus 100 Oil Tank at Compressor Building	1,234
95-4067	CPU East Dowtherm Accumulator (Dowtherm G)	1,504
95-4069	CPU Dowtherm Hold Tank	940
95-XB3	CPU Olefin Feed Pump Seal Oil Reservoir	55
95-XB4	CPU Mixed Feed Pump Seal Oil Reservoir	55
95-1P13	U5.2 Reactor Seal Oil Surge Tank	83

Map ID Mobile Estimated Container Capacity Number (gallons)		Content *	General Area Location		
Blending	9				
А	Drums	425	55 gallons	Various blendstocks and products.	A Battery
Α	Trailers/Isocontainers	3	5500 - 7500 gallons	Various blendstocks and products.	A Battery
Α	Totes	6	250 gallons	Various blendstocks and products.	A Battery
В	Drums	20	55 gallons	Various blendstocks and products.	D Battery
В	Trailers/Isocontainers	4	5500 - 7500 gallons	Various blendstocks and products.	D Battery
С	Drums	5	55 gallons	Various blendstocks and products.	F Battery
С	Trailers/Isocontainers	1	5500 - 7500 gallons	Various blendstocks and products.	F Battery
D	Drums	15	55 gallons	Various blendstocks and products.	P Battery
	Drums	100	55 gallons	Various blendstocks and products	North Paint Yard Area
CPU				T	1
F	Tote	1	200 gallons	Iso VG 32 oil	CPU East End CPU East near Frick
F	Cylinders	6	500 lb.	Propane	Compressor
F	Drums	1	55 gallons	Compressor Oil	CPU East near Frick Compressor
F	Tote	1	250 gallons	Isoparaffins 220	South of Compressor Building
G	Drums	20	55 gallons	Slop Oil for B-11	C-Manifold
Н	Drums	16	55 gallons	Dowtherm G	Dowtherm Furnace Area
I	Drums	2	55 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Totes	1	300 gallons	Isoparaffins w/trace NMP	Column 10 Area
I	Drums	1	55 gallons	Isoparaffins 220	Column 6
- 1	Drums	1	55 gallons	Isoparaffins 220	Column 2
1	Drums	1	55 gallons	MEA	North of CPU FIC
- 1	Drums	50	55 gallons	Various Products	Column 10 Area
1	Drums	50	55 gallons	Various Products	Column 11 Area
J	Drums	4	55 gallons	Tri-butyl phosphite	B-Manifold
G	Drums	4	55 gallons	Tri-butyl phosphite	C-Manifold
	Portable Tank	1	300 gallons	Magnus Oil	Sundyne Pump Area
MPU					
K	Tote	1	300 gallons	Triphenylphosphene	MPU: I-20/21/22
K	Cylinder	4	250 gallons	Dimethylamine	MPU: R-18
K	Tote	2	300 gallons	Sulfolane	MPU: F-80
K	Drums	8	55 gallons	Sulfolane	MPU: F-80
K	Dumpster	1	0-500 lb	Sulolene flake	MPU: Flaker Building
	Van	1	0-42,000 lb	Sulfolene flake	MPU: Dock

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
E	Cylinders	10	250 gallons	Dimethylamine, Propylene Oxide	North of E-4
С	Trailer	1	8000 gallons	F-81 Water Wash (contains sulfolane, cat res.)	North of Butarez Building
С	Drums	50	55 gallons	Various Products	North of Butarez Building
Services I	Building				
N	Drums	2	55 gallons	Recycle Hydrocarbon	Outside Development Lab
N	Drums	20	55 gallons	Trans Oil, Lube Oil, Ethylene Glycol	Inside chiller room
N	Tank	3	300 gallons	Gear Oil	Inside chiller room
N	Drums	4	55 gallons	Used Oil, Soltrol	Outside Bay 3
Transport	ation Office				
LL	Tank	1	5000 gallons	Diesel	Transportation Office (N. Florida Ave.)
LL	Tank	1	530 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Tank	1	488 gallons	Used Oil	Transportation Office (N. Florida Ave.)
LL	Drum	2	55 gallons	Used Oil with Mercaptan	Transportation Office (N. Florida Ave.)
LL	Tank	1	200 gallons	Motor Oil	Transportation Office (N. Florida Ave.)
LL	Drums	3	55 gallons	Used Oil, Trans Fluid, Oil	Transportation Office (N. Florida)
Shipping					
0	Drums, Totes, Cylinders	250	55-500 gallons	Philtex Products	Dock 1
Р	Drums, Totes, Cylinders	4700	55-500 gallons	Philtex Products	Dock 2
Q	Drums, Totes, Cylinders	800	55-500 gallons	Philtex Products, Flush Material	East of Dock 2
R	Drums, Totes, Cylinders	160	55-500 gallons	Philtex Products	Dock 3

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location
NN	Totes	10	250 gallons	Sulfolane	Spot 3 or East Side of B-50
MM	Drums, Totes	7000	55-500 gallons	Philtex Products	Copoly Warehouse
KK	Truck Vans (with drums), Trailers	81	55-8000 gallons	Philtex Products	Phillips Ave. Trailer Lot
Т	Cylinders	25	500 lb.	Antifoulant	West of Pallet Warehouse
U	Drums	35	55 gallons	Mineral Oil, Dowtherm	Inside Pallet Warehouse
V	Drums, Totes, Isocontainers, Trailers	5	55-8000 gallons	Products, Feedstocks	Spot 15
W	Drums	15	55 gallons	Flush Material	Unit 5 Truck Rack
Х	Drums	6	55 gallons	Masking Agent, Bacteria	Blend Manifold
Х	Totes, Isocontainers, Trailers	2	500 to 8000 gallons	Gas Odorants	Blend Manifold
R	Drums, Totes	10	55 to 500 gallons	Flush Material, Slop Oil	Southeast Corner Dock 3 Building
Y	Drums	4	55 gallons	Slop Oil	Southside of Shipping Bldg. Dock 1
SU					
Z	Drums, Totes	40	55-500 gallons	TDPS 320, Tergitol, Glycol Ether, Disulfides	Eastside of Unit 17 Building
AA	Cylinders	10	250 gallons	Propylene Oxide	North of E-4 and at SU RX Bldg.
Unit 5.1/5	2				
BB	Drums	1	55 gallons	Compressor Oil	Air Compressor Building
CC	Drums	35	55 gallons	Lube Oil, Isoparaffins, Slop Oil, CT Chem	Drum Pad East of Unit 5
DD	Drums	1	55 gallons	Soltrol 220	Near P-16
EE	Drums	10	55 gallons	Miscellaneous	Concrete Pad South of Unit 5
FF	Drums	4	55 gallons	Oleic Acid, Barrier Fluid	Inside Unit 5 Building
GG	Cylinders	6	500 lb.	Propane	Refrigeration Skid at P-66
GG	Drums	3	55 gallons	Isoparaffins	Refrigeration Skid at P-66
НН	Drums	1	55 gallons	Oily Trash Sat. Accumulation	Phase Separator
II	Drum	1	55 gallons	Sample Slop	Inside Dike at P- 60, P-61

^{*} Examples Only. Content may vary.

Map ID	Mobile Tank/Container	Estimated Number	Container Capacity (gallons)	Content *	General Area Location				
Zachry Ya	Zachry Yard & Warehouse								
JJ	Drums	8	55 gallons	Kerosene, Road Asphalt, Oil	Northside of Laydown Area				
	Drums	20	55 gallons	Lubrication Oils	Inside Zachry Warehouse on Containment Pallets				
Nitrogen		20	Jo gallons	Lubrication Oils	Fallets				
	Drums	4	55 gallons	Compressor Oil	Inside curbed areas each plant				
	orage Area and Firewater F			Disease	In tide Desigling				
RR RR	Tank Drum	10	550 gallons 55 gallons	Diesel Oil	Inside Building Inside Building				
Hazardou	Hazardous Waste Drum Pad								
	Drums	100	55 gallons	Used Oil, Wastes	Near N-Battery				

^{*} Examples Only. Content may vary.

Table 6 Borger Plant Hazardous Waste Units

Site Location	NOR 30131* TNRCC Unit No.	Predicted Flow Direction	Status
Hazardous Waste Drum Pad	7	Covered, collection sump capacity 10,000 gallons, trucked to chemical sewer.	Active 90 day Accumulation
C-18 (Figure 2)	14	Secondary Containment	Inactive
C-19 (Figure 2)	15	Secondary Containment	Inactive
C-20 (Figure 2)	16	Secondary Containment	Inactive

^{*}NOR for the Borger Plant is located in Environmental Team files.

Table 7 Loading and Unloading Areas

Map ID	D Loading/Unloading Location Container Type		Content	General Area Location			
	Blending						
А	A Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa	ading			
В	D Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loading	Southeast corner of D Battery			
С	F Battery	Drums, Isocontainers, Truck Trailers	Blending Products Loa	ading			
D	P Battery	Drums	Blending Products Loa	ading			
		CPU					
F	CPU	Truck Trailers	Allyl Alcohol	Near C-18			
		Hazardous Waste Tanks					
	N Battery	Truck Trailers	Hazardous Wastes	N-2,			
		Shipping					
	Drums are loaded at the following	j :					
	Dock #2						
	Dock #3 (Mercaptan dock)						
R	Tote Fill Building						
	Totes are loaded at the following:						
	Dock 2 (south side overhead doo	r)					
Tote Fill Building							
Trailers a	nd Iso's are loaded/unloaded at the	e following:					
W	5.1 truck rack						
WI	South side of "A" battery						

Table 7 Loading and Unloading Areas

Map ID	Loading/Unloading Location	Container Type	Content	General Area Location
MM	Spot #1			
NN	Spot #2			
NN	Spot #3			
S	Spot #4			
00	Spot #5			
SM	Spot #6			West and South Sides of I Battery
V	Spot #15			
G	CPU (west of "C" battery manifold	1)		
GI	CPU (north of C-17)			
Railcars a	re loaded/unloaded at the following	areas:		
PP	Spot #2			
PP	Spot #3			
PP	Spot #4			
PP	Spot #5			
PP	Spot #6			
PP	Spot #7			
PP	Spot #9			
PP	Spot #11			
PP	Spot #13			
PP	Spot #14			
PP	Spot #15			
QQ	Spot #21			
		Unit 5		
		Drums, Isocontainers, Truck		
	Unit 5.1	Trailers	Products and Feedstocks	Westside Unit 5.1

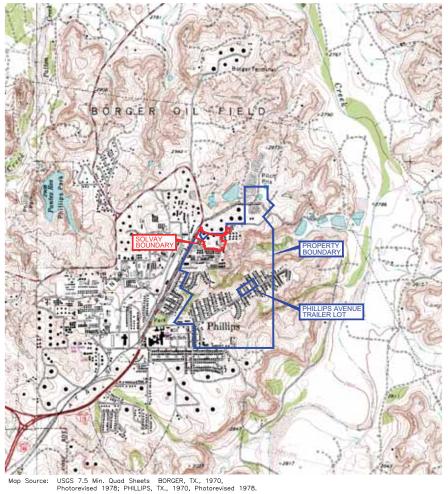
Table 8 Borger Plant Summary of Potential Spill Prediction & Flow Paths

	Major Type of Failure	Largest Single Tank (bbls)	Rate (bbls/hr) *	Direction of Flow	Secondary Containment
A Battery	Tank Rupture	284	568	East	Containment Curb which is drained to Chemical Sewer
B Battery		1,300	2,600	South	Chemical Sewer H-Battery sump
C Battery		600	1,200	South	Stormwater Reservoir
D Battery		1,150	2,300	East	Stormwater Reservoir
E Battery		3,000	6,000	NA	Tank dikes
Tanks F-16 – 24		5,476	10,952	East	F-Battery Spill Containment Pit
Tanks F-2 – 15, 27, 28		15,500	31,000	N/A	Tank Dikes
Tanks F-1, 4		10,113	20,226	South	Stormwater Reservoir
Tanks H-1 – 4		5,037	10,074	East	Stormwater Reservoir
Tanks H-6, 7		6,000	12,000	N/A	Tank Dike
Tank H-8		10,156	20,312	N/A	Tank Dike
Tank H-20		10,715	21,430	N/A	A berm provides secondary containment. The contents get pumped back into the Chemical Sewer or drained to the canyon as appropriate
I-Battery		211	422	East	Concrete Curb
J-Battery		580	1,160	East	Chemical Sewer - H-Battery sump
K-Battery		1,343	2,686	South	Chemical Sewer-H-Battery Sump
L-Battery		3,005	6,010	East	Stormwater Reservoir
M-Battery		1,444	2,888	East	Stormwater Reservoir
N-Battery		1,212	2,424	N/A	Tank Dike
P-Battery		8,000	16,000	N/A	Concrete Dike/Stormwater Reservoir
Gasoline Dispenser		6	12	N/A	Concrete Dike

^{*} Rate for 30 minutes, based on largest tank draining. N/A -Not Applicable.

Figures





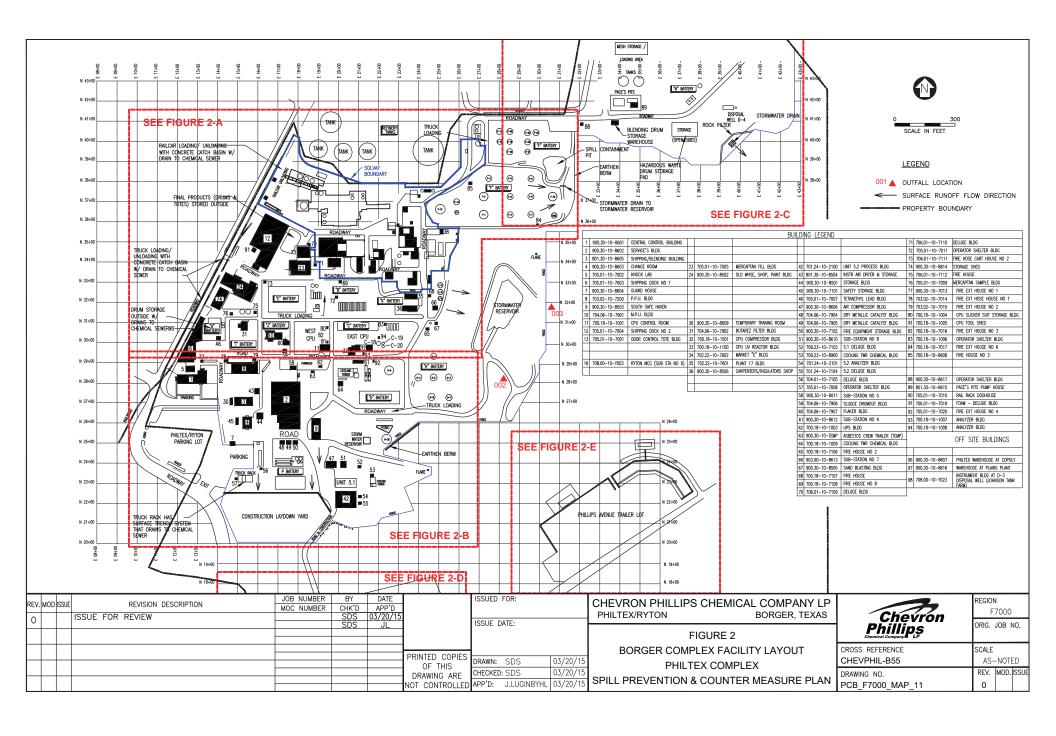


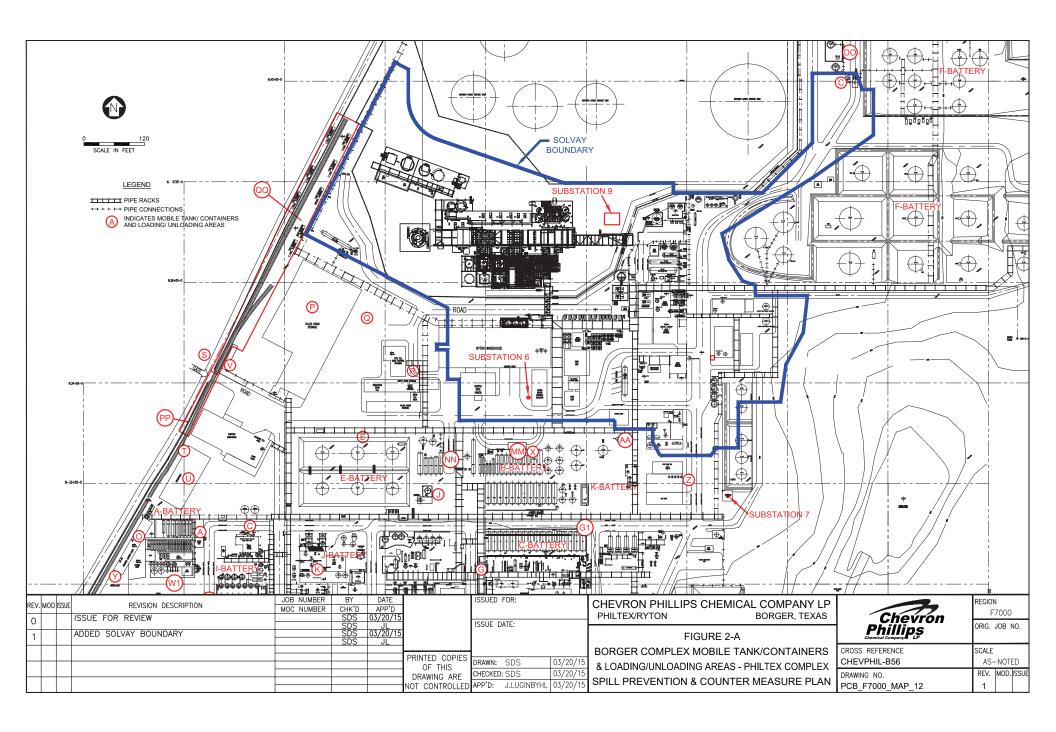
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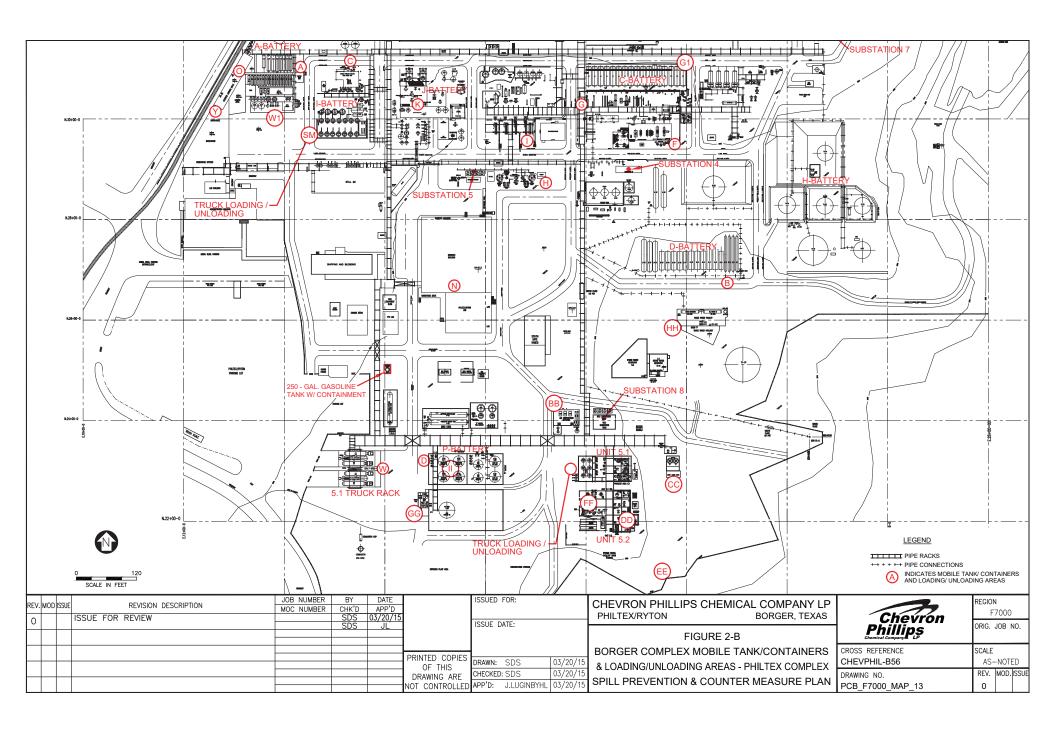
	FIGUR	- 4
_	PHILTEX/RYTON	BORGER, TEXAS
	CHEVRON PHILLIPS CHE	MICAL COMPANY LI

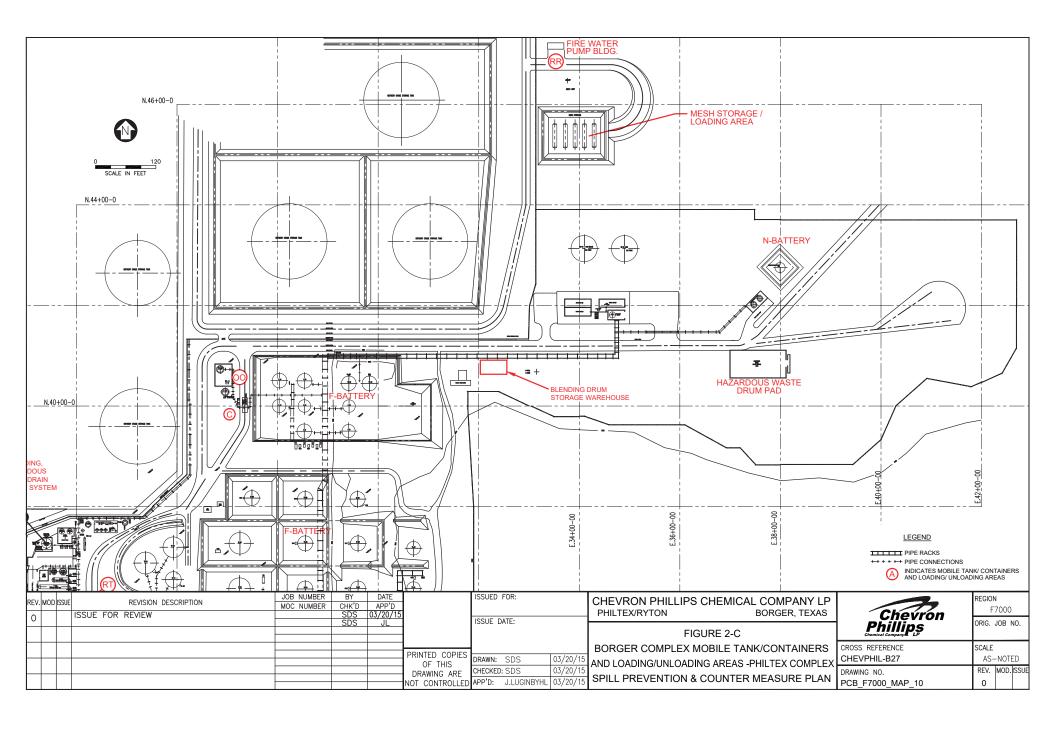
BORGER COMPLEX SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

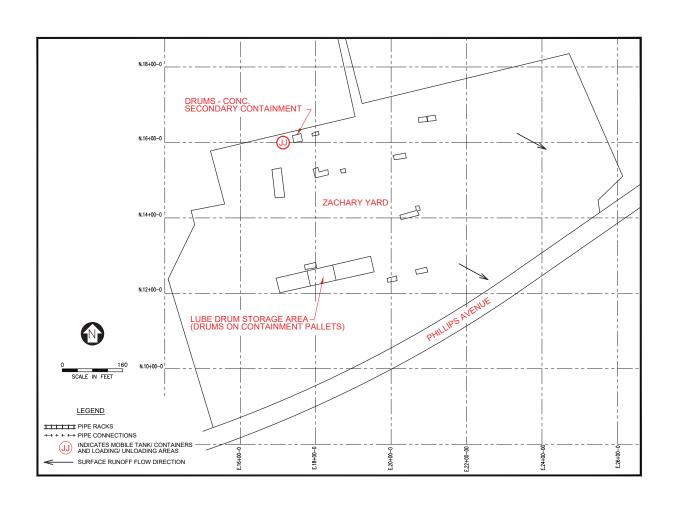
Chevron Phillips Chemical Company Li ²	F7000 ORIG. JOB NO.			
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CHEVPHIL-A14	AS-	-NOTE	:D	
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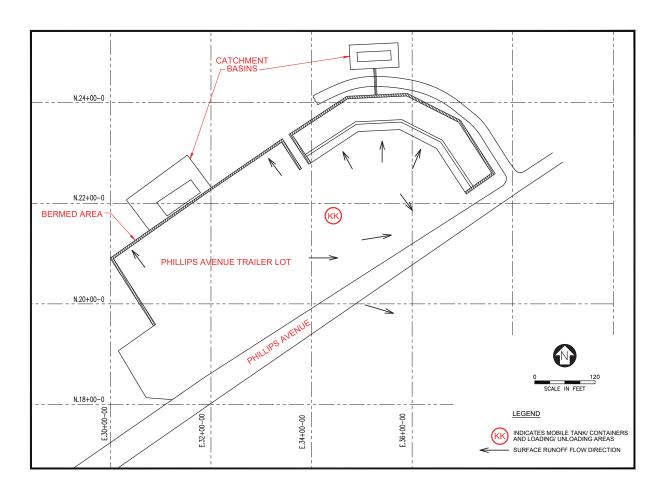








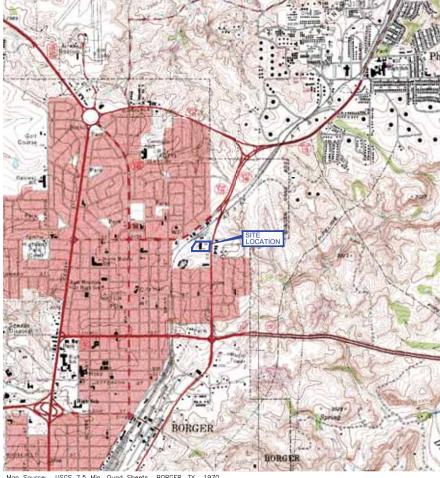
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					202	JL		ISSUE DATE.		FIGURE 2-D	Chemical Company LP	ORIG. JUB NO.
L	+						PRINTED COPIES	DRAWN: SDS 03	3/20/14	BORGER COMPLEX MOBILE TANK/CONTAINERS AND LOADING/UNLOADING AREAS - PHILTEX COMPLEX	CROSS REFERENCE CHEVPHIL-A37	SCALE AS-NOTED
							OF THIS DRAWING ARE NOT CONTROLLED	CHECKED: SDS 03	3/20/14 3/20/14	SPILL PREVENTION CONTROL & COUNTER MEASURE PLAN	DRAWING NO. PCB_F7000_MAP_6	REV. MOD. ISSUE



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Map Source: USGS 7.5 Min. Quad Sheets BORGER, TX., 1970, Photorevised 1978; PHILLIPS, TX., 1970, Photorevised 1978.

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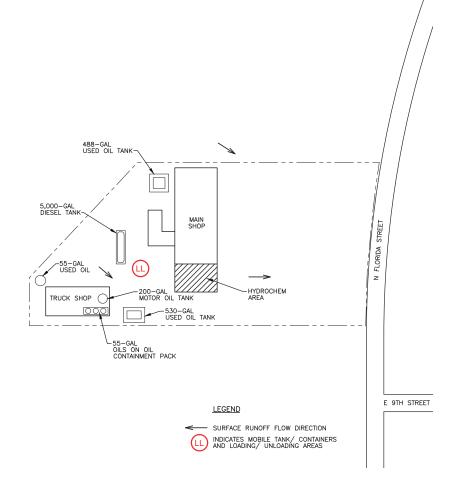
CHEVRON PHILLIPS CHEMICAL COMPANY LP PHILTEX/RYTON BORGER, TEXAS

FIGURE 3 BORGER COMPLEX SITE LOCATION MAP PHILTEX COMPLEX - SPILL PREVENTION CONTROL AND COUNTER MEASURE PLAN

Chevron	REGION F	۱ 7000
Phillips Chemical Company LP	ORIG.	JOB 1
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CROSS REFERENCE CHEVPHIL-A16		-NOTE
	AS-	NOTE



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				303	JL	1	JOSEPHIE.		FIGURE 4	Phillips Chemical Company	ORIG. JOB NO.
						PRINTED COPIES	DRAWN: SDS	07/00/15	1	CROSS REFERENCE CHEVPHIL-A31	SCALE AS-NOTED
							CHECKED: SDS	03/20/15	PHILTEX COMPLEX - SPILL PREVENTION CONTROL	DRAWING NO.	REV. MOD. ISSU
L						NOT CONTROLLED	APP'D: J.LUGINBYHL	03/20/15	AND COUNTER MEASURE PLAN	PCB_F7000_MAP_4	0



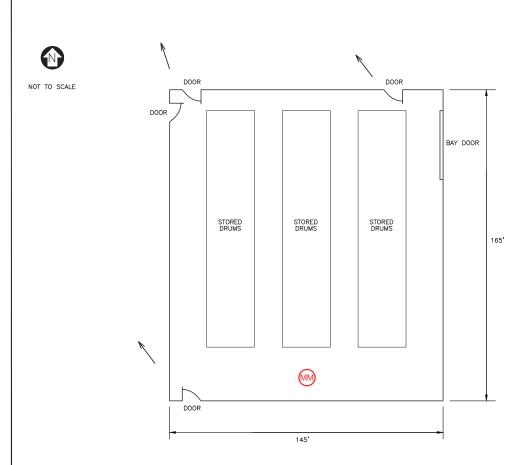


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PHILTEX/RYTON	BORGER, TEXAS
CHEVRON PHILLIPS (CHEMICAL COMPANY LI

FIGURE 5
COPOLY WAREHOUSES SITE LOCATION MAP
PHILTEX COMPLEX - SPILL PREVENTION CONTROL
AND COUNTER MEASURE PLAN

Chevron	REGION F7000			
Phillips Chemical Company LP	ORIG.	JOB 1	٧٥.	
CROSS REFERENCE	SCALE			
CHEVPHIL-A35	AS-	-NOTE	ED	
DRAWING NO.	REV.	MOD.	ISSUE	
DOD 57000 MAD 5	_			



LOCATED 1/3 MILE NORTH OF INTERSECTION HWY 136 AND HWY 1551

<u>LEGEND</u>

SURFACE RUNOFF FLOW DIRECTION

INDICATES MOBILE TANK/ CONTAINERS
AND LOADING/ UNLOADING AREAS

RE\ O	/. MOD ISSUE	REVISION DESCRIPTION ISSUE FOR REVIEW	MOC NUMBER	CHK'D SDS SDS	APP'D 03/20/15		ISSUE DATE:	CHEVRON PHILLIPS CHEMICAL COMPANY LP PHILTEX/RYTON BORGER, TEXAS	Chevron	F7000 ORIG. JOB NO.
				303	JL		ISSE BALL.	FIGURE 6	Phillips Chemical Company P LP	ORIG. JUB NO.
						PRINTED COPIES		PHILTEX COPOY WAREHOUSE FACILITY LAYOUT		SCALE
							DRAWN: SDS 03/20/15	PHILTEX COMPLEX - SPILL PREVENTION CONTROL	CHEVPHIL-A39	AS-NOTED
						DRAWING ARE NOT CONTROLLED	CHECKED: SDS 03/20/15 APP'D: J.LUGINBYHL 03/20/15		DRAWING NO. PCB_F7000_MAP_7	REV. MOD. ISSUE

Borger Plant Bulk Storage Tanks

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
			A	Battery			
A-1	Diesel/Gasoline Blending	Yes	10,380				
A-2	Diesel/Gasoline Blending	Yes	10,380				
A-3	Diesel/Gasoline Blending, Alkylate, ETBE, Toluene	Yes	1,650				
A-4	Diesel/Gasoline Blending	Yes	913				
A-5	Diesel/Gasoline Blending	Yes	913				
A-6	Diesel/Gasoline Blending, Isobutane, Heptane, Toluene	Yes	342				
A-7	Diesel/Gasoline Blending	Yes	342				
A-8	Diesel/Gasoline Blending	Yes	1,462	Concrete			This area drains directly to the
A-9	Diesel/Gasoline Blending	Yes	1,462	Curb around	48,230	24,275	Chemical Sewer; therefore,
A-14	Diesel/Gasoline Blending	Yes	8,958	all tanks			capacity is not a problem.
A-15	Diesel/Gasoline Blending	Yes	10,606				
A-16	Diesel/Gasoline Blending	Yes	1,504				
A-17	Toluene	Yes	1,504				
A-18	Diesel/Gasoline Blending	Yes	1,504				
A-19	Diesel/Gasoline Blending	Yes	1,504				
A-20	Alkylate, Isohexanes	Yes	1,504				
A-36	Diesel/Gasoline Blending	Yes	1,087				
A-37	Diesel/Gasoline Blending	Yes	1,087				
A-38	Diesel/Gasoline Blending	Yes	1,087				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-39	Diesel/Gasoline Blending, Isohexane, Soltrol, Toluene	Yes	1,087				
A-40	Diesel/Gasoline Blending, Cyclopentane, Ethanol	Yes	1,087				
A-41	Diesel/Gasoline Blending, Cyclopentane, Heptane	Yes	1,087				
A-42	Diesel/Gasoline Blending, Diisopropyl Ether, Ethanol, Hexene	Yes	1,087				
A-43	Diesel/Gasoline Blending	Yes	1,087				
A-44	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-45	Diesel/Gasoline Blending, Propylene	Yes	1,087				
A-46	Diesel/Gasoline Blending, Dimethylbutene, Diisopropyl Ether, Hexane	Yes	888				
A-47	Diesel/Gasoline Blending, Heptane	Yes	1,952				
A-48	Out of Service	No	1,952				
A-49	Diisopropyl Ether, Isohexane, Heptane, Cyclopentane	Yes	1,952				
A-50	Diesel/Gasoline BlendingHeptane, Isoheptane	Yes	1,952				
A-51	Butane	Yes	1,858				
A-52	Diesel/Gasoline Blending	Yes	1,858				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
A-54	Out of Service	No	4,401				
A-55	Diesel/Gasoline Blending	Yes	4,401				
A-56	Diesel/Gasoline Blending	Yes	4,401				
A-57	Out of Service	No	4,018				
A-58	Out of Service	No	4,842				
A-59	Out of Service	No	11,941				
A-60	Out of Service	No	11,941				
A-61	Out of Service	No	7,374				
			В	Battery			
B-1	Mercaptan	No	23,700				
B-2	Mercaptan	No	23,700				
B-3	Methyl Ethyl Sulfide	No	24,221				
B-4	Mercaptan/Sulfide	No	24,221				
B-5	Mercaptan/Sulfide	No	24,370				
B-6	Mercaptan/Sulfide	No	24,192				This area drains directly to the
B-7	Out of Service	No	24,192	None			Stormwater Pond; therefore, the Stormwater pond provides
B-8	Mercaptan/Sulfide	No	24,330	None			the necessary secondary
B-9	Mercaptan/Sulfide	No	24,635				containment.
B-10	Mercaptan/Sulfide	No	25,000				
B-11	High Sulfur Slop Oil	No	25,000				
B-12	High Sulfur Slop Oil	No	25,000				
B-13	Sulfur Dioxide	No	30,000				
B-14	Butene, Propylene	No	31,317				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-15	Butene	No	29,491				
B-16	Out of Service	No	4,900				
B-17	Out of Service	No	3,624				
B-18	Mercaptan/Sulfide, High Sulfur Rejects	No	1,989				
B-20	Mercaptan/Sulfide	No	4,494				
B-21	Mercaptan/Sulfide	No	11,691				
B-22	Mercaptan, Thiophane	No	11,691				
B-23	Mercaptan/Sulfide	No	11,691				
B-24	Mercaptan/Sulfide	No	11,691				
B-25	Mercaptan/Sulfide	No	11,691				
B-26	Methyl Ethyl Sulfide	No	11,691				
B-27	Mercaptan/Sulfide	No	12,477				
B-28	Mercaptan, Dimethyl Sulfide	No	10,578				
B-29	Out of Service	No	15,165				
B-30	Out of Service	No	28,435				
B-31	Sulfolane	No	33,776				
B-32	Mercaptan	No	33,890				
B-33	Mercaptan	No	22,715				
B-34A	Mercaptan	No	51,500				
B-35	Mercaptan/Sulfide	No	11,614				This area drains directly to the
B-36	Out of Service	No	11,614				Stormwater Pond; therefore,
B-37	Out of Service	No	12,850	None			the Stormwater pond provides
B-38	Mercaptan/Sulfide, High Sulfur Slop	No	12,348				the necessary secondary containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
B-39	Out of service	No	8,878				
B-43	Out of Service	No	25,600				
B-45	Mercaptan	No	44,800				
B-46	Mercaptan	No	44,800				
B-47	Mercaptan	No	44,800				
B-49	Mercaptan/Sulfide High Sulfur Slop	No	9,063				
B-50	Out of Service	No	20,700				
B-51	Mercaptan/Sulfide	No	10,870				
B-52	Sulfolane	No	16,000				
B-53	Sulfolane	No	16,000				
B-54	Sulfolane	No	16,000				
B-40	Sulfolane	No	52,800				This area drains directly to the
B-41	Sulfolane	No	52,800	Concrete	11,960	51,590	Stormwater pond; therefore, capacity is not a problem
B-44	Sulfolane	No	22,700	Concrete	13,144	86,355	Capacity is sufficient
B-48	Sulfolane	No	50,081	Concrete	13,144	80,333	Capacity is sufficient
			CI	Battery			
C-1	Butenes, Isobutylene	No	25,000				
C-2	Mercaptan/Sulfide	No	23,818				This area drains directly to the
C-3	Mercaptan/Sulfide	No	23,818				Stormwater Pond; therefore,
C-4	Mercaptan/Sulfide	No	23,818	None			the Stormwater pond provides
C-5	Mercaptan/Sulfide	No	23,818				the necessary secondary
C-6	Mercaptan/Sulfide/Propylene Tetramer	No	25,000				containment.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
C-7	Propylene Tetramer, Mercaptan	No	23,818				
C-8	Nonene, Mercaptan	No	23,818				
C-9	Mercaptan/Sulfide	No	23,818				
C-10	Mercaptan	No	23,818				
C-11	Mercaptan	No	23,818				
C-12	Mercaptan/Sulfide, Octene	No	15,338				
C-13	Mercaptan/Sulfide	No	15,338				
C-14	Mercaptan/Sulfide, Propylene, Butene, Hexene, Octene, Dodecene	No	25,000				
C-15	Mercaptan/Sulfide	No	23,818				
C-16	Mercaptan/Sulfide	No	25,000				
C-17	Butenes, Isobutylene	No	25,000				
C-18	Mercaptan, Allyl Alcohol	No	10,000				This area drains directly to the
C-19	Mercaptan/Sulfide	No	1,234	Concrete	1,117	1,315	Stormwater pond; therefore,
C-20	Mercaptan/Sulfide	No	2,300				capacity is not a problem
			D	Battery	•		
D-1	Diesel/Gasoline Blending, Toluene	Yes	10,243				This area drains directly to the
D-2	Diesel/Gasoline Blending, Ethanol	Yes	10,243				Stormwater Pond; therefore, the Stormwater pond provides
D-3	Diesel/Gasoline Blending	Yes	10,243	None			the necessary secondary containment. The manifold
D-4	Diesel/Gasoline Blending, Isopentane, Toluene	Yes	10,243				area drains to the Chemical Sewer.
D-5	Out of Service	Yes	12,913				GOWGI.

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
D-6	Diesel/Gasoline Blending	Yes	24,377				
D-7	Toluene	Yes	24,377				
D-8	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-9	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-10	Diesel/Gasoline Blending	Yes	33,000				
D-11	Diesel/Gasoline Blending, Toluene	Yes	33,000				
D-12	Diesel/Gasoline Blending, Isoparaffins	Yes	33,000				
D-13	Diesel/Gasoline Blending, Isoparaffins	Yes	22,614				
D-14	Diesel/Gasoline Blending, Alkylate, Isoparaffins	Yes	33,000				
D-15	Diesel/Gasoline Blending	Yes	33,000				
D-16	Diesel/Gasoline Blending, Toluene, Isooctane	Yes	34,613				
D-17	Diesel/Gasoline Blending,	Yes	34,613				
D-18	Diesel/Gasoline Blending	Yes	29,991				
D-19	Diesel/Gasoline Blending, Isooctane, Toluene	Yes	48,223	Concrete	9,632	63,793	Canacity is sufficient
D-20	Diesel/Gasoline Blending, Isoparaffins, Isooctane	Yes	29,971	Concrete	9,032	03,783	Capacity is sufficient
E Battery							
E-1	N-Heptane	No	126,065	Earthen	14,623	79,700	
E-2	N-Heptane	No	126,065	Earthen	14,623	71,056	

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
E-3	Isooctane	No	126,065	Earthen	14,623	85,168	
E-4	Isooctane	No	126,065	Earthen	14,623	68,670	This area drains to the
E-5	Octane Reference Fuel	No	126,065	Earthen	14,623	88,005	Stormwater pond; therefore, capacity is not a problem
E-6	N-Heptane	No	126,065	Earthen	14,623	90,848	capacity is not a problem
			F	Battery	11,000		
F-1	Isoparaffins, Alkylate	No	424,750	Earthen	37,512	18,268	
F-2	HF Alkylate	No	424,750	Earthen	71,686	142 602	
F-3	Isoparaffins	No	215,953	Earmen	7 1,000	143,693	
F-5	Isoparaffins	No	215,895	Earthen	56,109	272,034	This area drains to the
F-6	Propylene Tetramer	No	215,930	Larmen	50,109		
F-4	Alkylate	No	216,061			134,060	
F-7	Alkylate	No	215,843				
F-8	Isoparaffins, Alkylate	No	215,868	Earthen			
F-9	Isooctane, Alkylate, Isoparaffins	No	212,385	(Flow to Ditch)	259,260		
F-10	Isoparaffins	No	220,951				Stormwater pond; therefore, capacity is not a problem
F-14	Diesel/Gasoline Blending	Yes	128,289				capacity is not a problem
F-11	Diesel, SX-80	Yes	84,428				
F-12	Isoparaffins	No	650,382	Earthen	68,428	641,030	
F-13	Isoparaffins	No	216,624			311,200	
F-16	Mercaptan	No	141,983				
F-17	Mercaptan	No	230,009	Earthen			
F-18	Mercaptan	No	230,009	(Flow to Pond)	205,046	1,558,035	
F-19	Mercaptan	No	141,983	1 3114)		, -,	
F-20	Mercaptan	No	230,009]			

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
F-21	Mercaptan, Dodecane	No	141,983				
F-22	Mercaptan	No	230,009				
F-23	Nonene	No	126,822				
F-24	Diesel/Gasoline Blending, Alkylate, Isopentane, Isoparaffins	Yes	126,966				
F-27	Diesel/Gasoline Blending	Yes	15,750	Concrete	1,932	10,608	
F-28	Diesel/Gasoline Blending	Yes	30,081	Concrete	4,662	58,502	
			H	Battery			
H-1	Mercaptan	No	211,566	Earthen	17,103	13,467	
H-3	Mercaptan	No	210,492	Earthen	13,988	48,344	
H-4	Diesel/Gasoline Blending	Yes	198,411	Earthen	28,455	48,319	This area drains to the
H-6	Diesel/Gasoline Blending	Yes	252,000	Earthen	56,682	377,341	Stormwater pond; therefore,
H-7	Mercaptan	No	146,560	Latitlett	30,002	377,341	capacity is not a problem
H-8	Mercaptan	No	426,532	Earthen	40,771	297,484	
H-20	Wastewater	No	450,030	Earthen			
I Battery							
I-1	Out of Service	No	8,872				
I-2	Ethyl Chloride	No	8,872				
I-3	Out of Service	No	8,872	Small			
I-4	Out of Service	No	8,872	Concrete	28,862	56,575	Secondary Containment is
I-5	Out of Service	No	8,872	curb around	20,002	50,575	sufficient
I-6	Out of Service	No	8,872	all tanks			
I-7	Out of Service	No	8,872				
I-8	Sulfolane	No	8,872				

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
I-9	Out of Service	No	8,872				
I-10	Out of Service	No	8,872				
I-11	Out of Service	No	8,872				
I-12	Out of Service	No	8,872				
I-14	Methylethylsulfide	No	8,872				
I-15	Out of Service	No	4,018				
I-17	Out of Service	No	3,091				
I-20	Sodium Methyl Mercaptide	No	7,790				
I-21	Sodium Methyl Mercaptide	No	7,790				
I-22	Sodium Methyl Mercaptide	No	7,790				
I-23	Methyl Ethyl Sulfide	No	8,872				
			JE	Battery	•		
J-5	R-17 Crude Product	No	5,656				
J-9	R-15 Dump Tank	No	5,887				This area drains directly to the
J-20	Sulfolane	No	1,073				Stormwater Pond; therefore,
J-36	Sulfolane	No	24,315	None			the Stormwater pond provides
J-37	Sulfolane	No	24,315				the necessary secondary
J-43A	Sulfolene	No	627				containment.
J-43B	Sulfolene	No	5,656				
			LI	Battery			
L-1	Diesel, Octene	Yes	63,149	and Foutbook			0
L-2	Brine/Wastewater	No	126,221	part Earthen / part Concrete	32,982	173,546	Secondary containment is sufficient
L-3	Mercaptan	No	126,003	part Concrete			Sumoent
		•	PI	Battery	•	•	

Borger Plant Bulk Storage Tanks

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-1	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-2	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,499				
P-3	Light Cycle Oil	Yes	16,499	Concrete	20,675	60,650	Secondary containment is sufficient
P-4	Carbon Black Oil, Light Cycle Oil (Philflo HV)	Yes	16,380				Sufficient
P-5	Dimethyl Sulfide	No	16,380				
P-6	Dimethyl Sulfide	No	16,380				
P-50	Diesel/Gasoline Blending	Yes	40,000				
P-51	Diesel/Gasoline Blending, Cyclopentane	Yes	40,000				
P-52	Diesel/Gasoline Blending, Cyclopentane	Yes	15,000	Concrete	8,795	8,795 10,928	Containments in P Battery
P-53	Diesel/Gasoline Blending, Heptane, Isoparaffin	Yes	10,000				drain to the 250,000 gallon Unit 5 stormwater reservoir,
P-54	Caustic	No	30,827	Concrete	5,800	27,266	which in turn is drained to the
P-55	Out of Service	No	100,000				stormwater pond.
P-56	Mercaptan/Sulfide	No	100,000	Concrete	12 500	64.760	
P-57	TBM	No	100,000	Concrete	13,592	64,762	
P-58	Toluene, Soltrol	Yes	73,000				
P-59	Propylene	No	43,080	Concrete	11,048	77,990	Secondary containment is
P-65	Mercaptan	No	43,080	Concrete	11,040	11,990	sufficient
P-60	Mercaptan	No	100,000				Containment drains to the
P-61	Slop Gasoline	Yes	100,000	Concrete	14,493	65,595	250,000-gal. Unit 5
P-62	Mercaptans, Isoparaffins	No	100,000				stormwater reservoir, which in

Borger Plant Bulk Storage Tanks

Spill Prevention Control and Countermeasure Plan Chevron Phillips Chemical Plant (Continued)

Tank No.	Stored Material ⁽¹⁾	Subject to SPCC Regulation?	Tank Capacity (gallons)	Secondary Containment Type	Max 24 hr. Rainfall 25-Year Event ² (gallons)	Secondary Containment Capacity (gallons)	Comments
P-63	Butadiene	No	100,000				turn is drained to the stormwater pond.
P-66	Dimethylsulfide	No	210,588	Concrete	37,646	310,455	Secondary containment is sufficient

Notes:

- (1) The stored materials listed are historical use. The material stored in the tanks may vary due to the flexible/batch process nature of the plant. Additional materials not listed may be stored to meet production requirements.
- (2) The maximum 24-hour rainfall event with a 25-year frequency from the Department of Commerce Technical Bulletin No. 40 is 5.1 inches of rain.