Administrative Package Cover Page

This file contains the following documents:

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0011253001

APPLICATION. City of Sundown, P.O. Box 600, Sundown, Texas 79372, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0011253001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 175,000 gallons per day via surface irrigation of 50 acres of non-public access agricultural land. The domestic wastewater treatment facility and disposal area are located approximately 1 mile northwest of the intersection of Farm-to-Market Road 301 and Farm-to-Market Road 303, near the city of Sundown, in Hockley County, Texas 79372. TCEQ received this application on November 7, 2024. The permit application will be available for viewing and copying at Sundown City Hall, main entrance, 809 South Slaughter Avenue, Sundown, in Hockley 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/tlap-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=-102.494444,33.469444&level=18

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

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

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application**

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

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

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

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

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

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

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

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at **https://www14.tceq.texas.gov/epic/eComment/**, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105,

P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Sundown at the address stated above or by calling Mr. Billy Hernandez, C.P.M., City Administrator, at 806-229-3131.

Issuance Date: December 9, 2024

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

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

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

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

City of Sundown (CN600741110) operates City of Sundown WWTP (RN101916955). a facultative lagoon treatment system. The facility is located approximately 1 mile northwest of the intersection of FM 301 and FM 303, in Sundown , Hockley County, Texas 79372.

Application is requesting renewal of existing permit to discharge 175,000 gallons per day of treated domestic wastewater. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD. Domestic Wastewater is treated by *a facultative lagoon system*.

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose “operates” in this section for existing facility applications or choose “proposes to operate” for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example, a domestic permit might specify: city ISD, MUD, etc.
8. Choose “is” for an existing facility or “will be” for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., domestic wastewater.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Examples

Example 1: Domestic Wastewater TPDES Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30

Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN000000000) operates the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to discharge at an annual average flow of 1,200,000 gallons per day of treated domestic wastewater via Outfalls 001 and 002.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 2: TPDES New Application

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

The City of Texas (CN000000000) proposes to operate the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the extended aeration mode. The facility will be located at 123 Texas Street, in the City of More Texas, Texas County, Texas 71234.

This application is for a new application to discharge at a daily average flow of 200,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater will be treated by an activated sludge process plant and the treatment units will include a bar screen, a grit chamber, aeration basins, final clarifiers, sludge digesters, a belt filter press, chlorine contact chambers and a dechlorination chamber.

Example 3: TLAP Renewal application

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may

change during the technical review of the application and are not federal enforceable representations of the permit application.

The City of Texas (CN000000000) operates the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

This application is for a renewal to dispose a daily average flow not to exceed 76,500 gallons per day of treated domestic wastewater via public access subsurface drip irrigation system with a minimum area of 32 acres. This permit will not authorize a discharge of pollutants into water in the state.

Land application of domestic wastewater from the facility are expected to contain five-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent in the permit application package. Domestic wastewater is treated by an activated sludge process plant and the treatment units include a bar screen, an equalization basin, an aeration basin, a final clarifier, an aerobic sludge digester, tertiary filters, and a chlorine contact chamber. In addition, the facility includes a temporary storage that equals to at least three days of the daily average flow.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Sundown

PERMIT NUMBER (If new, leave blank): WQ00 WQ0011253001

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

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

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region_____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

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

Flow	New/Major Amendment	Renewal
<0.05 MGD	$350.00 ☐	$315.00 ☐
≥0.05 but <0.10 MGD	$550.00 ☐	$515.00 ☐
≥0.10 but <0.25 MGD	$850.00 ☐	$815.00 ☒
≥0.25 but <0.50 MGD	$1,250.00 ☐	$1,215.00 ☐
≥0.50 but <1.0 MGD	$1,650.00 ☐	$1,615.00 ☐
≥1.0 MGD	$2,050.00 ☐	$2,015.00 ☐

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: Click to enter text.

Check/Money Order Amount: Click to enter text.

Name Printed on Check: Click to enter text.

EPAY — Voucher Number: 728131

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

☐ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☒ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

☒ Active ☐ Inactive

TCEQ ePay Receipt

Transaction Information

Trace Number:	582EA000631669
Date:	10/29/2024 12:19 PM
Payment Method:	CC - Authorization 000004403G
ePay Actor:	BILLY HERNANDEZ
TCEQ Amount:	$815.00
Texas.gov Price::	$833.59*

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

Payment Contact Information

Name:	BILLY HERNANDEZ
Company:	CITY OF SUNDOWN
Address:	809 S SLAUGHTER AVE, SUNDOWN, TX 79372 0600
Phone:	806-229-3131

Cart Items

Voucher	Fee Description	AR Number	Amount
728131	WW PERMIT - FACILITY WITH FLOW >= .10 & < .25 MGD - RENEWAL		$800.00
728132	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE		$15.00
		TCEQ Amount:	**$815.00**

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number:	728131
Trace Number:	582EA000631669
Date:	10/29/2024 12:19 PM
Payment Method:	CC - Authorization 000004403G
Voucher Amount:	$800.00
Fee Type:	WW PERMIT - FACILITY WITH FLOW >= .10 & < .25 MGD - RENEWAL
ePay Actor:	BILLY HERNANDEZ

Payment Contact Information

Name:	BILLY HERNANDEZ
Company:	CITY OF SUNDOWN
Address:	809 S SLAUGHTER AVE, SUNDOWN, TX 79372 0600
Phone:	806-229-3131

Site Information

Site Name:	CITY OF SUNDOWN WASTEWATER TREATMENT PLANT
Site Address:	809 S SLAUGHTER AVE, SUNDOWN, TX 79372 0600
Site Location:	1 MILE NORTHWEST OF FM 301 AND FM 303 IN HOCKLEY COUNTY TEXAS

Customer Information

Customer Name:	CITY OF SUNDOWN
Customer Address:	809 S SLAUGHTER AVE, SUNDOWN, TX 79372

Other Information

Program Area ID:	WQ0011253001

TCEQ ePay Voucher Receipt

Transaction Information

Voucher Number:	728132
Trace Number:	582EA000631669
Date:	10/29/2024 12:19 PM
Payment Method:	CC - Authorization 000004403G
Voucher Amount:	$15.00
Fee Type:	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE
ePay Actor:	BILLY HERNANDEZ

Payment Contact Information

Name:	BILLY HERNANDEZ
Company:	CITY OF SUNDOWN
Address:	809 S SLAUGHTER AVE, SUNDOWN, TX 79372 0600
Phone:	806-229-3131

c. Check the box next to the appropriate permit type.

- ☐ TPDES Permit
- ☒ TLAP
- ☐ TPDES Permit with TLAP component
- ☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☐ New
- ☐ Major Amendment *with* Renewal
- ☐ Major Amendment *without* Renewal
- ☒ Renewal without changes
- ☐ Minor Amendment *with* Renewal
- ☐ Minor Amendment *without* Renewal
- ☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: N/A

f. **For existing permits**:

Permit Number: WQ00 11253001

EPA I.D. (TPDES only): TX N/A

Expiration Date: December 1, 2024

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

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

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

City of Sundown

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

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

CN: 600741110

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

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

Title: Mayor Credential:

B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

N/A

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

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

CN: Click to enter text.

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

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

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

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

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0. Attachment A

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: Krueger, Paul

Title: Civil Engineer Credential: PE

Organization Name: Parkhill

Mailing Address: 4222 85th Street City, State, Zip Code: Lubbock, TX 79423

Phone No.: 806.473.3715 E-mail Address: pkrueger@parkhill.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

B. Prefix: Mr. Last Name, First Name: Hernandez, Billy

Title: City Administrator Credential: CPM

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

A. Prefix: Mr. Last Name, First Name: Krueger, Paul

Title: Civil Engineer Credential: PE

Organization Name: Parkhill

Mailing Address: 4222 85th Street City, State, Zip Code: Lubbock, TX 79423

Phone No.: 806.473.3715 E-mail Address: pkrueger@parkhill.com

B. Prefix: Mr. Last Name, First Name: Hernandez, Billy

Title: City Administrator Credential: CPM

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Hernandez, Billy

Title: City Administrator Credential: CPM

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

Section 7. DMR/MER Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Hernandez, Billy

Title: City Administrator Credential: CPM

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Krueger, Paul

Title: Civil Engineer Credential: PE

Organization Name: Parkhill

Mailing Address: 4222 85th Street City, State, Zip Code: Lubbock, TX 79423

Phone No.: 806.473.3715 E-mail Address: pkrueger@parkhill.com

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

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

☒ E-mail Address

☐ Fax

☐ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr. Last Name, First Name: Hernandez, Billy

Title: City Administrator Credential: CPM

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

D. Public Viewing Information

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

Public building name: City Hall

Location within the building: Main Entrance

Physical Address of Building: 809 S. Slaughter

City: Sundown County: Hockley

Contact (Last Name, First Name): Hernandez, Billy

Phone No.: 806.229.3131 Ext.:

E. Bilingual Notice Requirements

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

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

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

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

   ☐ Yes ☒ No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

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

   ☐ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

   ☐ Yes ☐ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

   ☐ Yes ☐ No

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

F. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

Attachment: N/A- Not Subject to alternative language requirements (page 29 of Instructions)

G. Public Involvement Plan Form

Complete the Public Involvement Plan Form (TCEQ Form 20960) for each application for a **new permit or major amendment to a permit** and include as an attachment.

Attachment: N/A

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** 101916955

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

City of Sundown Wastewater Treatment Plant

C. Owner of treatment facility: City of Sundown

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

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

Prefix: Last Name, First Name:

Title: Credential:

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

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

Attachment: N/A

E. Owner of effluent disposal site:

Prefix: _ Last Name, First Name:

Title: _ Credential:

Organization Name: City of Sundown

Mailing Address: PO Box 600 City, State, Zip Code: Sundown, TX 79372

Phone No.: 806.229.3131 E-mail Address: billy@sundowntx.com

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

Attachment: N/A

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

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

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

Organization Name: Click to enter text.

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

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

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

Attachment: Click to enter text.

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☐ Yes ☐ No

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

N/A – TLAP Only

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

☐ Yes ☐ No

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

Click to enter text.

City nearest the outfall(s): Click to enter text.

County in which the outfalls(s) is/are located: Click to enter text.

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

☐ Yes ☐ No

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

☐ Authorization granted ☐ Authorization pending

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

Attachment: Click to enter text.

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☒ Yes ☐ No

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

Click to enter text.

B. City nearest the disposal site: Sundown

C. County in which the disposal site is located: Hockley

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

Effluent is pumped via PVC pipeline

E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Lake JB Thomas in Segment 1413 of the Colorado River Basin

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

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

Click to enter text.

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click to enter text.

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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

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

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

See Attachment B

- Applicant's property boundary
- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: Attachment A: Core Data Form

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0011253001

Applicant: City of Sundown

Certification:

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

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

Signatory name (typed or printed): Jonathan Strickland

Signatory title: Mayor

Signature: _____ Date: 11-1-2024

(Use blue ink)

Subscribed and Sworn to before me by the said Mayor - Jonathan Strickland

on this 1st day of November, 2024.

My commission expires on the 17th day of December, 2026.

Sylvia Ann Garza

Notary Public

SYLVIA ANN GARZA
NOTARY PUBLIC
STATE OF TEXAS
ID# 13182976-1
My Comm. Expires 12-17-2026

[SEAL]

Hockley

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

N/A - Renewal

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- ☐ The applicant's property boundaries
- ☐ The facility site boundaries within the applicant's property boundaries
- ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☐ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☐ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

B. ☐ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☐ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: Click to enter text.

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☐ No

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

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

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

Section 3. Buffer Zone Map (Instructions Page 38)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

- ☐ Ownership
- ☐ Restrictive easement
- ☐ Nuisance odor control
- ☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☐ Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: Click to enter text.

N/A - TLAP

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do Not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** WQ0011253001

1. Check or Money Order Number: Click to enter text.
2. Check or Money Order Amount: Click to enter text.
3. Date of Check or Money Order: Click to enter text.
4. Name on Check or Money Order: Click to enter text.
5. APPLICATION INFORMATION

   Name of Project or Site: City of Sundown WWTP

   Physical Address of Project or Site: 1 mile NW of the intersection of FM 301 and FM 303 in Hockley County, Texas.

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

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

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

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

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

Phone Number: Click to enter text. Fax Number: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

For Commission Use Only:
Customer Number:
Regulated Entity Number:
Permit Number:

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

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

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

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

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

Things to Know:

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

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

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

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

Plain Language Summary ☐ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD):

2-Hr Peak Flow (MGD):

Estimated construction start date:

Estimated waste disposal start date:

B. Interim II Phase

Design Flow (MGD):

2-Hr Peak Flow (MGD):

Estimated construction start date:

Estimated waste disposal start date:

C. Final Phase

Design Flow (MGD): 0.175

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

Estimated construction start date:

Estimated waste disposal start date:

D. Current Operating Phase

Provide the startup date of the facility: March 6, 2023

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and

finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided**.

Raw wastewater enters the plant headworks via bar screen, then to a facultative lagoon, then to a holding pond. Effluent leaving the holding pond is land applied on 50 acres of permitted land.

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation.**

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Bar Screen	1	3.5' X 2.5' X 2'
Facultative Lagoon	1	505' X 168' X 12' to 8'
Holding Pond	1	505' X 134' X 10'

C. Process Flow Diagram

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

Attachment: Attachment C

Section 3. Site Information and Drawing (Instructions Page 44)

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

- Latitude: N/A
- Longitude: N/A

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

- Latitude: 33° 28' 10"
- Longitude: -102° 29' 40"

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: Attachment D

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

City of Sundown, Texas

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
N/A - TLAP		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

Section 5. Closure Plans (Instructions Page 45)

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

☒ Yes ☐ No

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

☒ Yes ☐ No

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

Pond Closure Plan was submitted to TCEQ in September 2021.

Section 6. Permit Specific Requirements (Instructions Page 45)

For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

☒ Yes ☐ No

If yes, provide the date(s) of approval for each phase: October 12, 2021

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

Click to enter text.

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

Click to enter text.

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

☒ Yes ☐ No

If yes, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Special Provision 8 – Soil Sampling: The city conducts annual soil samples of the effluent site.
Special Provision 14 – Liner Certification: A liner certification was submitted and approved on June 12, 2023.
Special Provision 18 – Groundwater Monitoring Plan: The city conducts groundwater monitoring
Special Provision 20 – Notification of Completion Form 20007: A completed copy of the form was sent to TCEQ in March 2023

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

Click to enter text.

3. Grit disposal

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

☐ Yes ☐ No

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

Describe the method of grit disposal.

Click to enter text.

4. *Grease and decanted liquid disposal*

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

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

Click to enter text.

E. Stormwater management

1. *Applicability*

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

2. *MSGP coverage*

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

☐ Yes ☐ No

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

TXR05 Click to enter text. or TXRNE Click to enter text.

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

☐ Yes ☐ No

3. *Conditional exclusion*

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

☐ Yes ☐ No

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

Click to enter text.

4. Existing coverage in individual permit

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

☐ Yes ☐ No

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

Click to enter text.

5. Zero stormwater discharge

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

☐ Yes ☐ No

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

Click to enter text.

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

6. Request for coverage in individual permit

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

☐ Yes ☐ No

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

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

Click to enter text.

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

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

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

1. *Acceptance of sludge from other WWTPs*

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

☐ Yes ☒ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the sludge, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click to enter text.

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

2. *Acceptance of septic waste*

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

If yes to any of the above, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click to enter text.

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

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

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

☐ Yes ☒ No

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

Click to enter text.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

Is the facility in operation?

See Appendix E

☒ Yes ☐ No

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

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **W*ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

Note: The sample date must be within 1 year of application submission.

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l	14.4	14.4	1	Grab	7/31/24 @12:02
Total Suspended Solids, mg/l	28.5	28.5	1	Grab	7/31/24 @12:02
Ammonia Nitrogen, mg/l	4.37	4.37	1	Grab	7/31/24 @12:02
Nitrate Nitrogen, mg/l	<0.10	<0.10	1	Grab	7/31/24 @12:02
Total Kjeldahl Nitrogen, mg/l	33.5	33.5	1	Grab	7/31/24 @12:02
Sulfate, mg/l	194	194	1	Grab	7/31/24 @12:02
Chloride, mg/l	418	418	1	Grab	7/31/24 @12:02
Total Phosphorus, mg/l	4.54	4.54	1	Grab	7/31/24 @12:02
pH, standard units	8.6	8.6	1	Grab	7/31/24 @12:02
Dissolved Oxygen*, mg/l	N/A	N/A	1	Grab	7/31/24 @12:02
Chlorine Residual, mg/l			1	Grab	7/31/24 @12:02
E.coli (CFU/100ml) freshwater			1	Grab	7/31/24 @12:02
Entercocci (CFU/100ml) saltwater	N/A	N/A	1	Grab	7/31/24 @12:02
Total Dissolved Solids, mg/l	1730	1730	1	Grab	7/31/24 @12:02
Electrical Conductivity, µmohs/cm, †	2490	2490	1	Grab	7/31/24 @12:02
Oil & Grease, mg/l	<5	<5	1	Grab	7/31/24 @12:02
Alkalinity ($CaCO_3$)*, mg/l	N/A	N/A	1	Grab	7/31/24 @12:02

*TPDES permits only
†TLAP permits only

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A				
Total Dissolved Solids, mg/l	N/A				
pH, standard units	N/A				
Fluoride, mg/l	N/A				
Aluminum, mg/l	N/A				
Alkalinity ($CaCO_3$), mg/l	N/A				

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Librado “Lee” Torrez

Facility Operator's License Classification and Level: Class C

Facility Operator's License Number: WW0035755

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- ☐ Design flow>= 1 MGD
- ☐ Serves >= 10,000 people
- ☐ Class I Sludge Management Facility (per 40 CFR § 503.9)
- ☐ Biosolids generator
- ☐ Biosolids end user – land application (onsite)
- ☐ Biosolids end user – surface disposal (onsite)
- ☐ Biosolids end user – incinerator (onsite)

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☒ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery
- ☒ Other Treatment Process: The facultative lagoon will store and digest sludge for the lifetime of the facility.

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize

all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Storage	On-Site Owner or Operator	Not Applicable	N/A	Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): The facultative lagoon will store and digest sludge for the lifetime of the facility.

D. Disposal site

Disposal site name: N/A

TCEQ permit or registration number:

County where disposal site is located:

E. Transportation method

Method of transportation (truck, train, pipe, other): N/A

Name of the hauler:

Hauler registration number:

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 53)

A. Beneficial use authorization

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

☐ Yes ☒ No

If yes, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

☐ Yes ☐ No

If yes, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

☐ Yes ☐ No

B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

Sludge Composting	☐ Yes	☒ No
Marketing and Distribution of sludge	☐ Yes	☒ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☒ No
Temporary storage in sludge lagoons	☐ Yes	☒ No

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

  Attachment: Click to enter text.
- USDA Natural Resources Conservation Service Soil Map:

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

  Attachment: Click to enter text.
- Site map:

  Attachment: Click to enter text.

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

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click to enter text.

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

Click to enter text.

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

C. Liner information

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

☐ Yes ☐ No

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

Click to enter text.

D. Site development plan

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

Click to enter text.

Attach the following documents to the application.

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

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

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

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

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

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

  Attachment: Click to enter text.

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

☐ Yes ☒ No

If yes, provide the TCEQ authorization number and description of the authorization:

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

Is the permittee required to meet an implementation schedule for compliance or enforcement?

☐ Yes ☒ No

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

Click to enter text.

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

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

☐ Yes ☒ No

C. Details about wastes received

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

Attachment:

Section 14. Laboratory Accreditation (Instructions Page 56)

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

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

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

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

CERTIFICATION:

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

Printed Name: Jonathan Strickland

Title: Mayor

Signature: _____

Date: 11-1-2024

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

N/A - Renewal

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

Click to enter text.

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

1. *Municipally incorporated areas*

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

☐ Yes ☐ No ☐ Not Applicable

If yes, within the city limits of: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: Click to enter text.

2. *Utility CCN areas*

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

☐ Yes ☐ No

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

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

3. Nearby WWTPs or collection systems

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

☐ Yes ☐ No

If yes, attach a list of these facilities and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: Click to enter text.

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: Click to enter text.

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: Click to enter text.

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☐ Yes ☐ No

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): Click to enter text.

Average Influent Organic Strength or BOD_5 Concentration in mg/l: Click to enter text.

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): Click to enter text.

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

Click to enter text.

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources		
AVERAGE BOD_5 from all sources		

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

A. Existing/Interim I Phase Design Effluent Quality

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

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

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

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

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

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

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

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

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

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

Other: Click to enter text.

C. Final Phase Design Effluent Quality

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

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

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

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

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

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☐ Chlorine: Click to enter text. mg/l after Click to enter text. minutes detention time at peak flow

Dechlorination process: Click to enter text.

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

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

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

Attachment: Click to enter text.

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

☐ Yes ☐ No

If no, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

Click to enter text.

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

Click to enter text.

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

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

B. Wind rose

Attach a wind rose: Click to enter text.

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

☐ Yes ☐ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)**: Click to enter text.

B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

If any of the above, sludge options are selected, attach the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)**: Click to enter text.

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 61)

Attach a solids management plan to the application.

Attachment: Click to enter text.

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities

- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

N/A - TLAP

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

☐ Yes ☐ No

If **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: Click to enter text.

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

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

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☐ No

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

A. Receiving water outfall

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

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

Click to enter text.

C. Sea grasses

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☐ Yes ☐ No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Click to enter text.

A. Receiving water type

Identify the appropriate description of the receiving waters.

☐ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text.

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☐ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

Click to enter text.

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☐ Yes ☐ No

If yes, discuss how.

Click to enter text.

E. Normal dry weather characteristics

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

Click to enter text.

Date and time of observation: Click to enter text.

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

☐ Oil field activities
☐ Upstream discharges
☐ Septic tanks
☐ Urban runoff
☐ Agricultural runoff
☐ Other(s), specify: Click to enter text.

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☐ Other(s), specify: Click to enter text.

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

Required for new applications, major facilities, and applications adding an outfall.

Worksheet 2.1 is not required for discharges to intermittent streams or discharges directly to (or within 300 feet of) a classified segment.

N/A - Renewal

Section 1. General Information (Instructions Page 66)

Date of study: Click to enter text. Time of study: Click to enter text.

Stream name: Click to enter text.

Location: Click to enter text.

Type of stream upstream of existing discharge or downstream of proposed discharge (check one).

☐ Perennial ☐ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 66)

Number of stream bends that are well defined: Click to enter text.

Number of stream bends that are moderately defined: Click to enter text.

Number of stream bends that are poorly defined: Click to enter text.

Number of riffles: Click to enter text.

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

Indicate the observed stream uses and if there is evidence of flow fluctuations or channel obstruction/modification.

Click to enter text.

Stream transects

In the table below, provide the following information for each transect downstream of the existing or proposed discharges. Use a separate row for each transect.

Table 2.1(1) - Stream Transect Records

Stream type at transect Select riffle, run, glide, or pool. See Instructions, Definitions section.	**Transect location**	**Water surface width (ft)**	**Stream depths (ft)** at 4 to 10 points along each transect from the channel bed to the water surface. Separate the measurements with commas.
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			

Section 3. Summarize Measurements (Instructions Page 66)

Streambed slope of entire reach, from USGS map in feet/feet: Click to enter text.

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): Click to enter text.

Length of stream evaluated, in feet: Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width, in feet: Click to enter text.

Average stream depth, in feet: Click to enter text.

Average stream velocity, in feet/second: Click to enter text.

Instantaneous stream flow, in cubic feet/second: Click to enter text.

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): Click to enter text.

Size of pools (large, small, moderate, none): Click to enter text.

Maximum pool depth, in feet: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

Section 1. Type of Disposal System (Instructions Page 68)

Identify the method of land disposal:

- ☐ Surface application
- ☒ Irrigation
- ☐ Drip irrigation system
- ☐ Evaporation
- ☐ Other (describe in detail): Click to enter text.
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system
- ☐ Evapotranspiration beds

NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.

For existing authorizations, provide Registration Number: Click to enter text.

Section 2. Land Application Site(s) (Instructions Page 68)

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Native Vegetation/Wheat Grass	50	Does not exceed 3.92 ac-ft/ac/yr	N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 68)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
Facultative 1	1.95	14.57	505’ x 168’ x 12’ to 8’	Synthetic
Holding 1	1.55	11.55	505’ x 134’ x 10’	Synthetic

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.

Attachment: N/A

Section 4. Flood and Runoff Protection (Instructions Page 68)

Is the land application site within the 100-year frequency flood level?

☐ Yes ☒ No

If yes, describe how the site will be protected from inundation.

Click to enter text.

Provide the source used to determine the 100-year frequency flood level:

FEMA Flood Mapping

Provide a description of tailwater controls and rainfall run-on controls used for the land application site.

Irrigation will not occur during rainfall events.

Section 5. Annual Cropping Plan (Instructions Page 68)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment**: Attachment F

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

Section 6. Well and Map Information (Instructions Page 69)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: Attachment G

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1-mile radius of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
47923	Domestic	Y	Cased	Buffer

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
62965	Irrigation	Y	Cased	Buffer
72913	Stock	Y	Cased	Buffer
95279	Domestic	Y	Cased	Buffer
120114	Domestic	Y	Cased	Buffer
185707	Soil boring	N	Plugged	Buffer
188815	Domestic	Y	Cased	Buffer
195090	Irrigation	Y	Cased	Buffer
430284	Domestic	Y	Cased	Buffer
2436303	Industrial	Y	Cased	Buffer
2436304	Industrial	Y	Cased	Buffer
2436305	Industrial	Y	Cased	Buffer
2437102	Industrial	Y	Cased	Buffer
2437103	Public Supply	Y	Cased	Buffer
2437107	Public Supply	Y	Cased	Buffer
2437406	Public Supply	Y	Cased	Buffer

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

Attachment: Attachment G

Section 7. Groundwater Quality (Instructions Page 69)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

Attachment: Attachment H

Are groundwater monitoring wells available onsite? ☒ Yes ☐ No

Do you plan to install ground water monitoring wells or lysimeters around the land application site? ☐ Yes ☒ No

If yes, provide the proposed location of the monitoring wells or lysimeters on a site map.

Attachment: Click to enter text.

Section 8. Soil Map and Soil Analyses (Instructions Page 70)

A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

Attachment: Attachment I

B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

Attachment: Attachment I

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number
See Appendix I				

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☒ Yes ☐ No

If no, this section is not applicable and the worksheet is complete.

If yes, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

Table 3.0(5) – Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
June 2024	0.075	29.0	N/A	8.1	N/A	50
May 2024	0.070	52.5	N/A	8.5	N/A	50
April 2024	0.073	30.4	N/A	7.7	N/A	50

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
March 2024	0.075	24.1	N/A	7.8	N/A	50
February 2024	0.077	66.5	N/A	8.5	N/A	50
January 2024	0.081	38.5	N/A	7.9	N/A	50
December 2023	0.072	30.3	N/A	8.5	N/A	50
November 2023	0.071	53.5	N/A	8.3	N/A	50
October 2023	0.075	42.9	N/A	8.3	N/A	50
September 2023	0.076	23.5	N/A	8.4	N/A	50
August 2023	0.076	32.8	N/A	8.8	N/A	50
July 2023	0.074	37.5	N/A	8.6	N/A	50
June 2023	0.049	40.6	N/A	8.3	N/A	50
May 2023	0.071	77.9	N/A	7.7	N/A	50
April 2023	0.070	51.0	N/A	8.4	N/A	50
March 2023	0.065	77.3	N/A	8.5	N/A	50
February 2023	0.055	29.0	N/A	8.0	N/A	50
January 2023	0.048	31.8	N/A	8.1	N/A	50
December 2022	0.052	22.3	N/A	7.7	N/A	50
November 2022	0.055	17.2	N/A	8.8	N/A	50
October 2022	0.062	21.1	N/A	8.4	N/A	50
September 2022	0.067	18.7	N/A	9.2	N/A	50
August 2022	0.068	19.0	N/A	9.2	N/A	50
July 2022	0.063	57.5	N/A	9.0	N/A	50

Provide a discussion of all persistent excursions above the permitted limits and any corrective actions taken.

The Permit began operating in the Final Phase around March of 2023.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND DISPOSAL OF EFFLUENT

The following is required for new and major amendment permit applications. Renewal and minor amendment permit applications may be asked for this worksheet on a case by case basis.

N/A - Renewal

Section 1. Surface Disposal (Instructions Page 72)

Complete the item that applies for the method of disposal being used.

A. Irrigation

Area under irrigation, in acres: Click to enter text.

Design application frequency:

hours/day Click to enter text. **And** days/week Click to enter text.

Land grade (slope):

average percent (%): Click to enter text.

maximum percent (%): Click to enter text.

Design application rate in acre-feet/acre/year: Click to enter text.

Design total nitrogen loading rate, in lbs N/acre/year: Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Method of application: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

Attachment: Click to enter text.

B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations.

Attachment: Click to enter text.

C. Evapotranspiration beds

Number of beds: Click to enter text.

Area of bed(s), in acres: Click to enter text.

Depth of bed(s), in feet: Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds, in acre-feet: Click to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

Attachment: Click to enter text.

D. Overland flow

Area used for application, in acres: Click to enter text.

Slopes for application area, percent (%): Click to enter text.

Design application rate, in gpm/foot of slope width: Click to enter text.

Slope length, in feet: Click to enter text.

Design BOD_5 loading rate, in lbs BOD_5/acre/day: Click to enter text.

Design application frequency:

hours/day: Click to enter text. **And** days/week: Click to enter text.

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 73)

Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

☐ Yes ☐ No

If **yes**, is the facility located on the Edwards Aquifer Recharge Zone?

☐ Yes ☐ No

If yes, attach a geological report addressing potential recharge features.

Attachment: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SURFACE LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **does not meet** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.* **N/A - Renewal**

Section 1. Subsurface Application (Instructions Page 74)

Identify the type of system:

- ☐ Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
- ☐ Low Pressure Dosing
- ☐ Other, specify: Click to enter text.

Application area, in acres: Click to enter text.

Area of drainfield, in square feet: Click to enter text.

Application rate, in gal/square foot/day: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

Area of trench, in square feet: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Number of beds: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Infiltration rate, in inches/hour: Click to enter text.

Storage volume, in gallons: Click to enter text.

Area of bed(s), in square feet: Click to enter text.

Soil Classification: Click to enter text.

Attach a separate engineering report with the information required in *30 TAC § 309.20,* excluding the requirements of *§* 309.20 b(3)(A) and (B) design analysis which may be asked for on a case by case basis. Include a description of the schedule of dosing basin rotation.

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 74)

Is the subsurface system over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

☐ Yes ☐ No

Is the subsurface system over the Edwards Aquifer Transition Zone as mapped by TCEQ?

☐ Yes ☐ No

If yes to either question, the subsurface system may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team, at 512-239-4671, to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL (SADDS) LAND DISPOSAL OF EFFLUENT

The following **is required** for **new and major amendment** subsurface area drip dispersal system permit applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis. **N/A - Renewal**

NOTE: All applicants proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0. This worksheet applies to any subsurface disposal system that **meets** the definition of a subsurface area drip dispersal system as defined in *30 TAC Chapter 222, Subsurface Area Drip Dispersal System.*

Section 1. Administrative Information (Instructions Page 75)

A. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility:

B. Click to enter text. Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

☐ Yes ☐ No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the treatment facility is located.

Click to enter text.

C. Owner of the subsurface area drip dispersal system: Click to enter text.

D. Is the owner of the subsurface area drip dispersal system the same as the owner of the wastewater treatment facility or the site where the wastewater treatment facility is located?

☐ Yes ☐ No

If **no**, identify the names of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.C.

Click to enter text.

E. Owner of the land where the subsurface area drip dispersal system is located: Click to enter text.

F. Is the owner of the land where the subsurface area drip dispersal system is located the same as owner of the wastewater treatment facility, the site where the wastewater treatment facility is located, or the owner of the subsurface area drip dispersal system?

☐ Yes ☐ No

If **no**, identify the name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.E.

Click to enter text.

Section 2. Subsurface Area Drip Dispersal System (Instructions Page 75)

A. Type of system

☐ Subsurface Drip Irrigation

☐ Surface Drip Irrigation

☐ Other, specify: Click to enter text.

B. Irrigation operations

Application area, in acres: Click to enter text.

Infiltration Rate, in inches/hour: Click to enter text.

Average slope of the application area, percent (%): Click to enter text.

Maximum slope of the application area, percent (%): Click to enter text.

Storage volume, in gallons: Click to enter text.

Major soil series: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

C. Application rate

Is the facility located **west** of the boundary shown in *30 TAC § 222.83* **and** also using a vegetative cover of non-native grasses over seeded with cool season grasses during the winter months (October-March)?

☐ Yes ☐ No

If yes, then the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.

Is the facility located **east** of the boundary shown in *30 TAC § 222.83* **or** in any part of the state when the vegetative cover is any crop other than non-native grasses?

☐ Yes ☐ No

If **yes**, the facility must use the formula in *30 TAC §222.83* to calculate the maximum hydraulic application rate.

Do you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director?

☐ Yes ☐ No

Hydraulic application rate, in gal/square foot/day: Click to enter text.

Nitrogen application rate, in lbs/gal/day: Click to enter text.

D. Dosing information

Number of doses per day: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Rest period between doses, in hours: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Number of zones: Click to enter text.

Does the proposed subsurface drip irrigation system use tree vegetative cover as a crop?

☐ Yes ☐ No

If **yes**, provide a vegetation survey by a certified arborist. Please call the Water Quality Assessment Team at (512) 239-4671 to schedule a pre-application meeting.

Attachment: Click to enter text.

Section 3. Required Plans (Instructions Page 75)

A. Recharge feature plan

Attach a Recharge Feature Plan with all information required in *30 TAC §222.79*.

Attachment: Click to enter text.

B. Soil evaluation

Attach a Soil Evaluation with all information required in *30 TAC §222.73*.

Attachment: Click to enter text.

C. Site preparation plan

Attach a Site Preparation Plan with all information required in *30 TAC §222.75*.

Attachment: Click to enter text.

D. Soil sampling/testing

Attach soil sampling and testing that includes all information required in *30 TAC §222.157*.

Attachment: Click to enter text.

Section 4. Floodway Designation (Instructions Page 76)

A. Site location

Is the existing/proposed land application site within a designated floodway?

☐ Yes ☐ No

B. Flood map

Attach either the FEMA flood map or alternate information used to determine the floodway.

Attachment: Click to enter text.

Section 5. Surface Waters in the State (Instructions Page 76)

A. Buffer Map

Attach a map showing appropriate buffers on surface waters in the state, water wells, and springs/seeps.

Attachment: Click to enter text.

B. Buffer variance request

Do you plan to request a buffer variance from water wells or waters in the state?

☐ Yes ☐ No

If yes, then attach the additional information required in *30 TAC § 222.81(c).*

Attachment: Click to enter text.

Section 6. Edwards Aquifer (Instructions Page 76)

A. Is the SADDS located over the Edwards Aquifer Recharge Zone as mapped by TCEQ?

☐ Yes ☐ No

B. Is the SADDS located over the Edwards Aquifer Transition Zone as mapped by TCEQ?

☐ Yes ☐ No

If yes to either question, then the SADDS may be prohibited by *30 TAC §213.8*. Please call the Municipal Permits Team at 512-239-4671 to schedule a pre-application meeting.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required minor amendments without renewal. **N/A - Flow**

Section 1. Toxic Pollutants (Instructions Page 78)

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

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) **(*1)**				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide **(*2)**				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Polychlorinated Biphenyls (PCB's) **(*3)**				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)A – Metals, Cyanide, and Phenols

Pollutant	**AVG Effluent Conc. (µg/l)**	**MAX Effluent Conc. (µg/l)**	**Number of Samples**	**MAL (µg/l)**
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) **(*1)**				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide **(*2)**				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a “<”.

Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

☐ 2,4,5-trichlorophenoxy acetic acid

Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid

Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate

Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate

Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol

Common Name TCP, CASRN 95-95-4

☐ hexachlorophene

Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

Click to enter text.

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

☐ Yes ☐ No

If **yes**, provide a brief description of the conditions for its presence.

Click to enter text.

C. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)F – Dioxin/Furan Compounds

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

The following **is required** for facilities with a current operating design flow of **1.0 MGD or greater**, with an EPA-approved **pretreatment** program (or those required to have one under 40 CFR Part 403), or are required to perform Whole Effluent Toxicity testing. See instructions for further details.

N/A - Flow

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests (Instructions Page 88)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: Click to enter text.

48-hour Acute: Click to enter text.

Section 2. Toxicity Reduction Evaluations (TREs)

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Summary of WET Tests

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

Table 5.0(1) Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works**.

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

☐ Yes ☒ No

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click to enter text.

C. Treatment plant pass through

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

☐ Yes ☒ No

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

Click to enter text.

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 90)

A. Substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

B. Non-substantial modifications

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

☐ Yes ☐ No

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

Click to enter text.

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 90)

A. General information

Company Name: N/A – No Industrial Users

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

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

Click to enter text.

C. Product and service information

Provide a description of the principal product(s) or services performed.

Click to enter text.

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the *i*nstructions?

☐ Yes ☐ No

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

☐ Yes ☐ No

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: Subcategories: Click to enter text.

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

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

Category: Click to enter text.

Subcategories: Click to enter text.

F. Industrial user interruptions

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

☐ Yes ☐ No

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

Click to enter text.

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only
Reg. No._____
Date Received_____
Date Authorized_____

N/A - TLAP

Section 1. General Information (Instructions Page 92)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): Click to enter text.

Program ID: Click to enter text.

Contact Name: Click to enter text.

Phone Number: Click to enter text.

2. Agent/Consultant Contact Information

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

3. Owner/Operator Contact Information

☐ Owner ☐ Operator

Owner/Operator Name: Click to enter text.

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

4. Facility Contact Information

Facility Name: Click to enter text.

Address: Click to enter text.

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

Location description (if no address is available): Click to enter text.

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

5. **Latitude and Longitude, in degrees-minutes-seconds**

Latitude: Click to enter text.

Longitude: Click to enter text.

Method of determination (GPS, TOPO, etc.): Click to enter text.

Attach topographic quadrangle map as attachment A.

6. **Well Information**

Type of Well Construction, select one:

- ☐ Vertical Injection
- ☐ Subsurface Fluid Distribution System
- ☐ Infiltration Gallery
- ☐ Temporary Injection Points
- ☐ Other, Specify: Click to enter text.

Number of Injection Wells: Click to enter text.

7. **Purpose**

Detailed Description regarding purpose of Injection System:

Click to enter text.

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. **Water Well Driller/Installer**

Water Well Driller/Installer Name: Click to enter text.

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

Phone Number: Click to enter text.

License Number: Click to enter text.

Section 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Table 7.0(1) – Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Cement	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Section 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: Click to enter text.

System(s) Construction: Click to enter text.

Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: Click to enter text.

2. Receiving Formation Name of Injection Zone: Click to enter text.

3. Well/Trench Total Depth: Click to enter text.

4. Surface Elevation: Click to enter text.

5. Depth to Ground Water: Click to enter text.

6. Injection Zone Depth: Click to enter text.

7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: Click to enter text.

Thickness: Click to enter text.

8. Provide a list of contaminants and the levels (ppm) in contaminated aquifer

Attach as Attachment E.

9. Horizontal and Vertical extent of contamination and injection plume

Attach as Attachment F.

10. Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc.

Attach as Attachment G.

11. Injection Fluid Chemistry in PPM at point of injection

Attach as Attachment H.

12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: Click to enter text.

13. Maximum injection Rate/Volume/Pressure: Click to enter text.

14. Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.

15. Injection wells within 1/4 mile radius (attach map as Attachment J): Click to enter text.

16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): Click to enter text.

17. Sampling frequency: Click to enter text.

18. Known hazardous components in injection fluid: Click to enter text.

Section 5. Site History

1. Type of Facility: Click to enter text.
2. Contamination Dates: Click to enter text.
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations (attach as Attachment L): Click to enter text.
4. Previous Remediation (attach results of any previous remediation as attachment M): Click to enter text.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Class V Injection Well Designations

5A07 Heat Pump/AC return (IW used for groundwater to heat and/or cool buildings)
5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
5D02 Storm Water Drainage (IW designed for the disposal of rain water)
5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
5F01 Agricultural Drainage (IW that receive agricultural runoff)
5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
5S23 Subsidence Control Wells (IW used to control land subsidence caused by ground water withdrawal)
5W09 Untreated Sewage
5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
5W12 WTTP disposal
5W20 Industrial Process Waste Disposal Wells
5W31 Septic System (Well Disposal method)
5W32 Septic System Drainfield Disposal
5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, and/or fill sections of a mine)
5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
5X27 Other Wells
5X28 Motor Vehicle Waste Disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
5X29 Abandoned Drinking Water Wells (waste disposal)

Attachment A

Core Data Form

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☒ Renewal *(Core Data Form should be submitted with the renewal form)*

☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600741110		**RN 101916955**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

City of Sundown

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

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☐ **Yes** ☒ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

PO Box 600

City	Sundown	**State**	TX	**ZIP**	79372	**ZIP + 4**	0600

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	billy@sundowntx.com

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

(806) 229-3131		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

City of Sundown Wastewater Treatment Plant

23. Street Address of the Regulated Entity: ***(No PO Boxes)***								
	City		**State**		**ZIP**		**ZIP + 4**	
24. County								

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

25. Description to Physical Location:	1 mile northwest of the intersection of FM 301 and FM 303 in Hockley County, Texas.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Sundown			TX	79372	

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

27. Latitude (N) In Decimal:	33.469483		**28. Longitude (W) In Decimal:**	-102.49444	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
33	28	10	102	29	40

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

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

Domestic wastewater treatment

34. Mailing Address:	**PO Box 600**							
	City	**Sundown**	**State**	**TX**	**ZIP**	**79372**	**ZIP + 4**	**600**
35. E-Mail Address:	**billy@sundowntx.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(806) 229-3131		( ) -

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0011253001			

SECTION IV: Preparer Information

40. Name:	Paul Krueger, PE		41. Title:	Civil Engineer
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**	
(806) 473-2200		( ) -	pkrueger@parkhill.com	

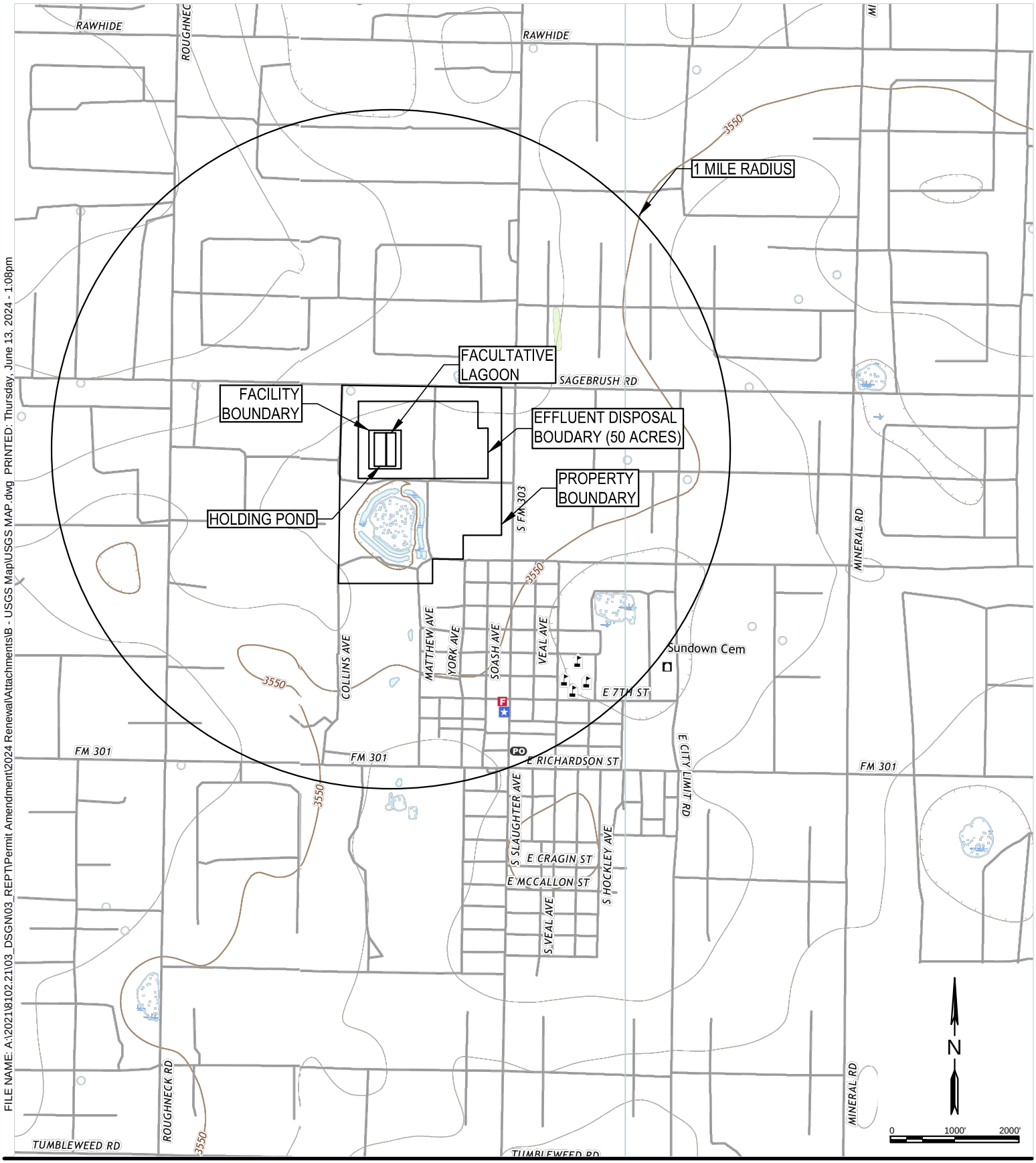
SECTION V: Authorized Signature

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:	City of Sundown	Job Title:	City Administrator	
Name *(In Print)*:	Billy Hernandez		Phone:	(806) 229- 3131
Signature:			Date:	11-1-2024

Attachment B

USGS Map



FILE NAME: A:\2021\8102.21\03_DSGN\03_REPT\Permit Amendment\2024 Renewal\Attachments\B - USGS Map\USGS MAP .dwg PRINTED: Thursday, June 13, 2024 - 1:08pm

Parkhill

Parkhill.com

CITY OF SUNDOWN WWTP

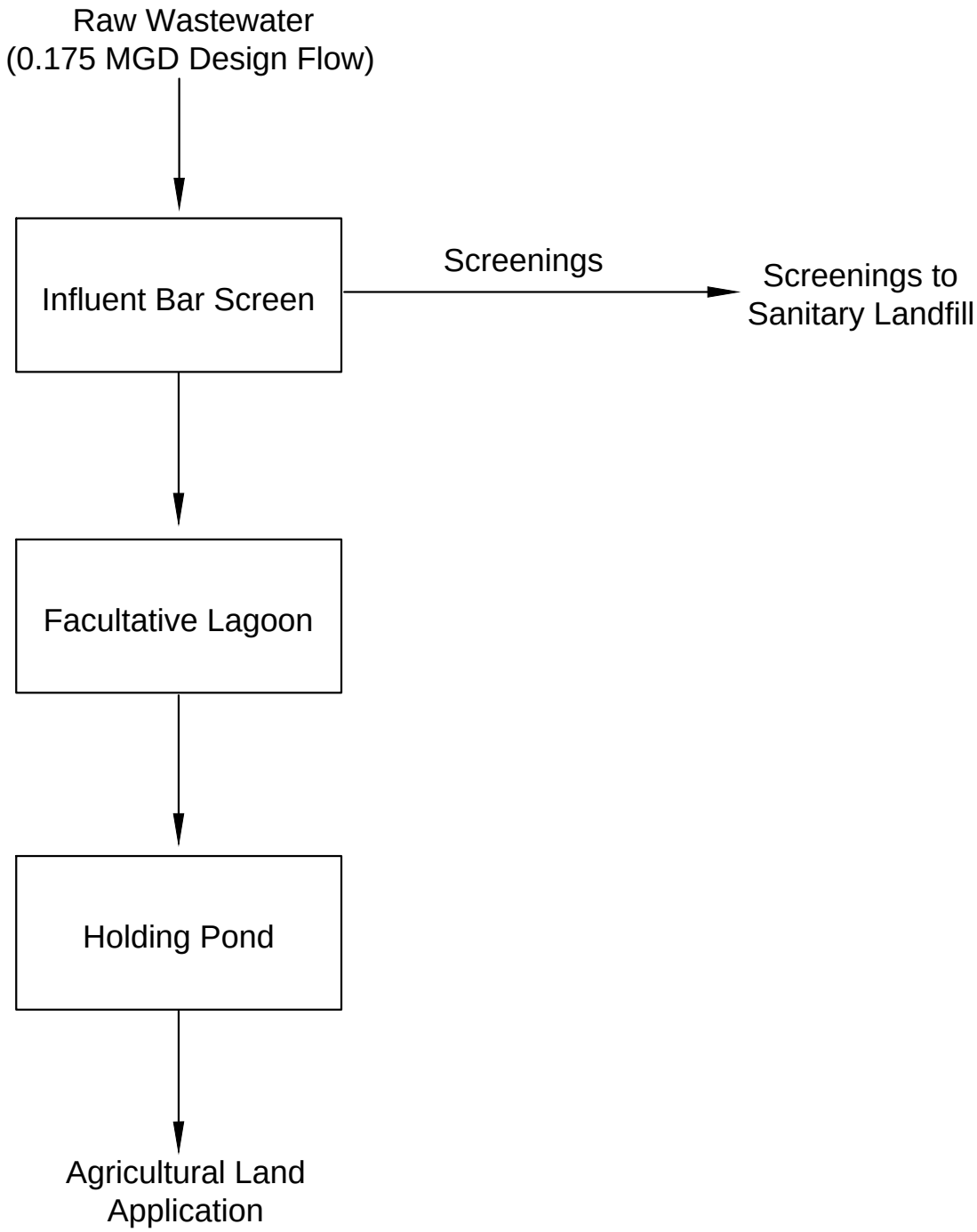
PO Box 600
Sundown, TX 79372

USGS MAP
Appendix B

Issue:	
Date:	06/13/2024
Project No:	8102.21
Sheet:	1 OF 1

Attachment C

Flow Diagram



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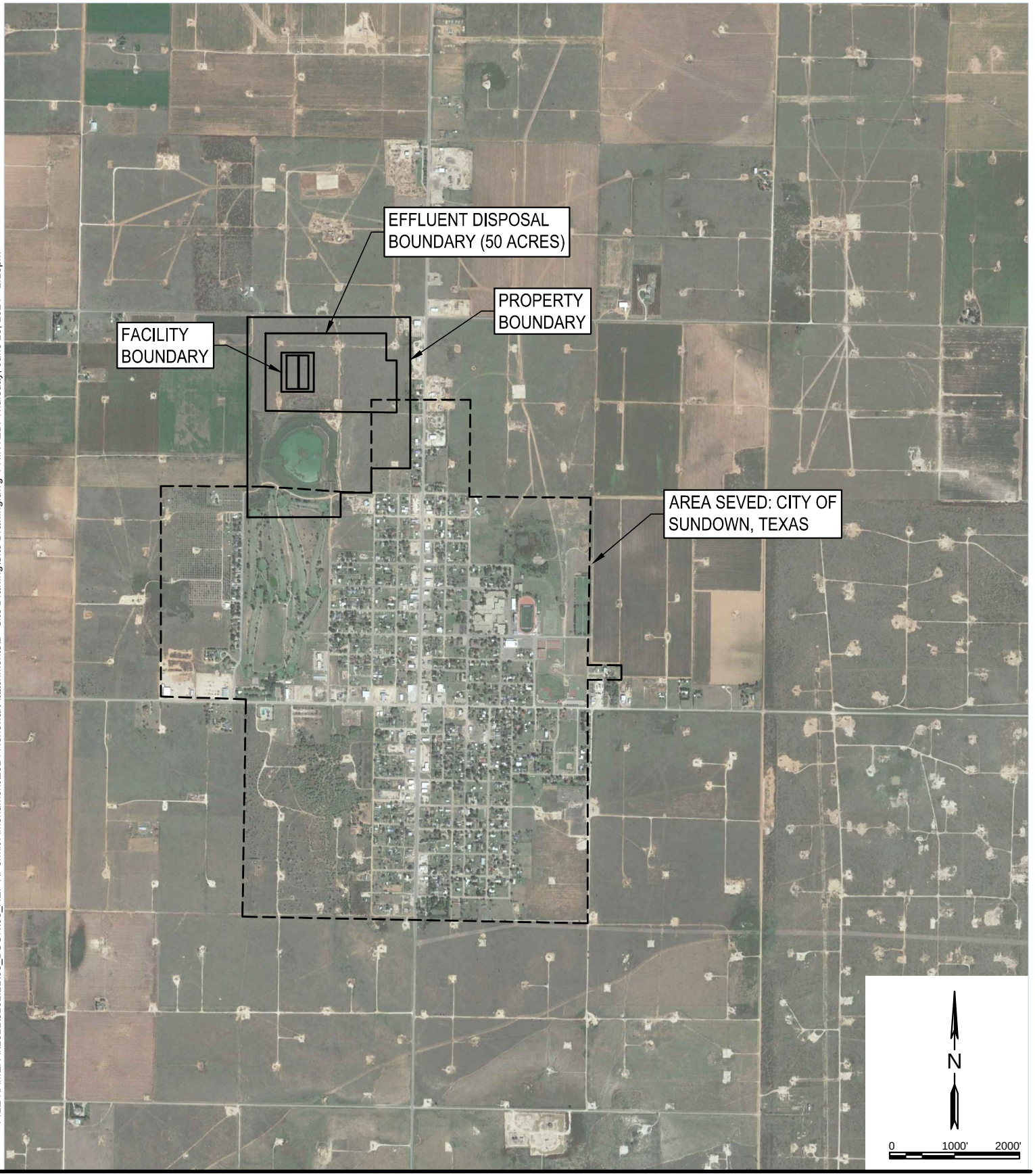
City of Sundown WWTP

Appendix C
Flow Diagram

Issue:	
Date:	06/13/2024
Project No:	8102.21
Sheet:	2 of 2

Attachment D

Site Drawing



FILE NAME: A:\2021\8102.21\03_DSGN\03_REPT\Permit Amendment\2024 Renewal\Attachments\D - Site Drawing\Site Drawing.dwg PRINTED: Thursday, June 13, 2024 - 1:18pm

Parkhill

Parkhill.com

CITY OF SUNDOWN WWTP

PO Box 600
Sundown, TX 79372

SITE DRAWING
APPENDIX D

Issue:	
Date:	06/13/2024
Project No:	8102.21
Sheet:	1 OF 1

Attachment E

Pollutant Analysis

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Lee Torrez
City of Sundown
PO BOX 600
Sundown, Texas 79372

Generated 8/14/2024 5:13:33 PM

JOB DESCRIPTION

Pollutant Analysis
Wastewater Plant

JOB NUMBER

820-14493-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

myEOL

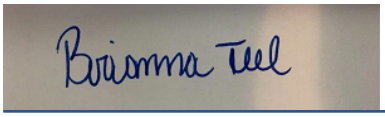
Eurofins Lubbock

Job Notes

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

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Generated
8/14/2024 5:13:33 PM

Authorized for release by
Brianna Teel, Project Manager
Brianna.Teel@et.eurofinsus.com
(432)704-5440

Eurofins Lubbock

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD,and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs

· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions

· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification # 02015.
VL = field staff performs tests under NJ State certification # 06005.
WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.
H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).

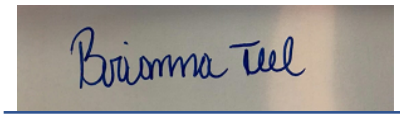


Table of Contents

Definitions/Glossary

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
820-14493-1

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

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

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

Receipt
The sample was received on 7/31/2024 12:54 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.1°C.

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

General Chemistry
Method 2540D: The Laboratory Control Standard (LCS) was not included in the current batch. Compliance with reference method necessitates the inclusion of the LCS in every batch to ensure accurate and reliable results. All samples were analyzed in accordance with the prescribed procedures and protocols.

Pollutant Analysis (820-14493-1), (MB 860-179908/1), (860-79435-B-3), (860-79435-B-3 DU), (860-79435-B-4) and (860-79435-B-4 DU)

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

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Client Sample ID: Pollutant Analysis

Date Collected: 07/31/24 12:02
Date Received: 07/31/24 12:54

Lab Sample ID: 820-14493-1

Matrix: Water

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**418**		5.00		mg/L			08/01/24 18:55	10
Nitrate as N	<0.100	U	0.100		mg/L			08/01/24 18:48	1
Nitrite as N	<0.100	U	0.100		mg/L			08/01/24 18:48	1
Sulfate	**194**		0.500		mg/L			08/01/24 18:48	1
Nitrate Nitrite as N	<0.100	U	0.100		mg/L			08/01/24 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (1664B)	<5.00	U	5.00		mg/L			08/07/24 07:47	1
Ammonia (EPA 350.1)	**4.37**		0.100		mg/L			08/03/24 18:24	1
Nitrogen, Kjeldahl (EPA 351.2)	**33.5**		2.00		mg/L		08/03/24 17:40	08/06/24 15:20	10
Phosphorus Total (EPA 365.1)	**4.54**		0.200		mg/L			08/13/24 23:11	10
Phosphorus Total (EPA 365.1)	**4.54**		0.200		mg/L			08/13/24 23:11	10
Specific Conductance (SM 2510B)	**2490**		10.0		umho/cm @ 25C			08/02/24 15:19	1
Total Dissolved Solids (SM 2540C)	**1730**		20.0		mg/L			08/07/24 13:06	1
Total Suspended Solids (SM 2540D)	**28.5**		20.0		mg/L			08/06/24 16:45	1
pH (SM 4500 H+ B)	**8.6**	**HF**			SU			08/02/24 15:19	1
Temperature (SM 4500 H+ B)	**18.7**	**HF**			Degrees C			08/02/24 15:19	1
Carbonaceous Biochemical Oxygen Demand (SM5210B CBOD)	**14.4**		6.00		mg/L		08/01/24 13:40	08/01/24 14:04	1
Nitrogen, Total (EPA Total Nitrogen)	**33.5**		0.200		mg/L			08/12/24 13:11	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-178986/3
Matrix: Water
Analysis Batch: 178986

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.500	U	0.500		mg/L			08/01/24 12:52	1
Sulfate	<0.500	U	0.500		mg/L			08/01/24 12:52	1

Lab Sample ID: LCS 860-178986/4
Matrix: Water
Analysis Batch: 178986

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	9.376		mg/L		94	90 - 110		
Sulfate			10.0	9.897		mg/L		99	90 - 110		

Lab Sample ID: LCSD 860-178986/5
Matrix: Water
Analysis Batch: 178986

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.369		mg/L		94	90 - 110	0	20
Sulfate			10.0	9.897		mg/L		99	90 - 110	0	20

Lab Sample ID: LLCS 860-178986/7
Matrix: Water
Analysis Batch: 178986

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

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.4707	J	mg/L		94	50 - 150		
Sulfate			0.500	0.6459		mg/L		129	50 - 150		

Lab Sample ID: MB 860-178987/3
Matrix: Water
Analysis Batch: 178987

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100	U	0.100		mg/L			08/01/24 12:52	1
Nitrite as N	<0.100	U	0.100		mg/L			08/01/24 12:52	1
Nitrate Nitrite as N	<0.100	U	0.100		mg/L			08/01/24 12:52	1

Lab Sample ID: LCS 860-178987/4
Matrix: Water
Analysis Batch: 178987

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			10.0	9.858		mg/L		99	90 - 110		
Nitrite as N			10.0	9.897		mg/L		99	90 - 110		

Lab Sample ID: LCSD 860-178987/5
Matrix: Water
Analysis Batch: 178987

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			10.0	9.852		mg/L		99	90 - 110	0	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 860-178987/5
Matrix: Water
Analysis Batch: 178987

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N			10.0	9.898		mg/L		99	90 - 110	0	20

Lab Sample ID: LLCS 860-178987/6
Matrix: Water
Analysis Batch: 178987

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

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			0.100	0.1113		mg/L		111	50 - 150		
Nitrite as N			0.100	0.1141		mg/L		114	50 - 150		

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 860-179999/1
Matrix: Water
Analysis Batch: 179999

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<5.00	U	5.00		mg/L			08/07/24 07:47	1

Lab Sample ID: LCS 860-179999/2
Matrix: Water
Analysis Batch: 179999

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
HEM			40.0	37.20		mg/L		93	78 - 114		

Lab Sample ID: LCSD 860-179999/3
Matrix: Water
Analysis Batch: 179999

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM			40.0	40.00		mg/L		100	78 - 114	7	18

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 860-179531/16
Matrix: Water
Analysis Batch: 179531

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.100	U	0.100		mg/L			08/03/24 14:17	1

Lab Sample ID: MB 860-179531/95
Matrix: Water
Analysis Batch: 179531

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.100	U	0.100		mg/L			08/03/24 18:02	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 860-179531/96
Matrix: Water
Analysis Batch: 179531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	1.00	0.9446		mg/L		94	90 - 110

Lab Sample ID: LCSD 860-179531/97
Matrix: Water
Analysis Batch: 179531

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Ammonia	1.00	0.9809		mg/L		98	90 - 110	4	20

Lab Sample ID: LLCS 860-179531/17
Matrix: Water
Analysis Batch: 179531

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	0.100	0.07660	J	mg/L		77	50 - 150

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 860-179405/32-A
Matrix: Water
Analysis Batch: 179904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 179405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.200	U	0.200		mg/L		08/03/24 17:40	08/06/24 14:56	1

Lab Sample ID: MB 860-179405/4-A
Matrix: Water
Analysis Batch: 179904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 179405

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.200	U	0.200		mg/L		08/03/24 17:39	08/06/24 14:43	1

Lab Sample ID: LCS 860-179405/33-A
Matrix: Water
Analysis Batch: 179904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 179405

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	2.00	1.998		mg/L		100	90 - 110

Lab Sample ID: LCSD 860-179405/34-A
Matrix: Water
Analysis Batch: 179904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 179405

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	2.00	1.996		mg/L		100	90 - 110	0	20

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCSD 860-179405/7-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 179904 — **Prep Batch: 179405**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	2.00	2.052		mg/L		103	90 - 110	3	20

Lab Sample ID: LLCS 860-179405/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 179904 — **Prep Batch: 179405**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	0.200	0.2230		mg/L		111	50 - 150

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 860-181419/161 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 181419

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus Total	<0.0200	U	0.0200		mg/L			08/13/24 21:18	1

Lab Sample ID: LCS 860-181419/162 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 181419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phosphorus Total	0.250	0.2550		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-181419/163 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 181419

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phosphorus Total	0.250	0.2500		mg/L		100	90 - 110	2	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 860-179279/30 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 179279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	<10.0	U	10.0		umho/cm @ 25C			08/02/24 14:49	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 860-180079/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 180079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<5.00	U	5.00		mg/L			08/07/24 13:06	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 860-180079/2
Matrix: Water
Analysis Batch: 180079

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	905.0		mg/L		91	80 - 120

Lab Sample ID: LLCS 860-180079/3
Matrix: Water
Analysis Batch: 180079

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

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	5.00	7.000		mg/L		140	50 - 150

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 860-179908/1
Matrix: Water
Analysis Batch: 179908

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<4.00	U	4.00		mg/L			08/06/24 16:45	1

Method: SM5210B CBOD - Carbonaceous BOD, 5 Day

Lab Sample ID: SCB 860-180096/2
Matrix: Water
Analysis Batch: 180096

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

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonaceous Biochemical Oxygen Demand	0.9120		0.0000020 0		mg/L			08/01/24 13:41	1

Lab Sample ID: USB 860-180096/1
Matrix: Water
Analysis Batch: 180096

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

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonaceous Biochemical Oxygen Demand	<0.00000200	U	0.0000020 0		mg/L			08/01/24 13:40	1

Lab Sample ID: LCS 860-180096/3
Matrix: Water
Analysis Batch: 180096

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbonaceous Biochemical Oxygen Demand	198	190.0		mg/L		96	85 - 115

HPLC/IC

Analysis Batch: 178986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	300.0	
820-14493-1	Pollutant Analysis	Total/NA	Water	300.0	
MB 860-178986/3	Method Blank	Total/NA	Water	300.0	
LCS 860-178986/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-178986/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-178986/7	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 178987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	300.0	
MB 860-178987/3	Method Blank	Total/NA	Water	300.0	
LCS 860-178987/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 860-178987/5	Lab Control Sample Dup	Total/NA	Water	300.0	
LLCS 860-178987/6	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry

Prep Batch: 179027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	BOD Prep	

Analysis Batch: 179279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	SM 2510B	
MB 860-179279/30	Method Blank	Total/NA	Water	SM 2510B	
LCS 860-179279/31	Lab Control Sample	Total/NA	Water	SM 2510B	
LCSD 860-179279/32	Lab Control Sample Dup	Total/NA	Water	SM 2510B	
LLCS 860-179279/34	Lab Control Sample	Total/NA	Water	SM 2510B	

Analysis Batch: 179280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 179405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	351.2	
MB 860-179405/32-A	Method Blank	Total/NA	Water	351.2	
MB 860-179405/4-A	Method Blank	Total/NA	Water	351.2	
LCS 860-179405/33-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 860-179405/34-A	Lab Control Sample Dup	Total/NA	Water	351.2	
LCSD 860-179405/7-A	Lab Control Sample Dup	Total/NA	Water	351.2	
LLCS 860-179405/5-A	Lab Control Sample	Total/NA	Water	351.2	

Analysis Batch: 179531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	350.1	
MB 860-179531/16	Method Blank	Total/NA	Water	350.1	
MB 860-179531/95	Method Blank	Total/NA	Water	350.1	
LCS 860-179531/96	Lab Control Sample	Total/NA	Water	350.1	
LCSD 860-179531/97	Lab Control Sample Dup	Total/NA	Water	350.1	
LLCS 860-179531/17	Lab Control Sample	Total/NA	Water	350.1	

General Chemistry

Analysis Batch: 179904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	351.2	179405
MB 860-179405/32-A	Method Blank	Total/NA	Water	351.2	179405
MB 860-179405/4-A	Method Blank	Total/NA	Water	351.2	179405
LCS 860-179405/33-A	Lab Control Sample	Total/NA	Water	351.2	179405
LCSD 860-179405/34-A	Lab Control Sample Dup	Total/NA	Water	351.2	179405
LCSD 860-179405/7-A	Lab Control Sample Dup	Total/NA	Water	351.2	179405
LLCS 860-179405/5-A	Lab Control Sample	Total/NA	Water	351.2	179405

Analysis Batch: 179908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	SM 2540D	
MB 860-179908/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 179999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	1664B	
MB 860-179999/1	Method Blank	Total/NA	Water	1664B	
LCS 860-179999/2	Lab Control Sample	Total/NA	Water	1664B	
LCSD 860-179999/3	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 180079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	SM 2540C	
MB 860-180079/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 860-180079/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LLCS 860-180079/3	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 180087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	Total Nitrogen	

Analysis Batch: 180096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	SM5210B CBOD	179027
SCB 860-180096/2	Method Blank	Total/NA	Water	SM5210B CBOD	
USB 860-180096/1	Method Blank	Total/NA	Water	SM5210B CBOD	
LCS 860-180096/3	Lab Control Sample	Total/NA	Water	SM5210B CBOD	

Analysis Batch: 181419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-14493-1	Pollutant Analysis	Total/NA	Water	365.1	
MB 860-181419/161	Method Blank	Total/NA	Water	365.1	
LCS 860-181419/162	Lab Control Sample	Total/NA	Water	365.1	
LCSD 860-181419/163	Lab Control Sample Dup	Total/NA	Water	365.1	

Lab Chronicle

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Client Sample ID: Pollutant Analysis

Date Collected: 07/31/24 12:02
Date Received: 07/31/24 12:54

Lab Sample ID: 820-14493-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			178986	08/01/24 18:48	YG	EET HOU
Total/NA	Analysis	300.0		1			178987	08/01/24 18:48	YG	EET HOU
Total/NA	Analysis	300.0		10			178986	08/01/24 18:55	YG	EET HOU
Total/NA	Analysis	1664B		1	1000 mL	1000 mL	179999	08/07/24 07:47	TB	EET HOU
Total/NA	Analysis	350.1		1	10 mL	10 mL	179531	08/03/24 18:24	BW	EET HOU
Total/NA	Prep	351.2			20 mL	20 mL	179405	08/03/24 17:40	MLEI	EET HOU
Total/NA	Analysis	351.2		10			179904	08/06/24 15:20	HN	EET HOU
Total/NA	Analysis	365.1		10	10 mL	10 mL	181419	08/13/24 23:11	BW	EET HOU
Total/NA	Analysis	SM 2510B		1			179279	08/02/24 15:19	MR	EET HOU
Total/NA	Analysis	SM 2540C		1	50 mL	200 mL	180079	08/07/24 13:06	TR	EET HOU
Total/NA	Analysis	SM 2540D		1	200 mL	1000 mL	179908	08/06/24 16:45	NR	EET HOU
Total/NA	Analysis	SM 4500 H+ B		1			179280	08/02/24 15:19	MR	EET HOU
Total/NA	Prep	BOD Prep					179027	08/01/24 13:40	ALL	EET HOU
Total/NA	Analysis	SM5210B CBOD		1	100 mL	300 mL	180096	08/01/24 14:04	ALL	EET HOU
Total/NA	Analysis	Total Nitrogen		1			180087	08/12/24 13:11	MC	EET HOU

Laboratory References:

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

Accreditation/Certification Summary

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Laboratory: Eurofins Houston

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-25
Florida	NELAP	E871002	06-30-25
Louisiana (All)	NELAP	03054	06-30-25
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215	06-30-25
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Method Summary

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
1664B	HEM and SGT-HEM	1664B	EET HOU
350.1	Nitrogen, Ammonia	EPA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
365.1	Phosphorus, Total	EPA	EET HOU
SM 2510B	Conductivity, Specific Conductance	SM	EET HOU
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET HOU
SM 2540D	Solids, Total Suspended (TSS)	SM	EET HOU
SM 4500 H+ B	pH	SM	EET HOU
SM5210B CBOD	Carbonaceous BOD, 5 Day	SM	EET HOU
Total Nitrogen	Nitrogen, Total	EPA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
BOD Prep	Preparation, BOD	SM	EET HOU

Protocol References:

1664B = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

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

Sample Summary

Client: City of Sundown
Project/Site: Pollutant Analysis

Job ID: 820-14493-1
SDG: Wastewater Plant

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-14493-1	Pollutant Analysis	Water	07/31/24 12:02	07/31/24 12:54

Loc: 820
14493

ins | Environment Testing Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-14493 Chain of Custody

www.xenco.com Page _____ of _____

Project Manager:	Lee Torrez	Bill to: (if different)	Attn: Sylvia Garza
Company Name:	City of Sundown	Company Name:	City of Sundown
Address:	809 S. Slaughter	Address:	P.O. Box 600
City, State ZIP:	Sundown, Tx. 79372	City, State ZIP:	Sundown, Tx. 79372
Phone:	806-229-3131	Email:	lee@sundowntx.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Pollutant Analysis	Turn Around	
Project Number:		☑ Routine ☐ Rush	
Project Location:	Wastewater Plant	Due Date:	
Sampler's Name:	Lee Torrez	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR-4
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	6.3
Total Containers:	1	Corrected Temperature:	6.1

7/31/24

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: See attached ✓	Sample Comments
Pollutant Analysis		7-31-24	1202			7		

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Teddy Randell Lo	7-31-24 1254	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Chlorine Residual, mg/l					
E.coli (CFU/100ml) freshwater					
Total Dissolved Solids, mg/l					
Electrical Conductivity, µmohs/cm, †					
Oil & Grease, mg/l					

Eurofins Lubbock
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

Chain of Custody Record

eurofins Environment Testing

8/14/2024

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Teel, Brianna	Carrier Tracking No(s):	COC No: 820-9682.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Brianna.Teel@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 820-14493-1
Address: 4145 Greenbriar Dr	Due Date Requested: 8/7/2024			Preservation Codes:
City: Stafford	TAT Requested (days):			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #:			
Email:	WO #:			
Project Name: Pollutant Analysis	Project #: 82000251			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540D	350.1/ Ammonia	300_ORGFMS/ (MOD) Custom List	300_ORGFM_28D/ (MOD) Custom List	351.2/351.2_Prep Total Kjeldahl Nitrogen (TKN)	365.1/365_Prep Total Phosphorus as P	SM4500_H+/ pH and Temperature	2540C_Calcd	2510B/ Specific Conductance	1664B_NP/ HEM Only	Nitrogen,Total	SM5210B_CBODCalc/BOD_Prep CBOD	365.1_NP/ (MOD) Copy Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
Pollutant Analysis (820-14493-1)	7/31/24	12:02 Central		Water			X	X	X	X	X	X	X	X	X	X	X	X	X	5	

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

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

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

Relinquished by:	Date/Time: 7/31/24 1700	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8-1-24 0414	Company E

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 2.2° AND 3.0°

Ver 04/02/2024

Login Sample Receipt Checklist

Client: City of Sundown

Job Number: 820-14493-1
SDG Number: Wastewater Plant

Login Number: 14493
List Number: 1
Creator: Lee, Randell

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: City of Sundown

Job Number: 820-14493-1
SDG Number: Wastewater Plant

Login Number: 14493
List Number: 2
Creator: Grandits, Corey

List Source: Eurofins Houston
List Creation: 08/01/24 11:08 AM

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

Attachment F

Annual Cropping Plan

Attachment F
Annual Cropping Plan

A. See the Attached Soil Map (Attachment I)

B. The Native Grasses & Jose Wheatgrass with account for both the cool and warm season plant species.

C. N/A

D. Typical Annual Growing Season is as follows:

Month	Native Grasses & Jose Wheatgrass
January	X
February	X
March	X
April	X
May	X
June	X
July	X
August	X
September	X
October	X
November	X
December	X

E. The City of Sundown will provide the essential nutrients required to keep the crop in good health which includes Nitrogen, Phosphorus, Potassium, Sulfur, Magnesium, Calcium, Zinc and Boron.

F. There is no minimum harvest height. Crops will be harvested as-needed.

G. The crop will not need any supplementary watering requirements.

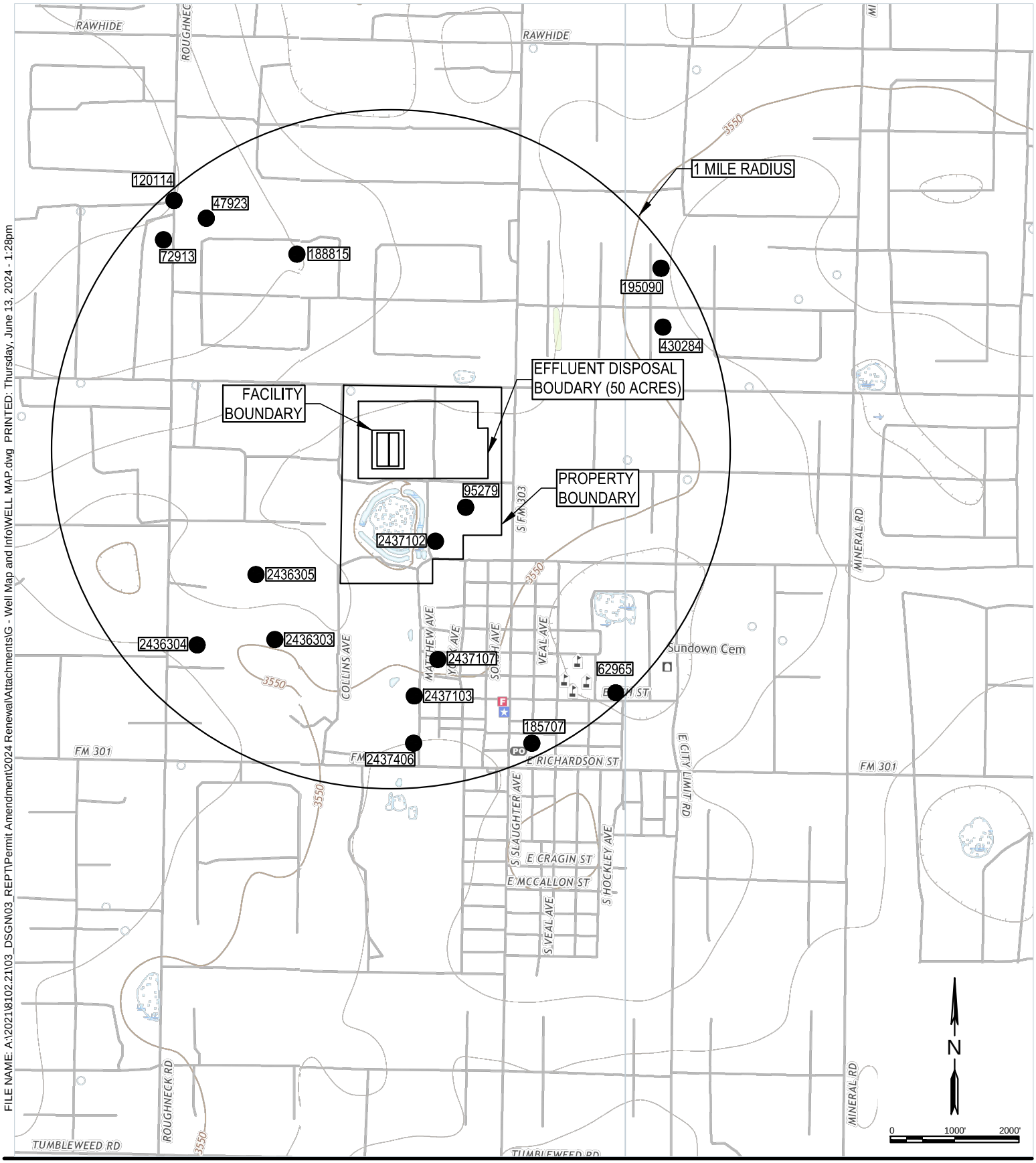
H. According to table 3 of TAC 309.20, Wheat Grasses are a relatively salt tolerant crop with 6.0-8.0 millimhos/cm @ 25° C.

I. The land application area will be mowed as necessary.

J. N/A

Attachment G

Well Map and Information



FILE NAME: A:\2021\8102.21\03_DSGN\03_REPT\Permit Amendment\2024 Renewal\Attachments\G - Well Map and Info\WELL MAP.dwg PRINTED: Thursday, June 13, 2024 - 1:28pm

Parkhill

Parkhill.com

CITY OF SUNDOWN WWTP

PO Box 600
Sundown, TX 79372

WELL MAP
Appendix G

Issue:	
Date:	06/13/2024
Project No:	8102.21
Sheet:	1 OF 1

STATE OF TEXAS WELL REPORT for Tracking #47923

Owner:	**Delvin Webber**	Owner Well #:	**No Data**
Address:	**Box 73** **White Face, TX 79379**	Grid #:	**24-36-3**
Well Location:	**3236 West Hwy 114** **Levelland, TX 79379**	Latitude:	**33° 28' 49" N**
		Longitude:	**102° 30' 20" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **10/28/2003** Drilling End Date: **10/29/2003**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8	**0**	**167**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
15	**152**	**Gravel**	

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**15**	**27**

Seal Method: **Unknown**

Sealed By: **Unknown**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **Submersible**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Panhandle Pump**

850 North State Hwy 1490
Levelland, TX 79336

Driller Name: **Elton Spears** License Number: **4475**

Comments: **LCS$**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**Top Soil**
5	**15**	**Caliche**
15	**40**	**Brown Clay**
40	**90**	**Sand Stone**
90	**110**	**Rock**
110	**120**	**Brown Clay**
120	**162**	**Sand and Gravel**
162	**167**	**Blue Clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5	**New**	**Plastic**	**1 167**
5	**New**	**Plastic**	**128 167**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #62965

Owner:	**R & J FARMS**	Owner Well #:	**6360**
Address:	**P.O. BOX 936 LEVELLAND, TX 79336**	Grid #:	**24-37-1**
Well Location:	**No Data**	Latitude:	**33° 27' 32" N**
		Longitude:	**102° 28' 45" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **6/27/2005** Drilling End Date: **7/1/2005**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
14.75	**0**	**25**
12.25	**25**	**195**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
15	**195**	**Gravel**	**GRADE 4**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
-1	**15**	**3/4 YD CEMENT**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **231**

Distance to Septic Field or other concentrated contamination (ft.): **NONE**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **HPUWD**

Surface Completion: **Surface Sleeve Installed**

Water Level: **151 ft.** below land surface on **2005-07-11** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **SUBMERSIBLE PUMP SPECIALISTS**

8104 WEST 19TH
LUBBOCK, TX 79407

Driller Name: **LYNDALL COUCH** License Number: **54256**

Apprentice Name: **JOE KNOX** Apprentice Number: **1804**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**TOP SOIL**
5	**23**	**CALICHE & SANDY CLAY**
23	**150**	**SANDSTONE & SANDY CLAY**
150	**160**	**FINE SAND**
160	**194**	**COARSE SAND & GRAVEL**
194	**195**	**BLUE CLAY**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
8 NEW SLOTTED PVC 155-195 .200
8 NEW BLANK PVC +2-155 .200

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #72913

Owner:	**BILLY CARTER**	Owner Well #:	**2005-1**
Address:	**ROUTE 5, BOX 160 LEVELLAND, TX 79336**	Grid #:	**24-36-3**
Well Location:	**No Data**	Latitude:	**33° 28' 45" N**
		Longitude:	**102° 30' 26" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Stock**

Drilling Start Date: **11/23/2005** Drilling End Date: **11/25/2005**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9.875	**0**	**20**
8.75	**20**	**234**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
15	**234**	**Gravel**	**00**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
-1	**15**	**3/4 YD CEMENT**

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **125**

Distance to Septic Field or other concentrated contamination (ft.): **NONE**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **OWNER**

Surface Completion: **Surface Sleeve Installed**

Water Level: **186 ft.** below land surface on **2005-12-20** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **SUBMERSIBLE PUMP SPECIALISTS**

BOX 1625
LEVELLAND, TX 79336

Driller Name: **LYNDALL COUCH** License Number: **54256**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**TOP SOIL**
3	**16**	**CALICHE & SANDY CLAY**
16	**192**	**SANDSTONE & SANDY CLAY**
192	**227**	**SAND & GRAVEL**
227	**229**	**SANDY YELLOW CLAY**
229	**234**	**BLUE CLAY**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
5 NEW SLOTTED PVC 194-234 .200
5 NEW BLANK PVC +2-234 .160

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #95279

Owner:	**Alfred Hernandez**	Owner Well #:	**No Data**
Address:	**P.O. Box 92 Sundown, TX 79372**	Grid #:	**24-37-1**
Well Location:	**Sundown TX Sundown, TX 79372**	Latitude:	**33° 28' 01" N**
		Longitude:	**102° 29' 30" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/1/2006** Drilling End Date: **9/1/2006**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**214**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**15**	**9**

Seal Method: **hand**

Sealed By: **Driller**

Distance to Property Line (ft.): **150**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **driller**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Bailer** **Yield: 10 GPM with 10 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
167-205	**good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Jack Spears Drilling**

HCR 1 Box 5
Plains, TX 79355

Driller Name: **Jack Spears** License Number: **533**

Apprentice Name: **Jake Klassen** Apprentice Number: **1992**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**topsoil**
5	**31**	**red clay**
31	**63**	**white clay**
63	**92**	**brown sandy clay**
167	**205**	**sand and gravel**
205	**213**	**yellow clay**
213	**214**	**blue clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5in new pvc 200# pref 174-214 slotted .033			

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #120114

Owner:	**Eddie Carter**	Owner Well #:	**No Data**
Address:	**PO Box 574 Sundown, TX 79372**	Grid #:	**24-36-3**
Well Location:	**Sundown, TX 79372**	Latitude:	**33° 29' 01" N**
		Longitude:	**102° 30' 24" W**
Well County:	**Hockley**	Elevation:	**No Data**

Type of Work: **New Well** Proposed Use: **Domestic**

Drilling Start Date: **7/24/2007** Drilling End Date: **7/24/2007**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**224**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**15**	**224**	**Gravel**	**1\4 in**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**15**	**7**

Seal Method: **hand**

Sealed By: **Driller**

Distance to Property Line (ft.): **150**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **driller**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Bailer** **Yield: 10 GPM with 10 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
166-204	**good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Jack Spears Drilling**

HCR 1 Box 5
Plains, TX 79355

Driller Name: **Jack Spears** License Number: **533**

Apprentice Name: **Jake Klassen** Apprentice Number: **56122**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**topsoil**
5	**13**	**cleache**
13	**66**	**brown clay**
66	**142**	**sand**
142	**151**	**brown clay & rock**
151	**166**	**brown sandy clay**
166	**204**	**sand & gravel**
204	**216**	**brown sandy clay**
216	**221**	**white clay**
221	**224**	**yellow clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5 in pvc new 200# pref. from 184-224 .033 slotted			

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #185707

Owner:	**TOWN & COUNTRY FOOD STORES**	Owner Well #:	**SB-6**
Address:	**4525 AYERS ST CORPUS CHRISTI, TX 78415**	Grid #:	**24-37-4**
Well Location:	**103 E RICHARDSON SUNDOWN, TX 79372**	Latitude:	**33° 27' 24" N**
		Longitude:	**102° 29' 19" W**
Well County:	**Hockley**	Elevation:	**No Data**
		****Plugged Within 48 Hours****	

****This well has been plugged**** **Plugging Report Tracking #124647**

Type of Work: **New Well** Proposed Use: **Environmental Soil Boring**

Drilling Start Date: **6/24/2009** Drilling End Date: **6/24/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**7.875**	**0**	**10**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Open Hole**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**2**	**1.5 Cement**
2	**10**	**1.5 bentonite**

Seal Method: **Poured**

Sealed By: **Talon**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**fresh**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Talon Drilling, LP**

921 N Bivins
Amarillo, TX 79107

Driller Name: **John Talbot** License Number: **3180**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**5**	**7.5yr-4/4, brown fine sandy clay, no moisture, hard, low plasticity**
5	**10**	**7.5yr-6/4, light brown, coarse sandy clay, no moisture, hard, low plasticity**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
No Data			

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #188815

Owner:	**Kurt Mckee**	Owner Well #:	**No Data**
Address:	**PO Box 561 Sundown, TX 79372**	Grid #:	**24-37-1**
Well Location:	**1 Mile north & 1\2 west Sundown TX, TX 79372**	Latitude:	**33° 28' 41" N**
		Longitude:	**102° 29' 59" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **7/27/2009** Drilling End Date: **7/27/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8**	**0**	**210**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**10**	**210**	**Gravel**	**3\16**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**10**	**12**

Seal Method: **Hand**

Sealed By: **Driller**

Distance to Property Line (ft.): **150**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Driller**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Jack Spears Drilling**

1211 East FM 1585
Lubbock, TX 79423

Driller Name: **Jack Spears** License Number: **533**

Apprentice Name: **Jake Klassen** Apprentice Number: **56122**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**top soil**
3	**14**	**caliche**
14	**37**	**brown sandy clay**
37	**62**	**sand**
62	**76**	**brown clay & rock**
76	**156**	**sand**
156	**175**	**sand & brown clay**
175	**198**	**sand**
198	**208**	**sand & small gravel**
208	**210**	**blue clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5 in PVC new 200# casing Pref from 170-210 ft. slotted 1\8 in slot			

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #195090

Owner:	**Newsom, Steve**	Owner Well #:	**No Data**
Address:	**3573 Horseshoe Rd. Levelland, TX 79336**	Grid #:	**24-37-1**
Well Location:	**E of CR 303 1mi. N of Sundown Levelland, TX**	Latitude:	**33° 28' 44" N**
		Longitude:	**102° 28' 42" W**
Well County:	**Hockley**	Elevation:	**No Data**

Type of Work: **New Well** Proposed Use: **Irrigation**

Drilling Start Date: **6/15/2006** Drilling End Date: **6/15/2006**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**15**	**0**	**200**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**10**	**15**

Seal Method: **Hand**

Sealed By: **Driller**

Distance to Property Line (ft.): **150**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Driller**

Surface Completion: **Unknown**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Jack Spears**

HCR 1 Box 5
Plains, TX 79355

Driller Name: **Jack Spears** License Number: **533**

Apprentice Name: **Jake Klassen** Apprentice Number: **56122**

Comments: **^EO**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**4**	**topsoil**
4	**16**	**caliche**
16	**42**	**brown sandy clay**
42	**87**	**sand**
87	**92**	**rock**
92	**96**	**sand**
96	**138**	**brown sandy clay**
138	**182**	**sand & gravel**
182	**187**	**yellow clay**
187	**226**	**blue clay**
226	**273**	**black clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
10 3/4" New Steel 0'-200'
10 3/4" New Slotted 140'-160'

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #430284

Owner:	**Steve Newsome**	Owner Well #:	**1**
Address:	**3440 Sagebrush RD Levelland, TX 79336**	Grid #:	**24-37-1**
Well Location:	**3440 Sagebrush RD Levelland, TX 79336**	Latitude:	**33° 28' 29.64" N**
		Longitude:	**102° 28' 41.3" W**
Well County:	**Hockley**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **8/19/2016** Drilling End Date: **8/19/2016**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
12	**0**	**183**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
123	**183**	**Gravel**	**#5**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**4**	**Concrete 2 Bags/Sacks**
4	**123**	**Bentonite 31 Bags/Sacks**

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **100+**

Distance to Septic Field or other concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **100+**

Method of Verification: **owner**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Weston Drilling Inc**

1622 Cactus Dr
Levelland, TX 79336

Driller Name: **Jonathan Pool** License Number: **59742**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**6**	**Top Soil**
5	**17**	**Caliche**
17	**80**	**Sand/ sandy clay Layers**
80	**86**	**Hard Rock**
86	**142**	**Sand**
142	**180**	**Sand / Gravel**
180	**183**	**Yellow/ Blue Clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
8	**Blank**	**New Plastic (PVC)**	**160**	**0**	**143**
8	**Perforated or Slotted**	**New Plastic (PVC)**	**160 0.085**	**143**	**183**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-36-303

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2436303
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.461389
Latitude (degrees minutes seconds)	33° 27' 41" N
Longitude (decimal degrees)	-102.501112
Longitude (degrees minutes seconds)	102° 30' 04" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3550
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	
Well Depth Source	
Drilling Start Date	
Drilling End Date	
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	Industrial
Water Level Observation	None
Water Quality Available	Yes
Pump	
Pump Depth (feet below land surface)	
Power Type	
Annular Seal Method	
Surface Completion	
Owner	Texaco, Inc.
Driller	
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	2/20/1989
Last Update Date	

Remarks	

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

No Data Available

Water Quality Analysis

Sample Date: 5/24/1974 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Groundwater Conservation District (general)

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		251	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		306	mg/L	
00910	CALCIUM (MG/L)		51	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		76	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.1	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		345	mg/L	
00920	MAGNESIUM (MG/L)		53	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		0.4	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.9	SU	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		39	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.08		
00932	SODIUM, CALCULATED, PERCENT		22	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		46	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		821	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		95	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		513	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-36-304

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2436304
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.461112
Latitude (degrees minutes seconds)	33° 27' 40" N
Longitude (decimal degrees)	-102.505001
Longitude (degrees minutes seconds)	102° 30' 18" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3555
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	190
Well Depth Source	Driller's Log
Drilling Start Date	
Drilling End Date	4/7/1969
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	Industrial
Water Level Observation	None
Water Quality Available	Yes
Pump	
Pump Depth (feet below land surface)	
Power Type	
Annular Seal Method	
Surface Completion	
Owner	Texaco, Inc.
Driller	Autry & Son Drilling Co.
Other Data Available	Drillers Log
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	2/20/1989
Last Update Date	

Remarks	

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

No Data Available

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-36-304

Water Quality Analysis

Sample Date: 5/24/1974 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Groundwater Conservation District (general)

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		243	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		296	mg/L	
00910	CALCIUM (MG/L)		46	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		47	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.5	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		302	mg/L	
00920	MAGNESIUM (MG/L)		46	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		4.7	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.8	SU	
00937	POTASSIUM, TOTAL (MG/L AS K)		10	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		42	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.1		
00932	SODIUM, CALCULATED, PERCENT		23	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		44	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		738	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		95	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		483	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-36-305

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2436305
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.463889
Latitude (degrees minutes seconds)	33° 27' 50" N
Longitude (decimal degrees)	-102.501945
Longitude (degrees minutes seconds)	102° 30' 07" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3562
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	197
Well Depth Source	Driller's Log
Drilling Start Date	
Drilling End Date	3/5/1970
Drilling Method	Mud (Hydraulic) Rotary
Borehole Completion	Perforated or Slotted

Well Type	Withdrawal of Water
Well Use	Industrial
Water Level Observation	None
Water Quality Available	Yes
Pump	
Pump Depth (feet below land surface)	
Power Type	
Annular Seal Method	
Surface Completion	
Owner	Texaco, Inc.
Driller	Hi Plains Drilling, Inc.
Other Data Available	Drillers Log
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	2/20/1989
Last Update Date	

Remarks	

Casing

Diameter (in.)	Casing Type	Casing Material	Schedule	Gauge	Top Depth (ft.)	Bottom Depth (ft.)
9	Blank	Steel			0	133
9	Screen	Steel			133	197

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

No Data Available

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-36-305

Water Quality Analysis

Sample Date: 5/24/1974 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Groundwater Conservation District (general)

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		318	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		388	mg/L	
00910	CALCIUM (MG/L)		47	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		21	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.3	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		341	mg/L	
00920	MAGNESIUM (MG/L)		54	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		29	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.8	SU	
00937	POTASSIUM, TOTAL (MG/L AS K)		9	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		42	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		0.87		
00932	SODIUM, CALCULATED, PERCENT		18	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		37	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		737	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		60	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		493	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-102

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2437102
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.465556
Latitude (degrees minutes seconds)	33° 27' 56" N
Longitude (decimal degrees)	-102.493334
Longitude (degrees minutes seconds)	102° 29' 36" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3549
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	193
Well Depth Source	Driller's Log
Drilling Start Date	
Drilling End Date	8/16/1967
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	Industrial
Water Level Observation	None
Water Quality Available	Yes
Pump	Turbine
Pump Depth (feet below land surface)	
Power Type	Electric Motor
Annular Seal Method	
Surface Completion	
Owner	Texaco Inc
Driller	George Autry
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Groundwater Conservation District
Created Date	
Last Update Date	

Remarks	

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

No Data Available

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-102

Water Quality Analysis

Sample Date: 7/27/1981 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Groundwater Conservation District (general)

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		418	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		510.1	mg/L	
00910	CALCIUM (MG/L)		86	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		193	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.1	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		609	mg/L	
00920	MAGNESIUM (MG/L)		96	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		27.3	mg/L	
00400	PH (STANDARD UNITS), FIELD		8	SU	
00937	POTASSIUM, TOTAL (MG/L AS K)		13	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		53	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		2.1		
00932	SODIUM, CALCULATED, PERCENT		29	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		119	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		1881	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		151	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		992	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-103

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2437103
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.458889
Latitude (degrees minutes seconds)	33° 27' 32" N
Longitude (decimal degrees)	-102.494167
Longitude (degrees minutes seconds)	102° 29' 39" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3545
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	211
Well Depth Source	Driller's Log
Drilling Start Date	
Drilling End Date	8/4/1976
Drilling Method	Mud (Hydraulic) Rotary
Borehole Completion	Gravel Pack w/Perforations

Well Type	Withdrawal of Water
Well Use	Public Supply
Water Level Observation	Miscellaneous Measurements
Water Quality Available	Yes
Pump	Turbine
Pump Depth (feet below land surface)	
Power Type	Electric Motor
Annular Seal Method	
Surface Completion	
Owner	City of Sundown
Driller	Hi Plains Drilling, Inc.
Other Data Available	Drillers Log
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	8/17/1989
Last Update Date	

Remarks	City well #6. Reported yield 355 GPM with 11 feet drawdown after pumping 24 hours in 1976.

Casing

Diameter (in.)	Casing Type	Casing Material	Schedule	Gauge	Top Depth (ft.)	Bottom Depth (ft.)
16	Blank	Steel			0	100
10	Blank	Steel			0	153
10	Screen	Steel			153	211

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

Status Code	Date	Time	Water Level (ft. below land surface)	Change value in ( ) indicates rise in level	Water Elevation (ft. above sea level)	Meas #	Measuring Agency	Method	Remark ID	Comments
P	8/4/1976		161		3384	1	Registered Water Well Driller	Unknown		

Code Descriptions

Status Code	Status Description
P	Publishable

Water Quality Analysis

Sample Date: 8/13/1986 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Texas Water Development Board

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		274	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		334.37	mg/L	
00910	CALCIUM (MG/L)		62	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		113	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.1	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		426	mg/L	
00920	MAGNESIUM (MG/L)		66	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		13.91	mg/L	
00400	PH (STANDARD UNITS), FIELD		8.2	SU	
00937	POTASSIUM, TOTAL (MG/L AS K)		11	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		45	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.5		
00932	SODIUM, CALCULATED, PERCENT		26	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		71	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		1304	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		151	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		700	mg/L	

Water Quality Analysis

Sample Date: 8/21/1990 **Sample Time:** 1430 **Sample Number:** 1 **Collection Entity:** Texas Water Development Board

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Combo of TDH (01) and TTU (15) **Reliability:** Field test using TWDB protocols; cation - TDH; anion & nutrient - TX Tech

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
39086	ALKALINITY FIELD DISSOLVED AS CACO3		250	mg/L	
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		255	mg/L	
01503	ALPHA, DISSOLVED (PC/L)		7.7	PC/L	3.4
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	<	50	ug/L	
01000	ARSENIC, DISSOLVED (UG/L AS AS)	<	10	ug/L	
01005	BARIUM, DISSOLVED (UG/L AS BA)		32	ug/L	
03503	BETA, DISSOLVED (PC/L)		15	PC/L	5
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		311.19	mg/L	
01020	BORON, DISSOLVED (UG/L AS B)		460	ug/L	
71870	BROMIDE, DISSOLVED, (MG/L AS BR)	<	3	mg/L	
01025	CADMIUM, DISSOLVED (UG/L AS CD)	<	10	ug/L	
00910	CALCIUM (MG/L)		61	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		133	mg/L	
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	<	20	ug/L	
01040	COPPER, DISSOLVED (UG/L AS CU)	<	20	ug/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		2.85	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		463	mg/L	
71865	IODIDE (MG/L AS I)		0.68	mg/L	
01046	IRON, DISSOLVED (UG/L AS FE)		20	ug/L	
01049	LEAD, DISSOLVED (UG/L AS PB)	<	50	ug/L	
00920	MAGNESIUM (MG/L)		75	mg/L	
01056	MANGANESE, DISSOLVED (UG/L AS MN)	<	20	ug/L	
71890	MERCURY, DISSOLVED (UG/L AS HG)	<	0.2	ug/L	
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	<	20	ug/L	
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)		2.88	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		12.75	mg/L	
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)		0.002	mg/L	
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		0.12	mg/L	
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	<	0.1	mg/L	
00090	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		121.2	MV	
00400	PH (STANDARD UNITS), FIELD		7.31	SU	
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)		0.12	mg/L	
00937	POTASSIUM, TOTAL (MG/L AS K)		13	mg/L	

Texas Water Development Board

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-103

groundwater division

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
09503	RADIUM 226, DISSOLVED, PC/L	<	0.2	PC/L	
81366	RADIUM 228, DISSOLVED (PC/L AS RA-228)	<	1	PC/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
01145	SELENIUM, DISSOLVED (UG/L AS SE)		11	ug/L	
00955	SILICA, DISSOLVED (MG/L AS SI02)		42	mg/L	
01075	SILVER, DISSOLVED (UG/L AS AG)	<	10	ug/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.46		
00932	SODIUM, CALCULATED, PERCENT		25	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		72	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		1258	MICR	
01080	STRONTIUM, DISSOLVED (UG/L AS SR)		2710	ug/L	
00945	SULFATE, TOTAL (MG/L AS SO4)		137	mg/L	
00010	TEMPERATURE, WATER (CELSIUS)		20	C	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		704	mg/L	
01085	VANADIUM, DISSOLVED (UG/L AS V)		46	ug/L	
01090	ZINC, DISSOLVED (UG/L AS ZN)	<	20	ug/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-107

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2437107
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.460278
Latitude (degrees minutes seconds)	33° 27' 37" N
Longitude (decimal degrees)	-102.492222
Longitude (degrees minutes seconds)	102° 29' 32" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3549
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	
Well Depth Source	
Drilling Start Date	
Drilling End Date	
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	
Water Level Observation	None
Water Quality Available	Yes
Pump	
Pump Depth (feet below land surface)	
Power Type	
Annular Seal Method	
Surface Completion	
Owner	Ronnie Srader
Driller	
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	2/20/1989
Last Update Date	

Remarks	

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements

No Data Available

Water Quality Analysis

Sample Date: 5/23/1974 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Groundwater Conservation District (general)

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		269	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		328	mg/L	
00910	CALCIUM (MG/L)		51	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		92	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		4	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		369	mg/L	
00920	MAGNESIUM (MG/L)		59	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		10	mg/L	
00400	PH (STANDARD UNITS), FIELD		7.8	SU	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		42	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.79		
00932	SODIUM, CALCULATED, PERCENT		31	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		79	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		975	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		106	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		604	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Texas Water Development Board (TWDB)
Groundwater Database (GWDB)
Well Information Report for State Well Number 24-37-406

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	2437406
County	Hockley
River Basin	Colorado
Groundwater Management Area	2
Regional Water Planning Area	O - Llano Estacado
Groundwater Conservation District	High Plains UWCD #1
Latitude (decimal degrees)	33.456945
Latitude (degrees minutes seconds)	33° 27' 25" N
Longitude (decimal degrees)	-102.494167
Longitude (degrees minutes seconds)	102° 29' 39" W
Coordinate Source	+/- 1 Second
Aquifer Code	121OGLL - Ogallala Formation
Aquifer	Ogallala
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	3537
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	203
Well Depth Source	Driller's Log
Drilling Start Date	
Drilling End Date	8/28/1978
Drilling Method	Mud (Hydraulic) Rotary
Borehole Completion	Gravel Pack w/Perforations

Well Type	Withdrawal of Water
Well Use	Public Supply
Water Level Observation	Miscellaneous Measurements
Water Quality Available	Yes
Pump	Turbine
Pump Depth (feet below land surface)	
Power Type	Electric Motor
Annular Seal Method	
Surface Completion	
Owner	City of Sundown
Driller	Hi Plains Drilling, Inc.
Other Data Available	Drillers Log
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	Texas Water Development Board
Created Date	8/17/1989
Last Update Date	

Remarks	City well #7. Reported yield 205 GPM with 16 feet drawdown after pumping 24 hours in 1978.

Casing

Diameter (in.)	Casing Type	Casing Material	Schedule	Gauge	Top Depth (ft.)	Bottom Depth (ft.)
16	Blank	Steel			0	100
10	Blank	Steel			0	148
10	Screen	Steel			148	203

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

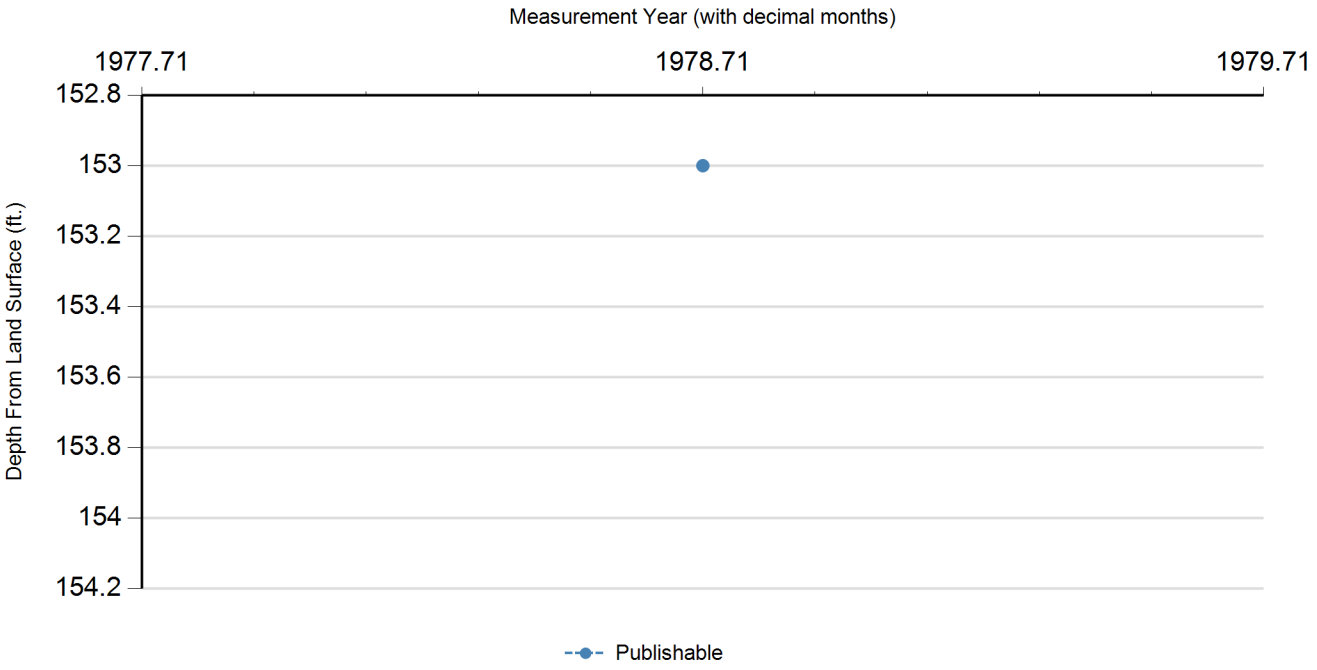
Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements



Status Code	Date	Time	Water Level (ft. below land surface)	Change value in ( ) indicates rise in level	Water Elevation (ft. above sea level)	Meas #	Measuring Agency	Method	Remark ID	Comments
P	9/19/1978		153		3384	1	Registered Water Well Driller	Unknown		

Code Descriptions

Status Code	Status Description
P	Publishable

Water Quality Analysis

Sample Date: 8/13/1986 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** Texas Water Development Board

Sampled Aquifer: Ogallala Formation

Analyzed Lab: Texas Department of Health **Reliability:** Collected from pumped well, but not filtered or preserved

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CACO3)		275	mg/L	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		335.6	mg/L	
00910	CALCIUM (MG/L)		62	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		114	mg/L	
00950	FLUORIDE, DISSOLVED (MG/L AS F)		3.1	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CACO3)		430	mg/L	
00920	MAGNESIUM (MG/L)		67	mg/L	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		13.47	mg/L	
00400	PH (STANDARD UNITS), FIELD		8.3	SU	
00937	POTASSIUM, TOTAL (MG/L AS K)		11	mg/L	
71860	RESIDUAL SODIUM CARBONATE, CALCULATED		0		
00955	SILICA, DISSOLVED (MG/L AS SI02)		45	mg/L	
00931	SODIUM ADSORPTION RATIO, CALCULATED (SAR)		1.49		
00932	SODIUM, CALCULATED, PERCENT		26	PCT	
00929	SODIUM, TOTAL (MG/L AS NA)		71	mg/L	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		1304	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		151	mg/L	
70301	TOTAL DISSOLVED SOLIDS , SUM OF CONSTITUENTS (MG/L)		702	mg/L	

** Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..*

Attachment H

Groundwater Quality Assessment

GROUNDWATER QUALITY REPORT

The City of Sundown Wastewater Treatment Plant and effluent disposal site are located in southwest Hockley County, approximately 1 mile north of downtown Sundown, Texas. The site is located within the boundaries of the Ogallala Aquifer, a major aquifer in West Texas. Minor aquifer Edwards Trinity (High Plains) are present at the site as well. Please refer to the maps provided for further details. The maps and following information was obtained from Texas Water Development Board Groundwater Database.

The Ogallala Aquifer – is unconfined and the largest aquifer in the United States. The aquifer consists of sand, gravel, clay, and silt and has a maximum thickness of 800 feet. Freshwater saturated thickness in the aquifer averages 95 feet but is significantly greater in several paleo-valleys that were eroded into the Permian- to Cretaceous-aged surfaces before deposition of the Ogallala Formation.

The Ogallala Formation was deposited as alluvial outwash from the Rocky Mountains. The thickest and coarsest grained sediments are fluvial channel facies in alluvial fan lobes deposited in paleo-valleys, where pebble- to boulder-size gravel lenses are common along the basal surface. Three major paleo-valleys are located north of the Canadian River, and a smaller paleo-valley stretches from near Clovis to southeast of Plainview. Most sediment in the preserved extent of the Formation are sands and gravels that were deposited in braided stream channels. Further away from the mountains the Formation becomes finer-grain. Blackwater Draw Formation overlays the Ogallala Formation, which forms a layer of Quaternary eolian fine sand, silt, clay, and caliche that covers the Ogallala Formation except along breaks and draws.

The hydraulic conductivity of the Southern Ogallala Aquifer ranges from 0.01 to 2,600 feet per day with a mean of about 6.8 feet per day. The geometric mean of hydraulic conductivity in the Northern Ogallala Aquifer is about 14.8 feet per day with a standard deviation of 5 to 44 feet per day. The specific yield of the Ogallala Aquifer ranges from 15 to 22 percent, with an average of 16 percent. Studies indicate that recharge represents a small fraction of current water usage. Recharge in the southern region of the Ogallala Aquifer has been affected by agricultural development and ranges from 0.007 to over 3 inches per year, with the most recharge in areas where irrigated crops are raised on relatively permeable soils. In the northern region, relatively clayey soils limit agricultural influence on recharge, and the pre-development distribution of recharge remains in place, with rates ranging from 0.1 to 0.8 inches per year.

The Edwards-Trinity (High Plains) Aquifer - is a minor aquifer that underlies about 9,000 square miles of the Ogallala Aquifer in western Texas and eastern New Mexico. Its water-producing units include sandstone and limestone. Freshwater saturated thickness in the aquifer averages 126 feet. Regional groundwater flow in the aquifer is to the southeast, but locally, flow is determined by the presence of paleo-channels containing Ogallala Formation sediments that are incised into the Cretaceous limestone forming the Edwards-Trinity (High Plains) Aquifer. Recharge to the aquifer is primarily due to downward leakage from the younger Ogallala Aquifer. The greatest amounts of recharge most likely occur where low-permeability clay layers, which lie between the Edwards-Trinity (High Plains) and Ogallala aquifers, are missing, thin, or relatively permeable. Groundwater in the Edwards-Trinity (High Plains) Aquifer generally is confined, although there are small areas where the aquifer is unconfined.

The impact on groundwater is estimated to be very minimal, if at all. The waste disposal system consists of irrigating 50 acres of land with the treated effluent. At the maximum permitted flow this would result

in only 3.92 acre-ft/year of applied effluent. Effluent will be applied at rates stipulated in the annual cropping plan as to not penetrate past the root zone and infiltrate groundwater. The irrigated crops and associated land can be considered as an additional treatment unit, which will provide a pathway for nutrients to be extracted from the irrigated area. In addition, the City's newly constructed Wastewater Facility includes an improved facultative pond system with a new synthetic liner and leak detection system. The proposed lining system consists of a 60 mil HDPE liner and 20 oz geotextile.

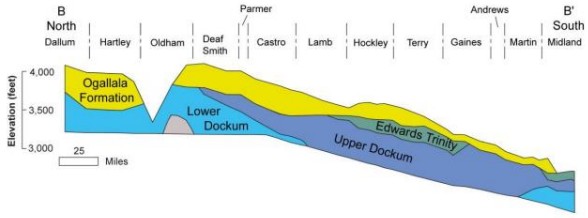


Figure 6-25. Geologic cross-sections showing the relationship of the Ogallala Formation to underlying strata (modified from McGowen and others, 1977).

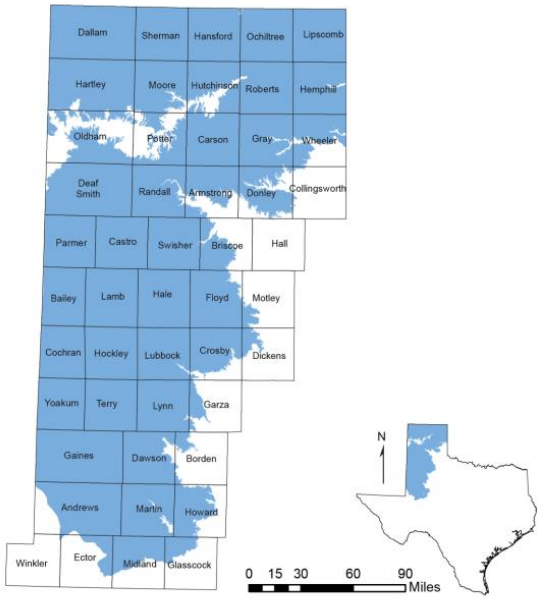


Figure 6-24. Extent of the Ogallala Aquifer in Texas.

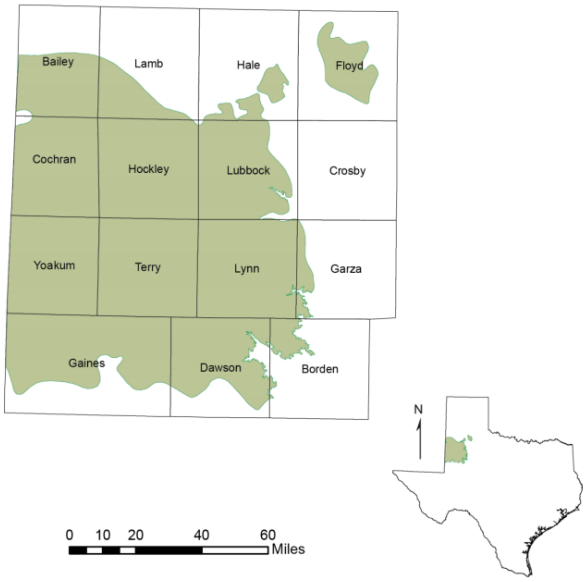


Figure 6-63. Extent of the Edwards-Trinity High Plains Aquifer.

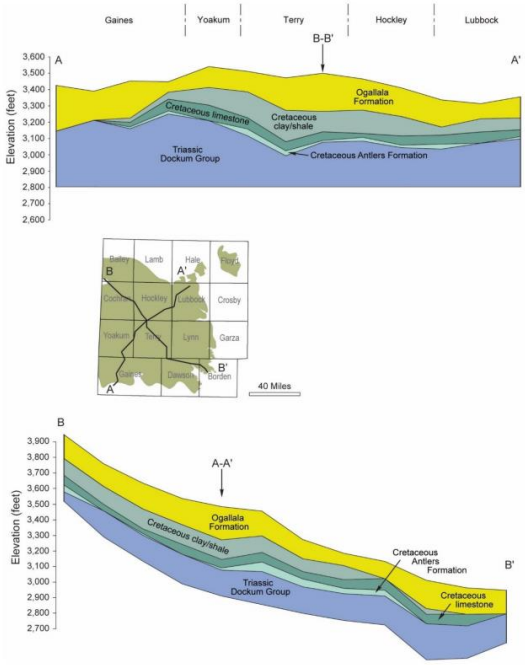


Figure 6-64. Geologic cross-section across the Edwards-Trinity (High Plains) Aquifer (modified from Blandford and others, 2008).

Attachment I

USDA Soil Survey &

Annual Soil Analysis

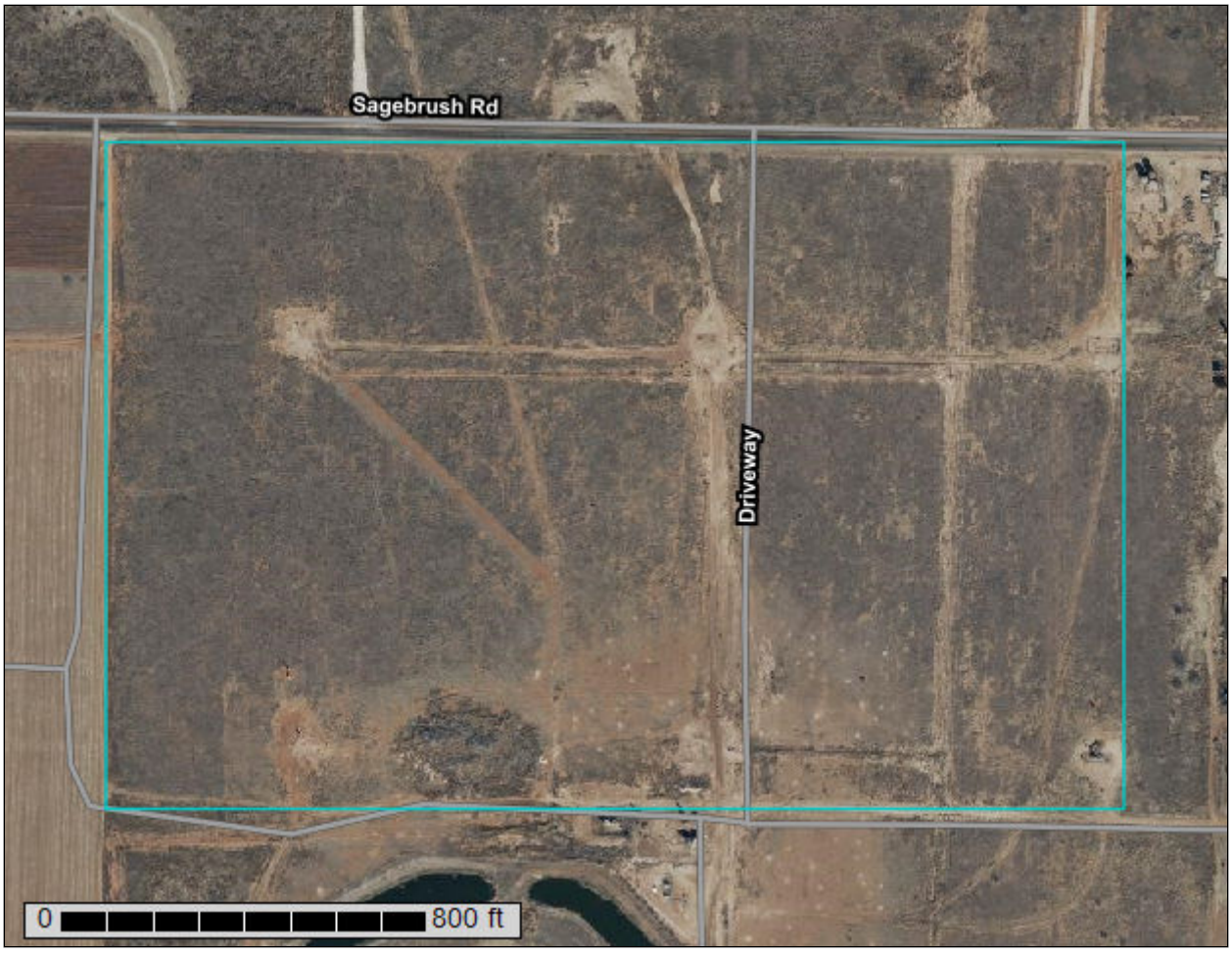
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Hockley County, Texas



June 13, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

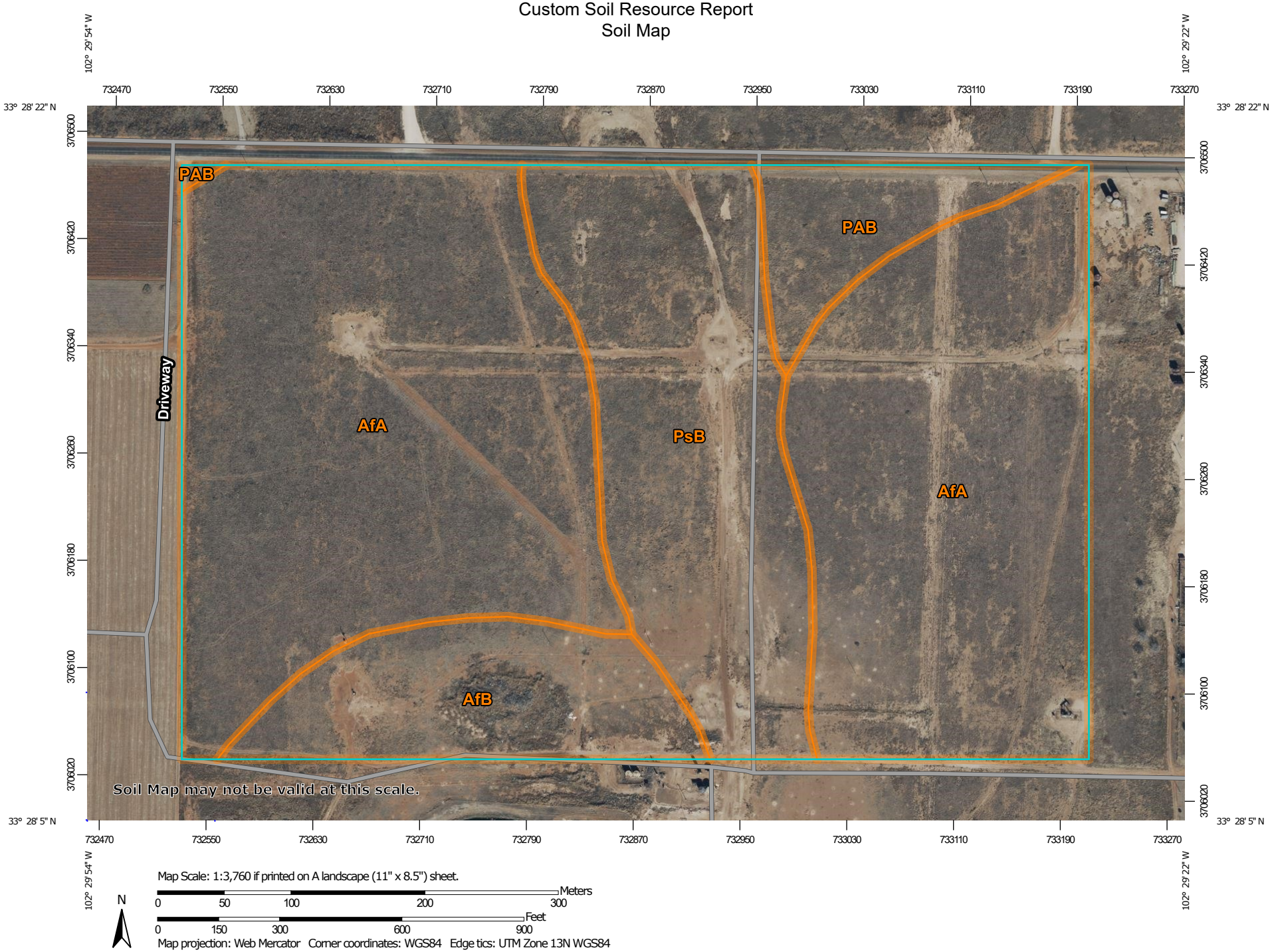
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:3,760 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

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

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

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

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

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

Soil Survey Area: Hockley County, Texas
Survey Area Data: Version 23, Sep 5, 2023

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

Date(s) aerial images were photographed: Jan 16, 2022—Jan 29, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AfA	Amarillo fine sandy loam, 0 to 1 percent slopes	48.1	64.3%
AfB	Amarillo fine sandy loam, 1 to 3 percent slopes	7.2	9.7%
PAB	Patricia and Amarillo loamy fine sands, 0 to 3 percent slopes	3.8	5.1%
PsB	Posey fine sandy loam, 1 to 3 percent slopes	15.6	20.9%
Totals for Area of Interest		**74.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Hockley County, Texas

AfA—Amarillo fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: f5r6
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Amarillo and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Amarillo

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy eolian deposits

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bt - 10 to 41 inches: sandy clay loam
Btkk - 41 to 56 inches: sandy clay loam
Btk - 56 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 65 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Minor Components

Arvana

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Posey

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Sharvana

Percent of map unit: 2 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

AfB—Amarillo fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: f5r7
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Amarillo and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Amarillo

Setting

Landform: Plains, playa slopes
Down-slope shape: Convex, concave
Across-slope shape: Linear
Parent material: Loamy eolian deposits

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bt - 10 to 41 inches: sandy clay loam
Btkk - 41 to 56 inches: sandy clay loam
Btk - 56 to 85 inches: sandy clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 65 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Minor Components

Arvana

Percent of map unit: 4 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Posey

Percent of map unit: 4 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Sharvana

Percent of map unit: 2 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

PAB—Patricia and Amarillo loamy fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: f5sx
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Patricia and similar soils: 50 percent
Amarillo and similar soils: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Patricia

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy eolian deposits from the blackwater draw formation of pleistocene age

Typical profile

Ap - 0 to 12 inches: loamy fine sand
Bt1 - 12 to 40 inches: sandy clay loam
Bt2 - 40 to 78 inches: sandy clay loam
Btk - 78 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 70 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R077CY035TX - Sandy 16-21" PZ

Hydric soil rating: No

Description of Amarillo

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy eolian deposits from the blackwater draw formation of pleistocene age.

Typical profile

Ap - 0 to 13 inches: loamy fine sand
Bt - 13 to 53 inches: sandy clay loam
Btkk - 53 to 68 inches: sandy clay loam
Btk - 68 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Minor Components

Tokio

Percent of map unit: 5 percent
Landform: Plains
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Brownfield

Percent of map unit: 3 percent
Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Arvana

Percent of map unit: 2 percent
Landform: Playa slopes, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

PsB—Posey fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: f5t5
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance, if irrigated

Map Unit Composition

Posey and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Posey

Setting

Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Parent material: Calcareous loamy eolian deposits

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Btk1 - 10 to 18 inches: sandy clay loam
Btkk - 18 to 39 inches: sandy clay loam
B'tk2 - 39 to 80 inches: sandy clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 70 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Minor Components

Midessa

Percent of map unit: 6 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Amarillo

Percent of map unit: 5 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Arvana

Percent of map unit: 4 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

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ANALYTICAL REPORT

PREPARED FOR

Attn: Lee Torrez
City of Sundown
PO BOX 600
Sundown, Texas 79372

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JOB DESCRIPTION

City Soils annually
WWTP

JOB NUMBER

820-12091-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

my EOL

Eurofins Lubbock

Job Notes

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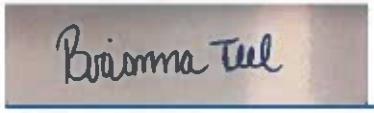

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Table of Contents

Definitions/Glossary

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Qualifiers

Metals

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

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
820-12091-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt
The samples were received on 2/15/2024 12:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 18.7°C.

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

General Chemistry
Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-149745 and 860-147624 and analytical batch 860-149735 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 351.2: instrument issues

City soils 0-6 (820-12091-1) and City soils 6-18 (820-12091-2)

Method 351.2: The following samples were analyzed outside of analytical holding time due to Analyst overlooked/did not check the backlog for prioritizing hold time: City soils 0-6 (820-12091-1) and City soils 6-18 (820-12091-2).

Method 353.2_Nitrite: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 860-148081 and analytical batch 860-147597 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 353.2_Nitrite: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-148081 and analytical batch 860-147597 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Client Sample ID: City soils 0-6

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-1

Matrix: Solid

Method: LA 29B SAR - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	51.5		0.500		mg/L		02/26/24 08:55	02/26/24 11:51	1
Sodium Adsorption Ratio	1.64		0.100		NONE		02/26/24 08:55	02/26/24 16:44	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus	19.9		0.394		mg/Kg		02/26/24 09:17	02/26/24 15:59	1
Potassium	304		4.93		mg/Kg		02/26/24 09:17	02/26/24 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (LA 29B_EC)	725	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
Electrical Conductivity (LA 29B_EC)	725	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
pH (LA 29B_pH)	8.03	HF	0.100		S.U.		03/25/24 07:45	03/25/24 14:02	1
Temperature (LA 29B_pH)	20.0	HF	0.100		Deg. C		03/25/24 07:45	03/25/24 14:02	1
Nitrogen, Kjeldahl (EPA 351.2)	11.9		2.00		mg/Kg			03/08/24 20:01	10
Nitrate Nitrite as N (EPA 353.2)	5.20		1.00		mg/Kg		02/26/24 12:56	02/26/24 17:22	1
Nitrite as N (EPA 353.2)	<1.00	U	1.00		mg/Kg		02/26/24 12:56	02/26/24 18:09	1
Nitrate as N (SM Nitrate by calc)	5.20		1.00		mg/Kg			03/05/24 09:48	1
Nitrogen, Total (EPA Total Nitrogen)	17.1		0.200		mg/Kg			03/07/24 21:52	1

Client Sample ID: City soils 6-18

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-2

Matrix: Solid

Method: LA 29B SAR - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	34.6		0.500		mg/L		02/26/24 08:55	02/26/24 12:03	1
Sodium Adsorption Ratio	0.924		0.100		NONE		02/26/24 08:55	02/26/24 16:44	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus	13.1		0.398		mg/Kg		02/26/24 09:17	02/26/24 16:30	1
Potassium	309		4.98		mg/Kg		02/26/24 09:17	02/26/24 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (LA 29B_EC)	684	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
Electrical Conductivity (LA 29B_EC)	684	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
pH (LA 29B_pH)	7.99	HF	0.100		S.U.		03/25/24 07:45	03/25/24 14:02	1
Temperature (LA 29B_pH)	20.8	HF	0.100		Deg. C		03/25/24 07:45	03/25/24 14:02	1
Nitrogen, Kjeldahl (EPA 351.2)	11.3		2.00		mg/Kg			03/08/24 20:02	10
Nitrate Nitrite as N (EPA 353.2)	3.73		1.00		mg/Kg		02/26/24 12:56	02/26/24 17:22	1
Nitrite as N (EPA 353.2)	<1.00	U	1.00		mg/Kg		02/26/24 12:56	02/26/24 18:10	1
Nitrate as N (SM Nitrate by calc)	3.73		1.00		mg/Kg			03/05/24 09:48	1
Nitrogen, Total (EPA Total Nitrogen)	15.0		0.200		mg/Kg			03/07/24 21:52	1

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Client Sample ID: City soils 18-30

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-3

Matrix: Solid

Method: LA 29B SAR - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	33.2		0.500		mg/L		02/26/24 08:55	02/26/24 12:05	1
Sodium Adsorption Ratio	0.826		0.100		NONE		02/26/24 08:55	02/26/24 16:44	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus	12.8		0.398		mg/Kg		02/26/24 09:17	02/26/24 16:34	1
Potassium	257		4.98		mg/Kg		02/26/24 09:17	02/26/24 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance (LA 29B_EC)	1010	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
Electrical Conductivity (LA 29B_EC)	1010	H	10.0		umho/cm		04/02/24 15:43	04/02/24 15:41	1
pH (LA 29B_pH)	8.60	HF	0.100		S.U.		03/26/24 13:43	03/26/24 14:13	1
Temperature (LA 29B_pH)	21.5	HF	0.100		Deg. C		03/26/24 13:43	03/26/24 14:13	1
Nitrogen, Kjeldahl (EPA 351.2)	720		76.9		mg/Kg		02/29/24 12:19	03/06/24 14:50	10
Nitrate Nitrite as N (EPA 353.2)	3.97		1.01		mg/Kg		02/26/24 12:56	02/26/24 17:23	1
Nitrite as N (EPA 353.2)	<1.01	U	1.01		mg/Kg		02/26/24 12:56	02/26/24 18:11	1
Nitrate as N (SM Nitrate by calc)	3.97		1.00		mg/Kg			03/05/24 09:48	1
Nitrogen, Total (EPA Total Nitrogen)	724		0.200		mg/Kg			03/25/24 10:26	1

Method: 29B SAR - Sodium Adsorption Ratio

Lab Sample ID: MB 860-146967/1-A
Matrix: Solid
Analysis Batch: 147062

Client Sample ID: Method Blank
Prep Type: Soluble
Prep Batch: 146967

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Na	<0.500	U	0.500		mg/L		02/26/24 08:55	02/26/24 11:44	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 860-146970/1-A
Matrix: Solid
Analysis Batch: 147150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 146970

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus	<0.400	U	0.400		mg/Kg		02/26/24 09:17	02/26/24 15:44	1
Potassium	<5.00	U	5.00		mg/Kg		02/26/24 09:17	02/26/24 15:44	1

Lab Sample ID: 820-12091-3 DU
Matrix: Solid
Analysis Batch: 147150

Client Sample ID: City soils 18-30
Prep Type: Total/NA
Prep Batch: 146970

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phosphorus	12.8		12.57		mg/Kg		2	25
Potassium	257		256.4		mg/Kg		0.1	20

Lab Sample ID: 820-12091-3 DU
Matrix: Solid
Analysis Batch: 147150

Client Sample ID: City soils 18-30
Prep Type: Total/NA
Prep Batch: 146970

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phosphorus	19.9		<19.8	U	mg/Kg		NC	25
Potassium	322		325.7		mg/Kg		1	20

Method: 29B_pH - pH

Lab Sample ID: 820-12091-2 DU
Matrix: Solid
Analysis Batch: 151460

Client Sample ID: City soils 6-18
Prep Type: Total/NA
Prep Batch: 151374

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.99	HF	8.070		S.U.		1	20
Temperature	20.8	HF	20.80		Deg. C		0	25

Lab Sample ID: 820-12091-3 DU
Matrix: Solid
Analysis Batch: 151667

Client Sample ID: City soils 18-30
Prep Type: Total/NA
Prep Batch: 151658

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.60	HF	8.600		S.U.		0	20
Temperature	21.5	HF	21.50		Deg. C		0	25

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 860-147624/4-A
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147624

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<8.00	U	8.00		mg/Kg		02/29/24 12:19	03/06/24 14:45	1

Lab Sample ID: MB 860-147624/4-A
Matrix: Solid
Analysis Batch: 148959

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 147624

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<8.00	U	8.00		mg/Kg		02/29/24 12:19	03/08/24 19:38	1

Lab Sample ID: LCS 860-147624/6-A
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	80.0	78.29		mg/Kg		98	90 - 110

Lab Sample ID: LCS 860-147624/6-A
Matrix: Solid
Analysis Batch: 148959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	80.0	86.17		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 860-147624/7-A
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	80.0	79.50		mg/Kg		99	90 - 110	2	20

Lab Sample ID: LCSD 860-147624/7-A
Matrix: Solid
Analysis Batch: 148959

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	80.0	84.08		mg/Kg					

Lab Sample ID: LLCS 860-147624/5-A
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	8.00	8.673		mg/Kg		108	50 - 150

Lab Sample ID: LLCS 860-147624/5-A
Matrix: Solid
Analysis Batch: 148959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	8.00	8.315		mg/Kg		104	50 - 150

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: 870-24583-A-2-M MS
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	360		78.4	583.3	4	mg/Kg		284	90 - 110

Lab Sample ID: 870-24583-A-2-N MSD
Matrix: Solid
Analysis Batch: 149735

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 147624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	360		75.5	591.8	4	mg/Kg		307	90 - 110	1	20

Lab Sample ID: MB 860-148735/44-A
Matrix: Solid
Analysis Batch: 149426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 148735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.200	U	0.200		mg/Kg		03/07/24 17:45	03/12/24 11:39	1

Lab Sample ID: MB 860-148735/44-A
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 148735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.200	U	0.200		mg/Kg		03/07/24 17:45	03/15/24 11:45	1

Lab Sample ID: LCS 860-148735/45-A
Matrix: Solid
Analysis Batch: 149426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	2.00	2.034		mg/Kg		102	90 - 110

Lab Sample ID: LCS 860-148735/45-A
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	2.00	1.950		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 860-148735/46-A
Matrix: Solid
Analysis Batch: 149426

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	2.00	2.024		mg/Kg		101	90 - 110	1	20

Lab Sample ID: LCSD 860-148735/46-A
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	2.00	1.922		mg/Kg		96	90 - 110	1	20

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: LLCS 860-148735/5-A
Matrix: Solid
Analysis Batch: 149426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	0.200	0.2335		mg/Kg		117	50 - 150

Lab Sample ID: LLCS 860-148735/5-A
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	0.200	0.2500		mg/Kg		125	50 - 150

Lab Sample ID: 820-11980-A-1-AA MSD
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	1240		83.3	1453	4	mg/Kg		259	90 - 110	6	20

Lab Sample ID: 820-11980-A-1-Z MS
Matrix: Solid
Analysis Batch: 150019

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 148735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	1240		78.4	1366	4	mg/Kg		165	90 - 110

Method: 353.2 - Nitrogen, Nitrite

Lab Sample ID: MB 860-148081/1-A
Matrix: Solid
Analysis Batch: 147597

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 148081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<1.00	U	1.00		mg/Kg		02/26/24 12:56	02/26/24 17:57	1

Lab Sample ID: LCS 860-148081/2-A
Matrix: Solid
Analysis Batch: 147597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	10.0	9.945		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 860-148081/3-A
Matrix: Solid
Analysis Batch: 147597

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N	10.0	9.932		mg/Kg		99	90 - 110	0	20

Method: 353.2 - Nitrogen, Nitrite (Continued)

Lab Sample ID: 830-4940-A-1-E MS
Matrix: Solid
Analysis Batch: 147597

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrite as N	<0.996	U F1	9.96	2.847	F1	mg/Kg		22	90 - 110

Lab Sample ID: 830-4940-A-1-F MSD
Matrix: Solid
Analysis Batch: 147597

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrite as N	<0.996	U F1	9.94	2.813	F1	mg/Kg		22	90 - 110	1	20

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 860-148081/1-A
Matrix: Solid
Analysis Batch: 147600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 148081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<1.00	U	1.00		mg/Kg		02/26/24 12:56	02/26/24 17:02	1

Lab Sample ID: LCS 860-148081/2-A
Matrix: Solid
Analysis Batch: 147600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	10.0	9.436		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 860-148081/3-A
Matrix: Solid
Analysis Batch: 147600

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	10.0	9.117		mg/Kg		91	90 - 110	3	20

Lab Sample ID: 830-4940-A-1-E MS
Matrix: Solid
Analysis Batch: 147600

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate Nitrite as N	3.63		9.96	13.36		mg/Kg		98	90 - 110

Lab Sample ID: 830-4940-A-1-F MSD
Matrix: Solid
Analysis Batch: 147600

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 148081

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate Nitrite as N	3.63		9.94	13.46		mg/Kg		99	90 - 110	1	20

Metals

Prep Batch: 146967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Soluble	Solid	29B	
820-12091-2	City soils 6-18	Soluble	Solid	29B	
820-12091-3	City soils 18-30	Soluble	Solid	29B	
MB 860-146967/1-A	Method Blank	Soluble	Solid	29B	

Prep Batch: 146970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	MEHL Prep	
820-12091-2	City soils 6-18	Total/NA	Solid	MEHL Prep	
820-12091-3	City soils 18-30	Total/NA	Solid	MEHL Prep	
MB 860-146970/1-A	Method Blank	Total/NA	Solid	MEHL Prep	
820-12091-3 DU	City soils 18-30	Total/NA	Solid	MEHL Prep	

Analysis Batch: 147062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Soluble	Solid	29B SAR	146967
820-12091-2	City soils 6-18	Soluble	Solid	29B SAR	146967
820-12091-3	City soils 18-30	Soluble	Solid	29B SAR	146967
MB 860-146967/1-A	Method Blank	Soluble	Solid	29B SAR	146967

Analysis Batch: 147073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Soluble	Solid	29B SAR	146967
820-12091-2	City soils 6-18	Soluble	Solid	29B SAR	146967
820-12091-3	City soils 18-30	Soluble	Solid	29B SAR	146967

Analysis Batch: 147150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	6010C	146970
820-12091-2	City soils 6-18	Total/NA	Solid	6010C	146970
820-12091-3	City soils 18-30	Total/NA	Solid	6010C	146970
MB 860-146970/1-A	Method Blank	Total/NA	Solid	6010C	146970
820-12091-3 DU	City soils 18-30	Total/NA	Solid	6010C	146970
820-12091-3 DU	City soils 18-30	Total/NA	Solid	6010C	146970

General Chemistry

Analysis Batch: 141767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	Total Nitrogen	
820-12091-2	City soils 6-18	Total/NA	Solid	Total Nitrogen	
820-12091-3	City soils 18-30	Total/NA	Solid	Total Nitrogen	

Analysis Batch: 144016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	Nitrate by calc	
820-12091-2	City soils 6-18	Total/NA	Solid	Nitrate by calc	
820-12091-3	City soils 18-30	Total/NA	Solid	Nitrate by calc	

General Chemistry

Analysis Batch: 147597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	353.2	148081
820-12091-2	City soils 6-18	Total/NA	Solid	353.2	148081
820-12091-3	City soils 18-30	Total/NA	Solid	353.2	148081
MB 860-148081/1-A	Method Blank	Total/NA	Solid	353.2	148081
LCS 860-148081/2-A	Lab Control Sample	Total/NA	Solid	353.2	148081
LCSD 860-148081/3-A	Lab Control Sample Dup	Total/NA	Solid	353.2	148081
830-4940-A-1-E MS	Matrix Spike	Total/NA	Solid	353.2	148081
830-4940-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	353.2	148081

Analysis Batch: 147600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	353.2	148081
820-12091-2	City soils 6-18	Total/NA	Solid	353.2	148081
820-12091-3	City soils 18-30	Total/NA	Solid	353.2	148081
MB 860-148081/1-A	Method Blank	Total/NA	Solid	353.2	148081
LCS 860-148081/2-A	Lab Control Sample	Total/NA	Solid	353.2	148081
LCSD 860-148081/3-A	Lab Control Sample Dup	Total/NA	Solid	353.2	148081
830-4940-A-1-E MS	Matrix Spike	Total/NA	Solid	353.2	148081
830-4940-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	353.2	148081

Prep Batch: 147624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	351.2	149745
MB 860-147624/4-A	Method Blank	Total/NA	Solid	351.2	
LCS 860-147624/6-A	Lab Control Sample	Total/NA	Solid	351.2	
LCSD 860-147624/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	
LLCS 860-147624/5-A	Lab Control Sample	Total/NA	Solid	351.2	
870-24583-A-2-M MS	Matrix Spike	Total/NA	Solid	351.2	149745
870-24583-A-2-N MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	149745

Prep Batch: 148081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	KCl Extract	148082
820-12091-2	City soils 6-18	Total/NA	Solid	KCl Extract	148082
820-12091-3	City soils 18-30	Total/NA	Solid	KCl Extract	148082
MB 860-148081/1-A	Method Blank	Total/NA	Solid	KCl Extract	
LCS 860-148081/2-A	Lab Control Sample	Total/NA	Solid	KCl Extract	
LCSD 860-148081/3-A	Lab Control Sample Dup	Total/NA	Solid	KCl Extract	
830-4940-A-1-E MS	Matrix Spike	Total/NA	Solid	KCl Extract	
830-4940-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	KCl Extract	

Leach Batch: 148082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	Dry and Grind	
820-12091-2	City soils 6-18	Total/NA	Solid	Dry and Grind	
820-12091-3	City soils 18-30	Total/NA	Solid	Dry and Grind	

Prep Batch: 148735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-148735/44-A	Method Blank	Total/NA	Solid	351.2	
LCS 860-148735/45-A	Lab Control Sample	Total/NA	Solid	351.2	

General Chemistry (Continued)

Prep Batch: 148735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 860-148735/46-A	Lab Control Sample Dup	Total/NA	Solid	351.2	
LLCS 860-148735/5-A	Lab Control Sample	Total/NA	Solid	351.2	
820-11980-A-1-AA MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	149203
820-11980-A-1-Z MS	Matrix Spike	Total/NA	Solid	351.2	149203

Analysis Batch: 148959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	351.2	
820-12091-2	City soils 6-18	Total/NA	Solid	351.2	
MB 860-147624/4-A	Method Blank	Total/NA	Solid	351.2	147624
LCS 860-147624/6-A	Lab Control Sample	Total/NA	Solid	351.2	147624
LCSD 860-147624/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	147624
LLCS 860-147624/5-A	Lab Control Sample	Total/NA	Solid	351.2	147624
820-11980-A-1-AJ MS	Matrix Spike	Total/NA	Solid	351.2	
820-11980-A-1-AK MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	

Leach Batch: 149203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-11980-A-1-AA MSD	Matrix Spike Duplicate	Total/NA	Solid	Dry and Grind	
820-11980-A-1-Z MS	Matrix Spike	Total/NA	Solid	Dry and Grind	

Analysis Batch: 149426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-148735/44-A	Method Blank	Total/NA	Solid	351.2	148735
LCS 860-148735/45-A	Lab Control Sample	Total/NA	Solid	351.2	148735
LCSD 860-148735/46-A	Lab Control Sample Dup	Total/NA	Solid	351.2	148735
LLCS 860-148735/5-A	Lab Control Sample	Total/NA	Solid	351.2	148735

Analysis Batch: 149735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	351.2	147624
MB 860-147624/4-A	Method Blank	Total/NA	Solid	351.2	147624
LCS 860-147624/6-A	Lab Control Sample	Total/NA	Solid	351.2	147624
LCSD 860-147624/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	147624
LLCS 860-147624/5-A	Lab Control Sample	Total/NA	Solid	351.2	147624
870-24583-A-2-M MS	Matrix Spike	Total/NA	Solid	351.2	147624
870-24583-A-2-N MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	147624

Leach Batch: 149745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	Dry and Grind	
870-24583-A-2-M MS	Matrix Spike	Total/NA	Solid	Dry and Grind	
870-24583-A-2-N MSD	Matrix Spike Duplicate	Total/NA	Solid	Dry and Grind	

Analysis Batch: 150019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-148735/44-A	Method Blank	Total/NA	Solid	351.2	148735
LCS 860-148735/45-A	Lab Control Sample	Total/NA	Solid	351.2	148735
LCSD 860-148735/46-A	Lab Control Sample Dup	Total/NA	Solid	351.2	148735
LLCS 860-148735/5-A	Lab Control Sample	Total/NA	Solid	351.2	148735
820-11980-A-1-AA MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	148735

General Chemistry (Continued)

Analysis Batch: 150019 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-11980-A-1-Z MS	Matrix Spike	Total/NA	Solid	351.2	148735

Prep Batch: 151374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	29B	
820-12091-2	City soils 6-18	Total/NA	Solid	29B	
820-12091-2 DU	City soils 6-18	Total/NA	Solid	29B	

Prep Batch: 151401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	Sat Paste Ext	151374
820-12091-2	City soils 6-18	Total/NA	Solid	Sat Paste Ext	151374
820-12091-2 DU	City soils 6-18	Total/NA	Solid	Sat Paste Ext	151374

Analysis Batch: 151460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	29B_pH	151401
820-12091-2	City soils 6-18	Total/NA	Solid	29B_pH	151401
820-12091-2 DU	City soils 6-18	Total/NA	Solid	29B_pH	151401

Prep Batch: 151658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	Sat Paste Ext	151664
820-12091-3 DU	City soils 18-30	Total/NA	Solid	Sat Paste Ext	151664

Prep Batch: 151664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	29B	
820-12091-3 DU	City soils 18-30	Total/NA	Solid	29B	

Analysis Batch: 151667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	29B_pH	151658
820-12091-3 DU	City soils 18-30	Total/NA	Solid	29B_pH	151658

Analysis Batch: 152885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	29B_EC	152889
820-12091-2	City soils 6-18	Total/NA	Solid	29B_EC	152889
820-12091-3	City soils 18-30	Total/NA	Solid	29B_EC	152889

Prep Batch: 152886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	29B	
820-12091-2	City soils 6-18	Total/NA	Solid	29B	
820-12091-3	City soils 18-30	Total/NA	Solid	29B	

Prep Batch: 152889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-1	City soils 0-6	Total/NA	Solid	Sat Paste Ext	152886
820-12091-2	City soils 6-18	Total/NA	Solid	Sat Paste Ext	152886

General Chemistry (Continued)

Prep Batch: 152889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-12091-3	City soils 18-30	Total/NA	Solid	Sat Paste Ext	152886

Lab Chronicle

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Client Sample ID: City soils 0-6

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147062	02/26/24 11:51	JDM	EET HOU
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147073	02/26/24 16:44	JDM	EET HOU
Total/NA	Prep	MEHL Prep			2.03 g	20 mL	146970	02/26/24 09:17	PB	EET HOU
Total/NA	Analysis	6010C		1			147150	02/26/24 15:59	JDM	EET HOU
Total/NA	Analysis	29B_EC		1			152885	04/02/24 15:41	BW	EET HOU
Total/NA	Prep	29B			120 g	90 g	152886	04/02/24 15:43	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			35.7 g	35.7 mL	152889	04/02/24 15:45	BW	EET HOU
Total/NA	Prep	29B			30 g	30 mL	151374	03/25/24 07:45	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			30 g	30 g	151401	03/25/24 08:54	BW	EET HOU
Total/NA	Analysis	29B_pH		1			151460	03/25/24 14:02	BW	EET HOU
Total/NA	Analysis	351.2		10			148959	03/08/24 20:01	LD	EET HOU
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.99 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147597	02/26/24 18:09	HN	EET HOU
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.99 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147600	02/26/24 17:22	LD	EET HOU
Total/NA	Analysis	Nitrate by calc		1			144016	03/05/24 09:48	MC	EET HOU
Total/NA	Analysis	Total Nitrogen		1			141767	03/07/24 21:52	MC	EET HOU

Client Sample ID: City soils 6-18

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147062	02/26/24 12:03	JDM	EET HOU
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147073	02/26/24 16:44	JDM	EET HOU
Total/NA	Prep	MEHL Prep			2.01 g	20 mL	146970	02/26/24 09:17	PB	EET HOU
Total/NA	Analysis	6010C		1			147150	02/26/24 16:30	JDM	EET HOU
Total/NA	Analysis	29B_EC		1			152885	04/02/24 15:41	BW	EET HOU
Total/NA	Prep	29B			120 g	90 g	152886	04/02/24 15:43	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			35.1 g	35.1 mL	152889	04/02/24 15:45	BW	EET HOU
Total/NA	Prep	29B			30 g	30 mL	151374	03/25/24 07:45	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			30 g	30 g	151401	03/25/24 08:54	BW	EET HOU
Total/NA	Analysis	29B_pH		1			151460	03/25/24 14:02	BW	EET HOU
Total/NA	Analysis	351.2		10			148959	03/08/24 20:02	LD	EET HOU
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.98 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147597	02/26/24 18:10	HN	EET HOU

Lab Chronicle

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Client Sample ID: City soils 6-18

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.98 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147600	02/26/24 17:22	LD	EET HOU
Total/NA	Analysis	Nitrate by calc		1			144016	03/05/24 09:48	MC	EET HOU
Total/NA	Analysis	Total Nitrogen		1			141767	03/07/24 21:52	MC	EET HOU

Client Sample ID: City soils 18-30

Date Collected: 02/15/24 10:20
Date Received: 02/15/24 12:06

Lab Sample ID: 820-12091-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147062	02/26/24 12:05	JDM	EET HOU
Soluble	Prep	29B			100 g	100 mL	146967	02/26/24 08:55	PB	EET HOU
Soluble	Analysis	29B SAR		1			147073	02/26/24 16:44	JDM	EET HOU
Total/NA	Prep	MEHL Prep			2.01 g	20 mL	146970	02/26/24 09:17	PB	EET HOU
Total/NA	Analysis	6010C		1			147150	02/26/24 16:34	JDM	EET HOU
Total/NA	Analysis	29B_EC		1			152885	04/02/24 15:41	BW	EET HOU
Total/NA	Prep	29B			120 g	90 g	152886	04/02/24 15:43	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			40.5 g	40.5 mL	152889	04/02/24 15:45	BW	EET HOU
Total/NA	Prep	Sat Paste Ext			20 g	20 mL	151658	03/26/24 13:43	BW	EET HOU
Total/NA	Prep	29B			20 g	20 g	151664	03/26/24 13:59	BW	EET HOU
Total/NA	Analysis	29B_pH		1			151667	03/26/24 14:13	BW	EET HOU
Total/NA	Leach	Dry and Grind			50 g	50 g	149745	02/28/24 12:14	LD	EET HOU
Total/NA	Prep	351.2			0.52 g	20 mL	147624	02/29/24 12:19	LD	EET HOU
Total/NA	Analysis	351.2		10			149735	03/06/24 14:50	LD	EET HOU
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.96 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147597	02/26/24 18:11	HN	EET HOU
Total/NA	Leach	Dry and Grind			150 g	150 g	148082	02/25/24 13:04	HN	EET HOU
Total/NA	Prep	KCl Extract			4.96 g	50 mL	148081	02/26/24 12:56	HN	EET HOU
Total/NA	Analysis	353.2		1	10 mL	10 mL	147600	02/26/24 17:23	LD	EET HOU
Total/NA	Analysis	Nitrate by calc		1			144016	03/05/24 09:48	MC	EET HOU
Total/NA	Analysis	Total Nitrogen		1			141767	03/25/24 10:26	MC	EET HOU

Laboratory References:

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

Accreditation/Certification Summary

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
29B SAR	29B	Solid	Na
29B SAR	29B	Solid	Sodium Adsorption Ratio
29B_EC	29B	Solid	Electrical Conductivity
29B_EC	29B	Solid	Specific Conductance
29B_pH	29B	Solid	pH
29B_pH	29B	Solid	Temperature
29B_pH	Sat Paste Ext	Solid	pH
29B_pH	Sat Paste Ext	Solid	Temperature
351.2		Solid	Nitrogen, Kjeldahl
351.2	351.2	Solid	Nitrogen, Kjeldahl
Nitrate by calc		Solid	Nitrate as N
Total Nitrogen		Solid	Nitrogen, Total

Method Summary

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Method	Method Description	Protocol	Laboratory
29B SAR	Sodium Adsorption Ratio	LA	EET HOU
6010C	Metals (ICP)	SW846	EET HOU
29B_EC	Conductivity, Electrical	LA	EET HOU
29B_pH	pH	LA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
353.2	Nitrogen, Nitrate-Nitrite	EPA	EET HOU
353.2	Nitrogen, Nitrite	EPA	EET HOU
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	EET HOU
Total Nitrogen	Nitrogen, Total	EPA	EET HOU
29B	Preparation, Dry, Grind and Sieve	LA	EET HOU
29B	Preparation, Sodium Absorption Ratio	LA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
Dry and Grind	Preparation, Dry and Grind	None	EET HOU
KCl Extract	Potassium chloride Extraction	EPA	EET HOU
KCL Extraction	Potassium chloride Extraction - Auto Complete	EPA	EET HOU
MEHL Prep	Preparation, MEHL	None	EET HOU
Sat Paste Ext	Saturated Paste Extraction	TAL SOP	EET HOU

Protocol References:

EPA = US Environmental Protection Agency
LA = Statewide Order No. 29-B, State Of Louisianna
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: City of Sundown
Project/Site: City Soils annually

Job ID: 820-12091-1
SDG: WWTP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-12091-1	City soils 0-6	Solid	02/15/24 10:20	02/15/24 12:06
820-12091-2	City soils 6-18	Solid	02/15/24 10:20	02/15/24 12:06
820-12091-3	City soils 18-30	Solid	02/15/24 10:20	02/15/24 12:06

Loc: 820
12091 urofins | Environment Testing

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199
Little Rock, AR (501) 224-5060

820-12091 Chain of Custody

Page _____ of _____

Project Manager:	Lee Tower	Bill to: (if different)	Attn: Sylvia Garza
Company Name:	City of Sundown	Company Name:	City of Sundown
Address:	809 S. Slaughter	Address:	PO Box 600
City, State ZIP:	Sundown, TX. 79372	City, State ZIP:	Sundown, Tx. 79372
Phone:	806-229-3331	Email:	lee@sundowntx.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	City Soils annual	Turn Around	☑ Routine ☐ Rush
Project Number:			
Project Location:	WWTP	Due Date:	
Sampler's Name:	Lee Tower	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	Yes (No)	
Samples Received Intact:	(Yes) No	Thermometer ID:	IR-4	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.1	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	18.8	
Total Containers:	3	Corrected Temperature:	18.7	

ANALYSIS REQUEST

Parameters

See attached

Preservative Codes

None: NO — DI Water: H_2O
Cool: Cool — MeOH: Me
HCL: HC — HNO_3
H_2SO_4: H_2 — NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Sample Comments
City soils 0"-6"	WW S	2-05-24	1020			1		
City Soils 6"-18"	WW S	2-05-24	1020			1		
City Soils 18"-30"	WW S	2-5-24	1020			1		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Lee Tower	Colby Tyler	2-5-24 1206	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

maintaining accurate records of the volume of effluent applied. These records shall be made available for review by the Texas Commission on Environmental Quality and shall be maintained for at least three years.

7. Holding or storage ponds shall conform to the design criteria for stabilization ponds with regard to construction and levee design and shall maintain a minimum freeboard of two feet according to 30 TAC Chapter 217, Design Criteria for Wastewater Treatment Systems.

8. The permittee shall obtain representative soil samples from the root zones of the land application area. Composite sampling techniques shall be used. Each composite sample shall represent no more than 50 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches, 6 to 18 inches and 18 to 30 inches below ground level. The permittee shall sample soils in December to February of each year. Soil samples shall be analyzed within 30 days of sample collection.

   Samples shall be analyzed annually according to the following table:

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	2:1 (v/v) water to soil mixture	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen	From a 1 N KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN plus Nitrate-nitrogen		mg/kg (dry weight basis)

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1 (P)	mg/kg (dry weight basis)
Plant-available: Potassium (K)	May be determined in the same Mehlich III extract with inductively coupled plasma	5 (K)	mg/kg (dry weight basis)
Amendment addition, e.g., gypsum			Report in *short tons/acre* in the year effected

A copy of this soil testing plan shall be provided to the analytical laboratory prior to sample analysis. The permittee shall submit the results of the annual soil sample analyses with copies of the laboratory reports and a map depicting the areas that have received wastewater within the permanent land application fields to the TCEQ Regional Office (MC Region 2) and the Compliance Monitoring Team (MC 224) of the Enforcement Division, no later than the end of September of each sampling year. If wastewater is not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that wastewater has not been applied on the approved land irrigation site(s) during that year.

9. The permittee shall maintain a long-term contract with the owner(s) of the land application site, which is authorized for use in this permit, or own the land authorized for land application of treated effluent.

10. The permittee shall erect adequate signs stating that the irrigation water is from a non-potable water supply for any area where treated effluent is stored or where there exist hose bibs or faucets. Signs shall consist of a red slash superimposed over the international symbol for drinking water accompanied by the message "DO NOT DRINK THE WATER" in both English and Spanish. All piping transporting the effluent shall be clearly marked with these same signs.

11. Spray fixtures for the irrigation system shall be of such design that they cannot be operated by unauthorized personnel.

12. Irrigation with effluent shall be accomplished only when the area specified is not in use.

13. Permanent transmission lines shall be installed from the holding pond to each tract of land to be irrigated utilizing effluent from that pond.

Eurofins Lubbock
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

Chain of Custody Record

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4/3/2024

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Teel, Brianna	Carrier Tracking No(s):	COC No: 820-8932.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Brianna.Teel@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP Texas		Job #: 820-12091-1
Address: 4145 Greenbriar Dr	Due Date Requested: 2/21/2024			
City: Stafford	TAT Requested (days):			
State, Zip: TX, 77477				
Phone: 281-240-4200(Tel)	PO #:			
Email:	WO #:			
Project Name: City Soils annually	Project #: 82001157			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	25B_8AR_Calc/25B_8AR_P	6010C/MEHL_Prep (MOD) Custom List	351.2/Dry_Grind Total Kjeldahl Nitrogen (TKN)	353.2/Dry_Grind	353.2_Nitrite/Dry_Grind	Nitrogen,Total	Nitrate_Calc/KCL_Ext_AC	25B_EC/25B_Prep_Solid	25B_pH/25B_Prep_Solid	Special Instructions/Note:
City soils 0-6 (820-12091-1)	2/15/24	10:20 Central		Solid	X	X	X	X	X	X	X	X	X	
City soils 6-18 (820-12091-2)	2/15/24	10:20 Central		Solid	X	X	X	X	X	X	X	X	X	
City soils 18-30 (820-12091-3)	2/15/24	10:20 Central		Solid	X	X	X	X	X	X	X	X	X	Ha369 1 9 1 8

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

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

Relinquished by: CT	Date/Time: 2/15/24 1700	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by: GB	Date/Time: 2/16/24 9:30	Company G
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: City of Sundown

Job Number: 820-12091-1
SDG Number: WWTP

Login Number: 12091
List Number: 1
Creator: Triplett, Colby

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: City of Sundown

Job Number: 820-12091-1
SDG Number: WWTP

Login Number: 12091
List Number: 2
Creator: Baker, Jeremiah

List Source: Eurofins Houston
List Creation: 02/16/24 01:47 PM

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

Candice Calhoun

From: Paul Krueger <PKrueger@Parkhill.com>
Sent: Wednesday, December 4, 2024 1:52 PM
To: Erwin Madrid; billy@sundowntx.com
Cc: Candice Calhoun
Subject: RE: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter
Attachments: WQ0011253001_NOD-1_Response.pdf; Municipal TPDES and TLAP PLS Form.docx

Follow Up Flag: Follow up
Flag Status: Flagged

All,

Please find the attached complete response to NOD 1 for the City of Sundown WWTP Permit Renewal.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Sent: Monday, December 2, 2024 12:08 PM
To: billy@sundowntx.com
Cc: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>; Paul Krueger <PKrueger@Parkhill.com>
Subject: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter
Importance: High

Dear applicant,

The attached Notice of Deficiency 30-Day Will Return Letter was mailed on **December 2, 2024,** requesting additional information needed to declare the application administratively complete. Please mail an original and two copies (with a cover letter) of the complete response by **January 1, 2025.**

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality

Candice Calhoun

From: Paul Krueger <PKrueger@Parkhill.com>
Sent: Thursday, December 5, 2024 11:11 AM
To: Candice Calhoun; Erwin Madrid; billy@sundowntx.com
Subject: RE: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter
Attachments: Municipal TPDES and TLAP PLS Form.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning,

My apologies for leaving out the flow information. I have attached an updated PLS with discharge information for the final phase flow.

We will keep an eye out for confirmation on the letter and Notice of Completion. I have the form filled out from March, but unfortunately I do not have a copy of the signed version that was mailed out. We can resend a new form if needed, just let me know.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Thursday, December 5, 2024 9:59 AM
To: Paul Krueger <PKrueger@Parkhill.com>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>; billy@sundowntx.com
Subject: RE: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter
Importance: High

Good morning, Mr. Krueger,

Thank you for your response. Your response to items 1 and 4 is sufficient. For item 2, I am still awaiting confirmation from my team that the letter and Notice of Completion, that you sent in March of 2023, was received. I have reached back out for an update so once I receive a response, I will follow up with you to inform you if it was received or not. As for item 3, the Plain Language Summary provided is missing the discharge flow information. Please provide an updated PLS to include this information.

Please let me know if you have any additional questions.

Regards,

Candice Calhoun

From: Paul Krueger <PKrueger@Parkhill.com>
Sent: Thursday, December 5, 2024 11:58 AM
To: Candice Calhoun; Erwin Madrid; billy@sundowntx.com
Subject: RE: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter
Attachments: notice of completion_phase of waste water.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Calhoun,

Billy with the City was able to track down the signed letter/form and USPS receipt. Thank you Billy!
Please see the attachment and let us know if we need to provide anything further.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Paul Krueger
Sent: Thursday, December 5, 2024 11:11 AM
To: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>; billy@sundowntx.com
Subject: RE: Application for Permit No. WQ0011253001 – Notice of Deficiency 30-Day Will Return Letter

Good morning,

My apologies for leaving out the flow information. I have attached an updated PLS with discharge information for the final phase flow.

We will keep an eye out for confirmation on the letter and Notice of Completion. I have the form filled out from March, but unfortunately I do not have a copy of the signed version that was mailed out. We can resend a new form if needed, just let me know.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Thursday, December 5, 2024 9:59 AM
To: Paul Krueger <PKrueger@Parkhill.com>; Erwin Madrid <Erwin.Madrid@tceq.texas.gov>; billy@sundowntx.com

Parkhill

December 4, 2024

Candice Calhoun-Courville
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
Water Quality Division

Re: Application to Renew Permit No.: WQ0011253001
Applicant Name: City of Sundown (CN600741110)
Site Name: City of Sundown WWTP (RN101916955)
Type of Application: Renewal

Dear Candice:

We have received the Notice of Deficiency (NOD) letter dated November 12, 2024, requesting additional information for the above referenced permit renewal application. Please find our complete response below.

1. *Comment: Administrative Report 1.0, Section 2, item a – an incorrect authorization type was marked. The box listed as "Conventional Wastewater Treatment" is an error on our end and should say "Conventional Water Treatment". This is the incorrect authorization type. Please provide an updated section to show the correct authorization type marked.*

   Response: Please see Attachment 1 for an updated section indicating the correct authorization.

2. *Comment: Technical Report 1.0, Section 1, Item a – the interim I phase flow information was not listed. Please provide an updated section to show the interim flow information listed.*

   Response: Interim I phase flow was not provided because as of March 06, 2023 the facility has been operating in the final phase of the permit.

3. *Comment: The Plain Language Summary (PLS), in English Language, was missing from the application. Please use the provided template to provide a complete PLS, in English Language.*

   Response: The completed Plain Language Summary has been provided on the template as an attachment to our response email. A PDF version is provided as Attachment 2 for reference.

4. *Comment: 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. City of Sundown, P.O. Box 600, Sundown, Texas 79372, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0011253001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 175,000 gallons per day via surface irrigation of 50 acres of non-public access agricultural land. The domestic wastewater treatment facility and disposal area are located approximately 1 mile northwest of the intersection of Farm-to-Market Road 301 and Farm-to-Market Road 303, near the city of Sundown, in Hockley County, Texas 79372. TCEQ received this application on November 7, 2024. The permit application will be available for viewing and copying at Sundown City Hall, main entrance, 809 South Slaughter Avenue, Sundown, in Hockley 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/tlap-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=-102.494444,33.469444&level=18

Further information may also be obtained from City of Sundown at the address stated above or by calling Mr. Billy Hernandez, C.P.M., City Administrator, at 806-229-3131.

Response: No errors or omissions were found in the NORI.

Sincerely,

PARKHILL

By _____
Paul Krueger, PE
Civil Project Manager

PSK
Enclosures
Attachment 1 – Revised Administrative Report 1.0, Section 2
Attachment 2 - Completed Plain Language Summary

cc: Billy Hernandez, City of Sundown, PO Box 600, Sundown, TX 79372

4222 85th Street | Lubbock, Texas 79423 | 806.473.2200 Parkhill.com

Attachment 1

Updated Administrative Report - Section 1

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

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

Flow	New/Major Amendment	Renewal
<0.05 MGD	$350.00 ☐	$315.00 ☐
≥0.05 but <0.10 MGD	$550.00 ☐	$515.00 ☐
≥0.10 but <0.25 MGD	$850.00 ☐	$815.00 ☒
≥0.25 but <0.50 MGD	$1,250.00 ☐	$1,215.00 ☐
≥0.50 but <1.0 MGD	$1,650.00 ☐	$1,615.00 ☐
≥1.0 MGD	$2,050.00 ☐	$2,015.00 ☐

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed Check/Money Order Number: Click to enter text.

Check/Money Order Amount: Click to enter text.

Name Printed on Check: Click to enter text.

EPAY Voucher Number: 728131

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

☒ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☐ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

☒ Active ☐ Inactive

Attachment 2

Plain Language Summary

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

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

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

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

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

City of Sundown (CN600741110) operates City of Sundown WWTP (RN101916955). a facultative lagoon treatment system. The facility is located approximately 1 mile northwest of the intersection of FM 301 and FM 303, in Sundown , Hockley County, Texas 79372.

Application is requesting renewal of existing permit to discharge 175,000 gallons per day of treated domestic wastewater. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD. Domestic Wastewater is treated by *a facultative lagoon system*.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Texas Commission on Environmental Quality
Applications Rev. & Proc. Team (MC-148
PO Box 13087
Austin, TX 78711-3087

9590 9402 5865 0038 5596 33

2. Article Number (Transfer from service label)
7016 0750 0000 9713 8837

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by (Printed Name) TX Comptroller Mail C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

MAR 16 2023

3. Service Type
- ☑ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation
- ☐ Signature Confirmation Restricted Delivery

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Texas Commission on Environmental Quality
Lubbock Regional Office
5012 50th Street, Suite 100
Lubbock, TX 79414-3426

9590 9402 5865 0038 5596 19

2. Article Number (Transfer from service label)
7016 0750 0000 9713 8844

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☑ Agent ☐ Addressee

B. Received by (Printed Name) Hudson C. Date of Delivery 3/15/23

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☒ No

3. Service Type
- ☑ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Return Receipt for Merchandise
- ☐ Signature Confirmation
- ☐ Signature Confirmation Restricted Delivery

7016 0750 0000 9713 8837

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	$ 4.15
Extra Services & Fees (check box, add fee as appropriate)	
☑ Return Receipt (hardcopy)	$ 2.10
☐ Return Receipt (electronic)	$
☐ Certified Mail Restricted Delivery	$
☑ Adult Signature Required	$
☐ Adult Signature Restricted Delivery	$
Postage	$ .60
Total Postage and Fees	$ 6.85

SUNDOWN, TX 79372
Postmark Here MAR 13 2023
USPS

Sent To: TX Commission on Env. Quality Applications Rev. & Proc.
Street and Apt. No., or PO Box No.: PO Box 13087
City, State, ZIP+4®: Austin, TX 78711-3087

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

March 13, 2023

Texas Commission on Environmental Quality
Applications Review and Processing Team (MC-148)
P.O. Box 13087
Austin, Texas 78711-3087

Re: City of Sundown Wastewater Treatment Facility (WQ0011253001)
Notification of Completion of Final Phase

Ladies and Gentlemen:

This letter is to notify you that the City of Sundown Wastewater Treatment Facility will soon be operating in the final phase as defined in the permit referenced above. Please see the attached Notification of Completion form.

If you have any questions regarding this issue, please contact Paul Krueger, P.E. at (806) 473-2200.

Sincerely,

By _____
Billy Hernandez, CPM
City Administrator – Sundown, TX

cc: Texas Commission on Environmental Quality
Lubbock Regional Office
5012 50th Street, Suite 100
Lubbock, Texas 79414-3426

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
NOTIFICATION OF COMPLETION/PHASE OF WASTEWATER TREATMENT FACILITY

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

Current Permit Information

What is the TCEQ Water Quality Permit Number? WQ0011253001

What is the EPA I.D. Number? TX N/A

Current Name on Permit: City of Sundown WWTP

Notification

Indicate the phase the facility will be operating.

- ☐ Interim Phase I Flow
- ☐ Interim Phase II Flow
- ☐ Interim Phase III Flow
- ☒ Final Phase Flow

Indicate the date that the operation began or will begin operating under the selected phase:
Month/Day/Year: 03/06/2023

Comments:

Certification and Signature

Responsible Official Name (Print or Type): Billy Hernandez, CPM

Responsible Official Title: City Administrator

Responsible Official Email: billy@sundowntx.com

I 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.

Signature (use blue ink): _____ Date: 3 13 2023

Email completed form to: **WQ-ARPTeam@tceq.texas.gov**
or

Fax completed form to: **512-239-0884**
or mail completed form to: Texas Commission on Environmental Quality
Applications Review and Processing Team (MC-148)
P.O. Box 13087
Austin TX 78711-3087