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

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your 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 you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

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

If you are subject to the alternative language notice requirements in 30 TAC Section 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/STORMWATER

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

City of Panhandle (CN600647234) operates City of Panhandle Wastewater Treatment Plant (RN102976131), a facultative pond system. The facility is located at 2500 feet east of the intersection of US Highway 60 and State Highway 293, in Panhandle, Carson County, Texas 79068. This permit application is a renewal without changes to dispose of treated wastewater at a rate not to exceed 0.280 million gallons per day on 75 acres of non-public access land. Effluent from the plant flows through a 12-inch pipe to a playa basin immediately southeast of the facility and is then irrigated on 75 acres of farmland. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD_5. Domestic wastewater is treated by facultative pond system consisting of a bar-screen, one facultative lagoon and one holding pond.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0010359001

APPLICATION. City of Panhandle, P.O. Box 129, Panhandle, Texas 79068, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0010359001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 280,000 gallons per day via surface irrigation of 75 acres of non-public access agricultural land. The domestic wastewater treatment facility and disposal area are located approximately 2,500 feet east of the intersection of U.S. Highway 60 and State Highway 293, in Carson County, Texas 79068. TCEQ received this application on July 7, 2025. The permit application will be available for viewing and copying at Panhandle City Hall, Lobby and Front Desk, 1 Main Street, Panhandle, in Carson 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=-101.355,35.3481&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 Panhandle at the address stated above or by calling Mr. Terry Coffee, City Manager, at 806-336-9945.

Issuance Date: August 6, 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Panhandle

PERMIT NUMBER (If new, leave blank): WQ0010359001

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	☐	☒
Summary of Application (PLS)	☒	☐	Flow Diagram	☒	☐
Public Involvement Plan Form	☐	☒	Site Drawing	☒	☐
Technical Report 1.0	☒	☐	Original Photographs	☐	☒
Technical Report 1.1	☐	☒	Design Calculations	☐	☒
Worksheet 2.0	☐	☒	Solids Management Plan	☐	☒
Worksheet 2.1	☐	☒	Water Balance	☐	☒
Worksheet 3.0	☒	☐			
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: Click to enter text.

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 Water Treatment

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

☒ Active ☐ Inactive

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: Click to enter text.

f. For existing permits:

Permit Number: WQ00 10359001

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

Expiration Date: 12/01/2025

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 Panhandle

(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: 600647234

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: Robinson, Doyle

Title: Mayor Credential: Click to enter text.

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. Appendix A: Core Data Form

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: Coffee, Terry

Title: City Manager Credential: Click to enter text.

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)336-9945 E-mail Address: tcoffee@cityofpanhandle.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

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

Title: Civil Engineer Credential: P.E.

Organization Name: Parkhill

Mailing Address: 4222 85th St. 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

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: Coffee, Terry

Title: City Manager Credential: Click to enter text.

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)336-9945 E-mail Address: tcoffee@cityofpanhandle.com

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

Title: Civil Engineer Credential: P.E.

Organization Name: Parkhill

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

Phone No.: (806)473-3715 E-mail Address: PKrueger@Parkhill.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: Coffee, Terry

Title: City Manager Credential: Click to enter text.

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)336-9945 E-mail Address: tcoffee@cityofpanhandle.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: Watson, Shawn

Title: Director of Public Works Credential: Click to enter text.

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)537-3517 E-mail Address: publicworks@cityofpanhandle.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: P.E.

Organization Name: Parkhill

Mailing Address: 4222 85th St. 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: Coffee, Terry

Title: City Manager Credential: Click to enter text.

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)336-9945 E-mail Address: tcoffee@cityofpanhandle.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 of Panhandle City Hall

Location within the building: Lobby and Front Desk

Physical Address of Building: 1 Main St.

City: Panhandle County: Carson

Contact (Last Name, First Name): Coffee, Terry

Phone No.: (806)537-3517 Ext.: Click to enter text.

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. Summary of Application in Plain Language Template

Complete the F. Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS, and include as an attachment.

Attachment: Appendix C: Plain Language Summary

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** 102976131

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 Panhandle Wastewater Treatment Plant

C. Owner of treatment facility: City of Panhandle

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

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

Prefix: N/A Last Name, First Name: N/A

Title: N/A Credential: N/A

Organization Name: City of Panhandle

Mailing Address: PO Box 129 City, State, Zip Code: Panhandle, TX 79068

Phone No.: (806)537-5049 E-mail Address: publicworks@cityofpanhandle.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: Click to enter text.

E. Owner of effluent disposal site:

Prefix: Mr. Last Name, First Name: S. Joe, L. John, and Geraldine, Nunn

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: Appendix B: Lease Agreement

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

Prefix: Click to enter text. 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: Panhandle

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

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

Effluent from the plant flows through a 12-inch pipe to a playa basin immediately southeast of the facility then irrigated on 75 acres of farmland.

E. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: McClellan Creek, Segment 0224A of the Red 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:

- 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: Appendix A: Core Data Form, Appendix B: Lease Agreement

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010359001

Applicant: City of Panhandle

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): Doyle Robinson

Signatory title: Mayor

Signature:_____ Date:_____

(Use blue ink)

Subscribed and Sworn to before me by the said_____

on this_____ day of_____, 20_____.

My commission expires on the_____ day of_____, 20_____.

_____

Notary Public *[SEAL]*

_____

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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 that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).

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: N/A

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:** WQ0010359001

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 Panhandle Wastewater Treatment Plant

   Physical Address of Project or Site: Click to enter text.

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

Electronic Application Submittal ☒ Yes
(See application submittal requirements on page 23 of the instructions.)

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)

Summary of Application (in Plain Language) ☒ 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 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.280

2-Hr Peak Flow (MGD): 1.070

Estimated construction start date: N/A

Estimated waste disposal start date: 09/24/2004

B. Interim II Phase

Design Flow (MGD): N/A

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

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

C. Final Phase

Design Flow (MGD): 0.280

2-Hr Peak Flow (MGD): 1.070

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

D. Current Operating Phase

Provide the startup date of the facility: 09/24/2004

Section 2. Treatment Process (Instructions Page 42)

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**.

Facultative Pond System - Headworks (grinding, screening, flow measurement), (1) Lift Station (1) Facultative Lagoon, (1) Irrigation Holding Pond, (1) Playa Holding Pond

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)
Headworks (grinding, screening, flow measurement)	1	N/A
Facultative Lagoon	1	723' x 241' x 7'
Irrigation Holding Pond	1	723' x 241' x 7'

C. Process Flow Diagram

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

Attachment: Appendix E: Flow Diagram

Section 3. Site Information and Drawing (Instructions Page 43)

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: 35°20'53" N
- Longitude: -101°21'18" W

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: Appendix F: Site Drawing
Provide the name **and** a description of the area served by the treatment facility.

The area served by the treatment facility is the City of Panhandle.

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
		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 44)

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 44)

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.

Click to enter text.

Section 6. Permit Specific Requirements (Instructions Page 44)

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: 07/08/2003

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

N/A

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

N/A

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*.

The City of Panhandle conducts annual soil monitoring on land receiving effluent irrigation, and groundwater monitoring once every 6 months.

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 49)

Is the facility in operation?

☒ Yes ☐ No

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

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **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	28.0	28.0	1	Grab	05/14/2025 @12:15pm
Total Suspended Solids, mg/l	90.0	90.0	1	Grab	05/14/2025 @12:15pm
Ammonia Nitrogen, mg/l	8.02	8.02	1	Grab	05/14/2025 @12:15pm
Nitrate Nitrogen, mg/l	<0.1	<0.1	1	Grab	05/14/2025 @12:15pm
Total Kjeldahl Nitrogen, mg/l	14.8	14.8	1	Grab	05/14/2025 @12:15pm
Sulfate, mg/l	26.4	26.4	1	Grab	05/14/2025 @12:15pm
Chloride, mg/l	74.3	74.3	1	Grab	05/14/2025 @12:15pm
Total Phosphorus, mg/l	4.28	4.28	1	Grab	05/14/2025 @12:15pm
pH, standard units	8.8	8.8	1	Grab	05/14/2025 @12:15pm
Dissolved Oxygen*, mg/l	N/A	N/A	N/A	N/A	N/A
Chlorine Residual, mg/l	<0.100	<0.100	1	Grab	05/14/2025 @12:15pm
E.coli (CFU/100ml) freshwater	205	205	1	Grab	05/14/2025 @12:15pm
Entercocci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	480	480	1	Grab	05/14/2025 @12:15pm
Electrical Conductivity, µmohs/cm, †	772	772	1	Grab	05/14/2025 @12:15pm
Oil & Grease, mg/l	<4.82	<4.82	1	Grab	05/14/2025 @12:15pm
Alkalinity ($CaCO_3$)*, mg/l	N/A	N/A	N/A	N/A	N/A

*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	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Alkalinity ($CaCO_3$), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Shawn Watson

Facility Operator's License Classification and Level: Class C WWTP Operator

Facility Operator's License Number: WW0033273

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 50)

A. WWTP's Sewage Sludge or 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 Sewage Sludge or 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: Click to enter text.

C. Sewage Sludge or Biosolids Management

Provide information on the *intended* sewage sludge or biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all sewage sludge or 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		Class B: PSRP Equivalency	Option 5: Aerobic process for 14 days at >40C

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Click to enter text.

D. Disposal site

Disposal site name: City of Panhandle Sanitary Landfill

TCEQ permit or registration number: MSW1164

County where disposal site is located: Carson

E. Transportation method

Method of transportation (truck, train, pipe, other): Truck

Name of the hauler: City of Panhandle

Hauler registration number: 22642

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 52)

A. Beneficial use authorization

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

☐ Yes ☒ No

If yes, are you requesting to continue this authorization to land apply biosolids 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 Biosolids	☐ 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 54)

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: Click to enter text.

Section 14. Laboratory Accreditation (Instructions Page 55)

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: Doyle Robinson

Title: Mayor

Signature: _____

Date: _____

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 56)

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 58)

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 58)

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 58)

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 59)

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 59)

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 60)

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

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 63)

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 63)

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 63)

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 63)

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 65)

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.

Section 1. General Information (Instructions Page 65)

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 65)

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 65)

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 67)

Identify the method of land disposal:

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

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 67)

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
Agricultural – Wheat and Cotton	75	280,000	N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 67)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
Irrigation Holding Pond	4	28	723’ x 241’ x 7’	Clay
Natural Playa Lake	Unknown	511.6	Unknown	Natural Clays

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

Attachment: Click to enter text.

Section 4. Flood and Runoff Protection (Instructions Page 67)

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.

N/A

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

FEMA

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

Land application will occur at a rate to avoid ponding and runoff and land application will not occur during rainfall events or when the soil is saturated or frozen.

Section 5. Annual Cropping Plan (Instructions Page 67)

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**: Appendix I: Annual Cropping Plan

- 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 68)

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

- 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
646107	Irrigation	Y	Cased	500ft Buffer

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
646108	Irrigation	Y	Cased	500ft Buffer
646103	Irrigation	Y	Cased	500ft Buffer
96397	Public Supply	Y	Cased	500ft Buffer
646109	Public Supply	Y	Cased	500ft Buffer
646152	Domestic	Y	Unknown	500ft Buffer
628738	Irrigation	Y	Cased	Buffer
171729	Environmental Soil Boring	N	Plugged	Buffer
676917	Domestic	Y	Cased	Buffer
96397	Public Supply	Y	Cased	Buffer
660623	Domestic	Y	Cased	Buffer
592364	Domestic	Y	Cased	Buffers

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

Attachment: Appendix J: Well Map and Info

Section 7. Groundwater Quality (Instructions Page 68)

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: Appendix K: Groundwater Quality

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 69)

A. Soil map

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

Attachment: Appendix L: Soil Map and Analysis

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: Appendix L: Soil Map and Analysis

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
Pullman Clay loam	80 inches	0.01 to 0.14 in/hr	10.6 inches	1 to 3% Slopes
Pantex Silty Clay loam	80 inches	0.01 to 0.14 in/hr	11.2 inches	0 to 1% Slopes

Section 9. Effluent Monitoring Data (Instructions Page 70)

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
Jan 2023	0.204	27	N/A	8.6		
Feb 2023	0.168	33	N/A	7.8		
Mar 2023	0.156	50	N/A	8.1		
Apr 2023	0.142	22	N/A	7.2		
May 2023	0.136	18	N/A	8.2		
June 2023	0.108	28	N/A	8.0		
July 2023	0.088	24	N/A	8.4		

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
Aug 2023	0.093	26	N/A	8.7		
Sept 2023	0.108	34	N/A	8.6		
Oct 2023	0.094	45	N/A	8.6		
Nov 2023	0.099	47	N/A	8.3		
Dec 2023	0.109	46	N/A	8.4		
Jan 2024	0.098	50	N/A	8.2		
Feb 2024	0.109	36	N/A	8.3		
Mar 2024	0.105	46	N/A	8.3		
Apr 2024	0.335	36	N/A	8.6		
May 2024	0.107	57	N/A	8.4		
June 2024	0.122	41	N/A	8.3		
July 2024	0.126	39	N/A	8.6		
Aug 2024	0.146	56	N/A	8.7		
Sept 2024	0.131	51	N/A	8.2		
Oct 2024	0.125	50	N/A	8.0		
Nov 2024	0.169	38	N/A	8.4		
Dec 2024	0.134	58	N/A	8.6		

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

The average daily flowrate for April 2024 was above the permitted flow of 0.280 MGD due to daily flowrates ranging from 0.889 to 1.05 MGD .

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.

Section 1. Surface Disposal (Instructions Page 71)

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 72)

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.*

Section 1. Subsurface Application (Instructions Page 73)

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 73)

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.

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 74)

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 74)

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 74)

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 75)

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 75)

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 75)

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.

Section 1. Toxic Pollutants (Instructions Page 76)

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
Epichlorohydrin				---
Ethylbenzene				10
Ethylene Glycol				---
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
4,4'-Isopropylidenediphenol				1
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Methyl tert-butyl ether				---
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) **(*3)**				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
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 Page 86 of the instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests

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 87)

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 87)

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 88)

A. General information

Company Name: Click to enter text.

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_____

Section 1. General Information (Instructions Page 90)

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)

Appendix 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 600647234		**RN 102976131**

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 Panhandle

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 129

City	Panhandle	**State**	TX	**ZIP**	79068	**ZIP + 4**	

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(806) 336-9945		( ) -

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 Panhandle Wastewater Treatment Plant

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

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

25. Description to Physical Location:	2,500 feet east of the interesction of U.S. Highway 60 and Sate Highway 293, east of the City of Panhandle, in Carson County, Texas.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Panhandle			TX	79068	

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:	35.33472222		**28. Longitude (W) In Decimal:**	101.355	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
35	20	53	101	21	18

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 129**						
	City	**Panhandle**	**State**	**TX**	**ZIP**	**79068**	**ZIP + 4**
35. E-Mail Address:	**tcoffee@cityofpanhandle.com**						

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(806) 336-9945		( ) -

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:
	WQ0010359001			

SECTION IV: Preparer Information

40. Name:	Paul Krueger	**41. Title:**	Civil Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(806 **)** 473-3715		**( )** -	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 Panhandle	**Job Title:**	City Manager	
Name *(In Print):*	Terry Coffee		**Phone:**	**(** 806 **)** 537- **3517**
Signature:			**Date:**	

Appendix B

Lease Agreement

STATE OF TEXAS
COUNTY OF CARSON

LEASE

THIS LEASE AGREEMENT, made and entered into on this the 1st day of July , A.D. 2000, by and between Joe S. Nunn, John L. Nunn and Geraldine M. Nunn of the City of Panhandle, County of Carson, State of Texas, hereinafter called "Lessor and the City of Panhandle, Carson County, Texas, acting by and through its Mayor, Leslie L. McNeill, hereinafter called "Lessee";

WITNESSETH:

SECTION 1: Lessor hereby leases to Lessee, for use as a secondary treatment and holding area for wastewater plant effluent, the following described property located in Carson County, Texas, to-wit:

> The southwest corner of section 38, Block 2, Tyler Tap Railroad Survey, Carson County, Texas, containing 100 acres more or less of land as shown on the attached Exhibit A which is made part of this agreement as if included verbatim herein.

Upon the following terms and conditions:

SECTION 2. Rental Rate. As consideration for this lease, the Lessee agrees to pay Lessor the sum of Ten Dollars ($10.00), said sum due and payable lump sum at the time this lease is executed.

SECTION 3. Term of the Lease. The term of this lease shall run for a minimum term of eleven (11) years beginning July 1, 2000. The lease shall automatically renew for the same term except as otherwise indicated in writing by either party as required herein.

SECTION 4. Sub-Lease. Lessee shall not sublet the property, or any part thereof, without prior written consent of the Lessor.

SECTION 5. Maintenance. Lessee will maintain the leased land during the term of the lease in as good condition as at the beginning, normal wear and depreciation and damages from causes beyond the Lessee's control expected.

SECTION 6. Liability. Lessee agrees to be and thereby assume full and total responsibility and liability for any and all damage or injury that may be suffered by others on the above described property while in the possession of Lessee.

SECTION 7. Termination By Lessee. This lease agreement may not be terminated without written consent of the Lessee. This lease will automatically terminate sixty (60) days after the date on which Lessee notifies Lessor, in writing, that Lessee has ceased operation of a wastewater treatment plant and does not intend to continue such operation at any time in the future. The Lessee may terminate the lease agreement at any time by giving written notice of termination ninety (90) days in advance of said termination.

SECTION 8. Use of Leased Land by Lessor. Lessee agrees that Lessor has the right and permission to locate wastewater holding ponds on the leased lands, so long as the ponds are to be used in conformance with the Lessee's Irrigation Agreement with the Lessor as shown on the attached Exhibit B which is made part of this agreement as if included verbatim herein. Lessee additionally agrees that Lessor has right of access to the leased land in order to control weed and brush accumulations.

SIGNED AND EXECUTED THIS the 1st day of July, A.D. 2000.

LESSOR:

Joe S. Nunn
John L. Nunn
Geraldine M. Nunn

Joe S. Nunn

John L. Nunn

Geraldine M. Nunn

LESSEE:

City of Panhandle, Texas

Leslie L. McNeill, Mayor

ATTEST:

Chris Coffman
City Secretary

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 25th day of July, A.D. 2000, by Joe S. Nunn.

SHARON K. HUDSON
Commission Expires 06-11-2002

Sharon K. Hudson
Notary Public, State of Texas
My commission expires on: 06-11-2002

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 26th day of July, A.D. 2000, by John L. Nunn.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 27th day of July, A.D. 2000, by Geraldine M. Nunn.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

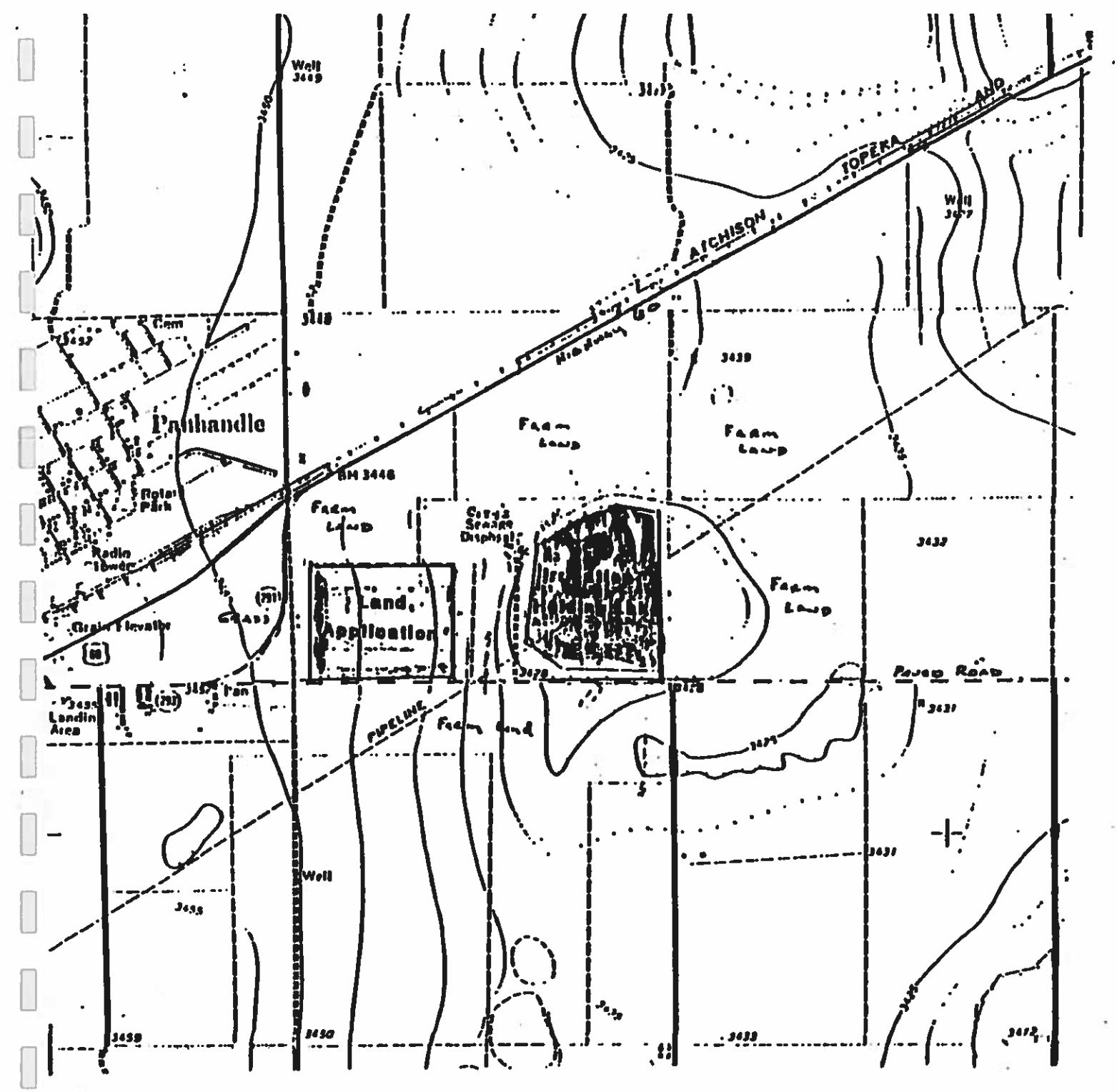
Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 27th day of July, A.D. 2000, by Leslie L. McNeill, Mayor of the City of Panhandle, Texas.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02



Legend:
- o Water Wells
- • Residence
- 1 Windmill well
- o barns, etc.

LAND APPLICATION SITE
CITY OF PANHANDLE
1" = 2,000'

ATTACHMENT NUMBER 3

STATE OF TEXAS
COUNTY OF CARSON

IRRIGATION AGREEMENT

This agreement, made and entered into on this the 1st day of July , A.D. 2000, by and between the City of Panhandle, Texas, a municipal corporation, acting by and through its Mayor, Leslie L. McNeill (hereinafter referred to as "the City"), and Joe S. Nunn, John L. Nunn and Geraldine M. Nunn (hereinafter referred to as "Water User");

WITNESSETH:

WHEREAS, the City of Panhandle does not have sufficient quantities of land service to dispose of present and projected effluent wastewater generated by the City's sewer system; and

WHEREAS, Water User desires to take and use the effluent water and sewage for agricultural and irrigation purposes on the below described tract of land, hereinafter referred to as "Land", to-wit:

> The southwest corner of section 38, Block 2, Tyler Tap Railroad Survey, Carson County, Texas, containing 75 acres of land as shown on the attached Exhibit A which is to be considered as part of this document as if stated verbatim herein.

NOW, THEREFORE, for and in consideration of the conveyance and agreements hereinafter set forth, the parties agree as follows, to-wit:

SECTION 1. Term of Agreement. The term of this agreement shall be for a minimum period of eleven (11) years, beginning on July 1, A.D. 2000. The agreement shall automatically renew for the same term except as otherwise indicated in writing by either party as required herein.

SECTION 2. Payment for Water Use. Water User agrees to pay the City as consideration of this agreement the sum of Ten Dollars ($10.00), lump sum at the time this agreement is executed, such constituting full payment for water used under this agreement.

SECTION 3. Renewal. For the considerations granted herein, the City hereby gives and grants Water User the option to renew and extend this agreement upon terms and conditions which the parties may agree to at the end of each term (eleven years). Water User shall give the City at least ninety (90) days written notice prior to the date of agreement termination of its intent NOT to renew said agreement.

SECTION 4. Exclusive Use of Water. The City hereby grants, conveys, and gives unto Water User during the term of this agreement, the exclusive right to use all water discharged from the City Wastewater Treatment Plant.

SECTION 5. Use of Water by Water User. Water User agrees that said water shall be used on said land referenced herein for agricultural irrigation purposes. Water User shall not permit any of the effluent to escape in violation of law or regulatory requirements.

SECTION 6. Equipment. Water User shall provide all equipment, such as pumps, auxiliary units, piping etc. necessary to remove the effluent from the City's treatment plant and transport it to the land referenced herein. Water User agrees to comply with all rules and regulations of the City, the Texas Natural Resource Conservation Commission (TNRCC), the Texas Department of Health, the Environmental Protection Agency and any other public agencies with regulatory authority.

SECTION 7. Liability. The City shall not be responsible for the quality or content of effluent water used by Water User. The City further, disclaims any and all warranties whether expressed or implied as to the effluent wastewater used by Water User. Water User specifically waives any right to claim damages against the City under any circumstances arising from, connected with, or arising out of Water User's use for farming purposes or otherwise of the effluent wastewater discharged from the City's Wastewater Treatment Plant. Water User agrees to hold the City harmless and defend any and all claims made by any branch of the federal or state government or individual alleging a failure to comply with federal or state laws or regulations applicable to Water User's use of the wastewater plant effluent. Water User, additionally, agrees to indemnify and hold the City harmless from any loss, cost, damages, penalties, fines, and expenses, including reasonable attorney's fees suffered or incurred by the City by reason of water User's failure to perform any of the obligations arising hereunder.

SECTION 8. Assignment. The rights accruing to Water User under the terms of this agreement are personal to Water User and cannot be assigned, transferred, or conveyed, without the expressed written consent of the City.

SECTION 9. Regulatory Agency Approval. This agreement shall be contingent upon initial and continued approval of the TNRCC. If this regulatory body refuses to approve this agreement or hereafter requires the City to terminate this agreement then this agreement shall ipso facto terminate. If any other regulation of any governmental agency prevents the City from supplying any effluent to the Water User hereunder, this agreement shall likewise ipso facto terminate.

SECTION 10. Soil Testing. Water User agrees at least once a year to allow the City to take soil samples from the root zones of said lands for purposes of making determinations concerning the effect of the use of the effluent wastewater and sewage on the above described lands.

SIGNED AND EXECUTED THIS the 1st day of July, A.D. 2000.

LESSOR:

Joe S. Nunn
John L. Nunn
Geraldine M. Nunn

Joe S. Nunn

John L. Nunn

Geraldine M. Nunn

LESSEE:

City of Panhandle, Texas

Leslie L. McNeill, Mayor

ATTEST:

Chris Coffman
City Secretary

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 25th day of July, A.D. 2000, by Joe S. Nunn.

SHARON K. HUDSON
NOTARY PUBLIC, STATE OF TEXAS
My Commission Expires 06-11-2002

Sharon K. Hudson
Notary Public, State of Texas
My commission expires on: 06-11-2002

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 26th day of July, A.D. 2000, by John L. Nunn.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 27th day of July, A.D. 2000, by Geraldine M. Nunn.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02

THE STATE OF TEXAS
COUNTY OF CARSON

This instrument was acknowledged before me this the 27th day of July, A.D. 2000, by Leslie L. McNeill, Mayor of the City of Panhandle, Texas.

CONNIE McKIERNAN
NOTARY PUBLIC,
STATE OF TEXAS
My Commission Expires 11-13-2002

Connie McKiernan
Notary Public, State of Texas
My commission expires on 11-13-02

Appendix C

Plain Language Summary

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your 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 you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

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

If you are subject to the alternative language notice requirements in 30 TAC Section 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/STORMWATER

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

City of Panhandle (CN600647234) operates City of Panhandle Wastewater Treatment Plant (RN102976131), a facultative pond system. The facility is located at 2500 feet east of the intersection of US Highway 60 and State Highway 293, in Panhandle, Carson County, Texas 79068. This permit application is a renewal without changes to dispose of treated wastewater at a rate not to exceed 0.280 million gallons per day on 75 acres of non-public access land . This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD_5. Domestic wastewater is treated by facultative pond system consisting of a bar-screen, one facultative lagoon and one holding pond.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

1. Introduzca el nombre del solicitante aquí (2. Introduzca el número de cliente aquí (es decir, CN6########).) 3. Elija del menú desplegable 4. Introduzca el nombre de la instalación aquí 5. Introduzca el número de entidad regulada aquí (es decir, RN1########), 6. Elija del menú desplegable 7. Introduzca la descripción de la instalación aquí. La instalación 8. Elija del menú desplegable. ubicada en 9. Introduzca la ubicación aquí, en 10. Introduzca el nombre de la ciudad aquí, Condado de 11. Introduzca el nombre del condado aquí, Texas 12. Introduzca el código postal aquí. 13. Introduzca el resumen de la petición de solicitud aquí. *<<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan 14. Liste todos los contaminantes esperados aquí. 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

INSTRUCTIONS

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

Questions or comments concerning this form may be directed to the Water Quality Division’s Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example 1: Industrial Wastewater TPDES Application (ENGLISH)

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

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as "previously monitored effluents" (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility's potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Example 2: 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 3: Domestic Wastewater 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 4: Domestic Wastewater 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.

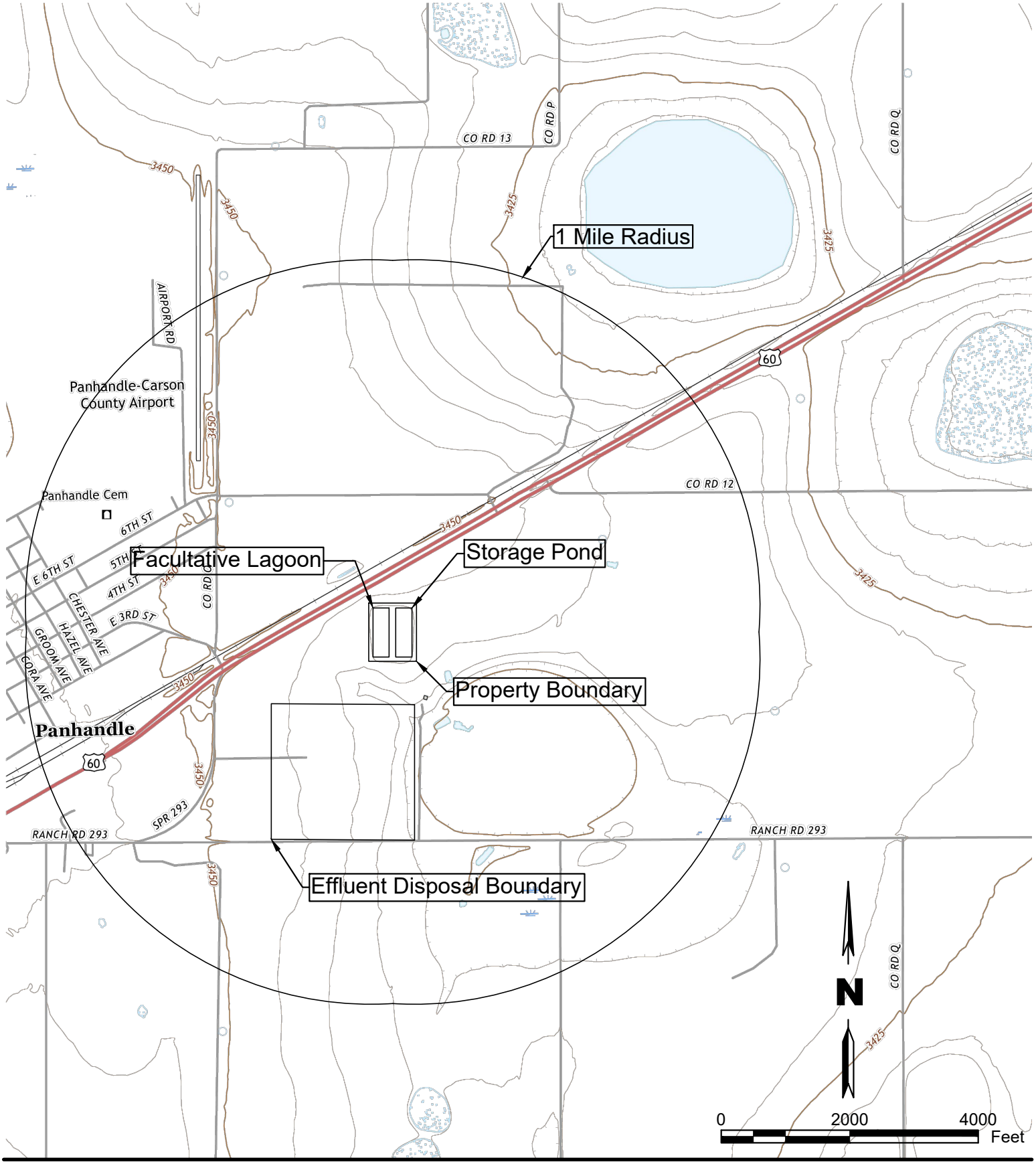
The City of Texas (CN000000000) operates the City of Texas wastewater treatment plant (RN000000000), an activated sludge process plant operated in the complete mix mode. The facility is located at 123 Texas Street, near the City of More Texas, Texas County, Texas 71234.

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.

Appendix D

USGS Map



City of Panhandle WWTP Permit Renewal

City of Panhandle
P.O. Box 129
Panhandle, TX 79083

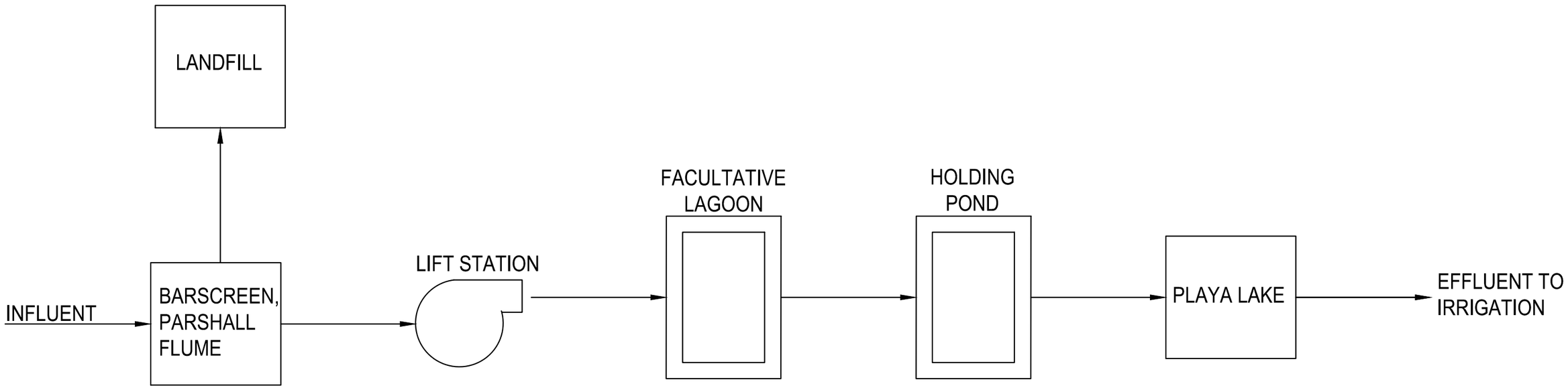
Parkhill
Parkhill.com

USGS Map

Issue:	New
Date:	06/26/2025
Project No:	45268.25
Sheet:	1 OF 1

Appendix E

Flow Diagram



City of Panhandle Wastewater Treatment Plant Flow Diagram

City of Panhandle
PO Box 129 Panhandle, TX 79068-0129

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Parkhill.com

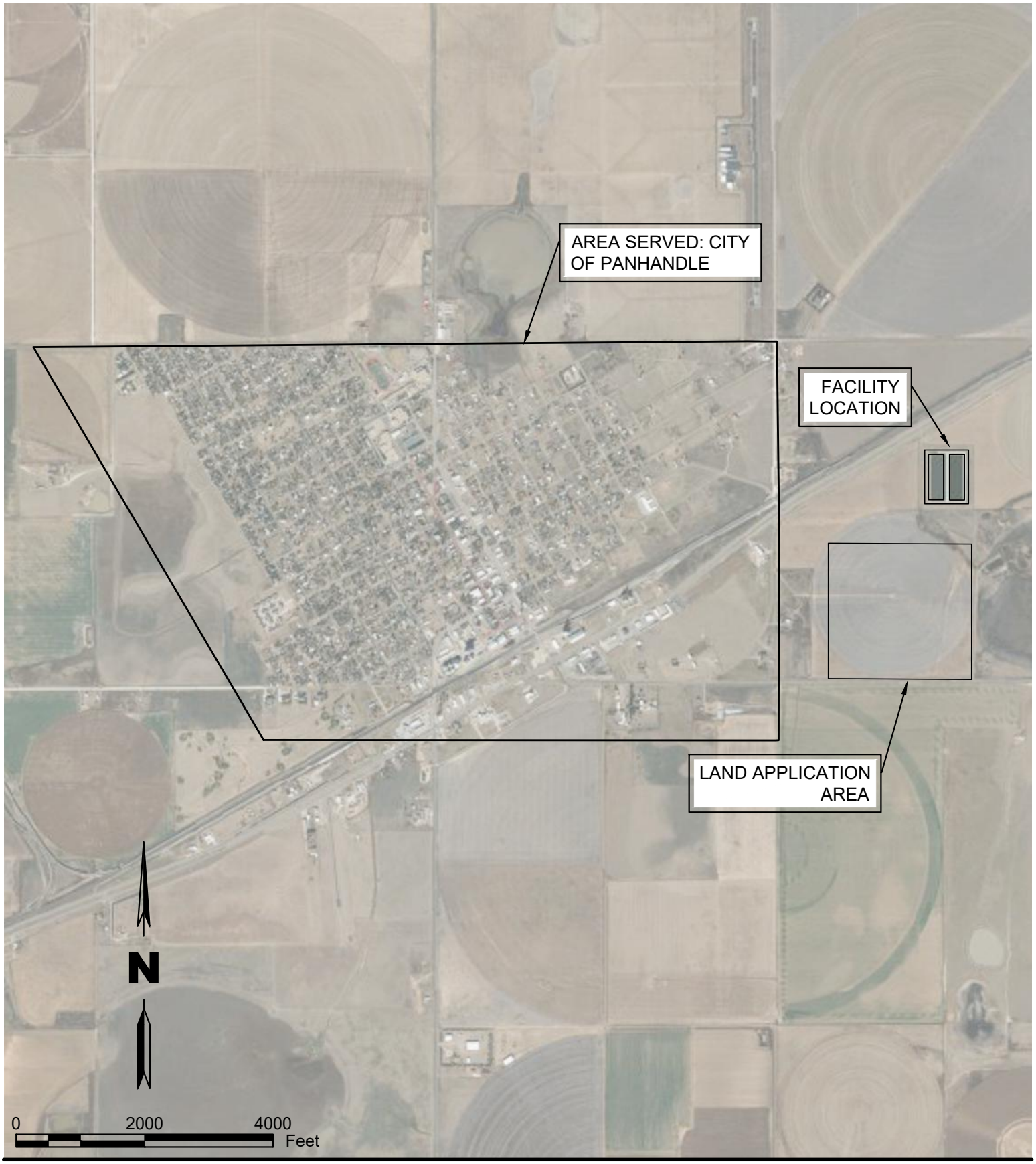
Flow Diagram

Panhandle WWTP

Issue:	Re
Date:	3/26
Project No:	452
Sheet:	

Appendix F

Site Drawing



City of Panhandle
WWTP Permit Renewal

City of Panhandle
P.O. Box 129
Panhandle, TX 79068

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Site Map

Issue:	Renewal
Date:	07/07/2025
Project No:	45268.25
Sheet:	1 OF 1

Appendix G

Pollutant Analysis

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Project
1147348

PHKG-P

Parkhill
Kole Glover
800 S Polk St
Suite 200
Amarillo, TX 79124

Printed 06/30/2025
17:08

TABLE OF CONTENTS

This report consists of this Table of Contents and the following pages:

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

SAMPLE CROSS REFERENCE

Project
1147348

Parkhill
Kole Glover
800 S Polk St
Suite 200
Amarillo, TX 79124

Sample	Sample ID	Taken	Time	Received
2407972	*WW PANHANDLE*	05/13/2025	12:15:00	05/14/2025

Bottle 01 Polyethylene 1/2 gal (White)
Bottle 02 Polyethylene Quart
Bottle 03 16 oz HNO3 Metals Plastic
Bottle 04 8 oz Plastic H2SO4 pH < 2
Bottle 05 H2SO4 to pH <2 Glass Qt w/Teflon lined lid
Bottle 06 Prepared Bottle: NH3N TRAACS Autosampler Vial (Batch 1175323) Volume: 6.00000 mL <== Derived from 04 (6 ml)
Bottle 07 BOD Titration Beaker A (Batch 1175331) Volume: 100.00000 mL <== Derived from 01 (100 ml)
Bottle 08 BOD Analytical Beaker B (Batch 1175331) Volume: 100.00000 mL <== Derived from 01 (100 ml)
Bottle 09 Prepared Bottle: ICP Preparation for Metals (Batch 1175341) Volume: 50.00000 mL <== Derived from 03 (50 ml)
Bottle 10 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1175371) Volume: 20.00000 mL <== Derived from 04 (20 ml)
Bottle 11 Prepared Bottle: TKN TRAACS Autosampler Vial (Batch 1175608) Volume: 20.00000 mL <== Derived from 04 (20 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 300.0 2.1	01	1175497	05/14/2025	1175497	05/14/2025
EPA 200.7 4.4	09	1175341	05/15/2025	1175494	05/15/2025
SM 5210 B-2016 (TCMP Inhibitor)	01	1175331	05/20/2025	1175331	05/20/2025
SM 2510 B-2011	01	1175996	05/19/2025	1175996	05/19/2025
SM 4500-Cl F-2011	01	1176284	05/20/2025	1176284	05/20/2025
EPA 1664B (HEM)	05	1176006	05/19/2025	1176006	05/19/2025
EPA 350.1 2	06	1175323	05/14/2025	1175970	05/19/2025
SM 2540 C-2020	02	1176035	05/16/2025	1176035	05/16/2025
EPA 351.2 2	11	1175608	05/16/2025	1176318	05/21/2025
SM 2540 D-2020	01	1175675	05/15/2025	1175675	05/15/2025
SM 4500-H+ B-2011	01	1175751	05/16/2025	1175751	05/16/2025

Email: Kilgore.ProjectManagement@spllabs.com

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RESULTS

Sample Results

2407972 **WW PANHANDLE** Received: 05/14/2025

Non-Potable Water Collected by: Client Parkhill PO:
Taken: 05/13/2025 12:15:00

EPA 1664B (HEM) Prepared: 1176006 05/19/2025 07:33:00 Analyzed 1176006 05/19/2025 07:33:00 MAX

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Oil and Grease (HEM)	<4.82	mg/L	4.82			05

EPA 200.7 4.4 Prepared: 1175341 05/15/2025 06:00:00 Analyzed 1175494 05/15/2025 12:13:00 CAS

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Phosphorus	4.28	mg/L	0.040		7723-14-0	09

EPA 300.0 2.1 Prepared: 1175497 05/14/2025 15:00:00 Analyzed 1175497 05/14/2025 15:00:00 KRA

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Chloride	74.3	mg/L	3.00			01
NELAC	Nitrate-Nitrogen Total	<0.1	mg/L	0.1		14797-55-8	01
NELAC	Sulfate	26.4	mg/L	3.00			01

EPA 350.1 2 Prepared: 1175323 05/14/2025 17:17:20 Analyzed 1175970 05/19/2025 06:55:00 AMB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Ammonia Nitrogen	8.02	mg/L	0.100			06

EPA 351.2 2 Prepared: 1175608 05/16/2025 06:18:00 Analyzed 1176318 05/21/2025 10:36:00 AMB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Total Kjeldahl Nitrogen	14.8	mg/L	0.500		7727-37-9	11

SM 2510 B-2011 Prepared: 1175996 05/19/2025 13:30:00 Analyzed 1175996 05/19/2025 13:30:00 ANC

Parameter	Results	Units	RL	Flags	CAS	Bottle

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2407972 WW PANHANDLE — Received: 05/14/2025

Non-Potable Water — Collected by: Client Parkhill — PO:
Taken: 05/13/2025 12:15:00

SM 2510 B-2011 — Prepared: 1175996 05/19/2025 13:30:00 — Analyzed 1175996 05/19/2025 13:30:00 ANC

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Lab Spec. Conductance at 25 C	772	umhos/cm				01

SM 2540 C-2020 — Prepared: 1176035 05/16/2025 10:15:00 — Analyzed 1176035 05/16/2025 10:15:00 JMB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Total Dissolved Solids	480	mg/L	20.0			02

SM 2540 D-2020 — Prepared: 1175675 05/15/2025 13:40:00 — Analyzed 1175675 05/15/2025 13:40:00 ADR

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Total Suspended Solids	90.0	mg/L	40.0			01

SM 4500-Cl F-2011 — Prepared: 1176284 05/20/2025 13:35:00 — Analyzed 1176284 05/20/2025 13:35:00 ANC

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Cl2 Residual,Total(Lab)Titration	<0.100	mg/L	0.100			01

SM 4500-H+ B-2011 — Prepared: 1175751 05/16/2025 11:20:00 — Analyzed 1175751 05/16/2025 11:20:00 ANC

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	Laboratory pH WW	8.8@20c	SU	2.00			01

SM 5210 B-2016 (TCMP Inhibitor) — Prepared: 1175331 05/15/2025 — Analyzed 1175331 05/20/2025 11:39:53 ESN

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	BOD Carbonaceous	28.0	mg/L	3.00			01

Sample Preparation

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2407972 WW PANHANDLE

Received: 05/14/2025

05/13/2025

			Prepared:		05/14/2025	11:47:54	Calculated		05/14/2025	11:47:54	CAL
z	Enviro Fee (per Sampling Group)	Verified									
	EPA 1664B (HEM)		Prepared:	1175857	05/19/2025	07:33:00	Analyzed	1175857	05/19/2025	07:33:00	MAX
NELAC	O&G HEM Started	Started									
	EPA 200.2 2.8		Prepared:	1175341	05/15/2025	06:00:00	Analyzed	1175341	05/15/2025	06:00:00	HLT
z	Liquid Metals Digestion	50/50	ml								03
	EPA 350.1, Rev. 2.0		Prepared:	1175323	05/14/2025	17:17:20	Analyzed	1175323	05/14/2025	17:17:20	JR1
NELAC	Ammonia Distillation	6/6	ml								04
	EPA 351.2, Rev 2.0		Prepared:	1175608	05/16/2025	06:18:00	Analyzed	1175608	05/16/2025	06:18:00	AMB
NELAC	TKN Block Digestion	20/20	ml								04
	SM 2540 C-2015		Prepared:	1175676	05/16/2025	10:15:00	Analyzed	1175676	05/16/2025	10:15:00	JMB
NELAC	Total Dissolved Solids Started	Started									
	SM 2540 D-2011		Prepared:	1175104	05/15/2025	13:40:00	Analyzed	1175104	05/15/2025	13:40:00	ADR
NELAC	TSS Set Started	Started									

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2407972 WW PANHANDLE

Received: 05/14/2025

05/13/2025

SM 5210 B-2016 (TCMP Inhibitor)	*Prepared:*	*1175331*	*05/15/2025*		*Analyzed*	*1175331*	*05/15/2025*	*06:55:13*	*ESN*
NELAC **BODc Set Started**	**Started**								
SUB Lab	*Prepared:*		*05/13/2025*	*15:41:00*	*Analyzed*		*05/13/2025*	*15:41:00*	*SUB*
NELAC **E.Coli WW MPN Panhandle (SUB)**	**See Attached**						**EMLC**		

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery, MS, VP Technical Services

QUALITY CONTROL

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Analytical Set 1175331 — SM 5210 B-2016 (TCMP Inhibitor)

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
BOD Carbonaceous	1175331	0.2	0.200	0.500	mg/L	127606877
BOD Carbonaceous	1175331	0.1	0.200	0.500	mg/L	127609685

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD		Limit%
BOD Carbonaceous	2407877	5.13	6.05	mg/L	16.5		30.0
BOD Carbonaceous	2408025	3.57	2.37	mg/L	40.4	*	30.0
BOD Carbonaceous	2408364	3.53	4.09	mg/L	14.7		30.0
BOD Carbonaceous	2408776	417	413	mg/L	0.964		30.0

Seed Drop

Parameter	PrepSet	Reading	MDL	MQL	Units	File
BOD Carbonaceous	1175331	0.387	0.200	0.500	mg/L	127606879
BOD Carbonaceous	1175331	0.417	0.200	0.500	mg/L	127609687

Standard

Parameter	Sample	Reading	Known	Units	Recover%	Limits%	File
BOD Carbonaceous		213	198	mg/L	108	83.7 - 116	127606880
BOD Carbonaceous		193	198	mg/L	97.5	83.7 - 116	127609688

Analytical Set 1175970 — EPA 350.1 2

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Ammonia Nitrogen	1175323	ND	0.00336	0.020	mg/L	127619913

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	127619887
Ammonia Nitrogen	2.16	2.00	mg/L	108	90.0 - 110	127619895
Ammonia Nitrogen	2.16	2.00	mg/L	108	90.0 - 110	127619906
Ammonia Nitrogen	2.14	2.00	mg/L	107	90.0 - 110	127619916
Ammonia Nitrogen	2.04	2.00	mg/L	102	90.0 - 110	127619925
Ammonia Nitrogen	2.16	2.00	mg/L	108	90.0 - 110	127619936
Ammonia Nitrogen	2.12	2.00	mg/L	106	90.0 - 110	127619945
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	127619954
Ammonia Nitrogen	2.19	2.00	mg/L	110	90.0 - 110	127619958
Ammonia Nitrogen	2.19	2.00	mg/L	110	90.0 - 110	127619966
Ammonia Nitrogen	2.18	2.00	mg/L	109	90.0 - 110	127619973
Ammonia Nitrogen	2.16	2.00	mg/L	108	90.0 - 110	127619983
Ammonia Nitrogen	2.16	2.00	mg/L	108	90.0 - 110	127619992
Ammonia Nitrogen	2.11	2.00	mg/L	106	90.0 - 110	127620001
Ammonia Nitrogen	2.05	2.00	mg/L	102	90.0 - 110	127620010
Ammonia Nitrogen	2.10	2.00	mg/L	105	90.0 - 110	127620017
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	127620025

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CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	127620032
Ammonia Nitrogen	2.15	2.00	mg/L	108	90.0 - 110	127620039
Ammonia Nitrogen	2.19	2.00	mg/L	110	90.0 - 110	127620048
Ammonia Nitrogen	2.17	2.00	mg/L	108	90.0 - 110	127620050

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Ammonia Nitrogen	2408056	ND	ND	mg/L		20.0
Ammonia Nitrogen	2408177	ND	ND	mg/L		20.0

ICV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Ammonia Nitrogen	2.13	2.00	mg/L	106	90.0 - 110	127619886

LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
Ammonia Nitrogen	1175323	2.16	2.18	2.00	90.0 - 110	108	109	mg/L	0.922	20.0

Mat. Spike

Parameter	Sample	Spike	Unknown	Known	Units	Recovery %	Limits %	File
Ammonia Nitrogen	2408056	2.03	ND	2.00	mg/L	102	80.0 - 120	127619922
Ammonia Nitrogen	2408177	2.08	ND	2.00	mg/L	104	80.0 - 120	127619919

Analytical Set 1176318 — EPA 351.2 2

AWRL/LOQ C

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	0.214	0.200	mg/L	107	75.0 - 125	127627105
Total Kjeldahl Nitrogen	0.237	0.200	mg/L	118	75.0 - 125	127627136

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Kjeldahl Nitrogen	1175608	ND	0.00712	0.050	mg/L	127627121

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Total Kjeldahl Nitrogen	5.36	5.00	mg/L	107	90.0 - 110	127627100
Total Kjeldahl Nitrogen	5.33	5.00	mg/L	107	90.0 - 110	127627102
Total Kjeldahl Nitrogen	5.43	5.00	mg/L	109	90.0 - 110	127627113
Total Kjeldahl Nitrogen	5.34	5.00	mg/L	107	90.0 - 110	127627123
Total Kjeldahl Nitrogen	5.34	5.00	mg/L	107	90.0 - 110	127627132
Total Kjeldahl Nitrogen	5.47	5.00	mg/L	109	90.0 - 110	127627143
Total Kjeldahl Nitrogen	5.38	5.00	mg/L	108	90.0 - 110	127627152
Total Kjeldahl Nitrogen	5.47	5.00	mg/L	109	90.0 - 110	127627156

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Kjeldahl Nitrogen	2407864	4.28	4.57	mg/L	6.55	20.0

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ICV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Total Kjeldahl Nitrogen	5.08	5.00	mg/L	102	90.0 - 110	127627099

LCS Dup

Parameter	*PrepSet*	*LCS*	*LCSD*	*Known*	*Limits%*	*LCS%*	*LCSD%*	*Units*	*RPD*	*Limit%*
Total Kjeldahl Nitrogen	1175608	5.16	5.24	5.00	90.0 - 110	103	105	mg/L	1.54	20.0

Mat. Spike

Parameter	*Sample*	*Spike*	*Unknown*	*Known*	*Units*	*Recovery %*	*Limits %*	*File*		
Total Kjeldahl Nitrogen	2407864	8.15	4.57	5.00	mg/L	71.6	80.0 - 120	127627127		*

Analytical Set 1175675 — SM 2540 D-2020

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Total Suspended Solids	1175675	ND	2	2	mg/L	127614268

ControlBlk

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Total Suspended Solids	1175675	-0.0003			grams	127614267

Duplicate

Parameter	*Sample*	*Result*	*Unknown*	*Unit*	*RPD*		*Limit%*
Total Suspended Solids	2407875	136	134	mg/L	1.48		20.0
Total Suspended Solids	2407972	88.0	90.0	mg/L	2.25		20.0
Total Suspended Solids	2407977	1580	1220	mg/L	25.7	*	20.0

LCS

Parameter	*PrepSet*	*Reading*	*Known*	*Units*	*Recover%*	*Limits*	*File*
Total Suspended Solids	1175675	48.0	50.0	mg/L	96.0	90.0 - 110	127614301

Standard

Parameter	*Sample*	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Total Suspended Solids		96.0	100	mg/L	96.0	90.0 - 110	127614300

Analytical Set 1176006 — EPA 1664B (HEM)

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Oil and Grease (HEM)	1176006	ND	0.804	4.00	mg/L	127621008

ControlBlk

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Oil and Grease (HEM)	1176006	-0.0005			grams	127621007
Oil and Grease (HEM)	1176006	0.0004			grams	127621032

LCS

Parameter	*PrepSet*	*Reading*	*Known*	*Units*	*Recover%*	*Limits*	*File*
Oil and Grease (HEM)	1176006	34.3	40.0	mg/L	85.8	78.0 - 114	127621009

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MS

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
Oil and Grease (HEM)	2406889	41.2	0	2.00	40.0	78.0 - 114	103		mg/L		20.0

Analytical Set 1176035 — SM 2540 C-2020

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1176035	ND	5.00	5.00	mg/L	127621587

ControlBlk

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Dissolved Solids	1176035	0			grams	127621574

Duplicate

Parameter	Sample	Result	Unknown	Unit	RPD	Limit%
Total Dissolved Solids	2407991	4190	4270	mg/L	1.89	20.0

LCS

Parameter	PrepSet	Reading	Known	Units	Recover%	Limits	File
Total Dissolved Solids	1176035	198	200	mg/L	99.0	85.0 - 115	127621575

Analytical Set 1175497 — EPA 300.0 2.1

Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1175497	ND	0.0593	0.300	mg/L	127610650
Nitrate-Nitrogen Total	1175497	ND	0.00331	0.0226	mg/L	127610650
Sulfate	1175497	0.095	0.0605	0.300	mg/L	127610650

CCB

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Chloride	1175497	0.035	0.0593	0.300	mg/L	127610646
Chloride	1175497	0.028	0.0593	0.300	mg/L	127610666
Chloride	1175497	0.036	0.0593	0.300	mg/L	127610678
Nitrate-Nitrogen Total	1175497	0	0.00331	0.0226	mg/L	127610646
Nitrate-Nitrogen Total	1175497	0	0.00331	0.0226	mg/L	127610666
Nitrate-Nitrogen Total	1175497	0	0.00331	0.0226	mg/L	127610678
Sulfate	1175497	-0.183	0.0605	0.300	mg/L	127610646
Sulfate	1175497	-0.207	0.0605	0.300	mg/L	127610666
Sulfate	1175497	-0.204	0.0605	0.300	mg/L	127610678

CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
Chloride	10.0	10.0	mg/L	100	90.0 - 110	127610645
Chloride	10.2	10.0	mg/L	102	90.0 - 110	127610665
Chloride	10.2	10.0	mg/L	102	90.0 - 110	127610677
Nitrate-Nitrogen Total	2.27	2.26	mg/L	100	90.0 - 110	127610645
Nitrate-Nitrogen Total	2.28	2.26	mg/L	101	90.0 - 110	127610665
Nitrate-Nitrogen Total	2.26	2.26	mg/L	100	90.0 - 110	127610677

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CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Sulfate	9.94	10.0	mg/L	99.4	90.0 - 110	127610645
Sulfate	10.2	10.0	mg/L	102	90.0 - 110	127610665
Sulfate	10.2	10.0	mg/L	102	90.0 - 110	127610677

LCS Dup

Parameter	*PrepSet*	*LCS*	*LCSD*	*Known*	*Limits%*	*LCS%*	*LCSD%*	*Units*	*RPD*	*Limit%*
Chloride	1175497	5.15	5.19	5.00	85.0 - 115	103	104	mg/L	0.774	20.0
Nitrate-Nitrogen Total	1175497	1.21	1.19	1.13	86.3 - 117	107	105	mg/L	1.67	20.0
Sulfate	1175497	5.28	5.30	5.00	85.4 - 124	106	106	mg/L	0.378	20.0

MSD

Parameter	*Sample*	*MS*	*MSD*	*UNK*	*Known*	*Limits*	*MS%*	*MSD%*	*Units*	*RPD*	*Limit%*
Chloride	2406671	133	133	39.1	100	80.0 - 120	93.9	93.9	mg/L	0	20.0
Nitrate-Nitrogen Total	2406671	17.5	17.0	ND	22.6	80.0 - 120	77.4 *	75.2 *	mg/L	2.90	20.0
Sulfate	2406671	723	738	638	100	80.0 - 120	85.0	100	mg/L	16.2	20.0
Chloride	2406899	490	496	290	200	80.0 - 120	100	103	mg/L	2.96	20.0
Nitrate-Nitrogen Total	2406899	35.2	35.4	ND	45.2	80.0 - 120	77.9 *	78.3 *	mg/L	0.567	20.0
Sulfate	2406899	647	651	430	200	80.0 - 120	108	110	mg/L	1.83	20.0

Analytical Set 1175494 — EPA 200.7 4.4

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Phosphorus	1175341	ND	0.0353	0.040	mg/L	127610611

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Phosphorus	1.04	1.00	mg/L	104	90.0 - 110	127610609
Phosphorus	1.04	1.00	mg/L	104	90.0 - 110	127610610
Phosphorus	1.09	1.00	mg/L	109	90.0 - 110	127610619
Phosphorus	1.08	1.00	mg/L	108	90.0 - 110	127610621

ICL

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Phosphorus	25.0	25.0	mg/L	100	95.0 - 105	127610607

ICV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Phosphorus	1.05	1.00	mg/L	105	90.0 - 110	127610608

LCS Dup

Parameter	*PrepSet*	*LCS*	*LCSD*	*Known*	*Limits%*	*LCS%*	*LCSD%*	*Units*	*RPD*	*Limit%*
Phosphorus	1175341	4.29	4.29	4.00	85.0 - 115	107	107	mg/L	0	25.0

MSD

Parameter	*Sample*	*MS*	*MSD*	*UNK*	*Known*	*Limits*	*MS%*	*MSD%*	*Units*	*RPD*	*Limit%*
Phosphorus	2407853	4.41	4.37	0.0699	4.00	75.0 - 125	109	108	mg/L	0.926	25.0

Analytical Set 1175751 — SM 4500-H+ B-2011

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Duplicate

Parameter	*Sample*	*Result*	*Unknown*	*Unit*	*RPD*	*Limit%*
Laboratory pH WW	2407245	7.20	7.10	SU	1.40	20.0

Standard

Parameter	*Sample*	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Laboratory pH WW	1175751	6.00	6.00	SU	100	90.0 - 110	127615623
Laboratory pH WW	1175751	8.00	8.00	SU	100	90.0 - 110	127615624
Laboratory pH WW	1175751	6.08	6.00	SU	101	90.0 - 110	127615633
Laboratory pH WW	1175751	8.06	8.00	SU	101	90.0 - 110	127615634

Analytical Set 1175996 — SM 2510 B-2011

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Lab Spec. Conductance at 25 C	1175996	0.808			umhos/cm	127620611

Duplicate

Parameter	*Sample*	*Result*	*Unknown*	*Unit*	*RPD*	*Limit%*
Lab Spec. Conductance at 25 C	2407367	775	777	umhos/cm	0.258	20.0
Lab Spec. Conductance at 25 C	2408464	1800	1790	umhos/cm	0.557	20.0

ICV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Lab Spec. Conductance at 25 C	13100	12900	umhos/cm	102	90.0 - 110	127620614

Standard

Parameter	*Sample*	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Lab Spec. Conductance at 25 C	1175996	1420	1410	umhos/cm	101	90.0 - 110	127620612
Lab Spec. Conductance at 25 C	1175996	101	100	umhos/cm	101	90.0 - 110	127620613
Lab Spec. Conductance at 25 C	1175996	1410	1410	umhos/cm	100	90.0 - 110	127620626
Lab Spec. Conductance at 25 C	1175996	1420	1410	umhos/cm	101	90.0 - 110	127620633

Analytical Set 1176284 — SM 4500-Cl F-2011

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Cl2 Residual,Total(Lab)Titration	1176284	ND	0.100	0.100	mg/L	127626372

Duplicate

Parameter	*Sample*	*Result*	*Unknown*	*Unit*	*RPD*	*Limit%*
Cl2 Residual,Total(Lab)Titration	2407972	ND	ND	mg/L		20.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

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Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); ICV - Initial Calibration Verification; LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); CCB - Continuing Calibration Blank; AWRL/LOQ C - Ambient Water Reporting Limit/LOQ Check Std; LCS - Laboratory Control Sample (reagent water or other blank matrices that is spiked with a known quantity of target analyte(s) and carried through preparation and analytical procedures exactly like a sample; typically a mid-range concentration; verifies that bias and precision of the analytical process are within control limits; determines usability of the data.); MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.)

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Lab Number 2407912

PO Number

Phone 806/376-8600

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Suite 200
Amarillo, TX 79124

PHKG-P
103

WW Panhandle

☐ Hand Delivered by Client to Region or LAB

Matrix: Non-Potable Water

Sample Collection Start
Date: 5/13/25 Time: 12:15

Sampler Printed Name: Ray Haden

Sampler Affiliation: PHKG-P 103

Sampler Signature: Ray Haden

Samples Radioactive? ☐ Samples Contains Dioxin? ☐ Samples Biological Hazard? ☐

1 On Site Testing

Cl2c Cl2 Res(Total)Analyzed by client

Cl2 Res(Total)Analyzed by client

Collected By _____ Date _____ Time _____ Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

R1 _____ R2 _____ QC R1 _____ QC R2 _____

---

pHCl pH Client Provided SM 4500-H+ B-2011

pH Client Provided

Collected By _____ Date _____ Time _____ Analyzed By _____ Date _____ Time _____

Results _____ Units _____ Temp. _____ C Duplicate _____ Units _____ Temp. _____ C

---

1 Na2S2O3 (0.008%) Polystyrene-100 mL Sterilized *SUB LAB @ EML

Panhandle Region: 3350 Olsen Blvd. Ste 1700 Amarillo TX 79109

Form rptcoc1SPL1 Created 12/13/2018 v1.1

Dropped off @ EML
Sub Lab

Page 1 of 1

Environmental Monitoring Laboratory • P.O. Box 477 / 6145 State Highway 171, Hillsboro, Texas 76645 • Phone: (254) 582-2622

TCEQ Lab ID: T104704247

Purchase Order / Chain of Custody

EPA Lab ID: TX01547

Panhandle Division
13260 South US Hwy 287 Amarillo, Texas 79118
Office: 806-335-9393 Emergency: 806-786-0612

Southwest Division
811 E. Young Street Llano, Texas 78643
Office: 325-247-3295 Emergency: 254-582-2622

East Texas Division
14295 S.H. 155 North Winona, Texas 75792
Office: 903-877-9222 Emergency: 817-357-6535

Coastal Division
34 East Ave., Schulenburg, Texas 78956
Office: 979-743-7010 Emergency: 254-221-3201

Report To: Roy Haden	Report To: (Buyer)	ANALYSES REQUESTED
Company: Parkhill	Purchase Order #:	
	Address:	
Email: rhaden@parkhill.com	Email: Kilgore - project management @ spklabs.com	
Phone: 806-683-1069	Phone:	
Project Name: Panhandle WWTP	Quote #:	
Project Location: Panhandle WWTP	City, State: Panhandle, Texas	
Hand Deliver: ☐ Pick-up: ☐	Sampler: (Please Print) Roy Haden	

NOTES:

Analyzed in Amarillo Location of Environmental Monitoring Laboratory, LLC
13260 South US Highway 287
Amarillo TX 79118-7005

Lab#	Client Sample ID	Matrix	Date	Time	*Pres. Code	†Bottle Code	CBOD / BOD	TSS	pH	DO	NH3N (pH<2.0, H_2SO_4) SM4500-NH3 D or G unless specified	FECAL COLIFORM (E.COLI) (Sterile)	MLSS	ALKALINITY	Sample Remarks
	1. Panhandle 103	WW	5/13/25	12:15pm	6	1						X			
	2.														
	3.														
	4.														
	5.														
	6.														
	7.														
	8.														
	9.														
	10.														

Relinquished By:	Date	Time	Received By:	Date	Time
1. Roy Haden	5/13/25	1215	1. ERIK SCARBOROUGH E/S SPL	5-13-25	1215
2. ERIK SCARBOROUGH E/S SPL	5-13-25	1540	2. Audrey Travis	05/13/25	1540
3.			3.		
4.			4.		

IR GUN ID: IR #004
Ice: (Yes) NO
Temperature: 10.3

*Preservative Codes: 1. None 2. Sulfuric 3. Nitric 4. NaOH + ZnAc 5. HNO3 6. Sterile + Thiosulfate
†Bottle Codes: 1. Plastic 2. Glass + Tef. 3. 40 ml VOA

Complete sample information is vital for proper login and reporting. EML may need to subcontract some analyses due to equipment or procedural limitations.

Check us out on the web: http://www.yourwaterlab.com Email us at: homeoffice@yourwaterlab.com

Revised 06/2024

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103

NELAC	Short HoldSubc	ECPH	E.Coli WW MPN Panhandle (SUB)	SUB Lab CAS:EMLC (0.333 days)
	2	H2SO4 to pH <2 GlQt w/Tef-lined lid		
NELAC		HEM	Oil and Grease (HEM)	EPA 1664B (HEM) (28.0 days)
	1	Polyethylene 1/2 gal (White)		
NELAC	Short Hold	BODc	BOD Carbonaceous	SM 5210 B-2016 (TCMP Inhibitor) (2.04 days)
NELAC		TSS	Total Suspended Solids	SM 2540 D-2015 (7.00 days)
	0	Z -- No bottle required		
		SKL	Sub Hold: PM Attn	
	1	HNO3 to pH <2 Polyethylene 500 mL for Metals		
NELAC		*Pl	Phosphorus	EPA 200.7 4.4 CAS:7723-14-0 (180 days)
		301L	Liquid Metals Digestion	EPA 200.2 2.8 (180 days)
	1	H2SO4 to pH <2 250 ml Polyethylene		
NELAC		NHaN	Ammonia Nitrogen	EPA 350.1 2 (28.0 days)
NELAC		TKN	Total Kjeldahl Nitrogen	EPA 351.2 2 CAS:7727-37-9 (28.0 days)
	1	Polyethylene Quart		
NELAC		!ClL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC	Short Hold	!N3L	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC		!S4L	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC		CONL	Lab Spec. Conductance at 25 C	SM 2510 B-2011 (28.0 days)
NELAC		TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

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PHKG-P
103

Date	Time	Relinquished	Received
5/13/25	12:15	Printed Name: Roy Haden Affiliation: PHKG-P 103 Signature: Roy Haden	Printed Name: Erik Scarborough - SPL, Inc. Affiliation: Signature:
5.13.25	1800	Printed Name: Erik Scarborough - SPL, Inc. Affiliation: Signature:	Printed Name: XPS Affiliation: Signature:
5/14/25	0910	Printed Name: XPS Affiliation: Signature:	Printed Name: Doris Stoker - SPL, Inc. Affiliation: Signature:
		Printed Name: Affiliation: Signature:	Printed Name: Affiliation: Signature:

Sample Received on Ice? Yes No
Cooler/Sample Secure? Yes No

If Shipped: Tracking Number & Temp - See Attached

The accredited column designates accreditation by A - A2LA, N - NELAC, or z - not listed under scope of accreditation. Unless otherwise specified, SPL shall provide these ordered services pursuant to our Standard Terms & Conditions Agreement. SPL personnel collect samples as specified by SPL SOP #000323.

Comments

SPL

COOLER CHECKIN

Region/Driver/Client: PanHandle

Date / Time: 5.14.25 / 0950

Cooler: of

Shipping Company:

Temp Label:

5.14.25 0950 DSJ
Date Time Tech
Temp: 1.6 / 1.3 C
Therm#: 7242 Corr Fact: -0.3 C

ENVIRONMENTAL
MONITORING
LABORATORY , L.L.C

Panhandle Division
13260 South Highway 287
Amarillo, TX 79118-7005
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL REPORT 25051541

For:

SPL-Inc.

PO BOX 9000
Kilgore, Texas 75663

Sample Site: Panhandle WWTP 103

Collected Date: 05/13/25

Lab Number: TX01547

Authorized for release by:
19-MAY-25

Lisa Soward, Data Manager

homeoffice@yourwaterlab.com

ENVIRONMENTAL MONITORING LABORATORY , L.L.C

Panhandle Division
13260 South Highway 287
Amarillo, TX 79118-7005
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL RESULTS

Analytical Report: 25051541

Lab ID:	25051541-001	Collected Date:	05/13/25 12:15	Matrix:	Waste Water
Client:	SPL-Inc.	Received Date:	05/13/25 15:40	Temp at Receipt:	10.3 °C
Sample Site:	Panhandle WWTP 103	Report Date:	05/19/25	Sample Collector:	RH

Analyte	Abbreviation	Method	TNI Cert	Date Analyzed	Result	Units
E. coli	*E. coli*	IDEXX Colilert	NP	05/13/25 15:41	205	MPN/100 mL

P: Potable water NP: Non Potable water N: Not Certified

Control #: 25051541

QUALITY ASSURANCE & QUALITY CONTROL

ANALYTE	ABBR./ ALT.NAME	STANDARD METHOD	UNITS	Quality Control S.D.	CV%	REC.1%	REC.2%	MDL/PQL	Q
Chloride	Cl-	SM 4500-Cl-/B	mg/L						
Alkalinity	ALK	SM 2320/B	mg/L						
Total Phosphorus	T.PHOS.	SM 4500-P/E	mg/L						
Total Kjeldahl Nitrogen	TKN	SM 4500-NH3/D	mg/L						
Ammonia Nitrogen	NH3N	SM 4500-NH3/D	mg/L						
Oil & Grease	O&G	SM 5520/B	mg/L						
Chemical Oxygen Demand	COD	SM 5220/D	mg/L						
Turbidity	TURB.	SM 2130/B	NTUs						
Total Percent Solids	%d.w	SM 2540/G	%						N

Biochemical Oxygen Demand(BOD)
Carbonaceous Biochemical Oxygen Demand(CBOD)
Method: SM 5210/B

Results	Units	Description

Dissolved Oxygen
Method: SM 4500-O*/G

Results	Units	Description
	mg/L	Set Up Calibration
	mg/L	Read Off Calibration
	°C	Set Up Temperature
	°C	Read Off Temperature
	mm Hg	Set Up Barometer
	mm Hg	Read Off Barometer

Fecal Coliform
Method: SM9222 /D MF

Results	Units	Description
	CFU/100ml	Pre Blank
	CFU/100ml	Post Blank

TDS by SM2540/C

Results	Units	Description
	mg/L	Blank

E. coli By IDEXX Colilert (enumeration)

MPN/100 mL

Total Suspended Solids (TSS, MLSS)
Method: 2540/D

Results	Units	Description

Conductivity @ 25° C
Method: SM2510/B
Standards ran for each analytical batch.

Results	Units	Description
	umhos/cm	Conductivity Standard
	umhos/cm	Conductivity Standard
	umhos/cm	Conductivity Standard

Report Out Date: 05/19/2025

Lisa Soward
Data Manager

Final 1.000

Environmental Monitoring Laboratory ◆ P.O. Box 477 / 6145 State Highway 171, Hillsboro, Texas 76645 ◆ Phone: (254) 582-2622

Purchase Order / Chain of Custody

TCEQ Lab ID: T104704247

EPA Lab ID: TX01547

Panhandle Division
13260 South US Hwy 287 Amarillo, Texas 79118
Office: 806-335-9393 Emergency: 806-786-0512

Southwest Division
811 E. Young Street Llano, Texas 78643
Office: 325-247-3295 Emergency: 254-582-2622

East Texas Division
14295 S.H. 155 North Winona, Texas 75792
Office: 903-877-9222 Emergency: 817-357-6535

Coastal Division
34 East Ave., Schulenburg, Texas 78956
Office: 979-743-7010 Emergency: 254-221-3201

Report To: Roy Haden	Report To: (Buyer)
Company: Parkhill	Purchase Order #:
	Address:
Email: rhaden@parkhill.com	Email: Kilgore, project management @ sellabs.com
Phone: 806-683-1069	Phone:
Project Name: Panhandle WWTP	Quote #:
Project Location: Panhandle WWTP	City, State: Panhandle, Texas
Hand Deliver: ☐ Pick-up: ☐	Sampler: (Please Print) Roy Haden

25051541

ANALYSES REQUESTED

Lab#	Client Sample ID	Matrix	Date	Time	*Pres Code	ŧBottle Code	CBOD / BOD	TSS	pH	DO	NH3N (pH<2.0, H_2SO_4) SM4500-NH3 D or G unless specified	FECAL COLIFORM E.COLI (Sterile)	MLSS	ALKALINITY			Sample Remarks
25051541	1. Panhandle 103	WW	5/13/25	12:15pm	6	1						X					
	2.																
	3.																
	4.																
	5.																
	6.																
	7.																
	8.																
	9.																
	10.																

NOTES:

Analyzed in Amarillo Location of Environmental Monitoring Laboratory, LLC
13260 South US Highway 287
Amarillo TX 79118-7005

Relinquished By:	Date	Time	Received By:	Date	Time
1. Roy Haden	5/13/25	1215	1. ERIK SCARBOROUGH ES SPL	5-13-25	1215
2. ERIK SCARBOROUGH ES SPL	5-13-25	1540	2. Audrey Craig	05/13/25	1540
3.			3.		
4.			4.		

IR GUN ID: IR-E004
Ice: (YES) NO
Temperature: 10.3

* Preservation Codes: 1. None 2. Sulfuric 3. Nitric 4. NaOH + ZnAc 5. NaOH 6. Sterile + Thiosulfate

ŧ Bottle Codes: 1. Plastic 2. Glass + Tef. 3. 40 ml VOA

Complete sample information is vital for proper login and reporting. EML may need to subcontract some analyses due to equipment or procedural limitations.

Check us out on the web: http://www.yourwaterlab.com **Email us at: homeoffice@yourwaterlab.com**

Revised 06/2024

Appendix H

Annual Cropping Plan

Appendix H
Annual Cropping Plan – Wheat and Alfalfa

A. See Attached Soil Map
B. Alfalfa is the warm season plant species and wheat is the cool season plant species.
C. Typical Annual Growing Season is as follows:

Typical Annual Growing Season

January	X
February	X
March	X
April	X
May	X
June	X
July	X
August	X
September	X
October	X
November	X
December	X

D. Crop nutrient requirements:

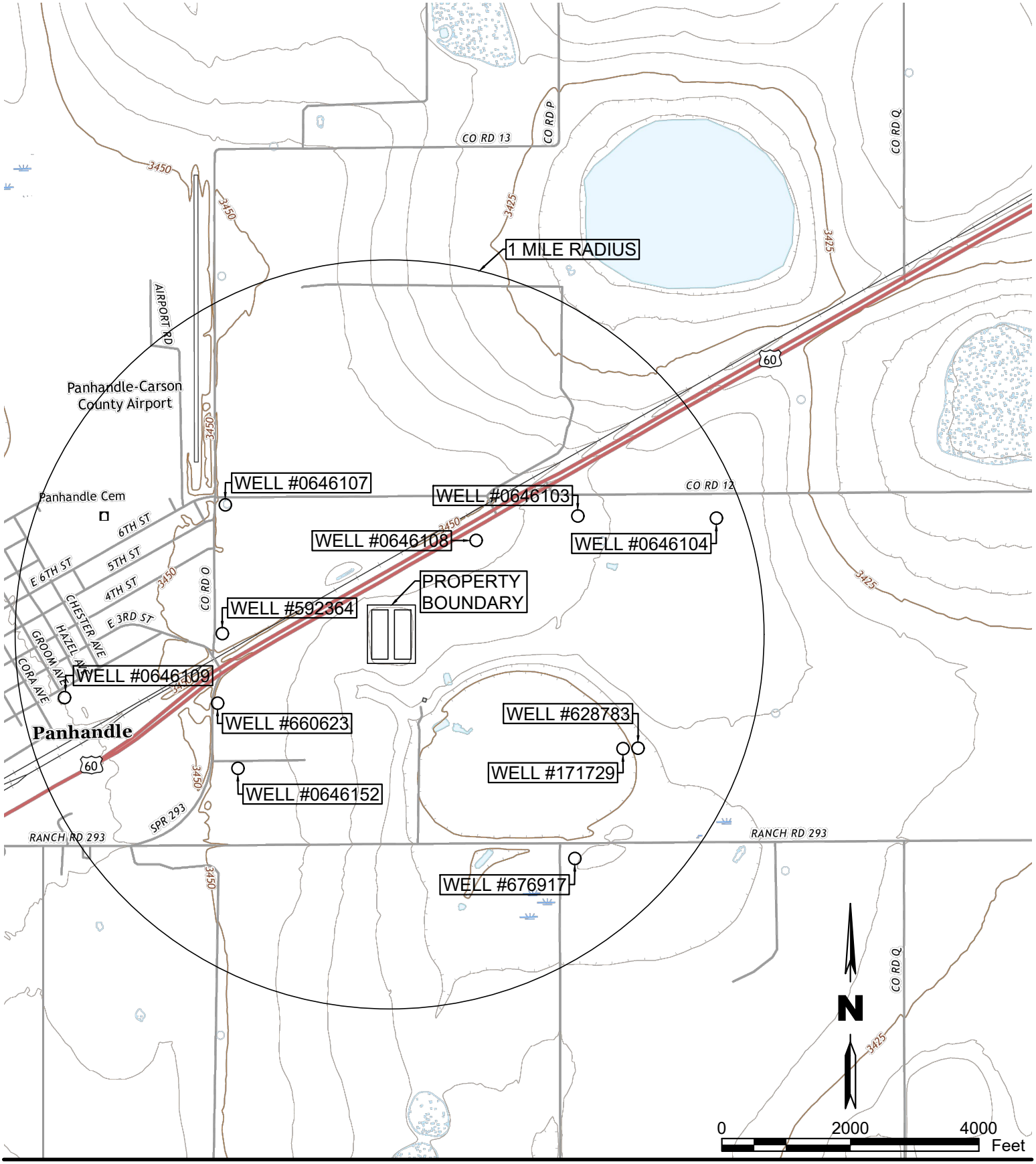
Nutrient Uptake Rates for Selected Crops

Crop	Nitrogen (lb/ac-yr)	Phosphorus (lb/ac-yr)	Potassium (lb/ac-yr)
Alfalfa	448	28	185
Wheat	143	13	40

E. There is no minimum or maximum harvest height. The crop will be harvested as-needed.
F. No supplemental watering will be required.
G. According to Table 3 of TAC §§ 309.20, both alfalfa and wheat are relatively salt tolerant with an electrical conductivity of 6.0 – 8.0 millimhos/cm @ 25º Celsius.
H. The harvesting method will consist of baling, approximately 2-3 times per year.
I. No additional fertilization will be necessary.
J. N/A

Appendix I

Well Map and Information



City of Panhandle WWTP Permit Renewal

City of Panhandle
P.O. Box 129
Panhandle, TX 79083

Parkhill
Parkhill.com

Well Map

Issue:	New
Date:	06/24/2025
Project No:	45268.25
Sheet:	1 OF 1

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer _____ Dist, ~~Field~~ No. CA-568 State Well No. DA-06-46-104

Owner's Well No. _____ County CARSON

1. Location: NW 1/4, NE 1/4 Sec 23, Block 2 Survey T.T.R.R.

2. Owner: Clifford Wasson Address: Panhandle

~~Owner~~ Tenant: Harold Knapp Address: do

Driller: Panhandle Irr. Inc. Address: do

3. Elevation of LSD is 3431 ft. above msl, determined by Topo

4. Drilled: 6-1- 1965; Dug, Cable Tool, (Rotary)

5. Depth: Rept. _____ ft. Meas. 645 ft. by DL

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Cased

7. Pump: Mfgr. Layne (Amar.GH) Type T

No. Stages 11, Bowls Diam. 10 in., Setting 450 ft.

Column Diam. 8 in., Length Tailpipe _____ ft.

8. Motor: Fuel NG Make & Model M-M-G HP.

9. Yield: Flow _____ gpm, Pump 800 gpm, Meas. (Rept.) Est.

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 355 ft. Pumping Level 600 ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

CASING & BLANK PIPE

Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting, ft. from	to
16	Steel	0	635

11. Water Level: _____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

12. Use: Dom., Stock, Public Supply, Ind., (Irr.) Waterflooding, Observation, Not Used, _____

13. Quality: (Remarks on taste, odor, color, etc.) _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: (Driller's Log), Radioactivity Log, Electric Log, Formation Samples, Pumping Test, _____

15. Record by: H E C Date 5-17- 1972

Source of Date WD Records & Obs

16. Remarks: _____

WELL SCREEN

Screen Openings _____

Diam. (in.)	Type	Setting, ft. from	to
16	Perf	355	635

TWDBE-WD-2

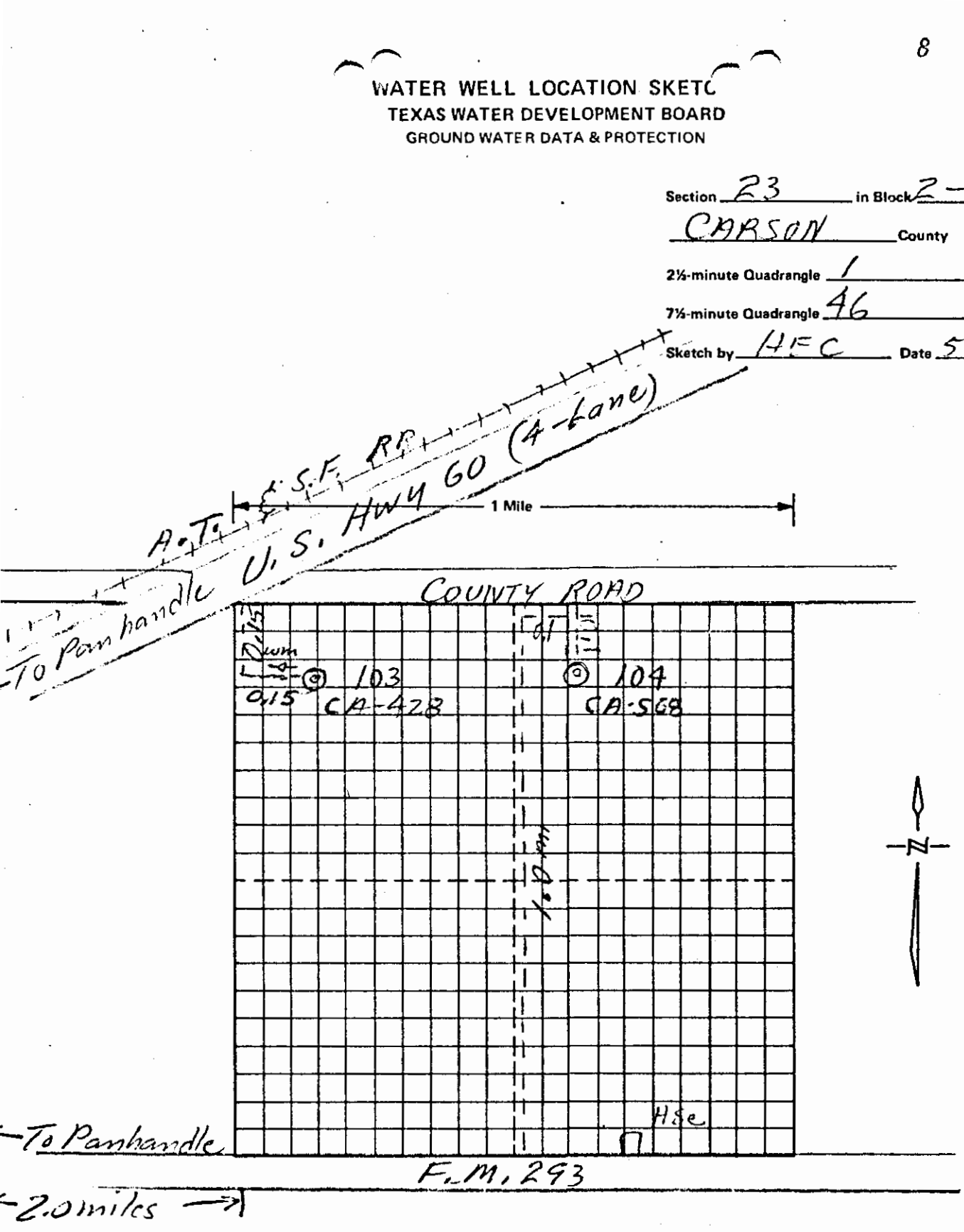
(Sketch)

8 8

WATER WELL LOCATION SKETCH

TEXAS WATER DEVELOPMENT BOARD
GROUND WATER DATA & PROTECTION

Section 23 in Block 2-TTRR
CARSON County
2½-minute Quadrangle 1 in
7½-minute Quadrangle 46
Sketch by HEC Date 5-17-72



Well No. 06 . 46 . 104

TWDBE-WD-4

MAKE 3 COPIES

FORM NO. 594R-LW

District File No. C-568
FOR USE OF DISTRICT OFFICE ONLY

Duplicate — File Copy

Panhandle Underground Water Conservation District No. 3

REGISTRATION and LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to District Office for registration. (PLEASE TYPE OR PRINT)

FOR USE OF DISTRICT
Field Well No. C-568
Date Received 3-16-65
Size of Pump 8 Maximum in Yield 1000 GPM

1. Well Owner Clifford Wasson Address Panhandle, Texas
2. Well located ____ miles N, ____ miles S, 2½ miles E, ____ miles W of the town of Panhandle, Texas
3. County Carson Labor ____ League ____ Homestead ____
4. NW1/4 NE1/4 SW1/4 (SE1/4) (CIRCLE ONE) Section 23 Block 2 Survey T T By Co.
5. ACTUAL LOCATION OF THIS WELL IS 220 measured yards from N or S line of this tract of land.
220 measured yards from E or W line of this tract of land.

DRILLER'S LOG OF WELL

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	5	Top soil	386	416	Sandy Clay Little Sandstone
5	140	Caliche Rock Sand Little Clay	416	447	Sandy Clay Little Sandstone
140	172	Sand Caliche Rock Little Clay	447	477	Sandy Clay Little Sandstone Caliche
172	203	Sand Caliche Rock Little Clay	477	508	Sandy Clay Little Sandstone Caliche Rock
203	233	Sand Caliche rock Little Clay	508	538	Sandy Clay Little Sandstone
233	264	Sandy Clay Caliche Rock	538	569	Sandy Clay Little Sandstone Caliche Rock
264	294	Sandy Clay Caliche Rock	569	599	Coarse Sand Gravel Little Sandy Clay
294	325	Sandy Clay Sandstone	599	640	Coarse Sand Gravel
325	355	Sandy Clay Sandstone	640	645	Red Bed
355	386	Sandy Clay Sandstone			

I certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller Panhandle Irrigation, Inc. Address Panhandle, Texas Date Drilled June 1- 1965

DESCRIPTION OF WELL

6. Casing: new, used, gas line, or shop made. Diameter 16 in. Total length 635 ft.
7. Casing perforations: from 355 ft. to 635 ft. Size No. 1 Number per foot 12 Row
8. Pump Column: Size 8 in. Total length 450 ft. Suction pipe: Size 8 in. Length 10 ft.
9. Pump bowls: Size 10 BH Number of stages 11 Pump discharge pipe: Size 8 in.
10. Depth to water level 355 ft. Pump discharge 800 GPM. Pumping level: 400 ft.
11. Power Unit: Electrical, Natural Gas, Butane, Other ____ Horsepower ____

Signature Clifford Wasson
OWNER OR AGENT

Final Completion of Well — Date June 8, 1965

TITLE

ADDRESS DA 06-46-104

B. G. Hood
MANAGER

DUPLICATE PRINTING—PAMPA

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer _____ Dist. ~~Field~~ No. CA-633 State Well No. DA-06-46-108

Owner's Well No. _____ County CARSON

1. Location: Approx. Center of 1/4, NE 1/4 Sec. 38, Block 2 Survey T T RR

2. Owner: John Nunn Address: Panhandle

oper. ~~Tenant~~: Porter Brown Address: do

Driller: Panhandle Irr. Inc. Address: do

3. Elevation of LSD is 3446 ft. above msl, determined by Topo

4. Drilled: 6-8- 1966; Dug, Cable Tool, (Rotary)

5. Depth: Rept. _____ ft. Meas. 765 ft. by DL

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Cased

7. Pump: Mfgr. Layne (Amer. Gk) Type T

No. Stages 11, Bowls Diam. 10 in., Setting 500 ft.

Column Diam. 8 in., Length Tailpipe _____ ft.

8. Motor: Fuel NG Make & Model MM-M6 HP.

9. Yield: Flow _____ gpm, Pump 980 gpm, Meas. (Rept.), Est.

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 355 ft. Pumping Level 410 ft. Drawdown 55 ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

CASING & BLANK PIPE

Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting, ft. from	to
12 3/4	Steel	0	760

11. Water Level: 355.0 ft. (rept.) meas. 1966 above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

12. Use: Dom., Stock, Public Supply, Ind. (Irr.), Waterflooding, Observation, Not Used, _____

13. Quality: (Remarks on taste, odor, color, etc.) _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: (Driller's Log), Radioactivity Log, Electric Log,

Formation Samples, Pumping Test, _____

15. Record by: HEC Date 5-17- 1972

Source of Data WO records & Obs

16. Remarks: _____

Can measure WL

WELL SCREEN

Screen Openings _____

Diam. (in.)	Type	Setting, ft. from	to
12 3/4	Perf	497	760

(Sketch)

TWDBE-WD-2

6

8

WATER WELL LOCATION SKETCH

TEXAS WATER DEVELOPMENT BOARD

GROUND WATER DATA & PROTECTION

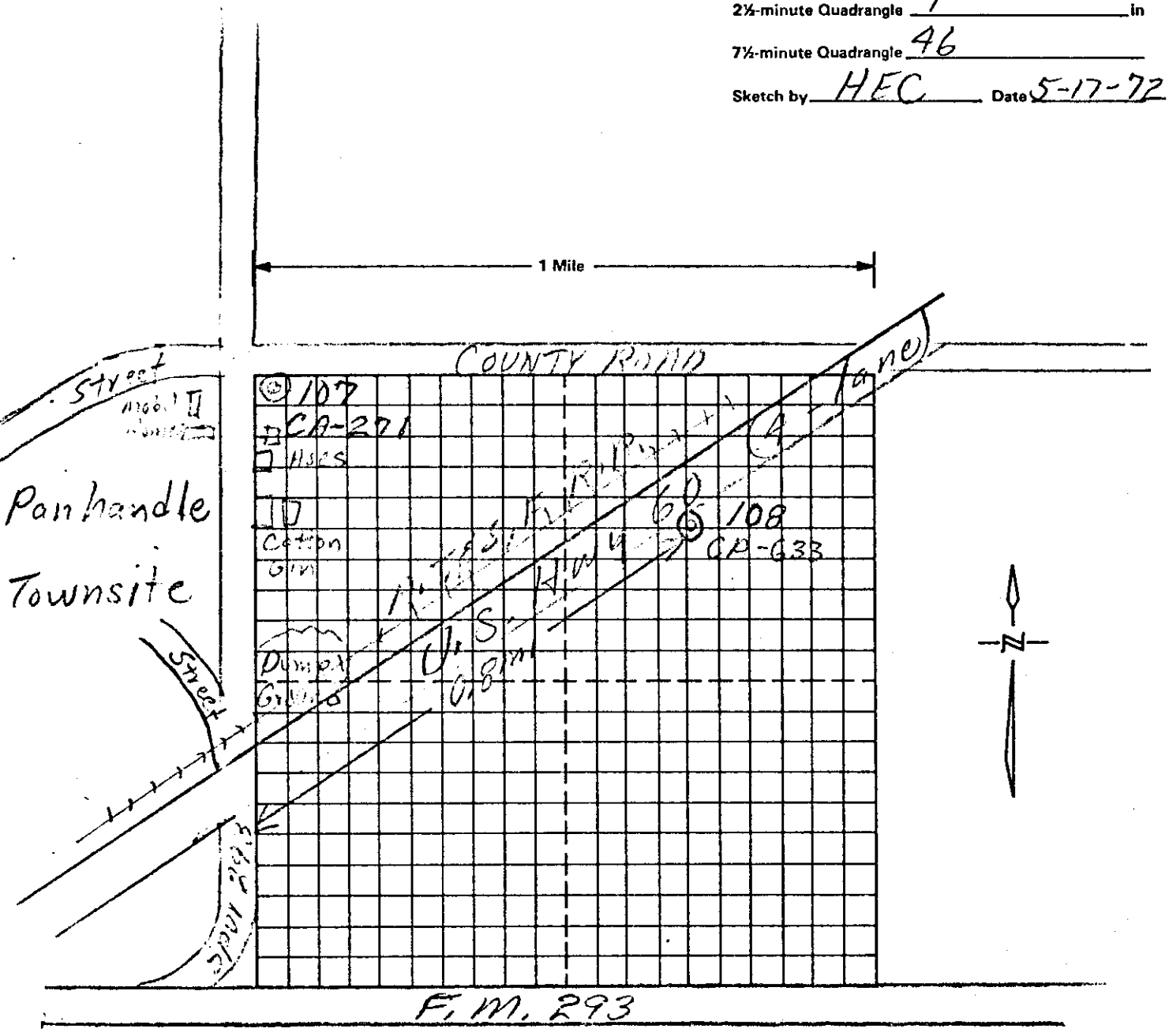
Section 38 in Block 2-TTRR

CARSON County

2½-minute Quadrangle 1 in

7½-minute Quadrangle 46

Sketch by HEC Date 5-17-72



Well No. 06 . 46 . 108

TWDBE-WD-4

Make 3 copies

FORM NO. 354R-LW

District File No. CA-633
FOR USE OF DISTRICT ONLY

Triplicate — County Committeemen
Panhandle Underground Water Conservation District No. 3

REGISTRATION and LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to District Office for registration. (PLEASE TYPE OR PRINT)

FOR USE OF DISTRICT
Field Well No. _____
Date Received _____
Size of Pump 8 Maximum in Yield 1000 GPM

1. Well Owner John Nunn Address Panhandle, Texas
2. Well located _____ miles N, _____ miles S, 3/4 miles E, _____ miles W of the town of Panhandle, Tex
3. County Carson Labor _____ League _____ Homestead _____
4. ~~XXXXX~~ NE1/4 ~~XXXXXXXXXX~~ Section 38 Block 2 Survey tyler-tap
(CIRCLE ONE)
5. ACTUAL LOCATION OF THIS WELL IS { ~~XXX~~ 20 measured yards from N or ~~S~~ line of this tract of land.
~~XXX~~ 330 measured yards from E or W line of this tract of land.

DRILLER'S LOG OF WELL

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	5	Top Soil	355	386	Sandy Clay Little Clay Sandstone
5	80	Caliche	386	416	Sand Sandy Clay Caliche Streaks
80	140	Sand Caliche	416	447	Sand Sandy Clay
140	172	Caliche Clay Sand	447	508	Fine Sandy Clay
172	203	Clay Little Sand	508	538	Fine Sandy Clay Clay Streaks
203	233	Sand Caliche Little Clay	538	569	Fine Sandy Clay Clay Streaks
			569	595	Fine Sand Clay Caly Streaks
233	264	Sand Caliche	595	630	Med. to Coarse Sand Little Gravel
			630	660	Med. to Coarse Sand Little Gravel
264	294	Sand Caliche	660	691	Med. to Coarse Sand Little Gravel
			691	721	Med. to Coarse Sand & Clay
294	325	Sand Sandy Clay Sandstone	721	752	Med. to Xoarse Sand & Clay
			752	765	Red Bed
325	355	Sandy Clay Little Sandstone			

I certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller Panhandle Irrigation, Inc. Address Panhandle, Texas Date Drilled 6 1956

DESCRIPTION OF WELL

6. Casing: new, used, gas line, or shop made. Diameter 12 3/4 in. Total length 760 ft.
7. Casing perforations: from 497 ft. to 760 ft. Size No. 1 Number per foot 10 Row
8. Pump Column: Size 8 in. Total length ~~498~~ 500 ft. Suction pipe: Size 8 in. Length 10 ft.
9. Pump bowls: Size ~~10XX~~ 10. Number of stages 11. Pump discharge pipe: Size 8 in.
10. Depth to water level ~~355~~ 355 ft. Pump discharge 980 GPM. Pumping level: 410 ft.
11. Power Unit: Electrical, Natural Gas, Butane, Other _____ Horsepower _____

Signature John H. Nunn
OWNER OR AGENT TITLE ADDRESS

Final Completion of Well — Date 6-20-, 1956 DA 06-46-108

FUGATE PRINTING—PAMPA

MANAGER

STATE OF TEXAS WELL REPORT for Tracking #171729

Owner:	**U. S. Department of Energy**	Owner Well #:	**TLAP Area 101**
Address:	**HWY 60 & FM 2373 Amarillo, TX 79120**	Grid #:	**06-46-1**
		Latitude:	**35° 20' 36" N**
Well Location:	**HWY 60 & FM 2373 Amarillo, TX 79120**	Longitude:	**101° 20' 36" W**
Well County:	**Carson**	Elevation:	**3540 ft. above sea level**
			****Plugged Within 48 Hours****

****This well has been plugged**** **Plugging Report Tracking #123617**

Type of Work: **New Well** Proposed Use: **Environmental Soil Boring**

Drilling Start Date: **1/13/2009** Drilling End Date: **1/13/2009**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2**	**0**	**2.5**

Drilling Method: **Bored**

Borehole Completion: **Open Hole**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**2.5**	**Soil**

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: **Unknown**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

	Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Plug Information:	**18 soil boring (0-30") collected in ag land and back filled with soil - all borings in general area of referenced coordinates.**		

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

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: **U. S. Departmen of Energy**

HWY 60 & FM 2373
Amarillo, TX 79120

Driller Name: **Roy Burson** License Number: **2585**

Comments: **18 soil borings (0-30") collected in ag land and backfilled with surface soil - all borings in general area of referenced coordinates.**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
Top soil and reddish clay		

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
No Data			

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 PLUGGING REPORT for Tracking #123617

Owner:	**U. S. Department of Energy**	Owner Well #:	**TLAP Area 101**
Address:	**HWY 60 & FM 2373 Amarillo, TX 79120**	Grid #:	**06-46-1**
Well Location:	**HWY 60 & FM 2373 Amarillo, TX 79120**	Latitude:	**35° 20' 36" N**
		Longitude:	**101° 20' 36" W**
Well County:	**Carson**	Elevation:	**3540**

Well Type: **Environmental Soil Boring**

Drilling Information

Company: **U. S. Departmen of Energy** Date Drilled: **1/13/2009**

Driller: **Roy L Burson** License Number: **2585**

Well Report Tracking #171729

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2**	**0**	**2.5**

Plugging Information

Date Plugged: **1/13/2009** Plugger: **Roy Burson**

Plug Method: **Unknown**

Casing Left in Well:

No Data

Plug(s) Placed in Well:

Description (number of sacks & material)
18 soil boring (0-30") collected in ag land and back filled with soil - all borings in general area of referenced coordinates.

Certification Data: The driller certified that the driller plugged this well (or the well was plugged 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 reports(s) being returned for completion and resubmittal.

Company Information: **U. S. Departmen of Energy**

HWY 60 & FM 2373
Amarillo, TX 79120

Driller Name: **Roy Burson** License Number: **2585**

Comments: **18 soil borings (0-30") collected in ag land and backfilled with surface soil - all borings in general area of referenced coordinates.**

Texas Water Development Board
Well Schedule

groundwater resources

State Well Number: **6-46-109** Previous Well Number: County: **Carson** **65**

Latitude (dms): **352043** Longitude (dms): **1012219** Coordinate Accuracy: **Global Positioning System - GPS**

River Basin: **Red River** GMA: **1** RWPA: **A** GCD: **Panhandle GCD**

Owner: **City of Panhandle #1-06 or Groom well**

Driller: **L.T. Drilling Co.**

Aquifer ID: **Ogallala**

Aquifer Code: **121OGLL**

OGALLALA FORMATION

Depth (ft): **720**

Elevation (ft): **3457**

Source of Depth: **Driller's Log**

Source of Elevation: **Digital Elevation Model -DEM**

Date Drilled: **10/27/2006**

Well Type: **Withdrawal of Water**

Type of Lift: Power: Horsepower:

Construction: **Reverse Rotary**

Completion: **Gravel Pack w/Screen**

Casing Material: **Steel**

Screen Material: **Stainless Steel**

CASING INTERVALS:
Casing/Blank Pipe (C)
Well Screen/Slotted Zone (S)
Open Hole (O)

	Dia. (in.)	Top (ft.)	Bottom (ft.)
C	16	0	540
S	16	540	710
C	16	710	720

WATER USE

Primary: **Public Supply** Secondary: Tertiary:

Water Levels: **Miscellaneous Measurements**

1 measurement
2006
-431

Water Quality: **N**

Other Data: Logs: **D**

REMARKS:

Owners #1-06 or Groom St. well. PWS ID #0330002D. Cemented from 0 to 455 feet. Gravel packed from 465 to 720 feet. Drillers report tracking #96397.

Reporting Agency: **TWC/TNRCC/TCEQ**

Date Collected or Reported: **11/16/2010**

Recorded by: D. R. Jones

New

TRACKING# 96397

STATE OF TEXAS WELL REPORT

Date Entered: 10/26/2006

OWNER: City of Panhandle

OWNER ADDRESS: PO Box 129 Panhandle , TX 79068

ADDRESS OF WELL'S LOCATION:
Sec 53, Blk 2, TTRR
Panhandle , TX 79068

COUNTY: Carson **LATITUDE:** 352043 **LONGITUDE:** 1012219 **Brand/Model of GPS:**

Owner's Well Number: WW 1-06 **ELEVATION:** **Grid Number:** 06 - 46 - 1

TYPE OF WORK:
☑ New Well ☐ Replacement Well
☐ Deepening ☐ Reconditioning

PROPOSED USE: ☐ Monitor Well ☐ Env. Soil Boring ☐ Domestic ☐ Test Well
☐ Industrial ☐ Irrigation ☐ Injection ☐ Geothermal Heat Loop
☑ Public Supply ☐ De-watering ☐ Rig Supply ☐ Stock or Livestock
If Public Supply well, were plans submitted to the TNRCC? ☑ Yes ☐ No

WELL LOG:
Date Drilling
Started 7/21/2006
Completed 10/27/2006

DIAMETER OF HOLE

Dia. (in)	From (ft.)	To (ft.)
24	Surface	720

DRILLING METHOD:
☐ Driven ☐ Air Hammer ☐ Hollow Stem Auger ☐ Bored
☐ Air Rotary ☐ Cable Tool ☑ Reverse Circulation
☐ Mud Rotary ☐ Jetted ☐ Other

ANNULAR SEAL DATA
From 0 **ft. to** 455 **ft. #Sacks + Material**
From **ft. to** **ft. #Sacks + Material**
From **ft. to** **ft. #Sacks + Material**
Method Used
Cemented By
Distance to Septic System None obsrv
Distance to Property Line:
Method of Verification Estimated
Approved by Variance No.

BOREHOLE COMPLETION:
☐ Open Hole ☐ Underreamed ☐ Other
☐ Straight Wall ☑ Gravel Packed
Gravel Packed Interval from 465 **ft. to** 720 **ft.**
Size 8/12

SURFACE COMPLETION:
☐ Surface Slab Installed ☐ Pitless Adapter Used
☐ Surface Sleeve Installed ☐ Alternative Procedure Used

WATER LEVEL:
Static Level 431 **ft. below land surface**
Artesian Flow **gpm.** **Date** 7/22/2006

PLUGGING INFO:
☐ Well Plugged within 48 hours
Casing left in well: From (ft.) To (ft.)
Cement/Bentonite left in well: From (ft.) To (ft.) Cem/Bent Sacks Used:

TYPE OF PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other
Depth to pump bowls, cylinder, jet, etc.

PACKERS:
Type **Depth**

WELL TESTS:
Type of test: ☐ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: **gpm with** **ft. drawdown after** **hrs.**

WATER QUALITY:
Did Driller knowingly penetrate any strata which contained undesirable constituents? ☐ Yes ☑ No
Type of water:
Depth of Strata:
Chemical Analysis made? ☑ Yes ☐ No

COMPANY NAME: L T Drilling Company **WELL DRILLER'S LICENSE NO.** 2366
ADDRESS PO Box 784 Sunray TX 79086
Name as Signature Randal James Taylor **Registered Driller Apprentice**
Driller Comments

√06.46.109

WELL REPORT CONFIDENTIALITY NOTICE

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 Regulation
Water Well Driller/Pump Installer Section
P.O. Box 12157 Austin, TX 78711
Toll free (800)803-9202 (512)463-7880 FAX (512)463-8616
Email address: water.well@license.state.tx.us Web address: www.license.state.tx.us

DESCRIPTION AND COLOR OF FORMATION MATERIAL

From (ft.)	To (ft.)	Description
0	4	Surface
4	200	Br sandy clay + clay
200	380	Fine sand w/sandy clay strips
380	440	Br clay w/fine sand strips
440	540	Gray & br sandy clay + clay w/little sand strips
540	570	Fine sand
570	709	Med to coarse sand w/small gravel strips
709	720	Br & red clay

CASING, BLANK PIPE, AND WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To		Gage
16	N	Blank steel	+1 - 540		
16	N	Stainless steel screen	540 - 710	.040 .304	
16	N	Blank steel	710 - 720		

06.4/6.109

STATE OF TEXAS WELL REPORT for Tracking #96397

Owner:	**City of Panhandle**	Owner Well #:	**WW 1-06**
Address:	**PO Box 129 Panhandle, TX 79068**	Grid #:	**06-46-1**
Well Location:	**Sec 53, Blk 2, TTRR Panhandle, TX 79068**	Latitude:	**35° 20' 43" N**
		Longitude:	**101° 22' 19" W**
Well County:	**Carson**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Public Supply**

Drilling Start Date: **7/21/2006** Drilling End Date: **10/26/2006** **Plans Approved by TCEQ - YES**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**24**	**0**	**720**

Drilling Method: **Reverse Circulation**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**465**	**720**	**Gravel**	**8/12**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**455**	

Seal Method: **Unknown**

Sealed By: **Unknown**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **None obsrvd**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Estimated**

Surface Completion: **Unknown**

Water Level: **431 ft.** below land surface on **2006-07-22** 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: **Yes**

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: **L T Drilling Company**

PO Box 784
Sunray, TX 79086

Driller Name: **Randal James Taylor** License Number: **2366**

Comments: **TWDB SW #06-46-109 Doc Jones 11/16/2010**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**4**	**Surface**
4	**200**	**Br sandy clay + clay**
200	**380**	**Fine sand w/sandy clay strips**
380	**440**	**Br clay w/fine sand strips**
440	**540**	**Gray & br sandy clay + clay w/little sand strips**
540	**570**	**Fine sand**
570	**709**	**Med to coarse sand w/small gravel strips**
709	**720**	**Br & red clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
16 N Blank steel +1 - 540
16 N Stainless steel screen 540 - 710 .040 .304
16 N Blank steel 710 - 720

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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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 #628783

Owner:	**Williams Family Land, LLC**	Owner Well #:	**IRR 4-23**
Address:	**970 Hwy 207 Panhandle, TX 79068**	Grid #:	**06-46-1**
Well Location:	**SW/4, SEC 23, BLK 2, TTRR Panhandle, TX**	Latitude:	**35° 20' 35.95" N**
		Longitude:	**101° 20' 31.38" W**
Well County:	**Carson**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **1/5/2023** Drilling End Date: **1/6/2023**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**24**	**0**	**759**

Drilling Method: **Reverse Circulation**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**15**	**759**	**Gravel**	**Huber 90f/10c**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**-1**	**15**	**Cement 10 Bags/Sacks**

Seal Method: **Gravity**

Sealed By: **Driller**

Distance to Property Line (ft.): **1305' N 1302' W**

Distance to Septic Field or other concentrated contamination (ft.): **5280'**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Permit 65129513**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **434 ft.** below land surface on **2023-01-07** Measurement Method: **Bailer**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
434 - 759	**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: **Hydro Resources Mid Continent Inc.**

PO Box 784
Sunray, TX 79086

Driller Name: **Randy Taylor** License Number: **2366**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**90**	**surface soil, brown clay w/sandy strips, caliche**
90	**400**	**sand w/brown clay strips**
400	**460**	**brown & gray sandy clay w/fine sand strips w/clay mix**
460	**520**	**fine sand w/gray & brown clay mix**
520	**600**	**fine, med & coarse sand w/brown clay mix**
600	**640**	**brown & red sandy clay w/sand strips (fine)**
640	**720**	**fine sand w/brown clay mix & brown sandy clay**
720	**759**	**fine sand to coarse sand to red clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
16	**Blank**	**New Steel**	**0.25**	**-2**	**459**
16	**Perforated or Slotted**	**New Steel**	**0.1**	**459**	**739**
16	**Blank**	**New Steel**	**0.25**	**739**	**759**

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 #676917

Owner:	**Jason Smith**	Owner Well #:	**1**
Address:	**PO Box 872 Panhandle, TX 79068**	Grid #:	**06-46-1**
Well Location:	**Section 22 BLK 2 TT RR Panhandle, TX 79068**	Latitude:	**35° 20' 18.88" N**
		Longitude:	**101° 20' 41.91" W**
Well County:	**Carson**	Elevation:	**3420 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **6/25/2024** Drilling End Date: **6/25/2024**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
17.5	**0**	**50**
9	**50**	**660**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
25	**660**	**Gravel**	**Huber 1 Fine**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
2	**22**	**Concrete 10 Bags/Sacks**

Seal Method: **Hand Mixed**

Sealed By: **Driller**

Distance to Property Line (ft.): **365**

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: **Pitless Adapter Used** **Surface Completion by Driller**

Water Level: **441 ft.** below land surface on **2024-06-28**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **560**

Well Tests: **Pump** **Yield: 17.5 GPM with 0 ft. drawdown after unspecified hours**

Water Quality:

Strata Depth (ft.)	Water Type
441 - 660	**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: **Lichtie Pump Service**

801 FRONT ST
Groom, TX 79039

Driller Name: **Matt Lichtie** License Number: **59419**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**Top Soil**
3	**20**	**Lost Circulation**
20	**50**	**Sand w/ Clay Strips**
50	**220**	**Brown Clay w/ Sand and Caliche Strips**
220	**400**	**Brown Clay w/ Sand and Sandstone Strips**
400	**450**	**Blue and Pink Clay**
450	**540**	**Brown Sticky Clay**
540	**590**	**Medium to Coarse Sand w/ Gravel Strips**
590	**620**	**Coarse Sand w/ Large Gravel Strips**
620	**640**	**Fine Sand to Pink Clay**
640	**660**	**Pink Clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5.5	**Blank**	**New Steel**	**.250**	**0**	**4**
5.5	**Blank**	**New Plastic (PVC)**	**250**	**4**	**450**
5.5	**Perforated or Slotted**	**New Plastic (PVC)**	**200 0.035**	**450**	**650**
5.5	**Blank**	**New Plastic (PVC)**	**200**	**650**	**660**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

TEXAS DEPARTMENT OF WATER RESOURCES

WELL SCHEDULE

107

Aquifer(s) OGALLALA Project No. _____ State Well No. 06 - 46 - 1C

Field No./Owner's Well No. CA- 271 County Carson

1. Location: ___ ¼, NW ¼, Section 38, Block 2, Survey Tyler Tap, Lat. _____, Long. _____

2. Owner: Panhandle Farms, Inc. Address: Panhandle, Texas

Tenant (other): _____ Address: _____

Driller: Carroll Lisenbe Panhandle Irr. Address: Panhandle, Texas

3. Land Surface Elevation: 3448 ft. above msl determined by TOPO

4. Drilled: 1-23 19 57; Dug, Cable Tool, Rotary, Air, _____

5. Depth: Rept. _____ ft. Meas. _____ ft.

6. Borehole Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfr. _____ Type _____

No. Stages 9, Bowls Diam. 10 in., Setting _____ ft.

Column Diam. 6 in., Length Tailpipe _____ ft.

8. Motor: Mfr. _____ Fuel Natural Gas HP. 75

9. Yield: Flow _____ gpm, Pump 600 gpm, Meas., Rept., Est. _____ Date _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 330 ft. Pumping Level 360 ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.) _____

Analyses

Date _____ Laboratory _____ TDS _____ Sp Cond _____

Date _____ Laboratory _____ TDS _____ Sp Cond _____

12. Other data available (as circled): Pumping Test, Power & Yield Test, Drillers Log, Formation Samples, Geophysical Log(s) _____

CASING, BLANK PIPE & WELL SCREEN Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting (feet) from	to
12-3/4	new	0	789

13. Water Level(s): _____ ft. rept. meas. _____ 19__ (type) above below _____ which is _____ ft. above below Land Surface

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below Land Surface

14. Use: Dom., Stock, Public Supply, Ind., (Irr.), Observation, Other (Test Hole, Oil Test, etc.) _____

15. Recorded by: Richard S. Bowers Source of data: PGWCD #files Date: 2-27-81

16. Remarks: _____

17. Location or Sketch:

2 miles east of Panhandle, Texas.

TDWR-0308

W/L Obs. Well ___ W/Q Obs. Well ___

State Well No. 06-46-1C

107

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer _____ Dist. Field No. CA-271 State Well No. DA-06-46-107

Owner's Well No. _____ County CARSON

1. Location: NW 1/4, NW 1/4 Sec. 38, Block 2 Survey T T RR

2. Owner: Elliot Sanford Address: Amarillo, Texas

Tenant: _____ Address: _____

Driller: Carroll Lisenbe Address: Panhandle

3. Elevation of LSD is 3448 ft. above msl, determined by Topo

4. Drilled: 1-3- 1957; Dug, Cable Tool, (Rotary)

5. Depth: Rept. _____ ft. Meas. 784 ft. 64 DL

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Cased

7. Pump: Mfgr. Layne (AmarGH) Type T

No. Stages 9, Bowls Diam. 10 in., Setting 420 ft.

Column Diam. 6 in., Length Tailpipe _____ ft.

8. Motor: Fuel NG Make & Model M-M 6 HP. 75

9. Yield: Flow _____ gpm, Pump 600 gpm, Meas., (Rept.), Est. _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 330 ft. Pumping Level 360 ft. Drawdown 30 ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

CASING & BLANK PIPE

Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting, ft. from	to
12 3/4	Steel	0	789

11. Water Level: 330.0 ft. (rept.) meas. 1957 above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

_____ ft. rept. meas. 19__ above below which is _____ ft. above below surface.

12. Use: Dom., Stock, Public Supply, Ind., (Irr.), Waterflooding, Observation, Not Used, _____

13. Quality: (Remarks on taste, odor, color, etc.) _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: (Driller's Log,) Radioactivity Log, Electric Log,

Formation Samples, Pumping Test, _____

15. Record by: HEC Date 5-17 1972

Source of Data WD records & obs

16. Remarks: _____

Cas measure WL

WELL SCREEN

Screen Openings _____

Diam. (in.)	Type	Setting, ft. from	to
12 3/4	Perf	634	789

TWDBE-WD-2

(Sketch)

CK-46-107

CK-271

2711

TEXAS WATER DEVELOPMENT BOARD
GROUND-WATER DIVISION
WATER-LEVEL MEASUREMENTS

County [illegible]

Owner [illegible] Location NW¼ Sec 38 Blk 2 T T R R

Description of Measuring Point [illegible]

To obtain "Depth to Water from LSD", Algebraically Add [illegible] Ft. to "Depth to Water From MP"

(Depth to Water From MP is negative when the water level is below the MP)

State Well Number _____ Land Surface Datum Elevation _____

Date Of Current Meas. Mo.	Day	Year	Depth to Water From LSD in Ft. Current Meas.	Date Of Last Meas. Mo.	Day	Year	Depth to Water From LSD in Ft. Last Meas.	Change in Water Surface Elev. Since Last Meas. in Ft.	Meas. By Agency	Meth. Meas.	Remarks	Well Use	To Be Used Later: Remarks	To Be Used Later: Depth to Water From MP
01	08	51	[illegible]											
01	03	56	[illegible]											
02	14	59	[illegible]											
02	12	60	[illegible]											
01	07	61	[illegible]											
01	14	62	[illegible]											
01	01	63	[illegible]											
02	12	64	[illegible]											
01	11	65	[illegible]											
01	12	66	[illegible]											
01	11	67	[illegible]											

Card _ Year Record Begins 51 Leave Blank __ Aquifer 231 County ___ Watershed __

6

8

WATER WELL LOCATION SKETCH

TEXAS WATER DEVELOPMENT BOARD

GROUND WATER DATA & PROTECTION

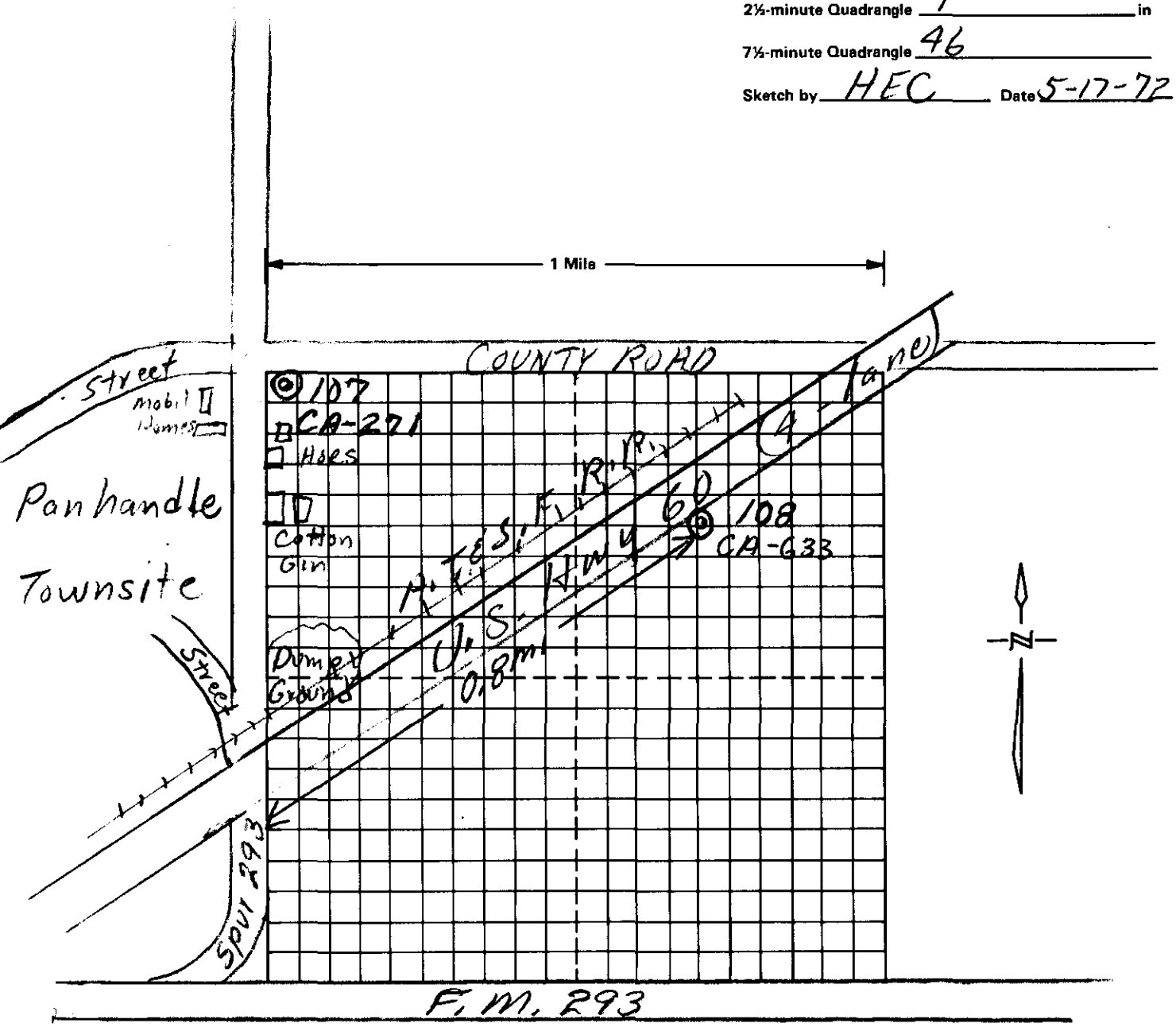
Section 38 in Block 2-TTRR

CARSON County

2½-minute Quadrangle 1 in

7½-minute Quadrangle 46

Sketch by HEC Date 5-17-72



Well No. 06 - 46 - 107

TWDBE-WD-4

MAKE 3 COPIES

FORM NO. 354R-LW

Duplicate – File Copy

District File No. 87
FOR USE OF DISTRICT OFFICE

FOR USE OF DISTRICT
Field Well No. 87
Date Received 1-16-57
Size of Pump 6" Maximum in Yield 600 GPM

Panhandle Underground Water Conservation District No. 3

REGISTRATION and LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to District Office for registration. **(PLEASE TYPE OR PRINT)**

1. Well Owner Elliot Sanford Address Amarillo, Texas
2. Well located ____ miles N, ____ miles S, 2 miles E, ____ miles W of the town of Panhandle, Texas
3. County Carson Labor ____ League ____ Homestead no
4. NW1/4 NE1/4 SW1/4 SE1/4 (CIRCLE ONE) Section 38 Block 2 Survey Tyler Tap
5. ACTUAL LOCATION OF THIS WELL IS: 60 measured yards from N or S line of this tract of land. 60 measured yards from E or W line of this tract of land.

DRILLER'S LOG OF WELL

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	5	Top Soil
5	15	Caliche
15	118	Clay
118	149	Clay & fine Sand
149	179	Clay & fine Sand
179	210	Fine Sand & Clay
210	240	Clay & Fine Sand
240	271	Clay & Rock
271	301	Clay & Rock
301	332	Clay – water sand
332	350	Sand
350	362	Sand sandstone, shale, rock
362	393	Sand, clay, shale, rock
393	423	clay- shale rock
423	454	clay shale rock little sand
454	484	Sand, clay, white rock
484	515	sandstone sand, clay
515	545	sand & yellow clay
545	576	Sand, brown clay (coarse sand 560)
576	606	Coarse sand
606	637	Coarse sand
637	645	sand
645	647	Sand & clay
647	667	Sand & Clay
667	698	Sand & Clay
698	708	Coarse sand & clay
708	728	coarse sand & small gravel
728	759	coarse sand
759	784	Coarse sand 784-789 Hard Clay

I certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller Carroll Labombe Address Panhandle Date Drilled Jan 3rd 195 7

DESCRIPTION OF WELL

6. Casing: (new), used, gas line, or shop made. Diameter 12 3/4 in. Total length 789 ft.
7. Casing perforations: from 634 ft. to 789 ft. Size 3/16. Number per foot 8 rows
8. Pump Column: Size 6 in. Total length 480 ft. Suction pipe: Size 6 in. Length 10 ft.
9. Pump bowls: Size 10. Number of stages 9. Pump discharge pipe: Size 6 in.
10. Depth to water level 330 ft. Pump discharge 600 GPM. Pumping level: 360 ft.
11. Power Unit: Electrical, (Natural Gas), Butane, Other ____. Horsepower 75

Signature Elliot Sanford by E. Waddell agent (OWNER OR AGENT) (TITLE) (ADDRESS)

Final Completion of Well — Date 1-8-57, 19__. DA06-46-107

PAMPA PRINT SHOP, PAMPA, TEXAS

STATE OF TEXAS WELL REPORT for Tracking #660623

Owner:	**Matt Lichtie**	Owner Well #:	**1**
Address:	**PO Box 545 Groom, TX 79039**	Grid #:	**06-46-1**
Well Location:	**Section 38 BLK 2 TT RR Panhandle, TX 79068**	Latitude:	**35° 20' 40.92" N**
		Longitude:	**101° 21' 50.4" W**
Well County:	**Carson**	Elevation:	**3454 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **10/12/2023** Drilling End Date: **10/12/2023**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**9**	**0**	**710**

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**25**	**710**	**Gravel**	**Huber 1 FIne**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**5**	**25**	**Concrete 8 Bags/Sacks**

Seal Method: **Hand Mixed**

Sealed By: **Driller**

Distance to Property Line (ft.): **85**

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: **Pitless Adapter Used** **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: **Lichtie Pump Service**

801 FRONT ST
Groom, TX 79039

Driller Name: **Matt Lichtie** License Number: **59419**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**5**	**Top Soil**
5	**90**	**Brown and Red Clay**
90	**180**	**Brown and Red Clay w/ Caliche Strips**
180	**200**	**Brown Sticky Clay**
200	**260**	**Brown Clay w/ Fine Sand Strips**
260	**320**	**Brown Sticky Clay**
320	**560**	**Brown Clay w/ Fine Sand Strips**
560	**705**	**Coarse Sand w/ Gravel**
705	**710**	**Red Clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5.5	**Riser**	**New Steel**	**.250**	**0**	**3**
5.5	**Blank**	**New Plastic (PVC)**	**200**	**3**	**200**
5.5	**Blank**	**New Plastic (PVC)**	**250**	**200**	**400**
5.5	**Screen**	**New Plastic (PVC)**	**200 0.035**	**400**	**700**
5.5	**Blank**	**New Plastic (PVC)**	**200**	**700**	**710**

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

TEXAS DEPARTMENT OF WATER RESOURCES

WELL SCHEDULE

103

Aquifer(s) OGALLALA Project No. _____ State Well No. 06 - 46 - 1B

_____ Field No./Owner's Well No. CA-428 County Carson

1. Location: ¼, NW ¼, Section 23, Block 2, Survey Tyler Tap, Lat. _____, Long. _____

2. Owner: Mrs. Mannie Jean Howard Address: Box 430, Childress, Texas

Tenant (other): _____ Address: _____

Driller: Panhandle Irrigation Co. Address: Panhandle, Texas

3. Land Surface Elevation: 3439 ft. above msl determined by TOPO

4. Drilled: 8-20 1963; Dug, Cable Tool, Rotary, Air, _____

5. Depth: Rept. _____ ft. Meas. _____ ft.

6. Borehole Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfr. _____ Type _____

No. Stages 3, Bowls Diam. 10 in., Setting _____ ft.

Column Diam. 8 in., Length Tailpipe _____ ft.

8. Motor: Mfr. _____ Fuel Natural Gas HP. 135

9. Yield: Flow _____ gpm, Pump _____ gpm, Meas., Rept., Est. _____ Date _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 325 ft. Pumping Level _____ ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.) _____

Analyses

Date _____ Laboratory _____ TDS _____ Sp Cond _____

Date _____ Laboratory _____ TDS _____ Sp Cond _____

12. Other data available (as circled): Pumping Test, Power & Yield Test, Drillers Log, Formation Samples, Geophysical Log(s) _____ (type)

CASING, BLANK PIPE & WELL SCREEN
Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting (feet) from	to
16		0	755

13. Water Level(s): _____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below Land Surface

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below Land Surface

14. Use: Dom., Stock, Public Supply, Ind., (Irr.), Observation, Other (Test Hole, Oil Test, etc.) _____

15. Recorded by: Richard S. Bowers Source of data: PGWCD #3 files Date: 2-27-81

16. Remarks: _____

17. Location or Sketch:

½ mile north and 2 miles east of Panhnadle, Texas

TDWR-0308

W/L Obs. Well ___ W/Q Obs. Well ___

State Well No. 06 46 - 1B

103

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer _____ DIST Field No. CA-428 State Well No. DA-06-46-103

Owner's Well No. _____ County CARSON

1. Location: NW 1/4, NW 1/4 Sec. 23, Block Z Survey T T RR

2. Owner: A. O. Howard Address: Lubbock?

Oper. Tenant: Porter Brown Address: Panhandle

Driller: Panhandle Irr. Inc. Address: do

3. Elevation of LSD is 3439 ft. above msl, determined by Topo

4. Drilled: 8-20- 1963; Dug, Cable Tool, (Rotary)

5. Depth: Rept. _____ ft. Meas. 755 ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Cased

7. Pump: Mfgr Layne (Amax 6H) Type T

No. Stages 3, Bowls Diam. 10 in., Setting 980 ft.

Column Diam. 8 in., Length Tailpipe _____ ft.

8. Motor: Fuel NG Make & Model M-MG HP 135

9. Yield: Flow _____ gpm, Pump ? gpm, Meas., Rept., Est. _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level 325 ft. Pumping Level _____ ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

CASING & BLANK PIPE

Cemented From _____ ft. to _____ ft.

Diam. (in.)	Type	Setting, ft. from	to
16	Steel	0	755

11. Water Level: _____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

_____ ft. rept. meas. _____ 19__ above below _____ which is _____ ft. above below surface.

12. Use: Dom., Stock, Public Supply, Ind., (Irr.), Waterflooding, Observation, Not Used, _____

13. Quality: (Remarks on taste, odor, color, etc.) _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

Temp. ___ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: (Driller's Log), Radioactivity Log, Electric Log,

Formation Samples, Pumping Test, _____

WELL SCREEN

Screen Openings _____

Diam. (in.)	Type	Setting, ft. from	to
16	Perf	505	755

15. Record by: HEC Date 5-17- 1972

Source of Data WD records & obs

16. Remarks: _____

TWDBE-WD-2

(Sketch)

8 8

WATER WELL LOCATION SKETCH

TEXAS WATER DEVELOPMENT BOARD

GROUND WATER DATA & PROTECTION

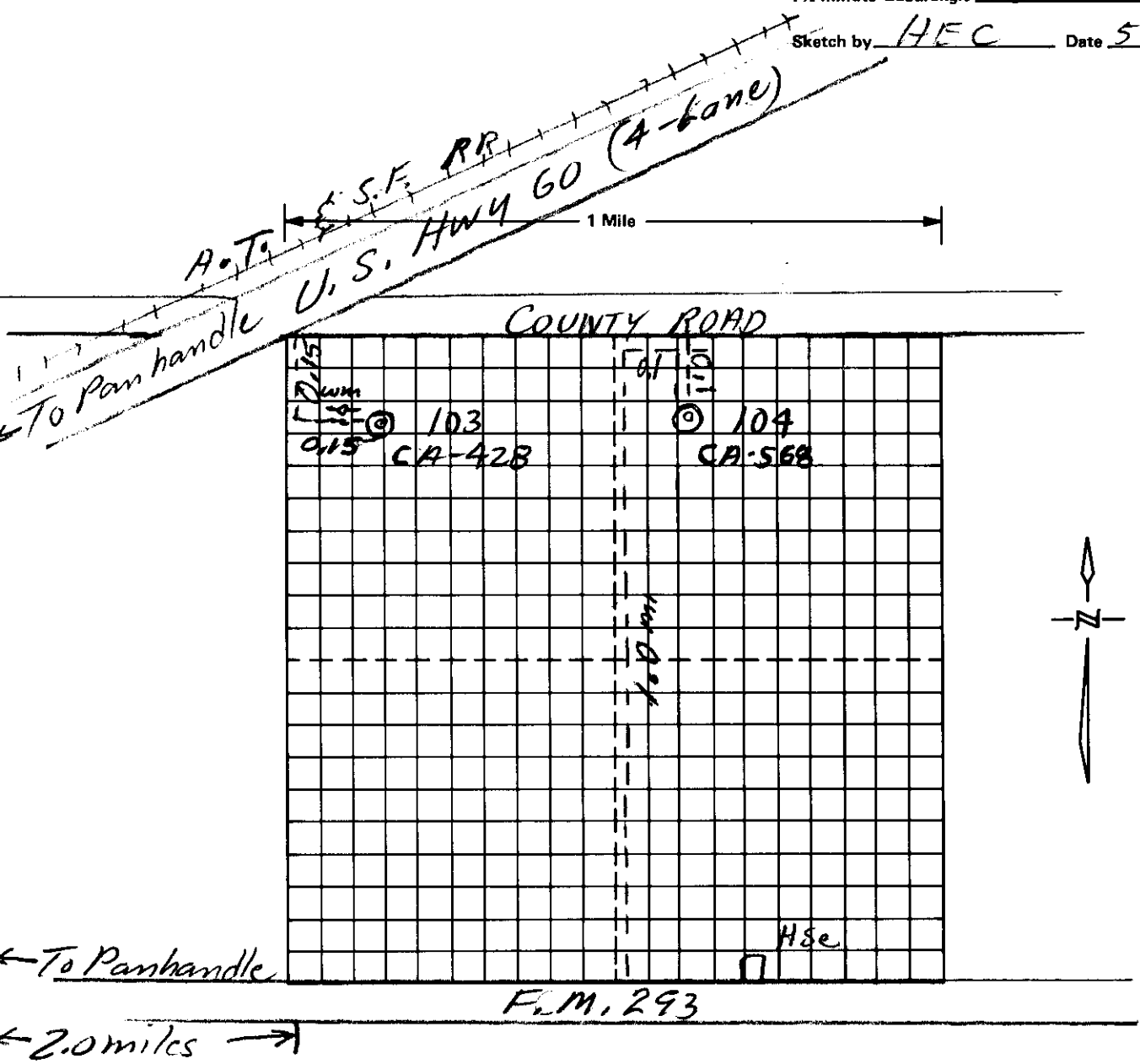
Section 23 in Block 2-TTRR

CARSON County

2½-minute Quadrangle 1 in

7½-minute Quadrangle 46

Sketch by HEC Date 5-17-72



Well No. 06 . 46 . 103

TWDBE-WD-4

NOTE 3 copies

Triplicate–County Com... District File No. CA 428 (FOR USE OF DISTRICT OFFICE)

Panhandle Underground Water Conservation District No. 3

REGISTRATION and LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to District Office for registration. (PLEASE TYPE OR PRINT)

FOR USE OF DISTRICT
Field Well No. CA 428
Date Received 8-20-63
Size of Pump 8" Maximum Yield 1404 GPM

1. Well Owner A. O. Howard Address Route 3 Pampa, Texas

2. Well located 1/2 miles N, ____ miles S, 2 miles E, ____ miles W of the town of Panhandle

3. County Carson Labor ____ League ____ Homestead ____

4. (NW1/4) NE1/4 SW1/4 SE1/4 (CIRCLE ONE) Section 23 Block 2 Survey Sec., Tap

5. ACTUAL LOCATION OF THIS WELL IS { 330 measured yards from N or X line of this tract of land. ____ measured yards from X or W line of this tract of land.

DRILLER'S LOG OF WELL 06-46-1a '64

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	140	Top Soil, Clay, Caliche & Sand	389	412	Sandy Clay
140	164	Caliche Sand	412	436	Sandy Clay
164	187	Sand, Clay, Little Caliche	436	459	Sand and Clay
187	211	Sand Clay, Caliche Rock	459	483	Sand and Clay
211	234	Sand, Clay, Caliche Rock	483	506	Sandy Clay
234	258	Sand Clay Caliche Rock	506	530	Sandy Yellow Clay
258	271	Sand Clay, Caliche, Rock	530	553	Sand and Yellow Clay
271	295	Sand Clay Caliche Rock	553	577	Sand and Yellow Clay
295	318	Red. Sandstone	577	600	Coarse Sand and Gravel
318	342	Caliche and Sand	600	624	Red. Sand
342	365	Extra fine sand & Sandstone	624	647	Coarse Sand and Gravel
365	389	Fine Sand and Sandstone	647	671	Coarse Sand and Gravel Pink Clay
			671	694	Coarse Sand and Gravel
			694	741	Coarse Sand and Gravel Hard
			741	764	Sand Cement Hard
			764	755	Red Clay

I certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller Panhandle Irrig., Inc. Address Panhandle, Texas Date Drilled ____ 196

DESCRIPTION OF WELL

6. Casing: new, used, gas line, or shop made. Diameter 16 in. Total length 755 ft.

7. Casing perforations: from 505 ft. to 755 ft. Size 1/8 Number per foot 12

8. Pump Column: Size 8 in. Total length 480 ft. Suction pipe: Size ____ in. Length 10 ft.

9. Pump bowls: Size 10" Number of stages 3 Pump discharge pipe: Size 3 in.

10. Depth to water level 325 ft. Pump discharge 3 GPM. Pumping level: ____ ft.

11. Power Unit: Electrical, (Natural Gas) Butane, Other ____ Horsepower 135 hp.

Signature ____ (OWNER OR AGENT) TITLE ADDRESS DA06-46-103

Final Completion of Well — Date ____, 19____.

PAMPA PRINT SHOP, PAMPA, TEXAS

RLD

Appendix J

Groundwater Quality

Groundwater Quality Report

Operation of the Panhandle WWTP will have little to no effect on groundwater quality in the area. The facilitative pond system includes a clay liner to prevent percolation of wastewater into the surrounding areas. Irrigation at a maximum rate of 4.19 acre-feet per year per acre will not allow water to reach beyond the root zone of cotton and wheat, and according to the Panhandle Groundwater Conservation District depths of the Ogallala aquifer in the area are beyond 400 feet below ground surface near Panhandle. The City conducts biannual groundwater monitoring to endure the quality of the water has not been affected.

Appendix K

Soil Map and 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 Carson County, Texas

May 14, 2025

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.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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.

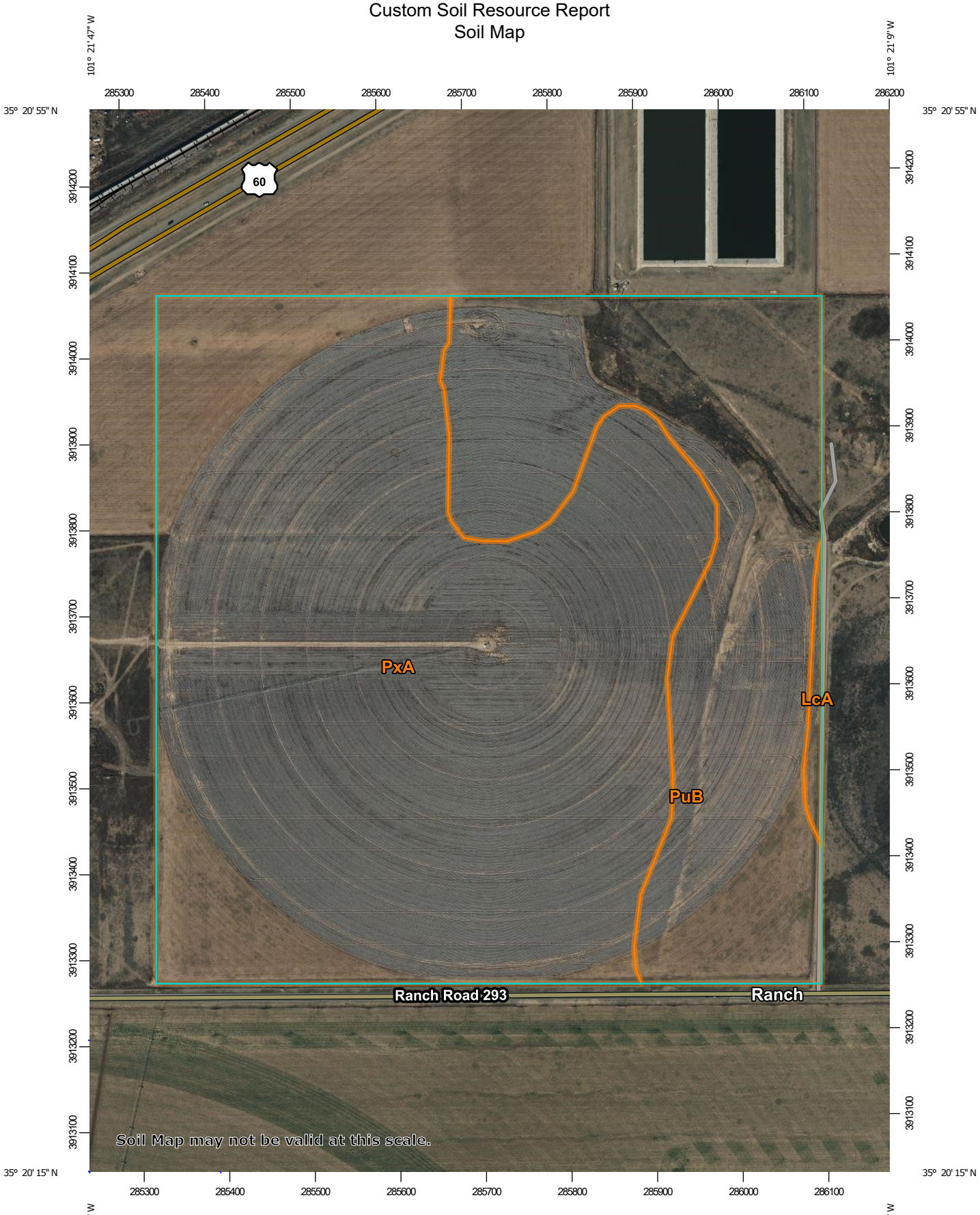
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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: 1:6,030 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N 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: Carson County, Texas
Survey Area Data: Version 25, Aug 30, 2024

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

Date(s) aerial images were photographed: Nov 13, 2022—Nov 21, 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
LcA	Lazbuddie clay, 0 to 1 percent slopes, occasionally ponded	1.1	0.7%
PuB	Pullman clay loam, 1 to 3 percent slopes	47.5	30.8%
PxA	Pantex silty clay loam, 0 to 1 percent slopes	105.6	68.5%
Totals for Area of Interest		**154.2**	**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.

Carson County, Texas

LcA—Lazbuddie clay, 0 to 1 percent slopes, occasionally ponded

Map Unit Setting

National map unit symbol: f5rd
Elevation: 3,200 to 4,700 feet
Mean annual precipitation: 17 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Lazbuddie and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lazbuddie

Setting

Landform: Playa steps
Landform position (three-dimensional): Tread
Microfeatures of landform position: Circular gilgai
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Calcareous clayey lacustrine deposits

Typical profile

Ap - 0 to 4 inches: clay
Bss1 - 4 to 13 inches: clay
Bss2 - 13 to 53 inches: clay
Bkk - 53 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 60 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): 5w
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Minor Components

Lockney

Percent of map unit: 5 percent
Landform: Playa steps
Landform position (three-dimensional): Tread
Microfeatures of landform position: Circular gilgai
Down-slope shape: Concave
Across-slope shape: Convex
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Lofton

Percent of map unit: 5 percent
Landform: Depressions, playa steps
Landform position (three-dimensional): Tread
Down-slope shape: Concave, convex
Across-slope shape: Concave, linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Mclean

Percent of map unit: 5 percent
Landform: Playa floors
Landform position (three-dimensional): Dip
Microfeatures of landform position: Circular gilgai
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R077CY027TX - Playa 16-21" PZ
Hydric soil rating: No

PuB—Pullman clay loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: f5rz
Elevation: 2,800 to 5,000 feet
Mean annual precipitation: 17 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Pullman and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pullman

Setting

Landform: Playa slopes, plains

Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, convex
Across-slope shape: Linear
Parent material: Clayey eolian deposits

Typical profile

Ap - 0 to 4 inches: clay loam
Bt - 4 to 32 inches: silty clay loam
Btk1 - 32 to 51 inches: clay loam
Btk2 - 51 to 80 inches: clay

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 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 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Minor Components

Olton

Percent of map unit: 4 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Estacado

Percent of map unit: 4 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Pep

Percent of map unit: 2 percent
Landform: Playa slopes, plains
Landform position (three-dimensional): Dip, talf

Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

PxA—Pantex silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: f5s0
Elevation: 2,700 to 4,700 feet
Mean annual precipitation: 17 to 21 inches
Mean annual air temperature: 55 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Pantex and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pantex

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey eolian deposits from the blackwater draw formation of pleistocene age

Typical profile

Ap - 0 to 7 inches: silty clay loam
Bt1 - 7 to 34 inches: silty clay
Bt2 - 34 to 71 inches: silty clay loam
Btkk - 71 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 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: 4.0
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Minor Components

Pullman

Percent of map unit: 7 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Estacado

Percent of map unit: 5 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Olton

Percent of map unit: 3 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

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City of Panhandle
WWTP - Analytical Summary Sheet

February 2019

Irrigation Field: 0" - 6"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/19	50	516	2600	631	8	74	31.50 ✓	8.3 ✓	✓ 0.848
AVERAGES:	---	---	---	---	---	---	---	---	---

Irrigation Field: 6" - 18"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/19	90 ✓	650 ✓	2853	596	7	79	37.70 ✓	8.1 ✓	0.824
AVERAGES:	---	---	---	---	---	---	---	---	---

Irrigation Field: 18" - 30"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/19	65	634	3213	622	7	76	35.90	8.1	0.905
AVERAGES:	---	---	---	---	---	---	---	---	---

*Note: This spreadsheet was designed as a tool to assist you. The form outlining the requirements for the testing was taken from your permit. Two subcontract laboratories were used for this testing, Texas A&M and Xenco Laboratories. Texas A&M results are indicated in orange, and Xenco Analytical Results in blue. Xenco Laboratories is an accredited lab, and did the majority of the testing. Texas A&M is not an accredited lab, but their lab was the only one available to do the Mehlich III with ICP as required. All of their testing is done on a packaged basis, so there are some items listed on the final reports that were not needed. There are two results for Conductivity, pH and Nitrate, but the results listed on this spreadsheet are from Xenco Laboratories due to their being an accredited lab, and the items are on TCEQ's NELAP fields of accreditation. The Texas A&M Soil report lists fertilizer recommendations for the crop yield goal. The purpose for there being two sheets for each depth describes the fertilizer recommendations for the warm season and the cool season as described in your permit.

If you have any questions please contact Serissa Beck at Environmental Monitoring Laboratory at 254-582-2622.

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City of Panhandle
WWTP - Analytical Summary Sheet

February 2020

Irrigation Field: 0" - 6"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/24/20	106	854	2545	567	15	76	12.50	8.1	432
AVERAGES:	---	---	---	---	---	---	---	---	---

Irrigation Field: 6" - 18"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/24/20	24	385	3409	737	11	122	11.00	8.1	391
AVERAGES:	---	---	---	---	---	---	---	---	---

Irrigation Field: 18" - 30"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Plant Available Calcium	Plant Available Magnesium	Plant Available Sulfur	Plant Available Sodium	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP	Mehlich III - ICP		2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/24/20	24	342	3694	673	28	113	17.70	8.1	441
AVERAGES:	---	---	---	---	---	---	---	---	---

*Note: This spreadsheet was designed as a tool to assist you. The form outlining the requirements for the testing was taken from your permit. Two subcontract laboratories were used for this testing, Texas A&M and Xenco Laboratories. Texas A&M results are indicated in orange, and Xenco Analytical Results in blue. Xenco Laboratories is an accredited lab, and did the majority of the testing. Texas A&M is not an accredited lab, but their lab was the only one available to do the Mehlich III with ICP as required. All of their testing is done on a packaged basis, so there are some items listed on the final reports that were not needed. There are two results for Conductivity, pH and Nitrate, but the results listed on this spreadsheet are from Xenco Laboratories due to their being an accredited lab, and the items are on TCEQ's NELAP fields of accreditation. The Texas A&M Soil report lists fertilizer recommendations for the crop yield goal. The purpose for there being two sheets for each depth describes the fertilizer recommendations for the warm season and the cool season as described in your permit.

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City of Panhandle

WTP - Analytical Summary Sheet February 2021

T104704247-20-20

	Irrigation Field: 0" - 6"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/21	365 D	1680	597.0	407	190	7.38	1220
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 6" - 18"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/21	36.8	332	390.3	388	2.31	7.21 K	2420
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 18" - 30"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/26/21	90.9 D	779	451.9	382	69.9	7.45 K	689
AVERAGES:	---	---	---	---	---	---	---

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City of Panhandle

WWTP - Analytical Summary Sheet

February 2022

T104704247-21-21

Irrigation Field: 0" - 6"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/16/22	39.1	416	1440.0	1430	5.29	7.40	1.030
AVERAGES:	---	---	---	---	---	---	---

Irrigation Field: 6" - 18"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/16/22	39.8	430	929.0	922	6.83	7.6	0.631
AVERAGES:	---	---	---	---	---	---	---

Irrigation Field: 18" - 30"

SUBCONTRACTED

Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/16/22	42.9	406	1420.0	1410	8.13	7.6	0.592
AVERAGES:	---	---	---	---	---	---	---

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City of Panhandle

WWTP - Analytical Summary Sheet

February 2023

T104704247-22-23

	Irrigation Field: 0" - 6"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/2/23	245	1080	1410	1380	31.5	7.6	453
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 6" - 18"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/2/23	213	879	1400	1370	30.4	7.5	517
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 18" - 30"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/2/23	210	842	1320	1280	39.6	7.5	666
AVERAGES:	---	---	---	---	---	---	---

ENVIRONMENTAL MONITORING LABORATORY

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATIONS

P. O. Box 477 Hillsboro, TX 76645 Office (254) 582-2622 Fax (254) 582-0380 Mobile (254) 582-1614

City of Panhandle

WWTP - Analytical Summary Sheet

T104704247-23-25

February 2024

	Irrigation Field: 0" - 6"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/21/24	207 ✓	1420	2010	1980	34.7	7.1 ✓	<10.0
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 6" - 18"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/21/24	139	794	1010	942	65.0	7.6	389
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 18" - 30"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
2/21/24	117	866	103	19.1	84.0	7.5	<10.0
AVERAGES:	---	---	---	---	---	---	---

ENVIRONMENTAL MONITORING LABORATORY

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P. O. Box 477 Hillsboro, TX 76645 Office (254) 582-2622 Fax (254) 582-0380 Mobile (254) 582-1614

City of Panhandle

WTP - Analytical Summary Sheet

January 2025

	Irrigation Field: 0" - 6"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
1/7/25	261	869	1190	1090	99.4	8.1	1200
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 6" - 18"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
1/7/25	276	856	1150	1070	79.0	8.0	1290
AVERAGES:	---	---	---	---	---	---	---

	Irrigation Field: 18" - 30"						
	SUBCONTRACTED						
Date	Plant Available Phosphorus	Plant Available Potassium	Total Nitrogen	Total Kjeldahl Nitrogen	Nitrate as N	pH	Conductivity
EPA	Mehlich III - ICP	Mehlich III - ICP				2:1 (v/v w/s)	2:1 (w/v w/s)
Week Of	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	S.U.	ds/m - mmhos/cm
1/7/25	288	847	192	190	1.94	7.8	1230
AVERAGES:	---	---	---	---	---	---	---

Rainee Trevino

From: Paul Krueger <PKrueger@Parkhill.com>
Sent: Tuesday, July 29, 2025 3:34 PM
To: Rainee Trevino; tcoffee@cityofpanhandle.com
Cc: Jordan Duarte
Subject: RE: Application to Renew Permit No. WQ0010359001- Notice of Deficiency Letter
Attachments: Panhandle NOD Response Letter.pdf

Please find the attached response to the NOD for the above referenced permit renewal application. Feel free to reach out if you have any questions or would like to discuss further.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Tuesday, July 29, 2025 3:22 PM
To: Paul Krueger <PKrueger@Parkhill.com>; tcoffee@cityofpanhandle.com
Subject: RE: Application to Renew Permit No. WQ0010359001- Notice of Deficiency Letter

Thanks Paul.

Regards,
Rainee Trevino

From: Paul Krueger <PKrueger@Parkhill.com>
Sent: Tuesday, July 29, 2025 3:20 PM
To: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>; tcoffee@cityofpanhandle.com
Subject: RE: Application to Renew Permit No. WQ0010359001- Notice of Deficiency Letter

Hi Rainee,

We are finalizing the letter right now and will have that sent out before COB today.

Thank you,

Paul Krueger, PE
Civil Engineer

Parkhill
806.473.3715 | Parkhill.com

From: Rainee Trevino <Rainee.Trevino@tceq.texas.gov>
Sent: Tuesday, July 29, 2025 3:15 PM
To: tcoffee@cityofpanhandle.com
Cc: Paul Krueger <PKrueger@Parkhill.com>
Subject: RE: Application to Renew Permit No. WQ0010359001- Notice of Deficiency Letter

Good afternoon,

I am following up on the NOD letter sent on 7/15. We have received the paper application that includes the notarized signature and verified the fee has been received. We have not received a response for the other outstanding items.

Regards,
Rainee Trevino

From: Rainee Trevino
Sent: Tuesday, July 15, 2025 10:39 AM
To: tcoffee@cityofpanhandle.com
Cc: pkrueger@parkhill.com
Subject: Application to Renew Permit No. WQ0010359001- Notice of Deficiency Letter

Dear Mr. Coffee,

The attached Notice of Deficiency letter sent on July 15, 2025, requests additional information needed to declare the application administratively complete. Please send the complete response to my attention by July 29, 2025.

Regards,

Rainee Trevino
Water Quality Division | ARP Team
Texas Commission on Environmental Quality
512-239-4324

Parkhill

July 29, 2025

Ms. Rainee Trevino
Applications Review and Processing Team
Water Quality Division
Texas Commission of Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

RE: City of Panhandle
Application to Renew Permit No. WQ0010359001
CN600647234, RN102976131

Dear Ms. Trevino:

We have received a Notice of Deficiency letter on the above-referenced application dated July 15, 2025, and provide the following response.

1. *Comment: Our records indicate an original paper copy of the application has not been received. The original paper copy and e-copy of the application are both required. Please submit the original paper copy of the application by:*

   Response: The original paper copy of the application was signed on July 10th and mailed soon after.

2. *Comment: **Administrative Report 1.0, Section 1, Application Fees:** The fee of $1,215.00 cannot be verified. If payment has not been submitted, please submit a complete payment to: TCEQ, Financial Administration Division (MC214), P.O. Box 13088, Austin, Texas 78711-3088. The application cannot be declared administratively complete until the processing fee has been received and verified.*

   Response: The fee of $1,215.00 has been sent with the original paper copy of the application. Please see attachment A for a copy of the complete payment.

3. *Comment: **Core Data Form, Section II, Items 27 and 28:** The latitude and longitude coordinates provided do not match the location of the facility. Please verify the coordinates and resubmit the Core Data Form with the updated coordinates. In addition, the nearest zip code provided is different than the zip code in the current permit. Please advise which zip code is correct.*

   Response: Please see Attachment B for the updated Core Data Form with the correct coordinates. The nearest zip code is 79068.

4. *Comment: **Core Data Form, Section V:** Please resubmit the Core Data Form with an authorized signature.*

   Response: Please see Attachment B for the updated Core Data Form with the authorized signature.

5. *Comment: **Administrative Report 1.0, Section 14:** The signature page must have a notarized signature. Please resubmit the signature page with the notarized signature of the individual listed.*

   Response: Please see Attachment C for the updated notarized signature page.

6. *Comment: **Plain Language Summary:** The summary must also contain the disposal method. Please resubmit the Plain Language Summary to include the disposal method.*

   Response: Please see Attachment D for the updated Plain Language Summary.

7. *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 Panhandle, P.O. Box 129, Panhandle, Texas 79068, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0010359001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 280,000 gallons per day via surface irrigation of 75 acres of non-public access agricultural land. The domestic wastewater treatment facility and disposal area are located 2,500 feet east of the intersection of U.S. Highway 60 and State Highway 293, in Carson County, Texas 79027. TCEQ received this application on July 7, 2025. The permit application will be available for viewing and copying at Panhandle City Hall, Lobby and Front Desk, 1 Main Street, Panhandle, in Carson 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.*
   Location link pending applicant response

   Further information may also be obtained from City of Panhandle at the address stated above or by calling Mr. Terry Coffee, City Manager, at 806-336-9945.

   Response: The domestic wastewater treatment facility and disposal area are located 2,500 feet east of the intersection of U.S. Highway 60 and State Highway 293 in Carson County, Texas 79068. The information above is correct and contains no errors or omissions.

Thank you for reviewing the submitted application. If you have any questions or would like to discuss further, please feel free to call me at 806.473.3715.

Sincerely,

PARKHILL

By _____
Paul S. Krueger, PE
Civil Engineer

PSK/jd/*pp*
Enclosures
Attachment A: Application to Renew Permit No. WQ0010359001
Attachment B: Core Data Form
Attachment C: Signature Page
Attachment D: Plain Language Survey

cc: Mr. Terry Coffee, City Manager, City of Panhandle

Attachment B

Updated 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 600647234		RN 102976131

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 Panhandle

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 129							
City	Panhandle	**State**	TX	**ZIP**	79068	**ZIP + 4**	

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(806) 336-9945		( ) -

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 Panhandle Wastewater Treatment Plant

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

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

25. Description to Physical Location:	2,500 feet east of the interesction of U.S. Highway 60 and Sate Highway 293, east of the City of Panhandle, in Carson County, Texas.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Panhandle			TX	79068	

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:	35.3481		**28. Longitude (W) In Decimal:**	-101.355	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
35	20	53	101	21	18

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 129**							
	City	**Panhandle**	**State**	**TX**	**ZIP**	**79068**	**ZIP + 4**	

35. E-Mail Address:	**tcoffee@cityofpanhandle.com**

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(806) 336-9945		( ) -

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:
	WQ0010359001			

SECTION IV: Preparer Information

40. Name:	Paul Krueger	**41. Title:**	Civil Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(806) 473-3715		( ) -	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 Panhandle	**Job Title:**	City Manager
Name *(In Print):*	Terry Coffee	**Phone:**	(806) 537- 3517
Signature:	Terry Coffee	**Date:**	7-28-25

Attachment C

Notarized Signature Page

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010359001

Applicant: City of Panhandle

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): Doyle Robinson

Signatory title: Mayor

Signature: _____ Date: 7-10-25

(Use blue ink)

Subscribed and Sworn to before me by the said Doyle Robinson

on this 10th day of July, 20 25.

My commission expires on the 3rd day of August, 20 25.

Veronica Willburn

Notary Public

VERONICA WILLBURN
Notary Public
State of Texas
Notary ID #7798920
My Comm. Exp. 08/03/2025

[SEAL]

Carson

County, Texas

Section 14. Laboratory Accreditation (Instructions Page 55)

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: Doyle Robinson

Title: Mayor

Signature: 

Date: 7-10-25

Attachment D

Plain Language Summary

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your 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 you will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

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

If you are subject to the alternative language notice requirements in 30 TAC Section 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/STORMWATER

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

City of Panhandle (CN600647234) operates City of Panhandle Wastewater Treatment Plant (RN102976131), a facultative pond system. The facility is located at 2500 feet east of the intersection of US Highway 60 and State Highway 293, in Panhandle, Carson County, Texas 79068. This permit application is a renewal without changes to dispose of treated wastewater at a rate not to exceed 0.280 million gallons per day on 75 acres of non-public access land. Effluent from the plant flows through a 12-inch pipe to a playa basin immediately southeast of the facility and is then irrigated on 75 acres of farmland. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD_5. Domestic wastewater is treated by facultative pond system consisting of a bar-screen, one facultative lagoon and one holding pond.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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

1. Introduzca el nombre del solicitante aquí (2. Introduzca el número de cliente aquí (es decir, CN6########).) 3. Elija del menú desplegable 4. Introduzca el nombre de la instalación aquí 5. Introduzca el número de entidad regulada aquí (es decir, RN1########), 6. Elija del menú desplegable 7. Introduzca la descripción de la instalación aquí. La instalación 8. Elija del menú desplegable. ubicada en 9. Introduzca la ubicación aquí, en 10. Introduzca el nombre de la ciudad aquí, Condado de 11. Introduzca el nombre del condado aquí, Texas 12. Introduzca el código postal aquí. 13. Introduzca el resumen de la petición de solicitud aquí. *<<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan 14. Liste todos los contaminantes esperados aquí. 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.