



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

Individual Industrial Wastewater 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.

Volleman Dairy Processing, located at 600 CR 252 in Gustine, Texas, is a specialty manufacturer of dairy food products that processes high-quality raw milk into grade A fluid milk and ice cream. The wastewater generated during operations is a mixture of captured wash water and various byproducts. This includes milk minerals, organic matter, and cleaning compounds that maintain a hygienic production environment. The wash water is collected from equipment and surfaces after cleaning processes, ensuring it is managed efficiently.

At Volleman Dairy Processing, the wastewater undergoes a thorough treatment process before being applied to the land. Collected wastewater from the plant is pumped into a treatment lagoon. This lagoon will feature an aeration system with a capacity of 5.5 million gallons and is equipped with a 300-horsepower aeration pump. After treatment, the effluent will flow by gravity into a 7.7 million-gallon storage lagoon, which will be applied to the fields at agronomically recommended rates.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0005282000

APPLICATION. Natural Dairy Grower Land, LP; Volleman Dairy Processing Land, LP; and Volleman Dairy Processing, LLC; 600 County Road 252, Gustine, Texas 76455, which own and operate a specialty dairy food products manufacturing facility, have applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Land Application Permit (TLAP) No. WQ0005282000 to authorize increasing the application areas to 46 acres, increasing the daily average flow to 100,000 gallons per day, increasing the hydraulic application rate to 2.44 acre-feet per acre irrigated per year, and adding a new 7.7 million gallon storage pond. The facility and disposal site are located approximately 0.6 miles west of the intersection of State Highway 36 and Farm-to-Market Road 1476, near the city of Gustine, in Comanche County, Texas 76455. TCEQ received this application on June 11, 2025. The permit application will be available for viewing and copying at Comanche County Extension Office, 101 West Central Avenue, #B101, Comanche, in Comanche 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=-98.439444,31.847222&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.**

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 Natural Dairy Grower Land, LP; Volleman Dairy Processing Land, LP; and Volleman Dairy Processing, LLC at the address stated above or by calling Mr. Corey Mullin, Enviro-Ag Engineering, Inc., at 254-965-3500.

Issuance Date: July 1, 2025



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
110 East Mill Road
Artesia NM 88210

June 10, 2025

Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team, MC-148
12100 Park 35 Circle
Austin TX 78753

Re: TCEQ Industrial Wastewater Application – Major Amendment Application for Volleman Dairy Processing Plant Comanche County, Texas.

Dear Sir/Madam,
Enclosed please find the completed Industrial Administrative Reports, Industrial Technical Reports, Worksheets and supporting documentation for the above referenced facility. Should you have any questions please do not hesitate to contact me.

Respectfully Submitted,

Jourdan Mullin
Enviro-Ag Engineering

Enclosures

cc: Volleman Dairy Processing Plant
EAE File



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

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

APPLICANT NAME: Volleman Dairy Processing Land, LP; Volleman Dairy Processing, LLC and Natural Dairy Grower Land, LP

PERMIT NUMBER (If new, leave blank): WQ00 05282000

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

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

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date	-----	Region	-----
Permit Number	-----		-----



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report. Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst'](#)).

Item 1. Application Information and Fees (Instructions, Page 26)

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

Applicant Name: Volleman Dairy Processing Land, LP; Volleman Dairy Processing, LLC and Natural Dairy Grower Land, LP

Permit No.: WQ0005282000

EPA ID No.: TX0Click to enter text.

Expiration Date: 3/10/2030

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

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

☐ Reverse Osmosis Water Treatment (reverse osmosis water treatment wastewaters only)

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

☒ Active

☐ Inactive

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

☐ TPDES Permit

☒ TLAP

☐ TPDES with TLAP component

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

☐ New

☐ Renewal with changes

☐ Renewal without changes

☒ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Increasing the application areas from 31 acres to 46 acres, increasing the average daily flow from 35,000 gallons per day to 100,000 gallons per day, increasing the hydraulic application rate from

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

1.27 acre-feet per acre irrigated per year to 2.44 acre-feet per acre irrigated per year, and a new 7.7 million gallon storage pond.

For TCEQ Use Only

Segment Number	County
Expiration Date	Region
Permit Number	

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input checked="" type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ²	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

h. Payment Information

Mailed

Check or money order No.: [Click to enter text.](#)

Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

Epay

Voucher number: [767375 & 767376](#)

Copy of voucher attachment: [A.A](#)

Item 2. Applicant Information (Instructions, Pages 26)

- a. Customer Number, if applicant is an existing customer: [CN604321364](#); [CN605698794](#)

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)³.

- b. Legal name of the entity (applicant) applying for this permit: [Natural Dairy Grower Land, LP](#)
[and Volleman Dairy Processing Land, LP](#)

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

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

Prefix: [Mr.](#) Full Name (Last/First Name): [Andrew Volleman](#)

Title: [Partner](#)

Credential: [Click to enter text.](#)

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

☒ Yes ☐ No

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

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

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

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

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

- a. Legal name of the entity (co-applicant) applying for this permit: Volleman Dairy Processing, LLC

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

- b. Customer Number (if applicant is an existing customer): CN605698802

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

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

Prefix: Mr. Full Name (Last/First Name): Andrew Volleman

Title: Managing Member Credential: Click to enter text.

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

☐ Yes ☒ No

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

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

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

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

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

- a. ☒ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Frank Volleman

Title: Partner Credential: Click to enter text.

Organization Name: Volleman Dairy Processing Land, LP

Mailing Address: 600 County Road 252 City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266 Email: frank@wildcatmilk.com

- b. ☒ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Corey Mullin

Title: Consultant Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City/State/Zip: Dublin, TX 76446

Phone No: 254/965-3500

Email: cmullin@enviroag.com

Attachment: Click to enter text.

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

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

a. Prefix: Mr. Full Name (Last/First Name): Frank Volleman

Title: Partner

Credential: Click to enter text.

Organization Name: Volleman Dairy Processing Land, LP

Mailing Address: 600 County Road 252

City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266

Email: frank@wildcatmilk.com

b. Prefix: Mr. Full Name (Last/First Name): Corey Mullin

Title: Consultant

Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City/State/Zip: Dublin, TX 76446

Phone No: 254/965-3500

Email: cmullin@enviroag.com

Attachment: Click to enter text.

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

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

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

Prefix: Mr. Full Name (Last/First Name): Frank Volleman

Title: Partner

Credential: Click to enter text.

Organization Name: Volleman Dairy Processing Land, LP

Mailing Address: 600 County Road 252

City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266

Email: frank@wildcatmilk.com

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

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

Prefix: Mr. Full Name (Last/First Name): Frank Volleman

Title: Partner

Credential: Click to enter text.

Organization Name: Volleman Dairy Processing Land, LP

Mailing Address: 600 County Road 252

City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266

Email: frank@wildcatmilk.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Mrs. Full Name (Last/First Name): Jourdan Mullin

Title: Consultant

Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City/State/Zip: Dublin, TX 76446

Phone No: 254/965-3500

Email: jmullin@enviroag.com

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

☒ E-mail: jmullin@enviroag.com

☐ Fax: Click to enter text.

☒ Regular Mail (USPS)

Mailing Address: 9855 FM 847

City/State/Zip Code: Dublin, TX 76446

c. Contact in the Notice

Prefix: Mr. Full Name (Last/First Name): Corey Mullin

Title: Consultant

Credential: Click to enter text.

Organization Name: Enviro-Ag Engineering, Inc

Phone No: 254/965-3500

Email: cmullin@enviroag.com

d. Public Viewing Location Information

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

Public building name: Comanche County Extension Office
building: Comanche County Courthouse

Location within the

Physical Address of Building: 101 W Central Ave #B101

City: Comanche County: Comanche

e. Bilingual Notice Requirements

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

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

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is required.

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

☐ Yes ☒ No

If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No ☐ N/A

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

f. Summary of Application in Plain Language Template - Complete and attach the Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS. Attachment: [A.C](#)

g. Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment. Attachment: [A.D](#)

Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

a. TCEQ issued Regulated Entity Number (RN), if available: [RN110849825](#)

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

b. Name of project or site (name known by the community where located): [Volleman Dairy Processing Plant](#)

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

☒ Yes ☐ No ☐ N/A (new permit)

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

d. Owner of treatment facility:

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: [Volleman Dairy Processing Land, LP](#)

Mailing Address: [600 County Road 252](#)

City/State/Zip: [Gustine, TX 76455](#)

Phone No: 325/667-7266 Email: frank@wildcatmilk.com

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

f. Owner of land where treatment facility is or will be: Click to enter text.

Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.

or Organization Name: Volleman Dairy Processing Land, LP

Mailing Address: 600 County Road 252 City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266 Email: frank@wildcatmilk.com

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

g. Owner of effluent TLAP disposal site (if applicable): Click to enter text.

Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.

or Organization Name: Natural Dairy Grower Land, LP

Mailing Address: 600 County Road 252 City/State/Zip: Gustine, TX 76455

Phone No: 325/667-7266 Email: frank@wildcatmilk.com

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

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

Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text. City/State/Zip: Click to enter text.

Phone No: Click to enter text. Email: Click to enter text.

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Page 31)

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

☐ Yes ☒ No

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

☒ One-mile radius

☒ Three-miles downstream information

☒ Applicant's property boundaries

☐ Treatment facility boundaries

☐ Labeled point(s) of discharge

☐ Highlighted discharge route(s)

☒ Effluent disposal site boundaries

☒ All wastewater ponds

☐ Sewage sludge disposal site

☐ New and future construction

Attachment: A.E

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

☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

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

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

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

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: Click to enter text.

- f. City nearest the outfall(s): N/A

- g. County in which the outfalls(s) is/are located: N/A

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

☐ Yes ☒ No

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

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: Click to enter text.

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.

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

☒ Yes No or New Permit ☐ Click to enter text.

If no, or a new application, provide an accurate location description: Click to enter text.

- j. City nearest the disposal site: Gustine

- k. County in which the disposal site is located: Comanche

- l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Effluent from the treatment facility is pumped through an underground pipe to the effluent disposal site.

- m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Holmsley Creek

Item 12. Miscellaneous Information (Instructions, Page 33)

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

☐ Yes ☒ No

If yes, list each person: [Click to enter text.](#)

- b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: [Click to enter text.](#)

Total amount due: [Click to enter text.](#)

- c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: [Click to enter text.](#)

Amount due: [Click to enter text.](#)

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0005282000

Applicant Name: Volleman Dairy Processing Land, LP

Certification: I, Andrew Volleman, 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): Andrew Volleman

Signatory title: Partner

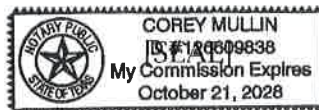
Signature: 
(Use blue ink)


Date: 5/28/25

Subscribed and Sworn to before me by the said Andrew Volleman
on this 28th day of May, 2025.

My commission expires on the 21st day of October, 2028.


Notary Public




County, Texas

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

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0005282000

Applicant Name: Volleman Dairy Processing, LLC

Certification: I, Andrew Volleman, 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): Andrew Volleman

Signatory title: Managing Member

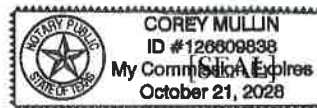
Signature: 
(Use blue ink)

Date: 5/28/25

Subscribed and Sworn to before me by the said Andrew Volleman
on this 28th day of May, 2025.

My commission expires on the 21st day of October, 2028.


Notary Public




County, Texas

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

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0005282000

Applicant Name: Natural Dairy Grower Land, LP

Certification: I, Andrew Volleman, 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): Andrew Volleman

Signatory title: Partner

Signature: _____

(Use blue ink)

Date: _____

5/28/25

Subscribed and Sworn to before me by the said _____

on this _____

28th

day of _____

Andrew Volleman

May

, 2025.

My commission expires on the _____

21st

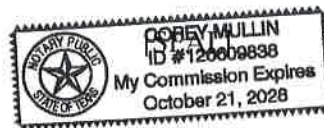
day of _____

October

, 2028.

Notary Public

County, Texas



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

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. Affected Landowner Information (Instructions, Page 35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☒ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☒ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.
- Attachment: A.F
- b. ☒ that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).
- c. Check this box to confirm a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided. Provide the source of the landowners' names and mailing addresses: Comanche County Appraisal District

- 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.](#)

Item 2. Original Photographs (Instructions, Page 37)

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

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

Attachment: [A.G](#)

INDUSTRIAL ADMINISTRATIVE REPORT

Attachments

Prepared For:



VOLLEMAN'S
— FAMILY FARM —

Volleman Dairy Processing Land, LP

600 County Road 252

Gustine, Texas 76455

Prepared By:



Table of Contents

LIST OF FIGURES	i
LIST OF TABLES	i
A.A: TCEQ APPLICATION FEE	1
A.B: CORE DATA FORMS	2
A.C: PLAIN LANGUAGE SUMMARY	3
A.D: PUBLIC INVOLVEMENT PLAN.....	4
A.E: 7.5-MINUTE USGS TOPOGRAPHIC QUADRANGLE	5
A.F: AFFECTED LANDOWNER INFORMATION.....	7
A.G: PHOTOGRAPHS	10

LIST OF FIGURES

Figure A.E.1: 7.5-Minute USGS Topographic Quadrangle Map	6
Figure A.F.1: Adjacent Landowners Map	9
Figure A.G.1 Photograph Location Map	11
Figure A.G.2a. Photographs	12
Figure A.G.2b. Photographs.....	13

LIST OF TABLES

Table A.F.1. Adjacent Landowners	7
--	---

A.A: TCEQ APPLICATION FEE

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 767375
Trace Number: 582EA000668843
Date: 05/20/2025 11:06 AM
Payment Method: CC - Authorization 000009230G
Voucher Amount: \$300.00
Fee Type: WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - MAJOR AMENDMENT
ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com
IP: 156.146.244.233

Payment Contact Information

Name: JOURDAN MULLIN
Company: ENVIRO-AG ENGINEERING INC
Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118
Phone: 806-679-5570

Site Information

Site Name: VOLLEMAN DAIRY PROCESSING PLANT
Site Location: LOCATED 0.6 M WEST OF INTX OF SH 36 & CR 1476 ON SOUTH SH 36 IN COMANCHE COUNTY

Customer Information

Customer Name: VOLLEMAN DAIRY PROCESSING LAND LP
Customer Address: 600 CR 252, GUSTINE, TX 76455

Other Information

Program Area ID: 5282

[Close](#)

[Site Help](#) | [Disclaimer](#) | [Web Policies](#) | [Accessibility](#) | [Our Compact with Texans](#) | [TCEQ Homeland Security](#) | [Contact Us](#)
[Statewide Links: Texas.gov](#) | [Texas Homeland Security](#) | [TRAIL Statewide Archive](#) | [Texas Veterans Portal](#)

© 2002-2025 Texas Commission on Environmental Quality

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 767376
Trace Number: 582EA000668843
Date: 05/20/2025 11:06 AM
Payment Method: CC - Authorization 000009230G
Voucher Amount: \$50.00
Fee Type: 30 TAC 305.53B WQ NOTIFICATION FEE
ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com
IP: 156.146.244.233

Payment Contact Information

Name: JOURDAN MULLIN
Company: ENVIRO-AG ENGINEERING INC
Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118
Phone: 806-679-5570

[Close](#)

[Site Help](#) | [Disclaimer](#) | [Web Policies](#) | [Accessibility](#) | [Our Compact with Texans](#) | [TCEQ Homeland Security](#) | [Contact Us](#)
[Statewide Links: Texas.gov](#) | [Texas Homeland Security](#) | [TRAIL Statewide Archive](#) | [Texas Veterans Portal](#)

© 2002-2025 Texas Commission on Environmental Quality

A.B: CORE DATA FORMS



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.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other TLAP Major Amendment Application
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 605698794		RN 110849825

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		05/19/2025	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Volleman Dairy Processing Land, LP					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0803375179		32071426343			
10. DUNS Number (if applicable)					
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited	
12. Number of Employees		13. Independently Owned and Operated?			
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:					
600 County Road 252					
City		Gustine		State TX	
ZIP		76455		ZIP + 4	
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				frank@wildcatmilk.com	

18. Telephone Number (325) 667-7266	19. Extension or Code	20. Fax Number (if applicable) () -
---	------------------------------	--

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If "New Regulated Entity" is selected, a new permit application is also required.) <input type="checkbox"/> New Regulated Entity <input checked="" type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information							
<i>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).</i>							
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.) Volleman Dairy Processing Plant							
23. Street Address of the Regulated Entity: (No PO Boxes)							
	City		State		ZIP		ZIP + 4
24. County	Comanche						

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

25. Description to Physical Location:	The facility is located 0.6 miles West of the intersection of State Highway 36 and County Road 1476 on the South side of State Highway 36.						
26. Nearest City					State	Nearest ZIP Code	
Gustine					TX	76455	
<i>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).</i>							
27. Latitude (N) In Decimal:		31.847278		28. Longitude (W) In Decimal:		-98.439549	
Degrees	Minutes	Seconds		Degrees	Minutes	Seconds	
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)		
2026	2024		311511		311520		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.) Milk Processing Plant							
34. Mailing Address:	600 County Road 252						
	City	Gustine	State	TX	ZIP	76455	ZIP + 4
35. E-Mail Address:	frank@wildcatmilk.com						
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)				
(325) 667-7266			() -				

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

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Corey Mullin	41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(254) 965-3500		(254) 965-3500	cmullin@enviroag.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:	Natural Dairy Grower Land, LP	Job Title:	Owner
Name (In Print):	Andrew Volleman, Partner for Natural Dairy Grower Land, LP	Phone:	(325) 667- 7266
Signature:		Date:	5/28/25



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.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other TLAP Major Amendment Application
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 604321364		RN 110849825

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		5/19/2025	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Natural Dairy Grower Land, LP					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0801516789		32045916148			
10. DUNS Number (if applicable)					
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited	
12. Number of Employees		13. Independently Owned and Operated?			
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:					
600 County Road 252					
City		Gustine		State TX	
ZIP		76455		ZIP + 4	
16. Country Mailing Information (if outside USA)					
17. E-Mail Address (if applicable)					
frank@wildcatmilk.com					

18. Telephone Number (325) 667-7266	19. Extension or Code	20. Fax Number (if applicable) () -
---	------------------------------	--

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If "New Regulated Entity" is selected, a new permit application is also required.) <input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information <i>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).</i>							
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.) Volleman Dairy Processing Plant							
23. Street Address of the Regulated Entity: (No PO Boxes)							
	City		State		ZIP		ZIP + 4
24. County	Comanche						

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

25. Description to Physical Location:	The facility is located 0.6 miles West of the intersection of State Highway 36 and County Road 1476 on the South side of State Highway 36..						
26. Nearest City					State	Nearest ZIP Code	
Gustine					TX	76455	
<i>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).</i>							
27. Latitude (N) In Decimal:		31.847278			28. Longitude (W) In Decimal:		-98.439549
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
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)		
2026	2024		311511		311520		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.) Milk Processing Plant							
34. Mailing Address:	600 County Road 252						
	City	Gustine	State	TX	ZIP	76455	ZIP + 4
35. E-Mail Address:	frank@wildcatmilk.com						
36. Telephone Number	37. Extension or Code				38. Fax Number (if applicable)		
(325) 667-7266					() -		

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

<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Corey Mullin		41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(254) 965-3500		(254) 965-8000	cmullin@enviroag.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:	Volleman Dairy Processing Land, LP		Job Title:	Owner
Name (In Print):	Andrew Volleman, Partner for Volleman Dairy Processing Land, LP		Phone:	(325) 667- 7266
Signature:			Date:	5/28/25



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.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input checked="" type="checkbox"/> Other TLAP Major Amendment Application
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 605698802		RN 110849825

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		5/19/2025	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Volleman Dairy Processing, LLC					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	
0803372444		32071391141			
10. DUNS Number (if applicable)					
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
12. Number of Employees				13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:					
600 County Road 252					
City		Gustine		State TX	
ZIP		76455		ZIP + 4	
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)	
				frank@wildcatmilk.com	

18. Telephone Number (325) 667-7266	19. Extension or Code	20. Fax Number (if applicable) () -
---	------------------------------	--

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If "New Regulated Entity" is selected, a new permit application is also required.) <input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information							
<i>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).</i>							
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.) Volleman Dairy Processing Plant							
23. Street Address of the Regulated Entity: (No PO Boxes)							
	City		State		ZIP		ZIP + 4
24. County	Comanche						

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

25. Description to Physical Location:	The facility is located 0.6 miles West of the intersection of State Highway 36 and County Road 1476 on the South side of State Highway 36.						
26. Nearest City					State	Nearest ZIP Code	
Gustine					TX	76455	
<i>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).</i>							
27. Latitude (N) In Decimal:		31.847278			28. Longitude (W) In Decimal:		-98.439549
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
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)		
2026	2024		311511		311520		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.) Milk Processing Plant							
34. Mailing Address:	600 County Road 252						
	City	Gustine	State	TX	ZIP	76455	ZIP + 4
35. E-Mail Address:	frank@wildcatmilk.com						
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)				
(325) 667-7266			() -				

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


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Corey Mullin		41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(254) 965-3500		(254) 965-8000	cmullin@enviroag.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:	Volleman Dairy Processing, LLC		Job Title:	Operator	
Name (In Print):	Andrew Volleman, Managing Member for Volleman Dairy Processing, LLC			Phone:	(325) 667- 7266
Signature:				Date:	5/28/25

A.C: PLAIN LANGUAGE SUMMARY

Individual Industrial Wastewater 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.

Volleman Dairy Processing, located at 600 CR 252 in Gustine, Texas, is a specialty manufacturer of dairy food products that processes high-quality raw milk into grade A fluid milk and ice cream. The wastewater generated during operations is a mixture of captured wash water and various byproducts. This includes milk minerals, organic matter, and cleaning compounds that maintain a hygienic production environment. The wash water is collected from equipment and surfaces after cleaning processes, ensuring it is managed efficiently.

At Volleman Dairy Processing, the wastewater undergoes a thorough treatment process before being applied to the land. Collected wastewater from the plant is pumped into a treatment lagoon. This lagoon will feature an aeration system with a capacity of 5.5 million gallons and is equipped with a 300-horsepower aeration pump. After treatment, the effluent will flow by gravity into a 7.7 million-gallon storage lagoon, which will be applied to the fields at agronomically recommended rates.

A.D: PUBLIC INVOLVEMENT PLAN



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

- ☐ New Permit or Registration Application
☒ New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

- ☒ Requires public notice,
☐ Considered to have significant public interest, and
☐ Located within any of the following geographical locations:
- Austin
 - Dallas
 - Fort Worth
 - Houston
 - San Antonio
 - West Texas
 - Texas Panhandle
 - Along the Texas/Mexico Border
 - Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary.
Stop after Section 2 and submit the form.**

- ☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V
Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

- ☒ Texas Pollutant Discharge Elimination System (TPDES)
☒ Texas Land Application Permit (TLAP)
☐ State Only Concentrated Animal Feeding Operation (CAFO)
☐ Water Treatment Plant Residuals Disposal Permit
☐ Class B Biosolids Land Application Permit
☐ Domestic Septage Land Application Registration

Water Rights New Permit

- ☐ New Appropriation of Water
☐ New or existing reservoir

Amendment to an Existing Water Right

- ☐ Add a New Appropriation of Water
☐ Add a New or Existing Reservoir
☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Volleman Dairy Processing Plant is a Milk Processing Plant.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

Gustine
(City)

Comanche
(County)

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

☐

City

☐

County

☒

Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

88.9%

(b) Per capita income for population near the specified location

\$24,810

(c) Percent of minority population and percent of population by race within the specified location

White - 75.6%. Black or African American - 3.29%. Hispanic - 12.7%. Two or More Races - 2.11%.
Other - 2.68%. Asian - 1.3%. Indian - 1.6%. Multiracial - 0.72%.

(d) Percent of Linguistically Isolated Households by language within the specified location

0%

(e) Languages commonly spoken in area by percentage

English - 89.4%
Spanish - 10.6%

(f) Community and/or Stakeholder Groups

N/A

(g) Historic public interest or involvement

None

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☒ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

- ☐ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

- ☐ TCEQ Regional Office ☐ TCEQ Central Office
- ☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

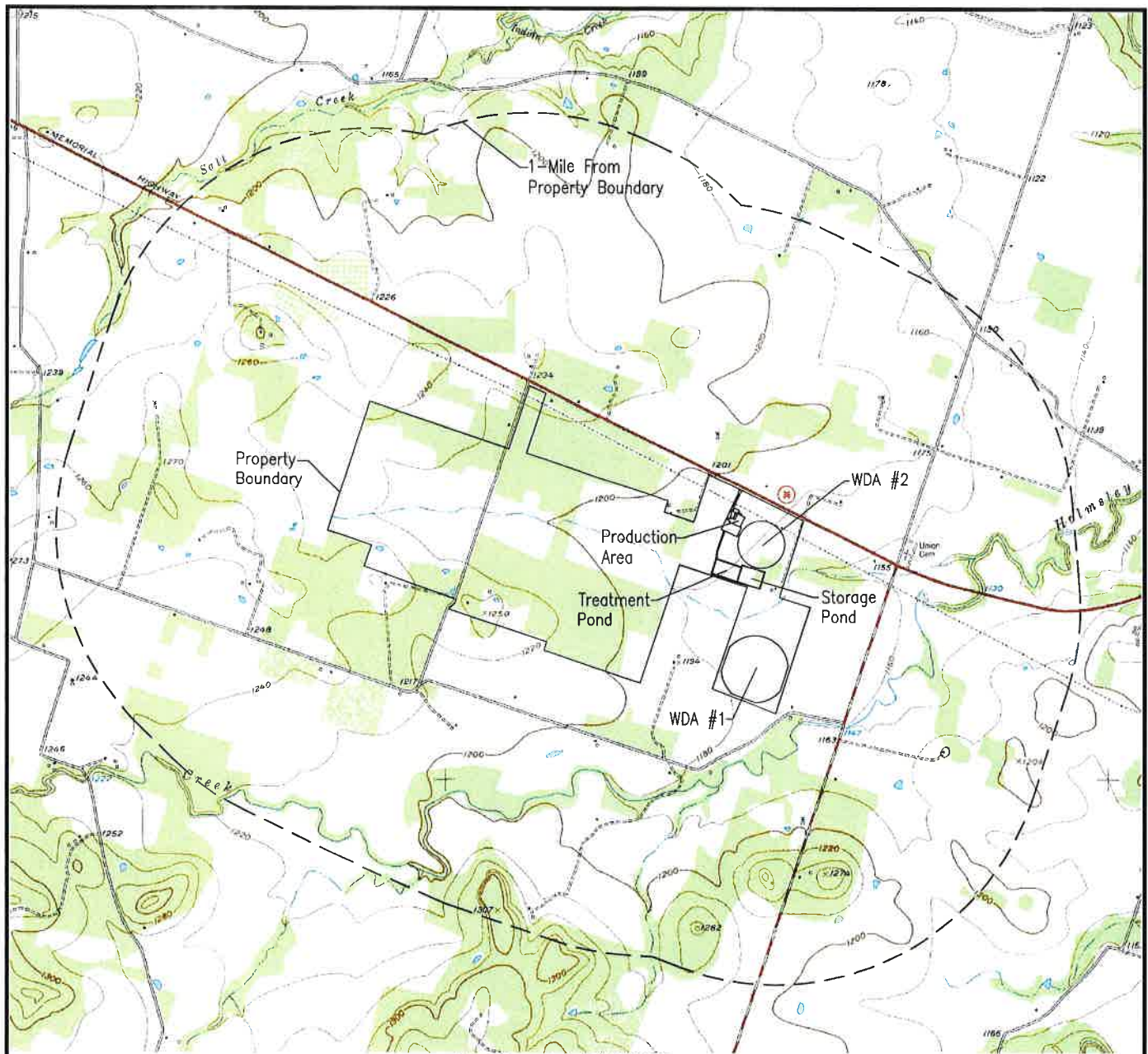
What types of notice will be provided?

- ☒ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☐ Other (specify)

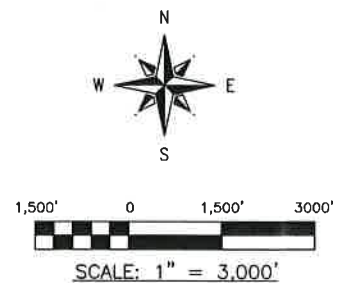
A.E: 7.5-MINUTE USGS TOPOGRAPHIC QUADRANGLE

A.E.1 7.5-Minute USGS Topographic Quadrangle Map

Figure A.E.1, 7.5-Minute USGS Topographic Quadrangle Map, Is an original 7.5-Minute USGS Topographic Map of the Gustine, Texas Quadrangle. This map shows the production areas, irrigation sites and a 1-mile radius.



Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2017.



Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

7.5 Minute USGS Map
Figure A.E.1
Page 6

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

A.F: AFFECTED LANDOWNER INFORMATION

A.F.1 Adjacent Landowners Map

Figure A.F.1 shows the information required in item 1.a. of the Industrial Administrative Report 1.1. Property boundaries were obtained from the Comanche County Appraisal District Interactive Map as of May 2025. The tracts identified on the map correspond to Table A.F.1, below.

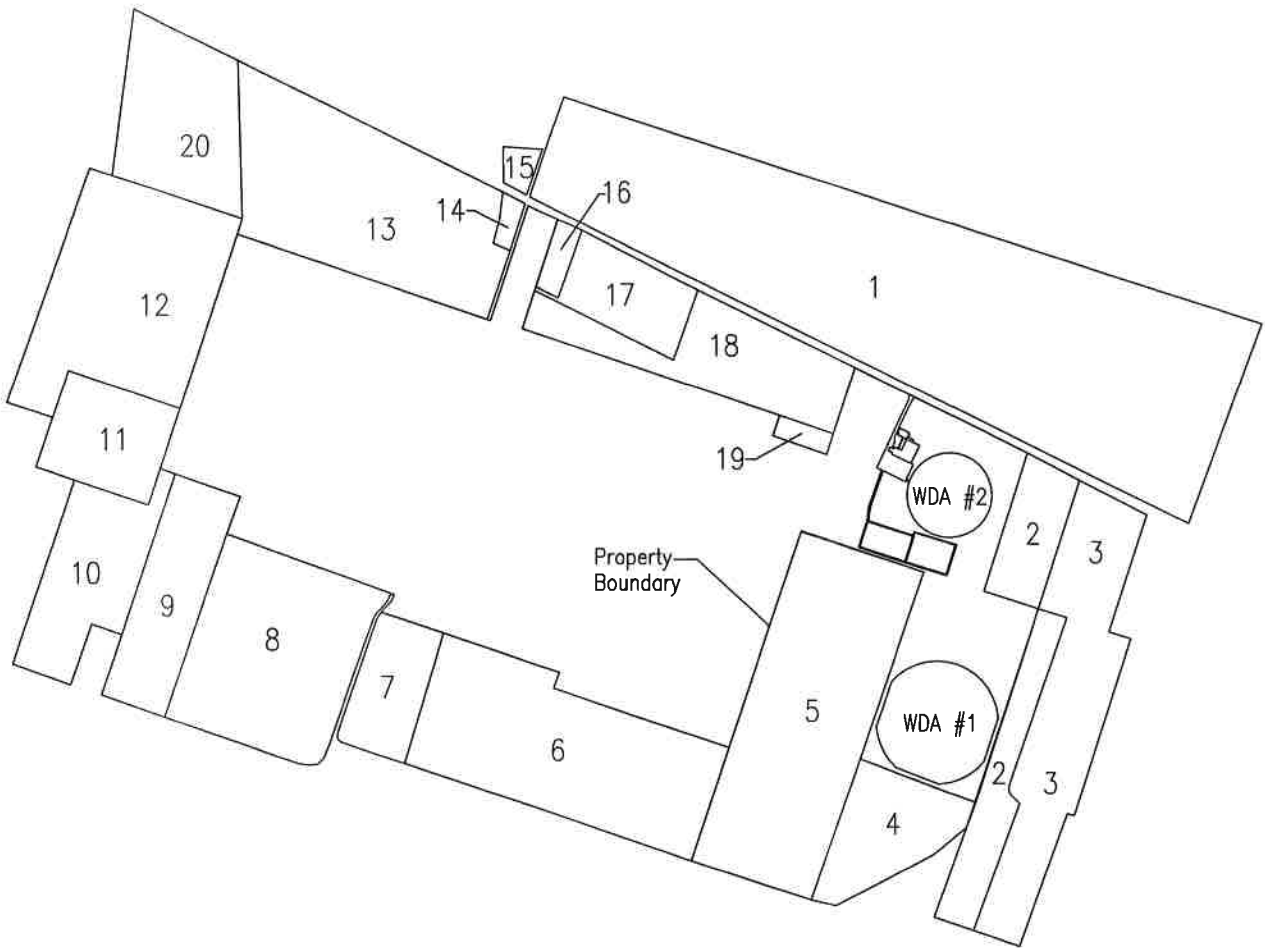
A.F.2 Landowners List

The landowner names and addresses presented in Table A.F.1 was obtained from the Comanche County Appraisal District Property Search web databases, retrieved 5/2025.

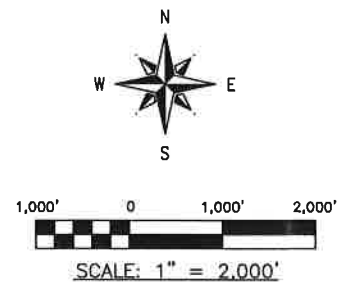
Table A.F.1. Adjacent Landowners

Map Property ID	Owner Name	Mailing Address
1	Gayland G & Julianna Stephens	7178 FM 1476 Gustine, TX 76455
2	Nancy Jo Tennison	5655 Philadelphia Ft. Worth, TX 76148
3	Rufus James Adcock & James Littleton	PO Box 53 Gustine, TX 76455
4	Kelly & Debbie Adcock	108 W Commerce St. Gustine, TX 76455
5	Robert H Murphy	451 CR 232 Gustine, TX 76455
6	Myles TY McCullough	1701 CR 216 Comanche, TX 76442
7	Timothy & Brenda Rothenbush	4727 Topaz Lane Granbury, TX 76049
8	Mid-Texas Veterinary Associates, PC	550 CR 230 Gustine, TX 76455
9	Curtis C Lackey	1251 CR 232 Gustine, TX 76455
10	Suzanne A Mitchell	801 E Grand Ave. Comanche, TX 76442
11	James R Weaver	1401 CR 232 Gustine, TX 76455
12	James W Littlejohn	PO Box 53 Gustine, TX 76455
13	Randy E Couch	14670 HWY 36 Gustine, TX 76455
14	Upper Leon River Municipal Water	2250 Hwy 2861 Comanche, TX 76442
15	Jaclyn Turley	130 CR 330 Gustine, TX 76455
16	James F & Connie Ake McDougal	15050 Hwy 36 Gustine, TX 76455
17	Harvey Est & Janet White	15100 Hwy 36

Map Property ID	Owner Name	Mailing Address
		Gustine, TX 76455
18	Darla Carol Moore	751 CR 340 Dublin, TX 76446
19	Carmen & Lance Landman	PO Box 86 Gustine, TX 76455
20	James & Penny Lou	1425 Haven Dr. Comanche, TX 76442



Map Generated 5/19/2025



Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Adjacent Land Owner Map
Figure A.F.1
Page 9



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

A.G: PHOTOGRAPHS

A.G.1 Photograph Location Map

Figure A.G.1, Photograph Location Map, shows the location of each photograph and the direction the camera was facing when the photograph was taken.

A.G.2 Photographs

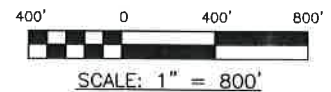
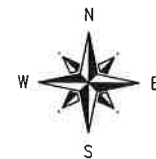
Figures A.G.2a-b, Photographs, are original photographs of the proposed effluent disposal sites and production area.



Map Generated 5/19/2025

Legend:

- Denotes Location of Photograph



Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS – Accessed December 2017.

Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Photograph Location Map
Figure A.G.1
Page 11



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



1



2



3



4



5



6

Volleman Dairy Processing Land, LP
Gustine, Texas
Comanche County

Photographs
Figure A.G.2a
Page 12



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



7



8



9



10



11

Volleman Dairy Processing Land, LP
Gustine, Texas
Comanche County

Photographs
Figure A.G.2b
Page 13



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



coTEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

TECHNICAL REPORT 1.0

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

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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

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

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

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

Volleman Dairy Processing is a specialty manufacturer of dairy food products that processes high-quality raw milk into grade A fluid milk and ice cream. This facility's SIC codes are 2024 and 2026, while the corresponding NAICS codes are 311511 for fluid milk manufacturing and 311520 for ice cream and frozen dessert manufacturing.

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

At Volleman Dairy Processing, the wastewater generated during operations is a mixture of captured wash water and various byproducts. This includes milk minerals, organic matter, and cleaning compounds that maintain a hygienic production environment. The wash water is collected from equipment and surfaces after cleaning processes, ensuring it is managed efficiently.

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

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

Materials List

Raw Materials	Intermediate Products	Final Products
Raw Milk	N/A	Fluid Milk
		Ice Cream

Attachment: Click to enter text.

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

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: T.A

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

☐ Yes ☒ No

If **yes**, provide background discussion: Click to enter text.

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

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: Click to enter text.

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

Attachment: T.B

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

☐ Yes ☒ No ☐ N/A (renewal only)

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

☐ Yes ☐ No

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

If **no**, provide an approximate date of application submittal to the USACE: Click to enter text.

Item 2. Treatment System (Instructions, Page 40)

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

At Volleman Dairy Processing, the wastewater undergoes a thorough treatment process before being applied to the land. Collected wastewater from the plant is pumped into a treatment lagoon. This lagoon will feature an aeration system with a capacity of 5.5 million gallons and is equipped with a 300-horsepower aeration pump. After the treatment process, the effluent will flow by gravity into a 7.7 million-gallon storage lagoon, from which it will be applied to the fields at agronomically recommended rates.

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

Attachment: T.A & T.H

Item 3. Impoundments (Instructions, Page 40)

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

☒ Yes ☐ No

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

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

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

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

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

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

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

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

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

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

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	Treatment	Storage		
Associated Outfall Number	T-1	S-2		
Liner Type (C) (I) (S) or (A)	C	C		
Alt. Liner Attachment Reference	N/A	N/A		
Leak Detection System, Y/N	N	N		
Groundwater Monitoring Wells, Y/N	N	N		
Groundwater Monitoring Data Attachment	N/A	N/A		
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y		
Length (ft)	548	480		
Width (ft)	287	355		
Max Depth From Water Surface (ft), Not Including Freeboard	6	12		
Freeboard (ft)	2	2		
Surface Area (acres)	3.56	3.36		
Storage Capacity (gallons)	5,751,252	7,681,345		
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction	6/9/2020	Proposed		

Attachment: T.C

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

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

1. Liner data

☒ Yes ☐ No ☐ Not yet designed

2. Leak detection system or groundwater monitoring data

☐ Yes ☒ No ☐ Not yet designed

3. Groundwater impacts

☐ Yes ☒ No ☐ Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: Click to enter text.

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

- c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: Click to enter text.

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

Attachment: Click to enter text.

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

Attachment: Click to enter text.

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

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

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

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

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
I1	31°50'22.09"N	98°26'20.76"W
I2	31°50'46.04"N	98°26'18.59"W
T-1	31°50'42.63"N	98°26'29.34"W
S-1	31°50'39.30"N	98°26'21.18"W

Outfall Location Description

Outfall No.	Location Description
I1	Located south of the storage lagoon.
I2	Located north of the storage lagoon.
T-1	Located south of the processing plant
S-1	Located south of the processing plant

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

Outfall No.	Description of sampling point

Outfall Flow Information – Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
I1	0.035	N/A	0.100	N/A	1/1/2026
I2	N/A	N/A	0.100	N/A	1/1/2026
T-1	0.035	N/A	0.100	N/A	1/1/2026
S-1	N/A	N/A	0.100	N/A	1/1/2026

Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
I1	Y	N	Flow Meter
I2	Y	N	Flow Meter
T-1	Y	N	Flow Meter
S-1	Y	N	Flow Meter

Outfall Discharge – Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
I1	Y	N	Y	24	31	12
I2	Y	N	Y	24	31	12
T-1	Y	N	Y	24	31	12
S-1	Y	N	Y	24	31	12

Outfall Wastestream Contributions

Outfall No. T-1

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Process Generated Wastewater	0.100	100

Outfall No. Click to enter text.

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

Outfall No. Click to enter text.

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

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

Attachment: Click to enter text.

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

a. Indicate if the facility currently or proposes to:

- ☐ Yes ☒ No Use cooling towers that discharge blowdown or other wastestreams
- ☐ Yes ☒ No Use boilers that discharge blowdown or other wastestreams
- ☐ Yes ☒ No Discharge once-through cooling water

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

b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.

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

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

Attachment: Click to enter text.

c. Cooling Towers and Boilers

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

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

Item 6. Stormwater Management (Instructions, Page 44)

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

☐ Yes ☒ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Click to enter text.

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

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

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

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Alamo Septic	25395

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
☐ Yes ☒ No
- b. Has the permittee completed or planned for any improvements or construction projects?
☐ Yes ☒ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: Click to enter text.

Item 9. Toxicity Testing (Instructions, Page 45)

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

☐ Yes ☒ No

If **yes**, identify the tests and describe their purposes: Click to enter text.

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

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?
☐ Yes ☒ No

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

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

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

Attachment: Click to enter text.

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?
☐ Yes ☐ No

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

Attachment: Click to enter text.

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

☐ Yes ☐ No

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

Item 11. Radioactive Materials (Instructions, Page 46)

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

☐ Yes ☒ No

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

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

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

☐ Yes ☐ No

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

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

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

☒ Yes

☐ No

☐ Decommissioned: Click to enter text.

☐ To Be Decommissioned: Click to enter text.

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

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

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

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

☒ Yes ☐ No

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

c. Cooling Water Supplier

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

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

CWIS ID				
Owner				
Operator				

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

☐ No ☐ Yes; PWS No.: Click to enter text.

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

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

☐ No ☐ Yes; Auth No.: Click to enter text.

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here.

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

☐ No ☐ Yes; AIF: Click to enter text.

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed.

d. 316(b) General Criteria

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No. Explanation: Click to enter text.

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

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

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

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

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

- f. Oil and Gas Exploration and Production

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

- g. Compliance Phase and Track Selection

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

☐ Yes ☐ No

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

- ☐ Track I – AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

- ☐ Track I – AIF greater than 10 MGD

- Attach information required by *40 CFR § 125.86(b)*.

- ☐ Track II

- Attach information required by *40 CFR § 125.86(c)*.

Attachment: Click to enter text.

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

☐ Track I - Fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I - Not a fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).

☐ Track II - Fixed facility

- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: Click to enter text.

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

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

☒ Yes ☐ No

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

Increasing the application areas from 31 acres to 46 acres, increasing the average daily flow from 35,000 gallons per day to 100,000 gallons per day, increasing the hydraulic application rate from 1.27 acre-feet per acre irrigated per year to 2.44 acre-feet per acre irrigated per year, and a new 7.7 million gallon storage pond.

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

☐ Yes ☒ No

If **yes**, list and describe each change individually.

Click to enter text.

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

☐ Yes ☐ No

If **yes**, list and describe each change individually.

Click to enter text.

Item 14. Laboratory Accreditation (Instructions, Page 49)

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

- The laboratory is an in-house laboratory and is:
 - 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: Frank Volleman

Title: Managing Member for Volleman Dairy Processing, LLC

Signature: _____



Date: _____

5/28/25

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

This worksheet is **required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

Item 1. Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

Item 2. Land Application Area (Instructions, Page 69)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
100,000	46	Coastal bermudagrass is the primary crop, and wheat is the cool-weather crop.	N

Item 3. Annual Cropping Plan (Instructions, Page 69)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances

- Justification for not removing existing vegetation to be irrigated

Attachment: T.D

Item 4. Well and Map Information (Instructions, Page 70)

- a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- ☒ The exact boundaries of the land application area
- ☒ On-site buildings
- ☒ Waste-disposal or treatment facilities
- ☒ Effluent storage and tailwater control facilities
- ☒ Buffer zones
- ☒ All surface waters in the state onsite and within 500 feet of the property boundaries
- ☒ All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries
- ☒ All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: T.E

- b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
1	Domestic	Y	Cased	150' Buffer
2	Domestic	Y	Cased	150' Buffer
3	Domestic	Y	Cased	150' Buffer
4	Domestic	Y	Cased	150' Buffer
5	Irrigation	Y	Cased	150' Buffer
24	Plugged	N	Plugged	Plugged
25	Plugged	N	Plugged	Plugged
26	Domestic	Y	Cased	150' Buffer
27	Domestic	Y	Cased	150' Buffer
28	Domestic	Y	Cased	150' Buffer

Attachment: T.E

- c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

☐ Yes ☒ No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: [Click to enter text.](#)

- d. Attach a short groundwater technical report using 30 TAC § 309.20(a)(4) as guidance.

Attachment: [T.F](#)

Item 5. Soil Map and Soil Information (Instructions, Page 71)

Check each box to confirm that the following information is attached:

- a. ☒ USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
- b. ☒ Breakdown of acreage and percent of total acreage for each soil type.
- c. ☒ Copies of laboratory soil analyses. **Attachment:** [T.G](#)

Item 6. Effluent Monitoring Data (Instructions, Page 72)

- a. Completion of Table 14 is **required** for all **renewal** and **major amendment** applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 13 for Outfall No.: [T-1](#)

Samples are (check one): ☐ Composite ☒ Grab

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
04/2023	25,916	622	415	-	-	31	1.31
05/2023	34,732	-	-	-	-	31	1.54
06/2023	48,973	291	1170	-	-	31	5.63
07/2023	40,861	-	-	-	-	31	4.57
08/2023	40,683	195	332	-	-	31	2.58
09/2023	22,978	-	-	-	-	31	0.00
10/2023	21,192	-	-	-	-	31	2.39
11/2023	21,543	-	-	-	-	31	0.00
12/2023	21,462	684	780	-	-	31	2.71
01/2024	18,958	-	-	-	-	31	1.71
02/2024	20,321	574	433	-	-	31	4.07
03/2024	20,705	566	447	-	-	31	0.00
04/2024	22,297	302	553	-	-	31	3.95
05/2024	18,796	431	182	-	-	31	0.63
06/2024	17,993	-	-	-	-	31	3.97

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
07/2024	16,993	1950	367	-	-	31	1.05
08/2024	17,756	281	867	-	-	31	1.05
09/2024	21,253	360	513	-	-	31	2.29
10/2024	35,187	256	667	-	-	31	2.85
11/2024	27,736	200	807	-	-	31	2.72
12/2024	49,658	-	-	-	-	31	4.20
01/2025	41,122	700	567	-	-	31	4.72
02/2025	45,607	-	-	-	-	31	0.30
03/2025	45,113	878	587	-	-	31	5.75
04/2025	46,486	915	640	-	-	31	1.74

b. Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)							

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total phosphorus	13.9	14.6	12.4	11.7
Oil and grease	ND	ND	ND	ND
Total residual chlorine	ND	ND	ND	3.04
Total dissolved solids	2900	2780	2240	2960
Sulfate	7.61	44.8	40.4	57.2
Chloride	894	793	796	753
Fluoride	0.611	ND	ND	0.741
Total alkalinity (mg/L as CaCO3)	835	773	767	740
Temperature (°F)				
pH (standard units)	7.67	7.98	7.77	7.89

Table 15 for Outfall No.: **T-1**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	0.497	0.535	0.524	ND	2.5
Antimony, total	ND	ND	ND	ND	5
Arsenic, total	ND	ND	ND	ND	0.5
Barium, total	0.125	0.127	0.123	0.111	3
Beryllium, total	ND	ND	ND	ND	0.5
Cadmium, total	ND	ND	ND	ND	1
Chromium, total	ND	ND	ND	ND	3
Chromium, hexavalent	ND	ND	ND	ND	3
Chromium, trivalent	0.00431	0.00303	0.00747	ND	N/A
Copper, total	0.0114	ND	ND	ND	2
Cyanide, available	ND	ND	ND	ND	2/10
Lead, total	ND	ND	ND	ND	0.5
Mercury, total	ND	ND	ND	ND	0.005/0.0005
Nickel, total	ND	ND	0.0356	ND	2
Selenium, total	ND	ND	ND	ND	5
Silver, total	ND	ND	ND	ND	0.5
Thallium, total	ND	ND	ND	ND	0.5
Zinc, total	0.120	0.0610	0.0764	0.0639	5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

This worksheet is **required** for all applications for a permit to disposal of wastewater by surface land application or evaporation.

Item 1. Edwards Aquifer (Instructions, Page 73)

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

☐ Yes ☒ No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b and 1.c.

b. Check the box next to the subchapter applicable to the facility.

☐ 30 TAC Chapter 213, Subchapter A

☐ 30 TAC Chapter 213, Subchapter B

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) or 2) a report that contains the following:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

Item 2. Surface Spray/Irrigation (Instructions, Page 73)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): 46

Design application rate (acre-ft/acre/yr): 2.44

Design application frequency (hours/day): 24

Design application frequency (days/week): 7

Design total nitrogen loading rate (lbs nitrogen/acre/year): 400

Average slope of the application area (percent): 1.85

Maximum slope of the application area (percent): 3.1

Irrigation efficiency (percent): 85

Effluent conductivity (mmhos/cm): 1.5

Soil conductivity (mmhos/cm): 8.0

Curve number: 71

Describe the application method and equipment: Center Pivot Irrigation System

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** [T.H](#)

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: [Click to enter text.](#) gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** [Click to enter text.](#)

Item 4. Evapotranspiration Beds (Instructions, Page 74)

- a. Provide the following information on the evapotranspiration beds:
 - Number of beds: [Click to enter text.](#)
 - Area of bed(s) (acres): [Click to enter text.](#)
 - Depth of bed(s) (feet): [Click to enter text.](#)
 - Void ratio of soil in the beds: [Click to enter text.](#)
 - Storage volume within the beds (include units): [Click to enter text.](#)
 - Description of any lining to protect groundwater: [Click to enter text.](#)
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** [Click to enter text.](#)
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** [Click to enter text.](#)

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
 - Area used for application (acres): [Click to enter text.](#)
 - Slopes for application area (percent): [Click to enter text.](#)
 - Design application rate (gpm/foot of slope width): [Click to enter text.](#)
 - Slope length (feet): [Click to enter text.](#)
 - Design BOD5 loading rate (lbs BOD5/acre/day): [Click to enter text.](#)
 - Design application frequency (hours/day): [Click to enter text.](#)
 - Design application frequency (days/week): [Click to enter text.](#)
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** [Click to enter text.](#)

INDUSTRIAL TECHNICAL REPORT

Attachments

Prepared For:



VOLLEMAN'S
— FAMILY FARM —

Volleman Dairy Processing Land, LP
600 County Road 252
Gustine, Texas 76455

Prepared By:



Table of Contents

LIST OF FIGURES	i
T.A: FACILITY MAPS	1
T.B: FLOODPLAIN INFORMATION.....	6
T.C: STORAGE POND CERTIFICATIONS	7
T.D: AGRONOMIC MANAGEMENT PLAN	8
T.E: WATER WELL INFORMATION.....	9
T.F: GROUNDWATER TECHNICAL REPORT.....	11
T.G: SOILS INFORMATION	14
T.H: ENGINEERING REPORT	15
T.I: POLLUTANT ANALYSIS DATA.....	18

LIST OF FIGURES

Figure T.A.1: Process Flow Diagram.....	2
Figure T.A.2: Vicinity Map.....	3
Figure T.A.3: 7.5 Minute USGS Map	4
Figure T.A.4: Site Map.....	5
Figure T.E.1: Water Well Map	10
Figure T.F.1: Geologic Atlas Map	13
Figure T.H.1: Water Balance Calculations	16
Figure T.H.2: Water Balance Calculations	17

T.A: FACILITY MAPS

T.A.1 Process Flow Diagram

Figure T.A.1, Process Flow Diagram, provides an overall schematic of the processes at the site.

T.A.2 Vicinity Map

Figure T.A.2, Vicinity Map, is a general highway map generated in AutoCAD using Tiger Primary and Secondary roads data from the geospatial Data Gateway at <http://datagateway.nrcs.usda.gov/> (retrieved 2017). The location of the facility is depicted on the map.

T.A.3 7.5 Minute USGS Map

Figure T.A.3, entitled 7.5 Minute USGS Map, is a seamless, high-quality copy of the 7.5-Minute USGS quadrangle map (Gustine, TX quadrangle) that shows the boundary of the land owned, operated, or controlled by the facility and used as part of the application; and all springs, lakes, or ponds located on-site and within 1 mile of the property boundary.

T.A.4 Site Map

Figure T.A.4, Site Map, is a scaled drawing of the entire property to be permitted, showing the locations of the following:

- Production Area
- Treatment Pond
- Storage Pond
- Waste Disposal Areas
- Buffer Zones
- Freshwater Ponds
- Onsite Water Wells
- Collection Sump



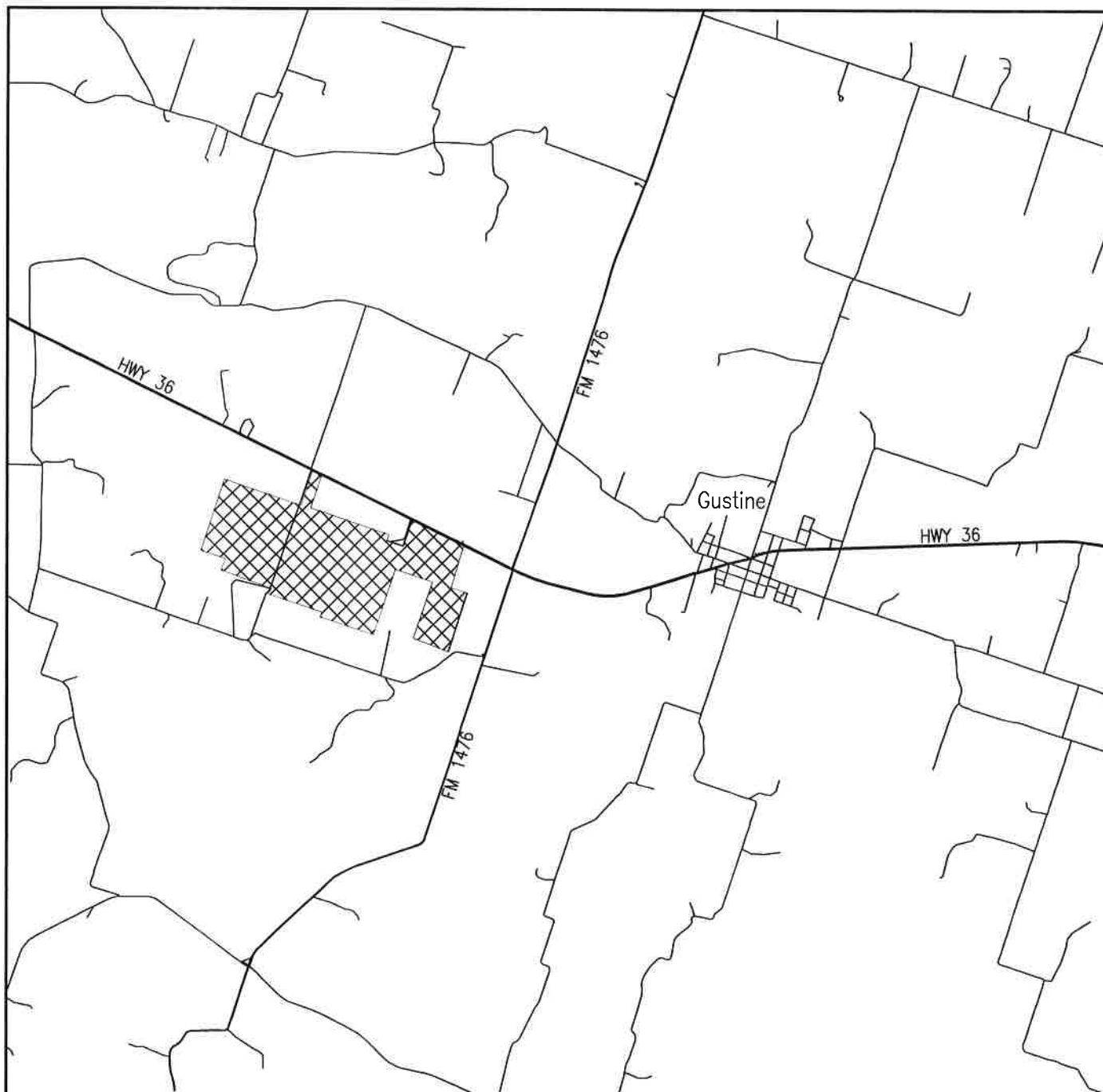
Legend:
 ----- Denotes Liquid

Volleman Dairy Processing Land, LP
 Gustine, TX
 Comanche County

Process Flow Diagram
 Figure T.A.1
 Page 2



Enviro-Ag Engineering, Inc.
 ENGINEERING CONSULTANTS
 3404 Airway Boulevard
 AMARILLO, TEXAS 79118
 TEL (806) 353-6123 FAX (806) 353-4132



Legend:

XXXX Denotes Facility Location

Map Generated 5/19/2025

Source: USDA-NRCS. Geospatial Data Gateway. Available at:
<http://datagateway.nrcs.usda.gov/>. Tiger Roads, 2010 -
 Accessed December 2017



1/2 Mile 0 1/2 Mile 1 Mile



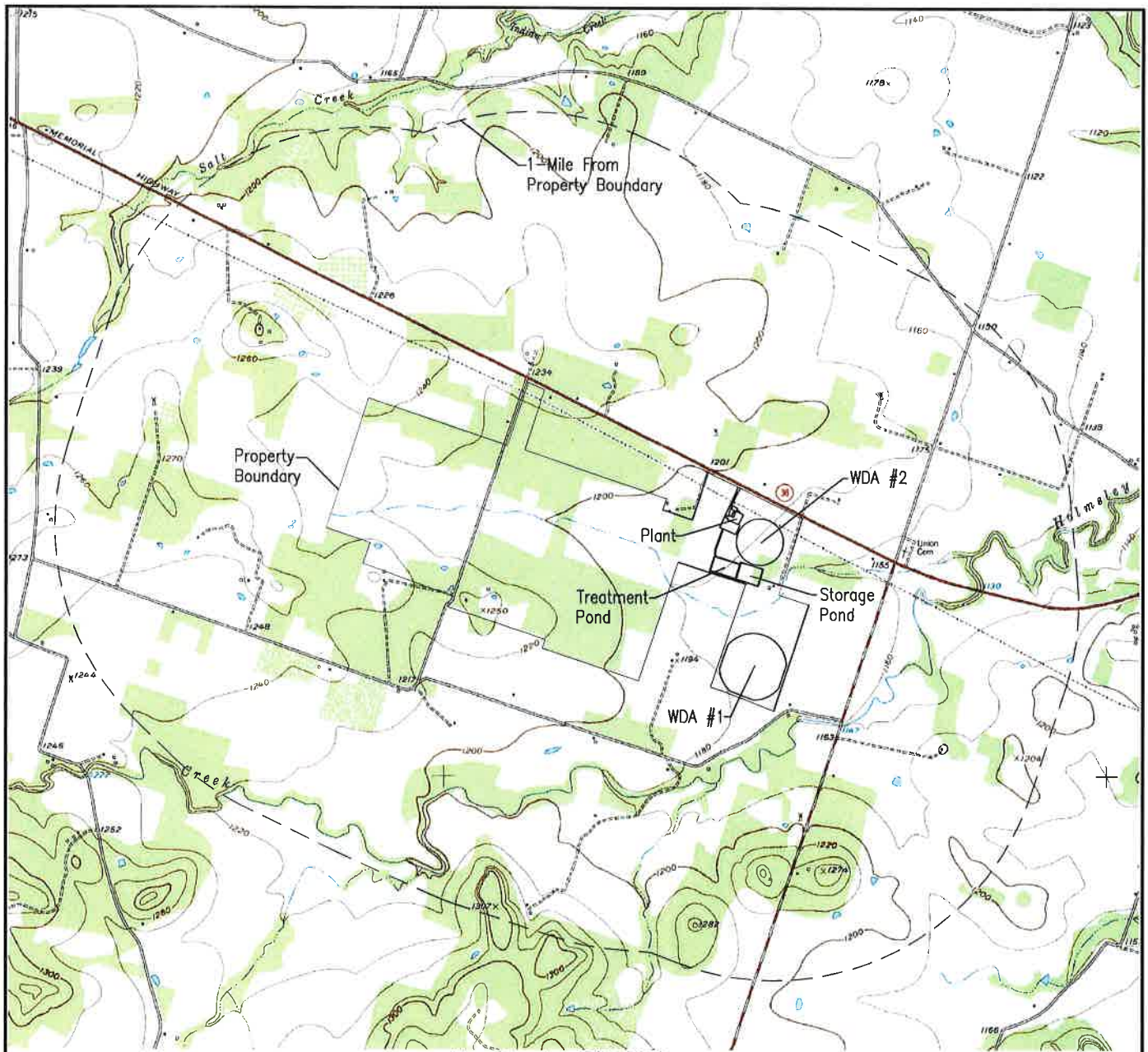
SCALE: 1" = 1 Mile

Volleman Dairy Processing Land LP
 Gustine, Texas
 Comanche County

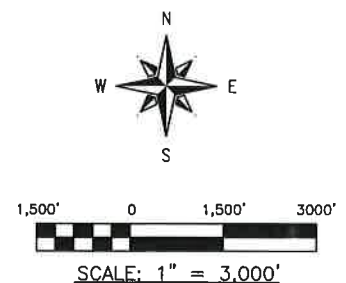
Vicinity Map
 Figure T.A.2
 Page 3



Enviro-Ag Engineering, Inc.
 ENGINEERING CONSULTANTS
 3404 Airway Boulevard
 AMARILLO, TEXAS 79118
 TEL (806) 353-6123 FAX (806) 353-4132



Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2017.

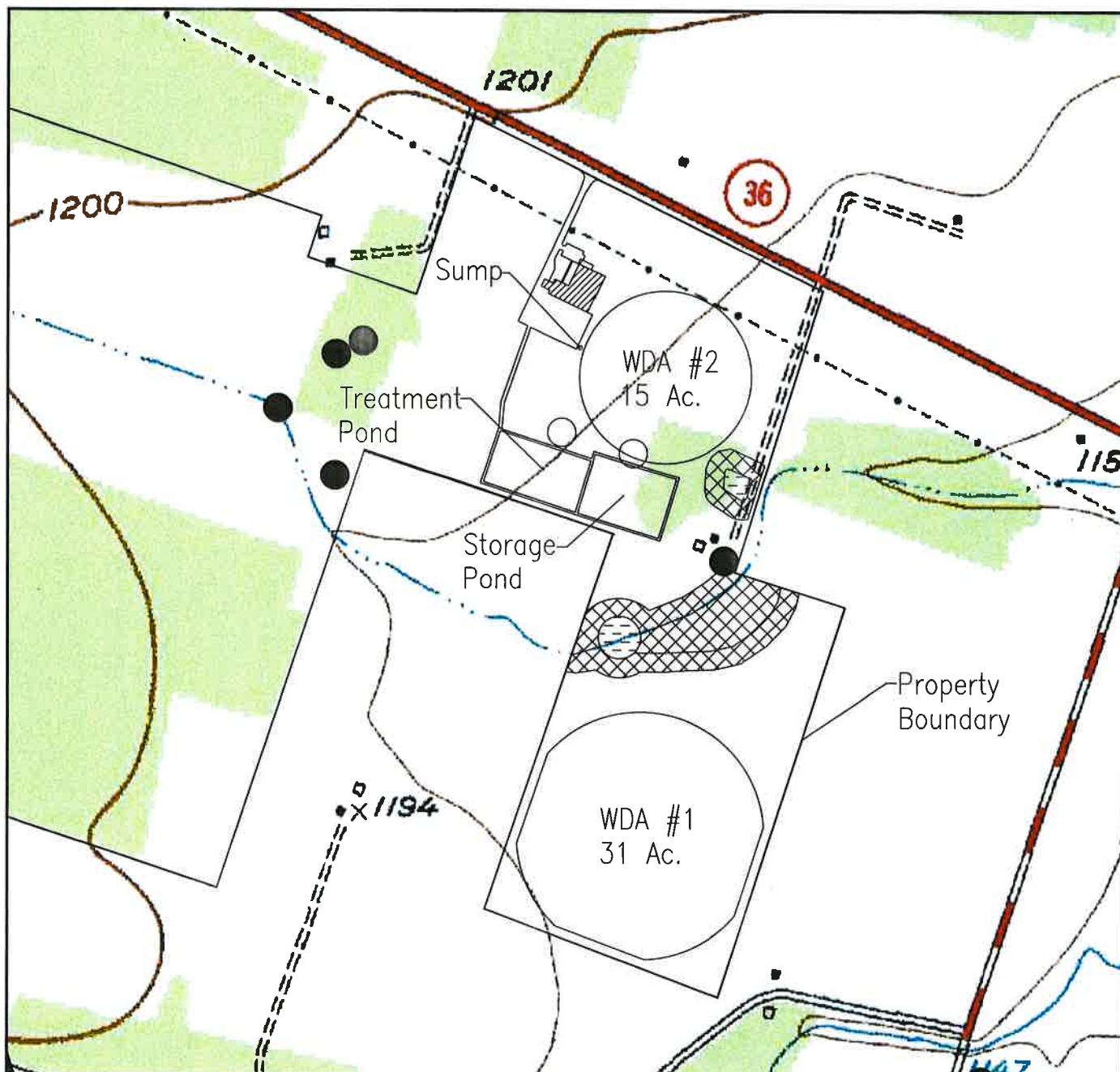


Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

7.5 Minute USGS Map
Figure T.A.3
Page 4

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



LEGEND:

- Denotes Fresh Water Pond
- Denotes 100-ft. Buffer Zone
- Denotes Plant
- Denotes Water Well
- Denotes Plugged Well

Map Generated 5/19/2025



400' 0 400' 800'
SCALE: 1" = 800'

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2017.

Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Site Map
Figure T.A.4
Page 5

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

T.B: FLOODPLAIN INFORMATION

T.B.1 FEMA Floodplain

FEMA has not conducted a study to assess the flood hazard in Comanche County, Texas. Based on existing facilities, proposed expansion areas, elevation data, and historical information, it has been determined that the facility is not situated in a floodplain.

T.C: STORAGE POND CERTIFICATIONS



Corporate Office:
3404 Airway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

CERTIFICATION

Wildcat Dairy Processing Plant Gustine, Comanche County, Texas

Capacity Certification – Wastewater Pond #1

An as-built survey was conducted on 05/05/2020 by Enviro-Ag Engineering, Inc. to determine the total capacity of Wastewater Pond #1. The capacity with two feet of dry freeboard was calculated to be:

Structure	Capacity
Wastewater Pond #1	17.65 acre-feet

Respectfully submitted,



Erick Emerine, P.E. – License No. 103494
Enviro-Ag Engineering, Inc. – Engineering Firm No. 2507

Attachments: As-Built Capacity Drawing Plan & Profile
 Pond Marker Schematic

Wildcat Dairy, Gustine, Comanche County, TX Date: 06/09/2020

Note:

Dimensions rounded to the nearest tenth of a foot.

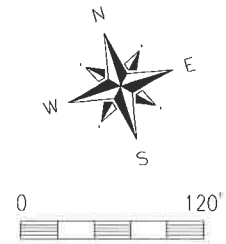
Wastewater Pond #1 Volume Data

Date Surveyed: 05/05/2020

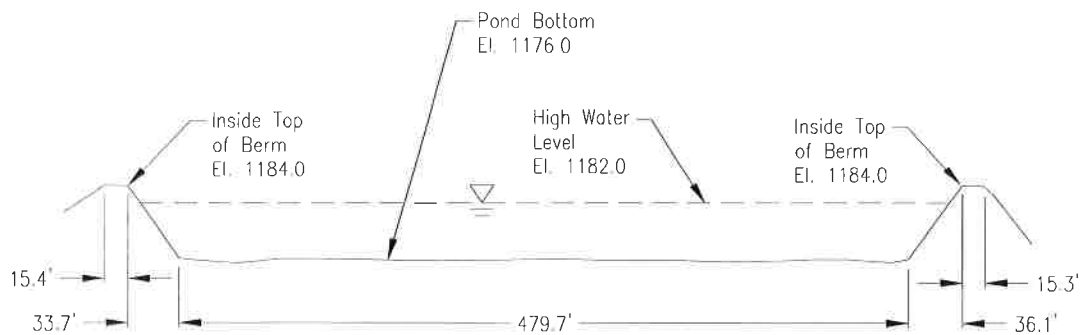
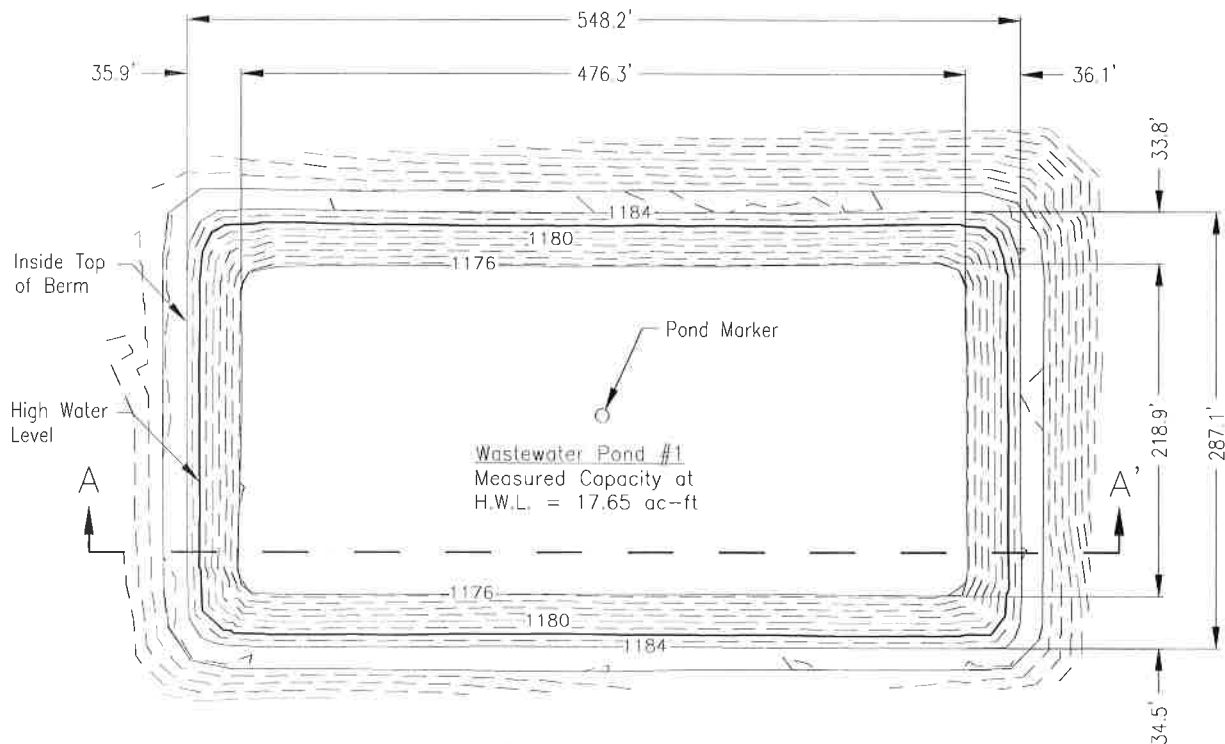
Surveyed By: CM

Drawn By: EE

Inside Top of Berm	1184.0'
Bottom Elevation	1176.0'
H.W.L. Elevation w/ 2' Freeboard	1182.0'
Capacity at H.W.L.	17.65 Ac-Ft
Surface Area at I.T.B.	3.56 Acres



Scale: 1" = 120'
(One Foot Contour Interval)



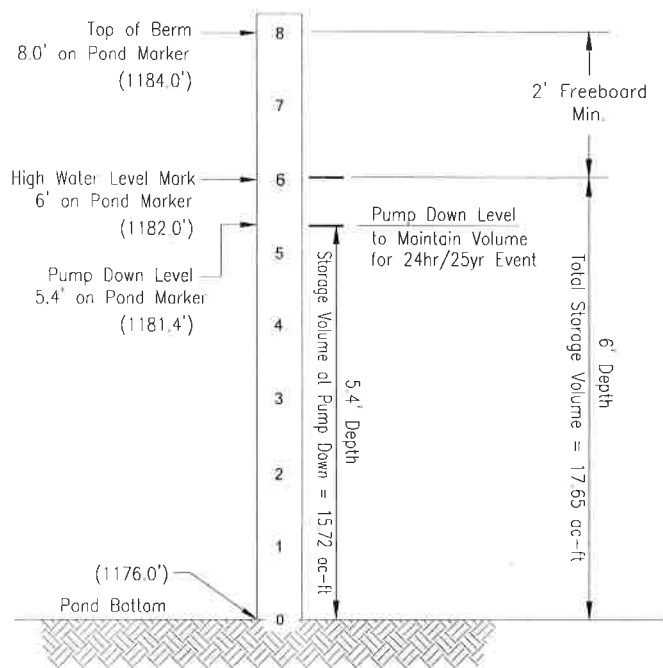
Cross-Section A-A'
NTS

Wildcat Dairy
Gustine
Comanche County, TX

Wastewater Pond #1
As-Built Capacity Drawing
Plan & Profile



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



Cumulative Volume	Gallons by Foot
17.65 Ac-Ft	1,041,104 Gal.
14.46 Ac-Ft	991,220 Gal.
11.41 Ac-Ft	942,345 Gal.
8.52 Ac-Ft	894,683 Gal.
5.78 Ac-Ft	848,434 Gal.
3.17 Ac-Ft	1,033,833 Gal.

Note: Elevations shown with parentheses () are surveyed elevations according to reference datum established in construction drawings for pond.

Wildcat Dairy
Gustine
Comanche County, TX

Wastewater Pond #1
As-Built Capacity Drawing
Pond Marker Schematic



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



Corporate Office:
3404 Alway Blvd.
Amarillo TX 79118

Central Texas:
9855 FM 847
Dublin TX 76446

New Mexico:
203 East Main Street
Artesia NM 88210

SOIL LINER CERTIFICATION

Wildcat Dairy Processing Plant Gustine, Comanche County, Texas

Soil Liner Certification – Wastewater Pond #1

Six 3-inch Shelby tube core samples were collected from Pond #1 to document that the liner meets the requirements of the TCEQ for soil liner. The liner thickness was documented to be at least 36 inches.

The hydraulic conductivity of the clay soil liner is documented as follows:

• Pond #1 - 1 (Lab #5346)	4.8 x 10 ⁻⁸ cm/sec
• Pond #1 - 2 (Lab #5347)	6.6 x 10 ⁻⁸ cm/sec
• Pond #1 - 3 (Lab #5348)	3.6 x 10 ⁻⁸ cm/sec
• Pond #1 - 4 (Lab #5349)	7.7 x 10 ⁻⁸ cm/sec
• Pond #1 - 5 (Lab #5350)	6.0 x 10 ⁻⁸ cm/sec
• Pond #1 - 6 (Lab #5351)	3.6 x 10 ⁻⁸ cm/sec

Based on the above documentation, the liner in Wastewater Pond #1 is determined to be in accordance with TCEQ requirements for soil liners. The test locations were backfilled with bentonite chips. The test results meet the requirements of the TCEQ for hydraulic conductivity considered protective of ground and surface water sources.

Respectfully submitted,

Erick Emerine, P.E. – License No. 103494
Enviro-Ag Engineering, Inc. – Firm No. 2507



6-9-2020

Attachments: EAE Permeability Lab Reports
GSS Moisture Density Testing Reports

CALCULATION OF SPECIFIC DISCHARGE

SITE:
LOCATION:
STRUCTURE:

Wildcat Dairy Processing Plant
Gustine, Comanche County, TX
Wastewater Pond #1

ENGINEER: E. Emerine
DATE: June 2020

This worksheet calculates the specific discharge through a soil liner based on the measured thickness of the installed clay liner and the results of the permeability testing. The maximum allowable specific discharge of the installed liner is 1.1×10^{-6} cm/sec or 0.0374 in/day.

Laboratory Sample I.D.	Hydraulic Conductivity Results of Core Samples									
	5346	5347	5348	5349	5350	5351				
1. Water Depth, feet	6	6	6	6	6	6				
2. Liner Thickness, inches	36.0	36.0	36.0	36.0	36.0	36.0				
3. Hydraulic Conductivity, cm/sec	4.80E-08	6.60E-08	3.60E-08	7.70E-08	6.00E-08	3.60E-08				
4. Calculated specific discharge, v'										
Seepage Rate, inches/day	0.0049	0.0067	0.0037	0.0079	0.0061	0.0037				
Maximum Seepage Rate, inches/day	0.0374	0.0374	0.0374	0.0374	0.0374	0.0374				

NOTES:

- (1) Water depth of the pond in feet.
- (2) Soil liner thickness in inches.
- (3) Hydraulic conductivity of the core sample(s) as determined by flexible wall permeameter in cm/sec (Ref: ASTM D 5084).

The following equation is used:

$$v' = k (H + d) / d$$

where:

- v' = Specific Discharge of area representative of core sample, inches/day
- d = Measure Liner Thickness at core sample location, feet
- k = Hydraulic Conductivity of liner based on core sample testing, inches/day
- H = Maximum Water Depth, feet

- (4) Maximum Allowable Seepage Rate of 1.1×10^{-6} cm/sec (0.0374 in/day).

Erick Emerine, PE
Enviro-Ag Engineering, Inc.
TX Firm No. 2507

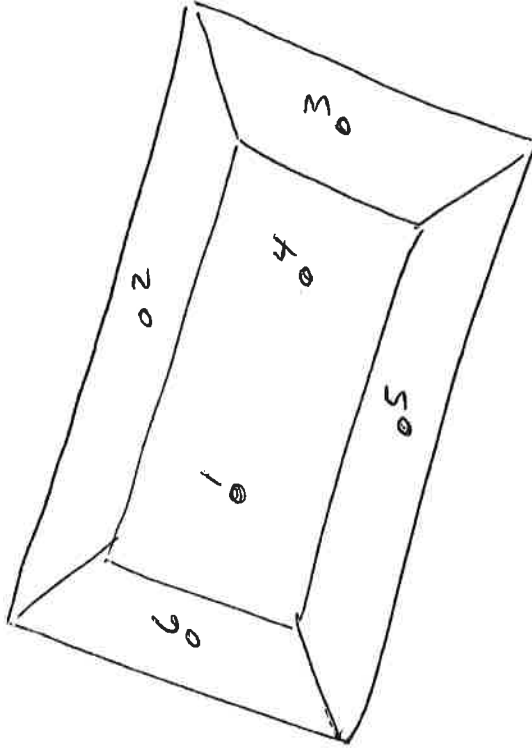


TRIAXIAL PERMEABILITY CHAIN of CUSTODY

← 2

WASTE WATER POND #1

2



1-13th

1-2 N Wall

1-3 E-Wall

1-4 E 3th m

1-5 S-Wall

1-b w-wall

9455

5347

5348

5349

5380

5351

LAB LOG	PERM REPORT
---------	-------------

STRUCTURE

LAB
LOG

Facility Name: Volkman Dairy Wildcat Dairy Ponds #1

Project Engineer: E. Emery, NE

Sampled by: Corey Mullin

Date Sampled: 05-08-2020

Date to Lab: 65-11-2020

Received: /

Good Friday

Enviro-Ag Engineering, Inc
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



ENVIRO-AG
ENGINEERING, INC.

Client / Project Name:

Volleman Dairy

Project No:

20/18/05

Lab Sample Number:

5346

Sample ID:

1

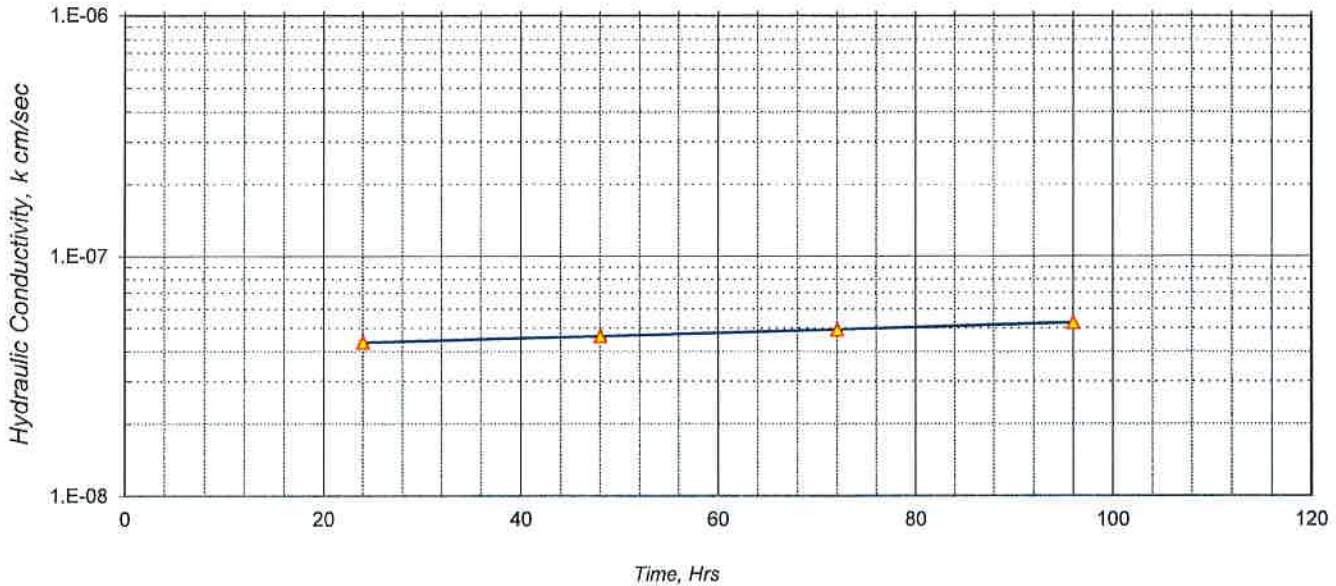
Sample Location:

1-1 Bottom

Report Date:

June 2, 2020

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	1	
DESCRIPTION:	1-1 Bottom	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.4	2.4
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	12.7	22.4
DRY DENSITY, pcf	106	104
SATURATION, %	58	97
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

ASTM D-5084, Method C

EFFECTIVE STRESS: 5 psi
 GRADIENT RANGE: 3 - 3
 IN / OUT RATIO: 1.00

		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.0	4.4E-08
2	48.0	4.6E-08
3	72.0	4.9E-08
4	96.0	5.3E-08

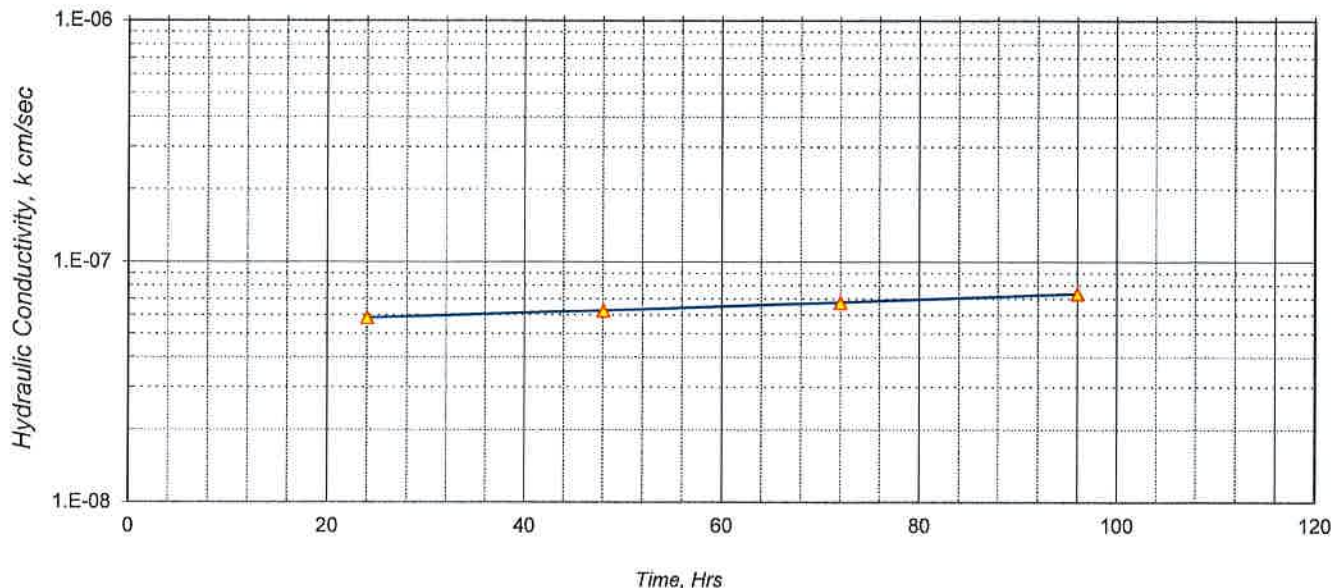
AVERAGE LAST 4 : **4.8E-08**

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.



Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	2	
DESCRIPTION:	1-2 N Wall	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.6	2.6
DIAMETER, in.	2.8	2.9
WATER CONTENT, %	13.9	21.1
DRY DENSITY, pcf	109	107
SATURATION, %	69	98
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 2	
IN / OUT RATIO:	1.00	
	<u>HYDRAULIC CONDUCTIVITY</u>	
<u>TRIAL nos.</u>	<u>TIME hrs.</u>	<u>cm / sec</u>
1	24.0	5.8E-08
2	48.0	6.3E-08
3	72.0	6.8E-08
4	96.0	7.4E-08
AVERAGE LAST 4 :		6.6E-08

COMMENTS:

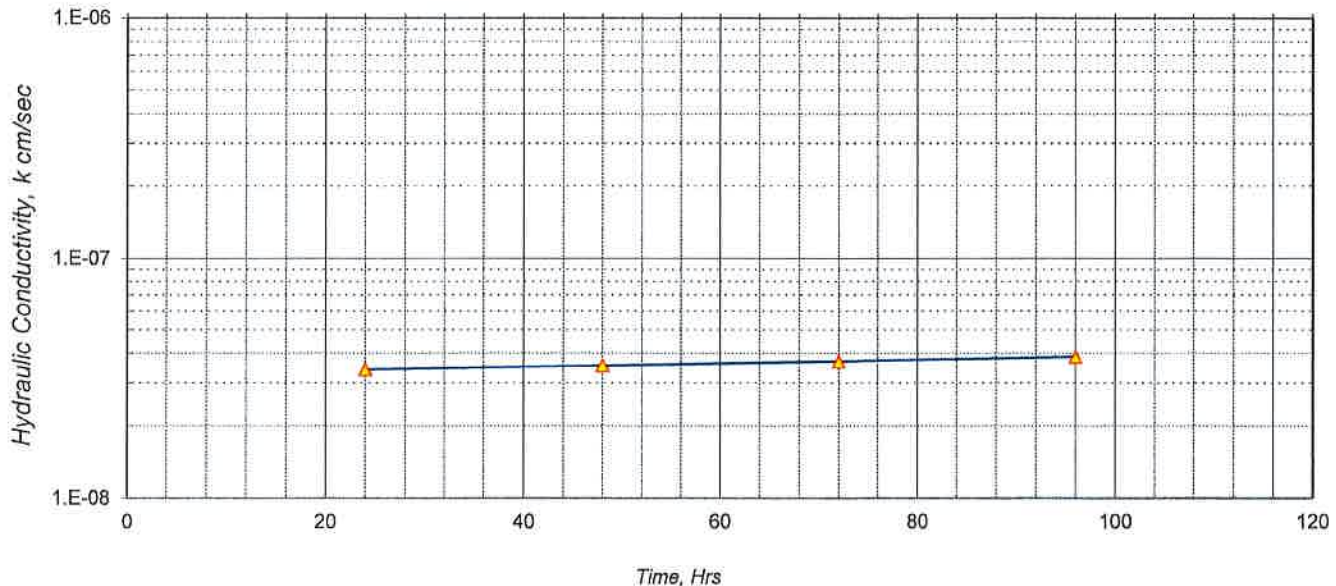
Tap water used as permeant.

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.



Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	3	
DESCRIPTION:	1-3 E Wall	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.9	2.9
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	12.9	21.0
DRY DENSITY, pcf	109	107
SATURATION, %	63	99
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 2	
IN / OUT RATIO:	1.00	
HYDRAULIC		
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.0	3.4E-08
2	48.0	3.5E-08
3	72.0	3.7E-08
4	96.0	3.9E-08
AVERAGE LAST 4 :		3.6E-08

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

Enviro-Ag Engineering, Inc.

3404 Airway Blvd., Amarillo, TX 79118 (806) 353-6123

LABORATORY SERVICES



HYDRAULIC CONDUCTIVITY

REPORT

ASTM D-5084, Method C

Client / Project Name:

Volleman Dairy

Project No:

20/18/05

Lab Sample Number:

5349

Sample ID:

4

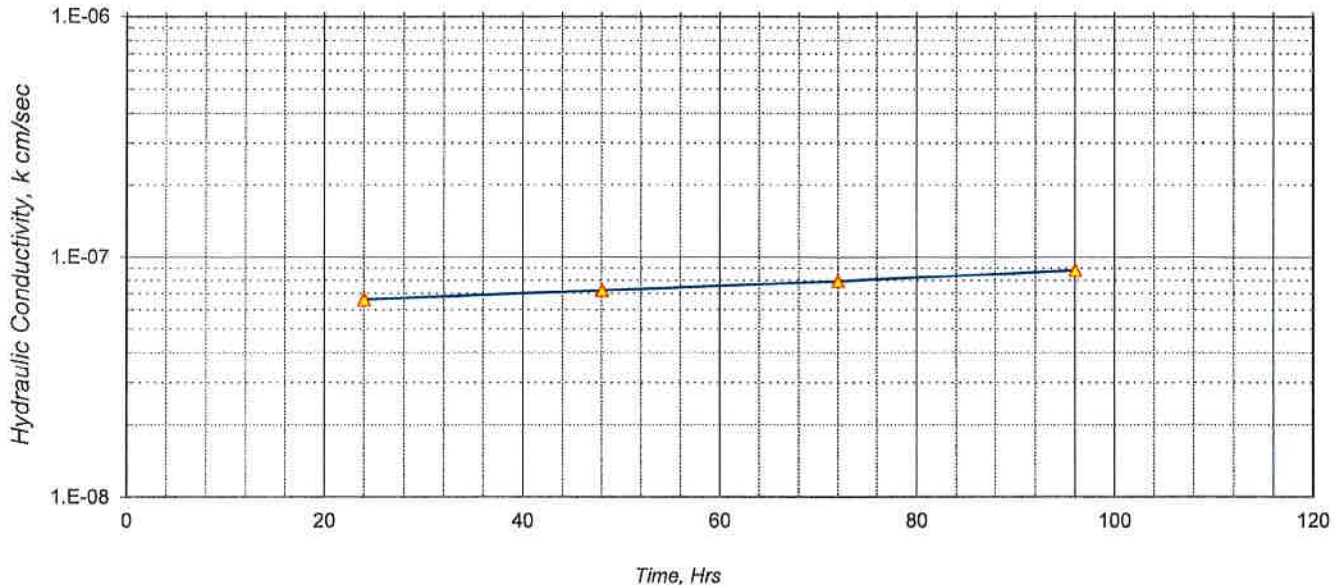
Sample Location:

1-4 E Bottom

Report Date:

June 2, 2020

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	4	
DESCRIPTION:	1-4 E Bottom	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.5	2.5
DIAMETER, in.	2.8	2.9
WATER CONTENT, %	12.1	22.2
DRY DENSITY, pcf	106	104
SATURATION, %	56	97
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
<hr/>		
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.0	6.6E-08
2	48.0	7.2E-08
3	72.0	7.9E-08
4	96.0	8.8E-08
AVERAGE LAST 4 :		7.7E-08

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

Z : Soils Lab\Perms \1920 \20/18/05 \5349

Print Date:

06/02/20

Reviewed By:

Micah Mullin

LSN:

5349

Enviro-Ag Engineering, Inc.

3404 Airway Blvd., Amarillo, TX 79118 (806) 353-6123

LABORATORY SERVICES



HYDRAULIC CONDUCTIVITY

REPORT

ASTM D-5084, Method C

Client / Project Name:

Volleman Dairy

Project No:

20/18/05

Lab Sample Number:

5350

Sample ID:

5

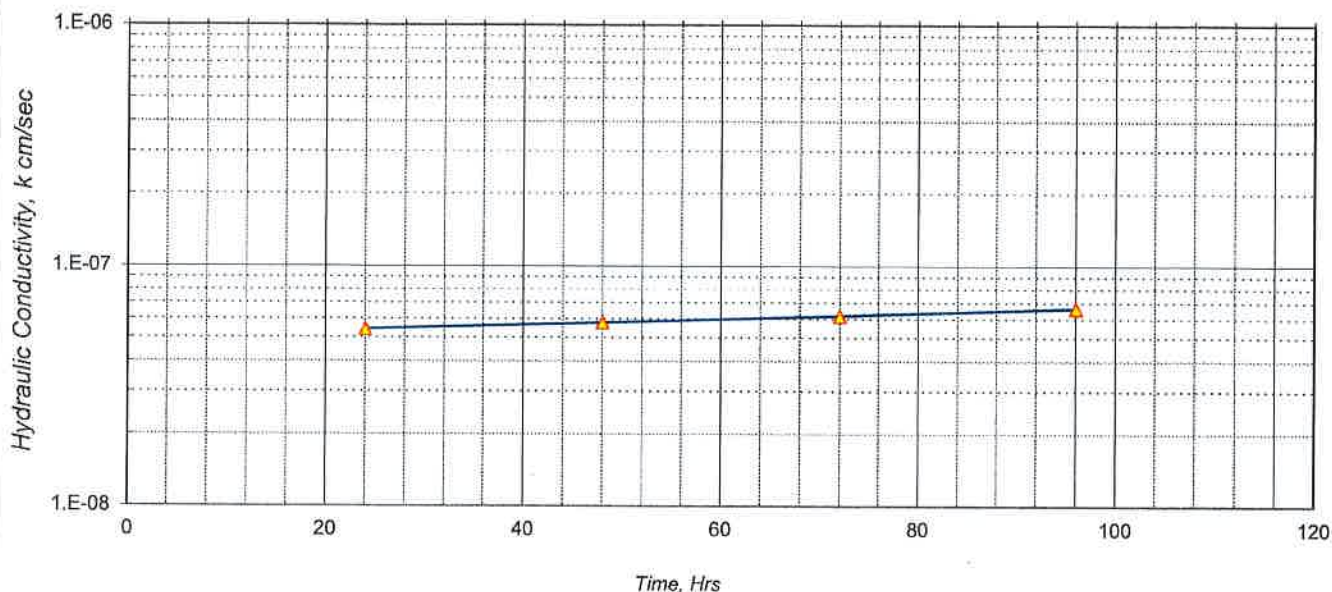
Sample Location:

1-5 S Wall

Report Date:

June 2, 2020

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	5	
DESCRIPTION:	1-5 S Wall	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.7	2.8
DIAMETER, in.	2.8	2.8
WATER CONTENT, %	12.3	19.0
DRY DENSITY, pcf	115	113
SATURATION, %	72	103
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

TEST DATA

ASTM D-5084, Method C		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
	HYDRAULIC	
TRIAL	TIME	CONDUCTIVITY
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.0	5.4E-08
2	48.0	5.8E-08
3	72.0	6.2E-08
4	96.0	6.6E-08
AVERAGE LAST 4:		6.0E-08

COMMENTS:

Tap water used as permeant.

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

Z: Soils Lab\Perms\1920\20/18/05\5350

Print Date:

06/02/20

Reviewed By:

Micah Mullin

LSN:

5350

DCN: EAE-QC-GRAPH (rev. 11/10/04)



Client / Project Name:

Volleman Dairy

Project No:

20/18/05

Lab Sample Number:

5351

Sample ID:

6

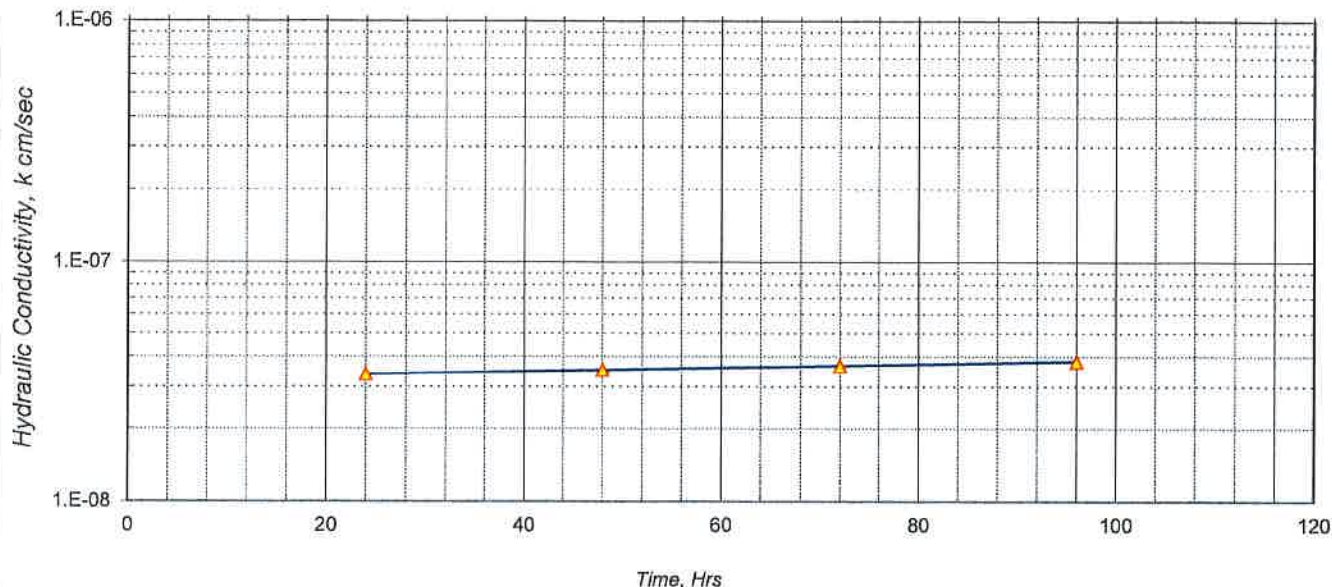
Sample Location:

1-6 W Wall

Report Date:

June 2, 2020

Hydraulic Conductivity vs Time



SPECIMEN DATA

SAMPLE ID:	6	
DESCRIPTION:	1-6 W Wall	
	<u>INITIAL</u>	<u>FINAL</u>
HEIGHT, in.	2.8	2.8
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	10.8	19.7
DRY DENSITY, pcf	114	111
SATURATION, %	60	103
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Light Brown	
SAMPLE CONSISTENCY	Clay	

TEST DATA

<u>ASTM D-5084, Method C</u>		
EFFECTIVE STRESS:	5 psi	
GRADIENT RANGE:	2 - 3	
IN / OUT RATIO:	1.00	
	<u>HYDRAULIC</u>	
<u>TRIAL</u>	<u>TIME</u>	<u>CONDUCTIVITY</u>
<u>nos.</u>	<u>hrs.</u>	<u>cm / sec</u>
1	24.0	3.4E-08
2	48.0	3.5E-08
3	72.0	3.7E-08
4	96.0	3.8E-08
AVERAGE LAST 4 :		3.6E-08

COMMENTS:

Tap water used as permeant.

These results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.



REPORT OF MOISTURE-DENSITY RELATIONS

CLIENT: Frank Vollerman

ADDRESS:

PROJECT: Milk Bottling Plant

PROJECT NO.:

REPORT NO.: 200237

DATE OF SERVICE: 4-24-20

AUTHORIZATION:

REPORT DATE: 3-16-20

SERVICES: Obtain sample of material used for construction, prepare samples and perform moisture-density relations test to establish the maximum density and optimum moisture of the material.

PROJECT DATA

CONTRACTOR: Big Iron

DATE SAMPLED: 4-21-20

SAMPLED BY: J. & B. Slone

TEST FOR: ASTM D 698

LOCATION: On Site

TEST DATE: 4-24-20

MATERIAL: Dk Br Clay

CLASSIFICATION:

MATERIAL PREP. METHOD: A

RAMMER TYPE: Mech

METHOD OF TEST: ASTM D 698

REPORT OF TESTS

MAXIMUM DENSITY, PCF: 110.4

OPTIMUM MOISTURE (%): 17.7

LIQUID LIMIT: 48

PLASTIC LIMIT: 25

PLASTICITY INDEX: 23

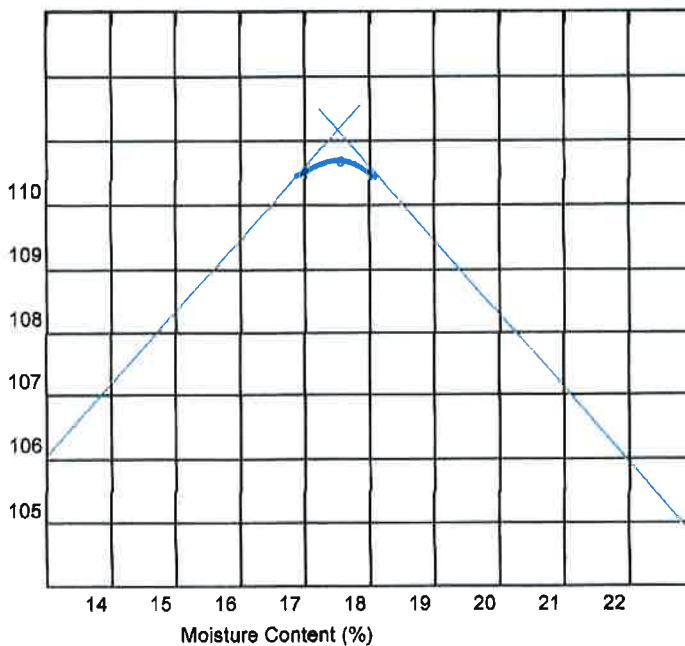
E = Estimated Value

(-) 200 Grading: ~~78%~~

TECHNICIAN: J & B Slone

REPORT DISTRIBUTION:

Dry
Dens.
(pcf)



TECHNICIAN:



**REPORT OF
MOISTURE-DENSITY RELATIONS**

CLIENT: Frank Vollerman

ADDRESS:

PROJECT: Milk Bottling Plant

PROJECT NO.:

REPORT NO.: 200238

DATE OF SERVICE: 4-24-20

AUTHORIZATION:

REPORT DATE: 3-16-20

SERVICES: Obtain sample of material used for construction, prepare samples and perform moisture-density relations test to establish the maximum density and optimum moisture of the material.

PROJECT DATA

CONTRACTOR: Big Iron

DATE SAMPLED: 4-21-20

SAMPLED BY: J. & B, Slone

TEST FOR: ASTM D 698

LOCATION: On Site

TEST DATE: 4-24-20

MATERIAL: Lt Tan & Red Clay

CLASSIFICATION:

MATERIAL PREP. METHOD: A

RAMMER TYPE: Mech

METHOD OF TEST: ASTM D 698

REPORT OF TESTS

MAXIMUM DENSITY, PCF: 104.0

OPTIMUM MOISTURE (%): 17.8

LIQUID LIMIT: 43

PLASTIC LIMIT: 23

PLASTICITY INDEX: 20

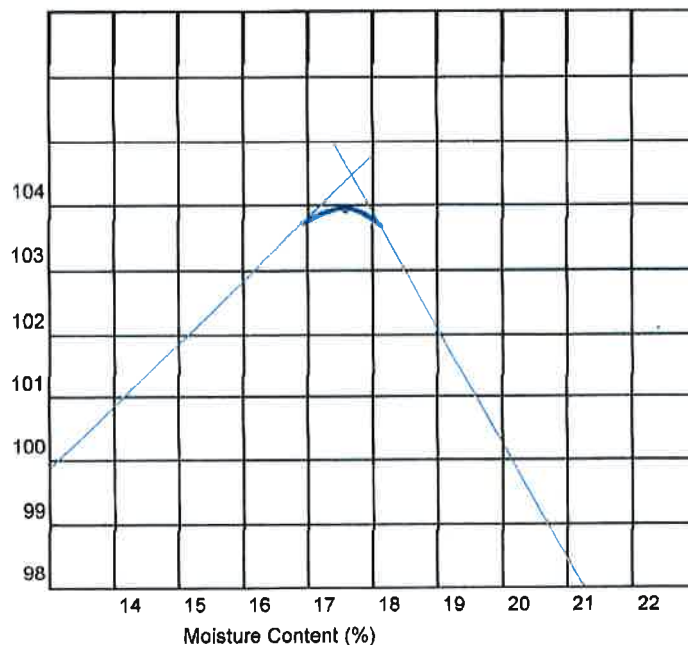
E = Estimated Value

(-) 200 Grading:

TECHNICIAN: J & B Slone

REPORT DISTRIBUTION:

Dry
Dens.
(pcf)



TECHNICIAN:

CLS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200045
DATE: 3-31-2020
PAGE: 1 of 1

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Lt Red Clay	15.8	116.6
2		Tan & Red Clay	20.3	105.8
3		Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	Lift 1 N Berm W End Lagoon	1	14.9 %	118.0 dry	101.2
			lbs	wet	
	Lift 2 N Berm 150' E of W End Lagoon	1	17.0 %	115.3 dry	98.9
			lbs	wet	
	Lift 3 N Berm E End Lagoon	1	16.3 %	115.2 dry	98.8
			lbs	wet	
	Lift 4 N Berm 100' W of E End Lagoon	1	17.0 %	116.2 dry	99.7
			lbs	wet	
	Lift 5 E Berm N End Lagoon	1	17.7 %	114.2 dry	97.9
			lbs	wet	
	Lift 6 E Berm 150' S of N End Lagoon	1	15.3 %	114.5 dry	98.0
			lbs	wet	
	Lift 7 E Berm 250' S of N End Lagoon	1	15.1 %	115.3 dry	98.9
			lbs	wet	
	Lift E Berm S End Lagoon	1	14.9 %	114.0 dry	97.8
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
	8	Densities	30	\$240.00
Time	4	Tedhnician	40	\$160.00
Trip	1		100	\$100.00
Total				\$500.00

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200233
DATE: 4-17-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Lt Red Clay	15.8	116.6
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
14	Lagoon N Dam E End	2	19.7 %	104.9 dry	99.1
			lbs	wet	
15	Lagoon W Dam N End	2	19.4 %	105.2 dry	99.4
			lbs	wet	
16	Lagoon S Dam N End	2	20.2 %	105.7 dry	99.4
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200234
DATE: 4-20-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Lt Red Clay	15.8	116.6
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
17	Lagoon E Berm N End	1	15.4 %	110.6 dry	95.0
18	Lagoon E Berm 100' s of N End	1	14.8 %	112.2 dry	96.2
19	Lagoon N Berm 50' W of E End	1	14.9 %	111.3 dry	96.9
20	Lagoon N Berm 150' W of E End	1	15.1 %	110.6 dry	95.0
21	Lagoon N Berm E End	1	14.9 %	111.2 dry	95.5
			lbs wet		
			% dry		
			lbs wet		
			% dry		
			lbs wet		
			% dry		
			lbs wet		
			% dry		
			lbs wet		
			% dry		

TECHNICIAN: J. Slone
TIME: START _____ Stop _____
CLIENT REP: _____

OFF	DIV	TEST	UNITS	
	10	Densities	30.00	\$300.00
Time		6	40.00	\$240.00
Trip		1	100.00	\$100.00
Total				\$640.00

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
 ADDRESS:
 Project: Milk Bottling Plant
 AUTH: Frank

CLIENT NO:
 REPORT NO: 200362
 DATE: 4-23-2020
 PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Dk Br Clay	17.7	110.4
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
#22 N Berm E End		2	19.4 %	102.1 dry	96.5
			lbs	wet	
#23 E Berm N End		2	20.1 %	102.6 dry	97.0
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
	2	Densities	30.00	\$60.00
Time		2	40.00	\$80.00
Trip		1	100.00	\$100.00
Total				\$240.00

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200239
DATE: 4-24-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Dk Br Clay	17.7	110.4
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	W Slope S End #24	1	17.4 %	109.9 dry	99.5
			lbs	wet	
	S Slope W End #25	1	17.6 %	108.4 dry	98.2
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

OFF	DIV	TEST	UNITS	
	6	Densities	30.00	\$180.00
Time		4	40.00	\$160.00
Trip		1	100.00	\$100.00
Total				\$440.00

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
 ADDRESS:
 Project: Milk Bottling Plant
 AUTH: Frank

CLIENT NO:
 REPORT NO: 200364
 DATE: 4-17 to 5-1-2020
 PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Page 1 of 2			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Dk Br Clay	17.7	110.4
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
0-6" Bottom Liner E End		3	22.3 %	107.0 dry	103.4
			lbs	wet	
6"-12" Bottom Liner E End		3	21.4 %	105.9 dry	102.4
			lbs	wet	
12"-18" Bottom Liner E End		2	20.4 %	102.1 dry	98.7
			lbs	wet	
18"-24" Bottom Liner E End		2	18.0 %	103.1 dry	98.7
			lbs	wet	
24"-30" Bottom Liner E End		2	17.1 %	103.7 dry	100.3
			lbs	wet	
30"-36" Bottom Liner E End		2	18.3 %	102.8 dry	99.4
			lbs	wet	
0-6" W Bottom Liner (4-18)		3	21.2 %	106.3 dry	103.4
			lbs	wet	
6"-12" W Bottom Liner (4-18)		3	22.6 %	106.4 dry	102.9
			lbs	wet	
12"-18" W Bottom Liner		3	23.0 %	101.3 dry	98.0
			lbs	wet	
18"-24" W Bottom Liner		3	21.2 %	102.0 dry	99.0

TECHNICIAN: J. Stone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
	6	Densities	30.00	\$180.00
Time		8	40.00	\$320.00
Trip		1	100.00	\$100.00
Total				\$600.00

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200365
DATE: 5-1-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS: Page 2 of 2 (Billed on Page 1)			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Dk Br Clay	17.7	110.4
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
0-6" Liner S Slope		3	20.2 %	105.3 dry	101.8
			lbs	wet	
6"-12" Liner S Slope		3	22.8 %	100.3 dry	97.0
			lbs	wet	
12"-18" Liner S Slope		3	22.5 %	100.4 dry	97.0
			lbs	wet	
18"-24" Liner S Slope		3	23.1 %	102.1 dry	98.7
			lbs	wet	
24"-30" Liner S Slope		3	22.9 %	100.0 dry	96.7
			lbs	wet	
30"-36" Liner S Slope		3	21.9 %	99.4 dry	96.1
			lbs	wet	
			%	dry	
			lbs	wet	
24"-30" Bottom Liner W End		2	20.0 %	105.9 dry	102.4
			lbs	wet	
30"-36" Bottom Liner W End		2	17.7 %	103.1 dry	100.2
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
Time				
Trip				
Total				

TECHNICIAN:



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200236
DATE: 4-21-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Lt Red Clay	15.8	116.6
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
0-6" Liner N Slope		3	22.4 %	101.7 dry	98.3
			lbs	wet	
6"-12" Liner N Slope		3	22.6 %	102.4 dry	99.0
			lbs	wet	
12"-18" Liner N Slope		3	21.5 %	103.0 dry	99.6
			lbs	wet	
18"-24" Liner N Slope		3	22.6 %	102.6 dry	99.2
			lbs	wet	
24"-30" Liner N Slope		3	21.5 %	104.0 dry	100.6
			lbs	wet	
30"-36" Liner N Slope		3	23.0 %	101.6 dry	98.2
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS	
	10	Densities	30.00	\$300.00
Time		6	40.00	\$140.00
Trip		1	100.00	\$100.00
Total				\$640.00

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
ADDRESS:
Project: Milk Bottling Plant
AUTH: Frank

CLIENT NO:
REPORT NO: 200361
DATE: 4-27-2020
PAGE: 1 of 2

JOBSITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOBSITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Dk Br Clay	17.7	110.4
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
	0-6" Liner E Slope	1	19.0 %	108.4 dry	98.2
			lbs	wet	
	6"-12" E Slope	1	17.6 %	109.1 dry	98.8
			lbs	wet	
	12"-18" R Slope	1	18.1 %	109.3 dry	99.0
			lbs	wet	
	18"-24" E Slope	1	16.9 %	111.0 dry	100.5
			lbs	wet	
	24"-30" E Slope	1	16.0 %	106.8 dry	96.7
			lbs	wet	
	30"-36" E Slope	1	18.1 %	106.2 dry	96.2
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Stone
TIME: START _____ Stop _____
CLIENT REP: _____

OFF	DIV	TEST	UNITS	
	4	Densities	30.00	\$120.00
Time		4	40.00	\$160.00
Trip		1	100.00	\$100.00
Total				\$380.00

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

TECHNICIAN: CJS



IN-PLACE DENSITY TEST SERVICE ORDER

CLIENT: Frank Volleman
 ADDRESS:
 Project: Milk Bottling Plant
 AUTH: Frank

CLIENT NO:
 REPORT NO: 200235
 DATE: 4-21-2020
 PAGE: 1 of 2

JOB SITE INFORMATION	TEST	METHOD	REQUIREMENTS
Contr: Big Iron	DENSITY	ASTM D 2922	95
JOB SITE: Jeff	MOISTURE	ASTM D 3017	-1 to +3
TIME:	GAUGE NO.	3430	
REMARKS:			

MOISTURE / DENSITY RELATIONS

M/D NO.	TEST OF	MATERIAL DESCRIPTION	OPTIMUM MOISTURE	MAXIMUM DENSITY
1	All	Lt Red Clay	15.8	116.6
2	All	Tan & Red Clay	20.3	105.8
3	All	Dk Red Clay	22.1	103.4

IN-PLACE DENSITY TESTS

TEST NO.	TEST LOCATION	M/D NO.	MOISTURE CONTENT	DENSITY pcf	PERCENT COMPACTION
			lbs	wet	
1-6" Liner W Slope		3	23.1 %	102.1 dry	98.7
			lbs	wet	
6"-12" Liner W Slope		3	22.6 %	100.1 dry	96.8
			lbs	wet	
12"-18" Liner W Slope		3	21.8 %	103.4 dry	100.0
			lbs	wet	
18"-24" Liner W Slope		3	22.4 %	102.5 dry	99.1
			lbs	wet	
24"-30" Liner W Slope		3	21.4 %	101.2 dry	98.3
			lbs	wet	
30"-36" Liner W Slope		3	21.5 %	100.1 dry	96.8
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	
			lbs	wet	
			%	dry	

TECHNICIAN: J. Slone
 TIME: START _____ Stop _____
 CLIENT REP: _____

CONTRACTOR NOTIFIED OF RESULTS (Y/N) _____

OFF	DIV	TEST	UNITS
Time		Billed on N	
Trip		Slope	
Total			

TECHNICIAN:

T.D: AGRONOMIC MANAGEMENT PLAN

AGRONOMIC MANAGEMENT PLAN

Prepared For:



VOLLEMAN'S
— FAMILY FARM —

Volleman Dairy Processing Land, LP
600 County Road 252
Gustine, Texas 76455

Prepared By:



Table of Contents

LIST OF FIGURES	i
LIST OF TABLES	i
AGRONOMIC MANAGEMENT PLAN	1

LIST OF FIGURES

Figure 1.1: Land Application Map	4
--	---

LIST OF TABLES

Table 1: Estimated Soil Properties	2
Table 2: Nutrient Budget	6

AGRONOMIC MANAGEMENT PLAN

Purpose

This document supports the Volleman Dairy Processing Land, LP land application of waste as prescribed by the Texas Land Application Permit (TLAP) through the Texas Commission on Environmental Quality (TCEQ). This Agronomic Management Plan (AMP) aims to illustrate the beneficial use of industrial effluent from the processing plant. All effluent applications are managed in a manner that ensures environmental stability and maximum crop production.

This plan will be updated annually to reflect current soil and waste analysis, climatic data, previous water demands, and proposed crop water usage for the upcoming year. Application rate calculations will be developed and maintained on-site for use by the operator to determine application timing and rates.

Background

Volleman Dairy Processing Land, LP is applying for a Major Amendment to its TLAP authorization through the TCEQ to irrigate treated effluent onto 46 acres of irrigated farmland beneficially.

General Objectives of AMP

- Present information pertaining to the effluent, soils, and crops.
- Present irrigation tract(s) layout Figure 1.1.
- Present information pertaining to crop rotations and yield goals to illustrate the appropriateness of the selected crops for use with this project.
- A description of wastewater usage for irrigation. This will include information on actual effluent application rates to meet the crop hydraulic/nutrient demands and maximize crop yield goals.
- An estimation of the annual loading of nutrients supplied by the effluent.
- An overview of wastewater/nutrient storage is needed in the soil profile, and a pre-plant scenario is needed to serve as a starter fertilizer.
- Monitoring soil profiles to ensure no saturated soils are present within 3 feet of the surface.

Overview

Treated effluent from the storage lagoon will be distributed to high-production farmland that is established in Coastal Bermudagrass. The crop yield goals will be provided by data from the NRCS or from historical data obtained from the farmer.

The landowner uses management practices to ensure maximized crop production. High residue crops are utilized, and deep tillage is used when necessary to maximize the soil's ability to store and retain water, allowing for maximum root penetration.

Site Features

The regional climate is classified as humid subtropical, with hot summers and mild winters. The growing season averages 220 frost-free days. The average annual rainfall is 25-35 inches and generally occurs during the warm-season months of May, June, July, and August.

Most precipitation occurs during the growing seasons for bermudagrass when evapotranspiration is highest. However, optimum yields can only be achieved through supplemental irrigation of the crops due to low rainfall and high evaporative rates. Most cropping systems require preseason irrigation, with growing season applications depending on stored water, to achieve maximum yield goals. These are standard operational production practices in this area. The permittee requests preseason irrigation, up to 30 days before crop planting, to achieve optimal production. This will enable the facility to manage application events, building a moisture and nutrient profile in the soil before planting. This management tool would reduce the need for groundwater for pre-watering and the costs associated with pre-plant starter fertilizers.

Soils

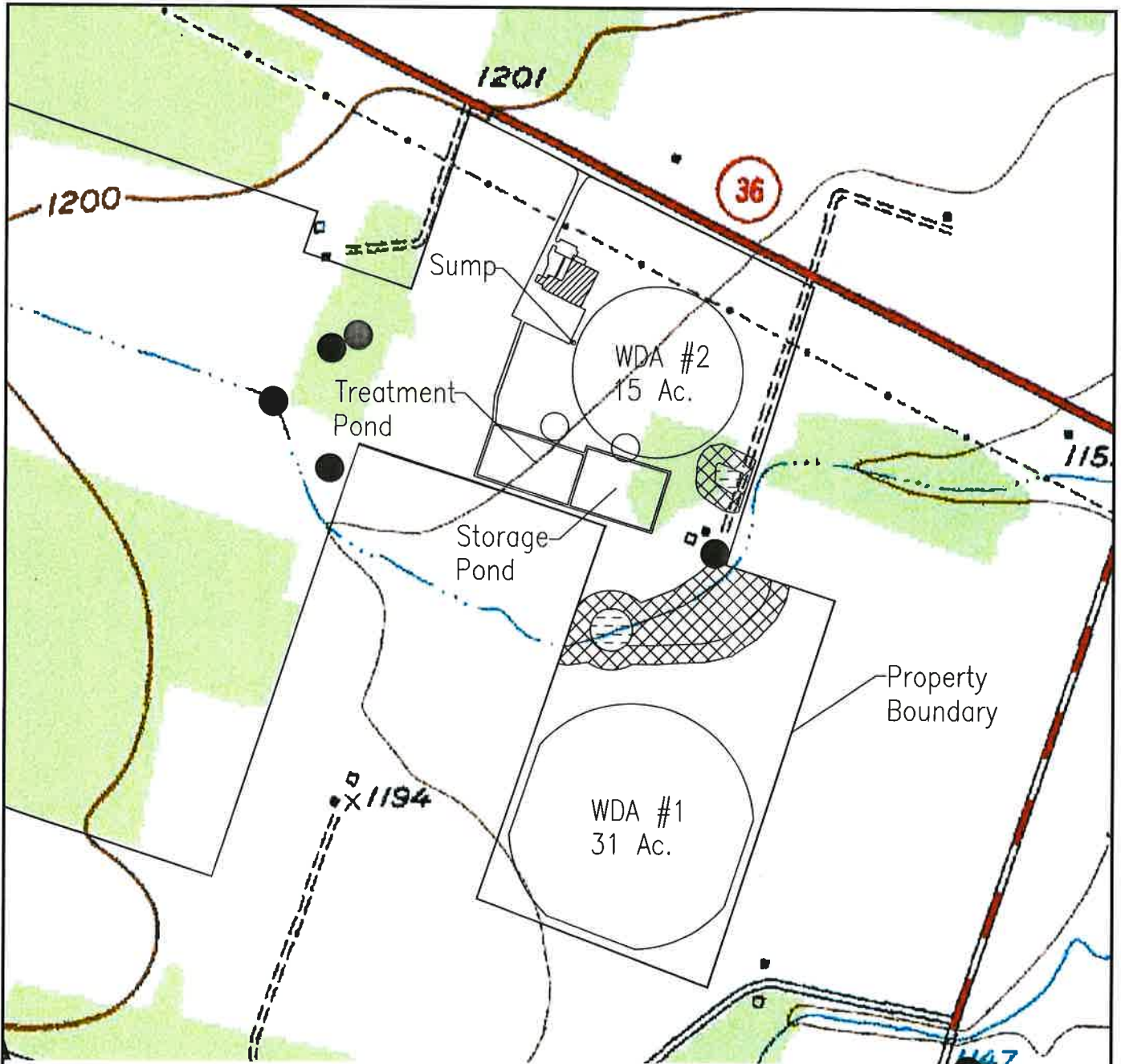
According to the information contained in the Comanche County Soil Survey, soils of the 46-acre irrigation tract consist of: Blanket, Chaney, Hassee, and Pedernales series. The physical and hydrological properties of these soils are illustrated in Table 1 below. More soil information can be found in the supporting documentation.

Table 1: Estimated Soil Properties

Soil Series & Map ID	Slope (%)	HSG	Depth (in)	USDA Soil Texture	Permeability / Infiltration Rate(in/hr.)	Available Water Capacity (in/in of soil)
BlalB – Blanket	1-3	C	0-6 6-22 22-48	Loam	0.6-2.0 0.06-0.6 0.20-2.0	0.17-0.23 0.12-0.20 0.12-0.20
ChC – Chaney	1-5	C	0-4 4-14 14-40	Loamy Sand	6.0-20 6.0-20 0.06-0.6	0.05-0.10 0.05-0.10 0.12-0.18
HaB - Hassee	1-3	D	0-12 12-42	Loam	0.6-2.0 0.001-0.06	0.11-0.17 0.12-0.18
PdC – Pedernales	1-5	C	0-12 12-36 36-44	Loamy Fine Sand	2.0-6.0 0.20-0.6 0.20-0.6	0.08-0.12 0.13-0.15 0.14-0.17
PeB – Pedernales	1-3	C	0-7 7-21	Fine Sandy Loam	0.6-2.0 0.20-0.6	0.13-0.17 0.13-0.15

Soil Series & Map ID	Slope (%)	HSG	Depth (in)	USDA Soil Texture	Permeability / Infiltration Rate(in/hr.)	Available Water Capacity (in/in of soil)
			21-40		0.20-0.6	0.14-0.17

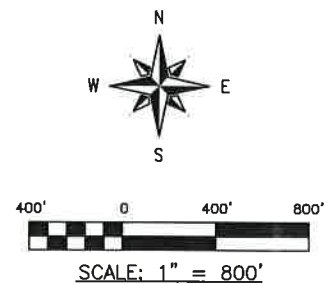
Currently, agricultural practices are in place to maximize crop yields and enhance the soil's ability to retain and store water. Furthermore, deep tillage occurs periodically, and the soils of the A and B horizons have been thoroughly mixed, so the surface soil may not resemble those listed in Table 1. Generally, the soil in the area to be used for irrigation illustrates a loamy surface layer (A horizon) underlain by sandy clay loam or clay loam (B horizon). The interface between the A and B horizons is generally abrupt and smooth. In native conditions, this boundary may impede water movement under irrigation, therefore affecting the ability to leach potentially detrimental constituents, such as salts contained in the effluent. Due to these characteristics, the subsoil will be ripped or deep-plowed as needed. It is preferable to rip or deep plow during periods of low soil moisture and just before planting to increase the fracturing of the subsoils, thus increasing the ability of the soils to absorb water (fresh) into the deeper profiles for storage.



LEGEND:

- Denotes Fresh Water Pond
- Denotes 100-ft. Buffer Zone
- Denotes Plant
- Denotes Water Well
- Denotes Plugged Well

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2017.



Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Land Application Map
Figure 1.1
Page 4

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

Effluent Characteristics

Wastewater Storage

The treated effluent will be pumped from the storage lagoon and routed to the land application fields.

Effluent Quality

- For this plan, the Total Nitrogen content of the effluent to be land-applied is 15.96 lb./ac-in TKN. The Total Phosphorus is 7.57 lb./ac-in as P₂O₅, based on the effluent samples collected from the facility. Based on the geographical location of the facility and farm practices, the permittee estimates that 80% of the total nitrogen is available after volatilization and mineralization.

Effluent Quantity

The average annual amount of effluent available for irrigation is projected to be 36.5 million gallons (112 ac-ft/yr.).

Annual Cropping Plan

Crop Selection

Table 2 illustrates the amount of effluent to be applied based on nitrogen.

The following formula will be utilized to determine the annual application rates based on the effluent's most limiting nutrient content, nutrients in the soil, and crop requirements.

$$\text{Total nutrient required by crop (lb./ac) - Soil Test (lb./ac)} / ((\text{lb. per Ac-in of Nut. in Effl} \times 0.80)) = \text{Annual Application Rate (Ac-in)}$$

Other Crop Inputs

Supplemental fertilizers may be necessary to achieve yield goals; however, determinations will be made annually on a field-by-field basis, using soil test results. Based on the effluent pH, EC, Ag and sodium content, soil amendments such as elemental sulfur, gypsum, or other inputs may be used to help manage soil pH and salinity.

**Volleman Dairy Processing
Nutrient Budget
Table 2**

ENVIRO-AG ENGINEERING, INC.

Field ID	Planned Crop Rotation	Crop Yield (1)	Crop Salt Tolerances (2)	Crop N Requirement lb./Ac (3)	0-6" Soil N Residual lb./Ac (4)	Crop N required lb./Ac (5)	Wastewater Analysis N lb./Ac-in (6)	Adjusted Plant Available N lb./Ac-in (7)	Ac-In/Ac of Wastewater to apply (8)	Total Gallons/Field (9)
WDA #1 (31 acres) Summer	Coastal Hay	4 Cut	8.0-12.0	400	6	394	15.90	12.72	31.0	26,073,817
WDA #1 (31 acres) Winter	Wheat Silage	6-7 Tons	6.0-8.0	200	0	200	15.90	12.72	15.7	13,235,440
WDA #2 (15 acres) Summer	Coastal Hay	4 Cut	8.0-12.0	400	6	394	15.90	12.72	31.0	12,616,363
WDA #1 (15 acres) Winter	Wheat Silage	6-7 Tons	6.0-8.0	200	0	200	15.90	12.72	15.7	13,235,440

Notes:

- (1) Expected yields based on historical data from facility and county. The coastal and wheat will be harvested at a maximum height of 12" to 15" at a minimum of 4" from the ground.
- (2) Taken from 30 TAC 309.20(b)(3)(B) Table 3.
- (3) From USDA-NRCS Code 590/633 "S Crops" database.
- (5) Remainder N required to meet crop demands (crop requirement - residual N).
- (6) Estimated N concentration based on wastewater analysis.
- (7) Availability of N is calculated utilizing 30 TAC 309C.
- (8) Acre inch of wastewater to be applied based lb./ac-n available N (remainder crop N divided by adjusted plant N). No additional fertilizer is required at this rate.
- (8) Application rate to meet crop N requirement.
- (9) Total Gallons/Field to be applied (Ac-In/Ac of wastewater x 27154 x Ac = Total Gallons).

Application Methods & Timing

Land Application Methods

The application methods at this facility include center pivot irrigation systems. Treated effluent is distributed to the irrigation systems via existing and proposed pumping plants and underground irrigation piping. The irrigation systems are designed to ensure the uniform distribution of effluent without creating tailwater or runoff.

Irrigation Water Management

Irrigation water management is the process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner. Day-to-day management decisions will be based on the water and nutrient requirements of the crops, harvest schedules, and soil moisture levels.

Soil Moisture Monitoring

The most important aspect of irrigation water management is properly evaluating and monitoring the available soil moisture. Soil moisture in the land application fields is monitored using the feel and appearance method, in accordance with USDA guidelines.

Irrigation Scheduling

The amount of effluent applied during each irrigation event will be determined by soil moisture, crop nutrient requirements, and prevailing weather conditions at the time of application.

The irrigation systems should be operated in accordance with the TLAP and with the following Best Management Practices (BMPs):

- Effluent irrigation will not occur when the ground is frozen or saturated within 3 feet of the surface or during rainfall events unless necessary to prevent imminent overflow of the storage pond.
- Effluent irrigation will not exceed maximum crop nutrient requirements.
- Effluent irrigation will not occur to fallow lands, except pre-watering, as described in the previous section. Application to dormant perennial or winter crops shall be limited to the planned rate shown in the NMP.
- Irrigation practices will minimize the ponding and puddling of effluent and prevent tailwater and the occurrence of nuisance conditions.
- Records of the amount of effluent applied, the crops grown, the planting and harvest dates, and crop yields are maintained for each field.
- Personnel whose job responsibilities require the handling, storage, or land application of effluent should be trained to ensure proper procedures are followed and appropriate records are kept.

Monitoring

Monitoring of irrigation operations should occur before, during, and after effluent application to ensure proper operation and avoid over-application of nutrients. No puddling or runoff should occur. A visual inspection should be performed during

operation to determine if any puddling or erosion induced by irrigation occurs. Corrective actions include, but are not limited to:

- Cease irrigation.
- Increase the speed of the reel gun sprinkler to reduce the application rate.
- Reduce the "on" time interval and increase the "off" time interval for surface irrigated fields.

Monitoring soil moisture, rainfall, and crop evapotranspiration (ET) should occur at least once a week during the growing season.

As part of the monitoring, the annual soil tests will be reviewed. The following best management practices may be utilized to monitor leaching of nitrate-nitrogen:

- Apply effluent during optimal growing conditions and in response to the plant's needs.
- Use of conventional N fertilizers applied close to peak crop N uptake.
- Split commercial fertilizer applications and use a conservative approach to pre-plant N rate.
- Retain crop residue.
- Regularly adjust irrigation schedules to reflect changes in weather and plant needs or monitor soil moisture values.
- Incorporate organic amendments to improve water-holding capacity and prevent excessive leaching.
- Double cropping with a cover crop or forage crop.
- Use of N inhibitors for reduced leaching from April to June.

Soil samples will be collected from each field in accordance with the TLAP. Sampling will be conducted within the timeframe specified in the TLAP. Effluent samples will be collected as defined in the TLAP to verify the application of nutrients via irrigation.

System Maintenance

The irrigation systems are operated and maintained in accordance with the manufacturer's recommendations. The system's lifespan can be assured and often increased by implementing a thorough operation and maintenance program. The irrigation system is inspected periodically to ensure proper operation of the pumps, pipelines, and sprinklers.

All measuring devices, valves, nozzle heads, surface pipelines, and other mechanical components of the system are inspected periodically, and worn or damaged parts are repaired or replaced as necessary. Worn or improperly functioning nozzles are replaced with the same design, size, and type. Nozzle heads operate efficiently and provide uniform application when they are plumb, in good operating condition, and operated at the planned pressure.

Maintain all pumps, piping, valves, and electrical and mechanical equipment in accordance with manufacturer recommendations. Check and clean screens and filters to prevent unnecessary hydraulic friction loss and maintain the water flow necessary for

efficient pump operation. Protect the pumping plant and all associated electrical and mechanical controls from damage by rodents, insects, heat, water, flooding, lightning, sudden power outages, and sudden loss of the water source. Ensure that all electrical fittings are secure and safe. Always replace worn or excessively weathered electric cables, wires, gas tubing, and fittings as soon as they are first noticed. Check periodically for undesirable stray currents and leaks. Display appropriate bilingual operating instructions and warning signs as necessary. During non-seasonal use, drain pipelines and valves, and secure and protect all movable equipment.

Pollution hazards to ground and surface water can be minimized by following good irrigation water management practices. Losses of irrigation water to deep percolation and runoff should be minimized. Deep percolation and runoff from irrigation can carry nutrients and pesticides into the ground and surface water. Avoiding spills from agricultural chemicals, fuels, and lubricants will also minimize potential pollution hazards to ground and surface water.

8.0 REFERENCES

Information used to develop this plan was obtained, in part, from the following sources:

Maas and Grattan. 1999. Agricultural drainage water management in arid and semi-arid areas. FAO Irrigation and Drainage Paper 61, Annex 1. Crop salt tolerance data. Retrieved December 2022. <http://www.fao.org/docrep/005/y4263e/y4263e0e.htm>

Texas A&M AgriLife Extension. Retrieved 2025. Using Animal Manure and Wastewater for Crops and Pastures. <https://agrilifeextension.tamu.edu/library/farming/>

Texas Almanac. Retrieved May 2025. Texas Temperature, Freeze, Growing Season and Precipitation Records by County. <https://texasalmanac.com/sites/default/files/images/almanac-feature/countyweatherA.pdf>

USDA – NRCS Web Soil Survey, Comanche County, accessed May 2025.

USDA – NRCS (2012/2013 TLAP Permit List). Texas Waste Utilization and Nutrient Management 590-633 Plan. Version 5, S Tables.

SOIL ANALYSIS REPORT

CLIENT:
6224
ENVIRO-AG ENGINEERING INC
3404 AIRWAY BLVD
AMARILLO, TX 79118



www.servitech.com

6921 S. Bell
Amarillo, TX 79109
800.557.7509
806.677.0093
Fax 806.677.0329

LAB NO: 37739 - 37747
INVOICE NO: 174386
DATE RECEIVED: 01/23/2025
DATE REPORTED: 01/28/2025

SOIL ANALYSIS RESULTS FOR: VOLLEMAN FARMS

FIELD ID: COREY MULLIN

METHOD USED:				Mehlich 3 ICP																	
Lab Number	Sample ID	Sample Depth	1:2 Soil-Water pH	Buffer pH	1:2 Soil-Water mmho/cm	Excess Lime	XSL(i)	LOI(r)	Cd Reduction		Phosphorus ppm P	Potassium ppm K	Sulfur ppm lb. S/A	Calcium ppm Ca	Magnesium ppm Mg	Sodium ppm Na	Zinc ppm Zn	Iron ppm Fe	Manganese ppm Mn	Copper ppm Cu	Boron ppm B
37739	AAB	0 - 6	8.0		0.31	Lo	1.9	3.0	5	53	337	12	22	4180	528	353					
37740	AAB	6 - 18	7.8		0.74	Hi	1.4	1.4	5	9	214	21	76	6450	617	467					
37741	AAB	18 - 30	7.6		1.65	Hi	1.0	2.4	9	2	143	308	1110	11000	858	632					
37742	HAB	0 - 6	7.7		0.24	No	0.3	3.2	6	61	89	16	29	1650	179	212					
37743	HAB	6 - 18	7.2		0.34	No	0.5	2.1	8	20	133	9	32	1330	202	350					
37744	HAB	18 - 30	6.9		0.69	No	0.5	1.1	<4	6	130	8	29	1790	254	293					
37745	PEB	0 - 6	8.0		0.27	No	0.5	1.3	2	53	78	10	18	1210	260	272					
37746	PEB	6 - 18	8.1		0.50	Lo	0.8	1.4	5	9	138	12	43	4640	293	572					
37747	PEB	18 - 30	7.5		0.70	Lo	0.9	<1.0	<4	2	143	9	32	6190	285	408					

METHOD USED:

Lab Number	Sample ID	Sample Depth	Date Sampled	Calculated		TKN															
				Total N ppm		TKN ppm		Gypsum Rec tons/ac													
37739	AAB	0 - 6	01/15/25	1230		1227		1.8													
37740	AAB	6 - 18	01/15/25	797		796		2.1													
37741	AAB	18 - 30	01/15/25	536		534		3.8													
37742	HAB	0 - 6	01/15/25	373		370		1.2													
37743	HAB	6 - 18	01/15/25	348		346		2.6													
37744	HAB	18 - 30	01/15/25	336		335		2.0													
37745	PEB	0 - 6	01/15/25	427		426		1.9													
37746	PEB	6 - 18	01/15/25	427		426		3.6													
37747	PEB	18 - 30	01/15/25	423		422		1.9													

Analyses are representative of the samples submitted

Samples are retained 30 days after report of analysis

Explanations of soil analysis terms are available upon request

Reviewed and
Approved By:

Ashleigh Laugesen
Signer

Ashleigh Laugesen

Page 1 of 3

01/28/2025 1:12 pm

The reported analytical results apply only to the sample as it was supplied. The report may not be reproduced, except in full, without permission of ServiTech.

Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

SOIL ANALYSIS REPORT

CLIENT: 6224	ENVIRO-AG ENGINEERING INC 3404 AIRWAY BLVD AMARILLO, TX 79118
-----------------	---



www.servitech.com

6921 S. Bell
Amarillo, TX 79109
800.557.7509
806.677.0093
Fax 806.677.0329

LAB NO: 37739 - 37747
INVOICE NO: 174386
DATE RECEIVED: 01/23/2025
DATE REPORTED: 01/28/2025

SOIL ANALYSIS RESULTS FOR: VOLLEMAN FARMS																		FIELD ID: COREY MULLIN									
FERTILIZER RECOMMENDATIONS:																		POUNDS ACTUAL NUTRIENT PER ACRE									
Lab Number	Sample ID	Crop To Be Grown	Yield Goal	Lime, ECC Tons/A to raise pH to:			N	P ₂ O ₅	K ₂ O	Zn	S	Mn	Cu	MgO	B	Ca	Cl	Cation Exchange Capacity									
				6.0	6.5	7.0												CEC	%H	%K	%Ca	%Mg	%Na				
37739	AAB																	28	0	3	75	16	6				
37740	AAB																	33	0	2	76	16	6				
37741	AAB																	35	0	1	71	20	8				
37742	HAB																	11	0	2	76	14	8				
37743	HAB																	10	0	3	65	17	15				
37744	HAB																	13	0	3	71	17	10				
37745	PEB																	10	0	2	63	23	12				
37746	PEB																	28	0	1	81	9	9				
37747	PEB																	30	0	1	85	8	6				

SPECIAL COMMENTS AND SUGGESTIONS:
Lab Number(s): 37739, 37740, 37747
SODIUM - CAUTION (4% to 7% Na): The exchangeable soil sodium (as % Na) is moderately high for <u>fine-textured soils</u> and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.
Lab Number(s): 37739, 37742, 37745
Servi-Tech Laboratory fertilizer recommendations were not requested.
Lab Number(s): 37740, 37741
The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).
Lab Number(s): 37741, 37746
SODIUM - WARNING (7% to 10% Na): The exchangeable soil sodium (as % Na) is high for <u>fine-textured soils</u> . Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

SOIL ANALYSIS REPORT

CLIENT: 6224	ENVIRO-AG ENGINEERING INC 3404 AIRWAY BLVD AMARILLO, TX 79118	6921 S. Bell Amarillo, TX 79109 800.557.7509 806.677.0093 Fax 806.677.0329	 www.servitech.com	LAB NO: INVOICE NO: DATE RECEIVED: DATE REPORTED:	37739 - 37747 174386 01/23/2025 01/28/2025
------------------------	---	--	--	--	---

SOIL ANALYSIS RESULTS FOR: VOLLEMAN FARMS	
FIELD ID: COREY MULLIN	
Lab Number(s): 37742	SODIUM - CAUTION (7% to 10% Na): The exchangeable soil sodium (as % Na) is moderately high for sandy-textured soils and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.
Lab Number(s): 37743, 37745	SODIUM - WARNING (10% to 15% Na): The exchangeable soil sodium (as % Na) is high for sandy-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.
Lab Number(s): 37744	SODIUM - WARNING (8% to 12% Na): The exchangeable soil sodium (as % Na) is high for medium-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Lab Number	EAE-FacilityID	EAE-ProjectMana	EAE-FieldID	EAE-SampleSub	Comments
37739		get	missionID		
37740					
37741					
37742					
37743					
37744					
37745					
37746					
37747					



Enviro-Ag Engineering, Inc.
 9855 FM 847, Dublin, TX 76446
 Tel. 254-965-3500 Fax 254-965-8000

SOIL SAMPLE CHAIN OF CUSTODY RECORD

Producer/Facility: Volleman Farms

County: Comanche

Date Sampled: 1/15/2025

Date Shipped: 1/20/2025

Project Manager: Corey Mullin

Sample Type	Sample ID	Depth	Test Package	Crop	YG
Soil	37739 AaB	0-6	TCEQ Complete		
Soil	37740 AaB	6-18	TCEQ Complete		
Soil	37741 AaB	18-30	TCEQ Complete		
Soil	37742 HaB	0-6	TCEQ Complete		
Soil	37743 HaB	6-18	TCEQ Complete		
Soil	37744 HaB	18-30	TCEQ Complete		
Soil	37745 PeB	0-6	TCEQ Complete		
Soil	37746 PeB	6-18	TCEQ Complete		
Soil	37747 PeB	18-30	TCEQ Complete		

Relinquished By: R Ref. Internal COC Relinquished By: Lisa Postmus Relinquished By: _____

Company: EAE

Company: EAE

Company: ServiTech Lab

Date/Time: 1/23 1:30

Received By: KB

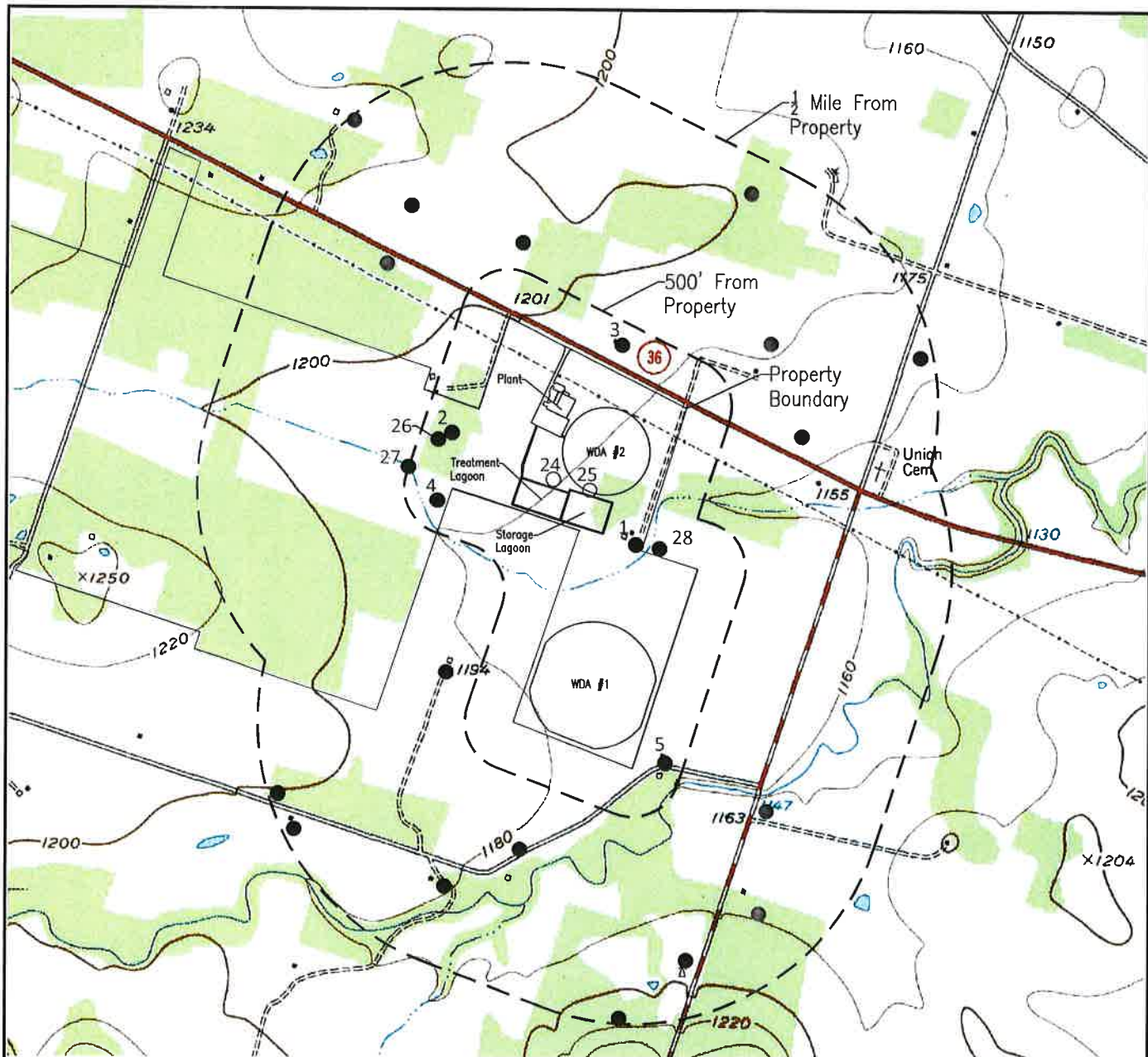
T.E: WATER WELL INFORMATION

T.E.1 Water Well Map

Figure T.E.1, Water Well Map, shows the locations of water wells within ½ mile of the property boundary.

T.E.2 Water Well Information

Water well data were obtained from various sources, including on-site inspections, Research, a database research firm in Toronto, ON, Canada, and the Texas Water Development Board (TWDB) Water Data Interactive (WDI) online database. The information provided by Environmental Risk Information Services (ERIS) was obtained from various public sources. ERIS does not ensure and makes no warranty or representation as to the accuracy, reliability, quality, or errors occurring from data conversion or the interpretation of its report. The TWDB WDI database includes data from the TWDB Groundwater Database and Submitted Driller's Reports.



Map Generated 5/21/2025

Legend:

- Denotes Water Well
- Denotes Plugged Water Well



800' 0 800' 1,600'



SCALE: 1" = 1,600'

Source: USDA-NRCS. Geospatial Data Gateway. Available at: <http://datagateway.nrcs.usda.gov/>. Digital Raster Graphic County Mosaic by NRCS - Accessed December 2017.

Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Water Well Map
Figure T.E.1
Page 10

ENVIRO-AG
EAE
ENGINEERING, INC.

Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132



TEXAS WATER WELL REPORT

Project Property: *Volleman Dairy Processing Plant
Volleman Dairy Processing Plant
Gustine TX*

Project No:

Order No: *25051200200*

Requested by: *Enviro-Ag Engineering, Inc.*

Date Completed: *May 22, 2025*

Environmental Risk Information Services

A division of Glacier Media Inc.

1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Table of Contents.....	2
Executive Summary.....	3
Executive Summary: Report Summary.....	4
Executive Summary: Site Report Summary - Project Property.....	5
Executive Summary: Site Report Summary - Surrounding Properties.....	6
Map.....	9
Aerial.....	12
Detail Report.....	14
Appendix: Database Descriptions.....	81
Definitions.....	83

Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

Your Liability for misuse: Using this Service and/or its reports in a manner contrary to this Notice or your agreement will be in breach of copyright and contract and ERIS may obtain damages for such mis-use, including damages caused to third parties, and gives ERIS the right to terminate your account, rescind your license to any previous reports and to bar you from future use of the Service.

No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc. ("ERIS") using various sources of information, including information provided by Federal and State government departments. The report applies only to the address and up to the date specified on the cover of this report, and any alterations or deviation from this description will require a new report. This report and the data contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein and does not constitute a legal opinion nor medical advice. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

Trademark and Copyright: You may not use the ERIS trademarks or attribute any work to ERIS other than as outlined above. This Service and Report (s) are protected by copyright owned by ERIS Information Inc. Copyright in data used in the Service or Report(s) (the "Data") is owned by ERIS or its licensors. The Service, Report(s) and Data may not be copied or reproduced in whole or in any substantial part without prior written consent of ERIS.

Executive Summary

Property Information:

Project Property: *Volleman Dairy Processing Plant*
Volleman Dairy Processing Plant Gustine TX

Project No:

Coordinates:

Latitude: 31.84375916
Longitude: -98.43941557
UTM Northing: 3,523,254.69
UTM Easting: 553,040.17
UTM Zone: 14R
Target Property Geometry: POLYGON

County/Parish Covered: *Comanche (TX)*

Zipcode(s) Covered: *Dublin TX: 76446*
Gustine TX: 76455

State(s) Covered: *TX*

Executive Summary: Report Summary

<i>Database</i>	<i>Searched</i>	<i>Project Property</i>	<i>Within 0.50mi</i>	<i>Total</i>
Federal				
FED USGS	Y	0	0	0
State				
TCEQ WELL LOGS	Y	0	19	19
SDRW WELLS	Y	0	9	9
GWDB	Y	0	2	2
WW FORT BEND	Y	0	0	0
WW HIGH PLAINS	Y	0	0	0
WW HARRIS GAL	Y	0	0	0
WUD	Y	0	0	0
Total:		0	30	30

*** PO – Property Only**

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Page Number
------------	----	-------------------	---------	-----------	---------------------	----------------

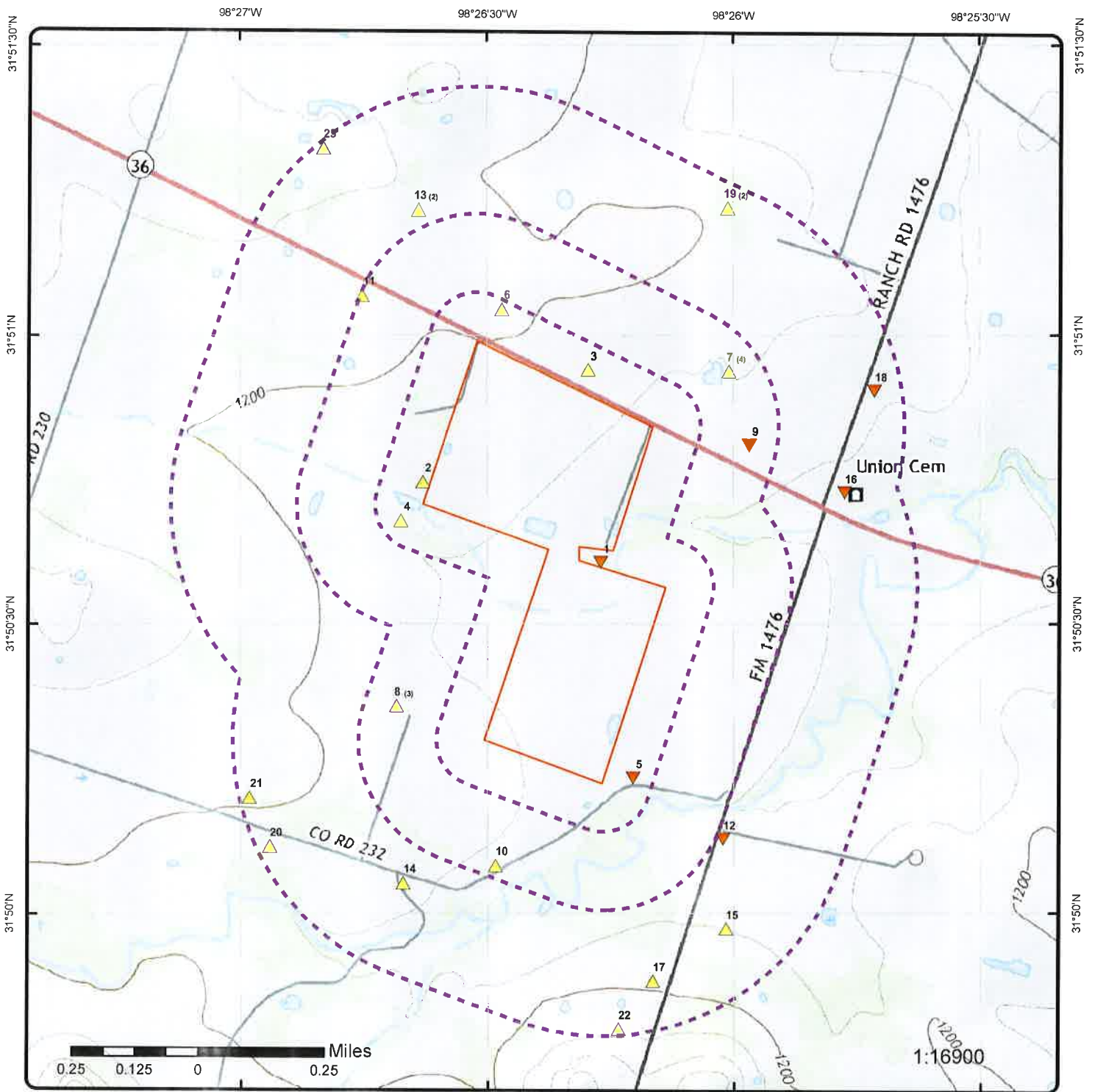
No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Page Number
<u>1</u>	TCEQ WELL LOGS	MILTON LOUDERMILK	TX <i>Grid No Owners Name: 41-13-2P MILTON LOUDERMILK</i>	ESE	0.01 / 50.14	<u>14</u>
<u>2</u>	SDRW WELLS	NEAL YATES	15308 HWY 36 SAME TX 76455 <i>Track NO: 93163</i>	WNW	0.02 / 81.32	<u>17</u>
<u>3</u>	TCEQ WELL LOGS	JULIO JO BAXTER	TX <i>Grid No Owners Name: 41-13-2D JULIO JO BAXTER</i>	NNE	0.05 / 238.68	<u>18</u>
<u>4</u>	TCEQ WELL LOGS	ARNOLD PETTIJOHN	TX <i>Grid No Owners Name: 41-13-2 ARNOLD PETTIJOHN</i>	W	0.05 / 285.70	<u>20</u>
<u>5</u>	TCEQ WELL LOGS	WADE HALL	TX <i>Grid No Owners Name: 41-13-2 WADE HALL</i>	SSE	0.06 / 290.53	<u>23</u>
<u>6</u>	TCEQ WELL LOGS	GAYLAND STEPHENS	TX <i>Grid No Owners Name: 41-13-2V GAYLAND STEPHENS</i>	NNW	0.08 / 411.08	<u>25</u>
<u>7</u>	TCEQ WELL LOGS	GAYLON STEPHINS	TX <i>Grid No Owners Name: 41-13-2 GAYLON STEPHINS</i>	NE	0.19 / 984.82	<u>28</u>
<u>7</u>	TCEQ WELL LOGS	GENE LUKER	TX <i>Grid No Owners Name: 41-13-2 GENE LUKER</i>	NE	0.19 / 984.82	<u>30</u>
<u>7</u>	TCEQ WELL LOGS	GAYLON STEPHINS	TX <i>Grid No Owners Name: 41-13-2 GAYLON STEPHINS</i>	NE	0.19 / 984.82	<u>34</u>
<u>7</u>	SDRW WELLS	Gayland Stephens	TX <i>Track NO: 336895</i>	NE	0.19 / 984.82	<u>36</u>
<u>8</u>	TCEQ WELL LOGS	ROBERT MURPHY	TX <i>Grid No Owners Name: 41-13-2 ROBERT MURPHY</i>	SW	0.19 / 988.56	<u>37</u>
<u>8</u>	TCEQ WELL LOGS	D M JOHNSON	TX <i>Grid No Owners Name: 41-13-2C D M JOHNSON</i>	SW	0.19 / 988.56	<u>39</u>
<u>8</u>	SDRW WELLS	Robert Murphy	451 CR 232 Gustine TX 76455	SW	0.19 / 988.56	<u>41</u>

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Page Number
			Track NO: 374677			
<u>9</u>	TCEQ WELL LOGS	GAYLAND STEPHENS	TX	ENE	0.19 / 1,029.09	<u>42</u>
			Grid No Owners Name: 41-13-2D GAYLAND STEPHENS			
<u>10</u>	TCEQ WELL LOGS	RUFUS ADCOCK	TX	SSW	0.23 / 1,188.75	<u>45</u>
			Grid No Owners Name: 41-13-2 RUFUS ADCOCK			
<u>11</u>	TCEQ WELL LOGS	JACK STEELE	TX	NW	0.25 / 1,296.90	<u>47</u>
			Grid No Owners Name: 41-13-2V JACK STEELE			
<u>12</u>	TCEQ WELL LOGS	JAMES WILSON	TX	SE	0.26 / 1,394.85	<u>49</u>
			Grid No Owners Name: 41-13-2R JAMES WILSON			
<u>13</u>	GWDB	Chester Evans	TX	NNW	0.28 / 1,498.78	<u>52</u>
			State Well No Owner Name: 4113201 Chester Evans			
<u>13</u>	GWDB	Chester Evans	TX	NNW	0.28 / 1,498.78	<u>59</u>
			State Well No Owner Name: 4113202 Chester Evans			
<u>14</u>	SDRW WELLS	Billy Bell	TX	SSW	0.33 / 1,721.78	<u>61</u>
			Track NO: 27911			
<u>15</u>	TCEQ WELL LOGS	W L MCFARLAND	TX	SSE	0.38 / 1,992.58	<u>62</u>
			Grid No Owners Name: 41-13-2 W L MCFARLAND			
<u>16</u>	TCEQ WELL LOGS	FLOYD ADCOCK	TX	E	0.40 / 2,121.47	<u>65</u>
			Grid No Owners Name: 41-13-2 FLOYD ADCOCK			
<u>17</u>	SDRW WELLS	Gail Steward	FM 1476 Gustine TX 76455	SSE	0.40 / 2,126.14	<u>68</u>
			Track NO: 144841			
<u>18</u>	SDRW WELLS	David Teich	Hwy 36 and FM 1476 (SE corner) Gustine TX 76455	ENE	0.45 / 2,354.46	<u>69</u>
			Track NO: 33966			
<u>19</u>	TCEQ WELL LOGS	WADE HALL	TX	NNE	0.45 / 2,402.36	<u>70</u>
			Grid No Owners Name: 41-13-2 WADE HALL			
<u>19</u>	SDRW WELLS	jack nabors	7050 hwy 1476 TX	NNE	0.45 / 2,402.36	<u>72</u>
			Track NO: 122589			

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Page Number</i>
<u>20</u>	TCEQ WELL LOGS	J R THOMPSON	TX <i>Grid No Owners Name: 41-13-2S J R THOMPSON</i>	SW	0.48 / 2,508.88	<u>73</u>
<u>21</u>	SDRW WELLS	Jarrel Hurst	CR 232 Gustine TX 76455 <i>Track NO: 143478</i>	SW	0.48 / 2,532.32	<u>76</u>
<u>22</u>	SDRW WELLS	Mike Thames	comanche comanche TX <i>Track NO: 522196</i>	S	0.49 / 2,568.75	<u>77</u>
<u>23</u>	TCEQ WELL LOGS	W R MCCULLOUGH	TX <i>Grid No Owners Name: 41-13-2T W R MCCULLOUGH</i>	NW	0.49 / 2,577.99	<u>78</u>



Map: 0.5 Mile Radius

Order Number: 25051200200

Address: Volleman Dairy Processing Plant, Gustine, TX



Plotted Water Wells



98°27'W

98°26'30"W

98°26'W

31°51'N

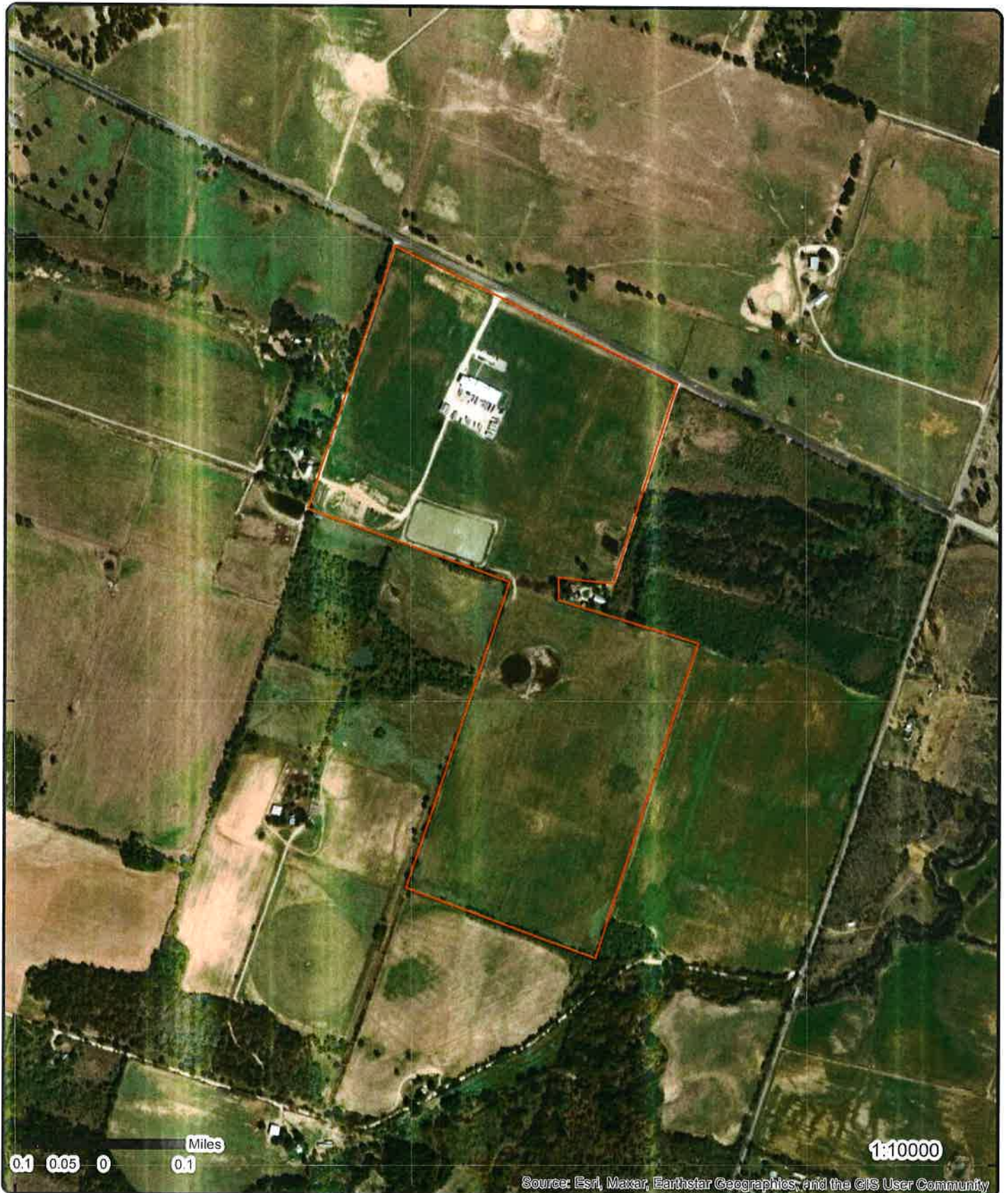
31°51'N

31°50'30"N

31°50'30"N

31°50'N

31°50'N



Aerial Year: 2023

Order Number: 25051200200

Address: Volleman Dairy Processing Plant, Gustine, TX



© ERIS Information Inc.

Source: ESRI World Imagery

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
1	1 of 1	ESE	0.01 / 50.14	MILTON LOUDERMILK TX	TCEQ WELL LOGS

Grid No: 41-13-2P
Date Drilled: 06/25/1979
Owners Name: MILTON LOUDERMILK
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 92
Depth Drilled: 128
Latitude: 31.8434413
Longitude: -98.4378417

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TDWR use only
 Well No. 41-13-2P
 Located on map YES
 Received: TH

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER Milton Loudermilk Address Comanche, Texas
 (Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL:
 County Comanche miles in _____ direction from _____
 (N.E., S.W., etc.) (Town)

☐ Legal description:
 Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☐ See attached map.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
 Date drilled 6/25/79

DIAMETER OF HOLE		Description and color of formation material
Dia. (in.)	From (ft.) To (ft.)	
	Surface	
7 7/8	0	128

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval ... from 0 ft. to 128 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)		Gage Casing Screen
			From	To	
5	new	Plastic	0	128	XXX

CEMENTING DATA
 Cemented from 25 ft. to 35 ft.
 Method used _____
 Cemented by Harris Drilling Co.
 (Company or Individual)

9) WATER LEVEL:
 Static level 92 ft. below land surface Date 6/25/79
 Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test: ☐ Pump ☐ Bailor ☐ Jetted ☐ Estimated
 Yield: 20 gpm with _____ ft. drawdown after _____ hrs.
compressor

13) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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.

NAME Billy Harris Water Well Drillers Registration No. 327
 (Type or Print)

ADDRESS Rt. 3 Comanche, Texas
 (Street or RFD) (City) (State) (Zip)

(Signed) Billy Harris Harris Drilling Co.
 (Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TDWR-0392 (Rev. 1-12-79)

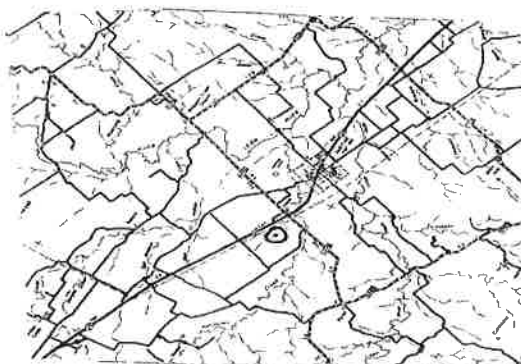
DEPARTMENT OF WATER RESOURCES COPY

RECEIVED
AUG 31 1979
Texas Dept. of Water Resources

CR/TDWB

DEC 31 79

RECEIVED



The last sentence specifies the means whereby you can, if you wish, assure that logs of your wells will be kept confidential. Please note that the term "Commission" in the above-quoted section and elsewhere in the Water Well Drillers Act now properly means the Texas Department of Water Resources (P. O. Box 13087, Austin, Texas 78711).

"Every registered water well driller drilling, deepening, or otherwise altering a water well within this State shall make and keep, or cause to be made and kept, a legible and accurate well log, and within sixty (60) days from the completion or cessation of drilling, deepening or otherwise altering such a water well, shall deliver or transmit by certified mail a copy of such well log to the Commission, and the owner thereof or the person having had such well drilled. The well log required herein shall at the request in writing to the Commission, by certified mail, by the owner or the person having such well drilled be held as confidential matter and not made of public record."

The Water Well Drillers Board and the Department of Water Resources are concerned that some persons having water wells drilled may not be aware of the confidentiality privilege provision of Section 5 of the Water Well Drillers Act. Section 5, the Reporting of Well Logs, reads as follows:

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING PRIVILEGE OF CONFIDENTIALITY

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
2	1 of 1	WNW	0.02 / 81.32	NEAL YATES 15308 HWY 36 SAME TX 76455	SDRW WELLS

Track NO: 93163
Date Submitted: 2006-09-20
Owner Name: NEAL YATES
Owner Address: 15308 HWY 36
Owner Address2:
Owner City: GUSTINE
Owner State: TX
Owner Zip: 76455
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 31.846111
Longitude: -98.450001
Drilling Date Started: 2003-10-11
Drilling Date Completed: 2003-10-11
Chemical Analysis: No
Company Name: F & F DRILLING INC
Company Address: 301 HWY 2921
CompanyAddress2:
Company City: DE LEON
Company State: TX
Company Zip: 76444
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=93163&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 130

Top Depth:
Bottom Depth: 130.0

Well Levels

Measurement: 82
Measurement Date: 2003-10-11

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
3	1 of 1	NNE	0.05 / 238.68	JULIO JO BAXTER TX	TCEQ WELL LOGS

Grid No: 41-13-2D
Date Drilled: 06/03/????
Owners Name: JULIO JO BAXTER
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 40
Depth Drilled: 60
Latitude: 31.849016
Longitude: -98.438259

Send original copy by certified mail to the Texas Water Development Board P. O. Box 12386 Austin, Texas 78711		State of Texas WATER WELL REPORT		For TWDB use only Well No. <u>44-13-20</u> Located on map <u>yes</u> Received: <u>6-9-85</u> Form GW 8 Form GW 9																																														
1) OWNER: Person having well drilled <u>Julia Jo Baxter</u> Landowner <u>Julia Jo Baxter</u>		Address <u>105 E. Central Cananhe Tx</u> (Street or RFD) (City) (State)																																																
2) LOCATION OF WELL: County <u>Cananhe</u> Labor _____ League _____ NW 1/4 NE 1/4 SW 1/4 SE 1/4 of Section _____ Block No. _____ (Circle as many as are known) miles in <u>9 3/4</u> SE direction from <u>Cananhe</u> (NE, SW, etc) (Town)		Abstract No. <u>455</u> Survey <u>James Hamilton No. 82</u>																																																
Sketch map of well location with distances from adjacent section or survey lines, and to landmarks, roads, and creeks.																																																		
3) TYPE OF WORK (Check): New Well <input checked="" type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging <input type="checkbox"/>		4) PROPOSED USE (Check): Domestic <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Municipal <input type="checkbox"/> Irrigation <input type="checkbox"/> Test Well <input type="checkbox"/> Other <input type="checkbox"/>		5) TYPE OF WELL (Check): Rotary <input checked="" type="checkbox"/> Driven <input type="checkbox"/> Dug <input type="checkbox"/> Cable <input type="checkbox"/> Jetted <input type="checkbox"/> Bored <input type="checkbox"/>																																														
6) WELL LOG: Diameter of hole <u>8"</u> in. Depth drilled <u>60</u> ft. Depth of completed well <u>60</u> ft. Date drilled <u>June 3</u> All measurements made from _____ ft. above ground level.																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>Description and color of formation material</th> </tr> </thead> <tbody> <tr><td>0</td><td>3</td><td>sand</td></tr> <tr><td>3</td><td>10</td><td>clay</td></tr> <tr><td>10</td><td>25</td><td>sand</td></tr> <tr><td>25</td><td>50</td><td>hard sand</td></tr> <tr><td>50</td><td>55</td><td>sand & gravel</td></tr> <tr><td>55</td><td>60</td><td>red clay</td></tr> </tbody> </table>		From (ft.)	To (ft.)	Description and color of formation material	0	3	sand	3	10	clay	10	25	sand	25	50	hard sand	50	55	sand & gravel	55	60	red clay	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>Description and color of formation material</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> (Use reverse side if necessary)				From (ft.)	To (ft.)	Description and color of formation material																					
From (ft.)	To (ft.)	Description and color of formation material																																																
0	3	sand																																																
3	10	clay																																																
10	25	sand																																																
25	50	hard sand																																																
50	55	sand & gravel																																																
55	60	red clay																																																
From (ft.)	To (ft.)	Description and color of formation material																																																
7) COMPLETION (Check): Straight wall <input type="checkbox"/> Gravel packed <input checked="" type="checkbox"/> Other <input type="checkbox"/> Under reamed <input type="checkbox"/> Open hole <input type="checkbox"/>		8) WATER LEVEL: Static level <u>40</u> ft. below land surface Date _____ Artesian pressure <u>0</u> lbs. per square inch Date _____																																																
9) CASING: Type: old <input type="checkbox"/> New <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Plastic <input type="checkbox"/> Other <input type="checkbox"/> Cemented from <u>0</u> ft. to <u>0</u> ft.		10) SCREEN: Type _____ Perforated <input checked="" type="checkbox"/> Slotted <input type="checkbox"/>																																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter (inches)</th> <th>From (ft.)</th> <th>Setting To (ft.)</th> <th>Cage</th> </tr> </thead> <tbody> <tr> <td>5"</td> <td>0</td> <td>60</td> <td>200</td> </tr> </tbody> </table>		Diameter (inches)	From (ft.)	Setting To (ft.)	Cage	5"	0	60	200	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter (inches)</th> <th>From (ft.)</th> <th>Setting To (ft.)</th> <th>Slot size</th> </tr> </thead> <tbody> <tr> <td>5"</td> <td>40</td> <td>60</td> <td>#</td> </tr> </tbody> </table>				Diameter (inches)	From (ft.)	Setting To (ft.)	Slot size	5"	40	60	#																													
Diameter (inches)	From (ft.)	Setting To (ft.)	Cage																																															
5"	0	60	200																																															
Diameter (inches)	From (ft.)	Setting To (ft.)	Slot size																																															
5"	40	60	#																																															
11) WELL TESTS: Was a pump test made? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes by whom? _____ Yield: _____ gpm with _____ ft. drawdown after _____ hrs Bailor test _____ gpm with _____ ft. drawdown after _____ hrs Artesian flow _____ gpm Date _____ Temperature of water _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input type="checkbox"/> No Did any strata contain undesirable water? <input type="checkbox"/> Yes <input type="checkbox"/> No Type of water? _____ depth of strata _____		12) PUMP DATA: Manufacturer's Name _____ Type _____ H.P. _____ Designed pumping rate _____ gpm <input type="checkbox"/> gph <input type="checkbox"/> Type power unit _____ Depth to bowls, cylinder, jet, etc., _____ ft. below land surface.																																																
I hereby 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.																																																		
NAME <u>Wayland Fronterhouse</u> Address <u>R.R. 1</u> (Signed) <u>Wayland Fronterhouse</u> (Water Well Driller)		Water Well Drillers Registration No. <u>2010</u> <u>Delton</u> <u>F.F.D. Drilling Co.</u> (City) (Company Name)																																																
Please attach electric log, chemical analysis, and other pertinent information, if available.																																																		

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
4	1 of 1	W	0.05 / 285.70	ARNOLD PETTIJOHN TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 07/27/1991
Owners Name: ARNOLD PETTIJOHN
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 80
Depth Drilled: 135
Latitude: 31.844659
Longitude: -98.444593

Please use black ink. Send original copy by certified mail to the Texas Water Commission, P.O. Box 13087, Austin, Texas 78711.

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
 P. O. Box 13087
 Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER Arnold Pettijohn (Name) Address P. O. Box 63, Gustine, Texas 76455 (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL: Comanche 1 miles in W direction from Gustine (County) (Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ Legal description: Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☒ See attached map.

3) TYPE OF WORK (Check): ☒ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check): ☒ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply ☐ Irrigation ☐ Test Well ☐ Injection ☐ Other _____

5) DRILLING METHOD (Check): ☐ Driven ☐ Mud Rotary ☐ Air Hammer ☐ Jetted ☐ Bored ☒ Air Rotary ☐ Cable Tool ☐ Other _____

6) WELL LOG:

Date Drilling:	DIAMETER OF HOLE		
	From (ft.)	Surface	To (ft.)
Started <u>7/24/91</u>	11	41	41
Completed <u>7/27/91</u>	81	41	135

7) BOREHOLE COMPLETION: ☐ Open Hole ☐ Straight Wall ☐ Underreamed ☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval ... from 48 ft. to 135 ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)		Casing Screen
						From	To	
0	17	top soil, sand & caliche						
17	21	sandy shale						
21	37	sand and gravel						
37	62	red bed and green shale	8	N	Sch 40		0	41
62	87	sand, sandstone & small gravel	5	N	SDR 17 PVC		0	115
87	127	sand and gravel	5	N	slotted casing		115	135
127	135	red, yellow & green clay						178

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

9) CEMENTING DATA [Rule 319.44(b)]
 Cemented from 0 ft. to 46 ft. No. of Sacks Used 8
 Method used poured
 Cemented by driller

10) SURFACE COMPLETION
☐ Specified Surface Slab Installed [Rule 319.44(c)]
☐ Pitless Adapter Used [Rule 319.44(d)]
☒ Approved Alternative Procedure Used [Rule 319.71]

11) WATER LEVEL:
 Static level 80 ft. below land surface Date 7/27/91
 Artesian flow _____ gpm. Date _____

12) PACKERS: Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☒ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc. _____ ft.
 by others _____

14) WELL TESTS:
 Type Test: ☐ Pump ☐ Boiler ☒ Jetted ☐ Estimated
 Yield: 75 gpm with _____ ft. drawdown after _____ hrs.

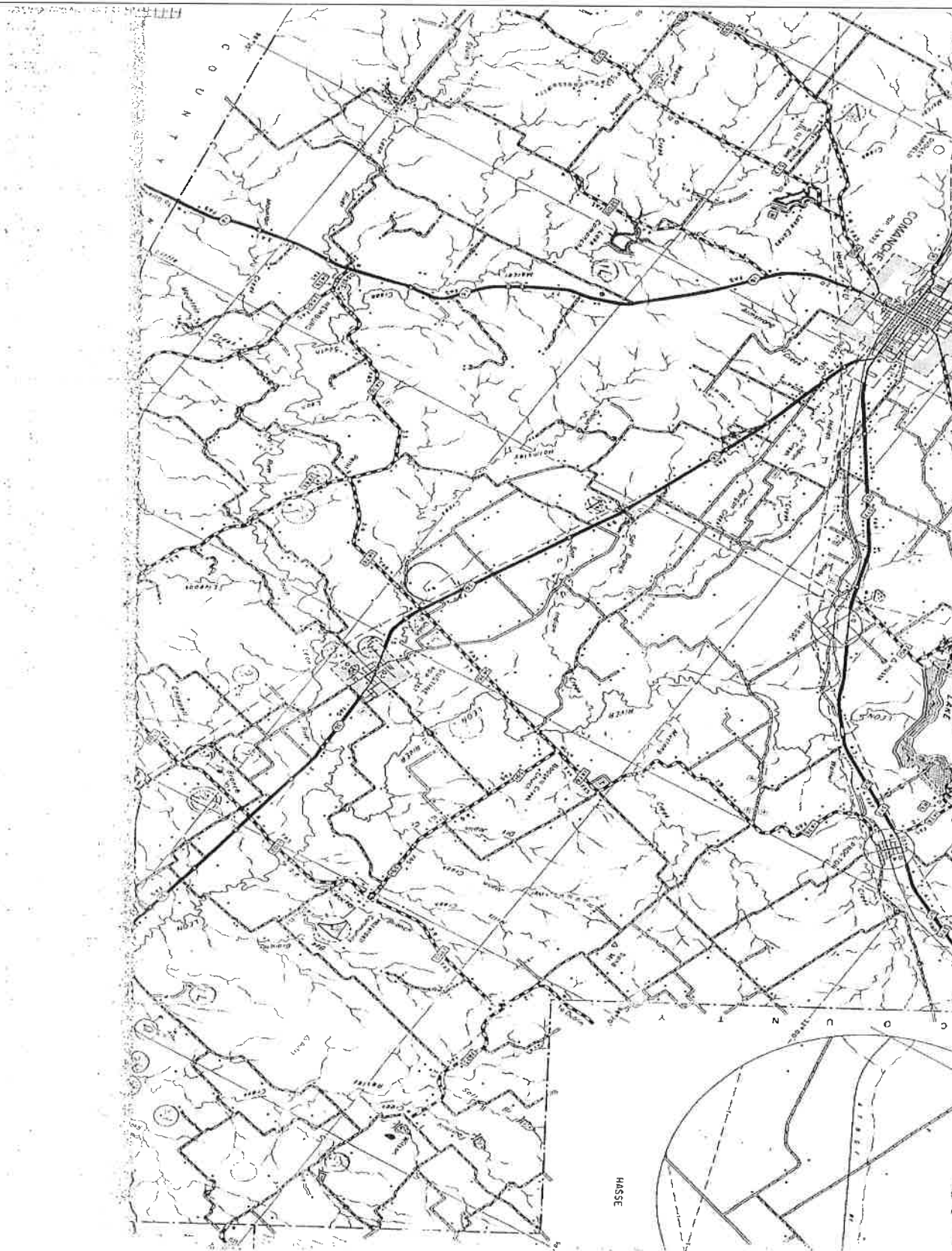
15) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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. I understand that failure to complete items 1 through 12 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Dalton Drilling & Service (Type or Print) Water Well Driller's License No. 860/2850W
 ADDRESS P.O. Box 208, Hamilton, Texas (Street or RFD) (City) (State) (Zip)
 (Signed) Tom Dalton (Licensed Water Well Driller) (Signed) _____ (Registered Driller Trainee)
 Please attach electric log, chemical analysis, and other pertinent information, if available. For TWC use only
 Well No. _____ Located on map 41.13.2

WWD-012 (Rev. 01-28-87)

DRILLER'S COPY



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
5	1 of 1	SSE	0.06 / 290.53	WADE HALL TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 05/31/2000
Owners Name: WADE HALL
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 60
Depth Drilled: 160
Latitude: 31.837209
Longtiude: -98.436761

Send original copy by certified return receipt request to: TDLR, P.O. Box 12157, Austin, TX 78711

ATTENTION OWNER: Confidentiality Privilege Notice on reverse side of Well Owner's copy (pink)		State of Texas WELL REPORT		Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 612-463-7880													
1) OWNER <u>WADE HALL</u> ADDRESS <u>Rt 1 Comanche Tx 76442</u> <small>(Name) (Street or RFD) (City) (State) (Zip)</small>		2) ADDRESS OF WELL'S LOCATION: <u>Rt 1 Comanche Tx 76442</u> <small>County (Street, RFD or other) (City) (State) (Zip) Grid # <u>41-13-21</u></small>															
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No															
5) WELL LOG: Date Drilling: _____ Started <u>5-30-2000</u> Completed <u>5-31-2000</u>		6) DIAMETER OF HOLE <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Dia. (in.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td>178</td> <td>0</td> <td>110</td> </tr> </table>				Dia. (in.)	From (ft.)	To (ft.)	178	0	110						
Dia. (in.)	From (ft.)	To (ft.)															
178	0	110															
7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____		8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval from <u>160</u> ft. to <u>15</u> ft.															
9) CEMENTING DATA Cemented from <u>15</u> ft. to <u>0</u> ft. No. of sacks used <u>3</u> Method used <u>Mixed by hand</u> Cemented by <u>Bobby Davis</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance <u>None</u>																	
10) SURFACE COMPLETION <input type="checkbox"/> Specified Surface Slab Installed <input checked="" type="checkbox"/> Specified Steel Sleeve Installed <input type="checkbox"/> Pileless Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used		11) WATER LEVEL: Static level <u>60</u> ft. below land surface Date <u>5-31-2000</u> Artesian flow _____ gpm Date _____															
12) PACKERS: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Type</th> <th>Depth</th> </tr> <tr> <td colspan="2" style="text-align: center;"><u>None</u></td> </tr> </table>		Type	Depth	<u>None</u>		13) <input type="checkbox"/> Well plugged within 48 hours Casing left in well: _____ Cement/bentonite placed in well: _____ Sacks used: _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td colspan="4" style="text-align: center;"><u>None</u></td> </tr> </table>				From (ft.)	To (ft.)	From (ft.)	To (ft.)	<u>None</u>			
Type	Depth																
<u>None</u>																	
From (ft.)	To (ft.)	From (ft.)	To (ft.)														
<u>None</u>																	
14) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowl, cylinder, jet, etc., _____ ft.		15) WELL TESTS: Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Baker <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Estimated Yield: <u>50</u> gpm with <u>20</u> ft. drawdown after <u>2</u> hrs.															
16) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		I certify that I drilled this well (or the well was drilled under my direct supervision) and that each and all of the statements herein are true and correct. I understand that failure to complete items 1 thru 16 will result in the log(s) being returned for completion and resubmittal.															
COMPANY NAME <u>DAVIS Drilling</u> <small>(Type or print)</small> ADDRESS <u>301 CR 150</u> <small>(Street or RFD)</small> (Signed) <u>Bobby Davis</u> <small>(Licensed Well Driller)</small>		WELL DRILLER'S LICENSE NO. <u>3001WPKC</u> (City) <u>Comanche</u> (State) <u>Tx</u> (Zip) <u>76442</u> (Signed) _____ <small>(Registered Driller Trainee)</small>															

TDLR FORM 001/VWD (4/98)

White - TDLR

Yellow - DRILLER

Pink - WELL OWNER

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
6	1 of 1	NNW	0.08 / 411.08	GAYLAND STEPHENS TX	TCEQ WELL LOGS

Grid No: 41-13-2V
Date Drilled: 11/18/1983
Owners Name: GAYLAND STEPHENS
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 70
Depth Drilled: 140
Latitude: 31.8507646
Longitude: -98.4411868

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
P. O. Box 13087
Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER: Hayward Stephens (Name) Address: Rt. 3, (Street or RFD) Comanche, Texas (City) 76442 (State) 76442 (Zip)

2) LOCATION OF WELL: County Comanche 10 miles in East (N.E., S.W., etc.) direction from Comanche (Town)

☐ Legal description: Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____

☐ See attached map: map 41-14-3T

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored ☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled 11-18-83

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
10"	Surface	140

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☐ Gravel Packed ☐ Other _____
If Gravel Packed give interval from _____ ft. to _____ ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg. if commercial	Setting (ft.)		Casing Screen
						From	To	
0-3		sand	7	N	Plastic	0	140	
3-15		clay & sandy clay						
15-25		sandy clay & sand						
25-45		yellow clay						
45-70		red clay						
70-80		sand stone						
80-100		red & blue clay						
100-132		sand & gravel						
132-140		yellow shell						

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

CEMENTING DATA
Cemented from _____ ft. to _____ ft.
Method used _____
Cemented by _____ (Company or Individual)

9) WATER LEVEL:
Static level 70 ft. below land surface Date 11-18-83
Artesian flow _____ gpm. Date _____

10) PACKERS: Type _____ Depth _____

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☐ Bailor ☐ Jetted ☒ Estimated
Yield: 50 gpm with _____ ft. drawdown after _____ hrs.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☐ No

I hereby 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.

COMPANY NAME Saunders Drig. (Type or Print) Water Well Driller's License No. 977

ADDRESS Box 691 (Street or RFD) Comanche, (City) TXAS (State) 76442 (Zip)

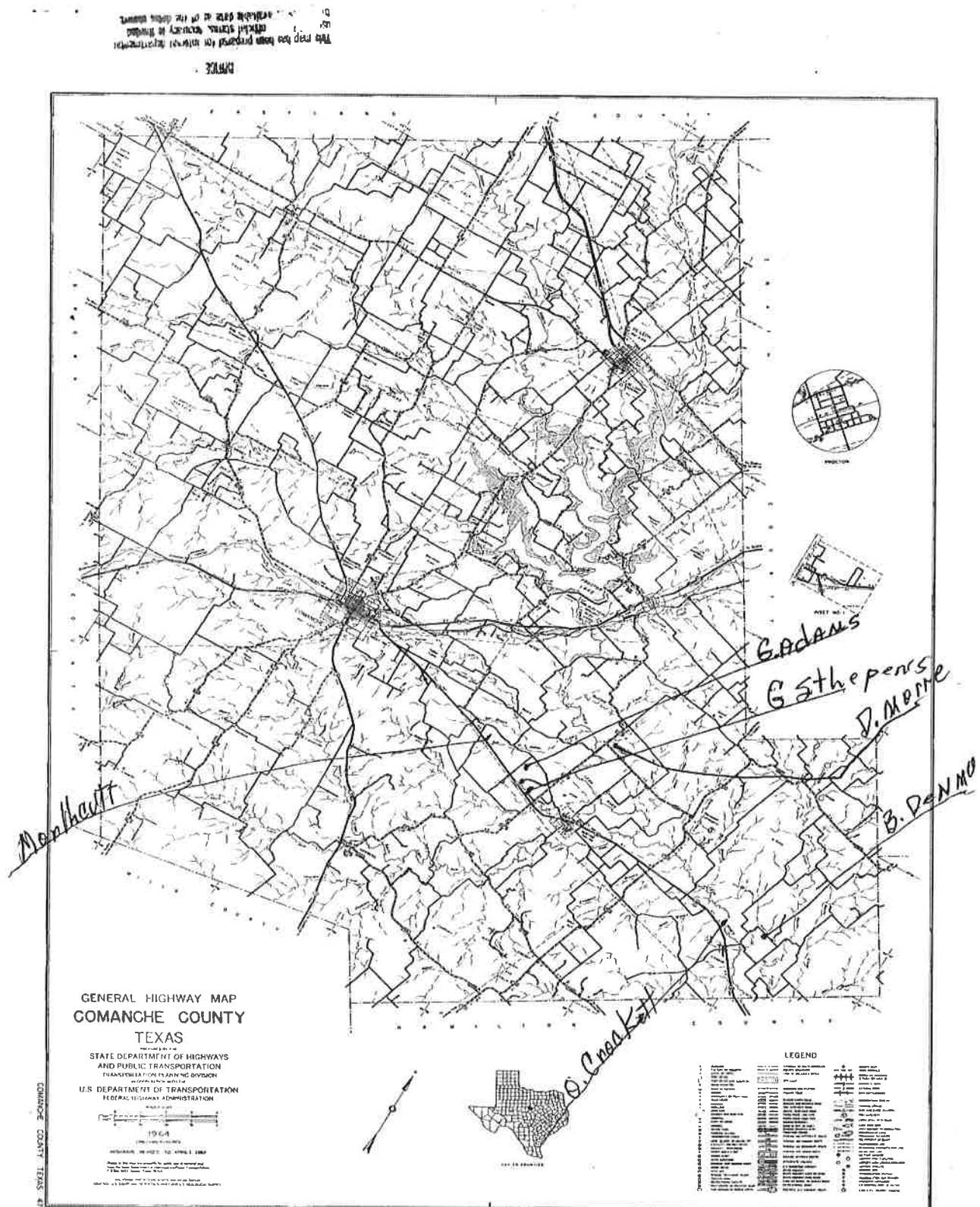
(Signed) J. Saunders (Licensed Water Well Driller) (Signed) _____ (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TDWR use only
Well No. 41-13-2V
Located on map 105-C-63

TDWR-0392 (Rev. 5-27-82)

DEPARTMENT OF WATER RESOURCES COPY



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
7	1 of 4	NE	0.19 / 984.82	GAYLON STEPHINS TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 05/14/2001
Owners Name: GAYLON STEPHINS
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 65
Depth Drilled: 130
Latitude:
Longitude:

Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.		Texas Department of License and Regulation Water Well Driller/Pump Installer Program P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616 Toll free (800)803-9202 Email address: water.well@license.state.tx.us		This form must be completed and filed with the department and owner within 60 days upon completion of the well.															
WELL REPORT																			
A. WELL IDENTIFICATION AND LOCATION DATA																			
1) OWNER																			
Name <u>GAYLON STEPHENS</u>		Address <u>4180 C.R. 304</u>		City <u>COMANCHE</u>	State <u>TX</u> Zip <u>76442</u>														
2) WELL LOCATION																			
County <u>COMANCHE</u>		Physical Address <u>NORTH ON FM 1476, 0.1 miles from Hwy 34</u>		City	State Zip														
3) Type of Work <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Reconditioning <input type="checkbox"/> Replacement <input type="checkbox"/> Deepening		4) Proposed Use (check) <input type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> Rig Supply If Public Supply well, were plans submitted? <input type="checkbox"/> Yes <input type="checkbox"/> No		5) <u>NT</u>															
6) Drilling Date Started <u>5/14/01</u> Completed <u>5/14/01</u>		Diameter of Hole <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Dia. (in.)</th> <th>From (ft)</th> <th>To (ft)</th> </tr> <tr> <td><u>8 3/4</u></td> <td><u>0</u></td> <td><u>130</u></td> </tr> </table>		Dia. (in.)	From (ft)	To (ft)	<u>8 3/4</u>	<u>0</u>	<u>130</u>	7) Drilling Method (check) <input type="checkbox"/> Driven <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____									
Dia. (in.)	From (ft)	To (ft)																	
<u>8 3/4</u>	<u>0</u>	<u>130</u>																	
From (ft) To (ft) Description and color of formation material		8) Borehole Completion <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Under-reamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give the interval from <u>15</u> ft. to <u>130</u> ft.																	
		Casing, Blank Pipe, and Well Screen Data																	
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="2">Dia. (in.)</th> <th rowspan="2">New Or Used</th> <th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial</th> <th colspan="2">Setting (ft)</th> <th rowspan="2">Gage Casing Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> <tr> <td><u>1 1/2</u></td> <td><u>N</u></td> <td><u>PISTON SLOTTED</u></td> <td><u>90</u></td> <td><u>130</u></td> <td><u>8</u></td> </tr> </table>				Dia. (in.)	New Or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft)		Gage Casing Screen	From	To	<u>1 1/2</u>	<u>N</u>	<u>PISTON SLOTTED</u>	<u>90</u>	<u>130</u>	<u>8</u>
Dia. (in.)	New Or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft)		Gage Casing Screen														
			From	To															
<u>1 1/2</u>	<u>N</u>	<u>PISTON SLOTTED</u>	<u>90</u>	<u>130</u>	<u>8</u>														
		9) Cementing Data Cementing from <u>0</u> ft. to <u>15</u> ft. # of sacks used <u>6</u> Method Used <u>PUMP</u> Cementing By <u>F&F Drilling</u> Distance to septic system field or other concentrated contamination _____ ft. Method of verification of above distance _____																	
13) Plugged <input type="checkbox"/> Well plugged within 48 hours Casing left in well: Cement/Bentonite placed in well:		10) Surface Completion <input type="checkbox"/> Specified Surface Slab Installed <input checked="" type="checkbox"/> Specified Surface Sleeve Installed <u>6'-10" STEEL</u> <input type="checkbox"/> Pileless Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used																	
From (ft) To (ft) From (ft) To (ft) Sacks used		11) Water Level Static level <u>6.5</u> ft. below Date <u>5/14/01</u> Artesian Flow _____ gpm Date _____																	
14) Type Pump <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet etc. _____ ft.		12) Packers <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>FILE ID</th> <th>Type</th> <th>Depth</th> </tr> <tr> <td><u>NO PAIL 1 9 2001</u></td> <td></td> <td></td> </tr> </table>				FILE ID	Type	Depth	<u>NO PAIL 1 9 2001</u>										
FILE ID	Type	Depth																	
<u>NO PAIL 1 9 2001</u>																			
15) Water Test Type test <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Estimated Yield: <u>20</u> gpm with _____ ft. drawdown after _____ hrs.		16) Water Quality Did you knowingly penetrate a strata which contain undesirable constituents. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, did you submit a REPORT OF UNDESIRABLE WATER Type of water _____ Depth of Strata _____ Was a chemical analysis made <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																	
Company or individual's Name (type or print) <u>F&F Drilling</u>		Lic. No. <u>231700PK</u>																	
Address <u>RT1 Box 34</u>		City <u>De Leon</u> State <u>TX</u> Zip <u>76444</u>																	
Signature <u>[Signature]</u> Date <u>5/14/01</u>		Signature _____ Date _____																	

TDLR FORM b001WWD

White - TDLR Yellow - Owner Pink - Driller/Pump Installer

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
7	2 of 4	NE	0.19 / 984.82	GENE LUKER TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 08/25/1990
Owners Name: GENE LUKER
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 75
Depth Drilled: 147
Latitude:
Longitude:

Send original copy by certified mail to: Texas Water Commission, P.O. Box 13087, Austin, Texas 78711 Please use black ink.

ATTENTION OWNER: Confidentially **Texas Water Well Drillers Board**
Privilege Notice on Reverse Side **P.O. Box 13087**
Austin, Texas 78711

State of Texas
WELL REPORT

1) OWNER Gene Luker ADDRESS P. O. Box 95 Gustine Texas
 (Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL:
 County Comanche miles in _____ direction from _____
 (NE, SW, etc.) (Town)

Driller must complete the legal description below with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ LEGAL DESCRIPTION:
 Section No. _____ Block No. _____ Township _____ Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____
☒ SEE ATTACHED MAP

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Injection ☐ De-Watering

5) DRILLING METHOD (Check): ☐ Driven
☐ Mud Rotary ☐ Air Hammer ☐ Jetted ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Other _____

6) WELL LOG:
 Date Drilling: 8/22/1990
 Started 8/22/1990
 Completed 8/25/1990

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
7 7/8	Surface	147

7) BOREHOLE COMPLETION:
☐ Open Hole ☒ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval ... from 0 ft. to 147 ft.

From (ft.)	To (ft.)	Description and color of formation material
0	5	Brown sand & sandy shale
5	8	Red Bed
8	20	Red Sandy shale
20	25	Brown sand rock
25	50	Water sand
50	65	Brown sand rock & clay
65	75	Red Bed
75	88	Grey shale
88	over	Water sand

(Use reverse side if necessary)

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial	Setting (ft.)		Gage Casing Screen
			From	To	
5	new	Pvc 160	0	147	.214
5	new	Pvc 160	77	87	.214
5	new	Pvc 160	127	147	.214
		Perf. 7/32			

9) CEMENTING DATA [Rule 287.44(1)]
 Cemented from 0 ft. to 30 ft. No. of Sacks Used 6
 Method used pour
 Cemented by Harris Drilling Co., Inc.

10) SURFACE COMPLETION
☐ Specified Surface Slab Installed [Rule 287.44(2)(A)]
☒ Specified Steel Sleeve Installed [Rule 287.44(3)(A)]
☐ Pileless Adapter Used [Rule 287.44(3)(B)]
☐ Approved Alternative Procedure Used [Rule 287.71]

11) WATER LEVEL:
 Static level 75 ft. below land surface Date 8/25/90
 Artesian flow _____ gpm. Date _____

12) PACKERS: Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

14) WELL TESTS: compressor
 Type Test: ☐ Pump ☐ Baller ☐ Jetted ☐ Estimated
 Yield: 15 gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable constituents?
☐ Yes ☒ No If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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. I understand that failure to complete items 1 thru 15 will result in the well being returned for completion and resubmittal.

COMPANY NAME Harris Drilling Co., Inc. WELL DRILLER'S LICENSE NO. 327
 (Type or print)

ADDRESS Rt. 3 TEXAS WATER WELL DRILLERS BOARD Comanche Texas 76442
 (Street or RFD) (City) (State) (Zip)

(Signed) Billy Harris (Signed) _____
 (Licensed Well Driller) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available. For TWC use only: Well No. 41-3-2 Located on map _____

WWD-012 (Rev. 05-18-90)

TEXAS WATER COMMISSION COPY

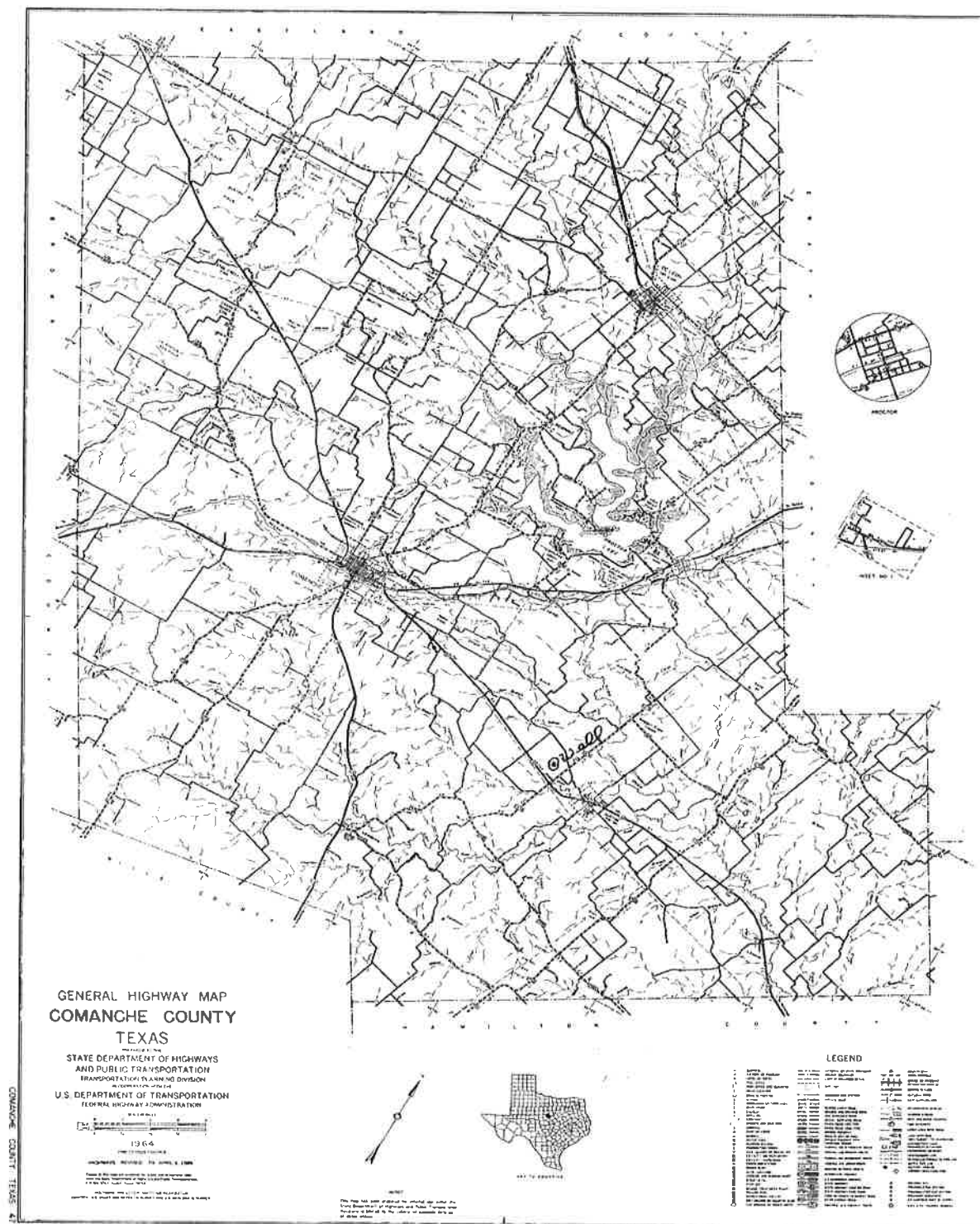
**IMPORTANT NOTICE FOR PERSONS
HAVING WELLS DRILLED CONCERNING
PRIVILEGE OF CONFIDENTIALITY**

The Water Well Drillers Board and the Texas Water Commission are concerned that some persons having wells drilled may not be aware of the confidentiality privilege provision of Section 5 of the Water Well Drillers Act. Section 5, the Reporting of Well Logs, reads as follows:

"Every licensed water well driller drilling, deepening or otherwise altering a water well within this State shall make and keep, or cause to be made and kept, a legible and accurate well log, and within 60 days from the completion or cessation of drilling, deepening or otherwise altering such a water well, shall deliver or transmit by certified mail a copy of such well log to the Commission, and the owner thereof or the person having had such well drilled. Each copy of a well log, other than a Commission copy, shall include the name, mailing address, and telephone number of the Board and the Commission. The well log required herein shall at the request in writing to the Commission, by certified mail, by the owner or the person having such well drilled be held as confidential matter and not made of public record."

The last sentence specifies the means whereby you can, if you wish, assure that logs of your wells will be kept confidential.

[illegible]



Bene Lusher

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
7	3 of 4	NE	0.19 / 984.82	GAYLON STEPHINS TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 05/15/2001
Owners Name: GAYLON STEPHINS
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 75
Depth Drilled: 130
Latitude:
Longitude:

Attention Owner: Confidentiality Privilege Notice on reverse side of owner's copy.		Texas Department of License and Regulation Water Well Driller/Pump Installer Program P.O. Box 12157 Austin, Texas 78711 (512)463-7880 FAX (512)463-8616 Toll free (800)803-9202 Email address: water.well@license.state.tx.us				This form must be completed and filed with the department and owner within 60 days upon completion of the well.	
WELL REPORT							
A. WELL IDENTIFICATION AND LOCATION DATA							
1) OWNER							
Name <u>GAYLON STEPHENS</u>		Address <u>4180 C.R. 304</u>		City <u>COMANCHE</u>		State <u>TX</u>	
						Zip <u>76442</u>	
2) WELL LOCATION							
County <u>COMANCHE</u>		Physical Address <u>NORTH ON FR. 1476</u>		City <u>0.1 miles FROM HWY</u>		State <u>36</u>	
						Zip <u></u>	
3) Type of Work							
<input checked="" type="checkbox"/> New Well <input type="checkbox"/> Reconditioning <input type="checkbox"/> Replacement <input type="checkbox"/> Deepening		4) Proposed Use (check) <input type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell <input type="checkbox"/> Rig Supply If Public Supply well, were plans submitted? <input type="checkbox"/> Yes <input type="checkbox"/> No					
5) Drilling Date		6) Drilling Method (check)					
Started <u>5/18/01</u>		<input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____					
Completed <u>5/18/01</u>							
7) Drilling Method (check)							
<input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____							
8) Borehole Completion <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall							
<input type="checkbox"/> Under-reamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give the interval from <u>15</u> ft. to <u>135</u> ft.							
Casing, Blank Pipe, and Well Screen Data							
Dia. (in.)		New Or Used		Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg. if commercial		Setting (ft) From To	
6"		N		PMSIL SLOTTED		95 135 1/8	
9) Cementing Data							
Cementing from <u>0</u> ft. to <u>15</u> ft. # of sacks used <u>4</u>							
Cementing by <u>EDF Drilling</u> # of sacks used _____							
Distance to septic system field or other concentrated contamination _____ ft.							
Method of verification of above distance _____							
10) Surface Completion							
<input type="checkbox"/> Specified Surface Slab Installed <input checked="" type="checkbox"/> Specified Surface Sleeve Installed <u>3'-10" STEEL</u> <input type="checkbox"/> Pileless Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used							
11) Water Level							
Static level <u>25</u> ft. below Date <u>5/15/01</u>							
Artesian Flow _____ gpm. Date <u>1/1</u>							
12) Packers							
Type _____ Depth _____ EMPA 1000 JUL 18 2001 COSENT Lic. No. <u>2312 WPK</u> State <u>Td</u> Zip <u>76444</u>							
13) Plugged <input type="checkbox"/> Well plugged within 48 hours							
Casing left in well: Cement/Bentonite placed in well:							
From (ft)		To (ft)		From (ft)		To (ft)	
						Sacks used	
14) Type Pump							
<input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____							
Depth to pump bowls, cylinder, jet etc., _____ ft.							
15) Water Test							
Type test <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Estimated							
Yield: <u>70</u> gpm with _____ ft. drawdown after _____ hrs.							
16) Water Quality							
Did you knowingly penetrate a strata which contain undesirable constituents.							
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, did you submit a REPORT OF UNDESIRABLE WATER							
Type of water _____ Depth of Strata _____							
Was a chemical analysis made <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Company or individual's Name (type or print) <u>EdF Drilling</u>							
Address <u>Rt 1 Box 36</u>		City <u>Delco</u>		State <u>Td</u>		Zip <u>76444</u>	
Signature <u>[Signature]</u>		Date <u>5/15/01</u>		Signature <u>[Signature]</u>		Date <u>1/1</u>	
Licensed Driller/Pump Installer		Date		Apprentice		Date	

TDLR FORM 0001 WWD

White - TDLR

Yellow - Owner

Pink - Driller/Pump Installer

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
7	4 of 4	NE	0.19 / 984.82	Gayland Stephens TX	SDRW WELLS

Track NO: 336895
Date Submitted: 2013-08-20
Owner Name: Gayland Stephens
Owner Address: 7178 FM 1476
Owner Address2:
Owner City: Gustine
Owner State: TX
Owner Zip: 76445
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 31.849445
Longitude: -98.434167
Drilling Date Started: 2013-07-22
Drilling Date Completed: 2013-07-22
Chemical Analysis: No
Company Name: F&F Drilling
Company Address: 301 Hwy 2921
CompanyAddress2:
Company City: DeLeon
Company State: TX
Company Zip: 76444
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=336895&Type=SDR-Well>

Well Borehole Information

Top Depth:
Bottom Depth: 150.0

Top Depth: 0
Bottom Depth: 150

Well Levels

Measurement: 91
Measurement Date: 2013-07-22

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
8	1 of 3	SW	0.19 / 988.56	ROBERT MURPHY TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 06/12/2000
Owners Name: ROBERT MURPHY
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 48
Depth Drilled: 130
Latitude:
Longitude:

Send original copy by certified return receipt request to: TDLR, P.O. Box 12157, Austin, TX 78711

ATTENTION OWNER: Confidentiality Privilege Notice on reverse side of Well Owner's copy (pink)		State of Texas WELL REPORT		Texas Department of Licensing & Regulation P.O. Box 12157 Austin, TX 78711 612-463-7880																																								
1) OWNER <u>Robert Murphy</u> ADDRESS <u>P.O. Box 639 Comanche TX 76842</u> <small>(Name) (Street/RFD) (City) (State) (Zip)</small>																																												
2) ADDRESS OF WELL'S LOCATION: County <u>Comanche</u> <u>SAME AS ABOVE</u> <small>(Street, RFD or other) (City) (State) (Zip) Grid # <u>H-13-2</u></small>																																												
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No		5)																																								
6) WELL LOG: Date Drilling: _____ Started <u>6-12-2000</u> Completed <u>6-12-2000</u>		DIAMETER OF HOLE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Dia. (in.)</th> <th style="width: 33%;">From (ft.)</th> <th style="width: 33%;">To (ft.)</th> </tr> <tr> <td><u>7 1/8</u></td> <td>Surface</td> <td><u>130</u></td> </tr> </table>		Dia. (in.)	From (ft.)	To (ft.)	<u>7 1/8</u>	Surface	<u>130</u>	7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input checked="" type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____																																		
Dia. (in.)	From (ft.)	To (ft.)																																										
<u>7 1/8</u>	Surface	<u>130</u>																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">From (ft.)</th> <th style="width: 15%;">To (ft.)</th> <th style="width: 70%;">Description and color of formation material</th> </tr> </thead> <tbody> <tr><td><u>0</u></td><td><u>5</u></td><td><u>red sandy clay</u></td></tr> <tr><td><u>5</u></td><td><u>14</u></td><td><u>yellow calcareous clay</u></td></tr> <tr><td><u>14</u></td><td><u>31</u></td><td><u>red / white shale</u></td></tr> <tr><td><u>31</u></td><td><u>40</u></td><td><u>sandy shale</u></td></tr> <tr><td><u>40</u></td><td><u>47</u></td><td><u>sand</u></td></tr> <tr><td><u>47</u></td><td><u>49</u></td><td><u>red shale</u></td></tr> <tr><td><u>49</u></td><td><u>60</u></td><td><u>gray shale / lime</u></td></tr> <tr><td><u>60</u></td><td><u>77</u></td><td><u>sand</u></td></tr> <tr><td><u>77</u></td><td><u>80</u></td><td><u>red shale</u></td></tr> <tr><td><u>80</u></td><td><u>90</u></td><td><u>blue sand shale</u></td></tr> <tr><td><u>90</u></td><td><u>122</u></td><td><u>sand + 50% mud</u></td></tr> <tr><td><u>122</u></td><td><u>130</u></td><td><u>red / yellow shale</u></td></tr> </tbody> </table> <small>(Use reverse side of Well Owner's copy, if necessary)</small>		From (ft.)	To (ft.)	Description and color of formation material	<u>0</u>	<u>5</u>	<u>red sandy clay</u>	<u>5</u>	<u>14</u>	<u>yellow calcareous clay</u>	<u>14</u>	<u>31</u>	<u>red / white shale</u>	<u>31</u>	<u>40</u>	<u>sandy shale</u>	<u>40</u>	<u>47</u>	<u>sand</u>	<u>47</u>	<u>49</u>	<u>red shale</u>	<u>49</u>	<u>60</u>	<u>gray shale / lime</u>	<u>60</u>	<u>77</u>	<u>sand</u>	<u>77</u>	<u>80</u>	<u>red shale</u>	<u>80</u>	<u>90</u>	<u>blue sand shale</u>	<u>90</u>	<u>122</u>	<u>sand + 50% mud</u>	<u>122</u>	<u>130</u>	<u>red / yellow shale</u>	8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval from _____ ft. to _____ ft.			
From (ft.)	To (ft.)	Description and color of formation material																																										
<u>0</u>	<u>5</u>	<u>red sandy clay</u>																																										
<u>5</u>	<u>14</u>	<u>yellow calcareous clay</u>																																										
<u>14</u>	<u>31</u>	<u>red / white shale</u>																																										
<u>31</u>	<u>40</u>	<u>sandy shale</u>																																										
<u>40</u>	<u>47</u>	<u>sand</u>																																										
<u>47</u>	<u>49</u>	<u>red shale</u>																																										
<u>49</u>	<u>60</u>	<u>gray shale / lime</u>																																										
<u>60</u>	<u>77</u>	<u>sand</u>																																										
<u>77</u>	<u>80</u>	<u>red shale</u>																																										
<u>80</u>	<u>90</u>	<u>blue sand shale</u>																																										
<u>90</u>	<u>122</u>	<u>sand + 50% mud</u>																																										
<u>122</u>	<u>130</u>	<u>red / yellow shale</u>																																										
13) <input type="checkbox"/> Well plugged within 48 hours Casing left in well: _____ Cement/bentonite placed in well: _____ Sacks used: _____ <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">From (ft.)</th> <th style="width: 15%;">To (ft.)</th> <th style="width: 15%;">From (ft.)</th> <th style="width: 15%;">To (ft.)</th> <th style="width: 40%;">Sacks used</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		From (ft.)	To (ft.)	From (ft.)	To (ft.)	Sacks used						CASING, BLANK PIPE, AND WELL SCREEN DATA: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 10%;">Dia. (in.)</th> <th rowspan="2" style="width: 10%;">New or Used</th> <th rowspan="2" style="width: 40%;">Steel, Plastic, etc. Perforated, Slotted, etc. Screen Mfg., if commercial</th> <th colspan="2" style="width: 20%;">Setting (ft.)</th> <th rowspan="2" style="width: 10%;">Gage Casing Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>4 1/2</u></td> <td><u>NEW</u></td> <td><u>APC sch 40</u></td> <td><u>0</u></td> <td><u>100</u></td> <td> </td> </tr> <tr> <td><u>5 1/2</u></td> <td><u>NEW</u></td> <td><u>PVC slotted</u></td> <td><u>100</u></td> <td><u>130</u></td> <td> </td> </tr> </tbody> </table>				Dia. (in.)	New or Used	Steel, Plastic, etc. Perforated, Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casing Screen	From	To	<u>4 1/2</u>	<u>NEW</u>	<u>APC sch 40</u>	<u>0</u>	<u>100</u>		<u>5 1/2</u>	<u>NEW</u>	<u>PVC slotted</u>	<u>100</u>	<u>130</u>										
From (ft.)	To (ft.)	From (ft.)	To (ft.)	Sacks used																																								
Dia. (in.)	New or Used	Steel, Plastic, etc. Perforated, Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casing Screen																																							
			From	To																																								
<u>4 1/2</u>	<u>NEW</u>	<u>APC sch 40</u>	<u>0</u>	<u>100</u>																																								
<u>5 1/2</u>	<u>NEW</u>	<u>PVC slotted</u>	<u>100</u>	<u>130</u>																																								
14) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet, etc., _____ ft.		9) CEMENTING DATA Cemented from <u>0</u> ft. to <u>10</u> ft. No. of sacks used <u>3</u> Method used <u>2 sacks hole plug</u> Cemented by <u>PRILLER</u> Distance to septic system field lines or other concentrated contamination <u>NA</u> Method of verification of above distance <u>POSTURE</u>																																										
15) WELL TESTS: Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Estimated Yield: <u>45</u> gpm with _____ ft. drawdown after _____ hrs.		10) SURFACE COMPLETION <input type="checkbox"/> Specified Surface Slab Installed <input checked="" type="checkbox"/> Specified Steel Sleeve Installed <input type="checkbox"/> Pitless Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used																																										
16) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		11) WATER LEVEL: Static level <u>48</u> ft. below land surface Date <u>6-12-2000</u> Artesian flow _____ gpm. Date _____																																										
12) PACKERS: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Type</th> <th style="width: 40%;">Depth</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> </tbody> </table>		Type	Depth			12) PACKERS:																																						
Type	Depth																																											
I certify that I drilled this well (or the well was drilled under my direct supervision) and that each and all of the statements herein are true and correct. I understand that failure to complete items 1 thru 16 will result in the log(s) being returned for completion and resubmission.																																												
COMPANY NAME <u>JONES DRILLING</u> WELL DRILLER'S LICENSE NO. <u>026204</u> <small>(Type or print)</small>																																												
ADDRESS <u>P.O. Box 697</u> <u>Proctor</u> <u>TX</u> <u>76460</u> <small>(Street/RFD) (City) (State) (Zip)</small>																																												
(Signed) <u>[Signature]</u> (Licensed Well Driller)		(Signed) <u>[Signature]</u> (Registered Driller Trainee)																																										
Please attach electric log, chemical analysis, and other pertinent information, if available.																																												

TDLR FORM 001WWD (4/98)

White - TDLR

Yellow - DRILLER

Pink - WELL OWNER

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
8	2 of 3	SW	0.19 / 988.56	D M JOHNSON TX	TCEQ WELL LOGS

Grid No: 41-13-2C
Date Drilled: 05/25/1967
Owners Name: D M JOHNSON
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 65
Depth Drilled: 130
Latitude:
Longitude:

Send original copy by certified mail to the Texas Water Development Board P. O. Box 12386 Austin, Texas 78711

For TWDB use only Well No. 41-13-2c Located on map 21-2 Received: 6-8-7 Form CW 8 Form CW 9

1) OWNER: Person having well drilled D. M. Dalton Address Gustine, Texas (City) (State) Landowner same

2) LOCATION OF WELL: County Gemache Labor _____ Abstract No. 453 Block No. _____ Survey Jas. Hamilton (Circle as many as are known) miles in _____ direction from _____ (Town) _____

Sketch map of well location with distances from adjacent section or survey lines, and to landmarks, roads, and creeks.

3) TYPE OF WORK (Check): New Well ☒ Deepening ☐ Reconditioning ☐ Plugging ☐ 4) PROPOSED USE (Check): Domestic ☒ Industrial ☐ Municipal ☐ Irrigation ☐ Test Well ☐ Other ☐ 5) TYPE OF WELL (Check): Rotary ☐ Driven ☐ Dug ☐ Cable ☒ Jetted ☐ Bored ☐

6) WELL LOG: Diameter of hole 8 in. Depth drilled 130 ft. Depth of completed well 130 ft. Date drilled 5/25/67 All measurements made from _____ ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material
0	8	top soil & red bed
8	15	caliche
15	27	pack sand
27	31	water sand
31	40	red bed
40	55	brown and blue clay
55	73	red bed
73	82	water sand

(Use reverse side if necessary)

7) COMPLETION (Check): Straight well ☐ Gravel packed ☒ Other ☐ Under reamed ☐ Open hole ☐ 8) WATER LEVEL: Static level 65 ft. below land surface Date _____ Artesian pressure _____ lbs. per square inch Date _____

9) CASING: Type: old ☐ New ☒ Steel ☐ Plastic ☒ Other ☐ Cemented from 0 ft. to 15 ft. 10) SCREEN: Type _____ Perforated ☐ Slotted ☒

Diameter (inches)	Setting		Gage
	From (ft.)	To (ft.)	
5	0	130	

11) WELL TESTS: Was a pump test made? ☐ Yes ☒ No If yes by whom? _____ Yield: _____ gpm with _____ ft. drawdown after _____ hrs Bailor test 20 gpm with _____ ft. drawdown after _____ hrs Artesian flow _____ gpm Date _____ Temperature of water _____ Was a chemical analysis made? ☐ Yes ☒ No Did any strata contain undesirable water? ☐ Yes ☒ No Type of water? _____ depth of strata _____

12) PUMP DATA: Manufacturer's Name _____ Type _____ H.P. _____ Designed pumping rate _____ gpm ☐ gph ☐ Type power unit _____ Depth to bowls, cylinder, jet, etc., _____ ft. below land surface.

I hereby 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.

NAME Joe C. Dalton Water Well Drillers Registration No. 860 Address 115 E. Henry Hamilton Texas (City) (State) (Signed) Joe C. Dalton Dalton Drilling & Service (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
8	3 of 3	SW	0.19 / 988.56	Robert Murphy 451 CR 232 Gustine TX 76455	SDRW WELLS

Track NO: 374677
Date Submitted: 2014-09-14
Owner Name: Robert Murphy
Owner Address: 451 CR 232
Owner Address2:
Owner City: Gustine
Owner State: TX
Owner Zip: 76455
County: Comanche
Type of Work: New Well
Type of Wrk Oth Descr:
Proposed Use: Domestic
Prop Use Oth Descr:
Latitude: 31.839167
Longitude: -98.444722
Drilling Date Started: 2014-07-01
Drilling Date Completed: 2014-07-02
Chemical Analysis: No
Company Name: Harris Drilling Company, Inc.
Company Address: 7651 Hwy 67-377
CompanyAddress2:
Company City: Comanche
Company State: TX
Company Zip: 76442
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=374677&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 141

Top Depth:
Bottom Depth: 141.0

Well Levels

Measurement: 28
Measurement Date: 2014-07-02

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
9	1 of 1	ENE	0.19 / 1,029.09	GAYLAND STEPHENS TX	TCEQ WELL LOGS

Grid No: 41-13-2D
Date Drilled: 11/15/1983
Owners Name: GAYLAND STEPHENS
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 70
Depth Drilled: 140
Latitude:
Longitude:

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
P. O. Box 13087
Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER Hayland Stephens Address Rt. 3 Comanche, Texas 76442
(Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL
County Comanche 19 miles in East direction from Comanche
(N.E., S.W., etc.) (Town)

☐ Legal description:
Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____

☐ See attached map. map on 41-14-37

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Public Supply
☒ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled 11-15-83

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
10"	Surface	140

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval from 0 ft. to 140 ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)		Gage Casing Screen
						From	To	
0 - 3		sand						
3 - 15		Clay + sand + clay						
15 - 25		Sand + clay + sand						
25 - 45		yellow clay						
45 - 70		Red clay						
70 - 80		sand stone						
80 - 98		Red + Blue clay						
98 - 130		sand + gravel						
130 - 140		yellow shell						

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)	Gage Casing Screen
7	n	Plastic	0 - 140	

CEMENTING DATA
Cemented from _____ ft. to _____ ft.
Method used _____
Cemented by _____ (Company or Individual)

9) WATER LEVEL:
Static level 70 ft. below land surface Date 11-15-83
Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☐ Bailer ☐ Jetted ☒ Estimated
Yield: 50 gpm with _____ ft. drawdown after _____ hrs.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☐ No

I hereby 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.

COMPANY NAME Sanders Drig Water Well Driller's License No. 977
(Type or Print)

ADDRESS Box 691 Comanche TEXAS 76442
(Street or RFD) (City) (State) (Zip)

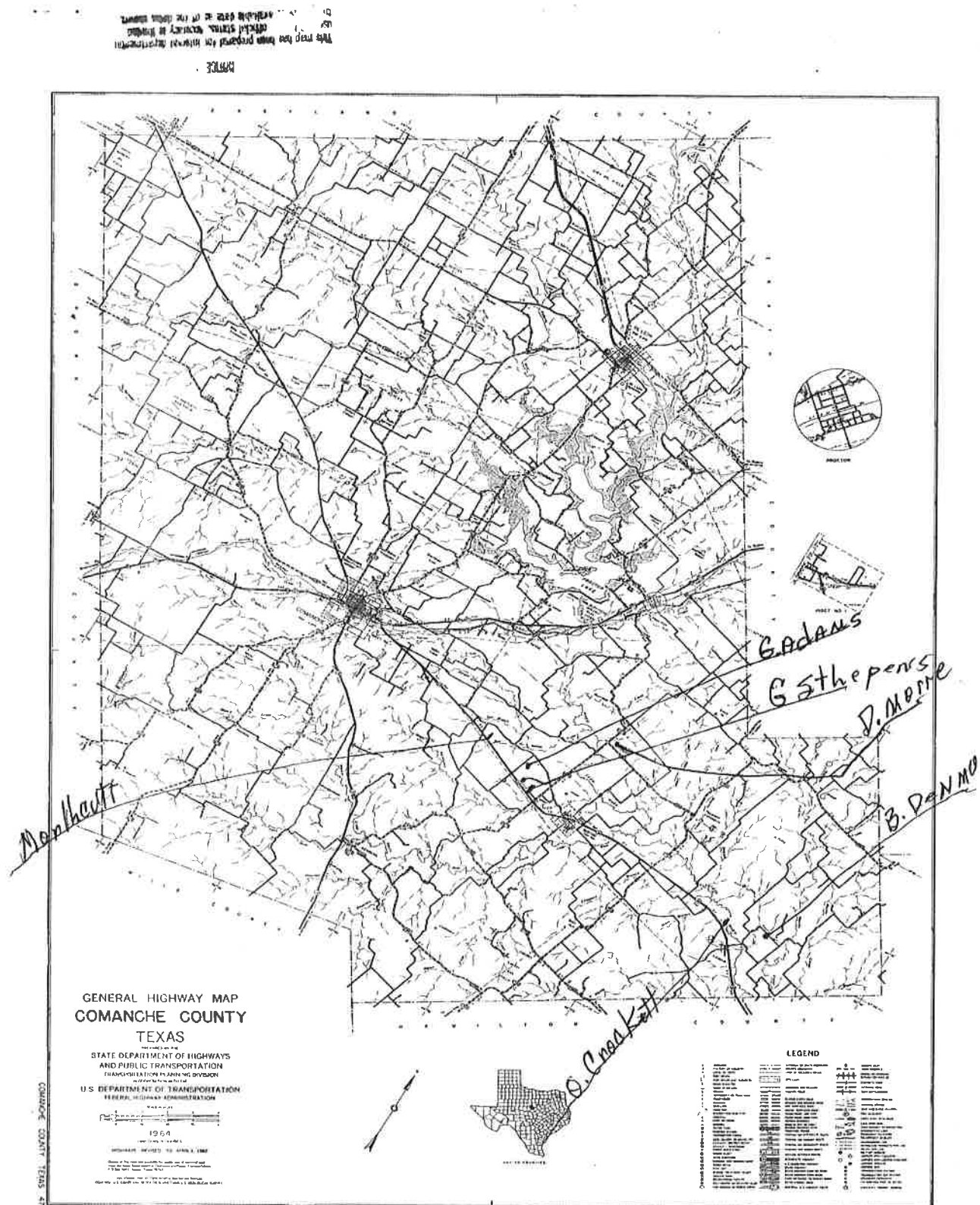
(Signed) J. K. Sanders (Signed) Quo
(Licensed Water Well Driller) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TDWR use only
Well No. 41-14-20
Located on map Yes C.F.S.

TDWR-0392 (Rev. 5-27-82)

DEPARTMENT OF WATER RESOURCES COPY



Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
10	1 of 1	SSW	0.23 / 1,188.75	RUFUS ADCOCK TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 04/22/1999
Owners Name: RUFUS ADCOCK
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 102
Depth Drilled: 125
Latitude:
Longitude:

Send original copy by certified return receipt requested mail TNRCC, MC 177, P.O. Box 13087, Austin, TX 78711-308.

ATTENTION OWNER: Confidentiality <i>Privilege Notice on on reverse side of Well Owner's copy (pink)</i>		State of Texas WELL REPORT		Texas Water Well Drillers Advisory Council MC 177 P.O. Box 13087 Austin, TX 78711-3087 512-239-0530																												
1) OWNER <u>Rufus Adcock</u> ADDRESS <u>4628 Barwick Dr., Ft. Worth, Texas</u> 76132 <small>(Name) (Street or RFD) (City) (State) (Zip)</small>																																
2) ADDRESS OF WELL: County <u>Comanche</u> <u>C R 232</u> GRID # <u>41-13-2</u> <small>(Street, RFD or other) (City) (State) (Zip)</small>																																
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No		5)																												
6) WELL LOG: Date Drilling: <u>4/21/1999</u> Started <u>4/21/1999</u> Completed <u>4/22/1999</u>		DIAMETER OF HOLE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Dia. (in.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td>7 7/8</td> <td>Surface</td> <td>125</td> </tr> </table>		Dia. (in.)	From (ft.)	To (ft.)	7 7/8	Surface	125	7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other _____																						
Dia. (in.)	From (ft.)	To (ft.)																														
7 7/8	Surface	125																														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>Description and color of formation material</th> </tr> <tr><td>0</td><td>5</td><td>Brown & Red Clay</td></tr> <tr><td>5</td><td>18</td><td>Calache</td></tr> <tr><td>18</td><td>32</td><td>Rock Ledges & Seep</td></tr> <tr><td>32</td><td>71</td><td>Red Bed & Rock Ledges</td></tr> <tr><td>71</td><td>85</td><td>Grey Rock Ledges</td></tr> <tr><td>85</td><td>102</td><td>Brown Sandy Shale & Sand</td></tr> <tr><td>102</td><td>120</td><td>Water Sand & Gravel & Rock Ledges</td></tr> <tr><td>120</td><td>125</td><td>Yellow Shale</td></tr> </table>		From (ft.)	To (ft.)	Description and color of formation material	0	5	Brown & Red Clay	5	18	Calache	18	32	Rock Ledges & Seep	32	71	Red Bed & Rock Ledges	71	85	Grey Rock Ledges	85	102	Brown Sandy Shale & Sand	102	120	Water Sand & Gravel & Rock Ledges	120	125	Yellow Shale	8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval from <u>35</u> ft. to <u>125</u> ft.			
From (ft.)	To (ft.)	Description and color of formation material																														
0	5	Brown & Red Clay																														
5	18	Calache																														
18	32	Rock Ledges & Seep																														
32	71	Red Bed & Rock Ledges																														
71	85	Grey Rock Ledges																														
85	102	Brown Sandy Shale & Sand																														
102	120	Water Sand & Gravel & Rock Ledges																														
120	125	Yellow Shale																														
		CASING, BLANK PIPE, AND WELL SCREEN DATA: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Dia. (in.)</th> <th rowspan="2">New or Used</th> <th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial</th> <th colspan="2">Setting (ft.)</th> <th rowspan="2">Gage Casing Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> <tr> <td>5</td> <td>new</td> <td>Pvc. Sch 40</td> <td>0</td> <td>125</td> <td>258</td> </tr> <tr> <td>5</td> <td>new</td> <td>Pvc. Sch 40 Perf. 3/16</td> <td>105</td> <td>125</td> <td>258</td> </tr> </table>				Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial	Setting (ft.)		Gage Casing Screen	From	To	5	new	Pvc. Sch 40	0	125	258	5	new	Pvc. Sch 40 Perf. 3/16	105	125	258							
Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial	Setting (ft.)		Gage Casing Screen																											
			From	To																												
5	new	Pvc. Sch 40	0	125	258																											
5	new	Pvc. Sch 40 Perf. 3/16	105	125	258																											
		9) CEMENTING DATA (Rule 338.44(1)) Cemented from <u>0</u> ft. to <u>35</u> ft. No. of sacks used <u>10</u> Method used <u>pump</u> ft. to _____ ft. No. of sacks used _____ Cemented by <u>Harris Drilling Co., Inc.</u> Distance to septic system field lines or other concentrated contamination <u>n/a</u> ft. Method of verification of above distance _____																														
13) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet, etc., _____ ft.		10) SURFACE COMPLETION <input type="checkbox"/> Specified Surface Slab Installed (Rule 338.44(2)(A)) <input checked="" type="checkbox"/> Specified Steel Sleeve Installed (Rule 338.44(3)(A)) <input type="checkbox"/> Pitless Adapter Used (Rule 338.44(3)(b)) <input type="checkbox"/> Approved Alternative Procedure Used (Rule 338.71)																														
14) WELL TESTS: Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield: <u>25</u> gpm with _____ ft. drawdown after _____ hrs.		11) WATER LEVEL: Static level <u>102</u> Empty below land surface Date <u>4/22/99</u> Artesian flow _____ <u>JUN 17 1999</u> DESC CO																														
15) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12) PACKERS: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>COMMENT</th> <th>Type</th> <th>Depth</th> </tr> <tr> <td></td> <td></td> <td>GB</td> </tr> </table>				COMMENT	Type	Depth			GB																					
COMMENT	Type	Depth																														
		GB																														
I hereby 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. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.																																
COMPANY NAME <u>Harris Drilling Co., Inc.</u> WELL DRILLER'S LICENSE NO. <u>327</u> <small>(Type or print)</small>																																
ADDRESS <u>Rt. 3</u> <u>Comanche</u> <u>Texas</u> <u>76442</u> <small>(Street or RFD) (City) (State) (Zip)</small>																																
(Signed) <u>Billy Harris</u> (Signed) _____ <small>(Licensed Well Driller) (Registered Driller Trainee)</small>																																
Please attach electric log, chemical analysis, and other pertinent information, if available.																																

TNRCC-0199 (Rev. 05-21-96)

White - TNRCC

Yellow - DRILLER

Pink - WELL OWNER

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
11	1 of 1	NW	0.25 / 1,296.90	JACK STEELE TX	TCEQ WELL LOGS

Grid No: 41-13-2V
Date Drilled: 08/03/1977
Owners Name: JACK STEELE
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 38
Depth Drilled: 65
Latitude:
Longitude:

Send original copy by certified mail to the Texas Water Development Board, P. O. Box 13087, Austin, Texas 78711

State of Texas
 WATER WELL REPORT

For TWDB use only
 Well No. 47-13-2A
 Located on map, etc.
 Received: 7/81

1) OWNER: Person having well drilled Jack Steele Address Gustine, Texas
 (Name) (Street or RFD) (City) (State)
 Landowner Same Address Same
 (Name) (Street or RFD) (City) (State)

2) LOCATION OF WELL: County Comanche miles in 14.76 direction from (N.E., S.W., etc.) (Town)
 Locate by sketch map showing landmarks, roads, creeks, highway number, etc.*
 (Use reverse side if necessary)

3) TYPE OF WORK (Check):
 New Well ☒ Deepening
 Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
 Domestic ☒ Industrial
 Irrigation ☐ Test Well ☐ Other ☐ Municipal ☐

5) TYPE OF WELL (Check):
 Rotary ☒ Driven ☐ Dug
 Cable ☐ Jetted ☐ Bored ☐

6) WELL LOG: Diameter of hole 6 3/4 in. Depth drilled 65 ft. Depth of completed well 65 ft. Date drilled 8/3/77
 All measurements made from 0 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material
0	4	Sand Dry
4	10	Sandy Clay
10	20	Dry Sand
20	28	Grey Shale
28	32	Rock
32	38	Grey Sandy Shale
38	40	Sand Water
40	42	Rock
42	45	Yellow Clay
45	64	Water Sand, Rock & Blue Shale
64	65	Red Bed

9) CASING: Type: Old ☐ New ☒ Steel ☐ Plastic ☒ Other ☐
 Cemented from 0 ft. to 30 ft.
 Diameter (inches) 4 Setting From (ft.) 0 To (ft.) 65 Gage .200 wall

10) SCREEN: Type .200 wall Plastic
 Perforated ☒ Slotted ☐
 Diameter (inches) 4 Setting From (ft.) 35 To (ft.) 65 Slot Size 7/32

7) COMPLETION (Check):
 Straight wall ☒ Gravel packed ☒ Other ☐
 Under reamed ☐ Open Hole ☐

8) WATER LEVEL: Static level 38 ft. below land surface, Date 8/3/77
 Artesian pressure lbs. per square inch Date
 Depth to pump bowls, cylinder, jet, etc., ft. below land surface.

11) WELL TESTS:
 Was a pump test made? Yes ☐ No ☒ If yes, by whom?
 Yield: 10 gpm with ft. drawdown after hrs.
 Bailer test gpm with ft. drawdown after hrs.
 Artesian flow gpm
 Temperature of water

12) WATER QUALITY:
 Was a chemical analysis made? Yes ☐ No ☒
 Did any strata contain undesirable water? Yes ☐ No ☒
 Type of water? depth of strata

I hereby 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.

NAME Billy Harris Water Well Drillers Registration No. 327
 (Type or Print)
 ADDRESS Rt. 3 (City) Comanche, Texas (State)
 (Signed) Billy Harris (Water Well Driller) Harris Drilling Co. (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

*Additional instructions on reverse side.

TWDB-1004

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
12	1 of 1	SE	0.26 / 1,394.85	JAMES WILSON TX	TCEQ WELL LOGS

Grid No: 41-13-2R
Date Drilled: 05/25/1981
Owners Name: JAMES WILSON
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 107
Depth Drilled: 128
Latitude:
Longitude:

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TDWR use only
 Well No. 41-13-2R
 Located on map YES
 Received: C.E.S.

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER James Wilson Address Comanche, Texas
 (Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL:
 County Comanche miles in _____ direction from _____
 (N., E., S., W., etc.) (Town)

☐ Legal description:
 Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☐ See attached map.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
 Date drilled 5/25/81

DIAMETER OF HOLE		Description and color of formation material
From (ft.)	To (ft.)	
0	2	Brown Clay
2	8	Black Clay
8	10	Brown Clay
10	13	Sandy Clay
13	28	Dry Sand
28	35	Grey Sandy Shale
35	75	Red Bed
75	90	Rock
90	107	Rock & Red Bed
107	123	Water Sand & Gravel
123	128	Yellow Shale

7) BOREHOLE COMPLETION:
☐ Open Hole ☒ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval ... from 0 ft. to 128 ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfr., if commercial	Setting (ft.)		Gage Casing Screen
			From	To	
4	New	plastic, .200 wall perforated 7/32	0	128	200

CEMENTING DATA
 Cemented from 30 ft. to 70 ft.
 Method used _____
 Cemented by Harris Drilling Co.
 (Company or individual)

9) WATER LEVEL:
 Static level 107 ft. below land surface Date 5/25/81
 Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☐ Bailor ☐ Jetted ☒ Estimated
 Yield: 20 gpm with _____ ft. drawdown after _____ hrs.

13) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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.

NAME Billy Harris Water Well Drillers Registration No. 327
 (Type or Print)

ADDRESS Rt. 3, Comanche, Texas
 (Street or RFD) (City) (State) (Zip)

(Signed) Billy Harris Harris Drilling Co.
 (Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TDWR-0392 (Rev. 1-12-79)

DEPARTMENT OF WATER RESOURCES COPY

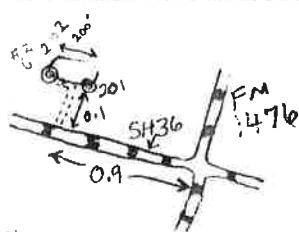
<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
13	1 of 2	NNW	0.28 / 1,498.78	Chester Evans TX	GWDB
Well Rep Track No: State Well No: 4113201 Owner Name: Chester Evans Drilling Start Dt: Drilling Month: Drilling Day: Drilling Year: 1955 Well Depth: 160 Well Usage: Unused Water Level Status: Latitude: 31.8527780 Longitude: -98.4447220 Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=4113201&Type=GWDB Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=4113201&Cnty=Comanche					

CASTING & BLANK PIPE			
Cemented From		ft. to	
Diam. (in.)	Type	Setting, ft.	
		From	to
5	OD	surf	

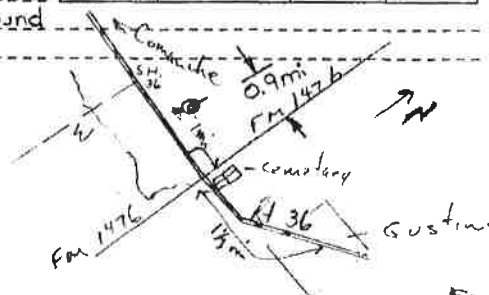
11. Water Level: 35.52 ft. - 2-2-1965 above surface.
35.99 ft. 14 Apr. 1966 below surface.
35.43 ft. 3-15-1967 below surface.
ft. 19 1967 above surface.
rept. 19 1967 below surface.
12. User: Dan., Stork, Public Supply, Ind. (irr.) Waterflooding, Observation (Not Used) ~~covered~~ (cleaned out & used in 1967 & 1968)
13. Quality: (Remarks on taste, odor, color, etc.)
- Temp. 69 °F, Date sampled for analysis 9-19-72 Laboratory TSDH
- 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, ~~Flow Test~~
15. Record by: D. Thompson Date 7-2-1965
Source of Data Mr. Evans
16. Remarks:
See USGS 1959 schedule
good obs. well
Well is on tank levee which makes
Top of Csg. 3.0' above natural ground
- | Screen Opening | | | |
|----------------|------|--------------|------|
| Diam.
(in.) | Type | Setting, ft. | |
| | | from | to |
| 5 | OD | 120' | 155' |
| | | | |
| | | | |

[illegible]

Obs We 77



(Sketch)



۵۵

5 41-13-201 ✓

Typewrite (Black ribbon) or Print Plain
(soft pencil or black ink)-
Do not use ball point pen

Texas State Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TWDB USE ONLY	
Program No.	425
Proj. No.	

CHEMICAL WATER ANALYSIS REPORT

Send report to:

Ground Water Data and Protection Division

Texas Water Development Board
P.O. Box 13087
Austin, Texas 78711

County 04 Comanche
State Well No. (4) 1-13-201
Well No. 09-19-72
Date Collected 09-19-72
By RL Nordstrom

Location 2 mi. NORTH-WEST OF GUSTINE

Source (type of well) Elec - Subm. Owner Chester Evans

Date Drilled 1955 Depth 160 ft. WBF HOUSTON

Producing Intervals 120-155 Water level 30.51 ft. (5-17-70)

Sampled after pumping 2 days Yield 30 GPM THREE Temperature 66.9 °F 0 °C

Point of collection End of Discharge Pipe Appearance clear ☐ turbid ☐ colored ☐ other

Use IR Remarks

(FOR LABORATORY USE ONLY)

238026

CHEMICAL ANALYSIS

KEY PUNCHED

Laboratory No.

Date Received SEP 29 1972

Date Reported OCT. 25, 1972

	MG/L	ME/L
Silica	27	
Calcium	219	10.96
Magnesium	59	4.88
Sodium	144	6.46
Total		22.30
<input type="checkbox"/> Potassium		
<input type="checkbox"/> Manganese		
<input type="checkbox"/> Boron		
<input checked="" type="checkbox"/> Total Iron		
<input type="checkbox"/> (other)		

Specific Conductance (micromhos/cm³) 1920
Diluted Conductance (micromhos/cm³) 26x 98
2548
" " items will be analyzed if checked.

1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.
2/ Nitrogen cycle requires separate sample.
3/ Total Iron requires separate sample.

TWDBS-51-27

	MG/L	ME/L
Carbonate		0
Bicarbonate	204	
Sulfate	414	6.78
Chloride	301	6.27
Fluoride	338	9.52
Nitrate	0.4	
pH	8.0	0.13
Total	7.6	22.70
1/ Dissolved Solids (sum in MG/L)		1310
Phenolphthalein Alkalinity as CaCO ₃		0
Total Alkalinity as CaCO ₃ (6.78)		339
Total Hardness as CaCO ₃ (15.84)		790
2/ Nitrogen Cycle		
Ammonia - N		
Nitrite - N		
Nitrate - N		
Organic Nitrogen		

Analyst _____ Checked By _____

Map Key Number of Direction Distance Site
 Records (mi/ft)

DB

TEXAS DEPARTMENT OF WATER RESOURCES-WATER LEVEL MEASUREMENTS (IN FT.)

AS OF 05-01-84

OLD WELL NUMBER

COORDINATES 31-51-08N
 098-26-40W

☒ Normal
☐ Publ.
☐ USGS

YR. REC. BEGINS

LAST CHEMICAL ANALYSIS

STATE WELL NUMBER 65 0Y-41-13-201				LAND SURFACE DATUM ELEVATION 1210.00								
DEPTH OF WELL 160				COMPLETION INTERVAL 0120-0155								
DATE OF CURRENT MEASUREMENT			CURRENT DEPTH TO WATER FROM LSD	CHANGE IN LEVEL SINCE THE LAST MEASUREMENT	Measurement Number	DEPTH TO WATER FROM MP	MP	Measuring Agency	Method	REMARKS	WELL USE	FIELD OBSERVATIONS
MO.	DAY	YR.										
04	21	83	33.39			36.39	+3.00	01	1		B	
03	19	84	33.69	-0.30		36.69	+3.00	01	1		B	
3	25	85				37.20	3.00	01	1		B	
3	3	86				36.11	3.00	01	1		B	
3	24	87				35.77	3.00	1	1		B	
2	12	88				35.08	3.00	1	1		B	
01	19	89	32.66			35.66	+3.00	01	1		B	
3	20	90	32.83			35.83	3.00	1	1		B	
2	25	91	33.38			36.38	3.00	1	1		U	
2	19	92	32.65			35.65	+3.00	01	1		U	
11	12	92						01		61		
2	16	94						01		61	U	
2	16	95	—							61		locked gate
1	4	96	X					01		61		
1	21	97								61		
1	28	98	—		dss	—	+3.00	01	1	44	U	obstruction
1	1											
1	1											
1	1											
1	1											

AQUIFER 312 - TWIN MOUNTAINS FORMATION

WATERSHED 12 - BRAZOS RIVER BASIN

COUNTY 047 - COMANCHE

historical

CURRENT 41-13-201

TDWR-0818

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

TWIN MOUNTAINS
 Aquifer: Houston Field No. _____ State Well No. 41-13-201
 Owner's Well No. _____ County _____

1. Location: 1/4 Sec. 1/4 Sec., Block _____, Survey _____

2. Owners: CHESTER EVANS Address: RT. 1 GUSTINE
 Tenant: _____ Address: _____
 Driller: WILLINGHAM + HILLIARD Address: GUSTINE, TEX.

3. Elevation of CSO is 1210 ft. above sea, determined by TPD

4. Drilled: 19-55; Dia. 8 in. Tool: Rotary

5. Depth: Rept. 160 ft. Meas. _____ ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Dravel Packed

7. Pump: Mfr. _____ Type 5/8
 No. Stages _____, Bowl Dia. _____ in., Setting 150 ft.
 Column Dia. _____ in., Length Tailpipe _____ ft.

8. Motor: Fuel ELC, Make & Model _____ HP 3

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

10. Performance Test: Date _____ Length of Test _____ Made by _____
 Static Level _____ ft. Pumping Level _____ ft. Drawdown _____ ft.
 Production _____ gpm Specific Capacity _____ gpm/ft.

11. Water Level: _____ ft. reft. _____ 19 above _____ which is _____ ft. above surface.
 _____ ft. reft. _____ 19 below _____ which is _____ ft. above surface.
 _____ ft. reft. _____ 19 above _____ which is _____ ft. above surface.
 _____ ft. reft. _____ 19 below _____ which is _____ ft. above surface.

12. Use: Dom., Stock, Public Supply, Ind. 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: J. DERTON Date 4-12-76
 Source of Data TWDB SCHEDULE

16. Remarks: WELL IS ON TANK LEVER WHICH MAKES MP 3' ABOVE CSO

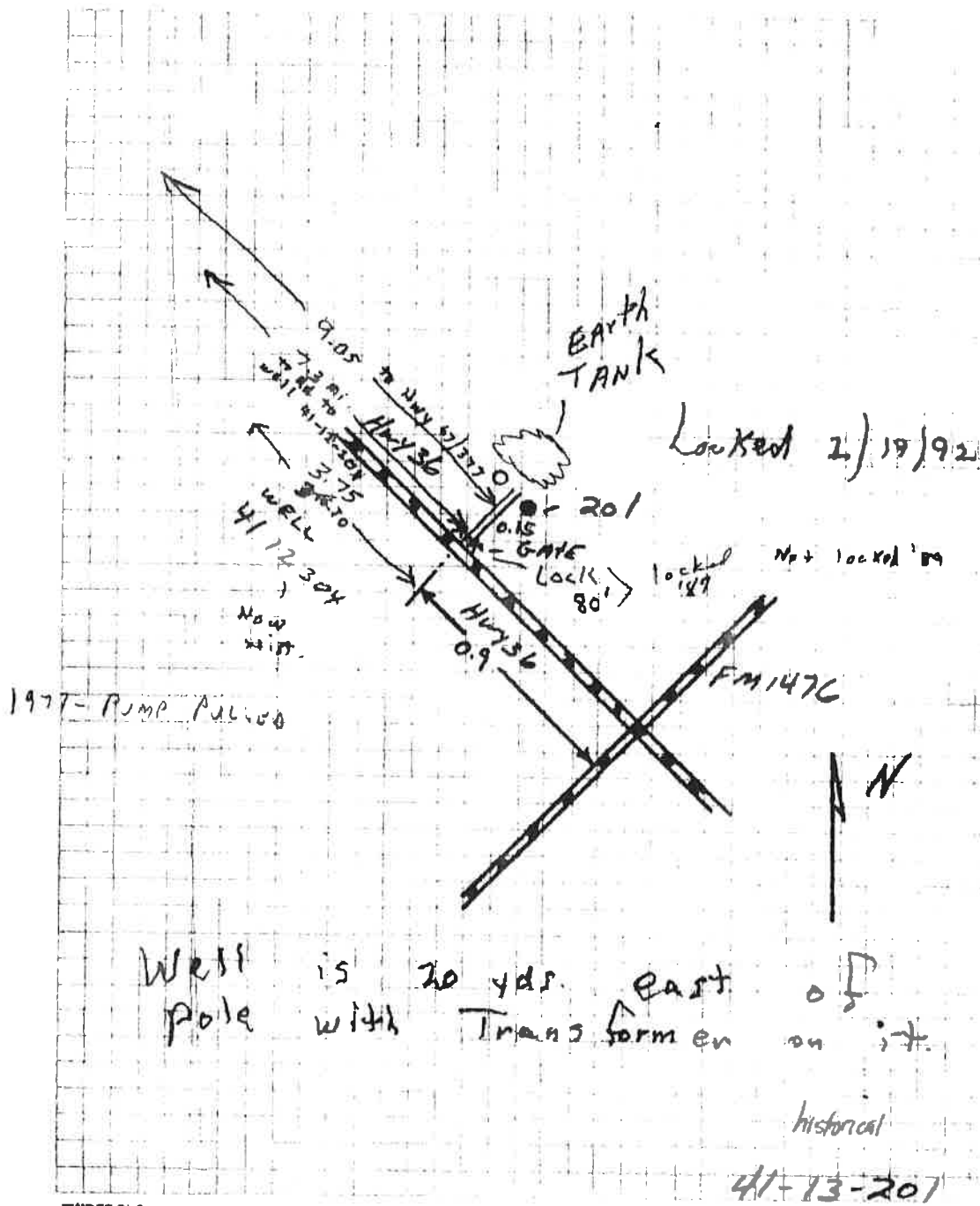
CASING & BLANK PIPE			
Cemented From		ft. to	
Diam. (in.)	Type	Setting, ft.	
		from	to
5			

WELL SCREEN			
Screen Openings			
Diam. (in.)	Type	Setting, ft.	
		from	to
5		120	155

*MP = E-LINE HOLE
 +3.00' historical
 TOP CSO
 Hole in side of
 CSO E. side
 41-13-201*

TEXAS WATER DEVELOPMENT BOARD

BY _____ DATE _____ DIVISION _____ SHEET NO. _____ OF _____
 CHKD _____ DATE 4-13-201 JOB NAME _____ JOB NO. _____ PROG. CODE _____



TWDES-61-3

TEXAS DEPARTMENT OF WATER RESOURCES—WATER LEVEL MEASUREMENTS (IN FT.)

AS OF 05-01-84

OLD WELL NUMBER

COORDINATES 31-51-08N

☒ Normal

☐ Publ.

☐ USGS

YR. REC. BEGINS

LAST CHEMICAL ANALYSIS

09-72

STATE WELL NUMBER 65 DY-41-13-201

LAND SURFACE DATUM ELEVATION 1210.00

DEPTH OF WELL 160

COMPLETION INTERVAL 0120-0155

DATE OF CURRENT MEASUREMENT	CURRENT DEPTH TO WATER FROM LSD	CHANGE IN LEVEL SINCE THE LAST MEASUREMENT	Measurement Number	DEPTH TO WATER FROM MP	MP	Measuring Agency Method	REMARKS	WELL USE	FIELD OBSERVATIONS
MO. DAY YR.									
07 02 65	33.79			35.52	+1.73	01 1		4	
04 14 66	32.89	+0.90		35.89	+3.00	01 1		4	
03 15 67	32.43	+0.46		35.43	+3.00	01 1		4	
04 02 69	30.87	+1.56		33.87	+3.00	01 1		4	
03 17 70	30.51	+0.36		33.51	+3.00	01 1		4	
03 18 71	30.75	-0.24		33.75	+3.00	01 1		4	
03 08 72	31.56	-0.81		34.56	+3.00	01 1	03	4	
02 28 73	33.39	-1.83		36.39	+3.00	01 1		4	
03 13 74	33.74	-0.35		36.74	+3.00	01 1	03	4	
04 14 75	33.14	+0.60		36.14	+3.00	01 1		4	
03 15 76	33.43	-0.29		36.43	+3.00	01 1		4	
03 15 76	33.43	+0.00		36.43	+3.00	01 1		4	
03 18 77	33.39	+0.04		36.39	+3.00	01 1		8	
03 21 78	32.90	+0.49		35.90	+3.00	01 1		8	
04 05 79	33.85	-0.95		36.85	+3.00	01 1		8	
03 20 80					+3.00	01	31	8	
04 07 81	33.54			36.54	+3.00	01 1		8	
03 24 82					+3.00	01	40	8	

AQUIFER 312 - TWIN MOUNTAINS FORMATION

WATERSHED 12 - BRAZOS RIVER BASIN

COUNTY 047 - COMANCHE

Hist.
CURRENT 41-13-201

TDWR-0618

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
13	2 of 2	NNW	0.28 / 1,498.78	Chester Evans TX	GWDB
Well Rep Track No: State Well No: 4113202 Owner Name: Chester Evans Drilling Start Dt: Drilling Month: 3 Drilling Day: Drilling Year: 1967 Well Depth: 155 Well Usage: Irrigation Water Level Status: Latitude: 31.8530560 Longitude: -98.4452780 Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=4113202&Type=GWDB Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=4113202&Cnty=Comanche					

GW 1

WELL SCHEDULE

State Well No. 41 - 13 - 202

County Comanche

- | | | | |
|--|--|--|--|
| | | | |
| | | | |
| | | | |
| | | | |

CASING & BLANK PIPE			
Cemented From		ft. to	
diam. (in.)	Type	Setting, ft.	
		from	to
6	steel	0	155

- | WELL SCREEN | | | |
|-----------------|---------|--------------|-----|
| Screen Openings | | | |
| Diam.
(in.) | Type | Setting, ft. | |
| | | from | to |
| 6 | slotted | 130 | 155 |
| | | | |
| | | | |
| | | | |
| | | | |

14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log,
Formation Samples, Pumping Test, P&T Test

15. Record by: R. D. Perkins Date 9-5 1968
Source of Data owner

16. Remarks:

See 41-13-201
(Sketch)

41-13-202 ✓

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
14	1 of 1	SSW	0.33 / 1,721.78	Billy Bell TX	SDRW WELLS

Track NO: 27911
Date Submitted: 2003-11-06
Owner Name: Billy Bell
Owner Address: 1328 Brookside Drive
Owner Address2:
Owner City: Hurst
Owner State: TX
Owner Zip: 76053
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Domestic
Prop Use Oth Descr:
Latitude: 31.834167
Longitude: -98.444445
Drilling Date Started: 2003-09-25
Drilling Date Completed: 2003-09-25
Chemical Analysis: No
Company Name: Harris Drilling Company, Inc.
Company Address: Route 3
CompanyAddress2:
Company City: Comanche
Company State: TX
Company Zip: 76442
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=27911&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 131

Top Depth:
Bottom Depth: 131.0

Well Levels

Measurement: 110
Measurement Date: 2003-09-25

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
15	1 of 1	SSE	0.38 / 1,992.58	W L MCFARLAND TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 04/24/1987
Owners Name: W L MCFARLAND
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 44
Depth Drilled: 160
Latitude:
Longtiude:

Please use black ink. Send original copy by certified mail to the Texas Department of Water Resources, P. O. Box 13087, Austin, Texas 78711.

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
 P. O. Box 13087
 Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER W.L. McFarland (Name) Address RT 2 (Street or RFD) Comanche Tex 76442 (City) (State) (Zip)

2) LOCATION OF WELL: County Comanche 1 1/2 miles in S.W. direction from GUSTINE (N.E., S.W., etc.) (Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ Legal description: Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☒ See attached map.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
 Date drilled 4-24-87

DIAMETER OF HOLE		Description and color of formation material
Dia. (in.)	From (ft.) To (ft.)	
7 7/8	Surface	160'
0	1	SOIL
1	10	BR. CLAY
10	22	BR. S/LY SAND
22	30	Y. SH.
30	47	BL. SAND
47	52	BR. S/LY
52	60	BR. SAND - WATER
60	67	BL. SH.
67	88	Red CLAY
88	97	Red S/LY w/ Red CLAY STKS
97	107	Red S/LY
107	109	BL. S/LY HALL
109	120	BL. S/LY - SOFT
120	122	BL. S/LY HALL
122	130	BR. SH.
130	135	SAND & GRAVEL - WATER
135	137	BL. SH.
137	144	SAND & GRAVEL - WATER
144	149	Y. SH.
149	150	BL. S/LY & BL. SH.
150	160	BR. SH.

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval ... from 15' ft. to 160' ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casing Screen
			From	To	
5	New	PLASTIC	60'	70'	7/8"
			130'	160'	1/2"

9) CEMENTING DATA (Rule 319.44(b))
 Cemented from 10' ft. to 15' ft.
 Method used _____
 Cemented by _____

10) SURFACE COMPLETION
☒ Specified Surface Slab Installed (Rule 319.44(c))
☐ Pitless Adapter Used (Rule 319.44(d))
☐ Approved Alternative Procedure Used (Rule 319.71)

11) WATER LEVEL:
 Static level 44' ft. below land surface Date 4-24-87
 Artesian flow _____ gpm. Date _____

12) PACKERS: Type _____ Depth _____

13) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

14) WELL TESTS:
 Type Test: ☐ Pump ☐ Boiler ☐ Jetted ☐ Estimated
 Yield: 15 gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata? _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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. I understand that failure to complete Items 1 thru 12 will result in the log(s) being returned for completion and resubmittal.

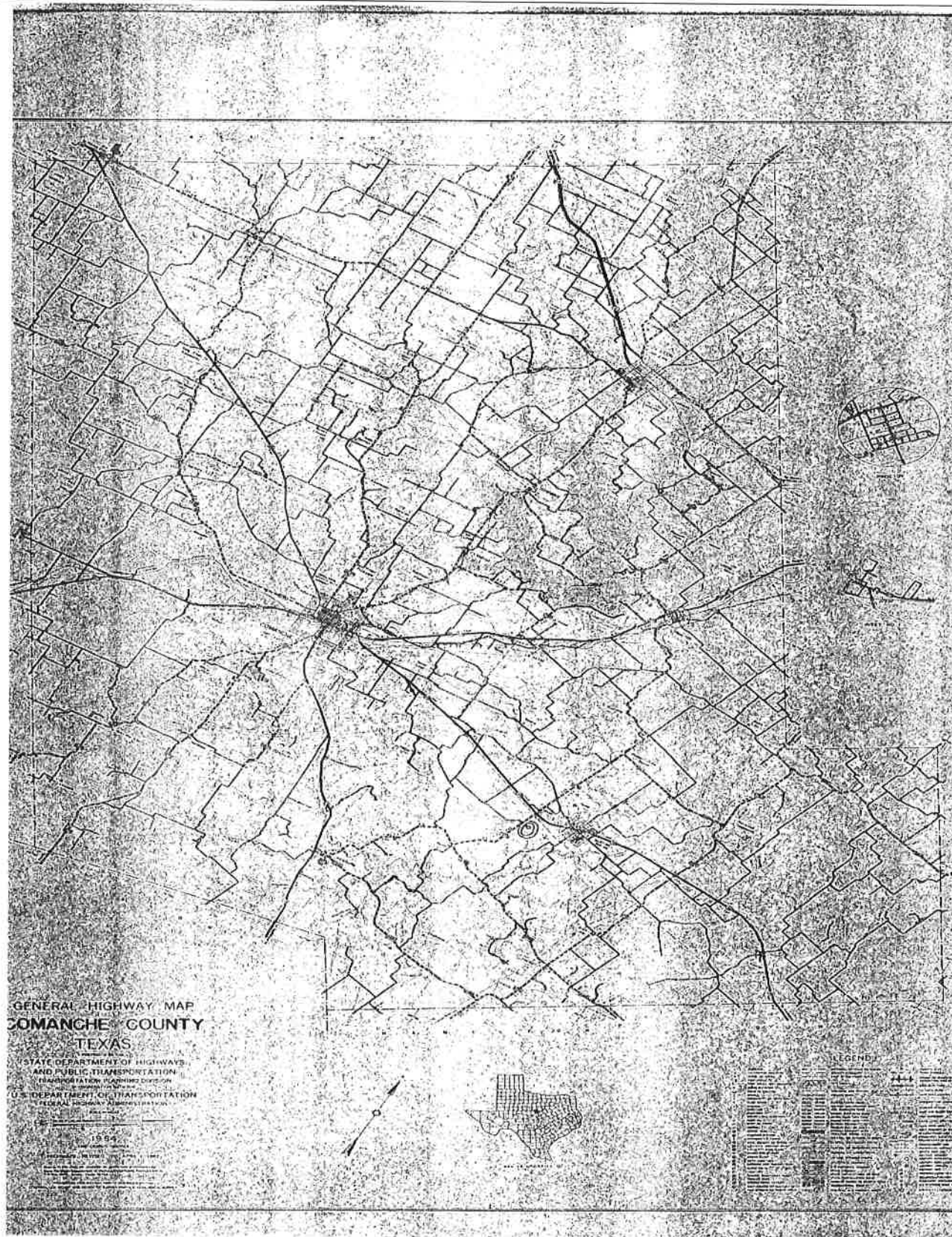
COMPANY NAME Marworth Drilling & Well Service Water Well Driller's License No. 2192
 (Type or Print)

ADDRESS P.O. Box 112 (Street or RFD) Comanche (City) TEXAS (State) 76442 (Zip)

(Signed) [Signature] (Licensed Water Well Driller) (Signed) _____ (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TDWR use only
 Well No. _____
 Located on map A1-13-2



<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
16	1 of 1	E	0.40 / 2,121.47	FLOYD ADCOCK TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 12/07/1986
Owners Name: FLOYD ADCOCK
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 50
Depth Drilled: 110
Latitude:
Longtiude:

7 m. NISK
6 m. WIEL

Please use black ink.
 Send original copy by
 certified mail to the
 Texas Water Commission
 P.O. Box 13087
 Austin, Texas 78711

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
 P. O. Box 13087
 Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER Floyd Adcock Address P.O. Box 53, Gustine, Texas 76455
 (Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL: County Comanche 1.5 miles in W direction from Gustine
 (N.E., S.W., etc.) (Town)

☐ Legal description:
 Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.
 Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☒ See attached map. 0041-13-3

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Monitor ☐ Public Supply ☐ Irrigation ☐ Test Well ☐ Injection ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Jetted ☐ Bored ☒ Air Rotary ☐ Cable Tool ☐ Other _____

6) WELL LOG:
 Date Drilling: Started 12/3/86 Completed 12/4/86
 DIAMETER OF HOLE
 Dia. (in.) From (ft.) To (ft.)
7-7/8 Surface 110

7) BOREHOLE COMPLETION:
☐ Open Hole ☐ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval from 75 ft. to 110 ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)	Gap Casing Screen
0	17	top soil and sand					
17	24	gravel					
24	30	red bed					
30	52	sand stone (hard)	4 1/2	N	Sch 40 Bay PVC	0	90
52	88	red bed/ sandy	4 1/2	N	slotted casing	90	110
88	91	sandy shale					
91	97	sand/small gravel					
97	105	green sandstone					
105	107	sandy blue shale					
107	110	yellow/purple shale					

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
 Dia. (in.) New or Used Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial Setting (ft.) Gap Casing Screen
 From To
4 1/2 N Sch 40 Bay PVC 0 90 1/8"
4 1/2 N slotted casing 90 110 1/8"

9) CEMENTING DATA [Rule 319.44(b)]
 Cemented from 0 ft. to 14 ft. No. of Sacks Used 4
 Method used poured
 Cemented by driller

10) SURFACE COMPLETION
☐ Specified Surface Slab Installed [Rule 319.44(c)]
☐ Pitless Adapter Used [Rule 319.44(d)]
☒ Approved Alternative Procedure Used [Rule 318.71]

11) WATER LEVEL:
 Static level 50 ft. below land surface Date 12/4/86
 Artesian flow _____ gpm. Date _____

12) PACKERS: Type Depth
2 shale catcher 14

13) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

14) WELL TESTS:
 Type Test: ☐ Pump ☐ Baller ☒ Jetted ☐ Estimated
 Yield: 46 gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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. I understand that failure to complete items 1 thru 12 will result in the log(s) being returned for completion and resubmission.

COMPANY NAME Dalton Drilling & Service Water Well Driller's License No. 860
 (Type or Print)

ADDRESS P.O. Box 208, Hamilton, Texas 76531
 (Street or RFD) (City) (State) (Zip)

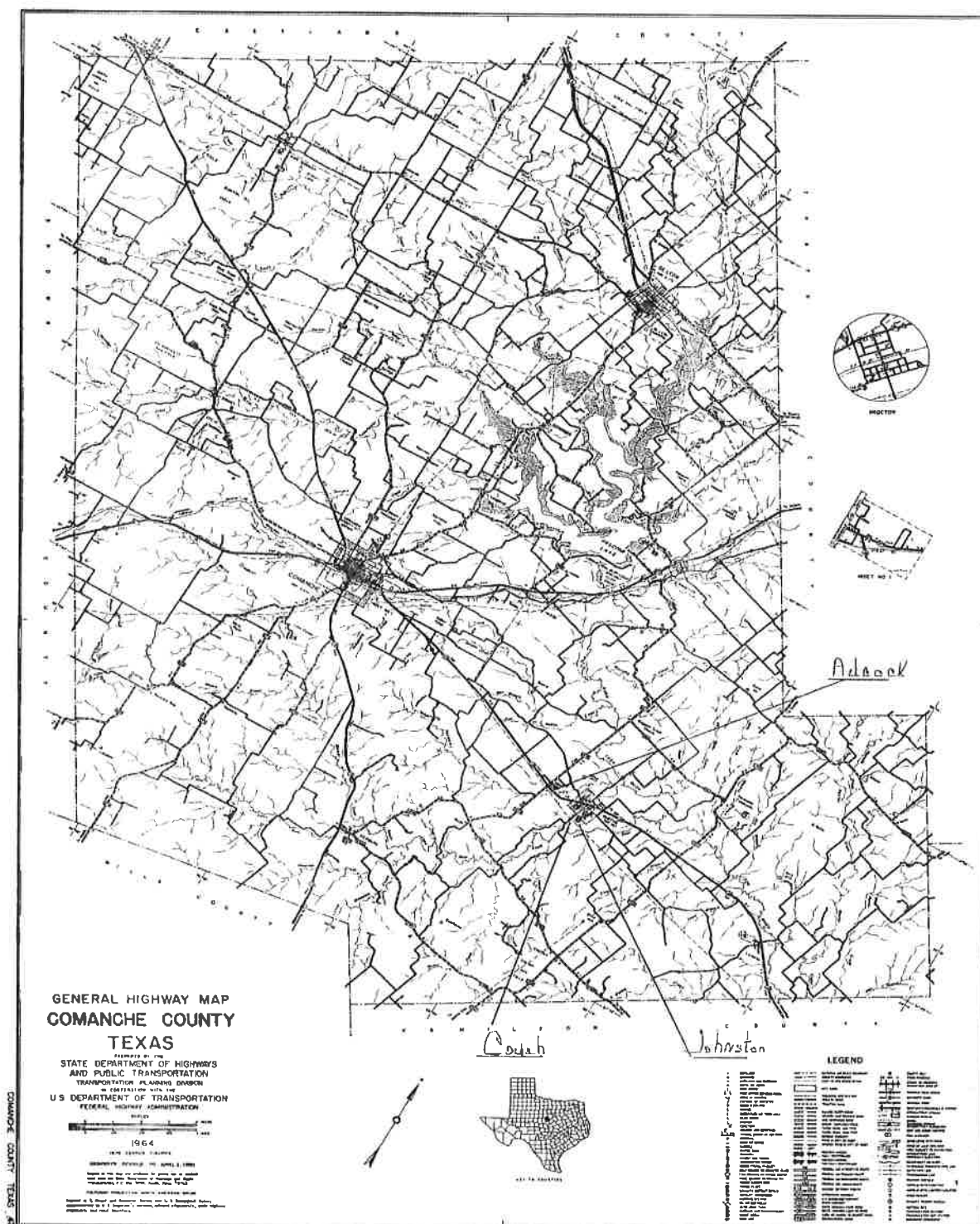
(Signed) Joe Dalton (Signed) Tom Dalton
 Joe Dalton (Licensee) Tom Dalton (Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

For TWC use only
 Well No. 22-13-2
 Located on map _____

TWC-0392 (Rev. 06-10-85)

WELL OWNER'S COPY



Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
17	1 of 1	SSE	0.40 / 2,126.14	Gail Steward FM 1476 Gustine TX 76455	SDRW WELLS

Track NO: 144841
Date Submitted: 2008-06-22
Owner Name: Gail Steward
Owner Address: 200 Shoshone
Owner Address2:
Owner City: Comanche
Owner State: TX
Owner Zip: 76442
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Stock
Prop Use Oth Descr:
Latitude: 31.831389
Longitude: -98.436111
Drilling Date Started: 2008-05-16
Drilling Date Completed: 2008-05-16
Chemical Analysis: No
Company Name: Harris Drilling Company, Inc.
Company Address: 7651 Hwy 67-377
CompanyAddress2:
Company City: Comanche
Company State: TX
Company Zip: 76442
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=144841&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 151

Top Depth:
Bottom Depth: 151.0

Well Levels

Measurement: 64
Measurement Date: 2008-05-16

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
18	1 of 1	ENE	0.45 / 2,354.46	David Teich Hwy 36 and FM 1476 (SE corner) Gustine TX 76455	SDRW WELLS

Track NO: 33966
Date Submitted: 2004-03-11
Owner Name: David Teich
Owner Address: P O Box 133
Owner Address2:
Owner City: Gustine
Owner State: TX
Owner Zip: 76455
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Stock
Prop Use Oth Descr:
Latitude: 31.848611
Longitude: -98.428055
Drilling Date Started: 2004-02-19
Drilling Date Completed: 2004-02-20
Chemical Analysis: No
Company Name: Dalton Drilling & Service
Company Address: P O Box 208
CompanyAddress2:
Company City: Hamilton
Company State: TX
Company Zip: 76531
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=33966&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 125

Top Depth:
Bottom Depth: 125.0

Well Levels

Measurement: 65
Measurement Date: 2004-02-20

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
19	1 of 2	NNE	0.45 / 2,402.36	WADE HALL TX	TCEQ WELL LOGS

Grid No: 41-13-2
Date Drilled: 05/20/2000
Owners Name: WADE HALL
County: COMANCHE
Water Usage: IRRIGATION
Static Level: 40
Depth Drilled: 170
Latitude:
Longitude:

ATTENTION OWNER: Confidentiality
Privilege Notice on reverse side
of Well Owner's copy (pink)

State of Texas
WELL REPORT

**Texas Department of Licensing &
Regulation
P.O. Box 12167
Austin, TX 78711
512-463-7880**

012-463-7880

1) OWNER <u>WADE HALL</u>		ADDRESS <u>Rt 1</u>		<u>Comanche TX 76442</u>	
(Name)		(Street/RFD)		(City)	(State) (Zip)
2) ADDRESS OF WELL'S LOCATION: County <u>COMANCHE</u>		<u>Rt 1</u>		<u>Comanche TX 76442</u>	
		(Street, RFD or other)	(City)	(State)	(Zip)
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No		5) [Blank]	
6) WELL LOG: Date Drilling: Started <u>5-16-2000</u> Completed <u>5-20-2000</u>		DIAMETER OF HOLE Dia. (in.) From (ft.) To (ft.) <u>7 7/8</u> Surface <u>0</u> <u>170</u>		7) DRILLING METHOD (Check): <input checked="" type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input type="checkbox"/> Other	
From (ft.) To (ft.) Description and color of formation material		8) Borehole Completion [Check]: <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other If Gravel Packed give interval from <u>170</u> ft. to <u>15</u> ft.		CASING, BLANK PIPE, AND WELL SCREEN DATA:	
0 15 SAND 15 35 BROWN SHALE 35 60 SAND #2 60 100 SHALE 1 in x red rock 100 120 SLIGHTLY WATER BE 120 140 Red Bed 140 160 WATER & SAND GRAVEL 160 170 Brown Shale 170 TD		Dis. (in.) New or Used Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial Setting (ft.) From To Gage Casting Screen 5" New Plastic 80' Slotted 0 170 14			
(Use reverse side of Well Owner's copy, if necessary)		9) CEMENTING DATA Cemented from <u>15</u> ft. to <u>0</u> ft. No. of sacks used <u>3</u> ft. to _____ ft. No. of sacks used _____ Method used <u>Mixed by HAND</u> Cemented by <u>Betty Davis</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance <u>None</u>			
13) <input type="checkbox"/> Well plugged within 48 hours		10) SURFACE COMPLETION <input type="checkbox"/> Specified Surface Slab Installed <input checked="" type="checkbox"/> Specified Steel Sleeve Installed <input type="checkbox"/> Pitless Adapter Used <input type="checkbox"/> Approved Alternative Procedure Used			
Casing left in well: <u>Cement/bentonite placed in well:</u> Sacks used: From (ft.) To (ft.) From (ft.) To (ft.) <u>None</u>		11) WATER LEVEL: Static level <u>40</u> ft below land surface Date <u>5-20-2000</u> Artesian flow _____ gpm. Date _____			
14) TYPE PUMP: <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input checked="" type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other Depth to pump bowls, cylinder, jet, etc. <u>165</u> ft.		12) PACKERS: Type _____ Depth _____ <u>None</u>			
15) WELL TESTS: Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Estimated Yield: <u>50</u> gpm with <u>20</u> ft. drawdown after <u>2</u> hrs.		I certify that I drilled this well (for the well was drilled under my direct supervision) and that each and all of the statements herein are true and correct. I understand that failure to complete items 1 thru 16 will result in the log(s) being returned for completion and resubmittal.			
16) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		COMPANY NAME <u>Davis Drilling</u> WELL DRILLER'S LICENSE NO. <u>3001WPKK</u> (Type of print) ADDRESS <u>301 CRISTO</u> (Street/RFD) (Signed) <u>Betty Davis</u> (Licensed Well Driller)		Comanche (City) TX (State) 76442 (Zip)	
Please attach electric log, chemical analysis, and other pertinent information, if available.		(Registered Driller Trainee)			

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
19	2 of 2	NNE	0.45 / 2,402.36	jack nabors 7050 hwy 1476 TX	SDRW WELLS

Track NO: 122589
Date Submitted: 2007-09-18
Owner Name: jack nabors
Owner Address: 7050 hwy 1476
Owner Address2:
Owner City: gustine
Owner State: TX
Owner Zip: 76445
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Domestic
Prop Use Oth Descr:
Latitude: 31.854167
Longitude: -98.4325
Drilling Date Started: 2007-08-05
Drilling Date Completed: 2007-08-05
Chemical Analysis: No
Company Name: f & f drilling
Company Address: 301 hwy 2921
CompanyAddress2:
Company City: deleon
Company State: TX
Company Zip: 76444
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=122589&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 150

Top Depth:
Bottom Depth: 150.0

Well Levels

Measurement: 78
Measurement Date: 2007-08-05

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
20	1 of 1	SW	0.48 / 2,508.88	J R THOMPSON TX	TCEQ WELL LOGS

Grid No: 41-13-2S
Date Drilled: 09/13/1980
Owners Name: J R THOMPSON
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 125
Depth Drilled: 139
Latitude:
Longtiude:

Send original copy by certified mail to the Texas Department of Water Resources, P. O. Box 13087, Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TDWR use only
Well No. 41-1323
Located on map VC3
Received: C.F.S.

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER J. R. Thompson Address Gustine, Texas
(Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL: County Comanche miles in _____ direction from _____
(Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ Legal description: Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____

☐ See attached map.

3) TYPE OF WORK (Check):
☐ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled 9/13/80

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
6 3/4	0	139

7) BOREHOLE COMPLETION:
☐ Open Hole ☒ Straight Well ☐ Underreamed
☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval . . . from 0 ft. to 139 ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgt., if commercial	Setting (ft.)		Gage Casing Screen
						From	To	
0	1	Sand						
1	3	Red Clay						
3	10	Loose Rock & Sand						
10	14	Gray Clay & Yellow Sand	4	new	Plastic	0	139	.200
14	23	Sand, Rock, Yellow Sand Rock			perforated 7/32	51	61	.200
23	24	Sand			"	119	139	.200
24	40	Sand Rock, Yellow Clay						
40	51	Blue Shale & Red Bed						
51	55	Blue Sandy Shale & Red Bed						
55	56	Water Sand						
56	57	Rock						
57	92	Red Bed & Blue Shale						
92	105	Grey Shale						
105	115	Red Bed & Blue Shale						
115	125	Sand						
125	136	Sand Rock, Sand, Gravel & Water						
136	139	Yellow Shale						

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
Cemented from 10 ft. to 30 ft.
Method used _____
Cemented by Harris Drilling Co.
(Company or Individual)

9) WATER LEVEL:
Static level 125 ft. below land surface Date 9/13/80
Artesian flow _____ gpm. Date _____

10) PACKERS: Type _____ Depth _____

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☐ Sailer ☐ Jetted ☒ Estimated
Yield: 12 gpm with _____ ft. drawdown after _____ hrs.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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.

NAME Billy Harris Water Well Drillers Registration No. 327
(Type or Print)

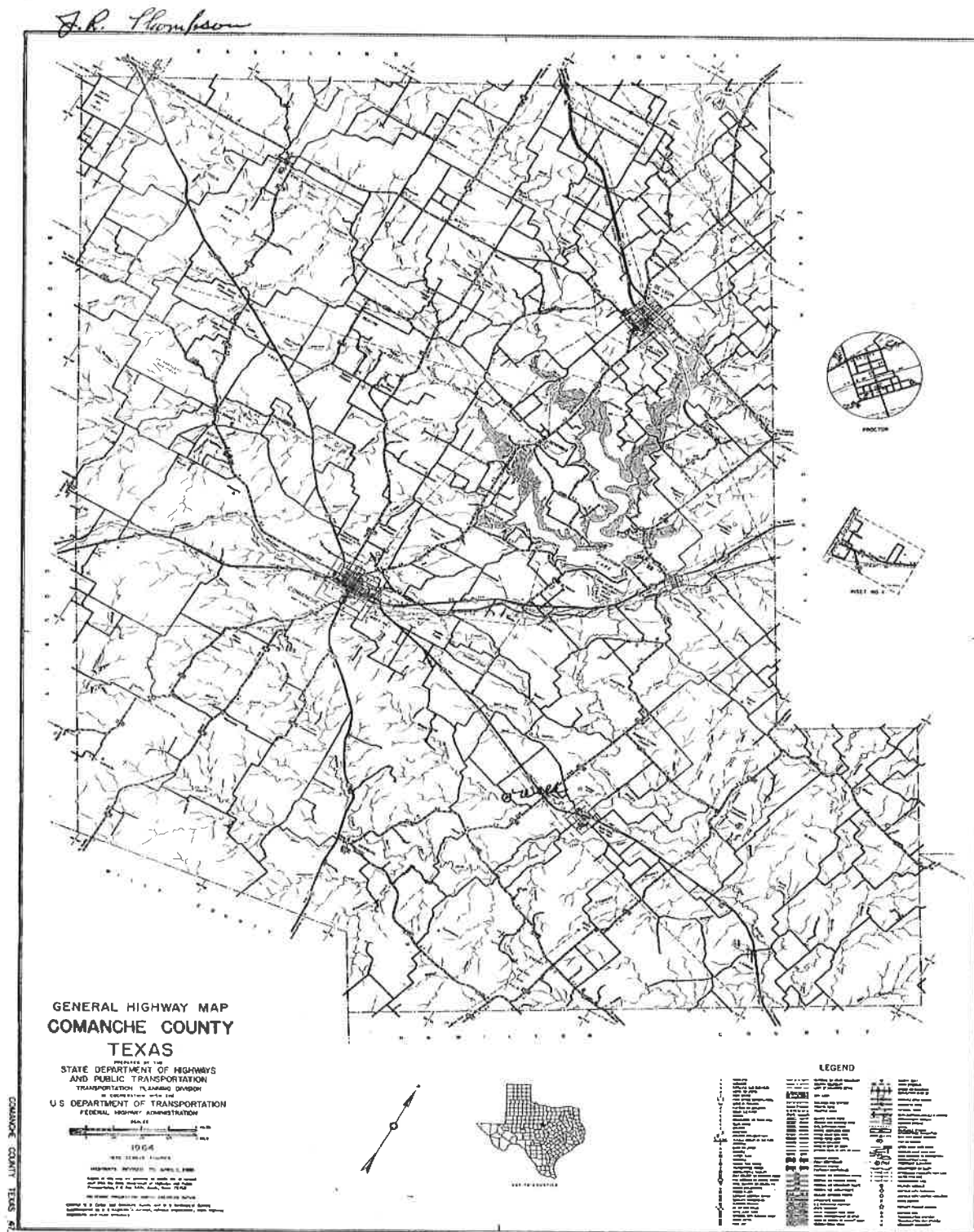
ADDRESS Rt. 3, Comanche, Texas 76442
(Street or RFD) (City) (State) (Zip)

(Signed) Billy Harris Harris Drilling Co.
(Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TDWR-0392 (Rev. 1-12-79)

DEPARTMENT OF WATER RESOURCES COPY



Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
21	1 of 1	SW	0.48 / 2,532.32	Jarrel Hurst CR 232 Gustine TX 76455	SDRW WELLS

Track NO: 143478
Date Submitted: 2008-06-03
Owner Name: Jarrel Hurst
Owner Address: CR232
Owner Address2:
Owner City: Gustine
Owner State: TX
Owner Zip: 76455
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Irrigation
Prop Use Oth Descr:
Latitude: 31.836667
Longitude: -98.449722
Drilling Date Started: 2008-04-15
Drilling Date Completed: 2008-04-15
Chemical Analysis: No
Company Name: Blue Sky Water Well Drilling
Company Address: 5751Weatherford Hwy
CompanyAddress2:
Company City: Granbury
Company State: TX
Company Zip: 76049
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=143478&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 150

Top Depth:
Bottom Depth: 150.0

Well Strata

Water Type:

good

Map Key	Number of Records	Direction	Distance (mi/ft)	Site	DB
22	1 of 1	S	0.49 / 2,568.75	Mike Thames comanche comanche TX	SDRW WELLS

Track NO: 522196
Date Submitted: 2019-09-23
Owner Name: Mike Thames
Owner Address: P.O.Box 448
Owner Address2:
Owner City: Comanche
Owner State: TX
Owner Zip: 76442
County: Comanche
Type of Work: New Well
Typ of Wrk Oth Descr:
Proposed Use: Domestic
Prop Use Oth Descr:
Latitude: 31.83
Longitude: -98.437139
Drilling Date Started: 2019-09-04
Drilling Date Completed: 2019-09-04
Chemical Analysis: No
Company Name: F&F Drilling
Company Address: P.O.Box 260
CompanyAddress2:
Company City: DeLeon
Company State: TX
Company Zip: 76444
Company Country:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Report Link: <https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=522196&Type=SDR-Well>

Well Borehole Information

Top Depth: 0
Bottom Depth: 180

Top Depth:
Bottom Depth: 180.0

Well Levels

Measurement: 120
Measurement Date: 2019-09-04

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Site</i>	<i>DB</i>
23	1 of 1	NW	0.49 / 2,577.99	W R MCCULLOUGH TX	TCEQ WELL LOGS

Grid No: 41-13-2T
Date Drilled: 08/25/1981
Owners Name: W R MCCULLOUGH
County: COMANCHE
Water Usage: DOMESTIC
Static Level: 45
Depth Drilled: 84
Latitude:
Longtiude:

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TOWR use only
 Well No. 41-13-27
 Located on map YES
 Received: C.F.S.

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER W. R. McCullough Address Gustine, Texas
 (Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL: County Comanche miles in _____ direction from _____
 (N.E., S.W., etc.) (Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines; or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

☐ Legal description: Section No. _____ Block No. _____ Township _____
 Abstract No. _____ Survey Name _____
 Distance and direction from two intersecting section or survey lines _____

☐ See attached map.

3) TYPE OF WORK (Check):
☐ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☒ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☐ Other _____

5) DRILLING METHOD (Check):
☐ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☒ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
 Date drilled 8/25/81

DIAMETER OF HOLE		Description and color of formation material
Dia. (in.)	From (ft.) To (ft.)	
7 7/8	0	Surface
		84

7) BOREHOLE COMPLETION:
☐ Open Hole ☒ Straight Wall ☐ Underreamed
☒ Gravel Packed ☐ Other _____
 If Gravel Packed give interval from _____ ft. to _____ ft.

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mpl. if commercial	Setting (ft.)		Gage Casing Screen
						From	To	
0	20	Brown Clay						
20	24	Blue Clay						
24	37	Yellow Shale & Sandy Shale						
37	45	Grey Sandy Shale	5	new	plastic .250 wall	0	84	.250
45	50	Water Sand & Sandy Shale			perforated 7/32	54	84	.250
50	64	Grey Shale						
64	75	Water sand & Sandy Shale						
75	83	Red Bed						
83	84	Brown Sandy Shale						

CEMENTING DATA
 Cemented from 10 ft. to 30 ft.
 Method used _____
 Cemented by Harris Drilling Co.
 (Company or Individual)

9) WATER LEVEL:
 Static level 45 ft. below land surface Date 8/25/81
 Artesian flow _____ gpm. Date _____

10) PACKERS: Type _____ Depth _____

11) TYPE PUMP:
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
 Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
☐ Type Test ☐ Pump ☐ Bailor ☐ Jetted ☒ Estimated
 Yield: 15 gpm with _____ ft. drawdown after _____ hrs.

13) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
 If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? ☐ Yes ☒ No

I hereby 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.

NAME Billy Harris Water Well Drillers Registration No. 327
 (Type or Print)

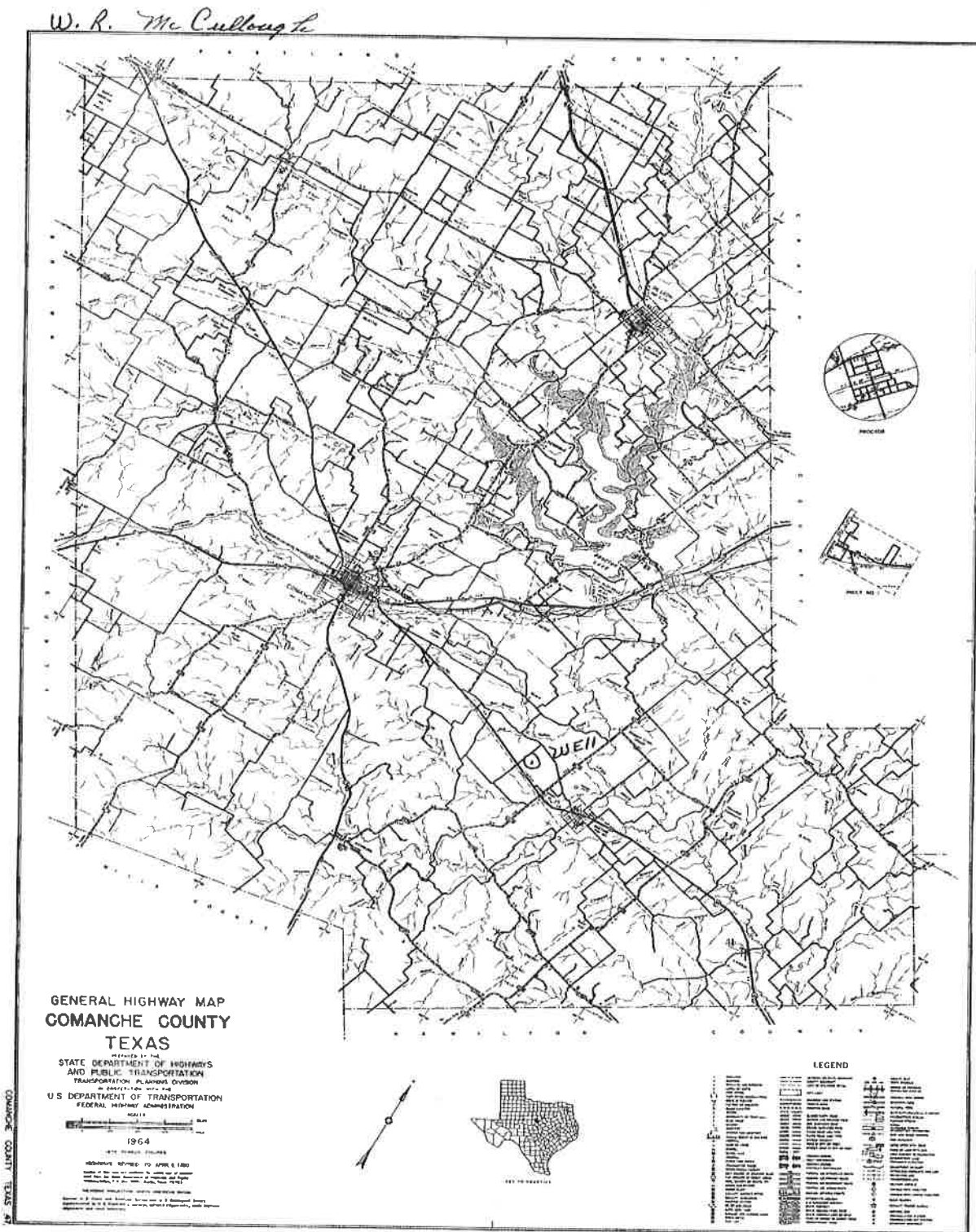
ADDRESS Rt. 3, Comanche, Texas 76442
 (Street or RFD) (City) (State) (Zip)

(Signed) Billy Harris Harris Drilling Company, Inc.
 (Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TOWR-0392 (Rev. 1-12-79)

DEPARTMENT OF WATER RESOURCES COPY



Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update.

Federal

Wells from NWIS:

FED USGS

The U.S. Geological Survey's (USGS) National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This select NWIS Wells dataset contains specific Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well, Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern. Applicable NWIS database information is obtained through the Water Quality Data Portal (WQP). The WQP is a cooperative service sponsored by the USGS, the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC).

Government Publication Date: Mar 11, 2024

State

Well Log Reports from Plotted Water Wells:

TCEQ WELL LOGS

Locations of TCEQ Water Wells as derived from well logs in the Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer, which includes unnumbered water wells and those plotted to 2.5 minute grid locations (2-3 miles). In this collection of Well Log Reports, locations have been manually verified.

Government Publication Date: Jul 26, 2022

Select Wells from SDR:

SDRW WELLS

Locations of wells from the Submitted Drillers Report (SDR) Database with select proposed usage: Domestic, Fracking Supply, Industrial, Irrigation, Other, Public Supply, Rig Supply, Stock, Unknown. SDR is populated from the online Texas Well Report Submission and Retrieval System (TWRSRS), a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application requiring registered water-well drillers to submit reports. Excludes SDR records with the following proposed usage: Closed-Loop Geothermal, De-watering, Environmental Soil Boring, Extraction, Injection, Monitor, Test Well.

Government Publication Date: Sep 24, 2024

Groundwater Database:

GWDB

The Texas Water Development Board (TWDB) Groundwater Database (GWDB) contains information on selected water wells, springs, oil/gas tests (that were originally intended to be or were converted to water wells), water levels and water quality.

Government Publication Date: Jan 13, 2025

Fort Bend Subsidence District Water Wells:

WW FORT BEND

List of water wells in the Fort Bend Subsidence District, boundaries of which are defined as all the territory within Fort Bend County. The Fort Bend Subsidence District was created by the Texas Legislature in 1989 as a conservation and reclamation district to control land subsidence and manage groundwater resources through regulation, conservation, and coordination with suppliers of alternative water sources to assure an adequate quantity and quality of water for the future. The District's purpose is to provide for the regulation of the withdrawal of groundwater within the District to prevent subsidence that contributes to flooding, inundation or overflow of areas within the District, including rising waters resulting from storms or hurricanes.

Government Publication Date: Sep 23, 2024

High Plains Water Wells:

WW HIGH PLAINS

Inventory of water wells in the High Plains Underground Water Conservation District No. 1 (HPUWCD), which was created in 1951. As a political subdivision of Texas, HPUWCD is charged with protecting, preserving and conserving aquifers within the District's 16-county service area.

Government Publication Date: Apr 14, 2024

Harris Galveston Subsidence District Water Wells:

WW HARRIS GAL

List of water wells in the Harris-Galveston Subsidence District (HGSD). The HGSD was created by the 64th Texas Legislature as an underground water conservation district in 1975 to provide regulation of groundwater withdrawal to control subsidence.

Government Publication Date: Sep 23, 2024

Water Utility Database:

WUD

The Water Utility Database is defined as a collection of data from Texas Water Districts, Public Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEQ. This database is an integrated database designed and developed to replace over 160 stand alone legacy systems representing over 5 million records of the former Texas Water Commission and the Texas Department of Health.

Government Publication Date: Oct 1, 2020

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

#24

STATE OF TEXAS PLUGGING REPORT for Tracking #195610

Owner:	FRANK VOLLEMAN	Owner Well #:	No Data
Address:	600 CR 252 GUSTINE, TX 76455	Grid #:	41-13-2
Well Location:	15550 HWY 36 GUSTINE, TX 76455	Latitude:	31° 50' 41.63" N
		Longitude:	098° 26' 25.31" W
Well County:	Comanche	Elevation:	No Data

Well Type: **Withdrawal of Water**

Drilling Information

Company:	N/A	Date Drilled:	No Data
Driller:	UNKNOWN	License Number:	N/A

Borehole:	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
	6	0	17

Plugging Information

Date Plugged: **1/15/2020** Plugger: **OWNER**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
6	3	17

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
2	4	Cement 1 Bags/Sacks
4	17	Bentonite 4 Bags/Sacks

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: **Landowner Plugged**
600 CR 252

GUSTINE, TX 76455

Driller Name: **FRANK VOLLEMAN** License Number: **N/A**

Comments: **DISINFECTED WELL WITH CHLORINE**

#25

STATE OF TEXAS PLUGGING REPORT for Tracking #195611

Owner:	FRANK VOLLEMAN	Owner Well #:	No Data
Address:	600 CR 252 GUSTINE, TX 76455	Grid #:	41-13-2
Well Location:	15550 HWY 36 GUSTINE, TX 76455	Latitude:	31° 50' 40.8" N
		Longitude:	098° 26' 21.99" W
Well County:	Comanche	Elevation:	No Data

Well Type: **Withdrawal of Water**

Drilling Information

Company:	N/A	Date Drilled:	No Data
Driller:	UNKNWON	License Number:	N/A

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	6	0	77

Plugging Information

Date Plugged: 1/15/2020 Plugger: **OWNER**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
6	3	77

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
3	6	Cement 1 Bags/Sacks
6	77	Bentonite 20 Bags/Sacks

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: **Landowner Plugged**
600 CR 252

GUSTINE, TX 76455

Driller Name: **FRANK VOLLEMAN** License Number: **N/A**

Comments: **DISINFECTED WELL WITH CHLORINE**

T.F: GROUNDWATER TECHNICAL REPORT

T.F.1 Purpose

This section provides information on the geologic features and groundwater resources at the Volleman Dairy Processing Plant near Gustine, Texas.

T.F.2 Geologic Atlas Map

Figure T.F.1, Geologic Atlas Map, shows the geologic formations located at the property.

T.F.3 Geomorphologic/Geologic Features

The Windthorst-Duffau and Maloterre-Purves-Dugout soils in this area of Comanche County are immediately underlain by the Twin Mountains Formation and Quaternary Alluvium as shown in Figure T.F.1. Alluvium consists of floodplain deposits, including low terrace deposits near floodplain level and bedrock locally in stream channels; gravel, sand, silt, clay and organic matter up to 35 feet thick.

The basal unit of the Trinity Group, the Twin Mountains, is a Lower Cretaceous sedimentary rock formation located across central Texas, including Comanche County. The Twin Mountains Formation upper part claystone, middle part sandstone above claystone, lower part mostly sandstone, some claystone and conglomerate. Sandstone, fine-to medium-grained in middle part, medium-to coarse-grained in lower part, sorting best in middle part, friable, locally large-scale crossbedding, mostly light gray, some light brown near middle. Claystone, silty, mostly gray, locally in upper part green, yellow, red. Thickness about 150 feet. Lies below Glen Rose Formation and unconformably on Pennsylvanian rocks. Age is Early Cretaceous. (USGS National Geologic Map Database)

T.F.4 Aquifer Information

The Trinity Aquifer consists of early Cretaceous age formations of the Trinity Group where they occur in a band extending through the central part of the state in all or parts of 55 counties, from the Red River in North Texas to the Hill Country of South-Central Texas.

Formations comprising the Trinity Group are (from youngest to oldest) the Paluxy, Glen Rose, and Twin Mountains-Travis Peak. Updip, where the Glen Rose thins or is missing, the Paluxy and Twin Mountains coalesce to form the Antlers Formation. The Antlers consists of up to 900 feet of sand and gravel, with clay beds in the middle section. Water from the Antlers is mainly used for irrigation in the outcrop area of North and Central Texas (Ashworth and Hopkins, 1995).

The aquifer is underlain and confined by low-permeability rocks that range in age from Precambrian to Jurassic. Where the aquifer does not crop out, it is confined above by the Walnut Formation in most of the area.

Recharge to the Trinity aquifer is generally as precipitation that falls on aquifer outcrop areas and as seepage from streams and ponds where the head gradient is downward. In the Hill County, water might flow laterally into the Trinity aquifer from the adjacent Edwards-Trinity aquifer. The aquifer discharges by evapotranspiration, spring discharge, diffuse lateral or upward leakage into shallow aquifers, and withdrawals from wells.

T.F.5 Local Groundwater Information

The 2024 groundwater levels in the surrounding area, as the Texas Water Development Board reported, are attached. The Retention Control Structure (RCS) at Volleman Dairy Processing Plant features a clay liner that has been certified by a licensed professional engineer in Texas. Treated effluent will be applied to the Waste Disposal Areas (WDAs) at agronomic rates, ensuring proper management. Volleman Dairy Processing Plant does not anticipate any negative impact on local groundwater due to these activities.

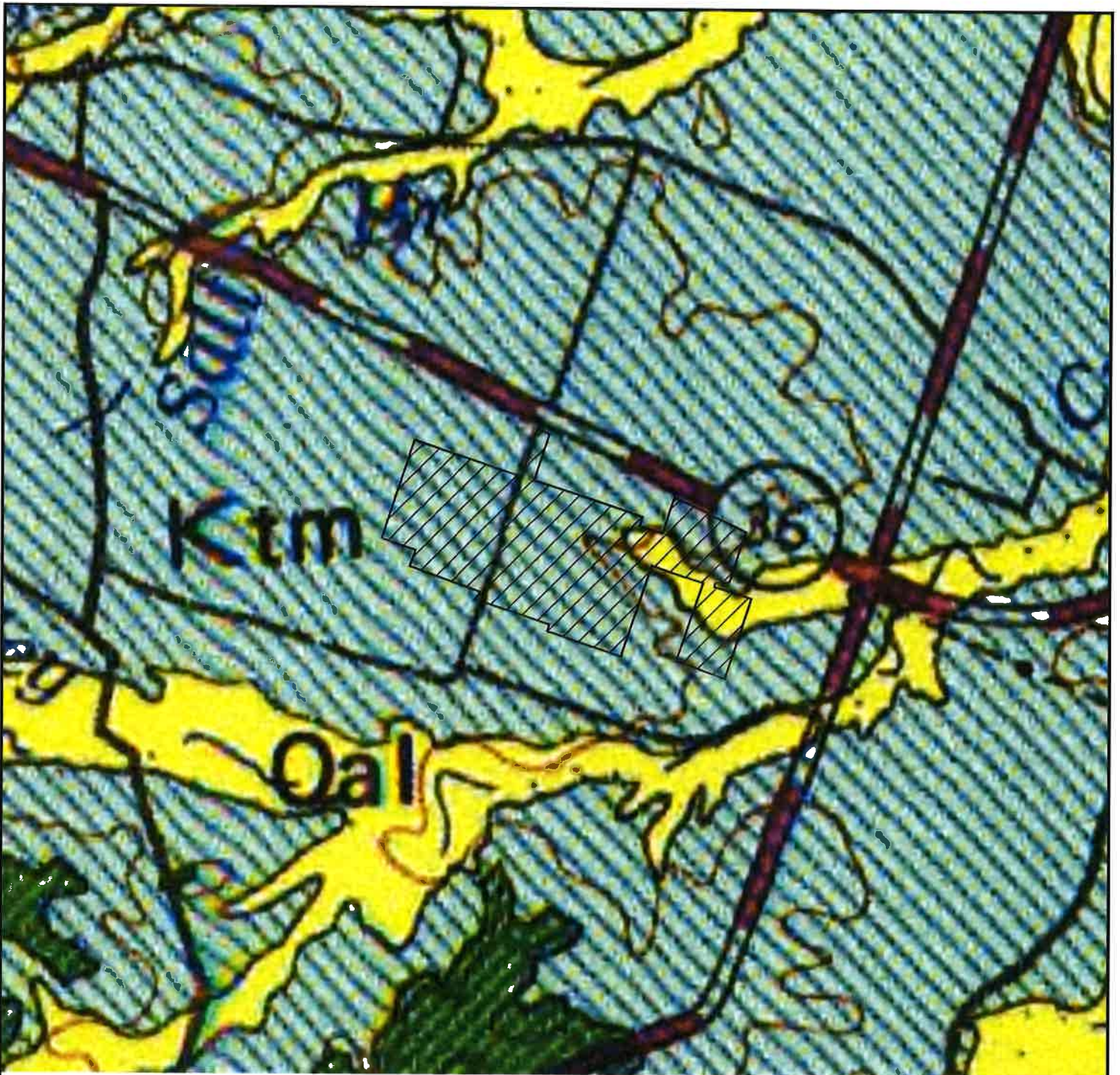
T.F.6 References

Ashworth and Hopkins, November 1995. Aquifers of Texas. Report 345, Texas Water Development Board.

Bureau of Economic Geology, The University of Texas at Austin, Geologic Atlas of Texas – Brownwood Sheet. 1976.


Texas Water Development Board, Water Data for Texas. Retrieved May 21, 2025. <https://waterdatafortexas.org/groundwater/well/3155504>

USGS National Geologic Map Database. Retrieved May 21, 2025. https://ngmdb.usgs.gov/Geolex/UnitRefs/TwinMountainsRefs_10690.html#:~:text=Summary:,Twin%20Mountains%20Formation



Map Generated 5/19/2025

LEGEND:

- Ktm - Cretaceous Twin Mountains Formation
- Qal - Quaternary Alluvium
-  Denotes Property



Source: Geologic Atlas of Texas, Brownwood Sheet, 1976

Volleman Dairy Processing Land, LP
Gustine, TX
Comanche County

Geologic Atlas Map
Figure T.F.1
Page 13



Enviro-Ag Engineering, Inc.
ENGINEERING CONSULTANTS
3404 Airway Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

T.G: SOILS INFORMATION

T.G.1 Soil Features

Soil mapping units included in this section for the production area and waste disposal areas were taken from the electronic NRCS soil survey for Comanche County.

Soil Map—Comanche County, Texas



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/21/2025
Page 1 of 3

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
- 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 1:20,000.

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: Comanche County, Texas
Survey Area Data: Version 20, 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: Jan 27, 2021—Feb 3, 2021

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
BlalB	Blanket loam, 1 to 3 percent slopes	21.1	14.5%
ChC	Chaney loamy sand, 1 to 5 percent slopes	57.0	39.3%
HaB	Hassee loam, 1 to 3 percent slopes	1.8	1.2%
PdC	Pedernales loamy fine sand, 1 to 5 percent slopes	23.0	15.8%
PeB	Pedernales fine sandy loam, 1 to 3 percent slopes	42.1	29.0%
Totals for Area of Interest		145.0	100.0%

Selected Soil Interpretations

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

Report—Selected Soil Interpretations

Selected Soil Interpretations—Comanche County, Texas							
Map symbol and soil name	Pct. of map unit	AWM - Irrigation Disposal of Wastewater		AWM - Land Application of Municipal Sewage Sludge		ENG - Sewage Lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BlalB—Blanket loam, 1 to 3 percent slopes							
Blanket	85	Somewhat limited		Somewhat limited		Somewhat limited	
		Slow water movement	0.37	Slow water movement	0.37	Seepage	0.50
		Seepage, porous bedrock	0.30				
ChC—Chaney loamy sand, 1 to 5 percent slopes							
Chaney	85	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Seepage	1.00
		Slow water movement	1.00	Slow water movement	1.00	Depth to soft bedrock	0.26
		Too acid	0.42	Too acid	0.42	Slope	0.08
HaB—Hassee loam, 1 to 3 percent slopes							
Hassee	100	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Depth to saturated zone	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00		
PdC—Pedernales loamy fine sand, 1 to 5 percent slopes							
Pedernales	85	Somewhat limited		Somewhat limited		Not limited	
		Slow water movement	0.37	Slow water movement	0.37		

Selected Soil Interpretations--Comanche County, Texas							
Map symbol and soil name	Pct. of map unit	AWM - Irrigation Disposal of Wastewater		AWM - Land Application of Municipal Sewage Sludge		ENG - Sewage Lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PeB--Pedernales fine sandy loam, 1 to 3 percent slopes							
Pedernales	90	Somewhat limited		Somewhat limited		Not limited	
		Slow water movement	0.37	Slow water movement	0.37		

Data Source Information

Soil Survey Area: Comanche County, Texas
 Survey Area Data: Version 20, Aug 30, 2024



RUSLE2 Related Attributes

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factor Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic layer.

Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed or the first mineral horizon below an organic surface horizon. Organic horizons are not displayed.

RUSLE2 Related Attributes—Comanche County, Texas								
Map symbol and soil name	Pct. of map unit	Slope length (ft)	Hydrologic group	Kf	T factor	Representative value		
						% Sand	% Silt	% Clay
BlalB—Blanket loam, 1 to 3 percent slopes								
Blanket	85	200	C	.37	5	39.0	37.0	24.0
ChC—Chaney loamy sand, 1 to 5 percent slopes								
Chaney	85	200	C	.15	4	84.0	8.0	8.0
HaB—Hassee loam, 1 to 3 percent slopes								
Hassee	100	200	D	.49	5	44.3	40.7	15.0
PdC—Pedernales loamy fine sand, 1 to 5 percent slopes								
Pedernales	85	298	C	.28	5	85.0	10.0	5.0
PeB—Pedernales fine sandy loam, 1 to 3 percent slopes								
Pedernales	90	200	C	.24	5	71.0	17.0	12.0

Data Source Information

Soil Survey Area: Comanche County, Texas
 Survey Area Data: Version 20, Aug 30, 2024

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (K_{sat}), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (oven-dry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (<http://soils.usda.gov>)

Physical Soil Properties—Comanche County, Texas															
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index	
										K _w	K _f	T			
	In	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct		K _w	K _f	T		
PdC— Pedernales loamy fine sand, 1 to 5 percent slopes															
	Pedernales	0-12	75-85- 87	4-10- 19	3- 5- 9	1.58-1.62	14.00-42.00	0.08-0.12	0.0-0.6	0.3-1.3	.28	.28	5	2	134
		12-36	40-49- 55	5-11- 25	35-40- 55	1.44-1.60	1.40-4.00	0.13-0.15	4.4-8.7	0.3-1.0	.15	.15			
		36-44	40-55- 60	5-10- 30	30-35- 45	1.49-1.73	1.40-4.00	0.14-0.17	3.2-6.5	0.1-0.8	.15	.15			
		44-79	40-60- 65	10-15- 40	20-25- 35	1.41-1.53	1.40-4.00	0.10-0.15	1.1-4.4	0.1-0.5	.20	.20			
PeB— Pedernales fine sandy loam, 1 to 3 percent slopes															
	Pedernales	0-7	55-71- 75	7-17- 34	5-12- 18	1.48-1.55	4.00-14.00	0.13-0.17	0.2-1.5	0.5-1.5	.24	.24	5	3	86
		7-21	40-49- 55	5-11- 25	35-40- 55	1.44-1.60	1.40-4.00	0.13-0.15	4.4-8.7	0.3-1.0	.15	.15			
		21-40	40-55- 60	5-10- 30	30-35- 45	1.49-1.73	1.40-4.00	0.14-0.17	3.2-6.5	0.1-0.8	.15	.15			
		40-53	40-55- 60	10-15- 40	20-30- 40	1.45-1.64	1.40-14.00	0.09-0.16	1.0-5.4	0.1-0.6	.20	.20			
		53-79	40-60- 65	10-15- 40	20-25- 35	1.41-1.53	1.40-4.00	0.10-0.15	1.1-4.4	0.1-0.5	.20	.20			

Data Source Information

Soil Survey Area: Comanche County, Texas
Survey Area Data: Version 20, Aug 30, 2024



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

5/21/2025
Page 5 of 5

Map Unit Description (Brief, Generated)

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 in this report, along with the maps, provide information on the composition of map units and properties of their components.

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.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Comanche County, Texas

Map Unit: BlalB—Blanket loam, 1 to 3 percent slopes

Component: Blanket (85%)

The Blanket component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on ridges on hills. The parent material consists of loamy slope alluvium derived from limestone, sandstone, and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R085AY279TX Clayey Swale 30-38 ecological site. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 7 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Hassee (5%)

Generated brief soil descriptions are created for major soil components. The Hassee soil is a minor component.

Component: May (5%)

Generated brief soil descriptions are created for major soil components. The May soil is a minor component.

Component: Windthorst (5%)

Generated brief soil descriptions are created for major soil components. The Windthorst soil is a minor component.

Map Unit: ChC—Chaney loamy sand, 1 to 5 percent slopes

Component: Chaney (85%)

The Chaney component makes up 85 percent of the map unit. Slopes are 1 to 5 percent. This component is on ridges on low hills. The parent material consists of loamy slope alluvium and/or residuum weathered from sandstone and shale over claystone and/or interbedded sedimentary rock. Depth to a root restrictive layer, bedrock, densic, is 40 to 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R084BY171TX Loamy Sand 29-33" PZ ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Hassee (4%)

Generated brief soil descriptions are created for major soil components. The Hassee soil is a minor component.

Component: Windthorst (4%)

Generated brief soil descriptions are created for major soil components. The Windthorst soil is a minor component.

Component: Nimrod (4%)

Generated brief soil descriptions are created for major soil components. The Nimrod soil is a minor component.

Component: Selden (3%)

Generated brief soil descriptions are created for major soil components. The Selden soil is a minor component.

Map Unit: HaB—Hassee loam, 1 to 3 percent slopes

Component: Hassee (100%)

The Hassee component makes up 100 percent of the map unit. Slopes are 1 to 3 percent. This component is on depressions on stream terraces on river valleys. The parent material consists of clayey alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during May, June, July, August, September, October. Organic matter content in the surface horizon is about 1 percent. This component is in the R084BY168TX Claypan 29-33" PZ ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map Unit: PdC—Pedernales loamy fine sand, 1 to 5 percent slopes

Component: Pedernales (85%)

The Pedernales component makes up 85 percent of the map unit. Slopes are 1 to 5 percent. This component is on ridges on hills. The parent material consists of loamy residuum weathered from sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R084BY171TX Loamy Sand 29-33" PZ ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Chaney (7%)

Generated brief soil descriptions are created for major soil components. The Chaney soil is a minor component.

Component: Cisco (5%)

Generated brief soil descriptions are created for major soil components. The Cisco soil is a minor component.

Component: Demona (3%)

Generated brief soil descriptions are created for major soil components. The Demona soil is a minor component.

Map Unit: PeB—Pedernales fine sandy loam, 1 to 3 percent slopes

Component: Pedernales (90%)

The Pedernales component makes up 90 percent of the map unit. Slopes are 1 to 3 percent. This component is on ridges on hills. The parent material consists of loamy residuum weathered from sandstone and siltstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R084BY175TX Tight Sandy Loam 29-33" PZ ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Cisco (3%)

Generated brief soil descriptions are created for major soil components. The Cisco soil is a minor component.

Component: Chaney (3%)

Generated brief soil descriptions are created for major soil components. The Chaney soil is a minor component.

Component: Wise (2%)

Generated brief soil descriptions are created for major soil components. The Wise soil is a minor component.

Component: Blanket (2%)

Generated brief soil descriptions are created for major soil components. The Blanket soil is a minor component.

Data Source Information

Soil Survey Area: Comanche County, Texas

Survey Area Data: Version 20, Aug 30, 2024

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Comanche County, Texas															
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index	
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200			
BlalB—Blanket loam, 1 to 3 percent slopes			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	
	Blanket	85	C	0-6	Loam	CL, ML	A-6, A-4	0-0-0	0-0-0	97-100-100	95-100-100	85-97-100	58-73-78	25-35-38	3-14-17
				6-22	Silty clay, clay, clay loam	CL, CH	A-7-6	0-0-0	0-0-0	97-100-100	94-100-100	85-99-100	67-85-97	45-49-60	26-29-37
			22-48	Silty clay loam, clay, clay loam	CL, CH	A-7-6, A-6	0-0-0	0-0-0	91-100-100	81-100-100	71-99-100	53-83-99	35-42-62	17-22-38	
			48-80	Silty clay loam, clay, clay loam	CL, CH	A-6, A-7-6	0-0-0	0-0-0	91-100-100	82-100-100	71-99-100	51-78-96	35-36-61	17-18-38	

Engineering Properties—Comanche County, Texas														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
ChC—Chaney loamy sand, 1 to 5 percent slopes														
Chaney	85	C	0-4	Loamy sand	SM, SC-SM	A-2-4	0-0-0	0-0-0	93-98-100	92-98-100	69-79-87	16-23-30	5-15-21	NP-2-6
			4-14	Loamy fine sand, loamy sand, fine sand	SM, SC-SM	A-2-4	0-0-0	0-0-0	93-99-100	92-98-100	69-79-87	16-23-30	5-15-21	NP-2-6
			14-40	Sandy clay, clay	SC, CL, CH	A-7-6, A-6	0-0-0	0-0-0	92-97-100	90-97-100	76-89-99	41-51-60	38-46-57	16-24-32
			40-52	Sandy clay, clay, clay loam, sandy clay loam	SC, CL, CH	A-4, A-6, A-7-6	0-0-0	0-0-0	95-100-100	95-100-100	78-95-100	36-51-63	25-40-53	8-17-29
			52-80	Sandy clay, clay, sandy clay loam	CH, SC	A-7-6, A-6	0-0-0	0-0-0	95-100-100	94-100-100	70-94-100	41-64-74	30-51-62	11-25-36
HaB—Hassee loam, 1 to 3 percent slopes														
Hassee	100	D	0-12	Loam	CL	A-4, A-6	0-0-0	0-0-0	95-98-100	95-98-100	80-90-100	50-65-80	20-28-35	8-12-16
			12-42	Silty clay, clay	CH, CL	A-7-6	0-0-0	0-0-0	95-98-100	95-98-100	95-98-100	75-85-95	41-52-62	24-33-41
			42-60	Clay loam, clay	CH, CL	A-6, A-7-6	0-0-0	0-0-0	95-98-100	95-98-100	90-95-100	70-83-95	35-44-52	20-28-35

Engineering Properties—Comanche County, Texas														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
<i>In</i>														
PdC—Pedernales loamy fine sand, 1 to 5 percent slopes	85	C	0-12	Loamy fine sand	SC-SM	A-2-4	0-0-0	0-0-0	97-100-100	92-100-100	85-94-98	24-29-33	0-17-23	NP-4-5
			12-36	Sandy clay, clay	CL	A-6	0-0-0	0-0-0	97-100-100	92-100-100	85-97-100	45-54-69	37-39-56	20-21-34
			36-44	Clay loam, sandy clay, clay	SC	A-6	0-0-0	0-0-0	97-100-100	92-100-100	85-97-100	40-48-58	38-39-52	20-21-31
			44-79	Loam, clay loam, sandy clay loam	SC	A-6	0-0-0	0-0-0	89-95-100	78-88-100	71-85-100	31-39-54	29-34-45	12-16-25
PeB—Pedernales fine sandy loam, 1 to 3 percent slopes														
Pedernales	90	C	0-7	Fine sandy loam	SC-SM	A-4	0-0-0	0-0-0	97-100-100	92-100-100	82-96-100	29-39-45	17-24-31	2-7-12
			7-21	Clay, sandy clay	CL	A-6	0-0-0	0-0-0	97-100-100	92-100-100	85-97-100	45-54-69	37-39-56	20-21-34
			21-40	Sandy clay, clay loam, clay	SC	A-6	0-0-0	0-0-0	97-100-100	92-100-100	85-97-100	40-48-58	38-39-52	20-21-31
			40-53	Sandy clay loam, clay loam, sandy clay	SC	A-6	0-0-0	0-0-0	94-98-100	86-98-100	75-95-100	34-49-59	29-39-50	12-20-29
			53-79	Sandy clay loam, loam, clay loam	SC	A-6	0-0-0	0-0-0	89-95-100	78-88-100	71-85-100	31-39-54	29-34-45	12-16-25

Data Source Information

Soil Survey Area: Comanche County, Texas
Survey Area Data: Version 20, Aug 30, 2024

T.H: ENGINEERING REPORT

T.H.1 Purpose

This report is prepared as part of the Volleman Dairy Processing Plant application for a Texas Land Application Permit (TLAP) through the Texas Commission on Environmental Quality (TCEQ). Water balance models have been developed to illustrate the function of the impoundment system and the hydraulic and nutrient demands of the planned crops.

T.H.2 Background

Volleman Dairy Processing Plant is applying for a Major Amendment to its Water Quality TLAP Permit No. WQ0005282000 to receive, store, and dispose of treated effluent.

T.H.3 Impoundment Facility

The treatment system at the facility consists of one earthen impoundment with a storage capacity of 5.7 million gallons and a storage system with a capacity of 7.7 million gallons.

T.H.4 Water Balance Calculations

Figures T.H.1 and T.H.2, Water Balance Calculations, are designed to evaluate the maximum application rate (hydraulic loading rate) for the land application area and estimate the inflows and withdrawals from direct rainfall, process-generated wastewater, evaporation, and irrigation withdrawal based on crop demand.

Figure T.H.1
Water Balance Calculations

Permittee: **Volleman Dairy Processing Land, LP, Volleman Dairy, LLC, and Na**
 Permit No.: **WQ0005282000**

TWDB Data Quadrangle:
609

The water balance calculations are designed to evaluate the maximum application rate (hydraulic loading rate) for the land area where irrigation is to occur. The applicant's proposed application rate must not exceed the maximum calculated application rate or the maximum application rate based on agronomic analysis.

Month (1) Units →	Avg. Precip. (2) inches	Average Runoff (3) inches	Average Infiltrated Rainfall (4) inches	Evapotrans- piration (5) inches	Required Leaching (6) inches	Total Water Needs (5)+(6) (7) inches	Effluent Needed in Root Zone (7)-(4) (8) inches	Evaporatio n from Reservoir Surface (9) inches	Effluent to be Applied to Land (8)/K (10) inches	Consumpti on from Reservoir (9)+(10) (11) inches
January	1.70	0.16	1.54	1.10	0.00	1.10	0.00	0.10	0.00	0.10
February	1.76	0.18	1.58	1.50	0.00	1.50	0.00	0.12	0.00	0.12
March	2.48	0.48	2.00	3.70	0.39	4.09	2.10	0.22	2.47	2.69
April	2.31	0.40	1.91	4.50	0.60	5.10	3.19	0.39	3.75	4.14
May	4.52	1.76	2.76	8.00	1.21	9.21	6.45	0.07	7.59	7.66
June	3.26	0.91	2.34	9.00	1.54	10.54	8.19	0.50	9.64	10.13
July	1.95	0.25	1.71	9.30	1.75	11.05	9.35	0.81	10.99	11.80
August	2.10	0.31	1.79	5.90	0.95	6.85	5.05	0.78	5.95	6.73
September	2.85	0.68	2.17	6.70	1.04	7.74	5.57	0.39	6.55	6.95
October	3.52	1.08	2.44	5.20	0.64	5.84	3.39	0.16	3.99	4.15
November	1.90	0.23	1.67	2.10	0.10	2.20	0.53	0.18	0.62	0.81
December	1.22	0.04	1.18	0.90	0.00	0.90	0.00	0.17	0.00	0.17
Totals	29.56	6.45	23.11	57.90	8.22	66.12	43.82	3.89	51.55	55.44

Crop is	Coastal Bermudagrass		
CN	71.00	<i>dimensionless</i>	
Ce	1.50	<i>mmhos/cm</i>	
Cl	8.00	<i>mmhos/cm</i>	
Pond area	6.92	<i>acres</i>	
Irrigation area	46.00	<i>acres</i>	
			Maximum calculated application rate = 4.62 <i>ac-in/ac/month OR ac-ft/ac/year</i>
			Applicant's proposed application rate = <i>ac-in/ac/month OR ac-ft/ac/year</i>
			Maximum rate from agronomic analysis = N/A <i>ac-in/ac/month OR ac-ft/ac/year</i>

Irrigation Efficiency, K	0.85	<i>dimensionless</i>
Design Flow	0.100	<i>MGD</i>

Recommended rate for permit = 4.62	<i>ac-in/ac/month OR ac-ft/ac/year</i>
Limiting factor =	Click this cell to choose from list.
Gross rate check (from flow, acres) = 2.44	OK

- (2) Average rainfall – Data source: Texas Water Development Board (see Quadrangle above)
 (3) Average runoff = $\frac{((\text{average rainfall} - (0.2 * ((1000 / \text{CN}) - 10)))^2)}{((\text{average rainfall} + (0.8 * ((1000 / \text{CN}) - 10))))}$
 (4) Average infiltrated rainfall = (average rainfall – average runoff)
 (5) Evapotranspiration – Borelli, Bulletin 6019
 (6) Required leaching =
 If: $\text{evapotranspiration} - \text{average infiltrated rainfall} \leq 0$, then 0;
 If: $\text{evapotranspiration} - \text{average infiltrated rainfall} > 0$, $\text{Ce} / (\text{Cl} - \text{Ce}) * (\text{evapotranspiration} - \text{avg infiltrated rainfall})$
 (7) Total water needs = $\text{evapotranspiration} + \text{required leaching}$
 (8) Effluent needed in root zone = $\text{total water needs} - \text{average infiltrated rainfall}$
 (9a) Net evaporation – Data source: Texas Water Development Board (see Quadrangle above)
 (9b) Raw net evaporation from reservoir surface = $(\text{net evaporation from reservoir}) * ((\text{pond area}) / (\text{irrigation area}))$
 (10) Effluent needed based on irrigation efficiency = $(\text{effluent needed in root zone}) / (\text{irrigation efficiency})$
 (11) Consumption from reservoir = $\text{net evaporation from reservoir surface} + \text{effluent needed based on irrigation efficiency}$

Figure T.H.2
Water Balance Calculations

STORAGE CALCULATIONS, all units in inches (unless otherwise specified)

Permittee: **Volleman Dairy Processing Land, LP, Volleman Dairy, LLC, and Natural Dairy Grower Land, LP**
Permit No.: **WQ0005282000**

The storage calculations are designed to evaluate the storage capacity and surface area of the applicant's storage pond (or multiple ponds). The pond must have enough surface area to evaporate all the flow to the pond under low-net evaporation and corresponding annual rainfall conditions. The pond is considered adequately sized when the additional storage required is equal to zero (or "none"). If the additional storage required is greater than zero, then: (1) the pond's storage capacity must be increased, (2) the pond's surface area must be increased, (3) the effluent flow must be reduced, or (4) other approved measures must be taken to ensure that no accumulation occurs during low-net evaporation and corresponding annual rainfall conditions.

Month (12)	a Effluent Received for Application or Storage (13) <i>inches</i>	b Rainfall Worst Year in Past 25 Year (14) <i>inches</i>	c Runoff Worst Year in Past 25 Year (15) <i>inches</i>	Infiltrated Rainfall (14)- (15) (16) <i>inches</i>	Available Water (13)+(16) (17) <i>inches</i>	d Net 25 Year Low Evaporatio n from Regur. Surface (18) <i>inches</i>	e Storage (19) <i>inches</i>	f Accumulat ed Storage (20) <i>inches</i>
Units →								
January	2.44	2.65	0.57	2.08	4.52	0.00	2.43	7.30
February	2.44	2.75	0.62	2.13	4.56	0.00	2.43	9.74
March	2.44	3.86	1.30	2.56	5.00	0.00	0.63	10.37
April	2.44	3.60	1.13	2.47	4.91	0.00	-0.66	0
May	2.44	7.05	3.76	3.28	5.72	0.00	-4.54	0
June	2.44	5.08	2.18	2.90	5.34	0.00	-6.55	0
July	2.44	3.05	0.79	2.26	4.70	0.00	-7.91	0
August	2.44	3.28	0.92	2.35	4.79	0.00	-2.86	0
September	2.44	4.45	1.71	2.74	5.17	0.00	-3.46	0
October	2.44	5.50	2.50	3.00	5.43	0.00	-0.90	0
November	2.44	2.96	0.74	2.22	4.66	0.00	2.43	2.43
December	2.44	1.90	0.23	1.67	4.11	0.00	2.43	4.87
Totals	29.22	46.13	16.45	29.68	58.90	0.02	—	10.37

Worst (low) net evap. =	-0.13 inches	Storage required =	39.76 ac-ft
Corresponding rain =	46.13 inches	Actual storage =	ac-ft
Worst-case net year =	2007	Additional storage required =	39.76 ac-ft
		Storage days =	130 days

(13) Effluent available for irrigation (assumes design flow is applied to entire acreage unless different flow values are justified).

(14a) Average rainfall distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(14b) Rainfall worst year = (rainfall distribution as fraction or %/100) * maximum annual rainfall

(15) Field runoff worst year = $[(\text{rainfall worst year} - (0.2 * ((1000 / \text{CN}) - 10)))^2 / ((\text{rainfall worst year} + (0.8 * ((1000 / \text{CN}) - 10)))]$

(16) Infiltrated rainfall = (rainfall worst year - field runoff worst year)

(17) Available water = (effluent available for land application + infiltrated rainfall check)

(18a) Average net evaporation distribution - Data source: Texas Water Development Board (see Quadrangle in Water Balance Calculations above)

(18b) Net low evaporation from reservoir surface = $[(\text{low net evaporation}) * (\text{net low evaporation avg. dist})] * [(\text{pond area}) / (\text{irrigation area})]$

(19) Storage =

If: (total water needs - infiltrated rainfall) < 0, (effluent available for land application - net low evaporation from reservoir surface);

If: (total water needs - infiltrated rainfall) ≥ 0,

(effluent available for land application - net low evaporation from reservoir surface) * [(total water needs - infiltrated rainfall) / (irrigation efficiency)]

(20) Accumulated storage =

If: net low evaporation from reservoir surface + storage ≤ 0, 0

If: net low evaporation from reservoir surface + storage > 0, enter value

T.I: POLLUTANT ANALYSIS DATA



ANALYTICAL REPORT

May 16, 2025

Enviro-Ag Engineering

Sample Delivery Group: L1848365
Samples Received: 04/16/2025
Project Number: VP-51
Description: Pollutant Permit

Report To:
Jouhdan Mullin
3404 Airway Blvd.
Amarillo, TX 79118

Entire Report Reviewed By:

Dorothy P Roberts

Dorothy P Roberts
Project Manager

Results relate only to the items tested or analyzed and are reported as rounded values. This report shall not be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Pace Analytical. This report is the property of Pace Analytical and is loaned to the client. It is to be used for the specific purpose for which it was prepared and is not to be used for any other purpose without the prior written permission of Pace Analytical.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT:
Enviro-Ag Engineering

PROJECT:
VP-51

SDG:
L1848365

DATE/TIME:
05/16/25 15:52

PAGE:
1 of 43

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Sr: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
VP-51 L1848365-01	5
Qc: Quality Control Summary	8
Gravimetric Analysis by Method 2540C	8
Gravimetric Analysis by Method 2940D	9
Wet Chemistry by Method 2320B	10
Wet Chemistry by Method 300.0	11
Wet Chemistry by Method 3500Cu-8	13
Wet Chemistry by Method 351.2	14
Wet Chemistry by Method 360.1	15
Wet Chemistry by Method 4500Cl G-2011	16
Wet Chemistry by Method 4500CN-E	17
Wet Chemistry by Method 4500P-E	18
Wet Chemistry by Method 5210 B-2016	19
Wet Chemistry by Method 5220D	21
Wet Chemistry by Method 5310C	22
Wet Chemistry by Method SM 4500-H-18	23
Wet Chemistry by Method SM4500NH3H	24
Mercury by Method 245.1	25
Metals (ICP) by Method 200.7	26
GI: Glossary of Terms	28
AI: Accreditations & Locations	29
Sc: Sample Chain of Custody	30

PAGE:
2 of 43

VP-51
Collected date/time: 04/16/25 06:39
L1849365

SAMPLE RESULTS - 01

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium, Trivalent	0.00431		mg/l	1	04/30/2025 11:42	WG2493811
O gatic Nitrogen	511	C-500	mg/l	1	04/22/2025 14:20	WG2498736

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Total Dissolved Solids	2900	13	mg/l	500	04/17/2025 16:52	WG2493508

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Suspended Solids	640		mg/l	167	04/21/2025 12:39	WG2496025

Wet Chemistry by Method 2320B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Acidity	835		mg/l	20.0	04/21/2025 C347	WG2493597

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chloride	854		mg/l	80.0	04/17/2025 12:39	WG2462422
Fluoride	0.011	C-500	mg/l	1	04/17/2025 10:05	WG2492422
Nitrate as (N)	ND	0.500	mg/l	1	04/17/2025 10:05	WG2492427
Sulfate	761	0.700	mg/l	1	04/17/2025 14:52	WG2493334

Wet Chemistry by Method 3500Cl-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium Hexavalent	ND	0	mg/l	0.00300	04/17/2025 14:57	WG2492038

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
K ₂ Cr ₂ O ₇ Nougou, TKN	75.5		mg/l	6.25	04/17/2025 18:43	WG2462894

Wet Chemistry by Method 360.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Dissolved Oxygen	1.23	13	mg/l	1	04/17/2025 09:03	WG2492950

Wet Chemistry by Method 4500Cl G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chlorine Residual	ND	13	mg/l	0.500	05/05/2025 16:29	WG2505128

Sample Narrative:
L1849365-01 WG2505281: Dilution due to sample matrix.

VP-51
Collected date/time: 04/16/25 06:39
L1849365

SAMPLE RESULTS - 01

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide	ND		mg/l	C-1000	04/17/2025 16:01	WG2493757

Wet Chemistry by Method 4500CN-G

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide, Amenable	ND		mg/l	C-1000	04/17/2025 16:01	WG2493757

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Phosphorus Total	13.9	13	mg/l	100	04/24/2025 16:20	WG2498724

Wet Chemistry by Method 5210 B-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
BOD	915		mg/l	150	04/21/2025 10:11	WG2491939
CBCD	1090		mg/l	150	04/21/2025 11:20	WG2491945

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
COO	1760		mg/l	140	04/17/2025 16:56	WG2462387

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	418		mg/l	14.0	04/22/2025 21:23	WG2496095

Wet Chemistry by Method SM 4500-H-B

Analyte	Result	Qualifier	Dilution	Analysis	Batch
pH	7.67	13		04/18/2025 08:57	WG2493937

Sample Narrative:
L1849365-01 WG2493957: 7.67 at 27.6C

Wet Chemistry by Method SM4500NH3H

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	24.4		mg/l	0.500	04/22/2025 14:20	WG2496126

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Mercury	ND		mg/l	c 0.000200	04/21/2025 19:25	WG2492651

Collected date/time: 04/16/25 06:38

L1848355

SAMPLE RESULTS - 01

Collected date/time: 04/15/25 06:38

L1848355

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	0.497		0.000	1	04/30/2025 11:42	W674959B12
Antimony	ND		0.000	1	04/30/2025 11:42	W674959B12
Arsenic	ND		0.000	1	04/30/2025 11:42	W674959B12
Barium	0.125		0.0500	1	04/30/2025 11:42	W674959B12
Beryllium	ND		0.0200	1	04/30/2025 11:42	W674959B12
Cadmium	ND		0.0200	1	04/30/2025 11:42	W674959B12
Chromium	ND		0.000	1	04/30/2025 11:42	W674959B12
Copper	0.014		0.000	1	04/30/2025 11:42	W674959B12
Lead	ND		0.0500	1	04/30/2025 11:42	W674959B12
Nickel	ND		0.000	1	04/30/2025 11:42	W674959B12
Selenium	ND		0.000	1	04/30/2025 11:42	W674959B12
Silver	ND		0.0500	1	04/30/2025 11:42	W674959B12
Thallium	ND		0.000	1	04/30/2025 11:42	W674959B12
Zinc	0.120		0.0500	1	04/30/2025 11:42	W674959B12

ACCOUNT:
Enviro-Ag Engineering

SDG:
L:848365

DATE/TIME: 05/16/25 15 52

PAGE:
7 of 43

QUALITY CONTROL SUMMARY

Gravimetric Analysis by Method 2540C

1848365-01

Method Blank (MB)

(MB) R4201631-1 04/17/25 16:52

Analyte	mg/l	mg/l	mg/l
Total Dissolved Solids	U	75.0	75.0

L1848365-01 Original Sample (OS) • Duplicate (DUP)
(OS) L1848365-01 04/17/25 16:52 • (DUP) R4201631-3 04/17/25 16:52

(OS) L1848365-01 04/17/25 16:52 • (DUP) R4201631-3 04/17/25 16:52

Analysis	mg/l	mg/l	Dilution	%	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	2900	2600	1	10.9		0.3	0.6

Laboratory Control Sample (LCS)

(LCS) R4201631-2 04/17/25 16:52

Analyte	mg/l	mg/l	%	%
Spent Magma	2330	2540	109	85.0-115
Total Dissolved Solids				

Sc
Al
Ga
In
Sr
Ca
Ss
Tc
Up

Sc
Al
Ga

Sr
Ca
Ss
Ti
P

SS₀
 AI
 GI
 OC
 ST₅
 CU
 SS_F
 TC
 CP

[illegible]

WG2492427											
Method Blank (MB)											
(MB) R420T127-1 04/17/25 09:24	MB Result	MB Qualifier	MB MDL	MB PDL							
Analyte	mg/l				mg/l						
Chloride	U		0.375	0.800							
Fluoride	U		0.0947	0.500							
Nitrate as (N)	U		0.379	0.500							
<hr/>											
Laboratory Control Sample (LCS)											
(LCS) R420T127-2 04/17/25 09:44	Spike Amount	LCS Result	LCS Rec.	LCS Rec.	LCS Qualifier						
Analyte	mg/l		%			Rec. Limits					
Chloride	5.21	104	90-110								
Fluoride	5.00	105	90-110								
Nitrate as (N)	5.00	5.13	103	90-110							
<hr/>											
L1848770-01 Original Sample (OS) • Matrix Spike Duplicate (MSD)											
(OS) L1848770-01 04/17/25 11:33 • (MS) R420T127-3 04/17/25 11:53 • (MSD) R420T127-4 04/17/25 12:14	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l		mg/l		%			%		%	%
Fluoride	5.00	0.723	5.70	5.80	101	99.5	1	90.0-110	1.61	20	20
Nitrate as (N)	5.00	0.921	5.99	5.80	101	99.5	1	90.0-110	1.62	20	20
<hr/>											
L1848770-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)											
(OS) L1848770-01 04/17/25 12:59 • (MS) R420T127-5 04/17/25 13:20 • (MSD) R420T127-6 04/17/25 13:41	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l		mg/l		%			%		%	%
Chloride	81.8			336	107	102	50	90.0-110	0.545	20	20
Fluoride	81.8			336	107	102	50	90.0-110	0.545	20	20
Nitrate as (N)	81.8			336	107	102	50	90.0-110	0.545	20	20

Sc
Al
Ga
In
Sr
Ca
Ss
Tc
Cu

Sc Al Ga In Sn Tc Pb

WG2492850									
Wet Chemistry by Method 360.1									
L1848365-01									
L1848365-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1848365-01 04/17/25 09:03 • (DUP) R4200862-1 04/17/25 09:03									
Analyte	mg/l	1.23							
Unabsorbed Oxygen	mg/l	1.29							
Original Result	DUP Result	Dilution	DUP RPD						
%									
4.76	1								
DUP Qualifier									
%									
10									
DUP RPD									
L1848365-01									

WG2505281									
Wet Chemistry by Method 4500Cl G-2011									
L1848365-01									
Method Blank (MB)									
(MB) R420989-1 05/05/25 15:25									
Analyte	mg/l								
Chlorine residual	mg/l	U							
MB Result	MB MDL	MB RDL							
0.0415	0.100								
L1848365-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1848365-01 05/05/25 15:29 • (DUP) R420989-5 05/05/25 15:29									
Analyte	mg/l								
Chlorine residual	mg/l	ND							
Original Result	DUP Result	Dilution	DUP RPD						
%									
5	0.000								
DUP Qualifier									
%									
20									
DUP RPD									
L1848365-01									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R420989-2 05/05/25 15:26 • (LCSD) R420989-3 05/05/25 15:26									
Analyte	mg/l								
Chlorine residual	mg/l	1.00							
Spike Amount	LCS Result	LCS Rec							
1.00	1.09								
LCSD Result	LCS Rec								
1.09									
LCSD Rec									
%									
109									
Rec Limits									
%									
85.0-115									
LCSD Qualifier									
%									
0.459									
RPD Limits									
%									
20									
L1848365-01									

Method Blank (MB)														
(MB) R420125-1 04/17/25 16:01														
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL										
Cyanide	mg/L		U	0.00730	0.0100									
Laboratory Control Sample (LCS)														
(LCS) R420125-2 04/17/25 16:01														
Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier									
Cyanide	mg/L	mg/L	%	%										
	0.100	0.0902	90.2	85.0-115										
L184889-03 Original Sample (OS) • Matrix Spike Duplicate (MSD)														
(OS) L184889-03 04/17/25 16:01 • (MSD) R420125-7 04/17/25 16:01														
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits	MSD Qualifier					
Cyanide	mg/L	mg/L	mg/L	mg/L	%	%		%						
	0.100	0.0861	0.0838	0.0861	86.1	83.8	1	85.0-115	J6					
	0.100	0.0861	0.0838	0.0861	86.1	83.8	1	85.0-115	J6					
									RPD Limits					
									2.63					
									2.63					
									20					
									20					
L184889-03 Original Sample (OS) • Matrix Spike (MS)														
(OS) L184889-03 04/17/25 16:01 • (MS) R420125-5 04/17/25 16:01														
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Result	Dilution	Rec Limits	MSD Qualifier					
Cyanide	mg/L	mg/L	mg/L	mg/L	%	%		%						
	0.100	0.0861	0.0838	0.0838	86.1	83.8	1	85.0-115	J6					
	0.100	0.0861	0.0838	0.0838	86.1	83.8	1	85.0-115	J6					
									RPD Limits					
									2.63					
									2.63					
									20					
									20					

Sc

Al

Gl

Qc

Sl

Cn

Ss

Tc

Lp

Method Blank (MB)															
(MB) R4204631-1 04/24/25 16:20															
Analyte	MB Result	MB MDL	MB RDL												
Phosphorus, Total	0.0714	0.0152	0.0500												
Laboratory Control Sample (LCS)															
(LCS) R4204631-2 04/24/25 16:20															
Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier										
Phosphorus, Total	mg/L	mg/L	%												
	0.500	0.483	96.5	80.0-120											
L1848365-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)															
(OS) L1848365-01 04/24/25 16:20 • (MSD) R4204631-3 04/24/25 16:22 • (MSD) R4204631-4 04/24/25 16:22															
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MSD Qualifier						
Phosphorus, Total	mg/L	mg/L	mg/L	mg/L	%	%		%							
	0.500	13.9	15.3	15.5	265	305	20	80.0-120	V						
	0.500	13.9	15.3	15.5	265	305	20	80.0-120	V						
									RPD Limits						
									1.29						
									2.0						
L1850172-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)															
(OS) L1850172-01 04/24/25 16:20 • (MS) R4204631-5 04/24/25 16:22 • (MSD) R4204631-6 04/24/25 16:22															
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MSD Qualifier						
Phosphorus, Total	mg/L	mg/L	mg/L	mg/L	%	%		%							
	0.500	13.9	15.3	15.5	265	305	20	80.0-120	V						
	0.500	13.9	15.3	15.5	265	305	20	80.0-120	V						
									RPD Limits						
									1.29						
									2.0						

Sc

Al

Gl

Ge

Sr

Cu

Ss

Tc

Pb

[illegible]

WG2492847

Well Chemistry by Method 5220D

L1848365-01

QUALITY CONTROL SUMMARY

Qc

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

(MB) R420191-1 04/17/25 16:56

MB Result

mg/l

U

35.0

MB MDL

mg/l

MB RDL

Analyte

COB

MB Result

mg/l

U

35.0

MB MDL

mg/l

MB RDL

Laboratory Control Sample (LCS)

(LCS) R420191-2 04/17/25 16:56

Analyte

COB

Spike Amount

mg/l

500

LCS Result

mg/l

511

LCS Rec

%

102

Rec. Limits

80.0-120

LCS Qualifier

L1847649-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1847649-01 04/17/25 16:56 • (MS) R420191-3 04/17/25 17:03 • (MSD) R420191-4 04/17/25 17:03

Analyte

COB

Spike Amount

mg/l

500

Original Result

mg/l

55.5

MS Result

mg/l

549

MSD Result

mg/l

560

MS Rec

%

98 /

Dilution

%

101

MSD Rec

%

101

Rec. Limits

80.0-120

MSD Qualifier

RPD

%

191

RPD Limits

%

20

ACCOUNT: Enviro-Ag Engineering
PROJECT: VP-51
SDG: L1848365
DATE/TIME: 05/16/25 15:52
PAGE: 21 of 43

WG2496755															
Well Chemistry by Method 5310C															
Method Blank (MB)															
(MB) R4203987-1 04/22/25 17:48															
Analyte	MB Result	MB MDL	MB RDL												
TCC (Total Organic Carbon)	U	mg/l	0.700												
Laboratory Control Sample (LCS)															
(LCS) R4203987-2 04/22/25 18:08															
Analyte	Spike Amount	LCS Result	LCS Rec	Rec. Limits	LCS Qualifier										
TCC (Total Organic Carbon)	10.0	10.4	104	90.0-110											
L1850147-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)															
(OS) L1850147-01 04/22/25 18:31 • (MS) R4203987-3 04/22/25 20:29 • (MSD) R4203987-4 04/22/25 20:53															
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	Dilution	Rec. Limits	MSD Qualifier	RPD						
TCC (Total Organic Carbon)	10.0	17.9	18.2	101	104	80.0-120		1.50	20						
L1848365-01															
QUALITY CONTROL SUMMARY															
Sc	Al	Gl	Qc	Sr	Cn	Ss	Tc	Up							

ACCOUNT: Enviro-Ag Engineering
PROJECT: VP-51
SDG: L1848365
DATE/TIME: 05/16/25 15:52
PAGE: 22 of 43

WG2493937									
Wei Chemistry By Method SM 4500-H+8									
L1848175-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1848175-01 04/18/25 08:57 • (DUP) R4201466-2 04/18/25 08:57									
Analyte	su	su	su	DUP Result	DUP RPD	DUP Qualifier	DUP RPD		
pH	8.77	8.81	1	0.455		%			20
Sample Narrative: OS 8.77 at 21.6C DUP: 8.81 at 21.2C									
Laboratory Control Sample (LCS)									
(LCS) R4201466-1 04/18/25 08:57									
Analyte	su	su	su	LCS Result	LCS Rec.	Rec Limits	LCS Qualifier		
pH	6.00	6.02	100			%			99-101
Sample Narrative: LLS: 6.02 at 23.5C									

WG2496736									
Wei Chemistry By Method SM4500NH3H									
L1848365-01									
Method Blank (MB)									
(MB) R4203891-1 04/22/25 13:59									
Analyte	mg/l	mg/l	MB Qualifier	MB MDL	MB RDL				
Ammonia Nitrogen	0.0585	0.0280			0.100				
Laboratory Control Sample (LCS)									
(LCS) R4203891-2 04/22/25 14:00									
Analyte	mg/l	mg/l	LCS Result	LCS Rec.	Rec Limits	LCS Qualifier			
Ammonia Nitrogen	5.00	5.01			80.0-120				
L1848220-01 Original Sample (OS) • Matrix Spike Duplicate (MSD)									
(OS) L1848220-01 04/22/25 14:09 • (MSD) R4203891-3 04/22/25 14:02 • (MSD) R4203891-4 04/22/25 14:04									
Analyte	mg/l	mg/l	MSD Result	MSD Rec.	MSD Rec.	Dilution	Rec Limits	MS Qualifier	MSD Qualifier
Ammonia Nitrogen	5.00	ND	4.98	4.99	97.6		97.8		0.201
L1848223-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)									
(OS) L1848223-01 04/22/25 14:11 • (MS) R4203891-5 04/22/25 14:06 • (MSD) R4203891-6 04/22/25 14:07									
Analyte	mg/l	mg/l	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec Limits	MS Qualifier	MSD Qualifier
Ammonia Nitrogen	5.00	0.101	4.97	< 96	97.4		97.2		0.201

ACCREDITATIONS & LOCATIONS



Pace Analytical National		12055 Lebanon Rd Mount Juliet, TN 37122
Alabama	40002	NEOS-KCS
Alaska	17475	7600032024
Arizona	A27612	2935
Arkansas	88-0163	76000
California	2935	7600032024
Colorado	2935	7600032024
Connecticut	2935	7600032024
Florida	2935	7600032024
Georgia	2935	7600032024
Idaho	2935	7600032024
Illinois	2935	7600032024
Indiana	2935	7600032024
Iowa	2935	7600032024
Kansas	2935	7600032024
Kentucky	2935	7600032024
Louisiana	2935	7600032024
Maine	2935	7600032024
Massachusetts	2935	7600032024
Michigan	2935	7600032024
Minnesota	2935	7600032024
Mississippi	2935	7600032024
Missouri	2935	7600032024
Montana	2935	7600032024
Nebraska	2935	7600032024
Nevada	2935	7600032024
New Hampshire	2935	7600032024
New Jersey	2935	7600032024
New Mexico	2935	7600032024
New York	2935	7600032024
North Carolina	2935	7600032024
North Dakota	2935	7600032024
Ohio	2935	7600032024
Oklahoma	2935	7600032024
Oregon	2935	7600032024
Pennsylvania	2935	7600032024
Rhode Island	2935	7600032024
South Carolina	2935	7600032024
South Dakota	2935	7600032024
Tennessee	2935	7600032024
Texas	2935	7600032024
Utah	2935	7600032024
Vermont	2935	7600032024
Virginia	2935	7600032024
Washington	2935	7600032024
West Virginia	2935	7600032024
Wisconsin	2935	7600032024
Wyoming	2935	7600032024
Arizona	40002	NEOS-KCS
California	40002	NEOS-KCS
Colorado	40002	NEOS-KCS
Florida	40002	NEOS-KCS
Georgia	40002	NEOS-KCS
Idaho	40002	NEOS-KCS
Illinois	40002	NEOS-KCS
Indiana	40002	NEOS-KCS
Iowa	40002	NEOS-KCS
Kansas	40002	NEOS-KCS
Kentucky	40002	NEOS-KCS
Louisiana	40002	NEOS-KCS
Maine	40002	NEOS-KCS
Massachusetts	40002	NEOS-KCS
Michigan	40002	NEOS-KCS
Minnesota	40002	NEOS-KCS
Mississippi	40002	NEOS-KCS
Missouri	40002	NEOS-KCS
Montana	40002	NEOS-KCS
Nebraska	40002	NEOS-KCS
Nevada	40002	NEOS-KCS
New Hampshire	40002	NEOS-KCS
New Jersey	40002	NEOS-KCS
New Mexico	40002	NEOS-KCS
New York	40002	NEOS-KCS
North Carolina	40002	NEOS-KCS
North Dakota	40002	NEOS-KCS
Ohio	40002	NEOS-KCS
Oklahoma	40002	NEOS-KCS
Oregon	40002	NEOS-KCS
Pennsylvania	40002	NEOS-KCS
Rhode Island	40002	NEOS-KCS
South Carolina	40002	NEOS-KCS
South Dakota	40002	NEOS-KCS
Tennessee	40002	NEOS-KCS
Texas	40002	NEOS-KCS
Utah	40002	NEOS-KCS
Vermont	40002	NEOS-KCS
Virginia	40002	NEOS-KCS
Washington	40002	NEOS-KCS
West Virginia	40002	NEOS-KCS
Wisconsin	40002	NEOS-KCS
Wyoming	40002	NEOS-KCS

Drinking Water * Underground Storage Tanks * Aquatic Toxicity * Chemical/Microbiological * Mold * Wastewater
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.
 * Accreditation is only applicable to the test methods specified in each scope of accreditation held by Pace Analytical.

Pace Analytical Services, LLC - Dallas		400 W. Berry Drive Suite 190 Allen, TX 75013
Alabama	85-047	85-047
Arizona	85-047	85-047
Arkansas	85-047	85-047
California	85-047	85-047
Colorado	85-047	85-047
Florida	85-047	85-047
Georgia	85-047	85-047
Idaho	85-047	85-047
Illinois	85-047	85-047
Indiana	85-047	85-047
Iowa	85-047	85-047
Kansas	85-047	85-047
Kentucky	85-047	85-047
Louisiana	85-047	85-047
Maine	85-047	85-047
Massachusetts	85-047	85-047
Michigan	85-047	85-047
Minnesota	85-047	85-047
Mississippi	85-047	85-047
Missouri	85-047	85-047
Montana	85-047	85-047
Nebraska	85-047	85-047
Nevada	85-047	85-047
New Hampshire	85-047	85-047
New Jersey	85-047	85-047
New Mexico	85-047	85-047
New York	85-047	85-047
North Carolina	85-047	85-047
North Dakota	85-047	85-047
Ohio	85-047	85-047
Oklahoma	85-047	85-047
Oregon	85-047	85-047
Pennsylvania	85-047	85-047
Rhode Island	85-047	85-047
South Carolina	85-047	85-047
South Dakota	85-047	85-047
Tennessee	85-047	85-047
Texas	85-047	85-047
Utah	85-047	85-047
Vermont	85-047	85-047
Virginia	85-047	85-047
Washington	85-047	85-047
West Virginia	85-047	85-047
Wisconsin	85-047	85-047
Wyoming	85-047	85-047

ACCOUNT: Environmental Engineering
 PROJECT: V-51
 SDG: L-94555
 DATE/TIME: 05/16/25 15:52
 PAGE: 29 of 43



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

May 15, 2025

Jimmy Huckaba

RE: Project: L1848365
Pace Project No.: 60474211

Dear Jimmy Huckaba:

Enclosed are the analytical results for sample(s) received by the laboratory on May 01, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAP Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Allison Sherman
allison.sherman@pacelabs.com
(913)599-5665
PM Lab Management

Enclosures

cc: MTJ.LSuboutTeam, Pace Analytical National



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

CERTIFICATIONS

Project: L1848365
Pace Project No.: 60474211

Pace Analytical Services Kansas

9608 Loret Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-06579
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000210204-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000210202-13

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: L1848365
Pace Project No.: 60474211

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60474211001	VP-51	Water	04/16/25 06:38	05/01/25 10:00

SAMPLE ANALYTE COUNT

Project: L1848365
Pace Project No.: 60474211

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60474211001	VP-51	EPA 1664A	KVI	1	PASIK

PASIK = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



ANALYTICAL RESULTS

Project:	L1645365	Lab ID:	60474211001	Collected:	04/16/25 06:38	Received:	05/01/25 10:00	Matrix:	Water
Pace Project No.:	60474211	Sample:	VP-51						
Parameters	Results	Units	Report Unit	MDL	DF	Prepared	Analyzed	CAS No	Qual
HEM, Oil and Grease	Analytical Method: EPA 1664A Pace Analytical Services - Kansas City								
Oil and Grease	ND	mg/L	6.2	1.6	1		05/14/25 11:00		

QUALITY CONTROL DATA

Project:	L1645365	QC Batch:	554949	Analysis Method:	EPA 1664A
Pace Project No.:	60474211	QC Batch Method:	EPA 1664A	Analysis Description:	1664 HEM, Oil and Grease
		Associated Lab Samples:	60474211001	Laboratory:	Pace Analytical Services - Kansas City
METHOD BLANK:	3705422	Matrix: Water			
Associated Lab Samples:	60474211001	Blank Result	Reporting Limit	MDL	Analyzed
Oil and Grease	mg/L	ND	5.0	1.3	05/14/25 10:58
LABORATORY CONTROL SAMPLE: 3705423					
Parameter	Units	Spike Conc.	LCS Result	% Rec Limits	% Rec Limits
Oil and Grease	mg/L	40	31.3	78	78-114
MATRIX SPIKE SAMPLE: 3705424					
Parameter	Units	Spike Conc.	LCS Result	MS Result	% Rec Limits
Oil and Grease	mg/L	60474191002	38.8	34.2	84
SAMPLE DUPLICATE: 3705425					
Parameter	Units	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	ND	ND	18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC

Date: 05/15/2025 08:11 AM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC

Date: 05/15/2025 08:11 AM



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: LI1848365
Pace Project No.: 60474211

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit
PQL - Practical Quantitation Limit
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each compound is the sum of the two compounds.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAP Institute.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: LI1848365
Pace Project No.: 60474211

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474211001	VP-51	EPA 1664A	934948		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/15/2025 08:11 AM

Page 7 of 11

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/15/2025 08:11 AM

Page 8 of 11

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Line Item	Material	Container Codes
1	W	
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		</



ANALYTICAL REPORT

May 20, 2025

Enviro-Ag Engineering

Sample Delivery Group: L1850845
Samples Received: 04/23/2025
Project Number: VOLLEMORS PROCESSING
Description: Pollutant Permit
Site: VOLLEMORS PROCESSING
Report To: Jourdan Mullin
3404 Airway Blvd.
Amarillo, TX 79118

Entire Report Reviewed By:

Dorothy P Roberts

Dorothy P Roberts
Project Manager

Results shown only to two decimal places for all values and are rounded to nearest value. This report is a full report.
Represented, used in full, without further approval of the laboratory. When applicable, sampling conducted by Pace
Analytical National is performed in accordance with laboratory standard operating procedures (SOPs) and is
subject to the same quality control measures as all other samples. Results shown to the accuracy of the information provided
and all the samples are reviewed.



Pace Analytical National

12045 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT
Enviro-Ag Engineering

PROJECT:
VOLLEMORS PROCESSING

SDG:
L1850845

DATE/TIME:
05/20/25 10:02

PAGE
1 of 43

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cnt: Case Narrative	4
Sr: Sample Results	5
L1850845 L1850845-01	5
Qc: Quality Control Summary	8
Gravimetric Analysis by Method 2540C	8
Gravimetric Analysis by Method 2540D	9
Wet Chemistry by Method 2320B	10
Wet Chemistry by Method 300.0	11
Wet Chemistry by Method 3500C-B	13
Wet Chemistry by Method 351.2	14
Wet Chemistry by Method 360.1	15
Wet Chemistry by Method 4500Cl G-2011	16
Wet Chemistry by Method 4500CN-E	17
Wet Chemistry by Method 4500P-E	18
Wet Chemistry by Method 5210 B-2016	19
Wet Chemistry by Method 5220D	21
Wet Chemistry by Method 5310C	22
Wet Chemistry by Method SM 4500-H-B	23
Wet Chemistry by Method SM4500NH3H	24
Mercury by Method 245.1	25
Metals (ICP) by Method 200.7	26
GI: Glossary of Terms	29
AI: Accreditations & Locations	30
Sc: Sample Chain of Custody	31

SAMPLE SUMMARY

L1850845 L1850845-01

Method	Batch	Dilution	Preparation	date/time	Analysis	Analyt	Location
Calculated Results	WC248976	1	04/28/25 10:10	04/28/25 10:10	TIC	TIC	Allen, TX
Calculated Results	WC249384	1	05/02/25 15:58	04/01/25 15:58	SAG	SAG	Mt. Juliet, TN
Gas/Tetric Analysis by Method 2540C	WC249384	1	05/02/25 15:58	04/24/25 15:58	SAG	SAG	Allen, TX
Gas/Tetric Analysis by Method 2540C	WC249604	1	04/24/25 15:52	04/24/25 15:52	OOT	OOT	Allen, TX
Wet Chemistry by Method 2320B	WC250185	1	04/28/25 19:26	04/28/25 19:26	SWW	SWW	Allen, TX
Wet Chemistry by Method 300 0	WC249799	1	04/23/25 14:57	04/23/25 14:57	JBS	JBS	Allen, TX
Wet Chemistry by Method 300 0	WC248955	10	04/24/25 11:57	04/24/25 11:57	JBS	JBS	Allen, TX
Wet Chemistry by Method 300 0	WC248975	2	04/24/25 15:18	04/24/25 15:18	JBS	JBS	Allen, TX
Wet Chemistry by Method 300 0	WC248975	500	04/24/25 12:39	04/24/25 12:39	JBS	JBS	Allen, TX
Wet Chemistry by Method 3500C-B	WC249378	1	04/24/25 13:56	04/24/25 13:56	SWC	SWC	Allen, TX
Wet Chemistry by Method 351 2	WC250182	25	04/28/25 17:35	04/28/25 20:10	ERG	ERG	Allen, TX
Wet Chemistry by Method 350 1	WC249722	1	04/24/25 09:47	04/24/25 09:47	MP	MP	Allen, TX
Wet Chemistry by Method 4500C G-2011	WC249391	1	04/28/25 10:51	04/28/25 10:51	JAS	JAS	Mt. Juliet, TN
Wet Chemistry by Method 4500C-V-E	WC249360	1	04/25/25 10:15	04/25 25 15:01	SWC	SWC	Allen, TX
Wet Chemistry by Method 4500C-N-S	WC249360	1	04/25/25 10:15	04/25 25 15:01	SWC	SWC	Allen, TX
Wet Chemistry by Method 4500C-E	WC250188	20	04/28/25 15:20	04/28/25 16:20	SWC	SWC	Allen, TX
Wet Chemistry by Method 520 0-2016	WC249752	1	04/23/25 15:26	04/28/25 09:45	MP	MP	Allen, TX
Wet Chemistry by Method 520 0-2016	WC249754	1	04/23/25 16:29	04/28/25 10:41	MP	MP	Allen, TX
Wet Chemistry by Method 520D	WC249381	4	04/28/25 10:35	04/24/25 13:18	MP	MP	Allen, TX
Wet Chemistry by Method 530C	WC250185	20	04/28/25 17:29	04/28/25 17:29	ERG	ERG	Allen, TX
Wet Chemistry by Method 5400-H-H-B	WC249641	1	04/25/25 09:30	04/25 25 09:30	SWW	SWW	Allen, TX
Wet Chemistry by Method 5M4500N-H-B	WC249641	5	04/24/25 14:14	04/24/25 14:14	ERG	ERG	Allen, TX
Mercury by Method 245 1	WC249352	1	04/26/25 12:24	04/27/25 12:41	AK3	AK3	Mt. Juliet, TN
Moztek (ICP) by Method 201 7	WC250363	1	04/30/25 03:34	05/01/25 15:53	SAG	SAG	Mt. Juliet, TN
Subcontracted Analysis	WC2501824	1	05/09/25 00:00	05/09/25 00:00			Lexena, KS 66219

ACCOUNT:
Enviro-Ag Engineering

PROJECT:
VOLLEMORS PROCESSING

SDG:
L1850845

DATE/TIME:
05/20/25 10:02

PAGE:
3 of 43

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDL, LOD, and RDL (LOD) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in the case narrative, a non-conformance item or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all public information observed by this laboratory is having no potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Dorothy P Roberts

Dorothy P Roberts
Project Manager

Project Narrative

L1850845-01 contains sublot data that is included after the chain of custody

Sample Delivery Group (SDG) Narrative

Analysis was filtered in the laboratory.

Lab Sample ID	Project Sample ID	Method
L1850845-01	L1850845	3500C-B

ACCOUNT:
Enviro-Ag Engineering

PROJECT:
VOLLEMORS PROCESSING

SDG:
L1850845

DATE/TIME:
05/20/25 10:02

PAGE:
4 of 43

L1850845
Collected date/time: 04/23/25 07:43
SAMPLE RESULTS - 01
L1850845

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium, Total	0.00333		C 00320	1	05/01/2025 15:58	WG2458769
O-Ga Lic Nitrogen	51.8		C 500	1	04/28/2025 20:0	WG2458776

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Total Dissolved Solids	2780		500		04/24/2025 03:44	WG2458555

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
S-a-pho-d Solids	627		167	1	04/24/2025 14:35	WG2458604

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Alkalinity	773		20.0	1	04/29/2025 09:26	WG2501616

Wet Chemistry by Method 3320B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chloride	793		400	500	04/24/2025 12:59	WG2458755
Fluoride	ND		1.00	2	04/24/2025 15:18	WG2458755
Nitrate as (N)	ND		C 500	1	04/23/2025 14:57	WG2457949
Sulfate	44.8		7.00	10	04/24/2025 11:57	WG2458755

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium, Hexavalent	ND		C 00320	1	04/24/2025 13:56	WG2458755

Wet Chemistry by Method 3500C-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium, Hexavalent	ND		C 00320	1	04/24/2025 13:56	WG2458755

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen, Total	70.5		6.25	75	04/26/2025 20:0	WG2501632

Wet Chemistry by Method 360.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Dissolved Oxygen	0.940	P 178	1	1	04/24/2025 08:47	WG2458772

Wet Chemistry by Method 4500Cl G-201

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chlorine residual	ND	T 8	0.100	1	04/29/2025 10:51	WG2458942

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide	ND		C 0100	1	04/22/2025 15:01	WG2458769

L1850845
Collected date/time: 04/23/25 07:43
SAMPLE RESULTS - 01
L1850845

Wet Chemistry by Method 4500CN-G

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide, Ammoniable	ND		C 0100	1	04/25/2025 15:0	WG2458769

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Phosphorus Total	14.6		1.00	20	04/28/2025 16:20	WG2501668

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
BOD	9.33	K 9	15.0		04/28/2025 09:45	WG2457752
COD	1000	K 9	15.0		04/28/2025 10:41	WG2457754

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
COD	1650		14.0	4	04/24/2025 13:18	WG2458781

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	406		14.0	20	04/28/2025 17:29	WG2501685

Wet Chemistry by Method SM 4500-H+B

Analyte	Result	Qualifier	Dilution	Analysis	Batch
pH	7.98	T 8	1	04/25/2025 09:30	WG2459564

Sample Narrative:

L1850845-01 WG2495541: 7.98 at 19.6C

Wet Chemistry by Method SM4500NH3H

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	19.0		C 500	5	04/24/2025 14:11	WG2458776

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Mercury	ND		0.000200	1	04/27/2025 22:41	WG2458352

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Aluminum	0.535		0.200	1	05/01/2025 15:58	WG2503169
Antimony	ND		0.0100	1	05/01/2025 15:58	WG2503169
Arsenic	ND		0.0100	1	05/01/2025 15:58	WG2503169
Barium	0.127		0.05900	1	05/01/2025 15:58	WG2503169
Beryllium	ND		0.03000	1	05/01/2025 15:58	WG2503169
Cadmium	ND		0.00200	1	05/01/2025 15:58	WG2503169
Chromium	ND		0.0100	1	05/01/2025 15:58	WG2503169
Copper	ND		0.0100	1	05/01/2025 15:58	WG2503169

Method Blank (MB)		(MB) R4205062-1 04/24/25 04:35	MB Result	mg/l	U	MB MDL	mg/l	MB RDL	mg/l
Analyte	Suspended Solids								
MB Qualifier									
Original Result	mg/l	7080							
DUP Result	mg/l	7200							
Dilution		1							
DUP RPD	%	1.62							
DUP Qualifier									
Limits	%								
DUP RPD									
(OS) 11850934-03 Original Sample (OS) • Duplicate (DUP)		(OS) 11850934-03 04/24/25 04:35 • (DUP) R4205062-3 04/24/25 04:35							
Analyte	Suspended Solids								
Original Result	mg/l	7080							
DUP Result	mg/l	7200							
Dilution		1							
DUP RPD	%	1.62							
DUP Qualifier									
Limits	%								
DUP RPD									
(OS) 11850934-04 Original Sample (OS) • Duplicate (DUP)		(OS) 11850934-04 04/24/25 04:35 • (DUP) R4205062-4 04/24/25 04:35							
Analyte	Suspended Solids								
Original Result	mg/l	13400							
DUP Result	mg/l	13700							
Dilution									
DUP RPD	%	2.36							
DUP Qualifier									
Limits	%								
DUP RPD									
Laboratory Control Sample (LCS)		(LCS) R4205062-2 04/24/25 04:35							
Analyte	Suspended Solids								
Spike Amount	mg/l	801							
LCS Result	mg/l	823							
LCS Rec.	%	103							
Rec Limits	%	85-115							
LCS Qualifier									

Method Blank (MB)		(MB) R4206154-1 04/28/25 09:26	MB Result	mg/l	U	MB MDL	mg/l	MB RDL	mg/l
Analyte	Alkalinity								
MB Qualifier									
Original Result	mg/l	1630							
DUP Result	mg/l	1630							
Dilution									
DUP RPD	%								
DUP Qualifier									
Limits	%								
DUP RPD									
(OS) 11850408-02 Original Sample (OS) • Duplicate (DUP)		(OS) 11850408-02 04/28/25 09:26 • (DUP) R4206154-3 04/28/25 09:26							
Analyte	Alkalinity								
Original Result	mg/l	1630							
DUP Result	mg/l	1630							
Dilution									
DUP RPD	%								
DUP Qualifier									
Limits	%								
DUP RPD									
Laboratory Control Sample (LCS)		(LCS) R4206154-2 04/28/25 09:26							
Analyte	Alkalinity								
Spike Amount	mg/l	250							
LCS Result	mg/l	238							
LCS Rec.	%	95.2							
Rec Limits	%	90.0-110							
LCS Qualifier									

Sc Al GI Si Cu Sn Tc D

1850845-01

W62498755

Sc Al Ga Ge Sb Sn Te

11850845-01

WG2497949

WG2498722														
Wet Chemistry by Method 360.1														
L1850845-01														
L1850845-01 Original Sample (OS) • Duplicate (DUP)														
(OS) L1850845-01 04/24/25 08:47 • (DUP) R4204301-1 04/24/25 08:47														
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	JPL	%					
	0.940		0.940	0.840										
Dissolved Oxygen														
PROJECT: VOLLEMOORS PROCESSING														
SDG: I1850845														
DATE/TIME: 05/07/25 10:07														
PAGE: 15 of 43														

WG2498942									
Wet Chemistry by Method 4500Cl G-2011									
L1850845-01									
QUALITY CONTROL SUMMARY									
Method Blank (MB)									
(MB) R4206191-1 04/28/25 10:48									
Analyte	mg/l		MB Result	MB Qualifier	MB MDL	MB RDL			
	0.0440		0.0440	0.0475					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.925	0.938					
Chlorine, residual									
L1850095-01 Original Sample (OS) • Duplicate (DUP)									
(OS) L1850095-01 04/28/25 10:49 • (DUP) R4206191-4 04/28/25 10:50									
Analyte	mg/l		Original Result	DUP Result	Dilution	DUP RPD	%	DUP Qualifier Limits	%
	0.616		0.611	0.615					
Chlorine, residual									
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)									
(LCS) R4206191-2 04/28/25 10:48 • (LCSD) R4206191-3 04/28/25 10:48									
Analyte	mg/l		LCS Result	LCS Rec	LCSD Result	LCSD Rec	%	Rec. Limits	%
	1.00		0.						

Sc
Al
Ga
In
Sr
Ca
Ba
Tl
Pb

WG2497754																
Wei Chemistry by Method 5210 B-2016																
11850845-01																
QUALITY CONTROL SUMMARY																
Method Blank (MB)																
(MB) R4206163-1 04/28/25 10:14																
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL												
CBOD	mg/l		mg/l	mg/l												
	U		0.200	0.200												
L1850564-01 Original Sample (OS) • Duplicate (DUP)																
(OS) L1850564-01 04/28/25 10:31 • (DUP) R4206163-3 04/28/25 10:50																
Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD										
CBOD	mg/l	mg/l	%	%	%	%										
	3.69	3.34	1	9.56		20										
Laboratory Control Sample (LCS)																
(LCS) R4206163-2 04/28/25 10:19																
Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier											
CBOD	mg/l	mg/l	%	%												
	198	216	109	85-115												
Sc																
Al																
Cl																
Qc																
Sr																
Ca																
Ss																
Tc																
Cp																

WG2497752																
Wei Chemistry by Method 5210 B-2016																
11850845-01																
QUALITY CONTROL SUMMARY																
Method Blank (MB)																
(MB) R4206107-1 04/28/25 08:57																
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL												
ROD	mg/l		mg/l	mg/l												
	U		0.200	0.200												
L1850465-01 Original Sample (OS) • Duplicate (DUP)																
(OS) L1850465-01 04/28/25 09:29 • (DUP) R4206107-3 04/28/25 09:52																
Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD										
ROD	mg/l	mg/l	%	%	%	%										
	ND	2.85	1	20%		20										
Laboratory Control Sample (LCS)																
(LCS) R4206107-2 04/28/25 09:03																
Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier											
ROD	mg/l	mg/l	%	%												
	198	214	108	85-115												
Sc																
Al																
Cl																
Qc																
Sr																
Ca																
Ss																
Tc																
Cp																

[illegible][illegible]

<p> (OS) L1B513Z7-01 04/25/25 09:30 • (DUP) R4204933-2 04/25/25 09:30 Duplicate of original sample (OS) • duplicate (DUP) </p>		<p> (LCS) R4204933-1 04/25/25 09:30 Laboratory Control Sample (LCS) </p>	
<p> Analyte pH 9.12 at 18.9C Sample Narrative: </p>	<p> Analyte pH 6.00 at 20.8C Sample Narrative: </p>	<p> Original Result DUPLICATE 9.12 SU 1 % 0.982 DUP RPD DUP Limits 20 % DUP Qualifier </p>	<p> LCS Result 6.00 SU 120 % 99.0-101 Rec Limits LCS Qualifier </p>

Method Blank (MB)									
(MB) R4206010-1 04/27/25 21:26									
Analyte	MB Result	MB Qualifier	MB MDL	MB RDL					
Mercury	U		0.000130	0.000700					
Laboratory Control Sample (LCS)									
(LCS) R4206010-2 04/27/25 21:29									
Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier				
Mercury	0.00300	0.00295	98.2	85.0-115					
L1849487-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)									
(OS) L1849487-01 04/27/25 21:31 • (MS) R4206010-4 04/27/25 21:37 • (MSD) R4206010-5 04/27/25 21:39									
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits	MS Qualifier
Mercury	0.00300	ND	0.00290	0.00285	96.6	95.0	1	70.0-130	MSD Qualifier
					%	%		%	RPD
									RPD Limits
L1850890-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)									
(OS) L1850890-01 04/27/25 21:42 • (MS) R4206010-6 04/27/25 21:50 • (MSD) R4206010-7 04/27/25 21:52									
Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec	MSD Rec	Dilution	Rec Limits	MS Qualifier
Mercury	0.00300	ND	0.00291	0.00295	96.9	98.2	70.0-130		MSD Qualifier
					%	%		%	RPD
									RPD Limits

Sc

Al

Gl

Cu

Sr

Cd

Ss

Te

Cd

WG2503169

Metals (ICP) by Method 200.7

Method Blank (MB)

(MB) R4208403-1 05/01/25 14:53

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Aluminum	U		0.0409	0.700
Antimony	U		0.00597	0.0100
Arsenic	U		0.00478	0.0100
Barium	U		0.00675	0.00500
Beryllium	U		0.000564	0.00200
Cadmium	U		0.000492	0.00200
Chromium	U		0.000920	0.0100
Copper	U		0.00217	0.0100
Lead	U		0.00272	0.00500
Nickel	0.00297		0.00132	0.0100
Selenium	U		0.00529	0.0100
Silver	U		0.00134	0.00500
Thallium	U		0.00388	0.0100
Zinc	U		0.00421	0.0500

11850845-01

QUALITY CONTROL SUMMARY

11850845-01

LABORATORY CONTROL SAMPLE (LCS)

Analyte	Spike Amount	LCS Result	LCS Rec	Rec Limits	LCS Qualifier
Aluminum	10.0	9.80	98.0	85.0-115	
Antimony	1.00	1.00	100	85.0-115	
Arsenic	1.00	1.02	102	85.0-115	
Barium	1.00	1.07	107	85.0-115	
Beryllium	1.00	1.07	107	85.0-115	
Cadmium	1.00	1.02	102	85.0-115	
Chromium	1.00	1.04	104	85.0-115	
Copper	1.00	1.06	106	85.0-115	
Lead	1.00	1.07	107	85.0-115	
Nickel	1.00	0.996	99.6	85.0-115	
Selenium	1.00	1.00	100	85.0-115	
Silver	0.200	0.196	97.9	85.0-115	
Thallium	1.00	1.07	107	85.0-115	
Zinc	1.00	1.05	105	85.0-115	

[illegible]

WG5036169

Metals (ICP) by Method 200.7

1850734-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 1850734-01 05/07/25 14:56 • (MS) R4208403-4 05/07/25 15:00 • (MSD) R4208403-5 05/07/25 15:02

Analyte	Aluminum	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Thallium	Zinc
mg/L	10.0	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.200	1.00	1.00
Spike Amount	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Original Result	ND	ND	ND	0.0679	ND	ND	ND	ND	ND	ND	ND	ND
MS Result	10.2	1.07	1.10	1.12	1.06	1.04	1.06	1.05	1.04	0.204	1.06	1.04
MSD Result	10.0	1.07	1.09	1.03	1.02	1.04	1.07	1.03	1.04	0.202	1.05	1.04
% MS Rec.	%	%	%	%	%	%	%	%	%	%	%	%
MSD Rec	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												
Rec. Limits	10.0	1.06	1.08	1.05	1.06	1.04	1.06	1.05	1.04	0.202	1.05	1.04
%	100	100	100	100	100	100	100	100	100	100	100	100
MSD Rec.	100	100	100	100	100	100	100	100	100	100	100	100
Dilution												

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer: Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Split, Source Field Description, Other Laboratory Data, and other information that may be relevant to the accuracy of the information presented and the methods are followed.

Abbreviations and Definitions

MDL	Method Detection Limit
ND	Not detected at the Reporting Limit (or MDL where applicable)
RDL	Reported Detection Limit
Rec	Recovery
RPD	Relative Percent Difference
SDG	Sample Delivery Group
U	Not detected at the Reporting Limit (or MDL where applicable)
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyses reported.
Dilution	If this sample matrix contains an interfering material, the sample preparation volume or weight will differ from the actual sample volume or weight. The result is reported as a percentage of the actual sample volume or weight. The laboratory can accurately report the sample may be diluted for analysis. If a value difference of 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analyses recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page end potentially in discussion or possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was a duplicate result, the result for a specific analysis, the result in this column may state "ND" (Not Detected) or "ED" (Exceeds Detection Limit). The result may also be reported as a percentage of the actual sample volume or weight. The laboratory can accurately report the sample may be diluted for analysis. If a value difference of 1 is used in this field, the result reported has already been corrected for this factor.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and location of sample collection, the sample and the analysis that the laboratory is requested to perform. This chain of custody also documents the sample handling and storage procedures that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate
K9	Test replicates show more than 30% difference between high and low values
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit
T8	Samples received past too close to holding time expiration

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40600	Neg-PAHs	NEOS-5506
Alaska	17075	Neg-PAHs	TN00002021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	8B-0469	New Jersey-NEAP	TN001
California	2932	New Mexico *	TN00703
Colorado	TN00003	New York	1912
Connecticut	PH-0197	North Carolina	E-0275
Florida	E87497	North Carolina *	DW27004
Georgia	NE-AP	North Carolina *	41
Georgia *	923	North Dakota	P-440
Illinois	TN00003	Ohio-AP	CL0069
Indiana	200008	Oklahoma	9915
Iowa	384	Oregon	TN20002
Kansas	E-0277	Pennsylvania	8B-0379
Kentucky *	KY00010	Rhode Island	L400356
Kentucky *	16	South Carolina	8400402
Louisiana	L4018	South Dakota	n/a
Maine	AB3791	Tennessee *	2006
Maryland	TN00003	Texas *	T167043-15-20-18
Massachusetts	324	Texas *	L80182
Michigan	M-1N03	Utah	TN00002021-1
Minnesota	9958	Vermont	VT0006
Mississippi	047-289-395	Virginia	T10033
Missouri	TN00003	Washington	C807
Missouri	340	West Virginia	233
Montana	CERT0086	Wisconsin	99809370
Nebraska	1461 01	Wyoming	4334
Nebraska *	1461 02	Wyoming	1461 01
Canada	1461 01	USA	P330-15-00234
EPA-Crypto	TN00003		

Pace Analytical Services, LLC-Dallas 400 W. Beltway Drive Suite 190 Allen, TX 75013

Arkansas	86-0647	Kansas	E 0388
Florida	E87118	Texas	T10470422-23-39
Iowa	408	Oklahoma	8727
Louisiana	30886		

*Drinking Water *Underground Storage Tanks *Aquatic Toxicity *Chemical/Microbiological *Vials *Wastewater n/a Accreditation not applicable
*Not all certifications held by the laboratory are applicable to the results reported in the attached report
*Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical

DC#_Title: ENV-FRM-ALLE-0017 v15_Sample Condition Upon Receipt

Effective Date: 12/18/2023

Pace

Sample Condition Upon Receipt

Client Name: Enviro Ag Engineering ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Courier: FedEx ☐ USPS ☐ UPS ☐ PACE ☒ Other: _____

Tracking #: _____

Custody Seal on Cooler/Box: Yes ☒ No ☐

Received on Ice: Wet ☐ Blue ☐ No Ice ☐

Receiving Lab 1 Thermometer Used: 18-21 Cooler Temp °C: 1.9 (Recorded) 0.1 (Correction Factor) 2 (Actual)

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Recorded) _____ (Correction Factor) _____ (Actual)

Chain of Custody relinquished Yes ☒ No ☐

Sampler name & signature on COC Yes ☒ No ☐

Short HT analyses (<72 hrs) Yes ☒ No ☐

Temperature should be above freezing to 6°C unless collected same day as receipt in which evidence of cooling is acceptable.

Triage Person: Amelia Date: 4/23/25 Shannen R

Sufficient Volume received Yes ☒ No ☐

Correct Container used Yes ☒ No ☐

Container Intact Yes ☒ No ☐

Sample pH Acceptable pH Strips: 6.0-6.5 Yes ☒ No ☐ NA ☐

Residual Chlorine Present CI Strips: Yes ☒ No ☐ NA ☐

Sulfide Present Yes ☒ No ☐ NA ☐

Lead Acetate Strips: Yes ☒ No ☐ NA ☐

Are soil samples (volatiles, TPH) received in 5035A Kits (not applicable to TCLP VOA or PST Program TPH) Yes ☒ No ☐ NA ☐

Unpreserved 5035A soil frozen within 48 hrs Yes ☒ No ☐ NA ☐

Headspace in VOA (>6mm) Yes ☒ No ☐ NA ☐

Project sampled in USDA Regulated Area outside of Texas Yes ☒ No ☐ NA ☐

State Sampled: _____

Non-Conformance(s): _____

Login Person: _____ Date: _____

Labeling Person (if different than log-in): _____ Date: _____

Qualtrix ID: 48806

Company Name/Address: Enviro-Ag Engineering

3404 Airway Blvd.
Amarillo, TX 79118

Report to: Jordan Mullin 254-965-3500

Project Description: Pollutant Permit

City/State Collected: _____

Please Circle: PT MT CT ET

Regulatory Program(DOD, RCRA, DW, etc): _____

Client Project #: _____

Lab Project #: _____

Collected by (print): Corby Mullin

Site/Facility ID #: Vollemans Pecan

P.O. #: _____

Collect by (signature): _____

Rush? (Lab MUST be Notified)

Same Day _____ Five Day _____

Next Day _____ 5 Day (Rad Only) _____

Two Day _____ 10 Day (Rad Only) _____

Three Day _____ STD TAT _____

Date Results Needed: _____

Quote #: _____

Immediately _____

Packed on Ice N ☐ Y ☒

Sample ID: VP-SZ

Comp/Grab: G

Matrix: WW

Depth: 6"

Date: 4-23-25

Time: 7:43 AM

No. of Cnts: 15

Pres Chk: ☒

Analysis / Containment / Preservation

OGHEX 1L-CF-WT-HCI ☒

WetChem COD,NH3 TKN 500mlHDPE-Add H2SO4 ☒

WetChem CR6, CR3, DO 500mlHDPE-NoPres ☒

WetChem anions,pH 125mlHDPE-NoPres ☒

Chain of Custody Page 1-2

Pace

1850845-01

ALL800

SG# _____

Table # _____

Accnum: DSENVIGDTX

Template: T258910

Prelogin: P1144015

PM: 3565 - Dorothy P Roberts

PIB: 419125 CAM

Shipped Via: FedEx Ground

No. of Cnts: _____

Sample # (Lab only): _____

* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Discharge WW - Wastewater DW - Drinking Water OT - Other

Remarks: Field TEMP _____

Metals, Al, Sb, As, Ba, Be, Cd, Cr, CR6, CR3, Cu, Pb, Ni, Se, Ag, Ti, Zn, Hg

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: LPS FedEx Courier

Tracking #: _____

Relinquished by: (Signature) _____ Date: 4-23-25 Time: 9:30 AM

Received by: (Signature) _____

Relinquished by: (Signature) _____ Date: 4-23-26 Time: 11:50 AM

Received by: (Signature) Pace 1150

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____

Trip Blank Received: Yes / No HCL / NaOH

Temp: "C Bottles Received: _____

If preservation required by log-in: Date/Time _____

Hold: _____

Condition: NCF / OK



Pace Analytical Services, LLC
9608 Lorel Blvd
Lenexa, KS 66219
(913)596-5665



Pace Analytical Services, LLC
9608 Lorel Blvd
Lenexa, KS 66219
(913)596-5665

May 16, 2025

Jimmy Huckaba

RE: Project: L1850845
Pace Project No.: 60474683

Dear Jimmy Huckaba:

Enclosed are the analytical results for sample(s) received by the laboratory on May 06, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNIINELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Allison Sherman
allison.sherman@pacelabs.com
(913)596-5665
PM Lab Management

Enclosures

cc: MTJLSuboutTeam, Pace Analytical National



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

CERTIFICATIONS

Project: L1850845
Pace Project No.: 60474683

Pace Analytical Services Kansas

9608 Lorel Boulevard, Lenexa, KS 66219
Arkansas Certification #: 88-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T10470407-23-17
Utah Certification #: KS000212022-13

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Lorel Blvd
Lenexa, KS 66219
(813)599-5665



Pace Analytical Services, LLC
9608 Lorel Blvd
Lenexa, KS 66219
(813)599-5665

SAMPLE SUMMARY

Project: L1850845
Pace Project No.: 60474683

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60474683001	VP-S2	Water	04/23/25 07:43	05/06/25 09:30

SAMPLE ANALYTE COUNT

Project: L1850845
Pace Project No.: 60474683

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60474683001	VP-S2	EPA 1664A	KV1	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Lohr Blvd
Lanexa, KS 66219
(913)599-5665



Pace Analytical Services, LLC
9608 Lohr Blvd
Lanexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project:	L1850845	Lab ID:	60474683001	Collected:	04/23/25 07:43	Received:	05/06/25 09:30	Matrix:	Water
Pace Project No.:	60474683	Sample:	VP-S2	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.
Parameters	Results	Units	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	Pace Analytical Services - Kansas City	ND	mg/L	6.2	1	1	05/16/25 10:34		

QUALITY CONTROL DATA

Project:	L1850845	QC Batch:	935281	Analysis Method:	EPA 1664A				
Pace Project No.:	60474683	QC Batch Method:	EPA 1664A	Analysis Description:	1664 HEM, Oil and Grease				
Associated Lab Samples:	60474683001	Laboratory:	Pace Analytical Services - Kansas City						
METHOD BLANK:	3706962	Matrix:	Water						
Associated Lab Samples:	60474683001								
Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers			
Oil and Grease	mg/L	ND	5.0	1.3	05/16/25 10:23				
LABORATORY CONTROL SAMPLE: 3706963									
Parameter	Units	Spike Conc.	LCS Result	% Rec	% Rec	Qualifiers			
Oil and Grease	mg/L	40	34.0	85	78-114				
MATRIX SPIKE SAMPLE: 3706967									
Parameter	Units	Spike Result	LCS Conc.	MS Result	% Rec	% Rec	Qualifiers		
Oil and Grease	mg/L	60474424001	42.8	39.2	64.7	56	78-114 M		
SAMPLE DUPLICATE: 3706968									
Parameter	Units	Dup Result	Max RPD	Qualifiers					
Oil and Grease	mg/L	60474426001	1.8J	ND	18				

Results presented on this page are in the units indicated by the "Unit" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/16/2025 05:29 PM

Page 5 of 11

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/16/2025 05:29 PM

Page 6 of 11



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: L1850845
Pace Project No : 60474683

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit
PQL - Practical Quantitation Limit
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Dibenzoylhydrazine decomposes to and cannot be separated from Acetophenone using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAP Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

Date: 05/16/2025 05:29 PM

Page 7 of 11

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1850845
Pace Project No : 60474683

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60474683001	VP-S2	EPA 1664A	935281		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

Date: 05/16/2025 05:29 PM

Page 8 of 11

DC# Title: ENV-FRM-LENE-0009_Samp
Revision: 2 Effective Date: 01/12/20
Client Name: Pace Analytical
Courier: FedEx UPS VIA Clay Pace Shipping Label Used? Yes No
Tracking #: 4439 2457 5008
Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No
Packing Material: Bubble Wrap Bubble Bags Foam None
Thermometer Used: T30 Type of Ice: Dry Blue None
Cooler Temperature (°C): As-read 1.7 Corr. Factor 1.8 Corrected 1.8
Temperature should be above freezing to 8°C
Chain of Custody present: Yes No N/A
Chain of Custody relinquished: Yes No N/A
Samples arrived within holding time: Yes No N/A
Short Hold Time analyses (<72hr): Yes No N/A
Rush Turn Around Time requested: Yes No N/A
Sufficient volume: Yes No N/A
Correct containers used: Yes No N/A
Pace containers used: Yes No N/A
Containers intact: Yes No N/A
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Yes No N/A
Filtered volume received for dissolved tests? Yes No N/A
Sample labels match COC: Date / time / ID / analyses Yes No N/A
Samples contain multiple phases? Matrix: Yes No N/A
Containers requiring pH preservation in compliance? Yes No N/A
Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO
Cyanide water sample checks: Yes No
Lead acetate strip turns dark? (Record only) Yes No
Potassium iodide test strip turns blue/purple? (Preserve) Yes No
Trip Blank present: Yes No N/A
Headspace in VOA vials (>6mm): Yes No N/A
Samples from USDA Regulated Area: State: Yes No N/A
Additional labels attached to 5035A / TX1005 vials in the field? Yes No N/A
Client Notification/Resolution: Copy COC to Client? Y / N Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/Resolution:

Project Manager Review: Date:
Date:

WO#: 60474683



Sub-Contract Chain of Custody

Batch Date/Time: 04/28/24 12:45
Sub-Contract Lab: PAC LABS
Address: 12085 Levee Road
City/State: Austin, TX 78758
Contact: Allison Sherman
Owner Lab: PAC LABS
Address: 12085 Levee Road
City/State: Austin, TX 78758
Phone: (615) 758-5859
Fax: (615) 758-5859
WO: W12501824
Email: MTH.Subout.Lab@pacelabs.com
Results Due Date: 05/08/25
ESC Purchase Order #: 11850845
Send Reports to: James C. Huchaba

Sample ID: VP-S2
Container ID: IL-Cit-WT-HCl
S51430632
IL-Cit-WT-HCl
S51430633
Method: Sample Number
Lab Use Only: 1664A 1. L1850845-01
Description: Oil & Grease (Hexane EXO)
Matrix/State: WW TX 04/23/25 07:45
Collect Date: 04/23/25 07:45

Relinquished by: [Signature] Date: 5/16/24
Received by: [Signature] Date: 5/16/24 @ 1.8
Relinquished by: [Signature] Date: [Signature]
Received by: [Signature] Date: [Signature]

60474683

[illegible][illegible]

{89766 709}

Sample Delivery Group: L1853355

Samples Received: 04/30/2025

Project Number: VOLLEMANS PROCESSING

Description:	Pollutant Permit
<p>1. Water Quality: The permit specifies the maximum allowable concentration of various pollutants in the effluent, such as BOD, COD, TSS, and nutrients. These limits are based on the receiving water body's quality standards and the facility's discharge volume.</p> <p>2. Flow Rate: The permit may also regulate the flow rate of the effluent, ensuring it does not exceed the designated capacity of the receiving water body.</p> <p>3. Monitoring and Reporting: The permit holder is required to install monitoring equipment to track pollutant levels and flow rates. Regular reports must be submitted to the regulatory authority, detailing compliance status and any deviations.</p> <p>4. Enforcement: Failure to comply with the permit conditions can result in penalties, including fines, suspension of the permit, or legal action. The regulatory authority has the power to conduct inspections and enforce the permit terms.</p>	<p>1. Water Quality: The permit specifies the maximum allowable concentration of various pollutants in the effluent, such as BOD, COD, TSS, and nutrients. These limits are based on the receiving water body's quality standards and the facility's discharge volume.</p> <p>2. Flow Rate: The permit may also regulate the flow rate of the effluent, ensuring it does not exceed the designated capacity of the receiving water body.</p> <p>3. Monitoring and Reporting: The permit holder is required to install monitoring equipment to track pollutant levels and flow rates. Regular reports must be submitted to the regulatory authority, detailing compliance status and any deviations.</p> <p>4. Enforcement: Failure to comply with the permit conditions can result in penalties, including fines, suspension of the permit, or legal action. The regulatory authority has the power to conduct inspections and enforce the permit terms.</p>

Report To: Jordan Mullin

3404 Airway Blvd.
Amarillo, TX 79118

Entire Report Reviewed By:

Dorothy P Roberts
Project Manager

insecticide and the two known isomers of calyptene and are reported as isolated volatiles. This *in vivo* study could not be conducted because of the low volatility of the insecticide. The authors also reported that the insecticide was not detected in the urine of the subjects, suggesting that the insecticide is not absorbed into the bloodstream. The authors also reported that the insecticide was not detected in the urine of the subjects, suggesting that the insecticide is not absorbed into the bloodstream.

Pace Analytical National

12065 Lebanon Rd. Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT

PROJECT:
VOLLEMAN'S PROCESSING

SDG
L1853355

DATE/TIME: 05/29/25 15 27

PAGE: 43

Cap Cover Page

Table of Contents

Ss: Sample Summary

CN: Case Narrative

VP-53 L1853355-01

Occ Quality Control Summary

Gravimetric Analysis by Method 2540CGravimetric Analysis by Method 2540DWet Chemistry by Method 2320BWet Chemistry by Method 300.0Wet Chemistry by Method 3500C-BWork Chemistry by Method 351.Wet Chemistry by Method 360Wet Chemistry by Method 4500Cl-G-2011Wet Chemistry by Method 4500CN-EWet Chemistry by Method 4500P-EWet Chemistry by Method 5210 B-2016Wet Chemistry by Method 5220CWet Chemistry by Method 5310CWet Chemistry by Method SM 4500-H+8Wet Chemistry by Method SM4500NH3HMercury by Method 245.1Metals (ICP) by Method 200.7GI: Glossary of Terms

AI: Accreditations & Locations

Sc: Sample Chain of Custody

ACCOUNT:

PROJECT:
VOLLEMAN'S PROCESSING

SDG
LIB53354

DATE/TIME: 05/23/25 16:21

PAGE:
2 of 43

CASE NARRATIVE

Collected by	Collected date/time	Received date/time
Coley Mullin	24/30/25 08:38	04/30/25 12:37

Sc Al Ga In Sn Pb

Sc Al Ga Qc Sr Cn Ss Te

Duffy Roberts

 s_c

VP-53

Collected date/time: 04/30/23 08:38

SAMPLE RESULTS - 01

L1853355

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium, Total/nd	0.00127		0.00230	1	05/09/2025 09:50	WG2503482
Upperc Nitrogen	5.32		0.590	1	05/02/2025 17:18	WG2503431

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Total Dissolved Solids	2240		500	1	05/02/2025 15:38	WG2503456

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
5. Accepted Solids	613		167	1	05/01/2025 15:54	WG2503419

Wet Chemistry by Method 2320B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Alkalinity	767		20.0	1	05/09/2025 10:09	WG2503454

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloride	796		30.3	100	05/06/2025 09:40	WG2503405
Fluoride	ND		2.50	5	05/01/2025 12:37	WG2503499
Nitrate as N	ND		0.500	1	05/01/2025 11:43	WG2503499
Sulfate	40.4		7.00	10	04/30/2025 19:25	WG2503448

Wet Chemistry by Method 3500C-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chromium Hexavalent	ND		0.00350	1	05/09/2025 11:17	WG2503421

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Kyocel Nitrogen, TN	64.3		6.25	25	05/02/2025 17:18	WG2503422

Wet Chemistry by Method 360.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Dissolved Oxygen	14.2	T2	1	1	05/02/2025 09:07	WG2503402

Wet Chemistry by Method 4500CI-G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chlorine residual	ND	T3	0.500	5	05/01/2025 13:14	WG2503422

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cydrde	ND		0.0100	1	05/02/2025 11:38	WG2503432

VP-53

Collected date/time: 04/30/23 08:38

SAMPLE RESULTS - 01

L1853355

Wet Chemistry by Method 4500CN-G

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Cydrde, available	ND		0.0100	1	05/02/2025 11:38	WG2503432

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Phosphorus, total	12.4		1.00	20	05/01/2025 14:47	WG2503426

Wet Chemistry by Method 5210 B-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	976		150	1	05/09/2025 09:38	WG2503406
CBOD	954	T2	150	1	05/09/2025 10:25	WG2503420

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
COD	1720		140	4	05/01/2025 19:17	WG2503422

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
TOT, Total Organic Carbon	343		14.0	20	05/01/2025 10:34	WG2503422

Wet Chemistry by Method SM 4500-H1B

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
pH	7.77	T3	1	1	05/02/2025 09:10	WG2503422

Sample Narrative:

L1853355-01 WG2505202: 7.77 at 18.1C

Wet Chemistry by Method SM4500NH3-H

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	13.3		0.500	5	05/01/2025 11:15	WG2503421

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Mercury	ND		0.000200	1	05/02/2025 18:58	WG2503426

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Aluminum	0.524		0.200	1	05/08/2025 00:50	WG2503239
Antimony	ND		0.0100	1	05/08/2025 00:50	WG2503239
Asenic	ND		0.0100	1	05/08/2025 00:50	WG2503239
Barium	0.123		0.00500	1	05/08/2025 00:50	WG2503239
Beryllium	ND		0.00200	1	05/08/2025 00:50	WG2503239
Cadmium	ND		0.00200	1	05/08/2025 00:50	WG2503239
Chromium	ND		0.0100	1	05/08/2025 00:50	WG2503239
Copper	ND		0.0100	1	05/08/2025 00:50	WG2503239

VP-53

Collected date/time: 04/30/25 08:38

Metals (ICP) by Method 200.7

SAMPLE RESULTS - 01

L1853355

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Lead	ND		0.01503	1	05/08/2025 09:50	WG25028289
Nickel	0.0356		0.0103	1	05/08/2025 09:50	WG25028289
Selenium	ND		0.0103	1	05/08/2025 09:50	WG25028289
Silver	ND		0.00503	1	05/08/2025 09:50	WG25028289
Thallium	ND		0.0103	1	05/08/2025 09:50	WG25028289
Zinc	0.0154		0.0500	1	05/08/2025 09:50	WG25028289

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
7 of 43

WG2505459

Gravimetric Analysis by Method 2540C

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4209305-1 05/02/25 15:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Total Dissolved Solids	U		25.0	75.0

L1853409-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1853409-01 05/02/25 15:38 • (DUP) R4209305-3 05/02/25 15:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	2630	2310	1	12.4	33	10

L1853422-01 Original Sample (OS) • Duplicate (DUP)

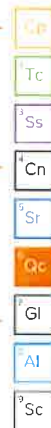
(OS) L1853422-01 05/02/25 15:38 • (DUP) R4209305-4 05/02/25 15:38

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Total Dissolved Solids	1960	2000	1	2.02		10

Laboratory Control Sample (LCS)

(LCS) R4209305-2 05/02/25 15:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Total Dissolved Solids	2330	2450	105	85.0-115	



WG2504819

Gravimetric Analysis by Method 2540D

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4208867-1 05/01/25 15:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Suspended Solids	U		2.50	2.50

L1852864-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1852864-03 05/01/25 15:34 • (DUP) R4208867-3 05/01/25 15:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	19300	19400	1	0.724		10

L1853355-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1853355-01 05/01/25 15:34 • (DUP) R4208867-4 05/01/25 15:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Suspended Solids	640	600	1	6.45		10

Laboratory Control Sample (LCS)

(LCS) R4208867-2 05/01/25 15:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec. Limits %	LCS Qualifier
Suspended Solids	801	769	96.0	85.0-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
9 of 43

WG2506964

Wet Chemistry by Method 2320B

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4209758-1 05/05/25 10:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		20.0	20.0

L1853064-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1853064-04 05/05/25 10:09 • (DUP) R4209758-3 05/05/25 10:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	270	277	1	2.45		20

Laboratory Control Sample (LCS)

(LCS) R4209758-2 05/05/25 10:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec. Limits %	LCS Qualifier
Alkalinity	250	242	96.8	90.0-110	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
10 of 43

WG2503648

Wet Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4208040-1 04/30/25 16:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.211	0.700

Laboratory Control Sample (LCS)

(LCS) R4208040-2 04/30/25 16:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	5.00	5.37	107	90.0-110	

L1852867-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852867-02 04/30/25 17:41 • (MS) R4208040-3 04/30/25 18:01 • (MSD) R4208040-4 04/30/25 18:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	2500	2050	4540	4680	99.6	105	500	90.0-110			3.01	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
11 of 43

WG2503899

Wet Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4208680-1 05/01/25 10:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	U		0.0947	0.500
Nitrate as (N)	U		0.379	0.500

Laboratory Control Sample (LCS)

(LCS) R4208680-2 05/01/25 10:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	5.00	5.36	107	90.0-110	
Nitrate as (N)	5.00	4.96	99.2	90.0-110	

L1853630-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853630-01 05/01/25 13:39 • (MS) R4208680-5 05/01/25 15:06 • (MSD) R4208680-6 05/01/25 15:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	ND	5.49	5.45	104	104	1	90.0-110			0.708	20
Nitrate as (N)	5.00	0.784	5.67	5.64	97.8	97.1	1	90.0-110			0.606	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
12 of 43

WG2505409

Wei Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4210583-1 05/06/25 08:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.325	0.800

Laboratory Control Sample (LCS)

(LCS) R4210583-2 05/06/25 09:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	5.00	5.15	103	90-110	

L1853704-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853704-01 05/06/25 10:01 • (MS) R4210583-5 05/06/25 11:25 • (MSD) R4210583-6 05/06/25 11:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	250	571	810	805	95.9	93.8	50	90-110	Pass	Pass	0.632	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
13 of 43

WG2506871

Wei Chemistry by Method 3500Cr-B

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4209740-1 05/05/25 11:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium, Hexavalent	U		0.00200	0.00300

Laboratory Control Sample (LCS)

(LCS) R4209740-2 05/05/25 11:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium, Hexavalent	0.200	0.203	102	85-115	

L1852878-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852878-01 05/05/25 11:17 • (MS) R4209740-3 05/05/25 11:18 • (MSD) R4209740-4 05/05/25 11:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium, Hexavalent	0.200	0.00338	0.178	0.177	87.5	86.6	1	85-115	Pass	Pass	1.04	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
14 of 43

WG2505222

Wet Chemistry by Method 351.2

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4209107-1 05/02/25 17:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Kjeldahl Nitrogen, TKN	U		0.140	0.250

Laboratory Control Sample (LCS)

(LCS) R4209107-2 05/02/25 17:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Kjeldahl Nitrogen, TKN	4.00	4.17	104	90-110	

L1852872-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852872-01 05/02/25 17:17 • (MS) R4209107-3 05/02/25 17:23 • (MSD) R4209107-4 05/02/25 17:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Kjeldahl Nitrogen, TKN	4.00	15.9	21.4	22.6	138	168	2	90-110	E-15	E-15	5.45	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
15 of 43

WG2505203

Wet Chemistry by Method 360.1

QUALITY CONTROL SUMMARY

[L1853355-01](#)

L1853355-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1853355-01 05/02/25 09:07 • (DUP) R4208685-1 05/02/25 09:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Dissolved Oxygen	142	130	1	8.82		10

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
16 of 43

WG2503722

Wet Chemistry by Method 4500Cl G-2011

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4208568-1 05/01/25 22:59

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Chlorine, residual	U		0.0415	0.100

L1851222-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1851222-01 05/01/25 23:02 • (DUP) R4208568-4 05/01/25 23:03

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Chlorine, residual	0.581	0.582	1	0.172		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4208568-2 05/01/25 23:01 • (LCSD) R4208568-3 05/01/25 23:01

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Chlorine, residual	100	106	106	106	106	85.0-115			0.0940	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
17 of 43

WG2505182

Wet Chemistry by Method 4500CN-E

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4208933-1 05/02/25 14:38

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Cyanide	U		0.00730	0.0100

Laboratory Control Sample (LCS)

(LCS) R4208933-2 05/02/25 14:38

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Cyanide	0.100	0.0960	96.0	85.0-115	

L1853580-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853580-03 05/02/25 14:38 • (MS) R4208933-3 05/02/25 14:39 • (MSD) R4208933-4 05/02/25 14:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Cyanide	0.100	ND	0.0963	0.0940	96.3	94.0	1	85.0-115			2.39	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
18 of 43

WG2504260

Wet Chemistry by Method 4500P-E

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4208309-1 05/01/25 14:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phosphorus, Total	0.0219		0.0152	0.0500

Laboratory Control Sample (LCS)

(LCS) R4208309-2 05/01/25 14:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phosphorus, Total	0.500	0.477	95.3	80.0-120	

L1851693-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1851693-01 05/01/25 14:47 • (MS) R4208309-3 05/01/25 14:48 • (MSD) R4208309-4 05/01/25 14:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD Limits %
Phosphorus, Total	0.500	0.124	0.610	0.628	97.2	101	1	80.0-120			21	20

ACCOUNT:
Phviro-Ag EngineeringPROJECT:
VOI LEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
19 of 43

WG2503406

Wet Chemistry by Method 5210 B-2016

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4209701-1 05/05/25 08:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
NO ₃	U		0.700	0.700

L1852885-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852885-01 05/05/25 09:17 • (DUP) R4209701-3 05/05/25 09:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
BOD	45.4	44.8	1	9.94		20

Laboratory Control Sample (LCS)

(LCS) R4209701-2 05/05/25 09:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
BOD	198	210	105	85-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
20 of 43

WG2503420

Wei Chemistry by Method 5210 B-2016

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4209724-1 05/05/25 09:59

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
CRD	U		0.700	0.700

L1852878-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1852878-01 05/05/25 10:11 • (DUP) R4209724-3 05/05/25 10:33

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
CBOD	2.19	2.01	1	8.57		20

Laboratory Control Sample (LCS)

(LCS) R4209724-2 05/05/25 10:04

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
CBOD	198	216	109	85-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
21 of 43

WG2504323

Wei Chemistry by Method 5220D

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4208273-1 05/01/25 13:37

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
COD	U		16.1	35.0

Laboratory Control Sample (LCS)

(LCS) R4208273-2 05/01/25 13:38

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
COD	500	509	102	80.0-120	

L1852550-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852550-01 05/01/25 13:38 • (MS) R4208273-3 05/01/25 13:43 • (MSD) R4208273-4 05/01/25 13:44

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
COD	500	618	555	564	98.7	100	1	80.0-120			151	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
22 of 43

WG2504472

Wet Chemistry by Method 5310C

QUALITY CONTROL SUMMARY

[L1853355-01](#)

Method Blank (MB)

(MB) R4208784-1 05/01/25 14:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TOC (Total Organic Carbon)	U		0.770	0.700

Laboratory Control Sample (LCS)

(LCS) R4208784-2 05/01/25 15:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	10.0	10.5	106	90.0-110	

L1852660-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852660-01 05/01/25 15:44 • (MS) R4208784-3 05/01/25 16:31 • (MSD) R4208784-4 05/01/25 16:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	10.0	13.1	18.1	18.4	49.9	53.0		80.0-120	-J6	-J6	1.0	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOILLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
23 of 43

WG2505202

Wet Chemistry by Method SM 4500-H+8

QUALITY CONTROL SUMMARY

[L1853355-01](#)

L1853698-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1853698-02 05/02/25 09:10 • (DUP) R4208695-2 05/02/25 09:10

Analyte	Original Result SU	DUP Result SU	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
pH	7.96	7.96	1	0.000		20

Sample Narrative:
OS: 7.96 at 18.5C
DUP: 7.96 at 18.6C

Laboratory Control Sample (LCS)

(LCS) R4208695-1 05/02/25 09:10

Analyte	Spike Amount SU	LCS Result SU	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	6.00	6.02	100	99.0-101	

Sample Narrative:
LCS: 6.02 at 19.9CACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOILLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
24 of 43

WG2504311

Well Chemistry by Method SM1500NH3H

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4208347-1 05/01/25 13:21

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Ammonia Nitrogen	U		0.0280	0.100

Laboratory Control Sample (LCS)

(LCS) R4208347-2 05/01/25 13:23

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Ammonia Nitrogen	5.00	5.04	101	80.0-120	

L1852642-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852642-01 05/01/25 13:24 • (MS) R4208347-3 05/01/25 13:58 • (MSD) R4208347-4 05/01/25 14:03

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	ND	4.88	4.86	96.6	96.2	1	80.0-120			0.411	20

L1852796-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1852796-01 05/01/25 13:26 • (MS) R4208347-5 05/01/25 14:05 • (MSD) R4208347-6 05/01/25 14:07

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	ND	4.85	4.86	96.0	96.2	1	80.0-120			0.206	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
25 of 43

WG2503526

Mercury by Method 245.1

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4209143-1 05/02/25 17:09

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Mercury	U		0.000130	0.000200

Laboratory Control Sample (LCS)

(LCS) R4209143-2 05/02/25 17:11

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Mercury	0.00300	0.00317	106	85.0-115	

L1853176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853176-01 05/02/25 17:14 • (MS) R4209143-4 05/02/25 17:19 • (MSD) R4209143-5 05/02/25 17:22

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.00300	ND	0.00330	0.00308	110	103	1	70.0-130			1.13	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
26 of 43

WG2508289

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1853355-01

Method Blank (MB)

(MB) R4211475-1 05/08/25 00:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum	0		0.0409	0.700
Antimony	0		0.00597	0.0100
Arsenic	0		0.00418	0.0100
Barium	0		0.000675	0.00500
Beryllium	0		0.000354	0.00200
Cadmium	0		0.000492	0.00200
Chromium	0		0.000920	0.0100
Copper	0		0.00217	0.0100
Lead	0		0.00272	0.00500
Nickel	0		0.00132	0.0100
Selenium	0		0.00579	0.0100
Silver	0		0.00134	0.00500
Thallium	0		0.00388	0.0100
Zinc	0		0.00421	0.0500

Laboratory Control Sample (LCS)

(LCS) R4211475-2 05/08/25 00:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec Limits %	LCS Qualifier
Aluminum	10.0	9.95	99.5	85.0-115	
Antimony	100	101	101	85.0-115	
Arsenic	100	101	101	85.0-115	
Barium	100	107	107	85.0-115	
Beryllium	100	105	106	85.0-115	
Cadmium	100	103	103	85.0-115	
Chromium	100	105	106	85.0-115	
Copper	100	105	105	85.0-115	
Lead	100	101	101	85.0-115	
Nickel	100	0.993	99.3	85.0-115	
Selenium	100	100	100	85.0-115	
Silver	0.200	0.200	100	85.0-115	
Thallium	100	106	106	85.0-115	
Zinc	100	104	104	85.0-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
27 of 43

WG2508289

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1853355-01

L1853182-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853182-03 05/08/25 00:13 • (MS) R4211475-4 05/08/25 00:17 • (MSD) R4211475-5 05/08/25 00:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec %	MSD Rec %	Dilution	Rec Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	ND	10.1	9.92	101	98.6	1	70.0-130			1.94	20
Antimony	1.00	ND	1.02	1.01	102	101	1	70.0-130			1.75	20
Arsenic	1.00	ND	1.04	1.02	104	102	1	70.0-130			1.99	20
Barium	1.00	0.0335	1.12	1.09	108	106	1	70.0-130			2.09	20
Beryllium	1.00	ND	1.06	1.04	106	104	1	70.0-130			1.59	20
Cadmium	1.00	ND	1.05	1.03	105	103	1	70.0-130			1.86	20
Chromium	1.00	ND	1.07	1.05	107	105	1	70.0-130			1.81	20
Copper	1.00	ND	1.05	1.04	106	103	1	70.0-130			2.45	20
Lead	1.00	ND	1.02	0.998	102	99.8	1	70.0-130			1.97	20
Nickel	1.00	ND	1.01	0.985	101	98.5	1	70.0-130			2.17	20
Selenium	1.00	ND	1.01	0.994	101	99.4	1	70.0-130			1.98	20
Silver	0.200	ND	0.202	0.197	101	98.7	1	70.0-130			2.57	20
Thallium	1.00	ND	1.07	1.05	107	105	1	70.0-130			2.25	20
Zinc	1.00	7.30	8.41	8.08	110	77.5	1	70.0-130			3.09	20

L1853520-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853520-01 05/08/25 00:21 • (MS) R4211475-6 05/08/25 00:23 • (MSD) R4211475-7 05/08/25 00:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec %	MSD Rec %	Dilution	Rec Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	ND	9.95	9.86	99.5	98.6	1	70.0-130			0.977	20
Antimony	1.00	ND	1.02	1.01	102	101	1	70.0-130			1.12	20
Arsenic	1.00	ND	1.02	1.01	102	101	1	70.0-130			0.941	20
Barium	1.00	0.0351	1.10	1.09	106	105	1	70.0-130			0.739	20
Beryllium	1.00	ND	1.05	1.03	105	103	1	70.0-130			2.10	20
Cadmium	1.00	0.0153	1.04	1.03	103	102	1	70.0-130			1.09	20
Chromium	1.00	ND	1.04	1.03	104	103	1	70.0-130			1.46	20
Copper	1.00	ND	1.05	1.04	104	103	1	70.0-130			0.959	20
Lead	1.00	ND	1.00	0.995	100	99.5	1	70.0-130			0.656	20
Nickel	1.00	ND	0.994	0.983	99.0	97.9	1	70.0-130			1.14	20
Selenium	1.00	ND	1.01	0.990	101	99.0	1	70.0-130			1.52	20
Silver	0.200	ND	0.201	0.199	100	99.5	1	70.0-130			0.916	20
Thallium	1.00	ND	1.05	1.04	105	104	1	70.0-130			1.38	20
Zinc	1.00	1.28	2.33	2.24	104	95.9	1	70.0-130			3.05	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1853355DATE/TIME:
05/29/25 16:27PAGE:
28 of 43

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclosure: Information that may be provided by the customer and contained within this report, includes Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Solvents, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. We do not state the accuracy of this information provided, and as the samples are for review.

Abbreviations and Definitions

	Method Detection Limit
MDL	Not detected at the Reporting Limit (or MDL, where applicable)
ND	
RDL	Reported Detection Limit
Rec.	Recovery
RPD	Relative Percent Difference
SD6	Sample Delivery Group
U	Not detected at the Reporting Limit (or MDL where applicable)
Analyte	The name of the particular compound or mix/s performed. Some Analyses and Methods will have multiple analytes reported.

Dilution Enter a constant scaling factor to convert the reported CPM value to a value representing the count in the standard or comparison of interest in this article. It is higher than the original limit of concentration that was laboratory can accurately report the sample may be diluted to, only, if a value different than 1 is used in this field, the result reported has already been corrected for this factor.

result reported has already been corrected for this factor.

0
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

.....

duplicate within these ranges.

Original Sample

The incubated sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.

1100

potentially a discussion of possible implications of the Queffelec in the Case Narrative if applicable.

Results

(Below Detectable Levels) The information in the results column should always be accompanied by either an MDL

or report for this analysis

Radiochemistry

Confidence level of 2 sigma

CODE VARIABLE (continued)

conserved either a sample receipt by the laboratory or in the field or joining the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.

Summary (Oc)

analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.

**Sample Criteria
Custody (Sc)**

chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the

Sample Results (Sr)

The results of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for

Sample Summary (p. 10)

times of preparation and/or analysis

Qualifier	Description
-----------	-------------

The sample concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (CAL).

The identification of the analyte is acceptable, the reported value is an estimate.

The associated batch QC was outside the established quality control range for precision.

The sample matrix interfered with the ability to make any accurate determination, spike value is high.

The sample matrix interfered with the ability to make any accurate determination, spike value is low.

Test replicates show more than 30% difference between high and low values.

Sample(s) received past due to holding time expiration.

ACCREDITATIONS & LOCATIONS

Page: ~~Amphibian~~ National 12065 Lebanon Rd Mount Juliet, TN 37122

State	Year	State	Year	State	Year	State	Year
Alabama	1970/71	Nevada	1965/66	Alabama	1970/71	Nevada	1965/66
Arizona	1970/71	New Hampshire	1965/66	Arizona	1970/71	New Hampshire	1965/66
Arkansas	1970/71	New Jersey	1965/66	Arkansas	1970/71	New Jersey	1965/66
California	1970/71	New Mexico	1965/66	California	1970/71	New Mexico	1965/66
Colorado	1970/71	New York	1965/66	Colorado	1970/71	New York	1965/66
Connecticut	1970/71	North Carolina	1965/66	Connecticut	1970/71	North Carolina	1965/66
Florida	1970/71	North Dakota	1965/66	Florida	1970/71	North Dakota	1965/66
Georgia	1970/71	Ohio	1965/66	Georgia	1970/71	Ohio	1965/66
Idaho	1970/71	Oklahoma	1965/66	Idaho	1970/71	Oklahoma	1965/66
Illinois	1970/71	Oregon	1965/66	Illinois	1970/71	Oregon	1965/66
Indiana	1970/71	Pennsylvania	1965/66	Indiana	1970/71	Pennsylvania	1965/66
Iowa	1970/71	Rhode Island	1965/66	Iowa	1970/71	Rhode Island	1965/66
Kansas	1970/71	South Carolina	1965/66	Kansas	1970/71	South Carolina	1965/66
Kentucky	1970/71	Texas	1965/66	Kentucky	1970/71	Texas	1965/66
Louisiana	1970/71	Texas	1965/66	Louisiana	1970/71	Texas	1965/66
Maine	1970/71	Utah	1965/66	Maine	1970/71	Utah	1965/66
Maryland	1970/71	Vermont	1965/66	Maryland	1970/71	Vermont	1965/66
Massachusetts	1970/71	Virginia	1965/66	Massachusetts	1970/71	Virginia	1965/66
Michigan	1970/71	Washington	1965/66	Michigan	1970/71	Washington	1965/66
Minnesota	1970/71	West Virginia	1965/66	Minnesota	1970/71	West Virginia	1965/66
Mississippi	1970/71	Wyoming	1965/66	Mississippi	1970/71	Wyoming	1965/66
Missouri	1970/71			Missouri	1970/71		
Montana	1970/71			Montana	1970/71		

Face Analytical Services, LLC -Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

State	Year	Rate	Rate
Arkansas	2005	28.06	28.06
Florida	2005	28.06	28.06
Iowa	2005	28.06	28.06
Kentucky	2005	28.06	28.06
Minnesota	2005	28.06	28.06
Mississippi	2005	28.06	28.06
North Carolina	2005	28.06	28.06
Ohio	2005	28.06	28.06
Oklahoma	2005	28.06	28.06
South Carolina	2005	28.06	28.06
South Dakota	2005	28.06	28.06
Tennessee	2005	28.06	28.06
Texas	2005	28.06	28.06
Virginia	2005	28.06	28.06
Washington	2005	28.06	28.06
West Virginia	2005	28.06	28.06
Wisconsin	2005	28.06	28.06
Wyoming	2005	28.06	28.06

Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Biological ⁵ Mold ⁶ Wastewater
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report. n/a Accreditation not applicable

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical

Sc Al Ga Ge Sr Cn Se Te S

ACCOUNT

PROJECT:	SDG:	DATE/TIME:	PAGE
WOLLEMAN'S PROCESSING	L1853355	05/29/25 16:27	29 of 4

ACCOUNT

PROJECT:	SDG:	DATE/TIME:	PAGE:
VOLLEMAN'S PROCESSING	LIB5355	05/29/25 16:27	30 of 41

PAGE:
37 of 43



Pace Analytical Services, LLC
9808 Loret Blvd
Lenexa, KS 66219
(913)598-5665



Pace Analytical Services, LLC
9808 Loret Blvd
Lenexa, KS 66219
(913)598-5665

May 29, 2025

Project: L1853355
Pace Project No.: 60475753

CERTIFICATIONS

Dallas_Sub

RE: Project: L1853355
Pace Project No.: 60475753

Dear Dallas_Sub:

Enclosed are the analytical results for sample(s) received by the laboratory on May 21, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNNELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Allison Sherman

Allison Sherman
allison.sherman@pacelabs.com
(913)598-5665
PM Lab Management

Enclosures

cc: Jimmy Huckaba, Pace National
Lori Vahrenkamp, Pace National



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
8608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: L1853355
Pace Project No : 60475753

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60475753001	VP-43	Water	04/30/25 08:38	05/21/25 09:45



Pace Analytical Services, LLC
8608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: L1853355
Pace Project No : 60475753

Lab ID	Sample ID	Method	Analysts Reported	Analyses Laboratory
60475753001	VP-43	EPA 1664A	KVI	1 PASI-K

PASI-K = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9609 Linnell Blvd
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project:	L1653355									
Pace Project No.:	604757533									
Sample: VP-53	Lab ID: 60475753001	Collected: 04/30/25 08:38	Received: 05/21/25 09:45	Matrix: Water						
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
HEM, Oil and Grease										
Analytical Method: EPA 1664A										
Pace Analytical Services - Kansas City										
Oil and Grease	2.8J	mg/L	6.2	1.6	1		05/28/25 10:39			

Date: 05/29/2025 08:12 AM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

Page 5 of 11



Pace Analytical Services, LLC
9609 Linnell Blvd
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project:		L1653355									
Pace Project No.:		60475753									
QC Batch:	936609	Analysis Method:		EPA 1664A							
QC Batch Method:	EPA 1664A	Analysis Description:		1664 HEM, Oil and Grease							
Associated Lab Samples:		Laboratory:		Pace Analytical Services - Kansas City							
METHOD BLANK: 3712928		Matrix: Water									
Associated Lab Samples:		60475753001									
Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed		Qualifiers				
Oil and Grease	mg/L	ND	5.0	1.3	05/28/25 10:37						
LABORATORY CONTROL SAMPLE: 3712929											
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits		Qualifiers				
Oil and Grease	mg/L	40	35.8	90	78-114						
MATRIX SPIKE SAMPLE: 3712932											
Parameter	Units	60475128001 Result	Spike Conc.	MS Result	MS % Rec Limits		Qualifiers				
Oil and Grease	mg/L	13.9	39.2	36.1	56		78-114 M1				
SAMPLE DUPLICATE: 3712933											
Parameter	Units	60475131001 Result	Dup Result	RPD	Max RPD		Qualifiers				
Oil and Grease	mg/L	7.0	3.7J		18						

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

Page 6 of 11



Pace Analytical Services, LLC
9606 Loret Blvd
Lanexa, KS 66218
(913)599-5665

QUALIFIERS

Project: L1853355
Pace Project No.: 60475753

DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot
- ND - Not Detected at or above adjusted reporting limit
- TNTC - Too Numerous To Count
- J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL - Adjusted Method Detection Limit
- PQL - Practical Quantitation Limit
- RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
- S - Surrogate
- 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable
- SG - Silica Gel - Clean-Up
- U - Indicates the compound was analyzed for, but not detected
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
- Pace Analytical is TNI accredited. Contact your Pace PML for the current list of accredited analytes.
- TNI - The NELAP Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Date: 05/29/2025 08:12 AM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
9606 Loret Blvd
Lanexa, KS 66218
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1853355
Pace Project No.: 60475753

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60475753001	VP-53	EPA 1664A	936509		

Date: 05/29/2025 08:12 AM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

DC# Title: ENV-FRM-LENE-0009 Sample C
Revision: 2 AF Effective Date: 01/12/2022 Issued By: Lameya
50475753



Client Name: ACE-APAT TX
Courier: FedEx ☐ UPS ☐ VIA ☐ ☐ PEX ☐ EQ ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐
Tracking #: 4479 241 0530 Pace Shipping Label Used? ☒ Yes ☐ No ☐
Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals intact: Yes ☒ No ☐
Packing Material: Bubble Wrap ☒ Bubble Bags ☐ Foam ☐ None ☐ Other ☐
Thermometer Used: 130-1 Type of Ice: Yes Blue None 3.1 Corrected 3.1
Cooler Temperature (°C): 3.1 As-read 3.1 Corr. Factor 0.0 Corrected 3.1
Temperature should be above freezing to 8°C

Date and initials of person examining specimens: AF 3/21

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Short Hold Time analyses (<2hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Unpreserved 5035A / TX1005/1008 soils frozen in 48hrs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Sample labels match COC: Date / time / ID / analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Samples contain multiple phases?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HO-2, NaOH+3 sulfide, NaOH+10 Cyanide)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Exceptions: VOA, Micro, O3G, KS TPH, OK-DRO	LOT#: <u>date/time added.</u>
Cyanide water sample checks:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Lead acetate strip turns dark? (Record only)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Potassium iodide test strip turns blue/purple? (Preserve)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Tip Blank present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Samples from USDA Regulated Area:	State: <u>TX</u> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A

Additional labels attached to 5035A / TX1005 vials in the field? ☐ Yes ☒ No ☐ N/A
Client Notification/ Resolution: Copy COC to client? ☐ Y ☒ N Field Data Required? ☐ Y ☒ N
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

60475753

Sub-Contract Chain of Custody

Batch Date/Time: 05/02/24 09:55
Sub-Contract Lab: PVE/ELLS
Address: 5001 E. Lynn Boulevard
2400
City/State: Leno, KS 66210
Contact: William Stumm william.stumm@pve.com
Owner: Lab PVE/ELLS
Address: 500 W. Hedden Drive
State: 100
City/State: Allen TX 75013
Phone: (972) 751-1231
Fax: _____
W.D. W.C.29m238
Email: Dallas.Sol@pve.com
Business Date: 05/10/2024
Send Reports to: Angela Ford

Sample ID	Matrix/State	Collect Date	Description	Method	Sample Number	Lab Use Only	Sample Comments
VP-53	TX	04/30/25	Oil & Grease (Ileane Ext)	1664A	1	L185355-01	
11-CLC-WT-HCL	WW	TX	08/38				
51766176							
51766177							

Refrigerated by: AF Date: 5/21/25
Received by: AF Date: 5/21/25
Relinquished by: _____ Date: _____
Received by: _____ Date: _____

• **Clare**

Profile/EZ N

Site

Notes

[illegible]

Container Codes

Glass			Plastic		Misc.	
DG9R	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1B	1L NaOH plastic	I Wipe/Swab
DG9P	40mL HCl amber vial	WGFU	4oz clear soil jar	BP1N	1L HNO ₃ plastic	SPST 120mL Corform Na Thiosulfate
DG9M	40mL MeOH clear vial	WGFU	2oz clear soil jar	BP1S	1L H ₂ SO ₄ plastic	ZPLC Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserv amber wide	BP1U	1L unpreserved plastic	AF Air Filter
DG9S	40mL H ₂ SO ₄ amber vial	AGFU	100mL unres amber glass	BP1Z	1L NaOH, Zn Acetate	C Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2B	500mL NaOH plastic	R Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H ₂ SO ₄ amber glass	BP2N	500mL HNO ₃ plastic	U Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H ₂ SO ₄ plastic	
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO ₃ amber glass	BP2Z	500mL NaOH, Zn Acetate	
BG1S	1liter H ₂ SO ₄ clear glass	AG2S	500mL H ₂ SO ₄ amber glass	BP3B	250mL NaOH plastic	Matrix
BG1U	1liter unpres clear	AG3S	250mL H ₂ SO ₄ amber glass	BP3F	250mL HNO ₃ plastic - field filtered	WF Water
BG3H	250mL HCl. clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO ₃ plastic	SL Solid
BG3U	250mL unpres clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H ₂ SO ₄ plastic	OIL Oil
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WVP Wipe
				BP4U	125mL unpreserved plastic	DWV Drinking Water
				BP4N	125mL HNO ₃ plastic	
				BP4S	125mL H ₂ SO ₄ plastic	
				WPDU	16oz unpreserved plastic	

Work Order Number

TABLE OF CONTENTS

Sample Delivery Group: L1855999

Samples Received: 05/07/2025

05/07/2025

Project Number: VOLLEMANS PROCESSING

VOLLEMANS PROCESSING

Description:	Pollutant Permit
--------------	------------------

Pollutant Permit

VOLLEMANS PROCESSING

VOLLEMANS PROCESSING

Report To: Jordan Mullin

Jordan Mallin

3404 Airway Blvd

3404 Airway Blvd

Amarillo, TX 79118

Amarillo, TX 79118

100th & Roberts

Dorothy P Roberts

Project Manager

Results relate only to the letters tested and are reported as rounded values. The test (open, small) or, by comparison, closed (or the letter without any kind of final stroke) when additionally, varying consonant type. An analysis of National Institute of Standards and Technology (NIST) data for the period 1995-2006 and 2007-2008 shows a significant bias in identifying handwritten letters for the letters 'a' and 'c' (Table 2). The NIST data were written for the purpose of the challenge, and the information presented in the table is not intended to be a general statement about the difficulty of the task.

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

Pace Analytical National

ACCOUNT:
Enviro-Ag Engineering

PROJECT:
VOLLEMAN'S PROCESSING

SDG 11
L1855993

DATE/TIME: 05/21/25 15:50

PAGE 37 of 44

ACCOUNT

PROJECT:
VOLLEMAN'S PROCESSING

SDG
LIFE39

DATE/TIME: 05/21/25 15:50

PAGE 2 of 44

1	Cap Cover Page
2	Table of Contents
3	Site Sample Summary
4	Core Case Narrative
5	Site Sample Results
6	VP-54_L185599-01
7	QC Quality Control Summary
8	Gravimetric Analysis by Method 2540C
9	Gravimetric Analysis by Method 2540D
10	Wet Chemistry by Method 2320B
11	Wet Chemistry by Method 300.0
12	Wet Chemistry by Method 3500C-B
13	Wet Chemistry by Method 351.2
14	Wet Chemistry by Method 360.1
15	Wet Chemistry by Method 4500Cl-G-2011
16	Wet Chemistry by Method 4500Cl-E
17	Wet Chemistry by Method 4500P-E
18	Wet Chemistry by Method 5210 B-2016
19	Wet Chemistry by Method 5320D
20	Wet Chemistry by Method 5310C
21	Wet Chemistry by Method 5310C
22	Wet Chemistry by Method SM 4500-HB
23	Wet Chemistry by Method SM4500NH4H
24	Mercury by Method 245.1
25	Mercury (ICP) by Method 200.7
26	Metals (ICP) by Method 200.7
27	Metals (ICP) by Method 200.7
28	Glossary of Terms
29	Accreditations & Locations
30	Sample Chain of Custody
31	

Sc Al Ga In Sn Pb

SAMPLE SUMMARY

VP-54 L1855999-01

Collected by: C. Bickel, J. Bickel, J. Bickel
05/07/25 15:57 05/07/25 12:33

Method	Batch	Dilution	P. calculation	Analysis	Analysis	Location
Calculated Results	WC25M271	1	05/04/25 23:00	346	MI, JUNE, TN	
	WC25M522	1	05/04/25 15:48	315	MI, TX	
Geometric Analysis by Method 25/10C	WC25I2080	1	05/07/25 14:20	027	Allen, TX	
Wet Chemistry by Method 2320B	WC25I0971	1	05/07/25 18:02	037	Allen, TX	
	WC25I2843	1	05/07/25 11:19	SWV	Allen, TX	
Wet Chemistry by Method 300.0	WC25I0970	1	05/07/25 14:12	.B5	Allen, TX	
Wet Chemistry by Method 300.0	WC25I0540	1	05/07/25 20:37	SMC	Allen, TX	
Wet Chemistry by Method 300.0	WC25I0540	1	05/07/25 09:30	SMC	Allen, TX	
Wet Chemistry by Method 3500C-48	WC25I4548	1	05/04/25 11:03	.B5	Allen, TX	
Wet Chemistry by Method 3500C-48	WC25I0938	1	05/07/25 14:18	SMC	Allen, TX	
Wet Chemistry by Method 351.2	WC25I1589	25	05/07/25 18:05	315	Allen, TX	
Wet Chemistry by Method 351.2	WC25I0013	1	05/09/25 09:30	SWV	Allen, TX	
Wet Chemistry by Method 4300C-E-2011	WC25I0931	2	05/07/25 10:11	JAF	MI, JUNE, TN	
Wet Chemistry by Method 4300C-E	WC25I0756	1	05/07/25 11:30	SMC	Allen, TX	
Wet Chemistry by Method 4500C-V6	WC25I0756	1	05/07/25 15:35	SMC	Allen, TX	
Wet Chemistry by Method 4500C-E	WC25I0760	20	05/07/25 07:24	SMC	Allen, TX	
Wet Chemistry by Method 4500P-E	WC25I0899	1	05/07/25 15:53	MP	Allen, TX	
Wet Chemistry by Method 520.0 B-2015	WC25I0902	1	05/07/25 17:22	SWV	Allen, TX	
Wet Chemistry by Method 520.0 B-2015	WC25I0018	2	05/09/25 10:35	SWV	Allen, TX	
Wet Chemistry by Method 5200C	WC25I0908	20	05/09/25 01:35	315	Allen, TX	
Wet Chemistry by Method 5M-4500C-H9	WC25I0012	5	05/08/25 09:10	MP	Allen, TX	
Wet Chemistry by Method 5M-4500C-H9	WC25I0522	1	05/04/25 18:08	315	Allen, TX	
Mercury by Method 445.1	WC25I060	1	05/07/25 15:31	M3	MI, JUNE, TN	
Mercury by Method 445.1	WC25I42.1	1	05/04/25 09:55	340	MI, JUNE, TN	
Mercury by Method 445.1	WC25I0087	1	05/07/25 00:00	ANF	Lenora, KS 66219	



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or noted within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative. A non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/exceptions observed by the laboratory, having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Dorothy P Roberts

Dorothy P Roberts
Project Manager

Project Narrative

L1855999-01 contains subpart data that is included after the chain of custody.

Sample Delivery Group (SDG) Narrative

Analysis was filtered in the laboratory.

Lab Sample ID	Project Sample ID	Method
L1855999-01	VP-54	3500C-48



ACCOUNT:
Enviro-Aq Engineering

PROJECT:
VOLLEMAN'S PROCESSING

SDG:
L1855999

DATE/TIME:
05/27/25 15:50

PAGE:
3 of 44

ACCOUNT:
Enviro-Aq Engineering

PROJECT:
VOLLEMAN'S PROCESSING

SDG:
L1855999

DATE/TIME:
05/27/25 15:50

PAGE:
4 of 44

VP-54

Collected date/time: 05/07/25 08:57

SAMPLE RESULTS - 01

L1855939

Calculated Results

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium Trivalent	ND	I	C 00200	1	05/04/2025 20:00	WG25-4201
0 part/c Nitrogen	55.3		C 500	1	05/01/2025 18:03	WG25-0622

Gravimetric Analysis by Method 2540C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Total Dissolved Solids	2560	I3	500	1	05/07/2025 15:25	WG25-2084

Gravimetric Analysis by Method 2540D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Suspended Solids	527		657	1	05/07/2025 18:22	WG2509571

Wet Chemistry by Method 2320B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Alkalinity	240		20.0	1	05/12/2025 11:19	WG25-2842

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chloride	733		C 800	1	05/12/2025 22:37	WG25-0540
Fluoride	0.241	B	C 500	1	05/04/2025 16:03	WG25-4454
Nitrate as N	ND		C 500	1	05/07/2025 14:12	WG2509102
Sulfate	57.2		C 700	1	05/12/2025 09:30	WG2509240

Wet Chemistry by Method 3500C-B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chromium Hexavalent	ND		C 00220	1	05/08/2025 14:15	WG2509388

Wet Chemistry by Method 351.2

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Kyocahl Nitrogen TN	65.0		6.25	25	05/12/2025 15:35	WG25-3898

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Dissolved Oxygen	0.650	Pl T8	1	1	05/08/2025 03:53	WG25-0012

Wet Chemistry by Method 4500CI G-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Chlorine residual	3.04	I3	C 200	2	05/04/2025 11:11	WG2509321

Wet Chemistry by Method 4500CN-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Cyanide	ND		C 01000	1	05/07/2025 15:35	WG25-2726

ACCOUNT:
Environmental Engineering

PROJECT:
VOLLEMAN'S PROCESSING

SDG:
L1855939

DATE/TIME:
05/27/25 15:50

PAGE:
5 of 44

VP-54

Collected date/time: 05/07/25 08:57

SAMPLE RESULTS - 01

L1855939

Wet Chemistry by Method 4500CN-G

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Carbonate/Labile	ND		C 01000	1	05/07/2025 15:35	WG25-2726

Wet Chemistry by Method 4500P-E

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Phosphorus Total	11.7	Y	1.00	20	05/07/2025 07:24	WG25-2700

Wet Chemistry by Method 5210 B-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
BOD	867		150	1	05/07/2025 10:40	WG2509488
COD	927		150	1	05/12/2025 11:12	WG2509502

Wet Chemistry by Method 5220D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
COD	1600		72.0	2	05/09/2025 13:45	WG25-2018

Wet Chemistry by Method 5310C

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
TOC (Total Organic Carbon)	313		14.0	20	05/15/2025 01:23	WG25-3868

Wet Chemistry by Method SM 4500-4-H-B

Analyte	Result	Qualifier	Dilution	Analysis	Batch
pH	7.89	I3	1	05/08/2025 03:53	WG25-0012

Sample Narrative:
L1855939-01 WG250012 7.89 at 19:50

Wet Chemistry by Method SM4500NH3-H

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Ammonia Nitrogen	9.25		C 500	5	05/04/2025 15:15	WG25-0022

Mercury by Method 245.1

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Mercury	ND		C 000100	1	05/12/2025 15:35	WG25-0981

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
Aluminum	ND		C 200	1	05/04/2025 20:00	WG25-4201
Antimony	ND		C 0100	1	05/04/2025 20:00	WG25-4201
Arsenic	ND		C 0100	1	05/04/2025 20:00	WG25-4201
Barium	0.111		C 00500	1	05/04/2025 20:00	WG25-4201
Beryllium	ND		C 00200	1	05/04/2025 20:00	WG25-4201
Cadmium	ND		C 00200	1	05/04/2025 20:00	WG25-4201
Chromium	ND		C 0100	1	05/04/2025 20:00	WG25-4201
Copper	ND		C 0100	1	05/04/2025 20:00	WG25-4201

ACCOUNT:
Environmental Engineering

PROJECT:
VOLLEMAN'S PROCESSING

SDG:
L1855939

DATE/TIME:
05/27/25 15:50

PAGE:
6 of 44

VP-54
Collected date/time: 05/07/25 08:57
Metals (ICP) by Method 200.7

SAMPLE RESULTS - 01
L1855999

Analyte	Result	Qualifier	MDL	Dilution	Analysis date / time	Batch
Lead	ND		0.00500	1	05/04/2025 20:00	WG251421
Nickel	ND		0.0003	1	05/04/2025 20:00	WG251421
Selenium	ND		0.0003	1	05/04/2025 20:00	WG251421
Silver	ND		0.00900	1	05/04/2025 20:00	WG251421
Thallium	ND		0.0003	1	05/04/2025 20:00	WG251421
Zinc	0.0633		0.00500	1	05/04/2025 20:00	WG251421



ACCOUNT
Enviro-Ag Engineering

PROJECT
VOLLEMANS PROCESSING

SDG
L1855999

DATE/TIME
05/21/25 15:50

PAGE
7 of 44

WG2512084

Gravimetric Analysis by Method 2540C

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(vMB) R4213371-1 05/10/25 15:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Total Dissolved Solids	U		25.0	25.0

L1855999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855999-01 05/10/25 15:25 • (DUP) R4213371-3 05/10/25 15:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Dissolved Solids	2960	2580	1	13.7	U	10

L1856414-01 Original Sample (OS) • Duplicate (DUP)

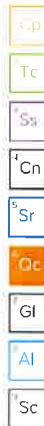
(OS) L1856414-01 05/10/25 15:25 • (DUP) R4213371-4 05/10/25 15:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Dissolved Solids	5600	5720	1	8.96		10

Laboratory Control Sample (LCS)

(LCS) R4213371-2 05/10/25 15:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Dissolved Solids	2330	2660	114	85.0-115	



WG2509671

Gravimetric Analysis by Method 2540D

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4211455-1 05/07/25 18:22

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Suspended Solids	U		2.50	2.50

L1855999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855999-01 05/07/25 18:22 • (DUP) R4211455-3 05/07/25 18:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Suspended Solids	527	520	1	1.28		10

Laboratory Control Sample (LCS)

(LCS) R4211455-2 05/07/25 18:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Suspended Solids	801	852	106	85.0-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
9 of 44

WG2512840

Wet Chemistry by Method 2320B

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4213342-1 05/12/25 11:19

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		20.0	20.0

L1855769-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855769-01 05/12/25 11:19 • (DUP) R4213342-3 05/12/25 11:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
Alkalinity	460	463	1	0.715		20

Laboratory Control Sample (LCS)

(LCS) R4213342-2 05/12/25 11:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Alkalinity	250	242	96.8	90.0-110	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
10 of 44

WG2509170

Wel Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4211266-2 05/07/25 12:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate as (N)	U		0.379	0.500

Laboratory Control Sample (LCS)

(LCS) R4211266-3 05/07/25 12:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate as (N)	5.00	5.06	101	90.0-110	

L1855277-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855277-01 05/07/25 13:09 • (MS) R4211266-4 05/07/25 13:30 • (MSD) R4211266-5 05/07/25 13:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate as (N)	5.00	NU	5.05	5.08	101	102	1	90.0-110			0.745	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
11 of 44

WG2510540

Wel Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4213833-3 05/12/25 15:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.325	0.800
Sulfate	U		0.211	0.700

Laboratory Control Sample (LCS)

(LCS) R4213833-2 05/12/25 15:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	5.00	4.84	96.9	90.0-110	
Sulfate	5.00	5.08	102	90.0-110	

L1855771-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855771-01 05/12/25 18:26 • (MS) R4213833-4 05/12/25 18:38 • (MSD) R4213833-5 05/12/25 18:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfate	5.00	ND	5.12	4.99	95.1	92.6	1	90.0-110			2.52	20

L1855771-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855771-01 05/12/25 19:02 • (MS) R4213833-6 05/12/25 19:14 • (MSD) R4213833-7 05/12/25 19:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	37.5	81.1	80.9	87.1	86.8	1	90.0-110	J6	J6	0.186	20

L1856464-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856464-01 05/12/25 21:01 • (MS) R4213833-8 05/12/25 21:13 • (MSD) R4213833-9 05/12/25 21:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	2500	7360	4530	4520	86.7	86.5	1	90.0-110	J6	J6	0.134	20
Sulfate	2500	772	3100	3110	93.2	93.4	1	90.0-110			0.171	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
12 of 44

WG2514458

Wet Chemistry by Method 300.0

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4214558-1 05/14/25 09:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Fluoride	0.771		0.0947	0.500

Laboratory Control Sample (LCS)

(LCS) R4214558-2 05/14/25 09:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoride	5.00	4.83	96.7	90.0-110	

L1855771-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855771-01 05/14/25 10:03 • (MS) R4214558-3 05/14/25 12:15 • (MSD) R4214558-4 05/14/25 12:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	ND	4.71	4.75	90.0	90.8		90.0-110			0.677	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
13 of 44

WG2509998

Wet Chemistry by Method 3500Cr-B

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4211753-1 05/08/25 14:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium, Hexavalent	U		0.00200	0.00300

Laboratory Control Sample (LCS)

(LCS) R4211753-2 05/08/25 14:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium, Hexavalent	0.200	0.200	99.8	85.0-115	

L1855108-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855108-01 05/08/25 14:18 • (MS) R4211753-3 05/08/25 14:19 • (MSD) R4211753-4 05/08/25 14:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium, Hexavalent	0.200	ND	0.186	0.191	93.0	95.3		85.0-115			2.41	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
14 of 44

WG2513589

Wet Chemistry by Method 351.2

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4214209-2 05/13/25 19:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Kjeldahl Nitrogen, TKN	U		0.140	0.750

Laboratory Control Sample (LCS)

(LCS) R4214209-1 05/13/25 18:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Kjeldahl Nitrogen, TKN	4.00	3.92	98.0	90.0-110	

L1855277-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855277-01 05/13/25 18:49 • (MS) R4214209-3 05/13/25 19:06 • (MSD) R4214209-4 05/13/25 19:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Kjeldahl Nitrogen, TKN	4.00	10.9	15.3	14.8	111	98.0	2	90.0-110	J5		3.45	20

L1856429-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856429-02 05/13/25 19:04 • (MS) R4214209-5 05/13/25 19:10 • (MSD) R4214209-6 05/13/25 19:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Kjeldahl Nitrogen, TKN	4.00	161	6.32	6.30	118	117	1	90.0-110	J5	J5	0.317	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
15 of 44

WG2510013

Wet Chemistry by Method 360.1

QUALITY CONTROL SUMMARY

L1855999-01

L1855999-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855999-01 05/08/25 09:30 • (DUP) R4211554-1 05/08/25 09:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Oxygen	0.650	0.840	1	25.5	J P1	10

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
16 of 44

WG2509371

Wet Chemistry by Method 4500Cl G-2011

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4214714-1 05/14/25 11:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chlorine, residual	U		0.0415	0.100

L1855868-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855868-01 05/14/25 11:09 • (DUP) R4214714-4 05/14/25 11:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chlorine, residual	ND	ND	1	14.4		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4214714-2 05/14/25 11:07 • (LCSD) R4214714-3 05/14/25 11:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chlorine, residual	100	0.943	0.937	94.3	93.7	85.0-115			0.638	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOI LFMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
17 of 44

WG2512756

Wet Chemistry by Method 4500CN-E

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4213499-1 05/12/25 15:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00730	0.0100

Laboratory Control Sample (LCS)

(LCS) R4213499-2 05/12/25 15:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0968	96.8	85.0-115	

L1856133-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856133-03 05/12/25 15:35 • (MS) R4213499-3 05/12/25 15:37 • (MSD) R4213499-4 05/12/25 15:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	ND	0.0988	0.0921	91.0	84.3	1	85.0-115		<u>Js</u>	7.05	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
18 of 44

WG2512760

Wet Chemistry by Method 4500P-E

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4213583-1 05/12/25 17:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phosphorus, Total	0.0181		0.0157	0.0500

Laboratory Control Sample (LCS)

(LCS) R4213583-2 05/12/25 17:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec. Limits %	LCS Qualifier
Phosphorus, Total	0.500	0.505	101	80-120	

L1855960-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855960-01 05/12/25 17:24 • (MS) R4213583-3 05/12/25 17:20 • (MSD) R4213583-4 05/12/25 17:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec %	MSD Rec %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phosphorus, Total	0.500	0.960	1.43	1.42	94.6	91.9	10	80-120			0.5/6	20

L1855999-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855999-01 05/12/25 17:24 • (MS) R4213583-5 05/12/25 17:28 • (MSD) R4213583-6 05/12/25 17:28

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec %	MSD Rec %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phosphorus, Total	0.500	11.7	13.1	12.9	273	234	20	80-120	✓	✓	150	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/12/25 15:50PAGE
19 of 44

WG2508999

Wet Chemistry by Method 5210 B-2016

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4213240-1 05/12/25 09:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
BOD	U		0.700	0.700

L1855524-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1855524-01 05/12/25 09:48 • (DUP) R4213240-3 05/12/25 10:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
BOD	287	263	1	8.95		20

Laboratory Control Sample (LCS)

(LCS) R4213240-2 05/12/25 09:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec. Limits %	LCS Qualifier
BOD	158	217	110	85-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/12/25 15:50PAGE
20 of 44

WG2509002

Wei Chemistry by Method 5210 B-2016

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4213302-1 05/12/25 10:52

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
CROD	U		0.700	0.700

L1856056-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1856056-01 05/12/25 11:15 • (DUP) R4213302-3 05/12/25 11:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits %
CROD	137	182	1	28.2	P1	20

Laboratory Control Sample (LCS)

(LCS) R4213302-2 05/12/25 10:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
CROD	198	220	111	85-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/22/25 15:50PAGE:
21 of 44

WG2510018

Wei Chemistry by Method 5220D

QUALITY CONTROL SUMMARY

[L1855999-01](#)

Method Blank (MB)

(MB) R4211762-1 05/08/25 13:45

Analyte	MB Result mg/l	<u>MB Qualifier</u>	MB MDL mg/l	MB RDL mg/l
COD	U		15.1	35.0

Laboratory Control Sample (LCS)

(LCS) R4211762-2 05/08/25 13:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
COD	500	507	101	80.0-120	

L1855109-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855109-01 05/08/25 13:45 • (MS) R4211762-3 05/08/25 13:45 • (MSD) R4211762-4 05/08/25 14:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
COD	500	76.7	5.72	5.68	99.1	98.3	1	80.0-120			0.743	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/22/25 15:50PAGE:
22 of 44

WG2513968

Wet Chemistry by Method 5310C

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4215337-1 05/14/25 20:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TOC (Total Organic Carbon)	U		0.270	0.700

Laboratory Control Sample (LCS)

(LCS) R4215337-2 05/14/25 20:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TOC (Total Organic Carbon)	10.0	10.5	105	90.0-110	

L1855405-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855405-02 05/14/25 23:13 • (MS) R4215337-3 05/14/25 21:51 • (MSD) R4215337-4 05/14/25 22:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	10.0	2.55	12.8	12.6	103	100	1	80.0-120			2.05	20

L1856138-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856138-01 05/14/25 23:40 • (MS) R4215337-5 05/14/25 22:32 • (MSD) R4215337-6 05/14/25 22:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TOC (Total Organic Carbon)	10.0	3.42	13.4	13.5	100	101	1	80.0-120			0.372	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLEMAN'S PROCESSINGSDG
L1855999DATE/TIME:
05/21/25 15:50PAGE:
23 of 44

WG2510012

Wet Chemistry by Method SM 4500-H+8

QUALITY CONTROL SUMMARY

L1855999-01

L1855450-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1855450-02 05/08/25 09:10 • (DUP) R4211526-2 05/08/25 09:10

Analyte	Original Result SU	DUP Result SU	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
pH	9.81	9.80	1	0.102		20

Sample Narrative:

OS: 9.8 at 19.3C
DUP: 9.8 at 19.2C

Laboratory Control Sample (LCS)

(LCS) R4211526-1 05/08/25 09:10

Analyte	Spike Amount SU	LCS Result SU	LCS Rec. %	Rec. Limits %	LCS Qualifier
pH	6.00	6.02	100	99.0-101	

Sample Narrative:

LCS: 6.02 at 20.7C

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMAN'S PROCESSINGSDG
L1855999DATE/TIME:
05/21/25 15:50PAGE:
24 of 44

WG2514522

Wet Chemistry by Method SM4500NH3H

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4215040-1 05/14/25 17:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.0280	0.100

Laboratory Control Sample (LCS)

(LCS) R4215040-2 05/14/25 17:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	5.00	4.96	99.2	80.0-120	

L1853922-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853922-01 05/14/25 17:47 • (MS) R4215040-3 05/14/25 17:40 • (MSD) R4215040-4 05/14/25 17:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	NU	4.87	4.87	95.5	95.5		80.0-120			0.000	20

L1855520-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855520-01 05/14/25 17:50 • (MS) R4215040-5 05/14/25 17:43 • (MSD) R4215040-6 05/14/25 17:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	1.01	5.78	5.76	95.4	95.0	1	80.0-120			0.347	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
25 of 44

WG2510610

Mercury by Method 245.1

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4213987-1 05/13/25 12:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000130	0.000700

Laboratory Control Sample (LCS)

(LCS) R4213987-2 05/13/25 12:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00309	103	85.0-115	

L1856049-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856049-01 05/13/25 13:00 • (MS) R4213987-4 05/13/25 13:05 • (MSD) R4213987-5 05/13/25 13:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	NU	0.00298	0.00323	99.3	108		70.0-130			8.05	20

L1856166-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1856166-01 05/13/25 13:11 • (MS) R4213987-6 05/13/25 13:13 • (MSD) R4213987-7 05/13/25 13:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	ND	0.00300	0.00311	99.9	104	1	70.0-130			3.54	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLEMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
26 of 44

WG2514211

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1855999-01

Method Blank (MB)

(MB) R4214913-1 05/14/25 19:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Aluminum	U		0.0409	0.700
Antimony	U		0.00597	0.0100
Arsenic	U		0.00478	0.0100
Barium	U		0.000675	0.00500
Beryllium	U		0.000354	0.00200
Cadmium	U		0.000492	0.00200
Chromium	U		0.000220	0.0100
Copper	U		0.00217	0.0100
Lead	U		0.00272	0.00500
Nickel	U		0.00132	0.0100
Selenium	U		0.00529	0.0100
Silver	U		0.00134	0.00500
Thallium	U		0.00388	0.0100
Zinc	U		0.00421	0.0500

Laboratory Control Sample (LCS)

(LCS) R4214913-2 05/14/25 19:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec %	Rec Limits %	LCS Qualifier
Aluminum	10.0	10.4	104	85.0-115	
Antimony	1.00	1.03	103	85.0-115	
Arsenic	1.00	1.04	104	85.0-115	
Barium	1.00	1.08	108	85.0-115	
Beryllium	1.00	1.05	105	85.0-115	
Cadmium	1.00	1.03	103	85.0-115	
Chromium	1.00	1.06	106	85.0-115	
Copper	1.00	1.05	105	85.0-115	
Lead	1.00	1.01	101	85.0-115	
Nickel	1.00	1.02	102	85.0-115	
Selenium	1.00	1.03	103	85.0-115	
Silver	0.200	0.200	99.9	85.0-115	
Thallium	1.00	1.07	107	85.0-115	
Zinc	1.00	1.05	105	85.0-115	

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
27 of 46

WG2514211

Metals (ICP) by Method 200.7

QUALITY CONTROL SUMMARY

L1855999-01

L1855909-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855909-01 05/14/25 19:21 • (MS) R4214913-4 05/14/25 19:26 • (MSD) R4214913-5 05/14/25 19:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	3.16	18.0	18.6	148	154	1	70.0-130	J5	J5	3.23	20
Antimony	1.00	ND	1.01	1.03	101	103	1	70.0-130			1.14	20
Arsenic	1.00	ND	1.04	1.09	104	109	1	70.0-130			4.36	20
Barium	1.00	0.0514	1.12	1.17	107	112	1	70.0-130			4.40	20
Beryllium	1.00	ND	1.04	1.09	104	109	1	70.0-130			4.27	20
Cadmium	1.00	ND	1.02	1.07	102	107	1	70.0-130			4.78	20
Chromium	1.00	ND	1.06	1.11	105	110	1	70.0-130			4.46	20
Copper	1.00	ND	1.04	1.09	104	108	1	70.0-130			4.36	20
Lead	1.00	0.00587	1.01	1.05	100	105	1	70.0-130			4.25	20
Nickel	1.00	ND	1.02	1.07	102	107	1	70.0-130			4.40	20
Selenium	1.00	ND	1.03	1.08	103	108	1	70.0-130			4.74	20
Silver	0.200	ND	0.200	0.209	100	105	1	70.0-130			4.33	20
Thallium	1.00	ND	0.104	0.0960	10.4	9.60	1	70.0-130	J6	J6	8.44	20
Zinc	1.00	0.0510	1.08	1.13	103	107	1	70.0-130			3.86	20

L1855909-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1855909-04 05/14/25 19:31 • (MS) R4214913-6 05/14/25 19:33 • (MSD) R4214913-7 05/14/25 19:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aluminum	10.0	5.59	21.4	20.4	159	148	1	70.0-130	J5	J5	4.90	20
Antimony	1.00	ND	1.01	0.935	101	93.5	1	70.0-130			7.75	20
Arsenic	1.00	ND	1.07	1.00	107	100	1	70.0-130			5.88	20
Barium	1.00	0.0550	1.15	1.09	110	103	1	70.0-130			5.84	20
Beryllium	1.00	ND	1.07	1.01	107	101	1	70.0-130			5.57	20
Cadmium	1.00	ND	1.05	0.980	105	98.0	1	70.0-130			5.55	20
Chromium	1.00	ND	1.09	1.02	108	101	1	70.0-130			6.27	20
Copper	1.00	ND	1.08	1.01	107	100	1	70.0-130			6.32	20
Lead	1.00	0.00697	1.04	0.976	103	96.9	1	70.0-130			5.96	20
Nickel	1.00	ND	1.05	0.989	105	98.3	1	70.0-130			6.17	20
Selenium	1.00	ND	1.06	1.00	105	99.7	1	70.0-130			5.51	20
Silver	0.200	ND	0.205	0.193	102	96.4	1	70.0-130			5.98	20
Thallium	1.00	ND	0.125	0.1403	12.5	14.03	1	70.0-130	J6	J3-J6	10.2	20
Zinc	1.00	0.0679	1.12	1.06	105	99.3	1	70.0-130			5.35	20

ACCOUNT:
Enviro-Ag EngineeringPROJECT:
VOLLMANS PROCESSINGSDG:
L1855999DATE/TIME:
05/21/25 15:50PAGE:
28 of 44

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project rep/estimator.

Results Disclaimer - Information that may be provided by the customer and contained within the report, include Patient Units, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Disturbances, On-Site Data, Sampling Collection Dates/Time, and Sampling Location Details, relate to the accuracy of the information provided, and as the samples are recovered.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Unit (or MDL where applicable).
RPL	Reported Detection Limit.
Rec	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Unit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyses reported.
Dilution	If the sample matrix contains an interfering material, the sample proportion of the interfering material will be different from the standard or if concentration of analytes in the sample are higher than the upper limit of concentration that the laboratory can accurately report, the analyte may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery/ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful OC Sample Analysis will target all analytes recovered or 100% detected within these ranges.
Original Sample	The non-spoiled sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The original sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result. The letter designates the sample type and the number designates the analysis performed. The information is located on the Sample ID and the Sample Matrix. The information is located on the Sample ID and the Sample Matrix. The information is located on the Sample ID and the Sample Matrix.
Result	The actual analytical result reported for your sample. If there are no recoverable results returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "EDL" (Below Detectable Level). The information in the results column would always be accompanied by either an MDL (Method Detection Limit) or RPL (Reported Detection Limit) that defines the lowest value that the laboratory could detect in response to this analyte.
Uncertainty/Precedence	Confidence level of 2 sigma.
Case Narrative (CN)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed after the sample is received by the laboratory from the field or during the analytical process. If present, there will be a section of the Case Narrative to discuss the timing of any data qualifiers used in the report.
Quality Control Summary (QC)	This section provides the results of the laboratory quality control analysis required by procedure or method. The results of the analysis are provided for each sample type. These analyses are not being performed on your samples typically, but on laboratory generated material.
Simple Chain of Custody (SCC)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analysis that the laboratory is requested to perform. This chain of custody also documents all personnel, including commercial shipments that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (SR)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are accompanied by the analysis performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (SS)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the calls and times of preparation and/or analysis.

Qualifier

B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable, the reported value is an estimate.
J5	The associated batch OC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination, spike value is high.
PI	The sample matrix interfered with the ability to make any accurate determination, spike value is low.
T8	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	Samples received past too close to holding time expiration.
	The sample concentration is too high to evaluate accurate spike recoveries.

ACCOUNT
Environmental Engineering

PROJECT
VOLLEMAN'S PROCESSING

SDG
LBS5999

DATE/TIME
05/27/25 15:50

PAGE
29 of 44

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12085 Lebanon Rd Mount Juliet, TN 37122

Alabama	40560	Verde	NC-05-15-05
Alaska	17415	New Hampshire	TN-00-03-2021H
Arizona	42902	New Mexico	2915
Arkansas	850-069	New York-ELAP	TN-02
California	2212	New York-ELAP	TN-02
Colorado	190205	New York-ELAP	TN-02
Connecticut	190205	New York-ELAP	TN-02
Florida	190205	New York-ELAP	TN-02
Georgia	190205	New York-ELAP	TN-02
Hawaii	190205	New York-ELAP	TN-02
Idaho	190205	New York-ELAP	TN-02
Illinois	190205	New York-ELAP	TN-02
Indiana	190205	New York-ELAP	TN-02
Iowa	190205	New York-ELAP	TN-02
Kansas	190205	New York-ELAP	TN-02
Kentucky	190205	New York-ELAP	TN-02
Louisiana	190205	New York-ELAP	TN-02
Maine	190205	New York-ELAP	TN-02
Maryland	190205	New York-ELAP	TN-02
Massachusetts	190205	New York-ELAP	TN-02
Michigan	190205	New York-ELAP	TN-02
Minnesota	190205	New York-ELAP	TN-02
Mississippi	190205	New York-ELAP	TN-02
Montana	190205	New York-ELAP	TN-02
Nebraska	190205	New York-ELAP	TN-02
Nevada	190205	New York-ELAP	TN-02
New Hampshire	190205	New York-ELAP	TN-02
New Jersey	190205	New York-ELAP	TN-02
New Mexico	190205	New York-ELAP	TN-02
New York	190205	New York-ELAP	TN-02
North Carolina	190205	New York-ELAP	TN-02
North Dakota	190205	New York-ELAP	TN-02
Ohio	190205	New York-ELAP	TN-02
Oklahoma	190205	New York-ELAP	TN-02
Oregon	190205	New York-ELAP	TN-02
Pennsylvania	190205	New York-ELAP	TN-02
Rhode Island	190205	New York-ELAP	TN-02
South Carolina	190205	New York-ELAP	TN-02
South Dakota	190205	New York-ELAP	TN-02
Tennessee	190205	New York-ELAP	TN-02
Texas	190205	New York-ELAP	TN-02
Utah	190205	New York-ELAP	TN-02
Vermont	190205	New York-ELAP	TN-02
Virginia	190205	New York-ELAP	TN-02
Washington	190205	New York-ELAP	TN-02
West Virginia	190205	New York-ELAP	TN-02
Wisconsin	190205	New York-ELAP	TN-02
Wyoming	190205	New York-ELAP	TN-02
Arizona	190205	New York-ELAP	TN-02
California	190205	New York-ELAP	TN-02
Colorado	190205	New York-ELAP	TN-02
Connecticut	190205	New York-ELAP	TN-02
Delaware	190205	New York-ELAP	TN-02
District of Columbia	190205	New York-ELAP	TN-02
Florida	190205	New York-ELAP	TN-02
Georgia	190205	New York-ELAP	TN-02
Hawaii	190205	New York-ELAP	TN-02
Idaho	190205	New York-ELAP	TN-02
Illinois	190205	New York-ELAP	TN-02
Indiana	190205	New York-ELAP	TN-02
Iowa	190205	New York-ELAP	TN-02
Kansas	190205	New York-ELAP	TN-02
Kentucky	190205	New York-ELAP	TN-02
Louisiana	190205	New York-ELAP	TN-02
Maine	190205	New York-ELAP	TN-02
Maryland	190205	New York-ELAP	TN-02
Massachusetts	190205	New York-ELAP	TN-02
Michigan	190205	New York-ELAP	TN-02
Minnesota	190205	New York-ELAP	TN-02
Mississippi	190205	New York-ELAP	TN-02
Montana	190205	New York-ELAP	TN-02
Nebraska	190205	New York-ELAP	TN-02
Nevada	190205	New York-ELAP	TN-02
New Hampshire	190205	New York-ELAP	TN-02
New Jersey	190205	New York-ELAP	TN-02
New Mexico	190205	New York-ELAP	TN-02
New York	190205	New York-ELAP	TN-02
North Carolina	190205	New York-ELAP	TN-02
North Dakota	190205	New York-ELAP	TN-02
Ohio	190205	New York-ELAP	TN-02
Oklahoma	190205	New York-ELAP	TN-02
Oregon	190205	New York-ELAP	TN-02
Pennsylvania	190205	New York-ELAP	TN-02
Rhode Island	190205	New York-ELAP	TN-02
South Carolina	190205	New York-ELAP	TN-02
South Dakota	190205	New York-ELAP	TN-02
Tennessee	190205	New York-ELAP	TN-02
Texas	190205	New York-ELAP	TN-02
Utah	190205	New York-ELAP	TN-02
Vermont	190205	New York-ELAP	TN-02
Virginia	190205	New York-ELAP	TN-02
Washington	190205	New York-ELAP	TN-02
West Virginia	190205	New York-ELAP	TN-02
Wisconsin	190205	New York-ELAP	TN-02
Wyoming	190205	New York-ELAP	TN-02

Pace Analytical Services, LLC - Dallas 400 W. Bethany Drive Suite 190 Allen, TX 75013

ACCOUNT
Environmental Engineering

PROJECT
VOLLEMAN'S PROCESSING

SDG
LBS5999

DATE/TIME
05/27/25 15:50

PAGE
30 of 44



7-



DCH Title: ENV-FRM-ALLE-0017 v15_Sample Condition Upon Receipt

Effective Date: 12/18/2023

Sample Condition Upon Receipt

Client Name: Enviro Ag Eng ☐ Dallas ☐ Ft Worth ☐ Corpus Christi ☐ Austin

Counter: FedEx ☐ UPS ☐ USPS ☐ Client ☒ Lab ☐ PACE ☐ Other: _____

Tracking #: NA

Custody Seal on Cooler/Box: Yes ☐ No ☒

Received on Ice: Water ☐ Blue ☐ No Ice ☒

Receiving Lab 1 Thermometer Used: 193

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: 2.1 (Recorded) 0.1 (Correction Factor) 2.2 (Actual)

Receiving Lab 2 Thermometer Used: _____ Cooler Temp °C: _____ (Recorded) _____ (Correction Factor) _____ (Actual)

Chain of Custody relinquished

Sampler name & signature on COC

Short HT analyses (<72 hrs)

Temperature should be above freezing to 6°C, unless collected same day as receipt in which evidence of cooling is acceptable.

Trage Person: Shawn Date: 5-7-25

Sufficient Volume received

Correct Container used

Container Intact

Sample pH Acceptable

pH Strips: 6.0/6.0/6.0/4

Residual Chlorine Present

Cl Strips: 14-860

Sulfide Present

Lead Acetate Strips: 9.0/44

Are soil samples (volatiles, TPH) received in 5035A Kirs

(not applicable to TCLP VOA or PST Program TPH)

Unpreserved 5035A soil frozen within 48 hrs

Headspace in VOA (>6mm)

Project sampled in USDA Regulated Area outside of

Texas

State Sampled:

Non-Conformance(s):

Login Person: _____ Date: _____

Labeling Person (if different than log-in): _____ Date: _____

Qualtrax ID: 48806

Page 1 of 1



May 21, 2025

Dallas, Sub

RE: Project L 1855999
Pace Project No.: 60474963

Dear Dallas, Sub:

Enclosed are the analytical results for sample(s) received by the laboratory on May 10, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TUV/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:
• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me

Sincerely,

Allison Sherman

Allison Sherman
allison.sherman@pacealabs.com
(913)599-5665
P.M. Lab Management

Enclosures

cc: Jimmy Huckaba, Pace National
Lori Vahrentkamp, Pace National



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
9908 Lohr Blvd
Lenexa, KS 66219
(913)599-5665



Pace Analytical Services, LLC
9908 Lohr Blvd
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: L1855999
Pace Project No: 60474963

SAMPLE SUMMARY

Project: L1855999
Pace Project No: 60474963

Pace Analytical Services, Kansas
9908 Lohr Boulevard, Lenexa, KS 66219
Arkansas Certification #: 38-00679
Colorado Division of Oil and Public Safety
Illinois Certification #: 2000302023-6
Iowa Certification #: 118
Kansas Field Laboratory Certification #: E-92587
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Missouri Inorganic Drinking Water Certification
Nevada Certification #: KS000212024-1
Oklahoma Certification #: 2023-073
Texas Certification #: T104704407-23-17
Utah Certification #: KS000212022-13

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60474963001	VP-54	Water	05/07/25 08:57	05/10/25 09:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Lurie Blvd
Lenexa, KS 66219
(913)599-5865

SAMPLE ANALYTE COUNT

Project: L1855999
Pace Project No.: 60474963

Lab ID	Sample ID	Method	Analysts	Analyses Reported	Laboratory
60474963001	VP-54	EPA 1664A	KVI	1	PASJK

PASJK = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Lurie Blvd
Lenexa, KS 66219
(913)599-5865

ANALYTICAL RESULTS

Project: L1855999
Pace Project No.: 60474963

Sample: VP-54		Lab ID: 60474963001	Collected: 05/07/25 08:57		Received: 05/10/25 09:00		Matrix: Water	
Parameters		Results	Units	Report Limit	MDL	DF	Prepared	Analyzed
HEM, Oil and Grease		Analytical Method: EPA 1664A Pace Analytical Services - Kansas City						
Oil and Grease		ND	mg/L	6.2	1.6	1		05/20/25 10:46

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: L1855999		Analysis Method: EPA 1664A				
Pace Project No.: 60474963		1664 HEM, Oil and Grease				
QC Batch: 935724		Pace Analytical Services - Kansas City				
QC Batch Method: EPA 1664A		Laboratory:				
Associated Lab Samples: 60474963001		Matrix: Water				
METHOD BLANK: 3708992						
Associated Lab Samples: 60474963001						
Parameter		Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil and Grease		mg/L	ND	5.0	1.3	05/20/25 10.44
LABORATORY CONTROL SAMPLE: 3708993						
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
Oil and Grease		mg/L	40	34.6	86	78-114
MATRIX SPIKE SAMPLE: 3708994						
Parameter		Units	60474072001 Result	Spike Conc.	MS Result	MS % Rec Limits
Oil and Grease		mg/L	<4.9	39.2	25.9	65
78-114 M1						
SAMPLE DUPLICATE: 3708995						
Parameter		Units	60474072003 Result	Dup Result	RPD	Max RPD
Oil and Grease		mg/L	<4.9	ND		1.6
Qualifiers						

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Date: 05/21/2025 10:36 AM

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9608 Loret Blvd
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: L1855999
Pace Project No.: 60474963

DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
 - ND - Not Detected at or above adjusted reporting limit
 - TNTC - Too Numerous To Count
 - J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
 - MDL - Adjusted Method Detection Limit
 - PQL - Practical Quantitation Limit
 - RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 - S - Surrogate
 - 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
 - Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
 - LCS(D) - Laboratory Control Sample (Duplicate)
 - MS(D) - Matrix Spike (Duplicate)
 - DUP - Sample Duplicate
 - RPD - Relative Percent Difference
 - NC - Not Calculable
 - SG - Silica Gel - Clean-Up
 - U - Indicates the compound was analyzed for, but not detected
 - N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
 - Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.
 - Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
 - TNI - The NEIAC Institute.
- ### ANALYTE QUALIFIERS
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

Date: 05/21/2025 10:36 AM

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC



Pace Analytical Services, LLC
9808 Loria Blvd
Lenexa, KS 66219
(913) 596-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project L1655939				
Pace Project No.: 60474963				
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method
60474963001	VP-54	EPA 1664A	935724	Batch

Date: 05/21/2023 10:36 AM

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full
without the written consent of Pace Analytical Services, LLC

Revision: 2		Effective Date: 01/12/2022		Issued By: Lenexa	
DC# Title: ENV-FRM-LENE-0009_Sample Condit					
M0#: 60474963					

Client Name: Pace

Counter: 4489 UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☐ Xroads ☐ Client ☐ Other ☐

Tracking #: 4489 24581512 Pace Shipping Label Used? Yes ☐ No ☐

Custody Seal on Cooler/Box Present: Yes ☒ No ☐ Seals Intact: Yes ☐ No ☐

Packing Material: Bubble Wrap ☐ Bubble Bags ☐ Foam ☐ None ☐ Other ☐

Thermometer Used: 1-30 Type of Ice: Yes Blue ☐ None ☐

Cooler Temperature (°C): As-read 1.8 Corr. Factor 0.1 corrected 1.9

Temperature should be above freezing to 8°C

Chain of Custody Present: Yes ☐ No ☐ N/A

Chain of Custody relinquished: Yes ☐ No ☐ N/A

Samples arrived within holding time: Yes ☐ No ☐ N/A

Short Hold Time analyses (<72hr): Yes ☐ No ☐ N/A

Rush Turn Around Time requested: Yes ☐ No ☐ N/A

Sufficient volume: Yes ☐ No ☐ N/A

Correct containers used: Yes ☐ No ☐ N/A

Pace containers used: Yes ☐ No ☐ N/A

Containers intact: Yes ☐ No ☐ N/A

Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs? Yes ☐ No ☐ N/A

Filtered volume received for dissolved tests? Yes ☐ No ☐ N/A

Sample labels match COC: Date / time / ID / analyses Yes ☐ No ☐ N/A

Samples contain multiple phases? Matrix: WT Yes ☐ No ☐ N/A

Containers requiring pH preservation in compliance? Yes ☐ No ☐ N/A

(HNO₃, H₂SO₄, HClO₄-NaOH, NaOH+10 Cyanide)
Exceptions: VOA Micro OEG, KS TPH, OK-DRO LOT#:

Cyanide water sample checks: Yes ☐ No ☐ N/A

Lead acetate strip turns dark? (Record only) Yes ☐ No ☐ N/A

Potassium iodide test strip turns blue/purple? (Preserve) Yes ☐ No ☐ N/A

Trip Blank present: Yes ☐ No ☐ N/A

Headspace in VOA vials (>6mm): Yes ☐ No ☐ N/A

Samples from USDA Regulated Area: State: Yes ☐ No ☐ N/A

Additional labels attached to 5035A / TX1005 vials in the field? Yes ☐ No ☐ N/A

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Qualtrax Document ID: 30468

Sub-Contract Chain of Custody

60174963

Batch Date/Time: 06/08/25 10:00
 Sub-Contract Lab: PACE Analytical
 Address: 400 W. Beckham Drive, Suite 100
 Allen, TX 75013
 Phone: (972) 727-1123

W.D. W.G.25.0087
 Email: Dallas.Subcontract@paceanalytical.com
 Results Due Date: 06/21/25
 ESC Purchase Order #: L1855999
 Send Reports to: Angela Ford

Sample ID: VP-54 Container ID: Harris State Collect Date: Description: Method: Sample Number: Comment: Lab Use Only

IL-CIC-WT-HCI- WW TX 06/08/25 Oil & Grease (Hexane 1064A 1 L1855999-01

IL-CIC-WT-HCI- S51430677 S51430678

Container used for multiple samples and/or analyses

Received by: GAFA Date: 5-2-25

Received by: GAFA Date: 5/10/25

Received by: GAFA Date: 5/10/25

Received by: GAFA Date: 5/10/25

DCM Title: ENV FRM LENE 0001 v07_Sample Container Count
 Effective Date: 7/12/2024

Client: PAST National
 Site: L1855999

Project/EZ #: 14832-6

COC Line Item	Container Code	Container Description	Notes
1	VG9H	40mL bisulfate clear vial	
2	VG9H	40mL HCl amber vial	
3	VG9H	40mL MeOH clear vial	
4	VG9H	40mL TSP amber vial	
5	VG9H	40mL H2SO4 amber vial	
6	VG9H	40mL Na Thio amber vial	
7	VG9H	40mL Na Thio clear vial	
8	VG9H	40mL HCl clear vial	
9	VG9H	40mL Na Thio clear vial	
10	VG9H	40mL unreserved clear vial	
11	VG9H	1liter H2SO4 clear glass	
12	VG9H	1liter unres glass	

Container Codes

Glass	Plastic	Misc.
VG9B 40mL bisulfate clear vial	BP1B 1L NaOH plastic	1 Wipe/Swab
VG9H 40mL HCl amber vial	BP1N 1L HNO3 plastic	SP5T 120mL Conform Na Thiosulfate
VG9M 40mL MeOH clear vial	BP1S 1L H2SO4 plastic	ZPLC Ziploc Bag
VG9Q 40mL TSP amber vial	BP1U 1L unreserved plastic	AF Air Filter
VG9S 40mL H2SO4 amber vial	BP1Z 1L NaOH, Zn Acetate	C Air Cassettes
VG9T 40mL Na Thio amber vial	BP2B 500mL NaOH plastic	R Terracore Kit
VG9U 40mL Na Thio clear vial	BP2N 500mL HNO3 plastic	U Summa Can
VG9V 40mL HCl clear vial	BP2S 500mL H2SO4 plastic	
VG9W 40mL Na Thio clear vial	BP2U 500mL unreserved plastic	
VG9X 40mL unreserved clear vial	BP2Z 500mL NaOH, Zn Acetate	
BG1S 1liter H2SO4 clear glass	BP3B 250mL NaOH plastic	
BG1U 1liter unres glass	BP3F 250mL HNO3 plastic - field filled	
BG3H 250mL HCl Clear glass	BP3N 250mL HNO3 plastic	
BG3U 250mL Unres Clear glass	BP3U 250mL unreserved plastic	
WGDU 16oz clear soil jar	BP3S 250mL H2SO4 plastic	
	DP3Z 250mL NaOH, Zn Acetate	
	BP4U 125mL unreserved plastic	
	BP4N 125mL HNO3 plastic	
	BP4S 125mL H2SO4 plastic	
	WFDU 16oz unreserved plastic	

Work Order Number

60174963

Leah Whallon

From: Jourdan Mullin <jmullin@enviroag.com>
Sent: Friday, June 20, 2025 2:43 PM
To: Leah Whallon
Cc: Corey Mullin
Subject: RE: Application to Renew Permit No. WQ0005282000; Volleman Dairy Processing Plant
Attachments: ADJACENT LANDOWNER LABELS.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good Friday Afternoon Leah,

I have reviewed the NORI and everything is correct as shown. Attached is the word document of the Adjacent Landowner Labels . Please let me know if you have any questions or require any additional information.

Respectfully,

Jourdan Mullin

Enviro-Ag Engineering, Inc.
9855 FM 847
Dublin, TX 76446

254/965-3500 – Work
806/679-5570 - Mobile

From: Corey Mullin <cmullin@enviroag.com>
Sent: Friday, June 20, 2025 12:55 PM
To: Jourdan Mullin <jmullin@enviroag.com>
Subject: Fw: Application to Renew Permit No. WQ0005282000; Volleman Dairy Processing Plant

Sent via the Samsung Galaxy S25+, an AT&T 5G smartphone
Get [Outlook for Android](#)

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Friday, June 20, 2025 12:31:45 PM
To: Corey Mullin <cmullin@enviroag.com>
Cc: frank@wildcatmilk.com <frank@wildcatmilk.com>
Subject: Application to Renew Permit No. WQ0005282000; Volleman Dairy Processing Plant

CAUTION: This email originated from outside of Enviro-Ag Engineering. Do not click links or open attachments unless you have verified the sender and know the content is safe.

Good Afternoon,

Please see the attached Notice of Deficiency letter dated June 20, 2025 requesting additional information needed to declare the application administratively complete. Please send the complete response by July 4, 2025.

Please let me know if you have any questions.

Thank you,



Leah Whallon

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

leah.whallon@tceq.texas.gov

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

Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

This email has been scanned for viruses and malware, and may have been automatically archived by **Mimecast Ltd**, an innovator in Software as a Service (SaaS) for business. Providing a **safer** and **more useful** place for your human generated data. Specializing in; Security, archiving and compliance. To find out more [Click Here](#).

GAYLAND G & JULIANNA STEPHENS
7178 FM 1476
GUSTINE, TX 76455

NANCY JO TENNISON
5655 PHILIDELPHIA
FT. WORTH, TX 76148

RUFUS JANES ADCOCK & JAMES
LITTLETON
PO BOX 53
GUSTINE, TX 76455

KELLY & DEBBIE ADCOCK
108 W COMMERCE ST.
GUSTINE, TX 76455

ROBERT H MURPHY
451 CR 232
GUSTINE, TX 232

MYLES TY MCCULLOUGH
1701 CR 216
COMANCHE, TX 76442

TIMOTHY & BRENDA ROTHENBUSH
4727 TOPAZ LANE
GRANBURY, TX 76049

MID-TEXAS VETERINARY ASSOCIATES
550 CR 230
GUSTINE, TX 76455

CURTIS C LACKEY
1251 CR 232
GUSTINE, TX 76455

SUZANNE A MITCHELL
801 GRAND AVE
COMANCHE, TX 76442

JAMES R WEAVER
1401 CR 232
GUSTINE, TX 76455

JAMES W LITTLEJOHN
PO BOX 53
GUSTINE, TX 76455

RANDY E COUCH
1401 CR 232
GUSTINE, TX 76455

UPPER LEON RIVER MUNICIPAL
WATER DISTRICT
2250 HWY 2861
COMANCHE, TX 76442

JACLYN TURLEY
130 CR 330
GUSTINE, TX 76455

JAMES F & CONNIE AKE MCDOUGAL
15050 HWY 36
GUSTINE, TX 76455

HARVEY EST & JANET WHITE
15100 HWY 36
GUSTINE, TX 76455

DARLA CAROL MOORE
751 CR 340
DUBLIN, TX 76446

CARMEN & LANCE LANDMAN
PO BOX 86
GUSTINE, TX 76455

JAMES AND PENNY LOU
1425 HAVEN DR
COMANCHE, TX 76442