



**APPLICATION TO RENEW
TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY
MUNICIPAL WASTEWATER PERMIT**

WQ0011439001

ISSUED TO

City of Meadowlakes

April 2019

**Prepared For:
City of Meadowlakes
177 Broadmoor, Suite B
Meadowlakes, TX 78654**

**Prepared By:
Landsman Environmental LLC
P.O. Box 7038
Houston, TX 77248**



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: City of Meadowlakes

PERMIT NUMBER: W00011439001

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

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



Section 3. Facility Owner (Applicant) and Co-Applclicant Information (Instructions Page 29)

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

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

City of Meadowlakes

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

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?

You may search for your CN on the TCEQ website at

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

CN: 603176082

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

First/Last Name: Johnnie Thompson

Title/Prefix: City Manager

Credential:

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

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

N/A

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

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?

You may search for your CN on the TCEQ website at

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

CN:

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

First and Last Name:

Title/Prefix:

Credential:

Provide a brief description of the need for a co-permittee:

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 30)

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

A. First and Last Name: Stephanie Landsman

Credential:

Organization Name: Landsman Environmental LLC

Title/Prefix:

Mailing Address: P.O. Box 7038

City: Houston

State: TX

ZIP Code: 77248

Phone No.: 281-658-5899

Ext.:

Fax No.:

E-mail Address: stephanie@landsmanenviro.com

Check one or both: ☒ Administrative Contact

☒ Technical Contact

B. First and Last Name: Scott Bridges

Credential:

Organization Name: City of Meadowlakes

Title/Prefix: Chief Operator

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.:

Fax No.:

E-mail Address: sbridges@meadowlakestx.us

Check one or both: ☐ Administrative Contact

☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

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

A. First and Last Name: Mike Williams

Credential:

Organization Name: City of Meadowlakes
Director

Title/Prefix: CFM/Public Works

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.:

Fax No.:

E-mail Address: mwilliams@meadowlakestx.us

B. First and Last Name: Johnnie Thompson

Credential:

Organization Name: City of Meadowlakes

Title/Prefix: City Manager

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.:

Fax No.:

E-mail Address: jthompson@meadowlakestx.us

Section 6. Billing Information (Instructions Page 30)

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

First and Last Name: Johnnie Thompson

Credential:

Organization Name: City of Meadowlakes

Title/Prefix: City Manager

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.:

Fax No.:

E-mail Address: jthompson@meadowlakestx.us

Section 7. DMR/MER Contact Information (Instructions Page 31)

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

First and Last Name: Scott Bridges

Credential:

Organization Name: City of Meadowlakes

Title/Prefix: Chief Operator

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.:

Fax No.:

E-mail Address: sbridges@meadowlakestx.us

You can submit DMR data on the TCEQ website at

<https://www.tceq.texas.gov/field/netdmr/netdmr.html>. Establish an electronic reporting account with the permit number.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

First and Last Name: Johnnie Thompson

Credential: _____

Organization Name: City of Meadowlakes

Title/Prefix: City Manager

Mailing Address: 177 Broadmoor Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

Ext.: _____

Fax No.: _____

E-mail Address: jthompson@meadowlakestx.us

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

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

☒ E-mail Address: jthompson@meadowlakestx.us

☐ Fax No.: _____

☐ Regular Mail:

Mailing Address: _____

City: _____

State: _____

ZIP Code: _____

Phone No.: _____

Ext.: _____

Fax: _____

C. Contact person to be listed in the Notices

First and Last Name: Johnnie Thompson

Credential: _____

Organization Name: City of Meadowlakes

Title/Prefix: City Manager

Phone No.: 830-693-2951

Ext.: _____

E-mail: _____

jthompson@meadowlakestx.us

D. Public Viewing Information

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

Public building name: Meadowlakes City Hall

Location within the building: _____

Physical Address of Building: 177 Broadmoor, Suite 1B

City: Meadowlakes

County: Burnet

Contact Name: _____

Phone No.: 830-693-6840

Ext.: _____

E. Bilingual Notice Requirements:

This information is required for new, major amendment, and renewal applications. It is not required for minor amendment or minor modification applications.

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

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

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

☒ Yes ☐ No

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

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

☒ Yes ☐ No

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

☒ Yes ☐ No

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

☐ Yes ☐ No

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

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

Search the TCEQ's Central Registry at

<http://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=regent.RNSearch> to determine the RN.

If the site is found, provide the assigned Regulated Entity Number and provide the information for the site to be authorized through this application below.

TCEQ issued Regulated Entity Number (RN): RN 101453017

A. State/TPDES Permit No.: WQ0011439001

Expiration Date: 12/1/2019

EPA Identification No. (TPDES Permits only): TX 00000000000000000000000000000000

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

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.

- C. Owner of treatment facility: City of Meadowlakes

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

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

First and Last Name: City of Meadowlakes

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

E-mail Address: mwilliams@meadowlakestx.us

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

Attachment:

- E. Owner of effluent disposal site:

First and Last Name: City of Meadowlakes

Mailing Address: 177 Broadmoor, Suite B

City: Meadowlakes

State: TX

ZIP Code: 78654

Phone No.: 830-693-2951

E-mail Address: mwilliams@meadowlakestx.us

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

Attachment:

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

First/Last Name:

Mailing Address:

City:

State:

ZIP Code:

Phone No.:

E-mail Address:

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

Attachment:

Section 10. TPDES Discharge Information (Instructions Page 34)

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

City nearest the outfall(s):

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

Outfall Latitude: Longitude:

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

☐ Yes ☐ No

If yes, indicate by a check mark if:

☐ Authorization granted ☐ Authorization pending

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

Attachment:

F. 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.

Section 11. TLAP Disposal Information (Instructions Page 36)

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

☒ Yes ☐ No

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

B. City nearest the disposal site: Meadowlakes

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

D. Disposal Site Latitude: 30.5641 Longitude: -98.2940

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

Effluent is discharged from the WWTP to a storage pond; then pumped from the storage pond to a holding pond on a golf course to be used for irrigation. (Disposal site is located in the drainage area of Marble Falls Lake in Segment No. 1405 of the Colorado River Basin.

F. For TLAPs, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

Unnamed creek that drains to Lake Marble Falls in Segment No. 1405 of the Colorado River Basin.

Section 12. Miscellaneous Information (Instructions Page 37)

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

☐ Yes ☒ No

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

Yes ☐ No ☐ Not Applicable ☒

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

C. Did any person formerly employed by the TCEQ represent your company and get paid for

service regarding this application?

☐ Yes ☒ No

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

--

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number:

Amount past due:

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number:

Amount past due:

Section 13. Attachments (Instructions Page 38)

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

- ☐ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.
- ☒ Original full-size USGS Topographic Map with the following information:
 - Applicant's property boundary
 - Treatment facility boundary
 - Labeled point of discharge for each discharge point (TPDES only)
 - Highlighted discharge route for each discharge point (TPDES only)
 - Onsite sewage sludge disposal site (if applicable)
 - Effluent disposal site boundaries (TLAP only)
 - New and future construction (if applicable)
 - 1 mile radius information
 - 3 miles downstream information (TPDES only)
 - All ponds.
- ☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify:

Section 14. Signature Page (Instructions Page 39)

Permit Number: WQ0011439001

Applicant: City of Meadowlakes

Certification:

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

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

Signatory name (typed or printed): Johnnie Thompson

Signatory title: City Manager

Signature: [Signature]

Date: 4/11/19

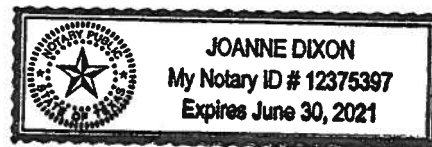
(Use blue ink)

Subscribed and Sworn to before me by the said Johnnie Thompson
on this 11th day of April, 2019.
My commission expires on the 30th day of June, 2021.

[Signature]
Notary Public

[SEAL]

Burnet
County, Texas



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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications
Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): [Click here to enter text](#)

2-Hr Peak Flow (MGD): [Click here to enter text](#)

Estimated construction start date: [Click here to enter text](#)

Estimated waste disposal start date: [Click here to enter text](#)

B. Interim II Phase

Design Flow (MGD): [Click here to enter text](#)

2-Hr Peak Flow (MGD): [Click here to enter text](#)

Estimated construction start date: [Click here to enter text](#)

Estimated waste disposal start date: [Click here to enter text](#)

C. Final Phase

Design Flow (MGD): 0.14

2-Hr Peak Flow (MGD): 0.60

Estimated construction start date: [Click here to enter text](#)

Estimated waste disposal start date: [Click here to enter text](#)

D. Current operating phase: Final

Provide the startup date of the facility: 1974

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided.**
Process description:

The facility is an activated sludge process plant using the extended aeration mode. Treatment units consist of bar screens (2), aeration basins (2), clarifiers (2), aerobic digesters (2), and chlorine contact chambers (2).

Port or pipe diameter at the discharge point, in inches: 16 & 18

B. Treatment Units

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

Table 1.0(1) – Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Bar Screen	2	24"x 24" x 30" each
Aeration Basin	2	(1) 61,500 gal, (1) 87,850 gal
Clarifier	2	(1) 24'6" dia, (1) 29'6" dia
Aerobic Digester	2	9,200 gal (each)
Chlorine Contact Chamber	2	2,950 gal (each)

C. Process flow diagrams

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

Attachment: C

Section 3. Site Drawing (Instructions Page 52)

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

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

Attachment: B

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

City of Meadowlakes

Section 4. Unbuilt Phases (Instructions Page 52)

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

Yes ☐

No ☒

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

Yes ☐

No ☐

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

Section 5. Closure Plans (Instructions Page 53)

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

Yes ☐

No ☒

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

Yes ☐

No ☐

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

Section 6. Permit Specific Requirements (Instructions Page 53)

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

A. Summary transmittal

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

Yes ☒

No ☐

If yes, provide the date(s) of approval for each phase: unknown

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

B. Buffer zones

Have the buffer zone requirements been met?

Yes ☒

No ☐

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

C. Other actions required by the current permit

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

Yes ☐

No ☒

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

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

Yes ☐

No ☒

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

2. *Grit and grease processing*

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

Click here to enter text.

3. *Grit disposal*

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

Yes ☐

No ☐

If No, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

Click here to enter text.

4. *Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

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

Click here to enter text.

E. Stormwater management

1. *Applicability*

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

Yes ☐ No ☒

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

Yes ☐ No ☒

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

2. MSGP coverage

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

Yes ☐ No ☐

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

TXR05 or TXRNE

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

Yes ☐ No ☐

3. Conditional exclusion

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

Yes ☐ No ☐

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

4. Existing coverage in individual permit

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

Yes ☐ No ☐

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

Placeholder for text input.

5. Zero stormwater discharge

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

Yes ☐

No ☐

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

Placeholder for text input.

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

6. Request for coverage in individual permit

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

Yes ☐

No ☐

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

Placeholder for text input.

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution

F. Discharges to the Lake Houston Watershed

Yes ☐ No ☒

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

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

Yes ☐ No ☒

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

2. Acceptance of septic waste

Yes ☐ No ☒

Yes ☐ No ☐

Yes ☐ No ☐

If yes to any of the above, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

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

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

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

Yes ☐

No ☒

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

Click here to enter text.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☒

No ☐

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

If yes, provide effluent analysis data for the listed pollutants. *Wastewater treatment facilities* complete Table 1.0(2). *Water treatment facilities* discharging filter backwash water, complete Table 1.0(3).

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

Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/ Time
CBOD ₅ , mg/l	5		1	Grab	3/12/19;1017
Total Suspended Solids, mg/l	4		1	Grab	3/12/19;1017
Ammonia Nitrogen, mg/l	5.79		1	Grab	3/12/19;1017
Nitrate Nitrogen, mg/l	2.72		1	Grab	3/12/19;1017
Total Kjeldahl Nitrogen, mg/l	7.79		1	Grab	3/12/19;1017
Sulfate, mg/l	66.2		1	Grab	3/12/19;1017
Chloride, mg/l	105		1	Grab	3/12/19;1017
Total Phosphorus, mg/l	1.62		1	Grab	3/12/19;1017
pH, standard units					
Dissolved Oxygen*, mg/l					
Chlorine Residual, mg/l					
<i>E.coli</i> (CFU/100ml) freshwater	3		1	Grab	3/12/19;1017
Enterococci (CFU/100ml) saltwater	N/A				
Total Dissolved Solids, mg/l	458		1	Grab	3/12/19;1017
Electrical Conductivity, μ mohs/cm, †	795		1	Grab	3/12/19;1017
Oil & Grease, mg/l	<5.1		1	Grab	3/12/19;1017
Alkalinity (CaCO ₃)*, mg/l	203		1	Grab	3/12/19;1017

*TPDES permits only

†TLAP permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/ Time
Total Suspended Solids, mg/l					
Total Dissolved Solids, mg/l					
pH, standard units					

Email information for report date:
3/27/19 14:37

C006369

MEADOWLAKES, CITY OF

Attn: JOHNNIE THOMPSON
jthompson@meadowlakes.tx.us

177 BROADMOOR
MARBLE FALLS, TX 78654

We at ATL appreciate your business and thank you for allowing us to partner in servicing your environmental needs.

Call or email us today at
samplingbryan@aquatechlabs.com for more information or to set up an event.

Sincerely,
June M. Brien
Executive Technical Director



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The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL TNI accredited parameter.
ANR Accreditation not required by the State of Texas.
DWP Accreditation through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR Not Reported.
RPD Relative Percent Difference.
% R Percent Recovery.
dry Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - Required containers, preservation techniques, and holding times, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien
June M. Brien, Technical Director

corp@aquatechlabs.com

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TCEQ DW Lab ID TX 239



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Analytical Report
MEADOWLAKES, CITY OF
Report Printed: 3/27/19 14:37
C006369

Meadowlakes Combined Effluent

Lab ID# C006369-01

Collected: 03/12/19 10:17 by CLIENT
Received: 03/12/19 14:15 by Suzanne Rudd

C-O-C #
C006369

General Chemistry

Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Matrix	Method	Batch
5	mg/L		1	2	2	Austin	03/13/19 07:30 MSA	Non Potable	SM5210 B 2011	M096102
4	mg/L		1	1	1	Bryan	03/13/19 12:38 RNH		SM2540 D 2011	M096120
458	mg/L		25.0	50.0	50.0	Bryan	03/13/19 10:31 BLR		SM2540 C 2011	M096114
5.79	mg/L		0.03	0.03	0.05	Bryan	03/14/19 10:55 MRB		SM4500-NH3 G 2011	M096155
7.79	mg/L		0.16	0.16	0.20	Bryan	03/25/19 08:57 MRB		EPA 351.2 R2.0	M096306
2.72	mg/L		0.001	0.102	0.120	Austin	03/18/19 12:05 KT		SM4500-NO3-F 2011	[CALC]
0.01	mg/L		0.001	0.001	0.01	Austin	03/13/19 13:58 KT		SM4500 NO2- B 2011	M096123
2.73	mg/L		0.02	0.10	0.12	Bryan	03/18/19 12:05 MRB		SM4500-NO3-F 2011	M096273
203	mg/L		5.00	20.0	20.0	Bryan	03/18/19 08:35 MRH		SM2320 B 2011	M096246
<5.1	mg/L		1.4	1.4	5.1	Bryan	03/15/19 04:57 NAG		EPA 1664B	M096188
105	mg/L		1.60	3.21	10.0	Bryan	03/15/19 08:50 LAM		SM4500-Cl- B 2011	M096209
66.2	mg/L		1.26	4.20	16.7	Bryan	03/22/19 10:00 LAM		ASTM D516 11	M096442
795	uS/cm		2.00	2.00	2.00	Bryan	03/26/19 13:57 LAM		SM2510 B 2011	M096563

Microbiological Analyses

3.0	MPN/100 mL		1.0	1.0	1.0	Austin	03/12/19 15:55 KT		SM9223 B 2004	M096087
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Results run by SM 9223B are reported as MPN (Most Probable Number). MPN is comparable to CFU (Colony Forming Units). Both MPN and CFU are allowed in most permits.

Metals (Total)

1.62	mg/L		0.082	0.041	0.050	Bryan	03/20/19 14:53 PNS		EPA 200.7 R4.4	M096118
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Explanation of Notes

J Analyte detected below the SQL but above the MDL.



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Analytical Report
MEADOWLAKES, CITY OF
3/27/19 14:37
C006369

Report Printed:

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Ammonia as N - SM4500-NH3 G 2011												
Initial Cal Check	2.55	mg/L			03/14/19 10:55 MRB	2.40		106	85 - 115			1903121
Blank	<0.05	mg/L	0.03	0.05	03/14/19 10:55 MRB							M096155
LCS	1.96	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00		98.0	89.7 - 110			M096155
LCS Dup	1.89	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00		94.4	89.7 - 110	3.75	6.47	M096155
Matrix Spike	1.95	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00	<0.05	97.6	78.1 - 112			M096155
Matrix Spike	1.68	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00	<0.05	84.2	78.1 - 112			M096155
Matrix Spike Dup	2.01	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00	<0.05	101	78.1 - 112	3.04	8.73	M096155
Matrix Spike Dup	1.70	mg/L	0.03	0.05	03/14/19 10:55 MRB	2.00	<0.05	84.9	78.1 - 112	0.802	8.73	M096155
MRL Check	<0.05	mg/L	0.03	0.05	03/14/19 10:55 MRB	0.0500		82.0	70 - 130			M096155
Carbonaceous BOD (5 day) - SM5210 B 2011												
Diln Water Blk	<0.20	mg/L	1	1	03/13/19 07:30 MSA		-0.2		< or = 0.2 mg/L			1903102
GGA	177	mg/L	1	1	03/13/19 07:30 MSA	198		89.4	84.6 - 115.4			1903102
GGA	172	mg/L	1	1	03/13/19 07:30 MSA	198		86.9	84.6 - 115.4			1903102
GGA	192	mg/L	1	1	03/13/19 07:30 MSA	198		97.0	84.6 - 115.4			1903102
Seed Blank	<1	mg/L	1	1	03/13/19 07:30 MSA							1903102
Seed Blank	<1	mg/L	1	1	03/13/19 07:30 MSA							1903102
Seed Blank	<1	mg/L	1	1	03/13/19 07:30 MSA							1903102
Duplicate	240	mg/L	38	38	03/13/19 07:30 MSA		205			15.7	23.5	M096102
Chloride - SM4500-Cl- B 2011												
Initial Cal Check	49.3	mg/L			03/15/19 09:50 LAM	50.0		98.6	85 - 115			1903130
Blank	<5.00	mg/L	1.60	5.00	03/15/19 09:50 LAM							M096209
LCS	24.7	mg/L	1.60	5.00	03/15/19 09:50 LAM	24.7		99.8	90 - 110			M096209
LCS Dup	26.4	mg/L	1.60	5.00	03/15/19 09:50 LAM	24.7		107	90 - 110	6.90	7.48	M096209
Matrix Spike	140	mg/L	3.21	10.0	03/15/19 09:50 LAM	49.4	87.2	107	87.8 - 109			M096209
Matrix Spike Dup	137	mg/L	3.21	10.0	03/15/19 09:50 LAM	49.4	87.2	102	87.8 - 109	5.13	7.52	M096209
MRL Check	7.05	mg/L	1.60	5.00	03/15/19 09:50 LAM	4.94		143	82.7 - 174			M096209



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Analytical Report
MEADOWLAKES, CITY OF
3/27/19 14:37
C006369

Report Printed:

General Chemistry - Quality Control

Nitrate/Nitrite as N - SM4500-NO3-F 2011

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Initial Cal Check	2.34	mg/L			03/18/19 12:05 MRB	2.30		102	85 - 115			1903145
Blank	<0.02	mg/L	0.02	0.02	03/18/19 12:05 MRB							M096273
LCS	1.91	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00		95.7	91.3 - 109			M096273
LCS Dup	2.02	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00		101	91.3 - 109	5.40	6.8	M096273
Matrix Spike	3.36	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00	1.30	103	94.1 - 111			M096273
Matrix Spike	3.42	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00	1.52	94.6	94.1 - 111			M096273
Matrix Spike Dup	3.42	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00	1.30	106	94.1 - 111	2.65	8.65	M096273
Matrix Spike Dup	3.49	mg/L	0.02	0.02	03/18/19 12:05 MRB	2.00	1.52	98.6	94.1 - 111	4.11	8.65	M096273
MRL Check	0.02	mg/L	0.02	0.02	03/18/19 12:05 MRB	0.0200		99.1	70 - 130			M096273

Nitrite as N - SM4500 NO2- B 2011

Initial Cal Check	0.05	mg/L			03/13/19 13:58 KT	0.0484		107	90 - 110			1903110
Blank	<0.01	mg/L	0.001	0.01	03/13/19 13:58 KT							M096123
LCS	0.05	mg/L	0.001	0.01	03/13/19 13:58 KT	0.0484		102	90 - 110			M096123
Matrix Spike	0.05	mg/L	0.001	0.01	03/13/19 13:58 KT	0.0484	0.006	92.1	25.9 - 160			M096123
Matrix Spike Dup	0.05	mg/L	0.001	0.01	03/13/19 13:58 KT	0.0484	0.006	92.1	25.9 - 160	0.00	8.68	M096123
MRL Check	0.01	mg/L	0.001	0.01	03/13/19 13:58 KT	0.0100		110	70 - 130			M096123

Oil & Grease (HEM) - EPA 1664B

Blank	<5.3	mg/L	1.5	5.3	03/15/19 04:57 NAG							M096188
LCS	40.6	mg/L	1.5	5.3	03/15/19 04:57 NAG	42.9		94.7	78 - 114			M096188
Matrix Spike	40.6	mg/L	1.5	5.3	03/15/19 04:57 NAG	42.9	<5.3	94.7	78 - 114			M096188
Reference	39.2	mg/L	1.5	5.2	03/15/19 04:57 NAG	42.4		92.5	83 - 101			M096188

Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011

Initial Cal Check	487	uS/cm			03/26/19 13:57 LAM	500		97.4	85 - 115			1903214
Blank	<2.00	uS/cm	2.00	2.00	03/26/19 13:57 LAM							M096563
Duplicate	594	uS/cm	2.00	2.00	03/26/19 13:57 LAM		592			0.337	2	M096563
LCS	565	uS/cm	2.00	2.00	03/26/19 13:57 LAM	564		100	90 - 110			M096563
LCS Dup	599	uS/cm	2.00	2.00	03/26/19 13:57 LAM	564		106	90 - 110	5.84	7.82	M096563



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Analytical Report

MEADOWLAKES, CITY OF

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C006369

General Chemistry - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Sulfate - ASTM D516 11												
Initial Cal Check	9.76	mg/L			03/22/19 10:00 LAM	10.0		97.6	80 - 120			1903179
Blank	<5.00	mg/L		5.00	03/22/19 10:00 LAM							M096442
Duplicate	117	mg/L	8.39	33.3	03/22/19 10:00 LAM		121			2.62	8.03	M096442
LCS	9.76	mg/L	1.26	5.00	03/22/19 10:00 LAM	10.0		97.6	80 - 120			M096442
LCS Dup	10.3	mg/L	1.26	5.00	03/22/19 10:00 LAM	10.0		103	80 - 120	5.58	14.5	M096442
Matrix Spike	183	mg/L	8.39	33.3	03/22/19 10:00 LAM	66.7	121	93.4	69.1 - 129			M096442
Matrix Spike Dup	187	mg/L	8.39	33.3	03/22/19 10:00 LAM	66.7	121	99.0	69.1 - 129	5.83	13.7	M096442
MRL Check	5.28	mg/L	1.26	5.00	03/22/19 10:00 LAM	5.00		106	69 - 119			M096442
Initial Cal Check	9.20	mg/L			09/14/18 08:59 LAM	10.0		92.0	80 - 120			1809054
Total Alkalinity as CaCO3 (pH4.5) - SM2320 B 2011												
Initial Cal Check	6.88	mg/L			03/18/19 08:35 MRH	6.86		100	97 - 103			1903136
Initial Cal Check	9.20	mg/L			03/18/19 08:35 MRH	9.18		100	97 - 103			1903136
Duplicate	189	mg/L	20.0	20.0	03/18/19 08:35 MRH	80.6	187	100	90.2 - 116	1.06	6.16	M096246
LCS	80.9	mg/L	20.0	20.0	03/18/19 08:35 MRH	80.6		100	90.2 - 116	0.00	11.3	M096246
LCS Dup	80.9	mg/L	20.0	20.0	03/18/19 08:35 MRH	80.6		100	90.2 - 116			M096246
MRL Check	21.0	mg/L	20.0	20.0	03/18/19 08:35 MRH	20.2		104	70 - 130			M096246
Total Dissolved Solids - SM2540 C 2011												
Blank	<25.0	mg/L	25.0	25.0	03/13/19 10:31 BLR							M096114
Duplicate	832	mg/L	50.0	50.0	03/13/19 10:31 BLR		830			0.241	9.13	M096114
Reference	50.0	mg/L	25.0	25.0	03/13/19 10:31 BLR	50.0		100	62 - 132			M096114
Total Kjeldahl Nitrogen as N - EPA 351.2 R2.0												
Blank	<0.20	mg/L	0.16	0.20	03/25/19 09:57 MRB							M096306
LCS	7.95	mg/L	0.16	0.20	03/25/19 09:57 MRB	8.00		99.3	93.1 - 110			M096306
Matrix Spike	15.5	mg/L	0.16	0.20	03/25/19 09:57 MRB	8.00	7.79	95.9	84.4 - 119			M096306
MRL Check	<0.20	mg/L	0.16	0.20	03/25/19 09:57 MRB	0.200		96.1	70 - 130			M096306
Reference	6.18	mg/L	0.16	0.20	03/25/19 09:57 MRB	5.57		111	85 - 115			M096306
Matrix Spike Dup	16.0	mg/L	0.16	0.20	03/25/19 13:30 MRB	8.00	7.79	103	84.4 - 119	6.70	10.9	M096306
LCS Dup	7.96	mg/L	0.16	0.20	03/26/19 12:15 MRB	8.00		99.5	93.1 - 110	0.207	4.9	M096306
Total Suspended Solids - SM2540 D 2011												
Blank	<1	mg/L	1	1	03/13/19 12:38 RNH							M096120
Duplicate	8	mg/L	2	2	03/13/19 12:38 RNH		8			2.60	21.4	M096120
Reference	93	mg/L	10	10	03/13/19 12:38 RNH	100		93.0	87.8 - 104			M096120



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Analytical Report
MEADOWLAKES, CITY OF
Report Printed: 3/27/19 14:37
C006369

Metals (Total) - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
Phosphorus-Total - EPA 200.7 R4.4												
Blank	<0.050	mg/L	0.041	0.050	03/20/19 14:38 PNS							M096118
LCS	2.65	mg/L	0.041	0.050	03/20/19 14:41 PNS	2.50		106	84.5 - 115.4			M096118
LCS Dup	2.52	mg/L	0.041	0.050	03/20/19 14:44 PNS	2.50		101	84.5 - 115.4	5.17	20	M096118
Matrix Spike	16.4	mg/L	0.041	0.050	03/20/19 14:50 PNS	2.50	13.7	106	69.5 - 130.4			M096118
Duplicate	12.8	mg/L	0.041	0.050	03/20/19 15:20 PNS		13.7			7.03	20	M096118

Bryan

Microbiological Analyses - Quality Control

Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison	Range	Control Limit	Batch
E. Coli - SM9223 B 2004													
Blank	<1.0	MPN/100 mL	1.0	1.0	03/12/19 15:55 KT								M096087
Dup Log10 Range		MPN/100 mL	1.0	1.0	03/12/19 15:55 KT					0.092			M096087
Dup Log10 Range		MPN/100 mL	1.0	1.0	03/12/19 15:55 KT					0.000			M096087
Duplicate	12.6	MPN/100 mL	2.0	2.0	03/12/19 15:55 KT		10.2			1.013			M096087
Duplicate	<1.0	MPN/100 mL	1.0	1.0	03/12/19 15:55 KT		<1.0			1.013			M096087

Austin

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
C006369-01										
Ammonia as N	SM4500-NH3 G 2011	3/14/19 9:25 MRB	Bryan	A	10.0	mL	10.0	mL	1	M096155
Carbonaceous BOD (5 day)	SM5210 B 2011	3/13/19 7:30 MSA	Austin	C	150	mL	300	mL	1	M096102
Chloride	SM4500-Cl- B 2011	3/15/19 9:50 LAM	Bryan	B	50.0	mL	100	mL	1	M096209
E. Coli	SM9223 B 2004	3/12/19 15:34 KT	Austin	D	100	mL	100	mL	1	M096087
Nitrate/Nitrite as N	SM4500-NO3-F 2011	3/18/19 8:55 MRB	Bryan	A	1.00	mL	6.00	mL	1	M096273
Nitrite as N	SM4500 NO2- B 2011	3/13/19 13:58 KT	Austin	E	25.0	mL	25.0	mL	1	M096123
Oil & Grease (HEM)	EPA 1664B	3/15/19 4:57 NAG	Bryan	F	972	mL	1000	mL	1	M096188
Phosphorus-Total	EPA 200.7 R4.4	3/13/19 11:05 PNS	Bryan	I	50.0	mL	25.0	mL	1	M096118
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	3/26/19 13:57 LAM	Bryan	B	25.0	mL	25.0	mL	1	M096563
Sulfate	ASTM D516 11	3/22/19 10:00 LAM	Bryan	B	30.0	mL	100	mL	1	M096442
Total Alkalinity as CaCO3 (pH4.5)	SM2320 B 2011	3/18/19 8:35 MRH	Bryan	B	50.0	mL	200	mL	1	M096246
Total Dissolved Solids	SM2540 C 2011	3/13/19 10:31 BLR	Bryan	B	50.0	mL	100	mL	1	M096114
Total Kjeldahl Nitrogen as N	EPA 351.2 R2.0	3/19/19 9:35 AKD	Bryan	A	25.0	mL	25.0	mL	1	M096306
Total Suspended Solids	SM2540 D 2011	3/13/19 12:38 RNH	Bryan	J	1000	mL	1000	mL	1	M096120



file_COC 051118.rpt

Lab ID	Description	Date	Start Time	End Time	Composite Type	Container List (Checked box indicates bottle arrived in lab)
C006369-01	Meadowlakes Combined Effluent	3-12-19	10:17am	- N/A -	Grab	☒ A AMM NO3 TKN 0.25LP H2SO4 ☒ B U 1LP ☒ C CBOD 1LP ☒ D Ecoli 0.1L SIP Na2S2O3 ☒ E NO2 0.25LP ☒ F OG - 1LG Amber HCl ☒ G OG - 1LG Amber HCl ☒ H OG pH Chk - 1LP HCl ☒ I P 0.25LP H2SO4 ☒ J TSS 2LP

By relinquishing the above samples to ATL, the client agrees to the following terms: Samples will be analyzed by a method that is within ATL's NELAP fields of accreditation. Analyses requiring a certified method that is not within ATL's fields of accreditation will be subcontracted to a NELAP accredited lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analyses not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method on this C-O-C. The client approves all method modifications documented by ATL or the subcontract lab. A current list of ATL's NELAP fields of accreditation and other methods are available on request.

DEFINITIONS:

ATL = Aqua-Tech Laboratories, Inc.

Matrix designations:

NP = Non-Potable, DW = Drinking Water, SL = Solid

Analyses Ordered:

"A" prefix indicates Austin, all others Bryan or

Subcontracted, indicated by [SUB]. Name format:

Analysis-Matrix-Technology-Method.

[CNFR] = No NELAP certification required or available

[INF] = Informational only (not NELAP certified)

[NEL] = NELAP certified parameter

[SUB] = NELAP certified subcontracted parameter

Reagent tracking is available upon request.

CUSTODY TRANSFER:

Relinquished by (print and sign)	Sampler	Date	Time	Sample Info: "X" all that apply
<i>Scott Briggs</i>	☒ Client	3-12-19	11:20am	☒ Iced / Chilled / Refrigerated ☐ Custody Sealed
Received by (print and sign)	ATL Field	Date	Time	
Mark Asher	☐ Client	3-12-19	11:18	☒ Received Chilled / Iced ☐ Custody Transfer Unbroken
Relinquished by (print and sign)	ATL Field	Date	Time	
<i>Mark Asher</i>	☒ Client			☐ Iced / Chilled / Refrigerated ☐ Custody Sealed
Received by (print and sign)	ATL Field	Date	Time	
	☐ Client			☐ Received Chilled / Iced ☐ Custody Transfer Unbroken

Do not write below this line (Laboratory use only)

SAMPLE RECEIPT SUMMARY FOR WORK ORDER C006369

Lab Comments:

Relinquished by (print and sign)	Client	Date	Time	Iced / Chilled / Refrigerated
<i>WNA</i>	☐ Client	03/12/19	14:15	☒ Custody Sealed
Received by (print and sign)	Lab	Date	Time	Received Chilled / Iced
<i>Suzanne Rudd</i>	☒ Lab	03/12/19	14:15	☒ Custody Transfer Unbroken

Corrected Temperature, °C: 2.7 Sample condition good? Yes

pH Paper ID: 0721941

Thermometer ID: 0715672

Preservation correct? Yes

Post-Preservatives: N/A

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/ Time
Fluoride, mg/l					
Aluminum, mg/l					
Alkalinity (CaCO ₃), mg/l					

Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Scott Bridges

Facility Operator's License Classification and Level: WW:"D"

Facility Operator's License Number: WW0058994

Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☒ Permitted landfill
- ☒ Permitted or Registered land application site for beneficial use
- ☐ Land application for beneficial use authorized in the wastewater permit
- ☐ Permitted sludge processing facility
- ☐ Marketing and distribution as authorized in the wastewater permit
- ☐ Composting as authorized in the wastewater permit
- ☐ Permitted surface disposal site (sludge monofill)
- ☐ Surface disposal site (sludge monofill) authorized in the wastewater permit
- ☐ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.
- ☐ Other: if here to enter text

B. Sludge disposal site

Disposal site name: Sunset Farms Landfill

TCEQ permit or registration number: 1447

County where disposal site is located: Travis

C. Sludge transportation method

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

Name of the hauler: Allied Waste

Hauler registration number: 21751

Sludge is transported as a:

Liquid ☐

semi-liquid ☐

semi-solid ☒

solid ☐

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

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

Yes ☐ No ☒

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

Yes ☐ No ☐

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

Yes ☐ No ☐

B. Sludge processing authorization

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

Sludge Composting Yes ☐ No ☒

Marketing and Distribution of sludge Yes ☐ No ☒

Sludge Surface Disposal or Sludge Monofill Yes ☐ No ☒

Temporary storage in sludge lagoons Yes ☐ No ☒

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge**

Technical Report (TCEQ Form No. 10056) attached to this permit application?

Yes ☐ No ☐

Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

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

A. Location information

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

- Original General Highway (County) Map:

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

- USDA Natural Resources Conservation Service Soil Map:

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

- Federal Emergency Management Map:

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

- Site map:

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

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

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

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

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

Click here to enter text.

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

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

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

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

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity

of 1×10^{-7} cm/sec?

Yes ☐ No ☐

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

Click here to enter text

D. Site development plan

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

Click here to enter text

Attach the following documents to the application.

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

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

- Copy of the closure plan

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

- Copy of deed recordation for the site

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

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

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

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

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

- Procedures to prevent the occurrence of nuisance conditions

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

E. Groundwater monitoring

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

Yes ☐ No ☐

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types

encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

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

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

A. Additional authorizations

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

Yes ☐ No ☒

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

[Click here to enter text.](#)

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

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

Yes ☐ No ☒

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

[Click here to enter text.](#)

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

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

Yes ☐ No ☒

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive

CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

Yes ☐ No ☒

C. Details about wastes received

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

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

Section 14. Laboratory Accreditation (Instructions Page 64)

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: Johnnie Thompson

Title: City Manager

Signature: 

Date: 4/11/19

DOMESTIC WORKSHEET 3.0

LAND DISPOSAL OF EFFLUENT

The following is required for all permit applications

Renewal, New, and Amendments

Section 1. Type of Disposal System (Instructions Page 77)

Identify the method of land disposal:

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

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

For existing authorizations, provide Registration Number: [Click here to enter text.](#)

Section 2. Land Application Site(s) (Instructions Page 77)

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Golf Course	102	140,000	Y

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 77)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
	2.203	48.4	22 ft avg depth	Clay

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

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

Section 4. Flood and Runoff Protection (Instructions Page 77)

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

Yes ☐ No ☒

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

[Click here to enter text](#)

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

FEMA Map No. 48053C0312C

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

Tailwater control is primarily through golf course management practices. A series of ponds on course seldom overflow and receive runoff from a large portion of the golf course. Run-on is not controlled though run-on drainage areas are relatively small.

Section 5. Annual Cropping Plan (Instructions Page 77)

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

Attachment: E

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

Section 6. Well and Map Information (Instructions Page 78)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation (on a separate page) indicating why.

Attachment: E

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities

- All water wells within 1 mile of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	

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

Attachment: F

Section 7. Groundwater Quality (Instructions Page 79)

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

Attachment: Click here to attach a file

Are groundwater monitoring wells available onsite?

Yes ☐

No ☒

Do you plan to install ground water monitoring wells or lysimeters around the land application

site?

Yes ☐

No ☒

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

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

Section 8. Soil Map and Soil Analyses (Instructions Page 79)

A. Soil map

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

Attachment: [G](#)

B. Soil analyses

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

Attachment: [G](#)

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number
Heaton Loamy fine sand	22"	Moderate	Medium	
Keese-Rock outcrop	9"	Moderately rapid	Very low	
Krum Clay	10"	Moderately slow	High	
Lewisville Clay Loam	16"	Moderate	High	
Pedernales fine loamy sand	11"	Moderately slow	High	
Purves association	9"	Moderately slow	Very Low	
Voca Association	8"	Slow	Low	
Weswood silt loam	7"	Moderate	High	

Section 9. Effluent Monitoring Data (Instructions Page 80)

Is the facility in operation?

Yes ☒

No ☐

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

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

Table 3.0(5) – Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
1/2017	4.6	8	12			
2/2017	3.3	16	15			
3/2017	3.7	8	10			
4/2017	2.4	7	7			
5/2017	2	6	4			
6/2017	2.8	14	11			
7/2017	3.9	17	21			
8/2017	1.8	6	12			
9/2017	2.2	4	3			
10/2017	1.2	4	5			
11/2017	1.9	4	3			
12/2017	2	4	4			
1/2018	3.1	6	16			
2/2018	3.8	4	5			
3/2018	2.4	7	6			
4/2018	2.1	4	8			
5/2018	2.3	19	9			
6/2018	2.4	1	2			
7/2018	2.5	36	13			
8/2018	2.3	1	2			
9/2018	2.6	1	5			

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
10/2018	3.2	2	5			
11/2018	2.1	5	7			
12/2018	2.7	2	4			

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

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

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

Yes ☐

No ☒

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

C. Treatment plant pass through

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

Yes ☐

No ☒

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

[illegible]

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐

No ☒

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐

No ☒

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

A. Substantial modifications

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

Yes ☐No ☐

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

B. Non-substantial modifications

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

Yes ☐

No ☐

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

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

Yes ☐

No ☐

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

Click here to enter text.

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

A. General information

Company Name: N/A

SIC Code: Click here to enter text.

Telephone number: Click here to enter text. Fax number: Click here to enter text.

Contact name: Click here to enter text.

Address: Click here to enter text.

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

B. Process information

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

Click here to enter text.

C. Product and service information

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

Click here to enter text

D. Flow rate information

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

Process Wastewater:

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

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

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

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

Yes ☐ No ☐

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

Yes ☐ No ☐

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

Category: Click here to enter text

Subcategories: Click here to enter text

Category: Click here to enter text

Subcategories: Click here to enter text

Category: Click here to enter text

Subcategories: Click here to enter text

Category: Click here to enter text

Subcategories: Click here to enter text

Category: Click here to enter text

Subcategories: Click here to enter text

F. Industrial user interruptions

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

Yes ☐

No ☐

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

--

Attachment Index

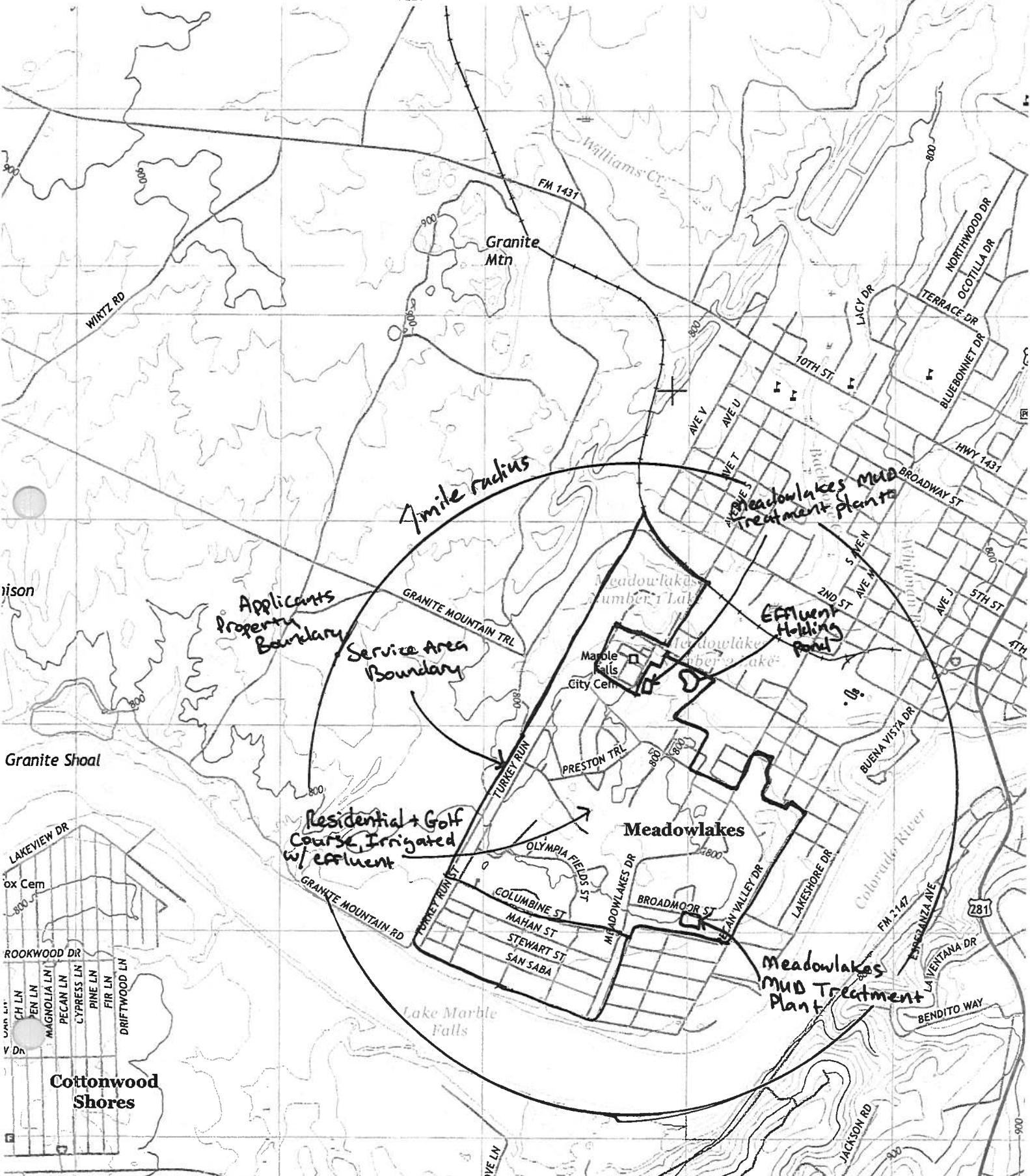
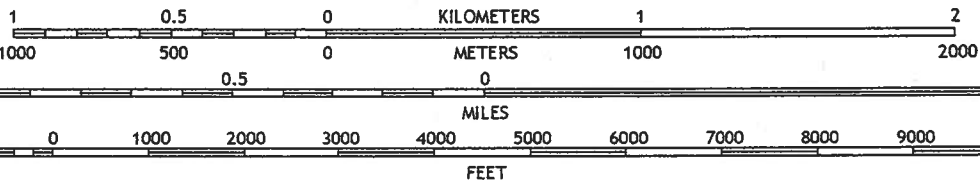
<i>Attachment</i>	<i>Title</i>
A	Original USGS Topographic Map
B	Site Drawing
C	Flow Diagram
D	Core Data Form
E	Cropping Plan
F	Well Information
G	Soil Map/Sampling Results
H	Sludge Haul Information

Attachment A

Original USGS Topographic Map

The Original USGS Topographic Map has been Submitted to the TCEQ

SCALE 1:24 000



Attachment B

Site Drawing

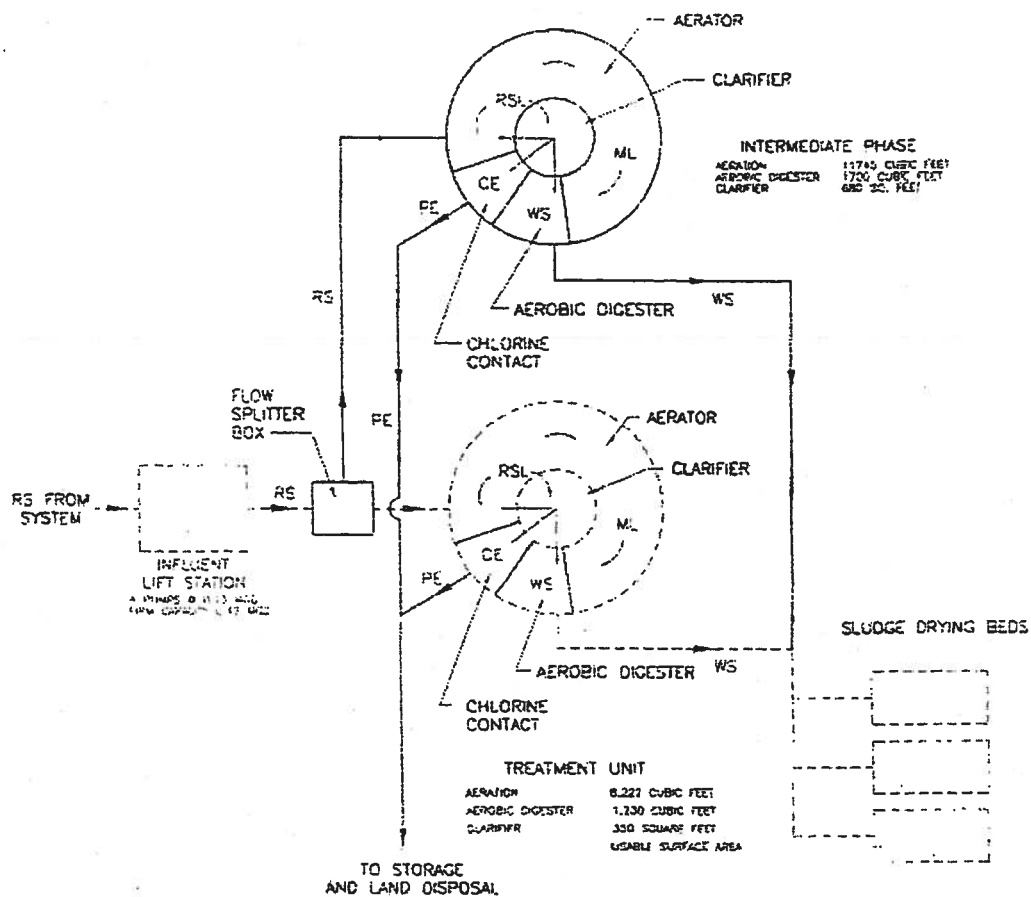


City of Meadowlakes
WQ0011439001
March 2019



Attachment C

Flow Diagram



LEGEND

RS	RAW SEWAGE
ML	MIXED LIQUOR
CE	CLARIFIER EFFLUENT
PE	PLANT EFFLUENT
RSL	RETURN SLUDGE
WS	WASTE SLUDGE
DS	DIGESTING SLUDGE
---	EXISTING STRUCTURE
---	UNDER CONSTRUCTION

PROCESS FLOW SCHEMATIC

SCALE: NONE

PERMIT RENEWAL APPLICATION
 MEADOWLAKES MUD
 FLOW DIAGRAM

SOURCE
 ENVIRONMENTAL SCIENCES, INC.

Date
 May 2004

Exhibit C

Attachment D

Core Data Form



TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.) ☐ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.) ☒ Renewal (Core Data Form should be submitted with the renewal form) ☐ Other		
2. Customer Reference Number (if issued) CN 603176082	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued) RN 101453017

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership ☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
City of Meadowlakes			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits) 74-2773167	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
11. Type of Customer:	☐ Corporation ☐ Individual	Partnership: ☐ General ☐ Limited	
Government: ☒ City ☐ County ☐ Federal ☐ State ☐ Other		☐ Sole Proprietorship ☐ Other:	
12. Number of Employees ☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher		13. Independently Owned and Operated? ☐ Yes ☐ No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following: ☐ Owner ☐ Operator ☒ Owner & Operator ☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____			
15. Mailing Address:	177 Broadmoor, Suite B		
	City	Meadowlakes	State TX ZIP 78654 ZIP + 4
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable) mwilliams@meadowlakestx.us	
18. Telephone Number (830) 693-2951	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 below this form should be accompanied by a permit application) ☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information	
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC.)	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.) City of Meadowlakes WWTP	
23. Street Address of	

the Regulated Entity:
(No PO Boxes)

City	State	ZIP	ZIP + 4
24. County	Burnet		

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	southwest of the City of Marble Falls and north of Lake Marble Falls, approx. one block south of the intersection of South 4th St. and Avenue R, Burnet County.					
26. Nearest City	State	Nearest ZIP Code				
Meadowlakes	TX	78654				
27. Latitude (N) In Decimal:	30.5704	28. Longitude (W) In Decimal:	-98.2916			
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)			
4952		22132				
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)						
Wastewater Treatment						
34. Mailing Address:	177 Broadmoor, Suite B					
	City	Meadowlakes	State	TX	ZIP	78654
35. E-Mail Address:		mwilliams@meadowlakestx.us				
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)		
(830) 693-2951				() -		

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

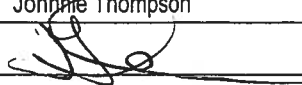
☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
WQ0011439001				

SECTION IV: Preparer Information

40. Name:	Stephanie Landsman	41. Title:	Wastewater Specialist
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(281) 658-5899		() -	stephanie@landsmanenviro.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Meadowlakes	Job Title:	City Manager
Name(In Print):	Johnnie Thompson	Phone:	(830) 693-2951
Signature:		Date:	9/11/19

Attachment E

Cropping Plan

Cropping Plan for Bermuda Grass

Soils Map

Please refer to the Soil Conservation Services map which follows for a depiction of the soils underlying the Bermuda grass.

Crops and Acreage

Bermuda grass is the only crop irrigated with discharged effluent from the facility. The grass is cultivated in a 145 acre golf course located adjacent to the facility.

Growing Seasons

The facility is located in mid-Texas. The temperatures and weather are typically quite moderate. These conditions permit the cultivation of Bermuda grass year-round, unless the crop is subjected to heavy frost or freezing conditions which shorten the growing season to approximately 9 months out of the year.

Nutrient Requirements

For optimum yield of the Bermuda grass crop, 50 units of nitrogen, 20 units of phosphorous, and 35 units of potash should be applied to each acre every month the crop is being actively cultivated. If the Bermuda grass is not receiving adequate quantities of these nutrients through natural decomposition of leaf litter and other organic debris and nutrients which may be present in the effluent used to irrigate the golf course, organic fertilizers are applied 1-2 times per year.

Supplemental Watering Requirements

Bermuda grass, although quite hardy and fairly drought-tolerant, requires a minimum of one acre-inch of water per week to product a standard-yield crop. To obtain the optimum yield, the grass should receive approximately 1 ½ acre-inch of water per week. The Moody area typically receives approximately 2.9 inches of rainfall per month, minimum. Historical rainfall records from the area indicate that monthly rainfall can vary from trace amounts to more than seven inches. Thus, irrigation of the Bermuda grass necessary to supplement monthly rainfall is irregular in both quantity and frequency.

Salt Tolerance

Bermuda grass is highly salt tolerant and grows best under condition with a salinity level less than or equal to 8.0 to 12.0 millimhos/cm.

Crop Harvesting

The golf course is mown daily.

Attachment F

Well Information

There are no water wells located onsite or within a half-mile radius of the disposal site or property boundaries.

Attachment G

Soil Map/Sampling Results

Soil Map—Blanco and Burnet Counties, Texas



MAP LEGEND

	Area of Interest (AOI)		Very Stony Spot
	Soils		Wet Spot
	Special Point Features		Other
	Blowout		Special Line Features
	Borrow Pit		Gully
	Clay Spot		Short Steep Slope
	Closed Depression		Other
	Gravel Pit		Political Features
	Gravelly Spot		Cities
	Landfill		Water Features
	Lava Flow		Oceans
	Marsh or swamp		Streams and Canals
	Mine or Quarry		Transportation
	Miscellaneous Water		Ralls
	Perennial Water		Interstate Highways
	Rock Outcrop		US Routes
	Saline Spot		Major Roads
	Sandy Spot		
	Severely Eroded Spot		
	Sinkhole		
	Slide or Slip		
	Sodic Spot		
	Spoil Area		
	Stony Spot		

MAP INFORMATION

Map Scale: 1:17,900 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:31,680.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 14N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Blanco and Burnet Counties, Texas
Survey Area Data: Version 6, Jan 3, 2007

Date(s) aerial images were photographed: 1995

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

Blanco and Burnet Counties, Texas (TX601)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
14	Heaton loamy fine sand, 1 to 5 percent slopes	42.8	4.1%
23	Keese-Rock outcrop association, rolling	64.3	6.1%
24	Krum clay, 1 to 3 percent slopes	400.1	38.0%
27	Lewisville clay loam, 1 to 3 percent slopes	135.4	12.9%
35	Pedermates fine sandy loam, 1 to 3 percent slopes	276.9	26.3%
36	Pedermates fine sandy loam, 3 to 5 percent slopes	31.0	2.9%
38	Purves association, undulating	19.4	1.8%
44	Voca association, gently undulating	19.2	1.8%
45	Weswood silt loam, rarely flooded	51.8	4.9%
W	Water	11.7	1.1%
Totals for Area of Interest		1,052.6	100.0%

Email information for report date:

3/14/18 11:44

B004240

MEADOWLAKES, CITY OF

Attn: JOHNNIE THOMPSON
jthompson@meadowlakestx.us

177 BROADMOOR
MARBLE FALLS, TX 78654

We at ATL appreciate your business and thank you for allowing us to partner in servicing your environmental needs.

Call or email us today at
samplingbryan@aquatechlabs.com for more information or to set up an event.

Sincerely,
June M. Brien
Executive Technical Director

AQUA-TECH LABORATORIES, INC.

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The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL TNI accredited parameter.
ANR Accreditation not required by the State of Texas.
DWP Accreditation through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

General Definitions:

NR Not Reported.
RPD Relative Percent Difference.
% R Percent Recovery.
dry Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations.
MDL The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien
June M. Brien, Technical Director

corp@aquatechlabs.com

www.aquatechlabs.com

The results in this report apply only to the samples analyzed. This analytical report must be reproduced in its entirety unless written permission is granted by Aqua-Tech Laboratories, Inc.



TCEQ DW Lab ID TX 239



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Analytical Report

MEADOWLAKES, CITY OF

Report Printed: 3/14/18 11:44

B004240

Meadowlakes Soil 0-6 Inches Set 1

Collected: 02/15/18 08:06 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres

Lab ID# B004240-01

General Chemistry

Total Solids
Total Kjeldahl Nitrogen as N

Plant Available Parameters

Total Nitrogen

Plant Available Parameters

pH (1:2 Soil Extract)
NO₃ as N (Extractable)
Ammonium as NH₄
Phosphorus (Plant Available)
Potassium (Plant Available)
Calcium (Plant Available)
Magnesium (Plant Available)
Sodium (Plant Available)
Sulfur (Plant Available)

Water Soluble Parameters

Conductivity @ 25 C (1:2 Extract)

Result	Units	Notes	MDL	Adj MDL	SQL	Type	Lab	Analyzed	Method	Batch
88.8	% by Weight	RPD-01	0.10	0.10	0.10	Comp	Austin	02/22/18 14:52	MSA	M084618
711	mg/kg dry		0.12	33.63	135	Comp	Bryan	03/01/18 09:45	MRB	M084617
724	mg/kg dry wt.						Bryan	03/14/18 11:04	SR	M085159
7.2	S.U.						Sub	02/23/18 15:00	TAM	
13	ppm						Sub	02/23/18 15:00	TAMU	
5.2	ppm						Sub	02/23/18 15:00	TAMU	
61	ppm						Sub	02/23/18 15:00	TAMU	
139	ppm						Sub	02/23/18 15:00	TAMU	
773	ppm						Sub	02/23/18 15:00	TAMU	
161	ppm						Sub	02/23/18 15:00	TAMU	
17	ppm						Sub	02/23/18 15:00	TAMU	
7	ppm						Sub	02/23/18 15:00	TAMU	
144	umhos/cm						Sub	02/23/18 15:00	TAMU - 1:2 Soil Extract	



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Analytical Report
MEADOWLAKES, CITY OF
Report Printed: 3/14/18 11:44
B004240

Meadowlakes Soil 6-18 inches Set 1

Lab ID# B004240-02
Collected: 02/15/18 08:10 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres
Matrix Soil
C-O-C # B004240
Method
Batch

General Chemistry

Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch
89.9	% by Weight	RPD-01	0.10	0.10	0.10	Austin	02/22/18 14:52	SM2540 G 2011	M084618
289	mg/kg dry		0.12	33.98	136	Bryan	03/01/18 09:45	SM4500-NH3 G 1987	M084617

Plant Available Parameters

297	mg/kg dry wt.				N/A	Bryan	03/14/18 11:04	Calculation	M085159
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Plant Available Parameters

7.4	S.U.				N/A	Sub	02/23/18 15:00	TAMU - 1:2 Soil Extract	SUB
8	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
2.3	ppm				N/A	Sub	02/23/18 15:00	TAMU - KCl Extract	SUB
37	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
127	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
496	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
135	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
11	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
5	ppm				N/A	Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB

Water Soluble Parameters

93	umhos/cm				N/A	Sub	02/23/18 15:00	TAMU - 1:2 Soil Extract	SUB
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Conductivity @ 25 C (1:2 Extract)



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Analytical Report
MEADOWLAKES, CITY OF
Report Printed: 3/14/18 11:44
B004240

Meadowlakes Soil 18-30 inches Set 1

Collected: 02/15/18 08:20 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres

Lab ID#	B004240-03	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Matrix Soil	Method	Batch
General Chemistry												
Total Solids		88.2	% by Weight	RPD-01	0.10	0.10	0.10	Austin	02/22/18 14:52	MSA	SM2540 G 2011	M084618
Total Kjeldahl Nitrogen as N		287	mg/kg dry		0.12	34.81	139	Bryan	03/01/18 08:45	MRB	SMA500-NH3 G 1897	M084617
Plant Available Parameters												
Total Nitrogen		202	mg/kg dry wt.				N/A	Bryan	03/14/18 11:04	SR	Calculation	M085159
Plant Available Parameters												
pH (1:2 Soil Extract)		7.2	S.U.				N/A	Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract	SUB
NO3 as N (Extractable)		5	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Ammonium as NH4		1.4	ppm				N/A	Sub	02/23/18 15:00	TAM	TAMU - KCI Extract	SUB
Phosphorus (Plant Available)		12	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Potassium (Plant Available)		214	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Calcium (Plant Available)		680	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Magnesium (Plant Available)		194	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Sodium (Plant Available)		22	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Sulfur (Plant Available)		5	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Water Soluble Parameters												
Conductivity @ 25 C (1:2 Extract)		97	umhos/cm				N/A	Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract	SUB



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Analytical Report

MEADOWLAKES, CITY OF

Report Printed: 3/14/18 11:44

B004240

Meadowlakes Soil 0-6 inches Set 2

Collected: 02/15/18 08:36 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres

Matrix
Soil

C-O-C #
B004240

Lab ID# B004240-04

General Chemistry

Total Solids

Total Kjeldahl Nitrogen as N

Plant Available Parameters

Total Nitrogen

Plant Available Parameters

pH (1:2 Soil Extract)

NO3 as N (Extractable)

Ammonium as NH4

Phosphorus (Plant Available)

Potassium (Plant Available)

Calcium (Plant Available)

Magnesium (Plant Available)

Sodium (Plant Available)

Sulfur (Plant Available)

Water Soluble Parameters

Conductivity @ 25 C (1:2 Extract)

Result	Units	Notes	MDL	Adj MDL	SQL	Type	Lab	Analyzed	Method	Batch
90.5	% by Weight	RPD-01	0.10	0.10	0.10	Comp	Austin	02/22/18 14:52	SM2540 G 2011	M084618
717	mg/kg dry		0.12	32.29	129		Bryan	03/01/18 08:45	SM4500-NH3 G 1997	M084617
722	mg/kg dry wt.						Bryan	03/14/18 11:04	Calculation	M085159
7.4	S.U.						Sub	02/23/18 15:00	TAMU - 1:2 Soil Extract	SUB
5	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
2.2	ppm						Sub	02/23/18 15:00	TAMU - KCI Extract	SUB
37	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
114	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
643	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
153	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
20	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
4	ppm						Sub	02/23/18 15:00	Mehlich 3 - TAMU	SUB
87	umhos/cm						Sub	02/23/18 15:00	TAMU - 1:2 Soil Extract	SUB



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Analytical Report

MEADOWLAKES, CITY OF
Report Printed: 3/14/18 11:44
B004240

Meadowlakes Soil 6-18 Inches Set 2

Collected: 02/15/18 08:40 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres

Lab ID#	B004240-05	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Matrix Soil	Method	C-O-C # B004240	Batch
General Chemistry													
Total Solids		93.0	% by Weight	RPD-01	0.10	0.10	0.10	Austin	02/22/18 14:52	MSA	SM2540 G 2011		M084618
Total Kjeldahl Nitrogen as N		281	mg/kg dry		0.12	30.38	122	Bryan	03/01/18 09:45	MRB	SM4500-NH3 G 1997		M084617
Plant Available Parameters													
Total Nitrogen		289	mg/kg dry wt.				N/A	Bryan	03/14/18 11:04	SR	Calculation		M085159
Plant Available Parameters													
pH (1:2 Soil Extract)		7.1	S.U.				N/A	Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract		SUB
NO3 as N (Extractable)		8	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Ammonium as NH4		7.7	ppm				N/A	Sub	02/23/18 15:00	TAM	TAMU - KCl Extract		SUB
Phosphorus (Plant Available)		71	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Potassium (Plant Available)		163	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Calcium (Plant Available)		893	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Magnesium (Plant Available)		169	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Sodium (Plant Available)		12	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Sulfur (Plant Available)		10	ppm				N/A	Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU		SUB
Water Soluble Parameters													
Conductivity @ 25 C (1:2 Extract)		140	umhos/cm				N/A	Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract		SUB



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Analytical Report

MEADOWLAKES, CITY OF
Report Printed: 3/14/18 11:44
B004240

Meadowlakes Soil 18-30 inches Set 2

Collected: 02/15/18 08:48 by CLIENT
Received: 02/20/18 13:35 by Kristin Torres

Lab ID#	B004240-06	Result	Units	Notes	MDL	Adj MDL	SQL	Type	Lab	Analyzed	Matrix	C-O-C #	Batch
General Chemistry													
Total Solids		88.8	% by Weight	RPD-01	0.10	0.10	0.10	Comp	Austin	02/22/18 14:52	MSA	SM2540 G 2011	M084618
Total Kjeldahl Nitrogen as N		195	mg/kg dry		0.12	34.99	140		Bryan	03/01/18 09:45	MRB	SM4500-NH3 G 1997	M084617
Plant Available Parameters													
Total Nitrogen		199	mg/kg dry wt.				N/A		Bryan	03/14/18 11:04	SR	Calculation	M085159
Plant Available Parameters													
pH (1:2 Soil Extract)		7.3	S.U.				N/A		Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract	SUB
NO3 as N (Extractable)		4	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Ammonium as NH4		1.6	ppm				N/A		Sub	02/23/18 15:00	TAM	TAMU - KCl Extract	SUB
Phosphorus (Plant Available)		14	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Potassium (Plant Available)		196	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Calcium (Plant Available)		1076	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Magnesium (Plant Available)		294	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Sodium (Plant Available)		25	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Sulfur (Plant Available)		8	ppm				N/A		Sub	02/23/18 15:00	TAM	Mehlich 3 - TAMU	SUB
Water Soluble Parameters													
Conductivity @ 25 C (1:2 Extract)		156	umhos/cm				N/A		Sub	02/23/18 15:00	TAM	TAMU - 1:2 Soil Extract	SUB

Explanation of Notes

- J Analyte detected below the SQL but above the MDL.
RPD-01 Duplicate RPD is outside acceptable range. Acceptance of run is not based on matrix QC.



CORPORATE OFFICE
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AUSTIN OFFICE
7500 Hwy 71 W, Suite 105
Austin, TX 78735
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report
MEADOWLAKES, CITY OF
Report Printed: 3/14/18 11:44
B004240

General Chemistry - Quality Control

Total Kjeldahl Nitrogen as N - SM4500-NH3 G 1997

Result	Units	Notes
Blank	<0.50	mg/kg wet J (0.14)
LCS	8.39	mg/kg wet
LCS Dup	8.74	mg/kg wet
Matrix Spike	2400	mg/kg dry
Matrix Spike Dup	2440	mg/kg dry

Total Solids - SM2540 G 2011

Result	Units	Notes
Blank	<0.10	% by Weight
Duplicate	0.73	% by Weight RPD-01
Duplicate	15.2	% by Weight

SQL	Analyzed	Spike Amount	Source Result	% R	%R Limits	RPD	RPD Limit	Batch
0.50	03/01/18 09:45 MRB	8.00		105	81 - 124			M084617
0.50	03/01/18 09:45 MRB	8.00		109	81 - 124	4.05	8	M084617
0.50	03/01/18 09:45 MRB	8.00		98.7	75.2 - 139			M084617
140	03/01/18 09:45 MRB	2240	195	100	75.2 - 139	1.52	19.3	M084617
140	03/01/18 09:45 MRB	2240	195					M084617
0.10	02/22/18 14:52 MSA							M084618
0.10	02/22/18 14:52 MSA		0.68			7.09	5.3	M084618
0.10	02/22/18 14:52 MSA		15.2			0.0657	5.3	M084618

Bryan

Austin



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Austin, TX 78735
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

MEADOWLAKES, CITY OF

Report Printed: 3/14/18 11:44

B004240

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
B004240-01										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.105	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										
B004240-02										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.102	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										
B004240-03										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.102	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										
B004240-04										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.107	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										
B004240-05										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.111	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										
B004240-06										
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 1997	2/22/18 13:46 MRB	Bryan	C	0.0994	g	25.0	mL	1	M084617
Total Nitrogen	Calculation	3/14/18 11:04 SR			1.00	g	1.00	mL	1	M085159
Total Solids	SM2540 G 2011	2/22/18 14:52 MSA	Austin	A	10.0	g	10.0	mL	1	M084618
See sub-contract reports for preparation information of subcontracted analyses.										

Lab ID	Description	Date	Start Time	Date	End Time	Composite Type	Container List (Checked box indicates bottle arrived in lab)
B004240-01	Meadowlakes Soil 0-6 Inches Set 1	2-15-18	8:10 AM	2-15-18	8:06 AM	Comp	☒ A 16 oz G Clear Wide-mouth
	Y Billing N Total Calc Mg TAMU Water Soluble SP-MEQ (SUB) ← N Total SL PKG TAMU (CNR) Na TAMU Water Soluble Saturated Paste CNR (SU) P TAMU Plant Available Mehlich 3 CNR (SUB) Ca TAMU Plant Available Mehlich 3 CNR (SUB) Cond SL (1:2) Probe TAMU CNR (SUB) TKN SL AUTO SM4500 NH3 G (CNR) SAR TAMU Plant Available CNR (SUB) ← TS SL Grav SM2540 G (NEL)						
B004240-02	Meadowlakes Soil 6-18 inches Set 1	2-15-18	8:08 AM	2-15-18	8:10 AM	Comp	☒ A 16 oz G Clear Wide-mouth
	Y Billing N Total Calc K TAMU Plant Available Mehlich 3 CNR (SUB) Solids, Dry Weight Na TAMU Water Soluble SP-MEQ (SUB) ← TS SL Grav SM2540 G (NEL) Ca TAMU Water Soluble Saturated Paste CNR (SU) N Total TAMU CALC ENTRY (CNR) NH4 TAMU KCL extract CNR (SUB) S SL TAMU Plant Available Mehlich 3 CNR (SUB)						
B004240-03	Meadowlakes Soil 18-30 inches Set 1	2-15-18	8:15 AM	2-15-18	8:20 AM	Comp	☒ A 16 oz G Clear Wide-mouth
	Y Billing N Total Calc Ca TAMU Water Soluble SP-MEQ (SUB) ← Mg TAMU Plant Available Mehlich 3 CNR (SUB) Na TAMU Plant Available Mehlich 3 CNR (SUB) TS SL Grav SM2540 G (NEL) Mg TAMU Water Soluble Saturated Paste CNR (SU) N Total TAMU CALC ENTRY (CNR) NH4 TAMU KCL extract CNR (SUB) P TAMU Plant Available Mehlich 3 CNR (SUB) SAR TAMU Plant Available CNR (SUB) ← TS SL Grav SM2540 G (NEL)						
B004240-04	Meadowlakes Soil 0-6 Inches Set 2	2-15-18	8:35 AM	2-15-18	8:36 AM	Comp	☒ A 16 oz G Clear Wide-mouth
	Y Billing N Total Calc K TAMU Plant Available Mehlich 3 CNR (SUB) Solids, Dry Weight TS SL Grav SM2540 G (NEL) Mg TAMU Water Soluble Saturated Paste CNR (SU) N Total TAMU CALC ENTRY (CNR) NH4 TAMU KCL extract CNR (SUB) S SL TAMU Plant Available Mehlich 3 CNR (SUB)						
B004240-05	Meadowlakes Soil 6-18 inches Set 2	2-15-18	8:38 AM	2-15-18	8:40 AM	Comp	☒ A 16 oz G Clear Wide-mouth
	Y Billing N Total Calc Ca TAMU Plant Available Mehlich 3 CNR (SUB) N Total SL PKG TAMU (CNR) Na TAMU Water Soluble SP-MEQ (SUB) ← pH SL TAMU (1:2) CNR (SUB) Ca TAMU Water Soluble Saturated Paste CNR (SU) K TAMU Plant Available Mehlich 3 CNR (SUB) Solids, Dry Weight TS SL Grav SM2540 G (NEL)						

→ (25) Analysis not needed ✓

Lab ID	Description	Date	Start Time	End Time	Composite Type	Container List (Checked box indicates bottle arrived in lab)
B004240-06	Meadowlakes Soil 18-30 inches Sat 2	2-15-18	8:43 AM	8:48 AM	Comp	☒ A 16 oz G Clear Wide-mouth
Y Billing N Total Calc K TAMU Plant Available Mehlich 3 CNR [SUB] Mg TAMU Plant Available Mehlich 3 CNR [SUB] NH TAMU Plant Available Mehlich 3 CNR [SUB] NH4 TAMU KCL extract CNR [SUB] Ca TAMU Water Soluble Saturated Paste CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight S SL TAMU Plant Available Mehlich 3 CNR [SUB] SAR TAMU Plant Available Mehlich 3 CNR [SUB]						

By relinquishing the above samples to ATL, the client agrees to the following terms: Samples will be analyzed by a method that is within ATL's NELAP fields of accreditation. Analytes requiring a certified method that is not within ATL's fields of accreditation will be subcontracted to a NELAP accredited lab that is certified for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method on this C-O-C. The client approves all method modifications documented by ATL or the subcontract lab. A current list of ATL's NELAP fields of accreditation and other methods are available on request.

604) Analysis not needed etc

DEFINITIONS:

ATL = Aqua-Tech Laboratories, Inc.
Matrix designations:
NP = Non-Potable, DW = Drinking Water, SL = Solid
Analyses Ordered:
"A" prefix indicates Austin, all others Bryan or
Subcontracted, indicated by [SUB]. Name format:
Analysis-Matrix-Technology-Method.

[CNR] = No NELAP certification required or available
[INF] = Informational only (not NELAC certified)
[NEL] = NELAP certified parameter
[SUB] = NELAP certified subcontracted parameter
Reagent tracking is available upon request.

CUSTODY TRANSFER:

Relinquished by (print & sign)	Sampler	Date	Time	Sample Info: "X" all that apply
Robert Sotkovski	☒ Sampler	2-20-18	8:01 AM	☐ Ice / Chilled / Refrigerated ☐ Custody Sealed
Mark Asher	☐ Client	2-20-18	11:45	☒ Received Chilled / Ice ☐ Custody Transfer Unbroken
Relinquished by (print & sign)	☐ ATL Field	Date	Time	☐ Ice / Chilled / Refrigerated ☐ Custody Sealed
Received by (print and sign)	☐ Client	Date	Time	☐ Received Chilled / Ice ☐ Custody Transfer Unbroken

Do not write below this line (Laboratory use only)

SAMPLE RECEIPT SUMMARY FOR WORK ORDER B004240

Lab Comments:

Relinquished by (print and sign)	Client	Date	Time	Sample Info: "X" all that apply
Mark Asher	☐ Client	02/20/18	13:35	☒ Ice / Chilled / Refrigerated ☐ Custody Sealed
Kristin Torres	☒ Lab	02/20/18	13:35	☒ Received Chilled / Ice ☒ Custody Transfer Unbroken

Corrected Temperature, °C: 2.1
Thermometer ID: 0715672
Sample condition good? Yes
Preservation correct? Yes
pH Paper ID: 0697423
Post-Preservatives: N/A

Mike

From: Kelly Kukowski <kkukowski@aqua-techlabs.com>
ent: Wednesday, February 14, 2018 5:09 PM
To: 'Mike'
Subject: Soil COC
Attachments: Scan20180214172500.pdf

Mike,

Here is the COC for your soil samples. Please let me know if you need anything else.

Also, one of our clients recently got audited by TCEQ and TCEQ wanted to see the Amendment Addition included on their soil report. We have decided to now include this information for all our client's soil reports. In order to do this, we need the following information: Acreage Represented, Crop, and Use. See the below for more detail.

SAMPLE INFORMATION (Required)					
Laboratory # (For Lab Use)	Your Sample ID.	Acreage Represented	What are you growing? Crop, Yield Goal, Use	Select only one analysis suite/sample	Growing a forage? How is used?
		51	Turf	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10	☐ Grazing ☐ Hay ☐ Grazing and Hay ☐ Min. requirement ☐ Establishment
		51	Turf	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10	☐ Grazing ☐ Hay ☐ Grazing and Hay ☐ Min. requirement ☐ Establishment
				☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10	☐ Grazing ☐ Hay ☐ Grazing and Hay ☐ Min. requirement ☐ Establishment
				☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10	☐ Grazing ☐ Hay ☐ Grazing and Hay ☐ Min. requirement ☐ Establishment

Thank you,

Kelly Kukowski / Sample Custodian

kkukowski@aqua-techlabs.com

Aqua-Tech Laboratories, Inc.

512.301.9559

7500 Hwy 71 W. Ste 105 Austin, TX 78735

aqua-techlabs.com

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City of Meadowlakes

Permit No. WQ0011439001

composite sample shall represent no more than 80 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches, 6 inches to 18 inches and 18 inches to 30 inches below ground level. The permittee shall sample and analyze soils in December to February of each year. Soil samples shall be analyzed within 30 days of sample procurement.

The permittee shall provide annual soil analyses of the land application area according to the following table:

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	2:1 (v/v) water to soil mixture	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen Ammonium-nitrogen	From a 1 N KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN + nitrate-nitrogen (same as, organic-nitrogen + ammonium-nitrogen + nitrate-nitrogen)		mg/kg (dry weight basis)
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1	mg/kg (dry weight basis)
Plant-available: Potassium Calcium Magnesium Sodium Sulfur	May be determined in the same Mehlich III extract with inductively coupled plasma	5 (K) 10 (Ca) 5 (Mg) 10 (Na) 1 (S)	mg/kg (dry weight basis)
Amendment addition, e.g., gypsum	Recommendation from analytical laboratory		Report in <i>short tons/acre</i> in the year effected

Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: <http://soiltesting.tamu.edu>

Brazos County
Laboratory Number: 503516
Customer Sample ID: B004240-01B
Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Sample received on: 2/23/2018
Printed on: 3/13/2018
Area Represented: 51 acres
SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.2	(6.2)	-	Slightly Alkaline							
Conductivity	144	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	13	(-)	ppm**								30 lbs N/acre
Phosphorus	61	(50)	ppm								0 lbs P2O5/acre
Potassium	139	(160)	ppm								15 lbs K2O/acre
Calcium	773	(180)	ppm								0 lbs Ca/acre
Magnesium	161	(50)	ppm								0 lbs Mg/acre
Sulfur	7	(13)	ppm								10 lbs S/acre
Sodium	17	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Ammonium-N	5.2		ppm								

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU

College Station, TX 77843-2478

979-845-4816 (phone)

979-845-5958 (FAX)

Visit our website: <http://soiltesting.tamu.edu>

Brazos County

Laboratory Number: 503517

Customer Sample ID: B004240-02B

Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Sample received on: 2/23/2018

Printed on: 3/13/2018

Area Represented: 51 acres

SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.4	(6.2)	-	Slightly Alkaline							
Conductivity	93	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	8	(-)	ppm**								45 lbs N/acre
Phosphorus	37	(50)	ppm								10 lbs P2O5/acre
Potassium	127	(160)	ppm								30 lbs K2O/acre
Calcium	496	(180)	ppm								0 lbs Ca/acre
Magnesium	135	(50)	ppm								0 lbs Mg/acre
Sulfur	5	(13)	ppm								15 lbs S/acre
Sodium	11	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Ammonium-N	2.3		ppm								

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
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Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
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College Station, TX 77843-2478
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Visit our website: <http://soiltesting.tamu.edu>

Brazos County

Laboratory Number: 503518

Customer Sample ID: B004240-03B

Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Sample received on: 2/23/2018

Printed on: 3/13/2018

Area Represented: 51 acres

SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.2	(6.2)	-	Slightly Alkaline							
Conductivity	97	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	5	(-)	ppm**								45 lbs N/acre
Phosphorus	12	(50)	ppm								40 lbs P2O5/acre
Potassium	214	(160)	ppm								0 lbs K2O/acre
Calcium	680	(180)	ppm								0 lbs Ca/acre
Magnesium	194	(50)	ppm								0 lbs Mg/acre
Sulfur	5	(13)	ppm								10 lbs S/acre
Sodium	22	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Ammonium-N	1.4		ppm								

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>

Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
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Visit our website: <http://soiltesting.tamu.edu>

Brazos County
Laboratory Number: 503519
Customer Sample ID: B004240-04B
Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Sample received on: 2/23/2018
Printed on: 3/13/2018
Area Represented: 51 acres
SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess	
pH	7.4	(6.2)	-	Slightly Alkaline							
Conductivity	87	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	5	(-)	ppm**								50 lbs N/acre
Phosphorus	37	(50)	ppm								10 lbs P2O5/acre
Potassium	114	(160)	ppm								40 lbs K2O/acre
Calcium	643	(180)	ppm								0 lbs Ca/acre
Magnesium	153	(50)	ppm								0 lbs Mg/acre
Sulfur	4	(13)	ppm								15 lbs S/acre
Sodium	20	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Ammonium-N	2.2		ppm								

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Brazos County
Laboratory Number: 503520
Customer Sample ID: B004240-05B

Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
979-845-4816 (phone)
979-845-5958 (FAX)
Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 2/23/2018

Printed on: 3/13/2018

Area Represented: 51 acres

SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.1	(6.2)	-	Slightly Alkaline						
Conductivity	140	(-)	umho/cm	None						
Nitrate-N	8	(-)	ppm**							
Phosphorus	71	(50)	ppm							
Potassium	163	(160)	ppm							
Calcium	893	(180)	ppm							
Magnesium	169	(50)	ppm							
Sulfur	10	(13)	ppm							
Sodium	12	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										
Ammonium-N	7.7		ppm							

Fertilizer Recommended

40 lbs N/acre

0 lbs P2O5/acre

0 lbs K2O/acre

0 lbs Ca/acre

0 lbs Mg/acre

5 lbs S/acre

0.00 tons 100ECCE/acre

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



Report generated for:
Aqua-Tech Laboratories
635 Phil Gramm
Bryan, TX 77807

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
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College Station, TX 77843-2478
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Brazos County

Laboratory Number: 503521

Customer Sample ID: B004240-06B

Crop Grown: TURF FAIRWAYS, ATHLETIC FIELDS, ETC.

Sample received on: 2/23/2018

Printed on: 3/13/2018

Area Represented: 51 acres

SWFTL recommends <40 acres/sample

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess	
pH	7.3	(6.2)	-	Slightly Alkaline							
Conductivity	156	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	4	(-)	ppm**								50 lbs N/acre
Phosphorus	14	(50)	ppm								40 lbs P2O5/acre
Potassium	196	(160)	ppm								0 lbs K2O/acre
Calcium	1,076	(180)	ppm								0 lbs Ca/acre
Magnesium	294	(50)	ppm								0 lbs Mg/acre
Sulfur	8	(13)	ppm								5 lbs S/acre
Sodium	25	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											0.00 tons 100ECCE/acre
Ammonium-N	1.6		ppm								

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply suggested nitrogen rate and then apply 40 lbs/A of nitrogen every 4 to 6 weeks as needed.

Sulfur: Available sulfur may be found deeper in soil profile, thus limiting any response to added sulfur.

New online fertilizer calculators have been placed on the laboratory's website to determine appropriate fertilizers to purchase and determine their application rates.
<http://soiltesting.tamu.edu/webpages/calculator.html>



ATL - Bryan Facility:
636 Phil Gramm Blvd,
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3193

ATL - Austin Facility:
7500 Hwy 71 W, Suite 105
Austin, TX 78735
(512) 301-8559
Fax (512) 301-8552

SHIPPED TO:
TAMU - Soil Lab
2610 F&B Road
College Station, TX 77845
Phone: (979) 845-4816
Fax:

C-O-C #
310 - B0042240

T104704371



All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Chain-of-Custody & Analysis Request

Page 1 of 3

Analysis Request for: Sample ID: B004240-01 Sampled: 02/15/18 08:06 Matrix: Soil Laboratory ID >>

Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available
NO3N Extractable P Plant Available S SL Plant Available
Na Plant Available

TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium

Analysis Request for: Sample ID: B004240-02 Sampled: 02/15/18 08:10 Matrix: Soil Laboratory ID >>

Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available
NO3N Extractable P Plant Available S SL Plant Available
Na Plant Available

TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium

Analysis Request for: Sample ID: B004240-03 Sampled: 02/15/18 08:20 Matrix: Soil Laboratory ID >>

Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available
NO3N Extractable P Plant Available S SL Plant Available
Na Plant Available

TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium

Analysis Request for: Sample ID: B004240-04 Sampled: 02/15/18 08:36 Matrix: Soil Laboratory ID >>

Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available
NO3N Extractable P Plant Available S SL Plant Available
Na Plant Available

TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium



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Chain-of-Custody & Analysis Request



C-O-C #

310 - B0042240

Page 2 of 3

ATL - Bryan Facility:
635 Phil Gramm Blvd.
Bryan, TX 77807
(979) 778-3707
Fax (979) 778-3193

ATL - Austin Facility:
7500 Hwy 71 W, Suite 105
Austin, TX 78735
(512) 301-9659
Fax (512) 301-9652

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

Analysis Request for: Sample ID: B004240-05 Sampled: 02/15/18 08:40 Matrix: Soil Laboratory ID >>

Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available Na Plant Available
NO3N Extractable P Plant Available S SL Plant Available
TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium

Analysis Request for: Sample ID: B004240-06 Sampled: 02/15/18 08:48 Matrix: Soil Laboratory ID >>
Mehlich 3 - TAMU
Ca Plant Available K Plant Available Mg Plant Available Na Plant Available
NO3N Extractable P Plant Available S SL Plant Available
TAMU - 1:2 Soil Extract
Conductivity (1:2) pH

TAMU - KCl Extract
NH4 - Ammonium

CONTAINERS SUPPLIED: (ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed below.)

- () B004240-01 [B] - SOIL 0.5LP
- () B004240-02 [B] - SOIL 0.5LP
- () B004240-03 [B] - SOIL 0.5LP
- () B004240-04 [B] - SOIL 0.5LP
- () B004240-05 [B] - SOIL 0.5LP
- () B004240-06 [B] - SOIL 0.5LP



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Chain-of-Custody & Analysis Request



T104704371

C-O-C #

310 - B004240

Page 3 of 3

ATL - Bryan Facility:
635 Phil Gramm Blvd.
Bryan, TX 77807
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7500 Hwy 71 W, Suite 105
Austin, TX 78735
(512) 301-8559
Fax (512) 301-8552

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Relinquished by: (print & sign)		☒ ATL-Austin	☐ ATL-Bryan	☐ Sampler	Date		Time		☒ Load ☐ Custody Sealed ☐ Not Chilled		Abbreviations: DW - Drinking Water NP - Non-Portable Water S - Solid CTU - Custody Transfer Unbroken		SIP - Sterile Plastic UP - Uter Plastic LG - Uter Glass	
Carrier & Tracking Number:		Kelly Kukowski			2/22/18		1650				Aqua-Tech Comments and Special Instructions			
Lone Star		Cooler 1: blue - ZW756691									Use sample ID as PO#			
Received by: (print & sign)		☒ Received in Lab			2/23/18		9 AM		☒ Received load "X" all that apply					
Line below documents condition at receipt, in lab (shipped to), listed above.														
Cooler Temperature (C)	Temp. Read (TR)	Corrected Temp. (CT)	Thermometer ID											
Cooler 1														
N/A	N/A	N/A												

Attachment H

Sludge Haul Information



3600 N FM 973
Austin, TX 78725
(512) 927-1977
Phillip@S-Enviro.com

Phillip S. McCammon V
Sheridan Environmental, Owner
Phillip@S-Enviro.com

02/28/2019

Scott Bridges
City of Meadowlakes, Operations Manager

Re: City of Meadowlakes WWTP Sludge Disposal

Mr. Manuel,

The purpose of this letter is to provide the necessary information needed for the haul and disposal of WWTP sludge from the City of Meadowlakes. All sludge hauled from the facility will be handled by the following entities.

Disposal:

Walker Aero Environmental LLC
Type V Compost Facility
3600 FM 973 North
Austin, TX 78725

(512) 927-1977
Cathy@walkeraero.com
TCEQ Permit # 2310

Hauling:

Sheridan Environmental LLC
3600 North FM 973
Austin, TX 78725

(512) 927-1977
Contact@S-Enviro.com
TCEQ Hauler # 24220

City of Meadowlakes Plant info is listed below:

City of Meadowlakes WWTP
90 Pinehurst Dr
Meadowlakes, TX 78654

Thank you,

Phillip S. McCammon V
Sheridan Environmental, Owner

