

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date:

11/20/2019

Permit Number:

109339

Location Description:

1004 CIMARRON

SPRING BRANCH, TX 78070

Subdivision:

Lake of the Hills Estates, Inc.

Unit:

Lot:

169

Block:

22

Acreage:

Type of System:

Aerobic

Drip Irrigation

Issued to:

Callan Homes Company, Inc.

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Commission on Environmental Quality.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Alterations to this permit including, but not limited to:

- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. It is the responsibility of the owner to apply for a new permit, if applicable.

Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority

Comal County Environmental Health

OS0034792

ENVIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR

Installer Name: Value		OSSF Installer #: 05003	1132	<u>;</u>		
Installer Name: Var hold	5-19 2nd Inspection Date	2: 3rd In:	spection Date:	11-20-19		
Inspector Name: Lonnor	Inspector Name:	In	spector Name:_	me: B. Olvara		
Permit#: 109339		Address Lake of the Wills	1004 Cm	nanon		
Description SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials	Anwser Citations 285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)	Actes with the control of the contro	Sst In	sp. 2nd Insp.	3rd thap	
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	285.91(10) 285.30(b)(4) 285.31(d)					
SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	285.32(a)(1)	3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2		Vancous de l'Indiana de l'India		
SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot	285.32(a)(3)					
SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add: C/O Every 100' &/or 90 degree bends)	285.32(a)(5)					
PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s). Meet Minimum Requirements	285.32(b)(1)(G)285.32(b)(1					
PRETREATMENT Grease Interceptors if required for commercial tauk set	285.34(d)					

11-20-19 BMO

Covered

No.	Description	Anwser	Citations		Notes	4.1		st Insp.	2nd Insp.	3rd Insp.
	SEPTIC TANK Tank(s) Clearly		285.32(b)(1)(E)	- 1 Y 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		7				
1	Marked SEPTIC TANK If		285.91(2)						kivi	literičis. 1
	SingleTank, 2		285.32(b)(1)(F)			4.				
	Compartments Provided with		285.32(b)(1)(E)(iii)					-	in the	
1	Baffle SEPTIC TANK Inlet Flowline		285.32(b)(1)(E)(ii)(II)					-		
	Greater than		285.32(b)(1)(E)(ii)(I)			4.			j.	
	3" and "T" Provided on Inlet and		285.32(b)(1)(E)(i)	748						kry Wasi
	Outlet		285.32(b)(1)(D)			- 14				
	SEPTIC TANK Septic Tank(s) Meet		285.32(b)(1)(C)(ii)							
	Minimum Requirements		285.32(b)(1)(C)(i) 285.32(b)(1)(C)(i)						in the second	
		. 5	285.32(b)(1)(6)						3	
										1 - 5 W
		- J	285.32(b)(1)(A)				ž 1			
ľ			285.32(b)(1)(E)(iv)							
8										
	ALL TANKS Installed on 4" Sand		205 27/5/(1)/(5)			i Çi				100
	Cushion/ Proper Backfill Used		285.32(b)(1)(F)				1	2		_ (X)
1			285.32(b)(1)(G)				1			1,30
9			285,34(b)				- 3			
۲	SEPTIC TANK Inspection / Clean		2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1	Out Port & Risers Provided on	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		14.7			1			
	Tanks Buried Greater than 12"		285.38(d)		100	m _e				
	Sealed and Capped		285.38(u)							
	Section and Capper	grif j								
10										
	SEPTIC TANK Secondary restraint					:		-		
	system provided		Ç -				- 1			
	SEPTIC TANK Riser permanently		1 -				,			
1	fastened to lid or cast into tank			1.						
	SEPTIC TANK Riser cap protected		285.38(d)							\$ 27 A
	against unauthorized intrusions		285.38(e)							
11			200.00(0)			74			i.	
F.	SEPTIC TANK Tank Volume	l			<u> </u>					1 111
	Installed									
12										
	PUMP TANK Volume Installed	!							1	
13										
	AEROBIC TREATMENT UNIT Size								4400000	(C)
	Installed							معم		76/7
							•			11/20/01
14	AEROBIC TREATMENT UNIT					_				10
	Manufacturer	ا مر		Truwater	, B55	U		<i>)</i>		1
	AEROBIC TREATMENT UNIT									1 /
	Model									V
			And the second						100	
15	Number								100000000000000000000000000000000000000	
	DISPOSAL SYSTEM Absorptive		285.33(d)(4)			***	I			
		ľ	285.33(a)(1)							
ľ			285.33(a)(2)							
16			285.33(a)(3)							
	DISPOSAL SYSTEM Leaching		285.33(a)(1)	×0; ×			П		-	1 1000
	Chamber	1	285.33(a)(3)	·						
1			285.33(a)(4)						1	1
1,7		1	285.33(a)(2)							
17	DISPOSAL SYSTEM Evapo-	 , 	203.33(8)(3)				 	<u>, , , , , , , , , , , , , , , , , , , </u>	 	<u> </u>
	transpirative		285.33(a)(4)							
	in cushu aring	1	285.33(a)(1)						1	
18	·		285.33(a)(2)							
	1	t	1)			1 1		1	1

No.		Anwser	Citations	Notes		st Insp.	2nd Insp.	3rd Insp.
	DISPOSAL SYSTEM Drip Irrigation	/	285.33(c)(3)(A)-(F)					32/8
19	DIFFORM AND				Ğ			1/
20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)	72	-			
71	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(3) 285.33(a)(1) 285.33(a)(2)					
	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)					
22	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)					
23	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)	A THE STATE OF THE				
24	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC							
26	DRAINFIELD Area Installed					/		1
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)					
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media							
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)					
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)			The second secon		
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)			-	Statement in the statem	

Rec	Description	Anwser	Citations	Notes		st Insp.	2nd lesp.	3rd Insp.
	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	< 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Orain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each ladditional bedroom)		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B)					
	EFFLUENT DISPOSAL SYSTEM Lateral Oepth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully	-	285.91(13) 285.33(b)(3)(0) 285.33(b)(3)(F)					
32	EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart				,			
33	AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)					11/22/9
	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT				,			
	Secondary restraint system provided AFROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser				ء بر	7		
34	cap protected against unauthorized intrusions							
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.		The second of th	A STATE OF THE STA				
	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port					**************************************	de outprome et	
	Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti-Siphon Device Present When							
36	Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						CONCRETE OF SEC.	
	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided						AND AND A STATE OF THE STATE OF	
	PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						1	F
37	PUMP TANK Secondary restraint system provided						- 1	
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried							

No.	Description	Anwser	Citations	Notes		1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	A Control of the Cont	285.33(d)(2)(G)(iii)(II)285.3 3(d)(2)(G)(iii)(III)285.33(d)(2)(G)(v) 285.33(d)(2)(G)(III) 285.33(d)(2)(G)(IV) 285.33(d)(2)(G)(II) 285.33(d)(2)(G)(III) 285.33(d)(2)(G)(III)(I)					I'MEL
The second secon	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)					
42	APPLICATION AREA Area Installed	7		No olam	1.	7		/
43	PUMP TANK Meets Minimum Reserve Capacity Requirements							
44	PUMP TANK Material Type & Manufacturer							
45	PUMP TANK Type/Size of Pump Installed							

Installer Name: Varhol			OSSF Installer #: 05003113	12			
1st Inspection Pate: 10 -13	5-19	2nd Inspection Date					
Inspector Name: Connor	,	Inspector Name:	Inspect	or Name:	e:		
Permit#: 109339	Permit#: /09339		Address Lake of the Wills 100	1004 Comanon			
. Description	Anwser	Citations	Notes	1st insp.	2nd Insp.	3rd insp.	
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials	/	285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)		-			
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	1	285.91(10) 285.30(b)(4) 285.31(d)					
SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	1	285.32(a)(1)					
SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot	1	285.32(a)(3)		1			
SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)					
PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G)285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(E) 285.32(b)(1)(E) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II)					
PRETREATMENT Grease Interceptors if required for		285.34(d)					

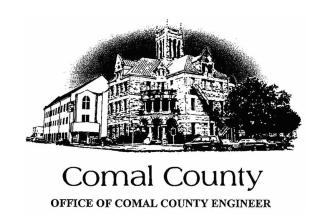
tanh set level no leaks operational cover all

No.	Description	Anwser	Citations	Notes	1st insp.	2nd Insp.	3rd Insp.
	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(E) 285.91(2) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(A)				
	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	1	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		/		
.0	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
1	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
	SEPTIC TANK Tank Volume Installed						
.3	PUMP TANK Volume Installed						
	AEROBIC TREATMENT UNIT Size Installed	/			-		
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	/		nuwater 8550	1		
	DISPOSAL SYSTEM Absorptive		285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
17	DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

No.	Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	DISPOSAL SYSTEM Drip Irrigation	/	285.33(c)(3)(A)-(F)				
19	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
	DISPOSAL SYSTEM Mound		285.33(a)(1) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
23	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC		91				
26	DRAINFIELD Area Installed	/					
	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
27	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
28	DRAINFIELD Pipe and Gravel -						100000
29	Geotextile Fabric in Place		285.33(b)(1)(E)				
	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
30						100	
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

No.	Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
	AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.	/	285.32(c)(1)				
	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions	1111			175		
	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti-Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
	PUMP TANK Secondary restraint						
	system provided PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried	/			/		

No.	Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	1	285.33(d)(2)(G)(iii)(II)285.3 3(d)(2)(G)(iii)(III)285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed	/		Ser alan	1		
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number: 109339

Issued This Date: 07/02/2019

This permit is hereby given to: Callan Homes Company, Inc.

To start construction of a private, on-site sewage facility located at:

1004 CIMARRON

SPRING BRANCH, TX 78070

Subdivision: Lake of the Hills Estates, Inc.

Unit:

Acreage:

Lot: 169 Block: 22

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic

Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.

OSSF DEVELOPMENT APPLICATION CHECKLIST	Staff will complete shaded
	items Date Received initial
	Permit Number
Instructions:	
Place a check mark next to all items that apply. For items that do not app Application Checklist must accompany the completed application.	ly, place "N/A". This OSSF Development
OSSF Permit	
Completed Application for Permit for Authorization to Constr Operate	ruct an On-Site Sewage Facility and License to
Site/Soil Evaluation Completed by a Certified Site Evaluator	or a Professional Engineer
Planning Materials of the OSSF as Required by the TCEQ F shall consist of a scaled design and all system specification.	S.
Required Permit Fee	JUN 28 2019
Required Permit Pee	JUN 28
Copy of Recorded Deed	COUISI 7 28 2019
X Surface Application/Aerobic Treatment System	
Recorded Certification of OSSF Requiring Maintenance	ce/Affidavit to the Public
Signed Maintenance Contract with Effective Date as I	ssuance of License to Operate
I affirm that I have provided all information required for my OSSF Dev	velopment Application and that this application
constitutes a completed OSSF Development Application.	
Signature of Applicant	06/18/19 Date
COMPLETE APPLICATION	INCOMPLETE APPLICATION
Check No Receipt No (I	Missing Items Circled, Application Refused)

* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Date Jun	ne 17, 2019		Permit #
Owner Name	CALLAN HOMES COMPANY INC	Agent Name	GREG W. JOHNSON, P.E.
Mailing Address	2241 JOHNSON ROAD	Agent Address	170 HOLLOW OAK
City, State, Zip	CANYON LAKE TEXAS 78133	City, State, Zip	NEW BRAUNFELS, TX 78132
Phone#	956-792-6845	Phone #	(830) 905-2778
Email	sophie@callanhomesinc.com	Email	gregjohnsonpe@yahoo.com
All correspondence	should be sent to: Owner Agent	t Both Met	hod: Mail Email
Subdivision Name	LAKE OF THE HILLS ESTATES, INC Unit/	Phase/SectionL	ot 169 Block 22
Acreage/Legal			
Street Name/Addre	ess 1004 CIMARRON	City SPRIN	G BRANCH Zip 78070
Type of Developm	ent:		
Single Family R	esidential		DEC
Type of Cons	struction (House, Mobile, RV, Etc.)	HOUSE	RECEIVED
Number of B	edrooms 3		JUN 28 2019
Indicate Sq F	Ft of Living Area 1250		COUNTY ENGINEER
Type of Facil Offices, Fact Restaurants, Hotel, Motel,	lis must show adequate land area for doubling lity tories, Churches, Schools, Parks, Etc Ir Lounges, Theaters - Indicate Number of Hospital, Nursing Home - Indicate Number	ndicate Number Of Occup	
Miscellaneou	us		
Is any portion of th	Construction: \$\frac{185,000}{185,000}\$ (Struction) (S	States Army Corps of Eng	
	☑ Public ☐ Private Well Devices Being Utilized Within the Resider	nce? 🛛 Yes 🔲 No	
 Authorization is hereb site/soil evaluation an I also understand that by the Comal County 	ion, I certify that: ation and all additional information submitted does by given to the permitting authority and designated and inspection of private sewage facilities. It a permit of authorization to construct will not be is Flood Damage Prevention Order. It to the online posting/public release of my e-mail a	agents to enter upon the above sued until the Floodplain Admir	described property for the purpose of sistrator has performed the reviews required
S	Ehr Parpfell	6.21.19	1
Signature of Owner		Date	Page I of

Revised April 2019

#109339

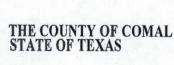
* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

REVISED 8:28 am, Oct 14, 2019

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.
System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING
Size of Septic System Required Based on Planning Materials & Soil Evaluation
Tank Size(s) (Gallons)NUWATER B-550-PCAbsorption/Application Area (Sq Ft)
Gallons Per Day (As Per TCEQ Table III)
Is the property located over the Edwards Recharge Zone? Yes No (If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))
Is there an existing TCEQ approved WPAP for the property? Yes No
(if yes, the R. S. or P. E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? Yes No
(If yes, the R.S. or P. E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)
Is the property located over the Edwards Contributing Zone? 🛛 Yes 🔲 No
Is there an existing TCEQ approval CZP for the property? Yes No
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)
If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes X No (if yes, the P.E. or R.S. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to construct will) not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)
Is this property within an incorporated city? Yes No
If yes, indicate the city: GREG W. JOHNSON ROPE GISTER GREG W. JOHNSON ROPE GISTER ROPE GIS
FIRM #2585
By signing this application, I certify that:
 The information provided above is true and correct to the best of my knowledge. I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable
June 27, 2019 Signature of Designer Date Page 2 of 2

AFFIDAVIT





CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

T

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

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JUN 28 2019 An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description): COUNTY ENGINEER UNIT/PHASE/SECTION 22 BLOCK 169 LOT LAKE OF THE HILLS ESTATES, INC. SUBDIVISION IF NOT IN SUBDIVISION: _____ACREAGE _____ CALLAN HOMES COMPANY, INC. The property is owned by (insert owner's full name): This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally. Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office. WITNESS BY HAND(S) ON THIS 4 DAY OF JUNE SOPHIE CAMPBELL -MANAGER Owner (s) Printed name (s) 2) DAY OF SOPHIE CAMPBELL SWORN TO AND SUBSCRIBED BEFORE ME ON THIS SES ONLY Filed and Recorded

GREG W. JOHNSON
Notary Public, State of Texas
Comm. Expires 05-17-2022
Notary 10 12 42/8310

Signature

(Notary Seal Here)

Official Public Records
Bobbie Koepp, County Clerk

Comal County Texas 06/28/2019 01:49:36 PM TERRI 1 Page(s)

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Bobbie Koepp

JUN 28 2019

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT COUNTY ENGINEER

Regulatory Authority COMAL
Block Creek Aerobic Services, LLC
444 A Old Hwy #9
Comfort, TX 78013
Off. (830) 995-3189
Fax. (830) 995-4051

2 YEAR CONTRACT
2 YEAR WARRANTY ON PARTS AND LABOR

Permit/License Number

Customer CALLAN HOMES COMPANY, INC

Site Address 1004 CIMARRON

City SPRING BRANCH, 1Zip 78070

Mailing Address 2241 JOHNSON ROAD, CANYON LAKE, TX 78133

County COMAL Map # 284 E8

Phone 956-792-6845

Email sophie@callanhomesinc.com

Subd/Legal: LAKE OF THE HILLS ESTATES, INC., BLK22, LOT 169

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between	
CALLAN HOMES COMPANY, INC (hereinafter referred to as "Customer") and Block Creek Aerobic Service	es,
LLC. By this agreement, Block Creek Aerobic Services, LLC and its employees (hereinafter inclusively referred to	as
"Contractor") agree to render services at the site address stated above, as described herein, and the Customer agrees to full	fill
his/her/their responsibilities, as described herein.	

II. Effective Date:

This Agreement commences on LTO and ends on for a total of two (2) years (initial agreement) or one (1) year (thereafter). If this is an initial agreement (new installation), the Customer shall notify the Contractor within two (2) business days of the system's first use to establish the date of commencement. If no notification is received by Contractor within ninety (90) day::s after completion of installation or where county authority mandates, the date of commencement will be the date the "License to operate" (Notice of Approval) was issued by the permitting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty.

III. Termination of Agreement:

This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating party thirty (30) days prior to the termination of this Agreement. If this Agreement is terminated, Contractor will be paid at the rate of \$75.00 per hour for any work performed and for which compensation has not been received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days of termination of this Agreement. Either party terminating this Agreement for any reason, including non-renewal, shall notify in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract.

IV. Services:

Contractor will:

- a. Inspect and perform routine upkeep on the On-Site Sewage Facility (hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, and required by state and/or local regulation, for a total of three visits to site per year. The list of items checked at each visit shall be the: control panel, Electrical circuits, timer, Aeration including compressor and diffusers, CFM/PSI measured, lids safety pans, pump, compressor, sludge levels, and anything else required as per the manufacturer.
- b. Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.
- c. Repair or replace, if Contractor has the necessary materials at site, any component of the OSSF found to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and the service(s) cost less than \$100.00, Customer hereby authorizes Contractor to perform the service(s) and bill Customer for said service(s). When service costs are greater than \$100.00, or if contractor does not have the necessary supplies at the site, Contractor will notify Customer of the required service(s) and the associated cost(s). Customer must notify Contractor of arrangements to affect repair of system with in two (2) business days after said notification.
- d. Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).
 - e. Forward copies of this Agreement and all reports to the regulatory agency and the Customer.
- f. Visit site in response to Customer's request for unscheduled services within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by warranty, costs for such unscheduled responses will be billed to Customer.



V. Disinfection:

Not required; required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer.

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VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

JUN 28 2019

VII. Performance of Agreement:

Commencement of performance by Contractor under this Agreement is contingent on the following conditions:

a. If this is an initial Agreement (new installation):

I. Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.

If the above conditions are not met, Contractor is not obligated to perform any portion of this Agreement.

VIII. Customer's Responsibilities:

The customer is responsible for each and all of the following:

- a. Provide all necessary yard or lawn maintenance and removal of all obstacles, including but not limited to dogs and other animals, vehicles, trees, brush, trash, or debris, as needed to allow the OSSF to function properly, and to allow Contractor safe and easy access to all parts of the OSSF.
 - b. Protect equipment from physical damage including but not limited to that damage caused by insects.
- c. Maintain a current license to operate, and abide by the conditions and limitations of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever requirements are more stringent, as well as the proprietary system's manufacturer recommendations.
- d. Notify Contactor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.
- e. Provide, upon request by Contractor, water usage records for the OSSF so that the Contractor can perform a proper evaluation of the performance of the OSSF.
- f. Allow for samples at both the inlet and outlet of the OSSF to be obtained by Contractor for the purpose of evaluating the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section IV (d) above, Customer agrees to pay Contractor for the sample collection and transportation, portal to portal, at a rate of \$35.00 per hour, plus the associated fees for laboratory testing.
 - g. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.
- h. Prevent the condensation from air conditioning or refrigeration units, or the drains of icemakers, from hydraulically overloading the aerobic treatment units. Drain lines may discharge into the surface application pump tank if approved by system designer.
- i. Provide for pumping and cleaning of tanks and treatment units, when and as recommended by Contactor, at Customer's expense.
 - j. Maintain site drainage to prevent adverse effects on the OSSF.
 - k. Pay promptly and fully, all Contractor's fees, bills, or invoices as described herein.

IX. Access by Contractor:

Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment units shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. It is Customers responsibility to keep lids exposed and accessible at all times.

X. Limit of Liability:

Contractor shall not be held liable for any incidental, consequential, or special damages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other theory. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement.

XI. Indemnification:

Customer (whether one or more) shall and cloes hereby agree to indemnify, hold harmless and defend Contractor and each of its successors, assigns, heirs, legal representatives, devisees, employees, agents and/or counsel (collectively "Indemnitees") from and against any and all liabilities, claims, damages, losses, liens, causes of action, suits, fines, judgments and other expenses (including, but not limited to, attorneys' fees and expenses and costs of investigation), of any kind, nature or description, (hereinafter collectively referred to as "Liabilities") arising out of, caused by, or resulting, in whole or in part, from this Agreement.

Copyright all rights reserved

THIS INDEMNITIFCATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCORRENT OR CONTRIBUTORY NEGLIGENCE OR BY THE STRICT LIABILITY OF ANY INDEMNITEE.

Customer hereby waives its right of recourse as to any Indemnitee when Indemnification applies, and Customer shall require its insurer(s) to waive its/their right of subrogation to the extent such action is required to render such waiver of subrogation effective. Customer shall be subrogated to Indemnitees with respect to all rights Indemnitees may have against third parties with respect to matters as to which Customer provides indemnity and/or defense to Indemnitees. No Indemnification is provided to Indemnitees when the liability or loss results from (1) the sole responsibility of such Indemnitee; or, (2) the willful misconduct of such Indemnitee. Upon irrevocable acceptance of this Indemnification obligation, Customer, in its sole discretion, shall select and pay counsel to defend Indemnitees of and from any action that is subject to this Indemnification provision. Indemnitees hereby covenant not to compromise or settle any claim or cause of action for which Customer has provided Indemnification without the consent of Customer.

XII. Severability:

If any provision of the "Proposal and Contract" shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of the "Agreement" is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

XIII. Fee for Services:

The Fee for Services does not include any fees for equipment, material, labor necessary for non-warranty repairs, unscheduled inspections, or Customer requested visits to the site.

Full payment is due upon execution of this Agreement (Required of new Customer). For any other service(s) or repair(s) provided by Contractor the Customer shall pay the invoice(s) for said service(s) or repair(s) within thirty (30) days of the invoice date. The Contractor shall mail all invoices on the date of invoice. All payments not received within thirty (30) days from the invoice date will be subject to a \$29.00 late penalty and a 1.5% per month carrying charge, as well as any reasonable attorney's fees, and all collection and court costs incurred by Contractor in collection of unpaid debt(s). Contractor may terminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 return check fee.

XV. Application or Transfer of payment: 4

The fees paid for this agreement may be transferred to subsequent property owner(s); however, this Agreement is not transferable. Customer shall advise the subsequent property owner(s) of the State requirement that they sign a replacement agreement authorizing Contractor to perform the herein described Services, and accepting Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funcs received from Customer first to any past due obligation arising from this Agreement including late fees or penalties, return check fees, and/or charges for services or repairs not paid within thirty (30) days of invoice date. Any remaining monies shall be applied to the funding of the replacement Agreement. The consumption of funds in this manner may cause a reduction in the termination date of effective coverage per this Agreement. See Section IV.

XVI. Entire Agreement:

This agreement contains the entire Agreement of the parties, and there are no other conditions in any other agreement, oral or written.

Block Creek Aerobic Services, LLC.

Just 5 sidenstick

Contractor

MC# 0000042 and MC#0000002

Eustoper Signature

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed:	June 19, 2019	
Site Location:	LAKE of the HILLS, INC., BLOCK 22, LOT 169	
Proposed Excavation Depth:	N/A	

Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.

Locations of soil boring or dug pits must be shown on the site drawing.

For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the

proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
8"	Ш	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 8"	BROWN RECEN
					-	JUN 28 2

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
	SAME		AS		ABOVE	
2						1 /40
3						
5						

I certify that the findings of this report are based on my field observations and	are ac	curate	to
the best of my ability.	/		

Greg W. Johnson, F.E. 67587-F2585, S.E. 11561

Date

OSSF SOIL EVALUATION REPORT INFORMATION

Site Evaluator Inf	ormation:
Name: Greg W. Jo	hnson, P.E., R.S, S.E. 11561
	fels State: Texas
Zip Code: 78132	Phone & Fax (830)905-2778
Installer Info	rmation:
Company:	
8070 Address:	
City:	State:
Zip Code:	Phone
YES NO X	
1	Name: Greg W. Jo Address: 170 Hol City: New Braum Zip Code: 78132 Installer Info LS, INC. Name: Company: Address: City: Zip Code: YES NO YE

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COUNTY ENGINE R

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).

GREG W. JOHNSON, P.E. 67587 - S.E. 11561

06/20/19 DATE GREG W. JOHNSON

OREG W. JOHNSON

OREG/STEREO

OREG/STEREO

OREG/SO/ONAL ENGINE

FIRM #2585



DRIP TUBING SYSTEM

DESIGNED FOR: CALLAN HOMES COMPANY, INC. 2241 JOHNSON ROAD CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Lake of the Hills Estates, Inc, Block 22, Lot 169, at 1004 Cimarron, this septic will serve a three bedroom residence (1250 sf) in area with Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 inch SCH-40 pipe discharges from the residence into a Nu-Water B550PC 600gpd aerobic treatment plant containing a 353 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP FPS submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal Disc filter then through a 1" SCH-40 manifold to a 1876 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve. Solids caught in the disk filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to trenching the site must be scarified and built up with 4" of Type II or III soil. Drip tubing will be laid and the entire field area will be capped with 6" of sandy loam (Type 2 - NOT SAND). The field area will be sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Q = 240 gallons per day - 3 bedroom residence (Table III)

Pretreatment tank size: 353 Gal

Plant Size: Nu-Water B550PC 600 gpd (TCEQ Approved)

8:28 am, Oct 14, 2019

Pump tank size: 768 Gal

Reserve capacity after High Level: 80 gal. (>1/3 day usage)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf (Actual 1876 sf.). Total linear feet drip tubing: 938' Netifim Bioline drip tubing .61 GPH

Pump requirement: 469 emitters @ 0.61 gph @ 30 psi = 4.768 gpm

Pump: 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent.

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15"= 219 gal

Working level = 240 gal = 17"

Reserve Requirement = 1/3 day =80 gal. = 6"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

 $MSV = 2 \text{ FPS } (\Pi d^2)/4*7.48 \text{ gal/cf*}60 \text{ sec/min}$

 $MSV = 2(3.14159((.55/12)\uparrow 2)/4)*7.48*60$

MSV = 1.5 gpm x 3 = 4.5 gpm MIN FLOW RATE

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

 $MSV = 2 \text{ FPS } (\Pi d \uparrow 2)/4*7.48 \text{ gal/cf*} 60 \text{ sec/min}$

 $MSV = 2(3.14159((1.049/12) \uparrow 2)/4)*7.48*60$

MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

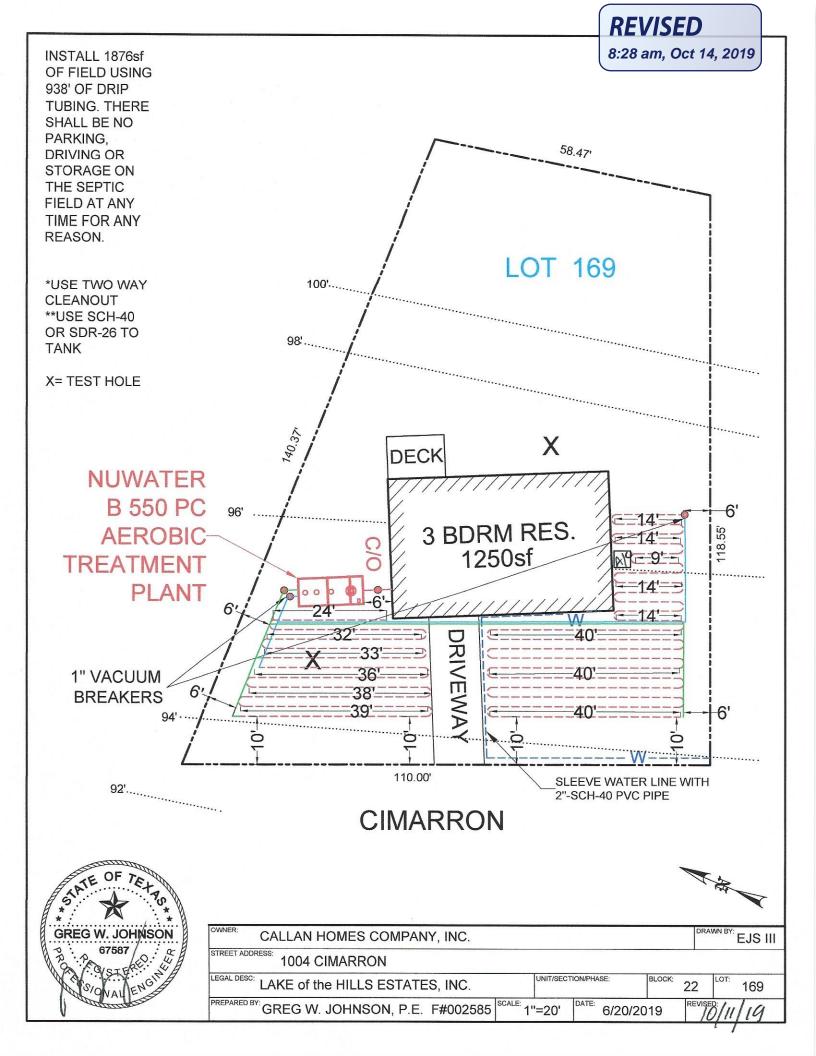
Greg W. Johnson, P.E.

170 Hollow Oak

New Braunfels, Texas 78132

830/905-2778





TANK NOTES:

Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way sanitary tee is required between residence and tank.

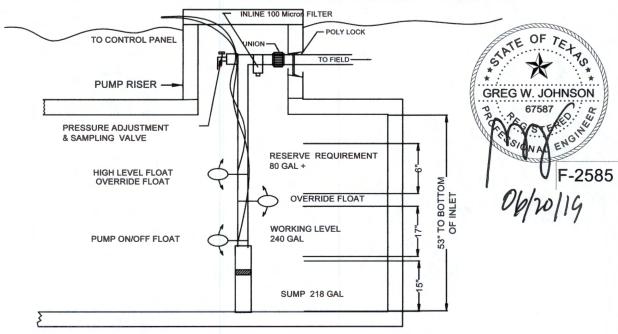
A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks

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ALL WIRING MUST BE IN COMPLIANCE WITH THE MOST RECENT NATIONAL ELECTRIC CODE

COUNTY ENGINEER



TYPICAL PUMP TANK CONFIGURATION NU-WATER 550PC -400PT 768 GAL PUMP TANK

Arkal 1" Super Filter

Catalog No. 1102 0____

Features

- A "T" shaped filter with two 1" male threads.
- · A "T" volume filter for in-line installation on 1" pipelines.
- The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- · Manufactured entirely from fiber reinforced plastic.
- · A cylindrical column of grooved discs constitutes the filter element.
- · Spring keeps the discs compressed.
- Screw-on filter cover.
- Filter discs are available in various filtration grades.



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Technical Data

	1" BSPT (male)	1" NPT (male)
Inlet/outlet diameter	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m³/h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	158 mm	6 7/32"
Weight	1.420 kg	3.13 lbs.
Maximum temperature	70° C	158 °F
рH	5-11	5-11

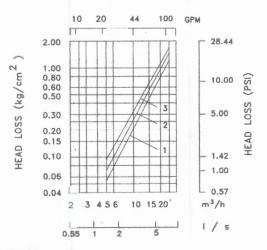




Filtration Grades

Blue (400 micron / 40 mesh)
Yellow (200 micron / 80 mesh)
Red (130 micron / 120 mesh)
Black (100 micron /140 mesh)
Green (55 micron)

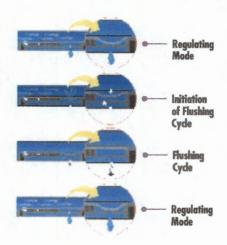
Head Loss Chart





Bioline® Dripperline

Pressure Compensating Dripperline for Wastewater



BioLine's Self-Cleaning, Pressure Compensating Dripper is a fully selfcontained unit molded to the interior wall of the dripper tubing.

As shown at left, BioLine is continuously self-cleaning during operation, not just at the beginning and end of a cycle. The result is dependable, clog free operation, year after year.



Product Advantages

The Preven Performer

- · Tens of millions of feet used in wastewater today.
- · Bioline is permitted in every state allowing drip disposal.
- · Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for many years of hard use in wastewater applications.

Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity even on sloped or rolling terrain.
- Excellent uniformity with runs of 400 feet or more reducing installation costs.
- Highest quality-control standards in the industry: Cv of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

Long-Term Reliability

- Protection against plugging:
 - Dripper inlet raised 0.27" above wall of tubing to prevent sediment from entering dripper.
 - Drippers impregnated with Vinyzene to prevent buildup of microbial slime.
 - Unique self-flushing mechanism passes small particles before they can build up.

Councit Efficient Stream Delets Bieline Dripper

Root Safe

- · A physical barrier on each Biol.ine dripper helps prevent root intrusion.
- Protection never wears out never depletes releases nothing to the environment.
- Working reliably for up to 15 years in subsurface wastewater installations.
- Additional security of chemical root inhibition with Techfilter supplies
 Trifluralin to the entire system, effectively inhibiting root growth to the dripper outlets.



Applications

- · For domestic strength wastewater disposal.
- Installed following a treatment process.
- Can be successfully used on straight septic effluent with proper design, filtration and operation.
- Suitable for reuse applications using municipally treated effluent designated for irrigation water.

Specifications

Wall thickness (mil): 45*

Nominal flow rates (GPH): .4, .6, .9*

Common spacings: 12", 18", 24"*

Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable

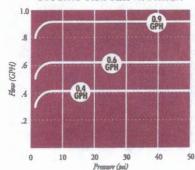
source

*Additional flows, spacings, and pipe sizes available by requescible DPlease contact Netafim USA Customer Service for details.

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CC JIVIY LINE

BIOLINE Flow Rate vs. Pressure





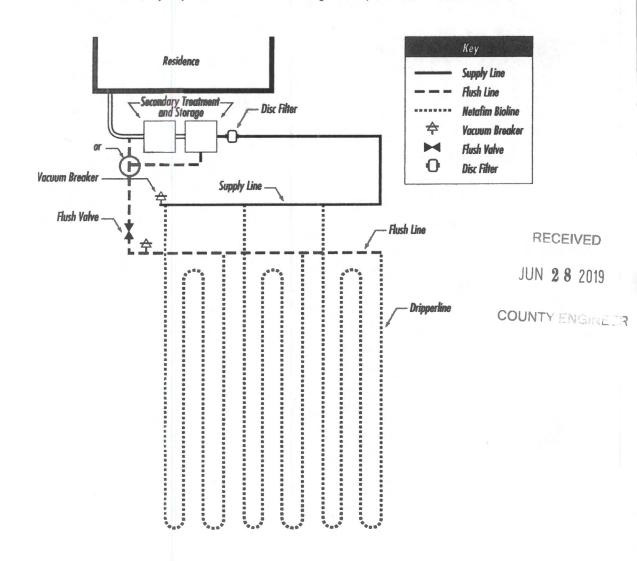
NETAFIM USA 5470 E. Home Ave. • Fresno, CA 93727 888.638.2346 • 559.453.6800 FAX 800.695.4753 www.netafimusa.com

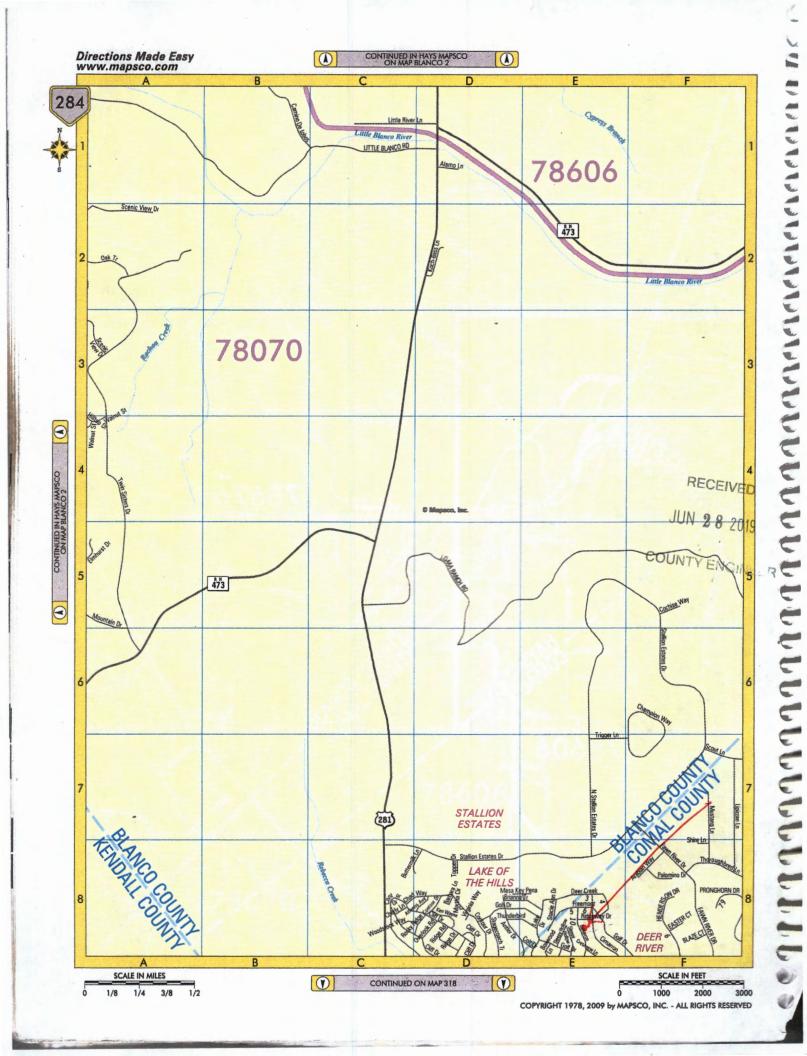
SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

Rectangular field with supply and flush manifold on same side and in same trench;

- · Locate supply and flush manifold in same trench
- · Dripperlines are looped at the end opposite the supply and flush manifolds
- The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the Bioline once; drip dispersal fields under 100 ft. might be looped twice, as illustrated



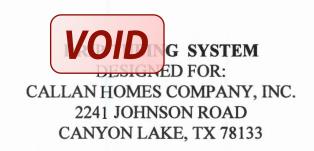


* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN

TY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.	•
System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING	
Size of Septic System Required Based on Planning Materials & Soil Evaluation	
Tank Size(s) (Gallons)NUWATER B-550-PCAbsorption/Application Area (Sq Ft)	2000
Gallons Per Day (As Per TCEQ Table III)	
Is the property located over the Edwards Recharge Zone? Yes No	200
(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))	RECEIVED
Is there an existing TCEQ approved WPAP for the property? Yes No	JUN 28 2019
Is the property located over the Edwards Contributing Zone? Yes No Is there an existing TCEQ approval CZP for the property? Yes No (if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP) If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes, the P.E. or R.S. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)	
Is this property within an incorporated city? Yes No If yes, indicate the city: GREG W. JOHNSON 80 67587 80 67587 80 Register.	#2585
By signing this application, I certify that: - The information provided above is true and correct to the best of my knowledge. - I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, a	s applicable



JUN 28 2019
COUNTY ENGINEER

SITE DESCRIPTION:

Located in Lake of the Hills Estates, Inc, Block 22, Lot 169, at 1004 Cimarron, this septic will serve a three bedroom residence (1250 sf) in area with Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 inch SCH-40 pipe discharges from the residence into a Nu-Water B550PC 600gpd aerobic treatment plant containing a 353 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP FPS submersible well pump. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a ten minute run time. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 m filter then through a 1" SCH-40 manifold to a 2000 sf. drip tubing field, w ne drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to continuously flush the system by cycling a 1" ball valve. Solids caught in the disk filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to trenching the site must be scarified and built up with 4" of Type II or III soil. Drip tubing will be laid and the entire field area will be capped with 6" of sandy loam (Type 2 - NOT SAND). The field area will be sodded with a hearty grass such as Bermuda, St. Augustine, etc. prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Q = 240 gallons per day - 3 bedroom residence (Table III)

Pretreatment tank size: 353 Gal

Plant Size: Nu-Water B550PC 600 gpd (TCEQ Approved)



Pump tank size:

768 Ga

Reserve capacity after High Level: 80 gal. (>1/3 day usage)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf (Actual 2000 sf.). Total linear feet drip tubing: 1000' *Netifim Bioline* drip tubing .61 GPH Pump requirement: 500 emitters @ 0.61 gph @ 30 psi = 5.0833 gpm

Pump: 0.5 HP FPS E-Series 20FE05P4-2W115 submersible pump or equivalent.

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15"= 219 gal

Working level = 240 gal = 17"

Reserve Requirement = 1/3 day =80 gal. = 6"

RECEIVED

JUN 28 2019

COUNTY ENGINEER

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

 $MSV = 2 \text{ FPS } (\Pi d \uparrow 2)/4*7.48 \text{ gal/cf*}60 \text{ sec/min}$

 $MSV = 2(3.14159((.55/12))^2)/4)*7.48*60$

MSV = 1.5 gpm IIN FLOW RATE

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

 $MSV = 2 \text{ FPS } (\Pi d^{\dagger} 2)/4*7.48 \text{ gal/cf*}60 \text{ sec/min}$

MSV = 2(3.14159((1.049/12)†2)/4)*7.48*60

MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

Greg W. Johnson, P.E.

No. 67587, F#2585

170 Hollow Oak

New Braunfels, Texas 78132

830/905-2778

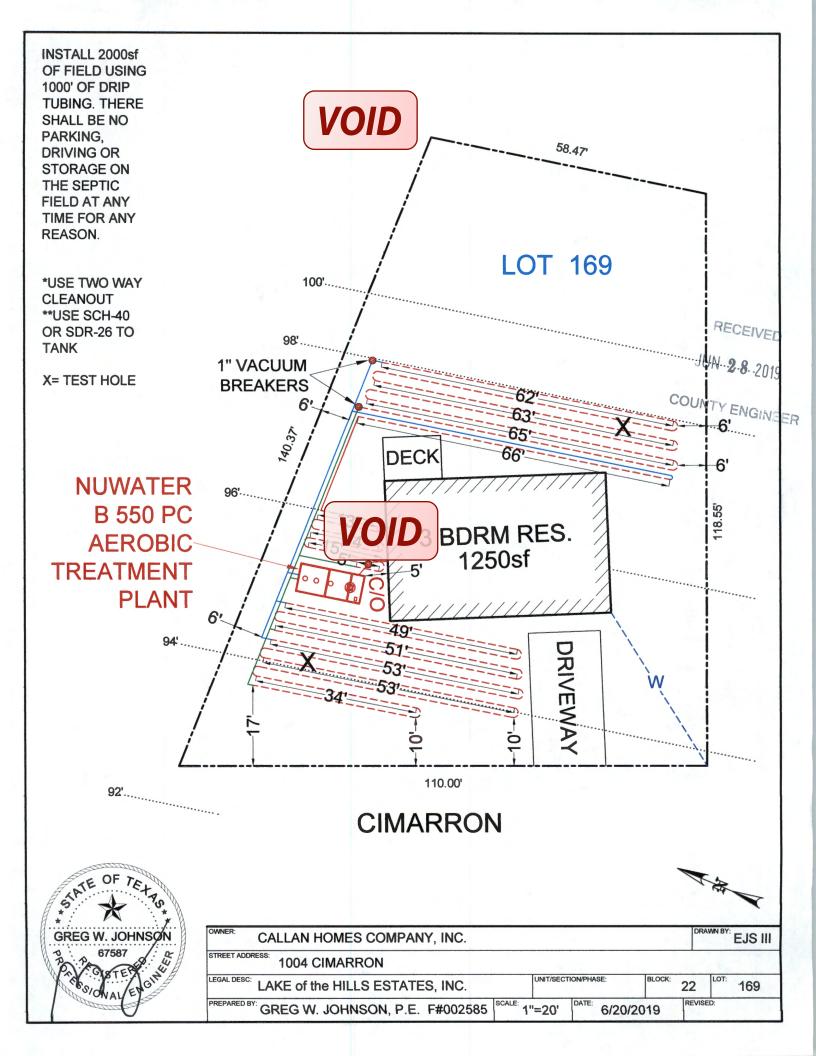
GREG W. JOHNSON

87587

GISTERE

GISTORIA

GREGONAL ENGINE







General Warranty Deed

Date:

April 15, 2019

Grantor:

James L. Asher and Rose M. Asher

Grantor's Mailing Address:

18 19 LETO ROAD, HOUSTON, TX 77080-7428JUN 28 2019

Grantee:

Callan Homes Company, Inc.

Grantee's Mailing Address:

2241 Johnson Road, Canyon Lake, Texas 78133

Consideration:

Cash and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

Property (including any improvements):

Lot 169, Block 22, of Lake of the Hills Estates, Inc., a subdivision in the County of Comal, State of Texas, according to a map or plat of said subdivision recorded in Vol. 4, at Pages 70-71, of the Map and Plat Records of Comal County, Texas

Reservations from Conveyance:

None

Exceptions to Conveyance and Warranty: Liens described as part of the Consideration and any other liens described in this deed as being either assumed or subject to which title is taken; validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate, that affect the Property; and taxes for 2019, which Grantee assumes and agrees to pay, but not subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantor assumes.

Validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate, that affect the Property; and taxes for 2019, which Grantee assumes and agrees to pay, but not subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantor assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property,

together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant

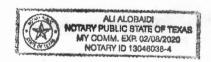
and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

When the context requires, singular nouns and pronouns include the plural.

This instrument was prepared bas independent title search has been made.	James L. Asher
	CENT
	Rose M. asher JUN.
	Rose M. Asher Co. Solar SUN 38 2019
CT LTD OF TEXT C	OUNTY,
STATE OF TEXAS)	Rose M. Asher
COUNTY OF NAMES	
This instrument was acknowledge Asher and Rose M. Asher.	ed before me on April 15th, 2019, by James L.
	Ali Alobaidi
	Notary Public, State of Texas
	My commission expires: 02/08/2020
PREPARED IN THE OFFICE OF	

DWAIN W BLASCHKE P.O. Box 1744 Canyon Lake, TX 78133 Tel: (830) 964-4442

Fax: (830) 964-4426



Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 04/18/2019 03:23:02 PM Bobbie Koepp

Block Creek Concrete Products, LLC 444 A Old Hwy No 9 Comfort, TX 78013

Phone: (830) 995-3189 Fax: (830) 995-4051

To: Home Owner 1004 Cimarron Spring Branch, TX 78070 Printed:3/6/2020 Site: 1004 Cimarron Spring Branch, TX 78070

Permit #: 109339

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water Treatment Type: Aerobic Without ChlorineSystem S/N: 25031

Disposal: Drip Emitters

Customer ID: 6817

Contract Dates: 11/20/2019 - 11/20/2021

Scheduled Date: 3/20/2020

Inspection 1 of 6

Installed: 9/6/2019

Aerator S/N: 2997 Warranty End: 9/6/2021 GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 3/6/2020

Time In: 109pm

Out: 136pm

▼ This counts as a type of "Scheduled Inspection"

Entered By: Anthony Jesus Soto

Method: Grab

Technician: Anthony Jesus Soto

Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Plumps: Operational Disinfection Device: Operational

Sludge Levels

For Tank 1: 12" For Tank 2: 0" For Tank 3: 0"

CFM: 2.4

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Comments

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

PSI Pressure: 3.4

✓ Service Completed

-Technician Secured the Tank Lid and/or Riser prior to leaving location. Reset timer. - Cleaned compressor filter. - Secured system in the on position with a lock bolt. - Scum in pretreatment is 0". Cleaned drip filter. Set pressure gauge to 22psi backside. Please fill out customer information sheet.

Insp ID #:90491

Provider: Rudy Carson

Technician: Anthony Jesus Soto

License #: MT0001771

Expires: 9/30/2022

Rudy Carson

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Home Owner 1004 Cimarron

Permit #. 109339

Spring Branch, TX 78070

Printed:7/17/2020 Site: 1004 Cimarron Spring Branch, TX 78070

Customer ID: 6817

Agency: Comal County Contract Dates: 11/20/2019 - 11/20/2021

County: Comal Sub: Lake of the Hills Estates Scheduled Date: 7/20/2020 Inspection 2 of 6

Mfg / Brand: Advantage Wastewater LLC - Nu Water installed: 9/6/2019
Treatment Type: Aerobic Without ChlorineSystem S/N: 25031 Aerator S/N: 2997 Warranty End: 9/6/2021

Disposal: Drip Emitters GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 7/17/2020 Time In: 4:50pm Out: 5:05pm Entered By: Ronnie W Krampota

Method: Grab

Technician: Ronnie W Krampota

Maint. Provider: Rudy Carson

Aerators: Operational Sludge Levels

Filters: Operational For Tank 1: 12
Irrigation Pumps: Operational For Tank 2: 0"

Disinfection Device: Operational For Tank 3: 0"

CFM: 2.0

▼ This counts as a type of "Scheduled Inspection"

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational
Sprayfield Veg: Operational
Color: Good

Odor: Good

Alarm: Operational PSI Pressure: 3.3

Comments

✓ Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Secured system in the on

position with a lock bolt - Scum in pretreatment is 2" - Cleaned drip filter and line - PSI 25

Insp ID #:95871

Provider: Rudy Carson

Technician: Ronnie W Krampota

License #: MT0001175 Expires: 7/31/2023

Pudy Carson

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Home Owner PO Box 1950

San Marcos, TX 78667

Printed: 11/13/2020 Site: 1004 Cimarron

Spring Branch, TX 78070

Permit #: 109339

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic Without Chlorin System S/N: 25031

Disposal: Drip Emitters

Customer ID: 6817

Contract Dates: 11/20/2019 - 11/20/2021

Scheduled Date: 11/20/2020

Inspection 3 of 6

Installed: 9/6/2019

Aerator S/N: 2997

Warranty End: 9/6/2021

GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 11/13/2020

Time In: 11:45

Out: 12:00

▼ This counts as a type of "Scheduled Inspection"

Entered By: Joseph A Crowder

Method: Grab

Technician: Joseph A Crowder Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational Sludge Levels

For Tank 1: 12 For Tank 2: 0"

For Tank 3: 0"

CFM: 2.0

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

PSI Pressure: 3.0

✓ Service Completed

Comments - Technician Secured the Tank Lid and/or Riser prior to leaving location. Cleaned drip filter and flushed system reset at 25 psi. -Secured system in the on position with a lock bolt - Scum in pretreatment is 2".

insp ID #:101497

Provider: Rudy Carson

License #: MP0002036

Technician:

Joseph A Crowder

License #: MT0001769

Expires: 9/30/2022

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Home Owner PO Box 1950

San Marcos, TX 78667

Printed:3/31/2021 Site: 1004 Cimarron

Spring Branch, TX 78070

Permit #: 109339

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic Without Chlorine System S/N: 25031

Disposal: Drip Emitters

Customer ID: 6817

Contract Dates: 11/20/2019 - 11/20/2021

Scheduled Date: 3/20/2021

Inspection 4 of 6

Installed: 9/6/2019

Aerator S/N: 2997 Warranty End: 9/6/2021 GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 3/31/2021

Time In: 1200PM

Out: 1232PM

▼ This counts as a type of "Scheduled Inspection"

Entered By: Alex Seidensticker

Method: Grab

Technician: Alex Seidensticker Maint, Provider: Burt Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational Sludge Levels

For Tank 1: 6" For Tank 2: 12" For Tank 3: 4"

CFM: 3.2

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Insp. Port / Plug: Secured

Color: Good Odor: Good

Alarm: Operational

PSI Pressure: 3.2

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Scum in pretreatment is 6" - Cleaned compressor filter. Cleaned drip filter, flushed lines and set to 22 psi. The 90 on drip filter is cracked.

Insp ID #:106993

✓ Service Completed

Provider: Burt Seidensticker

License Info: MP0000002 Expires:

Technician: Alex Seidensticker

License Info: MP0001961 Expires: 9/30/2021

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Home Owner PO Box 1950

San Marcos, TX 78667

Printed:7/9/2021 Site: 1004 Cimarron Spring Branch, TX 78070

Permit #: 109339

Agency: Comai County County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water Treatment Type: Aerobic Without ChlorineSystem S/N: 25031

Disposal: Drip Emitters

Customer ID: 6817

Aerator S/N: 2997

Contract Dates: 11/20/2019 - 11/20/2021

Scheduled Date: 7/20/2021

Inspection 5 of 6

Installed: 9/6/2019 Warranty End: 9/6/2021

GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 7/9/2021

Time In: 11am

Out: 11:30

▼ This counts as a type of "Scheduled Inspection" Entered By: Michael S Looney

Method: Grab

Technician: Michael S Looney Maint. Provider: Rudy Carson

> Aerators: Operational Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational Sludge Levels

For Tank 1: 6" For Tank 2: 0" For Tank 3: 2"

CFM: 3.0

Air Filter: Good

Turbidity: Good Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good Odor: Good

Alarm: Operational

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter. Scum in pretreatment is 12". Cleaned drip filter. Reset timer. Drip filter casing has a small crack at hose connection, and should be repaired as soon as possible. Pleas set up current contact infromation with office to help us better service you in the future.

Insp ID #:111378

Rudy Carson

License #. MT0001616

Technician: Michael S Looney

License # MP0002036

Phone: (830) 995-3189 Fax: (830) 995-4051

Customer ID

6817

Contract Period Start Date: 11/20/2021

End Date: 11/20/2024

(956) 792-6845

Email: sophiekaycampbell@gmail.com Permit #: 109339

Site: 1004 Cimarron, Spring Branch, TX 78070

San Marcos, TX 78667

County: Comal

Installer: Dennis Varhol

Agency: Comal County

To: Pastiche interprise

PO Box 1905

Mfg/Brand: Advantage Wastewater LLC-Nu Water-25031

Installed: 9/6/2019

Warranty End: 9/6/2021

Block Creek Concrete Products, LLC

3 visits per year - one every 4 months

600 gallons per day

This is to Certify that the above RESIDENTIAL sewage system has an INITIAL inspections agreement per Texas Commission on Environmental Quality (TCEQ) standards for on site sewerage facilities as required.

Inspection reports by the above service company will be filed with the authorized agency as required by the TCEQ regulations. A weather proof tag or label will be attached to the controller showing the month that each inspection was made.

Items included on the Inspection Report generally include aerators, filters, irrigation pump, air compressor, disinfection device, chlorine supply, OK System light, spray field vegetation, probe, sprinkler or drip backwash.

We will visit your site within 48 hours of you notifying us of a problem

Certified Inspector:

Date:

Date Printed: 10/25/2021

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Pastiche interprise PO Box 1905 San Marcos, TX 78667

Printed: 12/3/2021 Site: 1004 Cimarron Spring Branch, TX 78070 (956) 792-6845

Permit #: 109339

Customer ID: 6817

Agency: Comal County

Contract Dates: 11/20/2021 - 11/20/2024

Inspection 1 of 9

County: Comal

Sub: Lake of the Hills Estates

Scheduled Date: 11/20/2021

Installed: 9/6/2019

Mfg / Brand: Advantage Wastewater LLC - Nu Water

Aerator S/N: 2997

Treatment Type: Aerobic Without ChlorineSystem S/N: 25031

Warranty End: 9/6/2021

Disposal: Drip Emitters

GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Entered By: Alejandro Gonzalez

This counts as a type of "Scheduled Inspection"

Visit Date: 12/3/2021

Out: 1055

Method: Grab

Technician: Alejandro Gonzalez

Aerators: Operational

Maint. Provider: Rudy Carson

Time In: 1040

Sludge Levels For Tank 1: 12"

Filters: Operational

Irrigation Pumps: Operational

For Tank 2: 0"

Disinfection Device: Operational

For Tank 3: 6"

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Insp. Port / Plug: Secured

Distribution System: Operational

Color: Good

Sprayfield Veg: Operational

Odor: Good

Alarm: Operational

Comments

✓ Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Scum in pretreatment is 12". - Cleaned compressor filter

Insp ID #:116828

Provider: Rudy Carson Technician: Alejandro Gonzalez

License #: MP0002036

License #: MT0000996

Expires:

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Pastiche interprise PO Box 1905

San Marcos, TX 78667

Printed:3/4/2022 Site: 1004 Cimarron Spring Branch, TX 78070

(956) 792-6845

Permit #: 109339

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic Without Chlorine System S/N: 25031

Disposal: Drip Emitters

Customer ID: 6817

Contract Dates: 11/20/2021 - 11/20/2024

Scheduled Date 3/20/2022

Inspection 2 of 9

Installed: 9/6/2019

Warranty End: 9/6/2021

Aerator S/N: 2997 GPS Coordinates - Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 3/4/2022

Time In: 1054a

Out: 1115a

▼ This counts as a type of "Scheduled Inspection"

Entered By: Jose Ramos

Method: Grab

Technician: Jose Ramos Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: 16" For Tank 2: 0"

For Tank 3: 1"

CFM: 3.4

Air Filter: Good

Turbidity: Good Tank Lid / Riser: Secured

Insp. Port / Plug: Secured

Electric Circuits: Operational Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

PSI Pressure: 3.0

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Cleaned compressor filter - Scum in pretreatment is 8". Reset current time. I cleaned dripper filter.

Insp ID #:121260

✓ Service Completed

Provider: Rudy Carson

Technician: Jose Ramos

License #: MT0001770

Expires: 9/1/2022

License #: MP0002036

Printed: 11/7/2022

Insp ID #:133221

Phone: (830) 995-3189 Fax: (830) 995-4051

Permit #: 109339

Main Phone: (956) 792-6845

Work:

Cell Phone:

Alt Cell:

Customer ID: 6817

Contract Dates: 11/20/2021 - 11/20/2024

Scheduled Date: 11/20/2022

Inspection 4 of 9

Installed: 9/6/2019

Aerator S/N: 2997 Warranty End: 9/6/2021 GPS Coordinates: Latitude: 29.95111 Longitude: -98.39593

> ▼ This counts as a type of "Scheduled Inspection" Entered By: Andrea Hernandez

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water Treatment Type: Aerobic Without ChlorineSystem S/N: 25031

Disposal: Drip Emitters

To: Pastiche interprise

PO Box 1905

San Marcos, TX 78667

Service Type: Scheduled Inspection

Visit Date: 11/7/2022

Time In:

Method: Grab

Technician: Not Assigned Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Sludge Levels

For Tank 1: 12 For Tank 2: 12

Irrigation Pumps: Operational Disinfection Device: Operational

For Tank 3: 0"

Chlorine Residual: 1

Floats: OP

Timer: OP

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

✓ Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter, reset timer, 14" of scum in pretreatment. - Cleaned drip filter and back flushed drip filed

Site: 1004 Cimarron, Spring Branch, TX 78070

Provider: Rudy Carson

License Info: MP0002036 Expires: 11/30/2022

Ma He

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Pastiche interprise PO Box 1905

San Marcos, TX 78667

Printed:3/18/2023 Insp ID #:138141

Main Phone: (956) 792-6845

Work:

Cell Phone:

Alt Cell:

Permit #: 109339

Agency: Comal County County: Comal

Sub: Lake of the Hills Estates

Contract Dates: 11/20/2021 - 11/20/2024

Customer ID: 6817

Scheduled Date: 3/20/2023

Inspection 5 of 9

Mfg / Brand: Advantage Wastewater LLC - Nu Water Treatment Type: Aerobic Without ChlorineSystem S/N: 25031

Disposal: Drip Emitters

Aerator S/N: 2997

Installed: 9/6/2019 Warranty End: 9/6/2021

GPS Coordinates: Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 3/18/2023

Time In:

Out: 1140

▼ This counts as a type of "Scheduled Inspection" Entered By: Trenton L Soldan

Method: Grab

Technician: Trenton L Soldan Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational

Sludge Levels

For Tank 1: 18" For Tank 2: 0" For Tank 3: 3"

> Floats: OP Timer: OP

Air Filter: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Tank Lid / Riser: Secured

Color: Good Odor: Good

Alarm: Operational

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Cleaned drip filter and back flushed drip filed - Scum in pretreatment is 14".

Site: 1004 Cimarron, Spring Branch, TX 78070

Turbidity: Good

Provider: Rudy Carson

Technician: Trenton L Soldan

License Info: MP0002036 Expires: 11/30/2025

License Info: MT0002287 Expires: 3/31/2025

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Pastiche interprise PO Box 1905

San Marcos, TX 78667

Printed:9/7/2023

Main Phone: (956) 792-6845

Insp ID #:145071 Work:

Cell Phone:

Alt Cell:

Permit #: 109339

Agency: Comal County

County: Comal

Sub: Lake of the Hills Estates

Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic Without Chlorin System S/N: 25031 Disposal: Drip Emitters

Customer ID: 6817

Contract Dates: 11/20/2021 - 11/20/2024

Scheduled Date: 7/20/2023

Inspection 6 of 9

Installed: 9/6/2019

Aerator S/N: 2997

Warranty End: 9/6/2021

GPS Coordinates: Latitude: 29.95111 Longitude: -98.39593

Service Type: Scheduled Inspection

Visit Date: 9/7/2023

Time In: 1:35

Out: 1:45

▼ This counts as a type of "Scheduled Inspection" Entered By: Landon Gronvold

Method: Grab

Technician: Landon Gronvold Maint. Provider: Rudy Carson

Irrigation Pumps: Operational

Disinfection Device: Operational

Aerators: Operational

Filters: Operational

Sludge Levels

For Tank 1: 25 For Tank 2: 1"

For Tank 3: 4"

Floats: OP Timer: OP

Tank Lid / Riser: Secured

Electric Circuits: Operational Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Comments

✓ Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Cleaned drip filter and back flushed drip filed - Scum in pretreatment is 13" system is working good

Site: 1004 Cimarron, Spring Branch, TX 78070

Provider:

License Info: MP0002036 Expires: 11/30/2025

Technician: Landon Gronvold

License Info: MT0001995 Expires: 10/31/2023

Printed:11/21/2023

Agency: Comal County

insp ID #:148639

Phone: (830) 995-3189

Fax: (830) 995-4051

To: Pastiche interprise

PO Box 1905

San Marcos, TX 78667

Permit #: 109339

Main Phone: (956) 792-6845

Work:

Cell Phone:

Alt Cell:

Customer ID: 6817

Contract Dates: 11/20/2021 - 11/20/2024

Inspection 7 of 9

County: Comal Sub: Lake of the Hills Estates Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic Without ChlorineSystem S/N: 25031 Disposal: Drip Emitters

Aerator S/N 2997

Installed: 9/6/2019

Warranty End: 9/6/2021

GPS Coordinates: Latitude: 29.95111 Longitude: -98.39593

Scheduled Date: 11/20/2023

Service Type: Scheduled Inspection

Visit Date: 11/21/2023

Time In: 1:40

Out: 1:55

This counts as a type of "Scheduled Inspection" Entered By: Trenton L Soldan

Method: Grab

Technician: Alejandro Gonzalez

Aerators: Operational

Filters: Operational

Maint. Provider: Rudy Carson

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: 8"

For Tank 2: 0"

For Tank 3: 0"

Chlorine Residual: 1

Floats: OP

Timer: OP

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational Sprayfield Veg: Operational

Alarm: Operational

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Cleaned drip filter and back flushed drip field - Scum in pretreatment is 1"

Site: 1004 Cimarron, Spring Branch, TX 78070

Provider: Rudy Carson

License Info: MP0002036 Expires: 11/30/2025

Technician: Alejandro Gonzalez

License Info: MT0000996 Expires: 1/31/2025

Block Creek Aerobic Services, LLC

444 A Old Hwy No 9 Comfort, TX 78013

Printed:2/20/2024

(830) 995-3189

Permit: 109339

Site: 1004 Cimarron, Spring Branch, TX 78070

Main Phone: 6506305523

Katharine Saget PO Box 1905 San Marcos, TX 78667

Agency: Comal County County: Comal Subdivision: Lake of the Hills Estates

✓ Service Completed

System Info: MFG: Advantage Wastewater LLC Brand: Nu Water Customer ID: 6817 Insp ID: 154472 Treatment Type: Aerobic Without Chlorine Disposal Type: Drip Emitters Aerator S/N: 2997 Installed: 9/6/2019 Warranty Expiration: 9/6/2021 System S/N: 25031 Visit Details Entered By: Alejandro Gonzalez GPS Lat: 29.95111 GPS Long: -98.39593 Visit Date: 2/20/2024 Time In: 12:13pm Contract Starts: 11/20/2021 Scheduled Date: 3/20/2024 Time Out: 12:33pm Entered On: 2/20/2024 Contract Ends: 11/20/2024 Visit Results Service Type: Scheduled Inspection Count: Inspection 8 of 9

Method: Grab

Technician: Alejandro Gonzalez

License # MT0000996 **Expires**

Provider: Rudy Carson

MP0002036

1/31/2025 11/30/2025

Aerators: Operational Filters: Operational

Sludge Level Tank 1: 24" Sludge Level Tank 2: 0"

Irrigation Pumps: Operational Disinfection Device: Operational Sludge Level Tank 3: 8"

Tank Lid / Riser: Secured

Electric Circuits: Operational Distribution System: Operational Drip/Sprayfield Veg: Operational

Alarm: Operational

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Scum in pretreatment is 1" - Cleaned drip filter and back flushed drip field

Provider:

Rudy Carson

Alejandro Gonzalez

License: Number; MP0002036 Exp: 11/30/2025

License: Number: MT0000996 Exp: 1/31/2025

Block Creek Aerobic Services, LLC

444 A Old Hwy No 9 Comfort, TX 78013

Printed:8/2/2024

(830) 995-3189

Permit: 109339

Site: 1004 Cimarron, Spring Branch, TX 78070

Main Phone: 6506305523

Katharine Saget PO Box 1905 San Marcos, TX 78667

Agency: Comal County County: Comal

Subdivision: Lake of the Hills Estates

System Info: MFG: Advantage Wastewater LLC Brand: Nu Water Treatment Type: Aerobic Without Chlorine

Disposal Type: Drip Emitters

Aerator S/N: 2997

Customer ID: 6817

Installed: 9/6/2019

Warranty Expiration: 9/6/2021

System S/N: 25031

Insp ID: 161197

Visit Details

Entered By: Rudy Carson

GPS Lat: 29.95111 GPS Long: -98.39593

Visit Date: 8/2/2024 Scheduled Date: 7/20/2024 Entered On: 8/2/2024

Contract Starts: <u>11/20/2021</u> Contract Ends: 11/20/2024

Visit Results

Service Type: Scheduled Inspection

Count: Inspection 9 of 9

Method: Grab

License #

Expires

Technician: Rudy Carson Provider: Rudy Carson

MP0002036 MP0002036

11/30/2025

✓ Service Completed

Aerators: Operational

Sludge Level Tank 1: 20

Filters: Operational Irrigation Pumps: Operational

Sludge Level Tank 3: 1

Disinfection Device: Operational

Floats: OP Timer: OP

Tank Lid / Riser: Secured

Electric Circuits: Operational Distribution System: Operational Drip/Sprayfield Veg: Operational

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned drip filter and back flushed drip field

Provider:

Rudy Carsen

Technician:

Rudy Carson

License: Number: MP0002036 Exp: 11/30/2025

License: Number: MP0002036 Exp:

Block Creek Aerobic Services, LLC

444 A Old Hwy No 9 Comfort, TX 78013

(830) 995-3189

Owner Phone: (650) 630-5523

Katharine Saget PO Box 1905 San Marcos, TX 78667

License: Number: MP0002036 Exp: 11/30/2025

Agency: Comal County

County: Comal

			Subdivision: Lake of the Hills Estates
Site	e Address: 1004 Cimarron, Sp	pring Branch Permit	#: 109339
System Info: MFG: Advantage Wa Treatment Type: Aerobic Without Chl Installed: 9/6/2019 Visit Details		Aerator S/N: 2997 System S/N: 25031	ID: <u>6817</u> Insp ID: <u>167350</u>
Visit Date: 12/11/2024 Scheduled Date: 11/20/2024 Entered On: 12/11/2024 Visit Results		ct Starts: <u>11/20/2021</u> act Ends: <u>11/20/2024</u>	GPS Lat: 29.95111 GPS Long: -98.39593
Service Type: Scheduled Ins Count: Inspection 9 of 9 Method: Grab Technician: Rudy Carson	Epection License #	Expires	Printed:12/11/2024
Provider: Rudy Carson	MP0002036	11/30/2025	✓ Service Completed
Aerators: Operational Filters: Operational Irrigation Pumps: Operational Disinfection Device: Operational	Sludge Level Tank 1: 1 Sludge Level Tank 2: 0 Sludge Level Tank 3: 0 Floats: 0 Timer: 0)!')!' OP	
	Tank Lid / Riser: S	Secured Secured	
Electric Circuits: Operational Distribution System: Operational Drip/Sprayfield Veg: Operational			
Alarm: Operational			
- Technician Secured the Tank Lid a	nd/or Riser prior to leaving location Cl mailed to the customer on 12/11/2024	leaned compressor filter - Clea	ned drip filter and back flushed drip field -
Provider: Findy Carse.	n	Technician: Rudy C	Carson

License: Number: Exp: