

Comal County

OFFICE OF COMAL COUNTY ENGINEER

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date:

03/19/2019

Permit Number:

108765

Location Description:

1562 HILLCREST FOREST CANYON LAKE, TX 78133

Subdivision:

Canyon Lake Forest

Unit:

1

Lot:

83

Block: Acreage:

Type of System:

Aerobic

Drip Irrigation

Issued to:

BGRM, LP

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

ENVIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR
OS 00255

OS0034322

Installer Name: ARAW			OSSF Installer #: 4500	21674 3rd Inspection Date: 3	.19.19
1st Inspection Date: 2.28 Inspector Name: 4. Helmin		2nd Inspection Date Inspector Name:	anereias		navear.
Permit#: 08765			Address: 1562 Hill		C.L. Fores
Description	Anwser	Citations	Notes	1st Insp.	2nd insp. 3rd insp
GITE 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)(ii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)		22819	
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)			
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)(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) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(E) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(ii)(I)			
PRETREATMENT Grease Interceptors if required for commercial		285.34(d)			

2.28.19.54

tank check only set + level

water aine Almore

3.8.19 operational Peady for Cover. covered per design.

۵.	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	V	285.32(b)(1)(E) 285.91(2) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii)		2.28.19		
	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	/	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
	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	/					
2	Installed	V					
3	PUMP TANK Volume Installed	/		550			
4	AEROBIC TREATMENT UNIT Size Installed	/		600			
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	/		Huwater			
	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)			- Garana	
6	DISPOSAL SYSTEM Leaching Chamber	The state of the s	285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
17	DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

lo.		Anwser	Citations	Notes	1st Insp.	2nd insp.	3rd Insp.
	DISPOSAL SYSTEM Drip Irrigation	V	285.33(a)(1) 285.33(a)(3) 285.33(a)(4)			V	
	DISPOSAL SYSTEM Soil		285.33(a)(2)			-	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	Substitution		285.33(d)(4)				
	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4) 285.33(a)(3) 285.33(a)(1)				
	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
2	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
4	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC	1					
6	DRAINFIELD Area Installed	/				V	
	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
17	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
28	DRAINFIELD Pipe and Gravel -		285.33(b)(1)(E)				
29	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	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33{d}{1}(C)(i)				

Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
JEFFLUENT 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)			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						
AEROBIC TREATMENT UNIT Chlorinator Properly Installed	/				/	
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	***************************************					

			/ 0331	mspection once.	 /
	PUMP TANK Electrical Connections in Approved	1			
39	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?		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)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
	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	V					
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type &						
45	PUMP TANK Type/Size of Pump Installed						

1st Inspection Date: 2 · 2								
Inspector Name: A. Helmh	'4	Inspector Name:_	aneveras	Inspecto	r Name:			
Permit#: 08765			Address: 1562	illerest	Forest-	C.L. 1	- me	
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	1	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)			22819			
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)						
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)		Acres a				
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)(C) 285.32(b)(1)(E) 285.32(b)(1)(E) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II)						
PRETREATMENT Grease Interceptors if required for commercial		285.32(b)(1)(E)(ii)(l) 285.34(d)						

2.28.19.54

tank check only set + level

water aine Alances

3.8.19 operational Ready Por Cover.

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)(I) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(ii) 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)		2.28.19		
	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	/	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
	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)				
12	SEPTIC TANK Tank Volume Installed	\checkmark					
13	PUMP TANK Volume Installed	/		550			
14	AEROBIC TREATMENT UNIT Size Installed	/		600			
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	/		Huwater			
	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 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)				
18	DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

	escription	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
DISPOSAL SY	STEM Drip Irrigation		285.33(a)(1)				
N. William			285.33(a)(3)			. /	
		V	285.33(a)(4)		i		
			285.33(a)(2)				
19							
DISPOSAL SY	STEM Soil		285.33(d)(4)				
20 Substitution			283.33(0)(4)				
DISPOSAL SY	STEM Pumped		285.33(a)(4)	,			
Effluent			285.33(a)(3)				
	:		285.33(a)(1)				
21			200.02(1/0)				-
DISPOSAL SY	STEM Gravelless		285.33(a)(3)				
Pipe			285.33(a)(2)				
			285.33(a)(4)				
			285.33(a)(1)				
22			203.33 (0)(2)				
DISPOSAL SY	STEM Mound		285.33(a)(3)				
	- d		285.33(a)(1)				
			285.33(a)(2)				
23			285.33(a)(4)				
DISPOSAL SY	STEM Other		202 204 840				
	pproved Design)		285.33(d)(6)				
(describe) (A	pproved besign)		285.33(c)(4)				
24							
	Absorptive Drainline						
3" PVC	rissorptive bruinine						
or 4" PVC							
23							
	Area Installed	/				11/	
26							
	Level to within 1 inch						
per 25 feet a	nd within 3 inches		205 22/1-1/41/41/4				
over entire e	excavation		285.33(b)(1)(A)(v)			1	
27							
	Excavation Width					-	-
	2 · 1/4 10						
	Excavation Depth						
DRAINFIELD	707 74						
Separation D	RAINFIELD Depth of						
Porous Medi	ia						
DRAINFIELD	Type of Porous						1
Media							
1111010	5-7					1	
28	4.						
	Pipe and Gravel -	1					
	abric in Place		285.33(b)(1)(E)				1
29			,-N-N-1	The second secon			
DRAINFIELD	Leaching Chambers						
	Chambers - Open						
	/Splash Plate,						
	ort & Closed End	1 1				(
			285.33(c)(2)				
Plates in Pla							
manufacture	ers spec.)						
							and the same
30						-	-
	JRE DISPOSAL						
	equate Trench Length	14					
& Width, an	d Adequate		286 33(4)(1)(0)(1)				
	Distance between		285.33(d)(1)(C)(i)				
Trenches							
I I I E I C I I E 2							

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)			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						
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	X				
	Connections in Approved					
39	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?		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)(i) 285.33(d)(2)(G)(ii) 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						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						

Installer Name: QR AVI	la		OSSF Installer #:_	5002167	<u>'</u>		
1st Inspection Date: 🗘 · 🏖	8.19	2nd Inspection Da	ite:	-	on Date:		
Inspector Name: A. Helm		Inspector Name:		Inspecto	r Name:		
Permit#: 08765			Address: 1562	Hillcreat	Forest-	C.L. F	nest
No. Description	Anwser	Citations	Not		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)			2.28.19		
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	\frac{1}{2}	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)					
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)					
5					J		
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		285.34(d)					

2.28.19.5H tank check only set + level water line sleeved

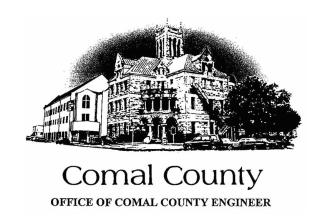
No.	Description	Anwser	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and "T" Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements	✓	285.32(b)(1)(E) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii) 285.32(b)(1)(D) 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)		2.28.19		
1 1	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	✓	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
	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	\checkmark					
13	PUMP TANK Volume Installed	/		550			
14	AEROBIC TREATMENT UNIT Size Installed	✓		600			
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	/		Huwater			
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 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)				
18	DISPOSAL SYSTEM Evapo- transpirative		285.33(a)(3) 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(a)(1)				······································
		285.33(a)(3)				
		285.33(a)(4)				
		285.33(a)(2)				
19	DISPOSAL SYSTEM Soil				-	
	Substitution	285.33(d)(4)				
20						
	DISPOSAL SYSTEM Pumped	285.33(a)(4)	,			
	Effluent	285.33(a)(3)				
21		285.33(a)(1)				
	DISPOSAL SYSTEM Gravelless	285.33(a)(3)				
l	Pipe	285.33(a)(2)				
		285.33(a)(4)				
		285.33(a)(1)				
22						
	DISPOSAL SYSTEM Mound	285.33(a)(3)				. "
	.	285.33(a)(1)				j.
		285.33(a)(2)				*
23		285.33(a)(4)				
	DISPOSAL SYSTEM Other	285.33(d)(6)				
	(describe) (Approved Design)	285.33(c)(4)				
		203.33(0)(4)				
24	DRAINER DAL STATE					
	DRAINFIELD Absorptive Drainline					
	3" PVC	the second			;	
25	or 4" PVC					
26	DRAINFIELD Area Installed	·				
1	DRAINFIELD Level to within 1 inch					
1	per 25 feet and within 3 inches	DOT DOTELLAREASE S				
	over entire excavation	285.33(b)(1)(A)(v)			7	
27						
	DRAINFIELD Excavation Width	:				
	DRAINFIELD Excavation Depth					
	DRAINFIELD Excavation			}		
	Separation DRAINFIELD Depth of					
	Porous Media			j		
	DRAINFIELD Type of Porous					
1	Media			ĺ		
28	DOMINICIPIO Disease di Consti					
	DRAINFIELD Pipe and Gravel -	285.33(b)(1)(E)				
29	Geotextile Fabric in Place					
	DRAINFIELD Leaching Chambers					
	DRAINFIELD Chambers - Open	Į.				
	End Plates w/Splash Plate,					
	Inspection Port & Closed End	285.33(c)(2)				
	Plates in Place (per	220,000(0)				
	manufacturers spec.)			1		
1						
30	LOW PRESSURE DISPOSAL					
	SYSTEM Adequate Trench Length					
	& Width, and Adequate	285.33(d)(1)(C)(i)		1		
	Separation Distance between Trenches					
31	Heliciles					
121						

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		205 22/51/21/41				
İ	Linear ft. for 2 bedrooms or Less		285.33(b)(3)(A)				
	& an additional 400 ft. for each	}	285.33(b)(3)(A)				
	additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral		285.33(b)(3)(B) 285.91(13)				
İ	Depth of 18 inches to 3 ft. & Vertical		285.33(b)(3)(D)				
	Separation of 1ft on bottom and 2 ft. to		285.33(b)(3)(F)				
	restrictive horizon and ground water		200.20(0)(2)(1)				
	respectfully						1
	EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe						
	Holes (3/16 - 1/4" dia. Hole Size) 5 ft.						
	Apart						
32	AEROBIC TREATMENT UNIT IS						
	Aerobic Unit Installed According						
1	to Approved Guidelines.		285.32(c)(1)				
33	ro ubbiosen aningiliis?				*		
	AEROBIC TREATMENT UNIT						
	Inspection/Clean Out Port &						
	Risers Provided						
	AEROBIC TREATMENT UNIT						
	Secondary restraint system						
	provided AEROBIC TREATMENT						
1	UNIT Riser permanently fastened		· w.v.·v				
	to lid or cast into tank						
	AEROBIC TREATMENT UNIT Riser						
ı	cap protected against unauthorized intrusions						
34	unauthorized intrusions						
	AEROBIC TREATMENT UNIT		,				
	Chlorinator Properly Installed						
35	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						
36	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						
37							
	PUMP TANK Secondary restraint						
38	system provided						

	PUMP TANK Electrical			
	Connections in Approved		·	
39	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?		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)(I) 285.33(d)(2)(G)(II) 285.33(d)(2)(G)(III)(I)				
	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)				
41						- · ·	
42	APPLICATION AREA Area Installed						Tak Tak
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: 108765

Issued This Date: 02/21/2019

This permit is hereby given to: BGRM, LP

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

1562 HILLCREST FOREST CANYON LAKE, TX 78133

Subdivision: Canyon Lake Forest

Unit: 1

Lot: 83

Block:

Acreage:

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.

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

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

Date Fel	bruary 13, 2019		Permit #	108765
Owner Name	BGRM, LP	Agent Name	GREG W.	JOHNSON, P.E.
Mailing Address	20540 HWY 46W STE 115-139	Agent Address	170 HC	OLLOW OAK
City, State, Zip	SPRING BRANCH TEXAS 78070	City, State, Zip	NEW BRAU	JNFELS, TX 78132
Phone#	830-481-8880	Phone #	(830	0) 905-2778
Email	brivalama@yahoo.com	- Email	gregjohnso	onpe@yahoo.com
All corresponden	ce should be sent to: Owner Agent	Both	Method: Mail	⊠ Email
Subdivision Nam	ne CANYON LAKE FOREST Unit/Ph	ase/Section 1	Lot 83	Block
Acreage/Legal				
Street Name/Add	dress 1562 HILLCREST FOREST	City C	ANYON LAKE	Zip 78133
Type of Develop	oment:			RECEIVED
Single Family	Residential			FEB 14 2019
Type of Co	onstruction (House, Mobile, RV, Etc.)	HOUSE		
Number of	f Bedrooms 3			COUNTY ENGINEER
Indicate S	q Ft of Living Area1300			
(Planning mate Type of Fa Offices, Fa Restauran Hotel, Mot	actories, Churches, Schools, Parks, Etc Indicate, Lounges, Theaters - Indicate Number of Stel, Hospital, Nursing Home - Indicate Number aller/RV Parks - Indicate Number of Spaces	icate Number Of O	ccupants	
Estimated Cost	of Construction: \$185,000 (Struct	ture Only)		
	f the proposed OSSF located in the United State (if yes, owner must provide approval from USACE for			
	Public Private Well			
Are Water Savin	g Devices Being Utilized Within the Residence	e? 🛛 Yes 🗌 N	0	
 the completed app Authorization is he site/soil evaluation l also understand the by the Comal Court 	ication, I certify that: dication and all additional information submitted does not be reby given to the permitting authority and designated agon and inspection of private sewage facilities. That a permit of authorization to construct will not be issuinty Flood Damage Prevention Order. The ent to the online posting/public release of my e-mail additional actions.	gents to enter upon the a	above described propert Administrator has performatic permit application, as	ty for the purpose of med the reviews required
Signature of Owns	FIT	Date		Page I of 2

#18765

* * * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH *

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

REVISED9:04 am, Mar 08, 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-PC Absorption/Application Area (Sq Ft)
Gallons Per Day (As Per TCEQ Table III)240 (Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ)
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 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 ORGANIC GISTER 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 February 14, 2019
Signature of Designer Date Page 2 of 2

AFFIDAVIT

201706047962 10/27/2017 12:50:30 PM 1/1

THE COUNTY OF COMAL STATE OF TEXAS

CERTIFICATION OF OSS	F REQUIRING N	IAINTENANCE	
According to Texas Commission on Environm (OSSF's), this document is filed in the Deed F	Records of Coma	County, Texas.	00-
The Texas Health and Safety Code, Chapter Environmental Quality (TCEQ) to regulate the Texas Water Code (TWC), § 5.012 and § for implementing the laws of the State of Texas Two out its powers and duties under the TW TWC and the Texas Health and Safety code, certain types of OSSFs are located on specif commission requires a recorded affidavit. Ad recording to the OSSF permitting authority. warranty by the commission of the suitability by the commission that the appropriate OSSI	cas relating to way. C. The commiss requires owner, ic pieces of propertionally, the overthis recorded after of this OSSF, n	iter and adopting rules necestion, under the authority of the to provide notice to the publicity. To achieve this notice, wher must provide proof of the idavit is not a representation	county Engineer sibility ssary to the blic that the the the the the the the the the th
	II		TARID
An OSSF requiring a maintenance contract, a §285.91(12) will be installed on the property	according to 30		FEB 1 4 2019
1 DNITT HASE/SECTION BLOCK	B3LOT	CANYON LAKE FOREST	COUNTRACTOR
IF NOT IN SUBDIVISION:ACREAGE _			SURVEY
The property is owned by (insert owner's fu	ll name):	BGRM, LP	
This OSSF must be covered by a continuou the initial two-year service policy, the owner residence shall either obtain a maintenance personally. Upon sale or transfer of the above-described transferred to the buyer or new owner. A coobtained from the Comal County Engineer's WITNESS BY HAND(S) ON THIS Owner(s) signature(s) SWO October ,20 17 Notary Public Signature GREG W. JOHNSON Notary Public, State of Texas My Commission Expires May 17, 2018 (Notary Seal Here)	of an aerobic trecontract within: d property, the popy of the planni Office. AY OF	eatment system for a single fa 30 days or maintain the system ermit for the OSSF shall be and materials for the OSSF ca	amily em an be N THIS 22 DAY OF POSES ONLY
		Manage 1-40	

J.R. Johnson 14-27-77

15188 FM 306 Canyon Lake, TX 78133 Phone (830)964-2365 Fax (830) 964-2659 RECEIVED

FEB 1 4 2019



Routine Maintenance and Inspection Agreement

General

This Work for Hire Agreement (hereinafter referred to as this "Agreement") is entered into by and between BGRM. LP (referred to as "Client") and Aerobic Services of South Texas (Thomas W. Hampton MP 349) (hereinafter referred to as "Contractor") located at 15188 FM 306, Texas 78133 (830) 964-2365. By this Agreement the Contractor agrees to render professional service, as described herein, and the Client agrees to fulfill the terms of this Agreement as described herein.

This contract will provide for all required inspections, testing and service for your Aerobic Treatment System. The policy will include the following:

- 1. 3 inspections a year/services calls (at least one every 4 months), for a total of 6 over the two year period including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting control panel, air pumps, air filters, diffuser operation, Any alarm situation affecting the proper function of the Aerobic process will be address within a 48-hour time Frame. Repair work on non-warranty parts will include price for parts & labor. The prices will be quoted before work is performed.
- 2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
- 3. If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- 4. The customer is responsible for the chlorine tablets; they must be filled before or during the service visit.
- 5. Any additional visits, inspections or sample collection required by specific Municipalities, Water/River Authorities, and County Agencies the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy.

The Homeowners Manual must be strictly followed or warranties are subject to invalidation. Pumping of sludge build-up is not covered by this policy and will result in additional charges.

ACCESS BY CONTRACTOR

The Contractor or anyone authorized by the Contractor may enter the property at reasonable times without prior notice for the purpose of the above described Services. The contractor may access the System components including the tanks by means of excavation for the purpose of evaluations if necessary. Soil is to be replaced with the excavated material as best as possible.

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Termination of Agreement

Either party may terminate this agreement within ten days written notice in the event of substantial failure to perform in accordance with its terms by the other party without fault of the terminating party. If this Agreement will immediately notify the appropriate health authority of the ECEINED termination.

Limit of Liability

FEB 1 4 2019

In no event shall the Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall the Contractor's liability for direct damages exceed the photo ENGINEER for the services described in this Agreement.

Dispute Resolution

If a dispute between the Client and the Designer arises that cannot be settled in good faith negotiations then the parties shall choose a mutually acceptable arbitrator and shall share the cost of the arbitration services equally.

Entire Agreement

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

Severability

If any provision of this Agreement 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 this 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.

Legal Description: CANYON LAKE FOREST, UN	NIT 1, LOT 83
Property Address: 1562 HILLCREST FOREST	
HOME OWNER	SERVICE PROVIDER
Name 20540 HWY 46W, SUITE 115-139 Address SPRING BRANCH, TX 78070 City, State 830-481-8880 Phanc Pignature of Home Owner EFFECTIVE DATE EX	Acrobic Services of South Texas Inc. Name 15188 FM 306 Address Canyon Lake, Texas 78133 City. State (8301 964 - 2365 Phone OS0024597/MP349 Thomas Hampton Signature of Service Provider and License #
Model #	Blower/Panel Serial #

The effective date of this initial maintenance contract shall be the date license to operate is issued.

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed:	October 16, 2017	
Site Location:	CANYON LAKE FOREST, UNIT 1, LOT 83	
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 RECE	N/ED
10"	Ш	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 10"	BROWN 14	2019

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	SAME		AS		ABOVE	
2						
3						
4						
5						

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

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

10/16/17 Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: October 17, 2017					
Applicant Information:	Site Evaluator Information:				
Name: BGRM, LP.	Name: Greg W. Johnson, P.E., R.S, S.E. 11561				
Address: 20540 HWY 46 W. SUITE 115-139	Address: 170 Hollow Oak				
City: SPRING BRANCH State: TEXAS	City: New Braunfels State: Texas				
Zip Code: 78070 Phone: (830) 481-8880	Zip Code: <u>78132</u>	Phone & Fax (830)	905-2778		
Property Location: Lot 83 Unit 1 Blk Subd. CANYON LAKE FOR Street Address: 1562 HILLCREST FOREST CANYON LAKE 78133	Company:				
City: CANYON LAKE Zip Code: 78133 Additional Info.:		. Sto	to:		
Additional fillo	Zip Code:	Sta			
Topography: Slope within proposed disposal area:Presence of 100 yr. Flood Zone: Existing or proposed water well in nearby area. Presence of adjacent ponds, streams, water impoundments Presence of upper water shed Organized sewage service available to lot	YESNO_X YESNO_X YESNO_X YESNO_X YESNO_X YESNO_X	- -	RECEIVED FEB 1 4 2019		

COUNTY ENGINEER

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 27, 2012).

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

10/17/17



FIRM #2585



DRIP TUBING SYSTEM

DESIGNED FOR: BGRM, LP 20540 HWY 46 W, SUITE 115-139 SPRING BRANCH, TX 78070

SITE DESCRIPTION:

Located in Canyon Lake Forest, Unit 1, Lot 83, at 1562 Hillcrest Forest, this septic will serve a three bedroom residence (1300 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 1896 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 continously flush the system by cycling a 1" ball valve. Solids caught in the disc 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.

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 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 1896 sf.).

Total linear feet drip tubing: 948' Netifim Bioline drip tubing .61 GPH

Pump requirement: 474 emitters @ 0.61 gph @ 30 psi = 4.819 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

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

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

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

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

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

MSV = 5.4 GPM

Greg W. Johnson, P.E.

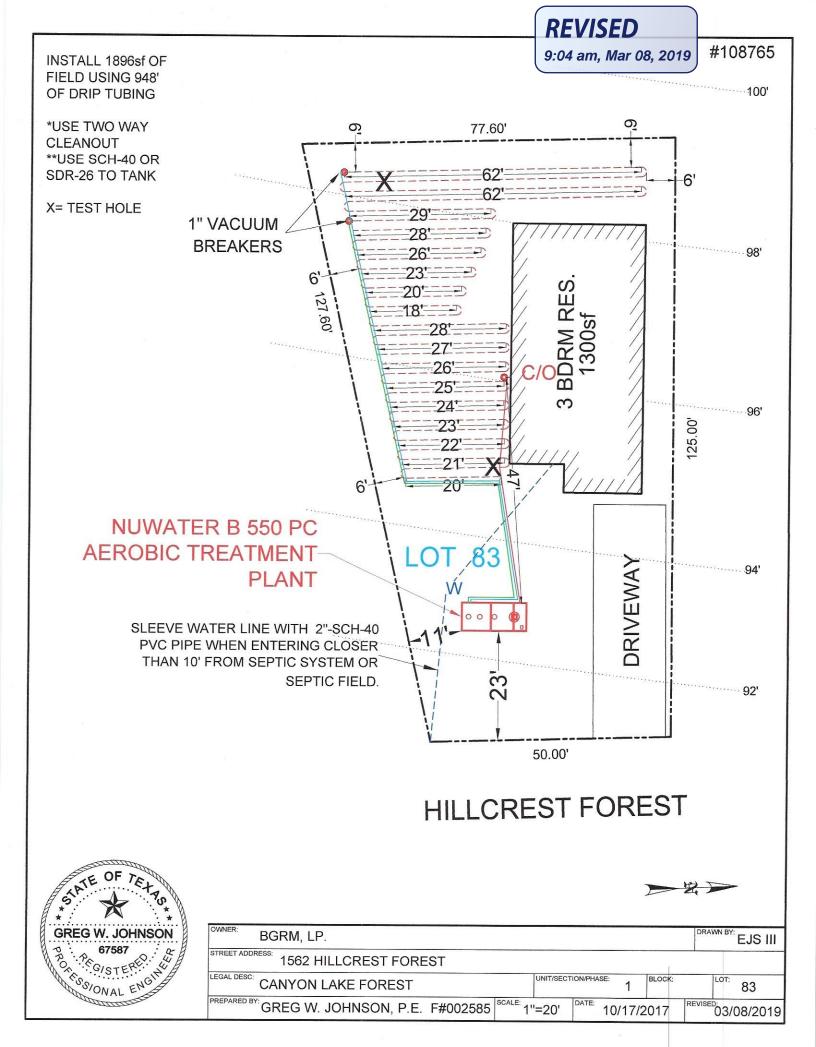
No. 67587, F#2585

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.

FEB 1 4 2019

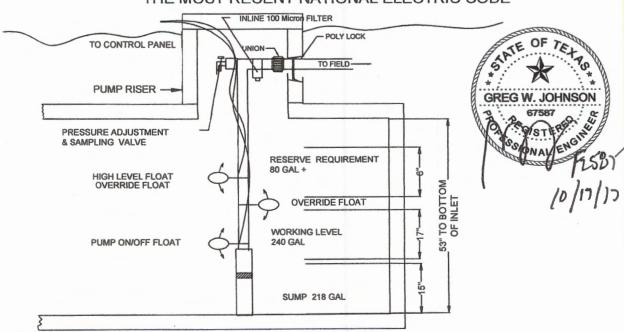
RECEIVED

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

COUNTY ENGINEER

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

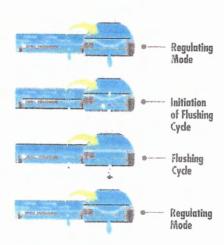
ALL WIRING MUST BE IN COMPLIANCE WITH THE MOST RECENT NATIONAL ELECTRIC CODE



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

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-deaning during operation, not just at the beginning and end of a cycle. The result is dependable, dog free operation, year after year.



Product Advantages

The Proven 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
- * 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 Vinvzene to prevent buildup of microbial slime.
 - Unique self-flushing mechanism passes small particles before they can build up.

Cross Section of Bioline Dripperline



- A physical barrier on each BioLine dripper helps prevent root intrusion.
- Protection never wears out never depletes releases nothing to the
- Working reliably for up to 15 years in subsurface wastewater installations.
- Additional security of chemical root inhibition with Techfilter supplies Influralin 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 RECEIVED irrigation water. FEB 1 4 2019

Specifications

Wall thickness (mil): 45*

COUNTY ENGINEER

Nominal flow rates (GPH): .4, .6, .9 Common spacings: 12", 18", 24"*

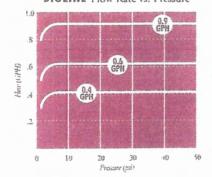
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable

"Additional flows, spacings, and pipe sizes available by request. Please contact Netafim USA Customer Service for details.

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

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

Inlet/outlet diameter	1" BSPT (male) 25.0 mm – nominal diameter	1" NPT (male)	
	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	
pH	5-11	5-11	





Filtration Grades

Blue (400 micron / 40 mesh)

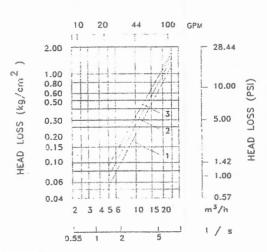
Yellow (200 micron / 80 mesh)

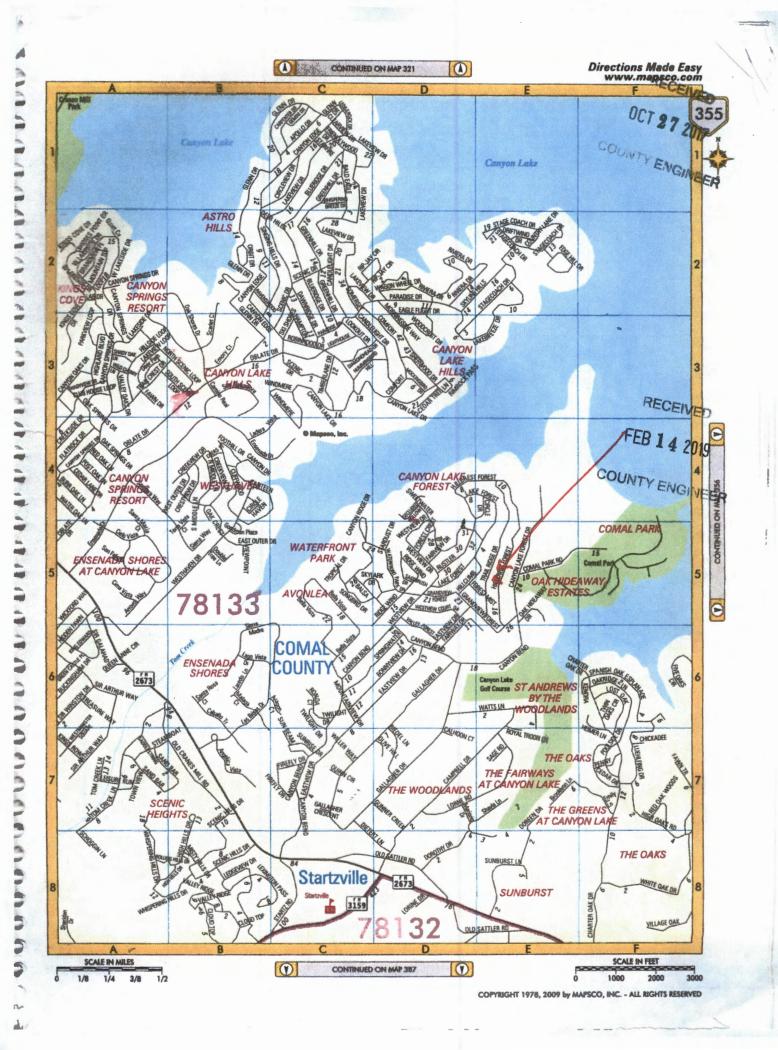
Red (130 micron / 120 mesh)

Black (100 micron /140 mesh)

Green (55 micron)

Head Loss Chart





SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

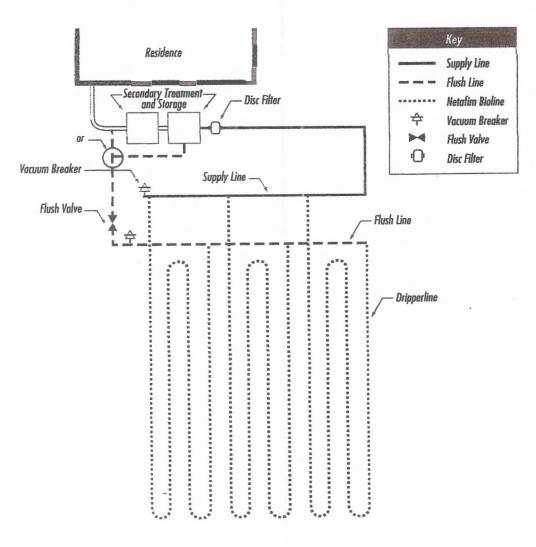
Rectangular field with supply and flush manifold on same side and in same trench;

RECEIVED

- · Locate supply and flush manifold in same trench
- · Dripperlines are looped at the end opposite the supply and flush manifolds

FEB 1 4 2019

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 COUNTY ENGINEER.





20540 HWY 46 W, SUITE 115-139 SPRING BRANCH, TX 78070 RECEIVED
FEB 1 4 2019
COUNTY ENGINEER

SITE DESCRIPTION:

Located in Canyon Lake Forest, Unit 1, Lot 83, at 1562 Hillcrest Forest, this septic will serve a three bedroom residence (1300 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 gight times per day with a ten minute run time. A d the pump fail. Distribution is high level audible and visual alarm will en through a 1" SCH-40 manifold to through a self flushing 100 micron Arka a 2000 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 periodically flush the system by cycling a 1" ball valve. Solids caught in the spin 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.

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 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 2000 sf.).

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

APPLICATION ON-SIT VOID

UTHORIZATION TO CONSTRUCT AN Y AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Comple	eted By GREG W. JOHNSON, P.E.	
System Description PROPRIETARY;	AEROBIC TREATMENT AND DRIP TUBING	
Size of Septic System Required Based on Planning Materi	ials & Soil Evaluation	
Tank Size(s) (Gallons) NUWATER B-550-PC	Absorption/Application Area (Sq Ft)	2000
Gallons Per Day (As Per TCEQ Table III) 240 (Sites generating more than 5000 gallons per day are required to	to obtain a permit through TCEQ)	
Is the property located over the Edwards Recharge Zone?	P ☐ Yes ☒ No	RECEIVED
(If yes, the planning materials must be completed by a Registere	ed Sanitarian (R.S.) or Professional Engineer (P.E.))	FEB 1 4 2019
Is there an existing TCEQ approved WPAP for the propert (if yes, the R. S. or P. E. shall certify that the OSSF design complete)		COUNTY ENGINEER
If there is no existing WPAP, does the proposed (If yes, the R.S. or P. E. shall certify that the OSSF design of the proposed OSSF until the proposed	provisions of the proposed WPAP. A Perproved by the appropriate regional office.	rmit to Construct will
Is the property located over the Edwards Contributing Zon	ne? 🛛 Yes 🔲 No	
Is there an existing TCEQ approval CZP for the property? (if yes, the P.E. or R.S. shall certify that the OSSF design compli		
If there is no existing CZP, does the proposed developme (if yes, the P.E. or R.S. shall certify that the OSSF design will connot be issued for the proposed OSSF until the CZP has been	mply with all provisions of the proposed CZP. A Permit	
Is this property within an incorporated city?	es No	
If yes, indicate the city:	GREG W. JOHNSON 67587 67	#2585
By signing this application, I certify that: - The information provided above is true and correct to the best of - I affirmatively consent to the online posting/public release of my e		s applicable
	_ February 14, 2019	

Page 2 of 2

Date



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

FEB 1 4 2019

COUNTY ENGINEER

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS IN DRIP TUBING W/ NOM. DIA. 0.55" ID

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

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

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

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

MSV = 2(3.14159)(1.04)

WOID4

*60

MSV = 5.4 GPM

17/12

Gleg W. Johnson, P.E. No. 67587, F#2585

170 Hollow Oak

New Braunfels, Texas 78132

830/905-2778



INSTALL 2000sf OF FIELD USING 1000' OF DRIP TUBING

*USE TWO WAY CLEANOUT **USE SCH-40 OR SDR-26 TO TANK

X= TEST HOLE

VOID

77.60 1" VACUUM BREAKERS RECEIVED =30'= -29'--28 FEB 1 4 2019 -26 COUNTY ENGINEER NUWATER B 550 PC **AEROBIC TREATMENT PLANT** 125.00' -20'-=20'==== _20'___ -12-DRIVEWAY SLEEVE WATER LIN PVC PIPE WHEN E THAN 10' FROM S 50.00

HILLCREST FOREST



一里

OWNER: BGRM, LP.		DRAWN BY: EJS III
STREET ADDRESS: 1562 HILLCREST FOREST		
LEGAL DESC: CANYON LAKE FOREST	UNIT/SECTION/PHASE: 1 BLOCK:	LOT: 83
PREPARED BY: GREG W. JOHNSON, P.E. F#002585 SCALE: 1"=	=30' DATE: 10/17/2017	REVISED:

FILED BY ATC SPRING BRANCH

GF#4000131700509

Notice of confidentiality rights: If you are a natural person, you may remove or strike any or all of the following information from any instrument that transfers an interest in real property before it is filed for record in the public records: your Social Security number or your driver's license number.

WARRANTY DEED WITH VENDOR'S LIEN

STATE OF TEXAS

S

Ş

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

RECEIVED

FEB 1 4 2010

Executed on date of acknowledgement to be Effective on: July 17, 2017

COUNTY ENGINEE

Grantor:

CARLOS ANDRES CHAVIRA

Grantor's Mailing Address (including county): 21720 Hardy Oak blva

San Antonio TX 78258 Bexar County

Grantee:

BGRM, LP

Grantee's Mailing Address: 20540 Hwy 46, Ste. 115, PMB 139, Spring Branch, Comal County, Texas 78070

Consideration: Cash and the further consideration of the execution and delivery by the said Grantee of one certain promissory note of even date herewith in the principal sum of TWENTY-ONE THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$21,500.00), payable to the order of Grantor, bearing interest and being payable as therein provided; said note providing for acceleration of maturity in the event of default and for attorney's fees; the payment of which note is secured by the vendor's lien herein retained, and is additionally secured by a Deed of Trust of even date herewith to KRISTEN QUINNEY PORTER, Trustee.

Property (including any improvements): Lots 81, 82 and 83, Canyon Lake Forest, Unit No. 1, Comal County, Texas, according to plat thereof recorded in Volume 1, Pages 53-54, Deed and Plat Records of Comal County, Texas.

Reservations from Conveyance: None.

Exceptions to Conveyance and Warranty: All presently recorded restrictions, reservations, easements, covenants and conditions that affect the property and taxes for the current year, the payment of which Grantee 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.

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this deed will become absolute.

When the context requires, singular nouns and pronouns include the plural. RECEIVED CARLOS ANDRES CHAVIRA COUNTY ENGINEER THE STATE OF TEXAS COUNTY OF This instrument was acknowledged before me on this the 2017, by CARLOS ANDRES CHAVIRA. VELDA J. BROWN Notary Public STATE OF TEXAS nm. Exp. 04/14/2020 NOTARY PUBLIC, STATE OF TEXAS Notary's Name Printed: My Commission Expires: PREPARED IN THE LAW OFFICE OF: AFTER RECORDING RETURN TO:

AFTER RECORDING RETURN TO ALAMO TITLE COMPANY GF No. 4000131700509 PREPARED IN THE LAW OFFICE OF: KRISTEN QUINNEY PORTER, LLC P.O. Box 312643 New Braunfels, Texas 78131-2643

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
07/25/2017 08:23:58 AM
TERRI 2 Pages(s)
201706034760



Aerobic Services of South Texas 15188 FM 306

Canyon Lake, TX 78133





Phone: (830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com Permit #: 108765

Printed: 6/25/2019

To: BGRM LP 20540 HWY 46 W Suite 115-139 Spring Branch, TX 78070

Site: 1562 Hillcrest Forest, Spring Branch

Agency: Comal County Environmental Health

County: Comal

Subdivision: Canyon Lake Forest

W. LED

Tech: Not Assigned
Brand/Mfg.: Nuwater B 550 PC System S/N:

Aerator and S/N:

Phone: (830) 481-8880

Cell:

Work:

Contract: 3/19/2019 - 3/19/2021

Inspections per year: 3

Service Due: 7/19/2019

Alt Phone:

Inspection Type:

Item Aerator: Irrigation pump: Air compressor:	Operational	Inoperative ————	N/A 	Air Pressure <u>fac</u>
Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Controls/ Electric Circuits				
Test Results and observation Chlorine Residual: Test Method: BOD: TSS: Access Ports Secured Repairs made: YES				Mixed Liquior Aeration Sludge Levels Clarifier Pump
Repairs and Comments:	laned of	lie filt	la p	Ball Wagard Line
Inspector: Jalent Tom Hampton VP	la .	Date: 8	7-1-19	

Area: /0

GPS:

ID = 61115132

1562 Hillcrest Forest, Spring Branch

RECEIVED

AUG 1 2 2019

COUNTY ENGINEER







Phone: (830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com

> Printed:8/15/2019 Site: 1562 Hillcrest Forest Canyon Lake, TX 78133 (210) 815-6732

To: Greg Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Permit #: 108765

County: Comal

Customer ID: 61115132

Agency: Comal County Environmental Health Comal County Environmental Health Comal C Contract Dates: 3/19/2019 - 3/19/2021

Sub: Canyon Lake Forest

Entered By: Lisa Bybee

Scheduled Date: 11/19/2019

Mfg / Brand: - Nuwater B 550 PC

Treatment Type: Aerobic

Disposal: Drip Emitters

ACTIVE

Service Type: Repair

Visit Date: 8/14/2019

Method: Grab Technician: Dakota

Maint. Provider: Hampton, Thomas

Aerators: Operational Filters: Operational Irrigation Pumps: Operational Disinfection Device: Operational

Tank Lid / Riser: Secured

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

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location.

Driop filter was clogged Cleaned filter, system pumping down may need pumping of pump tank

✓ Service Completed

Insp ID #:116814

Provider: Thomas Hampton

License #: MP0000349

Expires: 9/30/2020

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AUG 2 0 2019

COUNTY ENGINEER





Printed: 9/24/2019



Phone: (830) 964-2365 Fax: (830) 964-2669 www.aerobicservices.com Permit #: 108765

To: Greg Garcla 1562 Hillcrest Forest Canyon Lake, TX 78133 Tech; Not Assigned
Brand/Mig.: Nuwater B 550 PC System S/N:

System \$/N: Aerator and S/N:

Contract: 3/19/2019 - 3/19/2021

Inspections per year; 3

Service Due: 11/19/2019 All Phone:

Site: 1582 Hillcrest Forest, Canyon Lake Agency: Comal County Environmental Health

County: Comal

Phone:	(210)	815-6732
Cell:		
Work-		

Subdivision: Canyon Lake Forest Work;

Inspection Type:						
Item	Operational	Inoperative	N/A			
Aerator:				Air	Pressur	e
Irrigation pump:						
Air compressor:						
Disinfection device:						
Chlorine supply:						
Spray field vegetation:						
Sprinkler / Drip backwash:						
Controls/ Electric Circuits						
Test Results and observation	ns: (As Required)			Mixed	Liquior	
Chlorine Residual:				Aerati		
Test Method:				Sludge I		
BOD:				Clarific		
TSS:				Pump		
Access Ports Secured YES	/ NO					
Repairs made: YES / NO						
Repairs and Comments:	11 4			. 1 .	4	1
	Uhable To	ser vice		nepul)	to u	prode
T2 4	cull first	Contract.				17
Inspector:	2m	Date: /	-3-19			

Tom Hampton VP MP349/OS24597 Area: / 0

1562 Hillcrest Forest, Canyon Lake

ID = 61115132

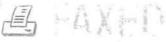
GPS:

Dog chained up over system. could not inspect. Left note 12-10-19 1-2-20

Dogs Chaland Direc Oxlan

Site: 1562 Hillcrest Forest, Canyon Lake

Agency: Comal County Environmental Health





Printed: 9/24/2019

County: Comal



Phone: (830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com

Permit #: 108765

To: Greg Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Tech: Not Assigned Brand/Mfg.: Nuwater B 550 PC -

System S/N: Aerator and S/N:

Contract: 3/19/2019 - 3/19/2021

Inspections per year: 3 Service Due: 11/19/2019

Phone: (210) 815-6732 Cell:

Alt Phone:

Subdivision: Canyon Lake Forest Work: Inspection Type: Operational Inoperative Item N/A Aerator: Air Pressure Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Controls/ Electric Circuits Test Results and observations: (As Required) Mixed Liquior Chlorine Residual: Aeration Test Method: Sludge Levels BOD: Clarifier Pump TSS:

Access Ports Secured YES / NO Repairs made: YES / NO

Repairs and Comments:

Inspector: Tom Hampton VP MP349/OS24597

Area: /0

GPS:

ID = 61115132

1562 Hillcrest Forest, Canyon Lake

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JAN 1 3 2020

COUNTY ENGINEER

199 chained up over System. Could not inspect. Left note 12-10-19

OM

095 Chained Over system







(830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com

Permit #: 108765

To: Greg Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

> Site: 1562 Hillcrest Forest, Canyon Lake Agency: Comal County Environmental Health

County: Comal

Subdivision: Canyon Lake Forest

Tech: Not Assigned
Brand/Mfg.: Nuwater B 550 PC System S/N:

Aerator and S/N:

Contract: 3/19/2019 - 3/19/2021 Inspections per year: 3

Phone: (210) 815-6732 Service Due: 3/19/2020 Cell: (956) 271-7702 Alt Phone:

Mork:

Installed:

Warranty Ending:

- 1	1 . 1		VVOIK.	riditally Eliang.
Inspection Type: School	Wed	_		
Item Aerator: Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Controls/ Electric Circuits	Operational	Inoperative	N/A	Air Pressure
Test Results and observation Chlorine Residual: Test Method: BOD: TSS: Access Ports Secured YES Repairs made: YES NO	DOR	o G. 1 tel		Mixed Liquior Aeration Sludge Levels Clarifier Pump 3

someone is always home KNOCK

Tom Hampton VP MP349/OS24597

inspector:

Area: / 0 GPS:

ID = 61115132

Printed: 3/31/2020





Phone: (830) 964-2365 Fax: (830) 964-2659

www.aerobicservices.com

Printed:4/21/2020 Site: 1562 Hillcrest Forest Canyon Lake, TX 78133

(210) 815-6732

To: Greg Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Permit #: 108765

Agency: Comal County Environmental Health Comal County Environmental Health Comal C Contract Dates: 3/19/2019 - 3/19/2021

County: Comal

Sub: Canyon Lake Forest

Mfg / Brand: - Nuwater B 550 PC

Treatment Type: Aerobic Disposal: Drip Emitters

Service Type: Repair

Visit Date: 4/20/2020

Method: Grab

Technician: Seth McDonald Maint. Provider: Hampton, Thomas

> Aerators: Operational Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational

Tank Lid / Riser: Secured

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

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location.

- Float stuck or pump air locked. Pumped below alarm, and still pumping down.

- Needs pump out. 14" in pump tank.

Insp ID #:121918

✓ Service Completed

Provider: Thomas Hampton

License #: MP0000349

Expires: 9/30/2020

Entered By: Belinda

Customer ID: 61115132

Scheduled Date: 7/19/2020

Site: 1562 Hillcrest Forest, Canyon Lake

Agency: Comal County Environmental Health



Printed: 7/8/2020

Phone: (830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com Permit #: 108765

To: Greg & Mirim Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Tech: Not Assigned Brand/Mfg.: Nuwater B 550 PC -

System S/N: Aerator and S/N:

Contract: 3/19/2019 - 3/19/2021

Inspections per year: 3 Service Due: 7/19/2020

Phone: (210) 815-6732

County: Comal Subdivision: Canyon Lake Forest	, , , /		Cell: (956) 27 Work:	1-7702 Alt Phone:	(1
Inspection Type:	heaville				
Item Aerator: Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Controls/ Electric Circuits	Operational	Inoperative	N/A	Air Pressure 74	
Test Results and observations Chlorine Residual: Test Method: BOD: TSS: Access Ports Secured YES Repairs made: YES/NO	-N/A			Mixed Liquior Aeration Sludge Levels Clarifier Pump	
Repairs and Comments:	Teaned	drip 7	Silter.	Backwashel	
Inspector: Figure 1. Tom Hampton VP MP349/OS24597	drip		8/11/20		
someone is always home k	KNOCK		Area: /0 GPS:	ID = 61115132	







Printed: 9/22/2020

Phone: (830) 964-2365 Fax: (830) 964-2659 www.aerobicservices.com Permit #: 108765

To: Greg & Mirim Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Tech: Not Assigned Brand/Mfg.: Nuwater B 550 PC -

System S/N: Aerator and S/N:

21

Site: 1562 Hillcrest Forest, 6 Agency: Comal County Environ County: Comal Subdivision: Canyon Lake Forest,	•		Phone: (210) 815-673 Cell: (956) 271-770 Work:	
Inspection Type: Sheat	led		WOIK.	
Item Aerator: Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Controls/ Electric Circuits	Operational	Inoperative	N/A	Air Pressure
Test Results and observation Chlorine Residual: Test Method: BOD: TSS: Access Ports Secured YES Repairs made: YES NO	Bep		2	Mixed Liquior Aeration Sludge Levels Clarifier Pump
Repairs and Comments:	Yund .	dist for	Her	
Inspector:Tom Hampton VP MP349/OS24597	'n	Date: _/	1/18/20	

someone is always home KNOCK

Area: /0

GPS:

ID = 61115132







Phone: (830) 964-2365 Fax: (830) 964-2659

www.aerobicservices.com

Printed:5/19/2020 Site: 1562 Hillcrest Forest Canyon Lake, TX 78133

(210) 815-6732

To: Greg & Mirim Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

Permit #: 108765

Agency: Comal County Environmental Health Comal County Environmental Health Comal C

County: Comal

Sub: Canyon Lake Forest Mfg / Brand: - Nuwater B 550 PC

Treatment Type: Aerobic

Disposal: Drip Emitters

Service Type: Repair

Visit Date: 5/18/2020

Method: Grab Technician: Dakota

Maint. Provider: Hampton, Thomas

Aerators: Operational

Filters: Operational Irrigation Pumps: Operational Disinfection Device: Operational

Tank Lid / Riser: Secured

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

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location.

- Replaced bad pump float

Customer ID: 61115132

Contract Dates: 3/19/2019 - 3/19/2021

Scheduled Date: 7/19/2020

Entered By: Belinda

RECEIVED

JUN 02 2020

COUNTY ENGINEER

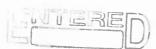
✓ Service Completed

Insp ID #:122494

Provider: Themes Hampton

License #: MP0000349

Expires: 9/30/2020





Printed: 12/17/2020

To: Greg & Mirim Garcia 1562 Hillcrest Forest

Canyon Lake, TX 78133

Site: 1562 Hillcrest Forest, Canyon Lake Agency: Comal County Environmental Health County: Comal

Subdivision: Canyon Lake Forest

MA	IL	Jech:
MA	IL	Jech:

www.aerobicservices.com Permit #: 108765 Not Assigned

Nuwater B 550 PC -

System S/N: Aerator and S/N:

Phone: (210) 815-6732

Contract: 3/19/2019 - 3/19/2021

Phone: (830) 964-2365 Fax: (830) 964-2659

Inspections per year: 3

Service Due: 3/19/2021

Cell: (956) 271-7702

Work:

Jt	Phone:		

Inspection Type: Operational N/A Item Inoperative Air Pressure 58 Aerator:

Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash:

Controls/ Electric Circuits

Test Results and observations: (As Required)

Chlorine Residual: Test Method:

BOD: TSS:

Access Ports Secured (KES) NO Repairs made: YES / NO

Mixed Liquior Aeration

Sludge Levels

Clarifier Pump

Repairs and Comments:

Date: 4-6 - 21 Inspector: Tom Hampton VP

MP349/OS24597 someone is always home KNOCK

Area: /0 GPS:

ID = 61115132

ROUTINE MAINTENANCE AND INSPECTION AGREEMENT



Greg & Miriam Garcia 1562 Hillcrest Forest Canyon Lake, TX 78133

P: (210) 815-6732

COUNTY: Comal

PERMIT: 108765 AGREEMENT LENGTH: 12 mos.

DESCRIPTION	TERM	AMOUNT	TAX	TOTAL
Residential Service Contract	06/30/23 - '24	370.00		370.00

GENERAL

This Work for Hire Agreement (hereinafter referred to as this "Agreement") is entered into by and between the client named above (referred to as to "Client") and Aerobic Services of South Texas (Thomas W. Hampton MP349) (hereinafter referred to as "Contractor") located at 15188 FM 306 Canyon Lake, Texas 78133. By this Agreement the Contractor agrees to render professional service, as described herein, and the Client agrees to fulfill the terms of this Agreement as described herein. This contract will provide for all required inspections, testing and service for your Aerobic Treatment System. The policy will include the following:

- 1. 3 inspections per year (1 every 4 months), for a total of 3 over the one year period including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting control panel, air pumps, air filters, diffuser operation. Any alarm situation affecting the proper function of the Aerobic process will be addressed within a 48-hour time frame. Repair work on non-warranty parts will include price for parts & labor. The prices will be quoted before work is performed.
- 2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and PH will be taken and reported as necessary.
- 3. If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- 4. The client is responsible for chlorine. Must be filled before or during the service visit.
- 5. Any additional visits, inspections or sample collection required by specific Municipalities, Water/River Authorities, County Agencies the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy.

The Homeowners Manual must be strictly followed or warranties are subject to invalidation. Pumping of sludge build-up is not covered by this policy and will result in additional charges.

ACCESS BY CONTRACTOR

The Contractor or anyone authorized by the Contractor may enter the property at reasonable times without prior notice for the purpose of the above described Services. The contractor may access the System components including the tanks by means of excavation for the purpose of evaluations if necessary. Soil is to be replaced with the excavated material as best as possible.

Termination of Agreement

Either party may terminate this agreement within ten days written notice in the event of substantial failure to perform in

accordance with its terms by the other party without fault of the terminating party. If this Agreement is so terminated, the Contractor will immediately notify the appropriate health authority of the termination.

Limit of Liability

In no event shall the Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall the Contractor's liability for direct damages exceed the price for the services described in this Agreement.

Dispute Resolution

If a dispute between the Client and the Contractor arises that cannot be settled in good faith negotiations then the parties shall choose a mutually acceptable arbitrator and shall share the cost of the arbitration services equally.

Entire Agreement

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

Severability

If any provision of this Agreement 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 this 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.

SERVICE PROVIDER

PLEASE REMIT

Aerobic Services of South Texas Inc. 15188 FM 306 Canyon Lake, Tx 78133

Signature

Customer Signature

370.00

Tom Hampton VP

License# OS0024597 / MP 349

***To pay online, proceed to the "Billing" section in your Customer Portal

IF MAILING YOUR PAYMENT: PLEASE RETURN THIS PORTION ALONG WITH YOUR PAYMENT
For Service at: 1562 Hillcrest Forest, Canyon Lake, TX 78133



Greg & Miriam Garcia

PERMIT: 108765

COUNTY: Comal

TERM: 06/30/23 - '24

AGREEMENT LENGTH: 12 mos.

PLEASE REMIT 370.00

Residential Service Contract

Signed on: Thursday, 06/08/2023



Canyon Lake: (830) 964-2365

Bastrop: (512) 303-6922
info@aerobicservices.com
bastrop@aerobicservices.com

MP349 / OS24597 www.aerobicservices.com

To:	Greg & Miriam Ga	ırcia	Tech:	Nyssa			
	1562 Hillcrest For	est	—— Phone:	(210) 815-673	32 Date	Date: 2023-11-01	
	Canyon Lake, TX	78133		(956) 271-770			
Agency:	Comal County En	viromental Health		(000) = 000	Due		
County:	Comal						
Permit No:	108765						
Inspection 7	Гуре:				_		
<u>Item</u>		Operational	Inoperative	<u>N/A</u>			
Aerator:		[X]	[]	[]	<u>Air</u>	Pressure: 60	
Irrigation p	ump:	[X]	[]	[]			
Air compre	ssor:	[X]	[]	[]			
Disinfection	n device:	[X]	[]	[]			
Chlorine su	ipply:	[X]	[]	[]			
Spray field	vegetation:	[X]	[]	[]			
Sprinkler / I	Drip backwash:	[X]	[]	[]			
Controls / E	Electric Circuits:	[X]	[]	[]			
Toot Dooult	e and Observation	o. (A o Boquirod)					
iesi nesuii	s and Observations	s. (As nequireu)		Mixed Lique	or		
Chlorine Residual:				Aeration:	48		
Test Method:	: Drip			Sludge Le	vels		
BOD:				Clarifier:	Fog		
TSS:				Pump:	0		
Access Port Secured:	ts Yes [X] /	NO [
Repairs Ma	de: Yes[]/NO	[X]					
Repairs and (Cleaned filter	Comments: r and backwashed sy	ystem					
Inspector:				Date	: 2023-11-0 1	l	
		Tom Hampton, VP			-		

MP349/OS24597

Inspector:



Canyon Lake: (830) 964-2365

Bastrop: (512) 303-6922
info@aerobicservices.com
bastrop@aerobicservices.com

MP349 / OS24597

www.aerobicservices.com Greg & Miriam Garcia Seth To: Tech: 1562 Hillcrest Forest Phone: (210) 815-6732 Date: 2024-04-04 Canyon Lake, TX 78133 Alt Ph: (956) 271-7702 Service Due: Comal County Environmental Health Agency: Comal County: 108765 Permit No: Scheduled Inspection Type: **Inoperative** N/A <u>Item</u> **Operational** Aerator: [X] [] [] Air Pressure: 58 **Irrigation Pump:** [X] [] [] Air Compressor: [X] [] [] Pump Screen: [X] [] [] **Chlorinator:** [] [] [X] **Spray Field Vegetation:** [X] [] [] [X] Filters: [] [] Sprinkler / Drip Backwash: [X] [] [] Controls / Electric Circuits: [X] [] [] **Test Results and Observations**: (As Required) Mixed Liquor Chlorine Residual: 36 Aeration: **Sludge Levels** Test Method: BOD: Clarifier: 24 TSS: 4 Pump: Tank Lids Secured: Yes [X] / NO [] Pump Out Needed: Yes [] / NO [X] Repairs Made Yes [] / NO [X] **Repairs and Comments:** Roots in aeration and pump tank. Recommend using copper sulfate as directed to stop roots in system.

Date: 2024-04-04

Tom Hampton, V MP349/OS2459

Repairs and Comments:

Inspector:



Canyon Lake: (830) 964-2365

Bastrop: (512) 303-6922
info@aerobicservices.com

bastrop@aerobicservices.com

MP349 / OS24597 www.aerobicservices.com

To: Greg & Miriam Gard				Tech:	Robert S	alinas
	1562 Hillcrest Forest			—— Phone:	(210) 815-6732	Date: 2024-07-18
	Canyon Lake, TX 78133				(956) 271-7702	
Agency:	Comal County Environmental Healt				(000) = 1110=	Due:
County:	Comal					
Permit No:	108765					
Inspection Typ	e:	Scheduled				
<u>Item</u>			<u>Operational</u>	<u>Inoperative</u>	Not Presen	nt
Aerator:			[X]	[]	[]	Air Pressure: 59
Irrigation Pump:			[X]	[]	[]	
Air Compressor:			[X]	[]	[]	
Pump Screen:			[X]	[]	[]	
Chlorinator:			[X]	[]	[]	
Spray Field Vegetation:			[X]	[]	[]	
Filters:			[X]	[]	[]	
Sprinkler / Drip Backwash:			[X]	[]	[]	
Controls / Electric Circuits:			[X]	[]	[]	
Test Results and Observations: (As Required)						
				Mixed Liquor	quor: all measurements in inches	
Chlorine Residua (ppm):	al 0.06				Aeration:	37
Test Method:	t Method: DPD				Sludge Le	vels
BOD:	BOD: N/a				Clarifier:	22
TSS:	N/a				Pump:	3
Tank Lids Secured: Yes [X] / NO [s [X] / NO []				
Pump Out Needed: Yes [] / NO [X		s [] / NO [X]				
Repairs Made	Yes	s [] / NO [X]				

Date: 2024-07-18

Tom Hampton, VP MP349/OS24597