

### License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date:

10/15/2019

Permit Number:

109437

Location Description:

7919 ELK DR

SPRING BRANCH, TX 78070

Subdivision:

Deer River

Unit:

2

Lot:

32

Block: Acreage:

Type of System:

Aerobic

Surface Irrigation

Issued to:

Gerald R. Zwernemann

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** 

VIRONMENTAL HEALTH INSPECTOR

ENVIRONMENTAL HEALTH COORDINATOR

Installer Name:   (LUI )	swye		OSSF Inst	aller #:	DO OF	Q d ba	20		-	1-1
1st Inspection Date: 08-	28-	2nd Inspection Da	te:		3/d	Inspection	Date:	10-15	-19	final
Inspector Name: CONNOY		Inspector Name:			/	Inspector		/ 1		/
Permit#:109437			Address:	7919	EIK	D			Dear	River
Description	Anwser	Citations	Address.	Note		2 San	1st	Insp.	2nd 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	J	285.91(10) 285.30(b)(4) 285.31(d)				200				
SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	/	. 285.32(a)(1)			1.5		~			
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)	1	285.32(a)(5)					-			
PRETREATMENT Installed (if required) TGEQ 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)(E) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C) 285.32(b)(1)(E) 285.32(b)(1)(A) 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 commercial		285.34(d)		-				3		

tanh set level no leaks Cover spray heads overlep - adjust spray heads find operationed 10-15-19-JC

Description	Anwser	Citations	SAME ROY	Notes		1st Insp.	2nd Insp.	ard 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)(II)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)(iii) 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 Landscare Plan is as Designed	1	285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)						
APPLICATION AREA Area Installed	/					/		
PUMP TANK Meets Minimum Reserve Capacity Requirements			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				-	
PUMP TANK Material Type & Manufacturer					: 2 			
PUMP TANK Type/Size of Pump Installed								No. 40 September 1

Installer Name: Paul S	awye	<u> </u>	OSSF In	staller #:	OS Q	\$ 262	138		
1st Inspection Date: 08-		2nd Inspection Da	te:						
Inspector Name: CNNOY	^	Inspector Name:_				Inspector	Name:		<u></u>
Permit#: <u>109437</u>	377 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NAME OF TRANSPORT OF THE PROPERTY OF THE PROPE	Address: _	7919	EIK	<u> Dr</u>	Laborer in a state of contract of contract		<u> Ziver</u>
No. Description SITE AND SOIL CONDITIONS &	Anwser	Citations 285.31(a)		Note	S		1st Insp.	2nd Insp.	3rd Insp.
SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		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)(i)							
SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	7	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)			•		<u> </u>		
SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)	<b>√</b>	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)(II) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(II)							
PRETREATMENT Grease Interceptors if required for commercial		285.34(d)					و		

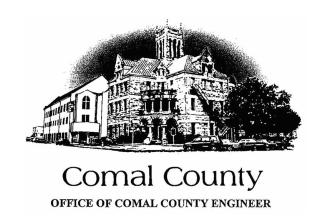
tank set level no leaks Cover sprey heads overlep - adjust

SEPTIC TANK Tank(s) Clearly   285.32(b)(1)(E)   285.32(b)(1)(E)   285.32(b)(1)(E)   285.32(b)(1)(E)   (1)(E)	I Insp. 3rd Insp.
Marked SEPTIC TANK If   285.91(2)   285.32(b)(1)(F)   285.32(b)(1)(E)(iii)   285.32(b)(1)(E)(iii)   285.32(b)(1)(E)(iii)   285.32(b)(1)(E)(iii)   285.32(b)(1)(E)(iii)   285.32(b)(1)(E)(ii)   285.3	
SingleTank, 2	
Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than	
Baffle SEPTIC TANK Inlet Flowline   285.32(b)(1)(E)(ii)(I)   285.32(b)(1)(E)(ii)(I)   285.32(b)(1)(E)(ii)	
Greater than 3" and " T " Provided on Inlet and Outlet	
3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements  285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(B) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(B) 285.32(b)(1)(E)(iv)  8  ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used  285.32(b)(1)(F) 285.32(b)(1)(G)	
Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements  285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(ii) 285.32(b)(1)(B) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)  8  ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used 285.32(b)(1)(F) 285.32(b)(1)(F) 285.32(b)(1)(G) 285.32(b)(G) 285.	
SEPTIC TANK Septic Tank(s) Meet   285.32(b)(1)(C)(ii)   285.32(b)(1)(C)(ii)   285.32(b)(1)(B)   285.32(b)(1)(B)   285.32(b)(1)(B)   285.32(b)(1)(E)(iv)	
Minimum Requirements   285.32(b)(1)(C)(i)   285.32(b)(1)(B)   285.32(b)(1)(A)   285.32(b)(1)(E)(iv)	
285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)  8  ALL TANKS installed on 4" Sand Cushion/ Proper Backfill Used  285.32(b)(1)(F) 285.32(b)(1)(G) 285.32(b)(1)(G) 285.32(b)(1)(G) 285.34(b)  SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" 285.38(d) Sealed and Capped	
285.32(b)(1)(A) 285.32(b)(1)(E)(iv)  8  ALL TANKS installed on 4" Sand Cushion/ Proper Backfill Used  285.32(b)(1)(F) 285.32(b)(1)(G) 285.32(b)(1)(G) 285.34(b)  SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" 285.38(d) Sealed and Capped	
285.32(b)(1)(E)(iv)  ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used  285.32(b)(1)(F) 285.32(b)(1)(G) 285.32(b)(1)(G) 285.34(b)  SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" 285.38(d) Sealed and Capped	
8  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)	2 12 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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  285.32(b)(1)(F) 285.32(b)(1)(F) 285.34(b)  285.34(b)	
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  285.32(b)(1)(F) 285.32(b)(1)(F) 285.34(b)  285.34(b)	
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  285.32(b)(1)(G) 285.34(b)  285.38(d)	# 12 min
SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped  285.34(b)  285.34(b)	6.
SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped 285.38(d)	
Out Port & Risers Provided on Tanks Buried Greater than 12" 285.38(d) Sealed and Capped	15 (A)
Tanks Buried Greater than 12" 285.38(d) Sealed and Capped	5 %
Sealed and Capped	2 2/
Sealed and Capped	
10	
SEPTIC TANK Secondary restraint	
system provided ( ) system	
SEPTIC TANK Riser permanently	
fastened to lid or cast into tank	
SEPTIC TANK Riser cap protected 285.38(d)	
against unauthorized intrusions 285.38(e)	
11	
SEPTIC TANK Tank Volume	
Installed	
PUMP TANK Volume Installed	
AEROBIC TREATMENT UNIT Size	
Installed	
14	
「大きなない。	
Manufacturer // // // // // // // // // // // // //	
AEROBIC TREATMENT UNIT	
Model / A h	
DISPOSAL SYSTEM Absorptive 285.33(a)(1)	
285.33(a)(2)	
285.33(a)(3)	
16	
205 22/2/(2)	
Chamber   285.33(a)(3)   285.33(a)(4)	
285.33(a)(2)	
DISPOSAL SYSTEM Evano-	
285.33(a)(4)	
285.33(a)(1)	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		285.33(d)(4)						
20	Substitution		203.33(4)(4)						
	DISPOSAL SYSTEM Pumped		285.33(a)(3)						
	Effluent		285.33(a)(1)			2.37943 775 - 780			
21			285.33(a)(2) 285.33(a)(3)						
	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(2)						
			285.33(a)(4)	• .					-
			285.33(a)(1)						
22	The second section is a second section of the second section of the second section is a second section of the second section of the second section is a second section of the	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	285.33(a)(3)	a a si da se secución a c			***	23.5-1-4 J	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	DISPOSAL SYSTEM Mound		285.33(a)(1)						
			285.33(a)(2)						
			285.33(a)(4)						
23						1000	100		
	DISPOSAL SYSTEM Other		285.33(d)(6)	_	1 -		,	ļ ·	
	(describe) (Approved Design)	1	285.33(c)(4)	aero	bie sp	recy			
24	COLUMN TO THE	. 7.1.288	RISSEL.	25 6 St. an Joseph William Co. A. a.		0	Ter over section	88334 aug	L. (2) 3, 24 ( - 2)
	DRAINFIELD Absorptive Drainline								
	3" PVC or 4" PVC								
25	DRAINFIELD Area Installed	* 4 1 4 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4							
26									
ĺ	DRAINFIELD Level to within 1 inch								
	per 25 feet and within 3 inches		285.33(b)(1)(A)(v)						
	over entire excavation							in.	
27	DRAINFIELD Excavation Width	1 2 2 3							
	DRAINFIELD Excavation Depth								
	DRAINFIELD Excavation								
	Separation DRAINFIELD Depth of								
	Porous Media								
	DRAINFIELD Type of Porous Media	19							
ļ									
28		70 33							
1	DRAINFIELD Pipe and Gravel		285.33(b)(1)(E)						
29	Geotextile Fabric in Place								
	DRAINFIELD Leaching Chambers						jai vi		
1	DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection								
	Port & Closed End Plates in Place		205 22/-1/21						
	(per manufacturers spec.)	* ,	285.33(c)(2)					<b>A</b>	
		radio di Santa Sala							
								2	
30	LOW PRESSURE DISPOSAL	7.1 - 13.34.15\$	140 Mile 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1000 / 0 - 2000 / 0 -		5 136e2611	·		10.88335
	SYSTEM Adequate Trench Length								
	& Width, and Adequate		30E 33/4//1/(0//:)						
	Separation Distance between		285.33(d)(1)(C)(i)						
	Trenches								
31		1					L	L	

No. De	scription	Anwser	Citations		Notes		1st Insp.	2nd Insp.	3rd Insp.
Only by Single Far EFFLUENT DISPOS Topographic Slop	SAL SYSTEM								
Adequate Length Linear ft. for 2 be & an additional 4			285.33(b)(3)(A) 285.33(b)(3)(A)						
additional bedroo EFFLUENT DISPOS Depth of 18 inche Separation of 1ft	om ) SAL SYSTEM Lateral es to 3 ft. & Vertical on bottom and 2 ft. to		285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)					-	
respectfully EFFLUENT DISPOS Drain Pipe (1.25 - ( 3/16 - 1/4" dia.	n and ground water  SAL SYSTEM Lateral  1.5" dia.) & Pipe Holes Hole Size ) 5 ft. Apart								
. 7: Y 10/75 PHY MET POS 90	TMENT UNIT IS stalled According uidelines.		285.32(c)(1)						
AEROBIC TREA Inspection/Clea Risers Provided AEROBIC TREA	an Out Port & J								
UNIT Riser per	BIC TREATMENT manently fastened								
cap protected	TMENT UNIT Riser against								
34 unauthorized i	11.00 S. A. C. C. S.					<u> </u>			
AEROBIC TREA Chlorinator Pro 35 Chlorine Table	operly Installed with	/							
	the Pump Tank an rete tank or other terials &	:							
construction PUMP TANK Sa	ampling Port	,-						-	
Line PUMP TANK C	e Treated Effluent heck Valve and/or					·			
Required	evice Present When udible and Visual							:	-
36 Separate Circu	arm Installed on lit From Pump Inspection/Clean Out	, .				-			
Port & Risers F PUMP TANK S	Provided econdary restraint								
fastened to lid	iser permanently or cast into tank			l					
1 1	iser cap protected norized intrusions								
	econdary restraint								
PUMP TANK E	lectrical Approved Junction	/							

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)(II)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)				
-	APPLICATION AREA Area installed	/					
43	PUMP TANK Meets Minimum Reserve Capacity Requirements				3		
44	PUMP TANK Material Type & Manufacturer				1. S	٠.	
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: 109437

Issued This Date: 07/30/2019

This permit is hereby given to: Gerald R. Zwernemann

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

7919 ELK DR

SPRING BRANCH, TX 78070

Subdivision: Deer River

Unit: 2

Lot: 32

Block:

Acreage:

#### APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic

Surface 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 Initials Permit Number Instructions: Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist must accompany the completed application. **OSSF Permit** Completed Application for Permit for Authorization to Construct 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 Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications. Required Permit Fee Copy of Recorded Deed ✓ Surface Application/Aerobic Treatment System Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public Signed Maintenance Contract with Effective Date as Issuance of License to Operate I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application. Signature of Applicant **COMPLETE APPLICATION INCOMPLETE APPLICATION**

Receipt No.

Check No.\_

Revised: January 2015

(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 7-16-19	9		Permit #
Owner Name	GERALD R. ZWERNEMANN	Agent Name	FRANK AGUIRRE
Mailing Address	c/o 23011 FM 306	Agent Address	16159 OLD STABLE ROAD
City, State, Zip	CANYON LAKE, TX 78133	City, State, Zip	SAN ANTONIO, TX 78247
Phone #	830-935-4936	Phone #	210-275-7866
Email _	katelyn@paulswoyerseptics.com	m Email	frankseptic45@gmail.com
All correspo	ondence should be sent to:  Owner	☐ Agent ⊠ Both	Method: Mail Email
Subdivision Name	DEER RIVER (PHASE 2)	Unit	Lot 32 Block
	ress 7919 ELK DRIVE	City SPF	RING BRANCH Zip 78070
Type of Developm			100000000000000000000000000000000000000
	y Residential		
Type of Const	truction (House, Mobile, RV, Etc.)	MOBILE	RECEIVED
Number of Be	drooms 4 www	/	MECEIVED
Indicate Sq Ft	of Living Area 1900	Y	JUL 1 9 2019
☐ Non-Single	Family Residential		COUNTY FAIGURE
	als must show adequate land area for doub	oling the required land needed fo	COUNTY ENGINEER or treatment units and disposal area)
Type of Facilit		, J	
	ries, Churches, Schools, Parks, Etc	Indicate Number Of Occupan	ts
	Lounges, Theaters - Indicate Number of		
	Hospital, Nursing Home - Indicate Num		
	RV Parks - Indicate Number of Spaces		
Miscellaneous			
Estimated Cost	of Construction: \$ \$ \$0,000.00	(Structure Only)	1
Is any portion of	the proposed OSSF located in the Uni	ited States Army Corps of En	gineers (USACE) flowage easement?
☐ Yes ⊠ N	(If yes, owner must provide approval from t	USACE for proposed OSSF improve	ments within the USACE flowage easement)
Source of Water	∇ Public  Private Well		
Are Water Saving	Devices Being Utilized Within the Resi	dence? X Yes No	
By signing this application of the completed applications.		nitted does not contain any false	information and does not conceal any material
- Authorization is her	reby given to the permitting authority and d and inspection of private sewage facilities.		the above described property for the purpose of
- I understand that a	permit of authorization to construct will not		dministrator has performed the reviews require
-	nty Flood Damage Prevention Order. ent to the online posting/public release of n	ny e-mail address associated wit	th this permit application, as applicable.
	yw K	7-16-19	
Signature of Ow	ner	7-16-19 Date	Page 1 of 2

#### \* \* \* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \* \* \* APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By	E
System Description ATU w/S PENY	a shadon littigarishmaradhay manan
	anniero manarero resistante en
Size of Septic System Required Based on Planning Materials & Soil Evaluation	12/1
Tank Size(s) (Gallons) Absorption/Application Area (Sq Ft)	64
Gallons Per Day (As Per TCEQ Table III)	
(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.))	RECEIVED
Is there an existing TCEQ approved WPAP for the property?   Yes No	JUL 1 9 2019
(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	OUNTY ENGINEER
(If yes, the R.S. or P.E. shall centify that the COSF design will comply with all providing or the proposed WPAP. A Permit to See issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)	onsuuct will not
Is the property located over the Edwards Contributing Zone? Yes No	-
A	
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?	1 No
(If yes, the R.S or P.E. shall certify that the OSSF design will comply mutuall provisions of the proposed CZP - Permit to Con-	
issued for the proposed OSSF until the SZP has been approved by the appropriate regional officer)	
Is this property within an incorporated city?   Yes   No	
If yes, indicate the city:	
By signing this application, I certify that:	And the first of the same of t
- The information provided above is true and correct to the best of my knowledge I affirmatively consent to the enline posting/public release of my e-mail address associated with this permit application, as app	licable.
19/11/19	
Signature of Designer Date	Page 2 of 2





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#### 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.

I

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.

	n of the suital	oility of	this OSSF	affidavit is not a representation of a nor does it constitute any guara l.	
		П			JUL 19 2019
				0 Texas Administrative Code (insert legal description):	COUNTY ENGINEE
UNIT/PHASE/SECTION	BLOCK	32	гот_	DEER RIVER (PHASE 2)	SUBDIVISION
IF NOT IN SUBDIVISION:	ACREA	GE			SURVEY
The property is owned by	(insert owner	's full r	name):	GERALD R. ZWERNEMANN	1
residence shall either obta personally. Upon sale or transfer of the	nin a maintena ne above-desc new owner.	ribed p	roperty, the	treatment system for a single fan n 30 days or maintain the system e permit for the OSSF shall be ming materials for the OSSF can	1
WITNESS BY HAND(S) (	ON THIS 14	DAY		,20 19	
N S				ERALD R. ZWERNEMANN	
Owner(s) signature(s)	S	WORN		er (s) Printed name (s)  SUBSCRIBED BEFORE ME ON	THIS 16 DAY OF
Hala Pay Notary Public Sign	,20 <u>_19</u>			Filed and Recorded Official Public Records	DING PURPOSES ONLY

ILEANA PAYNE
Notary Public, State of Texas
My Comm. Exp. 02-23-2023
ID No. 10839505

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
07/18/2019 02:07:26 PM
TERRI 1 Page(s)
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PAUL SWOYER SEPTIC SUPPLY & SERVICE 23011 FM 306 CANYON LAKE, TX 78133

Customer: GERALD R. ZWERNEMANN

MP#0001708 CHRISTOPHER RYAN SEIDENSTICKER

PROPERTY LEGAL DESCRIPTION:	Site Address: 7919 ELK DRIVE						
DEER RIVER, PHASE 2, LOT 32	City/State: SPRING BRANCH, TX	<b>Zip:</b> 78070					
	County: COMAL Permit#:	RECEIVED					
	Phone Number:	JUL 1 9 2019					
	E-mail:	COUNTY ENGINEE					
GERALD R. ZWERNEMANN	cement (hereinafter referred to as "Agreement") is entered, (hereinafter referred to as "Client") and PS Sugreement, Contractor agrees to render services, as described h	apply & Service LLC.					
and the client agrees to fulfill his/her/their responsi		erein (the "Services"),					
II. Effective Dates: This agreement commences on the dat	e of License to Operate is issued for Three (3) years.						
Date of License to Operate: LTO Last I	Date of Service: 3 yrs from LTO						
III. Services by Contractor: Contractor will provide the fo	Howing Services:						
		she and montations					
and/or rules of the Texas Commission on E	the On-Site Sewage Facility ("OSSF") in compliance with Environmental Quality ("TCEQ") and county in which the its, at a frequency of approximately once every four (4) month	OSSF is located (the					
	y and to Client, as required by the State of Texas' on-site eported to the appropriate regulatory authority within 14 days						
	the OSSF that are found to be in need of repair during the inc. Repairs will be made so brought up to compliance and bill it						
	unscheduled service within two business days from the date ce visits are not included in the fee agreement herein and will						
	lient or to site personnel. Additionally, Contractor will leave on completion of inspection, and forward such notice to the						
Maintenance Fee"), excepting those described in S labor supplied for anything beyond routine inspectime services are provided or rendered. Payments r \$20.00 late penalty or 1.5% carrying charge on the reason such charges are found to be usurious by allowable by law. By signing this contract, Client a	d w/ septic , for the Services describe herein (the "In Section III (4), or Section IX, herein. The Fee does not includation and routine maintenance. Payments for such additional shot received within thirty (30) days from the due date will be seconginal balance for each month or portion thereof a balance a court of competent jurisdiction, such charges shall be reducted authorizes Contractor to remove any parts installed, but not passor cost associated with the installation and the reasonable contractor.	de equipment, parts or services are due at the subject the greater of a in past due. If for any suced to the maximum aid in full at the end of					
parts.	Contractor: 115						

#### V. Client's Responsibilities: Client is responsible for each and all of the following:

1. To maintain chlorinator and provide proper chlorine supply, if OSSF is so equipped.

- To provide all necessary yard or lawn maintenance and removal of obstacles as needed to allow the OSSF to function properly, and to allow Contractor ready access to all parts of the OSSF.
- To maintain a current license to operate, and abide by the conditions and limitations of that license and all requirements for onsite sewage facilities from the State and local regulatory agency.

4. To maintain the OSSF in accordance with manufacturer's recommendations.

5. To immediately notify Contractor and Agency of any and all problems with, the OSSF, including failure thereof.

6. Upon receipt of any written notification of required services from Contractor, to contact Contractor and authorize the required service. If Client elects a different contractor to perform the required service, Client is responsible for ensuring the substitute contractor holds the proper license (Installer II) and is certified by the manufacturer. Additionally, Client shall be responsible for ensuring proper notification is given to the appropriate regulatory authority, as required by the State and/or local regulatory authority rules.

To provide Contractor with water usage records, upon request, for evaluation by Contractor of the OSSF performance.

- To pay required sampling charges for samples collected for testing (e.g. Biological Oxygen Demand/Total Suspended Solids ("BOD/TSS") that may be required on the OSSF.
- 9. To prevent backwash from water treatment or water conditioning equipment to enter the OSSF.

10. To provide, at Client's expense, for pumping of tanks as needed.

- 11. To maintain site drainage sufficient to prevent adverse effects on the OSSF.
- 12. To promptly and fully pay Contractor's bills, fees, or invoices as described herein.
- VI. Access by Contractor: Client agrees to allow Contractor, or personnel authorized by the Contractor, to enter the property at reasonable times without prior notice for the purpose of performing the Services described herein. Such entry shall include access to the OSSF electrical and physical components, including tanks, by means of manways or risers for the purpose of evaluations required by the manufacturer, and/or regulatory authority rules. If such manways or risers are not in place, Client shall allow and be responsible for payment of required excavation, including labor and materials, necessary to allow access to the OSSF or any required components. Such excavation shall be billed at the rate of \$75.00 per hour for labor, plus materials billed at list price. Contractor shall make only those efforts reasonable under the circumstances to replace excavated soil.
- VII. Application or Transfer of Payment: The fees paid for this agreement may transfer to any subsequent owner(s) of the property on which the OSSF is located. The subsequent owner(s) must sign a similar agreement authorizing Contractor to perform the above-described Services, and accepting Client's responsibilities. The replacement Agreement must be signed and received within 30 days of transfer of ownership. Contractor will apply all funds received from Client first to any past due obligations arising from this Agreement including late charges, return check charges, and charges for repairs or services not paid within 30 days of invoicing. The consumption of the payment in this manner may lead to termination of the agreement by Contractor
- VIII. Termination of Agreement: This agreement may be terminated by either party with 30 days written notice. If this agreement is so terminated by Client, Contractor shall be paid at the rate of \$75.00 per hour for any worked performed or required, but not yet paid. If terminated by Contractor, all amounts outstanding shall be due within thirty days of termination. The party terminating will immediately notify the other party, the equipment manufacturer, and the regulatory agency of the termination.
- IX. Limitation of Liability: In no event shall Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract, tort, or any other theory of liability. In no event shall the Contractor's liability for direct damages exceed payments by the Client under this Agreement.
- X. Severability and Reformation: If any provision in this Agreement shall be held to be invalid or unenforceable for any reason, it shall be reformed to the minimum extent necessary to effect the intent of the Parties. If any provision is such that it cannot reasonably be reformed, it shall be struck from this Agreement and the remaining provisions shall continue to be valid and enforceable.
- XI. Performance of Agreement: Commencement of performance by Contractor under this agreement is contingent on the following conditions: (1) Contractor receiving a fully executed original copy of this agreement. (2) Contractor receiving payment in full of the fee(s) described herein. If the above conditions are not met, then Contractor is from any obligation to perform any portion of this agreement.
- XII. Medification. This Agreement may not be changed or modified except by an instrument in writing, signed by both Contractor and Client.
- XIII. Waiver. Except as otherwise noted in this Agreement, the waiver by other party of a breach of any provision of this Agreement shall not operate or be construed as a continuing waiver or as a consent to or waiver of any subsequent breach hereof.

Client: WWZ

Contractor:

- XIV. Headings. The Article and Section headings in this Agreement are for the convenience of reference only and do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.
- XV. GOVERNING LAW AND CHOICE OF VENUE. EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND TO THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS SAN ANTONIO DIVISION, AS WELL AS TO THE JURISDICTION OF ALL COURTS TO WHICH AN APPEAL MAY BE TAKEN FROM SUCH COURTS, FOR THE PURPOSE OF ANY SUIT, ACTION, OR OTHER PROCEEDING ARISING OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, INCLUDING, WITHOUT LIMITATION, ANY PROCEEDING RELATING TO ANCILLARY MEASURES IN AID OF ARBITRATION, PROVISIONAL REMEDIES AND INTERIM RELIEF, OR ANY PROCEEDING TO ENFORCE ANY ARBITRAL DECISION OR AWARD. EACH PARTY HERETO EXPRESSLY WAIVES ANY AND ALL RIGHTS TO BRING ANY SUIT, ACTION, OR OTHER PROCEEDING IN OR BEFORE ANY COURT OR TRIBUNAL OTHER THAN COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND COVENANTS THAT IT SHALL NOT SEEK IN ANY MANNER TO PROSECUTE OR DEFEND ANY DISPUTE OTHER THAN AS SET FORTH IN THIS ARTICLE XVI OR TO CHALLENGE OR SET ASIDE ANY DECISION, AWARD, OR JUDGMENT OBTAINED IN ACCORDANCE WITH THE PROVISIONS HEREOF. EACH OF THE PARTIES HERETO HEREBY EXPRESSLY WAIVES ANY AND ALL OBJECTIONS IT MAY HAVE TO VENUE, INCLUDING, WITHOUT LIMITATION, THE INCONVENIENCE OF SUCH FORUM, IN ANY OF SUCH COURTS.
- XVI. JURY TRIAL WAIVER. THE PARTIES HEREBY UNCONDITIONALLY WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY AND ALL CLAIMS OR CAUSES OF ACTION ARISING FROM OR RELATING TO THEIR RELATIONSHIP. THE PARTIES ACKNOWLEDGE THAT A RIGHT TO A JURY IS A CONSTITUTIONAL RIGHT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH INDEPENDENT COUNSEL, AND THAT THIS JURY WAIVER HAS BEEN ENTERED INTO KNOWINGLY AND VOLUNTARILY BY ALL PARTIES TO THIS AGREEMENT. IN THE EVENT OF LITIGATION, THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

MP#0001708

CHRISTOPHER RYAN SEIDENSTICKER

Approved by Client:

Approved by Contractor:

XVII. Reservation of Rights. Contractor reserves all rights not specifically granted herein.

- XVIII. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.
- XIX. Counsel. Contractor has previously recommended that Client engage counsel to assist him/her/it in reviewing this Agreement and all other matters relating to it. Contractor and Client shall each bear his/her/its own costs and expenses in connection with the negotiation and documentation of this Agreement.
- XX. Entire Agreement: This agreement contains the entire agreement of the parties, and there are no promises or conditions in any other agreement, oral or written. The Parties expressly disclaim reliance on any prior statements, oral or written, by either party not expressly provided for herein.

Client:

Contractor:

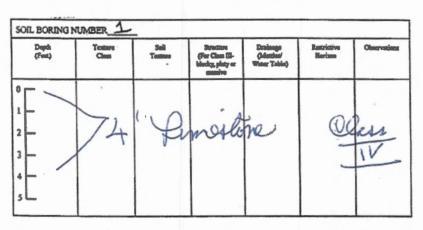
### Site evaluation:

Applicant/site:

Name: Gerald R. Zwernemann

Location: 7919 Elk Dr. Date: 12 July 2019 Site Evaluator:

Frank Aguirre, 16159 Old Stable Rd., San Antonio, Texas 78247; Lic # 30400, 2/20



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JUL 19 2019

**COUNTY ENGINEER** 

Dupty (Fast)	Testure	Soil Testure	(For Ches II)- blocky, play or manifes	Drainage (Metther/ Water Tubbe)	Restrictive Rorinoa	Observations
22 - 33 - 45 - 5	>	5	KE	= 85-	AJ	



16159 Old Stable Rd. Frank Aguirre, R.S.

#### San Antonio, Texas 78247-4490 210.275.7866 frankseptic45@gmail.com

### PLANNING MATERIALS FOR A SEPTIC SYSTEM IN COMAL COUNTY Sind Capital

DATE, FIELD WORK: 12 July 2019

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THE PLAYERS:

JUL 19 2019

Property owner: Gerald R. Zwernemann, c/o Paul Swoyer, 18382 FM 306, Suite #101,

Canyon Lake TX 78133; 830-935-4936; katelin@paulswoyerseptics.com; Johr PCoates NGINEER

jwcii75@gmail.com; 210.288.8294

Site Evaluator: Frank Aguirre, SE, #10807 Designer: Frank Aguirre, R.S., Lic. 994 Installer: Paul Swoyer, 830-935-4936

Septic system design review & inspections: Comal County: Brenda Ritzen or Sandra

Hernandez, 830.608.2090

THE PROPERTY:

Street numerical address: 7919 Elk Dr.

Legal description: Lot 32, Deer River, Phase 1

Contributing zone: The property is on the Contributing zone and the septic system

design complies with all the provisions of the existing CZP.

THE PROPOSED PROJECT:

A single family residence, 4 BR, 1900 SF

THE ESTIMATED SEWAGE PRODUCTION CHARACTERISTICS:

Hydraulic loading estimated at 300 gpd, sized, by regulations, to a 4 BR home. Organic loading estimated at 140 to 300 mg/l BOD with traces of FOG and TSS (residential strength)

DESCRIPTION OF PROPOSED MONITORING OF SEWAGE CHARACTERISTICS:

Hydraulic loading as the major portion of the water meter reading.

TARGET FINAL EFFLUENT PARAMETERS:

Hydraulic loading less than the estimated loading on ANY GIVEN DAY.

Organic loading: BOD and TSS of less than 65 mg/l

WATER SOURCE: CLWS

**SITE EVALUATION DATA:** 

A. This certifies that proper soil analysis procedures were followed.

B. Soils at this site are Class IV and are not suitable with respect to texture.

C. The overall site suitability is not appropriate for a Standard on-site wastewater system.

#### **OVERALL SEPTIC SYSTEM COMPONENTS:**

Collection: (It is crucial that all sewer drops exiting this home/building be as shallow as possible, still meeting elevation plumbing requirements in the slab. This design assumes a shallow sewer drop exit.) About 15' of tightline from the house to the ATU with a cleanout within 3' of the house.

Pre-treatment: Single compartment (trash) tank in front of the ATU

Treatment: 600 gpd MAXX AIR ATU (aerobic treatment unit) with disinfection
The system to be installed must be done so in STRICT ACCORDANCE WITH ALL

MANUFACTURER'S RECOMMENDATIONS by a Class II septic system installer.

Water pump requirements: Must overcome an elevation head of 6', a friction head of 8' and a maximum head at the spray head of 45' for a total head of 59'. It shall operate the spray heads at two application times (operated by a control box using a VENGINEER timer) - 12 midnight and 4 am cycles of 150 gal. each cycle. At 12 gpm, each cycle shall run for 13 minutes.

Supply line size: 1"

Sprayheads: K-rain 1303 RCW or equal

Recycling: The required spray area for this size of residence is 4688 SF.

The actual spray shall be 4924 SF and shall consist of two 28' full circle sprays at 6 gpm for a total of 12 gpm.

The spray area shall be covered with grasses, evergreen shrubs, bushes, trees or landscaped beds containing mixed vegetation.

### Float Switch Placements

Actual liquid measurements: 60" depth, 60" length, 60" width, dividing by 12 to go to "feet": 5' depth, 5' length, 5' width

Capacity, in CF, =  $5' \times 5' \times 5' = 125$  CF  $\times 7.48$  gal/CF = 935 gal (Actual tank capacity)

935 gal = 15.58 gal/inch 60" depth Sind Ogin

Volume needed for a single dose = 3(0) gal/2 = 150 gal.

 $\underline{150 \text{ gal}}$  = 10" needed between the "Off" and "On" switches 15.58 gal/in

Volume needed between the "On" and "Alarm" switches = 1 day's volume = 300 gal

300 gal = 20" needed between the "On" and "Alarm" switches 15.58 gal/in

Volume required above the "alarm" switch = 1/3 day's volume = 100 gal.

 $\underline{100 \text{ gal.}}$  = 7" needed above the "alarm" switch 15.58 gal/in

Locations of float switches:

Distance between the OFF and ON switches = 10"

- + Distance between the ON and Alarm switches = 20"
- + Distance between the Alarm switch and Inlet = 7"

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Minimum working depth required = 37" Actual working depth available = 60" COUNTY ENGINEER

+Min. height needed above floor of tank for the OFF switch = 8" Minimum tank depth from Inlet to bottom of tank = 45"

#### CODE COMPLIANCE

Everyone realizes that the QUALITY of sewage from a restaurant is more to treat than that from a residence, because of the presence of FOG - fats, oils and greases. But not enough attention is given to the fact that HOME sewage can also include high FOG contents from cosmetics, bath oils, suntan lotion, etc. in addition to cooking greases and food scraps. Medications taken by persons living in the home, bleaches and non-eaten plastics and paper can also play havoc with the septic system.

Technical note: Home sewage should have no higher than 60 mg/l in Total Suspended Solids, 20 mg/l in FOG and 300 mg/l in BOD. Exceeding any of these limits can cause serious damage and malfunction to the septic system, in addition to that causes my more VOLUME of sewage than that for which the system was designed.

Aerobic Treatment Units (ATU's) must be approved by the TCEQ and installed, managed, monitored and maintained in accordance with manufacturer's recommendations. All wiring and piping must be in accordance with Ch. 285, septic system regulations, as a MINIMUM.

It is not within the scope of this document to cite all the engineering and construction standards that apply to this project. This is a PERFORMANCE design that is modeled to meet...

- 1. All septic regulations of the Texas Commission On Environment Quality, Chap. 285, version of 28 Dec 2012, and
- 2. All construction standards that are generally accepted with the septic system industry, and
- 3. All requirements as stated by the local inspection jurisdiction in which the property sits.

#### **BEST PRACTICES**

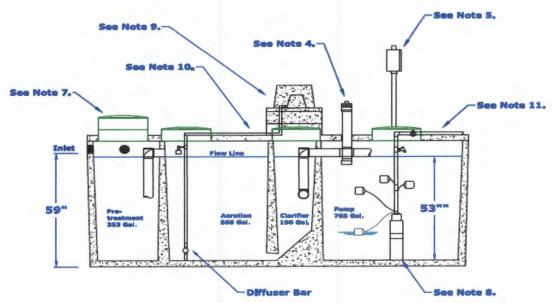
It is the opinion of this designer that both state and local jurisdiction requirements represent MINIMUM government regulations that may or may not result in a septic system that meets the property owner's EXPECTATIONS of it providing dependable, long-lasting service. Therefore, the property owner should consider some of the many UPGRADES that are available from the INDUSTRY and the MANUFACTURER'S side of the project. As part of the "best practices" thrust, ALL septic systems of all types can deliver long-lasting, dependable service IF and ONLY IF the owner of the system includes these three items:

- a. Management The sewage that is sent to the system must be within both its quantitative and qualitative design limits.
- b. Monitoring Every system must be closely watched for any signs of failure. The best monitoring includes specific measurements of its various characteristics.
- c. Maintenance The system must be properly maintained on a regularly scheduled basis by a qualified and licensed person.

Chemical characteristics: The parameters of typical residential-strength sewage are: BOD-140, TSS - 75, FOG - 15, DO - .5, pH - 7 and temp 59.

Cross-section of a Maxx Air ATU: Sind Ogin

COUNTY



Maxx Air M-600 (600 GPD)
Aerobic Treatment Plant (Assembled)

Dec, 2013
By: A.S.

Scale:

\* Al Chromotors subject to alternative specification to harmons.

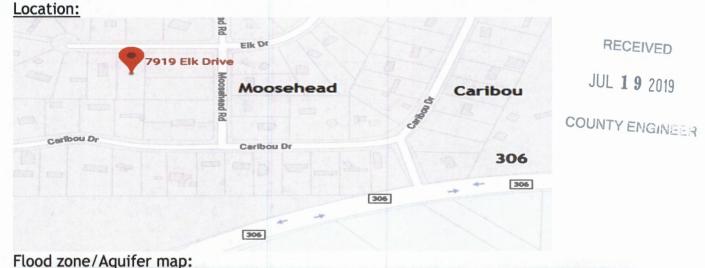
Dwg. #: ADV-B550-3

It is the owner's responsibility to ensure that the aerobic treatment unit is under a PAID contract with a licensed "maintenance provider. The unit must be checked and tested ONCE EVERY 4 MONTHS [Regulation #285.91 (4)] for the life of the unit and test results shall be submitted to the local septic inspector.

I hereby certify that this design conforms to both TCEQ and local regulations for On-Site Sewage Facilities and, with proper use, maintenance, and under normal climatic conditions, can be expected to function without creating a nuisance.

Sincerely,

Frank Aguirre, Registered Sanitarian, Lic. 994, Site Evaluator, Lic. 10807, TCEQ Designated Representative Lic.30400, NAWT Certified Inspector, Lic. 13671TC





### ZWERNEMANN RESIDENCE 12 JULY 2019



Septic Systems Express

DBA of Frank Aguirre and Associates, Inc.

10' utility easement Parking & Driving area 1900 SF 4 BR 10° utility easement setback 20, setback setback 10' utility easement 97'



 $A = \pm 15$  of 4" pvc, Sch. 40, tightline with a cleanout within 3' of the house B = Pre-treatment tank, 600 gpd MAXX AIR aerobic unit, chlorinator and pump tank

 $C = \pm 90'$  of 1" pvc supply line D = 28' radius full circle spray

Sprayfield: Two 28' radius full circles =  $2 \times 2462 \text{ SF} = 4924 \text{ SF}$ 

Trees are to be avoided as much as possible.

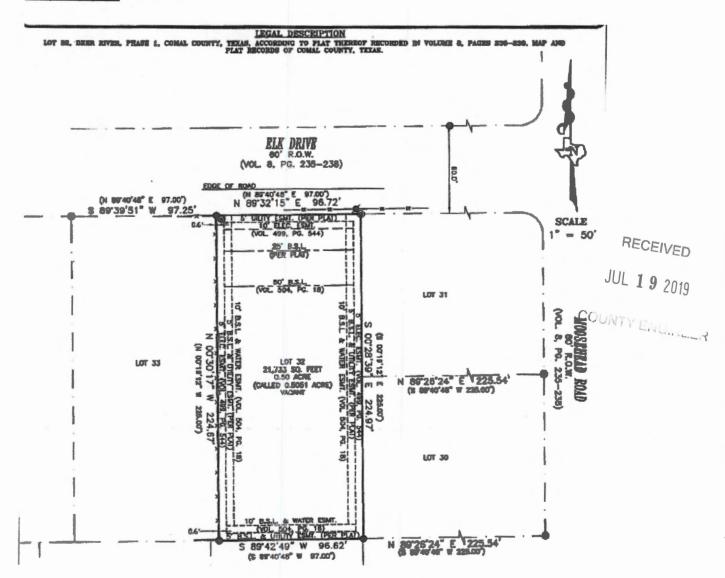


Timb Qa

L-32, DeerRiver, Phase1

NOTE: The contractor may make field adjustments to the system so as to better fit specific site conditions encountered. All angles, lengths and locations shown are approximate and are adjustable during the actual system installation.

Property plat: Sind Ogin



Property deed: See attached

Maintenance agreement: See attached

ATU affidavit: See attached

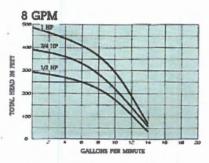
High head pump graph:

JUL 19 2019

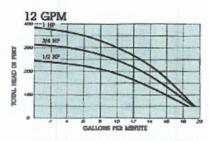
COUNTY ENGINEER

### **High Head Filtered Effluent Pumps**

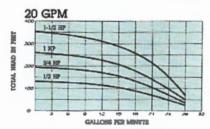
½, ¾, 1 and 1½ HP 8, 12, 20, 25, and 35 GPM 4" Diameter Submersibles



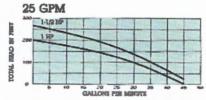
HP	Voltage	Pump Model	
1/2	115	2NFL51-8E	
1/2	230	2NFL52-8E	
₹4	230	2NFL72-8E	
1	230	2NFL102-8E	



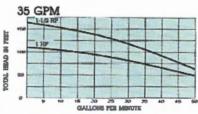
HP	Voltage	Pump Model		
1/2	115	2NFL51-12E		
1/2	230	2NFL52-12E		
3/4	230 •	2NFL72-12E		
1	230	2NFL102-12E		



HP	Voltage	Pump Model		
1/2	115	2NFL51-20E		
1/2	230	2NFL52-20E		
1/4	230	2NFL72-20E		
1	230	2NFL102-20E		
11/2 230		2NFL152-20E		



HP	Voltage	Pump Model	
1	230	J1025BE	
11/2	230	J1525BE	



HP	Voltage	Pump Model	
1	230	J1035BE	
11/2	230	J1535BE	

#### GENERAL WARRANTY DEED

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.

THE STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

THAT ROBERT MALDONADO, UNMARRIED, hereinafter referred to as "Grantor" (whether one or more), for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to the undersigned in hand paid by GERALD R. ZWERNEMANN, whose address is 100 Camellia Way San Antonia Tx 78209, hereinafter referred to as "Grantee" (whether one or more), the receipt and sufficiency of which is hereby acknowledged and confessed; have GRANTED, SOLD AND CONVEYED, and by these presents do GRANT, SELL AND CONVEY, unto said Grantee, the following described real property, to-wit:

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JUL 19 2010

COUNTY ENGINEER

Lot THIRTY-TWO (32), DEER RIVER, PHASE 1, COMAL County, Texas, according to plat thereof recorded in Volume 8, Pages 235-238, Map and Plat Records of COMAL County, Texas.

TO HAVE AND TO HOLD the above described premises, together with all and singular the rights and appurtaments thereto in anywise belonging, unto the said Grantee, Grantee's heirs and assigns forever; and Grantor does hereby bind Grantor, Grantor's heirs and assigns, to WARRANT AND FOREVER DEFEND, all and singular the said premises unto the said Grantee, Grantee's heirs and assigns, against every person whomsoever lawfully claiming, or to claim the same, or any part thereof.

All taxes assessed against the Property for the current year have been prorated between the parties, and Grantee hereby assumes and agrees to pay such taxes in full.

This Deed is executed, delivered and accepted subject to all and singular any liens securing the payment of any debt created or assumed in connection herewith if such liens are described herein, ad valorem taxes for the current and all subsequent years, subsequent assessments for prior years due to changes in land usage or ownership, zoning ordinances, utility district assessments and standby fees, if any, restrictions, easements, covenants, and conditions applicable to and enforceable against the above described property, mineral and royalty reservations, maintenance fund liens, and any title or rights asserted by anyones, including, but not limited to, persons, corporations, governments or other entities to tidelands, or lands comprising the shores or beds of navigable or perennial rivers and streams, lakes, bays, gulfs or oceans, or to any land extending from the line of the harbor or bulkhead lines as established or changed by any government or to filled-in lands, or artificial islands, or to riparian rights or other statutory water rights, or the rights or interests of the State of Texas or the public generally in the area extending from the line of mean low tide to the line of vegetation or the right of access thereto, or right of easement along and across the same, if any, applicable to and enforceable against the above described property as shown by the records of the County Clerk of the County in which said real property is located.

When this Deed is executed by more than one person or when the Grantee is more than one person, the instrument shall read as though pertinent verbs, nouns and pronouns were changed correspondingly, and when executed by or to a legal entity other than a natural person, the words "heirs and assigns" shall be construed to mean "successors and assigns." Reference to any gender shall include either gender and, in the case of a legal entity other than a natural person, shall include the neuter gender, all as the case may be.

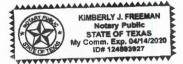
DATED the 3 day of 30 V

PORERTMATTONADO

ATC-NEW BRAUNFELS

GF No. 4000141900529

THE STATE OF TX	§					
COUNTY OF Comal	§					
This instrument was acknowledged	before 1	me on the	3_	day of	guly	



Notar Public Is a coma

Grantee's Mailing Address and Return Address: GERALD R. ZWERNEMANN

After Recording Return to: Alamo Title Company 494 South Seguin St., Ste 100 New Braunfels, TX 78130 Prepared by: The Laird Law Firm, P.C. 1512 Heights Blvd. Houston, Texas 77008

Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 07/03/2019 11:39:10 AM TERRI 2 Pages(s) 201906022947



(830) 850-0080 Fax: (830) 935-4932

Permit #: 109437

To: paul swoyer septics, 7919 Elk Drive Spring Branch, TX 78		Tech: Not Assigned CZ  Brand/Mfg.: MAXX AIR -  System S/N:  Aerator and S/N:				
Site: 7919 Elk Drive, Sprii Agency: Comal County	ng Branch		Installed:	Contract: 10/15/2019 - 10/15/2022 Inspections per year: 3 Service Due: 2/15/2020		
County Subdivision: Deer River	•		Cell: Work:	Alt Phone: Warranty Ending:		
Inspection Type:	Inspe	ction # of _	for the contract yea	одоходого от от выпочен од верхине на верхине видоходого от од от		
Item Aerator: Irrigation_pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Photocell Test: Autodialer: Water Meter Reading: Test Results and observation Fecal Coliform: Chlorine Residual: Test Method: BOD: TSS: Commercial Lab: Date Submitted:	Operational  CFM:  Ons: (As Required)  O.1  ORAB	Inoperative	N/A ====================================	1-0 2-0 3-0		
Repairs made: Y/N		•				
Repairs and Comments	um = 0	Added C	hlorine to	meet residual		
Home owner	needs to	Add Blea.		is Vacent		
Inspector:		Date:				

Area: 10

GPS: 29.9445 -98.3844

Printed, 2/6/2020

7919 Elk Drive, Spring Branch

(830) 850-0080 Fax: (830) 935-4932

Permit #: 109437

To: paul swoyer septics, Ilc 7919 Elk Drive Spring Branch, TX 78070			Tech: Not Assigned 7 Brand/Mfg.: MAXX AIR - System S/N: Aerator and S/N:		
Site: 7919 Elk Drive, Spring	Site: 7919 Elk Drive, Spring Branch		Installed:	Contract: 10/15/2019 - 10/15/2022 Inspections per year: 3	
Agency: Comal County County:			Phone: Cell.	Service Due: 2/15/2020 Alt Phone:	
Subdivision: Deer River			Work:	Warranty Ending:	
Inspection Type:	Inspe	ection # of _	for the contract year		
Item Aerator: Irrigation pump: Air compressor: Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Photocell Test: Autodialer: Water Meter Reading:  Test Results and observation Fecal Coliform: Chlorine Residual: Test Method: BOD: TSS: Commercial Lab: Date Submitted:  Repairs made: Y/N  Repairs and Comments:  Home one	0.1 0.RAB		hlorine to House	Neet resident	
## and the contract of the con					
Inspector:		Date:	AND		

Area: / 0

Printed: 2/6/2020

GPS: 29.9445 -98.3844 ID = 1391

(830) 850-0080 Fax: (830) 935-4932

Permit #: 109437

To:				Tech: Not A	ssigned ( Z
7919 E	lk Drive			Brand/Mfg.: MAX	
Spring	Branch, TX 7807	70		System S/N:	
	7919 Elk Drive, Spring			Aerator and S/N:	Contract: 10/15/2019 - 10/15/2022 Inspections per year: 3
Agency:	Comal County			Phone.	Service Due: 2/15/2020
County:	,			Cell	Alt Phone:
Subdivision:	Deer River			Work.	Warranty Ending:
Inspection	Туре:	Inspect	ion # of	for the contract yea	r
Item		Operational	Inoperative	N/A	
Aerator:		******************************		1	
Irrigation pu					
Air compre- Disinfection				der ausgaber von der er de	
Chlorine su					1-0
Spray field		***************************************			
	Drip backwash:			***************************************	2-0
Photocell T		*		1	7-0
Autodialer:		***************************************	***************************************		7 - 6
Water Mete	er Reading:	CFM:	PSI:		
Test Result Fecal Colife Chlorine Re Test Metho BOD: TSS: Commercia Date Subm	esidual: d: - al Lab:	O.I O.A.A.A.			
Repairs ma	ade: Y/N				
Repairs an	d Comments; LLI	m = 0	added ch	ilorine to	meet residual
Home	owner !	needs to	Add Bleac	L. House	is Vacent
-			****	The state of the s	
Inchestor			Data:		
mspeciol.			Date.	all-annual and annual annua	

Area: /0

Printed 2/6/2020

GPS: 29.9445 -98.3844 ID = 1391

(830) 850-0080 Fax: (830) 935-4932

Permit #: 109437

To: Home Owner 7919 Elk Drive Spring Branch, TX 78070 Sitte: 7919 Elk Drive, Spring Bra	nch		Tech: Brand/Mfg. System S/N: Aerator and S/N.	Not Assigned MAXX AIR - Contract 10/15/20 Inspections pe	
Agency Comal County County Subdivision: Deer River			Phone: Cell: Work	Service Due Alt Phone Warranty Endir	
Inspection Type:	Inspection	# of _	for the contract	year	
Item Aerator. Irrigation pump Air compressor Disinfection device: Chlorine supply: Spray field vegetation: Sprinkler / Drip backwash: Photocell Test Autodialier Water Meter Reading: Test Results and observations: Fecal Coliform: Chlorine: Residual: Test Method BOD: TSS. Commercial Lab: Date Sulbmitted:	CFM:	noperative	N/A	1-223-0	
Repairs made Y/N					
Repairs and Comments:	m 0	Hurse	VOCUANT		
Inspection:		Date:			
			Area: / 0 GPS: 29 9445 -98.384	ID = 1391	Printed: 7/8/2020
		7	919 Elk Drive, Spri	ng Branch	

Phone: (830) 850-0080

Fax: (830) 935-4932

To: Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070

Printed: 10/21/2020 Site: 7919 Elk Drive Spring Branch, TX 78070

(210) 601-4884

Permit #: 109437

Agency: Comal County

County:

Sub: Deer River

Contract Dates: 10/15/2019 - 10/15/2022 Scheduled Date: 10/15/2020

Customer ID: 1391

Inspection 3 of 9

Mfg / Brand: - MAXX AIR Treatment Type: Aerobic

Disposal: Surface Application

GPS Coordinates - Latitude: 29.9445 Longitude: -98.3844

This counts as a type of "Scheduled Inspection" **Entered By:** 

Service Type: Scheduled Inspection

Visit Date: 10/20/2020

Method: Grab

Technician: Ryan Seidensticker Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational Disinfection Device: Operational Chlorine Supply: Operational

Chlorine Residual: 0.1mg/L

Sludge Levels

For Tank 1: 6

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

Scum on pretreatment:0" - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Insp ID #:6265

**✓** Service Completed

Provider: Christopher Ryan Seidensticker

PS Septic Supply & Service

License Info: MP0001708 Expires:

Owner signature:

Technician: Christopher Ryan Seidensticker PS Septic Supply & Service

License Info: MP0001708 Expires: 9/1/2023

Phone: (830) 850-0080

Fax: (830) 935-4932

To: Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070

Printed:3/4/2021 Site: 7919 Elk Drive Spring Branch, TX 78070

Permit #: 109437

Agency: Comal County

Mfg / Brand: - MAXX AIR Treatment Type: Aerobic

Sub: Deer River

Customer ID: 1391

Contract Dates: 10/15/2019 - 10/15/2022

Scheduled Date 2/15/2021

Inspection 4 of 9

(210) 601-4884

Disposal: Surface Application Service Type: Scheduled Inspection

Visit Date: 3/2/2021 Method: Grab

Technician: Landon Gronvold Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational Irrigation Pumps: Operational

Disinfection Device: Operational Chlorine Supply: Operational Chlorine Residual: 0.1mg/L

GPS Coordinates - Latitude: 29.9445 Longitude: -98.3844

▼ This counts as a type of "Scheduled Inspection"

Entered By:

Sludge Levels

For Tank 1: 18 For Tank 2: 1 For Tank 3: 1

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

**✓** Service Completed

Scum on pretreatment:6" - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Ovvner signature:

Insp ID #:8270

Provider: Christopher Ryan Seidensticker PS Septic Supply & Service

License Info: MP0001708 Expires:

License Info: MT0001995 Expires: 10/31/2021

Phone: (830) 850-0080 Fax: (830) 935-4932

To: Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070 Printed:6/2/2021 Site: 7919 Elk Drive Spring Branch, TX 78070 (210) 601-4884

Permit #: 109437

Agency: Comal County

County:

Sub: Deer River

Customer ID: 1391 Contract Dates: 10/15/2019 - 10/15/2022

Scheduled Date 6/15/2021

Inspection 5 of 9

Mfg / Brand: - MAXX AIR
Treatment Type: Aerobic

Disposal: Surface Application

GPS Coordinates - Latitude: 29.9445 Longitude: -98.3844

This counts as a type of "Scheduled Inspection"

Entered By:

Service Type: Scheduled Inspection

Visit Date: <u>6/1/2021</u>

Method: Grab

Technician: Ryan Seidensticker Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational Chlorine Supply: Operational

Chlorine Residual: 0.1mg/L

Sludge Levels

For Tank 1: 1

For Tank 3: 1

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

✓ Service Completed

Scum on pretreatment:7" M.A - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Owner signature:

Insp ID #:9993

Provider: Christopher Ryan Seidensticker

PS Septic Supply & Service

License Info: MP0001708 Expires:

Technician: Christopher Ryan Seidensticker
PS Septic Supply & Service

License Info: MP0001708 Expires: 9/1/2023

Phone: (830) 850-0080 Fax: (830) 935-4932

To: Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070 Printed:6/15/2022 Site: 7919 Elk Drive Spring Branch, TX 78070

(210) 601-4884

Permit #: **109437**Customer ID: 1391

Agency: Comal County Contract Dates: 10/15/2019 - 10/15/2022

County: Sub: Deer River Scheduled Date: 6/15/2022 Inspection 8 of 9

Mfg / Brand: - MAXX AIR Treatment Type: Aerobic

Disposal: Surface Application GPS Coordinates - Latitude: 29.9445 Longitude: -98.3844

Service Type: Scheduled Inspection This counts as a type of "Scheduled Inspection"

Visit Date: <u>6/13/2022</u>

Method: <u>Grab</u>
Technician: Not Assigned
Maint. Provider: Ryan Seidensticker

Aerators: Operational Sludge Levels

Filters: Operational For Tank 1: 12
Irrigation Pumps: Operational For Tank 2: 6
Disinfection Device: Operational For Tank 3: 4

Chlorine Supply: Operational Chlorine Residual: 1.23

Tank Lid / Riser: Secured Sprinkler Drip Backwash: Good

Entered By: Michelle Irvin

Electric Circuits: Operational

Distribution System: Operational
Sprayfield Veg: Operational
Odor: Good
Odor: Good

Alarm: Operational

Comments 

✓ Service Completed

Scum - 14"

Both buzzers and lights are out

broken sprinkler

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

Insp ID #:18650

Provider: Christopher Ryan Seidensticker
PS Septic Supply & Service

License Info: MP0001708 Expires:

Phone: (830) 850-0080 Fax: (830) 935-4932

Printed:11/3/2022 Insp ID #:22535 Permit #: **109437** 

To: Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070

Main Phone: (210) 601-4884

Cell Phone:

Work:

D: 4004

This counts as a type of "Scheduled Inspection"

Customer ID: 1391

Contract Dates: 10/15/2019 - 10/15/2022

Scheduled Date: 10/15/2022 Inspection 9 of 9

Entered By: Nicole Loria

Installed: 10/15/2019 Warranty End: 10/15/2022

Copy emailed to Customer

Customer Emailed: 11/3/2022

Disposal: Surface Application GPS Coordinates: Latitude: 29.9445 Longitude: -98.3844

Service Type: Scheduled Inspection

Visit Date: 11/3/2022

Agency: Comal County

Treatment Type: Aerobic

Mfg / Brand: - MAXX AIR

County:

Method: <u>Grab</u>
Technician: Not Assigned

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Sub: Deer River

Sludge Levels
For Tank 1:  $\underline{12}$ For Tank 2:  $\underline{N/A}$ For Tank 3:  $\underline{8}$ 

Irrigation Pumps: Operational
Disinfection Device: Operational
Chlorine Supply: Operational

Chlorine Residual: .3

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

Tank Lid / Riser: Secured Insp. Port / Plug: Secured

Alarm: Operational

Comments 

✓ Service Completed

- Scum on pretreatment 6 - Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Copy emailed to the customer on 11/3/2022.

Site: 7919 Elk Drive, Spring Branch, TX 78070

Provider: Christopher Ryan Seidensticker
PS Septic Supply & Service

License Info: MP0001708 Expires:

**Luna Environmental** 

4222 FM 482 New Braunfels, TX 78132

sherrie@lunaenvironmental.com

Printed:7/29/2023 Permit: 109437

Site: 7919 Elk Drive, Spring Branch, TX 78070

Main Phone: 2106014884

(830) 312-8776

Lois Swartzendruber 7919 Elk Drive Spring Branch, TX 78070

Agency: Comal County County: Comal County Subdivision: Deer River

System Info: MFG: Brand: MAXX AIR Customer ID: 2790

Treatment Type: Aerobic Disposal Type: Surface Application Insp ID: 30591

Installed: 10/15/2019 Warranty Expiration: 10/15/2022

Visit Details ------

Visit Date: 7/27/2023 Entered By: Nicole Loria GPS Lat: 29.9445 GPS Long: -98.3844

Scheduled Date: 5/31/2023 Customer Emailed: 7/29/2023

Entered On: 7/29/2023 Contract Ends: 1/31/2024

Visit Results

Service Type: Scheduled Inspection

Count: Inspection 1 of 3

Method: Grab License # Expires

Technician: Not Assigned

Provider: <u>Luna Environmental</u>, <u>LLC</u> Service Completed

Aerators: Operational

Filters: Operational Sludge Level Tank 2: N/A
Irrigation Pumps: Operational Sludge Level Tank 3: 15

Disinfection Device: Operational Chlorine Supply: Operational

Chlorine Residual: .1

Tank Lid / Riser: <u>Secured</u> Insp. Port / Plug: <u>Secured</u>

Electric Circuits: Operational Distribution System: Operational

Drip/Sprayfield Veg: Operational

Alarm: Operational PSI Pressure: 2.3

#### Comments

<sup>-</sup> Scum on pretreatment 12 - Reset Timer - Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Copy emailed to the customer on 7/29/2023.