Comal County OSSF Inspection Sheet

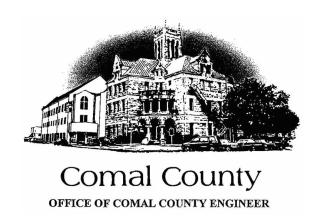
netaller Name:	Comme	bu cida		License # 0 5	0002929
			sed list them according to inspe		
et Inenaction	m-1/2	Alex and Inc	spection: 7-5-17 JU	Final Inspection	
ist mapocuon.	enector initials	& data)	(inspector initials & date	(inspecto	r initials & date
Are additional	inspections re	quired:	(Inspector filtrins of date) (abjecto	
Re-inspection	fee owed:		Re-inspection fee paid:		be the second of
Existing soil c	onditions:				pota according
		il evaluation:	Notes:		
System Descri	iption:				1
			mitters: Low Pressure Do		
			l-less drainfield piping: I		
Soil substitution	on drainfield:	other:			- Control of the Cont
Tank Inches	ion:				No. of Contract of
Tank Inspecti Tank set level		of Inlet/Outlet	Tank Size or GPD: 60	Manuf/Brane	d: Made
Model#:	~ water agait.	Pump Tank Siz	ze: Alarms/Audib	le & Visual: Oper	ational:
le timer requir	ed/movided?	Chloring	tion required/provided?		
Notes: To	wk set	caly, Le	veled . Tank Las	King weed t	potch
functo	hed	Mainte	enance Tag for Aerobic: (🗷	1	District Control
System install	lation:			/	Tours.
System install Pipe check/hor					
Pipe check/hor (1/8"-ft.,SDR	use to tank: X 26 or Sch. 40)	Clean-out at	structure/every 50 ft./@90's	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR : Trenches/Exce	use to tank: X 26 or Sch. 40) avations: Wid	Clean-out at :	structure/every 50 ft./@90's Trenches/Excavations	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR Trenches/Exce Slope within d	use to tank: \(\infty\) 26 or Sch. 40) avations: Wid brainfield/spray	Clean-out at :	structure/every 50 ft./@90's Trenches/Excavations eaching Chambers: Geol	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR: Trenches/Exce Slope within d Spray irrigatio	use to tank: \(\infty\) 26 or Sch. 40) avations: Wid brainfield/spray	Clean-out at :	structure/every 50 ft./@90's Trenches/Excavations	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR Trenches/Exce Slope within d	use to tank: \(\infty\) 26 or Sch. 40) avations: Wid brainfield/spray	Clean-out at :	structure/every 50 ft./@90's Trenches/Excavations eaching Chambers: Geol	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR Trenches/Exce Slope within d Spray irrigatio Notes:	use to tank: 20 26 or Sch. 40) avations: Wid trainfield/spray on purple pipe:	Clean-out at :	structure/every 50 ft./@90's Trenches/Excavations eaching Chambers: Geol	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR: Trenches/Exce Slope within d Spray irrigatio Notes:	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe:	Clean-out at : hth/Depth: y area: L Spray irri	Trenches/Excavations eaching Chambers: Geol	Pipe check/tank to	drainfield:
Pipe check/hor (1/8"-ft.,SDR : Trenches/Excr Slope within d Spray irrigatio Notes: Separation D Prop. Lines:	use to tank: 20 26 or Sch. 40) avations: Wid drainfield/spray on purple pipe:	clean-out at : hth/Depth: y area: Spray irri	Trenches/Excavations eaching Chambers: Geolgation area checked:	Pipe check/tank to Clevel:Pipe & Graver Creeks/R	drainfield:
Pipe check/hor (1/8"-ft.,SDR : Trenches/Exces Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease	use to tank: 20 26 or Sch. 40) avations: Wid trainfield/spray on purple pipe: istances Water linesements/Sharp	clean-out at : hth/Depth: y area: L Spray irri Si Water We Slopes:	Trenches/Excavations eaching Chambers: Geol gation area checked: ells: Bldgs/Driveway/Impr If over Recharge Zone check for	Pipe check/tank to Level:Pipe & Grav Tex: rovements: Creeks/R or recharge features:	drainfield: vel: ivers/Ponds: Are there was
Pipe check/hor (1/8"-ft.,SDR : Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing lines crossing	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines tightlines/or wander drivers	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been the within 5 ft. of surface improve	Pipe check/tank to Level:Pipe & Grav Tex: rovements: Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR : Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing lines crossing	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines tightlines/or wander drivers	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been the within 5 ft. of surface improve	Pipe check/tank to Level:Pipe & Grav Tex: rovements: Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR : Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing lines crossing	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines tightlines/or wander drivers	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been the within 5 ft. of surface improve	Pipe check/tank to Level:Pipe & Grav Tex: rovements: Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR : Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing lines crossing	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines tightlines/or wander drivers	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: ells: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been	Pipe check/tank to Level:Pipe & Grav Tex: rovements:Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR Trenches/Excression Slope within description Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes:	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ements/Sharp st tightlines/or w under drivewa red?:	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been the within 5 ft. of surface improve	Pipe check/tank to Level:Pipe & Grav Tex: rovements:Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ements/Sharp st tightlines/or w under drivewa red?:	clean-out at : th/Depth: y area: L Spray irri Si Water We Slopes: within 10 feet of	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been the within 5 ft. of surface improve	Pipe check/tank to Level:Pipe & Grav Tex: rovements:Creeks/R or recharge features: n properly sleeved: Have the se	drainfield: vel: ivers/Ponds: Are there was Are there sew
Pipe check/hor (1/8"-ft.,SDR Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back	use to tank: 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ments/Sharp st tightlines/or w under drivewa yed?: dion: filled:	Clean-out at : hth/Depth: y area: L Spray irri Si Water We Slopes: vithin 10 feet of ays, sidewalks, o	Trenches/Excavations eaching Chambers: Geol gation area checked: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been or within 5 ft. of surface improve	Pipe check/tank to check! Level:Pipe & Grave Creeks/Recoverents:Creeks/Recoverents:Creeks/Recoverents:Have the second control of the contro	drainfield: vel: Are there was Are there sewer lines been
Pipe check/hor (1/8"-ft.,SDR: Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Backf	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ments/Sharp stightlines/or water drivewared?: dion: filled: filled: E	Clean-out at : hth/Depth: y area: L Spray irri Water We Slopes: vithin 10 feet of ays, sidewalks, o Lanh T Systems Class	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Imprif over Recharge Zone check for system?: Have they been or within 5 ft. of surface improvements of the surface improvements of t	Pipe check/tank to check! Level:Pipe & Grave Creeks/Recoverents:Creeks/Recoverents:Creeks/Recoverents:Have the second control of the contro	drainfield: vel: Are there was Are there sewer lines been
Pipe check/hor (1/8"-ft.,SDR: Trenches/Excs Slope within d Spray irrigatio Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Back! Surface applie	use to tank: 2 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ements/Sharp st tightlines/or w under drivewa red?: dion: filled: Ecation area pro	Clean-out at : hth/Depth: y area: L Spray irri Slopes: within 10 feet of ays, sidewalks, o Lawh T Systems Class operly landscape	Trenches/Excavations eaching Chambers: Geol gation area checked: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been within 5 ft. of surface improve the control of the control	Pipe check/tank to check! Level:Pipe & Grave Creeks/Recoverents:Creeks/Recoverents:Creeks/Recoverents:Have the second control of the contro	drainfield: vel: Livers/Ponds: Are there was Are there sew ewer lines been
Pipe check/hor (1/8"-ft.,SDR: Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Backf	use to tank: 2 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ements/Sharp st tightlines/or w under drivewa red?: dion: filled: Ecation area pro	Clean-out at : hth/Depth: y area: L Spray irri Slopes: within 10 feet of ays, sidewalks, o Lawh T Systems Class operly landscape	Trenches/Excavations eaching Chambers: Geol gation area checked: Bldgs/Driveway/Imprif over Recharge Zone check for system?: Have they been or within 5 ft. of surface improvements of the surface improvements of t	Pipe check/tank to check! Level:Pipe & Grave Creeks/Recoverents:Creeks/Recoverents:Creeks/Recoverents:Have the second control of the contro	drainfield: vel: Livers/Ponds: Are there was Are there sew ewer lines been
Pipe check/hor (1/8"-ft.,SDR: Trenches/Excs Slope within d Spray irrigatio Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Back! Surface applie	use to tank: 2 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ements/Sharp st tightlines/or w under drivewa red?: dion: filled: Ecation area pro	Clean-out at : hth/Depth: L y area: L Spray irri L Slopes: Water We Slopes: vithin 10 feet of ays, sidewalks, o Lawh T Systems Class operly landscape	Trenches/Excavations eaching Chambers: Geol gation area checked: Geol gation area c	Pipe check/tank to Clevel:Pipe & Graver Tex: Creeks/Representation in place: For transpiration in place: Pipe & Graver Creeks/Representation To properly sleeved: To properly sleeved: To transpiration in place:	drainfield: vel: Livers/Ponds: Are there was Are there sew ewer lines been
Pipe check/hor (1/8"-ft.,SDR Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Backf Surface applier Notes:	use to tank: 20 26 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ments/Sharp stightlines/or water drivewared?: dion: filled: filled: cation area pro	Clean-out at : hth/Depth: L y area: L Spray irri L Slopes: Water We Slopes: vithin 10 feet of ays, sidewalks, o Lawh T Systems Class operly landscape	Trenches/Excavations eaching Chambers: Geol gation area checked: Geol gation area checked: Bldgs/Driveway/Impr If over Recharge Zone check for system?: Have they been within 5 ft. of surface improve the control of the control	Pipe check/tank to Clevel:Pipe & Graver Tex: Creeks/Representation in place: For transpiration in place: Pipe & Graver Creeks/Representation To properly sleeved: To properly sleeved: To transpiration in place:	drainfield: vel: Are there was Are there sewer lines been
Pipe check/hor (1/8"-ft.,SDR: Trenches/Excr Slope within d Spray irrigation Notes: Separation D Prop. Lines: Drainage Ease lines crossing lines crossing properly sleev Notes: Final Inspect Tank(s) Back System Back System Back System Back Surface applied Notes:	use to tank: 226 or Sch. 40) avations: Wid brainfield/spray on purple pipe: istances Water lines ments/Sharp stightlines/or wander drivewa ander drivewa	Clean-out at : hth/Depth: by area: L Spray irrig Slopes: water We Slopes: within 10 feet of ays, sidewalks, of the company of the	Trenches/Excavations eaching Chambers: Geol gation area checked: Geol gation area c	Pipe check/tank to Clevel:Pipe & Graver	drainfield: vel: Are there was Are there sews wer lines been

Comal County OSSF Inspection Sheet

nstaller Name: Countryside	License # 05 0002929
(if more than one installer is use	Ed list them according to inspection)
de la la anda	7-5-17 V
st Inspection: m7-6/26/17 2nd Inspection	ection: 155 1 0 Final Inspection:
(inspector initials & date)	(inspector initials & date) (inspector initials & date)
Are additional inspections required:	
Re-inspection fee owed:	Re-inspection fee paid:
Existing soil conditions:	
	Notes:
	· ·
System Description:	C
Aerobic with spray: Aerobic with drip em	itters: Low Pressure Dosing: Absorptive drainfield:
	ess drainfield piping: Leaching chambers:
Soil substitution drainfield: other:	
Tank Inspection:	
	Tank Size or GPD: 600 Manuf./Brand: Notweco
Model#: Pump Tank Size:	Alarms/Audible & Visual: Operational:
s timer required/provided?: Chlorination	on required/provided?
Votes: Touk Set couls Love	Ich. Tank beaking weed to patche
patched	
Mainten	ance Tag for Aerobic: (
System installation:	
	ucture/every 50 ft./@90's Pipe check/tank to drainfield:
1/8"-ft.,SDR 26 or Sch. 40)	
Frenches/Excavations: Width/Depth:	Trenches/Excavations Level:Pipe & Gravel:
Slope within drainfield/spray area: Lead	
Spray irrigation purple pipe: Spray irrigat	lion area checked:
Notes:	
Separation Distances	
	s: Bldgs/Driveway/Improvements: Creeks/Rivers/Ponds:
	over Recharge Zone check for recharge features: Are there water
	stem?: Have they been properly sleeved: Are there sewer
properly sleeved?:	
Notes: Canh 1	eady for Cour)
	eady for Cour JC
Diament Towns and the same	
Tank(s) Backfilled:	1 1010
Tank(s) Backfilled: ET Systems Class II	backfill & vegetative cover for transpiration in place:
Surface application area properly landscaped/v	vegetation acceptable:
Fank(s) Backfilled: System Backfilled: ET Systems Class II Surface application area properly landscaped/v	vegetation acceptable:
Tank(s) Backfilled: ET Systems Class II Surface application area properly landscaped/v	vegetation acceptable:
Fank(s) Backfilled: ET Systems Class II Surface application area properly landscaped/v Notes:	vegetation acceptable:
Fank(s) Backfilled: ET Systems Class II Surface application area properly landscaped/v Notes:	vegetation acceptable:

Comal County OSSF Inspection Sheet

Permit#: 105284 Location: Astro Hills 520 Apollo OA.
Installer Name: Countryside License # 05 000 2929 (if more than one installer is used list them according to inspection)
1st Inspection:
Re-inspection fee owed: Re-inspection fee paid:
Existing soil conditions: Site/soil conditions match soil evaluation: Notes:
System Description: Aerobic with spray: Aerobic with drip emitters: Low Pressure Dosing: Absorptive drainfield: Evapotranspirative (ET) system: Gravel-less drainfield piping: Leaching chambers: Soil substitution drainfield: other:
Tank Inspection: Tank set level & watertight: Manuf./Brand: Manuf./Brand: Manuf./Brand: Moderation
System installation: Pipe check/house to tank: Clean-out at structure/every 50 ft./@90's Pipe check/tank to drainfield: (1/8"-ft.,SDR 26 or Sch. 40) Trenches/Excavations: Width/Depth: Trenches/Excavations Level: Pipe & Gravel: Slope within drainfield/spray area: Leaching Chambers: GeoTex: Spray irrigation purple pipe: Spray irrigation area checked: Notes:
Separation Distances Prop. Lines: Water lines: Water Wells: Bldgs/Driveway/Improvements: Creeks/Rivers/Ponds: Drainage Easements/Sharp Slopes: If over Recharge Zone check for recharge features: Are there water lines crossing tightlines/or within 10 feet of system?: Have they been properly sleeved: Are there sewer lines crossing under driveways, sidewalks, or within 5 ft. of surface improvements: Have the sewer lines been properly sleeved?: Notes:
Final Inspection: Tank(s) Backfilled: System Backfilled: ET Systems Class II backfill & vegetative cover for transpiration in place: Surface application area properly landscaped/vegetation acceptable: Notes:
Size of Installed Drainfield/Spray Area:
Check here to confirm that service agreement has been received, entered and activated in CASST.



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

Permit Number: 105284

Issued This Date: 12/16/2016

This permit is hereby given to: James Rizzuto II & Kathryn Haley-Rizzuto

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

520 APOLLO DR

CANYON LAKE, TX 78133

Subdivision: Astro Hills

Unit: 1

Lot: 10

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.

OSSF DEVELOPMENT APPLICATION CHECKLIST	Staff will complete shaded
	items Date Received initial
	NO5284 Permit Number
Instructions:	
Place a check mark next to all items that apply. For items that do not apply, place "Na Application Checklist must accompany the completed application.	/A". This OSSF Development
OSSF Permit	
Completed Application for Permit for Authorization to Construct an On-S Operate	Site Sewage Facility and License to
Site/Soil Evaluation Completed by a Certified Site Evaluator or a Profes	ssional Engineer
Planning Materials of the OSSF as Required by the TCEQ Rules for OS shall consist of a scaled design and all system specifications.	SSF Chapter 285. Planning Materials
Required Permit Fee	RECEIVED
Copy of Recorded Deed	DEC 06 2016
Surface Application/Aerobic Treatment System	COUNTY ENGINEER
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 aconstitutes a completed OSSF Development Application.	Application and that this application
Signature of Applicant	146/16 Date
COMPLETE APPLICATIONINCOM	PLETE APPLICATION
Check No Receipt No (Missing Item	ns 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 O	ctober 5, 2016		Permit #	05284	
Owner Name	JAMES RIZZUTO II, & KATHRYN HALEY-RIZZUTO	Agent Name	GREG W. J	OHNSON, P.E.	
Mailing Address	15015 KAMARY LANE	Agent Address	170 HOI	LOW OAK	
City, State, Zip	SAN ANTONIO, TX 78247	TONIO, TX 78247 City, State, Zip NEW BRAU			
Phone#	(210) 215-5725 Phone # (83		(830)	905-2778	
Email		Email			
All correspondent	ce should be sent to: 🔲 Owner 🔀 Agent	☐ Both Meth	nod: Mail	⊠ Email	
Subdivision Nam	e ASTRO HILLS	Unit 1 Lo	ot10	Block	
Acreage/Legal _			Tables de l'exeption Reservassine describe		
Street Name/Add	dress 520 APOLLO DRIVE	City CANY	ON LAKE	Zip 78133	
Type of Develop	ment:				
Single Family	Residential				
Type of Co	onstruction (House, Mobile, RV, Etc.)	HOUSE		RECEIVED	
Number of	Bedrooms 3			DEC 0 6 2016	
Indicate So	Ft of Living Area 1600			UNTY ENGINEER	
Restauran Hotel, Mot	actories, Churches, Schools, Parks, Etc In ts, Lounges, Theaters - Indicate Number of el, Hospital, Nursing Home - Indicate Numb iler/RV Parks - Indicate Number of Spaces	Seats	ants		
Estimated Cost of	of Construction: \$ 160,000 · (Strue	cture Only)			
Is any portion of	the proposed OSSF located in the United S	tates Army Corps of Engi	neers (USACE)	flowage easement?	
Yes No					
(if yes, owner must	t provide approval from USACE for proposed OS	SF improvements within the	USACE flowage	easement)	
Source of Water Are Water Saving	Public Private Well g Devices Being Utilized Within the Residen	ce? 🛛 Yes 🔲 No			
any material facts. property for the pu	Authorization is hereby given to the permitting a process of site/soil evaluation and inspection of process of site/soil evaluation and all additional information.	authority and designated age rivate sewage facilities. I also performed the reviews require 	nts to enter upon a understand that a sed by the Comal C	the above described permit of authorization to	

* * 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 Comple	eted By GREG W. JOHNSON, P.E.	
System Description	PROPRIETARY;	AEROBIC TREATMENT AND DRIP TUB	ING
Size of Septic System Req	uired 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 1 (Sites generating more than 5	FCEQ Table III) 240 5000 gallons per day are required t	to obtain a permit through TCEQ)	
(If yes, the planning materials	er the Edwards Recharge Zone? s must be completed by a Registere approved WPAP for the propert	ed Sanitarian (R.S.) or Professional Engineer (P.	E.))
		lies with all provisions of the existing WPAP.)	
(If yes, the R.S. or P. E. shall	certify that the OSSF design will co	ment activity require a TCEQ approved WPA omply with all provisions of the proposed WPAP has been approved by the appropriate regional of	. A Permit to Construct will
is the property located over	er the Edwards Contributing Zon	ne? 🛛 Yes 🗌 No	DEC 0 6 2016
Is there an existing TCEQ	approval CZP for the property?		
(if yes, the P.E. or R.S. shall	certify that the OSSF design compl	lies with all provisions of the existing CZP)	COUNTY ENGINEER
(if yes, the P.E. or R.S. shall	certify that the OSSF design will con	ent activity require a TCEQ approved CZP? mply with all provisions of the proposed CZP. A Fapproved by the appropriate regional office.)	
Is this property within	an incorporated city? Ye	es No	N ₃
If yes, indicate the city	7:	GREG W. JOHNSO	IRM #2585
I certify that the information p	provided above is true and correct t	o the best of my knowledge. October 5, 2016	
Signature of Designer		Date	Page 2 of 2

AFFIDAVIT



201606046164 12/06/2016 11:52:34 AM 1/1





CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

T

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

Н

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description):

UNIT PHASE/SECTION	BLOCK _	10	_LOT	ASTRO HILLS	SUBDIVISION
IF NOT IN SUBDIVISION:	ACREAG	E			SURVEY
The property is owned by	(insert owner'	s full na	ame): _	JAMES RIZZUTO II & KATHRYN H	ALEY-RIZZUTO
the initial two-year service	ce policy, the ow	ner of a	n aerob	ice contract for the first two years ic treatment system for a single fathin 30 days or maintain the system	mily
transferred to the buyer	or new owner. A	copy c	of the pl	the permit for the OSSF shall be anning materials for the OSSF ca	n be
WITNESS BY HAND(S)	ON THIS /	_DAY C	$_{ m DF}$	ecember ,20 16 CO	UNIYENGINLLIN
James L. Ky	ruloso			MMES C. KINUMOR	
Stally Haley-	quito		Ko	Shryn Haley-Rizzulo mer (s) Printed name (s)	
Owner(s) signature(s)	00		Ov	vner (s) Printed name (s)	
James Frezuro It Kath	ynHuley 1122	্ৰত WORN '	TO ANI	oner (s) Printed name (s) O SUBSCRIBED BEFORE ME ON Filed and Recorded	THIS / DAY OF
December	,20_16			more in the second and	
mych Mul				Filed and Recorded Official Public Records	
Notary Public Sig	gnature			Bobbie Koepp, County C	lerk
Coec .	N. JOHNSON			Comal County, Texas	
Notary Publ	ic, State of Texas			12/06/2016 11:52:34 AM	
	17, 2018			TERRI 1 Page(s)	
. Alwatury S	ty life from me man			201606046164	
				6 Babbie Ke	upp

REVISED 2:52 pm, Dec 16, 2016
2:52 pm, Dec 16, 2016

PO Box 228	Site Address 520 APOLLO DRIVE	
Boerne, TX 78006	City CANYON LAKE Zip 78133 Gate #	
Off. (830)443-4559	Mailing Address 15015 KAMARY LANE	
Fax (210)579-6073	City SAN ANTONIO Zip 78247	
Website www,lonestaras.com	Day Phone 210-215-5725	
E-Mail	The state of the s	
Installer JCN CONSTRUCTION	Astro Hills , UNIT 1, LOT 10 520 APOLLO DRIVE	
I. General; This Work for Hire Agreement (hereinafter referred to as "Agree	ment") is entered into by and between JAMES RIZZUTO II, & KATHRYN HALEY RIZZ	zuto
(hereinafter referred to as "Customer") and Lonestar Aerobic Services, L1	.C. By this agreement, Lonestar Aerobic Services, LLC and its employees (hereinafter inseed above, as described herein, and the Customer agrees to fulfill his/her/their responsibili	olasively
described hereis. The designed flow rate for this system is a maximum of	240 gallons per day.	
II. Effective Dates: This agreement commences on LTO and end	s on for a total of two (2) years (initial agreement) or one (1) year (there stractor within two (2) business days of the system's first use to establish the date of com-	after). If this
no notification is received by Contractor within ninety (90) days after con-	pletion of installation or where county authority mandates, the date of commencement w	ill be the date
the "License to Operate" (Notice of Approval) was issued by the permitting installed equipment, but in no case shall it extend the specified warranty.	ig authority. This agreement may or may not commence at the same time as any warranty	period of
ill. Renewal: This Agreement shall automatically renew each year at the same	e terms, conditions, and costs, unless either party gives notice of termination a minimum	of thirty (30)
days prior to end of first agreement period. See Section IV.		
perform in accordance with its terms, without fault or liability of the terms	party with thirty (30) days written notice for any reason, including for example, substant nating party. If this Agreement is so terminated, Contractor will be paid at the rate of \$75	ial failure to
any work performed and for which compensation has not been received. /	ther the deduction of all outstanding charges, any remaining monics from prepayment for	nervices will
be refunded to customer within thirty (30) days. Either party terminating t	his agreement for any reason, including mon-renewal, shall notify in writing the equipmer 30) days prior to the date of such termination. Nonpayment of any kind shall be consider	tt od komok of
contract and a termination of contract.	207 mg s prior to the make or meen secunimenter. Prospeyintase of my mind make the exercised	os oreaca os
V. Services: Contractor will;	Orașin de sufere de su Office d	J
 inspect and perform routine up-keep on the Cu-sue Sewage Fashing by state and/or local regulations, for a total of three visits to site ser: 	(hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, sear.	and required
B. Provide a written record of visits to the site by means of an impaction	is tag attached to or contained in the control panel.	
 Repair or replace, if Contractor has necessary materials at site, any c visit. If such services are not covered by warranty, and service costs. 	omponent of the OSSF flound to be failling or inoperative during the course of a routine m are \$100.00 or less. Customer hereby authorizes Contractor to perform the service and bi	onitoring
for said service. When service costs are greater than \$100.00, or if C	ontractor does not have necessary supplies at the site, Contractor will notify Customer of	required
service(s) and associated cost(s). Customer must notify Contractor o D. Provide sample collection and inhoratory testing of TSS and BOD o	f arrangements to effect repair of system within two (2) business days after said notification	on.
E. Forward copies of this Agreement and all reports to the regulatory ag	gency and the customer.	
	within forty-eight (48) hours of the date of notification (weekends and holidays excluded	of said
request. Unless otherwise covered by warranty, costs for such smach VI. Disinfection: Not Required. Required. The responsibility to main		Customer.
VII. Electronic Monitoring is ant Included in this Agreement.	Enicial	RECEIVED
VIII. Performance of Agreement: Commencement of performance by Contra A. If this is an initial agreement (new installation);	ctor under this agreement is contingent on the following conditions:	INCLINED
 Contractor's receipt of a fally executed original copy or facsing 	ile of this agreement and all documentation requested by Contractor.	DEO 8 8 8848
 Contractor's receipt of payment of the wastewater monitoring! If this is not an initial agreement (existing system); 	ee in accordance with the terms as described in Section XIV of this Agreement.	DEC 06 2016
1. Contractor's receipt of a fully executed original copy of this ag	reement and all documentation requested by Contractor.	
Contractor's receipt of payment of the wastewater monitoring to.If the above conditions are not met, Contractor is not obligated to pe	ee in accordance with the terms as described in Section XIV of this Agreement.	
IX. Customer's Responsibilities: The Customer is responsible for each and a	Il of the following:	DUNTY ENGINEER
A. Provide all necessary yard or lawn maintenance and the removal of	all obstacles, including but not limited to dogs and other animals, vehicles, trees, break, tr	nels, or
debris, as needed to allow the OSSF to function properly, and to allo B. Protect equipment from physical damage including but not limited to	w Commeter sale and easy access to all parts of the OSSF.	
C. Maintain a current license to operate, and abide by the conditions an	d limitations of that license, and all requirements for an on-site sewage facility (OSSF) fro	om the State
and/or local regulatory agency, whichever are more stringent, as well D. Notify Contractor immediately of any and all alarms, and/or any and	l as proprietary system's manufacturer recommendations.	
 Provide, upon request by Contractor, water usage records for evaluat 	ion by Contractor as to the performance of the OSSF.	
F. Allow for samples at both the inlet and outlet of the OSSF to be obtained in a fathermore, for testing, with the execution of the service provided	ised by Contractor for the purpose of evaluating the OSSF's performance. If these sample under Section V. sub-section D. above, Customer agrees to pay Contractor for sample or	es are taken
vanaportation, portal to portal, at a rate of \$35 per hour, plus the ass		Discion and
G. Prevent the back wash or flushing of water treatment or conditioning		
discharge into the surface application pump tank if approved by ayat	ir the drains of icemakers, from hydraidically overloading the aerobic treatment units. Dri am dealgreer.	am renes may
1. Provide for pumping and cleaning of tanks and treatment units, when	and as recommended by Contractor, at Customer's expense.	
 Maintain site drainage to prevent adverse effects on the OSSF. Pay promptly and fully, all Contractor's fees, bills, or invoices as de 	scribed herein.	
X. Access by Contractor: Contractor is hereby granted an easement to the OS	SP for the purpose of purforming services described herein. Contractor may enter the gen	perty during
Contractor's normal business hours and/or other reasonable isours without have access to the OSSF electrical and physical components. Tanks and to	prior notice to Customer to perform the Services and/or repairs described herein. Contract entment units shall be accessible by means of man ways, or risers and removable covers.	ace shall
purpose of evaluation as required by State and/or local rules and the prope	ietury system manufacturer. If not an initial agreement (new installation) and this access i	s not in place
or provided for by the customer, the costs for the labor of excavation, and	possibly other labor and materials costs, will be required. These costs shall be billed to C avated soil shall be replaced as best as Contractor can at the time such service is perform	astomer as an
no circumstances is Contractor responsible for damages to sod, grass, root	s, landscaping, or any unmarked underground items (telephone, television, or electric cab	ics, water,
sir, or gas lines, etc.), or for the uneven settling of the soil.	onsequential, or special damages, or for economic loss due to expense, or for loss of prof	
or loss of use to Customer, whether in contract tort or any other theory. In	no event shall Contractor be liable in an amount exceeding the total Fee for Services and	ns or mcome, ant said by
Customer under this Agreement.		
All. Severability: It any provision of this "Proposis and Contract" shall be he and enforceable. If a court finds that any provision of this "Agreement" is	dd to be invalid or unenforceable for any reason, the remaining provisions shall centinue lavalid or unenforceable, but that by limiting such provision it would become valid and e	to be valid
then such provision shall be deemed to be written, construed, and enforced	i as so limited.	
	labor necessary for non-warranty repairs or for unacheduled, Customer requested visits to Payment of invoice(s) for any other service or repair provided by contractor is due unous	
invoice. Invoices are mailed on the date of invoice. All payments not receive	ved within thirty (30) days from the invoice date will be subject to a \$29,00 late penalty a	ind a 1,5%
	all collection and court costs incurred by Contractor in collection of unpaid debits). Conti urned to Contractor for any reason will be assessed a \$30.00 returned check fee.	ractor may
	irried to Contractor for any reason will be assessed a \$30.00 returned check fee. By transfer to the subsequest property owner(s); however this agreement is not transferable	e. Customer

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

XVI. Emire Agreement: This agreement contains the entire agreement of the parties, and there are no other properties or conditions in any other agreement, or all or written.

White Copy: Lonestar Aerobic Srvs.

License number OS24590. Yellow Copy: Home Own

Texas Installer II

Pink Copy: Regulatory Authority

JULOBO

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed:	October 04, 2016	
Site Location:	ASTRO HILLS, UNIT 1, LOT 10	
Proposed Excavation Depth: _	N/A	
D		

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
10"	111	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 10"	BROWN
						RECEIVED
						DEC 06 2016
5					Co	DUNTY ENGIR

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. 10/04/2016 Date

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

OSSF SOIL EVALUATION REPORT INFORMATION

Date: October 05, 2016				
Applicant Information:	Site Evaluator Information: Name: Greg W. Johnson, P.E., R.S., S.E. 11561 Address: 170 Hollow Oak			
Name: JAMES RIZZUTO II & KATHRYN HALEY-RIZZUTO				
Address: 15015 KAMARY LANE				
City: SAN ANTONIO State: TEXAS		els State: Texas		
Zip Code: 78247 Phone: (210) 215-5725	Zip Code: <u>78132</u>	Phone & Fax (830)905-2778		
Property Location:	Installer Infor	mation:		
Lot 10 Unit 1 Blk Subd. ASTRO HILLS	Name:			
Street Address: 520 APOLLO DRIVE	Company:			
City: CANYON LAKE Zip Code: 78133				
Additional Info.:		State:		
		Phone		
Topography: Slope within proposed disposal area:	2 %			
Presence of 100 yr. Flood Zone:	YESNO_X			
Existing or proposed water well in nearby area.	YES NO X			
Presence of adjacent ponds, streams, water impoundments	YES NO X			
Presence of upper water shed	YESNO_X			
Organized sewage service available to lot	YES NO X			

RECEIVED

DEC 06 2016

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

0/05/2016

DRIP TUBING SYSTEM

DESIGNED FOR:

JAMES RIZZUTO, II & KATHRYN HALEY-RIZZUTO 15015 KAMARY LANE SAN ANTONIO, TX 78247

SITE DESCRIPTION:

Located in Astro Hills, Unit 1, Lot 10, at 520 Apollo Drive, this septic will serve a three bedroom residence (1600 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 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. RECEIVED

DESIGN SPECIFICATIONS:

DEC **06** 2016

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

Pretreatment tank size: 353 Gal

COUNTY ENGINEER

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.).

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"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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((1.049/12)†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

GREG W. JOHNSON

GREG W. JOHNSON

G7587

G7587

COUNTY ENGINEER

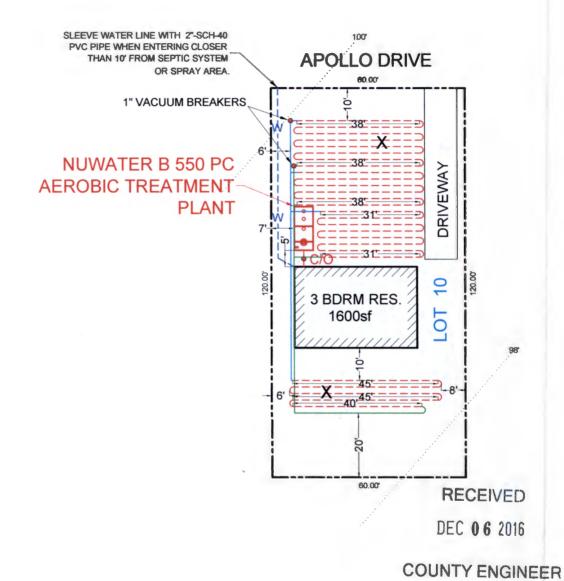
G7587

COUNTY ENGINEER

INSTALL 2000sf OF FIELD USING 1000' OF DRIP TUBING

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

X= TEST HOLE







JAMES RIZZUTO II & KATHRYN HALEY-RIZZUTO			DRAWN BY:		
STREET ADDRESS: 520 APOLLO DRIVE	- Carlos continu				
ASTRO HILLS	UNIT/SE	CTION/PHASE:	BLOCK:	LOT: 1	10
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	1"=30"	DATE: 10/5/2	2016	REVISED:	13

TANK NOTES:

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

Tightlines to the tank shall be SCH-40 PVC.

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

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

RECEIVED DEC 06 2016 ALL WIRING MUST BE IN COMPLIANCE WITH THE MOST RECENT NATIONAL ELECTRIC CODE COUNTY ENGINEER POLY LOCK TO CONTROL PANEL TO FIELD PUMP RISER PRESSURE ADJUSTMENT 10/05/2016 & SAMPLING VALVE RESERVE REQUIREMENT 80 GAL + HIGH LEVEL FLOAT OVERRIDE FLOAT OVERRIDE FLOAT WORKING LEVEL PUMP ON/OFF FLOAT SUMP 218 GAL

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

Arkal 1" Super Filter

Catalog No. 1102 0___

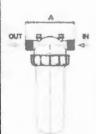
Features

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



Technical Data

	1" BSPT (male)	1" NPT (male)
Inlet/outlet diameter	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /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





RECEIVED
DEC 0 6 2016

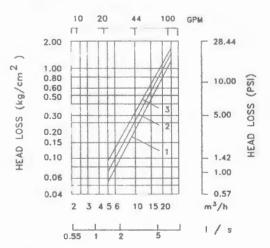
COUNTY ENGINEER

Filtration Grades

Green (55 micron)

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

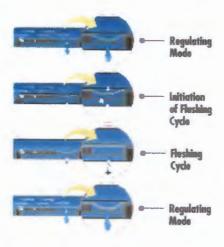
Head Loss Chart



NETAFIM

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, clag 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 termin
- · Excellent uniformity with runs of 400 feet or more reducing installation costs.
- Highest quality-control standards in the industry: Cv of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

Long-Term Reliability

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

Cross Section of Maline Dripperline



Root Safe

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



Applications

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

Specifications

Wall thickness (mil): 45*

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

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

Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable

SOUICE

*Additional flows, spacings, and pipe sizes available by request.

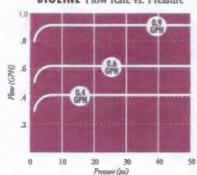
Please contact Netafim USA Customer Service for details.

RECEIVED

DEC 06 2016

COUNTY ENGINEER

BIOLINE Flow Rate vs. Pressure





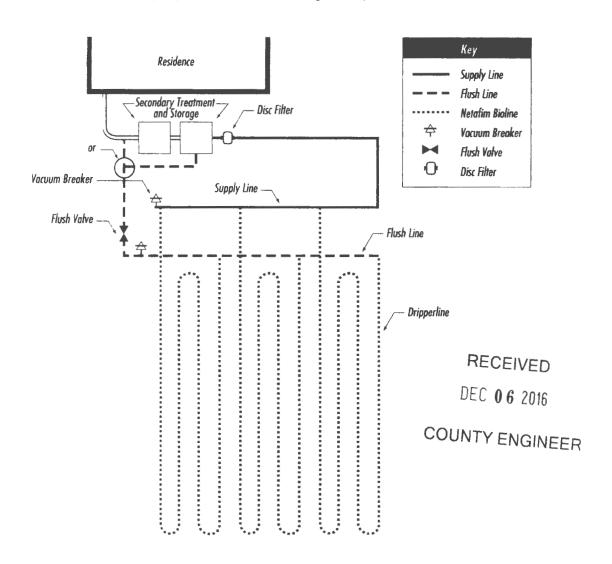
NETAFIM USA 5470 E. Home Ave. • Fresno, CA 93727 888.638.2346 • 559.453.6800 FAX 800.695.4753 www.netafimusa.com

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

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

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





From: <u>Hernandez, Sandra</u>
To: <u>"Greg Johnson"</u>

Subject: 105284 deficiency comment

Date: Tuesday, December 13, 2016 3:28:09 PM

RE: Lot 10, Astro Hills Unit 1

Greg,

In order to continue processing this permit, we need the following information:

Maintenance contract indicates a different legal description for the referenced property. Revise accordingly and resubmit.

If you have any questions, you can email me or call the office.

Thank you,

Sandra Ann Hernandez
Environmental Health Assistant
Comal County Engineers Office
New Braunfels, Texas 78132
830-608-2090 Office
830-608-2078 Fax
www.cceo.org

REGULATORY AUTHORITY COMAL PERMIT/LICENSE NUMBER WASTEWATER TREATMENT FACIL GREEMENT AMES RIZZUTO N, & KATHRYN HALEY RIZZUTO Lonestar Aerobic Services, LLC s 520 APOLLO DRIVE PO Box 228 NIAKE Zip 78133 Boerne, TX 78006 Gate # Mailing Address 15015 KAMARY LANE Off. (830)443-4559 City SAN ANTONIO Zip 78247 Fax (210)579-6073 Day Phone 210-215-5725 Website www.lonestaras.com CANYON SPRINGS RESORT, UNIT 1, LOT 10 Installer JCN CONSTRUCTION 520 APOLLO DRIVE ne") is emered into by and between JAMES RIZZUTO II, & KATHRYN HALEY RIZZUTO I. General: This Work for blire Agreement (hereiss fler referred to as "Agree (horeins the wing but the Agreement (horeins for the Agreement of the Agre no dotification is received by Contractor within ninety (90) days after completion of initialistion or where county authority mandates, the date of commencement will be the date the "License to Operate" (Notice of Approval) was issued by the persisting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty. III. Renewel: This Agree nest shall automatically restwoesth year at the same texas, conons, and costs, unless either party gives notice of termination a minimum of thirty (30). III. Keneves: This Agreement shall automatically reserve each year at the came taxon, conditions, and coxis, unless either party gives notice of translation a manmatin of tainty (30) days written notice for any reason, including for example, substantial failure to perform in accordance with its torus, without fault or liability of the terminating party. If this Agreement is a terminate, Contractor will be paid at the rate of \$75 per hour for any work performed and for which compensation has not best received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days. Either party terminating this agreement for any reason, including non-senewal, shall saidly in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract V. Services: Contractor will, A. Inspect and perform mutine upkers on the On-Site Sewage Facility (Installed to as OSSF) on recommended by the treatment system manufacturer, and required by state and/or local regulations, for a total of three visits to also per year.

B. Provide a written record of visits to the site by means of an importion tag attached to or commined in the cosmel panel.

C. Repair or replace, if Contractor has necessary masterials at site, any component of the OSSF found to be failing or inoporative during the course of a routine m C. Repair or replace, if Contractor has accessary materials at site, any component of the OSSF Board to be realized an importance during the course of a routine monitoring visit. If six hervices are not covered by werrangy, and service costs are \$100.00 or if Contractor does not have necessary supplies at the site, Contractor will notify Customer of required service(s) and associated cost(s). Customer basis notification.

D. Provide sample collection and inhoestory testing of TSS and BOD on a yearly basis (commercial systems costy). E. For word copies of this Agreement and all reports to the regulatory agency and the customer.

F. Visit site in response to Customer's request for unscheduled service within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by summity, costs for such anacheduled responses will be billed to Customer. VI. Distribution: Not Required. Required. The responsibility to maintain the distributions device(s) and provide any necessary chemicals is fluit of the VII. Electronic Monitoring is ant included in this Agreement.

VEII. Performance of Agreement: Commencement of performance by RECEIVED A. If this is an initial agreement (new installation);

1. Contractor's receipt of a faily essented original copy or

2. Contractor's receipt of payment of the wastewater more sted by Contra as as described in Section XIV of this Agreement. DEC 06 2016 B. If this is not an initial agreement (existing system); 1. Contractor's receipt of a fully executed original copy of this agreement and all documentation request of by Contractor.

2. Commetter's receipt of payment of the vasatewaser evolstoring fee in accordance with the terms as described in Section XIV of this Agreement. C. If the above conditions are not met, Contractor is not obligated to perform any portion of this agreement.

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

D. Customer's Responsibilities: The Customer is responsible for each and all of the following:

A. Provide all necessary yard or tawn maintenance and the removal of all obstacles, including but not limited to degs and other animals, validing, seen, brush, and debris, as needed to allow the OSSF to function property, and to allow Contractor safe and easy access to all parts of the OSSF.

B. Protest equipment from physical durange including but not limited to that damage caused by lancets. COUNTY ENGINEER C. Maintain a current fireness to operate, and abide by the conditions and lineitations of that license, and all requirements for an on-site sewage facility (OSSF) from the State C. Maintain a current firmus to operate, and abide by the conditions and line intrinous of that liceose, and all requirements for an on-site sewage facility (OSSF) from the State and/or local regulatory agency, whichever are more stringent, as well as propaletary system's manufacturer recommendations.

D. Notify Couractor immediately of any and all alarms, and/or any and all problems with, including fishing off, the OSSF.

E. Provide, upon request by Contractor, water usage records for evaluation by Contractor as to the performance of the OSSF aperformance. If these samples are taken to a laboratory for tenting, with the exception of the orange contractor for the purpose of evaluating the OSSF aperformance. If these samples are taken to a laboratory for tenting, with the exception of the service provided under Section V. sub-section D. aboves, Customer agrees to pay Commerce for sample collection stad transportation, portal to portal, at a case of \$3.5 per hour, plus the associated from five laboratory testing.

G. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.

N. Prevent the condensate front air conditioning or refrigeration water, or the drains of iounishors, thus hydrosidically overloading the aerobic treatment units. Orain lines may discharge into the surface application pump lank if approved by quatent designer.

L. Provide for numering and cleaning of tanks and treatment units, when and as recommended by Contractor, at Customer's sources. Provide for pumping and cleaning of tanks and treatment units.
 Maintain site drainage to prevent adverse effects on the OSSF. et units, when and as recome inded by Contractor, at Customer's expense. J. Malmain site drainage to prevent adverse effects on the OSSF.

K. Pay promptly and fully, all Contractor's foct, bills, or levolose an described herein.

X. Access by Contractor: Contractor is hereby granted an exacement to the OSSF for the purpose of purificating nervices described herein. Contractor may enter the property deving Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment switts shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. If no to an initial agreement (new installation) and this secess is not in place or provided for by the outcomer, the costs for the labor of examvation, and possibly other labor and materials costs, will be required. These costs shall be billed to Customer as an additional service at a rate of \$35 per hour, plus assterials at list price. Excavand soil shall be replaced as best as Contractor can be the time such survice is performed and under no circumstances is Contractor responsible for damages to void, grass, coots, limitscaping, or any unmarked motor ground items (telephone, television, or electric valles, water, alt, or gas lines, etc.), or for the uneven settling of the beld liable for any incidental consequential, or special damages, or for connected lines due to extractor the formation and the labor of received as the contractor of the long of received the state. XI. Limit of Linbility: Contractor shall not be held liable for any incidental, consequential, or special demages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other themy. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement. XII. Severability: If any provision of this "Proposal and Contract" shall be held to be invalid at 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 unemforceable, but that by finalting such prevision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited. XIII. Fee for Services: The fee does not include any equi percet, materials, or also recessary for non-warranty repairs or for unacheduled, Customer requested visits to the site.
XIV. Payment: Full amount due upon signature (Required of new Customer), Payment of involce(s) for any other service or repair provided by contractor is due upon receipt of invoice. Invoices are unailed on the date of invoice. All payments not received within thinty (30) days from the invoice date will be subject to a \$29,00 face geneity and a 1,3% per month carrying charge, as well as any reasonable autorsey's feet, and all collection and court costs incurred by Contractor in collection of suspeid deta(s). Contractor may erminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 returned check for XV. Application or Transfer of payment: The fees paid for this agreement may transfer to the subsequent property owner(s); however this agreement is not transferable. Consense will advise subsequent property owner(s) from the herein described Services, and societies Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funds received from Customer first to any past due obligations arising from this Agreement including late feet or penalties, returned check frees, and/or charges for services or repairs not good within thirty (10) days of levoics date. Any remaining monies shall be applied to the funding of the explacement Agreement. The consumption of funds to this manner may cause a reduction in the sermi XVI. Entire Agreement: This agreement contains the ordire agreement rion date of effective coverage per this agreement. See Section IV.

White Copy: Lonester Aerobic Srys.

White Copy: Lonester Aerobic Srys.

1123 DWB 20



General Warranty Deed

Date:

June 16, 2016

Grantor:

Alan Hayes

Grantor's Mailing Address:

226 North ate SAI Antonio77 8218

Grantee:

James Rizzuto II and Kathryn Haley-Rizzuto

Grantee's Mailing Address:

15015 KAMARY LU. SAN ANTONIO, TX 78247

Consideration:

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

Property (including any improvements):

Lot 10, ASTRO HILLS UNIT NO. 1, a subdivision in Comal County, Texas, according to the map or plat thereof recorded in Volume 2, Page 32, of the Map and Plat Records of Comal County, Texas

RECEIVED

Reservations from Conveyance:

DEC 06 2016

None

Exceptions to Conveyance and Warranty:

COUNTY ENGINEER

Validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate, that affect the Property; and taxes for 2016, which Grantee assumes and agrees to pay, but not subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantor assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, gives, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and

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

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

Alan Haves

STATE OF TEXAS

COUNTY OF COMAL

This instrument was acknowledged before me on June 16, 2016, by Alan Hayes.

CHERI VOSS My Notary ID # 6467325 Expires April 9, 2019 Notary Public, State of Texas
My commission expires:

PREPARED IN THE OFFICE OF:

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

Fax: (830) 964-4426

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County Texas
06/22/2016 11:34:31 AM
TERRI 2 Page(s)

RECEIVED

DEC 06 2016

COUNTY ENGINEER