HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

P.O. Box 400, Lillington, NC 27546-0400 Phone (910) 893-8743 / Fax (910) 893-3594 www.halowensoil.com

Project Name: 524 Long	eaf Drive, Tract 2-B				
County: Harnett	LHD	Reference: BRES24	05-0069		
Provided to:					
Name: Justin Zimi	nerle and Bruce Steger	r			
Address: 92 Dove	Trail, Sanford, NC 27	7332			
, Justin Zimm	orle Bi	ruce Steger	_acknowledge	receipt of	the
Licensed Soil Scientist I	Report which include	des:			
Signed and seal	ed copy of the A	OWE's report that	includes the in	nformation in	G.S.
130A-336.2(k)					
Operation and M	anagement Program	m			
• Authorization to	Operate				
accept the septic syste	m installation and	d understand that I	will be respon	sible for cont	inued
adherence to the Operati	ons and Manageme	ent program establis	shed by the AO	WE.	
Signature	Brue De	gl ₁		-/-24 te	

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1 November 2024

Justin Zimmerle and Bruce Steger 92 Dove Trail, Sanford, NC 27332

Reference: LSS Report for Authorization to Operate (ATO) 524 Longleaf Drive, Tract 2-B LHD # BRES2405-0069

Dear Mr. Zimmerle and Mr. Steger,

This LSS Report is being provided pursuant to and meets the requirements of G.S. 130A-336. This report is based on information provided by the property owner or their representative. Hal Owen & Associates, Inc. is not responsible for false or misleading information that may have been provided to us in pursuit of this permit, nor for concealed conditions on the property. Hal Owen & Associates Inc. does not warrant that the septic system will continue to function satisfactorily in the future.

The septic system for the above referenced property has been installed and was inspected by Hal Owen & Associates staff on 12 September 2024. The system has been installed in compliance with applicable NC General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the AOWE Permit. Enclosed with this report are the Septic System Final Inspection Report, As-Built map (Figure 1), and Operation and Management Program.

You will need to sign a document confirming receipt of this report and acceptance of the installed system (pg 1) and submit this report to the Local Health Department (LHD). The LHD shall issue a certificate of occupancy upon receipt of a complete ATO.

I appreciate the opportunity to provide this service. If you have any questions or need additional information, please contact me at your convenience.

SOIL SCIENT ON THE PROPERTY OF NORTH CROSS

Continuation Number 10036E

Sincerely,

Hal Owen

Licensed Soil Scientist

Authorized Onsite Wastewater Evaluator

Contacts

APPLICANT

Applicant Name	Justin Zimmerle and Bruce Steger
Mailing Address	92 Dove Trail, Sanford, NC 27332
Telephone Number	480-341-5296
E-mail Address	JustinZimmerle32@yahoo.com

SOIL SCIENTIST

Company Name	Hal Owen & Associates, Inc.	
Mailing Address	PO Box 400, Lillington, NC 27546	
Telephone Number	910-893-8743 Fax: 910-893-3594	
E-mail Address	hal@halowensoil.com	
Licensed Soil Scientist	Hal Owen, LSS#1102 and AOWE# 10036E	
System Designer	Shane MacDonald #5572	
System Inspector	Jocelyn Proulx	

INSTALLER

Company Name	Eastern Septic Service
Mailing Address	283 Pump Station Rd, Erwin, NC 28339
Telephone Number	910-580-1500
E-mail Address	easternseptic@gmail.com
Installer & Certification #	Shane MacDonald #5572

LOCAL HEALTH DEPARTMENT

Agency Name	Harnett County Health Department Environmental Health Division
Mailing Address	307 W Cornelius Harnett Blvd, Lillington, NC 27546
Telephone Number	(910) 893-7547
LHD Application #	BRES2405-0069

Septic System Final Inspection Report

Facility Type	Single Family Residence
Wastewater Type	Domestic
Water Supply	Public
Design Wastewater Flow	480 gpd
Soil LTAR	0.70

Installation

Date	12 September 2024	
System Inspector	Jocelyn Proulx, #9943I	
Installer	Shane MacDonald #5572	

Septic Tank:

- william	
Volume (gallons)	1000
Brand and Tank ID#	MCP STB 814
Certified watertight	NA
Distance to Structure	6'
Elevation of tank inlet	10' 7 ½"
Elevation of tank outlet	10' 9 ½"

Effluent Filter:

Make and Model	Polylok PL-68	

Pump Tank:

Volume (gallons)	1000
Brand and Tank ID#	MCP PT-53
Certified watertight	NA
Elevation of tank inlet	10' 10 3/4"
Elevation of tank outlet	11' 1 ½"

Pump:

· .	
Make and Model	Zoeller 152
Pump Sys- Elevation Head	15.5
Pump Sys- Friction Loss	3.54
Pump Sys- Design Head	2.0
Pump Sys- TDH	21.04
GPM (actual)	27.37

Control Panel:

Manufacturer	Alderon Industries APS220	
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Distribution:

Supply Line Length to Distribution	80'	
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Supply Line Diameter	2"		
Distribution Device:	Pressure Manifold		
Number of outlets (laterals)	2		

Drainfield:

Type	Quick4 Standard Chamber		
Distance to Structure	92'		
Distance to Well	>50' to existing well		

Trench Depth Trench Spacing		18" Trench width		36"
		9'	Aggregate	chamber
	Length (ft)	Start	Middle	End
Line 1	90	1' 4"	1' 4"	1' 4"
Line 2	90	1' 6"	1' 6"	1' 6"
Total	180			

All elevations are given as relative grade rod reading.

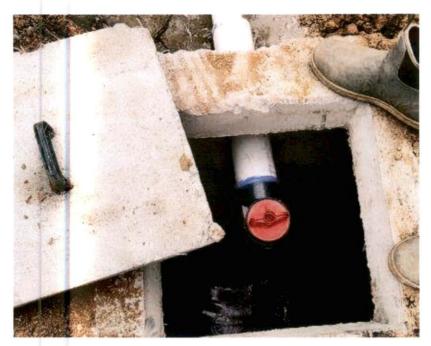
Notes:

HAL OWEN & ASSOCIATES, INC. NIP EIP 92 S 88 19'58"E EIP 154.88 EIP Legend House House Driveway Distances Well Setback Septic Components Septic Tank Pressure Manifold Pump Tank **Drainlines** Inital Repair Supply Line 0 50 100 ft Hal Owen & Associates Inc. As-Built Septic Layout PO Box 400, Lillington, NC 27546 524 Longleaf Dr www.halowensoil.com Tract 2-B

LSS Report for Authorization to Operate (ATO) 524 Longleaf Drive, Tract 2-B LHD # BRES2405-0069 1 No.

919-893-8743

For reference only. Not a survey.







LSS Report for Authorization to Operate (ATO)
524 Longleaf Drive, Tract 2-B
LHD # BRES2405-0069 1 November 2024







LSS Report for Authorization to Operate (ATO) 524 Longleaf Drive, Tract 2-B LHD # BRES2405-0069 1 N

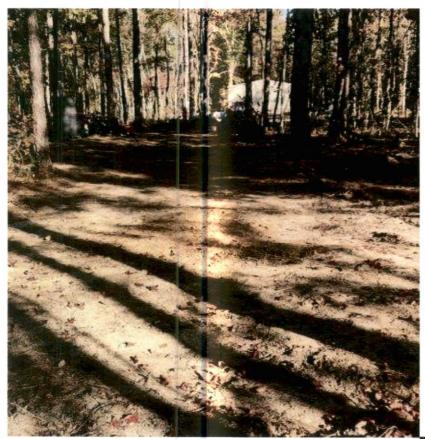


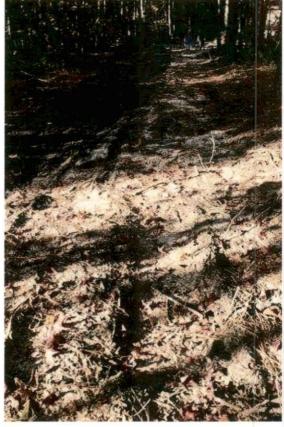




LSS Report for Authorization to Operate (ATO) 524 Longleaf Drive, Tract 2-B LHD # BRES2405-0069 1 No

HAL OWEN & ASSOCIATES, INC.





Operation and Management Program

In accordance with G.S. § 130A-336.2, the owner is responsible for continued adherence to the operations and management program. Septic systems safely treat and dispose of wastewaters produced in the bathroom, kitchen, and laundry. These wastewaters may contain disease-causing germs and pollutants that must be treated to protect human health and the environment. Septic systems must be properly used, operated, and maintained by the homeowner to assure the long-term performance of the system.

KNOW WHERE YOUR SEPTIC SYSTEM IS LOCATED

Your property has an onsite subsurface sewage waste disposal system. Familiarize yourself with the location of the system including the tanks, distribution devices, and disposal fields (including repair area). These areas shall be protected from excavation, building additions, outbuildings, pool construction, and soil disturbing activities. Prohibit vehicular traffic over the ground absorption field.

DAY-TO-DAY MANAGEMENT

Don't use too much water.

- The drainfield does not have unlimited capacity.
- Typical daily water use is 50 gallons per person.
- The soil drainfield usually has a maximum daily design capacity of 120 gallons per bedroom, even for short periods of time.
- Overloads can occur seasonally, daily, or on the weekend.
- Water conservation will extend the life of your system.
- Repair dripping faucets and toilets.

Limit disposal to sewage.

- Don't use your septic tank as a trash can for cigarette butts, tissues, sanitary napkins, cotton swabs, cat box litter, coffee grounds, or disposable diapers.
- Restrict the use of your garbage disposal. These add quite a lot of extra solids.
- Don't pour grease or cooking oil down the drain.
- Don't poison your system with harmful chemicals such as solvents, oils, paints, thinners, discarded medications, disinfectants, pesticides, poisons, and other substances.
- Save money. Commercial septic tank additives are usually not necessary.

Protect the system from physical damage (site maintenance).

- Keep the soil over the drainfield covered with vegetation to prevent soil erosion.
- Don't drive vehicles over the system.
- Avoid construction over the system and repair area.
- Don't cover the tank or drainfield with asphalt or concrete.
- Do not install irrigation systems over your drainfield as these could damage the system and/or hydraulically overload the soils.

Dispose of all wastewater in an approved system.

- ♦ Don't put in a separate pipe to carry wash waters to a side ditch or the woods. This is illegal.
- Don't connect pipes from air conditioners or ice makers to the septic system.

PERIODIC MAINTENANCE AND REPAIR

Home and yard (site maintenance):

- Protect and maintain the site of your septic tank and drainfield.
- ♦ In the drainfield area, cut down and remove trees that like wet conditions. This includes willows, elms, sweetgums, and some maples.
- Landscape the yard to divert surface waters away from the tank and drainfield. Eliminate depressional areas within the drainfield.
- Be sure that the water from the roof, gutters, and foundation drains does not flow over the system.
- Maintain drainage ditches, subsurface tiles, and drainage outlets so that water can flow freely from them.

Septic tank:

- Ensure tank risers remain accessible for measuring and pumping solids as well as cleaning the effluent filter.
- ♦ Measure how quickly sludge and scum accumulate in the tank. Pump septage when solids occupy 1/3 to 1/4 of the liquid capacity of the tank (frequency 1 to 3 years).
- Don't wait until your drainfield fails to have your tank pumped. By then, the drainfield may be ruined. With septic systems, an ounce of prevention is worth a ton of cure!

Table 1. Estimated septic tank inspection and pumping frequency (in years). Tank Size (gallons)

Tank Size (gallons)	Number of People Using the System				
	1	2	4	6	8
900	11	5	2	1	<1
1000	12	6	3	2	1
1250	16	8	3	2	1
1500	19	9	4	3	2

SIGNS OF POSSIBLE SEPTIC SYSTEM PROBLEMS

- Sewage backing up into your toilets, tubs, or sinks.
- Slowly draining fixtures, particularly after it has rained.
- ♦ The smell of raw sewage accompanied by soggy soil or sewage discharged over the ground or in nearby ditches or woods.
- ♦ Note: pump systems sewage may come to the ground surface when the pump is turned on and then disappear after the pump turns off. This is still a system failure and must be repaired.
- ♦ An alarm flashing (red light) or beeping in the house or in the yard indicating a pump is not working properly or that the water level in a pump tank is too high and close to failure.
- Don't attempt to repair a failing system yourself. Get a repair permit and hire an experienced contractor.

REGULATIONS AND PRECAUTIONS:

 Sewage contains germs that can cause diseases. Never enter a septic tank. Toxic and explosive gases in the tank present a hazard. Old tanks may collapse. Electrical controls present a shock and spark hazard. Secure the septic tank lid so that children cannot open it.

For more information about septic systems, contact your county Extension agent or local health department. https://content.ces.ncsu.edu/septic-system-owners-guide

PREVENTIVE MAINTENANCE RECORD

Your Sep	tic System Pumper			
N	ame:			
A	ddress:			
P	hone:	Email:		
Date Sys	tem Installed:			
Date	Work Done		Firm	Cost



CERTIFICATE OF LIABILITY INSURANCE

8/22/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER. IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s). CONTACT NAME: Blair Comer Bankers Insurance, LLC PHONE (A/C, No, Ext): 3362800317 E-MAIL 128 NC-65 Reidsville NC 27320 ADDRESS: bcomer@bankersinsurance.net INSURER(S) AFFORDING COVERAGE NAIC# License#: 6387078 INSURER A: Frankenmuth Insurance Company 13986 INSURED INSURER B Eastern Septic & Inspections, LLC 283 Pump Station Rd. Erwin NC 28339 INSURER C INSURER D **INSURER E** INSURER F : **COVERAGES** CERTIFICATE NUMBER: 1440984124 **REVISION NUMBER:** THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. ADDL SUBR INSR LTR POLICY EFF (MM/DD/YYYY) POLICY EXP (MM/DD/YYYY) TYPE OF INSURANCE POLICY NUMBER LIMITS INSD WVD A X COMMERCIAL GENERAL LIABILITY 6730469 8/15/2024 8/15/2025 **EACH OCCURRENCE** \$1,000,000 DAMAGE TO RENTED CLAIMS-MADE X OCCUR PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GEN'L AGGREGATE LIMIT APPLIES PER **GENERAL AGGREGATE** \$2,000,000 PRO-JECT POLICY PRODUCTS - COMP/OP AGG \$2,000,000 OTHER: COMBINED SINGLE LIMIT A **AUTOMOBILE LIABILITY** 6730468 8/15/2024 8/15/2025 \$1,000,000 (Ea accident) X ANY AUTO BODILY INJURY (Per person) \$ OWNED SCHEDULED. BODILY INJURY (Per accident) AUTOS ONLY AUTOS NON-OWNED AUTOS ONLY HIRED AUTOS ONLY PROPERTY DAMAGE \$ \$ UMBRELLALIAB OCCUR **EACH OCCURRENCE EXCESS LIAB** CLAIMS-MADE **AGGREGATE** \$ DED RETENTION \$ S WORKERS COMPENSATION 6730467 8/15/2024 8/15/2025 STATUTE AND EMPLOYERS' LIABILITY ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? E.L. EACH ACCIDENT s 100.000 (Mandatory in NH) E.L. DISEASE - EA EMPLOYEE \$ 100,000 If yes, describe under DESCRIPTION OF OPERATIONS below E.L. DISEASE - POLICY LIMIT \$500,000 Professional Liability Pollution 6730469 8/15/2024 8/15/2025 2.000.000 2,000,000 DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) CERTIFICATE HOLDER CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. Hal Owen & Associatess PO Box 400 AUTHORIZED REPRESENTATIVE Lillington NC 27546