



Agri-Waste Technology, Inc.

501 N Salem Street, Suite 203, Apex, NC 27502

agriwaste.com | 919.859.0669



Soil Suitability for Domestic Sewage Treatment and Disposal Systems

Old Charlotte Hwy
Rockingham, NC 28379
Richmond Co. PIN:
744400715352 &
744400814065

Prepared For:	Scoutland Group
Prepared By:	Trevor Hackney Licensed Soil Scientist
Report Date:	July 7, 2025



Agri-Waste Technology, Inc.

501 N Salem Street, Suite 203, Apex, NC 27502

agriwaste.com | 919.859.0669

**Soil Suitability for Domestic Sewage Treatment and Disposal Systems
Old Charlotte Hwy, Rockingham, NC 28379
Richmond Co PIN 744400715352 & 744400814065**

PREPARED FOR: Scoutland Group

PREPARED BY: Trevor Hackney

DATE: July 7, 2025

Soil suitability for domestic sewage treatment and disposal systems was evaluated on July 1, 2025, for the property located on Old Charlotte Hwy, Rockingham, NC. Trevor Hackney and Grace Gooding of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. A detailed soil evaluation of the land area will follow. Evaluation maps for the property are included in Attachment 1. A review of the soil and landscape characteristics that dictate soil suitability for domestic sewage treatment and disposal systems can be found in Attachment 2. Proposed lots can be found in Attachment 3.

Approximately 3 acres of the property were selected by the client to be evaluated. The property is mostly open field/pasture. The overall slope of the area evaluated ranges from 5-10% slopes. Natural drainage pathways run throughout the property which is considered unsuitable topography for septic systems. A USGS identified surface water runs along the southern property line. These features can be seen on the maps in Attachment 1.

Soil Suitability for Domestic Sewage Treatment and Disposal Systems

The aerial map in Attachment 1 details the soil boring locations, contour data, and soil types. Two of the three areas of the property identified by AWT meets the soil depth requirements for conventional septic systems. Area one is approximately 47,099 square feet. Area two is approximately 53,155 square feet. The third area is approximately 46,255 square feet and is better suited for pretreated subsurface drip. This evaluation was a preliminary review to determine what potential this land might have for domestic sewage treatment and disposal systems. Therefore, specific types of septic systems, exact locations of future drain fields and repair areas, building foundations, etc. are not fully considered. These things will need to be more fully considered as the plans develop for

the potential future of this site. It is likely that additional soil evaluations will be required so that septic system types and the location of a septic drain field can be more fully and appropriately considered.

Typical profile descriptions of the soil borings done for this property are in Attachment 2. Three distinct soil profiles were observed in the soil borings on the property: 1) Usable soil to 36 inches. 2) Usable soil to 13 inches prior to encountering Rock. 3) Usable soil to 20 inches prior to encountering Rock.

The mapped soil types on this property are Ailey, Masada, and Turbeville soil series. The soil borings evaluated on this property were generally consistent with Turbeville and Ailey soil types. The borings evaluated all contained a coarse gravelly surface horizon.

Conclusions

Based on the results of this evaluation, the installation of conventional septic systems seems probable on two of the three proposed lots in the area designated on the maps in Attachment 1. The third property has soil which has potential to support a pretreated subsurface drip septic system. Typically, 10,000-14,000 square feet are necessary for an individual conventional three or four-bedroom septic system. Any grading or disturbance to the soil could impact soil suitability for a septic system on the property. It will be critical to establish lot lines and select house footprints that allow enough room for primary and repair septic systems.

Sincerely,

A handwritten signature in black ink that reads "David Hackney". The signature is written in a cursive, flowing style.

Trevor Hackney

Attachment 1: Evaluation Maps

Preliminary Soil Evaluation

Scoutland Group
Richmond Co., NC
PIN: 744400715352
& 744400814065

GIS Acres: ~62



Area for Septic:

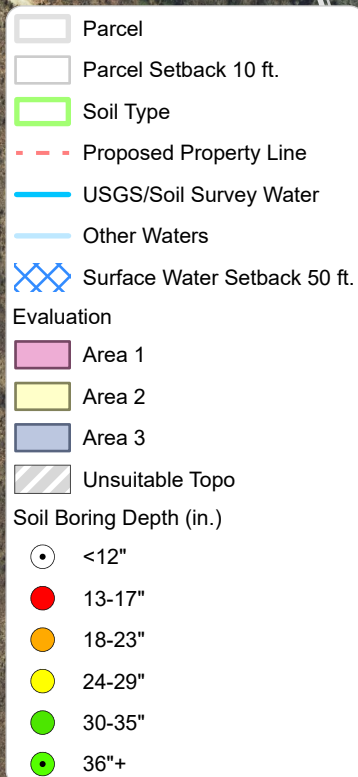
Area 1: ~47,099 sq. ft.
Area 2: ~53,155 sq. ft.
Area 3: ~46,255 sq. ft.

Soil Types:

TbB- Turbeville sandy loam
MaC- Masada sandy loam
AgD- Ailey gravelly loamy sand

Notes:

Not in NC Riparian Buffer
No mapped NWI Wetlands



Drawn By: Clara Frickmann
Reviewed By: Grace Gooding
Date: 7/3/2025

CzD

TbB

MaC

AgD

Old Charlotte Hwy

0 100 200 400
Feet

Preliminary Soil Evaluation

Scoutland Group
Richmond Co., NC
PIN: 744400715352
& 744400814065

GIS Acres: ~62



Area for Septic:

Area 1: ~47,099 sq. ft.
Area 2: ~53,155 sq. ft.
Area 3: ~46,255 sq. ft.

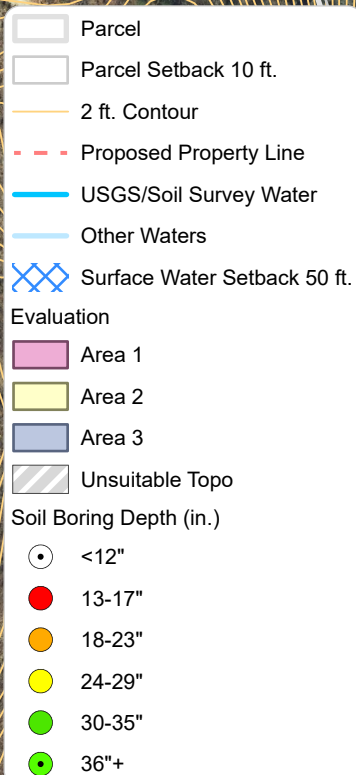
Soil Types:

TbB- Turbeville sandy loam
MaC- Masada sandy loam
AgD- Ailey gravelly loamy sand

Notes:

Not in NC Riparian Buffer
No mapped NWI Wetlands

Drawn By: Clara Frickmann
Reviewed By: Grace Gooding
Date: 7/3/2025



0 100 200 400
Feet

Attachment 2: Soil Boring Description Sheets

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

OWNER: Scoutland Group APPLICATION DATE:

ADDRESS: Old Charlotte Hwy Rockingham, NC 28379 EVALUATION DATE: 07/01/2025

PROPERTY ID: 744400715352 & 744400814065 COUNTY: Richmond

PROPOSED FACILITY: ---- PROPOSED DESIGN FLOW (.0400): TBD PROPERTY SIZE: ~32.8 ac.

LOCATION OF SITE: Old Charlotte Hwy Rockingham, NC 28379 PROPERTY RECORDED:

WATER SUPPLY: ☐ Public ☒ Single Family Well ☐ Shared Well ☐ Spring ☐ Other WATER SUPPLY SETBACK: 50'

EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Domestic ☐ High Strength ☐ IPWW

P R O F I L E #	.0502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY		OTHER PROFILE FACTORS				.0509 PROFILE CLASS & LTAR*	.0502(d) SLOPE CORRE CTION
			.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	.0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ		
1	3-7%	0-10"	Cobbly GR; SL	SS; SP; FR	-	36"	-	-	-	-
		10-36"	Cobbly SBK; C	SS; SP; FI						
2	5- 10%	0 – 10"	Cobbly GR; SL	SS; SP; FR	-	20"	-	AR	-	-
		10 – 20"	Cobbly SBK; C	SS; SP; FI						
3	3 – 7%	0 – 13"	Cobbly GR; SL	SS; SP; FR	-	13"	-	AR	-	-
4										

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFICATION (.0509): EVALUATED BY: Trevor Hackney, Grace Gooding, and Sarah Balicy
Available Space (.0508)	-	-	
System Type(s)	-	-	
Site LTAR	-	-	
Maximum Trench Depth	-	-	

Comments:

LEGEND

LANDSCAPE POSITION	SOIL GROUP	SOIL TEXTURE	CONVENTIONAL LTAR (gpd/ft²)	SAPROLITE LTAR (gpd/ft²)	LPP LTAR (gpd/ft²)	MINERALOGY/ CONSISTENCE		STRUCTURE
CC (Concave slope)	I	S (Sand)	0.8 - 1.2	0.6 - 0.8	0.4 -0.6	MOIST	WET	SG (Single grain)
CV (Convex Slope)		LS (Loamy sand)		0.5 -0.7		Lo (Loose)	NS (Non-sticky)	M (Massive)
D (Drainage way)	II	SL (Sandy loam)	0.6 - 0.8	0.4 -0.6	0.3 - 0.4	VFR (Very friable)	SS (Slightly sticky)	GR (Granular)
FP (Flood plain)		L (Loam)		0.2 - 0.4		FR (Friable)	S (Sticky)	SBK (Subangular blocky)
FS (Foot slope)	III	SiL (Silt loam)	0.3 - 0.6	0.1 - 0.3	0.15 - 0.3	FI (Firm)	VS (Very sticky)	ABK (Angular blocky)
H (Head slope)		SCL (Sandy clay loam)		0.05 - 0.15**		VFI (Very firm)	NP (Non-plastic)	PR (Prismatic)
L (Linear Slope)		CL (Clay loam)		None		EFI (Extremely firm)	SP (Slightly plastic)	PL (Platy)
N (Nose slope)		SiCL (Silty clay loam)					P (Plastic)	
R (Ridge/summit)		Si (Silt)						
S (Shoulder slope)		IV				SC (Sandy clay)	0.1 - 0.4	0.05 - 0.2
T (Terrace)	SiC (Silty clay)		EXP (Expansive)					
TS (Toe Slope)	C (Clay)							
		O (Organic)	None					

* Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

**Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200.

HORIZON DEPTH

In inches below natural soil surface

DEPTH OF FILL

In inches from land surface

RESTRICTIVE HORIZON

Thickness and depth from land surface

SAPROLITE

S(suitable) or U(unsuitable); Evaluation of saprolite shall be by pits.

SOIL WETNESS

Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation

CLASSIFICATION

S (Suitable) or U (Unsuitable)

Show profile locations and other site features (dimensions, reference or benchmark, and North).

Attachment 3: Proposed Lots

Rockingham

OLD CHARLOTTE HWY

