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May 25, 2018

E. Bruce Mumford, Jr.  
1222 Reay Road East  
Gravenhurst P1P 1R3 Canada

Re: Site/Soil Feasibility Study  
Tax Map # 48-68A  
Albemarle County, VA

To Whom It May Concern:

As per your request, Blue Ridge Soil Consulting, Inc. (BRSC) completed a site/soil feasibility study at the referenced property on May 21, 2018. The purpose of the study was to determine the suitability of the site and soil conditions to support an onsite sewage disposal system for a three-bedroom (450 gallons per day equivalent) dwelling.

BRSC staked a proposed drainfield/reserve area on the property. Five backhoe pits were evaluated within the drainfield area, ranging in depth from 44 to 58 inches. Attached is a site sketch showing the approximate location of the drainfield/reserve area, along with a report that details the site and soil characteristics. The findings from our evaluation indicate that the site and soil conditions for the area investigated meet the Virginia Department of Health's *Sewage Handling and Disposal Regulations (2000)* for a conventional type of onsite sewage disposal system with an alternative-type reserve. The area delineated and staked in the field should be adequate for a three-bedroom dwelling with a 100% reserve area.

Whenever you are ready to build on the property, we can perform the additional work necessary in order to produce a septic and well permit package to submit to the Health Department for approval.

Thank you very much for allowing us to perform this study for you. We look forward to working with you again in the future and request that if you have any questions, please do not hesitate to give us a call.

Sincerely,

A handwritten signature in blue ink, appearing to read "Thomas G. Hogge", is written over a light blue rectangular background.

Thomas G. Hogge  
Blue Ridge Soil Consulting, Inc.







# Site and Soil Evaluation Report

<b>VDH Use Only</b>
HDIN: _____

## General Information

Date: \_\_\_\_\_ County Health Department  
 Owner: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Owner Address: \_\_\_\_\_  
 Property Address: \_\_\_\_\_  
 Tax Map/GPIN #: \_\_\_\_\_  
 Subdivision: \_\_\_\_\_ Section: \_\_\_\_\_ Block: \_\_\_\_\_ Lot: \_\_\_\_\_

## Soil Information Summary

1. Position in landscape satisfactory:  Yes  No Describe landscape position: \_\_\_\_\_
  2. Slope: \_\_\_\_\_ %
  3. Depth to rock/impervious strata: Max. \_\_\_\_\_ in. Min. \_\_\_\_\_ in.  Not observed
  4. Free Water Present:  Yes  No Range in inches: \_\_\_\_\_
  5. Depth to seasonal water table (gray mottling or gray color): \_\_\_\_\_ inches  Not observed
  6. Soil percolation rate estimated:  Yes  No Estimated rate: \_\_\_\_\_ min/in at \_\_\_\_\_ inches depth  
 Texture Group:  I  II  III  IV
  7. Percolation test performed:  Yes  No If yes, provide additional data on percolation test results.
- Name and title of evaluator: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Site approved: \_\_\_\_\_ (describe dispersal area, e.g. absorption trenches) dispersing \_\_\_\_\_ (proposed level of treatment at time of evaluation) to be placed at \_\_\_\_\_ (inches) depth at site designated on permit. Site provides a total of \_\_\_\_\_ square feet of absorption area for primary and reserve (if applicable).

Site disapproved: Reasons for rejection (check all that apply)

1.  Position in landscape subject to flooding or periodic saturation.
2.  Insufficient depth of suitable soil over hard rock.
3.  Insufficient depth of suitable soil to seasonal water table.
4.  Rates of absorption too slow.
5.  Insufficient area of acceptable soil for required absorption area, and/or reserve area.
6.  Proposed system too close to well.
7.  Other (specify) \_\_\_\_\_



Design Calculations Tax  
Map 48-68A  
Albemarle County, VA  
PRIMARY DRAINFIELD

**Design Basis**

A. Estimated Percolation Rate  @   
(Minutes per inch)

B. Trench bottom square feet   
Required per Bedroom  
(from Table 5.4) based on  
 Gravity  LPD  other: EZ FLOW, PER GMP 135.A

C. Number of Bedrooms

**Area Calculations:**

D. Length of Trench (ft.)

E. Length of Available Area (ft.)

F. Width of Trench (ft.)

G. Number of Trenches

H. Center-to-center spacing (ft.)

I. Width required (ft.)  (including reserve)

J. Width of available area (ft.)

K. Total square footage required

L. Square footage in design

M. Is a reserve area required?  see next page

Design Calculations  
Tax Map 48-68A  
Albemarle County, VA  
RESERVE DRAINFIELD

**Design Basis**

A. Estimated Percolation Rate  
(Minutes per inch)

75 @ 24

B. Trench bottom square feet  
Required per Bedroom

319 (150 GPD/0.47 GPD PER SQ. FT.)

(from Table 5.4) based on

Gravity  LPD  other:

\*TL-3 EFFLUENT TO GRAVITY-DOSED TRENCHES, PER 12 VAC 5-613-10, *REGULATIONS* FOR ALTERNATIVE ONSITE SEWAGE SYSTEMS. IN ACCORDANCE WITH GMP 156, TL-3 EFFLUENT MUST BE PROVIDED BY AN APPROVED PROPRIETARY NITROGEN REMOVAL TREATMENT UNIT, PROVIDING A NET TOTAL NITROGEN REMOVAL (AT THE PROJECT BOUNDARY) OF 50%.

C. Number of Bedrooms

3

**Area Calculations:**

D. Length of Trench (ft.)

100

E. Length of Available Area (ft.)

100

F. Width of Trench (ft.)

3

G. Number of Trenches

4

H. Center-to-center spacing (ft.)

9

I. Width required (ft.)

84 (including primary)

J. Width of available area (ft.)

94

K. Total square footage required

957

L. Square footage in design

1200