

## AOSE/PE Report for Permit

|                              |   |
|------------------------------|---|
| <b>Location of property:</b> | Lot <u>lot 20</u> Section __, Subdivision <u>Autumn Bluff</u> , <u>Powhatan County</u><br>Tax Map _____<br>Latitude/Longitude _____ |
|------------------------------|---|

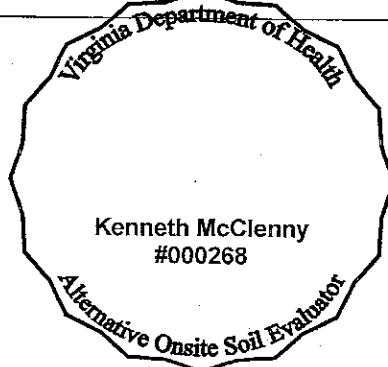
|   |  |
|---|--|
| <b>Applicant or Client and address:</b><br><u>Cabel Metts</u><br><u>30 High Pockets Road</u><br><u>Catersville, Va. 23027</u> | <b>Prepared by AOSE/PE:</b><br><br><u>Kenneth McClenny AOSE#000268</u> |
|---|--|

|  |   |
|--|---|
| <b>Date of Report:</b> <u>9/2/2011</u><br><b>Revision Date(s):</b> _____ | <b>AOSE/PE Job Number:</b> _____ (optional)<br><b>Health Department I.D. No.:</b> _____ |
|--|---|

### Contents/Index of this report:

| Page | Contents of report                           | Page | Contents of report  |
|------|--|------|---|
|      | <i>Installation Area Soil Summary Report</i> |      | Site would have to be<br>located by Surveyor to be<br>Certified |
|      | <i>Soil Profile Description Report</i>       |      |   |
|      | <i>Site Sketch</i>                           |      |   |
|      | <i>Survey Documentation</i>                  |      |   |
|      | <i>Installation Area Abbreviated Design</i>  |      |   |
|      | <i>Reserve Area Abbreviated Design</i>       |      |   |

### Certification Statement(s)

|  |   |
|--|---|
| <p>I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-615), and other applicable policies of the Virginia Department of Health. Furthermore, I certify that my evaluation and/or design contained herein complies with all applicable laws, regulations, and policies implemented by the Virginia Department of Health.</p> <p>X The work attached to this cover page has been conducted under an exemption to the practice of engineering, specifically the exemption in code of Virginia Section 54.1-402.A.11</p> <p>I recommend a <u>Permit</u> be <u>approved</u>.</p> |  |
|--|---|

## Installation & Reserve Area Soil Summary Report

### GENERAL INFORMATION

Date September 2, 2011 Submitted to Powhatan County Health Department  
Applicant Cabel Metts Telephone (804-814-1955)  
Address 30 High Pockets Road, Catersville, Va. 23027  
Owner Same as above Address Same as above  
Location located off route 630 on Autumn Bluff Road  
Tax Map \_\_\_\_\_ Subdivision Autumn Bluff  
Block \_\_\_\_\_ Section \_\_\_\_\_ Lot lot 20 Install. System type: Conventional Trench (Upper portion)

### SOIL INFORMATION SUMMARY

1. Position in landscape satisfactory Yes ☒ No ☐

Describe Piedmont Sideslope

2. Slope 7%

3. Depth to rock or impervious strata: Max. \_\_\_\_\_ Min. \_\_\_\_\_ None ☒

4. Depth to seasonal or perched water table indicators No ☒ Yes ☐ \_\_\_\_\_ inches

5. Free water present No ☒ Yes ☐ \_\_\_\_\_ range in inches

6. Soil percolation rate estimated Yes ☒ Texture group IIB

No ☐ \*Estimated Rate 45

7. Permeability test performed Yes ☐ No ☒

*\*All applicable regulations and the specific soil and site conditions (including the trench sidewalls) were taken into consideration when the estimated percolation rate was assigned.*

If yes, note type of test performed and attach: \_\_\_\_\_

☒ Site Approved: Primary drainfield to be placed at 150 inch depth at site designated in this package.  
If required, reserve to be placed at 150 inch depth at site designated in this package.

☐ Site Disapproved

Reason(s) for rejection:

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

\_\_\_\_\_  
\_\_\_\_\_  
(attach additional pages if necessary)

*The information presented in this submittal package represents the best available information as of the evaluation date noted on the soil profile description report contained in this package. Due to the potential for subsequent events to negatively impact the recommendations made in this package, it is our firm's very strong recommendation to submit this documentation to the local health department for approval as soon as it is received by the client. Failure to do so may render the information contained in this package void. M&M Soil Consultants, Inc., as well as the certifying individual, accept no liability for subsequent events that occur after the date of evaluation.*

## SOIL PROFILE DESCRIPTION REPORT

Date of Evaluation: August 23, 2011

Cabel Metts , Autumn Bluff , lot 20

Where the local health department conducts the soil evaluation, the location of the profile holes may be shown on the schematic drawing on the construction permit or the sketch submitted with the application. If soil evaluations are conducted by a private soil scientist, location of profile holes and sketch of the area investigated including all structural features, i.e., sewage disposal systems, wells, etc., within 100 feet of site (See Section 4) and reserve site shall be shown on the reverse side of this page or prepared on a separate page and attached to this form.

☐ See application sketch page      ☐ See construction permit      ☒ See sketch attached to this form

| Hole | Horizon | Depth (inches) | Description of color, texture, etc.                | Texture Group |
|------|---------|----------------|--|---------------|
| 1    | A       | 0-10           | 10YR 5/4 LOAM                                      | II            |
|      | Bt      | 10-24          | 2.5YR 4/8 & 7.5YR 4/8 CLAY LOAM                    | III           |
|      | 2BC     | 24-66          | 2.5YR 4/8 CLAY LOAM TO LIGHT CLAY LOAM             | III           |
|      | 2C      | 66-174         | 10R 3/4 & 2.5YR 6/4 SANDY LOAM FRIABLE             | II            |
| 2    | A       | 0-6            | 10YR 4/3 LOAM                                      | II            |
|      | E       | 6-14           | 10YR 3/3 LOAM                                      | II            |
|      | Bt      | 14-40          | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX FIRM CLAY LOAM      | III           |
|      | BC      | 40-138         | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX CLAY LOAM MOD. FIRM | III           |
|      | 2C      | 138-174        | 10R 3/4 & 2.5YR 6/4 SANDY LOAM FRIABLE             | II            |
| 3    | A       | 0-6            | 10YR 4/3 LOAM                                      | II            |
|      | E       | 6-14           | 10YR 3/3 LOAM                                      | II            |
|      | Bt      | 14-40          | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX FIRM CLAY LOAM      | III           |
|      | BC      | 40-138         | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX CLAY LOAM MOD. FIRM | III           |
|      | 2C      | 138-174        | 10R 3/4 & 2.5YR 6/4 SANDY LOAM FRIABLE             | II            |
| 4    | A       | 0-4            | 10YR 4/3 LOAM                                      | II            |
|      | E       | 4-16           | 10YR 3/3 LOAM                                      | II            |
|      | Bt      | 16-40          | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX FIRM CLAY LOAM      | III           |
|      | BC      | 40-120         | 5YR 4/8, 7.5YR 5/6 & 6/6 REDOX CLAY LOAM MOD. FIRM | III           |
|      | 2C      | 120-174        | 10R 3/4 SANDY LOAM FRIABLE                         | II            |

# Installation Area Abbreviated Design Form

Lot 20

|   |                            |
|---|----------------------------|
| A. System type (Conv., Drip, Drip Mound, Puraflor pad, Puraflor Trench, Advantex, etc.) | <i>Conventional Trench</i> |
| B. Estimated or measured Percolation Rate   | <i>45.0 mpi</i>            |
| C. Slope  | <i>7.0 percent</i>         |
| D. Depth of Evaluation  | <i>174 inches</i>          |
| E. Proposed Installation Depth  | <i>150 inches</i>          |
| F. Installing below restriction? <i>No</i>  |                            |
| G. Minimum Installation Depth (factors in slope, system type, etc.)                     | <i>18 inches</i>           |
| H. Type of limiting feature <i>None (Depth of Evaluation)</i>                           |                            |
| I. Depth of limiting feature  | <i>174 inches</i>          |
| J. Minimum required stand-off to limiting feature                                       | <i>18 inches</i>           |
| K. Stand-off distance provided in design  | <i>24 inches</i>           |
| L. Design based on number of bedrooms   | <i>3 bedrooms</i>          |
| M. Square Footage required per bedroom (per gallon if design based on gpd)              | <i>344.00 sq.ft.</i>       |
| N. Available Area Across Slope  | <i>58 feet</i>             |
| O. Proposed Width of System (Line length, Pad width, Active Mound width, etc.)          | <i>58 feet</i>             |
| P. Width of Trench  | <i>3 feet</i>              |
| Q. Center spacing increase due to slope   | <i>0 feet</i>              |
| R. Center-to-center spacing (includes correction for slope)                             | <i>9 feet</i>              |
| S. Number of Lines  | <i>6</i>                   |
| T. Available area Down Slope (includes area for reserve if combined in this site)       | <i>75 feet</i>             |
| U. Down slope distance required for installation  | <i>48 feet</i>             |
| V. Total Square Footage required for installation                                       | <i>1,032.00 sq.ft.</i>     |
| W. Total Square Footage in Design   | <i>1044 sq.ft.</i>         |

|  |            |                 |                    |
|--|------------|-----------------|--------------------|
| Does this site require a reserve area?                 | <u>Yes</u> | Amount Required | <i>100 percent</i> |
| Does this site have a reserve area included within it? | <u>Yes</u> |                 |                    |
| Available area across slope for Reserve                |            |                 | <i>58 feet</i>     |
| Available area down slope for Reserve                  |            |                 | <i>21 feet</i>     |
| Total square footage available for Reserve             |            |                 | <i>1218 sq.ft.</i> |

**Notes:**

*To the best of our knowledge and belief, this site complies with all local ordinances such as the CBPA.*

| Reserve Area Abbreviated Design Form   |                   | Lot 20 |
|--|-------------------|--------|
| A. System type (Conv., Drip, Drip Mound, Puraflo pad, Puraflo Trench, Advantex, etc.)  | Puraflo 3' trench |        |
| B. Estimated or measured Percolation Rate  | 45.0 mpi          |        |
| C. Slope   | 7.0 percent       |        |
| D. Depth of Evaluation   | 174 inches        |        |
| E. Proposed Installation Depth   | 150 inches        |        |
| F. Installing below restriction? <u>No</u>   |                   |        |
| G. Minimum Installation Depth (factors in slope, system type, etc.)  | 18 inches         |        |
| H. Type of limiting feature <u>None (Depth of Evaluation)</u>  |                   |        |
| I. Depth of limiting feature   | 174 inches        |        |
| J. Minimum required stand-off to limiting feature  | 12 inches         |        |
| K. Stand-off distance provided in design   | 24 inches         |        |
| L. Design based on number of bedrooms  | 3 bedrooms        |        |
| M. Loading Rate  | 0.99 gpd/sq.ft.   |        |
| N. Available Area Across Slope   | 58 feet           |        |
| O. Proposed Width of Reserve (Line length, Pad width, Active Mound width, etc.)  | 58 feet           |        |
| P. Width of Trench   | 3 feet            |        |
| Q. Center spacing increase due to slope  | 0 feet            |        |
| R. Center-to-center spacing (includes correction for slope)  | 9 feet            |        |
| S. Number of Lines proposed for reserve  | 3                 |        |
| T. Available area Down Slope (does not include installation area)  | 21 feet           |        |
| U. Down slope distance required for reserve  | 21 feet           |        |
| V. Total Square Footage required for reserve   | 454.55 sq.ft.     |        |
| W. Total Square Footage in Design  | 522 sq.ft.        |        |
| <p>Does this lot require a reserve area? <u>Yes</u> Amount Required 100 percent</p> <p>Does this site contain both installation and reserve? <u>Yes</u></p> <p>Available area across slope for Reserve 58 feet</p> <p>Available area down slope for Reserve 21 feet</p> <p>Total area in square footage available for Reserve 1218 sq.ft.</p> <p>Percent of Reserve Available 115 percent</p> <p>Notes:</p> <p>To the best of our knowledge and belief, this site complies with all local ordinances such as the CBPA.</p> |                   |        |

HILL

HELEN HILL

pg. 6 of 6

445' W → 786.36'

274.22'

190.54'

S 49°45'00" W  
83.24'

1"=100'

' BUFFER

N 78°00'00" W  
686.32'

S 99.59'

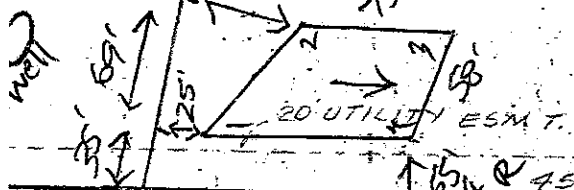
BROWN

Ac.

20  
6.294 AC.



Alt



R=227.30'  
Δ=26°11'00"  
L=103.87'

W → 237.451  
E 1337.51  
ROAD 50' R/W

R=277.30' Δ=43°14'30"  
L=209.28'

S 41°39'30" E  
496.1'

N 41°34'30" E  
20' VDOT

250.62'

250.62'

85.36'

UTILITY ESM.T.

6107

\* NO DIRECT ACCESS TO  
RTE. 630 SHALL BE  
PERMITTED.

6109

3

1.100 AC.

2

2.100 AC.

1

5.200 AC.

N 88°25'00" W  
365.00'

S 88°25'00" E  
365.00'

