

**SUBDIVISION FEASIBILITY STUDY
FOR
McCLELLAN PROPERTY
1329 SYCAMORE MILLS ROAD
EDGMONT TOWNSHIP
DELAWARE COUNTY, PA
June 20, 2017**

GENERAL INFORMATION

The McClellan Property is located at 1329 Sycamore Mills Road in Edgmont Township, Delaware County, PA. The Site is located on the northwest side of Sycamore Mills Road approximately opposite Forrest Lane. The Site is bounded to the west (left side) by the Sycamore Mills Estates and the Deer Run residential subdivisions; to the north by larger residential properties; and to east (right side) by the Deep Meadow residential subdivision. The Site contains approximately 21 acres of land. The average width of the property is approximately 1,400 feet, and the average depth is approximately 1,800 feet. The Property is comprised of two Tax Folios - #19-00-00371-00 & #19-00-00372-00.

TOPOGRAPHIC and NATURAL FEATURES

The 'Rocky Run' Stream runs north-south through the easterly third of this parcel. An unnamed tributary branches off of Rocky Run in an east-west direction towards the southerly third of the Property. There is a flood zone and wetlands associated with the streams. Rocky Run is a High Quality Watershed so a riparian buffer is required with a width of 150 feet on each side of the top of bank of the streams. Topography is characterized as gently to moderately sloping with a few bands of steep slopes (15%-25% slopes)

EXISTING IMPROVEMENTS

An existing dwelling and accessory structures are centrally located in an east-west direction within the southerly third of the property, approximately 500 feet north of Sycamore Mills Road. The existing dwelling is located on the west side of Rocky Run. The dwelling is accessed by a paved driveway that intersects with Sycamore Mills Road at the approximate center of the property frontage.

VEGETATION

The Property has an expanse of lawn area around the existing dwelling and within the front yard of the property. The remainder of the property is wooded.

ZONING

The property is Zoned R-1 Residential. The R-1 District is designed, in part, to create opportunities for new residential development consistent with the rural character of the Township, west of the Ridley Creek State Park, wherein on-lot or community sewage disposal systems are utilized to conserve groundwater resources. The Minimum Lot Area has a basis of one dwelling per two acres of land. Subdivision of tracts of land in excess of 10 acres in the R-1 Districts a use allowed by Conditional Use (either Conventional lot lay-out or Open Space Developments).

SUBDIVISION METHOD

Practical experience has indicated that Subdivision Possibilities are better served by utilizing the 'Open Space Development' standards whereby 50% of the tract is preserved as Open Space and lot areas may be reduced to one acre or less. As a practical matter, lots should be one acre or more in size to fit residential dwellings and drives, primary and replacement sewage disposal systems, and on-lot wells.

PROPOSED SUBDIVISION

G. D. Houtman & Son, Inc has prepared a Sketch Subdivision for the McClellan Property. Aerial Topography was obtained for the tract; therefor the topographic information shown on the Sketch has a high degree of accuracy. The primary area for subdivision is at the west side of the property. The existing stream and riparian buffer take up most of the eastern half of the property. Another smaller pocket of develop able land is located at the far southeast corner of the property. Due to the size of the tract of land and the undevelopable swath of riparian buffer, it is not economically feasible to develop the tract with a public residential street. The lot yield was determine to be approximately 5 lots. Five lots are better served by individual or common driveways.

Five Lots are illustrated on the Sketch Plan. The existing dwelling is located on Lot 1 which contains 3.422 acres of land. Lot 2 is a one acre lot located at the far southeast corner of the Site and will be served by an individual driveway accessing Sycamore Mills Road. Lots 3, 4 & 5 are one acre lots located at the westerly side of the property. The properties are served by a 50 ft wide access easement that will contain a 16 ft wide common driveway. Over 11 acres of open Space will be created with the proposed subdivision.

SEWAGE DISPOSAL

Previous soils testing has located adequate soils for both primary and replacement on-lot sewage disposal systems. Copies of the soils reports are included with this feasibility study. The on-lot sewage disposal systems will either be conventional fields/trenches with a possibility of pressure dosing if the tested area is located at a higher elevation than the proposed house.

STROM WATER MANAGEMENT

Storm water management will be accomplished with one centralized storm water rate control basin located north of the existing dwelling along with SWM seepage beds on individual lots.

PENNDOT

The existing driveway, the individual driveway for Lot 2 and the common driveway serving lots 3-5 all have sufficient sight distance to meet PennDOT Standards. There may need to be some road-side bank clearing and excavating to achieve the necessary sight distance.

POSSIBLE OFF-SITE or OTHER IMPROVEMENTS

The existing culvert that carries Rocky Run under Sycamore Mills Road will flood during extreme storm events; however, it is not anticipated that the Township will require a subdivision which produces four building lots to up-grade the existing culvert. There is another culvert that the existing driveway crosses. It is not unexpected that the Township will require an up-grade to the existing culvert.

Widening of Sycamore Mills Road is not anticipated.

SUMMARY

An analysis of the tract area, topographic and environmental features, the applicable sections of the Zoning and Subdivision and Land Development Ordinances, the previous soil studies, and the available sight distances along Sycamore Mills Road indicates an achievable 5-lot subdivision creating a 3.4 acre property for the existing dwelling, four (4) residential building lots, and 11.0 acres of Open Space.

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE
ER-BWQ-290 Appendix A**

Application No. _____ Municipality EDGMONT County DELAWARE
 Site Location 1329 SYCAMORE M.C.S Subdivision Name _____
 SUITABLE Soil Type _____ Slope 8 % Depth to Limiting Zone _____ Ave. Perc. Rate _____
 UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 3-1-06

Inches	Description of Horizon	Depth to limiting Zone:
0 TO 7	Dk Brown Loam 1 GRAN MFR1 C1	85" inches
0 TO 21	DR BROWN SIL LOAM 2 SBK MFR1 GRAD	
0 TO 85	VAR SAND 0.5M 20% COBBLES	
0 TO	ROOTS TO 85"	

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 3-15-06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
 Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1		X	10/30	3	2 3/8	2 1/4	2 1/4	2 1/8			
2	X		10/30	1/4	1/4	1/4	1/4				
3	X		10/30	4	4	3 7/8	3 3/4				
4	X		10/30	5	5	5	5				
5	X		10/30	3 7/8	3 7/8	3 7/8	3 7/8				
6	X		10/30	3 7/8	3 3/4	3 5/8	3 5/8				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	2 1/8 "	4.7	60 "
2	1/4 "	120	60 "
3	3 3/4 "	8	60 "
4	5 "	6.2	48 "
5	3 7/8 "	80	48 "
6	3 5/8 "	8.3	48 "
TOTAL OF MIN / IN →		227.2	= 37.9
TOTAL NO. OF HOLES →			Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.
 (S) _____
 Sewage Enforcement Officer

Δ 3-1-02

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE
ER-BWQ-290 Appendix A**

Application No. _____ Municipality EDGMONT County DELAWARE
Site Location 1329 SYCAMORE Mills Subdivision Name _____
 SUITABLE Soil Type _____ Slope 8 % Depth to Limiting Zone _____ Ave. Perc. Rate _____
 UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____

Date: 3-05-06

Inches	Description of Horizon
0 TO <u>6</u>	<u>Dk Brown Loam 1 GRAN MERRI G1</u>
0 TO <u>29</u>	<u>OR Brown S. Loam 2 SBK Mfr. Grad</u>
0 TO <u>85</u>	<u>VAR M.C. S. Lo. 8m</u>
0 TO _____	_____

Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____

Date: 3-15-06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
<u>1</u>	<u>X</u>		<u>10/(30)</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>4 3/4</u>				
<u>2</u>	<u>X</u>		<u>10/(30)</u>	<u>4 1/4</u>	<u>4 1/8</u>	<u>4 1/8</u>	<u>4</u>				
<u>3</u>	<u>X</u>		<u>10/(30)</u>	<u>4 3/4</u>	<u>4 3/4</u>	<u>4 3/4</u>	<u>4 1/2</u>				
<u>4</u>	<u>X</u>		<u>10/(30)</u>	<u>2 1/8</u>	<u>2 1/8</u>	<u>2 1/8</u>	<u>2</u>				
<u>5</u>	<u>X</u>		<u>10/(30)</u>	<u>3 3/4</u>	<u>3 3/4</u>	<u>3 3/4</u>	<u>3 3/4</u>				
<u>6</u>	<u>X</u>		<u>10/(30)</u>	<u>1 1/2</u>	<u>1 1/2</u>	<u>1 1/4</u>	<u>1 1/4</u>				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
<u>1</u>	<u>4 3/4</u> "	<u>6.3</u>	<u>60</u> "
<u>2</u>	<u>4</u> "	<u>7.5</u>	<u>60</u> "
<u>3</u>	<u>4 1/2</u> "	<u>6.7</u>	<u>60</u> "
<u>4</u>	<u>2</u> "	<u>15</u>	<u>48</u> "
<u>5</u>	<u>3 3/4</u> "	<u>8</u>	<u>48</u> "
<u>6</u>	<u>1 1/4</u> "	<u>24</u>	<u>48</u> "
TOTAL OF MIN / IN →		<u>67.5</u>	= <u>11.3</u> <small>Min Inch</small>
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE
ER-BWQ-290 Appendix A**

Application No. _____ Municipality EDGMONT County DELAWARE
Site Location 1329 SYCAMORE MILLS Subdivision Name _____
 SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
 UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 12-19-05

Inches	Description of Horizon	Depth to limiting Zone: _____ inches
0 TO <u>6</u>	<u>DK BROWN LOAM (GRAN MOIST FRI ABR</u>	
0 TO <u>32</u>	<u>OR BROWN MIC SILT LOAM (2SBK MOIST FRI GRAD 20% COBBLES</u>	
0 TO <u>85</u>	<u>VAR FINE SILT LOAM (M</u>	
0 TO _____	_____	

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/5/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
Soil Conditions: Wet Dry Frozen

Hole No.	Yes	No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
1	X		10/30	5/8	5/8	5/8	5/8				
2	X		10/30	17/8	17/8	13/4	15/8				
3	X		10/30	5/8	3/4	5/8	1/2				
4	X		10/30	3/4	5/8	5/8	5/8				
5	X		10/30	3/4	5/8	3/4	3/4				
6	X		10/30	25/8	23/8	23/8	21/4	21/8			

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	5/8 "	48	24 "
2	15/8 "	18.5	36 "
3	1/2 "	60	24 "
4	5/8 "	48	36 "
5	3/4 "	40	24 "
6	2 1/8 "	14.1	36 "
TOTAL OF MIN / IN →		220.6	= 38.1
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.
(S) _____
Sewage Enforcement Officer



12-19-03

SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE MILL RD Subdivision Name _____

SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone 59 Ave. Perc. Rate 33.9
 UNSUITABLE Mottling Seeps or Pondered Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____

Date: 12/19/05

Inches	Description of Horizon	Depth to limiting Zone:
0 TO 8	DARK BROWN LOAM 1 GRAN FRI C ₂	57 inches
0 TO 27	MED BROWN LOAM 2 SBK MOIST FRI GRAD	
0 TO 57	VAR MIC SILT LOAM 0M	
0 TO 57	ROCK WITH INSUFFICIENT FINES	

PERCOLATION TEST:

Percolation Test Completed by: _____

Date: 1/5/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
 Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	7/8	7/8	7/8	7/8				
2	X		10/30	1/4	1/8	1/4	1/8				
3	X		10/30	1	1	7/8	7/8				
4	X		10/30	1/8	1	1	1				
5	X		10/30	1/8	1	1/8	1				
6	X		10/30	5/8	5/8	5/8	5/8				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	7/8 "	48 34.3	20 "
2	1/8 "	48 20.7	20 "
3	7/8 "	34.3	20 "
4	1 "	30	20 "
5	1 "	30	20 "
6	5/8 "	48	20 "
TOTAL OF MIN / IN →		203.3	= 33.9
TOTAL NO. OF HOLES →			Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.
 (S) _____
 Sewage Enforcement Officer

1/2 1/2



12-19-05

SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate 23.7
 UNSUITABLE Mottling, Seeps or Pooled Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 12-19-05

Inches	Description of Horizon	Depth to limiting Zone:
0 TO <u>8</u>	<u>DARK BROWN LOAM 1 GRAN MOIST FEI ABR</u>	<u>85</u> inches
0 TO <u>28</u>	<u>MED BROWN MIC SILT LOAM 2 SBK V. MOIST FEI @ RAD</u>	
0 TO <u>85</u>	<u>VAR MIC SILT LOAM @ m</u>	
0 TO _____	<u>ROOTS TO 85"</u>	

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/10/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	1 1/2	1 1/2	1 3/8	1 3/8				
2		X	10/30	2 3/4	2 1/4	2 1/4	2 1/8	2 1/8			
3	X		10/30	3 5/8	2 7/8	2 7/8	2 3/4	2 5/8			
4	X		10/30	1 3/4	1 1/2	1 1/2	1 1/2				
5	X		10/30	1 3/8	1 1/4	1 1/4	1 1/4				
6	X		10/30	5/8	5/8	5/8	1/2				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	1 3/8 "	4.7 21.8	60 "
2	2 1/8 "	11.4 4.7	60 "
3	2 5/8 "	21.8 11.4	60 "
4	1 1/2 "	20	52 "
5	1 1/4 "	24	52 "
6	1/2 "	60	52 "
TOTAL OF MIN / IN →		141.9	= 23.7
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.
(S) _____
Sewage Enforcement Officer



A 12-19-06

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
- UNSUITABLE Mottling Seeps or Pounded Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches	Description of Horizon
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____

Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/10/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	1 7/8	1 7/8	1 3/4	1 3/4				
2	X		10/30	4	4	4	4				
3		X	10/30	3	2 3/4	2 5/8	2 1/2	2 1/2			
4		X	10/30	2 3/4	2 3/8	2 1/4	2 1/4	2 1/4			
5	X		10/30	2 3/4	2 3/4	2 5/8	2 1/2				
6	X		10/30	1 1/2	1 1/2	1 1/2	1 1/2				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate;

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	1 3/4 "	17.1	60 "
2	4 "	7.5	60 "
3	2 1/2 "	4	60 "
4	2 1/4 "	4.4	52 "
5	2 1/2 "	12	52 "
6	1 1/2 "	20	52 "
TOTAL OF MIN / IN →		65	10.8
TOTAL NO. OF HOLES →			Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

12-19-09

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGEMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
- UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 12/19/05

Inches	TO	Description of Horizon	Depth to limiting Zone:
0	TO <u>6</u>	<u>DARK BROWN SILLOAM 1 GZAW MOIST FRI ABR</u>	
0	TO <u>30</u>	<u>OR BROWN MIC SILLOAM 2 SBK MOIST FRI GRAD 10% BOULDERS</u>	
0	TO <u>85</u>	<u>VAR MIC FINE SILLOAM G M</u>	
0	TO _____		_____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/5/06

- Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
- Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	5/8	5/8	1/2	1/2				
2	X		10/30	7/8	7/8	7/8	7/8				
3	X		10/30	13/4	13/4	13/4	13/4				
4	X		10/30	5/8	3/8	5/8	5/8				
5	X		10/30	1 1/4	1 1/4	1 1/8	1 1/8				
6	X		10/30	1 1/2	13/8	13/8	1 1/4				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	1/2 "	600	32 "
2	7/8 "	34.3	32 "
3	13/4 "	17.1	32 "
4	5/8 "	48	20 "
5	1 1/8 "	24.7	20 "
6	1 1/4 "	24	20 "
TOTAL OF MIN / IN →		210.1	= 35.01 ^{Min} _{Inch}
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

1173



Δ 12-19-11

SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE Mills Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
- UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 12/19/05

Inches	Description of Horizon	Depth to limiting Zone
0 TO <u>7</u>	<u>DK BROWN S. LOAM 1 GRAN MOIST FRI ABR</u>	
0 TO <u>26</u>	<u>MED BROWN MIC S. LOAM 2 SBK GND 30% BOULDERS</u>	
0 TO <u>85</u>	<u>VML MIC S. LOAM G/M 30% BOULDER</u>	<u>85</u> inches
0 TO _____		

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/5/06

- Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
- Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/(30)	7/8	7/8	3/4	3/4				
2	X		10/(30)	1 1/8	1 1/8	1 1/8	1 1/8				
3	X		10/(30)	3 1/4	3 1/8	3 1/4	3 1/8				
4	X		10/(30)	3/8	3/8	3/8	3/8				
5	X		10/(30)	2 3/8	2 1/8	2 1/8	2	1 1/8			
6	X		10/(30)	3/4	5/8	5/8	5/8				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	3/4 "	40	20 "
2	1 1/8 "	26.7	32 "
3	3 1/8 "	9.6	20 "
4	3/8 "	80	32 "
5	1 1/8 "	16	20 "
6	5/8 "	49	32 "
TOTAL OF MIN / IN →		220.3	= 36.71 ^{Min} / _{Inch}
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department:

(S) _____
Sewage Enforcement Officer

Δ 1-04-01

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE Mills Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
- UNSUITABLE: Mottling Seeps or Pooled Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: 1/04/06

Inches	Description of Horizon	Depth to limiting Zone:
0 TO 12	<u>DARK BROWN SILT LOAM 1 BLOCKY MOIST FRI ABR</u>	<u>34</u> inches
0 TO 32	<u>OR BROWN MIC SILT LOAM 2 SBK MOIST FRI GRAD</u>	
0 TO 85	<u>V. MIC SIL LOAM 1 SBK V. MOIST FRI</u>	
0 TO _____	<u>POCKETS OF FEW COMMON MOTTLES 34-85"</u>	

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/16/06

- Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
- Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10 (30)	0	1/4	1/8	1/8				
2	X		10 (30)	1	1/8	1	7/8				
3	X		10 (30)	1 1/4	1 1/4	1 1/4	1 1/4				
4	X		10 (30)	2 5/8	2 3/8	2 1/2	2 3/8				
5	X		10 (30)	1 5/8	1 1/2	1 5/8	1 1/2				
6	X		10 (30)	2 7/8	2 3/4	2 3/4	2 3/4				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	1/8 "	240	20 "
2	7/8 "	34.3	20 "
3	1 1/4 "	24	20 "
4	2 3/8 "	12.4	20 "
5	1 1/2 "	20	20 "
6	2 3/4 "	10.9	20 "
TOTAL OF MIN / IN →		341.8	= 56.9
TOTAL NO. OF HOLES →			Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer



Δ1-4-03

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate _____
- UNSUITABLE Mottling Seeps or Pondered Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches	Description of Horizon
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____

Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/10/06

- Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
- Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	1 1/2	1 1/2	1 1/2	1 1/2				
2		X	10/30	5 1/2	5	4 3/4	5	4 7/8			
3		X	10/30	3 1/8	3 1/8	3	3				
4		X	10/30	2 3/8	2 1/4	2 1/4	2 1/8				
5		X	10/30	3 1/2	3 1/8	3 1/8	3 1/8	3			
6	X		10/30	2 5/8	2 1/2	2 1/2	2 1/2				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	1 1/2 "	20	60 "
2	4 7/8 "	2.1	60 "
3	3 "	3.3	60 "
4	2 1/8 "	4.7	48 "
5	3 "	3.3	48 "
6	2 1/2 "	12	48 "
TOTAL OF MIN / IN →		45.4	= 7.6
TOTAL NO. OF HOLES →			

Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

Δ1-9-02

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGEMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

- SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate 8.8
- UNSUITABLE Mottling Seeps or Pondered Water Bedrock Fractures Coarse Fragments
- Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches	Description of Horizon
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____

Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/13/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	2 7/8	2 3/4	2 5/8	2 5/8				
2	X		10/30	2	1 7/8	1 3/4	1 3/4				
3	X		10/30	3 1/2	3 3/8	3 3/8	3 1/4				
4		X	10/30	2 1/4	2 1/4	2 1/8	2				
5	X		10/30	2 5/8	2 1/2	2 1/2	2 3/8				
6	X		10/30	3 7/8	3 3/4	3 3/4	3 1/2	3 1/2			

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	2 5/8 "	11.4	60 "
2	1 3/4 "	5.7	60 "
3	3 1/4 "	9.2	60 "
4	2 "	5	48 "
5	2 3/8 "	12.6	48 "
6	3 1/2 "	8.6	48 "
TOTAL OF MIN / IN →		52.5	= 8.8
TOTAL NO. OF HOLES →			

Min Inch

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

Δ1-09-03

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**

ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGEMONT County DELAWARE

Site Location 1329 SYCAMORE MILLS Subdivision Name _____

SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate 45
 UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches	Description of Horizon
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____
0 TO _____	_____

Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/13/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1		X	10/30	5	4 3/8	4 1/4	4 1/8	4	4		
2		X	10/30	2 1/2	2 1/2	2 1/2	2 1/2				
3	Y		10/30	4 1/2	4 1/2	4 1/2	4 1/2				
4	X		10/30	23/4	2 5/8	2 1/2	23/8	23/8			
5	X		10/30	0	0	0	0				
6		X	10/30	2 1/2	2 1/8	2 1/8	2	2			

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	4 "	2.5	60 "
2	2 1/2 "	4	60 "
3	4 1/2 "	6.7	60 "
4	23/8 "	12.6	48 "
5	0 "	240	48 "
6	2 "	5	48 "
TOTAL OF MIN / IN →		270.8	= 45 ^{Min} _{Inch}
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

Δ1-09-05

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE
ER-BWQ-290 Appendix A**

Application No. _____ Municipality EDGMONT County DELAWARE
Site Location 1329 SYCAMORE MILL Subdivision Name _____
 SUITABLE Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate 16.6
 UNSUITABLE Mottling Seeps or Ponded Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____

Inches	Description of Horizon	Depth to limiting Zone:
0 TO _____	_____	_____ inches
0 TO _____	_____	
0 TO _____	_____	
0 TO _____	_____	

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 11/3/06

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	4	4	4	3 7/8				
2	X		10/30	13/4	15/8	15/8	1 1/2				
3	X		10/30	4 1/8	3 5/8	3 5/8	3 1/2	3 3/8			
4		X	10/30	2 7/8	2 1/4	2 1/4	2 3/8	2 1/4			
5	X		10/30	13/4	13/4	15/8	15/8				
6	X		10/30	7/8	7/8	3/4	3/4				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	3 7/8 "	7.7	60 "
2	1 1/2 "	2.0	60 "
3	3 3/8 "	8.9	60 "
4	2 1/4 "	4.4	51 "
5	1 5/8 "	18.5	51 "
6	3/4 "	4.0	51 "
TOTAL OF MIN / IN →		99.5	= 16.6 <small>Min Inch</small>
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.

(S) _____
Sewage Enforcement Officer

Δ1-9-07

**SITE INVESTIGATION AND PERCOLATION
TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE**
ER-BWQ-290 Appendix A

Application No. _____ Municipality EDGEMONT County DELAWARE
Site Location 1329 SYCAMORE MILL Subdivision Name _____
 SUITABLE. Soil Type _____ Slope _____ % Depth to Limiting Zone _____ Ave. Perc. Rate 44.4
 UNSUITABLE Mottling Seeps or Pooled Water Bedrock Fractures Coarse Fragments
 Perc. Rate Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:

Soils Description Completed by: _____ Date: _____
Inches Description of Horizon
0 TO _____
0 TO _____
0 TO _____
0 TO _____
Depth to limiting Zone: _____ inches

PERCOLATION TEST:

Percolation Test Completed by: _____ Date: 1/13/06
Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)
Soil Conditions: Wet Dry Frozen

Hole No.	***		Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
	Yes	No									
1	X		10/30	2 1/2	2 3/8	2 1/4	2 1/4				
2		X	30	2 3/8	2 1/8	2 1/4	2 1/8				
3		X	30	4	4	4	3 3/4				
4		X	30	3 1/2	3 1/4	3 1/8	3	3			
5		X	30	3	3	3	2 1/8				
6	X		30	1/4	1/4	1/4	1/8				

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	2 1/4 "	13.3	60 "
2	2 1/8 "	4.7	60 "
3	3 3/4 "	2.7	60 "
4	3 "	3.5	48 "
5	2 1/8 "	2.4	48 "
6	1/8 "	240	48 "
TOTAL OF MIN / IN →		266.8	= 44.4
TOTAL NO. OF HOLES →			

The information provided is the true and correct result of tests conducted by me, performed under my personal supervision, or verified in a manner approved by the Department.
(S) _____
Sewage Enforcement Officer