



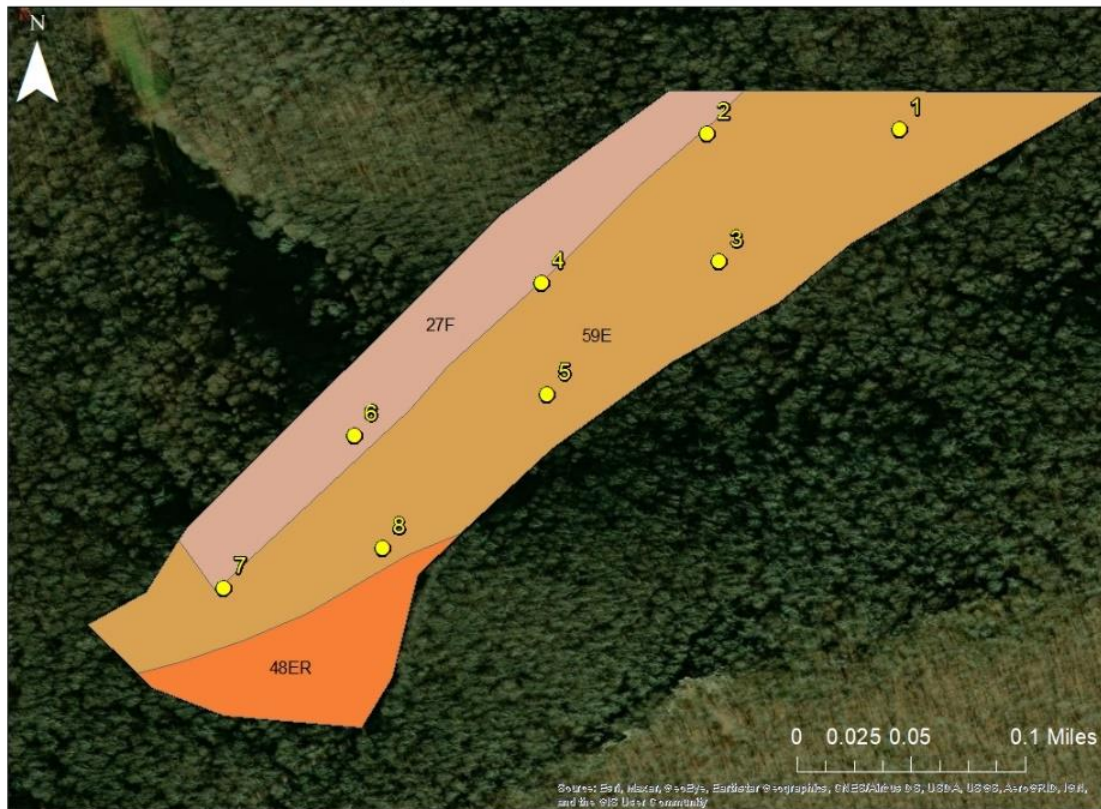
Jefferson NF Exercise – Soil Report

Jefferson National Forest, Virginia (VA606)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
27F	Lily-Bailegap complex, very stony, 35 to 65 percent slopes	4.6	23.2%
Subtotals for Soil Survey Area		4.6	23.2%
Collapse Jefferson National Forest, Virginia (VA606) Jefferson National Forest, Virginia (VA606)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
48ER	Calvin-Rock outcrop complex, 35 to 60 percent slopes, extremely stony	2.3	11.6%
59E	Gilpin channery silt loam, 35 to 60 percent slopes	13.1	65.3%
Subtotals for Soil Survey Area		15.4	76.8%
Totals for Area of Interest		20.0	100.0%

(VA071)

Jefferson National Forest- Soil Map



Giles County, Virginia

27F—Lily-Bailegap complex, very stony, 35 to 65 percent slopes

- *Elevation:* 2,120 to 4,350 feet
- *Mean annual precipitation:* 34 to 46 inches
- *Mean annual air temperature:* 52 to 55 degrees F
 - *Frost-free period:* 129 to 180 days
- *Farmland classification:* Not prime farmland

Map Unit Composition

- *Lily and similar soils:* 65 percent

- *Bailegap and similar soils: 25 percent*

Description of Lily

Setting

- *Landform: Mountains*
- *Landform position (two-dimensional): Backslope*
- *Landform position (three-dimensional): Mountainflank*
- *Down-slope shape: Linear*
- *Across-slope shape: Convex*
- *Parent material: Residuum weathered from sandstone and siltstone and interbedded shale*

Typical profile

- *H1 - 0 to 7 inches: gravelly sandy loam*
- *H2 - 7 to 30 inches: gravelly loam*
- *H3 - 30 to 36 inches: clay loam*
- *H4 - 36 to 46 inches: bedrock*

Properties and qualities

- *Slope: 35 to 65 percent*
- *Surface area covered with cobbles, stones or boulders: 9.0 percent*
- *Depth to restrictive feature: 20 to 40 inches to lithic bedrock*
- *Drainage class: Well drained*
- *Runoff class: Medium*
- *Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 5.95 in/hr)*
- *Depth to water table: More than 80 inches*
- *Frequency of flooding: None*
- *Frequency of ponding: None*
- *Available water capacity: Low (about 4.3 inches)*

Description of Bailegap

Setting

- *Landform: Mountains*
- *Landform position (two-dimensional): Backslope*
- *Landform position (three-dimensional): Mountainflank*
- *Down-slope shape: Linear*
- *Across-slope shape: Convex*
- *Parent material: Residuum weathered from sandstone and siltstone and interbedded shale*

Typical profile

- *H1 - 0 to 8 inches: flaggy loam*
- *H2 - 8 to 20 inches: gravelly silt loam*
- *H3 - 20 to 42 inches: very cobbly silt loam*
- *H4 - 42 to 58 inches: bedrock*
- *H5 - 58 to 68 inches: bedrock*

Properties and qualities

- *Slope: 35 to 65 percent*
- *Surface area covered with cobbles, stones or boulders: 9.0 percent*
- *Depth to restrictive feature: 40 to 60 inches to paralithic bedrock; 40 to 60 inches to lithic bedrock*
- *Drainage class: Well drained*
- *Runoff class: High*
- *Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)*
- *Depth to water table: More than 80 inches*
- *Frequency of flooding: None*
- *Frequency of ponding: None*
- *Available water capacity: Low (about 4.7 inches)*

Jefferson National Forest- Soil Map - 27F



Jefferson National Forest, Virginia

48ER—Calvin-Rock outcrop complex, 35 to 60 percent slopes, extremely stony

- *Elevation:* 1,210 to 4,280 feet
- *Mean annual precipitation:* 35 to 51 inches
- *Mean annual air temperature:* 50 to 55 degrees F
 - *Frost-free period:* 135 to 180 days
- *Farmland classification:* Not prime farmland

Map Unit Composition

- *Calvin, extremely stony, and similar soils:* 65 percent
 - *Rock outcrop:* 20 percent

Description of Calvin, Extremely Stony

Setting

- *Landform:* Mountains
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Mountainflank
- *Down-slope shape:* Linear
- *Across-slope shape:* Convex
- *Parent material:* Residuum weathered from shale and/or sandstone and/or siltstone

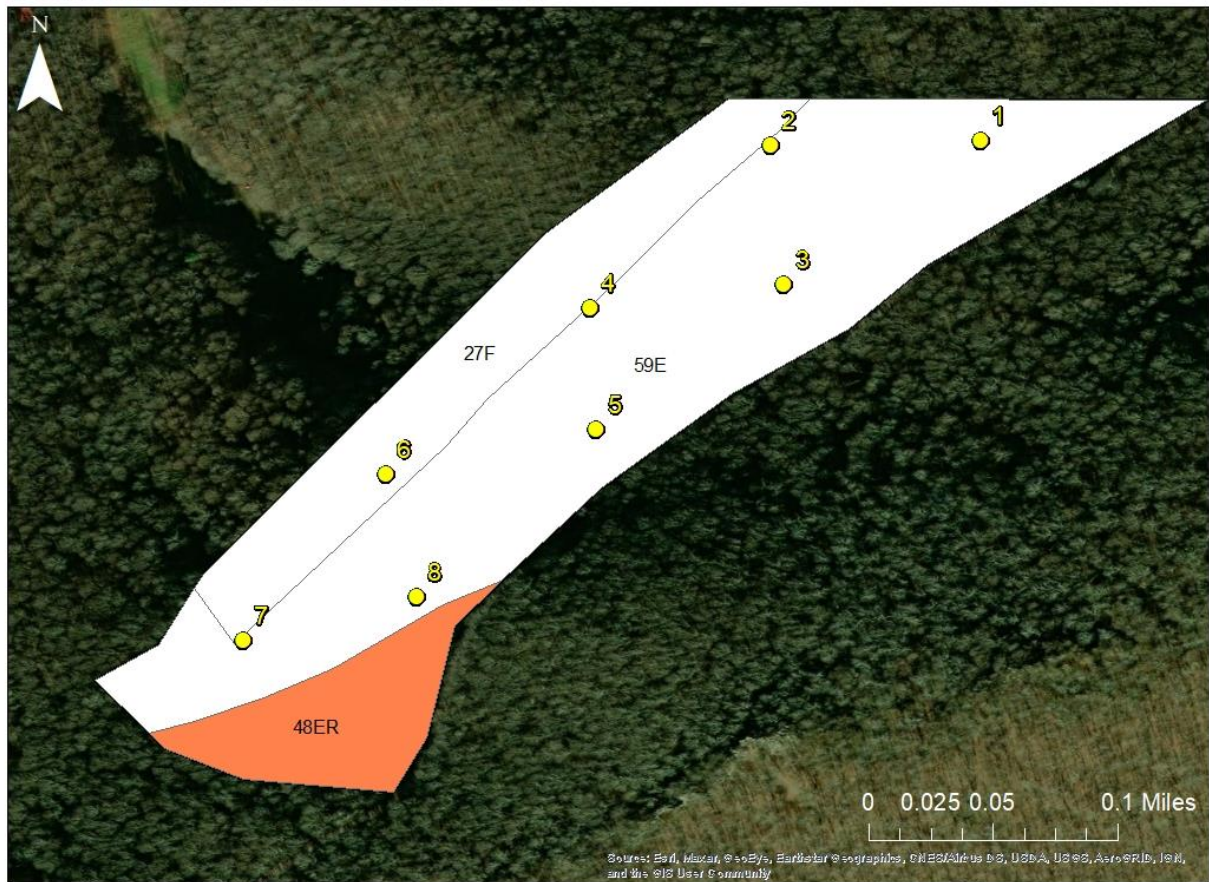
Typical profile

- *Oi - 0 to 1 inches:* slightly decomposed plant material
- *Oe - 1 to 3 inches:* moderately decomposed plant material
- *A - 3 to 6 inches:* very channery loam
- *Bw - 6 to 28 inches:* very channery loam
- *R - 28 to 38 inches:* bedrock

Properties and qualities

- *Slope:* 35 to 60 percent
- *Surface area covered with cobbles, stones or boulders:* 9.0 percent
- *Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
- *Drainage class:* Well drained
- *Runoff class:* Very high
- *Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.57 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 3.9 inches)

Jefferson National Forest- Soil Map - 48ER



Jefferson National Forest, Virginia

59E—Gilpin channery silt loam, 35 to 60 percent slopes

Map Unit Setting

- *National map unit symbol:* 2rm2v
- *Elevation:* 1,570 to 4,200 feet
- *Mean annual precipitation:* 35 to 51 inches
- *Mean annual air temperature:* 50 to 55 degrees F
 - *Frost-free period:* 135 to 180 days
- *Farmland classification:* Not prime farmland

Map Unit Composition

- *Gilpin and similar soils:* 85 percent

Description of Gilpin

Setting

- *Landform:* Hills
- *Landform position (two-dimensional):* Backslope
- *Landform position (three-dimensional):* Side slope, nose slope, crest
- *Down-slope shape:* Linear
- *Across-slope shape:* Convex
- *Parent material:* Residuum weathered from acid shale

Typical profile

- *Oe - 0 to 2 inches:* moderately decomposed plant material
- *A - 2 to 4 inches:* channery silt loam
- *BE - 4 to 14 inches:* channery silt loam
- *Bt - 14 to 26 inches:* channery silty clay loam
- *C - 26 to 30 inches:* very channery silt loam
- *R - 30 to 40 inches:* bedrock

Properties and qualities

- *Slope:* 35 to 60 percent
- *Depth to restrictive feature:* 20 to 40 inches to lithic bedrock
- *Drainage class:* Well drained
- *Runoff class:* High
- *Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 1.98 in/hr)
- *Depth to water table:* More than 80 inches
- *Frequency of flooding:* None
- *Frequency of ponding:* None
- *Available water capacity:* Low (about 5.5 inches)

Jefferson National Forest- Soil Map - 59E



Tables — Forest Productivity (Tree Site Index): white oak (Olson 1959 (810))

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
27F	Lily-Bailegap complex, very stony, 35 to 65 percent slopes	69	4.6	23.2%
Subtotals for Soil Survey Area			4.6	23.2%
Collapse Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
48ER	Calvin-Rock outcrop complex, 35 to 60 percent slopes, extremely stony	69	2.3	11.6%
59E	Gilpin channery silt loam, 35 to 60 percent slopes	70	13.1	65.3%
Subtotals for Soil Survey Area			15.4	76.8%
Totals for Area of Interest			20.0	100.0%

Tables — pH (1 to 1 Water) — Summary By Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
27F	Lily-Bailegap complex, very stony, 35 to 65 percent slopes	4.6	4.6	23.2%
Subtotals for Soil Survey Area			4.6	23.2%
Collapse Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
48ER	Calvin-Rock outcrop complex, 35 to 60 percent slopes, extremely stony	5.0	2.3	11.6%
59E	Gilpin channery silt loam, 35 to 60 percent slopes	4.9	13.1	65.3%
Subtotals for Soil Survey Area			15.4	76.8%
Totals for Area of Interest			20.0	100.0%

Tables — pH (1 to 1 Water) — Summary By Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
27F	Lily-Bailegap complex, very stony, 35 to 65 percent slopes	4.6	4.6	23.2%
Subtotals for Soil Survey Area			4.6	23.2%
Collapse Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Summary by Map Unit — Jefferson National Forest, Virginia (VA606)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
48ER	Calvin-Rock outcrop complex, 35 to 60 percent slopes, extremely stony	5.0	2.3	11.6%
59E	Gilpin channery silt loam, 35 to 60 percent slopes	4.9	13.1	65.3%
Subtotals for Soil Survey Area			15.4	76.8%
Totals for Area of Interest			20.0	100.0%

Jefferson National Forest- Topographic Soil Map

