



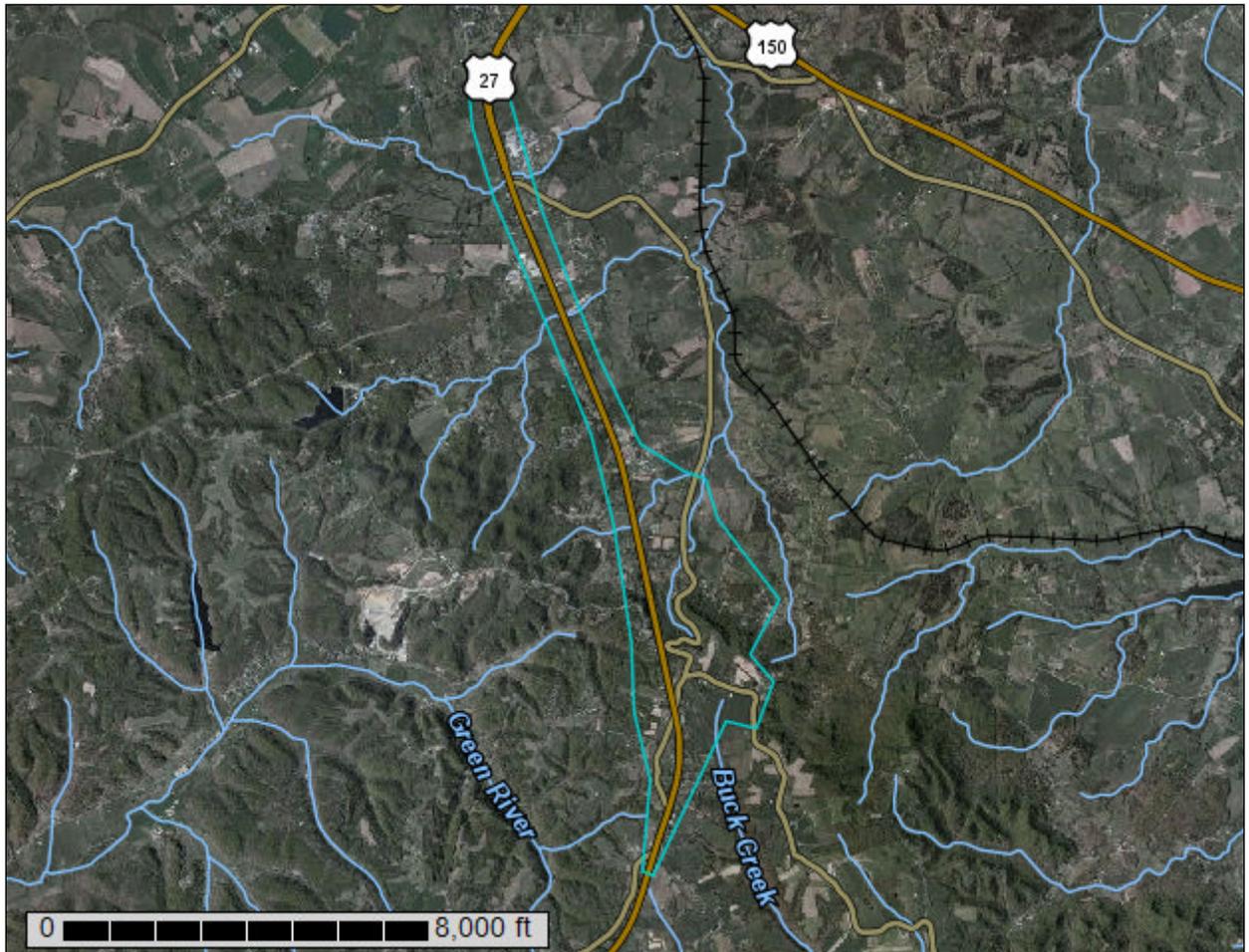
United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Garrard and Lincoln Counties, Kentucky



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# **How Soil Surveys Are Made**

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

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individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

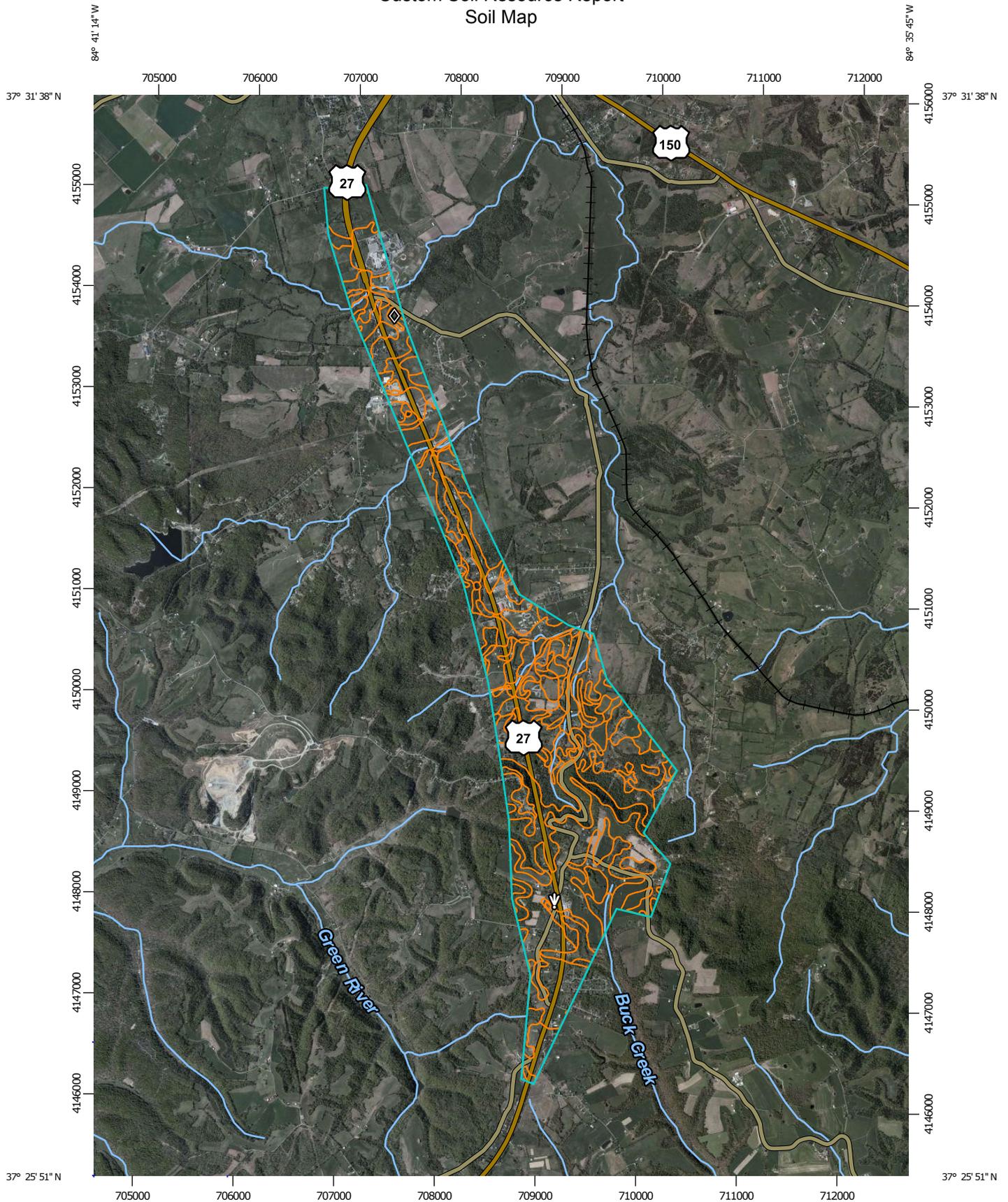
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



Map Scale: 1:52,100 if printed on A portrait (8.5" x 11") sheet.

0 500 1000 2000 3000 Meters

0 2500 5000 10000 15000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Garrard and Lincoln Counties, Kentucky  
 Survey Area Data: Version 10, Sep 15, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 17, 2010—Sep 13, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Garrard and Lincoln Counties, Kentucky (KY618)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Beasley silt loam, 2 to 6 percent slopes	30.5	1.7%
BbC2	Beasley silty clay loam, 6 to 12 percent slopes, eroded	72.9	4.2%
BeB	Berea silt loam, 2 to 6 percent slopes	38.7	2.2%
Bo	Boonesboro silt loam, frequently flooded	27.8	1.6%
CeB	Carpenter gravelly silt loam, 2 to 6 percent slopes	0.9	0.1%
CeC	Carpenter gravelly silt loam, 6 to 12 percent slopes	3.2	0.2%
CgE2	Carpenter-Lenberg complex, 12 to 30 percent slopes, eroded	90.0	5.2%
CmB	Christian silt loam, 2 to 6 percent slopes	20.5	1.2%
CmC2	Christian silt loam, 6 to 12 percent slopes, eroded	273.9	15.7%
CoD2	Christian silty clay loam, 12 to 25 percent slopes, eroded	2.7	0.2%
CpF2	Colyer-Trappist complex, 25 to 60 percent slopes, eroded, very rocky	2.1	0.1%
CyF2	Cynthiana-Faywood complex, 25 to 50 percent slopes, eroded, very rocky	1.4	0.1%
EkB	Elk silt loam, 2 to 6 percent slopes	1.8	0.1%
EkC	Elk silt loam, 6 to 12 percent slopes	19.3	1.1%
ErB	Elk silt loam, 2 to 6 percent slopes, rarely flooded	8.9	0.5%
FrB	Frankstown gravelly silt loam, 2 to 6 percent slopes	11.2	0.6%
FrC	Frankstown gravelly silt loam, 6 to 12 percent slopes	117.7	6.8%
FrD2	Frankstown gravelly silt loam, 12 to 25 percent slopes, eroded	65.2	3.7%
GaC2	Garlin-Shrouds complex, 6-12 percent slopes, eroded	76.3	4.4%
GaD2	Garlin-Shrouds complex, 12 to 25 percent slopes, eroded, rocky	90.1	5.2%
GmF	Garmon channery silt loam, 25 to 80 percent slopes, rocky	149.9	8.6%

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Garrard and Lincoln Counties, Kentucky (KY618)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GrB	Greenbriar silt loam, 2 to 6 percent slopes	98.3	5.6%
HgC	Hagerstown silt loam, 6 to 12 percent slopes	18.6	1.1%
JeB	Jessietown silt loam, 2 to 6 percent slopes	7.8	0.5%
JeC	Jessietown silt loam, 6 to 12 percent slopes	36.5	2.1%
Jm	Johnsburg-Mullins complex	5.2	0.3%
LgC2	Lenberg silty clay loam, 6 to 12 percent slopes, eroded	9.8	0.6%
Ne	Newark silt loam, frequently flooded	17.6	1.0%
NhB	Nicholson silt loam, 2 to 6 percent slopes	4.5	0.3%
NhC2	Nicholson silt loam, 6 to 12 percent slopes, eroded	35.0	2.0%
No	Nolin silt loam, 0 to 2 percent slopes, frequently flooded	31.8	1.8%
OtB	Otwell silt loam, 2 to 6 percent slopes	12.1	0.7%
OwB	Otwell silt loam, 2 to 6 percent slopes, rarely flooded	25.8	1.5%
PrB	Pricetown silt loam, 2 to 6 percent slopes	7.3	0.4%
SaB	Sandview silt loam, 2 to 6 percent slopes	6.3	0.4%
SeC2	Shrouts silty clay loam, 6 to 12 percent slopes, eroded	14.9	0.9%
SfD3	Shrouts-Cynthiana complex, 12 to 25 percent slopes, severely eroded, rocky	9.8	0.6%
SgF3	Shrouts-Garlin-Cynthiana complex, 25 to 50 percent slopes, severely eroded, very rocky	14.8	0.9%
Sk	Skidmore very gravelly silt loam, frequently flooded	27.4	1.6%
TIB	Tilsit silt loam, 2 to 6 percent slopes	55.1	3.2%
TIC	Tilsit silt loam, 6 to 12 percent slopes	8.3	0.5%
TpB	Trappist silt loam, 2 to 6 percent slopes	3.4	0.2%
TpC2	Trappist silty clay loam, 6 to 12 percent slopes, eroded	59.5	3.4%
TrD2	Trappist-Colyer complex, 12 to 25 percent slopes, eroded	122.8	7.0%

## Custom Soil Resource Report

Garrard and Lincoln Counties, Kentucky (KY618)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
W	Water	4.0	0.2%
<b>Totals for Area of Interest</b>		<b>1,741.5</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

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Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Garrard and Lincoln Counties, Kentucky

### BaB—Beasley silt loam, 2 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2vtzk  
*Elevation:* 440 to 1,090 feet  
*Mean annual precipitation:* 36 to 62 inches  
*Mean annual air temperature:* 40 to 68 degrees F  
*Frost-free period:* 139 to 218 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Beasley and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Beasley

##### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Clayey residuum weathered from calcareous shale

##### Typical profile

*Ap - 0 to 7 inches:* silt loam  
*Bt - 7 to 29 inches:* silty clay  
*C - 29 to 50 inches:* silty clay  
*Cr - 50 to 60 inches:* bedrock

##### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 40 to 54 inches to paralithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.14 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 21 percent  
*Available water storage in profile:* Low (about 5.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

#### Minor Components

##### Shrouts

*Percent of map unit:* 5 percent

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*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

### **Nicholson**

*Percent of map unit:* 5 percent  
*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

### **Faywood**

*Percent of map unit:* 5 percent  
*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope, interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## **BbC2—Beasley silty clay loam, 6 to 12 percent slopes, eroded**

### **Map Unit Setting**

*National map unit symbol:* lkc0  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Beasley and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Beasley**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from shale and siltstone and/or limestone

## Custom Soil Resource Report

### Typical profile

*H1 - 0 to 8 inches:* silty clay loam  
*H2 - 8 to 16 inches:* silty clay  
*H3 - 16 to 45 inches:* clay  
*Cr - 45 to 55 inches:* weathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 40 to 60 inches to paralithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*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  
*Calcium carbonate, maximum in profile:* 21 percent  
*Available water storage in profile:* Moderate (about 6.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Shrouts

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Lowell

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Beasley, (sic surface)

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Garlin

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## BeB—Berea silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* lkc1  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Berea and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Berea

#### Setting

*Landform:* Ridges

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Interfluve

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Fine-silty noncalcareous loess over residuum weathered from acid shale

#### Typical profile

*H1 - 0 to 8 inches:* silt loam

*H2 - 8 to 26 inches:* silt loam

*Cr - 26 to 30 inches:* weathered bedrock

*R - 30 to 40 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock; 20 to 30 inches to paralithic bedrock

*Natural drainage class:* Moderately well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.01 in/hr)

*Depth to water table:* About 18 to 36 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Low (about 5.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* C/D

*Hydric soil rating:* No

### Minor Components

#### Johnsburg

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Tilsit

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Greenbriar

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

#### Trappist

*Percent of map unit:* 2 percent

## Custom Soil Resource Report

*Hydric soil rating:* No

### **Bo—Boonesboro silt loam, frequently flooded**

#### **Map Unit Setting**

*National map unit symbol:* lkc2

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Prime farmland if protected from flooding or not frequently flooded during the growing season

#### **Map Unit Composition**

*Boonesboro, frequently flooded, and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Boonesboro, Frequently Flooded**

##### **Setting**

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Fine-loamy alluvium derived from limestone

##### **Typical profile**

*H1 - 0 to 7 inches:* silt loam

*H2 - 7 to 37 inches:* gravelly silt loam

*R - 37 to 47 inches:* unweathered bedrock

##### **Properties and qualities**

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Natural drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water storage in profile:* Low (about 4.2 inches)

##### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2w

*Hydrologic Soil Group:* C

*Hydric soil rating:* No

### Minor Components

#### Nolin

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Skidmore

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Newark

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

## CeB—Carpenter gravelly silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* lkc4  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Carpenter and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Carpenter

#### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-loamy colluvium over clayey residuum weathered from shale and siltstone

#### Typical profile

*H1 - 0 to 12 inches:* gravelly silt loam  
*H2 - 12 to 42 inches:* gravelly silty clay loam  
*H3 - 42 to 52 inches:* channery silty clay  
*Cr - 52 to 65 inches:* weathered bedrock

#### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 40 to 60 inches to paralithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium

## Custom Soil Resource Report

*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 storage in profile:* Moderate (about 8.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Minor Components

#### Lenberg

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Trappist

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Carpenter, (moderately eroded)

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Colyer

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## CeC—Carpenter gravelly silt loam, 6 to 12 percent slopes

### Map Unit Setting

*National map unit symbol:* lkc5

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Carpenter and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Carpenter

#### Setting

*Landform:* Ridges

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

## Custom Soil Resource Report

*Across-slope shape:* Convex

*Parent material:* Fine-loamy colluvium over clayey residuum weathered from shale and siltstone

### Typical profile

*H1 - 0 to 12 inches:* gravelly silt loam

*H2 - 12 to 42 inches:* gravelly silty clay loam

*H3 - 42 to 52 inches:* channery silty clay

*Cr - 52 to 65 inches:* weathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* 40 to 60 inches to paralithic bedrock

*Natural drainage class:* Well drained

*Runoff class:* Medium

*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 storage in profile:* Moderate (about 8.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Minor Components

#### Lenberg

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Trappist

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Carpenter, (moderately eroded)

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Colyer

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## CgE2—Carpenter-Lenberg complex, 12 to 30 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkc6

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

## Custom Soil Resource Report

*Frost-free period:* 162 to 202 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Carpenter and similar soils:* 50 percent

*Lenberg and similar soils:* 35 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Carpenter

#### Setting

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Concave

*Across-slope shape:* Convex

*Parent material:* Fine-loamy colluvium over clayey residuum weathered from shale and siltstone

#### Typical profile

*H1 - 0 to 12 inches:* gravelly silt loam

*H2 - 12 to 42 inches:* gravelly silty clay loam

*H3 - 42 to 52 inches:* channery silty clay

*Cr - 52 to 65 inches:* weathered bedrock

#### Properties and qualities

*Slope:* 12 to 30 percent

*Depth to restrictive feature:* 40 to 60 inches to paralithic bedrock

*Natural 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 storage in profile:* Moderate (about 8.3 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Description of Lenberg

#### Setting

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Concave

*Across-slope shape:* Convex

*Parent material:* Clayey residuum weathered from shale

#### Typical profile

*H1 - 0 to 5 inches:* silt loam

*H2 - 5 to 14 inches:* silty clay loam

## Custom Soil Resource Report

*H3 - 14 to 30 inches: silty clay*  
*H4 - 30 to 39 inches: channery silty clay*  
*Cr - 39 to 55 inches: weathered bedrock*

### Properties and qualities

*Slope: 12 to 30 percent*  
*Depth to restrictive feature: 20 to 40 inches to paralithic bedrock*  
*Natural 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 storage in profile: Low (about 5.8 inches)*

### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 4e*  
*Hydrologic Soil Group: C*  
*Hydric soil rating: No*

### Minor Components

#### Garmon

*Percent of map unit: 6 percent*  
*Hydric soil rating: No*

#### Trappist

*Percent of map unit: 6 percent*  
*Hydric soil rating: No*

#### Colyer

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

## CmB—Christian silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol: 1kcc*  
*Mean annual precipitation: 46 to 58 inches*  
*Mean annual air temperature: 45 to 66 degrees F*  
*Frost-free period: 162 to 202 days*  
*Farmland classification: All areas are prime farmland*

### Map Unit Composition

*Christian and similar soils: 90 percent*  
*Minor components: 10 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Christian

### Setting

*Landform:* Ridges

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Interfluve

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Clayey residuum weathered from limestone, sandstone, and shale and/or siltstone

### Typical profile

*H1 - 0 to 8 inches:* silt loam

*H2 - 8 to 18 inches:* silty clay loam

*H3 - 18 to 48 inches:* silty clay

*H4 - 48 to 90 inches:* gravelly clay

### Properties and qualities

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Moderate (about 8.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* C

*Hydric soil rating:* No

## Minor Components

### Pricetown

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

### Frankstown

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

### Christian, (gr-sil/sicl surface)

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

### Teddy

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## **CmC2—Christian silt loam, 6 to 12 percent slopes, eroded**

### **Map Unit Setting**

*National map unit symbol:* lkcd

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Christian and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Christian**

#### **Setting**

*Landform:* Ridges

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Clayey residuum weathered from limestone, sandstone, and shale and/or siltstone

#### **Typical profile**

*H1 - 0 to 5 inches:* silt loam

*H2 - 5 to 18 inches:* silty clay loam

*H3 - 18 to 48 inches:* silty clay

*H4 - 48 to 90 inches:* gravelly clay

#### **Properties and qualities**

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Moderate (about 8.5 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* C

*Hydric soil rating:* No

### Minor Components

#### Pricetown

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Frankstown

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Caneyville

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

#### Christian, (gr-sil surface)

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## CoD2—Christian silty clay loam, 12 to 25 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkcf  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Christian and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Christian

#### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from limestone, sandstone, and shale and/or siltstone

#### Typical profile

*H1 - 0 to 6 inches:* silty clay loam  
*H2 - 6 to 18 inches:* silty clay loam  
*H3 - 18 to 48 inches:* silty clay  
*H4 - 48 to 90 inches:* gravelly clay

#### Properties and qualities

*Slope:* 12 to 25 percent

## Custom Soil Resource Report

*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 8.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Garmon

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Frankstown

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Christian, (sic surface layer)

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Caneyville

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## CpF2—Colyer-Trappist complex, 25 to 60 percent slopes, eroded, very rocky

### Map Unit Setting

*National map unit symbol:* lkcg  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Colyer and similar soils:* 50 percent  
*Trappist and similar soils:* 30 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Colyer

### Setting

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Clayey-skeletal residuum weathered from acid shale

### Typical profile

*H1 - 0 to 9 inches:* silty clay loam

*H2 - 9 to 14 inches:* very channery silty clay

*R - 14 to 24 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 25 to 60 percent

*Percent of area covered with surface fragments:* 8.0 percent

*Depth to restrictive feature:* 8 to 20 inches to lithic bedrock

*Natural 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 storage in profile:* Very low (about 2.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7s

*Hydrologic Soil Group:* D

*Hydric soil rating:* No

## Description of Trappist

### Setting

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Clayey residuum weathered from shale and siltstone

### Typical profile

*H1 - 0 to 7 inches:* silty clay loam

*H2 - 7 to 26 inches:* silty clay

*H3 - 26 to 35 inches:* very channery silty clay

*R - 35 to 45 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 25 to 60 percent

*Percent of area covered with surface fragments:* 8.0 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Natural drainage class:* Well drained

*Runoff class:* Medium

## Custom Soil Resource Report

*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 storage in profile:* Low (about 4.6 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 7e

*Hydrologic Soil Group:* C

*Hydric soil rating:* No

### **Minor Components**

#### **Carpenter**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Rock outcrop**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Garmon**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### **Lenberg**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **CyF2—Cynthiana-Faywood complex, 25 to 50 percent slopes, eroded, very rocky**

### **Map Unit Setting**

*National map unit symbol:* lkcn

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Cynthiana and similar soils:* 50 percent

*Faywood and similar soils:* 35 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Cynthiana

### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from limestone and shale

### Typical profile

*H1 - 0 to 6 inches:* silty clay loam  
*H2 - 6 to 16 inches:* clay  
*R - 16 to 26 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 25 to 50 percent  
*Percent of area covered with surface fragments:* 8.0 percent  
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

## Description of Faywood

### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from limestone and shale

### Typical profile

*H1 - 0 to 6 inches:* silty clay loam  
*H2 - 6 to 30 inches:* clay  
*R - 30 to 40 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 25 to 50 percent  
*Percent of area covered with surface fragments:* 8.0 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

## Custom Soil Resource Report

*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 4.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Fairmount

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Lowell

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Eden

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Rock outcrop

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## EkB—Elk silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* 2slfb  
*Elevation:* 390 to 1,050 feet  
*Mean annual precipitation:* 36 to 58 inches  
*Mean annual air temperature:* 41 to 65 degrees F  
*Frost-free period:* 142 to 204 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Elk and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Elk

#### Setting

*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear

## Custom Soil Resource Report

*Parent material:* Mixed fine-silty alluvium over mixed loamy alluvium

### Typical profile

*Ap - 0 to 8 inches:* silt loam  
*BA - 8 to 15 inches:* silt loam  
*Bt - 15 to 46 inches:* silty clay loam  
*2C - 46 to 80 inches:* silty clay loam

### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 10.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

### Minor Components

#### Otwood

*Percent of map unit:* 5 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Allegheny

*Percent of map unit:* 3 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Nolin, occasionally flooded

*Percent of map unit:* 2 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## **EkC—Elk silt loam, 6 to 12 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2slfc

*Elevation:* 450 to 1,060 feet

*Mean annual precipitation:* 36 to 58 inches

*Mean annual air temperature:* 41 to 65 degrees F

*Frost-free period:* 142 to 204 days

*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Elk and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Elk**

#### **Setting**

*Landform:* Stream terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Parent material:* Mixed fine-silty alluvium over mixed loamy alluvium

#### **Typical profile**

*Ap - 0 to 8 inches:* silt loam

*BA - 8 to 15 inches:* silt loam

*Bt - 15 to 42 inches:* silty clay loam

*2C - 42 to 80 inches:* silty clay loam

#### **Properties and qualities**

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* High (about 10.7 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

## Minor Components

### Otwood

*Percent of map unit:* 5 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

### Allegheny

*Percent of map unit:* 3 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Riser  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

### Nolin, occasionally flooded

*Percent of map unit:* 2 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## ErB—Elk silt loam, 2 to 6 percent slopes, rarely flooded

### Map Unit Setting

*National map unit symbol:* 2slf3  
*Elevation:* 380 to 1,110 feet  
*Mean annual precipitation:* 36 to 66 inches  
*Mean annual air temperature:* 40 to 68 degrees F  
*Frost-free period:* 135 to 218 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Elk, rarely flooded, and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Elk, Rarely Flooded

#### Setting

*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Mixed fine-silty alluvium over mixed loamy alluvium

## Custom Soil Resource Report

### Typical profile

*Ap - 0 to 8 inches:* silt loam  
*BA - 8 to 15 inches:* silt loam  
*Bt - 15 to 46 inches:* silty clay loam  
*2C - 46 to 80 inches:* silty clay loam

### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 10.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

### Minor Components

#### Otwood, rarely flooded

*Percent of map unit:* 5 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Lawrence, rarely flooded

*Percent of map unit:* 3 percent  
*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

#### Nolin, occasionally flooded

*Percent of map unit:* 2 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## FrB—Frankstown gravelly silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* lkd6  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Frankstown and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Frankstown

#### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-loamy residuum weathered from limestone and siltstone and/or shale

#### Typical profile

*H1 - 0 to 8 inches:* gravelly silt loam  
*H2 - 8 to 16 inches:* gravelly silt loam  
*H3 - 16 to 44 inches:* gravelly silty clay loam  
*R - 44 to 54 inches:* bedrock

#### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 40 to 72 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 6.7 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

**Minor Components**

**Christian**

*Percent of map unit: 4 percent*  
*Hydric soil rating: No*

**Pricetown**

*Percent of map unit: 4 percent*  
*Hydric soil rating: No*

**Teddy**

*Percent of map unit: 4 percent*  
*Hydric soil rating: No*

**Frankstown, (gr-sicl surface)**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**FrC—Frankstown gravelly silt loam, 6 to 12 percent slopes**

**Map Unit Setting**

*National map unit symbol: lkd7*  
*Mean annual precipitation: 46 to 58 inches*  
*Mean annual air temperature: 45 to 66 degrees F*  
*Frost-free period: 162 to 202 days*  
*Farmland classification: Farmland of statewide importance*

**Map Unit Composition**

*Frankstown and similar soils: 85 percent*  
*Minor components: 15 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Frankstown**

**Setting**

*Landform: Ridges*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Fine-loamy residuum weathered from limestone and siltstone and/or shale*

**Typical profile**

*H1 - 0 to 8 inches: gravelly silt loam*  
*H2 - 8 to 16 inches: gravelly silt loam*  
*H3 - 16 to 44 inches: gravelly silty clay loam*  
*R - 44 to 54 inches: bedrock*

**Properties and qualities**

*Slope: 6 to 12 percent*

## Custom Soil Resource Report

*Depth to restrictive feature:* 40 to 72 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 6.7 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

### Minor Components

#### Christian

*Percent of map unit:* 4 percent  
*Hydric soil rating:* No

#### Garmon

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Pricetown

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Frankstown, (gr-sicl surface)

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Teddy

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## FrD2—Frankstown gravelly silt loam, 12 to 25 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkd8  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Frankstown and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Frankstown

### Setting

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Parent material:* Fine-loamy residuum weathered from limestone and siltstone and/or shale

### Typical profile

*H1 - 0 to 5 inches:* gravelly silt loam

*H2 - 5 to 25 inches:* gravelly silt loam

*H3 - 25 to 45 inches:* gravelly silty clay loam

*R - 45 to 55 inches:* bedrock

### Properties and qualities

*Slope:* 12 to 25 percent

*Depth to restrictive feature:* 40 to 72 inches to lithic bedrock

*Natural drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Moderate (about 7.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

## Minor Components

### Frankstown, severely eroded

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Garmon

*Percent of map unit:* 4 percent

*Hydric soil rating:* No

### Christian

*Percent of map unit:* 4 percent

*Hydric soil rating:* No

### Pricetown

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## **GaC2—Garlin-Shrouts complex, 6-12 percent slopes, eroded**

### **Map Unit Setting**

*National map unit symbol:* lkd9  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Garlin and similar soils:* 45 percent  
*Shrouts and similar soils:* 35 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Garlin**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Fine-loamy residuum weathered from calcareous sandstone and/or calcareous siltstone and/or limestone and shale

#### **Typical profile**

*H1 - 0 to 7 inches:* loam  
*H2 - 7 to 18 inches:* loam  
*Cr - 18 to 23 inches:* weathered bedrock  
*R - 23 to 33 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.7 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

## Description of Shrouts

### Setting

*Landform:* Ridges

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Clayey residuum weathered from calcareous shale

### Typical profile

*H1 - 0 to 4 inches:* silty clay loam

*H2 - 4 to 26 inches:* clay

*Cr - 26 to 36 inches:* weathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock

*Natural 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

*Calcium carbonate, maximum in profile:* 38 percent

*Available water storage in profile:* Low (about 4.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* D

*Hydric soil rating:* No

## Minor Components

### Brassfield

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Cynthiana

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Beasley

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Faywood

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

## **GaD2—Garlin-Shrouts complex, 12 to 25 percent slopes, eroded, rocky**

### **Map Unit Setting**

*National map unit symbol:* lkdb  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Garlin and similar soils:* 50 percent  
*Shrouts and similar soils:* 30 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Garlin**

#### **Setting**

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Fine-loamy residuum weathered from calcareous sandstone and/or calcareous siltstone and/or limestone and shale

#### **Typical profile**

*H1 - 0 to 7 inches:* loam  
*H2 - 7 to 18 inches:* loam  
*Cr - 18 to 23 inches:* weathered bedrock  
*R - 23 to 33 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 12 to 25 percent  
*Percent of area covered with surface fragments:* 1.0 percent  
*Depth to restrictive feature:* 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low (0.00 to 0.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.7 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e

## Custom Soil Resource Report

*Hydrologic Soil Group: D*  
*Hydric soil rating: No*

### Description of Shrouts

#### Setting

*Landform: Hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Clayey residuum weathered from calcareous shale*

#### Typical profile

*H1 - 0 to 4 inches: silty clay loam*  
*H2 - 4 to 26 inches: clay*  
*Cr - 26 to 36 inches: weathered bedrock*

#### Properties and qualities

*Slope: 12 to 25 percent*  
*Percent of area covered with surface fragments: 1.0 percent*  
*Depth to restrictive feature: 20 to 40 inches to paralithic bedrock*  
*Natural 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*  
*Calcium carbonate, maximum in profile: 38 percent*  
*Available water storage in profile: Low (about 4.0 inches)*

#### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: D*  
*Hydric soil rating: No*

### Minor Components

#### Brassfield

*Percent of map unit: 5 percent*  
*Hydric soil rating: No*

#### Faywood

*Percent of map unit: 5 percent*  
*Hydric soil rating: No*

#### Beasley

*Percent of map unit: 4 percent*  
*Hydric soil rating: No*

#### Cynthiana

*Percent of map unit: 4 percent*  
*Hydric soil rating: No*

#### Rock outcrop

*Percent of map unit: 2 percent*  
*Hydric soil rating: No*

## **GmF—Garmon channery silt loam, 25 to 80 percent slopes, rocky**

### **Map Unit Setting**

*National map unit symbol:* lkdc  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Garmon and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Garmon**

#### **Setting**

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-loamy residuum weathered from limestone and siltstone and/or calcareous shale

#### **Typical profile**

*H1 - 0 to 3 inches:* channery silt loam  
*H2 - 3 to 26 inches:* channery silt loam  
*R - 26 to 36 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 25 to 80 percent  
*Percent of area covered with surface fragments:* 1.0 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural 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 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.9 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

**Minor Components**

**Carpenter**

*Percent of map unit: 5 percent*  
*Hydric soil rating: No*

**Frankstown**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**Newbern**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**Lenberg**

*Percent of map unit: 2 percent*  
*Hydric soil rating: No*

**Rock outcrop**

*Percent of map unit: 2 percent*  
*Hydric soil rating: No*

**GrB—Greenbriar silt loam, 2 to 6 percent slopes**

**Map Unit Setting**

*National map unit symbol: lkdg*  
*Mean annual precipitation: 46 to 58 inches*  
*Mean annual air temperature: 45 to 66 degrees F*  
*Frost-free period: 162 to 202 days*  
*Farmland classification: All areas are prime farmland*

**Map Unit Composition**

*Greenbriar and similar soils: 90 percent*  
*Minor components: 10 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Greenbriar**

**Setting**

*Landform: Ridges*  
*Landform position (two-dimensional): Summit*  
*Landform position (three-dimensional): Interfluve*  
*Down-slope shape: Convex*  
*Across-slope shape: Linear*  
*Parent material: Fine-silty noncalcareous loess over residuum weathered from shale and siltstone*

**Typical profile**

*H1 - 0 to 10 inches: silt loam*  
*H2 - 10 to 26 inches: silt loam*  
*H3 - 26 to 48 inches: silty clay loam*

## Custom Soil Resource Report

*R - 48 to 58 inches: unweathered bedrock*

### Properties and qualities

*Slope: 2 to 6 percent*

*Depth to restrictive feature: 40 to 72 inches to lithic bedrock*

*Natural drainage class: Well drained*

*Runoff class: Medium*

*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 storage in profile: High (about 10.1 inches)*

### Interpretive groups

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 2e*

*Hydrologic Soil Group: B*

*Hydric soil rating: No*

### Minor Components

#### Jessietown

*Percent of map unit: 3 percent*

*Hydric soil rating: No*

#### Crider

*Percent of map unit: 3 percent*

*Hydric soil rating: No*

#### Tilsit

*Percent of map unit: 2 percent*

*Hydric soil rating: No*

#### Trappist

*Percent of map unit: 2 percent*

*Hydric soil rating: No*

## HgC—Hagerstown silt loam, 6 to 12 percent slopes

### Map Unit Setting

*National map unit symbol: lkdh*

*Mean annual precipitation: 46 to 58 inches*

*Mean annual air temperature: 45 to 66 degrees F*

*Frost-free period: 162 to 202 days*

*Farmland classification: Farmland of statewide importance*

### Map Unit Composition

*Hagerstown and similar soils: 90 percent*

*Minor components: 10 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Hagerstown

### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from limestone

### Typical profile

*H1 - 0 to 7 inches:* silt loam  
*H2 - 7 to 12 inches:* silty clay loam  
*H3 - 12 to 40 inches:* silty clay  
*H4 - 40 to 65 inches:* silty clay

### Properties and qualities

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 10.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

## Minor Components

### Crider

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

### Lowell

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

### Sandview

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

### Hagerstown, (< 6% slopes)

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

### Hagerstown, eroded

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

## **JeB—Jessietown silt loam, 2 to 6 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* lkdj  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### **Map Unit Composition**

*Jessietown and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Jessietown**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-silty noncalcareous loess over residuum weathered from acid shale

#### **Typical profile**

*H1 - 0 to 8 inches:* silt loam  
*H2 - 8 to 16 inches:* silty clay loam  
*H3 - 16 to 22 inches:* channery silty clay loam  
*R - 22 to 32 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*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 storage in profile:* Low (about 4.3 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### **Berea**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### **Greenbriar**

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### **Trappist**

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### **Jessietown, (< 20" bedrock)**

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## **JeC—Jessietown silt loam, 6 to 12 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* lkdk  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Jessietown and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Jessietown**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Fine-silty noncalcareous loess over residuum weathered from acid shale

#### **Typical profile**

*H1 - 0 to 8 inches:* silt loam  
*H2 - 8 to 16 inches:* silty clay loam  
*H3 - 16 to 22 inches:* channery silty clay loam  
*R - 22 to 32 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 6 to 12 percent

## Custom Soil Resource Report

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*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 storage in profile:* Low (about 4.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Greenbriar

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Berea

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Trappist

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Jessietown, (< 20" bedrock)

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## Jm—Johnsburg-Mullins complex

### Map Unit Setting

*National map unit symbol:* lkd1  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Prime farmland if drained

### Map Unit Composition

*Johnsburg and similar soils:* 45 percent  
*Mullins and similar soils:* 35 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Johnsburg

### Setting

*Landform:* Flats

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Fine-silty noncalcareous loess over residuum weathered from sandstone and siltstone and/or shale

### Typical profile

*H1 - 0 to 11 inches:* silt loam

*H2 - 11 to 24 inches:* silty clay loam

*H3 - 24 to 48 inches:* silty clay loam

*R - 48 to 58 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 0 to 4 percent

*Depth to restrictive feature:* 24 to 36 inches to fragipan; 48 to 72 inches to lithic bedrock

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

*Depth to water table:* About 12 to 18 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Low (about 5.0 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4w

*Hydrologic Soil Group:* C/D

*Hydric soil rating:* No

## Description of Mullins

### Setting

*Landform:* Depressions

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Parent material:* Fine-silty residuum weathered from shale and siltstone

### Typical profile

*H1 - 0 to 6 inches:* silt loam

*H2 - 6 to 18 inches:* silt loam

*H3 - 18 to 38 inches:* silt loam

*H4 - 38 to 55 inches:* silty clay loam

*R - 55 to 65 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* 12 to 28 inches to fragipan; 48 to 60 inches to lithic bedrock

*Natural drainage class:* Poorly drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)

## Custom Soil Resource Report

*Depth to water table:* About 0 to 12 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 3.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* Yes

### Minor Components

#### Tilsit

*Percent of map unit:* 6 percent  
*Hydric soil rating:* No

#### Berea

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Jessietown

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Swp drained soil < 40

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Soils less acid than typical

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

## LgC2—Lenberg silty clay loam, 6 to 12 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkdq  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Lenberg and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Lenberg

#### Setting

*Landform:* Ridges

## Custom Soil Resource Report

*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from clayey shale

### Typical profile

*H1 - 0 to 5 inches:* silty clay loam  
*H2 - 5 to 14 inches:* silty clay loam  
*H3 - 14 to 30 inches:* silty clay  
*H4 - 30 to 39 inches:* channery silty clay  
*Cr - 39 to 55 inches:* weathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Natural 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 storage in profile:* Low (about 5.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Trappist

*Percent of map unit:* 6 percent  
*Hydric soil rating:* No

#### Carpenter

*Percent of map unit:* 6 percent  
*Hydric soil rating:* No

#### Lenberg, (severely eroded)

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

## Ne—Newark silt loam, frequently flooded

### Map Unit Setting

*National map unit symbol:* lkf2  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days

## Custom Soil Resource Report

*Farmland classification:* Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

### Map Unit Composition

*Newark, frequently flooded, and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Newark, Frequently Flooded

#### Setting

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Mixed fine-silty alluvium

#### Typical profile

*H1 - 0 to 8 inches:* silt loam

*H2 - 8 to 16 inches:* silt loam

*H3 - 16 to 62 inches:* silty clay loam

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)

*Depth to water table:* About 12 to 18 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water storage in profile:* High (about 11.5 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* B/D

*Hydric soil rating:* No

### Minor Components

#### Melvin, frequently flooded

*Percent of map unit:* 4 percent

*Landform:* Flood plains

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Hydric soil rating:* Yes

#### Yosemite

*Percent of map unit:* 4 percent

*Hydric soil rating:* No

#### Lawrence

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Nolin

*Percent of map unit:* 2 percent

## Custom Soil Resource Report

*Hydric soil rating:* No

### **Skidmore**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## **NhB—Nicholson silt loam, 2 to 6 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2s2cz

*Elevation:* 460 to 1,140 feet

*Mean annual precipitation:* 35 to 59 inches

*Mean annual air temperature:* 42 to 68 degrees F

*Frost-free period:* 135 to 218 days

*Farmland classification:* All areas are prime farmland

### **Map Unit Composition**

*Nicholson and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Nicholson**

#### **Setting**

*Landform:* Ridges

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Interfluve

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Fine-silty noncalcareous loess over clayey residuum weathered from limestone

#### **Typical profile**

*Ap - 0 to 8 inches:* silt loam

*Bt - 8 to 28 inches:* silt loam

*Btx - 28 to 38 inches:* silty clay loam

*2Bt - 38 to 50 inches:* clay

*2C - 50 to 80 inches:* clay

#### **Properties and qualities**

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* 16 to 30 inches to fragipan

*Natural drainage class:* Moderately well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)

*Depth to water table:* About 13 to 27 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water storage in profile:* Low (about 5.7 inches)

## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Lawrence

*Percent of map unit:* 5 percent  
*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* Trees/Timber (Woody Vegetation)  
*Hydric soil rating:* No

#### Lowell

*Percent of map unit:* 5 percent  
*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve, side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

## NhC2—Nicholson silt loam, 6 to 12 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkf4  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Nicholson and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nicholson

#### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex

## Custom Soil Resource Report

*Parent material:* Fine-silty noncalcareous loess over clayey residuum weathered from limestone and siltstone and/or calcareous shale

### Typical profile

*H1 - 0 to 6 inches:* silt loam  
*H2 - 6 to 24 inches:* silt loam  
*H3 - 24 to 44 inches:* silty clay loam  
*H4 - 44 to 65 inches:* silty clay  
*R - 65 to 75 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 18 to 30 inches to fragipan; 60 to 80 inches to lithic bedrock  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 17 to 29 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 4.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C/D  
*Hydric soil rating:* No

### Minor Components

#### Lawrence

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Lowell

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Sandview

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

## No—Nolin silt loam, 0 to 2 percent slopes, frequently flooded

### Map Unit Setting

*National map unit symbol:* 2s2cw  
*Elevation:* 380 to 1,120 feet  
*Mean annual precipitation:* 36 to 66 inches  
*Mean annual air temperature:* 41 to 68 degrees F  
*Frost-free period:* 139 to 218 days

## Custom Soil Resource Report

*Farmland classification:* Prime farmland if protected from flooding or not frequently flooded during the growing season

### Map Unit Composition

*Nolin, frequently flooded, and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Nolin, Frequently Flooded

#### Setting

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Mixed fine-silty alluvium

#### Typical profile

*Ap - 0 to 8 inches:* silt loam

*Bw - 8 to 72 inches:* silt loam

*C - 72 to 85 inches:* loam

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 1.98 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water storage in profile:* High (about 11.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2w

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Minor Components

#### Elk, rarely flooded

*Percent of map unit:* 5 percent

*Landform:* Stream terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Hydric soil rating:* No

#### Lindside, frequently flooded

*Percent of map unit:* 4 percent

*Landform:* Flood plains

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Hydric soil rating:* No

**Newark, frequently flooded**

*Percent of map unit:* 4 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

**Boonesboro, frequently flooded**

*Percent of map unit:* 1 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Hydric soil rating:* No

**Dunning, frequently flooded**

*Percent of map unit:* 1 percent  
*Landform:* Depressions, flood plains  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

**OtB—Otwell silt loam, 2 to 6 percent slopes**

**Map Unit Setting**

*National map unit symbol:* lkf6  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

**Map Unit Composition**

*Otwell and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Otwell**

**Setting**

*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Mixed fine-silty alluvium

**Typical profile**

*H1 - 0 to 7 inches:* silt loam  
*H2 - 7 to 22 inches:* silty clay loam

## Custom Soil Resource Report

*H3 - 22 to 46 inches: silty clay loam*

*H4 - 46 to 65 inches: silty clay loam*

### **Properties and qualities**

*Slope: 2 to 6 percent*

*Depth to restrictive feature: 18 to 30 inches to fragipan*

*Natural drainage class: Moderately well drained*

*Runoff class: Low*

*Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)*

*Depth to water table: About 17 to 29 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Available water storage in profile: Low (about 4.6 inches)*

### **Interpretive groups**

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 2e*

*Hydrologic Soil Group: D*

*Hydric soil rating: No*

### **Minor Components**

#### **Newark**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

#### **Lawrence**

*Percent of map unit: 5 percent*

*Hydric soil rating: No*

#### **Elk**

*Percent of map unit: 3 percent*

*Hydric soil rating: No*

#### **Otwell, (> 6% slopes)**

*Percent of map unit: 2 percent*

*Hydric soil rating: No*

## **OwB—Otwell silt loam, 2 to 6 percent slopes, rarely flooded**

### **Map Unit Setting**

*National map unit symbol: lkf7*

*Mean annual precipitation: 46 to 58 inches*

*Mean annual air temperature: 45 to 66 degrees F*

*Frost-free period: 162 to 202 days*

*Farmland classification: All areas are prime farmland*

### **Map Unit Composition**

*Otwell, rarely flooded, and similar soils: 90 percent*

*Minor components: 10 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Otwell, Rarely Flooded

### Setting

*Landform:* Stream terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Mixed fine-silty alluvium

### Typical profile

*H1 - 0 to 7 inches:* silt loam  
*H2 - 7 to 22 inches:* silty clay loam  
*H3 - 22 to 46 inches:* silty clay loam  
*H4 - 46 to 65 inches:* silty clay loam

### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 18 to 30 inches to fragipan  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 17 to 29 inches  
*Frequency of flooding:* Rare  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 4.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

## Minor Components

### Newark

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

### Elk

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

### Otwell, (non-flooded)

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

### Lawrence

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## **PrB—Pricetown silt loam, 2 to 6 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* lkf8  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### **Map Unit Composition**

*Pricetown and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Pricetown**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-silty noncalcareous loess over residuum weathered from limestone

#### **Typical profile**

*H1 - 0 to 9 inches:* silt loam  
*H2 - 9 to 19 inches:* silty clay loam  
*H3 - 19 to 42 inches:* silty clay loam  
*H4 - 42 to 65 inches:* silty clay

#### **Properties and qualities**

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 10.7 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Hydric soil rating:* No

**Minor Components**

**Pricetown, (moderately eroded)**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**Teddy**

*Percent of map unit: 3 percent*  
*Hydric soil rating: No*

**Christian**

*Percent of map unit: 2 percent*  
*Hydric soil rating: No*

**Frankstown**

*Percent of map unit: 1 percent*  
*Hydric soil rating: No*

**Lonewood**

*Percent of map unit: 1 percent*  
*Hydric soil rating: No*

**SaB—Sandview silt loam, 2 to 6 percent slopes**

**Map Unit Setting**

*National map unit symbol: lkfd*  
*Mean annual precipitation: 46 to 58 inches*  
*Mean annual air temperature: 45 to 66 degrees F*  
*Frost-free period: 162 to 202 days*  
*Farmland classification: All areas are prime farmland*

**Map Unit Composition**

*Sandview and similar soils: 85 percent*  
*Minor components: 15 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Sandview**

**Setting**

*Landform: Ridges*  
*Landform position (two-dimensional): Summit*  
*Landform position (three-dimensional): Interflue*  
*Down-slope shape: Convex*  
*Across-slope shape: Linear*  
*Parent material: Fine-silty noncalcareous loess over clayey residuum weathered from limestone*

**Typical profile**

*H1 - 0 to 10 inches: silt loam*  
*H2 - 10 to 38 inches: silty clay loam*  
*H3 - 38 to 74 inches: silty clay*

## Custom Soil Resource Report

### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 11.3 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Beasley

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Crider

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Lowell

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Faywood

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Nicholson

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

#### Sandview, (moderately eroded)

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

## SeC2—Shrouts silty clay loam, 6 to 12 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkfj  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Shrouts and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Shrouts**

**Setting**

*Landform:* Ridges

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Clayey residuum weathered from calcareous shale

**Typical profile**

*H1 - 0 to 4 inches:* silty clay loam

*H2 - 4 to 26 inches:* clay

*Cr - 26 to 36 inches:* weathered bedrock

**Properties and qualities**

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock

*Natural 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

*Calcium carbonate, maximum in profile:* 38 percent

*Available water storage in profile:* Low (about 4.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* D

*Hydric soil rating:* No

**Minor Components**

**Garlin**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

**Cynthiana**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

**Shrouts, (severely eroded)**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

**Faywood**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

**Beasley**

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

**SfD3—Shrouts-Cynthiana complex, 12 to 25 percent slopes, severely eroded, rocky**

**Map Unit Setting**

*National map unit symbol:* lkfk

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Shrouts, severely eroded, and similar soils:* 55 percent

*Cynthiana, severely eroded, and similar soils:* 30 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Shrouts, Severely Eroded**

**Setting**

*Landform:* Hills

*Landform position (two-dimensional):* Backslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Clayey residuum weathered from calcareous shale

**Typical profile**

*H1 - 0 to 4 inches:* silty clay

*H2 - 4 to 26 inches:* clay

*Cr - 26 to 36 inches:* weathered bedrock

**Properties and qualities**

*Slope:* 12 to 25 percent

*Percent of area covered with surface fragments:* 1.5 percent

*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock

*Natural 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

*Calcium carbonate, maximum in profile:* 38 percent

*Available water storage in profile:* Low (about 4.0 inches)

## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

### Description of Cynthiana, Severely Eroded

#### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Clayey residuum weathered from limestone and shale

#### Typical profile

*H1 - 0 to 4 inches:* silty clay loam  
*H2 - 4 to 16 inches:* clay  
*R - 16 to 26 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 12 to 25 percent  
*Percent of area covered with surface fragments:* 1.5 percent  
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

### Minor Components

#### Faywood

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Garlin

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Beasley

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Rock outcrop

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

**SgF3—Shrouts-Garlin-Cynthiana complex, 25 to 50 percent slopes,  
severely eroded, very rocky**

**Map Unit Setting**

*National map unit symbol:* lkfl  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Shrouts, severely eroded, and similar soils:* 40 percent  
*Garlin, severely eroded, and similar soils:* 25 percent  
*Cynthiana, severely eroded, and similar soils:* 20 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Shrouts, Severely Eroded**

**Setting**

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from calcareous shale

**Typical profile**

*H1 - 0 to 4 inches:* silty clay  
*H2 - 4 to 26 inches:* clay  
*Cr - 26 to 36 inches:* weathered bedrock

**Properties and qualities**

*Slope:* 25 to 50 percent  
*Percent of area covered with surface fragments:* 8.0 percent  
*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Natural 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 0.20 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 38 percent  
*Available water storage in profile:* Low (about 4.0 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified

## Custom Soil Resource Report

*Land capability classification (nonirrigated): 7s*  
*Hydrologic Soil Group: D*  
*Hydric soil rating: No*

### Description of Garlin, Severely Eroded

#### Setting

*Landform: Hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Concave*  
*Across-slope shape: Convex*  
*Parent material: Fine-loamy residuum weathered from calcareous sandstone and/or calcareous siltstone and/or limestone and shale*

#### Typical profile

*H1 - 0 to 7 inches: loam*  
*H2 - 7 to 18 inches: loam*  
*Cr - 18 to 23 inches: weathered bedrock*  
*R - 23 to 33 inches: unweathered bedrock*

#### Properties and qualities

*Slope: 25 to 50 percent*  
*Percent of area covered with surface fragments: 8.0 percent*  
*Depth to restrictive feature: 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock*  
*Natural drainage class: Well drained*  
*Runoff class: Very high*  
*Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)*  
*Depth to water table: More than 80 inches*  
*Frequency of flooding: None*  
*Frequency of ponding: None*  
*Available water storage in profile: Very low (about 2.7 inches)*

#### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 7s*  
*Hydrologic Soil Group: D*  
*Hydric soil rating: No*

### Description of Cynthiana, Severely Eroded

#### Setting

*Landform: Hills*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Side slope*  
*Down-slope shape: Concave*  
*Across-slope shape: Convex*  
*Parent material: Clayey residuum weathered from limestone and shale*

#### Typical profile

*H1 - 0 to 4 inches: silty clay loam*  
*H2 - 4 to 16 inches: clay*  
*R - 16 to 26 inches: unweathered bedrock*

#### Properties and qualities

*Slope: 25 to 50 percent*

## Custom Soil Resource Report

*Percent of area covered with surface fragments:* 8.0 percent  
*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.2 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

### **Minor Components**

#### **Rock outcrop**

*Percent of map unit:* 10 percent  
*Hydric soil rating:* No

#### **Faywood**

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### **Beasley**

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

#### **Lowell**

*Percent of map unit:* 1 percent  
*Hydric soil rating:* No

## **Sk—Skidmore very gravelly silt loam, frequently flooded**

### **Map Unit Setting**

*National map unit symbol:* lkfm  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Skidmore, frequently flooded, and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

## Description of Skidmore, Frequently Flooded

### Setting

*Landform:* Flood plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Loamy-skeletal alluvium derived from sandstone and siltstone and/or limestone

### Typical profile

*H1 - 0 to 8 inches:* very gravelly silt loam

*H2 - 8 to 32 inches:* very gravelly loam

*H3 - 32 to 65 inches:* extremely gravelly loam

### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)

*Depth to water table:* About 36 to 48 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water storage in profile:* Low (about 3.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2w

*Hydrologic Soil Group:* A

*Hydric soil rating:* No

## Minor Components

### Yosemite

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Nolin

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

### Carpenter

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

### Skidmore, (> 2% slopes)

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## **TIB—Tilsit silt loam, 2 to 6 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* lkfp  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* All areas are prime farmland

### **Map Unit Composition**

*Tilsit and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Tilsit**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Summit  
*Landform position (three-dimensional):* Interfluve  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Fine-silty residuum weathered from sandstone and siltstone and/or shale

#### **Typical profile**

*H1 - 0 to 6 inches:* silt loam  
*H2 - 6 to 20 inches:* silty clay loam  
*H3 - 20 to 36 inches:* silty clay loam  
*H4 - 36 to 42 inches:* silty clay loam  
*Cr - 42 to 46 inches:* weathered bedrock  
*R - 46 to 56 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* 18 to 30 inches to fragipan; 40 to 80 inches to lithic bedrock; 40 to 50 inches to paralithic bedrock  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 18 to 29 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 3.8 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* D

## Custom Soil Resource Report

*Hydric soil rating:* No

### Minor Components

#### **Berea**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

#### **Johnsburg**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

#### **Greenbriar**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

#### **Trappist**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

#### **Jessietown**

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## TIC—Tilsit silt loam, 6 to 12 percent slopes

### Map Unit Setting

*National map unit symbol:* lkfq

*Mean annual precipitation:* 46 to 58 inches

*Mean annual air temperature:* 45 to 66 degrees F

*Frost-free period:* 162 to 202 days

*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Tilsit and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Tilsit

#### **Setting**

*Landform:* Ridges

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Fine-silty residuum weathered from sandstone and siltstone and/or shale

#### **Typical profile**

*H1 - 0 to 6 inches:* silt loam

*H2 - 6 to 20 inches:* silty clay loam

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*H3 - 20 to 36 inches:* silty clay loam  
*H4 - 36 to 42 inches:* silty clay loam  
*Cr - 42 to 46 inches:* weathered bedrock  
*R - 46 to 56 inches:* unweathered bedrock

### Properties and qualities

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 18 to 30 inches to fragipan; 40 to 50 inches to paralithic bedrock; 40 to 80 inches to lithic bedrock  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* About 18 to 29 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Low (about 3.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

### Minor Components

#### Jessietown

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Trappist

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Tilsit, (bedrock < 40")

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Greenbriar

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Tilsit, (moderately eroded)

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

## TpB—Trappist silt loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* lkfr  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F

## Custom Soil Resource Report

*Frost-free period:* 162 to 202 days

*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Trappist and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Trappist

#### Setting

*Landform:* Ridges

*Landform position (two-dimensional):* Summit

*Landform position (three-dimensional):* Interfluve

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Clayey residuum weathered from shale and siltstone

#### Typical profile

*H1 - 0 to 6 inches:* silt loam

*H2 - 6 to 26 inches:* silty clay

*H3 - 26 to 38 inches:* very channery silty clay

*R - 38 to 48 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 2 to 6 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Natural drainage class:* Well drained

*Runoff class:* Medium

*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 storage in profile:* Low (about 4.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* C

*Hydric soil rating:* No

### Minor Components

#### Trappist, (sicl surface)

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Jessietown

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Colyer

*Percent of map unit:* 3 percent

*Hydric soil rating:* No

#### Greenbriar

*Percent of map unit:* 2 percent

*Hydric soil rating:* No

## **TpC2—Trappist silty clay loam, 6 to 12 percent slopes, eroded**

### **Map Unit Setting**

*National map unit symbol:* lkfs  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Trappist and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Trappist**

#### **Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Clayey residuum weathered from shale and siltstone

#### **Typical profile**

*H1 - 0 to 7 inches:* silty clay loam  
*H2 - 7 to 26 inches:* silty clay  
*H3 - 26 to 35 inches:* very channery silty clay  
*R - 35 to 45 inches:* unweathered bedrock

#### **Properties and qualities**

*Slope:* 6 to 12 percent  
*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*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 storage in profile:* Low (about 4.6 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Minor Components

#### Jessietown

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Trappist, (severely eroded)

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Colyer

*Percent of map unit:* 3 percent  
*Hydric soil rating:* No

#### Greenbriar

*Percent of map unit:* 2 percent  
*Hydric soil rating:* No

## TrD2—Trappist-Colyer complex, 12 to 25 percent slopes, eroded

### Map Unit Setting

*National map unit symbol:* lkft  
*Mean annual precipitation:* 46 to 58 inches  
*Mean annual air temperature:* 45 to 66 degrees F  
*Frost-free period:* 162 to 202 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Trappist and similar soils:* 50 percent  
*Colyer and similar soils:* 35 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Trappist

#### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Clayey residuum weathered from shale and siltstone

#### Typical profile

*H1 - 0 to 7 inches:* silty clay loam  
*H2 - 7 to 26 inches:* silty clay  
*H3 - 26 to 35 inches:* very channery silty clay  
*R - 35 to 45 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 12 to 25 percent

## Custom Soil Resource Report

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*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 storage in profile:* Low (about 4.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

### Description of Colyer

#### Setting

*Landform:* Hills  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Clayey-skeletal residuum weathered from acid shale

#### Typical profile

*H1 - 0 to 9 inches:* silty clay loam  
*H2 - 9 to 14 inches:* very channery silty clay  
*R - 14 to 24 inches:* unweathered bedrock

#### Properties and qualities

*Slope:* 12 to 25 percent  
*Depth to restrictive feature:* 8 to 20 inches to lithic bedrock  
*Natural 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 storage in profile:* Very low (about 2.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* D  
*Hydric soil rating:* No

### Minor Components

#### Trappist, (severely eroded)

*Percent of map unit:* 5 percent  
*Hydric soil rating:* No

#### Jessietown

*Percent of map unit:* 4 percent  
*Hydric soil rating:* No

## Custom Soil Resource Report

### **Lenberg**

*Percent of map unit: 3 percent*

*Hydric soil rating: No*

### **Carpenter**

*Percent of map unit: 3 percent*

*Hydric soil rating: No*

## **W—Water**

### **Map Unit Setting**

*National map unit symbol: lkfv*

*Mean annual precipitation: 46 to 58 inches*

*Mean annual air temperature: 45 to 66 degrees F*

*Frost-free period: 162 to 202 days*

*Farmland classification: Not prime farmland*

### **Map Unit Composition**

*Water: 100 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

# **Soil Information for All Uses**

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## **Suitabilities and Limitations for Use**

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

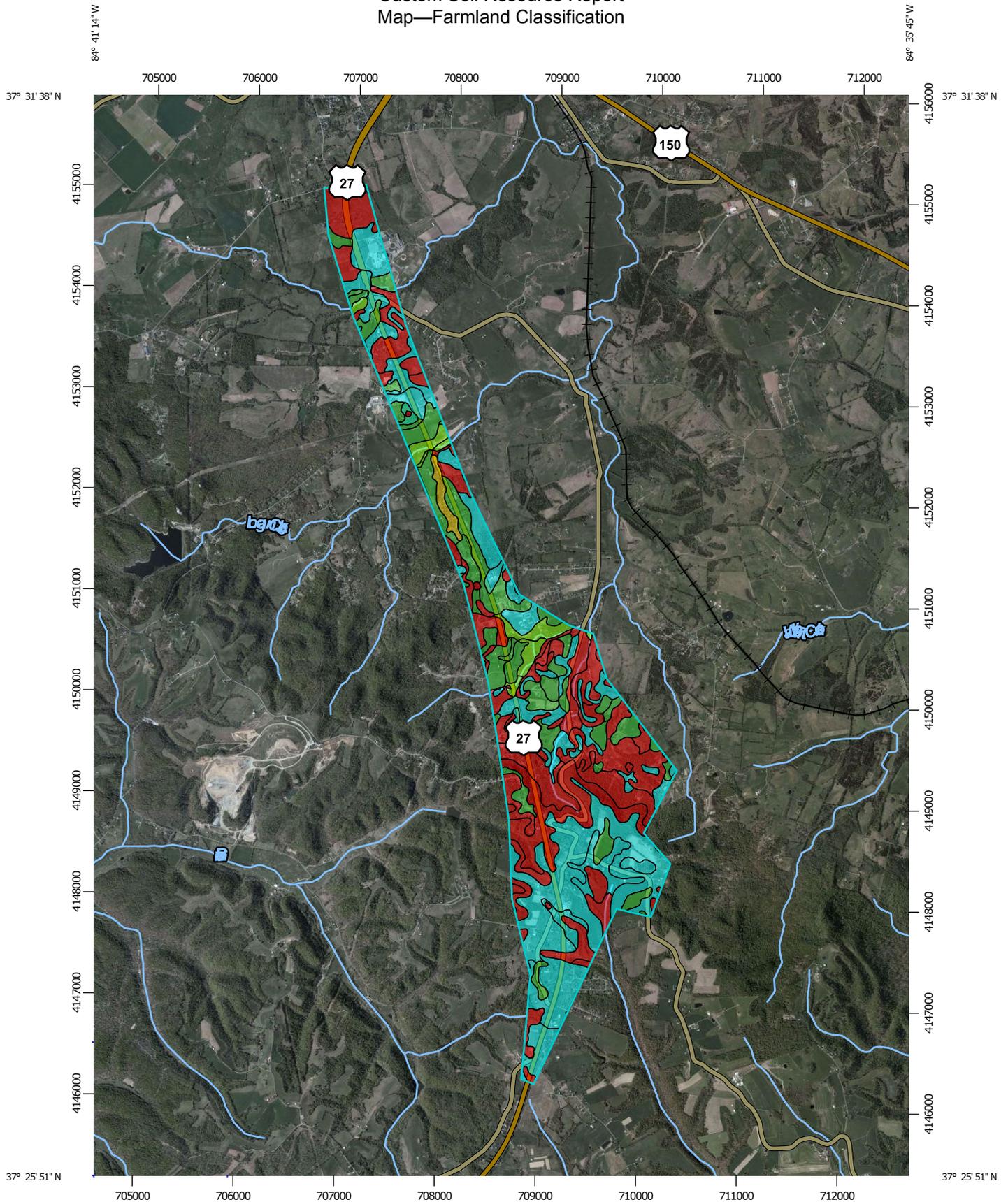
## **Land Classifications**

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

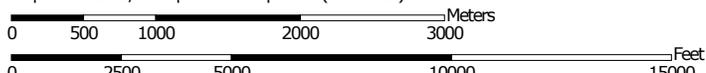
## **Farmland Classification**

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

# Custom Soil Resource Report Map—Farmland Classification



Map Scale: 1:52,100 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

#### Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained

-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

#### Soil Rating Points

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

#### Water Features

## MAP INFORMATION

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Garrard and Lincoln Counties, Kentucky  
Survey Area Data: Version 10, Sep 15, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 17, 2010—Sep 13, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

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**Table—Farmland Classification**

Farmland Classification— Summary by Map Unit — Garrard and Lincoln Counties, Kentucky (KY618)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BaB	Beasley silt loam, 2 to 6 percent slopes	All areas are prime farmland	30.5	1.7%
BbC2	Beasley silty clay loam, 6 to 12 percent slopes, eroded	Farmland of statewide importance	72.9	4.2%
BeB	Berea silt loam, 2 to 6 percent slopes	All areas are prime farmland	38.7	2.2%
Bo	Boonesboro silt loam, frequently flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season	27.8	1.6%
CeB	Carpenter gravelly silt loam, 2 to 6 percent slopes	All areas are prime farmland	0.9	0.1%
CeC	Carpenter gravelly silt loam, 6 to 12 percent slopes	Farmland of statewide importance	3.2	0.2%
CgE2	Carpenter-Lenberg complex, 12 to 30 percent slopes, eroded	Not prime farmland	90.0	5.2%
CmB	Christian silt loam, 2 to 6 percent slopes	All areas are prime farmland	20.5	1.2%
CmC2	Christian silt loam, 6 to 12 percent slopes, eroded	Farmland of statewide importance	273.9	15.7%
CoD2	Christian silty clay loam, 12 to 25 percent slopes, eroded	Not prime farmland	2.7	0.2%
CpF2	Colyer-Trappist complex, 25 to 60 percent slopes, eroded, very rocky	Not prime farmland	2.1	0.1%
CyF2	Cynthiana-Faywood complex, 25 to 50 percent slopes, eroded, very rocky	Not prime farmland	1.4	0.1%
EkB	Elk silt loam, 2 to 6 percent slopes	All areas are prime farmland	1.8	0.1%
EkC	Elk silt loam, 6 to 12 percent slopes	Farmland of statewide importance	19.3	1.1%
ErB	Elk silt loam, 2 to 6 percent slopes, rarely flooded	All areas are prime farmland	8.9	0.5%
FrB	Frankstown gravelly silt loam, 2 to 6 percent slopes	All areas are prime farmland	11.2	0.6%
FrC	Frankstown gravelly silt loam, 6 to 12 percent slopes	Farmland of statewide importance	117.7	6.8%

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Farmland Classification— Summary by Map Unit — Garrard and Lincoln Counties, Kentucky (KY618)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FrD2	Frankstown gravelly silt loam, 12 to 25 percent slopes, eroded	Not prime farmland	65.2	3.7%
GaC2	Garlin-Shrouds complex, 6-12 percent slopes, eroded	Not prime farmland	76.3	4.4%
GaD2	Garlin-Shrouds complex, 12 to 25 percent slopes, eroded, rocky	Not prime farmland	90.1	5.2%
GmF	Garmon channery silt loam, 25 to 80 percent slopes, rocky	Not prime farmland	149.9	8.6%
GrB	Greenbriar silt loam, 2 to 6 percent slopes	All areas are prime farmland	98.3	5.6%
HgC	Hagerstown silt loam, 6 to 12 percent slopes	Farmland of statewide importance	18.6	1.1%
JeB	Jessietown silt loam, 2 to 6 percent slopes	All areas are prime farmland	7.8	0.5%
JeC	Jessietown silt loam, 6 to 12 percent slopes	Farmland of statewide importance	36.5	2.1%
Jm	Johnsburg-Mullins complex	Prime farmland if drained	5.2	0.3%
LgC2	Lenberg silty clay loam, 6 to 12 percent slopes, eroded	Farmland of statewide importance	9.8	0.6%
Ne	Newark silt loam, frequently flooded	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	17.6	1.0%
NhB	Nicholson silt loam, 2 to 6 percent slopes	All areas are prime farmland	4.5	0.3%
NhC2	Nicholson silt loam, 6 to 12 percent slopes, eroded	Farmland of statewide importance	35.0	2.0%
No	Nolin silt loam, 0 to 2 percent slopes, frequently flooded	Prime farmland if protected from flooding or not frequently flooded during the growing season	31.8	1.8%
OtB	Otwell silt loam, 2 to 6 percent slopes	All areas are prime farmland	12.1	0.7%
OwB	Otwell silt loam, 2 to 6 percent slopes, rarely flooded	All areas are prime farmland	25.8	1.5%
PrB	Pricetown silt loam, 2 to 6 percent slopes	All areas are prime farmland	7.3	0.4%
SaB	Sandview silt loam, 2 to 6 percent slopes	All areas are prime farmland	6.3	0.4%

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<b>Farmland Classification— Summary by Map Unit — Garrard and Lincoln Counties, Kentucky (KY618)</b>				
<b>Map unit symbol</b>	<b>Map unit name</b>	<b>Rating</b>	<b>Acres in AOI</b>	<b>Percent of AOI</b>
SeC2	Shrouts silty clay loam, 6 to 12 percent slopes, eroded	Not prime farmland	14.9	0.9%
SfD3	Shrouts-Cynthiana complex, 12 to 25 percent slopes, severely eroded, rocky	Not prime farmland	9.8	0.6%
SgF3	Shrouts-Garlin-Cynthiana complex, 25 to 50 percent slopes, severely eroded, very rocky	Not prime farmland	14.8	0.9%
Sk	Skidmore very gravelly silt loam, frequently flooded	Not prime farmland	27.4	1.6%
TIB	Tilsit silt loam, 2 to 6 percent slopes	All areas are prime farmland	55.1	3.2%
TIC	Tilsit silt loam, 6 to 12 percent slopes	Farmland of statewide importance	8.3	0.5%
TpB	Trappist silt loam, 2 to 6 percent slopes	All areas are prime farmland	3.4	0.2%
TpC2	Trappist silty clay loam, 6 to 12 percent slopes, eroded	Farmland of statewide importance	59.5	3.4%
TrD2	Trappist-Colyer complex, 12 to 25 percent slopes, eroded	Not prime farmland	122.8	7.0%
W	Water	Not prime farmland	4.0	0.2%
<b>Totals for Area of Interest</b>			<b>1,741.5</b>	<b>100.0%</b>

**Rating Options—Farmland Classification**

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower

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