Preface

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.

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 Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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How Soil Surveys Are Made

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
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.

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

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
Legend (Lindley Central Timber Tract)

MAP LEGEND

Area of Interest (AOI)

Soils

Special Point Features

Blowout
Borrow Pit
Clay Spot
Closed Depression
Gravel Pit
Gravelly Spot
Landfill
Lava Flow
Marsh
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

Gully
Short Steep Slope
Other

Political Features

Municipalities
Cities
Urban Areas

Water Features

Oceans
Streams and Canals

Transportation

Rails

Roads

Interstate Highways
US Routes
State Highways
Local Roads
Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service
Coordinate System: UTM Zone 15N

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

Soil Survey Area: McCurtain County, Oklahoma
Survey Area Data: Version 6, Jul 24, 2007

Date(s) aerial images were photographed: 1996

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 (Lindley Central Timber Tract)

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>CaC</td>
<td>Cadeville loam, 3 to 5 percent slopes</td>
<td>10.0</td>
<td>4.2%</td>
</tr>
<tr>
<td>CkD3</td>
<td>Cahaba and Tiak soils, 3 to 8 percent slopes, severely eroded</td>
<td>44.1</td>
<td>18.5%</td>
</tr>
<tr>
<td>Ka</td>
<td>Kaufman clay, 0 to 1 percent slopes, occasionally flooded</td>
<td>12.7</td>
<td>5.3%</td>
</tr>
<tr>
<td>Kc</td>
<td>Kaufman clay, 0 to 1 percent slopes, frequently flooded</td>
<td>3.3</td>
<td>1.4%</td>
</tr>
<tr>
<td>Pr</td>
<td>Tinn-Roebuck complex, 0 to 1 percent slopes, occasionally flooded</td>
<td>23.7</td>
<td>9.9%</td>
</tr>
<tr>
<td>RuD</td>
<td>Ruston fine sandy loam, 3 to 8 percent slopes</td>
<td>24.3</td>
<td>10.2%</td>
</tr>
<tr>
<td>SeE</td>
<td>Saffell gravelly fine sandy loam, 5 to 12 percent slopes</td>
<td>8.9</td>
<td>3.7%</td>
</tr>
<tr>
<td>SwE</td>
<td>Swink-Hollywood complex, 5 to 20 percent slopes</td>
<td>82.0</td>
<td>34.3%</td>
</tr>
<tr>
<td>TkE</td>
<td>Tiak-Ruston complex, 5 to 15 percent slopes</td>
<td>30.0</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

**Totals for Area of Interest (AOI)**

<table>
<thead>
<tr>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>238.9</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

# Map Unit Descriptions (Lindley Central Timber Tract)

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.

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.
CaC—Cadeville loam, 3 to 5 percent slopes

Map Unit Setting
- **Elevation:** 90 to 1,500 feet
- **Mean annual precipitation:** 48 to 57 inches
- **Mean annual air temperature:** 58 to 63 degrees F
- **Frost-free period:** 190 to 230 days

Map Unit Composition
- **Cadeville and similar soils:** 85 percent
- **Minor components:** 15 percent

Description of Cadeville

Setting
- **Landform:** Paleoterraces
- **Landform position (three-dimensional):** Riser
- **Down-slope shape:** Convex
- **Across-slope shape:** Convex
- **Parent material:** Alluvium and/or clayey fluviomarine deposits

Properties and qualities
- **Slope:** 3 to 5 percent
- **Depth to restrictive feature:** More than 80 inches
- **Drainage class:** Moderately well drained
- **Capacity of the most limiting layer to transmit water (Ksat):** 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 capacity:** High (about 11.3 inches)

Interpretive groups
- **Land capability (nonirrigated):** 3e

Typical profile
- **0 to 7 inches:** Loam
- **7 to 43 inches:** Clay
- **43 to 68 inches:** Clay

Minor Components

Alusa
- **Percent of map unit:** 5 percent
- **Landform:** Interfluves
- **Landform position (three-dimensional):** Interflue
- **Down-slope shape:** Linear
- **Across-slope shape:** Convex

Tiak
- **Percent of map unit:** 5 percent
- **Landform:** Hillslopes on hills
- **Landform position (two-dimensional):** Backslope
Down-slope shape: Convex
Across-slope shape: Convex

**Muskogee**

*Percent of map unit: 5 percent*
*Landform: Stream terraces*
*Landform position (three-dimensional): Tread*
*Down-slope shape: Convex*
*Across-slope shape: Convex*
*Ecological site: Loamy savannah PE 70-80 (R133BY062OK)*

**CkD3—Cahaba and Tiak soils, 3 to 8 percent slopes, severely eroded**

**Map Unit Setting**

*Elevation: 90 to 1,500 feet*
*Mean annual precipitation: 48 to 57 inches*
*Mean annual air temperature: 58 to 63 degrees F*
*Frost-free period: 190 to 230 days*

**Map Unit Composition**

*Cahaba, severely eroded, and similar soils: 49 percent*
*Tiak, severely eroded, and similar soils: 26 percent*
*Minor components: 25 percent*

**Description of Cahaba, Severely Eroded**

**Setting**

*Landform: Paleoterraces*
*Landform position (three-dimensional): Riser*
*Down-slope shape: Convex*
*Across-slope shape: Convex*
*Parent material: Loamy and sandy alluvium*

**Properties and qualities**

*Slope: 3 to 8 percent*
*Depth to restrictive feature: More than 80 inches*
*Drainage class: Well drained*
*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 capacity: Moderate (about 7.5 inches)*

**Interpretive groups**

*Land capability (nonirrigated): 6e*

**Typical profile**

*0 to 8 inches: Fine sandy loam*
*8 to 12 inches: Loam*
*12 to 38 inches: Clay loam*
*38 to 80 inches: Sandy loam*
Description of Tiak, Severely Eroded

Setting
- **Landform:** Hillslopes on hills
- **Landform position (two-dimensional):** Backslope
- **Down-slope shape:** Convex
- **Across-slope shape:** Convex
- **Parent material:** Clayey residuum weathered from shale

Properties and qualities
- **Slope:** 3 to 8 percent
- **Depth to restrictive feature:** More than 80 inches
- **Drainage class:** Moderately well drained
- **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 24 to 36 inches
- **Frequency of flooding:** None
- **Frequency of ponding:** None
- **Available water capacity:** High (about 9.4 inches)

Interpretive groups
- **Land capability (nonirrigated):** 6e

Typical profile
- **0 to 3 inches:** Fine sandy loam
- **3 to 6 inches:** Fine sandy loam
- **6 to 26 inches:** Clay
- **26 to 68 inches:** Clay

Minor Components

Gullied land
- **Percent of map unit:** 10 percent
- **Landform:** Hillslopes on hills
- **Landform position (two-dimensional):** Backslope
- **Microfeatures of landform position:** Gullies
- **Down-slope shape:** Linear
- **Across-slope shape:** Concave

Kullit, severely eroded
- **Percent of map unit:** 5 percent
- **Landform:** Hillslopes on hills
- **Landform position (two-dimensional):** Shoulder
- **Down-slope shape:** Convex
- **Across-slope shape:** Convex

Muskogee, severely eroded
- **Percent of map unit:** 5 percent
- **Landform:** Stream terraces
- **Landform position (three-dimensional):** Tread
- **Down-slope shape:** Convex
- **Across-slope shape:** Convex

Sherwood, severely eroded
- **Percent of map unit:** 5 percent
- **Landform:** Hillslopes on hills
- **Landform position (two-dimensional):** Backslope
Down-slope shape: Convex
Across-slope shape: Convex

Ka—Kaufman clay, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting
   Elevation: 90 to 1,500 feet
   Mean annual precipitation: 48 to 57 inches
   Mean annual air temperature: 58 to 63 degrees F
   Frost-free period: 190 to 230 days

Map Unit Composition
   Kaufman and similar soils: 95 percent
   Minor components: 5 percent

Description of Kaufman

Setting
   Landform: Flood plains
   Down-slope shape: Linear
   Across-slope shape: Linear
   Parent material: Clayey alluvium

Properties and qualities
   Slope: 0 to 1 percent
   Depth to restrictive feature: More than 80 inches
   Drainage class: Moderately well drained
   Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
   Depth to water table: More than 80 inches
   Frequency of flooding: Occasional
   Frequency of ponding: None
   Calcium carbonate, maximum content: 5 percent
   Gypsum, maximum content: 5 percent
   Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
   Sodium adsorption ratio, maximum: 4.0
   Available water capacity: Moderate (about 9.0 inches)

Interpretive groups
   Land capability (nonirrigated): 4w

Typical profile
   0 to 18 inches: Clay
   18 to 28 inches: Clay
   28 to 65 inches: Clay

Minor Components

Tinn
   Percent of map unit: 5 percent
   Landform: Flood plains
   Down-slope shape: Linear
   Across-slope shape: Linear
Kc—Kaufman clay, 0 to 1 percent slopes, frequently flooded

Map Unit Setting
- **Elevation:** 90 to 1,500 feet
- **Mean annual precipitation:** 48 to 57 inches
- **Mean annual air temperature:** 58 to 63 degrees F
- **Frost-free period:** 190 to 230 days

Map Unit Composition
- **Kaufman and similar soils:** 95 percent
- **Minor components:** 5 percent

Description of Kaufman

Setting
- **Landform:** Flood plains
- **Down-slope shape:** Linear
- **Across-slope shape:** Linear
- **Parent material:** Clayey alluvium

Properties and qualities
- **Slope:** 0 to 1 percent
- **Depth to restrictive feature:** More than 80 inches
- **Drainage class:** Moderately well drained
- **Capacity of the most limiting layer to transmit water (Ksat):** 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
- **Calcium carbonate, maximum content:** 5 percent
- **Gypsum, maximum content:** 5 percent
- **Maximum salinity:** Nonsaline (0.0 to 2.0 mmhos/cm)
- **Sodium adsorption ratio, maximum:** 4.0
- **Available water capacity:** Moderate (about 9.0 inches)

Interpretive groups
- **Land capability (nonirrigated):** 5w

Typical profile
- **0 to 17 inches:** Clay
- **17 to 28 inches:** Clay
- **28 to 65 inches:** Clay

Minor Components

Tinn
- **Percent of map unit:** 5 percent
- **Landform:** Flood plains
- **Down-slope shape:** Linear
- **Across-slope shape:** Linear
Pr—Tinn-Roe buck complex, 0 to 1 percent slopes, occasionally flooded

Map Unit Setting
   
   Elevation: 90 to 1,500 feet
   Mean annual precipitation: 48 to 57 inches
   Mean annual air temperature: 58 to 63 degrees F
   Frost-free period: 190 to 230 days

Map Unit Composition
   
   Tinn and similar soils: 50 percent
   Roebuck and similar soils: 45 percent
   Minor components: 5 percent

Description of Tinn

Setting
   
   Landform: Flood plains
   Down-slope shape: Linear
   Across-slope shape: Linear
   Parent material: Calcareous clayey alluvium

Properties and qualities
   
   Slope: 0 to 1 percent
   Depth to restrictive feature: More than 80 inches
   Drainage class: Moderately well drained
   Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.00 to 0.06 in/hr)
   Depth to water table: More than 80 inches
   Frequency of flooding: Occasional
   Frequency of ponding: None
   Calcium carbonate, maximum content: 25 percent
   Gypsum, maximum content: 2 percent
   Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
   Sodium adsorption ratio, maximum: 6.0
   Available water capacity: High (about 9.9 inches)

Interpretive groups
   
   Land capability (nonirrigated): 4w

Typical profile
   
   0 to 15 inches: Clay
   15 to 45 inches: Clay
   45 to 90 inches: Stratified fine sandy loam to silty clay loam

Description of Roebuck

Setting
   
   Landform: Flood plains
   Down-slope shape: Convex
   Across-slope shape: Linear
   Parent material: Clayey and/or loamy alluvium

Properties and qualities
   
   Slope: 0 to 1 percent
**Custom Soil Resource Report**

*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Somewhat poorly drained
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately low (0.00 to 0.06 in/hr)
*Depth to water table:* More than 80 inches
*Frequency of flooding:* Occasional
*Frequency of ponding:* None
*Available water capacity:* High (about 9.5 inches)

**Interpretive groups**
*Land capability (nonirrigated):* 4w

**Typical profile**
0 to 12 inches: Clay
12 to 32 inches: Clay
32 to 66 inches: Clay

**Minor Components**

Redlake
*Percent of map unit: 5 percent*
*Landform: Flood plains*
*Down-slope shape: Linear*
*Across-slope shape: Concave*

**RuD—Ruston fine sandy loam, 3 to 8 percent slopes**

**Map Unit Setting**
*Elevation:* 90 to 1,500 feet
*Mean annual precipitation:* 48 to 57 inches
*Mean annual air temperature:* 58 to 63 degrees F
*Frost-free period:* 190 to 230 days

**Map Unit Composition**
*Ruston and similar soils:* 90 percent
*Minor components:* 10 percent

**Description of Ruston**

**Setting**
*Landform: Hillslopes on hills*
*Landform position (two-dimensional):* Backslope
*Down-slope shape: Convex*
*Across-slope shape: Convex*
*Parent material: Loamy alluvium*

**Properties and qualities**
*Slope: 3 to 8 percent*
*Depth to restrictive feature:* More than 80 inches
*Drainage class:* Well drained
*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 capacity:* Moderate (about 8.8 inches)
Interpretive groups
Land capability (nonirrigated): 4e

Typical profile
0 to 9 inches: Fine sandy loam
9 to 52 inches: Sandy clay loam
52 to 72 inches: Sandy clay loam

Minor Components
Blevins
Percent of map unit: 5 percent
Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex

Tiak
Percent of map unit: 5 percent
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex

SeE—Saffell gravelly fine sandy loam, 5 to 12 percent slopes

Map Unit Setting
Elevation: 90 to 1,500 feet
Mean annual precipitation: 48 to 57 inches
Mean annual air temperature: 58 to 63 degrees F
Frost-free period: 190 to 230 days

Map Unit Composition
Saffell and similar soils: 90 percent
Minor components: 10 percent

Description of Saffell
Setting
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy and/or gravelly alluvium

Properties and qualities
Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
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 capacity: Low (about 5.5 inches)
Interpretive groups

Land capability (nonirrigated): 6e

Typical profile

0 to 3 inches: Gravelly fine sandy loam
3 to 8 inches: Gravelly fine sandy loam
8 to 32 inches: Very gravelly sandy clay loam
32 to 56 inches: Very gravelly fine sandy loam
56 to 60 inches: Very gravelly sandy loam

Minor Components

Ruston

Percent of map unit: 5 percent
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex

Tiak

Percent of map unit: 5 percent
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex

SwE—Swink-Hollywood complex, 5 to 20 percent slopes

Map Unit Setting

Elevation: 90 to 1,500 feet
Mean annual precipitation: 48 to 57 inches
Mean annual air temperature: 58 to 63 degrees F
Frost-free period: 190 to 230 days

Map Unit Composition

Swink and similar soils: 65 percent
Hollywood and similar soils: 30 percent
Minor components: 5 percent

Description of Swink

Setting

Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Properties and qualities

Slope: 5 to 20 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): 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 capacity: Very low (about 1.6 inches)

**Interpretive groups**  
Land capability (nonirrigated): 6e  
Ecological site: Shallow prairie PE 56-66 (R085XY083OK)

**Typical profile**  
0 to 7 inches: Very stony clay  
7 to 16 inches: Very stony clay  
16 to 30 inches: Bedrock

**Description of Hollywood**

**Setting**  
Landform: Hillslopes on hills  
Landform position (two-dimensional): Backslope  
Down-slope shape: Convex  
Across-slope shape: Convex  
Parent material: Clayey colluvium over limestone

**Properties and qualities**  
Slope: 5 to 8 percent  
Depth to restrictive feature: 48 to 96 inches to lithic bedrock  
Drainage class: Moderately well drained  
Capacity of the most limiting layer to transmit water (Ksat): 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 capacity: High (about 9.6 inches)

**Interpretive groups**  
Land capability (nonirrigated): 4e  
Ecological site: Clay prairie PE 70-80 (R133BY002OK)

**Typical profile**  
0 to 16 inches: Silty clay  
16 to 30 inches: Silty clay  
30 to 45 inches: Silty clay  
45 to 72 inches: Silty clay  
72 to 75 inches: Bedrock

**Minor Components**

**Panola**  
Percent of map unit: 5 percent  
Landform: Hillslopes on hills  
Landform position (two-dimensional): Shoulder  
Down-slope shape: Convex  
Across-slope shape: Convex  
Ecological site: Loamy prairie PE 70-80 (R133BY060OK)

**TkE—Tiak-Ruston complex, 5 to 15 percent slopes**

**Map Unit Setting**  
Elevation: 90 to 1,500 feet
Mean annual precipitation: 48 to 57 inches
Mean annual air temperature: 58 to 63 degrees F
Frost-free period: 190 to 230 days

Map Unit Composition
Tiak and similar soils: 65 percent
Ruston and similar soils: 30 percent
Minor components: 5 percent

Description of Tiak

Setting
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from shale

Properties and qualities
Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
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 24 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.2 inches)

Interpretive groups
Land capability (nonirrigated): 6e

Typical profile
0 to 4 inches: Gravelly sandy loam
4 to 8 inches: Fine sandy loam
8 to 26 inches: Clay
26 to 68 inches: Clay

Description of Ruston

Setting
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy alluvium

Properties and qualities
Slope: 5 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
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 capacity: Moderate (about 8.7 inches)
Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 4 inches: Gravelly sandy loam
4 to 9 inches: Fine sandy loam
9 to 52 inches: Sandy clay loam
52 to 72 inches: Sandy clay loam

Minor Components

Muskogee

Percent of map unit: 2 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: Loamy savannah PE 70-80 (R133BY062OK)

Saffell

Percent of map unit: 2 percent
Landform: Hillslopes on hills
Landform position (two-dimensional): Backslope
Down-slope shape: Convex
Across-slope shape: Convex

Blevins

Percent of map unit: 1 percent
Landform: Paleoterraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Convex
References


