

## Lincoln County, Colorado

### 215—Wiley silt loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 3jkn

*Elevation:* 4,400 to 6,000 feet

*Mean annual precipitation:* 11 to 16 inches

*Mean annual air temperature:* 46 to 52 degrees F

*Frost-free period:* 135 to 155 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Wiley and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Wiley

##### Setting

*Landform:* Plains

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Loess

##### Typical profile

*Ap - 0 to 4 inches:* silt loam

*Btk - 4 to 23 inches:* silty clay loam

*C - 23 to 60 inches:* silt loam

##### Properties and qualities

*Slope:* 0 to 3 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 (0.20 to 0.60 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 15 percent

*Available water storage in profile:* High (about 10.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

*Hydrologic Soil Group:* C

*Ecological site:* Loamy Plains (R067BY002CO)

*Hydric soil rating:* No

## Minor Components

### Pleasant

*Percent of map unit:* 3 percent

*Landform:* Depressions

*Ecological site:* Plains Swale (R067XY010CO)

*Hydric soil rating:* Yes

### Colby

*Percent of map unit:* 3 percent

*Landform:* Plains

*Ecological site:* Loamy Plains (R067BY002CO)

*Other vegetative classification:* Loamy Plains (067XY002)

*Hydric soil rating:* No

### Karval

*Percent of map unit:* 3 percent

*Landform:* Hills

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

*Ecological site:* Gravel Breaks (R067BY063CO)

*Other vegetative classification:* GRAVEL BREAKS  
(067XY063CO\_1)

*Hydric soil rating:* No

### Arvada

*Percent of map unit:* 3 percent

*Landform:* Drainageways, fans

*Ecological site:* Salt Flat (R067BY033CO)

*Other vegetative classification:* Salt Flat (069AY033CO\_1)

*Hydric soil rating:* No

### Vona

*Percent of map unit:* 3 percent

*Landform:* Hills

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

*Ecological site:* Sandy Plains (R067BY024CO)

*Other vegetative classification:* SANDY PLAINS (067XY024CO\_1)

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Lincoln County, Colorado

Survey Area Data: Version 15, Oct 10, 2017

## Lincoln County, Colorado

### 154—Midway-Razor clay loams, moist, 5 to 15 percent slopes

#### Map Unit Setting

*National map unit symbol:* 3jhp  
*Elevation:* 4,400 to 6,000 feet  
*Mean annual precipitation:* 11 to 16 inches  
*Mean annual air temperature:* 46 to 52 degrees F  
*Frost-free period:* 135 to 155 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Midway, moist, and similar soils:* 55 percent  
*Razor, moist, and similar soils:* 30 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Midway, Moist

##### Setting

*Landform:* Hills  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Slope alluvium derived from shale over residuum weathered from shale

##### Typical profile

*A - 0 to 4 inches:* clay loam  
*By - 4 to 15 inches:* clay loam  
*Cr - 15 to 25 inches:* weathered bedrock

##### Properties and qualities

*Slope:* 5 to 15 percent  
*Depth to restrictive feature:* 6 to 20 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 (0.00 to 0.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Gypsum, maximum in profile:* 15 percent  
*Salinity, maximum in profile:* Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 15.0  
*Available water storage in profile:* Very low (about 2.7 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 6e

*Hydrologic Soil Group:* D

*Ecological site:* Shaly Plains (R067BY045CO)

*Hydric soil rating:* No

### **Description of Razor, Moist**

#### **Setting**

*Landform:* Hills

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

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Clayey slope alluvium over residuum weathered from shale

#### **Typical profile**

*A - 0 to 2 inches:* clay loam

*Bw - 2 to 21 inches:* silty clay

*Bky - 21 to 27 inches:* silty clay

*Cr - 27 to 37 inches:* weathered bedrock

#### **Properties and qualities**

*Slope:* 5 to 15 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 (0.00 to 0.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 15 percent

*Gypsum, maximum in profile:* 5 percent

*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 15.0

*Available water storage in profile:* Low (about 4.7 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 6e

*Hydrologic Soil Group:* C

*Ecological site:* Clayey Plains (R067BY042CO)

*Hydric soil rating:* No

### **Minor Components**

#### **Fort collins**

*Percent of map unit:* 4 percent

*Landform:* Hills

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

*Ecological site:* Loamy Plains (R067BY002CO)  
*Other vegetative classification:* LOAMY PLAINS (067XY002CO\_1)  
*Hydric soil rating:* No

**Karval**

*Percent of map unit:* 4 percent  
*Landform:* Hills  
*Landform position (three-dimensional):* Side slope  
*Ecological site:* Gravel Breaks (R067BY063CO)  
*Other vegetative classification:* GRAVEL BREAKS  
(067XY063CO\_1)  
*Hydric soil rating:* No

**Arvada**

*Percent of map unit:* 4 percent  
*Landform:* Drainageways, fans  
*Ecological site:* Salt Flat (R067BY033CO)  
*Other vegetative classification:* Salt Flat (069AY033CO\_1)  
*Hydric soil rating:* No

**Rock outcrop**

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

## Data Source Information

Soil Survey Area: Lincoln County, Colorado  
Survey Area Data: Version 15, Oct 10, 2017

## Lincoln County, Colorado

### 195—Valent-Vona complex, 3 to 25 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2x0hv

*Elevation:* 4,400 to 6,000 feet

*Mean annual precipitation:* 12 to 16 inches

*Mean annual air temperature:* 46 to 52 degrees F

*Frost-free period:* 130 to 155 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Valent and similar soils:* 60 percent

*Vona and similar soils:* 30 percent

*Minor components:* 10 percent

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

#### Description of Valent

##### Setting

*Landform:* Dunes

*Landform position (two-dimensional):* Summit, shoulder, backslope

*Landform position (three-dimensional):* Crest, head slope, nose slope, side slope

*Down-slope shape:* Convex

*Across-slope shape:* Convex

*Parent material:* Noncalcareous eolian sands

##### Typical profile

*A - 0 to 3 inches:* sand

*C1 - 3 to 43 inches:* sand

*C2 - 43 to 80 inches:* sand

##### Properties and qualities

*Slope:* 3 to 25 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Excessively drained

*Runoff class:* Very low

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 39.96 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline (0.1 to 1.9 mmhos/cm)

*Available water storage in profile:* Very low (about 2.4 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 6e

*Land capability classification (nonirrigated):* 6e

*Hydrologic Soil Group:* A  
*Ecological site:* Deep Sand (R067BY015CO)  
*Hydric soil rating:* No

## Description of Vona

### Setting

*Landform:* Dunes  
*Landform position (two-dimensional):* Toeslope, footslope, backslope  
*Landform position (three-dimensional):* Base slope, side slope  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear, convex  
*Parent material:* Eolian deposits

### Typical profile

*A - 0 to 7 inches:* loamy sand  
*Bt - 7 to 16 inches:* sandy loam  
*Bk1 - 16 to 25 inches:* sandy loam  
*Bk2 - 25 to 80 inches:* loamy sand

### Properties and qualities

*Slope:* 3 to 15 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat excessively 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:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Salinity, maximum in profile:* Nonsaline (0.1 mmhos/cm)  
*Available water storage in profile:* Moderate (about 6.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* A  
*Ecological site:* Sandy Plains (R067BY024CO)  
*Hydric soil rating:* No

## Minor Components

### Apishapa, rarely ponded

*Percent of map unit:* 3 percent  
*Landform:* Depressions on interdunes  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Ecological site:* Plains Swale (R067XY010CO)  
*Hydric soil rating:* Yes

### Arvada

*Percent of map unit:* 3 percent

*Landform:* Drainageways  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Ecological site:* Salt Flat (R067BY033CO)  
*Hydric soil rating:* No

**Haxtun**

*Percent of map unit:* 2 percent  
*Landform:* Interdunes  
*Down-slope shape:* Linear, concave  
*Across-slope shape:* Linear, concave  
*Ecological site:* Sandy Plains (R067BY024CO)  
*Hydric soil rating:* No

**Gravel pits**

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

**Rock outcrop**

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

## Data Source Information

Soil Survey Area: Lincoln County, Colorado  
Survey Area Data: Version 15, Oct 10, 2017



## Lincoln County, Colorado

### 161—Olnest sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2t51j

*Elevation:* 4,500 to 6,100 feet

*Mean annual precipitation:* 14 to 16 inches

*Mean annual air temperature:* 50 to 54 degrees F

*Frost-free period:* 130 to 170 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Olnest and similar soils:* 85 percent

*Minor components:* 15 percent

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

#### Description of Olnest

##### Setting

*Landform:* Sand sheets

*Parent material:* Eolian sands

##### Typical profile

*A - 0 to 4 inches:* sandy loam

*Bt - 4 to 20 inches:* sandy clay loam

*Bk1 - 20 to 48 inches:* sandy loam

*Bk2 - 48 to 79 inches:* very fine sandy loam

##### Properties and qualities

*Slope:* 0 to 3 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 (0.20 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 14 percent

*Salinity, maximum in profile:* Very slightly saline (2.0 to 3.9 mmhos/cm)

*Available water storage in profile:* Moderate (about 7.4 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 4c

*Hydrologic Soil Group:* B

*Ecological site:* Sandy Plains (R067BY024CO)

*Hydric soil rating:* No

## Minor Components

### Udic haplusterts, ponded

*Percent of map unit:* 5 percent

*Landform:* Closed depressions

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Ecological site:* Closed Upland Depression (R067BY010CO)

*Hydric soil rating:* No

### Otero

*Percent of map unit:* 5 percent

*Landform:* Hillslopes

*Landform position (two-dimensional):* Backslope

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

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Ecological site:* Sandy Plains (R067BY024CO)

*Hydric soil rating:* No

### Vona

*Percent of map unit:* 5 percent

*Landform:* Sand sheets

*Ecological site:* Sandy Plains (R067BY024CO)

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Lincoln County, Colorado

Survey Area Data: Version 15, Oct 10, 2017