

Otero and similar soils*Composition:* About 5 percent*Landscape:* Plains*Landform:* Hills, plains, ridges*Position on landform:* Side slope, rise, head slope*Slope:* 0 to 3 percent*Aspect:* All aspects*Shape (down/across):* Convex/convex*Drainage class:* Well drained*Ecological site:* Sandy (formerly Sandy Plains)*Distinguishing characteristics:* These soils do not have developed subsoils and are typically calcareous to the surface.**Blown-out land***Composition:* About 1 percent*Landscape:* Plains*Landform:* Hills*Position on landform:* Crest*Slope:* 1 to 3 percent*Aspect:* All aspects*Shape (down/across):* Concave/concave*Drainage class:* Excessively drained*Distinguishing characteristics:* Blowouts consist of areas of extreme wind erosion that leave areas devoid of topsoil and subsoil.**Major Uses**

Rangeland, wildlife habitat

VD—Dargol-Stout-Vamer complex, 1 to 9 percent slopes**Map Unit Setting***Major Land Resource Area:* 49*Elevation:* 7,500 to 8,500 feet (2,286 to 2,591 meters)*Mean annual precipitation:* 17 to 22 inches (432 to 559 millimeters)*Mean annual air temperature:* 43 to 46 degrees F. (6.0 to 8.0 degrees C.)*Frost-free period:* 70 to 100 days*Note:* Located at upper elevations of the foothills from Raton Pass to Tercio.**Map Unit Composition**

Dargol and similar soils: 40 percent

Stout and similar soils: 25 percent

Vamer and similar soils: 20 percent

Minor components: 15 percent

Component Descriptions**Dargol soils***Landscape:* Foothills*Landform:* Hills*Position on landform:* Side slope, head slope*Parent material:* Slope alluvium and residuum weathered from shale and siltstone*Slope:* 3 to 9 percent*Aspect:* Northwest to southwest*Shape (down/across):* Linear/linear

Surface fragments: About 1 percent subrounded stones, about 4 percent subrounded cobbles, about 15 percent subrounded gravel

Depth class: Moderately deep

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

Drainage class: Well drained

Slowest permeability: .001 to .06 in/hr (very slow)

Available water capacity: About 4.7 inches (low)

Shrink-swell potential: About 6.1 percent (high)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii

Potential native vegetation:

Common trees: ponderosa pine, Rocky Mountain Douglas fir

Other plants: Arizona fescue, mountain muhly, nodding brome, Parry's danthonia, western wheatgrass, elk sedge, Gambel's oak, kinnikinnick, pine dropseed, prairie junegrass

Land capability subclass (nonirrigated): 6s

Typical Profile:

Oe—0 to 1 inch; moderately decomposed plant material

E—1 inch to 6 inches; loam

Bt1—6 to 10 inches; clay

Bt2—10 to 29 inches; clay

R—29 to 60 inches; bedrock

Stout soils

Landscape: Foothills

Landform: Hills

Position on landform: Head slope, interfluvium

Parent material: Slope alluvium and residuum weathered from sandstone

Slope: 1 to 9 percent

Aspect: North to southwest

Shape (down/across): Linear/linear

Surface fragments: About 5 percent subrounded cobbles, about 2 percent subrounded stones, about 10 percent subrounded gravel

Depth class: Shallow

Depth to restrictive feature: 10 to 20 inches to bedrock, lithic

Drainage class: Somewhat excessively drained

Slowest permeability: 2.0 to 6.0 in/hr (moderately rapid)

Available water capacity: About 1.8 inches (very low)

Shrink-swell potential: About 1.5 percent (low)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii

Potential native vegetation:

Common trees: ponderosa pine

Other plants: Arizona fescue, mountain muhly, nodding brome, Parry's danthonia, elk sedge, Gambel's oak, little bluestem, pine dropseed, prairie junegrass

Land capability subclass (nonirrigated): 6s

Typical Profile:

O_i—0 to 1 inch; slightly decomposed plant material

A—1 inch to 5 inches; gravelly sandy loam

B_w—5 to 16 inches; gravelly sandy loam

R—16 to 60 inches; bedrock

Vamer soils

Landscape: Foothills

Landform: Hills

Position on landform: Head slope, interfluvium

Parent material: Slope alluvium and/or colluvium derived from shale over sandstone

Slope: 1 to 9 percent

Aspect: Northwest to southwest

Shape (down/across): Linear/linear

Surface fragments: About 1 percent subrounded stones, about 2 percent subrounded cobbles

Depth class: Shallow

Depth to restrictive feature: 10 to 20 inches to bedrock, lithic

Drainage class: Well drained

Slowest permeability: .06 to 0.2 in/hr (slow)

Available water capacity: About 2.6 inches (very low)

Shrink-swell potential: About 6.0 percent (moderate)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii

Potential native vegetation:

Common trees: ponderosa pine

Other plants: mountain muhly, Arizona fescue, nodding brome, pine dropseed, western wheatgrass, elk sedge, Gambel's oak, little bluestem, Parry's danthonia, prairie junegrass

Land capability subclass (nonirrigated): 6s

Typical Profile:

O_i—0 to 1 inch; slightly decomposed plant material

A—1 inch to 3 inches; fine sandy loam

E—3 to 7 inches; fine sandy loam

B_t—7 to 16 inches; clay

R—16 to 60 inches; bedrock

Minor Components

Fuera and similar soils

Composition: About 10 percent

Landscape: Foothills

Landform: Hills

Position on landform: Side slope

Slope: 3 to 9 percent

Aspect: All aspects

Shape (down/across): Linear/convex

Drainage class: Well drained

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii

Distinguishing characteristics: These soils are greater than 60 inches deep to bedrock.

Littlepine and similar soils

Composition: About 5 percent

Landscape: Foothills

Landform: Fan remnants, hills

Position on landform: Rise, side slope, base slope

Slope: 1 to 9 percent

Aspect: All aspects

Shape (down/across): Linear/convex

Drainage class: Well drained

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambellii

Distinguishing characteristics: These soils are greater than 60 inches deep to bedrock and average less than 35 percent clay content.

Major Uses

Woodland, wildlife habitat

VnC—Vona sandy loam, 3 to 6 percent slopes

Map Unit Setting

Major Land Resource Area: 67

Elevation: 5,000 to 6,000 feet (1,524 to 1,829 meters)

Mean annual precipitation: 14 to 16 inches (356 to 406 millimeters)

Mean annual air temperature: 50 to 53 degrees F. (10.0 to 11.5 degrees C.)

Frost-free period: 130 to 155 days

Note: Located east of KIm to the Baca County line.

Map Unit Composition

Vona and similar soils: 85 percent

Minor components: 15 percent

Component Descriptions

Vona soils

Landscape: Plains

Landform: Hills, ridges

Position on landform: Side slope, head slope

Parent material: Eolian deposits

Slope: 3 to 6 percent

Aspect: All aspects

Shape (down/across): Convex/linear

Depth class: Very deep

Drainage class: Somewhat excessively drained

Slowest permeability: 2.0 to 6.0 in/hr (moderately rapid)

Available water capacity: About 7.0 inches (moderate)

Shrink-swell potential: About 1.5 percent (low)

Calcium carbonate maximum: About 15 percent

Gypsum maximum: About 2 percent

Salinity maximum: About 4 mmhos/cm (very slightly saline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Sandy (formerly Sandy Plains)