



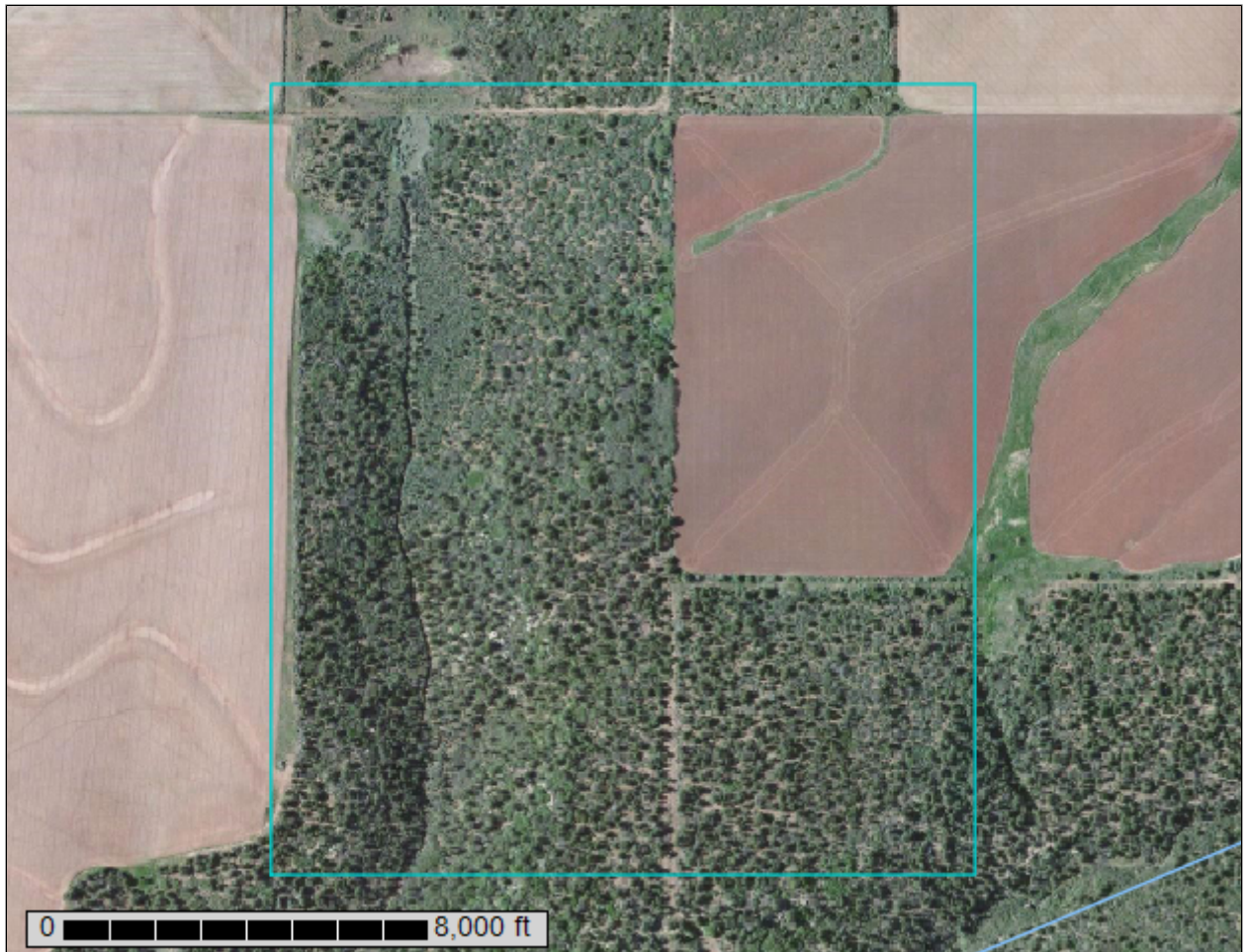
United States
Department of
Agriculture

NRCS

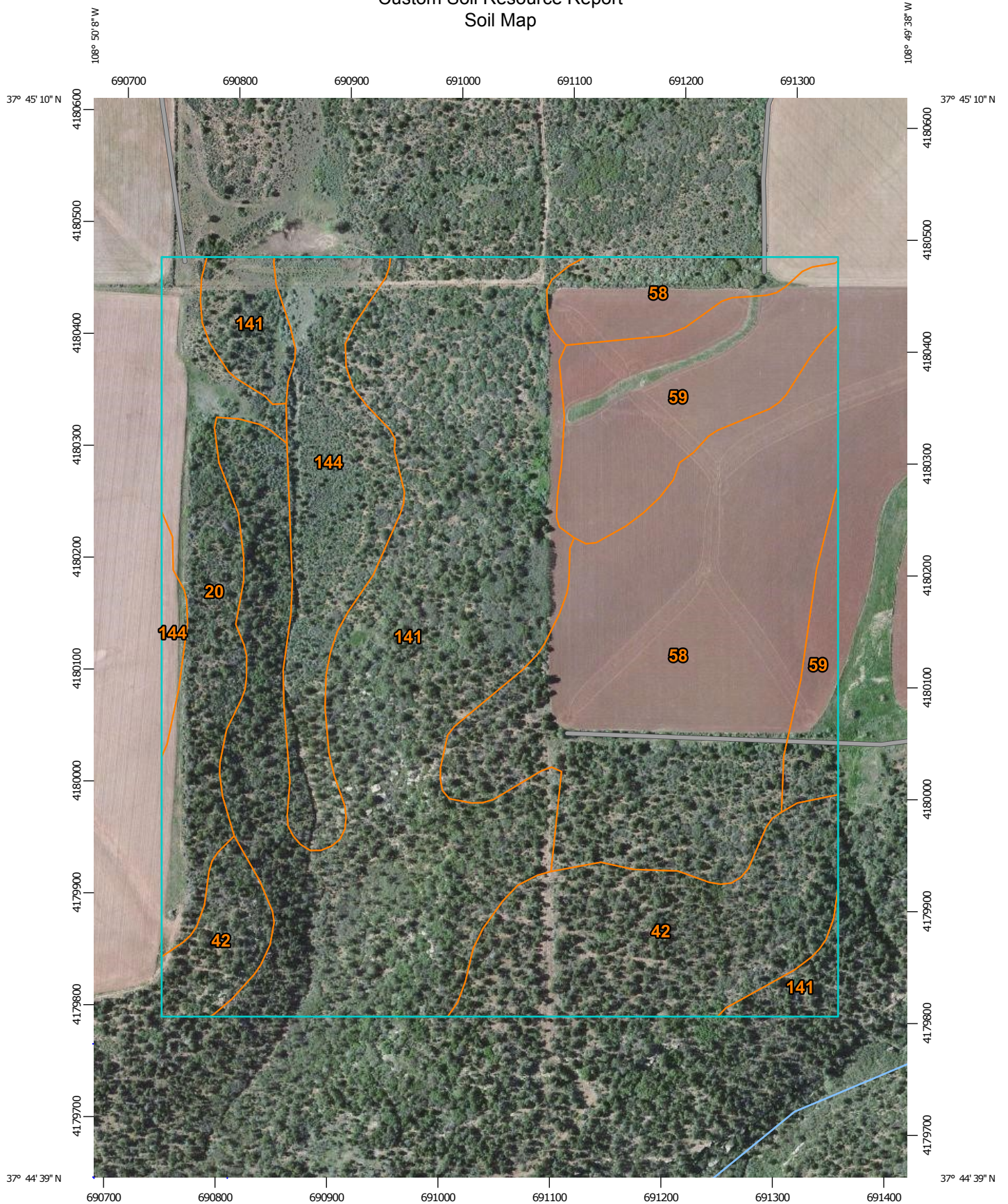
Natural
Resources
Conservation
Service

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

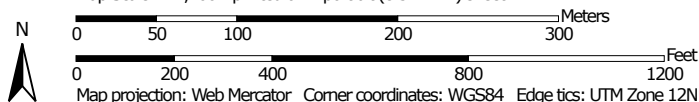
Custom Soil Resource Report for Cortez Area, Colorado, Parts of Dolores and Montezuma Counties



Custom Soil Resource Report Soil Map




Map Scale: 1:4,700 if printed on A portrait (8.5" x 11") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N 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 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Cortez Area, Colorado, Parts of Dolores and Montezuma Counties
 Survey Area Data: Version 8, Sep 25, 2015

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

Date(s) aerial images were photographed: Apr 3, 2010—Apr 24, 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.

Cortez Area, Colorado, Parts of Dolores and Montezuma Counties

20—Cahona-Pulpit complex, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1xyk
Elevation: 6,200 to 7,400 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 100 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Cahona

Setting

Landform: Mesas, hills
Landform position (three-dimensional): Base slope, side slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone

Typical profile

H1 - 0 to 5 inches: loam
H2 - 5 to 25 inches: clay loam
H3 - 25 to 60 inches: loam

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: High
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: 50 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 4.0
Available water storage in profile: High (about 11.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Loamy Foothills (R036XY284CO)

Description of Pulpit

Setting

Landform: Mesas, hills

Landform position (three-dimensional): Base slope, side slope, crest

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from sandstone

Typical profile

H1 - 0 to 10 inches: loam

H2 - 10 to 20 inches: clay loam

H3 - 20 to 36 inches: fine sandy loam

H4 - 36 to 46 inches: unweathered bedrock

Properties and qualities

Slope: 3 to 9 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 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: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: Loamy Foothills (R036XY284CO)

Minor Components

Wetherill

Percent of map unit: 10 percent

Sharps

Percent of map unit: 5 percent

42—Gladel-Pulpit complex, 3 to 9 percent slopes MLRA 36

Map Unit Setting

National map unit symbol: 2w592

Elevation: 6,200 to 7,400 feet

Mean annual precipitation: 13 to 16 inches

Mean annual air temperature: 45 to 50 degrees F

Custom Soil Resource Report

Frost-free period: 100 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Gladel

Setting

Landform: Dip slopes on cuestas
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian deposits over residuum weathered from sandstone

Typical profile

A - 0 to 3 inches: fine sandy loam
Bw - 3 to 11 inches: sandy loam
Bk - 11 to 18 inches: sandy loam
R - 18 to 59 inches: bedrock

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: 12 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 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 to very slightly saline (0.0 to 2.0 mmhos/cm)
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
Ecological site: Shallow Loamy Mesa Top - (Pinyon-Juniper) (R036XY141CO)

Description of Pulpit

Setting

Landform: Dip slopes on cuestas
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over residuum weathered from sandstone

Typical profile

A - 0 to 3 inches: silt loam
Bt - 3 to 10 inches: silt loam
Bk - 10 to 24 inches: silt loam
2R - 24 to 59 inches: bedrock

Properties and qualities

Slope: 3 to 9 percent

Custom Soil Resource Report

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

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high
(0.01 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: Loamy Mesa Top - (Pinyon-Juniper) (R036XY142CO)

Minor Components

Rock outcrop

Percent of map unit: 10 percent

Wetherill

Percent of map unit: 5 percent

Landform: Dip slopes on cuestas

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: Loamy Foothills (R036XY284CO)

Dolcan

Percent of map unit: 5 percent

Landform: Dip slopes on cuestas

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: Steep Shallow Clay Loam - (Pinyon-Juniper) (R036XY111CO)

58—Ilex-Granath complex, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 1y0p

Elevation: 7,100 to 8,500 feet

Mean annual precipitation: 15 to 20 inches

Mean annual air temperature: 43 to 47 degrees F

Frost-free period: 80 to 100 days

Farmland classification: Not prime farmland

Map Unit Composition

Ilex and similar soils: 60 percent

Granath and similar soils: 25 percent

Minor components: 15 percent

Custom Soil Resource Report

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

Description of Ilex

Setting

Landform: Hills

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

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from sandstone and shale and/or residuum weathered from sandstone and shale

Typical profile

H1 - 0 to 2 inches: loam

H2 - 2 to 22 inches: clay loam

H3 - 22 to 37 inches: clay

H4 - 37 to 60 inches: clay

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: High

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: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): 4c

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: Mountain Clay (R048AY234CO)

Description of Granath

Setting

Landform: Hills

Landform position (three-dimensional): Side slope, crest

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material

H1 - 1 to 14 inches: loam

H2 - 14 to 60 inches: 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: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Custom Soil Resource Report

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

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

Interpretive groups

Land capability classification (irrigated): 4c

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: Mountain Loam (R048AY228CO)

Minor Components

Nortez

Percent of map unit: 5 percent

Pramiss

Percent of map unit: 5 percent

Fughes

Percent of map unit: 5 percent

59—Ilex-Granath complex, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1y0q

Elevation: 7,100 to 8,500 feet

Mean annual precipitation: 15 to 20 inches

Mean annual air temperature: 43 to 47 degrees F

Frost-free period: 80 to 100 days

Farmland classification: Not prime farmland

Map Unit Composition

Ilex and similar soils: 60 percent

Granath and similar soils: 25 percent

Minor components: 15 percent

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

Description of Ilex

Setting

Landform: Hills

Landform position (three-dimensional): Base slope, side slope, crest

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from sandstone and shale and/or residuum weathered from sandstone and shale

Custom Soil Resource Report

Typical profile

H1 - 0 to 2 inches: loam
H2 - 2 to 22 inches: clay loam
H3 - 22 to 37 inches: clay
H4 - 37 to 60 inches: clay

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very high
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: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Available water storage in profile: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Mountain Clay (R048AY234CO)

Description of Granath

Setting

Landform: Hills
Landform position (three-dimensional): Crest, side slope, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandstone

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 14 inches: loam
H2 - 14 to 60 inches: 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: High
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: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Custom Soil Resource Report

Ecological site: Mountain Loam (R048AY228CO)

Minor Components

Nortez

Percent of map unit: 5 percent

Pramiss

Percent of map unit: 5 percent

Fughes

Percent of map unit: 5 percent

141—Wauquie-Dolcan complex, 6 to 25 percent slopes

Map Unit Setting

National map unit symbol: 1xxs

Elevation: 6,200 to 7,400 feet

Mean annual precipitation: 13 to 16 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 100 to 120 days

Farmland classification: Not prime farmland

Map Unit Composition

Wauquie and similar soils: 45 percent

Dolcan and similar soils: 40 percent

Minor components: 15 percent

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

Description of Wauquie

Setting

Landform: Alluvial fans, canyons, hills

Landform position (three-dimensional): Base slope, side slope, crest

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium and/or colluvium derived from sandstone and shale

Typical profile

H1 - 0 to 2 inches: stony fine sandy loam

H2 - 2 to 6 inches: very cobbly loam

H3 - 6 to 22 inches: very cobbly loam

H4 - 22 to 60 inches: very cobbly loam

Properties and qualities

Slope: 6 to 25 percent

Percent of area covered with surface fragments: 0.1 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Custom Soil Resource Report

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

Calcium carbonate, maximum in profile: 10 percent

Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: PINYON-JUNIPER (R035XY909CO)

Description of Dolcan

Setting

Landform: Canyons, hills

Landform position (three-dimensional): Crest, side slope, base slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

H1 - 0 to 2 inches: extremely cobbly fine sandy loam

H2 - 2 to 11 inches: clay loam, cobbly clay loam

H2 - 2 to 11 inches: weathered bedrock

H3 - 11 to 21 inches:

Properties and qualities

Slope: 6 to 25 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 to moderately low (0.00 to 0.02 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Available water storage in profile: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: PINYON-JUNIPER (R035XY909CO)

Minor Components

Crosscan

Percent of map unit: 5 percent

Rock outcrop

Percent of map unit: 5 percent

Gladel

Percent of map unit: 5 percent

Custom Soil Resource Report

Landform: Mesas, hills

144—Wetherill loam, 3 to 6 percent slopes MLRA 36

Map Unit Setting

National map unit symbol: 2tkxc

Elevation: 6,200 to 7,400 feet

Mean annual precipitation: 13 to 16 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 100 to 120 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Wetherill and similar soils: 85 percent

Minor components: 15 percent

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

Description of Wetherill

Setting

Landform: Dip slopes on cuestas

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from sandstone

Typical profile

A - 0 to 3 inches: loam

Bt - 3 to 7 inches: loam

Btk1 - 7 to 48 inches: loam

Btk2 - 48 to 60 inches: loam

Properties and qualities

Slope: 3 to 6 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.71 to 2.13 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 4.0

Available water storage in profile: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: Loamy Foothills (R036XY284CO)

Minor Components

Pulpit

Percent of map unit: 5 percent
Landform: Dip slopes on cuestas
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Foothills (R036XY284CO)

Sharps

Percent of map unit: 5 percent
Landform: Dip slopes on cuestas
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Foothills (R036XY284CO)

Ackmen

Percent of map unit: 3 percent
Landform: Draws
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Loamy Foothills (R036XY284CO)

Pogo

Percent of map unit: 2 percent
Landform: Drainageways
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: Wet Meadow (R036XY038CO)