Component Description

Hardol and similar soils
Landform: Backslopes of mountains
Slope: 15 to 50 percent
Parent material: Residuum and colluvium derived from limestone and dolomite
Typical vegetation: Letterman needlegrass, Columbia needlegrass, mountain brome, slender wheatgrass, spike fescue, other perennial grasses, bluebunch wheatgrass, other perennial forbs, Utah serviceberry, mountain big sagebrush, other shrubs, snowberry

Typical profile:
Layer 1—0 to 8 inches; very gravelly silt loam
Layer 2—8 to 33 inches; extremely gravelly silt loam
Layer 3—33 to 60 inches; extremely gravelly loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: High
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderate)
Available water capacity: About 4 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7s
Ecological site: R028BY085NV—Calcareous loam 16+ P.Z.

Typical soil descriptions including ranges in characteristics are in the "Classification of the Soils" section.

Contrasting Inclusions

Onkeyo and similar soils
Composition: 0 to 4 percent
Slope: 15 to 50 percent
Landform: Mountains
Typical vegetation: Indian ricegrass, other perennial grasses, other perennial forbs, mountain big sagebrush, bluebunch wheatgrass, antelope bitterbrush, other shrubs
Ecological site: R028BY079NV—Shallow loam 10-14 P.Z.

Adobe and similar soils
Composition: 0 to 4 percent
Slope: 30 to 50 percent
Landform: Mountains
Typical vegetation: Bluebunch wheatgrass, black sagebrush
Ecological site: R028BY027NV—Shallow calcareous slope 14+ P.Z.

Haunchee and similar soils
Composition: 0 to 4 percent
Slope: 15 to 50 percent
Landform: Backslopes of upper mountains
Typical vegetation: Needlegrass, Indian ricegrass, needleandthread, muttongrass, other perennial grasses, bluebunch wheatgrass, other perennial forbs, mountain big sagebrush, curlleaf mountainmahogany, other shrubs, snowberry
Ecological site: R028BY032NV—Stony mahogany savanna

Pharo and similar soils
Composition: 0 to 2 percent
Slope: 15 to 50 percent
Landform: Mountains
Typical vegetation: Forest canopy—white fir Forest understory—muttongrass, other perennial grasses, bluebunch wheatgrass, other perennial forbs, goldenweed, mountain big sagebrush, Oregongrape, other shrubs, white fir, limber pine, Great Basin bristlecone pine
Ecological site: F028BY049NV

Kolda and similar soils
Composition: 0 to 1 percent
Slope: 0 to 2 percent
Landform: Lake plains
Typical vegetation: Sedge, rush, basin wildrye, mat muhly, alkali bluegrass, Nevada bluegrass, other perennial grasses, other perennial forbs, other shrubs
Ecological site: R028BY001NV—Wet meadow 10-14 P.Z.

Management

For information about managing this map unit, see the following sections and associated tables of this publication:
"Range" section
"Forest land" section
"Crops and Pasture" section
"Engineering" and "Soil Properties" sections

1340—Heist association

Map Unit Setting

MLRA: 28A
Landscape: Fan piedmont
Elevation: 5,950 to 7,050
Precipitation: 8 to 12 inches
Air temperature: 46 to 50 degrees Fahrenheit
Frost-free period: 100 to 135 days

Composition

Heist loamy sand, 2 to 8 percent slopes—45 percent
Heist loamy sand, moist, 0 to 4 percent slopes—40 percent
Ravendog loam, 0 to 4 percent slopes—8 percent
Ravendog loam, 4 to 15 percent slopes—7 percent

Component Description

Heist and similar soils
Landform: Fan skirts
Slope: 2 to 8 percent
Parent material: Alluvium derived from welded tuff and some limestone
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, other perennial forbs, Wyoming big sagebrush, spiny hopsage, winterfat, other shrubs

Typical profile:
Layer 1—0 to 8 inches; loamy sand
Layer 2—8 to 20 inches; fine sandy loam
Layer 3—20 to 60 inches; fine sandy loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very low
Saturated hydraulic conductivity class (root zone): High, (Permeability class: Moderately rapid)
Available water capacity: About 6 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7e
Ecological site: R028AY015NV—Loamy 8-10 P.Z.

Component Description

Heist and similar soils
Landform: Fan skirts
Slope: 0 to 4 percent
Parent material: Alluvium derived from welded tuff and some limestone
Typical vegetation: Indian ricegrass, thickspike wheatgrass, needleandthread, basin wildrye, other perennial grasses, other perennial forbs, Wyoming big sagebrush, winterfat, other shrubs

Typical profile:
Layer 1—0 to 8 inches; loamy sand
Layer 2—8 to 20 inches; fine sandy loam
Layer 3—20 to 60 inches; fine sandy loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very low
Saturated hydraulic conductivity class (root zone): High, (Permeability class: Moderately rapid)
Available water capacity: About 6 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7e
Ecological site: R028AY031NV—Loamy fan 8-10 P.Z.

Typical soil descriptions including ranges in characteristics are in the "Classification of the Soils" section.

Contrasting Inclusions

Ravendog and similar soils
Composition: 0 to 8 percent
Slope: 0 to 4 percent
Landform: Drainageways
Typical vegetation: Other perennial forbs, Wyoming big sagebrush, other shrubs, Indian ricegrass, needleandthread, other perennial grasses, bluebunch wheatgrass
Ecological site: R028AY095NV—Loamy 10-12 P.Z.

Ravendog and similar soils
Composition: 0 to 7 percent

Slope: 4 to 15 percent
Landform: Drainageways
Typical vegetation: Indian ricegrass, thickspike wheatgrass, needleandthread, basin wildrye, other perennial grasses, other perennial forbs, Wyoming big sagebrush, winterfat, other shrubs
Ecological site: R028AY031NV—Loamy fan 8-10 P.Z.

Management

For information about managing this map unit, see the following sections and associated tables of this publication:
"Range" section
"Engineering" and "Soil Properties" sections

1350—Heist-Chuffa association

Map Unit Setting

MLRA: 28A
Landscape:
Elevation: 6,000 to 6,150
Precipitation: 8 to 10 inches
Air temperature: 46 to 50 degrees Fahrenheit
Frost-free period: 100 to 135 days

Composition

Heist loamy sand, 0 to 2 percent slopes—65 percent
Chuffa silt loam, dry, 0 to 2 percent slopes—20 percent
Kunzler loamy sand, 0 to 2 percent slopes—4 percent
Oupico sandy loam, 0 to 2 percent slopes—4 percent
Linoyer very fine sandy loam, 0 to 2 percent slopes—3 percent
Springbar sandy loam, 0 to 4 percent slopes—2 percent
Veet very gravelly sandy loam, 0 to 2 percent slopes—2 percent

Component Description

Heist and similar soils
Landform: Fan skirts
Slope: 0 to 2 percent
Parent material: Alluvium derived from welded tuff and some limestone
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, other perennial forbs, Wyoming big sagebrush, spiny hopsage, winterfat, other shrubs

Typical profile:
Layer 1—0 to 8 inches; loamy sand
Layer 2—8 to 20 inches; fine sandy loam
Layer 3—20 to 60 inches; fine sandy loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very low
Saturated hydraulic conductivity class (root zone): High, (Permeability class: Moderately rapid)
Available water capacity: About 6 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7e
Ecological site: R028AY015NV—Loamy 8-10 P.Z.

Component Description

Chuffa and similar soils
Landform: Fan skirts
Slope: 0 to 2 percent
Parent material: Alluvium over lacustrine deposits from mixed rock sources
Typical vegetation: Bottlebrush squirreltail, Sandberg bluegrass, other perennial grasses, other perennial forbs, Wyoming big sagebrush, greenmolly kochia, other shrubs

Typical profile:
Layer 1—0 to 3 inches; silt loam
Layer 2—3 to 13 inches; silt loam
Layer 3—13 to 60 inches; silt loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Low
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderately slow)
Available water capacity: About 12 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 6c
Ecological site: R028AY001NV—Silt flat

Typical soil descriptions including ranges in characteristics are in the "Classification of the Soils" section.

Contrasting Inclusions

Kunzler and similar soils
Composition: 0 to 4 percent
Slope: 0 to 2 percent
Landform: Fan skirts
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, other perennial forbs, Wyoming big sagebrush, spiny hopsage, winterfat, other shrubs
Ecological site: R028AY015NV—Loamy 8-10 P.Z.

Oupico and similar soils
Composition: 0 to 4 percent
Slope: 0 to 2 percent
Landform: Fan skirts
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, other perennial forbs, Wyoming big sagebrush, spiny hopsage, winterfat, other shrubs
Ecological site: R028AY015NV—Loamy 8-10 P.Z.

Linoyer and similar soils
Composition: 0 to 3 percent
Slope: 0 to 2 percent

Landform: Stream terraces
Typical vegetation: Indian ricegrass, bottlebrush squirreltail, other perennial grasses, other perennial forbs, bud sagebrush, fourwing saltbush, winterfat, other shrubs
Ecological site: R028AY030NV—Silty 8-10 P.Z.

Springbar and similar soils
Composition: 0 to 2 percent
Slope: 0 to 4 percent
Landform: Longshore bar (relict)s
Typical vegetation: Fourwing saltbush, Indian ricegrass, thickspike wheatgrass, needleandthread, other perennial grasses, other perennial forbs, Wyoming big sagebrush, winterfat, other shrubs
Ecological site: R028AY005NV—Sandy 8-10 P.Z.

Veet and similar soils
Composition: 0 to 2 percent
Slope: 0 to 2 percent
Landform: Barrier beach (relict)s
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, other perennial forbs, Wyoming big sagebrush, spiny hopsage, winterfat, other shrubs
Ecological site: R028AY015NV—Loamy 8-10 P.Z.

Management

For information about managing this map unit, see the following sections and associated tables of this publication:
"Range" section
"Crops and Pasture" section
"Engineering" and "Soil Properties" sections

1359—Devildog-Gardenvalley-Qwynn association

Map Unit Setting

MLRA: 29
Landscape: Fan piedmont
Elevation: 5,050 to 6,000
Precipitation: 6 to 10 inches
Air temperature: 50 to 53 degrees Fahrenheit
Frost-free period: 110 to 150 days

Composition

Devildog very gravelly ashy coarse sandy loam, 0 to 4 percent slopes—35 percent
Gardenvalley gravelly fine sandy loam, 0 to 4 percent slopes—30 percent
Qwynn gravelly coarse sandy loam, 0 to 4 percent slopes—25 percent
Lojet coarse sandy loam, 2 to 4 percent slopes—5 percent
Littleailie gravelly sandy loam, 0 to 4 percent slopes—5 percent

Component Description

Devildog and similar soils
Landform: Inset fans
Slope: 0 to 4 percent
Parent material: Alluvium derived from welded tuff with additions of volcanic ash
Typical vegetation: Indian ricegrass, desert needlegrass, needleandthread, galleta, other perennial grasses, Wyoming big sagebrush, fourwing saltbush, winterfat, other shrubs

Typical profile:
Surface rock fragments: About 15 percent gravel
Layer 1—0 to 4 inches; very gravelly ashy coarse sandy loam
Layer 2—4 to 12 inches; gravelly ashy coarse sandy loam
Layer 3—12 to 38 inches; stratified extremely gravelly coarse sand to very gravelly coarse sandy loam
Layer 4—38 to 60 inches; gravelly ashy sandy clay loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Low
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderate)
Available water capacity: About 5 inches
Present flooding: Rare
Present ponding: None
Natural drainage class: Somewhat excessively drained

Interpretive Groups
Nonirrigated land capability: 6c
Ecological site: R029XY049NV—Sandy loam 8-12 P.Z.

Component Description

Gardenvalley and similar soils
Landform: Fan skirts
Slope: 0 to 4 percent
Parent material: Alluvium derived from welded tuff and minor amounts of limestone
Typical vegetation: Indian ricegrass, galleta, bud sagebrush, fourwing saltbush, winterfat, other shrubs

Typical profile:
Surface rock fragments: About 30 percent gravel
Layer 1—0 to 3 inches; gravelly fine sandy loam
Layer 2—3 to 16 inches; very fine sandy loam
Layer 3—16 to 44 inches; fine sandy loam
Layer 4—44 to 62 inches; very gravelly loamy sand

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very low
Saturated hydraulic conductivity class (root zone): High, (Permeability class: Moderate)
Available water capacity: About 7 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 6s
Ecological site: R029XY042NV—Coarse silty 5-8 P.Z.

Component Description

Qwynn and similar soils
Landform: Fan remnants
Slope: 0 to 4 percent

Parent material: Alluvium derived from welded tuff with minor amounts of volcanic ash and alluvium derived from limestone
Typical vegetation: Indian ricegrass, desert needlegrass, needleandthread, other perennial grasses, Wyoming big sagebrush

Typical profile:
Surface rock fragments: About 10 percent fine gravel, 15 percent gravel
Layer 1—0 to 3 inches; gravelly coarse sandy loam
Layer 2—3 to 28 inches; gravelly sandy loam
Layer 3—28 to 52 inches; gravelly sandy clay loam
Layer 4—52 to 70 inches; very gravelly coarse sandy loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Low
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderate)
Available water capacity: About 6 inches
Present flooding: Very rare
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 6c
Ecological site: R029XY006NV—Loamy 8-10 P.Z.

Typical soil descriptions including ranges in characteristics are in the "Classification of the Soils" section.

Contrasting Inclusions

Lojet and similar soils
Composition: 0 to 5 percent
Slope: 2 to 4 percent
Landform: Fan remnants
Typical vegetation: Indian ricegrass, desert needlegrass, needleandthread, other perennial grasses, Wyoming big sagebrush
Ecological site: R029XY006NV—Loamy 8-10 P.Z.

Littleailie and similar soils
Composition: 0 to 5 percent
Slope: 0 to 4 percent
Landform: Fan remnants
Typical vegetation: Indian ricegrass, needleandthread, galleta, other perennial grasses, sand dropseed, other perennial forbs, black sagebrush, fourwing saltbush, winterfat, other shrubs
Ecological site: R029XY008NV—Shallow calcareous loam 8-12 P.Z.

Management

For information about managing this map unit, see the following sections and associated tables of this publication:
"Range" section
"Engineering" and "Soil Properties" sections

1360—Veet-Armespan association

Map Unit Setting

MLRA: 29
Landscape: Fan piedmont
Elevation: 5,950 to 6,100
Precipitation: 8 to 12 inches
Air temperature: 49 to 54 degrees Fahrenheit
Frost-free period: 100 to 130 days

Composition

Veet very gravelly sandy loam, dry, 0 to 4 percent slopes—70 percent
Armespan gravelly sandy loam, warm, 2 to 8 percent slopes—20 percent
Penoyer very fine sandy loam, 0 to 1 percent slopes—5 percent
Ravendog loam, 2 to 4 percent slopes—5 percent

Component Description

Veet and similar soils
Landform: Fan skirts
Slope: 0 to 4 percent
Parent material: Alluvium derived from welded tuff
Typical vegetation: Indian ricegrass, desert needlegrass, needleandthread, other perennial grasses, Wyoming big sagebrush

Typical profile:
Layer 1—0 to 4 inches; very gravelly sandy loam
Layer 2—4 to 16 inches; very gravelly sandy loam
Layer 3—16 to 60 inches; stratified very gravelly loamy coarse sand to extremely gravelly sandy loam

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Low
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderate)
Available water capacity: About 3 inches
Present flooding: Rare
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7s
Ecological site: R029XY006NV—Loamy 8-10 P.Z.

Component Description

Armespan and similar soils
Landform: Beach terraces
Slope: 2 to 8 percent
Parent material: Alluvium derived from limestone, sandstone, and shale
Typical vegetation: Indian ricegrass, needleandthread, other perennial grasses, other perennial forbs, black sagebrush, other shrubs

Typical profile:
Surface rock fragments: About 35 percent gravel
Layer 1—0 to 3 inches; gravelly sandy loam

Layer 2—3 to 11 inches; gravelly sandy loam
Layer 3—11 to 22 inches; very gravelly sandy loam
Layer 4—22 to 60 inches; very gravelly loamy sand

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very low
Saturated hydraulic conductivity class (root zone): High, (Permeability class: Moderately rapid)
Available water capacity: About 4 inches
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7s
Ecological site: R029XY008NV—Shallow calcareous loam 8-12 P.Z.

Typical soil descriptions including ranges in characteristics are in the "Classification of the Soils" section.

Contrasting Inclusions

Penoyer and similar soils
Composition: 0 to 5 percent
Slope: 0 to 1 percent
Landform: Lake plains
Typical vegetation: Indian ricegrass, other perennial grasses, bud sagebrush, winterfat, other shrubs
Ecological site: R029XY020NV—Silty 5-8 P.Z.

Ravendog and similar soils
Composition: 0 to 5 percent
Slope: 2 to 4 percent
Landform: Fan skirts
Typical vegetation: Indian ricegrass, needleandthread, basin wildrye, western wheatgrass, other perennial grasses, other perennial forbs, Wyoming big sagebrush, other shrubs
Ecological site: R029XY114NV—Loamy fan 8-10 P.Z.

Management

For information about managing this map unit, see the following sections and associated tables of this publication:
"Range" section
"Crops and Pasture" section
"Engineering" and "Soil Properties" sections

1362—Amtoft-Kyler association

Map Unit Setting

MLRA: 28A
Landscape: Mountains
Elevation: 6,250 to 6,900
Precipitation: 8 to 12 inches
Air temperature: 48 to 52 degrees Fahrenheit
Frost-free period: 100 to 120 days

Composition

Kyler extremely cobbly loam, cool, 15 to 50 percent slopes—35 percent
Amtoft very gravelly loam, dry, 15 to 50 percent slopes—30 percent
Amtoft gravelly silt loam, 15 to 50 percent slopes—20 percent
Eaglepass extremely stony loam, 15 to 50 percent slopes—5 percent
Ungene gravelly loamy sand, 4 to 15 percent slopes—5 percent
Rock outcrop, 15 to 50 percent slopes—5 percent

Component Description

Kyler and similar soils
Landform: Mountains, south aspect
Slope: 15 to 50 percent
Parent material: Residuum and colluvium derived from limestone and dolomite
Typical vegetation: Indian ricegrass, needleandthread, galleta, Sandberg bluegrass, other perennial grasses, other perennial forbs, black sagebrush, shadscale, winterfat, other shrubs

Typical profile:
Layer 1—0 to 3 inches; extremely cobbly loam
Layer 2—3 to 11 inches; very gravelly loam
Layer 3—11 to 15 inches; bedrock

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very high
Depth to restrictive feature: Lithic bedrock: 6 to 14 inches
Saturated hydraulic conductivity class (root zone): Moderately High, (Permeability class: Moderate)
Available water capacity: About 0.9 inch
Present flooding: None
Present ponding: None
Natural drainage class: Well drained

Interpretive Groups
Nonirrigated land capability: 7s
Ecological site: R028AY004NV—Shallow calcareous slope 8-10 P.Z.

Component Description

Amtoft and similar soils
Landform: Upper mountains, north aspect
Slope: 15 to 50 percent
Parent material: Residuum weathered from limestone, sandstone, and shale
Typical vegetation: Indian ricegrass, galleta, other perennial grasses, other perennial forbs, black sagebrush, other shrubs, Utah juniper

Typical profile:
Layer 1—0 to 3 inches; very gravelly loam
Layer 2—3 to 11 inches; very gravelly loam
Layer 3—11 to 15 inches; bedrock

See "Chemical Soil Properties" table and the "Physical Soil Properties" table for more information.

Component Properties and Qualities
Runoff: Very high
Depth to restrictive feature: Lithic bedrock: 10 to 20 inches

Map Unit Description

Lincoln County, Nevada, North Part

1340 Heist association

Setting

Landscape: Fan piedmonts
Elevation: 5950 to 7050 feet
Mean annual precipitation: 8 to 12 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 100 to 135 days

Composition

Heist and similar soils: 45 percent
Heist and similar soils: 40 percent
Minor components: 15 percent

Description of Heist

Setting

Landform: Fan skirts
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Alluvium derived from welded tuff and some limestone

Properties and Qualities

Slope: 2 to 8 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 5 percent
Gypsum maximum: 0 percent
Sodium adsorption ratio maximum: 5.0
Available water capacity: Low (about 5.8 inches)

Interpretive Groups

Land capability (non irrigated): 7e
Ecological site: LOAMY 8-10 P.Z. (R028AY015NV)

Typical Profile

0 to 8 inches: loamy sand
8 to 20 inches: fine sandy loam
20 to 60 inches: fine sandy loam

Description of Heist

Setting

Landform: Fan skirts
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Alluvium derived from welded tuff and some limestone

Properties and Qualities

Slope: 0 to 4 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 5 percent
Gypsum maximum: 0 percent
Sodium adsorption ratio maximum: 5.0
Available water capacity: Low (about 5.8 inches)

Interpretive Groups

Land capability (non irrigated): 7e
Ecological site: LOAMY FAN 8-10 P.Z. (R028AY031NV)

Typical Profile

0 to 8 inches: loamy sand

8 to 20 inches: fine sandy loam
20 to 60 inches: fine sandy loam

Minor Components

Ravendog soils

Percent of map unit: 8 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: LOAMY 10-12 P.Z. (R028AY095NV)

Ravendog soils

Percent of map unit: 7 percent
Landform: Drainageways
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: LOAMY FAN 8-10 P.Z. (R028AY031NV)

Map Unit Description

Western White Pine County Area, Nevada, Parts of White Pine and Eureka Counties

179 Tulase-Pern association

Setting

Elevation: 6000 to 6500 feet
Mean annual precipitation: 9 to 11 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 100 to 120 days

Composition

Tulase and similar soils: 60 percent
Pern and similar soils: 30 percent
Minor components: 1 percent

Description of Tulase

Setting

Landform: Inset fans
Down-slope shape: Linear
Across-slope shape: Linear

Properties and Qualities

Slope: 2 to 4 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.57 to 1.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 15 percent
Gypsum maximum: 0 percent
Sodium adsorption ratio maximum: 5.0
Available water capacity: High (about 10.8 inches)

Interpretive Groups

Land capability classification (irrigated): 2e
Land capability (non irrigated): 6c
Ecological site: LOAMY FAN 8-12 P.Z. (R028BY045NV)

Typical Profile

0 to 2 inches: silt loam
2 to 60 inches: silt loam

Description of Pern

Setting

Landform: Inset fans
Down-slope shape: Linear
Across-slope shape: Linear

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.57 to 1.98 in/hr)
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate maximum: 5 percent
Gypsum maximum: 0 percent
Available water capacity: High (about 12.0 inches)

Interpretive Groups

Land capability classification (irrigated): 3c
Land capability (non irrigated): 6c
Ecological site: LOAMY BOTTOM 10-14 P.Z. (R028BY003NV)

Typical Profile

0 to 14 inches: silt loam
14 to 20 inches: silt loam
20 to 60 inches: silt loam

Map Unit Description

Western White Pine County Area, Nevada, Parts of White Pine and Eureka Counties

Minor Components

Devilsgait soils

Percent of map unit: 1 percent
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: WET MEADOW 10-14 P.Z. (R028BY001NV)

Map Unit Description

Western White Pine County Area, Nevada, Parts of White Pine and Eureka Counties

534 Duffer-Kolda association

Setting

Elevation: 5800 to 6200 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 45 to 47 degrees F
Frost-free period: 100 to 120 days

Composition

Duffer and similar soils: 40 percent
Duffer and similar soils: 30 percent
Kolda and similar soils: 15 percent

Description of Duffer

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate maximum: 60 percent
Gypsum maximum: 5 percent
Salinity maximum: Slightly saline or moderately saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio maximum: 90.0
Available water capacity: High (about 12.0 inches)

Interpretive Groups

Land capability classification (irrigated): 4w
Land capability (non irrigated): 6w
Ecological site: SALINE BOTTOM (R028BY004NV)

Typical Profile

0 to 6 inches: silt loam
6 to 60 inches: silty clay loam

Description of Duffer

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate maximum: 60 percent
Gypsum maximum: 2 percent
Salinity maximum: Moderately saline or strongly saline (16.0 to 32.0 mmhos/cm)
Sodium adsorption ratio maximum: 90.0
Available water capacity: High (about 12.0 inches)

Interpretive Groups

Land capability classification (irrigated): 4w
Land capability (non irrigated): 7w
Ecological site: SALINE MEADOW (R028BY002NV)

Map Unit Description

Western White Pine County Area, Nevada, Parts of White Pine and Eureka Counties

Typical Profile
0 to 6 inches: silt loam
6 to 60 inches: silty clay loam

Description of Kolda

Setting
Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear

Properties and Qualities
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 40 percent
Gypsum maximum: 0 percent
Salinity maximum: Very slightly saline or slightly saline (4.0 to 8.0 mmhos/cm)
Available water capacity: High (about 10.5 inches)

Interpretive Groups
Land capability classification (irrigated): 6w
Land capability (non irrigated): 7w
Ecological site: WET MEADOW 10-14 P.Z. (R028BY001NV)

Typical Profile
0 to 6 inches: silt loam
6 to 22 inches: silt loam
22 to 60 inches: clay

Map Unit Description

Lincoln County, Nevada, North Part

1280 Badena very cobbly loam, 2 to 8 percent slopes

Setting

Landscape: Fan piedmonts
Elevation: 6250 to 7350 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 45 to 48 degrees F
Frost-free period: 90 to 110 days

Composition

Badena and similar soils: 90 percent
Minor components: 10 percent

Description of Badena

Setting

Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Alluvium derived from quartzite

Properties and Qualities

Slope: 2 to 15 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 0 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 3.3 inches)

Interpretive Groups

Land capability (non irrigated): 7s
Ecological site: LOAMY 10-12 P.Z. (R028AY095NV)

Typical Profile

0 to 5 inches: very cobbly fine sandy loam
5 to 10 inches: very cobbly loam
10 to 25 inches: extremely cobbly sandy clay loam
25 to 60 inches: extremely cobbly loamy coarse sand

Minor Components

Badena soils

Percent of map unit: 7 percent
Landform: Fan remnants
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: GRAVELLY LOAM 12-14 P.Z. (R028AY066NV)

Zafod soils

Percent of map unit: 3 percent
Landform: Fan remnants
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: LOAMY 10-12 P.Z. (R028AY095NV)

Map Unit Description

Lincoln County, Nevada, North Part

1310 Duffer-Kolda association

Setting

Landscape: Basin floors
Elevation: 6400 to 6750 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 100 to 120 days

Composition

Duffer and similar soils: 40 percent
Duffer and similar soils: 30 percent
Kolda and similar soils: 15 percent
Minor components: 15 percent

Description of Duffer

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess, alluvium and lacustrine deposits from mixed rock sources

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate maximum: 60 percent
Gypsum maximum: 5 percent
Salinity maximum: Slightly saline or strongly saline (8.0 to 32.0 mmhos/cm)
Sodium adsorption ratio maximum: 90.0
Available water capacity: High (about 11.7 inches)

Interpretive Groups

Land capability classification (irrigated): 4w
Land capability (non irrigated): 7w
Ecological site: SALINE BOTTOM (R028BY004NV)

Typical Profile

0 to 11 inches: silt loam
11 to 48 inches: silty clay loam
48 to 66 inches: stratified very fine sandy loam to silty clay loam

Description of Duffer

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess, alluvium and lacustrine deposits from mixed rock sources

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate maximum: 60 percent
Gypsum maximum: 5 percent
Salinity maximum: Slightly saline or strongly saline (8.0 to 32.0 mmhos/cm)
Sodium adsorption ratio maximum: 90.0
Available water capacity: High (about 11.7 inches)

Map Unit Description

Lincoln County, Nevada, North Part

Interpretive Groups

Land capability classification (irrigated): 4w
Land capability (non irrigated): 7w
Ecological site: SALINE MEADOW (R028BY002NV)

Typical Profile

0 to 11 inches: silt loam
11 to 48 inches: silty clay loam
48 to 66 inches: stratified very fine sandy loam to silty clay loam

Description of Kolda

Setting

Landform: Lake plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium over lacustrine deposits derived from mixed rock sources

Properties and Qualities

Slope: 0 to 2 percent
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 40 percent
Gypsum maximum: 0 percent
Salinity maximum: Very slightly saline or slightly saline (4.0 to 8.0 mmhos/cm)
Sodium adsorption ratio maximum: 12.0
Available water capacity: High (about 10.5 inches)

Interpretive Groups

Land capability classification (irrigated): 6w
Land capability (non irrigated): 7w
Ecological site: WET MEADOW 10-14 P.Z. (R028BY001NV)

Typical Profile

0 to 6 inches: silt loam
6 to 22 inches: silt loam
22 to 60 inches: clay

Minor Components

Sheffit soils

Percent of map unit: 10 percent
Landform: Lake plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: SODIC TERRACE 8-10 P.Z. (R028BY028NV)

Boofuss soils

Percent of map unit: 5 percent
Landform: Lake plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: SODIC FLAT 5-8 P.Z. (R028BY020NV)

Cave Valley Ranch
Soils Map

Field Office: ELY SERVICE CENTER
Agency: NRCS

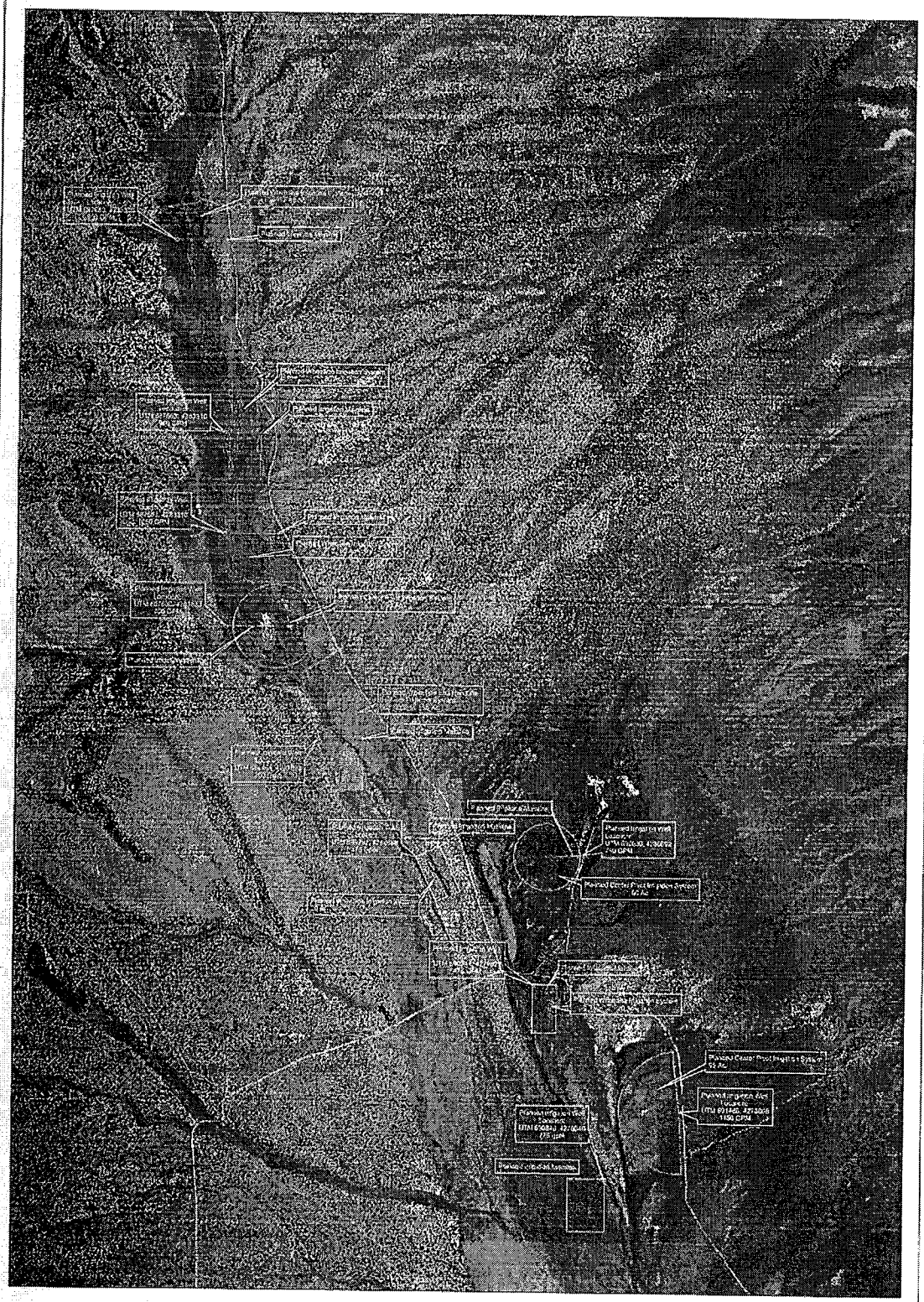
Legend

2,000 0 2,000 4,000 6,000 8,000
Feet

N

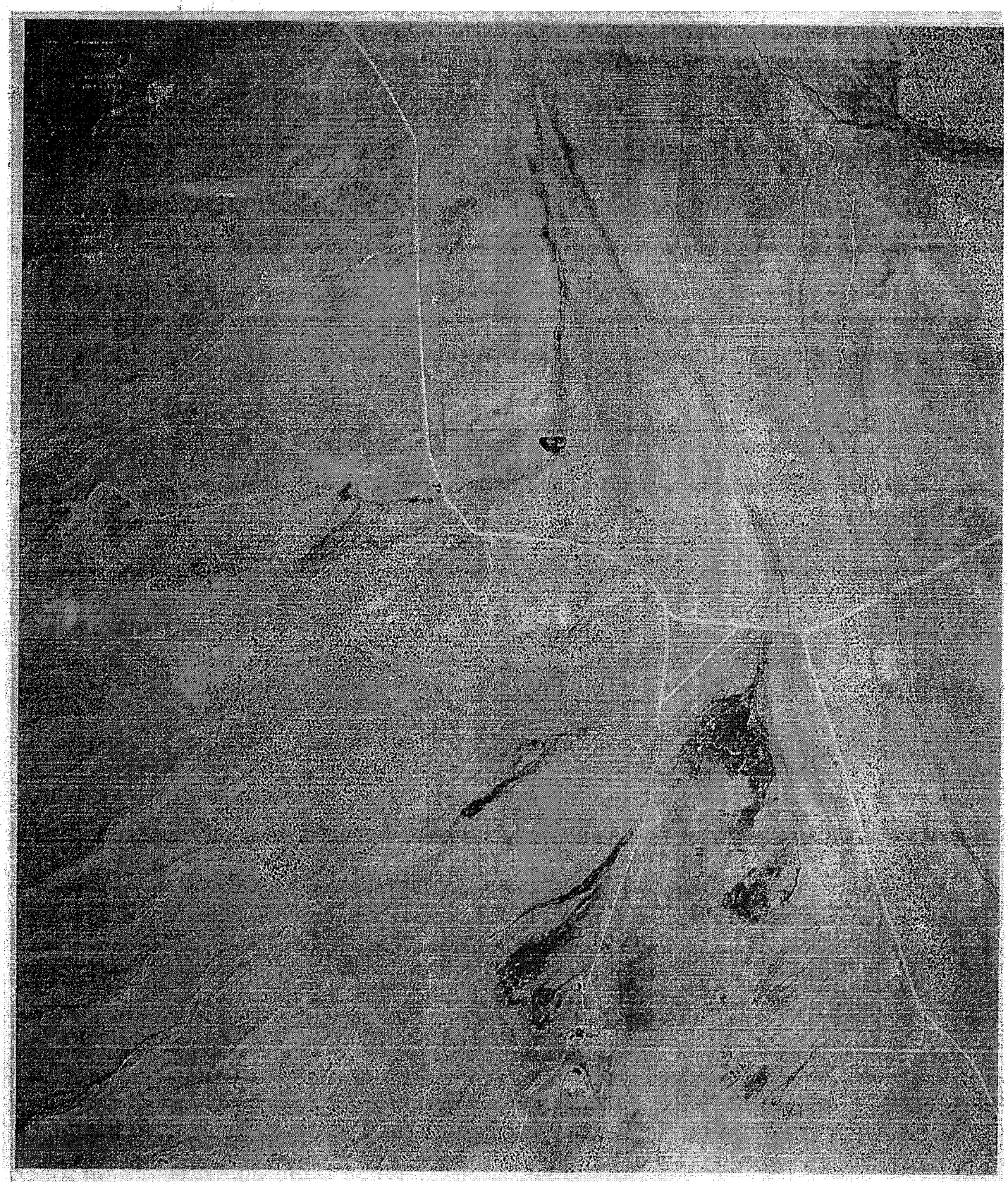
Cave Valley Ranch Planned Irrigation System

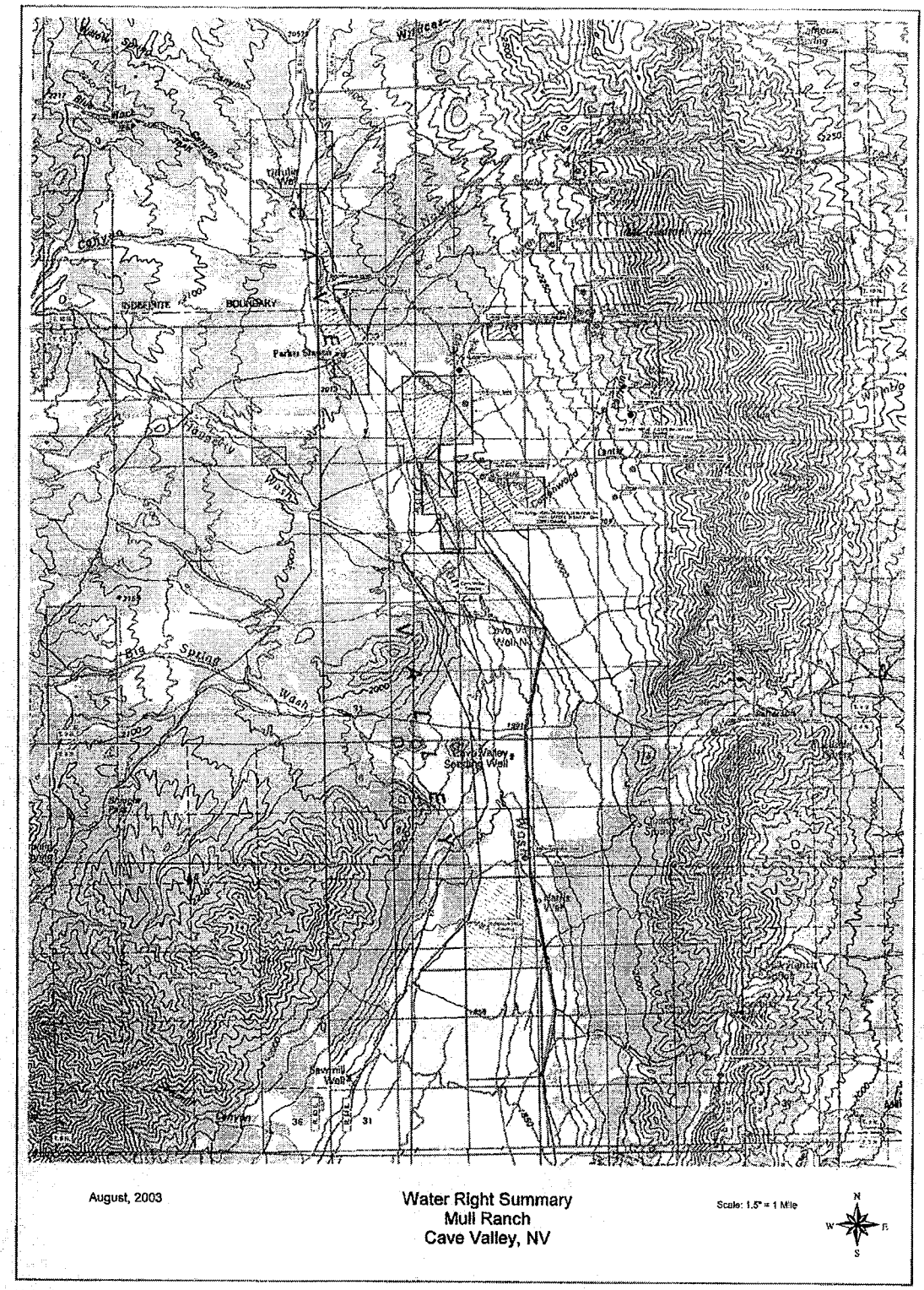
Field Office: ELY SERVICE CENTER
Agency: NRCS



1,900 0 1,900 3,800 5,700 7,600
Feet

N



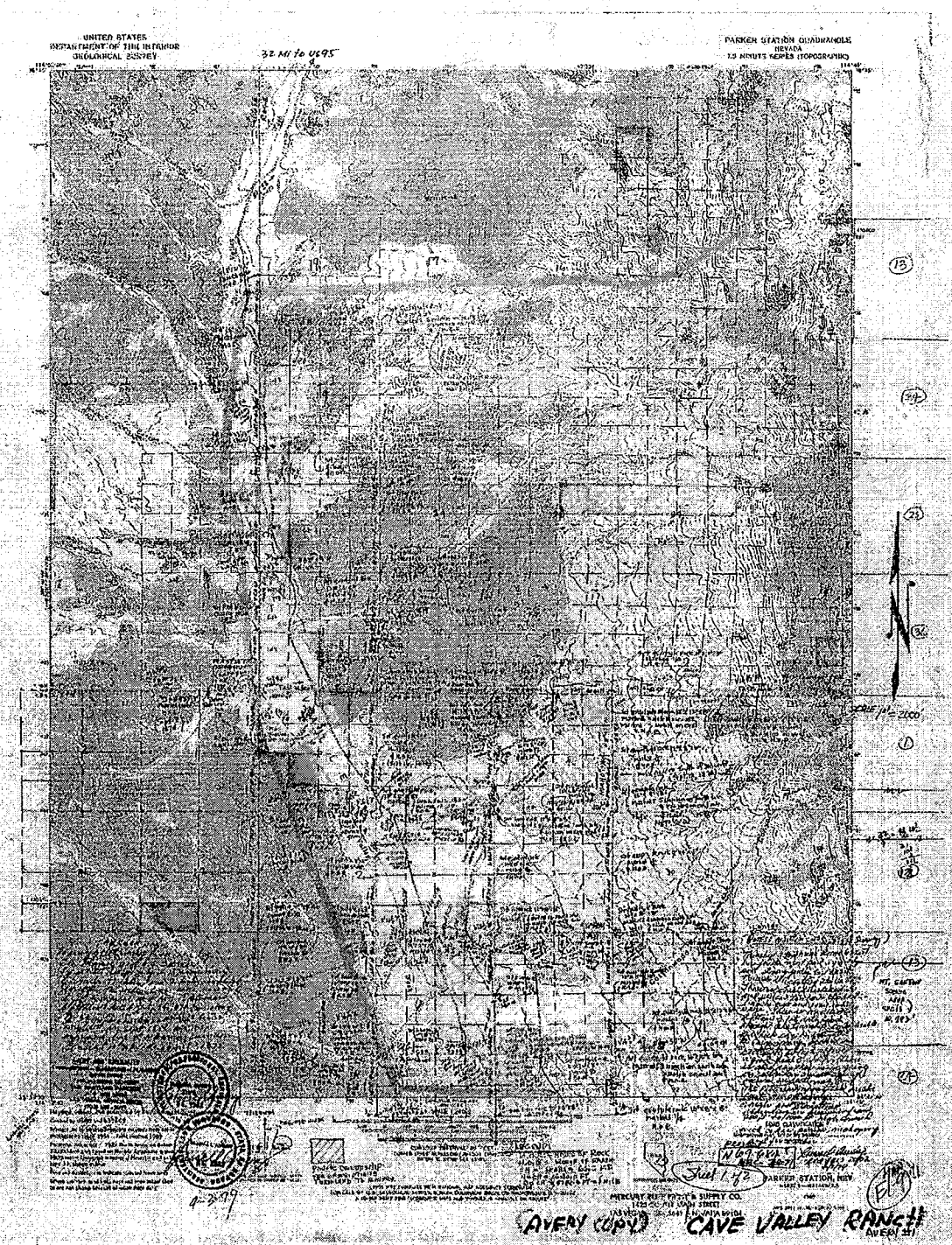


August, 2003

Water Right Summary
Mull Ranch
Cave Valley, NV


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
SHEET 2 OF 2
CAVE VALLEY RANCH
SCALE 1" = 2000'
E19
N69-684

Michael Mirsoth
Cave Valley Ranch
Nevada.



Cave Valley Land and Water Ownership