

067LO—Pleasant silty clay loam, 0 to 1 percent slopes**Map Unit Composition**

Pleasant: 100 percent

Component Descriptions**Pleasant**

MLRA: 72 - Central High Tableland

Landform: Playa on tableland

Parent material: Clayey alluvium and/or eolian deposits

Slope: 0 to 1 percent

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: High (About 10.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Ponding hazard: Frequent

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Ecological site: Clay Upland (pe16-20)

Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 8 inches; silty clay loam

H2—8 to 36 inches; silty clay

H3—36 to 60 inches; silty clay loam

Minor Components**Unnamed Hydric Soils****067OF—Otero fine sandy loam, 4 to 12 percent slopes****Map Unit Composition**

Otero: 100 percent

Component Descriptions**Otero**

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 4 to 12 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 16 inches; fine sandy loam

H2—16 to 60 inches; fine sandy loam

067OG—Otero-Schamber complex, 5 to 20 percent slopes**Map Unit Composition**

Otero: 65 percent

Schamber: 35 percent

Component Descriptions**Otero**

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 5 to 20 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 6e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 16 inches; fine sandy loam

H2—16 to 60 inches; fine sandy loam

Schamber

MLRA: 72 - Central High Tableland

Landform: Fan remnant on paleoterrace on river valley

Parent material: Sandy and/or gravelly alluvium

Slope: 5 to 20 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 3.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Gravelly Hills (pe17-20)

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 6 inches; gravelly sandy loam

H2—6 to 60 inches; very gravelly loamy sand

067SA—Satanta fine sandy loam, 0 to 1 percent slopes

Map Unit Composition

Satanta: 100 percent

Component Descriptions

Satanta

MLRA: 72 - Central High Tableland

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.0 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe16-20)

Land capability (irrigated): 1

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; fine sandy loam

H2—12 to 30 inches; clay loam

H3—30 to 60 inches; clay loam

Minor Components

Pleasant

067SB—Satanta fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Satanta: 100 percent

Component Descriptions

Satanta

MLRA: 72 - Central High Tableland

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.0 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe16-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; fine sandy loam

H2—12 to 30 inches; clay loam

H3—30 to 60 inches; clay loam

067TF—Valent fine sand, 5 to 20 percent slopes

Map Unit Composition

Valent: 100 percent

Component Descriptions

Valent

MLRA: 72 - Central High Tableland

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 5 to 20 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Choppy Sands (pe16-20)

Land capability (irrigated): 6e

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 5 inches; fine sand

H2—5 to 60 inches; fine sand

067TV—Valent-Vona loamy fine sands, 3 to 15 percent slopes

Map Unit Composition

Valent: 65 percent

Vona: 35 percent

Component Descriptions

Valent

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 5 to 15 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Choppy Sands (pe16-20)

Land capability (irrigated): 6e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; loamy fine sand

H2—5 to 60 inches; fine sand

Vona

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on dune field on paleoterrace

Parent material: Eolian sands

Slope: 3 to 12 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands (pe16-20)

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 10 inches; loamy fine sand

H2—10 to 36 inches; fine sandy loam

H3—36 to 60 inches; loamy fine sand

Minor Components

Unnamed Hydric Soils

067UE—Ulysses-Colby silt loams, 1 to 3 percent slopes, eroded

Map Unit Composition

Ulysses: 60 percent

Colby: 40 percent

Component Descriptions

Ulysses

MLRA: 72 - Central High Tableland

Landform: Plain on tableland

Parent material: Loess

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 12.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe16-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; silt loam

H2—10 to 16 inches; silty clay loam

H3—16 to 60 inches; silt loam

Colby

MLRA: 72 - Central High Tableland

Landform: Hillslope on tableland

Parent material: Loess

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Limy Upland (pe16-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 4 inches; silt loam

H2—4 to 50 inches; loam

067VO—Vona loamy fine sand, 0 to 5 percent slopes

Map Unit Composition

Vona: 100 percent

Component Descriptions

Vona

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on dune field on paleoterrace

Parent material: Eolian sands

Slope: 0 to 5 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands (pe16-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 10 inches; loamy fine sand

H2—10 to 24 inches; fine sandy loam

H3—24 to 36 inches; sandy loam

H4—36 to 60 inches; loamy fine sand

Minor Components

Unnamed Hydric Soils

081OG—Otero-Schamber complex, 5 to 15 percent slopes

Map Unit Composition

Otero: 75 percent

Schamber: 25 percent

Component Descriptions

Otero

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 5 to 15 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 6e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 16 inches; fine sandy loam

H2—16 to 60 inches; fine sandy loam

Schamber

MLRA: 72 - Central High Tableland

Landform: Fan remnant on paleoterrace on river valley

Parent material: Sandy and/or gravelly alluvium

Slope: 5 to 15 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 3.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Gravelly Hills (pe17-20)

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 6 inches; gravelly sandy loam

H2—6 to 60 inches; very gravelly sand

1044—Atchison clay loam, 3 to 6 percent slopes

Map Unit Composition

Atchison: 90 percent

Minor components: 10 percent

Component Descriptions

Atchison

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Calcareous loamy old alluvium

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Limy Upland (pe16-20)

Land capability (nonirrigated): 3e

Typical Profile:

A—0 to 5 inches; clay loam

AB—5 to 10 inches; loam

Bk1—10 to 41 inches; loam

Bk2—41 to 52 inches; clay loam

2Bk—52 to 80 inches; clay loam

Minor Components

Otero

Composition: About 10 percent

Slope: 4 to 15 percent

Drainage class: Somewhat excessively drained

Ecological site: Sandy (pe16-20)

1046—Atchison loam, 1 to 3 percent slopes

Map Unit Composition

Atchison: 85 percent

Minor components: 15 percent

Component Descriptions

Atchison

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Calcareous loamy old alluvium

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Limy Upland (pe16-20)

Land capability (nonirrigated): 3e

Typical Profile:

A—0 to 5 inches; loam

AB—5 to 10 inches; loam

Bk1—10 to 41 inches; loam

Bk2—41 to 52 inches; clay loam

2Bk—52 to 80 inches; clay loam

Minor Components

Otero

Composition: About 10 percent

Slope: 2 to 4 percent

Drainage class: Somewhat excessively drained

Ecological site: Sandy (pe16-20)

Satanta

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

1182—Belfon loam, 0 to 1 percent slopes

Map Unit Composition

Belfon: 70 percent
 Minor components: 30 percent

Component Descriptions

Belfon

MLRA: 77A - Southern High Plains, Northern Part
Landform: Paleoterrace on river valley
Parent material: Loamy eolian deposits over silty alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Upland (pe17-20)
Land capability (irrigated): 1
Land capability (nonirrigated): 3c

Typical Profile:

A—0 to 8 inches; loam
 Bt—8 to 28 inches; clay loam
 2Btkb—28 to 72 inches; silty clay loam
 3Cb—72 to 80 inches; fine sand

Minor Components

Satanta

Composition: About 20 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

Richfield

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

1184—Bigbow fine sandy loam, 0 to 1 percent slopes

Map Unit Composition

Bigbow: 70 percent
 Minor components: 30 percent

Component Descriptions

Bigbow

MLRA: 77A - Southern High Plains, Northern Part
Landform: Paleoterrace on river valley
Parent material: Loamy eolian deposits over silty alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Upland (pe17-20)
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 7 inches; fine sandy loam
 Bt—7 to 29 inches; clay loam
 2Btkb—29 to 67 inches; silty clay loam
 3Bkb—67 to 72 inches; sandy loam
 3Cb—72 to 80 inches; sandy loam

Minor Components

Dalhart

Composition: About 20 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe17-20)

Belfon

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe17-20)

1185—Bigbow loamy fine sand, 0 to 2 percent slopes**Map Unit Composition**

Bigbow: 60 percent
 Minor components: 40 percent

Component Descriptions**Bigbow**

MLRA: 77A - Southern High Plains, Northern Part

Landform: Paleoterrace on river valley

Parent material: Loamy eolian deposits over silty alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 7 inches; loamy fine sand
 Bt—7 to 29 inches; clay loam
 2Btkb—29 to 67 inches; silty clay loam
 3Bkb—67 to 72 inches; sandy loam
 3Cb—72 to 80 inches; sandy loam

Minor Components**Dalhart**

Composition: About 20 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

Belfon

Composition: About 20 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

1504—Dalhart fine sandy loam, 0 to 1 percent slopes**Map Unit Composition**

Dalhart: 80 percent
 Minor components: 20 percent

Component Descriptions**Dalhart**

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; fine sandy loam
 Bt1—6 to 34 inches; clay loam
 BC—34 to 46 inches; sandy clay loam
 C1—46 to 80 inches; sandy clay loam

Minor Components**Bigbow**

Composition: About 15 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

Satanta

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe16-20)

1505—Dalhart fine sandy loam, 1 to 4 percent slopes

Map Unit Composition

Dalhart: 80 percent
Minor components: 20 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 1 to 4 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; fine sandy loam
Bt1—6 to 34 inches; clay loam
BC—34 to 46 inches; sandy clay loam
C1—46 to 80 inches; sandy clay loam

Minor Components

Eva

Composition: About 20 percent

Slope: 1 to 3 percent

Drainage class: Somewhat excessively drained

Ecological site: Sands (pe17-20)

1506—Dalhart loamy fine sand, 0 to 2 percent slopes

Map Unit Composition

Dalhart: 80 percent
Minor components: 20 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; loamy fine sand
Bt1—6 to 34 inches; clay loam
BC—34 to 46 inches; sandy clay loam
C1—46 to 80 inches; sandy clay loam

Minor Components

Bigbow

Composition: About 15 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

Satanta

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe16-20)

1558—Dalhart loamy fine sand, 2 to 4 percent slopes

Map Unit Composition

Dalhart: 80 percent
Minor components: 20 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland
Parent material: Loamy eolian deposits
Slope: 2 to 4 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy (pe17-20)
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; loamy fine sand
 Bt1—6 to 34 inches; clay loam
 BC—34 to 46 inches; sandy clay loam
 C1—46 to 80 inches; sandy clay loam

Minor Components

Bigbow

Composition: About 15 percent
Slope: 2 to 4 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe17-20)

Eva

Composition: About 5 percent
Slope: 1 to 3 percent
Drainage class: Somewhat excessively drained
Ecological site: Sands (pe17-20)

1559—Dalhart-Eva loamy fine sands, 3 to 9 percent slopes

Map Unit Composition

Dalhart: 55 percent
 Eva: 40 percent
 Minor components: 5 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part
Landform: Sand sheet on paleoterrace on tableland
Parent material: Loamy eolian deposits

Slope: 3 to 8 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy (pe17-20)
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; loamy fine sand
 Bt1—6 to 34 inches; clay loam
 BC—34 to 46 inches; sandy clay loam
 C1—46 to 80 inches; sandy clay loam

Eva

MLRA: 77A - Southern High Plains, Northern Part
Landform: Dune on paleoterrace on river valley
Parent material: Eolian sand
Slope: 3 to 9 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 4.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands (pe17-20)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 13 inches; loamy fine sand
 Bt—13 to 41 inches; fine sandy loam
 C—41 to 73 inches; loamy sand
 2Btkb—73 to 80 inches; sandy loam

Minor Components

Optima

Composition: About 5 percent
Slope: 2 to 6 percent
Drainage class: Excessively drained
Ecological site: Sands (pe17-20)

1670—Eva loamy fine sand, 1 to 3 percent slopes

Map Unit Composition

Eva: 85 percent
Minor components: 15 percent

Component Descriptions

Eva

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Eolian sand

Slope: 1 to 3 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 13 inches; loamy fine sand
Bt—13 to 41 inches; fine sandy loam
C—41 to 73 inches; loamy sand
2Btkb—73 to 80 inches; sandy loam

Minor Components

Dalhart

Composition: About 15 percent

Slope: 1 to 3 percent

Drainage class: Well drained

Ecological site: Sandy (pe17-20)

1671—Eva-Optima loamy fine sands, 5 to 15 percent slopes

Map Unit Composition

Eva: 50 percent
Optima: 40 percent
Minor components: 10 percent

Component Descriptions

Eva

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Eolian sand

Slope: 5 to 9 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 13 inches; loamy fine sand
Bt—13 to 41 inches; fine sandy loam
C—41 to 73 inches; sand
2Btkb—73 to 80 inches; sandy loam

Optima

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 10 to 15 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Choppy Sands (pe17-20)

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; loamy fine sand
AC—8 to 17 inches; fine sand
C—17 to 80 inches; fine sand

Minor Components

Dalhart

Composition: About 10 percent

Slope: 3 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

1672—Eva loamy fine sand, 3 to 9 percent slopes**Map Unit Composition**

Eva: 75 percent
 Minor components: 25 percent

Component Descriptions**Eva**

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Eolian sand

Slope: 3 to 9 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 13 inches; loamy fine sand

Bt—13 to 41 inches; fine sandy loam

C—41 to 73 inches; fine sand

2Btkb—73 to 80 inches; sandy loam

Minor Components**Optima**

Composition: About 15 percent

Slope: 6 to 15 percent

Drainage class: Excessively drained

Ecological site: Sands (pe17-20)

Dalhart

Composition: About 10 percent

Slope: 3 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

1723—Feterita clay, 0 to 1 percent slopes**Map Unit Composition**

Feterita: 100 percent

Component Descriptions**Feterita**

MLRA: 72 - Central High Tableland

Landform: Playa on plains

Parent material: Local alluvium

Slope: 0 to 1 percent

Drainage class: Poorly drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Ponding hazard: Occasional

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Ecological site: Lakebed (pe16-20)

Land capability (nonirrigated): 4w

Typical Profile:

Ap—0 to 5 inches; clay

A—5 to 10 inches; clay

E—10 to 13 inches; silt loam

Bss1—13 to 29 inches; clay

Bss2—29 to 34 inches; clay

Bss3—34 to 42 inches; clay

2Bw1—42 to 51 inches; clay loam

2Bw2—51 to 61 inches; clay loam

2Bw3—61 to 79 inches; sandy clay loam

1979—Haverson fine sandy loam, occasionally flooded**Map Unit Composition**

Haverson: 90 percent

Minor components: 10 percent

Component Descriptions**Haverson**

MLRA: 72 - Central High Tableland

Landform: Flood plain on river valley
Parent material: Calcareous loamy alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Sandy Lowland (pe16-20)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4c

Typical Profile:
 A—0 to 7 inches; fine sandy loam
 C—7 to 80 inches; stratified sand to clay loam

Minor Components

Glenberg

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Sandy Lowland (pe16-20)

Happyditch

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Sandy Lowland (pe17-20)

1980—Happyditch loamy sand, 0 to 2 percent slopes, rarely flooded

Map Unit Composition

Happyditch: 95 percent
 Minor components: 5 percent

Component Descriptions

Happyditch

MLRA: 72 - Central High Tableland
Landform: Flood plain on river valley
Parent material: Stratified sandy alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Rare
Depth to seasonal water saturation: About 60 to 72 inches
Runoff class: Negligible
Ecological site: Sandy Lowland (pe17-20)
Land capability (irrigated): 4w
Land capability (nonirrigated): 6w

Typical Profile:

A—0 to 18 inches; loamy sand
 C1—18 to 64 inches; stratified loamy sand to fine sandy loam
 C2—64 to 80 inches; sand

Minor Components

Glenberg

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Sandy Lowland (pe16-20)

1981—Happyditch sand, 0 to 2 percent slopes, frequently flooded

Map Unit Composition

Happyditch: 95 percent
 Minor components: 5 percent

Component Descriptions

Happyditch

MLRA: 72 - Central High Tableland
Landform: Flood plain on river valley
Parent material: Stratified sandy alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: About 39 to 72 inches
Runoff class: Negligible
Ecological site: Sandy Lowland (pe17-20)
Land capability (irrigated): 4w
Land capability (nonirrigated): 6w

Typical Profile:

A—0 to 18 inches; sand
 C1—18 to 64 inches; stratified loamy sand to fine sandy loam
 C2—64 to 80 inches; sand

Minor Components

Glenberg

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Sandy Lowland (pe16-20)

1984—Happyditch loamy fine sand, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Happyditch: 95 percent
 Minor components: 5 percent

Component Descriptions

Happyditch

MLRA: 72 - Central High Tableland
Landform: Flood plain on river valley
Parent material: Stratified sandy alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 60 to 72 inches
Runoff class: Negligible
Ecological site: Sandy Lowland (pe17-20)
Land capability (irrigated): 4w
Land capability (nonirrigated): 6w

Typical Profile:

A—0 to 18 inches; loamy fine sand
 C1—18 to 64 inches; stratified loamy sand to fine sandy loam
 C2—64 to 80 inches; sand

Minor Components**Glenberg**

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Sandy Lowland (pe16-20)

3047—Optima loamy fine sand, 2 to 6 percent slopes

Map Unit Composition

Optima: 70 percent
 Minor components: 30 percent

Component Descriptions

Optima

MLRA: 77A - Southern High Plains, Northern Part
Landform: Dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 2 to 6 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Choppy Sands (pe17-20)
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; loamy fine sand
 AC—8 to 17 inches; fine sand
 C—17 to 80 inches; fine sand

Minor Components**Eva**

Composition: About 20 percent
Slope: 2 to 6 percent
Drainage class: Somewhat excessively drained
Ecological site: Sands (pe17-20)

Dalhart

Composition: About 10 percent
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe17-20)

3048—Optima loamy fine sand, 6 to 15 percent slopes

Map Unit Composition

Optima: 85 percent

Minor components: 15 percent

Component Descriptions

Optima

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 6 to 15 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Choppy Sands (pe17-20)

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; loamy fine sand

AC—8 to 17 inches; fine sand

C—17 to 80 inches; fine sand

Minor Components

Eva

Composition: About 10 percent

Slope: 6 to 8 percent

Drainage class: Somewhat excessively drained

Ecological site: Sands (pe17-20)

Dalhart

Composition: About 5 percent

Slope: 6 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

3415—Satanta loam, 0 to 1 percent slopes

Map Unit Composition

Satanta: 90 percent

Minor components: 10 percent

Component Descriptions

Satanta

MLRA: 72 - Central High Tableland

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Upland (pe16-20)

Land capability (irrigated): 1

Land capability (nonirrigated): 3c

Typical Profile:

Ap—0 to 5 inches; loam

Bt—5 to 15 inches; clay loam

Btk—15 to 48 inches; clay loam

BCK—48 to 80 inches; fine sandy loam

Minor Components

Belfon

Composition: About 10 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe17-20)

3506—Shore loam, rarely flooded

Map Unit Composition

Shore: 70 percent

Minor components: 30 percent

Component Descriptions

Shore

MLRA: 72 - Central High Tableland

Landform: Flood plain on river valley

Parent material: Loamy alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Moderate (About 7.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Lowland (pe16-20)

Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 5 inches; loam
Bw—5 to 31 inches; clay loam
2Ck—31 to 41 inches; silt loam
3Bk—41 to 70 inches; silt loam
4Btk—70 to 80 inches; silty clay loam

Minor Components

Satanta

Composition: About 20 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

Wagonbed

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Limy Upland (pe16-20)

3725—Ulysses silt loam, 0 to 1 percent slopes

Map Unit Composition

Ulysses: 70 percent
Minor components: 30 percent

Component Descriptions

Ulysses

MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 12.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Upland (pe16-20)
Land capability (irrigated): 1
Land capability (nonirrigated): 3c

Typical Profile:

Ap—0 to 7 inches; silt loam
Bw—7 to 28 inches; silty clay loam

C—28 to 80 inches; silt loam

Minor Components

Richfield

Composition: About 15 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

Wagonbed

Composition: About 15 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Limy Upland (pe16-20)

3969—Wagonbed silty clay loam, 0 to 1 percent slopes

Map Unit Composition

Wagonbed: 75 percent
Minor components: 25 percent

Component Descriptions

Wagonbed

MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loess
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Limy Upland (pe16-20)
Land capability (irrigated): 1
Land capability (nonirrigated): 3c

Typical Profile:

Ap—0 to 7 inches; silty clay loam
Bk1—7 to 28 inches; silty clay loam
Bk—28 to 48 inches; silt loam
2Bk—48 to 80 inches; loam

Minor Components

Ulysses

Composition: About 15 percent
Slope: 0 to 1 percent

Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

Richfield

Composition: About 10 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe16-20)

Bo—Valent fine sand, 5 to 15 percent slopes

Map Unit Composition

Valent: 100 percent

Component Descriptions

Valent

MLRA: 77A - Southern High Plains, Northern Part
Landform: Blowout on dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 5 to 15 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Choppy Sands (pe17-20)
Land capability (irrigated): 6e
Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 7 inches; fine sand
 H2—7 to 60 inches; fine sand

CIR—Cimarron River Channel

Map Unit Composition

Cimarron River: 100 percent

Component Descriptions

Cimarron River

MLRA: 72 - Central High Tableland
Slope: 0 to 4 percent
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: About 0 to 24 inches
Runoff class: Low
Land capability (nonirrigated): 8w

Cm—Colby loam, 5 to 12 percent slopes

Map Unit Composition

Colby: 100 percent

Component Descriptions

Colby

MLRA: 72 - Central High Tableland
Landform: Break on tableland
Parent material: Loess
Slope: 5 to 12 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 8.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Limy Upland (pe17-20)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 4 inches; loam
 H2—4 to 40 inches; loam

Da—Dalhart fine sandy loam, 0 to 1 percent slopes

Map Unit Composition

Dalhart: 100 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; fine sandy loam

H2—8 to 42 inches; sandy clay loam

H3—42 to 48 inches; fine sandy loam

Minor Components

Unnamed Hydric Soils

Db—Dalhart fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Dalhart: 100 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; fine sandy loam

H2—8 to 42 inches; sandy clay loam

H3—42 to 48 inches; fine sandy loam

Minor Components

Unnamed Hydric Soils

Df—Dalhart loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Dalhart: 100 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 7.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sands (pe17-20)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 9 inches; loamy fine sand
 H2—9 to 38 inches; sandy clay loam
 H3—38 to 48 inches; fine sandy loam

Minor Components
Unnamed Hydric Soils

Dx—Dalhart-Otero fine sandy loams, 1 to 4 percent slopes

Map Unit Composition

Dalhart: 65 percent
 Otero: 35 percent

Component Descriptions

Dalhart

MLRA: 77A - Southern High Plains, Northern Part

Landform: Sand sheet on paleoterrace on tableland

Parent material: Loamy eolian deposits

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; fine sandy loam
 H2—8 to 42 inches; sandy clay loam
 H3—42 to 48 inches; fine sandy loam

Otero

MLRA: 77A - Southern High Plains, Northern Part

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 1 to 4 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 14 inches; fine sandy loam
 H2—14 to 60 inches; sandy loam

Go—Goshen silt loam, rarely flooded

Map Unit Composition

Goshen: 100 percent

Component Descriptions

Goshen

MLRA: 72 - Central High Tableland

Landform: Swale on upland

Parent material: Silty alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 7.5 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Terrace (pe16-20)

Land capability (irrigated): 1

Land capability (nonirrigated): 3c

Typical Profile:

H1—0 to 11 inches; silt loam
 H2—11 to 20 inches; loam
 H3—20 to 36 inches; loam

Minor Components
Pleasant

Lf—Lincoln Soils, occasionally flooded**Map Unit Composition**

Lincoln: 100 percent

Component Descriptions**Lincoln**

MLRA: 72 - Central High Tableland

Landform: Flood plain on river valley

Parent material: Alluvium

Slope: 0 to 3 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 60 to 72 inches

Runoff class: Negligible

Ecological site: Sandy Lowland (pe17-20)

Land capability (nonirrigated): 6w

Typical Profile:

H1—0 to 4 inches; loamy fine sand

H2—4 to 60 inches; stratified fine sand to clay loam

**Minor Components
Unnamed Hydric Soils****Lo—Pleasant clay loam, 0 to 1 percent slopes****Map Unit Composition**

Pleasant: 100 percent

Component Descriptions**Pleasant**

MLRA: 72 - Central High Tableland

Landform: Playa on tableland

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Ponding hazard: Frequent

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Ecological site: Lakebed (pe17-20)

Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 7 inches; clay loam

H2—7 to 23 inches; silty clay

H3—23 to 45 inches; clay loam

Lp—Pleasant fine sandy loam, 0 to 1 percent slopes**Map Unit Composition**

Pleasant: 100 percent

Component Descriptions**Pleasant**

MLRA: 77A - Southern High Plains, Northern Part

Landform: Playa on tableland

Parent material: Alluvium

Slope: 0 to 1 percent

Drainage class: Moderately well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.3 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Ponding hazard: Frequent

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Ecological site: Lakebed (pe17-20)

Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 7 inches; clay loam

H2—7 to 23 inches; silty clay

H3—23 to 45 inches; clay loam

Ma—Penden clay loam, 0 to 1 percent slopes

Map Unit Composition

Penden: 100 percent

Component Descriptions

Penden

MLRA: 72 - Central High Tableland

Landform: Tableland on plain

Parent material: Residuum

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Limy Upland (pe17-20)

Land capability (irrigated): 2c

Land capability (nonirrigated): 3c

Typical Profile:

H1—0 to 15 inches; clay loam

H2—15 to 28 inches; clay loam

H3—28 to 60 inches; clay loam

Minor Components

Pleasant

Mb—Penden clay loam, 1 to 3 percent slopes

Map Unit Composition

Penden: 100 percent

Component Descriptions

Penden

MLRA: 72 - Central High Tableland

Landform: Tableland on plain

Parent material: Residuum

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Limy Upland (pe17-20)

Land capability (irrigated): 2e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 15 inches; clay loam

H2—15 to 28 inches; clay loam

H3—28 to 60 inches; clay loam

Mx—Penden-Otero complex, 1 to 6 percent slopes

Map Unit Composition

Penden: 70 percent

Otero: 30 percent

Component Descriptions

Penden

MLRA: 72 - Central High Tableland

Landform: Hillslope on tableland

Parent material: Residuum

Slope: 1 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Limy Upland (pe17-20)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 15 inches; clay loam

H2—15 to 28 inches; clay loam
H3—28 to 60 inches; clay loam

Otero

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 1 to 6 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Low (About 5.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe17-20)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 24 inches; fine sandy loam

H2—24 to 36 inches; sandy loam

My—Manter fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Manter: 100 percent

Component Descriptions

Manter

MLRA: 72 - Central High Tableland

Landform: Sand sheet on paleoterrace

Parent material: Sandy eolian deposits

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 7.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe17-20)

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 17 inches; fine sandy loam

H2—17 to 21 inches; fine sandy loam

H3—21 to 60 inches; loamy fine sand

Minor Components**Unnamed Hydric Soils**

Ot—Otero fine sandy loam, 5 to 12 percent slopes

Map Unit Composition

Otero: 100 percent

Component Descriptions

Otero

MLRA: 72 - Central High Tableland

Landform: Fan remnant on breaks

Parent material: Sandy and/or loamy alluvium

Slope: 5 to 12 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Low (About 4.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy (pe17-20)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 24 inches; fine sandy loam

H2—24 to 36 inches; fine sandy loam

Ra—Satanta loam, 0 to 1 percent slopes

Map Unit Composition

Satanta: 100 percent

Component Descriptions

Satanta

MLRA: 72 - Central High Tableland

Landform: Plain on tableland

Parent material: Loamy eolian deposits
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Upland (pe17-20)
Land capability (irrigated): 1
Land capability (nonirrigated): 3c

Typical Profile:
 H1—0 to 15 inches; loam
 H2—15 to 29 inches; clay loam
 H3—29 to 60 inches; clay loam

Minor Components **Pleasant**

Rb—Haxtun loamy fine sand, 0 to 1 percent slopes

Map Unit Composition

Haxtun: 100 percent

Component Descriptions

Haxtun

MLRA: 77A - Southern High Plains, Northern Part
Landform: Plain on tableland
Parent material: Loamy eolian deposits over alluvium and/or loess
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.57 in/hr)
Available water capacity: Moderate (About 8.7 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible

Ecological site: Sands (pe17-20)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 14 inches; loamy fine sand
 H2—14 to 19 inches; sandy clay loam
 H3—19 to 48 inches; clay loam

Rm—Richfield silt loam, 0 to 1 percent slopes

Map Unit Composition

Richfield: 100 percent

Component Descriptions

Richfield

MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Upland (pe17-20)
Land capability (irrigated): 1
Land capability (nonirrigated): 3c

Typical Profile:
 H1—0 to 9 inches; silt loam
 H2—9 to 37 inches; silty clay loam
 H3—37 to 60 inches; silt loam

Minor Components **Pleasant**

Rx—Richfield-Ulysses loams, 0 to 1 percent slopes

Map Unit Composition

Richfield: 75 percent
Ulysses: 25 percent

Component Descriptions

Richfield

MLRA: 77A - Southern High Plains, Northern Part

Landform: Plain on tableland

Parent material: Loess

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 11.4 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Upland (pe17-20)

Land capability (irrigated): 1

Land capability (nonirrigated): 3c

Typical Profile:

H1—0 to 15 inches; loam

H2—15 to 29 inches; clay loam

H3—29 to 60 inches; clay loam

Ulysses

MLRA: 77A - Southern High Plains, Northern Part

Landform: Plain on tableland

Parent material: Loess

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 11.9 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Loamy Upland (pe17-20)

Land capability (irrigated): 1

Land capability (nonirrigated): 3c

Typical Profile:

H1—0 to 6 inches; loam

H2—6 to 23 inches; silt loam

H3—23 to 60 inches; silt loam

Minor Components

Pleasant

Tf—Valent fine sand, 10 to 25 percent slopes

Map Unit Composition

Valent: 100 percent

Component Descriptions

Valent

MLRA: 77A - Southern High Plains, Northern Part

Landform: Dune on paleoterrace on river valley

Parent material: Sandy eolian deposits

Slope: 10 to 25 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Choppy Sands (pe17-20)

Land capability (irrigated): 6e

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 4 inches; fine sand

H2—4 to 41 inches; fine sand

Ua—Ulysses silt loam, 0 to 1 percent slopes

Map Unit Composition

Ulysses: 100 percent

Component Descriptions

Ulysses*MLRA: 72 - Central High Tableland**Landform: Plain on tableland**Parent material: Loess**Slope: 0 to 1 percent**Drainage class: Well drained**Slowest permeability: Moderate (About 0.60 in/hr)**Available water capacity: Moderate (About 8.8 inches)**Shrink-swell potential: Moderate (About 4.5 LEP)**Flooding hazard: None**Depth to seasonal water saturation: More than 6 feet**Runoff class: Negligible**Ecological site: Loamy Upland (pe17-20)**Land capability (irrigated): 1**Land capability (nonirrigated): 3c**Typical Profile:*

H1—0 to 6 inches; silt loam

H2—6 to 23 inches; silt loam

H3—23 to 43 inches; silt loam

Minor Components**Pleasant****Ub—Ulysses silt loam, 1 to 3 percent slopes****Map Unit Composition**

Ulysses: 100 percent

Component Descriptions**Ulysses***MLRA: 72 - Central High Tableland**Landform: Plain on tableland**Parent material: Loess**Slope: 1 to 3 percent**Drainage class: Well drained**Slowest permeability: Moderate (About 0.60 in/hr)**Available water capacity: Moderate (About 8.8 inches)**Shrink-swell potential: Moderate (About 4.5 LEP)**Flooding hazard: None**Depth to seasonal water saturation: More than 6 feet**Runoff class: Low**Ecological site: Loamy Upland (pe17-20)**Land capability (irrigated): 2e**Land capability (nonirrigated): 3e**Typical Profile:*

H1—0 to 6 inches; silt loam

H2—6 to 23 inches; silt loam

H3—23 to 43 inches; silt loam

Ue—Ulysses-Colby complex, 1 to 3 percent slopes, eroded**Map Unit Composition**

Ulysses: 65 percent

Colby: 35 percent

Component Descriptions**Ulysses***MLRA: 72 - Central High Tableland**Landform: Plain on tableland**Parent material: Loess**Slope: 1 to 3 percent**Drainage class: Well drained**Slowest permeability: Moderate (About 0.60 in/hr)**Available water capacity: High (About 11.9 inches)**Shrink-swell potential: Moderate (About 4.5 LEP)**Flooding hazard: None**Depth to seasonal water saturation: More than 6 feet**Runoff class: Low**Ecological site: Loamy Upland (pe17-20)**Land capability (irrigated): 3e**Land capability (nonirrigated): 3e**Typical Profile:*

H1—0 to 6 inches; loam

H2—6 to 20 inches; silt loam

H3—20 to 60 inches; silt loam

Colby*MLRA: 72 - Central High Tableland**Landform: Break on tableland**Parent material: Loess**Slope: 1 to 3 percent**Drainage class: Well drained**Slowest permeability: Moderate (About 0.60 in/hr)*

Available water capacity: Moderate (About 8.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Limy Upland (pe17-20)
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 4 inches; loam
 H2—4 to 40 inches; loam

Vo—Vona loamy fine sand, 1 to 5 percent slopes

Map Unit Composition

Vona: 100 percent

Component Descriptions

Vona
MLRA: 77A - Southern High Plains, Northern Part
Landform: Dune on paleoterrace
Parent material: Sandy eolian deposits
Slope: 1 to 5 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands (pe17-20)
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
 H1—0 to 19 inches; loamy fine sand
 H2—19 to 35 inches; fine sandy loam
 H3—35 to 48 inches; fine sandy loam
 H4—48 to 60 inches; loamy fine sand

Minor Components Unnamed Hydric Soils

Vx—Vona-Valent loamy fine sands, 3 to 20 percent slopes

Map Unit Composition

Vona: 60 percent
 Valent: 40 percent

Component Descriptions

Vona
MLRA: 77A - Southern High Plains, Northern Part
Landform: Dune on paleoterrace
Parent material: Sandy eolian deposits
Slope: 3 to 12 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands (pe17-20)
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 19 inches; loamy fine sand
 H2—19 to 35 inches; fine sandy loam
 H3—35 to 48 inches; fine sandy loam
 H4—48 to 60 inches; loamy fine sand

Valent
MLRA: 77A - Southern High Plains, Northern Part
Landform: Dune on paleoterrace on river valley
Parent material: Sandy eolian deposits
Slope: 5 to 20 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Choppy Sands (pe17-20)
Land capability (irrigated): 6e
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 4 inches; loamy fine sand

H2—4 to 60 inches; fine sand

Minor Components
Unnamed Hydric Soils

W—Water