

Ac—Aksarben silty clay loam, 0 to 2 percent slopes

Map Unit Composition

Aksarben: 90 percent
Minor components: 10 percent

Component Descriptions

Aksarben

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Divide on upland
Hillslope position: Summit
Parent material: Loess
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 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: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 1

Typical Profile:

Ap—0 to 9 inches; silty clay loam
A—9 to 13 inches; silty clay loam
BA—13 to 19 inches; silty clay loam
Bt—19 to 39 inches; silty clay loam
BC—39 to 47 inches; silty clay loam
C—47 to 80 inches; silt loam

Minor Components

Marshall

Composition: About 10 percent
Geomorphic Position: interfluvial upland
Slope: 2 to 5 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Ad—Aksarben silty clay loam, 2 to 5 percent slopes

Map Unit Composition

Aksarben: 87 percent
Minor components: 13 percent

Component Descriptions

Aksarben

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Interfluvial on upland
Parent material: Loess
Slope: 2 to 5 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.7 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
A—6 to 12 inches; silty clay loam
Bt1—12 to 18 inches; silty clay loam
Bt2—18 to 26 inches; silty clay loam
Bt3—26 to 34 inches; silty clay loam
Bt4—34 to 42 inches; silty clay loam
BC—42 to 60 inches; silty clay loam
C—60 to 80 inches; silt loam

Minor Components

Marshall

Composition: About 4 percent
Geomorphic Position: interfluvial on upland
Slope: 2 to 5 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Wymore

Composition: About 4 percent
Geomorphic Position: interfluvial on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Judson

Composition: About 2 percent
Geomorphic Position: fan remnant on upland
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Ae—Aksarben silty clay loam, 5 to 11 percent slopes

Slope: 5 to 9 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Map Unit Composition

Aksarben: 85 percent
 Minor components: 15 percent

Component Descriptions**Aksarben**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Loess
Slope: 5 to 11 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.7 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 A—6 to 12 inches; silty clay loam
 Bt1—12 to 18 inches; silty clay loam
 Bt2—18 to 26 inches; silty clay loam
 Bt3—26 to 34 inches; silty clay loam
 Bt4—34 to 42 inches; silty clay loam
 BC—42 to 60 inches; silty clay loam
 C—60 to 80 inches; silt loam

Minor Components**Judson**

Composition: About 3 percent
Geomorphic Position: fan remnant on upland
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Morrill

Composition: About 3 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Wymore

Composition: About 3 percent
Geomorphic Position: hillslope on upland

Marshall

Composition: About 3 percent
Slope: 5 to 11 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Bs—Burchard clay loam, 6 to 12 percent slopes**Map Unit Composition**

Burchard: 85 percent
 Minor components: 15 percent

Component Descriptions**Burchard**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Loamy till, unspecified
Slope: 6 to 12 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 9 inches; clay loam
 A—9 to 13 inches; clay loam
 Bt—13 to 19 inches; clay loam
 Btk—19 to 29 inches; clay loam
 Bck—29 to 37 inches; clay loam
 C—37 to 60 inches; clay loam

Minor Components**Pawnee**

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Steinauer

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Limy Upland (pe30-37)

**Bx—Burchard-Steinauer clay loams,
12 to 18 percent slopes****Map Unit Composition**

Burchard: 55 percent
 Steinauer: 40 percent
 Minor components: 5 percent

Component Descriptions**Burchard**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Loamy till, unspecified
Slope: 12 to 18 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 9 inches; clay loam
 Bt—9 to 19 inches; clay loam
 Btk—19 to 29 inches; clay loam
 BCk—29 to 37 inches; clay loam
 C—37 to 60 inches; clay loam

Steinauer

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Fine-loamy till, unspecified
Slope: 12 to 18 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Limy Upland (pe30-37)

Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 6 inches; clay loam
 AC—6 to 14 inches; clay loam
 C—14 to 80 inches; clay loam

Minor Components**Padonia**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 9 to 25 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

**Ch—Chase silty clay loam, 0 to 2
percent slopes, rarely flooded****Map Unit Composition**

Chase: 90 percent
 Minor components: 10 percent

Component Descriptions**Chase**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on river valley
Parent material: Silty and clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.9 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 BA—9 to 19 inches; silty clay loam
 Bt—19 to 41 inches; silty clay
 BC—41 to 47 inches; silty clay loam
 C—47 to 80 inches; silty clay loam

Minor Components**Kennebec**

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Muscotah

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Co—Contrary silty clay loam, 5 to 9 percent slopes**Map Unit Composition**

Contrary: 85 percent
 Minor components: 15 percent

Component Descriptions**Contrary**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Shoulder, backslope
Parent material: Loess
Slope: 5 to 9 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 Bw—6 to 32 inches; silty clay loam
 C—32 to 80 inches; silt loam

Minor Components**Morrill**

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 7 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Ga—Grundy silt loam, 0 to 2 percent slopes**Map Unit Composition**

Grundy: 90 percent
 Minor components: 10 percent

Component Descriptions**Grundy**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Divide on upland
Hillslope position: Shoulder, summit
Parent material: Loess
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.3 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 7 inches; silt loam
 A—7 to 14 inches; silty clay loam
 Bt—14 to 41 inches; silty clay
 BC—41 to 48 inches; silty clay loam
 C—48 to 80 inches; silty clay loam

Minor Components**Haig**

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Upland (pe30-37)

Ju—Judson silt loam, 2 to 6 percent slopes**Map Unit Composition**

Judson: 95 percent

Minor components: 5 percent

Component Descriptions

Judson

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Fan remnant on upland

Hillslope position: Footslope

Parent material: Loamy colluvium

Slope: 2 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 13.0 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: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 7 inches; silt loam

A—7 to 25 inches; silt loam

AB—25 to 40 inches; silty clay loam

Bw—40 to 50 inches; silty clay loam

BC—50 to 80 inches; silty clay loam

Minor Components

Kennebec

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Kd—Kennebec silt loam, channeled, frequently flooded

Map Unit Composition

Kennebec: 85 percent

Minor components: 15 percent

Component Descriptions

Kennebec

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on valley

Parent material: Silty alluvium

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 13.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Frequent

Ponding hazard: None

Depth to seasonal water saturation: About 39 to 55 inches

Runoff class: Low

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 5w

Typical Profile:

Ap—0 to 8 inches; silt loam

A1—8 to 18 inches; silt loam

A2—18 to 32 inches; silt loam

A3—32 to 41 inches; silt loam

AC—41 to 54 inches; silt loam

C—54 to 60 inches; silt loam

Minor Components

Nodaway

Composition: About 8 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Kenridge

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Muscotah

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Ecological site: Loamy Lowland (pe30-37)

Zook

Composition: About 1 percent

Slope: 0 to 2 percent

Drainage class: Poorly drained

Ecological site: Clay Lowland (pe30-37)

Ke—Kennebec silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Kennebec: 89 percent

Minor components: 11 percent

Component Descriptions

Kennebec

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on valley

Parent material: Silty alluvium

Slope: 0 to 2 percent

Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Ponding hazard: None
Depth to seasonal water saturation: About 39 to 55 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 8 inches; silt loam
 A1—8 to 18 inches; silt loam
 A2—18 to 32 inches; silt loam
 A3—32 to 41 inches; silt loam
 AC—41 to 54 inches; silt loam
 C—54 to 60 inches; silt loam

Minor Components

Muscotah

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Kenridge

Composition: About 4 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Zook

Composition: About 2 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Kp—Kipson-Sogn silty clay loams, 5 to 30 percent slopes

Map Unit Composition

Kipson: 60 percent
 Sogn: 30 percent
 Minor components: 10 percent

Component Descriptions

Kipson

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope, shoulder

Parent material: Silty residuum weathered from shale, calcareous
Slope: 5 to 30 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Limy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; silty clay loam
 C—8 to 19 inches; silty clay loam
 Cr—19 to 22 inches; weathered bedrock

Sogn

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Loamy residuum weathered from limestone, unspecified
Slope: 5 to 20 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Shallow Limy (pe30-37)
Land capability (nonirrigated): 6s

Typical Profile:

A—0 to 12 inches; silty clay loam
 R—12 to

Minor Components

Kennebec

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

M-W—Miscellaneous Water**Ma—Marshall silt loam, 2 to 5 percent slopes****Map Unit Composition**

Marshall: 97 percent
 Minor components: 3 percent

Component Descriptions**Marshall**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Upland, interfluve
Hillslope position: Summit, shoulder
Parent material: Loamy loess
Slope: 2 to 5 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 (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 10 inches; silt loam
 B—10 to 32 inches; silty clay loam
 C—32 to 80 inches; silt loam

Minor Components**Aksarben**

Composition: About 3 percent
Slope: 2 to 5 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Mb—Marshall silty clay loam, 5 to 11 percent slopes**Map Unit Composition**

Marshall: 82 percent
 Minor components: 18 percent

Component Descriptions**Marshall**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope, upland
Parent material: Loamy loess
Slope: 5 to 11 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.7 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 B—6 to 44 inches; silty clay loam
 C—44 to 80 inches; silt loam

Minor Components**Contrary**

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 9 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Morrill

Composition: About 5 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Judson

Composition: About 3 percent
Geomorphic Position: fan remnant on upland
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Md—Martin silty clay loam, 1 to 4 percent slopes**Map Unit Composition**

Martin: 85 percent
Minor components: 15 percent

Component Descriptions**Martin**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Footslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
BA—6 to 12 inches; silty clay loam
Bt—12 to 53 inches; silty clay
C—53 to 80 inches; silty clay

Minor Components**Chase**

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Mf—Martin silty clay loam, 4 to 9 percent slopes**Map Unit Composition**

Martin: 90 percent
Minor components: 10 percent

Component Descriptions**Martin**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Footslope, backslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 4 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
BA—6 to 12 inches; silty clay loam
Bt—12 to 53 inches; silty clay
C—53 to 80 inches; silty clay

Minor Components**Padonia**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Vinland

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Savannah (pe30-37)

Mh—Mayberry clay loam, 2 to 6 percent slopes

Map Unit Composition

Mayberry: 85 percent
Minor components: 15 percent

Component Descriptions

Mayberry

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Till, unspecified
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 10 inches; clay loam
Bt—10 to 42 inches; clay
C—42 to 80 inches; clay loam

Minor Components

Morrill

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Wymore

Composition: About 7 percent
Geomorphic Position: interfluvium on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Mk—Monona silt loam, 2 to 5 percent slopes

Map Unit Composition

Monona: 90 percent

Minor components: 10 percent

Component Descriptions

Monona

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Interfluvium on upland
Hillslope position: Shoulder, summit
Parent material: Loess
Slope: 2 to 5 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.6 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 (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 11 inches; silt loam
Bw—11 to 30 inches; silt loam
C—30 to 80 inches; silt loam

Minor Components

Pohocco

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 17 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Mn—Monona silt loam, 5 to 11 percent slopes, moderately eroded

Map Unit Composition

Monona: 82 percent
Minor components: 18 percent

Component Descriptions

Monona

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope, shoulder
Parent material: Loess
Slope: 5 to 11 percent
Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 6 inches; silt loam
 Bw—6 to 30 inches; silt loam
 C—30 to 80 inches; silt loam

Minor Components

Netawaka

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 10 to 15 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Pohocco

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 8 to 17 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Mt—Morrill loam, 6 to 12 percent slopes

Map Unit Composition

Morrill: 87 percent
 Minor components: 13 percent

Component Descriptions

Morrill

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Glacial drift
Slope: 6 to 12 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None
Ponding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 6 inches; loam
 BA—6 to 12 inches; loam
 Bt—12 to 43 inches; sandy clay loam, loam
 BC—43 to 52 inches; fine sandy loam
 C—52 to 80 inches; sand, loamy fine sand, fine sandy loam

Minor Components

Kennebec

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Olmitz

Composition: About 3 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Mw—Muscotah silt loam, 0 to 2 percent slopes, occasionally flooded, overwash

Map Unit Composition

Muscotah: 87 percent
 Minor components: 13 percent

Component Descriptions

Muscotah

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained

Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: High (About 11.2 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 9 inches; silt loam
 C—9 to 16 inches; stratified silt loam to silty clay loam
 Ab—16 to 30 inches; silty clay loam
 Bwb—30 to 39 inches; silty clay
 Bgb1—39 to 61 inches; silty clay
 Bgb2—61 to 70 inches; silty clay
 Bgb3—70 to 80 inches; silty clay

Minor Components

Zook

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Kennebec

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Chase

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

My—Muscotah silty clay loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Muscotah: 87 percent
 Minor components: 13 percent

Component Descriptions

Muscotah

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained

Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 21 to 26 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 A1—9 to 16 inches; silty clay loam
 A2—16 to 23 inches; silty clay loam
 Bw1—23 to 35 inches; silty clay loam
 Bw2—35 to 44 inches; silty clay
 Bw3—44 to 60 inches; silty clay
 Bw4—60 to 70 inches; silty clay
 Bg—70 to 80 inches; silty clay

Minor Components

Kennebec

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Wabash

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Chase

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

No—Nodaway silt loam, 0 to 2 percent slopes, occasionally flooded

Map Unit Composition

Nodaway: 90 percent
 Minor components: 10 percent

Component Descriptions

Nodaway

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley

Parent material: Silty alluvium
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 33 to 38 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

Ap—0 to 7 inches; silt loam
 C1—7 to 14 inches; stratified silt loam to silty clay loam
 C2—14 to 45 inches; stratified silt loam to silty clay loam
 C3—45 to 60 inches; stratified silt loam to silty clay loam

Minor Components

Chase

Composition: About 4 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Zook

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Om—Olmitz loam, 2 to 5 percent slopes

Map Unit Composition

Olmitz: 93 percent
 Minor components: 7 percent

Component Descriptions

Olmitz

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Fan terrace on upland
Hillslope position: Footslope

Parent material: Fine-loamy alluvium
Slope: 2 to 5 percent
Drainage class: Moderately 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: About 40 to 44 inches
Runoff class: Low
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

Ap—0 to 7 inches; loam
 A—7 to 20 inches; loam
 Bw—20 to 42 inches; clay loam
 BC—42 to 80 inches; clay loam

Minor Components

Chase

Composition: About 4 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Pawnee

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Or—Orthents, Earthen Dam

Pd—Padonia-Martin silty clay loams, 5 to 9 percent slopes

Map Unit Composition

Padonia: 50 percent
 Martin: 40 percent
 Minor components: 10 percent

Component Descriptions

Padonia

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland

Hillslope position: Backslope
Parent material: Residuum weathered from shale, calcareous
Slope: 5 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 11 inches; silty clay loam
 Bt—11 to 22 inches; silty clay
 Btk—22 to 32 inches; silty clay
 BCk—32 to 37 inches; silty clay loam
 Cr—37 to 40 inches; weathered bedrock

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Footslope, backslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 4 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 BA—6 to 12 inches; silty clay loam
 Bt—12 to 53 inches; silty clay
 C—53 to 80 inches; silty clay

Minor Components

Kipson

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 30 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-37)

Pe—Padonia-Martin silty clay loams, 9 to 25 percent slopes

Map Unit Composition

Padonia: 60 percent
 Martin: 30 percent
 Minor components: 10 percent

Component Descriptions

Padonia

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Hillslope position: Footslope, backslope
Parent material: Residuum weathered from shale, calcareous
Slope: 9 to 25 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 11 inches; silty clay loam
 Bt—11 to 22 inches; silty clay
 Btk—22 to 32 inches; silty clay
 BC—32 to 37 inches; silty clay loam
 Cr—37 to 41 inches; weathered bedrock

Martin

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Hillslope position: Backslope, footslope
Parent material: Silty and clayey colluvium derived from limestone-shale over silty and clayey residuum weathered from limestone-shale
Slope: 4 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None
Depth to seasonal water saturation: About 22 to 26 inches
Runoff class: Very high
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 6 inches; silty clay loam
 BA—6 to 12 inches; silty clay loam
 Bt—12 to 53 inches; silty clay
 C—53 to 80 inches; silty clay

Minor Components

Kipson

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 30 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-37)

Pf—Padonia-Oska silty clay loams, 5 to 9 percent slopes

Map Unit Composition

Padonia: 55 percent
 Oska: 40 percent
 Minor components: 5 percent

Component Descriptions

Padonia

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Shoulder
Parent material: Residuum weathered from shale, calcareous
Slope: 5 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

A—0 to 11 inches; silty clay loam

Bt—11 to 22 inches; silty clay
 Btk—22 to 32 inches; silty clay
 BCk—32 to 37 inches; silty clay loam
 Cr—37 to 41 inches; weathered bedrock

Oska

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Hillslope position: Backslope

Parent material: Silty and clayey residuum weathered from limestone-shale

Slope: 5 to 9 percent

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

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 5.8 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 5 inches; silty clay loam
 BA—5 to 11 inches; silty clay loam
 Bt—11 to 35 inches; silty clay
 R—35 to unweathered bedrock

Minor Components

Kipson

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 30 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-37)

Pm—Pawnee clay loam, 2 to 6 percent slopes

Map Unit Composition

Pawnee: 85 percent
 Minor components: 15 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland
Hillslope position: Shoulder, summit
Parent material: Till, unspecified
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 7 inches; clay loam
 BA—7 to 12 inches; clay loam
 Bt—12 to 48 inches; clay
 C—48 to 80 inches; clay loam

Minor Components

Morrill

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Shelby

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Pn—Pawnee clay loam, 6 to 12 percent slopes

Map Unit Composition

Pawnee: 83 percent
 Minor components: 17 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Shoulder, summit
Parent material: Till, unspecified
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.4 inches)

Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 7 inches; clay loam
 BA—7 to 12 inches; clay loam
 Bt—12 to 48 inches; clay
 C—48 to 80 inches; clay loam

Minor Components

Morrill

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 6 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 3 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Po—Pawnee clay, 6 to 12 percent slopes, moderately eroded

Map Unit Composition

Pawnee: 84 percent
 Minor components: 16 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Till, unspecified
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 6.6 inches)
Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 5 inches; clay
 Bt—5 to 45 inches; clay
 C—45 to 80 inches; clay loam

Minor Components

Mayberry

Composition: About 7 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 6 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 3 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Pt—Pits, Quarries

General Considerations: Pits are open excavations from which soil and commonly underlying material have been removed, exposing either rock or other material. Kinds include Pits, mine; Pits, gravel; and Pits, quarry. Commonly, pits are closely associated with Dumps.

Pw—Pohocco-Netawaka silt loams, 11 to 17 percent slopes

Map Unit Composition

Pohocco: 50 percent
 Netawaka: 40 percent
 Minor components: 10 percent

Component Descriptions

Pohocco

MLRA: 107 - Iowa and Missouri Deep Loess Hills

Landform: Hillslope on upland
Hillslope position: Shoulder
Parent material: Fine-silty loess
Slope: 11 to 17 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 5 inches; silt loam
 Bw—5 to 39 inches; silt loam
 C—39 to 80 inches; silt loam

Netawaka

MLRA: 107 - Iowa and Missouri Deep Loess Hills

Landform: Hillslope, upland
Hillslope position: Backslope
Parent material: Fine-silty loess
Slope: 11 to 17 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.5 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 (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 6 inches; silt loam
 AC—6 to 9 inches; silt loam
 C—9 to 80 inches; silt loam

Minor Components

Judson

Composition: About 10 percent
Geomorphic Position: fan remnant on upland
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Px—Pohocco-Netawaka silt loams, 17 to 30 percent slopes

Map Unit Composition

Pohocco: 50 percent
Netawaka: 40 percent
Minor components: 10 percent

Component Descriptions

Pohocco

MLRA: 107 - Iowa and Missouri Deep Loess Hills
Landform: Hillslope on upland
Hillslope position: Shoulder
Parent material: Fine-silty loess
Slope: 17 to 30 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 5 inches; silt loam
Bw—5 to 39 inches; silt loam
C—39 to 80 inches; silt loam

Netawaka

MLRA: 107 - Iowa and Missouri Deep Loess Hills
Landform: Hillslope on upland
Hillslope position: Shoulder, backslope
Parent material: Fine-silty loess
Slope: 17 to 30 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 6 inches; silt loam
AC—6 to 9 inches; silt loam
C—9 to 80 inches; silt loam

Minor Components

Judson

Composition: About 10 percent
Geomorphic Position: fan remnant on upland
Slope: 2 to 6 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Re—Reading silt loam, 0 to 2 percent slopes, moderately Wet, rarely flooded

Map Unit Composition

Reading: 90 percent
Minor components: 10 percent

Component Descriptions

Reading

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Silty alluvium
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: About 40 to 44 inches
Runoff class: Medium
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 1

Typical Profile:

A—0 to 18 inches; silt loam
Bt—18 to 48 inches; silty clay loam
BC—48 to 54 inches; silty clay loam
C—54 to 80 inches; silty clay loam

Minor Components

Zook

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Chase

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained

Ecological site: Loamy Lowland (pe30-37)

Sg—Shelby clay loam, 6 to 12 percent slopes

Map Unit Composition

Shelby: 88 percent
Minor components: 12 percent

Component Descriptions

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope, upland
Hillslope position: Backslope, shoulder
Parent material: Till, unspecified
Slope: 6 to 12 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 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: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

A—0 to 13 inches; clay loam
Bt—13 to 36 inches; clay loam
BC—36 to 48 inches; clay loam
C—48 to 80 inches; clay loam

Minor Components

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 4 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 3 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Sm—Shelby clay loam, 12 to 18 percent slopes, moderately eroded

Map Unit Composition

Shelby: 85 percent
Minor components: 15 percent

Component Descriptions

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope, shoulder
Parent material: Till, unspecified
Slope: 12 to 18 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 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: High
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 8 inches; clay loam
Bt—8 to 45 inches; clay loam
C—45 to 80 inches; clay loam

Minor Components

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Padonia

Composition: About 4 percent
Geomorphic Position: hillslope on upland
Slope: 9 to 25 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent

Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Olmitz

Composition: About 3 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

W—Water**Wa—Wabash silty clay, 0 to 2 percent slopes, occasionally flooded****Map Unit Composition**

Wabash: 85 percent
 Minor components: 15 percent

Component Descriptions**Wabash**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Clayey alluvium
Slope: 0 to 2 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 6.4 inches)
Shrink-swell potential: Very high (About 17.0 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 2 to 9 inches
Runoff class: High
Ecological site: Clay Lowland (pe30-37)
Land capability (nonirrigated): 3w

Typical Profile:

A—0 to 15 inches; silty clay
 Bg—15 to 80 inches; silty clay

Minor Components**Muscotah**

Composition: About 12 percent
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

We—Wamego silty clay loam, 3 to 7 percent slopes**Map Unit Composition**

Wamego: 90 percent
 Minor components: 10 percent

Component Descriptions**Wamego**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 Bt—9 to 20 inches; silty clay loam
 BC—20 to 25 inches; silty clay loam
 Cr—25 to 36 inches; weathered bedrock

Minor Components**Olmitz**

Composition: About 5 percent
Geomorphic Position: fan terrace on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Wg—Wamego-Vinland silty clay loams, 3 to 15 percent slopes

Map Unit Composition

Wamego: 50 percent
 Vinland: 40 percent
 Minor components: 10 percent

Component Descriptions

Wamego

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 3 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 4.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

Ap—0 to 9 inches; silty clay loam
 Bt—9 to 20 inches; silty clay loam
 BC—20 to 25 inches; silty clay loam
 Cr—25 to 36 inches; weathered bedrock

Vinland

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Sandy and silty residuum weathered from shale, unspecified
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Shallow Savannah (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

A—0 to 8 inches; silty clay loam

Bw—8 to 12 inches; silty clay loam
 C—12 to 19 inches; channery silty clay loam
 Cr—19 to 23 inches; weathered bedrock

Minor Components

Pawnee

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 6 to 12 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Wm—Wymore silty clay loam, 2 to 5 percent slopes

Map Unit Composition

Wymore: 90 percent
 Minor components: 10 percent

Component Descriptions

Wymore

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Interfluvium on upland
Hillslope position: Shoulder
Parent material: Loess
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: High
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 7 inches; silty clay loam
 BA—7 to 12 inches; silty clay
 Bt1—12 to 22 inches; silty clay
 Bt2—22 to 39 inches; silty clay
 BC—39 to 47 inches; silty clay loam
 C—47 to 80 inches; silty clay loam

Minor Components

Pawnee

Composition: About 10 percent
Geomorphic Position: hillslope on upland
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Wn—Wymore silty clay loam, 5 to 9 percent slopes

Map Unit Composition

Wymore: 82 percent

Minor components: 18 percent

Component Descriptions

Wymore

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Hillslope position: Backslope

Parent material: Loess

Slope: 5 to 9 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 9 to 14 inches

Runoff class: Very high

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

Ap—0 to 10 inches; silty clay loam

Bt1—10 to 18 inches; silty clay

Bt2—18 to 32 inches; silty clay

BC—32 to 43 inches; silty clay loam

C—43 to 80 inches; silty clay loam

Minor Components

Pawnee

Composition: About 8 percent

Geomorphic Position: hillslope on upland

Slope: 6 to 9 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Mayberry

Composition: About 7 percent

Geomorphic Position: hillslope on upland

Slope: 2 to 6 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Kennebec

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

