

Nontechnical Soil Descriptions
Morris County, Kansas

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

017IN Irwin Silty Clay Loam, 1 To 3 Percent Slopes, Eroded

Irwin, eroded, soil makes up 95 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from clayey shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

017IS Irwin Silty Clay Loam, 3 To 5 Percent Slopes, Eroded

Irwin, eroded, soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from clayey shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

017RA Reading Silt Loam, 0 To 1 Percent Slopes, Rarely Flooded

Reading soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level terrace on river valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

017TU Tully Cherty Silty Clay Loam, 5 To 15 Percent Slopes

Tully soil makes up 70 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

041HA Hobbs Silt Loam, Occasionally Flooded

Hobbs soil makes up 93 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on alluvial plain. The runoff class is low. The parent material consists of fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Lowland (pe25-34) range site. It is in the nonirrigated land capability classification 2w.

041HB Hobbs Silt Loam, Channeled

Hobbs soil makes up 89 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on meander belt. The runoff class is low. The parent material consists of fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Lowland (pe25-34) range site. It is in the nonirrigated land capability classification 5w.

061BE Benfield-Florence Complex, 5 To 30 Percent Slopes

Benfield soil makes up 42 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to steep backslope hillslope on upland. The runoff class is very high. The parent material consists of clayey pedisidiment derived from limestone and shale over clayey residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

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Florence soil makes up 28 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslope hillslope on upland. The runoff class is high. The parent material consists of gravelly residuum weathered from cherty limestone. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

061CF Clime-Sogn Silty Clay Loams, 5 To 20 Percent Slopes

Clime soil makes up 60 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from shale, calcareous. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 35 percent calcium carbonate. This soil is in the Limy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Sogn soil makes up 20 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately steep upland, hillslope. The runoff class is medium. The parent material consists of loamy residuum weathered from limestone, unspecified. The soil is 4 to 20 inches deep to bedrock (lithic). This soil is somewhat excessively drained. The slowest permeability is moderate. It has a very low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Shallow Limy (pe30-36) range site. It is in the nonirrigated land capability classification 6s.

061ID Irwin Silty Clay Loam, 3 To 7 Percent Slopes

Irwin soil makes up 85 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a moderately sloping backslope hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey alluvium over clayey residuum weathered from limestone and shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is slightly sodic. This soil is in the Clay Upland (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

061KB Kahola Silt Loam, Occasionally Flooded

Kahola soil makes up 75 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2w.

061KO Konza Silty Clay Loam, 1 To 3 Percent Slopes

Konza soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping shoulder, summit ridge on upland. The runoff class is very high. The parent material consists of silty and clayey loess over silty and clayey pedimentation over clayey residuum weathered from limestone and shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is moderately sodic. This soil is in the Clay Pan (pe30-36) range site. It is in the nonirrigated land capability classification 3e.

061RA Reading Silt Loam, 0 To 1 Percent Slopes

Reading soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level flood plain on valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

061TN Tully Silty Clay Loam, 1 To 4 Percent Slopes

Tully soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping footslope hillslope on upland. The runoff class is high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 2e.

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111RA Reading Silt Loam, 0 To 2 Percent Slopes, Rarely Flooded

Reading soil makes up 100 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terrace on valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

115CS Clime-Sogn Silty Clay Loams, 3 To 20 Percent Slopes

Clime soil makes up 65 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Limy Upland (pe25-34) range site. It is in the nonirrigated land capability classification 6e.

Sogn soil makes up 20 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is medium. The parent material consists of loamy residuum weathered from limestone. The soil is 4 to 20 inches deep to bedrock (lithic). This soil is somewhat excessively drained. The slowest permeability is moderate. It has a very low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow Limy (pe25-34) range site. It is in the nonirrigated land capability classification 6s.

115LA Labette Silty Clay Loam, 1 To 4 Percent Slopes

Labette soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping hillslope on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe25-34) range site. It is in the nonirrigated land capability classification 2e.

197CE Chase Silty Clay Loam, Rarely Flooded

Chase soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level stream terrace on river valley. The runoff class is high. The parent material consists of silty and clayey alluvium. This soil is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 24 inches. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2w.

197FL Florence-Labette Complex, 3 To 15 Percent Slopes

Florence soil makes up 40 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslope hillslope on upland. The runoff class is high. The parent material consists of clayey residuum weathered from cherty limestone. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Labette soil makes up 30 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping shoulder ridge on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

197IX Ivan Silty Clay Loam, Channeled

Ivan soil makes up 80 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of calcareous fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 5w.

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197RE Reading Silty Clay Loam, 0 To 2 Percent Slopes, Rarely Flooded

Reading soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terrace on valley. The runoff class is medium. The parent material consists of fine-silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

Ar Ivan Silt Loam, Channeled

Ivan, channeled, soil makes up 75 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 5w.

Ch Chase Silty Clay Loam, Occasionally Flooded

Chase soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level stream terrace on river valley. The runoff class is high. The parent material consists of silty and clayey alluvium. This soil is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 36 inches. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2w.

Cs Clime-Sogn Complex, 5 To 20 Percent Slopes

Clime soil makes up 45 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Limy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Sogn soil makes up 20 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is medium. The parent material consists of loamy residuum weathered from limestone. The soil is 4 to 20 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow Limy (pe30-36) range site. It is in the nonirrigated land capability classification 7s.

Dh Dwight Silt Loam, 1 To 3 Percent Slopes

Dwight soil makes up 85 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from cherty limestone. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil contains a slightly saline horizon. This soil is in the Clay Pan (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

Fc Florence Cherty Silt Loam, 5 To 15 Percent Slopes

Florence soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is high. The parent material consists of clayey residuum weathered from cherty limestone and/or clayey residuum weathered from clayey shale. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Fe Florence-Labette Complex, 2 To 12 Percent Slopes

Labette soil makes up 23 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to strongly sloping hillslope on upland. The runoff class is medium. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

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Florence soil makes up 20 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to strongly sloping hillslope on upland. The runoff class is very high. The parent material consists of clayey residuum weathered from cherty limestone and/or clayey residuum weathered from clayey shale. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Ic Irwin Silty Clay Loam, 0 To 1 Percent Slopes

Irwin soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is high. The parent material consists of clayey residuum weathered from shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 2s.

Id Irwin Silty Clay Loam, 1 To 3 Percent Slopes

Irwin soil makes up 85 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 3e.

Ie Irwin Silty Clay Loam, 3 To 5 Percent Slopes

Irwin soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 4e.

In Irwin Soils, 1 To 3 Percent Slopes, Eroded

Irwin, eroded, soil makes up 85 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 4e.

Io Irwin Soils, 3 To 5 Percent Slopes, Eroded

Irwin, eroded, soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 4e.

Iv Ivan And Kennebec Silt Loams, Occasionally Flooded

Ivan soil makes up 50 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level flood plain on valley. The runoff class is negligible. The parent material consists of calcareous fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2w.

Kennebec soil makes up 40 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on river valley. The runoff class is low. The parent material consists of silty alluvium. This soil is moderately well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil is in the Loamy Lowland (pe30-37) range site. It is in the nonirrigated land capability classification 5w.

IVV Ivan Silt Loam, Occasionally Flooded

Ivan soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of calcareous fine-silty alluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2w.

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Ks Kipson-Sogn Complex, 3 To 15 Percent Slopes

Kipson soil makes up 40 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is medium. The parent material consists of calcareous loamy residuum weathered from shale. The soil is 7 to 20 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is moderate. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 60 percent calcium carbonate. This soil is in the Limy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Sogn soil makes up 20 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is medium. The parent material consists of loamy residuum weathered from limestone. The soil is 4 to 20 inches deep to bedrock (lithic). This soil is somewhat excessively drained. The slowest permeability is moderate. It has a very low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow Limy (pe30-36) range site. It is in the nonirrigated land capability classification 7s.

Lb Labette Silty Clay Loam, 2 To 5 Percent Slopes

Labette soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping hillslope on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 3e.

Ld Labette-Dwight Complex, 1 To 3 Percent Slopes

Labette soil makes up 55 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 3e.

Dwight soil makes up 40 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very high. The parent material consists of silty and clayey residuum weathered from cherty limestone. The soil is 40 to 60 inches deep to bedrock (lithic). This soil is moderately well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil contains a slightly saline horizon. This soil is in the Clay Pan (pe30-36) range site. It is in the nonirrigated land capability classification 4e.

Le Labette-Sogn Complex, 2 To 8 Percent Slopes

Labette soil makes up 70 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to strongly sloping hillslope on upland. The runoff class is high. The parent material consists of silty and clayey residuum weathered from limestone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Sogn soil makes up 20 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping to strongly sloping hillslope on upland. The runoff class is medium. The parent material consists of loamy residuum weathered from limestone. The soil is 4 to 20 inches deep to bedrock (lithic). This soil is somewhat excessively drained. The slowest permeability is moderate. It has a very low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow Limy (pe30-36) range site. It is in the nonirrigated land capability classification 7s.

Ls Ladysmith Silty Clay Loam, 0 To 2 Percent Slopes

Ladysmith soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a nearly level to gently sloping paleoterrace on upland. The runoff class is high. The parent material consists of clayey alluvium. This soil is somewhat poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 3s.

Lt Ladysmith Silty Clay Loam, 1 To 2 Percent Slopes, Eroded

Ladysmith, eroded, soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on upland. The runoff class is very high. The parent material consists of clayey alluvium. This soil is somewhat poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Clay Upland (pe25-34) range site. It is in the nonirrigated land capability classification 4e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Morris County, Kansas

Mr Mason And Reading Silt Loams, 0 To 1 Percent Slopes, Rarely Flooded

Mason soil makes up 60 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

Reading soil makes up 35 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level stream terrace on valley. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 1.

Os Osage Silty Clay, Occasionally Flooded

Osage soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is high. The parent material consists of clayey alluvium. This soil is poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a very high shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 6 inches. This soil is in the Clay Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 3w.

Rd Reading Silt Loam, 1 To 3 Percent Slopes, Rarely Flooded

Reading soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a gently sloping stream terrace on valley. The runoff class is medium. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Lowland (pe30-36) range site. It is in the nonirrigated land capability classification 2e.

Sm Smolan Silt Loam, 1 To 3 Percent Slopes

Smolan soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on upland. The runoff class is high. The parent material consists of silty and clayey loess. This soil is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe25-34) range site. It is in the nonirrigated land capability classification 2e.

Sn Smolan Silty Clay Loam, 2 To 6 Percent Slopes, Eroded

Smolan, eroded, soil makes up 90 percent of the map unit. This map unit is in the Central Loess Plains Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping paleoterrace on upland. The runoff class is high. The parent material consists of silty and clayey loess. This soil is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe25-34) range site. It is in the nonirrigated land capability classification 3e.

Ts Tully Silty Clay Loam, 3 To 7 Percent Slopes

Tully soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Tt Tully Silty Clay Loam, 3 To 7 Percent Slopes, Eroded

Tully, eroded, soil makes up 90 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Ty Tully Soils, 5 To 15 Percent Slopes

Tully, cherty, soil makes up 45 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

Nontechnical Soil Descriptions--Continued
Morris County, Kansas

Tully soil makes up 45 percent of the map unit. This map unit is in the Bluestem Hills Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is very high. The parent material consists of clayey colluvium. This soil is well drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Loamy Upland (pe30-36) range site. It is in the nonirrigated land capability classification 6e.

