

Nontechnical Soil Descriptions  
Harper 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.

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007AE Albion And Shellabarger Soils, 4 To 15 Percent Slopes

Albion soil makes up 55 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low 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 Sandy (pe20-25) range site. It is in the nonirrigated land capability classification 6e.

Shellabarger soil makes up 45 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 Sandy (pe20-25) range site. It is in the nonirrigated land capability classification 6e.

007AS Clairemont Soils, Saline, Channeled

Clairemont soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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. This soil contains a moderately saline horizon. This soil is in the Saline Lowland (pe20-25) range site. It is in the nonirrigated land capability classification 6s.

007FU Farnum Clay Loam, 1 To 3 Percent Slopes, Eroded

Farnum soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on river valley. The runoff class is low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

007KA Kanza Soils, Frequently Flooded

Kanza soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 18 inches. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

095AD Albion Sandy Loam, 6 To 15 Percent Slopes

Albion soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep paleoterrace on river valley. The runoff class is medium. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

095DA Dillwyn-Plevna Complex, Occasionally Flooded

Dillwyn soil makes up 60 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level dune on paleoterrace on river valley, interdune on paleoterrace on river valley. The runoff class is negligible. The parent material consists of sandy eolian deposits. This soil is somewhat poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 4w.

Plevna soil makes up 40 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 12 inches. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

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095LA Lincoln Loamy Sand, Occasionally Flooded

Lincoln soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 66 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sandy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 6w.

095NB Nashville-Quinlan Complex, 5 To 15 Percent Slopes

Nashville soil makes up 60 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on upland. The runoff class is high. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Quinlan soil makes up 40 percent of the map unit. This map unit is in the Central Rolling Red Prairies 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 residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

095SA Shellabarger Loamy Sand, 0 To 3 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level to gently sloping paleoterrace on river valley. The runoff class is very low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

095SC Shellabarger Sandy Loam, 3 To 6 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

095SD Shellabarger Sandy Loam, 3 To 6 Percent Slopes, Eroded

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

095ZA Zenda Clay Loam, Occasionally Flooded

Zenda soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level dune on paleoterrace on river valley. The runoff class is very low. The parent material consists of sandy eolian deposits. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a moderate 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 contains a very slightly saline horizon. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

191EA Elandco Silty Clay Loam, Rarely Flooded

Elandco soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

191EC Elandco Silt Loam, Frequently Flooded

Elandco soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a 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. This soil is in the Loamy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

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191LS Lincoln Soils, Frequently Flooded

Lincoln soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 66 inches. This soil is in the Sandy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 6w.

191OP Wellsford-Elandco Complex, 0 To 25 Percent Slopes

Wellsford soil makes up 65 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to steep hillslope on upland. The runoff class is very high. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a very 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 Red Clay Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

Elandco soil makes up 35 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a 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. This soil is in the Loamy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

191PD Pond Creek Silty Clay Loam, 2 To 6 Percent Slopes, Eroded

Pond Creek soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping terrace. The runoff class is medium. The parent material consists of 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 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

191RA Renfrow-Grainola Complex, 1 To 3 Percent Slopes

Renfrow soil makes up 70 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Grainola soil makes up 30 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. 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. This soil is in the Clay Upland (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

191TA Tabler Silty Clay Loam, 0 To 1 Percent Slopes

Tabler soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level paleoterrace on river valley. The runoff class is negligible. The parent material consists of clayey alluvium. This soil is moderately well drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. This soil is in the Clay Upland (pe24-32) range site. It is in the nonirrigated land capability classification 2s.

191US Ustifluvents, Channeled

Ustifluvents soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to steep flood plain. The runoff class is very high. The parent material consists of alluvium. This soil is . It has a very low available water capacity and a low 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. It is in the nonirrigated land capability classification .

1439 Crisfield Sandy Loam, Rarely Flooded

Crisfield soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping terrace on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is moderately well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 40 inches. This soil is in the Sandy Terrace (pe24-32) range site. It is in the nonirrigated land capability classification 3s.

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An Kaski Loam, Frequently Flooded

Kaski soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on river valley. The runoff class is very low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a 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. This soil is in the Loamy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

At Attica Fine Sandy Loam, 1 To 3 Percent Slopes

Attica soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a gently sloping dune on paleoterrace on river valley. The runoff class is very low. The parent material consists of eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Be Bethany Silt Loam, 0 To 1 Percent Slopes

Bethany soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level paleoterrace on upland. The runoff class is very low. The parent material consists of alluvium and/or loess over shale. 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. This soil is in the Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Bh Bethany Silt Loam, 1 To 3 Percent Slopes

Bethany soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on upland. The runoff class is low. The parent material consists of alluvium and/or loess over shale. 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. This soil is in the Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Bm Lincoln Loamy Fine Sand, Occasionally Flooded

Lincoln soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 66 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sands (pe24-32) range site. It is in the nonirrigated land capability classification 4s.

Bo Gerlane Variant Loamy Fine Sand, Occasionally Flooded

Gerlane soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat excessively drained. The slowest permeability is slow. It has a low 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 60 inches. This soil contains a very slightly saline horizon. This soil is in the Sands (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

Bp Woodward-Port Complex, 0 To 20 Percent Slopes

Woodward soil makes up 65 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately steep hillslope on upland. The runoff class is high. The parent material consists of residuum. The soil is 20 to 40 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 low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

Port soil makes up 35 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping terrace on river valley. The runoff class is low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a 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. This soil is in the Loamy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

Br Fluvents, Frequently Flooded

Broken Alluvial Land soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to steep flood plain on river valley. The runoff class is high. The parent material consists of 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. It is in the nonirrigated land capability classification 6w.

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Ca Carwile Fine Sandy Loam, 0 To 1 Percent Slopes

Carwile soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level depression on paleoterrace on river valley. The runoff class is negligible. The parent material consists of 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 not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil is in the Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

Cc Case-Clark Complex, 2 To 6 Percent Slopes

Case soil makes up 70 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 25 percent calcium carbonate. This soil is in the Limy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Clark soil makes up 30 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 45 percent calcium carbonate. This soil is in the Limy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Ce Corbin Silt Loam, 0 To 1 Percent Slopes

Corbin soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of alluvium. 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. This soil is in the Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Cf Corbin Silt Loam, 1 To 3 Percent Slopes

Corbin soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of alluvium. 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. This soil is in the Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Fa Farnum Clay Loam, 3 To 6 Percent Slopes, Eroded

Farnum soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is medium. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Fm Farnum Loam, 0 To 1 Percent Slopes

Farnum soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level paleoterrace on river valley. The runoff class is very low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 Loamy Upland (pe24-32) range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Fn Farnum Loam, 1 To 3 Percent Slopes

Farnum soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on river valley. The runoff class is low. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 Loamy Upland (pe24-32) range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Fu Farnum Loam, 3 To 6 Percent Slopes

Farnum soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is medium. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high 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 Loamy Upland (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

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Ge Gerlane Fine Sandy Loam, Occasionally Flooded

Gerlane soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace. The runoff class is very low. The parent material consists of alluvium. This soil is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Gn Grant Silt Loam, 0 To 1 Percent Slopes

Grant soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace on upland. The runoff class is very low. The parent material consists of residuum. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Gr Grant Silt Loam, 1 To 3 Percent Slopes

Grant soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping terrace on upland. The runoff class is low. The parent material consists of residuum. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Gs Grant Silt Loam, 3 To 6 Percent Slopes

Grant soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping terrace on upland. The runoff class is medium. The parent material consists of residuum. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

INT Aquolls

Aquolls soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level depression on terrace on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is very poorly drained. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 5w.

Ka Kanza Loamy Fine Sand, Frequently Flooded

Kanza soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 18 inches. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

Kk Kaski Loam, Occasionally Flooded

Kaski soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

Km Kirkland Silt Loam, 0 To 1 Percent Slopes

Kirkland soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2s.

Kr Kirkland-Renfrow Clay Loams, 1 To 3 Percent Slopes

Kirkland soil makes up 70 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Nontechnical Soil Descriptions--Continued  
Harper County, Kansas

Renfrow soil makes up 30 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Kw Kirkland-Renfrow Soils, 1 To 3 Percent Slopes, Eroded

Kirkland soil makes up 70 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Renfrow soil makes up 30 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Mc Minco Silt Loam, 0 To 1 Percent Slopes

Minco soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of eolian deposits. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Mn Minco Silt Loam, 1 To 3 Percent Slopes

Minco soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is very low. The parent material consists of eolian deposits. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Mo Minco Silt Loam, 3 To 6 Percent Slopes

Minco soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of eolian deposits. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Na Nashville Silt Loam, 0 To 1 Percent Slopes

Nashville soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2s.

Ne Nashville Silt Loam, 1 To 3 Percent Slopes

Nashville soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Nh Nashville Silt Loam, 3 To 6 Percent Slopes

Nashville soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Nontechnical Soil Descriptions--Continued  
Harper County, Kansas

Nn Nashville Silt Loam, 3 To 6 Percent Slopes, Eroded

Nashville soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

No Milan Loam, 1 To 3 Percent Slopes

Norge soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of 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 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 (pe24-32) range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Pc Pond Creek Silt Loam, 0 To 1 Percent Slopes

Pond Creek soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace. The runoff class is negligible. The parent material consists of 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 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 (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Pd Pond Creek Silt Loam, 1 To 3 Percent Slopes

Pond Creek soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping terrace. The runoff class is low. The parent material consists of 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 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Pe Pond Creek Silt Loam, 3 To 6 Percent Slopes

Pond Creek soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping terrace. The runoff class is medium. The parent material consists of 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 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Pg Pond Creek Silt Loam, 3 To 6 Percent Slopes, Eroded

Pond Creek soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping terrace. The runoff class is medium. The parent material consists of 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 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Ph Dale Silt Loam, Rarely Flooded

Dale soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. 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. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Loamy Terrace (pe24-32) range site. It is in the nonirrigated land capability classification 1.

Pk Buttermilk Silt Loam, Rarely Flooded

Port soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level terrace on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 63 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil contains a moderately saline horizon. This soil is in the Saline Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 3s.



Nontechnical Soil Descriptions--Continued  
Harper County, Kansas

Pm Pratt Loamy Fine Sand, 3 To 8 Percent Slopes

Pratt soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. This soil is well drained. The slowest permeability is rapid. It has a moderate available water capacity and a low 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 Sands (pe24-32) range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Pn Pratt Loamy Fine Sand, Siltstone Substratum, 3 To 8 Percent Slopes

Pratt soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is rapid. It has a low available water capacity and a low 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 Sands (pe24-32) range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Po Pratt-Carwile Complex, 0 To 8 Percent Slopes

Pratt soil makes up 65 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. This soil is well drained. The slowest permeability is rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 18 inches. This soil is in the Sands (pe24-32) range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Carwile soil makes up 35 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level depression on paleoterrace on river valley. The runoff class is negligible. The parent material consists of 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 not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. This soil is in the Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

Pt Pratt-Tivoli Loamy Fine Sands, 8 To 15 Percent Slopes

Pratt soil makes up 50 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. This soil is well drained. The slowest permeability is rapid. It has a moderate available water capacity and a low 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 Sands (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

Tivoli soil makes up 50 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low 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 Sands (pe24-32) range site. It is in the nonirrigated land capability classification 7e.

Qa Quinlan Loam, 0 To 1 Percent Slopes

Quinlan soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Qn Quinlan Loam, 1 To 3 Percent Slopes

Quinlan soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Qu Quinlan Loam, 3 To 6 Percent Slopes

Quinlan soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Nontechnical Soil Descriptions--Continued  
Harper County, Kansas

Rc Renfrow-Vernon Clay Loams, 1 To 3 Percent Slopes

Renfrow soil makes up 65 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Vernon soil makes up 35 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very 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 25 percent calcium carbonate. This soil contains a slightly saline horizon, it has a horizon that is moderately sodic. This soil is in the Red Clay Prairie (pe24-32) range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Re Ruella Loam, 0 To 1 Percent Slopes

Ruella soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of alluvium. The soil is 8 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2c.

Rh Ruella Loam, 1 To 3 Percent Slopes

Ruella soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of alluvium. The soil is 8 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Ru Ruella Loam, 3 To 6 Percent Slopes

Ruella soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of alluvium. The soil is 8 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Sa Lesho Clay Loam, Saline, Occasionally Flooded

Lesho soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate 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 contains a moderately saline horizon. This soil is in the Saline Subirrigated (pe24-32) range site. This soil is in the irrigated land capability class 4s. It is in the nonirrigated land capability classification 6s.

Sb Shellabarger Fine Sandy Loam, 0 To 1 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level paleoterrace on river valley. The runoff class is negligible. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Se Shellabarger Fine Sandy Loam, 1 To 3 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on river valley. The runoff class is very low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Nontechnical Soil Descriptions--Continued  
Harper County, Kansas

Sf Shellabarger Fine Sandy Loam, 3 To 6 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Sg Shellabarger Fine Sandy Loam, 3 To 6 Percent Slopes, Eroded

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a moderately sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Sh Zellmont Sandy Loam, 1 To 3 Percent Slopes

Zellmont soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping strath terrace on river valley. The runoff class is low. The parent material consists of loamy alluvium over residuum weathered from Permian shale. The soil is 20 to 39 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately 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 20 percent calcium carbonate. This soil is in the Sandy (pe21-28) range site. It is in the nonirrigated land capability classification 2e.

SHH Shellabarger Sandy Loam, 1 To 3 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a gently sloping paleoterrace on river valley. The runoff class is very low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Sk Zellmont Sandy Loam, 3 To 6 Percent Slopes

Zellmont soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping strath terrace on river valley. The runoff class is low. The parent material consists of loamy alluvium over residuum weathered from Permian shale. The soil is 20 to 39 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately 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 20 percent calcium carbonate. This soil is in the Sandy (pe21-28) range site. It is in the nonirrigated land capability classification 3e.

Sm Zellmont Sandy Loam, 3 To 6 Percent Slopes, Eroded

Zellmont, eroded, soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping strath terrace on river valley. The runoff class is low. The parent material consists of loamy alluvium over residuum weathered from Permian shale. The soil is 20 to 39 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately 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 20 percent calcium carbonate. This soil is in the Sandy (pe21-28) range site. It is in the nonirrigated land capability classification 3e.

Sn Shellabarger Loamy Fine Sand, 0 To 3 Percent Slopes

Shellabarger soil makes up 100 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a nearly level to gently sloping paleoterrace on river valley. The runoff class is low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sands (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

So Shellabarger And Albion Soils, 7 To 15 Percent Slopes

Shellabarger soil makes up 70 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep paleoterrace on river valley. The runoff class is medium. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

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Albion soil makes up 30 percent of the map unit. This map unit is in the Great Bend Sand Plains Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep paleoterrace on river valley. The runoff class is medium. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low 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 Sandy (pe24-32) range site. It is in the nonirrigated land capability classification 6e.

Sp Drummond Loam, 0 To 2 Percent Slopes

Drummond soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping terrace on river valley. The runoff class is low. The parent material consists of clayey and/or loamy alluvium. This soil is somewhat poorly drained. The slowest permeability is very slow. It has a very low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. This soil contains a moderately saline horizon. This soil is in the Saline Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 6s.

Ta Tabler Clay Loam, 0 To 1 Percent Slopes

Tabler soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level paleoterrace on river valley. The runoff class is very low. The parent material consists of clayey alluvium. This soil is moderately well drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. This soil is in the Clay Upland (pe24-32) range site. It is in the nonirrigated land capability classification 2s.

Th Tivoli Fine Sand, 8 To 15 Percent Slopes

Tivoli soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep dune on paleoterrace on river valley. The runoff class is low. The parent material consists of sandy eolian deposits. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low 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 Choppy Sands (pe24-32) range site. It is in the nonirrigated land capability classification 7e.

Vr Vernon-Renfrow Complex, 2 To 6 Percent Slopes, Eroded

Vernon soil makes up 60 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. This soil is well drained. The slowest permeability is very 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 20 percent calcium carbonate. This soil contains a slightly saline horizon, it has a horizon that is moderately sodic. This soil is in the Red Clay Prairie (pe24-32) range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Renfrow soil makes up 40 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. This soil is 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 (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

Wa Kingman Clay Loam, Occasionally Flooded

Kingman soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain on river valley. The runoff class is negligible. The parent material consists of alluvium. This soil is poorly 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 top of the seasonal high water table is at 12 inches. This soil contains a very slightly saline horizon. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 5w.

Wd Woodward-Quinlan Loams, 0 To 1 Percent Slopes

Woodward soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Quinlan soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level hillslope on upland. The runoff class is very low. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

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**We Woodward-Quinlan Loams, 1 To 3 Percent Slopes**

Woodward soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

Quinlan soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a gently sloping hillslope on upland. The runoff class is low. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

**Ww Woodward-Quinlan Loams, 3 To 6 Percent Slopes**

Woodward soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low 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 (pe24-32) range site. It is in the nonirrigated land capability classification 3e.

Quinlan soil makes up 50 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of residuum. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low 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 Prairie (pe24-32) range site. It is in the nonirrigated land capability classification 4e.

**Za Canadian Fine Sandy Loam, Rarely Flooded**

Canadian soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level flood plain. The runoff class is negligible. The parent material consists of alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low 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 Sandy Lowland (pe24-32) range site. It is in the nonirrigated land capability classification 2e.

**Zf Zenda Fine Sandy Loam, Occasionally Flooded**

Zenda soil makes up 100 percent of the map unit. This map unit is in the Central Rolling Red Prairies Major Land Resource Area. This soil occurs on a nearly level dune on paleoterrace on river valley. The runoff class is negligible. The parent material consists of sandy eolian deposits. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a moderate 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 contains a very slightly saline horizon. This soil is in the Subirrigated (pe24-32) range site. It is in the nonirrigated land capability classification 2w.

