

# Major Land Resource Area 058D

## Northern Rolling High Plains, Eastern Part

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### Ecological site keys

#### MLRA 058D - Northern Rolling High Plains East. (Run-off, Normal, Run-in, and Other Landscape Positions)

##### I. RUN-OFF LANDSCAPE POSITIONS (Upland, normally convex short slopes > 6 percent, Shoulder)

###### A. Dig hole to a depth of 20 inches minimum. Is there a root restrictive layer within 10 inches of the soil surface?

1 Yes. ... R058DY016SD – Very Shallow

2 No. Is there a root restricting layer within 10-20 inches of the surface?

i. Yes. Is the soil derived from shale with weathered shale chips below 4" in the soil profile and the soil is calcareous? Clayey surface texture (2-3" ribbon)?

a. Yes. ... R058DY017SD – Shallow Clayey

b. No. Is the soil surface 10 to 20 inches with a Clay loam, Silty clay loam, Sandy clay loam or Silty texture (1-1.5" ribbon)?

1) Yes. Shallow ... R058DY024SD – Shallow Loamy

2) No. Sandy loam or Loamy sand texture (0.25-0.5" ribbon)?

a) Yes. ... R058DY028SD – Shallow Sandy

ii. No. Is the soil > 20 inches in depth with a thin surface layer (< 3" ) and effervesce at or near the surface (within 6 inches)?

a. Yes.

1) With Loam, Silt loam, Silty, Clay Loam, Sandy clay loam, Very fine sandy loam surface texture ...  
R058DY012SD – Thin Loamy

2) With Sandy loam, Fine sandy loam, Loamy very fine sand ... R058DY026SD – Thin Sandy

b. No. Is the soil sandy with gravelly subsurface and contains cobbles and stones to the surface?

1) Yes. ... R058DY029SD – Stony Hills

2) No. Is the soil very sandy with slopes >15 percent, commonly with blowouts?

a) Yes. ... R058DY030SD – Choppy Sands

b) No. See "Normal Landscape Positions"

##### II. NORMAL LANDSCAPE POSITIONS in Both Precipitation Zones (Upland, slopes normally linear, 1-6 percent except Sandy/Sands sites can have complex slopes up to 15 percent, Backslope, Summit, Footslope)

###### A. Dig hole to 20 inches. Are there visible salts within 16 inches of the surface?

1 Yes. Is there a claypan within 16 inches of the surface?

i. Yes. See "Other Landscape Positions"

2 No. What is the surface and subsoil texture?

i. Clay or Silty Clay (40 to 55% clay) Surface (1.75 – 3.0" ribbon) with Clayey Subsoil?

a. Yes.

**b. No. Loam, Silt loam, Silty, Clay Loam, Sandy clay loam, Very fine sandy loam (0.5 – 1.75" ribbon)?**

**1) Yes. Is the site an old stream terrace?**

a) No. ... R058DY010SD – Loamy

b) Yes. ... R058DY022SD – Loamy Terrace

**2) No. Sandy loam, Fine sandy loam, Loamy very fine sand (0.25-0.5" ribbon)?**

**a) Yes. Is the site a low stream terrace?**

(1) No. ... R058DY009SD – Sandy

(2) Yes. ... R058DY031SD – Sandy Terrace

**b) No. Sand, Fine sand, Loamy fine sand, Loamy sand 1 (no ribbon) and with slopes <16 percent?**

(1) Loamy fine sand, and Loamy sand have a surface textures with a mollic epipedon (dark colored surface at least 10 inches thick - Mollisol) ... R058DY008SD – Sands

(2) Yes. Sand, Fine sand, Loamy fine sand, Loamy sand; no mollic epipedon epipedon ...  
R058DY009SD – Sandy

### **III. RUN-IN LANDSCAPE POSITIONS (Bottomlands, Drainageways, etc., not depressions, Toe slope)**

**A. Observe the soil profile to a depth of 60 inches. Is there evidence of a permanent water table within 1-2 feet of the surface and the site is dominated by hydrophytes?**

**1 Yes.** ... R058DY002SD – Wet Land

**2 No. Does water flow into and over/through the site?**

**i. No. See "Other Landscape Positions"**

**ii. Yes. Are there visible salts within 16 inches of the surface and permanently moist soil at 4 to 5 feet?**

a. Yes. ... R058DY007SD – Saline Lowland

**b. No. Does the site occasionally flood?**

1) Yes, loamy textures. ... R058DY020SD – Loamy Overflow

2) Yes, clayey textures. ... R058DY021SD – Clayey Overflow

3) Site does not occasionally flood, go to "Other Landscapes".

### **IV. OTHER LANDSCAPE POSITIONS (Basin, Depression, Normal, Run-off and/or Run-in, All Hillslope Positions except Shoulder)**

**A. Dig a hole to 20 inches. Does the soil have a claypan within 16 inches?**

**1 Yes. Is it in a closed depression?**

**i. No. Is the claypan within 4 inches of the surface?**

a. Yes. ... R058DY015SD – Thin Claypan

**b. No.**

1) Claypan is deeper than 4 inches ... R058DY013SD – Claypan

2) If surface texture is sandy ... R058DY027SD – Sandy Claypan

**ii. Yes.** ... R058DY019SD – Closed Depression

**2 No. Is the area in a basin or closed depression with no outlet?**

**i. No. Re-think your Landscape Position and start again.**

**ii. Yes. Does the site pond water for 4 to 8 weeks in the spring or after heavy rain and have a high organic matter content?**

a. Yes. ... R058DY004SD – Wet Meadow

**b. No. Does the site pond water briefly after snowmelt or heavy rain or during abnormally wet years?**

1) **Yes.** ... R058DY019SD – Closed Depression