

*The Phoenix Co*  
*16-18-34*

August 19, 1974

Logs of test pits for proposed Holthorn County Solid Waste Landfill site in **SE SE** 1/4, T.10N., R.3E., Holthorn County, Kansas. Depths in feet below land surface.

No. 1, Top of N-S ridge through center of site, 10 ft. north of south fence line.

Maistocens:

- 0 1 Silt, clayey, dark gray
- 1 4 Clay, silty, light gray (Georgia silt)
- 4 7.5 Silt, blocky, dark gray, grades down to gray-brown (Langston soil)
- 7.5 9 Clay, compact, tan
- 9 21 Clay, compact, tan to buff, mottled gray-green; contains large calcic nodules. Clay content and calcic decreases downward.
- 21 2 Silt, slightly clayey, light brown mottled light gray; contains few calcic nodules
- 23 3.5 Clay, silty, compact, light brown mottled white; contains some calcic in large nodules
- 30.5 4 Clay, silty, compact, light brown; contains much calcic in nodules and in thin fairly firm zones of "arter bands", silty.

No. 2, 50 ft. north along ridge alignment of No. 1

Maistocens:

- 0 1 Silt, clayey, dark gray
- 1 4.5 Silt, clayey, brown
- 4.5 14 Clay, compact, light gray-green and light brown; contains little calcic, nodular
- 14 1 Clay, silty, compact, light brown mottled light gray; contains very little calcic, nodular
- 19 20 Clay, silty, compact, light brown mottled light gray; contains much calcic, nodular
- 20 35 Clay, silty, compact, light brown mottled light gray; contains little calcic, nodular
- 35 40 Clay, silty, compact, partly cemented by calcic, fairly hard.

✓ **GOES TO RED ROCK**

No. 3, 150 ft. west of No. 1. (on slope near east edge of ravine in S. e.r. of plot)

Maistocens:

- 0 3 Silt, blocky, black
- 3 7 Clay, compact, dark gray
- 7 11 Clay, compact, brown and tan
- 11 32 Clay, compact, tan mottled white; contains little nodular calcic
- 35 38 Clay, very compact, tan
- 38 50 Clay, very compact, light gray and light brown; partly slightly cemented by calcic

McHarbor winter landfill site, 1960 sec. 16-1-3.

No. 3, continued from page 1.

- 50 92 clay, compact, light gray and light gray-brown  
92 105 clay, silty, brick red; contains fine shale fragments

Minnesota shale:

- 103 103.5 shale, weathered, clayey, yellow  
water level measured in hole 1, hours after drilling, 9 ft. below land surface.  
No measurable permeability below top soil zone.

No. 4, 450 ft. north of No. 2 (at top of ridge)

Pleistocene:

- 0 2 Clay, silty, brown  
2 14 Clay, silty, buff and light gray-green; contains nodular caliche from 7 to 10 ft.  
14 22 Silt, blocky, light brown; contains some caliche, nodular.  
Lower 4 feet gradational into underlying zone. 8-10 feet probably Harroth soil.  
22 34 Clay, compact, silty, buff to brown and light greenish-gray; contains large caliche nodules  
34 44 Clay, compact, brown and light gray; partly slightly cemented by caliche and containing large caliche nodules

No. 5, 300 ft. east of No. 4, on side slope

Pleistocene:

- 0 1 Clay, silty, gray-brown  
1 12 Clay, silty, light brown mottled light gray; contains some caliche, nodular  
12 19 Clay, compact, light gray and buff; partly slightly cemented by caliche. Thin fairly hard "mortar" at 12 ft.  
19 30 Clay, compact, light brown; contains little caliche, nodular

No. 6, 225 ft. west of No. 4, on side slope

Pleistocene:

- 0 1 Clay, silty, light gray-brown  
1 10.5 Clay, silty, light brown; contains some nodular caliche  
10.5 19 "mortar", fairly firm, clayey  
19 30 Clay, silty, compact, light brown; contains large caliche nodules

No. 7, 450 ft. east of No. 1

Pleistocene:

- 0 5 Clay, silty, compact, light brown  
5 6 Clay, compact, gray  
6 20 Clay, light gray, light brown and tan; some nodular caliche  
20 26.2 "mortar", clayey, fairly firm  
26.2-30 Clay, compact, tan; some caliche in large nodules