

2008 Soil Descriptions - NATL Old Field Plots

Soil sample point 12.5 m north of Grid Point F3

Natural soils – Yellowish brown and pale brown sands 112 cm in thickness overlying loamy soils (sandy clay loams).

0 - 15 cm; dark grayish brown, loose, sand

15 - 27 cm; brown, loose, sand

27 - 79 cm; yellowish brown, loose, sand

79 - 112 cm; pale brown, loose, sand

112 - 135 cm; yellowish brown, friable, sandy clay loam

135 - 150 cm; yellowish brown and light brownish gray, friable, sandy clay loam

Soil sample point 12.5 m south of Grid Point F3

Disturbed soils >100 cm in thickness consisting of mixed sands and loamy soils and phosphatic rocks overlying natural loamy soils.

0 - 28 cm; yellowish brown, pale brown, and light brownish gray, loose, sand mixed with chunks of firm, sandy clay loam (15%) and a few phosphatic rocks.

28 - 43 cm; yellowish brown, friable, sandy clay loam.

43 - 134 cm; brown and pale brown sands mixed with chunks of yellowish brown, firm, sandy clay loam (25%) and a few phosphatic rocks.

134 - 150 cm; olive brown and olive gray, friable, sandy clay loam (natural soil).

Soil sample point 25 m east and 12.5 m north of Grid Point F3

Highly disturbed soils - Layers of clay that extend from the surface to a depth of about 48 cm. Underlying sands are natural soils.

0 - 7 cm; gray and greenish gray, very firm, clay (90%) mixed with thin layers of dark yellowish brown, loose, sand

7 - 48 cm; gray, greenish gray and reddish brown, very firm, clay.

48 - 53 cm; dark brown, loose, sand (original surface).

53 - 150 cm; pale brown and very pale brown, loose, sand.

Soil sample point 25 m east and 12.5 m south of Grid Point F3

Natural soils – yellowish brown and pale brown sands 142 cm in thickness overlying loamy soils (sandy clay loams).

0 - 15 cm; dark grayish brown, loose, sand

15 - 34 cm; brown, loose, sand

34 - 92 cm; yellowish brown, loose, sand

92 - 130 cm; pale brown, loose, sand

130 - 142 cm; very pale brown, loose, sand

142 - 150 cm; yellowish brown and light brownish gray, friable, sandy clay loam

Soil sample point 25 m north and 12.5 m west of Grid Point F3

Natural soils – yellowish brown and pale brown sands 145 cm in thickness overlying loamy soils (sandy clay loams).

0 - 15 cm; dark grayish brown, loose, sand

15 - 36 cm; brown, loose, sand

36 - 104 cm; yellowish brown, loose, sand

104 - 145 cm; pale brown, loose, sand

142 - 150 cm; yellowish brown, friable, sandy clay loam

Soil sample point 12.5 m west of Grid Point F4

Natural soils – yellowish brown and pale brown sands 115 cm in thickness overlying loamy soils (sandy loams and sandy clay loams).

0 - 15 cm; dark grayish brown, loose, sand

15 - 32 cm; brown, loose, sand

32 - 88 cm; yellowish brown, loose, sand

88 - 115 cm; pale brown, loose, sand

115 - 134 cm; yellowish brown, friable, sandy loam

134 - 150 cm; yellowish brown and light brownish gray, friable, sandy clay loam

Soil sample point 12.5 m west and 25 m north of Grid Point F4

Natural soils - yellowish brown and pale brown sands > 1.5 m in thickness

0 - 15 cm; dark grayish brown, loose, sand

15 - 38 cm; brown, loose, sand

38 - 110 cm; yellowish brown, loose, sand

110 - 150 cm; pale brown, loose, sand

Soil sample point 12.5 m west and 25 m south of Grid Point F4

Natural soils - yellowish brown, pale brown and very pale brown sands > 1.5 m in thickness.

- 0 - 15 cm; dark grayish brown, loose, sand
- 15 - 31 cm; brown, loose, sand
- 31 - 108 cm; yellowish brown, loose, sand
- 108 - 134 cm; pale brown, loose, sand
- 134 - 150 cm; very pale brown, loose, sand.

Soil sample point 12.5 m west of Grid Point F5

Natural soils - yellowish brown, pale brown and very pale brown sands > 1.5 m in thickness.

- 0 - 15 cm; dark grayish brown, loose, sand
- 15 - 27 cm; brown, loose, sand
- 27 - 91 cm; yellowish brown, loose, sand
- 91 - 126 cm; pale brown, loose, sand
- 126 - 150 cm; very pale brown, loose, sand.

Soil sample point 12.5 m south of Grid Point F5

Highly disturbed soils - Layers of clay mixed with thin layers of sand. Highly disturbed soils extend from the surface to a depth of >150 cm.

- 0 - 23 cm; gray and olive brown, very firm, clay (85%) mixed with thin layers of yellowish brown, loose, sand and many phosphatic rocks.
- 23 - 42 cm; yellowish brown, loose, sand (likely fill sands that were added).
- 42 - 150 cm; gray and greenish gray, very firm, clay with many white, phosphatic rocks.

Soil sample point 12.5 m south and 25 m east of Grid Point F5

Highly disturbed soils - Mixed layers of clay extend from the surface to a depth of >150 cm.

- 0 - 150 cm; gray and greenish gray, very firm, clay with many white, phosphatic rocks mixed with a few layers of brown, firm, sandy clay (10%).

Soil sample point 12.5 m west and 12.5 m south of Grid Point F5

Natural soils - yellowish brown, pale brown and very pale brown sands > 1.5 m in thickness.

0 - 15 cm; dark grayish brown, loose, sand

15 - 33 cm; brown, loose, sand

33 - 104 cm; yellowish brown, loose, sand

104 - 146 cm; pale brown, loose, sand

146 - 150 cm; very pale brown, loose, sand.

Soil sample point 12.5 m north of Grid Point G3

Natural soils - yellowish brown, pale brown and light brownish gray sands > 1.5 m in thickness

0 - 15 cm; dark grayish brown, loose, sand

15 - 26 cm; brown, loose, sand

26 - 82 cm; yellowish brown, loose, sand

82 - 118 cm; pale brown, loose, sand

118 - 150 cm; light brownish gray, loose, sand (sands wet beginning at a depth of 118 cm.

Soil sample point 12.5 m east of Grid Point G3

Natural soils - pale brown and light brownish gray sands > 1.5 m in thickness

0 - 15 cm; dark grayish brown, loose, sand

15 - 24 cm; brown, loose, sand

24 - 105 cm; pale brown, loose, sand

105 - 150 cm; light brownish gray, loose, sand (sands wet beginning at a depth of 105 cm.

Soil sample point 25 m east and 12.5 m south of Grid Point G3

Natural soils - pale brown and light brownish gray sands > 1.5 m in thickness

0 - 15 cm; dark grayish brown, loose, sand

15 - 22 cm; brown, loose, sand

22 - 86 cm; pale brown, loose, sand

86 - 140 cm; very pale brown, loose, sand

140 - 150 cm; light brownish gray, loose, sand (sands wet beginning at a depth of 140 cm.

Soil sample point 12.5 m north of Grid Point G4

Disturbed soils - Sands with chunks of clay that extend from the surface to a depth of about 28 cm. Underlying sands are natural soils.

0 - 28 cm; brown and pale brown, loose sand mixed with chunks of gray, olive brown, and greenish gray, very firm, clay (40%).

28 - 105 cm; pale brown, loose, sand.

105 - 150 cm; very pale brown, loose, sand.

Soil sample point 25 m north and 12.5 m west of Grid Point G4

Disturbed soils - Sands with chunks of clay that extend from the surface to a depth of about 23 cm. Underlying sands are natural soils.

0 - 23 cm; dark brown, loose sand mixed with chunks of olive brown and grayish brown firm, sandy clay (30%).

23 - 48 cm; mixed dark brown, light brownish gray, and light gray, loose, sand.

48 - 117 cm; yellowish brown, loose, sand (natural soils).

117 - 150 cm; pale brown, loose, sand (natural soils).

Soil sample point 12.5 m north and 12.5 m east of Grid Point G4

Natural soils - yellowish brown, pale brown and very pale brown sands > 1.5 m in thickness.

0 - 15 cm; dark grayish brown, loose, sand

15 - 28 cm; brown, loose, sand

28 - 76 cm; yellowish brown, loose, sand

76 - 118 cm; pale brown, loose, sand

118 - 150 cm; very pale brown, loose, sand.

Soil sample point 12.5 m north and 25 m east of Grid Point G4

Natural soils - yellowish brown, pale brown and very pale brown sands > 1.5 m in thickness.

0 - 15 cm; dark grayish brown, loose, sand

15 - 24 cm; brown, loose, sand

24 - 72 cm; yellowish brown, loose, sand

72 - 106 cm; pale brown, loose, sand

106 - 150 cm; very pale brown and light brownish gray, loose, sand.

Soil sample point 12.5 m south of Grid Point G5

Highly disturbed soils - Mixed layers of clay extend from the surface to a depth of 58 cm. Underlying soils are mixed loamy soils (sandy clay loam) and sands.

0 - 58 cm; gray and greenish gray, very firm, clay with many white, phosphatic rocks mixed with a few layers of brown, firm, sandy clay (15%).

58 - 98 cm; yellowish brown and olive brown, firm, loamy soils (sandy clay loam) mixed with a few layer of brown sands (10%).

98 - 150 cm; brown and light brownish gray, loose, mixed sands.

Soil sample point 25 m north and 12.5 m west of Grid Point H4

Natural soils – sands > 1.5 m in thickness. This point is near the berm of the sinkhole. The dark surface is thicker than typical, but otherwise there was no indication of disturbance in this soil.

0 - 27 cm; dark brown and dark grayish brown, loose, sand

27 - 45 cm; brown, loose, sand

45 - 70 cm; yellowish brown, loose, sand

70 - 128 cm; pale brown, loose, sand

128 - 150 cm; very pale brown and light brownish gray, loose, sand.

Soil sample point 12.5 m east of Grid Point H4

Natural soils – sands 92 cm in thickness overlying loamy soils (sandy clay loams and sandy loams).

0 - 10 cm; dark brown and dark grayish brown, loose, sand

10 - 33 cm; brown, loose, sand

33 - 77 cm; yellowish brown, loose, sand

77 - 92 cm; pale brown, loose, sand

92 - 120 cm; brown and reddish brown, friable, sandy clay loam.

120 - 150 cm; gray and reddish brown, friable, sandy clay loam with thinner layers of sandy loam.

Soil sample point 12.5 m north of Grid Point H4 (south slope of sinkhole)

Natural soils – sands 75 cm in thickness overlying loamy soils (sandy loams).

0 - 8 cm; dark grayish brown, loose, sand

8 - 22 cm; brown, loose, sand

22 - 75 cm; yellowish brown, loose, sand

75 - 130 cm; reddish brown and light brownish gray, friable, sandy loam

130 - 150 cm; reddish brown and light gray, friable, sandy loam.

Soil sample point 12.5 m west of Grid Point H4

Natural soils – thin sands 55 cm in thickness overlying loamy soils (sandy clay loams and sandy loams).

0 - 7 cm; dark grayish brown, loose, sand

7 - 24 cm; brown, loose, sand

24 - 55 cm; yellowish brown, loose, sand

55 - 102 cm; yellowish brown, friable, sandy clay loam

102 - 150 cm; yellowish brown and light gray, friable, sandy loam.

Soil sample point 12.5 m south of Grid Point H4 (on lower part of the slope with many phosphatic rocks on the surface).

Highly disturbed soils - Mixed layers of sand and clay extend from the surface to a depth of 150 cm. In addition to the chunks of clay, pieces of glass and roof shingles were also observed in the boring.

0 - 35 cm; dark brown, loose, sand with chunks of gray and greenish gray, very firm, clay (40%) and many white, phosphatic rocks

35 - 74 cm; gray and greenish gray, very firm, clay with many white, phosphatic rocks

74 - 150 cm; brown and light brownish gray, loose, mixed with chunks of gray and greenish gray, very firm, clay (30%). Also pieces of glass and roof shingles.