T. B. Evans
SCS - Ind

Lake

DEC 4 1967

Roy W. Simonson, Director, Soil Classification
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Andrew R. Aandahl, Principal Soil Correlator, MRTSC,
SCS, Lincoln, Nebraska

SOILS - Classification and correlation of the soils of Lake County, Indiana

Attached are two copies of the classification and correlation of the soils of Lake County, Indiana. Copies have been distributed as follows:

| | |
|---|---|
| Roy W. Simonson | 2 copies |
| T. B. Evans | 6 copies |
| H. P. Ulrich | 2 copies |
| B. A. Barnes | 5 copies |

One copy of the final field review is attached for your information and review.

Also, one copy of the soils handbook is enclosed for your information and review. Please return to Indiana as soon as review is completed as they are in short supply.

Attachments

12/8/67
Distribution —
Bass
Sanders
Rogers
Goettl (A.C.)
Harold Kracht (W.A.C.)

cc:
T. B. Evans (6)
H. P. Ulrich (2)
B. A. Barnes (5)
w/attachments
C. D. Jaedicke
A. J. Baur
L. J. Bartelli
W. M. Johnson
J. T. Casey

UNITED STATES DEPARTMENT OF AGRICULTURE

Soil Conservation Service
Midwest Regional Technical Service Center
Lincoln, Nebraska 68508

# Classification and Correlation

# of the

# Soils of Lake County, Indiana

This correlation was prepared in conference July 17-21, 1967 by George O. Walker, H. P. Ulrich, A. L. Zachery, F. W. Sanders, Ival Persinger and Robert I. Turner. Other information was obtained from the field correlation, soils handbook, soil correlation samples and revised soil series descriptions for many of the series being used.

| Symbols | | Approved Name |
|---|---|---|
| 6512-A-1 | 6502-B-1 | Alida fine sandy loam, |
| 6502-A-1 | 6522-A-2 | 0 to 2 percent slopes |
| 6502-A-2 | | |
| 5513-A-1 | 6513-A-2 | Alida loam, |
| 503-A-1 | 6513-B-1 | 0 to 2 percent slopes |
| 503-A-2 | 6513-B-2 | |
| 503-B-2 | 5523-A-1 | |
| 503-B-3 | 5523-B-1 | |
| 5503-A-1 | 5512-A-1 | |
| 5503-B-1 | 502-A-0 | |
| 6503-A-1 | 502-A-1 | |
| 6503-B-2 | 5502-A-1 | |
| 6503-C-2 | 5502-A-2 | |
| 513-A-1 | 522-A-1 | |
| 513-B-2 | 5522-A-1 | |
| 5513-B-1 | 532-A-1 | |
| 5513-B-2 | 5532-A-1 | |
| 6513-A-1 | | |

| Symbols | | Approved Name |
|---|---|---|
| 732-A-1 | 5402-A-1 | Blount silt loam, 0 to 2 percent slopes |
| 112-A-1 | 732-A-0 | |
| 112-A-2 | 732-A-2 | |
| 112-B-0 | 732-B-1 | |
| 112-B-1 | 732-B-2 | |
| 112-B-2 | 732-B-3 | |
| 112-B-3 | 734-A-0 | |
| 114-A-1 | 734-A-1 | |
| 142-A-1 | 734-A-2 | |
| 144-A-1 | 142-B-2 | |
| 402-A-1 | 142-B-3 | |
| 1239 | 5238 | Bono silty clay |
| 1238-A-0 | 1239-A-0 | |
| 3238 | 3239 | |
| 3238-A-0 | | |
| Borrow pits | | Borrow pits |
| 6512V-A-1 | 7512B-A-1 | Brady fine sandy loam, 0 to 2 percent slopes |
| 482-A-1 | 752V-A-1 | |
| 6512V-A-4 | 5752V-A-1 | |
| 6512V-B-1 | 6752-A-1 | |
| 7303-A-1 | 0303-B-0 | Brems, fine sand, 0 to 4 percent slopes |
| 0303-A-0 | 0303-B-1 | |
| 0303-A-1 | 7303-B-1 | |
| 140 | 140-B-0 | Carlisle muck |
| 1-0-0 | 140w | |
| 1-A-0 | 140w-A-0 | |
| 1w-A-0 | 340 | |
| 140-A-0 | 340-A-0 | |
| Clay pits | | Clay pits |
| 5272-A-1 | | Darroch loam, 0 to 2 percent slopes |
| 272-A-1 | | |
| 273-A-1 | | |
| 802-A-1 | | Del Rey silt loam, 0 to 2 percent slopes |
| 802d-A-1 | | Del Rey silt loam, dark colored variant, 0 to 2 percent slopes |
| 802d-A-0 | | |
| 5525-A-1 | 5533-A-1 | Door loam, 0 to 2 percent slopes |
| 525-A-1 | 534-A-1 | |
| 525-A-2 | 5534-A-1 | |
| 5525-B-1 | 525-C-2 | Door loam, 2 to 6 percent slopes |
| 525-B-0 | 525-D-3 | |
| 525-B-1 | 5525-B-2 | |
| 525-B-2 | 5525-C-2 | |

| Symbols | | Approved Name |
|---|---|---|
| 5534-B-1 | 5534-B-3 | Door loam, silty clay loam substratum, 2 to 6 percent slopes |
| 534-B-2 | 5534-C-1 | |
| 534-C-2 | 5534-C-2 | |
| 5534-B-2 | | |
| 4 | | Dune land |
| 262-A-1 | 242-B-2 | Elliott silt loam, 0 to 2 percent slopes |
| 162-A-1 | 262-A-0 | |
| 162-B-1 | 262-A-2 | |
| 242-A-1 | 262-B-1 | |
| 242-A-2 | 262-B-2 | |
| 242-B-0 | 732d-A-1 | |
| 242-B-1 | | |
| 6329 | 6328 | Gilford fine sandy loam |
| 5033 | 6328-A-0 | |
| 5033-A-0 | 6329-A-0 | |
| 6033-A-0 | 7329 | |
| 6329M | 7289M-A-0 | Gilford mucky fine sandy loam |
| 6289M | 5329M | |
| 6289M-A-0 | 5329M-A-0 | |
| 7289M | 6329M-A-0 | |
| 5329 | | Gilford loam |
| 5329-A-0 | | |
| 7273V-A-1 | 7275-B-1 | Hagener fine sand, 0 to 4 percent slopes |
| 7273V-B-0 | 7275-C-1 | |
| 7273V-B-1 | 7275-A-1 | |
| 7123d-A-1 | 6123-B-2 | Hagener fine sand, silty clay loam substratum, 0 to 4 percent slopes |
| 6123 | 6123d-A-1 | |
| 6123-A-0 | 7123-A-1 | |
| 6123-A-0 | 7123-B-1 | |
| 6123-A-1 | 6424-B-2 | |
| 6123-B-1 | 6424-C-2 | |
| 2 | | Lake beaches |
| 5140 | | Linwood muck |
| 3140 | | |
| 3140-A-0 Burnt Over | | |
| 3140-A-0 | | |
| 3140-A-1 | | |
| 5140-0-0 | | |
| 5140-A-0 | | |

| Symbols | | Approved Name |
|---|---|---|
| 5515-A-1 | | Lydick loam, |
| 515-A-1 | | 0 to 2 percent slopes |
| 6525-A-1 | | |
| 5515-B-1 | 515-C-2 | Lydick loam, |
| 145-B-3 | 5515-B-2 | 2 to 6 percent slopes |
| 274-B-2 | 5515-B-3 | |
| 5274-B-2 | 5515-C-1 | |
| 515-B-2 | 6525-B-1 | |
| 263-B-2 | 263-A-1 | Markham silt loam, |
| 163-B-1 | 263-A-2 | 2 to 6 percent slopes, eroded |
| 163-B-2 | 263-B-1 | |
| 164-B-2 | 263-B-2 | |
| 164-C-1 | 263-C-1 | |
| 243-A-1 | 263-C-2 | |
| 243-A-2 | 264-B-1 | |
| 243-B-1 | 264-B-2 | |
| 243-B-2 | 264-C-2 | |
| 243-C-2 | | |
| 5340 | | Marl beds |
| 5340-A-0 | | |
| 6 | | Marsh |
| 7289 | 6289 | Maumee loamy fine sand |
| 6288 | 6289-A-0 | |
| 6288-A-0 | 6289-A-1 | |
| 7288 | 7289-A-0 | |
| 7288-A-0 | 7308 | |
| 288 | | Maumee silt loam |
| 108 | 528 | Milford silt loam, overwash |
| 108-A-0 | 528-A-0 | |
| 108-A-+ | 528-A-1 | |
| 108-B-0 | 808 | |
| 108w-0-0 | 808-A-0 | |
| 108w-A-0 | 808-B-0 | |
| 5108 | | |
| 5108-A-0 | | |
| 3808 | 3448-A-1 | Milford silty clay loam |
| 3359-A-0 | 3758 | |
| 3448-A-0 | 3808-A-0 | |
| 3508 | 3509 | Milford silty clay loam, sandy substratum |
| 3508-A-0 | 3509-A-0 | |

| Symbols | | Approved Name |
|---|---|---|
| 08 | 18 | Milford-Linwood-Wallkill complex |
| 08-A-0 | 18-A-0 | |
| 5012 | 3018 | |
| 13-A-0 | 3018-A-0 | |
| 5013 | 5018 | |
| 5013-A-0 | 5018-A-0 | |
| 734-B-1 | 144-B-1 | Morley silt loam, |
| 114-B-0 | 144-B-2 | 2 to 6 percent slopes |
| 114-B-1 | 404-B-1 | |
| 114-BK-1 | 404-B-2 | |
| 114-BK-2 | 734-B-0 | |
| 114-B-2 | 734-B-0 | |
| 114-B-4 | 734-B-2 | |
| 734-C-2 | 144-C-2 | Morley silt loam, |
| 114-C-0 | 404-C-1 | 6 to 12 percent slopes, eroded |
| 114-C-1 | 734-C-0 | |
| 114-C-2 | 734-C-1 | |
| 144-C-1 | | |
| 734-D-2 | 144-D-1 | Morley silt loam, |
| 114-D-0 | 734-D-0 | 12 to 18 percent slopes, eroded |
| 114-D-1 | 734-D-1 | |
| 114-D-2 | | |
| 734-E-1 | 144-E-2 | Morley silt loam, |
| 114-E-1 | 144-F-2 | 18 to 25 percent slopes |
| 114-E-2 | 734-E-2 | |
| 114-F-1 | 734-F-1 | |
| 114-F-2 | 734-F-2 | |
| 144-E-1 | | |
| 734-B-3 | 263-B-3 | Morley silty clay loam, |
| 114-B-3 | 264-B-3 | 2 to 6 percent slopes, severely eroded |
| 144-B-3 | 404-B-3 | |
| 164-B-3 | 734-B-4 | |
| 243-B-3 | | |
| 734-C-3 | 263-C-3 | Morley silty clay loam, |
| 114-C-3 | 264-C-3 | 6 to 12 percent slopes, severely eroded |
| 114-D-3 | 404-C-3 | |
| 144-C-3 | 404-D-3 | |
| 144-D-3 | 734-C-4 | |
| 164-C-3 | 734-D-3 | |
| 243-C-3 | 734-D-4 | |
| 734-E-3 | 144-E-3 | Morley silty clay loam, |
| 114-E-3 | 734-E-4 | 18 to 25 percent slopes, severely eroded |
| 114-E-4 | 734-F-3 | |
| 114-F-5 | 734-F-4 | |

| Symbols | | Approved Name |
|---|---|---|
| 0306-D-1 | | Oakville fine sand, 12 to 25 percent slopes |
| 0306-B-1 & 7140 Complex<br>0306-C-1 & 7140 Complex<br>0305 - 7140 Complex<br>0305-B-1 & 7140 Complex<br>0305-C-1 & 7140 Complex | | Oakville-Tawas complex, 0 to 6 percent slopes |
| 6515-A-1<br>6325-A-1<br>7325-A-1<br>6505-A-0<br>6505-A-1<br>6505V-A-1 | 6515-A-2<br>6515V-A-1<br>6754-A-1<br>6503V-A-1<br>6513V-A-1 | Oshtemo fine sandy loam, 0 to 2 percent slopes |
| 6515-B-1<br>6505-B-0<br>6505-B-1<br>6505-B-2<br>6505-B-3 | 6515-B-2<br>6515V-B-1<br>6515V-B-2<br>6754-B-1<br>6513V-B-1 | Oshtemo fine sandy loam, 2 to 6 percent slopes |
| 6515-C-1<br>6505-C-1<br>6505-C-2<br>6505-C-3<br>6505-D-0<br>6505-D-2<br>6505-D-3<br>6505-E-1<br>6505-E-2 | 6505-E-3<br>6505-F-3<br>6515-C-2<br>6515-D-2<br>6515-E-1<br>6754-C-2<br>6754-D-2<br>6754-E-3<br>6754-F-1 | Oshtema fine sandy loam, 6 to 12 percent slopes |
| 3738<br>3148<br>3148-A-0<br>3268<br>738<br>148<br>148-0-0<br>148-A-0<br>148-A-1<br>148w<br>148w-A-0<br>149<br>149-0-0<br>149-A-0 | 3268-A-0<br>3269-A-0<br>3738-A-0<br>149-A-1<br>149w<br>149w-0-0<br>268<br>268-A-0<br>268-A-1<br>738-A-0<br>738-A-1<br>738-B-0<br>738-B-2<br>738M | Pewamo silty clay loam |

| Symbols | | Approved Name |
|---|---|---|
| 3118L | | Pewamo silty clay loam, calcareous variant |
| 3048 | | |
| 1118L | | |
| 3758L | | |
| 0305-B-1 | 0305-B-2 | Plainfield fine sand, 0 to 6 percent slopes |
| 0305-A-0 | 7305-B-1 | |
| 0305-A-1 | 7305-3P | |
| 0305-B-0 | 7305-B-2 | |
| 0305-C-1 | 7436-C-2 | Plainfield fine sand, 6 to 12 percent slopes |
| 0305-C-0 | 0505-C-1 | |
| 0305-C-5 | 7505-F-1 | |
| 0305-D-0 | 71135-C-1 | |
| 0305-D-1 | 71135-C-2 | |
| 7305-C-1 | 71135-D-2 | |
| 7425-C-1 | | |
| 5758 | 5488-A-0 | Rensselaer loam |
| 5278 | 6488 | |
| 488 | 758 | |
| 488-A-0 | 5758-A-0 | |
| 5488 | | |
| 5508 | 6508 | Rensselaer loam, sandy substratum |
| 328-A-0 | 6508-A-0 | |
| 5328 | 6508-A-1 | |
| 5328-A-0 | 509-A-0 | |
| 5328-A-1 | 5509 | |
| 328w-A-0 | 5509-A-0 | |
| 338-A-0 | 6509 | |
| 508 | 5518-A-0 | |
| 508-A-0 | 5518-A-1 | |
| 5508-A-0 | 6518 | |
| 5508-A-1 | | |
| 5508M | 5509M | Rensselaer mucky loam, sandy substratum |
| 3508M | 5509M-A-0 | |
| 509M | 6509M | |
| 3509M | 488M | |
| 758L | | Rensselaer loam, calcareous subsoil variant |
| 758L-A-0 | | |
| 5758L | | |
| 5758V | | |
| 7140 | 7140-A-1 | Tawas muck |
| 3 | 7140-Burnt Off | |
| 7140-A-0 | | |

| Symbols | | Approved Name |
|---|---|---|
| 5505-A-1 | 505-A-1 | Tracy loam, |
| 404-A-1 | 5754-A-1 | 0 to 2 percent slopes |
| 5404-A-1 | 754-A-1 | |
| 505-A-0 | | |
| 5505-B-1 | 754-B-2 | Tracy loam, |
| 505-B-1 | 754-C-2 | 2 to 6 percent slopes |
| 505-B-2 | 754-C-3 | |
| 505-B-3 | 754-F-1 | |
| 5505-B-0 | 5754-B-2 | |
| 5505-B-2 | 5754-B-3 | |
| 5505-B-3 | 5754-C-2 | |
| 525-B-3 | 5754-C-3 | |
| 5754-B-1 | 5754-D-3 | |
| 5484-B-2 | 5754-E-1 | |
| 754-B-1 | | |
| 5505-C-1 | 5505-C-2 | Tracy loam, |
| 505-C-1 | 5505-C-3 | 6 to 12 percent slopes |
| 505-C-2 | 5505-D-2 | |
| 505-C-3 | 5505-D-3 | |
| 505-D-1 | 5505-E-1 | |
| 505-D-2 | 5505-E-2 | |
| 505-D-3 | 5505-F-1 | |
| 3505-C-3 | | |
| 5404-B-1 | 5404-C-2 | Tracy loam, silty clay loam substratum, |
| 5404-B-2 | 5404-C-3 | 2 to 6 percent slopes |
| 5404-B-3 | 5404-D-2 | |
| 5404-C-1 | 5404-D-3 | |
| 71135-A-1 | 7505-B-1 | Tyner loamy fine sand, |
| 7424-A-1 | 7525-B-2 | 0 to 6 percent slopes |
| 7525-A-1 | 71135-B-2 | |
| 7513V-A-1 | 7513V-B-1 | |
| 71133-A-1 | 7523V-B-1 | |
| 71135-B-1 | 71133-B-1 | |
| 7125-C-1 | 7525-3P | |
| 7425-B-1 | 7525-B-1 | |
| 1 | | Urban land |
| 100 | 100w-A-0 | Wallkill silt loam |
| 100-A-0 | 3100 | |
| 100w | 3100-A-0 | |
| 100V | 3340V | Warners silt loam |
| 3100V | 5340V | |
| 340V | | |

| Symbols | | Approved Name |
|---|---|---|
| 7272V-A-1 | 7302-A-0 | Watseka loamy fine sand, |
| 7272-A-1 | 7302-A-1 | 0 to 2 percent slopes |
| 7272V-A-0 | 71132-A-1 | |
| 0302-A-1 | | |
| 7122d-A-1 | 6122d-B-1 | Watseka loamy sand, |
| 6122-A-1 | 7122-A-1 | moderately deep variant, |
| 6122d-A-1 | 6434-B-1 | 0 to 2 percent slopes |
| 6128 | 7128-A-0 | Wauseon fine sandy loam |
| 6108 | 7128-A-1 | |
| 5128-A-0 | 6758V | |
| 7128 | | |
| 5752-A-1 | | Whitaker loam |
| 483d-A-1 | | |
| 752-A-1 | | |

NOTES:

1. Slope groups and slope figures to be included with each slope group.

   A - Includes 0, 1, 2 percent slopes
   B - Includes 3, 4, 5, 6 percent slopes
   C - Includes 7, 8, 9, 10, 11, 12 percent slopes
   D - Includes 13, 14, 15, 16, 17, 18 percent slopes
   E - Includes 19, 20, 21, 22, 23, 24, 25 percent slopes
   F - Includes 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 percent slopes
   G - Includes all slopes 36 percent or greater.

2. Mapping units:

   Sand pits - Show on maps as spot symbol for sand pits, one symbol for each delineation or each 5 acres whichever is smaller.

3. Mapping units:

   Gravel pits - Show on maps as standard spot symbol for gravel pits. one symbol for each delineation or each 5 acres whichever is smaller.

4. All areas of 3 erosion smaller than 1/4 inch in length, (the longest dimension) should be replaced with a severe erosion spot symbol.

5. All areas of Milford and Pewamo smaller than 1/4 inch in length (the longest dimension) should be replaced with a wet spot symbol.

6. In all areas, drainageways less than 1/2 inch long should be removed from the maps.

7. Maumee silt loam has a silt loam surface about 10 inches thick and is considered as a taxadjunct in the Maumee series.

Series recommended for establishment:

Tyner
Brems

Approved: 12/5/67

Andrew R. Aandahl

Andrew R. Aandahl
Principal Soil Correlator
Midwest Region

CLASSIFICATION OF SERIES

Lake County, Indiana

| | |
|---|---|
| Alida | Aquollic Hapludalfs; fine-loamy, mixed, mesic. |
| Blount | Aeric Ochraqualfs; fine, illitic, mesic. |
| Bono | Typic Haplaquolls; fine, illitic, noncalcareous, mesic. |
| Brady | Aquollic Hapludalfs; coarse-loamy, mixed, mesic. |
| Brems | Aquic Udipsamments; sandy, mixed, mesic. |
| Carlisle | Organic |
| Darroch | Aquic Argiudolls; fine-loamy, mixed, mesic. |
| Del Rey | Aeric Ochraqualfs; fine, illitic, mesic. (Typic Ochraqualfs?) |
| Door | Typic Argiudolls; fine-loamy, mixed, mesic. |
| Elliott | Aquic Argiudolls; fine, illitic, mesic. |
| Gilford | Typic Haplaquolls; coarse-loamy, mixed, noncalcareous, mesic. |
| Hagener | Entic Hapludolls; sandy, mixed, mesic. |
| Linwood | Organic |
| Lydick | Mollic Hapludalfs; fine-loamy, mixed, mesic. |
| Markham | Mollic Hapludalfs; fine, illitic, mesic. |
| Maumee | Typic Haplaquolls; sandy, mixed, noncalcareous, mesic. |
| Milford | Typic Haplaquolls; fine, mixed, noncalcareous, mesic. (Montmorillonitic?) |
| Morley | Typic Hapludalfs; fine, illitic, mesic. |
| Oakville | Typic Udipsamments; sandy, mixed, mesic. (Spodic Udipsamments?) |
| Oshtemo | Typic Hapludalfs; coarse-loamy, mixed, mesic. |
| Pewamo | Typic Argiaquolls; fine, mixed, noncalcareous, mesic. |
| Plainfield | Typic Udipsamments; sandy, mixed, mesic. |
| Rensselaer | Typic Argiaquolls; fine-loamy, mixed, noncalcareous, mesic. |

| | |
|---|---|
| Tawas | Organic. |
| Tracy | Typic Hapludalfs; fine-loamy, mixed, mesic. |
| Tyner | Typic Udipsamments; sandy, mixed, mesic. |
| Wallkill | Thapto-Histic Haplaquepts; fine-loamy, mixed, nonacid, mesic. (Relation to Histosols?) |
| Warners | Typic Haplaquolls; fine-silty, mixed, calcareous, mesic. (Fine carbonatic?) |
| Watseka | Aquic Hapludolls; sandy, mixed, mesic. |
| Wauseon | Typic Haplaquolls; coarse-loamy over clayey, mixed, noncalcareous, mesic. |
| Whitaker | Aeric Ochraqualfs; fine-loamy, mixed, mesic. |