

University of Wisconsin – Extension

GEOLOGICAL AND NATURAL HISTORY SURVEY
3817 Mineral Point Road
Madison, Wisconsin 53705

M. E. Ostrom, State Geologist and Director

GEOLOGIC LOGS FROM MILWAUKEE COUNTY, WISCONSIN

by

D. G. Mikulic and J. Kluessendorf

Open-File Report 88-1

7 p.

This report represents work performed by the Geological and Natural History Survey, and is released to the open files in the interest of making the information more readily available. This report has not been edited or reviewed for conformity with Geological and Natural History Survey standards and nomenclature.

Appendix for D.G. Milulic and Joanne Kluessendorf, 1988, Subsurface stratigraphic relationships of the Upper Silurian and Devonian rock of Milwaukee County, Wisconsin: Geoscience Wisconsin v. 12, p. 1-23.

Location and general stratigraphy of borings cited in text.

1. Mi-1. Great Lakes Coal Yard, just south of Menomonee River, about 1650 feet (501.6 m) west of S. 16th Street, Milwaukee.
SE1/4SE1/4SW1/4 sec. 30, T. 7 N., R. 22 E.
Surface elevation: 580.0 feet (176.3 m).
Depth in feet (meters):

0-163.0 (0-49.6)	Quaternary deposits
163.0-265.0 (49.6-80.6)	Racine Dolomite
265.0-331.3 (80.6-100.7)	Waukesha Dolomite-Brandon Bridge strata
331.3-440.6 (100.7-133.9)	Undifferentiated lower Silurian strata
440.6-500.0 (133.9-152.0)	Maquoketa Shale (T.D.)

2. Mi-5. East side of Milwaukee River, about 100 feet (30.4 m) south of Riverside Park, Milwaukee.
SW1/4SW1/4NE1/4 sec. 16, T. 7 N., R. 22 E.
Surface elevation: 600.0 feet (182.4 m).
Depth in feet (meters):

0.86.6 (26.3)	Quaternary deposits
86.6-116.6 (26.3-35.4)	Lindworm Member, Milwaukee Formation
116.6-137.4 (35.6-41.8)	Berthelet Member, Milwaukee Formation
137.4-197.4 (41.8-60.0)	Thiensville Formation
197.4-484.0 (60.0-147.1)	Racine Dolomite
484.0-535.8 (147.1-162.9)	Waukesha Dolomite-Brandon Bridge strata
535.8-662.6 (162.9-201.4)	Undifferentiated lower Silurian strata
662.6-686.0 (201.4-208.5)	Maquoketa Shale (T.D.)

3. I30-1-NS. Intersection of N. 51st Street and W. Hampton Avenue, Milwaukee.
Center, N line, sec. 2, T. 7 N., R. 21 E.
Surface elevation: 652.3 feet (198.3 m).
Depth in feet (meters):

0-51.2 (0-15.6)	Quaternary deposits
51.2-224.9 (15.6-68.4)	Racine Dolomite
224.9-271.4 (68.4-82.5)	Waukesha Dolomite-Brandon Bridge strata
271.4-378.0 (82.5-114.9)	Undifferentiated lower Silurian strata
378.0-561.8 (114.9-170.8)	Maquoketa Shale
561.8-806.0 (170.8-245.0)	Sinnipee Group
806.0-856.8 (245.0-260.5)	Ancell Group (T.D.)

4. I30-2-NS. N. 32nd Street, about 60 feet (18.2 m) north of W. Hampton Avenue, Milwaukee.
SE1/4SW1/4SE1/4 sec. 36, T. 8 N., R. 21 E.
Surface elevation: 635.4 feet (193.2 m).
Depth in feet (meters):

0.59.3 (0-18.0)	Quaternary deposits
59.3-219.8 (18.0-66.8)	Racine Dolomite
219.8-281.0 (66.8-85.4)	Waukesha Dolomite-Brandon Bridge strata
281.0-392.5 (85.4-119.3)	Undifferentiated lower Silurian strata
392.5-516.8 (119.3-157.1)	Maquoketa Shale (T.D.)

5. I30-4-NS. 155 feet (47.1 m) west of Interstate Highway 43 on W. Hampton Avenue, in Lincoln Park, Glendale.
SE1/4SE1/4SW1/4 sec. 32, T. 8 N., R. 22 E.
Surface elevation: 638.1 feet (194.0 m)
Depth in feet (meters):
- | | |
|---------------------------|-----------------------------------------|
| 0-18.2 (0-5.5) | Quaternary deposits |
| 18.2-27.2 (5.5-8.3) | Berthelet Member, Milwaukee Formation |
| 27.2-101.8 (8.3-30.9) | Thiensville Formation |
| 101.8-199.2 (30.9-60.6) | Waubakee Dolomite |
| 199.2-362.8 (60.6-110.3) | Racine Dolomite |
| 362.8-407.0 (110.3-123.7) | Waukesha Dolomite-Brandon Bridge strata |
| 407.0-524.8 (123.7-159.5) | Undifferentiated lower Silurian strata |
| 524.8-646.0 (159.5-196.4) | Maquoketa Shale (T.D.) |
6. I30-6-NS. N. Holton Street, about 90 feet (27.4 m) south of W. Nash Street, Milwaukee.
SE1/4SW1/4NW1/4 sec. 9, T. 7 N., R. 22 E.
Surface elevation: 673.0 feet (204.6 m)
Depth in feet (meters):
- | | |
|-------------------------|------------------------------|
| 0-157.0 (0-47.7) | Quaternary deposits |
| 157.0-183.5 (47.7-55.8) | Thiensville Formation (T.D.) |
7. I30-7-NS. Riverside Pumping Station, 54 feet (16.4 m) west of Milwaukee River and 81 feet (24.6 m) south of E. Chambers Street (extended), Milwaukee.
NE1/4NW1/4NE1/4 sec. 16, T. 7 N., R. 22 E.
Surface elevation: 604.2 feet (183.7 m)
Depth in feet (meters):
- | | |
|---------------------------|---------------------------------------------------------------------------------------------------|
| 0-123.0 (0-37.4) | Quaternary deposits |
| 123.0-162.4 (37.4-49.4) | North Point & Lindwurm Members,
Milwaukee Formation; 0.2 feet (6.1 cm)
Antrim Shale at top? |
| 162.4-183.2 (49.4-55.7) | Berthelet Member, Milwaukee Formation |
| 183.2-239.0 (55.7-72.7) | Thiensville Formation |
| 239.0-328.0 (72.7-99.7) | Waubakee Dolomite |
| 328.0-496.6 (99.7-151.0) | Racine Dolomite |
| 496.6-549.9 (151.0-167.2) | Waukesha Dolomite-Brandon Bridge strata |
| 549.9-677.0 (167.2-205.8) | Undifferentiated lower Silurian strata |
| 677.0-788.3 (205.8-239.6) | Maquoketa Shale (T.D.) |
8. I30-8-NS. Northeast corner of University of Wisconsin-Milwaukee parking lot, southwest of intersection of E. Edgewood Avenue and N. Downer Avenue, Milwaukee.
- | | |
|---------------------------|--------------------------------------------------------|
| 0-187.0 (0-56.8) | Quaternary deposits |
| 187.0-192.7 (56.8-58.6) | Antrim Shale |
| 192.7-235.2 (58.6-71.5) | North Point & Lindwurm Members,
Milwaukee Formation |
| 235.2-255.8 (71.5-77.8) | Berthelet Member, Milwaukee Formation |
| 255.8-332.0 (77.8-100.9) | Thiensville Formation |
| 332.0-394.5 (100.9-119.9) | Waubakee Dolomite |
| 394.5-564.3 (119.9-171.5) | Racine Dolomite |
| 564.3-662.6 (171.5-201.4) | Waukesha Dolomite-Brandon Bridge strata |
| 662.6-742.0 (201.4-225.6) | Undifferentiated lower Silurian strata |
| 742.0-748.0 (225.6-227.4) | Maquoketa Shale (T.D.) |

9. I30-10-NS. South of Kilbourn Park, between N. Commerce Street and Milwaukee River at N. Cass Street (extended), Milwaukee.
SW1/4NE1/4NW1/4 sec. 21, T. 7 N., R. 22 E.
Surface elevation: 595.2 feet (180.9 m)
Depth in feet (meters):
0-100.0 (0-30.4) Quaternary deposits; bedrock surface may be at 58.5 feet (17.8 m) but was not recognized during drilling (S. Fradkin, August, 1983, personal communication).
100.0-106.7 (30.4-32.4) Berthelet Member, Milwaukee Formation
106.7-130.0 (32.4-39.5) Thiensville Formation (T.D.)
10. I30-12-NS. Center of Pere Marquette Park, 30 feet (9.1 m) south of W. State Street, Milwaukee.
SE1/4NW1/4NE1/4 sec. 29, T. 7 N., R. 22 E.
Surface elevation: 589.4 feet (179.2 m)
Depth in feet (meters):
0-143.5 (0-43.6) Quaternary deposits
143.5-313.7 (43.6-95.4) Racine Dolomite
313.7-371.6 (95.4-113.0) Waukesha Dolomite-Brandon Bridge strata
371.6-504.8 (113.0-153.5) Undifferentiated lower Silurian strata
504.8-511.1 (153.5-155.4) Maquoketa Shale (T.D.)
11. I30-13-NS. N. Water Street between E. St. Paul Avenue and Interstate Highway 794, Milwaukee.
SE1/4NE1/4SE1/4 sec. 29, T. 7 N., R. 22 E.
Surface elevation: 591.6 feet (179.8 m)
Depth in feet (meters):
0-185.9 (0-56.5) Quaternary deposits
185.9-283.9 (56.5-86.3) Racine Dolomite
283.9-355.5 (86.3-108.1) Waukesha dolomite-Brandon Bridge strata
355.5-471.6 (108.1-143.4) Undifferentiated lower Silurian strata
471.6-567.5 (143.4-172.5) Maquoketa Shale (T.D.)
12. I30-14-NS. Honey Creek Parkway, 61 feet (18.5 m) north of bridge crossing Honey Creek, between Interstate Highway 94 and W. Bluemound Road, Milwaukee.
NE1/4SW1/4SE1/4 sec. 28, T. 7 N., R. 21 E.
Surface elevation: 672.3 feet (204.4 m)
Depth in feet (meters):
0.37.0 (0-11.2) Quaternary deposits
37.0-178.0 (11.2-54.1) Racine Dolomite
178.0-233.0 (54.1-70.8) Waukesha Dolomite-Brandon Bridge strata
233.0-347.3 (70.8-105.6) Undifferentiated lower Silurian strata
347.3-521.0 (105.6-158.4) Maquoketa Shale
521.0-777.5 (158.4-236.4) Sinnipee Group
777.5-827.4 (236.4-251.5) Ancell Group (T.D.)

13. I30-15-CT. Doyme Park, about 300 feet (91.2 m) north of W. Wells Street on N. 53rd Street (extended), just south of the old Schweickhart Quarry, Milwaukee.
 NE1/4SE1/4NW1/4 sec. 26, T. 7 N., R. 21 E.
 Surface elevation: 675.0 feet (205.2 m)
 Depth in feet (meters):
- | | |
|---------------------------|-----------------------------------------|
| 0-48.0 (0-14.6) | Quaternary deposits |
| 48.0-211.7 (14.6-64.4) | Racine Dolomite |
| 211.7-264.1 (64.4-80.3) | Waukesha Dolomite-Brandon Bridge strata |
| 264.1-385.7 (80.3-117.3) | Undifferentiated lower Silurian strata |
| 385.7-563.0 (117.3-171.2) | Maquoketa Shale |
| 563.0-586.5 (171.2-178.3) | Sinnipee Group (T.D.) |
14. I30-19-CT. W. Kingston Place, about 30 feet (9.1 m) east of last house, just north of W. Wisconsin Avenue and west of Menomonee River, Milwaukee.
 SW1/4SW1/4NW1/4 sec. 25, T. 7 N., R. 21 E.
 Surface elevation: 605.9 feet (184.2 m)
 Depth in feet (meters):
- | | |
|---------------------------|-----------------------------------------|
| 0.35.0 (0-10.6) | Quaternary deposits |
| 35.0-177.2 (10.6-53.9) | Racine Dolomite |
| 177.2-231.3 (53.9-70.3) | Waukesha Dolomite-Brandon Bridge strata |
| 231.3-352.0 (70.3-107.0) | Undifferentiated lower Silurian strata |
| 352.0-529.0 (107.0-160.8) | Maquoketa Shale |
| 529.0-546.9 (160.8-166.3) | Sinnipee Group (T.D.) |
15. I30-22-CT. W. Michigan Street between N. 35th Street and N. 36th Street, north side of Merrill Park, Milwaukee.
 NE1/4NE1/4SW1/4 sec. 25, T. 7 N., R. 21 E.
 Surface elevation: 676.6 feet (205.7 m)
 Depth in feet (meters):
- | | |
|---------------------------|-----------------------------------------|
| 0-77.0 (0-23.4) | Quaternary deposits |
| 77.0-277.5 (23.4-84.4) | Racine Dolomite |
| 277.5-355.5 (84.4-108.1) | Waukesha Dolomite-Brandon Bridge strata |
| 355.5-454.8 (108.1-138.3) | Undifferentiated lower Silurian strata |
| 454.8-632.6 (138.3-192.3) | Maquoketa Shale |
| 632.6-668.3 (192.3-203.2) | Sinnipee Group (T.D.) |
16. I30-24-CT. W. Wells Street, 66 feet (20.1 m) west of N. 11th Street, Milwaukee.
 SW1/4SW1/4NW1/4 sec. 29, T. 7 N., R. 22 E.
 Surface elevation: 644.4 feet (195.9 m)
 Depth in feet (meters):
- | | |
|-------------------------|--------------------------|
| 0-116.0 (0-35.3) | Quaternary deposits |
| 116.0-150.1 (35.3-45.6) | Waubakee Dolomite (T.D.) |
17. I30-27A-CT. E. Jones Street, just east of S. Harbor Drive at the Jones Island Sewage Treatment Plant, Milwaukee.
 NE1/4SE1/4SW1/4 sec. 33, T. 7 N., R. 22 E.
 Surface elevation: 587.9 feet (178.7 m)
 Depth in feet (meters):
- | | |
|---------------------------|-----------------------------------------|
| 0-171.0 (0-52.0) | Quaternary deposits |
| 171.0-298.4 (52.0-90.7) | Racine Dolomite |
| 298.4-359.4 (90.7-109.3) | Waukesha Dolomite-Brandon Bridge strata |
| 359.4-478.1 (109.3-145.3) | Undifferentiated lower Silurian strata |
| 478.1-659.4 (145.3-200.5) | Maquoketa Shale |
| 659.4-919.3 (200.5-279.5) | Sinnipee Group |
| 919.3-957.5 (279.5-291.1) | Ancell Group (T.D.) |

18. I30-NS-AS-3. South of Milwaukee River, 1500 feet (456.0 m) east of N. Port Washington Road and 300 feet (91.2 m) south of river, Glendale. NW1/4SE1/4NE1/4 sec. 5, T. 7 N., R. 22 E.
Surface elevation: 631.1 feet (191.9 m)
Depth in feet (meters):
0-87.5 (0-26.6) Quaternary deposits
87.5-100.7 (26.6-30.6) Antrim Shale
100.7-139.7 (30.6-42.5) North Point & Lindwurm Members,
Milwaukee Formation
139.7-161.7 (42.5-49.2) Berthelet Member, Milwaukee Formation
161.7-222.3 (49.2-67.6) Thiensville Formation
222.3-332.9 (67.6-101.2) Waubakee Dolomite
332.9-378.0 (101.2-114.9) Racine Dolomite
20. I30-CT-DS-6. Just north of W. Groves Street, about 500 feet east of N. 25th Street, Milwaukee. SE1/4SW1/4SW1/4 sec. 30, T. 7 N., R. 22 E.
Surface elevation: 595.5 feet (181.0 m)
Depth in feet (meters):
0.83.0 (0-25.2) Quaternary deposits
83.0-269.4 (25.2-81.9) Racine Dolomite
269.4-321.4 (81.9-97.7) Waukesha Dolomite-Brandon Bridge strata
(T.D.)
21. I30-NS-DS-9. Between Milwaukee River and N. Edison Street, just south of E. Highland Avenue (extended), Milwaukee. NW1/4NE1/4NE1/4 sec. 29, T. 7 N., R. 22 E.
Surface elevation: 588.2 feet (178.8 m)
Depth in feet (meters):
0-104.5 (0-31.8) Quaternary deposits
104.5-140.4 (31.8-42.7) Waubakee Dolomite
140.4-313.8 (42.7-95.4) Racine Dolomite
313.8-355.0 (95.4-107.9) Waukesha Dolomite-Brandon Bridge strata
(T.D.)
22. I30-NS-MR-1S. N. Green Bay Avenue, about 100 feet (30.4 m) north of W. Stark Street, Milwaukee. NW1/4SE, SE, sec. 31, T. 7 N., R. 22 E.
Surface elevation: 625.3 feet (190.1 m)
Depth in feet (meters):
0-111.9 (0-34.0) Quaternary deposits
111.9-142.3 (34.0-43.3) Waubakee Dolomite
142.3-163.3 (43.3-49.6) Racine Dolomite (T.D.)
23. I30-NS-MR-4D. E. Park Place, about 60 feet (18.2 m) east of N. Newhall Street, Milwaukee. NE1/4NE1/4SE1/4 sec. 16, T. 7 N., R. 22 E.
Surface elevation: 649.0 feet (197.3 m)
Depth in feet (meters):
0-142.0 (0-43.2) Quaternary deposits
142.0-178.8 (43.2-54.4) North Point & Lindwurm Members,
Milwaukee Formation
178.8-200.4 (54.4-60.9) Berthelet Member, Milwaukee Formation
200.4-257.7 (60.9-78.3) Thiensville Formation
257.7-318.5 (78.3-96.8) Waubakee Dolomite
318.5-347.1 (96.8-105.5) Racine Dolomite (T.D.)

24. C10-13-CT5/6. In alley west of N. 25th Street between W. Greeves Street and W. St. Paul Avenue, Milwaukee.
 NW1/4SW1/4SW1/4 sec. 30, T. 7 N., R. 21 E.
 Surface elevation: 606.9 feet (184.5 m)
 Depth in feet (meters):
 0-15.7 (0-4.8) Quaternary deposits
 15.7-97.0 ((4.8-29.5) Racine Dolomite (T.D.)
25. M1-58. Wisconsin Geological & Natural History Survey water-well log. Eagles Club well, south of W. Wisconsin Avenue and west of N. 24th Street, Milwaukee.
 NE1/4NW1/4SW1/4 sec. 30, T. 7 N., R. 21 E.
 Surface elevation: 706.0 feet (214.6 m)
 Depth in feet (meters):
 0-105.0 (0-31.9) Quaternary deposits
 105.0-120.0 (31.9-36.5) Waubakee Dolomite*
 120.0-240.0 (36.5-73.0) Racine Dolomite
 240.0-540.0 (73.0-164.2) Undifferentiated Silurian strata
 540.0-715.0 (164.2-217.4) Maquoketa Shale
 715.0-965.0 (217.4-293.4) Sinnipee Group
 *this interval was originally logged as Devonian
26. 865-1ED (Project MW74-639). Corner of N. 51st Street and W. Stark Street, Milwaukee.
 SE cor., NE1/4SE1/4SW1/4 sec. 35, T. 8 N., R. 21 E.
 Surface elevation: 652.9 feet (198.5 m)
 Depth in feet (meters):
 0-52.0 (0-15.8) Quaternary deposits
 52.0-63.0 (15.8-19.2) Racine Dolomite (T.D.)
27. 865-2ED (Project MW74-639). N. 51st Street, about 400 feet (121.6 m) south of W. Villard Avenue, Milwaukee.
 E. edge, NE1/4NE1/4SW1/4 sec. 35, T. 8 N., R. 21 E.
 Surface elevation: 677.0 feet (205.8 m)
 Depth in feet (meters):
 0-28.3 (0-8.6) Quaternary deposits
 28.3-71.0 (8.6-21.6) Waubakee Dolomite (T.D.)
28. 865-5ED (Project MW74-639). W. Silver Spring Drive, about 300 feet (91.2 m) west of railroad bridge, Milwaukee.
 NW cor., NW1/4NE1/4NE1/4 sec. 35, T. 8 N., R. 21 E.
 Surface elevation: 668.1 feet (203.1 m)
 Depth in feet (meters):
 0-8.3 (0-2.5) Quaternary deposits
 8.3-61.0 (2.5-18.5) Racine Dolomite (T.D.)
29. 866-3ED (Project MW75-105). Intersection of W. Mill Road and N. 43rd Street, Milwaukee.
 SE cor., sec. 23, T. 8 N., R. 21 E.
 Surface elevation: 691.5 feet (210.2 m)
 Depth in feet (meters):
 0.49.7 (0-15.1) Quaternary deposits
 49.7-85.0 (15.1-25.8) Waubakee Dolomite (T.D.)

30. 867-7 (Project MW76-704). N. 43rd Street, about 400 feet (121.6 m) south of W. Greentree Road, Milwaukee.
 E. edge, NE1/4NE1/4SE1/4 sec. 23, T. 8 N., R. 21 E.
 Surface elevation: 719.3 feet (218.7 m)
 Depth in feet (meters):
 0-28.5 (0-8.7) Quaternary deposits
 28.5-80.5 (3.8-24.5) Thiensville Formation
 80.5-115.0 (24.5-35.0) Waubakee Dolomite (T.D.)
31. 867-8 (Project MW76-704). N. 43rd Street, about 500 feet (152.0 m) north of W. Kiehnau Avenue, Milwaukee.
 E. edge, SE1/4NE1/4SE1/4 sec. 23, T. 8 N., R. 21 E.
 Surface elevation: 729.7 feet (221.8 m)
 Depth in feet (meters):
 0-40.5 (0-12.3) Quaternary deposits
 40.5-94.0 (12.3-28.6) Thiensville Formation
 94.0-124.0 (28.6-37.7) Waubakee Dolomite (T.D.)
32. 867-9 (Project MW76-704). N. 43rd Street, about 700 feet (212.8 m) north of W. Mill Road, Milwaukee.
 E. edge, NE1/4SE1/4SE1/4 sec. 23, T. 8 N., R. 21 E.
 Surface elevation: 699.5 feet (212.6 m)
 Depth in feet (meters):
 0-32.5 (0-9.9) Quaternary deposits
 32.5-60.0 (9.9-18.2) Thiensville Formation
 60.0-95.5 (18.2-29.0) Waubakee Dolomite (T.D.)
33. NB-12 (289). N. 43rd Street, about 100 feet (30.4 m) south of W. Brown Deer Road, Brown Deer.
 E. edge, SW1/4NW1/4NW1/4 sec. 12, T. 8 N., R. 21 E.
 Surface elevation: 670.7 feet (203.9 m)
 Depth in feet (meters):
 0-13.5 (0-4.1) Quaternary deposits
 13.5-18.6 (4.1-5.7) Milwaukee Formation
 18.6-55.0 (5.7-16.7) Thiensville Formation (T.D.)