

BOTKIN 1 (15-191-20289) T: 31S R: 1W S: 31
Latitude: 37.3153481 Longitude: -97.4635936 Elevation (KB): 1226.0 Depth: 4043.0

Depth	Stratigraphic Units		Rock	Lithology	Fossils Sedimentary Structure	Porosity Type	Porosity	Remarks
	Members	Formations						
1400								1400 1410 buff & gray 1410 1420 gray sh 1420 1425 buff & gray 1430 1438 buff & gray 1438 1458 gray sh
1500								1458 1460 buff & gray 1470 1475 buff & gray 1487 1495 buff & gray 1495 1508 gray sh 1508 1510 buff & gray 1520 1530 buff & gray 1530 1538 gray sh 1538 1540 buff & gray 1550 1560 gray sh 1560 1565 gray & brown
1600								1580 1585 varicolored sh 1590 1600 gray sand 1600 1610 varicolored calc sh 1610 1616 varicolored sh 1620 1638 varicolored sh 1645 1650 varicolored sh 1657 1660 varicolored sh 1665 1680 varicolored sh 1680 1683 gray Fossiliferous
1700								1700 1703 gray-brown dense lst 1713 1715 fine grain sst 1722 1730 gray-brown dense lst 1730 1735 dark gray sh 1740 1741 dark gray sh 1748 1750 dark gray sh 1758 1759 fine grain sst 1770 1773 gray-brown dense 1780 1781 fine grain sst
1800								1795 1796 fine grain sst 1810 1811 fine grain sst 1825 Topeka Limestone 1837 1840 dark gray sh 1845 1848 gray & brown sh 1857 1875 buff sucrosic slight porosity lst 1875 1878 dark gray sh 1887 1898 varicolored sh sandy 1898 1901 gray dense 1908 1913 varicolored sh 1918 1940 varicolored sh
1900								1940 1943 buff & gray dense 1948 1960 buff & gray dense 1985 2080 buff-white flaky chalky porous (good porosity) 1989 porosity fossiliferous lst
2000								2080 2090 brown dense fine xln 2090 2110 buff-white dense fine xln soft flaky lst 2110 2115 varicolored sh 2120 2125 varicolored sh 2130 2140 interbedded dense 2140 2150 buff & gray dense 2150 2153 varicolored red sh 2160 2165 dark gray & black sh 2169 2180 dark gray & black sh 2180 2210 drab gray grayish green red sh
2100								2210 2225 buff-gray dense fossiliferous & soft flaky lst 2225 2292 varicolored sandy streak dark gray platy sh
2200								2292 Oread Limestone 2320 2328 dark gray drab 2328 2330 buff-brown lst 2338 2340 buff-brown lst 2348 2350 buff-brown lst 2358 2360 dark gray drab 2370 2372 dark gray-black sh 2380 2385 dark gray-black sh
2300								2407 2410 black sh 2415 2448 dark gray grayish green platy sh 2445 2453 gray-brown very 2453 2540 mostly drab gray grayish green some red sh
2400								2540 2565 varicolored sh thin sst & lst streaks 2565 2585 dark gray grayish green sh 2585 2588 gray sandy lst 2605 2610 gray sh 2615 2620 gray sh
2500								2668 Stalnaker Sandstone 2787 2865 mostly gray platy sh
2600								2865 2925 gray platy part silty sh some brown 2925 2980 dark gray platy sh sandy streaks 2980 3010 dark gray & black platy some brown sh
2700								3010 3015 black coaly sh 3020 3050 buff gray-tan dense very fossiliferous flaky chalky cherty lst thin vuggy porosity streaks 3050 3095 interbedded buff-tan very dense fine xln & soft flaky-chalky lst 3095 3105 buff-white soft 3105 3120 interbedded buff-tan very dense fine xln & soft 3120 3135 buff-tan dense fine xln chalky lst 3135 3147 buff-white soft 3147 3150 dark gray - black sh 3159 3163 thin oocastic lst 3178 3180 black sh 3187 3193 gray grayish green
2800								3230 3257 buff-brown very dense fine xln chalky lst streak 3257 3265 dark gray & black 3265 3268 lst 3280 3295 soft flaky chalky dense fine xln lst 3295 3305 dark gray grayish 3305 3315 gray fine grain 3315 3340 gray platy silty calc sh 3340 3350 buff dense-soft 3350 3370 skip 3370 3385 gray grayish green sh 3385 3390 buff-gray dense fine 3400 3402 buff-gray dense fine
2900								3420 3428 dark gray & black 3428 3430 buff dense fine xln 3438 3440 buff dense fine xln 3448 3450 buff dense fine xln 3465 3477 buff dense fine xln 3477 3488 varicolored sh 3488 3490 dense lst 3500 3520 buff-brown dense fine xln chalky lst 3520 3535 dark gray grayish green sh 3535 3540 flaky muddy thin lst 3548 3550 flaky muddy thin lst 3560 3563 flaky muddy thin lst
3000								3588 3590 lst 3597 3599 lst 3607 3609 lst 3615 3624 dark waxy sh 3624 Mississippian 3635 3640 gray-tan very dense 3645 3665 gray flaky tan fine xln flaky fossiliferous cherty 3665 3735 gray-brown very dense fine xln flaky lst very silic. very little chert
3100								3735 3750 drab yellow brown waxy flaky sh 3750 3765 brown gray silic lst abundant gray-brown mollusc 3765 3775 gray-tan fine xln 3775 3795 light brown gray fine xln flaky lst vein quartz 3795 3812 dirty buff coarse xln lst little good oolitic 3812 3860 dark gray brown dense fine xln flaky lst part very silic
3200								3860 3862 dark gray sh 3869 3910 dark gray brown dense fine xln flaky lst part very silic 3917 3940 dirty buff medium coarse xln flaky fossiliferous lst some very fossiliferous 3940 3965 mostly dirty buff-gray flaky medium xln very fossiliferous lst some chert as 3965 Kinderhookian 3978 3995 dark gray platy dolomitic sh shaly dolomite 3995 4015 drab varicolored-red waxy sh 4015 4027 dark gray-black 4032 4038 gray tan dolomitic
3300								
3400								
3500								
3600								
3700								
3800								
3900								
4000								

Primary Rock Lithology

Shale

Silt, Siltstone

Sand, Sandstone

Chert

Limestone

Dolomite

Quartz

Secondary Rock Lithology

Shaly, shale

Silty, Silt

Sandy, sand

Cherty, chert

Anthracitic

oolitic

fossiliferous

Calcareous

Dolomitic

Fossils

Fresh Water

Brackish Water

Marine

Fossils

(1) Few

(5) Many

(X) Broken

Macrofossils

(1) Macrofossils

Pollen and (or) spores

(1) Pollen and (or) spores

Sedimentary Structure Symbols

Vein, sedimentary dyke

Deformational Structures

Vein, sedimentary dyke

Porosity Type

Vuggy

Shawnee

Virgilian

Pennsylvanian

Upper

Douglas

Carboniferous

Missourian

Laning

Mississippian

Kinderhookian

Simpson

Ordovician

Middle

Lower