

76-24 E

SAMPLE RECORD

16-26-24 E

State Kansas Co. Bourbon Farm Stevenson No. 1 Sec. 16 Twp. 26 Rge. 24E.

Location SW-NE


Company Arnold et al Date Drilled Oct. 3, 1930-

Elevation 933' Total Depth 2403'

- 0-35 Hard white limestone, black shale.
- 35-65 Hard dark gray finely crystalline limestone, black shale.
- 65-85 Fine angular micaceous sandstone.
- 85-90 " " " "
- 90-95 Dark gray to black shale, fine angular sandstone.
- 95-110 Soft white earthy and dense ls.
- 110-115 Dark gray to black shale
- 115-125 White and gray dense limestone
- 125-130 Black shale and coal
- 130-135 Fine angular micaceous sandstone, dark shale
- 135-200 Soft gray shale
- 200-225 Hard dark gray shale
- 225-275 Soft gray shale
- 275-400 Hard dark gray fissile shale
- 400-425 Hard bluish gray fissile shale
- 425-430 Fine angular micaceous sandstone
- 430-435 Fine angular micaceous ss.
- 435-475 Hard dark gray shale
- 475-490 Fine angular ss., gray sandy shale

812  
490  
324  
33  
75

Mississippi lime.

- 490-497 Hard white weathered chert.
- 497-645 Hard white crystalline limestone, hard white chert.
- 645-650 Buff coarsely crystalline ls., " " "
- 650-658 " " " " " " "
- 675-683 Brown crystalline dolomitic limestone, white chert.
- 683-687 Hard white chert, brown crystalline dolomitic ls.
- 687-769 Missing
- 769-775 Hard white dense chert, white crystalline ls.
- 775-787 Missing
- 787-794 Soft white coarsely crystalline limestone.
- 794-803 Missing
- 803-808 Soft buff coarsely crystalline limestone
- 808-812 " " " " partly dolomitic limestone.
- 812-818 Soft gray shale, soft buff crystalline dolomitic ls.
- 818-823 Missing
- 823-826 Soft gray shale
- 826-840 Hard gray sandy shale
- 840-845 Hard dark gray shale
- 845-850 Buff crystalline limestone, quartz and chert.
- 850-865 Dense brown crystalline limestone.
- 865-868 " " " "
- 870-875 " " " "
- 875-880 " " " "
- 880-885 " " " ", brown chert.
- 885-890 " " " " "
- 890-895 Buff coarsely crystalline limestone, little chert.
- 895-900 Light gray and buff crystalline limestone.
- 900-910 Gray shale, buff crystalline limestone.

845  
812  
33

Sanderhook

Siliceous

76-  
16-26-24E

State \_\_\_\_\_ Co. \_\_\_\_\_ Farm Stevenson No. 1 Sec. 16 Twp. 26 Rge. 24E

Location \_\_\_\_\_

Company \_\_\_\_\_ Date Drilled \_\_\_\_\_

Elevation \_\_\_\_\_ Total Depth \_\_\_\_\_


- 910-915 Gray shale, much sharp dense chert.
- 915-920 Buff coarsely crystalline dolomitic limestone, chert.
- 920-930 Buff coarsely crystalline dolomitic limestone, chert.
- 930-950 " " " " " "
- 950-965 " " " " " "
- 965-975 " " " " " "
- 975-980 Brown crystalline dolomitic limestone, chert.
- 980-1007 " " " " " "
- 1007-1014 Missing
- 1014-1018 Brown crystalline dolomitic limestone, white chert.
- 1018-1033 Hard white chert, brown dolomitic limestone.
- 1033-1038 Brown coarsely crystalline limestone, white chert.
- 1038-1056 Brown coarsely crystalline dolomitic limestone, white chert.
- 1056-1075 Brown crystalline dolomitic ls.
- 1075-1150 " " " " "
- 1150-1155 White crystalline limestone, partly dolomitic.
- 1155-1174 White crystalline limestone, partly dolomitic.
- 1174-1179 " " " " "
- 1179-1180 " " " " "
- 1180-1205 " " " " "
- 1205-1210 " " " " "
- 1210-1217 " " " " "
- 1217-1221 Fine angular sand, white dolomitic ls.
- 1221-1225 Fine angular sand, white dolomitic ls.
- 1225-1230 Coarse angular sand.
- 1230-1236 " " " , white dolomitic limestone
- 1236-1251 White coarsely crystalline dolomitic limestone, coarse sand.
- 1251-1255 " " " " " "
- 1255-1262 " " " " " "
- 1262-1268 " " " " " "
- 1268-1275 " " " " " "
- 1275-1280 " " " " " "
- 1280-1285 " " " " " "
- 1285-1290 " " " " " "
- 1290-1295 " " " " " "
- 1295-1300 " " " " " "
- 1300-1305 " " " " " "
- 1305-1310 " " " " " , coarse sand.
- 1310-1315 " " " " " "
- 1315-1320 White and brown coarsely crystalline dolomitic limestone.
- 1320-1328 " " " " " "
- 1328-1332 Brown crystalline dolomitic limestone.
- 1332-1337 White and brown coarsely crystalline dolomitic limestone.
- 1337-1349 " " " " " "
- 1349-1358 White coarsely crystalline dolomitic limestone.
- 1358-1365 " " " " " "
- 1375-1394 " " " " " "

SAMPLE RECORD

76-24  
16-26-24 E

State \_\_\_\_\_ Co. \_\_\_\_\_ Farm Stevenson No. 1 Sec. 16 Twp. 76 Rge. 24 E

Location \_\_\_\_\_

Company \_\_\_\_\_ Date Drilled \_\_\_\_\_

Elevation \_\_\_\_\_ Total Depth \_\_\_\_\_


1394-1403 White coarsely crystalline dolomitic limestone.  
1403-1408 " " " " "  
1408-1440 " " " " "  
1440-1451 White and brown coarsely crystalline dolomitic limestone  
1451-1460 " " " " "  
1460-1476 " " " " "  
1476-1481 Gray coarsely crystalline dolomitic limestone.  
1481-1487 " " " " "  
1487-1492 " " " " "  
1492-1498 " " " " "  
1498-1507 " " " " "  
1507-1516 " " " " "  
1516-1533 " " " " "  
1533-1538 " " " " "  
1538-1545 " " " " "  
1545-1548 " " " " "  
1548-1556 " " " " "  
1556-1570 " " " " "  
1570-1575 " " " " "  
1575-1580 " " " " "  
1580-1590 " " " " "  
1590-1611 " " " " "  
1611-1620 " " " " "  
1620-1640 " " " " "  
1640-1658 " " " " "  
1658-1665 " " " " "  
1665-1678 Gray and brown coarsely crystalline dolomitic limestone  
1678-1685 " " " " "  
1685-1702 " " " " "  
1702-1717 Gray coarsely crystalline dolomitic limestone  
1717-1730 " " " " "  
1730-1739 " " " " "  
1739-1760 " " " " "  
1760-1777 Medium fine subangular glauconitic sand  
1777-1780 Coarse subangular glauconitic sand.  
1780-1783 Coarse subangular to rounded sand, little glauconite  
1783-1787 " " " " "  
1787-1792 " " " " "  
1792-1797 " " " " "  
1797-1802 " " " " "  
1802-1809 " " " " , red metamorphic rock.  
1809-1815 Reddish schistose rock.  
1815-1823 " " " "  
1823-1827 " " " "  
1827-1830 " " " "  
1830-1835 " " " "  
1835-1840 " " " "  
1840-1847 " " " "

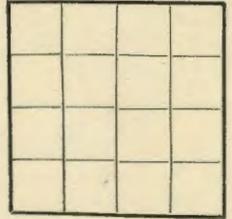


State \_\_\_\_\_ Co. \_\_\_\_\_ Farm Stevenson No. \_\_\_\_\_ Sec. 16 Twp. 76 Rge. 242

Location \_\_\_\_\_

Company \_\_\_\_\_ Date Drilled \_\_\_\_\_

Elevation \_\_\_\_\_ Total Depth \_\_\_\_\_



2150-2155 Hard gray quartzite, gray and green schist

2155-2159 " " " " " " "

2159-2165 " " " " " " "

2165-2167 " " " " " " "

2167-2171 " " " " " " "

2171-2176 Gray and green schist

2176-2179 " " " "

2179-2185 " " " "

2185-2215 " " " "

2213-2218 " " " "

2218-2222 " " " "

2222-2226 " " " "

2226-2228 Green schist, clear quartzite

2228-2233 " " " "

2233-2239 " " " "

2239-2245 " " " "

2245-2252 Gray and green schist

2252-2264 Gray and green schist, gray quartzite

2264-2273 " " " " " "

2273-2282 " " " " " "

2282-2286 " " " " " "

2286-2292 " " " " " "

2292-2297 " " " " " "

2297-2302 " " " " " "

2302-2313 " " " " " "

2318-2322 " " " " " "

2322-2324 " " " " "

2324-2328 " " " " "

2328-2329 " " " " "

2329-2335 " " " " "

2335-2340 " " " " "

2340-2345 " " " " "

2345-2349 " " " " "

2349-2354 " " " " "

2354-2357 Green and greenish gray schist.

2357-2362 " " " " "

2362-2366 " " " " "

2366-2374 White quartzite, green and greenish gray schist

2374-2379 Gray and greenish gray schist

2375-2385 " " " " "

2385-2390 " " " " "

2390-2394 " " " " "

2394-2403 " " " " "

T. D.

16-26-24 E

Owner and driller: I. I. Arnold, Fort Scott, Kansas  
 Location: Stevenson No. 1, SW.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 16, T. 26, R. 24 E.,  
 Bourbon County, Kansas.  
 Samples examined by H. S. McQueen, Dec. 26, 1930.

	From	To	Thick
Limestone, brown, fine-grained, with black shale, some fine-grained micaceous sandstone	0	35	35
Sandstone, greenish-gray, calcareous micaceous	65	90	25
As above with black shale	90	95	5
Limestone, light gray, dense to fine-grained, Yields small residue of siliceous fossil fragments and black shale	95	110	15
As above with more black shale	110	115	5
Similar to 95-110	115	130	15
Sandstone, gray, very fine-grained, calcareous, very argillaceous and micaceous		200	
Shale, greenish-gray and black	200	225	25
Shale, greenish-gray, slightly calcareous, sandy and micaceous	225	275	50
Shale, dark-gray and black, micaceous		400	
Shale, gray, sandy micaceous, also black, dense	400	425	25
Sandstone, light grayish-brown, micaceous with dark spots, some shale	425	435	10
Shale, black, sandstone, fine-grained pyrite, micaceous	435	475	40
Clay or shale, sandy, light grayish brown; also shale, black; some chert	475	490	15
Chert, white, fossiliferous, slightly porous, with black shale	490	497	7
Limestone, gray, fine-grained, slightly organic, with chert, gray to blue-gray, dense and porous, fossiliferous		640	
Limestone, light-brownish gray, fine-grained with chert, dense and porous, quartzose, fossiliferous. Two samples	640	658	18
Dolomite, dark-brown, very finely crystalline, with chert, white, slightly brownish cast, dense slightly oolitic	678	683	5

16-26-24 E

## Paleontology by Empire Co.

Company: Fort Scott Syndicate  
 Location: Stevenson, No. 1 SW NE 1/4 sec. 16, T. 26 S., R. 24 E.  
 Bourbon County, Kansas

Pennsylvanian

Gray limy siliceous hard shale	35	65
White, fine, subangular micaceous dolomite sandstone	65	90
Dark-gray shale and coal	90	95
Dense brown white fossiliferous limestone	95	110
Dark-gray shale	110	115
Coal and dark-gray shale	125	130
White fine micaceous sandstone	130	135
Gray micaceous shale	135	200
Dark-gray calcareous shale	200	225
Light-gray micaceous shale and white fine calcareous sandstone and pyrite	225	275
Light gray greenish gray shale	275	400
Dark-gray shale and light-gray fine micaceous sandstone	400	425
Light-gray micaceous fine sandstone	425	435
Light and dark-gray shale	435	475
Gray clay with sand inclusions	475	490

Mississippi

White opaque weathered chert	490	497
White very finely sandy, limestone 80 percent; white opaque chert 20 percent		497
Brownish-white medium crystalline limestone 85 percent, white mottled slightly calcareous chert 15 percent	645	658
Light brown finely crystalline dolomite limestone 75 percent, white mottled chert 25%	675	683

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16-26-24E

Light-brown dolomite limestone 25 percent; white opaque chert 75 percent	683	687
White dolomite limestone 15 percent; white opaque chert 85 percent	768	775
White crystalline lime	787	794
Light-brown very finely sandy limestone	803	818
Light greenish-gray argillaceous finely crystal- line dolomite, limestone and dolomite shale	823	840

Kinderhook

Greenish-gray dolomite shale	840	845
Light-brown very finely sandy limestone 85 percent; brown mottled chert 15 percent	845	850
Dense brown limestone	850	895
Dense white limestone	895	900
Greenish gray shale with much pyrite	900	910
Light-brown and gray finely crystalline dolomitic limestone 69 percent; white semitranslucent chert, partly oolitic 30 percent, coarse rounded sand 1 per cent	910	930

Arbuckle

Light-brown and gray fine dolomitic lime- stone 85 percent; white and gray chert 15 %	930	980
White fine dolomitic lime 90 percent; white opaque chert 10 percent	980	1014
White fine dolomitic limestone 60 percent; white opaque chert 40 percent	1014	1018
White fine dolomitic lime 90 percent; very fine sand 10 percent	1018	1033
Brown medium crystalline dolomitic limestone 80 percent; white oolitic chert and some white dolocastic chert 20 percent; some rounded frosted sand grains	1033	1075

collected by G. P. Chernoff

Chert, white, dense, with dolomite like above		787	
Limestone, white, light-brown, fine-grained, some chert, white, finely mottled brown, some brown spongy shale	787	794	7
Limestone, brown, organic, with chert, dark and light brown, marked by fine, lighter colored small specks, dense, quartzose; some crystalline quartz; some brown shale.			
<u>Two samples</u> <small>← N.B. Kans. Survey has four samples, 803-808. 803-812 correspond to the description. - 812-818 and 818-826 correspond to Northvi. Warren has.</small>	794	826	30
Sandstone, green, calcareous and argillaceous	826	840	14
Shale, green, sandy, slightly calcareous	840	845	5
Limestone, brown, fine-grained, with chert, dark-brown, very waxy, also light-gray, and brown, few spongy masses of sandy shale, some crystalline quartz and pyrite	845	850	5
Limestone, dark-brown and light-brown sub-lithographic, organic, residue contains brown spongy silt masses; few masses of fine-grained sandstone; some chert	855	875	10
Limestone, dark brown, sub-lithographic, organic small amount of green shale, some white and brown chert; silt masses as above; pyrite	875	880	5
Limestone, light brown, sub-lithographic, contains less organic matter than above; chert, light-grayish to dark-brown, dense, waxy; also fine, porous, sandy masses	880	885	5
Limestone, light gray or light brown, dense, even-grained; insoluble residue contains marcasite much shale with stringers of marcasite; few siliceous fossil fragments; some white chert	885	910	25
Dolomite, light gray, finely granular with much dark green shale, with flat stringers of marcasite like above; chert, white, blue gray, brown, slightly oolitic chert	910	915	5
<small>Shale contains spores (small, white, black) W.L.</small>			
Dolomite, brown, finely crystalline; granular, with 50 percent chert, white, gray, dark-blue and brown, dense and oolitic; quartzose; small amount of sand; few fragments of shale as in 900-915	915	980	65

Chert

Northvi

Plattin

Cutter  
+ Jeff.  
OK

Dolomite, brown, fine-grained; residues consist of chert, white, gray, dense, quartzose, two samples	980	1018	38
Dolomite, brown, fine-grained; residue small, contains sand, fine angular to rounded and frosted grains; chert like above	1018	1033	15
Dolomite, dark-brown, finely crystalline; chert, white and with brown oolites; brown, granular silica; rounded and frosted grains of sand	1033	1056	23
Dolomite, similar to above, milky gray, quartzose, with brown granular silica	1056	1075	19
Dolomite, brown, fine-grained, with fine-grained sand and a few pieces of chert	1200	1217	17
Sandstone, fine-grained, angular at 1221-1225, becoming coarser and more rounded at 1230, 1255, and 1286 much dolomite at 1255-1268	1217	1268	51
Dolomite, gray, finely crystalline, small amount of chert and sand; much pyrite, three samples	1268	1300	32
Dolomite, gray, finely crystalline, with chert, white, quartzose, much pyrite, three samples	1300	1328	28
Dolomite, dark-brown and gray, finely crystalline, with chert, white, dense, and quartzose, and porous and slightly pyrite. Three samples	1328	1349	21
Dolomite, gray, finely crystalline, with considerable pyrite, some chert, white, dense. Six samples	1349	1451	102

Correlation

Pennsylvanian System

Des Moines group

Pleasanton-Henrietta formation	0	135	135
Fort Scott limestone member	95	135	40
Cherokee formation	135	490	355

Mississippian System

Osage Group

Keokuk limestone	490	640	150
Burlington limestone	640	794	194

Kinderhook Group			
Chouteau limestone	794 ?	826	32
Nortview formation	812	845	19
OrdoVICIAN System			
Black River Group			
Plattin formation	845	915	60
Beekmantown Group			
Cotter formation, probably includes Jefferson City, samples not continuous in this interval	915	1200	285
Roubidoux formation	1200	1280	80
Gasconade-Van Buren formations	1280	1451	171

Dolomite, dark-gray, finely crystalline; with small amount of sand, fine, angular to subrounded grains; some chert, white; pyrite 1451 1460 9

Dolomite, dark-gray, finely crystalline, sandy; insoluble residue contains sand, coarser, no more rounded and frosted than above; few fragments of pyrite; occasional piece of chert, also black shale 1460 1476 16

Dolomite, light-gray; bluish-gray, finely but more coarsely crystalline than above, occasionally marked by small vugs or cavities; insoluble residues very small, contains pyrite; also few grains of sand and chert, which have probably caved from above. Seven samples 1476 1533 57

Dolomite, light-gray and bluish-gray, brownish gray near base, finely crystalline; insoluble residues contains chert, blue-gray, white and light brown, crypto-crystalline, very glassy, with some fine quartz veining, a few dolocasts; pyrite, dense, crystalline, and spongy with dolocasts; few fragments of shale, gray; few grains of sand at 1580. Eight samples 1533 1580 47

Dolomite, brownish-gray, and like above, finely crystalline; insoluble residues contain shale, light-green waxy; chert white and "Sugary" silica pyrite as above; few grains of sand. Two samples. 1580 1611 31

Dolomite, brown and blue, fine-grained and less crystalline than above; insoluble residues contain; chert, white, marked by fine dolocasts, and incrustated and ~~is~~

16 - 26 - 24 E

Stevenson No. 1, 16-26<sup>2</sup>/<sub>P</sub>4 E.

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veined with crystalline quartz  
"sugary" silica abundant at 1620;  
pyrite, dense spongy and marked  
by dolocasts, particularly common  
at 1658, sand fine, rounded grains at  
1658. Three samples

1600            1658            47

Correlation

Van Buren formation  
Gunter member

1451            1476            25

Proctor dolomite

1476            1533            57

Eminence dolomite

1533            1658            125