

Tennessee Adkins No. 1 (4844)

McComas District, Cabell County, W. Va.

By United Fuel Gas Company, Charleston, W. Va.

Located 1.89 mi. W. of 82°15' and 2.79 mi. S. of 38°20' -SE- Gayandot
Quadrangle, on Jim Clay Branch of Bowen Creek, 1.6 mi. S. E. of Winslow.

Elevation, 735' L.

Permit, Cab-349, ← #349

Drilling commenced June 5, 1939; completed August 1, 1939.

Shot August 1, 1939 at 3089'.

Gas well. Volume not given.

Fresh water at 525'; salt water at 1080'.

10" casing, 28'; 8 1/2", 482'; 6-5/8", 1763'.

Samples taken mostly at ten foot intervals from surface to total depth.

| Top | Bottom | Thickness | <u>Pennsylvanian, not Subdivided, 1400 feet</u> |
|-----|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20 | 30 | 10 | Clay, red and yellow, with limestone nodules |
| 30 | 40 | 10 | Sandstone, gray, fine |
| 40 | 50 | 10 | No sample, reported as slate |
| 50 | 60 | 10 | Clay, red and yellow, calcareous |
| 60 | 70 | 10 | Shale, gray, red and green, soft, calcareous |
| 70 | 80 | 10 | Shale, green, silty, micaceous |
| 80 | 120 | 40 | Clay, red, calcareous |
| 120 | 170 | 50 | Shale, green, partly silty; samples also contain some red clay and impure limestone |
| 170 | 210 | 40 | Sandstone, light-gray, fine; contains some mica and kaolin |
| 210 | 240 | 30 | Siltstone, gray to greenish, 60%; red and yellow clay and soft shale, 40% |
| 240 | 300 | 60 | Shale, gray to green; with varying amounts of siltstone |
| 300 | 330 | 30 | Shale, green and gray |
| 330 | 350 | 20 | Sandstone, light-gray, fine; contains mica and chlorite |
| 350 | 360 | 10 | Clay, gray |
| 360 | 370 | 10 | Siltstone, light-gray, shaly |
| 370 | 390 | 20 | Sandstone, light-gray, medium-grained; contains siderite, pyrite, biotite, muscovite, chlorite, and kaolin in addition to quartz |
| 390 | 480 | 90 | Sandstone, light-gray; very coarse except for the bottom ten feet which is coarse; contains the same minerals as the sandstone above, but proportion of quartz is higher and many of grains have crystal faces |

| Top | Bottom | Thickness | |
|------|--------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 480 | 490 | 10 | Shale, dark-gray, with some coal |
| 490 | 510 | 20 | No sample; reported as slate |
| 510 | 560 | 50 | Siltstone, gray, green and brown, shaly; some true shale in each sample |
| 560 | 670 | 110 | Sandstone, light-gray, fine; contains siderite, kaolin, chlorite, muscovite, biotite and pyrite; lighter colored and has higher proportion of quartz below 670' |
| 670 | 750 | 80 | Siltstone and shale, gray; contains siderite concretions |
| 750 | 810 | 60 | Sandstone, light-gray, fine to very fine; contains muscovite, biotite and chlorite; depth is doubtful for sample from 750 to 760' and this interval is reported as slate; all four samples from 750 to 790' contain considerable coal |
| 810 | 830 | 20 | Siltstone, gray, shaly, micaceous and pyritic |
| 830 | 850 | 20 | Sandstone, gray, very fine, shaly; contains siderite, mica and carbonaceous matter |
| 850 | 870 | 20 | Siltstone, gray, shaly, micaceous |
| 870 | 880 | 10 | Sandstone, gray, very fine; like 830 to 850' |
| 880 | 900 | 20 | Siltstone, gray, shaly micaceous; this and some of the intervals above described as siltstone contain small amounts of true shale |
| 900 | 970 | 70 | Sandstone, light-gray, fine; contains small amounts of kaolin, siderite, mica and chlorite |
| 970 | 980 | 10 | Siltstone, gray, shaly, micaceous |
| 980 | 1070 | 90 | Sandstone, nearly white, very fine; contains small amount of siderite |
| 1070 | 1080 | 10 | Sandstone, gray, very fine; contains much mica and siderite |
| 1080 | 1290 | 210 | Sandstone, white with small amount of rust stain; mostly medium-grained, with some coarse and fine; mostly quartz with crystal faces on many grains; sample from 1220 to 1230' is about half dark-gray siltstone (hole full of water at 1080') |
| 1290 | 1320 | 30 | Shale and siltstone, dark-gray to black; contains considerable pyrite and carbonaceous matter |
| 1320 | 1330 | 10 | Shale and siltstone; about half black and half light-gray |
| 1330 | 1340 | 10 | Siltstone, gray, with many fragments of siderite concretions |
| 1340 | 1350 | 10 | Shale, gray |
| 1350 | 1360 | 10 | No sample; reported as slate |
| 1360 | 1380 | 20 | Siltstone, dark and light-gray, 70%; shale, 30% |
| 1380 | 1390 | 10 | Sandstone, light-brown, fine; contains much siderite |
| 1390 | 1400 | 10 | Sandstone, white, fine |

Top Bottom Thickness

Mauch Chunk Group, 48 feet

| | | | |
|------|------|----|-------------------------------------------------------------------------------------|
| 1400 | 1410 | 10 | Siltstone, green |
| 1420 | 1445 | 35 | Limestone, brownish-gray |
| 1445 | 1448 | 3 | Shale, gray to grayish-green; partly silty and partly fine and distinctly laminated |

Greenbrier Limestone, 182 feet

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|------|------|----|----------------------------------------------------------------------------------------------------------------------------------------------|
| 1448 | 1530 | 82 | Limestone, light-gray to somewhat brownish |
| 1530 | 1550 | 20 | Limestone, light brownish gray, sandy and oolitic, larger sand grains are rounded and frosted |
| 1550 | 1600 | 50 | Limestone, nearly white, slightly dolomitic; contains a little fine sand; a few oolites from 1570 to 1600' |
| 1600 | 1630 | 30 | Limestone, light-brown, dolomitic, finely crystalline; contains some very fine angular sand and a few larger well rounded and frosted grains |

Macorady Formation, 30 feet

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|------|------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1630 | 1660 | 30 | Siltstone, red and green; this seems to be transitional between the typical red siltstone of the Macorady and the gray to green siltstones common in the Pocono |
|------|------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|

Pocono Formation, 604 feet

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|------|------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1660 | 1670 | 10 | Siltstone, gray |
| 1670 | 1680 | 10 | Shale, gray, silty |
| 1680 | 1700 | 20 | Sandstone, light-gray, very coarse; is poorly sorted and among the finer grains contains considerable amounts of pyrite, mica, etc. in addition to quartz |
| 1700 | 1740 | 40 | Sandstone, fine, gray, pyritic |
| 1740 | 2110 | 370 | Shale, medium- to dark-gray, very silty; contains considerable mica and many black specks of carbonaceous matter; there is some fairly coarse siltstone throughout and much of the shale could just about as well be called siltstone |
| 2110 | 2190 | 80 | Siltstone, gray to grayish-green; with up to 30 or 40% of darker gray, silty shale |
| 2190 | 2240 | 50 | Shale, gray, pyritic |
| 2240 | 2250 | 10 | Shale, black (Sumbury Shale) |
| 2250 | 2264 | 14 | Sandstone, gray, very fine, pyritic (Berea Sandstone) |

Devonian Shales

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|------|------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2264 | 2300 | 36 | Shale, gray, distinctly laminated |
| 2300 | 2380 | 80 | Siltstone, dark-gray |
| 2380 | 2630 | 250 | Shale, gray; with about 30 to 40% of gray shaly micaceous siltstone |
| 2630 | 2740 | 110 | Shale and siltstone, medium- to dark-gray; the proportion of very dark fragments increases from about 30% at the top of this interval to 70 or 80% at the bottom |

| Top | Bottom | Thickness | |
|------|--------|-----------|----------------------------------------------------------------------------------------------------------|
| 2740 | 2760 | 20 | Shale, very dark-gray |
| 2760 | 2970 | 210 | Shale, gray |
| 2970 | 3010 | 40 | Shale, very dark gray |
| 3010 | 3040 | 30 | Shale, gray, much lighter than that above |
| 3040 | 3210 | 170 | Shale; about 70% very dark-gray and 30% much lighter; contains spore cases from 3150 to 3210' |
| 3210 | 3240 | 30 | Shale, about half dark- and half light-gray, with much pyrite; many spore cases in dark part |
| 3240 | 3290 | 50 | Shale, dark-gray to black, pyritic, mostly silty; contains many brown spore cases (gas at 3215 to 3245') |
| 3290 | 3510 | 220 | Shale, light-gray to grayish-green; small amounts of dark-gray to brownish shale in some samples |
| 3510 | 3605 | 95 | Shale, dark-gray to black, pyritic |
| | 3605 | | Total depth |