

UNITED PRODUCING COMPANY

4-2632 CLINCHFIELD COAL COMPANY WELL
 ↳ ASHLAND OIL - 2632

Buchanan County, Virginia

Location: 1.69 miles east of $81^{\circ} 55'$,
 0.79 miles south of $37^{\circ} 20'$

Ground elevation: 1940.3 Total depth: 4753

Drilling commenced: October 8, 1957

Drilling completed: January 28, 1958

Water: 60, HFV; 1047, 5 BPD; 1760, 9 BPD

Gas: None

Oil: None

Casing record: 13 $3/8$ at 29, 10 $3/4$ at 634, 8 $5/8$ at 2079, 7 at 3558

Depth corrections: None

Samples examined by David G. Bowen, 1958

POST-LEE FORMATION BEDS (PENNSYLVANIAN) UNDIVIDED

0 - 29 "Surface"
 29 - 90 "Slate"
 90 - 330 "Sand"
 330 - 412 "Slate and shells"
 412 - 444 "Sand"
 444 - 446 "Coal"
 446 - 514 "Sand"
 514 - 516 "Coal"
 516 - 565 "Sand"
 565 - 628 "Slate"

TOP LEE FORMATION 628

628 - 690 "Sand"
 690 - 760 "Slate and shells"
 760 - 810 "Sand"

- 810 - 815 Sandstone, white, medium-grained, occasional coarse grain, angular to subangular, quartzose, moderately micaceous and chloritic, moderate amount of green mineral
- 815 - 825 Sandstone, gray, fine-grained, occasional medium grain, angular to subangular, quartzose, very micaceous and chloritic
- 825 - 830 Sandstone, same as above, but slightly feldspathic, only a trace of mica and chlorite
- 830 - 838 Sandstone, same as above; and shale, gray, silty, micaceous
- 838 - 846 Shale, same as above; and shale, gray to dark-gray, underclay, coaly material; and sandstone, brownish-gray, fine-grained to silt, angular to subangular, quartzose, slightly micaceous
- 846 - 856 Shale, dark-gray, carbonaceous, underclay; a little coal, earthy
- 856 - 866 Sandstone, white, medium-grained, some fine grains, angular to subrounded, quartzose, very slightly micaceous and chloritic, very small amount of green mineral, nearly clean
- 866 - 878 Sandstone, same as above, but fine-grained with some medium grains
- 878 - 890 Sandstone, same as above, but mostly medium-grained, at 884-890 very light gray with a few coaly laminations
- 890 - 896 Sandstone, very light tan, fine- to very fine grained, angular to subangular, quartzose, slightly feldspathic, trace of mica, few argillaceous laminations
- 896 - 903 Sandstone, same as above, but light-tan, fine- to medium-grained, scattered coaly material, slightly calcareous
- 903 - 912 Sandstone, same as 890-896
- 912 - 930 Sandstone, same as above, but light-tan, mostly fine-grained, occasional medium grain, not feldspathic
- 930 - 937 Sandstone, gray to light-gray, fine-grained, subangular, quartzose, slightly feldspathic, moderately micaceous, slightly chloritic, few argillaceous laminations

- 937 - 944 Sandstone, white, medium-grained, subangular to subrounded, quartzose, slightly micaceous, small amount of dark mineral and green mineral; and sandstone, same as above
- 944 - 956 Sandstone, white, same as above, but with a few coarse grains
- 956 - 964 Shale, dark-gray, slightly silty, slightly very finely micaceous
- 964 - 974 Shale, same as above, but a little is carbonaceous; and interbedded sandstone, light-tan, fine-grained, some very fine grains, angular to subangular, quartzose, trace of mica
- 974 - 984 Shale, dark-gray, carbonaceous
- 984 -1027 Shale, gray, very silty, micaceous; a little interbedded sandstone, very light gray, very fine grained, quartzose, slightly feldspathic and micaceous, at 1004-1027 becomes gray and argillaceous
- 1027-1034 Sandstone, same as lower part above, few shaly laminations
- 1034-1047 Sandstone, light-gray, fine-grained, angular to subangular, quartzose, slightly feldspathic, micaceous, occasional gray argillaceous lamination, at 1041-1047 a light-tan cast and very calcareous
- 1047-1087 Sandstone, white, fine-grained, angular to subangular, quartzose, slightly micaceous and chloritic, small amount of green mineral, at 1047-1067 slightly feldspathic, at 1057-1067 and 1074-1087 a little coaly material, at 1067-1074 slightly calcareous
- 1087-1096 Sandstone, white, coarse-grained, angular, quartzose, trace of accessory minerals, a little coaly material, cemented in part with brown calcite
- 1096-1105 Sandstone, same as above, but medium- to coarse-grained, no coaly material
- 1105-1113 Sandstone, same as above, but coarse-grained, angular to subangular
- 1113-1120 Sandstone, same as above, but medium- to coarse-grained, no brown calcite cement
- 1120-1128 Sandstone, same as 1105-1113, but mostly medium-grained with some coarse grains

- 1128-1158 Sandstone, same as above, but medium-grained, no calcite cement, at 1137-1146 occasional coarse grain, at 1146-1158 some coarse grains
- 1158-1196 Sandstone, same as above, but mostly coarse-grained with some medium grains
- 1196-1206 Sandstone, same as above, but mostly medium-grained
- 1206-1226 Sandstone, same as above, but coarse- to medium-grained
- 1226-1234 Sandstone, same as above, but all coarse-grained
- 1234-1242 Sandstone, light-tan, fine-grained, angular, quartzose, slightly micaceous
- 1242-1250 Shale, gray, very silty, micaceous; and shale, dark-gray, carbonaceous, smooth
- 1250-1258 Siltstone, gray, quartzose, micaceous, argillaceous laminations
- 1258-1268 Siltstone, same as above, but sandy, not laminated; some interbedded shale, gray, micaceous
- 1268-1278 Shale, dark-gray, slightly silty, slightly very finely micaceous
- 1278-1304 Siltstone, gray, quartzose, sandy, micaceous; and interbedded shale, gray, micaceous
- 1304-1308 Shale, dark-gray, in part slightly silty
- 1308-1312 Shale, same as above; and sandstone, off-white, fine- to very fine grained, quartzose, slightly feldspathic
- 1312-1354 No sample
- 1354-1360 Shale, dark-gray, in part slightly silty
- 1360-1370 Sandstone, off-white, very fine grained, quartzose, very slightly feldspathic, trace of mica; some sandstone, light-gray, very fine grained, quartzose, slightly argillaceous, slightly micaceous
- 1370-1375 Sandstone, off-white, same as above; laminated with shale, light-gray, silty

- 1375-1390 No sample
- 1390-1395 Sandstone, light-gray, fine- to very fine grained, quartzose, very slightly feldspathic, slightly micaceous
- 1395-1400 Sandstone, same as above, but gray, argillaceous; some interbedded shale, gray, smooth
- 1400-1405 Sandstone, same as above, but very argillaceous
- 1405-1426 Sandstone, white, medium- to fine-grained, angular to sub-angular, quartzose, clean, at 1414-1418 in part cemented with tan material
- 1426-1436 Sandstone, same as above, but fine-grained
- 1436-1440 Sandstone, same as above, but medium-grained
- 1440-1470 Sandstone, same as above, but medium- to fine-grained
- 1470-1486 Sandstone, same as above, but medium-grained, at 1479-1483 medium- to coarse-grained
- 1486-1501 Sandstone, same as above, but medium-grained, at 1486-1496 an occasional coarse grain
- 1501-1507 Sandstone, same as above, but medium- to coarse-grained, an occasional milky quartz pebble fragment
- 1507-1514 Shale, gray, finely micaceous, hard; some siltstone, gray, quartzose, slightly argillaceous; a little coal
- 1514-1522 Shale, gray, hard; and siltstone, same as above, but micaceous
- 1522-1527 No sample
- 1527-1538 Siltstone, same as 1514-1522, but sandy; some shale, gray, hard
- 1538-1549 Sandstone, light-gray, fine-grained, angular to subangular, quartzose, micaceous, chloritic, slightly calcareous; some shale, gray, underclay, plant fossils
- 1549-1559 Sandstone, same as above; some shale, gray, very finely micaceous
- 1559-1569 Sandstone, brown, fine-grained, occasional coarse and medium grains, subangular to subrounded, quartzose, trace of

mica, brown interstitial material; some shale, gray and smooth to dark-gray and carbonaceous

- 1569-1592 Sandstone, white, medium- to fine-grained, occasional coarse grain, angular to subangular, quartzose, slightly micaceous
- 1592-1600 Shale, black, carbonaceous, coaly laminations; and shale, light-tannish gray, underclay
- 1600-1611 Shale, gray, in part silty and micaceous
- 1611-1621 Shale, gray, micaceous, in part very silty; some siltstone, gray, quartzose, sandy, argillaceous, micaceous
- 1621-1630 Shale, same as above; and sandstone, white, coarse-grained, subangular to subrounded, quartzose, trace of green mineral
- 1630-1662 Sandstone, same as above, but at 1630-1646 and 1654-1662 with some medium grains, at 1638-1646 silty cementing material
- 1662-1672 Sandstone, same as lower part above; some shale, gray, slightly silty, micaceous; a little shale, dark-gray, carbonaceous
- 1672-1700 Shale, gray, same as above; and interbedded siltstone, gray, quartzose, argillaceous, micaceous
- 1700-1709 Shale, gray, slightly silty, very finely micaceous; a little shale, dark-gray, carbonaceous
- 1709-1719 No sample
- 1719-1729 Shale, gray, slightly silty, very finely micaceous; and siltstone, gray, quartzose, argillaceous
- 1729-1742 Sandstone, white, medium-grained, few fine grains, subangular to subrounded, quartzose, moderately micaceous and chloritic, moderate amount of dark mineral and green mineral
- 1742-1748 Sandstone, same as above, but medium- to fine-grained
- 1748-1760 Sandstone, same as above, but mostly fine-grained
- 1760-1770 Shale, tannish-gray, underclay, 50%; sandstone, same as

above, but tan because of argillaceous cement, 40%;
coal, 10%

- 1770-1777 Siltstone, gray, quartzose, slightly micaceous, very argillaceous
- 1777-1784 Coal
- 1784-1790 Siltstone, same as 1770-1777, but less argillaceous
- 1790-1796 Siltstone, same as above; and shale, gray, silty
- 1796-1815 Shale, light-gray, claystone, poorly developed siderite nodules; at 1808-1815 a little siltstone, light-gray, quartzose
- 1815-1823 Shale, dark-gray, slightly carbonaceous, underclay, 60%; siltstone, dark-gray, quartzose, argillaceous, 20%; sandstone, tan, medium-grained, few coarse grains, subangular to subrounded, quartzose, 20%
- 1823-1831 Shale, very pale green to light-greenish gray, claystone, siderite nodules
- 1831-1847 Shale, gray, claystone; at 1839-1847 a little siltstone, gray, quartzose, dirty
- 1847-1855 Shale, very pale green to light-greenish gray, claystone, siderite nodules
- 1855-1860 Sandstone, light-gray, fine-grained, angular to subangular, quartzose, trace of mica
- 1860-1867 Sandstone, same as above, but medium- to fine-grained, slightly micaceous, small amount of green mineral
- 1867-1877 Sandstone, same as above, but mostly fine-grained
- 1877-1886 Shale, gray, silty, slightly micaceous
- 1886-1891 Sandstone, white, medium-grained, few coarse grains, angular to subangular, quartzose, slightly micaceous, small amount of green mineral; a little shale, same as above, but coaly
- 1891-1896 Sandstone, same as above, but medium- to fine-grained, small amount of dark mineral, slightly calcareous
- 1896-1907 Sandstone, same as above, but medium-grained, no dark mineral,

not calcareous, at 1901-1907 occasional coarse grain

- 1907-1934 No sample
- 1934-1940 Sandstone, same as lower part of 1896-1907
- 1940-1946 Sandstone, same as above, but coarse-grained, moderate amount of milky-white quartz pebble fragments
- 1946-19(?) Sandstone, same as above, but medium- to coarse-grained, no pebble fragments (illegible marking on sample bag but not 1971)
- 19(?) -1971 No sample
- 1971-1977 Siltstone, very light gray, quartzose, siderite nodules; some sandstone, white, fine- to coarse-grained, quartzose, occasional quartz pebble fragment
- 1977-1986 Sandstone, very light gray, fine- to very fine grained, quartzose, small amount of green mineral, slightly argillaceous

TOP BLUESTONE FORMATION (MISSISSIPPIAN) 1986

- 1986-2004 "Slate and shells"
- 2004-2011 Sandstone, light-gray to light-grayish green, very fine to fine-grained, subangular to subrounded, quartzose, rather dirty, in part calcareous; a little shale, grayish-green, slightly silty
- 2011-2016 Shale, gray to dark-maroonish gray, smooth, in part slightly silty and slightly calcareous
- 2016-2043 "Red rock"
- 2043-2052 Limestone, dark-brownish gray, very argillaceous, ostracods; and shale, brownish-gray
- 2052-2061 Shale, off-white to pale-grayish green to gray; a little limestone, light-tan, slightly argillaceous, ostracods
- 2061-2064 Shale, off-white to pale-grayish green, a little brick-red, calcareous; and sandstone, light-green, very fine grained, quartzose; a little limestone, same as above
- 2064-2067 "Red rock"

- 2067-2084 "Sand"
2084-2109 "Slate and shells"
2109-2143 "Sand"
2143-2156 Sand, brownish-gray, very fine grained, quartzose, dirty,
slightly calcareous; and shale, gray, slightly silty,
slightly carbonaceous
2156-2277 "Slate and shells"
2277-2320 "Sand, broken"

TOP PRINCETON SANDSTONE 2320 (?)

Operator: United Producing Company, Inc.
 Farm: Clinchfield Coal Corp. et al
 Well No.: 4-2632

Samples for this well were examined by Mr. David Bowen in preparing a Master's thesis entitled "Subsurface Study of the Lee Formation in Buchanan County, Virginia," for the Virginia Polytechnic Institute. A microfilm copy of the thesis, containing a detailed description of the Post-Princeton strata in this well, is available for reference in the Library of the Virginia Division of Mineral Resources.

Formation boundaries stated in this thesis are as follows:

System

Formation

Pennsylvanian

Pose-Lee Strata, Undivided	in bottom	0' 628'
Lee Formation	top bottom	628' 1986'

Mississippian

Bluestone Formation	top bottom	1986' 2320' (?)
Princeton Sandstone	top bottom	2320' (?) --