

Operator: United Producing Company, Inc.
 Farm: Yukon Poccoahontas Coal Co. et al
 Well No.: 7-1672

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

Post-Lee Strata, Undivided	in	0'
	bottom	945'
Lee Formation	top	945'
	bottom	2375'

Mississippian

Bluestone Formation	top	2375'
	bottom	2804'
Princeton Sandstone	top	2804'
	bottom	--

UNITED PRODUCING COMPANY

7-1672 YUKON-POCAHONTAS COAL COMPANY WELL

Buchanan County, Virginia

Location: 2.04 miles west of $81^{\circ} 55'$,
1.71 miles south of $37^{\circ} 15'$

Ground elevation: 2228.21

Total depth: 5360

Drilling commenced: December 4, 1949

Drilling completed: August 5, 1950

Water: 9, fresh

Gas: 1120, show

Oil: None

Casing record: 13 3/8 at 16, 10 3/4 at 393, 8 5/8 at 2694, 7 at 4231

Depth corrections: None

Samples examined by David G. Bowen, 1958

POST-LEE FORMATION BEDS (PENNSYLVANIAN) UNDIVIDED

- 0 - 23 No sample
- 23 - 30 Sandstone, white, medium-grained, subangular to subrounded, quartzose, slightly micaceous, a few green grains
- 30 - 40 Sandstone, same as above, but coarse-grained and angular to subrounded
- 40 - 82 Sandstone, same as above, but medium-to coarse-grained, in lower two-thirds calcareous
- 82 - 90 Sandstone, same as above, but not calcareous; some siltstone, gray, quartzose, argillaceous, micaceous
- 90 - 94 Sandstone, same as above, but mostly medium-grained; a little siltstone, same as above
- 94 - 106 Shale, gray, extremely silty, micaceous
- 106 - 119 Shale, same as above; and siltstone, gray, quartzose, argillaceous, micaceous
- 119 - 145 Shale, gray, silty, micaceous; and sandstone, gray, very fine grained, quartzose, argillaceous, silty, slightly calcareous at top
- 145 - 156 Sandstone, same as above, but not calcareous

- 156 - 169 Sandstone, very light gray, fine-grained, angular to sub-angular, quartzose, slightly micaceous; interbedded in lower portion with some shale, brownish-gray, highly silty, micaceous
- 169 - 180 Sandstone, same as above, but white, occasional medium grain, a few green grains
- 180 - 190 Sandstone, same as above, but medium-grained with some coarse grains
- 190 - 197 Sandstone, same as above, but medium-to fine-grained, with some coarse grains
- 197 - 210 Sandstone, same as above, but light-grayish brown, fine-to medium-grained; at 197-203 a little coal
- 210 - 230 Shale, gray, finely micaceous; and siltstone, gray, quartzose
- 230 - 242 Sandstone, light-gray, fine-to very fine grained, angular to subangular, quartzose, micaceous, slightly chloritic, very slightly calcareous
- 242 - 250 Sandstone, same as above; and shale, gray, finely micaceous
- 250 - 260 Shale, same as above
- 260 - 280 Shale, same as above to dark-gray and not micaceous; a little interbedded siltstone, gray, siderite nodules
- 280 - 292 Sandstone, light-gray, fine-to very fine grained, angular to subangular, quartzose, micaceous, slightly chloritic, calcareous; and interbedded siltstone, grayish-brown, quartzose, argillaceous, micaceous, calcareous, at 280-286 coaly material
- 292 - 330 Siltstone, same as above, but very argillaceous
- 330 - 345 Siltstone, same as above; and interbedded shale, gray, smooth, finely micaceous
- 345 - 350 Shale, same as above, but slightly silty
- 350 - 357 Shale, same as above, but some is dark-gray and slightly carbonaceous
- 357 - 375 Shale, same as 345-350; at 357-367 a little siltstone, gray, quartzose, argillaceous, micaceous

- 375 - 391 Sandstone, white, medium-to fine-grained, occasional coarse grain, angular to subangular, quartzose, slightly micaceous, small amount of green mineral and dark mineral, nearly clean
- 391 - 428 Sandstone, same as above, but medium-to coarse-grained, at 410-415 subangular to subrounded; at 393-398 coal, 25%; at 403-410 coal, 50%
- 428 - 440 Sandstone, same as above, but coarse-to very coarse grained
- 440 - 445 Sandstone, same as above, but medium-to fine-grained
- 445 - 451 Sandstone, same as 428-440; and shale, gray, finely micaceous
- 451 - 464 Shale, same as above, moderately silty
- 464 - 472 Shale, dark-gray, silty, micaceous
- 472 - 486 Sandstone, light-gray, fine-grained, angular to subangular, quartzose, micaceous, glauconitic
- 486 - 508 Sandstone, same as above, but white, medium-to fine-grained, angular to subrounded, not glauconitic, nearly clean
- 508 - 518 Sandstone, same as above, but coarse-grained, occasional very coarse grain
- 518 - 552 Sandstone, same as above, but medium-to coarse-grained
- 552 - 570 Sandstone, same as above, but mostly medium-grained, some coarse grains, some fragments of white quartz pebbles
- 570 - 575 Shale, dark-gray, silty, micaceous; and siltstone, gray, quartzose, argillaceous, micaceous
- 575 - 586 Sandstone, gray, fine-grained, occasional medium grain, angular to subangular, quartzose, argillaceous, micaceous; possibly a little interbedded shale, gray, micaceous
- 586 - 630 Siltstone to sandstone, very fine grained, rather dark-gray, quartzose, argillaceous, micaceous; and interbedded shale, rather dark-gray, silty, micaceous
- 630 - 635 Siltstone, same as above, but gray, slightly argillaceous, slightly calcareous

- 635 - 652 Siltstone, same as above, but calcareous; some interbedded shale, dark-gray, slightly silty, micaceous
- 652 - 658 Shale, dark-gray, carbonaceous
- 658 - 670 Shale, dark-gray, slightly silty, slightly micaceous
- 670 - 707 Shale, same as above, but with a few laminations of gray siltstone; at 690-700 about equal amounts of each
- 707 - 715 Sandstone, light-gray, very fine grained, angular to sub-angular, quartzose, slightly feldspathic, micaceous
- 715 - 739 Sandstone, light-gray, fine-grained, angular to subrounded, quartzose, slightly micaceous, nearly clean, at 720-730 calcareous to slightly calcareous; at 734-739 a little shale, dark-gray, silty, micaceous
- 739 - 748 Sandstone, same as above, but tan; a little shale, same as above
- 748 - 760 Sandstone, same as above, but light-gray, fine-to very fine grained
- 760 - 771 Sandstone, same as above, but white, medium-grained, some coarse grains, occasional very coarse grain, subangular to subrounded
- 771 - 781 Sandstone, same as above, but coarse-grained, occasional very coarse grain, at 771-777 angular to subangular, at 777-781 angular to subrounded, at 771-777 "dead" oil; at 777-781 some shale, black, carbonaceous
- 781 - 787 Shale, dark-gray, very silty, micaceous, coaly
- 787 - 791 Sandstone, light-gray, fine-grained, angular to subangular, quartzose, argillaceous, very micaceous; some shale, dark-gray, in part finely micaceous
- 791 - 815 Shale, dark-gray, carbonaceous; a little shale, gray
- 815 - 874 Sandstone, white, medium-to fine-grained, angular to sub-rounded, quartzose, very slightly micaceous and chloritic, very small amount of green mineral, at 835-848 predominantly medium-grained, at 856-871 occasional coarse grain, at 871-874 mostly fine-grained, at 823-841 very slightly calcareous, at 841-848 and 871-874 calcareous

- 874 - 883 Siltstone to sandstone, very fine grained, dark-gray, quartzose, very argillaceous, micaceous, argillaceous laminations
- 883 - 897 Shale, dark-gray, very silty grading downward to slightly silty, micaceous, very slightly calcareous
- 897 - 921 Shale, same as lower portion above; some interbedded sandstone, gray, fine-grained, quartzose, dirty, very slightly calcareous
- 921 - 945 Shale, dark-gray, very finely micaceous, very slightly calcareous

TOP LEE FORMATION 945

- 945 - 962 Sandstone, white, medium-to fine-grained, angular to sub-angular, quartzose, very slightly micaceous, very small amount of green mineral, nearly clean
- 962 - 970 Sandstone, same as above, but coarse-grained
- 970 - 978 Sandstone, same as above, but medium-to coarse-grained
- 978 - 991 Sandstone, same as above, but mostly coarse-grained
- 991 - 1000 Sandstone, same as above, but medium-to fine-grained, occasional coarse grain
- 1000-1010 Sandstone, same as above, but mostly fine-grained to silt, slightly dirty, calcareous
- 1010-1015 Sandstone, same as above, but not calcareous; some siltstone, gray, quartzose, argillaceous laminations
- 1015-1023 Siltstone, same as above, but slightly feldspathic; and interbedded shale, dark-gray, slightly silty, micaceous
- 1023-1087 Shale, dark-gray, finely micaceous, hard, at 1072-1087 a few silty laminations
- 1087-1121 Sandstone, gray, fine-grained, angular, quartzose, very argillaceous, slightly micaceous, at 1087-1110 very slightly calcareous; some interbedded shale, same as above, but at 1110 becomes micaceous, silty, coaly
- 1121-1127 Sandstone, same as above, but light-gray to light-tan, slightly argillaceous, slightly calcareous

- 1127-1138 Sandstone, same as above, but light-gray, fine-to very fine grained, angular to subangular, nearly clean
- 1138-1153 Shale, dark-gray, very finely micaceous, becoming carbonaceous toward the base
- 1153-1158 Shale, same as lower portion above; and sandstone, light-gray, fine-grained, occasional medium grain, angular to subangular, quartzose, slightly argillaceous, slightly micaceous and chloritic
- 1158-1170 Sandstone, same as above, but in part white; and shale, gray, micaceous
- 1170-1179 Sandstone, tan to white, very fine grained, angular to subangular, quartzose, slightly micaceous and chloritic, cemented with tan calcite
- 1179-1209 Sandstone, white, very fine grained, angular to subangular, quartzose, slightly micaceous and chloritic, at 1179-1187 a few coaly laminations, at 1187-1209 a few argillaceous laminations
- 1209-1223 Sandstone, same as above, but gray, very fine grained to silt, slightly feldspathic; laminated with shale, gray, micaceous
- 1223-1241 Shale, same as above; laminated with siltstone, gray, quartzose, slightly feldspathic, slightly micaceous and chloritic
- 1241-1247 Sandstone, light-gray, very fine to fine-grained, angular to subangular, quartzose, slightly dirty, occasional argillaceous lamination
- 1247-1263 Sandstone, same as above, but light-tan, fine-grained
- 1263-1275 Sandstone, same as above, but white
- 1275-1295 Sandstone, same as above, but light-gray, fine-grained to silt, increase of laminations; at 1286-1295 a little coal and a little shale, black
- 1295-1316 Sandstone, white, fine-grained, angular to subangular, quartzose, toward the base slightly micaceous and chloritic and a little green mineral, nearly clean

- 1316-1321 Sandstone, same as above, but medium-grained
- 1321-1356 Sandstone, same as above, but medium-to coarse-grained, at 1337-1356 decrease of accessory minerals
- 1356-1363 Sandstone, same as above, but mostly medium-grained, increase of accessory minerals
- 1363-1382 Sandstone, same as above, but medium-to fine-grained; at 1363-1372 some shale, dark-gray, slightly silty, micaceous
- 1382-1400 Sandstone, same as above, but grading downward to all fine-grained, micaceous, chloritic, moderate amount of green mineral
- 1400-1412 Shale, dark-gray, very silty, micaceous
- 1412-1417 Shale, same as above; and sandstone, light-gray to light-tan, fine-grained, angular to subangular, quartzose, very slightly feldspathic, slightly micaceous, slightly calcareous
- 1417-1425 Shale, same as above
- 1425-1435 Shale and sandstone, both same as 1412-1417
- 1435-1456 Shale, dark-gray, in part slightly carbonaceous, in part finely micaceous
- 1456-1467 Sandstone, white, medium-grained with a few fine grains, subangular to subrounded, quartzose, clean
- 1467-1475 Sandstone, same as above, but medium-to coarse-grained
- 1475-1480 Sandstone, same as above, but coarse-grained; a little shale, in part gray and micaceous, in part very light gray with siderite nodules
- 1480-1490 Siltstone to sandstone, very fine grained, light-gray to gray, quartzose, slightly feldspathic, micaceous; and coal
- 1490-1495 Sandstone, light-gray, fine-to very fine grained, angular to subangular, quartzose, very micaceous and chloritic; a little shale, gray, silty, micaceous
- 1495-1508 Sandstone, same as above, but in part light-tan because of

brown interstitial material; apparently a little interbedded coal

- 1508-1536 Sandstone, light-gray to white, fine-to medium-grained, angular to subangular, quartzose, slightly micaceous and chloritic, a few argillaceous laminations
- 1536-1548 Sandstone, same as above, but mostly fine-grained, in part argillaceous
- 1548-1557 Sandstone, same as above, but all fine-grained, great increase of accessory minerals, not argillaceous, in part cemented with light-tan calcite
- 1557-1567 Sandstone, same as above, but no calcite cement; and shale, black, carbonaceous
- 1567-1580 Shale, gray, in part silty and micaceous
- 1580-1596 Sandstone, very light tan to white, fine-grained, angular to subangular, quartzose, clean except for an occasional coaly lamination
- 1596-1607 Sandstone, same as above; some shale, gray, very hard
- 1607-1684 Sandstone, white, medium-to fine-grained, subangular to sub-rounded, quartzose, slightly micaceous and chloritic, at 1674-1684 in part gray with coaly to argillaceous laminations
- 1684-1696 Sandstone, same as above, but all white, not laminated; some shale, gray, silty, micaceous
- 1696-1726 Sandstone, same as above, but light-gray to tan, argillaceous, increase of accessory minerals, coaly to argillaceous laminations
- 1726-1740 Sandstone, same as above, but white, grading downward to fine-grained, decrease of accessory minerals; interbedded in an increasing amount toward the base with shale, gray, silty, micaceous
- 1740-1751 Siltstone, gray, quartzose, very slightly feldspathic; laminated with shale, same as above
- 1751-1769 Shale, gray, hard
- 1769-1790 Shale, same as above, but becoming silty toward the base;

laminated with siltstone, gray, quartzose

- 1790-1808 Shale, same as above, but light-gray, becoming very silty toward the base
- 1808-1820 Shale, same as above; and siltstone, light-gray, quartzose
- 1820-1832 Shale, dark-gray, slightly silty, rather carbonaceous
- 1832-1860 Sandstone, tannish-gray, fine-grained, angular to sub-angular, quartzose, very slightly feldspathic, slightly micaceous, in the upper two-thirds a few coaly laminations
- 1860-1872 Sandstone, same as lower portion above, but in part very fine-grained; a little coal; a little shale, dark-gray, micaceous
- 1872-1880 Sandstone, same as above; some coal
- 1880-1893 Sandstone, white, medium-grained, subangular to subrounded, quartzose, clean
- 1893-1908 Sandstone, same as above, but medium-to fine-grained, at the base an occasional coarse grain
- 1908-1920 Siltstone to sandstone, light-gray, very fine grained, quartzose; and shale, gray, hard
- 1920-1936 Siltstone to sandstone, gray, very fine grained, quartzose, argillaceous, micaceous laminations
- 1936-1942 Shale, gray, smooth, moderately hard; some sandstone, white, medium-grained, subangular to subrounded, quartzose, very slightly feldspathic, slightly micaceous and chloritic, small amount of green mineral, nearly clean
- 1942-1957 Sandstone, same as above, but medium-to fine-grained grading downward to mostly fine-grained
- 1957-1966 No sample
- 1966-1971 Sandstone, same as lower part of 1942-1957
- 1971-1980 Shale, gray, smooth, in part very finely micaceous
- 1980-1990 Sandstone, same as 1966-1971, but medium-to coarse-grained

- 1990-1998 Sandstone, same as above, but light-tan to dark-grayish brown, 60%; coal and shale, black, carbonaceous, 40%
- 1998-2009 Sandstone, same as 1980-1990
- 2009-2023 Shale, greenish-gray, smooth, moderately hard
- 2023-2028 No sample
- 2028-2039 Siltstone, gray, quartzose, argillaceous; and shale, gray, silty
- 2039-2056 Siltstone, same as above, but toward the base becoming very argillaceous and micaceous
- 2056-2065 Shale, gray, silty; a little coal
- 2065-2079 Shale, gray, finely micaceous
- 2079-2100 Shale, same as above; and interbedded sandstone, light-gray, very fine grained to silt, quartzose
- 2100-2108 Shale, light-green to a minor amount of light-gray, very finely micaceous, in part with siderite nodules, moderately hard; and siltstone, light-olive green, quartzose
- 2108-2116 Shale, gray to light-gray, very finely micaceous, moderately hard; some siltstone, same as above
- 2116-2125 Shale, same as above; and shale, gray, silty, micaceous
- 2125-2150 Sandstone, white, fine-grained, angular to subangular, quartzose, slightly micaceous, small amount of dark mineral, at 2134-2150 slightly chloritic and slightly calcareous to calcareous
- 2150-2157 Shale, dark-gray, slightly silty, slightly carbonaceous
- 2157-2166 Shale, gray, very finely micaceous
- 2166-2175 Shale, dark-gray, slightly silty
- 2175-2183 Siltstone, gray, quartzose, argillaceous, micaceous
- 2183-2186 Sandstone, white, medium-to fine-grained, angular to sub-angular, quartzose, slightly calcareous, nearly clean

- 2186-2194 No sample
- 2194-2217 Sandstone, same as 2183-2186, but at the base; mostly fine-grained, slightly micaceous and chloritic, not calcareous
- 2217-2224 Sandstone, same as lower part above; a little shale, pale-greenish gray
- 2224-2229 Shale, very pale gray
- 2229-2234 Shale, same as above; and sandstone, very light green, very fine grained to silt, quartzose, slightly micaceous and chloritic
- 2234-2250 Sandstone, white, fine-grained, quartzose, slightly micaceous and chloritic, at 2244-2250 slightly calcareous, at 2239-2244 slight greenish cast
- 2250-2280 Sandstone, same as above, but medium-to fine-grained, angular to subrounded, not calcareous, at 2250-2260 slight greenish cast, below 2268 increase of accessory minerals
- 2280-2309 Sandstone, same as lower part above, but mostly medium-grained, below 2291 slightly calcareous
- 2309-2349 Sandstone, same as above, but medium-to coarse-grained, decrease of accessory minerals, not calcareous
- 2349-2366 Sandstone, same as above, but mostly medium-grained
- 2366-2375 Sandstone, same as above, but coarse-grained
- TOP BLUESTONE FORMATION (MISSISSIPPIAN) 2375
- 2375-2382 Limestone, light-gray, earthy, very argillaceous; and siltstone, light-gray, quartzose, slightly calcareous
- 2382-2391 Shale, dusty-red and pale-green, smooth; a little siltstone, very light tan, quartzose, calcareous
- 2391-2404 Shale, same as above, but mostly dusty-red; a little limestone, very light gray, fine-crystalline, fossiliferous, ostracods
- 2404-2411 Shale, red and pale-green
- 2411-2416 Shale, gray to light-gray; a little limestone, light-gray,

argillaceous, slightly fossiliferous

- 2416-2452 Siltstone, light-gray, quartzose, argillaceous, calcareous; a little interbedded shale, light-gray, slightly silty
- 2452-2488 Sandstone, white, very fine grained, angular to subangular, quartzose, clean, at 2480-2488 very pale green to light-gray
- 2488-2506 Sandstone, same as above, but gray, laminated with argillaceous and micaceous material
- 2506-2526 Sandstone, same as above, but light-gray, slightly specked, only a few laminations, at the base slightly calcareous
- 2526-2550 Sandstone, same as above, but many laminations
- 2550-2583 Sandstone, same as above, but moderately laminated
- 2583-2593 Sandstone, same as above, but not laminated
- 2593-2602 Shale, dark-gray, sandy to silty, few sandy laminations
- 2602-2614 Shale, same as above; laminated with sandstone, same as 2583-2593, but light-gray to gray
- 2614-2627 Shale, same as above, but not laminated
- 2627-2640 Shale, same as above, but with a few gray sandy laminations
- 2640-2655 Shale, same as above, with nearly an equal amount of gray sandy laminations
- 2655-2661 Shale, same as above, but only a few sandy laminations
- 2661-2678 Shale, dark-gray, nearly black, smooth, carbonaceous, in the lower part finely pyritic
- 2678-2685 Shale, same as lower part above, but not carbonaceous; and sandstone, light-gray, very fine grained to silt, angular to subangular, quartzose, very slightly feldspathic
- 2685-2689 Sandstone, white, fine-grained, angular to subangular, quartzose, clean
- 2689-2706 Siltstone, light-gray, quartzose, feldspathic, slightly

specked, slightly micaceous; at 2703-2706 becoming in part sandstone, very fine grained

- 2706-2709 Sandstone, same as 2685-2689; and siltstone, same as above
- 2709-2716 Shale, black, carbonaceous, very finely pyritic
- 2716-2727 Shale, dark-gray, slightly carbonaceous, slightly pyritic, coaly plant fossils
- 2727-2730 Sandstone, very light gray, very fine-grained to silt, angular to subangular, quartzose, very slightly feldspathic and micaceous
- 2730-2732 No sample
- 2732-2735 Sandstone, same as 2727-2730
- 2735-2765 Shale, light-gray to gray, faint greenish cast, in part micaceous; interbedded toward the base with some siltstone, light-gray to gray, faint greenish cast, quartzose
- 2765-2772 Shale, dark-gray, micaceous, slightly pyritic, a little is black and carbonaceous
- 2772-2790 Shale, gray, slightly silty, slightly micaceous
- 2790-2800 Siltstone, very pale green, quartzose, slightly feldspathic; and shale, very pale green, micaceous; a little limestone, yellowish-tan to cream, earthy, argillaceous
- 2800-2804 Siltstone to sandstone, very fine grained, same as above, but slightly calcareous

TOP PRINCETON SANDSTONE 2804