

Company: United Producing Co., Inc.
 Farm: Slocum Land Corp., et al
 Well No.: 1-1525
 Elevation: 1621.2' Ground
 Total Depth: 2365'
 Location: Buchanan County
 300' N. of 37°15'
 11,200' E. of 82°00'
 Drilling Commenced: 3/29/48
 Well Completed: 8/28/48
 Result: Gas Well

Geologic Log
 Samples studied and
 described by:
 John M. Wilson
 Virginia Division of
 Mineral Resources
 May, 1963

GEOLOGIC LOG

<u>Depth</u>	<u>Interval</u>	<u>Description</u>
0-1865	1865	No samples
1865-1878	13	Siltstone, locally shaly, light to dark gray, red, green, moderately soft, flaky, no apparent bedding to poorly fissile, calcareous (locally), argillaceous, ferruginous with: rare biotite, rare muscovite, and rare carbonaceous material.
1878-1891	13	Siltstone, red (rare), green, moderately hard, brittle, no apparent bedding, argillaceous, with: rare biotite, rare muscovite, rare carbonaceous material, and rare iron oxide stains.
1891-1907	16	Siltstone, locally shaly, medium to dark gray, red (rare), green (rare), moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous with: common biotite, common muscovite, and rare carbonaceous material.
1907-1912	5	Siltstone, as in 1891-1907, with stringers of Sandstone, white, light gray, moderately cemented, very-fine to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, and common iron oxide stains. Nonporous to slightly porous.
1912-1940	28	Lithologies as in 1907-1912, calcareous.
1940-1950	10	No samples

1950-1956	6	Interbedded; Sandstone, white, clear, poorly cemented, very-fine to medium-grained, medium sorted, subrounded to angular, siliceous, with: abundant biotite, common muscovite, rare carbonaceous material, and rare iron oxide stains. Slightly porous. Siltstone, medium to dark gray, red, moderately hard, brittle, no apparent bedding, argillaceous, with: rare biotite, rare muscovite and common carbonaceous material.
1956-1962	6	Sandstone, as in 1950-1956, with stringers of Siltstone, as in 1950-1956.
1962-1975	13	Lithologies as in 1950-1956, interbedded.
1975-1995	20	Sandstone, silty, white, clear, well cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, and abundant iron oxide stains. Nonporous to slightly porous. Minor stringers of Siltstone, (possibly contamination), light to medium gray, red, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: rare biotite, rare muscovite.
1995-2001	6	No samples
2001-2010	9	Lithologies as in 1975-1995.
2010-2015	5	No samples
2015-2027	12	Lithologies as in 1975-1995.
2027-2031	4	Interbedded; Sandstone, white, well cemented, very fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, rare muscovite, and common iron oxide stains. Nonporous to slightly porous. Siltstone, locally shaly, light to dark gray, moderately soft, flaky, poorly fissile to fair fissility, argillaceous, with: rare muscovite.
2031-2040	9	No samples
2040-2075	35	Lithologies as in 2027-2031.
2075-2105	30	Shale, carbonaceous, locally silty, dark gray, moderately hard, brittle, fair to good fissility, argillaceous, with: rare muscovite, rare pyrite, abundant carbonaceous material, and rare iron oxide stains.

2105-2120	15	Siltstone, grades locally to a very fine-grained sandstone, locally finely sandy, dark gray (rare), green, white (rare), moderately hard, brittle, no apparent bedding, argillaceous, with: common biotite, abundant muscovite, rare carbonaceous material, and abundant iron oxide stains.
2120-2164	44	Sandstone, silty, white, light gray, moderately cemented, very fine to fine grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, common iron oxide stains, and abundant silty-micaceous partings. Nonporous to slightly porous.
2164-2180	16	Shale, carbonaceous, silty (locally), medium to dark gray, moderately hard, brittle, poorly fissile, argillaceous, with: rare biotite, common muscovite, common pyrite, and abundant carbonaceous material.
2180-2193	13	Sandstone, silty, white, light gray, well cemented, very fine-grained, well sorted, subangular to angular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, and common iron oxide stains. Nonporous to slightly porous.
2193-2223	30	Siltstone, locally finely sandy, light to dark gray, moderately hard, brittle, no apparent bedding, argillaceous, with rare biotite, abundant muscovite, and abundant fragments of Coal interlayered with pyrite (X-ray diffraction chert)
2223-2230	7	Siltstone, light to dark gray, moderately hard, brittle, no apparent bedding, argillaceous, with: common biotite, common muscovite, and stringers of Sandstone, white, light gray, well cemented, fine to medium-grained, well sorted, subangular to angular, interstitially silty, siliceous, with: common biotite, common muscovite, and rare carbonaceous material. Nonporous to slightly porous.
2230-2239	9	Siltstone, carbonaceous, dark gray, black, moderately hard, brittle, no apparent bedding, argillaceous, abundant muscovite, and abundant carbonaceous material.
2239-2251	12	Siltstone, as in 2223-2230.
2251-2286	35	No samples

2286-2290	4	Interbedded; Sandstone, white, light gray, moderately cemented, very fine to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, calcareous, with: common biotite, common muscovite, and common iron oxide stains. Nonporous to slightly porous. Siltstone, locally finely sandy, light to dark gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: common biotite, common muscovite, rare carbonaceous material, and rare iron oxide stains.
2290-2297	7	Interbedded; Lithologies as in 2286-2290, with: Limestone, light to dark gray, moderately hard, fossil fragmental (crinoid, brachiopod ?), no apparent bedding, cryptocrystalline, with: rare mica, and abundant calcite.
2297-2302	5	No samples
2302-2306	4	Lithologies as in 2290-2297.
2306-2329	23	Sandstone, white, clear, moderately cemented, fine to medium-grained, well sorted, subrounded to angular, calcareous, with: rare biotite, rare muscovite, rare chlorite, common carbonaceous material, and abundant iron oxide stains. Slightly porous.
2329-2333	4	Sandstone, as in 2306-2329, with minor stringers of Siltstone, locally shaly, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with: rare muscovite, and rare iron oxide stains.
2333-2342	9	Sandstone, as in 2306-2329, with: abundant silty-micaceous partings, and common milky white chert.
2342-2349	7	Sandstone, white, clear, orange, poorly cemented very fine-to medium-grained, medium sorted, subangular to angular, interstitially silty, siliceous, with: common biotite, common muscovite, common carbonaceous material, and abundant iron oxide stains. Slightly porous.
2349-2365	16	Siltstone, grades locally to a very fine-grained Sandstone, finely sandy, light to medium gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: abundant biotite, abundant muscovite, common carbonaceous material, and rare iron oxide stains.
2365'	-	TOTAL DEPTH