

Company: United Fuel Gas Company
 Farm: National Shawmut Bank of Boston
 Well No.: 8797
 Elevation: 1191.48'
 Total depth: 4891'
 Location: Buchanan County
 8200' S. of 37°30'
 10,100' W. of 82°00'
 Drilling commenced: 4/30/59
 Well completed: 2/20/60
 Result: Gas well

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

GEOLOGIC LOG

<u>Sample</u>	<u>Interval</u>	<u>Description</u>
0-30	30	No samples.
30-69	39	Siltstone, locally finely sandy, medium to dark gray, moderately soft, brittle, no apparent bedding, argillaceous, with: common biotite, common muscovite, common carbonaceous material, and stringers of Sandstone, white, clear, orange, moderately cemented, fine to coarse-grained, medium sorted, sub-rounded to angular, interstitially silty, siliceous, with: rare biotite, rare muscovite, and common iron oxide stains. Nonporous to slightly porous.
69-86	17	Sandstone, white, milky white, moderately cemented, medium to coarse-grained, well sorted, subangular, siliceous, with: rare biotite, abundant muscovite, rare coal fragments, and common iron oxide stains. Slightly porous.
86-92	6	Sandstone, white, clear, milky white, poorly cemented, medium to coarse-grained, well sorted, subangular to angular, calcareous, with: abundant biotite, abundant muscovite, common chlorite, common iron oxide stains. Slightly porous.

92-103	11	Sandstone, white, clear, milky white, moderately cemented, fine to coarse-grained, medium sorted, subangular to angular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, common chlorite, common carbonaceous material, common iron oxide stains. Slightly porous.
103-130	27	Siltstone, locally shaly, light to dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: common biotite, abundant muscovite, and common iron oxide stains.
130-145	15	Sandstone, white, clear, light gray, moderately cemented, very fine-to medium-grained, medium sorted, rounded to subangular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, common chlorite, rare iron oxide stains, abundant silty micaceous partings. Nonporous to slightly porous.
145-150	5	Coal, black, vitreous, blocky and conchoidal fracture, with: common plant fossils.
150-162	12	Siltstone, locally shaly, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with: common biotite, common muscovite, and abundant carbonaceous material.
162-169	7	Sandstone, white, clear, moderately cemented, very fine-to fine-grained, well sorted, subrounded to angular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, abundant chlorite, common carbonaceous material, rare iron oxide stains. Nonporous to slightly porous.
169-182	13	Sandstone, as in 162-169, with: common coal fragments, and minor stringers of Siltstone, locally shaly, medium to dark gray, black, moderately soft to soft, flaky, poor to fair fissility, argillaceous, with: common biotite, common muscovite, and common carbonaceous material, common carbonaceous laminae.

182-196	14	Sandstone, white, clear, moderately cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, calcareous, with: common biotite, common muscovite, common chlorite, rare iron oxide stains. Nonporous to slightly porous.
196-197	1	No samples.
197-210	13	Interbedded; Siltstone, locally finely sandy, medium to dark gray, moderately soft, flaky, no apparent bedding, argillaceous, with: abundant biotite, abundant muscovite and common carbonaceous material. With: Sandstone, white, light gray, poorly cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite. Nonporous to slightly porous.
210-215	5	No samples.
215-248	33	Siltstone, locally finely sandy, medium to dark gray, moderately soft, flaky, no apparent bedding, argillaceous, with: common biotite, abundant muscovite, common carbonaceous material, with: stringers of Sandstone, light gray, moderately cemented, very fine-to fine-grained, well sorted, subrounded to angular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, Slightly porous.
248-256	8	Sandstone, white, light gray, moderately cemented, very fine-to medium-grained, medium sorted, rounded to subangular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, common carbonaceous material, rare iron oxide stains. Nonporous to slightly porous. With stringers of Siltstone, locally finely sandy, medium to dark gray, moderately hard, brittle, no apparent bedding, argillaceous, With: rare biotite, abundant muscovite, and common carbonaceous material.

256-264	8	Lithologies as in 248-256, with stringers of Shale, silty, light to dark gray, moderately soft, flaky, fair to good fissility, argillaceous, with: rare muscovite, and rare carbonaceous material.
264-275	11	Lithologies as in 248-256.
275-309	34	Sandstone, white, clear, moderately cemented, fine-to coarse-grained, medium sorted, subangular to angular, siliceous, with: abundant biotite, abundant muscovite, abundant chlorite, common carbonaceous material, rare iron oxide stains. Slightly porous to porous.
309-366	57	Siltstone, locally shaly, medium to dark gray, moderately hard, brittle, poor to fair fissility, argillaceous, with: rare muscovite, rare carbonaceous material, and rare iron oxide stains.
366-370	4	No samples.
370-390	20	Siltstone, as in 309-366, with minor stringers of Sandstone, white, light gray, moderately cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with common biotite, common muscovite, common carbonaceous material. Nonporous to slightly porous.
390-455	65	Sandstone, white, clear, moderately cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, common muscovite, rare chlorite, common iron oxide stains. Nonporous to slightly porous.
455-480	25	Interbedded; Siltstone, locally finely sandy, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous with: common biotite, common muscovite, abundant carbonaceous material. Sandstone, white, milky white, moderately cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, common muscovite, rare chlorite, rare iron oxide stains. Nonporous to slightly porous.

480-512	32	Sandstone, fine-to coarse-grained, rare-to very coarse-grained, poorly sorted, rounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, abundant iron oxide stains. Slightly porous to porous.
512-524	12	Siltstone, locally shaly, light to medium gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: common biotite, common muscovite, rare iron oxide stains. With stringers of Sandstone, white, clear, moderately cemented, fine-to coarse-grained, medium sorted, well-rounded to subrounded, siliceous, with: rare biotite, rare muscovite, abundant iron oxide stains. Slightly porous to porous.
524-531	7	Sandstone, white, clear, moderately cemented, fine-to coarse-grained, medium sorted, subrounded to angular, interstitially silty, siliceous, rare biotite, rare carbonaceous material, abundant iron oxide stains. Slightly porous to porous.
531-550	19	Conglomeratic Sandstone, white, clear, milky white, moderately cemented, v fine-to very coarse-grained, granules (common), poorly sorted, subrounded to angular, siliceous, calcareous (slightly), with: rare biotite, rare muscovite, common chlorite, rare carbonaceous material, rare iron oxide stains. Slightly porous.
550-575	25	Sandstone, white, clear, poorly cemented, fine-to coarse-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare chlorite, rare carbonaceous material, abundant iron oxide stains. Nonporous to slightly porous.

- 575-618 43 Shale, silty, dark gray, black, moderately soft, flaky, fair to good fissility, argillaceous, with: common muscovite, abundant pyrite.
- 618-635 17 Siltstone, grades locally to a fine-grained Sandstone, locally finely sandy, light gray, medium to dark gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: rare biotite, rare muscovite, common carbonaceous material, rare iron oxide stains.
- 635-650 15 Sandstone, white, light gray, moderately cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, abundant muscovite, common carbonaceous material, abundant iron oxide stains. Nonporous to slightly porous.
- 650-664 14 Interbedded; Shale, silty, medium to dark gray, moderately soft, flaky, fair to good fissility, argillaceous, with: rare muscovite, rare carbonaceous material. Sandstone, white, light gray, moderately cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, common muscovite, rare iron oxide stains. Nonporous to slightly porous.
- 664-687 23 Shale, silty, medium to dark gray, black, moderately soft, flaky, fair to good fissility, argillaceous, with: rare biotite, rare muscovite, common carbonaceous material.
- 687-717 30 Interbedded; Sandstone, white, light gray, well cemented, very fine-to medium-grained, medium sorted, rounded to subangular, interstitially silty, siliceous, with: abundant biotite, abundant muscovite, rare carbonaceous material, rare iron oxide stains. Nonporous to slightly porous. Siltstone, locally finely sandy, light to dark gray, moderately soft, flaky, no apparent bedding, siliceous, argillaceous, with: rare biotite, rare muscovite.
- 717-780 63 Siltstone, locally finely sandy, locally shaly, light to dark gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: common biotite, abundant muscovite, rare carbonaceous laminae.

780-781	1	No samples.
781-791	10	Siltstone, as in 717-780.
791-815	24	Interbedded; Siltstone, as in 717-780, with: Sandstone, white, light gray, moderately cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, common muscovite, and common carbonaceous material. Nonporous to slightly porous.
815-852	37	Sandstone, white, clear, poorly cemented, fine-grained, well sorted, subangular to angular, interstitially silty, siliceous, calcareous (slightly), with: abundant biotite, abundant muscovite, rare chlorite, abundant iron oxide stains. Slightly porous.
852-874	22	Sandstone, white, clear, orange, well cemented, fine-to coarse-grained, medium sorted, subrounded to angular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, abundant iron oxide stains. Nonporous to slightly porous.
874-885	11	Conglomeratic Sandstone, white, clear, moderately cemented, medium to very coarse-grained, granules (common), poorly sorted, subrounded to angular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, abundant iron oxide stains. Slightly porous to porous.
885-905	20	Sandstone, white, clear, poorly cemented, fine-to very coarse-grained, poorly sorted, subrounded to angular, siliceous, with: rare biotite, rare muscovite, abundant iron oxide stains. Nonporous to slightly porous.

905-950	45	Conglomeratic Sandstone, white, clear, milky white, moderately cemented, fine to very coarse-grained, granules (abundant) poorly sorted, subangular to angular, siliceous, with: common biotite, rare muscovite, rare carbonaceous material, abundant iron oxide stains. Slightly porous.
950-967	17	Conglomeratic Sandstone, as in 905-950, with stringers of Siltstone, locally shaly, medium to dark gray, moderately soft, flaky, poor to fair fissility, argillaceous, with: rare biotite, common muscovite, common carbonaceous material.
967-984	17	Sandstone, white, clear, milky white, moderately cemented, fine-to very coarse-grained, poorly sorted, subrounded to angular, interstitially silty, siliceous, with: common biotite, common muscovite, rare chlorite, rare carbonaceous material, abundant iron oxide stains. Slightly porous to porous.
984-1015	31	Siltstone, locally shaly, light to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with: rare muscovite, rare carbonaceous material, rare carbonaceous laminae, with stringers of Sandstone, as in 967-984.
1015-1070	55	Sandstone, white, light gray, well cemented, very fine-to medium-grained, medium sorted, subrounded to angular, interstitially silty, siliceous, with: common biotite, common muscovite, rare chlorite, rare carbonaceous material, rare iron oxide stains, with stringers of Siltstone, as in 984-1015.
1070-1080	10	No samples.
1080-1090	10	Lithologies as in 1015-1070.
1090-1095	5	No samples.
1095-1112	17	Lithologies as in 1015-1070.

1112-1115	3	No samples.
1115-1130	15	Sandstone, white, clear, orange, moderately cemented, fine-to coarse-grained, medium sorted, subrounded to subangular, siliceous, with: rare biotite, rare muscovite, abundant carbonaceous material. Slightly porous.
1130-1140	10	Conglomeratic Sandstone, white, milky white, poorly cemented, medium-to very coarse-grained, granules (common), poorly sorted, subrounded to angular, siliceous, with: rare biotite, common muscovite, common carbonaceous material. Nonporous to slightly porous.
1140-1145	5	Siltstone, shaly, dark gray, black, moderately soft, flaky, fair to good fissility, argillaceous, with: common muscovite, rare iron oxide stains.
1145-1150	5	Sandstone, white, light gray, moderately cemented, fine-to very coarse-grained, poorly sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, common iron oxide stains. Nonporous to slightly porous. With stringers of Siltstone, locally shaly, medium to dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: rare muscovite.
1150-1180	30	Siltstone, shaly, dark gray, moderately hard, brittle, poor to fair fissility, argillaceous, with: rare muscovite, rare iron oxide stains. With stringers of Sandstone, as in 1145-1150.
1180-1200	20	Sandstone, white, light gray, well cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, common carbonaceous material, abundant iron oxide stains. Nonporous to slightly porous. With stringers of Siltstone, locally shaly, dark gray, moderately soft, flaky, no apparent bedding to fair fissility, argillaceous, with: rare biotite, rare muscovite.

1200-1205	5	No samples.
1205-1211	6	Sandstone, white, clear, moderately cemented, fine-to medium-grained, well sorted, sub-rounded to angular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, common iron oxide stains. Nonporous to slightly porous.
1211-1235	24	Siltstone, locally shaly, medium to dark gray, hard, tough, no apparent bedding to poorly fissile, argillaceous, with: rare muscovite, rare iron oxide stains. With stringers of Sandstone, white, light gray, moderately cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, rare muscovite, rare carbonaceous material, common iron oxide stains. Nonporous to slightly porous.
1235-1250	15	Siltstone, locally shaly, dark gray, black, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: common muscovite, rare carbonaceous material, rare carbonaceous laminae.
1250-1260	10	Interbedded; Sandstone, white, clear, poorly cemented, fine-to medium-grained, well sorted, subrounded to subangular, siliceous, with: rare biotite, rare iron oxide stains. Slightly porous. Siltstone, shaly, medium gray, brown, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with: rare biotite.
1260-1315	55	Conglomeratic Sandstone, white, clear, milky white, moderately cemented, medium to very coarse-grained, granules (common), pebbles (rare), poorly sorted, subangular to angular, siliceous, with: rare muscovite, rare carbonaceous material.
1315-1327	12	Conglomeratic; Sandstone as in 1260-1315, with stringers of Siltstone, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with: common biotite, abundant muscovite, abundant carbonaceous material, rare iron oxide stains.

1327-1511	184	Conglomeratic Sandstone, as in 1260=1315.
1511-1525	14	Sandstone, white, light gray, tan, moderately cemented, very fine-to coarse-grained, poorly sorted, rounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, abundant iron oxide stains. Nonporous to slightly porous.
1525-1557	32	Sandstone, white, clear, moderately cemented, medium-to coarse-grained, well sorted, subrounded, siliceous, with: rare biotite, rare muscovite, rare carbonaceous material, rare iron oxide stains. Nonporous to slightly porous.
1557-1580	23	Conglomeratic Sandstone, white, clear, orange, moderately cemented, medium-to very coarse-grained, granules (abundant), pebbles (rare), poorly sorted, subrounded to angular, siliceous, with: common biotite, rare muscovite, abundant iron oxide stains. Slightly porous to porous.
1580-1585	5	Interbedded; Sandstone, conglomeratic Sandstone, as in 1557-1580, with: Siltstone, locally shaly, dark gray, moderately soft, flaky, poor to fair fissility, argillaceous, with: common muscovite, rare carbonaceous material.
1585-1725	140	No samples.
1725-1735	10	Siltstone, grades to a very fine-grained Sandstone, locally finely sandy, light gray, moderately soft, brittle, no apparent bedding, siliceous, with: rare biotite, rare muscovite, rare iron oxide stains.
1735-1845	110	No samples.
1845-1850	5	Shale, carbonaceous, black, moderately soft, flaky, fair to good fissility, argillaceous, with: rare muscovite.

1850-1878	28	Carbonaceous shale, as in 1845-1850, with stringers of Sandstone, white, clear, moderately cemented, fine-to coarse-grained, medium sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare iron oxide stains. Slightly porous.
1878-1945	67	Siltstone, medium to dark gray, moderately hard, brittle, no apparent bedding, argillaceous, with: common biotite, common muscovite, rare pyrite.
1945-1983	38	Interbedded; Siltstone, as in 1878-1945, with: Sandstone, white, clear, moderately cemented, fine-to medium-grained, coarse-grained (rare), medium sorted, subrounded to subangular, siliceous, calcareous (slightly).
1983-1994	11	Sandstone, as in 1945-1983.
1994-2015	21	Sandstone, white, light gray, moderately cemented, very fine-to coarse-grained, very coarse-grained (rare), poorly sorted, subrounded to subangular, interstitially silty, siliceous, with: rare biotite, rare muscovite, rare iron oxide stains. Slightly porous.
2015-2020	5	Siltstone, variegated, locally finely sandy, light gray, dark gray, red, green, tan, moderately soft, flaky, no apparent bedding to poorly fissile, calcareous (locally), argillaceous, with: common biotite, rare muscovite, rare carbonaceous material, rare iron oxide stains.
2020-2040	20	Shale, silty, red, moderately soft, flaky, poor to good fissility, argillaceous, ferruginous, with: common muscovite,
2040-2060	20	Interbedded; Shale, as in 2020-2040, with: Siltstone, locally finely sandy, green (light), moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: rare biotite, rare muscovite.

2060-2069	9	Siltstone, as in 2040-2060.
2069-2074	5	Siltstone, locally finely sandy, red, green, moderately soft, flaky, no apparent bedding, calcareous (slightly), argillaceous, with: rare biotite, common muscovite, rare pyrite, and rare carbonaceous material.
2074-2116	42	Siltstone, locally shaly, light to medium gray, red (rare), moderately hard, brittle, no apparent bedding to poorly fissile, calcareous (slightly), argillaceous, with: rare biotite, common muscovite, and rare iron oxide stains.
2116-2120	4	No samples.
2120-2155	35	Siltstone, locally finely sandy, locally shaly, light to dark gray, red (rare), green (rare), moderately hard, brittle, no apparent bedding to poorly fissile, siliceous, argillaceous, with: abundant biotite, abundant muscovite, rare carbonaceous material, and rare iron oxide stains.
2155-2165	10	Siltstone, locally shaly, medium to dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: rare biotite, common muscovite, and rare iron oxide stains.
2165-2175	10	Shale, locally silty, dark gray, black, moderately hard, brittle, good fissility, argillaceous, with: rare iron oxide stains.
2175-2223	48	Interbedded; Shale, as in 2165-2175, with: Sandstone, white, light gray, moderately cemented, very fine-to medium-grained, medium sorted, rounded to subangular, interstitially silty, siliceous, with: abundant biotite, common muscovite, common pyrite, abundant iron oxide stains. Nonporous to slightly porous.
2223-2230	7	No samples.

2230-2235	5	Sandstone, white, clear, milky white, moderately cemented, very fine-to medium-grained, medium sorted, subrounded to subangular, interstitially silty, calcareous, with: rare biotite, rare muscovite, rare pyrite, abundant iron oxide stains. Nonporous to slightly porous.
2235-2250	15	No samples.
2250-2275	25	Siltstone, locally shaly, light gray, red, green, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: common muscovite, rare pyrite, rare carbonaceous material.
2275-2280	5	No samples.
2280-2290	10	Siltstone, locally finely sandy, light to dark gray, red (rare), moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: abundant biotite, abundant muscovite, with: rare carbonaceous material, and rare iron oxide stains.
2290-2307	17	Interbedded; Siltstone, as in 2280-2290, with: Sandstone, white, light gray, well cemented, very fine-to fine-grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with: common biotite, common muscovite, rare iron oxide stains. Nonporous to slightly porous.
2307-2312	5	No samples.
2312-2326	14	Siltstone, locally finely sandy, medium gray, red, green, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with: rare biotite, rare muscovite, rare pyrite, rare carbonaceous material, with: stringers of Limestone, shaly, light brown, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline, with: rare calcite.

2326-2350	24	Siltstone, carbonaceous, light to dark brown, black, moderately hard, brittle, no apparent bedding, calcareous (slightly), argillaceous, with: common biotite, rare muscovite, rare pyrite, and abundant carbonaceous material.
2350-2425	75	Shale, silty, medium to dark gray, moderately soft, flaky, poor to fair fissility, argillaceous, with: abundant muscovite, rare pyrite, and rare iron oxide stains.
2425-2488	63	Siltstone, locally shaly, light to dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with: rare biotite, rare muscovite, common pyrite, rare carbonaceous material, 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, rare iron oxide stains. Nonporous to slightly porous.
2488-2515	27	Siltstone, as in 2425-2488.
2515-2544	29	Siltstone, locally shaly, light to dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, calcareous, argillaceous, with: rare biotite, rare muscovite, and common calcite.
2544-2550	6	Limestone, shaly light gray, light brown, moderately hard, fossil fragmental (rare), no apparent bedding to platy, cryptocrystalline to microcrystalline, with: rare mica, and abundant calcite.
2550-2567	17	No samples.
2567-2585	18	Limestone, as in 2544-2550.
2585-2651	66	Limestone, as in 2544-2550, with stringers of light green dolomite.
2651-2669	18	Limestone, silty, light gray, light brown, moderately hard, fossils (crinoids), no apparent bedding, microcrystalline, with: rare mica, and abundant calcite.

2669-2685	16	Limestone, light to dark gray, dark brown, moderately hard, oolitic structure (rare), fossil fragmental, no apparent bedding, microcrystalline with: rare mica, common pyrite, abundant calcite.
2685-2706	21	Limestone, tan, white, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline, with: rare calcite, and rare carbonaceous material.
2706-2721	15	No samples.
2721-2731	10	Limestone, as in 2685-2706.
2731-2738	7	No samples.
2738-2748	10	Limestone, light brown, dark brown, white, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline to microcrystalline, with: rare mica, and common calcite.
2748-2780	32	No samples.
2780-2803	23	Limestone, light gray, tan, white, moderately hard, oolitic structure (rare), fossil fragmental, no apparent bedding, microcrystalline, with: abundant calcite and rare iron oxide staining.
2803-2846	43	No samples.
2846-2916	70	Limestone, light brown, tan, white, moderately hard, oolitic structure, no apparent fossil content, no apparent bedding, microcrystalline, with: common calcite, and rare carbonaceous material.
2916-2926	10	Limestone, as in 2846-2916, with: common chert.
2926-2928	2	Siltstone, locally shaly, light gray (rare), red, moderately soft, flaky, no apparent bedding to poorly fissile, ferruginous, with: common biotite, rare muscovite, and rare carbonaceous material.
2928-2933	5	No samples.

2933-2021	88	Siltstone, as in 2926-2928.
3021-3033	12	Siltstone, locally finely sandy, light to dark gray, moderately soft, brittle, no apparent bedding, siliceous, argillaceous, with: common biotite, common muscovite, rare pyrite, and common carbonaceous material.
3033-3040	7	No samples.
3040-3094	54	Siltstone, as in 3021-3033.
3094-3100	6	No samples.
3100-3140	40	Siltstone, as in 3021-3033.
3140-3152	12	No samples.
3152-3222	70	Siltstone, as in 3021-3033.
3222-3401	179	Shale, silty, medium to dark gray, moderately hard, brittle, poor to fair fissility, argillaceous, with: common muscovite, rare pyrite, and rare iron oxide stains.
3401-3412	11	No samples.
3412-3420	8	Shale, as in 3222-3401.
3420-4891 (T. D.)	1471	No samples

GEOLOGIC SUMMARY

Pennsylvanian System

Norton Formation	in	30
	bottom	815
Lee Formation	top	815
	bottom	(?)

Mississippian System

Bluestone Formation	top	(?)
	bottom	1878
Princeton Sandstone	top	1878
	bottom	2015
Hinton Formation	top	2015
	bottom	2290
Stony Gap Sandstone	top	2175
	bottom	2290
Bluefield Formation	top	2290
	bottom	2544
Greenbrier Limestone	top	2544
	bottom	2926
Maccrady-Price Formations	top	2926
	bottom	3222

Mississippian-Devonian Systems

Big Stone Gap Shale	top	3222
	in	3420 (deepest sample)

Correlations by: J. M. Wilson and R. C. Milici

September 1963