

Company: United Fuel Gas Co.
 Farm: National Shawmut Bank of Boston
 Well No.: 8908
 Elevation: 1662.34'
 Total Depth: 3417'
 Located: Buchanan County
 5150' S. of 37°30'
 10,400' W. of 82°00'
 Drilling Commenced: 6/1/61
 Well Completed: 10/11/61
 Result: Gas Well

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

GEOLOGIC LOG

Depth	Thickness	Description
0-2400	2400	No samples
2400-2426	26	Interbedded Sandstone, white to clear, moderately cemented, very fine to fine grained, well sorted, subrounded to subangular, siliceous, with; common biotite, common muscovite, rare carbonaceous material, rare iron oxide stains. Nonporous to slightly porous Siltstone, locally shaly, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, with; rare muscovite, rare iron oxide stains
2426-2482	56	Sandstone, as in 2400-2426, with Stringers of Siltstone, as in 2400-2426.
2482-2492	10	Siltstone, locally finely sandy, light to dark gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with; common biotite, common muscovite, rare carbonaceous material, Stringers of Sandstone, white to light gray, well cemented, very fine to fine grained, well sorted, subrounded to subangular, interstitially silty, siliceous, with; common biotite, common muscovite, rare carbonaceous material, rare iron oxide stains, Nonporous
2492-2504	12	Sandstone, white to clear, moderately cemented, fine to coarse grained, medium sorted, subrounded to angular, siliceous, with; rare biotite, rare muscovite, rare carbonaceous material, abundant iron oxide stains. Slightly porous. Stringers of Siltstone, as in 2482-2492

2504-2508	4	Limestone, shaly, sandy, light to dark gray, green, moderately hard, no apparent bedding, to platy, no apparent fossil content, cryptocrystalline to microcrystalline, with; rare mica, common calcite, common iron oxide staining
2508-2521	13	Siltstone, locally finely sandy, locally shaly, light to medium gray, red, green, moderately soft, flaky, no apparent bedding to poorly fissile, calcareous, siliceous, argillaceous, with; rare biotite, rare muscovite, rare carbonaceous material, rare iron oxide stains
2521-2537	16	Siltstone, red, tan, moderately hard, brittle, no apparent bedding, calcareous, argillaceous, ferruginous, with; rare biotite, rare muscovite, rare carbonaceous material, rare iron oxide stains
2537-2548	11	Siltstone, locally finely sandy, red (common), green, moderately soft, flaky, no apparent bedding, siliceous, argillaceous, with; rare biotite, rare muscovite, rare carbonaceous material, common iron oxide stains
2548-2562	14	Siltstone, locally shaly, medium to dark gray, red, green, moderately hard, brittle, poorly fissile, argillaceous, ferruginous, with; rare muscovite, common carbonaceous material
2562-2587	25	Siltstone, grades locally to a very fine grained, Sandstone, locally finely sandy, locally shaly, light to dark gray, green, moderately hard, brittle, no apparent bedding to poorly fissile, calcareous (locally slightly), siliceous, argillaceous, with; rare biotite, rare muscovite, common carbonaceous material, common iron oxide stains
2587-2600	13	Siltstone, locally finely sandy, locally shaly, light to dark gray, red, green, moderately hard, brittle, no apparent bedding to poorly fissile, siliceous, argillaceous, ferruginous, with; common biotite, common muscovite, common carbonaceous material, rare iron oxide stains. Stringers of Dolomite, light brown, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline, rare iron oxide staining

2600-2613	13	Siltstone, grades to a very fine grained Sandstone, locally finely sandy, light to medium gray, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, with; rare biotite, rare muscovite, common carbonaceous material, rare iron oxide stains
2613-2627	14	Shale, dolomitic, dark green, moderately hard, tough, fair to good fissility, argillaceous, dolomitic, with; rare muscovite, rare carbonaceous material, rare iron oxide stains
2627-2650	23	Shale, dark gray, moderately soft, flaky, good fissility, argillaceous, with; rare muscovite, common carbonaceous material
2650-2671	21	Sandstone, white to clear, moderately cemented fine grained, well sorted, subangular to angular, siliceous, with; rare biotite, rare muscovite, common carbonaceous material, abundant iron oxide stains. Slightly porous. Abundant silty-micaceous partings (contamination?)
2671-2697	29	Sandstone, as in 2650-2671, with minor Stringers of; Siltstone, shaly, dark gray, moderately soft, flaky, fair to good fissility argillaceous, with; common iron oxide stains
2697-2701	4	Siltstone, locally shaly, dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with; rare biotite, common muscovite
2701-2720	19	Siltstone, locally shaly, medium gray, red, green, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with; rare biotite, rare rare muscovite, rare iron oxide stains. Stringers of Dolomite, green, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline
2720-2725	5	Siltstone, locally shaly, dark gray, red, moderately soft, flaky, poorly fissile, to fair fissility, argillaceous, ferruginous, with; rare muscovite, common carbonaceous material, rare iron oxide stains
2725-2745	20	Shale, silty, medium to dark gray, red(common), moderately soft, flaky, fair to good fissility, argillaceous, ferruginous, with; common muscovite, rare iron oxide stains
2745-2758	13	Siltstone, dark gray,(rare), red, moderately hard, brittle, no apparent bedding, ferruginous with; rare biotite, common muscovite, rare carbonaceous material, rare iron oxide stains

2758-2763	5	Siltstone, locally finely sandy, light to dark gray, red, moderately hard, brittle, no apparent bedding, siliceous, argillaceous, ferruginous, with; common biotite, common muscovite, rare pyrite, rare carbonaceous material, common iron oxide stains
2763-2794	31	Siltstone, dark gray (rare), red, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, ferruginous, with; rare muscovite, rare carbonaceous material, common iron oxide stains
2794-2810	16	Siltstone, shaly, medium to dark gray, moderately soft, flaky, poor to fair fissility, argillaceous, with; abundant muscovite, common pyrite
2810-2812	2	Siltstone, locally shaly, medium to dark gray, red, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, ferruginous, with; rare muscovite, common carbonaceous material,
2812-2851	39	Siltstone, locally shaly, medium gray-green, moderately hard, brittle, poorly fissile, argillaceous, with; rare muscovite, rare iron oxide stains
2851-2860	9	Limestone, shaly, light to dark gray, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline to microcrystalline, with; rare mica, rare calcite
2860-2873	13	Shale, silty, light to dark gray, red, moderately soft, flaky, fair to good fissility, calcareous (slightly), argillaceous, common muscovite, rare carbonaceous material, rare iron oxide stains
2873-2879	6	Siltstone, locally shaly, dark gray, red, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, ferruginous, with; rare muscovite
2879-2905	26	Siltstone, red (rare), green-gray, moderately hard, tough, no apparent bedding, siliceous, argillaceous, with; rare biotite, rare muscovite, rare carbonaceous material
2905-2917	12	Siltstone, locally shaly, dark gray, moderately hard, brittle, no apparent bedding to poorly fissile, argillaceous, with; rare muscovite, common pyrite, rare iron oxide stains

2917-2939	22	Siltstone, as in 2905-2917, with Stringers of; Sandstone, white to light gray, well cemented, very fine to fine grained, well sorted, subrounded to angular, interstitially silty, siliceous, with; rare biotite, rare muscovite, rare carbonaceous material. Nonporous to slightly porous
2939-2955	16	Siltstone, shaly, medium to dark gray, moderately soft, flaky, poor to fair fissility, argillaceous, with; rare muscovite, common carbonaceous material
2955-2972	17	Siltstone, as in 2939-2955, slightly calcareous
2972-2978	6	Shale, medium gray, brown (rare), moderately hard, brittle, good fissility, argillaceous, with; rare pyrite
2978-2988	10	Shale, as in 2972-2978, slightly calcareous
2988-2991	3	Siltstone, locally shaly, medium to dark gray, moderately soft, flaky, no apparent bedding to poorly fissile, calcareous, argillaceous, with; rare muscovite, rare carbonaceous material, rare iron oxide stains
2991-3007	16	Limestone, shaly, light to dark gray, moderately hard, fossils (crinoid stems) no apparent bedding to platy, microcrystalline, with; rare mica, common calcite
3007-3047	40	Limestone, light to dark gray, white, moderately hard, common fragmental fossil content, no apparent bedding, cryptocrystalline to microcrystalline, with; rare mica, abundant calcite, rare iron oxide staining
3047-3081	34	Limestone, light to dark gray, green, light brown, moderately hard, rare fragmental fossil content, no apparent bedding, microcrystalline, with; common calcite
3081-3090	9	No samples
3090-3113	23	Limestone, as in 3047-3081
3113-3154	41	Limestone, light gray, light to dark brown, white, moderately hard, rare fragmental fossil content, no apparent bedding, cryptocrystalline, with; rare calcite, common carbonaceous material, common iron oxide staining
3154-3249	95	Limestone, light brown, white, moderately hard, oolitic, no apparent fossil content,

		no apparent bedding, microcrystalline, with; common calcite, common carbonaceous material, rare iron oxide staining
3249-3367	18	Limestone, dolomitic?, white, light green-gray, moderately hard, oolitic (locally), no apparent fossil content, no apparent bedding, microcrystalline, with; abundant calcite
3367-3380	13	Limestone, dolomitic, light gray, tan, orange, moderately hard, no apparent fossil content, no apparent bedding, cryptocrystalline to microcrystalline, with; common calcite, common carbonaceous material, rare iron oxide staining
3380-3417	37	Siltstone, red, maroon-drab, moderately soft, flaky, no apparent bedding to poorly fissile, argillaceous, ferruginous, with; rare biotite, abundant muscovite
3417'	-	T. D.

GEOLOGIC SUMMARY

Mississippian System

Princeton Sandstone	in	2400
	bottom	2504
Hinton Formation	top	2504
	bottom	2701
Stony Gap Sandstone	top	2650 ✓
	bottom	2701
Bluefield Formation	top	2701
	bottom	2991
Greenbrier Limestone	top	2991
	bottom	3380
Maccrady Formation	top	3380
	in	3417 (deepest sample)

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

September 1963