

P. S. Pyles No. 9315 Well

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Portland District, Preston County, W. Va.
By Hope Natural Gas Company, Clarksburg, W. Va.
Located 3.63 miles South of 39° 30' and 3.35 miles W. of 79° 30'.
Kingwood quadrangle, N.E.
Elevation 2197' L.
Permit - Preston No. 9.
Drilling commenced Nov. 18, 1948; completed May 2, 1949.
Shot May 3, 1949.
Acidized May 18, 1949.
Gas well; Volume 73,000 cu. ft.
Fresh water 38'; 114'; show water 595'.
Salt water 6062 - 6067'.
10" casing 502'; 8-1/4", 1512'; 6-5/8" 5683'; all left in.
No coal recorded.
Section based on samples from 4804' - 6088'; examined by Russell R. Flowers.

Top	Bottom	Thickness	
4804	4825	21	Shale, grayish-black to black (highly carbonaceous)
<u>Tully Limestone, 8 Feet.</u>			
4825	4833	8	Limestone, olive-gray, some dark brownish gray, very fine textured, very shaly
<u>Hamilton & Marcellus Shales, 810 Feet.</u>			
4833	5244	411	Shale, grayish-black to black (carbonaceous), some dark-gray in the upper part
5244	5263	19	Shale, dark-gray to grayish-black, somewhat calcareous; small amount of olive-gray, very shaly limestone
5263	5400	137	Shale, grayish-black to black (highly carbonaceous)
5400	5422	22	Shale, black, some grayish-black to black, very highly carbonaceous
5422	5460	38	Shale, dark-gray to brownish-black, calcareous to very shaly limestone; a large amount of grayish-black to black shale at the bottom
5460	5488	28	Limestone (very shaly) to shale (calcareous), dark-gray to brownish-black; some grayish-black to black shale
5488	5510	22	Shale, grayish-black to black, highly carbonaceous; a large amount of dark-gray to olive-black, very shaly limestone and calcareous shale in the lower part
5510	5544	34	Limestone (shaly) to shale (calcareous), dark-gray to olive-black
5544	5570	26	Shale, grayish-black to black (highly carbonaceous); a large amount of dark-gray to olive-black, calcareous shale and shaly limestone at the top and bottom; small amounts of pyrite and white to light-gray vein calcite
5570	5596	26	Limestone (very shaly) to shale (calcareous), dark-gray to olive-black; small amount of white to light-gray, vein calcite; some grayish-black to black shale

5596	5643	47	Shale, black, very highly carbonaceous, some grayish-black to black in the upper part, small amounts are highly calcareous; small amounts of white to light-gray vein calcite
<u>Huntersville Chert, 213 Feet.</u>			
5643	5707	64	Shale, (highly calcareous) to limestone (very shaly), grayish-black to black, slightly cherty; some olive-gray to brownish-black, very shaly siltstone (bentonite)
5707	5712	5	Limestone, grayish-black with medium- to dark-gray spots, very shaly
5712	5718	6	Limestone, grayish-black, very shaly, cherty to a medium- to dark-gray, calcareous chert
5718	5724	6	Chert, light- to medium-light gray with some dark-gray to grayish-black (very shaly), calcareous, dolomitic, translucent to opaque
5724	5726	2	Chert, light- to medium-gray, mottled with dark-gray to grayish-black (shaly), calcareous, somewhat dolomitic
5726	5731	5	Chert, light- to medium light gray, translucent to "dead", slightly calcareous and dolomitic; some dark-gray (shaly) chert in the lower part; much of the chert contains some siliceous, sponge spicules (?)
5731	5737	6	Chert, light- to medium light gray, some medium-gray, translucent to transparent, some "dead", many of the pieces contain siliceous sponge spicules (?), contains some dark-gray (shaly) material in spots and streaks and along fractures, calcareous at the bottom
5737	5748	11	Chert, light- to medium-gray, some dark-gray to grayish-black (shaly), translucent to "dead", highly fractured with shaly material and some quartz as fillings, much of the sample contains siliceous sponge spicules (?), slightly dolomitic in the upper part
5748	5751	3	Chert, light- to medium light gray with some dark-gray (very shaly), transparent to translucent, much of the chert contains large numbers of siliceous sponge spicules (?), slightly dolomitic
5751	5760	9	Chert, medium light to medium-gray, some dark-gray (shaly), mostly translucent, most of the chert contains an abundance of siliceous sponge spicules (?)
5760	5766	6	Siltstone, medium light to dark-gray (shaly), glauconitic at the top, slightly dolomitic, Cherty
5766	5771	5	Chert (silty) to siltstone, medium- to dark-gray (shaly), slightly dolomitic
5771	5817	46	Chert, medium- to dark-gray, "dead", shaly to a grayish-black siliceous shale; a very small amount of white dolomite
5817	5825	8	Chert, dark-gray, shaly to a grayish-black siliceous shale
5825	5856	31	Shale (highly silicified) to shale, grayish-black to black; trace of white dolomite

Oriskany Sandstone, 27 (?) Feet.

5356	5861	5	Sandstone, very light to light-gray, fine- to medium-grained, subrounded to rounded, (clear, glassy quartz), some coarse (rounded) grains, calcareous
5861	5863	2	Sandstone, light-gray, fine-grained, highly calcareous
5863	5867	4	Sandstone, light-gray, fine- to medium-grained, some coarse grains, subrounded to rounded, very highly calcareous in part; some dark interstitial material
5867	5871	4	Sandstone (highly calcareous) to limestone, (very shaly, very sandy), medium- to dark-gray, very fine to medium-grained (rounded)
5871	5874	3 2	Sandstone, medium-gray, conglomeratic, very fine to very coarse grained, subrounded to rounded, very highly calcareous
5874	5875	1	Sandstone, Very light gray, fine grained, some medium grains, subrounded to rounded, highly calcareous
5875	5883	8	Sandstone, light- to medium-gray, very fine to medium-grained, very highly calcareous to a very sandy limestone

Helderberg Formation, 205, plus Feet.

5883	5889	6	Limestone (very sandy and silty) to sandstone (very fine, very shaly in part, very highly calcareous), medium- to dark-gray (with layers of grayish-black shale), many fine to medium grains in the lower part
5889	5896	7	Sandstone, medium-gray (with dark-gray, shaly streaks), very fine to fine-grained, subrounded, many medium (rounded) grains, very highly calcareous
5896	5898	2	Sandstone, light-gray (with medium- to dark-gray, shaly spots and streaks), mostly fine to medium-grained; highly calcareous
5898	5900	2	Sandstone, light- to medium-gray, very fine to fine-grained, some dark (shaly) material, very highly calcareous
5900	5915	15	Siltstone to sandstone (very fine), dark-gray, some medium-gray, very shaly, very highly calcareous with some silty and sandy limestone, contains many fine to medium sand grains, somewhat lighter in color from 5910-5915', some fossil fragments
(Definitely Helderberg)			
5915	5919	4	Sandstone, medium- to dark-gray, very fine to fine-grained, some medium grains in the upper part, very silty to a very shaly siltstone (dark-gray to grayish-black), very highly calcareous
5919	5920	1	Sandstone, light- to medium-gray (somewhat shaly), very fine to fine, some medium (rounded) grains, highly calcareous with spots of sandy limestone
5920	5922	2	Limestone, medium-gray (with spots of white calcite and dark-gray shale), very sandy (very fine to medium grained)

5922	5934	12	Limestone (silty to siltstone (highly calcareous), medium- to dark-gray (with dark-gray to grayish-black, very shaly streaks), some fine to medium sand, some fossil fragments
5934	5944	10	Sandstone, light- to medium-gray, some dark-gray (shaly), very fine to fine-grained, highly calcareous
5944	5952	8	Limestone, (very sandy) to sandstone (very fine), highly calcareous), medium light to medium dark gray, some dark-gray to grayish-black (very shaly), silty
5952	5959	7	Sandstone, medium- to dark-gray, (very shaly), very fine to fine, some medium to coarse grains, very highly calcareous to a very shaly (dark-gray to grayish-black) limestone
5959	5962	8	Sandstone, light- to medium-gray, very fine to fine-grained, some medium grains, contains some dark (shaly) material, highly calcareous
5962	5975	13	Sandstone, (fine to medium-grained, some coarse rounded and some very fine grains, very highly calcareous) to limestone (very sandy), medium light to medium-gray (with white calcite spots and some dark-gray (shaly) material), mostly fine to very fine, calcareous sandstone in the lower part
5975	5984	9	Limestone, medium-gray (with dark-gray, shaly streaks and white to light-gray spots), very sandy (very fine to medium grains), very silty and very shaly in part
5984	5991	7	Limestone (very sandy) to sandstone (fine to very fine, very highly calcareous), medium-gray with dark-gray (shaly) streaks and light-gray spots
5991	6002	11	Sandstone, medium light to dark-gray (very shaly), very fine to fine-grained, some medium grains, very highly calcareous with some limestone spots
6002	6008	6	Sandstone, medium light gray, very fine to fine-grained, calcareous, very highly calcareous in the lower part
6008	6020	12	Limestone (very sandy) to sandstone (very highly calcareous, very fine), medium-gray, a large amount of dark-gray to grayish-black (very shaly) at 6015 to 6017'
6020	6027	7	Sandstone, very light to medium light gray, fine- to medium-grained in the upper part, fine-grained in the lower part, subrounded, contains some black interstitial material, calcareous
6027	6033	6	Sandstone, light-gray, fine-grained, some medium grains, highly calcareous, this and the above interval look like Oriskany Sand; some medium- to dark-gray, very fine to fine-grained, highly calcareous sandstone at the bottom
6033	6039	6	Sandstone, medium-gray (with grayish-black, very shaly streaks), very fine grained, very highly calcareous
6039	6047	8	Siltstone and sandstone (very fine), very highly calcareous to limestone, medium- to dark-gray
6047	6053	6	Sandstone, medium-gray, very fine, some/dark-gray (shaly), highly calcareous to limestone

6053	6062	9	Sandstone, light- to medium-gray, some dark-gray, very fine grained, very highly calcareous, some fine-to medium-grained in the lower part
6062	6074	12	Limestone, medium dark to dark-gray with light-gray spots, mostly dark-gray at the top, somewhat sandy (very fine to fine)
6074	6083	9	Limestone, medium- to dark-gray (with Light-gray spots, very sandy (very fine to fine), slightly dolomitic
6083	6088	5	Sandstone, medium light gray, very fine grained, very highly calcareous, slightly dolomitic
	6086		TOTAL DEPTH - From Driller's log.