

Operator: Columbia Gas Trans. Corp.  
 Farm: The Pittston Co.  
 Well No.: 9645  
 Elevation: 1732'  
 Location: Buchanan County  
           5950' N of 37°15'  
           7600' E of 82°15'  
 Total Depth: 4585'73'

Formational boundaries determined from geophysical well logs which are measured 6 feet above ground level. Elevation and location of well site indicates that well located near the Dorchester coal horizon.

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>Thickness</u>
<b>Pennsylvanian System</b>			
Post Lee Formation "in at surface"		1289	1289'
		Kennedy coal horizon at 700'	
		McClure sand interval 745-815	70'
Lee Formation	1289	1987	698'
		quartzose sand 1289-1323	34'
		quartzose sand 1337-1347	10'
		quartzose sand 1387-1393	6'
		quartzose sand 1400-1421	21'
		War Creek coal horizon at 1640'	
		quartzose sand 1825-1873	48'
		quartzose sand 1878-1908	30'
		quartzose sand 1932-1987	55'
		total quartzose sand	204'
Pocahontas Formation	1987	2040	53'
<b>Mississippian System</b>			
Bluestone Formation	2040	2548	508'
Pride Shale	2340	2548	208'
Princeton Interval	2548	2716	168'
Little Stone Gap Mem.	2716	?	?
Maxon Sands	3014	3160	146'
Greenbrier Fm.	3290	3826	536'
MacCraday	3826		

## Geologic log supplement by Marshall S. Miller, May 1972.

1800-1815	15'	Shale and sandstone; shale about 50%, gray to dark gray, locally carbonaceous, and micaceous, hard, brittle; sandstone, about 50%, light gray to white, fine to medium grained, subround to subangular, moderately sorted, slightly micaceous, abundant clay-silt matrix material, and red, brown, and black rock fragments, about 75 to 80% quartz
1815-1860	45'	Sandstone, white, quartzose, medium to granular grained, scattered conglomerate, quartz fragments up to 6 mm, small amount of matrix material, scattered dark rock fragments and micas, over 95% quartz. Fragments of black carbonaceous and pyritic shale occur locally within the interval.
1860-1890	30'	Sandstone, white, quartzose, fine to coarse grained, rounded to subangular, appears loose and friable, with scattered rock fragments and muscovite, over 95% quartz
1890-1900	10'	No samples
1900-1930	30'	Sandstone, light gray to white, fine to medium grained, subround to subangular, moderately sorted, with considerable dark shaly and carbonaceous rock fragments, coarse grained muscovite, white clay matrix material, about 85 to 90% quartz
1930-1995	65'	Sandstone, white, fine to granular grained, with scattered conglomeratic quartz pebble, subround to subangular, poorly sorted, small amount of matrix material, (quartz overgrowths are visible) rare dark rock fragments, 95 to 100% quartz. A coal interval present within 1940-1950, pure, high vitreous luster, blocky fracture
1995-2000	5'	Shale, dark gray to black, locally carbonaceous, finely micaceous
2000-2008	8'	Siltstone, gray, argillaceous

2008-2012	4'	Coal, dull to high luster, bony and shaly in part, conchoidal fracture (thickness and depth estimated)
2012-2020	8'	Siltstone, gray, argillaceous, locally shaly
2020-2040	20'	Shale, siltstone, and mudstone; shale, dark gray, silty, carbonaceous; siltstone, gray, shaly; mudstone, brownish gray, with rounded yellowish-brown siderite nodules
2040-2050	10'	Shale, red, green, and gray, slightly calcareous