

Operator: Clinchfield Coal Corp.
 Farm: Virginia Coal and Iron Co.
 Well No.: 143

Location: Wise County
 13,050' S of 37°05'
 10,900' W of 82°40'

Elevation: 2225.3'

Total Depth: 5349'

Remarks: Well has been sufficiently logged by K. Robinson, VDMR, 1962.

The geologic summary below, on the Pennsylvanian section, was prepared by Marshall S. Miller, to identify the Lee quartzose sand members. All other correlations and identifications are determined from the descriptions of Robinson.

<u>Depth</u>	<u>Thickness</u>	<u>Description</u>
0-2170	2170'	No samples
2170-2195	25'	Sandstone, white, quartzose, fine to very coarse grained, subround to subangular, poorly sorted, rare dark rock fragments, carbonaceous fragments, small amount of calcareous clay matrix material, about 90% quartz, 5% matrix, 5% rock fragments
2195-2290	95'	See Robinson's log
2290-2310	20'	Sandstone, white, quartzose, medium grained, subangular to subround, moderately well sorted, little to no matrix material, rare dark rock fragments, 95 to 100% quartz
2310-2320	10'	No samples
2320-2322	2'	Coal, silty, impure
2322-2345	22'	Sandstone, white, quartzose, medium to coarse grained, subround to subangular, moderately sorted, considerable clay-silt matrix material, rare dark rock fragments, about 90% quartz, 5 to 10% matrix, 0 to 5% rock fragments

2345-2355	10'	Siltstone, dark gray, grayish brown, moderately hard, finely micaceous, argillaceous, locally carbonaceous
2355-2406	51'	Sandstone, white, quartzose, fine to coarse grained, poorly sorted, angular to rounded, little or no matrix material, rare dark rock fragments, secondary quartz overgrowths visible, 95 to 100% quartz
2406-2417	11'	Siltstone, dark gray, moderately hard, carbonaceous
2417-2418	1'	Coal, silty and impure, in part
2418-2425	7'	Siltstone, dark gray, carbonaceous sand, shaly
2425-2430	5'	Coal, pure to impure, shaly and bony in part
2430-2479	49'	Sandstone, white, quartzose, fine to coarse grained, to granular, subangular to subround, poorly sorted, small amount of clay and silt matrix material, rare dark rock fragments, 90 to 95% quartz
2479-2489	10'	Sandstone, as in 2430-2479, conglomeratic
2489-2586	97'	See Robinson's log
2586-2588	2'	Coal, pure to impure, with fossil plant fragments
2588-2604	16'	Sandstone, white, quartzose, medium to granular grained and conglomeratic, subangular to round, poorly sorted, little to no matrix material, no accessory, rare rock fragments, 95 to 100% quartz
2604-2617	13'	No samples
2617-2624	7'	Sandstone, white, quartzose, fine to medium grained, subrounded, moderately well sorted, small amount of silty matrix material and dark rock fragments, 90 to 95% quartz

2624-2632	8'	Sandstone, white, quartzose, fine to granular grained and conglomeratic, angular to subround, poorly sorted, no matrix material, scattered dark rock and carbonaceous fragments, secondary quartz overgrowths visible, 90 to 95% quartz
2632-2636	4'	Sandstone, as in 2624-2632, fine to coarse grained, not conglomeratic
2636-2674	38'	Sandstone as in 2624-2632, fine to granular grained, not conglomeratic
2674-2684	10'	Sandstone, white, quartzose, fine grained, subrounded, well sorted, little or no matrix material, very rare dark rock fragments, 90 to 95% quartz
2684-2693	9'	Sandstone, white, quartzose, fine to granular grained, subangular to subround, poorly sorted, little to no matrix material, scattered dark rock fragments and carbonaceous material, 90 to 95% quartz
2693-2710	17'	Sandstone, white to orange, quartzose, fine to medium grained, rounded to subangular, moderately sorted, considerable clay-silt matrix material, rare dark rock fragments, abundant iron staining throughout, 90% quartz, 5 to 10% matrix, 0 to 5% rock fragments
2710-2720	10'	No samples
2720-2730	10'	Sandstone, as in 2693-2710
2730-2749	19'	Sandstone, white, quartzose, very fine to fine grained, subround, well sorted, interstitially silty but poorly cemented, very rare dark fragments, 90 to 95% quartz
2749-2757	8'	No samples

2757-2764	7'	Siltstone, dark gray, argillaceous or shaly, locally carbonaceous
2764-2767	3'	Sandstone, white, quartzose, granular to conglomeratic, well rounded to angular, poorly sorted
2767-2795	28'	Sandstone, white, quartzose, fine to medium grained, occasionally coarse grained and granular, subround to subangular, moderately sorted, small amount of clay and silt matrix material, scattered dark rock fragments, 90% quartz, 5% matrix, 5% rock fragments
2795-2809	14'	No samples
2809-2831	22'	Sandstone, white, quartzose, medium grained, subround to round, well sorted, rare dark rock fragments, little or no matrix material, 95% quartz, 5% matrix and rock fragments, rare carbonaceous-silt partings present in lower 10'
2831-2837	6'	No samples
2837-2933	99'	Sandstone, white, quartzose, fine to coarse grained to granular and conglomeratic, subangular to subround, moderately to poorly sorted, little or no matrix material, rare dark rock fragments, 90 to 95% quartz, 5% matrix, 0 to 5% rock fragments, locally iron stained
2933		Shale, dark gray, finely micaceous, hard, locally carbonaceous
2933-5349		See Robinson's log

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Drilling Commenced: Nov. 6, 1952

Well Completed: July 10, 1953

Result: Gas well.

Correlations by Marshall Miller, 1970-74, VDMR.

<u>Formation</u>	<u>Top</u>	<u>Bottom</u>	<u>Thickness</u>
Pennsylvanian System			
Lee Formation	in at 2170	2933	?
		War Creek coal at 2530	
Pocahontas Formation	absent		
Mississippian System			
Pride Shale	2933	3090	157'
Princeton Interval	3090	3151	61'
Little Stone Gap Mem.	3151	3165	14'
Stony Gap Sand	3442	3507	65'
Greenbrier Fm.	3740	4165	425'
Maccrady Fm.	4165		