

J.W. Heinzman No. 4053 Well

located on map

Curtis District, Roane County, W.Va.

S. E. Ripley

By United Fuel Gas Company, Charleston, W.Va.

On Frozencamp Creek, 0.3 mi. S.E. of Antioch, 0.2 mi. E. of axis of Flat Fork Anticline.

4.25 mi. E. of 81° 35' and 2.4 mi. N. of 38° 45'-SE-Ripley Quadrangle.

Elevation 823 feet E. Starts about 43 feet above Washington coal horizon (780 foot contour).

This well, the deepest in the state, and the deepest in the world drilled with cable tools, gives a section from the lower part of the Dunkard group of the Permian to 239 feet below the top of the Trenton limestone. Samples of drill cuttings from 1155 to 9055 feet were examined, and the writer's detailed description and interpretation have been published¹. Only the condensed

1. R.C. Tacker, West Virginia Geological Survey, Deep Well Records, pp. 407-431, 1936.

stratigraphic summary is repeated here and a tabulation of minerals observed in several of the formations is included.

Stratigraphic Summary of J.W. Heinzman No. 4053 Well Record

	Top	Bottom	Thickness
Permian and Pennsylvanian (part above 1155 not represented by samples)	0	1840	1840
Greenbrier limestone	1840	1948	108
Pocono formation	1948	2397	449
Devonian shales and sandstone	2397	5210	2813
Huntersville chert	5210	5380	170
Oriskany sandstone	5380	5478	78
Alderberg group	5458	5680	222

	Top	Bottom	Thickness
Salina formation	5680	6550	870
Clinton formation	6650	7040	490
White Medina formation (*Clinton sand of Ohio)	7040	7215	175
Red Medina formation or Queenston shale	7215	7720	505
Martinsburg shale	7720	8865	1145
Trenton limestone	8865	9104	239

Minerals in Huntersville chert, Crickany, and Helderberg

J. W. Heinman No. 4063 of United Fuel Gas Company

Curtis District, Roane County

Samples treated with dilute hydrochloric acid.

Depth below top of Huntersville chert	Heavy Minerals										Light Minerals					
	Pyrite	Sphalerite	Barite	Zircon	Rutile	Leucosane	Tourmaline, brown	Tourmaline, green	Tourmaline, blue	Tourmaline, orthorhombic	Quartz, blue	Quartz, sand	Quartz, secondary calcareous	Chalcedony	Potash, Feldspar	Glaucophane
Huntersville chert Samples.																
40-50	VA	C	S	S	VS	S	S					C		VA		
50-60	C	C		S		S	S					C		VA		
60-70	S	C		S		S	S	S		S		A		VA	S	
70-80	C			S		S	S					C		VA	S	VS
80-90	C	S		C	VS	S	S					C		VA	S	VS
90-100	A	S		S			S			S		C		VA	S	VS
100-110	C	C	S	C		S	S					C		VA	S	VS
110-120	C	C		S		S	S					S		VA		
120-130	A		S	C		S	S	S				A		VA	S	S
130-140	C			S		S	S					C		VA	S	S
140-150	C			S	VS	S	S					A		VA	S	VS
150-160	S	VS										C		VA	S	
160-170	S	S		S		S	S					S		VA	VS	
Crickany Samples.																
170-180	S		C	A		A	C	C	S	S		VA	S		S	
180-190				A	VS	A	C	C		C		VA	S		S	
190-200				A	VS	A	C	C	VS	S		VA	S	S	S	
200-210	V	S		A	VS	A	C	S		S		VA	A		S	VS
210-230				VA	S	A	C	S		S		VA			S	
230-240				VA		A	C	S		S		VA	S		S	
240-248	V	C	S	VA	VS	A	C	S	VS	S		VA	C	S	S	
Helderberg Samples.																
248-258	A	C		C		C	S					C		VA	S	
258-268	A	S		S	VS	S						C		VA		
268-280	VA	C		C			S					S		VA	VS	
280-290	VA													VA		
290-300	VA	VS		VS								C		A	S	
300-310	VA	C		C		C	S					A	S	A	S	
310-320	C	C		C		C	S					C	VS	VA	S	
320-330	C	A		A		A	C	S				A	VS	VA	C	
330-340	A	C		C	VS	C	C					A		VA	S	
340-350	C	C		C		A	C					C		VA	S	
350-360	VA	S		S		S	S					C		VA		
360-370	VA	S		S		S	S	VS				C		VA		
370-380	VA	C		C			S			S		VA		A		
380-390	VA	C		C		S	S	S				VA				
390-400	VA	C		C		S	S	S				VA			VS	
400-410	VA			S		S	S					A		A	S	
410-420	A	S		S			S					C		A		
420-430	VA	S		S			S			S		A		A	C	

Minerals in Salina, Clinton, and Medina Formations.

J. W. Heinaman No. 1 Well

Curtis District, Boone County

Total depth, feet	Heavy Minerals									Light Minerals					
	Pyrite	Sphalerite	Barite	Zircon	Rutile	Leucosane	Tourmaline, brown	Tourmaline, green	Tourmaline, blue	Tourmaline, earthigenic	Quartz, sand	Quartz, sec- ondary, en- largement	Chalcedony	Potash, feldspar	Glaucophane
<u>Salina Samples.</u>															
6520-6530	C			A	VS	A	C	S	S		VA		S		
6530-6540				A		A	C	S	VS		VA		S		
6540-6550				A	VS	A	C				VA				
<u>Clinton Samples.</u>															
6550-6560				VA	S	A	C	S	VS		VA				
6560-6570				VA	S	A	C	S			VA				
<u>White Medina Samples.</u>															
7040-7050	VA			X		X	X				VA	C			
7070-7080	A			C	S	A	C	S	VS		VA	C			
7080-7090	C			C	S	A	C	S	VS		VA	C		VS	
7090-7100	A			C	S	A	C	S	S		VA	C		VS	
7100-7110	A			A	S	A	C	S	S		VA	C			
7110-7120	C			A	S	A	C	S	S		VA	C			
7120-7130	A			A	S	A	C				VA	C			
7130-7140	C			A	S	A	C	S	S		VA	A			
7205-7215	A			VA	S	A	C	S			VA	C			

Minerals in Salina, Clinton and Medina Formations
 J.W. Heinzman No. 1 Well, Curtis District, Kansas

Total
 Depth in feet
 Salina samples.

Heavy Minerals Light Minerals

Pyrite
 Sphalerite
 Barite
 Zircon
 Rutile
 Leucocrene
 Tourmaline, brown
 Tourmaline, green
 Tourmaline, blue
 Tourmaline, authigenic
 Quartz, sand
 Quartz, secondary enlargement
 Chalcedony
 Potash, feldspar
 Glauconite

Depth in feet	Pyrite	Sphalerite	Barite	Zircon	Rutile	Leucocrene	Tourmaline, brown	Tourmaline, green	Tourmaline, blue	Tourmaline, authigenic	Quartz, sand	Quartz, secondary enlargement	Chalcedony	Potash, feldspar	Glauconite
6520-6530	C			A	VS	A	C	S	S						
6530-6540				A		A	C	S	S		VA		S		
6540-6550				A	VS	A	C	S	VS		VA		S		
Clinton sample				A	VS	A	C				VA		S		
6550-6560				VA	S	A	C	S	KS		VA				
6560-6570				VA	S	A	C	S			VA				
White Medina samples				VA	S	A	C	S			VA				
7070-7080	VA			X		X	X				VA				
7070-7080	A			C	S	A	C	S	KS		VA		C		
7080-7090	C			C	S	A	C	S	KS		VA		C		
7090-7100	A			C	S	A	C	S	KS		VA		C		
7100-7110	A			C	S	A	C	S	KS		VA		C		VS
7110-7120	C			A	S	A	C	S	S		VA		C		KS
7120-7130	A			A	S	A	C	S	S		VA		C		
7130-7140	C			A	S	A	C	S	S		VA		C		
7140-7150	C			A	S	A	C	S	S		VA		C		
7205-7215	A			VA	S	A	C	S	S		VA		A		
											VA		C		

Humboldt chart

Minerals in ~~Garniferous~~, Oriskany and Helderberg.
 J. W. Heinzman No. 4053 of United Fuel Gas Company, Curtis Dist., Roane County
 Samples treated with dilute hydrochloric acid.

Depth below top of	Heavy Minerals										Light Minerals					
	Pyrite	Sphalerite	Barite	Zircpn	Rutile	Leucoxene	Tourmaline, brown	Tourmaline, green	Tourmaline, blue	Tourmaline, authigenic	Quartz, crystalline	Quartz, sand	Quartz, secondary enlargement	Chalcedony	Potash, feldspar	Glaucouinite
Garniferous Samples																
40-50	VA	C	S	S	VS	S	S									
50-60	C	C		S												
60-70	S	C		S		S	S	S								
70-80	C			S		S	S	S								
80-90	C	S		C	VS	S	S	S								
90-100	A	S		S												
100-110	C	C	S	C		S	S									
110-120	C	C		S		S	S									
120-130	A		S	C		S	S	S								
130-140	C			S		S	S									
140-150	C			S	VS	S	S									
150-160	S	VA														
160-170	S	S		S		S	S									
Oriskany Samples																
170-180	S		C	A		A	C	C	S	S						
180-190				A	VS	A	C	C		C						
190-200				A	VS	A	C	C	VS	S						
200-210	V	S		A	VS	A	C	S		S						
210-230				VA	S	A	C	S		S						
230-240				VA		A	C	S		S						
240-248	V	S	S	VA	VS	A	C	S	VS	S						
Helderberg Samples																
248-258	A	C		C		C	S									
258-268	A	S		S	VS	S										
268-280	VA	C		C			S									
280-290	VA															
290-300	VA	VS		VS												
300-310	VA	C		C		C	S									
Additional Samples																
310-320	C	C		C		C	S									
320-330	C	A		A	S	A	C	S								
330-340	A	C		C	VS	C	C									
340-350	C	C		C		A	C									
350-360	VA	S		S		S	S									
360-370	VA	S		S		S	S		VS							
370-380	VA	C		C			S									
380-390	VA	C		C		S	S	S								
390-400	VA	C		C		S	S	S								
400-410	VA	S		S		S	S							VS		
410-420	A	S		S		S	S							S		
420-430	VA	S		S		S	S							A	C	