

LATITUDE

LONGITUDE

LONGITUDE

7'5 OGIS topo location

7.5' loc \_\_\_\_\_ 15' loc \_\_\_\_\_  
(calc.) \_\_\_\_\_

Company \_\_\_\_\_

Farm Umstat 2

SECTION MAP

Quad \_\_\_\_\_

County \_\_\_\_\_

District \_\_\_\_\_

WELL LOCATION MAP

File No. 057-98

39° 27' 30"

78° 52' 30"  
70° 55' -15"

→ approximate location of Westvaco Umstot #2 well  
according to John M. Dennison 6 June 1984

7.5'  
loc  
.035  
.22W

→ 15' loc  
3.915  
4.15W

Mineral B

West Virginia Pulp & Paper Co.

Umstot No. 2

Keyser 7.5', 15' NW

New Creek District

Watershed North Branch Potomac River

Elevation 2200 ft.

Dredged in 1946 or 1947. 3rd

(used then looking for Shinarump)

057-98

70002 → 80002

Deep well

Samples to 1689-T.D.

Keyser, Mineral County, W. Va.

By The West Virginia Pulp & Paper Co.  
Martens' sample record to RCT June 26, 1947.See Mineral B  
deep well folder  
for location

Top. Bottom Thickness.

Top.	Bottom	Thickness.	
	23		Limestone, gray, very fine textured; also some sand, clay, etc., from surface deposits
23 -	35	12	Limestone, gray, with some porous fragments
35 -	40	5	Limestone, gray, dolomitic
40 -	47	7	Dolomite, very dark gray, shaly
47 -	51	4	Dolomite, gray
51 -	55	4	Limestone, very dark gray and dark-brown, with some white spots; very fine textured and partly shaly; moderately dolomitic
55 -	58	3	Limestone, dark-brown, very fine textured
58 -	66	8	Limestone, gray, dolomitic
66 -	70	4	Limestone, gray, more dolomitic than sample above
70 -	80	10	Limestone, brown and dark-gray, banded; dolomitic; contains a few white calcite veins; some fragments are porous
80 -	83	3	Limestone, gray and light-brown, 50%; white and yellow sand, 50%
83 -	86	3	Limestone, dark brownish gray, very fine textured, slightly dolomitic
86 -	90	4	Limestone, dark-brown and light-brown, with some calcite veins; light-brown part appears somewhat weathered
90 -	100	10	Limestone, brown to light-brown; some fragments are porous and there are a few cavities lined with calcite crystals
100 -	104	4	Mostly brown clay with considerable sand and some pebbles
104 -	108	4	Limestone, gray, with much sand and gray as above
108 -	114	6	Limestone, brown, dolomitic
114 -	121	7	Limestone, light-gray, very fine textured, dolomitic
121 -	140	19	Limestone, dark-gray, somewhat dolomitic, fragments show fine banding after acid treatment
140 -	146	6	Limestone, dark-gray, fairly pure
145 -	164	19	Limestone, gray, very fine textured, somewhat dolomitic; a little sand, apparently from the surface is present in all of the six samples in this interval
164 -	167	3	Limestone, dark-brown, very fine textured, with small grains of pyrite and very little dolomite
167 -	173	6	Limestone, brown, very fine textured; almost the same as interval above but a little lighter color
173 -	178	5	Limestone, brown, very fine textured; a few highly dolomitic fragments
178 -	181	3	Limestone, brown, very fine textured; partly shaly and partly dolomitic
181 -	208	27	Limestone, brownish-gray, shaly and thin-bedded; acid treatment leaves large insoluble residue of light-brown fragments resembling very porous shale
208 -	231	23	Limestone, brownish-gray, very fine textured; some dark shaly material remains after acid treatment but there is much less insoluble than in the interval above

(OVER)

Top.	Bottom.	Thickness.	
231	- 246	15	Limestone, brown, very fine textured, with rather small amount of insoluble material
246	- 250	4	Limestone, brown, very fine textured, partly dolomitic
250	- 264	14	Limestone, dark-brown, containing very little dolomite
264	- 271	7	Limestone, brown, partly dolomitic
271	- 279	8	Limestone, brownish-gray, silty and moderately dolomitic
279	- 286	7	Limestone, brownish-gray, slightly silty
286	- 289	3	Limestone, gray, shaly
289	- 312	23	Limestone, brown, with small insoluble residues mostly silty in nature
312	- 334	22	Limestone, brown, with small insoluble residue containing small quartz and pyrite crystals and celestite; checked celestite by refractive index in samples 326 to 330' and 300 to 334'
334	- 340	6	Limestone, gray, shaly, dolomitic
340	- 346	6	Limestone, gray, shaly, dolomitic
346	- 353	7	Limestone, gray, thin-bedded, dolomitic
353	- 360	7	Limestone, dark-gray, somewhat dolomitic; large insoluble residue, mostly of dark porous shaly fragments with some lighter silty material
360	- 368	8	Limestone, gray, with insoluble residue same as last sample
368	- 375	7	Limestone, light-brown, with less insoluble residue than limestone above; fragments of the limestone are porous
375	- 380	5	Limestone, brown, very fine textured, with very small insoluble residue consisting of silt and quartz crystals
380	- 387	7	Limestone, dark-brown, very fine textured, with small insoluble residue consisting of black shaly material, silt, and small quartz crystals
387	- 403	16	Limestone, brown to light-brown; rather small insoluble residue of brown porous shaly and silty material
403	- 410	7	Limestone, brown; fairly large insoluble residue of porous brown shaly and silty material; a very few pieces of gray fine tightly cemented sandstone
410	- 417	7	Limestone, brown, with small shaly and silty residue from acid treatment
417	- 423	6	Limestone, dark-brown, 50%; light-brown limestone, 50%; small insoluble residue of dark porous shaly fragments and light-gray silt
423	- 433	10	Limestone, light-gray to brownish; some fragments appear porous; contains a little gray chert with small brown spots
433	- 450	17	Limestone, light-gray to brownish, partly porous; silty and shaly insoluble residue
450	- 470	20	Limestone, gray, somewhat dolomitic, thin-bedded; fairly large insoluble residue of porous brown silty and shaly fragments containing many small specks of pyrite

## UMSTOT NO. 2 WELL (Continued) (Page 3).

Top.	Bottom.	Thickness.	
470	- 497	27	Limestone, gray, shaly and silty; dolomitic; all six samples in this interval have large insoluble residues consisting of dark porous fragments not much reduced in size; many small grains of pyrite
497	- 508	11	Limestone, brown, silty, somewhat dolomitic
508	- 513	5	Limestone, brownish-gray, dolomitic; also some gray to dark-gray shale
513	- 517	4	Limestone, gray, shaly and silty, dolomitic
517	- 524	7	Limestone, gray, dolomitic; contains a large amount of gray clay but does not have shaly structure
524	- 532	8	Limestone, gray; small insoluble residue of shaly material
532	- 542	10	Limestone, gray, silty; also a little nearly black shale
542	- 561	19	Limestone, gray, very silty
561	- 562	1	Shale, gray, highly calcareous
562	- 574	12	Shale and fine siltstone, gray, highly calcareous and dolomitic; contains many small specks of pyrite; many fragments could be classed as impure dolomitic limestone
574	- 582	8	Dolomite, dark-gray, shaly and silty
582	- 586	4	Limestone, dark-gray, shaly and silty, highly dolomitic, 80%; gray shale, 20%
586	- 606	20	Limestone, dark-gray, dolomitic, with large insoluble residue of silty and shaly material
606	- 615	9	Limestone, dark-gray, highly dolomitic, silty
615	- 622	7	Limestone, dark-gray, dolomitic; large clayey and silty insoluble residue
622	- 632	10	Shale, gray, dolomitic
632	- 641	9	Limestone, dark-gray, very impure, 70%; gray shale, 30%
641	- 659	18	Shale, gray, highly dolomitic; contains considerable silt and a little sand
659	- 670	11	Shale, gray, highly calcareous
670	- 684	14	Shale, dark-gray, highly calcareous
684	- 689	5	Limestone, gray to dark-gray, dolomitic, shaly
689	- 694	5	Dolomite and dolomitic shale, gray
694	- 709	15	Shale, gray, highly dolomitic, silty
709	- 714	5	Shale, dark-gray, highly calcareous
714	- 732	18	Limestone, dark-gray, thin-bedded and shaly
732	- 740	8	Shale and siltstone, gray, calcareous
740	- 744	4	Limestone, dark-gray; clayey and silty, partly dolomitic
744	- 747	3	Limestone, gray, silty, dolomitic, partly porous
747	- 781	34	Dolomite, gray, mostly very fine textured, partly silty
781	- 785	4	Dolomite, gray, silty and sandy; larger sand grains are rounded and frosted
785	- 792	7	Shale, gray, highly dolomitic, partly silty
792	- 800	8	Shale, gray, calcareous and dolomitic, partly silty; much of it is greenish and brownish color
800	- 803	3	Limestone, brown, very silty
803	- 809	6	Siltstone and shale, gray, 70%; gray silty limestone, 30%; several pieces of the limestone are porous
809	- 818	9	Siltstone, gray, fine and shaly, highly calcareous

(Continued OVER, Page 4)

Top.	Bottom.	Thickness.	
818	- 820	2	Siltstone and shale, gray, dolomitic
820	- 831	11	Limestone, gray, highly dolomitic, silty and shaly
831	- 835	4	Limestone, brown, highly dolomitic, silty
835	- 845	10	Limestone, brown to light-brown, silty
845	- 851	6	Limestone, gray, clayey, dolomitic
851	- 854	3	Limestone, gray, somewhat dolomitic
854	- 862	8	Limestone, dark brownish gray, moderately silty and clayey
862	- 868	6	Limestone, gray, very clayey, dolomitic
868	- 870	2	Shale, gray, silty and highly calcareous
870	- 878	8	Shale, gray, sandy and silty, calcareous
878	- 885	7	Shale, gray, partly silty, highly calcareous
885	- 909	24	Limestone, gray, clayey and silty, dolomitic
909	- 915	6	Shale, gray, highly calcareous
915	- 930	15	Dolomite, gray to light-gray, clayey and silty
930	- 936	6	Limestone, gray, clayey and silty, dolomitic
936	- 943	7	Shale, gray, highly dolomitic
943	- 954	11	Shale, dark-gray, calcareous and dolomitic
954	- 961	7	Limestone, gray, clayey, dolomitic
961	- 966	5	Limestone, brown, silty and clayey
966	- 993	27	Limestone, dark-gray, shaly, interstratified with light-brown silty limestone
993	- 1016	23	Shale, gray, calcareous and dolomitic, partly silty
1016	- 1024	8	Limestone, gray, dolomitic, silty and clayey
1024	- 1038	14	Shale, gray, calcareous and dolomitic
1038	- 1066	28	Limestone, gray, dolomitic, shaly; the amount of insoluble material is so large that some parts of this might be called shale rather than limestone
1066	- 1082	16	Limestone, dark-gray; a few fragments contain abundant microfossils, some of which resemble oolites
1082	- 1086	4	Limestone, gray; contains microfossils resembling oolites
1086	- 1129	43	Limestone, gray to dark-gray, very clayey; most of this interval could just as well be called calcareous shale
1129	- 1138	9	Limestone, gray, silty and clayey
1138	- 1147	9	Shale, gray, calcareous
1147	- 1155	8	Limestone, gray, clayey and silty
1155	- 1158	3	Shale, gray, highly calcareous
1158	- 1263	105	Limestone, gray, shaly and silty
1263	- 1291	28	Shale, gray, highly calcareous
1291	- 1363	72	Limestone, gray, clayey and silty; large insoluble residues consisting mostly of light-gray porous fragments
1363	- 1395	32	Shale, gray to dark-gray, highly calcareous
1395	- 1404	9	Limestone, gray, silty and shaly
1404	- 1417	13	Shale, green, with some gray, very sandy, slightly calcareous
1417	- 1426	9	Shale, gray, highly calcareous
1426	- 1429	3	Limestone, brownish-gray, moderately silty
1429	- 1432	3	Limestone, brown and white, with many microfossils
1432	- 1438	6	Siltstone, gray, coarse, calcareous and dolomitic; many small grains of pyrite

Top.	Bottom.	Thickness.	
1438	- 1445	7	Shale, very light grayish green, calcareous
1445	- 1448	3	Shale, light grayish green, silty, calcareous, 50%; very silty reddish limestone, 50%
1448	- 1454	6	Shale and siltstone, light-red
1454	- 1460	6	Siltstone, light-red, gray, and light-green, slightly dolomitic
1460	- 1469	9	Siltstone and silty shale, gray
1469	- 1474	5	Shale, gray
1474	- 1494	20	Shale and siltstone, gray; the siltstone is coarse and mostly calcareous
1494	- 1529	35	Shale, gray to dark-gray, calcareous
1527	- 1550	23	Shale, gray to dark-gray, calcareous; also small amounts of gray limestone and calcareous siltstone
1550	- 1572	22	Shale, gray, 50 to 60%; gray, somewhat dolomitic limestone, 50 to 40%
1572	- 1616	44	Shale, gray, 60%; gray, fossiliferous and somewhat dolomitic limestone, 30%; fine gray calcareous siltstone, 10%
1616	- 1627	11	Shale, gray, 50%; gray fossiliferous limestone, 30%; fine gray calcareous siltstone, 20%
1629	- 1662	33	Shale, gray, 70 to 90%; gray fossiliferous and silty limestone, 30 to 10%; there is some dolomite in the limestone
1662	- 1689	27	Shale, gray, partly calcareous, 80%; gray limestone and calcareous siltstone, 20%
	1689		Total depth