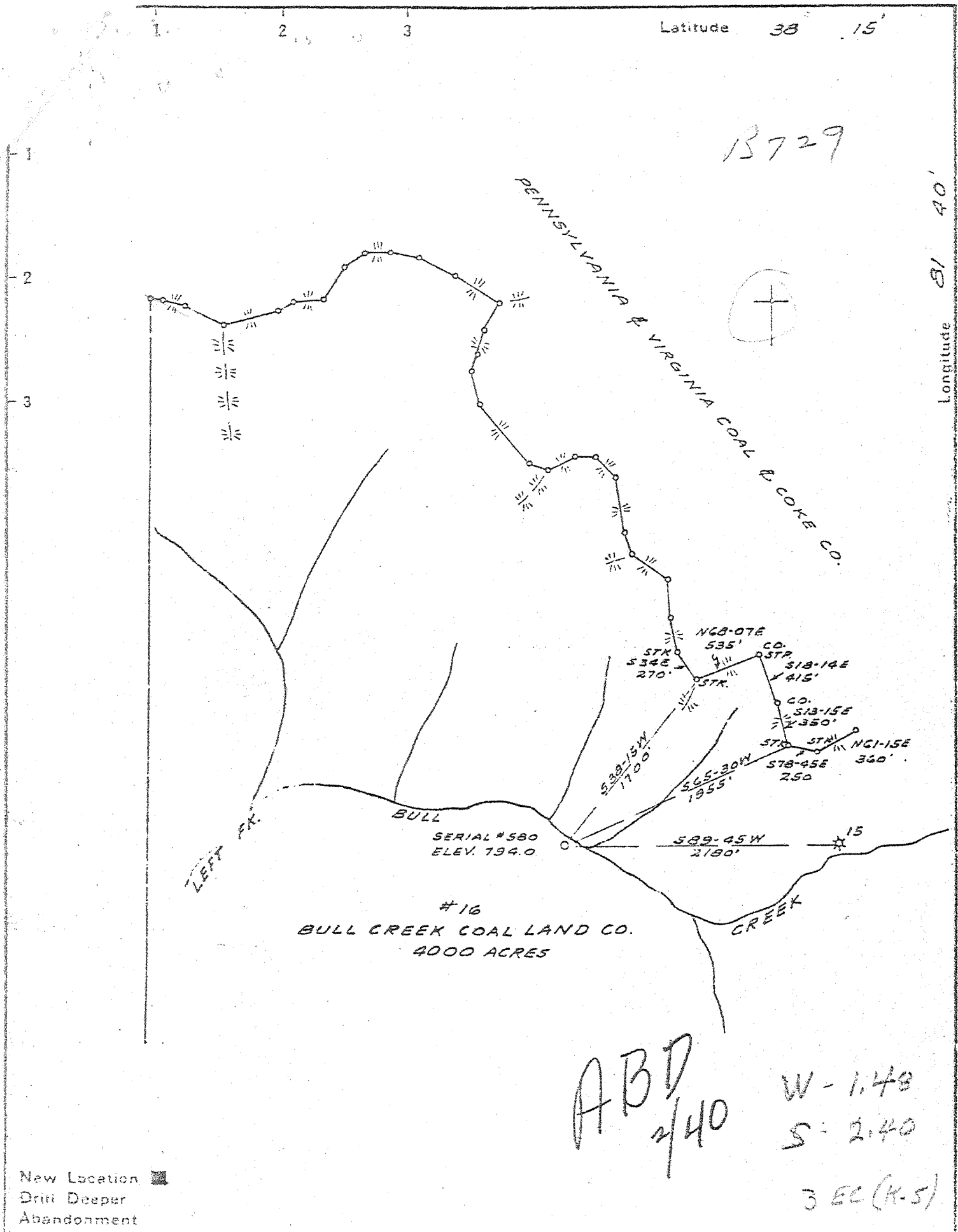


M

P



New Location   
 Drift Deeper   
 Abandonment

ABD  
2/40

W - 1.48  
S - 2.40

3 EC (K-5)

Company OWENS LIBBEY-OWENS GAS DEPT.  
 Address BOX 1375 CHARLESTON, W. VA.  
 Farm BULL CREEK COAL LAND CO.  
 Tract \_\_\_\_\_ Acres 4000 Lease No. 16  
 Well - Farm No. 16 Serial No. 580  
 Elevation (Spirit Level) 794.0  
 Quadrangle PEYTONA-N.W.  
 County BOONE District PEYTONA  
 Engineer \_\_\_\_\_  
 Engineer's Registration No. 269  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date AUG. 26, 1940 Scale 1" = 1000'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO B00-473

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

Serial # 1375 (1129-5218)

6-6

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
WELL RECORD

Permit No. Boo-473

REVISED

Gas Well  
Casing & Tubing  
13 29 29  
8 1/2 1168 1168  
6 5/8 4397 1074  
2 1378 1378

Company Owens, Libbey-Owens Gas Cept  
Address P.O. Box 1375, Charleston, W. Va.  
Farm Bull Creek Coal Land Co. Acres 4,000  
Location Bull Creek  
Well No 580 Elev. 794. Gr  
District Peytona Boone County  
Surface Bull Ck. Coal Ld. Co.  
886 Ellicott Sq., Buffalo, N.Y.

Mineral Same  
Commenced Sept. 9, 1940  
Completed Feb. 17, 1941  
Shot March 24, 1941 Depth 1319-1371  
Flow 25/10ths W in 1"  
Volume 53,000 C.F.  
Rock Pressure 122# 48hrs.  
Fresh Water 40"  
Salt Water 493' -4 bails pr. hr.; 550' Holo Filling up -4919' 1/2 Dlr. hr.

Packer  
Anchor Packer  
Size--8 1/2"x3"x16"  
Depth--1183'  
Perf. Top Bottom  
1343 1348  
1359 1364  
Coal--30'--60'

Stratum	Y	S	O	30	Sl&Shells	Dk	S	2878	3089
Coal	Bk	S	30	35	Slate	Lt	S	3089	3095
Slate	Dk	S	35	60	Shells	Lt	H	3095	3149
Sand	Wh	H	60	206	Sl.&Shells	Dk	M	3149	3225
Slate	Dk	S	206	228	Sl.&Shells	Wh	M	3225	3275
Sand	Gr	S	228	256	Shale	Dr	S	3275	3307
Slate	Gr	S	256	266	Sl.&Shells	Dk	M	3307	3352
Sand	Wh	S	266	329	Shale	Br	S	3352	3378
Slate	Dk	S	329	356	Sl.&Shells	Dk	S	3378	3408
Sand	Br	H	356	379	Shale	Br	S	3408	3471
Slate	Dk	S	379	419	Shell	Dk	H	3471	3479
Sand	Wh	S	419	442	Shale	Br	S	3479	3514
Slate	Dk	S	442	449	Sl.&Shells	Lt	S	3514	3532
Sand	Wh	M	449	584	Shale	Br	S	3532	3557
Slate	Dk	M	584	590	Sl.&Shells	Lt	S	3557	3750
Sand	Wh	H	590	611	Slate	Lt	S	3750	4026
Slate	Dk	S	611	619	Shale	Dr	S	4026	4147
Sand	Dk	H	619	735	Slate	Lt	S	4147	4157
Slate	Dk	S	735	750	Sl.&Shells	Lt	S	4157	4170
Sand	Dk	H	750	816	Shale	Dk	S	4170	4208
Sand	Wh	H	816	845	Shale	Br	S	4208	4257
Slate	Lt	S	845	850	Shale&Shells	Br	S	4257	4303
Sand	Wh	H	850	932	Corniferous L.Gr	H	H	4303	4392
Slate	Lt	S	932	935	Oriskany Sand	Gr	H	4392	4399
Sand	Gr	H	935	959	Limo	Gr	H	4399	4504
Rod Rock		S	959	963	Rod Rock		S	4504	4512
Slate	Dk	S	963	972	Limo	Gr	H	4512	5055
Shell	Dk	H	972	986	Newburg Sand	Wh	H	5055	5072
Slate	Dk	S	986	1001	Limo	Lt	H	5072	5280
Rod Rock		S	1001	1026	Slate	Dk	S	5280	5293
Slate	Dk	S	1026	1034	Rod Rock		S	5293	5321
Shell	Lt	H	1034	1038	Slate	Dk	S	5321	5330
Maxon Sand	Wh	H	1038	1090	Red Rock		S	5330	5370
L.Limo	Dk	H	1090	1115	Slate	Dk	S	5370	5517
Slate	Dk	S	1115	1129	Red Rock		S	5517	5537
Limo	Gr	H	1129	1313	Sl.&Shells	Dk	S	5537	5567
Injun Sand	R	S	1313	1367	Sl.&Shells	Dk	S	5567	5584
Shells	Dk	H	1367	1396	1396-Gas Shells, Gritty	Lt	H	5584	5597
Slate&Shells	Dk	S	1396	1699	1699 1344' Shells	Dk	H	5597	5628
Slate	Gr	M	1699	1724	42,000CF				
Shell	Gr	M	1724	1778	Sl.&Shells	Dk	M	5628	5670
Shale	Br	S	1778	1788	Clinton Sand	Wh	H	5670	5716
Berea Shell	Gr	H	1788	1796	Clinton Sand	Dr	H	5716	5717
Sl.&Shells	Lt	H	1796	1879	Clinton Sand	Dk	H	5717	5718
Slate&Shells	Lt	S	1879	2007	Clinton Sand	Wh	H	5718	5749
Shell	Gr	H	2007	2025	Slate	Dk	S	5749	5781
Slate	Lt	S	2025	2047	Shells	Dk	H	5781	5794
Sl.&Shells	Lt	S	2047	2615	Sand	Gr	H	5794	5809
Slate	Lt	S	2615	2660	Rod Rock		S	5809	5818
Shells	Wh	H	2660	2698	TOTAL DEPTH				5818
Slate	Lt	S	2698	2721	Hole Filled up--				
Shells	Lt	H	2721	2745	Coment		5818	4372	
Sl.&Shells	Lt	H	2745	2769	Opon Holo		4372	1458	
Sl.&Shells	Dk	S	2769	2838	Bridge		1458	1370	
Sl.&Shells	Wh	W	2838	2878	Total depth after cleaning out			1375	

1125  
794  
330  
  
5818  
4399  
1419  
  
4303  
794  
3506

5818  
794  
4372

Gas-4397', 24MCF; 5058' 62', inc. 10MCF; 5706', Inc. 7MCF; 5721-39', inc. 7MCF

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Boc-473

REVISED

Gas Well

Company	Owens, Libbey-Owens Gas Cept	Casing & Tubing	
Address	P.O. Box 1375, Charleston, W. Va.	13	29 29
Farm	Bull Creek Coal Land Co. Acres 4,000	8 1/2	1168 1168
Location	Bull Creek	6 5/8	4397 1074
Well No	580 Elev. 794. Gr	2	1378 1378
District	<u>Peytona Boone County</u>		
Surface	Bull Ck. Coal Ld. Co. 886 Ellicott Sq., Buffalo, N.Y.		

Mineral	Same	<u>Packer</u>
Commenced	Sept. 9, 1940	Anchor Packer
Completed	Feb. 17, 1941	Size--8 1/2"x3"xl6"
Shot	March 24, 1941	Depth 1319-1371
Flow	25/10ths W in 1"	Depth--1183'
Volume	53,000 C.F.	Perf. Top
Rock Pressure	122# 48hrs.	Bottom
Fresh Water	40'	1343 1348
Salt Water	493' -4 baills pr. hr.; 550' Hole Filling up -4919' 1/2 Blr. hr.	1359 1364
		Coal--30'--60"

Sand & Gravel	Y	<i>Sample Studied</i>	S	0	30	Sl & Shells	Dk	S	2878	3089	<i>Geologic DEPTHS</i>
Coal	Bk		S	30	35	Slate	Lt	S	3089	3095	
Slate	Dk		S	35	60	Shells	Lt	H	3095	3149	
Sand	Wh	H	60	206	206	Sl. & Shells	Dk	M	3149	3225	
Slate	Dk	S	206	228	228	Sl. & Shells	Wh	M	3225	3275	
Sand	Gr	S	228	256	256	Shale	Br	S	3275	3307	
Slate	Gr	S	256	266	266	Sl. & Shells	Dk	M	3307	3352	
Sand	Wh	S	266	329	329	Shale	Br	S	3352	3378	
Slate	Dk	S	329	356	356	Sl. & Shells	Dk	S	3378	3408	
Sand	Br	H	356	379	379	Shale	Br	S	3408	3471	
Slate	Dk	S	379	419	419	Shell	Dk	H	3471	3479	
Sand	Wh	S	419	442	442	Shale	Br	S	3479	3514	
Slate	Dk	S	442	449	449	Sl. & Shells	Lt	S	3514	3532	
Sand	Wh	M	449	584	584	Shale	Br	S	3532	3557	
Slate	Dk	M	584	590	590	Sl. & Shells	Lt	S	3557	3750	
Sand	Wh	H	590	611	611	Slate	Lt	S	3750	4026	
Slate	Dk	S	611	619	619	Shale	Br	S	4026	4147	
Sand	Dk	H	619	735	735	Slate	Lt	S	4147	4157	
Slate	Dk	S	735	750	750	Sl. & Shells	Lt	S	4157	4170	<i>ONBG-4299</i>
Sand	Dk	H	750	816	816	Shale	Dk	S	4170	4208	<i>ORSK-4360</i>
Sand	Wh	H	816	845	845	Shale	Br	S	4208	4257	<i>HDGG-4407</i>
Slate	Lt	S	845	850	850	Shale & Shells	Br	S	4257	4303	<i>SLRN-4576</i>
Sand	Wh	H	850	932	932	Corniferous L. Gr	H	4303	4303	4392	<i>-HUNTING</i>
Slate	Lt	S	932	935	935	Oriskany Sand Gr	H	4392	4392	4399	<i>4407</i>
Sand	Gr	H	935	959	959	Limo	H	4399	4399	4504	<i>4553</i>
Red Rock		S	959	963	963	Red Rock	S	4504	4512	4512	<i>MCKB-5076</i>
Slate	Dk	S	963	972	972	Limo	Gr	H	4512	5055	<i>KEEPA-5200</i>
Shell	Dk	H	972	986	986	Newburg Sand	Wh	H	5055	5072	<i>5057-70</i>
Slate	Dk	S	986	1001	1001	Limo	Lt	H	5072	5280	<i>5150-80</i>
Red Rock		S	1001	1026	1026	Slate	Dk	S	5280	5293	<i>refer</i>
Slate	Dk	S	1026	1034	1034	Red Rock	S	5293	5321	5321	<i>Rosellu-5200</i>
Shell	Lt	H	1034	1038	1038	Slate	Dk	S	5321	5330	<i>5250</i>
Maxon Sand	Wh	H	1038	1090	1090	Red Rock	S	5330	5370	5370	<i>794</i>
L. Limo	Dk	H	1090	1115	1115	Slate	Dk	S	5370	5517	<i>4456</i>
Slate - P. Calc	Dk	S	1115	1129	1129	Red Rock	S	5517	5517	5537	
Limo, BIG	Gr	H	1129	1313	1313	Sh. Gas	Dk	S	5537	5567	
Injun Sand	R	S	1313	1367	1367	Sl. & Shells	Dk	S	5567	5584	
Shells	Dk	H	1367	1396	1396	Shells, Gritty	Lt	H	5584	5597	<i>Tusc-5673</i>
Slate & Shells	Dk	S	1396	1699	1699	Shells	Dk	H	5597	5628	
Slate	Gr	M	1699	1724	1724	<u>42,000 CF</u>					
Shell	Gr	M	1724	1778	1778	Sl. & Shells	Dk	M	5628	5670	<i>TUNT-5813</i>
Shale - coffee ch	Br	S	1778	1788	1788	Clinton Sand	Wh	H	5670	5716	
Berea Shell	Gr	H	1788	1796	1796	Clinton Sand	Br	H	5716	5717	<i>5809</i>
Sl. & Shells	Lt	H	1796	1879	1879	Clinton Sand	Dk	H	5717	5718	<i>794</i>
Slate & Shells	Lt	S	1879	2007	2007	Clinton Sand	Wh	H	5718	5749	<i>5015</i>
Shell	Gr	H	2007	2025	2025	Slate	Dk	S	5749	5781	
Slate	Lt	S	2025	2047	2047	Shells	Dk	H	5781	5794	<i>5809</i>
Sl. & Shells	Lt	S	2047	2615	2615	Sand	Gr	H	5794	5809	<i>4303</i>
Slate	Lt	S	2615	2660	2660	Red Rock - <i>Junata</i>	S	5809	5818	5818	
Shells	Wh	H	2660	2698	2698	TOTAL DEPTH			5818	5818	<i>615</i>
Slate	Lt	S	2698	2721	2721	Hole Filled up-					
Shells	Lt	H	2721	2745	2745	Cement			5818	4372	
Sl. & Shells	Lt	H	2745	2769	2769	Open Hole			4372	1458	
Sl. & Shells	Dk	S	2769	2838	2838	Bridge			1458	1370	
Sl. & Shells	Wh	W	2838	2878	2878	Total depth after cleaning out				1375	

Gas-4397', 24MCF; 5058' 62', inc. 104MCF; 5706', Inc. 7MCF; 5721-39', inc. 7MCF

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
WELL RECORD

*see sample studies*

Permit No. Boo-473  
Company  
Address  
Farm  
Location  
Well No  
District  
Surface

REVISED  
Owens, Libbey-Owens Gas Cept  
P.O. Box 1375, Charleston, W. Va.  
Bull Creek Coal Land Co. Acres 4,000  
Bull Creek  
580 Elev. 794. Gr  
Peytona Boone County  
Bull Ck. Coal Ld. Co.  
886 Ellicott Sq., Buffalo, N.Y.

Gas Well  
Casing & Tubing  
13 29 29  
8 1/2 1168 1168  
6 5/8 4397 1074  
2 1378 1378

Mineral  
Commenced  
Completed  
Shot  
Flow  
Volume  
Rock Pressure  
Fresh Water  
Salt Water

Same  
Sept. 9, 1940  
Feb. 17, 1941  
March 24, 1941  
25/10ths W in 1"  
53,000 C.F.  
122# 48hrs.  
40'  
493' -4 bails pr. hr.; 550' Hole

Packer  
Anchor Packer  
Size--8 1/2"x3"x16"  
Depth--1183'  
Perf. Top. Bottom  
1343 1348  
1359 1364  
Coal--30'--60"  
Filling up -4919 1/2 Blr. hr.

Sand & Gravel	Y	S	0	30	Sl & Shells	Dk	S	2878	3089
Coal	Bk	S	30	35	Slate	Lt	S	3089	3095
Slate	Dk	S	35	60	Shells	Lt	H	3095	3149
Sand	Wh	H	60	206	Sl. & Shells	Dk	M	3149	3225
Slate	Dk	S	206	228	Sl. & Shells	Wh	M	3225	3275
Sand	Gr	S	228	256	Shale	Br	S	3275	3307
Slate	Gr	S	256	266	Sl. & Shells	Dk	M	3307	3352
Sand	Wh	S	266	329	Shale	Br	S	3352	3378
Slate	Dk	S	329	356	Sl. & Shells	Dk	S	3378	3408
Sand	Br	H	356	379	Shale	Br	S	3408	3471
Slate	Dk	S	379	419	Shell	Dk	H	3471	3479
Sand	Wh	S	419	442	Shale	Br	S	3479	3514
Slate	Dk	S	442	449	Sl. & Shells	Lt	S	3514	3532
Sand	Wh	M	449	584	Shale	Br	S	3532	3557
Slate	Dk	M	584	590	Sl. & Shells	Lt	S	3557	3750
Sand	Wh	H	590	611	Slate	Lt	S	3750	4026
Slate	Dk	S	611	619	Shale	Br	S	4026	4147
Sand	Dk	H	619	735	Slate	Lt	S	4147	4157
Slate	Dk	S	735	750	Sl. & Shells	Lt	S	4157	4170
Sand	Dk	H	750	816	Shale	Dk	S	4170	4208
Sand	Wh	H	816	845	Shale	Br	S	4208	4257
Slate	Lt	S	845	850	Shale & Shells	Br	S	4257	4303
Sand	Wh	H	850	932	Corniferous L. Gr	H	H	4303	4392
Slate	Lt	S	932	935	Oriskany Sand	Gr	H	4392	4399
Sand	Gr	H	935	959	Zimo <del>HELL</del> Gr	H	H	4399	4504
Red Rock		S	959	963	Red Rock		S	4504	4512
Slate	Dk	S	963	972	Zimo <del>HELL</del> Gr	H	H	4512	5055
Shell	Dk	H	972	986	Newburg Sand	Wh	H	5055	5072
Slate	Dk	S	986	1001	Zimo <del>HELL</del> Gr	Lt	H	5072	5280
Red Rock		S	1001	1026	Slate - <del>HELL</del>	Dk	S	5280	5293
Slate	Dk	S	1026	1034	Red Rock		S	5293	5321
Shell	Lt	H	1034	1038	Slate	Dk	S	5321	5330
Maxon Sand	Wh	H	1038	1090	Red Rock		S	5330	5370
L. Limo	Dk	H	1090	1115	Slate	Dk	S	5370	5517
Slate - <del>HELL</del>	Dk	S	1115	1129	Red Rock		S	5517	5537
Limo, <del>HELL</del>	Gr	H	1129	1313	Sl. & Sh. Gas Slate	Dk	S	5537	5567
Injun Sand	R	S	1313	1367	Sl. & Shells	Dk	S	5567	5584
Shells	Dk	H	1367	1396	1396-42,000CF Shells, Gritty	Lt	H	5584	5597
Slate & Shells	Dk	S	1396	1699	1344' Shells	Dk	H	5597	5628
Slate	Gr	M	1699	1724	42,000CF				
Shell	Gr	M	1724	1778	Sl. & Shells	Dk	M	5628	5670
Shale	Br	S	1778	1788	Clinton Sand	Wh	H	5670	5716
Berea Shell	Gr	H	1788	1796	Clinton Sand	Br	H	5716	5717
Sl. & Shells	Lt	H	1796	1879	Clinton Sand	Dk	H	5717	5718
Slate & Shells	Lt	S	1879	2007	Clinton Sand	Wh	H	5718	5749
Shell	Gr	H	2007	2025	Slate	Dk	S	5749	5781
Slate	Lt	S	2025	2047	Shells	Dk	H	5781	5794
Sl. & Shells	Lt	S	2047	2615	Sand	Gr	H	5794	5809
Slate	Lt	S	2615	2660	Red Rock - <del>HELL</del>	S	S	5809	5818
Shells	Wh	H	2660	2698	TOTAL DEPTH				5818
Slate	Lt	S	2698	2721	Hole Filled up-				
Shells	Lt	H	2721	2745	Cement			5818	4372
Sl. & Shells	Lt	H	2745	2769	Open Hole			4372	1458
Sl. & Shells	Dk	S	2769	2838	Bridge			1458	1370
Sl. & Shells	Wh	W	2838	2873	Total depth after cleaning out				1375

*Handwritten notes and corrections:*  
4407  
4553  
5055  
5250  
774  
4456  
5809  
794  
5015  
5809  
4303  
615

Gas-4397', 24MCF; 5058' 62', inc. 104MCF; 5706', inc. 7MCF; 5721-39', inc. 7MCF

*Geolog*

Top. Bottom. Thickness.

ORISKANY SANDSTONE, 18 FEET

4389 - 4392	3	Sandstone, white, medium-grained.
4392 - 4397	5	Sandstone, white, coarse (gas, 4397'; 24,000 cu. ft.)
4397 - 4407	10	Sandstone, white, medium- to coarse-grained, highly calcareous

HELDERBERG GROUP, 146 FEET

4407 - 4411	4	Limestone, white, cherty, and sandy, with small amount of dolomite and glauconite
4411 - 4418	7	Chert, light-gray, glauconitic, and slightly calcareous
4418 - 4422	4	Limestone, brown to dark-brown, very cherty
4422 - 4451	29	Limestone, dark-brown, shaly, and slightly cherty
4451 - 4459	8	Limestone, dark-brown, glauconitic, shaly, and slightly cherty
4459 - 4462	3	Sandstone, white, fine, glauconitic
4462 - 4465	3	Limestone, light-brown, sandy, cherty, and glauconitic
4465 - 4468	3	Sandstone, white, cherty, calcareous, and glauconitic
4468 - 4470	2	Limestone, white, cherty, and sandy
4470 - 4473	3	Sandstone, white to brown, fine, calcareous
4473 - 4487	14	Chert, light-gray, calcareous, and glauconitic
4487 - 4504	17	Limestone, brown, sandy, and cherty
4504 - 4520	16	Limestone, brown, cherty
4520 - 4530	10	Limestone, brown, cherty, and sandy
4530 - 4539	9	Sandstone, very fine, highly calcareous
4539 - 4545	6	Limestone, brownish-gray, very impure
4545 - 4553	8	No sample

SALINA AND LOCKPORT FORMATIONS, 697 FEET

4553 - 4570	17	Limestone, brown, slightly dolomitic
4570 - 4578	8	Limestone, brown, partly oolitic
4578 - 4583	5	Limestone, light-brown, partly dolomitic
4583 - 4593	10	No sample
4593 - 4598	5	Limestone, dark-brown, dolomitic, with some anhydrite
4598 - 4611	13	Limestone, brown, containing anhydrite
4611 - 4641	30	Dolomite, brown, with anhydrite
4641 - 4646	5	Dolomite, brown, slightly sandy
4646 - 4664	18	Dolomite, brown, with large amount of anhydrite
4664 - 4676	12	Dolomite, light-brown, with anhydrite in upper six feet
4676 - 4693	17	Dolomite, dark-brown
4693 - 4708	15	Limestone, dark-brown
4708 - 4723	15	Dolomite, dark-brown
4723 - 4772	49	Dolomite-anhydrite rock
4772 - 4779	7	Dolomite-anhydrite rock, brown, 90%; green shale, 10%
4779 - 4843	64	Dolomite-anhydrite rock, brown
4843 - 4852	9	Dolomite, brown
4852 - 4874	22	Dolomite, brown, with considerable anhydrite
4874 - 4902	28	Dolomite, brown, with a little anhydrite
4902 - 4907	5	Dolomite, brown; acid treatment-leaves porous aggregates of pyrite
4907 - 4961	54	Dolomite, brown (salt water, 4919', $\frac{1}{2}$ bailer per hour)
4961 - 5020	59	Dolomite, brown, containing anhydrite
5020 - 5049	29	Dolomite, brown
5049 - 5053	4	No sample
5053 - 5072	19	Sandstone, white to light-gray, fine, dolomitic (this is the same as the sandstone occurring at a depth of 5243 to 5263' in the Bull Creek Coal Land Company No.....; it may be the stratigraphic equivalent of the Williamsport Sandstone of Grant County, West Virginia; gas, 5058-5062'; increase, 104,000 cu. ft.)
5072 - 5081	9	Dolomite, brown, 60%; yellowish-green shale, 40%
5081 - 5089	8	Dolomite, brown, containing anhydrite

(Continued on page 3)

BULL CREEK COAL LAND CO. NO. 16 (580) WELL.

Peytona District, Boone County, W. Va.

By The Owens, Libbey-Owens Gas Department, Charleston, W. Va.

Located 2.39 mi. S. of 38° 15' and 1.48 mi. W. of 81° 40' - NW - Peytona Quadrangle.

Elevation, 794' L.

Permit Boo-473.

Drilling commenced Sept. 9, 1940; completed Feb. 17, 1941.

Shot at 1319-1371'.

Gas well; volume, 53,000 cu. ft.

Rock pressure, 122 lbs. in 48 hrs.

Fresh water at 40'; salt water at 493 and 530'.

Coal was encountered at 39-35'.

13" casing, 29'; 8½", 1158'; 6¾", 4397'; 2" tubing, 1378'.

Section based on samples from 1129 to 5818', examined by C. N. Apsouri. Description condensed slightly by J. H. C. Martens. For the most part this record shows a close agreement with that of Bull Creek Coal Land Company No. 13 well, located two miles to the east.

Record to RCT from Martens May 12, 1945.

Top. Bottom. Thickness.

Top.	Bottom.	Thickness.	Description
<b>GREENBRIE LIMESTONE, 179 FEET</b>			
1129	- 1132	3	Limestone, very light brown
1132	- 1148	16	Limestone, brown to light-brown, partly oolitic
1148	- 1177	29	Limestone, very light brown
1177	- 1183	6	Limestone, brown
1183	- 1208	25	No samples (gas show, 1200')
1208	- 1218	10	Limestone, nearly white
1218	- 1227	9	Limestone, nearly white, oolitic
1227	- 1244	17	Limestone, nearly white, oolitic, sandy
1244	- 1253	9	Limestone, nearly white
1253	- 1262	9	Limestone, nearly white, partly dolomitic
1262	- 1270	8	Limestone, nearly white, partly dolomitic; a few greenish fragments
1270	- 1278	8	Limestone, white and reddish, dolomitic
1278	- 1285	7	Limestone, nearly white
1285	- 1300	15	Limestone, light-brown, to reddish
1300	- 1308	8	Limestone, nearly white, dolomitic
<b>MACCRADY FORMATION, 59 FEET</b>			
1308	- 1344	36	Siltstone, brownish-red (gas, 1344'; 42,000 cu. ft.)
1344	- 1367	23	Sandstone, brownish-red, very fine, silty
<b>POCONO FORMATION, 429 FEET</b>			
1367	- 1377	10	Shale, dark-gray, very silty
1377	- 1387	10	Siltstone, gray
1387	- 1396	9	Siltstone, dark-gray
1396	- 1409	13	No samples
1409	- 1444	35	Siltstone, dark-gray
1444	- 1464	20	Siltstone, dark-gray, 60%; very fine, greenish sandstone, 40%
1464	- 1475	11	Sandstone, very fine, greenish, 50%; gray shale, 30%; red siltstone, 20%
1475	- 1561	86	Shale, gray
1561	- 1778	217	No samples
1778	- 1788	10	Shale, very dark brownish gray (Sunbury Shale)
1788	- 1796	8	Sandstone, white, very fine, pyritic (Berea Sandstone)
<b>DEVONIAN SHALES, 2507 FEET</b>			
1796	- 4303	2507	Shales and siltstones; not sampled (?)
<b>HUNTERSVILLE CHERT, 86 FEET</b>			
4303	- 4389	86	Limestone, brown, very cherty; sandy and glauconitic at bottom (OVER)

BULL CREEK COAL LAND COMPANY NO. 16 (580) WELL (Continued) (Page 3).

Top.	Bottom.	Thickness.	
5089	- 5094	5	Dolomite, brown, containing anhydrite, 70%; yellowish-green shale, 30%
5094	- 5097	3	Dolomite, dark-brown
5097	- 5119	22	Dolomite, dark-brown, with a little anhydrite
5119	- 5143	24	Shale, brown, highly dolomitic
5143	- 5149	6	Dolomite, brown, shaly
5149	- 5156	7	Dolomite, brown, sandy
5156	- 5177	21	Dolomite, brown
5177	- 5196	19	Dolomite, brown, with rounded quartz grains
5196	- 5210	14	Limestone, brown, slightly dolomitic, containing some pyrite and rounded quartz grains
5210	- 5234	24	Limestone, brown, dolomitic, and oolitic
5234	- 5239	5	Dolomite, brown
5239	- 5250	11	Dolomite, brown, sandy
CLINTON FORMATION, 423 FEET			
5250	- 5272	22	Sandstone, white, fine, 70%; dolomite, 30% (Keefer Sandstone, 5250-5280')
5272	- 5280	8	Sandstone, fine, dolomitic, and pyritic
5280	- 5293	13	Shale, light-red, 50%; green shale, 50%
5293	- 5411	118	Shale, red
5411	- 5437	26	Shale, red, 50%; greenish-gray shale, 50%
5437	- 5469	32	Shale, green
5469	- 5497	28	Shale, red, 70%; green shale, 30%
5497	- 5557	60	Shale, red
5557	- 5584	27	Shale, red, 55%; green shale, 45%
5584	- 5628	44	Shale, gray; some red shale, cavings
5628	- 5636	8	Shale, red
5636	- 5657	21	Shale, gray
5657	- 5667	10	Shale, red
5667	- 5673	6	Shale, gray
ALBION SANDSTONE (WHITE MEDINA), 137 FEET			
5673	- 5679	6	Shale, red and gray, 75%; light-gray, very fine sandstone, 25%
5679	- 5686	7	Sandstone, white, medium-grained, quartzitic, 60%; greenish sandy shale, 40%
5686	- 5706	20	Sandstone, white, fine to very fine, quartzitic (gas, 5706'; increase, 7,000 cu. ft.)
5706	- 5707	1	Shale, red and green, 80%; white, very fine sandstone, 20%
5707	- 5712	5	Sandstone, white, very fine, quartzitic
5712	- 5714	2	Shale, red and green
5714	- 5728	14	Sandstone, white, very fine, quartzitic (gas, 5721-5729'; increase, 7,000 cu. ft.)
5728	- 5730	2	Shale, red, 50%; green shale, 50%
5730	- 5739	9	Sandstone, white, very fine, quartzitic
5739	- 5788	49	Shale, greenish-gray
5788	- 5797	9	Sandstone, white, fine, quartzitic, 60%; gray shale, 40%
5797	- 5803	6	Sandstone, light-gray, very fine, with a few coarser grains
5803	- 5810	7	Sandstone, light-gray to white, mostly coarse
QUEENSTON SHALE, 8+ FEET			
5810	- 5818	8	Shale, red, with some green
	5818		Total depth