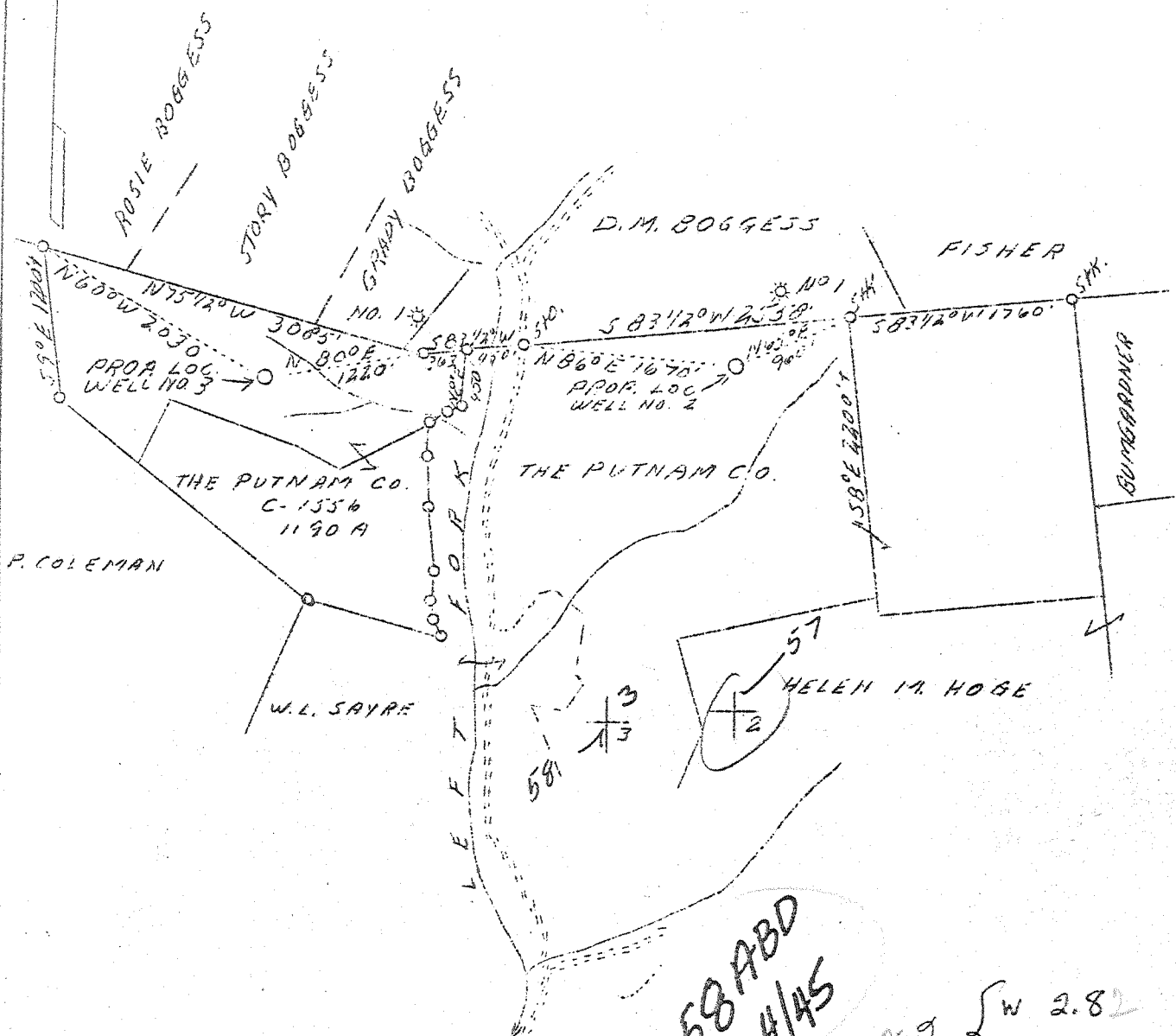


LATITUDE 38°40'

LONGITUDE 81°35'



Permit issued: 98839 (2/23)

57 - abandoned may 50

57-2 { W 2.82  
S 5.07  
4.985

57-3 { W 3.58  
S 5.07  
3.57-W

Sheet # 3  
No. 2 - 1.2 MILES S.E. OF GOLDTOWN  
No. 3 - 0.8 " SOUTH "

MAP LOCATION

Company Columbian Carbon Co.  
 Address B-1240, Charleston, W.Va.  
 Farm The Putnam Co.  
 Acres 1190  
 Lease No. C-1556  
 Well (Farm) No. 2 and 3  
 Serial No. G.W.-442 G.W.-  
 Elevation (SL) #2-1020.8 - #3-895.5  
 Quadrangle Kenna S. W. C  
 County Jackson  
 District Ripley  
 Engineer James N. Sell  
 Eng. Reg. No. 772  
 Date Sept. 13, 1939  
 Scale 1" = 1320'

STATE OF WEST VIRGINIA  
 Department of Mines  
 OIL & GAS DIVISION  
 Charleston

WELL LOCATION MAP

File No. Jac-57-58

x Denotes location of well on U. S. 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.

66-19 ✓ Deep well

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

Permit No. Jac-52  
Kenna Quad.

Gas Well

Company           Columbian Carbon Co.  
Address           Box 1240, Charleston, W. Va.  
Farm              The Putnam Co. ACRES 1190  
Location          Spicewood Branch  
Well No.          3           ELEV. 895.5 G - 901.0 DF  
District          Ripley - Jackson County  
Surface          Story Bossess, R1, Kenna, W. Va.  
Mineral          The Putnam Co., et al  
Address          712 Ken. Val. Bg., Charleston, W. Va.  
Commenced       Dec. 6, 1939  
Completed       Feb. 15, 1940  
Shot             2/17/40 - Depth 5174-5260 SLM  
Volume           6,039,000 c.f.  
Rock Pressure   1790 lbs. 7 days  
Oil               1500' - small show  
Fresh Water     650' - 1/2-13" blr. hr.  
Salt Water      1000 - 1-10" blr. hr.  
                  1543 - 1-10" blr. hr. - 1600' hole full

CASING & TUBING		
14	29-1	29-1
10-3/4	920-1	
8-5/8	2123-7	2123-7
7	5126-5	5126-5
2-3/8	5288-4	5288-4

No packer

Yellow Sand	0	82
Slate	82	118
Red Rock	118	200
Sand	200	212
Red Rock	212	340
Slate&Shells	340	400
Red Rock	400	425
Slate&Shells	425	464
Sand	464	506
Lime	506	523
Sand	523	575
Red Rock	575	625
Lime	625	658
Red Rock	658	673
Slate&Shells	673	710
Red Rock	710	760
Slate&Shells	760	790
Sand	790	815
Slate&Shells	815	850
Sand	850	935
Slate&Shells	935	965
Sand	965	1050
Slate	1050	1060
Lime	1060	1083
Slate	1083	1099
Sand	1099	1210
Slate&Shells	1210	1238
Sand	1238	1293
Slate&Shells	1293	1294
Sand	1294	1330
Slate&Shells	1330	1445
Sand	1445	1475
Slate	1475	1480
Sand	1480	1520
Slate	1520	1533
Salt Sand	1533	1825
Slate	1825	1834
Lime	1834	1845
Slate	1845	1851
Sand	1851	1909
Big Lime	DLM 1909	2021
Slate	2021	2023
Big Injun Sand	2023	2085
Slate	2085	2096
Lime	2096	2101
Sandy Lime	2101	2115

Slate&Shells	2115	2400
Gray Shale	2400	2490
Brown Shale	2490	2494
Borea Grit	2494	2504
Slate&Shells	2504	3711
Brown Shale	3711	3757
Gray Shale	3757	4181
Brown Shale	4181	4230
Gray Shale	4230	4749
Brown Shale	4749	4970
Gray Shale	4970	5010
Black Shale	5010	5070
Corniferous	SLM*5071	5171
Oriskany Sand	*5171	5226
Lime	*5226	5236
Oriskany Sand	*5236	5239
Lime	*5239	5245
Sand	*5245	5256
Lime	*5256	5264
Total Depth		5264

\*Also per sample examination

PAYS: 5175-86; 5200-04; 5231-36;  
Small show oil at 5236  
5246-49; 5257-59

CEMENT RECORD: 12/15/39 Ran 15 sacks  
Aquagel 4% behind 10-3/4 Casing. 10'  
spacer with top hole plug.  
Aquagel by Halliburton Oil Well  
Cementing Co. - Dallas Holley, Cementer

1/5/40 Cemented 8-5/8 casing. Ran 95  
sacks Alpha Cement. 10 sacks Aquagel 4%  
Solution ran ahead of cement. 10' spacer  
and top plug. Pipe 9-1/2' off bottom.  
17' solid cement in pipe. Dallas Holley,  
Cementing, Halliburton Oil Well Cem. Co.

2/3/40 Cemented 7" Casing. Ran 25 sacks  
Alpha Cement - 10' spacer and top plug.  
Plug stopped 5078' SLM. Dick Allen,  
Cementing, Halliburton Oil Well Cem. Co.

*see sample description*

V

THE PUTNAM COMPANY NO. 3 WELL.

Ripley District, Jackson County, W. Va.  
 By Columbian Carbon Co., Box 1240, Charleston, W. Va.  
 Located 3.57 mi. W. of 81° 35' and 5.07 mi. S. of 38° 40' - C - Kenna  
 Quadrangle; 0.8 mi. S. of Goldtown.  
 Elevation, 895.5' L.  
 Permit, Jac-58.  
 Drilling commenced Dec. 6, 1939; completed, Feb. 15, 1940.  
 Shot Feb. 17, 1940, at 5174-5260' (SLM).  
 Volume, 6,039,000 cu. ft. per day.  
 Rock pressure, 1790 lbs.  
 Oil, small show, 1500'.  
 Fresh water at 650', 1/2 - 13" bailer per hour; 1000', 1 - 10" bailer per hour.  
 Salt water, 1543', 1 - 10" bailer per hour; 1600', hole full.  
 14" casing, 29' 1"; 10 3/4", 920' 1" (pulled); 8 3/8", 2133' 7"; 7", 5126' 5";  
 2-3/8" tubing, 5288' 4". No packer.  
 Record by Martens from sample examination July 27, 1940.

Top. Bottom. Thickness.

Top.	Bottom.	Thickness.	
			GREENBRIER LIMESTONE, 112 FEET.
1909 - 1944	35	Limestone, light-brown (SLM)	
1944 - 2021	77	Limestone, light-brown to very light-gray, sandy; somewhat dolomitic from 1986 to 2021'; mostly oolitic from 1965 to 2021' but oolites are not especially abundant or distinct in most of this interval	
			POCONO FORMATION, 483 FEET.
2021 - 2055	34	Sandstone, nearly white, coarse, poorly sorted	
2055 - 2067	12	Sandstone, nearly white, fine, slightly calcareous	
2067 - 2085	18	Sandstone, light-brown, medium-grained, calcareous	
2085 - 2096	11	Sandstone, light-brown, calcareous, 70%; gray shale, 30%	
2096 - 2101	5	Shale, gray, silty	
2101 - 2115	14	Sandstone, light-gray, fine	
2115 - 2138	23	Shale, dark-gray, silty, micaceous	
2138 - 2274	136	Siltstone, light-gray; with up to about 30% of darker gray shale; some fragments are coarse enough to be classed as very fine sandstone rather than siltstone	
2274 - 2438	164	Shale, gray, interstratified with much smaller amounts of gray shaly siltstone	
2438 - 2471	33	Siltstone, light-brown, micaceous, 60%; gray shale, 30% (?)	
2471 - 2494	23	Shale, dark-gray to black (Sunbury Shale; driller's brown shale)	
2494 - 2504	10	Sandstone, light-gray, fine, pyritic; strong concentration of pyrite at top (Berea Sandstone)	
			DEVONIAN SHALES, 2567 FEET.
2504 - 2755	251	Shale, gray; interstratified with considerable amounts of gray to grayish-green siltstone; pyrite and mica are present throughout; there are a few scattered fragments of calcareous material	
2755 - 2878	123	Siltstone, gray, shaly, micaceous, in part slightly calcareous; some interbedded gray shale	
2878 - 3412	534	Shale, gray, silty, micaceous; all samples contain some gray to grayish-green siltstone but there is generally much less of it than of shale;	

(OVER)

THE PUTNAM COMPANY NO. 3 WELL (Continued).

Top. Bottom. Thickness.

			small amount of fine-textured gray limestone in three samples from 3368 to 3412'
3412	3711	299	Shale, gray, silty; contains small spherical pyrite concretions and rather scarce flattened dark-brown spore cases which are mostly in the darker fragments and were noted more in the upper than in the lower part of the interval; average color is probably a little darker than for the interval above but there is no distinct color change; some gray <del>shale</del> micaceous and slightly calcareous siltstone
3711	3757	46	Shale, very dark gray (driller's "bbrown shale");
3757	4006	249	some light-gray, slightly calcareous siltstone Shale, gray; samples are mostly a mixture of various shades of gray, with the medium- to light-gray much in excess; up to about 30% of light-gray, micaceous, and slightly calcareous siltstone
4006	4050	44	Shale, gray, mostly very dark; contains some spore cases
4050	4181	131	Shale, gray, much lighter than last; with small amounts of siltstone
4181	4230	49	Shale, very dark gray (driller's "brown shale")
4230	4324	94	Shale, very dark gray to somewhat brownish, 60%; medium-gray shale, 40%; small amount of calcareous material
4324	4707	383	Shale, gray, mostly somewhat greenish, slightly calcareous
4707	4816	109	Shale, dark-gray, mostly non-calcareous; there is considerable variation in color of individual fragments, but some are nearly black and average color is much darker than for the interval above
4816	4900	84	Shale, very dark gray, pyritic
4900	5010	110	Shale, dark-gray; contains some nearly <del>black</del> black fragments, but average color is considerably lighter than for the interval above
5010	5071	61	Shale, black, partly calcareous (SLM at top of Huntersville Chert corrected depth from 5070' to 5071')
HUNTERSVILLE CHERT, 100 FEET.			
5071	5113	42	Limestone, brown, very cherty; small amount of biotite-rich siltstone at top
5113	5180	67	Limestone, brown, very cherty; mostly contains some silt or very fine sand; considerable glauconite from 5161 to 5167', 5169 to 5171', and in thin streak at base; slight traces of glauconite in several other samples; small amounts of dolomite; depth at bottom of chert corrected from 5180 to 5171' by SLM
ORISKANY SANDSTONE, 85 FEET.			
5171	5175	4	Sandstone, light-gray, medium-grained, highly calcareous
5175	5212	37	Sandstone, light-gray, with some rust stain, medium-grained, slightly calcareous (gas pays, 5175 to 5186' and 5200 to 5204')

(CONTINUED ON PAGE 3)

THE PUTNAM COMPANY NO. 3 WELL (Continued) (Page 3).

Top.	Bottom.	Thickness.	
5212	- 5216?	4	Sandstone, light-gray, medium-grained, calcareous
5226?	- 5236	10	Limestone, dark brownish-gray, very sandy; much of it could just as well be called calcareous sandstone (gas pay, 5231 to 5236'; small show of oil at 5236')
5236	- 5245	9	Sandstone, gray, medium-grained, highly calcareous; some of larger grains are well rounded
5245	- 5256	11	Sandstone, light-gray, fine, calcareous (gas, 5246 to 5249' and 5257 to 5259')
5256	- 5264	8	HELDERBERG LIMESTONE, 8' FEET. Limestone, dark-gray, cherty, and sandy
	5264		Total depth (SLM)