



| | |
|-----------------------------|------------------------------------------------------------------------------------------|
| Company | Columbian Carbon Co. |
| Address | Box 1240, Charleston, W. Va. |
| Farm | Boggess Hrs. |
| Tract | Acres 39 Lease No. |
| Well (Farm) No. | 1 Serial No. |
| Elevation (Spirit Level) | 796.2 |
| Quadrangle | Kenna SC |
| County | Kanawha District Pocahontas |
| Engineer | C. A. Branham |
| Engineer's Registration No. | 683 |
| File No. | Drawing No. |
| Date | 1-26-37 Scale 1" - 400' |

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

WELL LOCATION MAP
 File No. KAN-328-D

+ 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.

W. H. Boggess

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

WELL RECORD

Permit No. Kan 328

Gas Well

Kenna Quad.

CASING & TUBING

| | | | |
|-------------|----------------------------------|--------------------------|-----------|
| Company | Columbian Carbon Co. | 14" O.D. | 38'7 |
| Address | P.O. Box 1240, Charleston, W.Va. | 10 1/2" | 410' |
| Farm | Mary S. Boggess Acres 39 | 8 5/8" | 1720' SLM |
| Location | Grapevine Creek | 6 5/8" | 4781' SLM |
| Well No.1 | G.W.-378 Elev. 796.2 | | |
| District | Poca County Kanawha | | |
| Surface | Mary Boggess, et al | Casing cemented | |
| Address | Contact-Columbian Carbon | 8 5/8, 1720', 3/31/37. | |
| Oil & Gas | Mary Boggess, et al | 6 5/8, w/25 sacks Incor/ | |
| Address | Contact-Columbian Carbon | cement, 5/10/37. | |
| Drilling | Commenced March 1, 1937 | | |
| | Completed May 25, 1937 | | |
| Volume | 11,308 M. Cu. Ft. | | |
| Rock Press. | 1830# 30 hrs. | | |

| Formation Color ^{Hor} Top Bottom Result | | | | | Formation Color ^{Hor} Top Bottom Result | | | | |
|--------------------------------------------------|-------|--|------|------|--------------------------------------------------|-------|--|------|------|
| Surface | | | 0 | 20 | Slate | | | 3915 | 3970 |
| Red Rock | | | 20 | 38 | Slate | White | | 3970 | 4310 |
| Lime Shell | | | 38 | 42 | Shale | Brown | | 4310 | 4771 |
| Red Rock | | | 42 | 175 | Corniferous Lime | | | 4771 | 4878 |
| Slate | White | | 175 | 215 | Oriskany Sand | | | 4878 | |
| Red Rock | | | 215 | 225 | TOTAL DEPTH | | | | 4887 |
| Slate | | | 225 | 250 | | | | | |
| Red Rock | | | 250 | 270 | | | | | |
| Slate | | | 270 | 300 | | | | | |
| Little Dunkard | | | 300 | 344 | | | | | |
| Slate | | | 344 | 350 | | | | | |
| Red Rock | | | 350 | 355 | | | | | |
| Lime | | | 355 | 365 | | | | | |
| Slate | | | 365 | 400 | | | | | |
| Sand | | | 400 | 540 | | | | | |
| Slate | | | 540 | 570 | | | | | |
| Sand | | | 570 | 595 | | | | | |
| Slate | | | 595 | 625 | | | | | |
| Sand | | | 625 | 690 | | | | | |
| Slate | | | 690 | 750 | | | | | |
| Sand | | | 750 | 780 | | | | | |
| Slate&Shells | | | 780 | 840 | | | | | |
| Sand | | | 840 | 850 | | | | | |
| Slate&Shells | | | 850 | 985 | | | | | |
| Sand | | | 985 | 1025 | | | | | |
| Slate | | | 1025 | 1045 | | | | | |
| Sand | | | 1045 | 1230 | Water | | | | |
| Slate | | | 1230 | 1233 | 1100 | | | | |
| Sand | | | 1233 | 1415 | Hole Full | | | | |
| Slate | | | 1415 | 1417 | | | | | |
| Sand | | | 1417 | 1490 | | | | | |
| Slate | | | 1490 | 1495 | | | | | |
| Little Lime | | | 1495 | 1510 | | | | | |
| Pencil Cave | | | 1510 | 1514 | | | | | |
| Big Lime | | | 1514 | 1660 | | | | | |
| Big Injun | | | 1660 | 1712 | | | | | |
| Slate | | | 1712 | 1728 | | | | | |
| Slate&Shells | | | 1728 | 1890 | | | | | |
| Slate | | | 1890 | 2000 | | | | | |
| Slate&Shells | | | 2000 | 2110 | | | | | |
| Shale | Brown | | 2110 | 2120 | | | | | |
| Berea Sand | | | 2120 | 2127 | | | | | |
| Slate&Shells | | | 2127 | 3345 | | | | | |
| Shale | | | 3345 | 3385 | | | | | |
| Slate&Shells | | | 3385 | 3620 | | | | | |
| Slate | Light | | 3620 | 3800 | | | | | |
| Shale | Brown | | 3800 | 3915 | | | | | |

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION

W E L L R E C O R D

Permit No. Kan-328-D

Gas Well

- Quad.

CASING & TUBING

| | | |
|---------------------------|-----------------------------------------------|-----------------------|
| Company | Columbian Carbon Co. | 2-3/8 4990-10 4990-10 |
| Address | Box 1240, Charleston, W. Va. | |
| Farm | Mary S. Boggess et al ACRES 39 | No packer |
| Location | Grapovine Creek | |
| Well No. | 1 (GW-378) ELEV. 786.7 DF | |
| District | Poca, Kanawha County | |
| Surface & Mineral Address | Mary Boggess, et al % Columbian Carbon Co. | |
| Commenced deepening | June 8, 1939 | |
| Completed deepening | June 19, 1939 | |
| Shot | Not shot | |
| New Volume | 6,353,000 c.f. | |
| Rock Pressure | 1020 lbs. 4 days | |
| Water | - | |

Formation Color ^{Mar} *TOP BASE RESULT* *Formation Color* ^{Mar} *TOP BASE RESULT*

| DRILLED DEEPER WITH STAR SPUDDING MACHINE | | | | | | | | | |
|-------------------------------------------|-------------|------|------|--|---------|-------------|--|--|--|
| Oriskany Sand | | 4878 | | | | | | | |
| Old Total Depth | | | 4887 | | | | | | |
| Oriskany Sand | <i>4970</i> | 4878 | 4928 | | | | | | |
| Sand & Sandy Lime | | 4928 | 4936 | | | | | | |
| Oriskany Sand | | 4936 | 4940 | | | | | | |
| Sand & Sandy Lime | | 4940 | 4944 | | | | | | |
| Oriskany Sand | | 4944 | 4960 | | | | | | |
| Lime & Sandy Lime | | 4960 | 4970 | | | | | | |
| | | | | | New pay | 4887 - 4891 | | | |
| Now total depth | | | 4970 | | | | | | |