

LATITUDE

38° 27' 30"
38° 30'



LONGITUDE

7.5 (15) 81° 30'

7.5 OGIS topo location

7.5' loc 0.325 15' loc 3.25
2.21w (calc.) 2.21w

Company Columbia Carbon

Farm Copenhagen Heirs 2 (GW-337)

Quad Big Chimney 7.5' / Charleston 15' (3) ^{NE}

County Kanawha

District EIK

Gas

WELL LOCATION MAP

File No. 039-188D

Kanawha

DEEP WELL 6-6 EIK-Poca (Sissonville) (192)

Use XVI

W. F. Copenhaver Heirs No. 2 (GW-337) Well.

EEK District, Kanawha County, W. Va.

By Columbian Carbon Co.

Permit No. Kan-188 and 188-D.

Elevation, 796.26' L.

8125 M. cu. ft. gas; R. P., 1875 lbs.; 800 lbs. on deepening.

Located 2.7 mi. S. of 38° 30' and 2.43 mi. W. of 81° 30'—NE—Charles-

ton Quadrangle.

On west side of Lick Branch of Little Sandy Creek.

2.35 mi. N. W. of Copenhaver; 2.26 mi. N. E. of Mink.

| | Top. | Bottom. | Thickness. | Elevation (top) |
|----------------------|------|---------|------------|-----------------|
| Big Lime ----- | 1456 | 1621 | 165 | — 660 |
| Big Injun Sand ----- | 1621 | 1643 | 22 | — 825 |
| Derea Sand ----- | 2046 | 2047 | 1 | —1250 |
| Ferrous Lime ----- | 4791 | 4902 | 111 | —3995 |
| Oriskany Sand ----- | 4902 | 4944 | 42) | —4106 |
| | 4952 | 4971 | 19) | |

Total depth, 4981'.

Thickness, Devonian Shales, 2744± feet.

Not shot.

Remarks: Completed to 4924' Dec. 10, 1935. Deepened July 31, 1937.

Salt water, 995'. Light show gas, 2860'.

Oriskany gas, 4921-24'.

3,371 M. when deepening completed.

Samples from 4791' to 4924'.

On 195 acres.

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

W E L L R E C O R D

Permit No. Kan-188-D

Gas Well

Quad. Not given

DRILLED DEEPER

CASING & TUBING

| | | | | |
|--------------------|--|--------------|-----------|---------|
| Company | Columbian Carbon Co. | 2-3/8 | 5005'3" | 5005'3" |
| Address | Box 1240, Charleston, W.Va. | | | |
| Farm | Copenhaver Heirs | Acres 195 | PACKER | |
| Location | Lick Branch of Little Sandy | | | |
| Well No. | 2 (GW-337) | Elev. 796.26 | No Packer | |
| District | Elk County Kanawha | | | |
| Surface & Minerals | Copenhaver Heirs, c/o F.S. Copenhaver, Agt. Big Chimney W.Va. & Grant Copenhaver, Agt. Charleston, W.Va. | | | |
| Coal | Alex J. Bruen Hrs. c/o Alex Bruen, | | | |
| Address | 19 E. 83rd St. New York, N.Y. | | | |
| Drilling | Commenced July 23, 1937 Completed July 31, 1937 | | | |
| Volume | 3,370,500 Cu. Ft. | | | |
| Rock Press. | 775# 16 hrs. | | | |

2.25 38° 30'
2.43 W 81° 30'

Formation Color ^{H₂O} TOP Base Result Formation Color ^{H₂O} TOP Base Result

| Formation | Color | ^{H₂O} TOP | Base | Result | Formation | Color | ^{H₂O} TOP | Base | Result |
|----------------|-------|-------------------------------|------|--------|-----------|-------|-------------------------------|------|--------|
| Drilled Deeper | | | | | | | | | |
| Oriskany | | 4924 | 4944 | | | | | | |
| Lime | | 4944 | 4952 | | | | | | |
| Oriskany | | 4952 | 4971 | | | | | | |
| Lime | | 4971 | 4981 | | | | | | |
| TOTAL DEPTH | | | 4981 | | | | | | |

6-6-1937

Ken 188

COLUMBIAN CARRON
 No. 1040
 Charleston, W. Va.
 Company
 Address

COMPLETION DATA SHEET
 No. 2
 FORMATION RECORD

Well No. 9 (08-587) *Ken-188*

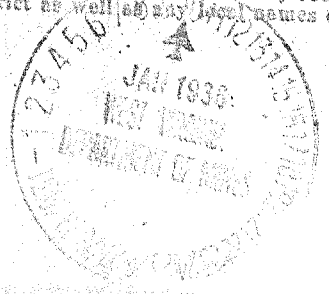
| Name | Color | Character | Oil, Gas or Water | Top | Bottom | Thickness | Foot Casts | Notes |
|--------------------|-------|-----------|-------------------------|------|--------|-----------|---------------|-------|
| Clay | Red | | | 0 | 35 | 35 | | |
| Slate | Red | | | 35 | 65 | 30 | | |
| Sand | | | | 65 | 65 | 0 | | |
| Slate | | | | 65 | 85 | 20 | | |
| Sand | | | | 85 | 130 | 45 | | |
| Slate | | | | 130 | 180 | 50 | | |
| Sand | | | | 180 | 215 | 35 | | |
| Coal | | | | 215 | 325 | 110 | | |
| Slate | | | | 325 | 327 | 2 | | |
| Sand | | | | 327 | 380 | 53 | | |
| Slate | | | | 380 | 423 | 43 | | |
| Sand | | | | 423 | 460 | 37 | | |
| Sl. & Shells | | | | 460 | 485 | 25 | | |
| Sand | | | | 485 | 600 | 115 | | |
| Sl. & Shells | | | | 600 | 697 | 97 | | |
| Sand | | | | 697 | 820 | 123 | | |
| Lime | | | | 820 | 830 | 10 | | |
| Sl. & Shells | | | | 830 | 850 | 20 | | |
| Red Rock | | | | 850 | 882 | 32 | | |
| Sl. & Shells | | | | 882 | 889 | 7 | | |
| Sand | | | | 889 | 910 | 21 | | |
| Slate | | | | 910 | 973 | 63 | | |
| Salt Sand | | | Salt Water at 995' | 973 | 975 | 2 | | |
| Slate | | | | 975 | 1194 | 219 | | |
| Sand | | | | 1194 | 1215 | 21 | | |
| Little Lime | | | | 1215 | 1409 | 194 | | |
| Pencil Cave | | | | 1409 | 1440 | 31 | | |
| White Lime | | | | 1440 | 1444 | 4 | | |
| Slate Break | | | | 1444 | 1454 | 10 | | |
| Big Lime | | | | 1454 | 1456 | 2 | | |
| Injun Sand | | | | 1456 | 1621 | 165 | | |
| Sl. & Shells | | | | 1621 | 1643 | 22 | | |
| Shale | Brown | | | 1643 | 2040 | 397 | | |
| Sl. & Shells | | | | 2040 | 2050 | 10 | | |
| Shells & Slate | | | | 2050 | 2530 | 280 | | |
| Slate | White | | | 2530 | 2420 | 90 | | |
| Shells & Wh. Slate | | | | 2420 | 2730 | 310 | | |
| Shale | Dark | | Lt. Show of Gas @ 2860' | 2730 | 2840 | 110 | | |
| Slate | White | | | 2840 | 2875 | 35 | | |
| Shale | Brown | | | 2875 | 3240 | 365 | | |
| Shells & Slate | | | | 3240 | 3575 | 335 | | |
| Shale | Brown | | | 3575 | 3580 | 5 | | |
| Slate | White | | | 3580 | 3604 | 24 | | |
| Shale | Brown | | | 3604 | 3700 | 96 | | |
| | | | | 3700 | 3875 | 175 | | |

shot
 Well was not shot at feet; well was shot at feet.
 salt
 Fresh water at salt feet; fresh water at feet.
 producing
 Well was hole.
 dry

Date Approved Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

Sheet #1 - continued



COLUMBIAN CARBON

Box 1840

Charleston, W. Va.

Company

Address

COMPLETION DATA SHEET

No. 2

FORMATION RECORD

Well No. 8 (GE-537) Kan-100

| Name | Color | Character | Oil, Gas or Water | Top | Bottom | Thickness | Total Depth |
|----------------|----------|-----------|-------------------|-------|--------|-----------|-------------|
| Slate & Shells | White | | | | | | |
| Shale | Brown | | | 3875 | 3910 | 35 | |
| Slate | White | | | 3910 | 3935 | 25 | |
| Shale | Brown | | | 3935 | 4320 | 385 | |
| Slate | White | | | 4320 | 4678 | 358 | |
| Shale | Dark Br. | | | 4678 | 4710 | 32 | |
| Corniferous | | | Gas Pay | 4710 | 4791 | 81 | |
| Oriskany | | | 4921-24' | 4791 | 4906 | 15 | |
| | | | | 4906 | 4924 | 18 | |
| TOTAL DEPTH | | | | 4924+ | | | |

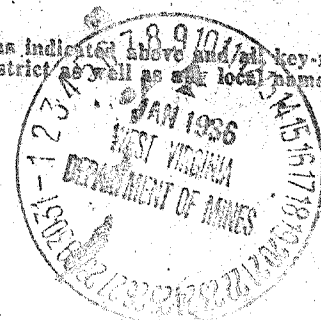
Well was not shot at feet; well was shot at feet.

Salt water at salt water at feet; fresh water at feet.

Well was producing hole.

January 8, 1936 Date Approved COLUMBIAN CARBON COMPANY

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as the local names commonly used in the district for such strata.



Sheet #2

Ken 188

OR. OF GAS WELL Drilling

Columbian Carbon Company
Box 1840
Charleston, W. Va. Address

COMPLETION DATA SHEET
No. 2

Well No. 8 (1840) from W.P. Copenhaver Reifers' FORMATION RECORD

| Name | Color | Character | Oil, Gas or Water | Top | Bottom | Thickness | Total Depth | Remarks |
|----------------|-------|-----------|-------------------|------|--------|-----------|-------------|---------|
| Red Clay | | | | 0 | 35 | 35 | | |
| Red Slate | | | | 35 | 65 | 30 | | |
| Sand | | | | 65 | 85 | 20 | | |
| Slate | | | | 65 | 130 | 45 | | |
| Sand | | | | 130 | 190 | 60 | | |
| Slate | | | | 190 | 215 | 25 | | |
| Sand | | | | 215 | 325 | 110 | | |
| Coal | | | | 325 | 327 | 2 | | |
| Slate | | | | 327 | 350 | 23 | | |
| Sand | | | | 350 | 423 | 73 | | |
| Slate | | | | 423 | 460 | 47 | | |
| Sand | | | | 460 | 485 | 25 | | |
| Slate & Shells | | | | 485 | 820 | 335 | | |
| Sand | | | | 820 | 830 | 10 | | |
| Lime | | | | 830 | 850 | 20 | | |
| Slate & Shells | | | | 850 | 882 | 32 | | |
| Red Rock | | | | 882 | 889 | 7 | | |
| Sand | | | | 889 | 973 | 84 | | |
| Slate | | | | 973 | 975 | 2 | | |
| 1st. Salt Sand | | | | 975 | 1409 | 434 | | |
| Little Lime | | | | 1409 | 1440 | 31 | | |

Well was not shot at feet; well was shot at feet.

Salt water at 925' to 1015' feet; salt fresh water at feet.

Well was producing hole. dry

October 25, 1935 Date Approved COLUMBIAN CARBON COMPANY Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.

