STATE OF WEST VIRGINA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Company: The Manufacturers Light and Heat Co.
Address: 800 Union Trust Bldg., Pittsburgh 19, Pa.
Farm: Oscar Goodnight (Maggie Harris)

Location (water):
Well No.: L-1584
Elev.: 1145.5 ft
District: Liberty
County: Marshall
The surface of the tract is owned in fee by:
Address:
Mineral rights are owned by:
Address:
Drilling commenced: May 25, 1960
Drilling completed: February 27, 1961
Date Shot: From To
With:

Open Flow: /10ths Water in: Inch
/10ths Merc. in: Inch
Volume: Cu. Ft.
Rock Pressure: lbs, per hr, bbls, 1st 24 hrs.
Oil: Fresh water: feet
Salt water: feet

Casing and Tubing:

<table>
<thead>
<tr>
<th>Size</th>
<th>Used in Drilling</th>
<th>Left in Well</th>
<th>Packers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot;</td>
<td>195'</td>
<td>195'</td>
<td></td>
</tr>
<tr>
<td>18&quot;</td>
<td>1037'</td>
<td>1037'</td>
<td></td>
</tr>
<tr>
<td>4'/12&quot;</td>
<td>1155'</td>
<td>1331'</td>
<td></td>
</tr>
</tbody>
</table>

Linera Used:

Perf. top:
Perf. bottom:

Casing Cemented: SIZE No. Ft. Date

Coal was Encountered At: 810 FEET INCHES

FEET INCHES

Formation: Color Hard or Soft Top

| Pittsburgh Coal | 7 | 810 | 817 |
| Murphy Sand     | 14 | 1036 | 1050 |
| Big Dunkard Sand| 22 | 1306 | 1328 |
| Maxton Sand     | 12 | 1810 | 1822 |
| Lower Maxton Sand| 19 | 1900 | 1919 |
| Big Lime        | 1921 |
| Big Injun Sand  | 2227 |
| Old 7" Casing   | 776 | 1155 | 1931 |

Plug back to Set 4'/8" Tubing 1972
Total Depth 2220

Run 1155 Ft. of new 7" casing on a steel shoe and set it on top of 775 Ft. of original 7" casing, left in hole.

Cut window in 7" casing from 1814-1824 using Servco Section Mill.

Remarks

(Over)
Liberty District, Marshall County, W. Va.
By Carnegie Natural Gas Co.
Cameron SE Quadrangle.
On 43 acres; lease No. 9839.
Drilling commenced May 31, 1918; completed, July 5, 1918.
No elevation.
345,000 cu. ft. gas at 2831-38'; 250# R. P. (Gordon).
Drilled deeper from 2848', April 27, 1932. Dry on deepening.
Abandoned July 13, 1932.
Record from Wilcox 10-15-39.

(Water at 90')
Mapleton (Sewickley) Coal
Pittsburgh Coal
Murphy Sand (hole full water at 1043')
Little Dunkard Sand (WOUNDSVILLE)
Big Dunkard Sand
1st Gas Sand (show gas, 1470')
1st Salt Sand
2nd Salt Sand (show gas, 1745')
Maxton Sand (show gas, 1900')
Pencil Cave
Big Lime
Big Injun Sand
Gordon Sand (oil and gas at 2831-38';
345,000 cu. ft. gas; 260# R. P.)
DRILLED DEEPER from 2848', 4-27-32.
Total depth (dry on deepening) 2922
Liberty District, Marshall County, W. Va.
On 1/3 acres, surface and mineral rights owned by Omar Howard,
R. D., Cameron, W. Va.
Elevation, 1125' B.
13" conductor, 161'; 10" casing, 207' (pulled); 8 1/2", 1052';
6-5/8", 1942'.
Coal was encountered at 706-712 and 814-822'.
Abandonment reported to Dept. of Mines June 1, 1932.
Well was shot at 2830-2840'.

<table>
<thead>
<tr>
<th>Conductor</th>
<th>Top</th>
<th>Bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Conductor (water at 90')</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Mapleatown Coal</td>
<td>720</td>
<td>726</td>
</tr>
<tr>
<td>Pittsburgh Coal</td>
<td>814</td>
<td>822</td>
</tr>
<tr>
<td>Murphy Sand (water, 1043')</td>
<td>1036</td>
<td>1050</td>
</tr>
<tr>
<td>Little Dunkard Sand</td>
<td>1120</td>
<td>1140</td>
</tr>
<tr>
<td>Big Dunkard Sand</td>
<td>1210</td>
<td>1365</td>
</tr>
<tr>
<td>Gas Sand (gas, 1470')</td>
<td>1465</td>
<td>1515</td>
</tr>
<tr>
<td>1st Salt Sand</td>
<td>1622</td>
<td>1665</td>
</tr>
<tr>
<td>2nd Salt Sand (gas, 1745')</td>
<td>1735</td>
<td>1780</td>
</tr>
<tr>
<td>Marton Sand (gas, 1900')</td>
<td>1865</td>
<td>1935</td>
</tr>
<tr>
<td>Pencil Cave</td>
<td>1935</td>
<td>1937</td>
</tr>
<tr>
<td>Big Lime</td>
<td>1937</td>
<td>1976</td>
</tr>
<tr>
<td>Big Injun Sand</td>
<td>1976</td>
<td>2230</td>
</tr>
<tr>
<td>Gordon Sand (oil and gas at 2831-2838')</td>
<td>2824</td>
<td>2848</td>
</tr>
<tr>
<td>8th Sand</td>
<td>2890</td>
<td>2922</td>
</tr>
<tr>
<td>Total Depth</td>
<td></td>
<td></td>
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</tbody>
</table>