**WELL RECORD**

**Company:** THE MANUFACTURERS LIGHT AND HEAT COMPANY

**Address:** 800 UNION TRUST BLDG., P.G.H., PA.

**Farm:** T. O. Johnson

**Acres:** 120

**Location (waters):** Well No. 4432 (F-31752)

**Elev.:** 1363'

**District:** Liberty

**County:** Marshall

**The surface of tract is owned in fee by:**

**Address:**

**Mineral rights are owned by:**

**Address:**

**Drilling commenced:** Feb. 25, 1955

**Drilling completed:** Nov. 1, 1956

**Date Shot:** From To.

**With:**

**Open Flow:** 90/10ths Water in 5/8 Inch

**/10ths Merc. in**

**Volume:** 20,092

**Ch. Ft.**

**Rock Pressure:** 325

**lbs.** 84

**hrs.**

**Oil:** bbls., 1st 24 hrs.

**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</td>
<td>571'</td>
<td>571'</td>
<td>Kind of Packer</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>1350'</td>
<td>Size of...</td>
</tr>
<tr>
<td>8</td>
<td>2251'</td>
<td></td>
<td>Depth set...</td>
</tr>
<tr>
<td>5 1/16</td>
<td></td>
<td></td>
<td>Perf. top...</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>Perf. bottom...</td>
</tr>
</tbody>
</table>

**Liners Used:**

**Casing Cemented:**

**FORMATION, Color, Hard or Soft:**

<table>
<thead>
<tr>
<th>Formation</th>
<th>Color</th>
<th>Hard or Soft</th>
<th>Top</th>
<th>Bottom</th>
<th>Oil, Gas or Water</th>
<th>Depth Found</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pittsburgh</td>
<td>Coal</td>
<td></td>
<td>1122</td>
<td>1130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lime</td>
<td></td>
<td></td>
<td>2230</td>
<td>2534</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injun</td>
<td>Sand</td>
<td></td>
<td>2510</td>
<td>315</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>315</td>
<td>1338</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reconditioned for storage on Work Order No. 1253-L-783-4

**Coal was encountered at 1122 FEET IN CHANGES**

**Oil, Gas or Water:**

**Depth Found:**

**Remarks:**

Resumed 18" hole from surface to 566'. Run 571' of 13 3/8" csg., SM. Gr.H., 40#, on a 13" x 16" swage nipple set at 566'. Not cemented. Reamed 13" hole to 1230'. Open hole below permitted 10 3/4" csg. to follow. Run 1350' of 10 3/3" csg., SM. R40, 30#, on a steel shoe set at 1338'. Run 400 bags of cement and 20 bags of Aquagel. Good return of cement at surface. Run 2251' of 7" csg., SM. J55, 20#, on a steel shoe set at 2235'. Run 400 bags cement and 20 bags Aquagel. No cement return at surface. Injun sand was washed down with 50 gallons of Mud Acid.

30 - bags cement to fill between 7" & 10" csg., lead plug at 2520', run 10' of cement on top of lead plug.

Completed total depth 2510'.