WELL PLUGGING RECORD

Decatur  County, Sec. 4  Twp. 4S  Rge.  (E). 22 (W)
Location as "NE/CNWSW" or footage from lines. Center NE/4, SE/4
Lease Owner: Shell Oil Company
Lease Name: J. Vavrych
Office Address: P. O. Drawer 310, Sterling, Colorado
Character of Well (completed as Oil, Gas or Dry Hole): Dry Hole
Date well completed: July 28
Application for plugging filed: August 9
Application for plugging approved: August 11
Plugging commenced: September 2
Plugging completed: September 3
Reason for abandonment of well or production: Well was non-productive.
If a producing well is abandoned, date of last production: 19
Was permission obtained from the Conservation Division or its agents before plugging was commenced? Yes
Show depth and thickness of all water, oil and gas formations.

<table>
<thead>
<tr>
<th>FORMATION</th>
<th>CONTENT</th>
<th>FROM</th>
<th>TO</th>
<th>SIZE</th>
<th>PUT IN L/M</th>
<th>PULLED OUT L/M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topoka</td>
<td>Dry</td>
<td>3558</td>
<td>3671</td>
<td>8-5/8 OD</td>
<td>260</td>
<td>0</td>
</tr>
<tr>
<td>Heben</td>
<td>Dry</td>
<td>3671</td>
<td>3701</td>
<td>4-1/2 OD</td>
<td>1258</td>
<td>1910</td>
</tr>
<tr>
<td>Toronto</td>
<td>Dry</td>
<td>3701</td>
<td>3718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lansing</td>
<td>Dry</td>
<td>3718</td>
<td>3910</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Marneaton</td>
<td>Dry</td>
<td>3910</td>
<td>3944</td>
<td></td>
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<td></td>
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<tr>
<td>Cherokee</td>
<td>Dry</td>
<td>3944</td>
<td>4053</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conglomerate</td>
<td>Dry</td>
<td>4053</td>
<td>4188</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arbuckle</td>
<td>Dry</td>
<td>4188</td>
<td>4261</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same and depth placed, from feet to feet for each plug set.

4231 - 36951 - Spotted 366 gallons of sand.
36951 - 36681 - Spotted 3 sacks of regular cement.
36681 - 2501 - 10# drilling mud.
2501 - 2481 - Set Rock Bridge.
2481 - 1831 - Spotted 25 sacks of regular cement.
1831 - 401 - 10# drilling mud.
401 - 351 - Set Rock Bridge.
351 - 91 - Spotted 10 sacks of regular cement.
91 - Surface filled with dirt.

Name of Plugging Contractor: Knight Casing Pulling Company
Address: Chase, Kansas

STATE OF Colorado, COUNTY OF Logan

C. F. Bass (employee of owner) or (executing agent) of the above-described well, being first duly sworn on oath, says: That I have knowledge of the facts, statements, and matters herein contained and the log of the above-described well as filed and that the same are true and correct. So help me God.

(Signature) C. F. Bass
P. O. Drawer 310, Sterling, Colorado

SUBSCRIBED AND SWORN TO before me this 22nd day of September, 1960.

Ralph E. Felig, Jr. Notary Public.

My Commission expires June 26, 1961
SKELLY OIL COMPANY
Well Record

Lease Name and No.  
John Yavroch Lease No. 17216  
Well No. 1

Lease Description:  
5/2 Section 1-40-28W  
Swearc County, Kansas (320 Acres)

Location Secured:  
June 17, 1960 by Ben Closener

Depth  
1380 feet from South line  
650 feet from East line of  
Section 1.

Elev. C.B.  
2703'

Elev. G.L.  
2696'

Drilling Contractor:  
Schafer Drilling Company

Work Commenced:  
June 17, 1960 Drilling Comm'd:  
July 1, 1960 Reached Total Depth:  
July 14, 1960

Rotary Drilling from Surface to 1261'.  
Cable Tool Drilling from 1261' to

Well Completed:  
September 3, 1960 Total Depth:  
1261' P.B.T. 1231'

Initial Completion Test:  
D.E.T. HOLE 1960

Pressures:  
F.C.P.  
P.T.P.  
S.I.C.P.  
S.I.T.P.

PRODUCING FROM

FORMATION  
PREPARE TOP  
FOR PERFORATIONS  
PREPARE BOTTOM

TOTAL NO. SHOE

Casing Record

STRINGS  
SURFACE  
INTERMEDIATE  
PRODUCTIVE LINER

SIZE  8-5/8'  4'-0'

WHERE SET  
Surface  
Intermediate  
Production  
Liner

CEMENTING RECORD  
Sleeve Used  Top Casing Get. Grd.

1200 Surface

LEAD IN  

Size  8-5/8'  4'-0'

Well  22 27

Thickness  9.5

Kind  5rd 50 J-55 RCRC

Coord.  77 2367 1

Leu  3610 0 1925

LEAD OUT  

Size  8-5/8'  4'-0'

Well  22 27

Thickness  9.5

Kind  5rd 50 J-55 RCRC

Coord.  77 2367 1

Leu  3610 0 1925

SIGNIFICANT GEOLOGICAL FORMATIONS

NAME:  S. E. Schlumberger

Topping  3928

Reeber  3971

Toronto  3701

Luning  3718

Kansas City  3910

Kansas  3914

Cherokee  1073

Conglomerate  1189

Articulate  1245

GAS  OIL

FROM  TO  FROM  TO

TREATMENT RECORD

DATE  TYPE TREATMENT  INTERVAL TREATED  AMOUNT OF TREATMENT

7-20-60  Acid  3605' - 3807'  200 gallons of 12% non-emulsifying acid

7-21-60  Acid  3798' - 3805'  250 gallons of 12% non-emulsifying acid

7-22-60  Acid  3798' - 3807'  750 gallons of 12% non-emulsifying acid

7-24-60  Gelled Acid Frac  3798' - 3807'  5000 gallons of gelled acid

7-26-60  Acid  3760' - 3769'  250 gallons of 12% non-emulsifying acid

7-28-60  Acid  3701' - 3704'  250 gallons of Bewail Mud Acid

WORKOVER RECORD

TYPE WORK  DATE COMPLETED  DATE COMPLETED  FROM  TO  PROD. BEFORE  PROD. AFTER

See Reverse for detail information
<table>
<thead>
<tr>
<th>FORMATION</th>
<th>TOP</th>
<th>BOTTOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand &amp; Shale</td>
<td>Surface</td>
<td>255'</td>
</tr>
<tr>
<td>Shale</td>
<td>255'</td>
<td>1300'</td>
</tr>
<tr>
<td>Shale &amp; Gypsum</td>
<td>1300'</td>
<td>1706'</td>
</tr>
<tr>
<td>Shale &amp; Anhydrite</td>
<td>1706'</td>
<td>2658'</td>
</tr>
<tr>
<td>Shale &amp; Lime</td>
<td>2658'</td>
<td>3211'</td>
</tr>
<tr>
<td>Line</td>
<td>3211'</td>
<td>15020'</td>
</tr>
</tbody>
</table>


Topped Toneka at 15020'.
Topped Hebbepe at 15021'.
Topped Toronto at 15021'.
Topped Lansing at 15735'.
Topped Base Kansas City at 3210'.
Topped Vernon at 3210'.

**DRILL STEM TEST NO. 1 - 3751' - 3780':**
Tool open 1 hour. Weak flow for 5 minutes. Recovered 20' drilling mud. IPP 30%, FFP 58%. ISP 995#/30 minutes. ISP 995#/30 minutes. IPH 2020#, PHP 2030#.

**DRILL STEM TEST NO. 2 - 3790' - 3823':**
Tool open 1 hour. Weak flow for 10 minutes, and died. Recovered 50% of oil and gas cut mud. IPP 30%, FFP 45%. ISP 1115#/30 minutes, FFP 990#/30 minutes. IPH 2060#, PHP 2065#.

Topped Cherryan at 15021'.
Topped Circumvent at 15381'.
Topped Arbuckle at 15381'.

**TOTAL DEPTH**
15270'

Ran Schlumberger Induction-Electrical Log and MicroLog to 15261'. (Log did not go to bottom).

**FLOODED BACK TOTAL DEPTH**
15231'

July 19, 1960 - Moved in and rigged up Peters Drilling Company's cable tools.

**PERFORATION JOB NO. 1 - 3805' - 3807':**
Perforated 1/4" OD casing with Lane-Wells Series "E" bullets per foot as follows:

- 3805' - 3807' - (2') - 8 shots

**TREATMENT NO. 1 - (ACID) - 3805' - 3807':**
Treated formation down 1/4" OD casing with 200 gallons of Halliburton 15% non-emulsifying acid.
Maximum pump pressure 500#. Pressure dropped to 150# in five minutes after end of job and to 150# in twenty minutes. Injection rate was 1/4 barrels per minute.

After recovering load oil, swabbed and bailed 1/4" OD casing 12 hours for 13.95 barrels of salty water, no show of oil.

**PERFORATION JOB NO. 2 - 3798' - 3805':**
Perforated 1/4" OD casing with 1/2 Lane-Wells Series "E" bullets per foot as follows:

- 3798' - 3805' - (7') - 28 shots

**TREATMENT NO. 2 - (ACID) - 3805' - 3807' and 3798' - 3805':**
Treated formation down 1/4" OD casing with 250 gallons Halliburton 15% non-emulsifying acid.
Maximum pump pressure 500#. Pressure had bled off to 100# in five minutes and 250# in twenty minutes after job was completed. Injection rate 2.5 gallons per minute.

After recovering load oil, swabbed 1/4" OD casing 9 hours for 10.74 barrels salt water.

**TREATMENT NO. 3 - (ACID) - 3805' - 3807' and 3798' - 3805':**
Treated formation down 1/4" OD casing with 750 gallons Halliburton 15% non-emulsifying acid.
Maximum pump pressure 800#. Pressure had bled off to 700# in 5 minutes and 225# in 20 minutes after job was completed. Injection rate 38 gallons per minute.

After recovering load oil, swabbed 1/4" OD casing 7 hours for 12.06 barrels salt water with a trace of oil.

Swabbed 1/4" ID casing 9 hours for .29 barrel oil and 7.11 barrels salt water.
TREATMENT NO. 1 - (ACID 1)- 37191 - 37601
Treated formation with 250 gallons Halliburton 1% emulsifying acid. Maximum pump pressure 2500# minimum 2000#. Pressure had bled off to 2000# in 15 minutes, 1800# in 20 minutes, and 1200# in 30 minutes after job was completed. Injection rate 2.5 gallons per minute.

Treated formation with 250 gallons Halliburton 1% emulsifying acid. Maximum pump pressure 2500# minimum 2000#. Pressure had bled off to 2000# in 15 minutes, 1800# in 20 minutes, and 1200# in 30 minutes after job was completed. Injection rate 2.5 gallons per minute.

Suspended 250# casing 6 hours for 65 barrels load oil and 25 barrels load water.

Perforated 50# casing with 6 Lane-Wells series "M" bullets per foot as follows:

37191 - 37201 - (25) - 12 shots
John Vatrog Well No. 1

Well was plugged and abandoned September 5, 1950.

Slope Test Data

<table>
<thead>
<tr>
<th>Depth</th>
<th>Angle in Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>250'</td>
<td>1/4°</td>
</tr>
<tr>
<td>1000'</td>
<td>1/8°</td>
</tr>
<tr>
<td>1500'</td>
<td>1/16°</td>
</tr>
<tr>
<td>2200'</td>
<td>3/32°</td>
</tr>
<tr>
<td>2600'</td>
<td>3/16°</td>
</tr>
<tr>
<td>2800'</td>
<td>3/8°</td>
</tr>
<tr>
<td>3002'</td>
<td>1/2°</td>
</tr>
<tr>
<td>3211'</td>
<td>1/2°</td>
</tr>
<tr>
<td>4080'</td>
<td>1/2°</td>
</tr>
</tbody>
</table>