

Company CITIES SERVICE OIL COMPANY
 Address BOX 873, CHARLESTON, W.VA.
 Farm WALLER C. HARDY JR. ET AL
 Tract _____ Acres 270 Lease No. 1-11-47-01759
 Well (Farm) No. B-1 Serial No. GW-1553
 Elevation (Spirit Level) 1341.40
 Quadrangle PEYTONA 2 - S053 - W232 - MC
 County KANAWHA District LOUDON
 Engineer Wardell J Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-18-65
 Date 18 MAY 65 Scale 1" = 400'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. KAN-2044

+ Denotes location of well on United States Topographic Maps, scale 1 to 62500 latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

Samples 1500-2500 (AHD) 4900-5780 TD 300 all may not have 12-C
Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 8

Rotary
Spudder
Cable Tools
Storage

Quadrangle **Peytona 2 SW**

Permit No. **Kan-2044**

WELL RECORD

Oil or Gas Well gas
(KIND)

Company **Cities Service Oil Company**
Address **Box 873, Charleston, W. Va. 25323**
Farm **W. C. Hardy, Jr., et al** Acres **270**
Location (waters) **Right Fork**
Well No. **B-1, GW-1553** Elev. **1341.40'**
District **Loudon** County **Kanawha**
The surface of tract is owned in fee by **Resources**
Capital Bldg. Address **Charleston, W. Va.**
Mineral rights are owned by **W. C. Hardy, Jr., et al**
5100 2nd Avenue Address **Vienna, W. Va.**
Drilling commenced **6-10-65**
Drilling completed **7-10-65**
Date Shot **not shot** From To

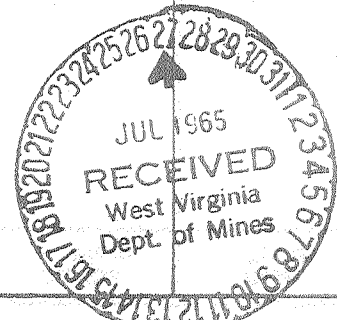
| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|---|------------------|--------------|----------------|
| Size | | | |
| 20" | 31' | 31' | Kind of Packer |
| 13 3/8" 40# | 638' | 638' | none |
| 9-5/8" 32# | 1950' | 1950' | Size of |
| 8 1/4" | | | |
| 7 1/2" | 5211' | 5211' | Depth set |
| 5 3/16" | | | |
| 4 1/2" | 5806' | 5806' | Perf. top |
| 3" | | | |
| 3 1/8" 4.7# | 5756' | 5756' | Perf. bottom |
| Liners Used 7 / cage at 5741' | | | Perf. top |
| | | | Perf. bottom |

Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume **show** Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
WELL ACIDIZED (DETAILS) **see reverse side**
WELL FRACTURED (DETAILS) **not fractured**

Attach copy of cementing record.
CASING CEMENTED SIZE No. Ft. Date
Amount of cement used (bags) **see reverse side**
Name of Service Co.
COAL WAS ENCOUNTERED AT **39** FEET **24** INCHES
FBET INCHES FEET INCHES
FBET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) **492 MCF (Newburg)**
ROCK PRESSURE AFTER TREATMENT **7 das.** **2030# casing, 2000# tubing**
Fresh Water Feet Salt Water Feet
Producing Sand **Newburg** Depth **5706-5724'**

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth | Remarks |
|----------------------|-------|--------------|------|--------|-------------------|-------|---------|
| Sand | | | 0 | 39 | | | |
| Coal | | | 39 | 41 | | | |
| Sandy Shale | | | 41 | 45 | | | |
| Sand | | | 45 | 155 | | | |
| Lime and Shale | | | 155 | 188 | | | |
| Sand | | | 188 | 480 | | | |
| Shale and Sand | | | 480 | 560 | | | |
| Sand | | | 560 | 605 | | | |
| Shale | | | 605 | 648 | | | |
| Shale and Sand | | | 648 | 820 | | | |
| Sand | | | 820 | 870 | | | |
| Shale | | | 870 | 900 | | | |
| Sand | | | 900 | 1000 | | | |
| Sand and Shale | | | 1000 | 1410 | | | |
| Red Rock and Shale | | | 1410 | 1440 | | | |
| Shale | | | 1440 | 1460 | | | |
| Sand | | | 1460 | 1500 | | | |
| Red Rock | | | 1500 | 1520 | | | |
| Shale and Sand | | | 1520 | 1620 | | | |
| Big Lime | | | 1620 | 1860 | | | |
| Big Injun Sand - 365 | | | 1860 | 1890 | | | |
| Shale - Macclary | | | 1890 | 1947 | | | |
| Shale and Lime | | | 1947 | 2150 | | | |
| Shale and Sand | | | 2150 | 3100 | | | |
| Shale | | | 3100 | 3500 | | | |
| Shale and Lime | | | 3500 | 4100 | | | |



| Formation | Color | Hard or Soft | Top δ | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|---|--|--------------|--------------|--------|-------------------|-------------|--------------|
| Shale | | | 4100 | 4925 | | | |
| Lime - ONONDAGA | | | 4925 | 5030 | | | |
| Sand - ORISKANY | | | 5030 | 5050 | | | |
| Sandy Lime - H | | | 5050 | 5150 | | | |
| Lime and Shale - Cayuga | | | 5150 | 5717 | | | |
| Newburg Sand | | | 5717 | 5735 | | | |
| Lime - MCKENZIE | | | 5735 | 5781 | | | |
| Total depth----- | | | | 5781' | drillers' Meas= | 5780' | Schl. Meas. |
| Plugged back depth----- | | | | 5769' | | | |
| Schlumberger Log showed: | | | | | | | |
| Big Lime | | | 1612 | 1865 | | | 5706 1341 |
| Big Injun | | | 1865 | 1901 | | | 4365 |
| Berea | | | 2309 | 2310 | | | |
| Oriskany Sand | | | 5032 | 5042 | | | |
| Newburg Sand | | | 5706 | 5724 | Gas | 5707-13' | |
| CASING RECORD | | | | | | | |
| 6-10-65 | Ran 31' of 20" drive pipe. | | | | | | |
| 6-15-65 | Ran and cemented 13-3/8" 48# H-40 casing with shoe at 648' DLM. Cemented with 100 sacks. Pumped plug to 643'. | | | | | | |
| 6-21-65 | Set and cemented new 9-5/8" 32.3# H-40 casing with shoe at 1947'. Cemented with 100 sacks regular cement with 3% calcium chloride. Pumped plug to 1,937' | | | | | | |
| 6-29-65 | Set and cemented 7" 23# J-55 casing, grade B, at 5,150' with Guide shoe. Jelled 7" and cemented with 40 sacks with 2% calcium chloride. Pumped plug to 5118'. Centralizers at 5118', 5030' and 4936'. R/L nipple at 4,695' | | | | | | |
| 7-11-65 | Set and cemented 4-1/2" 11.6# J-55 new casing at 5,780' with Whirler Guide Shoe. Cemented with 35 sacks Pozmix followed with 150 gallons Latex. Pumped plug to 5,769'. Centralizers at 5,779', 5735', 5705', 5630', 5555' and 5480'. Baker scratchers on 12' centers 4,780' to 5,528'. | | | | | | |
| 6-21-65 | Ran Lane Wells Logs thru Big Injun: Gamma Ray, Caliper, Density, Induction and Temperature. Drillers' T. D. 1,947' | | | | | | |
| 7-10-65 | Ran Schlumberger Logs thru Newburg: Gamma Ray, Density, SP and Induction. | | | | | | |
| 7-13-65 | Ran Schlumberger Logs: Gamma Ray and Correlation. | | | | | | |
| 7-13-65 | Perforated Newburg with Tri-cone Radial Jet at 5,711'. | | | | | | |
| 7-14-65 | ACIDIZED NEWBURG SAND Ran 2" Upset tubing with cage. Tubing set at 5,741'. Spotted mud acid on bottom and acidized Newburg Sand with 1,000 gallons mud acid. Maximum treating pressure 3,000#. Minimum treating pressure 2300#. Average injection rate 1-3/4 bbls/minute. | | | | | | |
| Final open flow 7-22-65 492 MCF - Newburg Sand. | | | | | | | |

Date July 26, 1965

APPROVED Cities Service Oil Company, Owner

By L. D. Todd, District Sup't
(Title)