



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1320  
 MINIMUM DEGREE OF ACCURACY \_\_\_\_\_  
 PROVEN SOURCE OF ELEVATION \_\_\_\_\_

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) Ronald J. Gray  
 R.P.E. \_\_\_\_\_ L.S. 247

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6 (878)



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE MAR 26 19 80  
 OPERATOR'S WELL NO. GW 38 (D-5)  
 API WELL NO. \_\_\_\_\_

47 - 017 - 2155  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X  
 LOCATION: ELEVATION 975 WATER SHED LT. FK OF ARNOLDS CK & BLUESTONE CK  
 DISTRICT WEST UNION COUNTY DODDRIDGE  
 QUADRANGLE WEST UNION 7 1/2, West Union SE-15'

SURFACE OWNER \_\_\_\_\_ ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER MAXWELL 'D' LEASE ACREAGE \_\_\_\_\_  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE \_\_\_\_\_ PLUG-OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
F.E.R.C. FILING

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR CITIES SERVICE CO. DESIGNATED AGENT SAUL J. MATTHEWS  
 ADDRESS PO BX 873 ADDRESS PO BX 873  
CHARLESTON WV 25323 CHARLESTON WV 25323

original - 1968 + WO - 1956; 6-6 Smithton-Flint-Sedalia (99)

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

Date: April 2, 1969  
Operator's Well No. GW 38 (A-5)  
API Well No. 87-017  
State County Permit

FORM IV-35  
(Reverse)  
[08-75]

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil  / Gas  / Liquid Injection  / Waste Disposal   
(If "Gas", Production  / Underground storage  / Deep  / Shallow )  
LOCATION: Elevation: 975 Watershed: LT FORK OF ARNOLDS CK & BLUESTONE CK  
District: WEST UNION County: DODDRIDGE Quadrangle: WEST UNION 7 1/2

WELL OPERATOR CITIES SERVICE CO. DESIGNATED AGENT MR. SAM J. MATTHEWS  
Address Box 878 Address Box 878  
CHARLESTON, W.V. 25383 CHARLESTON, W.V. 25383

PERMITTED WORK: Drill  / Convert  / Drill deeper  / Redrill  / Fracture or stimulate   
Plug off old formation  / Perforate new formation   
Other physical change in well (specify) \_\_\_\_\_

F.E.R.C. FILING

PERMIT ISSUED ON UNKNOWN OIL & GAS INSPECTOR FOR THIS WORK:  
(IF APPLICABLE: PLUGGING OF LPI HOLE IN CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERNAL PERMISSION OBTAINED) Name \_\_\_\_\_ Address \_\_\_\_\_

GEOLOGICAL TARGET FORMATION: GORDON SAND Depth 2340 feet  
Depth of completed well, 2439 feet Rotary  Cable Tools   
Water strata depth: Fresh \_\_\_\_\_ feet salt \_\_\_\_\_ feet  
Coal seam depths: UNKNOWN Is coal being mined in the area? \_\_\_\_\_  
Work was commenced \_\_\_\_\_, 19 \_\_\_\_\_, and completed JAN. 27, 1969, 19 \_\_\_\_\_

CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | SPECIFICATIONS |       |             |     | HEIGHT INTERVALS |       | DEPTH FROM CABLE TOOLS OR LACKS (Feet) | PACKERS                     |
|-----------------------|----------------|-------|-------------|-----|------------------|-------|--|-----------------------------|
|                       | Size           | Grade | WT. Per Ft. | New | From             | To    |  |                             |
| Conductor             |                |       |             |     |                  |       |  |                             |
| Fresh Water           | 10"            |       |             |     | 180'             |       |  | Kind                        |
| Casing                | 8 1/4"         |       |             |     | 790'             |       |  | Size 2"                     |
| Intermediate          | 6 5/8"         |       |             |     |                  | 1500' |  |                             |
| Production            |                |       |             |     |                  |       |  |                             |
| Tubing                | 2 3/8"         |       |             |     |                  | 2433' |  |                             |
| Wireline              |                |       |             |     |                  |       |  | Perforations:<br>Top Bottom |

OPEN FLOW DATA

Producing formation: NA  
Gas: Initial open flow, \_\_\_\_\_ McF/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, \_\_\_\_\_ McF/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours  
Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in  
[If applicable due to multiple completions:-]  
Second producing formation \_\_\_\_\_ Pa. seam depth \_\_\_\_\_ feet  
Gas: Initial open flow, \_\_\_\_\_ McF/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
Final open flow, \_\_\_\_\_ McF/d Final open flow, \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests, \_\_\_\_\_ hours  
Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

RECONDITIONED: 12-14-55 TO 1-18-56

PULLED 2 7/8" TUBING (2433 FT) AND PACKER. PLUGGED BACK TO 1764', BRIDGED HOLE TO 1776', DUMPED 3 SACKS CEMENT TO 1764', TREATED AND RAN 1761' OF 2 5/8" 4" TUBING, 108' 5" OF 3 1/2" O.D. TUBING ON BOTTOM WITH FARMACO COMB. WALL AND ANCHOR PACKER (2 7/8")

PRODUCING FORMATION: BIG INJUN

WELL LOG

| FORMATION           | Color | Hard or Soft | Top Feet | Bottom Feet | Remarks<br>Including indication of all fresh and salt water, coal, oil and gas |
|---------------------|-------|--------------|----------|-------------|--|
| 10" CASING          |       |              | 180      |             |  |
| PITTSBURGH COAL     |       |              | 240      |             |  |
| LITTLE DUNKARD      |       |              | 605      | 625         |  |
| BIG DUNKARD         |       |              | 750      | 820         |  |
| 8 1/2" CASING       |       |              | 790      |             |  |
| GAS SAND            |       |              | 905      | 945         |  |
| FIRST SALT SAND     |       |              | 1075     | 1135        |  |
| SECOND SALT SAND    |       |              | 1305     | 1370        |  |
| 6 5/8" CASING       |       |              | 1500     |             |  |
| MAYDN SAND          |       |              | 1515     | 1535        |  |
| LITTLE LIME         |       |              | 1535     | 1565        |  |
| BREAK               |       |              | 1565     | 1570        |  |
| BIG LIME            |       |              | 1570     | 1670        |  |
| BIG INJUN           |       |              | 1670     | 1685        |  |
| GAS                 |       |              | 1685     |             |  |
| MORE GAS            |       |              | 1745     |             |  |
| BOTTOM INJUN        |       |              | 1755     |             |  |
| GANTZ SAND          |       |              | 1920     | 1980        |  |
| FIFTY FOOT          |       |              | 2140     | 2145        |  |
| THIRTY FOOT         |       |              | 2220     | 2240        |  |
| STRAY SAND - Broken |       |              | 2320     | 2350        |  |
| GORDON SAND         |       |              | 2340     | 2345        |  |
| TOTAL DEPTH         |       |              | 2439'    |             |  |

(Attach separate sheets if complete as necessary.)

CITIES SERVICE CO.

Well Number

By: *[Signature]*  
 For: *Alvin Proctor, Jr.*

NOTE: Regulation 1.0311 provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."