

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator SOUTHLAND ROYALTY COMPANY Lease Hillstrom Well No. 3

Location Unit D Sec. 35 Twp. 32N Rge. 12W County San Juan

Type of Prod. Gas Method of Prod. Flow Prod. Medium Casing
(Oil or Gas) (Flow or Art. Lift) (Top. or Cag.)

Name of Reservoir or Pool Undesignated Fruitland Gas Flow Casing

Name of Reservoir or Pool Blanco Pictured Cliffs Gas Flow Tubing

PRE-FLOW SHUT-IN PRESSURE DATA

Well No. 3 Hour, date 9-19-83 Length of time shut-in 72 Hrs. SI press. C. 558 Stabilized? (Yes or No)

Well No. 3 Hour, date 9-19-83 Length of time shut-in 72 Hrs. SI press. T. 707 Stabilized? (Yes or No)

FLOW TEST NO. 1

Commenced at (hour, date)* 9-22-83 Zone producing (Upper or Lower): Lower

| Time (hour, date) | Lapsed time since* | Pressure | | Prod. Zone Temp. | Remarks |
|-------------------|--------------------|--------------|--------------|------------------|---------|
| | | Upper Compl. | Lower Compl. | | |
| 9-20-83 | | C. 558 | T. 707 | | |
| 9-21-83 | | C. 558 | T. 707 | | |
| 9-22-83 | | C. 558 | T. 707 | | |
| 9-23-83 | 24 Hrs. | C. 560 | T. 394 | | |
| 9-24-83 | 48 Hrs. | C. 560 | T. 377 | | |
| | | | | | |

Production rate during test

Rate: BOPD based on Bbls. in Hrs. Grav. GOR

Test: MCFPD; Tested thru (Orifice or Meter):

MID-TEST SHUT-IN PRESSURE DATA

Well No. 3 Hour, date 9-22-83 Length of time shut-in 72 Hrs. SI press. C. 558 Stabilized? (Yes or No)

Well No. 3 Hour, date 9-22-83 Length of time shut-in 72 Hrs. SI press. T. 707 Stabilized? (Yes or No)

FLOW TEST NO. 2

Commenced at (hour, date)** 9-22-83 Zone producing (Upper or Lower): Lower

| Time (hour, date) | Lapsed time since ** | Pressure | | Prod. Zone Temp. | Remarks |
|-------------------|----------------------|--------------|--------------|------------------|---------|
| | | Upper Compl. | Lower Compl. | | |
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Production rate during test

Rate: BOPD based on Bbls. in Hrs. Grav. GOR

Test: MCFPD; Tested thru (Orifice or Meter):

Remarks:

Remarks:

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Approved: OCT 13 1983

Oil Conservation Division

Original Signed by CHARLES GHOLSON

Title District Field Foreman

Date OCT 11 1983

By DEPUTY OIL & GAS INSPECTOR, DIST. #3

Operator SOUTHLAND ROYALTY COMPANY

By James W. Smith

Title District Field Foreman

Date OCT 11 1983

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. Packer leakage test shall be commenced on each multiply completed well within 15 days after actual completion of the well, and annually thereafter as required by the order authorizing the multiple completion. Tests shall also be commenced on all multiple completions within 15 days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer seal has been disturbed. Tests shall also be taken at any time that production is suspected or when requested by the Division.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at a normal rate of production while the other zone remains shut-in. The test shall be continued for seven days in the case of a gas well and 30 days in the case of an oil well. Note: If, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a surface connection the flow period shall be three hours.

5. After completion of Flow Test No. 1, the well shall again be shut-in and shall comply with paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated in Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3-hour tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges, the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

9. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-1-78, with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only). A pressure versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with all deadweight pressure points taken indicated thereon. For oil zones, the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.

