STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

2002

NORTHWEST NEW MEXICO PACKER-LEAKAGE

NOV 2002

Operator CORDILLERA ENERGY, INC. Lease NORTHWEST Location API# 30-039-22509 of Well Unit Sec. 2 Twp. 26N Rge. 4W TYPE OF PROD. METHOD OF PROD PROD. MEDIUM NAME OF RESERVOIR OR POOL (Oil or Gas) (Flow or Art. Lift) (Tbg. or Csg.) Upper **GALLUP** GAS **FLOW TBG** Completion Lower **FLOW** DAKOTA GAS **TBG** Completion PRE-FLOW SHUT-IN PRESSURE DATA Upper Hour, date shut-in Length of time shut-in SI press. psig Stabilized? (Yes or No) Completion 10/18/02 3 days 332 ves Stabilized? (Yes or No) Lower Length of time shut-in Hour, date shut-in SI press. psig 10/18/02 Completion 3 days 598 ves **FLOW TEST NO. 1** 10/21/2002 **LOWER** Commenced at (hour, date) * Zone producing (Upper or Lower): LAPSED TIME PRESSURE PROD. ZONE TIME Since * **REMARKS** (hour, date) Lower Completion TEMP. Upper Completion csg tbg tbg 10/19 322 272 Both Zones Shut In 496 10/20 325 316 532 Both Zones Shut In 10/21 346 332 598 Both Zones Shut In 10/22 1 DAY 356 342 142 Lower Zone Flowing 10/23 2 DAYS 364 347 68 Lower Zone Flowing Production rate during test Oil: BOPD based on Bbls. in Hours Grav. GOR 83 Gas: MCFPD: Tested thru (Orifice or Meter): **METER MID-TEST SHUT-IN PRESSURE DATA** Upper Hour, date shut-in Length of time shut-in SI press. psig Stabilized? (Yes or No) Completion Hour, date shut-in Length of time shut-in SI press. psig Stabilized? (Yes or No) Completion

(Continue on reverse side)

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FLOW TEST NO. 2

| Commenced at (hour, date) ** | | | | Zone Producing (Upper or Lower): | |
|--|--|---------------------|------------------|----------------------------------|---------------------------|
| Time | LAPSED TIME | PRESSURE | | PROD. ZONE | |
| (hour, date) | SINCE ** | Upper Completion | Lower Completion | TEMP. | REMARKS |
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| Production rate during test | | | | | |
| Oil: | BOPD ba | ased on | Bbls. in | Hrs | GravGOR |
| Gas: | MCFPD: Tested thru (Orifice or Meter): | | | | |
| Remarks: | | | | | |
| | | | | | , |
| I hereby certify that the information herein contained is true and complete to the best of my knowledge. Approved | | | | | |
| Approved | MOA T | 4 2002 , 200 | 02 Oper | ator <u>CORDILI</u> | LERA ENERGY, INCORPORATED |
| New Mexico Oil Conservation Division By Lay Celester By | | | | | |
| Ву | | v. PENDA | Title | PRODUC | CTION TECHNICIAN |
| Title | DEPUTY SA & GAS | inspecter, dest. §5 | Date | 11/12/02 | |

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

- 1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been distrubed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.
- 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 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 the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours 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 pipeline connection the flow period shall be three hours.
- Following completion of Flow Test No. 1, the well shall again be shut-in in accordance with Paragraph 3 above.
- Flow Test No. 2 shall be conducted even though no leak 'was indicated during 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 dead-weight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow-period, at fifteen-nminute 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 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.

8. 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 New Mexico Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-01-98 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only)