ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION 2002 NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator _	CORDILLERA ENERGY, INC.			Lease NORTHWEST			Well No. 1		
Location							***		
	Unit G	Sec.	7	Twp.	26N F	Rge4	4WAPI#	30-039-07126	
OI AACII	Oille <u>G</u>	_ 000				Ŭ -			
				TYPE OF PF	POD	Т	METHOD OF PROD.	PROD. MEDIUM	
	NAME OF RESERVOIR OF	R POOL		(Oil or Gas		l	(Flow or Art. Lift)	(Tbg. or Csg.)	
Upper					<u> </u>				
1	MESA VERDE			GAS			FLOW	TBG	
Lower							ELOW!	TDC	
Completion	GALLUP			GAS			FLOW	TBG	
			DDE	FLOW SHUT-IN	PRESSII	RF D	ΔΤΑ		
Upper	Hour, date shut-in		PRE-	Length of time shut-in	TIXEOUU		SI press. psig	Stabilized? (Yes or No)	
Completion	10/18/02			3 days			110	yes	
Lower	Hour, date shut-in			Length of time shut-in			SI press. psig	Stabilized? (Yes or No)	
Completion	10/18/02			3 days			538	yes	
				FI OV	V TEST NO	2 1			
	at (have data) *	10/21/02		1201			pper or Lower):	lower	
	at (hour, date) *		PRESSURE		PROD. ZONE	<u>s</u> (-			
(hour, date)	Since *	Upper Completio		Lower Completion	TEMP.		REMARKS		
(1loui, date)	Omoc	csg	tbg	tbg					
10/19		152	98	508]		Both Zones Shut In		
10/13		102							
10/20		166	104	519	1		Both Zones Shut In		
10/20		 							
]			440	500			Both Zones Shut In		
10/21		171	110	538			Both Zones Shut in	-	
10/22	1 day	177	110	74			Lower Zone Flowing		
			-						
10/23	2 days	182	110	66			Lower Zone Flowing		
10/23	z days								
	n rate during test		Dir		Grav.	GOR			
Oil:	BOPD b	ased on	 	Bbls. in		Hours	Glav.	000	
Gas:		MCFPD: Tested thru (Orifice or Meter):			: METER				
							4		
			MID-	<u> ȚEST SHUT-IN I</u>	PRESSUR	E DA	IA		
Upper Hour, date shut-in			Length of time shut-in			SI press. psig	Stabilized? (Yes or No)		
Completion									
				Length of time shut-in			SI press. psig	Stabilized? (Yes or No)	
Lower	Hour, date shut-in			Langur or une sout-in					
Completion	1						I		

FLOW TEST NO. 2

Commenced a	at (hour, date) **		Zone Producing (Upper or Lower):						
Time	LAPSED TIME	PR	RESSURE	PROD. ZONE					
(hour, date)	SINCE **	Upper Completion	Lower Completion	TEMP.	REMARKS				
				<u> </u>					
				+					
									
	<u> </u>		_ <u></u> ,	<u>.L.</u>					
Production	rate during test								
Oil:	BOPD b	pased on	Bbls. in	Hrs.	GravGOR				
Gas:	MCFPD: Tested thru (Orifice or Meter):								
Remarks:									
I hereby certif		herein contained is true an	d complete to the best of	my knowledge.					
Approved	No.	3 200 2 . 20	002 Oper	ator CORDILI	ERA ENERGY, INCORPORATED				
New Mexic	co Oil Conservati			// 1					
		y chapagat, petrak	Ву	By Kays Censtein					
Ву			Title	PRODUC	CTION TECHNICIAN				
Title 05	PIN GALALAS II	STACTOR PAT 10	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)