

2 Occidental  
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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tapacito Ext. Formation Pictured Cliffs County Rio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 11-24-58  
Company Occidental Petroleum Corp. Lease E Well No. 1-21  
Unit M Sec. 21 Twp. 26N Rge. 3W Purchaser \_\_\_\_\_  
Casing 7-5/8" Wt. 26.40# I.D. 4100 Set at 6162 Perf. 3908 To 3952  
Tubing 2-3/8" Wt. 4.7# I.D. \_\_\_\_\_ Set at 3885 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 3908 To 3952 L 3885 xG .65 -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well G.G. Dual  
Date of Completion: 11-6-58 Packer 6056 Reservoir Temp. 57°F  
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through 10005 (Choke) (10006) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) ( <u>10006</u> ) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1006		1005		
1.										
2.		3/4"	57		57°					3 Hrs.
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.							
3.	12.365		69	1.0029	.9608	1.010	830
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1018 P<sub>c</sub> 1036.3

No.	P <sub>w</sub>	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.	<u>181</u>								
2.						32.6	1003.7		1.0325
3.									
4.									
5.									

Absolute Potential: 853 MCFPD; n .85 = 1.0276  
COMPANY Occidental Petroleum Corp.  
ADDRESS 120 So. Commercial, Farmington, New Mexico  
AGENT and TITLE T.A. Dugan, Consulting Engineer Original signed by T. A. Dugan  
WITNESSED Charles Werner  
COMPANY Northwest Production Corp.

REMARKS



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressability factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

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VAL R. REESE & ASSOCIATES, INC.

Company Occidental Petroleum Corp.

Lease E Well No. 1-21

Date of Test 11-24-58

M.V. 1217 P.C. 1006 P.C. 1005 S.I. Period 7 Days  
Shut in Pressure (PSIG): Tubing Casing

Size Blow Nipple 3/4" T.C.

Flow Through 2-3/8" Tbg. P.C. Working Pressures From Csg.

Time		Pressure	M.V. Tbg. <del>XXXXXXXXXX</del>	Wellhead Working Pressure (PSIG)	Temp
Hours	Minutes		<del>XXXXXXXXXX</del>		
	15	381	1213	632	
	30	192	1212	402	53
	45	133	1211	301	54
1	00	98	1211	225	55
2	00	72	1211	222	57

Start At 11:45 A.M. End Test At 2:45 P.M.

Remarks: After 1-1/2 Hr. started blowing heavy spray of oil and water.  
Continued throughout rest of test.

Tested By: Jim Jacobs

Witness: Charles Werner