## NEW MEXICO OIL CONSERVATION COMMISSION

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Size       Size       psig       h <sub>w</sub> $^{\circ}$ F.       psig       psig       psig       ps		i	с . К.	a a	000				N COMMISS.	n in the		Form C-12	
a       Jaimat       formation       Yaimat       County       Las         itial       Annuel       Special       x       Date of Test $4/B - 4/12/BT$ mpany       Late Oil Company       Lease       Thumas       Well No.       1         it       M       Sec. 17       Twp.       24       Rge. 37       Purchaser_El Peso Natural Gas Company         sing			· · · · ·			-POINT H	BACK PRES	SURE TE	ST FOR GA	S WELLS		Revised 12-1-5	
	Pool	Jalma	t		F	ormation	n <u>Yates</u>	6 7 Ri	iers	County	Les.	······································	
it	Init	ial		Annua	<u></u>		Spec	ial	X	_Date of '	Test_4	/8 - 4/12/57	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	omp	any <u>Late</u>	0 <b>il Co</b>	mpany .			Lease	Thomas		Wel	1 No	_1	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	nit	<u> </u>	Sec	<b>17_</b> Twp	) <b>2</b>	<b>4</b> Rg	ge• <u>37</u>	Pur	chaser <u> </u>	1 Paso Nat	ural G	es Company	
s Pay: From 2,980 To 3,165 L 2,980 xG .650CL 1,937Bar.Press. 13.2 ducing Thru: Casing XTubingType Well Single-Bradenhead-G. G. or G.O. Dual te of Completion: 6-23-53PackerBoneReservoir Temp. COBSERVED DATA Sted Through (Prover) (Choke) (Meter)	asi	ng_ <b>7*</b> _V	vt2	<u>0                                    </u>	D	Se	et at 3.	<b>420</b> P	erf		Го		
Tubing	ubi	ngV	Nt	I.	.D.	Se	et at	P	erf	· · · · · · · · · · · · · · · · · · ·	ľo		
Packer_nome       Reservoir Temp.         OBSERVED DATA         OBSERVED DATA         Sted Through (Prover) (Choke) (Meter)       Type Taps	is :	Pay: From	2,980	_To <b>_3</b>	, 165	L. 2,	<b>980</b> x	.G <b>.650</b>		.937	Bar.Pre	ss. <u>13.2</u>	
Packer_nome       Reservoir Temp.         OBSERVED DATA         OBSERVED DATA         Sted Through (Prover) (Choke) (Meter)       Type Taps	rod	ucing Thru:	: Cas	sing	x	Tu	ibing		Type We	ll_ <u>Singl</u>	e		
Sted Through (Frover) (Choke) (Meter)       Type Taps	ite	of Complet	cion:	6-23-5	3	Packe	r <u>none</u>	Si	ngLe-Brade Reserve	oir Temp	J. or G	•0• Dual	
Flow Data       Tubing Data       Casing Data         (Prover)       (Choke)       Press.       Diff.       Temp.       Press.       Temp.       Press.       Temp.       Ouration of Flow of							OBSERV	ED DATA					
Flow Data       Tubing Data       Casing Data         (Prover)       (Choke)       Press.       Diff.       Temp.       Press.       Temp.       Press.       Temp.       Ouration of Flow of	este	ed Through	(Prov	<b>ver) (</b> 0	hoke)	(Meter)	)			Type Tap:	S		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $													
Size       Size       psig       h_w       OF.       psig       OF.       Dsig       Dsig <th< td=""><td>Т</td><td>(Prover)</td><td>(Chc</td><td>oke)</td><td>Press.</td><td></td><td>Temp.</td><td></td><td></td><td>Press.</td><td>Temp.</td><td></td></th<>	Т	(Prover)	(Chc	oke)	Press.		Temp.			Press.	Temp.		
4"       1.500       515       15.21       83       A39       24         4"       1.500       525       26.01       87       907       24         4"       1.500       537       39.69       69       783       24         4"       1.500       537       39.69       69       783       24         4"       1.500       510       56.25       74       755       24         4"       1.500       510       56.25       74       755       24         4"       1.500       510       56.25       74       783       24         4"       1.500       510       56.25       74       783       24         600       1.047       1.234       13.99       13.99       99.61       .9756       .9608       1.047       1.234         13.99       118.29       .9750       .9608       1.049       1.636       1.049       1.636         Ideo 71       .9764       .9608       1.049       1.933         Ideo 71       .9761       .9608       1.049       1.933         Ideo 71       .9741       .9608       1.049       1	•					h <sub>w</sub>	°F.	psig	° <sub>F</sub> .	psig	°₽.	of flow Hr.	
4"       1.500       523       26.01       B7       607       24         4"       1.500       537       39.49       B8       783       24         4"       1.500       510       56.25       74       755       24         Flow CALCULATIONS       Factor       Factor       Factor       Factor       Factor       Q-MCFPD         (Flange) $\sqrt{h_w P_f}$ psia       Ft       Fg       Fg       Fyv       0       15.025       psia         13.99       89.61       .9786       .9608       1.047       1.234         13.99       140.71       .97741       .9608       1.049       1.626         13.99       140.71       .97741       .9608       1.049       1.626         13.99       140.71       .9741       .9608       1.049       1.933         13.99       171.52       .99668       .9608       1.049       1.933         FRESSURE CALCU'ATIONS         Precention Ratio       cf/bbl.       Specific Gravity Separator Gas         Specific Gravity Plowing Fluid         .4682       (1-e^{-5})       0.125       Pw       Pc       Pa       Pc <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>1.0.01</td> <td></td> <td></td> <td></td> <td>873</td> <td></td> <td></td>	1					1.0.01				873			
4"       1.500       537       39.49       68       783       24         4"       1.500       510       56.25       74       755       24         FLOW CALCULATIONS         FLOW CALCULATIONS         Coefficient       Pressure       Flow Temp.       Gravity       Compress.       Rate of Flow         (Flange) $\sqrt{h_w P_f}$ psia $F_t$ $F_g$ $F_{pv}$ @ 15.025       psia         13.09       89.61       .9786       .9408       1.047       1.234         13.99       118.29       .97750       .9608       1.049       1.636         Isom colspan="4">Freesure       Flow Temp.       Gravity       Compress.         Isom colspan="4">Flow Temp.       Factor       Factor       Factor       Q-MCFPD         (24Hour) $\sqrt{h_w P_f}$ .951       .9776       .9608       1.047       1.234         13.99       140.71       .9771       .97750       .9608       1.049       1.933       1.3.99         If thethethethethethethethethethethethethet													
FLOW CALCULATIONS         Coefficient       Pressure       Flow Temp.       Gravity       Compress.       Rate of Flow         (24-Hour) $\sqrt{h_w p_f}$ psia       Ft       Fg       Fpv       @ 15.025 psiz         13.99       89.61       .9786       .9608       1.047       1.234         13.99       18.29       .9750       .9608       1.049       1.625         13.99       140.71       .9741       .9608       1.049       1.625         13.99       171.52       .9868       .9608       1.049       1.625         13.99       171.52       .9868       .9608       1.050       2.389         PRESSURE CALCUTATIONS         Liquid Hydrocarbon Ratiocf/bbl.         Specific Gravity Separator Gas         Pc													
FLOW CALCULATIONS         Coefficient       Pressure       Flow Temp.       Gravity       Compress.       Rate of Flow         (24-Hour) $\sqrt{h_w p_f}$ psia       Ft       Fg       Fpv       @ 15.025 psiz         13.99       89.61       .9786       .9608       1.047       1.234         13.99       18.29       .9750       .9608       1.049       1.625         13.99       140.71       .9741       .9608       1.049       1.625         13.99       171.52       .9868       .9608       1.049       1.625         13.99       171.52       .9868       .9608       1.050       2.389         PRESSURE CALCUTATIONS         Liquid Hydrocarbon Ratiocf/bbl.         Specific Gravity Separator Gas         Pc		4*	1.5	00	510	56.25	74			755		- 24	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	<u></u>		<u> </u>			L						· · · · · · · · · · · · · · · · · · ·	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Т	Coeffici	ent		Pr	and the second se	the second s	the second s	and the second	Compres	55.	Rate of Flow	
13.99       89.61       .9786       .9608       1.047       1.234         13.99       116.29       .9750       .9608       1.049       1.626         13.99       140.71       .9741       .9608       1.049       1.626         13.99       171.52       .9750       .9608       1.049       1.933         13.99       171.52       .9868       .9606       1.050       2.389         FRESSURE CALCU"ATIONS         Liquid Hydrocarbon Ratio       cf/bbl.       Specific Gravity Separator Gas         jact of the second sec		(Flange)					•		Factor			Q-MCFPD	
13.99       89.61       .9786       .9608       1.047       1.234         13.99       116.29       .9750       .9608       1.049       1.626         13.99       140.71       .9741       .9608       1.049       1.626         13.99       171.52       .9750       .9608       1.049       1.933         13.99       171.52       .9868       .9606       1.050       2.389         FRESSURE CALCU"ATIONS         Liquid Hydrocarbon Ratio       cf/bbl.       Specific Gravity Separator Gas         jact of the second sec						psia	F	t	Fg	Fpv		@ 15.025 psia	
13.99       140.71       .9741       .9608       1.049       1.933         13.99       171.52       .9868       .9608       1.050       2.389         PRESSURE CALCUMATIONS         Liquid Hydrocarbon Ratio	L								.9608				
13.99       171.52       .9668       .9608       1.050       2.389         PRESSURE CALCU'ATIONS         Liquid Hydrocarbon Ratio	I												
PRESSURE CALCU'ATIONS         PRESSURE CALCU'ATIONS         Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas         yrity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid         A662 (1-e <sup>-5</sup> ) 0.125       Pc B86.2 Pc         Pc         Pk (psia)         Pt FcQ (FcQ) <sup>2</sup> (FcQ) <sup>2</sup> Pw <sup>2</sup> Pc - Pw <sup>2</sup> Cal. Pw         Pw <sup>2</sup> Pc - Pw <sup>2</sup> Cal. Pw         Pw <sup>2</sup> Pc - Pw <sup>2</sup> Cal. Pw         Pw <sup>2</sup> Pc - Pw         Pw <sup>2</sup> Pc - Pw         Pw <sup>2</sup> Pc - Pw         Pw	╉												
vity of Liquid Hydrocarbons       deg.       Specific Gravity Flowing Fluid         .4682 $(1-e^{-5})$ 0.125 $P_c$						PR		ALCULAT				<u>_</u>	
A662 $(1-e^{-5})$ 0.125 $P_c$ 886.2 $P_c^2$ 785.4         Ngw $P_t^2$ $F_cQ$ $(F_cQ)^2$ $(F_cQ)^2$ $P_w^2$ $P_c^2-P_w^2$ Cal. $P_w$ Pt (psia) $P_t$ $F_cQ$ $(F_cQ)^2$ $(F_cQ)^2$ $P_w^2$ $P_c^2-P_w^2$ Cal. $P_w$ B41.2       707.6       .578       .334       .042       707.6       77.8       841.2       .940221         B20.2 $672.7$ .761       .579       .072       672.8       112.6       820.3       .925637         796.2       633.9       .905       .819       .102       .634.0       .151.4       .706.3       .809555         768.2       .590.1       1.119       1.252       .157       .590.3       .195.1       .768.3       .866960         solute Potential:       .6500       MCFPD; n727       .727       .727         (PANY													
$X_{W}$ $P_t^2$ $F_cQ$ $(F_cQ)^2$ $(F_cQ)^2$ $P_w^2$ $P_c^2 - P_w^2$ Cal. $P_w$ Pt (psia)       Pt       707.6       .578       .334       .042       707.6       77.8       841.2       .949221         840.2       672.7       .761       .579       .072       672.8       112.6       820.3       .925637         796.2       633.9       .905       .819       .102       .634.0       151.4       .796.3       .809555         768.2       590.1       1.119       1.252       .157       .590.3       195.1       .768.3       .866960         Solute Potential: 6500       MCFPD; n						0,125			Pc	886.2	$P_{c}^{P_{c}}$	1ng Fluid	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $									-				
Pt (psia)       (1-e c)       Pw Pc         841.2       707.6       .578       .334       .042       707.6       77.8       841.2       .049221         820.2       672.7       .761       .579       .072       .672.8       .112.6       .820.3       .925637         796.2       633.9       .905       .819       .102       .634.0       .151.4       .796.3       .898555         768.2       .590.1       1.119       1.252       .157       .590.3       .195.1       .768.3       .866960         MCFPD; n		XP <sub>XV</sub>	<sub>5</sub> 2			(	2 (7	2	<u> </u>	<sub>p</sub> 2 <sub>p</sub> 2	0-		
841.2       707.6       .578       .334       .042       707.6       77.8       841.2       .949221         820.2       672.7       .761       .579       .072       672.8       112.6       820.3       .925637         796.2       633.9       .905       .819       .102       634.0       151.4       .796.3       .898555         768.2       590.1       1.119       1.252       .157       590.3       195.1       .768.3       .866960         MCFPD; n	•	Pt (psia)	<sup>P</sup> t	r r c	*	(r <sub>c</sub> ų)~		c∀/ -e <sup>-s</sup> )	r <sub>w</sub> ∠	rc-rw			
796.2       633.9       905       819       102       634.0       151.4       796.3       898555         768.2       590.1       1.119       1.252       .157       590.3       195.1       768.3       .866960         Solute Potential: 6500       MCFPD; n .727         MPANY       Late 011 Company											841.2	949221	
768.2         590.1         1.119         1.252         .157         590.3         195.1         768.3         .866960           solute Potential: 6500         MCFPD; n           MPANY         Late Oil Company         MCFPD; n         727           DRESS         Box 670         San Angelo, Texas         F. M. Late = Partner           ENT and TITLE         MCFPD; Tests /											1		
solute Potential:       6500       MCFPD; n727         MPANY       Late Oil Company         DRESS       Box 670       San Angelo, Texas         ENT and TITLE       F. M. Late = Partner         TNESSED       Tests taken by El Paso Natural Gas Company	_												
APANY     Late Oil Company       DRESS     Box 6707     San Angelo, Texas       ENT and TITLE     F. M. Late = Partner       INTESSED     Tests taken by El Paso Natural Gas Company													
APANY     Late Oil Company       DRESS     Box 6707     San Angelo, Texas       ENT and TITLE     F. M. Late = Partner       INTESSED     Tests taken by El Paso Natural Gas Company	so]	ute Porent	ial:	500			MCFPD:	n72	7	=			
DRESS Box 670 Sen Angelo, Texas ENT and TITLE F. M. Late - Partner INESSED Tests taken by El Paso Natural Gas Company	MP/	NY	Late (	)il Com	pany								
rNESSED Tests taken by El Paso Natural Gas Company		SS	Box 6	0 Sel	Ange	Lo. Texa						<u></u>	
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ELVIS A. C. GAS ENGINEER

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## 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<sub>c</sub>= 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- P<sub>w</sub> Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- P<sub>f</sub> Meter pressure, psia.
- hw= 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  $P_+$ .