## MULTI-POINT BACK PRESSURE TEST FOR DAS WELLS

Revised	12-1-55

Size   Size   psig   hw   CF.   psig   OF.   psig   OF.   Hr.	Pool South	Manoo	Form	ation <u>n</u>	akota	·	County	PAO AI	riba	
A   Sec. 3   Twp. 260   Rge. 6W   Purchaser   Southern Union   Cas Company   177   1892   1892   170   1893   170   1893   1894   170   1893   1894   170   1893   1894   170   1894   1894   1895   1894   1894   1895   1894   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895   1895	Initial	ual		Date of Test 1-27-60						
Tasing 10" Wt. 11.12 J.D. 1.200 Set at 7700 Perf. 7306 To 7551  Tubing 10" Wt. 2015 I.D. 1.200 Set at 7285 Perf. 7285 To 7288  Jas Pay: From 7306 To 7511 L 7285 x3 4660 50 Regs Bar. Press. 12f  Producing Thru: Casing Ma Tubing Year Type Well Cafe Beat Single-Bradenhead-G. G. or G.O. Dual Date of Completion: 1.18.60 Packer 7285 Reservoir Temp.  OBSERVED DATA  Tested Through (Choke) (Mone)  (Choke) (Frees. Diff. Temp. Press. Temp. Press. Temp. Duration of Flow Size Size Psig h. Of. psig Of. psig Of. psig Of. psig Of. Hr. Thr. Size Size Size Psig h. Of. Date Size Size Size Size Size Size Size Siz	Company Caul	king 011 C				h "p"	Wel	1 No	4D-58	
Tasing 10" Wt. 11.12 J.D. 1.200 Set at 7700 Perf. 7306 To 7551  Tubing 10" Wt. 2015 I.D. 1.200 Set at 7285 Perf. 7285 To 7288  Jas Pay: From 7306 To 7511 L 7285 x3 4660 50 Regs Bar. Press. 12f  Producing Thru: Casing Ma Tubing Year Type Well Cafe Beat Single-Bradenhead-G. G. or G.O. Dual Date of Completion: 1.18.60 Packer 7285 Reservoir Temp.  OBSERVED DATA  Tested Through (Choke) (Mone)  (Choke) (Frees. Diff. Temp. Press. Temp. Press. Temp. Duration of Flow Size Size Psig h. Of. psig Of. psig Of. psig Of. psig Of. Hr. Thr. Size Size Size Psig h. Of. Date Size Size Size Size Size Size Size Siz	UnitA	Sec. 3 T	wp. 26%	Rge.	<b>6</b> 11 P	urchaser_ 🥵	outhern !	inion (	as Company	
Case   Prom   7306   To   7311   L   7285   X3   660   Col.   1260   Bar. Press.   1260   Producing Thru:   Casing   Ra	Casing 💤	Wt. 15.5€	I.D. 4.95	Set at	7700	Perf. 7	306	То	7551	
Producing Thru: Casing Na Tubing Yes Single-Bradenhead-G. G. or G.O. Dual Single-Bradenhead-G. G. or G.O. Dual Caste of Completion: 1.18_60 Packer 7285    Completion: 1.18_60 Packer 7285   Single-Bradenhead-G. G. or G.O. Dual Caste of Completion: 1.18_60 Packer 7285   Caste of Cast					Set at <b>7285</b> Perf					
OBSERVED DATA  Cested Through (Choke) (Masser Packer 7285 Reservoir Temp.  OBSERVED DATA  Cested Through (Choke) (Masser Packer 7285 Temp. OBSERVED DATA  Cested Through (Choke) (Masser Packer	Gas Pay: From	7306_To_	7551	7285	xG	660 <u>-</u> GL_	4606	Bar.Pre	ss <u>12</u> #	
OBSERVED DATA  Cested Through (Choke) (Masser Packer 7285 Reservoir Temp.  OBSERVED DATA  Cested Through (Choke) (Masser Packer 7285 Temp. OBSERVED DATA  Cested Through (Choke) (Masser Packer	Producing Thru	: Casing_	No.	Tubing	Yes	Type W	ell c.c.	Deni	O Duel	
Prover   Choke   Press   Diff. Temp.   Press.   Temp.   Press.   Temp.   Of Flow	Date of Comple	tion:	18-60	Packer	7285	Reserv	oir Temp	G. OF G	•0• Dual	
Flow Data    Continue   Choke   Fress   Diff   Temp.   Fress   Temp.   Press   Temp.   Duration of Flow				OBS	SERVED DA	TA				
Continue	Tested Through	( Particular)	(Choke) (#	10.15 S			Type Taps			
Contine   Size   psig   hw   OF   psig   OF   psig   OF   psig   OF   Psig   OF   OF   OF   OF   OF   OF   OF   O								ata		
	No. (Line)	1/0 : 0: \	1 1	l l					of Flow	
FLOW CALCULATIONS  Coefficient  (24-Hour) VhwPf  Pressure Flow Temp. Gravity Compress. Rate of Flow Factor	SI	Size	psig	h <sub>w</sub> F		<del></del>	psig	F.		
FLOW CALCULATIONS    Coefficient	1. 2.	3/4"			25	2 55				
PLOW CALCULATIONS  Coefficient  (24-Hour)	3 <b>.</b> 4.									
Coefficient  (24-Hour)  (24-Hour)  (24-Hour)  (24-Hour)  (24-Hour)  (25b)  (25b)  (25c)  (25c	5.									
Column   The price   Factor	Coeffic	ient.	Pross				Compres	- I	Pata of Flow	
The state of the s	No.	io.		Factor		Factor	Factor	actor Q-MCFPD		
RESSURE CALCULATIONS  as Liquid Hydrocarbon Ratio of/bol. Specific Gravity Separator Gas Specific Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid Pc 2207 pc 4,870,849  To. Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw 2 Pc-Pw Cal. Pw Pc Cal. Pc	1	14.1605		3 1.	0048	•9535	7g			
RESSURE CALCULATIONS  as Liquid Hydrocarbon Ratio of/bol. Specific Gravity Separator Gas Specific Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid Pc 2207 pc 4,870,849  To. Pw Pt (psia) Pt FcQ (FcQ)2 (FcQ)2 Pw 2 Pc-Pw Cal. Pw Pc Cal. Pc	3 c									
Liquid Hydrocarbon Ratio cf/bol. Specific Gravity Separator Gas Specific Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid P <sub>c</sub> 2207 P <sub>c</sub> 4,870,849  To P <sub>w</sub> P <sub>t</sub> F <sub>c</sub> Q (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> (P	2.									
Liquid Hydrocarbon Ratio cf/bol. Specific Gravity Separator Gas Specific Gravity of Liquid Hydrocarbons deg. Specific Gravity Flowing Fluid P <sub>c</sub> 2207 P <sub>c</sub> 4,870,849  To P <sub>w</sub> P <sub>t</sub> F <sub>c</sub> Q (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> (F <sub>c</sub> Q) <sup>2</sup> (P		FOIR	RIE	PRESSUR	E CALCUI	TIONS				
P <sub>w</sub>   P <sub>c</sub>	as Liquid Hydr	ocarbon Rati	io	cf/b	bl.	Spec:	ific Gravit	ty Sepai	rator Gas	
Pt (psia)				d <b>295</b> d	eg.			ty Flow	ing Fluid870.849	
Pt (psia)										
Pt (psia)  (1-e-s)  (	No.	$P_{\mathbf{t}}^{2}$	F <sub>C</sub> Q (F	$(cQ)^2$	$(F_cQ)^2$	P <sub>w</sub> 2	$P_c^2 - P_w^2$		P <sub>w</sub>	
bsolute Potential: 5,738 MCFPD; n (1.900) .75 = 1.6183  COMPANY Cauling GI Company  DDRESS P. 0. Bay 367, Farmington, New Mexico  GENT and TITLE Charles (Layers)  THNESSED  COMPANY  DEMARKS  PEMARKS		1			(1-e <sup>-s</sup> )				P <sub>c</sub> 725	
bsolute Potential: 5,738 MCFPD; n (1.90b) .75 = 1.6183  COMPANY Caulking CII Company  DDRESS P. 0. Pay /567, Paralington, New Mexico  GENT and TITLE Chille (Lique)  Freduction Foreman  COMPANY  DEMARKS	3.									
Absolute Potential: 5,738 MCFPD; n (1.906) .75 = 1.6183  COMPANY Caulkins Cil Company  ADDRESS P. C. Bey/567, Farmington, New Mexico  CGENT and TITLE (Lucus) Production Freduction Freduction  COMPANY  COMPANY  PEMARKS								† <del>-</del>		
GENT and TITLE Guille (Lique) Production or coan COMPANY  PEMARKS  P. C. Dex 967, Paralle ton, New Mexico Production or coan Pemarks	bsolute Pocen			MCF	PD; n_(1	.90b) .75	• 1.618:	3		
ITINESSED PEMARKS	ADDRESS P	. O. Ber/9			KON 10X					
COMPANY PEMARKS	AGENT and TITL	Eleker	les De	que		1	oduction	• 97 em	Nn	
REMARKS	COMPANY			<b>/</b>	פעמ אשקס					
					Carama	PATT	FILM			

## 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 T Actual rate of flow at end of flow period at W. H. working pressure (Pw). MCF/da. @ 15.025 psia and 600 F.
- $P_c$ = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia
- PwT 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
- Pf Meter pressure, psia.
- $h_{\mathbf{w}}$  Differential meter pressure, inches water.
- Fg Gravity correction factor.
- $F_t$  Flowing temperature correction factor.
- Fpv Supercompressability factor.
- n I 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  $P_+$ .