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appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator DAVID H. ARRINGTON OIL & GAS				Lease or Unit Name STEVES HOPPER 25			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9/15/03	Well No. 1
Completion Date 7/17/03		Total Depth		Plug Back TD 12425		Elevation	Unit Ltr - Sec - TWP - Rge 25 15S 34E
Csg. Size 5 1/2	Wt. 17 #	d	Set At 12425	Perforations: From: 12320 To: 12330		County Lea	
Tbg. Size 2 3/8	Wt. 4.7 #	d 1.995	Set At 12131	Perforations: From: To:		Pool Wildcat Atoka EDISON MORROW NORTH	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 12131		Formation ATOKA	
Producing Thru TBG		Reservoir Temp. °F 195.3 @ 12131	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2		Connection SALES	
L 12131	H 12131	Gg 0.6906	%CO ₂ 0.612	%N ₂ 2.167	%H ₂ S N/A	Prover N/A	Meter Run 2.067
Taps FLG							
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI							
1	2 X 1.250		349			3832.1	PKR
2						375	"
3							"
4							"
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd
1							513
2							
3	METERED		BY		TOTAL	FLOW	
4							
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 46.636 Mcf bbl.		
1					A.P. I. Gravity of Liquid Hydrocarbons 56 @ 60 Deg.		
2					Specific Gravity Separator Gas 0.6906 XXXXXXXX		
3		N/A			Specific Gravity Flowing Fluid XXXXXX GMIX .752		
4					Critical Pressure 668 P.S.I.A. 664 P.S.I.A.		
5					Critical Temperature 356 R. 402 R		
P _c 3845.3		P _{c2} 14786.3					
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.028$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.028$		
1		403.2	162.6	14383.1			
2							
3							
4							
5							
Absolute Open Flow 527 Mcfd @ 15.025				Angle of Slope Q: 45		Slope n: 1	
Remarks: WELL PRODUCED 11 BBLs 56 API GR. CONDENSATE & 1 BBL H2O							
Approved By Division:		Conducted By:		Calculated By:		Checked By:	
		SIG. WIRE LINE & TESTING		BM		BM	

C122D FORM IMPORTED FROM SYMPHONY ON 9-9-01

COMPANY : DAVID H. ARRINGTON OIL & GAS		SECTION : S. HOPPER 25		WELL NO. : 1		TOWNSHIP : 15		Pc = 3845.3		Pc2 = 14786.3	
UNIT : L 12131		H 12131		L/H 1		G/GMDX 0.752		P12 = 150.7		Pw = 409.2	
%CO2 : 0.612		%N2 : 2.167		H2S : 0.018183		DATE : 9-15-03		0.0		#DIV/0!	
d : 1.995		Fr : 0.018183		GH : 9122.5		RANGE : 34		0.0		#DIV/0!	
VOL 1 : 513		PSIA 1 : 388.2		RESV.TEMP : 195.3		Pc2-Pw2 = 14283.1		Pw2 = 162.5		#DIV/0!	
VOL 2 :		PSIA 2 :		SHUT-IN PREI = 3845.3		#DIV/0!		#DIV/0!		#DIV/0!	
VOL 3 :		PSIA 3 :		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
VOL 4 :		PSIA 4 :		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!	
PCR : 664		TCR : 402		n = 1.000		Pc2/(Pc2-Pw2) = 1.028		#DIV/0!		#DIV/0!	
LINE		RATE 1		RATE 2		RATE 3		RATE 4		[Pc2/Pc2-Pw2]n = 1.028	
		1ST		2ND		1ST		2ND		#DIV/0!	
		1ST		2ND		1ST		2ND		#DIV/0!	
1 QM		0.513		0.513		0.000		0.000		#DIV/0!	
2 TW		534		534		534		534		#DIV/0!	
3 Ts		655.3		655.3		655.3		655.3		#DIV/0!	
4 T		594.7		594.7		594.7		594.7		#DIV/0!	
PR (est)		0.58		0.00		0.00		0.00		#DIV/0!	
5 Z(est)		0.916		0.904		#DIV/0!		#DIV/0!		#DIV/0!	
6 TZ		544.9		537.6		#DIV/0!		#DIV/0!		#DIV/0!	
7 GH/TZ		16.741		16.968		#DIV/0!		#DIV/0!		#DIV/0!	
8 eS		1.873		1.890		#DIV/0!		#DIV/0!		#DIV/0!	
9 I-e-S		0.466		0.471		#DIV/0!		#DIV/0!		#DIV/0!	
10 Pt		388.2		388.2		0.0		0.0		0.0	
11 P12 /1000		150.7		150.7		0.0		0.0		0.0	
12 Fr		0.018183		0.018183		0.018183		0.018183		0.018183	
13 Fc=F1TZ		9.908		9.775		#DIV/0!		#DIV/0!		#DIV/0!	
14 FcQm		5.08		5.01		#DIV/0!		#DIV/0!		#DIV/0!	
15 L/H(FcQm)2		25.8		25.1		#DIV/0!		#DIV/0!		#DIV/0!	
16 Fw		12.045795		11.838919		#DIV/0!		#DIV/0!		#DIV/0!	
17 Pw2		162.7		162.5		#DIV/0!		#DIV/0!		#DIV/0!	
18 P62		304.9		307.1		#DIV/0!		#DIV/0!		#DIV/0!	
19 Ps		552.2		554.2		#DIV/0!		#DIV/0!		#DIV/0!	
20 P		470.2		471.2		#DIV/0!		#DIV/0!		#DIV/0!	
21 Pr		0.71		0.71		#DIV/0!		#DIV/0!		#DIV/0!	
22 Tr		1.48		1.48		1.48		1.48		1.48	
23 Z		0.904		0.904		#DIV/0!		#DIV/0!		#DIV/0!	

FORM C122-D

WORK SHEET FOR CALCULATION OF WELLHEAD PRESSURE (Pc or Pw)
FROM KNOWN BOTTOM HOLE PRESSURE (Pf or Ps)

FORM C-122F

COMPANY D H ARRINGTON O & G LEASE : S. H. 25 WELL NO. : 1 DATE
UNIT SECTION : 25 TOWNSHIP : 15 RANGE :
L 12131 H : 12131 L/H : 1 G/GHIX : 0.6906
CO2 : 0.612 N2 : 2.167 H2S :
GH : 8377.7 PCR : 668 TCR : 356

LINE		1	2	3	4	5	6	7	8
1	TW(W.H. R)	534	534	534	534	534	534	534	534
2	Ts(B.H. R)	655.3	655.3	655.3	655.3	655.3	655.3	655.3	655.3
3	T=(Tw+Ts/2)	594.7	594.7	594.7	594.7	594.7	594.7	594.7	594.7
4	Z (EST.)	1.042	0.928	ERR	ERR	ERR	ERR	ERR	ERR
5	TZ	619	552	ERR	ERR	ERR	ERR	ERR	ERR
6	GH/TZ	13.525	15.189	ERR	ERR	ERR	ERR	ERR	ERR
7	eS(TABLE XIV)	1.661	1.768	ERR	ERR	ERR	ERR	ERR	ERR
8	Pf or Ps	5112.2	5112.2	0	0	0	0	0	0
9	Pf2 or Ps2	26134.6	26134.6	0.0	0.0	0.0	0.0	0.0	0.0
10	Pc2=Pf/eS or Pw2=Ps2/eS	15738.2	14786.0	ERR	ERR	ERR	ERR	ERR	ERR
11	Pc or Pw	3967	3845	ERR	ERR	ERR	ERR	ERR	ERR
12	P=(Pw+Ps/2)or(Pc+Pf/2)	4540	4479	ERR	ERR	ERR	ERR	ERR	ERR
13	Pr=(P/Pcr)	6.80	6.70	ERR	ERR	ERR	ERR	ERR	ERR
14	Tr(T/Tcr)	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
15	Z (TABLE XI)	0.928	0.923	ERR	ERR	ERR	ERR	ERR	ERR

Pc ~~1~~ : 3845.3 PW 2 : ERR PW 3 : ERR PW 4 : ERR

NEW MEXICO G.O.R./G. MIX		
NO. OF BBLS PRODUCED	=	11.0
API GRAVITY @ 60 DEG.	=	56.0
SPECIFIC GRAVITY OF GAS	=	0.6906
XX		
TOTAL GAS PRODUCED	=	513
G.O.R.	=	46.636
G.MIX	=	0.752

DAVID H. ARRINGTON OIL & GAS
STEVES HOPPER 24 # 1

