

MEXICO OIL CONSERVATION COMM. ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☐ Initial ☐ Annual ☒ Special						Test Date 11-4-74	
Company M. B. Hunt				Production Al Paso Natural Gas			
Pool Lunice				Unit Glinebry			
Completion Date 11-12-57		Total Depth 6610		Perforations From 5580 To 5752		Elevation 3462 L. F.	
Csg. Size 5 1/2		Wt. 15.5		Set At 6610		Well No. 3	
Tbg. Size 2 3/8		Wt. 4.7		Set At 5847		Unit Sec. Twp. Rge. C 21 21-S 37-E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Gas/Oil Multiple						Packer Set At 5842	
Producing Thru L		Reservoir Temp. °F 102.8		Mean Annual Temp. °F 56.51		Baro. Press. - P _a 5842	
L		H		Gg		Prover	
5651		5651		.700		4"	
				% CO ₂		% H ₂ S	
						Meter Run 4"	
						Taps Flo.	
FLOW DATA						TUBING DATA	
Casing Data						Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h.w.	Temp. °F	Press. p.s.i.g.
SI							765
1.	4 x 2.000			89	4.41	42	714
2.	4 x 2.000			89	9.00	38	656
3.	4 x 2.000			89	17.64	40	566
4.	4 x 2.000			89	25.00	45	466
5.							
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{F_{hw} P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	21.3	102.2	1.012	1.195	N.C.	512
2	19.81	30.33	102.2	1.022	1.195	N.C.	734
3	19.81	42.44	102.2	1.020	1.195	N.C.	1,025
4	19.81	50.55	102.2	1.015	1.195	N.C.	1,215
5							
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>Dry</u> Mcf/bbl.		
1					A.P.G. Gravity of Liquid Hydrocarbons <u>1.000</u> Deg.		
2					Specific Gravity Separator Gas <u>.700</u> X X X X X X X X		
3					Specific Gravity Flowing Fluid <u>X X X X X</u>		
4					Critical Pressure <u>660</u> P.S.I.A. P.S.I.A.		
5					Critical Temperature <u>392</u> R R		
P _c <u>778.2</u> P _c ² <u>605.2</u>					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.613$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.365$		
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(3) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.368$		
1			577.0	76.6			
2			444.7	161.4			
3			356.2	269.7			
4			230.7	375.5			
5							
Absolute Open Flow <u>1.358</u> Mcfd @ 15.025					Angle of Slope θ <u>57.0</u>		Slope, n <u>.649</u>
Remarks:							
Approved By Commission: <u>[Signature]</u> Conducted By: <u>T. M. HAY</u> Calculated By: <u>[Signature]</u> Checked By:							

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE) PRESSURE (P_f & P₂)
(SURFACE) (P_c & P_w)

COMPANY _____ LEASE _____ WELL NO. _____ DATE _____

LOCATION: Unit _____ Section _____ Township _____ Range _____

L 6505 H _____ L/H _____ G 698 _____ % CO₂ _____ % N₂ _____ % H₂S _____
d _____ F_r _____ Q_m _____ M₂cfd (L/H) (F_rQ_m)² _____ P_{cf} 668 T_{cf} 392

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		6505	32525		0						
2	GH		4544049	2270.25		0						
3	37.5GH		170268	85134		0						
4	P _c or P _n		1140.2	1036.1	1038.8	936.6	942.3	941.9		942.2		
5	P _r		1.71	1.55	1.56	1.40	1.41	1.41				
6	T		567	550.5	550.5	534	534	534				
7	T _r		1.45	1.40	1.40	1.36	1.36	1.36				
8	Z		.822	.811	.810	.803	.802	.802				
9	P/Z P/Z	4-8	1387.1	1277.5	1282.5	1166.4	1174.9	1174.5				
10	P/TZ	9-5	2.4464	2.3206	2.3297	2.1843	2.2002	2.1994				
11	(P/TZ) ² /1000	(11) ² /100										
12	L/H(F _r Q _m) ²											
13		I ₁ + I ₂										
14	I _n	I ₀ + I ₃	408.765	430.915	429.245	452.814	454.502	454.676				
15	M = P _n - P _{n-1}			104	101	102	97	97				
16	N = I _n + I _{n-1}			839.680	838.010	887.059	883.742	883.921				
17	M x N	I ₅ x I ₆			84639			85740				
18	Σ (M x N)	Σ I ₇			85740							

gpd

MPANY _____ LEASE _____ WELL NO. _____ DATE _____
LOCATION: Unit _____ Section _____ Township _____ Range _____
L / H _____ H _____ L/H _____ G _____ % CO₂ _____ % N₂ _____ % H₂S _____
d _____ F_r _____ Q_m _____ M²-cfd (L/H) (F_rQ_m)² _____ P_{CT} _____ T_{CT} _____
TABLE 12 & 13

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		6505	3252.5		0						
2	GH		4540.49	2270.25		0						
3	37.5GH		1702.68	85134		0						
4	P _c or P _n		1126.2	1023.6	1026.3	926.1	931.5	931.2	$P_{WH} = 931.1$			
5	P _r		1.69	1.53	1.54	1.39	1.39	1.39				
6	T		5667	550.5	550.5	534	534	534				
7	T _r		1.45	1.40	1.40	1.36	1.36	1.36				
8	Z		.824	.813	.812	.804	.804	.804				
9	P/Z P/Z	4-8	1366.7	12590	1263.9	1151.9	1158.6	1158.2				
10	P/TZ	9-6	2.4105	2.2871	2.2959	2.1570	2.1697	2.1690				
11	(P/TZ) ² /1000	(10) ² /100										
12	L/H(F _r Q _m) ²											
13		I ₁ + I ₂										
14	I _n	I ₀ + I ₃	414.853	437.241	435.556	463.599	460.901	461.042				
15	M = P _n · P _{n-1}			103	80	100	95	95				
16	N = I _n + I _{n-1}			852.094	850.509	899.155	896.457	896.598				
17	M × N	I ₅ × I ₆			85051			85177				
18	Σ (M × N)	Σ I ₇			85217							

WORK SHEET FOR STEPWISE CALCULATION

COMPANY _____
 LEASE _____
 WELL NO. _____
 DATE _____

LOCATION: Unit _____ Section _____ Township _____ Range _____

H _____ L/H _____ G _____ % CO₂ _____ % N₂ _____ % H₂S _____

$$d \quad \frac{F_f}{F_t} \quad Q_m \quad M_{\text{cfd}}^2 \quad (L/H) \quad (F_f Q_m)^2 \quad P_{\text{cr}} \quad T_{\text{cr}}$$

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		6505	3252.5		0						
2	GH		4540.49	2270.25		0						
3	37.5GH		1702.68	8513.4		0						
4	P _C or P _n		1103.2	1003.2	1005.8	907.6	712.9	912.5		912.9		
5	P _r		165	1.50	1.51	1.36	1.37	1.37				
6	T		567	550.5	550.5	534	534	534				
7	T _r		145	1.40	1.40	1.36	1.36	1.36				
8	Z		1828	817	816	1809	809	807				
9	P/ZP/Z	48	1337.4	1227.9	1232.6	1121.8	1131.3	1130.8				
10	P/TZ	96	2349.9	2230.5	2239.0	2100.8	2118.5	2117.5				
11	(P/TZ) ² /1000	(16)2/1000										
12	L/H(F _r Q _m) ²											
13		I ₁ + I ₂										
14	I _n	I ₀ - I ₃	425.558	4447.336	446.626	476.008	472.038	472.245				
15	M = P _n - P _{n-1}			100	97	98	93	93				
16	N = I _n + I _{n-1}			873.894	872.184	922.134	918.664	918.871				
17	M x N	I ₅ x I ₆			846.02			854.55				
18	Σ (M x N)	Σ I ₇			856.66							

4th

WORK SHEET FOR STEPWISE CALCULATION

(SUBSURFACE)
PRESSURE
(SURFACE)(P_f & P_s)
(P_c & P_w)Form C-122-E
Adopted 9-1-65

COMPANY _____ LEASE _____ WELL NO. _____ DATE _____

LOCATION: Unit _____ Section _____ Township _____ Range _____

L _____ H _____ L/H _____ G _____ % CO₂ _____ % N₂ _____ % H₂S _____d _____ F_r _____ Q_m _____ M²cfd (L/H) (F_rQ_m)² _____ P_{cr} _____ T_{cr} _____

TABLE IX B E

TABLE IX B E

LINE	ITEM	SOURCE	1	2	3	4	5	6	7	8	9	10
1	H		6505	2250.5		0						
2	GH		4540.49	2270.2		0						
3	37.5GH		1702.68	85124		0						
4	P _c or P _n		1084.2	986.1	988.7	892.6	892.8	892.5		P _w = 898.0		
5	P _r		1.62	1.48	1.48	1.34	1.34	1.34				
6	T		567	550.5	550.5	534	534	534				
7	T _r		1.45	1.40	1.40	1.36	1.36	1.36				
8	Z		1.830	1.820	1.820	1.811	1.811	1.811				
9	P/Z P/Z	4-8	1306.3	1202.6	1205.8	1100.6	1102.0	1106.7				
10	P/TZ	9-6	2303.8	2184.6	2190.3	2061.0	2073.0	2072.4				
11	(P/TZ) ² /1000	(10) 2/1000										
12	L/H(F _r Q _m) ²											
13	I _n	I ₁ + I ₂										
14	I _n	I ₁₀ + I ₁₃	434.062	457.758	456.551	485.205	482.383	482.530				
15	M = P _n - P _{n-1}			98	95	96	91	91				
16	N = I _n + I _{n-1}			891.820	890.613	941.756	938.934	939.081				
17	M x N	I ₅ x I ₆			84608			85456				
18	Σ (M x N)	Σ I ₇			85660							

HUNT OIL COMPANY
 WATTS WEAVER No. 3
 LEA COUNTY, W. VA.

