

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBOURNE OIL COMPANY ✓						Lease or Unit Name Federal Q					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 3-12-92		Well No. 1			
Completion Date		Total Depth 10930		Plug Back TD 9820		Elevation		Unit Ltr. - Sec. - TWP - Rge. 18 20 27			
Csg. Size 5 1/2	Wt. 17#	d	Set At 10930	Perforations: From: 9534 To: 9574		County Eddy					
Tbg. Size 2 7/8	Wt. 6.5	d	Set At 9394	Perforations: From: To:		Pool					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9394		Formation Strawn					
Producing Thru TBG		Reservoir Temp. °F 170° @ 9554		Mean Annual Temp. °F 60°		Baro. Press - P. 13.2		Connection			
L *9554	H 9554	Gg .731	% CO ₂ 1.95	% N ₂ 1.51	% H ₂ S	Prover		Meter Run 4.026		Taps Flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI						1590		PKR		72hr.
1.	4 X 1.500		410	1.56	62	1550		"		1hr.
2.	4 X 1.500		423	5.29	69	1505		"		1hr.
3.	4 X 1.500		449	18.49	64	1395		"		1hr.
4.	4 X 1.500		423	60.84	63	1170		"		1hr.
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	10.84	25.69	423.2	.9981	1.170	1.056	343
2.	10.84	48.04	436.2	.9915	1.170	1.058	639
3.	10.84	92.45	462.2	.9962	1.170	1.062	1235
4.	10.84	162.91	436.2	.9971	1.170	1.058	2180
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 59.1 @ 60°	Mcf/bbl.
1.	.63	522	1.31	.896	A.P. I. Gravity of Liquid Hydrocarbons .731	Deg.
2.	.65	529	1.33	.893	Specific Gravity Separator Gas	XXXXXXXXXX
3.	.69	524	1.31	.887	Specific Gravity Flowing Fluid	XXXXXX
4.	.65	523	1.31	.893	Critical Pressure **668	P.S.I.A.
5.					Critical Temperature **397	R

P_c **1638.0** P_c² **2683.0**

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	$1) \frac{P_c^2}{P_c^2 - P_w^2} = \underline{2.858}$ $2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.070}$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{4.513}$
1.		1610.1	2592.4	90.6	
2.		1589.9	2527.8	155.2	
3.		1504.5	2263.5	419.5	
4.		1320.7	1744.3	938.7	
5.					

Absolute Open Flow 4,153	Mcf/d @ 15.025	Angle of Slope θ 55.3	Slope, n .693
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Remarks: ***=BHP Instrument Set @ this depth - **=Corrected to 1.92% Co₂ & 1.51% N₂**

Well made 8.00 BBLs 59.1 API GR. Condensate.

Approved By Division	Conducted By: PRO WELL TESTERS	Calculated By: BM	Checked By: BM
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