NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Filer

Form C-122
Revised 10-1-78

RECEIVED
APR 28 1980
O. C. D.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special — Test Date: 04-23-80

Company: MESA PETROLEUM Co.	Connection: AIR		Unit: I
Pool: ~~DARROW~~	Formation: ~~ATOKA~~		
Completion Date: 04-17-80	Total Depth: 9320	Plug Back T.D.: ~~9234~~	Elevation: 3652 GL
Lease Name: DERRICK FED.	Well No.: # 2		
Unit: I	Sec.: 5	Twp.: 16s	Rge.: 28e
County: EDDY			
State: NEW MEXICO			

Csg. Size 4½ | Wt. | d | Set At 9320 | Perforations: From 8978 To 9074

Tbg. Size 2 3/8 | Wt. | d 1.995 | Set At 8861 | Perforations: From To

Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE GAS WELL

Packer Set At: 8860.64

Producing Thru: TBG. | Reservoir Temp. °F: 163 @ 8861 | Mean Annual Temp. °F: 60 | Baro. Press. – P_a: 13.2

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8861	8861	.654	.861	.517			4"	FLG.

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2515				72 HRS.
1.	4 X 1.500	450	6.0	90	2440				1 HR.
2.	4 X 1.500	450	23.0	74	2360				1 HR.
3.	4 X 1.500	450	58.0	75	2240				1 HR.
4.	4 X 1.500	655	91.0	73	2040				1 HR.
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, Fpv	Rate of Flow Q, Mcfd
1	10.84	52.72	463.2	.9723	1.237	1.040	715
2	10.84	103.22	463.2	.9868	1.237	1.045	1427
3	10.84	163.91	463.2	.9859	1.237	1.044	2262
4	10.84	246.59	668.2	.9877	1.237	1.066	3481
5							

NO.	P_t	Temp. °R	T_r	Z
1	.69	550	1.47	.925
2	.69	534	1.42	.916
3	.69	535	1.43	.918
4	1.00	533	1.42	.880
5				

Gas Liquid Hydrocarbon Ratio: 82 @ 135 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 58.2 @ 60 Deg.
Specific Gravity Separator Gas: .654 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX .689
Critical Pressure: 670 P.S.I.A. 669 P.S.I.A.
Critical Temperature: 375 R 388 R

P_c 2528.2 P_c^2 6391.8

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2456.1	6032.4	359.4
2		2385.3	5689.7	702.1
3		2282.9	5211.6	1180.2
4		2124.2	4512.2	1879.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.401$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.005$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 10.461$

Absolute Open Flow: 10,461 Mcf/d @ 15.025 Angle of Slope θ: 48* Slope, n: .899

Remarks: THE WELL PRODUCED 4 BBLS OF DISTILLATE DURING THE TEST.

Approved by Commission: Conducted By: RICK FAGAN Calculated By: RICK FAGAN Checked By: