

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

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☐ Initial ☐ Annual ☐ Special				Test Date 9-11-78		SEP 22 1978	
Company MESA Petroleum Co. ✓				Connection TO AIR			
Pool WILDCAT Abo				Formation ABO		Unit O. C. C. ARTESIA, OFFICE	
Completion Date 9-11-78		Total Depth 4725		Plug Back TD 4687 4692		Elevation 4062 GL	
Csg. Size 5 1/8		Wt. 17		Set At 4725		Perforations: From 4496 To 4646	
Tbg. Size 2 3/8		Wt. 4.7		Set At 4477		Perforations: From OPEN To END	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County EDDY	
Producing Thru TPG		Reservoir Temp. °F 119 @ 4477		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 4477		H 4477		G _g .643		% CO ₂ .34	
				% N ₂ 1.67		% H ₂ S	
				Prover		Meter Run 2	
						Taps FLG	

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.	Temp. °F	Press. p.s.i.g.	
SI							855		855	
1.	2	X	1.500	60	4	58	770		773	
2.	2	X	1.500	60	8.5	59	610		615	
3.	2	Y	1.500	60	16.0	61	375		435	
4.	2	Y	1.500	60	18.0	61	80		265	
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	12.76	17.11	73.2	1.002	1.247	NIL	273
2	12.76	24.94	73.2	1.001	1.247	NIL	397
3	12.76	34.22	73.2	.9990	1.247	NIL	544
4	12.76	36.30	73.2	.9990	1.247	NIL	577
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.11	518	1.39	NIL	DRY		.643		670	372
2.	.11	519	1.40	NIL						
3.	.11	521	1.40	NIL						
4.	.11	521	1.40	NIL						
5.										

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	868.2	786.2	618.1	135.7
2	753.8	628.2	394.6	359.2
3		448.2	200.9	552.9
4		278.2	77.4	676.4
5				

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.114$$

$$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 615$$

$$(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.066$$

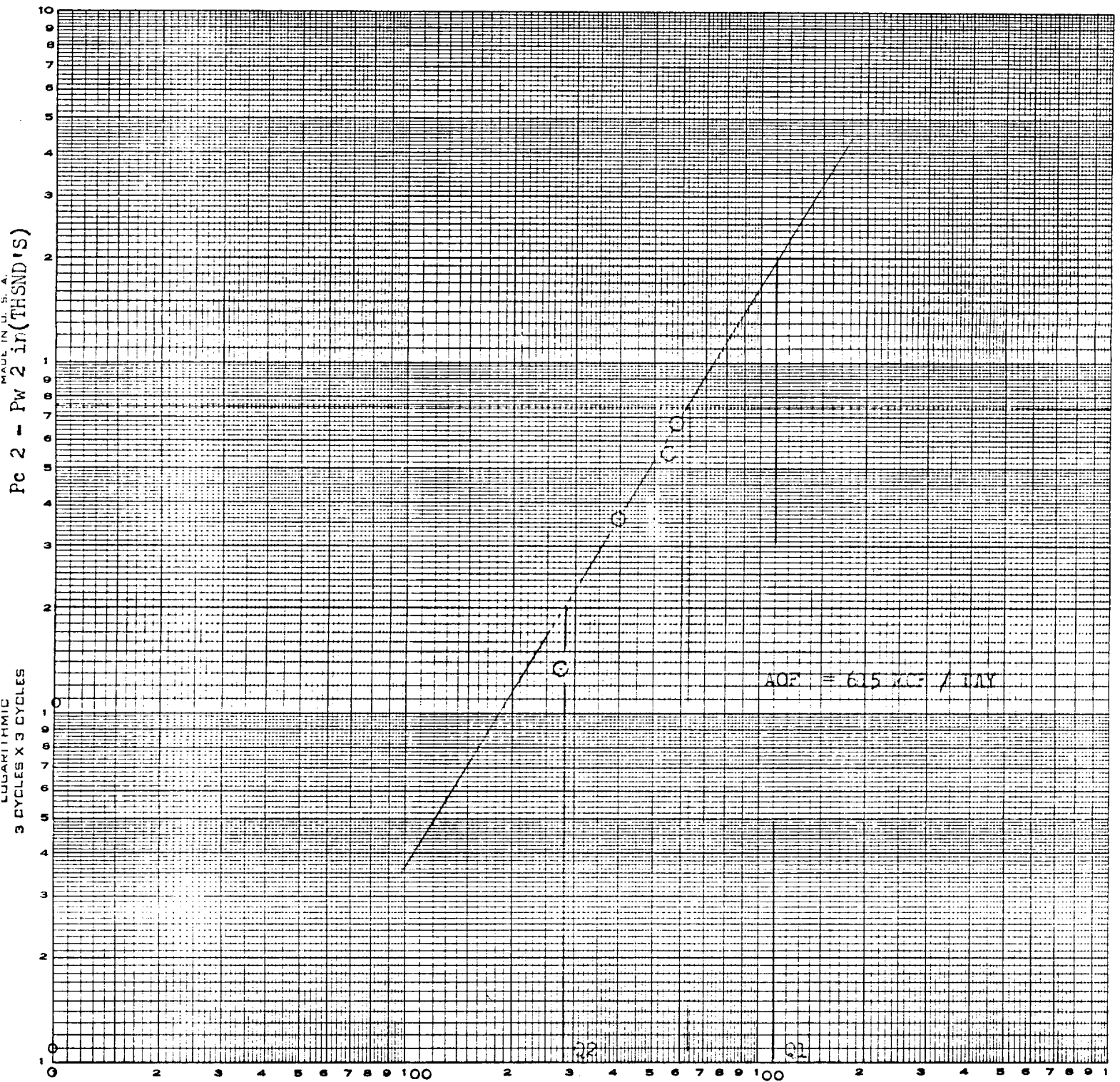
Posttest 4 back
10 9 29 78
SI

Absolute Open Flow	615	Mcfd @ 15.025	Angle of Slope	59.5	Slope, n	.589
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Remarks: NO FLUID MADE DURING TEST

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	<i>[Signature]</i>	<i>[Signature]</i>	

LEASE : ROMYAN FED.
 WELL NO : 1
 COUNTY : EDDY
 DATE : 9-11-78



Q 1 = 1100 MCF; Log Of Q 1 = 3.041392
 Q 2 = 283 MCF; Log Of Q 2 = 2.452392

$$N = \underline{\underline{.589}}$$

Analysis No.

42229

Sample From

RUNYAN FED. COM. # 1

Owner

MESA PETROLEUM COMPANY

State

N.M.

County

EDDY

Location or Field

WILDCAT

Formation

ABO

Depth

From

To

Date Secured

9-11-78

Secured By

SWARTZ

Department

Date Run

9-12-78

Run By

SCHOOLEY

Checked By

Source Press.

Bomb Press.

Source Temp.

Atmos. Temp.

SULPHUR - GRS.
PER 100 cu. Ft.

Hydrogen Sulphide

.14

Mercaptan

.29

Total

.43

Sweet

COMPONENT	AREA	FACTOR	CORRECTED AREA	MOLE %	GPM	BTU	Sp. Gr.
Helium HE_2							
Hydrogen Sulphide H_2S							
Carbon Dioxide CO_2	.9447	3735	.35	.34			.005
Nitrogen N_2	3.8462	4473	1.72	1.67			.016
Methane C_1	171.5518	5273	90.46	87.89		889.45	.487
Ethane C_2	17.6460	3528	6.23	6.05		107.27	.063
Propane C_3	8.3546	2870	2.40	2.33	.641	58.79	.035
Iso Butane IC_4	1.6586	2563	.43	.42	.137	13.70	.008
Normal Butane C_4	2.9733	2540	.76	.74	.233	24.20	.015
Iso Pentane IC_5	.9598	2415	.23	.22	.080	8.82	.005
Normal Pentane C_5	.9142	2416	.22	.21	.076	8.44	.005
Hexane C_6			.10	.10	.041	4.77	.003
Heptane C_7			.03	.03	.015	1.76	.001
TOTAL			102.93	100.00	1.223	1117.20	.643

Meter No.

 Remarks: SEC - TWP - RGE
 17 19 23