

RECEIVED
JUL 2 1979

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-16-79		JUL 2 1979	
Company MESA PETROLEUM CO.				Connection AIR		MESA-PBD	
Pool Runyon Ranch Abo				Formation ABO		Well	
Completion Date 6-29-79		Total Depth 7700		Plug Back TD 7656		Elevation 4041 GL	
Csg. Size 5 1/2		Wt. 17 lb		Set At 7700		Perforations: From 4395 To 4454	
Trg. Size 2 3/8		Wt. 4.7		Set At -7564		Perforations: From BAKER SLIDING SLEEVE 4491	
Type Well - Single - Freshwater - G.G. or G.O. Multiple G.G. DUAL				Packer Set At 7548		Well No. # 1	
Producing Thru TRG.		Reservoir Temp. °F 119 @ 4491		Mean Annual Temp. °F 13.2		Zero. Press. - P ₀ NEW MEXICO	
L 4491		H 4491		Gg .645		% CO ₂ .164	
				% N ₂ 1.531		% H ₂ S	
				Prover		Meter Run 4"	
						Type 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.	Temp. °F	Duration of Flow
1.	4 X 1.000			550	7	92	1020				1 HR.
2.	4 X 1.000			550	13	92	980				1 HR.
3.	4 X 1.000			630	30	87	920				1 HR.
4.	4 X 1.000			680	50	86	820				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, Mgd
1.	4.753	62.79	563.2	.9706	1.245	1.047	378
2.	4.753	86.22	563.2	.9706	1.245	1.047	518
3.	4.753	138.91	643.2	.9750	1.245	1.055	846
4.	4.753	186.17	693.2	.9750	1.245	1.059	1137
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Met/Lbl.
1.	.84	552	1.48	.913	DRY	
2.	.84	552	1.48	.913	A.P.I. Gravity of Liquid Hydrocarbons	
3.	.96	547	1.47	.898	Specific Gravity Separator Gas .645	XXXXXXXXXX
4.	1.03	546	1.47	.892	Specific Gravity Flowing Fluid XXXXX	
5.					Critical Pressure 670 P.S.I.A.	P.S.I.A.
					Critical Temperature 372 R	R

NO.	P _r ²	P _w ²	P _w ² - P _r ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 2.422$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2.249$
1.	1034.3	1069.7	147.4		
2.	995.3	990.6	226.5		
3.	939.1	882.0	335.1		
4.	845.3	714.6	502.5		
5.					

Absolute Open Flow		2,557	Md = 15.825	Angle of Slope =	47.5	Slope, n	.916
Remarks:							

Approved By: JOHN R. DAVIS	Conducted By: LARRY C. DAVIS	Checked By:
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XC: JLF, MPH, LC, FILE

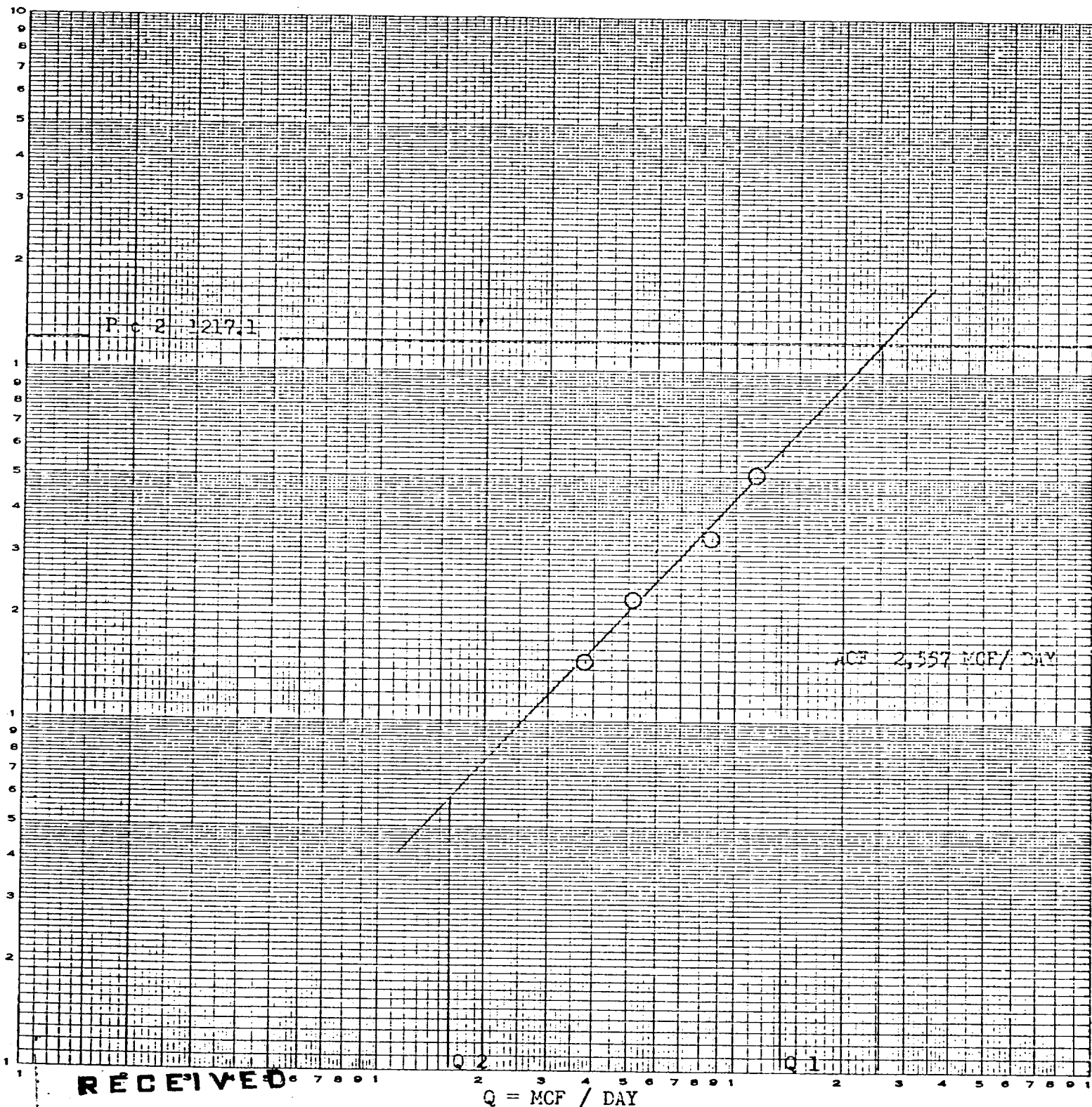
JWH MEC

NORTHERN NATURAL 7-2-79
SIM FIRMING

WELL NO : # 1
 UNIT : I 7 / 19 S 23 E
 COUNTY : EDDY
 STATE : NEW MEXICO
 DATE : JUNE 16, 1979

P C 2 - P W 2 in THSND'S

3 CYCLES X 3 CYCLES



JUL 19 1979

O. C. C.
 ARTEBIA, OFFICE

Q 1 = 1319; LOG OF Q 1 = 3.120119
 Q 2 = 160; LOG OF Q 2 = 2.204119

N = .916000