

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYForm approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other ☐		1b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other ☐		2. NAME OF OPERATOR Mesa Petroleum Co. ✓		3. ADDRESS OF OPERATOR P. O. Box 2009 / Amarillo, Texas 79189		4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 1980' FNL & 660' FWL At top prod. interval reported below Same At total depth Same		5. LEASE DESIGNATION AND SERIAL NO. NM-36647		6. IF INDIAN, ALLOTTEE OR TRIBE NAME		7. UNIT AGREEMENT NAME		8. FARM OR LEASE NAME Macho Federal		9. WELL NO. 13		10. FIELD AND POOL, OR WILDCAT West Pecos Slope ABO		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA Sec 6, T7S, R23E		12. COUNTY OR PARISH Chaves		13. STATE New Mexico	
15. DATE SPUDDED 6-5-83		16. DATE T.D. REACHED 6-10-83		17. DATE COMPL. (Ready to prod.) 6-28-83		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 4103' GR 4116' RKB		19. ELEV. CASINGHEAD 4103'		20. TOTAL DEPTH, MD & TVD 3200'		21. PLUG, BACK T.D., MD & TVD 3159'		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY → All		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 2814' - 2947', ABO		25. WAS DIRECTIONAL SURVEY MADE No		26. TYPE ELECTRIC AND OTHER LOGS RUN CNLD		27. WAS WELL CORED No			
28. CASING RECORD (Report all strings set in well)																											
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED																	
8 5/8"		24#		1220'		12"		450/200/800/18 yds redimix		--																	
4 1/2"		10.5#		3200'		7 7/8"		325		--																	
29. LINER RECORD																											
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)		30. TUBING RECORD																	
										SIZE		DEPTH SET (MD)		PACKER SET (MD)													
										2 3/8"		2950'		--													
31. PERFORATION RECORD (Interval, size and number)																											
2814', 15', 16', 19', 21', 23', 25', 59', 61', 2937', 39', 41', 45', 46', 47'; total of 15 holes, 1 JSPF, 3 1/8" csg gun																											
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.																											
DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED																											
2814' - 2947' A/2250 gal 7 1/2% HCl + 37 BS																											
2814' - 2947' F/45,500 gal X-Link Gel + 18,084 gal CO ₂ + 114,000# 20/40 SD + 78,000# 10/20 SD																											
33. PRODUCTION																											
DATE FIRST PRODUCTION WOPLC		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing										WELL STATUS (Producing or shut-in) Shut-in															
DATE OF TEST 7-3-83		HOURS TESTED 4		CHOKE SIZE --		PROD'N. FOR TEST PERIOD →		OIL—BBL. --		GAS—MCF. 307		WATER—BBL. --		GAS-OIL RATIO --													
FLOW. TUBING PRESS. 541		CASING PRESSURE 624		CALCULATED 24-HOUR RATE →		OIL—BBL. --		GAS—MCF. 1844		WATER—BBL. --		OIL GRAVITY-API (CORR.) --															
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented																											
35. LIST OF ATTACHMENTS C122, Record of Inclination																											
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records																											
SIGNED R. F. Martin		TITLE REGULATORY COORDINATOR										DATE 7-12-83															

*(See Instructions and Spaces for Additional Data on Reverse Side)

XC: BLM-R(0+6), CEN RCDS, ACTG, MAT CONT, RES ENG, GAS CONT w/log, PROD, D&M, MIDLAND, ROSWELL, TW w/log, OPS(FILE), PARTNERS, NMOCDA

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
NOT LOGGED				Yeso	750'	
				Tubb	2130'	
				Abo	2756'	

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL JUL 14 1983

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 7-3-83		O. C. D. ARTEGIA, OFFICE	
Company Mesa Petroleum Co. ✓		Connection Unconnected			
Pool West Pecos Slope ABO		Formation ABO		Unit	
Completion Date 6-28-83		Total Depth 3200'		Plug Back TD 3159'	
Elevation 4103'		Farm or Lease Name Macho Fed			
Csg. Size 4 1/2"	Wt. 10.5#	d	Set At 3200'	Perforations: From 2814' To 2947'	
Trg. Size 2 3/8"	Wt. 4.7#	d	Set At 2950'	Perforations: From OPEN ENDED To	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tubing		Reservoir Temp. °F 91° @ 3200'		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico			
L	H	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S
Prover 2" CRITICAL FLOW PROVER		Meter Run		Taps	

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							760		760		72 hr SI
1.	2" X 1"			40		47	690	80	730		1 hr
2.	2" X 1"			70		46	605	80	695		1 hr
3.	2" X 1"			84		52	490	82	590		1 hr
4.	2" X 1"			99		56	380	83	480		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 F _g	Super. Compress. Factor, F _{pv}	Rate of Flow Q, Mcd
1	17.09	FLOW PROVER	53	1.013	1.24		1137
2	17.09	FLOW PROVER	83	1.014	1.24		1783
3	17.09	FLOW PROVER	97	1.008	1.24		2072
4	17.09	FLOW PROVER	112	1.004	1.24		2382
5.							

NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	Specific Gravity Separator Gas _____ X X X X X X X X X	Specific Gravity Flowing Fluid _____ X X X X X	Critical Pressure _____ P.S.I.A.	Critical Temperature _____ R
1										
2.										
3.										
4.										
5										

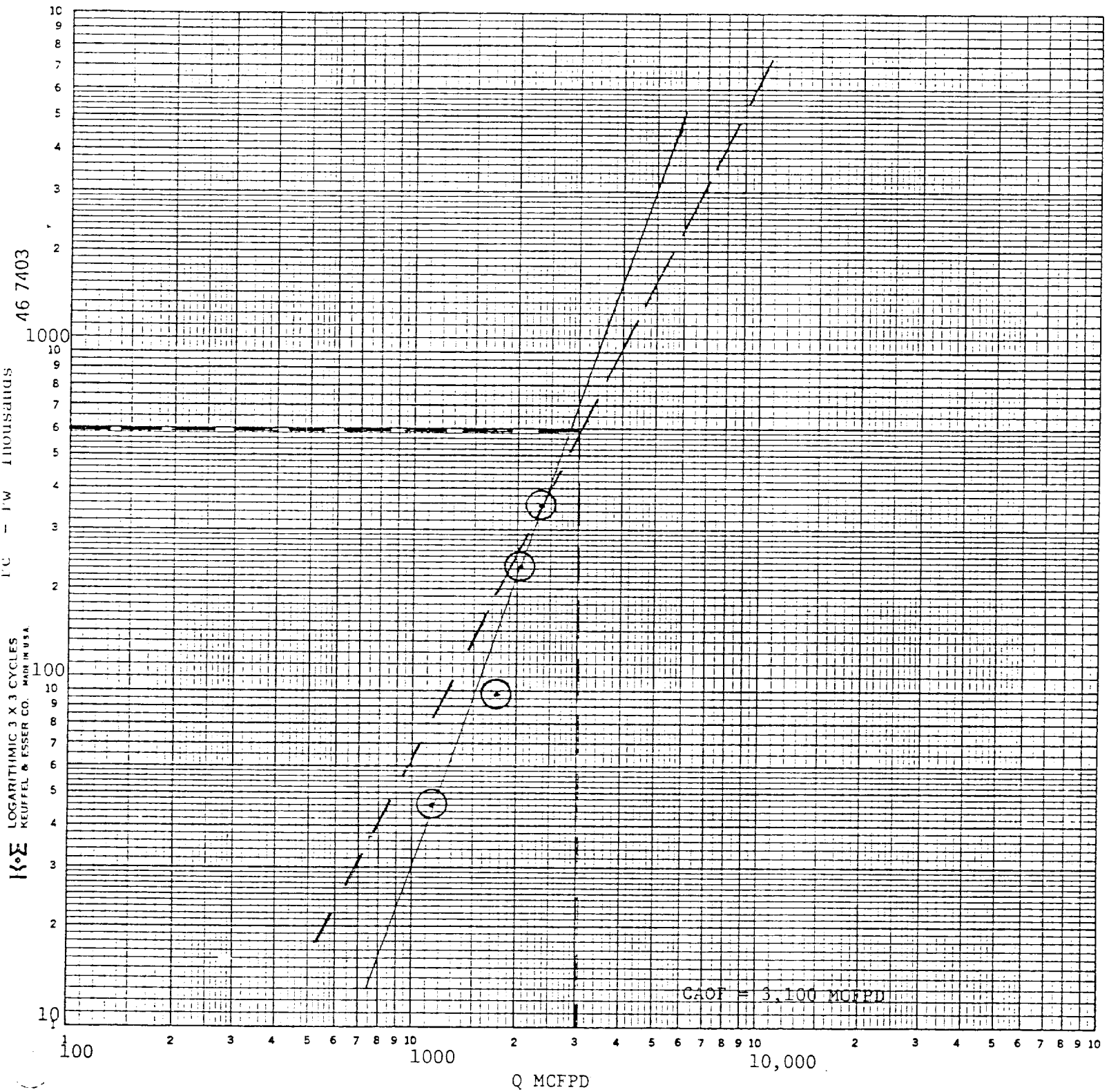
NO.	P _i ²	P _w	P _w ²	P _i ² - P _w ²	(1) $\frac{P_i^2}{P_i^2 - P_w^2} = 1.6845$	(2) $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 1.2979$
1		743	552	46		
2		708	501	97		
3		603	364	234		
4		493	243	355		
5						

LOG = 0 $\left[\frac{P_i^2}{P_i^2 - P_w^2} \right]^n = 3.100$

Post ID-2
7-22-83
Lump + AK

Absolute Open Flow <u>3,100</u> Mcd @ 15.025		Angle of Slope θ <u>63.5°</u>		Slope, n <u>.5</u>	
Remarks: Plot of P _i ² - P _w ² vs Q yielded a straight line with a θ greater than 63.5° Drew 63.5° line through the highest point.					
Approved By Division		Conducted By: James Craig		Calculated By: <u>ELB 7-12-83</u> E. L. Buttross, Jr.	
				Checked By:	

Mesa Petroleum Co.
 Macho Fed #13
 Chaves Co., NM
 7-3-83



Assumed $N = .5$ and $\theta = 63.5^\circ$

MESA PETROLEUM CO.
MACHO FEDERAL #13
1980' FNL & 660' FWL, SEC 6, T7S, R23E
CHAVES CO., NEW MEXICO

RECORD OF INCLINATION

<u>DEPTH</u>	<u>DEVIATION</u>
510'	1/4°
1717'	1/4°
2218'	1/2°
2718'	1/2°



R. E. MATHIS, REGULATORY COORDINATOR

Subscribed and sworn to before me this 12th day of July, 1983.

Notary Public in and for Potter Co., TX

Commission Expires: _____