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appropriate district office
See Rule 401 & Rule 1122

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

7 1992

O. C. D.
OFFICE OF OIL CONSERVATION

clsf
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MEWBOURNE OIL COMPANY						Lease or Unit Name SULLIVAN					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9-11-92		Well No.			
Completion Date 5-7-92		Total Depth 8630		Plug Back TD 8543		Elevation		Unit Ltr 10 Sec 17 TWP 26 Rge.			
Csg. Size 5 1/2	Wt. d	Set At 8630		Perforations: From: 8366 To: 8382				County Eddy			
Tbg. Size 2 3/8	Wt. 4.7	d 1.995		Set At 8205		Perforations: From: To:				Pool <i>Kennedy Farms</i>	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single						Packer Set At 8205		Formation Morrow			
Producing Thru TBG		Reservoir Temp. °F 60		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection Vented			
L *8374	H 8374	Gg .624	% CO ₂ .41	% N ₂ .28	% H ₂ S	Prover		Meter Run 3.068		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						1500	PKR.			72 hr.
1.	3 X	1.000	530	6.50	92	1237	"			1 hr.
2.	3 X	1.000	530	8.00	80	1090	"			1 hr.
3.	3 X	1.000	530	8.80	84	1000	"			1 hr.
4.	3 X	1.000	535	10.00	85	920	"			1 hr.
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor FL	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	4.789	59.42	543.2	.9706	1.266	1.043	365
2.	4.789	65.92	543.2	.9813	1.266	1.048	411
3.	4.789	69.14	543.2	.9777	1.266	1.048	430
4.	4.789	74.04	548.2	.9768	1.266	1.049	460
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY GAS	Mcf/bbl.
1.	.80	552	1.51	.920	A.P.I. Gravity of Liquid Hydrocarbons	DRY	Deg.
2.	.80	540	1.47	.910	Specific Gravity Separator Gas	.624	XXXXXXXXXX
3.	.80	544	1.49	.910	Specific Gravity Flowing Fluid	XXXXXX	
4.	.81	545	1.49	.909	Critical Pressure	671	P.S.I.A.
5.					Critical Temperature	365	R

P_c **1557.2 P_c² 2424.9

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		1280.3	1639.2	785.7
2.		1124.7	1265.0	1159.9
3.		1035.7	1072.7	1352.2
4.		956.2	914.3	1510.6
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.086$ 2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.757$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .641$

Absolute Open Flow	641	Mcf/d @ 15.025	Angle of Slope θ	63.5	Slope, n	.500
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Remarks: * = BHP INSTRUMENT SET @ THIS DEPTH. CAL. FROM KNOW BHP'S

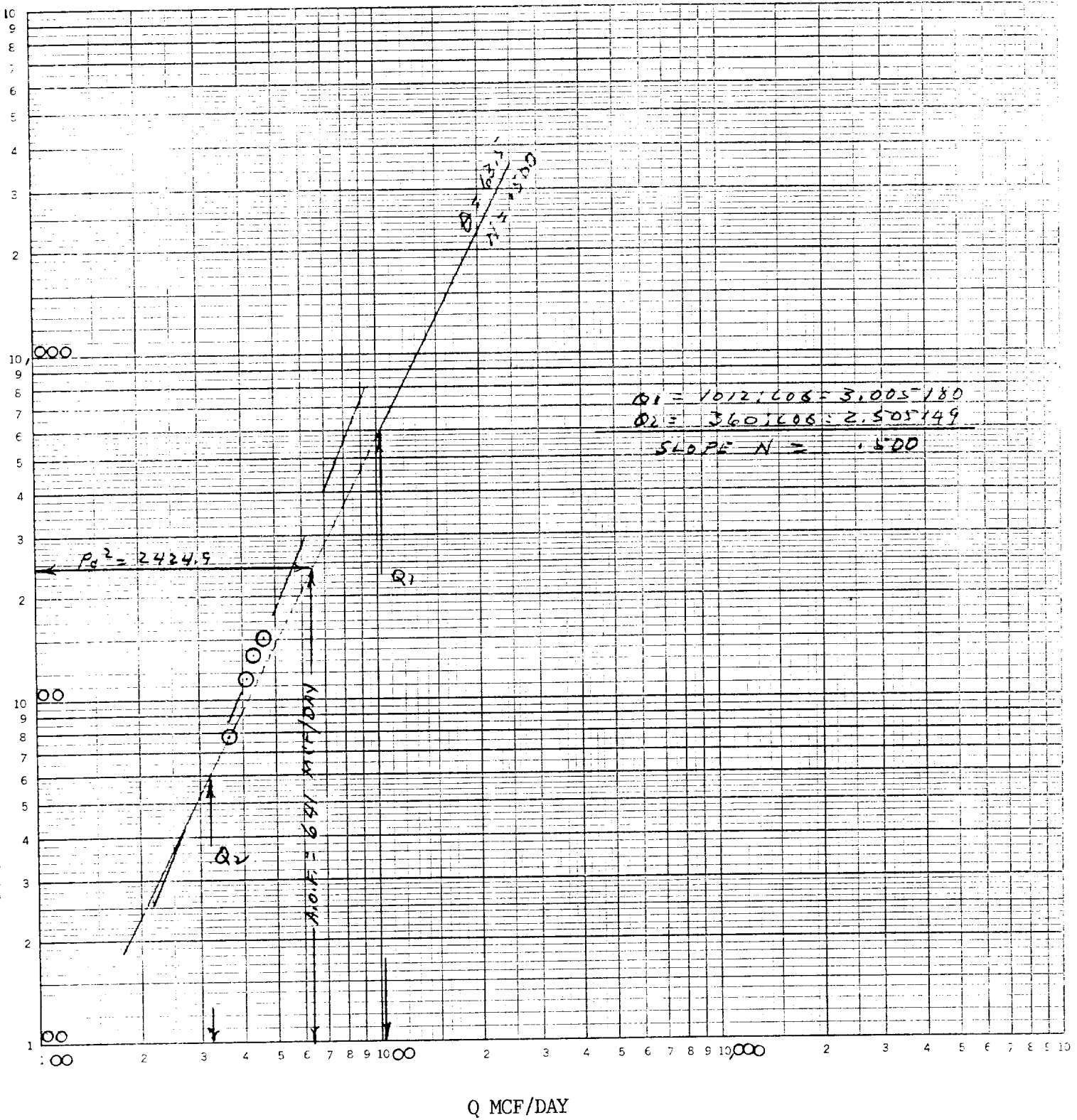
NO FLUID PRODUCED DURING TEST

Approved By Division	Conducted By: PROWELL TESTERS	Calculated By: BM	Checked By: BM
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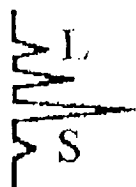
MEWBOURNE OIL COMPANY
 Sullivan Well # 1
 10-17-26
 Eddy County, New Mexico
 9-11-92

PC²-PW²(thsnds) 46 7400

LOGARITHMIC 3 X 3 CYCLES
 KEUFFEL & ESSER CO. MADE IN U.S.A.



SUGGESTED FIELD DATA SHEET									
Type Test ☒ INITIAL ☐ ANNUAL ☐ SPECIAL	Date 9-11-92								
Company MEWBOURNE OIL COMPANY						Lease No. or Serial No.			
Field MORROW						Allottee			
Location 10-17-26						Unit			
Completion Date 5-7-92						Farm or Lease Name SULLIVAN			
Total Depth 8630	Csg. Size 5½"	Well ID WI.	Packer Set At 8205	Perforation From To 8366 8382	Elevation	Well No. 1			
Tbg. Size 2 3/8"	Well ID WI.	Sel At 8205	Perforation From To	Sec.	Typ-dk.	Aqe.			
Type Completion (Describe) SINGLE TBG						County or Parish EDDY			
Producing thru TBG						State N.M.			
L 8374	H 8374	G _s .624	% CO₂ .41	% N₂ .28	% H₂S	Prover Meter Run 3.068 FLG.			
DATE	ELAP TIME	REMARKS							
Time of Reading	Hrs.	Wellhead Pressure Psig	Casing Pressure Psig	Temp F	METER OR PROVER Pressure Psig	Diff.	Temp F	Orifice	(Include Liquid Production Data Type-A.P.I. Gravity-Amount)
SIP	72	1500							
1st	1	1237	PKR.		530	6.5	92	1.000	
2nd	1	1090	"		530	8.0	80	1.000	
3rd	1	1000	"		530	8.8	84	1.000	
4th	1	920	"		535	10.0	85	1.000	
									NO FLUID
			BHP INSTRUMENT SET @ =8374						
			SIP BHP = 1894.5 + 13.2						
			1st BHP = 1548.6 "						
			2nd BHP = 1354.7 "						
			3rd BHP = 1244.2 "						
			4th BHP = 1146.0 "						



Laboratory Services

1331 Tasker Drive
Hobbs, New Mexico 88240

Telephone: (505) 397-3715

FOR: Pro Well Testing & Wireline SAMPLE
Attention: Mr. Bruce Stingley IDENTIFICATION: Sullivan #1
P. O. Box 791 COMPANY: Newbourn Oil Co.
Hobbs, New Mexico 88240 LEASE: Eddy County New Mexico
PLANT:

SAMPLE DATA: DATE SAMPLED: 09-11-92 2:00PM GAS (XX) LIQUID ()
ANALYSIS DATE: 09-11-92 SAMPLED BY: Bruce Stingley
PRESSURE - PSIG 535.00 ANALYSIS BY: Rolland Perry
SAMPLE TEMP. °F
ATMOS. TEMP. °F 85.00

REMARKS:

COMPONENT ANALYSIS

COMPONENT		MOL PERCENT	GPM
Oxygen	(O2)		
Hydrogen Sulfide	(H2S)		
Nitrogen	(N2)	0.28	
Carbon Dioxide	(CO2)	0.41	
Methane	(C1)	90.97	
Ethane	(C2)	5.45	1.454
Propane	(C3)	1.66	0.455
I-Butane	(C4)	0.23	0.075
N-Butane	(NC4)	0.37	0.116
i-Pentane	(C5)	0.13	0.047
N-Pentane	(NC5)	0.10	0.036
Hexane	(C6+)	0.40	0.164
Heptanes Plus	(C7)	0.00	0.000
		100.00	2.348

BTU/CU.FT. - DRY	1105	MOLECULAR WT	18.0807
AT 14.650 DRY	1101		
AT 14.650 WET	1082	25# GASOLINE -	0.286
AT 15.025 DRY	1130		
AT 15.025 WET	1110		

SPECIFIC GRAVITY	
CALCULATED	0.624
MEASURED	0.000

2.35

SUGGESTED FIELD DATA SHEET (Not Required To File)											
Type Test ☒ INITIAL ☐ ANNUAL ☐ SPECIAL								Date 9-11-92		Lease No. or Serial No.	
Company MEWBOURNE OIL COMPANY								Connection		Allottee	
Field MORROW				Location 10-17-26				Unit			
Completion Date 5-7-92		Total Depth 8630		Plug Back To 8543		Elevation		Farm or Lease Name SULLIVAN			
Csg. Size 5 1/2		Wt. d		Set At 8630		Perforation From 8366 To 8382		Well No. 1			
Tbg. Size 2 3/8		Wt. d		Set At 8205		Perforation: From To		Sec. Twp-Blk.		Rgs.	
Type Completion (Describe) SINGLE								Packer Set At 8205		County or Parish EDDY	
Producing Interval TBG		Reservoir Temp. F		Mean Annual Temp. F		Baro. Press. - P _g		State N.M.			
L 8374		H 8374		G _g .624		% CO ₂ .41		% N ₂ .28		% H ₂ S	
						Prover		Meter Run 3.068		FLG.	
DATE	ELAP. TIME	Wellhead Working Pressure			METER OR PROVER				REMARKS		
Time of Reading	Hrs.	Tbg. Psig.	Csg. Psig.	Temp. F	Pressure Psig.	Diff.	Temp. F	Orifice	(Include Liquid Production data) Type-A.P.I. Gravity-Amount		
SIP	72	1500									
1st	1	1237	PKR.		530	6.5	92	1.000			
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