

THE PERMANENT OIL & GAS COMPANY
PERMIAN BASIN PIPELINE COMPANY
MULTIPOINT BACK PRESSURE TEST

TYPE TEST: ☒ Initial ☐ Annual ☐ Special HOBBS OFFICE T000

COMPANY: Summit Mid-Continent Oil Company LEASE: State Land #15 WELL NO.: 1960 JAN 27 AM 10:55
COUNTY: Lea LOCATION: SE SW 16 24-8 37-6 ACRES: 10

FIELD: Blindery RESERVOIR: Blindery PIPELINE CONNECTION: None

COMPLETION DATE: 8-10-57 TOTAL DEPTH: 6700' PACKER SET AT: 6520'

CASING SIZE: 5-1/8" WT. 17.00 ID. 4.892 SET AT: 6699' PERF. TO: 5900'

TUBING SIZE: 2-3/8" WT. 4.70 ID. 1.995 SET AT: 6515' Oil Zone producing through an 110
sliding sleeve @ 6514'

TYPE COMPLETION (Describe): One Oil Dual TYPE FLUID PRODUCTION: Distillate & Oil

PRODUCING TEMPERATURE: 97.6° (Calculated) RESERVOIR TEMPERATURE: 97.6° (Calculated) GAS PRESSURE: 13.2

GAS GRAVITY: 0.685 (Estimated) API GRAVITY OF LIQUID: 47.0°

AVERAGE VERTICAL DEPTH (W): 5613' TYPE METER CORR.: None (PROVER) SIZE: 2"

CO₂ & H₂ are not available

OBSERVED DATA $P_o = 1.812$ $(1-e^{-0.0001}) = .261$

RATE NO.	ORIFICE SIZE IN.	(PROVER) PRESSURE PSIG	DIFF IN.	FLOW TEMP.	WELL-HEAD TEMP.	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PRODUCTION BBL
						PSIG	PSIA	PSIG	PSIA		
SHUT IN						1568.9	1582.1			12.75	
1	0.137	152.0		37	42	1319.1	1332.3			5.00	8.32
2	0.437	102.0		37	42	1263.9	1277.1			24.00	55.78
3											
4											
5											

FLOW RATE CALCULATIONS

RATE NO.	COEFFICIENT WCD	(PROVER) PRESSURE PSIA	$P_w h_w$	EXTENSION $\sqrt{P_w \times h_w}$	GRAVITY FACTOR	FLOWING TEMP FACTOR	DEVIATION FACTOR	FLOW RATE MGL/D	GOR
1	4.3997	165.2			0.9359	1.0208	1.068	2077	249639
2	4.3997	115.2			0.9359	1.0229	1.055	1845	33076
3									
4									
5									

PRESSURE CALCULATIONS

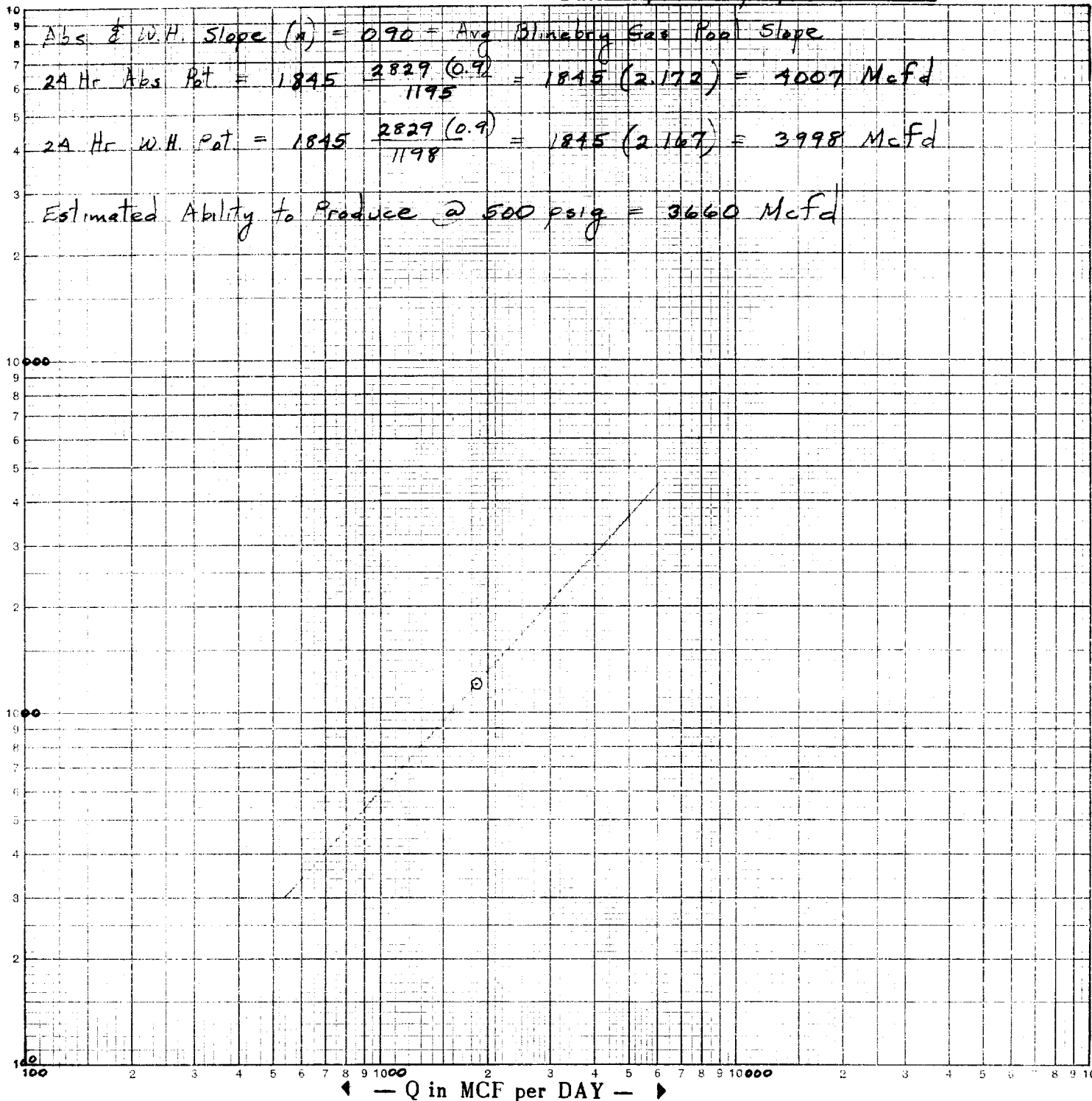
RATE NO.	$(P_t)^2$	$(P_w)^2$	CALC. P_w	$(P_c)^2$	$(P_c^2 - P_w^2)$	Q	$(P_c^2 - P_w^2)$	$\frac{P_w}{P_c}$	$\frac{P_w}{P_c}$
1	1857	1880	1363.8	2829	969.0	2077	972.0	0.810	0.811
2	1831	1634	1278.3	2829	1195.	1845	1198.	0.759	0.760
3									
4									
5									

REMARKS: Deviation factors based on 400° F flow temperature.
Average Blindery Gas Pool Slope of 0.90 was used to calculate potentials.
1st Rate = .697
2nd Rate = .792

Tested By: A. L. West (Permian) W.W. Potential: 3998 Slope (n): 0.90
H. T. Anderson (Summit Mid.) W.W. Potential: 1007 Slope (n): 0.90
Witness: _____

**GAS WELL
BACK PRESSURE CURVE**

County Lea ^{Pool} Blinberry Gas
Operator Sunray Mid Continent Oil Co.
Lease State "15" Well No. 2 (csq)
Volume _____ MCF/24 hr.
Date 8/21-28/59



LOGARITHMIC
359-120
KEUFFEL & ESSER CO. MADE IN U.S.A.
3 X 3 CYCLES