

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 06-14-87		BY	
Company MCKAY OIL CORPORATION						Connection AIR			
Pool West Pecos Slope -						Formation Abo			
Completion Date 06-14-87		Total Depth 3400		Plug Back TD 3194		Elevation 4223 KB		ARTESIA, OFFICE	
Csg. Size 4-1/2		Wt. 11.6		ID 4.000		Set At 3280		Perforations: From 2703 To 2825.5	
Thq. Size 2-3/8		Wt. 4.7		ID 1.995		Set At 2661		Perforations: From -- To --	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At --		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 92		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L 2764.25		H 2764.25		G _g 0.630		% CO ₂ nil		% N ₂ 5.515	
						% H ₂ S 0		Prover 2.00	
								Meter Run --	
								Taps --	

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
SI							910		912		SI 72 Hrs.
1.	2.000		.375	80	--	85	886	85	882	85	60 Min.
2.	2.000		.500	127	--	59	827	59	842	59	60 Min.
3.	2.000		.625	121	--	52	747	52	774	52	60 Min.
4.	2.000		.750	104	--	48	648	48	693	48	60 Min.
5.											

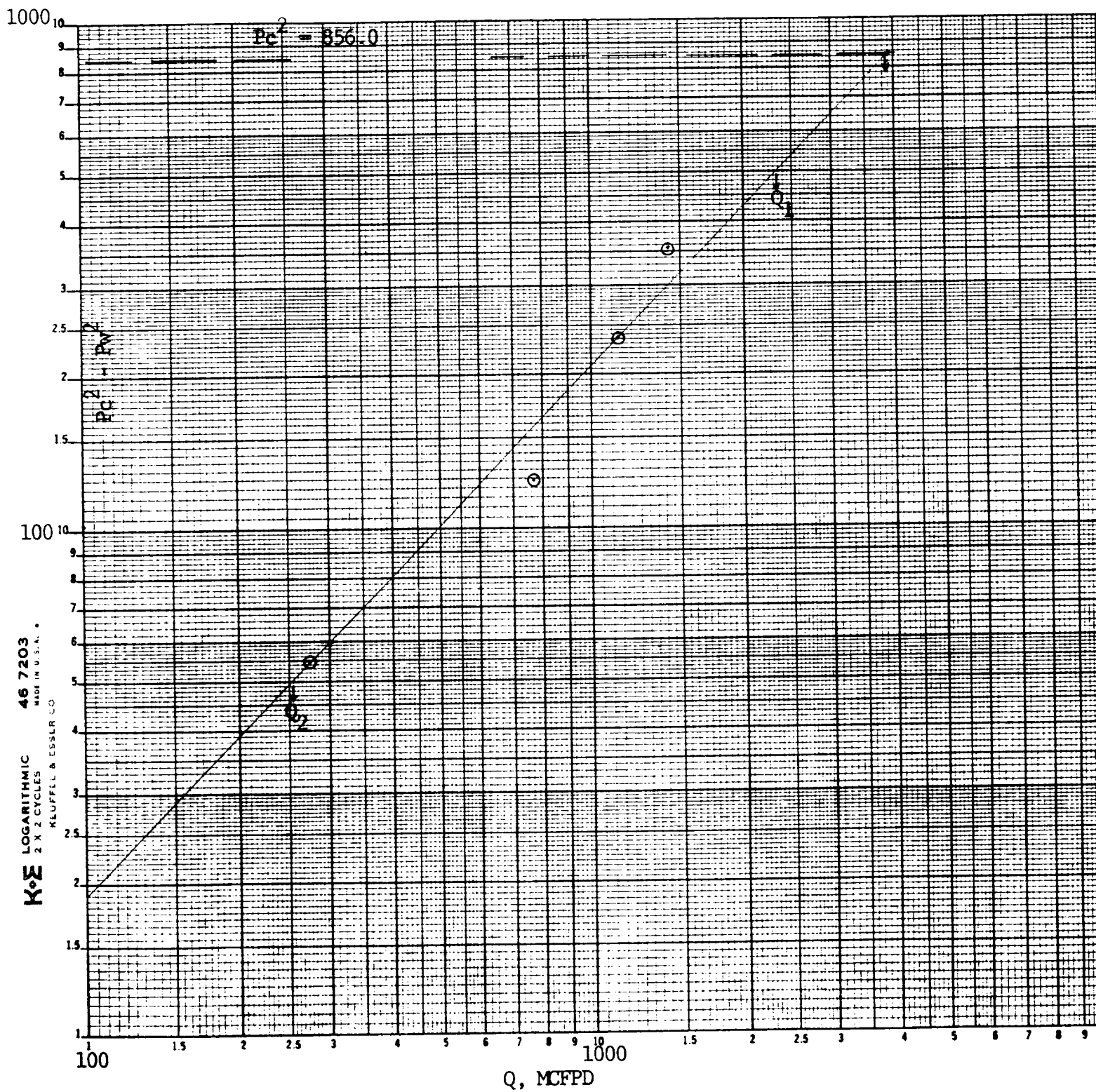
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.378	--	93.2	.9768	1.260	1.007	275
2	4.279	--	140.2	1.0010	1.260	1.012	766
3	6.473	--	134.2	1.0078	1.260	1.022	1127
4	9.453	--	117.2	1.0117	1.260	1.011	1428
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
1	0.14	545	1.55	.987	A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.
2	0.21	519	1.47	.977	Specific Gravity Separator Gas 0.630 XXXXXXXXXX
3	0.20	512	1.45	.978	Specific Gravity Flowing Fluid XXXXX
4	0.18	508	1.44	.979	Critical Pressure 660 P.S.I.A. P.S.I.A.
5					Critical Temperature 352 R R

NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 15.68$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 14.04$
1	895.2	801.4	54.6*			
2	855.2	731.4	124.6			
3	787.2	619.7	236.3			
4	706.2	498.7	357.3			
5						

Absolute Open Flow 3,862 Mcfd @ 15.025		Angle of Slope @ 46.09		Slope, n 0.96	
Remarks: No water produced during test.					
Approved By Division		Conducted By: R. Snyder		Calculated By: C. Sanders	
				Checked By: P. Stewart	

MCKAY OIL CORPORATION
 South Four Mile Draw Fed. #11
 Sec. 22, T6S, R22E
 06-14-87



Q, MCFPD
 $Q_1 = 2330, \log = 3.36736$
 $Q_2 = 254, \log = 2.40483$
 $n = 0.96253$
 $n = 0.96$
 AOF = 3,862

"Let our Interest in Measurement be our Concern"



PRECISION SERVICE INC.
Flow Measurement Engineers
Analysis Results Summary
Casper, WY 82601

Run No. 618-3
Date Run 06/18/87
Date Sampled 06/14/87

Analysis For: McKAY OIL CORPORATION

Lease: S. 4 MILE DRAW ST COM #11

Location: CHINA DRAW

Purpose: WELL TEST

Sampling Temp. 51 °F

Volume/day

Pressure on Bomb 110

Producer: McKAY OIL CORP.

County: CHAVES State: NEW MEXICO

Sampled By: K.ESLINGER

Atmos Temp. °F

Formation

PSIG; Line Pressure 123.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

Mol. %

Liq. %

GPM
Per MCF

Carbon Dioxide CO₂

Oxygen O₂

Nitrogen N₂

Hydrogen Sulfide H₂S

Methane C₁

Ethane C₂

Propane C₃

Iso-Butane IC₄

Nor-Butane NC₄

Iso-Pentane IC₅

Nor-Pentane NC₅

Hexanes plus

Hexanes C₆

Heptanes

Heptanes Plus C₇+

Total

100.000

16.706

Pentane + G.P.M.

Propane + GPM

26-lb Gasoline

.219

.846

.336

BTU Dry

BTU Wet

Calc. Specific Gravity

1040

1022

.630

@ Std. Press. 14.696

BTU Dry

BTU Wet

1038

1020

Calc. Vap. Press. #/Sq.In.

Reid Vap. Press. #/Sq.In.

Z Factor

N Value

Ave Mol Wt

Ave Cu Ft/Gal

.9978

1.3034

18.2157

Run by JEFFREY A. PROPP

Calculated By JEFFREY A. PROPP

Ethane + GPM

1.670

Remarks:

Distribution: