

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

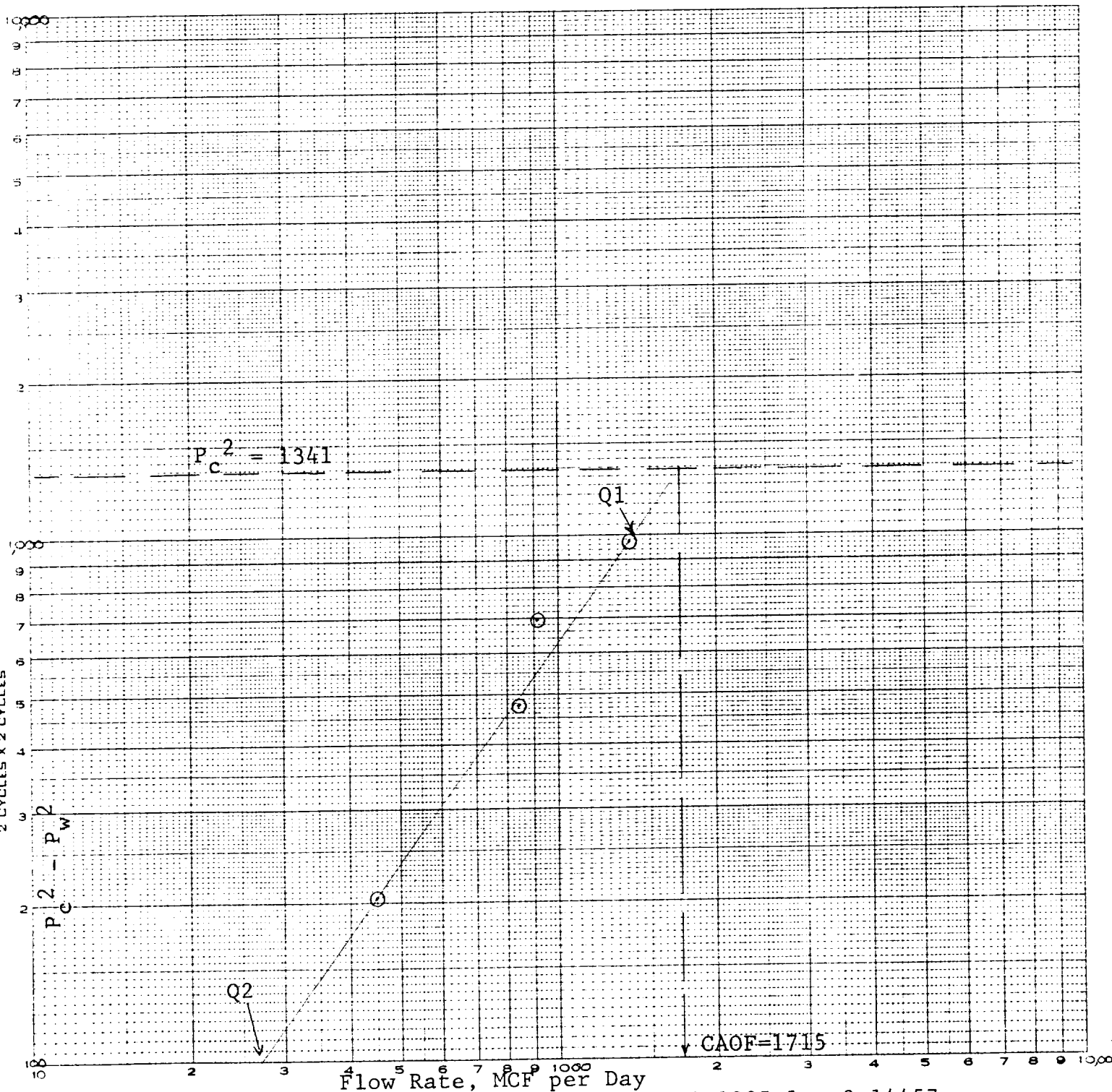
RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3-7-88	
Company McKay Oil Corporation ✓		Connection Air	
Pool W. Pecos Slope Abo Gas		Formation Abo Sand	
Completion Date 3-7-88		Total Depth 4291	
Plug Back TD 4242		Elevation 4218 KB	
Farm or Lease Name Bonnie		Well No. 1	
Csg. Size 4.5		Wt. 10.5	
d 4.052		Set At 4281	
Perforations: From 3501 To 3859		Unit O. C. D.	
Trq. Size 2-3/8		Wt. 4.7	
d 1.995		Set At 3467	
Perforations: From ----- To -----		Unit 0 30 5S 22E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At -----	
Producing Thru Tubing		Reservoir Temp. °F 100 3680	
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
State New Mexico		County Chaves	
L 3680		H 3680	
G _g 0.598		% CO ₂ 0.00	
% N ₂ 6.00		% H ₂ S 0.00	
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		Temp. °F
	Press. p.s.i.g.		Temp. °F
SI			
1.	2.00	0.375	136
2.	2.00	0.500	140
3.	2.00	0.625	96
4.	2.00	0.750	98
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, Mcfd
1	2.378	---	149.2
2	4.279	---	153.2
3	6.473	---	109.2
4	9.453	---	111.2
5			
NO.	R _i	Temp. °R	T _r
			Z
1	0.23	556	1.63
2	0.23	544	1.60
3	0.17	537	1.57
4	0.17	529	1.55
5			
Gas Liquid Hydrocarbon Ratio ----- Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons ----- Deg.			
Specific Gravity Separator Gas 0.598			
Specific Gravity Flowing Fluid -----			
Critical Pressure 660 P.S.I.A.			
Critical Temperature 341 R			
P _c 1158.2 P _c ² 1341			
NO.	P _i ²	P _w	P _w ²
			P _c ² - P _w ²
1		1066.2	1136.8
2		931.2	867.1
3		802.2	643.5
4		612.2	374.8
5			
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.388$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.263$			
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1,715$			
Post ID-2 3-18-88 comp & BK			
Absolute Open Flow 1715 Mcfd @ 15.025		Angle of Slope 54.51	
Slope, n 0.713			
Remarks: Third point erratic; well making est. one bbls. water per hour.			
Approved by Division		Conducted By: D. Kelton	
Calculated By: C. Sanders		Checked By: P. Stewart	

McKay Oil Corporation
 Bonnie #1
 Loc: O-30-5S-22E, Chaves Co., N.M.
 Date of Test: 3-7-88

DIETZEN CORPORATION
 MADE IN U.S.A.

NO. 340-L22 DIETZEN GRAPH PAPER
 LOGARITHMIC
 2 CYCLES X 2 CYCLES



Q1=1395; log=3.14457
 Q2= 270; log=2.43136
 0.71321; n=0.713

"Let Your Interest in Measurement be our Concern"



PRECISION SERVICE INC.

Flow Measurement Engineers

Analysis Results Summary

Casper, WY 82601

Run No. 308-2
Date Run 03/08/88
Date Sampled 03/07/88

Analysis For: McKAY OIL CORPORATION

Lease: RONNIE #1 Producer McKAY OIL CORPORATION
Location CHINA DRAW County CHAVES State NEW MEXICO
Purpose WELL TEST Sampled By C. SPERLING
Sampling Temp. 60 °F Atmos Temp. 70 °F
Volume/day _____ Formation _____
Pressure on Bomb 530 PSIG; Line Pressure 543.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

	Mol. %	Liq. %	GPM Per MCF
Carbon Dioxide CO ₂			
Oxygen O ₂			
Nitrogen N ₂	<u>6.000</u>		
Hydrogen Sulfide H ₂ S			
Methane C ₁	<u>91.847</u>		<u>15.568</u>
Ethane C ₂	<u>1.440</u>		<u>.385</u>
Propane C ₃	<u>.254</u>		<u>.070</u>
Iso-Butane IC ₄	<u>.052</u>		<u>.017</u>
Nor-Butane NC ₄	<u>.168</u>		<u>.053</u>
Iso-Pentane IC ₅	<u>.042</u>		<u>.015</u>
Nor-Pentane NC ₅	<u>.084</u>		<u>.030</u>
Hexanes plus	<u>.113</u>		<u>.052</u>
Hexanes C ₆			
Heptanes			
Heptanes Plus C ₇ +			
Total	<u>100.000</u>		<u>16.191</u>
Pentane + G.P.M.			<u>.098</u>
Propane + GPM			<u>.238</u>
26-lb Gasoline			<u>.153</u>

BTU Dry 982
BTU Wet 965
Calc. Specific Gravity .598

@ Std. Press. 14.696
BTU Dry 980
BTU Wet 963

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

Z Factor .9981
N Value 1.3096
Ave Mol Wt 17.2928
Ave Cu Ft/Gal _____

Run by JEFFREY A. PROPP

Calculated By JEFFREY A. PROPP

Ethane + GPM .623

Remarks:

Distribution: