

RECEIVED BY
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

NOV 21 1986

O. C. D.

ARTIST'S OFFICE

Form C-122
Revised 9-1-65

Type Test 4POINT ☒ Initial		☐ Special		Test Date 10-28-86	
Company MCKAY <i>Oil Corp.</i>		Connection TO AIR			
Pool <i>West</i> PECOS SLOPE <i>H/O</i>		Formation ABO		Unit	
Completion Date 10-25-86		Total Depth 3284		Plug Back To 3206	
				Elevation 4187	
Farm or Lease Name REMMELE FED COM					
Well No. 4					
Perforations: From 2970 To 2983.5					
Perforations: From OPEN To ENDED					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO					
L 2842	H 2842	G _g 0.631	% CO ₂ .091	% N ₂ 5.607	% H ₂ S 0
Provor 2.000		Motor Run 0		Taps 0	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Provor 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							801		801		60 MIN
1.	2.000	0.09375		788	0.00	47°	788		787		60 MIN
2.	2.000	0.125		774	0.00	47°	774		774		60 MIN
3.	2.000	0.1875		730	0.00	46°	730		731		60 MIN
4.	2.000	0.250		661	0.00	42°	661		670		60 MIN
5.	2.000	0.3125		560	0.00	39°	560		585		

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	0.1410	0.00	801.2	1.013	1.259	1.076	155
2	0.2648	0.00	787.2	1.013	1.259	1.075	285
3	0.6082	0.00	743.2	1.014	1.259	1.073	619.
4	1.087	0.00	674.2	1.018	1.259	1.070	1005
5	1.672	0.00	573.2	1.021	1.259	1.056	1300

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	1.21	507	1.44	.864	0	
2	1.19	507	1.44	.866	0	
3	1.13	506	1.43	.869		
4	1.02	502	1.42	.873		
5	.87	499	1.42	.896		

NO.	P _r ²	P _w ²	P _w ² - P _r ²
1	800.2	640.3	22.6
2	787.2	619.7	43.2
3	744.2	553.8	109.1
4	683.2	466.8	196.1
5	598.2	357.8	305.1

(1) $\frac{P_r^2}{P_w^2 - P_r^2} = 3.3804$

(2) $\left[\frac{P_r^2}{P_w^2 - P_r^2} \right]^n = 2.9101$

AOI = Q $\left[\frac{P_r^2}{P_w^2 - P_r^2} \right]^n = 2924.6$

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.

Specific Gravity Separator Gas 0.631 XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXXX 0.631

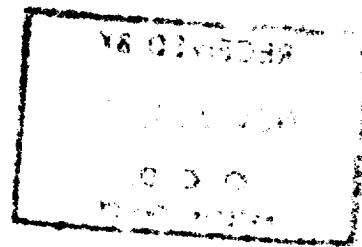
Critical Pressure 660 P.S.I.A. 660 P.S.I.A.

Critical Temperature 352.5 R 352.5 R

Absolute Open Flow <u>2924.6</u> Mcfd @ 15.025	Angle of Slope <u>48.75</u>	Slope, n <u>0.877</u>
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Remarks:

Approved By Commission:	Conducted By: <i>Deemille Valley</i>	Calculated By: <i>Frederick Freckley</i>	Checked By:
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BACK PRESSURE CURVE

Operator McKay Oil

Lease Remmele Fed Com Well No. 4

County Chaves

Field

Location

26 65 22E

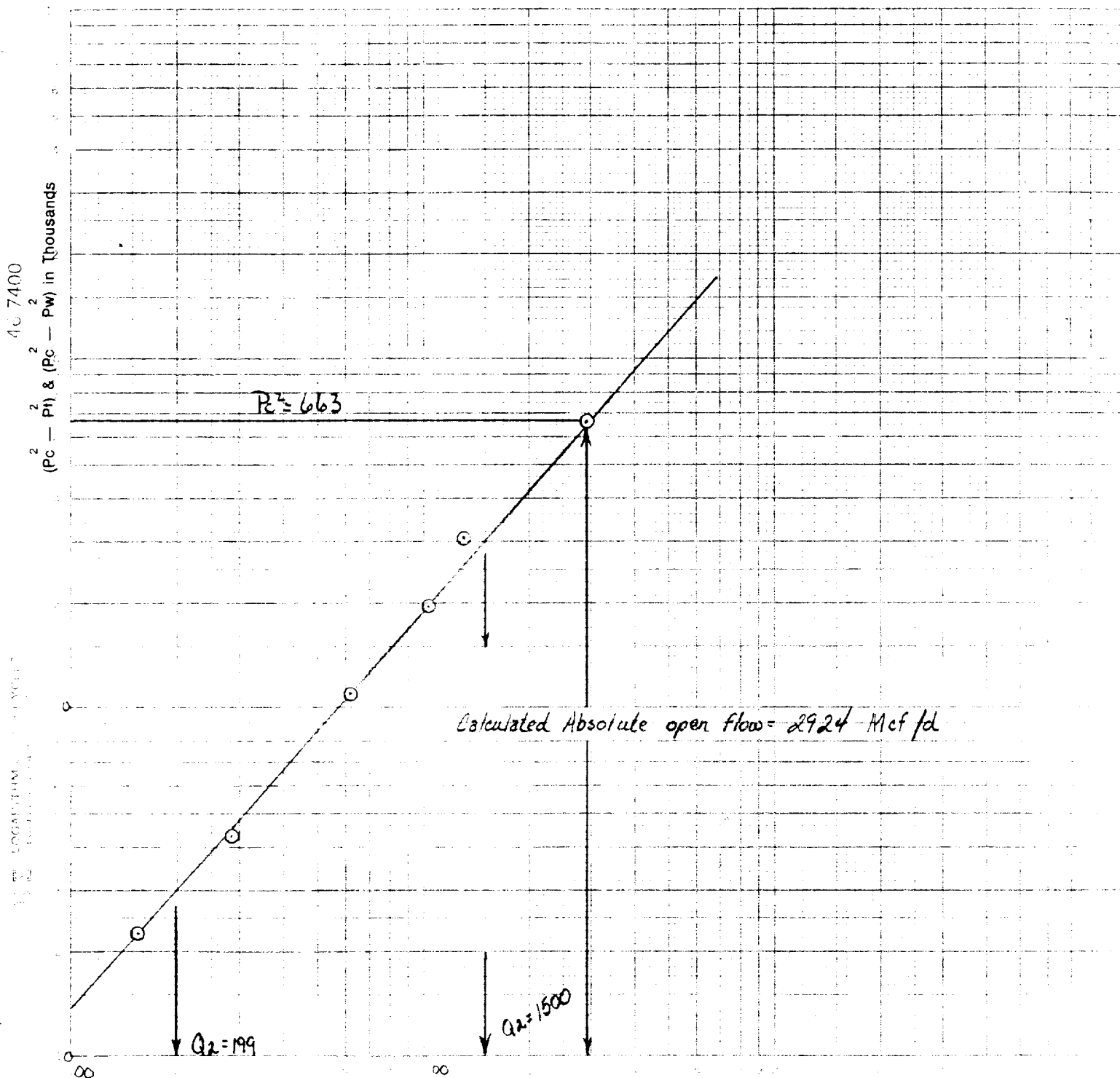
Date of Test 10-28-86

Slope "n" 0.877

Angle of Slope 47.75

Calc. Abs. Potential 2924

MCF/D



Calculated Absolute open flow = 2924 MCF/d

$$\frac{\Delta P_1^2}{\Delta P_2^2} = \frac{P_c^2 - P_w^2}{P_c^2 - P_w^2} = \frac{300}{30}$$

$$Q_1 = 1500$$

$$Q_2 = 199$$

Q in MCF/Day

$$\text{LOG } Q_1 = 3.1761$$

$$\text{LOG } Q_2 = 2.2991$$

$$n = 0.877$$



PRECISION SERVICE INC.

Flow Measurement Engineers

Analysis Results Summary

Casper, WY 82601

Run No. 1029-8

Date Run 10/29/86

Date Sampled 10/28/86

Analysis For: BENNETT & CATHEY WRLN.

Lease: Remmele Fed Com #4

Location: China Draw

Purpose: Well Test

Sampling Temp. 60 °F

Volume/day 1214.3 MCF

Pressure on Bomb 590

Producer: McKay Oil Corp.

County: Chaves State: New Mexico

Sampled By: B & WRLN.

Atmos Temp. 47 °F

Formation:

PSIG; Line Pressure 603.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

Mol. %

Liq. %

GPM
Per MCF

Carbon Dioxide CO₂

.091

Oxygen O₂

Nitrogen N₂

5.607

Hydrogen Sulfide H₂S

BTU Dry

1037

BTU Wet

1019

Calc. Specific Gravity

.631

Methane C₁

89.574

Ethane C₂

2.317

Propane C₃

.955

Iso-Butane IC₄

.146

Nor-Butane NC₄

.424

15.182

.620

.263

.048

.134

BTU Dry

1035

BTU Wet

1017

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

Reid Vap. Press. #/Sq. In.

Z Factor

.9978

N Value

1.3047

Ave Mol Wt

18.2326

Ave Cu Ft/Gal

Iso-Pentane IC₅

.113

Nor-Pentane NC₅

.192

Hexanes plus

.581

Hexanes C₆

Heptanes

Heptanes Plus C₇+

100.000

16.626

Run by Jeffrey A. Propp

Calculated By Jeffrey A. Propp

Pentane - G.P.M.

.379

Propane + GPM

.823

Ethane + GPM

1.443

26-lb Gasoline

.615

Remarks:

Distribution:

