

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

DEC - 3 1984

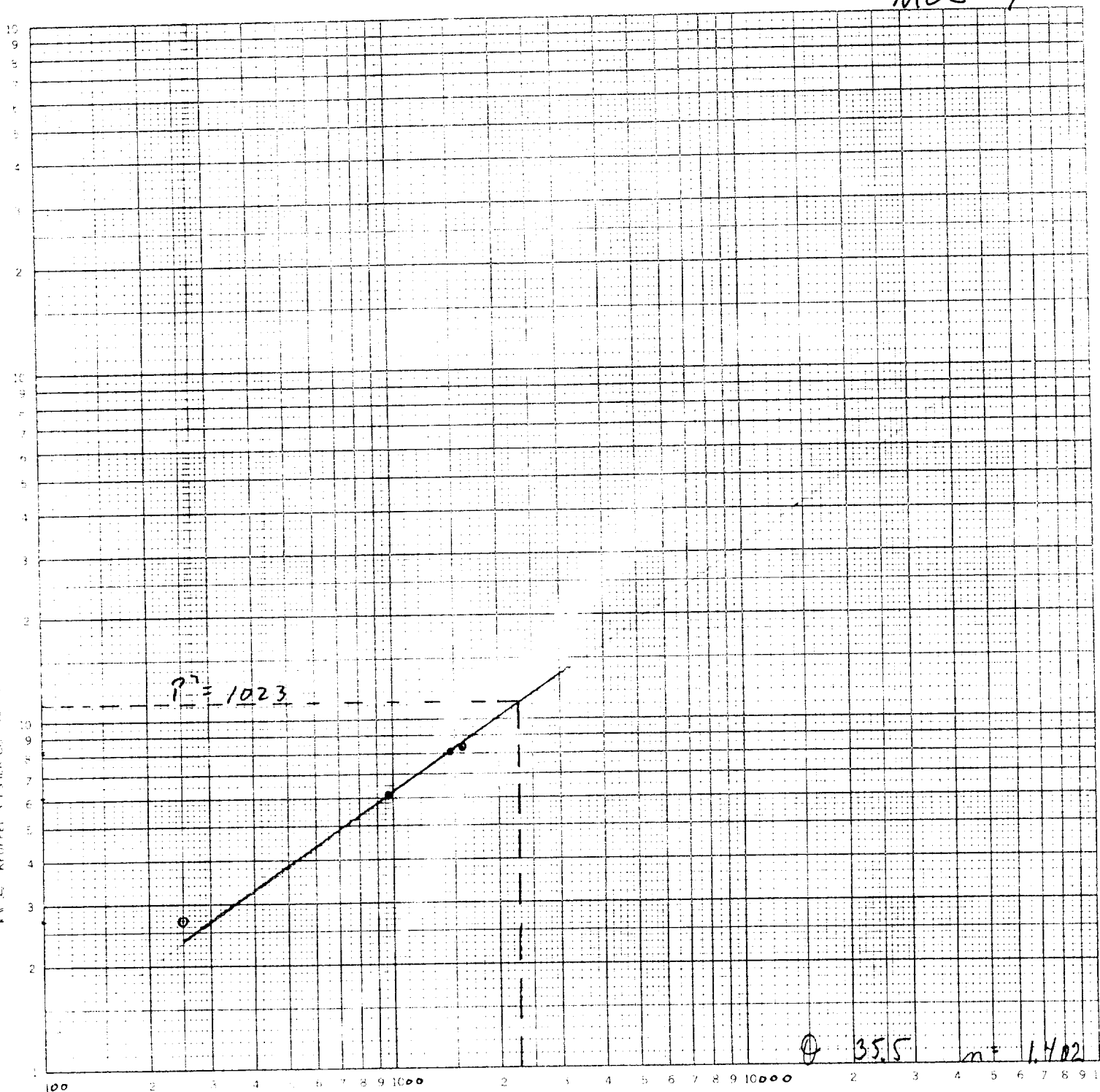
Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/20/84	
ARTISTA, OFFICE McCLELLAN OIL CORP.		Connection AIR	
Pool Pecos Slope Abo		Formation ABO	
Completion Date 11-25-84	Total Depth 4170	Plug Back TD 4094	Elevation 3961' GL
Coq. Size 4 1/2	Wt. 24 #	Set At 4094	Perforations: From 3671 To 3690
Tbg. Size 2 3/8	Wt.	Set At 3650	Perforations: From To
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE		Packer Set At NONE	Unit 7
Producing Thru TUBING	Reservoir Temp. °F 98 @ 3650	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2
L	H	G _g	% CO ₂ % N ₂ % H ₂ S
Prover 2"		Meter Run	Taps
FLOW DATA		TUBING DATA	
NO.	Prover Line Size	X	Orifice Size
SI			
1.	2	1/8	794
2.	2	5/16	556
3.	2	7/16	332
4.	2	5/8	185
5.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1	.2648		807.2
2	1.087		569.2
3	3.408		345.2
4	6.473		198.2
5			
Flow Temp. °F			
1	57		
2	61		
3	60		
4	58		
5			
Gravity Factor F _g			
1	1.0029		
2	.9990		
3	1.0000		
4	1.0019		
5			
Super Compress. Factor, F _{pv}			
1	1.1021		
2	1.2937		
3	1.0387		
4	1.0218		
5			
Rate of Flow Q, Mcfd			
1	284		
2	963		
3	1471		
4	1581		
5			
NO.	R _t	Temp. °R	T _f
1			
2			
3			
4			
5			
Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.			
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.			
Specific Gravity Separator Gas _____			
Specific Gravity Flowing Fluid _____			
Critical Pressure _____ P.S.I.A.			
Critical Temperature _____ R			
P _c 1011 P _c ² 1023			
NO.	P _i ²	P _w	P _w ²
1		867	751
2		645	417
3		456	208
4		450	202
5			
$P_c^2 - P_w^2$			
1			271
2			606
3			815
4			820
5			
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.248$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.364$			
ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2155$			
Post FD-2 12-14-84 Camp + BK			
Absolute Open Flow 2155		Mcf @ 15.025	Angle of Slope 35.5
Slope, n 1.402			
Remarks: BOTTOM HOLE PRESSURES RECORDED W/AMERADA TYPE GAUGE			
Approved By Division		Conducted By: KELTIC SERVICES	Calculated By: KELLY
		Checked By:	

MOC #17

W / 400

$P_1 - P_2$

LOG LOG PLOT OF Q VS W



$P_1 = 1023$

$Q = 35.5$ $m = 1.402$

Q
MSCFPD

Let your Interest in Measurement be our Concern.



PRECISION SERVICE INC.

Flow Measurement Engineers

Analysis Results Summary

Casper, WY 82601

Run No. 1121-2

Date Run 11/21/84

Date Sampled 11/20/84

Analysis For: McCLELLAN OIL CORP.

Lease: MOC Federal #7

Location: Red Bluff

Purpose: Well Test

Sampling Temp. 59 °F

Volume/day

Pressure on Bomb 240

Producer: McClellan Oil Corp.

County: Chaves State: New Mexico

Sampled By: Keltic Services

Atmos Temp. 45 °F

Formation: ABO

PSIG: Line Pressure 253.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

Mol. % Liq. % GPM Per MCF

Carbon Dioxide CO ₂	.026		
Oxygen O ₂	.023		
Nitrogen N ₂	7.309		
Hydrogen Sulfide H ₂ S			
Methane C ₁	84.952		14.399
Ethane C ₂	4.215		1.127
Propane C ₃	1.660		.457
Iso-Butane IC ₄	.298		.097
Nor-Butane NC ₄	.638		.201
Iso-Pentane IC ₅	.205		.075
Nor-Pentane NC ₅	.237		.086
Hexanes plus	.437		.202
Hexanes C ₆			
Heptanes			
Heptanes Plus C ₇ +			
Total	100.000		16.645
Pentane + G.P.M.			.362
Propane + GPM			1.118
1-lb Gasoline			.946

BTU Dry 1052

BTU Wet 1033

Calc. Specific Gravity .657

@ Std. Press. 14.696

BTU Dry 1049

BTU Wet 1031

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

Reid Vap. Press. #/Sq.In.

Z Factor .9977

N Value 1.3021

Ave Mol Wt 18.9954

Ave Cu Ft/Gal

Run by Jeffrey A. Propp

Calculated By Jeffrey A. Propp

Ethane + GPM 2.246

Remarks: Wellhead sample. Heavy mist at time of sample.

Distribution:



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

Run No. 1121-2
Date Run 11/21/84
Date Sampled 11/20/84

Analysis For: MCCLELLAN OIL CORP.

Lease: <u>MOC Federal #7</u>	Producer: <u>McClellan Oil Corp.</u>
Location: <u>Red Bluff</u>	County: <u>Chaves</u> State: <u>New Mexico</u>
Purpose: <u>Well Test</u>	Sampled By: <u>Keltic Services</u>
Sampling Temp.: <u>59</u> °F	Atmos Temp.: <u>45</u> °F
Volume/day: <u>240</u>	Formation: <u>ABO</u>
Pressure on Bomb: <u>240</u>	PSIG: Line Pressure <u>253.2</u> PSIA <u>PSIG</u>

Gas Component Analysis Press. Base: 14.73

	Mol. %	Liq. %	GPM Per MCF
Carbon Dioxide CO ₂	.026		
Oxygen O ₂	.023		
Nitrogen N ₂	7.309		
Hydrogen Sulfide H ₂ S			
Methane C ₁	84.952		14.399
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Iso-Butane IC ₄	.258		.097
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Iso-Pentane IC ₅	.205		.075
Nor-Pentane NC ₅	.237		.086
Hexanes plus	.437		.202
Heptanes Plus C ₇ +			
Total	100.000		16.645
Pentane + G.P.M.			.362
Hexane + GPM			1.118
7-lb Gasoline			.946

BTU Dry 1052
BTU Wet 1033
Calc. Specific Gravity .657

@ Std. Press. 14.696

BTU Dry 1049
BTU Wet 1031

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

Reid Vap. Press. #/Sq.In.

Z Factor .9977
N Value 1.3021
Ave Mol Wt 18.9954
Ave Cu Ft/Gal

Run by Jeffrey A. Propp

Calculated By Jeffrey A. Propp

Ethane + GPM 2.246

Remarks: Wellhead sample. Heavy mist at time of sample.

Distribution: