

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
RECEIVED

File
Form C-122
Revised 9-1-65

MAY 10 1983

Type Test: ☒ Initial ☐ Annual ☐ Special											
Company: <u>PEDCO</u>				Connection: <u>AIR NEW WELL</u>							
Pool: <u>PECOS SLOPE</u>				Formation: <u>ABO</u>				Unit: <u>I</u>			
Completion Date: <u>1-12-83</u>		Total Depth: <u>5332</u>		Plug Hole: <u>5332 5287</u>		Elevation: <u>3898</u>		Form or Lease Name: <u>STEVENS PEDCO</u>			
Well Size: <u>4.500</u>	Wt.: <u>10.5</u>	d: <u>4.052</u>	Set At: <u>5332</u>	Perforations: From <u>4496</u> To <u>4350</u>				Well No.: <u>1</u>			
Fig. Size: <u>2.375</u>	Wt.: <u>4.7</u>	d: <u>1.995</u>	Set At: <u>4499</u>	Perforations: From <u>0</u> To <u>0</u>				Unit: <u>I</u>	Sec.: <u>28</u>	Twp.: <u>75</u>	Rge.: <u>26E</u>
Type Well - Single - Treadhead - G.O. or G.O. Multiple: <u>SINGLE</u>								Packer Set At: <u>0</u>		County: <u>CHAVES</u>	
Producing Thru: <u>TUBING</u>		Reservoir Temp. °F: <u>98</u>		Mean Annual Temp. °F: <u>60</u>		Base. Press. - P _b : <u>13.2</u>		State: <u>NEW MEXICO</u>			
L: <u>4425</u>	H: <u>4425</u>	G _g : <u>0.640</u>	% CO ₂ : <u>0.02</u>	% N ₂ : <u>4.46</u>	% H ₂ S: <u>0</u>	Prover: <u>2.0</u>	Meter Run: <u>0</u>	Type: <u></u>			

FLOW DATA							TUBING DATA		B.H.P. DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. H ₂ O	Temp. °F	Press. p.s.i.g.	CASING	Press. p.s.i.g.	CHOKE	
SI							989	989	1119		72 HRS.
1.	2.00	X	0.438	50	0	44	960	970	1084	12/64	1 HR.
2.	2.00	X	0.438	105	0	44	945	960	1073	14/64	1 HR.
3.	2.00	X	0.438	315	0	44	900	920	1032	16/64	1 HR.
4.	2.00	X	0.438	605	0	44	819	890	982	20/64	1 HRS.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{P_R}$	Pressure P _R	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	3.40	0	63.2	1.0157	1.2500	1.0061	275
2	3.40	0	118.2	1.0157	1.2500	1.0115	516
3	3.40	0	328.2	1.0157	1.2500	1.0330	1464
4	3.40	0	618.2	1.0157	1.2500	1.0634	2839
5							

NO.	P _R	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.10	504	1.40	0.988			0.640	XXXXXXX	663	359
2	0.18	504	1.40	0.977						
3	0.50	504	1.40	0.937						
4	0.93	504	1.40	0.884						
5										

1. $1008.1 P_R^2 = 1016.$

NO.	P ₁ ²	P _w	R _w ²	P _R ² - R _w ²
1	1204.	977	955	61
2	1180	968	937	80
3	1092	932	868	148
4	990	888	788	288
5				

(1) $\frac{P_R^2}{P_R^2 - R_w^2} = 4.4616$

(2) $\left[\frac{R_w^2}{P_R^2 - R_w^2} \right]^n = 4.4616$

AOF = $Q \left[\frac{R_w^2}{P_R^2 - R_w^2} \right]^n = 12665.$

Post ID-2
6-17-83
Comp. 4 BK

Absolute Open Flow: <u>12665.</u>	Mcf/d @ 15.025	Angle of Slope @ <u>45.0</u>	Slope, n <u>1.000</u>
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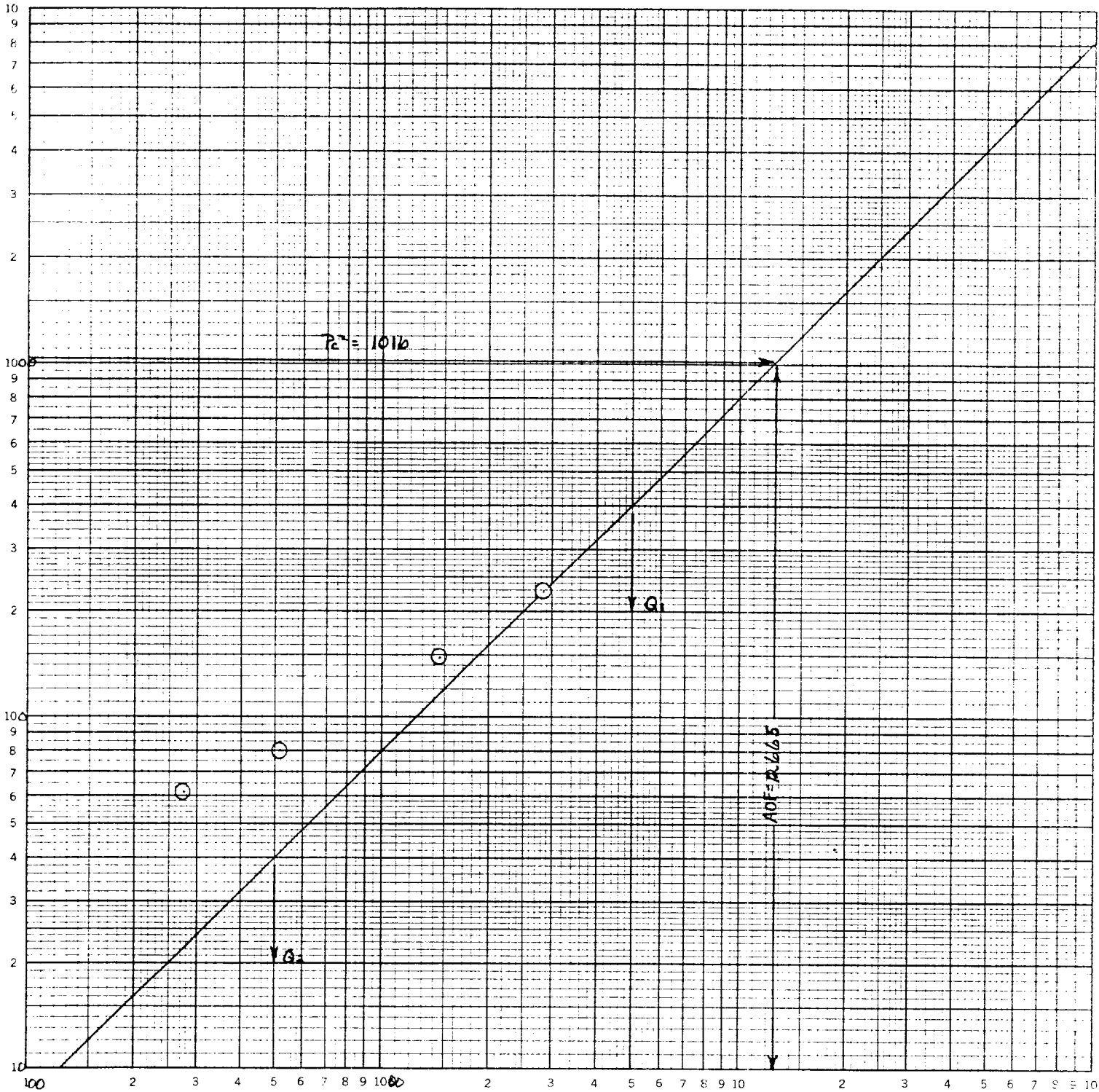
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMARADA PRESSURE ELEMENT.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	<u>RICHARD TOWNLEY</u>	<u> BENNETT-CATHEY</u>	

12000
 STEVENS TFO'D
 28 75 26E
 CHAVES
 1-12-83

46 7400

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



$$\Delta P^2: P_c^2 - P_w^2 = 400$$

$$\Delta P^2: P_c^2 - P_w^2 = 40$$

$Q, \text{ Mcfd}$

$$\log Q_1 = 3.6990$$

$$\log Q_2 = 2.6990$$

$$Q_1 = 5000$$

$$Q_2 = 500$$

$$\lambda = 1.0000$$

(505) 748-3354 / Artesia, New Mexico 88210

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY PEDCO WELL NAME STEVEN PEDCO WELL NO. 1
DATE OF TEST 1-15-83 TO 1-17-83 FORMATION ABO PAGE 1 OF 1
COMPANY MAN GARY ROBERTS

CHART READINGS AND CALCULATIONS FOR BUILDUP OR DRAWDOWN TEST

ELEMENT NUMBER	RPG3# 1615 N	RANGE	2,000 LBS.
CLOCK NUMBER	27744	RANGE	48 HRS.
TIME WELL SHUT IN	1700 HRS.	1-12-83	
TIME CLOCK STARTED	0724 HRS.	1-15-83	
DEAD WEIGHT ELEMENT ON SURFACE		1002 PSIA	SHUT IN LBS.
TIME ELEMENT REACHED BOTTOM		0750 HRS.	1-15-83
DEAD WEIGHT ELEMENT ON BOTTOM		1002 PSIA	SHUT IN LBS.
ELEMENT SET AT	4,425		FEET.
1002 TEMPERATURE	4,425	FT.	98° °F.
PSIA DEAD WEIGHT AT THE END OF	64	HOURS	45 MINUTES.

[illegible]

TEST DATE: 1-15-83 TO 1-17-83
TEST DEPTH: 4,425 FEET

ELEMENT NO.: RPG3# 1615 N
RANGE: 2000 LBS.

CLOCKS: 27744

RANGE: 48 HOUR

OPERATOR: BOB HERREN

Note: See Attached Sheet for Tabulation of Pressure
And Time.

FOUR POINT BACK PRESSURE TEST

GARY ROBERTS

PEDCO

STEVEN PEDCO WELL NO. 1

BENNETT-CATHEY WIRE LINE SERVICE
Box 787
Artesia, N.M. 88210
505/746-3281

Drawn By

Scale: As Shown

TIME IN HOURS

