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C-122

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JAN 28 1974
O. C. C.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special			Test Date: 1-3-74	
Company: El Paso Natural Gas Company	Connection: None			Unit
Pool: Rocky Arroyo (Morrow)	Formation: Morrow			
Completion Date: 1-3-74	Total Depth: 9157	Plug Back TD: 9108	Elevation: GL 4463.8	Farm or Lease Name: Rocky Arroyo D
Csg. Size: 4½ / Wt.: 11.6 / d: / Set At: 9157	Perforations: From 8795 To 8900			Well No.: 1
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 8592	Perforations: From open To end			Unit: O / Sec.: 5 / Twp.: 22 / Rge.: 22
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At:			County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: *168 @ 8848	Mean Annual Temp. °F:	Baro. Press. – P_a: 13.2	State: New Mexico
L: 8592 / H: 8592 / Gg: Assumed .588	% CO_2:	% N_2:	% H_2S:	Taps: Positive Choke

FLOW DATA

NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI						2596	Shut-in			
1.		3/16	2194		40	2194				1 hr.
2.		7/37	2040		51	2040				1 hr.
3.		1/4	1813		54	1813				1 hr.
4.		5/16	1590		52	1590				1/4 hr.
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	.6101		2207.2	1.020	1.034	1.181	1,677
2.	.8419		2053.2	1.009	1.034	1.155	2,083
3.	1.112		1826.2	1.006	1.034	1.142	2,432
4.	1.771		1603.2	1.008	1.034	1.134	3,356
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	3.28	500	1.42	.717
2.	3.06	511	1.46	.750
3.	2.72	514	1.47	.767
4.	2.39	512	1.46	.778
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .588 Assumed xxxxxxxxx
Specific Gravity Flowing Fluid xxxxx
Critical Pressure 672 P.S.I.A. P.S.I.A.
Critical Temperature 350 R

P_c 2609.2 P_c^2 6807.9

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2224.4	4948.0	1859.9
2		2080.3	4327.6	2480.3
3		1866.6	3484.2	3323.7
4		1689.7	2855.1	3952.8
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.722$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1.0653

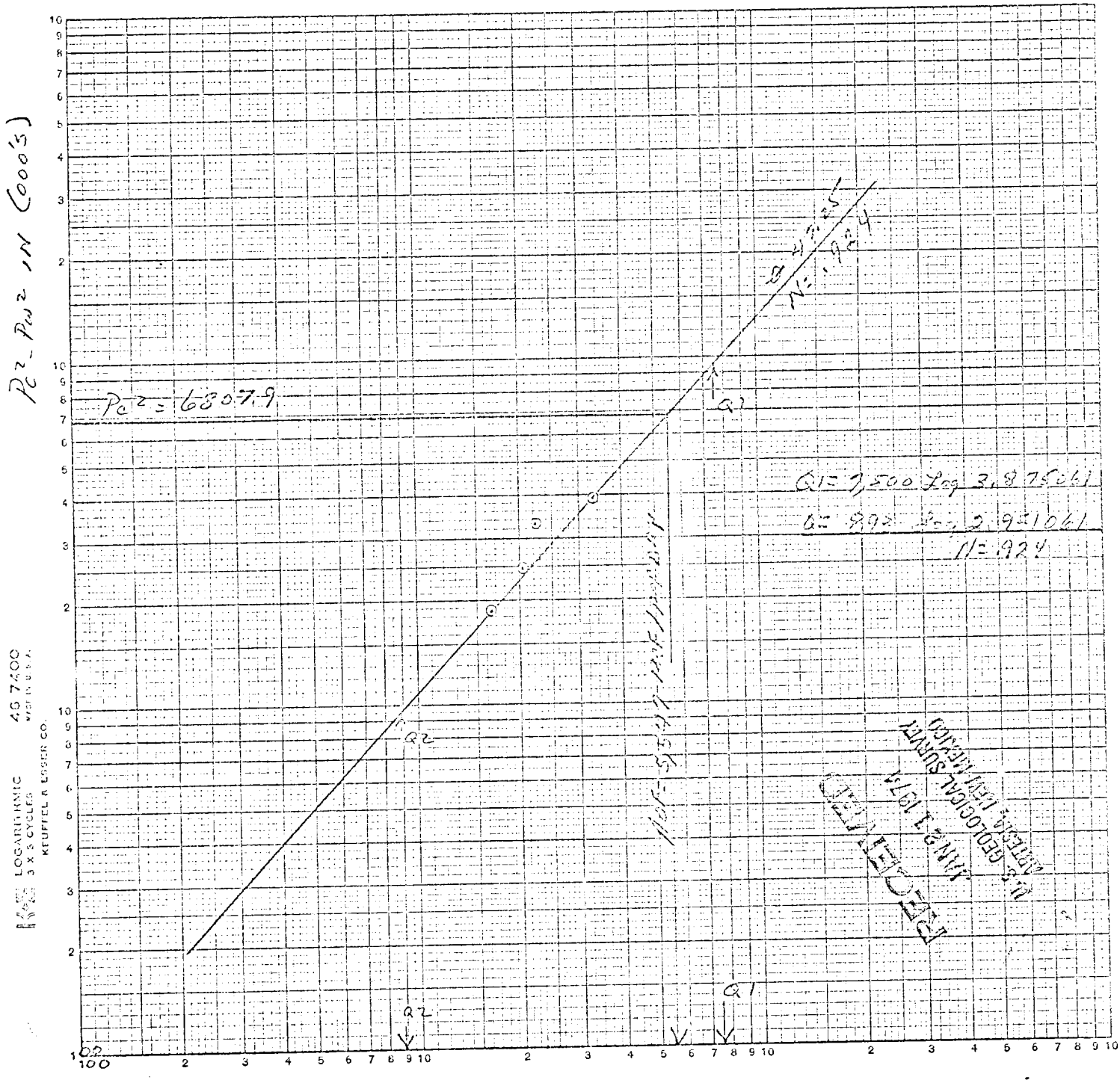
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 5,547$

Absolute Open Flow 5,547 Mcfd @ 15.025 Angle of Slope θ 47.25 Slope, n .924

Remarks: *Reservoir temp. taken from foster testers drillstem test #2. No fluid was made at these rates, fourth rate of flow began to freeze up after 15 Min. of flow.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	R. Reston, R. Pagan	R. Reston	

EL PASO NATURAL GAS CO.
Rocky Arroyo "D" No. 1
5-22-22- Eddy Co., New Mexico
January 4, 1974



FIELD DATA SHEET (Not Required To File)

Type Test: ☒ Initial ☐ Annual ☐ Special		Test Date: 1-3-74	Lease No. or Serial No.
Company: El Paso Natural Gas Company	Connection		Allottee
Field: Rocky Arroyo	Reservoir: Morrow	Location	Unit: O
Completion Date: 1-3-74	Total Depth	Plug Back TD	Elevation: GL 4463.8
Csg. Size: 4½	Wt.: 11.6	d	Set At: 9157
Tbg. Size: 2 3/8	Wt.: 4.7	d	Set At: 8592
Type Completion (Describe): Single			Packer Set At
Producing Thru: Tbg.	Reservoir Temp. F: 168 @ 8848	Mean Annual Temp. F	Baro. Press.—P_a: 13.2
L: 8592	H: 8592	G_g	% CO_2 / % N_2 / % H_2S

Form or Lease Name: Rocky Arroyo D
Well No.: 1
Sec.: 5 Twp.-Blk.: 22 Rge.-S: 22
County or Parish: Eddy
State: New Mexico
Positive Choke

DATE Time of Reading	ELAP. TIME Hrs.	Wellhead Working Pressure: Tbg. Psig.	Csg. Psig.	Temp. F	METER OR PROVER: Pressure Psig.	Diff.	Temp. F	Orifice	REMARKS (Include liquid production data: Type—A.P.I.-Gravity—Amount)
10:25		2596		16					
10:30		Start							
10:45		2217		26	2217		26	3/16	
11:00		2165		35	2165		35	3/16	
11:15		2194		39	2194		39	3/16	
11:30		2194		40	2194		40	3/16	First Rate
11:45		2037		47	2037		47	7/32	
12:00		2038		48	2038		48	7/32	
12:15		2038		51	2038		51	7/32	
12:30		2040		51	2040		51	7/32	Second Rate
12:45		1853		48	1853		48	1/4	
1:00		1812		46	1812		46	1/4	
1:15		1813		54	1813		54	1/4	Third Rate
		STABILIZED							
1:30		1590		52	1590		52	1/4	
1:45		1670		51	1670		51	1/4	Choke freezing off
2:00		1705		51	1705		51	1/4	Choke freezing off
		Shut-in try to thaw out choke							
2:05		back on							
2:15		1958							
2:23		Shut well in, freezing off again.							

Page _____ of _____ Data By _____