

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9/5/90	
Company Enron Oil & Gas Company		Connection Enron Pipeline Corp.	
Pool South Pitchfork Ranch		Formation Morrow	
Completion Date 6/23/90	Total Depth 15,700	Plug Back TD 15,658	Elevation 3348' GL
Farm or Lease Name Longway Draw Fed. Com.			
Cog. Size 5"	Wt. 18 #	d 4.276	Set At 15,700
Perforations: From 14,829 To 14,865		Well No. 1	
Trg. Size 2 7/8	Wt. 6.4 #	d 2.441	Set At 14,678
Perforations: From Open To Ended		Unit Sec. Twp. Rye. J 8 25s 34e	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At 14,678	
Producing Thru TBG		County Lea	
Reservoir Temp. °F 221 @ 14,678		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico	
L 14678	H 14678	G _a 0.583	% CO ₂ 0.55
		% N ₂ 0.42	% H ₂ S -
		Prover -	Meter Run 3.068
			Taps FLG

FLOW DATA						TUBING DATA		CASING DATA		Duration	
NO.	Prover 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	of Flow
SI							5900		PKR		72 hrs.
1.	3.068	10/64	1.000	785	9.50	96	5680		"		1 hr.
2.	3.068	14/64	1.000	795	19.50	74	5282		"		1 hr.
3.	3.068	16/64	1.000	800	35.00	60	4781		"		1 hr.
4.	3.068	17/64	1.000	810	62.00	58	4179		"		1 hr.
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, Mscfd
1	4.789	87.08	798.2	.9671	1.310	1.062	561
2	4.789	125.54	808.2	.9868	1.310	1.064	827
3	4.789	168.71	813.2	1.000	1.310	1.073	1,136
4	4.789	225.92	823.2	1.002	1.310	1.074	1,519
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.	
1	1.18	556	1.58	.886	A.P.I. Gravity of Liquid Hydrocarbons _____ Dry _____ Deg.	
2	1.20	534	1.52	.884	Specific Gravity Separator Gas _____ .583 _____ XXXXXXXXXX	
3	1.21	520	1.48	.868	Specific Gravity Flowing Fluid _____ XXXXX _____	
4	1.22	518	1.48	.867	Critical Pressure _____ 672 _____ P.S.I.A. _____ P.S.I.A.	
5					Critical Temperature _____ 350 _____ °R _____ °R	

P _c 5913.2 P _c ² 34965.9				(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.015$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.585$	
NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²			
1		5693.8	32418.8	2547.1			
2		5296.4	28052.1	6913.8			
3		4796.6	23007.8	11958.1			
4		4196.9	17613.9	17352.0			
5							

Absolute Open Flow _____ 2,408 _____ Mcfd @ 15.025				Angle of Slope @ _____ 50.7° _____		Slope, n _____ 0.657 _____	
Remarks: _____ Made 2.1 BBLS H ₂ O in 4 hours. _____							
Approved By Division		Conducted By: Jarrel Services, Inc.		Calculated By: Bob Murray		Checked By: Bob Murray 9/13/90	

RECEIVED

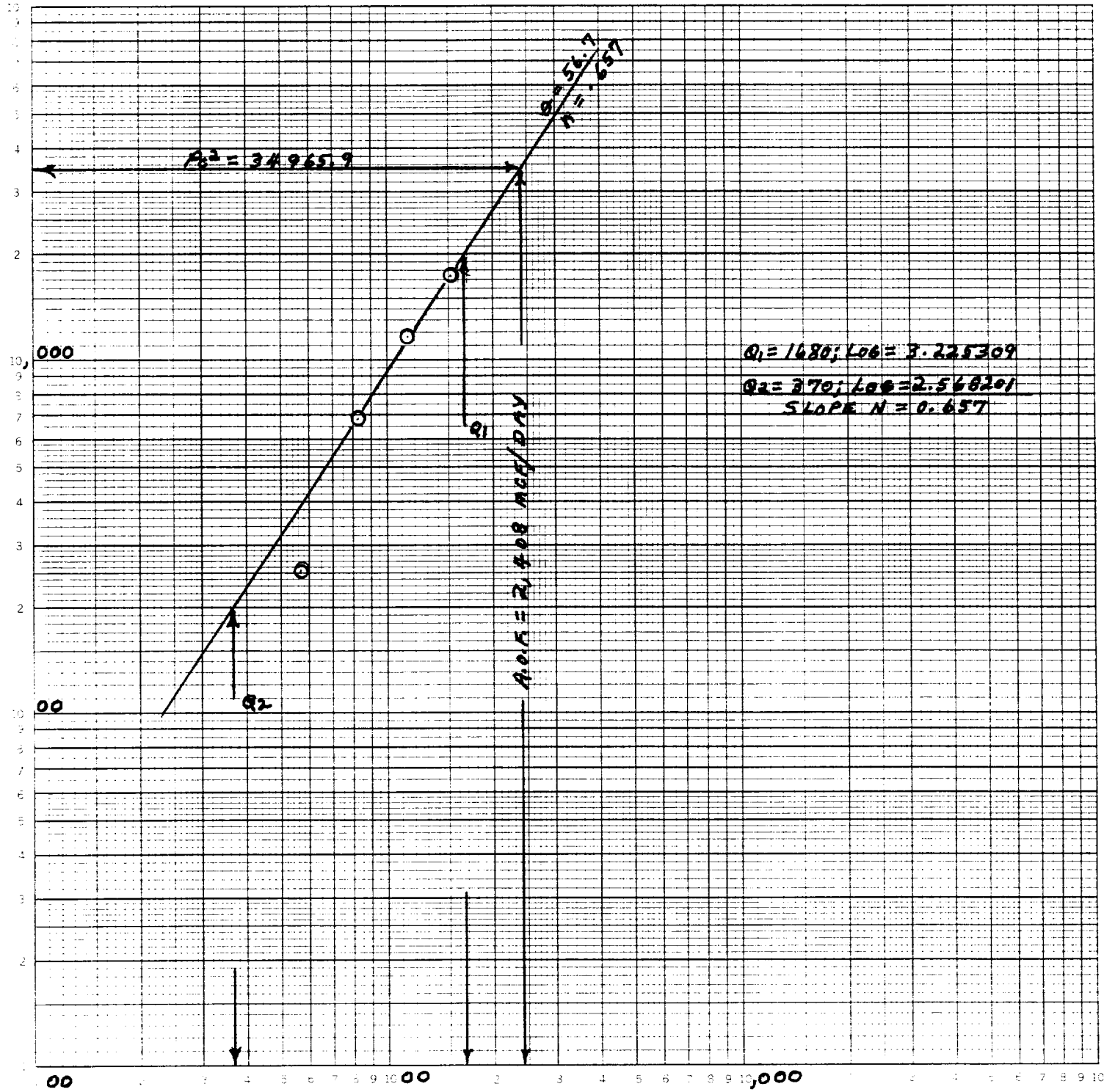
SEP 17 1990

OXF
HOBBS 00000

COMPANY: Enron Oil & Gas Company
 WELL: Longway Draw Federal Com #1
 LOCATION: J 8 25s 34e
 COUNTY: Lea
 DATE: September 5, 1990

$P_c^2 - P_w^2$ (THOUSANDS)
 46 7400

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



$Q = \text{MCF/DAY}$