

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

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special					Test Date: 11-20-75	
Company: Amerada Hess Corporation				Connection: Northern Natural Gas Co.		
Well: Blinebry Gas				Formation: Blinebry Gas		Unit:
Completion Date: 7-25-75		Total Depth: 8116		Plug Back TD: 5985'		Elevation: 3365 GL
Casing Size: 5 1/2		ID: 15.5		Set At: 8116		Perforations: From 5470 to 5575
Tubing Size: 2 3/8		ID: 4.7		Set At: 5425		Perforations: From Open End To
Type Well - Single - Fractured - G.G. or G.O. Multiple				Packer Set At: 5425		County: Lea
Producing thru: Tubing		Reservoir Temp. °F: 104 @ 5500		Mean Annual Temp. °F: 60		State: New Mexico
L: 5425		H: 5523		G _s : 0.693		% CO ₂ : 0
				% N ₂ : 1.92		% H ₂ S: 0
				Prover: -		Meter Run: 4
						Taps: Pipe

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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
1	4.025 x 1.500			187	0.9	51	600	60	Packer		72 hrs.
2	4.025 x 1.500			187	1.8	54	547	"	"		1 hr.
3	4.025 x 1.500			195	2.5	64	491	"	"		1 hr.
4	4.025 x 1.500			196	4.5	79	423	"	"		1 hr.
5											

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, Mscf
1	11.82	13.44	200.2	1.0060	1.201	1.023	195
2	11.82	18.96	200.2	0.9962	1.201	1.021	274
3	11.82	22.80	208.2	0.9822	1.201	1.020	324
4	11.82	30.66	209.2	0.9822	1.201	1.020	436
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 51.250 Mcf/bbl.
1	0.920	520	1.35	0.867	A.P.I. Gravity of Liquid Hydrocarbons 48 Deg.
2	0.828	520	1.35	0.879	Specific Gravity Separator Gas .693
3	0.716	520	1.35	0.895	Specific Gravity Flowing Fluid .753
4	0.717	520	1.35	0.895	Critical Pressure 666 P.S.I.A.
5					Critical Temperature 382 R

P _c 613.2 P _w ² 376.0			
NO.	P _w	P _w ²	P _c ² - P _w ²
1	312.50	314.6	61.4
2	255.20	255.8	120.2
3	192.39	192.5	183.5
4	182.60	193.4	182.6
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 6.124$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 579$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.956$

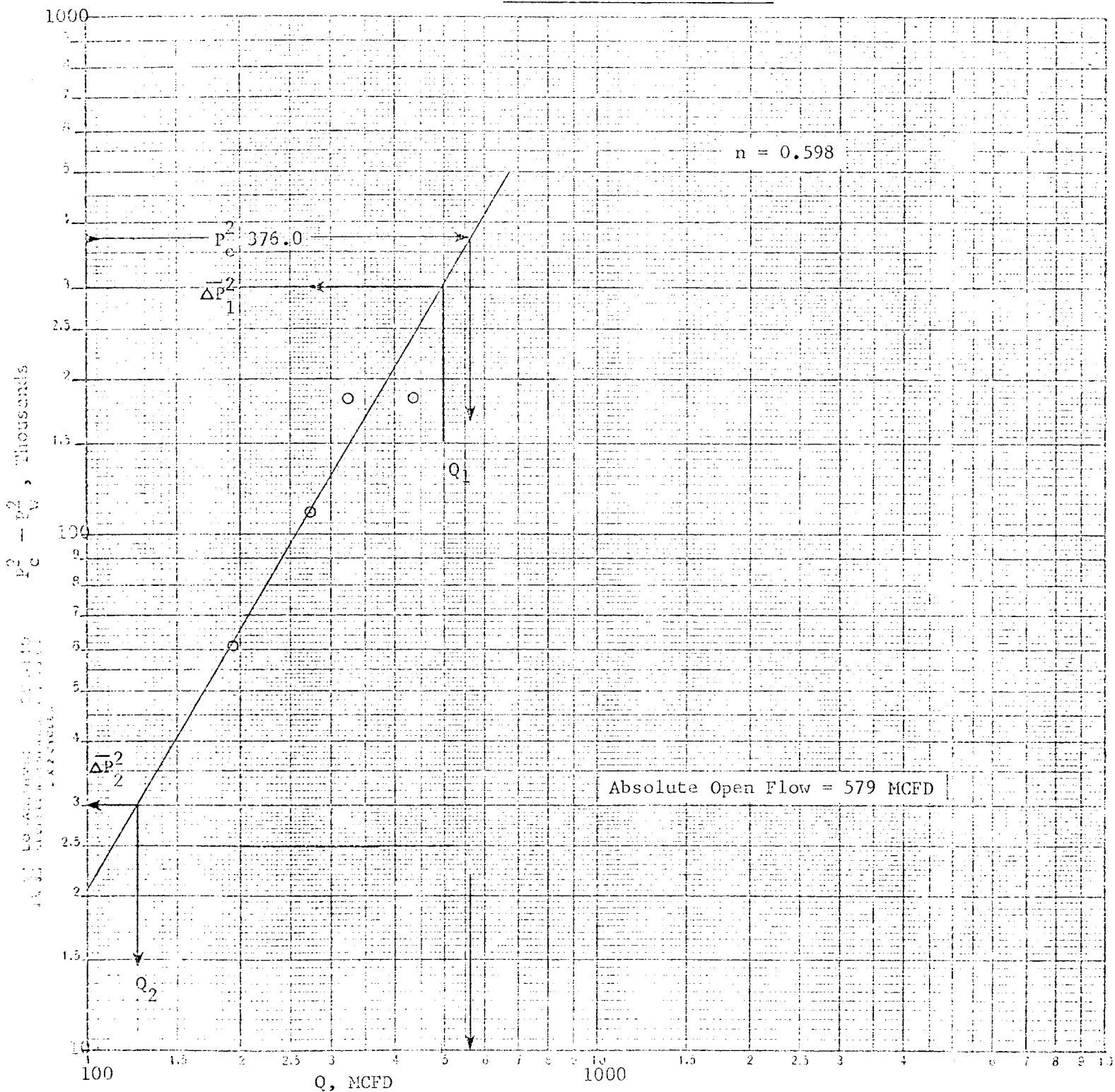
Absolute Flow 579 Mcf @ 15.025	Angle of Slope θ	Slope, n 0.598
Remarks:		
Approved By: <i>ADD</i> Conducted By: Calculated By: Checked By:		

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U.S. CONSERVATION COMMISSION
WASHINGTON, D. C.

COMPANY Amenada Hess Corp. LEASE E. Wood WELL NO. 5 DATE 11-20-75
 LOCATION: Unit B Section 22 Township 22S Range 37E
L 5425 H 5523 L/H .982 G .753 % CO₂ 0 % N₂ 1.92 % H₂S 0
d 1.995 F_r .018231 GH 4159 P_{cr} 664 T_{cr} 402
 TABLE IX & X

LINE	(1st Rate)		(2nd Rate)		(3rd Rate)		(4th Rate)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1 Q_m	.196	.196	.274	.274	.324	.436		
2 T_w (W.H. °R)	520	520	520	520	520	520		
3 T_s (W.H. °R)	564	564	564	564	564	564		
4 $T = (T_w + T_s)$	542	542	542	542	542	542		
5 Z (Est.)	.848	.867	.882	.879	.895	.895		
6 TZ	459.6	469.9	478.0	476.4	485.1	485.1		
7 GH/TZ	9.049	8.851	8.701	8.730	8.573	8.573		
8 σ^8 (Table XIV)	1.404	1.394	1.386	1.387	1.379	1.379		
9 $1-\sigma^8$ (Table XIV)	.288	.283	.278	.279	.275	.275		
10 P_t	560.20	560.20	504.20	504.20	436.2	435.2		
11 $P_t^2/1000$	313.8	313.8	254.2	254.2	190.3	189.4		
12 F_r (Table XV)	.018231	.018231	.018231	.018231	.018231	.018231		
13 $F_c = F_r TZ$	8.379	8.567	8.714	8.685	8.844	8.844		
14 $F_c Q_m$	1.642	1.679	2.388	2.380	2.865	3.856		
15 $1/H(F_c Q_m)^2$	2.648	2.768	5.600	5.562	8.060	14.601		
16 $F_w = L/H(F_c Q_m)^2(1-\sigma^8)$	.7626	.7833	1.557	1.552	2.217	4.015		
17 $P_w^2 = P_t^2 + F_w$	314.563	314.583	255.757	255.752	192.517	193.415		
18 $P_s^2 = \sigma^8 P_w^2$	441.646	438.529	354.479	354.728	265.481	266.719		
19 P_s	664.56	662.22	595.38	595.59	515.25	516.45		
20 $P = \frac{P_t + P_s}{2}$	612.38	611.21	549.79	549.90	475.73	475.83		
21 $P_r = (P/P_{cr})$	.922	.920	.828	.828	.716	.717		
22 $T_r = (T/T_{cr})$	1.35	1.35	1.35	1.35	1.35	1.35		
23 Z (Table XI)	.867	.867	.879	.879	.895	.895		

Company Amerada Hess Corp.
 Well E. Wood No. 5 (Blinebry)
 Location B, 22 - 22S - 37E
 County Lea
 Date 11 - 20 - 75



$$\overline{\Delta p}_1^2 \quad p_c^2 - p_w^2 = 300$$

$$\overline{\Delta p}_2^2 \quad p_c^2 - p_w^2 = 30$$

$$Q_1 = 495 \text{ MCFD}$$

$$Q_2 = 125 \text{ MCFD}$$

$$\text{Log } Q_1 = 2.69461$$

$$\text{Log } Q_2 = 2.09691$$

$$n = 0.5977 = .598$$

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DEC 8 1975

CAL CONSERVATION COMM.
DREES, D. M.