

SF
 7-12-82
 1-12-82

Type Test ☒ Initial FOUR POINT ☐ Annual ☐ Special				Test Date 6-15-82		990 FNL	
Company STEVENS OPERATING				Connection AIR NEW WELL		1980 FEL	
Tool UNDESIGNATED				Formation ABO		Unit B	
Completion Date 6-13-82		Total Depth 5038-65		Plug Back TD 4996		Elevation 3822 KB	
Well No. 2		Farm or Lease Name HANAGAN FEDERAL		Well No. 2			
Perforations: From 4474 To 4555		Perforations: From OPEN To ENDED		Unit B		Sec. Twp. Rge. 23 7S 26E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing thru TUBING		Reservoir Temp. °F 98 4514		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 4514		H 4514		G _g .630		% CO ₂ .22	
				% N ₂ 5.66		% H ₂ S	
Prover 2.00		Meter Run		Type FLANGE			

FLOW DATA						TUBING DATA		B.H.P. 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.		CHOKE
1	2.000 X 0.125			483	.00	80	861	86		7/64	49 HR 15
2	2.000 X 0.125			618	.00	84	761	85		8/64	1 HR
3	2.000 X 0.125			205	.00	78	622	86		10/64	1 HR
4	2.000 X 0.125			215	.00	84	470	88		11/64	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, Mcfd
1	0.2648	.00	496.2	.9813	1.260	1.036	168
2	0.2648	.00	631.2	.9777	1.260	1.045	215
3	1.087	.00	218.2	.9831	1.260	1.016	298
4	1.087	.00	228.2	.9777	1.260	1.016	310
5							

NO	P _h	Temp. °R	T _g	Z	Gas Liquid Hydrocarbon Ratio	Mcfd/Lbl.
1	.75	540	1.54	.932	A.P.I. Gravity of Liquid Hydrocarbons	Dep.
2	.96	544	1.55	.915	Specific Gravity Separator Gas	630
3	.33	538	1.53	.969	Specific Gravity Flowing Fluid	X X X X X
4	.35	544	1.55	.968	Critical Pressure	659
5					Critical Temperature	351

980.2 P_c^2 960.8				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.3238$	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1506$
NO	P _w	P _w ²	P _c ² - P _w ²		
1	874.5	764.7	196.1		
2	774.7	600.1	360.7		
3	636.3	404.9	555.9		
4	484.7	235.0	725.8		
5					

Partial ID-2
 Comp SI
 7-9-82

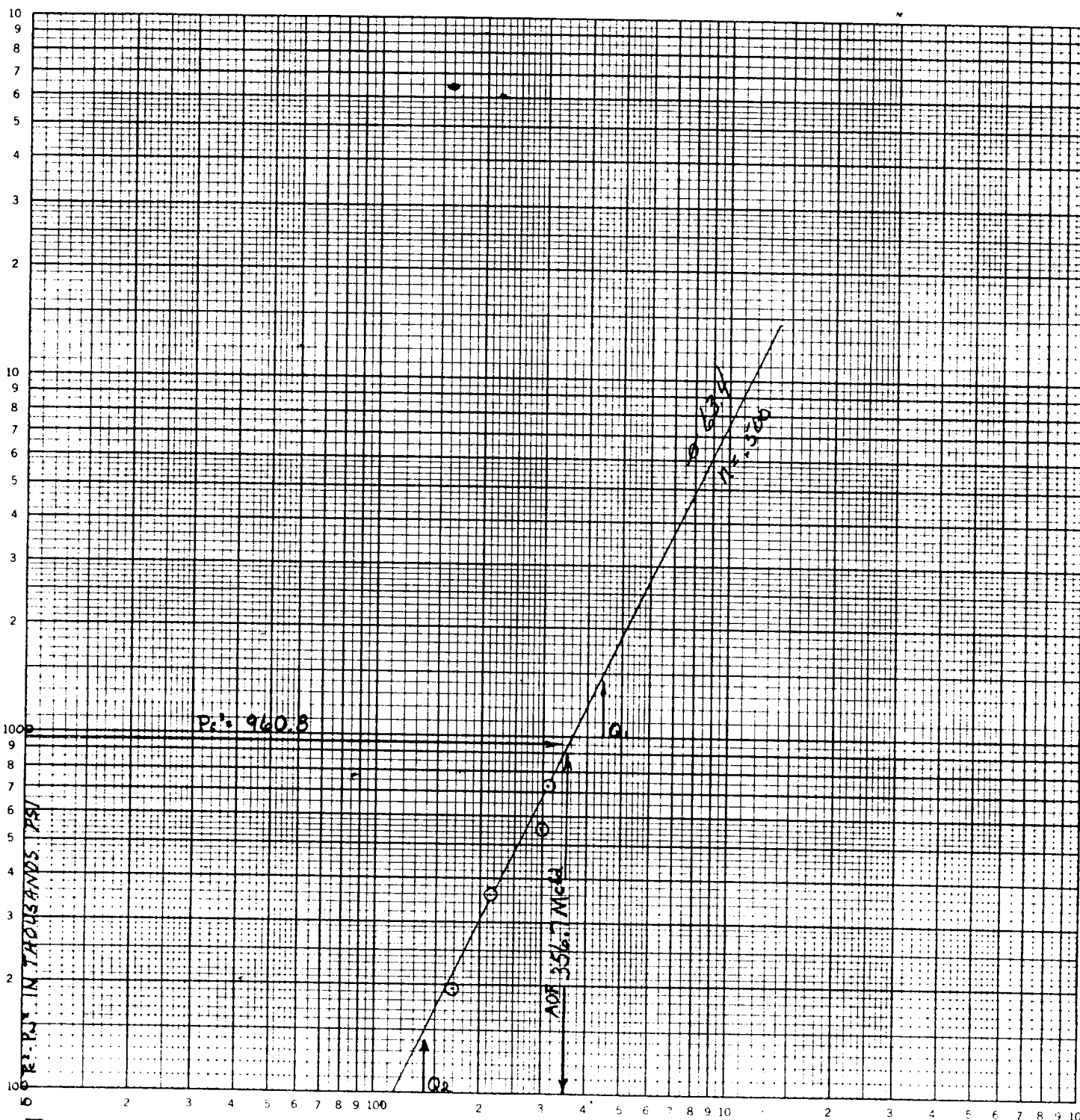
Estimate Open Flow <u>356.7 357</u>		Mcfd @ 15.025	Angle of Slope @ <u>63.4</u>	Slope, n <u>.5000</u>
Remarks:				

Approved By Commission:	Conducted By: RICHARD TOWNLEY	Calculated By: BENNETT - CATHEY	Checked By:
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HANAGAN FIELD #2
UNIT B SEC 23 TWP 15 RGE 26E
CHAVES COUNTY
6-15-82

46 7400

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



$$\Delta P_1: P_e^i - P_w^i = 1500$$

$$\Delta P_2: P_e^i - P_w^i = 150$$

$$Q_1 = 442.7$$

$$Q_2 = 140$$

Q, Mcfd

$$\text{LOG } Q_1 = 2.3691$$

$$\text{LOG } Q_2 = 1.6021$$

$$n = .5000$$