

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

Form C-122
Revised 9-1-65

*c/sf
File*

Type Test: ☒ Initial ☐ Annual ☐ Special										10-27-82	
Company: El Ran, Inc.					Connection: Atmosphere					NOV 2 1982	
Pool: Undersaturated					Formation: Abo					O. C. D.	
Completion Date: 9-2-82					Total Depth: 6050					Plug Back To: 6028	
Casing Size: 4 1/2"					Set At: 6028					Perforations: From 4453 To 4740	
Tubing Size: 2 3/8"					Set At: 4467					Perforations: From OPENENDED To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple										Packer Set At	
Single										County: Chaves	
Producing Thru Tubing					Reservoir Temp. °F: 110°					Mean Annual Temp. °F: 60°	
					Baro. Press. - P _a : 13.2					State: New Mexico	
L: 4596.5		H: 46956.5		C _g : .6366		% CO ₂ : 000		% N ₂ : 6.004		% H ₂ S: 0	
								Prover: 2.00"		Meter Run: Taps	

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	
SI							586				24 Hrs
1.	2"	x	.0625	555		59°	556	60°			1 Hr.
2.	2"	x	.09375	518		59	520	60			1 Hr.
3.	2"	x	.1250	443		53	446	60			1 Hr.
4.	2"	x	.1875	273		52	275	60			1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor F _{pv}	Rate of Flow Q, Mcfd
1	.06405		568.2	1.001	1.254	1.051	48
2	.1410		531.2	1.001	1.254	1.048	98.9
3	.2648		456.2	1.007	1.254	1.041	158.8
4	.6082		286.2	1.008	1.254	1.027	225.9
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	N/A	Mcf/bbl.
1	.86	519	1.46	.906	A.P.L. Gravity of Liquid Hydrocarbons	N/A	Deg.
2	.81	519	1.46	.911	Specific Gravity Separator Gas	.6366	XXXXXXXXXX
3	.69	513	1.45	.922	Specific Gravity Flowing Fluid	XXXXXX	
4	.43	512	1.44	.948	Critical Pressure	659	P.S.I.A.
5					Critical Temperature	355	R

NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2955$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1875$
1	568.2	322.8	32.3			
2	531.2	282.2	76.8			
3	456.2	208.1	150.9			
4	286.2	81.9	277.1			
5						

Absolute Open Flow: 268 Mcfd @ 15.025		Angle of Slope θ: 56°		Slope, n: 6638	
---------------------------------------	--	-----------------------	--	----------------	--

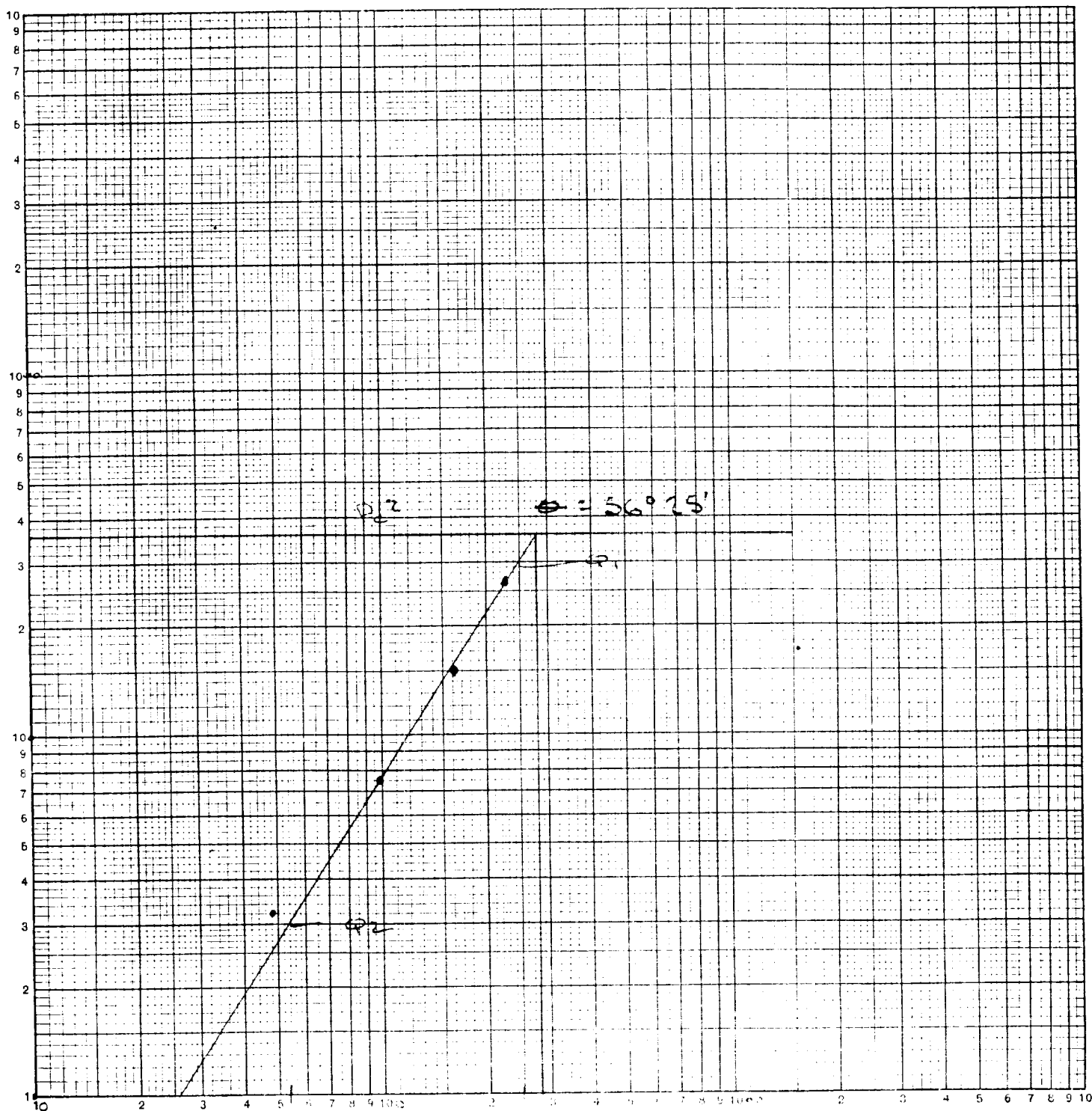
Remarks:		
Approved By Commission:	Conducted By: J.W.	Checked By: M.K.

RECEIVED OCT 20 1982

$$225.9 \left(\frac{351}{2771} \right)^{.6638} = 268$$

12-13

3 X 5 CIRCLES
KEUFFEL & ESSER CO.



U.C.P. 12-13

NEW-TEX LAB

PHONE 505/393-3561

P. O. BOX 1161

611 W. SNYDER

HOBBS, NEW MEXICO 88240

ANALYSIS CERTIFICATE

CLIENT: JOHN WEST ENGINEERING
ADDRESS: 412 N. DAL 1450
CITY, STATE: HOBBS NM 88240

ANALYSIS NUMBER: 6560
DATE OF ANAL: 12/29/82
DATE SECURED: 12/27/82

SAMPLE IDENT: ELKAY INC - PENNSYLV STATE BL
SAMPLING PRESS: SAMPLING TEMP:

***** GAS ANALYSIS *****

	MOLE PERCENT	BAL. OF
NITROGEN	1.024	
CARBON DIOXIDE	2.200	
METHANE	85.544	
ETHANE	4.825	1.109
PROPANE	1.634	0.124
ISO-BUTANE	2.137	0.265
NORMAL BUTANE	2.541	0.171
ISO-PENTANE	2.153	2.751
NORMAL PENTANE	7.115	0.259
HEXANES	2.274	0.232
HEPTANES PLUS	2.044	3.832
TOTAL	100.220	0.261

PROPANE GRM: 0.45 BUTANES GRM: 2.24
ETHANE GRM: 1.21 HEPTANES PLUS GRM: 0.17

SPECIFIC GRAV (CALC.): 0.6366
MOLE WEIGHT: 13.44

HEV-BTU/CU FT	PRESSURE (PSIA)	WET	DRY
14.696	1000	1247	
14.652	1000	1214	
14.732	1000	1241	
14.732	1000	1241	

ANALYZED BY: DEANE STEPHEN

APPROVED BY: *[Signature]*