

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

Form C-122
Revised 9-1-66

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6-9-81	
Company Knox Industries, Inc.		Connection None	
Pool East La Rica Morrow		Formation Morrow	
Completion Date 6-9-81	Total Depth 13,537'	Plug Back To 13,527'	Elevation 3949.5 GR
Casing Size 3-1/2" Liner 17# 9.2#		Set At 10,950	Perforations: From 13,398 To 13,408
Tubing Size 2-7/8 6.5#		Set At 10,761	Perforations: From Opened ended
Type Well - Single - Provenhead - G.G. or G.O. Multiple Single		Packer Set At 10,761	County Lea
Producing Thru Tubing	Reservoir Temp. °F 190° 13,405'	Mean Annual Temp. °F 60°	State New Mexico
L 13,403	H 13,403	Gg 0.712	% CO ₂ % N ₂ % H ₂ S
Prover (Portable)		Meter Run Test Unit	Flange

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	of Flow
SI							4464	72°	Packer	-	96 Hrs. S
1.	4.026	1.25	400	8"	132°	4342	72°	"	"	-	1 Hr.
2.	4.026	1.25	400	22"	90°	4267	72°	"	"	-	1 Hr.
3.	4.026	1.25	400	42"	70°	4215	72°	"	"	-	1/2Hr.
4.	4.026	1.25	400	74"	75°	4212	72°	"	"	-	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 Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mgd
1	7.661	57.49	413.2	0.9372	1.185	1.034	506
2	7.661	95.34	413.2	0.9723	1.185	1.044	879
3	7.661	131.74	413.2	0.9905	1.185	1.049	1243
4	7.661	174.86	413.2	0.9859	1.185	1.048	1640
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NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.618	592	1.50	0.935	9.129	55°	0.712	X X X X X X X X	668	395
2	0.618	550	1.39	0.918				X X X X X		
3	0.618	530	1.34	0.908						
4	0.618	535	1.35	0.910						
5										

NO.	P _f	P _s	P _s ²	P _f ² - P _s ²	(1) $\frac{P_f}{P_f^2 - P_s^2} =$	(2) $\left[\frac{P_f^2}{P_f^2 - P_s^2} \right]^n =$
1	6714	45078	404		30.627609	10.979344
2	6685	44689	793			
3	6633	43997	1485			
4	6546	42850	2632			
5						

Absolute Open Flow		13,647	Mgd @ 15.025	Angle of Slope	55.0°	Slope, n	0.7002
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Remarks: Bottom hole pressure data (P_f and P_s) was obtained from subsurface instrument in hole during test period.

Approved by Commission: Jerry Smith	Conducted By: Otis Engineering	Calculated By: W. B. Young	Checked By: W. B. Young
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