

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 6-26-74	
Company WEST GAS INC.				Connection			
Pool WILDCAT				Formation ISMAY		Unit	
Completion Date JUNE 2/74		Total Depth 6600		Plug Back TD 6600		Elevation 4971 KB	
Farm or Lease Name West Gas Inc.							
Csg. Size 5 1/2	Wt. 14.0&17.0	d	Set At 6393	Perforations: From 6489 To 6502		Well No. NAVAJO B#1	
Tbg. Size 2 7/8	Wt. 6.5	d	Set At 6437	Perforations: From To		Unit Sec. Twp. Rge. 14 30 18	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 6437		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F 138 @ 6600'		Mean Annual Temp. °F 60		Baro. Press. - P _a 15.025	
State New Mexico							
L	H	Gg	% CO ₂ 5.35	% N ₂ 2.41	% H ₂ S Nil	Prover	Meter Run 4.026
						Taps Flange	

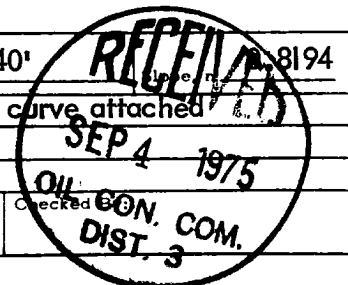
FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							2447			
1.	4.026		0.75	612	20	97	2383		Nil Packer	4
2.	4.026		0.75	612	75	90	2262			4
3.	4.026		1.25	612	27	85	2140			4
4.	4.026		1.25	612	74	65	1919			4
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, Fpv	Rate of Flow Q, Mcfd
1	3.435	20 x 162	612	0.9662	0.9608	1.054	375
2	3.435	75 x 612	612	0.9723	0.9608	1.056	733
3	9.643	27 x 612	612	0.9768	0.9608	1.057	1240
4.							
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio 32.5 Mcf/bbl.
					A.P.I. Gravity of Liquid Hydrocarbons 53.7 Deg.
1					Specific Gravity Separator Gas 0.686 XXXXXXX
2					Specific Gravity Flowing Fluid XXXXX 0.7633
3.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
4.					Critical Temperature _____ R _____ R
5					

NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$ _____	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ _____
1	9108	2957	8744	364		
2	9108	2866	8214	894		
3	9108	2748	7552	1556		
4	9108	2463	6066	3042		
5						

Absolute Open Flow 5,300 Mcfd @ 15.025				Angle of Slope 50° 40'	
Remarks: Bottom hole pressures recorded with Bomb. Copy of Calculations and curve attached					
Approved By Commission:		Conducted By: Tefteller Inc.		Calculated By: Tefteller Inc.	



TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Well : NAVAJO B-1

Field : WILDCAT

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File 2-5711-P & BU

GAS PRODUCTION DATA

Date of Test	6-26-74	6-26-74	6-28-74	6-28-74
Rate No.	1	2	3	4
Stabilization Period (Hours)	4	4	4	4
Flow Time Used for Calculations (Hours)	Final	Final	Final	Final
Type of Meter	Diff.	Diff.	Diff.	Diff.
Pressure Range of Meter	0-1000	0-1000	0-1000	0-1000
Size Line (Inch)	4.026	4.026	4.026	4.026
Size Orifice (Inch)	.750	.750	1.250	1.250
Type Connections: Flange or Pipe	Flange	Flange	Flange	Flange
Primary Separator Pressure (Psig)	600	600	600	600
Primary Separator Temperature (°F)	97	90	85	65
Flowing Temperature (°F)	97	90	85	65
Gas Gravity	.650	.650	.650	.650
Temperature Base (°F)	60	60	60	60
Pressure Base (Psia)	15.025	15.025	15.025	15.025
Coefficient (MCF/D)	3.435	3.435	9.643	9.643
Differential (h _w)	20	75	27	74
Static Pressure (P _m) (Psia)	612	612	612	612
Supercompressibility Factor (F _{py})	1.054	1.056	1.057	1.065
Flowing Temperature Factor (F _{tf})	0.9662	0.9723	0.9768	0.9952
Specific Gravity Factor (F _g)	0.9608	0.9608	0.9608	0.9608
GAS VOLUME (MCF/D)	375	733	1240	2140
P _f	3018	3018	3018	3018
P _s	2957	2866	2748	2463
P _f ² (Thousands)	9108	9108	9108	9108
P _s ² (Thousands)	8744	8214	7552	6066
P _f ² -P _s ² (Thousands)	364	894	1556	3042

AOFP : 5300 Mcfd
n : 0.81941
θ : 50° 40'

