

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

ONE

~~MULTI~~-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Blanco-Mesaverde Formation Mesaverde County Rio Arriba

Initial x Annual _____ Special _____ Date of Test 2-9-58

Company Humble Oil & Refining Company Lease No. Lindrith Gas Unit 1 Well No. 1-Mesaverde

Unit M Sec. 20 Twp. 26N Rge. 2W Purchaser - (Not connected)

Liner 4 1/2" 11.6 4.000" 3961-6150 10 sections between 5486 & 6086 ft (M.V.)
 Casing 7 5/8" Wt. 26.4 I.D. 6.969" Set at 4007 Perf. 3778-3806 & Tgs 3828-3842 (P.C.)

MV Tbg. 2" EUE 4.7 1.995" 5431 None (Packer seal Nipples on bottom)

PC Tubing 2" EUE Wt. 4.7 I.D. 1.995" Set at 3769 Perf. None (Pin collars on bottom)
10 sections between

MV Gas Pay: From 5486 to & 6086 ft L 5431 xG 0.7 (est) -GL 3802 Bar.Press. 12 psi
(Long string)

Producing Thru: Casing _____ Tubing x Type Well Gas-Gas Dual

Baker Model DA Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 2-9-58 Packer at 5431 ft. Reservoir Temp. 140° F

OBSERVED DATA

Tested Through (Packer) (Choke) (None) Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.	
	(Prover) (Line) Size	(Choke) (Size)	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.		Press. psig
1						1665 (Mesaverde)			
2						1050 (Pict. Cl.)	1050 (Pict. Cl.)		
3		3/4"	215		50	215	50		3
4						1050 (Pict. Cl.)	1050 (P.C.)		shut in
5									

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor Ft	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365		227	1.0098	0.9258	1.028	2697
2.							
3.							
4.							
5.							

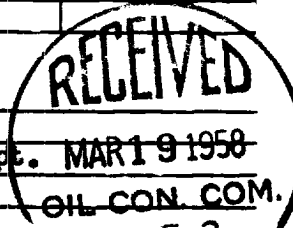
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 1677 P_c 2,812.3

No.	P _w Calculated (psia)	P _t ² (Thous.)	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ² (Thous.)	P _c ² -P _w ²	Cal. P _w	P _w (psia) / P _d (psia)
1.	455	51.5	29.357	643.0	155.6	207.1	2605.2	455.1	0.2714
2.									
3.									
4.									
5.									

Absolute Potential: 2855 MCFPD; n 0.75
 COMPANY Humble Oil & Refining Company
 ADDRESS Box 1268, Farmington, New Mexico
 AGENT and TITLE Russell M. Lilly Russell M. Lilly, Dist. Supt.
 WITNESSED _____
 COMPANY _____



REMARKS

Dual well equipped with packer and two strings of tubing. Mesaverde gas production is confined to the tubing string set at 5431 feet. Pictured Cliffs zone can produce through tubing string set at 3769 feet, or through the tubing-casing annulus.

OIL CONSERVATION COMMISSION

AZTEC DISTRICT OFFICE

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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Undesignated Pictured Cliffs Formation Pictured Cliffs County Rio Arriba

Initial x Annual _____ Special _____ Date of Test 1-29-58

Company Humble Oil & Refining Company Lease No. Lindrith Gas Unit 1 Well No. 1 - Pict. Cliffs

Unit M Sec. 20 Twp. 26N Rge. 2W Purchaser (Not connected)

Liner 4 1/2" Wt. 11.6 I.D. 4.000" Set at 3961-6150 Perf. 10 sections between 5486 & 6086 ft. (MV)
 Casing 7 5/8" Wt. 26.4 I.D. 6.969" Set at 4007 Perf. 3778-3806 & 3828-3842 (P.G.)

P.C Tbg. 2" EUE Wt. 4.7 I.D. 1.995" Set at 3769 Perf. None (Pin collar on bottom)
 M. Tubing 2" EUE Wt. 4.7 I.D. 1.995" Set at 5431 Perf. None (Packer to seal nipple on bottom)

Gas Pay: From & 3828 To 3842 L 3769 xG 0.7 (est) -GI 2638 Bar. Press. 12 psi
 (short string)

Producing Thru: Casing _____ Tubing x Type Well Gas - Gas Dual

Baker Model DA Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 2-9-58 Packer at 5431 Ft. Reservoir Temp. 110°F

OBSERVED DATA

Tested Through (Prover) (Choke) (Natural) Type Taps _____

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.	
	(Prover) (Line) Size	(Choke) (Restrictor) Size	Press. psig	Diff. h _w	Temp. °F	Press. psig	Temp. °F		Press. psig
SI						1028 (Pict. Cliffs)		1028 (Pict. Cliffs)	
SI						1643 (Mesaverde)			
1.		3/4"	75		45	75	45	145 (Pict. Cliffs)	3
2.						1643 (Mesaverde)			
3.									

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365		87	1.0147	0.9258	1.013	1024
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

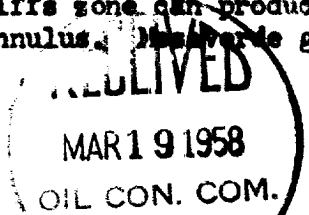
Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
 Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
 F_c _____ (1-e^{-s}) P_c 1040 P_c² 1081.6

No.	P _w (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w (psia) / P _c (psia)
1.	157					24.6	1057.0		0.151
2.									
3.									
4.									
5.									

Absolute Potential: 1044 MCFPD; n 0.85
 COMPANY Humble Oil & Refining Company
 ADDRESS Box 1268, Farmington, New Mexico
 AGENT and TITLE Russell M. Lilly Russell M. Lilly, Dist. Supt.
 WITNESSED _____
 COMPANY _____

REMARKS

Dual well equipped with packer and two strings of tubing. Pictured Cliffs zone can produce through tubing string set at 3769 feet, or through the tubing-casing annulus. Mesaverde gas production is confined to the tubing string set at 5431 feet.



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AZTEC DISTRICT OFFICE

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