

NEW MEXICO OIL CONSERVATION COMMISSION

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APR 1 1958

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Pennsylvanian County Eddy
Initial x Annual _____ Special _____ Date of Test 2-25-58
Company Shell Oil Company Lease James Ranch Unit #1 Well No. 1
Unit 0 Sec. 36 Twp. 22-S Rge. 30-E Purchaser _____
Casing 5 1/2 Wt. 23# I.D. 4.67 Set at 14,927 Perf. 12,920 To 12,929
Tubing 2 Wt. 4.7# I.D. 1.995 Set at 12,808 Perf. Open End To _____
Gas Pay: From 12,920 To 12,929 L 12,808 xG Mix 0.647 GL 8,287 Bar.Press. 13.2#
Producing Thru: Casing _____ Tubing x Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer 12,803 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Orifice) (Meter) Type Taps _____ Flg. _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						6600				72 hrs.
1.	1"	1.750	405	46	98	5400				3 hrs.
2.	1"	1.750	405	80	100	4990				3 hrs.
3.	1"	3.000	417	19	78	3205				3 hrs.
4.	1"	3.000	417	26	81	2340				3 hrs.
5.	1"	3.000	417	29	82	1968				24 hrs.

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	19.27	138.66	418.2	0.9653	0.9877	1.023	2.618
2.	19.27	182.86	418.2	0.9636	0.9877	1.026	3.441
3.	66.67	90.39	430.2	0.9831	0.9877	1.032	6.038
4.	66.67	105.73	430.2	0.9804	0.9877	1.031	7.038
5.	66.67	111.66	430.2	0.9795	0.9877	1.031	7.424

PRESSURE CALCULATIONS

54.8 API @ 72° F

Gas Liquid Hydrocarbon Ratio 86.012 cf/bbl.
Gravity of Liquid Hydrocarbons 53.60 deg.
F_c 9.936 (1-e^{-s}) 0.571

Specific Gravity Separator Gas 0.615
Specific Gravity Flowing Fluid 0.7645
P_c 6613.2 P_c 43,734.4

No.	P _w P _t (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 P _c
1.	5413.2	29302.7	26.012	676.624	336.352	29689.0	14045.4	5448.8	82.4
2.	5003.2	25032.0	34.190	1168.956	667.474	25699.5	18034.9	5069.5	76.7
3.	3213.2	10356.8	59.994	3599.230	2055.189	12412.0	31322.4	3523.1	53.3
4.	2353.2	5537.6	69.930	4890.235	2792.307	8329.9	35404.5	2886.1	43.5
5.	1901.2	3925.2	73.765	5441.275	3106.968	7032.2	36702.2	2651.8	40.7

Absolute Potential: 9,000 MCFPD; n 1,000

COMPANY Shell Oil Company
ADDRESS Box 345, Roswell, New Mexico
AGENT and TITLE A. L. Ellard - Gas Test Eng.
WITNESSED Earl Smith
COMPANY El Paso Natural Gas Company

REMARKS

SL. or greater than 1.000. Slope of 1.000 was down through the point of
to the 1.000 rate of flow