NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS 1957 OCT 8 AM 9:15

Pool Eumont Formation Penrose County Lea

Initial X Annual ______ Special ______ Date of Test 9-16/9-20 1957

Company Shell Oil Company Lease State "C" Well No. 1

Unit A Sec. 24 Twp. 19 Rge. 36 Purchaser El Paso Natural Gas Co.

Casing 7" Wt. 24.0# I.D. 6.336 Set at 3844 Perf. 3505 To 3705

Tubing 2 1/2" Wt. 6.5# I.D. 2.441 Set at 3465 Perf. ______ To ______

Gas Pay: From 3505 To 3705 L 3465 xG 0.675 GL 2339 Bar.Press. 13.2

Producing Thru: Casing ______ Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 5-16-57 Packer 3465 Reservoir Temp. ______

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps ______

No.	Flow Data (~~Prover~~) (Line) Size	(~~Choke~~) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI						993				72
1.	4 x 1.750		921	20.70	77	964				24
2.	4 x 1.750		933	82.70	75	938				24
3.	4 x 1.750		975	39.33	74	988				24
4.	4 x 1.750		946	77.44	73	873				24
5.	Second test on this well. Good point alignment on three points and fair pull down.									

FLOW CALCULATIONS

No.	Coefficient Flg. (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.	19.87	186.12		.9840	.9427	1.054	1,999
2.	19.87	187.35		.9859	.9427	1.054	[illegible]
3.	19.87	171.63		.9868	.9427	1.060	[illegible]
4.	19.87	261.08		.9877	.9427	1.060	[illegible]
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ______ cf/bbl.
Gravity of Liquid Hydrocarbons ______ deg.
F_c 3.066 $(1-e^{-s})$ 0.149

Specific Gravity Separator Gas ______
Specific Gravity Flowing Fluid ______
P_c 1006.2 P_c^2 1012.4

No.	P_w / P_t (psia)	P_t^2	[illegible]	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	977.2	954.9	17.1	137.22	20.38	975.4	37.0		
2.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
3.	[illegible]	[illegible]	157.3	[illegible]	[illegible]	[illegible]	[illegible]		
4.	886.2	781.4	187.0	594.13	92.57	868.0	144.4		
5.									

Absolute Potential: 15,000 MCFPD; n 0.618
COMPANY Shell Oil Company
ADDRESS P. O. Box 1957, Hobbs, New Mexico
AGENT and TITLE [illegible], District Exploitation Engineer
WITNESSED [illegible]
COMPANY Shell Oil Company

Original Signed By
Rex C. Cabaniss

REMARKS

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w). MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.