

RECEIVED NEW MEXICO OIL CONSERVATION COMMISSION

MAY 16 1966

Form C-122
Revised 12-1-55

MULTI-POINT BACK-PRESSURE TEST FOR GAS WELLS

ARTESIA, OFFICE

Bend

Pool Chalk Bluff Draw Formation Bend County Madison

Initial X Annual Special Date of Test 4-16-56

Company Humble Oil & Refining Company Lease Chalk Bluff Draw Unit I Well No. 1

Unit K Sec. 5 Twp. 18S Rge. 27E Purchaser no connection

Casing 5 1/2 Wt. 17.0 I.D. 4.892 Set at 9500 Perf. 9443 To 9465

Tubing 2 Wt. 4.7 I.D. 1.995 Set at 9402 Perf. none To

Gas Pay: From 9443 To 9465 L 9402 xG 0.835 -GL 7851 Bar.Press. 13.2

Producing Thru: Casing Tubing X Type Well single

Date of Completion: 4-13-56 Packer none Single-Bradenhead-G. G. or G.O. Dual 150 F 6942 ft.
Reservoir Temp.

OBSERVED DATA

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2978	75			
1.	4	2.5	26.4		-4	2708	82			2
2.	4	2.5	41.0		0 -6	2578	80			3
3.	4	2.5	51.3		-8	2223	76			4
4.	4	2.5	69.7		-10	1738	76			2
5.										

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 _{py}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	139.223		39.6	1.0679	0.8476	1.0000	4990
2.	139.223		54.2	1.0702	0.8476	1.0000	6845
3.	139.223		64.5	1.0726	0.8476	1.0000	8164
4.	139.223		82.9	1.0750	0.8476	1.0000	10516
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 162000 cf/bbl.
Gravity of Liquid Hydrocarbons 54 deg.
F_c (1-e^{-s})
Specific Gravity Separator Gas 0.835
Specific Gravity Flowing Fluid
P_c 3734 P_c 13943

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.	3514					12348	1.95	3514	94.1
2.	3374					11384	2599	3374	90.4
3.	3132					9809	4234	3132	87.9
4.	2853					8140	5883	2853	76.4
5.									

Absolute Potential: 17500 MCFPD; n 0.18

COMPANY Humble Oil & Refining Company

ADDRESS Box 2347, Hobbs, New Mexico

AGENT and TITLE Joe Isore District Superintendent

WITNESSED

COMPANY Humble Oil & Refining Company

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 .

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

A blank sheet of graph paper with a grid pattern. The grid consists of small squares formed by thin lines. There are also thicker lines forming a larger grid, dividing the page into four quadrants. A small dark smudge or mark is visible near the center-right of the page.

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The material on this page is for the condition of the well at above date.

10-1-76

10

Finished drilling

10-1-76

TITLE

DATE

(Continued from page 60)

1-1/2" casing from 943-945 with water jet gun using Dupont 264
 powder charges with 4 shots per foot.
 No. 8 from 940 to 942
 No. 4 from 942 to 944
 No. 8 from 944 to 946
 No. 4 from 946 to 948
 No. 8 from 948 to 950
 No. 4 from 950 to 952
 No. 8 from 952 to 954
 No. 4 from 954 to 956
 No. 8 from 956 to 958
 No. 4 from 958 to 960
 No. 8 from 960 to 962
 No. 4 from 962 to 964
 No. 8 from 964 to 966
 No. 4 from 966 to 968
 No. 8 from 968 to 970
 No. 4 from 970 to 972
 No. 8 from 972 to 974
 No. 4 from 974 to 976
 No. 8 from 976 to 978
 No. 4 from 978 to 980
 No. 8 from 980 to 982
 No. 4 from 982 to 984
 No. 8 from 984 to 986
 No. 4 from 986 to 988
 No. 8 from 988 to 990
 No. 4 from 990 to 992
 No. 8 from 992 to 994
 No. 4 from 994 to 996
 No. 8 from 996 to 998
 No. 4 from 998 to 1000
 No. 8 from 1000 to 1002
 No. 4 from 1002 to 1004
 No. 8 from 1004 to 1006
 No. 4 from 1006 to 1008
 No. 8 from 1008 to 1010
 No. 4 from 1010 to 1012
 No. 8 from 1012 to 1014
 No. 4 from 1014 to 1016
 No. 8 from 1016 to 1018
 No. 4 from 1018 to 1020
 No. 8 from 1020 to 1022
 No. 4 from 1022 to 1024
 No. 8 from 1024 to 1026
 No. 4 from 1026 to 1028
 No. 8 from 1028 to 1030
 No. 4 from 1030 to 1032
 No. 8 from 1032 to 1034
 No. 4 from 1034 to 1036
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 No. 4 from 1038 to 1040
 No. 8 from 1040 to 1042
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 No. 8 from 1080 to 1082
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 No. 8 from 1348 to 1350
 No. 4 from

PLATE BOOK 96-001-1000 - 1000

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of reworking, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if casing was added, or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If logs or bridges were put in to test, state kind of material used, position, and results of pumping or draining.

U. S. GOVERNMENT PRINTING OFFICE 16-43094-2

MILKING AND CEMENTING RECORD

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