NEW MEXICO OIL CONSERVATION COMMISSION

Oct 21 3 09 PM '63

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Formation Tubb County Lea

Initial ____ Annual ____ Special X Date of Test 7-4/7-12-63

Company Tidewater Oil Co. Lease Percy Hardy Well No. 2

Unit O Sec. 17 Twp. 21 Rge. 37 Purchaser El Paso Natural Gas Co.

Casing 5 1/2" Wt. 15.5 I.D. ____ Set at 6650 Perf. 6200 To 6300

Tubing 2 3/8" Wt. 4.7 I.D. ____ Set at ____ Perf. ____ To ____

Gas Pay: From 6200 To 6300 L 6200 xG Mixl .313-GL 8141 Bar.Press. 13.2

Producing Thru: Casing X Tubing ____ Type Well G. O. Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: January 8, 1956 Packer 6540 Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (Choke) (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								636		72
1.	4	.500	206	1.25	97			498		24
2.	4	.500	232	3.12	94			352		24
3.	4	.500	227	4.50	95			251		24
4.										
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_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	1.525	16.75		.9662	.9245	1.020	23.28
2.	1.525	27.65		.9638	.9245	1.022	38.59
3.	1.525	31.88		.9630	.9245	1.021	45.80
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 3.881 cf/bbl.
Gravity of Liquid Hydrocarbons 37.4 deg.
F_c 1.758 $(1-e^{-s})$ .429

Specific Gravity Separator Gas .702
Specific Gravity Flowing Fluid ____
P_c 649.2 P_c^2 421.5

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$\frac{(F_cQ)^2}{(1-e^{-s})}$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	511.2	261.3	--------	NEG.	---------	261.3	160.2		
2.	365.2	133.4				133.4	288.1		
3.	264.2	69.8				69.8	351.7		
4.									
5.									

Absolute Potential: 52 MCFPD; n .818
COMPANY Tidewater Oil Co.
ADDRESS Box 249, Hobbs, N. Mex.
AGENT and TITLE C. L. Wade, Area Supt. C. L. Wade
WITNESSED Jack T. Littlefield
COMPANY El Paso Natural Gas Co.

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.

TIDEWATER OIL CO
HERCY HARDY # 2
UNIT G, SEC. 17, 21-37, LEA CO., N.M.
TUBB POOL
7-12-1963