NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

AMENDED

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undes. Dakota Formation Dakota County San Juan

Initial XX Annual ____ Special ____ Date of Test 8-30-60

Company Delhi-Taylor Oil Corp. Lease Lucknick Well No. 2

Unit NE/4 Sec. 31 Twp. 30-N Rge. 10-W Purchaser ------

Casing 5-1/2" Wt. 17# I.D. 4.892 Set at 7146 Perf. 6896 To 7066

Tubing 2" Wt. 4.70 I.D. 1.995 Set at 7000 Perf. Open ended To ____

Gas Pay: From 6896 To 7066 L ____ xG 0.649 -GL ____ Bar.Press. 12

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

Date of Completion: 7-19-60 Packer None Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	Flow Data (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						2005		2014		8 days
1.		3/4	247		84°	247	84	926		3 hours
2.										
3.										
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.	12.363		259	0.9777	0.9643	1.021	3083
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 2017 P_c^2 4068289

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.									
2.									
3.									
4.									
5.									

Absolute Potential: 3701 MCFPD; n 0.75

COMPANY Delhi-Taylor Oil Corporation
ADDRESS P. O. Drawer 1138, Farmington, New Mexico
AGENT and TITLE J. F. Berry - Dist. Engineer J. F. Berry by mac
WITNESSED Bob Mitchell
COMPANY El Paso Natural Gas Company

REMARKS

RECEIVED
SEP 27 1960
OIL CON. COM.
DIST. 3

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.