NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tapacito Pictured Cliffs Formation Pictured Cliffs County Rio Arriba

Initial X Annual ____ Special ____ Date of Test July 17, 1956

Company Honolulu Oil Corporation Lease Pierrilla Apache Well No. 3

Unit K Sec. 9 Twp. 26N Rge. 4 W Purchaser Southern Union Gas Company

Casing 5 1/2" Wt. 14# I.D. 5.012 Set at 3910' Perf. 3805' To 3835'

Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 3839 Perf. Open end To -

Gas Pay: From 3805 To 3835 L ____ xG .665 -GL ____ Bar.Press. 12 PSIA

Producing Thru: Casing ____ Tubing X Type Well Single Gas

Date of Completion: June 15, 1956 Packer None Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. 110°

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						1074		1074		
1.		.750	595		30	595	30	990		3 hrs.
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.	12.3850		607	1.0028	.9498	1.116	816
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio None cf/bbl.
Gravity of Liquid Hydrocarbons ____ deg.
F_c ____ $(1-e^{-s})$ ____

Specific Gravity Separator Gas ____
Specific Gravity Flowing Fluid ____
P_c 1086 P_c^2 1179

No.	P_w P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.						1004	175		.9116
2.									
3.									
4.									
5.									

Absolute Potential: 12,500 MCFPD; n .85

COMPANY HONOLULU OIL CORPORATION
ADDRESS P. O. DRAWER 1391, MIDLAND, TEXAS
AGENT and TITLE W. G. Edwards Division Production Engineer
WITNESSED Virgil Ferran
COMPANY SOUTHERN UNION GAS COMPANY

REMARKS

RECEIVED
SEP 5 1956
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.

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