NEW MEXICO OIL CONSERVATION COMMISSION

3-OCC, 1-HLKendrick, 2-Phillips(Corbett,Cullender)
1-BParrish,1-TCA,1-TCowan,
1-Comm.Pub.Land,1-F

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County Rio Arriba

Initial X Annual Special Date of Test 10-17-64

Company Beta Development Co. Lease San Juan 29-6 Unit Well No. 78

Unit L Sec. 22 Twp. 29 N Rge. 29N 6W Purchaser El Paso Natural Gas Products

Casing 4½ Wt. 11.6 I.D. 4.000 Set at 7765 Perf. 7559 To 7725

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 7699 Perf. Open To End

Gas Pay: From 7559 To 7725 L 7699 xG .670 -GL Bar.Press. 120

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

Date of Completion: 10-5-64 Packer 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						2661		2665		7 days
1.		3/4	214		76	214	76	870		3 hr
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.	12.3650		226	.9850	.9463	1.021	2660
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas
Specific Gravity Flowing Fluid
P_c 2677 P_c^2 7166.3
P_w 882 P_w^2 777.9

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.						777.9	6388.4		.329
2.									
3.									
4.									
5.									

Absolute Potential: 2,898 MCFPD; n 75

COMPANY Beta Development Co.
ADDRESS 234 Petr.Club Plaza, Farmington, N. M.
AGENT and TITLE G.L.Hoffman, Prod. Engineer
WITNESSED H.McAnally
COMPANY El Paso Natural Gas Products

REMARKS

RECEIVED
OCT 28 1964
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.