NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool **Ballard** Formation **Pictured Cliffs** County **Rio Arriba**

Initial **X** Annual _____ Special _____ Date of Test **6-23-65**

Company **Continental Oil Company** Lease **AXI Apache "A"** Well No. **7**

Unit **J** Sec. **9** Twp. **23N** Rge. **5W** Purchaser **Southern Union Gas Company**

Casing **4 1/2"** Wt. **9.5#** I.D. **4.090"** Set at **2110'** Perf. **2097'-2114'** To **2123' (Open-hole)**

Tubing **2 3/8"** Wt. **4.7#** I.D. **1.995"** Set at **2120'** Perf. **Open end** To _____

Gas Pay: From **2097'** To **2137'** L **2120'** xG **.675** -GL **1431** Bar.Press. **12 psi**

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

Date of Completion: **6-17-65** Packer **None** Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) ~~(XXXXX)~~ ~~(XXXXX)~~ Type Taps -

No.	Flow Data (Prover) (Line) Size	(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			430			430		430		SI 144 hrs.
1.	2"	1/4	220		62°	220		363		1 hr.
2.	2"	3/8	183		64°	183		303		1 hr.
3.	2"	1/2	123		64°	123		233		1 hr.
4.	2"	5/8	78		64°	78		173		1 hr.
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.	1.4030		232	.9981	.9427	1.024	314
2.	3.0691		195	.9962	.9427	1.020	573
3.	5.5233		135	.9962	.9427	1.013	709
4.	8.3555		90	.9962	.9427	1.000	706
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid **.675**
P_c **442** P_c^2 **195,364**

No.	P_w ~~(XXXXXXX)~~	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.	375					140,625	54,739		84.8
2.	315					99,225	96,139		71.3
3.	245					60,025	135,339		55.5
4.	185					34,225	161,139		41.9
5.									

Absolute Potential: **830** MCFPD; n **.77**

COMPANY **Continental Oil Company**
ADDRESS **P. O. Box 3312, Durango, Colorado**
AGENT and TITLE **E. H. Errett, Test Engineer**
WITNESSED **Fred Van Matre, District Engineer** Fred Van Matre
COMPANY **Continental Oil Company**

REMARKS

NMOCC-Santa Fe(3) S.U.(2) NDH

RECEIVED
JUL 6 1965
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.

CONTINENTAL OIL COMPANY
AXI APACHE "A" NO. 7
J-9-23N-5W
RIO ARRIBA COUNTY
6-23-65

BY: E. B. ERRETT