NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

1957 FEB 10 : 32

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool **Eumont**   Formation **7-Rivers**   County **Lea**

Initial _____ Annual _____ Special __**X**__   Date of Test **8-20 to 24 - 56**

Company **Amerada Petroleum Corporation** Lease **L.W. White**   Well No. **1**

Unit **P** Sec. **34** Twp. **20-S** Rge. **36-E** Purchaser **El Paso Natural Gas**

Casing **7"** Wt. **23#** I.D. **6.366** Set at **3935'** Perf. **3588'** To **3632'**

Tubing **3.5'** Wt. **9.3#** I.D. **2.992** Set at **3901'** Perf. **3644'** To **3668'**

Gas Pay: From **3588'** To **3628'** L **3588'** xG **0.670** -GL **2404** Bar.Press. **13.2**

Producing Thru: Casing __**X**__ Tubing _____ Type Well **G.O. Dual**

Date of Completion: **7-6-54** Packer **3743'** Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. **89°**

OBSERVED DATA

Tested Through ~~Orifice~~ (Meter)   Type Taps **Flange**

No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
	Flow Data					Tubing Data		Casing Data		
SI								836		72
1.	4"	1.500	577	7.9²	92			688		24
2.	4"	1.500	565	6.2²	100			672		24
3.	4"	1.500	573	4.6²	90			677		24
4.	4"	1.500	560	3.1²	95			702		24
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.	13.99	191.9	590.2	0.9706	0.9463	1.056	2604
2.	13.99	142.9	578.2	0.9636	"	1.052	1918
3.	13.99	111.4	586.2	0.9723	"	1.056	1514
4.	13.99	74.2	573.2	0.9680	"	1.054	1002
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.   Specific Gravity Separator Gas _____

Gravity of Liquid Hydrocarbons _____ deg.   Specific Gravity Flowing Fluid _____

F_c **1.134** $(1-e^{-s})$ **0.152** P_c **849.2** P_c^2 **721.0**

No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ $(1-e^{-s})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	701.2	491.7	2.95	8.70	1.32	493.02	228	491.9	0.58
2.	685.2	469.5	2.18	4.75	.72	470.22	260.78	469.7	0.55
3.	690.2	476.4	1.72	2.96	.45	476.85	244.15	476.5	0.56
4.	715.2	511.5	1.14	1.30	.20	511.70	209.30	511.6	0.60
5.									

Absolute Potential: **8250** MCFPD; n **1.0 (Assumed)**

COMPANY **Amerada Petroleum Corporation**

ADDRESS **Drawer D - Monument, New Mexico**

AGENT and TITLE **W.G. Abbott** *W.G. Abbott*

WITNESSED

COMPANY **El Paso Natural Gas**

REMARKS

The slope was in excess of 1.00, but as this is a retest, a line with a slope of 1.0 was drawn through the point with highest flow rate.

ELVIS ... GAS ENGINE...

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.