NEW MEXICO OIL CONSERVATION COMMISSION

OFFICE O.C.C.
JUL 2 3 43 PM '64

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool WEST JAL STRAWN Formation STRAWN County LEA

Initial X Annual ____ Special ____ Date of Test 6-16-64 to 6-26-64

Company SKELLY OIL COMPANY Lease JAL "B" Well No. 1

Unit J Sec. 17 Twp. 25 S Rge. 36 E Purchaser EL PASO NATURAL GAS COMPANY

Tubing 2 3/8" O.D. Wt. 4.7# N-80 I.D. 1.995" Set at 11,917 Perf. 11,911 To 11,917

Liner 5" O.D. Wt. 18# N-80 I.D. 4.276" Set at 12,273' Perf. 11,959 To 12,090

Gas Pay: From 11,959 To 12,090 L ~~12,024~~ 11,911 xG Mix .649 -GL ~~7804~~ 7730 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well SINGLE

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 6-3-64 Packer Model "D" @11,905 Reservoir Temp. 172° F.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps FLANGE

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI	6"	3"				6001				
1.	6"	3"	801	4.20	58	5058	84			72 Hours
2.	6"	3"	779	6.75	4	4567	89			22 Hours
3.	6"	3"	835	6.90	3	4427	91			26 Hours
4.	6"	3"	835	16.00	9	3013	94			24 Hours
5.										24 Hours

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.	~~57.46~~	58.48	814.2	1.0019	1.0084	~~1.075~~ 1.069	~~3650~~ 3629
2.	~~57.46~~	73.13	792.2	1.0586	1.0084	~~1.111~~ 1.108	~~4997~~ 4920
3.	~~57.46~~	76.50	848.2	1.0598	1.0084	~~1.124~~ 1.115	~~5280~~ 5252
4.	~~57.46~~	116.50	848.2	1.0529	1.0084	~~1.120~~ 1.118	~~7960~~ 7[illegible]
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 47,584 cf/bbl.
Gravity of Liquid Hydrocarbons 52° deg.
F_c 9.936 $(1-e^{-s})$ ~~0.135~~ .392

Specific Gravity Separator Gas .590
Specific Gravity Flowing Fluid .7711
P_c 6014 P_c^2 36,168

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.	5071.2	25717	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5124.7	85.2
2.	4580.2	20978	[illegible]	[illegible]	1023.02	22,001.0	[illegible]	4690.6	80.1
3.	4440.2	19715	[illegible]	2762.26	1142.19	20,857.2	15310.8	4567.0	75.9
4.	3026.2	9158	79.091	6255.39	2595.99	11,754.0	24414.0	3428.4	57.0
5.									

Absolute Potential: 11,250 MCFPD; n ~~.87~~ .832

COMPANY SKELLY OIL COMPANY
ADDRESS P.O. BOX 730, HOBBS, NEW MEXICO, 88240
AGENT and TITLE H. E. AAB, DISTRICT SUPT.
WITNESSED
COMPANY

REMARKS

ORIGINAL SIGNED H. E. AAB

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.