

MULTI-POINT BACK-SUCKER TEST FOR GAS WELLS

Revised 12-1-55

Pool Dumont Formation Quana County Lea
Initial X Annual _____ Special _____ Date of Test 9-30-56
Company Gulf Oil Corp. Lease Arnott-Ramsay "C" Well No. 13
Unit F Sec. 21 Twp. 24 Rge. 36E Purchaser Permian Basin PL Co.
Casing 5.5 Wt. 17# I.D. 4.892" Set at 3762' Perf. 3030' To 3270'
Tubing 2.375 Wt. 4.7# I.D. 1.995" Set at 3860' Perf. _____ To _____
Gas Pay: From 3030 To 3270 L 3030 xG .660 -GL 2000 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G-O Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12-16-55 Packer 3730' Reservoir Temp. _____

OBSERVED DATA

Tested Through (Packer) (Slide) (Meter)Type Taps Pipe

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Line) (Line) Size	(Orifice) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.	<u>4</u>	<u>2.75</u>	<u>474.4</u>	<u>6.0</u>	<u>59</u>			<u>1044.5</u>		<u>73</u>
2.	<u>4</u>	<u>2.75</u>	<u>473.0</u>	<u>11.8</u>	<u>57</u>			<u>1043.5</u>		<u>24</u>
3.	<u>4</u>	<u>2.75</u>	<u>478.2</u>	<u>21.4</u>	<u>55</u>			<u>991.0</u>		<u>24</u>
4.	<u>4</u>	<u>2.75</u>	<u>475.0</u>	<u>42.5</u>	<u>55</u>			<u>955.0</u>		<u>24</u>
5.								<u>885.5</u>		<u>24</u>

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>73.11</u>	<u>54.09</u>	<u>487.6</u>	<u>1.0010</u>	<u>.9535</u>	<u>1.050</u>	<u>1963</u>
2.	<u>73.11</u>	<u>75.74</u>	<u>486.2</u>	<u>1.0029</u>	<u>.9535</u>	<u>1.050</u>	<u>5560</u>
3.	<u>73.11</u>	<u>102.5</u>	<u>491.4</u>	<u>1.0048</u>	<u>.9535</u>	<u>1.050</u>	<u>7539</u>
4.	<u>73.11</u>	<u>144.0</u>	<u>488.2</u>	<u>1.0048</u>	<u>.9535</u>	<u>1.050</u>	<u>10591</u>
5.							

PRESSURE CALCULATIONS

CO₂ - 0%
H₂ - 3.27%

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c 1.812 (1-e^{-s}) 0.129

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 1057.7 P_c 1118.7

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	P _w P _c
1.	<u>1026.7</u>	<u>1054.1</u>	<u>7.181</u>	<u>51.57</u>	<u>6.653</u>	<u>1060.8</u>	<u>57.9</u>	<u>1030.0</u>	<u>.97</u>
2.	<u>1004.2</u>	<u>1008.4</u>	<u>10.07</u>	<u>101.4</u>	<u>13.08</u>	<u>1021.5</u>	<u>97.2</u>	<u>1010.6</u>	<u>.96</u>
3.	<u>988.2</u>	<u>977.4</u>	<u>13.66</u>	<u>186.6</u>	<u>24.77</u>	<u>961.5</u>	<u>157.2</u>	<u>980.6</u>	<u>.93</u>
4.	<u>898.7</u>	<u>807.7</u>	<u>19.19</u>	<u>368.3</u>	<u>47.51</u>	<u>855.2</u>	<u>263.5</u>	<u>924.8</u>	<u>.87</u>
5.									

Absolute Potential: 27,700 MCFPD; n 0.67COMPANY Gulf Oil Corp.
ADDRESS Box 2167, Hobbs, N.M.AGENT and TITLE L. A. Smith

WITNESSED _____

COMPANY _____

REMARKS _____

L. A. SMITH
ENGINEER

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} = Supercompressibility 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 .

Gulf Oil Corp.
 Arnott-Ransay "C" 13
 F-21-21S-36E, Lea C6.
 9-30-56
 Bumont Pool
 Absolute Potential 27,700 MCF

LOGARITHMIC
 KEUFFEL & ESSER CO.
 2 X 2 CYCLES
 359-1110
 MADE IN U.S.A.

