

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Langlie Mattix Formation Yates - 7 Rivers County Lea
 Initial I Annual _____ Special _____ Date of Test 6-6-56
 Company Amstar Petroleum Corp. Lease Cagle "C" Well No. 1 (Tbg.)
990 E & W
 Unit D Sec. 3 Twp. 26 S Rge. 37 E Purchaser _____
 Casing 2 1/2 Wt. _____ I.D. _____ Set at 3314 Perf. 2680 To 2940
 Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3242 Perf. 3165 To 3195
 Gas Pay: From 3165 To 3195 L 3165 x G .650 = GL 2057 Bar. Press. 13.2
 (Assumed)
 Producing Thru: Casing _____ Tubing I Type Well G.O. Dual
 Single - Bradenhead - G. G. or G. O. Dual
 Date of Completion: 5-31-56 Packer: 2990

Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
No.	Prover Size	x Orifice Size	Press. psig	Diff. hw	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI						720			
1.	2 x	1.500	5		93	654		676	2
2.	2 x	1.500	25		73	473		553	1.90
3.	2 x	1.500	36		77	211		600	1.84
4.	2 x	1.500	37		65	111		608	1.82
5.									

No.	Coefficient (24-Hour)	$\sqrt{h_w p_w}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	54.3653		18.2	.9677	.9608		988
2.	54.3653		28.2	.9877	.9608		1.977
3.	54.3653		49.2	.9840	.9608		2.888
4.	54.3653		50.2	.9972	.9608		2.687
5.							

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c 9.828 (1-0-0) 0.132

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 738.2 P₂ 675.2

No.	P _w P _t (psia)	p ₂ P _t	p ₂ ² - p ₁ ² P _t	F _c Q	(F _c Q) ²	(F _c Q) ² (1-0-0)	P ₂ P _w	P ₂ ² - P _w ²
1.	687.2	448.1	38.4	9.36	87.9	11.1	448.2	38.2
2.	488.2	288.1	202.1	19.97	398.9	20.6	288.9	200.0
3.	288.2	28.1	487.2	25.12	631.0	28.3	12.2	487.0
4.	288.2	28.4	222.1	25.92	672.8	28.4	288.9	1.0
5.								

Wellhead Potential: _____

MCFPD; 0. _____

Continued on _____

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Del Rio Formation Del Rio - 7 Rivers County Del Rio
Initial X Annual _____ Special _____ Date of Test 6-7-96
Company Amador Petroleum Corp. Lease Circle 508 Well No. 1 (Del Rio)
Unit D Sec. 2 Twp. 26 N Rge. 37 E Purchaser _____
Casing 2 1/2 Wt. _____ I.D. _____ Set at 3314 Perf. 2600 To 2940
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 3242 Perf. 2645 To 2995
Gas Pay: From 2600 To 2940 L _____ x G _____ = GL 2742 Bar. Press. 13.8
Producing Thru: Casing X Tubing _____ Type Well G.G. Dual
Single-Bradenhead-G. G. or G. O. Dual
Date of Completion: 5-22-96 Packer: 2995

Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
No.	Prover Size	Orifice Size	Press. psig	Diff. hw	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.
SI								<u>720</u>	
1.	<u>2</u>	<u>x</u>	<u>1.125</u>	<u>44</u>	<u>74</u>			<u>670</u>	<u>2</u>
2.	<u>2</u>	<u>x</u>	<u>1.125</u>	<u>73</u>	<u>67</u>			<u>625</u>	<u>1.45</u>
3.	<u>2</u>	<u>x</u>	<u>1.500</u>	<u>65</u>	<u>65</u>			<u>512</u>	<u>1.30</u>
4.	<u>2</u>	<u>x</u>	<u>1.500</u>	<u>67</u>	<u>67</u>			<u>480</u>	<u>1.45</u>
5.									

No.	Coefficient (24-Hour)	$\sqrt{h_w P_w}$	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>28.2369</u>		<u>57.2</u>	<u>.9868</u>	<u>.9608</u>		<u>1.532</u>
2.	<u>28.2369</u>		<u>86.2</u>	<u>.9933</u>	<u>.9608</u>		<u>2.325</u>
3.	<u>54.3653</u>		<u>78.2</u>	<u>.9952</u>	<u>.9608</u>		<u>4.065</u>
4.	<u>54.3653</u>		<u>75.2</u>	<u>.9933</u>	<u>.9608</u>		<u>3.908</u>
5.							

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c 1.812 (1-8-8) 0.113

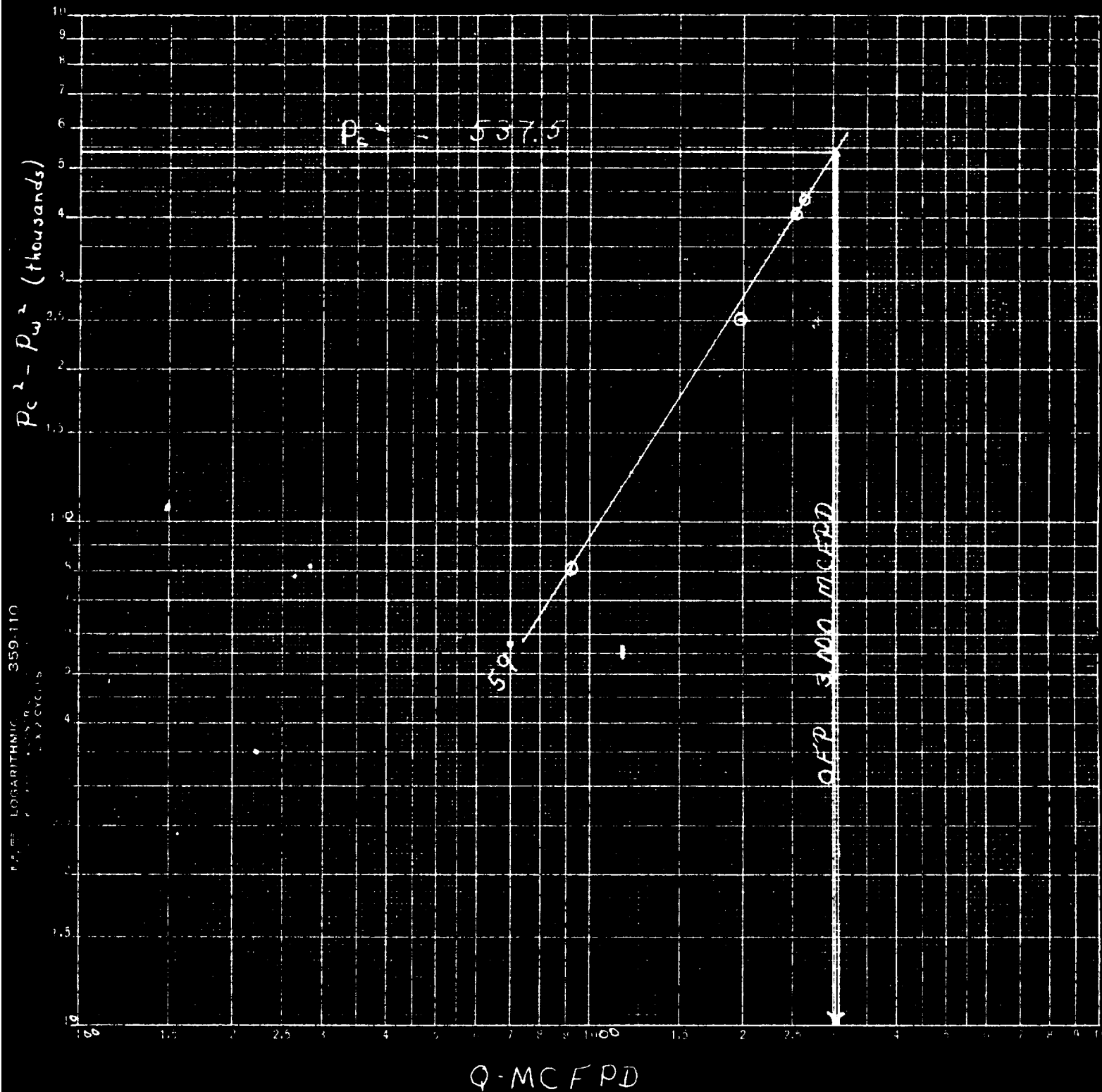
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 733.2 P₂ 537.56

No.	P _w (psia)	P ₂ P ₁	P _c ² - P ₁ ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-8-8)	P _w ²	P _c ² - P _w ²
1.	<u>683.2</u>	<u>466.8</u>		<u>2.78</u>	<u>7.73</u>	<u>.873</u>	<u>467.7</u>	<u>62.9</u>
2.	<u>637.2</u>	<u>406.0</u>		<u>4.21</u>	<u>17.72</u>	<u>2.00</u>	<u>408.0</u>	<u>123.6</u>
3.	<u>545.2</u>	<u>297.2</u>		<u>7.37</u>	<u>54.38</u>	<u>6.14</u>	<u>303.3</u>	<u>234.3</u>
4.	<u>493.2</u>	<u>243.2</u>		<u>7.07</u>	<u>49.98</u>	<u>5.65</u>	<u>248.9</u>	<u>288.7</u>
5.								

Wellhead Potential: 6.000 MCFPD: θ₁ _____ ; n₁ _____
Potential: 6.000 MCFPD: θ₂ 57 ; n₂ 510

Conducted by: J. B. Jones
Witnessed by: _____
Calculated by: J. B. Jones & J. B. Jones

Amerada Pet. Corp.
 Cagle Co. #1 (TBG)
 Sec 3-26-37
 Lea Co. N.M.
 6-6-56



K-E LOGARITHMIC
359-110
KEUFFEL & ESSER CO. NEW YORK
2 1/2 CYCLES

