

NEW MEXICO OIL CONSERVATION COMMISSION

HEADS OFFICE 000

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

1961 JUN 22 PM 1 17

Pool Double "X"-Delaware Formation Delaware Sand County LeaInitial X Annual _____ Special _____ Date of Test 6-3-61Company Tenneco Corporation* Lease U. S. Smelting-USA Well No. 2Unit E Sec. 22 Twp. 24-8 Rge. 32-E Purchaser NoneCasing 5 1/2 Wt. 14 I.D. 5.012 Set at 4971 Perf. 4871 To 4875Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 4773 Perf. - To -Gas Pay: From 4871 To 4875 L 4773 xG .758 -GL 3618 Bar.Press. 13.2Producing Thru: Casing _____ Tubing X Type Well SingleDate of Completion: 4-13-61 Packer 4767 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 105° F

OBSERVED DATA

Tested Through (XXXXXXXXXXXX) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(XXXXX) (Line) Size	(XXXXX) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>1785</u>	<u>70</u>			<u>76</u>
1.	<u>4"</u>	<u>1.500</u>	<u>780</u>	<u>32.5</u>	<u>82</u>	<u>1475</u>	<u>60</u>			<u>2</u>
2.	<u>4"</u>	<u>1.500</u>	<u>780</u>	<u>39.5</u>	<u>85</u>	<u>1426</u>	<u>65</u>			<u>2</u>
3.	<u>4"</u>	<u>1.500</u>	<u>780</u>	<u>73.0</u>	<u>84</u>	<u>1193</u>	<u>65</u>			<u>2</u>
4.	<u>4"</u>	<u>1.500</u>	<u>780</u>	<u>93.0</u>	<u>82</u>	<u>1048</u>	<u>60</u>			<u>2</u>
5.										

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>13.99</u>	<u>160.5</u>	<u>793.2</u>	<u>.9795</u>	<u>.8944</u>	<u>1.106</u>	<u>2176</u>
2.	<u>13.99</u>	<u>177.0</u>	<u>793.2</u>	<u>.9768</u>	<u>.8944</u>	<u>1.102</u>	<u>2384</u>
3.	<u>13.99</u>	<u>240.6</u>	<u>793.2</u>	<u>.9777</u>	<u>.8944</u>	<u>1.106</u>	<u>3255</u>
4.	<u>13.99</u>	<u>271.6</u>	<u>793.2</u>	<u>.9795</u>	<u>.8944</u>	<u>1.106</u>	<u>3682</u>
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 400,000 cf/bbl.
Gravity of Liquid Hydrocarbons 59.7 deg. 70.0
P_c 9.936 (1-e^{-s}) .220
Specific Gravity Separator Gas .750
Specific Gravity Flowing Fluid .758
P_c 1798.2 P_c 3233.5

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>1488.2</u>	<u>2214.7</u>	<u>21.62</u>	<u>467.42</u>	<u>102.83</u>	<u>2317.5</u>	<u>916.0</u>	<u>1521</u>	<u>84.7</u>
2.	<u>1439.2</u>	<u>2071.3</u>	<u>23.69</u>	<u>561.22</u>	<u>123.47</u>	<u>2194.8</u>	<u>1038.7</u>	<u>1481</u>	<u>82.5</u>
3.	<u>1206.2</u>	<u>1454.9</u>	<u>32.34</u>	<u>1045.88</u>	<u>239.09</u>	<u>1685.0</u>	<u>1548.5</u>	<u>1297</u>	<u>72.1</u>
4.	<u>1061.2</u>	<u>1126.1</u>	<u>36.58</u>	<u>1338.10</u>	<u>294.38</u>	<u>1420.5</u>	<u>1813.0</u>	<u>1192</u>	<u>66.4</u>
5.									

Absolute Potential: 5,625 MCFPD; n .76COMPANY Tenneco Corporation*ADDRESS P. O. Box 307, Hobbs, New MexicoAGENT and TITLE A. W. Lang, District Production SuperintendentWITNESSED Joe MartinCOMPANY Delta Tank Mfg. Co.

REMARKS

* By its managing agent Tenneco Oil Company

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 .

TENNECO CORPORATION*
 U. S. Smelting USA No. 2
 E-22 - 24S - 32E
 Lea County
 6-3-61

