

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool _____ Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 2-11-59
Company Sunset International Pet. Corp. Lease Federal Well No. 2 J
Unit B Sec. 6 Twp. 27N Rge. 10W Purchaser _____
Casing 5-1/2" Wt. 15.5 I.D. _____ Set at 6396 Perf. 6160 To 6272
Tubing 2-3/8" Wt. 4.7 I.D. 1.995 Set at 6297 Perf. Open Ended To _____
Gas Pay: From 6160 To 6272 L _____ xG 0.680 -GL _____ Bar.Press. _____
Producing Thru: Casing _____ Tubing X Type Well Single - Gas
Date of Completion: 2-3-59 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (100000) (Choke) (100000) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						<u>1494</u>		<u>1650</u>		
1.										
2.										
3.		<u>3/4"</u>	<u>161</u>		<u>45</u>			<u>477</u>		<u>3 Hrs.</u>
4.										
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.							
2.							
3.	<u>12.3650</u>		<u>173</u>	<u>1.0147</u>	<u>.9393</u>	<u>1.022</u>	<u>2084</u>
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
 P_c _____ ($1-e^{-S}$) _____
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
 P_c 1662 P_c 2762

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.									
2.									
3.	<u>489</u>					<u>239</u>	<u>2523</u>		<u>1.0947</u>
4.									
5.									

Absolute Potential: 2251 MCFPD; n .85 1.080

COMPANY Sunset International Petroleum Corp.

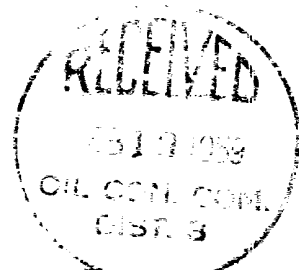
ADDRESS Box 568, Alcomfield, New Mexico

AGENT and TITLE Thos. F. Papp, Engineer

WITNESSED T. A. Lingo

COMPANY Consulting Engineer

REMARKS



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 .

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