

15-023-20231-00-00

STATE OF KANSAS - CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM O-2  
8-7-58

TYPE TEST:  Deliverability  Open Flow TEST DATE: 2-28-86

COMPANY: FMP Operating LEASE: Zimbleman WELL NO.: 2-31-

COUNTY: Cheyenne LOCATION: SECTION: 31 TWP: 3 RNO: 41- ACRES:

FIELD: Reservoir PIPELINE CONNECTION: A N Energy

COMPLETION DATE: PLUG BACK TOTAL DEPTH: PACKER SET/AT:

CASING SIZE WT. I.D. SET AT PERF. TO

TUBING SIZE WT. I.D. SET AT PERF. TO

TYPE COMPLETION (Describe): TYPE FLUID PRODUCTION:

PRODUCING THRU: Lubing RESERVOIR TEMPERATURE F: BAR. PRESS - P<sub>a</sub>: 14.4 Psia

GAS GRAVITY - G<sub>g</sub>: .584 % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE METER CONN.: (METER RUN) (PROVER) SIZE: 2"

SHUT-IN PRESSURE: SHUT IN 2-28 1986 AT (AM)(PM) TAKEN 3-3 1986 AT (AM)(PM)

FLOW TEST: STARTED 3-3 1986 AT (AM)(PM) TAKEN 3-4 1986 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN: 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psig	DIFF. in. (h <sub>w</sub> )(h <sub>d</sub> )	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia	psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia		
SHUT-IN						277.0	291.4				
FLOW	1/2	65.0	92.0		95%	263.2	277.6				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F <sub>b</sub> )(F <sub>d</sub> ) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m h_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP. FACTOR F <sub>L</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mcfd	GOR	Q <sub>m</sub>
1.219	79.4	85.468	1.309	1.000	1.000	136.0		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 84.9 ; (P<sub>w</sub>)<sup>2</sup> = 77.1 ; P<sub>d</sub> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ ; (P<sub>w</sub>)<sup>2</sup> = 0.207 ; (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
84.7	7.8	10.8589	1.0358	.819	.8483	7.0520	959

OPEN FLOW 959 Mcfd @ 14.65 psia DELIVERABILITY Mcfd @ 14.65 psia

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Executed this the \_\_\_\_\_ day of \_\_\_\_\_, 1986.

Witness (if any)  
*Olydes Wiley*  
For Commission

MAR 13 1986  
CONSERVATION DIVISION  
Wichita, Kansas

For Company  
Checked by

Lease Name: ZIMBELMAN 02  
County, State: CHEYENNE, KS  
Operator: NOBLE ENERGY INCORPORATED  
Field: CHERRY CREEK  
Reservoir: NIOBRARA  
Location: 31 3S 41W NE SE

ZIMBELMAN 02 - NOBLE ENERGY INCORPORATED NIOBRARA as of 04/2004 CHERRY CREEK

