

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

3-27-80

TYPE TEST: Deliverability Open Flow TEST DATE:

COMPANY Lobo Production Inc LEASE Adams/McAtee WELL NO. #2
 COUNTY Cheyenne LOCATION SECTION 20 TWP 4S RNG 41W. ACRES
 FIELD Benkelman RESERVOIR Niobrara PIPELINE CONNECTION K NE

COMPLETION DATE PLUG BACK TOTAL DEPTH T.O 1392 Packer Set At
CSG 1302

CASING SIZE 4 1/2 WT. 10.5 I.D. SET AT 1302 PERF. 1195 TO 1227
 TUBING SIZE WT. I.D. SET AT PERF. TO

TYPE COMPLETION (Describe) Single TYPE FLUID PRODUCTION dry Gas
 PRODUCING THRU CSG RESERVOIR TEMPERATURE F BAR. PRESS - P_a 14.4 Psia

GAS GRAVITY - G_g .591 % CARBON DIOXIDE % NITROGEN API GRAVITY OF LIQUID

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

SHUT-IN PRESSURE: SHUT IN 1-4 1990 AT 1:35 (AM)(PM) TAKEN 1-8 1990 AT (AM)(PM)
 FLOW TEST: STARTED 1-8 1990 AT (AM)(PM) TAKEN 2-7 1990 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN 96 HR.

SHUT-IN OR FLOW	ORIFICE SIZE In.	(METER) (PROVER) PRESSURE psig	DIFF. In. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN		180				223	237.4			96	
FLOW	.1875	98	14"			107	121.4			24	

RATE OF FLOW CALCULATIONS

COEFFICIENT (P _c)(P _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{mthw}}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
.1728	112.4	$\frac{39.67}{\sqrt{112.4 \times 14}}$	1.3008	1.00	1.00	8.9		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 56.36, (P_w)² = 14.74, P_d = _____ % (P_c - 14.4) + 14.4 = _____ (P_d)² = 0.207

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
$\frac{56.153}{56.153 - 14.74}$	41.62	1.38918	0.13607	0.95	0.11056	1.2899	11.5

OPEN FLOW 12 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 20 day of 26 1990, 1990.

John Sanders
For Company

Witness (if any)
For Commission

COMMISSIONER OF CORP. AFFS.
WICHITA, KANSAS

Checked by