

15-023-20095-00.00

FORM O-3
8-7-58

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PJ
8-27-90

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

TYPE TEST: Deliverability Open Flow TEST DATE: 1-8-90

COMPANY: Lobo Production Inc LEASE: Adams ~~Adams~~ WELL NO.: 1 ~~1~~

COUNTY: Cheyenne LOCATION: SECTION 20 TWP 4S RNO 41W. ACRES

FIELD: Benkelman RESERVOIR: Niobrara PIPELINE CONNECTION: KNE

COMPLETION DATE: 12-29-80 PLUG BACK TOTAL DEPTH: T.O. 1740 CSG 1413 PACKER SET AT: None

CASINO SIZE: 4 1/2 WT. 10.5 I.D. SET AT PERP. 1216 TO 1251

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

TYPE COMPLETION (Describe): Single TYPE FLUID PRODUCTION: ~~None~~ Dry Gas

PRODUCING THRU: CSG RESERVOIR TEMPERATURE F: BAR. PRESS - P_a: 14.4 Psia

GAS GRAVITY: 10_g % CARBON DIOXIDE % NITROGEN API GRAVITY OF LIQUID

VERTICAL DEPTH (H): Same TYPE METER CONN.: Flange (METER RUN)(PROVOR) SIZE: 2" ~~1 1/2"~~

SHUT-IN PRESSURE: SHUT IN 1-4 1990 AT (AM)(PM) TAKEN 1-8 1990 AT 1:30 (AM)(PM)

FLOW TEST: STARTED 1-8 1990 AT (AM)(PM) TAKEN 2-12 1990 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN 96 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVOR) PRESSURE psig	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASINO WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _i)(P _c) psia	psig	(P _w)(P _i)(P _c) psia		
SHUT-IN		188				189	202.4			96	
FLOW	.50	95	2"			105	119.4			24	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p) _d Mcfd	(METER) (PROVOR) PRESSURE psia	EXTENSION $\sqrt{P_{mh}h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	Q _m
1.219	109.4	14.79 $\sqrt{109.4 \times 2}$	1.302	100	1.00	23.47		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 40.97, (P_w)² = 14.26, P_d = _____ % (P_c - 14.4) + 14.4 = _____ (P_w)² = 0.207 (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	(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
40.76	26.71	1.52602	.1935603	0.35	0.15603	1.43227	33.6

OPEN FLOW 34 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 Mar, 1990.

CONVENTION DISTRICT
Wichita, Kansas

Jabu Borders
For Company

Witness (if any)

For Commission

Checked by