15-023-20031-00-00

P-4
3-27-90

STATE OF KANSAS -- CORPORATION COMMISSION

FORM C-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: ☐ Deliverability ☑ Open Flow TEST DATE: 1-15-90

COMPANY	LEASE	WELL NO.
Lobo Production Inc	O'Brien	1-31

COUNTY	LOCATION	SECTION	TWP	RNG	ACRES
Cheyenne		31	4S	41W	

FIELD	RESERVOIR	PIPELINE CONNECTION
Benkelman	Niobrara	KNE

COMPLETION DATE	PLUG BACK TOTAL DEPTH	PACKER SET AT
Completion 4-77 First production 1-10-80	TD 1539 CSG T.D 1500'	

CASING SIZE	WT.	I.D.	SET AT	PERF.	TO
4 1/2	9.5		1500	1319-	1334

TUBING SIZE	WT.	I.D.	SET AT	PERF.	TO
NONE					

TYPE COMPLETION (Describe)	TYPE FLUID PRODUCTION	PRODUCING THRU
Single	None	Casing

RESERVOIR TEMPERATURE F	BAR. PRESS – P_a	GAS GRAVITY – G_g
	14.4 Psia	0.592

% CARBON DIOXIDE	% NITROGEN	API GRAVITY OF LIQUID

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

SHUT-IN PRESSURE: SHUT IN Jan 4 1990 AT ____ (AM)(PM) TAKEN 1-8 1990 AT 1:40 (AM)(PM)

FLOW TEST: STARTED ~~Jan 8~~ Jan 8 1990 AT ____ (AM)(PM) TAKEN Feb 2 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. psig	CASING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	TUBING WELLHEAD PRESS. psig	TUBING WELLHEAD PRESS. $(P_w)(P_t)(P_c)$ psia	DURATION HOURS	LIQUID PROD. Bbls.
SHUT-IN		~~237~~				237	251.4			96	
FLOW	.1875	~~105~~ 95	8"			105	119.4			24	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F_b) ~~(F_p)~~ Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m x h_w}$	GRAVITY FACTOR F_g	FLOWING TEMP. FACTOR F_t	DEVIATION FACTOR F_{pv}	RATE OF FLOW R Mcfd	GOR	Q_m
0.1728	109.4	$\frac{29.58}{\sqrt{109.4 \times 8}}$	1.2997	1.0	1.00	6.6		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2$: 63.20 ; $(P_w)^2$: 14.26 ; P_d= ____ % ; $(P_c - 14.4) + 14.4$ = ____ ; $(P_a)^2$=0.207 $(P_d)^2$= ____

$(P_c)^2-(P_a)^2$ or ~~$(P_c)^2-(P_d)^2$~~	$(P_c)^2-(P_w)^2$	~~$\frac{P_c^2-P_a^2}{P_c^2-P_d^2}$~~ $\frac{P_c^2-P_a^2}{P_d^2-P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
63.0	48.94	1.28729	.109676	0.85	.093225	1.2394	8.2

OPEN FLOW 8 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 28 day of Mar, 1990.

RECEIVED
APR 2 0 1990
CONSERVATION DIVISION
Wichita, Kansas

Witness (if any)

For Company

For Commission

Checked by