

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

FORM O-2
8-7-58

15-005-20030-0000

TYPE TEST: Deliverability Open Flow **TEST DATE:** April 2, 1990

COMPANY: Fairway Petroleum, Inc. **LEASE:** Teague **WELL NO.:** 1

COUNTY: Atchison **LOCATION:** E $\frac{1}{2}$ NE $\frac{1}{4}$ **SECTION:** 23 **TWP:** 7S **RNG:** 21E **ACRES:** 107.66

FIELD: McLouth **RESERVOIR:** McLouth **PIPELINE CONNECTION:** LAGGS, INC.

COMPLETION DATE: 7/30/83 **PLUG BACK TOTAL DEPTH:** 1570 **PACKER SET AT:**

CASING SIZE: WT. LD. SET AT PERF. TO
4 $\frac{1}{2}$ " 1561 1422 1438

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

TYPE COMPLETION (Describe): Perforation **TYPE FLUID PRODUCTION:** Water

PRODUCING THRU: 4 $\frac{1}{2}$ " Casing **RESERVOIR TEMPERATURE F:** 78° **BAR. PRESS - P_a:** 14.4 Psia

GAS GRAVITY - G_g: 0.5831 **% CARBON DIOXIDE:** 0 **% NITROGEN:** 8.1 **API GRAVITY OF LIQUID:**

VERTICAL DEPTH (H): 1561 **TYPE WTR CONN.:** None **(METER RUN)(PROVER) SIZE:** 2"

SHUT-IN PRESSURE: SHUT IN 4 years 19__ AT __ (AM)(PM) TAKEN 19__ AT __ (AM)(PM)

FLOW TEST: STARTED April 1, 1990 19__ AT __ (AM)(PM) TAKEN 19__ AT __ (AM)(PM)

OBSERVED DATA

DURATION OF SHUT-IN Years **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	CASED WELL-HEAD PRESS.		TUBING WELL-HEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						308	322.4			Years	
FLOW	.50	92	----	78	78	92	106.4			1	

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _w) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{in}h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
4.388	106.4	----	1.3070	0.9825	1.0117	606.6		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 103.9 ; (P_w)² = 11.3 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_d)² = 0.207 ; (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
	92.6			0.85			667.0

OPEN FLOW 667.0 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 12 day of July, 1990

Witness (if any)

CONSERVATION DIVISION
Wichita, Kansas

[Signature]
For Company

Checked by