

STATE OF KANSAS - CORPORATION COMMISSION

FORM O-2
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST 15-005-20052-0000

TYPE TEST: Deliverability Open Flow TEST DATE: 9/16/89

COMPANY: Theodore I. Leben & Associates LEASE: Wehking WELL NO.: #2

COUNTY: Atchison LOCATION: NE/4 NW/4 SE/4 SECTION: 2 TWP: 7S RNO: 18E ACRES:

FIELD: Wehking RESERVOIR: Lower McLouth PIPELINE CONNECTION: Atchison Pipeline Co.

COMPLETION DATE: 11/20/87 PLUG BACK TOTAL DEPTH: 1836 PACKER SET AT:

CASINO SIZE: 4 1/2" WT. 9.5# I.D. SET AT 1868 PERF. 1780 TO 1788

TUBING SIZE: 2 3/8" WT. 4.7# I.D. SET AT 1708 PERF. TO

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

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

GAS GRAVITY - G_g: 0.585 % CARBON DIOXIDE: 0.45 % NITROGEN: 6.18 API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): 1784 TYPE METER CONN.: Flange/Down (METER RUN)(PROVER) SIZE: 2.067

SHUT-IN PRESSURE: SHUT IN 9/15 19 89 AT 7:20 (AM)(PM) TAKEN 8/7 19 89 AT 8:00 (AM)(PM)
FLOW TEST: STARTED 9/15 19 89 AT 7:20 (AM)(PM) TAKEN 9/16 19 89 AT 7:20 (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN: 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	CASINO WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P _c)(P _e) psia	psig	(P _w)(P _c)(P _e) psia		
SHUT-IN						354	368.4			576	
FLOW	0.625	270	6	65		314	328.4	275	289.4	24	

RATE OF FLOW CALCULATIONS

COEFFICIENT (P _w)(P _e) Mafd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{wh}h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mafd	GOR	G _m
1.914	284.4	41.3	1.307	0.9952	1.017	105		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 135,718 (P_w)² = 107,846 P_d² = _____ % (P_c - 14.4) + 14.4 = _____ (P_e)² = 0.207 (P_d)² = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mafd
135,511	27,872	4.86	0.6866	0.8047	0.5525	3.569	375

OPEN FLOW 1240 Mafd @ 14.65 psia DELIVERABILITY Mafd @ 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 2nd day of October, 1989.

[Signature]
For Company
Checked by

Witness (if any)