

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

FORM 3-1
 8-7-58

AD
 P2
 7-1-89

15-005-20049-0000

TYPE TEST: Deliverability Open Flow TEST DATE: 9/17/88

COMPANY: Theodore Leben & Associates LEASE: Page WELL NO.: 1

COUNTY: Atchison LOCATION: N/2 NE/4 SECTION: 11 TWP: 7S RNG: 18E ACRES:

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

COMPLETION DATE: 11/19/87 PLUG BACK TOTAL DEPTH: Packer Set At

CASINO SIZE: 4 1/2" WT.: 10.5# LD.: SET AT: 1852 PERF.: 1766 TO: 1770

TUBING SIZE: 2 3/8" WT.: 4.7# LD.: SET AT: 1754 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: 0.593 % CARBON DIOXIDE: 0.30 % NITROGEN: 7.00 API GRAVITY OF LIQUID:

VERTICAL DEPTH (ft): 1768 TYPE METER CONN.: Flange/Down (METER RUN) (METER SIZE): 2.067

SHUT-IN PRESSURE: SHUT IN 9/17 10: 88 AT 11:00 (AM) (PM) TAKEN 9/20 10: 88 AT 11:00 (AM) (PM) TAKEN

FLOW TEST: STARTED 9/16 10: 88 AT 11:00 (AM) (PM) TAKEN 9/17 10: 88 AT 11:00 (AM) (PM) TAKEN

OBSERVED DATA DURATION OF SHUT-IN: 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (CHECKED) 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 _t)(P _c) psia	psig	(P _w)(P _t)(P _c) psia		
SHUT-IN						518.8	533.2	367.6	382.0	72	
FLOW	0.750	315	0.8	80		315.0*	329.4*			24	

RATE OF FLOW CALCULATIONS *Meter pressure used; wellhead pressures unknown

COEFFICIENT (F ₁)(F ₂) Mcfd	(METER) (CHECKED) PRESSURE psia	EX.ENSION $\sqrt{P_m h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	RECEIVED STATE CORPORATION COMMISSION
2.7785	329.4	16.2	1.2986	0.9813	1.0484	60.1	RECEIVED 11/14/1989 CONSERVATION DIVISION Wichita, Kansas

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_o)² = 284.302 (P_w)² = 108.504 P_d = % (P_c - 14.4) + 14.4 = (P_o)² = 0.207 (P_d)² =

(P _o) ² - (P _a) ² or (P _o) ² - (P _d) ²	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG []	"a"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
284.095	175.798	1.616	0.2084	1.0000	0.2084	1.616	97.1

OPEN FLOW 97.1 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 5th day of July, 1989.

Petroleum Science Corporation
 600 Commerce Plaza
 7300 West 110th Street
 Overland Park, KS 66210

Witness (if any) For Commission

Checked by

Ronald Thompson (consultant)
 For Company