

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

FORM O-3
 8-7-58

15-005-20047-0000

TYPE TEST: Deliverability Open Flow TEST DATE: 9/10/88

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

COUNTY: Atchison LOCATION: SW/4 SW/4 SE/4 SECTION: 2 TWP: 7S RNG: 18E ACRES:

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

COMPLETION DATE: 1/17/86 PLUG BACK TOTAL DEPTH: 1829 PACKER SET AT:

CASING SIZE: 4 1/2" WT.: 9.5# LD.: 1838 SET AT: 1739 PERF.: 1749 TO:

TUBING SIZE: 2 3/8" WT.: 4.7# LD.: 1730 SET AT: 1730 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: 0.596 % CARBON DIOXIDE: 0.30 % NITROGEN: 8.80 API GRAVITY OF LIQUID:

VERTICAL DEPTH (ft): 1744 TYPE METER CONN.: Flange/Down (METER RUN) (ORIFICE) SIZE: 2.067

SHUT-IN PRESSURE: SHUT IN 9/10 1988 AT 9:40 (AM) TAKEN 9/13 1988 AT 9:45 (AM) TAKEN

FLOW TEST: STARTED 9/9 1988 AT 9:00 (AM) TAKEN 9/10 1988 AT 9:00 (AM) TAKEN

OBSERVED DATA

DURATION OF SHUT-IN 72 HR.

SHUT-IN OR FLOW	ORIFICE SIZE In.	(METER) PROVEN PRESSURE psig	DIFF. In. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING 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						522.9	537.3	458.6	473.0	72	
FLOW	1.000	124	45	58		468.9	483.3			24	

RATE OF FLOW CALCULATIONS

CORFFICIENT (F ₁)(F ₂) Mofd	(METER) PROVEN PRESSURE psia	EX.ENSION √P _m h _w	GRAVITY FACTOR F _g	FLOWING TEMP. F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mofd	GOR	G _m
5.073	138.4	78.9	1.2953	1.0019	1.0116	525		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 288.691 ; (P_w)² = 233.579 ; P_d = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_d)² = 0.207

(P _c) ² - (P _d) ² or (P _c) ² - (P _d) ²	(P _c) ² - (P _w) ²	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mofd
288.483	55.112	5.234	0.7189	0.9912	0.7125	5.159	2708

OPEN FLOW 2708

Mofd @ 14.65 psia

DELIVERABILITY

Mofd @ 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

Ronald Blount (consultant)
 For Company

Witness (if any)