

15-171-00020-00-01

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

FORM O-2
8-7-58
3-18-94

TYPE TEST: Deliverability Open Flow TEST DATE:

COMPANY: Unico, Inc. LEASE: Christy WELL NO.:

COUNTY: Scott LOCATION: SECTION: 32 TWP: 18S RND: 31W ACRES: 320

FIELD: North Hugoton RESERVOIR: Chase (Krider) PIPELINE CONNECTION: KN Energy

COMPLETION DATE: 1/26/67 PLUG BACK TOTAL DEPTH: 2903' PACKER SET AT:

CASING SIZE: 4 1/2" WT. I.D. SET AT: 2850' PERF. TO: 2782' 2789'

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

TYPE COMPLETION (Describe): Single (Gas) TYPE FLUID PRODUCTION:

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

GAS GRAVITY - G_g: 0.804 % CARBON DIOXIDE: 0.00 % NITROGEN: 43.01 API GRAVITY OF LIQUID:

VERTICAL DEPTH (H): TYPE WTRR CONN.: (METER RUN)(PROVER) SIZE:

SHUT-IN PRESSURE: SHUT IN 13-Dec-93 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

FLOW TEST: STARTED 14-DEC-93 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN 24 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 WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w)(P ₁)(P _c) psia	psig	(P _w)(P ₁)(P _c) psia		
SHUT-IN								280.6	293.8	24	
FLOW	0.500	225.5	26.5	60.00			227.0	240.2	24		

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _o) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION √P _m h _w	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	STATE COMMISSION GOR
						108	RECEIVED STATE COMMISSION GOR 1994

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 86318 (P_w)² = 57696 P_d = N/A % (P_c - 14.4) + 14.4 = (P_w)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	$\frac{P_c^2 - P_a^2}{P_c^2 - P_w^2}$	LOG []	"n"	n = LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R = ANTILOG Mcfd
86144	28622	3.0097	1.101833	0.850	0.936558	2.5512	275.5

OPEN FLOW 275.5 Mcfd @ 14.65 psia DELIVERABILITY 108 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 11th day of February, 1994

Unico, Inc. For Company

Witness (if any)

Checked by