

STATE OF KANSAS - CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST FORM O-3
8-7-58

8934
15-181-20042-0000

TYPE TEST: Deliverability Open Flow TEST DATE: 6-2-86

COMPANY: GOODLAND GAS COMPANY LEASE: Pinkney WELL NO.: 1-32

COUNTY: Sherman LOCATION: SW 1/4 SECTION: 32 TWP: 7S RNG: 38W ACRES:

FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KN Energy

COMPLETION DATE: 10-27-78 PLUG BACK TOTAL DEPTH: 967 PACKER SET AT: None

CASING SIZE: 4 1/2" WT. L.D. SET AT: 917 PERF. TO: None

TUBING SIZE: None WT. L.D. SET AT: PERF. TO:

TYPE COMPLETION (Describe): Open hole TYPE FLUID PRODUCTION: Gas

PRODUCING THRU: Casing RESERVOIR TEMPERATURE F: BAR. PRESS - P_a: 13.2 ~~XXX~~ Psia

GAS GRAVITY - G_s: 0.5837 % CARBON DIOXIDE: 1.98 % NITROGEN: 2.79 API GRAVITY OF LIQUID:

VERTICAL DEPTH (M): TYPE METER CONN.: Orifice (METER RUN) (PROVER) SIZE: 2.067

SHUT-IN PRESSURE: SHUT IN 5-19 86 AT (AM)(PM) TAKEN 5-30 86 AT (AM)(PM)
 FLOW TEST: STARTED 5-30 86 AT (AM)(PM) TAKEN 6-2 86 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN _____ HR.

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psia	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psia	(P _w)(P _i)(P _c) psia	psia	(P _w)(P _i)(P _c) psia		
SHUT-IN	--	--	--	--	--	31	44.2	--	--	72+	--
FLOW	0.375	--	--	70	--	13.8	27	--	--	72	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(X _p) / Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
28.4	--	--	1.3089	0.9905	1.0007	25	--	--

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

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

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_a^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1.779	1.225	1.453	0.162	0.718	0.117	1.308	33

OPEN FLOW 33 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 25th day of NOV, 1986

Robert M. Richardson
For Company

Witness (if any)

For Commission

DEC 5 1986

Checked by DEC 1 1986