

15-181-20255-00-01

FORM O-2
8-7-58

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

TYPE TEST: Deliverability Open Flow Flow TEST DATE: 5-28-87

COMPANY: Goodland Gas Company LEASE: Dallman WELL NO.: 1-10
 COUNTY: Sherman LOCATION: NE/4 NE/4 NE/4 SECTION: 10 TWP: 8S RNG: 40W ACRES:
 FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KNEnergy

COMPLETION DATE: 9-20-83 PLUG BACK TOTAL DEPTH: 1261 PACKER SET AT: None

CASING SIZE: 4-1/2" WT.: 9.5#/ft. I.D.: SET AT: 1267 PERF.: 1122 TO: 1162
 1168 TO: 1180

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

TYPE COMPLETION (Describe): Frac 98,000# Sd., 13,000 gal H₂O TYPE FLUID PRODUCTION: Gas

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

GAS GRAVITY - G_g: 0.5827 % CARBON DIOXIDE: 1.28 % NITROGEN: 2.635 API GRAVITY OF LIQUID: --

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

SHUT-IN PRESSURE: SHUT IN 5-15 19 87 AT 10:21 (AM) TAKEN 5-18 19 87 AT 10:40 (AM)
 FLOW TEST: STARTED 5-26 19 87 AT 10:40 (AM) TAKEN 5-28 19 87 AT 10:58 (AM)

OBSERVED DATA

DURATION OF SHUT-IN 72 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	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	--	--	--	--	--	21.0	35.4	--	--	72	--
FLOW	0.50	17.5	7.2	60	--	17.8	32.2	--	--	48	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _b)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
50.5	31.9	15.16	1.31	1.00	1.0006	24	--	--

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1253.16, (P_w)² = 1036.84; P_d = _____ % (P_c - 14.4) + 14.4 = _____; (P_d)² = 0.207

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1045.80	216.32	4.83	0.68	0.85	0.58	3.82	92

OPEN FLOW 92 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 1 day of JUNE, 1987.

RECEIVED JUN 12 1987
 Recd No-12-87
 For Company

Witness (if any)

Checked by