

15-181-20097-00-00
 STATE OF KANSAS - CORPORATION COMMISSION

FORM O-2
 8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

TYPE TEST: Deliverability Open Flow TEST DATE: 5-29-87

COMPANY: Goodland Gas Co. LEASE: Nemechek WELL NO.: 1-3

COUNTY: Sherman LOCATION: SW NE NW SECTION: 3 TWP: 8 RNG: 39 W ACRES:

FIELD: Goodland Gas RESERVOIR: Niobrara Chalk PIPELINE CONNECTION: K N ENERGY

COMPLETION DATE: 8-27-80 PLUG BACK TOTAL DEPTH: PACKER SET AT:

CASING SIZE WT. I.D. SET AT PERF. TO

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

TYPE COMPLETION (Describe) TYPE FLUID PRODUCTION

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

GAS GRAVITY - G_s 1.5827 % CARBON DIOXIDE % NITROGEN API GRAVITY OF LIQUID

VERTICAL DEPTH (H) TYPE METER CONN. F (METER RUN) (PROVER) SIZE 2

SHUT-IN PRESSURE: SHUT IN 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)
 FLOW TEST: STARTED 19 AT (AM)(PM) TAKEN 19 AT (AM)(PM)

OBSERVED DATA DURATION OF SHUT-IN 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						29.9	44.3				
FLOW	.375	19.4	43.4	60		19.6	34.0				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mofd	(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 Mofd	GOR	G _m
.6860	33.8	38.30	1.31	1.0	1.011	34.80		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 1962.49 (P_w)² = 1156.00 P_d² = _____ % (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	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mofd
1755.13	806.49	2.176	1.3377	.718	1.2425	1.746	60.76

OPEN FLOW 61 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 _____ day of _____, 1987.

Witness (if any)
 Dale F. Balthazor
 For Commission

RECEIVED
 STATE CORPORATION COMMISSION
 JUN 12 1987
 For Company
 CONSERVATION DIVISION
 Checked by
 Wichita, Kansas