

15-181-20232-00-00
STATE OF KANSAS - CORPORATION COMMISSION
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

FORM O-2
 8-7-58

99
 6-2-87

TYPE TEST: Deliverability Open Flow **TEST DATE:** Flow Test 6-2-87

COMPANY: GOODLAND GAS COMPANY **LEASE:** Schwendener **WELL NO.:** 2-36

COUNTY: Sherman **LOCATION:** SW 1/4, SW 1/4 **SECTION:** 36 **TWP:** 7S **RNG:** 39W **ACRES:**

FIELD: Goodland **RESERVOIR:** Niobrara **PIPELINE CONNECTION:** KNEnergy

COMPLETION DATE: 1-26-83 **PLUG BACK TOTAL DEPTH:** 1,081 **PACKER SET AT:**

CASING SIZE: 4 1/2" **WT.:** 9.5 **L.D.:** 1,081 **SET AT:** 1,081 **PERF.:** 962 **TO:** 982

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

TYPE COMPLETION (Describe): **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: 5-29 19 87 AT 11:02 (AM)(PM) TAKEN 6-1 19 87 AT 11:30 (AM)(PM) TAKEN

FLOW TEST: STARTED: 6-1 19 87 AT 11:32 (AM)(PM) TAKEN 6-2 19 87 AT 11:09 (AM)(PM) TAKEN

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	--	--	--	--	--	27.4	41.8	--	--	72	--
FLOW	0.750	19.1	3.2	60	--	19.5	33.9	--	--	24	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	Q _m
115.1	33.5	10.35	1.31	1.00	1.0000	37	--	--

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

$(P_c)^2 = 1747.24$; $(P_w)^2 = 1149.21$; $P_d^2 =$ _____ % $(P_c - 14.4) + 14.4 =$ _____; $(P_a)^2 = 0.207$; $(P_d)^2 =$ _____

$\frac{(P_c)^2 - (P_a)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{[P_c^2 - P_a^2]}{[P_c^2 - P_d^2]}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1539.88	598.03	2.57	0.41	0.982	0.40	2.53	94

OPEN FLOW 94 Mcfd @ 14.65 psia **DELIVERABILITY** RECEIVED 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 4 day of June, 1987

STATE CORPORATION COMMISSION
 JUN 1 2 1987
 [Signature]
 CONSERVATION DIVISION
 For Company
 Wichita, Kansas

Witness (if any)

For Commission

Checked by