

15-181-20093-00-00
 STATE OF KANSAS - CORPORATION COMMISSION
 ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

19
 12-3-84
 FORM 0-2
 8-7-58

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

COMPANY: GOODLAND GAS COMPANY LEASE: Briney WELL NO.: 1-33

COUNTY: Sherman LOCATION: SW 84/SE SECTION: 33 TWP: 7S RNG: 39W ACRES:

FIELD: Goodland RESERVOIR: Niobrara PIPELINE CONNECTION: KN Energy

COMPLETION DATE: 8-30-80 PLUG BACK TOTAL DEPTH: 1050 PACKER SET AT: None

CASINO SIZE: 4 1/2" WT. I.D. SET AT: 934 PERF. TO: None

TUBING SIZE: None WT. I.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 ~~13.2~~ Psia

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

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

SHUT-IN PRESSURE: SHUT IN 5-27 19 86 AT (AM)(PM) TAKEN 5-30 19 86 AT (AM)(PM)

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

OBSERVED DATA

SHUT-IN OR FLOW	ORIFICE SIZE in.	(METER) (PROVER) PRESSURE psia	DIFF. in. (h _w)(h _d)	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASINO WELL-HEAD PRESS.		TUBING WELL-HEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psia	(P _w)(P _i)(P _c) psia	psia	(P _w)(P _i)(P _c) psia		
SHUT-IN	--	--	--	--	--	26	39.2	--	--	72	--
FLOW	0.625	--	--	68	--	14.8	28	--	--	72	--

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _d)(F _w) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{F_{mshw}}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
79.3	--	--	1.3089	0.9924	1.0008	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 = _____

$\frac{(P_c)^2 - (P_w)^2}{(P_c)^2 - (P_d)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_w^2}{P_c^2 - P_d^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
1.362	0.753	1.810	0.258	0.718	0.185	1.531	38

OPEN FLOW 38 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