

STATE OF KANSAS - CORPORATION COMMISSION

FORM O-2  
8-7-58

ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST 15-181-20072-0000

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

COMPANY: Goodland Gas Co. LEASE: Glasco WELL NO.: 3-31

COUNTY: Sherman LOCATION: SECTION: 31 TWP: 7 RNG: 38W. ACRES:

FIELD: Goodland Gas RESERVOIR: Niobrara Chalk PIPELINE CONNECTION: KN ENERGY

COMPLETION DATE: 11-19-79 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<sub>a</sub> 14.4 Psia

GAS GRAVITY - G<sub>g</sub> .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 <sub>w</sub> )(h <sub>d</sub> )	FLOWING TEMP. t	WELL-HEAD TEMP. t	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia	psig	(P <sub>w</sub> )(P <sub>i</sub> )(P <sub>c</sub> ) psia		
SHUT-IN						25.5	39.9				
FLOW	.750	24.2	.72	60		24.3	38.7				

RATE OF FLOW CALCULATIONS

COEFFICIENT (F <sub>d</sub> )(F <sub>p</sub> ) Mofd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m h_w}$	GRAVITY FACTOR F <sub>g</sub>	FLOWING TEMP. FACTOR F <sub>L</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW R Mofd	GOR	Q <sub>m</sub>
2.779	38.6	5.27	1.31	1.0	1.011	19.40		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P<sub>c</sub>)<sup>2</sup> = 1592.01 (P<sub>w</sub>)<sup>2</sup> = 1497.69 P<sub>d</sub><sup>2</sup> = \_\_\_\_\_ % (P<sub>c</sub> - 14.4) + 14.4 = \_\_\_\_\_ (P<sub>d</sub>)<sup>2</sup> = 0.207 (P<sub>d</sub>)<sup>2</sup> = \_\_\_\_\_

$\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	(P <sub>c</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup>	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG [ ]	"n"	n x LOG [ ]	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mofd
1384.65	94.32	14.680	11.668	.718	.8378	6.883	133.5

OPEN FLOW 134 Mofd @ 14.65 psia DELIVERABILITY 133.5 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.

JUN 12 1987

Witness (if any)  
Dele F. Battagor  
For Commission

Checked by \_\_\_\_\_  
Conservation Division  
For Company  
Wichita, Kansas