

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

TYPE TEST: Deliverability Open Flow TEST DATE: 2/16/86

COMPANY: LV Gas Corporation LEASE: Fitzgerald WELL NO.: 4

COUNTY: Leavenworth LOCATION: NE SW NW SECTION: 31 TWP: 8 RNO: 22E ACRES: N/A

FIELD: Possum Hollow, NE RESERVOIR: Burgess Sand PIPELINE CONNECTION: The Chartered Line

COMPLETION DATE: 11-9-85 PLUG BACK TOTAL DEPTH: 1525' PACKER SET AT: None

CASING SIZE: 4 1/2" WT. I.D. SET AT 1506' PERF. TO 1451' TO 1454'

TUBING SIZE: N/A WT. I.D. SET AT PERF. TO

TYPE COMPLETION (Describe): Single (Gas) TYPE FLUID PRODUCTION: None

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

GAS GRAVITY - G_g: .584 % CARBON DIOXIDE: % NITROGEN: API GRAVITY OF LIQUID: N/A

VERTICAL DEPTH (ft): TYPE METER CONN.: N/A (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	CASINO 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						320.0	334.4	—		4 mos.	
FLOW	0.250	139.2	N/A	80		50.0	64.4	—		24	0

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _p)(F _d) Mcfd	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_{mshw}}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R Mcfd	GOR	G _m
1.115	153.6	—	1.309	0.9813	1.000	220	None	.584

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 111.8 ; (P_w)² = 4.1 ; P_d² = _____ % (P_c - 14.4) + 14.4 = _____ ; (P_w)² = 0.207 ; (P_d)² = _____

$\frac{(P_c)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	$(P_c)^2 - (P_w)^2$	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG []	"n"	n x LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUALS R x ANTILOG Mcfd
111.6	107.7	1.0362	0.0154	0.850	0.0131	1.031	226.8

OPEN FLOW 227 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 _____ day of _____, 19____.

Witness (if any) _____
For Commission _____

For Company _____
Checked by _____