

15-023-20088-00-01

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

FORM O-2
8-7-58

TYPE TEST: Deliverability Open Flow TEST DATE: 6/23/97

COMPANY: Samedan Oil Corporation LEASE: Lampe WELL NO.: 1-33

COUNTY: Cheyenne LOCATION: 1300 ENL. & 1500 EWL. SECTION: 33 TWP: 3S RNO: 41W ACRES: 640

FIELD: Benkleman RESERVOIR: Niobrara PIPELINE CONNECTION: KN

COMPLETION DATE: 6/23/97 PLUG BACK TOTAL DEPTH: 1460 PACKER SET AT: NA

CASINO SIZE: 4-1/2" WT. 9.50# LD. 1500' SET AT 1396' PERF. TO 1406'

TUBING SIZE: 1.25" WT. 0.70" LD. 1381' SET AT PERF. TO

TYPE COMPLETION (Describe): Flowing TYPE FLUID PRODUCTION: Gas

PRODUCING THRU: Tubing RESERVOIR TEMPERATURE F: 84 BAR. PRESS - P_s: 14.4 Psia 13.2

GAS GRAVITY - G_g: 0.60 % CARBON DIOXIDE: 0 % NITROGEN: 0 API GRAVITY OF LIQUID: 1000 BTU

VERTICAL DEPTH (M): TYPE METER CONN.: Sales - Meter Run (METER RUN) (PROVER) SIZE: 2.067 x 0.375

SHUT-IN PRESSURE: SHUT IN: 6/23 19 97 AT 12:01 (AM)(PM) TAKEN 19 AT (AM)(PM)

FLOW TEST: STARTED: 6/23 19 97 AT 12:52 (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. °F	WELL-HEAD TEMP. °F	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		292				292	305.2	292	305.2		
FLOW	.375			72					171.2	19	0

RATE OF FLOW CALCULATIONS

COEFFICIENT (F _w)(F _d) / M _{old}	(METER) (PROVER) PRESSURE psia	EXTENSION $\sqrt{P_w h_w}$	GRAVITY FACTOR F _g	FLOWING TEMP. FACTOR F _L	DEVIATION FACTOR F _{pv}	RATE OF FLOW R M _{old}	GOR	G _m
	171.2					97.3		

(OPEN FLOW) (DELIVERABILITY) CALCULATIONS

(P_c)² = 93,147 ; (P_w)² = 29,309 ; P_d = 44 % (P_c - 14.4) + 14.4 = _____ ; (P_w)² = 0.0207 ; (P_d)² = _____

$\frac{(P_w)^2 - (P_d)^2}{(P_c)^2 - (P_w)^2}$	$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2}$	LOG []	n	n = LOG []	ANTILOG	OPEN FLOW DELIVERABILITY EQUIVALENT ANTILOG M _{old}
63,838	1.456	0.16312	.658	0.1073	1.280	125

OPEN FLOW 125 M_{old} @ 14.65 psia DELIVERABILITY M_{old} @ 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 22 day of July, 1997.

Scott Steinke Scott Steinke
For Company

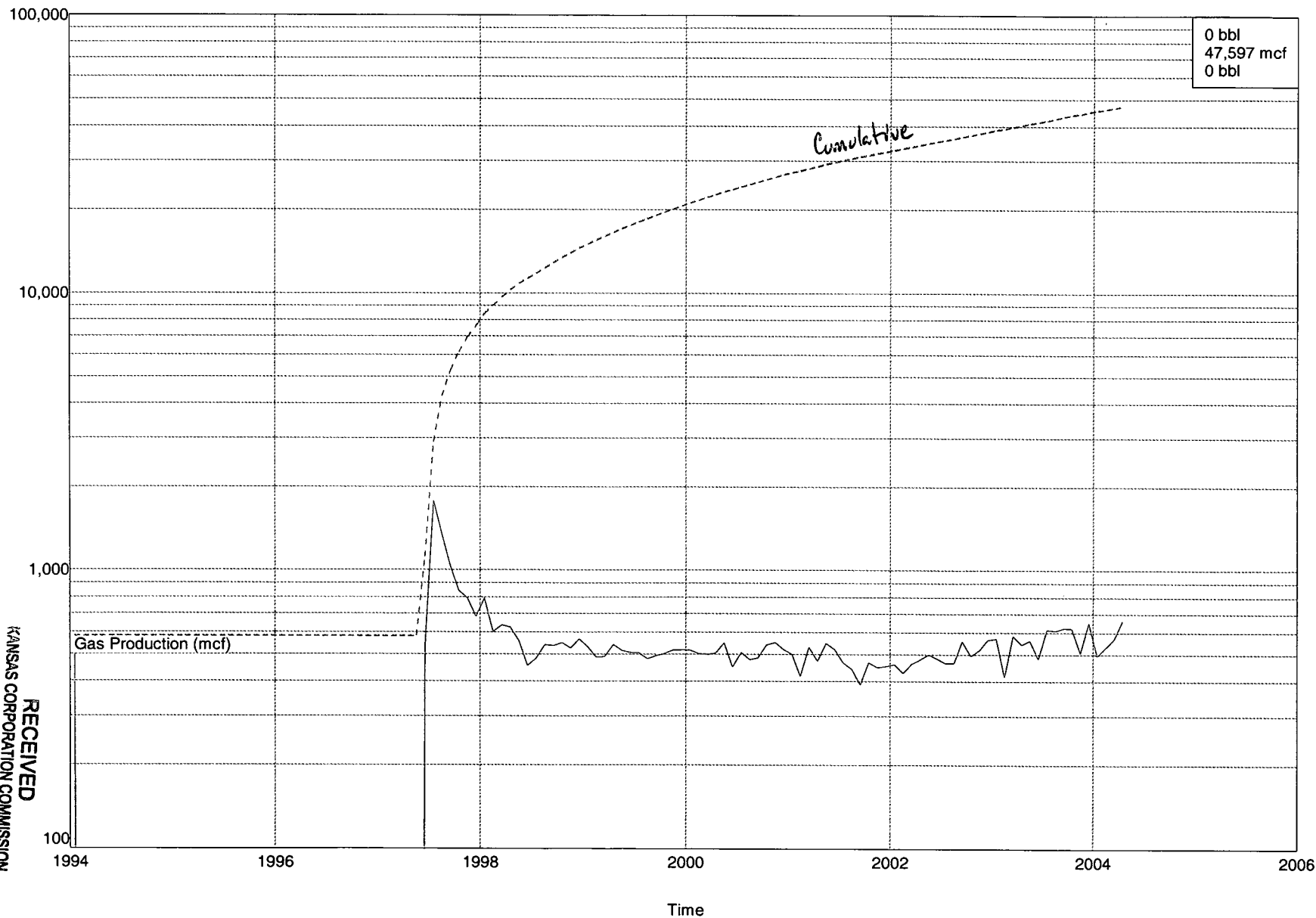
Witness (if any)

For Commission

Checked by

Lease Name: LAMPE 1-33
County, State: CHEYENNE, KS
Operator: NOBLE ENERGY INCORPORATED
Field: CHERRY CREEK NIOBRARA GAS
Reservoir: NIOBRARA
Location: 33 3S 41W C NW

LAMPE 1-33 - NOBLE ENERGY INCORPORATED NIOBRARA as of 04/2004 CHERRY CREEK NIOBRARA GAS



15-023-20088-00-01

07/16/97 08:19:34
AOGCGH67 AOGGM023 AGM023

33-3-41W

K N ENERGY, INC
GAS METERING VOLUME STATEMENT

P.2

METER NO: E009637 LAMPE 1-33

COMPANY:

METER NO:

TYPE: ORIFICE

GAS: TRANSPORTATION

STATE: KS COUNTY: CHEYENNE

NO. 847

MONTH	METER INFORMATION					CHART INFORMATION							VOLUMES								
	TUBE ID	ORIFICE DIA.	LOOP TAP	MULT	TEMP	RANGE	STATIC	DIFF	-DAY--	ON	OFF	PSIA	GRAVITY	TEMP DEG F	INDEX	HRS	BTU @14.65	BTU @14.73	MCF @14.65	MCF @14.73	DEKATHERMS
199706	2.0670	0.3750	FD						23			171.2	0.6000	72	234	19	995.0	1000.4			
						500	100	24				173.2	0.6000	76	282	24	994.7	1000.1			
								25				174.5	0.6000	70	267	24	995.2	1000.6			
								26				174.0	0.6000	76	302	24	994.7	1000.1			
								27				177.9	0.6000	83	308	24	994.1	999.5			
								28				177.6	0.6000	80	300	24	994.4	999.8			
								29				177.1	0.6000	73	288	24	995.0	1000.4			
								30				181.9	0.6000	82	329	24	994.2	999.6			
								MONTH AVERAGE				176.1	0.6000				994.6	1000.0			
																			761	757	757

47.3
24hr rate

SITP/SICP = 305.2 psia / 305.2 psia

ROTATION: 16 ATM PRESS: 13.200 TEMPERATURE BASE: 60F

EFFECTIVE DATE	BTU PRESS	H2O CONT	CO2	N2	H2	HE2	O2	H2S	C1	C2	C3	NC4	IC4	NC5	IC5	C6+
19970501	14.730	0							1.0000							

1997 JUL 25 11:13 AM
KANSAS GAS SYSTEM
REGISTRATION

KN ENERGY 9144590

9:52PM

JUL.16.1997