

KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM G-1
8-7-58

TYPE TEST: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special		TEST DATE: 1/15/2002			
COMPANY KLM Exploration Inc.		LEASE Bower		WELL NO. 2A	
COUNTY Jefferson	LOCATION e/2 SE NE	SECTION 5	TWP 10s 20e	RNG	ACRES 40
FIELD McClouth		RESERVOIR Miss 40		PIPELINE CONNECTION	
COMPLETION DATE		PLUG BACK DEPTH 1664		PACKER SET AT	
		TOTAL DEPTH 1670			
CASING SIZE 4.500	WT. 10.500	ID 4.052	SET AT 1664	PERF. 1490	TO 1496
TUBING SIZE 2.375	WT. 4.700	ID 1.995	SET AT 1490	PERF.	TO
TYPE COMPLETION (Describe) Perf & acid			TYPE FLUID PRODUCTION oil/water		
PRODUCING TERU(Annulus/Tubing) tubing			RESERVOIR TEMPERATURE F 87		BAR PRESS - Pa 14.4 psia
GAS GRAVITY - Gg .618		% CARBON DIOXIDE .260		% NITROGEN 7.150	
API GRAVITY OF LIQUID					
VERTICAL DEPTH (H) 1493		TYPE METER CONN.		PROVER SIZE 2"	
REMARKS					

OBSERVED SURFACE DATA

RATE NO.	ORIFICE SIZE in.	(PROVER) PRESSURE psig	DIFF. (h _w) (h _t)	FLOWING TEMP. t.	WELLHEAD TEMP. t.	CASING WELLHEAD PRESS.		TUBING WELLHEAD PRESS.		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P _w) (P _t) (P _c) psia	psig	(P _w) (P _t) (P _c) psia		
SHUT-IN						484	498	484	498		
1.	.375	15.00		50		459	474	458	473	1.00	
2.	.375	24.00		42		437	451	436	450	1.00	
3.	.375	28.00		38		403	417	401	416	1.00	
4.	.375	33.00		34		346	361	310	324	1.00	

FLOW STREAM ATTRIBUTES

RATE NO.	COEFFICIENT (F _p) Mcfd	(PROVER) PRESSURE psia	EXTENSION $\sqrt{P_m \times H_w}$	GRAVITY FACTOR Fg	FLOWING TEMP FACTOR Ft	DEVIATION FACTOR Fpv	RATE OF FLOW Q Mcfd	GOR	G _m
1.	2.439	29.4	29.40	1.2721	1.0098	1.0020	92		.618
2.	2.439	38.4	38.40	1.2721	1.0178	1.0030	121		.618
3.	2.439	42.4	42.40	1.2721	1.0218	1.0036	134		.618
4.	2.439	47.4	47.40	1.2721	1.0258	1.0041	151		.618

PRESSURE CALCULATION

RATE NO.	P _t psia	P _c psia	P _w psia	(P _c) ² Thousands	(P _w) ² Thousands	PLOTTING POINTS		% SHUT-IN 100 $\left[\frac{P_w - P_a}{P_c - P_a} \right]$
						(P _c) ² - (P _w) ² Thousands	Q Mcfd	
1.	473.2	498.4	474.2	248.4	224.9	23.5	92.3	95.0
2.	450.5	498.4	451.7	248.4	204.0	44.4	121.6	90.4
3.	416.1	498.4	417.4	248.4	174.2	74.2	134.9	83.3
4.	324.7	498.4	361.0	248.4	130.3	118.1	151.5	71.6

INDICATED WELLHEAD OPEN FLOW

211

Mcfd @ 14.65 psia

"n" =

.348

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 herein and that said report is true and correct. Executed this the 24 day of Jan, 2002

Witness (if any)

For Company

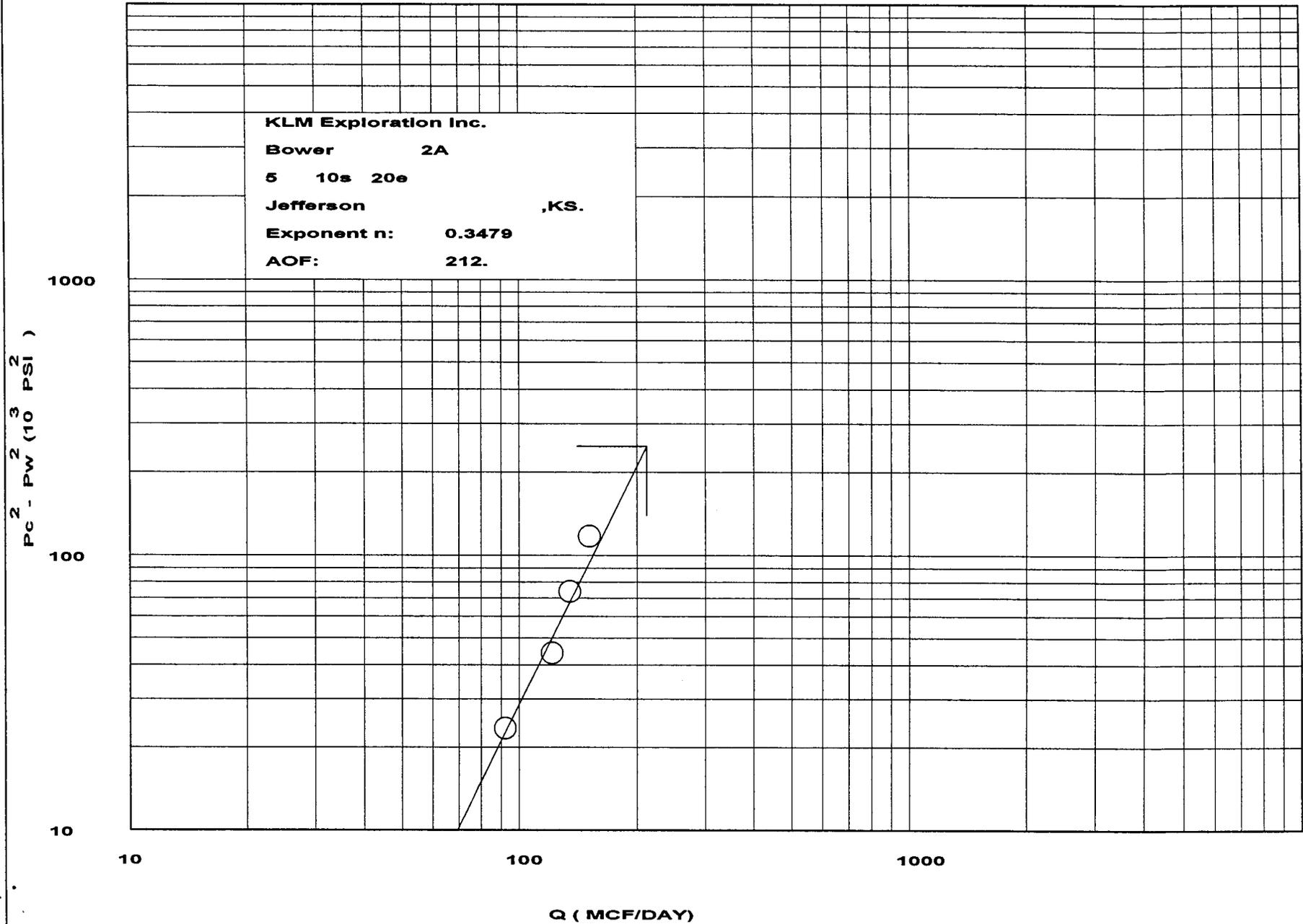
For Commission

Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER: Trilobite Testing

TEST DATE: 1/15/2002



KLM
E/2 SE NE 5/10s/20e
Start Test Date: 2002/01/15

Jefferson KS

FieldNotes

Field Measurements

Bower 2-A

	Date	Clock Time	Comments	Tubing Pres	Casing Pres	Meter1 Temp	Static1 Pres	Orifice1	Fluid1 Rate	Gas1 Rate	Measured Fld1 Lev
	yyyy/mm/dd	hh:mm:ss		psi(g)	psi(g)	°F	psi(g)	in	bbl/d	MMCF/D	in
1	2002/01/15	10:00:00	800								
2		10:08:00	900'								
3		10:25:00	1000'								
4		10:35:00	1100'								
5		10:43:00	1200'								
6		11:07:00	1250'								
7		11:18:00	1300'								
8		11:25:00	1350'								
9		11:41:00	1400'								
10		11:50:00	1425'								
11		12:01:00	1450'								
12		12:11:00	1475								
13		12:25:00	1493'								
14		13:00:00	started test								
15		13:00:00		484.66	484.50	0.00	0.00	0.000		0.000	
16		13:15:00		467.57	467.69	53.80	22.00	0.375		0.109	
17		13:30:00		464.60	465.50	58.90	16.00			0.087	
18		13:45:00		461.29	462.28	61.90	16.00			0.087	
19		14:00:00	1ST PT								
20		14:00:00		458.80	459.80	49.90	15.00			0.084	
21		14:15:00		453.10	454.70	47.70	23.00			0.113	
22		14:30:00		447.20	448.80	44.60	23.00			0.113	
23		14:45:00		441.10	442.50	42.70	25.00			0.121	
24		15:00:00	2ND PT								
25		15:00:00		436.10	437.30	42.10	23.00			0.114	
26		15:15:00		424.50	426.00	41.00	30.00			0.138	

2002/01/15 10:00:00 To 2002/01/16 09:45:00

Gas	0.091	Cum.	0.091 MMCF
Oil	0.000	Cum.	0.000 bbl
Water	0.000	Cum.	0.000 bbl

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E/2 SE NE 5/10s/20e
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Bower 2-A

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Field Measurements

	Date	Clock Time	Comments	Tubing Pres	Casing Pres	Meter1 Temp	Static1 Pres	Orifice1	Fluid1 Rate	Gas1 Rate	Measured Fld1 Lev
	yyyy/mm/dd	hh:mm:ss		psi(g)	psi(g)	°F	psi(g)	in	bbl/d	MMCF/D	in
27	2002/01/15	15:30:00		415.70	417.00	39.40	29.00			0.135	
28		15:45:00		409.20	410.50	38.70	29.00			0.135	
29		16:00:00	3RD PT								
30		16:00:00		401.70	403.00	38.30	28.00			0.132	
31		16:15:00		386.30	387.70	37.40	32.00			0.145	
32		16:30:00		367.80	371.00	37.30	37.00			0.161	
33		16:45:00		350.30	358.80	35.60	33.00			0.148	
34		17:00:00	4TH PT								
35		17:00:00		310.30	346.60	34.20	30.00			0.139	
36		17:15:00		211.30	287.40	33.80	22.00	0.675		0.357	
37		17:30:00	fluid								
38		17:30:00		91.70	163.60	33.70	30.00			0.447	
39		17:45:00		112.60	210.90	32.90	29.00	0.375		0.136	
40		21:00:00									
41	2002/01/16	09:45:00		161.44	372.24	31.60	6.00		0.000	0.047	0.000
42		12:30:00		45.15	126.27	37.40	23.00		22.432	0.114	2.000
43		15:00:00		19.13	112.47	43.20	19.00		24.675	0.099	4.000
44		15:30:00		18.66	107.10	40.30	12.00			0.073	
45		18:30:00		20.52	113.34	40.70	13.00			0.077	
46		20:30:00		19.00	107.13	41.30	14.00			0.081	
47	2002/01/17	00:30:00		18.63	104.01	41.30	12.00			0.073	
48		03:30:00		19.90	111.01	42.10	13.00			0.077	
49		07:30:00		19.56	79.38	30.90	8.00			0.056	
50		09:30:00		20.21	82.25	34.20	2.00			0.020	
51		11:30:00		11.61	77.38	56.50	2.00		21.064	0.019	18.000
52		13:30:00		21.10	83.63	55.30	2.00			0.019	

2002/01/15 10:00:00 To 2002/01/16 09:45:00

Gas	0.091	Cum.	0.091 MMCF
Oil	0.000	Cum.	0.000 bbl
Water	0.000	Cum.	0.000 bbl

KLM
E/2 SE NE 5/10s/20e
Start Test Date: 2002/01/15

Jefferson KS

FieldNotes

Field Measurements

Bower 2-A

53	Date	Clock Time	Comments	Tubing	Casing	Meter1	Static1	Orifice1	Fluid1	Gas1	Measured
				Pres	Pres	Temp	Pres		Rate	Rate	Fld1 Lev
	yyyy/mm/dd	hh:mm:ss		psi(g)	psi(g)	°F	psi(g)	in	bb/d	MMCF/D	in
53	2002/01/17	14:30:00		28.51	91.70	53.60	3.00			0.026	
54		16:30:00		18.26	73.36	47.00	2.00			0.020	
55		20:30:00		26.21	105.65	45.10	2.00		5.141	0.020	19.500
56		22:30:00		24.68	119.16	42.10	4.00			0.032	
57	2002/01/18	00:30:00		25.10	123.71	44.20	8.00			0.055	
58		07:30:00		23.44	73.16	26.60	12.00		8.412	0.074	22.500
59		10:30:00		59.36	105.23	35.60	11.00			0.070	
60		10:30:00	changed seperater								
61		12:00:00		76.24	146.68	38.00	40.00			0.170	
62		14:00:00		11.69	92.55	37.60	2.00		7.118	0.020	24.000
63		16:30:00		16.52	79.74	35.80	3.00			0.026	
64	2002/01/19	08:30:00		13.11	73.49	28.70	4.00		3.334	0.033	26.000
65		16:15:00		14.52	68.59	35.40	2.00			0.020	
66	2002/01/20	08:30:00		13.93	73.49	28.70	2.00		12.852	0.020	36.000
67		16:30:00		11.83	73.02	28.10	2.00			0.020	
68	2002/01/21	08:30:00		13.38	70.94	30.20	3.00			0.026	
69		15:15:00		16.56	65.85	54.50	2.00		10.031	0.019	46.000
70	2002/01/22	07:30:00		21.65	65.72	51.20	5.00			0.039	
71		11:30:00		21.47	67.95	53.50	9.00			0.059	
72		15:45:00		14.10	65.97	63.20	9.00		6.295	0.059	51.000
73		23:00:00		14.91	61.67	48.80	8.00			0.055	
74	2002/01/23	07:30:00		14.30	70.28	32.00	9.00			0.061	
75		14:10:00		18.90	62.28	42.00	10.00		8.256	0.065	57.000

2002/01/17 07:30:00 To 2002/01/18 07:30:00

Gas	0.037	Cum.	0.199 MMCF
Oil	23.776	Cum.	28.916 bbl
Water	0.000	Cum.	0.000 bbl

KLM
E/2 SE NE 5/10s/20e
Start Test Date: 2002/01/15

Jefferson KS

Bower 2-A

Plot

