

KANSAS CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM G-1
8-7-58

TYPE TEST: ☒ Initial ☐ Annual ☐ Special		TEST DATE: 6/06/07	
COMPANY Gra Ex LLC		LEASE Keolsch	
		WELL NO. #1	
COUNTY Stafford	LOCATION 100' N of E/2 S	SECTION 11 24s 14w	ACRES 320
FIELD Mississippi		PIPELINE CONNECTION	
COMPLETION DATE		PLUG BACK DEPTH 4202	PACKER SET AT NA
		TOTAL DEPTH 4202	
CASING SIZE 4.500	WT. 10.500	ID 4.052	SET AT 4234
		PERF. 3954	TO 3964
TUBING SIZE 2.375	WT. 4.700	ID 2.092	SET AT 4051
		PERF.	TO
TYPE COMPLETION (Describe) Single		TYPE FLUID PRODUCTION Oil	
PRODUCING THRU (Annulus/Tubing) annulus		RESERVOIR TEMPERATURE F 118	BAR PRESS - Pa 14.4 psia
GAS GRAVITY - Gg 0.748	% CARBON DIOXIDE 0.012	% NITROGEN 15.682	API GRAVITY OF LIQUID
VERTICAL DEPTH (H) 3959		TYPE METER CONN. flange	PROVER SIZE
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						803	817			72.00	
1.	0.750	5.50		53	60	764	778			1.00	
2.	0.750	9.00		54	60	717	731			1.00	
3.	0.750	14.00		58	60	665	679			1.00	1.9
4.	0.750	17.00		59	60	627	641			1.00	1.9

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.	9.694	19.9	19.90	1.1562	1.0068	1.0018	224		0.748
2.	9.694	23.4	23.40	1.1562	1.0058	1.0021	264		0.748
3.	9.694	28.4	28.40	1.1562	1.0019	1.0027	319	7087.6	1.247
4.	9.694	31.4	31.40	1.1562	1.0010	1.0030	353	7830.8	1.206

PRESSURE CALCULATION

RATE NO.	P _t psia	P _c psia	P _w psia	(P _c) ² Thousands	(P _w) ² Thousands	PLOTING 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.	778.4	817.4	778.5	668.1	606.1	62.1	225.0	95.2
2.	731.4	817.4	731.6	668.1	535.2	133.0	264.4	89.3
3.	679.4	817.4	679.8	668.1	462.1	206.0	319.8	82.9
4.	641.4	817.4	641.9	668.1	412.0	256.1	353.3	78.1

INDICATED WELLHEAD OPEN FLOW

538

Mcfd @ 14.65 psia

"n" = 0.441

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 8 day of June, 2007

Witness (if any)

For Company

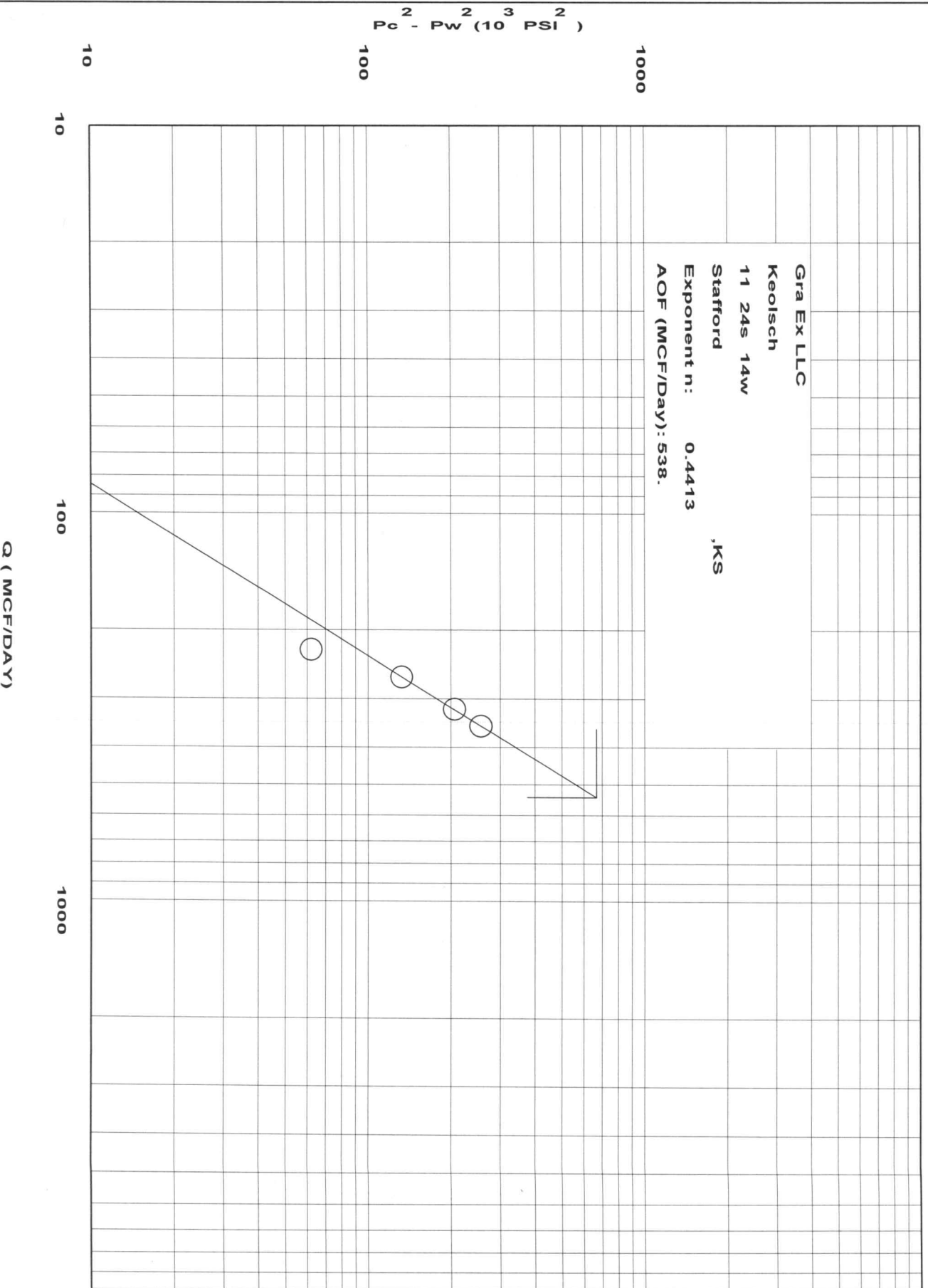
For Commission

Checked by

GAS WELL BACK PRESSURE CURVE

WELL TESTER: Trilobite Testing
 TEST DATE: 6/06/07

Gra Ex LLC
 Keolsch
 11 24s 14w
 Stafford
 Exponent n: 0.4413
 AOF (MCF/Day): 538.
 ,KS



Send all final copies to Gracex.

Company: <u>CORA 2x LLC</u>									
Address: <u>PO Box 32 Kargman KS 67068</u> FAX <u>316-263-5734</u>									
Wellname: <u>KEOLSCH II</u>									
Legal:		Sec: <u>11</u>		Twp: <u>24 S</u>		Rge: <u>14 W</u>			
Formation: <u>M2SS</u>			Field/Pool:			County: <u>STAFFORD</u> St: <u>KS</u>			
Casing size: <u>4 1/2"</u>		Feet of: <u>4234'</u>		Wt: <u>10.5 II</u>		Meter run size: <u>2"</u>		SI: <u>803</u>	
Tubing Size: <u>2 3/8"</u>		Feet of: <u>4051</u>		Wt: <u>4.7 II</u>		Orif (in): <u>3/4" .750</u>		95% <u>763</u>	
TD: <u>4234</u>		Plugged back depth:		Packer depth: <u>N/A</u>		90% <u>723</u>			
Type Test: <u>STATE 4 PT.</u>			Tap Type: <u>FLANGE</u>			Gravity: <u>-71.85</u>		85% <u>683</u>	
Type Completion: <u>SINGLE</u>			Producing through: <u>ANNULUS GAS / OIL TR</u>			80% <u>642</u>			
Date	Clk Tim	Tbg Pres	Csg Pres	Prover Diff	Temp	Static/Prover	Wat Vol1	Oil Vol	Comment
mm/dd	clock	psi	psi	in of H2O	F	PSI	inch	inch	
01/06	0945	6	803		75	0	46"	36"	START TEST
06/06	1000	260	799		61	1.6			
	1015	275	788		56	2.6			
	1030	276	774		55	4.0			
	1045	280	764		53	5.5			1 ST PT
	1100	278	754		56	6.0			
	1115	277	749		57	7.0			
	1130	290	729		55	8.0			
	1145	299	717		54	9.0			2 ND PT
	1200	313	698		55	11.0			
	1215	321	685		54	12.5			
	1230	326	676		56	13.0			
	1245	332	665		58	14.0			3 RD PT
	1300	340	653		59	14.0			
	1315	355	642		59	15.0			
	1330	370	633		60	16.0			
	1345	400	627		59	17.0	47 1/2"	38 1/4"	4 TH PT
									38 1/4
									36
Date	Miles	Name	Date	Miles	Name	Date	Miles	Name	
06/06	54	<i>[Signature]</i>							spt 2.25" between 3 & 4

$$1.67 \text{ dbf/in} \times 2.25" = 3.75 / 2 = 1.88$$

STATE OF KANSAS - CORPORATION COMMISSION
MULTIPOINT BACK PRESSURE TEST

FORM CG-1 Rev.

TYPE TEST: ☒ Initial	☐ Annual	☐ Special	TEST DATE: 05/06/07
COMPANY: Gra Ex, L.L.C.	LEASE: KOD/Sch	WELL NO: #1	
COUNTY: Stafford	LOCATION: 100' N of E 1/2 SE SE	SECTION: 11	TWP: 24S
API WELL NUMBER: 15-185-23418-0000	RESERVOIR: MISSISSIPPI	RNG (E/W): 14W	ACRES: 320
COMPLETION DATE: 05/03/07	PLUG BACK TOTAL DEPTH: 4202'	PIPELINE CONNECTION: Lumen - waiting on connection	PACKER SET AT: NONE
CASING SIZE: 4 1/2" (J-55)	WT. 10.5"	ID. 4.052"	SET AT 4234'
TUBING SIZE: 2 3/4"	WT. 4.7"	ID. 2.092"	SET AT 4051'
TYPE COMPLETION (Describe): Single zone	TYPE FLUID PRODUCTION: OIL	WTR:	
PRODUCING THRU: CASING - Gas Tubing - oil	RESERVOIR TEMPERATURE °F: 108°F	BAR PRESS - P _s : 14.4 Psia	
GAS GRAVITY - G _s : .7485	% CARBON DIOXIDE: .012	% NITROGEN: 15.682	API GRAVITY OF LIQUID: 40.6
VERTICAL DEPTH (H): 4234'	TYPE METER CONNECTION: Flange	(METER RUN) (PROVER) SIZE: Prover (2")	
REMARKS: Will set a two (2) meter run once connection is obtained.			

OBSERVED DATA							DURATION OF SHUT-IN		
RATE NO.	ORIFICE SIZE in	(METER) (PROVER) PRESSURE Psig	DIFF. (h _a) (h _b)	FLOWING TEMP t	WELL-HEAD TEMP. t	CSG WELLHEAD PRESS. Psig (P _w)(P _s)(P _a)	TBG WELLHEAD PRESS. Psig (P _w)(P _s)(P _a)	FLOW DURATION (HOURS)	LIQUID PROD. Bbls.
SHUT IN									
1									
2									
3									
4									
5									

RATE OF FLOW CALCULATIONS									
RATE NO.	COEFFICIENT (F ₁) (F ₂) Mcfd	(METER) (PROVER) PRESSURE Psia	PRESS EXTENSION $\sqrt{P_w - P_a}$	GRAVITY FACTOR F _g	FLOWING TEMP FACTOR F _t	DEVIATION FACTOR F _{pv}	RATE OF FLOW Q Mcfd	GOR (ft ³ /Bbl)	G _m
1									
2									
3									
4									
5									

PRESSURE CALCULATIONS								
RATE NO.	P _i Psia	P _c Psia	P _w Psia	(P _w) ² THOUSANDS	(P _c) ² THOUSANDS	PLOTING POINTS (P _w) ² - (P _c) ² THOUSANDS		% SHUT-IN (P _w - P _c) / (P _i - P _c)
1								
2								
3								
4								
5								

INDICATED WELLHEAD OPEN FLOW

Mcfd @ 14.65 Psia

"n" =

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 _____ day of _____, 19____.

Witness (if any)

For Company

For Commission

Checked By (Rev.10/96)