

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-4 Form must be typed March 2009

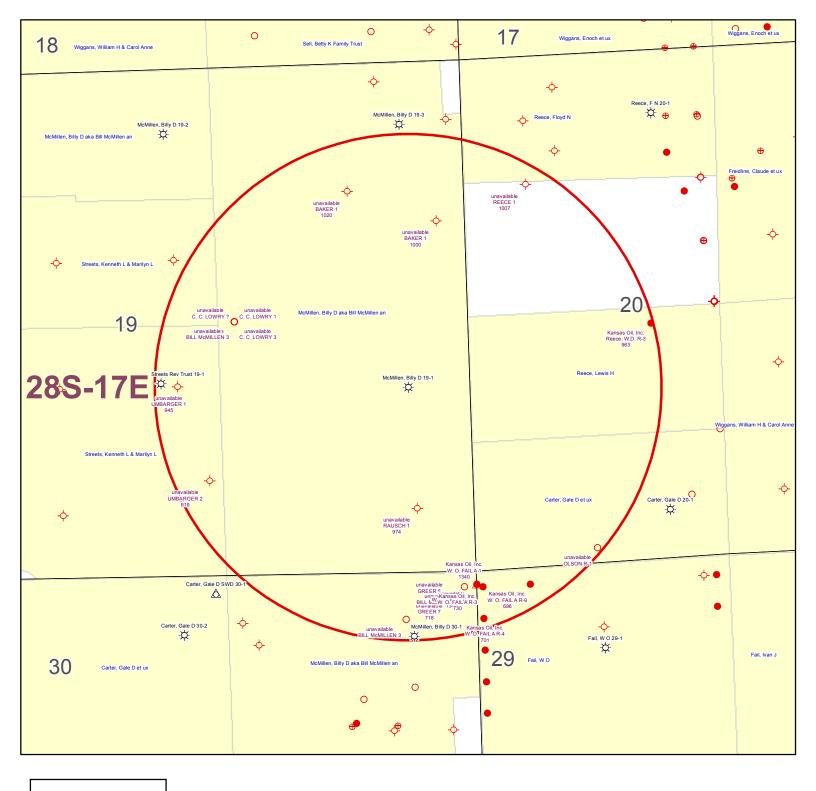
APPLICATION FOR COMMINGLING OF Commingling ID # PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

OPERAT	TOR: License #	API No. 15		
Name:_		Spot Description: _		
Address	1:	-	_ Sec Twp	S. R East West
Address	2:		Feet from No	orth / South Line of Section
City:			Feet from Ea	st / West Line of Section
	Person:			
	()	·	Wel	l #:
_ 1.	Name and upper and lower limit of each production interval to	be commingled:		
	Formation:	(Perfs):		
2.	Estimated amount of fluid production to be commingled from e			
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
□ 3.□ 4.	Plat map showing the location of the subject well, all other well the subject well, and for each well the names and addresses of Signed certificate showing service of the application and affide	of the lessee of record or ope	erator.	ses within a 1/2 mile radius of
For Con	nmingling of PRODUCTION ONLY, include the following:			
□ 5.	Wireline log of subject well. Previously Filed with ACO-1:	Yes No		
6.	Complete Form ACO-1 (Well Completion form) for the subject	_		
For Con	nmingling of FLUIDS ONLY, include the following:			
7.	Well construction diagram of subject well.			
8.	Any available water chemistry data demonstrating the compat	ibility of the fluids to be comr	mingled.	
current in mingling	VIT: I am the affiant and hereby certify that to the best of my nformation, knowledge and personal belief, this request for comistrue and proper and I have no information or knowledge, which istent with the information supplied in this application.	Sı	ubmitted Electron	ically
l —	C Office Use Only			t in the application. Protests must be e filed wihin 15 days of publication of

Date: _

Approved By:

15-Day Periods Ends: _



KGS STATUS

- ◆ DA/PA
- EOR
- **⇔** GAS
- △ INJ/SWD
- OIL
- **♦** OIL/GAS
- OTHER

McMillen, Billy D 19-1 19-28S-17E 1" = 1,000'

	A	В	С	D	Е	F	C	П	ı	ı	К
1	Produced Fluids #	O	1	2	3	4	G 5	Н	<u> </u>	J	1 N
	Parameters	Units	Input	Input	Input	Input	Input		Click he	ro	Click
3	Select the brines	Select fluid	7		7		7	Mixed brine:	to run S		
4	Sample ID	by checking					· ·	Cell H28 is	to run St		Click
	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.	>		
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			Click
	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in	Goal Seek	SSP	
8	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines			Click
_	Field		CBM	CBM	Bartles	Bartles	Bartles	calculations.			
10	Na ⁺	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
11	K ⁺ (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
12	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91	Ca	lcite	
13	Ca ²⁺	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr ²⁺	(mg/l)		·				0.00	Ba	rite	
15	Ba ²⁺	(mg/l)						0.00			
	Fe ²⁺	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21	н	alite	
	Zn ²⁺		40.00	21.00	10.00	02.00	70.00	0.00	-1.77	-1.80	-0.03
		(mg/l)									-0.03
	Pb ²⁺	(mg/l)	2 (200 00	40.045.00	47.074.00	45.22.00	424 47 00	0.00		osum	0.00
	Cl'	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
-	SO ₄ ² ·	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40		nydrate	
21	F	(mg/l)						0.00	-3.96	-3.90	0.06
	Br [*]	(mg/l)						0.00	Anh	ydrite	
23	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
24	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03	Cele	estite	
25	CO3 Alkalinity	(mg/l as CO3)									
26	Carboxylic acids**	(mg/l)						0.00	Iron S	Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
28	Borate	(mg/L) H3BO3						0.00	Zinc	Sulfide	
	TDS (Measured)	(mg/l)						72781			
	Calc. Density (STP)	(g/ml)	1.038	1.051	1.050	1.048	1.045	1.047	Calcium	ı fluoride	
	CO ₂ Gas Analysis	(%)	19.97	18.76	22.41	35.53	33.79	26.16	Curezun		
	H ₂ S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269	Iron Ca	arbonate	
_	Total H2Saq	(mgH2S/l)	1.00	1.00	1.00	1.00	0.50	0.90	-0.74	-0.51	0.23
-	pH, measured (STP)	pН	5.67	5.76	5.72	5.54	5.55	5.63	Inhibitor ne	eeded (mg/L)	
		0-CO2%+Alk,							Calcite	NTMP	
	Choose one option				_						
35	to calculate SI?	•	0	0	0	0	0		0.00	0.00	
	Gas/day(thousand cf/day)	(Mcf/D)		0		4.	4	0	0.00	0.00	
	Oil/Day Water/Day	(B/D) (B/D)	100	100	100	100	100	500	Barite 0.00	0.00	
	J			100	100	100	100	200		о.00 оН	
	For mixed brines, enter val	. ,		ures in Cells (H	(40-H43)			(Enter H40-H43)	n		
40	For mixed brines, enter val Initial T	. ,		ures in Cells (H 71.0	(40-H43) 70.0	41.0	49.0	(Enter H40-H43) 60.0	5.69	5.60	
		lues for tempera	tures and press 66.0 66.0	`		41.0	49.0	60.0 89.0	5.69		
41	Initial T	lues for temperator (F)	tures and press 66.0	71.0	70.0			60.0 89.0	5.69	5.60	
41 42 43	Initial T Final T Initial P Final P	(F) (F) (psia) (psia)	tures and press 66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (1.196 Heat Capaci	5.60 CentiPoise) 0.826 ity (cal/ml/ ⁰ C)	
41 42 43 44	Initial T Final T Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) 1-Yes;0-No	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959	
41 42 43 44 45	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav.	ues for temperat (F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav.	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eeded (mg/L)	
41 42 43 44 45 46	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav.	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 eded (mg/L) HDTMP	
41 42 43 44 45 46 47	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 eded (mg/L) HDTMP 0.00	
41 42 43 44 45 46 47 48	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav.	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 eded (mg/L) HDTMP	
41 42 43 44 45 46 47 48 49	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	ues for tempera (F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) *	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) †	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. McOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP:	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH' (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) PH Calculated	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (PH) (%)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(F) (F) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (PH) (%)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated EXAnions= EXAnions= Calc TDS=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I)	tures and presss 66.0 66.0 25.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= 2Anions= Calc TDS= Inhibitor Selection	ues for tempera (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input	tures and pressures 66.0 66.0 25.0 25.0 0 0 0 Unit	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor nc Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textit{Z}\text{calculated}\$ Alkalinity Caclulated \$\text{Z}\text{calculated}\$ Calc TDS= Inhibitor Selection Protection Time	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	tures and press 66.0 66.0 25.0 25.0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0 Inhibitor NTMP	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= 2Anions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer	(F) (F) (psia) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) (mg/I) Input 120	tures and pressures 66.0 66.0 25.0 25.0 0 0 0 Unit min	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. McOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	tures and pressures 66.0 66.0 25.0 25.0 0 0 0 0 Unit min	71.0 71.0 25.0 25.0 4 1 1 2 3	Inhibitor NTMP BHPMP PAA	41.0 25.0 25.0 25.0 Unit Converter From Unit °C m³	49.0 25.0 25.0 25.0 (From metric Value 80 100	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 53 54 55 56 67 75 88 89 60 61 62 63 64 65	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H† (Strong acid) † OH' (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is:	(F) (F) (psia) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) (mg/I) Input 120	tures and pressures 66.0 66.0 25.0 25.0 0 0 0 Unit min	71.0 71.0 25.0 25.0 4 # 1 2 3	Inhibitor NTMP BHPMP PAA DTPMP	Unit Converter From Unit °C m³ m³	49.0 25.0 25.0 25.0 (From metric Value 80 100 100	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft"3 bbl(42 US gal)	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 67 78 88 60 61 62 63 64 65 66	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) (N) STP: (%) (mgH2S/I) (pH) (mg/I) as HCO3 (equiv./I) (mg/I) Input 120 1 4	tures and press 66.0 66.0 25.0 25.0 0 0 0 1-Yes;0-No #	71.0 71.0 25.0 25.0 4 1 2 3 4 5	Inhibitor NTMP BHPMP PAA DTPMP PPCA	Unit Converter From Unit °C m³ m³ MPa	49.0 25.0 25.0 25.0 (From metric Value 80 100 1,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft"3 bbl(42 US gal)	Value 176 3,531 629 145,074	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 67 60 61 62 63 64 65 66 66	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH' (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated Alkalinity Caclulated EXATIONS= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor # is:	(F) (F) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (mg/l) Input 120 1 4	Unit min 1-Yes;0-No #	# # 1 2 3 4 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit °C m³ m³ MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 67 63 64 65 66 67 68	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4 1 50	Unit min 1-Yes;0-No # # %	# # 1 2 3 4 4 5 6 6 7	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP	Unit Converter From Unit °C m³ m³ MPa Bar Torr	49.0 25.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 0 To Unit "F ft ³ bbl(42 US gal) psia psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 67 62 63 64 65 66 67 68 69	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated Alkalinity Caclulated PCO2 Calculated Alkalinity Caclulated EXAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor for you? If you select Mixed, 1st inhibitor # is: % of 1st inhibitor is: % of 1st inhibitor is: 2nd inhibitor # is:	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) 1 120 1 4 1 50 2	Unit min 1-Yes;0-No # # % #	## 1 2 3 4 4 5 6 6 7 8	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP HDTMP	Unit Converter From Unit °C m³ MPa Bar Torr Gal	49.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25	60.0 89.0 25.0 120.0 30.00 0.60 0 0 10 10 10 10 10 10 10 10 10 10 10 1	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193 238	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 67 62 63 64 65 66 67 68 69	Initial T Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4 1 50	Unit min 1-Yes;0-No # # %	# # 1 2 3 4 4 5 6 6 7	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP	Unit Converter From Unit °C m³ m³ MPa Bar Torr	49.0 25.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 0 To Unit "F ft ³ bbl(42 US gal) psia psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	

Saturation Index Calculations

Champion Technologies, Inc. (Based on the Tomson-Oddo Model)

Brine 1: Ward Feed Yard 34-1 Brine 2: Ward Feed Yard 4-1 Brine 3: Clinesmith 5-4 Brine 4: Clinesmith 1 Brine 5: Clinesmith 2

			Ratio			
	20%	20%	20%	20%	20	
Component (mg/L)	Brine 1	Brine 2	Brine 3	Brine 4	Brine 5	Mixed Brine
Calcium	1836	2452	2044	1920	1948	1952
Magnesium	1096	872	1200	953	858	865
Barium	0	0	0	0	0	0
Strontium	0	0	0	0	0	0
Bicarbonate	190	234	259	268	254	253
Sulfate	1	1	8	1	1	1
Chloride	36299	48965	47874	45632	43147	43206
CO ₂ in Brine	246	220	264	422	405	401
Ionic Strength	1.12	1.48	1.46	1.38	1.31	1.31
Temperature (°F)	89	89	89	89	89	89
Pressure (psia)	50	50	120	120	120	119

Saturation Index

Calcite	-1.71	-1.41	-1.48	-1.68	-1.69	-1.69
Gypsum	-3.71	-3.64	-2.82	-3.73	-3.72	-3.69
Hemihydrate	-3.70	-3.65	-2.83	-3.74	-3.71	-3.69
Anhydrite	-3.89	-3.79	-2.97	-3.89	-3.88	-3.85
Barite	N/A	N/A	N/A	N/A	N/A	N/A
Celestite	N/A	N/A	N/A	N/A	N/A	N/A

PTB

Calcite	N/A	N/A	N/A	N/A	N/A	N/A
Gypsum	N/A	N/A	N/A	N/A	N/A	N/A
Hemihydrate	N/A	N/A	N/A	N/A	N/A	N/A
Anhydrite	N/A	N/A	N/A	N/A	N/A	N/A
Barite	N/A	N/A	N/A	N/A	N/A	N/A
Celestite	N/A	N/A	N/A	N/A	N/A	N/A

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

ORIGINAL September 1999 Form Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 205-26581-00-06
Name: Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	<u>ne</u> - <u>se</u> Sec. <u>19</u> Twp. <u>28</u> S. R. <u>17</u> 🗸 East 🗌 West
	1980 feet from S / N (circle one) Line of Section
City/State/Zip: Chanute, KS 66720 Purchaser: Bluestem Pipeline, LLC Operator Contact Person: Jennifer R. Ammann Phone: (620) 431-9500 Contractor: Name: L.S. Well Service, LLC	660 feet from (E) W (circle one) Line of Section
Operator Contact Person: Jennifer R. Ammann	Footages Calculated from Nearest Outside Section Corner:
Phone: (620) 431-9500	(circle one) NE SE NW SW
Contractor: Name: L S Well Service, LLC	Lease Name: McMillen, Billy D. Well #: 19-1
Contractor: Name: L S Well Service, LLC S S S S S S S S S S S S S S S S S S	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Purchaser: Bluestem Pipeline, LLC Operator Contact Person: Jennifer R. Ammann Phone: (620) 431-9500 Contractor: Name: L S Well Service, LLC License: 33374 Wellsite Geologist: Ken Recoy Designate Type of Completion:	Elevation: Ground: 896 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1149 Plug Back Total Depth: 1141.38
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 21.6 Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used? ☐Yes ☑No
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFee
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1141.38
Operator:	feet depth to surface w/ 160 sx omt.
Well Name:	M172-019-12/41
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	Chloride content ppm Fluid volume bbls
Plug BackPlug Back Total Depth	Dewatering method used
Commingled Docket No	
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
5/12/06 5/16/06 5/22/06	Lease Name: License No.:
Spud Date or Date Reached TD Completion Date or	Quarter Sec. Twp. S. R. East West
Recompletion Date Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workov Information of side two of this form will be held confidential for a period of	the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, err or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 12 months if requested in writing and submitted with the form (see rule 82-3-3 and geologist well report shall be attached with this form. ALL CEMENTING 5. Submit CP-111 form with all temporarily abandoned wells.
	ate the oil and gas industry have been fully complied with and the statements
herein are complete and correct to the best of my knowledge.	
Signature: Semper K. Amman	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 9/8/06	Letter of Confidentiality Received
Subscribed and sworn to before me this Stay of Supermble	If Denied, Yes Date:
20 <u>06</u> .	, Wireline Log Received
A D	Geologist Report Received
	TERRAKLAUMANL uc Distribution
Date Commission Expires: 8-4-2010 My Appt. 1	stary Public - State of Kansas

Operator Name: Qu	est Cherokee, LL	<u>.c</u>	Lease Name:	McMillen, Bill	y D.	Well #: 19-1	<u> </u>
Sec. 19 Twp. 2		✓ East ☐ West	County: Wilso	on			
tested, time tool ope temperature, fluid re	n and closed, flowin covery, and flow rate	and base of formations g and shut-in pressures s if gas to surface test, final geological well site	, whether shut-in pro along with final chai	essure reached	static level, hydr	ostatic pressure	es, bottom hole
Drill Stem Tests Take		☐ Yes 🗸 No	∑ L		ion (Top), Depth		Sample
Samples Sent to Ge	ological Survey	☐ Yes 🗹 No	Nam See	ne attached		Тор	Datum
Cores Taken		Yes 🗸 No					
Electric Log Run (Submit Copy)		✓ Yes					
List All E. Logs Run:							
Dual Induction Log Compensated Den Gamma Ray CCL							
			G RECORD N	ew Used	ction, etc.		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	11	8-5/8"	20#	21.6	"A"	5	
Production	6-3/4	4-1/2	10.5#	1141.38	"A"	160	
		ADDITIONA	AL CEMENTING / SQ	UEEZE RECOR	D		
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks Used		Type and	Percent Additives	
Shots Per Foot		ION RECORD - Bridge PI Footage of Each Interval P			acture, Shot, Ceme Imount and Kind of N		rd Depth
4	1031-1033			200gal 15%HCLw/ 41 b	bis 2%kd water, 300bbis water	er w/ 2% KCL, Blockle, 3000	0# 20/40 sand 1031-1033
4	878-879/854-856/8	322-823/809-811/791-79	93/751-753/736-738	400gal 15%HCLw/ 40 bi	bis 2%kci water, 821bbis wate	r w/ 2% KCL, Blocide, 18100	0# 20/40 sand 878-879/854-856
	665-669/653-65			400cal 15%HCl w/ 58 b	bis 2%kcl water, 525bbis wate	822-823/809-81	
TUBING RECORD	Size	Set At	Packer At	Liner Run			
2-	3/8"	1033	n/a		Yes N	lo	
Date of First, Resume 7/21/06	rd Production, SWD or	Enhr. Producing M	ethod Flowin	ng 🕢 Pump	ing Gas L	_ift	er (Explain)
Estimated Production Per 24 Hours	Oil n/a	Bbls. Gas Omcf	Mcf War 76bl		Bbls.	Gas-Oil Ratio	Gravity
Disposition of Gas		COMPLETION		Production Inte	erval		
Vented Sold	Used on Lease ubmit ACO-18.)	Open Hole	ست ب	Dually Comp.	Commingled		

DRMATION:	FLEMING	(PERFS):	791 -	- 793			
ORMATION:	CROWEBURG	(PERFS):	751 -	753			
ORMATION:	BEVIER	(PERFS):	736 -	738			
FORMATION:	MULKY	(PERFS):	665 -	669			
FORMATION:	SUMMIT	(PERFS):	653 -	657			
FORMATION:	STRAY SAND	(PERFS):	686 -	692			
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:	MOLINIT OF FILLID DRODUCTION	(PERFS):					
	MOUNT OF FLUID PRODUCTION FLEMING	<u> </u>	EACH INT	ERVAL MCFPD:	7.3	BWPD:	4
ESTIMATED AI		TO BE COMMINGLED FROM			7.3	BWPD:	4 4
ESTIMATED AI FORMATION:	FLEMING	N TO BE COMMINGLED FROM BOPD:	0	MCFPD:		_	
ESTIMATED AI FORMATION: FORMATION:	FLEMING CROWEBURG	N TO BE COMMINGLED FROM BOPD: BOPD:	0	MCFPD:	7.3	BWPD:	4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD: MCFPD:	7.3 7.3	BWPD: _	4
ESTIMATED AI FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD:	0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD:	7.3 7.3 7.3	BWPD: BWPD:	4 4 4
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	7.3 7.3 7.3 7.3	BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY SUMMIT	BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	7.3 7.3 7.3 7.3	BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY SUMMIT	BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	7.3 7.3 7.3 7.3	BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY SUMMIT	BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	7.3 7.3 7.3 7.3	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING CROWEBURG BEVIER MULKY SUMMIT	BOPD:	0 0 0 0 0	MCFPD:	7.3 7.3 7.3 7.3	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4

	ľ	ACCUPATION OF THE PROPERTY OF	1	(M2002-07
	·	Description of the Control of the Co		
Affidav	vit of Notice Served		2004	AMERICAN STREET, STREE
Re:	Application for: APPLICATION FOR COMMINGLII			
	Well Name: MCMILLEN, BILLY D 19-1	Legal Location: SWNENESE	S19-T28S-R17E	
The unde	ersigned hereby certificates that he / she is a duly authorized ager	nt for the applicant, and that on the day $29TH$	of JUNE	
2012	, a true and correct copy of the application referenced			
	-			
Note: A	copy of this affidavit must be served as a part of the application.			
	Name	Address (Attach additional sheets if nec	cessary)	
KAN	ISAS OIL, INC	16716 WICHITA RD, C	CHANUTE, KS	66720
CK F	REECE	315 LAMBETH RD, WA	ATERLOO, IA	50701
LYLE	E MARTIN GREER	1019 N STUEBEN, CH	IANUTE, KS	66720
I further a	attest that notice of the filing of this application was published in the	_e WILSON COUNTY CITIZEN	, the officia	al county publication
of WIL	LSON	county. A copy of the affidavit of this publication	n is attached.	
	20TU HINE	2012		
Signed th	nis 29TH day of JUNE , 2	2012	0//	
		Aurilia Hd	Beal	
		Applicant or Duly Authorized Agent		2012
	Subscribed and sworn to	o before me this <u>29TH</u> day of <u>JUNE</u>		,
•	DENISE V. VENNEMAN OFFICIAL MY COMMISSION EXPIRES	Down Ulle	Memo	
	July 1, 2012	Notary Public	/ >	-
	and the same of	My Commission Expires:	Guaran	
			A STATE OF THE STA	MAKE MATERIAL PROPERTY AND ASSESSMENT OF THE PROPERTY OF THE PROPERTY ASSESSMENT OF THE PROPERTY ASSESSMENT OF THE PRO

MCMILLEN, BILLY D 19-1 - APPLI	ICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS
ffset Operators, Unleased Mineral Owners and Landown Itach additional sheets if necessary)	
Name: SEE ATTACHED	Legal Description of Leasehold:
ZZ // //ONZ	
	· · · · · · · · · · · · · · · · · · ·
	satis the best of my knowledge and heliaf
reby certify that the statements made herein are true and corre	
	Dunifer RD Beal
	Applicant of Duly Authorized Agent
Subscribed a	and sworn before me this 29TH day of JUNE ,2012
DENISE V. VENNEMAN	Leuse Villennemas
GOFFICIAL MY COMMISSION EXPIRES July 1, 2012	Notary Public 1/1/2
The state of the s	My Commission Expires:

MCMILLEN, BILLY D 19-1 OFFSET OPERATORS, UNLEASED MINERAL OWNERS AND LANDOWNERS ACREAGE

SPOT	LEGAL LOCATION	CURR_OPERA
NW NW NW NW	S29-T28S-R17E	Kansas Oil, Inc.
N2 NW NW	S29-T28S-R17E	Kansas Oil, Inc.
N2 NW NW	S29-T28S-R17E	Kansas Oil, Inc.
NW NE NE SW	S20-T28S-R17E	Kansas Oil, Inc.
NW NW NW	S29-T28S-R17E	Kansas Oil, Inc.



Wellbore Schematic

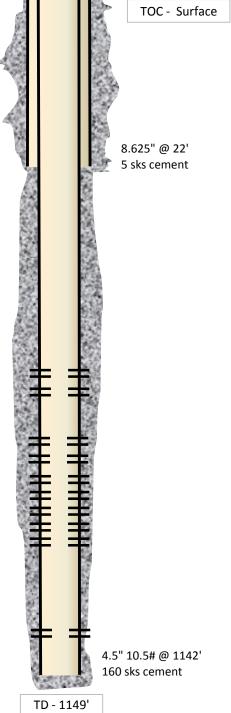
WELL: McMillen, Billy D 19-1

SSI: 612470 **API:** 15-205-26581

LOCATION: NE SE Sec. 19 28S-17E

COUNTY: Wilson **STATE:** Kansas

	STATE: Kansas	4
Casing	8.625" @ 22' 4.5'' 10.5# J-55, 4.05'' ID w/ 0.0159 bbl/ft capacity @ 1142'	4
Perforations	Original Perfs: 6/1/06 - Riverton 1031-1033' (9) - Weir 878-879' (5) - Tebo 854-856' (9) - Fleming 822-823' (5) - Fleming 809-811' (9) - Fleming 791-793' (9) - Croweburg 751-753' (9) - Bevier 736-738' (9) - Mulky 665-669' (17) - Summit 653-657' (17)	
Completions	Spud Date: 5/12/06 V Completion: 6/1/06 - 200 gal 15% HCl - 10 BPM - 3,000# 20/40 - 300 bbls BCFTW Completion: 6/2/06 - 400 gal 15% HCl - 14.3 BPM - 18,100# 20/40 - 821 bbls SM Completion: 6/2/06 - 400 gal 15% HCl - 14.3 BPM - 12,100# 20/40 - 525 bbls	



AFFIDAVIT

STATE OF KANSAS

SS.

County of Sedgwick

Mark Fletchall, of lawful age, being first duly sworn, deposeth and saith: That he is Record Clerk of The Wichita Eagle, a daily newspaper published in the City of Wichita, County of Sedgwick, State of Kansas, and having a general paid circulation on a daily basis in said County, which said newspaper has been continuously and uninterruptedly published in said County for more than one year prior to the first publication of the notice hereinafter mentioned, and which said newspaper has been entered as second class mail matter at the United States Post Office in Wichita, Kansas, and which said newspaper is not a trade, religious or fraternal publication and that a notice of a true copy is hereto attached was published in the regular and entire Morning issue of said The Wichita Eagle for _1_ issues, that the first publication of said notice was

made as aforesaid on the 6th of

July A.D. 2012, with

subsequent publications being made on the following dates:

And affiant further says that he has personal knowledge of the statements above set forth and that they are true.

Subscribed and sworn to before me this

6th day of July, 2012

PENNY L. CASE Notary Public - State of Kans My Appt. Expires

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
JULY 6, 2012 (3194614)

BEFORE THE STATE CORPORATION
COMMISSION OF
THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In the Matter of Postrock
Midcontinent Production, LLC
Application for Commingting of
Production in the McMillen, Billy D
19-1 located in Wilson County, Kansas,
TO: All '01] & Gas Producers, Unleased TO; All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons

TO: All Oil & Gas Producers, Unieased Mineral Interest Owners, Landowners, and all persons whomever concerned:
You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has filed an application to commingle the Riverton, Weir, Tebo, Flemling, Croweburg, Bevier, Mulky, Summith and Stray Sand producing formations at the McMillen, Billy D 19-1, located in the SW NE NE SE, S19-7285-R17E, Approximately 1986 FSL & 644 FEL; Wilson County, Kansas.

Any persons who object 10 or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State Corporation Commission of the State Corporation Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural resources of the State of Kansas.

All persons interested or concerned shall take notice of the foregoing and shall govern hemselves accordingly. All person and/or companies wishing to protest this application are required to file a written protest with the Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an appearance either through proper legal counsel or as individuals, appearing on their own behalf.

Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750.

Oklahoma City, Oklahoma 73102.

PROOF OF PUBLICATION

STATE OF KANSAS Wilson County - SS

JOSEPH S. and RITA M. RELPH, of lawful age, being duly sworn upon oath that they are the Owners and Publishers of the WILSON COUNTY CITIZEN:

THAT said newspaper has been published at least weekly fifty (50) times a year and has been so published for at least five years prior to the first publication of the attached notice:

THAT said newspaper is a general circulation on a daily, or weekly, or monthly, or yearly basis in;

WILSON COUNTY, KANSAS and is NOT a trade, religious or fraternal publication and has been PRINTED and PUBLISHED in Wilson County, Kansas.

THE ATTACHED was published on the following dates in a regular issue of said newspaper: 1st publication was made on the 2nd publication was made on the_ day of 3rd publication was made on the_____ 4th publication was made on the ______ day of 5th publication was made on the _day of 6th publication was made on the day of TOTAL PUBLICATION FEE: (Signed) Subscribed and sworn to before me, this _

My commission expires

(Published in the Wilson County Citizen on . Thursday, July 19, 2012.)

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

NOTICE OF FILING APPLICATION

RE: In the Matter of Postrock Midcontinent Production, LLC Application for Commingling of Production in the McMillen, Billy D 19-1 located in Wilson County, Kansas.

TO: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons

whomever concerned.

You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has filed an application to commingle the Riverton, Weir, Tebo, Fleming, Croweburg, Bevier, Mulky, Summitt and Stray Sand producing formations at the McMillen, Billy D 19-1, located in the SW NE NE SE, S19-T28S-R17E, Approximately 1986 FSL &

644 FEL, Wilson County, Kansas.

Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural resources of the State of Kansas:

All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly. All person and/or companies wishing to protest this application are required to file a written protest with the Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an appearance either through proper legal counsel or as individuals, appearing on their own behalf.

Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oldahoma 73102 (405) 660-7704

44 1 cpy.



Rita M. Relph NOTARY PUBLIC State of Kansas STATE OF KANSAS | My Commission Expires Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Mark Sievers, Chairman
Sam Brownback, Governor
Thomas E. Wright, Commissioner

August 7, 2012

Clark Edwards
PostRock Midcontinent Production LLC
Oklahoma Tower
210 Park Ave, Ste 2750
Oklahoma City, OK 73102

RE: Approved Commingling CO081204

McMillen, Billy D. 19-1 Sec.19-T28S-R17E, Wilson County

API No. 15-205-26581-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on August 1, 2012, has been reviewed and approved by the Kansas Corporation Commission (KCC) per K.A.R. 82-3-123. Notice was examined and found to be proper per K.A.R. 82-3-135a. No protest had been filed within the 15-day protest period.

Based upon the depth of the Riverton formation perforations, total oil production shall not exceed 100 BOPD and total gas production shall not exceed 50% of the absolute open flow (AOF).

File form ACO-1 upon re-completion of the well to commingle.

Commingling ID number CO081204 has been assigned to this approved application. Use this number for well completion reports (ACO-1) and other correspondence that may concern this approved commingling.

Sincerely,

Rick Hestermann Production Department