

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1084881

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	S. R East West
Address	2:		Feet from North	n / South Line of Section
City:	State: Zip:+		Feet from East	/ West Line of Section
Contact	Person:	County:		
Phone:	()	Lease Name:	Well #	t
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	each interval:		
	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 affidation	of the lessee of record or ope	erator.	s 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 compati	ibility of the fluids to be comr	ningled.	
current in mingling is incons	VIT: I am the affiant and hereby certify that to the best of my nformation, knowledge and personal belief, this request for comis true and proper and I have no information or knowledge, which istent with the information supplied in this application.		ubmitted Electronic	cally
	C Office Use Only			n the application. Protests must be illed wihin 15 days of publication of

Date: _

15-Day Periods Ends: __

Approved By: _



Wellbore Schematic

WELL: Trichler, Wayne A 14-1

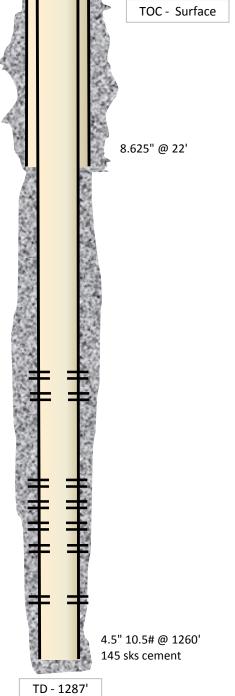
SSI: 618670

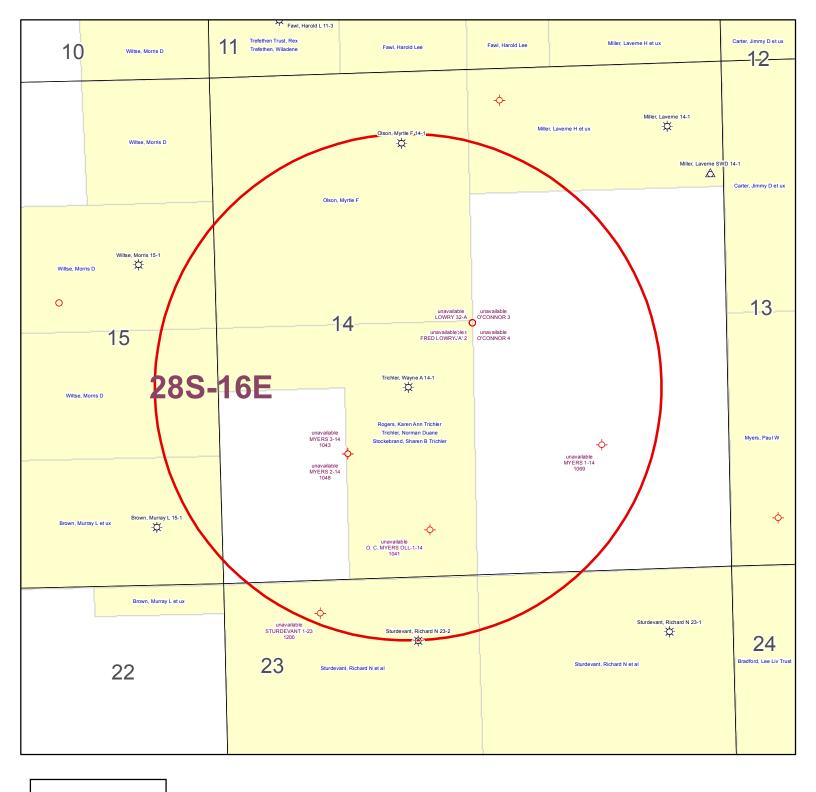
API: 15-205-27036

LOCATION: NE SW Sec. 14 28S-16E

COUNTY: Wilson STATE: Kansas

		-43
Casing	8.625" @ 22' 4.5'' 10.5# J-55, 4.05'' ID w/ 0.0159 bbl/ft capacity @ 1260'	4
Perforations	Original Perfs: 1/3/07 - Riverton 1151-1153' (9) - Tebo 960-962' (9) - Fleming 895-897' (9) - Croweburg 858-861' (13) - Bevier 841-843' (9) - Mulky 768-772' (17) - Summit 756-760' (17)	
Completions	Spud Date: 12/9/06 V Completion: 1/3/07 - 100 gal 15% HCl - 12.4 BPM - 3,000# 30/70 - 292 bbls BCFT Completion: 1/3/07 - 400 gal 15% HCl - 18.4 BPM - 12,200# 30/70 - 927 bbls SM Completion: 1/4/07 - 300 gal 15% HCl - 17.8 BPM - 12,000# 30/70 - 589 bbls	





KGS STATUS

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

Trichler, Wayne A 14-1 14-28S-16E 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 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) *	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	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	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 temperar (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (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{\textit{Z}}\text{Calculated}\$ Alkalinity Caclulated \$\text{\text{\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 Alkalinity Caclulated ECations= 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) (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) (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 - 205-27036 - 00-00
Name: Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	<u>ne_sw_Sec. 14Twp. 28S. R. 16</u>
City/State/Zip: Chanute, KS 66720	1980 feet from N (circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	1980 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)
TVD Continue I D	Lease Name: Trichler, Wayne Well #: 14-1
License: 33837	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Field Name: Cherokee Basin CBM Producing Formation: Multiple Solution: Ground: 955 Kelly Bushing: n/a Total Depth: 1287 Plug Back Total Depth: 1258.97
Designate Type of Completion:	S/ONEvation: Ground: 955 Kelly Bushing: n/a
✓ New Well Be-Entry Workson.	Total Depth: 1287 Plug Back Total Depth: 1258.97
Designate Type of Completion: New Well Re-Entry Works En VATION DIVISION Oil SWD SIOW Terrigo And Completion:	Amount of Surface Pipe Set and Cemented at 22 Feet
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used?
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFeet
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1258.97
Operator:	feet depth to surface w/ 145 sx cmt.
Well Name:	
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan Ut.#2 KJR 6/27/ (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	
Plug Back Plug Back Total Depth	Chloride content ppm Fluid volume bbls
Commingled Docket No	Dewatering method used
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No.	Operator Name:
	Lease Name: License No.:
12/9/06 12/13/06 12/13/06 Spud Date or Date Reached TD Completion Date or	Quarter Sec Twp S. R
Recompletion Date Bate Reactieu 15 Completion Date Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workove Information of side two of this form will be held confidential for a period of 1 107 for confidentiality in excess of 12 months). One copy of all wireline logs TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells.	
All requirements of the statutes, rules and regulations promulgated to regular herein are complete and correct to the best of my knowledge.	te the oil and gas industry have been fully complied with and the statements
Signature: Signature: Immann	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 4/9/07	Letter of Confidentiality Received
Subscribed and sworn to before me this That day of April	If Denied, Yes Date:
20 07.	Wireline Log Received
4 0	Geologist Report Received
Notary Public: Day Tlauman	ERRA KLAUMAN VIC Distribution
Date Commission Expires: 0-4-20(0)	ary Public - State of Kansas xpires 8-4-2010

Operator Name: Q	uest Cherokee, L	LC	Lease I	Name: Trichler	, Wayne		Well #:14-1	<u></u>
Sec14 Twp	28 S. R. 16	_ ✓ East	County:	Wilson ·				
tested, time tool op temperature, fluid re	en and closed, flowing ecovery, and flow rate	and base of formations page and shut-in pressures, es if gas to surface test, final geological well site	penetrated. [, whether shualong with fir	Detail all cores. ut-in pressure re	ached st	atic level, hydr	ostatic pressure	es, bottom hole
Drill Stem Tests Tak		☐ Yes ✓ No		√ Log I	ormation	(Top), Depth	and Datum	Sample
Samples Sent to G		☐ Yes ✓ No		Name See attache	ad.		Тор	Datum
Cores Taken Electric Log Run (Submit Copy)		Yes No		Calladia (
Compensated Dual Induction Gamma Ray	d Density/Neutr n Log	on Log			, 46-1 , 4			
			RECORD		sed		**	
Purpose of String	Size Hole Drilled	Report all strings set- Size Casing Set (In O.D.)	Weigl	ht Set	ting	Type of Cement	# Sacks Used	Type and Percen Additives
Surface	12-1/4	8-5/8"	20	22	1	"A"	5	*** **
Production	6-3/4	4-1/2	10.5	1258.9	97	"A"	145	
		ADDITIONA	L CEMENTIN	G / SQUEEZE R	ECORD	3		
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone		Type of Cement	#Sacks U	Jsed		Type and	Percent Additives	
Shots Per Foot		FION RECORD - Bridge Plus Footage of Each Interval Pe		A		ire, Shot, Cemer	nt Squeeze Recon	d Depth
4	1151-1153			100gal 15%l	·		r w/ 2% KCL, Biocide, 3000	
4	960-962/895-89	97/858-861/841-843		400gal 15%	CLw/ 45 bbls 29	6kcl water, 927bbls water	w/ 2% KCL, Blocide, 12200	# 30/70 sand 960-962/895-
								858-861/841-
4 TUBING RECORD	768-772/756-76 Size	Set At	Packer At			6kcl water, 589bbls water	w/ 2% KCL, Blocide, 12000	768-772/756-
1	-3/8"		n/a	Liner R		Yes 🔽 No)	
Date of First, Resume 3/5/07	erd Production, SWD or	Enhr. Producing Me	thod	Flowing 🗸	Pumping	Gas L	ift Othe	r (Explain)
Estimated Production Per 24 Hours	oii n/a	Bbls. Gas 48mcf	Mcf	Water	Bbls	i. 1	Gas-Oil Ratio	Gravity
Disposition of Gas	METHOD OF	COMPLETION	- In-	Product	ion Interva	I		· · · · · · · · · · · · · · · · · · ·
Vented ✓ Sold (If vented, S	Used on Lease	Open Hole Other (Spec	() · · · · · ·	Dually Con	np	Commingled _		· · · · · · · · · · · · · · · · · · ·
		The second of the second		to the state of				

1 NAME & UPPE	R & LOWER LIMIT OF EACH PROD	DUCTION INTERVAL TO BE O	OMMING	LED			
FORMATION:	MULKY	(PERFS):	768 -	- 772			
FORMATION:	SUMMIT	(PERFS):	756 -	760	-		
FORMATION:	CATTLEMAN	(PERFS):	930 -	936	-		
FORMATION:		(PERFS):		-	-		
FORMATION:		(PERFS):		-	-		
FORMATION:		(PERFS):		-	-		
FORMATION:		(PERFS):		-	-		
FORMATION:		(PERFS):		-	-		
FORMATION:		(PERFS):		-	_		
FORMATION:		(PERFS):		-	_		
FORMATION:		(PERFS):		-	_		
FORMATION:		(PERFS):		- -	_		
2 ESTIMATED A	MOUNT OF FLUID PRODUCTION 1	O BE COMMINGLED FROM	EACH INT	ERVAL			
FORMATION:	MULKY	BOPD:	0	MCFPD:	10.71	BWPD:	5.71
FORMATION:	SUMMIT	BOPD:	0	MCFPD:	10.71	BWPD:	5.71
FORMATION:	CATTLEMAN	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	

Affidavit of Notice Served	
Re: Application for: APPLICATION FOR COMMINGLING C	PERODUCTION OR FLUIDS - ACO-4
Well Name: TRICHLER, WAYNE A 14-1	Legal Location: NWSW S14-T28S-R16E
The undersigned hereby certificates that he / she is a duly authorized agent for the	e applicant, and that on the day 29TH of JUNE ,
, a true and correct copy of the application referenced above	was delivered or mailed to the following parties:
Note: A copy of this affidavit must be served as a part of the application.	
Name	Address (Attach additional sheets if necessary)
GARY R RATLIFF & JULIE RATLIFF	21491 WICHITA RD, CHANUTE, KS 66720
CROWN RIDGE RESERVE LLC	1630 200 RD, CHANUTE, KS 66720
NORMAN DUANE & EUNICE TRICHLER	PO BOX 221, YATES CENTER, KS 66783
STOCKEBRAND, DAVID & SHAREN	1964 110TH RD, YATES CENTER, KS 66783
DUANE & KAREN A ROGERS TRUST	26923 S KAUFMAN RD, HARRISONVILLE, MO 64701
	SON COUNTY CITIZEN , the official county publication
I further attest that notice of the filing of this application was published in the WIL of WILSON cou	ntv. A copy of the affidavit of this publication is attached.
	, .,
Signed this 29TH day of JUNE 2012	
Appli	cant py buly Authorized Agent
	re me this 29TH day of JUNE , 2012
DENISE V. VENNEMAN OFFICIAL MY COMMISSION EXPIRES	
II Wassis July 1 2012	y Public William as
My C	ommission Expires:

	Assertance construction in the military of the construction of the	
Operators, Unleased Mineral Owners and Landon	owners acreage	- on
additional sheets if necessary) . Name:	Legal Description of Leasehold:	
ATTACHED	Logal Book phon of Loddon out.	
A MI		
certify that the statements made herein are true and co	orrect to the best of my knowledge and belief.	
	01010	
	Applicated of Duly Authorized Agent	
	g y Const	2
Subscribe	ed and sworn before me this 29TH day of JUNE 2011	
AND THE RESERVE AND ADDRESS OF THE PROPERTY OF	1 Doneso 4 Henneman	ř
DENISE V. VENNEMAN	Notary Public Villennemas	,
DENISE V. VENNEMAN OFFICIAL MY COMMISSION EXPIRES July 1, 2012	Domese Vllennemas	*
DENISE V, VENNEMAN OFFICIAL MY COMMISSION EXPIRES July 1, 2012	Notary Public T. 1.1.12	
DENISE V. VENNEMAN OFFICIAL MY COMMISSION EXPIRES July 1, 2012	Notary Public T. 1.1.12	*
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	Yates Center, KS 66783 HARRISONVILLE MO 64701	T 26923 S KAUFMAN RD	ROGERS, DUANE LAND KAREN A T 26923 S KAUFMAN RD	14 28S 16E	
1630 200 Rd	Yates Center, KS 66783	JI PO BOX 221	TRICHLER, NORMAN DUANE & EL	14 28S 16E OR dtd 9.16.03	
	Chanute, KS 66720	1630 200 Rd	Crown Ridge Reserve LLC	14 28S 16E OR dtd 7.20.01	

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 21st of

June 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

21st day of June, 2012

PENNY L. CASE Notary Public My Appt. Expires

Notary Public Sengwick County, Kansas

Printer's Fee: \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
JUNE 21, 2012 (3)91659)
BEFORE THE STATE CORPORATION
COMMISSION OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In line Matter of Postrock Midcontinent
Production, LLC Application for
Commingling of Production in the Trichler,
Wayne A 14-1 located in Wilson County,
Kansas.

Kansas. TO: All Oil & Gas Producers, Unleased Mineral

TO: All Oll & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons winomever concerned.
You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has filed an application to commingle the Riverton, Tebo, Fleming, Croweburg, Bevier, Mulky, Summit and Cattleman producing formations at the Trichler, Wayne A 14-1, located in the NE SW, 514-T28S-R16E, Approximately 1980 FSI & 1980 EMIL Wilson. Approximately 1980 FSL & 1980 FWL, Wilson

Approximately 1980 FSL & 1980 FWL, Wilson County, Kansas,
Any persons who object to or profest this application shall be required to file lineir objections or profest 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 profests 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

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.

Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and profestants 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 (405) 660-7704

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	18th/	day of
		12
2nd publication was made on the		day of
	. 20-	 -
3rd publication was made on the		_day of
	, 20-	·····
4th publication was made on the		_day of
	. 20-	
5th publication was made on the		_day of
	. 20-	
6th publication was made on the		_day of
TOTAL PUBLICATION FEE: \$_	3927	_
(Signed) Joseph Rely	eh_	
Subscribed and sworn to before me, this	19tw	
June		2
RitaM. Relp	(Notar	y Public)
My commission expires	- 30, 0	2014
	/	

LEGAL NOTICE

(Published in the Wilson County Citizen on Monday, June 18, 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 Trichler, Wayne A 14-1 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, Tebo, Fleming, Croweburg, Bevier, Mulky, Summit and Cattleman producing formations at the Trichler, Wayne A 14-1, located in the NE SW, S14-T28S-R16E, Approximately 1980 FSL & 1980 FWL, 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.

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

35 1 cpy/



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 Thomas E. Wright, Commissioner Sam Brownback, Governor

July 16, 2012

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

RE: Approved Commingling CO071226

Trichler, Wayne A. 14-1, Sec.14-T28S-R16E, Wilson County

API No. 15-205-27036-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on July 2, 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 CO071226 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