

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)

OPERATOR: 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	
Contact	Person:	County:			
Phone:	()	Lease Name:	Wel	l #:	
1.	Name and upper and lower limit of each production interval to	be commingled:			
	Formation:	(Perfs): .			
	Formation:	(Perfs): _			
	Formation:	(Perfs): _			
	Formation:	(Perfs): .			
	Formation:	(Perfs): _			
2.	Estimated amount of fluid production to be commingled from e				
	Formation:			BWPD:	
	Formation:			BWPD:	
	Formation:		-	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 affida	of the lessee of record or ope	rator.	ses within a 1/2 mile radius of	
For Con	nmingling of PRODUCTION ONLY, include the following:				
<u> </u>	Wireline log of subject well. Previously Filed with ACO-1:	Yes No			
6.	Complete Form ACO-1 (Well Completion form) for the subject	well.			
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 comn	ningled.		
current ir mingling	/IT: 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.	Su	bmitted 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: _



Wellbore Schematic

WELL: Sturdevant, Richard N 23-2

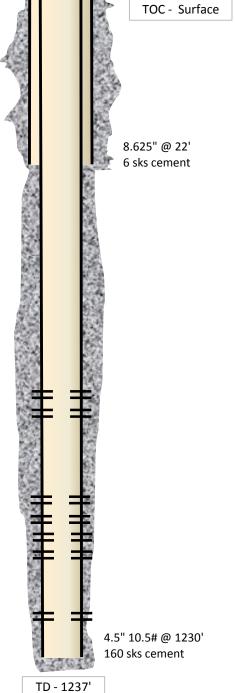
SSI: 612290

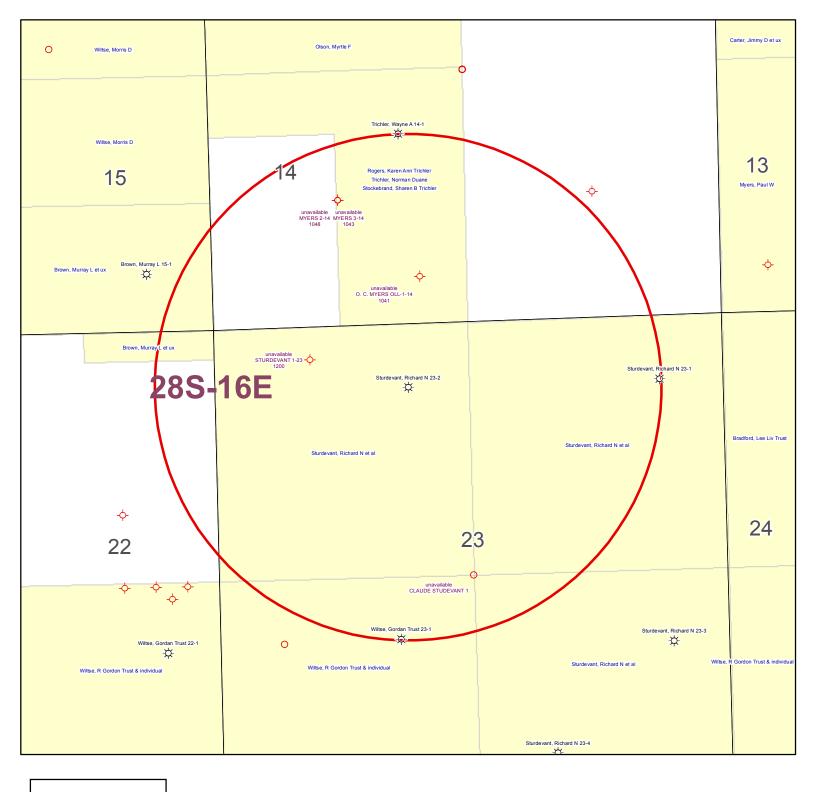
API: 15-205-26558

LOCATION: NE NW Sec. 23 28S-16E

COUNTY: Wilson STATE: Kansas

	STATE: Kansas	
Casing	8.625" @ 22' 4.5" 10.5# J-55, 4.05" ID w/ 0.0159 bbl/ft capacity @ 1230'	
Perforations	Original Perfs: 5/25/06 - Riverton 1126-1128' (9) - Weir 960-962' (9) - Tebo 935-937' (9) - Fleming 870-872' (9) - Croweburg 832-835' (13) - Mulky 743-748' (17) - Summit 730-734' (17)	
Completions	Spud Date: 5/10/06 V Completion: 5/25/06 - 100 gal 15% HCl - 10 BPM - 2,900# 20/40 - 288 bbls CFTW Completion: 5/25/06 - 400 gal 15% HCl - 19 BPM - 14,200# 20/40 - 691 bbls SM Completion: 5/25/06 - 300 gals 15% HCl - 18 BPM - 12,500# 20/40 - 575 bbls	





KGS STATUS

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

Sturdevant, Richard N 23-2 23-28S-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		1	4	0	0.00 Rorito	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 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 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 RIGINAL

Form ACO-1 September 1999 Form Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 205-26558 60-00
Name. Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	
City/State/Zip: Chanute, KS 66720	660 feet from S / (Circle one) Line of Section
City/State/Zip: Chanute, KS 66720 - S S S S S S S S S S S S S S S S S S	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
Contractor: Name: L S Well Service, LLC	Lease Name: Sturdevant, Richard N. Well #: 23-2
License: 33374	Field Name: Cherokee Basin CBM
Contractor: Name: L S Well Service, LLC License: 33374 Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 930 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1237 Plug Back Total Depth: 1228.73
Oil SWD Temp. Abd.	Amount of Surface Pipe Set and Cemented at 21.5
Gas ENHR SIGW	Multiple Stage Cementing Collar Used? ☐ Yes ✓ No
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 1228.73
Operator:	feet depth to surface w/ 160 sx cmt.
Well Name:	Alt2-DIG-1214/8
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	
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.:
5/10/06 5/11/06 5/18/06 Spud Date or Date Reached TD Completion Date or	Quarter Sec Twp S. R
Recompletion Date Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workoven Information of side two of this form will be held confidential for a period of 107 for confidentiality in excess of 12 months). One copy of all wireline log-TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells	h the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, ver 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-s and geologist well report shall be attached with this form. ALL CEMENTING s. Submit CP-111 form with all temporarily abandoned wells.
herein are complete and correct to the best of my knowledge.	are the on and gas industry have been fully complied with and the statements
Signature: Senny L. Anna	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 9/6/06	Letter of Confidentiality Received
Subscribed and sworn to before me this the day of supplemble	If Denied, Yes Date:
20_06.	Wireline Log Received
	Geologist Report Received
Notary Public: Daxa Klauman	UIC Distribution
	ry Public - State of Kansas
My Appt Fx	· · · · · · · · · · · · · · · · · · ·

	1 7 8		Side Two			4;	•
0.	· · · · · · · · · · · · · · · · · · ·			Sturdovant I	Diobard M	22.5	i O
	uest Cherokee, LL				Richard N.	Well #: _ 	<u> </u>
Sec Twp	28 S. R. 16	East West	County: Wils	son		7	
tested, time tool ope temperature, fluid re	en and closed, flowing ecovery, and flow rate	and base of formations p g and shut-in pressures, s if gas to surface test, a final geological well site	whether shut-in p along with final cha	ressure reached	static level, hydr	ostatic pressur	es, bottom hole
Drill Stem Tests Tak		☐ Yes ✓ No	Z	Log Format	ion (Top), Depth	and Datum	Sample
Samples Sent to Ge	eological Survey	☐ Yes 🗸 No	Nai See	me e attached		Тор	Datum
Cores Taken Electric Log Run (Submit Copy)		☐ Yes					
Gamma Ray CCL Dual Induction Log Compensated Den	1						
		CASING Report all strings set-o	_	New Used	tion, 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#	21.5	"A"	6	
Production	6-3/4	4-1/2	10.5#	1228.73	"A"	160	
		ADDITIONAL	CEMENTING / SC	UEEZE RECORI)		
Purpose: —— Perforate —— Protect Casing —— Plug Back TD —— Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks Used			Percent Additives	
Shots Per Foot	PERFORATION Specify F	ON RECORD - Bridge Plug Footage of Each Interval Pen	s Set/Type forated		cture, Shot, Cemen		d Depth
4	1126-1128			100gal 15%HCLw/ 46 bb	ls 2%kd water, 288bbls water	w/ 2% KCL, Blocide, 2900	# 20/40 sand 1126-1128
4	960-962/935-937	//870-872/832-835		400gal 15%HCLw/ 45 bbl	s 2%kci water, 691bbls water v	of 2% KCL, Blocide, 14200	# 20/40 sand 960-962/935-937
							870-872/832-835
TUBING RECORD	743-748/730-734 Size 3/8"	Set At	Packer At	Liner Run	s 2%kcl water, 575bbls water v		# 20/40 sand 743-748/730-734
	d Production, SWD or E		n/a nod ☐ Flowir				r (Explain)
Estimated Production Per 24 Hours	Oil I	Bbls. Gas 6.3mcf	Mcf Wat		bls. G	as-Oil Ratio	Gravity
Disposition of Gas	METHOD OF C			Production Inter	val		
Vented ✓ Sold (If vented, Su	Used on Lease ubmit ACO-18.)	Open Hole Other (Specif		Dually Comp.	Commingled		

1 NAME & UPPE	R & LOWER LIMIT OF EACH PRODUCT	ON INTERVAL TO BE	COMMING	LED				
FORMATION:	MULKY	(PERFS):	743 -	748				
FORMATION:	SUMMIT	(PERFS):	730 -	734				
FORMATION:	BARTLESVILLE	(PERFS):	1002 -	1009				
FORMATION:		(PERFS):						
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
FORMATION:		(PERFS):	-					
2 ESTIMATED AN	MOUNT OF FLUID PRODUCTION TO BE	COMMINGLED FROM	I EACH INT	ERVAL				
FORMATION:	MULKY	BOPD:	0	MCFPD:	5.71	BWPD:	5.71	
FORMATION:	SUMMIT	BOPD:	0	MCFPD:	5.71	BWPD:	5.71	
FORMATION:	BARTLESVILLE	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:		
		DOI D.		IVICI I D.		DVVI D.		
FORMATION:		BOPD:		MCFPD:		BWPD:		
FORMATION: FORMATION:		-						

	<u>L</u>	
Affidavi	t of Notice Served	
Re:	Application for: APPLICATION FOR COMMINGLING	
	Well Name: STURDEVANT, RICHARD N 23-2	Legal Location: NWSENENW S23-T28S-R16E
The unde	rsigned hereby certificates that he / she is a duly authorized agent for	the applicant, and that on the day 29TH of JUNE ,
2012	, a true and correct copy of the application referenced abo	ve was delivered or mailed to the following parties:
Note: A c	opy of this affidavit must be served as a part of the application.	
	Name	Address (Attach additional sheets if necessary)
CLIFFOR	RD L YOUNG, TRUSTEE OF CLIFFORD L YOUN TRUST	8215 W MCNELLY ROAD, AR 72712
GAR'	Y R RATLIFF & JULIE RATLIFF	21491 WICHITA RD, CHANUTE, KS 66720
CRO'	WN RIDGE RESERVE LLC	1630 200 RD, CHANUTE, KS 66720
TRICH	ILER, NORMAN DUANE & EUNICE VIOLA	P O BOX 221, YATES CENTER, KS 66783
STO	CKEBRAND, DAVID & SHAREN	1964 110TH RD, YATES CENTER, KS 66783
DUA	NE L & KAREN A ROGERS TRUST	26923 S KAUFMAN RD, HARRISONVILLE, MO 64701
I further at	test that notice of the filing of this application was published in the \underline{W}	LSON COUNTY CITIZEN , the official county publication
of WIL		unty. A copy of the affidavit of this publication is attached.
	29TH day of JUNE 201	2
Signed this	3 29TH day of JUNE , 201	
	App	Junger 40 Seal
	Subscribed and sworn to before	2012
		Maria Tilla managa
		ary Public
	July 1, 2012	Commission Expires:

My Commission Expires: _

et Operators, Unleased : The additional sheets if nece	Mineral Owners and Land essary)	downers acreage			L.	
	Name:		l	egal Description of Leas	sehold:	
ATTACHED			·			
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		-				
		•				
		•				
by certify that the statemen	nts made herein are true and	correct to the best of my know	vledge and belief.			
			., /	2 Beal	7 ,	
		Applicant of D	uly Authorized Agent	Ø Veal		
		0	1//			
	Out-	its ad and awarn bafara ma thi	29TH day of	JUNE	20)12
	Subscr	ribed and sworn before me thi	s <u>2</u> 9TH day of	11		112
	NISE V. VENNEMAN		$\frac{29TH}{day}$ day of	11		112
	NISE V. VENNEMAN COMMISSION EXPIRES	Notary Public	\$ <u>29TH</u> day of	JUNE Llenne LI-12		112
	NISE V. VENNEMAN		\$ <u>29TH</u> day of	11		112
	NISE V. VENNEMAN COMMISSION EXPIRES	Notary Public	\$ <u>29TH</u> day of	11		112
	NISE V. VENNEMAN COMMISSION EXPIRES	Notary Public	\$ <u>29TH</u> day of	11		
	NISE V. VENNEMAN COMMISSION EXPIRES	Notary Public	\$ <u>29TH</u> day of	11		112
	ENISE V. VENNEMAN COMMISSION EXPIRES July 1, 2012	Notary Public My Commissio	\$ <u>29TH</u> day of	11		112
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STURDEVANT, RICHARD N 23-2

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Bentonville, AR 72712 Chanute, KS 66720 Chanute, KS 66720 Yates Center, KS 66783 Yates Center, KS 66783 HARRISONVILLE MO 64701	
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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 n1tice was

made as aforesaid on the 18th 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

18th day of June, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee: \$134.80

PUBLISHED IN THE WICHITA EAGLE JUNE 18, 2012 (3191268) BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

NOTICE OF FILING APPLICATION

In the Matter of Postrock
Midcontinent Production, LLC
Application for Commingling of
Production in the Sturdevant, Richard
N 23-2 located in Wilson County,
Kansac

N 23-2 located in Wilson County, Kansas.

TO: Ali 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, Mulky, Summit and Bartlesville producing formations at the Sturdevant, Richard N 23-7, located in the NW SE NE NW, S23-7285-R16E, Approximately 661.
FNL & 2014 FWL, Wilsom County, Kansas. Any persons who object to or profest this application shall be required to file their objections or profest with the Conservation Division of the State Corporation Commission of the State of Kansas within fitteen (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, vilolate 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 profest this application are required to file a written profest with the Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any profest, the Commission will convene a hearing and

Upon the receipt of any profest, 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 (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:

1910

1st publication was made on the	day of
June	. 2012
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
	2Q50 2Q50
TOTAL PUBLICATION FEE: \$	<u> </u>
(Signed) Joseph L. Relph	
Subscribed and sworn to before me, this _	19th day of
- June	,2012
Sita M. Rely	(Notary Public
Aug.	In mil
My commission expires) 1017

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 Sturdevant, Richard N 23-2 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, Mulky, Summit and Bartlesville producing formations at the Stundevant, Richard N 23-2, located in the NW SE NE NW, S23-T28S-R16E, Approximately 661 FNL & 2014 FWL, Wilson County, Kansas.

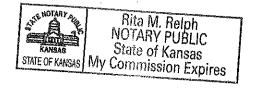
Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or polute 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 QI: 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 CO071225

Sturdevant. Richard N. 23-2, Sec.23-T28S-R16E, Wilson County

API No. 15-205-26558-00-00

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 CO071225 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