

### 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 Bast West		
Address	2:		Feet from No	orth / South Line of Section		
City:	State: Zip:+		Feet from Ea	ast / West Line of Section		
Contact	Person:	County:				
Phone:	()	Lease Name:	We	II #:		
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			DWDD		
	Formation:			BWPD:		
	Formation:			BWPD:		
	Formation:			BWPD:		
	Formation:	BOPD:	MCFPD:	BWPD:		
	Formation:	BOPD:	MCFPD:	BWPD:		
<ul><li>□ 3.</li><li>□ 4.</li></ul>	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 o	perator.	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:					
<b>7</b> .	Well construction diagram of subject well.					
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be cor	mmingled.			
current in mingling	<b>/IT:</b> 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.	Ş	Submitted Electror	nically		
	C Office Use Only			st in the application. Protests must be ne filed wihin 15 days of publication of		

Date: \_

Approved By:

15-Day Periods Ends: \_



### **Wellbore Schematic**

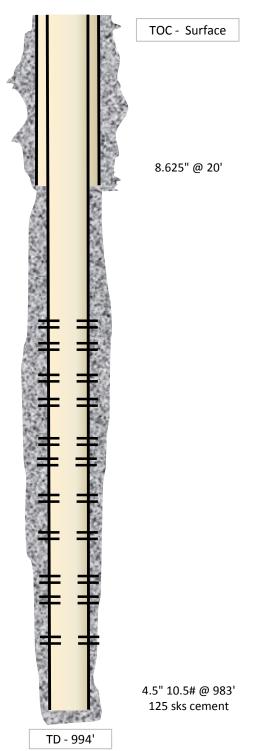
WELL: Stich, William A 20-5

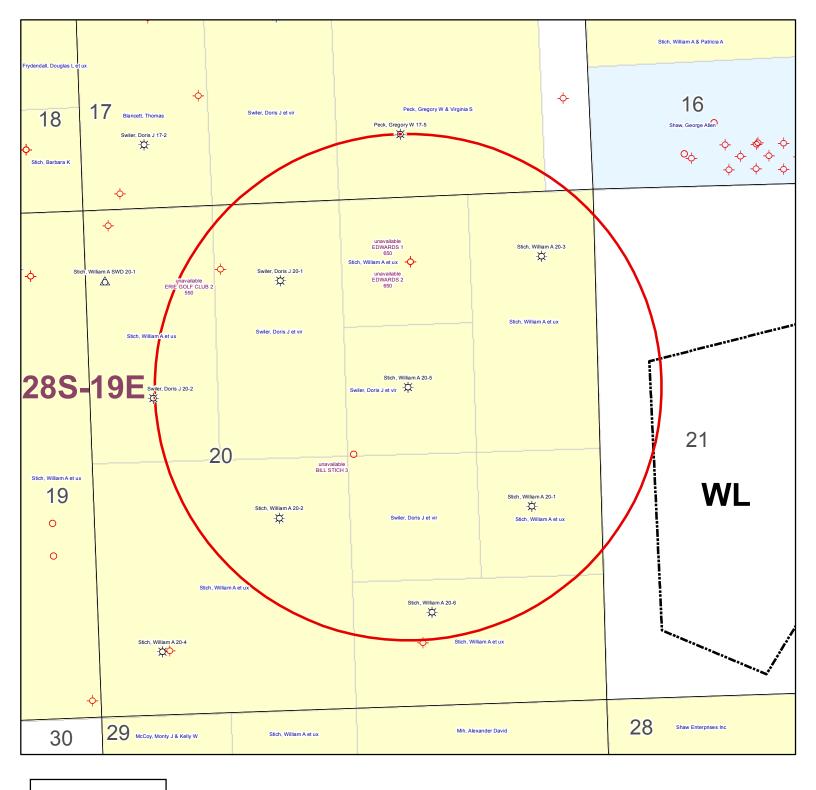
SSI: 624610

**API:** 15-133-27219-00-00 **LOCATION:** SW NE Sec. 20- 28S-19E

**COUNTY:** Neosho **STATE:** Kansas

	SIAIE. Kalisas
Casing	8.625" @ 20" 4.5'' 10.5# J-55, 4.05'' ID w/ 0.0159 bbl/ft capacity @ 983'
Perforations	Original Perfs: 3/3/2008 - Riverton 864-867 (13) - Neutral 812-814 (9) - Rowe 806-808 (9) - Weir 705-707 (9) - Tebo 658-660 (9) - Fleming 618-620 (9) - Fleming 601-603 (9) - Croweburg 560-563 (13) - Bevier 537-539 (9) - Mulky 454-458 (17)
Completions	Spud Date: 12/15/2007 Completion Date: 3/3/2008 River/Neu/Rowe: - 5600# 20/40 - 500 gal 15% - 607 bbls - 12 bpm Weir/Tebo/Fleming: - 2700# 20/40 - 400 gal 15% - 321 bbls - 12 bpm Fleming/Crowe/Bevier: - 2400# 20/40 - 400 gal 15% - 408 bbls - 18 bpm Mulky/Summit: - 6000# 20/40 - 400 gal 15% - 626 bbls - 14 bpm





### **KGS STATUS**

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

Stich, William A 20-5 20-28S-19E 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.	<b>&gt;</b>		
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 <sup>+</sup>	(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 <sup>+</sup> (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
12	Mg <sup>2+</sup>	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91	Ca	lcite	
13	Ca <sup>2+</sup>	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr <sup>2+</sup>	(mg/l)		·				0.00	Ba	rite	
15	Ba <sup>2+</sup>	(mg/l)						0.00			
	Fe <sup>2+</sup>	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21	н	alite	
	Zn <sup>2+</sup>		40.00	21.00	10.00	02.00	70.00	0.00	-1.77	-1.80	-0.03
		(mg/l)									-0.03
	Pb <sup>2+</sup>	(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 <sub>4</sub> <sup>2</sup> ·	(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 <sup>*</sup>	(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 <sub>2</sub> Gas Analysis	(%)	19.97	18.76	22.41	35.53	33.79	26.16	Curezun		
	H <sub>2</sub> 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/ <sup>0</sup> 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/ <sup>0</sup> 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/ <sup>0</sup> 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) *	(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 <sub>2</sub> 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 <sub>2</sub> S Gas Total H2Saq (STP) PH Calculated	ues for tempera  (F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textit{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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sup>3</sup> 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 <sub>2</sub> 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 <sup>3</sup> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sup>3</sup> 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 <sub>2</sub> 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

## WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 15-133-27219-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	SW_NE_Sec. 20 Twp. 28 S. R. 19
City/State/Zip: Chanute, KS 66720	1980 feet from S 🔊 (circle one) Line of Section
Purchaser: Bluestern Pipeline, LLC	1980 feet from EV 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: TXD	Lease Name: Stich, William A. Well #: 20-5
License: 33837	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 910 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 994 Plug Back Total Depth: 983
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 20 Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used?   Yes
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 983
Operator:	feet depth to surface w/ 125 sx cmt.
Well Name:	SX CITE.
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan
Deepening Re-perf Conv. to Enhr./SWD	(Data must be collected from the Reserve Pit)
Plug Back Plug Back Total Depth	Chloride content ppm Fluid volume bbls
Commingled Docket No.	Dewatering method used
· ·	Location of fluid disposal if hauled offsite:
Dual Completion Docket No.	Operator Name:
Other (SWD or Enhr.?) Docket No	Lease Name: License No.:
12-15-07	QuarterSecTwpS. REast West
Spud Date or Date Reached TD Completion Date or Recompletion Date	County: Docket No.:
	DOORE 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	the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, er or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. It months if requested in writing and submitted with the form (see rule 82-3- and geologist well report shall be attached with this form. ALL CEMENTING. Submit CP-111 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regulation herein are complete and correct to the best of my knowledge.	ate the oil and gas industry have been fully complied with and the statements
Signature: Gennife R. Ammann	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 4/11/08	Letter of Confidentiality Received
Subscribed and sworn to before me this 11th day of Cloud	If Denied, Yes Date:
	Wireline Log Received
20 <u>DE</u> .	Geologist Report Received
Notary Public: Sevia Klaunan	UIC Distribution
Date Commission Expires: 8-4-2010 A. TERRA	KLAUMAN
Notary Public	- State of Kansas
My Appt. Expires &	4-2010

perator Name: Que	st Cherokee, LLC		Lease Name:	Such, william	А.	_ Well #: <u></u>	
ec. 20 Twp. 28	S. R. 19	☑ East ☐ West	County: Neosh	io			
NSTRUCTIONS: She ested, time tool open emperature, fluid reco	ow important tops at and closed, flowing overy, and flow rates	nd base of formations p and shut-in pressures, if gas to surface test, a nal geological well site	enetrated. Detail a whether shut-in pre llong with final char	Il cores. Report	all final copies o	of drill stems tes ostatic pressure	sts giving interval s, bottom hole
Orill Stem Tests Taker (Attach Additional S		Yes No	<b></b> ✓L	_	on (Top), Depth		Sample
Samples Sent to Geo	logical Survey	☐ Yes ☐ No	Nam See	e attached		Тор	Datum
Cores Taken		☐ Yes ☐ No					
Electric Log Run (Submit Copy)		☐ Yes ☐ No					
List All E. Logs Run:							
Compensated Dual Induction	•						
		CASING Report all strings set-		lew Used termediate, produc	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	12-1/4	8-5/8"	22	20	"A"	5	
Production	6-3/4	4-1/2	10.5	983	"A"	125	
		ADDITIONA	L CEMENTING / SC	UEEZE RECORI	)		
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 Pli Footage of Each Interval P		Acid, Fra	acture, Shot, Ceme Amount and Kind of	ent Squeeze Reco Material Used)	rd Depth
4	864-867/812-81	4/806-808		500gal 15%HCtw/ 50bi	ois 2%kel water, 607bbls wat	er w/ 2% KCL, Blockle, 5600	864-867/812-814 806-808
4	705-707/658-66	0/618-620		400gai 15%HCLw/ 52b	bis 2%kci water, 321bbis wat	er w/ 2% KCL, Biockle, 270	0# 20/40 sand 705-707/658-660
							618-620
4	454-458/442-44	6		400gai 15%HCLw/ 46b	bls 2%kd water, 626bbls wat	ter w/ 2% KCL, Blocide, 600	0# 20/40 sand 454-458/442-446
TUBING RECORD	Size 3/8"	Set At 907	Packer At n/a	Liner Run	Yes 📝	No	
	rd Production, SWD or		ethod Flow	ing 📝 Pum	ping Gas	Lift Off	ner (Explain)
Estimated Production Per 24 Hours	Oil n/a	Bbis. Gas 14.6 mcl		<sub>ater</sub> 2 <b>bbls</b>	Bbls.	Gas-Oil Ratio	Gravity
Disposition of Gas	METHOD OF	COMPLETION		Production Int	erval		
Vented ✓ Sold	Used on Lease ubmit ACO-18.)	☐ Open Hol ☐ Other (Sp	*******	Dually Comp.	Commingled		

# 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 Stich, William A 20-5 located in Neosho 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, Neutral, Rowe, Welr, Tebo, Fleming, Croweburg, Bevier, Mulky, Summit, Lower Cattleman and Upper Cattleman producing formations at the Stich, William A 20-5, located in the SW NE, S20-T285-R19E, Approximately 1980 FNL & 1980 FEL, Neosho 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 Croporation 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, Oklahoma 73102 (405) 660-7704

A COPY OF THE AFFIDAVIT OF PUBLICATION MUST ACCOM-PANY ALL APPLICATIONS

## Affidavit of Publication A

STATE OF KANSAS, NEOSHO COUNTY, ss: Rhonda Howerter, being first duly sworn, deposes and says: That she is Classified Manager of THE CHANUTE TRIBUNE, a daily newspaper printed in the State of Kansas, and published in and of general circulation in Neosho County, Kansas, with a general paid circulation on a daily basis in Neosho County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is a daily published at least weekly 50 times a year: has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Chanute, in said county as second class matter.

, 2012, 2012
, 2012, 2012
Bhonda Howerter
Subscribed and sworn to and before me this
My commission expires: January 9, 2015
Printer's Fee\$71.17
Affidavit, Notary's Fee\$ 3.00
Additional Copies\$
Total Publication Fees \$ 74.17



### 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 Notery Public - State of Kansa My Appt. Expires,

Notary Public Sedgwick County, Kansas

Printer's Fee: \$134.80

### LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
JUNE 18, 2012 (3191267)
BEFORE THE STATE CORPORATION
COMMISSION OF THE
STATE OF KANSAS

STATE OF KANSAS

NOTICE OF FILING APPLICATION

RE: In the Matter of Postrock Midcontinent
Production, LLC Application for
Commingling of Production in the
Stich, William A 20-5 located in
Neosho County, Kansas.

TO: All Oll & Gas Producers, Unleased
Mineral Interest Owners,
Landowners, and all persons
whomever concerned.

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, Neutral, Rowe, Weir, Tebo,
Fleming, Croweburg, Bevier, Mulky,
Summit, Lower Cattleman and Upper
Cattleman producing formations at the
Stitch, William A 20-5, located in the SW NE,
S20-T28S-R19E, Approximately 1980 FNL &
1980 FEL, Neosho 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.

Conservation Divisibility of the Ratisas of allo 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

counsel of as individuals, appearing on a own behalf. Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704

1 NAME & UPPE	R & LOWER LIMIT OF EACH PRODU	JCTION INTERVAL TO BE CO	OMMING	LED			
FORMATION:	FLEMING	(PERFS):	618 -	620			
FORMATION:	FLEMING	(PERFS):	601 -	603			
FORMATION:	CROWEBURG	(PERFS):	560 -	563			
FORMATION:	BEVIER	(PERFS):	537 -	539			
FORMATION:	MULKY	(PERFS):	454 -	458			
FORMATION:	SUMMITT	(PERFS):	442 -	446			
FORMATION:	CATTLEMAN	(PERFS):	636 -	640			
FORMATION:	CATTLEMAN	(PERFS):	690 -	694			
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
2 ESTIMATED AN	MOUNT OF FLUID PRODUCTION TO	DE COMMINICI ED EDOM	EACH INIT	ED\/AI			
FORMATION:		BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	FLEMING	BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	CROWEBURG	BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	BEVIER	BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	MULKY	BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	SUMMITT	BOPD:	0	MCFPD:	1.45	BWPD:	3.64
FORMATION:	CATTLEMAN	BOPD:	1.5	MCFPD:	0	BWPD:	10
FORMATION:	CATTLEMAN	BOPD:	1.5	MCFPD:	0	BWPD:	10
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	
CODA ATIONI.				-		•	
FORMATION:		BOPD:		MCFPD:		BWPD:	

ALEXANDER DAVID MIH TRACT IN W2 S21-T28S-R19E SHAW ENTERPRISES, INC TRACT IN W2 S21-T28S-R19E		Parish to the control of the control			Theore
JOSEPH & REBECKA STICH  JOSEPH & REBECKA STICH  ALEXANDER DAVID MIH  SHAW ENTERPRISES, INC  TRACT IN W2 \$21-T28S-R19E  ELK CREEK AGRICULTURAL LP  TRACT IN W2 \$21-T28S-R19E  TRACT IN W	•	nd Landowners acreage	•		
ALEXANDER DAVID MIH  SHAW ENTERPRISES, INC  TRACT IN W2  S21-T28S-R19E  TRACT IN W2  TRACT IN W2  S21-T28S-R19E  TRACT IN W2  TRACT IN W2  TRA				Legal Description of Leasehold:	
SHAW ENTERPRISES, INC  ELK CREEK AGRICULTURAL LP  TRACT IN W2  S21-T28S-R19E  TRACT IN W2  TRACT IN W2  S21-T28S-R19E  TRACT IN W2  TRACT IN W2  S21-T28S-R19E  TRACT IN W2  TRA	JOSEPH & REBECKA STICH		21.2 ACRE TRA	ACT IN SE \$17-T28S-R19E	
hereby cortify that the statements made herein and rune and correct to the best of my knowledge and boiled.  Applicant globily Applicant	ALEXANDER DAVID MIH	<u> </u>	RACT IN W2	S21-T28S-R19E	<u>.</u>
hereby certify that the statements made horsin are two and corruct to the best of my knowledge and belief  Applicant of the property of the property of the property of the post of my knowledge and belief  Applicant of the property of the property of the post of my knowledge and belief  Applicant	SHAW ENTERPRISES, INC	T	RACT IN W2	S21-T28S-R19E	
Applicant of Duly Authorized Agent  Subscribed and sworn before me this 29th day of JUNE 2012  DENISE V. VENNERAN  ANY COMMISSION EXPIRES  JEFF 1, 2012  My Commission Expires: 72/12	ELK CREEK AGRICULTURAL LP	<u>_</u>	RACT IN W2	S21-T28S-R19E	
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Subscribed and sworn before me this 29th day of JUNE 2012  DENSE V. VENNEHAN MY COMMISSION EXPIRES My Commission Expires:  My Commission Expires:  My Commission Expires:		oran.	****	0101	
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Affidavit of Notice Served	
Re: Application for: APPLICATION FOR COMMING	GLING OF PRODUCTION OR FLUIDS - ACO-4
Well Name: STICH, WILLIAM A 20-5	Legal Location: SWNE S20-T28S-R19E
The undersigned hereby certificates that he / she is a duly authorized a	agent for the applicant, and that on the day $29\%$ of JUNE ,
0040	nced above was delivered or mailed to the following parties:
Note: A copy of this affidavit must be served as a part of the application	n.
Name	Address (Attach additional sheets if necessary)
JOSEPH & REBECKA STICH	8740 150TH RD, CHANUTE, KS 66720
ALEXANDER DAVID MIH	1927 BREWSTER ROAD, INDIANAPOLIS, IN 46260
SHAW ENTERPRISES, INC	11600 160TH ROAD, CHANUTE, KS 66720
ELK CREEK AGRICULTURAL LP	1400 WOODSBOROUGH, HOUSTON, TX 77055
I further attest that notice of the filing of this application was published in	n the CHANUTE TRIBUNE , the official county publication
of NEOSHO	county. A copy of the affidavit of this publication is attached.
Signed this day of JUNE	
	Applicant of Duly Althorized Agent
Committee of the section of the sect	n to before me this 29 22 day of JUNE , 2012
DENISE V. VENNEMAN  OFFICIAL  MY COMMISSION EXPIRES  July 1, 2012	Lewe V leneman
The state of the s	Notary Public  7- 14-12
	My Commission Expires:/ T/ #/

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 CO071214

Stich, William A. 20-5, Sec.20-T28S-R19E, Neosho County

API No. 15-133-27219-00-00

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 CO71214 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