

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1084709

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	OR: License #	API No. 15				
Name:_		Spot Description:				
Address	1:		Sec Twp	S. R East West		
Address	2:		Feet from No	rth / South Line of Section		
City:	State: Zip:+		Feet from Ea	st / West Line of Section		
Contact	Person:	County:				
Phone:	()	Lease Name:	Well	#:		
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 op	erator.	ses within a 1/2 mile radius of		
For Con	nmingling of PRODUCTION ONLY, include the following:					
☐ 5.	Wireline log of subject well. Previously Filed with ACO-1:	Yes No				
6.	Complete Form ACO-1 (Well Completion form) for the subject	_				
For Con	nmingling of FLUIDS ONLY, include the following:					
7.	Well construction diagram of subject well.					
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be com	mingled.			
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.	S	ubmitted Electron	ically		
l —	C Office Use Only			in the application. Protests must be a filed wihin 15 days of publication of		

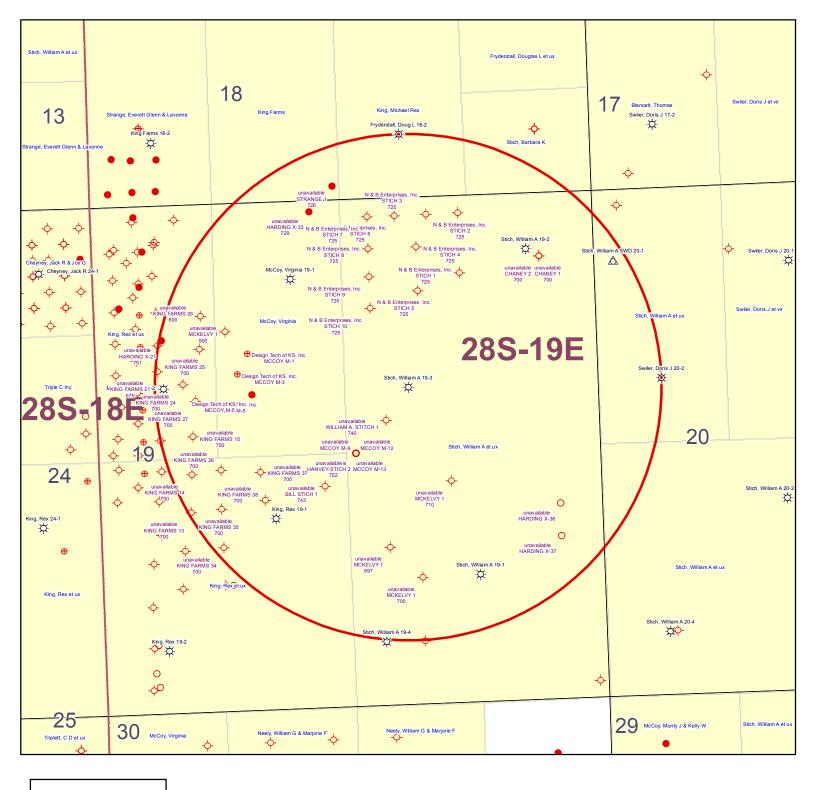
Date: _

Denied Approved

15-Day Periods Ends:

Approved By:

RMATION:	FLEMING	(PERFS):	671	673			
ORMATION:	FLEMING	(PERFS):	655 -	657			
ORMATION:	CROWEBURG	(PERFS):	617	620			
FORMATION:	MULKY	(PERFS):	507 -	511			
FORMATION:	SUMMIT	(PERFS):	496	500			
FORMATION:	CATTLEMAN	(PERFS):	688 -	694			
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
FORMATION:	MOUNT OF FUUD PRODUCTION	(PERFS):					
	MOUNT OF FLUID PRODUCTION FLEMING	<u> </u>	EACH INT	ERVAL MCFPD:	1.4	BWPD:	4
ESTIMATED AI		N TO BE COMMINGLED FROM			1.4	BWPD:	4 4
ESTIMATED AI FORMATION:	FLEMING	N TO BE COMMINGLED FROM BOPD:	0	MCFPD:		_	
ESTIMATED AI FORMATION: FORMATION:	FLEMING FLEMING	N TO BE COMMINGLED FROM BOPD: BOPD:	0	MCFPD:	1.4	BWPD:	4
ESTIMATED AI FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD: MCFPD:	1.4 1.4	BWPD:	4
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD:	1.4 1.4 1.4	BWPD: BWPD:	4 4 4
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	1.4 1.4 1.4 1.4	BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	1.4 1.4 1.4 1.4	BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	1.4 1.4 1.4 1.4	BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD:	0 0 0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	1.4 1.4 1.4 1.4	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4
ESTIMATED AIFORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	FLEMING FLEMING CROWEBURG MULKY SUMMIT	N TO BE COMMINGLED FROM BOPD:	0 0 0 0 0	MCFPD:	1.4 1.4 1.4 1.4	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	4 4 4 4



KGS STATUS

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

Stich, William A 19-3 19-28S-19E 1" = 1,000'

POSTROCK



Current Completion

WELL: Stich, William A 19-3

FIELD : Cherokee Basin

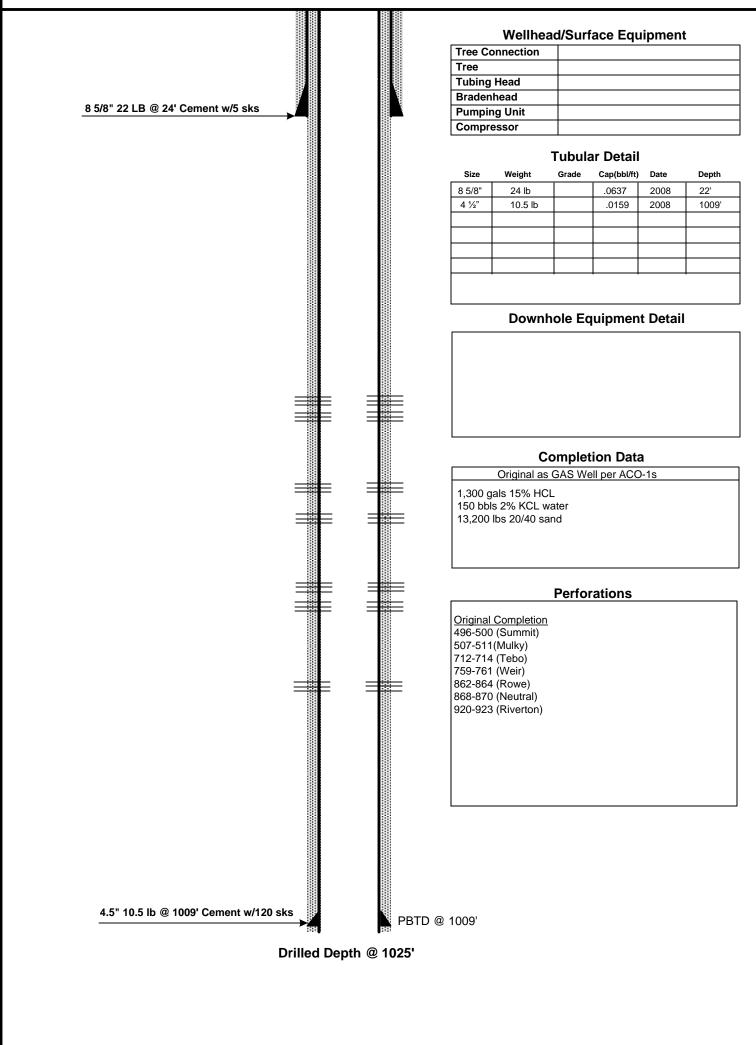
STATE: Kansas
COUNTY: Neosho

SPUD DATE : 12/15/2007 COMP. Date : 1/2/2008

API: 15-133-27216

LOCATION: 19-28S-19E (SW NE)

ELEVATION: GL - 936'



PREPARED BY: POSTROCK

APPROVED BY: _____

DATE: June, 2012

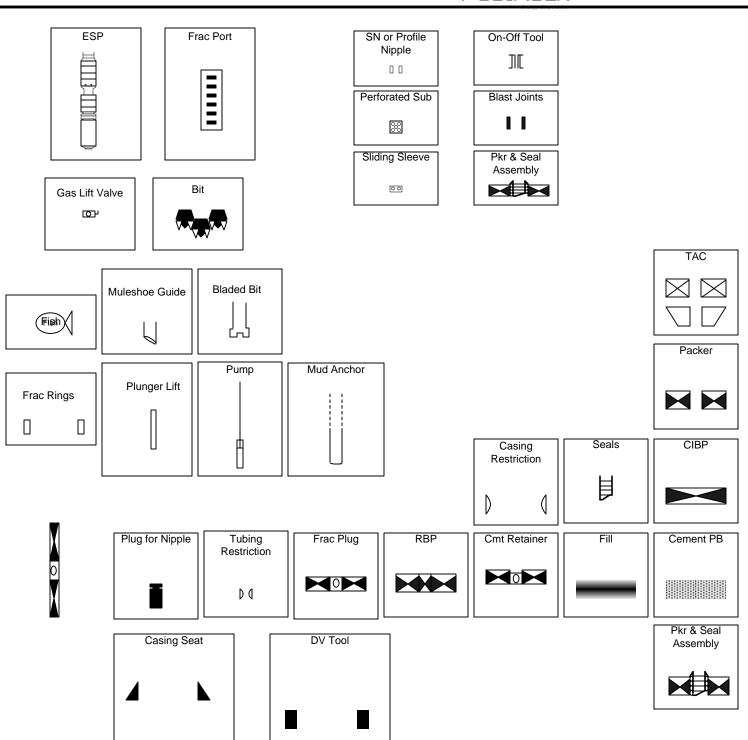
DATE:_

POSTROCK



LEGEND

PostRock[®]



	Α	В	С	D	Е	F	G	Н	1		K
1	Produced Fluids #	Б	1	2	3	4	5	11	•	<u> </u>	
	Parameters	Units	Input	Input	Input	Input	Input		Click he	re	Click
3	Select the brines	Select fluid		Ī	V		Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	to ruii oc		Click
5	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
7	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
9	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)
	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	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⁺		1,050.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba ²⁺	(mg/l)						0.00	Da	rite	
.,		(mg/l)						0.00			
	Fe ²⁺	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn ²⁺	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb ²⁺	(mg/l)						0.00	Gyp	sum	
19	Cl	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
20	SO ₄ ² ·	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40	Hemil	ydrate	
	F.	(mg/l)						0.00	-3.96	-3.90	0.06
	Br ⁻	(mg/l)						0.00		ydrite	3.00
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_			100.00	224.00	250.00	200 00	254.00				0.12
	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03	Cele	estite	
	CO3 Alkalinity	(mg/l as CO3)						_			
	Carboxylic acids**	(mg/l)						0.00		Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
28	Borate	(mg/L) H3BO3						0.00	Zinc	Sulfide	
29	TDS (Measured)	(mg/l)						72781			
30	Calc. Density (STP)	(g/ml)	1.038	1.051	1.050	1.048	1.045	1.047	Calcium	fluoride	
31	CO ₂ Gas Analysis	(%)	19.97	18.76	22.41	35.53	33.79	26.16			
	H ₂ S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269		rbonate	
33	Total H2Saq	(mgH2S/l)	1.00	1.00	1.00	1.00	0.50	0.90	-0.74	-0.51	0.23
34	pH, measured (STP)	pН	5.67	5.76	5.72	5.54	5.55	5.63	Inhibitor ne	eded (mg/L)	
	Chassa and antion	0-CO2%+Alk,							Calcite	NTMP	
35	Choose one option to calculate SI?		0	0	0	0					
	Gas/day(thousand cf/day)	(Mcf/D)					U	0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	-
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
39	For mixed brines, enter val										
-		lues for tempera	tures and pressi	<u>ires in Cells</u> (H	(40-H43)			(Enter H40-H43)	p	Н	
41	Initial T	(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	
	Final T		66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (5.60 CentiPoise)	
		(F)	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	5.69 Viscosity (1.196	5.60 CentiPoise) 0.826	
42 43	Final T Initial P Final P	(F) (F) (psia) (psia)	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 ty (cal/ml/ ⁰ C)	
42 43 44	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/ ⁰ C) 0.959	
42 43 44 45	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (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)	
42 43 44 45 46	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav.	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 seded (mg/L) HDTMP	
42 43 44 45 46 47	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. McOH/Day	(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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00	
42 43 44 45 46 47 48	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 seded (mg/L) HDTMP	
42 43 44 45 46 47 48 49	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50	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)	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	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) †	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	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	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP:	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53	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	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55	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	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/l) (pH)	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
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42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	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	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3	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 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	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= \$\times\$	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0 25.0	49.0 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 ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61	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 ECations= ECations= CAlci TDS=	(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) (mg/I)	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 ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	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 \$\text{\$\cupe{C}\$}\te	(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	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter From Unit	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 ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	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 ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time	(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	66.0 66.0 25.0 25.0 0 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 ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63	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 \$\textit{Z}\$ Calculated Alkalinity Caclulated \$\textit{Z}\$ Calculated Inhibitor Selection Protection Time Have ScaleSoftPitzer	(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) (equiv./I) Input 120	66.0 66.0 25.0 25.0 0 0	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 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 ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	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= \$\times\$ \text{Lanions}\$ Lanions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(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) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	# 1 2 3	Inhibitor NTMP BHPMP PAA	41.0 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	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne 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	
42 43 44 45 46 47 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	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:	(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) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	71.0 71.0 25.0 25.0 1 1 1 2 3 4	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	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne 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	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66	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 Alkalinity Caclulated Alkalinity Caclulated PCO2 Calculated Alkalinity Caclulated FOCO Calculated FOCO Calculated Alkalinity Caclulated FOCO Calculated Alkalinity Caclulated FOCO Calculated FOCO Cal	(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) (mg/I) Input 120 1 4	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 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 ft³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 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	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67	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= ZAnions= 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) (mg/I) Input 120 1 4	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C m MPa Bar	49.0 25.0 25.0 25.0 (From metric Value 80 100 1,000 496	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	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	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66 67 68 69	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 ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor # is: % of 1st inhibitor is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l) (mg/l) Input 120 1 4 1 50	0 0 0 0 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 Value 80 100 1,000 496 10,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia psia psia	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	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

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 19-3 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, Weir, Tebo, Croweburg, Mulky, Summit and Cattleman producing formations at the Stich, William A 19-3, located in the SW NE, S19-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 Oroporation 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 grenting the application may cause waste, violate correlative rights or politute 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

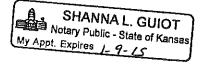
A COPY OF THE AFFIDAVIT OF PUBLICATION MUST ACCOM-PANY ALL APPLICATIONS

Affidavit of Publication &

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.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 carecorne time, the first publication thereof being made as aforesaid on the 16 day of anne 2012, with subsequent publications being made on the following dates: Subscribed and sworn to and before me this <u>19</u> day of <u>June</u> Notar√ Public My commission expires: January 9, 2015 Affidavit, Notary's Fee \$ 3.00 Additional Copies\$ Total Publication Fees \$ 73. /



Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1 September 1999 Form Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 15-133-27216-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	SW_NE_Sec. 19 Twp. 28 S. R. 19 V East West
City/State/Zip: Chanute, KS 66720	1980 feet from S (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
Contractor: Name: TXD	Lease Name: Stich, William A. Well #: 19-3
License: 33837	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 936 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1025 Plug Back Total Depth: 1009
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 21 Feet
✓ Gas ENHR SIGW	
Dry Other (Core, WSW, Expl., Cathodic, etc)	Multiple Stage Cementing Collar Used? If yes, show depth set
Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1009
Operator:	feet depth to surface W/ 120 sx cmt.
Well Name:	sx cmt.
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan
Deepening Re-perf Conv. to Enhrt/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
Dual Completion	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
	Lease Name: License No.:
12-15-07	Quarter Sec Twp S. R East West
Recompletion Date Recompletion Date Recompletion Date	County: Docket No.:
INSTRUCTIONS: An original and two copies of this form shall be filed with 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.	or or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 2 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
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: 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 IT day of Corul	If Denied, Yes Date:
20 08 .	Wireline Log Received
10 Page	Geologist Report Received
Notary Public: <u>Sevia Flauman</u>	UIC Distribution
Date Commission Expires: 8-4-2010 TERRA	KLAUMAN
Notary Publi	c - State of Kansas
My Appt. Expires &	-4-2010

Side Two

perator Name: Que	st Cherokee, LL0	>	Lease Nan	ne: St	ich, William	Α	_ Well #: 19-3	
ес. <u>19 </u>			County: Ne	eosho				
ested, time tool open emperature, fluid rece	and closed, flowing overy, and flow rates	nd base of formations pe and shut-in pressures, if gas to surface test, a nal geological well site r	whether shut-ir long with final	n press	sure reached s	static level, nydro	ostatic pressure	s, policin noie
Orill Stem Tests Taker		Yes No		√ Log	ı Formatic	on (Top), Depth a		Sample
Samples Sent to Geo	logical Survey	Yes No		Name See a	ttached		Тор	Datum
Cores Taken Electric Log Run (Submit Copy)		Yes No						
ist All E. Logs Run:								
Compensated Dual Induction		ron Log						
		CASING Report all strings set-	RECORD [New e, inter		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		21	"A"	5	
Production	6-3/4	4-1/2	10.5		1009	*A*	120	
		ADDITIONAL	CEMENTING	/ SQUI	EEZE RECORD			
Purpose: —— Perforate —— Protect Casing —— Plug Back TD —— Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks Use	ed		Type and	Percent Additives	
Shots Per Foot	PERFORAT Specify	ION RECORD - Bridge Plu Footage of Each Interval Pe	gs Set/Type rforated			acture, Shot, Ceme mount and Kind of I		rd Depth
4	920-923/868-87	0/862-864			500gal 15%HCl.w/ 54bb	vis 2%kd water, 619bbls water	w w/ 2% KCL, Biocide, 600	0# 20/40 sand 920-923/868-870
								862-864
4	759-761/712-71	4			400gal 15%HCLwl 58bx	xs 2%kd water, 2986bls wat	er w/ 2% KCL, Biocide, 150	0# 20/40 send 759-761/712-71
4	507-511/496-50	00			400gai 15%HCLw/ 38bi	bls 2%kci water, 641bbis wat	er w/ 2% KCL. Blockle, 570	0# 20/40 send 507-511/496-50
TUBING RECORD	Size	Set At	Packer At		Liner Run	☐Yes ☑	Jo	
	3/8" rd Production, SWD or	963 Enhr. Producing Mo	*******	Flowing	g		***************************************	ner (Explain)
Estimated Production Per 24 Hours	OII n/a	Bbls. Gas 6.5 mcf	Mcf	Wate 55.0	: =	Bbis.	Gas-Oll Ratio	Gravity
Disposition of Gas Vented Solo		COMPLETION	-		Production Into			

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 Kans My Appt, Expires

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

PUBLISHED IN THE WICHITA EAGLE
ON JUNE 18, 2012. (3)1979.09
BEFORE THE STATE CORPORATION
COMMISSION OF THE
STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In the Matter of Postrock Midconfinent
Production, LLC Application for
Commingling of Production in the
Stick, William A 19-3 located in Neosho
County, Kansas.

Commingling of Production in the Stick, William A 19-3 located in Neosho County, Kansas.

To: All Oil & Gas Producers, Unleased Mineral Inferest 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, Croweburg, Mulky, Summit and Cattleman producing formations at the Stick, William A 19-3, located in the SW NE, S19-7285-R19E, Approximately 1980 FNL. & 1980 FEL. Neosho County, Kansas.

Any persons who object to or protest his 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 false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of concerned shall false notice of the foreging and the state of the state of

of Kansas.

All persons interested or concerned shall fake 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.

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

STICH, WILLIAM A 19-3 - APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS Offset Operators, Unleased Mineral Owners and Landowners acreage (Attach additional sheets if necessary) Legal Description of Leasehold: SEE ATTACHED I hereby certify that the statements made herein are true and correct to the best of my knowledge and belief. Applicant or Duly Authorized Agent _{day of} JUNE Subscribed and sworn before me this 25TH 2012 DENISE V. VENNEMAN DEFICIAL MY COMMISSION EXPIRES July 1, 2012 My Commission Expires:

STICH, WILLIAM A 19-3 OFFSET OPERATORS, UNLEASED MINERAL OWNERS AND LANDOWNERS ACREAGE

SPOT	LEGAL LOCATION	CURR_OPERA
NW	S19-T28S-R19E	Design Tech of KS, Inc.
SW NW SE NW	S19-T28S-R19E	Design Tech of KS, Inc.
W2 SE NW	S19-T28S-R19E	Design Tech of KS, Inc.
W2 SE NW	S19-T28S-R19E	Design Tech of KS, Inc.
SW NE NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NW NW NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NW SW NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
SW SW NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NE SE NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NW SE NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
SW NW NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NE NW NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NE NE NW NE	S19-T28S-R19E	N & B Enterprises, Inc.
NW NE NW NE	S19-T28S-R19E	N & B Enterprises, Inc.

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Affida	vit of Notice Served	
Re:	Application for: APPLICATION FOR COMMINGLII	NG OF PRODUCTION OR FLUIDS - ACO-4
	Well Name: STICH, WILLIAM A 19-3	Legal Location: SWNW S19-T28S-R19E
The un	dersigned hereby certificates that he / she is a duly authorized ager	
2012		
Note: A	A copy of this affidavit must be served as a part of the application.	
	Name	Address (Attach additional sheets if necessary)
POS	TROCK MIDCONTINENT PRODUCTION, LLC	210 PARK AVENUE, SUITE 2750, OKLAHOMA CITY, OK 73102-5641
DES	SIGN TECH OF KS	15803 WINDHAM DRIVE, LITTLE ROCK, AR 72206
N &	B ENTERPRISES	PO BOX 812, CHANUTE, KS 66720
I further	altest that notice of the filing of this application was published in the	CHANUTE TRIBUNE , the official county publication
	EOSHO	county. A copy of the affidavit of this publication is attached.
	SETLI ILINE S	2012
Signed ti	his 25TH day of JUNE , 2	
		Applicant or Duly Anthorized Agent
026	Control of the contro	before me this 25TH day of JUNE , 2012
- ∰ OFI	FICIAL MY COMMISSION EXPIRES July 1, 2012	Denise V Lenneman
Cara		Notary Public My Commission Expires: 7-/-/2

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 10, 2012

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

RE: Approved Commingling CO061212

Stich, William A. 19-3, Sec.19-T28S-R19E, Neosho County

API No. 15-133-27216-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well 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. This application, which was received by the KCC on June 26, 2012, concerns approval to simultaneously produce from the following sources of supply through the same tubing string in the same wellbore:

		Estimated Current		
		Production		
Source of Supply	BOPD	MCFPD	BWPD	Perf Depth
Riverton	0.00	1.40	4.00	920-923
Neutral	0.00	1.40	4.00	868-870
Rowe	0.00	1.40	4.00	862-864
Weir	0.00	1.40	4.00	759-761
Tebo	0.00	1.40	4.00	712-714
Fleming	0.00	1.40	4.00	655-657, 671-673
Croweburg	0.00	1.40	4.00	617-620
Mulky	0.00	1.40	4.00	507-511
Summit	0.00	1.40	4.00	496-500
Cattleman	3.00	0.00	20.00	688-694
Total Estimated Current Production	3.00	12.60	56.00	

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 completion of the well to commingle.

Commingling ID number CO061212 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