

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1093845

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 N	orth / South Line of Section			
City:	State: Zip:+	<u> </u>	Feet from E	ast / West Line of Section			
	Person:						
Phone:	()	Lease Name:	We	ll #:			
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:	BOPD:	MCFPD:	BWPD:			
	Formation:	BOPD:	MCFPD:	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	_					
	Complete Committee (Train Complete and Compl						
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 formation, 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 Electror	nically			
l —	Office Use Only			st in the application. Protests must be be filed wihin 15 days of publication of			

Date: _

15-Day Periods Ends: ___

Approved By: _

-	Α	В	С	D	Е	F	G	Н	1		K
1	Produced Fluids #	В	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	0.00		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	ıydrate	
21	F.	(mg/l)						0.00	-3.96	-3.90	0.06
	Br'	(mg/l)						0.00		ydrite	
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03		estite	
	CO3 Alkalinity	(mg/l as CO3)	170.00	434.00	237,00	200.00	234.00	241.03	Cen		
_	Carboxylic acids**	(mg/l)						0.00	Inor 6	Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
											-0.00
	Borate	(mg/L) H3BO3						0.00	Zinc	Sulfide	
	TDS (Measured)	(mg/l)	4.040	4.0=4				72781	~		
	Calc. Density (STP) CO ₂ Gas Analysis	(g/ml)	1.038 19.97	1.051 18.76	1.050 22.41	1.048 35.53	1.045	1.047	Calcium	fluoride	
	- ,	(%)		0.0292			33.79	26.16	I C.	-l	
	H ₂ S Gas Analysis*** Total H2Saq	(%)	0.0289	1.00	0.0296	0.0306	0.0151 0.50	0.0269	-0.74	rbonate -0.51	0.23
_	_	(mgH2S/l)	1.00 5.67	5.76	1.00 5.72	1.00 5.54	5.55	5.63		eeded (mg/L)	0.23
34	pH, measured (STP)	pH 0-CO2%+Alk,	5.07	5./0	5.72	5.54	5.55	5.03	Calcite	NTMP	
	Choose one option								Calcite	NIMI	
35	to calculate SI?	2-CO2%+pH	0	0	0	0	0				
36	Gas/day(thousand cf/day)	(Mcf/D)						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	
	For mixed brines, enter val			mag in Calle (H	(40 H42)						
-	Initial T			` .		44.0	40.0	(Enter H40-H43)		Н	
		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T	(F) (F)	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)	
42	Final T Initial P	(F) (F) (psia)	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) I-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	(F) (F) (psia) (psia)	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 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44 45 46	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (F) (psia) (psia) I-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 47 48	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (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 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	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)	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 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)	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) (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) (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 54	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	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	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	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	Final T Initial P Final P Use TP on Calcite sheet? API Oil 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=	(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 (equiv./I)	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	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 H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I)	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 ECations= ECations= Calc TDS=	(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 (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	41.0 25.0 25.0	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	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 \$\textit{\Sigma}\$ (STP) Exhions= \$\textit{\Sigma}\$ (STD)= Inhibitor Selection	(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 (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	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0 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) (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	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 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 60 61 62 63	Final T Initial P Final P Use TP on Calcite sheet? API Oil 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 \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(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 (equiv./I) (equiv./I) (mg/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 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 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	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= £Anions= 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	66.0 66.0 25.0 25.0 0 0 0	# 1 2 3	Inhibitor NTMP BHPMP PAA	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 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. 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 \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(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 (equiv./I) (equiv./I) (mg/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 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 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 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 H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ Exhions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, 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	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 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 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 Alkalinity Caclulated Alkalinity Caclulated ECations= 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) (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	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 	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	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 H ₂ Saq (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) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I) (mg/l) Input 120 1 4 1 50	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	
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) (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	0 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 	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	

Saturation Index Calculations

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

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

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

Saturation Index

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

PTB

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

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

ORIGINAL September 1999 Form Must Be Typed

Form ACO-1

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 133-27065-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	<u>sw</u> -se_Sec. 15_Twp. 28_S. R. 19
City/State/Zip: Chanute, KS 66720	660 feet from SV 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: Peters, Gary R. Well #: 15-1
License: 33837	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: multiple
Designate Type of Completion:	Elevation: Ground: 925 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 981 Plug Back Total Depth: 968
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 22 Feet
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used?
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFeet
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 968
Operator:	feet depth to surface w/ 135 sx cmt.
Well Name:	
Original Comp. Date:Original Total Depth:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit) 1-25-08
Deepening Re-perf Conv. to Enhr./SWD	
Plug Back Plug Back Total Depth	l'
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.:
9/7/07 9/10/07 9/11/07 Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R 🗌 East 🗌 West
Recompletion Date Recompletion Date	County: Docket No.:
TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells.	er 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 Submit CP-111 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regula 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
0.100	
Signature: Gumpa & Ammane	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 1/4/08	Letter of Confidentiality Received
Subscribed and sworn to before me this 4th day of xacuaw	If Denied, Yes Date:RECEIVED
20 07 .	Wireline Log Received KANSAS CORPORATION COMMISSIO
2)	Geologist Report Received
Notary Public: Devra Klauman	UIC Distribution JAN 0 8 2008
Date Commission Expires: 8-4- 2010	CONSERVATION DIVISION
A. TERF	RAKI ALIMANI WICHITA KE
Notary Pu	8-4-3010

Operator Name: Qu	est Cherokee, LL	.c:(J)		Lease	Name:	Peters, Gary R.		Well #: 15-1		·
Sec Twp					Neosh					
INSTRUCTIONS: S tested, time tool ope temperature, fluid re- Electric Wireline Log	n and closed, flowing covery, and flow rate	g and shut-i s if gas to s	in pressures, surface test, a	whether sh long with fi	ut-in pre	essure reached s	static level, hydros	static pressure	es, bottoi	m hole
Drill Stem Tests Take		☐ Ye	s 🗌 No		⊘ L	og Formatic	on (Top), Depth ar			Sample
Samples Sent to Ge	ological Survey	☐ Ye	s 🗌 No		Nam See	e attached		Тор	[Datum
Cores Taken Electric Log Run (Submit Copy)		☐ Ye								
List All E. Logs Run:				i	i					
Compensated Dual Induction	d Density Neut n Log	tron Log								
		Report	CASING		Ne	w Used ermediate, producti	on etc			
Purpose of String	Size Hole Drilled	Size	Casing (In O.D.)	Weig	ht	Setting Depth	Type of Cement	# Sacks Used		and Percent dditives
Surface	12-1/4	8-5/8"	(5.5.)	22		22	"A"	5		
Production	6-3/4	4-1/2		10.5 9		968	"A"	135		
			ADDITIONAL	CEMENTIN	IG / SQL	JEEZE RECORD				
Purpose:	Depth Top Bottom	Туре	of Cement	#Sacks	#Sacks Used Ty		Type and Pe	Type and Percent Additives		
Protect Casing Plug Back TD										
Plug Off Zone					· · · · · · · · · · · · · · · · · · ·					
Shots Per Foot	PERFORATI	ON RECORD	O - Bridge Plug	s Set/Type		Acid, Frac	ture, Shot, Cement	Squeeze Recor	d	
		-	ach Interval Per	forated		(Amount and Kind of Material Used) Depth				
4	851-854/799-801/7	93-795				500gal 15%HCLw/ 53 bbts	2%kci water, 676bbls water w	/ 2% KCL., Biocide, 6400	# 20/40 sand	851-854/799-801
4	583-585/549-552/5					300mai 15%HCt w/ 49 hbbs	2%kci water, 481bbis water w	/ 2% KCI. Biocirie 2200	# 20/40 send	793-795 583-585/549-552
-	303-303/343-3323			.,,						523-525
4	438-442/427-431		<u> </u>			300gal 15%HCLw/ 45 bbts	.2%kcl water, 596bbb water w	/ 2% KCL, Biocide, 3700	# 20/40 sand	438-442/427-431
TUBING RECORD 2-	Size 3/8"	Set At 877.1	г	Packer A	t	Liner Run]Yes ☑ No			
Date of First, Resumer	rd Production, SWD or E	Enhr.	Producing Meth	_	Flowing	g 🕢 Pumpir	g Gas Lift	Othe	er (Explain,)
Estimated Production Per 24 Hours	Oil	Bbls.		Mcf	Wate	er Bl	ols. G	as-Oil Ratio		Gravity
Disposition of Gas	n/a METHOD OF 0	COMPLETIO	Omcf N	<u> </u>	0bbls	Production Inter	val			
Vented Sold		1	Open Hole	✓ Perf.		Oually Comp.	Commingled			
	ubmit ACO-18.)	ļ	Other (Speci		٠	,,				

TXD SERVICES

drillers log txd services lp

RIO \$ 101	S. 15 T. 26 R. 19	gas test	
APIØ 133-27066	County: Neosho	188'	O no blow
Elov: 925°	Location: Kansas	343'	O no blow
		374'	Wold on D
Operator: Quest Cherokee, LLC		405'	9 no blow
Addrose: 9520 N. May Ave, Suite	300	529'	wold on 0
Oklahoma City, OK 7312		591'	slight blow
Well # 15-1	Lease Name Peters, Gary	622'	slight blow
	R. from the S line	653'	slight blow
	R from the E line	684'	slight blow
	ervices LP	715'	slight blow
Spud Date: NA	Geologist	777'	şlight blow
Date Comp: 9/10/2007	Total Depth: 980'	608'	slight blow
Exact spot location: SW SE		980'	1 - 1/2" 6.27
Casing Record	kig time		
Surface Production		C C C C C C C C C C C C C C C C C C C	
Size Hole 12-1/4" 6-3/4"			
Size Casing 8-5/8" 4-1/2"		J	
Weight 24#	·	J	
Saring Deptr 22'			
Type Cemen portland		1	
Sacks			
		ji Tarangan	

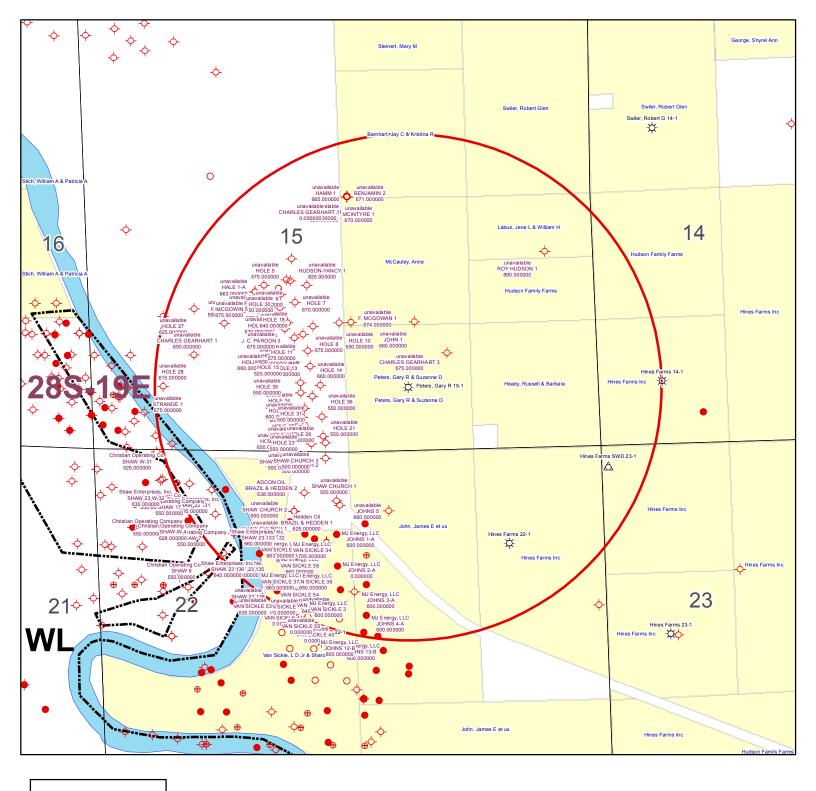
	Well Log								
Formation	Top	Bim.	Formation	Top	Bim.	Formation	Top	8ന്ന്.	
top soil	0	3	coal	364		shale	645	854	
lime	3	39	shale	366		coal	664	685	
shale	39	41	lime	370		eand/shale	665	694	
lime	41	48	shale	371		coal	694	698	
shale	46		coal	404		shale	698	704	
lime	48		shalə	405		coal	704	705	
shale	49	69	lime	435		sand/shale	706		
lime	68	83	b.shale	444	447	shale	729		
shale	63	114	sand	447		coavb.shale		756	
līme	114	123	shale	465		shale	756		
shale	123	148	coal	528		sand/shale	791	796	
limo	146	158	shale	529		coal	796		
coal	156	160	b.shale	551		shale	800	<u> </u>	
shale	160	196	shale	553		coal	802		
coal	198	19	รลก๔	573		shale	804		
lime	19		coal	586		coal	850		
shale	244	283	sand/shale	589	602	shale	652	856	
sand	283	298	coal	602	603	misaisaippi	856	980	
shale	296	314	sand	603	614]	
lime	314		coal	614		· ·			
coal	316		sand	615]	
lime	316	364	cola	643	645				

Comments: 635-645' odor, 870' Injected water

DESCRIPTION C	OF WORK PERFORMED		
LOGGING		PERFORA'	TING
RUN CASING		FRACTUR	
CEMENTING	х	EQUIPPIN	——————————————————————————————————————
ACIDIZING		OTHER	
9/11/2007			
JOB SUMMARY	,		
		27-78-04-00	
Run & Cement Lo	ongstring - Notified Becke @ KCC Offic	:- 9/11/07 @ 4:00 pm	
Time			
1 mic			
4:15	QCOS - pump - circulate with fresh	vater, run 9 bbls dye cement until dye returns flush pump, pump	
	plug with KCL water, set float shoe		
4:50	QCOS rigged down and off location		
CEMENT SUMM	IARY:		
Total cement: 135			
***************************************	gilsonite and 1/4# flo-seal, straight ceme	nt. 2% cal cloride	
Cement slurry wei	· · · · · · · · · · · · · · · · · · ·	3, 270	
Average surface p			
	Running cement circulation pressure		
	Pumping plug circulation pressure: 6	0	
	Circulation during job: good		
VOLE/OASDIO	TO A TO THE STATE OF THE STATE		
HOLE/CASING/F	FLOAT EQUIPMENT SUMMARY:		
Hole size & depth	ı: 6-3/4" x 981		
***************************************	oth: New 4-1/2" x 10.5# per/ft Rge3 - plu	s shoe 968	
1 ca. 4-1/2" float s	shoe flapper type & 4-1/2" wiper plug		
Baffle locations	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
475.			
747.	94		
L			

RECEIVED KANSAS CORPORATION COMMISSION

JAN 0 8 2008



KGS STATUS

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

Peters, Gary R 15-1 15-28S-19E 1" = 1,000'

POSTROCK



Current Completion

SPUD DATE: 9/7/2007

COMP. Date: 9/11/2007 API: 15-133-27065-00-00

WELL : Peters, Gary R 15-1

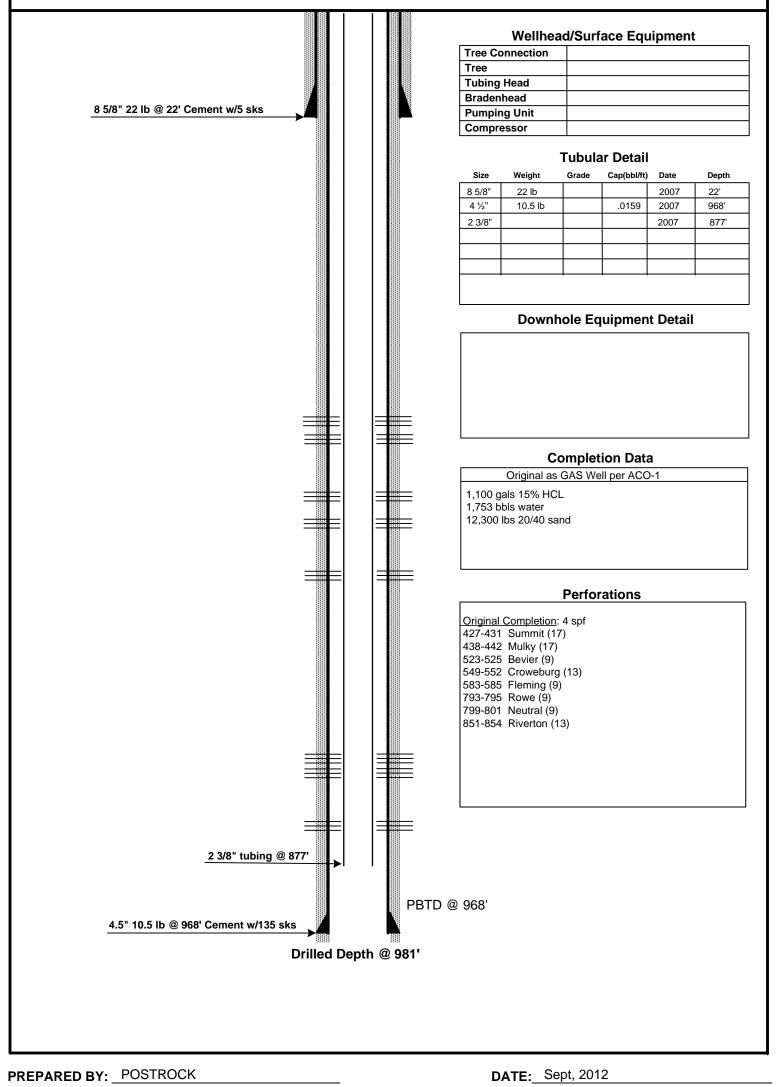
FIELD : Cherokee Basin

STATE : Kansas COUNTY : Neosho

APPROVED BY: _

LOCATION: 15-28S-19E (SW,SE)

ELEVATION: 925'



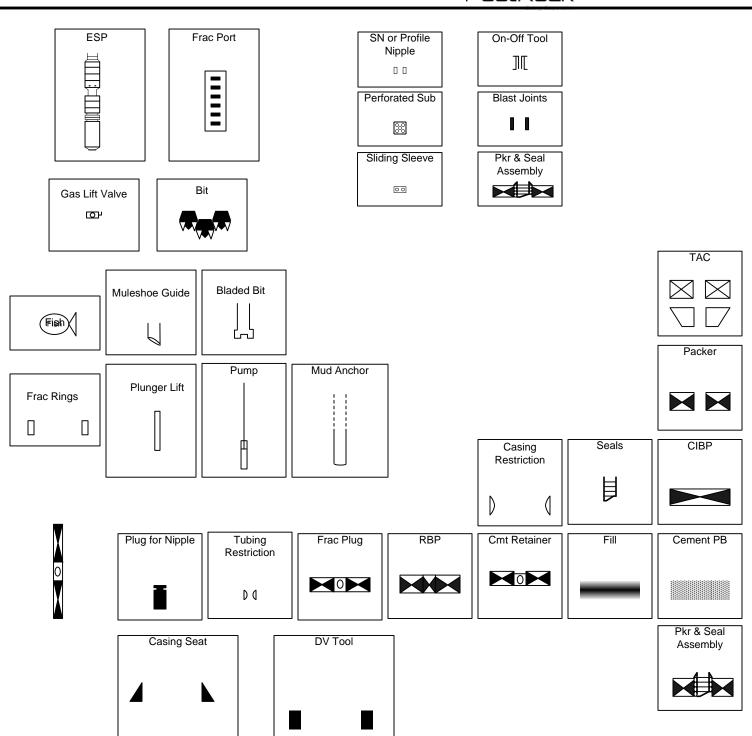
DATE:_

POSTROCK



LEGEND

PostRock[®]



PETERS, GARY R 15-1

R & LOWER LIMIT OF EACH PRO	DUCTION IN	TERVAL TO BE (COMMING	LED			
ROWE		(PERFS):	793 -	795			
NEUTRAL		(PERFS):	799 -	801			
RIVERTON		(PERFS):	851 -	854			
CATTLEMAN	<u> </u>	(PERFS):	618 -	623			
	<u> </u>	(PERFS):	-				
		(PERFS):	-				
		(PERFS):					
		(PERFS):					
		(PERFS):					
		(PERFS):					
		(PERFS):					
		(PERFS):					
MOUNT OF FLUID PRODUCTION ROWE	TO BE COMN	MINGLED FROM BOPD:	I EACH INT 0	ERVAL MCFPD:	4.25	BWPD:	8.88
NEUTRAL		BOPD:	0	MCFPD:	4.25	BWPD:	8.88
RIVERTON		BOPD:	0	MCFPD:	4.25	BWPD:	8.88
CATTLEMAN	<u> </u>	BOPD:	3	MCFPD:	0	BWPD:	20
	0	BOPD:		MCFPD:		BWPD:	
	0	BOPD:		MCFPD:		BWPD:	
	0	BOPD:		MCFPD:		BWPD:	
	0	BOPD:		MCFPD:		BWPD:	
	0	BOPD:		MCFPD:		BWPD:	
				IVICITE.			
	0	BOPD:		MCFPD:		BWPD:	
	<u> </u>					_	
	ROWE NEUTRAL RIVERTON CATTLEMAN MOUNT OF FLUID PRODUCTION ROWE NEUTRAL RIVERTON	ROWE NEUTRAL RIVERTON CATTLEMAN MOUNT OF FLUID PRODUCTION TO BE COMN ROWE NEUTRAL RIVERTON CATTLEMAN 0 0 0 0	ROWE NEUTRAL RIVERTON CATTLEMAN (PERFS): (PERFS)	ROWE (PERFS): 793 - NEUTRAL (PERFS): 799 - RIVERTON (PERFS): 851 - CATTLEMAN (PERFS): - (PERFS)	NEUTRAL	ROWE	ROWE

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 Peters, Gary R 15-1 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 Summit, Mulky, Bevier, Croweburg, Fleming, Rowe, Neutral, Riverton and Cattleman producing formations at the Peters, Gary R 15-1, located in the SW SE, S15-T28S-R19E, Approximately 660 FSL & 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.

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, the first publication thereof being made as aforesaid on the day of	n f
, 2012, 2012	
, 2012, 2012	
Rhonda Howerly	
Subscribed and sworn to and before me this	ic
My commission expires: January 9, 2015 Printer's Fee)
Affidavit, Notary's Fee\$ 3.00	
Additional Copies\$	
Total Publication Fees \$ 73.14	



AFFIDAVIT

STATE OF KANSAS

SS.

County of Sedgwick

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

made as aforesaid on the 11th of

October 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.

Iletchall

Subscribed and sworn to before me this

11th day of October, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
OCTOBER 11, 2012 (3211693)
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 Peters,
Gary R 15-1 located in Nessho County. Gary R 15-1 located in Neosho County,

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

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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 filteen (15) days from the date of this publication. These protests shall be illed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural resources of the State of Kansas.

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i Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an profesionis will be expected to enter an appearance either through proper legal counsel, or as individuals, appearing on their own behalf. Postrock Mildcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102

(405) 660-7704

CHRISTIAN OPERATING COMPANY 11250 WEST ROAD - BUILDING H, HOUSTON, TX 77 HEDDEN OIL 205 OSAGE, PO BOX 82, THAYER, KS 667	L	AND ALCOHOLOGICAL AND THE STATE OF THE STATE
The undersigned hereby certificates that he / she is a duly authorized agent for the applicant, and that on the day of OCTOBER 2012 a true and correct copy of the application referenced above was delivered or mailed to the following parties: Note: A copy of this alfidavit must be served as a part of the application. Name Address (Attach additional sheets if necessary) ADCON OIL 906 WEST MAIN, CHANUTE, KS 66720 CHRISTIAN OPERATING CO 15326 HILLTOP VIEW DR, CYPRESS, TX 774 CHRISTIAN OPERATING COMPANY 11250 WEST ROAD - BUILDING H, HOUSTON, TX 77 HEDDEN OIL 205 OSAGE, PO BOX 82, THAYER, KS 667 MJ ENERGY, LLC 3570 E 12TH AVE, STE 205, DENVER, CO 802 SAHW ENTERPRISES, INC RR 4, CHANUTE, KS 66720	Affidavit of Notice Served	
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SEE ATTACHED	SAHW ENTERPRISES, INC	RR 4, CHANUTE, KS 66720
	SEE ATTACHED	
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NEOSHO county. A copy of the affidavit of this publication is attached. gned this day of OCTOBER	Subscribed and sworn to be JENNIFER R. BEAL	CUEM opplicant or Duly Authorized Agent
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NEOSHO	Subscribed and sworn to be Seal MY COMMISSION EXPIRES 7-20-2010	poplicant or Duly Authorized Agent efore me this 24th day of OCTOBER . 2012 entary Public

PETERS, GARY R 15-1

22-28S-19E

NW4 E of River

Oscar H Cunningham Family Trust

Cunningham Pearl B Trustee

330 S Nineiron Ct Wichita, KS 67235

Tracts in NE NW Church Disciples of Christ Trust

Lavon Strange 15250 K-47 Hwy Erie, KS 66733

AT&SF & BN&SF Railway Co.s

Property Tax Dept PO Box 961089 Fort Worth, TX 76161

Catherine E Thomas 12335 160th Rd Erie, KS 66733

David Robert Gromer C/O June A Short Jr. 636 S Fuller Independence, MO 64052

Guy W Gromer C/O June A Short Jr. 636 S Fuller Independence, MO 64052

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Rickey L Hole 16100 Main Erie, KS 66733

Dennis Shultz Jr. 16325 Marshall Rd Erie, KS 66733

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Frank O & Nadine McDonald 12470 Davison Erie, KS 66733

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Elk Creek Agricultural L.P. 14 Woodsborough Houston, TX 77055

Shaw Enterprises Inc 11600 160th Rd Chanute, KS 66720

Pete's Corporation PO Box 794 Parsons, KS 67357

Catherine E Thomas 12335 160th Rd Erie, KS 66733

Disciples Of Christ Dorothy Larue 11400 190th Rd Chanute, KS 66720

Byron Shultz 16015 Marshall Rd Erie, KS 66733

PETERS, GARY R 15-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

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eby certify that the statements mad	le herein are true and correct to t	the best of my knowledge and belief.	
		cour	
		Applicant or Duly Authorized Agent	
	Subscribed and s	worn before me this day of OCTOBER	,2012
JENNIF	ER R. BEAL	Demyer K. Beal	
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7-20	2-20/10	Notary Public R. Beal My Commission Expires: Quely 30, 20/4	
7-30	2016	My Commission Expires: July 20/4	
7-20	20110	My Commission Expires: July 50, 30/4	
7-20	2016	My Commission Expires: July 80, 2016	
7-20	2016	My Commission Expires: July 30 , 30/4	
7-20	2016	My Commission Expires: July 80; 30/4	
7-20	2016	My Commission Expires: Aug. 80 ; 30/4	
7-20	2016	My Commission Expires: July 30 ; 30/4	
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LEGAL LOCATION	SPOT	CURR_OPERA
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S22-T28S-R19E	SW NE NW	Christian Operating Co.
S22-T28S-R19E	NE NW NW	Christian Operating Co.
S22-T28S-R19E	NE NW NW	Christian Operating Company
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S22-T28S-R19E	SE NW NW	Christian Operating Company
S22-T28S-R19E		Hedden Oil
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Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor

Mark Sievers, Chairman Thomas E. Wright, Commissioner Shari Feist Albrecht, Commissioner

November 8, 2012

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

RE: Approved Commingling CO101219

Peters, Gary R. 15-1, Sec. 15-T28S-R19E, Neosho County

API No. 15-133-27065-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on October 26, 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 CO101219 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