

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)

OPERAT	OR: License #	API No. 15					
Name:_		Spot Description:					
Address	1:		Sec Twp S	S. R East West			
Address	2:		Feet from Nort	h / South Line of Section			
City:			Feet from East	/ West Line of Section			
Contact	Person:	County:					
Phone:	()	Lease Name:	Well #	! :			
_							
1.	Name and upper and lower limit of each production interval to	· ·					
	Formation:	(Perfs): _					
	Formation:	(Perfs): _					
	Formation:	(Perfs):					
	Formation:	(Perfs): _					
	Formation:	(Perfs): _					
□ 2.	Estimated amount of fluid production to be commingled from e	each interval:					
	Formation:		MCEDD:	BWPD:			
	Formation:			BWPD:			
	Formation:			BWPD:			
	Formation:			BWPD:			
	Formation:	BOPD:	MCFPD:	BWPD:			
3.	Plat map showing the location of the subject well, all other well the subject well, and for each well the names and addresses of	•	•	s within a 1/2 mile radius of			
4.	Signed certificate showing service of the application and affida	avit of publication as required i	in K.A.R. 82-3-135a.				
For Con	nmingling of PRODUCTION ONLY, include the following:						
<u> </u>	Wireline log of subject well. Previously Filed with ACO-1:	Yes No					
6.	Complete Form ACO-1 (Well Completion form) for the subject	well.					
For Con	nmingling of FLUIDS ONLY, include the following:						
7.	Well construction diagram of subject well.						
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be commi	ingled.				
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 comistrue and proper and I have no information or knowledge, which istent with the information supplied in this application.	Sul	omitted Electronic	cally			
KCC	Office Use Only	Protests may be filed by any r	party having a valid interest in	n the application. Protests must be			
	nied Approved			filed wihin 15 days of publication of			

Approved By: Date: _

15-Day Periods Ends: __

-	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 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 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}}\$ Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ Eanions= 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 Converte 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) * OH* (Strong base) * Ouality 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 ORIGINAL

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 205-27208-0000
Name: Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	<u>nesw_Sec. 34Twp. 27S. R. 16</u>
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:
	(circle one) NE SE NW (SW)
Phone: (620) 431-9500 Contractor: Name: Michael Drilling License: 33783	Lease Name: Stevens, William K. Well #: 34-1
icense: 33783	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 1016 Kelly Bushing: n/a
✓ New Well Re-Entry Workover	Total Depth: 1309 Plug Back Total Depth: 1298.91
OilSWDSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 22 Feet
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used? Yes No
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth set Feet
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1298.91
Operator:	feet depth to_surfacew/_180sx cmt.
	sx cm.
Well Name:	Drilling Fluid Management Plan AH # 33309 (Data must be collected from the Reserve Plt)
Original Comp. Date:Original Total Depth:	
Deepening Re-perf Conv. to Enhr./SWD	Chloride contentppm Fluid volumebbls
Plug Back Total Depth	Dewatering method used
Commingled Docket No.	Location of fluid disposal if hauled offsite:
Dual Completion	Operator Name:
Other (SWD or Enhr.?) Docket No	Lease Name:License No.:
6/12/07 6/22/07	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or Recompletion Date	County: Docket No.:
	- County
Kansas 67202, within 120 days of the spud date, recompletion, workov Information of side two of this form will be held confidential for a period of 107 for confidentiality in excess of 12 months). One copy of all wireline logs TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells	
Ill requirements of the statutes, rules and regulations promulgated to regulerein 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: Annifu R. Ammann	KCC Office Use ONLY
itle: New Well Development Coordinator Date: 10/5/07	Letter of Confidentiality Received
Subscribed and sworn to before me this 5th day of 10th be	
<u>0 07</u> .	Wireline Log Received RECEIVED
	Geologist Report Receiver SAS CORPORATION COMMISSIO
•	UIC Distribution OCT 0 9 2007
Date Commission Expires: 8-4-2010	KLAUMAN UCT U 5 2007
Notary Public	- State of Kansas CONSERVATION DIVISION
My Appt. Expires &	3-4-2010 WICHITA, KS

Side Two

Operator Name: Que	st Cherokee, LL	<u>.C</u>		Leas	e Name:_	Stevens, Willian	1 K.	Well #:34-1	
Sec. 34 Twp. 2			West		ty: Wilson				
INSTRUCTIONS: Si tested, time tool oper temperature, fluid red Electric Wireline Logs	and closed, flowin overy, and flow rate	g and shut-in s if gas to su	pressures, rface test, a	whether s long with	shut-in pre	ssure reached	static level, hydr	ostatic pressure	es, bottom hole
Drill Stem Tests Take (Attach Additional	T	Yes	√ No		 ✓L		on (Top), Depth		Sample
Samples Sent to Geo	ological Survey	Yes	✓ No		Nam See	e attached		Тор	Datum
Cores Taken Electric Log Run (Submit Copy)		☐ Yes ☐ Yes	✓ No ☐ No						
List All E. Logs Run:									
Compensated I Dual Induction Gamma Ray N	Log	n Log							
		Report a		RECORD		w Used ermediate, product	ion etc		
Purpose of String	Size Hole Drilled	Size C Set (In	asing	We	eight . / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8"	10.0.)	22	. / Ft.	22	"A"	5	Additives
Production	6-3/4	4-1/2		10.5		1298.91	"A"	180	
			DDITIONAL	CEMENT	ING / SQL	JEEZE RECORD)		J
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of	Cement	#Sack	s Used		Type and	Percent Additives	
Shots Per Foot		ION RECORD Footage of Eac			e		cture, Shot, Ceme		rd Depth
4	1216-1218					300gal 15%HCLw/ 35 bb	is 2%kci water, 431bbis wate	er w/ 2% KCL, Biocide, 2100	# 20/40 sand 1216-121
4	1073-1075/963-96	5/929-932/91	3-915		mra-tr	300gai 15%HCLw/ 45 bb	is 2%kci water, 591bbis water	er w/ 2% KCL, Blockle, 4300	929-932/913-5
4	848-852/836-840			. 48		300gal 15%HCLw/ 49 bb	is 2%kci water, 691bbis wate	er w/ 2% KCL, Blocide, 6100	
TUBING RECORD	Size	Set At 1244		Packer n/a	At	Liner Run	Yes ✓ N	lo	
Date of First, Resumer 7/23/07			Producing Met		Flowin	g 🕢 Pumpi			er (Explain)
Estimated Production Per 24 Hours	Oil n/a	Bbls.	Gas I2mcf	Mcf	Wat		bls.	Gas-Oil Ratio	Gravity
Disposition of Gas		COMPLETION				Production Inte	rval		
Uented ✓ Sold (If vented, Sold	Used on Lease ubmit ACO-18.)		Open Hole Other (Spec	√ Pe	orf.	Dually Comp.	Commingled		

Michael Drilling, LLC P.O. Box 402 Iola, KS 66749 620-365-2755



061207

Company:

Quest Cherokee LLC

Address:

9520 North May Ave, Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

Date:

06/12/07

Lease:

Stevens, William K.

County: wilson

Well#:

34-1

API#: 15-205-27208-00-00

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
0-3	Overburden	795-809	Sandy Shale
3-58	Lime	809-810	Coal
58-256	Shale	810-830	Lime
256-270	Lime	822	Gas Test 50" at 1/4" Choke
270-306	Shale	830-837	Black Shale
306-330	1.ime	837-843	Lime
330-354	Shale	840	Gas Test 50" at 1/4" Choke
354-381	Shale and Lime	843-846	Black Shale and Coal
381-439	Lime	846-926	Sandy Shale
439-442	Black Shale	857	Gas Test 35" at 1/2" Choke
442-530	Lime	926-928	Lime
530-610	Shale	928-930	Coal
610-612	Coal	930-970	Shale
612-620	Lime	970-972	Coal
620-643	Shale	972-1006	Sandy Shale
643-672	Lime	1006-1007	Coal
672-686	Shale	1007-1020	Sandy Shale
686-695	Sand	1020-1021	Coal
695-697	Coal	1021-1067	Sandy Shale
697-753	Sandy Shale	1067-1069	Coal
753-755	Lime	1069-1075	Sandy Shale
755-759	Coal	1075-1138	Sand
759-792	Lime	1138-1140	Coal RECEIVED
792-795	Black Shale	1140-1144	Shale KANSAS CORPORATION COMMISS

Michael Drilling, LLC P.O. Box 402 Iola, KS 66749 620-365-2755



061207

Company:	Quest Cherokee LLC
Address:	9520 North May Ave, Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

Date: 06/12/07 Lease: Stevens, William K.

County: wilson Well#: 34-1

API#: 15-205-27208-00-00

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
1144-1146	Coal		
1146-1192	Sand		
1192-1208	Shale		
1208-1211	Coal		
1211-1218	Shale		
1214	Gas Test 50" at 3/4" Choke		
1218-1309	Missippi Lime		
1234	Gas Test 50" at 3/4" Choke		
1309	Gas Test 50" at 3/4" Choke		
1309	TD		
	Surface 22'		
	1		
	·		
			RECEIVED
			KANSAS CORPORATION COMMISS

QUEST

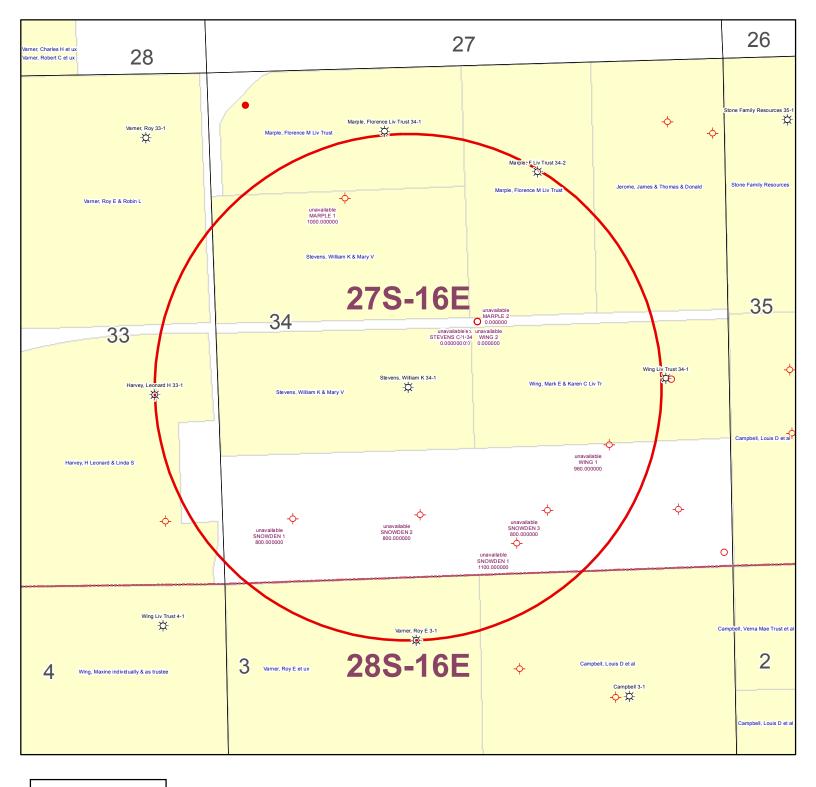


211 W. 14TH STREET, CHANUTE, KS 66720 620-431-9500 TICKET NUMBER 2261
FIELD TICKET BEF#

621730

TREATMENT REPORT & FIELD TICKET CEMENT

DATE		WEL	L NAME & NUMBER	1	SECTION	TOWNSHIP	RANGE	COUNTY
6-22-07	¥ STeve	N	William.	34-1	-34	27	16	WL
FOREMAN / OPERATOR	TIME	TIME	LESS LUNCH	TRUCK #	TRAILER #	TRUC HOUR		EMPLOYEE SIGNATURE
Jue B	6:45	1:30		903427		6.7	75 -	100 Blandon
MAURICK .D	7:00	2:45	5	903197		7	15 1	Moung Drake
Tyler . G	7:00	1:36		903206		4.5	5	The
Bul.H	6:45	1:30)	903142	932452	6.7	15 7	ayl Hale
BORY. C	7:00	1:30		931500		C. 5	5 <i>[</i>	ellanter
MAC. M	6:30	1:30		<u> </u>		1 7		The MILON
JOB TYPE LONGS	Aviag HOLES	SIZE <u> </u>	, <i>3/4</i> H	OLE DEPTH/ 3_	<u>/ 3</u> casi	NG SIZE & W	/EIGHT	11/2 10.5
CASING DEPTH 1/2	98.9/ DRILL I	PIPE	Т	UBING	OTH	ER	. pr.	
SLURRY WEIGHT	141.5 SLURR	Y VOL	w	VATER gal/sk	CEM	ENT LEFT in	CASING_	0
DISPLACEMENT 20).7/ DISPLA	CEMENT F	PSI M	IIX PSI	RATE	<u>46</u>	pm	, , , , , , , , , , , , , , , , , , , ,
DEMVDK6.							1	
INSTAlled of	Cement Re	AN 2 3	sk gel 4	13 bbl	due + /	<u>90 si</u>	KS of	coment to
act due to	. surface.	flush,	amo. Pun	no wiper +	a bottom	4 5at f	look 5	hoe
3		,	1 - (Y		*******		
	•					20		
						U Sperie		
"Acay						Win The		
			-		CONTRACTOR OF THE PARTY OF THE	M 5 3		
	1298.	91	ft 472 1	Casina				
	1010	6	Centralia	<u> </u>		A STORY		
981300				tractor				
932885	5	he	Casina	trailor				
ACCOUNT								TOTAL
ACCOUNT CODE	QUANTITY or L	JNITS		DESCRIPTION OF SE	RVICES OR PRODU	СТ —————		AMOUNT
903427	6.75	hr	Foreman Pickup					
903197	7-75	he	Cement Pump Truck	·				
903206	. 6.5	hri	Bulk Truck					
1104	170	SK	Portland Cement					
1124		?	50/50 POZ Blend Ce	CONTIN				
1126			OWG - Blend Ceme	m 41/2 L	Jiper plu	5		
1110		SK	Gilsonite					
1107		SK	Flo-Seal					
1118		SK	Premium Gel	***********	· · · ·			
1215A	<u>lgal</u>	7 / /	Sodium Silicate (2-1-11	7	<u>.</u>	F 1342 .	
1111B 1123	4000	3 SK	City Water	ialchloride			RECEIVE	
903142	<u>7000 g</u> 6. 75	· · · · · ·	Transport Truck					I COMMISSION
9321152	<u>6.75</u> 6.75		Transport Trailer				T 0 0 0	007
93/1500	6.5	h.c.	80 Vac	<u></u>			CT 0 9 2	. UU/
Ravin 4513		, , , , , , , , , , , , , , , , , , ,	4'b Flo	n.tsme		CONS	SERVATION D WICHITA K	DIVISION



KGS STATUS

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

Stevens, William K 34-1 34-27S-16E 1" = 1,000'

POSTROCK



Current Completion

SPUD DATE: 6/9/2007

COMP. Date: 6/22/2007 API: 15-205-27208-00-00

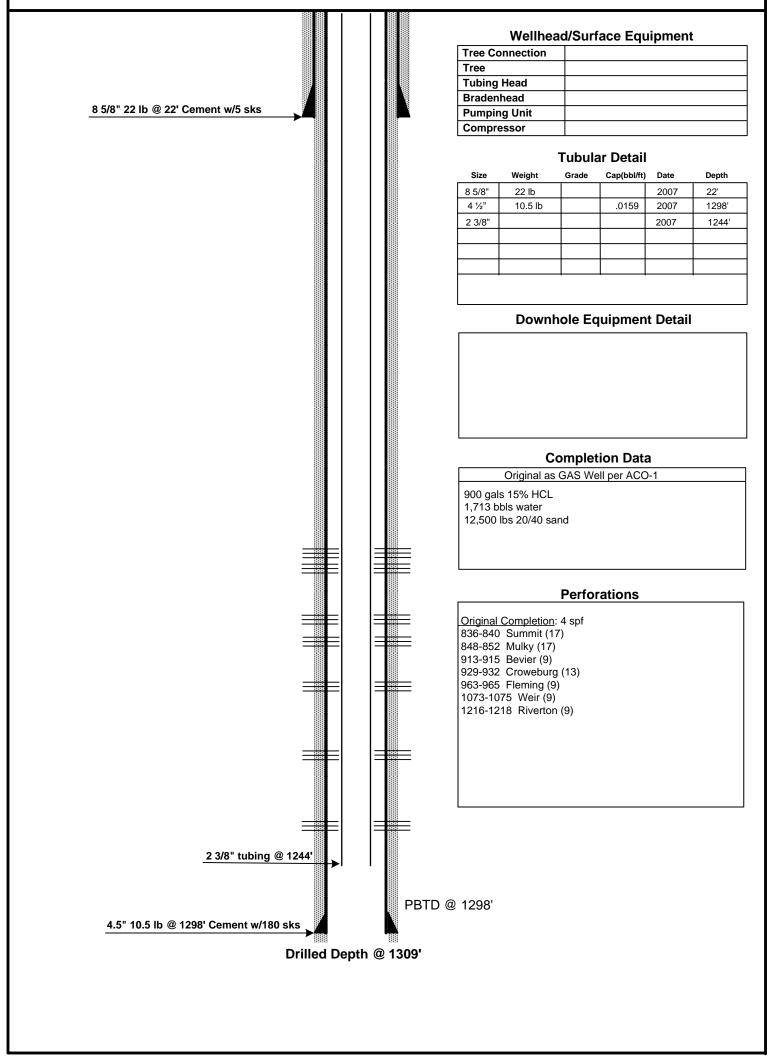
WELL : Stevens, William K 34-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY : Wilson

LOCATION: 34-27S-16E (NE,SW)

ELEVATION: 1016'



PREPARED BY: POSTROCK

APPROVED BY: _

DATE: Oct, 2012

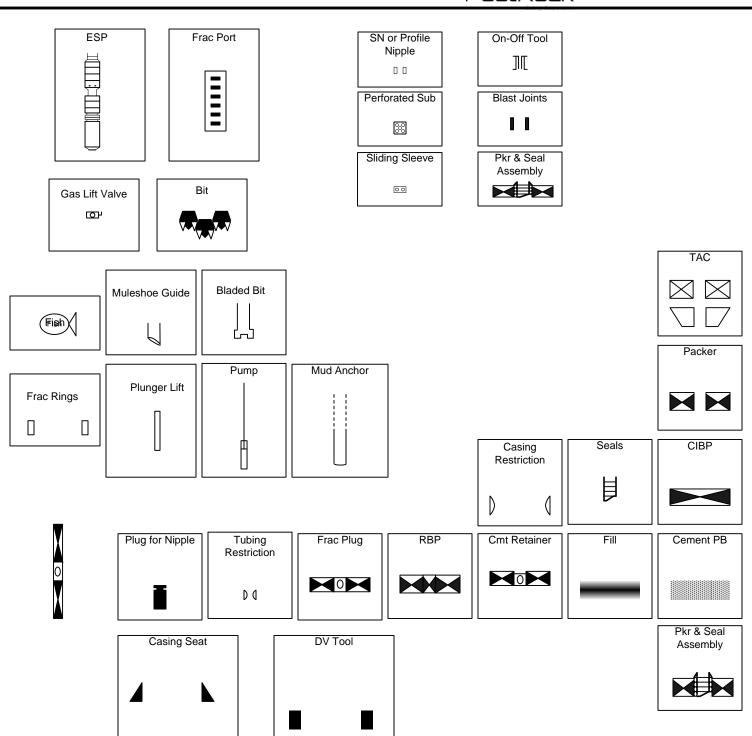
DATE:_

POSTROCK



LEGEND

PostRock[®]



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 9th of

November 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.

Fletchall

Subscribed and sworn to before me this

9th day of November, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee : \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
NOVEMBER 9, 2012 (2316886)
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 Stevens,
William K 34-1 located in Wilson County,
Kansas

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

persons whomever concerned.
You, and each of you, are hereby notified that Postrock Midconlinent Production, LLC has filed an application to commingle the Summit, Mulky, Bevier, Croweburg, Fleming, Weir, Riverton and Barlesville producing formations at the Stevens, William K 34-1, located in the NE SW, 534-T275-R16E, Approximately 1980 FSL & 1980 FWL, Wilson County, Kansas.
Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission.

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

All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly.

themselves accordingly, All person and/or companies wishing to profest this application are required to file a written profest with the Conservation Division of the Kansas Oii 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 appearance entire in hough piper legar counser or as individuals, appearing on their own behalf. Postrack Midconlinent Production, LLC 210 Park Avenue, Sulte 2750 Oktahoma City, Oktahoma 73102 (405) 660-7704

PROOF OF PUBLICATION

STATE OF KANSAS Wilson County - SS

JOSEPH S. and RITA M. RELPH, of lawful age, being duly sworn upon oath that they are the Owners and Publishers of the WILSON COUNTY CITIZEN:

THAT said newspaper has been published at least weekly fifty (50) times a year and has been so published for at least five years prior to the first publication of the attached notice:

THAT said newspaper is a general circulation on a daily, or weekly, or monthly, or yearly basis in;

WILSON COUNTY, KANSAS and is NOT a trade, religious or fraternal publication and has been PRINTED and PUBLISHED in Wilson County, Kansas.

THE ATTACHED was published on the following dates in a regular issue of said newspaper:

1st publication was made on the SHW	day of
Movember	
2nd publication was made on the	day of
	20
3rd publication was made on the	day of
	20
4th publication was made on the	day of
	20
5th publication was made on the	day of
	20
6th publication was made on the	day of
	7.20 3
TOTAL PUBLICATION FEE: \$ 3	/, -
TOTAL PUBLICATION FEE: \$ 3 (Signed) Joseph & Colph	
Subscribed and sworn to before me, this	day of
Movember	_, 20_12_
Tita M. Pelpe	(Notary Public)
My commission expires Luq. &	30 2014

(Published in the Wilson County Citizen on Thursday, November 8, 2012.)

BEFORE THE STATE CORPORATION **
COMMISSION OF THE STATE OF KANSAS.

NOTICE OF FILING APPLICATION

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Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704 76 I cpy.



FORMATION:	WEIR	(PERFS):	1073 -	1075			
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FORMATION:	BARTLESVILLE	(PERFS):	1091 -	1097			
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	Application for: APPLICATION FOR COM	IMINGLING OF PRODUCTION	N OR FLU	JIDS ACO-4	
	Well Name: STEVENS, WILLIAM K 34-1	Legal Location:	NESW	S34-T27S-R16E	
unde	rsigned hereby certificates that he / she is a duly auth	orized agent for the applicant, and that c	n the day	20TH of NOVEMBER	₹
12	, a true and correct copy of the application	ı referenced above was delivered or mail	ed to the fol	lowing parties:	
e: A c	copy of this affidavit must be served as a part of the ap				
	Name	Address (Attach	additional sh	eets if necessary)	
ΞE	ATTACHED				
	•				•
er at	test that notice of the filing of this application was publ	lished in the THE WILSON COUN	TY CITIZ	ZEN , the office	cial county publicati
WIL:	SON	county. A copy of the affida	avit of this pu	ublication is attached.	
41. :	375 26TH day of NOVEMBER	2012			
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		Applicant or Duly Authorized	A /	nona	
		ONTH		IOVEMBED	2012
(Subscribed ar	nd sworn to before me this	day of!`_	IOVEMBER	, <u>2012</u>
ő	JENNIFER R. BEAL	Quant	i k	. Beal	
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34	MU OXU Y	My Commission Expires:	Lin	and the	ly 20, à

LEGAL LOCATION CURR_OPERA

S34-T27S-R16E

Tharpoil co. 22400 Harper Rd Chanute, HS 64720

34-27S-16E

S2SW4

Dwight C. Olson Revocable Trust & Evelyn L Olson Revocable Trust

20106 Scott Rd Buffalo, KS 66717

SE4SE4

Todd J. & Darla D. Marple

18946 Queen Rd Altoona, KS 66710

RR ROW

Sunflower Rails-Trails Conservancy

P.O. Box 44-2043 Lawrence, KS 66044

33-27S-16E

Tract in SE4

Myrna Lemire

19132 US Hwy 75 Benedi ct, KS 66714

RR ROW

Sunflower Rails-Trails Conservancy

P.O. Box 44-2043 Lawrence, KS 66044

STEVENS, WILLIAM K 34-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

Name: ATTACHED		Legal Description of Leasehold:	
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certify that the statements made herein are	true and correct to the best of my k	nowledge and helief	
that the statemente made nerous are	and and correct to the boot or my n		
		Out Munis	
	Applicant of	Duly Authorized Agehi	
	Subscribed and sworn before me	this 26TH day of NOVEMBER	,2012
JENNIFER R. BEAL	Notary Publ	Jennifu R. Beal sion Expires: Gulz, 20, 2014	
OFFICIAL MY COMMISSION EXPIRES			
7-20-2016	My Commis	sion Expires: July, 00, do/4	<i>[</i>
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LEGAL LOCATION CURR_OPERA S34-T27S-R16E Tharp Oil Co.

34-27S-16E

S2SW4

Dwight C. Olson Revocable Trust & Evelyn L Olson Revocable Trust

20106 Scott Rd Buffalo, KS 66717

SE4SE4

Todd J. & Darla D. Marple

18946 Queen Rd Altoona, KS 66710

RR ROW

Sunflower Rails-Trails Conservancy

P.O. Box 44-2043 Lawrence, KS 66044

33-27S-16E

Tract in SE4

Myrna Lemire

19132 US Hwy 75 Benedi ct, KS 66714

RR ROW

Sunflower Rails-Trails Conservancy

P.O. Box 44-2043 Lawrence, KS 66044 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/

Sam Brownback, Governor

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

December 12, 2012

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

RE: Approved Commingling CO121203

Stevens, William K. 34-1, Sec. 34-T27S-R16E, Wilson County

API No. 15-205-27208-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on December 10, 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 CO121203 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