

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1093852

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	TOR: License #	API No. 15					
Name:_		Spot Description:					
Address	1:		Sec Twp	_S. R East West			
Address	2:		Feet from No	orth / South Line of Section			
City:	State: Zip:+		Feet from Ea	ast / West Line of Section			
Contact	Person:	County:					
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:			BWPD:			
	Formation:			BWPD:			
	Formation:	BOPD:	MCFPD:	BWPD:			
	Formation:	BOPD:	MCFPD:	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	of the lessee of record or op	erator.	ses within a 1/2 mile radius of			
4.	Signed certificate showing service of the application and affida	avit of publication as require	d 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 com	mingled.				
current in mingling	VIT: 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 Electror	nically			
	C Office Use Only			st in the application. Protests must be se filed wihin 15 days of publication of			

Date: _

15-Day Periods Ends: __

Approved By: _

	Α	В	С	D	Е	F	G	Н	1	1	K
1	Produced Fluids #	Б	1	2	3	4	5	11		<u> </u>	I N
	Parameters	Units	Input	Input	Input	Input	Input		Click her	re	Click
3	Select the brines	Select fluid	7	Ī		V	Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	10 1411 00	•	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	Ба	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	osum	
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	
	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 S	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	eeded (mg/L)	
	Chasse one ention	0-CO2%+Alk,							Calcite	NTMP	
35	Choose one option to calculate SI?		0	0	0	0					
	Gas/day(thousand cf/day)	(Mcf/D)	•		0	U		0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	1
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
39	For mixed brines, enter val	ues for temperat	tures and pressi	res in Cells (H	(40-H43)			(Enter H40-H43)		Н	
40	Initial T	iucs for tempera						(Lince 1140-1143)	р	п	
41		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T		66.0	71.0	70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (5.60 CentiPoise)	
	Final T Initial P	(F)	66.0 25.0	71.0 25.0	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	Initial P Final P	(F) (F) (psia) (psia)	66.0	71.0	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	Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) 1-Yes;0-No	66.0 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (F) (psia) (psia) 1-Yes;0-No API grav.	66.0 25.0	71.0 25.0	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 ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eeded (mg/L)	
42 43 44 45 46	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 25.0	71.0 25.0	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 eded (mg/L) HDTMP	
42 43 44 45 46 47	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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 eded (mg/L) HDTMP	
42 43 44 45 46 47 48 49	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 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	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 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) (N) STP: (%) (mgH2S/I) (pH) (%)	66.0 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(F) (F) (psia) (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 25.0	71.0 25.0	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	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 \$\times\$Cations=	(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)	66.0 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(F) (F) (psia) (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 25.0	71.0 25.0	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions=	(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 25.0	71.0 25.0	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	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) (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 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor 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	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 \$\textstyle{\textstyle{2}}\text{Collections=} \text{\$\textstyle{2}}\text{\$\text{Anions=}} \text{\$\text{Calc}} Calc TDS= Inhibitor Selection	(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 25.0 25.0 0 0	71.0 25.0 25.0	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	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,S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated E\(\text{Calculated}\) Alkalinity Caclulated E\(\text{Calculated}\) E\(\tex	(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 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor 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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= 2Anions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) Input 120	66.0 25.0 25.0 0 0	71.0 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	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?	(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	0 0 0 0 Unit min	# 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	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	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is:	(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	0 0 0 0 Unit min	# 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 0 To Unit	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 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66	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 Seatons= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (mg/I) Input 120 1 4	0 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 55 56 57 58 59 60 61 62 63 64 65 66 67	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:	(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 0 Unit min 1-Yes;0-No #	# 1 2 3 4 5 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit °C m³ m³ MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 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 43 44 45 46 47 48 49 50 51 52 53 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69	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 # 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 5 6 7 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	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

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-1 September 1999 ORIGIN Fortam Must Be Typed

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 133-27110-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	ne_se_Sec. 19 Twp. 27 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	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: Michael	Lease Name: Rensing, Lloyd E. Well #: 19-1
License: 33783	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: multiple
Designate Type of Completion:	Elevation: Ground: 965 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1113 Plug Back Total Depth: 1102
OilSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 21.5 Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used?
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 1102
Operator:	feet depth to_surfacew/_ 150sx cmt.
Well Name:	
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit) Aut II with
Deepening Re-perf Conv. to Enhr./SWD	1-1802
Plug Back Plug Back Total Depth	Chloride content ppm Fluid volume bbls
Commingled Docket No	Dewatering method used
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
	Lease Name:License No.:
9/10/07 9/11/07 9/20/07 Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R 🔲 East 🗌 West
Recompletion Date Bate Headried 1B Completion Date Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workove Information of side two of this form will be held confidential for a period of 1	the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, er or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. I2 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 regulaterin 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: Franke B. ammann	KCC Office Use ONLY
Now Well Development Coordinator 1/7/09	\
Title: New Well Development Coordinator Date: 17706	Letter of Confidentiality Received
Subscribed and sworn to before me this Ty day of	If Denied, Yes Date: RECEIVED
20 <u>08</u> .	Wireline Log Received ANSAS CORPORATION COMMISSION
Notary Public: JANNA Klauman	Geologist Report Received UIC Distribution JAN 1 0 2008
911 20.0	Oic distribution
	RRA KLAUMAN CONSERVATION DIVISION WICHITA, KS
My Appt. Expire	Public - State of Kansas es &-4-2010

Operator Namě: Qu	est Cherokee, LL	С	Lease Name:	Rensing, Lloyd	E	_ Well #: 19-1	
Sec. 19 Twp. 2		✓ East	County: Neos				
tested, time tool ope temperature, fluid red	n and closed, flowing covery, and flow rate	and base of formations pe g and shut-in pressures, s if gas to surface test, a final geological well site r	whether shut in pi long with final cha	essure reached	static level, hydro	static pressure	es, bottom hole
Drill Stem Tests Take		☐ Yes ☐ No		Log Formati	on (Top), Depth a	nd Datum	Sample
Samples Sent to Geological Survey Yes No Cores Taken Yes No Electric Log Run Yes No (Submit Copy)			Nar See	ne e attached		Тор	Datum
Compensated Dual Induction	I Density Neut n Log	ron Log					
		CASING Report all strings set-c	_	lew Used	tion etc		
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8"	22	21.5	"A"	5	
Production	6-3/4	4-1/2	10.5	1102	"A"	150	
Purpose: Perforate	Depth Top Bottom	Type of Cement	#Sacks Used	#Sacks Used Type and Percent Additives			
Protect Casing Plug Back TD Plug Off Zone					e 1 10 110		
Shots Per Foot		ON RECORD - Bridge Plug Footage of Each Interval Per			cture, Shot, Cement		d Depth
4	818-820/711-713/6	75-678		300gal 15%HCLw/ 43 bb	s 2%kcl water, 549bbls water w	/ 2% KCL, Biocide, 5700	# 20/40 sand 818-820/711-713
							675-678
4	587-591/575-579			300gal 15%HCLw/ 53 bb	is 2%kd water, 530bbls water w	/ 2% KCL, Blockle, 6300	# 20/40 send 587-591/575-579
TUBING RECORD 2-3	Size 3/8"	Set At 875 r	Packer At	Liner Run	Yes 🗸 No		
Date of First, Resumer	d Production, SWD or E		hod Flowi	ng 📝 Pumpi	ng Gas Lift	Othe	er (Explain)
Estimated Production Per 24 Hours	Oil n/a	Bbls. Gas 5mcf	Mcf Wa		bls. G	as-Oil Ratio	Gravity
Disposition of Gas	METHOD OF C	l·		Production Inter	val		
Vented ✓ Sold (If vented, So	Used on Lease	Open Hole	Perf.	Dually Comp.	Commingled		

091107

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

Company: Address:

Quest Cherokee LLC

9520 North May Ave, Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

09/11/07 Date:

Rensing, Lloyd E. Lcase:

County: Neosho

Well#:

19-1

15-133-27110-00-00 API#:

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
	Overburden	587-590	Black Shale and Coal
)-22	Shale	590-653	Sandy Shale
22-50	Lime	610	Gas Test 20# at 3/4" Choke
50-115	Shale	653-654	Coal
115-125	Lime	654-664	Shale
125-130	Sand Sandy Shale	664-666	Lime
130-140	Lime	666-668	Coal
140-200		668-700	Shale
200-250	Sand Sandy Shale	700-702	Coal
250-310	Sandy Shale	702-722	Sandy Shale
310-318	Sand	722-724	Coal
318-353	Sandy Shale	724-758	Sand
353-385	Lime	758-760	Coal
385-470	Sandy Shale	760-792	Sand
470-474	Lime	792-793	Coal
474-477	Coal	793-812	Sandy Shale
477-510	Lime	812-813	Coal
510-513	Black Shale	813-865	Shale
513-550	Sandy Shale	865-867	Coal
550-551	Coal	867-915	Sandy Shale
551-573 560	Cas Test 0# at 1/4" Choke	915-975	Sand
573-580	Black Shale	960	Gas Test 20# at 3/4" Choke
580-587	Lime	975-978	Coal RECEIVED
583	Gas Test 0# at 1/4" Choke	978-996	Shale KANSAS CORPORATION COMMISSION

JAN 10 2008

8:28	BRENDA	6203653900
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091107

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

Company:	Quest Cherokee I.I.C	Date: 09/11/07	
Address:	9520 North May Ave, Suite 300	Lease: Rensing, Lloyd E.	
	Oklahoma City, Oklahoma 73120	County: Neosho	
Ordered By	Donnie Meyers	Well#: 19-1 API#: 15-133-27110-00-00	

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
80	Gas Test 20# at 3/4" Choke		
96-1110	Mississippi Lime		
010	Gas Test 20# at 3/4" Choke		
110	Gas Test 20# at 3/4" Choke		
110	TD		
	Surface 22'		
			
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· · · · · · · · · · · · · · · · · · ·			
 _			
			REFERREN
			RECEIVED KANSAS CORPORATION CO
			JAN 10 2000



DATE

211 W. 14TH STREET, CHANUTE, KS 66720 620-431-9500 TICKET NUMBER 2478

RANGE

COUNTY

FIELD TICKET REF # _

FOREMAN / SS.

TOWNSHIP

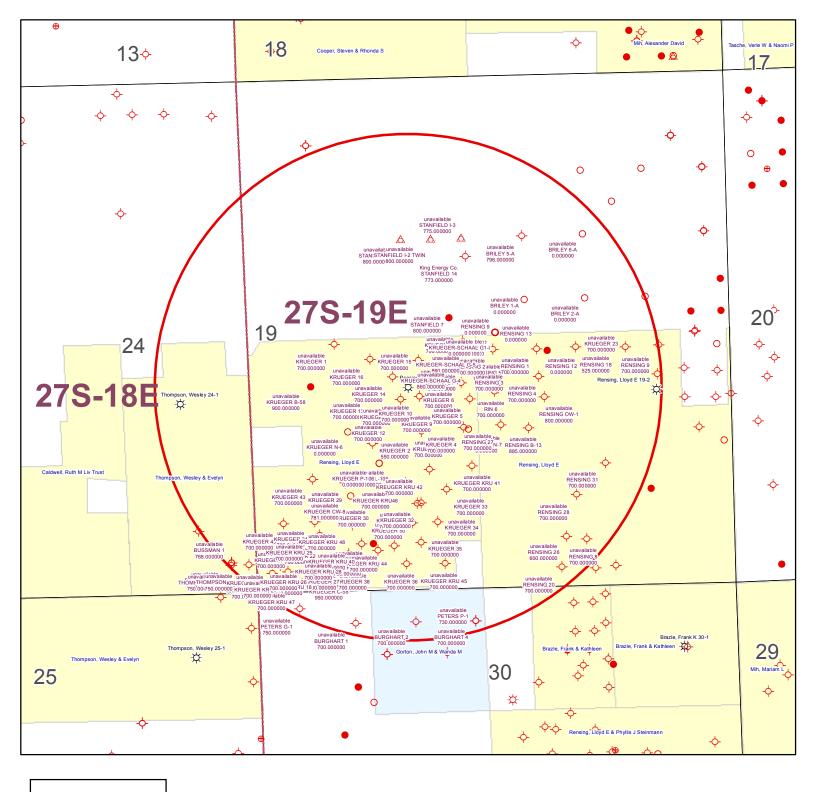
SECTION

623540

TREATMENT REPORT: & FIELD TICKET CEMENT

WELL NAME & NUMBER

9-20-07	1 Kensin	<u>a 11</u>	249 19-	.	19	27 10	3 NO
FOREMAN /	TIME	TIME	LESS	TRUCK	TRAILER	TRUCK	EMPLOYEE
OPERATOR	IN	OUT	LUNCH	9021127	#	HOURS	SIGNATURE
500	7:00	10:15.		903/127		3.25	Mar &
MANAPICK	7:00			903177			J'INT P
Tyler	7:00			903600			
Tow . R	6:45					3.5	The line
DANSiel	6:45	1		931420		3.5	17 www. 1/C t
JOB TYPE Lang							
CASING DEPTH							
SLURRY WEIGHT_	14.5 SLURR	Y VOL	W	/ATER gal/sk	CEME	NT LEFT in CASING	3_0
DISPLACEMENT_1	7. 5 / DISPLA	CEMENT F	PSI M	IIX PSI	RATE	-Hppm	
REMARKS:						1	•
INSTAIL C	ement he	ob Ro.	12 srs cel	+ 11bbl du	et 150 s	KS of come,	IT TO get dy
To surface.	Flushound	. Pur	AUS AS Olon	sto bottom	4504 4100	A < hore	2 9
	1)			·
7.70							
			egic.w		·		
	***************************************		•			· · · · · · · · · · · · · · · · · · ·	
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	1101.	82	F+ 472 C	251110			
	(())	6	Ceratuali:	- 0 C <			
		Ī	41/2 Floo				
ACCOUNT	· · · · · · · · · · · · · · · · · · ·	-					
ACCOUNT CODE	QUANTITY or U	NITS		DESCRIPTION OF SE	RVICES OR PRODUC	r 	TOTAL AMOUNT
903427	3.25	r	Foreman Pickup				
903197		hr	Cement Pump Truck				
902600		hr	Bulk Truck				
1104	14.	OSK	Portland Cement				
1124		١	50/50 POZ Blend Co		5 🗿 3	'1	
1126			OWC Blend Cemen	ıt			
1110	15	SK.	Gilsonite				
1107	1.5	31	Flo-Seal			· · · · · · · · · · · · · · · · · · ·	
1118	<i>\$</i>	516	Premium Gel	-	KAN	RECEIVED	1
1215A	135	1	KCL	0 1 1 1		ISAS CORPORATION CO	DMMISSION
1111B	· · · · · · · · · · · · · · · · · · ·			Colchorid	<u>c</u>	JAN 1 0 200	R
1123	<u> </u>	7	City Water			· · · · · · · · · · · · · · · · · · ·	
903414	3.5 h	- International Control	Transport Truck			CONSERVATION DIV	ļī
931420	3.5 h,	Name A	Transport Trailer 80 Vac			anie beit iff ift c.	
13/F/20 Ravin 4513	3.5	4.	ou vau			· · ·	<u> </u>



KGS STATUS

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

Rensing, Lloyd E 19-1 19-27S-19E 1" = 1,000'

POSTROCK



Current Completion

SPUD DATE: 9/10/2007

COMP. Date: 9/20/2007 API: 15-133-27110-00-00

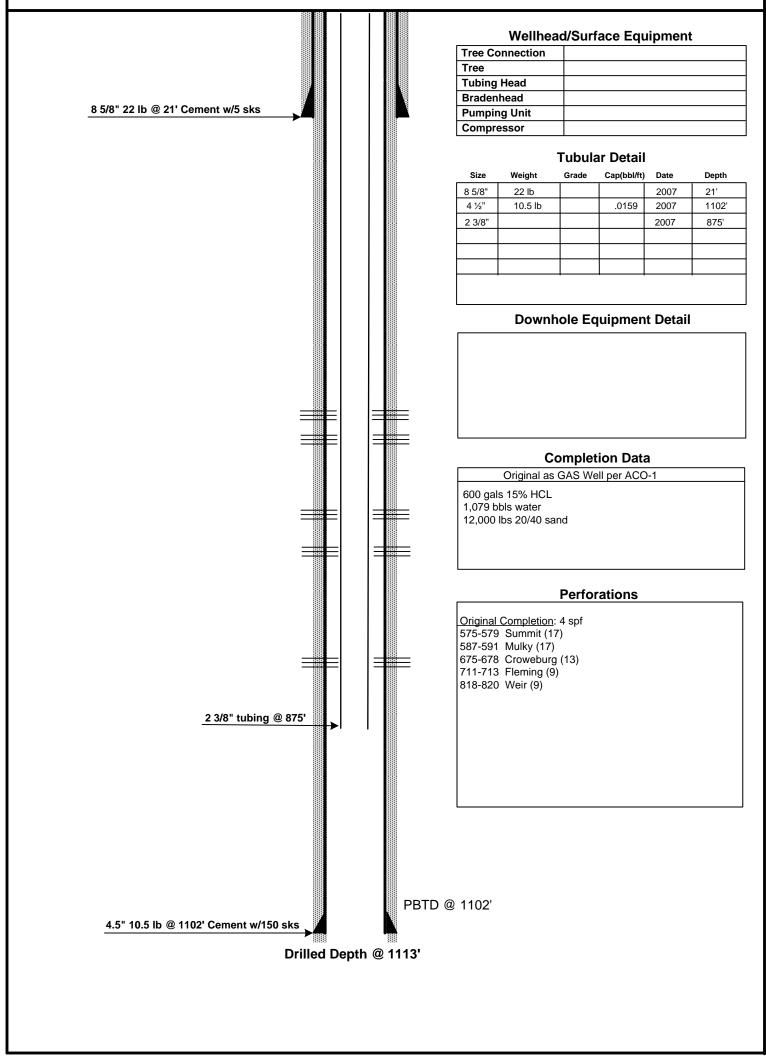
WELL : Rensing, Lloyd E 19-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY

: Neosho **LOCATION: 19-27S-19E (NE,SE)**

ELEVATION: 965'



PREPARED BY: POSTROCK

APPROVED BY: _

DATE: Sept, 2012

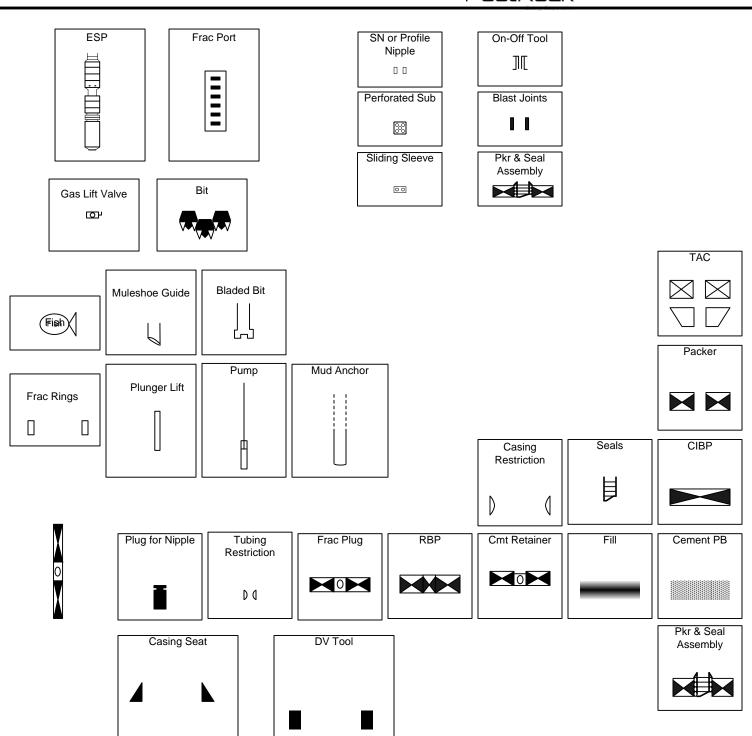
DATE:_

POSTROCK



LEGEND

PostRock[®]



RENSING, LLOYD E 19-1

1 NAME & UPPE	R & LOWER LIMIT OF EACH PROD	UCTION INTERV	AL TO BE COMMING	iled			
FORMATION:	CATTLEMAN	(PE	ERFS): 742	- 746			
FORMATION:	CATTLEMAN	PE	ERFS): 790	- 796			
FORMATION:		_ (PE	ERFS):				
FORMATION:		PE	ERFS):	-			
FORMATION:		PE (PE	ERFS):	-			
FORMATION:		PE	ERFS):	-			
FORMATION:		_ (PE	ERFS):				
FORMATION:		_ (PE	ERFS):				
FORMATION:		_ (PE	ERFS):				
FORMATION:		_ (PE	ERFS):				
FORMATION:		_ (PE	ERFS):	_			
FORMATION:		_ (PE	ERFS):	-			
2 ESTIMATED AN FORMATION:	MOUNT OF FLUID PRODUCTION TO		ILED FROM EACH INT		0	BWPD:	10
FORMATION:	CATTLEMAN	_	PD: 1.5	MCFPD:	0	BWPD:	10
FORMATION:	0	BO	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
FORMATION:	0	ВО	PD:	MCFPD:		BWPD:	
		_		-			

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS NOTICE OF FILING APPLICATION

production

RE: In the Matter of Postrock Midcontinent Production, LLC Application for Commingling of Production in the Rensing, Lloyd E 19-1 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, Croweburg, Fleming, Weir and Cattleman producing formations at the Rensing, Lloyd E 19-1, located in the SE NW NE SE, S19-T27S-R19E, Approximately 2108 FSL & 854 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

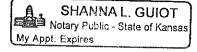
Affidavit of Publication A

angsa mer

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 a published in the regular and entire issue of said per for, the first publications being made as aforesaid on the	newspa- olication day of
, 2012	_, 2012
, 2012	_, 2012
, 2012 Phonda Howert-	and the second s
Subscribed and sworn to and before me this	stary Public
My commission expires: January 9, 2015	
Printer's Fee	
Affidavit, Notary's Fee \$ 3.00	
Additional Copies\$	
Total Publication Fees\$ 13.14	



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.

Fletchall

Subscribed and sworn to before me this

11th day of October, 2012

PENNY L. CASE Notary Public - State of Kansas My Appt, Expires 1

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
OCTOBER 11, 2012 (3211688)
BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

OF THE STATE OF KANSAS

NOTICE OF FILING APPLICATION

RE: In . Ihe. Maifer of Postrock Midconlinent
Production, LLC Application for Commingling
of Production in Ihe Rensing, Llovd E 19-1
located in Neosho County, Kansas.

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

whomever concerned.

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You, and each of you, are hereby notified hat Postrock Midcontinent Production, LLC has filled an application to commingle the Summit, Mulky, Croweburg, Fleming, Welr and Cattleman producing formallons at the Rensing, Lloyd E 19-1, located in the SE NW NE SE, S19-T275-R19E, Approximately 2108 FSL & 854 FEL, Neosho County, Kansas.

Any persons who object to or profest

FSL 854 FEL. Neosho County, Kansas.
Any persons who object; to or profest
this application shall be required to file their
objections or profest with the Conservation
Division of the State Corporation Commission
of the State of Kansas within fifteen (15)
days from the date of this publication. These
profests shall be filled pursuant to Commission days from the date of this publication, a fleat protests shall be filled pursuant to Commission regulations, and must, state, specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural

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Gas Commission.

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own behalt. Postrock Midconlinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704

Δffidavit	t of Notice Served	
	Application for: APPLICATION FOR COMMING	I ING OF PRODUCTION OR FLUIDS ACO-4
Re:	Well Name: RENSING, LLOYD E 19-1	Legal Location: SENWNESE S19-T27S-R19E
The under	rsigned hereby certificates that he / she is a duly authorized a	
2012	, a true and correct copy of the application referen	nced above was delivered or mailed to the following parties:
Note: A co	opy of this affidavit must be served as a part of the application	n.
*	Name	Address (Attach additional sheets if necessary)
KING	SENERGY CO	2 TIMBER DR, IOLA, KS 66749
11111	LIVERO	Z Hividel Coly (Coly (Color)
I further att	test that notice of the filing of this application was published in	the THE CHANUTE TRIBUNE , the official county publication
of NEO		county. A copy of the affidavit of this publication is attached.
	0.44	
Signed this	day of OCTOBER,	, 2012
		Chlell
		Applicant or Duly Authorized Agent
	Subscribed and sworr	n to before me this 24 th day of OCTOBER , 2012
	JENNIFER R. BEAL	Miller Q Rend
	OFFICIAL MY COMMISSION EXPIRES	Notary Pyblik
{	1-30-2010	My Commission Expires: Quly 20, 20/19
	•	

RENSING, LLOYD E 19-1

19-27S-19E

NE4 less

Michael Watts & Barbara A Watts

21350 Jackson Rd Chanute, KS 66720

NW4 less

Kynta Lou Leonard PO Box 309

Cripple Creek, CO 80813

trct in NW

Matthew & Jennifer Richard 20155 Harper Rd Chanute, KS 66720

SW less

Elliott Family Revocable Inter Vivos Trust

19730 Irving Rd Chanute, KS 66720

tret in SW

Daniel R Saubers 21300 Irving Rd Chanute, KS 66720

tret in SW

Robert R. Sr. & Earla Allen

9450 210th Rd Chanute, KS 66720

30-27S-19E

trct in E2NWNW David & Sarah Cadwallader

10625 210th Rd Chanute, KS 66720

Trets in NWNW

Eruc J, Tincher 20970 Irving Rd Chanute, KS 66720

Glenn Wrestler Rev. Trust 4680 S Santa Fe Chanute, KS 66720

Dennis E & Nadine M. Peters

9075 210th Rd Chanute, KS 66720

RWD#7 PO Box 179 Chanute, KS 66720

Trct in NW4NE4 Guy E, & Cinthia Catterson

9555 210th Rd Chanute, KS 66720

24-27S-18E

N2 SE4

Michael Watts & Barbara A Watts

21350 Jackson Rd Chanute, KS 66720

tracts in NE

USD #413 315 W 35th Chanute, KS 66720

Bryant E. Bryant 8900 Hwy 39 Chanute, KS 66720

Harry D Fenton 120 E Chapel St Rockton, IL 61072

Kraig E. Follmer 8805 Hwy 39 Chanute, KS 66720

RENSING, LLOYD E 19-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

Offset Operators, Unleased Mineral Owne	ers and Landowners acreage		
Attach additional sheets if necessary)			
Name:		Legal Description of Leasehole	i:
SEE ATTACHED			
			· · · · · · · · · · · · · · · · · · ·
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ereby certify that the statements made herein	are true and correct to the best of my	knowledge and belief.	
		1.81	
	Applicant	or Duly Authorized Agent	
		ne this day of OCTOBER	2012
	Subscribed and sworn before m	day of OloDER	
JENNIFER R. BEAL		Lennily & Beal	
OFFICIAL MY COMMISSION EXPIRES	Notary Py	iblic)	
7-20-2010		A me made	
	My Comm	nission Expires: Gully 20, 20, 9	
		•	
	•		

RENSING, LLOYD E 19-1

LEGAL LOCATION SPOT

CURR_OPERA

S19-T27S-R19E

SE NE SE NW

King Energy Co.

BENSING' FLOYD E 19-1

361-872-91

21350 Jackson Rd Michael Watts & Barbara A Watts NE4 Jess

Chanute, KS 66720

Kynta Lou Leonard MM4 less

Cripple Creek, CO 80813 PO Box 309

Matthew & Jennifer Richard tret in NW

Chanute, KS 66720 70122 Harber Rd

Elliott Family Revocable Inter Vivos Trust SW less

Chanute, KS 66720 bA gaivil 08791

Daniel R Saubers W2 ai 1977

Channte, KS 66720 21300 Irving Rd

Robert R. Sr. & Earla Allen W2 mi fort

9450 210th Rd

Channte, KS 66720

tret in E2NWNW David & Sarah Cadwallader 30-27S-19E

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Chanute, KS 66720 20970 Irving Rd

Glenn Wrestler Rev. Trust

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Dennis E & Nadine M. Peters

Chapute, KS 66720 9075 210th Rd

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9555 210th Rd Tret in NW4NE4 Guy E, & Cinthin Catterson

Channte, KS 66720

Michael Watts & Barbara A Watts

21350 Jackson Rd Channle, KS 66720

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NS SEt 74-718E

AREW RIE N2D #413

Chanute, KS 66720

Bryant E. Bryant

Channte, KS 66720 8900 Hwy 39

150 E Chapel St Нату D Гепіоп

Rockton, IL 61072

Chanute, KS 66720 8805 Hvy 39 Kraig E. Follmer 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

November 8, 2012

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

RE: Approved Commingling CO101218

Rensing, Lloyd E. 19-1, Sec. 19-T27S-R19E, Neosho County

API No. 15-133-27110-00-00

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 Weir 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 CO101218 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