

# KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-4 Form must be typed March 2009

#### APPLICATION FOR COMMINGLING OF Commingling ID#\_ PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

OPERATOR: License #		API No. 15				
Name:_		Spot Description: _				
Address	1:		Sec Twp	_S. R 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:		
<ul><li>□ 3.</li><li>□ 4.</li></ul>	Plat map showing the location of the subject well, all other well the subject well, and for each well the names and addresses of Signed certificate showing service of the application and affida	of the lessee of record or 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 Line) to the Complete					
For Con	nmingling of FLUIDS ONLY, include the following:					
<b>7.</b>	Well construction diagram of subject well.					
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be 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: \_

Approved By:

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.	<b>————</b>		
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 <sup>+</sup>	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
11	K <sup>+</sup> (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
	Mg <sup>2+</sup>	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	Ca <sup>2+</sup>	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr <sup>2+</sup>		1,050.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba <sup>2+</sup>	(mg/l)						0.00	Da	rite	
.,		(mg/l)						0.00			
	Fe <sup>2+</sup>	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn <sup>2+</sup>	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb <sup>2+</sup>	(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 <sub>4</sub> <sup>2-</sup>	(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 <sub>2</sub> 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 <sub>2</sub> 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/ <sup>0</sup> 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/ <sup>0</sup> 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/ <sup>0</sup> 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/ <sup>0</sup> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> S Gas Total H <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> S Gas Total H <sub>2</sub> 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 59 60 61 62 63 64 65 66 67	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H <sub>2</sub> 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  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 <sup>3</sup> 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 <sub>2</sub> S Gas Total H <sub>2</sub> 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) * OH* (Strong base) * Ouality Control Checks at H <sub>2</sub> 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  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 <sup>3</sup> 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

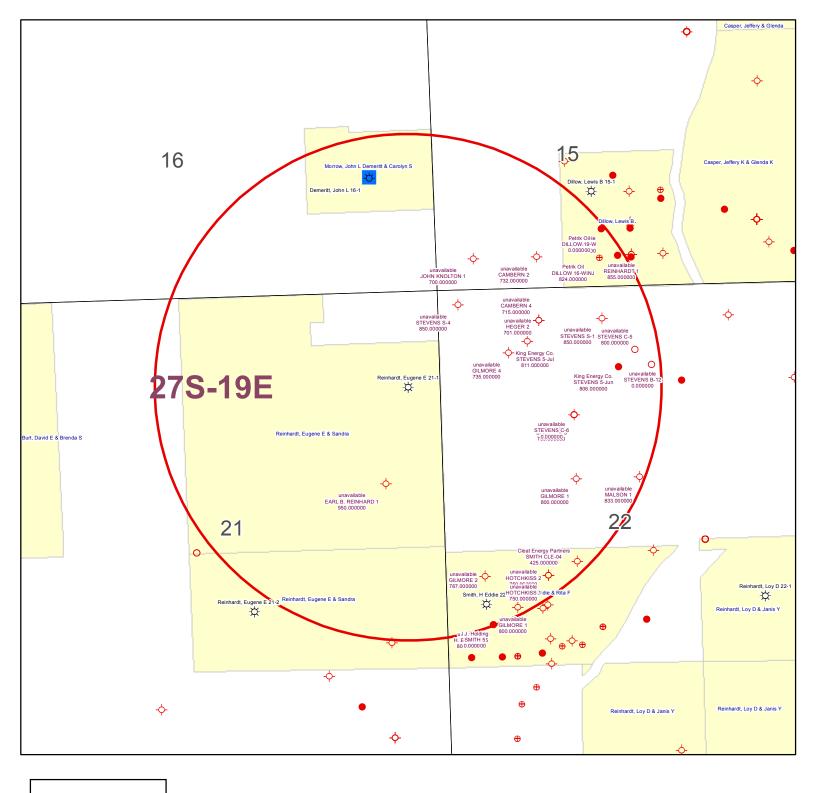
			Ratio			
	20%	20%	20%	20%	20	
Component (mg/L)	Brine 1	Brine 2	Brine 3	Brine 4	Brine 5	Mixed Brine
Calcium	1836	2452	2044	1920	1948	1952
Magnesium	1096	872	1200	953	858	865
Barium	0	0	0	0	0	0
Strontium	0	0	0	0	0	0
Bicarbonate	190	234	259	268	254	253
Sulfate	1	1	8	1	1	1
Chloride	36299	48965	47874	45632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

## **Saturation Index**

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

# PTB

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



# **KGS STATUS**

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

Reinhardt, Eugene E 21-1 21-27S-19E 1" = 1,000'

# KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

ORIGINAL

September 1999 Form Must Be Typed

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

Operator: License # 33344	API No. 15 - 133-27127-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	seneneSec. 21 Twp. 27 S. R. 19 V East West
City/State/Zip: Chanute, KS 66720	1000 feet from S / (N circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	330 feet from E) W (circle one) Line of Section
Operator Contact Boroom, Jennifer R. Ammann	Footages Calculated from Nearest Outside Section Corner:
Phone: (620) 431-9500	(circle one) (NE) SE NW SW
Contractor: Name: Michael Drilling	Lease Name: Reinhardt, Eugene E. Well #: 21-1
License: 33783	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: multiple
Designate Type of Completion:	Elevation: Ground: 935 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1010 Plug Back Total Depth: 1009.81
OilSWDSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 22 Feet
Gas SIGW IeIIIp. Abd.	Multiple Stage Cementing Collar Used?   ☐ Yes
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFeet
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1009.81
Operator:	feet depth to_surfacew/140sx cmt.
Well Name:	•
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan AJJ JUS 3 BY-05 (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	
Plug Back Plug Back Total Depth	Chloride content ppm Fluid volume bbls
	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.:
8/29/07 8/30/07 8/31/07	Quarter Sec TwpS. R East West
Spud Date or Date Reached TD Completion Date or Recompletion Date	
	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workor Information of side two of this form will be held confidential for a period of	th the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, ver or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 12 months if requested in writing and submitted with the form (see rule 82-3-12) and geologist well report shall be attached with this form. ALL CEMENTING Is. Submit CP-111 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regulation are complete and correct to the best of my knowledge.	slate the oil and gas industry have been fully complied with and the statements
Signature: Amelia B. Amman	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 12/27/07	Letter of Confidentiality Received
Subscribed and sworn to before me this OHDay of	PECEIVED
20 <u>07</u> .	KANSAS CORPORATION COMMISS
	deblogist neport neceived
Notary Public: Wirra Klauman	UIC Distribution DEC 2 8 2007
Date Commission Expires: 8-4-2010	ERRA KLAUMAN CONSERVATION DIVISION
Note	ary Public - State of Kansas WICHITA KS
My Appt. Ex	xpires 8-4-2010

Operator Name: Quest Cherokee, LLC					Reinhardt, Eug	ene E.	Well #: 21-1	<u> </u>
Sec Twp	S. R. 19	✓ East ☐ West	County	y: Neosh	0			
ested, time tool ope emperature, fluid re	n and closed, flowing covery, and flow rate	and base of formations p g and shut-in pressures, es if gas to surface test, a final geological well site	whether shalong with f	nut-in pre	ssure reached	static level, hydro	ostatic pressur	es, bottom hole
rill Stem Tests Take		Yes No		<b>⊘</b> L	og Format	ion (Top), Depth a	and Datum	Sample
amples Sent to Ge	·	Yes No		Nam See	<sub>e</sub> attached		Тор	Datum
Cores Taken Yes No Electric Log Run Yes No (Submit Copy)							KANSAS	RECEIVED CORPORATION COMMIS
st All E. Logs Run:						ZUI		DEC 28 2007
Compensated Dual Inductio	d Density Neut n Log	tron Log			DEC.	KCC 5.1 2001 ENLIVE	co	DNSERVATION DIVISION WHICHITA Y
		-,,-,,-	RECORD	□ Ne	w Used	,		
Purpose of String	Size Hole Drilled	Report all strings set- Size Casing Set (In O.D.)	Wei	ght	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8*	22	716	22	"A"	5	Additivos
Production	6-3/4	4-1/2	10.5		1009.81	"A"	140	
		ADDITIONAL	CEMENTI	NG / SQL	JEEZÉ RECORI	<u> </u>		
Purpose:  Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks				Percent Additives	•
Shots Per Foot	PERFORATI	ION RECORD - Bridge Plu	gs Set/Type			cture, Shot, Cemen		
0.70.01 0.1 000	, ,	Footage of Each Interval Pe 223-625/591-594/569-57			,	mount and Kind of M	•	Depth 02 20/40 sand 704-706/676-678
	104-7007010-01070		•			·		623-625 591-594/569-571
	489-493/478-482				300gal 15%HCLw/ 55 bt	ola 2%kci water, 703bbis water	w/ 2% KCL, Blockie, 9700	0# 20/40 sand 489-493/478-482
TURNO PEOORS	Sing	Cot At	Destruct		Linear			
TUBING RECORD 2-	Size 3/8"	Set At 726	Packer A n/a	11	Liner Run	Yes 🗸 No	)	
Date of First, Resume 10/9/07	rd Production, SWD or E	Enhr. Producing Me	thod [	Flowing	g 📝 Pump	ing 🔲 Gas Li	ft Oth	er (Explain)
Estimated Production Per 24 Hours	Oil n/a	Bbls. Gas 13.1mcf	Mcf	Wate		Bbls.	Gas-Oil Ratio	Gravity
Disposition of Gas	METHOD OF (	COMPLETION			Production Inte	rvai		
Vented Sold	Used on Lease ubmit ACO-18.)	Open Hole	Perf	. <u> </u>	Dually Comp.	Commingled _		



083007

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

C	ompan	y.	•

Quest Cherokee LLC

Address:

9520 North May Ave, Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

Date:

08/30/07

Lease: Reinhardt, Eugene E.

County: Neosho

Well#: 21-1

API#: 15-133-27127-00-00

# **Drilling Log**

FEET	DESCRIPTION	FEET	DESCRIPTION
)-22	Overburden	619-620	Coal
22-104	Lime	620-651	Sandy Shale
104-284	Shale	651-675	Shale
284-297	Lime	675-677	Coal
297-310	Shale	677-699	Sandy Shale
310-366	Sandy Shale	699-700	Coal Shale
366-371	Lime	700-746	Shale
371-373	Coal	746-774	Sand
373-411	Lime	774-783	Sandy Shale
411-414	Black Shale and Coal	783-791	Sand
414-456	Shale	791-808	Shale
456-477	Lime	808-855	Sand
466	Gas Test   # at 1/4" Choke	855-857	Coal
477-484	Black Shale	857-899	Sand
484-491	Lime	885	To Much Water For Gas Test
486	Gas Test 1# at 1/4" Choke	899-902	Coal
491-493	Shale	902-914	Shale
493-494	Coal	914-1010	Mississippi Lime
494-566	Shale	925	To Much Water For Gas Test
508	Gas Test 1# at 1/4" Choke	1010	To Much Water For Gas Test
566-568	Coal	1010	то
568-591	Sandy Shale		RECEIVED
591-592	Coal		Surface 22' KANSAS CORPORATION COMMIS
592-619	Sandy Shale		DEC 2 8 2007

# **QUEST**



211 W. 14TH STREET, SSI G23 7 $\infty$  CHANUTE, KS 66720 API 15-133-27127

FOREMAN Duquae

# TREATMENT REPORT & FIELD TICKET CEMENT

DATE		WEL	L NAME & NUMBER		SECTION	TOWNSHIP HA	ANGE COUNTY
8-31-07	Nein L	and+	21	-/	21	27 19	No
FOREMAN / OPERATOR	TIME	TIME	LESS LUNCH	TRUCK #	TRAILER #	TRUCK HOURS	EMPLOYEE SIGNATURE
Duryse	6:45	8:15	No	901640		1.5	Ganto
Tim	6:45	8,00		903255 1.25		Lager	
Massick	6:45	8,00	9.43.1585 1.25		11/1/1/1		
Duniel	6:45	800	931420 1.25		Dowids: 8		
Craig	6:45	815	903600 1,5				
			3/				
JOB TYPE Long	Tring HOLES	SIZE C	<u>УУ                                   </u>	OLE DEPTH <u>//</u>	14 CAS	ING SIZE & WEIGH	T 42 10
CASING DEPTH	DRILL F	PIPE	τι	JBING	OTH	ER	
SLURRY WEIGHT /	4.5 SLURR	Y VOL	w	ATER gal/sk	СЕМ	ENT LEFT in CASII	vg
DISPLACEMENT /	. *			IX PSI			
REMARKS:						-	
	eak Cire	u la tim	) Pumo	2 Sacks 1	Orem Gel	Followed	1 13/ 5/3/2
2.1 The	12 /2 /	7.301	Duc ma	Non Then	Street	Coment	1 13, 5 BZ
140 Cacks	OF C		to 6 . t	Dur Rock	1 (75)	Cal F	ush Pump
170 Sacks	<u> </u>	Ment-	, roger	DUE BUCK	5/94	t Cl	as 2 pango
Then pu	mp with		ug to so	HOM GNO S	EF / 100	5 40E	
				. =-	····	<del></del>	
				· · · · · · · · · · · · · · · · · · ·			
						Way.	1000 m
	<u>/008'</u>		4 =	Casing		COM	9 . 1
	5		4 =	Centraliz	e15	Ole	
	1		4/2	Flour S	hoc		
ACCOUNT CODE	QUANTITY or U	INITS		DESCRIPTION OF SEF		СТ	TOTAL
0		/^	Foreman Pickup				AMOUNT
90/640	1.5	15	Cement Pump Truck				
903 600	1.25 1. <b>8</b> 5	1/	Bulk Truck				
1104		Sack	Portland Cement				
1124	/	· .	50000000000000000000000000000000000000	MARK 45 1.2	Der Plus	<del></del>	
1126			CE CE GRO GODE		Der Plus	311	
1110		Sack	Gilsonite	/ //ac /)	4/ / / 5		
1107		Sack	Flo-Seal				RECEIVED
1118		SOCK	Premium Gel			KANSAS CA	PRECRATION COMMISSION
1215A	/	6a (	KCL			n n	EC 2 8 2007
1111B	3	SOCK		Cal. Clarie	do		LG L G LUUI
1123	5000	60c/	City Water	Car, Crarre	<u> </u>	CON	SERVATION DIVISION
903/585	1,25		Transport Truck				WICHITA I'S
931590	1,25		Transport Trailer				
931420	/, 25		80 Vac				
Ravin 4513	/ / /	, ,,,			<del></del>		

# **POSTROCK**



# **Current Completion**

**SPUD DATE: 8-29-2007** 

COMP. Date: 8-31-2007 API: 15-133-27127-00-00

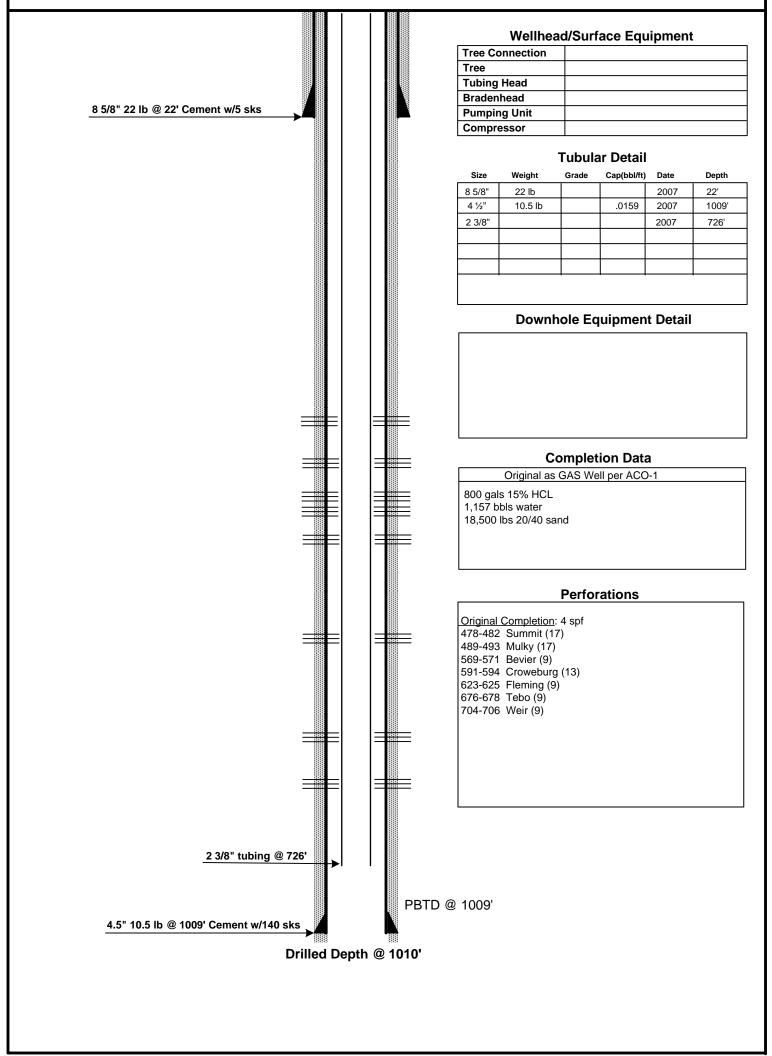
WELL : Reinhardt, Eugene E 21-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY : Neosho

: Neosho LOCATION: 21-27S-19E (NE,NE)

**ELEVATION:935'** 



PREPARED BY: POSTROCK

APPROVED BY:

**DATE:** Dec, 2012

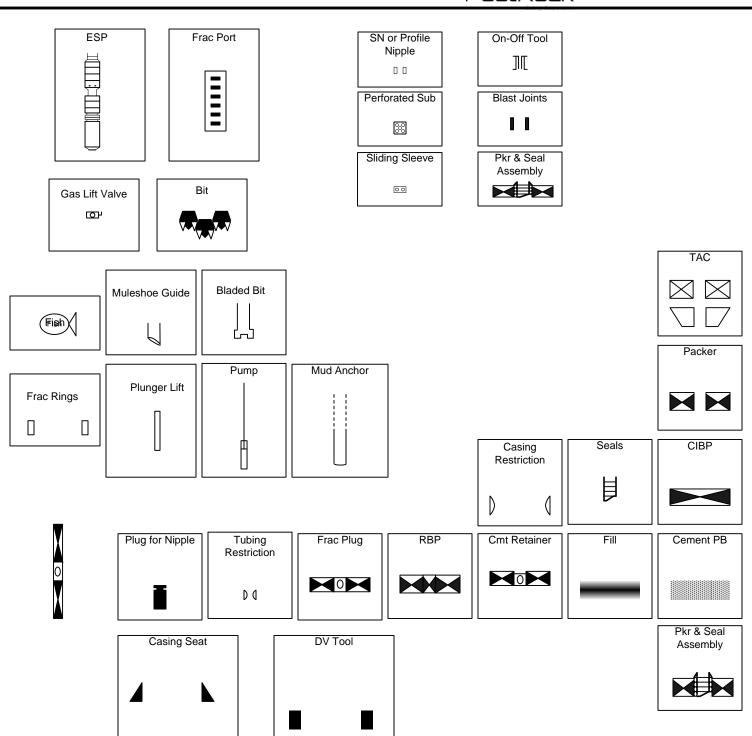
DATE:\_

# **POSTROCK**



# **LEGEND**

# PostRock<sup>®</sup>



# 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 Reinhardt, Eugene E 21-1 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, Bevler, Croweburg, Fleming, Tebo, Weir and Bartiesville producing formations at the Reinhardt, Eugene E 21-1, located in the SW SE NE NE, S21-T27S-R19E, Approximately 997 FNL & 332 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.

SHANNA L. GUIOT
Notary Public - State of Kansas
My Appt. Expires /- 9-/5

#### 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 17th of

# January A.D. 2013, with

subsequent publications being made on the following dates:

And affiant further says that he has personal knowledge of the statements above set forth and that they are true.

Subscribed and sworn to before me this

17th day of January, 2013

PENNY L. CASE 四面 Notary Public。 My Appt. Expires

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

PUBLISHED IN THE WICHITA EAGLE
JANUARY 17, 2013 (3227060)

JANUARY 17, 2013 (3227050)
BEFORE THE STATE CORPORATION
COMMISSION OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In the Maller of Postrock
Midconlinent Production, LLC
Application for Commingling of
Production in the Reinhardt, Eugene
E 21-1 localed in Neosho County,
Kansas

All Oil & Gas Producers, Unleased Mineral Inferest Owners, L'andowners, and all persons all persons

Mineral Interest Owners,
L'andowners, and all persons
whomever concerned.
You, and each of you, are hereby notified
that Postrock Midcontinent Production,
LLC has filed an application to commingle
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Fleming, Tebo, Weir and Barliesville
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own benair. Postrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704

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Affidavit of Notice Served	
··· —	IMINGLING OF PRODUCTION OR FLUIDS ACO-4
Well Name: REINHARDT, EUGENE E 21	
The undersigned hereby certificates that he I she is a duly auth	orized agent for the applicant, and that on the day
2013 , a true and correct copy of the application	n referenced above was delivered or mailed to the following parties:
Note: A copy of this affidavit must be served as a part of the ag	oplication.
Name	Address (Attach additional sheets if necessary)
SEE ATTACHED	
	·
I further attest that notice of the filing of this application was pub	lished in the CHANUTE TRIBUNE , the official county publication
NEOCHO	county. A copy of the affidavit of this publication is attached.
Signed this day of FEBRUARY	
	onen
	Applicant or Duly Authorized Agent  nd sworn to before me this day ofFEBRUARY
Subscribed a	day of
JENNIFER R. BEAL OFFICIAL MY COMMISSION EXPIRES	Notary Public G. Beal
7-20-2016	My Commission Expires: Quely 20, 2010
	wy commission Expires.

LEGAL LOCATION	SPOT	CURR_OPERA	ADDRESS
S22-T27S-R19E	SW	<b>Cleat Energy Partners</b>	PO BOX 501, PAHUSKA, OK 74056
S22-T27S-R19E	SW	J.J. Holding	RR 4, BOX 228, CHANUTE, KS 66720
S22-T27S-R19E	SW NE NW NW	King Energy Co.	2 TIMBER DR, IOLA, KS 66749
S22-T27S-R19E	NE SW NE NW	King Energy Co.	2 TIMBER DR, IOLA, KS 66749
S15-T27S-R19E	SE SW	Petrik Oil	5160 HARVARD DR, BARTLESVILLE, OK 74006
S15-T27S-R19E	SW SE SW	Petrik Oil	5160 HARVARD DR, BARTLESVILLE, OK 74006

## 15-27S-19E

#### **SW4 SW4**

Charles A O'Rourke & Patricia G. O'Rouke Rev Trust 12030 220th Rd Chanute, KS 66720

#### **N2 SW4**

Big Creek Ranch Inc. 923 S Highland Ave Chanute, KS 66720

## 16-27S-19E

#### E2 SW4 AND tracts in SE4

John W. Mishler Trust (1/2) PO Box 531 Chanute, KS 66720 Marilyn K. Mishler Trust (1/2) PO Box 531 Chanute, KS 66720

#### tract in S2 SE4

Thomas A. True 11830 220th Rd Chanute, KS 66720

## 21-27S-19E

#### tract in SE4 NW4

Kenneth Lee Ornelas II 319 S Lincoln Chanute, KS 66720

#### **NE4 NW4**

Cecil E & Adna D Crim 801 S Layayette Chanute, KS 66720

#### tract in NE4 NE4

John W. Mishler Trust (1/2) PO Box 531 Chanute, KS 66720 Marilyn K. Mishler Trust (1/2) PO Box 531 Chanute, KS 66720

#### tract in NE4 NE4

David & Shirlene Mahurin 11875 220th Rd Chanute, KS 66720

# tract in NW/c NE4 NE4 supposed owners - gap in chain Bobbie F. Oliphant & Karrie M. Perkins 2410 E 101st ST N

Valley Center, KS 67147

#### tract in S2 SE4

Eugene E. & S A Reinhardt 11695 K-39 Hwy Chanute, KS 66720

## 22-27S-19E

#### **N2 NW4**

Linda Sue Sjogren & James M. Stevens 335 N 127th St E Wichita, KS 67206

#### **S2 NW4**

Michael & Barbara A Watts 21350 Jackson Rd Chanute, KS 66720

# REINHARDT, EUGENE E 21-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS Offset Operators, Unleased Mineral Owners and Landowners acreage (Attach additional sheets if necessary) Legal Description of Leasehold: SEE ATTACHED I hereby certify that the statements made herein are true and correct to the best of my knowledge and belief. Subscribed and sworn before me this 2013 JENNIFER R. BEAL MY COMMISSION EXPIRES My Commission Expires:

LEGAL LOCATION	SPOT	CURR_OPERA	ADDRESS
S22-T27S-R19E	SW	Cleat Energy Partners	PO BOX 501, PAHUSKA, OK 74056
S22-T27S-R19E	SW	J.J. Holding	RR 4, BOX 228, CHANUTE, KS 66720
S22-T27S-R19E	SW NE NW NW	King Energy Co.	2 TIMBER DR, IOLA, KS 66749
S22-T27S-R19E	NE SW NE NW	King Energy Co.	2 TIMBER DR, IOLA, KS 66749
S15-T27S-R19E	SE SW	Petrik Oil	5160 HARVARD DR, BARTLESVILLE, OK 74006
S15-T27S-R19E	SW SE SW	Petrik Oil	5160 HARVARD DR, BARTLESVILLE, OK 74006

## 15-27S-19E

#### **SW4 SW4**

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#### 16-27S-19E

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## 22-27S-19E

#### **N2 NW4**

Linda Sue Sjogren & James M. Stevens 335 N 127th St E Wichita, KS 67206

#### **S2 NW4**

Michael & Barbara A Watts 21350 Jackson Rd Chanute, KS 66720 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

February 25, 2013

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

RE: Approved Commingling CO021304

Reinhardt, Eugene E. 21-1, Sec. 21-T27S-R19E, Neosho County

API No. 15-133-27127-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on February 11, 2013, 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 Bartlesville 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 CO021304 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