

# 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:			
	()	·	We	ell #:
1.	Name and upper and lower limit of each production interval to	be commingled:		
	Formation:	(Perfs):		
2.	Estimated amount of fluid production to be commingled from e			
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	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 affidation	of the lessee of record or ope	erator.	ses within a 1/2 mile radius of
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 compat	ibility of the fluids to be comi	mingled.	
current in mingling	/IT: I am the affiant and hereby certify that to the best of my formation, 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.	Sı	ubmitted Electroi	nically
KCC	Office Use Only			st in the application. Protests must be
l —	nied Approved	in writing and comply with K the notice of application.	K.A.R. 82-3-135b and must l	be filed wihin 15 days of publication of

Date: \_

Denied Approved 15-Day Periods Ends: \_

Approved By:

# **POSTROCK**



# **Current Completion**

WELL: Wiltse, Marlene M 1-1

FIELD : Cherokee Basin

STATE: Kansas
COUNTY: Neosho

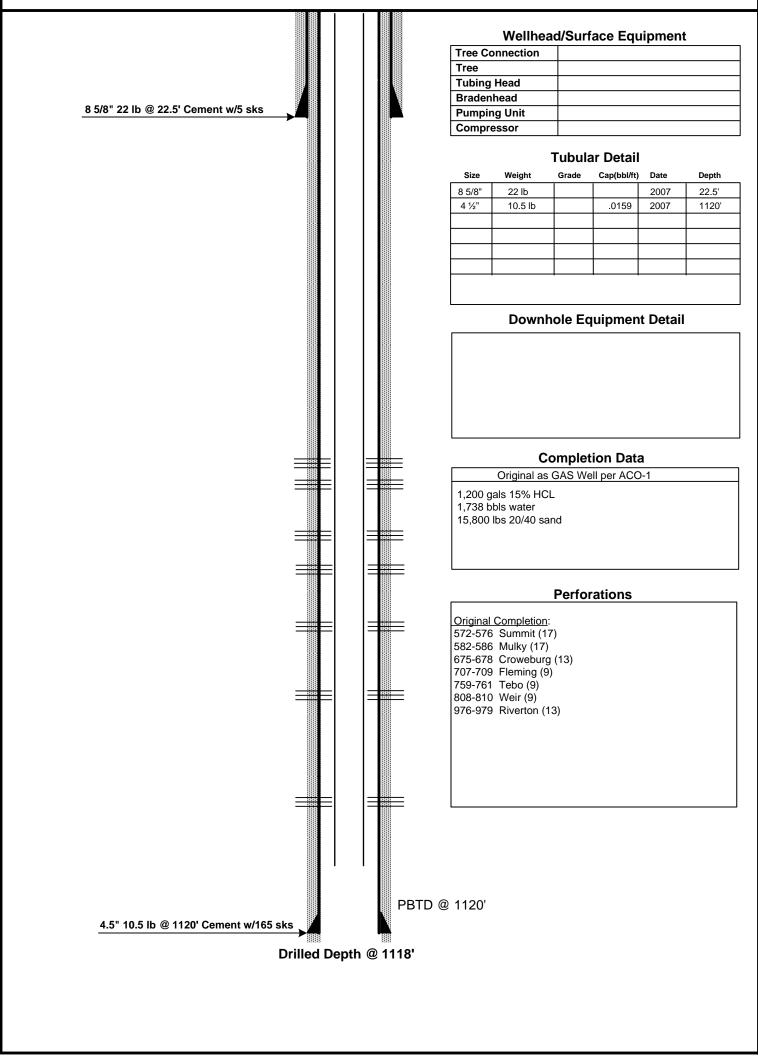
PREPARED BY: POSTROCK

APPROVED BY: \_

SPUD DATE: 8/30/2007 COMP. Date: 9/4/2007 API: 15-133-27141-00-00

LOCATION: 1-27S-18E (SE,NW)

**ELEVATION: 960'** 



**DATE:** July, 2012

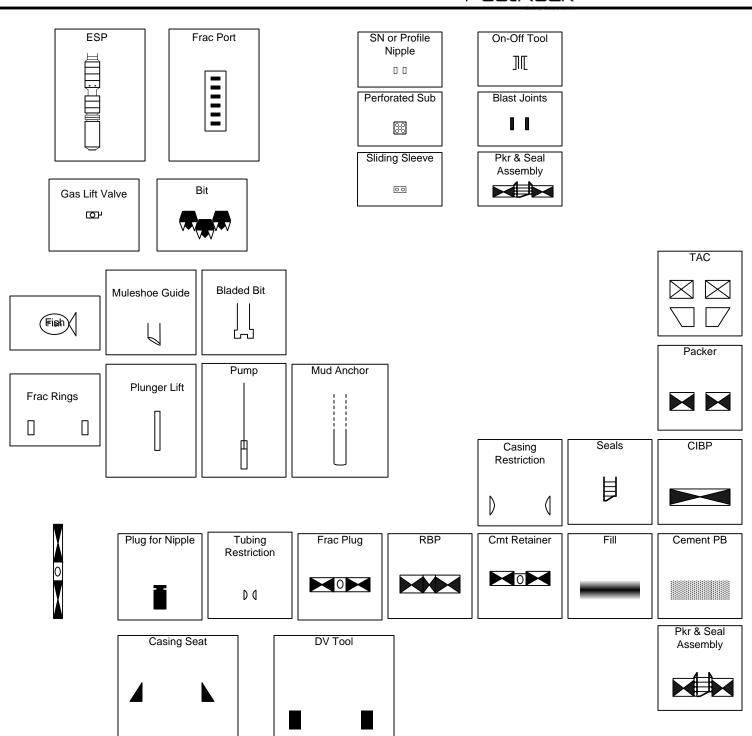
DATE:\_

# **POSTROCK**



# **LEGEND**

# PostRock<sup>®</sup>



-	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	Ба	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 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 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{\textit{Z}}\text{Aligner}\text{Limity} \text{Calculated} \$\mathbb{\text{L}}\text{Calculated} \$\mathbb{\text{L}\text	(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 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 <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

12/27/09

# KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION WELL COMPLETION WELL COMPLETION

# ORIGINAL Form ACO-1 September 1999 Form Must Be Typed

# **WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Operator: License # 33344	API No. 15 - 133-27141-0000
Name: Quest Cherokee, LLC	County: Neosho
Address: 211 W. 14th Street	<u>senwSec1Twp27SR18</u>
City/State/Zip: Chanute, KS 66720	1985 feet from S (Circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	1835 feet from E (W) (circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC  Operator Contact Person: Jennifer R. Ammann  CONFIDENTIAL	Footages Calculated from Nearest Outside Section Corner:
Phone: (620 ) 431-9500 DEC 2 7 2007	(circle one) NE SE NW SW
Contractor: Name: L&S	Lease Name: Wiltse, Marlene M. Well #: 1-1
License: 33374	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: multiple
Designate Type of Completion:	Elevation: Ground: 960 Kelly Bushing: n/a
New Well Re-Entry Workover	Total Depth: 1118 Plug Back Total Depth: 1120.6
Oil SWD SIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 22.5 Feet
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used? ☐ Yes  No
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 1120.6
Operator:	feet depth to surface w/ 165 sx cmt.
Well Name:	
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan AHTINGS-24-05 (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	Chloride contentppm Fluid volumebbls
Plug Back Plug Back Total Depth	Dewatering method used
Commingled Docket No	•
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
	Lease Name: License No.:
8/30/07         8/31/07         9/4/07           Spud Date or         Date Reached TD         Completion Date or	Quarter Sec Twp S. R
Recompletion Date Recompletion Date	County: Docket No.:
INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas 67202, within 120 days of the spud date, recompletion, workover information of side two of this form will be held confidential for a period of 12 107 for confidentiality in excess of 12 months). One copy of all wireline logs at TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells.	r or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply.  2 months if requested in writing and submitted with the form (see rule 82-3- and geologist well report shall be attached with this form. ALL CEMENTING
All requirements of the statutes, rules and regulations promulgated to regulat herein are complete and correct to the best of my knowledge.	te the oil and gas industry have been fully complied with and the statements
Signature: Garuffer K. Ammann	, KCC Office Use ONLY
New Well Development Coordinator 12/27/07	<u> </u>
Title: New Well Development Cooldinator Date: 122101	Letter of Confidentiality Received
Subscribed and sworn to before me this and day of	RECEIVED I
20 07.	Wireline Log Received KANSAS CORPORATION COMMISS
Notary Public: Devia Klauman	Geologist Report Received UIC Distribution DEC 2 8 2007
8-11-200	24/(4/44/44)
Date Commission Expires: 0-4-30/0 A TERM Notary Pu	A KLAUMAN CONSERVATION DIVISION WICHITA, KS
My Annt Evnires	8-4-2010

CONFIDENTIAL

DEC 2 7 2007

Operator Name: Qu	est Cherokee, LL	С		Leas	e Name:	Wiltse, Marlene	е М.	_ Well #: 1-1	DE	C 27 2001
Sec. 1 Twp. 2					ty: Neosh					C 27 ZUU
INSTRUCTIONS: S tested, time tool ope temperature, fluid re Electric Wireline Log	n and closed, flowing covery, and flow rate	g and shut-in s if gas to su	pressures, v irface test, al	whether song with	shut-in pre	essure reached	static level, hydro	static pressure	s, botto	m hole
Drill Stem Tests Take		☐ Yes	□No		V	og Format	ion (Top), Depth a	nd Datum		Sample
Samples Sent to Ge	•	Yes	□No		Nam See	e attached		Тор	I	Datum
Cores Taken Electric Log Run		☐ Yes ☐ Yes	=							
(Submit Copy)									RECE	IVED
List All E. Logs Run:	•									TION COMMISSIO
Dual Induction	d Density Neut n Log	ron Log						D	EC 2	8 2007
ſ-								CON		ON DIVISION TA. KS
		Report a	CASING I			ew 🔲 Used ermediate, produc	ction, etc.			
Purpose of String	Size Hole Drilled		Casing n O.D.)		eight s. / Ft.	Setting Depth	Type of Cement	# Sacks Used		and Percent dditives
Surface	12-1/4	8-5/8"		22		22.5	"A"	5		
Production	6-3/4	4-1/2		10.5		1120.6	"A"	165		
Purpose:	Depth					JEEZE RECOR	<del></del>	housent Additions		
Perforate Protect Casing Plug Back TD Plug Off Zone	Top Bottom	туре от	Cement	#380	ks Used		type and P	ercent Additives		
Shots Per Foot		ON RECORD Footage of Eac			e		acture, Shot, Cement		d	Depth
4	976-979					500gai 15%HCLw/ 51 b	bis 2%kci water, 446bbis water v	// 2% KCL, Blacide, 5600s	20/40 send	976-979
4	808-810/759-761/7	07-709/675-	678			400gal 15%HCLw/ 50 b	bis 2%kcl water, 646bbis water v	v/ 2% KCL, Biocide, 54002	# 20/40 sand	808-810/759-761
										707-709/675-678
4	582-586/572-576					· · · · · · · · · · · · · · · · · · ·	bis 2%kcl water, 646bbis water v	v/ 2% KCL., Biocide, 48003	20/40 sand	582-586/572-576
TUBING RECORD WE	Size aiting on pipeline	Set At		Packer	At	Liner Run	Yes No			
Date of First, Resumer	d Production, SWD or E	Enhr. F	Producing Meth	nod	Flowin	g Pump	ing Gas Lif	t Othe	or (Explain	)
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Wat	er	Bbls. G	as-Oil Ratio		Gravity
Disposition of Gas	METHOD OF (	COMPLETION		!		Production Inte	erval			
Vented Sold	Used on Lease ubmit ACO-18.)		Open Hole Other (Speci	Pe	erf. 🔲 I	Dually Comp.	Commingled			



620-431-9500 APT 15- 133 27141 KCC FIELD TICKET REF #\_\_\_\_\_

CONFIDENTIAL

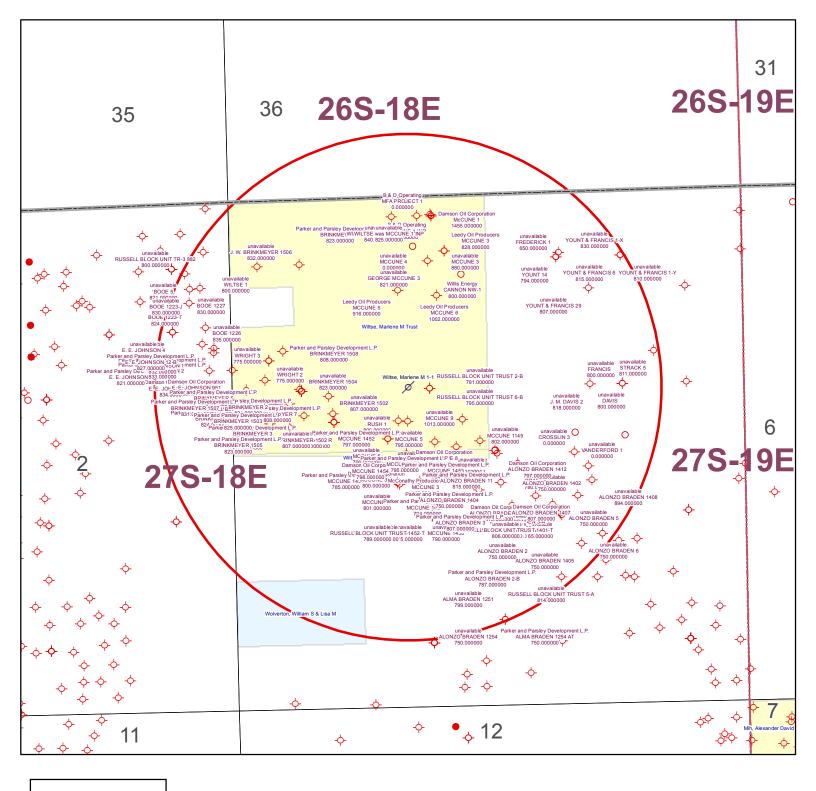
211 W. 14TH STREET, SSI 62395 C 27 2007 TICKET NUMBER 2178

CHANUTE KS 66720

FOREMAN \_\_\_

# TREATMENT REPORT & FIELD TICKET CEMENT

9-4-07	Wil+5	e Mar	Tene W	1 /-/_		27	18	170
FOREMAN / OPERATOR	TIME	TIME	LESS LUNCH	TRUCK #	TRAILER #	TRUC		EMPLOYEE SIGNATURE
1	7:00	1200	No	901640		5	1-	Lunus
Jugyne			100		927666		1 1	1/-22
Kevin	7:08	12,00		93/305	932885	1 9	-1 <del>-7</del>	un
+ 3e*								
			1 /		1		1	
· · · · · · · · · · · · · · · · · · ·	,		<del>                                     </del>					
SING DEPTH <b>////</b> URRY WEIGHT <u>/</u> SPLACEMENT <u>/</u>	9,65 DRILL I 4.5 SLURR 7.85 DISPLA	PIPE IY VOL ACEMENT PSI		OLE DEPTH UBING VATER gal/sk MIX PSI  CEMENT	OTHE	ENT LEFT in	CASING_	
						- : -		
	1119	i, 6 ' )	4 -	Casing				
	]/19 S	9,6	477	Centraliz				
	1119 5 1	6,6	4 7 4 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7					
ACCOUNT	<u> </u>		477	Centraliz	40e	CT		TOTAL
ACCOUNT CODE	J/19 5 (	UNITS	45	Centraliz Floot S	40e	CT		TOTAL AMOUNT
	<u> </u>	UNITS FO	4 ½  Oreman Pickup	Centraliz Floot S DESCRIPTION OF SE	40e	CT		
	<u> </u>	UNITS C	C/	Centraliz Floot S DESCRIPTION OF SE	40e	СТ		
701640	<u> </u>	UNITS C	G	Centraliz Float S DESCRIPTION OF SE	40e	CT		
1104	<u> </u>	UNITS  C B P	oreman Pickup ement Pump Truc ulk Truck ortland Cement	Centraliz Flac + S DESCRIPTION OF SE	46e ERVICES OR PRODU			
1104	<u> </u>	UNITS C C B P S	oreman Pickup ement Pump Truc ulk Truck ortland Cement	Centraliz Flag + S DESCRIPTION OF SE	40e			
1104 1124 1126	<u> </u>	UNITS C B P O	oreman Pickup ement Pump Truc ulk Truck ortland Cement	Centraliz Flag + S DESCRIPTION OF SE	46e ERVICES OR PRODU			
1104 1124 1126 1110	<u> </u>	UNITS  C  B  P  O  G	oreman Pickup ement Pump Truc ulk Truck ortland Cement	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	REG	AMOUNT
1104 1124 1126 1110	<u> </u>	UNITS C C B P O G G	oreman Pickup ement Pump Truc ulk Truck ortland Cement  WC - Blend Ceme illsonite	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	REAN SAS CORPO	AMOUNT
1104 1124 1126 1110	<u> </u>	UNITS  C  B  P  G  G  F  P	oreman Pickup ement Pump Truc ulk Truck ortland Cement  WC - Blend Ceme iilsonite lo-Seal	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	NSAS CORPC	CEIVED ORATION COMMIS
1104 1124 1126 1110 1107 1118	<u> </u>	UNITS  CC Bi OC GF	oreman Pickup ement Pump Truc ulk Truck ortland Cement  WC - Blend Ceme illsonite lo-Seal remium Gel	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	NSAS CORPC	AMOUNT
1104 1124 1126 1110 1107 1118 1215A	<u> </u>	UNITS C C B P G G F P K S	oreman Pickup ement Pump Truc ulk Truck ortland Cement  WC - Blend Ceme illsonite lo-Seal remium Gel	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	NSAS CORPO	CEIVED ORATION COMMIS
1104 1124 1126 1110 1107 1118 1215A 1111B	<u> </u>	UNITS  CO BB PO G G F P K S CO	oreman Pickup ement Pump Truc ulk Truck ortland Cement over Blend Ceme illsonite lo-Seal iremium Gel CL iodium Silicate	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	DEC CONSER	CEIVED DRATION COMMIS
90/640 1104 1124 1126 1110 1107 1118 1215A 1111B 1123	<u> </u>	UNITS  C  B  P  G  F  K  S  C  C  T	preman Pickup ement Pump Truc ulk Truck ortland Cement  WC - Blend Ceme illsonite lo-Seal remium Gel CL iodium Silicate	Centraliz Flag + S DESCRIPTION OF SE k	46e ERVICES OR PRODU	Plug	DEC CONSER	CEIVED PRATION COMMIS  2 8 2007



# **KGS STATUS**

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

Wiltse, Marlene M 1-1 1-27S-18E 1" = 1,000'

### **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 27th of

# August A.D. 2012, with

subsequent publications being made on the following dates:

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

Subscribed and sworn to before me this

27th day of August, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee: \$139.60

# LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
AUGUST 27, 2012 (3203401)
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 Wilfse,
Mariene M 1-1 located in Neosho County,
Kansas.

TO: All Oil & Gas Producers, Unleased Mineral

10: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons whomever concerned.
You, and each of you, are hereby notified that Postrack Midcontinent Production, LLC has filed an application to commingle the Summif, Mulky, Croweburg, Fleming, Tebo, Weir, Riverton and Bartlesville producing formations at the Wiltse, Marlene M 1-1, located in the SENW SI-T275-RISE, Approximately 1985 FML & R835 EML & R835 EML. Approximately 1985 FNL & 1835 FWL, 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 tiffeen (15) days from the date of this publication. These days from the oate of this publication. These profests shall be filled pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, yolate correlative rights or pollute the natural resources of the State of Kansas.

resources of the State of Kansas.

All persons interested or concerned shall lake 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.

Pastrock Midcontinent Production, LLC 210 Park Avenue, Suite 2750

210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704 A COPY OF THE AFFIDAVIT OF PUBLICATION MUST ACCOMPANY ALL APPLICATIONS

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

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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.

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

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

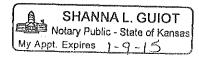
# Affidavit of Publication 🗢

STATE OF KANSAS, NEOSHO COUNTY, ss:

Rhonda Howerter, being first duly sworn, deposes and says: That she is Classified Manager of THE CHANUTE TRIBUNE, a daily newspaper printed in the State of Kansas, and published in and of general circulation in Neosho County, Kansas, with a general paid circulation on a daily basis in Neosho County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is a daily published at least weekly 50 times a year: has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office of Chanute, in said county as second class matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for
2012, with subsequent publications being made on the fol-
lowing dates:
, 2012, 2012
2012 2012
Phonda Hoverto
Subscribed and sworn to and before me this
My commission expires: January 9, 2015  Printer's Fee
Total Publication Food \$ 14



# **WILTSE, MARLENE M 1-1**

	R & LOWER LIMIT OF EACH PRODU						
FORMATION:	WEIR	(PERFS):	808 -				
FORMATION:	RIVERTON	(PERFS):	976 -				
FORMATION:	BARTLESVILLE	(PERFS):	1096 -	1108			
FORMATION:		PERFS):					
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2 ESTIMATED AN FORMATION:	MOUNT OF FLUID PRODUCTION TO	D BE COMMINGLED FI BOPD:	ROM EACH INT 0	ERVAL MCFPD:	0	BWPD:	0
FORMATION:	RIVERTON	BOPD:	0	MCFPD:	0	BWPD:	0
FORMATION:	BARTLESVILLE	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:	DANTELSVILLE 0	-		MCFPD:		BWPD:	
FORMATION:	0	-		MCFPD:		BWPD:	
FORMATION:	0	-		MCFPD:		BWPD:	
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		-		•			

# WILTSE, MARLENE M 1-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

Offset Operators, Unleased Mineral Owners and	Landowners acreage			
Attach additional sheets if necessary)				
Name:			Legal Description of Leasehold:	
SEE ATTACHED				
10				
				<u> </u>
	_			
	·······································			
reby certify that the statements made herein are true	and correct to the best of my	knowledge and belief.		
,,				ž.
			1 & Mou	2 mil
	Applicant of	or Duly Authorized Age		
0.	ubscribed and sworn before me	114	ay of SEPTEMBER	2012
O.C.	idscribed and swort belore the	e uns. <u> </u>	ay or	
JENNIFER R. BEAL	$\mathcal{L}$	Time to	R Beal)	
MY COMMISSION EXPIRES	Notary Pull	blic	)	
7-20-2014	My Commi	lssion Expires:	Quely 20, 2016	
	iny commi	Colon Expires.	777	

1-27S-18E

Notes

Tract in NW4

Thomas L and Sandra J Barnes

6.08 acres

24760 Harper Rd Humboldt, KS 66748

N2 NE4

Lot 1 & 2 less tract

Robert W Frederick and Valerie Frederick

81.49 acres

8745 250th Rd Humboldt, KS 66748

N2S2NE4 & tract

Bert L Cole and Anna E Cole

40.7 acres

24645 Irving Rd Humboldt, KS 66748

S2S2NE4

David R Gormley 24525 Irving Rd Humboldt, KS 66748

N2SE4

Jack G Braden and Charlene M Braden, Trustees

80 acres

24385 Irving Rd Humboldt, KS 66748

S2SE4 less tract

Phillips Living Trust 315 N Garfield Chanute, KS 66720

SE4SW4

Cynthia Audiss 8450 240th Rd Chanute, KS 66720

N2SW4

William Shane Wolverton and Lisa M Wolverton

24130 Harper Road Humboldt, KS 66748

tract in N2SW4

Craig & Sheryl Bagshaw 24700 Douglas Rd Chanute, KS 66720

NE4SW4

less N 100 feet

Darrell E Wiltse 24630 Harper Road Chanute, KS 66720

2-27S-18E

2 NE4 NE4 less tract

(portion)

Mark A. Chapman PO Box 450 Sealy, TX 77474

SE4NE4 & NE4SE4 less tracts

Raymond L & Mary C Huli % Charles A & Kathy Ross 7775 250TH RD Humboldt, KS 66748

tract in NE4 SE4

Travis W. Barnett 7980 243rd Rd Chanute, KS 66720

36-26S-18E

SVV4

Dale E & Mary J Daniels 1711 Connecticut Humboldt, KS 66748

SE/4

Harold Whitaker 266 2000 St Humboldt, KS 66748

LEGAL LOCATION	SPOT	CURR_OPERA
S1-T27S-R18E	N2 NE NW	B & D Operating
S1-T27S-R18E	NW NW NE NW	B & D Operating
S1-T27S-R18E	SE NW NW SE	Damson Oil Corporation
S1-T27S-R18E	SW NE NW SE	Damson Oil Corporation
S1-T27S-R18E	NW NE NW SE	Damson Oil Corporation
S2-T27S-R18E	SE NE SE NE	Damson Oil Corporation
S2-T27S-R18E	SE NE SE NE	Damson Oil Corporation
S1-T27S-R18E	N2 NE NW	Damson Oil Corporation
S1-T27S-R18E	E2 W2 E2 W2	Damson Oil Corporation
S1-T27S-R18E	NE NW NE SW	Damson Oil Corporation
S1-T27S-R18E	NE NW NE SW	Damson Oil Corporation
S1-T27S-R18E	SE SE SE NW	Damson Oil Corporation
S1-T27S-R18E	NE NE NW	Leedy Oil Producers
S1-T27S-R18E	SW NE NW	Leedy Oil Producers
S1-T27S-R18E	SE NE NW	Leedy Oil Producers
S1-T27S-R18E	NE NE NE SW	McConathy Production Co., Inc.
S1-T27S-R18E	SW NW SW SE	Parker and Parsley Development L.P.
S1-T27S-R18E	NW NW NW SE	Parker and Parsley Development L.P.
S1-T27S-R18E	NW NW NW SE	Parker and Parsley Development L.P.
S1-T27S-R18E	SE SW NW SE	Parker and Parsley Development L.P.
S1-T27S-R18E	SW NW NW SE	Parker and Parsley Development L.P.
S1-T27S-R18E	NE SW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	SE SW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	SW NW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NE NW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	SE NW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NE SW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NW NW NE NW	Parker and Parsley Development L.P.
S1-T27S-R18E	SW NW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NW SW SW NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NW SE SW NW	Parker and Parsley Development L.P.
S2-T27S-R18E	NE NE SE NE	Parker and Parsley Development L.P.
S2-T27S-R18E	NW NE SE NE	Parker and Parsley Development L.P.
S2-T27S-R18E	NE NE SE NE	Parker and Parsley Development L.P.
S2-T27S-R18E	NW NE SE NE	Parker and Parsley Development L.P.
S1-T27S-R18E	SW SE SE NW	Parker and Parsley Development L.P.
S1-T27S-R18E	SE NE NE SW	Parker and Parsley Development L.P.
S1-T27S-R18E	NE SW SE NW	Parker and Parsley Development L.P.
S1-T27S-R18E	NE NE NE SW	Parker and Parsley Development L.P.
S1-T27S-R18E	NW NW NE SW	Parker and Parsley Development L.P.
S1-T27S-R18E	NW SE NE	Willis Energy

Affidavit of Notice Served	
Re: Application for: APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS ACO-4	
Well Name: WILTSE, MARLENE M 1-1	Legal Location: SENW S1-T27S-R18E
The undersigned hereby certificates that he / she is a duly authorized agent for the applicant, and that on the day	
, a true and correct copy of the application referenced above was delivered or mailed to the following parties:	
Note: A convert this affidavit must be convert as a part of the application	
Note: A copy of this affidavit must be served as a part of the application.	
B & D OPERATING	Address (Attach additional sheets if necessary)
B & D OPERATING	102 N CENTRAL, CHANUTE, KS 66720
DAMSON OIL CORPORATION	9400 NORTH BROADWAY STE 640, OKLAHOMA CITY, OK 73114
LEEDY OIL PRODUCERS	214 N HIGHLAND, CHANUTE, KS 66720
MCCONATHY PRODUCTION CO INC	509 MARKET ST - 200 UNITED MERCANTILE BLDG, SHREVEPORT, LA 71101
PARKER AND PARSLEY DEVELOPMENT LP	14000 QUAIL SPGS PKWY STE 5000, OKLAHOMA CITY, OK 73134
WILLIS ENERGY	RR2 BOX 255, NEODESHA, KS 66757
SEE ATTACHED	
I further attest that notice of the filing of this application was published in the THE CHANUTE TRIBUNE  of NEOSHO  county, A copy of the affidavit of this publication is attached.	
1, 44	
Signed this day of SEPTEMBER 2012	Gent or Duly Authorized Agent
Subscribed and sworn to before me this	
JENNIFER R. BEAL OFFICIAL MY COMMISSION EXPIRES Notar 7-20-2014 My Co	ommission Expires: July 20, 2016

1-27S-18E

Notes

Tract in NW4

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Lot 1 & 2 less tract

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81.49 acres

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SE4SW4

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N 2SW4

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tract in N2SW4

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N E4SW4 less N 100 feet Darrell E Wiltse 24630 Harper Road Chanute, KS 66720

2-27S-18E

2 NE4 NE4 less tract

(portion)

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tract in NE4 SE4

Travis W. Barnett 7980 243rd Rd Chanute, KS 66720

<u>36-26S-18E</u>

3L/**V4** 

Dale E & Mary J Daniels 1711 Connecticut Humboldt, KS 66748

€/4

Harold Whitaker 266 2000 St Humboldt, KS 66748 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

September 26, 2012

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

RE: Approved Commingling CO091205

Wiltse, Marlene M. 1-1, Sec. 1-T27S-R18E, Neosho County

API No. 15-133-27141-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on September 12, 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 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 CO091205 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