

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-4 Form must be typed March 2009

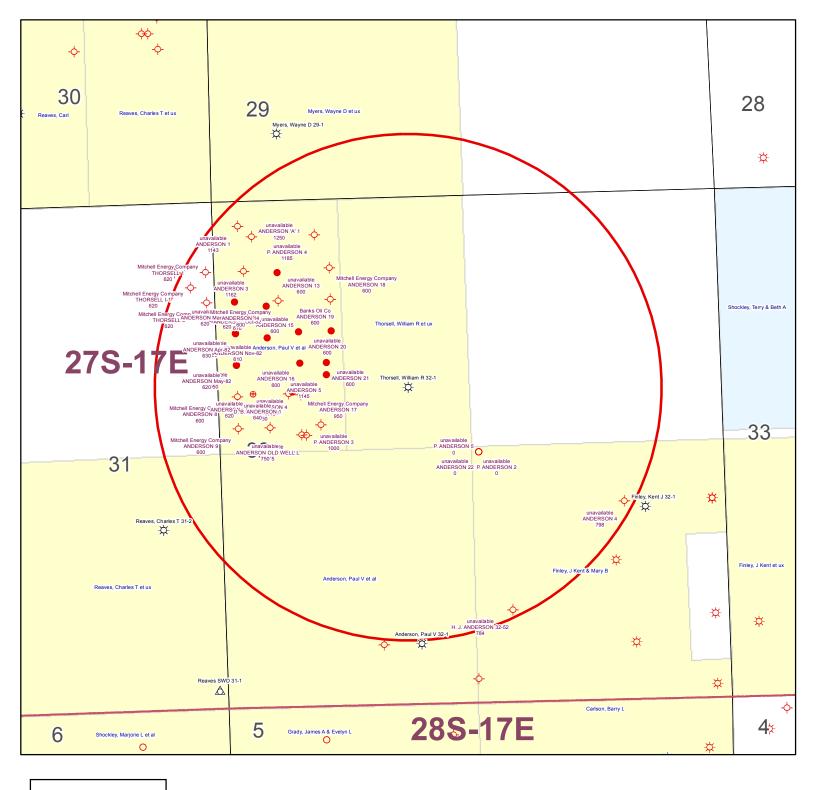
APPLICATION FOR COMMINGLING OF Commingling ID # PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

OPERAT	TOR: License #	API No. 15				
Name:_		Spot Description:				
Address	1:		Sec Twp S.	R East West		
Address	2:		Feet from North .	South Line of Section		
City:	State: Zip:+		Feet from East	/ West Line of Section		
	Person:					
Phone:	()	Lease Name:	Well #:			
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:	BOPD:	MCFPD:	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 we the subject well, and for each well the names and addresses of	of the lessee of record or oper	rator.	within a 1/2 mile radius of		
4.	Signed certificate showing service of the application and affide	avit of publication as required	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.				
5 0	and the second s					
	nmingling of FLUIDS ONLY, include the following:					
	Well construction diagram of subject well.					
8.	Any available water chemistry data demonstrating the compat	ibility of the fluids to be comm	ingled.			
current ir 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 sistent with the information supplied in this application.	Sul	bmitted Electronica	ally		
KCC	C Office Use Only	Protests may be filed by any	party having a valid interest in t	he application. Protests must be		
l —	nied Approved	in writing and comply with K., the notice of application.	A.R. 82-3-135b and must be file	d wihin 15 days of publication of		

Date: _

Approved By:

15-Day Periods Ends: _



KGS STATUS

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

Thorsell, William R 32-1 32-27S-17E 1" = 1,000'

-	Α	В	С	D	Е	F	G	Н	1		K
1	Produced Fluids #	В	1	2	3	4	5	11	•	<u> </u>	
	Parameters	Units	Input	Input	Input	Input	Input		Click he	re	Click
3	Select the brines	Select fluid		Ī		V	Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	to ruii oc	•	Click
5	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.	————		
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			Click
7	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in	Goal Seek	SSP	
8	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines	0.00		Click
9	Field		CBM	CBM	Bartles	Bartles	Bartles	calculations.			
10	Na ⁺	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
11	K ⁺ (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	Ca ²⁺	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr ²⁺		1,050.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba ²⁺	(mg/l)						0.00	Da	rite	
.,		(mg/l)						0.00			
	Fe ²⁺	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn ²⁺	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb ²⁺	(mg/l)						0.00	Gyp	sum	
19	Cl	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
20	SO ₄ ²⁻	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40	Hemil	ıydrate	
21	F.	(mg/l)						0.00	-3.96	-3.90	0.06
	Br'	(mg/l)						0.00		ydrite	
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03		estite	0,12
	CO3 Alkalinity	(mg/l as CO3)	170.00	434.00	237,00	200.00	234.00	241.03	Cen		
	Carboxylic acids**	(mg/l)						0.00	Inor 6	Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
_											-0.00
	Borate	(mg/L) H3BO3						0.00	Zinc	Sulfide	
	TDS (Measured)	(mg/l)	4.040	4.0=4				72781	~		
	Calc. Density (STP) CO ₂ Gas Analysis	(g/ml)	1.038 19.97	1.051 18.76	1.050 22.41	1.048 35.53	1.045	1.047	Calcium	fluoride	
	- ,	(%)		0.0292			33.79	26.16	I C.	-l	
	H ₂ S Gas Analysis*** Total H2Saq	(%)	0.0289	1.00	0.0296	0.0306	0.0151 0.50	0.0269	-0.74	rbonate -0.51	0.23
_	_	(mgH2S/l)	1.00 5.67	5.76	1.00 5.72	1.00 5.54	5.55	5.63		eeded (mg/L)	0.23
34	pH, measured (STP)	pH 0-CO2%+Alk,	5.07	5./0	5.72	5.54	5.55	5.03	Calcite	NTMP	
	Choose one option								Calcite	NIMI	
35	to calculate SI?	2-CO2%+pH	0	0	0	0	0				
36	Gas/day(thousand cf/day)	(Mcf/D)						0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
	For mixed brines, enter val			mag in Calle (H	(40 H42)						
-	Initial T			`		44.0	40.0	(Enter H40-H43)		Н	
		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T	(F) (F)	66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (5.60 CentiPoise)	
42	Final T Initial P	(F) (F) (psia)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0	5.69 Viscosity (1.196	5.60 CentiPoise) 0.826	
42 43	Final T Initial P Final P	(F) (F) (psia) (psia)	66.0 66.0	71.0 71.0	70.0 70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (1.196 Heat Capaci	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44	Final T Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) I-Yes;0-No	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959	
42 43 44 45	Final T Initial P Final P	(F) (F) (psia) (psia)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44 45 46	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (F) (psia) (psia) I-Yes;0-No API grav.	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eeded (mg/L)	
42 43 44 45 46 47 48	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00	
42 43 44 45 46 47 48 49 50	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG//Day Conc. Multiplier H* (Strong acid) *	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) †	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP:	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP:	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH' (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/l) (pH)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP)	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I)	66.0 66.0 25.0	71.0 71.0 25.0	70.0 70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= ECations= Calc TDS=	(F) (F) (Psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	66.0 66.0 25.0 25.0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textit{\Sigma}\$ (STP) Exhions= \$\textit{\Sigma}\$ (STD)= Inhibitor Selection	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time	(F) (F) (Psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	66.0 66.0 25.0 25.0	71.0 71.0 25.0 25.0	70.0 70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= £Anions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	# 1 2 3	Inhibitor NTMP BHPMP PAA	Unit Converter From Unit C m³	49.0 25.0 25.0 25.0 (From metric Value 80 100	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor no Gypsum 0.00 Anhydrite 0.00 Value 176 3,531	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ Exhions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	71.0 71.0 25.0 25.0 1 1 1 2 3 4	Inhibitor NTMP BHPMP PAA DTPMP	Unit Converter From Unit °C m³ m³ MPa	49.0 25.0 25.0 25.0 (From metric Value 80 100 1,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 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 ₂ S Gas Total H2Saq (STP) pH Calculated Alkalinity Caclulated Alkalinity Caclulated ECations= ZAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor # is:	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C m MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66 67 68	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./I) (equiv./I) (mg/l) Input 120 1 4 1 50	0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 4 5 6 6 7	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP	Unit Converte From Unit C m³ m³ MPa Bar Torr	49.0 25.0 25.0 25.0 25.0 Value 80 100 1,000 496 10,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia psia psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 44 45 46 47 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65 66 67 68 69	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor is: % of 1st inhibitor is:	(F) (F) (Psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120 1 4	0 0 0 0 Unit min 1-Yes;0-No # # %	## 1 2 3 4 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C m MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	

Saturation Index Calculations

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

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

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

Saturation Index

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

PTB

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

KANSAS CORPORATION COMMISSION OR/G//G///
OIL & GAS CONSERVATION DIVISION

COMMISSION OR/G///G///

COMMISSION OR/G///G///

COMMISSION OR/G///

COMM

September 1999 Form Must Be Typed

WICHITA, KS

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 205-2695400-00					
Name: Quest Cherokee, LLC	County: Wilson					
Address: 211 W. 14th Street	senw_Sec. 32 Twp. 27 S. R. 17 🗸 East West					
City/State/Zip: Chanute, KS 66720	1980 feet from S /(N) (circle one) Line of Section					
Purchaser: Bluestem Pipeline, LLC	1980 feet from E /(W)(circle one) Line of Section					
Operator Contact Person: Jennifer R. Ammann	Footages Calculated from Nearest Outside Section Corner:					
Phone: (<u>620</u>) <u>431-9500</u>	(circle one) NE SE NW SW					
Contractor: Name: TXD Services, LP	Lease Name: Thorsell, William R. Well #: 32-1					
License: 33837	Field Name: Cherokee Basin CBM					
Wellsite Geologist: Ken Recoy	Producing Formation: multiple					
Designate Type of Completion:	Elevation: Ground: 978 Kelly Bushing: n/a					
New Well Re-Entry Workover	Total Depth: 1253 Plug Back Total Depth: 1248.42					
OilSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 21 Feet					
✓ Gas ENHR SIGW	Multiple Stage Cementing Collar Used?					
Dry Other (Core, WSW, Expl., Cathodic, etc)	If yes, show depth setFeet					
If Workover/Re-entry: Old Well Info as follows:	If Alternate II completion, cement circulated from 1248.42					
Operator:	feet depth to surface w/ 152 sx cmt.					
Well Name:	111 71 111 (10 00)					
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan AHI WH 6 1808					
Deepening Re-perf Conv. to Enhr./SWD	Chloride contentppm Fluid volumebbls					
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.:					
9/28/06 10/2/06 10/2/06 Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West					
Recompletion Date Recompletion Date	County: Docket No.:					
	•					
Kansas 67202, within 120 days of the spud date, recompletion, worko Information of side two of this form will be held confidential for a period of	oth the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, over or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. If 12 months if requested in writing and submitted with the form (see rule 82-3-125 and geologist well report shall be attached with this form. ALL CEMENTING Its. 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.	ulate the oil and gas industry have been fully complied with and the statements					
Signature: Junnifus B. Ammany	KCC Office Use ONLY					
Title: New Well Development Coordinator Date: 1/30/07	Letter of Confidentiality Received					
Subscribed and sworn to before me this 30th day of						
20_01	Wireline Log Received RECEIVED					
. /6	Geologist Report Received SAS CORPORATION COMMISS					
Notary Public: Dorra Klauman	UIC Distribution JAN 3 1 2007					
	TERRA KLAUMAN CONSERVATION DIVISION					
NOT	ary Public - State of Kansas					

My Appt. Expires 8-4-2010

Operator Name: Qu	erator Name: Quest Cherokee, LLC			Lease Name: Thorsell, William R. Well #: 32-1					
Sec. 32 Twp. 2			County:						
tested, time tool ope temperature, fluid re	n and closed, flowin covery, and flow rate	and base of formations p g and shut-in pressures, es if gas to surface test, final geological well site	, whether shu along with fir	ıt-in pre	ssure reached	static level, hydr	ostatic pressure	es, bottor	n hole
Drill Stem Tests Take		☐ Yes ✓ No		√ L	og Format	ion (Top), Depth	and Datum		Sample
Samples Sent to Ge	ological Survey	Yes No		Nam See	e attached		Тор	[Datum
Cores Taken Electric Log Run (Submit Copy)	Electric Log Run Yes No								
List All E. Logs Run:									
Dual Induction Compensated Gamma Ray N	Density/Neutro	on Log							
		CASING Report all strings set-	RECORD	Ne	_	ction, etc.			
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weigh	ht	Setting Depth	Type of Cement	# Sacks Used		and Percent dditives
Surface	12-1/4	8-5/8"	20		21	"A"	5		
Production	6-3/4	4-1/2	10.5		1248.42	"A"	152		
		ADDITIONA	I CEMENTIN	G / SQL	JEEZE RECOR))			
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Cement	#Sacks L				Percent Additives		
Shots Per Foot		ION RECORD - Bridge Plu Footage of Each Interval Pe				acture, Shot, Cemer		rd	Depth
4	1106-1108	rootage of Each Interval Fe	enorated		•	bis 2%kd water, 231bbis water		0# 30/70 sand	1106-1108
4	780-782/702-70	6/692-696			400gal 15%HCLw/ 55 b	ols 2%kci water, 869bbis water	w/ 2% KCL, Blockle, 13000	# 30/70 sand	780-782/702-706
									692-696
TUBING RECORD 2-	Size -3/8"	Set At 1122	Packer At n/a		Liner Run	☐ Yes	o		
Date of First, Resume	rd Production, SWD or	Enhr. Producing Me	ethod	Flowing	g 📝 Pump	ing Gas L	ift Oth	ər (Explain))
Estimated Production Per 24 Hours	oiL n/a	Bbls. Gas	Mcf	Wate 94.4I		3bls.	Gas-Oil Ratio		Gravity
Disposition of Gas		COMPLETION	1		Production Inte	rval			
Vented ✓ Sold (If vented, S	Used on Lease ubmit ACO-18.)	Open Hole			Dually Comp.	Commingled			

QUEST



211 W. 14TH STREET, CHANUTE, KS 66720 620-431-9500 TICKET NUMBER 1842

FIELD TICKET REE#

TILLD TION		
FOREMAN	Joe	

618270

TREATMENT REPORT & FIELD TICKET CEMENT

DATE		WELL	NAME & NUMBER		SECTION	TOWNSHIP F	RANGE	COUNTY
10-2-06	Thorse	. س	Iliam 3	32-1	32	27 1.	7	WL
FOREMAN / OPERATOR	TIME	TIME OUT	LESS LUNCH	TRUCK #	TRAILER #	TRUCK HOURS		EMPLOYEE SIGNATURE
Ja. 3	11:30	5:00	0 903427 5.5			10	e Blanka	
Wes. T		3:30		903197		4	W	estrain
Russella		3:30		503206		4		$\frac{1}{\sqrt{2}}$
DAVIC! . C		5:15	903142 932452 5.75					ut Your
Craia . 6		12:00		931500		.50		caug Go
Craig. 6 MARK. B		3:00		903230		3.5	17	7-12
JOB TYPE Lungia	دنسج HOLE S	SIZE	314 H	OLE DEPTH _/2	<u>53</u> casii	NG SIZE & WEIGH	HT	12 10.5
CASING DEPTH 12:	<u> 48. H</u> DRILL F	PIPE	T	UBING	OTHE	R		-!
SLURRY WEIGHT 12	1.5 SLURR	Y VOL	w	/ATER gal/sk				
DISPLACEMENT 19	91 DISPLA	CEMENT PS	SI M	IIX PSI	RATE	Hope	n	
REMARKS:		1				$I_{s} = s_{s}$		
INSTAILED Cement +	cement L	end R	AN RAN	2 5/5 601 4	12 bbl dye	4 150	2 5 k	50f
Comen++	a act di	re to 50	v face.	Flush Pump	2. Pump wip	er plua to	bot	tom of
Sed Flow	+ Shoe	Υ		4		1 2		and animals a still a still still still fill.
he W	Aitain Ari	II Ria	to P	Cazing in	Hole			
	7.11	" 319	10 1000	0.5105	0 110.0			Y :
		ř.						
	12518	42	EL HVO	Casing				<u> </u>
	1270	6						
	<u></u>	9	Centrali					· · · · · · · · · · · · · · · · · · ·
			41/2 Fl.	oatshoe				
ACCOUNT CODE	QUANTITY or L	INITS		DESCRIPTION OF SE	RVICES OR PRODUC	т		TOTAL AMOUNT
903427	5.5	, · F	oreman Pickup					
903197	1	n e	Cement Pump Truck					
903206	4	n/ E	Bulk Truck		· · · · · · · · · · · · · · · · · · ·			
1104	. 14.	2. F	Portland Cement					
1124		<u>~</u>	0/50 POZ Blend Ce	10111	3/2 + 3'	<i>,</i>		· · · · · · ·
1126	*···	,C	OWC - Blend Cemer	nt				
1110	-,	2		71/2 wiper p	_			
1107								
1118 Premium Gel KANSAS CORPORATION COMMISSION								
1215A			KCL JAN 3 1 2007					
1111B		5E. 6	Sodium Silicate City Water	chloride	CONIC	EDVATION ON COL		
1123	7000	301	,		CONS	ERVATION DIVISION WICHITA, KS	WA	
903142	5,74		ransport Truck ransport Trailer					
932452	5:75 • 5 (^ \ \ o	0 Vac					
Ravin 4513	• J	ا مراه	o vac				1	



TXD SERVICES LP DRILLERS LOG

TXD SERVICES LP

RIG #	101		S. 32	T. 27	R. 17	GAS TESTS	
API#	205-26954-	0000	County:	Wilson		346'	0
AF WALLSTON			Location	Kansas		658'	0
Carlo St. March						689'	0
Operator:	Quest Cher	okee, LLC				973'	0
Address:		y Ave, Suite	≥ 300			1,098'	7
	Oklahoma	City, OK. 73	120			1129'	0
Well#	32-1		Lease Nam	e Thorsell,	William	to much water to te	est
Footage Locat	ion	1,980	ft from the	(N) Line			
4		1,980	ft from the	(W) Line	9		
Drilling Contra	ctor.	TXD	SERVICE	\$ LP			
Spud Date;	9/28/06		Geologist:	Ken Recoy			
Date Complete	ed: 10/02/06		Total De	epth: 1,253'			
SECTION	ord .		Represent				
	Surface	Production					·
Size Hole	12-1/4"	6-3/4"					
Size Casing	8-5/8"	4-1/2"					
Weight	24#						
Setting Depth	21'						
Type Cement	portland						
Sacks	5						

			Mell	LDg				
Formation	Тор	Btm.	Formation	Тор	Btrn.	Formation	Тор	Btm.
shale	22	107	shale	1,072	1,118			
lime	107	120	coal	1,118	1,122			
shale	120	201	shale	1,122	1,151	-		
lime	201	205	lime	1,151	1,255			
shale	208	334						
coal	334	336						
shale	336	380						
lime	380	403						
shale	403	620						
coal	620	624						
shale	. 624	646						
coal	646	630						
shale	630	815						
coal	815	817						
shale	817	840						
lime	840	845				}		
shale	845	855						
sand/shale	855	879					\mathbf{I}	
coal	879	890						
shale	890	905						
coal	905	911						
shale	911	1,067						
∞al	1,067	1,070						

Comments 1,161 mississippi

RECEIVED 164NSAS CORPORATION COMMISSION

JAN 3 1 2007

CONSERVATION DIVISION WICHITA, KS

POSTROCK



Current Completion

SPUD DATE: 9/28/2006

COMP. Date: 10/2/2006 API: 15-205-26954-00-00

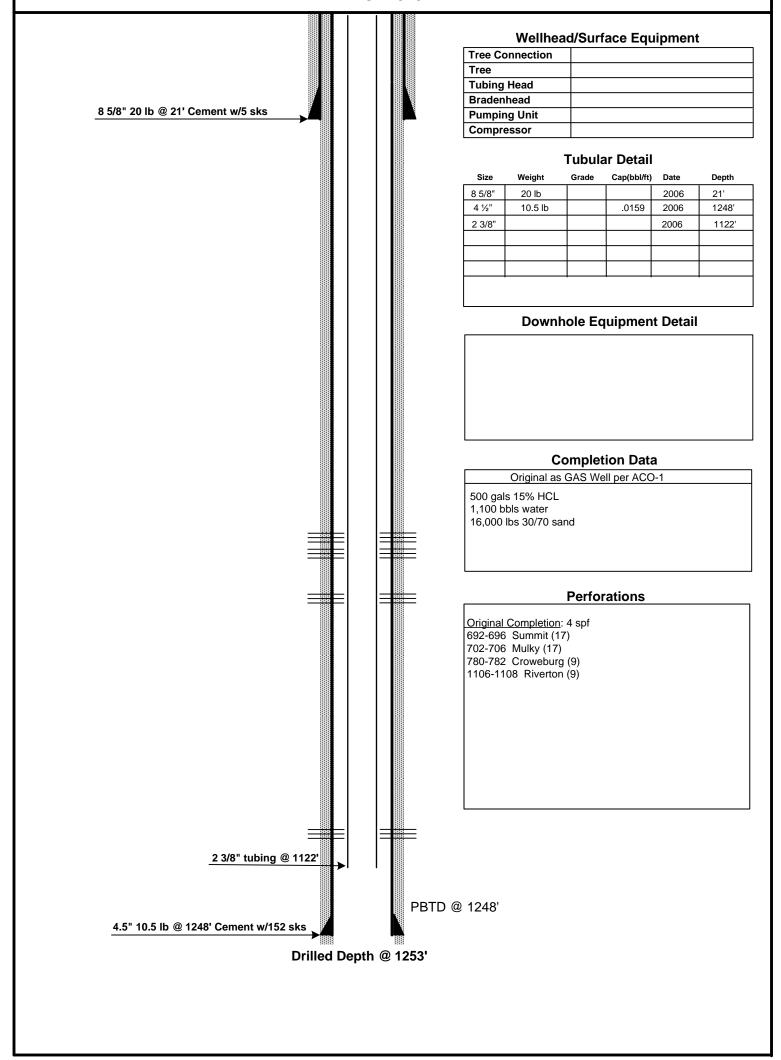
WELL: Thorsell, William R 32-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY : Wilson

: Wilson LOCATION: 32-27S-17E (SE,NW)

ELEVATION: 978'



PREPARED BY:	POSTROCK

APPROVED BY: _____

DATE: Oct, 2012

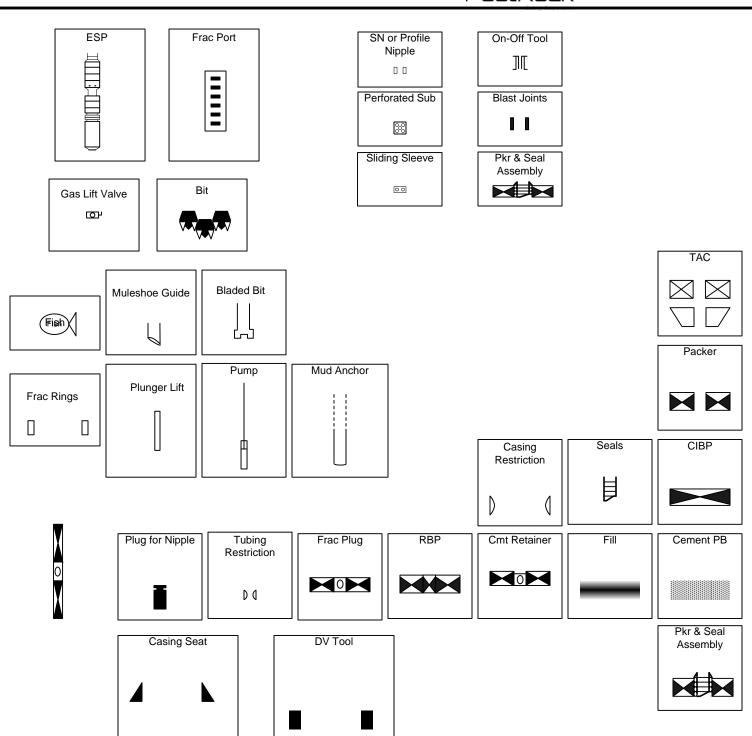
DATE:_

POSTROCK



LEGEND

PostRock[®]



AFFIDAVIT

STATE OF KANSAS

SS.

County of Sedgwick

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

made as aforesaid on the 9th of

November A.D. 2012, with

subsequent publications being made on the following dates:

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

Fletchall

Subscribed and sworn to before me this

9th day of November, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE
NOVEMBER 9, 2012 (2216881)
BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: in the Malter of Postrock Midcontinent
Production, LLC Application for
Commissing of Production in the Thorsell,
William R 32-1 located in Wilson County,
Kansas.

Kansas.
TO: All Oil & Gas Producers, Unleased Mineral Inlerest Owners, Landowners, and all persons whemever concerned.
You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has iiled an application to commingle the Summit, Mulky, Croweburg, Riverton, Cattleman and Bartlesville producing formations at the Thorsell, William R 22-1, located in the SE NW, \$32-T275-R17E, Approximately 1980 FNL & 1980 FWL, Wilson County, Kansas.

Approximately 1980 FNL & 1980 FWL, Wilson County, Kansas.

Any persons who object to or protest his application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within 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 sake 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.

Conservation Division of the Kansas UII and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an approach of the commission will be expected to enter an approach of the commission of t appearance either through proper legal counsel or as individuals, appearing on their own behalf, Postrack Midconlinent Production, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704

PROOF OF PUBLICATION

STATE OF KANSAS Wilson County - SS

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

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

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

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

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

1st publication was made on the	0100	day of
- You	mber 20	12
2nd publication was made on the		_day of
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3rd publication was made on the		_day of
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(Signed) Joseph S. Ke	lph	
Subscribed and sworn to before me, this	• (1.17	lay of
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My commission expires	· · · · · · · · · · · · · · · · · · ·	

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

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

NOTICE OF FILING APPLICATION

RE: In the Matter of Postrock Midcontinent Production, LLC Application for Commingling of Production in the Thorsell, William R 32-1 located in Wilson 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, Riverton, Cattleman and Bartlesville producing formations at the Thorsell, William R 32-1, located in the SE NW, S32-T278-R17E, Approximately 1980 FNL & 1980 FWL, Wilson County, Kansas.

Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission 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 76 1 cpy.



Rita M. Relph NOTARY PUBLIC State of Kansas STATE OF KANSAS My Commission Expires

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	Well Name: THORSELL, WILLIAM R 32-1	Legal Location: SENW S32-T27S-R17E	
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LEGAL LOCATION	SPOT	CURR_OPERA
S32-T27S-R17E	SE SE NW NW	Banks Oil Co
S32-T27S-R17E	SE SW NW NW	Mitchell Energy Company
S32-T27S-R17E	NW SE SW NW	Mitchell Energy Company
S32-T27S-R17E	NE SE NW NW	Mitchell Energy Company
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S32-T27S-R17E	SW SW SW NW	Mitchell Energy Company
S31-T27S-R17E	NE SE NE NE	Mitchell Energy Company
S31-T27S-R17E	SE SE NE NE	Mitchell Energy Company
S31-T27S-R17E	NE SE NE NE	Mitchell Energy Company

Banks Oil Co. 7701 E Kellogg Ste 885 Wichita, K8 67207

Mitchell Energy Company 5008 Prospect Ave Kansas City, Mo 64130

29-27S-17E

SE4

David & Linda Angleton

20128 Wichita Rd Chanute, KS 66720

30-27S-17E

E2NE

Gertrude H. Thorsell Trust

19941 Ulysses Rd Chanute, KS 66720

32-27S-17E

NE4

David & Dairlee Bideau 1/2

Edwin III & Margaret Bideau 1/2

PO Box 945

Chanute, KS 66720

THORSELL, WILLIAM R 32-1-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. Applicant or Duly day of NOVEMBER 2012 Subscribed and sworn before me this JENNIFER R. BEAL MY COMMISSION EXPIRES My Commission Expires: .

LEGAL LOCATION	SPOT	CURR_OPERA
S32-T27S-R17E	SE SE NW NW	Banks Oil Co
S32-T27S-R17E	SE SW NW NW	Mitchell Energy Company
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PO Box 945

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

December 12, 2012

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

RE: Approved Commingling CO121202

Thorsell, William R. 32-1, Sec. 32-T27S-R17E, Wilson County

API No. 15-205-26954-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on December 10, 2012, has been reviewed and approved by the Kansas Corporation Commission (KCC) per K.A.R. 82-3-123. Notice was examined and found to be proper per K.A.R. 82-3-135a. No protest had been filed within the 15-day protest period.

Based upon the depth of the Riverton formation perforations, total oil production shall not exceed 100 BOPD and total gas production shall not exceed 50% of the absolute open flow (AOF).

File form ACO-1 upon re-completion of the well to commingle.

Commingling ID number CO121202 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