

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-4 Form must be typed March 2009

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

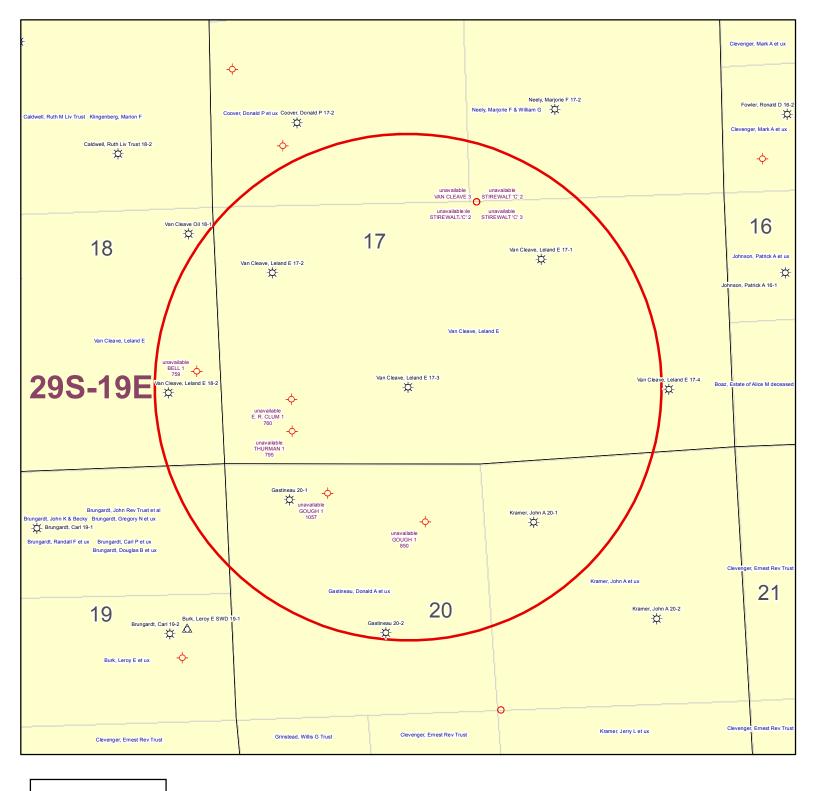
OPERAT	OR: License #	API No. 15		
Name:_		Spot Description:		
Address	1:		Sec Twp	_S. R Bast West
Address	2:		Feet from No	orth / South Line of Section
City:	State: Zip:+		Feet from Ea	ast / West Line of Section
Contact	Person:	County:		
Phone:	()	Lease Name:	We	II #:
1.	Name and upper and lower limit 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			DWDD
	Formation:			BWPD:
	Formation:			BWPD:
	Formation:			BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
	Formation:	BOPD:	MCFPD:	BWPD:
□ 3.□ 4.	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 o	perator.	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	_		
For Con	nmingling of FLUIDS ONLY, include the following:			
7 .	Well construction diagram of subject well.			
8.	Any available water chemistry data demonstrating the compati	ibility of the fluids to be cor	mmingled.	
current in mingling	/IT: I am the affiant and hereby certify that to the best of my nformation, knowledge and personal belief, this request for comistrue and proper and I have no information or knowledge, which istent with the information supplied in this application.	Ş	Submitted Electror	nically
	C Office Use Only			st in the application. Protests must be ne filed wihin 15 days of publication of

Date: _

Approved By:

15-Day Periods Ends: _

DRMATION:	BEVIER	(PERFS):	621 -	623			
ORMATION:	MULKY	 (PERFS):	545 -	549			
ORMATION:	SUMMIT	(PERFS):	532 -	536			
ORMATION:	SQUIRREL	(PERFS):	742 -	750			
ORMATION:		(PERFS):	-				
ORMATION:		(PERFS):	-				
ORMATION:		(PERFS):					
ORMATION:		(PERFS):					
ORMATION:		(PERFS):					
ORMATION:		(PERFS):	-				
ORMATION:		(PERFS):					
ORMATION:	MOUNT OF FLUID PRODUCTION	(PERFS): DN TO BE COMMINGLED FROM		ERVAL			
ESTIMATED AI FORMATION:	BEVIER	ON TO BE COMMINGLED FROM BOPD:	0	MCFPD:	5.75	BWPD:	5
ESTIMATED AIFORMATION:	BEVIER MULKY	DN TO BE COMMINGLED FROM BOPD: BOPD:	0	MCFPD:	5.75	BWPD:	5
ESTIMATED AI FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	DN TO BE COMMINGLED FROM BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD:	5.75 5.75	BWPD: BWPD:	5 5
ESTIMATED AI FORMATION: FORMATION: FORMATION:	BEVIER MULKY	DN TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD:	0	MCFPD: MCFPD: MCFPD: MCFPD:	5.75	BWPD: BWPD: BWPD:	5
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	DN TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD: MCFPD: MCFPD:	5.75 5.75	BWPD: BWPD: BWPD:	5 5
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	DN TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD:	5 5
ESTIMATED AISTORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	DN TO BE COMMINGLED FROM BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD: BOPD:	0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD: BWPD:	5 5
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	BOPD:	0 0 0	MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD: MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	5 5
ESTIMATED AISTORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	BOPD:	0 0 0	MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	5 5
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	BOPD:	0 0 0	MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	5 5
ESTIMATED AI FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION: FORMATION:	BEVIER MULKY SUMMIT	BOPD:	0 0 0	MCFPD:	5.75 5.75	BWPD: BWPD: BWPD: BWPD: BWPD: BWPD: BWPD:	5 5



KGS STATUS

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

Van Cleave, Leland E 17-3 17-29S-19E 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 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated 2Cations= £Anions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0 0	# 1 2 3	Inhibitor NTMP BHPMP PAA	Unit Converter From Unit C m³	49.0 25.0 25.0 25.0 (From metric Value 80 100	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle \text{Calcite}\$ acid \$\text{Lacite}\$ acid \$\text	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input 120	66.0 66.0 25.0 25.0 0 0	71.0 71.0 25.0 25.0 4 1 1 2	70.0 70.0 25.0 25.0 25.0 Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Final T Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\mathbb{\text{Catluated}}\$ 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 m³ m³ MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 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 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 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 m³ m³ MPa Bar	49.0 25.0 25.0 25.0 	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit "F ft ³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	

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

POSTROCK



Current Completion

WELL: Van Cleave, Leland E 17-3

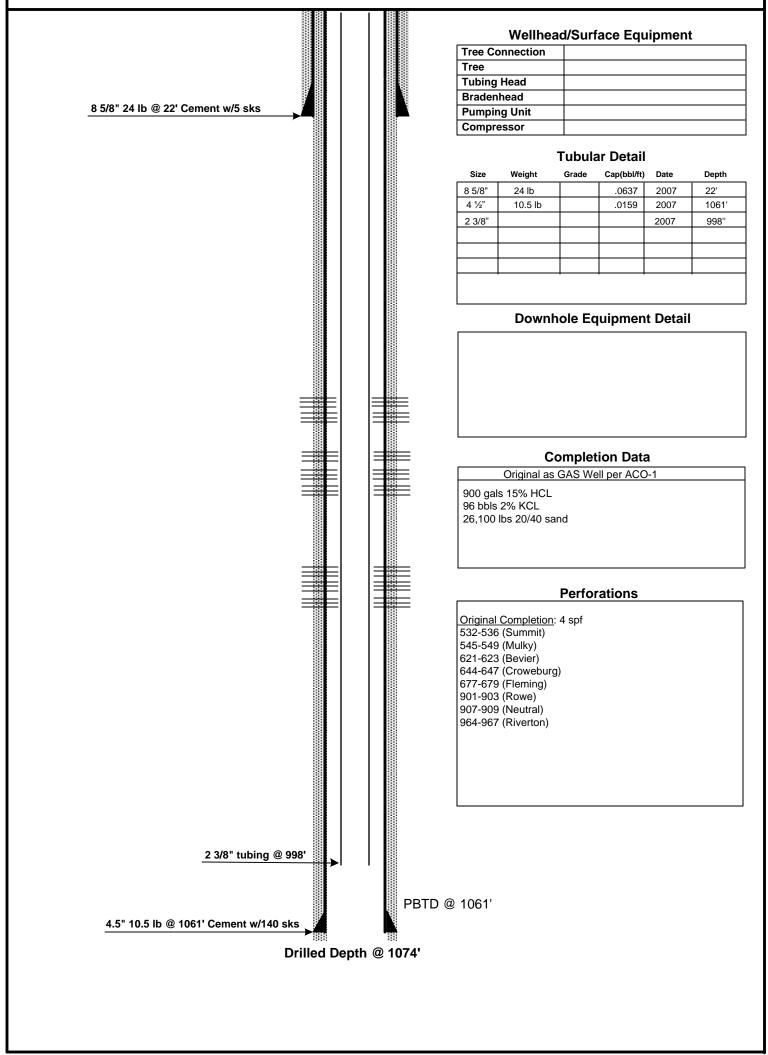
FIELD : Cherokee Basin

STATE : Kansas COUNTY : Neosho SPUD DATE : 4/27/2007 COMP. Date : 4/30/2007

API: 15-133-26914

LOCATION: 17-29S-19E (SE SW)

ELEVATION: GL - 982'



PREPARED BY: POSTROCK

APPROVED BY:

DATE: June, 2012

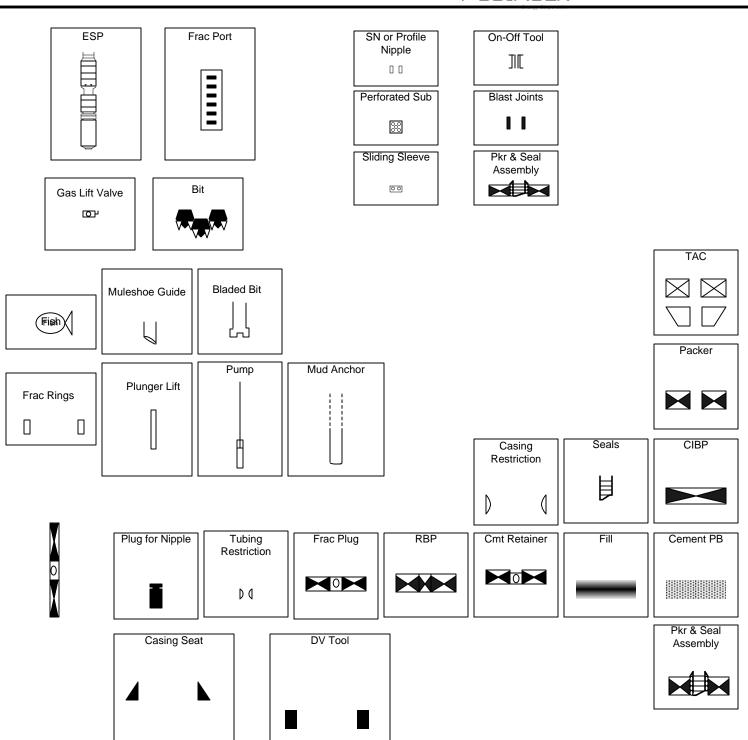
DATE:__

POSTROCK



LEGEND

PostRock[®]



CONFIDENTIAL

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

SIZZ/09
Form ACO-1
September 1999
Form Must Be Typed
ASE

WELL COMPLETION FORM

WELL HISTORY -	DESCRIPTION	OF WELL &	LEASE

Twp. 29 S. R. 19 East West et from S/ N (circle one) Line of Section et from E (W) (circle one) Line of Section earest Outside Section Corner: SE NW SW Leland E. Well #: 17-3 sin CBM le Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet lard Used? Yes No Feet ment circulated from 1061.22 w/ 140 sx cmt. Plan AH (L) 23 Scale of Section Corner: Plan AH (L) 3 Sx cmt.
et from S / N (circle one) Line of Section et from E (W) (circle one) Line of Section earest Outside Section Corner: SE NW SW Leland E. Well #: 17-3 sin CBM le Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet Illar Used? Yes V No Feet Then A 140 Sx cmt. Plan A 140 Sx cmt.
et from S / N (circle one) Line of Section et from E (W) (circle one) Line of Section earest Outside Section Corner: SE NW SW Leland E. Well #: 17-3 sin CBM le Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet Illar Used? Yes V No Feet Then A 140 Sx cmt. Plan A 140 Sx cmt.
et from E
earest Outside Section Corner: SE NW SW Leland E. Well #: 17-3 sin CBM Ide Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet Feet Illar Used? Yes No Feet ment circulated from 1061.22 w/ 140 sx cmt. Plan AH J J J J S S Reserve Pil) ppm Fluid volume bbls auled offsite:
SE NW SW Well #: 17-3 sin CBM le Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet lilar Used? Yes No Feet ment circulated from 1061.22 w/ 140 sx cmt. Plan AH J J J J S S Reserve Pit) ppm Fluid volume bbls auled offsite:
Leland E. Well #: 17-3 sin CBM le Kelly Bushing: n/a Back Total Depth: 1061.22 and Cemented at 22 Feet Feet Feet Illar Used? Yes ✓No Feet nent circulated from 1061.22 w/ 140 sx cmt. Plan AH J J J J J J J J J J J J J J J J J J
sin CBM Ide
Reserve Pit) Kelly Bushing: n/a Back Total Depth: 1061.22 Ind Cemented at 22 Feet Feet Inent circulated from 1061.22 W/ 140 sx cmt. Plan AHUUU 2-3 OR Reserve Pit) ppm Fluid volume bbls auled offsite:
Reserve Pit) Hack Total Depth: 1061.22 Ind Cemented at 22 Feet Vest Vest Vest Vest Vest Vest Vest V
Back Total Depth: 1061.22 and Cemented at 22 Feet Feet Feet Innent circulated from 1061.22 w/ 140 sx cmt. Plan AHJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJ
rand Cemented at 22 Feet Illiar Used? Yes No Feet The property of the prope
restriction of the second of t
rent circulated from 1061.22 w/ 140
nent circulated from 1061.22
Plan AH II
Plan AHUUU 2-3-0 S Reserve Pit) ppm Fluid volumebbls auled offsite:
Reserve Pît) bbls ppm Fluid volumebbls auled offsite:
ppm Fluid volume bbls
auled offsite:
auled offsite:
License No.:
TwpS. R
Docket No.:
DOCKEL NO
sion, 130 S. Market - Room 2078, Wichita, 82-3-130, 82-3-106 and 82-3-107 apply. and submitted with the form (see rule 82-3- attached with this form. ALL CEMENTING apprarily abandoned wells.
been fully complied with and the statements
KCC Office Use ONLY
COO OTHER DECOME
f Confidentiality Received
d, Yes Date:
Log Received
st Report Received RECEIVED
tribution KANSAS CORPORATION COMM
AUG 2 3 2007
1

Side Two

Operator Name: Qu	est Cherokee, LL	.C	Lease Name:		eland E.	Well #:	
Sec Twp2	²⁹ S. R. ¹⁹	✓ East	County: Neos	sho			
tested, time tool ope temperature, fluid re	n and closed, flowin covery, and flow rate	and base of formations pg and shut-in pressures es if gas to surface test, final geological well site	, whether shut-in p along with final cha	ressure reached	d static level, hydr	ostatic pressure	es, bottom hole
Drill Stem Tests Take		_ Yes ☑ No	-	·	tion (Top), Depth		Sample
Samples Sent to Ge	ological Survey	☐ Yes ☑ No	Na Sec	_{me} e attached		Тор	Datum
Cores Taken		☐ Yes 🗸 No	1				
Electric Log Run (Submit Copy)		Yes No					
List All E. Logs Run:							
Compensated Dual Induction Gamma Ray N	-						
İ			3 RECORD I -conductor, surface, in	New Used ntermediate, produ	iction, etc.		
Purpose of String	Size Hole Drilled	Size Casing	Weight Lbs. / Ft.	Setting	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8"	22	Depth 22	"A"	5	Additives
Production	6-3/4	4-1/2	10.5	1061.22	"A"	140	
							!
		ADDITIONA	L CEMENTING / SO	QUEEZE RECOF	RD		
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	 	Type and	Percent Additives	
Shots Per Foot		ION RECORD - Bridge Plu Footage of Each Interval Po			acture, Shot, Cemer Amount and Kind of N		d Depth
4	964-967/907-909/	901-903		300gal 15%HCLw/ 24	bbls 2%kol water, 516bbls wate	r w/ 2% KCL, Biocide, 63000	3 20/40 sand 964-967/907-909
				i			901-903
4	677-679/644-647/	621-623		300gal 15%HCLw/ 31	bbls 255kd water, 416bbls wate	r w/ 2% KCL, Bindde, 8700#	20/40 sand 677-679/644-647
				!			621-623
4	545-549/532-536			300gal 15%HCLw/ 41 I	obis 2%kcl water, 516bbis water	w/ 2% KCL, Biocide, 11100	# 20/40 sand 545-549/532-536
TUBING RECORD 2-	Size 3/8"	Set At 998	Packer At	Liner Run	Yes 7 N	0	
	rd Production, SWD or			ing √ Pum	ping Gas L	ift Othe	er (Explain)
Estimated Production	Oil	Bbls. Gas	Mcf Wa	ater	Bbls.	Gas-Oil Ratio	Gravity
Per 24 Hours	n/a	158.8mcf	55.9		· - ·· · · · · · · · · · · · · · · · · · ·		
Disposition of Gas	METHOD OF	COMPLETION		Production Int	erval		
☐ Vented ✓ Sold (If vented, S	Used on Lease ubmit ACO-18.)	Open Hole Other (Spe	<u> </u>	Dually Comp.	Commingled		



Ravin 4513

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



TICKET NUMBER 2199

TOWNSHIP

SECTION

FOREMAN 56 B

RANGE

COUNTY

621220

WELL NAME & NUMBER

TREATMENT REPORT & FIELD TICKET CEMENT

4.30.07	Van (le	are 1	KlAND 1	7-3	17	29 19	NO
FOREMAN / OPERATOR	TIME	TIME	LESS LUNCH	TRUCK #	TRAILER #	TRUCK HOURS	EMPLOYEE SIGNATURE
	// 15	1:45	LONOT	903427	"	2.5	sa Blowlan
Jup . B	11:75	1		903187			Mhh
MAURICK. D				903103			
Russell A				903142	932452		2 111/
Paul H.		1		931500	100-100		HTC &
Gary . C		l v		93/300		4	DJ Carpers
JOB TYPE <u>لمسوحل</u> ان	us HOLES	SIZE 63	<i>14</i> H	OLE DEPTH 107	3 50 CASI	NG SIZE & WEIGHT _	41/2 10.5
CASING DEPTH 104	/. 22 DRILLE	PIPE	тт	UBING	OTHE	IR	
SLURRY WEIGHT 1							
DISPLACEMENT /6							
REMARKS:						(
INSTAlled To get due to	Cementl	nead	RAN ISK	seld 1161	aldye of	\$ 140 5 K	i of coment
To get due to	soutace.	flush	Dump - Pun	p. Wipepp	La to but	ton 4 set flo	of shue
				, ,			
-							
			Lu.,				
	بالسيب ورب يوجعون						
							,
	1661	. 22	F+4% C	osina			
•		6	Centraliza	R<			
		1	41/2 110	ictshoe			
ACCOUNT CODE	QUANTITY or I	JNITS		DESCRIPTION OF SE	ERVICES OR PRODUC	ЭТ	TOTAL AMOUNT
903427	2-5	he	Foreman Pickup	and the second s			
903197	2.5	hr	Cement Pump Truc	k			
903103	2.5	hr	Bulk Truck				
1104		0 5K	Portland Cement				
1124		2		Dement BAHLE			
1126		1		ant 41/2 win	D-RPlus		
1110		4 5K	Gilsonite				
1107		5 5K	Flo-Seal				
1118		/ SK	Premium Gel				<u> </u>
1215A	19	<u>01</u>	Sortium Silicate	alchloride		RECEI	VED
1111B 1123		3 3K	City Water	a ICHIOVIOR		KANSAS CORPORATI	ON COMMISSION
903142	700	2000 1 5 hv	Transport Truck			AUG 23	2007
932452	2.	5 hr	Transport Trailer				
93/500	2.5	5 hy	80 Vac			CONSERVATION WICHITA	DIVISION
						**ICHIIA	NO



TXD SERVICES LP DRILLERS LOG

TXD SERVICES LP

101		S. 17	T. 2	. 9	₹. 19	August August Serbert		
133-26914		County:	Neos	ho		374'	wold on	
Elev:	982'	Location	Kansa	as		436'	no blow	
						467'	no blow	
Quest Cher	okee, LLC					498'	no blow	
9520 N. Ma	y Ave, Suite	300				529'	no blow	
Oklahoma (City, OK. 73	120				622'	7 - 1/2"	16.7
17-3		Lease Name	Van (leave,	Leland E.	653'	7 - 1/2"	16.7
ion	800	ft from the		S	ine	684'	3 - 3/4"	24.5
	1950	ft from the	٧	V I	_ine	777'	3 - 3/4"	24.5
ctor:	TXD	SERVICES	LP			932'	3 - 3/4"	24.5
NA	***************************************	Geologist:				994'	8 - 3/4"	40
4/30/2007		Total Depth:	1077					
ation;	SE SW							
		$\frac{1}{2} \frac{1}{2} \frac{1}$						
	6-3/4"						2000	
8-5/8"	4-1/2"						MOS	
24#							ALIC 9 9 20	07
21'					· · · · · · · · · · · · · · · · · · ·		AUU E E	0521 Al
portland						<u> </u>	CONFIDER	A 1 1000
							(a)	
	133-26914 Elev: Quest Cher 9520 N. Ma Oklahoma 17-3 ion ctor: NA 4/30/2007 cation; Surface 12-1/4" 8-5/8" 24# 21'	133-26914 Elev: 982' Quest Cherokee, LLC 9520 N. May Ave, Suite Oklahoma City, OK. 73 17-3 ion 800 1950 ctor: TXD NA 4/30/2007 cation; SE SW Surface Production 12-1/4" 6-3/4" 8-5/8" 4-1/2" 24# 21'	County: Elev: 982' Location	County: Neos Elev: 982' Location Kanss County: Neos Location Kanss County: Neos Location Kanss County: Neos Location Kanss County: Neos Count	County: Neosho Elev: 982' Location Kansas	133-26914 County: Neosho	### County: Neosho	133-26914 County: Neosho 374' no blow

						a filozofia		
Formation	Тор	Btm.	Formation	Тор	Btm.	Formation	Тор	Btm.
top soil	0	1	lime	372	375	lime	641	643
clay,shale	1	21	sand	372	375	shale	643	646
shale	21	62	sand	375	396	b.shale	646	648
lime	62	108	shale	396	426	coal	648	649
b.shale	108	110	lime	426	432	shale	649	678
shale	110	113	coal	432	433	coal	678	678
lime	113	115	shale	433	436	shale	679	713
shale	115	141	lime	436	456	sand	713	730
lime	141	155	b.shale	456	458	shale	730	739
shale	155	199	lime	458	466	sand	739	750
lime	199	214	shale	466	478	coal	750	751
shale	214	233	coal	478	479	shale	751	880
lime	233	236	shale	479	508	sand	880	890
shale	236	291	coal	508	509	shale	890	902
lime	291	295	shale	509	510	coal	902	903
shale	295	307	lime	510	545	shale	903	908
lime	307	311	shale	545	550	coal	908	909
shale	311	321	lime	550	554	shale	909	960
lime	321	349	shale	554	565	sand	960	96
shale	349	351	sand	565	571	coal	965	966
lime	351	353	shale	571	619	shale	966	970
shale	353		coal	619		lime	970	
coal	371	372	shale	620			RECE	VED
	533' added	water, 713	-730' odor, 73	35-750' odos	•	KAN	ISAS CORPORA	TION COMMISS

AUG 2 3 2007

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 Van Cleave, Leland E 17-3 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 Riverton, Neutral, Rowe, Fleming, Croweburg, Bevier, Mulky, Summit and Squirrel producing formations at the Van Cleave, Leland E 17-3, located in the SE SW, S17-T29S-R19E, Approximately 800 FSL & 1950 FWL, 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.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 masses time, the first publication thereof being made as aforesaid on the 16 day of aine 2012, with subsequent publications being made on the following dates: _____, 2012 _______, 2012 Subscribed and sworn to and before me this _ <u>19</u> day of _ **U** Notary Public My commission expires: January 9, 2015 Printer's Fee\$ 70.14 Affidavit, Notary's Fee \$ 3.00 Additional Copies\$_ Total Publication Fees \$ 73.



			,
Affida	vit of Notice Served		CERCE CONTROL OF THE
Re:		GLING OF PRODUCTION OR FLUIDS - ACO-4	
	Well Name: VAN CLEAVE, LELAND E 17-3	Legal Location: SESW S17-T29S-R19E	
The und	dersigned hereby certificates that he / she is a duly authorized a		
2012		nced above was delivered or mailed to the following parties:	
Note: A	copy of this affidavit must be served as a part of the application		
200	Name TDOOK MIDCONTINENT DROPHOTION ALL	Address (Attach additional sheets if necessary)	
POS	TROCK MIDCONTINENT PRODUCTION, LLO	.C 210 PARK AVENUE, SUTIE 2750, OKLAHOMA C	ITY, OK 73102
	attest that notice of the filing of this application was published in	the CHANUTE TRIBUNE , the offici	ial county publication
of NE		county. A copy of the affidavit of this publication is attached.	
Signed th	is JULY		•
	# 09004117 Subscribed and sworn	MAL.	
į	S NOTARY OF	Applicant or Duly Authorized Agent	
MIIII	# 09004117 Subscribed and swori	rn to before me this day ofULY	, 2012
	0 EXP. 00/13/13	Liste Dollar	
	THE COUNTY OF THE PROPERTY OF	Notary Public	
	White Okstania	My Commission Expires: 5/13/13	
		,	Market School of the Control of the

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 n1tice was

made as aforesaid on the 18th of

June 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

18th day of June, 2012

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

Notary Public Sedgwick County, Kansas

Printer's Fee: \$132.40

PUBLISHED IN THE WICHITA EAGLE
ON JUNE 18, 2012 (3191303)

BEFORE THE STATE CORPORATION
COMMISSION OF THE
STATE OF KANSAS
NOTICE OF FILING APPLICATION
RE: In the Matter of Postrock Midcontinent
Production, LLC Application in the Van
Cleave, Leland E 17-3 localed in Neosho
County, Kansas.
TO: All Oll & Gas Producers, Unleased
Mineral Interest Owners, Landowners,
and all persons whomever concerned.
You, and each of you, are hereby notified
final Postrock Midconfinent Production,
LLC has filed an application to commingle
the Riverton, Neutral, Rowe, Fleming,
Croweburg, Bevier, Mulky, Summit and
Squirrel producing formations at the Van
Cleave, Leland E 17-3, located in the SE SW,
S17-T29S-R19E, Approximately 800 FSL &
1950 FWL 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
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All persons interested or concerned shall

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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 Cify, Oklahoma 73102 (405) 660-7704

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/

Mark Sievers, Chairman Thomas E. Wright, Commissioner Sam Brownback, Governor

July 18, 2012

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

RE: Approved Commingling CO071222

Van Cleave, Leland E. 17-3, Sec.17-T29S-R19E, Neosho County

API No. 15-133-26914-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on July 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 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 CO071222 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