

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1099274

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				
Address	2:		Feet from 1	North / South Line of Section				
City:	+++		Feet from E	East / West Line of Section				
Contact	Person:	County:						
Phone:	()	Lease Name:	W	/ell #:				
1.	Name and upper and lower limit of each production interval to be con	nmingled:						
	Formation:	(Perf	s):					
	Formation:	(Perf	s):					
	Formation:	(Perf	s):					
	Formation:	(Perf	s):					
	Formation:	(Perf	s):					
2.	Estimated amount of fluid production to be commingled from each int	erval:						
	Formation:		MCFPD:	BWPD:				
	Formation:			BWPD:				
	Formation:			BWPD:				
	Formation:			BWPD:				
	Formation:			BWPD:				
□ 3.□ 4.	Plat map showing the location of the subject well, all other wells on the subject well, and for each well the names and addresses of the less signed certificate showing service of the application and affidavit of process	essee of record or	operator.	ases 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						
<u> </u>	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 compatibility of	f the fluids to be c	ommingled.					
current ir 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.		Submitted Electro	onically				

KCC Office Use Only

Denied Approved

15-Day Periods Ends:

Approved By: _______ Date: ______

Protests may be filed by any party having a valid interest in the application. Protests must be in writing and comply with K.A.R. 82-3-135b and must be filed wihin 15 days of publication of the notice of application.

POSTROCK



Current Completion

SPUD DATE: 5/1/2006

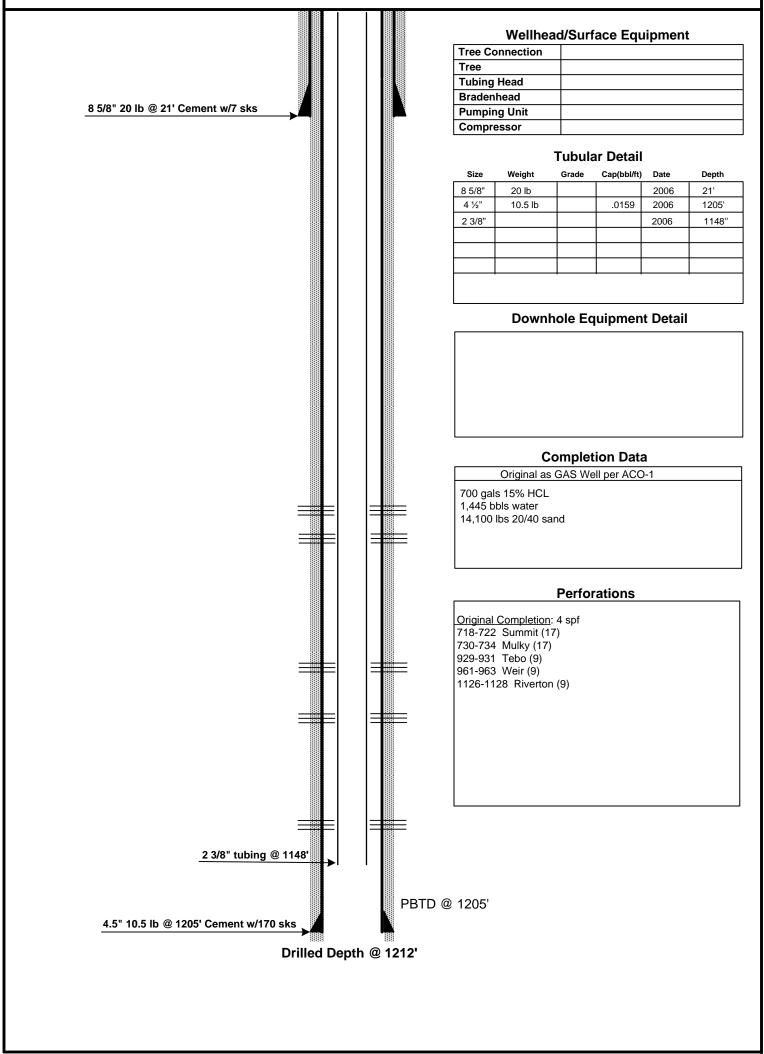
WELL : Carter, Gale D 24-1

FIELD : Cherokee Basin

STATE : Kansas COUNTY : Wilson n COMP. Date : 5/12/2006 API: 15-205-26530-00-00

LOCATION: 24-28S-16E (NE,NE)

ELEVATION: 990'



PREPARED BY: POSTROCK
APPROVED BY:

DATE: Sept, 2012

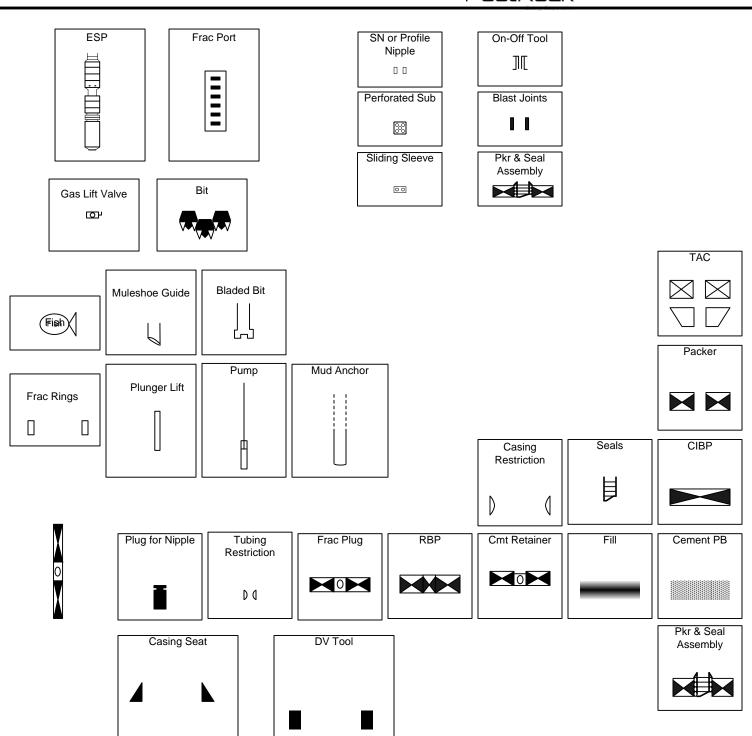
DATE:__

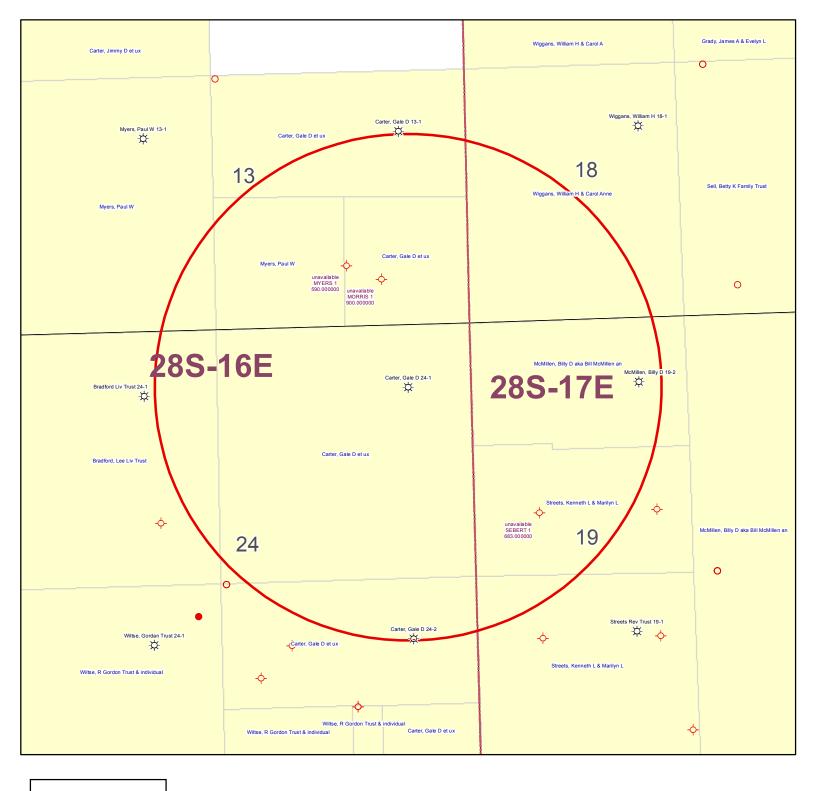
POSTROCK



LEGEND

PostRock[®]





KGS STATUS

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

Carter, Gale D 24-1 24-28S-16E 1" = 1,000'

	Α	В	С	D	Е	F	G	Н	1	1	K
1	Produced Fluids #	Б	1	2	3	4	5	11		<u> </u>	I
	Parameters	Units	Input	Input	Input	Input	Input		Click her	re	Click
3	Select the brines	Select fluid	7	Ī		V	Ī	Mixed brine:	to run SS	-	
4	Sample ID	by checking						Cell H28 is	10 1411 00	•	Click
5	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.			
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			Click
7	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in	Goal Seek	SSP	
8	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines			Click
9	Field		CBM	CBM	Bartles	Bartles	Bartles	calculations.			
10	Na ⁺	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
11	K ⁺ (if not known =0)	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91		lcite	
	Ca ²⁺	(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
	Sr ²⁺		1,050.00	2,432.00	2,044.00	1720.00	1740.00				0.13
	Ba ²⁺	(mg/l)						0.00	Ба	rite	
.,		(mg/l)						0.00			
	Fe ²⁺	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21		lite	
	Zn ²⁺	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb ²⁺	(mg/l)						0.00	Gyp	osum	
19	Cl	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
20	SO ₄ ²⁻	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40	Hemil	ıydrate	
	F	(mg/l)						0.00	-3.96	-3.90	0.06
	Br'	(mg/l)						0.00		ydrite	3.00
	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
_			100.00	224.00	250.00	200 00	254.00				0.12
	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03	Cele	estite	
	CO3 Alkalinity	(mg/l as CO3)						_			
	Carboxylic acids**	(mg/l)						0.00		Sulfide	
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
28	Borate	(mg/L) H3BO3						0.00	Zinc S	Sulfide	
29	TDS (Measured)	(mg/l)						72781			
30	Calc. Density (STP)	(g/ml)	1.038	1.051	1.050	1.048	1.045	1.047	Calcium	fluoride	
31	CO ₂ Gas Analysis	(%)	19.97	18.76	22.41	35.53	33.79	26.16			
	H ₂ S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269		rbonate	
33	Total H2Saq	(mgH2S/l)	1.00	1.00	1.00	1.00	0.50	0.90	-0.74	-0.51	0.23
34	pH, measured (STP)	pН	5.67	5.76	5.72	5.54	5.55	5.63	Inhibitor ne	eeded (mg/L)	
	Chasse one ention	0-CO2%+Alk,							Calcite	NTMP	
35	Choose one option to calculate SI?		0	0	0	0					
	Gas/day(thousand cf/day)	(Mcf/D)	•		0	U		0	0.00	0.00	
	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	1
	Water/Day	(B/D)	100	100	100	100	100	500	0.00	0.00	
39	For mixed brines, enter val	ues for temperat	tures and pressi	res in Cells (H	(40-H43)			(Enter H40-H43)		Н	
40	Initial T	iucs for tempera						(Lince 1140-1143)	р	п	
41		(F)	66.0	71.0	70.0	41.0	49.0	60.0	5.69	5.60	1
	Final T		66.0	71.0	70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (5.60 CentiPoise)	
	Final T Initial P	(F)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0	5.69 Viscosity (1.196	5.60 CentiPoise) 0.826	
42 43	Initial P Final P	(F) (F) (psia) (psia)	66.0	71.0	70.0	41.0	49.0	60.0 89.0	5.69 Viscosity (1.196 Heat Capaci	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C)	
42 43 44	Initial P Final P Use TP on Calcite sheet?	(F) (F) (psia) (psia) 1-Yes;0-No	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959	
42 43 44 45	Initial P Final P Use TP on Calcite sheet? API Oil Grav.	(F) (psia) (psia) 1-Yes;0-No API grav.	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eeded (mg/L)	
42 43 44 45 46	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav.	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eded (mg/L) HDTMP	
42 43 44 45 46 47	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00	
42 43 44 45 46 47 48	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day	(F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav.	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne	5.60 CentiPoise) 0.826 ty (cal/ml/ ⁰ C) 0.959 eded (mg/L) HDTMP	
42 43 44 45 46 47 48 49	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) *	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) †	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP:	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) † Quality Control Checks at H ₂ S Gas	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH' (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/l) (pH)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) (N) STP: (%) (mgH2S/I) (pH) (%)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\times\$Cations=	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated	(F) (F) (psia) (psia) (1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= EAnions=	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l)	66.0 25.0	71.0 25.0	70.0 25.0	41.0 25.0 25.0	49.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated SCations= SCations= Calc TDS=	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I)	66.0 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor NTMP	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated \$\textstyle{\textstyle{2}}\text{Collections=} \text{\$\textstyle{2}}\text{\$\text{Anions=}} \text{\$\text{Calc}\$ Calc TDS=} Inhibitor Selection	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input	66.0 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) † OH (Strong base) † Quality Control Checks at H,S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (mg/I) Input	66.0 25.0 25.0 0 0	71.0 25.0 25.0	70.0 25.0 25.0 1nhibitor NTMP	41.0 25.0 25.0 Unit Converter	49.0 25.0 25.0 25.0	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61 62 63	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer	(F) (F) (psia) (psia) (psia) 1-Yes:0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) Input 120	66.0 25.0 25.0 0 0	71.0 25.0 25.0 25.0	Inhibitor NTMP BHPMP	41.0 25.0 25.0 Unit Converter From Unit	49.0 25.0 25.0 25.0 (From metric Value 80	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you?	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) (mg/I) Input 120	0 0 0 0 Unit min	# 1 2 3	Inhibitor NTMP BHPMP PAA	Unit Converter From Unit C m³	49.0 25.0 25.0 25.0 (From metric Value 80 100	60.0 89.0 25.0 120.0 30.00 0.60 0	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H ₂ Saq (STP) pH Calculated Alkalinity Caclulated Alkalinity Caclulated Alkalinity Caclulated PCO2 Calculated Alkalinity Caclulated PCO2 Total H ₂ Sac TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is:	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (equiv./I) (equiv./I) (mg/I) Input 120	0 0 0 0 Unit min	# 1 2 3 4	Inhibitor NTMP BHPMP PAA DTPMP	Unit Converter From Unit °C m³ m³	49.0 25.0 25.0 25.0 (From metric Value 80 100 100	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated Alkalinity Caclulated Alkalinity Caclulated Seatons= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed,	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (mg/I) Input 120 1 4	0 0 0 0 Unit min 1-Yes;0-No #	## 1 2 3 4 5 5	Inhibitor NTMP BHPMP PAA DTPMP PPCA	Unit Converter From Unit °C m³ m³ MPa	49.0 25.0 25.0 25.0 (From metric Value 80 100 1,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	
42 43 44 45 46 47 48 49 50 51 52 53 55 56 57 58 59 60 61 62 63 64 65 66 67	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) † Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECations= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor for you? If No, inhibitor # is: If you select Mixed, 1st inhibitor # is:	(F) (F) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/I) as HCO3 (equiv./I) (mg/I) Input 120 1 4	0 0 0 0 Unit min 1-Yes;0-No #	# 1 2 3 4 5 5 6	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA	Unit Converter From Unit C 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 43 44 45 46 47 48 49 50 51 52 53 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69	Initial P Final P Use TP on Calcite sheet? API Oil Grav. Gas Sp.Grav. MeOH/Day MEG/Day Conc. Multiplier H* (Strong acid) * OH* (Strong base) * Quality Control Checks at H ₂ S Gas Total H2Saq (STP) pH Calculated PCO2 Calculated Alkalinity Caclulated ECAtions= EAnions= Calc TDS= Inhibitor Selection Protection Time Have ScaleSoftPitzer pick inhibitor # is: If you select Mixed, 1st inhibitor # is: % of 1st inhibitor is:	(F) (F) (psia) (psia) (psia) 1-Yes;0-No API grav. Sp.Grav. (B/D) (N) (N) STP: (%) (mgH2S/I) (pH) (%) (mg/l) as HCO3 (equiv./l) (equiv./l) (mg/l) Input 120 1 4 1 50	0 0 0 0 Unit min 1-Yes;0-No # # %	## 1 2 3 4 4 5 5 6 7	Inhibitor NTMP BHPMP PAA DTPMP PPCA SPA HEDP	Unit Converter From Unit C m³ m³ MPa Bar Torr	49.0 25.0 25.0 25.0 25.0 Value 80 100 1,000 496 10,000	60.0 89.0 25.0 120.0 30.00 0.60 0 0 To Unit °F ft³ bbl(42 US gal) psia psia	5.69 Viscosity (1.196 Heat Capaci 0.955 Inhibitor ne Gypsum 0.00 Anhydrite 0.00 Value 176 3,531 629 145,074 7,194 193	5.60 CentiPoise) 0.826 ty (cal/ml/°C) 0.959 ceded (mg/L) HDTMP 0.00 HDTMP	

Saturation Index Calculations

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

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

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

Saturation Index

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

PTB

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

Kansas Corporation Commission Oil & Gas Conservation Division ORIGINAL

Form ACO-1

September 1999

Form Must Be Typed

1-02

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344	API No. 15 - 205-26530 -00
Name: Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	ne_neSec24Twp28S. R16V East West
City/State/Zip: Chanute, KS 66720	660 feet from S /(N) circle one) Line of Section
Purchaser: Bluestem Pipeline, LLC	660 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: L S Well Service, LLC	Lease Name: Carter, Gale D. Well #: 24-1
License: 33374	Field Name: Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 990 Kelly Bushing: n/a
✓ New Well Re-Entry Workover	Total Depth: 1212 Plug Back Total Depth: 1205
Oil SWD SIOW Temp. Abd.	Amount of Surface Pipe Set and Cemented at 21.3 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 1205
Operator:	feet depth to surface w/ 170 sy cmt.
Well Name:	Alta - Dig - 11/24/08
Original Comp. Date: Original Total Depth:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
Deepening Re-perf Conv. to Enhr./SWD	
Plug Back Plug Back Total Depth	Chloride content ppm Fluid volume bbls
Commingled Docket No	Dewatering method used
Dual Completion Docket No	Location of fluid disposal if hauled offsite:
Other (SWD or Enhr.?) Docket No	Operator Name:
·	Lease Name: License No.:
5/1/06 5/2/06 5/12/06 Spud Date or Date Reached TD Completion Date or	Quarter Sec. Twp. S. R. East West
Recompletion Date Bate Heached 15 Completion Date Recompletion Date	County: Docket No.:
Kansas 67202, within 120 days of the spud date, recompletion, workove Information of side two of this form will be held confidential for a period of 1	the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, er or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. 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. Submit CP-111 form with all temporarily abandoned wells.
All requirements of the statutes, rules and regulations promulgated to regulation are complete and correct to the best of my knowledge.	ate the oil and gas industry have been fully complied with and the statements
Signature: Junifu R. Ammann	KCC Office Use ONLY
Title: New Well Development Coordinator Pate: 8/30/06	Letter of Confidentiality Received
Subscribed and sworn to before me this 30th day of Queunt	If Denied, Yes Date:
20 00 .	Wireline Log Received
	Geologist Report Received SAS CORPORATION COMMISSIO
Notary Public: Word Klauman	UIC Distribution ALIC 2 4 2000
Date Commission Expires: 8-4-2010 TER	RA KLAUMAN AUG 3 1 2006
My Appt. Expires	CONSERVATION DIVISION WIGHING AS

ORIGINAL

Operator Name: Qu	est Cherokee, LL	.C	•	Lease Name:	Carter, Gale	D.	_ Well #: 24-1	9
Sec Twp	28 S. R. 16	✓ East	West (County: Wilso	n			**
tested, time tool ope temperature, fluid re	show important tops on and closed, flowing covery, and flow rate as surveyed. Attach	g and shut-in possif gas to surfa	ressures, whe	ther shut-in pro with final cha	essure reached	d static level, hydr	ostatic pressure	sts giving interval es, bottom hole d. Attach copy of all
Orill Stem Tests Take		☐ Yes	√ No	 ✓L	og Forma	tion (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)		☐ Yes ☑ Yes	✓ No ☐ No		attaoricu			
ist All E. Logs Run:	utron Log							
Gamma Ray Neutr Dual Induction Log								
-		Report all s	CASING REC	ORD No	_	ction, etc.		
Purpose of String	Size Hole Drilled	Size Cas Set (In O		Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	11,6	8-5/8"	20	#	21.3	"A"	7	
Production	6-3/4	4-1/2	10	.5#	1205	"A"	170	
Purpose: Perforate Protect Casing Plug Back TD Plug Off Zone	Depth Top Bottom	Type of Ce		MENTING / SQU #Sacks Used	JEEZE RECOR		Percent Additives	
Shots Per Foot		ON RECORD - E				acture, Shot, Cemen		d Depth
4	1126-1128/961-					bls 2%kcl water, 720bbls water		7 20/40 sand 1126-1126/961-963
4	730-734/718-72		<u>.</u>		300gal 15%HCLw/ 45 b	obis 2%kci water, 725bbis water	w/ 2% KCL, Blockle, 4100;	929-931 20/40 sand 730-734/718-7200
TUBING RECORD 2-	Size 3/8"	Set At 1148.46	Pr n/a	acker At	Liner Run	Yes ☑ No		
Date of First, Resumer 7/26/06	d Production, SWD or E	nhr. Prod	ducing Method	Flowing	g 📝 Pump	oing Gas Li	ft Othe	r (Explain)
Estimated Production Per 24 Hours	oii n/a		Gas Mcf ncf	Wate 20bb		Bbls. (Gas-Oil Ratio	Gravity
Disposition of Gas Vented & Sold (If vented, So	METHOD OF (Used on Lease ubmit ACO-18.)		ther (Specify)		Production Interpretation	erval Commingled		

L S Well Service, LLC #33374 543A 22000 Road Cherryvale, Kansas 67335 620-328-4433

Drill Log

Quest Cherokee, LLC

Gale Carter #24-1 S24, T28,R16 Wilson Co, KS API#205-26530-0000

0.0	DIRT
0-2	
2-15'	LIME
15-105	SHALE
105-112	
112-120	
	SANDY SHALE
215-220	SAND
220-240	SANDY SHALE
240-315	LIME
315-350	SANDY SHALE
350-355	LIME
355-359	BLACK SHALE
359-370	LIME
370-380	SHALE
380-425	LIME
425-500	SHALE
500-512	SAND
512-524	
524-536	
536-562	
562-580	
580-601	SAND
601-626	SANDY SHALE
626-629	LIME
629-630	
	LIME PINK
	BLACK SHALE
658-668	
	SAND
686-696	SHALE
696-713	LIME OSWEGO
713-717	BLACK SHALE
717-726	LIME
726-728	BLACK SHALE
728-729	COAL
729-740	LIME
740-750	SHALE
750-787	SANDY SHALE
787-788	COAL
788-800	SANDY SHALE
800-900	SAND
900-902	LIME
902-903	COAL
903-912	SHALE
912-920	SANDY SHALE
920-972	SHALE
070 000	CANDY CHALE

972-989

SANDY SHALE

5-1-06 Drilled 11" hole and set 21.3' of 8 5/8" surface casing Set with 7 sacks Portland cement 5-2-06 Started drilling 6 3/4" hole 5-2-06 Finished drilling to T.D. 1212' **260' WATER** 736' WATER INCREASE 661' 2" ON 1/2" ORIFICE 736' 22" ON 1/2" ORIFICE 811' 45" ON 3/4" ORIFICE 887' 60" ON 3/4" ORIFICE 1012' 8 PSI ON 3/4" ORIFICE 1062' 16 PSI ON 3/4" ORIFICE 1112' 16 PSI ON 3/4" ORIFICE 1137' 18 PSI ON 3/4" ORIFICE 1212' 16 PSI ON 3/4" ORIFICE RECEIVED

RECEIVED KANSAS CORPORATION COMMISSION AUG 3 1 2006

CONSERVATION DIVISION WICHTA, KS

L S Well Service, LLC #33374 543A 22000 Road Cherryvale, Karisas 67335 620-328-4433 Drill Log

Quest Cherokee, LLC

Gale Carter #24-1 S24, T28,R16 Wilson Co, KS API#205-26530-0000

989-1097 SAND 1097-1122 SHALE 1122-1123 COAL 1123-1128 SHALE 1128-1212 LIME

T.D. 1212'

TIEST NUMBER	09937
LOCATION	e Ka
FOREMAN Brook	Butler

	the first of the second	CEME	ENT MODERAL	医自然性性 為原		<u> </u>
DATE	CUSTOMER#	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-12-06		Gale Caster 24-1	.24	28	16	Wilson
CUSTOMER	to the second se					
Qu	est Cherok	ee ILC	TRUCK#	DRIVER	TRUCK#	DRIVER
MAILING ADDRE	SS		446 miles	Scott		
9520	D. N. May A	1e 5Te 300	502	=Kyle	· · · · · · · · · · · · · · · · · · ·	10.00 0.2 T
CITY Justine	sa na an da	STATE STATE ZIP CODE (A.S.)	436	Larry		
OKKhoma	C:+.,	OK 73120	452-763	J.P.		
JOB TYPE. Lon	15511-5	HOLE SIZE 63/4" HOLE DE	PTH_/2/2	CASING SIZE & W	EIGHT <u>4//2</u>	10.516
CASING DEPTH	1205	DRILL:PIPE			OTHER : 1	
SLURRY WEIGH	IT <u> /45 /5</u> -	SLURRY VOL 37 Bb/s WATER 9	al/sk	CEMENT LEFT in (CASING	
DISPLACEMENT	r 192 Bbls	DISPLACEMENT PSI 750 ME PSI	400 BumpPlus	RATE	er ega villa villa villa	<u>*3 3 </u>
REMARKS So	Cety Meeting	Rigupto 416" cashis Breakci	culation with	NaTer, wash ca	sus down To k	DOTTON (90 Sil)
Pamped R	5 Bbl. GeL	Flush Primped water To bing	Gel asound To	Swigge To COI	rdition Hole	RisysTo
Cemula F	umped 10	Bals D. Deto Mixed 170 SKs.	Resconcitu//3	CACL25# PU/Sk of	KOI-SEAL, YY	Flocele
Shulden	J- Washout	Dumos Lines - Release Plug - D	isolace Plus in	1, th 19 Bbs.	water	a Color Las Las Asia
FireTo	umpiles ST 7	50. RST Rumped Plus To 1400	_1 /		Piessue	
-39 F/091	THeld clos	ecasis will PST - Good ce		Swlace w/ 71	341. Slavy	Maria Maria Maria
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ACCOUNT:	QUANTITY of UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
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11021	BONE MEDICA COESTAS	UTACCACL 2 172 moses qui diciari un a	784#01	10240
1196 A	850 /05	KOI-SEAL 5# PYSK and all the seasons and the	,36 #	306.00
1107	serio no 40 a serios	Flocele 1/4 PU/SK	-1.80#	72.00
	er elsar in elle ellegre	1		
5407.A	Shere Ton	40 miles - Bulk Tik	1.05	336.00
	TO SERVICE BY THE SECOND	र अस्ति का का है	10 mg/s	
5502C	3 3 THIS.	80 Bbl. VACTIKY LINE 8 M. C. & Maine	90.00	270.00
5501	4 His	Water Tigas poit SE 297	98.00	392.00
1123	8000 GAI.	Citywater Sec. 20	12.80 .	10240
Galle.	14 1 14 12 V	Gel Flush 3000 Con		
1118 A	300 /bs	Gel Flush Sys 20 20	,14.#	42.00
Taria . Fe .		SIO OMI	en e	
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	A KIND OF THE PARTY		Sub ToTal	4335 30
	on partial states	6.376	SALÉS TAX	15985
			ESTIMATED	4495.15

AUTHORIZATION

TOTAL

PACTION CORDER

DATE

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 (3218990)
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
Commingling of Production in the Carter,
Gale D 24-1 located in Wilson County,
Kansas.

Kansas,
TO: All Oll & 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, Tebo, Weir, Riverton,
Squirrel, Cattleman and Bartlesville producing
formalions at the Carter, Gale D 24-1, located
in the SW NE NE NE, S24-T28S-R16E,
Augrox/Imalely, 645 ENJ & 655 EEL Milliers Approximately 654 FNL & 655 FEL, Wilson County, Kansas.

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 profests shall be filed pursuant to Commission regulations and must state specific reasons who graditing the application may cause waste

regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollule the natural resources of the State of Kansas.

All persons interested or concerned shall take notice of the foregoing and shall govern Ihemselves 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 Oll and Gas Commission.

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 Midconlinent Production, LLC 210 Park Avenue, Sulte 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 2nd publication was made on the 3rd publication was made on the 4th publication was made on the day of 5th publication was made on the ______ day of 6th publication was made on the____ Subscribed and sworn to before me, this

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 Carter, Gale D 24-1 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, Tebo, Weir, Riverton, Squirrel, Cattleman, and Bartlesville producing formations at the Carter, Gale D 24-1, located in the SW NE NE, S24-T28S-RI6E, Approximately 654 FNL & 655 FEL, 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.

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 76 1 cpy.

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NOTARY PUBLIC
State of Kansas
STATE OF KANSAS My Constraints in Expires

CARTER, GALE D 24-1

1 NAME & UPPE	R & LOWER LIMIT OF EACH PRO	DUCTION IN	TERVAL TO BE	COMMING	LED			
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CARTER, GALE D 24-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

et Operators, Unleased Mineral Owners and Landowner ch additional sheets if necessary)	rs acreage
Name:	Legal Description of Leasehold:
	Legal Description of Leasenoid.
ACREAGE LEASED BY POSTROCK	
by certify that the statements made herein are true and correct	to the best of my knowledge and belief.
	Chen
	Applicant or Duly Authorized Agent
	od sworn hefore me this 11TH day of JANUARY 2013
Subscribed and	nd sworn before me this 11TH day of JANUARY ,2013
JEMNIEED D. DE L	Burnher K. Deal
JENNIFER R. BEAL. MY COMMISSION EVENDED	Notary Public K. Blal
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JENNIFER R. BEAL MY COMMISSION EXPIRES 7-20-2016	Notary Public My Commission Expires: Auly 20, 2016

Affidavit of Notice Served	
	OR COMMINGLING OF PRODUCTION OR FLUIDS ACO-4
Well Name: CARTER, GALE D 24	
	a duly authorized agent for the applicant, and that on the day 11TH of JANUARY
0040	application referenced above was delivered or mailed to the following parties:
Note: A copy of this affidavit must be served as a pa	
Name	Address (Attach additional sheets if necessary)
POSTROCK	210 PARK AVE, STE 2750, OKLAHOMA, OK 73102
	n was published in the WILSON COUNTY CITIZEN , the official county publication
of WILSON	county. A copy of the affidavit of this publication is attached.
Signed this 11TH day of JANUARY	
, , , , , , , , , , , , , , , , , , ,	Chish
	Applicant or Duly Authorized Agent
Sut	bscribed and sworn to before me this 11TH day of JANUARY , 2013
CONTRACTOR OF THE PARTY OF THE	manufacture.
JENNIFER R. BEAL MY COMMISSION EXPIRES	Notary Pyblid My Commission Expires: Auly 20, 2010
7-20-2016	My Commission Expires: Office 30, 2010

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

January 28, 2013

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

RE: Approved Commingling CO011307

Carter, Gale D. 24-1, Sec. 24-T28S-R16E, Wilson County

API No. 15-205-26530-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on January 11, 2013, has been reviewed and approved by the Kansas Corporation Commission (KCC) per K.A.R. 82-3-123. Notice was examined and found to be proper per K.A.R. 82-3-135a. No protest had been filed within the 15-day protest period.

Based upon the depth of the 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 CO011307 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