

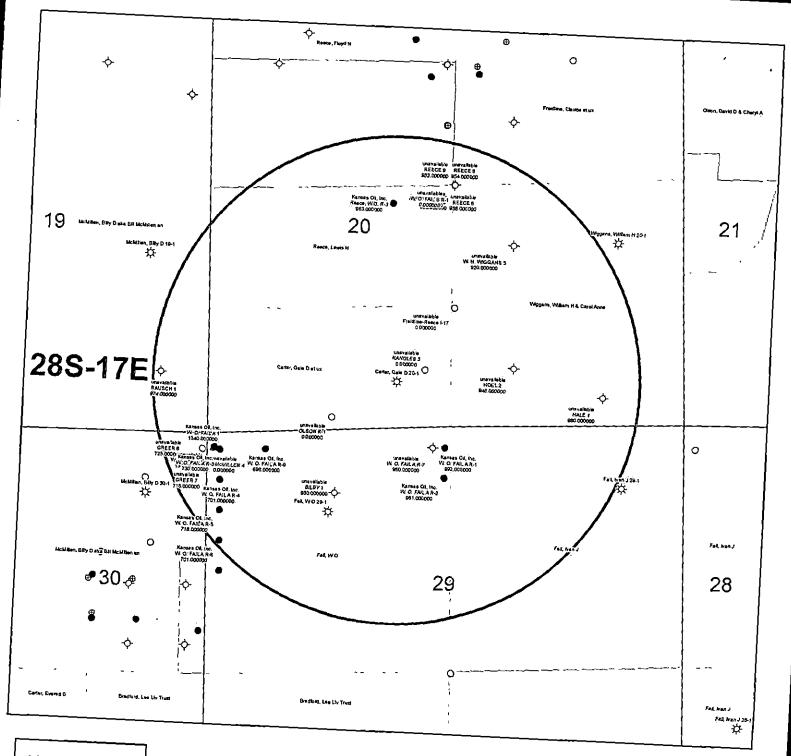
KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1089872

Form ACO-4 Form must be typed March 2009

APPLICATION FOR COMMINGLING OF Commingling ID # CO081232 PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

OPERATOR: License # 33343	API No. 15 - 15-205-26580-00-00
Name: PostRock Midcontinent Production LLC	Spot Description;
Address 1: Oklahoma Tower	NW SE SE SW Sec. 20 Twp. 28 S. R. 17 ✓ East West
Address 2: 210 Park Ave, Ste 2750	
City: OKLAHOMA CITY State: OK Zip: 73102 +	
Contact Person: CLARK EDWARDS	County: Wilson
Phone: (620) 432-4200	Lease Name: CARTER GALE D Well #: 20-1
•	
1. Name and upper and lower limit of each production interval to	
Formation: SUMMIT	(Perfs): 632-636
Formation: MULKY	(Perfs): 644-648
Formation: BEVIER	(Perfs):
Formation: CROWEBURG	(Perfs): 733-736
Formation: FLEMING	(Perfs): 772-774
2. Estimated amount of fluid production to be commingled from e	
Formation: SUMMIT	BOPD: 0 MCFPD: 1.62 BWPD: 2.5
Formation: MULKY	BOPD: MCFPD: BWPD:
Formation: BEVIER	BOPD: 0 MCFPD: 1.62 BWPD: 2.5
Formation: CROWEBURG	BOPD: 0 MCFPD: 1.62 BWPD: 2.5
Formation: FLEMING	BOPD: 0 MCFPD: 1.62 BWPD: 2.5
 In the subject well, all other well the subject well, all other well the subject well, and for each well the names and addresses of the subject well. In the subject well, and for each well the names and addresses of the subject well, all other well the subject well the subject well. In the subject well the subject we	
For Commingling 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 Commingling of FLUIDS ONLY, include the following:	
7. Well construction diagram of subject well.	
8. Any available water chemistry data demonstrating the compati	bility of the fluids to be commingled.
AFFIDAVIT: 1 am the affiant and hereby certify that to the best of my current information, knowledge and personal belief, this request for commingling is true and proper and I have no information or knowledge, which is inconsistent with the information supplied in this application.	Submitted Electronically
KCC Office Use Only	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
☐ Denied	the notice of application.
15-Day Periods Ends: 3/0/2012	
Approved By: Rick Hestermann Date: 09/11/2012	



KGS STATUS

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

Carter, Gale D 20-1 20-28S-17E 1" = 1,000' Rice

	Α	В		D	E	F		<u> </u>		J	Тк
1	Produced Fluids#	В	C 1	2	3	4	G 	Н Н	ļI	J	<u> K</u>
	Parameters	Units	Input	Input	Input	Input	Japut		Cliek be		Click
_	Select the brines	Select fluid	L_1					Mixed brine:	Click he to run St		
4	Sample ID	by checking				a:b		Cell H28 is	to run se	,	Cilck
5	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.			1
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			Click
	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in	Goal Seek	SSP	1
	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines			Click
	Field		CBM	СВМ	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)					<u> </u>	0.00	Saturation Index	valu <u>es</u>	(Final-Initial)
12	Mg ²⁺	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91	Ca	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
14	Sr ²⁺	(mg/l)			·		1	0.00	Ba	rite	
15	Ba ¹⁺	(mg/I)			,			0,00			
16	Fe ² *	(mg/l)	40.00	21.00	18.00	82.00	90,00	50.21	H	ilite	1
	Zn ²⁺	(mg/l)					, , , , , ,	0.00	-1.77	-1.80	-0.03
	Pb ²⁺	(mg/l)						0.00		sum	
	cr	(mg/l)	36,299.00	48,965.00	47,874.00	45632.00	43147.00	44388.44	-3.19	-3.18	0.00
···	SO ₄ ²		1.00	1.00	8.00	1.00	ł			ydrate	0.00
	E.	(mg/l)	1,00		0,00	1.00	1.00			"	0.04
21	<u> </u>	(mg/l)					ļ	0.00	-3.96	-3.90	0.06
	Br [*]	(mg/l)	<u> </u>				 	0.00		ydrite	
_	SiO2	(mg/l) SiO2				ļ 	 	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	Cele	estite	-
_	CO3 Alkalinity	(mg/l as CO3)									
_	Carboxylic acids**	(mg/l)						0.00		Sulfide	
	Ammonia	(mg/L) NH3					ļ	0.00	-0.16	-0.22	-0.06
	Borate	(mg/L) H3BO3					ļ	0.00	Zinc	Sulfide	-
29	TDS (Measured)	(mg/l)					ļ	72781			↓
	Calc. Density (STP)	(g/ml)	1,038	1,051	1,050	1.048	1.045	1.047	Calcium	fluoride	
	CO ₂ Gas Analysis	(%)	19.97	18.76	22.41	35,53	33.79	26.16	<u> </u>		
_	H ₂ S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269		rbonate	
_	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)	pH U-CO2%+Aik,	5.67	5.76	5.72	5,54	5,55	5.63	Calcite	eded (mg/L) NTMP	
	Choose one option								Carcile	NIBIF	
35	to calculate SI?	2-CO2%+pH	0	0	o	0	0				
	Gas/day(thousand cf/day)	(Mcf/D)			_			0	0.00	0.00	_
_	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	ВНРМР	_
	Water/Day For mixed brines, enter val	(B/D)	100	100	100	100	100		0.00	0,00	┥
	Initial T	(F)	66.0	71.0	70.0	41.0	49.0	(Enter H40-H43) 60.0	5.69	H 5.60	
	Final T	(F)	66.0	71.0	70.0	41.0	49.0			CentiPoise)	┨ │
	Initial P	(psia)	25.0	25.0	25.0	25.0	25.0		1.196	0.826	
43	Final P	(psia)	25.0	25.0	25.0	25.0	25.0	120.0	Heat Capaci	ty (cal/ml/°C)	1
44	Use TP on Calcite sheet?	I-Yes 0-No							0.955	0.959	
	API Oil Grav.	API grav.				,		30.00		eded (mg/L)] :
	Gas Sp.Grav.	Sp.Grav.						0.60	- 7	HDTMP	_
	MeOH/Day MEG/Day	(B/D) (B/D)	0	<u> </u>	<u> </u>	ļ	ļ	.0	0.00 Anbydrite	0,00 HDTMP	-
	Conc. Multiplier	(2.27)					-	 -	0.00	0.00	1 :
_	H' (Strong acid)	(N)					<u> </u>	<u> </u>			-
_	OH (Strong base)	(N)			_						
	Quality Control Checks at										
	H ₂ S Gas	(%)									
	Total H2Saq (STP)	(mgH2S/l)									
	pH Calculated PCO2 Calculated	(pH) (%)									
	Alkalinity Caciulated	(mg/l) as HCO3	'								
58	ΣCations=	(cquiv./1)									
	ΣAnions=	(equiv./l)									
	Cale TDS= Inhibitor Selection	(mg/l) Input	Unit	#	Inhibitor	Unit Convert	/From = etet-	to English)			
-	Innibitor Sciection Protection Time	120	Dhli min	1	NTMP,	Unit Converter From Unit	r (From metric Value	to English) To Unit	Value		
	Have ScaleSoftPitzer	,V	241141	2	ВНРМР	°C	80	oF °F	176		
64	pick inhibitor for you?	1	I-Yes;0-No	3	PAA	m³	100	n³	3,531		
	If No, Inhibitor # is:	4	#	4	DTPMP	m³	100	bbl(42 US gal)	629		
		· •	,,	5	PPCA	MPa	1,000	psia	145,074		
65							-,		,		
65 66	If you select Mixed, 1" inhibitor # is:	1	#	6	SPA	Bar	496	usia	7.194		
65 66 67	If you select Mixed, 1 st inhibitor # is:				SPA HEDP	Bar Torr	496 10.000	psia psia	7,194 193		
65 66 67 68	If you select Mixed,	50	# % #	7	HEDP	Torr	10,000	psia	193		
65 66 67 68 69	If you sclect Mixed, I st inhibitor # is: % of I st inhibitor is:		%					-	· ·		

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	8	1	1	1 _
Chloride	36299	48965	47874	45632	43147	43206
CO₂ 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

_FID:						
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 September 1999 April Must Be Typed

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License #33344	API No. 15 - 205-26580-00-00
Name: Quest Cherokee, LLC	County: Wilson
Address: 211 W. 14th Street	sesw_Sec, 20 Twp, 28 S. R, 17 T East West
City/State/Zip: Chanute, KS 66720	660 feet from Sy N (circle one) Line of Section
City/State/Zip: Chanute, KS 66720 Purchaser: Bluestem Pipeline, LLC Operator Contact Person: Jennifer R. Ammann	1980 feet from E /(W) (circle one) Line of Section
Operator Contact Person: Jennifer R. Ammann	Footages Calculated from Nearest Outside Section Corner:
Phone: (620) 431-9500 Phone: (620) Michael Drilling	(circle one) NE SE NW SW
Contractor: Name: Michael Drilling	Lease Name: Carter, Gale D. Well #: 20-1
Phone: (620) 431-9500 Phone: (Michael Drilling Phone: (33783	Field Name; Cherokee Basin CBM
Wellsite Geologist: Ken Recoy	Producing Formation: Multiple
Designate Type of Completion:	Elevation: Ground: 882 Kelly Bushing: n/a
✓ New Well Re-Entry Workover	Total Depth: 1108 Plug Back Total Depth: 1101.88
OilSIOWTemp. Abd.	Amount of Surface Pipe Set and Cemented at 23 Feet
✓ Gas 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 1101.88
Operator:	feet depth to surface w/ 160
Well Name:	A/12-015-12/4/8
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	Chloride contentppm Fluid volumebbls
Plug BackPlug 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:
5/12/06 802/06 5/13/06 5/22/06	Lease Name: License No.:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West
Recompletion Date Per oper - De ICCC Recompletion Date	County: Docket No.:
7 7	
Kansas 67202, within 120 days of the spud date, recompletion, workow Information of side two of this form will be held confidential for a period of	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. I2 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: Amount	KCC Office Use ONLY
Title: New Well Development Coordinator Date: 9/8/06	Letter of Confidentiality Received
Subscribed and sworn to before me this X day of Society be	If Denied, Yes Date:
20_Cle.	Wireline Log Received
A. TER	RA KLAUNAN Geologist Report Received
Notary Public: Notary Pu	iblic-State of Kensey UiC Distribution
Date Commission Expires: 8-4-20/) [My Appt. Expires	10-4-01010

Operator Name: Qu	est Cherokee, LL	<u>C</u>		Leas	e Name:	Carter, Gale	D	Well #: _20-	<u> </u>
	28S. R. <u>17</u>		t 🗌 West	Coun	ty:Wilso	<u> </u>	<u></u>		<u> </u>
INSTRUCTIONS: S tested, time tool ope temperature, fluid re Electric Wireline Log	n and closed, flowing covery, and flow rate	g and shu s if gas to	t-in pressures, surface test, a	whether a Jong with	shut-in pre	ssure reached	static level, hyd	rostatic pressur	es, bottom hole
Drill Stem Tests Take		Y	es 🗸 No		 ∑ L		ion (Top), Depth		Sample
Samples Sent to Ge	ological Survey	□ Y	es 🗹 No		Nam See	e attached		Тор	Datum
Cores Taken		□ Y	es 🗸 No						
Electric Log Run (Submit Copy)		✓ Y	es No						
List All E. Logs Run:									
Compensated Den Gamma Ray CCL Dual Induction Log									
		Repo	CASING ort all strings set-	RECORD	_		ction, etc.		
Purpose of String	Size Hole Drilled		te Casing I (In O.D.)		eight L/FL	Setting Depth	Type of Cement	# Sacks Used	Type and Perce Additives
Surface	12-1/4	8-5/8"		20#		23	"A"	4	
Production	6-3/4	4-1/2		10.5#		1101.88	-A-	160	·
	<u> </u>		ADDITIONAL	CEMENT	ING / SQL	JEEZE RECOR	<u></u>		
Purpose: — Perforate — Protect Casing — Plug Back TD — Plug Off Zone	Depth Top Bottom	Туре	of Cement	#Sack	s Used		Type and	Percent Additives	
Shots Per Foot			AD - Bridge Plug Each Interval Per		8		acture, Shot, Ceme		rd Dep
4	1023-1025/976-					300gal 15%HCt.m/43 b	bis 25ktd water, 459kths wat	ar w/ 2%, K.Cl., Blodde, 8000	06 20/40 sand 1023-1025&
<u> </u>	!		•						970-9
4	772-774/733-73	6/714-71	6	-		400gal 15%HCLwl 45 M	ids 276/cd wither, 8000,615 with	w w/ 2% KCL, Blookin, 12(0)	19 2040 and 772-774/7
			-						714-7
4	644-648/632-63	6				400gal 15%kCLad 55 bi	on 27kg wite, Sizaku wate	# 27, KCL, Blocks, 1200	2040 sand 644-648/6
TUBING RECORD	Size 3/8	Set At 1031.46		Packer n/a	At	Liner Run	Yes V N		
	d Production, SWD or E		Producing Met	 		g 🕢 Pump			er (Expiain)
Estimated Production	Oil	Bbls,	Gas	Mcf	Wate	er 1	Bbls.	Gas-Oil Ratio	Gravit
Per 24 Hours	n/a		8.1mcf		25bb	is			
Disposition of Gas	METHOD OF C	OMPLETIO	ON .		•	Production Inte	rval		
Vented Sold	Used on Lease		Open Hole Other (Speci	[] Pe	rf. [] t	Dually Comp.	Commingled		





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

TICKET NUMBER 1518

FIELD TICKET REF #

FOREMAN Crois Fording

UAIE		AAETT IA	ANIE & NUMBER	n	SECTION	IOWINSHIP	HANGE	COUNTY
Noy 22.06	Carter G	Pale D.	<u> 20 - / '</u>		20	_	17_	40, 1804
FOREMAN / OPERATOR	TIME	TIME	LESS	TRUCK #	TRAILER	TRUC		EMPLOYEE SIGNATURE
roig Pood	_1:15	5:30	j	901740		4.25		محمد
7 - 1 1 - 1 - 1				1	<u> </u>	7		
					 -			
				 	 			
			-		 	 		•
		<u> </u>	<u> </u>	<u> </u>	<u></u>	<u> </u>		
n 7/25 /	Land HOLE	. , 21.	, ,	HOLE DEPTH // C	7 9 ALD	NO OBE A M	COUT 21	11.
	,			TUBING				<u>e 770.1</u>
				WATER gal/sk				-
				MIX PSI				
	7. <u>5</u> 7	ACEMENT FOI	r	VIIA FSI	NAIE			
MARKS:	N 114	المبام	/ /	0 0 - T	1 . 1/1-/	16-	1 0	-0/
AM - JAKS	of prem o	1. N	ensept to	160 socti	A CONTROL CON	<u> </u>	01 /2 200	<u> </u>
SOCKI of g	<u> امرعط ۱۵ ر. ۱۸</u>	617 8-1, WILL	1)	160 socti	st' cement.	Flushee	/ poprir	(1)
uiper plug,	1, bottom-					-		
	<u> </u>	8 F						_
	5		entrali	et cs'	Supplied	ينط_		
<u>}</u>	4	Kc C	asina 1	ractor	Bues +	,		
	4		2 SIN 9 1					
	- 7	- A - C	00/6-	3/2 + 3'		RE	CEIVED	MOISSIEM
		1			K	ANSAS CORP	OSKITON TYN	(HEHOUTOL)
- ' - 	<u>-</u>	- 0	12 141 10	er plya		SFF) 	.
		 	potchoe	4/10			——	
	<u> </u>				_ 		VATION DIVIS	ION
ACCOUNT	QUANTITY or U	INITE		DESCRIPTION OF SE	EQUICES OF PROPILE		ICHITA RE	TOTAL
CODE	QUANTITY OF C			DESCRIPTION OF SE	ENVICES ON PROBUI	<u> </u>		AMOUNT
		For	eman Pickup					
	<u></u>		ment Pump Truc	k				_
			lk Truck		<u> </u>			
1104			rland Cement—		-			_
1124			50 POZ Blond G		oupplied	by		_
1126		VO.	IC - Blend Ceme			/ /		
1110		Gili	sonite	()	usolida	tcd		
1107		Flo	-Seal ———					
1118		Pre	emium Gel					
1215A			to Transport				Ţ.	واجرين
1111B	<u> </u>		diwn Silicate					
1123			y Water					- 4
		Tra	nsport Truck					

80 Vác

ATED OIL WELL SERVICES, INC. 884, CHANUTE, KS 66720 431-9210 OR 800-467-8676

AUTHORIZATION.

TICET NU	MBER	0711	1
LOCATION	BU		,
FOREMAN_	Oelf	Solm	
KET	000		

TREATMENT REPORT & FIELD TICKET

	-				• .			
DATE	CUSTOMER #	WE	LL NAME & NUM	BER	SECTION 1	TOWNSHIP .	RANGE	COUNTY
5-22-06		CARTER	GAle D.	#20-1	20	2.8	/7 _	Wilson
CUSTOMER)	1	7	Ţ <u></u>		٠		
/ <i>X</i>	Mes+ (pero kel			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRE	ESS			1	419	Chancer		
]	497/199			
CITY		STATE	ZIP CODE	1		Bruce		
		}	Ì	1		 	1	
JOB TYPE	45	HOLE SIZE	63/4	_ HOLE DEPTH	1108	CASING SIZE & W	/EIGHT	~ 10.5
CASING DEPTH	1102	DRILL PIPE	<u> </u>	_TUBING			OTHER	<u>.</u>
SLURRY WEIGH	•	SLURRY VOL		WATER gal/s	k	CEMENT LEFT in	CASING	ა <u> —</u>
DISPLACEMEN'		_	NT PSI		· · · · · ·	RATE		
REMARKS:				,		· · · · · · · · · · · · · · · · · · ·		
	 -							
								
							 -	
								 _

ACCOUNT _CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	/	PUMP CHARGE LONGSTRING		800.00
5406	100	MILEAGE		31.50
5407	Min	BULK TRAILER		275,00
5501c	4 HR	:TRANSPORT		392.00
1104	1605x 15 240 FF	Cemen + X		1804.83
1110	165x 800 #	GILSONITE X		368.0 s
1102	65× 300#	CALCIUM		192.00
1107A	35× 120#	pheno Seul X		120.00
1/23	5800 GAZ	(C+51/20) X		74.24
5422	1/22'.	FOOTAGE		187.34
111813	45x QQQ	60l , +		28 20
5609	1 Hn	Dung Tiel (west)		152.00
	·	, , , , , , , , , , , , , , , , , , , ,		<u> </u>
				<u> </u>
	·			
		<u> </u>		
	·			
	<u>.</u>	<u> </u>	<u> </u>	162.98
			ESTIMATED	4/627 21

TITLE______ DATE_____

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

Company:

Quest Cherokee LLC

Address:

9520 North May Ave, Suite 300

Oklahoma City, Oklahoma 73120

Ordered By: Donnie Meyers

Date:

05/13/06

Lease: Carter, Gale D.

County: Wilson

Well#:

API#: 15-205-26580-00-00

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION		
0-5	Overburden	615	Gas Test 22" at1/4" Choke		
5-23	Lime	627-629	Shale		
23-130	Standy Shale	629-634	Black Shale		
130-180	Lime	634-642	Lime		
180-191	Sandy Shale	636	Gas Test 20" at 1/4" Choice		
191-212	Lime	642-644	Black Shale		
212-250	Shale	644-646	Coal		
250-264	Lime	646-660	Shale		
264-322	Shale	657	Gas Test 46" at 1/4". Choice		
322-340	Lime	660-680	Sand		
340-400	Shale	680-711	Shale		
400-402	Black Shale	711-713	Coal		
402-412	Lime	713-730	Shale		
412-417	Shale	730-731	Lime KANSAS CORPORATION COMMISSIO		
417-457	Lime and Shale	731-733	Coal SFP 1 1 2806		
457-520	Sand	733-738	Shale CONSERVATION DIVISION		
520-535	Shale	738-740	Coal WICHTA, KS		
535-542	Lime	740-745	Shake		
542-544	Coal	745-748	Conl		
544-570	Lime	748-783	Send		
570-573	Black Shale	783-800	Sandy Shale		
573-607	Sandy Shale	800-802	Coal		
607-608	Coal	802-832	Shale		
608-627	Lime	832-834	Coal		

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

Company:	Quest Cherokee LLC	Date: 05/13/06	
Address:	9520 North May Ave, Suite 300	Lease: Cartor, Gale D.	
	Okłahoma City, Okłahoma 73120	County: Wilson	
Ordered By: Donnie Meyers		Well#: 20-1 API#: 15-205-26580-00-00	

Drilling Log

	<u> </u>	7[1 ·
FEET	DESCRIPTION	FEET	DESCRIPTION
834-860	Shale		
860-861	Coal	JL	
861-885	Shale	<u> </u>	
885-935	Sand .		
935-960	Shale		
960-968	Sand	_	
968-971	Coal	<u>. </u>	
971-976	Shale		
976-978	Coal		÷
978-1019	Shale		
983	Gas Test 43" at 1/4" Choke		
1019-1021	Сові		
1021-1033	Shale		
1031	Gas Test 43" at 1/4" Choke	<u> </u>	
1033-1108	Missippi Lime		
1083	Gos Test 43" at 1/4" Choke		
1108	Gas Test 43" at1/4" Choke		
1108	по		
	Surface 23'		
	<u> </u>		
			<u> </u>

POSTROCK



Current Completion

WELL

Carter, Gale D 20-1

: Cherokee Basin

FIELD STATE

: Kansas

COUNTY

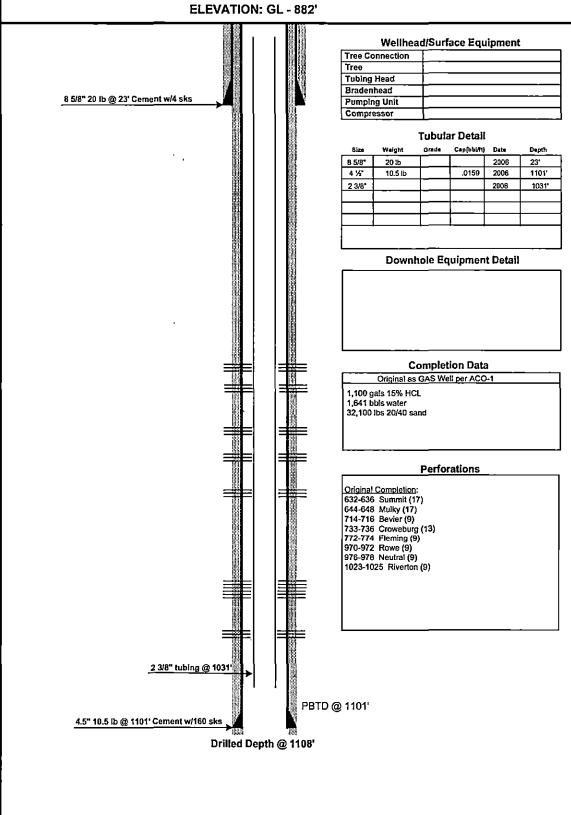
: Wilson

SPUD DATE : 5/12/2006

COMP. Date: 5/22/2006

API: 15-205-26580-00-00

LOCATION: 20-28S-17E (SE, SW)



PREPARED BY: POSTROCK

APPROVED BY: _

DATE: July, 2012

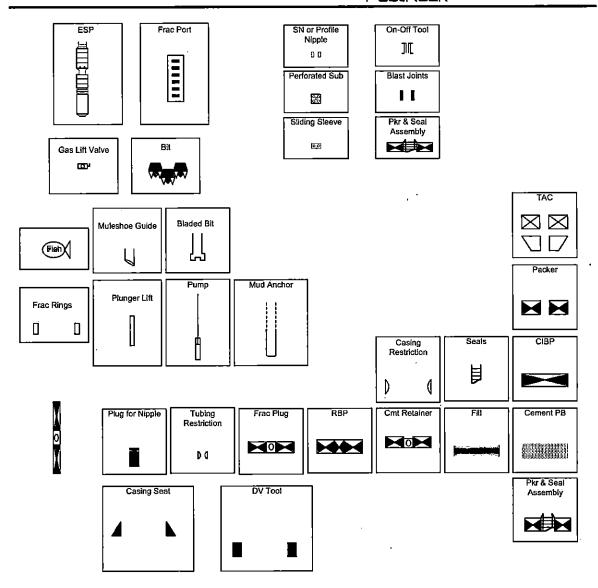
DATE:_

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 11th of

August A.D. 2012, with

subsequent publications being made on the following dates:

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

Subscribed and sworn to before me this

13th day of August, 2012

PENNY L. CASE Notary Public - State of Kens My Appt. Expires_

Notary Public Sedgwick County, Kansas

Printer's Fee: \$139.60

PUBLISHED IN THE WICHITA EAGLE AUGUST 11, 2017 (220826).

BEFORE THE STATE EXCREDATION COMMISSION OF THE STATE DEX MANDAS NOTICE DE FILING APPLICATION.

RE IN THE MARIET OF POSITOR MINIOR THE PRODUCTION OF THE STATE DEX MINIOR OF THE MARIET OF PRODUCTION OF THE MARIET OF PRODUCTION IN The Arrive, Gale D. 30-1. Igeated In Wilson County, Kanasa.

TO: All OJI: 8. Gas. Producers. Undeside Milagral interest Owners, Landowners, and all persons whomever concerned. You, and each of you, are nerely notified in Positoret. Miccontinent Production, LLC has filled to repplication to commission. Commission in Source of the Surmall, Mulky, Bevier, Croweburg. Flamins, Rowe, Neutral, Riverton and Squirrel producing formalisms at the Carrier, Gale D. 20-1. Iccased in the NW SE. SE SW. S2D-1725-R17E. Approximately 507-FEL; 8. 2012 FWL, Wilson County, Kansas.

Any persons who object to or protest his expolication shall be required to file their objections of the State of Kensas within fiffeen (15) (days) from the Gale of mission of the State of Kensas within fiffeen (15) (days) from the Gale of miss publication. These profests shall be fire matural to Commission of the State of Kensas within fiffeen (15) (days) from the Gale of miss publication. These profests shall be fire matural to commission of the State of Kensas.

All persons interested or concerned shall dake notice of the foregoing and shall pover themselves accordingly, All person and/or companies wishing to profess this application are required to file at written profess with the Conservation Division of the Kansas Ol and Gas Commission.

Upon. The receipt of any profess, he Commission will convert a feeting and professions will be expected of enter an appearance, either through propor legal (eas) 640-7704.

A COPY OF THE AFEIDAVIT OF PUBLICATION SUSTACK MISS.

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 5th publication was made on the 6th publication was made on the___ TOTAL PUBLICATION FEE: (Signed) Subscribed and sworn to before me, this

My commission expires

(Published in the Wilson County, Citizen on Monday, August 13, 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 20-1 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, Boyler, Croweburg, Fleming, Rowe, Neutral, Ri-Beyler, Croweburg, Fleming, Rowe, Neutral, Ri-verton and Squirrel producing formations at the Carter Gale D 20-1) located in the NW SE SE SW, S20-T28S-R17E, Approximately 507

Any persons who object to or protest this ap-plication 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 profests shall be filed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pol-lute the natural resource of the State of Kansas. All persons interested or concerned shall take

"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 onter 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 78102 (405) 660:7704

511 сру.



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

CARTER, GALE D 20-1

1 NAME & UPPE	R & LOWER LIMIT OF EACH PRODUC	CTION INTERVAL TO BE	E COMMING	LED			
FORMATION:	ROWE	(PERFS):	970 -	972			
FORMATION:	NEUTRAL	(PERFS):	976 -	978			
FORMATION:	RIVERTON	(PERFS):	1023 -	1025			
FORMATION:	SQUIRREL	(PERFS):	663 -	669			
FORMATION:		(PERFS):					
FORMATION:		(PERFS):					
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FORMATION:		(PERFS):					
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FORMATION:		(PERFS):					
	MOUNT OF FLUID PRODUCTION TO I		_		4.50	DIAIDD	2.5
FORMATION:	ROWE	BOPD:	0	MCFPD:	1.62	BWPD:	2.5
FORMATION:	NEUTRAL	BOPD:	0	MCFPD:	1.62	BWPD:	2.5
FORMATION:	RIVERTON	BOPD:	0	MCFPD:	1.62	BWPD:	2.5
FORMATION:	SQUIRREL.	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:	0	BOPD:		MCFPD:		BWPD:	
FORMATION:	0	BOPD:		MCFPD:		BWPD:	
FORMATION:	0	BOPD:		MCFPD:		BWPD:	
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FORMATION:	<u></u>	BOPD:		MCFPD:	-	BWPD:	
FORMATION:	0	BOPD:		MCFPD:		BWPD:	
FORMATION:	0	BOPD:		MCFPD:		BWPD:	

Affidavit of Notice Served					
Re: Application for: APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS ACO-4					
Well Name: CARTER, GALE D 20-1	Legal Location: NWSESESW S20-T28S-R17E				
The undersigned hereby certificates that he / she is a duly authorized ag	gent for the applicant, and that on the day 24th of AUGUST				
ma 4 —	ed above was delivered or mailed to the following parties:				
Note: A copy of this effidavit must be served as a part of the application.					
Name	Address (Attach additional sheets if necessary)				
KANSAS OIL, INC	16716 WICHITA RD, CHANUTE, KS 66720				
C K REECE 315 LAMBETH RD, WATERLOO, IA					
LYLE M GREER	1019 N STEUBEN, CHANUTE, KS 66720				
I further attest that notice of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the filing of this application was published in the control of the control o	the THE WILSON COUNTY CITIZEN , the official county publication				
of WILSON	county. A copy of the affidavit of this publication is attached.				
Signed this	2012				
	Melle				
	Applicant or Duly Authorized Agent				
Subscribed and sworn	to before me this 2412 day of AUGUST , 2012				
JENNIFER R. BEAL OFFICIAL MY COMMISSION EXPIRES	Dunily B Beal				
7-20-2011	Notery Public Sunday & Beal My Commission Expires: Quels 20, 2011				
	My Commission Expires: Quely 20, 20/6				
	·				

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CARTER, GALE D 20-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS Offset Operators, Unleased Mineral Owners and Landowners acreage (Attach additional sheets if necessary) Name: Legal Description of Leasehold: SEE ATTACHED I hereby certify that the statements made herein are true and correct to the best of my knowledge and belief. Subscribed and sworn before me this _______ day of AUGUST JENNIFEA R. BEAL MY COMMISSION EXPIRES My Commission Expires:

CARTER, GALE D 20-1

20-28S-17E

per TO dtd 11.19.06

S2NW4 less 4 acre tract C.K. Reece

315 LAMBETH RD

Waterloo, IA 50701

per TO dtd 11.19.06

4 acre tract in S2NW4

Lyle M. Greer

1019 N Steuben

Chanute, KS 66720

CARTER, GALE D 20-1

LEGAL LOCATION	SPOT	CURR_OPERA
S20-T28S-R17E	NW NE NE SW	Kansas Oil, Inc.
S29-T28S-R17E	NW NW NW	Kansas Oil, Inc.
S29-T28S-R17E	NE NE NE NW	Kansas Oil, Inc.
S29-T28S-R17E	SE NE NE NW	Kansas Oil, Inc.
\$29-T28S-R17E	NW NW NW NW	Kansas Oil, Inc.
S29-T28S-R17E	N2 NW NW	Kansas Oil, Inc.
S29-T28S-R17E	SW NW NW	Kansas Oil, Inc.
S29-T28S-R17E	SW SW NW NW	Kansas Oil, Inc.
S29-T28S-R17E	N2 NW NW	Kansas Oil, Inc.

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

September 11, 2012

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

RE: Approved Commingling CO081232

Carter, Gale D. 20-1, Sec. 20-T28S-R17E, Wilson County

API No. 15-205-26580-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on August 27, 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 CO081232 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