

Commingling ID # \_

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION Form ACO-4 Form must be typed

March 2009

APPLICATION FOR COMMINGLING OF

PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

OPERAT	FOR: License #	API No. 15					
Name:		Spot Description:					
Address	1:		Sec Twp	S. R East West			
Address	2:		Feet from Nor	rth / South Line of Section			
City:	State: Zip:+		Feet from 🗌 Eas	st /  West Line of Section			
	Person:						
Phone:	()	Lease Name:	Well	#:			
☐ 1.	Name and upper and lower limit of each production interval to	be commingled:					
L I.	Formation:	0					
	Formation:						
	Formation:						
	Formation:	· · · · · · · · · · · · · · · · · · ·					
	Formation:	(Pens):					
2.	Estimated amount of fluid production to be commingled from e	each interval:					
	Formation:	BOPD:	MCFPD:	BWPD:			
	Formation:	BOPD:	MCFPD:	BWPD:			
	Formation:	BOPD:	MCFPD:	BWPD:			
	Formation:	BOPD:	MCFPD:	BWPD:			
	Formation:			BWPD:			
<ul> <li>3.</li> <li>4.</li> <li>For Cont</li> <li>5.</li> </ul>	Plat map showing the location of the subject well, all other well the subject well, and for each well the names and addresses of Signed certificate showing service of the application and affide <b>mmingling of PRODUCTION ONLY, include the following:</b> Wireline log of subject well. Previously Filed with ACO-1:	of the lessee of record or operative avit of publication as required	erator.	es within a 1/2 mile radius of			
6.	Complete Form ACO-1 (Well Completion form) for the subject	_					
0.							
For Con	nmingling of FLUIDS ONLY, include the following:						
7.	Well construction diagram of subject well.						
8.	Any available water chemistry data demonstrating the compat	ibility of the fluids to be com	mingled.				
current ir mingling	VIT: I am the affiant and hereby certify that to the best of my nformation, knowledge and personal belief, this request for com- is true and proper and I have no information or knowledge, which sistent with the information supplied in this application.	S	ubmitted Electroni	ically			
De	C Office Use Only			in the application. Protests must be filed wihin 15 days of publication o			

Date: \_

Approved By:



CONFIDENTIAL WELL COMPLETION FORM

1083367

Form ACO-1 June 2009 Form Must Be Typed Form must be Signed All blanks must be Filled

WELL	COMP	LETIO	N FOI	RM	

		DECODIDITION		
WELL	HISTORY -	DESCRIPTION	OF WELL &	LEASE

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from North / South Line of Section
City: State: Zip:+	Feet from Fast / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	County:
Name:	Lease Name: Well #:
Wellsite Geologist:	Field Name:
Purchaser:	Producing Formation:
Designate Type of Completion:	Elevation: Ground: Kelly Bushing:
New Well Re-Entry Workover	Total Depth: Plug Back Total Depth:
New Weil       New Linity       Workover         Oil       WSW       SWD       SIOW         Gas       D&A       ENHR       SIGW         OG       GSW       Temp. Abd.         CM (Coal Bed Methane)       Cathodic       Other (Core, Expl., etc.):         If Workover/Re-entry:       Old Well Info as follows:         Operator:	Amount of Surface Pipe Set and Cemented at:          Multiple Stage Cementing Collar Used?       Yes       No         If yes, show depth set:        Feet         If Alternate II completion, cement circulated from:
Original Comp. Date: Original Total Depth: Deepening Re-perf. Conv. to ENHR Conv. to SWD	Chloride content: ppm Fluid volume: bbls Dewatering method used:
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Permit #:	Operator Name:
Dual Completion Permit #:	Lease Name: License #:
SWD         Permit #:	Quarter Sec TwpS. R □ East □ West
ENHR         Permit #:	County: Permit #:
GSW Permit #:	Permit #:
Spud Date or         Date Reached TD         Completion Date or           Recompletion Date         Recompletion Date         Recompletion Date	

### AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

# Submitted Electronically

KCC Office Use ONLY									
Letter of Confidentiality Received Date:									
Confidential Release Date:									
Wireline Log Received     Geologist Report Received									
UIC Distribution ALT I III III Approved by: Date:									

	Side Two	<b>                                    </b>
Operator Name:	Lease Name:	Well #:
Sec TwpS. R East West	County:	

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional She	eets)	Yes I	10		-	n (Top), Depth and		Sample
Samples Sent to Geolog	jical Survey	Yes I	10	Nam	e		Тор	Datum
Cores Taken Electric Log Run Electric Log Submitted E (If no, Submit Copy)	Electronically	Yes I	10 10 10					
List All E. Logs Run:								
			SING RECOR					
		Report all string	s set-conductor	r, surface, inte	ermediate, producti	on, etc.		1
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)		Veight bs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

#### ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose: Perforate	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protect Casing Plug Back TD				
Plug Off Zone				

				N RECORD - Bridge Plugs Set/Type potage of Each Interval Perforated				Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)			
TUBING RECORD:	Si	ze:	Set At:		Packer	r At:	Liner R	un:	No		
Date of First, Resumed F	Product	ion, SWD or ENHF	<b>λ</b> .	Producing N		ping	Gas Lift	Other (Explain)			
Estimated Production Oil Bbl Per 24 Hours		ls.	Gas	Mcf	Wate	er	Bbls.	Gas-Oil Ratio	Gravity		
DISPOSITIO	N OF (	GAS:			METHOD	OF COMPLE	TION:		PRODUCTION INTER	RVAL:	
Vented Sold Used on Lease			Open Hole	Perf.	Dually (Submit)		Commingled (Submit ACO-4)				
(If vented, Submit ACO-18.)		)-18.)	Other (Specify)								

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 Ward Loyd, Commissioner Thomas E. Wright, Commissioner Sam Brownback, Governor

June 05, 2012

CLARK EDWARDS PostRock Midcontinent Production LLC Oklahoma Tower 210 Park Ave, Ste 2750 OKLAHOMA CITY, OK 73102

Re: ACO1

API 15-205-25814-00-00 MARPLE LIVING TRUST 5-1 SE/4 Sec.05-28S-17E Wilson County, Kansas

**Dear Production Department:** 

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully, CLARK EDWARDS

#### SSP2010

IP       Description of Luiss       Luiss       Ipper       Imper       Imper </th <th></th> <th>A</th> <th>В</th> <th>С</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>Н</th> <th>1</th> <th>J</th> <th>К</th>		A	В	С	D	E	F	G	Н	1	J	К
S         Sec the herine         Nucle the micro         Nucle the micro         Nucle the micro         Nucle the sec th	1		ں						п	1		
3         Solution bind         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100         100 <t< td=""><td></td><td></td><td>Units</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Click he</td><td>re</td><td>Click</td></t<>			Units							Click he	re	Click
Dec.         Produce	3			<b>v</b>	<ul> <li>Image: A second s</li></ul>	~		>				Oliala
□         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □         □<         □<         □         □         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □<         □< <th□<< th=""> <th□<< th=""> <th□<< th=""></th□<<></th□<<></th□<<>												Click
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				CBM	CBM	Bartles	Bartles	Bartles	calculations.			CIICK
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	10	Na <sup>+</sup>	(mg/l)*	19,433.00	27,381.00	26,534.00	25689.00	24220.00	24654.20	Initial(BH)	Final(WH)	SI/SR
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		(************************************	(mg/l)						0.00	Saturation Index	values	(Final-Initial)
			(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91	Ca	lcite	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			(mg/l)	1,836.00	2,452.00	2,044.00	1920.00	1948.00	2040.23	-0.73	-0.60	0.13
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			(mg/l)						0.00	Ba	rite	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			(mg/l)						0.00			
			(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21	H	alite	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			(mg/l)						0.00	-1.77	-1.80	-0.03
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-		(mg/l)						0.00	Gy	psum	_
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			(mg/l)									0.00
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		SO4 <sup>2-</sup>	(mg/l)	1.00	1.00	8.00	1.00	1.00	2.40		hydrate	_
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		F	(mg/l)									0.06
164         ICO3 Alkalinity*         (mg/l)         190.00         224.00         254.00         254.00         244.00         Cleasting           25         CO3 Alkalinity*         (mg/l)         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -												
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				190.00	234.00	259.00	268.00	254.00	241.03	Cel	estite	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	_								0.00			
128         Borate         (mgf.) H303         0.00         Zinc Sulfide           25         TDS (Measared)         (mgf.)         0.00         72781         0.00           26         TDS (Measared)         (mgf.)         1.038         1.045         1.048         1.045         1.047         Calcium fluoride           28         JC Calc. Density (STP)         (gml.)         1.038         1.051         1.048         1.048         1.045         1.047         Calcium fluoride         Total National Stresson         26.6         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.0306         0.0151         0.0269         0.030         0.0269         0.030         0.0269         0.030         0.07         0.013         0.0269         0.030         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00			-									0.07
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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		· · · · · · · · · · · · · · · · · · ·		1 038	1.051	1 050	1.048	1 0/15		Calaium	1 fluorido	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$										Calcium	linuoriae	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	32	H <sub>2</sub> S Gas Analysis***		0.0289	0.0292	0.0296	0.0306	0.0151	0.0269	Iron C	arbonate	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	33	Total H2Saq	(mgH2S/l)	1.00	1.00	1.00	1.00	0.50	0.90	-0.74	-0.51	0.23
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	34	pH, measured (STP)		5.67	5.76	5.72	5.54	5.55	5.63			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		Choose one option								Calcite	NTMP	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	35			0	0	0	0	0				
38         Water/Day         (B/D)         100         100         100         100         100         500         0.00         0.00           39         For mixed brines, enter values for temperatures and pressures in Cells (H40-H43)         (Enter H40-H43)         pH           40         Initial T         (F)         66.0         71.0         70.0         41.0         49.0         60.0         5.69         5.60           41         Final T         (F)         66.0         71.0         70.0         41.0         49.0         89.0         Viscosity (CentiPoise)           42         Initial P         (psia)         25.0         25.0         25.0         25.0         11.96         0.825         0.825           44         Use TP on Calcite sheet?         1-Yes;0-No           0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00 <t< td=""><td>36</td><td>Gas/day(thousand cf/day)</td><td>(Mcf/D)</td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>0.00</td><td>0.00</td><td>_</td></t<>	36	Gas/day(thousand cf/day)	(Mcf/D)						0	0.00	0.00	_
39         For mixed brines, enter values for temperatures and pressures in Cells (H40-H43)         (Enter H40-H43) $pH$ 40         Initial T         (F)         66.0         71.0         70.0         41.0         49.0         60.0         5.69         5.60           42         Initial T         (F)         66.0         71.0         70.0         41.0         49.0         89.0         Viscodity (CentriPoise)           42         Initial P         (psia)         25.0         25.0         25.0         25.0         25.0         11.96         0.826           43         Final P         (psia)         25.0         25.0         25.0         25.0         11.96         0.826           44         User P on Calcite sheet?         (Yes.o-No         0         0         0.00         0.055         0.959           45         API Oil Grav.         Sp.Grav.         0         0         0         0         0         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00	_		· · · · ·			1	1	1	4		BHPMP	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			· · · · ·				100	100				_
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $							41.0	49.0				_
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	41	Final T	(F)	66.0	71.0	70.0	41.0	49.0	89.0	Viscosity (	(CentiPoise)	
44       Use TP on Calcite sheet?       I-Yes;0-No       0       0       0.955       0.959         45       API Oil Grav.       API Qii Grav.       API Qii Grav.       API Qii Grav.       Sp.Grav.       0.00       Inhibitor needed (mg/L)         46       Gas Sp.Grav.       Sp.Grav.       0       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0       0.00	42	Initial P	(psia)	25.0	25.0	25.0	25.0	25.0	25.0			
45       API Oil Grav.       API grav.       API Oil Grav.       Sp.Grav.       Sp.Grav.       Sp.Grav.       Sp.Grav.       Sp.Grav.       Sp.Grav.       Bp.Grav.       B.Grav.       B.Grav.       B.Grav.				25.0	25.0	25.0	25.0	25.0	120.0			_
46       Gas Sp.Grav.       Sp.Grav.       Sp.Grav.       MDTM         47       McOH/Day $(B/D)$ 0       0       0       0.00       0.00       0.00         48       MEG/Day $(B/D)$ 0       0       0       Anhydrite       HDTM         49       Conc. Multiplier       0       0       0       0       Anhydrite       HDTM         50       H' (Strong acid) *       (N)       0       0       0       Anhydrite       HDTM         52       Quality Control Checks at STP:       0       0       0.00       0.00       0.00       0.00         54       Total H2Saq (STP)       (mgH2S/l)       0       0       0       0       0       0       0       0       0       0       0       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00       0.00 <td< td=""><td></td><td></td><td>,</td><td></td><td></td><td></td><td></td><td></td><td>30.00</td><td></td><td></td><td></td></td<>			,						30.00			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $											HDTMP	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	47	MeOH/Day		0					0		0.00	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			(B/D)	0					0		HDTMP	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$										0.00	0.00	
52       Quality Control Checks at STP:         53       H <sub>2</sub> S Gas       (%)         54       Total H2Saq (STP)       (mgH2S/l)         55       pH Calculated       (pH)         56       PCO2 Calculated       (%)         57       Alkalinity Caclulated       (mg/l) as HCO3         58       ECations=       (equiv.l)         60       Calc TDS=       (mg/l)         61       Inhibitor Selection       Input       Unit       #       Inhibitor         63       Have ScaleSoftPitzer       C       80       °F       176         64       pick inhibitor for you?       1       1-Yes;0-No       3       PAA       m³       100       bill(2 US gal)       629         66       If No, inhibitor # is:       4       #       4       DTPMP       m³       100       bill(2 US gal)       629         67       1 <sup>st</sup> inhibitor # is:       1       #       6       SPA       Bar       496       psia       7,194         68       % of 1 <sup>st</sup> inhibitor # is:       2       #       8       HDTMP       Gal       10,000       psia       193         69       2 <sup>nd</sup> inhibitor # is:       2       #												
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$									I			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $												
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	54	Total H2Saq (STP)	(mgH2S/l)									
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			· · ·									
58 59 50 calc TDS=(equiv.f.) (equiv.f.) (equiv.f.) (equiv.f.)(equiv.f.) (equiv.f.) (equiv.f.)Intermodel of the second seco												
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62Protection Time120min1NTMPFrom UnitValueTo UnitValue63Have ScaleSoftPitzer2BHPMP°C80°F17664pick inhibitor for you?11-Yes;0-No3PAA $m^3$ 100ft³3,53165If No, inhibitor # is:4#4DTPMP $m^3$ 100bbl(42 US gal)62966If you select Mixed,5PPCAMPa1,000psia145,07467 $1^{st}$ inhibitor # is:1#66SPABar496psia7,19468% of $1^{st}$ inhibitor # is:50%7HEDPTorr10,000psia19369 $2^{nd}$ inhibitor # is:2#8HDTMPGal10,000bbl(42 US gal)238			-	Unit	#	Inhibitor	Unit Converte	r (From metric	to English)			
64         pick inhibitor for you?         1         1-Yes;0-No         3         PAA         m³         100         ft³         3,531           65         If No, inhibitor # is:         4         #         4         DTPMP         m³         100         bbl(42 US gal)         629           66         If you select Mixed,         5         PPCA         MPa         1,000         psia         145,074           67         1 <sup>st</sup> inhibitor # is:         1         #         6         SPA         Bar         496         psia         7,194           68         % of 1 <sup>st</sup> inhibitor is:         50         %         7         HEDP         Torr         10,000         psia         193           69         2 <sup>nd</sup> inhibitor # is:         2         #         8         HDTMP         Gal         10,000         bbl(42 US gal)         238									<b>.</b> .	Value		
65       If No, inhibitor # is:       4       #       4       DTPMP       m³       100       bbl(42 US gal)       629         66       If you select Mixed,       5       PPCA       MPa       1,000       psia       145,074         67       1 <sup>st</sup> inhibitor # is:       1       #       6       SPA       Bar       496       psia       7,194         68       % of 1 <sup>st</sup> inhibitor is:       50       %       7       HEDP       Torr       10,000       psia       193         69       2 <sup>nd</sup> inhibitor # is:       2       #       8       HDTMP       Gal       10,000       bbl(42 US gal)       238	63	Have ScaleSoftPitzer			2	BHPMP		80		176		
66       If you select Mixed,       5       PPCA       MPa       1,000       psia       145,074         67       1 <sup>st</sup> inhibitor # is:       1       #       6       SPA       Bar       496       psia       7,194         68       % of 1 <sup>st</sup> inhibitor is:       50       %       7       HEDP       Torr       10,000       psia       193         69       2 <sup>nd</sup> inhibitor # is:       2       #       8       HDTMP       Gal       10,000       bbl(42 US gal)       238			1		3							
67       1 <sup>st</sup> inhibitor # is:       1       #       6       SPA       Bar       496       psia       7,194         68       % of 1 <sup>st</sup> inhibitor is:       50       %       7       HEDP       Torr       10,000       psia       193         69       2 <sup>nd</sup> inhibitor # is:       2       #       8       HDTMP       Gal       10,000       bbl(42 US gal)       238			4	#								
68         % of 1 <sup>st</sup> inhibitor is:         50         %         7         HEDP         Torr         10,000         psia         193           69         2 <sup>nd</sup> inhibitor # is:         2         #         8         HDTMP         Gal         10,000         bbl(42 US gal)         238			1	#					-	-		
69 2 <sup>nd</sup> inhibitor # is: 2 # 8 HDTMP Gal 10,000 bbl(42 US gal) 238									-	-		
									-			
10 Dispita act. coefs? U 1-Yes;0-NO 9 Average Liters 10,000 bbl(42 US gal) 63		Display act. coefs?	0	# 1-Yes;0-No	9	Average	Liters	10,000	bbl(42 US gal)	63		
71 10 Mixed									<u> </u>			

BCC

# **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

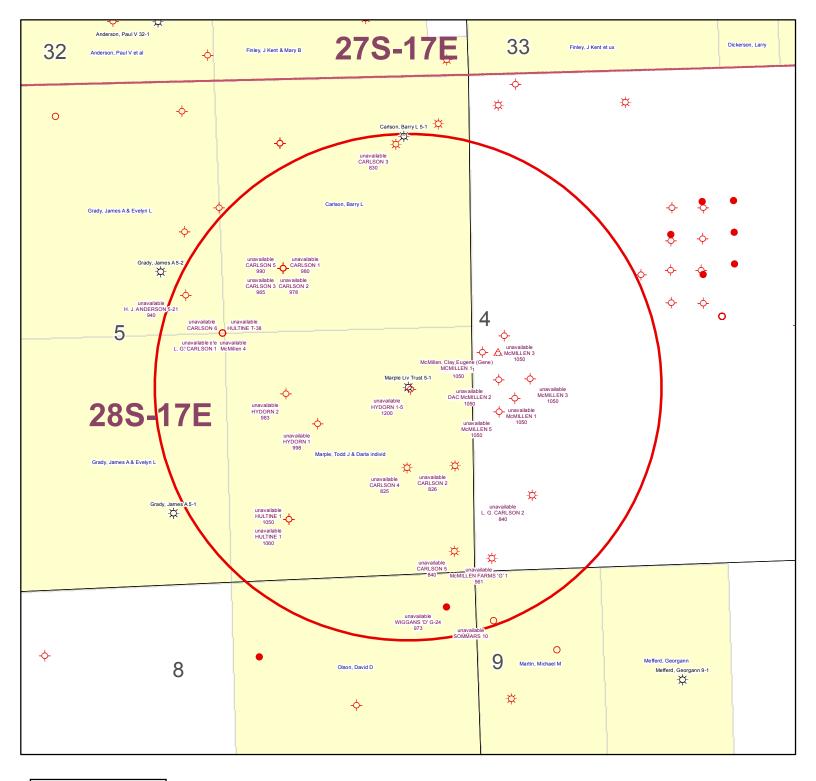
		Ratio										
	20%	20%	20%	20%	20							
Component (mg/L)	Brine 1	Brine 2	Brine 3	Brine 4	Brine 5	<b>Mixed Brine</b>						
Calcium	1836	2452	2044	1920	1948	1952						
Magnesium	1096	872	1200	953	858	865						
Barium	0	0	0	0	0	0						
Strontium	0	0	0	0	0	0						
Bicarbonate	190	234	259	268	254	253	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

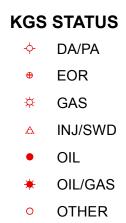
### **Saturation Index**

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

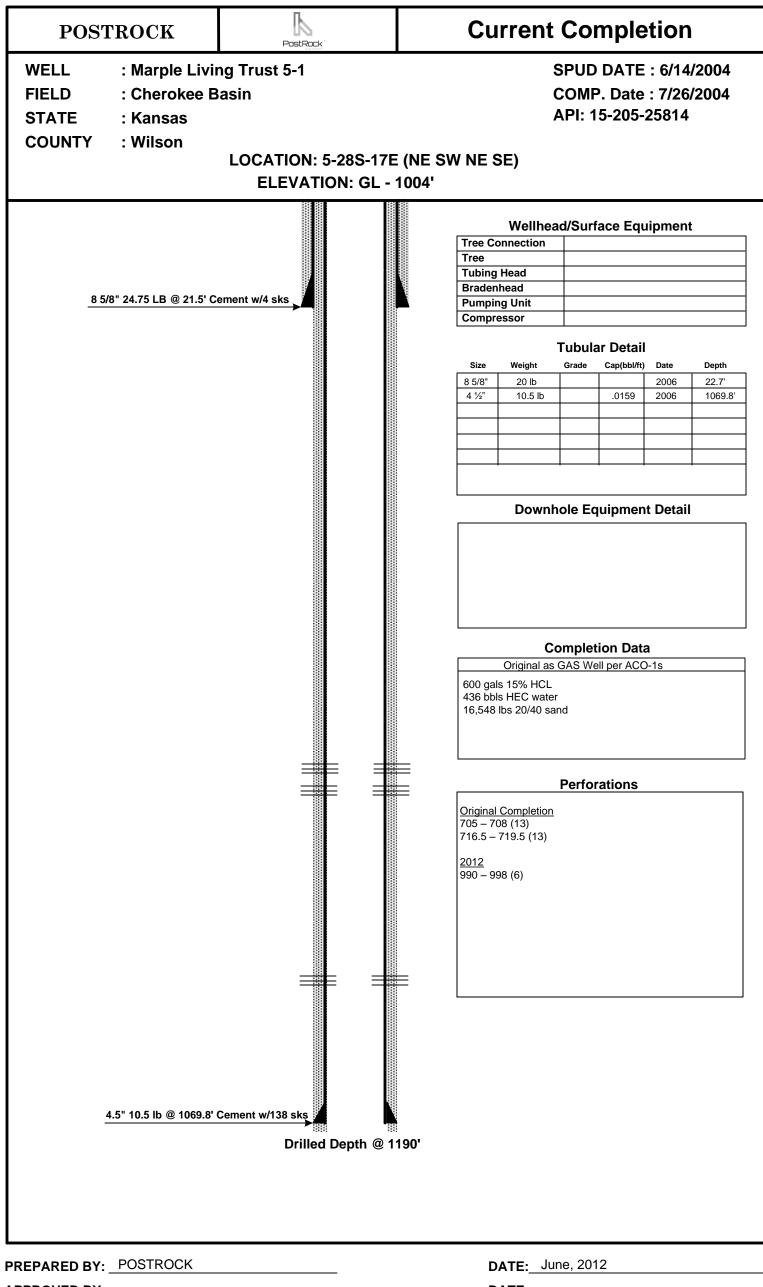
### PTB

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



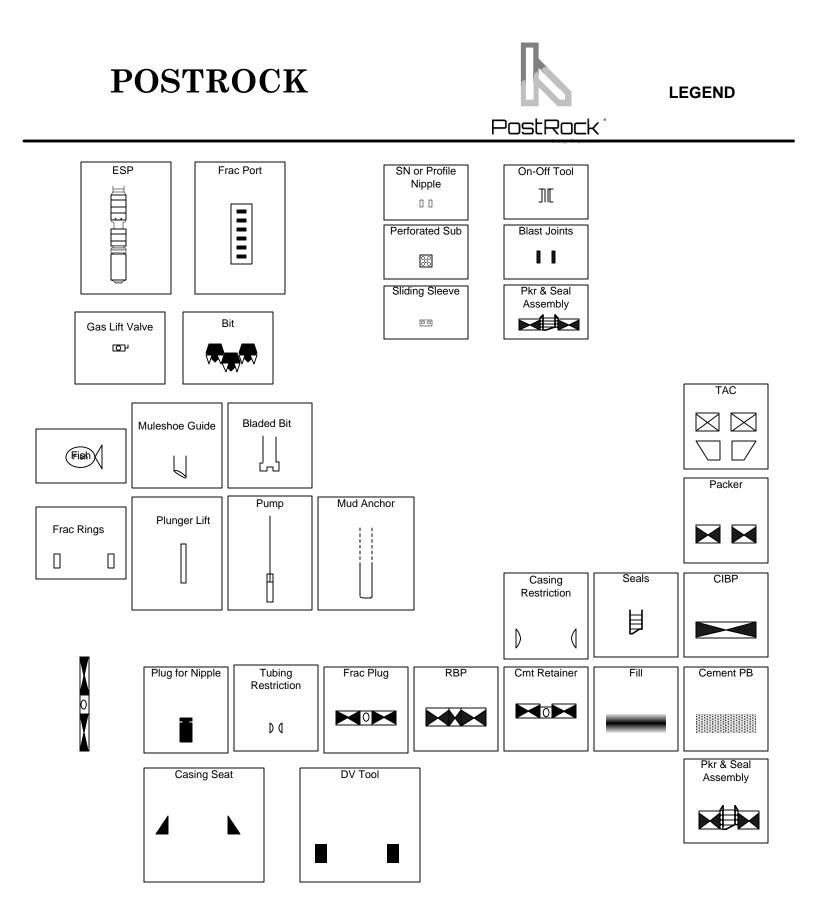


Marple Liv Trust 5-1 5-28S-17E 1" = 1,000'



APPROVED BY:

DATE:



Affidavit of Notice Served							
Re: Application for: APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS - ACO-4							
Well Name: WILTSE, MORRIS 15-1	Legal Location: SWSENE S15-T28S-R16E						
The undersigned hereby certificates that he / she is a duly authorized agent f	or the applicant, and that on the day						
2012 , a true and correct copy of the application referenced a							
Note: A copy of this affidavit must be served as a part of the application.							
Name	Address (Attach additional sheets if necessary)						
POSTROCK MIDCONTINENT PRODUCTION, LLC	210 PARK AVENUE, SUITE 2750, OKLAHOMA CITY, OK 73102-5641						
GILBERT, HARLEY D & PATTY DBA LONGTON EXPLORATIONS	12110 ELK RD, FREDONIA, KS 66736						
GARY L & JULIE RATLIFF	21491 WICHITA ROAD, CHANUTE, KS 66720						
RODNEY FOLGER	16753 US 75 HWY, ALTOONA, KS 66710						
MAX & ELAINE MARPLE	17421 US 75 HWY, ALTOONA, KS 66710						

I further attest that notice of the filing of this application was published in the WILSON	COUNTY CITIZEN , the official county publication
of county. A c	copy of the affidavit of this publication is attached.
Signed this <u>13TH</u> day of JUNE , 2012	
Applicant of the second	use Ullenneman
My Commissi	

# WILTSE, MORRIS 15-1 - APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

Offset Operators, Unleased Mineral Owners and Landowners acreage		
(Attach additional sheets if necessary)		
Name: Gilbert, Harley D. & Patty dba Longton Explorations	Legal Description of Leasehold: SESWNE S15-T28S-R16E	
	• • • • • • • • • • • • • • • • • • •	
Gary L. Ratliff and Julie Ratliff	SEE ATTACHED	
Rodney Folger	SEE ATTACHED	
Max and Elaine Marple	SEE ATTACHED	
	1	
		······
	·	
I hereby certify that the statements made herein are true and correct to the best of i	ny knowledge and belief.	
	Sumper 20 Beal	
Applicã	nvor Duly Avthorized Agent	
Subscribed and sworn before		,2012
	Public Public T-1-12	
July 1, 2012	Public	
My Con	1mission Expires:	
	······································	

# WILTSE, MORRIS 15-1 - APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS OFFSET OPERATORS, UNLEASED MINERAL OWERS & LAND OWNERS ACREAGE

(A portion of) The South 58 acres of the West half of the Southwest quarter (W/2 SW/4) of Section 14-28S-16E Gary L. Ratliff and Julie Ratliff, husband and wife, as Joint Tenants 21491 Wichita Road Chanute, KS 66720

(A portion of) the NW/4 of Section 15-28S-16E Rodney Folger 16753 US 75 Hwy Altoona, KS 66710

## NW/4 NE/4 of Section 15-28S-16E

Max and Elaine Marple, husband and wife, as Joint Tenants 17421 US 75 HWY Altoona, KS 66710

#### SW/4 SE/4 of Section 10-28S-16E

Max and Elaine Marple, husband and wife, as Joint Tenants 17421 US 75 HWY Altoona, KS 66710

## AFFIDAVIT

ĺ SS. 1

### STATE OF KANSAS

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 **1st** 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.

Fletchall

Subscribed and sworn to before me this

#### 1st day of June, 2012

	And the second s	any against the design of the second of the second s	
	A.	PENNY L. CASE	
į		Notary Public - State of Kansas	r
	MyAp	pt. Expires 5/38/2014	
		/ / / /	

Notary Public Sedgwick County, Kansas

Printer's Fee : \$132.40



PUBLISHED IN THE WICHTA EAGLE JUNE 1, 2012 (3187768) 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 Wiltse, Morris 15-1 located in Wilson County, Kansas.

Commingling of Production in the Wiltse, Morris IS-1 located in Wilson 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 that Postrock Midcontinent Production, LLC has filed an application to commingle the Riverton, Bartlesville, Weir, Fleming, Croweburg, Bevier, Mulky and Summit producting formations at the Wiltse, Morris 15-1, located in the NE SW SE NE, S15-T285-R16E, Approximately 1929 FNL & 792 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 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 behalt.

own behalf.

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

# 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:

in a regular issue of sald newspaper:	л <i>и</i>
1st publication was made on the	AV_day of
Ma	1× 20/2
2nd publication was made on the	day of
	. 20
3rd publication was made on the	day of
	. 20
4th publication was made on the	day of
	. 20
5th publication was made on the	day of
	. 20
6th publication was made on the	day of
TOTAL PUBLICATION FEE: \$	37-
(Signed) Mine & DiBerry	
Subscribed and sworn to before me, this $\underline{\checkmark}$	day of
	<u>, 20_12</u>
Rita M. Beeper	(Notary Public)
My commission expires Mg. 30	2014
	1

(Published in the Wilson County Citizen on Thursday, May 31, 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 Wiltse, Morris 15-1 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 Riverton, Bartlesville, Weir, Fleming, Croweburg, Bevier, Mulky and Summit producing formations at the Wiltse, Morris 15-1, located in the NE SW SE NE, S15-T28S-R16E, Approximately 1929 FNL & 792 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.

ş

POSTROCK MIDCONTINENT PRODUCTION, LLC 210 Park Avenue, Suite 2750 Oklahoma City, Oklahoma 73102 (405) 660-7704 30 1 cpy.

1 NAME & UPPER & LOWER LIMIT OF EACH PRODUCTION INTERVAL TO BE COMMINGLED

FORMATION:	BEVIER	(PERFS):	921 -	923
FORMATION:	MULKY	(PERFS):	854 -	859
FORMATION:	SUMMITT	(PERFS):	839 -	843
FORMATION:	BARTLESVILLE	(PERFS):	1096 -	1108
FORMATION:		(PERFS):	-	
FORMATION:		(PERFS):	-	

## 2 ESTIMATED AMOUNT OF FLUID PRODUCTION TO BE COMMINGLED FROM EACH INTERVAL

FORMATION:	BEVIER	BOPD:	0	MCFPD:	4.625	BWPD:	5
FORMATION:	MULKY	BOPD:	0	MCFPD:	4.625	BWPD:	5
FORMATION:	SUMMITT	BOPD:	0	MCFPD:	4.625	BWPD:	5
FORMATION:	BARTLESVILLE	BOPD:	3	MCFPD:	0	BWPD:	20
FORMATION:		BOPD:		MCFPD:		BWPD:	
FORMATION:		BOPD:		MCFPD:		BWPD:	

Conservation Division Finney State Office Building 130 S. Market, Rm. 2078 Wichita, KS 67202-3802

Mark Sievers, Chairman Ward Loyd, Commissioner Thomas E. Wright, Commissioner

June 28, 2012

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

RE: Approved Commingling CO061203 Morris Wiltse. 11-1, Sec.15-T28S-R16E, Wilson County API No. 15-205-25423-00-01

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well 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. This application, which was received by the KCC on June 15, 2012, concerns approval to simultaneously produce from the following sources of supply through the same tubing string in the same wellbore:

	Estimated Current Production			
Source of Supply	BOPD	MCFPD	BWPD	Perf Depth
Riverton	0.00	4.625	5.00	1227-1229
Weir	0.00	4.625	5.00	1068-1090
Fleming	0.00	4.625	5.00	972-974
Crowburg	0.00	4.625	5.00	935-938
Bevier	0.00	4.625	5.00	921-923
Mulky	0.00	4.625	5.00	854-859
Summitt	0.00	4.625	5.00	839-843
Bartlesville	3.00	0.00	20.00	1096-1108
Total Estimated Current Production	3.00	27.75	50.00	

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).

Commingling ID number CO061203 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



Phone: 316-337-6200 Fax: 316-337-6211 http://kcc.ks.gov/

Sam Brownback, Governor