KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1103584

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)

Commingling ID # CO011310

OPERATOR: License # 33343
Name: PostRock Midcontinent Production LLC
Address 1: Oklahoma Tower
Address 2: 210 Park Ave, Ste 2750
City: OKLAHOMA CITY State: OK Zip: 73102 + _ _ _ _
Contact Person: CLARK EDWARDS
Phone: (620) 432-4200

API No. 15 - 15-133-27100-00-00
Spot Description:
NE - SW - SE - NE Sec. 17 Twp. 27 S. R. 19 ☑ East ☐ West
1981 Feet from ☑ North / ☐ South Line of Section
730 Feet from ☑ East / ☐ West Line of Section
County: Neosho
Lease Name: GREVE, MERLE D. Well #: 17-1

☑ 1. Name and upper and lower limit of each production interval to be commingled:

Formation:	SUMMIT	(Perfs):	568-572
Formation:	MULKY	(Perfs):	579-583
Formation:	CROWEBURG	(Perfs):	680-683
Formation:	FLEMING	(Perfs):	712-715
Formation:	TEBO	(Perfs):	768-770

☑ 2. Estimated amount of fluid production to be commingled from each interval:

Formation:	SUMMIT	BOPD:	0	MCFPD:	0	BWPD: 0
Formation:	MULKY	BOPD:	0	MCFPD:	0	BWPD: 0
Formation:	CROWEBURG	BOPD:	0	MCFPD:	0	BWPD: 0
Formation:	FLEMING	BOPD:	0	MCFPD:	0	BWPD: 0
Formation:	TEBO	BOPD:	0	MCFPD:	0	BWPD: 0

☑ 3. Plat map showing the location of the subject well, all other wells on the subject lease, and all wells on offsetting leases within a 1/2 mile radius of the subject well, and for each well the names and addresses of the lessee of record or operator.

☑ 4. Signed certificate showing service of the application and affidavit of publication as required in K.A.R. 82-3-135a.

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 well.

For Commingling of FLUIDS ONLY, include the following:

☑ 7. Well construction diagram of subject well.

☑ 8. Any available water chemistry data demonstrating the compatibility of the fluids to be commingled.

AFFIDAVIT: I 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.

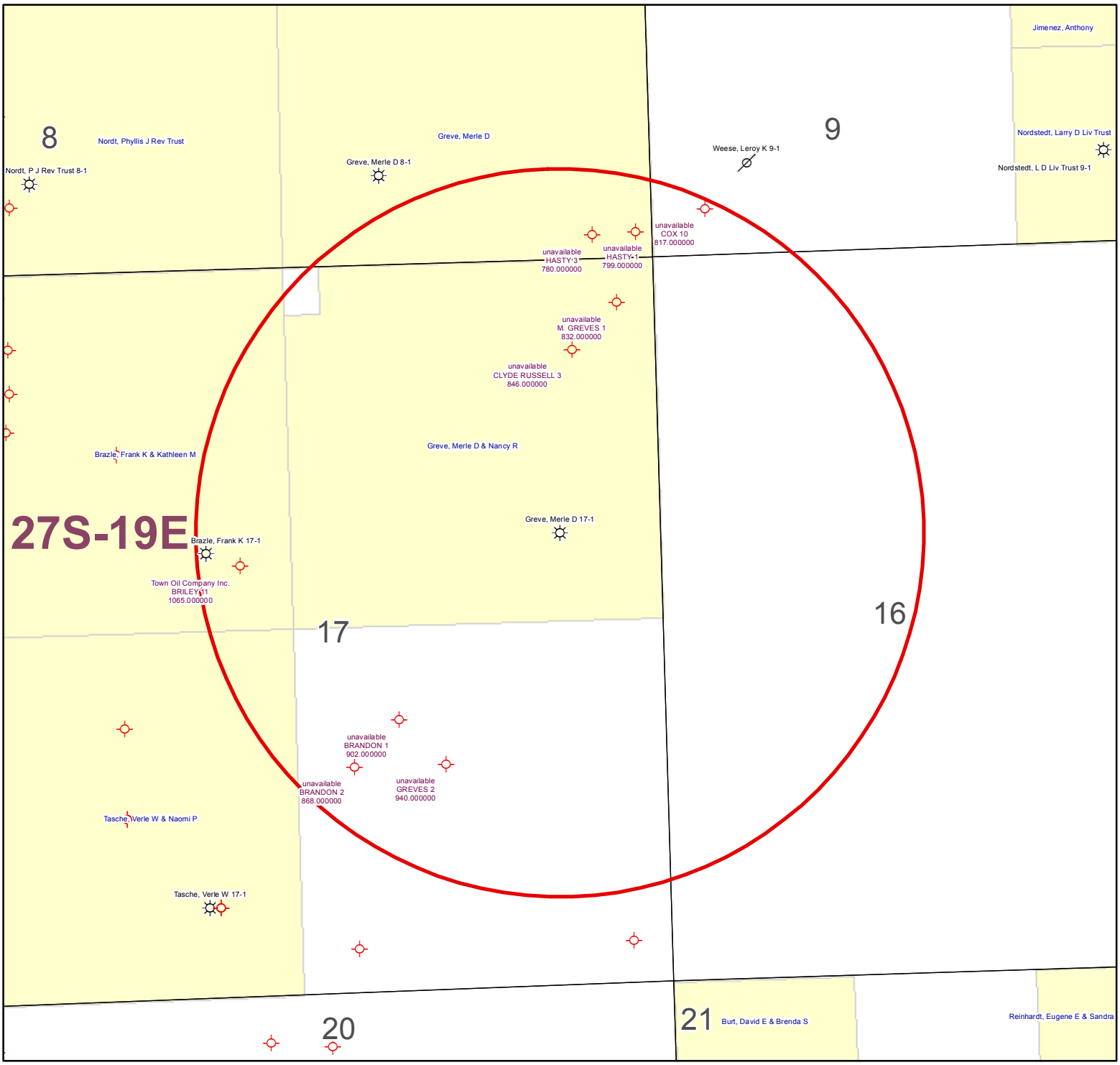
Submitted Electronically

KCC Office Use Only

☐ Denied ☑ Approved
15-Day Periods Ends: 2/1/2013
Approved By: Rick Hestermann Date: 03/29/2013

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.

Mail with all required attachments and files to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202



KGS STATUS

- DA/PA
- EOR
- GAS
- INJ/SWD
- OIL
- OIL/GAS
- OTHER

Greve, Merle D 17-1
17-27S-19E
1" = 1,000'

	A	B	C	D	E	F	G	H	I	J	K
1	Produced Fluids #		1	2	3	4	5		Click here to run SSP	Click	
2	Parameters	Units	Input	Input	Input	Input	Input				
3	Select the brines	Select fluid	☑	☑	☑	☑	☑	Mixed brine:		Click	
4	Sample ID	by checking						Cell H28 is			
5	Date	the box(es),	3/19/2012	3/4/2012	3/14/2012	1/20/2012	1/20/2012	STP calc. pH.	Goal Seek SSP	Click	
6	Operator	Row 3	PostRock	PostRock	PostRock	PostRock	PostRock	Cells H35-38			
7	Well Name		Ward Feed	Ward Feed	Clinesmith	Clinesmith	Clinesmith	are used in		Click	
8	Location		#34-1	#4-1	#5-4	#1	#2	mixed brines			
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 (Final-Initial)
11	K^+ (if not known =0)	(mg/l)						0.00	Saturation Index values		
12	Mg^{2+}	(mg/l)	1,096.00	872.00	1,200.00	953.00	858.00	995.91	Calcite		
13	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)						0.00	Barite		
15	Ba^{2+}	(mg/l)						0.00			
16	Fe^{2+}	(mg/l)	40.00	21.00	18.00	82.00	90.00	50.21	Halite		
17	Zn^{2+}	(mg/l)						0.00	-1.77	-1.80	-0.03
18	Pb^{2+}	(mg/l)						0.00	Gypsum		
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	Hemihydrate		
21	F^-	(mg/l)						0.00	-3.96	-3.90	0.06
22	Br^-	(mg/l)						0.00	Anhydrite		
23	SiO2	(mg/l) SiO2						0.00	-3.47	-3.36	0.12
24	HCO3 Alkalinity**	(mg/l as HCO3)	190.00	234.00	259.00	268.00	254.00	241.03	Celestite		
25	CO3 Alkalinity	(mg/l as CO3)									
26	Carboxylic acids**	(mg/l)						0.00	Iron Sulfide		
27	Ammonia	(mg/L) NH3						0.00	-0.16	-0.22	-0.06
28	Borate	(mg/L) H3BO3						0.00	Zinc 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			
32	H_2S Gas Analysis***	(%)	0.0289	0.0292	0.0296	0.0306	0.0151	0.0269	Iron Carbonate		
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)	pH	5.67	5.76	5.72	5.54	5.55	5.63	Inhibitor needed (mg/L)		
35	Choose one option to calculate SI?	0-CO2%+Alk, 1-pH+Alk, 2-CO2%+pH	0	0	0	0	0		Calcite	NTMP	
36	Gas/day(thousand cf/day)	(Mcf/D)						0	0.00	0.00	
37	Oil/Day	(B/D)	0	0	1	1	1	4	Barite	BHPMP	
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	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 Capacity (cal/ml/^{0}C)		
44	Use TP on Calcite sheet?	1-Yes;0-No							0.955	0.959	
45	API Oil Grav.	API grav.						30.00	Inhibitor needed (mg/L)		
46	Gas Sp.Grav.	Sp.Grav.						0.60	Gypsum	HDTMP	
47	MeOH/Day	(B/D)	0					0	0.00	0.00	
48	MEG/Day	(B/D)	0					0	Anhydrite	HDTMP	
49	Conc. Multiplier								0.00	0.00	
50	H^+ (Strong acid) †	(N)									
51	OH^- (Strong base) †	(N)									
52	Quality Control Checks at STP:										
53	H_2S Gas	(%)									
54	Total H2Saq (STP)	(mgH2S/l)									
55	pH Calculated	(pH)									
56	PCO2 Calculated	(%)									
57	Alkalinity Caclulated	(mg/l) as HCO3									
58	ΣCations=	(equiv./l)									
59	ΣAnions=	(equiv./l)									
60	Calc TDS=	(mg/l)									

61	Inhibitor Selection	Input	Unit	#	Inhibitor	Unit Converter (From metric to English)				
62	Protection Time	120	min	1	NTMP	From Unit	Value	To Unit	Value	
63	Have ScaleSoftPitzer			2	BHPMP	°C	80	°F	176	
64	pick inhibitor for you?	1	1-Yes;0-No	3	PAA	m^3	100	ft^3	3,531	
65	If No, inhibitor # is:	4	#	4	DTPMP	m^3	100	bbl(42 US gal)	629	
66	If you select Mixed,			5	PPCA	MPa	1,000	psia	145,074	
67	1st inhibitor # is:	1	#	6	SPA	Bar	496	psia	7,194	
68	% of 1st inhibitor is:	50	%	7	HEDP	Torr	10,000	psia	193	
69	2nd inhibitor # is:	2	#	8	HDTMP	Gal	10,000	bbl(42 US gal)	238	
70	Display act. coefs?	0	1-Yes;0-No	9	Average	Liters	10,000	bbl(42 US gal)	63	
71				10	Mixed					

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					
Component (mg/L)	20% Brine 1	20% Brine 2	20% Brine 3	20% Brine 4	20 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

12/13/09

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

Operator: License # 33344
Name: Quest Cherokee, LLC
Address: 211 W. 14th Street
City/State/Zip: Chanute, KS 66720
Purchaser: Bluestem Pipeline, LLC
Operator Contact Person: Jennifer R. Ammann
Phone: (620) 431-9500
Contractor: Name: Michael
License: 33783
Wellsite Geologist: Ken Recoy

CONFIDENTIAL DEC 13 2007 KCC

Designate Type of Completion:
✓ New Well ____ Re-Entry ____ Workover
____ Oil ____ SWD ____ SIOW ____ Temp. Abd.
✓ Gas ____ ENHR ____ SIGW
____ Dry ____ Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:
Operator:
Well Name:
Original Comp. Date: ____ Original Total Depth: ____
____ Deepening ____ Re-perf. ____ Conv. to Enhr./SWD
____ Plug Back ____ Plug Back Total Depth
____ Commingled Docket No.
____ Dual Completion Docket No.
____ Other (SWD or Enhr.?) Docket No.

8/17/07	8/18/07	8/22/07
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 133-27100-0000
County: Neosho
__ - __ - se - ne Sec. 17 Twp. 27 S. R. 19 ✓ East ☐ West
1980 feet from S / (N) (circle one) Line of Section
660 feet from (E) / W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
(circle one) (NE) SE NW SW
Lease Name: Greve, Merle D. Well #: 17-1
Field Name: Cherokee Basin CBM
Producing Formation: Multiple
Elevation: Ground: 990 Kelly Bushing: n/a
Total Depth: 1086 Plug Back Total Depth: 1081.76
Amount of Surface Pipe Set and Cemented at 23 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ✓ No
If yes, show depth set ____ Feet
If Alternate II completion, cement circulated from 1081.76
feet depth to surface w/ 166 sx cmt.

Drilling Fluid Management Plan AH II NJ 31709
(Data must be collected from the Reserve Pit)
Chloride content ____ ppm Fluid volume ____ bbls
Dewatering method used
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: ____ License No.:
Quarter ____ Sec. ____ Twp. ____ S. R. ____ ☐ East ☐ West
County: ____ Docket No.:

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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.

Signature: Jennifer R. Ammann
Title: New Well Development Coordinator Date: 12/14/07
Subscribed and sworn to before me this 14th day of December, 20 07.
Notary Public: Terra Klauman
Date Commission Expires: 8-4-2010

TERRA KLAUMAN
Notary Public - State of Kansas
My Appt. Expires 8-4-2010

KCC Office Use ONLY
Y Letter of Confidentiality Received
✓ If Denied, Yes ☐ Date:
✓ Wireline Log Received
____ Geologist Report Received
____ UIC Distribution

RECEIVED
KANSAS CORPORATION COMMISSION
DEC 18 2007
CONSERVATION DIVISION
WICHITA, KS

Side Two

Operator Name: Quest Cherokee, LLC Lease Name: Greve, Merle D. Well #: 17-1

Sec. 17 Twp. 27 S. R. 19 ☑ East ☐ West County: Neosho

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 copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional Sheets) ☐ Yes ☑ No

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run (Submit Copy) ☐ Yes ☐ No

List All E. Logs Run:

Compensated Density Neutron Log
Dual Induction Log
Gamma Ray Neutron Log

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
See attached		

CASING RECORD ☐ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4	8-5/8"	22	23	"A"	5	
Production	6-3/4	4-1/2	10.5	1081.76	"A"	166	

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	970-972/964-967	500gal 15%HCLw/ 59 bbls 2%kcl water, 546bbls water w/ 2% KCL, Biocide, 3800# 20/40 sand	970-972/964-967
4	818-820/801-803/768-770/712-715/680-683	400gal 15%HCLw/ 49 bbls 2%kcl water, 646bbls water w/ 2% KCL, Biocide, 4600# 20/40 sand	818-820/801-803
		768-770	712-715/680-683
4	579-583/568-572	300gal 15%HCLw/ 47 bbls 2%kcl water, 646bbls water w/ 2% KCL, Biocide, 5600# 20/40 sand	579-583/568-572

TUBING RECORD	Size	Set At	Packer At	Liner Run
	2-3/8"	1012	n/a	☐ Yes ☑ No

Date of First, Resumerd Production, SWD or Enhr.	Producing Method
9/28/07	☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	n/a	0mcf	267.7bbls		

Disposition of Gas METHOD OF COMPLETION Production Interval

☐ Vented ☑ Sold ☐ Used on Lease (If vented, Submit ACO-18.)

☐ Open Hole ☑ Perf. ☐ Dually Comp. ☐ Commingled

☐ Other (Specify)

081807

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: 08/18/07
Lease: Greve, Merie D.
County: Neosho
Well#: 17-1
API#: 15-133-27100-00-00

Drilling Log

FEET	DESCRIPTION
0-22	Overburden
22-34	Lime
34-45	Shale
45-114	Lime
114-128	Sandy Shale
128-160	Lime
160-188	Shale
188-230	Sandy Shale
230-340	Shale
340-343	Lime
343-374	Shale
374-404	Lime Streaks
404-453	Sandy Shale
453-456	Lime
456-459	Coal
459-505	Lime
505-508	Black Shale
508-539	Shale
539-540	Coal
540-565	Lime
557	Gas Test 30# at 3/8" Choke
565-572	Black Shale
572-579	Lime
579-581	Black Shale

FEET	DESCRIPTION
581-583	Coal
583-655	Sandy Shale
585	Gas Test 33# at 1/2" Choke
655-657	Coal
657-675	Shale
675-676	Lime
676-677	Coal
677-710	Sandy Shale
710-712	Coal
712-732	Sand
732-733	Coal
733-762	Shale
762-764	Coal
764-800	Shale
800-802	Coal
802-810	Sand
810-811	Coal
811-870	Shale
870-962	Sand
962-964	Coal
964-977	Shale
966	Gas Test 10# at 3/4" Choke
977-1084	Mississippi Lime
984	Gas Test 10# at 3/4" Choke

081807

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: 08/18/07
Lease: Greve, Merle D.
County: Neosho
Well#: 17-1
API#: 15-133-27100-00-00

Drilling Log

FEET	DESCRIPTION	FEET	DESCRIPTION
1084	Gas Test 10# at 3/4" Choke		
1084	TD		
	Surface 22'		

QUEST
Resource Corporation

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

TICKET NUMBER 2174
FIELD TICKET REF # _____
FOREMAN Dwayne / Joe

TREATMENT REPORT & FIELD TICKET CEMENT

DATE	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-22-07	Greve Merle 17-1	17	27	19	NO

FOREMAN / OPERATOR	TIME IN	TIME OUT	LESS LUNCH	TRUCK #	TRAILER #	TRUCK HOURS	EMPLOYEE SIGNATURE
Dwayne / Joe	10:45	1:30	NO	901640		2.75 hr	
	6:45			903197		6.75 hr	
Maverick	10:45			903197		2.75 hr	
Tyler	10:45			903600		hr	
Kevin	10:45			931300	932895	hr	
Gary C	10:45			931500		hr	
Tim A.	10:45			903140	T33	hr	

JOB TYPE Long String HOLE SIZE _____ HOLE DEPTH 1086 CASING SIZE & WEIGHT 4½ 10.5
CASING DEPTH 1081.76 DRILL PIPE _____ TUBING _____ OTHER _____
SLURRY WEIGHT 14.5 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
DISPLACEMENT 17.25 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS:
INSTALLED CEMENT HEAD RAN 2 SKS gel & 11 bbl dye & 166 SKS of CEMENT TO get dye to surface. flush pump. Pump wiper plug to bottom & set float shoe

	1081.76	4½ Casing
	5	4½ centralizers
	1	4½ Float Shoe

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION OF SERVICES OR PRODUCT	TOTAL AMOUNT
	6.75 hr	Foreman Pickup	
903197	2.75 hr	Cement Pump Truck	
903500	2.75 hr	Bulk Truck	
1104	156 Sack	Portland Cement	
1124		50/50 POZ Blend Cement	
1126	1	~~OWC Blend Cement~~ 4½ Wiper Plug	
1110	16 Sack	Gilsonite	
1107	1.5 Sack	Flo-Seal	
1118	2 Sack	Premium Gel	
1215A	1 Gal	KCL	
1111B	3 Sack	~~Sodium Silicate~~ Cal Cloride	
1123	7000 Gal	City Water	
903142	2.75 hr	Transport Truck	
T33	2.75 hr	Transport Trailer	
931500	2.75 hr	80 Vac	

RECEIVED
KANSAS CORPORATION COMMISSION
DEC 18 2007
KCC

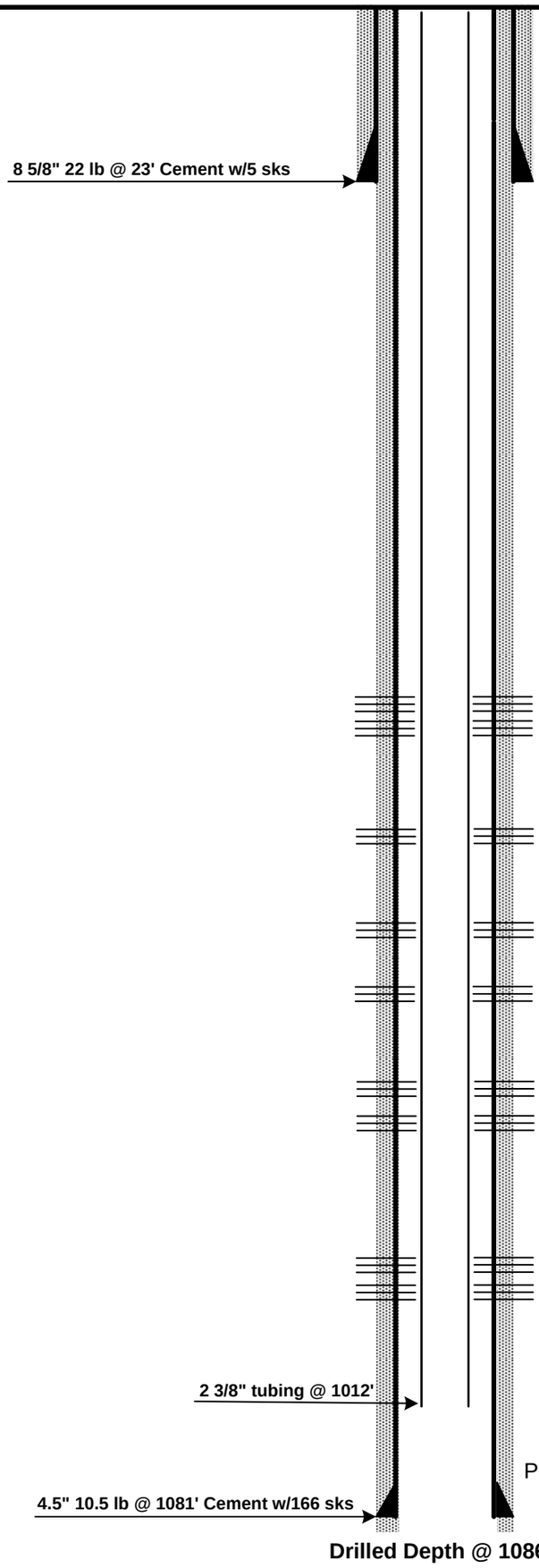
Ravin 4513

POSTROCK	PostRock	Current Completion

WELL : Greve, Merle D 17-1
FIELD : Cherokee Basin
STATE : Kansas
COUNTY : Neosho

SPUD DATE : 8/17/2007
COMP. Date : 8/22/2007
API: 15-133-27100-00-00

LOCATION: 17-27S-19E (SE,NE)
ELEVATION: 990'



Wellhead/Surface Equipment

Tree Connection	
Tree	
Tubing Head	
Bradenhead	
Pumping Unit	
Compressor	

Tubular Detail

Size	Weight	Grade	Cap(bbl/ft)	Date	Depth
8 5/8"	22 lb			2007	23'
4 ½"	10.5 lb		.0159	2007	1081'
2 3/8"				2007	1012'

Downhole Equipment Detail

Completion Data

Original as GAS Well per ACO-1

1,200 gals 15% HCL
1,838 bbls water
14,000 lbs 20/40 sand

Perforations

Original Completion: 4 spf
568-572 Summit (17)
579-583 Mulky (17)
680-683 Croweburg (13)
712-715 Fleming (13)
768-770 Tebo (9)
801-803 Weir (9)
818-820 Weir (9)
964-967 Riverton (13)
970-972 Riverton (9)

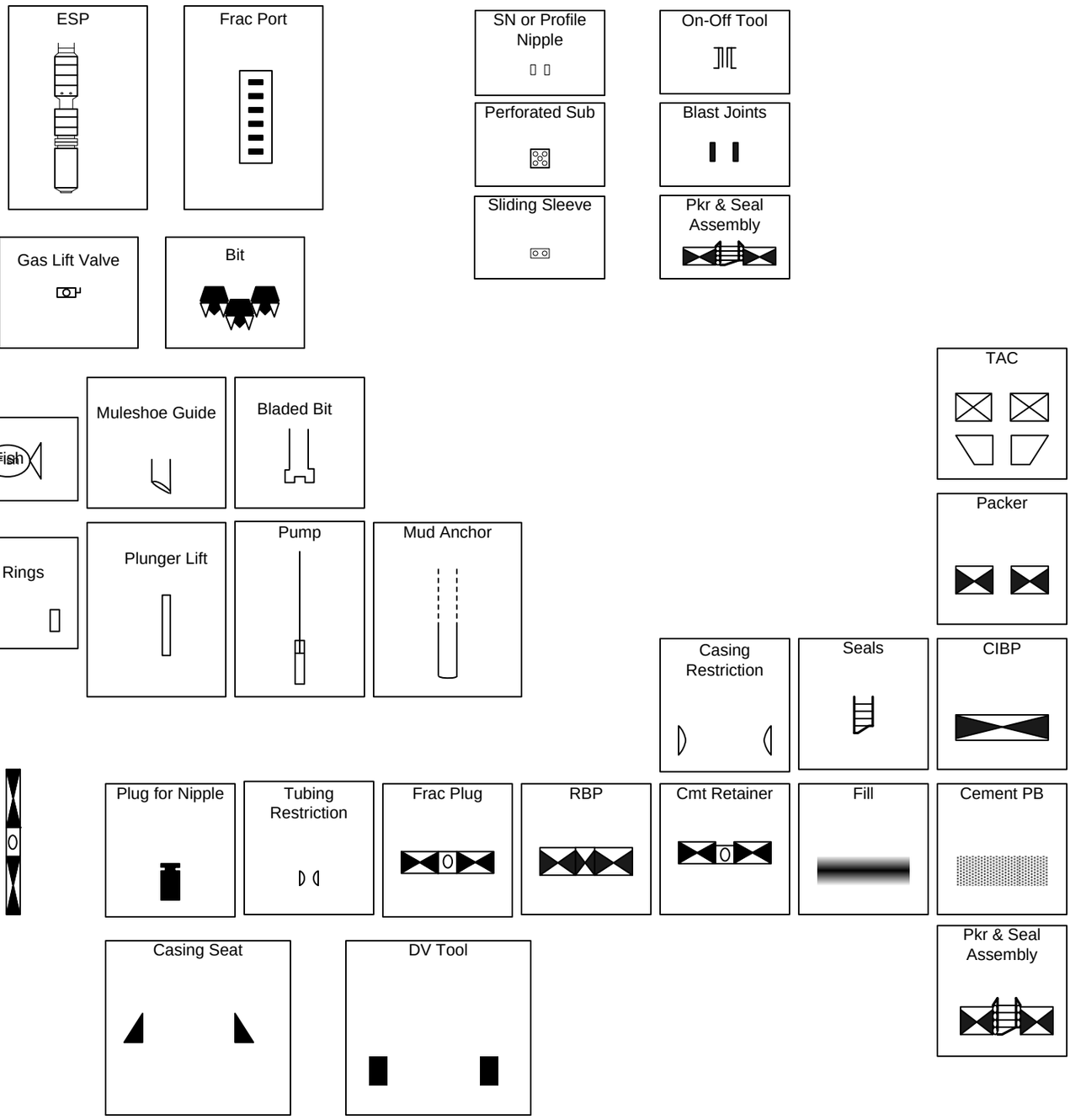
PREPARED BY: POSTROCK **DATE:** Dec, 2012

APPROVED BY: _____ **DATE:** _____

POSTROCK

PostRock

LEGEND



GREVE, MERLE D 17-1

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

FORMATION:	WEIR	(PERFS):	801	-	803
FORMATION:	WEIR	(PERFS):	818	-	820
FORMATION:	RIVERTON	(PERFS):	964	-	967
FORMATION:	RIVERTON	(PERFS):	970	-	972
FORMATION:	UPPER STRAY	(PERFS):	808	-	814
FORMATION:	LWR BARTLESVILLE	(PERFS):	894	-	898
FORMATION:		(PERFS):		-	
FORMATION:		(PERFS):		-	
FORMATION:		(PERFS):		-	
FORMATION:		(PERFS):		-	
FORMATION:		(PERFS):		-	
FORMATION:		(PERFS):		-	

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

FORMATION:	WEIR	BOPD:	0	MCFPD:	6.14	0 BWPD:		11.57
FORMATION:	WEIR	BOPD:	0	MCFPD:	6.14	BWPD:		11.57
FORMATION:	RIVERTON	BOPD:	0	MCFPD:	0	BWPD:		6.67
FORMATION:	RIVERTON	BOPD:	0	MCFPD:	0	BWPD:		6.67
FORMATION:	UPPER STRAY	BOPD:	1.5	MCFPD:	0	BWPD:		10
FORMATION:	LWR BARTLESVILLE	BOPD:	1.5	MCFPD:	0	BWPD:		10
FORMATION:	0	BOPD:		MCFPD:		BWPD:		
FORMATION:	0	BOPD:		MCFPD:		BWPD:		
FORMATION:	0	BOPD:		MCFPD:		BWPD:		
FORMATION:	0	BOPD:		MCFPD:		BWPD:		
FORMATION:	0	BOPD:		MCFPD:		BWPD:		
FORMATION:	0	BOPD:		MCFPD:		BWPD:		

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 **17th** of

January A.D. **2013**, 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.

Mark Fletchall

Subscribed and sworn to before me this

17th day of January, 2013

PENNY L CASE
Notary Public - State of Kansas
My Appt. Expires 5/28/2014

Penny L Case

Notary Public Sedgwick County, Kansas

Printer's Fee : **$132.40**

LEGAL PUBLICATION

PUBLISHED IN THE WICHITA EAGLE JANUARY 17, 2013 (3227078)
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 **Greve, Merle D 17-1** located in Neosho County, Kansas.

TO: All Oil & Gas Producers, Unleased Mineral Interest Owners, Landowners, and all persons whomever concerned.

You, and each of you, are hereby notified that **Postrock Midcontinent Production, LLC** has filed an application to commingle the **Summit, Mulky, Croweburg, Fleming Tebo, Weir, Riverton, Upper Stray and Lwr Bartlesville** producing formations at the **Greve, Merle D 17-1**, located in the **NE SW SE NE, S17-T27S-R19E, Approximately 1981 FNL & 730 FEL, Neosho County, Kansas.**

Any persons who object to or protest this application shall be required to file their objections or protest with the Conservation Division of the State Corporation Commission of the State of Kansas within fifteen (15) days from the date of this publication. These protests shall be filed pursuant to Commission regulations and must state specific reasons why granting the application may cause waste, violate correlative rights or pollute the natural resources of the State of Kansas.

All persons interested or concerned shall take notice of the foregoing and shall govern themselves accordingly. All person and/or companies wishing to protest this application are required to file a written protest with the Conservation Division of the Kansas Oil and Gas Commission.

Upon the receipt of any protest, the Commission will convene a hearing and protestants will be expected to enter an appearance either through proper legal counsel or as individuals, appearing on their own behalf.

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

BEFORE THE STATE
CORPORATION COMMISSION
OF THE STATE OF KANSAS
NOTICE OF FILING APPLICATION

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

A COPY OF THE AFFIDAVIT OF PUBLICATION MUST ACCOMPANY ALL APPLICATIONS

☐ Affidavit of Publication ☐

STATE OF KANSAS, NEOSHO COUNTY, ss:
Rhonda Howerter, being first duly sworn,
deposes and says: That *she* is *Classified Manager*
of *THE CHANUTE TRIBUNE*, a daily newspaper printed in the State of Kansas, and published in and of genera circulation in Neosho County, Kansas, with a general paic circulation on a daily basis in Neosho County, Kansas, anc that said newspaper is not a trade, religious or fraterna publication.

Said newspaper is a daily published at least weekly 5(times a year: has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice and has been admitted at the post office of Chanute, in saic county as second class matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 ~~consecutive~~ time, the first publication thereof being made as aforesaid on the 10 day of January 2012 with subsequent publications being made on the following dates:

_____, 2012 _____, 2012

_____, 2012 _____, 2012

Rhonda Howerter

Subscribed and sworn to and before me this 10 day of January, 2012

_____
Notary Public

My commission expires: January 9, 2015

Printer's Fee	$68.30
Affidavit, Notary's Fee	$ 3.00
Additional Copies	$
Total Publication Fees	$ 71.30

SHANNA L. GUIOT
Notary Public - State of Kansas
My Appt. Expires 1-9-15

Affidavit of Notice Served

Re: Application for: APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS ACO-4

Well Name: GREVE, MERLE D 17-1 Legal Location: NESWSENE S17-T27S-R19E

The undersigned hereby certificates that he / she is a duly authorized agent for the applicant, and that on the day ~~15TH~~ 16TH of JANUARY,

2013, a true and correct copy of the application referenced above was delivered or mailed to the following parties:

Note: A copy of this affidavit must be served as a part of the application.

Name Address *(Attach additional sheets if necessary)*

SEE ATTACHED

I further attest that notice of the filing of this application was published in the CHANUTE TRIBUNE, the official county publication of NEOSHO county. A copy of the affidavit of this publication is attached.

Signed this 16TH day of JANUARY, 2013

Applicant or Duly Authorized Agent

Subscribed and sworn to before me this 16TH day of JANUARY, 2013

JENNIFER R. BEAL
NOTARY PUBLIC
STATE OF KANSAS
OFFICIAL SEAL
MY COMMISSION EXPIRES
7-20-2016

Notary Public

My Commission Expires: July 20, 2016

GREVE, MERLE D 17-1

LEGAL LOCATION	SPOT	CURR_OPERA	ADDRESS
S17-T27S-R19E	SE SE NW	**Town Oil Company Inc.**	16205 W 287TH ST, PAOLA, KS 66071

GREVE, MERLE D 17-1

9-27S-19E

SW4 SW4
Neil Ford
24560 Anderson Rd
Chanute, KS 66720

17-27S-19E

tract in NW4 NE4
Yvette M. Almanza
PO Box 299
Chanute, KS 66720

SE/4
Jack A. Suit
612 S Sunset Ave
Chanute, KS 66720

16-27S-19E

NW4 AND E2 SW4
John W. Mishler Trust (1/2)
PO Box 531
Chanute, KS 66720
Marilyn K. Mishler Trust (1/2)
PO Box 531
Chanute, KS 66720

W2 SW4 less tracts
Christopher R & Susan K Galemore
PO Box 453
Chanute, KS 66720

tract in W2 SW4
Kenneth Lee Ornelas II
319 S Lincoln
Chanute, KS 66720

tract in E2 E2 SW4 SW4
Jeffery J & Teresa Dimond
11240 220th Rd
Chanute, KS 66720

GREVE, MERLE D 17-1-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.

Applicant or Duly Authorized Agent

Subscribed and sworn before me this 16th day of JANUARY, 2013

OFFICIAL SEAL
JENNIFER R. BEAL
MY COMMISSION EXPIRES
7-20-2016

Notary Public

My Commission Expires: July 20, 2016

GREVE, MERLE D 17-1

LEGAL LOCATION	SPOT	CURR_OPERA	ADDRESS
S17-T27S-R19E	SE SE NW	**Town Oil Company Inc.**	16205 W 287TH ST, PAOLA, KS 66071

GREVE, MERLE D 17-1

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319 S Lincoln
Chanute, KS 66720

tract in E2 E2 SW4 SW4
Jeffery J & Teresa Dimond
11240 220th Rd
Chanute, KS 66720

John W. Mishler
Marilyn K. Mishler
P.O. Box 531
Chanute, Kansas 66720

January 25, 2013

Kansas Corporation Commission
Oil & Gas Conservation Division
130 South Market - Room 2078
Wichita, Kansas 67202

Re: Application For Commingling of Production or Fluids

Lease Name: Merle D. Greve, Well #17-1

To Whom It May Concern:

We request that the Kansas Corporation Commission deny the application for commingling of fluids on the Merle D. Greve land, Well #17-1.

We have not leased our property that adjoins Mr. Greve's property so that our minerals could be preserved intact.

We feel that the commingling of fluids on Mr. Greve's property could at some time in the future affect the minerals on our land.

Thank you for your consideration.

Sincerely,

John W. Mishler

Marilyn K. Mishler

c: PostRock Energy Corporation
4402 Johnson Road
Chanute, Kansas 66720

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Mark Sievers, Chairman
Thomas E. Wright
Shari Feist Albrecht

In the Matter of the Application of PostRock Midcontinent Production LLC, for the authority to commingle fluids on the Merle D. Greve land, Well #17-1, located in Section 17, Township 27 South, Range 19 East, Neosho County, Kansas.	))))))	CONSERVATION DIVISION License No. 33343

ORDER

This matter comes before the State Corporation Commission of the State of Kansas, ("Commission") on the application of PostRock Midcontinent Production LLC ("PostRock" or "Applicant") to commingle fluids in the Merle Greve Well #17-1. Giving due consideration to the record herein, the statutes and its regulations the Commission makes the following findings and conclusions:

1. The application was filed by PostRock on December 4, 2012. The application seeks a permit for commingling production from several formations in the Merle Greve Well #17-1 located in Section 17, Township 27 South, Range 19 East, Neosho County, Kansas.

2. On January 30, 2013, John W. Mishler and Marilyn K. Mishler filed a protest to the application. The Mishlers are concerned allowing commingling will increase the risk that minerals will be lost from under their adjoining property.

3. John McCannon, Litigation Counsel, sent a letter on February 5, 2013, informing Mr. and Mrs. Mishler that the Commission would hold a hearing on the application if they

agreed to be present and participate. He requested a response within 10 days of the date of the letter.

4. Mr. & Mrs. Mishler responded by phone that they could not attend a hearing but they did want the Commission to consider their protest.

5. The Merle Greve #17-1 well is currently producing from the coal formations and PostRock wants to add production from the Bartlesville formation in the well. The Merle Greve #17-1 well is 500 feet from the Mishler's lease line.

6. The Commission finds that the Merle Greve #17-1 well meets the Commission's set back regulations and that adding production from the Bartlesville will not advisedly affect the Mishler's correlative rights. Allowing the well to produce from the Bartlesville formation in addition to the coal formations will allow the well to remain economic and prevent waste.

7. The application for commingling should be granted to prevent waste and protect correlative rights.

IT IS, THEREFORE, BY THE COMMISSION ORDERED: That the application of PostRock Midcontinent Production LLC, for commingling in the Merle D. Greve, Well #17-1 be granted.

Any party affected by this Order may file with the Commission a petition for reconsideration pursuant to K.S.A. 77-529(a). Such petition shall be filed within fifteen (15) days after service of this Order and must state the specific grounds upon which relief is requested. This petition for reconsideration shall be filed with the Executive Director of the Conservation Division, Finney State Office Building, 130 S. Market, Room 2078, Wichita, Kansas 67202-3802.

The Commission retains jurisdiction of the subject matter and the parties for the purpose of entering such further Order or Orders as from time-to-time it may deem proper.

BY THE COMMISSION IT IS SO ORDERED.
Sievers, Chmn.; Wright, Com.; Albrecht, Com.

Date: MAR 2 8 2013

Patrice Petersen-Klein
Executive Director

Date Mailed: 3-29-2013

JM

I CERTIFY THE ORIGINAL
COPY IS ON FILE WITH
The State Corporation Commission
MAR 2 8 2013

CERTIFICATE OF SERVICE

I hereby certify that on 3-29-2013, I caused a true and correct copy of the foregoing "Order" to be served by placing the same in the United States mail, postage prepaid, to the following parties:

Stephen L. DeGiusti
PostRock Midcontinent Production LLC
Oklahoma Tower
210 Park Ave., Ste 2750
Oklahoma City, OK 73102

Clark Edwards
PostRock Midcontinent Production LLC
4402 Johnson Rd.
Chanute, KS 66720

John W. Mishler
Marilyn K. Mishler
P.O. Box 531
Chanute, KS 66720

and by hand delivery to the following:

Rick Hestermann, KCC Central Office

John McCannon
Litigation Counsel
Kansas Corporation Commission

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

Kansas
Corporation Commission

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

March 29, 2013

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

RE: Approved Commingling CO011310
Greve, Merle D. 17-1, Sec. 17-T27S-R19E, Neosho County
API No. 15-133-27100-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on January 23, 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 CO011310 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