



KANSAS CORPORATION COMMISSION 1093815  
OIL & GAS CONSERVATION DIVISION

Form ACO-4  
Form must be typed  
March 2009

APPLICATION FOR COMMINGLING OF *Commingling ID # CO101209*  
PRODUCTION (K.A.R. 82-3-123) OR FLUIDS (K.A.R. 82-3-123a)

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 - 15-205-26530-00-00  
Spot Description: SW NE NE NE Sec. 24 Twp. 28 S. R. 16  East  West  
654 Feet from  North /  South Line of Section  
655 Feet from  East /  West Line of Section  
County: Wilson  
Lease Name: CARTER GALE D Well #: 24-1

1. Name and upper and lower limit of each production interval to be commingled:  
Formation: SUMMIT (Perfs): 718-722  
Formation: MULKY (Perfs): 730-734  
Formation: TEBO (Perfs): 929-931  
Formation: WEIR (Perfs): 961-963  
Formation: RIVERTON (Perfs): 1126-1128

2. Estimated amount of fluid production to be commingled from each interval:  
Formation: SUMMIT BOPD: 0 MCFPD: 1.4 BWPD: 2.8  
Formation: MULKY BOPD: 0 MCFPD: 1.4 BWPD: 2.8  
Formation: TEBO BOPD: 0 MCFPD: 1.4 BWPD: 2.8  
Formation: WEIR BOPD: 0 MCFPD: 1.4 BWPD: 2.8  
Formation: RIVERTON BOPD: 0 MCFPD: 1.4 BWPD: 2.8

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

|  |  |
|--|--|
| <b>KCC Office Use Only</b>             |  |
| <input type="checkbox"/> Denied        | <input checked="" type="checkbox"/> Approved |
| 15-Day Periods Ends: <u>10/16/2012</u> |  |
| Approved By: <u>Rick Hestermann</u>    | Date: <u>10/17/2012</u>                      |

*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 within 15 days of publication of the notice of application.*

|    | A  | B   | C                        | D                        | E                        | F                                       | G                        | H               | I   | J         | K                        |  |
|----|--|---|--------------------------|--------------------------|--------------------------|---|--------------------------|-----------------|---|-----------|--------------------------|--|
| 1  | Produced Fluids #  |   | 1                        | 2                        | 3                        | 4                                       | 5                        |                 | Click here to run SSP<br><br>Goal Seek SSP<br><br>Click |           |                          |  |
| 2  | Parameters   | Units   | Input                    | Input                    | Input                    | Input                                   | Input                    |                 |   |           |                          |  |
| 3  | Select the brines  | Select fluid by checking the box(es),                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                | <input type="checkbox"/> | Mixed brine:    |   |           |                          |  |
| 4  | Sample ID  |   |                          |                          |                          |   |                          | Cell H28 is     |   |           |                          |  |
| 5  | Date   | 3/19/2012   | 3/4/2012                 | 3/14/2012                | 1/20/2012                | 1/20/2012                               |                          | STP calc. pH.   |   |           |                          |  |
| 6  | Operator   | Row 3   | PostRock                 | PostRock                 | PostRock                 | PostRock                                | PostRock                 | Cells H35-38    |   |           |                          |  |
| 7  | Well Name  | Ward Feed   | Ward Feed                | Clinesmith               | Clinesmith               | Clinesmith                              |                          | are used in     |   |           |                          |  |
| 8  | Location   | #34-1   | #4-1                     | #5-4                     | #1                       | #2                                      |                          | mixed brines    |   |           |                          |  |
| 9  | Field  | CBM   | CBM                      | Bartles                  | Bartles                  | Bartles                                 |                          | calculations.   |   |           |                          |  |
| 10 | Na <sup>+</sup>  | (mg/l)*   | 19,433.00                | 27,381.00                | 26,534.00                | 25,689.00                               | 24,220.00                | 24,654.20       | Initial(BH)   | Final(WH) | SI/SR<br>(Final-Initial) |  |
| 11 | K <sup>+</sup> (If not known =0)   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | Saturation Index values                                 |           |                          |  |
| 12 | Mg <sup>2+</sup>   | (mg/l)  | 1,096.00                 | 872.00                   | 1,200.00                 | 953.00                                  | 858.00                   | 995.91          | Calcite   |           |                          |  |
| 13 | Ca <sup>2+</sup>   | (mg/l)  | 1,836.00                 | 2,452.00                 | 2,044.00                 | 1,920.00                                | 1,948.00                 | 2,040.23        | -0.73   | -0.60     | 0.13                     |  |
| 14 | Sr <sup>2+</sup>   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | Barite  |           |                          |  |
| 15 | Ba <sup>2+</sup>   | (mg/l)  |                          |                          |                          |   |                          | 0.00            |   |           |                          |  |
| 16 | Fe <sup>2+</sup>   | (mg/l)  | 40.00                    | 21.00                    | 18.00                    | 82.00                                   | 90.00                    | 50.21           | Halite  |           |                          |  |
| 17 | Zn <sup>2+</sup>   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | -1.77   | -1.80     | -0.03                    |  |
| 18 | Pb <sup>2+</sup>   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | Gypsum  |           |                          |  |
| 19 | Cl <sup>-</sup>  | (mg/l)  | 36,299.00                | 48,965.00                | 47,874.00                | 45,632.00                               | 43,147.00                | 44,388.44       | -3.19   | -3.18     | 0.00                     |  |
| 20 | SO <sub>4</sub> <sup>2-</sup>  | (mg/l)  | 1.00                     | 1.00                     | 8.00                     | 1.00                                    | 1.00                     | 2.40            | Hemihydrate   |           |                          |  |
| 21 | F <sup>-</sup>   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | -3.96   | -3.90     | 0.06                     |  |
| 22 | Br <sup>-</sup>  | (mg/l)  |                          |                          |                          |   |                          | 0.00            | Anhydrite   |           |                          |  |
| 23 | SiO <sub>2</sub>   | (mg/l) SiO <sub>2</sub>   |                          |                          |                          |   |                          | 0.00            | -3.47   | -3.36     | 0.12                     |  |
| 24 | HCO <sub>3</sub> Alkalinity**  | (mg/l as HCO <sub>3</sub> )                                     | 190.00                   | 234.00                   | 259.00                   | 268.00                                  | 254.00                   | 241.03          | Celestite   |           |                          |  |
| 25 | CO <sub>3</sub> Alkalinity   | (mg/l as CO <sub>3</sub> )                                      |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 26 | Carboxylic acids**   | (mg/l)  |                          |                          |                          |   |                          | 0.00            | Iron Sulfide  |           |                          |  |
| 27 | Ammonia  | (mg/L) NH <sub>3</sub>  |                          |                          |                          |   |                          | 0.00            | -0.16   | -0.22     | -0.06                    |  |
| 28 | Borate   | (mg/L) H <sub>3</sub> BO <sub>3</sub>                           |                          |                          |                          |   |                          | 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 <sub>2</sub> Gas Analysis   | (%)   | 19.97                    | 18.76                    | 22.41                    | 35.53                                   | 33.79                    | 26.16           |   |           |                          |  |
| 32 | H <sub>2</sub> S Gas Analysis***   | (%)   | 0.0289                   | 0.0292                   | 0.0296                   | 0.0306                                  | 0.0151                   | 0.0269          | Iron Carbonate  |           |                          |  |
| 33 | Total H <sub>2</sub> Saq   | (mgH <sub>2</sub> S/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-CO <sub>2</sub> %+Alk.<br>1-pH+Alk.<br>2-CO <sub>2</sub> %+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)   |           |                          |  |
| 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 <sup>2</sup> 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 <sup>+</sup> (Strong acid) †   | (N)   |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 51 | OH <sup>-</sup> (Strong base) †  | (N)   |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 52 | Quality Control Checks at STP:   |   |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 53 | H <sub>2</sub> S Gas   | (%)   |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 54 | Total H <sub>2</sub> Saq (STP)   | (mgH <sub>2</sub> S/l)  |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 55 | pH Calculated  | (pH)  |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 56 | PCO <sub>2</sub> Calculated  | (%)   |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 57 | Alkalinity Calculated  | (mg/l) as HCO <sub>3</sub>                                      |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 58 | E Cations=   | (equiv./l)  |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 59 | E Anions=  | (equiv./l)  |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 60 | Calc TDS=  | (mg/l)  |                          |                          |                          |   |                          |                 |   |           |                          |  |
| 61 | Inhibitor Selection  | Input   | Unit                     | #                        | Inhibitor                | Unit Converter (From metric to English) |                          |                 | Value   |           |                          |  |
| 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 <sup>3</sup>                          | 100                      | ft <sup>3</sup> | 3,531   |           |                          |  |
| 65 | If No, Inhibitor # is:   | 4   | #                        | 4                        | DTPMP                    | m <sup>3</sup>                          | 100                      | bb(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                   | bb(42 US gal)   | 238   |           |                          |  |
| 70 | Display act. coeffs?   | 0   | 1-Yes;0-No               | 9                        | Average                  | Liters                                  | 10,000                   | bb(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

| Component (mg/L)         | Ratio       |             |             |             |            | Mixed Brine |
|--------------------------|-------------|-------------|-------------|-------------|------------|-------------|
|                          | 20% Brine 1 | 20% Brine 2 | 20% Brine 3 | 20% Brine 4 | 20 Brine 5 |             |
| 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 |

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: L S Well Service, LLC  
License: 33374

Wellsite Geologist: Ken Reacy  
Designate Type of Completion:  
 New Well  Re-Entry  Workover  
 Oil  SWD  SLOW  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. \_\_\_\_\_

| 5/1/06                            | 5/2/06          | 5/12/06                                 |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |

API No. 15 - 205-28530-00-00  
County: Wilson  
\_\_\_\_ - no - no Sec. 24 Twp. 28 S. R. 16  East  West  
660 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: Carter, Gale D. Well #: 24-1  
Field Name: Cherokee Basin CBM

Producing Formation: Multiple  
Elevation: Ground: 990 Kelly Bushing: n/a  
Total Depth: 1212 Plug Back Total Depth: 1205  
Amount of Surface Pipe Set and Cemented at 21.3 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set \_\_\_\_\_ Feet  
If Alternate II completion, cement circulated from 1205  
feet depth to surface w/ 170 <sup>sq cmt.</sup>  
Alt 2 - Dig - 11/24/08

Drilling Fluid Management Plan  
(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: 8/30/06

Subscribed and sworn to before me this 30<sup>th</sup> day of August,  
2006.

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**  
 Letter of Confidentiality Received  
If Denied, Yes  Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution

**RECEIVED**  
KANSAS CORPORATION COMMISSION  
**AUG 31 2006**

CONSERVATION DIVISION  
WICHITA, KS

ORIGINAL

Side Two

Operator Name: Quest Cherokee, LLC Lease Name: Carter, Gale D. Well #: 24-1  
Sec. 24 Twp. 28 S. R. 16 [X] East [ ] West County: Wilson

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 [ ] Yes [X] No  
(Attach Additional Sheets)  
Samples Sent to Geological Survey [ ] Yes [X] No  
Cores Taken [ ] Yes [X] No  
Electric Log Run [X] Yes [ ] No  
(Submit Copy)

[X] Log Formation (Top), Depth and Datum [ ] Sample  
Name Top Datum  
See attached

List All E. Logs Run:  
Comp. Density Neutron Log  
Gamma Ray Neutron  
Dual Induction Log

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           | 11 1/2"           | 8-5/8"                    | 20#               | 21.3          | "A"            | 7            |                            |
| Production        | 6-3/4"            | 4-1/2"                    | 10.5#             | 1205          | "A"            | 170          |                            |

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br>(Amount and Kind of Material Used)           | Depth                        |
|----------------|---|---|------------------------------|
| 4              | 1126-1128/961-963/929-931   | 400gal 15% HCl w/ 27 bbls 2% acid water, 720bbls water w/ 2% KCl, Blocks, 10000# 20/40 sand | 1126-1128/961-963<br>929-931 |
| 4              | 730-734/718-722   | 300gal 15% HCl w/ 45 bbls 2% acid water, 725bbls water w/ 2% KCl, Blocks, 4100# 20/40 sand  | 730-734/718-7200             |

|               |                       |                |
|---------------|-----------------------|----------------|
| TUBING RECORD | Size Set At Packer At | Liner Run      |
|               | 2-3/8" 1148.46 n/a    | [ ] Yes [X] No |

|   |  |
|---|--|
| Date of First, Resumerd Production, SWD or Enhr.<br>7/26/06 | Producing Method<br>[ ] Flowing [X] Pumping [ ] Gas Lift [ ] Other (Explain) |
|---|--|

|                                   |                  |                  |                       |               |         |
|-----------------------------------|------------------|------------------|-----------------------|---------------|---------|
| Estimated Production Per 24 Hours | Oil Bbls.<br>n/a | Gas Mcf<br>.7mcf | Water Bbls.<br>20bbls | Gas-Oil Ratio | Gravity |
|-----------------------------------|------------------|------------------|-----------------------|---------------|---------|

Disposition of Gas METHOD OF COMPLETION Production Interval  
[X] Vented [X] Sold [X] Used on Lease [ ] Open Hole [X] Perf. [ ] Dually Comp. [ ] Commingled  
(If vented, Submit ACO-18.) [ ] Other (Specify)

HAMUAIPI AUMI 31  
2006. 7.26.06 11:09 AM  
QUEST

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

Drill Log  
Quest Cherokee, LLC

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

0-2 DIRT  
2-15' LIME  
15-105 SHALE  
105-112 LIME  
112-120 SHALE  
120-215 SANDY SHALE  
215-220 SAND  
220-240 SANDY SHALE  
240-315 LIME  
315-350 SANDY SHALE  
350-355 LIME  
355-359 BLACK SHALE  
359-370 LIME  
370-380 SHALE  
380-425 LIME  
425-500 SHALE  
500-512 SAND  
512-524 SHALE  
524-536 LIME  
536-562 SAND  
562-580 SHALE  
580-601 SAND  
601-626 SANDY SHALE  
626-629 LIME  
629-630 COAL  
630-656 LIME PINK  
656-658 BLACK SHALE  
658-668 SHALE  
668-686 SAND  
686-696 SHALE  
696-713 LIME OSWEGO  
713-717 BLACK SHALE  
717-726 LIME  
726-728 BLACK SHALE  
728-729 COAL  
729-740 LIME  
740-750 SHALE  
750-787 SANDY SHALE  
787-788 COAL  
788-800 SANDY SHALE  
800-900 SAND  
900-902 LIME  
902-903 COAL  
903-912 SHALE  
912-920 SANDY SHALE  
920-972 SHALE  
972-989 SANDY SHALE

5-1-06 Drilled 11" hole and set  
21.3' of 8 5/8" surface casing  
Set with 7 sacks Portland cement

5-2-06 Started drilling 6 3/4" hole

5-2-06 Finished drilling to  
T.D. 1212'

260' WATER  
736' WATER INCREASE

661' 2" ON 1/2" ORIFICE  
736' 22" ON 1/2" ORIFICE  
811' 45" ON 3/4" ORIFICE  
887' 60" ON 3/4" ORIFICE  
1012' 8 PSI ON 3/4" ORIFICE  
1062' 16 PSI ON 3/4" ORIFICE  
1112' 16 PSI ON 3/4" ORIFICE  
1137' 18 PSI ON 3/4" ORIFICE  
1212' 16 PSI ON 3/4" ORIFICE

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CONSERVATION DIVISION  
WICHITA, KS

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

Drill Log  
Quest Cherokee, LLC

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

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

T.D. 1212'

CONSOLIDATED OIL WELL SERVICES

P.O. BOX 984, CHANUTE, KS 66720

620-431-9210 OR 800-457-8676

TICKET NUMBER

09937

LOCATION Field

FOREMAN Brad Butler

TREATMENT REPORT & FIELD TICKET  
CEMENT

| DATE                          | CUSTOMER # | WELL NAME & NUMBER | SECTION  | TOWNSHIP | RANGE | COUNTY |
|-------------------------------|------------|--------------------|----------|----------|-------|--------|
| 5-12-06                       |            | Gale Carter 24-1   | 24       | 28       | 16    | Wilson |
| CUSTOMER                      |            |                    |          |          |       |        |
| Quest Cherokee LLC            |            |                    |          |          |       |        |
| MAILING ADDRESS               |            |                    |          |          |       |        |
| 9520 N. May Ave Ste 300       |            |                    |          |          |       |        |
| CITY                          |            | STATE              | ZIP CODE |          |       |        |
| OKlahoma City                 |            | OK                 | 73120    |          |       |        |
| TRUCK # DRIVER TRUCK # DRIVER |            |                    |          |          |       |        |
| 446 Scott                     |            |                    |          |          |       |        |
| 502 Kyle                      |            |                    |          |          |       |        |
| 436 Larry                     |            |                    |          |          |       |        |
| 452-T63 J.P.                  |            |                    |          |          |       |        |

JOB TYPE Loss Circulation HOLE SIZE 6 3/4" HOLE DEPTH 1212' CASING SIZE & WEIGHT 4 1/2" 10.5 lb  
 CASING DEPTH 1205' DRILL PIPE  TUBING  OTHER

SLURRY WEIGHT 14.5 15 SLURRY VOL 37 Bbls WATER gal/sk 5.5 CEMENT LEFT in CASING 0'  
 DISPLACEMENT 19.2 Bbls DISPLACEMENT PSI 750 PSI 1400 Bump Plug RATE

REMARKS: Safety Meeting. Rig up to 4 1/2" casing. Break circulation with water wash casing down to bottom (90 S.I.)  
Pumped 15 Bbl Gel Flush. Pumped water to bring Gel around to surface to condition hole. Rig up to  
Cement. Pumped 10 Bbls Dr. Water. Mixed 470 SKs. Res cement w/ 1/2 CACL2 5# P/SK & ROI-SEAL 1/4" Floccle  
Shutdown - Wash out pump skins - Release Plug - Displace Plug with 19 Bbls water.  
Travel pump plug to 1400 PSI. Pumped Plug to 1400 PSI - wait 2 minutes - Release Pressure.  
Floccle held at 1400 PSI w/ 10 PSI - Good cement set to surface w/ 7 Bbl slurry  
Job complete - Tear down

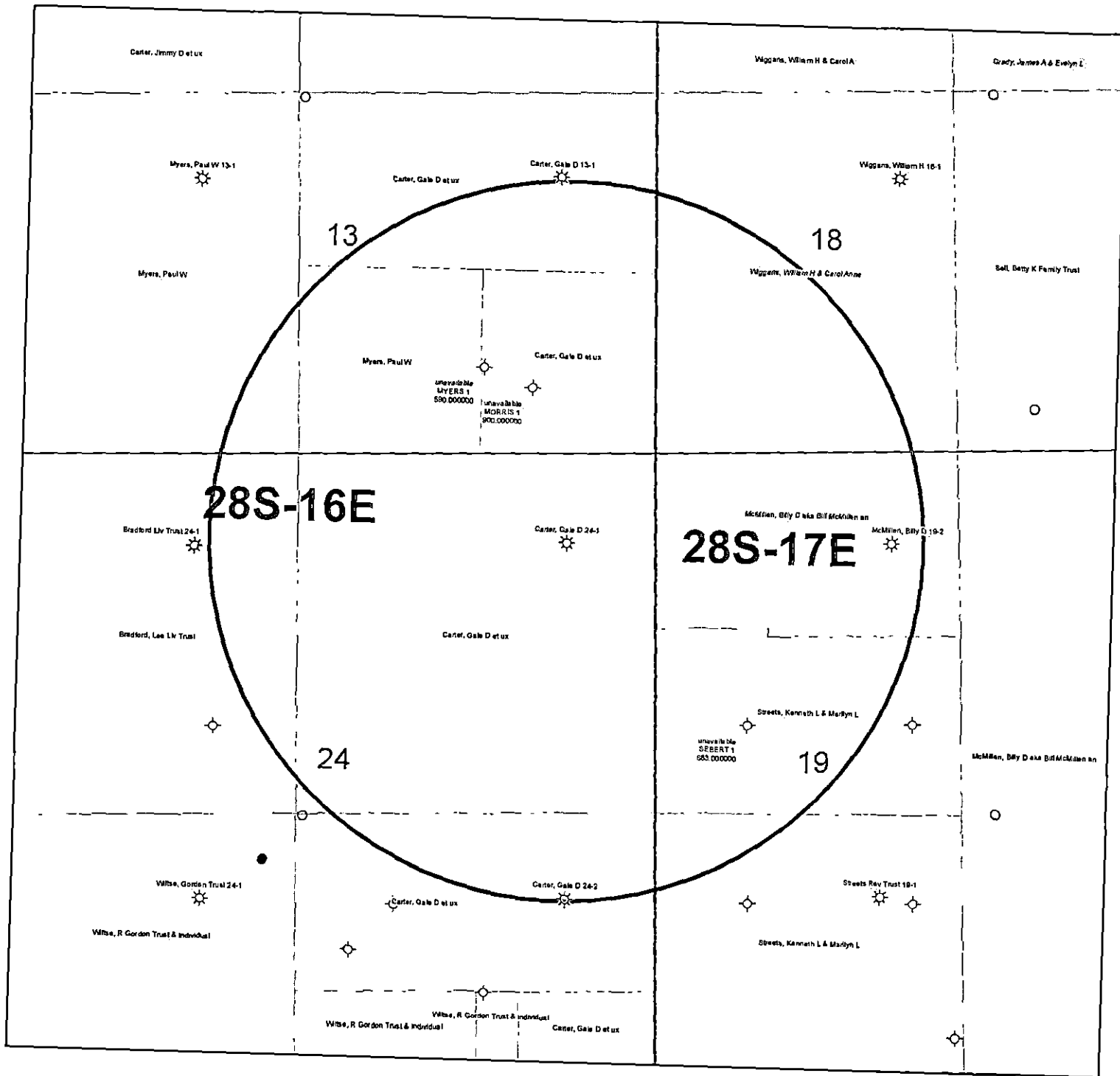
"Thanks"

| ACCOUNT CODE    | QUANTITY OF UNITS | DESCRIPTION of SERVICES or PRODUCT | UNIT PRICE | TOTAL   |
|-----------------|-------------------|------------------------------------|------------|---------|
| 54010           | 1                 | PUMP CHARGE                        | 800.00     | 800.00  |
| 5406            | 0                 | MILEAGE 3rd Job                    | 3.15       | N/C     |
| 1104 S          | 170 SKS           | Regular cement - class A cement    | 11.25      | 1912.50 |
| 1102            | 160 lbs           | CACL2 170                          | 6.40       | 1024.00 |
| 110 A           | 850 lbs           | ROI-SEAL 5# P/SK                   | 36         | 306.00  |
| 1107            | 40 lbs            | Floccle 1/4" P/SK                  | 1.80       | 72.00   |
| 5407A           | 8 ton             | 40 miles - Bulk TR                 | 1.05       | 336.00  |
| 5502 C          | 3 Hrs             | 80 Bbl. VACTIK                     | 90.00      | 270.00  |
| 5501 C          | 4 Hrs             | Water Transport                    | 98.00      | 392.00  |
| 1123            | 8000 GAL          | City water                         | 12.50      | 10240   |
| 1118 A          | 300 lbs           | Gel Flush                          | 14         | 42.00   |
| Sub Total:      |                   |                                    |            | 4335.30 |
| SALES TAX 6.3%  |                   |                                    |            | 159.85  |
| ESTIMATED TOTAL |                   |                                    |            | 4495.15 |

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KANSAS CORPORATION COMMISSION  
AUG 31 2006  
CONSERVATION DIVISION  
WICHITA, KS

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_





- KGS STATUS**
- ◇ DA/PA
  - ⊕ EOR
  - ⊛ GAS
  - △ INJ/SWD
  - OIL
  - ⊛ OIL/GAS
  - OTHER

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

POSTROCK



Current Completion

WELL : Carter, Gale D 24-1  
FIELD : Cherokee Basin  
STATE : Kansas  
COUNTY : Wilson

SPUD DATE : 5/1/2006  
COMP. Date : 5/12/2006  
API: 15-205-26530-00-00

LOCATION: 24-28S-16E (NE,NE)  
ELEVATION: 990'

8 5/8" 20 lb @ 21' Cement w/7 sks

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" | 20 lb   |       |             | 2006 | 21'   |
| 4 1/2" | 10.5 lb |       | .0159       | 2006 | 1205' |
| 2 3/8" |         |       |             | 2006 | 1148" |
|        |         |       |             |      |       |
|        |         |       |             |      |       |

Downhole Equipment Detail

|  |
|--|
|  |
|  |
|  |
|  |
|  |

Completion Data

|                                |
|--------------------------------|
| Original as GAS Well per ACO-1 |
| 700 gals 15% HCL               |
| 1,445 bbls water               |
| 14,100 lbs 20/40 sand          |

Perforations

|                            |
|----------------------------|
| Original Completion: 4 spf |
| 718-722 Summit (17)        |
| 730-734 Mulky (17)         |
| 929-931 Tebo (9)           |
| 961-963 Weir (9)           |
| 1126-1128 Riverton (9)     |

2 3/8" tubing @ 1148"

PBTD @ 1205'

4.5" 10.5 lb @ 1205' Cement w/170 sks

Drilled Depth @ 1212'

PREPARED BY: POSTROCK

DATE: Sept, 2012

APPROVED BY:

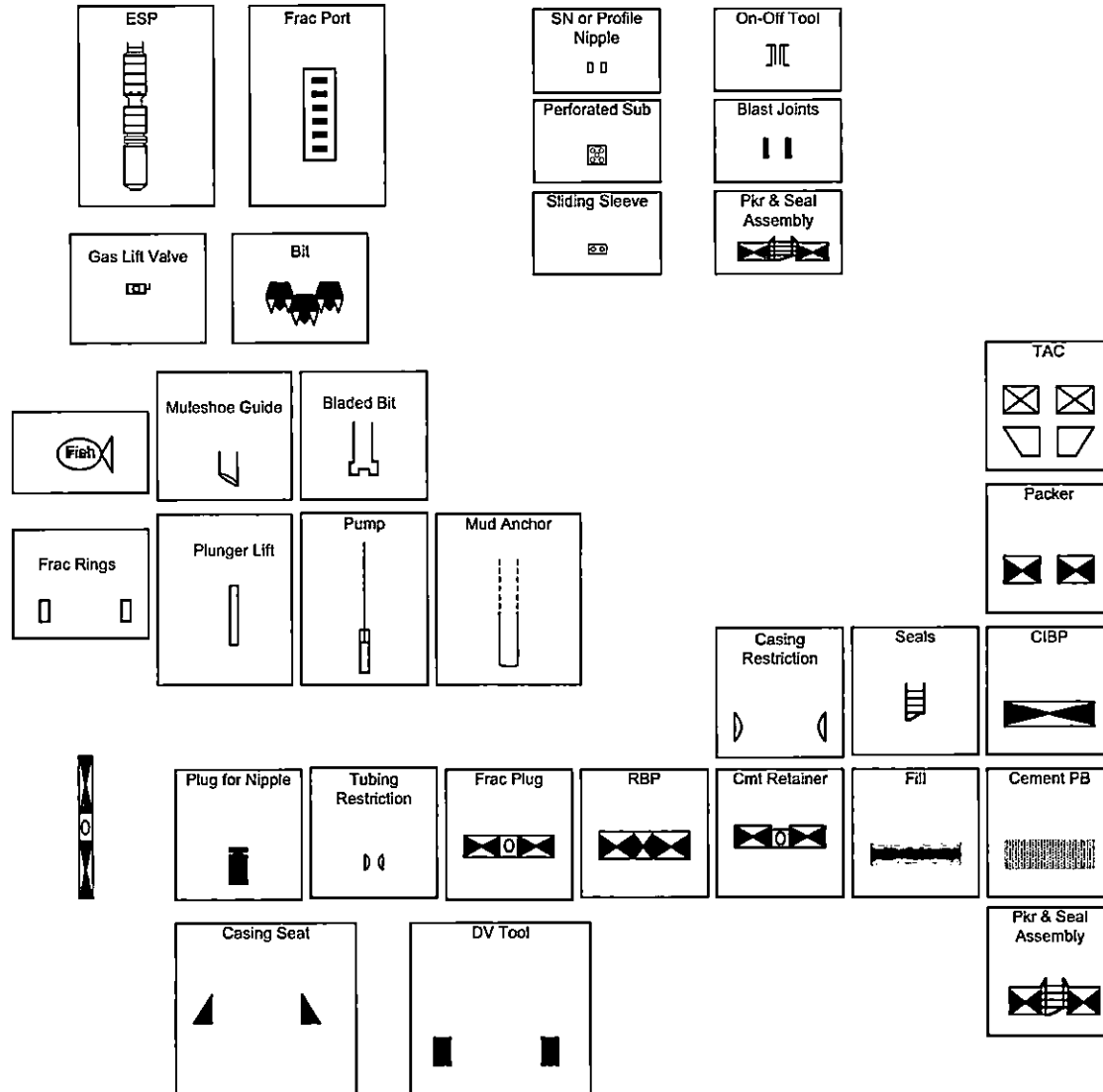
DATE:

# POSTROCK



## LEGEND

PostRock®





CARTER, GALE D 24-1-APPLICATION FOR COMMINGLING OF PRODUCTION OR FLUIDS

Offset Operators, Unleased Mineral Owners and Landowners acreage  
(Attach additional sheets if necessary)

Name:

POSTROCK MIDCONTINENT PRODUCTION, LLC

Legal Description of Leasehold:

POSTROCK HAS LEASED ALL ACREAGE IN THE 1/2

MILE RADIUS

I hereby certify that the statements made herein are true and correct to the best of my knowledge and belief.

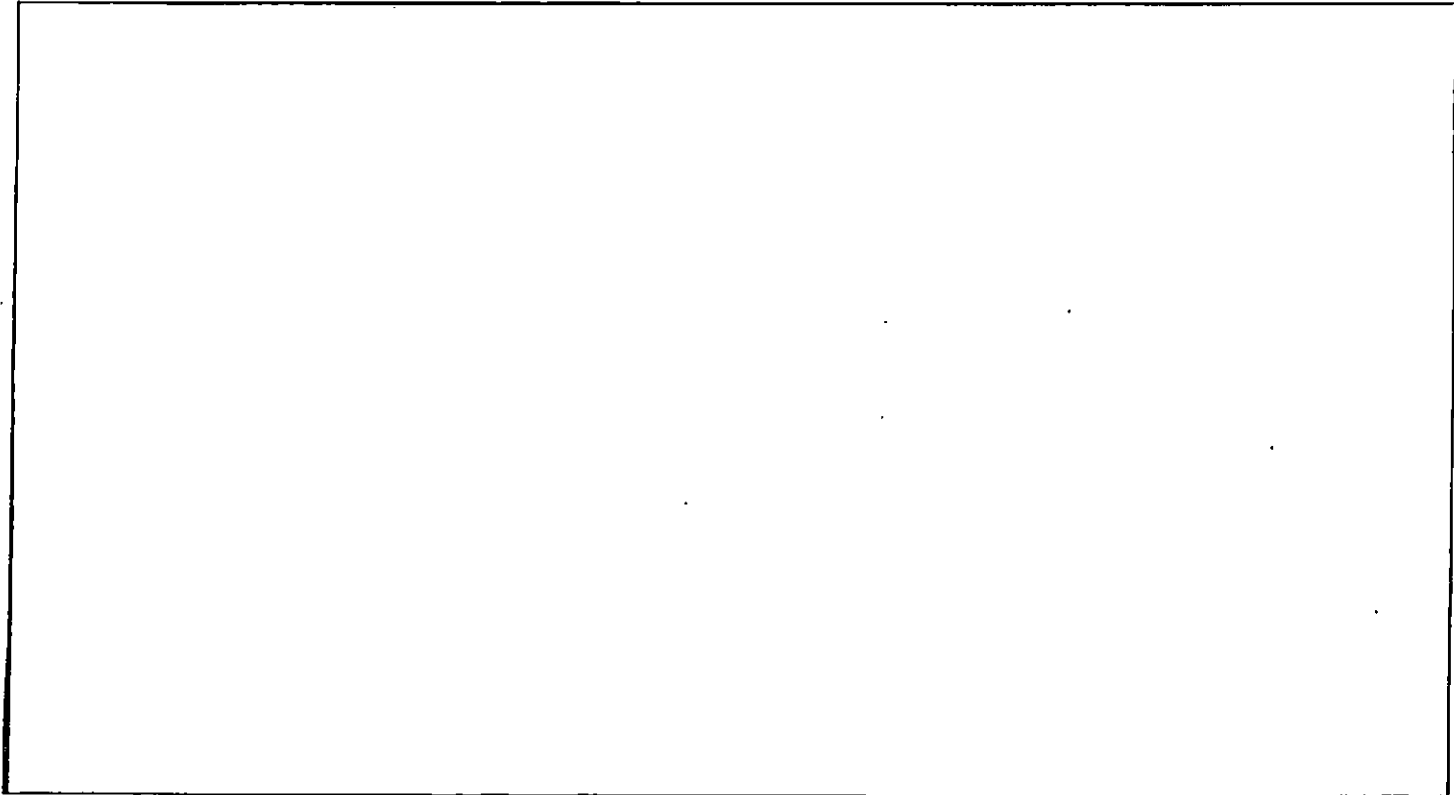
Jay Morris  
Applicant or Duty Authorized Agent

Subscribed and sworn before me this 28th day of SEPTEMBER, 2012



Jennifer R Beal  
Notary Public

My Commission Expires: July 20, 2016



**Affidavit of Notice Served**

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

Well Name: CARTER, GALE D 24-1 Legal Location: SWNENENE S24-T28S-R16E

The undersigned hereby certifies that he / she is a duly authorized agent for the applicant, and that on the day 28<sup>th</sup> of SEPTEMBER, 2012, 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)           |
|---------------------------------------|---|
| POSTROCK MIDCONTINENT PRODUCTION, LLC | 210 PARK AVENUE, SUITE 2750, OKLAHOMA CITY, OK 73102-5641 |

I further attest that notice of the filing of this application was published in the THE WILSON COUNTY CITIZEN, the official county publication of WILSON county. A copy of the affidavit of this publication is attached.

Signed this 28<sup>th</sup> day of SEPTEMBER, 2012

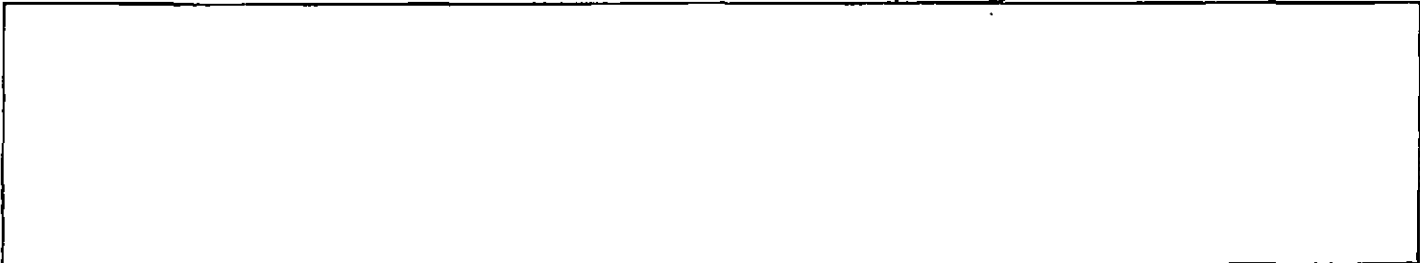
Jay Morris  
Applicant or Duly Authorized Agent

Subscribed and sworn to before me this 28<sup>th</sup> day of SEPTEMBER, 2012



Jennifer R Beal  
Notary Public

My Commission Expires: July 20, 2016



**AFFIDAVIT**

STATE OF KANSAS \
- SS.
County of Sedgwick /

Mark Fletchall, of lawful age, being first duly sworn, deposes 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

October 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.

*Mark Fletchall*

Subscribed and sworn to before me this

1st day of October, 2012



*Penny L. Case*  
Notary Public Sedgwick County, Kansas

Printer's Fee : \$139.60

**LEGAL PUBLICATION**  
PUBLISHED IN THE WICHITA EAGLE  
OCTOBER 1, 2012 (3209738)  
BEFORE THE STATE CORPORATION  
COMMISSION  
OF THE STATE OF KANSAS  
**NOTICE OF FILING APPLICATION**  
RE: In the Matter of Postrock Midcontinent  
Production, LLC Application for  
Commingling of Production in the Carter,  
Gale D 24-1 located in Wilson County,  
Kansas.  
TO: All Oil & Gas Producers, Unleased  
Mineral Interest Owners, Landowners, and  
all persons whomsoever concerned.  
You, and each of you, are hereby notified  
that Postrock Midcontinent Production,  
LLC has filed an application to commingle  
the Summit, Mulky, Tebo, Weir, Riverton,  
Squirrel and Cattleman producing formations  
at the Carter, Gale D 24-1 located in the SW  
NE NE NE, S24-T285-R16E, Approximately  
654 FNL & 655 FEL, Wilson County, Kansas.  
Any persons who object to or protest  
this application shall be required to file their  
objections or protest with the Conservation  
Division of the State Corporation Commission  
of the State of Kansas within fifteen (15)  
days from the date of this publication.  
These protests shall be filed pursuant to  
Commission regulations and must state  
specific reasons why granting the application  
may cause waste, violate correlative rights  
or pollute the natural resources of the State  
of Kansas.  
All persons interested or concerned shall  
take notice of the foregoing and shall govern  
themselves accordingly. All person and/or  
companies wishing to protest this application  
are required to file a written protest with the  
Conservation Division of the Kansas Oil and  
Gas Commission.  
Upon the receipt of any protest, the  
Commission will convene a hearing and  
protestants will be expected to enter an  
appearance either through proper legal  
counsel or as individuals, appearing on their  
own behalf.  
Postrock Midcontinent Production, LLC  
210 Park Avenue, Suite 2750  
Oklahoma City, Oklahoma 73102  
(405) 660-7704  
A COPY OF THE AFFIDAVIT OF  
PUBLICATION MUST ACCOMPANY ALL  
APPLICATIONS

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 1st day of Oct. 2012

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 \_\_\_ .20\_\_\_

TOTAL PUBLICATION FEE: \$ 39.27

(Signed) Maria S. Wilber

Subscribed and sworn to before me, this 16th day of

October, 2012

Rita M. Relph (Notary Public)

My commission expires Aug. 30, 2014

(Published in the Wilson County Citizen on Monday, October 1, 2012.)

BEFORE THE STATE CORPORATION COMMISSION OF THE STATE OF KANSAS

NOTICE OF FILING APPLICATION

RE: In the Matter of Postrock Midcontinent Production, LLC Application for Commingling of Production in the Carter, Gale D 24-1 located in Wilson County, Kansas.

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

You, and each of you, are hereby notified that Postrock Midcontinent Production, LLC has filed an application to commingle the Summit, Mulky, Tebo, Weir, Riverton, Squirrel and Cartlamon producing formations in the Carter, Gale D 24-1, located in the SW NE NE NE, S24-T28S-R16E, Approximately 654 PNL & 655 FEL, Wilson County, Kansas.

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

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

Upon this 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 2780
Oklahoma City, Oklahoma 73102
(405) 660-7704
65 Y copy

PAID





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



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

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 17, 2012

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

RE: Approved Commingling CO101209  
Carter, Gale D. 24-1, Sec. 24-T28S-R16E, Wilson County  
API No. 15-205-26530-00-00

Dear Mr. Edwards:

Your Application for Commingling (ACO-4) for the above described well, received by the KCC on October 16, 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 CO101209 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