



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1155187  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       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: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>Recompletion Date |
|-----------------------------------|-----------------|---|

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

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 #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1155187

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

|  |   |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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 |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

| ADDITIONAL CEMENTING / SQUEEZE RECORD  |                  |                |              |                            |
|--|------------------|----------------|--------------|----------------------------|
| Purpose:   | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><input type="checkbox"/> Plug Off Zone |                  |                |              |                            |
|  |                  |                |              |                            |

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br><i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |

TUBING RECORD: Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
|                                   |           |         |             |               |         |

|  |   |   |
|--|---|---|
| <b>DISPOSITION OF GAS:</b><br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | <b>METHOD OF COMPLETION:</b><br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____<br><input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|---|---|

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Younger Energy Company |
| Well Name | Kelly 1-33             |
| Doc ID    | 1155187                |

All Electric Logs Run

|                                   |
|-----------------------------------|
|                                   |
| Dual Induction Log                |
| Dual Compensated Porosity Log     |
| Microresistivity Log              |
| Borehole Compensated Sonic Log    |
| Computer Processed Interpretation |
| Geologic Report                   |
| Mud Log                           |

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Younger Energy Company |
| Well Name | Kelly 1-33             |
| Doc ID    | 1155187                |

Tops

| Name               | Top  | Datum |
|--------------------|------|-------|
| Queen Hill         | 3280 | -1295 |
| Heebner            | 3386 | -1401 |
| Douglas            | 3419 | -1434 |
| Brown Lime         | 3495 | -1510 |
| Lansing            | 3504 | -1519 |
| Base KC            | 3735 | -1750 |
| Conglomerate Chert | 3808 | -1823 |
| Viola              | 3855 | -1870 |
| Simpson            | 3882 | -1897 |
| Simpson Sand       | 3918 | -1933 |
| Arbuckle           | 3923 | -1938 |

**OPERATOR**

Company: Younger Energy Company  
 Address: 9415 E. Harry  
 Suite 403, Bldg. 400  
 Wichita, KS 67207

Contact Geologist:  
 Contact Phone Nbr: 316-681-2542  
 Well Name: Kelly #1-33  
 Location: Sec. 33 - T21S - R15W  
 Pool:  
 State: Kansas

API: 15-145-21718-0000  
 Field: Wildcat  
 Country: USA

Scale 1:240 Imperial

Well Name: Kelly #1-33  
 Surface Location: Sec. 33 - T21S - R15W  
 Bottom Location:  
 API: 15-145-21718-0000  
 License Number: 30705  
 Spud Date: 6/15/2013  
 Region: Pawnee County  
 Drilling Completed: 6/22/2013  
 Surface Coordinates: 2310' FSL & 330' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1973.00ft  
 K.B. Elevation: 1985.00ft  
 Logged Interval: 3200.00ft  
 Total Depth: 4010.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical/Fresh Water Gel

Time: 00:00  
 Time: 15:15  
 To: 4010.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 2310' FSL  
 E/W Co-ord: 330' FEL

Latitude:

**LOGGED BY**

**Keith Reavis**  
*Consulting Geologist*

Company: Keith Reavis, Inc.  
 Address: 3420 22nd Street  
 Great Bend, KS 67530

Phone Nbr: 620-617-4091  
 Logged By: KLG #136

Name: Keith Reavis

**CONTRACTOR**

Contractor: Duke Drilling Company  
 Rig #: 1  
 Rig Type: mud rotary  
 Spud Date: 6/15/2013  
 TD Date: 6/22/2013  
 Rig Release:

Time: 00:00  
 Time: 15:15  
 Time:

**ELEVATIONS**

K.B. Elevation: 1985.00ft  
 K.B. to Ground: 12.00ft

Ground Elevation: 1973.00ft

**NOTES**

Due to negative results obtained from drill stem testing, electrical log analysis and formation sample analyses, it was determined that the Kelly #1-33 be plugged and abandoned as a dry test.

A Bloodhound gas detection system operated by Bluestem Environmental was employed on this well. ROP and gas curves were imported into this mudlog. Gamma ray and caliper curves from the electrical log suite were also imported.

The samples were saved and will be available for review at the Kansas Geological Survey Well Sample Library located in Wichita, KS.

Respectfully submitted,  
 Keith Reavis

**Younger Energy Company**  
**well comparison sheet**

| Formation    | DRILLING WELL<br>Kelly #1-33<br>2310' FSL & 330' FEL<br>Sec. 33-21S-15W<br>1973 GL<br>1985 KB |         |      |         | COMPARISON WELL<br>Prod. Inc - Yeager B-1<br>NW NE SW<br>Sec. 34-21S-15W<br>1982 KB |         |        |     | COMPARISON WELL<br>F & M - Johnston #1<br>NE NW NE<br>Sec. 34-21S-15W<br>1969 KB |         |        |     |
|--------------|---|---------|------|---------|---|---------|--------|-----|--|---------|--------|-----|
|              | Sample  | Sub-Sea | Log  | Sub-Sea | Log   | Sub-Sea | Sample | Log | Log  | Sub-Sea | Sample | Log |
| Queen Hill   | 3277  | -1292   | 3280 | -1295   | 3270  | -1288   | -4     | -7  | 3254   | -1285   | -7     | -10 |
| Heebner      | 3385  | -1400   | 3386 | -1401   | 3374  | -1392   | -8     | -9  | 3358   | -1389   | -11    | -12 |
| Douglas      | 3419  | -1434   | 3419 | -1434   | 3408  | -1426   | -8     | -8  | 3392   | -1423   | -11    | -11 |
| Brown Lime   | 3495  | -1510   | 3495 | -1510   | 3484  | -1502   | -8     | -8  | 3466   | -1497   | -13    | -13 |
| Lansing      | 3505  | -1520   | 3504 | -1519   | 3493  | -1511   | -9     | -8  | 3478   | -1509   | -11    | -10 |
| Lansing H    | 3632  | -1647   | 3630 | -1645   | 3623  | -1641   | -6     | -4  | 3601   | -1632   | -15    | -13 |
| Base KC      | 3736  | -1751   | 3735 | -1750   | 3728  | -1746   | -5     | -4  | 3709   | -1740   | -11    | -10 |
| Congl chert  | 3808  | -1823   | 3808 | -1823   | ?   |         |        |     | ?  |         |        |     |
| Viola        | 3856  | -1871   | 3855 | -1870   | 3840  | -1858   | -13    | -12 | 3806   | -1837   | -34    | -33 |
| Simpson      | 3883  | -1898   | 3882 | -1897   | 3868  | -1886   | -12    | -11 | 3840   | -1871   | -27    | -26 |
| Simpson Sand | 3920  | -1935   | 3918 | -1933   | 3922  | -1940   | 5      | 7   | 3861   | -1892   | -43    | -41 |
| Arbuckle     | 3924  | -1939   | 3923 | -1938   | 3926  | -1944   | 5      | 6   | np   |         |        |     |
| Total Depth  | 4010  | -2025   | 4012 | -2027   | 3957  | -1975   | -50    | -52 | 3902   | -1933   | -92    | -94 |


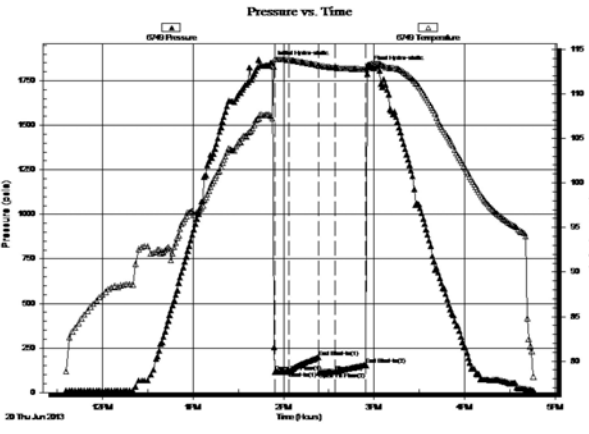
  

| Formation    | COMPARISON WELL<br>F & M - M. Shartz B#1<br>NE NW NW<br>Sec. 34-21S-15W<br>1980 KB |         |        |     |
|--------------|--|---------|--------|-----|
|              | Log  | Sub-Sea | Sample | Log |
| Queen Hill   | 3270   | -1290   | -2     | -5  |
| Heebner      | 3375   | -1395   | -5     | -6  |
| Douglas      | 3410   | -1430   | -4     | -4  |
| Brown Lime   | 3486   | -1506   | -4     | -4  |
| Lansing      | 3496   | -1516   | -4     | -3  |
| Lansing H    |  |         |        |     |
| Base KC      | 3724   | -1744   | -7     | -6  |
| Congl chert  | ?  |         |        |     |
| Viola        | 3832   | -1852   | -19    | -18 |
| Simpson      | 3854   | -1874   | -24    | -23 |
| Simpson Sand | 3912   | -1932   | -3     | -1  |
| Arbuckle     | 3918   | -1938   | -1     | 0   |
| Total Depth  | 3922   | -1942   | -83    | -85 |

**daily drilling report**

| DATE       | 7:00 AM DEPTH | REMARKS   |
|------------|---------------|---|
| 06/19/2013 | 3152          | Geologist Keith Reavis on location @ 1145 hrs, 3300 ft., drilling ahead Topeka, Heebner, Douglas, Lansing   |
| 06/20/2013 | 3800          | drilling to Base KC, short trip at 3740 ft., resume drilling, Marmaton, Conglomerate chert/sand, show and gas kick warrant test, TOH for DST #1 conduct and complete DST #1, successful test, TIH w/bit, resume drilling                                    |
| 06/21/2013 | 3881          | show and kick in lower chert (Viola?) warrants test, TOH for DST #2, conducting DST #2, plugged tool, TIH, recondition, spot pill, TOH and back in with tools, conduct and complete DST #3, successful test, TIH w/bit resume drilling                      |
| 06/22/2013 | 3935          | basal Simpson sand and Arbuckle had show and kick warranting test, conducting DST #4, tool plugged, TIH w/bit, rathole ahead for TD, TD 4010 ft, 1515 hrs, ctoh, spot pill on bottom, TOH for logs, conduct logging operations, geologist released midnight |

**Drill Stem Test #1**

| SUPERIOR TESTERS ENTERPRISES LLC  |                 | DRILL STEM TEST REPORT   |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|---|-----------------|--|--|--------------|-----------------|--------------|------------|---|---------|--------|----------------------|---|--------|--------|------------------|----|---|--------|----------------|-----------------|-----------------|--------|----------------|----|--------|--------|------------------|----|--------|--------|------------|----|--------|--------|----------------|----|---------|--------|--------------------|
|    |                 | Younger Energy Company<br>9415 East Harry Street<br>Suite 403 Building 400<br>Wichita, Kansas 67207+5083<br>ATTN: Keith Reavis   | <b>33/21S/15W/Pawnee</b><br><br><b>Kelly #1-33</b><br>Job Ticket: 18131 <b>DST# 1</b><br>Test Start: 2013.06.20 @ 11:35:00 |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| <b>GENERAL INFORMATION:</b><br>Formation: <b>Conglomerate</b><br>Deviated: No Whipstock:      ft (KB)<br>Time Tool Opened: 13:54:30<br>Time Test Ended: 16:45:30<br>Interval: <b>3735.00 ft (KB) To 3837.00 ft (KB) (TVD)</b><br>Total Depth: 3837.00 ft (KB) (TVD)<br>Hole Diameter: 7.80 inches Hole Condition: Poor      KB to GR/CF: 12.00 ft |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| <b>Serial #: 6749</b> <b>Inside</b><br>Press@RunDepth: 115.48 psia @ 3833.08 ft (KB)<br>Start Date: 2013.06.20      End Date: 2013.06.20<br>Start Time: 11:35:00      End Time: 16:45:30  |                 | Capacity: 5000.00 psia<br>Last Calib.: 2013.06.20<br>Time On Btmr: 2013.06.20 @ 13:52:30<br>Time Off Btmr: 2013.06.20 @ 14:56:00   |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| <b>TEST COMMENT:</b><br>1ST Open 10 Mintues/20 foot slide/6 inch blow after slide/Weak blow built to 7 inches<br>1ST Shut In 20 Mintues/No blow back<br>2ND Open 10 Minutes/Weak blow/blow built to 1 1/4 inch<br>2ND Shut In 20 Mintues/No blow back   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|    |                 | <b>PRESSURE SUMMARY</b> <table border="1"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psia)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1853.49</td><td>107.25</td><td>Initial Hydro-static</td></tr> <tr><td>1</td><td>115.92</td><td>113.88</td><td>Open To Flow (1)</td></tr> <tr><td>11</td><td>116.98</td><td>113.81</td><td>Shut-In(1)</td></tr> <tr><td>31</td><td>197.75</td><td>113.23</td><td>End Shut-In(1)</td></tr> <tr><td>31</td><td>112.26</td><td>113.19</td><td>Open To Flow (2)</td></tr> <tr><td>42</td><td>115.48</td><td>112.94</td><td>Shut-In(2)</td></tr> <tr><td>63</td><td>154.22</td><td>112.79</td><td>End Shut-In(2)</td></tr> <tr><td>64</td><td>1824.63</td><td>113.24</td><td>Final Hydro-static</td></tr> </tbody> </table> |  | Time (Min.)  | Pressure (psia) | Temp (deg F) | Annotation | 0 | 1853.49 | 107.25 | Initial Hydro-static | 1 | 115.92 | 113.88 | Open To Flow (1) | 11 | 116.98  | 113.81 | Shut-In(1)     | 31              | 197.75          | 113.23 | End Shut-In(1) | 31 | 112.26 | 113.19 | Open To Flow (2) | 42 | 115.48 | 112.94 | Shut-In(2) | 63 | 154.22 | 112.79 | End Shut-In(2) | 64 | 1824.63 | 113.24 | Final Hydro-static |
| Time (Min.)   | Pressure (psia) | Temp (deg F)   | Annotation   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 0   | 1853.49         | 107.25   | Initial Hydro-static   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 1   | 115.92          | 113.88   | Open To Flow (1)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 11  | 116.98          | 113.81   | Shut-In(1)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 31  | 197.75          | 113.23   | End Shut-In(1)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 31  | 112.26          | 113.19   | Open To Flow (2)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 42  | 115.48          | 112.94   | Shut-In(2)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 63  | 154.22          | 112.79   | End Shut-In(2)   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 64  | 1824.63         | 113.24   | Final Hydro-static   |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| <b>Recovery</b> <table border="1"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr> <td>70.00</td> <td>Mud 100%</td> <td>0.98</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>        |                 | Length (ft)  | Description  | Volume (bbl) | 70.00           | Mud 100%     | 0.98       |   |         |        |                      |   |        |        |                  |    | <b>Gas Rates</b> <table border="1"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psia)</th> <th>Gas Rate (Mcfd)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |        | Choke (inches) | Pressure (psia) | Gas Rate (Mcfd) |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| Length (ft)   | Description     | Volume (bbl)   |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| 70.00   | Mud 100%        | 0.98   |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| Choke (inches)  | Pressure (psia) | Gas Rate (Mcfd)  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
|   |                 |  |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |
| Superior Testers Enterprises LLC      Ref. No: 18131  |                 | Printed: 2013.06.20 @ 17:04:15   |  |              |                 |              |            |   |         |        |                      |   |        |        |                  |    |   |        |                |                 |                 |        |                |    |        |        |                  |    |        |        |            |    |        |        |                |    |         |        |                    |

### Drill Stem Test #2 - Misrun Plugged Tool

|  | <b>DRILL STEM TEST REPORT</b>  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|--|--|---|----------------------|-----------------|--------------|------------|---|---------|--------|----------------------|---|--------|--------|------------------|----|--|--------|----------------|-----------------|------------------|--------|----------------|----|---------|--------|------------------|----|--------|--------|------------|----|---------|--------|----------------|----|---------|--------|--------------------|
|  | Younger Energy Company<br>9415 East Harry Street<br>Suite 403 Building 400<br>Wichita, Kansas 67207+5083<br>ATTN: Keith Reavis   | <b>33/21S/15W/Pawnee</b><br><br><b>Kelly #1-33</b><br>Job Ticket: 18132 <b>DST#: 2</b><br>Test Start: 2013.06.21 @ 04:01:00 |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| <b>GENERAL INFORMATION:</b><br>Formation: <b>Viola</b><br>Deviated: No Whipstock:                      ft (KB)<br>Time Tool Opened: 06:01:30<br>Time Test Ended: 09:04:00<br><br>Interval: <b>3853.00 ft (KB) To 3881.00 ft (KB) (TVD)</b><br>Total Depth: 3881.00 ft (KB) (TVD)<br>Hole Diameter: 7.80 inches Hole Condition: Fair  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| Test Type: Conventional Bottom Hole (Initial)<br>Tester: Ken Swinney<br>Unit No: 3325 Great Bend/56<br><br>Reference Elevations: 1985.00 ft (KB)<br>1973.00 ft (CF)<br>KB to GR/CF: 12.00 ft   |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| <b>Serial #: 6749      Inside</b><br>Press@RunDepth: 936.73 psia @ 3877.00 ft (KB)      Capacity: 5000.00 psia<br>Start Date: 2013.06.21      End Date: 2013.06.21      Last Calib.: 2013.06.21<br>Start Time: 04:01:00      End Time: 09:04:00      Time On Btm: 2013.06.21 @ 06:01:00<br>Time Off Btm: 2013.06.21 @ 07:30:00   |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| <b>TEST COMMENT:</b> 1ST Open 10 Mintues/13 foot slide/Blow at 5 3/4 inch after slide/Weak build to 6 1/4 inch<br>1ST Shut In 30 Mintues/No blow back<br>2ND Open 15 Mintues/Dead no blow /Flush tool didnt help<br>2ND Shut In 30 Mintues/No blow back  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  | <b>PRESSURE SUMMARY</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psia)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1893.65</td><td>109.71</td><td>Initial Hydro-static</td></tr> <tr><td>1</td><td>658.52</td><td>110.03</td><td>Open To Flow (1)</td></tr> <tr><td>10</td><td>1656.37</td><td>114.53</td><td>Shut-In(1)</td></tr> <tr><td>41</td><td>1640.36</td><td>113.97</td><td>End Shut-In(1)</td></tr> <tr><td>42</td><td>1681.18</td><td>113.98</td><td>Open To Flow (2)</td></tr> <tr><td>56</td><td>936.73</td><td>113.79</td><td>Shut-In(2)</td></tr> <tr><td>87</td><td>1495.13</td><td>114.16</td><td>End Shut-In(2)</td></tr> <tr><td>89</td><td>1861.02</td><td>114.48</td><td>Final Hydro-static</td></tr> </tbody> </table> |   | Time (Min.)          | Pressure (psia) | Temp (deg F) | Annotation | 0 | 1893.65 | 109.71 | Initial Hydro-static | 1 | 658.52 | 110.03 | Open To Flow (1) | 10 | 1656.37  | 114.53 | Shut-In(1)     | 41              | 1640.36          | 113.97 | End Shut-In(1) | 42 | 1681.18 | 113.98 | Open To Flow (2) | 56 | 936.73 | 113.79 | Shut-In(2) | 87 | 1495.13 | 114.16 | End Shut-In(2) | 89 | 1861.02 | 114.48 | Final Hydro-static |
| Time (Min.)  | Pressure (psia)  | Temp (deg F)  | Annotation           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 0  | 1893.65  | 109.71  | Initial Hydro-static |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 1  | 658.52   | 110.03  | Open To Flow (1)     |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 10   | 1656.37  | 114.53  | Shut-In(1)           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 41   | 1640.36  | 113.97  | End Shut-In(1)       |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 42   | 1681.18  | 113.98  | Open To Flow (2)     |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 56   | 936.73   | 113.79  | Shut-In(2)           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 87   | 1495.13  | 114.16  | End Shut-In(2)       |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 89   | 1861.02  | 114.48  | Final Hydro-static   |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
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| Length (ft)  | Description  | Volume (bbl)  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| 75.00  | Mud 100%   | 1.05  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| Choke (inches)   | Pressure (psia)  | Gas Rate (Mcf/d)  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |
| Superior Testers Enterprises LLC      Ref. No: 18132      Printed: 2013.06.21 @ 09:17:55   |  |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |        |        |            |    |         |        |                |    |         |        |                    |

### Drill Stem Test #3

|  | <b>DRILL STEM TEST REPORT</b>  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|--|--|---|----------------------|-----------------|--------------|------------|---|---------|--------|----------------------|---|-------|--------|------------------|----|--|--------|----------------|-----------------|------------------|--------|----------------|----|-------|--------|------------------|----|-------|--------|------------|-----|-------|--------|----------------|-----|---------|--------|--------------------|
|  | Younger Energy Company<br>9415 East Harry Street<br>Suite 403 Building 400<br>Wichita, Kansas 67207+5083<br>ATTN: Keith Reavis   | <b>33/21S/15W/Pawnee</b><br><br><b>Kelly #1-33</b><br>Job Ticket: 18133 <b>DST#: 3</b><br>Test Start: 2013.06.21 @ 14:04:00 |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| <b>GENERAL INFORMATION:</b><br>Formation: <b>Viola</b><br>Deviated: No Whipstock:                      ft (KB)<br>Time Tool Opened: 15:58:30<br>Time Test Ended: 19:39:30<br><br>Interval: <b>3849.00 ft (KB) To 3881.00 ft (KB) (TVD)</b><br>Total Depth: 3881.00 ft (KB) (TVD)<br>Hole Diameter: 7.80 inches Hole Condition: Fair  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| Test Type: Conventional Bottom Hole (Initial)<br>Tester: Ken Swinney<br>Unit No: 3325 Great Bend/56<br><br>Reference Elevations: 1985.00 ft (KB)<br>1973.00 ft (CF)<br>KB to GR/CF: 12.00 ft   |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| <b>Serial #: 6749      Inside</b><br>Press@RunDepth: 52.24 psia @ 3872.00 ft (KB)      Capacity: 5000.00 psia<br>Start Date: 2013.06.21      End Date: 2013.06.21      Last Calib.: 2013.06.21<br>Start Time: 14:04:00      End Time: 19:39:30      Time On Btm: 2013.06.21 @ 15:55:30<br>Time Off Btm: 2013.06.21 @ 17:56:00  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| <b>TEST COMMENT:</b> 1ST Open 10 Minutes/Weak blow /Blow built to 1 inch<br>1ST Shut In 60 Minutes/No blow back<br>2ND Open 17 Mintues/Dead no blow /Flush tool didnt help<br>2ND Shut In 30 Minutes/No blow back  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  | <b>PRESSURE SUMMARY</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psia)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1847.32</td><td>105.61</td><td>Initial Hydro-static</td></tr> <tr><td>1</td><td>46.32</td><td>105.39</td><td>Open To Flow (1)</td></tr> <tr><td>12</td><td>47.53</td><td>105.17</td><td>Shut-In(1)</td></tr> <tr><td>71</td><td>81.34</td><td>105.92</td><td>End Shut-In(1)</td></tr> <tr><td>72</td><td>48.69</td><td>105.94</td><td>Open To Flow (2)</td></tr> <tr><td>88</td><td>52.24</td><td>106.65</td><td>Shut-In(2)</td></tr> <tr><td>120</td><td>58.63</td><td>107.30</td><td>End Shut-In(2)</td></tr> <tr><td>121</td><td>1830.56</td><td>107.74</td><td>Final Hydro-static</td></tr> </tbody> </table> |   | Time (Min.)          | Pressure (psia) | Temp (deg F) | Annotation | 0 | 1847.32 | 105.61 | Initial Hydro-static | 1 | 46.32 | 105.39 | Open To Flow (1) | 12 | 47.53  | 105.17 | Shut-In(1)     | 71              | 81.34            | 105.92 | End Shut-In(1) | 72 | 48.69 | 105.94 | Open To Flow (2) | 88 | 52.24 | 106.65 | Shut-In(2) | 120 | 58.63 | 107.30 | End Shut-In(2) | 121 | 1830.56 | 107.74 | Final Hydro-static |
| Time (Min.)  | Pressure (psia)  | Temp (deg F)  | Annotation           |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 0  | 1847.32  | 105.61  | Initial Hydro-static |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 1  | 46.32  | 105.39  | Open To Flow (1)     |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 12   | 47.53  | 105.17  | Shut-In(1)           |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 71   | 81.34  | 105.92  | End Shut-In(1)       |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 72   | 48.69  | 105.94  | Open To Flow (2)     |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 88   | 52.24  | 106.65  | Shut-In(2)           |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 120  | 58.63  | 107.30  | End Shut-In(2)       |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 121  | 1830.56  | 107.74  | Final Hydro-static   |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| <b>Recovery</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr> <td>30.00</td> <td>Mud 100%</td> <td>0.42</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | Length (ft)  | Description   | Volume (bbl)         | 30.00           | Mud 100%     | 0.42       |   |         |        |                      |   |       |        |                  |    | <b>Gas Rates</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psia)</th> <th>Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |        | Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| Length (ft)  | Description  | Volume (bbl)  |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| 30.00  | Mud 100%   | 0.42  |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| Choke (inches)   | Pressure (psia)  | Gas Rate (Mcf/d)  |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
|  |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |
| Superior Testers Enterprises LLC      Ref. No: 18133      Printed: 2013.06.21 @ 19:49:28   |  |   |                      |                 |              |            |   |         |        |                      |   |       |        |                  |    |  |        |                |                 |                  |        |                |    |       |        |                  |    |       |        |            |     |       |        |                |     |         |        |                    |

### Drill Stem Test #4 - Misrun Plugged Tool

|   | <b>DRILL STEM TEST REPORT</b>   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|---|---|---|----------------------|-----------------|--------------|------------|---|---------|--------|----------------------|---|--------|--------|------------------|----|--|--------|----------------|-----------------|------------------|--------|----------------|----|---------|--------|------------------|----|---------|--------|------------|----|---------|--------|----------------|----|---------|--------|--------------------|
|   | Younger Energy Company<br>9415 East Harry Street<br>Suite 403 Building 400<br>Wichita, Kansas 67207+5083<br>ATTN: Keith Reavis  | <b>33/21S/15W/Pawnee</b><br><br><b>Kelly #1-33</b><br>Job Ticket: 18134 <b>DST#: 4</b><br>Test Start: 2013.06.22 @ 04:39:00 |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| <b>GENERAL INFORMATION:</b><br>Formation: <b>Simpson/Arbuckle</b><br>Deviated: No Whipstock:                      ft (KB)<br>Time Tool Opened: 06:56:30<br>Time Test Ended: 10:00:00<br><br>Interval: <b>3875.00 ft (KB) To 3935.00 ft (KB) (TVD)</b><br>Total Depth: 3935.00 ft (KB) (TVD)<br>Hole Diameter: 7.80 inches Hole Condition: Poor  |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| Test Type: Conventional Bottom Hole (Initial)<br>Tester: Ken Swinney<br>Unit No: 3325 Great Bend/56<br><br>Reference Elevations: 1985.00 ft (KB)<br>1973.00 ft (CF)<br>KB to GR/CF: 12.00 ft  |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| <b>Serial #: 6749      Inside</b><br>Press@RunDepth: 1344.09 psia @ 3931.30 ft (KB)      Capacity: 5000.00 psia<br>Start Date: 2013.06.22      End Date: 2013.06.22      Last Calib.: 2013.06.22<br>Start Time: 04:39:00      End Time: 10:00:00      Time On Btm: 2013.06.22 @ 06:53:30<br>Time Off Btm: 2013.06.22 @ 08:17:00   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| <b>TEST COMMENT:</b> 1ST Open 10 Minutes/12 foot slide/blow at 7 inches after slide/Surging blow built to 9 1/2 inches<br>1ST Shut In 30 Minutes/No blow back<br>2ND Open 17 Mintues/Few bubbles at open/Flush tool/Weak surface blow for 1 minute<br>2ND Shut In 20 Mintues/No blow back   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   | <b>PRESSURE SUMMARY</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psia)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1875.15</td><td>110.92</td><td>Initial Hydro-static</td></tr> <tr><td>3</td><td>763.96</td><td>112.16</td><td>Open To Flow (1)</td></tr> <tr><td>13</td><td>1371.97</td><td>115.88</td><td>Shut-In(1)</td></tr> <tr><td>42</td><td>1338.85</td><td>115.41</td><td>End Shut-In(1)</td></tr> <tr><td>43</td><td>1140.52</td><td>115.45</td><td>Open To Flow (2)</td></tr> <tr><td>59</td><td>1344.09</td><td>115.44</td><td>Shut-In(2)</td></tr> <tr><td>80</td><td>1771.85</td><td>115.63</td><td>End Shut-In(2)</td></tr> <tr><td>84</td><td>1853.89</td><td>115.87</td><td>Final Hydro-static</td></tr> </tbody> </table> |   | Time (Min.)          | Pressure (psia) | Temp (deg F) | Annotation | 0 | 1875.15 | 110.92 | Initial Hydro-static | 3 | 763.96 | 112.16 | Open To Flow (1) | 13 | 1371.97  | 115.88 | Shut-In(1)     | 42              | 1338.85          | 115.41 | End Shut-In(1) | 43 | 1140.52 | 115.45 | Open To Flow (2) | 59 | 1344.09 | 115.44 | Shut-In(2) | 80 | 1771.85 | 115.63 | End Shut-In(2) | 84 | 1853.89 | 115.87 | Final Hydro-static |
| Time (Min.)   | Pressure (psia)   | Temp (deg F)  | Annotation           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 0   | 1875.15   | 110.92  | Initial Hydro-static |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 3   | 763.96  | 112.16  | Open To Flow (1)     |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 13  | 1371.97   | 115.88  | Shut-In(1)           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 42  | 1338.85   | 115.41  | End Shut-In(1)       |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 43  | 1140.52   | 115.45  | Open To Flow (2)     |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 59  | 1344.09   | 115.44  | Shut-In(2)           |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 80  | 1771.85   | 115.63  | End Shut-In(2)       |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 84  | 1853.89   | 115.87  | Final Hydro-static   |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| <b>Recovery</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr> <td>105.00</td> <td>Mud 100%</td> <td>1.47</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> | Length (ft)   | Description   | Volume (bbl)         | 105.00          | Mud 100%     | 1.47       |   |         |        |                      |   |        |        |                  |    | <b>Gas Rates</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psia)</th> <th>Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> |        | Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| Length (ft)   | Description   | Volume (bbl)  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| 105.00  | Mud 100%  | 1.47  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| Choke (inches)  | Pressure (psia)   | Gas Rate (Mcf/d)  |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
|   |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |
| Superior Testers Enterprises LLC      Ref. No: 18134      Printed: 2013.06.22 @ 10:12:52  |   |   |                      |                 |              |            |   |         |        |                      |   |        |        |                  |    |  |        |                |                 |                  |        |                |    |         |        |                  |    |         |        |            |    |         |        |                |    |         |        |                    |

#### ROCK TYPES

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

**ACCESSORIES**

**MINERAL**  
 ▲ Chert, dark  
 P Pyrite  
 \* Sandy  
 • Silty  
 △ Chert White

**FOSSIL**  
 ∩ Bioclastic or Fragmental  
 F Fossils < 20%  
 ◊ Oolite  
 ⚡ Pellets  
 ⚡ Oomoldic

**STRINGER**  
 ~ Chert  
 ■ Sandstone  
 ■ red shale

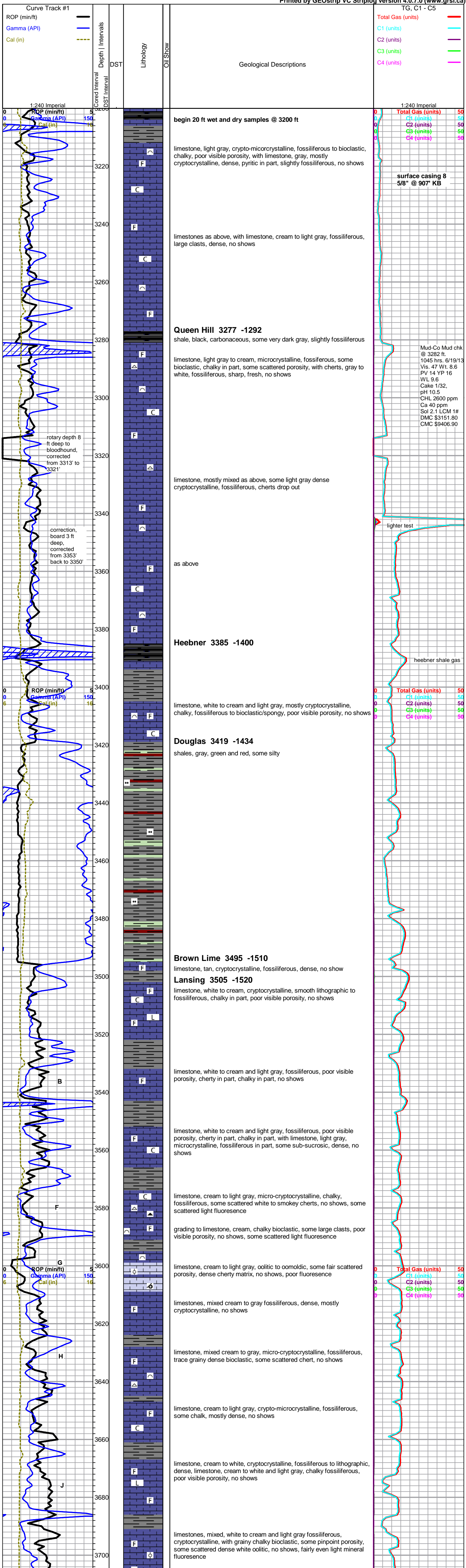
**TEXTURE**  
 C Chalky  
 L Lithogr

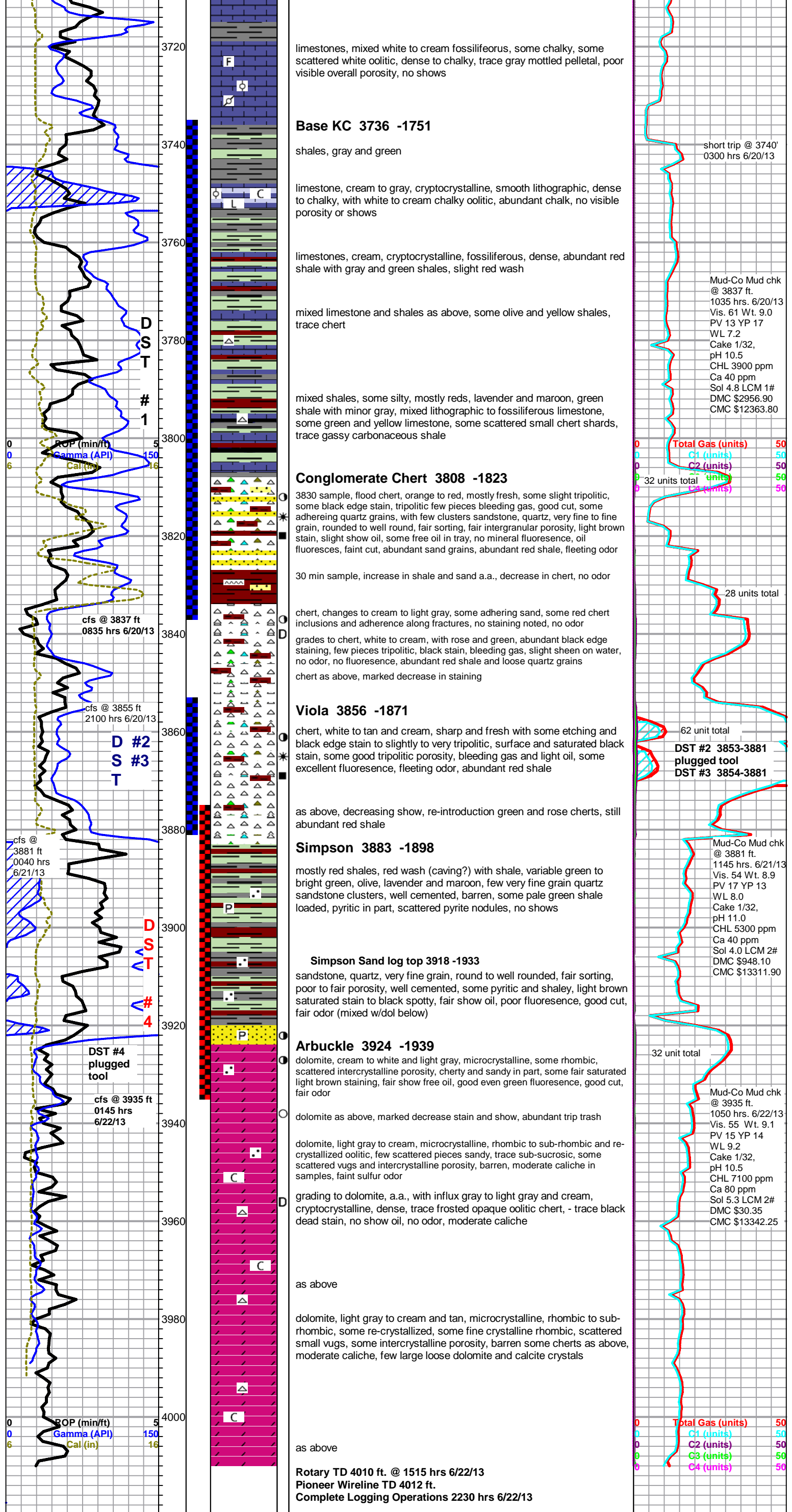
**OTHER SYMBOLS**

**INTERVALS**  
 ■ Core  
 · DST

**DST**  
 ■ DST Int  
 ■ DST alt  
 ■ Core  
 ■ tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)









## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083

ATTN: Keith Reavis

**Kelly #1-33**

**33/21S/15W/Pawnee**

Start Date: 2013.06.20 @ 11:35:00

End Date: 2013.06.20 @ 16:45:30

Job Ticket #: 18131                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.06.20 @ 17:04:15



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18131

**DST#: 1**

Test Start: 2013.06.20 @ 11:35:00

## GENERAL INFORMATION:

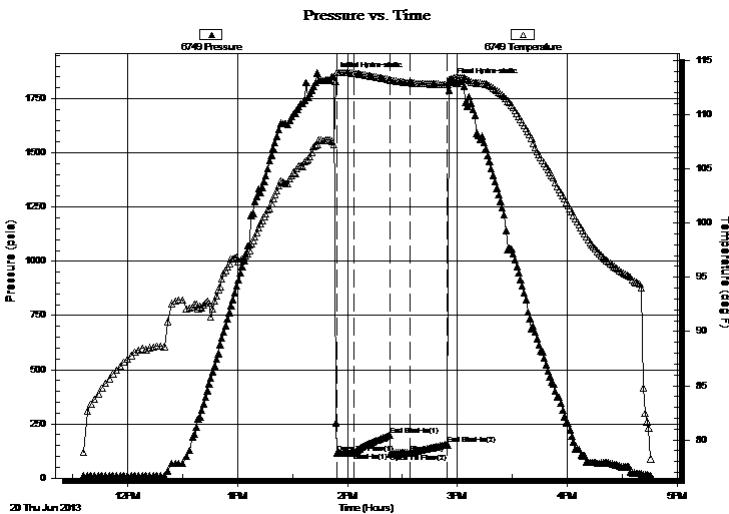
Formation: **Conglomerate**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:54:30  
 Time Test Ended: 16:45:30  
 Interval: **3735.00 ft (KB) To 3837.00 ft (KB) (TVD)**  
 Total Depth: 3837.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/56  
 Reference Elevations: 1985.00 ft (KB)  
 1973.00 ft (CF)  
 KB to GR/CF: 12.00 ft

## Serial #: 6749

Inside

Press @ RunDepth: 115.48 psia @ 3833.08 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.06.20 End Date: 2013.06.20 Last Calib.: 2013.06.20  
 Start Time: 11:35:00 End Time: 16:45:30 Time On Btm: 2013.06.20 @ 13:52:30  
 Time Off Btm: 2013.06.20 @ 14:56:00

TEST COMMENT: 1ST Open 10 Mintues/20 foot slide/6 inch blow after slide/Weak blow built to 7 inches  
 1ST Shut In 20 Mintues/No blow back  
 2ND Open 10 Minutes/Weak blow/blow built to 1 1/4 inch  
 2ND Shut In 20 Mintues/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1853.49         | 107.25       | Initial Hydro-static |
| 2           | 115.92          | 113.88       | Open To Flow (1)     |
| 11          | 116.98          | 113.81       | Shut-In(1)           |
| 31          | 197.75          | 113.23       | End Shut-In(1)       |
| 31          | 112.26          | 113.19       | Open To Flow (2)     |
| 42          | 115.48          | 112.94       | Shut-In(2)           |
| 63          | 154.22          | 112.79       | End Shut-In(2)       |
| 64          | 1824.63         | 113.24       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 70.00       | Mud 100%    | 0.98         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18131

**DST#: 1**

Test Start: 2013.06.20 @ 11:35:00

## GENERAL INFORMATION:

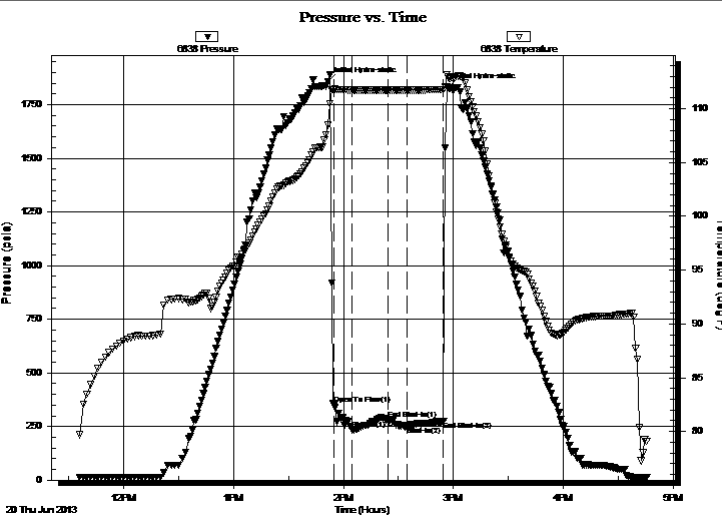
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 Time Test Ended: 16:45:30  
 Interval: **3735.00 ft (KB) To 3837.00 ft (KB) (TVD)**  
 Total Depth: 3837.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/56  
 Reference Elevations: 1985.00 ft (KB)  
 1973.00 ft (CF)  
 KB to GR/CF: 12.00 ft

**Serial #: 6838**

**Outside**

Press @ Run Depth: 273.18 psia @ 3834.08 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2013.06.20 End Date: 2013.06.20 Last Calib.: 2013.06.20  
 Start Time: 11:35:00 End Time: 16:46:00 Time On Btm: 2013.06.20 @ 13:51:30  
 Time Off Btm: 2013.06.20 @ 14:57:00

**TEST COMMENT:** 1ST Open 10 Mintues/20 foot slide/6 inch blow after slide/Weak blow built to 7 inches  
 1ST Shut In 20 Mintues/No blow back  
 2ND Open 10 Minutes/Weak blow/blow built to 1 1/4 inch  
 2ND Shut In 20 Mintues/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1856.81         | 108.47       | Initial Hydro-static |
| 4           | 351.94          | 111.81       | Open To Flow (1)     |
| 13          | 236.87          | 111.72       | Shut-In(1)           |
| 33          | 282.59          | 111.73       | End Shut-In(1)       |
| 33          | 284.29          | 111.73       | Open To Flow (2)     |
| 43          | 249.39          | 111.72       | Shut-In(2)           |
| 63          | 273.18          | 111.78       | End Shut-In(2)       |
| 66          | 1830.24         | 112.93       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 70.00       | Mud 100%    | 0.98         |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18131

**DST#: 1**

Test Start: 2013.06.20 @ 11:35:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3718.00 ft | Diameter: 3.80 inches | Volume: 52.15 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 80000.00 lb  |
|                           |                    |                       | <u>Total Volume: 52.15 bbl</u> | Tool Chased 20.00 ft               |
| Drill Pipe Above KB:      | 10.00 ft           |                       |                                | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3735.00 ft         |                       |                                | Final 51000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 102.08 ft          |                       |                                |                                    |
| Tool Length:              | 129.08 ft          |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

|                 |       |      |         |         |                                |
|-----------------|-------|------|---------|---------|--------------------------------|
| Shut In Tool    | 5.00  |      |         | 3713.00 |                                |
| Hydraulic Tool  | 5.00  |      |         | 3718.00 |                                |
| Jars            | 5.00  |      |         | 3723.00 |                                |
| Safety Joint    | 2.00  |      |         | 3725.00 |                                |
| Packer          | 5.00  |      |         | 3730.00 | 27.00 Bottom Of Top Packer     |
| Packer          | 5.00  |      |         | 3735.00 |                                |
| Perforations    | 6.00  |      |         | 3741.00 |                                |
| Change Over Sub | 0.75  |      |         | 3741.75 |                                |
| Drill Pipe      | 61.58 |      |         | 3803.33 |                                |
| Change Over Sub | 0.75  |      |         | 3804.08 |                                |
| Anchor          | 28.00 |      |         | 3832.08 |                                |
| Recorder        | 1.00  | 6749 | Inside  | 3833.08 |                                |
| Recorder        | 1.00  | 6838 | Outside | 3834.08 |                                |
| Bullnose        | 3.00  |      |         | 3837.08 | 102.08 Bottom Packers & Anchor |

**Total Tool Length: 129.08**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18131

**DST#: 1**

Test Start: 2013.06.20 @ 11:35:00

### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 61.00 sec/qt  
 Water Loss: 7.20 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 3900.00 ppm  
 Filter Cake: 1.00 inches

Cushion Type:  
 Cushion Length: ft  
 Cushion Volume: bbl  
 Gas Cushion Type:  
 Gas Cushion Pressure: psia

Oil API: deg API  
 Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 70.00        | Mud 100%    | 0.982         |

Total Length: 70.00 ft      Total Volume: 0.982 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

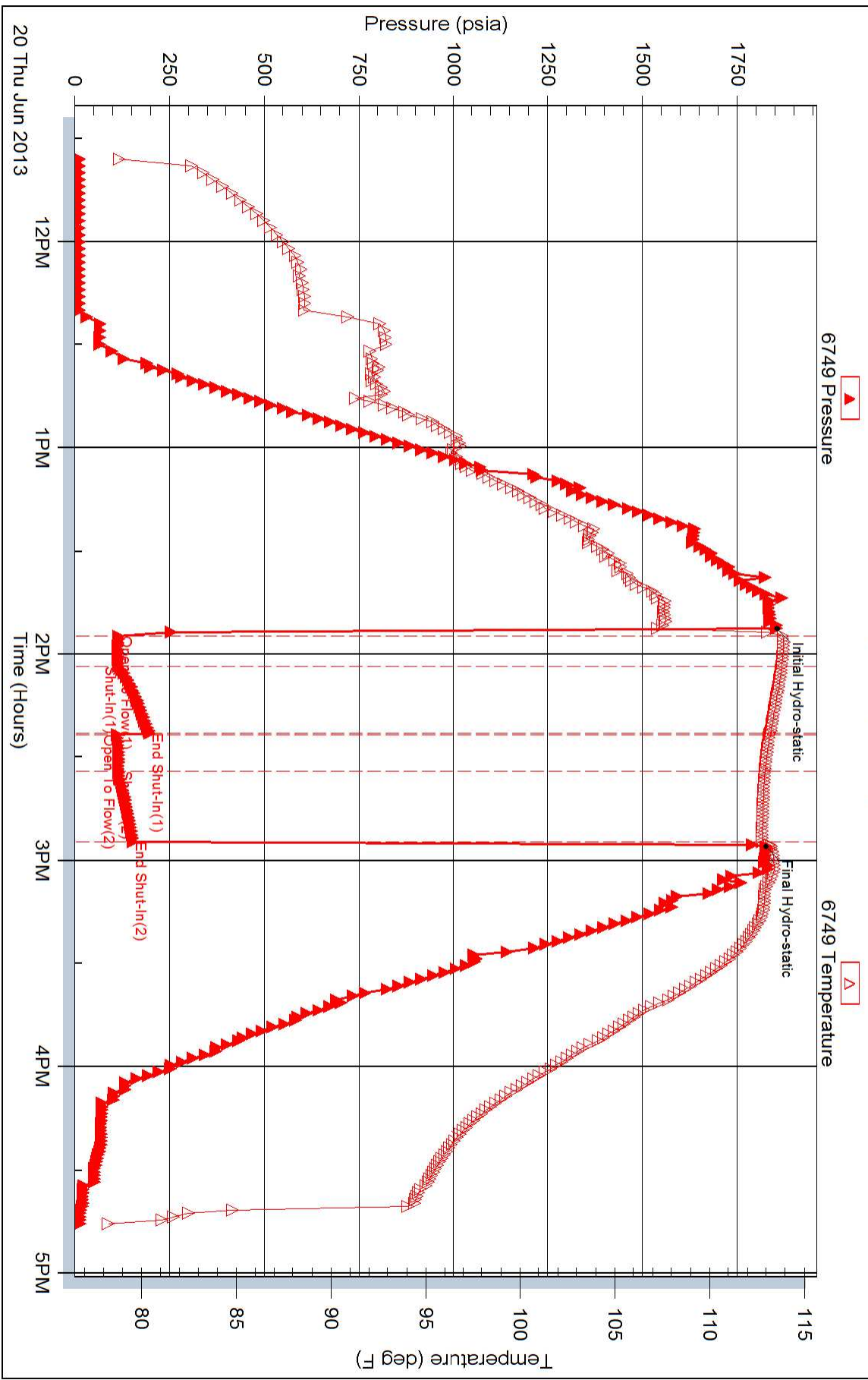
Serial #:

Laboratory Name:

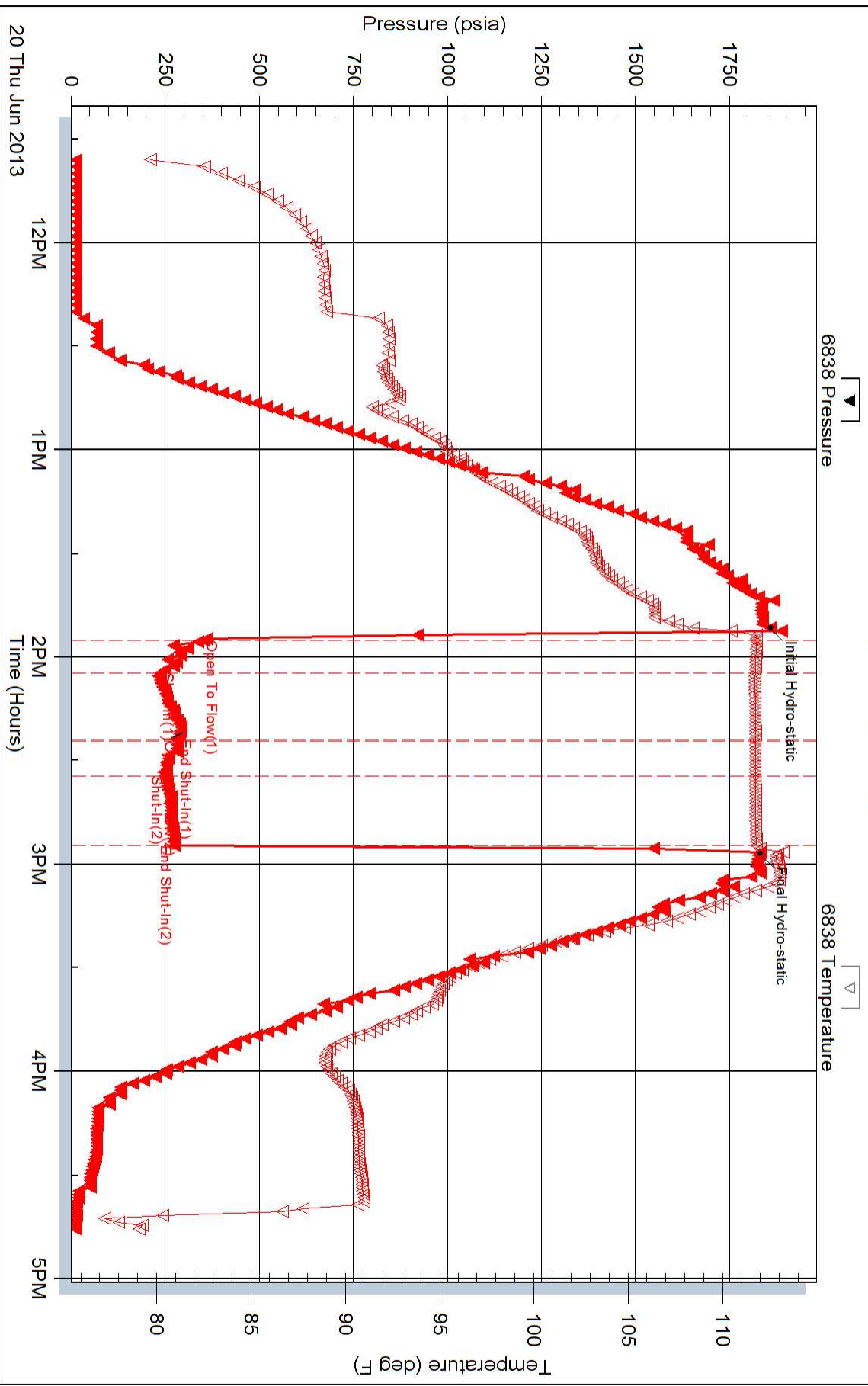
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083

ATTN: Keith Reavis

**Kelly #1-33**

**33/21S/15W/Pawnee**

Start Date: 2013.06.21 @ 04:01:00

End Date: 2013.06.21 @ 09:04:00

Job Ticket #: 18132                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.06.21 @ 09:17:55





# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18132

**DST#: 2**

Test Start: 2013.06.21 @ 04:01:00

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:30

Time Test Ended: 09:04:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3853.00 ft (KB) To 3881.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3881.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 6749 Inside**

Press @ Run Depth: 936.73 psia @ 3877.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21

End Date: 2013.06.21

Last Calib.: 2013.06.21

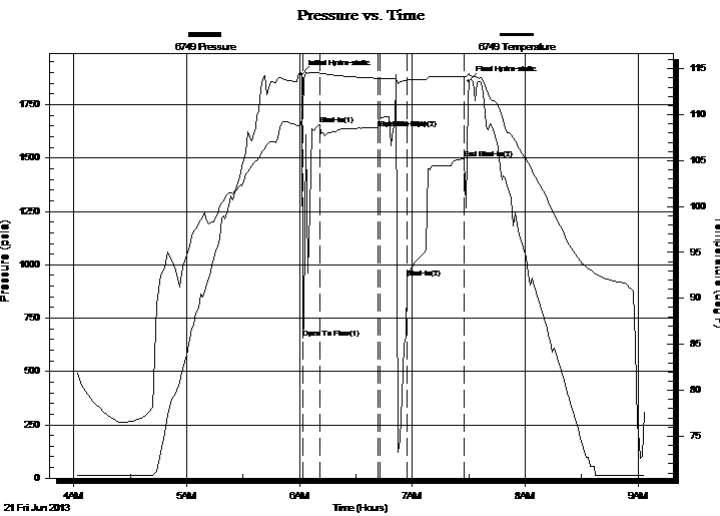
Start Time: 04:01:00

End Time: 09:04:00

Time On Btm: 2013.06.21 @ 06:01:00

Time Off Btm: 2013.06.21 @ 07:30:00

**TEST COMMENT:** 1ST Open 10 Mintues/13 foot slide/Blow at 5 3/4 inch after slide/Weak build to 6 1/4 inch  
1ST Shut In 30 Mintues/No blow back  
2ND Open 15 Mintues/Dead no blow /Flush tool didnt help  
2ND Shut In 30 Mintues/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1893.65         | 109.71       | Initial Hydro-static |
| 1           | 658.52          | 110.03       | Open To Flow (1)     |
| 10          | 1656.37         | 114.53       | Shut-In(1)           |
| 41          | 1640.36         | 113.97       | End Shut-In(1)       |
| 42          | 1681.18         | 113.98       | Open To Flow (2)     |
| 56          | 936.73          | 113.79       | Shut-In(2)           |
| 87          | 1495.13         | 114.16       | End Shut-In(2)       |
| 89          | 1861.02         | 114.48       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 75.00       | Mud 100%    | 1.05         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18132

**DST#: 2**

Test Start: 2013.06.21 @ 04:01:00

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:30

Time Test Ended: 09:04:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3853.00 ft (KB) To 3881.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3881.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 6838 Outside**

Press @ Run Depth: 1495.17 psia @ 3878.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21

End Date: 2013.06.21

Last Calib.: 2013.06.21

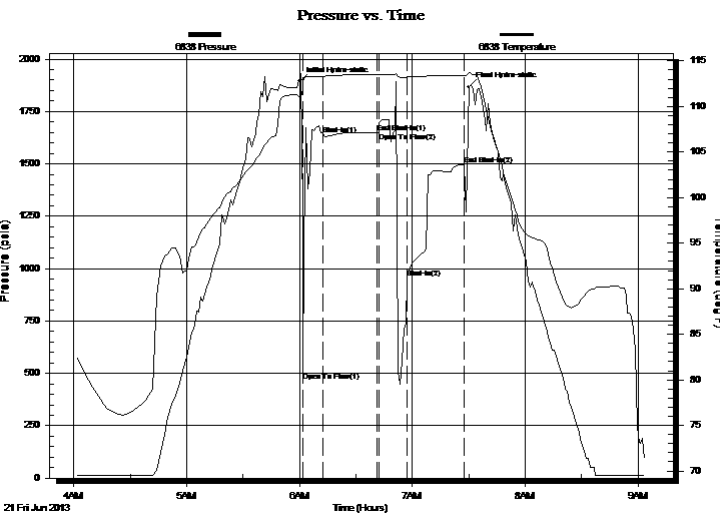
Start Time: 04:01:00

End Time: 09:04:00

Time On Btm: 2013.06.21 @ 06:00:00

Time Off Btm: 2013.06.21 @ 07:30:00

**TEST COMMENT:** 1ST Open 10 Mintues/13 foot slide/Blow at 5 3/4 inch after slide/Weak build to 6 1/4 inch  
1ST Shut In 30 Mintues/No blow back  
2ND Open 15 Mintues/Dead no blow /Flush tool didnt help  
2ND Shut In 30 Mintues/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1894.42         | 111.10       | Initial Hydro-static |
| 2           | 461.97          | 112.68       | Open To Flow (1)     |
| 13          | 1641.58         | 113.33       | Shut-In(1)           |
| 41          | 1649.02         | 113.53       | End Shut-In(1)       |
| 42          | 1648.82         | 113.53       | Open To Flow (2)     |
| 57          | 954.97          | 113.23       | Shut-In(2)           |
| 88          | 1495.17         | 113.42       | End Shut-In(2)       |
| 90          | 1867.23         | 113.74       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 75.00       | Mud 100%    | 1.05         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18132

**DST#: 2**

Test Start: 2013.06.21 @ 04:01:00

## Tool Information

|                           |                    |                         |                   |                                    |
|---------------------------|--------------------|-------------------------|-------------------|------------------------------------|
| Drill Pipe:               | Length: 3845.00 ft | Diameter: 3.80 inches   | Volume: 53.94 bbl | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches   | Volume: 0.00 bbl  | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches   | Volume: 0.00 bbl  | Weight to Pull Loose: 80000.00 lb  |
|                           |                    | Total Volume: 53.94 bbl |                   | Tool Chased 13.00 ft               |
| Drill Pipe Above KB:      | 19.00 ft           |                         |                   | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3853.00 ft         |                         |                   | Final 51000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                         |                   |                                    |
| Interval between Packers: | 28.00 ft           |                         |                   |                                    |
| Tool Length:              | 55.00 ft           |                         |                   |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches   |                   |                                    |

Tool Comments:

| Tool Description          | Length (ft)  | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Shut In Tool              | 5.00         |            |          | 3831.00    |                               |
| Hydraulic Tool            | 5.00         |            |          | 3836.00    |                               |
| Jars                      | 5.00         |            |          | 3841.00    |                               |
| Safety Joint              | 2.00         |            |          | 3843.00    |                               |
| Packer                    | 5.00         |            |          | 3848.00    | 27.00 Bottom Of Top Packer    |
| Packer                    | 5.00         |            |          | 3853.00    |                               |
| Anchor                    | 23.00        |            |          | 3876.00    |                               |
| Recorder                  | 1.00         | 6749       | Inside   | 3877.00    |                               |
| Recorder                  | 1.00         | 6838       | Outside  | 3878.00    |                               |
| Bullnose                  | 3.00         |            |          | 3881.00    | 28.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>55.00</b> |            |          |            |                               |



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18132

**DST#: 2**

Test Start: 2013.06.21 @ 04:01:00

### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 61.00 sec/qt  
 Water Loss: 7.20 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 3900.00 ppm  
 Filter Cake: 1.00 inches

Cushion Type:  
 Cushion Length: ft  
 Cushion Volume: bbl  
 Gas Cushion Type:  
 Gas Cushion Pressure: psia

Oil API: deg API  
 Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 75.00        | Mud 100%    | 1.052         |

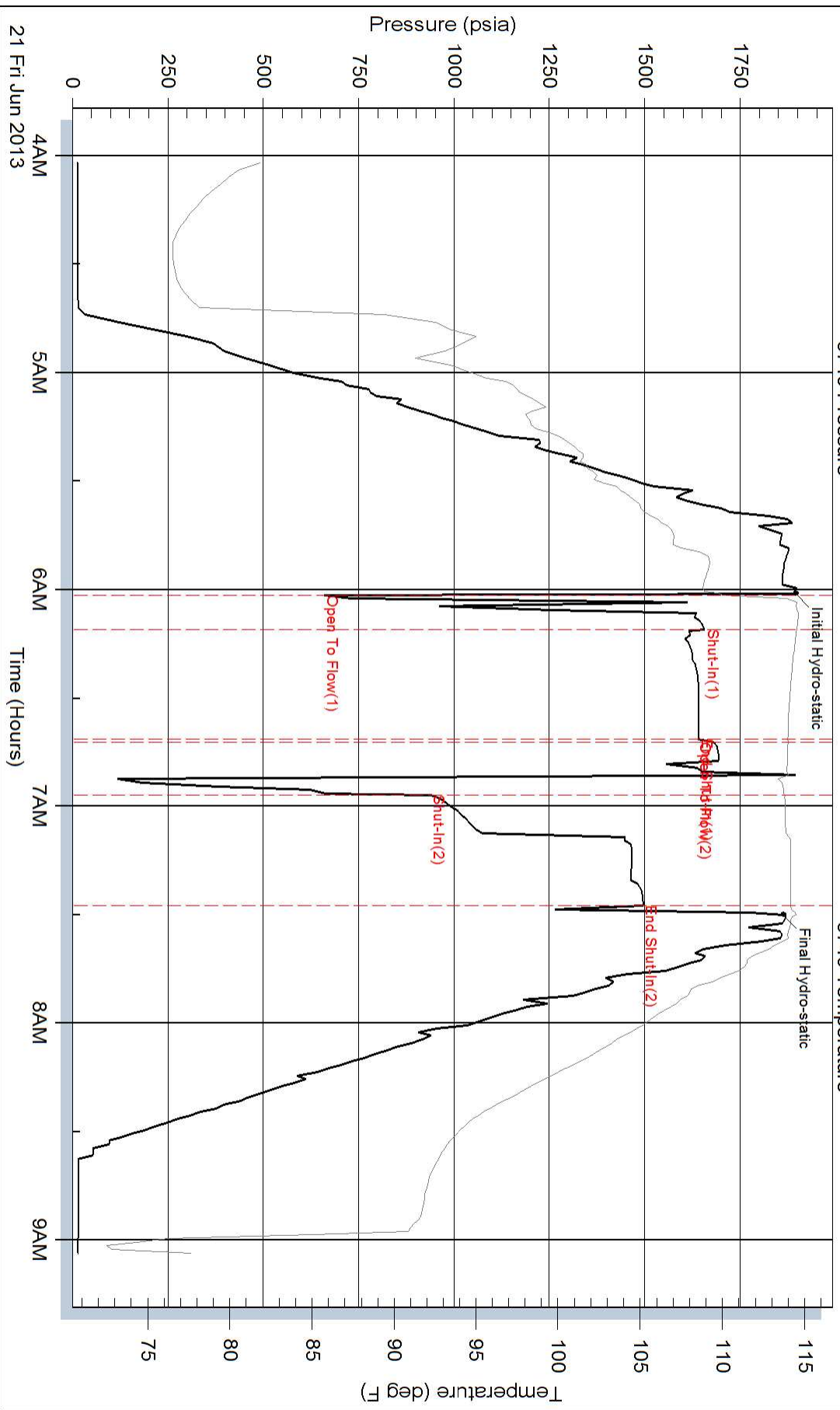
Total Length: 75.00 ft      Total Volume: 1.052 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

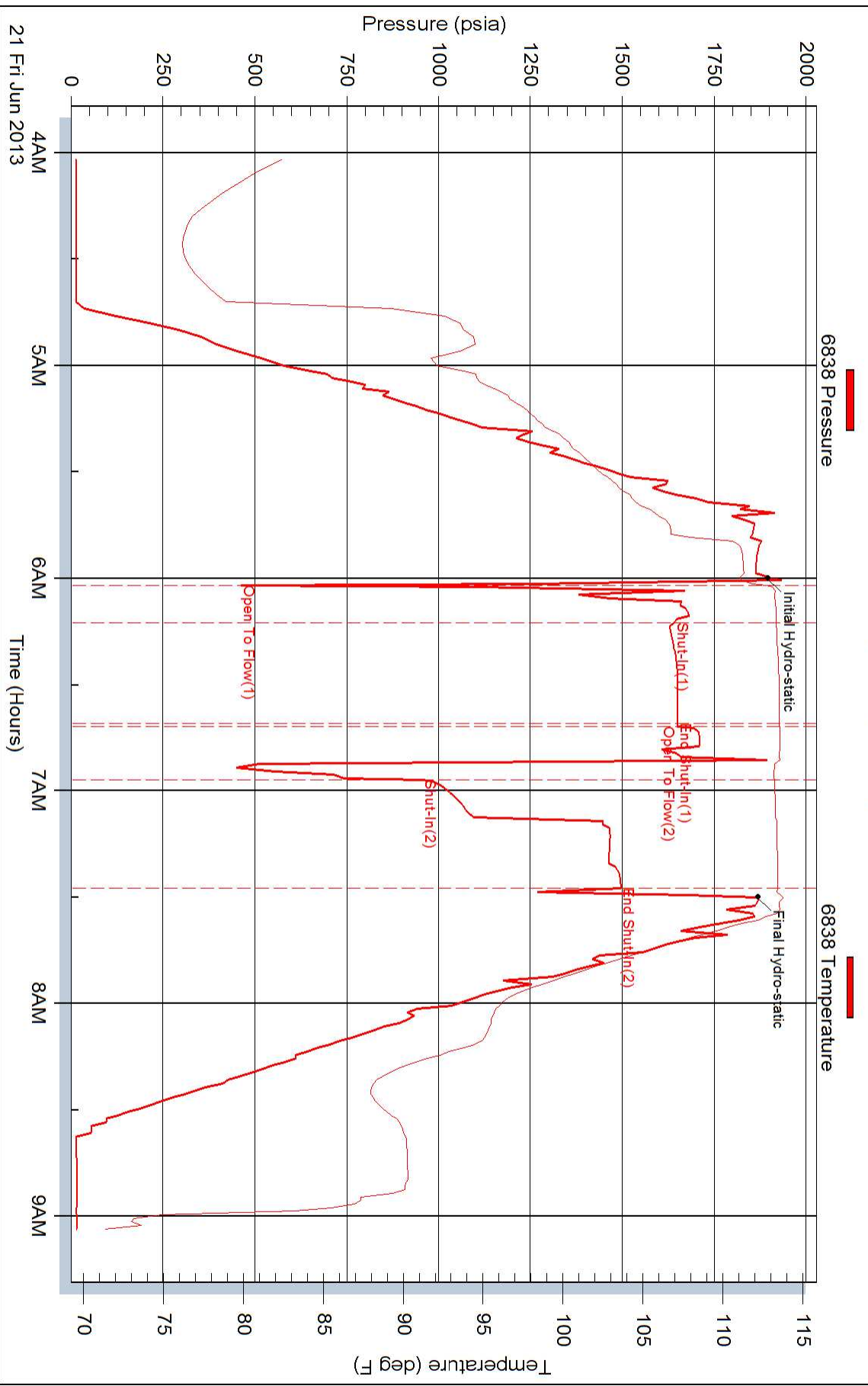
Laboratory Name:      Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083

ATTN: Keith Reavis

**Kelly #1-33**

**33/21S/15W/Pawnee**

Start Date: 2013.06.21 @ 14:04:00

End Date: 2013.06.21 @ 19:39:30

Job Ticket #: 18133                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.06.21 @ 19:49:28



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18133

**DST#: 3**

Test Start: 2013.06.21 @ 14:04:00

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:56:30

Time Test Ended: 19:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3849.00 ft (KB) To 3881.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3881.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 6749**

**Inside**

Press @ RunDepth: 52.24 psia @ 3872.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21

End Date: 2013.06.21

Last Calib.: 2013.06.21

Start Time: 14:04:00

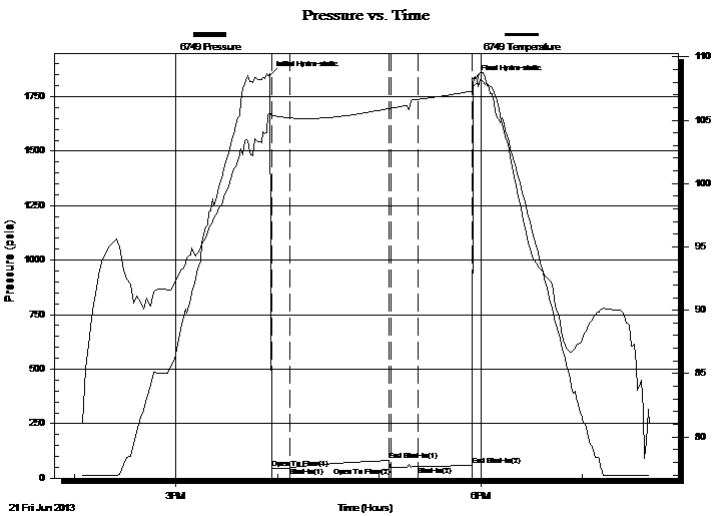
End Time: 19:39:30

Time On Btm: 2013.06.21 @ 15:55:30

Time Off Btm: 2013.06.21 @ 17:56:00

**TEST COMMENT:** 1ST Open 10 Minutes/Weak blow/Blow built to 1 inch  
1ST Shut In 60 Minutes/No blow back  
2ND Open 17 Minutes/Dead no blow /Flush tool didnt help  
2ND Shut In 30 Minutes/No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1847.32         | 105.61       | Initial Hydro-static |
| 1           | 46.32           | 105.39       | Open To Flow (1)     |
| 12          | 47.53           | 105.17       | Shut-In(1)           |
| 71          | 81.34           | 105.92       | End Shut-In(1)       |
| 72          | 48.69           | 105.94       | Open To Flow (2)     |
| 88          | 52.24           | 106.65       | Shut-In(2)           |
| 120         | 58.63           | 107.30       | End Shut-In(2)       |
| 121         | 1830.56         | 107.74       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 30.00       | Mud 100%    | 0.42         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |





# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18133

**DST#: 3**

Test Start: 2013.06.21 @ 14:04:00

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:56:30

Time Test Ended: 19:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3849.00 ft (KB) To 3881.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3881.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

**Serial #: 6838 Outside**

Press @ RunDepth: 62.21 psia @ 3873.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21 End Date: 2013.06.21

Last Calib.: 2013.06.21

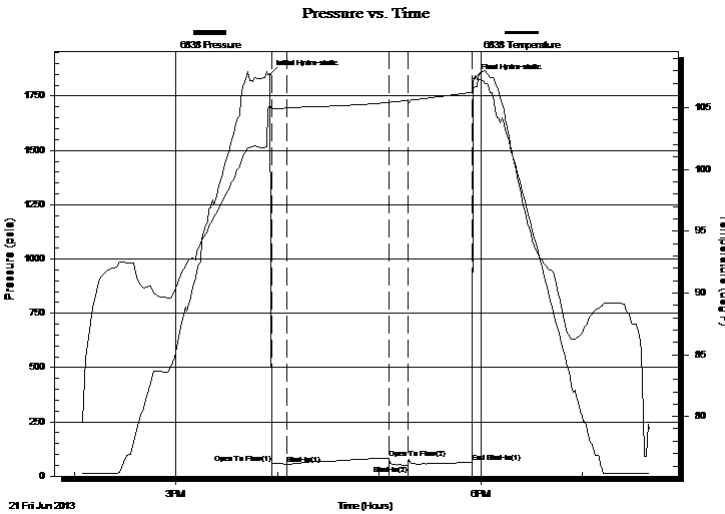
Start Time: 14:04:00 End Time: 19:40:00

Time On Btm: 2013.06.21 @ 15:55:30

Time Off Btm: 2013.06.21 @ 17:56:00

**TEST COMMENT:** 1ST Open 10 Minutes/Weak blow/Blow built to 1 inch  
 1ST Shut In 60 Minutes/No blow back  
 2ND Open 17 Minutes/Dead no blow /Flush tool didnt help  
 2ND Shut In 30 Minutes/No blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1848.04         | 105.15       | Initial Hydro-static |
| 1           | 58.65           | 104.94       | Open To Flow (1)     |
| 10          | 53.11           | 104.99       | Shut-In(1)           |
| 71          | 84.14           | 105.45       | Open To Flow (2)     |
| 82          | 51.43           | 105.59       | Shut-In(2)           |
| 120         | 62.21           | 106.26       | End Shut-In(1)       |
| 121         | 1829.65         | 106.62       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 30.00       | Mud 100%    | 0.42         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18133

**DST#: 3**

Test Start: 2013.06.21 @ 14:04:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3840.00 ft | Diameter: 3.80 inches | Volume: 53.87 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 90000.00 lb  |
|                           |                    |                       | <u>Total Volume: 53.87 bbl</u> | Tool Chased 1.00 ft                |
| Drill Pipe Above KB:      | 18.00 ft           |                       |                                | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3849.00 ft         |                       |                                | Final 51000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 27.00 ft           |                       |                                |                                    |
| Tool Length:              | 54.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments: Replaced damaged packer

| Tool Description          | Length (ft)  | Serial No. | Position | Depth (ft) | Accum. Lengths                |
|---------------------------|--------------|------------|----------|------------|-------------------------------|
| Shut In Tool              | 5.00         |            |          | 3827.00    |                               |
| Hydraulic Tool            | 5.00         |            |          | 3832.00    |                               |
| Jars                      | 5.00         |            |          | 3837.00    |                               |
| Safety Joint              | 2.00         |            |          | 3839.00    |                               |
| Packer                    | 5.00         |            |          | 3844.00    | 27.00 Bottom Of Top Packer    |
| Packer                    | 5.00         |            |          | 3849.00    |                               |
| Anchor                    | 22.00        |            |          | 3871.00    |                               |
| Recorder                  | 1.00         | 6749       | Inside   | 3872.00    |                               |
| Recorder                  | 1.00         | 6838       | Outside  | 3873.00    |                               |
| Bullnose                  | 3.00         |            |          | 3876.00    | 27.00 Bottom Packers & Anchor |
| <b>Total Tool Length:</b> | <b>54.00</b> |            |          |            |                               |



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18133

**DST#: 3**

Test Start: 2013.06.21 @ 14:04:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 7.99 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 5300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: ppm

deg API

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 30.00        | Mud 100%    | 0.421         |

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

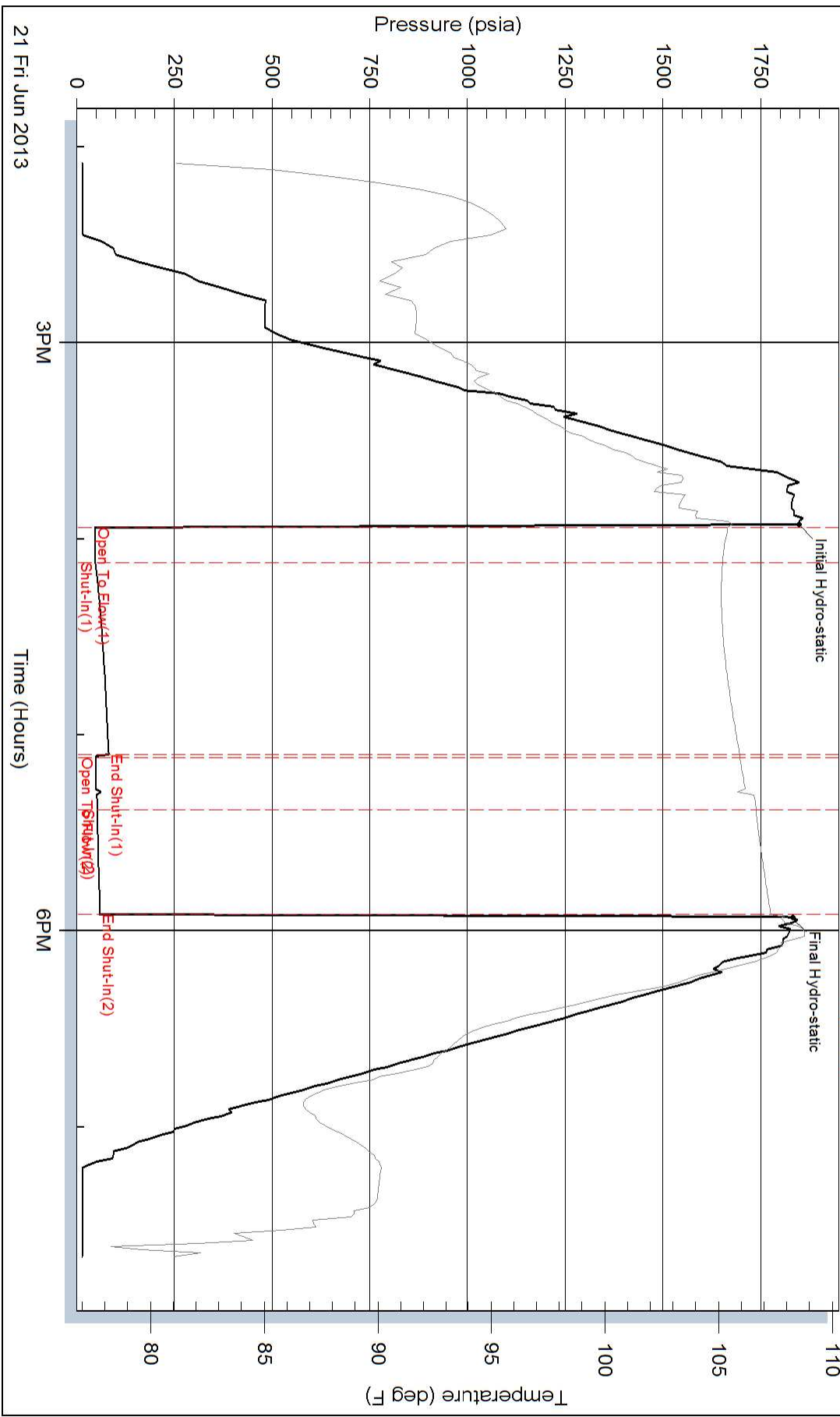
Serial #:

Laboratory Name:

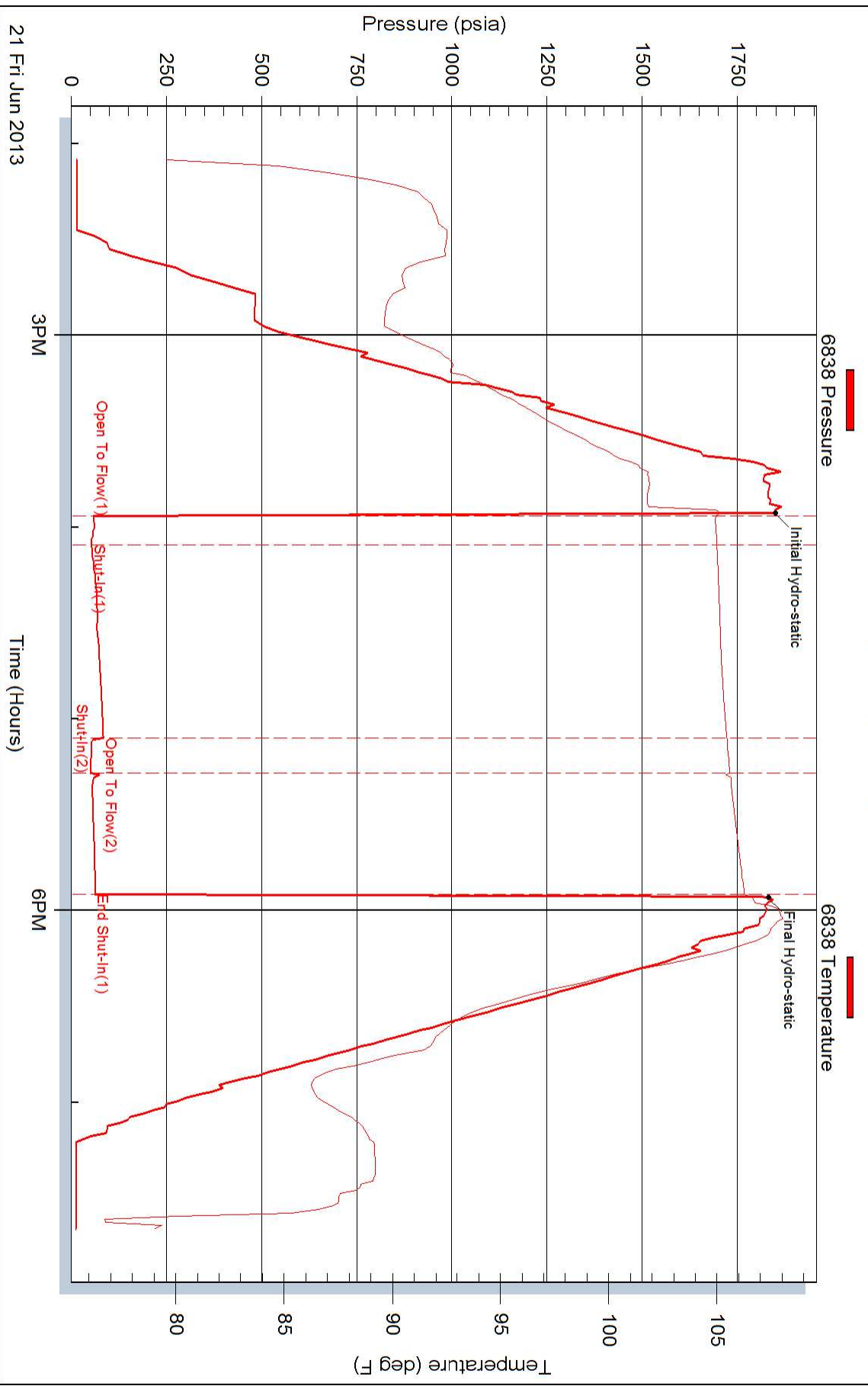
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083

ATTN: Keith Reavis

**Kelly #1-33**

**33/21S/15W/Pawnee**

Start Date: 2013.06.22 @ 04:39:00

End Date: 2013.06.22 @ 10:00:00

Job Ticket #: 18134                      DST #: 4

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2013.06.22 @ 10:12:51



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18134

**DST#: 4**

Test Start: 2013.06.22 @ 04:39:00

## GENERAL INFORMATION:

Formation: **Simpson/Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:56:30

Time Test Ended: 10:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3875.00 ft (KB) To 3935.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3935.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Poor

KB to GR/CF: 12.00 ft

**Serial #: 6749**

**Inside**

Press @ Run Depth: 1344.09 psia @ 3931.30 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.22

End Date:

2013.06.22

Last Calib.:

2013.06.22

Start Time: 04:39:00

End Time:

10:00:00

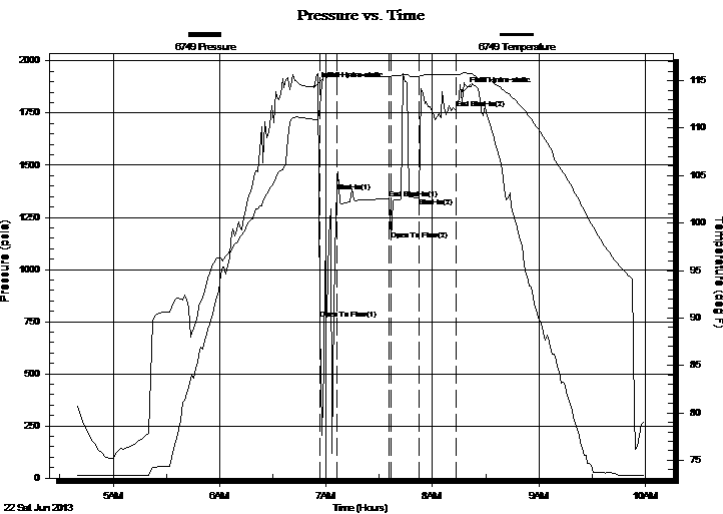
Time On Btm:

2013.06.22 @ 06:53:30

Time Off Btm:

2013.06.22 @ 08:17:00

**TEST COMMENT:** 1ST Open 10 Minutes/12 foot slide/blow at 7 inches after slide/Surging blow built to 9 1/2 inches  
1ST Shut In 30 Minutes/No blow back  
2ND Open 17 Minutes/Few bubbles at open/Flush tool/Weak surface blow for 1 minute  
2ND Shut In 20 Minutes/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1875.15         | 110.92       | Initial Hydro-static |
| 3           | 763.96          | 112.16       | Open To Flow (1)     |
| 13          | 1371.97         | 115.88       | Shut-In(1)           |
| 42          | 1338.85         | 115.41       | End Shut-In(1)       |
| 43          | 1140.52         | 115.45       | Open To Flow (2)     |
| 59          | 1344.09         | 115.44       | Shut-In(2)           |
| 80          | 1771.85         | 115.63       | End Shut-In(2)       |
| 84          | 1853.89         | 115.87       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 105.00      | Mud 100%    | 1.47         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

| Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|----------------|-----------------|------------------|
|                |                 |                  |



# DRILL STEM TEST REPORT

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
Suite 403 Building 400  
Wichita, Kansas 67207+5083  
ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18134

**DST#: 4**

Test Start: 2013.06.22 @ 04:39:00

## GENERAL INFORMATION:

Formation: **Simpson/Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:56:30

Time Test Ended: 10:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/56

**Interval: 3875.00 ft (KB) To 3935.00 ft (KB) (TVD)**

Reference Elevations: 1985.00 ft (KB)

Total Depth: 3935.00 ft (KB) (TVD)

1973.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Poor

KB to GR/CF: 12.00 ft

**Serial #: 6838 Outside**

Press @ RunDepth: 1748.13 psia @ 3932.30 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.22

End Date: 2013.06.22

Last Calib.: 2013.06.22

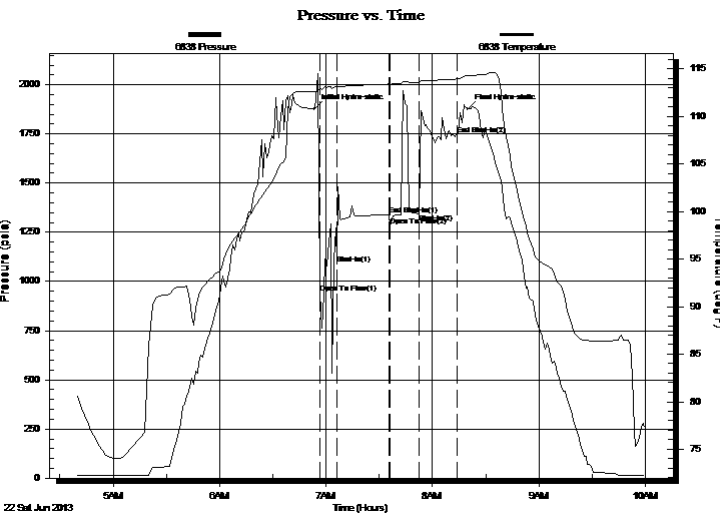
Start Time: 04:39:00

End Time: 10:00:00

Time On Btm: 2013.06.22 @ 06:53:30

Time Off Btm: 2013.06.22 @ 08:20:00

**TEST COMMENT:** 1ST Open 10 Minutes/12 foot slide/blow at 7 inches after slide/Surging blow built to 9 1/2 inches  
1ST Shut In 30 Minutes/No blow back  
2ND Open 17 Minutes/Few bubbles at open/Flush tool/Weak surface blow for 1 minute  
2ND Shut In 20 Minutes/No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1877.48         | 112.59       | Initial Hydro-static |
| 3           | 940.03          | 112.95       | Open To Flow (1)     |
| 13          | 1091.16         | 112.97       | Shut-In(1)           |
| 42          | 1339.35         | 113.41       | End Shut-In(1)       |
| 43          | 1283.23         | 113.39       | Open To Flow (2)     |
| 59          | 1345.12         | 113.57       | Shut-In(2)           |
| 81          | 1748.13         | 113.94       | End Shut-In(2)       |
| 87          | 1876.63         | 114.28       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 105.00      | Mud 100%    | 1.47         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

|  | Choke (inches) | Pressure (psia) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
|  |                |                 |                  |





# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18134

**DST#: 4**

Test Start: 2013.06.22 @ 04:39:00

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3866.00 ft | Diameter: 3.80 inches | Volume: 54.23 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 75000.00 lb  |
|                           |                    |                       | <u>Total Volume: 54.23 bbl</u> | Tool Chased 12.00 ft               |
| Drill Pipe Above KB:      | 18.00 ft           |                       |                                | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3875.00 ft         |                       |                                | Final 51000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 60.30 ft           |                       |                                |                                    |
| Tool Length:              | 87.30 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|----------------|
|------------------|-------------|------------|----------|------------|----------------|

|                 |       |      |         |         |                               |
|-----------------|-------|------|---------|---------|-------------------------------|
| Shut In Tool    | 5.00  |      |         | 3853.00 |                               |
| Hydraulic Tool  | 5.00  |      |         | 3858.00 |                               |
| Jars            | 5.00  |      |         | 3863.00 |                               |
| Safety Joint    | 2.00  |      |         | 3865.00 |                               |
| Packer          | 5.00  |      |         | 3870.00 | 27.00 Bottom Of Top Packer    |
| Packer          | 5.00  |      |         | 3875.00 |                               |
| Perforations    | 2.00  |      |         | 3877.00 |                               |
| Change Over Sub | 0.75  |      |         | 3877.75 |                               |
| Drill Pipe      | 31.80 |      |         | 3909.55 |                               |
| Change Over Sub | 0.75  |      |         | 3910.30 |                               |
| Anchor          | 20.00 |      |         | 3930.30 |                               |
| Recorder        | 1.00  | 6749 | Inside  | 3931.30 |                               |
| Recorder        | 1.00  | 6838 | Outside | 3932.30 |                               |
| Bullnose        | 3.00  |      |         | 3935.30 | 60.30 Bottom Packers & Anchor |

**Total Tool Length: 87.30**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Younger Energy Company

**33/21S/15W/Pawnee**

9415 East Harry Street  
 Suite 403 Building 400  
 Wichita, Kansas 67207+5083  
 ATTN: Keith Reavis

**Kelly #1-33**

Job Ticket: 18134

**DST#: 4**

Test Start: 2013.06.22 @ 04:39:00

### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 54.00 sec/qt  
 Water Loss: 8.00 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 5300.00 ppm  
 Filter Cake: 1.00 inches

Cushion Type:  
 Cushion Length: ft  
 Cushion Volume: bbl  
 Gas Cushion Type:  
 Gas Cushion Pressure: psia

Oil API: deg API  
 Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 105.00       | Mud 100%    | 1.473         |

Total Length: 105.00 ft      Total Volume: 1.473 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

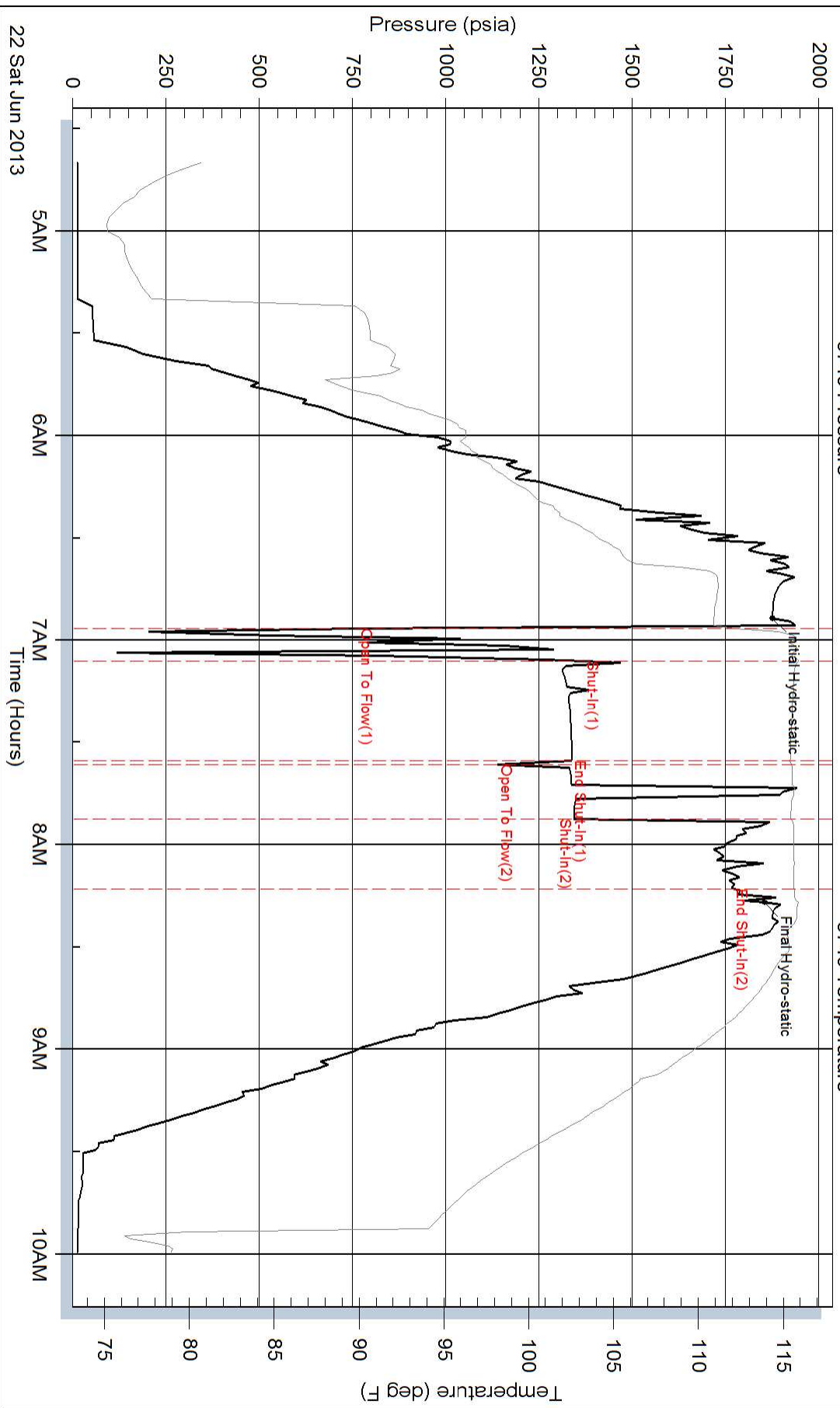
Serial #:

Laboratory Name:

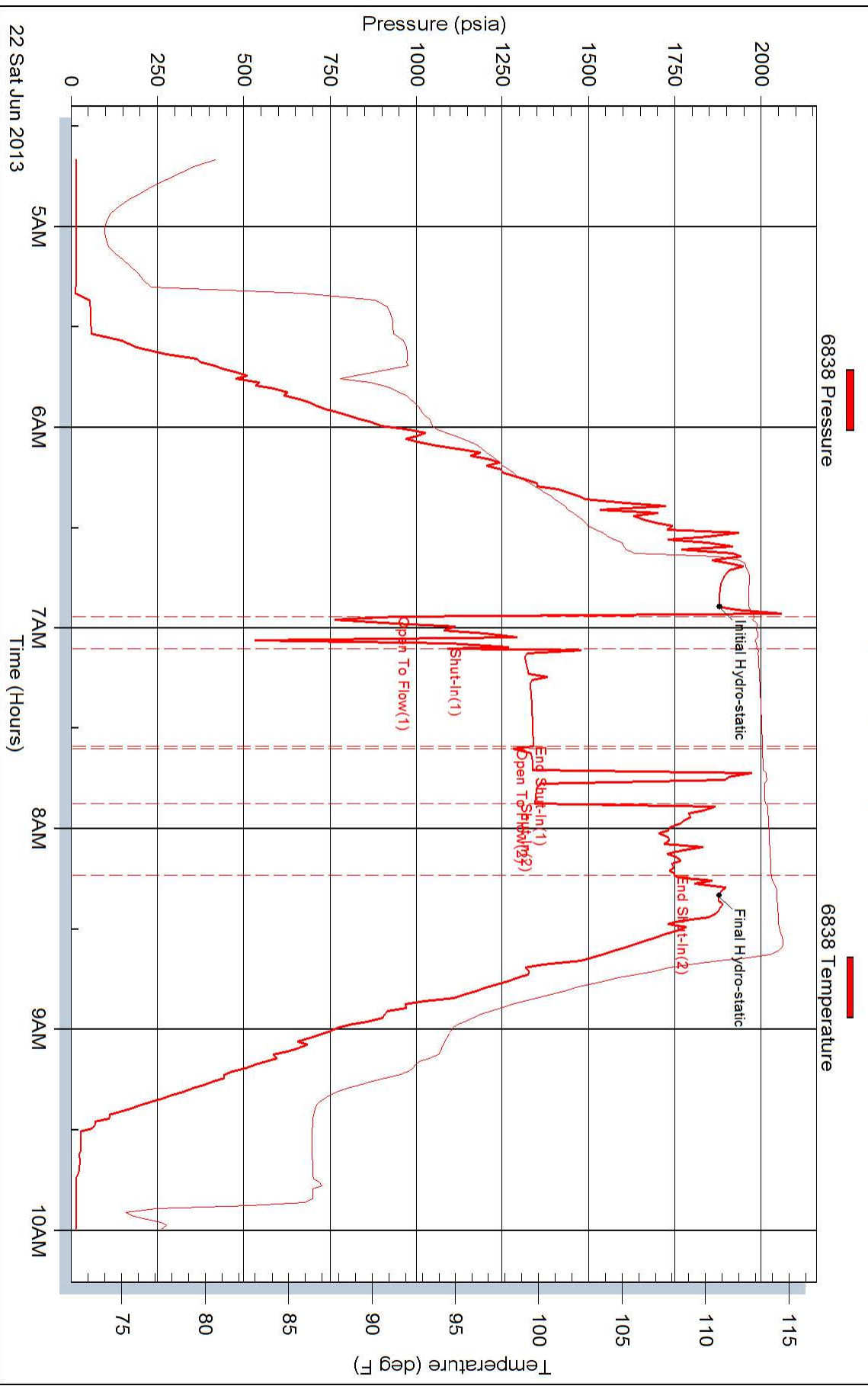
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

# INVOICE

Invoice Number: 136914

Invoice Date: Jun 16, 2013

Page: 1

RECEIVED JUL 1 2013

Now Includes:



|   |
|---|
| <b>Bill To:</b>   |
| Younger Energy Co.<br>9415 E. Harry St.<br>STE #403<br>Wichita, KS 67207-5083 |

|                               |                                    |                                     |                            |
|-------------------------------|------------------------------------|-------------------------------------|----------------------------|
| <b>Customer ID</b><br>Youn    | <b>Field Ticket #</b><br>60443     | <b>Payment Terms</b><br>Net 30 Days |                            |
| <b>Job Location</b><br>KS1-01 | <b>Camp Location</b><br>Great Bend | <b>Service Date</b><br>Jun 16, 2013 | <b>Due Date</b><br>7/16/13 |

| Quantity | Item        | Description           | Unit Price | Amount   |
|----------|-------------|-----------------------|------------|----------|
| 150.00   | MAT         | Kelly #1-33           |            |          |
| 3.00     | MAT         | Class A Common        | 17.90      | 2,685.00 |
| 8.00     | MAT         | Gel                   | 23.40      | 70.20    |
| 76.00    | MAT         | Chloride              | 64.00      | 512.00   |
| 305.00   | MAT         | Flo Seal              | 2.97       | 225.72   |
| 502.40   | SER         | Lightweight           | 16.50      | 5,032.50 |
| 432.00   | SER         | Cubic Feet            | 2.48       | 1,245.95 |
| 1.00     | SER         | Ton Mileage           | 2.60       | 1,123.20 |
| 20.00    | SER         | Surface               | 2,058.50   | 2,058.50 |
| 1.00     | SER         | Pump Truck Mileage    | 7.70       | 154.00   |
| 1.00     | SER         | Manifold Head Rental  | 275.00     | 275.00   |
| 20.00    | SER         | Light Vehicle Mileage | 4.40       | 88.00    |
| 1.00     | EQP         | 8.5/8 Rubber Plug     | 76.25      | 76.25    |
| 1.00     | EQP         | 8.5/8 Baffle Plate    | 67.50      | 67.50    |
| 1.00     | CEMENTER    | Dustin Chambers       |            |          |
| 1.00     | EQUIP OPER  | Mike Scothorn         |            |          |
| 1.00     | OPER ASSIST | Kevin Weighous        |            |          |
| 1.00     | OPER ASSIST | Marlyn Spangenberg    |            |          |

*Surface 159*

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 3,771.61

ONLY IF PAID ON OR BEFORE  
Jul 11, 2013

|                        |                      |
|------------------------|----------------------|
| Subtotal               | 13,613.82            |
| Sales Tax              | 719.54               |
| Total Invoice Amount   | 14,333.36            |
| Payment/Credit Applied |                      |
| <b>TOTAL</b>           | <del>14,333.36</del> |

180311

10,561.75

# ALLIED OIL & GAS SERVICES, LLC 060443

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Great Bend, KS

|                         |                    |   |                        |                 |             |           |            |
|-------------------------|--------------------|---|------------------------|-----------------|-------------|-----------|------------|
| DATE <u>6-16-13</u>     | SEC. <u>33</u>     | TWP. <u>21S</u>                           | RANGE <u>15W</u>       | CALLED OUT      | ON LOCATION | JOB START | JOB FINISH |
| LEASE <u>Kelly</u>      | WELL # <u>1-33</u> | LOCATION <u>Duane &amp; K-19 NW 1/2 N</u> | COUNTY <u>Lawrence</u> | STATE <u>KS</u> |             |           |            |
| OLD OR NEW (Circle one) |                    |   | <u>in into</u>         |                 |             |           |            |

CONTRACTOR Duke Drilling II  
 TYPE OF JOB Surf Gate  
 HOLE SIZE 12 1/4 T.D.  
 CASING SIZE 4 5/8 DEPTH 910  
 TUBING SIZE DEPTH  
 DRILL PIPE 1 1/2 DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 40 lbs  
 PERFS.  
 DISPLACEMENT 55.41 bbls Freshwater

OWNER  
 CEMENT  
 AMOUNT ORDERED 305 SKS 654 class A 3 5/8  
202 gal 3 1/2" 1/4" 1/2"  
150 SKS class A 3 1/2" 2 1/4" gel

|                            |               |                |                 |
|----------------------------|---------------|----------------|-----------------|
| COMMON                     | <u>150</u>    | @ <u>17.90</u> | <u>2,685.00</u> |
| POZMIX                     |               | @              |                 |
| GEL                        | <u>3</u>      | @ <u>23.40</u> | <u>70.20</u>    |
| CHLORIDE                   | <u>8</u>      | @ <u>64.00</u> | <u>512.00</u>   |
| ASC                        |               | @              |                 |
| <u>flascal</u>             | <u>76</u>     | @ <u>2.97</u>  | <u>225.72</u>   |
|                            |               | @              |                 |
| <u>Abhical lite wt 305</u> |               | @ <u>16.50</u> | <u>5,032.50</u> |
|                            |               | @              |                 |
|                            |               | @              |                 |
|                            |               | @              |                 |
|                            |               | @              |                 |
| HANDLING                   | <u>502.40</u> | @ <u>2.48</u>  | <u>1245.96</u>  |
| MILEAGE                    | <u>432</u>    | @ <u>2.60</u>  | <u>1123.20</u>  |

**EQUIPMENT**

PUMP TRUCK CEMENTER Dustin Chambers  
 # 3 @ 6 HELPER Mike Southorn  
 BULK TRUCK  
 # 344-175 DRIVER Kevin Weighous  
 BULK TRUCK  
 # 610-112 DRIVER Marlyn Spangenberg

**REMARKS:**

pump 5 bbls freshwater ahead  
mix 305 SKS 654/35 6 5/8 3 1/2" 1/4" 1/2"  
mix 150 SKS class A 3 1/2" 2 1/4" gel  
shoot Down & Release plug  
Displace 55.41 bbls freshwater  
land plug pressure 600 ft  
plug Down 5:30 pm  
cement did withdrawal

CHARGE TO: Younger Energy  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TOTAL 10,894.57

**SERVICE**

|                           |            |                 |               |
|---------------------------|------------|-----------------|---------------|
| DEPTH OF JOB              | <u>910</u> |                 |               |
| PUMP TRUCK CHARGE         |            | <u>2058.50</u>  |               |
| EXTRA FOOTAGE             |            | @               |               |
| MILEAGE <u>Hum</u>        | <u>20</u>  | @ <u>7.70</u>   | <u>154.00</u> |
| MANIFOLD <u>Head Rent</u> |            | @ <u>275.00</u> | <u>275.00</u> |
| <u>Hum</u>                | <u>20</u>  | @ <u>4.40</u>   | <u>88.00</u>  |
|                           |            | @               |               |

TOTAL 2,575.50

**PLUG & FLOAT EQUIPMENT**

|                            |                |  |
|----------------------------|----------------|--|
| <u>1-5 5/8 Rubber plug</u> | @ <u>76.25</u> |  |
| <u>1-5 5/8 Baffle plug</u> | @ <u>67.50</u> |  |
|                            | @              |  |
|                            | @              |  |

TOTAL 143.75

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME X Dan Bragg  
 SIGNATURE X Dan Bragg  
Thank You!!

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 13,613.82  
3,771.61  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
9,842.21

# ALLIED

OIL & GAS SERVICES, LLC

RECEIVED JUL 8 2013

## INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 137072

Invoice Date: Jun 23, 2013

Voice: (817) 546-7282

Page: 1

Fax: (817) 246-3361

**Bill To:**

Younger Energy Co.  
9415 E. Harry St.  
STE #403  
Wichita, KS 67207-5083

Now Includes:



| Customer ID  | Field Ticket # | Payment Terms |          |
|--------------|----------------|---------------|----------|
| Youn         | 60516          | Net 30 Days   |          |
| Job Location | Camp Location  | Service Date  | Due Date |
| KS1-03       | Great Bend     | Jun 23, 2013  | 7/23/13  |

| Quantity | Item        | Description            | Unit Price | Amount   |
|----------|-------------|------------------------|------------|----------|
|          |             | Kelly #1-32            |            |          |
| 132.00   | MAT         | Class A Common         | 17.90      | 2,362.80 |
| 88.00    | MAT         | Pozmix                 | 9.35       | 822.80   |
| 8.00     | MAT         | Gel                    | 23.40      | 187.20   |
| 55.00    | MAT         | Flo Seal               | 2.97       | 163.35   |
| 236.99   | SER         | Cubic Feet             | 2.48       | 587.73   |
| 197.75   | SER         | Ton Mileage            | 2.60       | 514.15   |
| 1.00     | SER         | Rotary Plug            | 2,810.84   | 2,810.84 |
| 20.00    | SER         | Pump Truck Mileage     | 7.70       | 154.00   |
| 20.00    | SER         | Light Vehicle Mileage  | 4.40       | 88.00    |
| 1.00     | CEMENTER    | Joshua Isaac           |            |          |
| 1.00     | EQUIP OPER  | Charles Kinyon         |            |          |
| 1.00     | OPER ASSIST | Ben Newell             |            |          |
|          |             | <i>Plugging Cement</i> |            |          |
|          |             | <i>OR</i>              |            |          |

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

\$ 2,153.44

ONLY IF PAID ON OR BEFORE

Jul 18, 2013

|                        |                 |
|------------------------|-----------------|
| Subtotal               | 7,690.87        |
| Sales Tax              | 638.34          |
| Total Invoice Amount   | 8,329.21        |
| Payment/Credit Applied |                 |
| <b>TOTAL</b>           | <b>8,329.21</b> |

6175.77

*OP - Jim  
Kelly 1-3-2  
JIR*

# ALLIED OIL & GAS SERVICES, LLC 060516

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Great Bend

|                         |                    |  |                 |            |                       |                          |                           |
|-------------------------|--------------------|--|-----------------|------------|-----------------------|--------------------------|---------------------------|
| DATE <u>6-23-13</u>     | SEC <u>33</u>      | TWP <u>21</u>                          | RANGE <u>15</u> | CALLED OUT | ON LOCATION           | JOB START <u>8:30 Am</u> | JOB FINISH <u>9:30 Am</u> |
| LEASE <u>Kelly</u>      | WELL # <u>1-32</u> | LOCATION <u>Radium to K19 4w 1/2 N</u> |                 |            | COUNTY <u>PLUMMER</u> | STATE <u>KS</u>          |                           |
| OLD OR NEW (Circle one) |                    |  | <u>Winto</u>    |            |                       |                          |                           |

CONTRACTOR Duke Drilling #1  
 TYPE OF JOB Rotary Plug  
 HOLE SIZE 12 1/4 T.D.  
 CASING SIZE 8 1/2 DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE 4 1/2 DEPTH 4010  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. All  
 PERFS.  
 DISPLACEMENT Freshwater

OWNER  
 CEMENT  
 AMOUNT ORDERED 2-20 slcs Class A 60%  
40% po. 1/4 Fl

**EQUIPMENT**

PUMP TRUCK CEMENTER John Isaac  
 # 348 HELPER Charis Finyon  
 BULK TRUCK  
 # 341 DRIVER Bern Newell  
 BULK TRUCK  
 # DRIVER

|                 |                    |                |                            |
|-----------------|--------------------|----------------|----------------------------|
| COMMON          | <u>132</u>         | @ <u>17.90</u> | <u>2,362.<sup>80</sup></u> |
| POZMIX          | <u>88</u>          | @ <u>9.35</u>  | <u>822.<sup>80</sup></u>   |
| GEL             | <u>8</u>           | @ <u>23.40</u> | <u>187.<sup>20</sup></u>   |
| CHLORIDE        |                    | @              |                            |
| ASC             |                    | @              |                            |
| <u>Plasocal</u> | <u>55</u>          | @ <u>2.97</u>  | <u>163.<sup>05</sup></u>   |
|                 |                    | @              |                            |
|                 |                    | @              |                            |
|                 |                    | @              |                            |
|                 |                    | @              |                            |
|                 |                    | @              |                            |
| HANDLING        | <u>236.99</u>      | @ <u>2.48</u>  | <u>587.<sup>73</sup></u>   |
| MILEAGE         | <u>9.88 x 20 x</u> | <u>2.60</u>    | <u>514.<sup>12</sup></u>   |
| <b>TOTAL</b>    |                    |                | <u>4,638.<sup>03</sup></u> |

**REMARKS:**

- 1 50 slcs - 4010 ft
- 2 50 - 280
- 3 40 - 240
- 4 20 60
- RH 30
- RH 20
- Big down

**SERVICE**

|                   |                           |               |                          |
|-------------------|---------------------------|---------------|--------------------------|
| DEPTH OF JOB      | <u>4010</u>               |               |                          |
| PUMP TRUCK CHARGE | <u>2810.<sup>84</sup></u> |               |                          |
| EXTRA FOOTAGE     |                           | @             |                          |
| MILEAGE Hum       | <u>20</u>                 | @ <u>7.70</u> | <u>154.<sup>00</sup></u> |
| MANIFOLD          |                           | @             |                          |
| <u>Hum</u>        | <u>20</u>                 | @ <u>4.40</u> | <u>88.<sup>00</sup></u>  |
|                   |                           | @             |                          |

**TOTAL** 3,052.<sup>84</sup>

CHARGE TO: Yamco Energy Company  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

|              |  |   |       |
|--------------|--|---|-------|
|              |  | @ |       |
|              |  | @ |       |
|              |  | @ |       |
|              |  | @ |       |
|              |  | @ |       |
| <b>TOTAL</b> |  |   | _____ |

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

|                    |                            |
|--------------------|----------------------------|
| SALES TAX (If Any) | _____                      |
| TOTAL CHARGES      | <u>7,690.<sup>87</sup></u> |
| DISCOUNT           | <u>2,153.<sup>44</sup></u> |
|                    | <u>5,537.<sup>42</sup></u> |

IF PAID IN 30 DAYS

PRINTED NAME Mike Coffrey  
 SIGNATURE Mike Coffrey  
Thank you



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

August 15, 2013

Diane Rebstock  
Younger Energy Company  
9415 E. HARRY STREET, SUITE 403  
BUILDING 400  
WICHITA, KS 67207-5083

Re: ACO1  
API 15-145-21718-00-00  
Kelly 1-33  
SE/4 Sec.33-21S-15W  
Pawnee 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,  
Diane Rebstock