



1092746

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: <input type="checkbox"/> Yes <input type="checkbox"/> No |
|----------------|-------|---------|------------|---|

|   |  |
|---|--|
| Date of First, Resumed Production, SWD or ENHR. | Producing Method:<br><input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ |
|---|--|

| 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> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|--|---|

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Caerus Kansas LLC      |
| Well Name | Mortimer 31-41         |
| Doc ID    | 1092746                |

All Electric Logs Run

|                             |
|-----------------------------|
|                             |
| Dual Induction              |
| Microlog                    |
| Sonic Log                   |
| Compensated Density Neutron |

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Caerus Kansas LLC      |
| Well Name | Mortimer 31-41         |
| Doc ID    | 1092746                |

Perforations

| Shots Per Foot | Perforation Record | Material Record      | Depth     |
|----------------|--------------------|----------------------|-----------|
| 6              | 3376-3379          | 125 gal 20% mud acid | 3376-3379 |
| 6              | 3370-3374          | 125 gal 20% mud acid | 3370-3374 |
| 6              | 3286-3292          | 750 gal 20% mud acid | 3286-3292 |
| 6              | 3200-3204          | 750 gal 20% mud acid | 3200-3204 |
| 6              | 3184-3188          | 750 gal 20% mud acid | 3184-3188 |
| 6              | 3144-3146          | 250 gal 20% mud acid | 3144-3146 |
|                | CIBP set @ 3340'   |                      | 3340      |

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

Sam Brownback, Governor

September 05, 2012

Amy Lay  
Caerus Kansas LLC  
600 17TH ST, STE 1600 N  
DENVER, CO 80202

Re: ACO1  
API 15-009-25726-00-00  
Mortimer 31-41  
NE/4 Sec.31-17S-13W  
Barton 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,  
Amy Lay

|                              |                       |                               |
|------------------------------|-----------------------|-------------------------------|
| Customer<br>CAERUS Oper, LLC | Lease No.             | Date<br>7-31-12               |
| Lease<br>Mortimer            | Well #<br>31-41       |                               |
| Field Order #<br>06957A      | Station<br>Pratt # Ks | Casing<br>5 1/2"              |
| Type Job<br>5 1/2" L.S.      | Depth<br>3469         | County<br>Barton              |
|                              | Formation<br>LTD 3474 | State<br>Ks                   |
|                              |                       | Legal Description<br>31-17-13 |

| PIPE DATA             |              | PERFORATING DATA |    | FLUID USED |            | TREATMENT RESUME |       |                  |
|-----------------------|--------------|------------------|----|------------|------------|------------------|-------|------------------|
| Casing Size<br>5 1/2" | Tubing Size  | Shots/Ft         |    | Acid       |            | RATE             | PRESS | ISIP             |
| Depth<br>3469'        | Depth        | From             | To | Pre Pad    | Max        |                  |       | 5 Min.           |
| Volume<br>82          | Volume       | From             | To | Pad        | Min        |                  |       | 10 Min.          |
| Max Press #<br>1500   | Max Press    | From             | To | Frac       | Avg        |                  |       | 15 Min.          |
| Well Connection<br>PC | Annulus Vol. | From             | To |            | HHP Used   |                  |       | Annulus Pressure |
| Plug Depth<br>3475.48 | Packer Depth | From             | To | Flush      | Gas Volume |                  |       | Total Load       |

|   |                           |                  |       |
|---|---------------------------|------------------|-------|
| Customer Representative<br>Brian Karlin | Station Manager<br>Scotty | Treater<br>Allen |       |
| Service Units<br>2844                   | 27463                     | 19960            | 21010 |
| Driver Names<br>Allen                   | Steve                     | Steve            | Young |

| Time | Casing Pressure   | Tubing Pressure | Bbls. Pumped | Rate  | Service Log  |
|------|-------------------|-----------------|--------------|-------|--|
| 830  |                   |                 |              |       | on Loc. Discuss Safety, Setup Plan Job<br>Rig CIR. on Bottom w/ csg.<br>shoe JT 24 w/ float shoe<br>+ L.D. Insert in collar.<br>Basketow #2 cent- 4-6-8-10-12-14 |
| 1000 | 200 <sup>+</sup>  |                 | 12           | 5     | Pump 12 BBL mud Flush  |
|      |                   |                 | 5            | 5     | Pump 5 BBL H <sub>2</sub> O space-   |
|      |                   |                 |              | 5     | mix + Pump 150 SKS 60/40<br>POZ @ 15.2 #/gal   |
|      |                   |                 | 31 1/2       |       | Finish mix cmt<br>wash out Pump + Line<br>Drop Latch Down Plug.  |
|      |                   |                 |              | 6 1/2 | start disp   |
|      | 500 <sup>+</sup>  |                 |              | 5 1/2 | caught Lift PSI. 63 BBL  |
| 1030 | 1500 <sup>+</sup> |                 | 82           | 4 1/2 | Plug down<br>Release PSI TO TRK. OK  |
|      |                   |                 | 7            |       | Plug R.H. w/ 30 SKS 60/40  |
|      |                   |                 | 5            |       | Plug M.H w/ 20 SKS 60/40<br>wash up Equip + Rack up.   |
| 1130 |                   |                 |              |       | Job complete<br>+ thanks Allen, Steve, Steve   |



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 06551 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

| DATE OF JOB: 7-31-12 DISTRICT: KANSAS |     | NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.: |     |            |     |                            |         |    |    |          |
|---------------------------------------|-----|--|-----|------------|-----|----------------------------|---------|----|----|----------|
| CUSTOMER: CAERUS Operating LLC        |     | LEASE: Mortimer 31-41  |     | WELL NO.:  |     |                            |         |    |    |          |
| ADDRESS:                              |     | COUNTY: Barton 31-17-13 STATE: K.S.  |     |            |     |                            |         |    |    |          |
| CITY: STATE:                          |     | SERVICE CREW: Allen, Steve, Stevo Young  |     |            |     |                            |         |    |    |          |
| AUTHORIZED BY:                        |     | JOB TYPE: 5 1/2" L.S. <i>CHW</i>   |     |            |     |                            |         |    |    |          |
| EQUIPMENT#                            | HRS | EQUIPMENT#   | HRS | EQUIPMENT# | HRS | TRUCK CALLED               | DATE    | AM | PM | TIME     |
| 28443 P.U.                            | 2   |  |     |            |     |                            | 7-31-12 |    |    | 6:00     |
| 27463                                 | 2   |  |     |            |     | ARRIVED AT JOB             | 7-31-12 |    |    | 8:30     |
| 19960-21012                           | 2   |  |     |            |     | START OPERATION            | 7-31-12 |    |    | 8:30     |
|                                       |     |  |     |            |     | FINISH OPERATION           | 7-31-12 |    |    | 10:50    |
|                                       |     |  |     |            |     | RELEASED                   | 7-31-12 |    |    | 11:00    |
|                                       |     |  |     |            |     | MILES FROM STATION TO WELL |         |    |    | 65 miles |

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: \_\_\_\_\_  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

| ITEM/PRICE REF. NO. | MATERIAL, EQUIPMENT AND SERVICES USED | UNIT | QUANTITY | UNIT PRICE | \$ AMOUNT  |
|---------------------|---------------------------------------|------|----------|------------|------------|
| CP103               | 60/40 Poz                             | SK   | 150      |            | \$ 1800 00 |
| CP103               | 60/40 Poz                             | SK   | 50       |            | \$ 600 00  |
| CC111               | SALT                                  | lb   | 807      |            | \$ 403 50  |
| CC112               | Friction Reducer                      | lb   | 97       |            | \$ 587 00  |
| CC201               | Gilsonite                             | lb   | 250      |            | \$ 502 50  |
| CF607               | Latch Down Plug + Baffle 5 1/2" Blue  | EA   | 1        |            | \$ 400 00  |
| CF1251              | Auto Fill Float Shoe 5 1/2" Blue      | EA   | 1        |            | \$ 360 00  |
| CF1651              | Turbolizer 5 1/2" Blue                | EA   | 6        |            | \$ 660 00  |
| CF1901              | 5 1/2" Basket Blue                    | EA   | 1        |            | \$ 290 00  |
| CC151               | Mud Flush                             | gal  | 500      |            | \$ 420 00  |
| F100                | Unit mileage charge P.U.              | mi   | 65       |            | \$ 276 25  |
| F101                | Heavy Equip mileage                   | mi   | 130      |            | \$ 910 00  |
| F113                | Bulk Delivery Chg                     | EA   | 559      |            | \$ 894 00  |
| CF204               | Depth Chg. 3000-4000                  | 4-hr | 1        |            | \$ 2160 00 |
| CF240               | Blending & mixing Service chg         | SK   | 200      |            | \$ 280 00  |
| CF501               | esp sustiner Rental                   | EA   | 1        |            | \$ 200 00  |
| CF504               | PMc Container Utilization chg         | Job  | 1        |            | \$ 250 00  |
| 5003                | Service Supervisor first 8hrs         | EA   | 1        |            | \$ 175 00  |

SUB TOTAL  
DLS \$ 8,380.24

| CHEMICAL / ACID DATA: |  |  |  |
|-----------------------|--|--|--|
|                       |  |  |  |
|                       |  |  |  |
|                       |  |  |  |

|                     |            |  |
|---------------------|------------|--|
| SERVICE & EQUIPMENT | %TAX ON \$ |  |
| MATERIALS           | %TAX ON \$ |  |
| TOTAL               |            |  |

|  |  |
|--|--|
| SERVICE REPRESENTATIVE: <i>Allen F. Ward</i> | THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>Brian Kaler</i> |
| (WELL OWNER OPERATOR CONTRACTOR OR AGENT)    |  |

FIELD SERVICE ORDER NO.

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 922

Cell 785-324-1041

|                                   |                       |          |            |            |  |  |    |        |        |       |    |             |                             |        |         |
|-----------------------------------|-----------------------|----------|------------|------------|--|--|----|--------|--------|-------|----|-------------|-----------------------------|--------|---------|
| Date                              | 7-24-12               | Sec.     | 31         | Twp.       | 17   | Range  | 13 | County | Barton | State | Ks | On Location |                             | Finish | 9:30 PM |
| Lease                             | Mortimer              | Well No. | 31-41      |            |  | Location Hoisington, Ks - w on K-4, past   |    |        |        |       |    |             |                             |        |         |
| Contractor                        | Maverick #106         |          |            |            | Owner 1st Curve, w into.   |  |    |        |        |       |    |             |                             |        |         |
| Type Job                          | Surface               |          |            |            | To Quality Oilwell Cementing, Inc.<br>You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |  |    |        |        |       |    |             |                             |        |         |
| Hole Size                         | 12 1/4"               |          | T.D.       | 852'       |  |  |    |        |        |       |    |             |                             |        |         |
| Csg.                              | 8 5/8"                |          | Depth      | 852'       |  |  |    |        |        |       |    |             |                             |        |         |
| Tbg. Size                         |                       |          | Depth      |            |  |  |    |        |        |       |    |             |                             |        |         |
| Tool                              |                       |          | Depth      |            |  |  |    |        |        |       |    |             |                             |        |         |
| Cement Left in Csg.               | 32'                   |          | Shoe Joint | 32'        |  | The above was done to satisfaction and supervision of owner agent or contractor. |    |        |        |       |    |             |                             |        |         |
| Meas Line                         |                       |          | Displace   | 52 1/4 BLS |  | Cement Amount Ordered 325 5X Common 3%cc   |    |        |        |       |    |             |                             |        |         |
| <b>EQUIPMENT</b>                  |                       |          |            |            |  |  |    |        |        |       |    |             | 2% Gel                      |        |         |
| Pumptrk                           | 16                    | No.      | Cementer   | Troy       |  |  |    |        |        |       |    |             |                             |        |         |
|                                   |                       |          | Helper     |            |  |  |    |        |        |       |    |             |                             |        |         |
| Bulktrk                           | 13                    | No.      | Driver     | Levi       |  |  |    |        |        |       |    |             |                             |        |         |
|                                   |                       |          | Driver     |            |  |  |    |        |        |       |    |             |                             |        |         |
| Bulktrk                           | pin                   | No.      | Driver     | Rick       |  |  |    |        |        |       |    |             |                             |        |         |
|                                   |                       |          | Driver     |            |  |  |    |        |        |       |    |             |                             |        |         |
| <b>JOB SERVICES &amp; REMARKS</b> |                       |          |            |            |  |  |    |        |        |       |    |             | Common 325                  |        |         |
| Remarks:                          | Cement did Circulate. |          |            |            |  |  |    |        |        |       |    |             | Poz. Mix 18                 |        |         |
| Rat Hole                          |                       |          |            |            |  |  |    |        |        |       |    |             | Gel. 6                      |        |         |
| Mouse Hole                        |                       |          |            |            |  |  |    |        |        |       |    |             | Calclum 12                  |        |         |
| Centralizers                      |                       |          |            |            |  |  |    |        |        |       |    |             | Hulls                       |        |         |
| Baskets                           |                       |          |            |            |  |  |    |        |        |       |    |             | Salt                        |        |         |
| D/V or Port Collar                |                       |          |            |            |  |  |    |        |        |       |    |             | Flowseal                    |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Kol-Seal                    |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Mud CLR 48                  |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | CFL-117 or CD110 CAF 38     |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Sand                        |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Handling 34/3               |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Mileage                     |        |         |
| <b>FLOAT EQUIPMENT</b>            |                       |          |            |            |  |  |    |        |        |       |    |             |                             |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Guide Shoe                  |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Centralizer                 |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Baskets                     |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | AFU Inserts                 |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Float Shoe                  |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Latch Down                  |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | 1- Baffle plate             |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | 1- Rubber plug              |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Pumptrk Charge Long Surface |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Mileage 14                  |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Tax                         |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Discount                    |        |         |
|                                   |                       |          |            |            |  |  |    |        |        |       |    |             | Total Charge                |        |         |
| X Signature                       | Bud E. Farmer         |          |            |            |  |  |    |        |        |       |    |             |                             |        |         |





## DRILL STEM TEST REPORT

Prepared For: **Caerus Ks. LLC**

P.O.Box 1378  
Hays Ks.67601

ATTN: Justin Carter

**Mortimer#31-41**

**31-17s-13w Barton Ks**

Start Date: 2012.07.27 @ 20:49:17

End Date: 2012.07.28 @ 06:36:02

Job Ticket #: 47586                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.07.28 @ 06:54:51



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks. 67601

**Mortimer#31-41**

Job Ticket: 47586

**DST#: 1**

ATTN: Justin Carter

Test Start: 2012.07.27 @ 20:49:17

## GENERAL INFORMATION:

Formation: **Lans A - F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:50:02

Time Test Ended: 06:36:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3130.00 ft (KB) To 3207.00 ft (KB) (TVD)**

Reference Elevations: 1880.00 ft (KB)

Total Depth: 3207.00 ft (KB) (TVD)

1870.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8352 Outside**

Press @ Run Depth: 166.46 psig @ 3131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.27

End Date:

2012.07.28

Last Calib.:

2012.07.28

Start Time: 20:49:22

End Time:

06:36:02

Time On Btm:

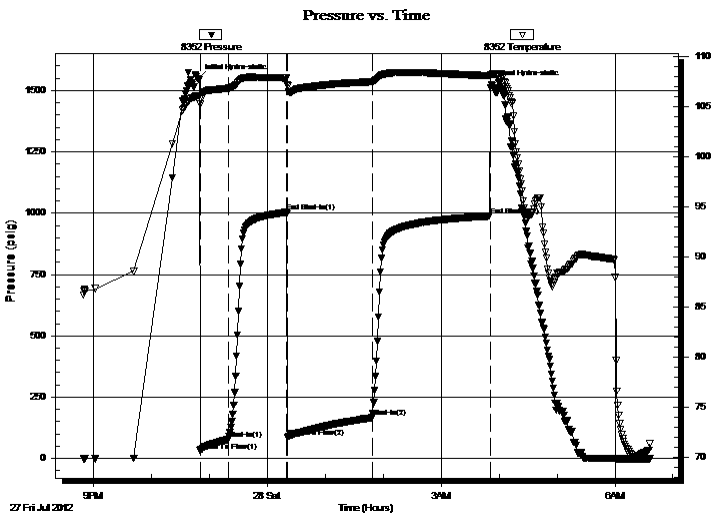
2012.07.27 @ 22:48:17

Time Off Btm:

2012.07.28 @ 03:52:02

**TEST COMMENT:** IF: Strong blow . B.O.B. in 4 mins.  
IS: No blow .  
FF: Strong blow . B.O.B. in 90 secs.  
FS: Weak blow . 1 - 5 1/2". GTS w hen bleeding off blow in FSIP.

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1547.00         | 106.07       | Initial Hydro-static |
| 2           | 30.77           | 105.22       | Open To Flow (1)     |
| 31          | 77.46           | 106.80       | Shut-In(1)           |
| 92          | 1003.50         | 107.81       | End Shut-In(1)       |
| 93          | 84.31           | 107.18       | Open To Flow (2)     |
| 181         | 166.46          | 107.45       | Shut-In(2)           |
| 303         | 987.89          | 108.05       | End Shut-In(2)       |
| 304         | 1525.37         | 108.18       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 115.00      | CGO 12%g 88%o       | 1.61         |
| 125.00      | GMCO 15%g 41%m 44%o | 1.75         |
| 150.00      | GOCM 20%g 28%o 52%m | 2.10         |
|             |                     |              |
|             |                     |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47586

**DST#: 1**

ATTN: Justin Carter

Test Start: 2012.07.27 @ 20:49:17

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35.4 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbl |
|--------------|---------------------|---------------|
| 115.00       | CGO 12%g 88%o       | 1.613         |
| 125.00       | GMCO 15%g 41%m 44%o | 1.753         |
| 150.00       | GOCM 20%g 28%o 52%m | 2.104         |

Total Length: 390.00 ft

Total Volume: 5.470 bbl

Num Fluid Samples: 0

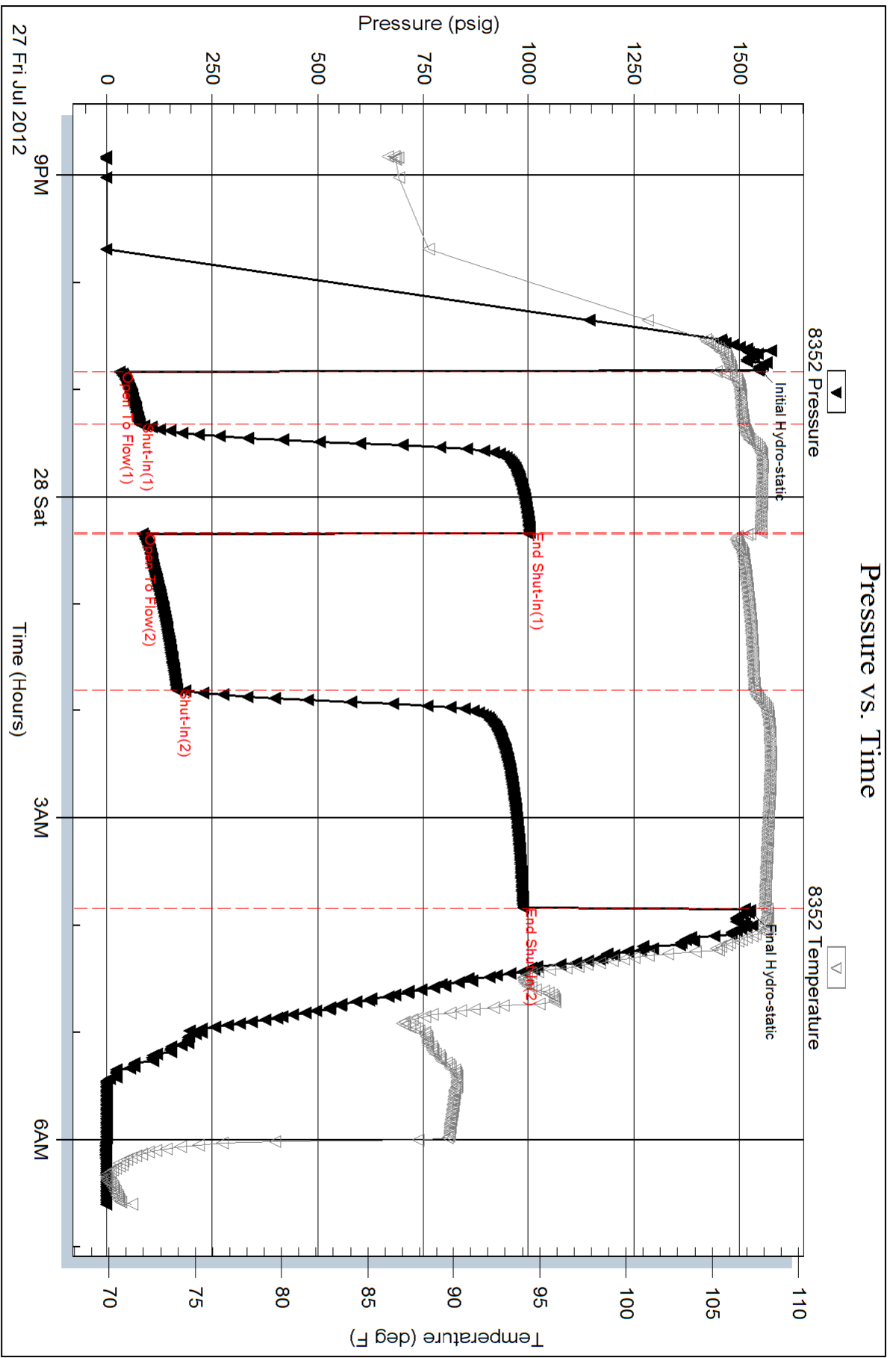
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47587

**DST#: 2**

ATTN: Justin Carter

Test Start: 2012.07.28 @ 20:35:34

## GENERAL INFORMATION:

Formation: **L/KC I - K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:19:34

Time Test Ended: 04:04:34

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3272.00 ft (KB) To 3334.00 ft (KB) (TVD)**

Reference Elevations: 1880.00 ft (KB)

Total Depth: 3334.00 ft (KB) (TVD)

1870.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8352 Outside**

Press @ Run Depth: 33.37 psig @ 3273.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.28

End Date:

2012.07.29

Last Calib.:

2012.07.29

Start Time: 20:35:39

End Time:

04:04:33

Time On Btm:

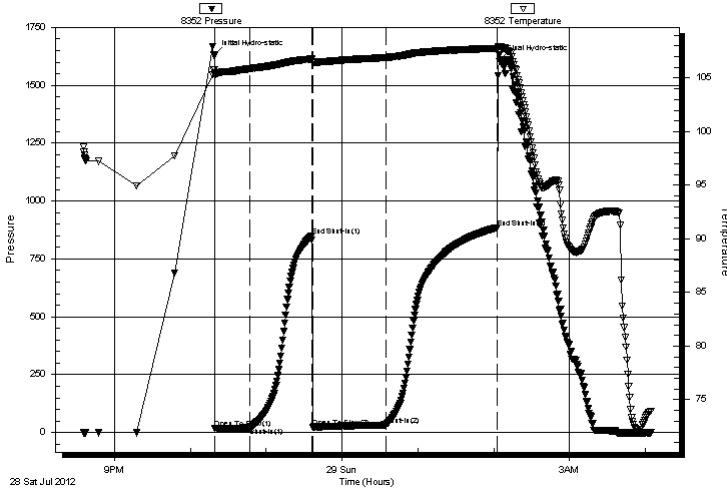
2012.07.28 @ 22:19:19

Time Off Btm:

2012.07.29 @ 02:05:04

**TEST COMMENT:** IF:Weak to fair blow . Increase to 6".  
IS:No blow .  
FF:Fair to strong blow .B.O.B. in 12 mins.  
FS:No blow .

Pressure vs. Time



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1632.05         | 105.82       | Initial Hydro-static |
| 1           | 17.58           | 105.27       | Open To Flow (1)     |
| 28          | 20.48           | 105.86       | Shut-In(1)           |
| 77          | 849.28          | 106.77       | End Shut-In(1)       |
| 78          | 21.42           | 106.48       | Open To Flow (2)     |
| 136         | 33.37           | 106.92       | Shut-In(2)           |
| 224         | 885.44          | 107.77       | End Shut-In(2)       |
| 226         | 1610.77         | 107.92       | Final Hydro-static   |

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 0.00        | 425 ft.of GIP       | 0.00         |
| 25.00       | CGO 10%g 90%o       | 0.35         |
| 30.00       | GOCM 17%g 24%o 59%m | 0.42         |
|             |                     |              |
|             |                     |              |

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47587

**DST#: 2**

ATTN: Justin Carter

Test Start: 2012.07.28 @ 20:35:34

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description         | Volume<br>bbbl |
|--------------|---------------------|----------------|
| 0.00         | 425 ft.of GIP       | 0.000          |
| 25.00        | CGO 10%g 90%o       | 0.351          |
| 30.00        | GOCM 17%g 24%o 59%m | 0.421          |

Total Length: 55.00 ft

Total Volume: 0.772 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

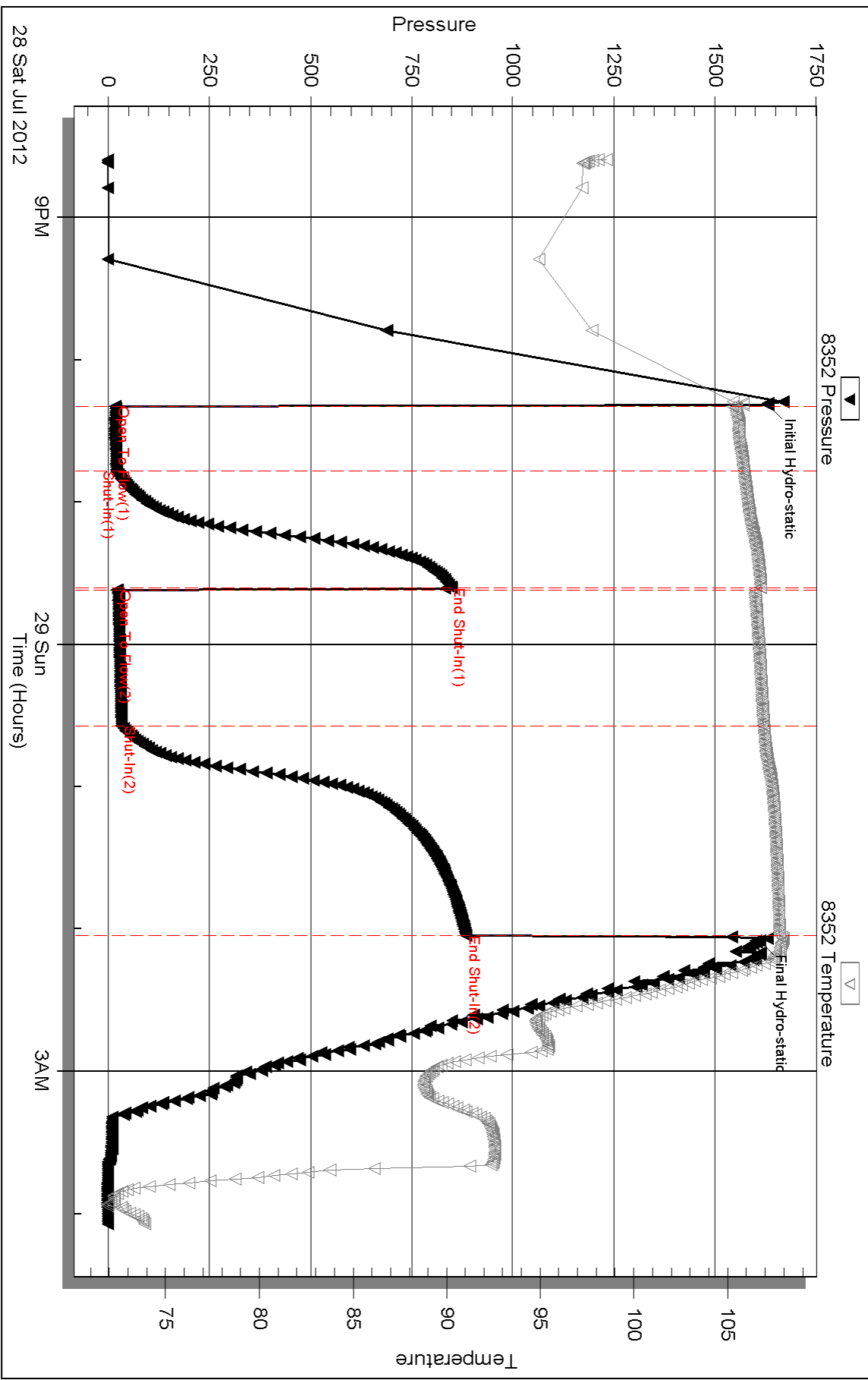
Serial #: 8352

Outside Caerus Ks. LLC

Mortimer#31-41

DST Test Number: 2

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 47587

Printed: 2012.07.30 @ 09:07:38



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47587

**DST#: 3**

ATTN: Justin Carter

Test Start: 2012.07.29 @ 15:14:35

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:48:20

Time Test Ended: 22:39:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3330.00 ft (KB) To 3388.00 ft (KB) (TVD)**

Reference Elevations: 1880.00 ft (KB)

Total Depth: 3388.00 ft (KB) (TVD)

1870.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8352 Outside**

Press @ Run Depth: 44.63 psig @ 3331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.29

End Date: 2012.07.29

Last Calib.: 2012.07.29

Start Time: 15:14:40

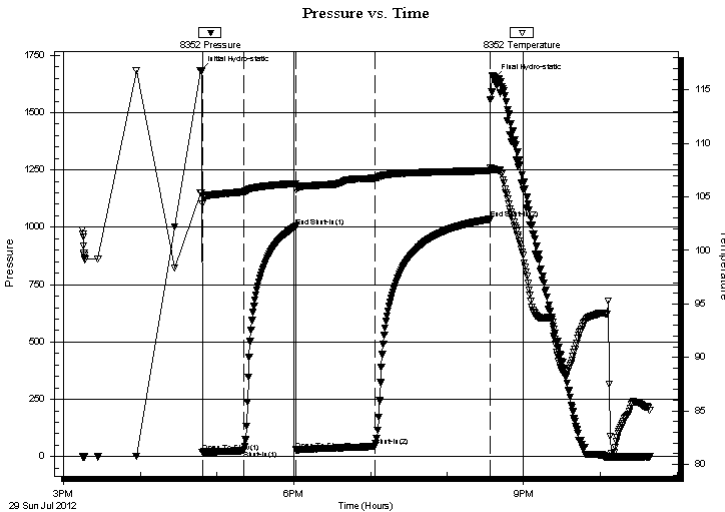
End Time: 22:39:04

Time On Btm: 2012.07.29 @ 16:47:05

Time Off Btm: 2012.07.29 @ 20:36:35

**TEST COMMENT:** IF:Weak blow . 1/4 - 1 1/4".  
IS:No blow .  
FF:Weak blow . 1/4 - 1 1/4".  
FS:No blow .

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1682.48         | 105.39       | Initial Hydro-static |
| 2           | 19.08           | 104.38       | Open To Flow (1)     |
| 34          | 27.07           | 105.48       | Shut-In(1)           |
| 75          | 1003.65         | 106.26       | End Shut-In(1)       |
| 75          | 28.94           | 105.70       | Open To Flow (2)     |
| 137         | 44.63           | 106.75       | Shut-In(2)           |
| 227         | 1035.44         | 107.46       | End Shut-In(2)       |
| 230         | 1649.89         | 107.57       | Final Hydro-static   |

## Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 8.00        | CO            | 0.11         |
| 56.00       | OCM 15%o 85%m | 0.79         |
|             |               |              |
|             |               |              |
|             |               |              |

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47587

**DST#: 3**

ATTN: Justin Carter

Test Start: 2012.07.29 @ 15:14:35

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

6000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbbl |
|--------------|---------------|----------------|
| 8.00         | CO            | 0.112          |
| 56.00        | OCM 15%o 85%m | 0.786          |

Total Length: 64.00 ft

Total Volume: 0.898 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

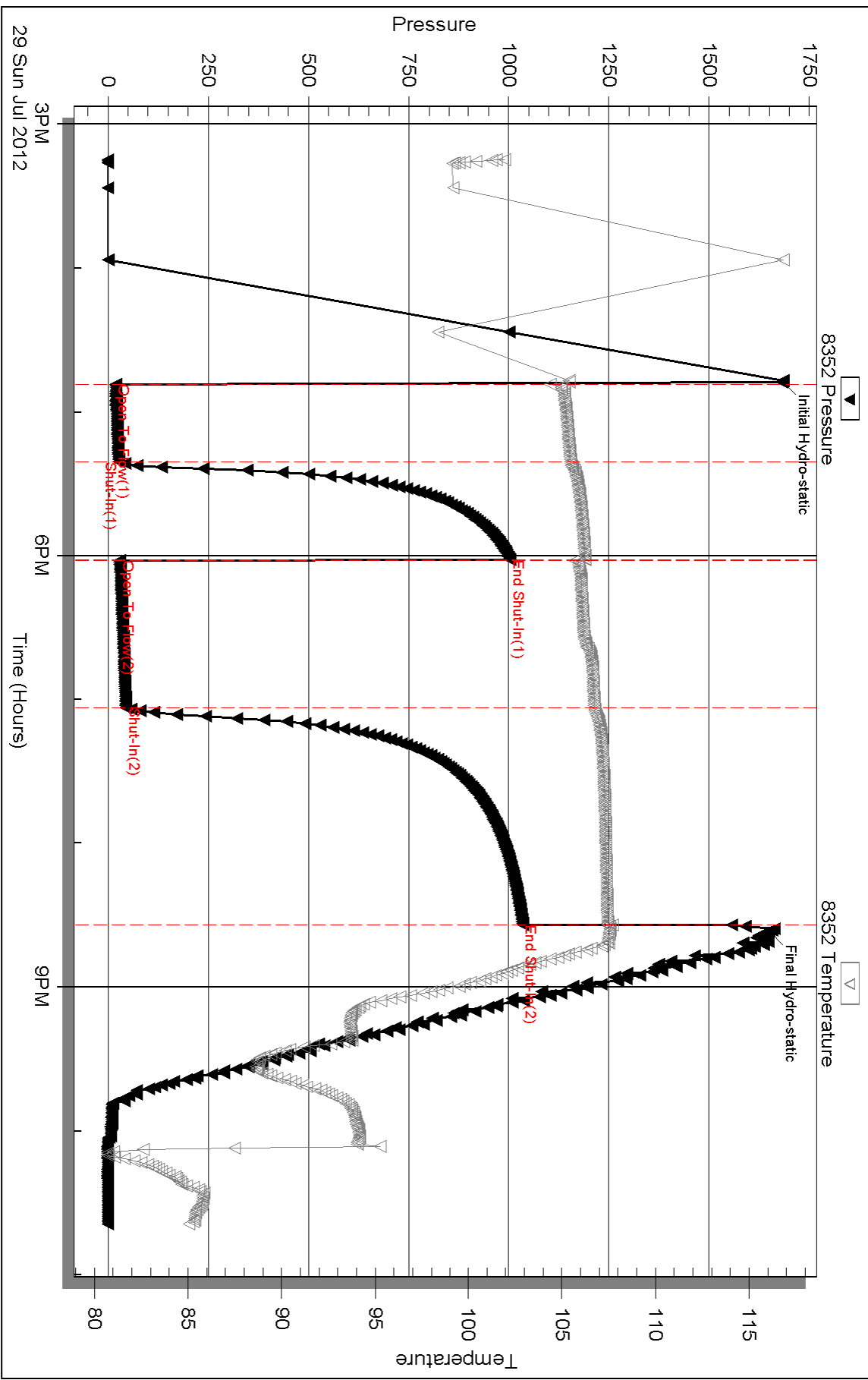
Serial #: 8352

Outside Caerus Ks. LLC

Mortimer#31-41

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 47587

Printed: 2012.07.30 @ 09:06:09



## DRILL STEM TEST REPORT

Prepared For: **Caerus Ks. LLC**

P.O.Box 1378  
Hays Ks.67601

ATTN: Justin Carter

**Mortimer#31-41**

**31-17s-13w Barton Ks**

Start Date: 2012.07.30 @ 03:58:58

End Date: 2012.07.30 @ 11:12:58

Job Ticket #: 47588                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.07.30 @ 11:25:50



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47588

**DST#: 4**

ATTN: Justin Carter

Test Start: 2012.07.30 @ 03:58:58

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:35:13

Time Test Ended: 11:12:58

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 3388.00 ft (KB) To 3398.00 ft (KB) (TVD)**

Reference Elevations: 1880.00 ft (KB)

Total Depth: 3398.00 ft (KB) (TVD)

1870.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8352 Outside**

Press @ RunDepth: 43.64 psig @ 3389.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.30

End Date:

2012.07.30

Last Calib.:

2012.07.30

Start Time:

03:59:03

End Time:

11:12:57

Time On Btm:

2012.07.30 @ 05:33:58

Time Off Btm:

2012.07.30 @ 09:22:43

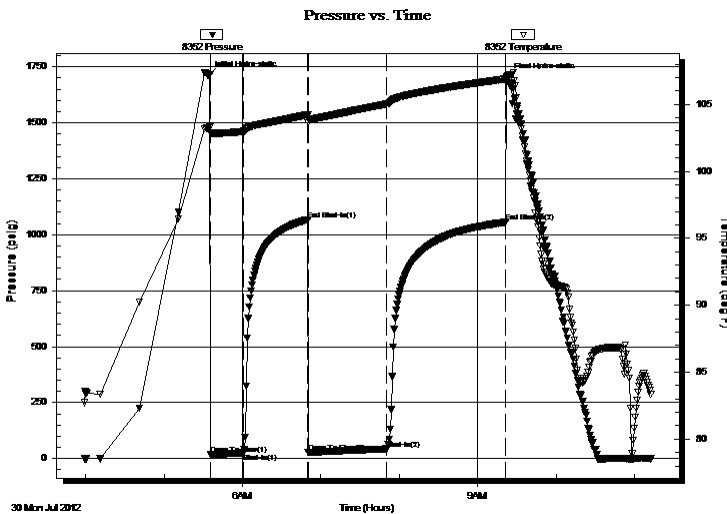
TEST COMMENT: IF:Weak blow . 1/4 - 1".

IS:No blow .

FF:Weak blow . 1/4 - 1/2".

FS:No blow .

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1711.56         | 103.26       | Initial Hydro-static |
| 2           | 18.79           | 102.85       | Open To Flow (1)     |
| 27          | 25.70           | 102.98       | Shut-In(1)           |
| 76          | 1066.95         | 104.24       | End Shut-In(1)       |
| 77          | 27.22           | 103.66       | Open To Flow (2)     |
| 137         | 43.64           | 105.04       | Shut-In(2)           |
| 228         | 1055.71         | 106.90       | End Shut-In(2)       |
| 229         | 1698.87         | 107.12       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                      | Volume (bbl) |
|-------------|----------------------------------|--------------|
| 1.00        | Clean oil                        | 0.01         |
| 60.00       | MW 9% m 91% w /Rw .14ohms @88deg | 0.84         |
|             |                                  |              |
|             |                                  |              |
|             |                                  |              |

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Caerus Ks. LLC

**31-17s-13w Barton Ks**

P.O.Box 1378  
Hays Ks.67601

**Mortimer#31-41**

Job Ticket: 47588

**DST#: 4**

ATTN: Justin Carter

Test Start: 2012.07.30 @ 03:58:58

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6800.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description                    | Volume<br>bbbl |
|--------------|--------------------------------|----------------|
| 1.00         | Clean oil                      | 0.014          |
| 60.00        | MW 9%m 91%w /Rw .14ohms @88deg | 0.842          |

Total Length: 61.00 ft

Total Volume: 0.856 bbl

Num Fluid Samples: 0

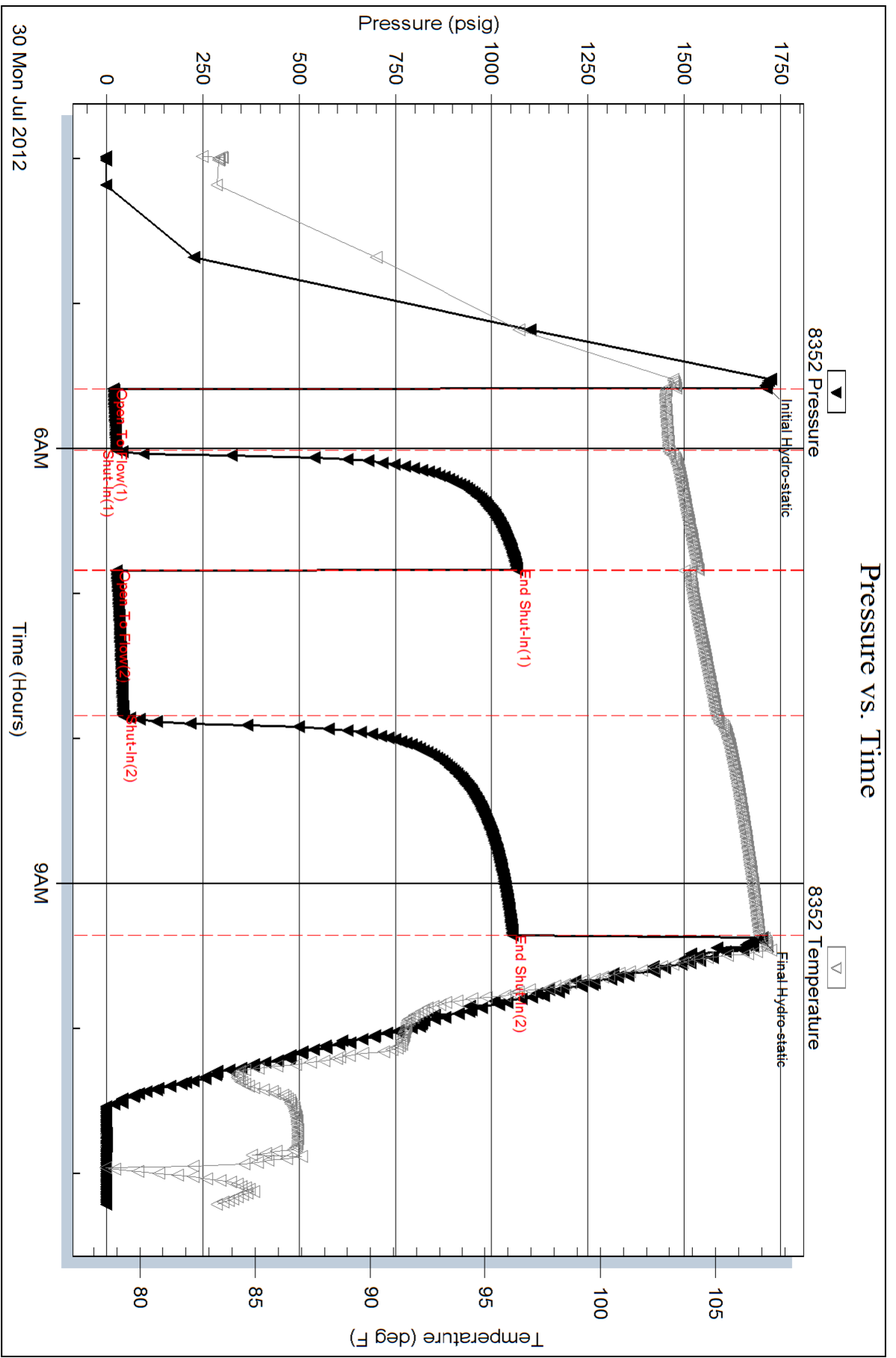
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8370

Inside

Caerus Ks. LLC

Mortimer#31-41

DST Test Number: 4

