

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1234288  
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: \_\_\_\_\_

1234288

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

| 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      |                  |                |              |                            |
| <input type="checkbox"/> Protect Casing |                  |                |              |                            |
| <input type="checkbox"/> Plug Back TD   |                  |                |              |                            |
| <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> <i>(Submit ACO-4)</i><br><input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|---|---|

|           |                         |
|-----------|-------------------------|
| Form      | ACO1 - Well Completion  |
| Operator  | Outlaw Well Service LLC |
| Well Name | Schindler 1W            |
| Doc ID    | 1234288                 |

Tops

| Name          | Top  | Datum |
|---------------|------|-------|
| ANHYDRITE     | 1250 | +612  |
| TOPEKA        | 2775 | -913  |
| HEEBNER SHALE | 2988 | -1126 |
| TORONTO       | 3006 | -1144 |
| LKC           | 3028 | -1166 |
| BKC           | 3254 | -1392 |
| ARBUCKLE      | 3300 | -1438 |
| RTD           | 3371 | -1509 |



# GLOBAL CEMENTING, L.L.C.

1539

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell, CG

|  |                |               |                 |                    |                 |           |            |
|--|----------------|---------------|-----------------|--------------------|-----------------|-----------|------------|
| DATE <u>11-23-14</u>                             | SEC. <u>17</u> | TWP. <u>8</u> | RANGE <u>17</u> | CALLED OUT         | ON LOCATION     | JOB START | JOB FINISH |
| LEASE <u>Schindler</u> WELL #. <u>1</u> LOCATION |                |               |                 | COUNTY <u>ROCK</u> | STATE <u>KS</u> |           |            |
| OLD OR <u>(NEW)</u> (CIRCLE ONE)                 |                |               |                 |                    |                 |           |            |

CONTRACTOR White Knight  
 TYPE OF JOB Long Surface  
 HOLE SIZE 12 1/4 T.D. 1258  
 CASING SIZE 8 5/8 DEPTH 1250  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX 600psi MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 255t  
 PERFS  
 DISPLACEMENT 7 7/8  
 EQUIPMENT  
 PUMP TRUCK CEMENTER Heath  
 # P1 HELPER Brad  
 BULK TRUCK  
 # B1 DRIVER Bud  
 BULK TRUCK  
 # DRIVER

OWNER  
 CEMENT AMOUNT ORDERED 425 SK com 3% CC  
200 gel  
 COMMON @  
 POZMIX @  
 GEL @  
 CHLORIDE @  
 ASC @  
 HANDLING @  
 MILEAGE @  
 TOTAL

REMARKS:  
Ran 32 jts of 8 5/8 casing and landing  
It - est circulation - Hobe up and md  
425sk - shut down released plug and  
disp 7 7/8 bbl of H2O - Plug landed @  
600psi - shut in

Cement did circulate!

CHARGE TO: Outlaw Well Serv  
 STREET 1408 West 42nd  
 CITY Hays STATE KS ZIP

Global Cementing, L.L.C.,  
 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  
 SIGNATURE Terry Austin

SERVICE  
 DEPTH OF JOB  
 PUMP TRUCK CHARGE  
 EXTRA FOOTAGE @  
 MILEAGE 29 @  
 MANIFOLD @  
 TOTAL

PLUG & FLOAT EQUIPMENT  
3-Cent @  
1-basket @  
1-half float @  
1-Rubber Plug @  
 TOTAL

SALES TAX (If Any)  
 TOTAL CHARGES  
 DISCOUNT IF PAID IN 30 DAYS

# GLOBAL CEMENTING, L.L.C.

1523

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell KS

|                                |                   |          |       |            |                     |                 |            |
|--------------------------------|-------------------|----------|-------|------------|---------------------|-----------------|------------|
| DATE <u>11-28-14</u>           | SEC.              | TWP.     | RANGE | CALLED OUT | ON LOCATION         | JOB START       | JOB FINISH |
| LEASE <u>Schindler</u>         | WELL #. <u>1W</u> | LOCATION |       |            | COUNTY <u>Rooks</u> | STATE <u>KS</u> |            |
| OLD OR <u>NEW</u> (CIRCLE ONE) |                   |          |       |            |                     |                 |            |

CONTRACTOR White Knight Drilling Rig # 1  
 TYPE OF JOB Plug  
 HOLE SIZE 2 7/8 T.D. 3271 ft  
 CASING SIZE 4 1/2 DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS  
 DISPLACEMENT

OWNER  
 CEMENT AMOUNT ORDERED 240sks 60/40 Pbz  
9/16 gel 1/4 Flow Seal

EQUIPMENT  
 PUMP TRUCK CEMENTER Cody  
 # P1 HELPER Brod  
 BULK TRUCK DRIVER Budd  
 # B3  
 BULK TRUCK DRIVER

|          |   |       |
|----------|---|-------|
| COMMON   | @ |       |
| POZMIX   | @ |       |
| GEL      | @ |       |
| CHLORIDE | @ |       |
| ASC      | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
|          | @ |       |
| HANDLING | @ |       |
| MILEAGE  |   |       |
|          |   | TOTAL |

REMARKS:  
3271 50sks  
1300 50sks  
690- 100sks  
Center 40ft 10sks wiper plug  
RH 30sks

SERVICE  
 DEPTH OF JOB  
 PUMP TRUCK CHARGE  
 EXTRA FOOTAGE @  
 MILEAGE 29 @  
 MANIFOLD @  
 @  
 @  
 TOTAL

CHARGE TO: Outlaw Well Service  
 STREET  
 CITY STATE ZIP

PLUG & FLOAT EQUIPMENT  
8 5/8 Dry hole Plug @  
 @  
 @  
 @  
 @  
 TOTAL

Global Cementing, L.L.C.,  
 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 Lang Chad  
 SIGNATURE

SALES TAX (If Any)  
 TOTAL CHARGES  
 DISCOUNT IF PAID IN 30 DAYS

**OPERATOR**

Company: OUTLAW WELL SERVICE, LLC  
 Address: 1408 WEST 42ND  
 HAYS, KANSAS  
 67601  
 Contact Geologist: PRESTON WOLF  
 Contact Phone Nbr: 785-650-2399  
 Well Name: SCHINDLER #1W  
 Location: SW NW NE NW S17 T8S R17W  
 API: 15-163-24269-00-00  
 Pool: \_\_\_\_\_  
 State: KANSAS  
 Field: DOPITA  
 Country: USA

## Scale 1:240 Imperial

Well Name: SCHINDLER #1W  
 Surface Location: SW NW NE NW S17 T8S R17W  
 Bottom Location: \_\_\_\_\_  
 API: 15-163-24269-00-00  
 License Number: 34272  
 Spud Date: 11/21/2014 Time: 5:02 PM  
 Region: ROOKS COUNTY  
 Drilling Completed: 11/27/2014 Time: 5:30 AM  
 Surface Coordinates: 360 FNL & 1543 FWL  
 Bottom Hole Coordinates: \_\_\_\_\_  
 Ground Elevation: 1857.00ft  
 K.B. Elevation: 1862.00ft  
 Logged Interval: 2700.00ft To: 3370.00ft  
 Total Depth: 3370.00ft  
 Formation: ARBUCKLE  
 Drilling Fluid Type: CHEMICAL / FRESH WATER GEL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -99.2443983  
 Latitude: 39.3638784  
 N/S Co-ord: 360 FNL  
 E/W Co-ord: 1543 FWL

**LOGGED BY**

Company: SOLUTIONS CONSULTING, INC.  
 Address: 108 WEST 35TH  
 HAYS, KANSAS 67601  
 Phone Nbr: 785-650-4540 / 785-639-1337  
 Logged By: GEOLOGIST Name: STEVE REED

**CONTRACTOR**

Contractor: WHITE KNIGHT DRILLING  
 Rig #: 1  
 Rig Type: MUD ROTARY  
 Spud Date: 11/21/2014 Time: 5:02 PM  
 TD Date: 11/27/2014 Time: 5:30 AM  
 Rig Release: 11/28/2014 Time: 2:00 AM

**ELEVATIONS**

K.B. Elevation: 1862.00ft Ground Elevation: 1857.00ft  
 K.B. to Ground: 5.00ft

**NOTES**

BASED ON LACK OF SIGNIFICANT SHOWS, RESULTS OF DST #2, AND LOG ANALYSIS, THE DECISION WAS MADE TO PLUG AND ABANDON THE SCHINDLER #1W.

OPEN HOLE LOGGING PROVIDED BY: PIONEER ENGERGY SERVICES  
 DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG, AND MICRORESISTIVITY LOGS  
 WERE COMPLETED

DRILL STEM TESTING PROVIDED BY: TRILOBITE TESTING  
 TWO (2) STRADDLE TESTS WERE COMPLETED

**FORMATION TOPS COMPARISON AND DAILY ACTIVITY SUMMARY**


|                      | WELL NAME         |                | COMPARISON WELL   | COMPARISON WELL   |
|----------------------|-------------------|----------------|-------------------|-------------------|
|                      | SCHINDLER #1W     |                | SCHINDLER A#1     | RAY SCHINDLER #6  |
|                      | API: 15-163-24269 |                | API: 15-163-19109 | API: 15-163-23893 |
|                      | 1862 KB           |                | 1862 RB           | 1882 KB           |
| FORMATION            | SAMPLE TOPS       | LOG TOPS       | LOG TOPS (DATUM)  | LOG TOPS (DATUM)  |
| <b>ANHYDRITE TOP</b> | 1245' (+617')     | 1250' (+612')  | NA                | NA                |
| <b>TOPEKA</b>        | 2775' (-913')     | 2775' (-913')  | -908'             | -910'             |
| <b>HEEBNER</b>       | 2988' (-1126')    | 2988' (-1126') | -1118'            | -1120'            |
| <b>TORONTO</b>       | 3009' (-1147')    | 3006' (-1144') | -1141'            | -1142'            |
| <b>LKC</b>           | 3029' (-1167')    | 3028' (-1166') | -1161'            | -1162'            |
| <b>BKC</b>           | 3254' (-1392')    | 3254' (-1392') | -1390'            | -1388'            |
| <b>ARBUCKLE</b>      | 3296' (-1434')    | 3300' (-1438') | -1438'            | -1426'            |
| <b>RTD</b>           | 3370' (-1508')    | 3371' (-1509') | -1483'            | -1466'            |

**SUMMARY OF DAILY ACTIVITY**

- 11-19-14** M.I.R.U.
- 11-20-14** scrub rig, safety meeting
- 11-21-14** spud, drill to 477, work on rotary sprocket
- 11-22-14** 477, drilling
- 11-23-14** 1045, 8 5/8" surface casing set at 1258.03 w/425 sxs common, 2% gel, 3% cc, plug down @ 5:00pm, WOC, drilling
- 11-24-14** 1315, drilling
- 11-25-14** 2361, drilling, displace @ 2706, TOWB for hole in pipe, CFS @ 2960
- 11-26-14** 3014, drilling, CFS @ 3075, CFS @ 3138, CFS @ 3238, CFS @ 3306, CFS @ 3316, TD of 3370 reached @ 5:30am, CFS
- 11-27-14** 3370, short trip, CTCH, TOWB for logs, strap .02 long to board, survey 3/4°, logging, DST #1 3116-3162, misrun (bottom packer failure), DST #2 3116-3134, prepare for plugging
- 11-28-14** plugging, release rig



## DST #1 SUMMARY

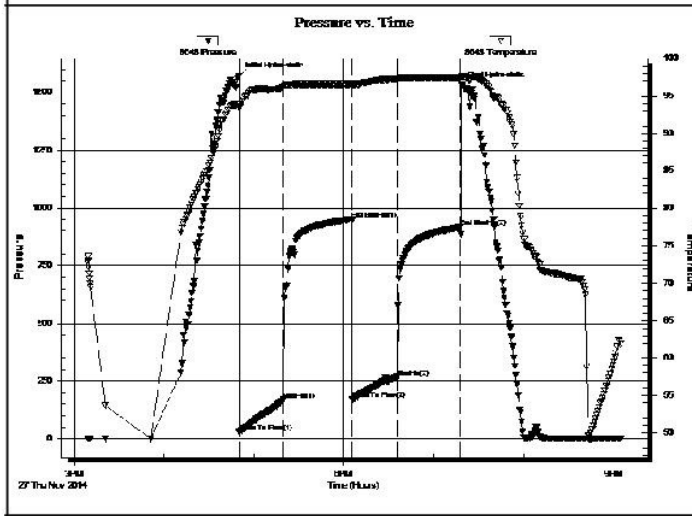
|  |   |  |
|--|---|--|
|  <b>TRILOBITE TESTING, INC.</b> | <b>DRILL STEM TEST REPORT</b>   |  |
|  | Outlaw Well Service LLC<br><br>1408 West 42nd<br>Hays KS, 67601<br><br>ATTN: Steve Reed | <b>17-8s-17w Rooks KS</b><br><br><b>Schindler 1W</b><br>Job Ticket: 60643 <b>DST#:1</b><br><br>Test Start: 2014.11.27 @ 15:09:00 |

**GENERAL INFORMATION:**

|   |  |
|---|--|
| Formation: <b>G Zone</b>                                  | Test Type: Conventional Straddle (Initial) |
| Deviated: No Whipstock:      ft (KB)                      | Tester: Cody Bloedorn                      |
| Time Tool Opened: 16:50:15                                | Unit No: 73                                |
| Time Test Ended: 21:05:00                                 |  |
| <b>Interval: 3116.00 ft (KB) To 3162.00 ft (KB) (TVD)</b> | Reference Elevations: 1853.00 ft (KB)      |
| Total Depth: 3370.00 ft (KB) (TVD)                        | 1848.00 ft (CF)                            |
| Hole Diameter: 7.88 inches Hole Condition: Fair           | KB to GR/CF: 5.00 ft                       |

|  |                                     |
|--|-------------------------------------|
| <b>Serial #: 8648</b> <b>Inside</b>              | Capacity: 8000.00 psig              |
| Press@RunDepth: 265.85 psig @ 3120.00 ft (KB)    | Last Calib.: 2014.11.27             |
| Start Date: 2014.11.27      End Date: 2014.11.27 | Time On Btm: 2014.11.27 @ 16:50:00  |
| Start Time: 15:09:05      End Time: 21:04:59     | Time Off Btm: 2014.11.27 @ 19:18:15 |

**TEST COMMENT:** 30 - IF- B.O.B. in 7 minutes  
 45 - IS- No return  
 30 - FF- B.O.B. in 8 minutes  
 45 - FS- No return

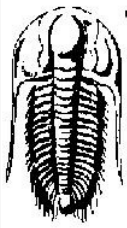


| PRESSURE SUMMARY |                 |              |                      |
|------------------|-----------------|--------------|----------------------|
| Time (Min.)      | Pressure (psig) | Temp (deg F) | Annotation           |
| 0                | 1569.99         | 93.94        | Initial Hydro-static |
| 1                | 27.92           | 93.40        | Open To Flow (1)     |
| 30               | 169.46          | 96.17        | Shut-In(1)           |
| 75               | 950.98          | 96.57        | End Shut-In(1)       |
| 76               | 170.93          | 96.31        | Open To Flow (2)     |
| 106              | 265.85          | 97.23        | Shut-In(2)           |
| 148              | 917.01          | 97.41        | End Shut-In(2)       |
| 149              | 1530.76         | 97.63        | Final Hydro-static   |

| Recovery    |             |              |
|-------------|-------------|--------------|
| Length (ft) | Description | Volume (bbl) |
| 496.00      | Mud, 100%M  | 6.96         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

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

## DST #2 SUMMARY

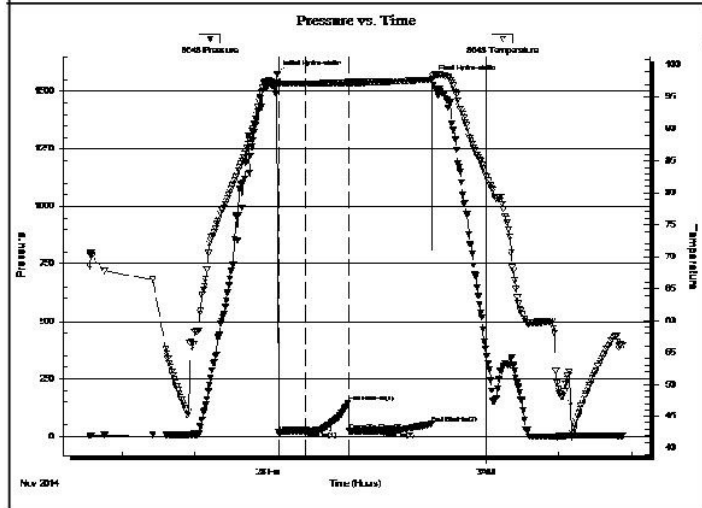
|   |   |   |
|---|---|---|
| <br><b>TRILOBITE TESTING, INC.</b> | <b>DRILL STEM TEST REPORT</b>   |   |
|   | <table style="width: 100%;"> <tr> <td style="width: 50%;">                     Outlaw Well Service LLC<br/>                     1408 West 42nd<br/>                     Hays KS, 67601<br/>                     ATTN: Steve Reed                 </td> <td style="width: 50%; text-align: right;"> <b>17-8s-17w Rooks KS</b><br/> <b>Schindler 1W</b><br/>                     Job Ticket: 60645      <b>DST#:2</b><br/>                     Test Start: 2014.11.27 @ 21:33:00                 </td> </tr> </table> | Outlaw Well Service LLC<br>1408 West 42nd<br>Hays KS, 67601<br>ATTN: Steve Reed |
| Outlaw Well Service LLC<br>1408 West 42nd<br>Hays KS, 67601<br>ATTN: Steve Reed                                     | <b>17-8s-17w Rooks KS</b><br><b>Schindler 1W</b><br>Job Ticket: 60645 <b>DST#:2</b><br>Test Start: 2014.11.27 @ 21:33:00  |   |

**GENERAL INFORMATION:**

|   |  |
|---|--|
| Formation: <b>Lansing "A-C"</b>                           | Test Type: Conventional Straddle (Reset) |
| Deviated: No Whipstock:                      ft (KB)      | Tester: Cody Bloedorn                    |
| Time Tool Opened: 00:08:45                                | Unit No: 73                              |
| Time Test Ended: 04:53:15                                 | Reference Elevations: 1853.00 ft (KB)    |
| <b>Interval: 3116.00 ft (KB) To 3134.00 ft (KB) (TVD)</b> | 1848.00 ft (CF)                          |
| Total Depth: 3371.00 ft (KB) (TVD)                        | KB to GR/CF: 5.00 ft                     |
| Hole Diameter: 7.88 inches Hole Condition: Fair           |  |

|  |                        |                                     |  |  |  |
|--|------------------------|-------------------------------------|--|--|--|
| <b>Serial #: 8648</b>                        | <b>Inside</b>          |                                     |  |  |  |
| Press@RunDepth: 25.25 psig @ 3117.00 ft (KB) | Capacity: 8000.00 psig |                                     |  |  |  |
| Start Date: 2014.11.27                       | End Date: 2014.11.28   | Last Calib.: 2014.11.28             |  |  |  |
| Start Time: 21:33:05                         | End Time: 04:53:14     | Time On Btm: 2014.11.28 @ 00:07:45  |  |  |  |
|  |                        | Time Off Btm: 2014.11.28 @ 02:15:45 |  |  |  |

**TEST COMMENT:** 30 - IF- 1/2" blow  
 30 - IS- No return  
 30 - FF- Surface return  
 30 - FS- No blow



| PRESSURE SUMMARY |                 |              |                      |
|------------------|-----------------|--------------|----------------------|
| Time (Min.)      | Pressure (psig) | Temp (deg F) | Annotation           |
| 0                | 1575.37         | 97.46        | Initial Hydro-static |
| 1                | 16.81           | 97.12        | Open To Flow (1)     |
| 24               | 25.06           | 97.11        | Shut-In(1)           |
| 59               | 145.84          | 97.32        | End Shut-In(1)       |
| 60               | 24.53           | 97.28        | Open To Flow (2)     |
| 88               | 25.25           | 97.46        | Shut-In(2)           |
| 128              | 55.08           | 97.73        | End Shut-In(2)       |
| 128              | 1552.99         | 98.31        | Final Hydro-static   |

| Recovery    |                  |              |
|-------------|------------------|--------------|
| Length (ft) | Description      | Volume (bbl) |
| 20.00       | HOCM, 30%O, 70%G | 0.28         |
| 0.00        | 186' of G.I.P.   | 0.00         |
|             |                  |              |
|             |                  |              |
|             |                  |              |

\* Recovery from multiple tests

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

# DST #2 PRESSURE VS TIME CHART

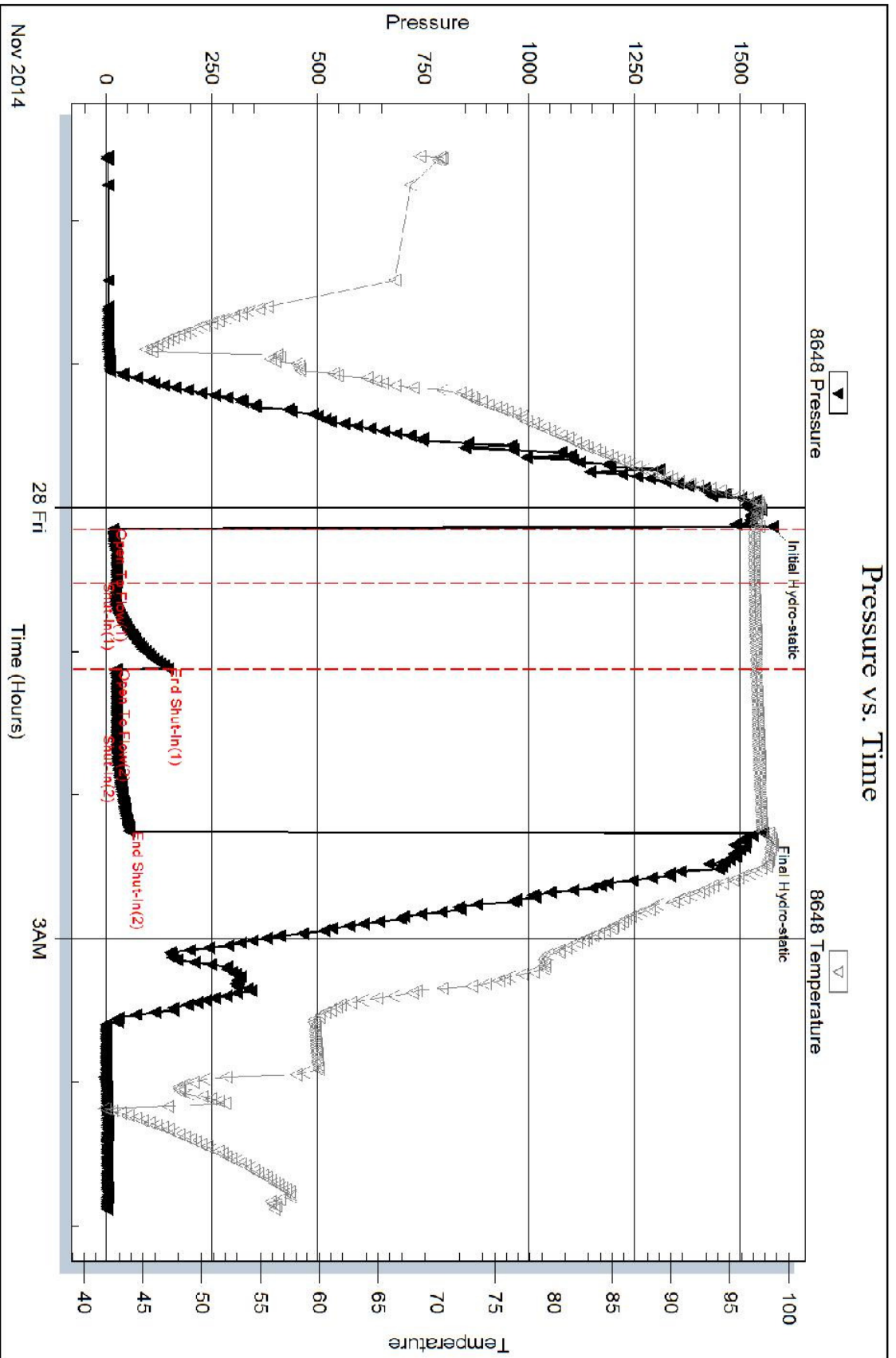
Serial #: 8648

Inside

Outlaw Well Service LLC

Schindler 1W

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60645

Printed: 2014.11.28 @ 06:17:33

### ROCK TYPES

|  |           |  |                      |  |            |  |    |
|--|-----------|--|----------------------|--|------------|--|----|
|  | Cht vari  |  | Lmst fw7> shale, grn |  | Carbon Sh  |  | Ss |
|  | Dolprim   |  | shale, gry           |  | shale, red |  |    |
|  | Lmst fw<7 |  |                      |  | Shcol      |  |    |

### ACCESSORIES

#### MINERAL

- ~ Glauconite
- △ Chert White
- ∕ Euhed rhombs of dol or c

#### FOSSIL

- F Fossils < 20%
- ⊖ Oolite
- ⊖ Oomoldic
- ⊖ Fossilinid

#### STRINGER

- ~~~~ Chert

#### TEXTURE

- C Chalky
- L Lithogr

### OTHER SYMBOLS

#### EVENTS

- ⌋ Casing Shoe
- ▷ RTF
- ▷ Sidewall
- ▷ Left Casing Shoe
- ◁ Right Casing Shoe

#### INTERVALS

- Core
- DST

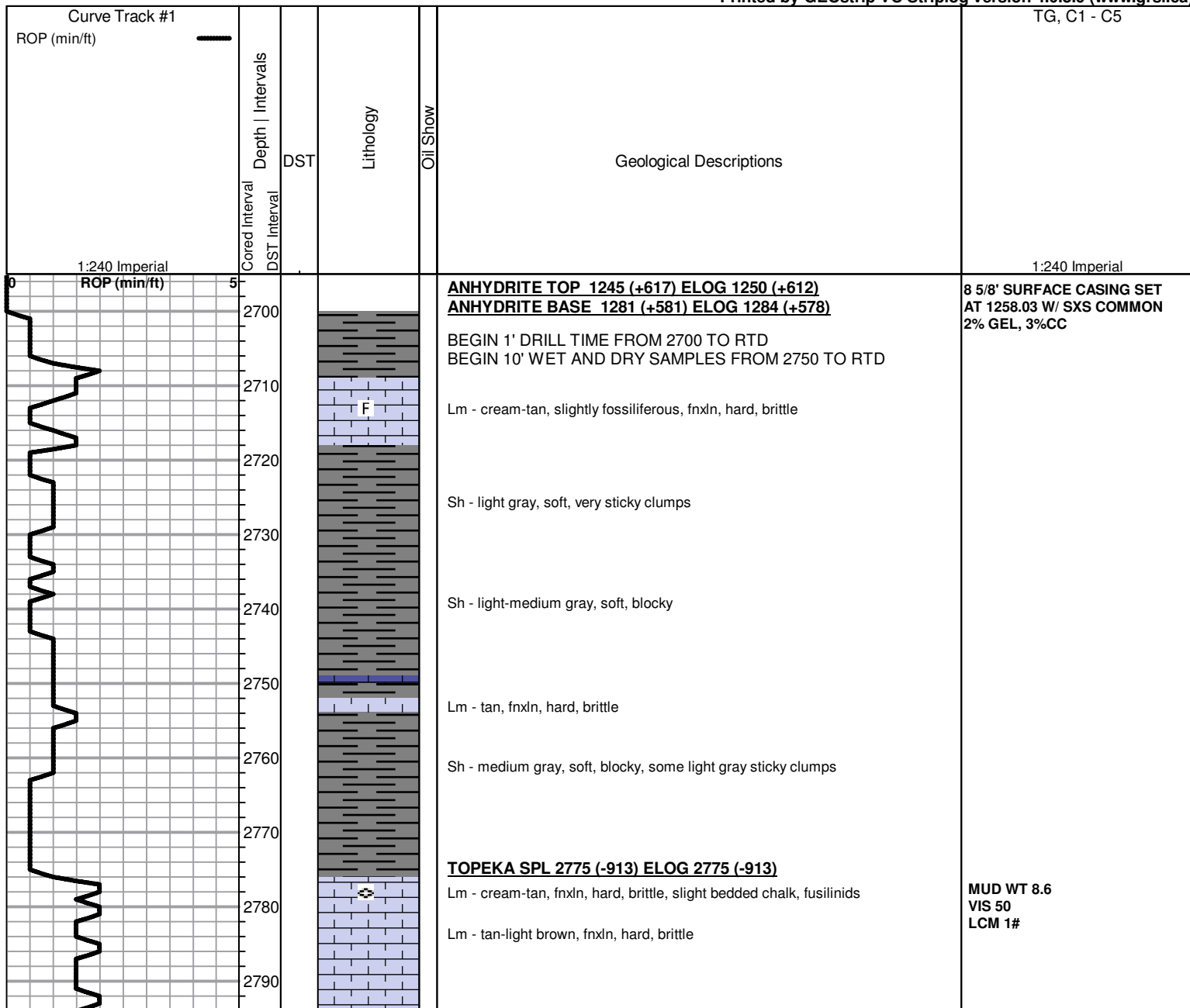
#### Oil Show

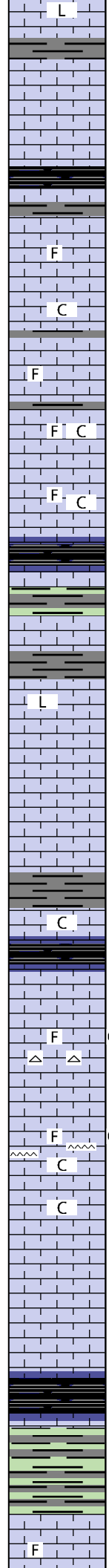
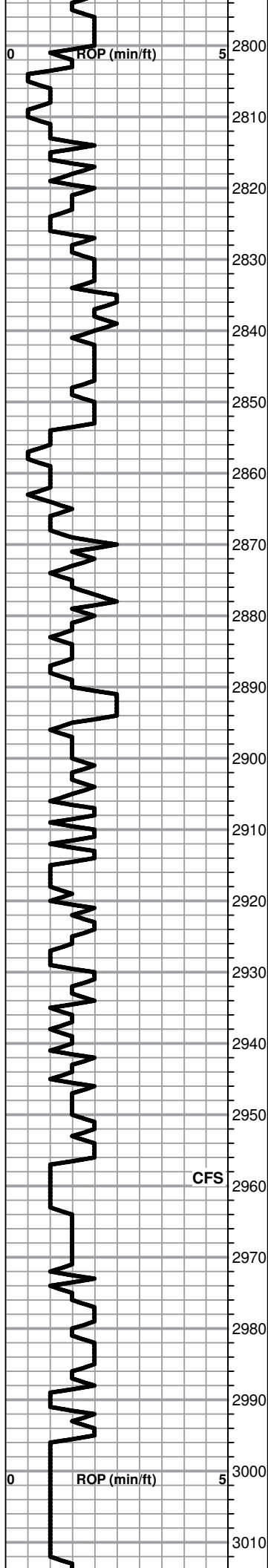
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- Dead Oil Stn
- Fluorescence
- \* Gas

#### DST

- DST Int
- DST alt
- Core
- tail pipe
- DST
- DST
- DST

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)





Lm - tan, fnxln to lithographic in part, dense, hard, brittle

Lm - light gray-tan, fnxln, dense, hard

Sh - black, carbonaceous, waxy, soft

Lm - cream, fossiliferous, brittle, slight bedded chalk

Lm - cream, medxln to granular, dark fossil clasts, slightly chalky, no shows

Lm - cream-tan, mottled, slightly fossiliferous, medxln-granular, brittle, brown sticky shale clumps present

Lm - tan-slightly fossiliferous, mottled, granular, moderate hardness, slightly chalky

Lm - tan-light gray, fossiliferous, granular, easily crushed, slightly chalky, brown chert

Sh - black, carbonaceous, waxy, soft

Sh - light greenish gray, soft, blocky

Lm - cream, vfxln to lithographic in part, dense, hard

Lm - cream, fnxln, bedded chalk in part, clean and barren, brittle

Lm - cream-tan, fnxln, brittle, bedded chalk, no shows

Lm - cream-tan, fnxln, slightly chalky, no shows

Sh - black, carbonaceous, waxy, soft

Lm - cream-light gray, fossiliferous with fine interxln porosity, slightly vuggy, spotted light brown stain, few specks of free oil upon crush, no odor, good streaming wet cut under UV light, limited total porosity, white chert

Lm - cream, slightly fossiliferous, fine pinpoint porosity, spotted light brown stain, few specks of free oil, slightly chalky, cherty

Lm - cream-tan, fnxln, soft, brittle, slightly chalky, no shows

Lm - tan, fnxln, moderate hardness, brittle, no shows

**HEEBNER SPL 2988 (-1126) ELOG 2988 (-1126)**

Sh - black, carbonaceous, waxy, soft

Sh - light greenish gray, soft, blocky

**TORONTO SPL 3009 (-1147) ELOG 3006 (-1144)**

**TRASHY SAMPLES**

**TRIP OUT FOR HOLE IN PIPE**

**MUD WT 8.8  
VIS 48  
LCM 1#**

**MUD WT 8.8  
VIS 47  
LCM 1#**

Lm - offwhite, slightly fossiliferous, dense, hard, brittle, no shows

Sh - maroon / light gray, soft, blocky

**LKC SPL 3029 (-1167) ELOG 3028 (-1166)**

Lm - cream, slightly fossiliferous, fnxln, poor development, clean and barren, hard, brittle, slight bedded chalk

Lm - cream, fnxln, hard, brittle, bedded chalk in part, cherty, no shows

Lm - tan, fnxln, slightly oolitic, poorly developed, bedded chalk, no shows

Sh - light gray, soft, blocky

Lm - tan, fossiliferous, fine interxln porosity, spotted golden brown stain, gassy sheen, no odor, 1 chip with free oil specks upon crush, limited total porosity

Lm - cream-tan, fnxln, dense, very hard, some fossiliferous, clean and barren, no odor

Sh - maroon / medium gray, soft, fissile

Lm - cream-tan, fnxln to lithographic, brittle, slightly chalky, no shows

Sh - black, carbonaceous, waxy, soft

Lm - tan, fossiliferous, poor development, brittle, no shows

Lm - cream, fnxln, slightly chalky, no shows

Lm - tan, fine pinpoint porosity, friable, slightly fossiliferous, oomoldic in part, SFO upon crush, faint odor, scattered light brown stain, streaming wet cut under UV light

Lm - cream-tan, fnxln, some lithographic, hard, brittle, no shows

Lm - cream-light brown, granular, moderate hardness, cherty

Sh - black, carbonaceous, waxy, soft

Sh - light green / gray, soft, sticky

Lm - cream, medxln to granular in some, brittle, slightly chalky

Lm - tan-light gray, fnxln to lithographic in some, bedded chalk, hard, brittle

Lm - cream, slightly fossiliferous with fine pinpoint porosity, spotted light brown stain, good streaming wet cut, no odor, NSFO,

Lm - cream-tan, fnxln to lithographic in some, hard, brittle

Sh - medium gray, soft, fissile, light brown soft sticky clumps

Lm - cream, fnxln, brittle, slightly chalky

Sh - black, carbonaceous, waxy, soft

Sh - light green / maroon, soft, very sticky

Lm - tan, mostly fnxln, some chips with fine pinpoint porosity, spotted light brown stain, light gassy sheen, NSFO, faint odor, slight streaming wet cut under UV light

MUD WT 9.0  
VIS 48  
LCM 2#

DST #1 3116 TO 3162  
STRADDLE (MISRUN)  
SEE HEADER FOR SUMMARY

DST #2 3116 TO 3134  
STRADDLE  
SEE HEADER FOR SUMMARY

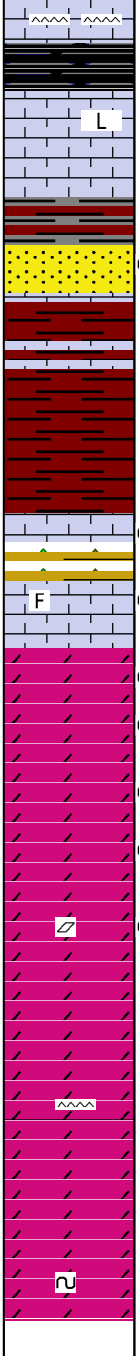
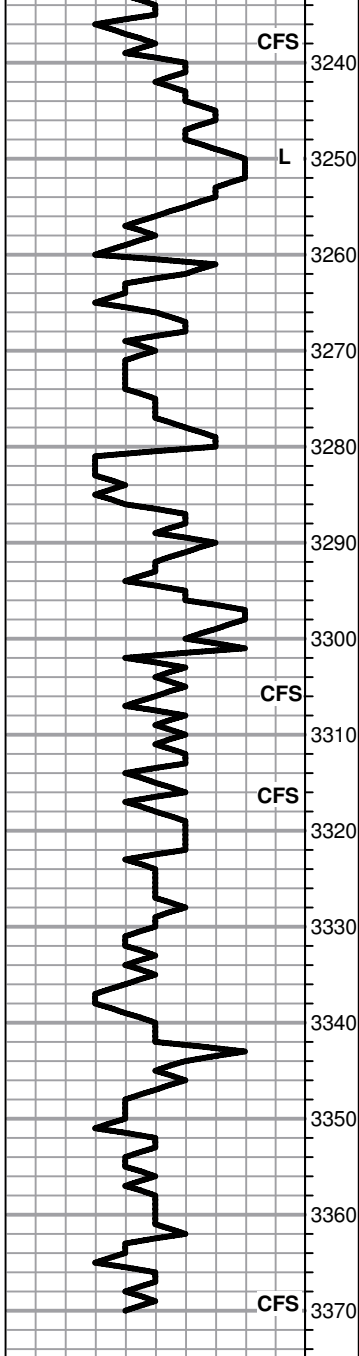
MUD WT 9.1  
VIS 44  
LCM 2#

3020  
3030  
3040  
3050  
3060  
3070  
3080  
3090  
3100  
3110  
3120  
3130  
3140  
3150  
3160  
3170  
3180  
3190  
3200  
3210  
3220  
3230

A  
B  
C  
CFS  
D  
E  
F  
G  
CFS  
H  
I  
J  
K

ROP (min/ft)

0 5



Lm - cream-light brown, fnxn, brittle, bedded chalk, no shows, opaque chert

Sh - black, carbonaceous, waxy, fissile, soft

Lm - cream-tan, fnxn to lithographic in some, dense, hard, brittle

**BKC SPL 3254 (-1392) ELOG 3254 (-1392)**

Sh - light gray, soft sticky, maroon, soft, fissile

Ss - medium brown, fine grained, well sorted, angular, moderately cemented, saturated light brown stain, good streaming wet cut, NSFO, no odor

Sh - maroon, soft, very sticky, forming red wash

Sh - A/A

Lm - offwhite, granular, fine pinpoint porosity with light brown stain, NSFO, no odor, slight streaming wet cut, abundance of colored shales and cherts

Lm - cream, fossiliferous with fine pinpoint porosity, spotted light brown stain, few specks of FO in a couple chips, no odor

**ARBUCKLE SPL 3296 (-1434) ELOG 3300 (-1438)**

Dolo - tan-light brown, vfxn, few specks of dark stain, NSFO, questionable odor

Dolo - medium brown, vfxn with scattered pinpoint porosity, dark spotted stain, some specks of FO upon crush, limited porosity

Dolo - tan, fnxn, spotted pinpoint porosity, spotted dark stain, slight SFO upon crush, no odor

Dolo - light brown, fn-medxn, spotted stain, no odor

Dolo - tan, fnxn, hard, clean and barren

Dolo - tan-cream, well developed rhombic xtals, fn-medxn, spotted stain, slight oil specks upon crush

Dolo - tan, vfxn, very well cemented, very hard, no shows

Dolo - tan, vf-fnxn, clean and barren, cherty

Dolo - buff, vfxn, hard, no shows

Dolo - cream-buff, vfxn, hard, glauconite specks

**RTD 3370 (-1508) LTD 3371 (-1509)**

MUD WT 9.4  
VIS 51  
LCM 1#



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Outlaw Well Service LLC

**17-8s-17w Rooks KS**

1408 West 42nd  
Hays KS, 67601

**Schindler 1W**

Job Ticket: 60643

**DST#: 1**

ATTN: Steve Reed

Test Start: 2014.11.27 @ 15:09:00

## GENERAL INFORMATION:

Formation: **G Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:50:15

Time Test Ended: 21:05:00

Test Type: Conventional Straddle (Initial)

Tester: Cody Bloedorn

Unit No: 73

**Interval: 3116.00 ft (KB) To 3162.00 ft (KB) (TVD)**

Reference Elevations: 1853.00 ft (KB)

Total Depth: 3370.00 ft (KB) (TVD)

1848.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8648**

**Inside**

Press @ Run Depth: 265.85 psig @ 3120.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.27

End Date:

2014.11.27

Last Calib.:

2014.11.27

Start Time: 15:09:05

End Time:

21:04:59

Time On Btm:

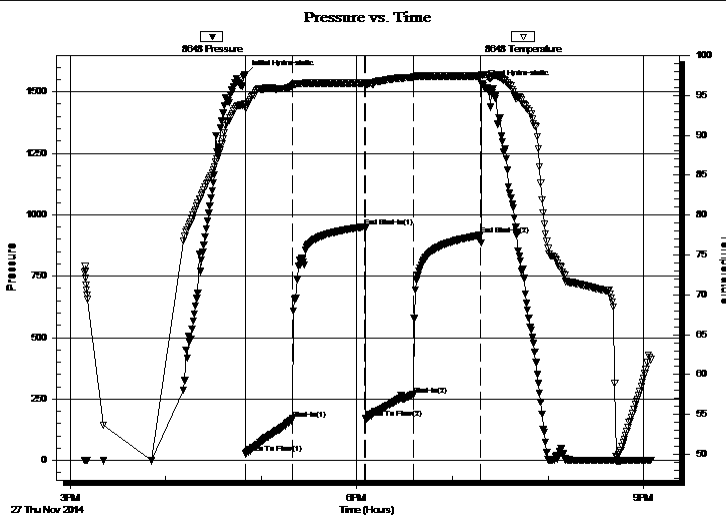
2014.11.27 @ 16:50:00

Time Off Btm:

2014.11.27 @ 19:18:15

**TEST COMMENT:** 30 - IF- B.O.B. in 7 minutes  
45 - IS- No return  
30 - FF- B.O.B. in 8 minutes  
45 - FS- No return

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1569.99         | 93.94        | Initial Hydro-static |
| 1           | 27.92           | 93.40        | Open To Flow (1)     |
| 30          | 169.46          | 96.17        | Shut-In(1)           |
| 75          | 950.98          | 96.57        | End Shut-In(1)       |
| 76          | 170.93          | 96.31        | Open To Flow (2)     |
| 106         | 265.85          | 97.23        | Shut-In(2)           |
| 148         | 917.01          | 97.41        | End Shut-In(2)       |
| 149         | 1530.76         | 97.63        | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 496.00      | Mud, 100%M  | 6.96         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

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







**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Outlaw Well Service LLC

**17-8s-17w Rooks KS**

1408 West 42nd  
Hays KS, 67601

**Schindler 1W**

Job Ticket: 60643

**DST#: 1**

ATTN: Steve Reed

Test Start: 2014.11.27 @ 15:09:00

## 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:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 496.00       | Mud, 100%M  | 6.958         |

Total Length: 496.00 ft      Total Volume: 6.958 bbl

Num Fluid Samples: 0

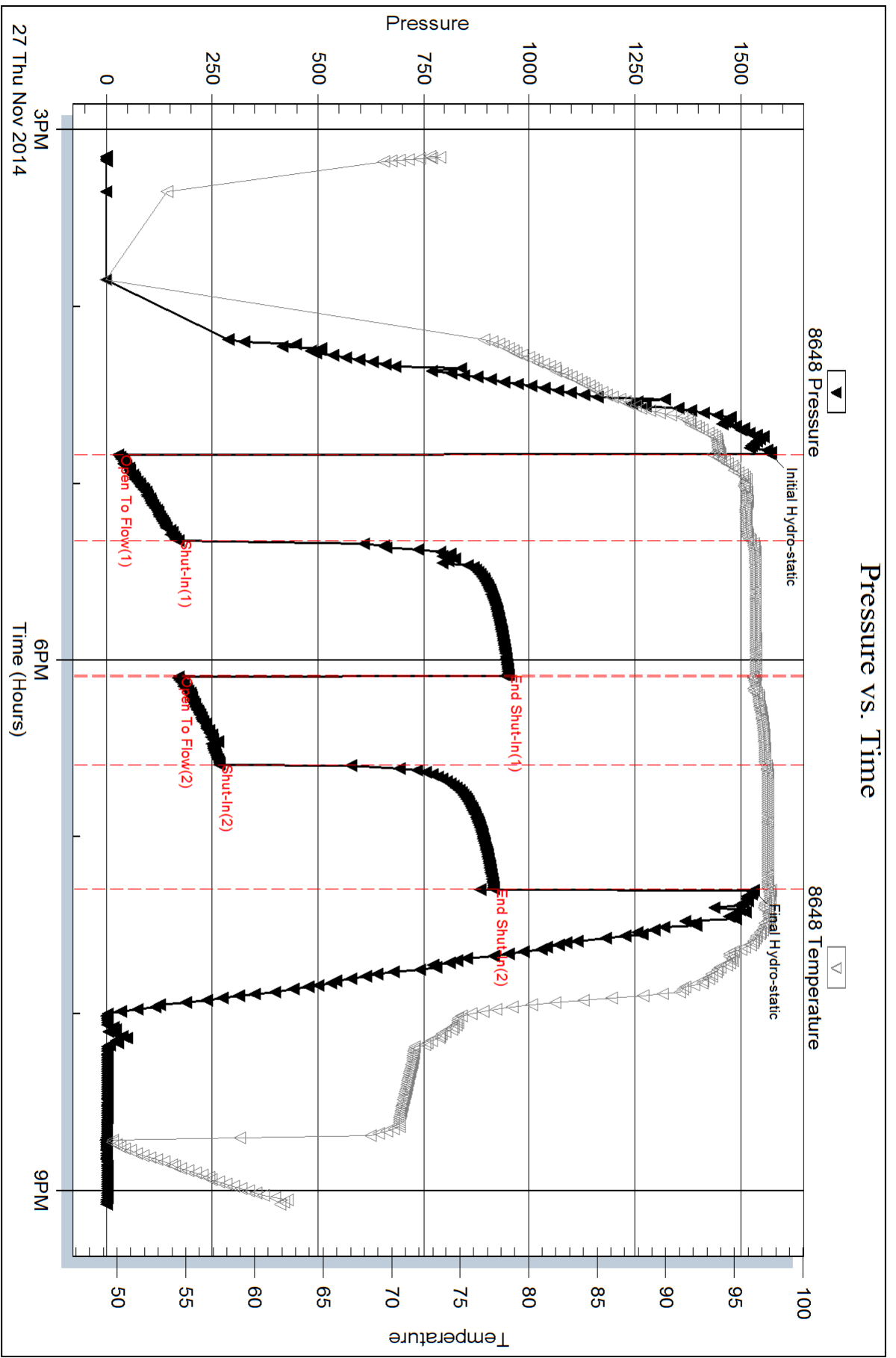
Num Gas Bombs: 0

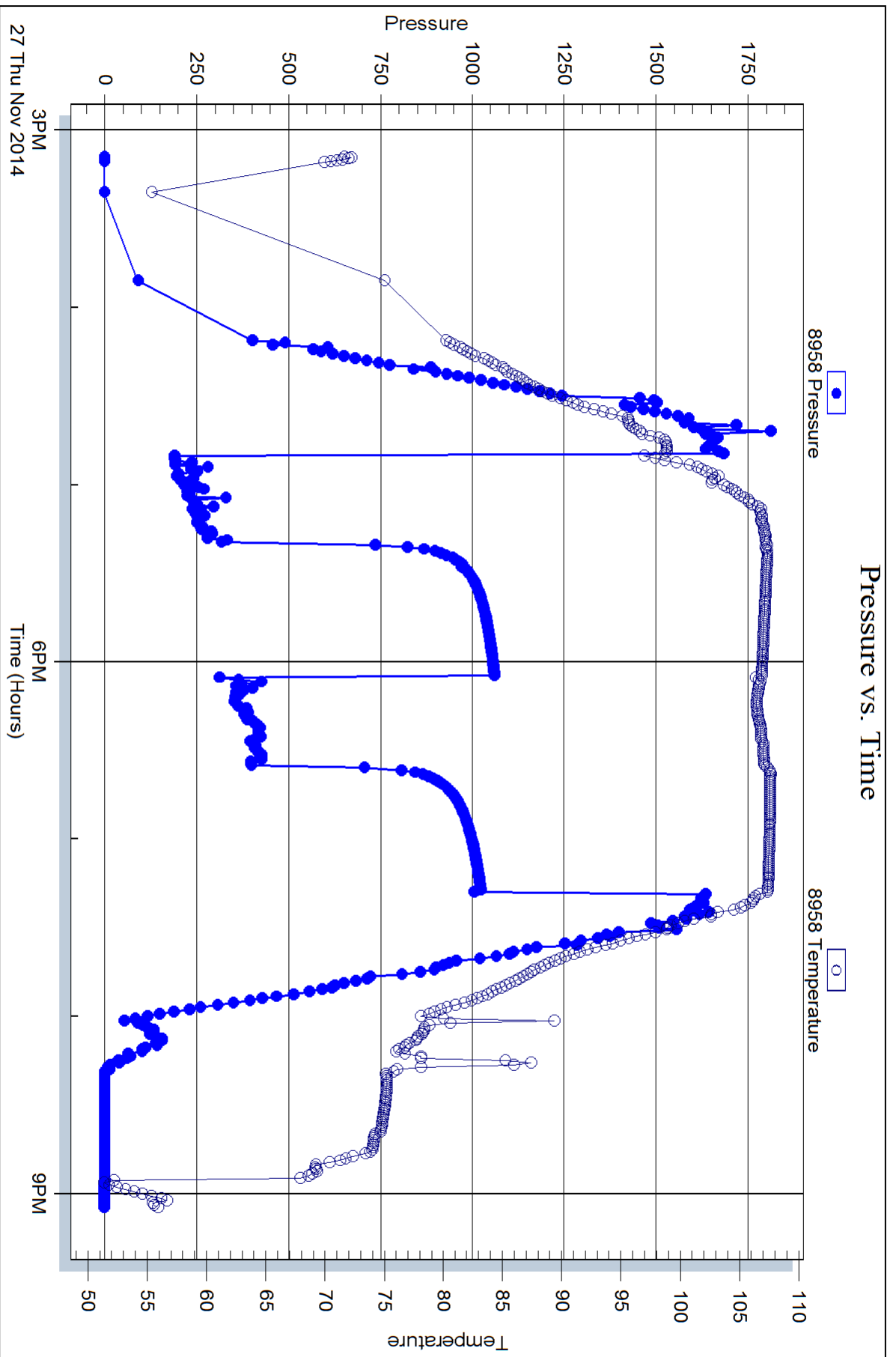
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Outlaw Well Service LLC

**17-8s-17w Rooks KS**

1408 West 42nd  
Hays KS, 67601

**Schindler 1W**

Job Ticket: 60645

**DST#: 2**

ATTN: Steve Reed

Test Start: 2014.11.27 @ 21:33:00

## GENERAL INFORMATION:

Formation: **Lansing "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:08:45

Time Test Ended: 04:53:15

Test Type: Conventional Straddle (Reset)

Tester: Cody Bloedorn

Unit No: 73

**Interval: 3116.00 ft (KB) To 3134.00 ft (KB) (TVD)**

Reference Elevations: 1853.00 ft (KB)

Total Depth: 3371.00 ft (KB) (TVD)

1848.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8648**

**Inside**

Press @ Run Depth: 25.25 psig @ 3117.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.27

End Date:

2014.11.28

Last Calib.:

2014.11.28

Start Time: 21:33:05

End Time:

04:53:14

Time On Btm:

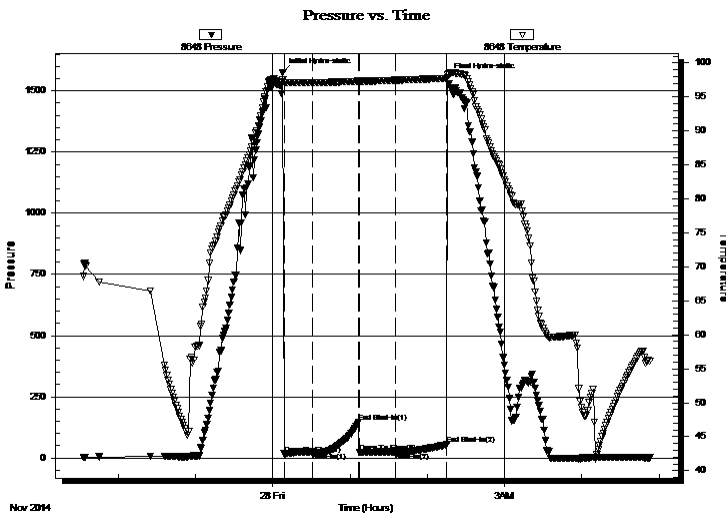
2014.11.28 @ 00:07:45

Time Off Btm:

2014.11.28 @ 02:15:45

**TEST COMMENT:** 30 - IF- 1/2" blow  
30 - IS- No return  
30 - FF- Surface return  
30 - FS- No blow

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1575.37         | 97.46        | Initial Hydro-static |
| 1           | 16.81           | 97.12        | Open To Flow (1)     |
| 24          | 25.06           | 97.11        | Shut-In(1)           |
| 59          | 145.84          | 97.32        | End Shut-In(1)       |
| 60          | 24.53           | 97.28        | Open To Flow (2)     |
| 88          | 25.25           | 97.46        | Shut-In(2)           |
| 128         | 55.08           | 97.73        | End Shut-In(2)       |
| 128         | 1552.99         | 98.31        | Final Hydro-static   |

## Recovery

| Length (ft) | Description      | Volume (bbl) |
|-------------|------------------|--------------|
| 20.00       | HOCM, 30%O, 70%G | 0.28         |
| 0.00        | 186' of G.I.P.   | 0.00         |
|             |                  |              |
|             |                  |              |
|             |                  |              |

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Outlaw Well Service LLC

**17-8s-17w Rooks KS**

1408 West 42nd  
Hays KS, 67601

**Schindler 1W**

Job Ticket: 60645

**DST#: 2**

ATTN: Steve Reed

Test Start: 2014.11.27 @ 21:33:00

## 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:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description      | Volume<br>bbl |
|--------------|------------------|---------------|
| 20.00        | HOCM, 30%O, 70%G | 0.281         |
| 0.00         | 186' of G.I.P.   | 0.000         |

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

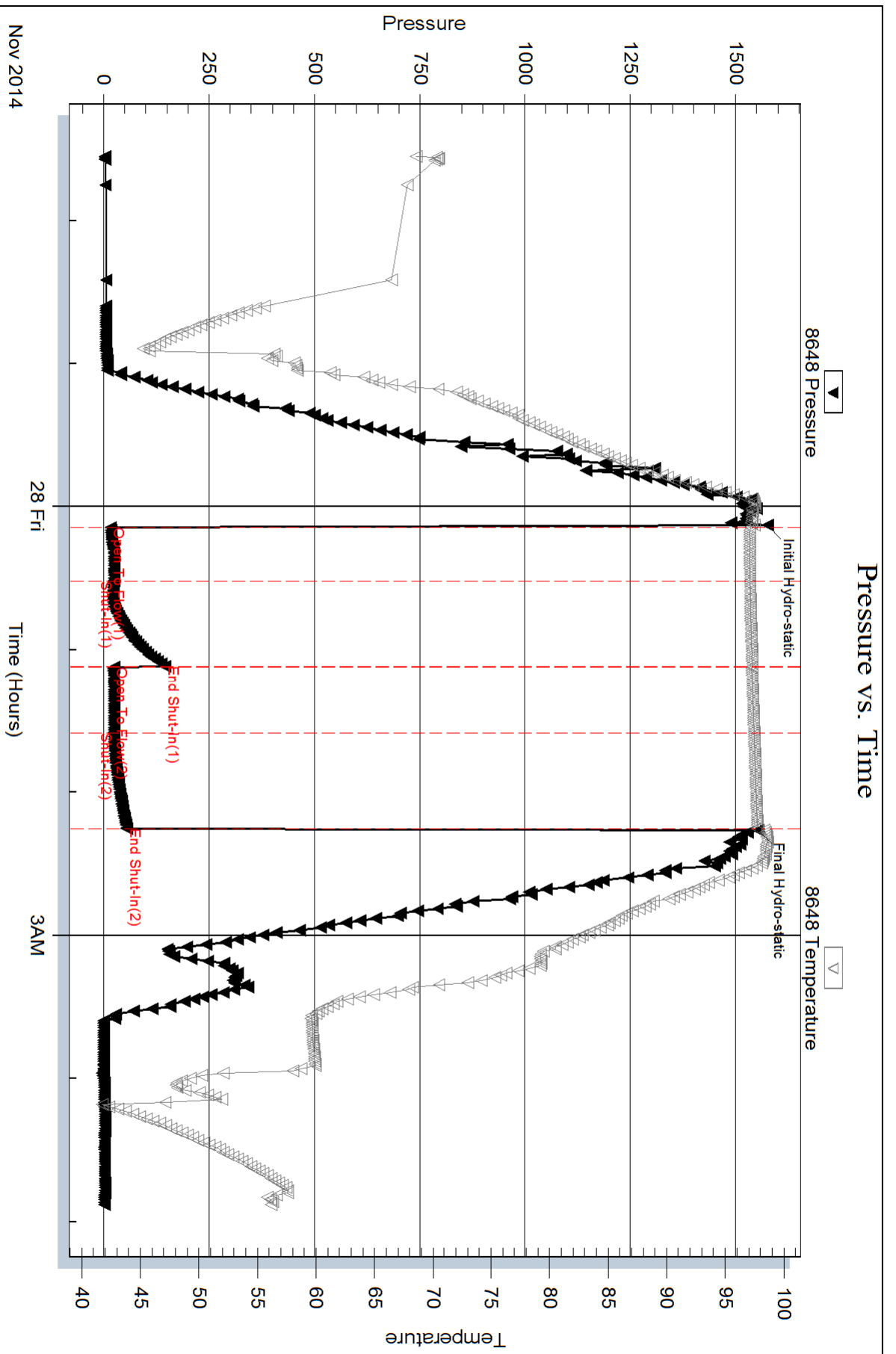
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



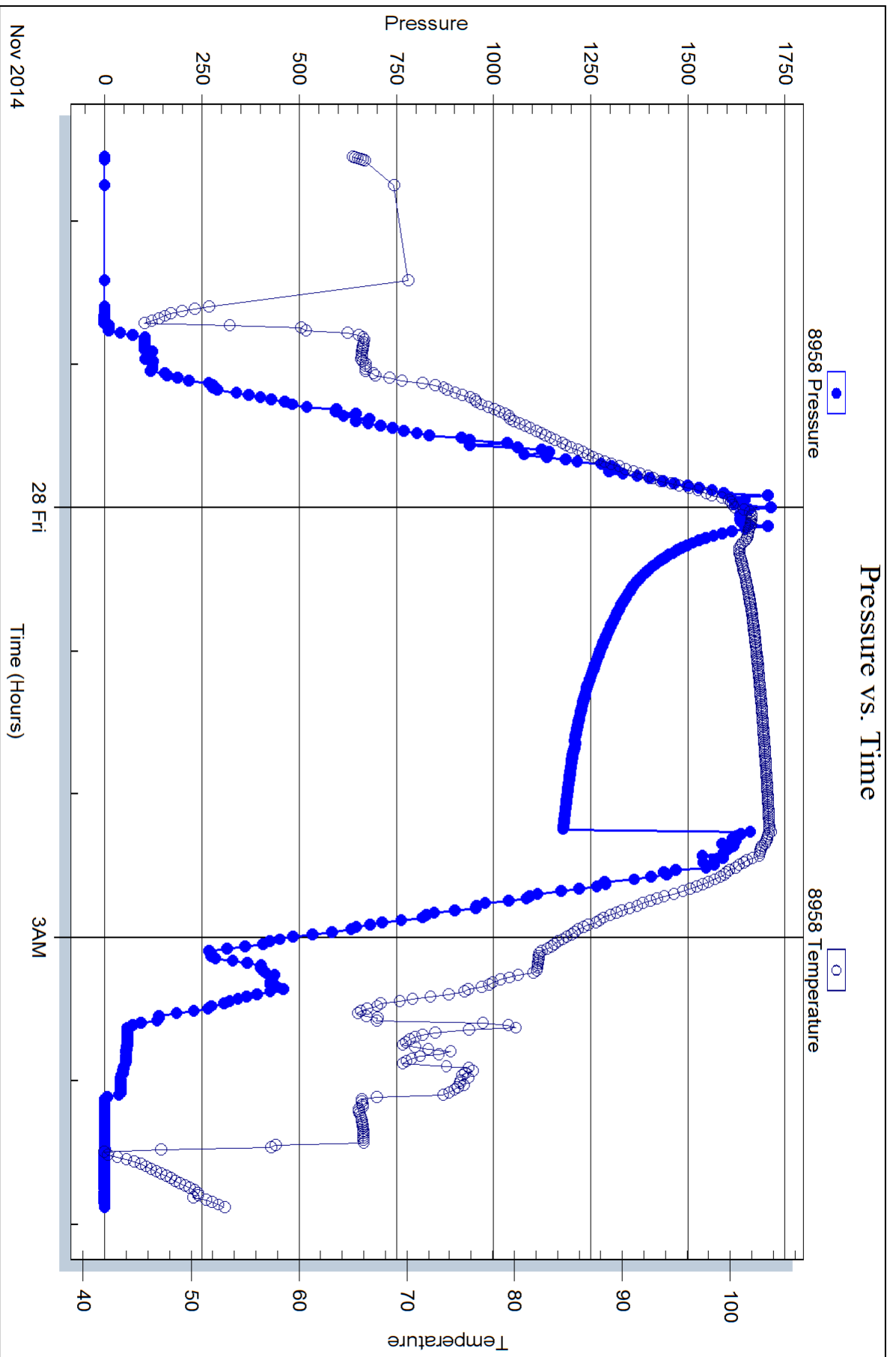


Serial #: 8958

Below (Stratley) Well Service LLC

Schindler 1W

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 60645

Printed: 2014.11.28 @ 06:17:33