Confidentiality Requested:
☐ Yes ☑ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1227093

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 # 7281
Name: Vonfeldt, Alan J
Address 1: P.O. BOX 611
Address 2:
City: RUSSELL State: KS Zip: 67665 + 2808
Contact Person: ALAN J. VONFELDT
Phone: ( 785 ) 483-0252
CONTRACTOR: License # 33905
Name: Royal Drilling Inc
Wellsite Geologist: STEVE REED
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 #:

| 4/29/2014 | 5/4/2014 | 5/6/2014 |
|---|---|---|
| Spud Date or Recompletion Date | Date Reached TD | Completion Date or Recompletion Date |

API No. 15 - 15-167-23967-00-00
Spot Description:
SE - NE - SW - SW Sec. 33 Twp. 14 S. R. 13 ☐ East ☑ West
799 Feet from ☐ North / ☑ South Line of Section
1170 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Russell
Lease Name: Michaelis Well #: 1
Field Name:
Producing Formation: NONE
Elevation: Ground: 1726 Kelly Bushing: 1733
Total Vertical Depth: 3219 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 686 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: 40000 ppm Fluid volume: 600 bbls
Dewatering method used: Evaporated

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:** NAOMI JAMES **Date:** 10/17/2014

1227093

Operator Name: Vonfeldt, Alan J  Lease Name: Michaelis  Well #: 1

Sec. 33 Twp. 14 S. R. 13 ☐ East ☑ West  County: Russell

**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 ☑ Yes ☐ No
*(Attach Additional Sheets)*

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

RADIATION GUARD LOG
MICRO LOG
SONIC LOG

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

| Name | Top | Datum |
|---|---|---|
| ANHYDRITE | 685 | +1048 |
| STOTLER/TARKIOLM | 2305 | -572 |
| TOPEKA | 2585 | -852 |
| HEEBNER SHALE | 2817 | -1084 |
| LKC | 2876 | -1143 |
| BKC | 3142 | -1409 |
| ARBUCKLE | 3142 | -1409 |

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|---|---|---|---|---|---|---|---|
| SURFACE | 12.25 | 8.625 | 23 | 686 | COMMON | 300 | 2%GEL 3%CC |
| | | | | | | | |
| | | | | | | | |

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

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 Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)* | 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 |
|---|---|---|---|---|---|
| | | | | | |

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
*(If vented, Submit ACO-18.)*

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)* _____

PRODUCTION INTERVAL:
_____
_____

**Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202**

# ALLIED OIL & GAS SERVICES, LLC 055200

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell Ks

| DATE 4.30.14 | SEC. 33 | TWP. 14 | RANGE 13 | CALLED OUT | ON LOCATION | JOB START | JOB FINISH |
|---|---|---|---|---|---|---|---|
| LEASE M. Clark | WELL # 1 | | LOCATION Russell Ks | | | COUNTY Russell | STATE Ks |
| OLD OR NEW (Circle one) | | | E to Pioneer rd S to river into. | | | | |

CONTRACTOR Royal
TYPE OF JOB Long Surface
HOLE SIZE 12¼ T.D.
CASING SIZE 8⅝ DEPTH 686'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT 42'
CEMENT LEFT IN CSG. 42'
PERFS.
DISPLACEMENT 41.02 bbls

OWNER

**CEMENT**
AMOUNT ORDERED 300 sk 60/40 + 3% cc + 2% gel

| | | | | |
|---|---|---|---|---|
| COMMON | 300sk | @ | 14.93 | $4,479.00 |
| POZMIX | | @ | | |
| GEL | | @ | | |
| CHLORIDE | 846 lb | @ | .8% | $676.80 |
| ASC | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| | | @ | | |
| HANDLING | 300sk | ft3 @ | 2.48 | $744.00 |
| MILEAGE | 71 | Tm | 2.60 | $183.30 |
| | | | TOTAL | $6,083.10 |

**EQUIPMENT**

PUMP TRUCK # 417 CEMENTER Joey P.
HELPER Danny S
BULK TRUCK # 473 DRIVER Tracy J. Kevin R
BULK TRUCK # DRIVER

**REMARKS:**

See Cementing Job Log

**SERVICE**

| | | | |
|---|---|---|---|
| DEPTH OF JOB | | | 686' |
| PUMP TRUCK CHARGE | | | $2,055.50 |
| EXTRA FOOTAGE | | @ | |
| MILEAGE | Heavy 5m | @ 7.7 | $38.50 |
| MANIFOLD | Light 5m | @ 4.4 | $22.00 |
| | | @ | |
| | | @ | |
| | | TOTAL | $2,119.50 |

CHARGE TO: Allen J Vonfeldt
STREET
CITY STATE ZIP

**PLUG & FLOAT EQUIPMENT**

| | | | |
|---|---|---|---|
| 1 x 8⅝ Top Rubber | @ | | $131.00 |
| | @ | | |
| | @ | | |
| | @ | | |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment

# ALLIED OIL & GAS SERVICES, LLC 055252

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell Ks

| DATE 5.5.14 | SEC. 33 | TWP. 14 | RANGE 13 | CALLED OUT | ON LOCATION | JOB START 4:00 | JOB FINISH 4:30 |
|---|---|---|---|---|---|---|---|
| LEASE Michaelis | WELL # #1 | | LOCATION Russell, Ks | | | COUNTY Russell | STATE Ks |
| OLD OR NEW (Circle one) | | | e to Power rd S to rig e into | | | | |

CONTRACTOR Royal #1
TYPE OF JOB PTA
HOLE SIZE 7 7/8 T.D.
CASING SIZE DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH 3140'
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER

**CEMENT**

AMOUNT ORDERED 210 sk 60/40 Poz + 4% gel

| | | | | |
|---|---|---|---|---|
| COMMON | 210sk | @ | 15.30 | $3,213.00 |
| POZMIX | | @ | | |
| GEL | | @ | | |
| CHLORIDE | | @ | | |
| ASC | | @ | | |
| HANDLING | 210sk 7 1/3 | @ | 2.48 | $520.80 |
| MILEAGE | 50 11m | | 2.60 | $129.70 |

TOTAL $3,862.50

**EQUIPMENT**

PUMP TRUCK # 417 CEMENTER Tony Hannesta D
HELPER Dingus
BULK TRUCK # 410 DRIVER Jesse C
BULK TRUCK # DRIVER

**REMARKS:**

See Cementing Job Log

**SERVICE**

| | | | |
|---|---|---|---|
| DEPTH OF JOB | 3140' | | |
| PUMP TRUCK CHARGE | | | $2,483.59 |
| EXTRA FOOTAGE | @ | | |
| MILEAGE Heavy 5m | @ | 7.7 | $38.50 |
| MANIFOLD Light 5- | @ | 4.4 | $22.00 |

TOTAL $2,544.09

CHARGE TO: Allan J. Vontoldt
STREET
CITY STATE ZIP

Thanks

**PLUG & FLOAT EQUIPMENT**

| | | | |
|---|---|---|---|
| 1X 8 5/8 wooden Plg | @ | — | $110.00 |

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment

## OPERATOR

| | | | |
|---|---|---|---|
| Company: | ALAN VONFELDT OIL | | |
| Address: | P.O. BOX 611<br>RUSSELL, KS 67665 | | |
| Contact Geologist: | ALAN VONFELDT | | |
| Contact Phone Nbr: | 785-483-0252 | | |
| Well Name: | MICHAELIS #1 | | |
| Location: | SE NE SW SW S33 T14S R13W | API: | 15-167-23967-00-00 |
| Pool: | | Field: | HALL-GURNEY |
| State: | KANSAS | Country: | USA |

Scale 1:240 Imperial

| | | | |
|---|---|---|---|
| Well Name: | MICHAELIS #1 | | |
| Surface Location: | SE NE SW SW S33 T14S R13W | | |
| Bottom Location: | | | |
| API: | 15-167-23967-00-00 | | |
| License Number: | 7281 | | |
| Spud Date: | 4/29/2014 | Time: | 2:28 PM |
| Region: | RUSSELL COUNTY | | |
| Drilling Completed: | 5/4/2014 | Time: | 6:52 PM |
| Surface Coordinates: | 799 FSL & 1170 FWL | | |
| Bottom Hole Coordinates: | | | |
| Ground Elevation: | 1726.00ft | | |
| K.B. Elevation: | 1733.00ft | | |
| Logged Interval: | 2200.00ft | To: | 3219.00ft |
| Total Depth: | 3219.00ft | | |
| Formation: | LKC | | |
| Drilling Fluid Type: | CHEMICAL/ FRESH WATER GEL | | |

## SURFACE CO-ORDINATES

| | | | |
|---|---|---|---|
| Well Type: | Vertical | | |
| Longitude: | -98.7763089 | Latitude: | 38.7860795 |
| N/S Co-ord: | 799 FSL | | |
| E/W Co-ord: | 1170 FWL | | |

## LOGGED BY

| | | | |
|---|---|---|---|
| Company: | SOLUTIONS CONSULTING, INC. | | |
| Address: | 108 W 35TH<br>HAYS, KS 67601 | | |
| Phone Nbr: | (785) 639-1337 | | |
| Logged By: | GEOLOGIST | Name: | STEVE REED / HERB DEINES |

## CONTRACTOR

| | | | |
|---|---|---|---|
| Contractor: | ROYAL DRILLING, INC. | | |
| Rig #: | 1 | | |
| Rig Type: | MUD ROTARY | | |
| Spud Date: | 4/29/2014 | Time: | 2:28 PM |
| TD Date: | 5/4/2014 | Time: | 6:52 PM |
| Rig Release: | 5/6/2014 | Time: | 6:00 AM |

## ELEVATIONS

| | | | |
|---|---|---|---|
| K.B. Elevation: | 1733.00ft | Ground Elevation: | 1726.00ft |
| K.B. to Ground: | 7.00ft | | |

## NOTES

BASED ON NEGATIVE RESULTS OF TWO DSTS, LACK OF SIGNIFICANT SHOWS, AND LOG ANALYSIS, THE DECISION WAS MADE TO PLUG AND ABANDON WELL.

OPEN HOLE LOGGING PROVIDED BY: NABORS COMPLETION AND PRODUCTION SERVICES:
RADIATION GUARD LOG, MICRORESISTIVITY LOG, AND SONIC LOG

DRILL STEM TESTING PROVIDED BY: SUPERIOR TESTERS: ONE (1) CONVENTIONAL AND ONE (1) STRADDLE TEST

## FORMATION TOPS COMPARISON AND DAILY ACTIVITY SUMMARY

| | WELL NAME | | COMPARISON WELL | COMPARISON WELL |
|---|---|---|---|---|
| | MICHAELIS #1 | | HEFFERNAN #2 | CARTER #15 |
| | API: 15-167-23967 | | API: 15-167-22101 | API: 15-167-22101 |
| FORMATION | SAMPLE TOPS | LOG TOPS | LOG TOPS (DATUM) | LOG TOPS (DATUM) |
| **ANHYDRITE TOP** | 684' (+1049') | 685' (+1048') | +1037' | +1050' |
| **ANHYDRITE BASE** | 718' (+1015') | 718' (+1015') | +1004' | +1016' |
| **GRAND HAVEN** | 2235' (-502') | 2234' (-501') | -513' | -496' |
| **DOVER LIME** | 2258' (-525') | 2257' (-524') | -536' | -518' |
| **STOTLER/TARKIO LM** | 2306' (-573') | 2305' (-572') | -582' | -566' |
| **TOPEKA** | 2585' (-852') | 2585' (-852') | -859' | -842' |
| **HEEBNER** | 2818' (-1085') | 2817' (-1084') | -1087' | -1074' |
| **LKC** | 2875' (-1142') | 2876' (-1143') | -1156' | -1140' |
| **BKC** | 3142' (-1409') | 3142' (-1409') | -1415' | -1402' |
| **ARBUCKLE** | 3160' (-1427') | 3166' (-1433') | -1446' | NA |
| **RTD** | 3219' (-1486') | 3218' (-1485') | -1586' | -1415' |

### SUMMARY OF DAILY ACTIVITY

**4-29-14** R.U., spud @ 3:30pm, drilling 686'

**4-30-14** 686', 8 5/8" surface casing set at 686' w/300 sxs common, 2% gel, 3%cc, plug down @ 10:30am,

WOC

**5-1-14** 1235', drilling

**5-2-14** 2110', drilling

**5-3-14** 2815', drilling, CFS @ 2850', CFS @ 2890', short trip, CFS @ 2924', CTCH, TOWB, survey 1 3/4°, strap .67 long to board, DST #1 2916' to 2924', drilling, CFS @ 2975'

**5-4-14** 3045', drilling, CFS @ 3155', CFS @ 3155, CFS @ 3166, CFS @ 3170, TD 3219 @ 6:52pm, mini trip, CTCH, TOWB for logging, survey 1 1/4°

**5-5-14** 3219', TIWT, DST #2 3138' to 3172' (straddle), prepare for plugging

**5-6-14** release rig

## DST #1 TEST SUMMARY

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19292 **DST#: 1**

Test Start: 2014.05.03 @ 17:13:00

## GENERAL INFORMATION:

Formation: **Lansing C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:19:30
Time Test Ended: 21:12:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend-

**Interval: 2916.00 ft (KB) To 2924.00 ft (KB) (TVD)**
Total Depth: 2924.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

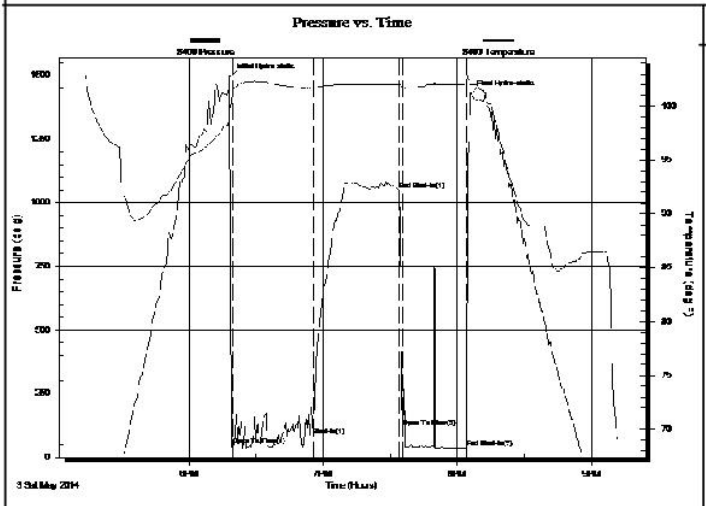
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8400**

Press@RunDepth: 85.16 psig @ ft (KB)
Start Date: 2014.05.03 End Date: 2014.05.03
Start Time: 17:13:00 End Time: 21:12:00

Capacity: 5000.00 psig
Last Calib.: 2014.05.03
Time On Btm: 2014.05.03 @ 18:18:30
Time Off Btm: 2014.05.03 @ 20:06:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1 inch and died off
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-No blow flushed tool 15 minutes into open good surge did not build
2nd Shut-in Pulled tool




PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1494.76 | 99.76 | Initial Hydro-static |
| 1 | 48.87 | 101.20 | Open To Flow (1) |
| 37 | 85.16 | 101.63 | Shut-In(1) |
| 76 | 1050.72 | 102.03 | End Shut-In(1) |
| 77 | 117.50 | 101.75 | Open To Flow (2) |
| 106 | 36.61 | 102.06 | End Shut-In(2) |
| 108 | 1425.34 | 102.00 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 10.00 | spot oil mud 1%oil 99%mud | 0.14 |
| | | |
| | | |
| | | |
| | | |
| | | |

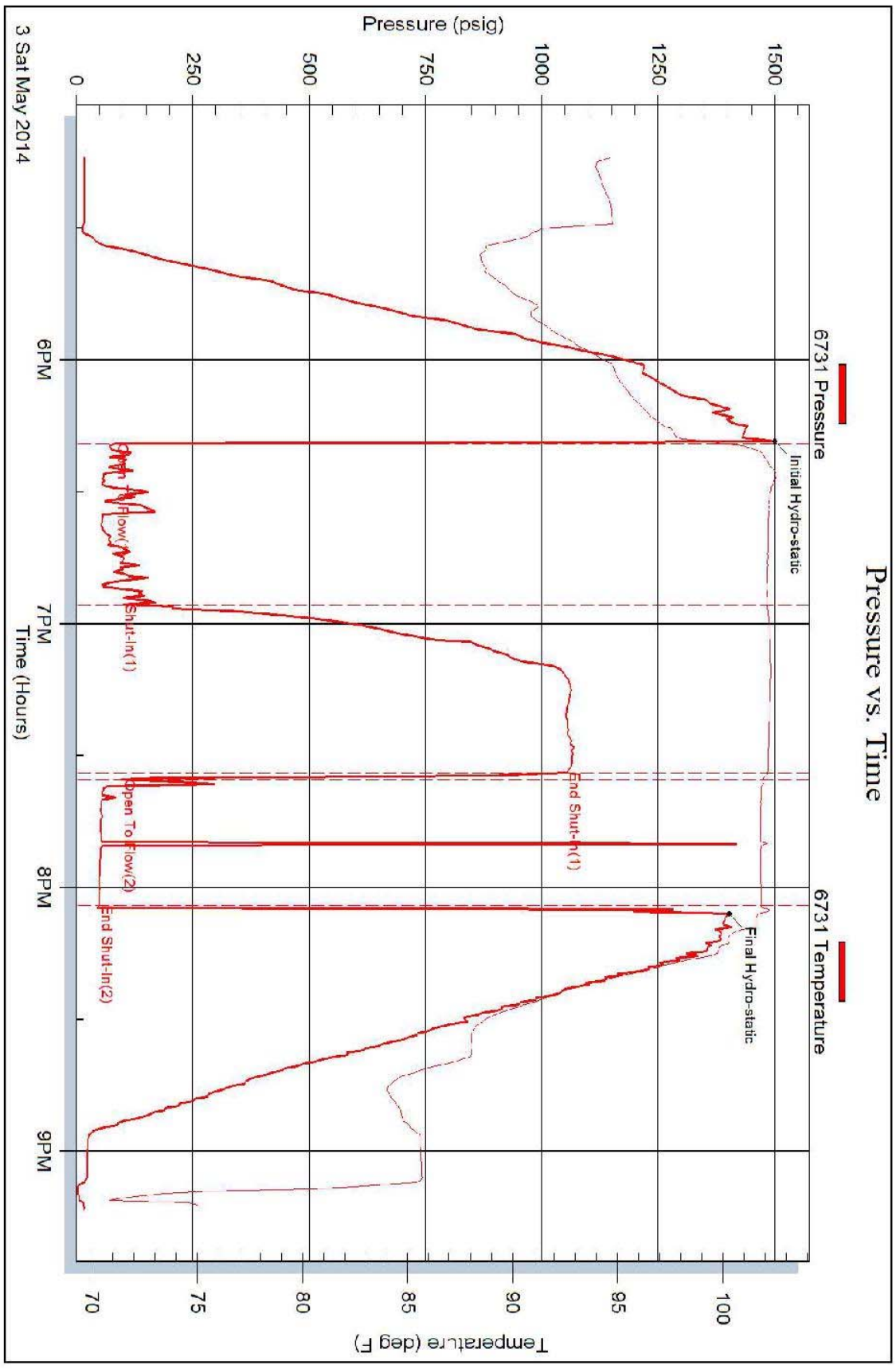
Gas Rates

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

Superior Testers Enterprises LLC Ref. No: 19292 Printed: 2014.05.03 @ 22:27:03

## DST #1 PRESSURE VS TIME CHART

Serial #: 6731 Vonfeldt Alan J Michaelis #1




DST Test Number: 1

Printed: 2014.05.03 @ 22:27:03

Superior Testers Enterprises LLC Ref. No: 19292

**DST #2 TEST SUMMARY**

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19293 **DST#: 2**

Test Start: 2014.05.05 @ 06:13:00

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:36:30
Time Test Ended: 12:04:00

Test Type: Conventional Straddle (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend -

**Interval: 3138.00 ft (KB) To 3172.00 ft (KB) (TVD)**
Total Depth: 3219.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

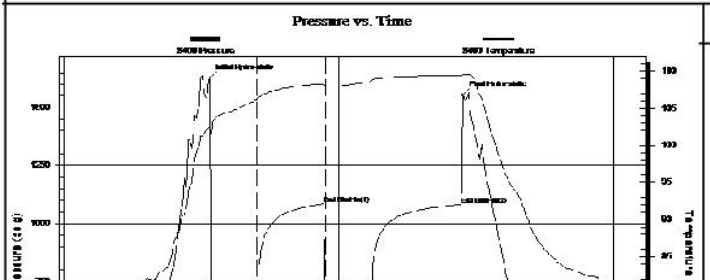
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8400**

Press@RunDepth: 328.25 psig @ ft (KB)
Start Date: 2014.05.05 End Date: 2014.05.05
Start Time: 06:13:00 End Time: 12:04:00

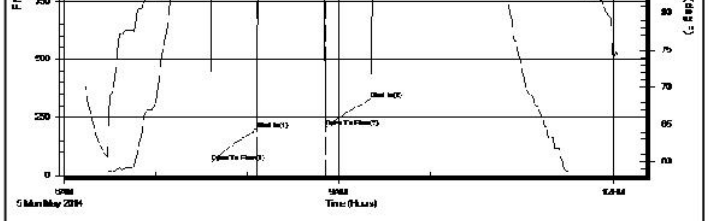
Capacity: 5000.00 psig
Last Calib.: 2014.05.05
Time On Btm: 2014.05.05 @ 07:35:30
Time Off Btm: 2014.05.05 @ 10:21:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 6 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket in 7 minutes
2nd Shut-in 60 Minutes-No blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1626.10 | 102.34 | Initial Hydro-static |
| 1 | 56.12 | 101.31 | Open To Flow (1) |
| 31 | 198.31 | 106.12 | Shut-In(1) |
| 75 | 1084.28 | 108.28 | End Shut-In(1) |
| 76 | 207.65 | 107.95 | Open To Flow (2) |
| 106 | 328.25 | 108.59 | Shut-In(2) |



| | | | |
|---|---|---|---|
| 165 | 1082.00 | 109.37 | End Shut-In(2) |
| 166 | 1555.24 | 109.51 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 650.00 | w ater | 9.12 |
| 0.00 | chlorides 20,000 resistivity.2@70degrees | 0.00 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

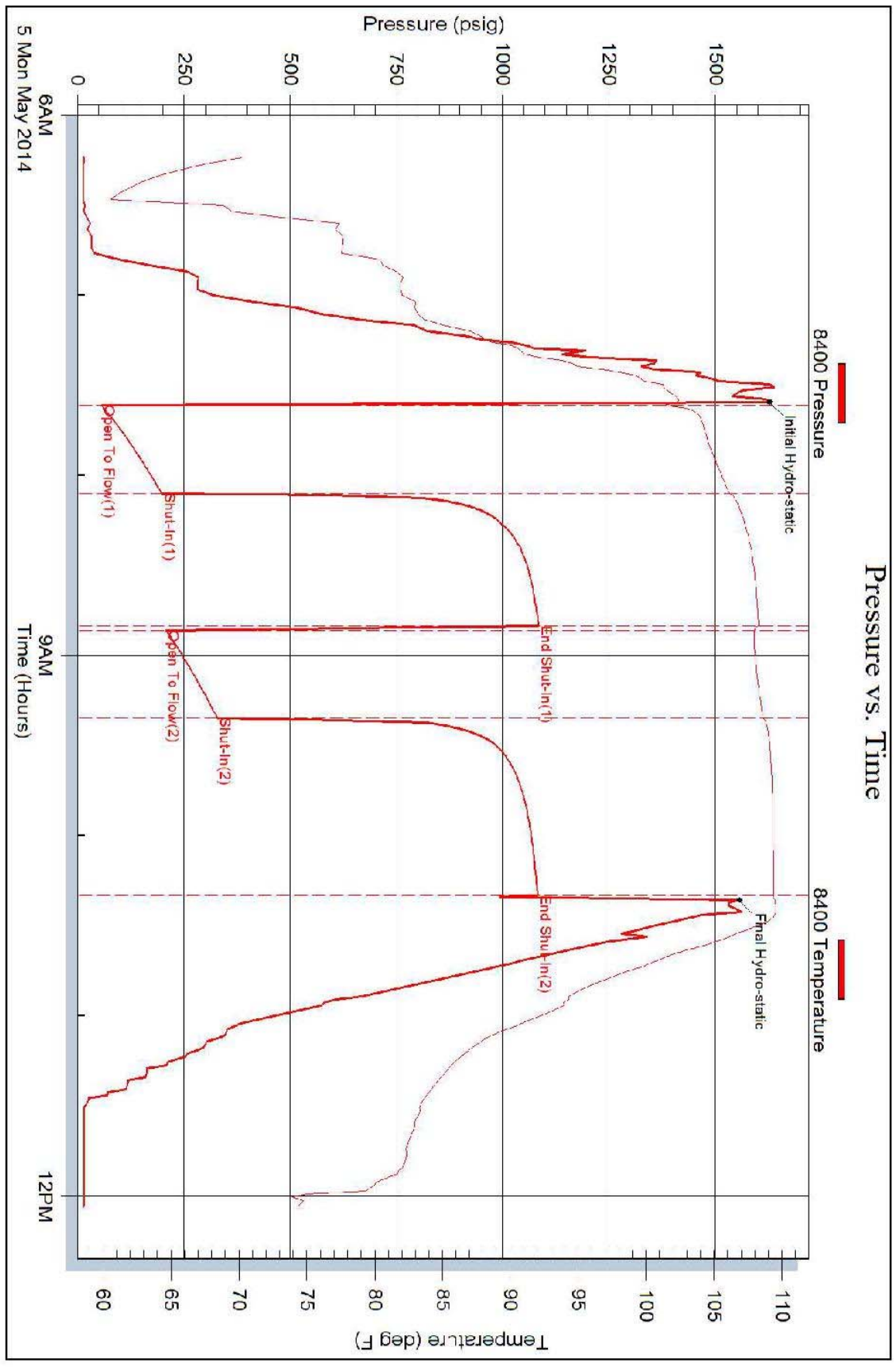
| | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|---|---|---|---|

Superior Testers Enterprises LLC Ref. No: 19293 Printed: 2014.05.05 @ 13:18:42

## DST #2 PRESSURE VS TIME CHART

Serial #: 8400 Vonfeldt Alan J Mchaelis #1

Pressure vs. Time




Superior Testers Enterprises LLC Ref. No: 19293 Printed: 2014.05.05 @ 13:18:42

DST Test Number: 2

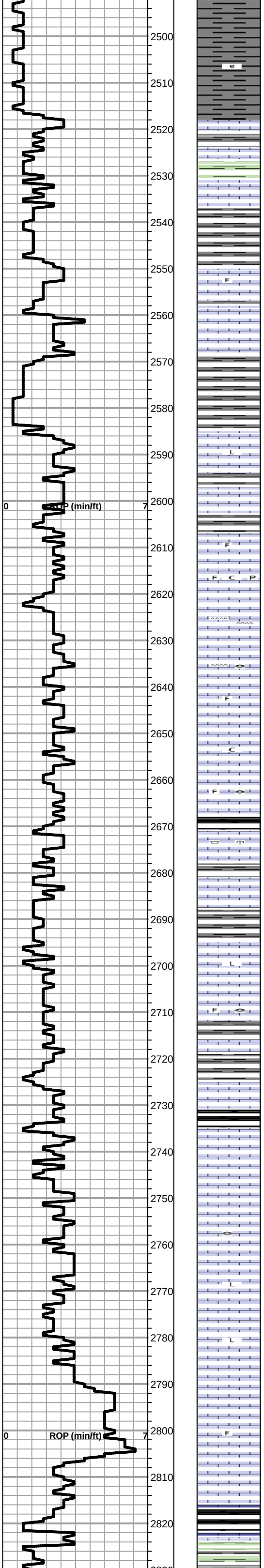
## ROCK TYPES

| | | | |
|---|---|---|---|
| Congl | Lmst fw7> | Carbon Sh | Sltst |
| Dolprim | shale, grn | shale, red | |
| Lmst fw<7 | shale, gry | Ss | |

## ACCESSORIES

| MINERAL | FOSSIL | STRINGER | TEXTURE |
|---|---|---|---|
| Glauconite | Bryozoa | Chert | Chalky |
| Pyrite | Fossils < 20% | Sandstone | Earthy |
| Mica | Pelecypod | | Lithogr |
| | Fussilinid | | |

| Curve Track #1<br>ROP (min/ft)<br>1:240 Imperial | Depth \| Intervals<br>Cored Interval<br>DST Interval | DST | Lithology | Oil Show | Geological Descriptions | Curve Track #3<br>1:240 Imperial |
|---|---|---|---|---|---|---|
| 0 ROP (min/ft) 7<br>0 ROP (min/ft) 7 | 2200 | | | | **ANHYDRITE TOP ELOG 684 (+1049)**<br>**ANHYDRITE BASE ELOG 718 (+1015)** | **8 5/8" SURFACE CASING SET AT 686 W/ 300 SXS COMMON, 2% GEL, 3%CC** |
| | 2210 | | | | BEGIN 1' DRILL TIME @ 2200'<br>BEGIN 10' WET AND DRY SAMPLES FROM 2250' TO RTD | |
| | 2220 | | | | | |
| | 2230 | | | | **GRAND HAVEN SPL 2235 (-502) ELOG 2234 (-501)** | |
| | 2240 | | Mc | | Lm - cream-light brown, vfxln, dense, very hard<br>Ss - light gray, very fine grained, micaceous, well sorted, angular, friable, NSFO, no odor | |
| | 2250 | | P | | Sh - light gray, soft, blocky, forming sticky clumps in part, pyrite clusters | |
| | 2260 | | F | | **DOVER LM SPL 2258 (-525) ELOG 2257 (-524)**<br>Lm - light gray, fossiliferous, fnxln, dense, very hard | |
| | 2270 | | Mc | ◑ | Ss - light gray, very fine grained, micaceous, scattered golden brown stain, SFO upon crush, faint odor, UV florescence | |
| | 2280 | | P | | Sh - light gray, soft, extremely sticky clumps, pyrite clusters | |
| | 2290 | | | | | |
| | 2300 | | P | | Sh - light-medium gray, soft, blocky, pyrite | |
| | 2310 | | F | | **STOTLER / TARKIO LM SPL 2306 (-573) ELOG 2305 (-575)**<br>Lm - cream, fossiliferous, fnxln, hard, brittle | |
| | 2320 | | F<br>C | | Sh - medium gray, soft, blocky<br>Lm - cream-tan, fossiliferous, granular, friable<br>Lm - cream, fnxln, glaucontite specks, dense, hard, chalky in part | |
| | 2330 | | Mc | ○ | Ss - light gray, micaceous, glauconitic, very fine grained, well sorted, angualr, friable, NSFO, no odor, Streaming wet cut under UV light | |
| | 2340 | | e P | | Sh - light gray, soft, blocky, gritty, silty, earthy, pyrite inclusions | |
| | 2350 | | | | | |
| | 2360 | | P | | Sh - dark gray, soft, blocky, gritty, sticky clumps, pyrite | |
| | 2370 | | F | | Lm - light gray-brown, slightly fossiliferous, fnxln, dense, hard | |
| | 2380 | | C | | Lm - tan, fn-medxln, brittle, chalky | |
| | 2390 | | | | Lm - medium brown, fnxln, dense, hard | |
| 0 ROP (min/ft) 7 | 2400 | | | | Lm - light gray, fnxln, slightly fossiliferous, brittle<br>Sh - light-medium gray, soft, blocky | |
| | 2410 | | | | | |
| | 2420 | | | | Lm - light gray, fnxln, mottled, hard | |
| | 2430 | | | | Sh - medium gray, soft, fissile | |
| | 2440 | | P | | Sh - light-medium gray, soft, blocky, pyrite | |
| | 2450 | | F | | Lm - light-medium gray, fossiliferous, mottled, dense, hard | |
| | 2460 | | Mc | | Siltstone - medium gray, micaceous, fine grained, well cemented, firm | |
| | 2470 | | | | Sh - medium gray, soft, gritty, silty, firm | |
| | 2480 | | | | Sh - medium gray, soft, with black specks, blocky | |
| | 2490 | | | | | |







Sh - light gray, gritty, silty, black specks, soft, blocky

Sh - light-medium brown-gray, earthy, soft, blocky

Lm - medium brown, fine interxln porosity, dense, very hard

Sh - light green, soft, blocky

Sh - medium gray, blocky and firm

Lm - light-medium gray, fossiliferous, brittle

Lm - medium brown, vfxln, dense, very hard

Sh - medium gray, soft, blocky

**TOPEKA SPL 2585 (-852) ELOG 2585 (-852)**

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

Sh - medium gray, soft, blocky

Lm - tan, fnxln, slightly fossiliferous, brittle

Lm - tan-light brown, fnxln, fossiliferous, brittle, chalk in part, pyrite

Lm - light brown, vfxln, dense, hard, cherty, bedded chalk in some

Lm - light brown-gray, fnxln, dense, hard, fusilinids, cherty

Lm - light gray-brown, fossiliferous, fnxln, dense, hard

Lm - medium gray, vfxln, dense, brittle, slightly chalky

Lm - light brown, fossiliferous, fnxln, hard, brittle, fusilinids

Sh - black, carbonaceous, waxy

Lm - cream-tan, fnxln, brittle, bedded chalk in part, pelecypod, bryozoans

Sh - light gray, firm, blocky

Lm - tan, lithographic, dense, brittle

Lm - tan-light brown, slightly fossiliferous, fnxln, brittle, fusilinids

Sh - medium gray, soft, blocky

Lm - light brown, mottled, fossiliferous, brittle

Sh - black, carbonaceous, waxy

Lm - cream-tan, fn-medxln, brittle

Lm - cream, fnxln, fusilinids, hard, brittle

Lm - cream-tan, fnxln to lithographic in part, brittle

Lm - tan, lithographic, dense, very hard

Lm - cream-tan, fine interxln porosity, dense, extremely hard

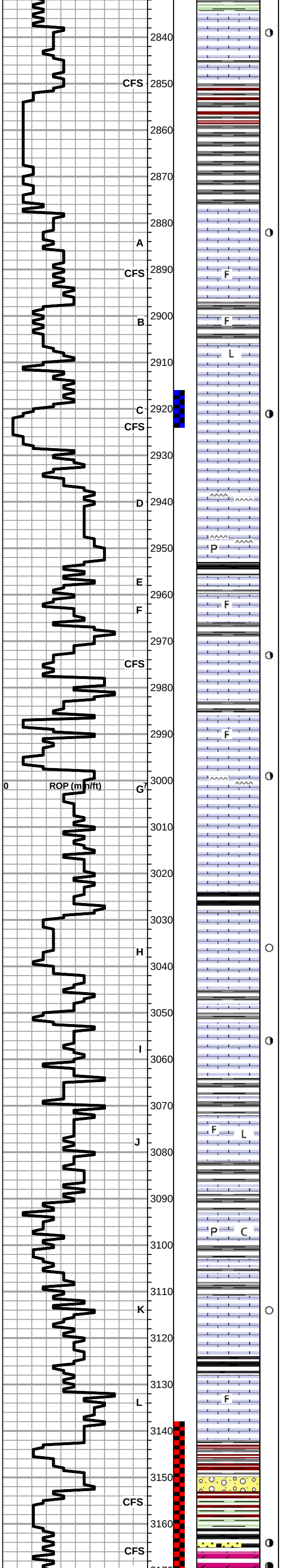
Lm - tan, fossiliferous, no visible porosity, dense, extremely hard

Lm - light brown, fn-medxln, bedded chalk in part

**HEEBNER SPL 2818 (-1085) ELOG 2817 (-1084)**

Sh - black, carbonaceous, waxy

Sh - greenish gray, soft, blocky, some sticky clumps







Lm - offwhite, fine pinpoint porosity, light golden brown scattered stain, faint odor, NSFO, streaming wet cut under UV light

Sh - medium gray, soft, blocky, maroon soft sticky clumps throughout

Sh - light gray, soft, blocky, forming sticky clumps

**LKC SPL 2875 (-1142) ELOG 2876 (-1143)**

Lm - cream, fine interxln porosity with scattered vugs, light scattered brown stain, faint odor, NSFO, slight UV florescence

Lm - light brown, fossil clasts in fnxln matrix, dense, hard, no visible porosity

Lm - tan, fossiliferous, granular, brittle

Lm- cream, lithographic, no visible porosity, very hard

Lm - light brown, oolitic / oomoldic, very porous, moderate odor, scattered saturated stain, SFO upon crush, UV florescence, friable

**DST #1 2916 TO 2924 SEE HEADER FOR TEST SUMMARY**

Lm - A / A

Lm - cream, fine interxln porosity, dense, very hard, no visible porosity, cherty

Lm - A / A, with pyrite clusters

Sh, black , carbonaceous, waxy

Lm - tan, slightly fossiliferous, granular, brittle

Lm - offwhite, very fossiliferous, fine interxln porosity, slight scattered stain, NSFO, no odor

Lm - cream, slightly fossiliferous, granular, some fine interxln porosity, brittle, no odor, no stain

Lm - cream, oolitic / oomoldic, vuggy porosity, slight scattered stain, SFO upon crush in a few, no odor, cherty

Lm - cream, oolitic, poorly developed, limited porosity, no stain, no odor, hard, brittle

Lm - cream, fnxln, hard, brittle, some oolitic

Sh - black, carbonaceous, waxy

Lm - light-medium brown, fnxln, brittle, few chips with slight scattered stain, bedded chalk in part, cherty

Lm - tan, fnxln, hard, brittle

Lm - cream, scattered pinpoint porosity, few chip with scattered light brown stain, SFO upon crush, limited total porosity, no odor

Lm - cream-tan, slightly fossiliferous to lithographic in part, dense, hard, no odor, no stain

Sh - light gray, soft, blocky, some sticky

Lm - cream, fn-medxln, brittle, cherty, slightly chalky, pyrite

Lm - tan, fossiliferous, scattered interxln porosity, limited scattered stain, brittle, NSFO, no odor

Lm - tan, fn-medxln, brittle, bedded chalk in part

Sh - black carbonaceous, waxy

Lm - cream, fossiliferous, no visible porosity, hard

**BKC SPL 3142 (-1409) ELOG 3142 (-1409)**

**DST #2 3138 TO 3172 SEE HEADER FOR TEST SUMMARY**

Sh - medium gray/maroon, soft, blocky

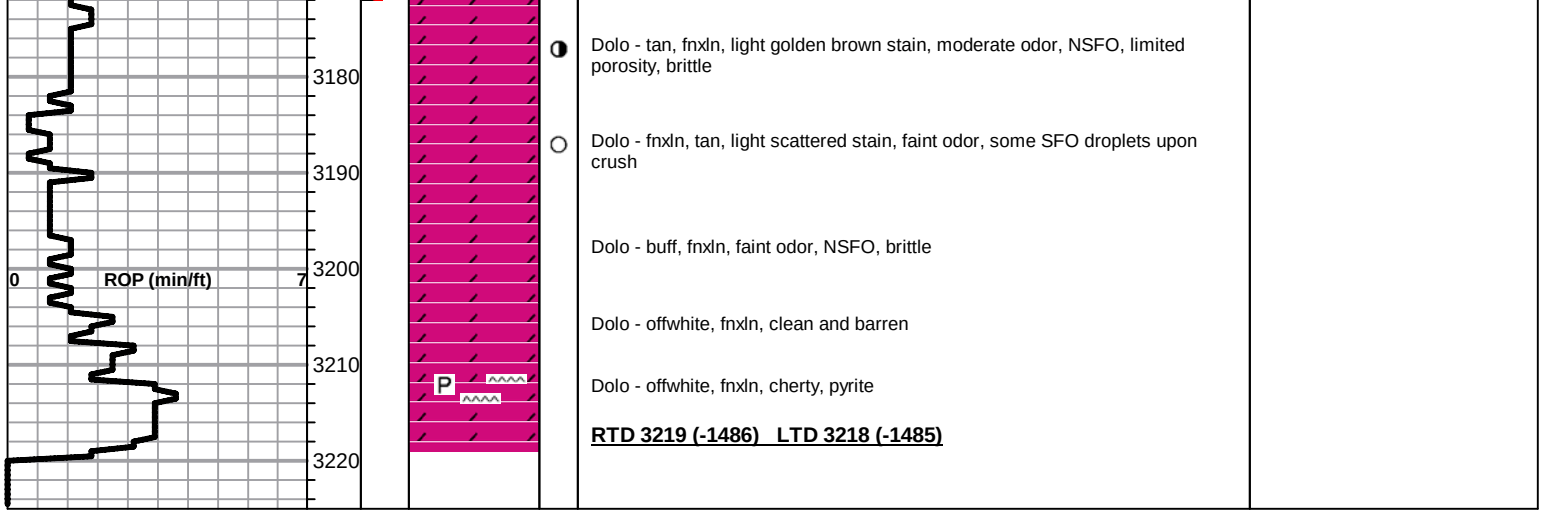
Conglomerate - red, with various colored cemented LS's and quartz grains

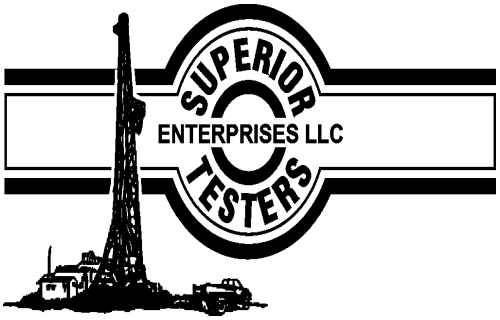
Sh - lime green / maroon, soft, blocky, some sticky

Sh - black, waxy with sandstone clusters, SFO upon crush, moderate odor

**ARBUCKLE SPL 3160 (-1427) ELOG 3166 (-1433)**

Dolo - light brown, sucrosic, saturated golden brown stain, SFO upon crush, strong odor, limited total porosity


0
ROP (min/ft)
7
3180
3190
3200
3210
3220
P
Dolo - tan, fnxln, light golden brown stain, moderate odor, NSFO, limited porosity, brittle
Dolo - fnxln, tan, light scattered stain, faint odor, some SFO droplets upon crush
Dolo - buff, fnxln, faint odor, NSFO, brittle
Dolo - offwhite, fnxln, clean and barren
Dolo - offwhite, fnxln, cherty, pyrite
RTD 3219 (-1486) LTD 3218 (-1485)




# DRILL STEM TEST REPORT

Prepared For: **Vonfeldt Alan J**

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**Michaelis #1**

**33-14-13w Russell**

Start Date: 2014.05.03 @ 17:13:00

End Date: 2014.05.03 @ 21:12:00

Job Ticket #: 19292 DST #: 1

Superior Testers Enterprises LLC

PO Box 138 Great Bend KS 67530

1-800-792-6902

Printed: 2014.05.03 @ 22:27:03

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19292 **DST#: 1**

Test Start: 2014.05.03 @ 17:13:00

## GENERAL INFORMATION:

Formation: **Lansing C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:19:30
Time Test Ended: 21:12:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend-

**Interval: 2916.00 ft (KB) To 2924.00 ft (KB) (TVD)**
Total Depth: 2924.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

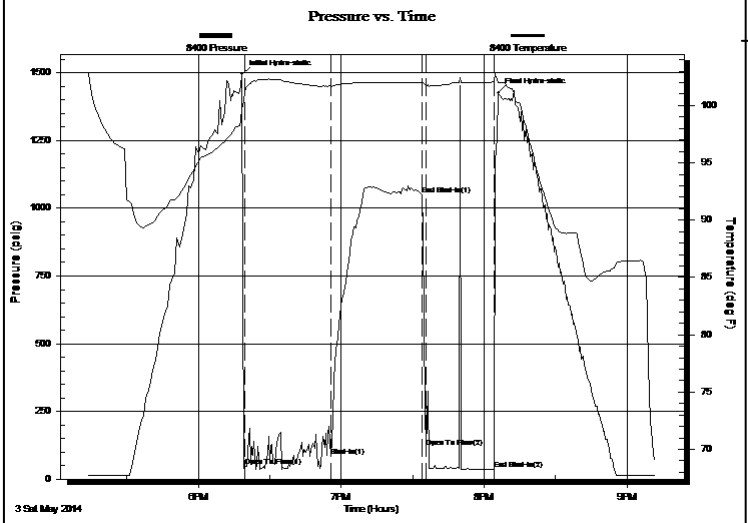
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8400**

Press@RunDepth: 85.16 psig @ ft (KB)
Start Date: 2014.05.03 End Date: 2014.05.03
Start Time: 17:13:00 End Time: 21:12:00

Capacity: 5000.00 psig
Last Calib.: 2014.05.03
Time On Btm: 2014.05.03 @ 18:18:30
Time Off Btm: 2014.05.03 @ 20:06:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1 inch and died off
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-No blow flushed tool 15 minutes into open good surge did not build
2nd Shut-in Pulled tool




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1494.76 | 99.76 | Initial Hydro-static |
| 1 | 48.87 | 101.20 | Open To Flow (1) |
| 37 | 85.16 | 101.63 | Shut-In(1) |
| 76 | 1050.72 | 102.03 | End Shut-In(1) |
| 77 | 117.50 | 101.75 | Open To Flow (2) |
| 106 | 36.61 | 102.06 | End Shut-In(2) |
| 108 | 1425.34 | 102.00 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 10.00 | spot oil mud 1%oil 99%mud | 0.14 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19292 **DST#: 1**

Test Start: 2014.05.03 @ 17:13:00

## GENERAL INFORMATION:

Formation: **Lansing C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:19:30
Time Test Ended: 21:12:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend-

**Interval: 2916.00 ft (KB) To 2924.00 ft (KB) (TVD)**
Total Depth: 2924.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

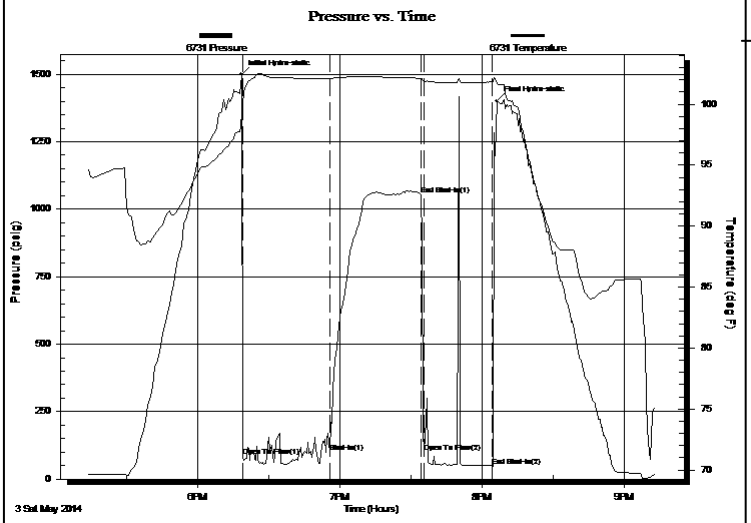
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 6731**

Press@RunDepth: 49.22 psig @ ft (KB)
Start Date: 2014.05.03 End Date: 2014.05.03
Start Time: 17:13:00 End Time: 21:13:00

Capacity: 5000.00 psig
Last Calib.: 2014.05.03
Time On Btm: 2014.05.03 @ 18:18:30
Time Off Btm: 2014.05.03 @ 20:06:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 1 inch and died off
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-No blow flushed tool 15 minutes into open good surge did not build
2nd Shut-in Pulled tool




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1499.64 | 99.36 | Initial Hydro-static |
| 1 | 83.52 | 99.93 | Open To Flow (1) |
| 37 | 99.51 | 102.06 | Shut-In(1) |
| 76 | 1054.02 | 102.13 | End Shut-In(1) |
| 77 | 97.74 | 101.89 | Open To Flow (2) |
| 106 | 49.22 | 101.84 | End Shut-In(2) |
| 108 | 1401.47 | 101.69 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 10.00 | spot oil mud 1%oil 99%mud | 0.14 |
| | | |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19292 **DST#: 1**

Test Start: 2014.05.03 @ 17:13:00

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 2915.00 ft | Diameter: | 3.80 inches | Volume: | 40.89 bbl | Tool Weight: | | 1000.00 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: | 40.89 bbl | Tool Chased | | 8.00 ft |
| Drill Pipe Above KB: | | 19.00 ft | | | | | String Weight: | Initial | 48000.00 lb |
| Depth to Top Packer: | | 2916.00 ft | | | | | | Final | 48000.00 lb |
| Depth to Bottom Packer: | | ft | | | | | | | |
| Interval betw een Packers: | | 8.00 ft | | | | | | | |
| Tool Length: | | 28.00 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 | | | 2901.00 | | |
| Hydraulic tool | 5.00 | | | 2906.00 | | |
| Packer | 5.00 | | | 2911.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 2916.00 | | |
| Recorder | 1.00 | | | 2917.00 | | |
| Recorder | 1.00 | | | 2918.00 | | |
| Anchor | 3.00 | | | 2921.00 | | |
| Bullnose | 3.00 | | | 2924.00 | 8.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **28.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19292 **DST#: 1**

Test Start: 2014.05.03 @ 17:13:00

## 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: | 48.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.00 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 5000.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 10.00 | spot oil mud 1%oil 99%mud | 0.140 |

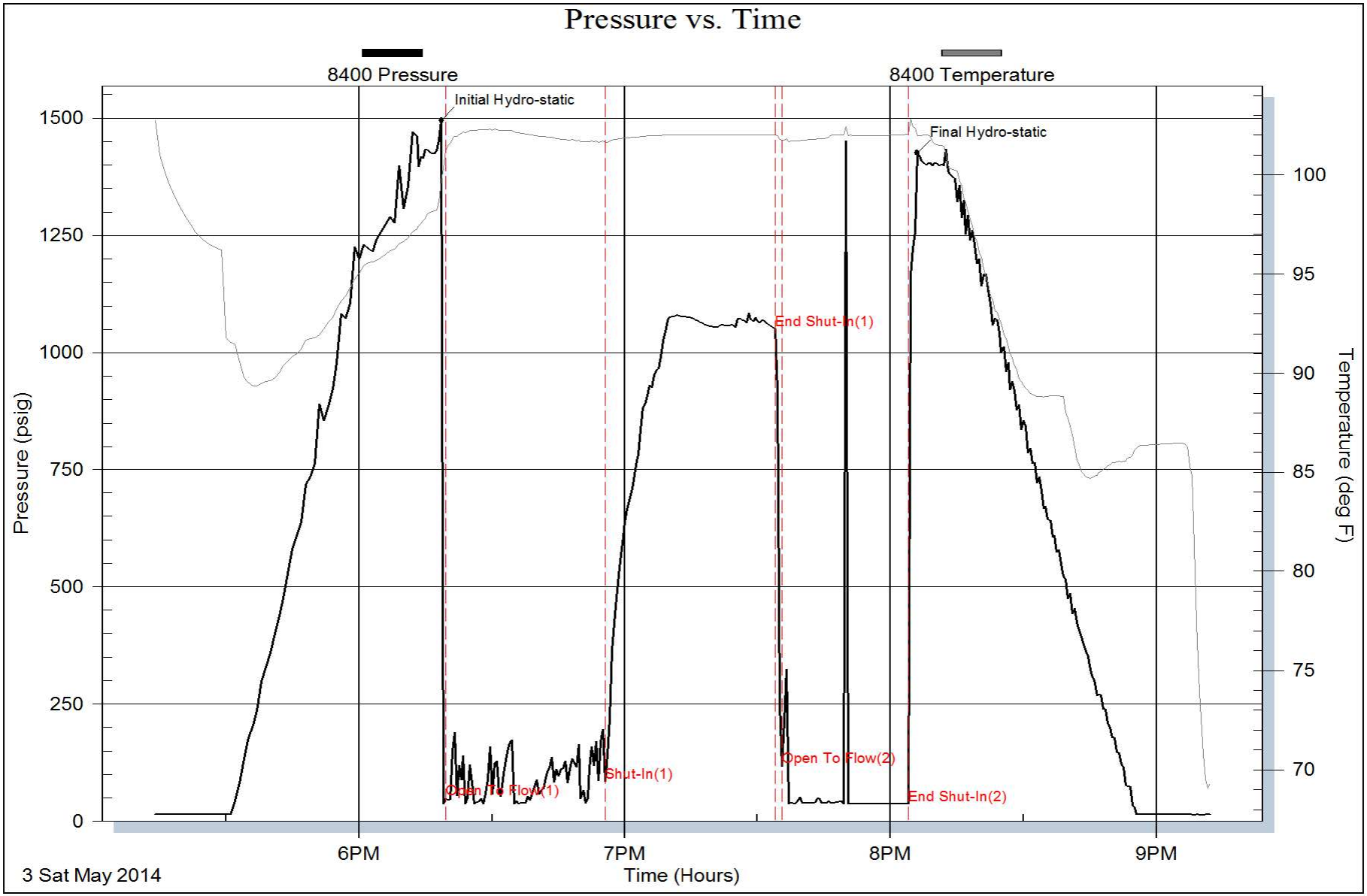
Total Length: 10.00 ft Total Volume: 0.140 bbl

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

Laboratory Name: Laboratory Location:

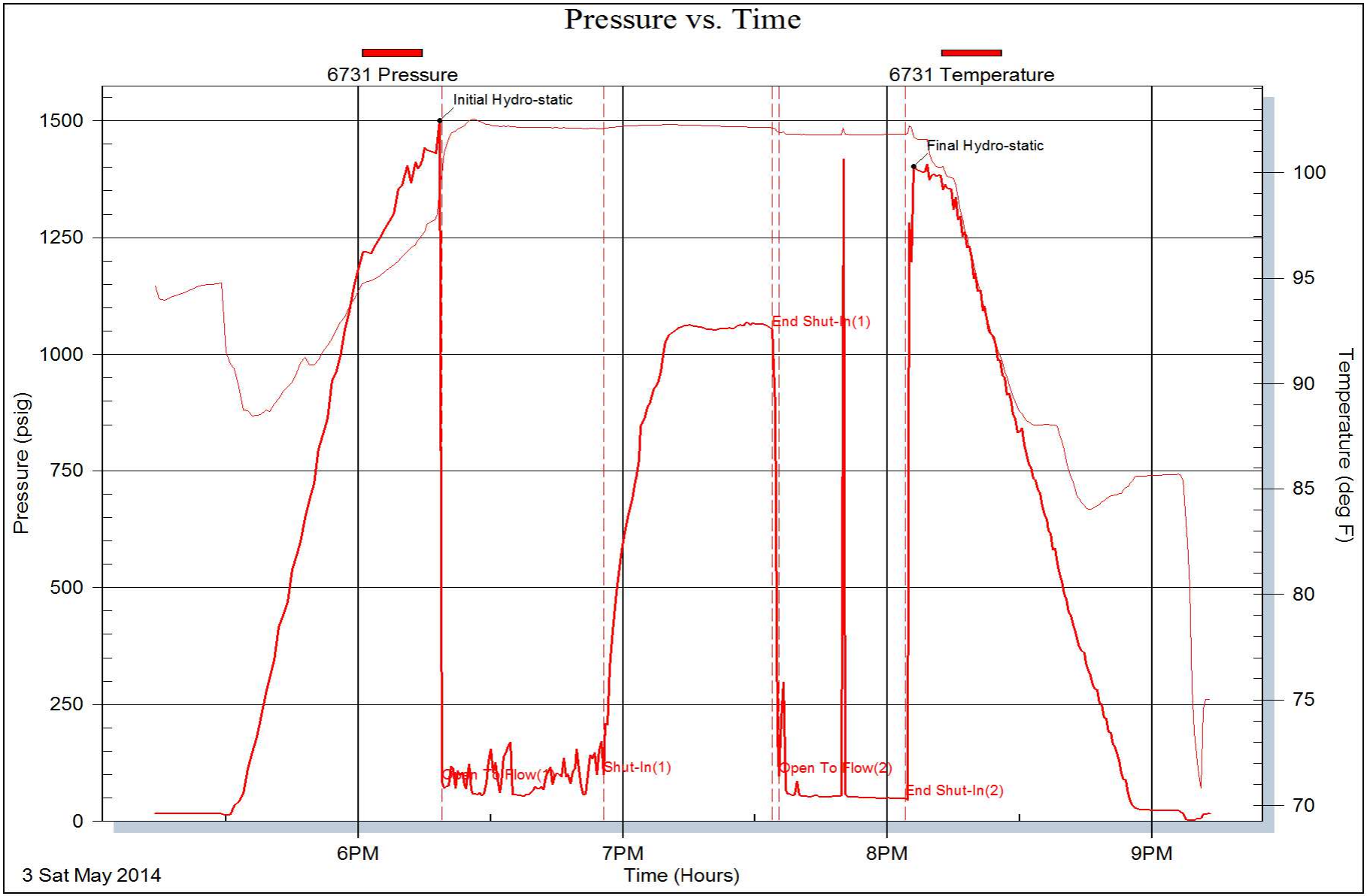
Recovery Comments: chased tool 8 feet to bottom /flushed tool 2nd open

Serial #: 8400 Vonfeldt Alan J Michaelis #1 DST Test Number: 1




Superior Testers Enterprises LLC Ref. No: 19292 Printed: 2014.05.03 @ 22:27:03

Serial #: 6731 Vonfeldt Alan J Michaelis #1 DST Test Number: 1

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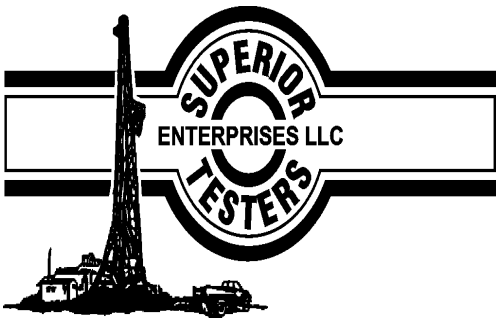



# DRILL STEM TEST REPORT

Prepared For: **Vonfeldt Alan J**

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**Michaelis #1**

**33-14-13w Russell**

Start Date: 2014.05.05 @ 06:13:00

End Date: 2014.05.05 @ 12:04:00

Job Ticket #: 19293 DST #: 2

Superior Testers Enterprises LLC

PO Box 138 Great Bend KS 67530

1-800-792-6902

Printed: 2014.05.05 @ 13:18:42

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19293 **DST#: 2**

Test Start: 2014.05.05 @ 06:13:00

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:36:30
Time Test Ended: 12:04:00

Test Type: Conventional Straddle (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend -

**Interval: 3138.00 ft (KB) To 3172.00 ft (KB) (TVD)**
Total Depth: 3219.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

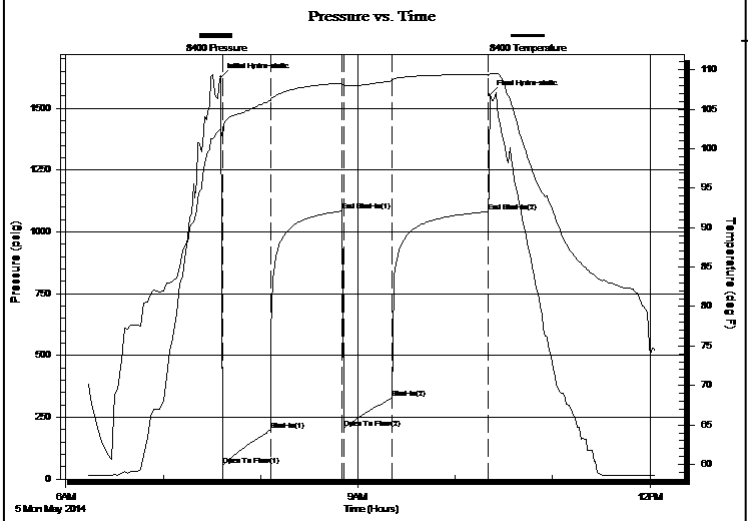
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 8400**

Press@RunDepth: 328.25 psig @ ft (KB)
Start Date: 2014.05.05 End Date: 2014.05.05
Start Time: 06:13:00 End Time: 12:04:00

Capacity: 5000.00 psig
Last Calib.: 2014.05.05
Time On Btm: 2014.05.05 @ 07:35:30
Time Off Btm: 2014.05.05 @ 10:21:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 6 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket in 7 minutes
2nd Shut-in 60 Minutes-No blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|
| 0 | 1626.10 | 102.34 | Initial Hydro-static |
| 1 | 56.12 | 101.31 | Open To Flow (1) |
| 31 | 198.31 | 106.12 | Shut-In(1) |
| 75 | 1084.28 | 108.28 | End Shut-In(1) |
| 76 | 207.65 | 107.95 | Open To Flow (2) |
| 106 | 328.25 | 108.59 | Shut-In(2) |
| 165 | 1082.00 | 109.37 | End Shut-In(2) |
| 166 | 1555.24 | 109.51 | Final Hydro-static |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 650.00 | w ater | 9.12 |
| 0.00 | chlorides 20,000 resistivity.2@70degree | 0.00 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19293 **DST#: 2**

Test Start: 2014.05.05 @ 06:13:00

## GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:36:30
Time Test Ended: 12:04:00

Test Type: Conventional Straddle (Initial)
Tester: Jared Scheck
Unit No: 3320-Great Bend -

**Interval: 3138.00 ft (KB) To 3172.00 ft (KB) (TVD)**
Total Depth: 3219.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

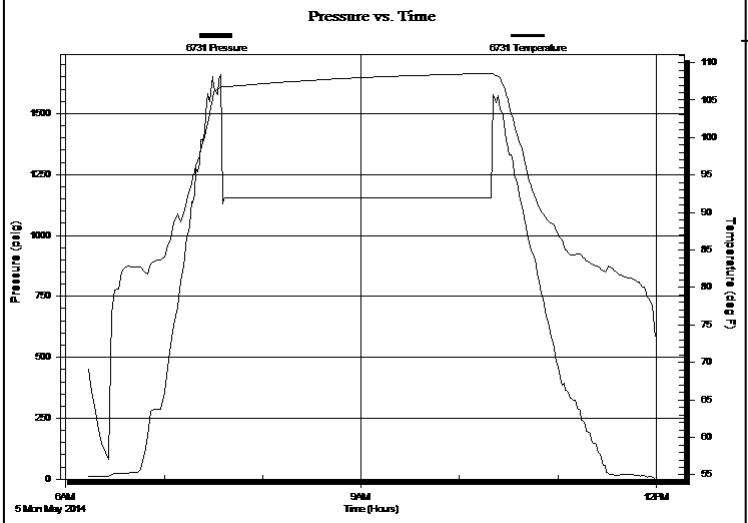
Reference Elevations: 1733.00 ft (KB)
1726.00 ft (CF)
KB to GR/CF: 7.00 ft

**Serial #: 6731**

Press@RunDepth: psig @ ft (KB)
Start Date: 2014.05.05 End Date: 2014.05.05
Start Time: 06:13:00 End Time: 12:00:00

Capacity: psig
Last Calib.: 2014.05.05
Time On Btm:
Time Off Btm:

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 6 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Strong blow built bottom of bucket in 7 minutes
2nd Shut-in 60 Minutes-No blow back




## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|---|---|---|---|

## Recovery

| Length (ft) | Description | Volume (bbl) |
|---|---|---|
| 650.00 | w ater | 9.12 |
| 0.00 | chlorides 20,000 resistivity.2@70degrees | 0.00 |
| | | |
| | | |
| | | |
| | | |

## Gas Rates

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

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19293 **DST#: 2**

Test Start: 2014.05.05 @ 06:13:00

## Tool Information

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Drill Pipe: | Length: | 3138.00 ft | Diameter: | 3.80 inches | Volume: | 44.02 bbl | Tool Weight: | | 1000.00 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: | | 60000.00 lb |
| | | | | | Total Volume: | 44.02 bbl | Tool Chased | | 0.00 ft |
| Drill Pipe Above KB: | | 20.00 ft | | | | | String Weight: | Initial | 50000.00 lb |
| Depth to Top Packer: | | 3138.00 ft | | | | | | Final | 50000.00 lb |
| Depth to Bottom Packer: | | 3172.00 ft | | | | | | | |
| Interval betw een Packers: | | 34.00 ft | | | | | | | |
| Tool Length: | | 106.00 ft | | | | | | | |
| Number of Packers: | | 3 | Diameter: | 6.75 inches | | | | | |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths | |
|---|---|---|---|---|---|---|
| Shut In Tool | 5.00 | | | 3123.00 | | |
| Hydraulic tool | 5.00 | | | 3128.00 | | |
| Packer | 5.00 | | | 3133.00 | 20.00 | Bottom Of Top Packer |
| Packer | 5.00 | | | 3138.00 | | |
| Anchor | 31.50 | | | 3169.50 | | |
| Recorder | 1.00 | | | 3170.50 | | |
| Recorder | 1.00 | | | 3171.50 | | |
| Blank Off Sub | 0.50 | | | 3172.00 | 34.00 | Tool Interval |
| Packer | 5.00 | | | 3177.00 | | |
| tail pipe | 43.00 | | | 3220.00 | | |
| Recorder | 1.00 | | | 3221.00 | | |
| Bullnose | 3.00 | | | 3224.00 | 52.00 | Bottom Packers & Anchor |
| **Total Tool Length:** | **106.00** | | | | | |

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vonfeldt Alan J

PO Box 611 Rusell KS 67665+2808

ATTN: Steve Reed

**33-14-13w Russell**

**Michaelis #1**

Job Ticket: 19293 **DST#: 2**

Test Start: 2014.05.05 @ 06:13:00

## 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: | 46.00 sec/qt | Cushion Volume: | bbl | | |
| Water Loss: | 8.80 in³ | Gas Cushion Type: | | | |
| Resistivity: | ohm.m | Gas Cushion Pressure: | psig | | |
| Salinity: | 7000.00 ppm | | | | |
| Filter Cake: | 1.00 inches | | | | |

## Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|---|---|---|
| 650.00 | w ater | 9.118 |
| 0.00 | chlorides 20,000 resistivity.2@70degrees | 0.000 |

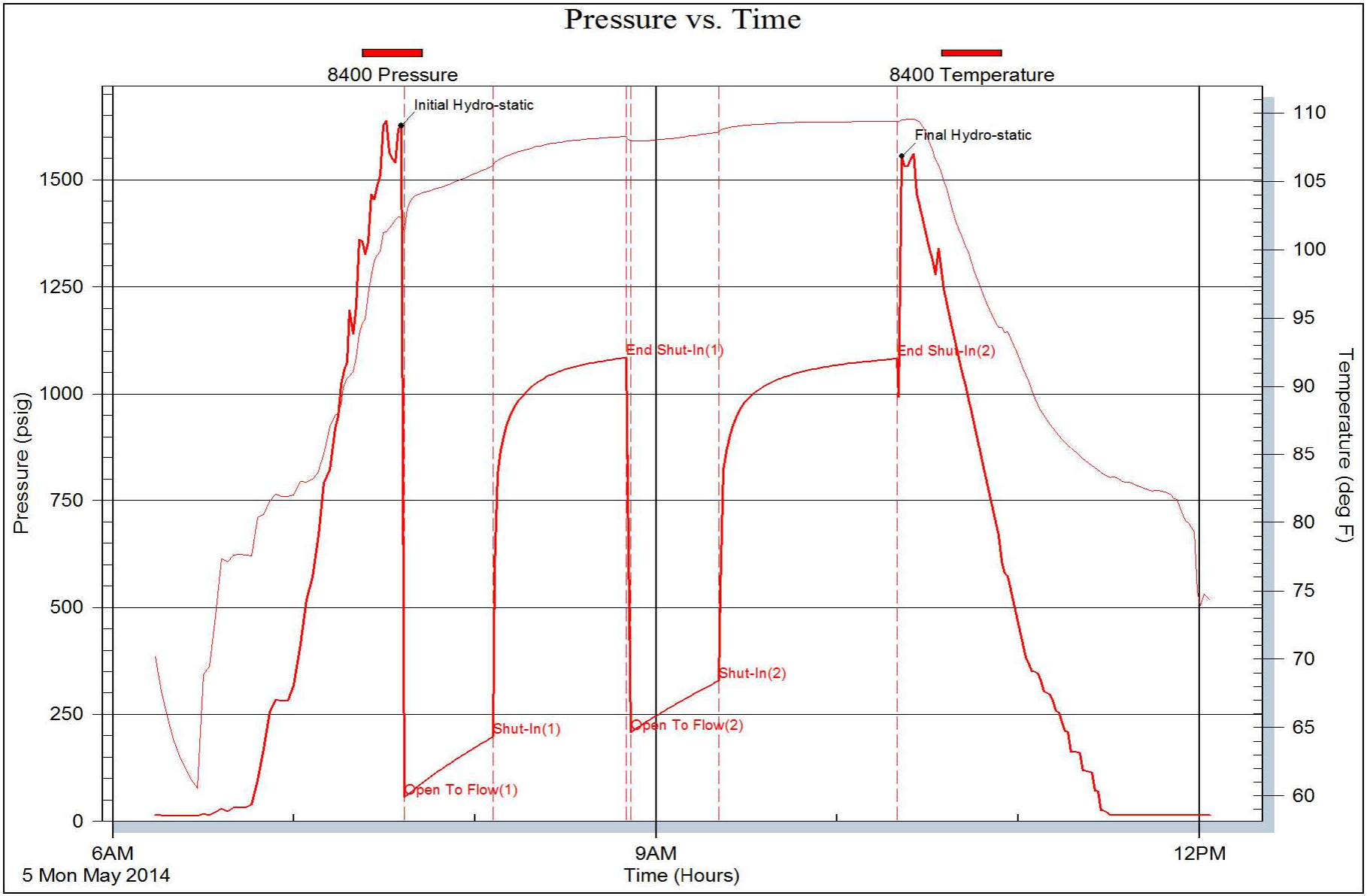
Total Length: 650.00 ft Total Volume: 9.118 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8400 Vonfeldt Alan J Michaelis #1 DST Test Number: 2

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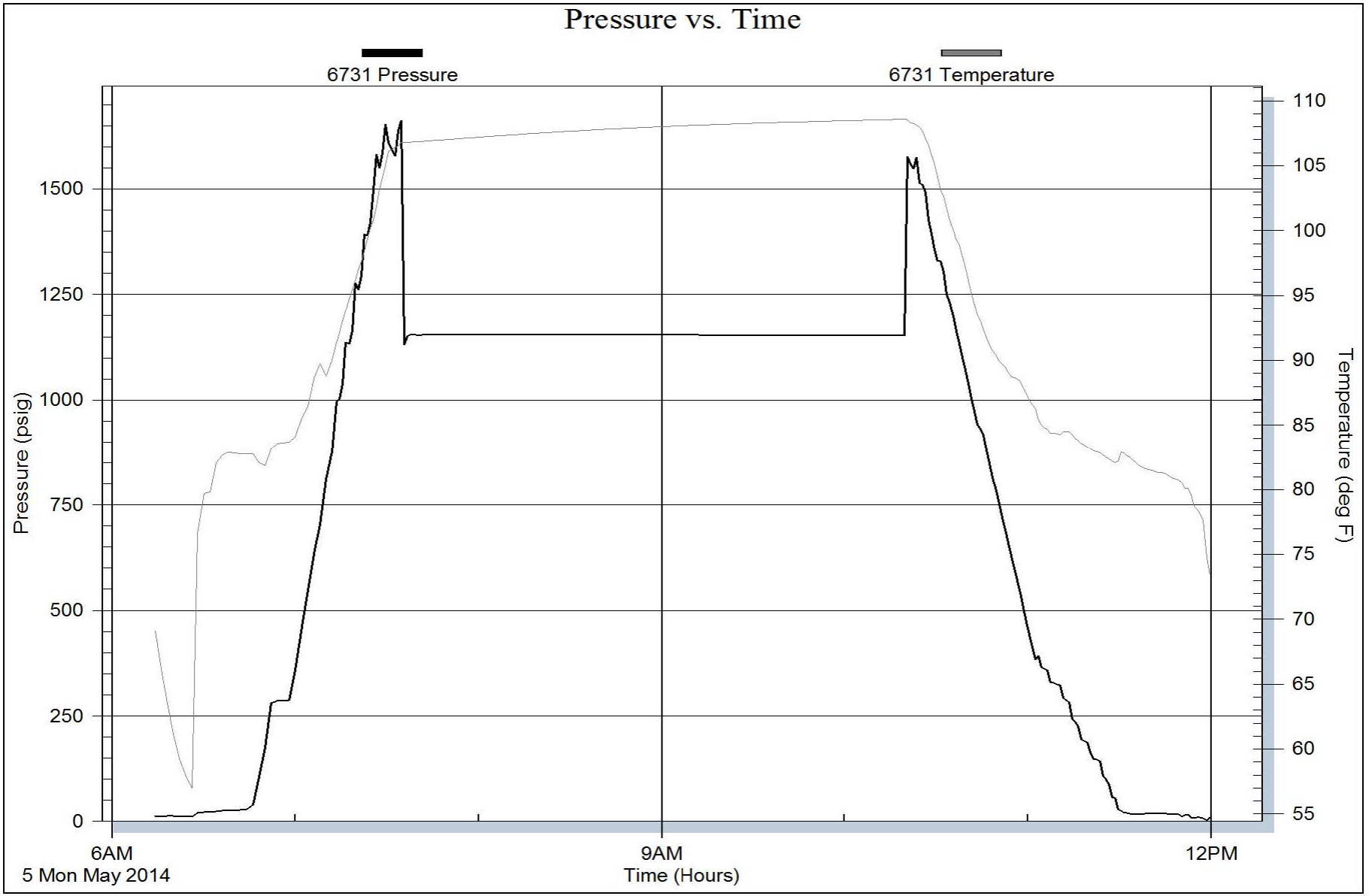
Serial #: 6731 Vonfeldt Alan J Michaelis #1 DST Test Number: 2

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