



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1208725  
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 Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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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: \_\_\_\_\_

1208725

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 <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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 Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <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
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	Nancy 3-17
Doc ID	1208725

All Electric Logs Run

Dual Induction
Compensated Nuutron
Micro
Sonic
Segmented Bond

Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	Nancy 3-17
Doc ID	1208725

Tops

Name	Top	Datum
HEEBNER SHALE	3129	-1151
LKC	3219	-1241
MUNCIE CREEK	3344	-1366
STARK SHALE	3402	-1424
BKC	3428	-1450
RE-WORKED ARB	3436	-1458
ARBUCKLE	3455	-1477
LTD	3528	-1550





## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601

ATTN: Jeremy Schwartz

**Nancy 3-17**

**17/17S/13W/Barton**

Start Date: 2014.05.06 @ 21:37:00

End Date: 2014.05.07 @ 04:43:30

Job Ticket #: 18253                      DST #: 1

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

Printed: 2014.05.07 @ 04:55:38



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**

**Nancy 3-17**

Job Ticket: 18253      **DST#: 1**  
 Test Start: 2014.05.06 @ 21:37:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock:      ft (KB)

Time Tool Opened: 23:37:30

Time Test Ended: 04:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/

**Interval: 3213.00 ft (KB) To 3260.00 ft (KB) (TVD)**

Reference Elevations: 1978.00 ft (KB)

Total Depth: 3260.00 ft (KB) (TVD)

1965.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

## Serial #: 6748

Press@RunDepth: 98.02 psig @      ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.05.06      End Date: 2014.05.07

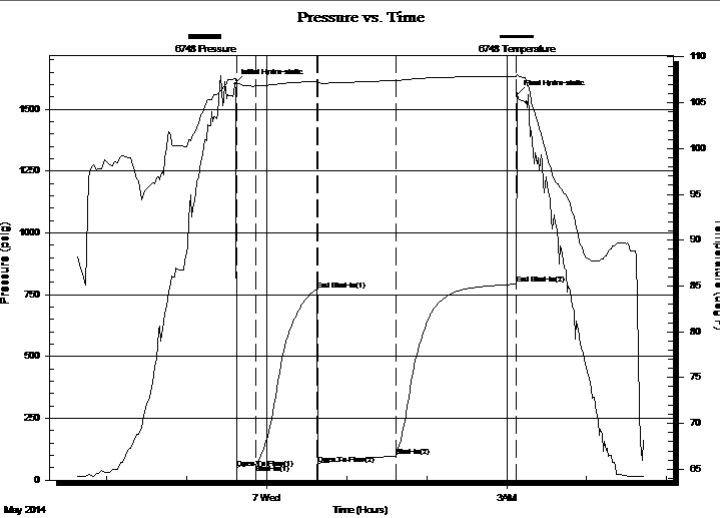
Last Calib.: 2014.05.07

Start Time: 21:37:00      End Time: 04:43:30

Time On Btm: 2014.05.06 @ 23:36:00

Time Off Btm: 2014.05.07 @ 03:08:00

**TEST COMMENT:** 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket in 13 minutes  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Strong blow /Blow built to bottom of bucket in 30 seconds then slow ed considerably  
 2ND Shut In 90 Minutes/Blow back built to 1/4 then died in 15 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1601.66	107.69	Initial Hydro-static
2	49.82	107.23	Open To Flow (1)
16	62.84	106.83	Shut-In(1)
62	770.68	107.35	End Shut-In(1)
63	63.11	107.18	Open To Flow (2)
121	98.02	107.44	Shut-In(2)
211	791.85	107.91	End Shut-In(2)
212	1559.65	108.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Oily Mud/Oil 20% Mud 80%	0.59
0.00	180 feet of gas in pipe	0.00

## Gas Rates

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







# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18253      **DST#: 1**  
 Test Start: 2014.05.06 @ 21:37:00

## Tool Information

Drill Pipe:	Length: 2867.00 ft	Diameter: 3.80 inches	Volume: 40.22 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 328.07 ft	Diameter: 2.25 inches	Volume: 1.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 41.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.07 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3213.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	75.00 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			3190.00	
Hydraulic tool	5.00			3195.00	
Jars	6.00			3201.00	
Safety Joint	2.00			3203.00	
Top Packer	5.00			3208.00	
Packer	5.00			3213.00	28.00      Bottom Of Top Packer
Anchor	42.00			3255.00	
Recorder	1.00	6749	Inside	3256.00	
Recorder	1.00	8938	Outside	3257.00	
Bullnose	3.00			3260.00	47.00      Anchor Tool
<b>Total Tool Length:</b>	<b>75.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Shelby Resources LLC  
2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
Job Ticket: 18253      **DST#: 1**  
Test Start: 2014.05.06 @ 21:37:00

### 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:	52.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	8.00 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2800.00 ppm				
Filter Cake:	1.00 inches				

### Recovery Information

Recovery Table

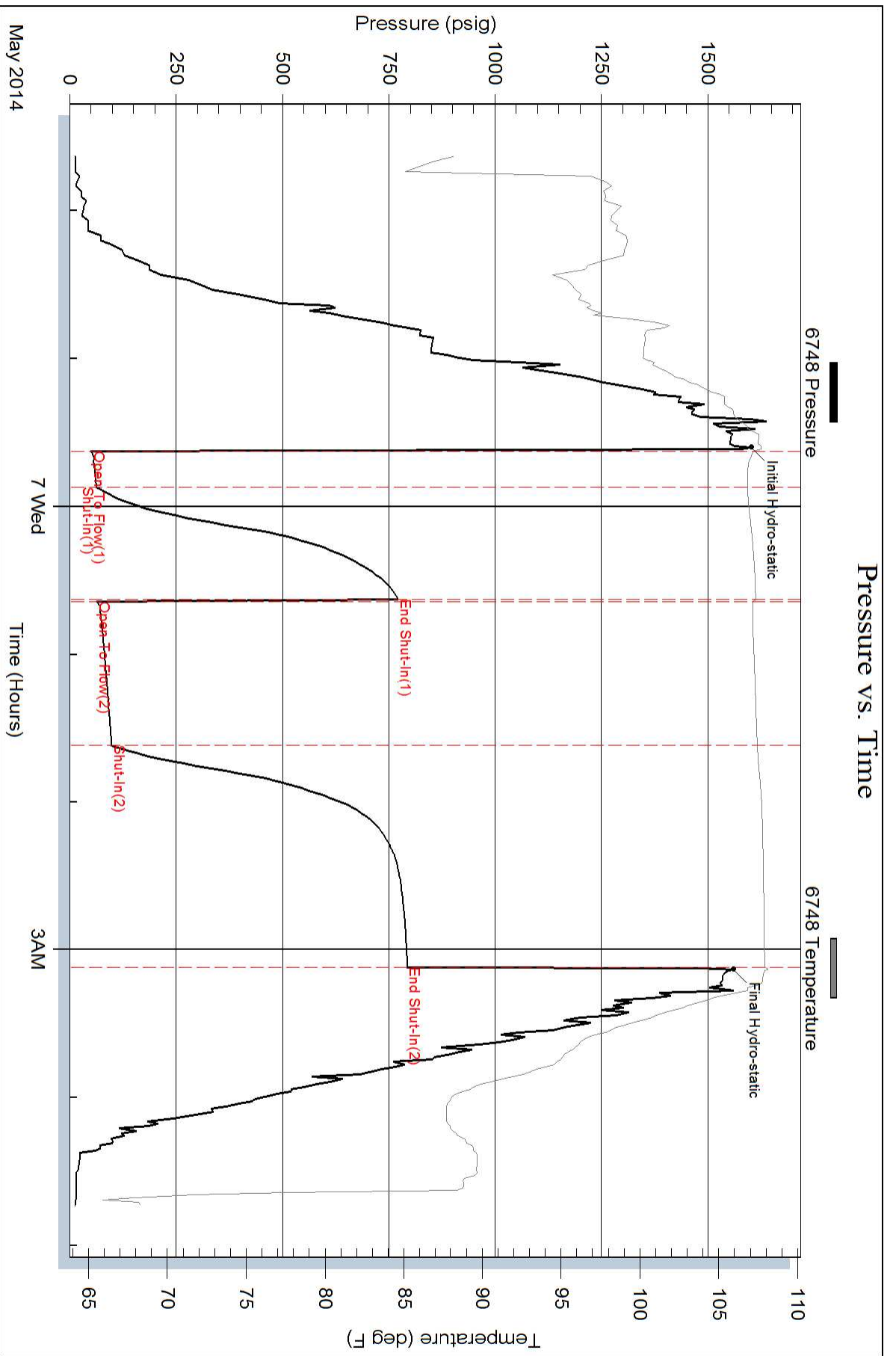
Length ft	Description	Volume bbbl
120.00	Oily Mud/Oil 20% Mud 80%	0.590
0.00	180 feet of gas in pipe	0.000

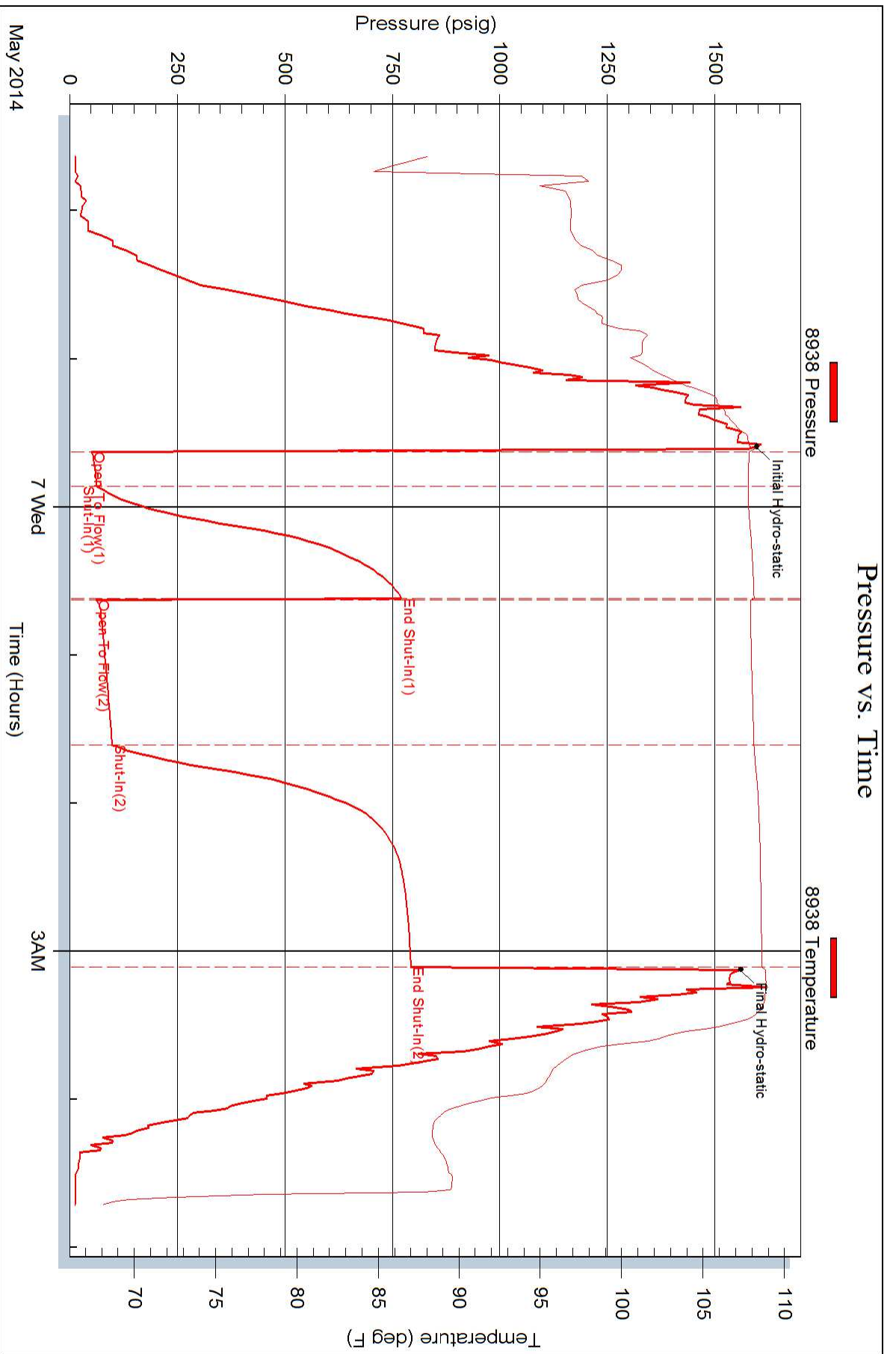
Total Length: 120.00 ft      Total Volume: 0.590 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601

ATTN: Jeremy Schwartz

**Nancy 3-17**

**17/17S/13W/Barton**

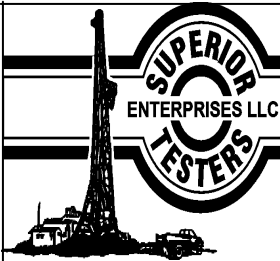
Start Date: 2014.05.07 @ 13:10:00

End Date: 2014.05.07 @ 16:59:00

Job Ticket #: 18254                      DST #: 2

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

Printed: 2014.05.07 @ 17:08:47



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18254      **DST#: 2**  
 Test Start: 2014.05.07 @ 13:10:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 14:17:30  
 Time Test Ended: 16:59:00  
 Interval: **3260.00 ft (KB) To 3283.00 ft (KB) (TVD)**  
 Total Depth: **3283.00 ft (KB) (TVD)**  
 Hole Diameter: **7.80 inches** Hole Condition: Fair

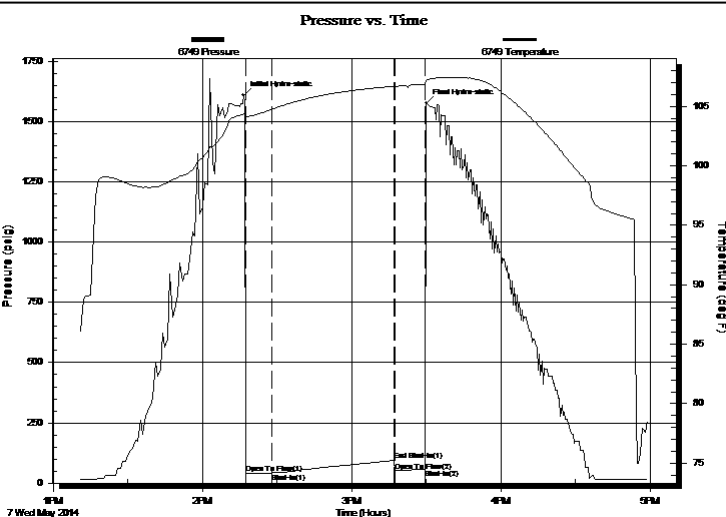
Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

## Serial #: 6749

## Inside

Press@RunDepth: 42.77 psig @ 3279.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.07      End Date: 2014.05.07      Last Calib.: 2014.05.07  
 Start Time: 13:10:00      End Time: 16:59:00      Time On Btm: 2014.05.07 @ 14:16:30  
 Time Off Btm: 2014.05.07 @ 15:30:00

**TEST COMMENT:** 1ST Open 15 Minutes/Weak surface blow throughout/Blow did not build  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.27	104.39	Initial Hydro-static
1	41.03	104.12	Open To Flow (1)
12	42.77	104.77	Shut-In(1)
61	94.43	106.69	End Shut-In(1)
61	50.71	106.69	Open To Flow (2)
73	56.21	106.86	Shut-In(2)
74	1575.92	107.21	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

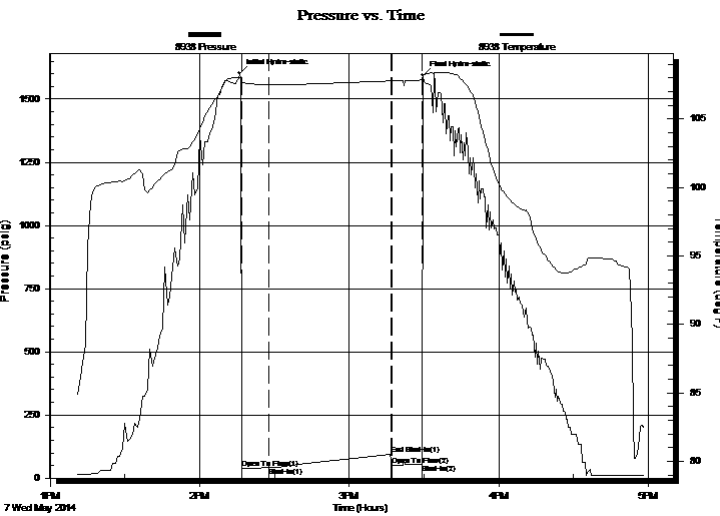
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18254      **DST#: 2**  
 Test Start: 2014.05.07 @ 13:10:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 14:17:30  
 Time Test Ended: 16:59:00  
 Interval: **3260.00 ft (KB) To 3283.00 ft (KB) (TVD)**  
 Total Depth: 3283.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 8938      Outside**  
 Press@RunDepth: 94.15 psig @ 3280.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.07      End Date: 2014.05.07      Last Calib.: 2014.05.07  
 Start Time: 13:10:00      End Time: 16:58:30      Time On Btm: 2014.05.07 @ 14:16:00  
 Time Off Btm: 2014.05.07 @ 15:29:30

**TEST COMMENT:** 1ST Open 15 Minutes/Weak surface blow throughout/Blow did not build  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1602.70	108.06	Initial Hydro-static
1	37.31	107.57	Open To Flow (1)
12	41.69	107.53	Shut-In(1)
61	94.15	107.80	End Shut-In(1)
61	49.81	107.78	Open To Flow (2)
73	54.35	107.86	Shut-In(2)
74	1593.97	108.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18254      **DST#: 2**  
 Test Start: 2014.05.07 @ 13:10:00

## Tool Information

Drill Pipe:	Length: 2932.00 ft	Diameter: 3.80 inches	Volume: 41.13 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 328.07 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 41.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.07 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3260.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.00 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			3238.00	
Hydraulic tool	5.00			3243.00	
Jars	5.00			3248.00	
Safety Joint	2.00			3250.00	
Top Packer	5.00			3255.00	
Packer	5.00			3260.00	27.00      Bottom Of Top Packer
Anchor	18.00			3278.00	
Recorder	1.00	6749	Inside	3279.00	
Recorder	1.00	8938	Outside	3280.00	
Bullnose	3.00			3283.00	23.00      Anchor Tool
<b>Total Tool Length:</b>	<b>50.00</b>				





# DRILL STEM TEST REPORT

## FLUID SUMMARY

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18254      **DST#: 2**  
 Test Start: 2014.05.07 @ 13:10:00

### Mud and Cushion Information

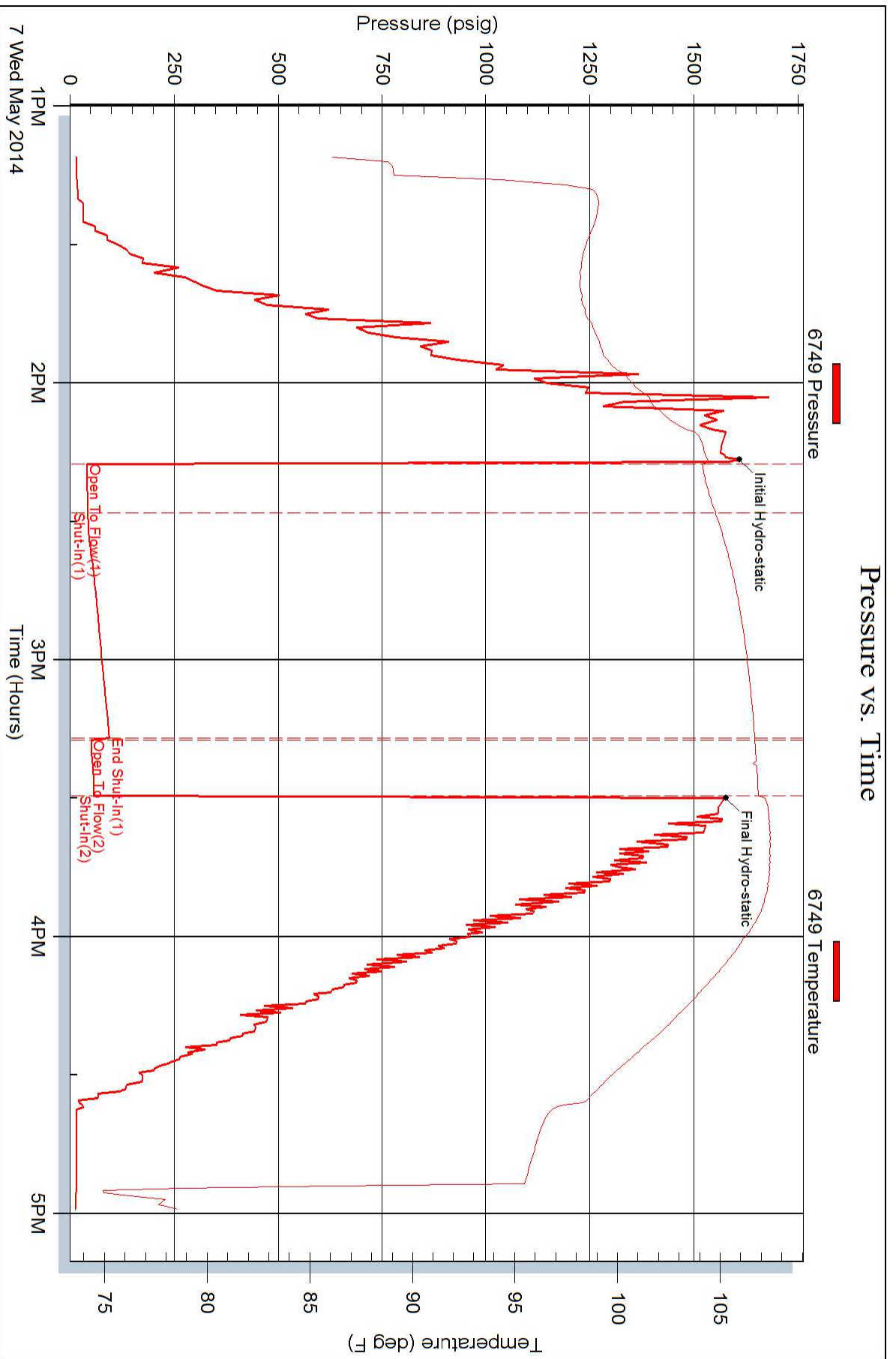
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4200.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

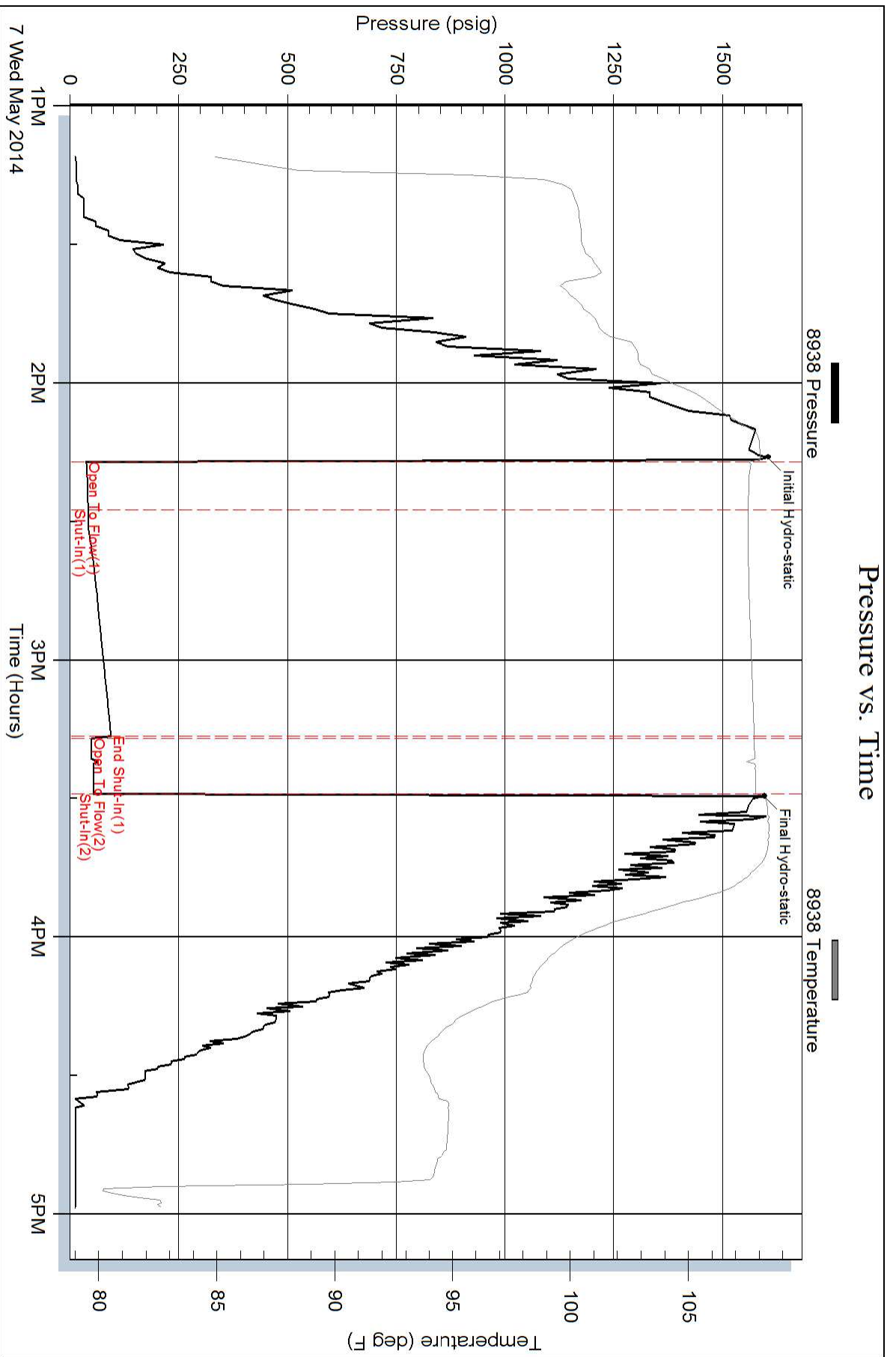
Recovery Table

Length ft	Description	Volume bbl
30.00	Mud 100%	0.000

Total Length: 30.00 ft      Total Volume: bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601

ATTN: Jeremy Schwartz

**Nancy 3-17**

**17/17S/13W/Barton**

Start Date: 2014.05.08 @ 08:09:00

End Date: 2014.05.08 @ 12:00:30

Job Ticket #: 18255                      DST #: 3

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

Printed: 2014.05.08 @ 12:13:14



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

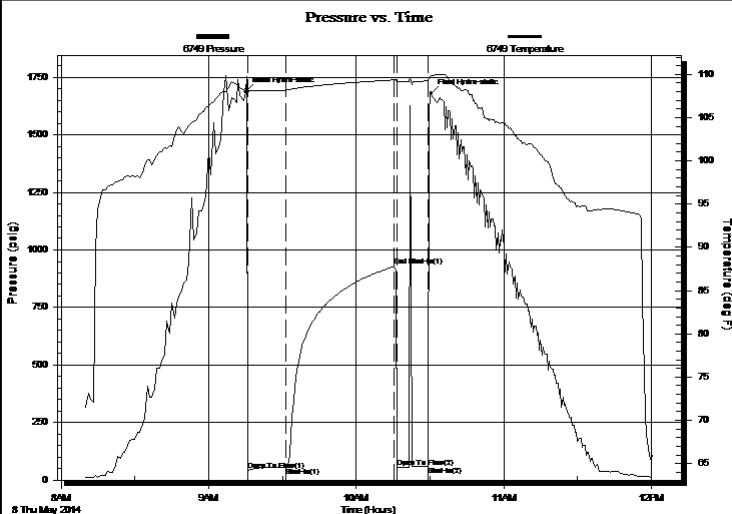
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18255      **DST#: 3**  
 Test Start: 2014.05.08 @ 08:09:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 09:16:00  
 Time Test Ended: 12:00:30  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
**Interval: 3424.00 ft (KB) To 3455.00 ft (KB) (TVD)**  
 Reference Elevations: 1978.00 ft (KB)  
 Total Depth: 3455.00 ft (KB) (TVD)      1965.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair      KB to GR/CF: 13.00 ft

**Serial #: 6749 Inside**  
 Press@RunDepth: 56.70 psig @ 3451.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.08      End Date: 2014.05.08      Last Calib.: 2014.05.08  
 Start Time: 08:09:00      End Time: 12:00:30      Time On Btm: 2014.05.08 @ 09:15:00  
    Time Off Btm: 2014.05.08 @ 10:30:30

TEST COMMENT: 1ST Open      15 Minutes/Weak blow /Blow built to 3/4 inch  
 1ST Shut In      45 Minutes/No blow back  
 2ND Open      10 Minutes/Dead no blow /Flush tool no help/Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.79	108.44	Initial Hydro-static
1	43.33	107.81	Open To Flow (1)
17	56.70	108.19	Shut-In(1)
61	929.45	109.37	End Shut-In(1)
62	56.85	109.18	Open To Flow (2)
74	59.42	109.26	Shut-In(2)
76	1679.14	109.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oily Mud/Oil 30% Mud 70%	0.07
15.00	Mud cut Oil/Mud 5% Oil 95%	0.07

## Gas Rates

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

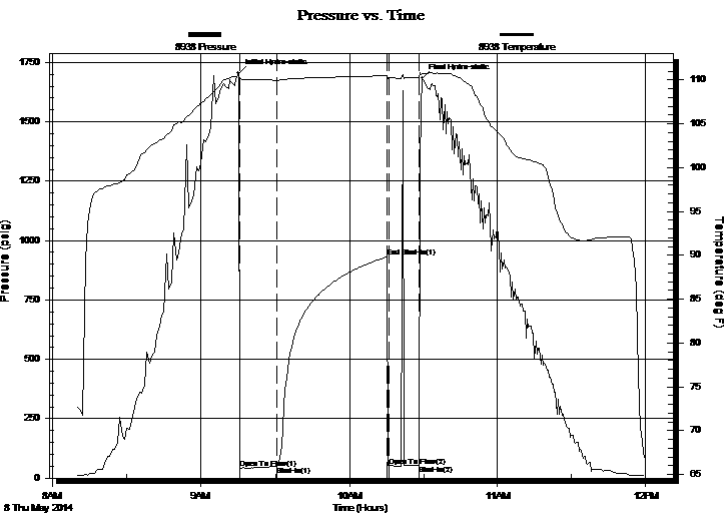
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18255      **DST#: 3**  
 Test Start: 2014.05.08 @ 08:09:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 09:16:00  
 Time Test Ended: 12:00:30  
**Interval: 3424.00 ft (KB) To 3455.00 ft (KB) (TVD)**  
 Total Depth: 3455.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
    1965.00 ft (CF)  
    KB to GR/CF: 13.00 ft

**Serial #: 8938      Outside**  
 Press@RunDepth: 931.19 psig @ 3452.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.08      End Date: 2014.05.08      Last Calib.: 2014.05.08  
 Start Time: 08:09:00      End Time: 11:59:30      Time On Btm: 2014.05.08 @ 09:15:00  
                                       Time Off Btm: 2014.05.08 @ 10:29:30

**TEST COMMENT:** 1ST Open 15 Minutes/Weak blow /Blow built to 3/4 inch  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1704.69	110.44	Initial Hydro-static
1	42.50	110.00	Open To Flow (1)
16	48.30	109.98	Shut-In(1)
60	931.19	110.49	End Shut-In(1)
61	51.75	110.25	Open To Flow (2)
73	55.82	110.23	Shut-In(2)
75	1683.80	110.68	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	Oily Mud/Oil 30% Mud 70%	0.07
15.00	Mud cut Oil/Mud 5% Oil 95%	0.07

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18255      **DST#: 3**  
 Test Start: 2014.05.08 @ 08:09:00

## Tool Information

Drill Pipe:	Length: 3091.00 ft	Diameter: 3.80 inches	Volume: 43.36 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 328.07 ft	Diameter: 2.25 inches	Volume: 1.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 44.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.07 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3424.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	58.00 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			3402.00	
Hydraulic tool	5.00			3407.00	
Jars	5.00			3412.00	
Safety Joint	2.00			3414.00	
Top Packer	5.00			3419.00	
Packer	5.00			3424.00	27.00      Bottom Of Top Packer
Anchor	26.00			3450.00	
Recorder	1.00	6749	Inside	3451.00	
Recorder	1.00	8938	Outside	3452.00	
Bullnose	3.00			3455.00	31.00      Anchor Tool
<b>Total Tool Length:</b>	<b>58.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

Nancy 3-17

Job Ticket: 18255

DST#: 3

Test Start: 2014.05.08 @ 08:09:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 61.00 sec/qt  
Water Loss: 7.60 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4500.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Oily Mud/Oil 30% Mud 70%	0.074
15.00	Mud cut Oil/Mud 5% Oil 95%	0.074

Total Length: 30.00 ft      Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

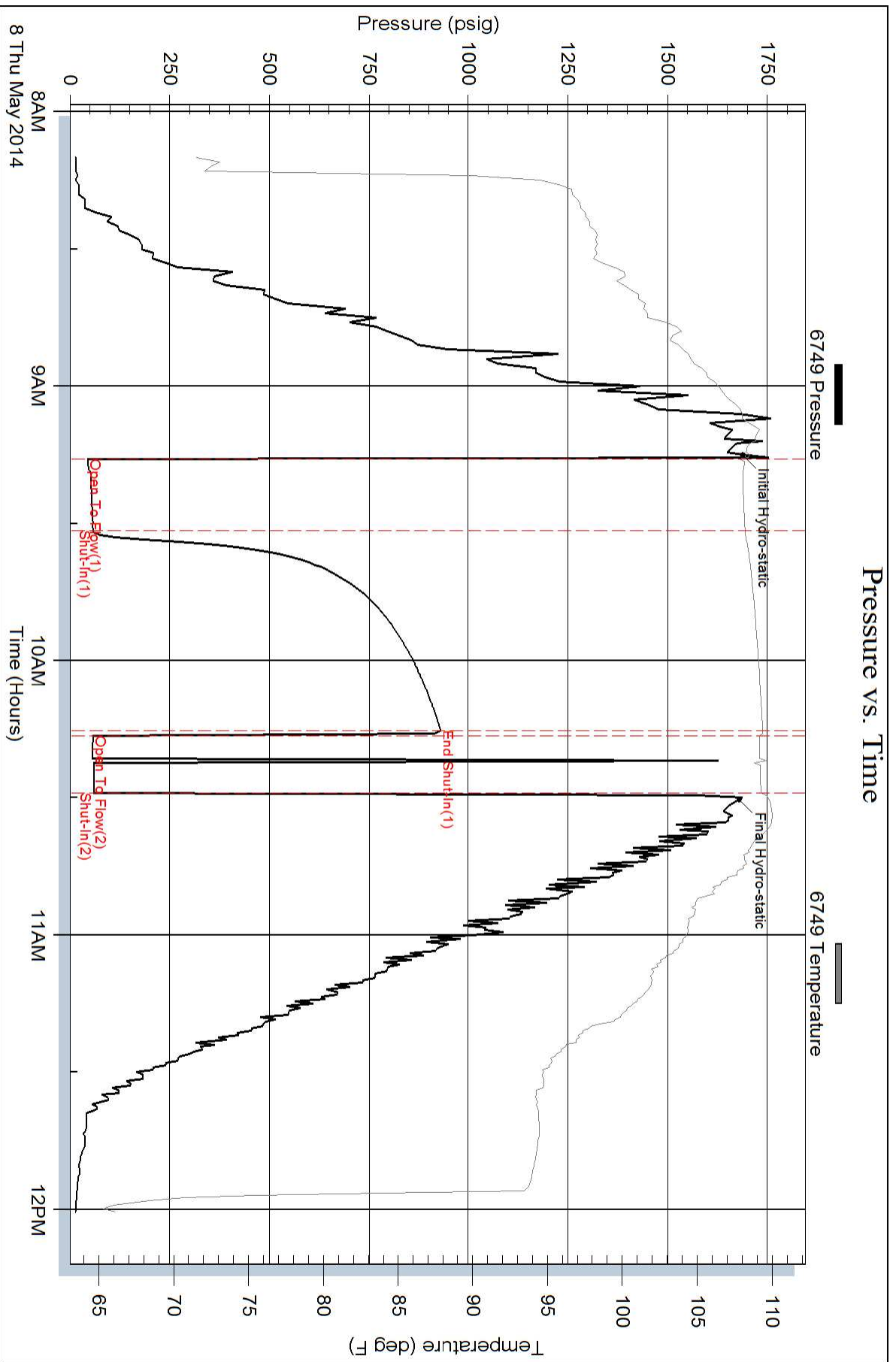
Laboratory Name:

Laboratory Location:

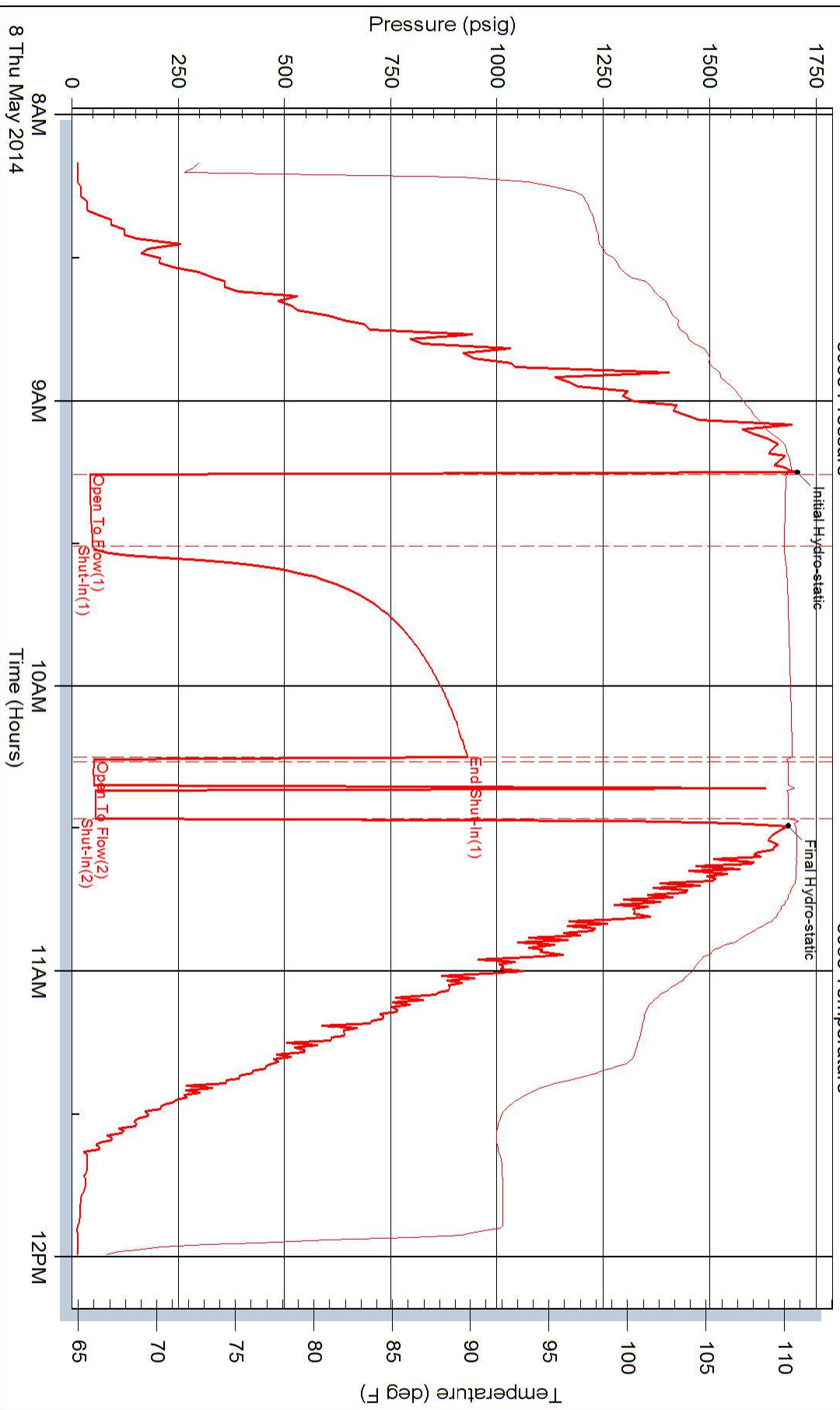
Recovery Comments:



### Pressure vs. Time



# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601

ATTN: Jeremy Schwartz

**Nancy 3-17**

**17/17S/13W/Barton**

Start Date: 2014.05.08 @ 18:10:00

End Date: 2014.05.09 @ 00:37:00

Job Ticket #: 18256                      DST #: 4

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

Printed: 2014.05.09 @ 00:59:34



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18256 **DST#: 4**  
 Test Start: 2014.05.08 @ 18:10:00

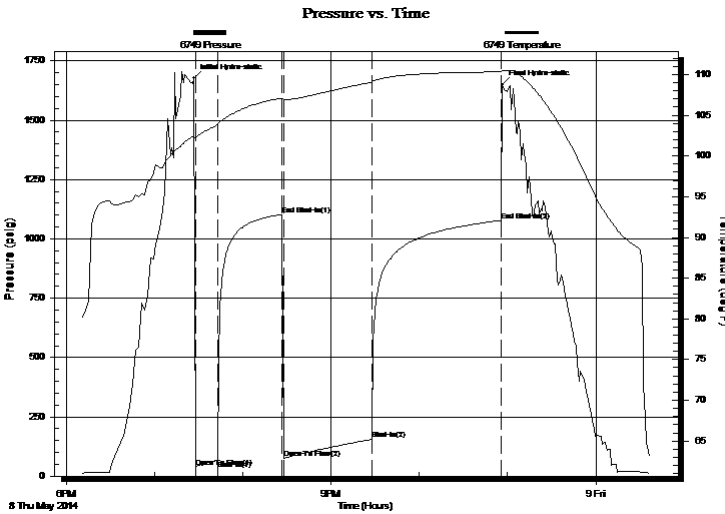
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:27:30  
 Time Test Ended: 00:37:00  
 Interval: **3450.00 ft (KB) To 3462.00 ft (KB) (TVD)**  
 Total Depth: 3462.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6749 Inside**  
 Press@RunDepth: 155.71 psig @ 3458.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.05.08 End Date: 2014.05.09 Last Calib.: 2014.05.09  
 Start Time: 18:10:00 End Time: 00:37:00 Time On Btm: 2014.05.08 @ 19:26:30  
 Time Off Btm: 2014.05.08 @ 22:56:30

**TEST COMMENT:** 1ST Open 15 Minutes/Fair blow/Blow built to 6 inches  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Good blow/Blow built to 11 inches  
 2ND Shut In 90 Minutes/No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.95	102.42	Initial Hydro-static
1	39.13	102.16	Open To Flow (1)
16	67.35	103.83	Shut-In(1)
61	1102.99	107.11	End Shut-In(1)
61	74.29	106.91	Open To Flow (2)
121	155.71	109.06	Shut-In(2)
210	1077.81	110.33	End Shut-In(2)
210	1648.86	110.47	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
60.00	Oily Mud/Oil 30% Mud 70%	0.30
60.00	Muddy Oil/Mud 40% Oil 60%	0.30
195.00	Clean Oil 100%	0.96
0.00	Corrected Grav. Oil 32	0.00

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**

**Nancy 3-17**

Job Ticket: 18256

**DST#: 4**

Test Start: 2014.05.08 @ 18:10:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 19:27:30 Tester: Ken Swinney  
 Time Test Ended: 00:37:00 Unit No: 3325 Great Bend/32  
 Interval: **3450.00 ft (KB) To 3462.00 ft (KB) (TVD)** Reference Elevations: 1978.00 ft (KB)  
 Total Depth: 3462.00 ft (KB) (TVD) 1965.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Poor KB to GR/CF: 13.00 ft

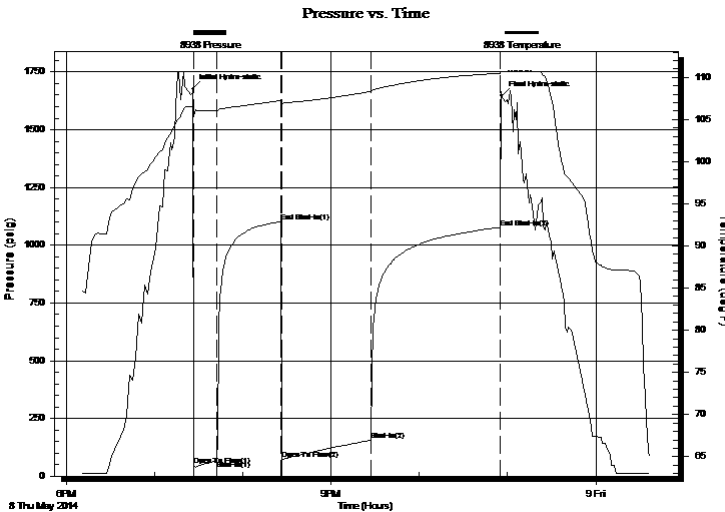
## Serial #: 8938

**Outside**

Press@RunDepth: 1076.78 psig @ 3459.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.05.08 End Date: 2014.05.09 Last Calib.: 2014.05.09  
 Start Time: 18:10:00 End Time: 00:37:00 Time On Btm: 2014.05.08 @ 19:26:00  
 Time Off Btm: 2014.05.08 @ 22:56:00

**TEST COMMENT:** 1ST Open 15 Minutes/Fair blow/Blow built to 6 inches  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Good blow /Blow built to 11 inches  
 2ND Shut In 90 Minutes/No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.39	106.57	Initial Hydro-static
1	46.15	105.49	Open To Flow (1)
16	66.92	106.03	Shut-In(1)
60	1101.94	107.25	End Shut-In(1)
61	74.02	106.77	Open To Flow (2)
121	155.61	108.33	Shut-In(2)
209	1076.78	110.49	End Shut-In(2)
210	1647.76	110.65	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
60.00	Oily Mud/Oil 30% Mud 70%	0.30
60.00	Muddy Oil/Mud 40% Oil 60%	0.30
195.00	Clean Oil 100%	0.96
0.00	Corrected Grav. Oil 32	0.00

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

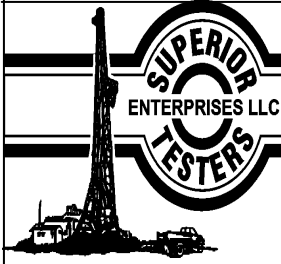
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18256      **DST#: 4**  
 Test Start: 2014.05.08 @ 18:10:00

## Tool Information

Drill Pipe:	Length: 3121.00 ft	Diameter: 3.80 inches	Volume: 43.78 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 328.07 ft	Diameter: 2.25 inches	Volume: 1.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 45.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.07 ft			String Weight: Initial 73000.00 lb
Depth to Top Packer:	3450.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	39.00 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			3428.00	
Hydraulic tool	5.00			3433.00	
Jars	5.00			3438.00	
Safety Joint	2.00			3440.00	
Top Packer	5.00			3445.00	
Packer	5.00			3450.00	27.00      Bottom Of Top Packer
Anchor	7.00			3457.00	
Recorder	1.00	6749	Inside	3458.00	
Recorder	1.00	8938	Outside	3459.00	
Bullnose	3.00			3462.00	12.00      Anchor Tool
<b>Total Tool Length:</b>	<b>39.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

Nancy 3-17

Job Ticket: 18256

DST#: 4

Test Start: 2014.05.08 @ 18:10:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 61.00 sec/qt  
Water Loss: 7.60 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4500.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Oily Mud/Oil 30% Mud 70%	0.295
60.00	Muddy Oil/Mud 40% Oil 60%	0.295
195.00	Clean Oil 100%	0.959
0.00	Corrected Grav. Oil 32	0.000

Total Length: 315.00 ft      Total Volume: 1.549 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

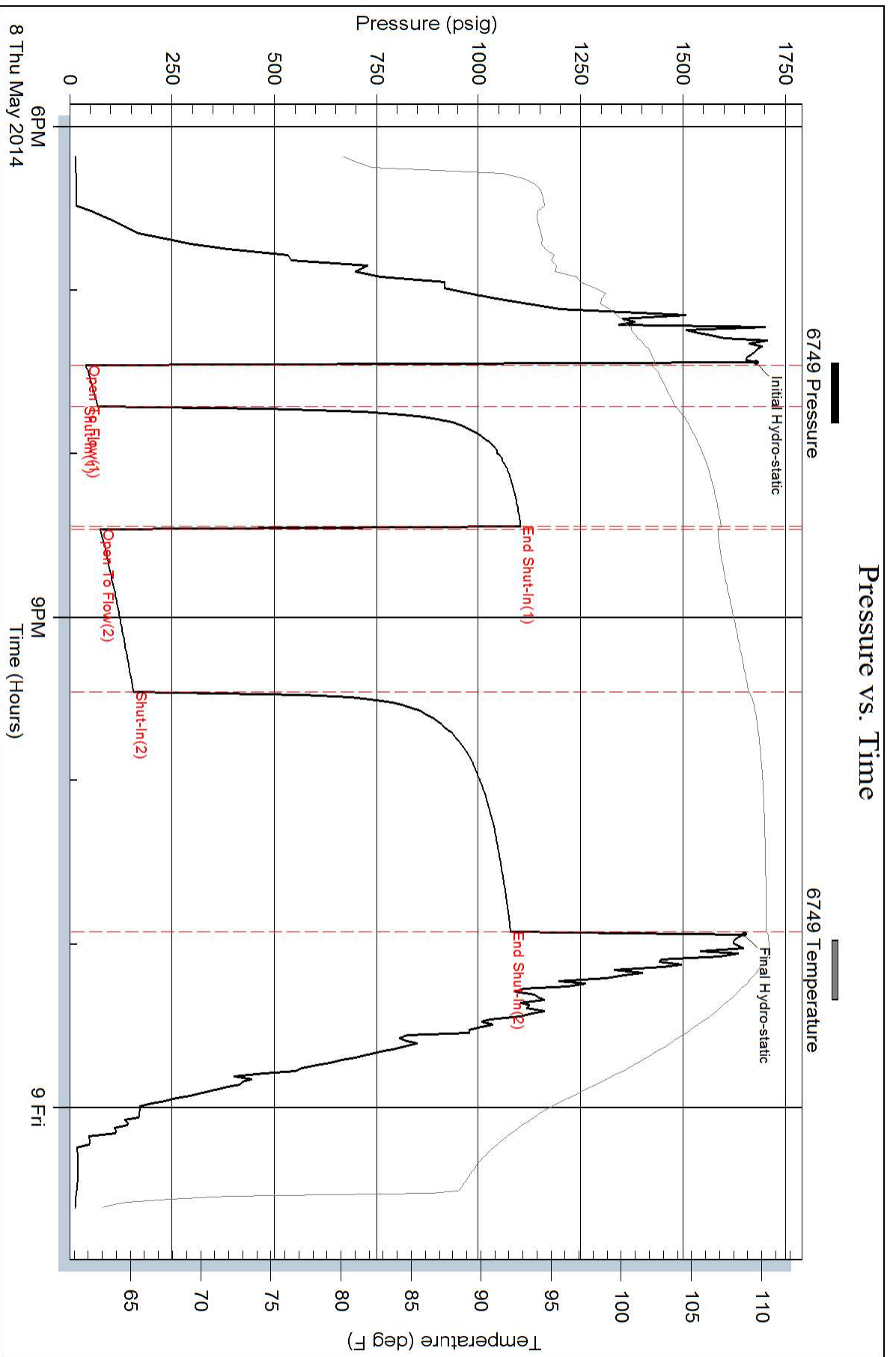
Serial #:

Laboratory Name:

Laboratory Location:

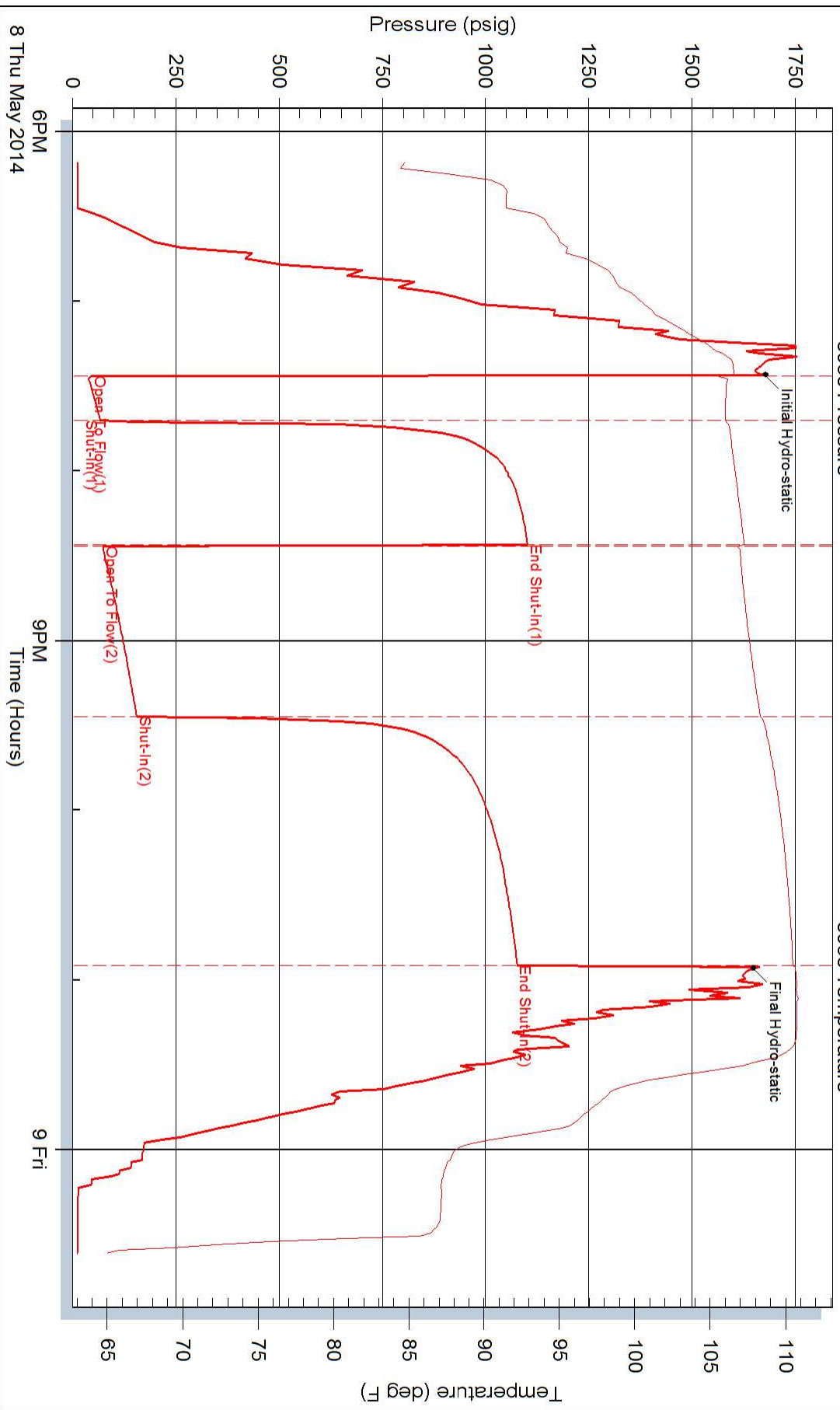
Recovery Comments:

### Pressure vs. Time





### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Shelby Resources LLC**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601

ATTN: Jeremy Schwartz

**Nancy 3-17**

**17/17S/13W/Barton**

Start Date: 2014.05.09 @ 06:24:00

End Date: 2014.05.09 @ 13:08:30

Job Ticket #: 18257                      DST #: 5

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

Printed: 2014.05.09 @ 13:29:16







# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18257      **DST#: 5**  
 Test Start: 2014.05.09 @ 06:24:00

## Tool Information

Drill Pipe:	Length: 3121.00 ft	Diameter: 3.80 inches	Volume: 43.78 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 328.07 ft	Diameter: 2.25 inches	Volume: 1.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 45.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.07 ft			String Weight: Initial 71000.00 lb
Depth to Top Packer:	3462.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	6.00 ft			
Tool Length:	28.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

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

Shut-In Tool	5.00			3445.00	
Hydraulic tool	5.00			3450.00	
Jars	5.00			3455.00	
Safety Joint	2.00			3457.00	
Packer	5.00			3462.00	22.00      Bottom Of Top Packer
Anchor	1.00			3463.00	
Recorder	1.00	6749	Inside	3464.00	
Recorder	1.00	8938	Outside	3465.00	
Bullnose	3.00			3468.00	6.00      Anchor Tool
<b>Total Tool Length:</b>	<b>28.00</b>				



# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shelby Resources LLC

**17/17S/13W/Barton**

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18257

**DST#: 5**

Test Start: 2014.05.09 @ 06:24:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 68.00 sec/qt  
Water Loss: 7.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4400.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

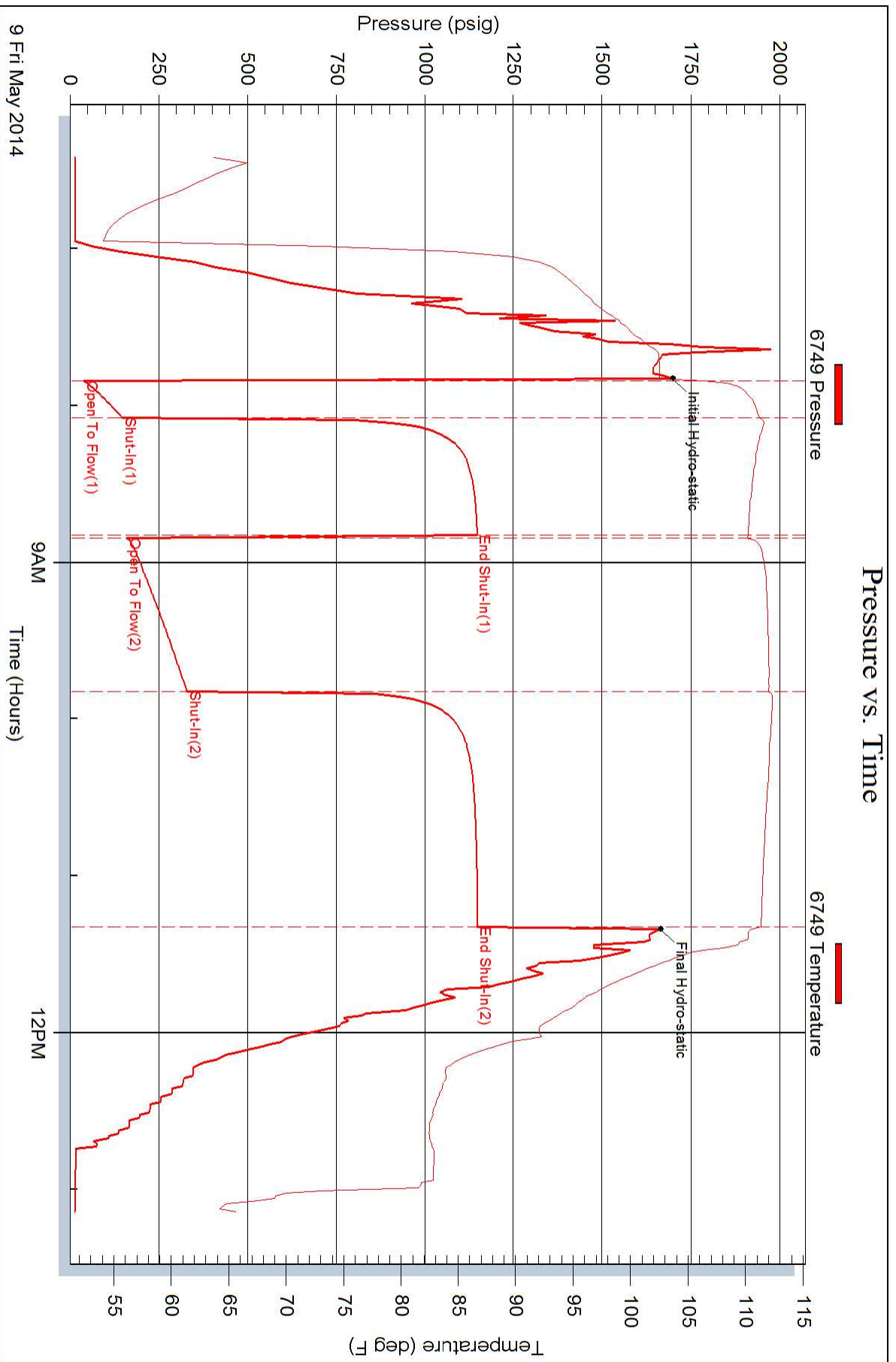
Recovery Table

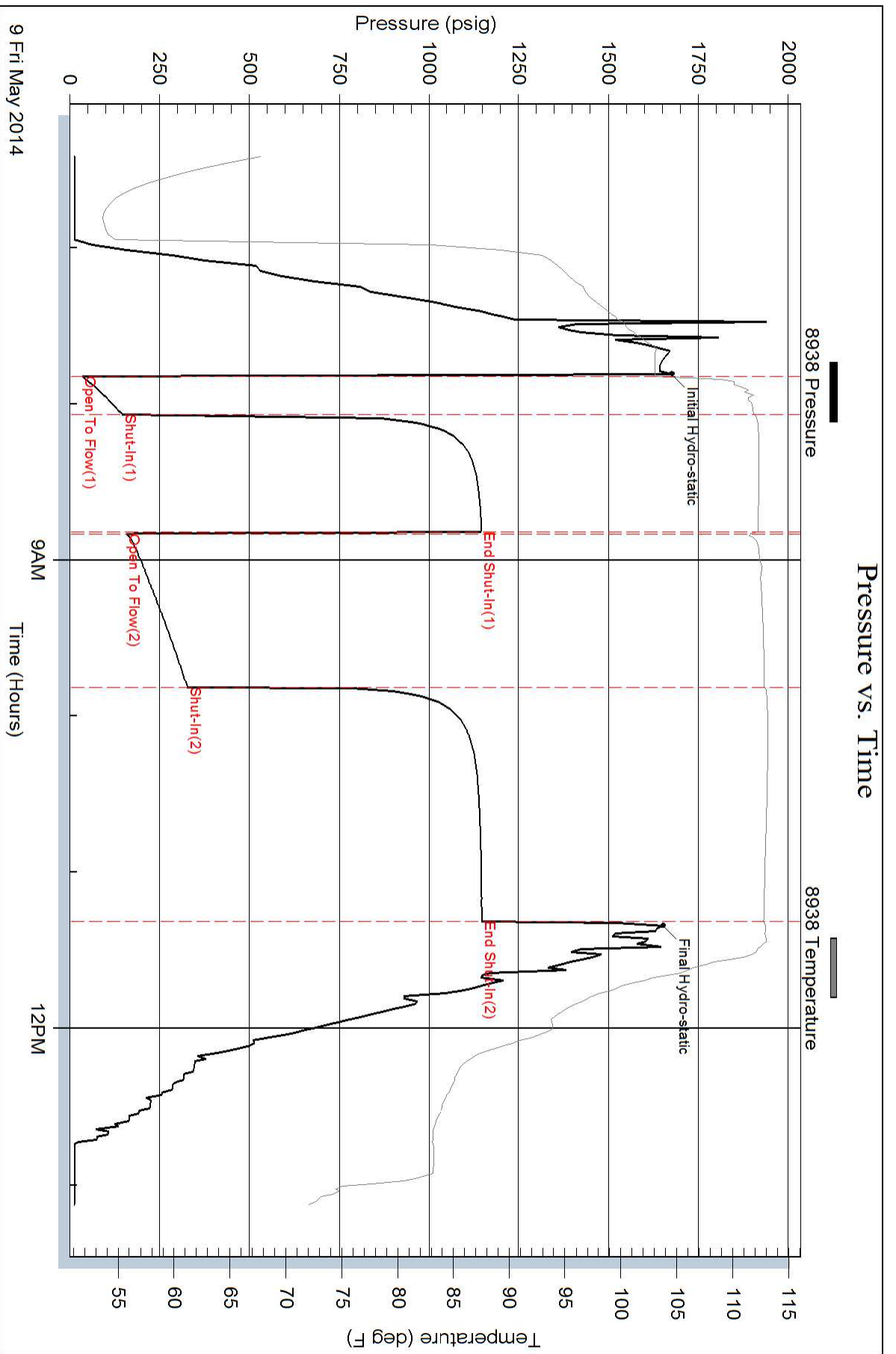
Length ft	Description	Volume bbl
620.00	Slightly Mud cut Water with show of Oil	5.708
0.00	Mud 2% Water 98%	0.000
93.00	Clean Oil 100%	1.305
0.00	Corrected Grav. Oil 31	0.000
0.00	Recov. Resist. .21 ohms @75 deg	0.000
0.00	Recov. Chlorides 19,000 ppm	0.000

Total Length: 713.00 ft      Total Volume: 7.013 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time









Scale 1:240 Imperial

Well Name: Nancy #3-17  
 Surface Location: 2146' FNL \_1701' FWL Sec 17-17S-13W  
 Bottom Location:  
 API: 15-009-25969-00-00  
 License Number:  
 Spud Date: 5/2/2014 Time: 7:45 PM  
 Region: Barton County  
 Drilling Completed: 5/9/2014 Time: 6:50 PM  
 Surface Coordinates: Y = 694524 & X = 1917760  
 Bottom Hole Coordinates:  
 Ground Elevation: 1965.00ft  
 K.B. Elevation: 1978.00ft  
 Logged Interval: 2800.00ft To: 3525.00ft  
 Total Depth: 3525.00ft  
 Formation: Lansing-Kansas City  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**OPERATOR**

Company: Shelby Resources, LLC  
 Address: 445 Union Blvd, Suite 208  
 Lakewood, CO 80228  
 Contact Geologist: Janine Sturdavant  
 Contact Phone Nbr: 303-907-2209 / 720-274-4682  
 Well Name: Nancy #3-17  
 Location: 2146' FNL \_1701' FWL Sec 17-17S-13W API: 15-009-25969-00-00  
 Pool: Field: Trapp  
 State: Kansas Country: USA

**LOGGED BY**



Company: Shelby Resources, LLC  
 Address: 445 UNION BLVD. Suite 208  
 LAKEWOOD, CO. 80228  
 Phone Nbr: 203-671-6034  
 Logged By: Geologist Name: Jeremy Schwartz

**NOTES**

The Shelby Resources Nancy #3-17 was drilled to a total depth of 3525', bottoming in the Arbuckle. A TookeDaq gas detector was employed in the drilling of said well.

5 DST's were conducted throughout the Lansing Kansas-City and Arbuckle Zones. The DST reports can be found at the bottom of this log.

Due to the DST results, sample shows, gas kicks, and log analysis it was determined by all parties involved to further test the well through production pipe. The dry samples were saved and will be available for further review at the Kansas Geological Society Well Sample Library, located in Wichita, KS.

Respectfully Submitted,  
Jeremy Schwartz  
Geologist

**SURFACE CO-ORDINATES**

Well Type: Vertical

Longitude: N/S Co-ord: Y = 694524  
 E/W Co-ord: X = 1917760

Latitude:

**CONTRACTOR**

Contractor: Sterling Drilling Co  
 Rig #: 5  
 Rig Type: mud rotary  
 Spud Date: 5/2/2014  
 TD Date: 5/9/2014  
 Rig Release:  
 Time: 7:45 PM  
 Time: 6:50 PM  
 Time:

**ELEVATIONS**

K.B. Elevation: 1978.00ft  
 K.B. to Ground: 13.00ft  
 Ground Elevation: 1965.00ft

DATE	DEPTH	ACTIVITY
Tuesday, May 06, 2014	3050'	Geologist Jeremy Schwartz on location @ 0700hrs, DRLG ahead through King Hill, Queen Hill, Heebner, Toronto, Douglas, Brown Lime, LKC, CFS @ 3250', DRLG ahead CFS @ 3260, Short Trip, Strap Out, Drop Survey, Conduct DST #1
Wednesday, May 07, 2014	3260' 3283'	Successful Test, DRLG ahead, CFS @ 3278', DRLG ahead, CFS @ 3283' Conduct DST #2 In LKC "D-F", Successful Test, DRLG ahead
Thursday, May 08, 2014	3345' 3455'	DRLG ahead through LKC, CFS @ 3455', Conduct DST #3 in the Arbuckle Successful test, DRLG ahead, CFS @ 3462', Conduct DST #4 in the Arbuckle,
Friday, May 09, 2014	3462' 3468'	Successful Test, DRLG ahead, CFS @ 3468', Conduct DST #5 in the Arbuckle, Successful Test, DRLG ahead, TD @ 3525' reached at 1850hrs, Conduct Logging Ops
Saturday, May 10, 2014	3525'	Logging Operations Complete @ 0245hrs Geologist Jeremy Schwartz off location @ 0330hrs

CLIENT:	SHELBY RESOURCES, LLC
WELL NAME:	NANCY #3-17
LEGAL:	2146' FNL & 1701' FWL 17-17S-13W
COUNTY:	BARTON
API:	15-009-25969-0000
DRLG CONTRACTOR:	STERLING DRILLING CO.
RIG #:	5
DOGHOUSE #:	620-388-5433
TOOLPUSHER:	ALAN LOFTIS
CELL #:	620-388-2736

FORMATION	NANCY #3-17				NANCY #2-17				NANCY #1-17				HOFFMAN #1-18			
	NE SW SE NW				C SW SW NW 17-17S-13W				C N/2 SW NW 17-17S-13W				C S/2 NE 18-17S-13W			
	KB	1978			KB	1997			KB	1992			KB	1945		
	LOG TOPS	SAMPLE TOPS			COMP. CARD	LOG	SMPL.		COMP. CARD	LOG	SMPL.		COMP. CARD	LOG	SMPL.	
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	
ANHYDRITE TOP	916	1062	916	1062	939	1058	+ 4	+ 4	928	1064	- 2	- 2	890	1055	+ 7	+ 7
BASE	944	1034	945	1033	965	1032	+ 2	+ 1	956	1036	- 2	- 3	917	1028	+ 6	+ 5
KING HILL	2978	-1000	2978	-1000	2994	-997	- 3	- 3	2986	-994	- 6	- 6	2942	-997	- 3	- 3
QUEEN HILL	3042	-1064	3043	-1065	3059	-1062	- 2	- 3	3050	-1058	- 6	- 7	3005	-1060	- 4	- 5
HEEBNER SHALE	3129	-1151	3130	-1152	3146	-1149	- 2	- 3	3138	-1146	- 5	- 6	3092	-1147	- 4	- 5
TORONTO	3144	-1166	3148	-1170	3163	-1166	+ 0	- 4	3156	-1164	- 2	- 6	3109	-1164	- 2	- 6
DOUGLAS SHALE	3157	-1179	3155	-1177	3173	-1176	- 3	- 1	3166	-1174	- 5	- 3	3119	-1174	- 5	- 3
BROWN LIME	3212	-1234	3210	-1232	3229	-1232	- 2	+ 0	3218	-1226	- 8	- 6	3173	-1228	- 6	- 4
LKC	3219	-1241	3218	-1240	3238	-1241	+ 0	+ 1	3228	-1236	- 5	- 4	3182	-1237	- 4	- 3
LKC G	3292	-1314	3292	-1314	3309	-1312	- 2	- 2	3300	-1308	- 6	- 6	3250	-1305	- 9	- 9
MUNCIE CREEK	3344	-1366	3344	-1366	3365	-1368	+ 2	+ 2	3354	-1362	- 4	- 4	3309	-1364	- 2	- 2
LKCH	3349	-1371	3349	-1371	3372	-1375	+ 4	+ 4	3361	-1369	- 2	- 2	3316	-1371	+ 0	+ 0
STARK SHALE	3402	-1424	3403	-1425	3425	-1428	+ 4	+ 3	3413	-1421	- 3	- 4	3369	-1424	+ 0	- 1
BKC	3428	-1490	3426	-1448	3452	-1495	+ 5	+ 7	3438	-1446	- 4	- 2	3397	-1452	+ 2	+ 4
RE-WORKED ARB	3436	-1458	3436	-1458												
ARBUCKLE	3455	-1477	3455	-1477	3473	-1476	- 1	- 1	3476	-1484	+ 7	+ 7	3412	-1467	- 10	- 10
RTD			3525	-1547					3539	-1547		+ 0	3525	-1580		+ 33
LTD	3528	-1590			3476	-1479	- 71		3537	-1545	- 5		3526	-1581	+ 31	

PROGNOSIS		
ANHYDRITE TOP	920	1058
HEEBNER SHALE	3125	-1147

TESTED	
DST #1 (3236-3300) LKC "A-D"	
15-60-60-120	
Good Blow BOB 3:45SEC	
BB built to 6IN	

TESTED	
DST #1 (3228 - 3287) LKCA-D	
15-60-60-120	
1ST OPEN STRONG - BOB 3MIN	
BB BOB 7MIN	

TESTED	
DST #1 (3176-3237) LKC A-D	
IF BOB 2M	
FF - BOB <1M	
BOB BLO BK5	

LKC	3218	-1240
BKC	3425	-1447
ARBUCKLE	3464	-1486
RTD	3550	-1572

Good Blow BOB 5MIN, G 15 45MIN

BB BOB 6MIN  
**864' CGO (70%O, 30%G)**  
 SIP: 566-567

**DST #2 (3297-3321) LKC "F-G"**  
 15-60-60-120  
 Good Blow BOB 9MIN  
 No BB  
 Good Blow BOB 10:30SEC  
 No BB  
**630' GIP, 437' CGO, 63' OMCW**  
 SIP: 513-511

**DST #3 (3355-3455) LKC "H-K"**  
 15-45-60-90  
 Fair Blow built to 2.5IN  
 No BB  
 Fair Blow Built to 5IN  
 No BB  
**97' Mud**  
 SIP: 735-711

**DST #4 (3449-3485) Ar buckle**  
 15-45-20  
 Weak Surface Blow  
 No BB  
 No Blow, Flushed Tool, Pull Test  
**5' MUD**  
 SIP: 982-53

2ND OPEN STRONG BOB 3.5MIN/G 15 45MIN

BB BOB 4MIN  
**504' MCOG (G 50%, O 40%, M 10%)**  
**300' MCOG (O 75%, G 20%, M 5%)**  
 SIP: 639 - 664

**DST #2 (3287 - 3312) LKC F-G**  
 15-60-60-120  
 1ST OPEN STRONG - BOB 9MIN  
 BB BUILT TO 1IN  
 2ND OPEN STRONG - BOB 2MIN  
 BB BUILT TO 3IN  
**156' CGO (O 75%, G 30%)**  
**126' GMD (O 40%, M 40%, G 20%)**  
 SIP: 640 - 636

**DST #3 (3335 - 3452) LKC H-K**  
 15-60-10  
 1ST OPEN WEAK - BUILT TO 1/2IN  
 NO BB  
 2ND OPEN DEAD  
**15'M**  
 SIP: 936 - N/A

1980' DIL, 120' OGLM


982# / 1038#  
**DST #2 (3238-3261) LKC F-G**  
 IF BOB 1M, BL BK BOB  
 FF - BOB 1M, BL BK BOB  
**970' CGO, 60' OCM**  
 780# / 718#

**DST #3 (3300-3390)**  
 IF FAIR TO BOB 3M, BOB BL BK  
 FF - BOB 1M, GTSD 55M  
 FSI BOB BL BK  
**1380' CO, 120' OCM**  
 1113# / 1122#

**DST #4 (3388-3422) ARBUCKLE**  
 IF WK TO 7", WK BLO BK  
 FF - WK TO 10" - NO BLO BK  
**230' CO, 90' OCM**  
 1101# / 1086#

**DST #5(3423-3444) ARBUCKLE**  
 IF GOOD TO BOB 2M, WK BLO BK  
 FF - GOOD TO BOB 3M, NO BLO BK  
**15' CO, 1500' WTR W/ TR OIL**  
**60' WCM**  
**1146# / 1142#**










### ROCK TYPES

 Congl	 Lmst fw<7	 Carbon Sh
 Dolprim	 shale, gry	 shale, red

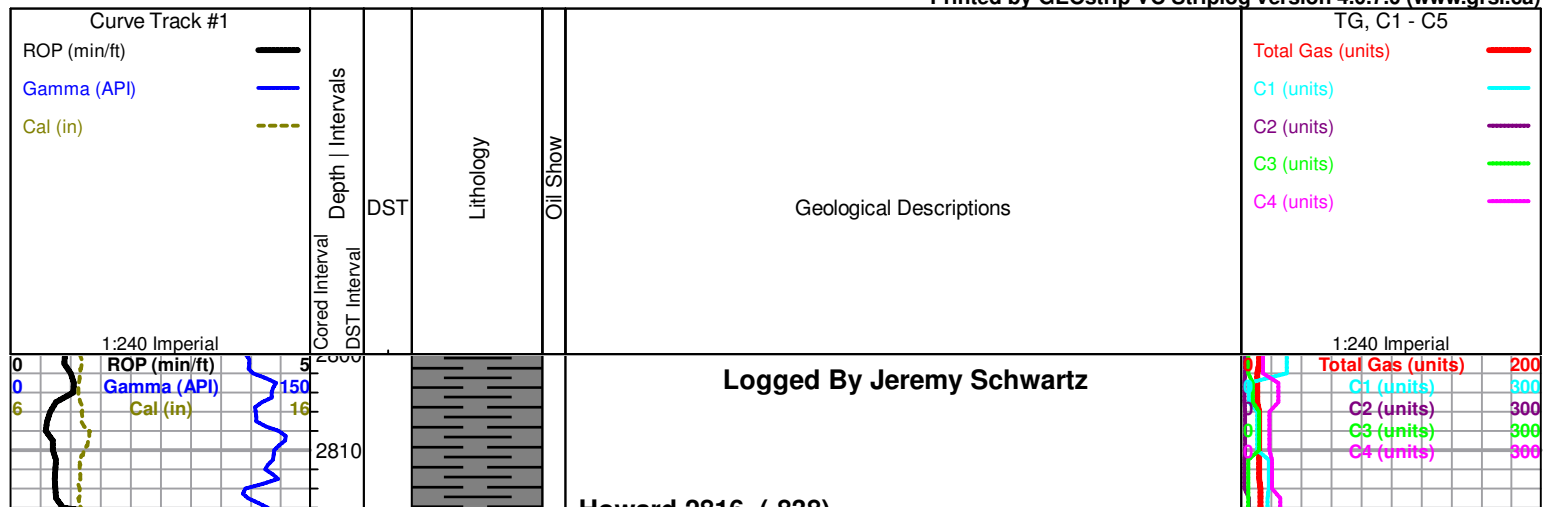
### ACCESSORIES

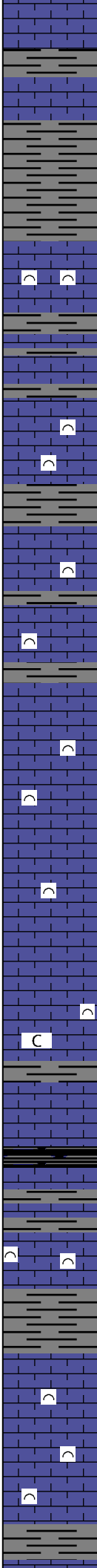
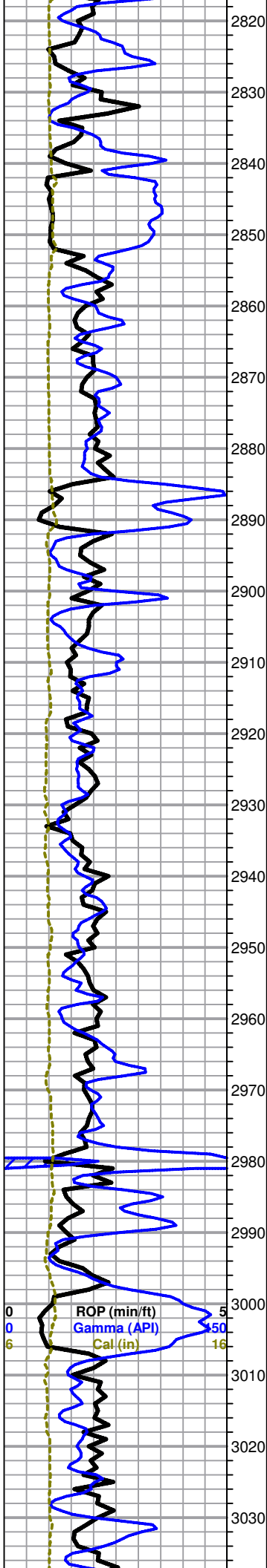
<b>FOSSIL</b> ∩ Bioclastic or Fragmental	<b>STRINGER</b> ~ Chert ■ Limestone	<b>TEXTURE</b> C Chalky
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### OTHER SYMBOLS

<b>MISC</b>	<b>Oil Show</b>	<b>DST</b>
 Daily Report	● Good Show	■ DST Int
 Digital Photo	● Fair Show 50-75	■ DST alt
 Document	● Poor Show 25-50	
 Folder	○ Spotted or Trace 1-25	
 Link	○ Questionable Stn	
 Vertical Log File	D Dead Oil Stn	
 Horizontal Log File	■ Fluorescence	
 Core Log File	* Gas	
 Drill Cuttings Rpt		

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





LS, cream to tan with some gray, micro-xln, lithographic and dense with poor visible porosity, also with abundant gray shale, no shows or odor

Shale, gray, mostly soft and waxy

LS, cream to tan with some gray, fossiliferous, some gray mottled, dense with poor visible porosity, no shows or odor

LS as above

**Topeka 2891 (-913)**

LS, cream to tan with some light gray and brown, micro-crypto xln, mostly fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

LS as above, no shows or odor

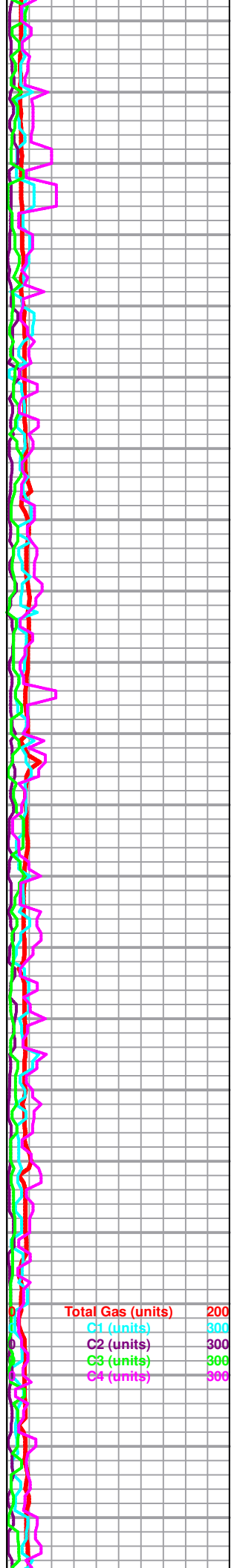
LS, cream with some scattered off-white and light gray, mostly lithographic, some scattered fossiliferous, mostly dense with poor visible porosity, some scattered soft and chalky in part, no shows or odor

**King Hill 2978 (-1000)**

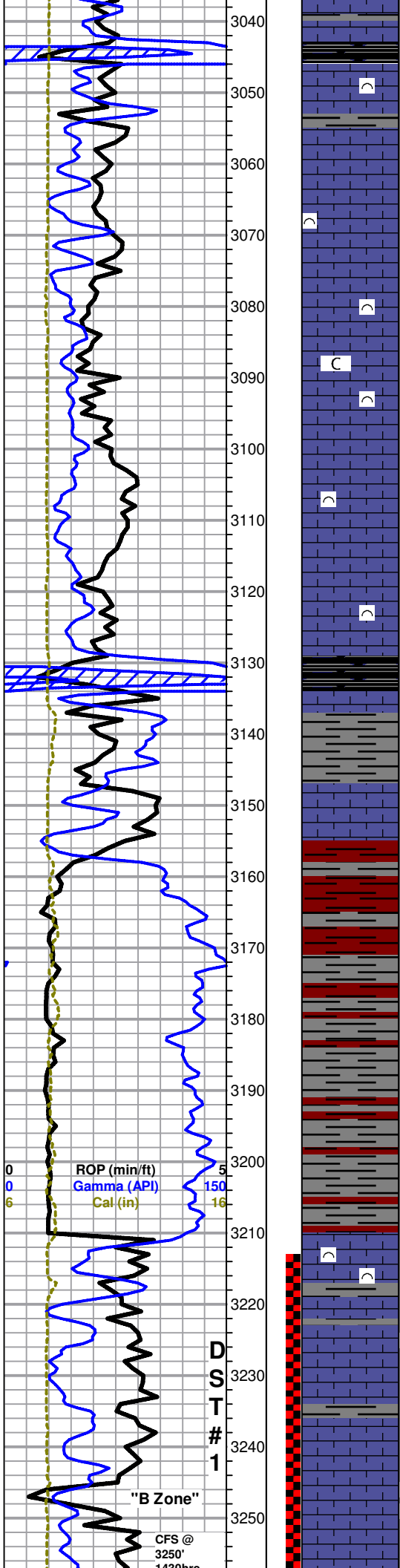
Shale, black carbonaceous

LS, cream to gray, micro-crypto xln, some fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, no shows or odor



Total Gas (units) 200  
 C1 (units) 300  
 C2 (units) 300  
 C3 (units) 300  
 C4 (units) 300



**Queen Hill 3043 (-1065)**

Shale, black carbonaceous

LS, cream with some scattered light gray, micro-xln, fossiliferous, dense with poor visible porosity, no shows or odor

LS, cream with some scattered off-white and light gray, micro-crypto xln, mostly lithographic, some scattered fossiliferous, mostly dense with poor visible porosity, some soft and chalky in part, no shows or odor

LS, cream to gray, micro-xln, fossiliferous, hard and dense with poor visible porosity, no shows or odor

LS, cream with some scattered light gray and very scattered off-white, mostly fossiliferous, hard and dense with poor visible porosity, some very scattered soft and chalky in part, no shows or odor

**Heebner 3130 (-1152)**

Shale, black carbonaceous

**Toronto 3148 (-1170)**

LS, white to cream, mostly crypto-xln, lithographic with poor visible porosity, slightly chalky, no shows or odor

**Douglas Shale 3155 (-1177)**

Red and Gray shale, mostly soft and waxy, some scattered blocky and dense

Shale, mostly gray with some red

**Brown Lime 3210 (-1232)**

LS, brown with some gray and cream, micro-xln, fossiliferous, hard and dense with poor visible porosity, no shows or odor

**LKC 3218 (-1240)**

LS, cream to light gray, micro-xln, mostly lithographic and dense with poor visible porosity, some very scattered chips (~5-10% of tray) with few small edge vugs to slightly vuggy edges with brown stain mostly in porosity only, few very small chips (<5%) with slightly vuggy porosity and mostly saturated brown to black stain, slow streaming cut with milky white fluorescence, fair show free oil in tray (mostly opaque droplets with few brown), fair odor

LS, gray to cream, micro-xln, some fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

Nancy 3-17 DST #1.jpg

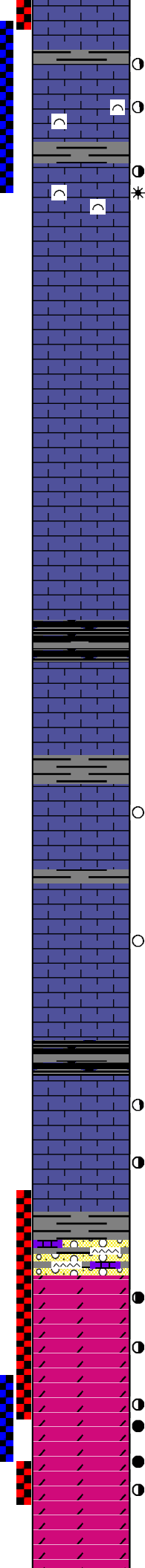
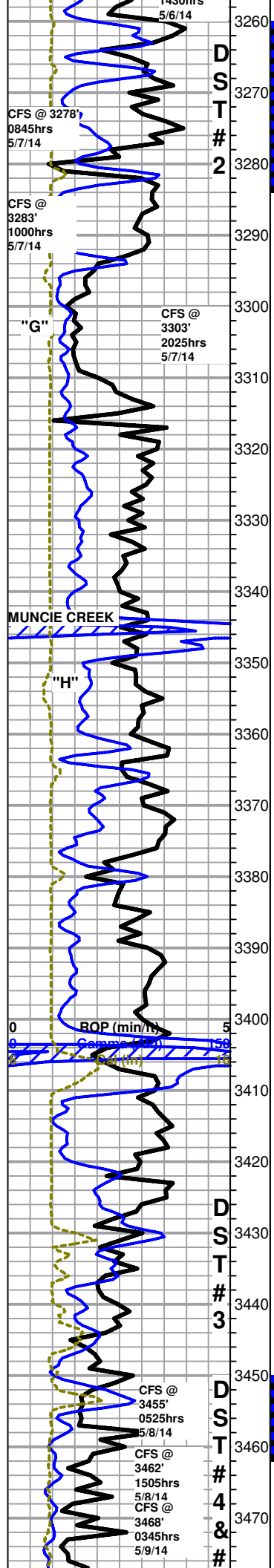
3250' 30" LS, cream to gray, micro-xln, oolitic to oomoldic, with fair visible oomold porosity and mostly saturated to saturated brown to black stain, few chips also have slightly vuggy edges, slow streaming cut with milky white fluorescence, SSFO and gas bubbles, good odor

Mud-Co Mud chk  
3068'  
5/6/14  
Vis: 52 Wt: 8.9  
PV:20 YP:17  
WL: 8.0  
Cake:1/32  
pH: 10.5  
Ca: 0ppm  
CHL: 2,800ppm  
Sol: 4.2 LCM: Tr  
DMC: \$1,321.95  
CMC: \$8,303.20

Total Gas (units) 200  
C1 (units) 300  
C2 (units) 300  
C3 (units) 300  
C4 (units) 300

Dev. Survey @ 3260'  
3/4 Degree

Mud-Co Mud chk  
3283'  
5/7/14  
Vis: 62 Wt: 9.05



LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, few very scattered chips (~5% of tray) with several very small vugs to slightly vuggy edges and poor black to very light golden brown stain in vugs only, NSFO, poor odor

**Nancy 3-17 DST #2.jpg**

3278' 30 & 60" LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, few chips (<5% of tray) with several very small vugs and poor very light golden brown stain mostly in vugs only, weak cut with dull fluorescence, poor odor

3283' 30" LS, cream to gray, micro-xln, fossiliferous, mostly dense with poor visible porosity, few chips (~5% of tray) with small scattered vugs to slightly vuggy edges and scattered very light golden brown stain in and around vugs, stain increases in color to brown when left under lamp for several minutes, slow streaming cut with milky white fluorescence, NSFO, slight show gas bubbles in tray, poor odor

60" Mostly same as above, slight increase in shows (~5-10%), upon break few chips have slight show free oil, poor odor in tray

3303' 30 LS, cream with some scattered light gray, micro-xln, mix of dense with poor visible porosity and soft and chalky in part, some scattered sub-oolitic to sub-oomoldic with poor visible porosity, very chalky with heavy chalky wash, no shows or odor

60" Mostly same as above, with slight influx in sub-oomoldic to oomoldic, mostly dense with poor visible porosity, few chips with fair visible oomold porosity, barren, very chalky, no shows or odor

3310' LS as above, very chalky, no shows or odor

3320' LS, cream to gray, micro-xln, some lithographic, some scattered sub-oolitic to sub-oomoldic, dense with poor visible porosity, chalky, no shows or odor

3330' LS, gray to cream with some scattered brown, micro-xln, some lithographic, some slightly fossiliferous, dense with poor visible porosity, slightly chalky, no shows or odor

3340' LS, gray with some scattered cream and brown, micro-xln, mostly lithographic, some slightly fossiliferous, dense with poor visible porosity, no shows or odor

3350' LS, gray to cream, micro-xln, fossiliferous and dense with poor visible porosity, no shows or odor

LS, cream to gray, micro-xln, mostly lithographic and dense with poor visible porosity, some scattered soft and chalky, no shows or odor

LS, cream, micro-xln, lithographic and dense with poor visible porosity, few chips (<5% of tray) with one to two small edge vugs and dead black to poor brown stain in vugs only, very weak to no cut, no odor

LS, cream with some scattered gray, micro-xln, mostly lithographic and dense with poor visible porosity, some soft and chalky in part, no shows or odor

LS, cream, micro-xln, mostly lithographic and dense with some soft and chalky, few chips (<5% of tray) oomoldic with poor visible porosity and dead black to brown stain in oomolds and partly in matrix around oomolds, very weak to no cut, poor fleeting odor in cup

**Stark Shale 3403 (-1425)**

LS, cream, micro-xln, mostly lithographic and dense with poor visible porosity, some soft and chalky, few very scattered chips (~5-10% of tray) with one to two small vugs with poor black to brown stain in vugs only and partly in matrix around vugs in few chips, upon break one chip has very slight show free oil, very slow weak cut, poor odor

LS, cream, micro-xln, mostly lithographic and dense, some scattered slightly fossiliferous and also some scattered soft and chalky, few scattered chips (~10% of tray) with poor to fair vf pinpoint porosity and one to two small vugs with poor stain as above, found several small chips (<5% of tray) mostly saturated to saturated brown stain, instant cut with bright white fluorescence, poor odor in cup

**BKC 3426 (-1448)**

LS, cream, mostly lithographic and dense with poor visible porosity, also with some gray shale and very scattered orange to tan and opaque chert, no shows or odor

**Re-worked Arbuckle 3436 (-1458)**

**Nancy 3-17 DST #3.jpg**

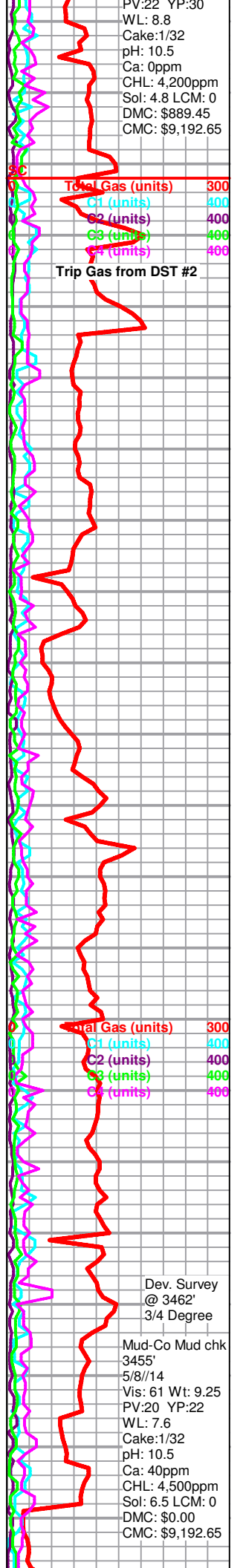
Dolomite, cream to tan, micro-xln, mostly hard and dense with poor visible porosity, some scattered (~20%) with vf pinpoint porosity to sub-sucrosic with scattered to mostly saturated brown to black stain, few chips saturated, few chips also with one to two very small vugs and slowly bleeding oil droplets when left under lamp for several minutes, instant streaming cut with bright white fluorescence, fair show free oil in tray, fair odor

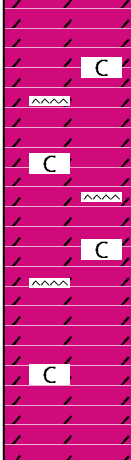
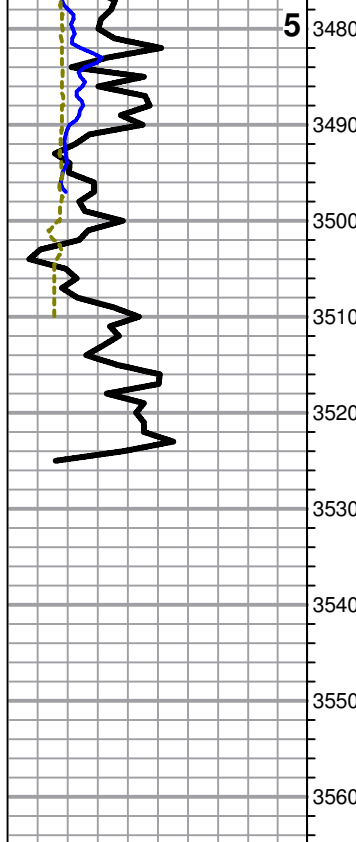
**Clean Arbuckle Dolomite 3455 (-1477)**

3455' 30" Dolomite, mostly same as above with slightly less shows, also with some scattered chert, slightly chalky, fair show free oil in tray, fair odor

60" Dolomite, cream to tan, mostly dense with poor visible porosity, barren, few scattered chips (~10%) with vf pinpoint porosity and scattered to mostly saturated brown to black stain, few chips (<5% sub-sucrosic with poor to fair rhombic development and scattered black stain, slow streaming cut with milky white fluorescence, SSFO, fair odor


3462' 30" Dolomite, cream to light brown, micro-xln, some dense with poor visible porosity, some (~20%) sub-sucrosic with scattered brown to black stain, few scattered






porosity, some (~30%) sub-sucrosic with scattered brown to black stain, few scattered chips (~5-10%) with fair to good rhombic development and slightly vuggy to fair vuggy chips with mostly saturated to saturated brown stain, one chip oomoldic with good oomold/vuggy porosity, instant cut with bright white fluorescence, upon break few chips show fair to good inter-xln porosity and slight to fair show free oil, SSFO in tray, fair odor

60" Mostly same as above, some hard and dense, some with fair rhombic development and scattered black stain, when left under lamp for several minutes chips slowly bleed oil to surface, upon break fair visible inter-xln porosity and fair show free oil with slight show gas bubbles coming from porosity, SSFO in tray, fair odor

 Nancy 3-17 DST #4.jpg

3468' 30" Dolomite, cream to off-white, mostly dense and barren with poor visible porosity, some scattered (~25%) with few small vugs and poor brown stain in vugs only, some looks dead, also with some very scattered (~10%) off-white, med-xln, with poor to fair sub-rhombic to rhombic development and scattered black stain, some dense, some friable, upon break chips release slight to fair show free oil and show some scattered inter-xln staining, SSFO in tray, fair odor

60" Dolomite, cream, micro-xln, mostly dense and barren with poor visible porosity, some very scattered (~5%) off-white, med-xln, sub-rhombic to rhombic, some dense, some friable, upon break chips release fair show free oil, NSFO in tray, poor odor

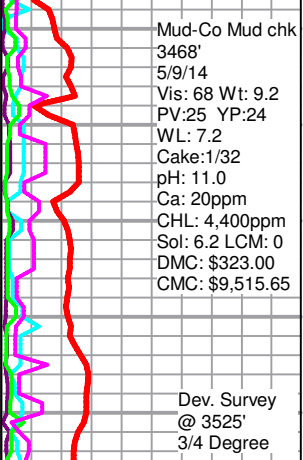
 Nancy 3-17 DST #5.jpg

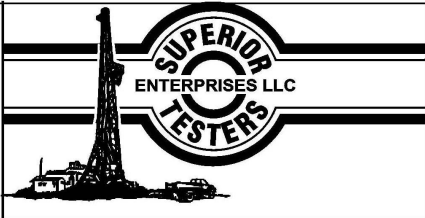
~3480-3510 Dolomite, cream to tan with some scattered off-white, micro-xln, mostly hard and dense with poor visible porosity, some scattered sub-sucrosic with poor sub-rhombic development, some with several small scattered vugs and poor residual dead brown to black stain in and around vugs, some very scattered white chert, slightly chalky, poor odor

3510-3525 Dolomite, cream to tan, micro-xln, mostly dense with poor visible porosity, barren, some very scattered sub-sucrosic with poor sub-rhombic development, slightly chalky, no shows or odor

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**Rotary TD 3525' @ 1850hrs 5/9/14**  
**Nabors Well Services Logging TD @ 3528'**  
**Complete Logging Operations @ 0245hrs 5/10/14**  
**Geologist Jeremy Schwartz off location @ 0330hrs 5/10/14**





# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18253

**DST#: 1**

Test Start: 2014.05.06 @ 21:37:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:37:30

Time Test Ended: 04:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/

**Interval: 3213.00 ft (KB) To 3260.00 ft (KB) (TVD)**

Reference Elevations: 1978.00 ft (KB)

Total Depth: 3260.00 ft (KB) (TVD)

1965.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

## Serial #: 6748

Press@RunDepth: 98.02 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.05.06 End Date: 2014.05.07

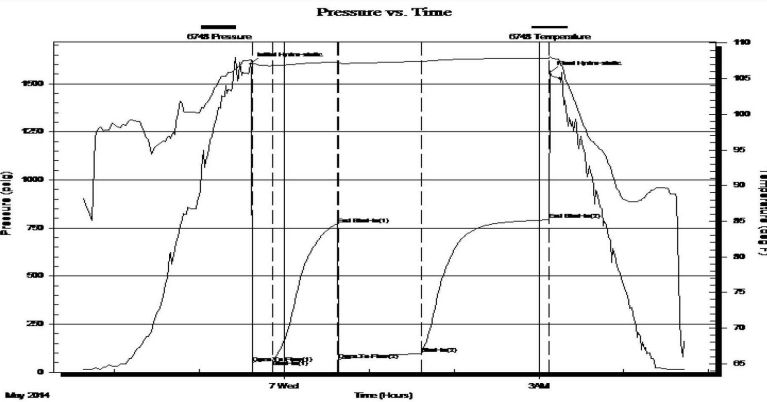
Last Calib.: 2014.05.07

Start Time: 21:37:00 End Time: 04:43:30

Time On Btm: 2014.05.06 @ 23:36:00

Time Off Btm: 2014.05.07 @ 03:08:00

**TEST COMMENT:** 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket in 13 minutes  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Strong blow /Blow built to bottom of bucket in 30 seconds then slowed considerably  
 2ND Shut In 90 Minutes/Blow back built to 1/4 then died in 15 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1601.66	107.69	Initial Hydro-static
2	49.82	107.23	Open To Flow (1)
16	62.84	106.83	Shut-In(1)
62	770.68	107.35	End Shut-In(1)
63	63.11	107.18	Open To Flow (2)
121	98.02	107.44	Shut-In(2)
211	791.85	107.91	End Shut-In(2)
212	1559.65	108.10	Final Hydro-static

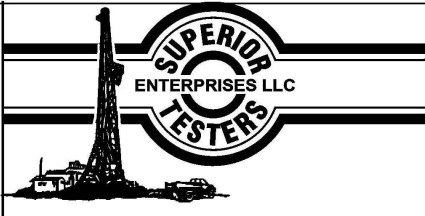
## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Oily Mud/Oil 20% Mud 80%	0.59
0.00	180 feet of gas in pipe	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18254

**DST#: 2**

Test Start: 2014.05.07 @ 13:10:00

**GENERAL INFORMATION:**

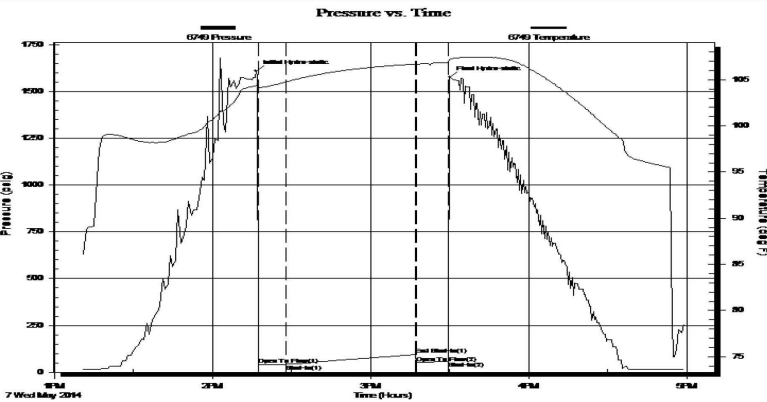
Formation: **Lansing/Kansas City**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:17:30  
 Time Test Ended: 16:59:00  
 Interval: **3260.00 ft (KB) To 3283.00 ft (KB) (TVD)**  
 Total Depth: 3283.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6749**

**Inside**

Press@RunDepth: 42.77 psig @ 3279.00 ft (KB)  
 Start Date: 2014.05.07 End Date: 2014.05.07 Capacity: 5000.00 psig  
 Start Time: 13:10:00 End Time: 16:59:00 Last Calib.: 2014.05.07  
 Time On Btm: 2014.05.07 @ 14:16:30  
 Time Off Btm: 2014.05.07 @ 15:30:00

**TEST COMMENT:** 1ST Open 15 Minutes/Weak surface blow throughout/Blow did not build  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test



**PRESSURE SUMMARY**

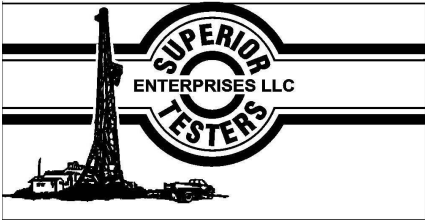
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.27	104.39	Initial Hydro-static
1	41.03	104.12	Open To Flow (1)
12	42.77	104.77	Shut-In(1)
61	94.43	106.69	End Shut-In(1)
61	50.71	106.69	Open To Flow (2)
73	56.21	106.86	Shut-In(2)
74	1575.92	107.21	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.00

**Gas Rates**

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18255      **DST#: 3**  
 Test Start: 2014.05.08 @ 08:09:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:16:00  
 Time Test Ended: 12:00:30  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Sw inney  
 Unit No: 3325 Great Bend/32  
 Interval: **3424.00 ft (KB) To 3455.00 ft (KB) (TVD)**  
 Total Depth: 3455.00 ft (KB) (TVD)  
 Reference Elevations: 1978.00 ft (KB)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 KB to GR/CF: 13.00 ft

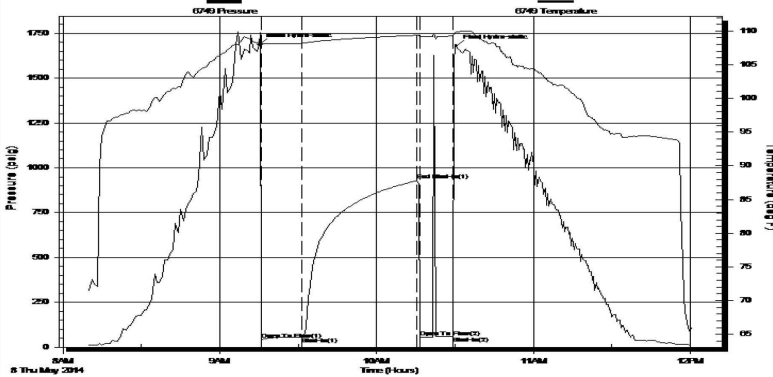
**Serial #: 6749**

**Inside**

Press@RunDepth: 56.70 psig @ 3451.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.08      End Date: 2014.05.08      Last Calib.: 2014.05.08  
 Start Time: 08:09:00      End Time: 12:00:30      Time On Btm: 2014.05.08 @ 09:15:00  
 Time Off Btm: 2014.05.08 @ 10:30:30

**TEST COMMENT:** 1ST Open 15 Minutes/Weak blow /Blow built to 3/4 inch  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test

Pressure vs. Time



**PRESSURE SUMMARY**

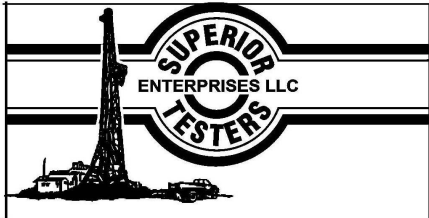
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.79	108.44	Initial Hydro-static
1	43.33	107.81	Open To Flow (1)
17	56.70	108.19	Shut-In(1)
61	929.45	109.37	End Shut-In(1)
62	56.85	109.18	Open To Flow (2)
74	59.42	109.26	Shut-In(2)
76	1679.14	109.84	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
15.00	Oily Mud/Oil 30% Mud 70%	0.07
15.00	Mud cut Oil/Mud 5% Oil 95%	0.07

**Gas Rates**

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



# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18256

**DST#: 4**

Test Start: 2014.05.08 @ 18:10:00

## GENERAL INFORMATION:

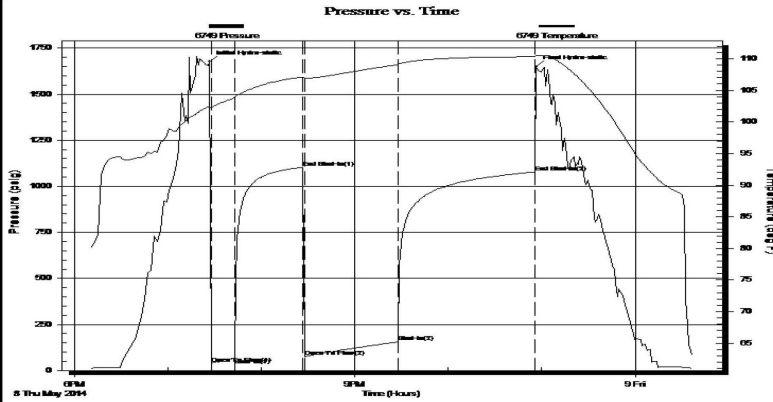
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:27:30  
 Time Test Ended: 00:37:00  
 Interval: **3450.00 ft (KB) To 3462.00 ft (KB) (TVD)**  
 Total Depth: 3462.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

## Serial #: 6749

## Inside

Press@RunDepth: 155.71 psig @ 3458.00 ft (KB)  
 Start Date: 2014.05.08 End Date: 2014.05.09  
 Start Time: 18:10:00 End Time: 00:37:00  
 Capacity: 5000.00 psig  
 Last Calib.: 2014.05.09  
 Time On Btm: 2014.05.08 @ 19:26:30  
 Time Off Btm: 2014.05.08 @ 22:56:30

TEST COMMENT: 1ST Open 15 Minutes/Fair blow /Blow built to 6 inches  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Good blow /Blow built to 11 inches  
 2ND Shut In 90 Minutes/No blow back



## PRESSURE SUMMARY

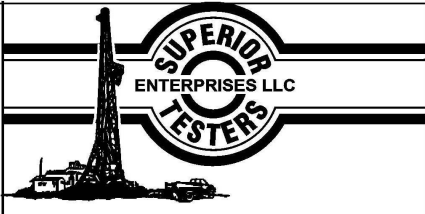
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.95	102.42	Initial Hydro-static
1	39.13	102.16	Open To Flow (1)
16	67.35	103.83	Shut-In(1)
61	1102.99	107.11	End Shut-In(1)
61	74.29	106.91	Open To Flow (2)
121	155.71	109.06	Shut-In(2)
210	1077.81	110.33	End Shut-In(2)
210	1648.86	110.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Oily Mud/Oil 30% Mud 70%	0.30
60.00	Muddy Oil/Mud 40% Oil 60%	0.30
195.00	Clean Oil 100%	0.96
0.00	Corrected Grav. Oil 32	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schwartz

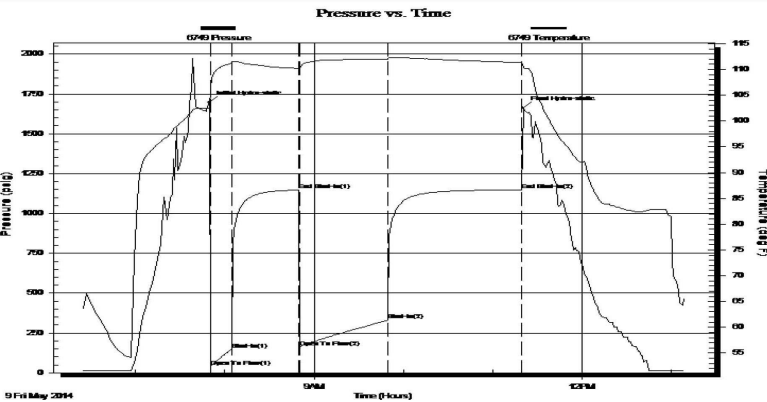
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18257      **DST#: 5**  
 Test Start: 2014.05.09 @ 06:24:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:50:30  
 Time Test Ended: 13:08:30  
 Interval: **3462.00 ft (KB) To 3468.00 ft (KB) (TVD)**  
 Total Depth: 3468.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6749      Inside**  
 Press@RunDepth: 328.99 psig @ 3464.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.09      End Date: 2014.05.09      Last Calib.: 2014.05.09  
 Start Time: 06:24:00      End Time: 13:08:30      Time On Btm: 2014.05.09 @ 07:49:30  
 Time Off Btm: 2014.05.09 @ 11:20:30

**TEST COMMENT:** 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket in 10 minutes  
 1ST Shut In 45 Minutes/Very weak surface blow back  
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 12 minutes  
 2ND Shut In 90 Minutes/No blow back



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.18	102.49	Initial Hydro-static
1	39.85	106.35	Open To Flow (1)
15	146.77	111.18	Shut-In(1)
60	1147.19	110.20	End Shut-In(1)
61	159.41	110.11	Open To Flow (2)
120	328.99	112.01	Shut-In(2)
210	1148.35	111.34	End Shut-In(2)
211	1663.88	110.50	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
620.00	Slightly Mud cut Water with show of Oil	5.71
0.00	Mud 2% Water 98%	0.00
93.00	Clean Oil 100%	1.30
0.00	Corrected Grav. Oil 31	0.00
0.00	Recov. Resist. .21 ohms @75 deg	0.00
0.00	Recov. Chlorides 19,000 ppm	0.00

**Gas Rates**

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

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 029

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-3-14	17	17	13	Barton	KS		6:00pm

Location *Susank 45160 RD 1 W 45 E into*

Lease <i>Nancy</i>	Well No. <i>3-17</i>	Owner
Contractor <i>Sterling #5</i>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <i>Surface</i>		
Hole Size <i>12 1/4</i>	T.D. <i>948</i>	Charge To <i>Shelby Resources</i>
Csg. <i>8 5/8</i>	Depth <i>943</i>	Street
Tbg. Size	Depth	City
Tool	Depth	State
Cement Left in Csg. <i>42.24</i>	Shoe Joint <i>42.24</i>	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace <i>57 1/4 BCL</i>	Cement Amount Ordered <i>350 60/40 3/1-CC 2/CEL</i>

**EQUIPMENT**

Pumptrk <i>18</i> No.	Cementer <i>Craig</i>	Common <i>210</i>
	Helper <i>Chad</i>	Poz. Mix <i>140</i>
Bulktrk	Driver	Gel. <i>12 7</i>
Bulktrk <i>12</i> No.	Driver <i>Doug</i>	Calcium <i>13</i>

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38

*8 5/8 on bottom Est Circulation  
Mix 350 5K & Displace Plug  
Cement Circulated!*

Handling <i>370</i>
Mileage

**FLOAT EQUIPMENT**

Guide Shoe <i>8 5/8 Guide shoe</i>
Centralizer <i>Rubber Plug</i>
Baskets <i>Baffle Plate</i>
AFU Inserts
Float Shoe
Latch Down

Pumptrk Charge <i>Long Surface</i>
Mileage <i>6</i>

X Signature *Alan Lott*

Tax
Discount
Total Charge

Customer: <i>Shelby Resources LLC</i>	Lease No.	Date: <i>5-10-14</i>
Lease: <i>NANCY</i>	Well #: <i>3-17</i>	
Field Order #: <i>10467</i>	Station: <i>Pratt</i>	Casing: <i>5 1/2</i>
		Depth: <i>3511</i>
Type Job: <i>CNW Long String</i>	Formation	Legal Description: <i>17-17-13</i>
		County: <i>BARTON</i>
		State: <i>KS</i>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size: <i>5 1/2</i>	Tubing Size	Shots/Ft		Acid: <i>100 SLS AA2</i>	RATE	PRESS	ISIP	
Depth: <i>3511</i>	Depth	From	To	Pre Pad: <i>100 SLS 60/40 P02</i>	Max		5 Min.	
Volume: <i>83.67</i>	Volume	From	To	Pad	Min		10 Min.	
Max Press: <i>1500</i>	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth: <i>10467</i>	Packer Depth	From	To	Flush: <i>85.1</i>	Gas Volume		Total Load	

Customer Representative: <i>Chris Gottschalk</i>	Station Manager: <i>Kevin Conroy</i>	Treater: <i>MIKE MATTA</i>
Service Units: <i>37584</i>	<i>33708</i>	<i>20920</i>
<i>19959</i>	<i>73768</i>	
Driver Names: <i>MATTA</i>	<i>ESSLING</i>	<i>ELIST</i>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
11:00					Oil location, Saturday morning
11:25					Run 5 1/2 14" casing, bottom of bottom hole
					Turns on 1, 3, 5, 7, 9
1:05					Casing on bottom
1:10					Hook up to casing/bottom circ w. Rig
2:11	200		3	5	Pump 3 Bbl H2O
2:17	200		12	5	Mix 50 SLS Seawater
2:19	200		24	3.5	Mix 100 SLS AA2
2:25			4	3	WASH PUMP + LINS, P.O.A.S. Plug
2:28	100			6	START DISPLACEMENT
2:40	300		60	5.5	LIFT PRESSURE
2:43	600		75	4	SLOW CAMP
2:46	1500		<del>100</del> 85.1		Plug down, P.O.A.S. + HHP
2:50			7.5		Plug CAT + more h2o
					Circ. thru job
					JOB COMPLETE
					THANKS!
					MIKE MATTA