

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	STOSS 1-24
Doc ID	1319236

All Electric Logs Run

Dual Induction
Compensated Neutron
Micro
Sonic
Radial Bond

Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	STOSS 1-24
Doc ID	1319236

Tops

Name	Top	Datum
Heebner	3076	-1159
L-KC	3156	-1248
Muncie Creek	3277	-1369
Stark Shale	3333	-1425
BKC	3369	-1461
Arbuckle	3396	-1488
Reagan	3422	-1514
LTD	3474	-1566



Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	STOSS 1-24
Doc ID	1319236

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
2	3302-08	500 gal 15% NE	
2	3223-30	250 gal 15% NE	
2	3205-10	500 gal 15% NE	





## DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES LLC**

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

### **STOSS 1-24**

Start Date: 2016.09.11 @ 11:15:00

End Date:

Job Ticket #: 01127

DST #: 1

Eagle Testers  
1309 Patton Road Great Bend, Kansas 67530  
620-791-7394

Printed: 2016.09.11 @ 05:26:12

SHELBY RESOURCES LLC

STOSS 1-24

DST # 1

TORONTO LANSING A-B

2016.09.11



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

Job Ticket: 01127

**DST#: 1**

Test Start: 2016.09.11 @ 11:15:00

## GENERAL INFORMATION:

Formation: **TORONTO LANSING A-B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-19

**Interval: 3070.00 ft (KB) To 3200.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3200.00 ft (KB) (TVD)

1897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

**Serial #: 9139**

**Outside**

Press@RunDepth: 925.22 psia @ 3194.96 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.09.08

End Date:

2016.09.09

Last Calib.:

2016.09.11

Start Time: 20:05:00

End Time:

03:25:30

Time On Btm:

2016.09.08 @ 22:19:30

Time Off Btm:

2016.09.09 @ 01:41:30

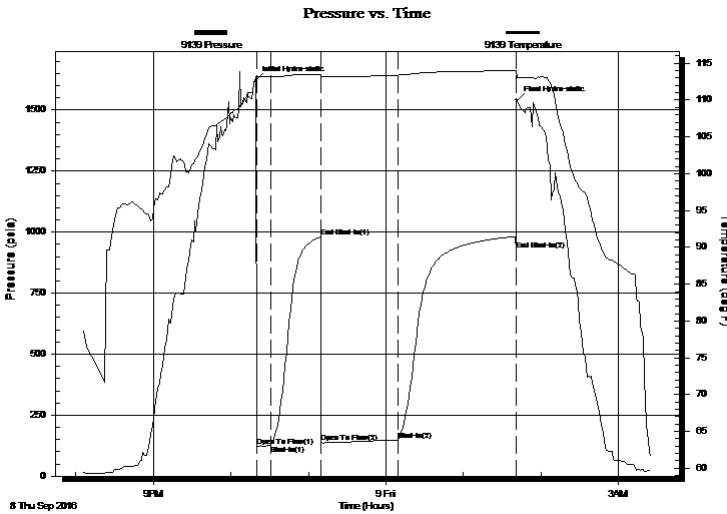
**TEST COMMENT:** 1ST OPENING 10 MINUTES FAIR BLOW BUILT TO 6 1/2 INCHES INTO THE WATER

1ST SHUT-IN 45 MINUTES NO BLOW BACK

2ND OPENING 60 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 3 MINUTES

2ND SHUT-IN 90 MINUTES-WEAK BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1620.08	113.19	Initial Hydro-static
1	123.00	113.08	Open To Flow (1)
11	126.87	113.14	Shut-In(1)
50	980.46	113.45	End Shut-In(1)
51	138.97	113.21	Open To Flow (2)
110	148.36	113.39	Shut-In(2)
201	925.22	114.00	End Shut-In(2)
202	1538.97	113.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
100.00	oil cut mud 10 oil 90 mud	0.58

## Gas Rates

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



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

Job Ticket: 01127

**DST#: 1**

Test Start: 2016.09.11 @ 11:15:00

## GENERAL INFORMATION:

Formation: **TORONTO LANSING A-B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended:

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-19

**Interval: 3070.00 ft (KB) To 3200.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3200.00 ft (KB) (TVD)

1897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 11.00 ft

**Serial #: 9119**

**Inside**

Press@RunDepth: 980.51 psia @ 3194.96 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.09.08

End Date:

2016.09.09

Last Calib.:

2016.09.11

Start Time: 20:05:00

End Time:

03:25:00

Time On Btm:

2016.09.08 @ 22:19:00

Time Off Btm:

2016.09.09 @ 01:41:00

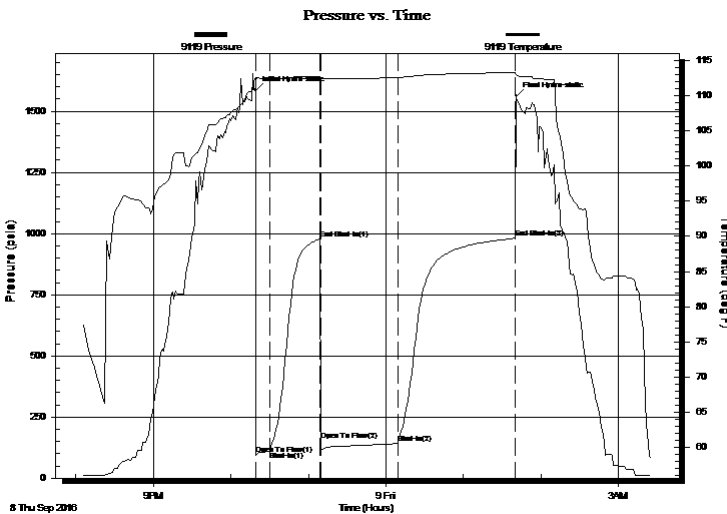
**TEST COMMENT:** 1ST OPENING 10 MINUTES FAIR BLOW BUILT TO 6 1/2 INCHES INTO THE WATER

1ST SHUT-IN 45 MINUTES NO BLOW BACK

2ND OPENING 60 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 3 MINUTES

2ND SHUT-IN 90 MINUTES-WEAK BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1586.24	112.61	Initial Hydro-static
1	97.64	111.96	Open To Flow (1)
11	109.93	112.41	Shut-In(1)
50	979.31	112.69	End Shut-In(1)
51	154.42	112.28	Open To Flow (2)
110	141.26	112.57	Shut-In(2)
201	980.51	113.30	End Shut-In(2)
203	1561.82	112.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
100.00	oil cut mud 10 oil 90 mud	0.58

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

SHELBY RESOURCES LLC

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

Job Ticket: 01127

**DST#: 1**

Test Start: 2016.09.11 @ 11:15:00

## Tool Information

Drill Pipe:	Length: 2963.00 ft	Diameter: 3.80 inches	Volume: 41.56 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 42.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3070.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	129.96 ft			
Tool Length:	158.96 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			3046.00	
Hydraulic tool	5.00			3051.00	
Jars	7.00			3058.00	
Safety Joint	2.00		Fluid	3060.00	
Top Packer	5.00			3065.00	
Packer	5.00			3070.00	29.00 Bottom Of Top Packer
Anchor	3.00			3073.00	
Change Over Sub	0.75			3073.75	
Drill Pipe	95.46			3169.21	
Change Over Sub	0.75			3169.96	
Anchor	25.00			3194.96	
Recorder	0.00	9119	Inside	3194.96	
Recorder	0.00	9139	Outside	3194.96	
Bullnose	5.00			3199.96	129.96 Anchor Tool

**Total Tool Length: 158.96**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

SHELBY RESOURCES LLC

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

Job Ticket: 01127

**DST#: 1**

Test Start: 2016.09.11 @ 11:15:00

### 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: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3400.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	oil cut mud 10 oil 90 mud	0.583

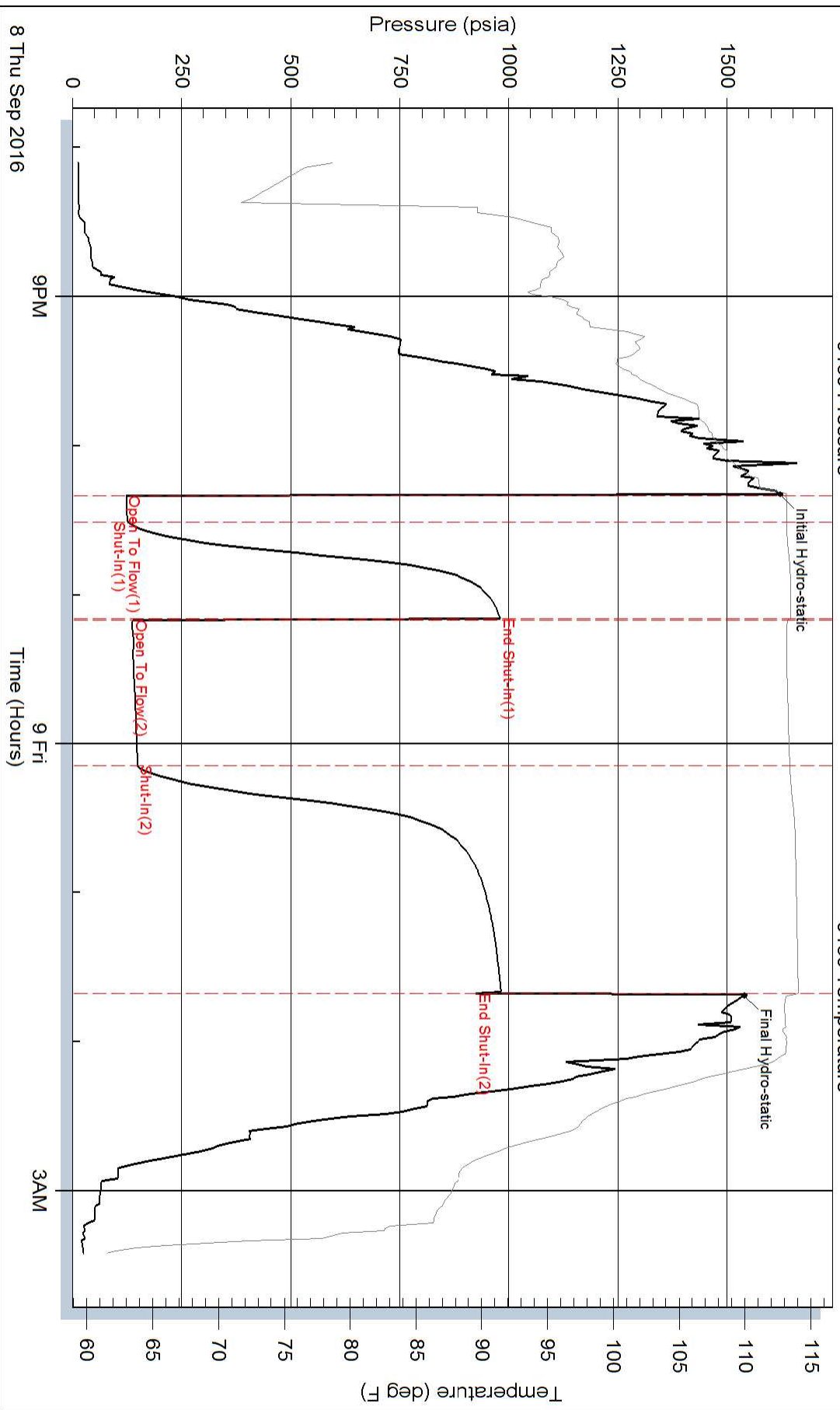
Total Length: 100.00 ft      Total Volume: 0.583 bbl

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

Laboratory Name:      Laboratory Location:

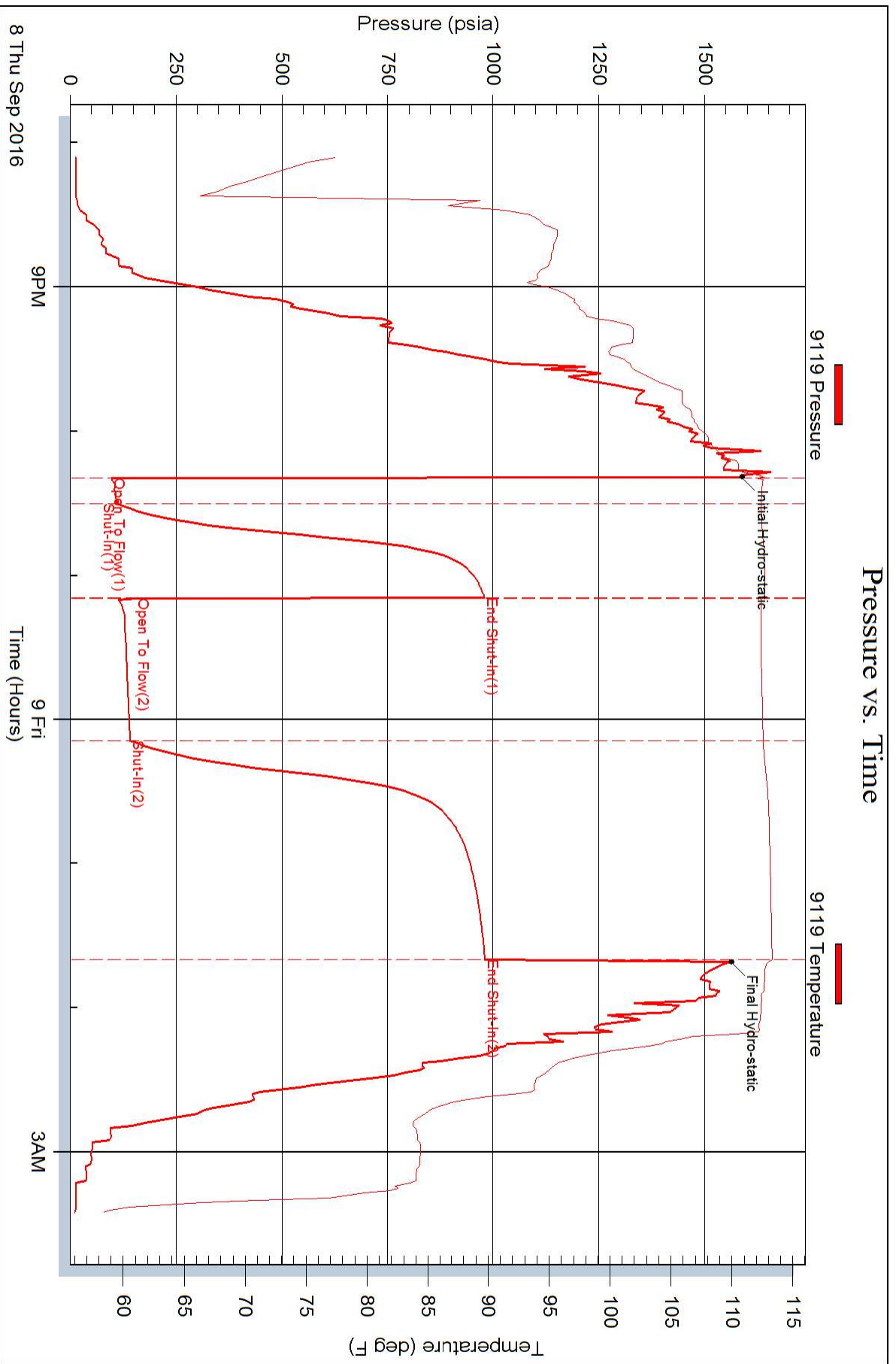
Recovery Comments:

### Pressure vs. Time





### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES LLC**

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

**24-18s-14w BARTON**

Start Date: 2016.09.11 @ 13:10:00

End Date: 2016.09.11 @ 00:00:00

Job Ticket #: 01128                      DST #: 2

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2016.09.11 @ 21:38:25



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

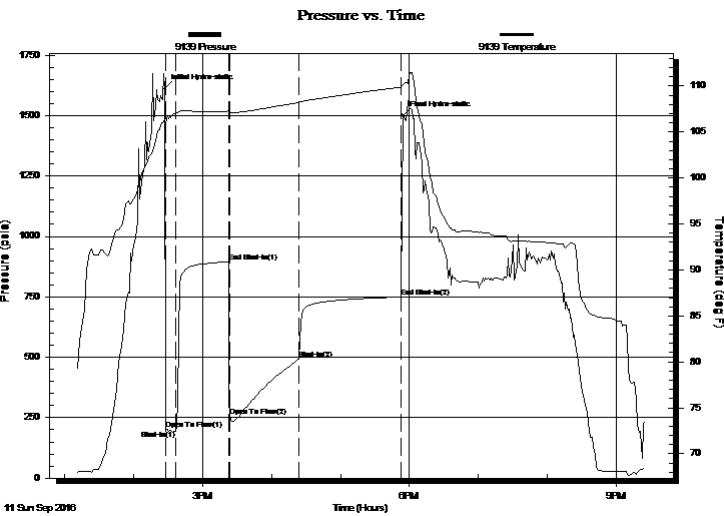
**24-18s-14w BARTON**  
**STOSS 1-24**  
 Job Ticket: 01128 **DST#: 2**  
 Test Start: 2016.09.11 @ 13:10:00

## GENERAL INFORMATION:

Formation: **LANSING D AND F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:27:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-19  
 Interval: **3184.00 ft (KB) To 3242.00 ft (KB) (TVD)**  
 Reference Elevations: 1908.00 ft (KB)  
 Total Depth: 3242.00 ft (KB) (TVD)  
 1897.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

**Serial #: 9139 Outside**  
 Press@RunDepth: 749.57 psia @ 3237.32 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.09.11 End Date: 2016.09.11 Last Calib.: 2016.09.11  
 Start Time: 13:10:00 End Time: 21:25:00 Time On Btm: 2016.09.11 @ 14:27:00  
 Time Off Btm: 2016.09.11 @ 17:54:00

**TEST COMMENT:** 1ST OPENING 10 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
 1ST SHUT-IN 45 MINUTES-GOOD BLOW BACK  
 2ND OPENING 60 MINUTES-STRONG BLOW WITH GAS TO SURFACE SEE GAS FLOW REPORT  
 2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1609.85	106.33	Initial Hydro-static
1	200.57	105.75	Open To Flow (1)
10	196.59	107.04	Shut-In(1)
56	895.61	107.28	End Shut-In(1)
57	255.49	107.11	Open To Flow (2)
117	494.61	108.22	Shut-In(2)
206	749.57	109.89	End Shut-In(2)
207	1499.74	110.18	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1800.00	CLEAN GASSY OIL 40 GAS 60 OIL	24.43
0.00	GRAVITY 37 CORRECTED	0.00

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	49.17	18.40
Last Gas Rate	0.13	2.45	0.92
Max. Gas Rate	0.13	49.17	18.40



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

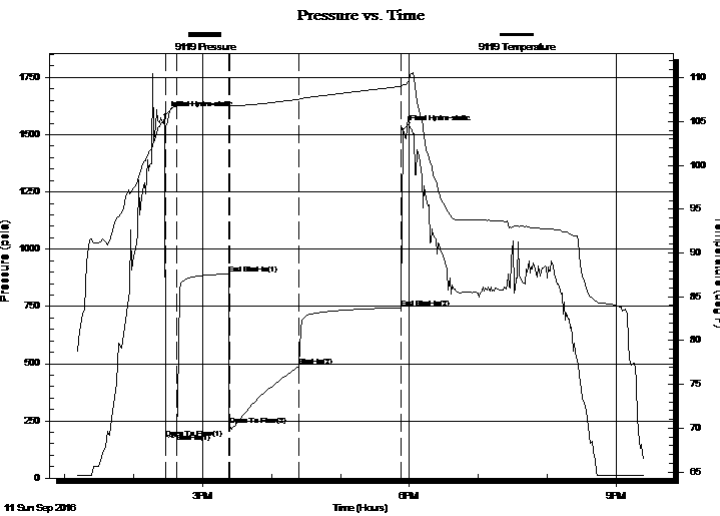
**24-18s-14w BARTON**  
**STOSS 1-24**  
 Job Ticket: 01128 **DST#: 2**  
 Test Start: 2016.09.11 @ 13:10:00

## GENERAL INFORMATION:

Formation: **LANSING D AND F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:27:00  
 Time Test Ended: 00:00:00  
 Interval: **3184.00 ft (KB) To 3242.00 ft (KB) (TVD)**  
 Total Depth: 3242.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-19  
 Reference Elevations: 1908.00 ft (KB)  
 1897.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 9119 Inside**  
 Press@RunDepth: 745.30 psia @ 3237.32 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.09.11 End Date: 2016.09.11 Last Calib.: 2016.09.11  
 Start Time: 13:10:00 End Time: 21:25:00 Time On Btm: 2016.09.11 @ 14:27:00  
 Time Off Btm: 2016.09.11 @ 17:54:00

**TEST COMMENT:** 1ST OPENING 10 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
 1ST SHUT-IN 45 MINUTES-GOOD BLOW BACK  
 2ND OPENING 60 MINUTES-STRONG BLOW WITH GAS TO SURFACE SEE GAS FLOW REPORT  
 2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1584.08	104.85	Initial Hydro-static
1	172.39	104.07	Open To Flow (1)
10	196.73	106.76	Shut-In(1)
56	892.37	107.01	End Shut-In(1)
57	231.66	106.83	Open To Flow (2)
118	490.56	107.56	Shut-In(2)
206	745.30	109.02	End Shut-In(2)
207	1523.43	109.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1800.00	CLEAN GASSY OIL 40 GAS 60 OIL	24.43
0.00	GRAVITY 37 CORRECTED	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	49.17	18.40
Last Gas Rate	0.13	2.45	0.92
Max. Gas Rate	0.13	49.17	18.40



# DRILL STEM TEST REPORT

TOOL DIAGRAM

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01128

DST#: 2

ATTN: KEITH REAVIS

Test Start: 2016.09.11 @ 13:10:00

## Tool Information

Drill Pipe:	Length: 3090.00 ft	Diameter: 3.80 inches	Volume: 43.34 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 62000.00 lb
			Total Volume: 43.78 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3184.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.32 ft			
Tool Length:	87.32 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			3160.00	
Hydraulic tool	5.00			3165.00	
Jars	7.00			3172.00	
Safety Joint	2.00		Fluid	3174.00	
Top Packer	5.00			3179.00	
Packer	5.00			3184.00	29.00 Bottom Of Top Packer
Anchor	3.00			3187.00	
Change Over Sub	0.75			3187.75	
Drill Pipe	31.82			3219.57	
Change Over Sub	0.75			3220.32	
Anchor	17.00			3237.32	
Recorder	0.00	9119	Inside	3237.32	
Recorder	0.00	9139	Outside	3237.32	
Bullnose	5.00			3242.32	58.32 Anchor Tool

**Total Tool Length: 87.32**



# DRILL STEM TEST REPORT

FLUID SUMMARY

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01128

DST#: 2

ATTN: KEITH REAVIS

Test Start: 2016.09.11 @ 13:10:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 59.00 sec/qt  
Water Loss: 8.80 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5300.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: 37 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1800.00	CLEAN GASSY OIL 40 GAS 60 OIL	24.429
0.00	GRAVITY 37 CORRECTED	0.000

Total Length: 1800.00 ft Total Volume: 24.429 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

GAS RATES

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01128

DST#: 2

ATTN: KEITH REAVIS

Test Start: 2016.09.11 @ 13:10:00

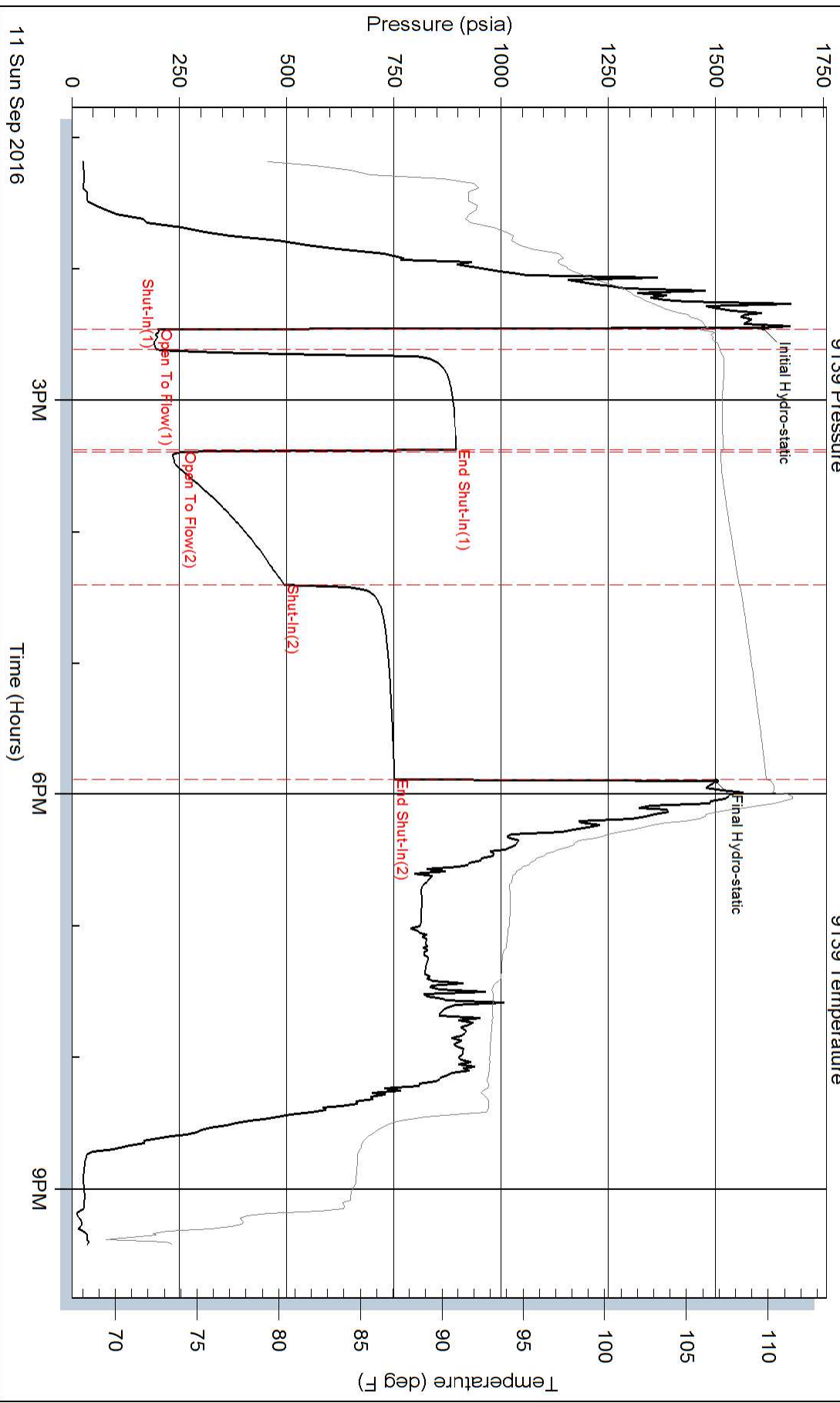
## Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

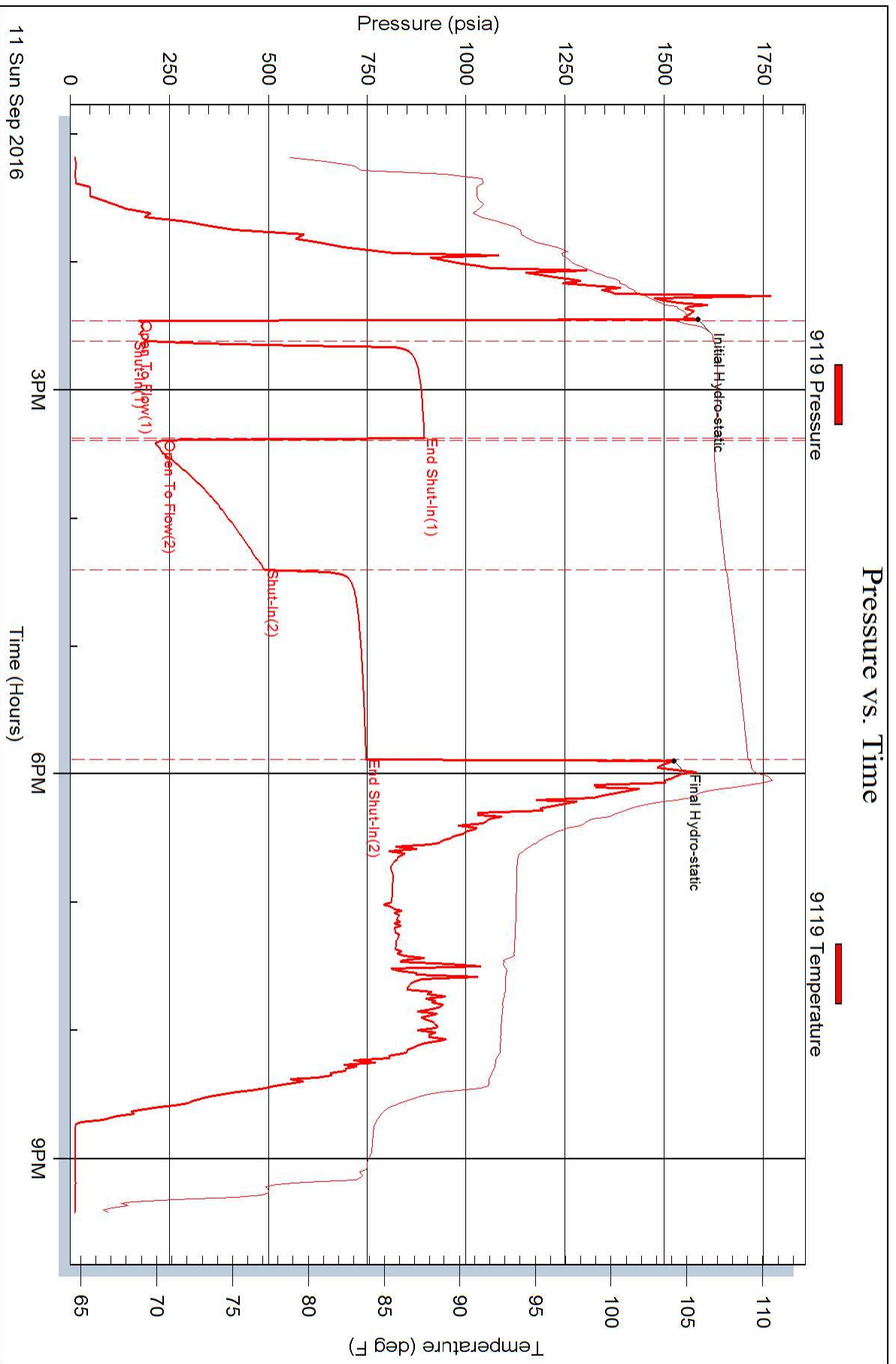
Flow Period	Elapsed Time	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
2	10	0.13	49.17	18.40
2	20	0.13	2.90	1.08
2	30	0.13	4.90	1.83
2	40	0.13	4.03	1.51
2	50	0.13	2.45	0.92

### Pressure vs. Time





### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES LLC**

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

**STOSS 1-24**

**24-18s-14w BARTON**

Start Date: 2016.09.12 @ 09:41:00

End Date: 2016.09.12 @ 00:00:00

Job Ticket #: 01129                      DST #: 3

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2016.09.12 @ 16:59:56



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

24-18s-14w BARTON

STOSS 1-24

Job Ticket: 01129

DST#: 3

Test Start: 2016.09.12 @ 09:41:00

## GENERAL INFORMATION:

Formation: **LANSING H TO K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-19

Interval: **3275.00 ft (KB) To 3371.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3371.00 ft (KB) (TVD)

1897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9139 Outside

Press@RunDepth: 974.40 psia @ 3366.18 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.09.12

End Date: 2016.09.12

Last Calib.: 2016.09.12

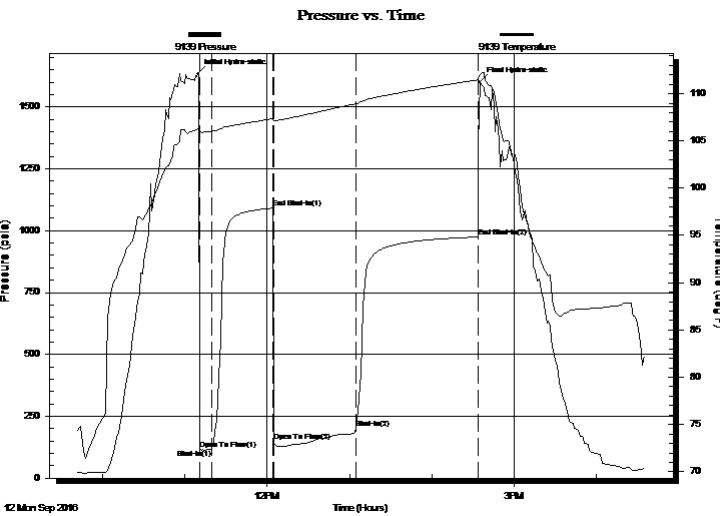
Start Time: 09:41:00

End Time: 16:35:00

Time On Btm: 2016.09.12 @ 11:09:30

Time Off Btm: 2016.09.12 @ 14:35:00

TEST COMMENT: 1ST OPENING 10 MINUTES-GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
 1ST SHUT-IN 45 MINUTES- NO BLOW BACK  
 2ND OPENING 60 MINUTES-STRONG BLOW BUILT TO BOTTOM OF THE BUCKET IN LESS THAN 1 MINUTE  
 2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK GAS TO SURFACE ON THE SHUT-IN



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1633.26	106.28	Initial Hydro-static
1	118.26	105.93	Open To Flow (1)
10	115.64	106.00	Shut-In(1)
55	1090.41	107.39	End Shut-In(1)
55	150.76	107.14	Open To Flow (2)
115	199.59	108.93	Shut-In(2)
204	974.40	111.46	End Shut-In(2)
206	1601.29	111.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	CLEAN GASSY OIL GRAVITY 46 CORRE0.22)	
120.00	OIL AND GAS CUT MUD	1.27
0.00	5 GAS 25 OIL 70 MUD	0.00
180.00	MUDDY FROTHY OIL 15 WATER	2.52

## Gas Rates

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



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01129

DST#: 3

ATTN: KEITH REAVIS

Test Start: 2016.09.12 @ 09:41:00

## GENERAL INFORMATION:

Formation: **LANSING H TO K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-19

Interval: **3275.00 ft (KB) To 3371.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3371.00 ft (KB) (TVD)

1897.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9119

Inside

Press@RunDepth: 969.07 psia @ 3366.18 ft (KB)

Capacity: 5000.00 psia

Start Date: 2016.09.12

End Date:

2016.09.12

Last Calib.:

2016.09.12

Start Time: 09:40:00

End Time:

16:34:00

Time On Btm:

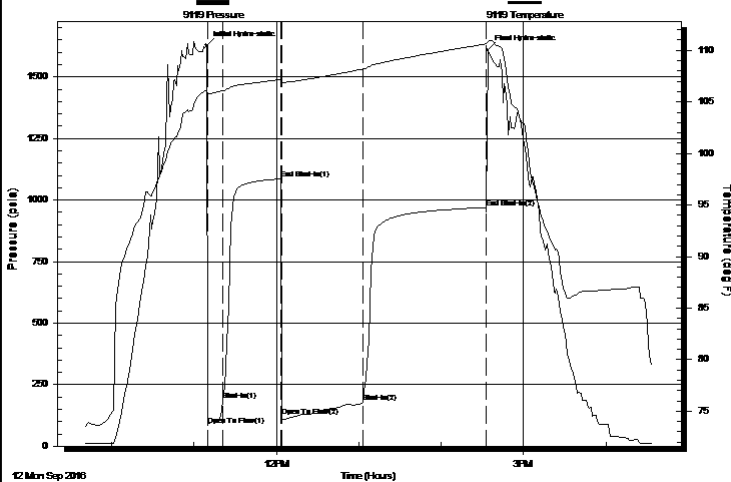
2016.09.12 @ 11:09:00

Time Off Btm:

2016.09.12 @ 14:34:00

TEST COMMENT: 1ST OPENING 10 MINUTES-GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
1ST SHUT-IN 45 MINUTES- NO BLOW BACK  
2ND OPENING 60 MINUTES-STRONG BLOW BUILT TO BOTTOM OF THE BUCKET IN LESS THAN 1 MINUTE  
2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK GAS TO SURFACE ON THE SHUT-IN

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1628.34	106.14	Initial Hydro-static
1	86.04	105.77	Open To Flow (1)
12	187.33	106.09	Shut-In(1)
54	1085.98	107.17	End Shut-In(1)
55	120.00	106.91	Open To Flow (2)
114	178.75	108.20	Shut-In(2)
204	969.07	110.63	End Shut-In(2)
205	1610.88	110.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	CLEAN GASSY OIL GRAVITY 46 CORRE0.22)	
120.00	OIL AND GAS CUT MUD	1.27
0.00	5 GAS 25 OIL 70 MUD	0.00
180.00	MUDDY FROTHY OIL 15 WATER	2.52

Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01129

DST#: 3

ATTN: KEITH REAVIS

Test Start: 2016.09.12 @ 09:41:00

## Tool Information

Drill Pipe:	Length: 3184.00 ft	Diameter: 3.80 inches	Volume: 44.66 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.86 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 64000.00 lb
			Total Volume: 45.10 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3275.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	96.18 ft			
Tool Length:	125.18 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			3251.00	
Hydraulic tool	5.00			3256.00	
Jars	7.00			3263.00	
Safety Joint	2.00		Fluid	3265.00	
Top Packer	5.00			3270.00	
Packer	5.00			3275.00	29.00 Bottom Of Top Packer
Anchor	3.00			3278.00	
Change Over Sub	0.75			3278.75	
Drill Pipe	63.68			3342.43	
Change Over Sub	0.75			3343.18	
Anchor	23.00			3366.18	
Recorder	0.00	9119	Inside	3366.18	
Recorder	0.00	9139	Outside	3366.18	
Bullnose	5.00			3371.18	96.18 Anchor Tool

**Total Tool Length: 125.18**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01129

DST#: 3

ATTN: KEITH REAVIS

Test Start: 2016.09.12 @ 09:41:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 55.00 sec/qt  
Water Loss: 8.40 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3100.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia  
Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	CLEAN GASSY OIL GRAVITY 46 CORRECTE	0.221
120.00	OIL AND GAS CUT MUD	1.273
0.00	5 GAS 25 OIL 70 MUD	0.000
180.00	MUDDY FROTHY OIL 15 WATER	2.525

Total Length: 345.00 ft      Total Volume: 4.019 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

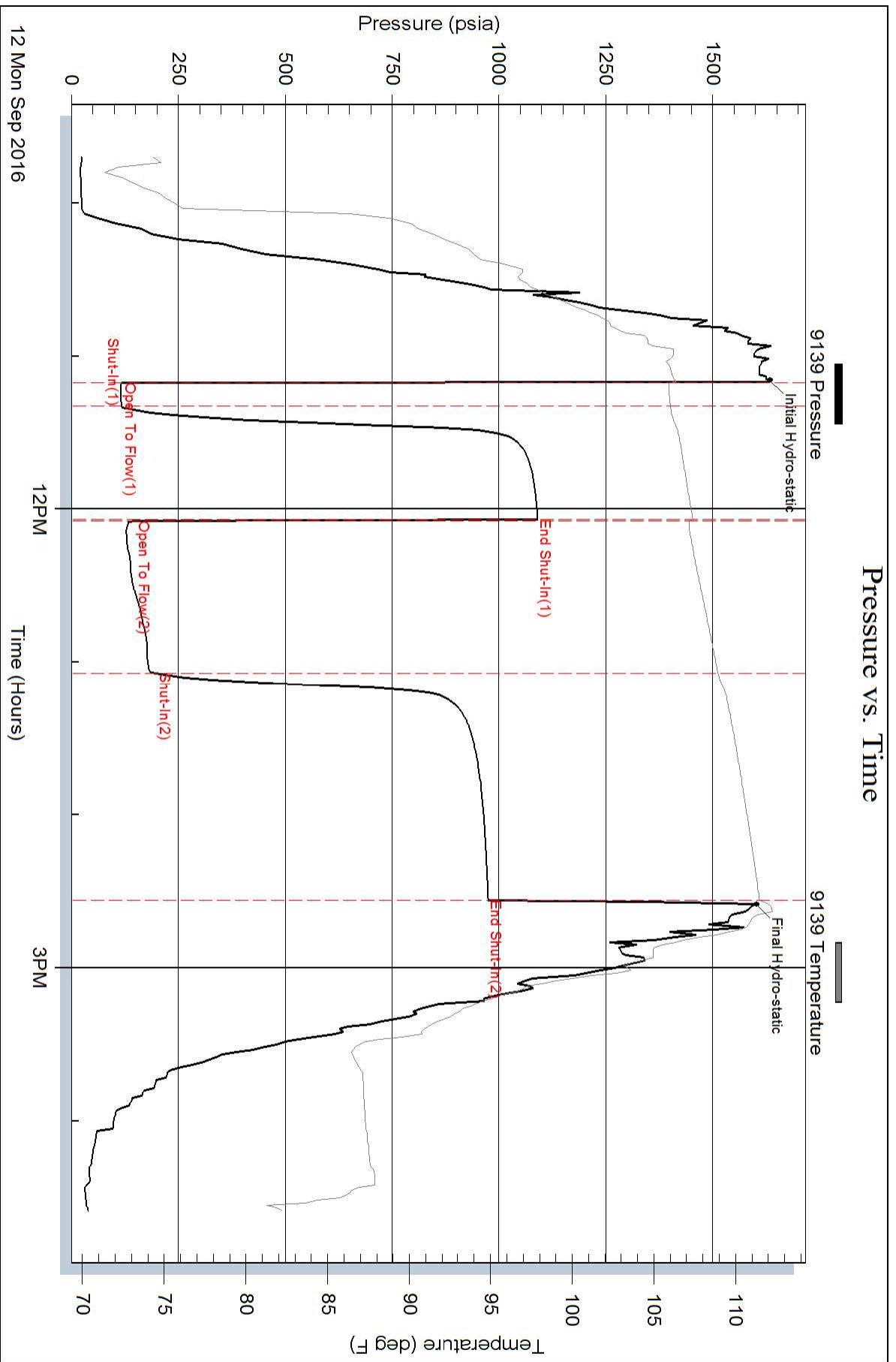
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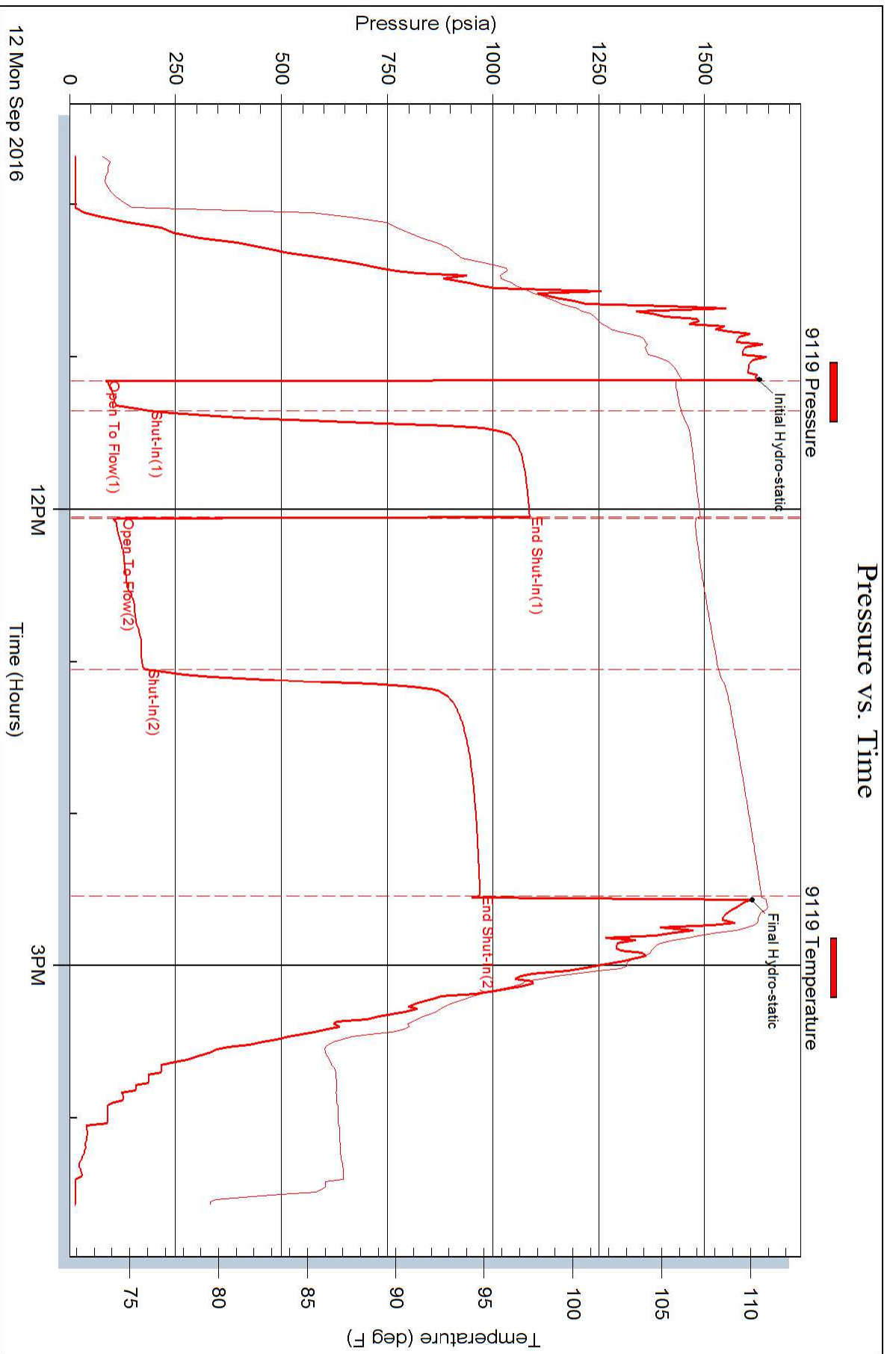
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time









## DRILL STEM TEST REPORT

Prepared For: **SHELBY RESOURCES LLC**

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

ATTN: KEITH REAVIS

### **STOSS 1-24**

#### **24-18s-14w BARTON**

Start Date: 2016.09.13 @ 01:52:00

End Date: 2016.09.13 @ 00:00:00

Job Ticket #: 01130                      DST #: 4

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2016.09.13 @ 07:51:51



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

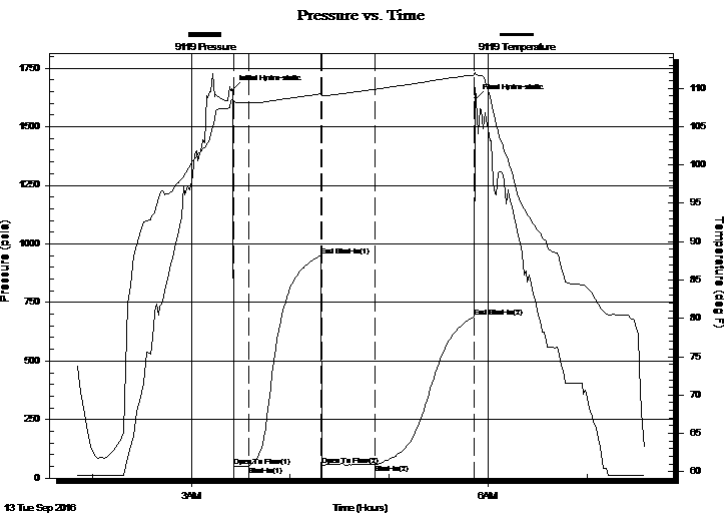
**24-18s-14w BARTON**  
**STOSS 1-24**  
 Job Ticket: 01130      **DST#: 4**  
 Test Start: 2016.09.13 @ 01:52:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Interval: **3369.00 ft (KB) To 3415.00 ft (KB) (TVD)**  
 Total Depth: 3415.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-18  
 Reference Elevations: 1908.00 ft (KB)  
 1897.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 9119      Inside**  
 Press@RunDepth: 689.89 psia @ 3410.34 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2016.09.13      End Date: 2016.09.13      Last Calib.: 2016.09.13  
 Start Time: 01:50:00      End Time: 07:35:30      Time On Btm: 2016.09.13 @ 03:25:00  
    Time Off Btm: 2016.09.13 @ 05:52:30

**TEST COMMENT:** 1ST OPENING 10 MINUTES VERY WEAK SURFACE BLOW THROUGH OUT  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 30 MINUTES NO BLOW  
 2ND SHUT-IN 60 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1657.83	108.61	Initial Hydro-static
1	49.22	108.22	Open To Flow (1)
10	52.52	108.14	Shut-In(1)
54	948.44	109.27	End Shut-In(1)
54	54.24	108.99	Open To Flow (2)
87	57.97	109.88	Shut-In(2)
147	689.89	111.73	End Shut-In(2)
148	1621.36	111.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OIL CUT MUD 85 MUD 15 OIL	0.05
1.00	CLEAN OIL	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

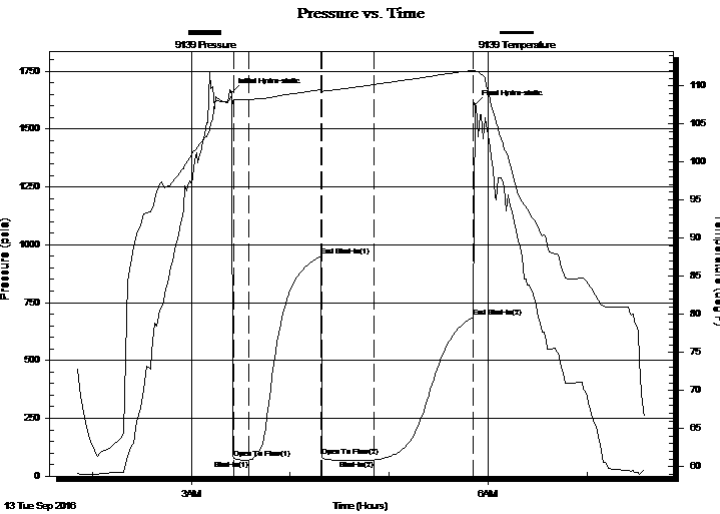
**24-18s-14w BARTON**  
**STOSS 1-24**  
 Job Ticket: 01130 **DST#: 4**  
 Test Start: 2016.09.13 @ 01:52:00

## GENERAL INFORMATION:

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 00:00:00 Tester: GENE BUDIG  
 Time Test Ended: 00:00:00 Unit No: 1-18  
 Interval: **3369.00 ft (KB) To 3415.00 ft (KB) (TVD)** Reference Elevations: 1908.00 ft (KB)  
 Total Depth: 3415.00 ft (KB) (TVD) 1897.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 9139 Outside**  
 Press@RunDepth: 689.74 psia @ 3410.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.09.13 End Date: 2016.09.13 Last Calib.: 2016.09.13  
 Start Time: 01:50:00 End Time: 07:35:30 Time On Btm: 2016.09.13 @ 03:24:30  
 Time Off Btm: 2016.09.13 @ 05:52:00

**TEST COMMENT:** 1ST OPENING 10 MINUTES VERY WEAK SURFACE BLOW THROUGH OUT  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 30 MINUTES NO BLOW  
 2ND SHUT-IN 60 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1658.94	108.55	Initial Hydro-static
1	79.51	108.20	Open To Flow (1)
11	68.99	108.20	Shut-In(1)
54	950.21	109.48	End Shut-In(1)
55	85.87	109.26	Open To Flow (2)
87	69.90	110.16	Shut-In(2)
147	689.74	112.01	End Shut-In(2)
148	1607.31	111.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OIL CUT MUD 85 MUD 15 OIL	0.05
1.00	CLEAN OIL	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01130

DST#: 4

ATTN: KEITH REAVIS

Test Start: 2016.09.13 @ 01:52:00

## Tool Information

Drill Pipe:	Length: 3252.00 ft	Diameter: 3.80 inches	Volume: 45.62 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 64000.00 lb
			Total Volume: 46.06 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3369.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.34 ft			
Tool Length:	75.34 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3345.00	
Hydraulic tool	5.00			3350.00	
Jars	7.00			3357.00	
Safety Joint	2.00		Fluid	3359.00	
Top Packer	5.00			3364.00	
Packer	5.00			3369.00	29.00 Bottom Of Top Packer
Anchor	3.00			3372.00	
Change Over Sub	0.75			3372.75	
Drill Pipe	31.84			3404.59	
Change Over Sub	0.75			3405.34	
Anchor	5.00			3410.34	
Recorder	0.00	9119	Inside	3410.34	
Recorder	0.00	9139	Outside	3410.34	
Bullnose	5.00			3415.34	46.34 Anchor Tool

**Total Tool Length: 75.34**



# DRILL STEM TEST REPORT

**FLUID SUMMARY**

SHELBY RESOURCES LLC

**24-18s-14w BARTON**

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

**STOSS 1-24**

Job Ticket: 01130

**DST#: 4**

ATTN: KEITH REAVIS

Test Start: 2016.09.13 @ 01:52:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 55.00 sec/qt  
Water Loss: 8.40 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3100.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OIL CUT MUD 85 MUD 15 OIL	0.049
1.00	CLEAN OIL	0.005

Total Length: 11.00 ft      Total Volume: 0.054 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

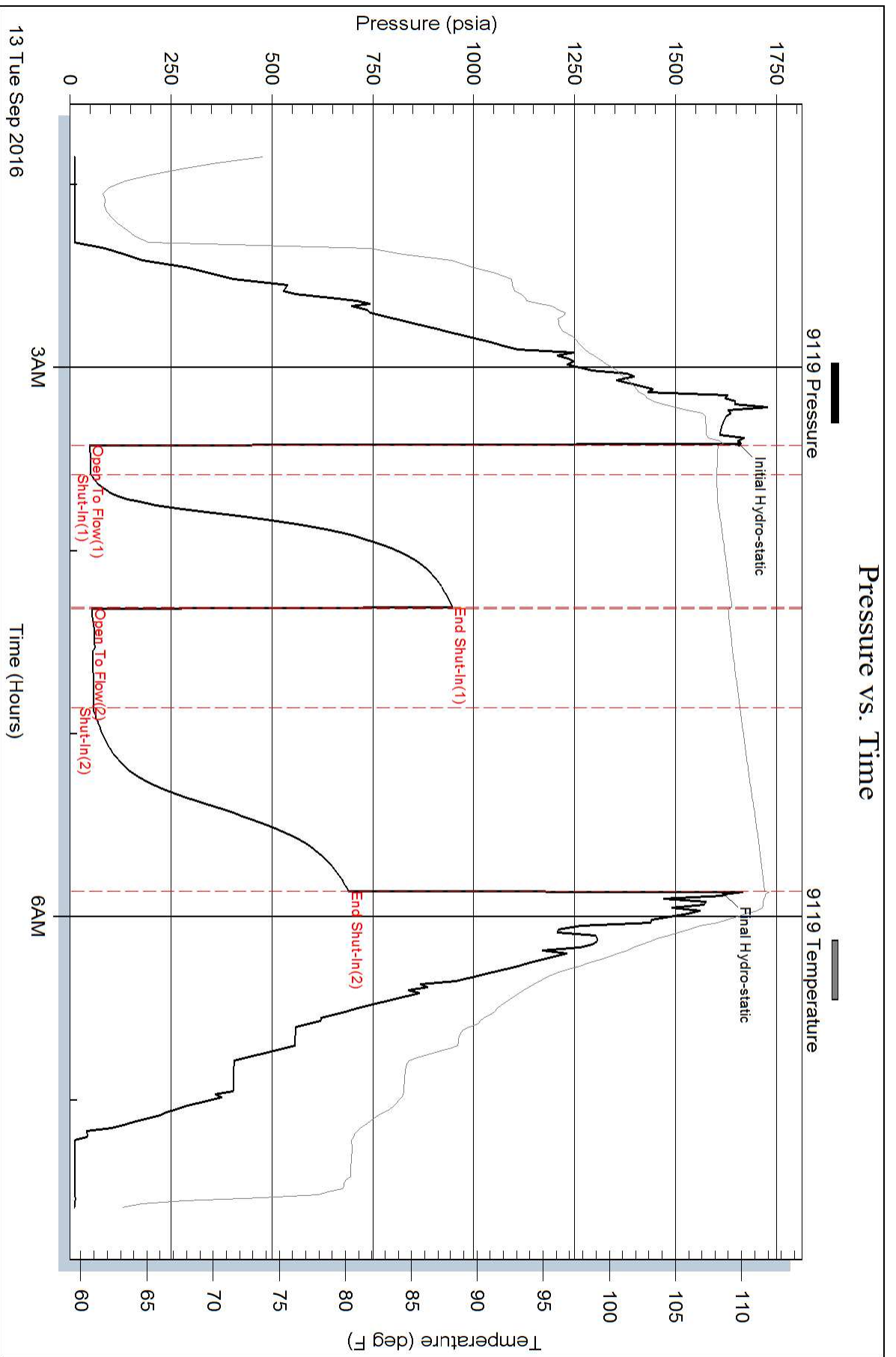
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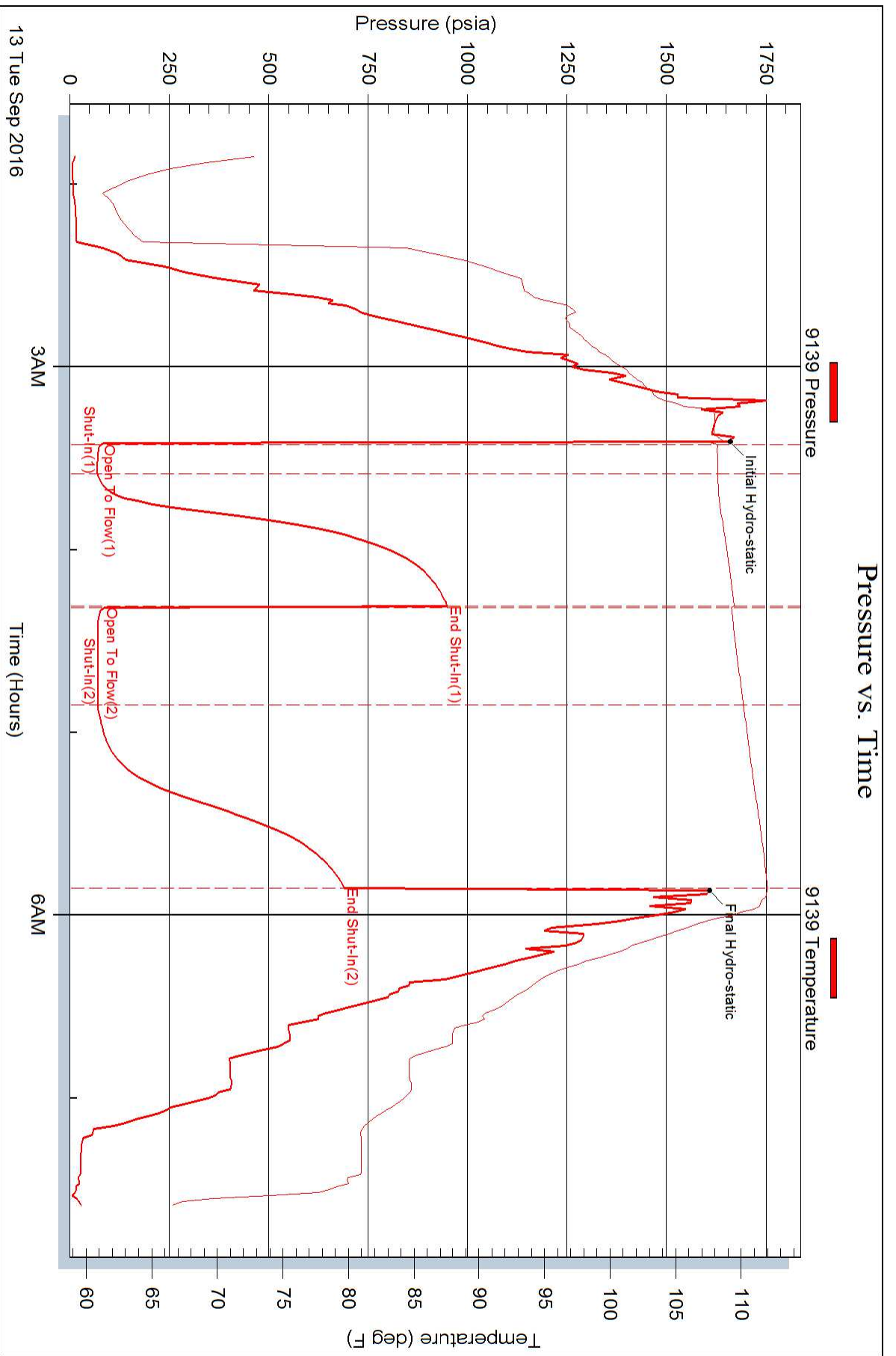
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







Scale 1:240 Imperial

Well Name: Stoss #1-24  
 Surface Location: 499' FSL, 498' FWL, Sec. 24-18S-14W  
 Bottom Location:  
 API: 15-145-26148-00-00  
 License Number:  
 Spud Date: 9/6/2016 Time: 5:45 PM  
 Region: Barton County  
 Drilling Completed: 9/13/2016 Time: 5:02 PM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1897.00ft  
 K.B. Elevation: 1908.00ft  
 Logged Interval: 2800.00ft To: 3475.00ft  
 Total Depth: 3475.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**OPERATOR**

Company: Shelby Resources, LLC  
 Address: 621 17th St, Suite 1155  
 Denver, CO 80293  
 Contact Geologist: Janine Sturdavant  
 Contact Phone Nbr: 303-907-2209 / 720-274-4682  
 Well Name: Stoss #1-24  
 Location: 499' FSL, 498' FWL, Sec. 24-18S-14W  
 API: 15-145-26148-00-00  
 Pool:  
 State: Kansas Field: Dist. 65  
 Country: USA

**LOGGED BY**

Company:  
 Address:  
 Phone Nbr:  
 Logged By: Geologist Name: Keith Reavis Bruce B. Ard

**NOTES**

The Shelby Resources, LLC Stoss #1-24 was drilled to a total depth of 3475', bottoming in the Reagan SS/Granite Wash. A TookeDaq Gas Detector was employed in the drilling of said well.

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

Due to positive DST results, sample shows, and log analysis it was determined by all parties to further test the well through production casing. 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,  
Keith Reavis and Bruce B. Ard

**CONTRACTOR**

Contractor: Sterling Drilling Co  
 Rig #: 4  
 Rig Type: mud rotary  
 Spud Date: 9/6/2016 Time: 5:45 PM  
 TD Date: 9/13/2016 Time: 5:02 PM  
 Rig Release: 9/14/2016 Time: 12:00 PM

**ELEVATIONS**



K.B. Elevation: 1908.00ft  
 K.B. to Ground: 11.00ft

Ground Elevation: 1897.00ft

DATE	DEPTH	ACTIVITY
Saturday, September 10, 2016		geologist Keith Reavis on location @ 3000' 1145 hrs, drilling Queen Hill, Plattsmouth
		Heebner, Toronto, Douglas, Lansing, show in Toronto warrants test, TOH for DST #1
Sunday, September 11, 2016	3200	conduct and complete DST #2, successful test, drill D and F zones, conduct DST #2
		completed DST #2, successful test, reverse out, TIH w/bit, resume drilling
Monday, September 12, 2016	3371	drill to Base KC, TOH for DST #3, H-K zones, trip back in with bit, resume drilling,
		conglomerate and Arbuckle, start out of hole for DST #4, Arbuckle
Tuesday, September 13, 2016	3415	Successful Test, Resume Drilling ahead to TD, TD of 3475' reached, Conduct Logging
		Operations, Logging Operations Complete. Geologist Bruce Ard released

	OIL - P&A															
	KLIMA OIL, INC						SMITH OIL OPERATIONS			SHELBY RESOURCES, LLC						
	JOHNSON #1						MANETH #1			MCCURRY #1-24						
	STOSS #1-24				C-SW-SE-SW 24-T185-R14W			C-NE-NW-NW 25-T185-R14W			SW-NW-SE-SE 24-T185-R14W					
	KB		1908		KB		1903	KB		1902	KB		1908			
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM		
ANHYDRITE TOP	824	1084	824	1084	820	1083	+ 1	+ 1	822	1080	+ 4	+ 4	832	1076	+ 8	+ 8
BASE	852	1056	848	1060	850	1053	+ 3	+ 7	851	1051	+ 5	+ 9	859	1049	+ 7	+ 11
TOPEKA	2849	-941	2852	-944	2846	-943	+ 2	- 1	2846	-944	+ 3	+ 0	2852	-944	+ 3	+ 0
HEEBNER SHALE	3067	-1159	3072	-1164	3066	-1163	+ 4	- 1	3069	-1167	+ 8	+ 3	3075	-1167	+ 8	+ 3
TORONTO	3078	-1170	3080	-1172	3076	-1173	+ 3	+ 1	3082	-1180	+ 10	+ 8	3082	-1174	+ 4	+ 2
DOUGLAS SHALE	3092	-1184	3096	-1188	3092	-1189	+ 5	+ 1	3095	-1193	+ 9	+ 5	3095	-1187	+ 3	- 1
BROWN LIME	3146	-1238	3148	-1240	3146	-1243	+ 5	+ 3	3150	-1248	+ 10	+ 8	3151	-1243	+ 5	+ 3
LKC	3156	-1248	3160	-1252	3156	-1253	+ 5	+ 1	3160	-1258	+ 10	+ 6	3162	-1254	+ 6	+ 2
LKC G POROSITY	3245	-1337	3249	-1341	3250	-1347	+ 10	+ 6	3251	-1349	+ 12	+ 8	3244	-1336	- 1	- 5
MUNCIE CREEK	3277	-1369	3276	-1368	3279	-1376	+ 7	+ 8	3278	-1376	+ 7	+ 8	3288	-1380	+ 11	+ 12
LKC H	3284	-1376	3286	-1378	3289	-1386	+ 10	+ 8	3288	-1386	+ 10	+ 8	3294	-1386	+ 10	+ 8
STARK SHALE	3333	-1425	3338	-1430	3336	-1433	+ 8	+ 3	3336	-1434	+ 9	+ 4	3349	-1441	+ 16	+ 11
BKC	3369	-1461	3370	-1462	3372	-1469	+ 8	+ 7	3372	-1470	+ 9	+ 8	3382	-1474	+ 13	+ 12
ARBUCKLE	3396	-1488	3396	-1488	3392	-1489	+ 1	+ 1	3400	-1498	+ 10	+ 10	3390	-1482	- 6	- 6
REAGAN SS	3422	-1514	3422	-1514	DNP				DNP				DNP			
RTD			3475	-1567	3402	-1499		- 68	3426	-1524		- 43	3500	-1592		+ 25
ITD	3474	-1566			3400	-1497	- 69		3426	-1524	- 42		3502	-1594	+ 28	

### ROCK TYPES

Cht vari	Lmst fw>	shale, red	Qtz Cryst
Dolprim	shale, gry	Ss	
Lmst fw<	Carbon Sh	Ignebasic	

### ACCESSORIES

#### MINERAL

- △ Chert white
- ▲ Chert, dark
- ∠ Dolomitic
- Mc Mica
- mm Micro Micaceous
- H Hematite

#### FOSSIL

- ∪ Bioclastic or Fragmental
- F Fossils < 20%
- ⊘ Oolite
- Oolites
- ⚙ Oomoldic
- ∩ Pellets

#### STRAT./SED. STRUCTS

- ~~~~~ Unconformity

#### STRINGER

- Sandstone
- Siltstone
- green shale
- red shale

#### TEXTURE

- C Chalky
- CX Cryptocrystalline
- L Lithogr

### OTHER SYMBOLS

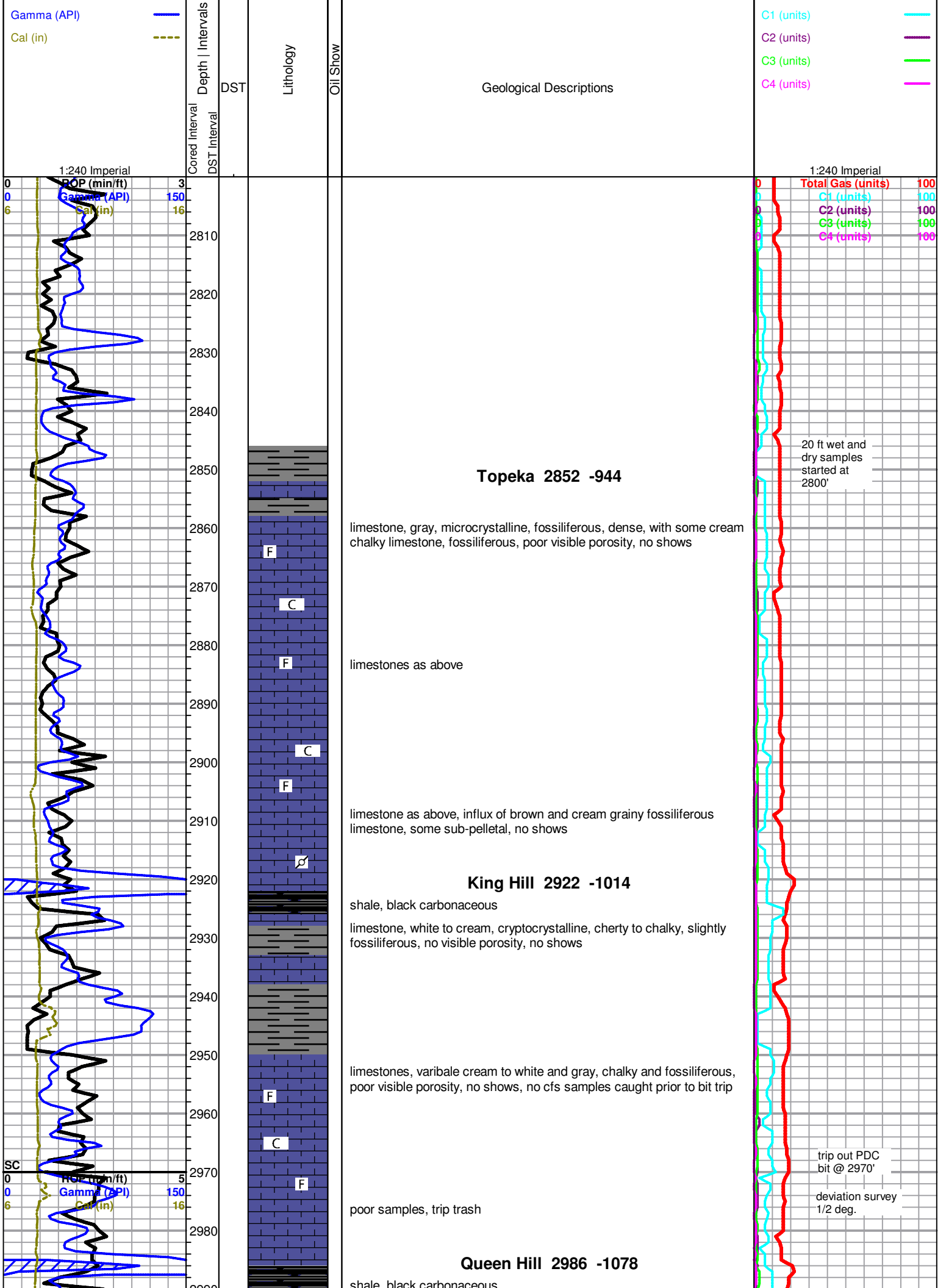
#### MISC

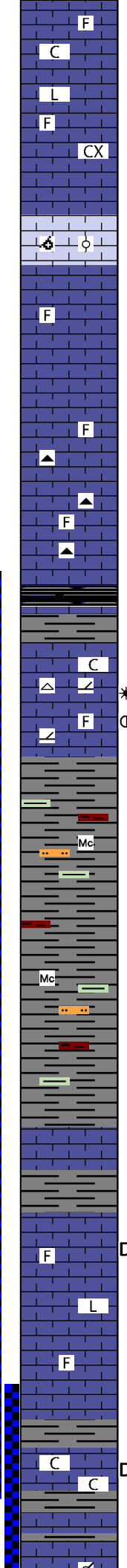
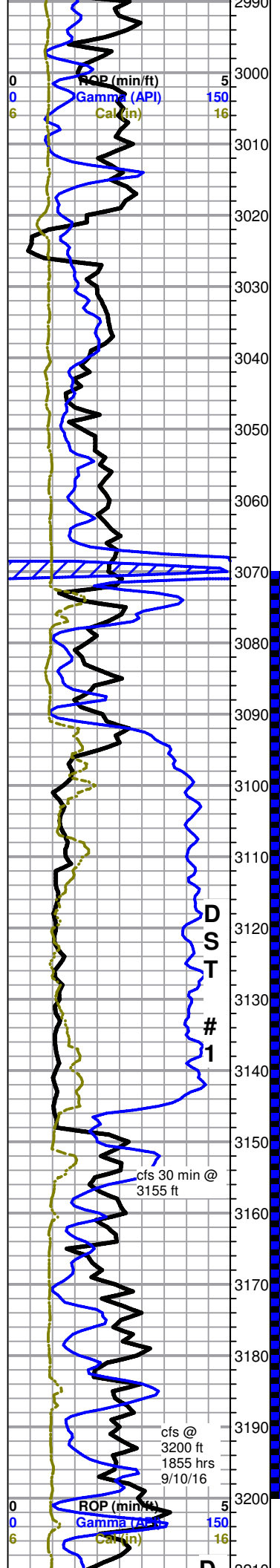
- Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

#### DST

- DST Int
- DST alt

Curve Track #1					TG, C1 - C5
ROP (min/ft)					Total Gas (units)





shale, black carbonaceous

limestone, mixed, dense tan cryptocrystalline, cherty, mixed cream to gray fossiliferous, chalky in part, gray cryptocrystalline lithographic, no shows

limestone, light gray to tan, oomoldic and oolitic, some very good mold porosity, barren, no fluorescence

limestone, gray, micro-cryptocrystalline, dense, with limestone, cream to tan, mixed dense fossiliferous to chalky, no shows

limestone a.a. with influx black and dark gray cherts, sharp, fresh, no shows

**Heebner 3072 -1164**  
shale, black carbonaceous

**Toronto 3080 -1172**  
stoss 1-34 dst1.jpg  
limestone white to gray, microcrystalline to lithographic, some chalky, with limestone, light brown to white mottled, microcrystalline, sucrosic, dolomitic and cherty, fossil frags, some intercrystalline porosity, some associated white to brown slightly weathered chert, light brown staining, with gas bubbles, slight show very light free oil on break, no fluorescence or cut, weak to fair odor in wet cup

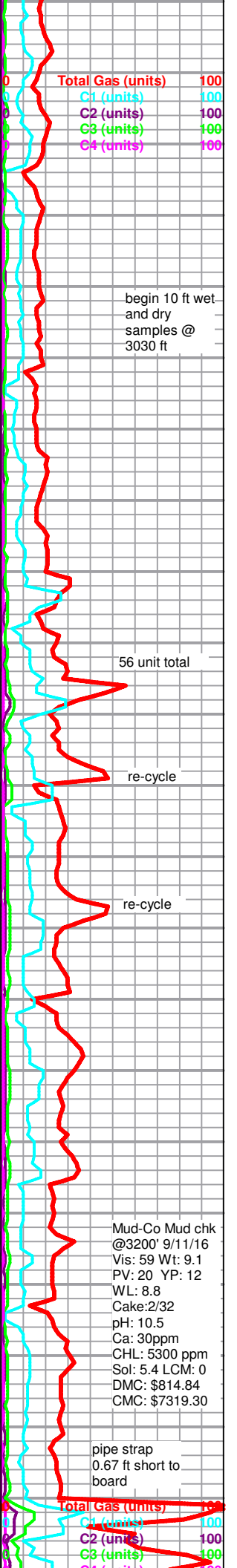
**Douglas 3096 -1188**  
shale, mostly gray, some red and green, some micaceous, scattered light green micaceous siltstone

**Brown Lime 3148 -1240**  
limestone, tan to brown, dense, cherty, fossiliferous, some striated, no porosity or shows

**Lansing 3160 -1252**  
A zone - limestone, gray, microcrystalline, fossiliferous, some secondary calcite crystals, limestone, cream, micro-cryptocrystalline, fossiliferous to lithographic, poor overall visible porosity, few small specimens with light surface stain, no show free oil, no odor or fluorescence

stoss 1-34 dst2.jpg  
limestone, white to cream, mostly cryptocrystalline, weathered, chalky, some scattered dead black stain, poor visible porosity, no odor or fluorescence

3220 samp - mixed limestone with, tan to cream, pelletal to fossiliferous, dense microcrystalline to chalky and weathered, some secondary calcite, scattered small solution vugs with staining, trace sheen, some light gray to tan



begin 10 ft wet and dry samples @ 3030 ft

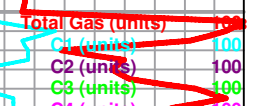
56 unit total

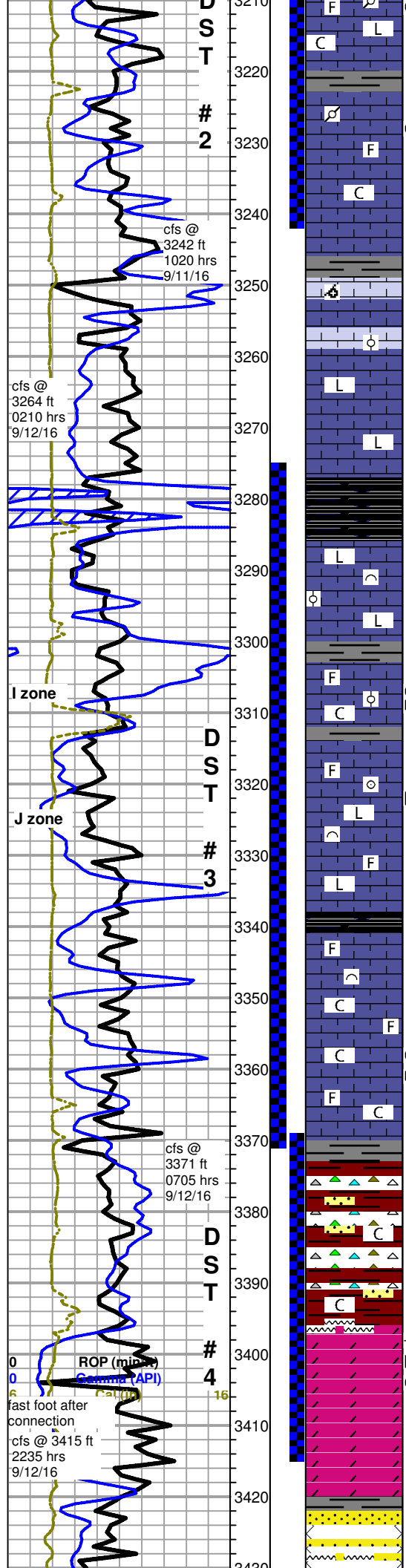
re-cycle

re-cycle

Mud-Co Mud chk @3200' 9/11/16  
Vis: 59 Wt: 9.1  
PV: 20 YP: 12  
WL: 8.8  
Cake:2/32  
pH: 10.5  
Ca: 30ppm  
CHL: 5300 ppm  
Sol: 5.4 LCM: 0  
DMC: \$814.84  
CMC: \$7319.30

pipe strap 0.67 ft short to board





3230 samp - mixed limestone a.a. with limestone, cream, cryptocrystalline, lithographic cryptocrystalline, dense, cherty, with small solution vugs and stained calcite filled fractures, trace light gray bioclastic, good interclast porosity and secondary calcite, light sheen, fleeting odor, light fluorescence, slow light cut with halo

limestone, gray to dark gray, cryptocrystalline, dense, fossiliferous to oolitic, trace stained vugs, limestone, white to cream, fossiliferous to pelletal, chalky, some secondary calcite, trace stain, no shows free oil, light fluorescence, slow faint cut, fleeting odor in 3240 sample, cfs samples more predominately the white and cream facies above, virtually no show, no odor

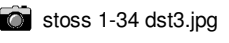
limestone, white to gray, oolitic and oomoldic, widely spaced oolites and oomolds, some scattered fair porosity, barren, some chalky, with chalky white pelletal and fossiliferous limestone

limestone, gray, brown and tan, cryptocrystalline, mostly lithographic, some slightly fossiliferous, dense, trace chalky, no shows

**Muncie Creek 3276 -1368**

shale, black carbonaceous

limestone, a.a. with trace brown and gray oolitic and bioclastic, very dense, recrystallized, poor visible porosity, no shows



3320 sample, limestone, white to cream, cryptocrystalline, fossiliferous, chalky, few pieces oolitic with inter-oolite porosity, some secondary calcite nodules, light grayish/black inter-oolite stain, no show oil, light fluorescence, 1 piece good bright white milky cut, others poor, no odor in wet cup, some chalk

limestone, mixed brown, tan and gray, lithographic to fossiliferous, some oolitic and bioclastic, some secondary calcite crystals and seams, all dense with poor porosity, found 2 pieces with light staining, no free oil, light fluorescence, no cut, no odor

**Stark Shale 3338 -1430**

grayish/black shale

limestones, mixed, gray to cream, white and tan, fossiliferous to bioclastic, abundant lithographic, dense to chalky, poor visible porosity, no shows

grading to white and cream chalky limestone, fossiliferous, poor visible porosity, some secondary calcite crystals, few pieces with very light staining, trace sheen on break, light fluorescence, slow fair cut with halo, no odor in wet cup

**Base KC 3370 -1462**

starting 3390 sample - conglomerate, red shales, red to yellow and light gray cherts, fossiliferous to oolitic, sharp, fresh, translucent, no shows, heavy red wash, abundant chalk

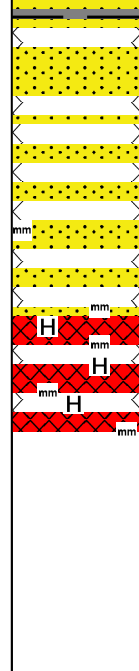
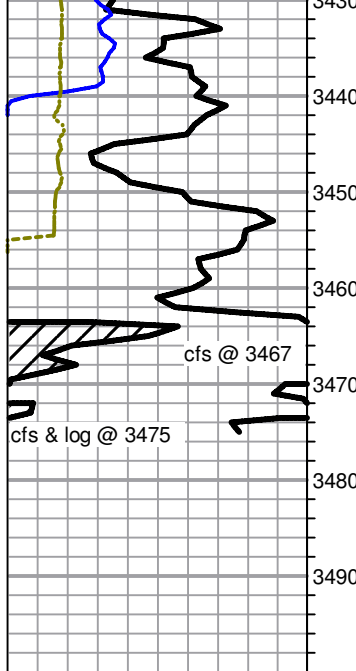
**Arbuckle 3396 -1488**

3410 sample - dolomite, white, fine to microcrystalline, recrystallized rhombs, trace chert, poor visible intercrystalline porosity, fairly dense, black flakey gilsonite staining, trace light brown staining, few pieces that bled small heavy oil globules, gassy, poor fluorescence, very poor cut, weak sulfur odor - cfs samples a.a., influx abundant white cryptocrystalline rhombic, very dense, no visible porosity, barren, fair white fluorescence, odor a.a.

dolomite, wht, fxtaln, sli rextalized, dse, trc glauc, pvis, por, ns noted, few wht, f-md rextalized rhombs w/blk gilsonite stn, some with blk hvy fo specks w/brkn a.







specks w/blk aa

**REAGAN SS 3422 -1514**

3440-lg influx clear to lt gry qtz, appears fractured, sharp, few w/blk gilsonite stn, nsfo, nf, does not effervess, sli pyritic, sli incr rd & gry shs

3450-same, less blk stn, less pyritic, incr rd & gry shs aa

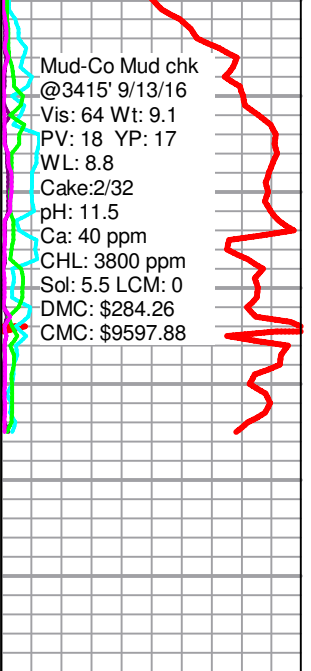
3460-clear qtz, sharp, frac, sli muscovite, sli trc pk stn, influx micaeous, argil dk gry-blk shs, rd shs not micaeous

3467 spls-incr qtz w/pk-rd stn, incr muscovite inclusions, sli pyritic, ? blk biotite inclusions, incr vcs, rd-mar, gry-blk

3475 spls-aa, incr in vcs aa, incr pyritie, still sli musc/biotite inclusions, sli pk stn

**Rotary Total Depth 3475 -1567**

Mud-Co Mud chk  
 @3415' 9/13/16  
 Vis: 64 Wt: 9.1  
 PV: 18 YP: 17  
 WL: 8.8  
 Cake:2/32  
 pH: 11.5  
 Ca: 40 ppm  
 CHL: 3800 ppm  
 Sol: 5.5 LCM: 0  
 DMC: \$284.26  
 CMC: \$9597.88



# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

## STOSS 1-24

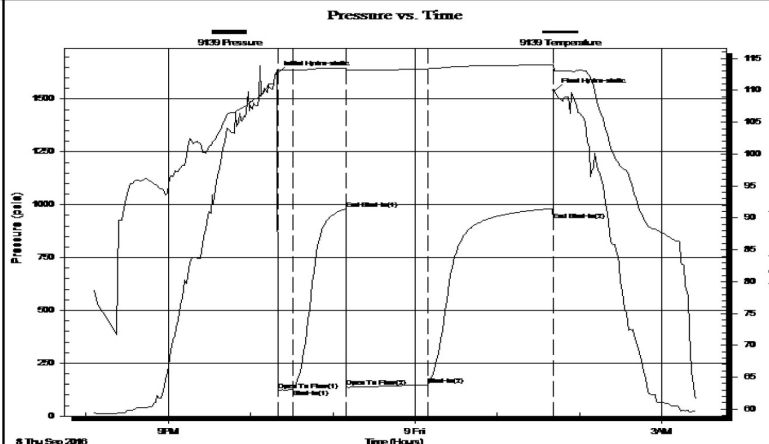
Job Ticket: 01127      **DST#: 1**  
 Test Start: 2016.09.11 @ 11:15:00

### GENERAL INFORMATION:

Formation: **TORONTO LANSING A-B**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended:  
 Interval: **3070.00 ft (KB) To 3200.00 ft (KB) (TVD)**  
 Total Depth: 3200.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-19  
 Reference Elevations: 1908.00 ft (KB)  
 1897.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 9139**      **Outside**  
 Press@RunDepth: 925.22 psia @ 3194.96 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2016.09.08      End Date: 2016.09.09      Last Calib.: 2016.09.11  
 Start Time: 20:05:00      End Time: 03:25:30      Time On Btm: 2016.09.08 @ 22:19:30  
 Time Off Btm: 2016.09.09 @ 01:41:30

**TEST COMMENT:** 1ST OPENING 10 MINUTES FAIR BLOW BUILT TO 6 1/2 INCHES INTO THE WATER  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 60 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 3 MINUTES  
 2ND SHUT-IN 90 MINUTES-WEAK BLOW BACK



### PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1620.08	113.19	Initial Hydro-static
1	123.00	113.08	Open To Flow (1)
11	126.87	113.14	Shut-In(1)
50	980.46	113.45	End Shut-In(1)
51	138.97	113.21	Open To Flow (2)
110	148.36	113.39	Shut-In(2)
201	925.22	114.00	End Shut-In(2)
202	1538.97	113.23	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
100.00	oil cut mud 10 oil 90 mud	0.58

### Gas Rates

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

# DRILL STEM TEST REPORT

SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01128

DST#: 2

ATTN: KEITH REAVIS

Test Start: 2016.09.11 @ 13:10:00



## GENERAL INFORMATION:

Formation: **LANSING D AND F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:27:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: GENE BUDIG

Unit No: 1-19

Interval: **3184.00 ft (KB) To 3242.00 ft (KB) (TVD)**

Total Depth: 3242.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1908.00 ft (KB)

1897.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 9139

Outside

Press@RunDepth: 749.57 psia @ 3237.32 ft (KB)

Start Date: 2016.09.11

End Date:

2016.09.11

Capacity: 5000.00 psia

Last Calib.: 2016.09.11

Start Time: 13:10:00

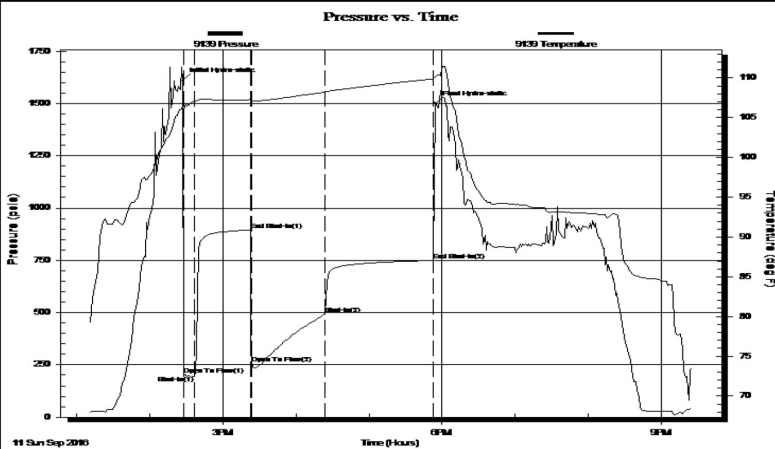
End Time:

21:25:00

Time On Btm: 2016.09.11 @ 14:27:00

Time Off Btm: 2016.09.11 @ 17:54:00

TEST COMMENT: 1ST OPENING 10 MINUTES GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
1ST SHUT-IN 45 MINUTES-GOOD BLOW BACK  
2ND OPENING 60 MINUTES-STRONG BLOW WITH GAS TO SURFACE SEE GAS FLOW REPORT  
2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1609.85	106.33	Initial Hydro-static
1	200.57	105.75	Open To Flow (1)
10	196.59	107.04	Shut-In(1)
56	895.61	107.28	End Shut-In(1)
57	255.49	107.11	Open To Flow (2)
117	494.61	108.22	Shut-In(2)
206	749.57	109.89	End Shut-In(2)
207	1499.74	110.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1800.00	CLEAN GASSY OIL 40 GAS 60 OIL	24.43
0.00	GRAVITY 37 CORRECTED	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	49.17	18.40
Last Gas Rate	0.13	2.45	0.92
Max. Gas Rate	0.13	49.17	18.40

# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC

24-18s-14w BARTON

2717 CANAL BLVD SUITE C  
HAYS, KANSAS 67601

STOSS 1-24

Job Ticket: 01129

DST#: 3

ATTN: KEITH REAVIS

Test Start: 2016.09.12 @ 09:41:00

**GENERAL INFORMATION:**

Formation: **LANSING H TO K**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:12:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-19  
 Interval: **3275.00 ft (KB) To 3371.00 ft (KB) (TVD)**  
 Total Depth: 3371.00 ft (KB) (TVD)  
 Reference Elevations: 1908.00 ft (KB)  
 1897.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

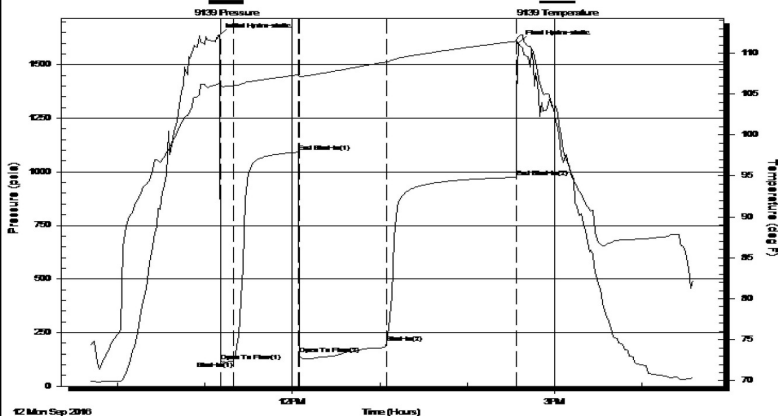
**Serial #: 9139**

**Outside**

Press@RunDepth: 974.40 psia @ 3366.18 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.09.12 End Date: 2016.09.12 Last Calib.: 2016.09.12  
 Start Time: 09:41:00 End Time: 16:35:00 Time On Btm: 2016.09.12 @ 11:09:30  
 Time Off Btm: 2016.09.12 @ 14:35:00

**TEST COMMENT:** 1ST OPENING 10 MINUTES-GOOD BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 2 MINUTES  
 1ST SHUT-IN 45 MINUTES- NO BLOW BACK  
 2ND OPENING 60 MINUTES-STRONG BLOW BUIL TO BOTTOM OF THE BUCKET IN LESS THAN 1 MINUTE  
 2ND SHUT-IN 90 MINUTES-GOOD BLOW BACK GAS TO SURFACE ON THE SHUT-IN

Pressure vs. Time



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1633.26	106.28	Initial Hydro-static
1	118.26	105.93	Open To Flow (1)
10	115.64	106.00	Shut-In(1)
55	1090.41	107.39	End Shut-In(1)
55	150.76	107.14	Open To Flow (2)
115	199.59	108.93	Shut-In(2)
204	974.40	111.46	End Shut-In(2)
206	1601.29	111.99	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
45.00	CLEAN GASSY OIL GRAVITY 46 CORRE(0.22)	
120.00	OIL AND GAS CUT MUD	1.27
0.00	5 GAS 25 OIL 70 MUD	0.00
180.00	MUDDY FROTHY OIL 15 WATER	2.52

**Gas Rates**

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



# DRILL STEM TEST REPORT



SHELBY RESOURCES LLC  
 2717 CANAL BLVD SUITE C  
 HAYS, KANSAS 67601  
 ATTN: KEITH REAVIS

**24-18s-14w BARTON**

**STOSS 1-24**

Job Ticket: 01130

**DST#: 4**

Test Start: 2016.09.13 @ 01:52:00

**GENERAL INFORMATION:**

Formation: **ARBUCKLE**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: GENE BUDIG  
 Unit No: 1-18  
 Interval: **3369.00 ft (KB) To 3415.00 ft (KB) (TVD)**  
 Total Depth: 3415.00 ft (KB) (TVD)  
 Reference Elevations: 1908.00 ft (KB)  
 1897.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 11.00 ft

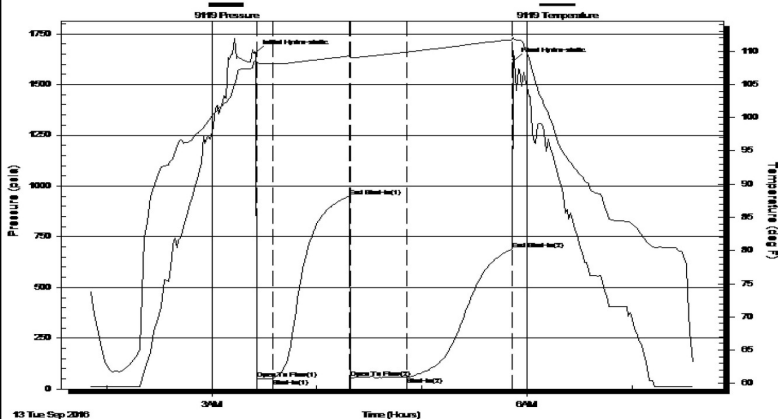
**Serial #: 9119**

**Inside**

Press@RunDepth: 689.89 psia @ 3410.34 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2016.09.13 End Date: 2016.09.13 Last Calib.: 2016.09.13  
 Start Time: 01:50:00 End Time: 07:35:30 Time On Btm: 2016.09.13 @ 03:25:00  
 Time Off Btm: 2016.09.13 @ 05:52:30

**TEST COMMENT:** 1ST OPENING 10 MINUTES VERY WEAK SURFACE BLOW THROUGH OUT  
 1ST SHUT-IN 45 MINUTES NO BLOW BACK  
 2ND OPENING 30 MINUTES NO BLOW  
 2ND SHUT-IN 60 MINUTES NO BLOW BACK

Pressure vs. Time



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1657.83	108.61	Initial Hydro-static
1	49.22	108.22	Open To Flow (1)
10	52.52	108.14	Shut-In(1)
54	948.44	109.27	End Shut-In(1)
54	54.24	108.99	Open To Flow (2)
87	57.97	109.88	Shut-In(2)
147	689.89	111.73	End Shut-In(2)
148	1621.36	111.82	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
10.00	OIL CUT MUD 85 MUD 15 OIL	0.05
1.00	CLEAN OIL	0.00

**Gas Rates**

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

Customer	SHELBY RESOURCES, LLC			Lease No.			Date	9-14-16	
Lease	STOSS			Well #	1-24				
Field Order #	Station	Casing	Depth	County	BARTON		State	KS	
14041	PRATT, KS	5 1/2	3470						
Type Job	CNW - LOW COST STRESS			Formation	TD-3475		Legal Description	24-18-14	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
5 1/2								
Depth	Depth	From	To	Pre Pad	Max		5 Min.	
3470								
Volume	Volume	From	To	Pad	Min		10 Min.	
Max Press	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load	
3449								

Customer Representative	CHARLES	Station Manager	KEVIN	Treater	LOINLEY
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Service Units	83353	19903-20920	19899-21010
Driver Names	KS	WILKINSON	BRYAN

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
0600					ON LOCATION
					RUN 3458 5 1/2" CSC - 83715. 17'
					RUN FRONT SIDE LATCH BARRIER
					DN 18' HORIZONTAL - 20' SIDE H.
					CAWT-1-3-5-8-11 BASKET-1
0845					THE BOTTOM. DEEP BULK - CTM
0930	200		11	6	MIX 50 SK 60/40 P02 SCAVENGER
	700		24	6	MIX 100 SK H17 CEMENT
					1/4" A CEMENT, 1/4" DEFORMER
					10'10 SALT 1/2" FUL-322 5 1/2" SK
					CST 50 WITE 15.3' 1.36 GPT/SK
					STOP - WASH LINE - DROP PLUG
	0		0	6	START DESP
	300		60	6	LIFT CEMENT
	600		70	3	SLOW RATE
1000	1500		80	3	PLUG DOWN - HOLD
					MULG RAT - 30 SK 60/40 P02
					PLUG MUSE - 20 SK 60/40 P02
1100					JOB COMPLETE - KEVIN



# 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. 3006

Date	9-8-16	Sec.	24	Twp.	18	Range	14	County	Barton	State	Ks	On Location		Finish	1:30 PM
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Location 281 + 4 Hwy Jct -45 to Curve, 1E

Lease	Stoss		Well No.	1-24	Owner	to Curve, 15 1/8 E, N1/5	
Contractor	Sterling #4				To Quality Oilwell Cementing, Inc.		
Type Job	Surface				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.		
Hole Size	12 1/4"	T.D.	856'	Charge To	Shelby Resources		
Csg.	8 5/8"	Depth	851'	Street			
Tbg. Size		Depth		City	State		
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.	39.70'	Shoe Joint	39.70'	Cement Amount Ordered	350	60/40	3% CC 2% Gel
Meas Line		Displace	51 1/2 BLS	<del>11115</del>			

**EQUIPMENT**

Pumptrk	18	No.	Cementer Helper	Shane	Common	210
Bulktrk	4	No.	Driver	Dave	Poz. Mix	940
Bulktrk	p.u.	No.	Driver	Rick	Gel.	7
			Driver		Calcium	15

**JOB SERVICES & REMARKS**

Remarks:	Cement did Circulate	Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers	#1 middle Joint	Kol-Seal	
Baskets	#2	Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	

**FLOAT EQUIPMENT**

Guide Shoe	1	Strip-on
Centralizer	1	
Baskets	1	
AFT Inserts		Rubber plug
Float Shoe		Baffle plate
Latch Down		

Pumptrk Charge	long Surface
Mileage	11

Tax	
Discount	
Total Charge	

X Signature Alan Loftis