



## DRILL STEM TEST REPORT

Prepared For: **Shelby Resource LLC**

2717 Canal Blvd.  
Hays Kansas 67601

ATTN: Jeremy Schwartz

**Viola 1-35**

**35-21s-16w-Pawnee**

Start Date: 2014.04.29 @ 06:40:00

End Date: 2014.04.29 @ 12:26:00

Job Ticket #: 18317                      DST #: 2

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

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Shelby Resource LLC

**35-21s-16w-Pawnee**

2717 Canal Blvd.  
Hays Kansas 67601

**Viola 1-35**

Job Ticket: 18317

**DST#: 2**

ATTN: Jeremy Schwartz

Test Start: 2014.04.29 @ 06:40:00

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:58:30

Time Test Ended: 12:26:00

Test Type: Conventional Straddle (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-55

**Interval: 3816.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 1990.00 ft (KB)

Total Depth: 4050.00 ft (KB) (TVD)

1977.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

**Serial #: 6651 Outside**

Press@RunDepth: 103.98 psig @ 3818.16 ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.04.29

End Date: 2014.04.29

Last Calib.: 2014.04.30

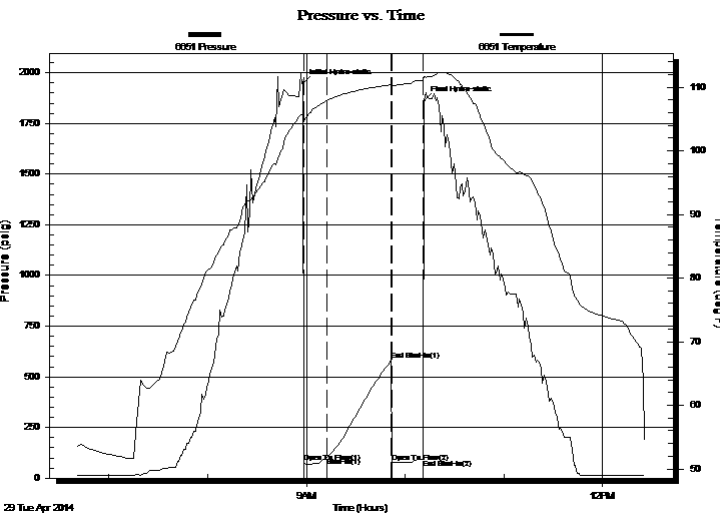
Start Time: 06:40:00

End Time: 12:26:00

Time On Btm: 2014.04.29 @ 08:58:00

Time Off Btm: 2014.04.29 @ 10:11:30

**TEST COMMENT:** 1st Open 10 minutes Weak blow built to 1/2 inches into a 5 gallon bucket of w ater.  
1st Shut in 45 minutes No blow back  
2nd Open 20 minutes Weak surface blow died off after 4 minutes Flushed tool w eak blow that died off.  
2nd Shut in NA



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1946.96	105.87	Initial Hydro-static
1	79.65	104.54	Open To Flow (1)
15	103.98	107.89	Shut-In(1)
54	583.06	110.38	End Shut-In(1)
54	76.61	110.17	Open To Flow (2)
73	90.95	111.02	End Shut-In(2)
74	1861.59	111.66	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
12.00	Mud 100%	0.06

## Gas Rates

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



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Reference Elevations: 1990.00 ft (KB)

Total Depth: 4050.00 ft (KB) (TVD)

1977.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

## Serial #: 6838

Press@RunDepth: 87.62 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.04.29

End Date:

2014.04.29

Last Calib.:

2014.04.30

Start Time: 06:40:00

End Time:

12:27:00

Time On Btm:

2014.04.29 @ 08:59:00

Time Off Btm:

2014.04.29 @ 10:12:30

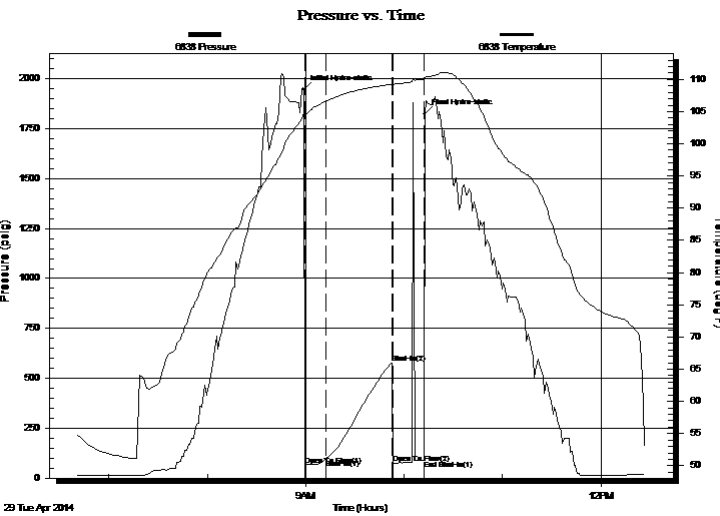
## TEST COMMENT:

1st Open 10 minutes Weak blow built to 1/2 inches into a 5 gallon bucket of w ater.

1st Shut in 45 minutes No blow back

2nd Open 20 minutes Weak surface blow died off after 4 minutes Flushed tool w eak blow that died off.

2nd Shut in N/A



## PRESSURE SUMMARY

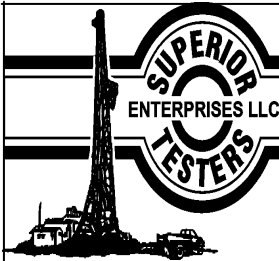
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.27	104.60	Initial Hydro-static
1	66.65	104.48	Open To Flow (1)
13	95.42	106.56	Shut-In(1)
54	575.42	109.26	Shut-In(2)
54	76.18	109.24	Open To Flow (2)
73	87.62	109.98	End Shut-In(1)
74	1824.21	110.29	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
12.00	Mud 100%	0.06

## Gas Rates

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



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Job Ticket: 18317

**DST#: 2**

ATTN: Jeremy Schwartz

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Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Initial)

Tester: Dustin Ellis

Unit No: 3315-Great Bend-55

Reference Elevations: 1990.00 ft (KB)

1977.00 ft (CF)

KB to GR/CF: 13.00 ft

**Serial #: 8931**

**Outside**

Press@RunDepth: psig @ 3818.16 ft (KB)

Start Date: 2014.04.29

End Date: 2014.04.29

Start Time: 06:40:00

End Time: 12:26:00

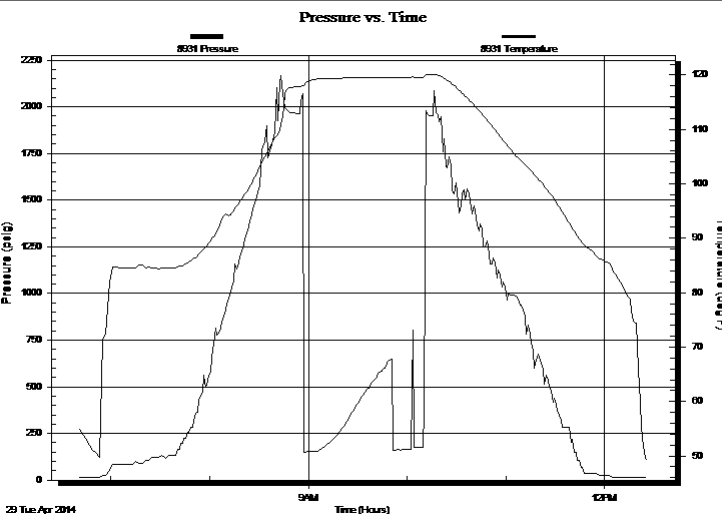
Capacity: 5000.00 psig

Last Calib.: 2014.04.30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 1st Open 10 minutes Weak blow built to 1/2 inches into a 5 gallon bucket of w water.  
1st Shut in 45 minutes No blow back  
2nd Open 20 minutes Weak surface blow died off after 4 minutes Flushed tool w weak blow that died off.  
2nd Shut in NA



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
12.00	Mud 100%	0.06

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resource LLC

**35-21s-16w-Pawnee**

2717 Canal Blvd.  
Hays Kansas 67601

**Viola 1-35**

Job Ticket: 18317

**DST#: 2**

ATTN: Jeremy Schwartz

Test Start: 2014.04.29 @ 06:40:00

## Tool Information

Drill Pipe:	Length: 3433.00 ft	Diameter: 3.80 inches	Volume: 48.16 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: 371.42 ft	Diameter: 2.25 inches	Volume: 1.83 bbl	Weight to Pull Loose: 83000.00 lb
			Total Volume: 49.99 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.03 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	3816.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	3880.89 ft			
Interval between Packers:	64.89 ft			
Tool Length:	91.80 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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P.O. Sub	0.31			3793.70	
C.O. Sub	0.31			3794.01	
P.O. Sub	0.31			3794.32	
Recorder	1.80		Fluid	3796.12	
Conv. S.I. Tool	1.52			3797.64	
Sampler	1.10			3798.74	
HMV	2.10			3800.84	
Recorder	1.80		Inside	3802.64	
Telemetry Tool	7.01			3809.65	
Jars	2.05			3811.70	
Bypass Hanger	0.32			3812.02	
Safety Joint	0.78			3812.80	
Packer	1.78			3814.58	22.61 Bottom Of Top Packer
Packer	1.42			3816.00	
Stubb	0.36			3816.36	
Recorder Carrier	1.80			3818.16	
Recorder	0.00	6651	Outside	3818.16	
Recorder	0.00	8931	Outside	3818.16	
Perforations	30.00			3848.16	
Bypass Receiver	0.85			3849.01	
Blank Spacing	0.00			3849.01	
drill Pipe	31.88			3880.89	64.89 Tool Interval
Packer	1.42			3882.31	
Bypass Hanger	0.30			3882.61	
Recorder	1.80	6839	Below	3884.41	
Collar	0.00			3884.41	



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## FLUID SUMMARY

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Job Ticket: 18317

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ATTN: Jeremy Schwartz

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### 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: 59.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
12.00	Mud 100%	0.059

Total Length: 12.00 ft      Total Volume: 0.059 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

