



## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration & Development**

210 W. 22nd  
Hays Kansas, 67601

ATTN: Jeff Lawler

**Hayes #C-1**

**8/21s/11w/Stafford**

Start Date: 2013.06.21 @ 18:50:00

End Date: 2013.06.22 @ 01:32:30

Job Ticket #: 18401                      DST #: 2

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

Printed: 2013.06.21 @ 01:46:03



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210 W. 22nd  
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Hayes #C-1

Job Ticket: 18401

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.06.21 @ 18:50:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:19:30

Time Test Ended: 01:32:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane Konzem

Unit No: 3330/50/Great Bend

Interval: **3369.00 ft (KB) To 3432.00 ft (KB) (TVD)**

Reference Elevations: 1803.00 ft (KB)

Total Depth: 3432.00 ft (KB) (TVD)

1795.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **8405**

Inside

Press @ Run Depth: 104.00 psia @ 3427.96 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21

End Date:

2013.06.22

Last Calib.:

2013.06.21

Start Time:

18:50:00

End Time:

01:32:30

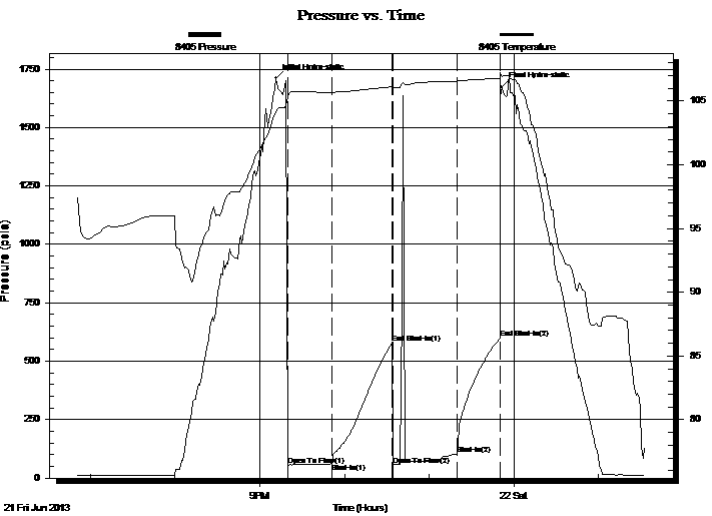
Time On Btm:

2013.06.21 @ 21:11:30

Time Off Btm:

2013.06.21 @ 23:51:30

TEST COMMENT: 1st Open/ 30 Minutes. Weak blow built to 1 inch in 5 gallon bucket.  
1st Shut In/ 45 Minutes. No blow back.  
2nd Open/ 30 Minutes. No blow, flushed tool and gained 1 inch blow in 5 gallon bucket.  
2nd Shut In/ 45 Minutes. No blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1710.57	104.18	Initial Hydro-static
8	56.42	105.24	Open To Flow (1)
40	64.70	105.68	Shut-In(1)
82	576.02	106.12	End Shut-In(1)
83	57.00	106.04	Open To Flow (2)
128	104.00	106.56	Shut-In(2)
159	598.52	106.78	End Shut-In(2)
160	1673.04	106.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas	0.00
45.00	trace of oil, 100% mud	0.63

## Gas Rates

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



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Total Depth: 3432.00 ft (KB) (TVD)

1795.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **8400** Outside

Press @ Run Depth: 603.08 psia @ 3428.96 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.06.21

End Date:

2013.06.22

Last Calib.:

2013.06.21

Start Time: 18:50:00

End Time:

01:32:30

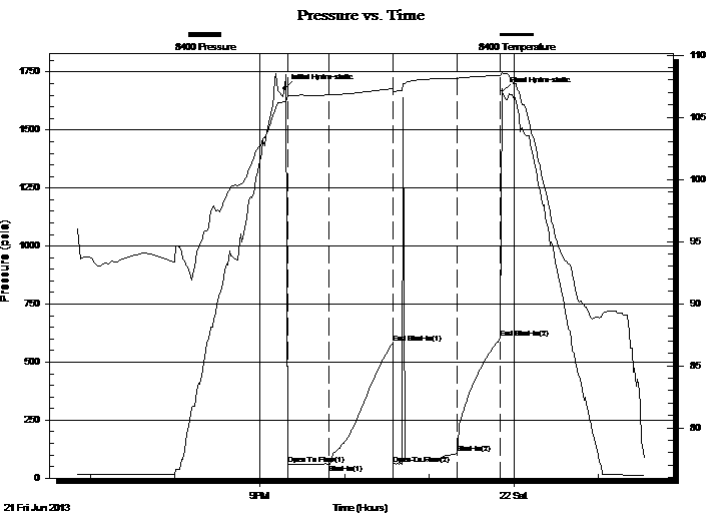
Time On Btm:

2013.06.21 @ 21:17:30

Time Off Btm:

2013.06.21 @ 23:52:00

TEST COMMENT: 1st Open/ 30 Minutes. Weak blow built to 1 inch in 5 gallon bucket.  
1st Shut In/ 45 Minutes. No blow back.  
2nd Open/ 30 Minutes. No blow, flushed tool and gained 1 inch blow in 5 gallon bucket.  
2nd Shut In/ 45 Minutes. No blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1678.48	106.23	Initial Hydro-static
2	59.74	106.77	Open To Flow (1)
32	60.05	106.79	Shut-In(1)
77	581.44	107.30	End Shut-In(1)
77	60.89	107.09	Open To Flow (2)
122	105.99	108.09	Shut-In(2)
153	603.08	108.37	End Shut-In(2)
155	1666.23	108.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	No gas	0.00
45.00	trace of oil, 100% mud	0.63

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration & Development

**8/21s/11w/Stafford**

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Hays Kansas, 67601

**Hayes #C-1**

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**DST#: 2**

ATTN: Jeff Lawler

Test Start: 2013.06.21 @ 18:50:00

## Tool Information

Drill Pipe:	Length: 3368.00 ft	Diameter: 3.80 inches	Volume: 47.24 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 47.24 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3369.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.96 ft			
Tool Length:	83.96 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3349.00	
Shut-In Tool	5.00			3354.00	
Hydroic Tool	5.00			3359.00	
Packer	5.00			3364.00	21.00 Bottom Of Top Packer
Packer	5.00			3369.00	
Perforations	5.00			3374.00	
Change Over Sub	0.75			3374.75	
Drill Pipe	31.46			3406.21	
Change Over Sub	0.75			3406.96	
Perforations	20.00			3426.96	
Recorder	1.00	8405	Inside	3427.96	
Recorder	1.00	8400	Outside	3428.96	
Bullnose	3.00			3431.96	62.96 Bottom Packers & Anchor

**Total Tool Length: 83.96**



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## FLUID SUMMARY

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### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 39.00 sec/qt

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

Resistivity: ohm.m

Salinity: ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	No gas	0.000
45.00	trace of oil, 100% mud	0.631

Total Length: 45.00 ft      Total Volume: 0.631 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

