



## DRILL STEM TEST REPORT

Prepared For: **Valhalla Exploration L.L.C**  
133 N Glendale Wichita KS 67206

ATTN: Derek Patterson

### **Ringwald #1-33**

### **33-18s-10w Rice**

Start Date: 2012.02.07 @ 19:40:00

End Date: 2012.02.08 @ 01:53:30

Job Ticket #: 18740                      DST #: 3

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

Printed: 2012.02.08 @ 01:06:24

Valhalla Exploration L.L.C  
33-18s-10w Rice  
Ringwald #1-33  
DST # 3  
Lansing "H"  
2012.02.07



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 ATTN: Derek Patterson

**33-18s-10w Rice**  
**Ringwald #1-33**  
 Job Ticket: 18740 **DST#: 3**  
 Test Start: 2012.02.07 @ 19:40:00

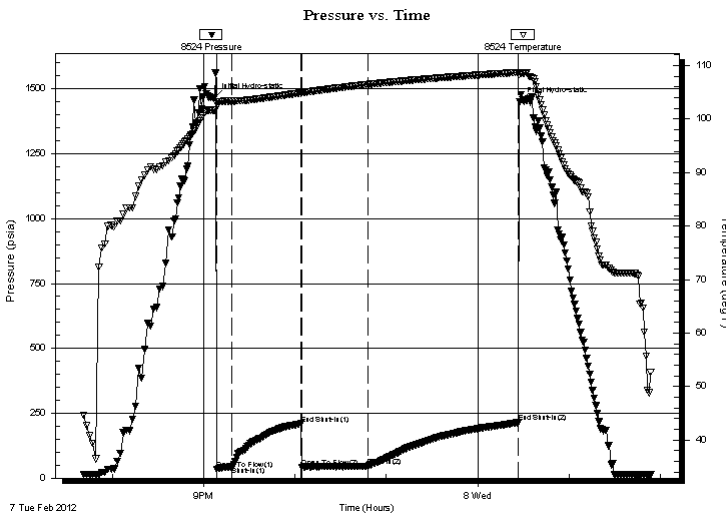
## GENERAL INFORMATION:

Formation: **Lansing "H"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 21:08:30 Tester: Jared Scheck  
 Time Test Ended: 01:53:30 Unit No: 3320-GB-70  
 Interval: **2987.00 ft (KB) To 3020.00 ft (KB) (TVD)** Reference Elevations: 1743.00 ft (KB)  
 Total Depth: 3020.00 ft (KB) (TVD) 1735.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

## Serial #: 8524

Press @ RunDepth: 46.75 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.02.07 End Date: 2012.02.08 Last Calib.: 2012.02.08  
 Start Time: 19:40:00 End Time: 01:53:30 Time On Btm: 2012.02.07 @ 21:07:00  
 Time Off Btm: 2012.02.08 @ 00:27:30

**TEST COMMENT:** 1st Opening 10 Minutes-Weak blow built 6 inches into bucket water in 10 minutes  
 1st shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak blow built 4 inches into water in 45 minutes  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1465.94	101.66	Initial Hydro-static
2	34.72	102.92	Open To Flow (1)
12	43.81	103.35	Shut-In(1)
57	209.16	104.89	End Shut-In(1)
58	42.03	104.94	Open To Flow (2)
101	46.75	106.49	Shut-In(2)
200	213.82	108.73	End Shut-In(2)
201	1449.83	108.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud	0.07

## Gas Rates

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



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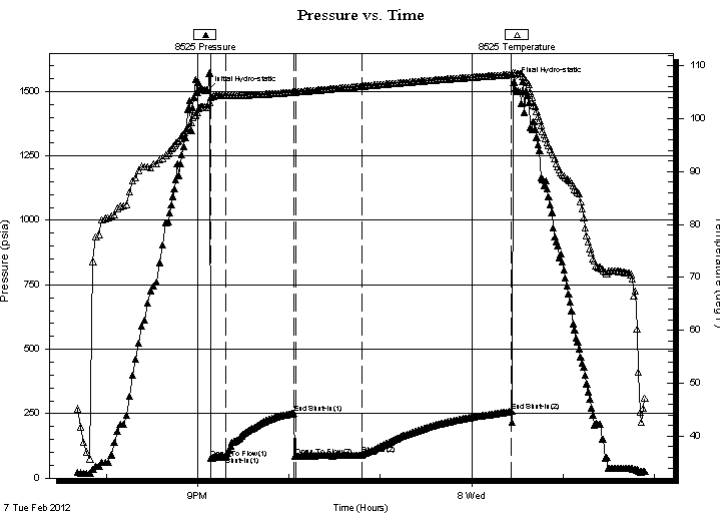
## GENERAL INFORMATION:

Formation: **Lansing "H"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 21:08:30  
 Time Test Ended: 01:53:30  
 Interval: **2987.00 ft (KB) To 3020.00 ft (KB) (TVD)**  
 Total Depth: 3020.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jared Scheck  
 Unit No: 3320-GB-70  
 Reference Elevations: 1743.00 ft (KB)  
 1735.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8525

Press @ RunDepth: 258.94 psia @ ft (KB) Capacity: 5000.00 psia  
 Start Date: 2012.02.07 End Date: 2012.02.08 Last Calib.: 2012.02.08  
 Start Time: 19:40:00 End Time: 01:53:30 Time On Btm: 2012.02.07 @ 21:06:30  
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 1st shut-in 45 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak blow built 4 inches into water in 45 minutes  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1504.36	102.16	Initial Hydro-static
2	76.03	104.03	Open To Flow (1)
12	85.43	104.40	Shut-In(1)
57	251.68	105.02	End Shut-In(1)
58	85.88	105.04	Open To Flow (2)
102	91.67	106.14	Shut-In(2)
200	258.94	108.34	End Shut-In(2)
201	1536.91	108.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud	0.07

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Valhalla Exploration L.L.C  
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 A T T N : Derek Patterson

**33-18s-10w Rice**  
**Ringwald #1-33**  
 Job Ticket: 18740      **DST#: 3**  
 Test Start: 2012.02.07 @ 19:40:00

## Tool Information

Drill Pipe:	Length: 2674.00 ft	Diameter: 3.80 inches	Volume: 37.51 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 300.00 ft	Diameter: 2.25 inches	Volume: 1.48 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 38.99 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	2987.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	56.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHut-InTool	5.00		Inside	2964.00	
Hydraulic Tool	5.00			2969.00	
Jars	6.00			2975.00	
Safety Joint	2.00			2977.00	
Packer	5.00			2982.00	28.00      Bottom Of Top Packer
Packer	5.00			2987.00	
Anchor	23.00			3010.00	
Recorder	1.00	8524	Inside	3011.00	
Recorder	1.00	8525	Outside	3012.00	
Bullnose	3.00			3015.00	28.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>56.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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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: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.80 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 8800.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

