



## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront Parkway  
Building 600  
Wichita, KS 67206+5514

ATTN: Steve Stribling

**9/14S/31W/Gove**

**Hund 3-9**

Start Date: 2011.07.14 @ 19:55:00

End Date: 2011.07.15 @ 01:54:00

Job Ticket #: 16598                      DST #: 4

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

Printed: 2011.07.15 @ 00:16:09

Grand Mesa Operating Co.  
Hund 3-9  
9/14S/31W/Gove  
DST # 4  
Lower Johnson  
2011.07.14



# DRILL STEM TEST REPORT

Grand Mesa Operating Co.

**Hund 3-9**

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 Building 600  
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 ATTN: Steve Stribling

**9/14S/31W/Gove**

Job Ticket: 16598

**DST#: 4**

Test Start: 2011.07.14 @ 19:55:00

## GENERAL INFORMATION:

Formation: **Lower Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:43:30

Time Test Ended: 01:54:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/64

**Interval: 4574.00 ft (KB) To 4590.00 ft (KB) (TVD)**

Reference Elevations: 2937.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

2932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6748 Outside**

Press @ Run Depth: 52.26 psig @ 4587.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.07.14

End Date: 2011.07.15

Last Calib.: 2011.07.15

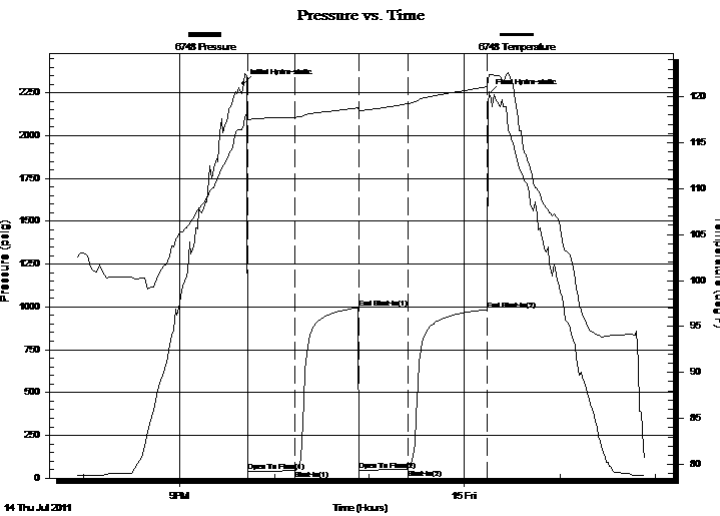
Start Time: 19:55:00

End Time: 01:54:00

Time On Btm: 2011.07.14 @ 21:40:30

Time Off Btm: 2011.07.15 @ 00:15:30

**TEST COMMENT:** 1ST Open 30 Minutes/Weak blow/Blow built to just below surface  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 30 Minutes/No blow  
 2ND Shut In 45 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2304.27	116.93	Initial Hydro-static
3	37.68	117.52	Open To Flow (1)
33	43.95	117.76	Shut-In(1)
73	994.97	118.81	End Shut-In(1)
73	45.28	118.47	Open To Flow (2)
104	52.26	119.23	Shut-In(2)
154	983.30	121.06	End Shut-In(2)
155	2247.10	122.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud with show of oil 100% mud	0.02

## Gas Rates

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



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Job Ticket: 16598

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## GENERAL INFORMATION:

Formation: **Lower Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:43:30

Time Test Ended: 01:54:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/64

**Interval: 4574.00 ft (KB) To 4590.00 ft (KB) (TVD)**

Reference Elevations: 2937.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

2932.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6749 Inside**

Press @ Run Depth: 982.12 psig @ 4586.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.07.14

End Date: 2011.07.15

Last Calib.: 2011.07.15

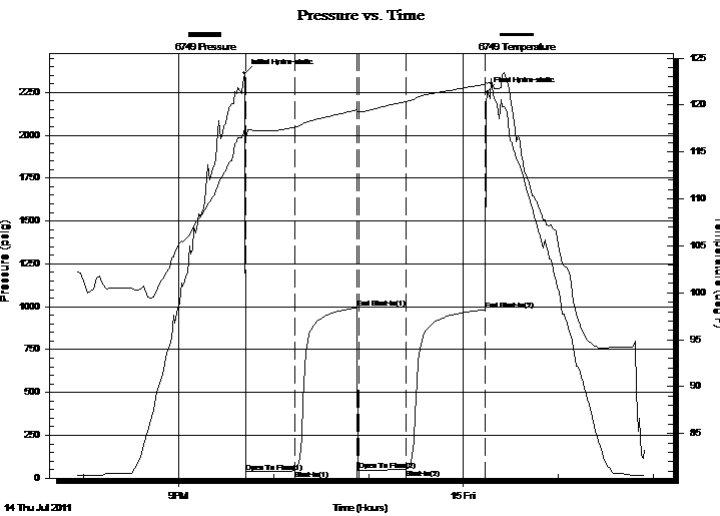
Start Time: 19:55:00

End Time: 01:55:00

Time On Btm: 2011.07.14 @ 21:41:30

Time Off Btm: 2011.07.15 @ 00:15:00

**TEST COMMENT:** 1ST Open 30 Minutes/Weak blow/Blow built to just below surface  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 30 Minutes/No blow  
 2ND Shut In 45 Minutes/No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2361.88	117.53	Initial Hydro-static
1	34.83	116.44	Open To Flow (1)
32	42.45	117.63	Shut-In(1)
71	993.80	119.49	End Shut-In(1)
72	44.26	119.25	Open To Flow (2)
102	50.58	120.38	Shut-In(2)
152	982.12	122.19	End Shut-In(2)
154	2251.97	122.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud with show of oil 100% mud	0.02

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Grand Mesa Operating Co.

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**9/14S/31W/Gove**

Job Ticket: 16598

**DST#: 4**

Test Start: 2011.07.14 @ 19:55:00

**Tool Information**

Drill Pipe:	Length: 4429.00 ft	Diameter: 3.88 inches	Volume: 64.77 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 65.36 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4574.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	45.00 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			4550.00	
Hydraulic tool	5.00			4555.00	
Change over sub	1.00			4556.00	
Jars	6.00			4562.00	
Safety Joint	2.00			4564.00	
Packer	5.00			4569.00	29.00 Bottom Of Top Packer
Packer	5.00			4574.00	
Anchor	11.00			4585.00	
Recorder	1.00	6749	Inside	4586.00	
Recorder	1.00	6748	Outside	4587.00	
Bullnose	3.00			4590.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 45.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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Job Ticket: 16598

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Test Start: 2011.07.14 @ 19:55:00

### Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 54.00 sec/qt  
 Water Loss: 8.78 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
5.00	Mud with show of oil 100% mud	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

