



DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Company**

1700 N Waterfront PKWY Bldg 600 Wichita
KS 67206+5514

ATTN: Kent Matson

32-13s-31w Gove

Hess #6-32

Start Date: 2011.09.03 @ 04:12:00

End Date: 2011.09.03 @ 09:49:00

Job Ticket #: 18630 DST #: 5

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

Printed: 2011.09.03 @ 10:07:56

Grand Mesa Operating Company

Hess #6-32

32-13s-31w Gove

DST # 5

Krebs & Johnson

2011.09.03



DRILL STEM TEST REPORT

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Hess #6-32

1700 N Waterfront PKWY Bldg 600 Wichita KS
67206+5514

32-13s-31w Gove

Job Ticket: 18630

DST#: 5

ATTN: Kent Matson

Test Start: 2011.09.03 @ 04:12:00

GENERAL INFORMATION:

Formation: **Krebs & Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:02:30

Time Test Ended: 09:49:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3320-Scott City-70

Interval: 4496.00 ft (KB) To 4553.00 ft (KB) (TVD)

Reference Elevations: 2943.00 ft (KB)

Total Depth: 4553.00 ft (KB) (TVD)

2938.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8419

Inside

Press @ RunDepth: 76.89 psia @ 4549.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2011.09.03

End Date: 2011.09.03

Last Calib.: 2011.09.03

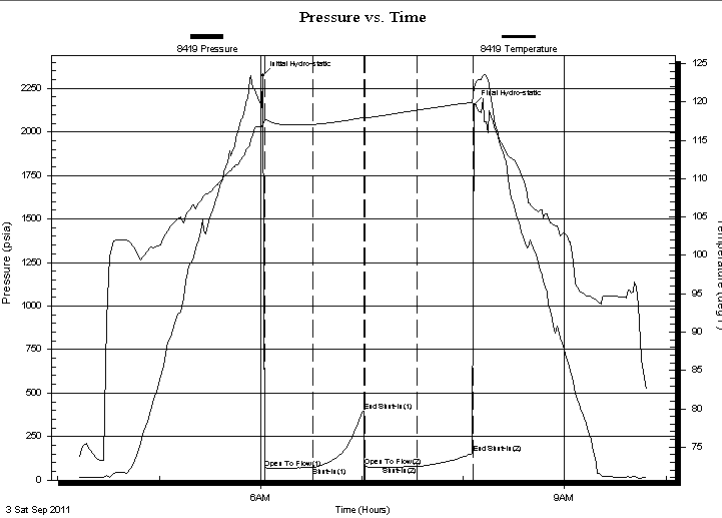
Start Time: 04:12:00

End Time: 09:49:00

Time On Btm: 2011.09.03 @ 06:01:30

Time Off Btm: 2011.09.03 @ 08:06:30

TEST COMMENT: 1st Opening 30 Minutes-Very weak blow built 1/2 inch into water in 30 minutes
1st Shut-in 30 Minutes-No blow back
2nd Opening 30 Minutes- Very weak surge died off
2nd Shut-in 30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2323.00	116.98	Initial Hydro-static
1	70.83	117.61	Open To Flow (1)
30	71.94	117.07	Shut-In(1)
60	396.31	117.98	End Shut-In(1)
61	77.75	117.93	Open To Flow (2)
91	76.89	118.92	Shut-In(2)
124	152.94	119.97	End Shut-In(2)
125	2156.10	121.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Slightley oil cut mud 5%oil 90%mud	0.05

Gas Rates

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



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1700 N Waterfront PKWY Bldg 600 Wichita KS
67206+5514

32-13s-31w Gove

Job Ticket: 18630

DST#: 5

ATTN: Kent Matson

Test Start: 2011.09.03 @ 04:12:00

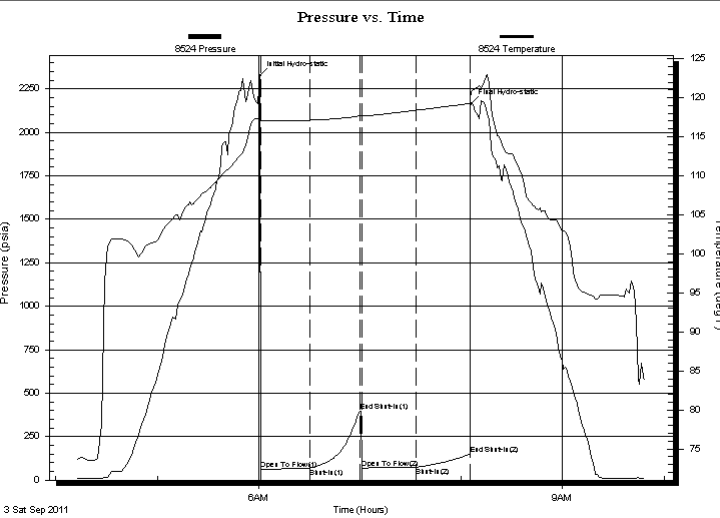
GENERAL INFORMATION:

Formation: **Krebs & Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:02:30
 Time Test Ended: 09:49:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3320-Scott City-70
 Interval: **4496.00 ft (KB) To 4553.00 ft (KB) (TVD)**
 Reference Elevations: 2943.00 ft (KB)
 Total Depth: 4553.00 ft (KB) (TVD) 2938.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press @ RunDepth: 147.36 psia @ 4550.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2011.09.03 End Date: 2011.09.03 Last Calib.: 2011.09.03
 Start Time: 04:12:00 End Time: 09:48:30 Time On Btm: 2011.09.03 @ 06:01:00
 Time Off Btm: 2011.09.03 @ 08:06:00

TEST COMMENT: 1st Opening 30 Minutes-Very weak blow built 1/2 inch into water in 30 minutes
 1st Shut-in 30 Minutes-No blow back
 2nd Opening 30 Minutes- Very weak surge died off
 2nd Shut-in 30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2323.67	117.66	Initial Hydro-static
1	59.87	117.03	Open To Flow (1)
30	68.61	117.13	Shut-In(1)
59	398.54	117.67	End Shut-In(1)
61	69.80	117.65	Open To Flow (2)
92	74.46	118.39	Shut-In(2)
124	147.36	119.26	End Shut-In(2)
125	2162.92	120.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Slightley oil cut mud 5%oil 90%mud	0.05

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Company

Hess #6-32

1700 N Waterfront PKWY Bldg 600 Wichita KS
67206+5514

32-13s-31w Gove

Job Ticket: 18630

DST#: 5

ATTN: Kent Matson

Test Start: 2011.09.03 @ 04:12:00

Tool Information

Drill Pipe:	Length: 4366.00 ft	Diameter: 3.80 inches	Volume: 61.24 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4496.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 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	4473.00	
Hydraulic Tool	5.00			4478.00	
Jars	6.00			4484.00	
Safety Joint	2.00			4486.00	
Packer	5.00			4491.00	28.00 Bottom Of Top Packer
Packer	5.00			4496.00	
Anchor	0.00			4496.00	
Change Over Sub	0.75			4496.75	
Drill Pipe	31.50		Outside	4528.25	
Change Over Sub	0.75		Outside	4529.00	
Anchor	19.00			4548.00	
Recorder	1.00	8419	Inside	4549.00	
Recorder	1.00	8524	Outside	4550.00	
Bullnose	3.00			4553.00	57.00 Bottom Packers & Anchor

Total Tool Length: 85.00



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FLUID SUMMARY

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Test Start: 2011.09.03 @ 04:12:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Slightley oil cut mud 5%oil 90%mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8419

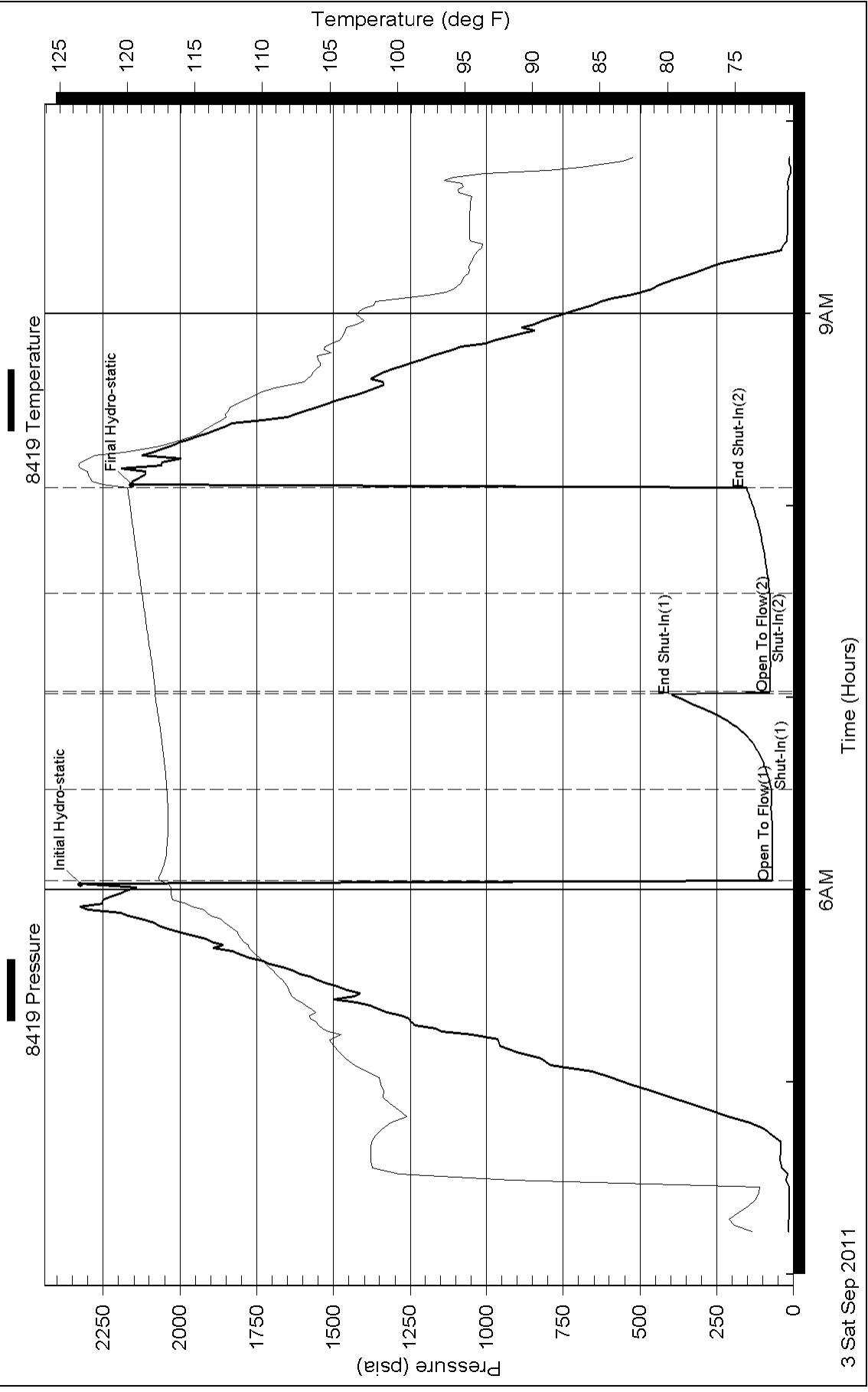
Inside

Grand Mesa Operating Company

32-13s-31w Gove

DST Test Number: 5

Pressure vs. Time



Printed: 2011.09.03 @ 10:07:57

Ref. No: 18630

Superior Testers Enterprises LLC

Pressure vs. Time

