



DRILL STEM TEST REPORT

Prepared For: **GRAND MESA OPERATING**

1700 N WATERFRONT PKWY BLDG 600
WICHITA KS 67206

ATTN: BOB PETERSON

7-21S-25W HODGEMAN

FRANCES 1-7

Start Date: 2011.05.10 @ 01:00:00

End Date: 2011.05.10 @ 07:24:00

Job Ticket #: 1024 DST #: 3

Eagle Testers LLC.

P.O.Box 1011, Great Bend, KS 67530

620-617-7548

Printed: 2011.05.10 @ 01:58:50

GRAND MESA OPERATING

FRANCES 1-7

7-21S-25W

HODGEMAN

DST # 3

MISSISSIPPIAN

2011.05.10



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7-21S-25W HODGEMAN

Job Ticket: 1024

DST#: 3

ATTN: BOB PETERSON

Test Start: 2011.05.10 @ 01:00:00

GENERAL INFORMATION:

Formation: **MISSISSIPPIAN**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:10:30

Time Test Ended: 07:24:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 15 184 MRT GREAT BE

Interval: **4420.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Reference Elevations: 2395.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

2390.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: **6666**

Inside

Press @ RunDepth: 73.10 psig @ 4456.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.05.10

End Date:

2011.05.10

Last Calib.:

2011.05.10

Start Time: 01:00:00

End Time:

07:24:00

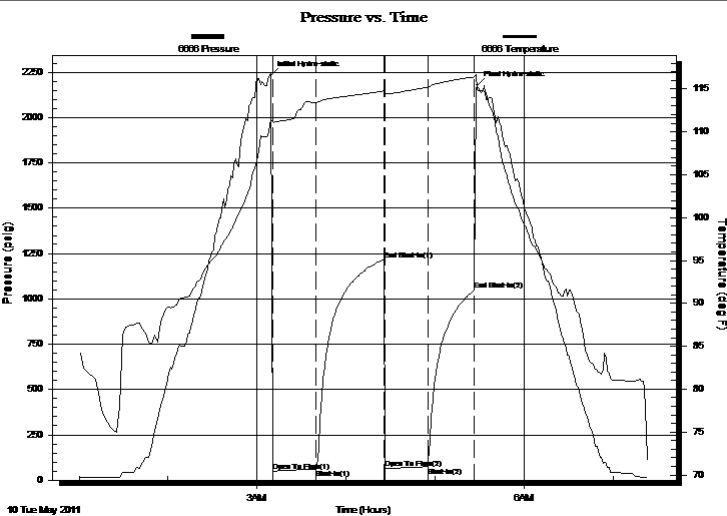
Time On Btm:

2011.05.10 @ 03:09:30

Time Off Btm:

2011.05.10 @ 05:28:30

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 1 INCH INTO WATER
45-INITIAL SHUT IN NO BLOW BACK
30-FINAL OPENING VERY WEAK SURFACE BLOW DIED AFTER 3 MINS
30-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2232.04	111.46	Initial Hydro-static
1	48.63	111.15	Open To Flow (1)
30	60.61	113.38	Shut-In(1)
76	1216.78	114.75	End Shut-In(1)
77	62.73	114.48	Open To Flow (2)
106	73.10	115.20	Shut-In(2)
137	1047.50	116.41	End Shut-In(2)
139	2176.63	114.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	MUD WITH A TRACE OF WATER 95% M	50.12 \TER

Gas Rates

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



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Time Test Ended: 07:24:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 15 184 MRT GREAT BE

Interval: **4420.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Reference Elevations: 2395.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

2390.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: **6663**

Outside

Press @ RunDepth: 1049.26 psig @ 4457.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2011.05.10

End Date: 2011.05.10

Last Calib.: 2011.05.10

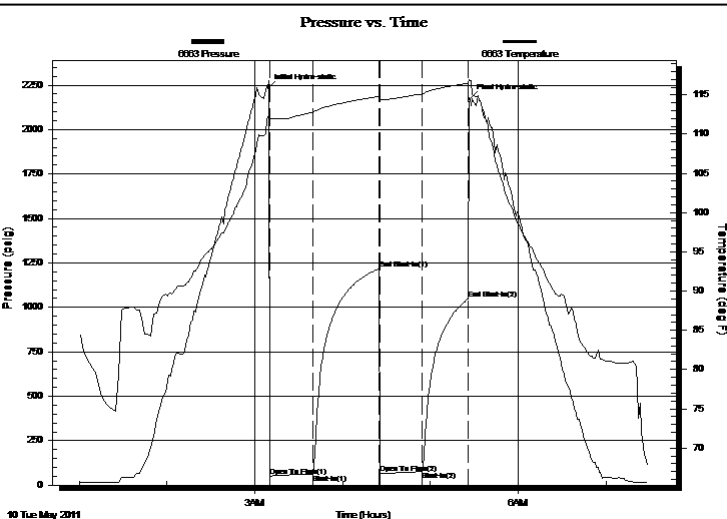
Start Time: 01:00:00

End Time: 07:29:00

Time On Btm: 2011.05.10 @ 03:09:00

Time Off Btm: 2011.05.10 @ 05:27:00

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 1 INCH INTO WATER
45-INITIAL SHUT IN NO BLOW BACK
30-FINAL OPENING VERY WEAK SURFACE BLOW DIED AFTER 3 MINS
30-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2232.70	112.22	Initial Hydro-static
1	50.48	111.89	Open To Flow (1)
31	62.84	112.79	Shut-In(1)
76	1218.34	114.81	End Shut-In(1)
77	64.52	114.46	Open To Flow (2)
106	75.86	115.13	Shut-In(2)
137	1049.26	116.49	End Shut-In(2)
138	2172.45	116.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	MUD WITH A TRACE OF WATER 95% MUD	50.12

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

GRAND MESA OPERATING

FRANCES 1-7

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Job Ticket: 1024

DST#: 3

ATTN: BOB PETERSON

Test Start: 2011.05.10 @ 01:00:00

Tool Information

Drill Pipe:	Length: 4214.00 ft	Diameter: 3.88 inches	Volume: 61.63 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 62.52 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4420.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	69.00 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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Shut-in tool	5.00			4396.00	
Hydraulic tool	5.00			4401.00	
Change over sub	1.00			4402.00	
Jars	6.00			4408.00	
Safety Joint	2.00			4410.00	
Packer	5.00			4415.00	29.00 Bottom Of Top Packer
Packer	5.00			4420.00	
Anchor	35.00			4455.00	
Recorder	1.00	6666	Inside	4456.00	
Recorder	1.00	6663	Outside	4457.00	
Bullnose	3.00			4460.00	40.00 Bottom Packers & Anchor

Total Tool Length: 69.00



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FLUID SUMMARY

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DST#: 3

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Test Start: 2011.05.10 @ 01:00:00

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: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	MUD WITH A TRACE OF WATER 95%M 5%W.	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbl

Num Fluid Samples: 0

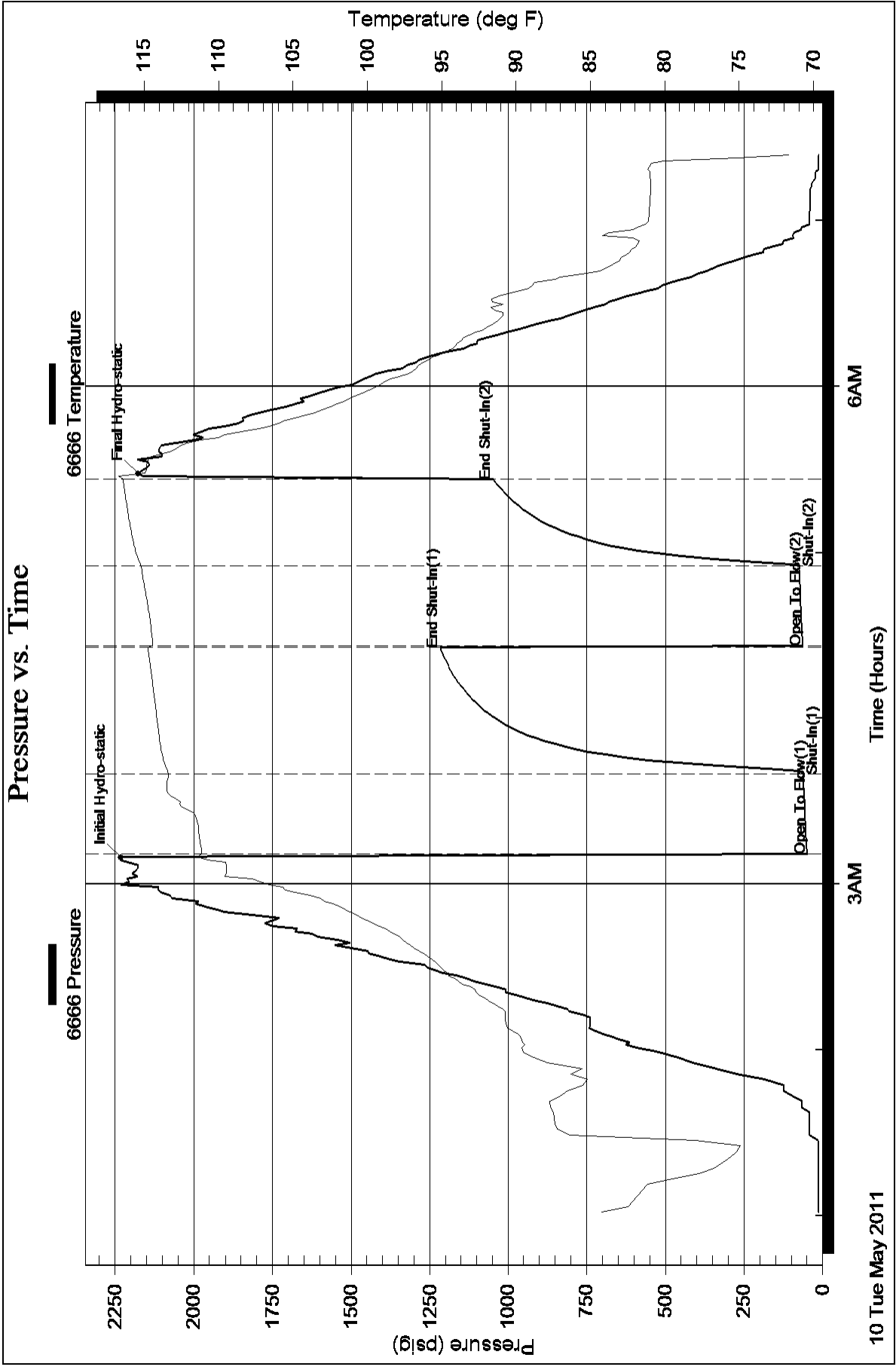
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Pressure vs. Time

