



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Company
 1700 N Waterfront Pkw g Bldg 600 Wichita, Ks 67206
 ATTN: Kent Matson

17-17-24 Ness, Ks
Phelps 3-17
 Job Ticket: 46406 **DST#: 2**
 Test Start: 2012.01.11 @ 04:27:18

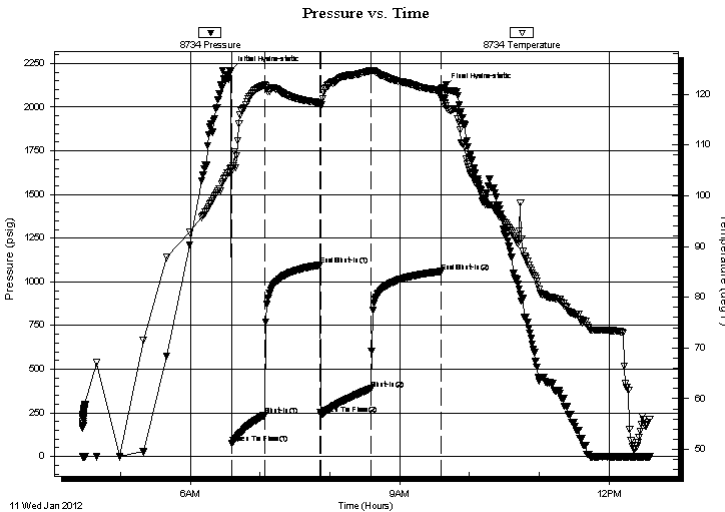
GENERAL INFORMATION:

Formation: **Cherokee/Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:35:48
 Time Test Ended: 12:34:48
 Interval: **4376.00 ft (KB) To 4436.00 ft (KB) (TVD)**
 Total Depth: 4436.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2466.00 ft (KB)
 2461.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8734 Outside
 Press @ Run Depth: 388.49 psig @ 4413.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.01.11 End Date: 2012.01.11 Last Calib.: 2012.01.11
 Start Time: 04:27:19 End Time: 12:34:48 Time On Btm: 2012.01.11 @ 06:34:18
 Time Off Btm: 2012.01.11 @ 09:37:48

TEST COMMENT: IFP - BOB 3 min
 ISI - no blow back
 FFP - BOB 7 min
 FSI - no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2207.99	105.24	Initial Hydro-static
2	76.38	104.92	Open To Flow (1)
30	237.52	121.77	Shut-In(1)
77	1095.71	118.32	End Shut-In(1)
78	241.98	117.96	Open To Flow (2)
121	388.49	124.55	Shut-In(2)
181	1059.36	120.70	End Shut-In(2)
184	2112.65	118.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	MW 90%W, 10%M	1.78
250.00	GW & MCO 20%G, 55%O, 10%W, 15%M	3.51
155.00	MO 90%O, 10%M	2.17
185.00	GMCO 15%G, 45%O, 40%M	2.60

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

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Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 31000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.18 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	MW 90%W, 10%M	1.784
250.00	GW & MCO 20%G, 55%O, 10%W, 15%M	3.507
155.00	MO 90%O, 10%M	2.174
185.00	GMCO 15%G, 45%O, 40%M	2.595

Total Length: 775.00 ft Total Volume: 10.060 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time

