

DRILL STEM TEST REPORT

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

1700 North Waterfront Pkwy
Bldg 600
Wichita KS 67206

ATTN: John Goldsmith

CSC #1-21

21-13s-31w Gove,KS

Start Date: 2012.04.21 @ 04:28:05

End Date: 2012.04.21 @ 08:57:29

Job Ticket #: 46499 DST #: 2

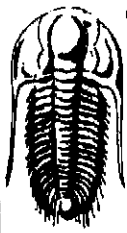
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.04.27 @ 15:22:33

Grand Mesa Operating Comp. 21-13s-31w Gove,KS CSC #1-21 DST # 2 Ft. Scott-Vandegriff 2012.04.21



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Grand Mesa Operating Comp.

21-13s-31w Gove, KS

1700 North Waterfront Pkwy
Bldg 600
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ATTN: John Goldsmith

CSC #1-21

Job Ticket: 46499

DST#: 2

Test Start: 2012.04.21 @ 04:28:05

GENERAL INFORMATION:

Formation: **Ft. Scott-Vendegris**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 08:57:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 48

Interval: 4395.00 ft (KB) To 4456.00 ft (KB) (TVD)

Total Depth: 4456.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2893.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 4.00 ft

Serial #: 8736

Inside

Press@RunDepth: psig @ 4398.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.04.21

End Date:

2012.04.21

Last Calib.: 2012.04.21

Start Time: 04:28:05

End Time:

08:57:29

Time On Btm: 2012.04.21 @ 06:14:00

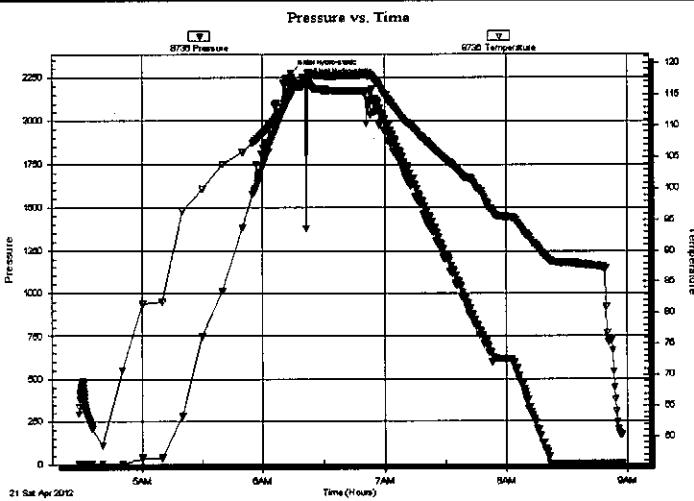
Time Off Btm: 2012.04.21 @ 06:22:15

TEST COMMENT: IF:PACKER FAILURE

IS:

FF:

FS:



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.01	114.70	Initial Hydro-static
9	2223.31	118.44	Final Hydro-static

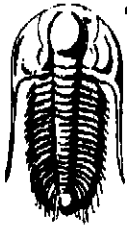
Recovery

Length (ft)	Description	Volume (bbl)
245.00	mud 100%	2.33

* Recovery from multiple tests

Gas Rates

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



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TESTING, INC**

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TOOL DIAGRAM

Grand Mesa Operating Comp.
1700 North Waterfront Pkwy
Bldg 600
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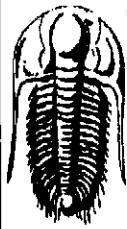
21-13s-31w Gove,KS
CSC #1-21
Job Ticket: 46499 DST#: 2
Test Start: 2012.04.21 @ 04:28:05

Tool Information

Drill Pipe:	Length: 4276.00 ft	Diameter: 3.80 inches	Volume: 59.98 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 121.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			Total Volume: 60.58 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4395.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	89.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4368.00	
Shut In Tool	5.00			4373.00	
Hydraulic tool	5.00			4378.00	
Jars	5.00			4383.00	
Safety Joint	3.00			4386.00	
Packer	5.00			4391.00	28.00 Bottom Of Top Packer
Packer	4.00			4395.00	
Stubb	1.00			4396.00	
Perforations	2.00			4398.00	
Recorder	0.00	8736	Inside	4398.00	
Recorder	0.00	6668	Outside	4398.00	
Change Over Sub	1.00			4399.00	
Drill Pipe	31.00			4430.00	
Change Over Sub	1.00			4431.00	
Perforations	20.00			4451.00	
Bullnose	5.00			4456.00	61.00 Bottom Packers & Anchor
Total Tool Length:	89.00				



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FLUID SUMMARY

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CSC #1-21

Job Ticket: 46499

DST#: 2

Test Start: 2012.04.21 @ 04:28:05

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 74.00 sec/qt

Water Loss: 6.76 in³

Resistivity: 0.00 ohm.m

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

0 deg API

Water Salinity:

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
245.00	mud 100%	2.334

Total Length: 245.00 ft Total Volume: 2.334 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

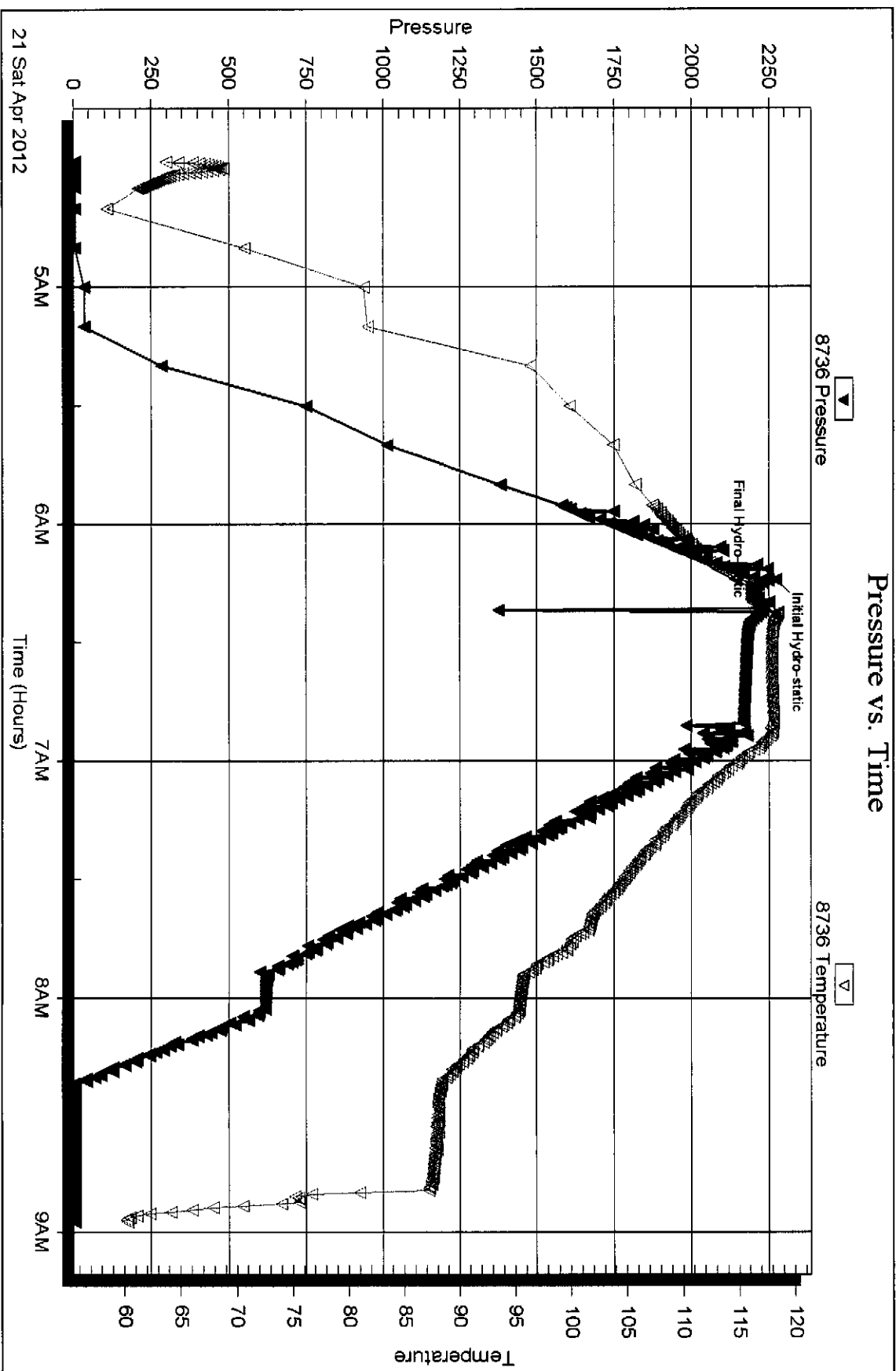
Serial #: 8736

Inside

Grand Mesa Operating Corp.

CSC #1-21

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 46499

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