

DRILL STEM TEST REPORT

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

1700 N. Waterfront BL 600
Wichita KS 67206

ATTN: Bob Schreiber

APC-Martin #1-3

3-10s-55w Lincoln,CO

Start Date: 2012.11.21 @ 13:28:00

End Date: 2012.11.22 @ 01:14:25

Job Ticket #: 49918 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 08:57:56



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N. Waterfront BL 600
Wichita KS 67206

ATTN: Bob Schreiber

3-10s-55w Lincoln, CO

APC-Martin #1-3

Job Ticket: 49918

DST#: 1

Test Start: 2012.11.21 @ 13:28:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:43:10

Time Test Ended: 01:14:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 40

Interval: 7006.00 ft (KB) To 7019.00 ft (KB) (TVD)

Total Depth: 7019.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 5249.00 ft (KB)

5237.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8360 Inside

Press @ Run Depth: 84.18 psig @ 7007.00 ft (KB)

Start Date: 2012.11.21

End Date:

2012.11.22

Start Time: 13:28:00

End Time:

01:14:25

Capacity: 8000.00 psig

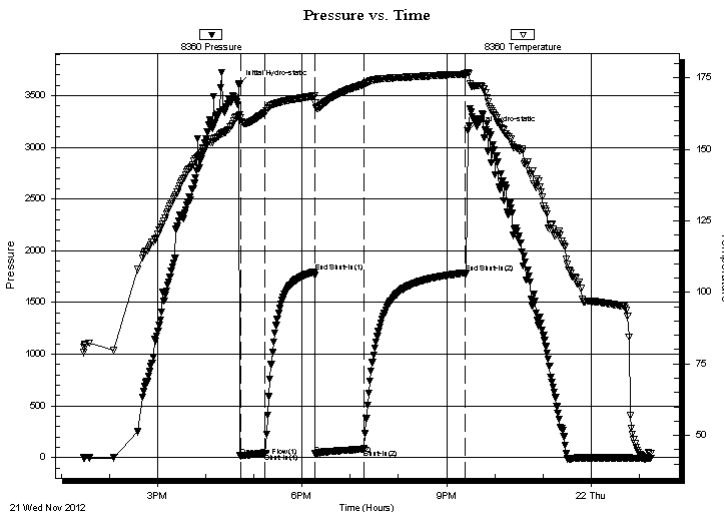
Last Calib.: 2012.11.22

Time On Btm: 2012.11.21 @ 16:41:40

Time Off Btm: 2012.11.21 @ 21:26:09

TEST COMMENT: IF- Strong Surface Blow Built to BOB in 35 sec
ISI- Weak Surface Blow in 12 1/2 min
FF- Strong Surface Blow Built to BOB in 14 sec
FSI- Surface Blow Built to BOB in 26 1/2 min Gas to Surface in 50 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3608.73	161.74	Initial Hydro-static
2	19.16	161.10	Open To Flow (1)
33	43.98	162.97	Shut-In (1)
94	1796.03	168.73	End Shut-In (1)
95	37.72	166.35	Open To Flow (2)
155	84.18	172.69	Shut-In (2)
282	1786.62	176.36	End Shut-In (2)
285	3159.16	176.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OMGCW 2%oil 8%m 15%g 75%w	0.28
99.00	GOCM 24%g 32%oil 44%m	1.39
5.00	GO 20%g 80%oil	0.07
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49918

DST#: 1

ATTN: Bob Schreiber

Test Start: 2012.11.21 @ 13:28:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:43:10

Time Test Ended: 01:14:25

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 40

Interval: 7006.00 ft (KB) To 7019.00 ft (KB) (TVD)

Reference Elevations: 5249.00 ft (KB)

Total Depth: 7019.00 ft (KB) (TVD)

5237.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

Serial #: 8353 Outside

Press @ Run Depth: psig @ 7007.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.21

End Date:

2012.11.22

Last Calib.:

2012.11.22

Start Time: 13:28:15

End Time:

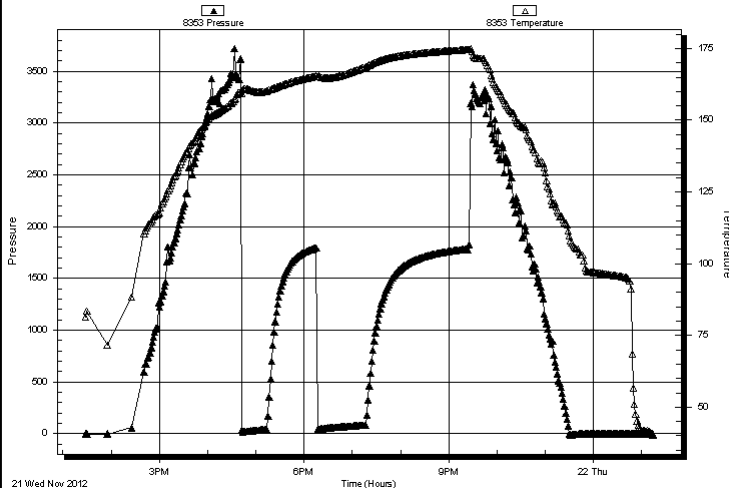
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Time On Btm:

Time Off Btm:

TEST COMMENT: IF- Strong Surface Blow Built to BOB in 35 sec
ISI- Weak Surface Blow in 12 1/2 min
FF- Strong Surface Blow Built to BOB in 14 sec
FSI- Surface Blow Built to BOB in 26 1/2 min Gas to Surface in 50 min

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
20.00	OMGCW 2%oil 8%m 15%g 75%w	0.28
99.00	GOCM 24%g 32%oil 44%m	1.39
5.00	GO 20%g 80%oil	0.07
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49918

DST#: 1

ATTN: Bob Schreiber

Test Start: 2012.11.21 @ 13:28:00

Tool Information

Drill Pipe:	Length:	6987.00 ft	Diameter:	3.80 inches	Volume:	98.01 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:	28000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	12000.00 lb
					Total Volume:	98.01 bbl	Tool Chased	ft
Drill Pipe Above KB:		8.00 ft					String Weight: Initial	74000.00 lb
Depth to Top Packer:		7006.00 ft					Final	74000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		13.00 ft						
Tool Length:		40.00 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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Change Over Sub	1.00			6980.00	
Shut In Tool	5.00			6985.00	
Hydraulic tool	5.00			6990.00	
Jars	5.00			6995.00	
Safety Joint	2.00			6997.00	
Packer	5.00			7002.00	27.00 Bottom Of Top Packer
Packer	4.00			7006.00	
Stubb	1.00			7007.00	
Recorder	0.00	8360	Inside	7007.00	
Recorder	0.00	8353	Outside	7007.00	
Perforations	9.00			7016.00	
Bullnose	3.00			7019.00	13.00 Bottom Packers & Anchor

Total Tool Length: 40.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49918

DST#: 1

ATTN: Bob Schreiber

Test Start: 2012.11.21 @ 13:28:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 81.00 sec/qt

Water Loss: 6.36 in³

Resistivity: ohm.m

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 9100 ppm

ft
bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OMGCW 2%oil 8%m 15%g 75%w	0.281
99.00	GOCM 24%g 32%oil 44%m	1.389
5.00	GO 20%g 80%oil	0.070
0.00	GTS	0.000

Total Length: 124.00 ft Total Volume: 1.740 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is 1. @ 45f = 9100

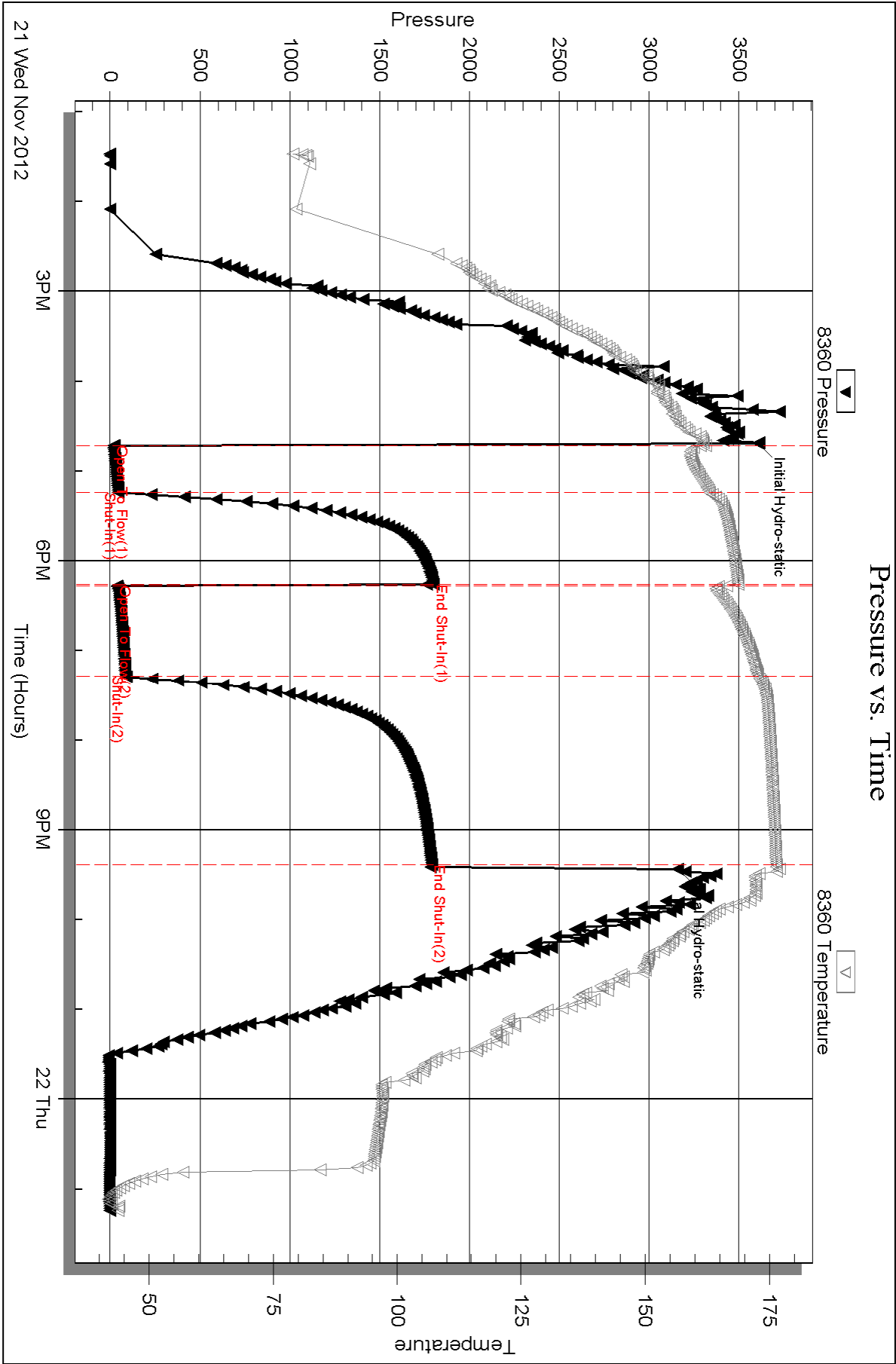
Serial #: 8360

Inside

Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 1



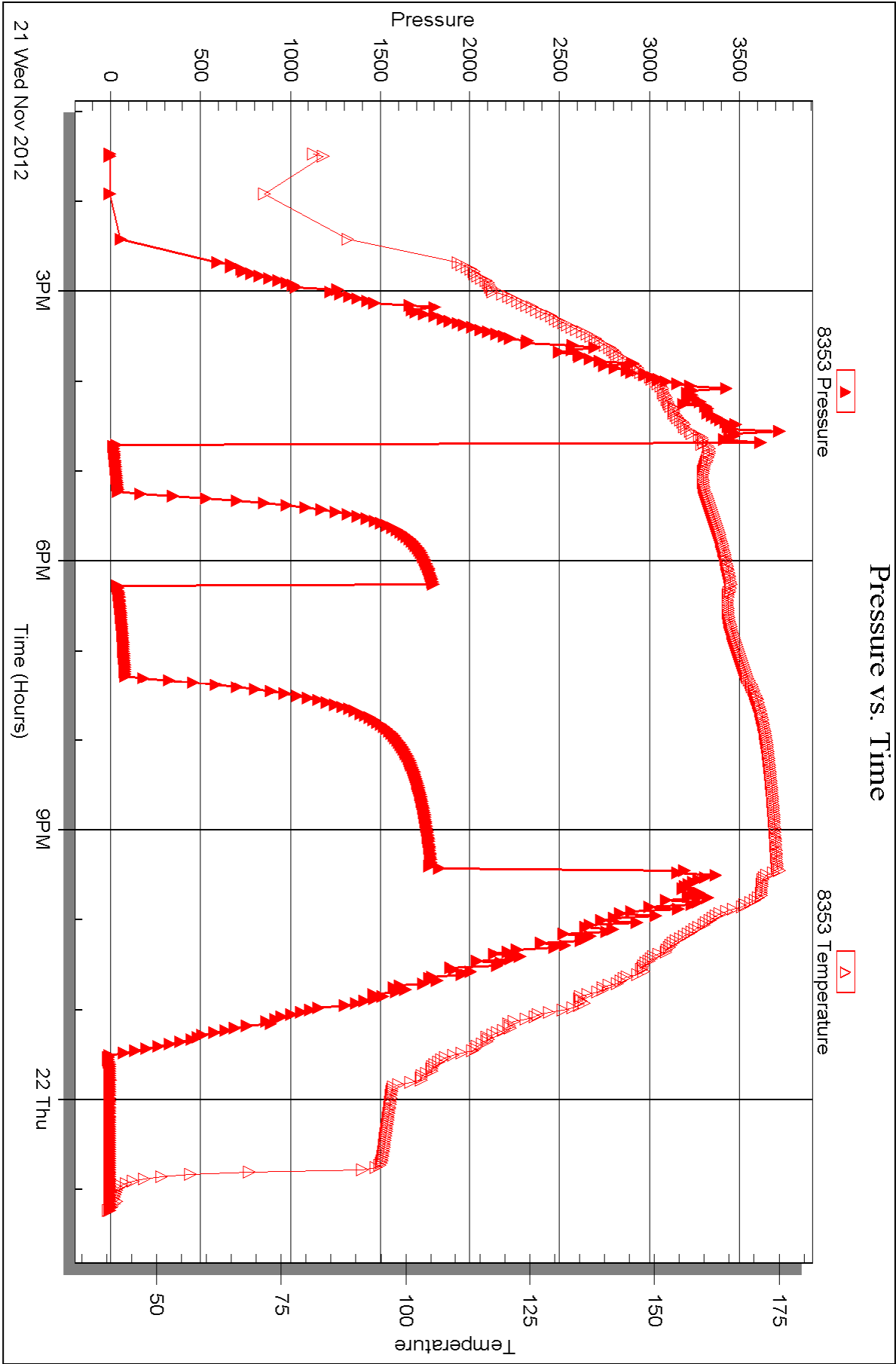
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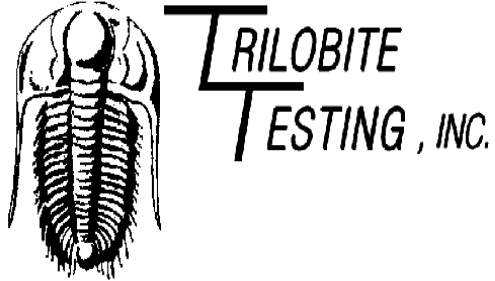
Outside

Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 1





DRILL STEM TEST REPORT

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

1700 N. Waterfront BL 600
Wichita KS 67206

ATTN: Bob Schreiber

APC-Martin #1-3

3-10s-55w Lincoln,CO

Start Date: 2012.11.23 @ 15:46:00

End Date: 2012.11.24 @ 04:48:55

Job Ticket #: 49919 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 08:57:05



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49919

DST#: 2

ATTN: Bob Schreiber

Test Start: 2012.11.23 @ 15:46:00

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:33:09

Time Test Ended: 04:48:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

Interval: 7029.00 ft (KB) To 7100.00 ft (KB) (TVD)

Total Depth: 7019.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 5249.00 ft (KB)

5237.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8360 Inside

Press @ Run Depth: 51.54 psig @ 7030.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.24

Start Time: 15:46:00

End Time:

04:48:55

Capacity: 8000.00 psig

Last Calib.: 2012.11.23

Time On Btm: 2012.11.23 @ 20:29:09

Time Off Btm: 2012.11.24 @ 01:11:40

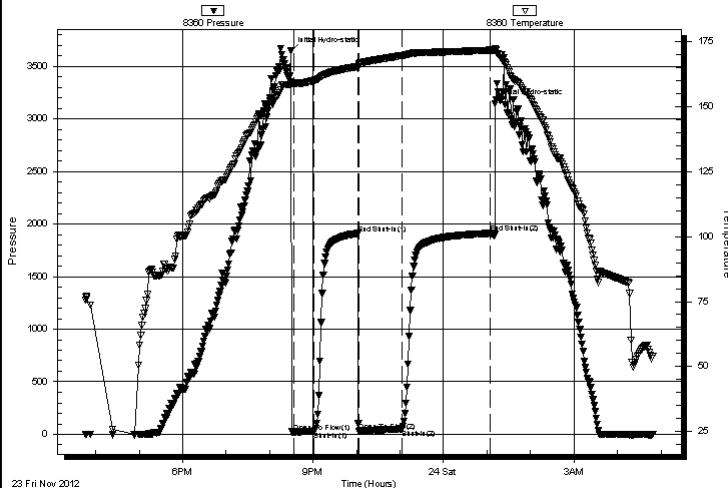
TEST COMMENT: IF- Weak Surface Blow Built to 9"

ISI- No Blow

FF- Weak Surface Blow Built to BOB in 15 min

FSI- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3643.39	159.38	Initial Hydro-static
4	20.17	158.97	Open To Flow (1)
33	31.78	160.05	Shut-In (1)
93	1910.85	165.34	End Shut-In (1)
94	30.49	166.18	Open To Flow (2)
154	51.54	169.62	Shut-In (2)
276	1911.82	171.68	End Shut-In (2)
283	3143.62	172.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
79.00	OWGCM 2%oil 4%w 17%g 77%m	1.11
0.00	861' of GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49919

DST#: 2

ATTN: Bob Schreiber

Test Start: 2012.11.23 @ 15:46:00

GENERAL INFORMATION:

Formation: **Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:33:09

Time Test Ended: 04:48:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

Interval: 7029.00 ft (KB) To 7100.00 ft (KB) (TVD)

Total Depth: 7019.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 5249.00 ft (KB)

5237.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8353 Outside

Press @ Run Depth: psig @ 7030.00 ft (KB)

Start Date: 2012.11.23

End Date:

2012.11.24

Start Time: 15:46:10

End Time:

04:49:10

Capacity: 8000.00 psig

Last Calib.: 2012.11.23

Time On Btm:

Time Off Btm:

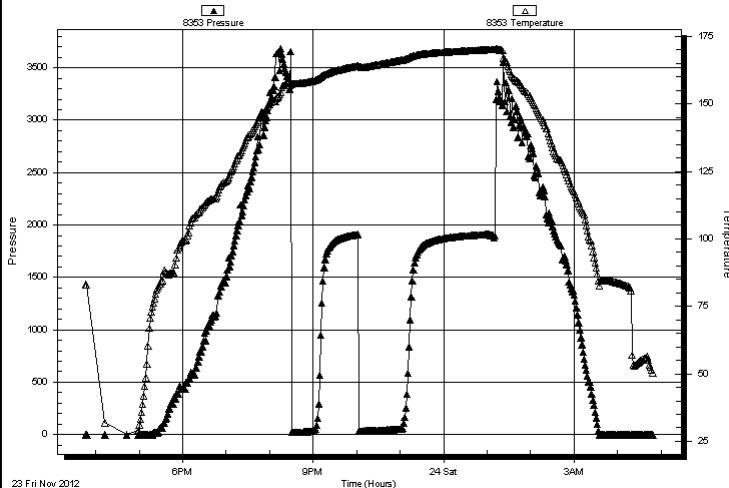
TEST COMMENT: IF- Weak Surface Blow Built to 9"

ISI- No Blow

FF- Weak Surface Blow Built to BOB in 15 min

FSI- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
79.00	OWGCM 2%oil 4%w 17%g 77%m	1.11
0.00	861' of GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49919

DST#: 2

ATTN: Bob Schreiber

Test Start: 2012.11.23 @ 15:46:00

Tool Information

Drill Pipe:	Length:	7019.00 ft	Diameter:	3.80 inches	Volume:	98.46 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:	26000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	18000.00 lb
					Total Volume:	98.46 bbl	Tool Chased	ft
Drill Pipe Above KB:		22.00 ft					String Weight: Initial	74000.00 lb
Depth to Top Packer:		7029.00 ft					Final	74000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		71.00 ft						
Tool Length:		103.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			6998.00	
Shut In Tool	5.00			7003.00	
Hydraulic tool	5.00			7008.00	
Jars	5.00			7013.00	
Safety Joint	2.00			7015.00	
Packer	5.00			7020.00	32.00 Bottom Of Top Packer
Packer	5.00			7025.00	71.00 Tool Interval
Packer	4.00			7029.00	
Stubb	1.00			7030.00	
Recorder	0.00	8360	Inside	7030.00	
Recorder	0.00	8353	Outside	7030.00	
Perforations	30.00			7060.00	
Change Over Sub	1.00			7061.00	
Drill Pipe	31.00			7092.00	
Change Over Sub	1.00			7093.00	
Perforations	4.00			7097.00	
Bullnose	3.00			7100.00	1000102.00 Bottom Packers & Anchor
Total Tool Length:	103.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49919

DST#: 2

ATTN: Bob Schreiber

Test Start: 2012.11.23 @ 15:46:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 7.17 in³

Resistivity: ohm.m

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
79.00	OWGCM 2%oil 4%w 17%g 77%m	1.108
0.00	861' of GIP	0.000

Total Length: 79.00 ft

Total Volume: 1.108 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

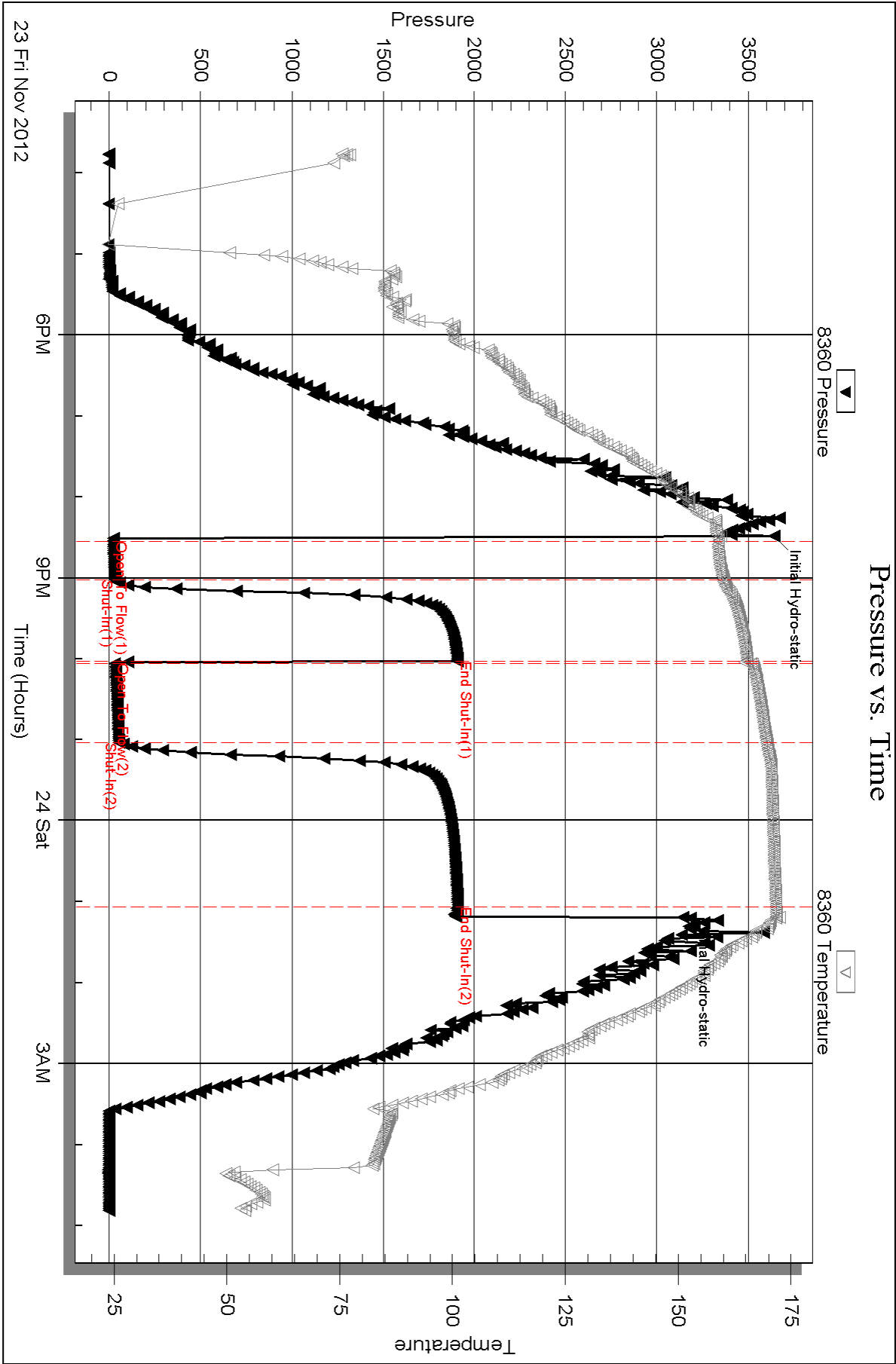
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Inside

Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 2

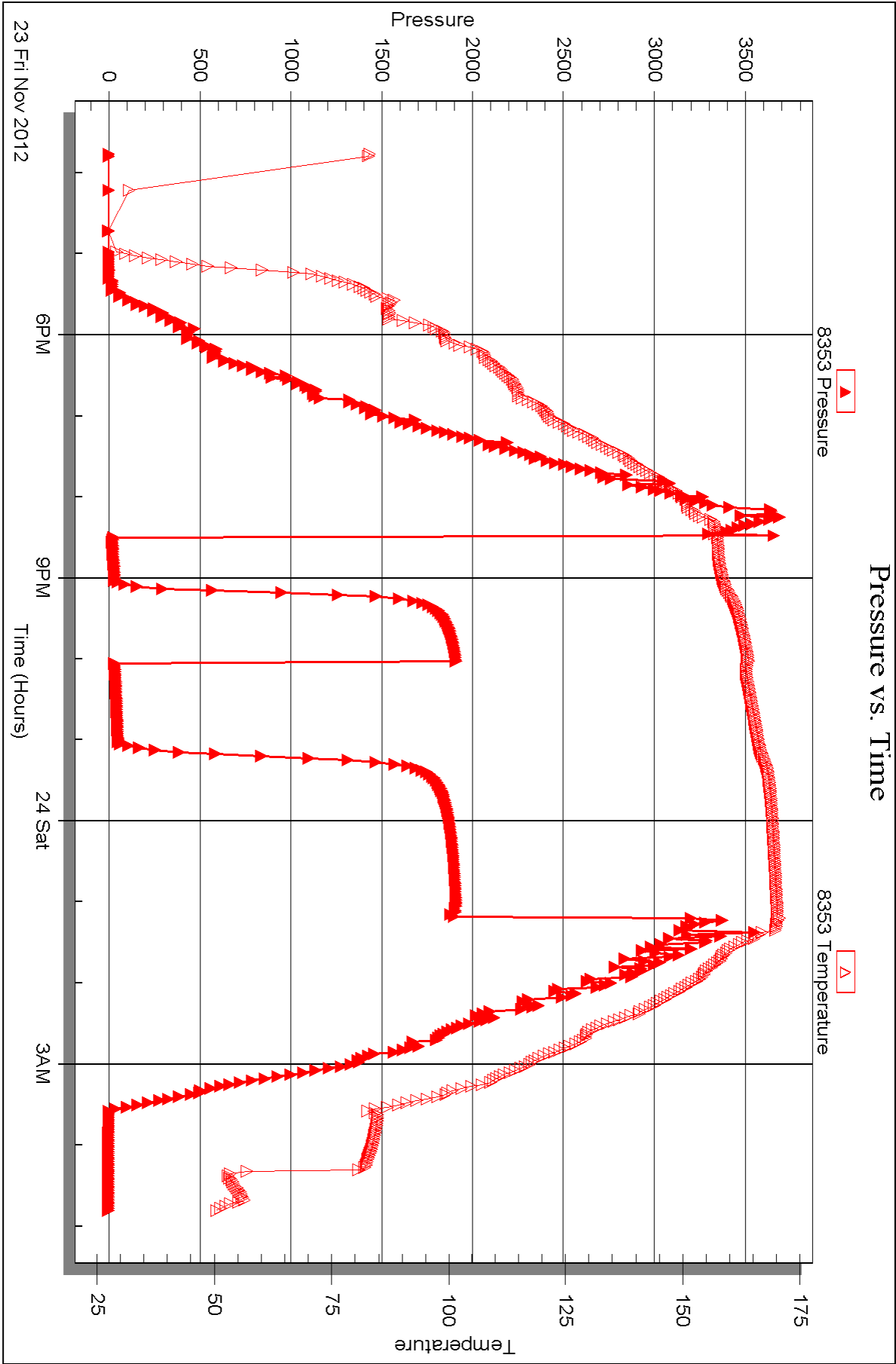


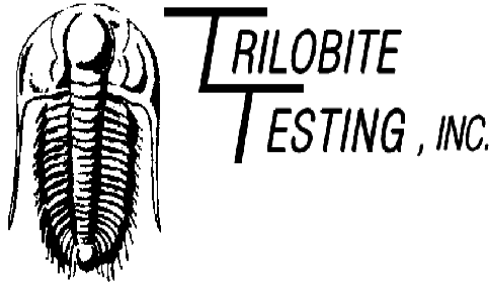
Serial #: 8353

Outside Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 2





DRILL STEM TEST REPORT

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

1700 N. Waterfront BL 600
Wichita KS 67206

ATTN: Bob Schreiber

APC-Martin #1-3

3-10s-55w Lincoln,CO

Start Date: 2012.11.24 @ 13:26:00

End Date: 2012.11.25 @ 00:10:40

Job Ticket #: 49920 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.03 @ 08:49:16



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49920

DST#: 3

ATTN: Bob Schreiber

Test Start: 2012.11.24 @ 13:26:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:09:25

Time Test Ended: 00:10:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

Interval: 7100.00 ft (KB) To 7231.00 ft (KB) (TVD)

Total Depth: 7231.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 5249.00 ft (KB)

5237.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8360 Inside

Press @ Run Depth: 52.73 psig @ 7102.00 ft (KB)

Start Date: 2012.11.24

End Date:

2012.11.25

Start Time: 13:26:00

End Time:

00:10:40

Capacity: 8000.00 psig

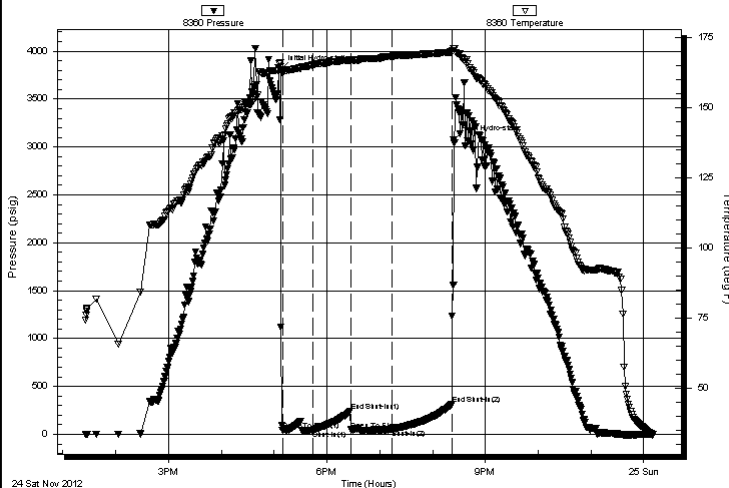
Last Calib.: 2012.11.25

Time On Btm: 2012.11.24 @ 17:07:10

Time Off Btm: 2012.11.24 @ 20:23:54

TEST COMMENT: IF- Weak Surface Blow Built to 1 3/4"
IS- No Blow
FF- Weak Surface Blow Built to 1" Died Back to 1/2"
FS- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3809.93	166.10	Initial Hydro-static
3	44.35	162.15	Open To Flow (1)
37	44.79	165.38	Shut-In(1)
80	241.77	167.05	End Shut-In(1)
81	42.98	166.97	Open To Flow (2)
127	52.73	168.44	Shut-In(2)
195	311.79	169.94	End Shut-In(2)
197	3075.84	171.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	100%m	0.28
79.00	Cotton Seed Hulls	1.11
45.00	100%m with Few Oil Spots in Tool	0.63

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49920

DST#: 3

ATTN: Bob Schreiber

Test Start: 2012.11.24 @ 13:26:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:09:25

Time Test Ended: 00:10:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

Interval: 7100.00 ft (KB) To 7231.00 ft (KB) (TVD)

Total Depth: 7231.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 5249.00 ft (KB)

5237.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8353 Outside

Press @ Run Depth: psig @ 7102.00 ft (KB)

Start Date: 2012.11.24

End Date:

2012.11.25

Start Time: 13:26:15

End Time:

00:10:45

Capacity: 8000.00 psig

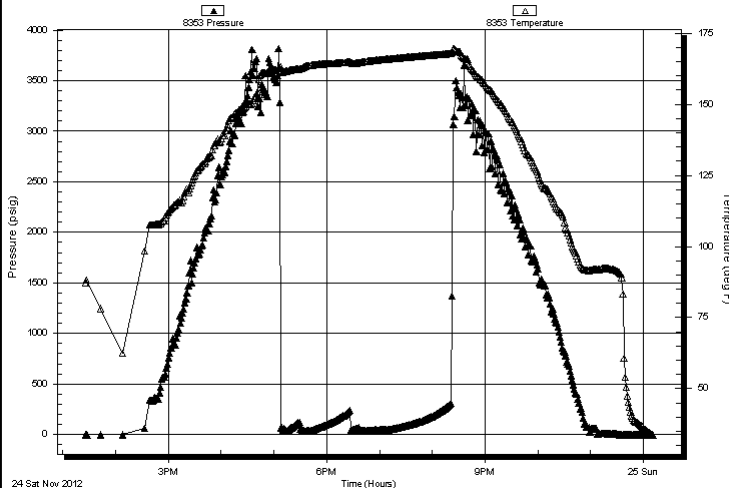
Last Calib.: 2012.11.25

Time On Btm:

Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow Built to 1 3/4"
IS- No Blow
FF- Weak Surface Blow Built to 1" Died Back to 1/2"
FS- No Blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
20.00	100%m	0.28
79.00	Cotton Seed Hulls	1.11
45.00	100%m with Few Oil Spots in Tool	0.63

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



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TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49920

DST#: 3

ATTN: Bob Schreiber

Test Start: 2012.11.24 @ 13:26:00

Tool Information

Drill Pipe:	Length:	7080.00 ft	Diameter:	3.80 inches	Volume:	99.31 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:	26000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	22000.00 lb
					Total Volume:	99.31 bbl	Tool Chased	ft
Drill Pipe Above KB:	12.00 ft						String Weight: Initial	74000.00 lb
Depth to Top Packer:	7100.00 ft						Final	74000.00 lb
Depth to Bottom Packer:	ft							
Interval between Packers:	131.00 ft							
Tool Length:	163.00 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			7069.00	
Shut In Tool	5.00			7074.00	
Hydraulic tool	5.00			7079.00	
Jars	5.00			7084.00	
Safety Joint	2.00			7086.00	
Packer	5.00			7091.00	32.00 Bottom Of Top Packer
Packer	5.00			7096.00	131.00 Tool Interval
Packer	4.00			7100.00	
Stubb	1.00			7101.00	
Perforations	1.00			7102.00	
Recorder	0.00	8360	Inside	7102.00	
Recorder	0.00	8353	Outside	7102.00	
Perforations	29.00			7131.00	
Change Over Sub	1.00			7132.00	
Drill Pipe	95.00			7227.00	
Change Over Sub	1.00			7228.00	
Bullnose	3.00			7231.00	1000162.00 Bottom Packers & Anchor
Total Tool Length:	163.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

3-10s-55w Lincoln, CO

1700 N. Waterfront BL 600
Wichita KS 67206

APC-Martin #1-3

Job Ticket: 49920

DST#: 3

ATTN: Bob Schreiber

Test Start: 2012.11.24 @ 13:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 76.00 sec/qt

Water Loss: 7.18 in³

Resistivity: ohm.m

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100%m	0.281
79.00	Cotton Seed Hulls	1.108
45.00	100%m with Few Oil Spots in Tool	0.631

Total Length: 144.00 ft

Total Volume: 2.020 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

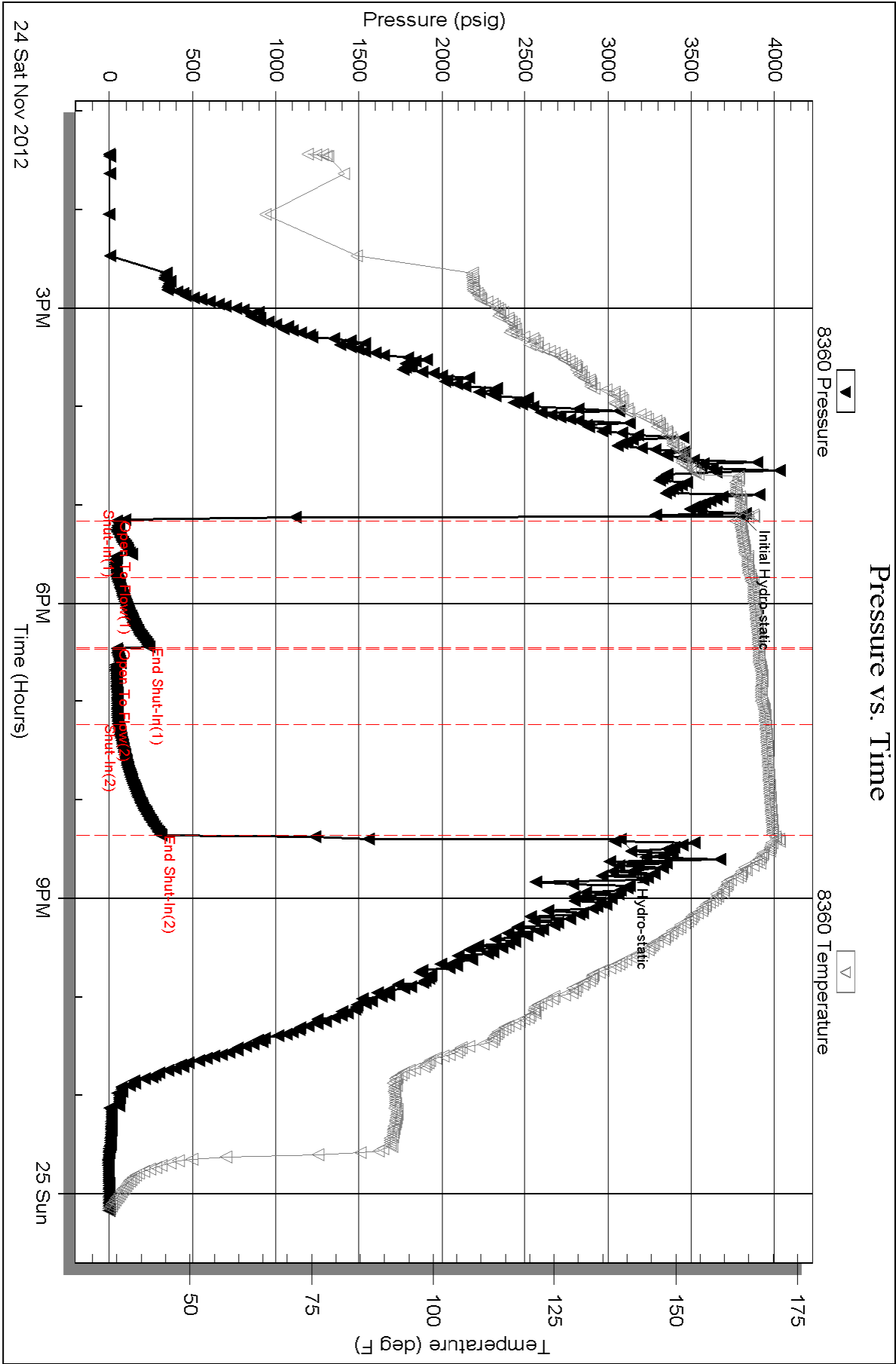
Serial #: 8360

Inside

Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 3

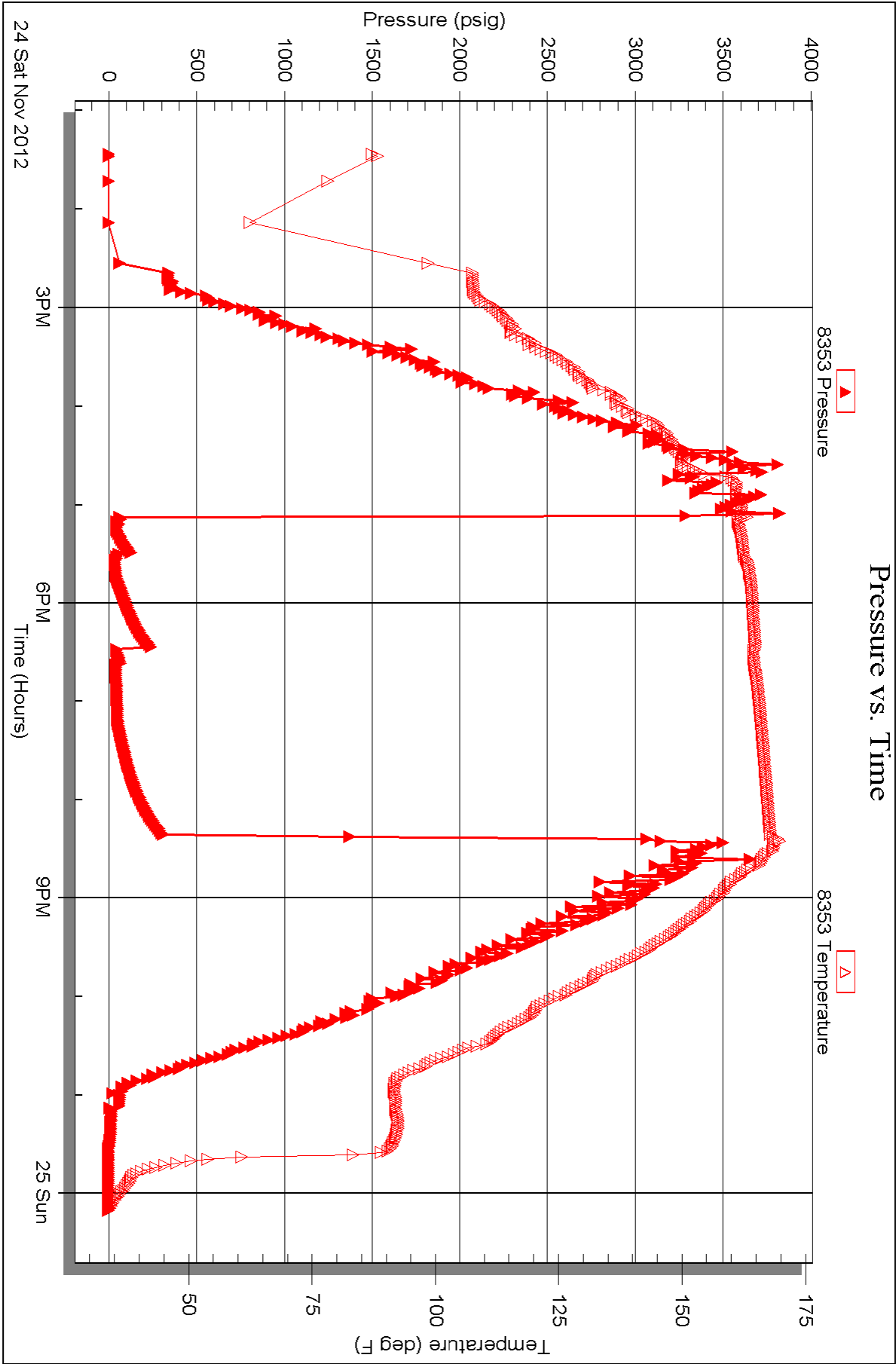


Serial #: 8353

Outside Grand Mesa Operating Co.

APC-Martin #1-3

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49918

Well Name & No. APC Martin #1-3 Test No. DST #1 Date 11-21-12
 Company Grand Mesa Operating Co Elevation 5249 KB 5237 GL
 Address 1700 N. Waterfront PKWY Bldg 600 Wichita KS 67206
 Co. Rep / Geo. Bob Skahiber Rig Martin Rig #25
 Location: Sec. 3 Twp. 10s Rge. 55w Co. Lincoln State CO

Interval Tested 7006 - 7019 Zone Tested Pawnee
 Anchor Length 13 Drill Pipe Run 6987 Mud Wt. 9.0
 Top Packer Depth 7002 Drill Collars Run 0 Vis 81
 Bottom Packer Depth 7006 Wt. Pipe Run 0 WL 6.4
 Total Depth 7019 Chlorides 300 ppm System LCM 815
 Blow Description IF - Strong Surface Blow Built to BOB in 35 sec
TSI - Weak Surface Blow in 12 1/2 min Built to 1"
FF - Strong Surface Blow Built to BOB in 14 sec
FSI - Surface Blow Built to BOB in 26 1/2 min Gas to Surface in 50 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>GO</u>	<u>20</u>	<u>80</u>		
<u>99</u>	<u>GOCM</u>	<u>24</u>	<u>32</u>	<u>44</u>	
<u>20</u>	<u>OMGCW</u>	<u>15</u>	<u>2</u>	<u>75</u>	<u>8</u>
<u>6828'</u>	<u>of GIP</u>				

Rec Total 124 BHT 156 Gravity 1.0 API RW 1.0 @ 45° F Chlorides 9100 ppm
 (A) Initial Hydrostatic 3608 ☒ Test 1650 T-On Location 9:40
 (B) First Initial Flow 19 ☒ Jars 250 T-Started 13:28
 (C) First Final Flow 43 ☒ Safety Joint 75 T-Open 16:43
 (D) Initial Shut-In 1796 ☒ Circ Sub N/C T-Pulled 21:26
 (E) Second Initial Flow 37 ☒ Hourly Standby 234 275 T-Out 1:14
 (F) Second Final Flow 84 ☒ Mileage 350 R/T 542.50
 (G) Final Shut-In 1786 ☐ Sampler
 (H) Final Hydrostatic 3159 ☐ Straddle ☒ Ruined Shale Packer 350
☐ Shale Packer 250 ☐ Ruined Packer
☐ Extra Packer ☐ Extra Copies
☐ Extra Recorder Sub Total 350
☐ Day Standby Total 3392.50
☐ Accessibility MP/DST Disc't
 Sub Total 3042.50

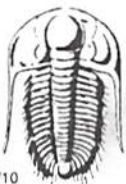
Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 120

Approved By

Our Representative

Kim Ma

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49919

Well Name & No. APC - Martin #1-3 Test No. DST #2 Date 11-23-12
 Company Grand Mesa Operating Co Elevation 5249 KB 5237 GL
 Address 1700 N. Waterfront PKWY BL 600 Wichita KS 67206
 Co. Rep / Geo. Bob Skahiber Rig Martin Rig #25
 Location: Sec. 3 Twp. 10S Rge. 5SW Co. Lincoln State CO

Interval Tested 7029 - 7100 Zone Tested FT. Scott
 Anchor Length 71 Drill Pipe Run 7019 Mud Wt. 9.0
 Top Packer Depth 7020 Drill Collars Run 0 Vis 63
 Bottom Packer Depth 7029 Wt. Pipe Run 0 WL 7.2
 Total Depth 7100 Chlorides 300 ppm System LCM 715

Blow Description IF - Weak Surface Blow Built to 9"
ISI - No Blow
FF - Weak Surface Blow Built to BOB in 15 min
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>79</u>	<u>OWGCM</u>	<u>17</u>	<u>2</u>	<u>4</u>	<u>77</u>
Rec	Feet of <u>861' of G-IP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 79 BHT 151 Gravity API RW @ °F Chlorides ppm

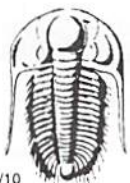
(A) Initial Hydrostatic <u>3643</u>	<input checked="" type="checkbox"/> Test 1650	T-On Location <u>1:26</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>3:46</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>20:33</u>
(D) Initial Shut-In <u>1910</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled
(E) Second Initial Flow <u>30</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>4:48</u>
(F) Second Final Flow <u>51</u>	<input checked="" type="checkbox"/> Mileage <u>350 RIT</u> 542.50	Comments
(G) Final Shut-In <u>1911</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>3143</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer 350

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer 250	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Extra Packer 200	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total 350
Final Shut-In <u>120</u>	<input type="checkbox"/> Day Standby	Total 3317.50
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total 2967.50	

Approved By

Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49920

Well Name & No. APC - Martin #1-3 Test No. DST #3 Date 11-24-12
 Company Grand Mesa Operating Co. Elevation 5249 KB 5237 GL
 Address 1700 N Waterfront PKWY BL 600 Wichita KS 67206
 Co. Rep / Geo. Bob Skahiber Rig Martin Rig #25
 Location: Sec. 3 Twp. 10s Rge. 55W Co. Lincoln State CO

Interval Tested 7100 - 7231 Zone Tested Cherokee
 Anchor Length 131 Drill Pipe Run 7080 Mud Wt. 9.2
 Top Packer Depth 7091 Drill Collars Run 0 Vis 76
 Bottom Packer Depth 7100 Wt. Pipe Run 0 WL 7.2
 Total Depth 7231 Chlorides 300 ppm System LCM 10/b

Blow Description IF - Weak Surface Blow Built to 1 3/4"
ISI - No Blow
FF - Weak Surface Blow Built to 1" Dried to 1/2"
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
<u>79</u>	<u>Cotton Seed Hells</u>				
<u>45</u>	<u>Mud with Few Oil Spots in Tool</u>			<u>100</u>	

Rec Total 65' of fluid BHT 138 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 3809 ☒ Test 1650 T-On Location 12:10
 (B) First Initial Flow 44 ☒ Jars 250 T-Started 13:26
 (C) First Final Flow 44 ☒ Safety Joint 75 T-Open 17:09
 (D) Initial Shut-In 241 ☒ Circ Sub N/C T-Pulled 20:23
 (E) Second Initial Flow 42 ☐ Hourly Standby T-Out 00:10
 (F) Second Final Flow 52 ☒ Mileage 520 + 350 542.50 Comments West half wax to get
 (G) Final Shut-In 311 ☐ Sampler Packers to Scott
 (H) Final Hydrostatic 3075 ☐ Straddle Tool was plugged
☒ Ruined Shale Packer 350
☒ Ruined Packer 320

Initial Open 30 ☐ Extra Copies _____
 Initial Shut-In 45 ☐ Extra Recorder _____ Sub Total 1600 + 670
 Final Flow 45 ☒ Day Standby 2 Days 19 3/4 hrs Total 4987.50
 Final Shut-In 60 ☐ Accessibility _____ MP/DST Disc't _____
 Sub Total 2717.50

Approved By _____

Our Representative W. J. Mar

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