**DRILL STEM TEST REPORT**

Prepared For: **Woolsey Operating Company, LLC**

125 N. Market
Suite 1000
Wichita, KS 67202-1729

ATTN: Curtis Covey

9 35s 12w Barber KS

Weckworth #1

Start Date: 2009.11.27 @ 20:09:00

End Date: 2009.11.28 @ 07:33:49

Job Ticket #: 35760 DST #: 1

KCC
MAR 19 2010
CONFIDENTIAL

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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KANSAS CORPORATION COMMISSION

MAR 19 2010

CONSERVATION DIVISION
WICHITA, KS

Woolsey Operating Company, LLC

Weckworth #1

9 35s 12w Barber KS

DST # 1

Mississippian

2009.11.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Woolsey Operating Company, LLC

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

Weckworth #1

9 35s 12w Barber KS

Job Ticket: 35760

DST#: 1

Test Start: 2009.11.27 @ 20:09:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock ft (KB)

Time Tool Opened: 23:55:00

Time Test Ended: 07:33:49

Interval: **4750.00 ft (KB) To 4857.00 ft (KB) (TVD)**

Total Depth: 4857.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Jake Fahrenbruch

Unit No: 43

Reference Elevations: 1428.00 ft (KB)

1417.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8357 Inside

Press@RunDepth: 76.87 psig @ 4751.00 ft (KB)

Start Date: 2009.11.27

End Date:

2009.11.28

Start Time: 20:09:02

End Time:

07:33:49

Capacity: 8000.00 psig

Last Calib.: 2009.11.28

Time On Btm: 2009.11.27 @ 23:53:10

Time Off Btm: 2009.11.28 @ 04:30:50

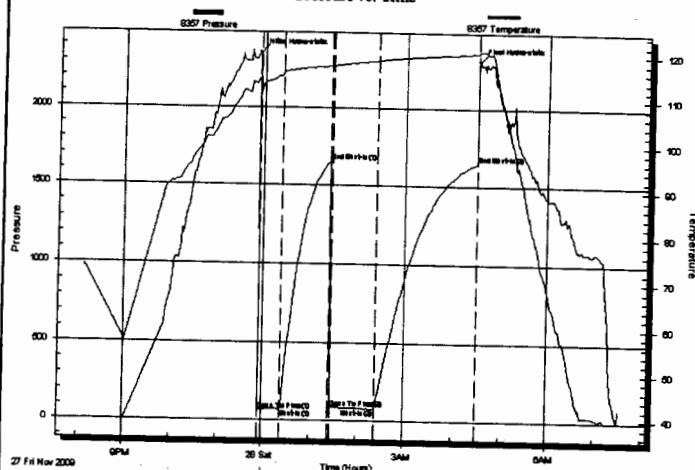
TEST COMMENT: IF: Strong blow, built to BOB in 50 seconds, GTS in 28 minutes.

IS: Bled off, no blow back.

FF: Strong blow, flow ing gas.

FSI: Bled off, weak surface blow back.

Pressure vs. Time



PRESSURE SUMMARY

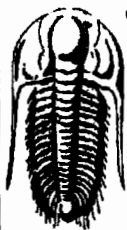
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2350.67	114.44	Initial Hydro-static
2	64.17	112.80	Open To Flow (1)
30	68.42	116.13	Shut-In (1)
92	1652.28	117.41	End Shut-In (1)
94	84.42	117.41	Open To Flow (2)
151	76.87	118.65	Shut-In (2)
277	1645.72	120.41	End Shut-In (2)
278	2306.27	120.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
105.00	Drilling mud 100% mud	1.47

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	10.00	89.38
Last Gas Rate	0.25	4.00	29.19
Max. Gas Rate	0.38	10.00	89.38



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35760

DST#: 1

Test Start: 2009.11.27 @ 20:09:00

Tool Information

Drill Pipe:	Length: 4735.00 ft	Diameter: 3.80 inches	Volume: 66.42 bbl	Tool Weight: 3500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			Total Volume: 66.42 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 79000.00 lb
Depth to Top Packer:	4750.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	107.00 ft			
Tool Length:	135.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4727.00	
Hydraulic tool	5.00			4732.00	
Jars	5.00			4737.00	
Safety Joint	3.00			4740.00	
Packer	5.00			4745.00	28.00 Bottom Of Top Packer
Packer	5.00			4750.00	
Stubb	1.00			4751.00	
Recorder	0.00	8357	Inside	4751.00	
Recorder	0.00	6799	Inside	4751.00	
Perforations	6.00			4757.00	
Blank Spacing	65.00			4822.00	
Perforations	30.00			4852.00	
Bullnose	5.00			4857.00	107.00 Bottom Packers & Anchor

Total Tool Length: 135.00

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Ref. No: 35760

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WICHITA, KS



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TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35760

DST#: 1

Test Start: 2009.11.27 @ 20:09:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
105.00	Drilling mud 100% mud	1.473

Total Length: 105.00 ft

Total Volume: 1.473 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35760

DST#: 1

Test Start: 2009.11.27 @ 20:09:00

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	10	0.38	10.00	89.38
2	10	0.38	10.00	89.38
2	20	0.25	8.50	36.33
2	30	0.25	6.00	32.36
2	40	0.25	5.00	30.78
2	50	0.25	4.00	29.19

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CONSERVATION DIVISION
WICHITA, KS

Serial #: 8357

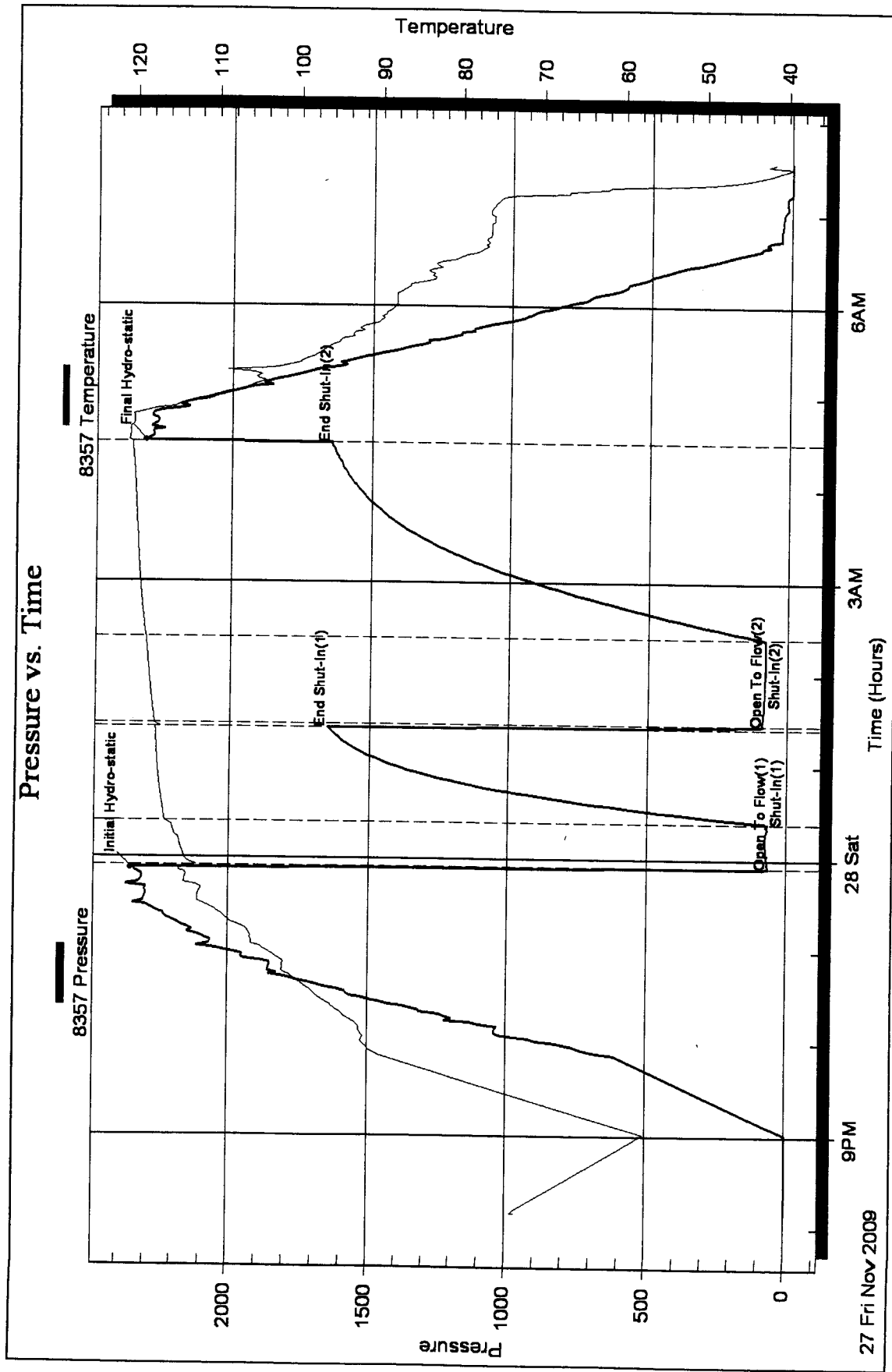
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Woolsey Operating Company, LLC

9 35s 12w Barber KS

DST Test Number: 1

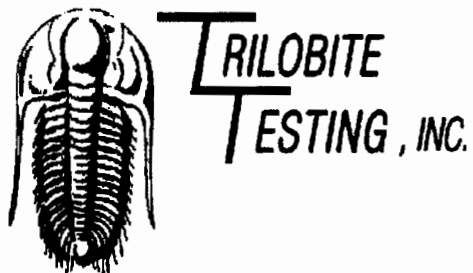
Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 35760

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DRILL STEM TEST REPORT

Prepared For: **Woolsey Operating Company, LLC**

125 N. Market
Suite 1000
Wichita, KS 67202-1729

ATTN: Curtis Covey

9 35s 12w Barber KS

Weckworth #1

Start Date: 2009.11.28 @ 17:05:00

End Date: 2009.11.29 @ 04:26:40

Job Ticket #: 35761 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

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CONSERVATION DIVISION
WICHITA, KS

Woolsey Operating Company, LLC

Weckworth #1

9 35s 12w Barber KS

DST # 2

Mississippian

2009.11.28



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35761

DST#: 2

Test Start: 2009.11.28 @ 17:05:00

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:00:20

Time Test Ended: 04:26:40

Test Type: Conventional Bottom Hole

Tester: Jake Fahrenbruch

Unit No: 43

Interval: **4858.00 ft (KB) To 4887.00 ft (KB) (TVD)**

Total Depth: 4887.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1428.00 ft (KB)

1417.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8357

Inside

Press@RunDepth: 54.92 psig @ 4859.00 ft (KB)

Start Date: 2009.11.28

End Date:

2009.11.29

Capacity: 8000.00 psig

Last Calib.: 2009.11.29

Start Time: 17:05:02

End Time:

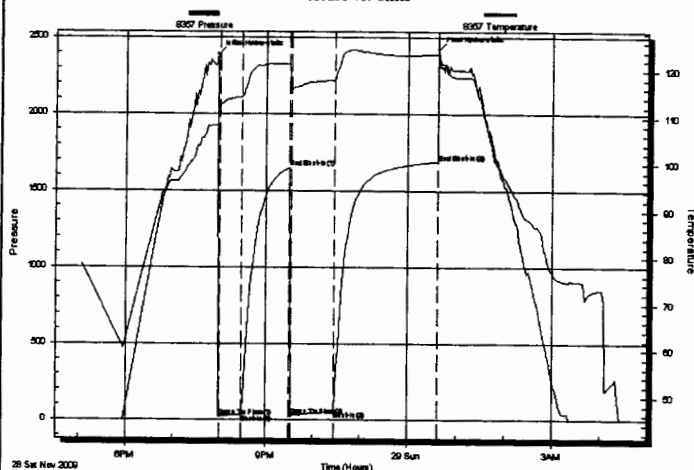
04:26:40

Time On Btm: 2009.11.28 @ 19:57:40

Time Off Btm: 2009.11.29 @ 00:37:40

TEST COMMENT: Strong blow, built to BOB in 60 seconds.
Bled off, blow back built to 1" in bucket.
Strong blow, built to BOB in 5 seconds, GTS 15 minutes.
Bled off, blow back built to 2" in bucket.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2390.82	108.33	Initial Hydro-static
3	21.52	112.16	Open To Flow (1)
31	35.39	114.35	Shut-In(1)
93	1646.84	121.38	End Shut-In(1)
95	29.27	115.98	Open To Flow (2)
150	54.92	117.98	Shut-In(2)
280	1687.43	123.50	End Shut-In(2)
280	2421.66	124.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	SG&OCM 5%g 5%o 90%m	0.84

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	12.00	9.88
Last Gas Rate	0.13	20.00	12.88
Max. Gas Rate	0.13	20.00	12.88



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35761

DST#: 2

Test Start: 2009.11.28 @ 17:05:00

Tool Information

Drill Pipe:	Length: 4860.00 ft	Diameter: 3.80 inches	Volume: 68.17 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 68.17 bbl	Tool Chased 3.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4858.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4835.00	
Hydraulic tool	5.00			4840.00	
Jars	5.00			4845.00	
Safety Joint	3.00			4848.00	
Packer	5.00			4853.00	28.00 Bottom Of Top Packer
Packer	5.00			4858.00	
Stubb	1.00			4859.00	
Recorder	0.00	8357	Inside	4859.00	
Recorder	0.00	6799	Inside	4859.00	
Perforations	23.00			4882.00	
Bullnose	5.00			4887.00	29.00 Bottom Packers & Anchor

Total Tool Length: 57.00

MAR 19 2010

CONSERVATION DIVISION
WICHITA, KS



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35761

DST#: 2

Test Start: 2009.11.28 @ 17:05:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 51.00 sec/qt

Water Loss: 8.78 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SG&OCM 5%g 5%o 90%m	0.842

Total Length: 60.00 ft

Total Volume: 0.842 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Company, LLC

Weckworth #1

125 N. Market
Suite 1000
Wichita, KS 67202-1729
ATTN: Curtis Covey

9 35s 12w Barber KS

Job Ticket: 35761

DST#: 2

Test Start: 2009.11.28 @ 17:05:00

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	20	0.13	12.00	9.88
2	20	0.13	12.00	9.88
2	30	0.13	15.00	11.00
2	40	0.13	18.00	12.13
2	50	0.13	20.00	12.88

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CONSERVATION DIVISION
WICHITA, KS

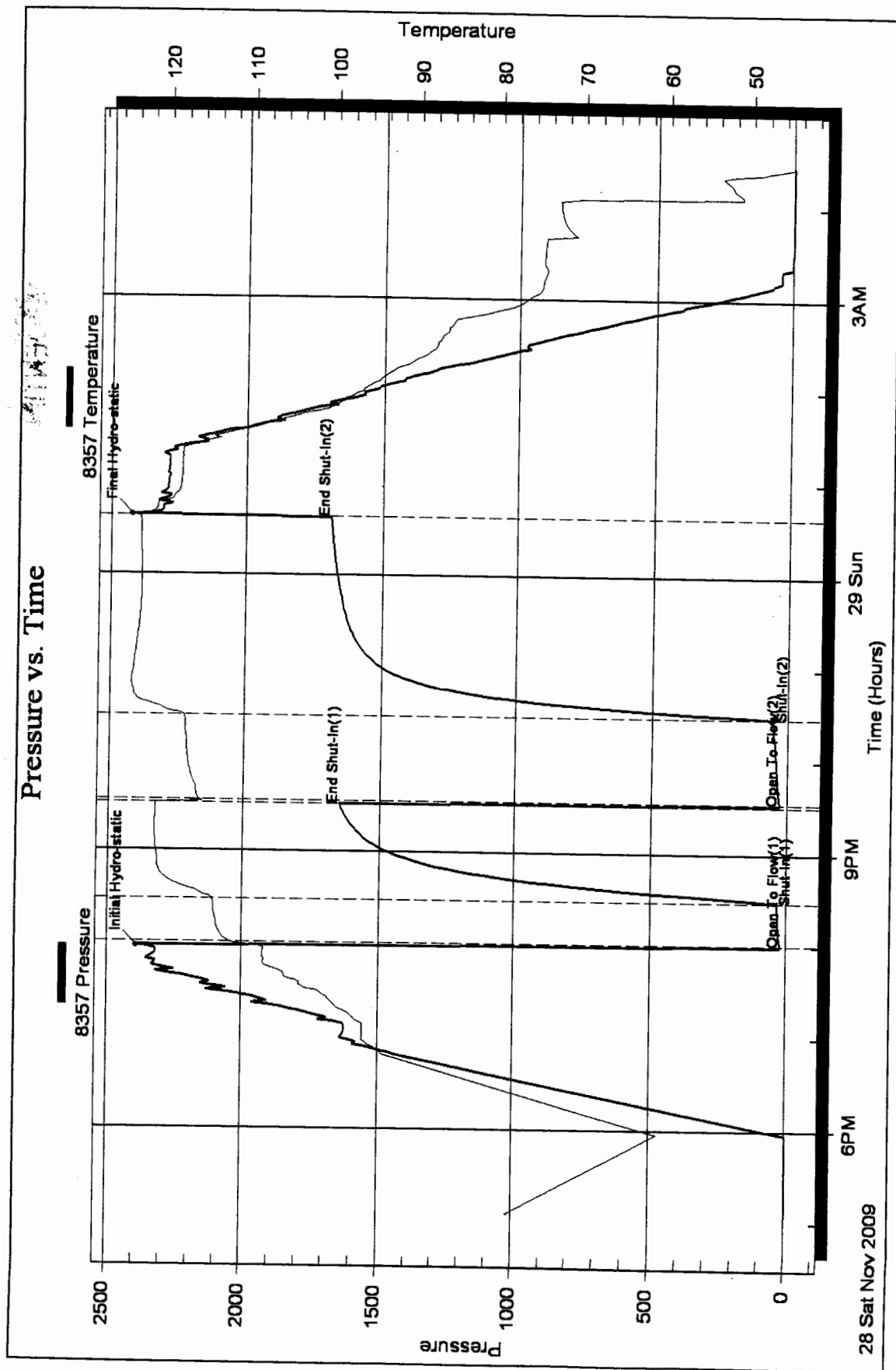
Serial #: 8357

Inside

Woodsey Operating Company, LLC

9 35s 12w Barber KS

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 35761

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