

DRILL STEM TEST REPORT

Prepared For: **Agricultural Energy Service**

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

15 33 33 Seward KS

Peters # 2-15

Start Date: 2008.03.24 @ 11:00:00

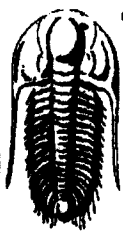
End Date: 2008.03.24 @ 21:15:45

Job Ticket #: 30842 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Agricultural Energy Service

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

Peters # 2-15

15 33 33 Seward KS

Job Ticket: 30842

DST#: 1

Test Start: 2008.03.24 @ 11:00:00

GENERAL INFORMATION:

Formation: **Upper Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:46:15

Time Test Ended: 21:15:45

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: **5638.00 ft (KB) To 5750.00 ft (KB) (TVD)**

Total Depth: 5750.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2841.00 ft (KB)

2829.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8355 Inside

Press@RunDepth: 34.45 psig @ 5741.00 ft (KB)

Start Date: 2008.03.24

End Date:

2008.03.24

Start Time: 11:00:01

End Time:

21:15:45

Capacity: 7000.00 psig

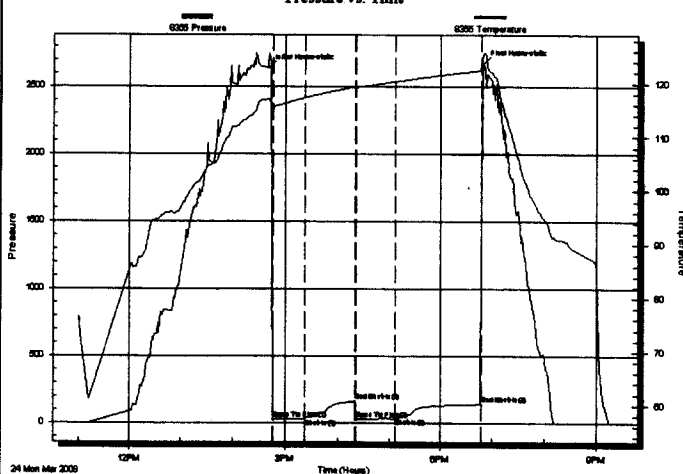
Last Calib.: 1899.12.30

Time On Btm: 2008.03.24 @ 14:40:45

Time Off Btm: 2008.03.24 @ 18:49:30

TEST COMMENT: IF Weak surface blow that died
ISI No blow back
FF No blow
FSI No blow back

Pressure vs. Time



PRESSURE SUMMARY

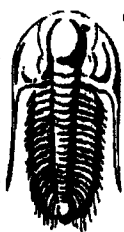
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2637.62	117.07	Initial Hydro-static
6	27.89	115.79	Open To Flow (1)
41	30.54	117.29	Shut-In(1)
100	162.79	119.34	End Shut-In(1)
100	32.25	119.32	Open To Flow (2)
146	34.45	120.33	Shut-In(2)
247	141.65	122.45	End Shut-In(2)
249	2667.91	125.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100%M	0.15

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30842

DST#: 1

ATTN: Tom Williams

Test Start: 2008.03.24 @ 11:00:00

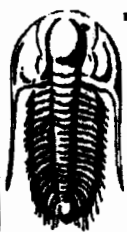
Tool Information

Drill Pipe:	Length: 5351.00 ft	Diameter: 3.80 inches	Volume: 75.06 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:	25000.00 lb
Drill Collar:	Length: 269.00 ft	Diameter: 2.25 inches	Volume: 1.32 bbl	Weight to Pull Loose:	115000.0 lb
		Total Volume:	76.38 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	110000.0 lb
Depth to Top Packer:	5638.00 ft			Final	110000.0 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	112.00 ft				
Tool Length:	140.00 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			5611.00	
Shut In Tool	5.00			5616.00	
Hydraulic tool	5.00			5621.00	
Jars	5.00			5626.00	
Safety Joint	3.00			5629.00	
Packer	5.00			5634.00	28.00 Bottom Of Top Packer
Packer	4.00			5638.00	
Stubb	1.00			5639.00	
Perforations	6.00			5645.00	
Change Over Sub	1.00			5646.00	
Drill Pipe	94.00			5740.00	
Change Over Sub	1.00			5741.00	
Recorder	0.00	6751	Inside	5741.00	
Recorder	0.00	8355	Inside	5741.00	
Perforations	5.00			5746.00	
Bullnose	4.00			5750.00	112.00 Bottom Packers & Anchor
Total Tool Length:	140.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30842

DST#: 1

ATTN: Tom Williams

Test Start: 2008.03.24 @ 11:00:00

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: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100%M	0.148

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

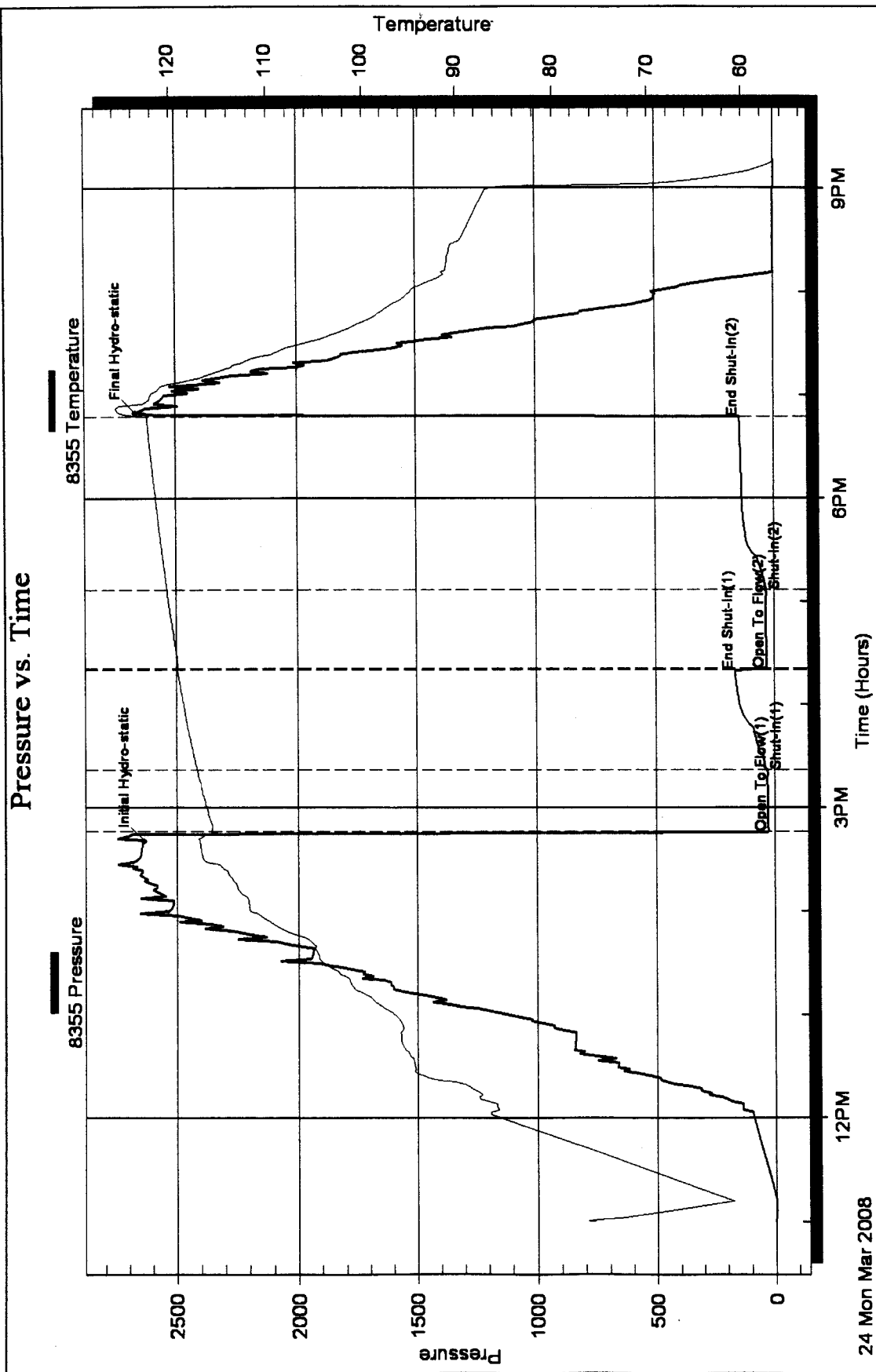
Serial #:

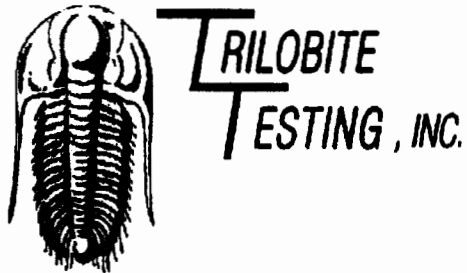
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Agricultural Energy Service**

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

15 33 33 Seward KS

Peters # 2-15

Start Date: 2008.03.25 @ 13:45:00

End Date: 2008.03.25 @ 23:30:00

Job Ticket #: 30843 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Agricultural Energy Service

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

Peters # 2-15

15 33 33 Seward KS

Job Ticket: 30843

DST#: 2

Test Start: 2008.03.25 @ 13:45:00

GENERAL INFORMATION:

Formation: **Mid Morrow**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 16:28:30

Time Test Ended: 23:30:00

Test Type: **Conventional Bottom Hole**

Tester: **Harley Davidson**

Unit No: **33**

Interval: **5783.00 ft (KB) To 5801.00 ft (KB) (TVD)**

Total Depth: **5801.00 ft (KB) (TVD)**

Hole Diameter: **7.78 inches** Hole Condition: **Fair**

Reference Elevations: **2841.00 ft (KB)**

2829.00 ft (CF)

KB to GR/CF: **12.00 ft**

Serial #: 6751

Inside

Press@RunDepth: **18.24 psig @ 5785.00 ft (KB)**

Start Date: **2008.03.25**

End Date:

2008.03.25

Start Time: **13:45:01**

End Time:

23:30:00

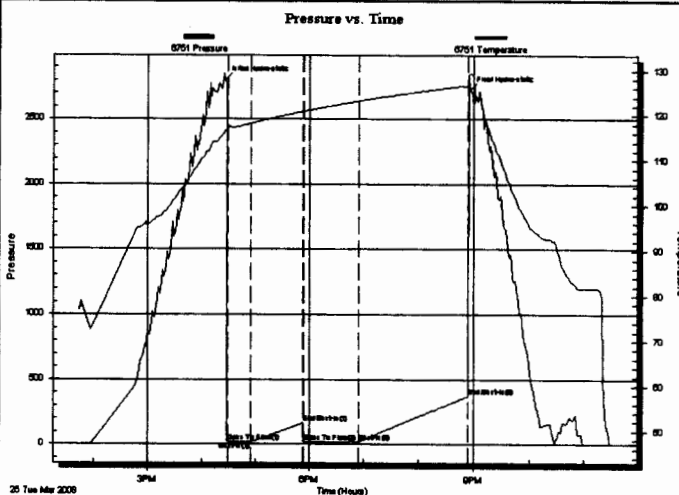
Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2008.03.25 @ 16:25:45**

Time Off Btm: **2008.03.25 @ 20:55:45**

TEST COMMENT: IF Weak surface blow built 1/2 " into bucket.
ISI No blow back
FF Weak surface blow that built to 3 " into bucket.
FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2796.79	116.66	Initial Hydro-static
3	21.93	116.33	Open To Flow (1)
30	15.55	118.22	Shut-in(1)
87	165.41	120.93	End Shut-in(1)
88	15.20	120.89	Open To Flow (2)
149	18.24	123.21	Shut-in(2)
268	370.21	126.63	End Shut-in(2)
270	2723.42	129.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	100%M	0.30

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30843

DST#: 2

ATTN: Tom Williams

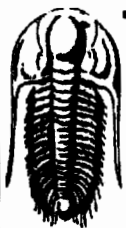
Test Start: 2008.03.25 @ 13:45:00

Tool Information

Drill Pipe:	Length: 5508.00 ft	Diameter: 3.80 inches	Volume: 77.26 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:	25000.00 lb
Drill Collar:	Length: 269.00 ft	Diameter: 2.25 inches	Volume: 1.32 bbl	Weight to Pull Loose:	120000.0 lb
		Total Volume:	78.58 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	110000.0 lb
Depth to Top Packer:	5783.00 ft			Final	110000.0 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	46.00 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			5756.00	
Shut In Tool	5.00			5761.00	
Hydraulic tool	5.00			5766.00	
Jars	5.00			5771.00	
Safety Joint	3.00			5774.00	
Packer	5.00			5779.00	28.00 Bottom Of Top Packer
Packer	4.00			5783.00	
Stubb	1.00			5784.00	
Perforations	1.00			5785.00	
Recorder	0.00	6751	Inside	5785.00	
Recorder	0.00	8355	Inside	5785.00	
Perforations	12.00			5797.00	
Bullnose	4.00			5801.00	18.00 Bottom Packers & Anchor

Total Tool Length: 46.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30843

DST#: 2

ATTN: Tom Williams

Test Start: 2008.03.25 @ 13:45:00

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: 51.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 1600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	100%M	0.295

Total Length: 60.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

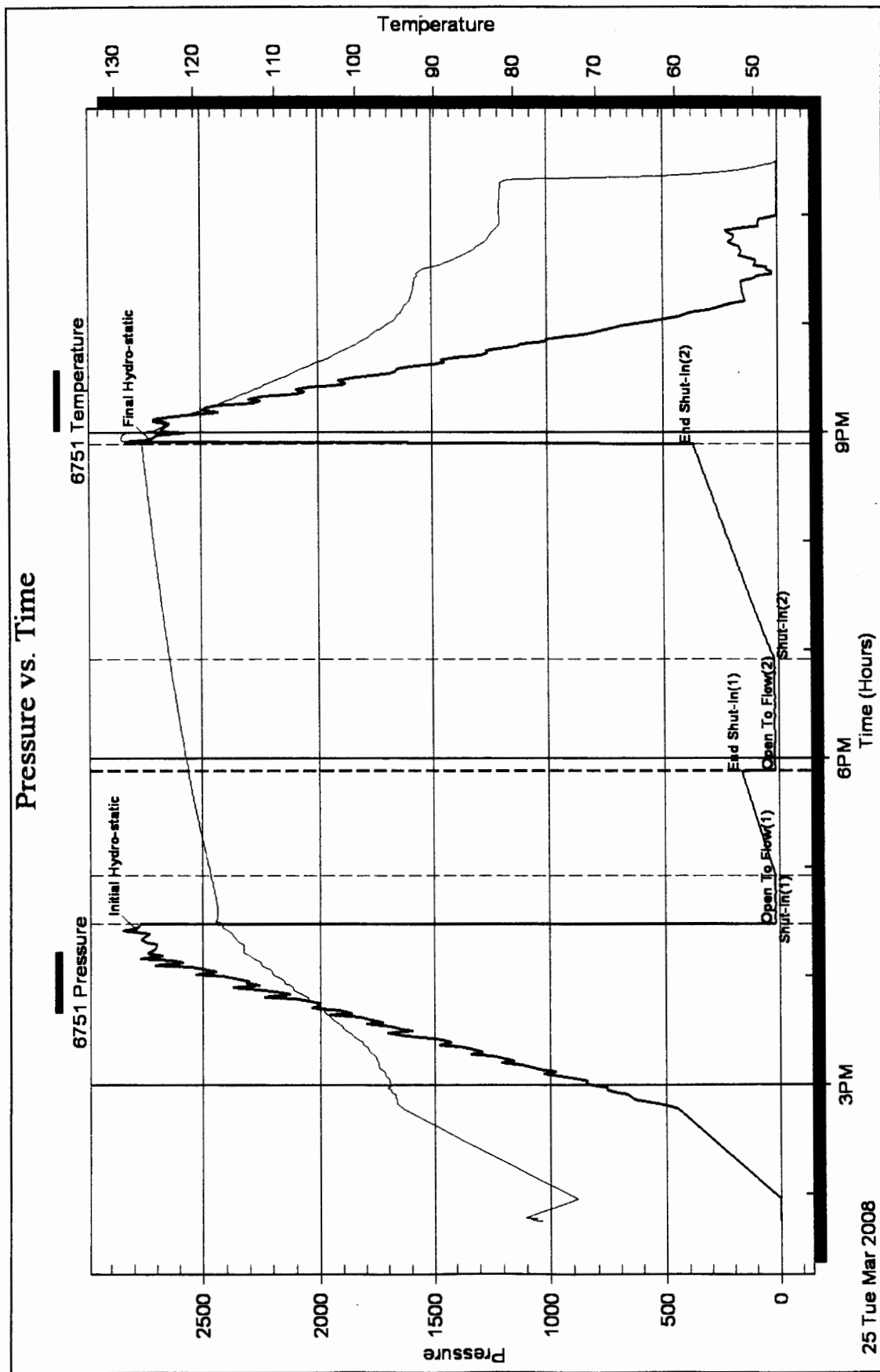
Serial #:

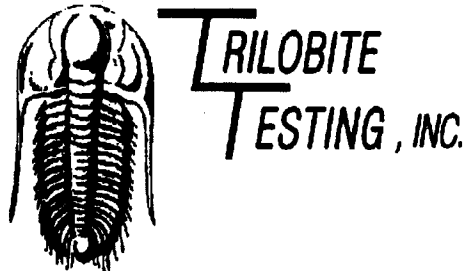
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Agricultural Energy Service**

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

15 33 33 Seward KS

Peters # 2-15

Start Date: 2008.03.26 @ 13:00:00

End Date: 2008.03.26 @ 22:17:15

Job Ticket #: 30844 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Agricultural Energy Service

PO Box 1040
Liberal KS 67901

ATTN: Tom Williams

Peters # 2-15

15 33 33 Seward KS

Job Ticket: 30844

DST#: 3

Test Start: 2008.03.26 @ 13:00:00

GENERAL INFORMATION:

Formation: **Lower Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:39:45

Time Test Ended: 22:17:15

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: **5795.00 ft (KB) To 5896.00 ft (KB) (TVD)**

Total Depth: 5896.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 2841.00 ft (KB)

2829.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8355 Inside

Press@RunDepth: 64.81 psig @ 5892.00 ft (KB)

Start Date: 2008.03.26

End Date:

2008.03.26

Start Time: 13:00:01

End Time:

22:17:15

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2008.03.26 @ 15:37:00

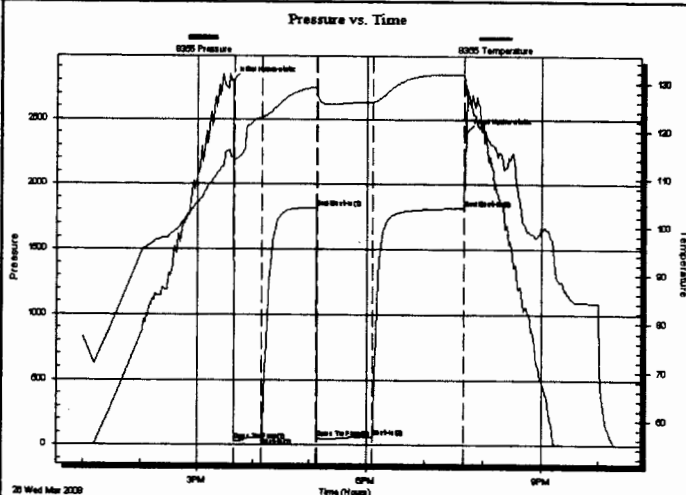
Time Off Btm: 2008.03.26 @ 19:42:00

TEST COMMENT: IF Strong blow BOB 1 min. GTS 25 min.

ISI Weak blow back

FF Strong blow BOB GTS ASAO

FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2795.65	114.58	Initial Hydro-static
3	30.29	114.07	Open To Flow (1)
32	56.07	122.67	Shut-In (1)
90	1821.00	128.98	End Shut-In (1)
92	50.74	127.23	Open To Flow (2)
149	64.81	125.90	Shut-In (2)
244	1819.60	131.71	End Shut-In (2)
245	2403.96	128.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	100%M	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	4.00	124.12
Last Gas Rate	0.50	11.00	171.34
Max. Gas Rate	0.50	11.00	171.34



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30844

DST#: 3

ATTN: Tom Williams

Test Start: 2008.03.26 @ 13:00:00

Tool Information

Drill Pipe:	Length: 5508.00 ft	Diameter: 3.80 inches	Volume: 77.26 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: 25000.00 lb
Drill Collar:	Length: 269.00 ft	Diameter: 2.25 inches	Volume: 1.32 bbl	Weight to Pull Loose: 150000.0 lb
		Total Volume:	78.58 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 110000.0 lb
Depth to Top Packer:	5795.00 ft			Final 110000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	101.00 ft			
Tool Length:	129.00 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			5768.00	
Shut In Tool	5.00			5773.00	
Hydraulic tool	5.00			5778.00	
Jars	5.00			5783.00	
Safety Joint	3.00			5786.00	
Packer	5.00			5791.00	28.00 Bottom Of Top Packer
Packer	4.00			5795.00	
Stubb	1.00			5796.00	
Perforations	2.00			5798.00	
Change Over Sub	1.00			5799.00	
Drill Pipe	92.00			5891.00	
Change Over Sub	1.00			5892.00	
Recorder	0.00	6751	Inside	5892.00	
Recorder	0.00	8355	Inside	5892.00	
Bullnose	4.00			5896.00	101.00 Bottom Packers & Anchor

Total Tool Length: 129.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Agricultural Energy Service

Peters # 2-15

PO Box 1040
Liberal KS 67901

15 33 33 Seward KS

Job Ticket: 30844

DST#: 3

ATTN: Tom Williams

Test Start: 2008.03.26 @ 13:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 7.20 in³

Resistivity: ohm.m

Salinity: 2100.00 ppm

Filter Cake: 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
100.00	100%M	0.492

Total Length: 100.00 ft

Total Volume: 0.492 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8355

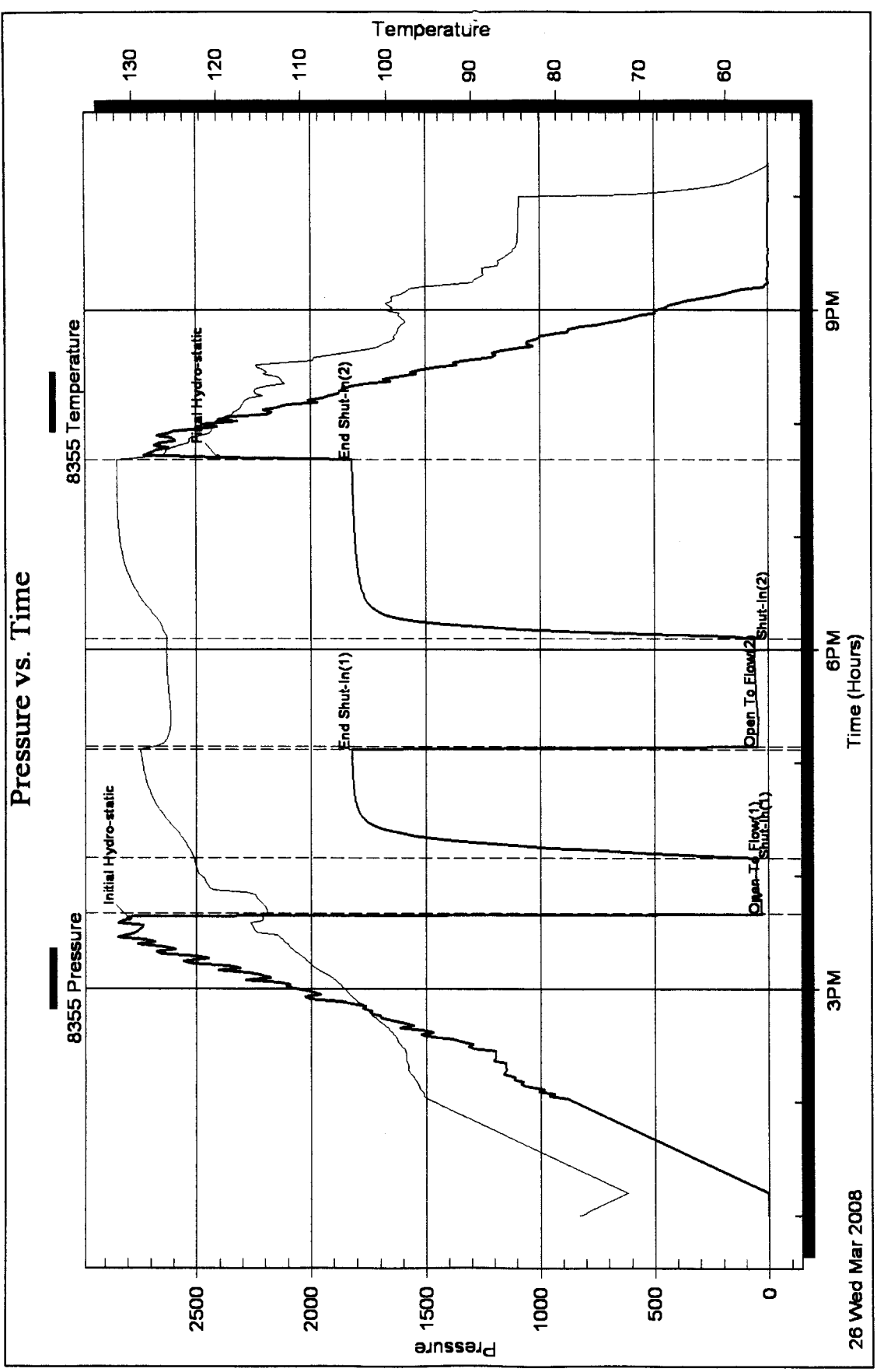
Inside

Agricultural Energy Service

15 33 33 Sew ard KS

DST Test Number: 3

Pressure vs. Time



Ref. No: 30844

Trilobite Testing, Inc