IND

15-151-22320



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

100 S Main, Ste 420
Wichita, Kansas 67202

CONFIDENTIAL

ATTN: Joe Baker

18-29s-14w Pratt KS

Stelzer B #1

Start Date: 2008.12.11 @ 08:28:44

End Date: 2008.12.11 @ 19:21:14

Job Ticket #: 32977 DST #: 1

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32977 **DST#: 1**

Test Start: 2008.12.11 @ 08:28:44

GENERAL INFORMATION:

Formation: **Lansing (Hertha)**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:52:14
Time Test Ended: 19:21:14

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

Interval: 4385.00 ft (KB) To 4415.00 ft (KB) (TVD)
Total Depth: 4415.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

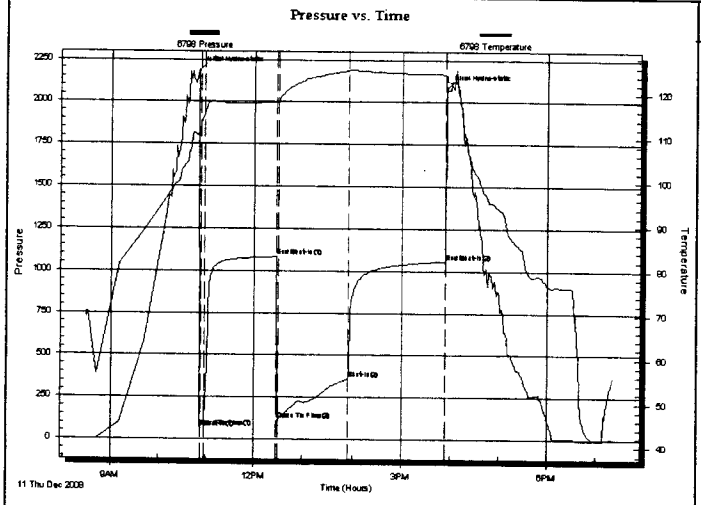
Reference Elevations: 2037.00 ft (KB)
2024.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 361.29 psig @ 4386.00 ft (KB)
Start Date: 2008.12.11 End Date: 2008.12.11
Start Time: 08:28:45 End Time: 19:21:14

Capacity: 7000.00 psig
Last Calib.: 2008.12.11
Time On Btm: 2008.12.11 @ 10:50:44
Time Off Btm: 2008.12.11 @ 15:56:14

TEST COMMENT: IF: Strong blow. BOB in 1 min.
ISI: Strong blow. BOB in 1 min.
FF: Strong blow. BOB in 30 secs. GTS in 9 mins. (see gas flow report)
FSI: Fair blow. BOB in 6 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2182.71	111.03	Initial Hydro-static
2	68.47	113.13	Open To Flow (1)
7	112.93	115.23	Shut-In(1)
96	1081.83	118.00	End Shut-In(1)
99	112.41	118.52	Open To Flow (2)
185	361.29	125.24	Shut-In(2)
304	1057.02	124.46	End Shut-In(2)
306	2084.15	123.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	SMCW 96%w 4%m	0.86
410.00	SW&MCGsyO 50%g 35%o 5%w 10%m	2.09
62.00	HMCGsyO 55%g 25%o 20%m	0.87
315.00	Clean Gsy Oil 4%g 96%o	4.42
0.00	3423' GIP	0.00
0.00	Grav. = 38.5 API @ 40 deg.	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.00	27.60
Last Gas Rate	0.25	16.00	48.23
Max. Gas Rate	0.25	16.00	48.23

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32977 **DST#: 1**

Test Start: 2008.12.11 @ 08:28:44

Tool Information

Drill Pipe:	Length:	3807.00 ft	Diameter:	3.80 inches	Volume:	53.40 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	577.00 ft	Diameter:	2.25 inches	Volume:	2.84 bbl	
					Total Volume:	56.24 bbl	

Drill Pipe Above KB:	22.00 ft
Depth to Top Packer:	4385.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	30.00 ft
Tool Length:	53.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2300.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	95000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	88000.00 lb
Final	92000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			4367.00		
Hydraulic tool	5.00			4372.00		
Safety Joint	3.00			4375.00		
Packer	5.00			4380.00	23.00	Bottom Of Top Packer
Packer	5.00			4385.00		
Stubb	1.00			4386.00		
Recorder	0.00	6798	Inside	4386.00		
Recorder	0.00	8367	Inside	4386.00		
Perforations	26.00			4412.00		
Bullnose	3.00			4415.00	30.00	Bottom Packers & Anchor
Total Tool Length:	**53.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32977 **DST#: 1**

Test Start: 2008.12.11 @ 08:28:44

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	40.5 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	135000 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.56 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
175.00	SMCW 96%w 4%m	0.861
410.00	SW&MCGsyO 50%g 35%o 5%w 10%m	2.089
62.00	HMCGsyO 55%g 25%o 20%m	0.870
315.00	Clean Gsy Oil 4%g 96%o	4.419
0.00	3423' GIP	0.000
0.00	Grav. = 38.5 API @ 40 deg.	0.000
0.00	RW = .090 @ 50.5 deg	0.000

Total Length: 962.00 ft Total Volume: 8.239 bbl

Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: JA-1

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32977 **DST#: 1**

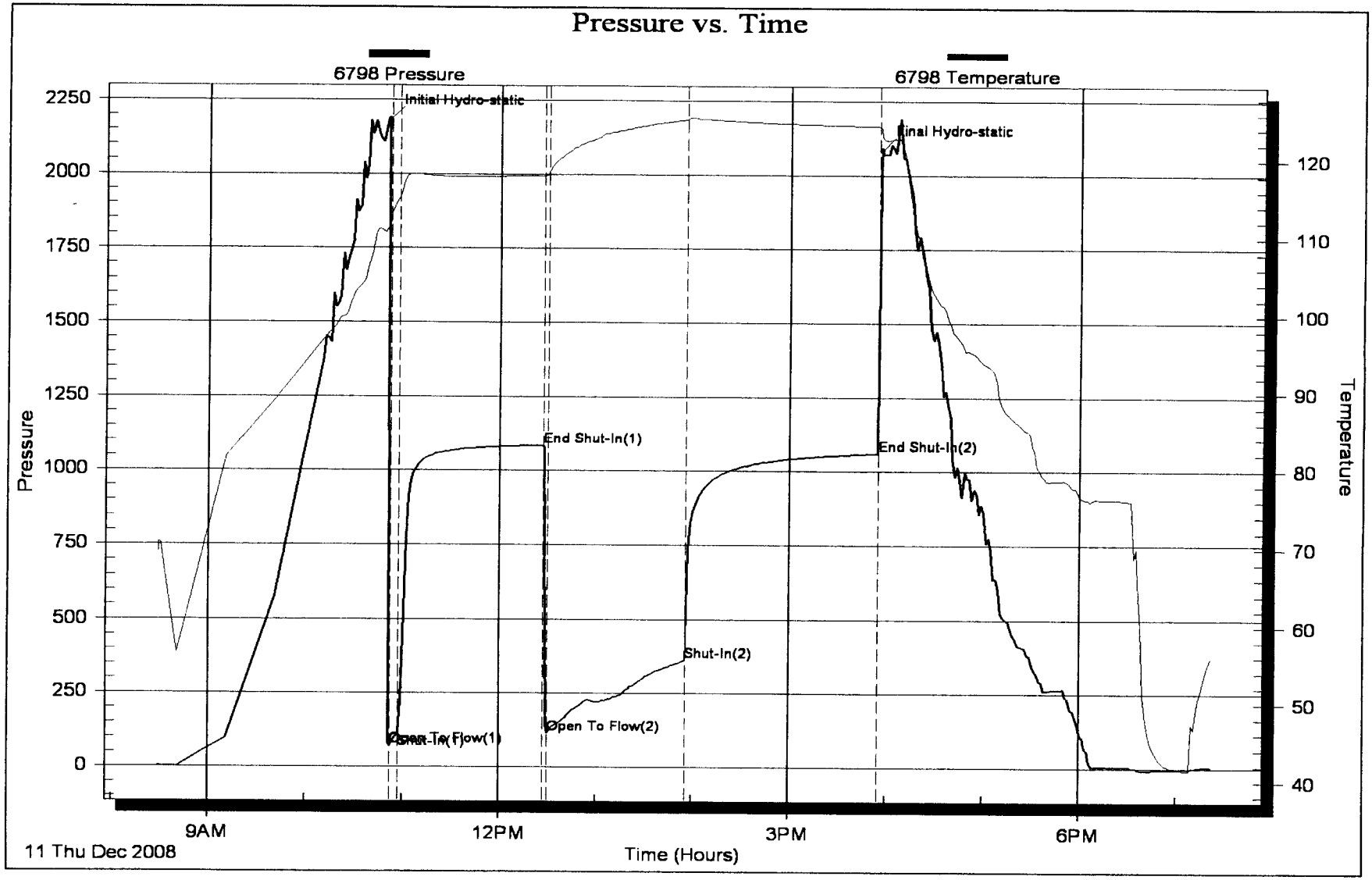
Test Start: 2008.12.11 @ 08:28:44

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	15	0.25	3.00	27.60
2	15	0.25	3.00	27.60
2	20	0.25	5.50	31.57
2	30	0.25	8.00	35.54
2	40	0.25	8.00	35.54
2	50	0.25	9.00	37.12
2	60	0.25	11.00	40.30
2	70	0.25	12.00	41.88
2	80	0.25	15.00	46.64
2	90	0.25	16.00	48.23


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
120
110
100
90
80
70
60
50
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9AM
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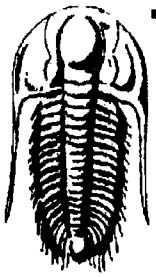
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

18-29s-14w Pratt KS

Stelzer B #1

Start Date: 2008.12.12 @ 09:10:02

End Date: 2008.12.12 @ 17:19:32

Job Ticket #: 32978 DST #: 2

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

DRILL STEM TEST REPORT

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32978 **DST#: 2**

Test Start: 2008.12.12 @ 09:10:02

GENERAL INFORMATION:

Formation: **Ft. Scott/Massey**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:55:02
Time Test Ended: 17:19:32

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

Interval: 4493.00 ft (KB) To 4514.00 ft (KB) (TVD)
Total Depth: 4514.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

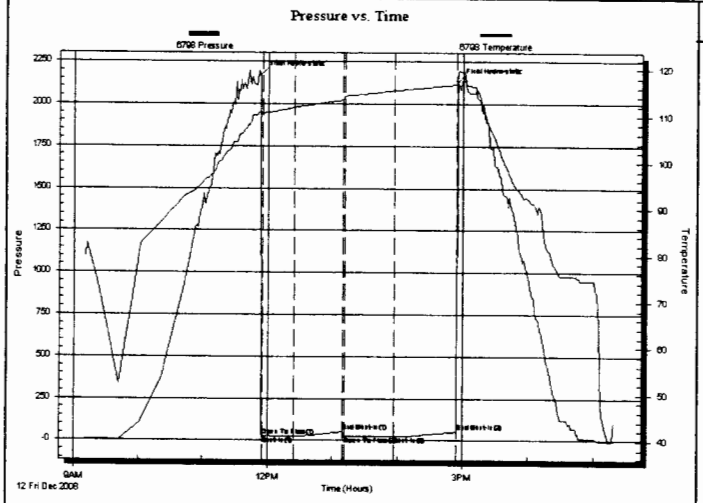
Reference Elevations: 2037.00 ft (KB)
2024.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 24.07 psig @ 4494.00 ft (KB)
Start Date: 2008.12.12 End Date: 2008.12.12
Start Time: 09:10:03 End Time: 17:19:32

Capacity: 7000.00 psig
Last Calib.: 2008.12.12
Time On Btm: 2008.12.12 @ 11:53:02
Time Off Btm: 2008.12.12 @ 14:55:32

TEST COMMENT: IF:Weak blow . Built to 2".
ISI:No blow .
FF:Weak blow . Built to 2". Decreased to 1 1/2".
FSI:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2169.65	110.76	Initial Hydro-static
2	27.46	110.43	Open To Flow (1)
31	26.43	111.80	Shut-In(1)
77	53.26	113.42	End Shut-In(1)
79	25.11	114.27	Open To Flow (2)
124	24.07	115.46	Shut-In(2)
182	51.74	116.75	End Shut-In(2)
183	2133.53	119.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	VSG&OCM 2%g 1%o 97%m	0.02
0.00	50' GIP	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32978 **DST#: 2**

Test Start: 2008.12.12 @ 09:10:02

Tool Information

Drill Pipe:	Length:	4258.00 ft	Diameter:	3.80 inches	Volume:	59.73 bbl	Tool Weight:	2200.00 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:	239.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	Weight to Pull Loose:	88000.00 lb
					Total Volume:	60.91 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		27.00 ft					String Weight: Initial	72000.00 lb
Depth to Top Packer:		4493.00 ft					Final	72000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		21.00 ft						
Tool Length:		44.00 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			4475.00		
Hydraulic tool	5.00			4480.00		
Safety Joint	3.00			4483.00		
Packer	5.00			4488.00	23.00	Bottom Of Top Packer
Packer	5.00			4493.00		
Stubb	1.00			4494.00		
Recorder	0.00	6798	Inside	4494.00		
Recorder	0.00	8367	Inside	4494.00		
Perforations	17.00			4511.00		
Bullnose	3.00			4514.00	21.00	Bottom Packers & Anchor
Total Tool Length:	**44.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32978 **DST#: 2**

Test Start: 2008.12.12 @ 09:10:02

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:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.56 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

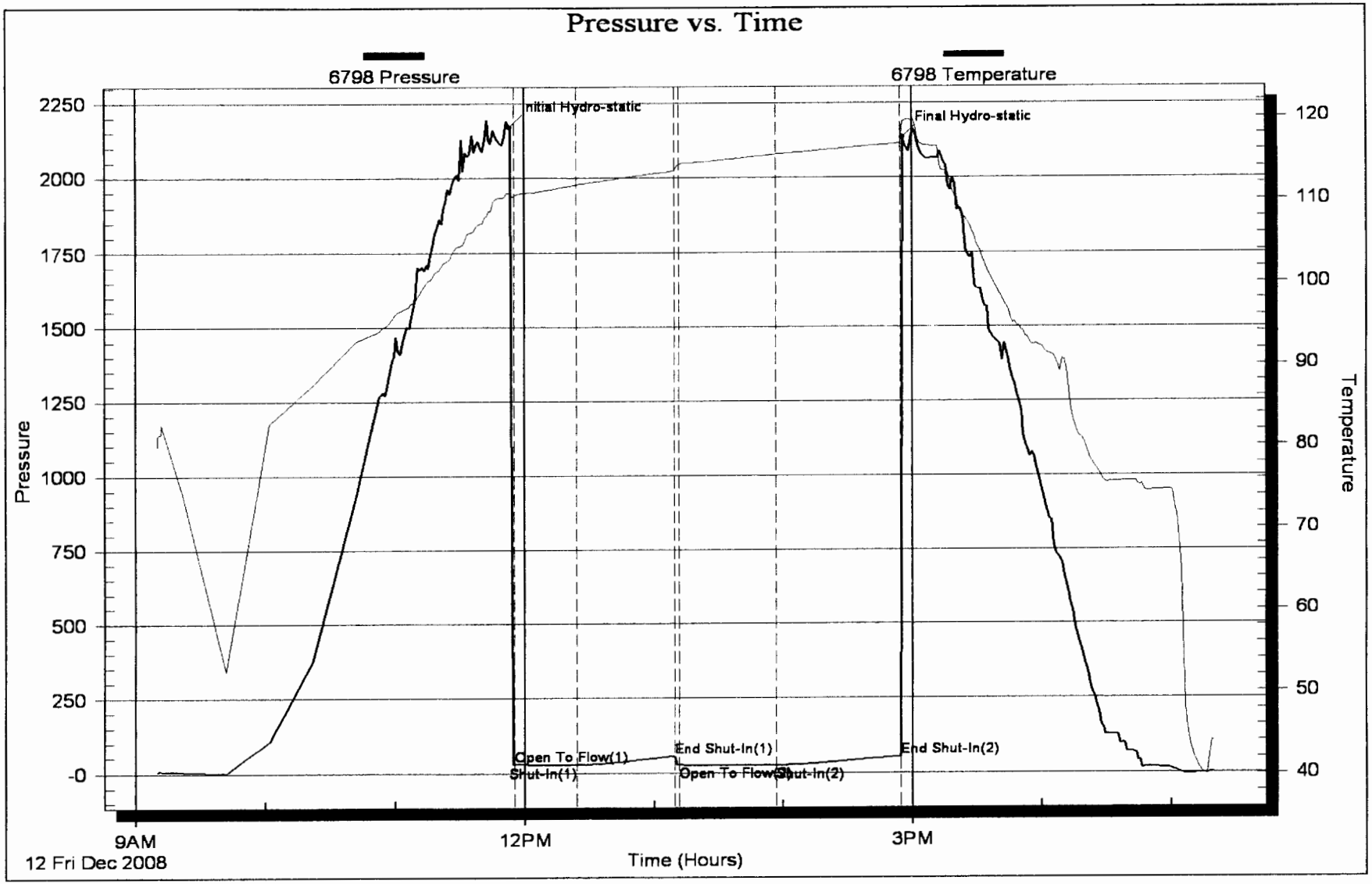
Length ft	Description	Volume bbl
5.00	VSG&OCM 2%g 1%o 97%m	0.025
0.00	50' GIP	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
nitial Hydro-static
Final Hydro-static
Open To Flow(1)
Shut-In(1)
End Shut-In(1)
Open To Flow(2)
End Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
-0
120
110
100
90
80
70
60
50
40
9AM
12 Fri Dec 2008
12PM
3PM
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

18-29s-14w Pratt KS

Stelzer B #1

Start Date: 2008.12.13 @ 11:32:04
End Date: 2008.12.13 @ 19:06:04
Job Ticket #: 32979 DST #: 3

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

DRILL STEM TEST REPORT

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32979 **DST#: 3**

Test Start: 2008.12.13 @ 11:32:04

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:05:04
Time Test Ended: 19:06:04

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

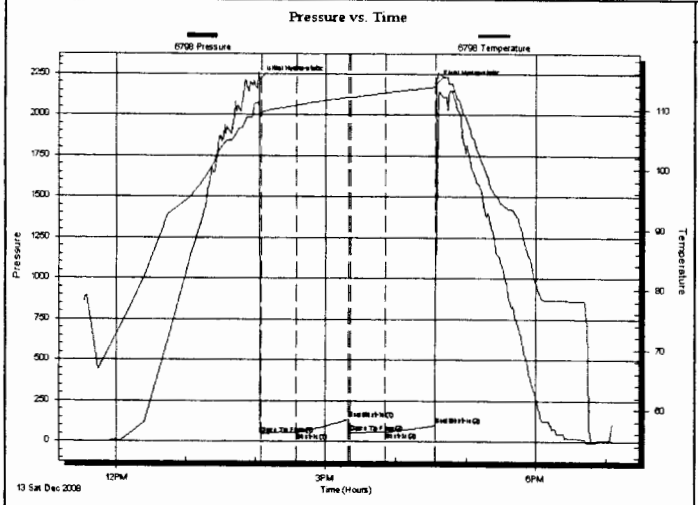
Interval: 4516.00 ft (KB) To 4675.00 ft (KB) (TVD)
Total Depth: 4675.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2037.00 ft (KB)
2024.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 57.88 psig @ 4524.00 ft (KB)
Start Date: 2008.12.13 End Date: 2008.12.13
Start Time: 11:32:05 End Time: 19:06:04

Capacity: 7000.00 psig
Last Calib.: 2008.12.13
Time On Btm: 2008.12.13 @ 14:03:34
Time Off Btm: 2008.12.13 @ 16:34:34

TEST COMMENT: IF:Weak blow . Built to 2 1/2".
ISI:No blow .
FF:Very w eak intermittent surface blow .
FSI:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2213.51	110.04	Initial Hydro-static
2	45.36	109.50	Open To Flow (1)
32	53.86	110.66	Shut-In(1)
77	134.66	111.98	End Shut-In(1)
78	55.49	111.96	Open To Flow (2)
108	57.88	112.73	Shut-In(2)
151	98.34	113.72	End Shut-In(2)
151	2189.22	114.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Drilling Mud 100%m	0.32
0.00	Few oil specks in hydraulic tool	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32979 **DST#: 3**

Test Start: 2008.12.13 @ 11:32:04

Tool Information

Drill Pipe:	Length:	4257.00 ft	Diameter:	3.80 inches	Volume:	59.71 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	239.00 ft	Diameter:	2.25 inches	Volume:	1.18 bbl	
					Total Volume:	60.89 bbl	

Drill Pipe Above KB:	3.00 ft
Depth to Top Packer:	4516.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	159.00 ft
Tool Length:	182.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2400.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	120000.0 lb
Tool Chased	0.00 ft
String Weight: Initial	73000.00 lb
Final	73000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			4498.00		
Hydraulic tool	5.00			4503.00		
Safety Joint	3.00			4506.00		
Packer	5.00			4511.00	23.00	Bottom Of Top Packer
Packer	5.00			4516.00		
Stubb	1.00			4517.00		
Perforations	6.00			4523.00		
Change Over Sub	1.00			4524.00		
Recorder	0.00	6798	Inside	4524.00		
Recorder	0.00	8367	Inside	4524.00		
Blank Spacing	125.00			4649.00		
Change Over Sub	1.00			4650.00		
Perforations	22.00			4672.00		
Bullnose	3.00			4675.00	159.00	Bottom Packers & Anchor
Total Tool Length:	**182.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating Company, LLC

100 S Main, Ste 420
Wichita, Kansas 67202

ATTN: Joe Baker

Stelzer B #1

18-29s-14w Pratt KS

Job Ticket: 32979 **DST#: 3**

Test Start: 2008.12.13 @ 11:32:04

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:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

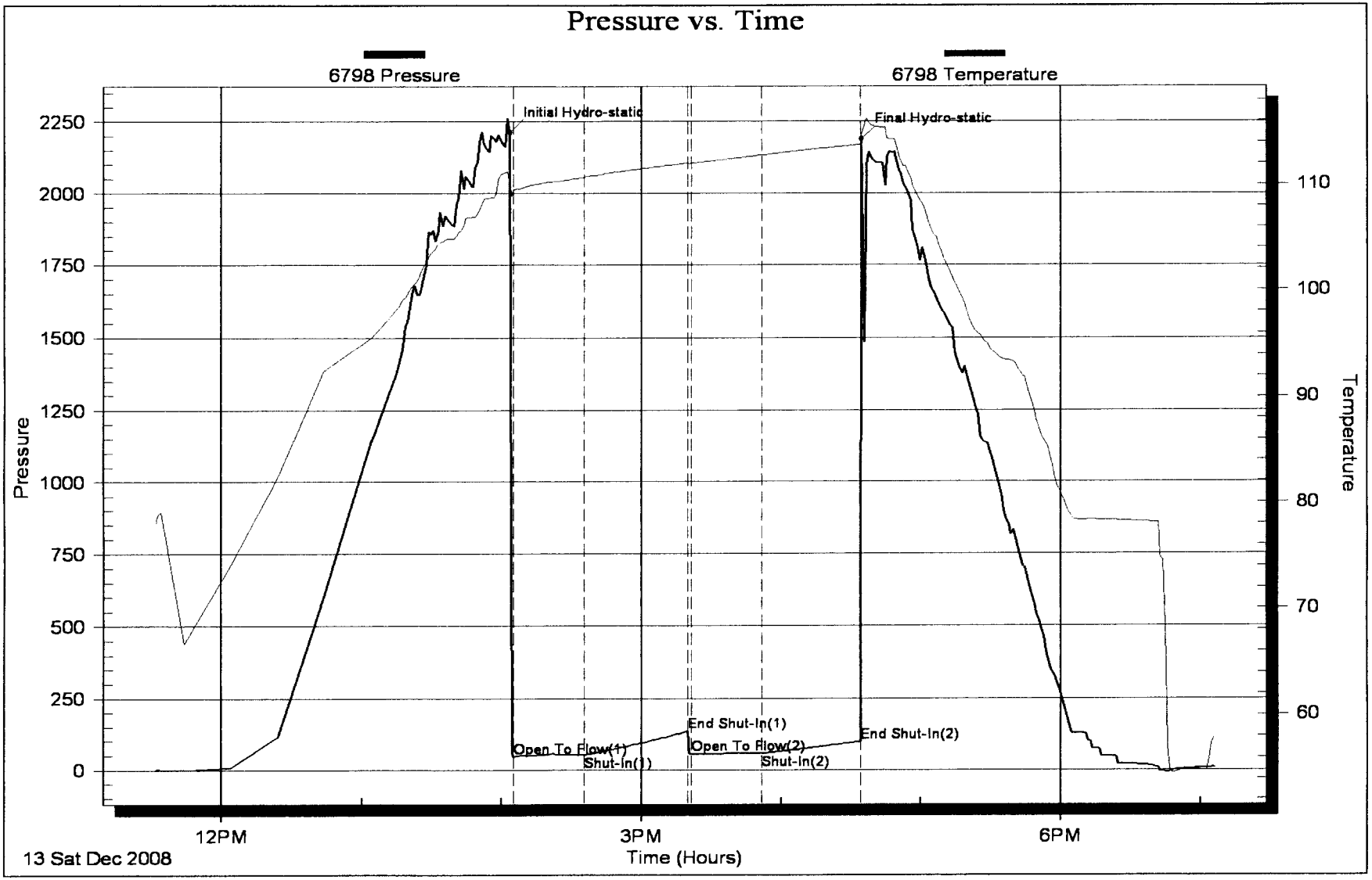
Length ft	Description	Volume bbl
65.00	Drilling Mud 100%m	0.320
0.00	Few oil specks in hydraulic tool	0.000

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
Open To Flow(1)
Shut-In(1)
End Shut-In(1)
Open To Flow(2)
Shut-In(2)
End Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
12PM
3PM
6PM
13 Sat Dec 2008
Time (Hours)