15-163-23814

30-6s-18w

IND

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Brungardt Oil and Leasing Co**

Po Box 871
Russell KS 67665

ATTN: Brad H

30-6-18 Rooks KS

Mayhew #1

Start Date: 2009.09.27 @ 04:59:24
End Date: 2009.09.27 @ 07:18:49
Job Ticket #: 36579 DST #: 1

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

DRILL STEM TEST REPORT

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36579 **DST#: 1**

Test Start: 2009.09.27 @ 04:59:24

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended: 07:18:49

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 47

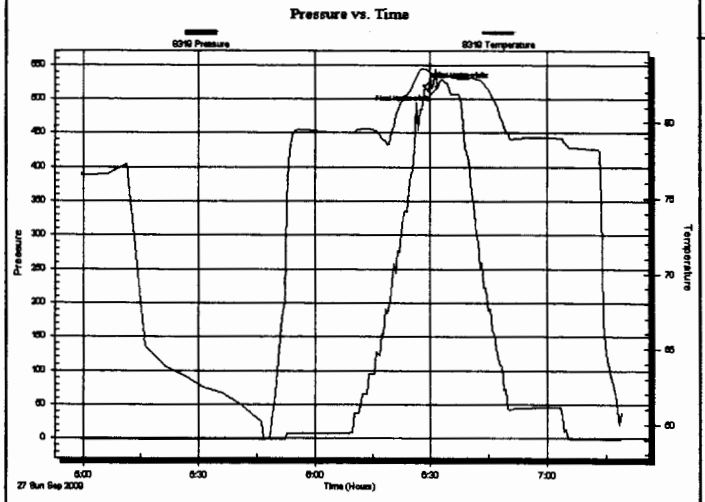
Interval: 3132.00 ft (KB) To 3180.00 ft (KB) (TVD)
Total Depth: 3180.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2031.00 ft (KB)
2026.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8319 **Inside**
Press@RunDepth: psig @ 3136.00 ft (KB)
Start Date: 2009.09.27 End Date: 2009.09.27
Start Time: 04:59:24 End Time: 07:18:49

Capacity: 7000.00 psig
Last Calib.: 2009.09.27
Time On Btm: 2009.09.27 @ 06:28:19
Time Off Btm: 2009.09.27 @ 06:31:49

TEST COMMENT: MISRUN



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	518.52	83.52	Initial Hydro-static
4	517.67	83.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36579 **DST#: 1**

Test Start: 2009.09.27 @ 04:59:24

Tool Information

Drill Pipe:	Length:	2650.00 ft	Diameter:	3.83 inches	Volume:	37.76 bbl	Tool Weight:	2000.00 lb	
Heavy Wt. Pipe:	Length:	462.00 ft	Diameter:	2.25 inches	Volume:	2.27 bbl	Weight set on Packer:		lb
Drill Collar:	Length:	ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		lb
					Total Volume:	40.03 bbl	Tool Chased		ft
Drill Pipe Above KB:		0.00 ft					String Weight:	Initial	lb
Depth to Top Packer:		3132.00 ft						Final	lb
Depth to Bottom Packer:		ft							
Interval between Packers:		48.00 ft							
Tool Length:		68.00 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			3113.00		
Shut In Tool	5.00			3118.00		
Hydraulic tool	5.00			3123.00		
Packer	4.00			3127.00	20.00	Bottom Of Top Packer
Packer	5.00			3132.00		
Stubb	1.00			3133.00		
Perforations	2.00			3135.00		
Change Over Sub	1.00			3136.00		
Recorder	0.00	8319	Inside	3136.00		
Recorder	0.00	8369	Inside	3136.00		
Blank Spacing	30.00			3166.00		
Change Over Sub	1.00			3167.00		
Perforations	10.00			3177.00		
Bullnose	3.00			3180.00	48.00	Bottom Packers & Anchor
Total Tool Length:	**68.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36579 **DST#: 1**

Test Start: 2009.09.27 @ 04:59:24

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:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

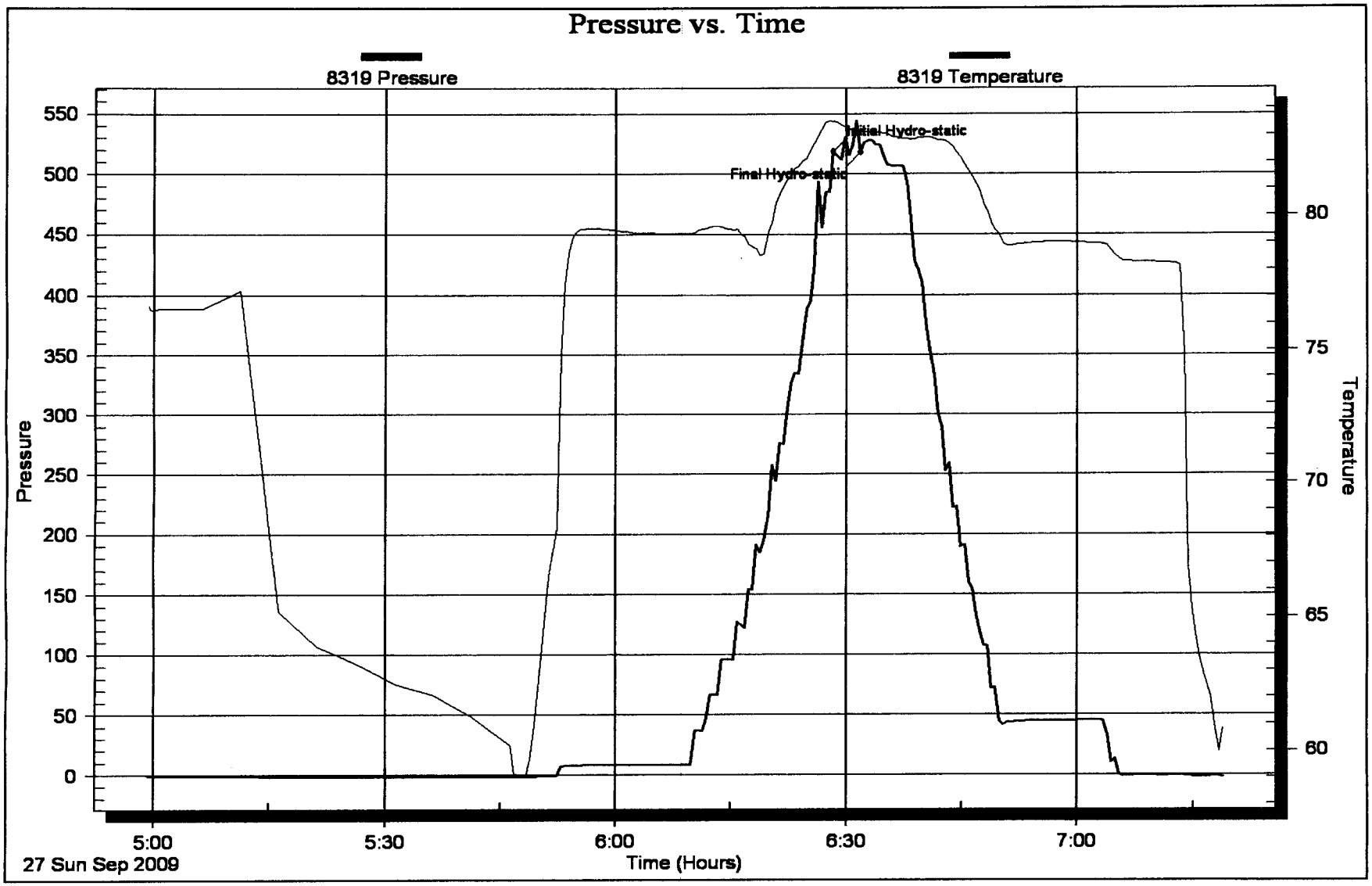
Length ft	Description	Volume bbl

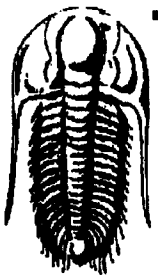
Total Length: ft Total Volume: bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: hit bridge 18 stands in


Pressure vs. Time
8319 Pressure
8319 Temperature
Initial Hydro-static
Final Hydro-static
Pressure
Temperature
550
500
450
400
350
300
250
200
150
100
50
0
80
75
70
65
60
5:00
5:30
6:00
6:30
7:00
27 Sun Sep 2009
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Brungardt Oil and Leasing Co**

Po Box 871
Russell KS 67665

ATTN: Brad H

30-6-18 Rooks KS

Mayhew #1

Start Date: 2009.09.27 @ 12:09:13
End Date: 2009.09.27 @ 17:03:13
Job Ticket #: 36580 DST #: 2

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36580 **DST#: 2**

Test Start: 2009.09.27 @ 12:09:13

GENERAL INFORMATION:

Formation: **Topeka**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:38:43
Time Test Ended: 17:03:13

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 47

Interval: 3132.00 ft (KB) To 3180.00 ft (KB) (TVD)
Total Depth: 3180.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

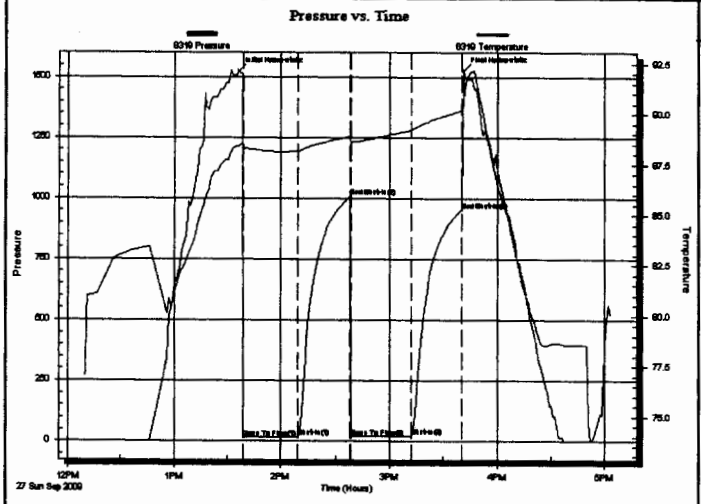
Reference Elevations: 2031.00 ft (KB)
2026.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8319 **Inside**
Press@RunDepth: 22.39 psig @ 3136.00 ft (KB)
Start Date: 2009.09.27 End Date: 2009.09.27
Start Time: 12:09:18 End Time: 17:03:12

Capacity: 7000.00 psig
Last Calib.: 2009.09.27
Time On Btm: 2009.09.27 @ 13:36:13
Time Off Btm: 2009.09.27 @ 15:41:13

TEST COMMENT: IF Weak died 10 min

FF Weak died 5 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1522.40	88.37	Initial Hydro-static
3	13.23	88.23	Open To Flow (1)
33	18.01	88.15	Shut-In(1)
62	1008.23	88.88	End Shut-In(1)
63	18.44	88.43	Open To Flow (2)
96	22.39	89.21	Shut-In(2)
124	953.68	90.16	End Shut-In(2)
125	1525.88	90.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud W/Oil spots	0.05

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36580 **DST#: 2**

Test Start: 2009.09.27 @ 12:09:13

Tool Information

Drill Pipe:	Length:	2664.00 ft	Diameter:	3.83 inches	Volume:	37.96 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	462.00 ft	Diameter:	2.25 inches	Volume:	2.27 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		46000.00 lb
					Total Volume:	40.23 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		14.00 ft					String Weight:	Initial	44000.00 lb
Depth to Top Packer:		3132.00 ft						Final	44000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		48.00 ft							
Tool Length:		68.00 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			3113.00		
Shut In Tool	5.00			3118.00		
Hydraulic tool	5.00			3123.00		
Packer	4.00			3127.00	20.00	Bottom Of Top Packer
Packer	5.00			3132.00		
Stubb	1.00			3133.00		
Perforations	2.00			3135.00		
Change Over Sub	1.00			3136.00		
Recorder	0.00	8319	Inside	3136.00		
Recorder	0.00	8369	Inside	3136.00		
Blank Spacing	30.00			3166.00		
Change Over Sub	1.00			3167.00		
Perforations	10.00			3177.00		
Bullnose	3.00			3180.00	48.00	Bottom Packers & Anchor
Total Tool Length:	**68.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36580 **DST#: 2**

Test Start: 2009.09.27 @ 12:09:13

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:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	inches				

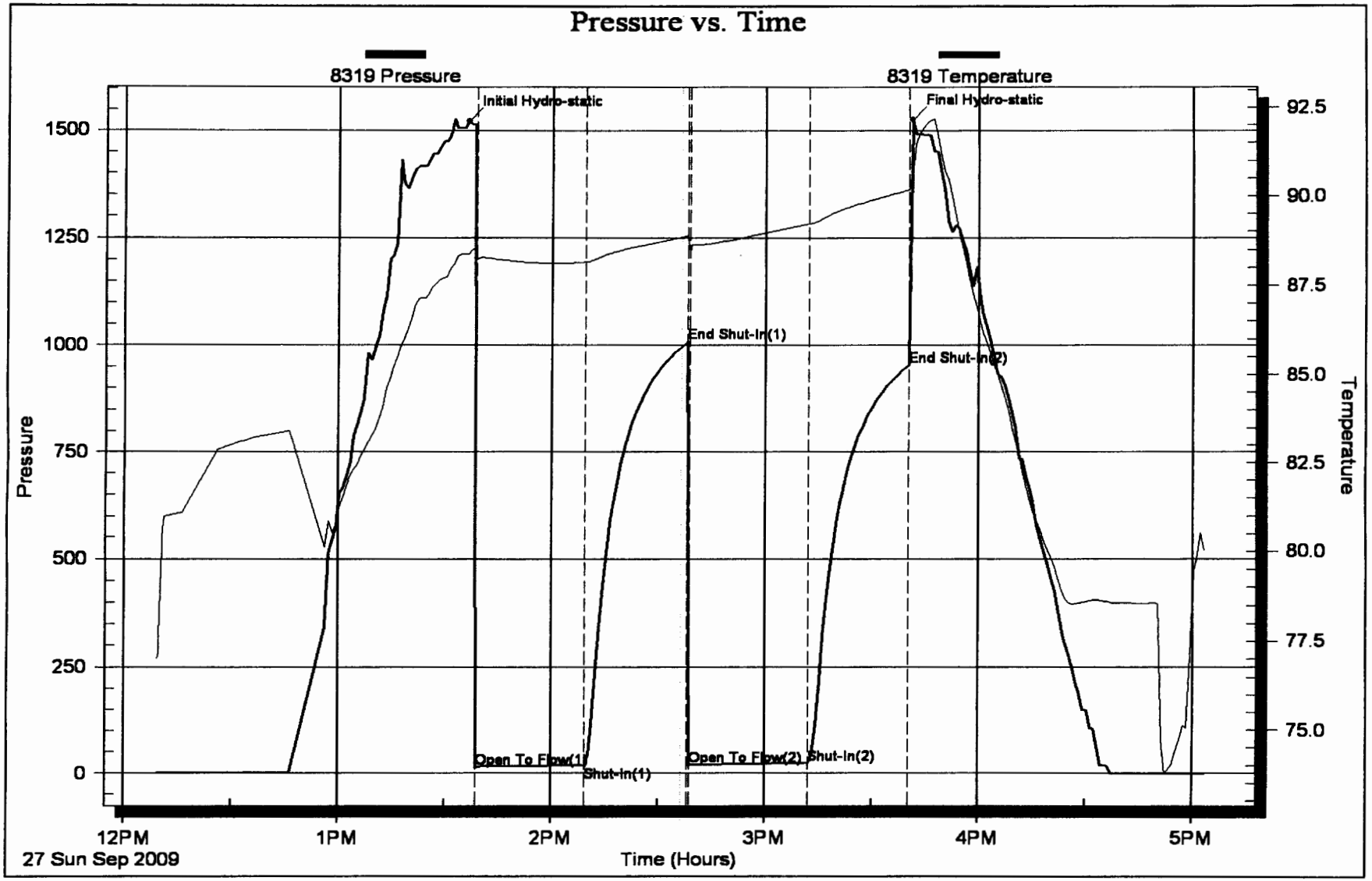
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud W/Oil spots	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8319 Pressure
8319 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
92.5
90.0
87.5
85.0
82.5
80.0
77.5
75.0
12PM
1PM
2PM
3PM
4PM
5PM
27 Sun Sep 2009
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Brungardt Oil and Leasing Co**

Po Box 871
Russell KS 67665

ATTN: Brad H

30-6-18 Rooks KS

Mayhew #1

Start Date: 2009.09.28 @ 14:30:44
End Date: 2009.09.28 @ 19:36:14
Job Ticket #: 36581 DST #: 3

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

DRILL STEM TEST REPORT

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36581 **DST#: 3**

Test Start: 2009.09.28 @ 14:30:44

GENERAL INFORMATION:

Formation: LKC "H-K"
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:01:14
Time Test Ended: 19:36:14

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 47

Interval: 3370.00 ft (KB) To 3460.00 ft (KB) (TVD)
Total Depth: 3460.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2031.00 ft (KB)
2026.00 ft (CF)
KB to GR/CF: 5.00 ft

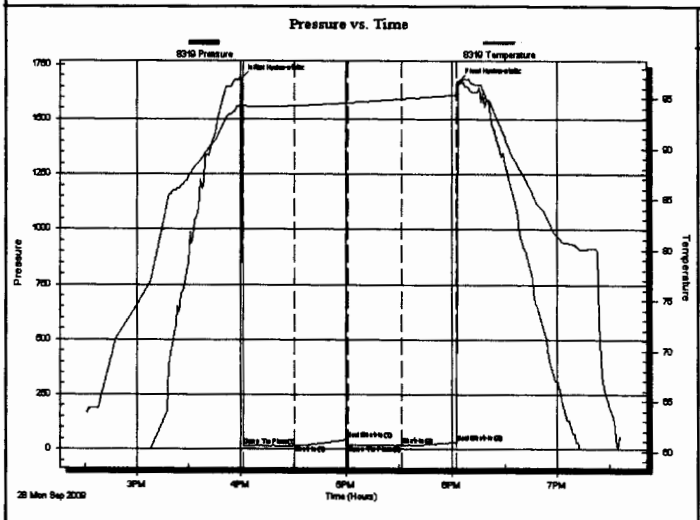
Serial #: 8319 **Inside**

Press@RunDepth: 16.43 psig @ 3374.00 ft (KB)
Start Date: 2009.09.28 End Date: 2009.09.28
Start Time: 14:30:49 End Time: 19:36:13

Capacity: 7000.00 psig
Last Calib.: 2009.09.28
Time On Btm: 2009.09.28 @ 16:00:14
Time Off Btm: 2009.09.28 @ 18:03:44

TEST COMMENT: IF 1/4" died 10 min

FF No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1683.85	94.50	Initial Hydro-static
1	14.43	94.12	Open To Flow (1)
31	15.90	94.22	Shut-In(1)
61	43.54	94.53	End Shut-In(1)
61	16.16	94.53	Open To Flow (2)
92	16.43	94.92	Shut-In(2)
123	31.59	95.34	End Shut-In(2)
124	1669.61	96.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud	0.05

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36581 **DST#: 3**

Test Start: 2009.09.28 @ 14:30:44

Tool Information

Drill Pipe:	Length:	2908.00 ft	Diameter:	3.83 inches	Volume:	41.44 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	462.00 ft	Diameter:	2.25 inches	Volume:	2.27 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	56000.00 lb
					Total Volume:	43.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight: Initial	53000.00 lb
Depth to Top Packer:		3370.00 ft					Final	53000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		90.00 ft						
Tool Length:		110.00 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			3351.00		
Shut In Tool	5.00			3356.00		
Hydraulic tool	5.00			3361.00		
Packer	4.00			3365.00	20.00	Bottom Of Top Packer
Packer	5.00			3370.00		
Stubb	1.00			3371.00		
Perforations	2.00			3373.00		
Change Over Sub	1.00			3374.00		
Recorder	0.00	8319	Inside	3374.00		
Recorder	0.00	8369	Inside	3374.00		
Blank Spacing	62.00			3436.00		
Change Over Sub	1.00			3437.00		
Perforations	20.00			3457.00		
Bullnose	3.00			3460.00	90.00	Bottom Packers & Anchor
Total Tool Length:	**110.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Brungardt Oil and Leasing Co

Po Box 871
Russell KS 67665

ATTN: Brad H

Mayhew #1

30-6-18 Rooks KS

Job Ticket: 36581 **DST#: 3**

Test Start: 2009.09.28 @ 14:30:44

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:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	900.00 ppm				
Filter Cake:	inches				

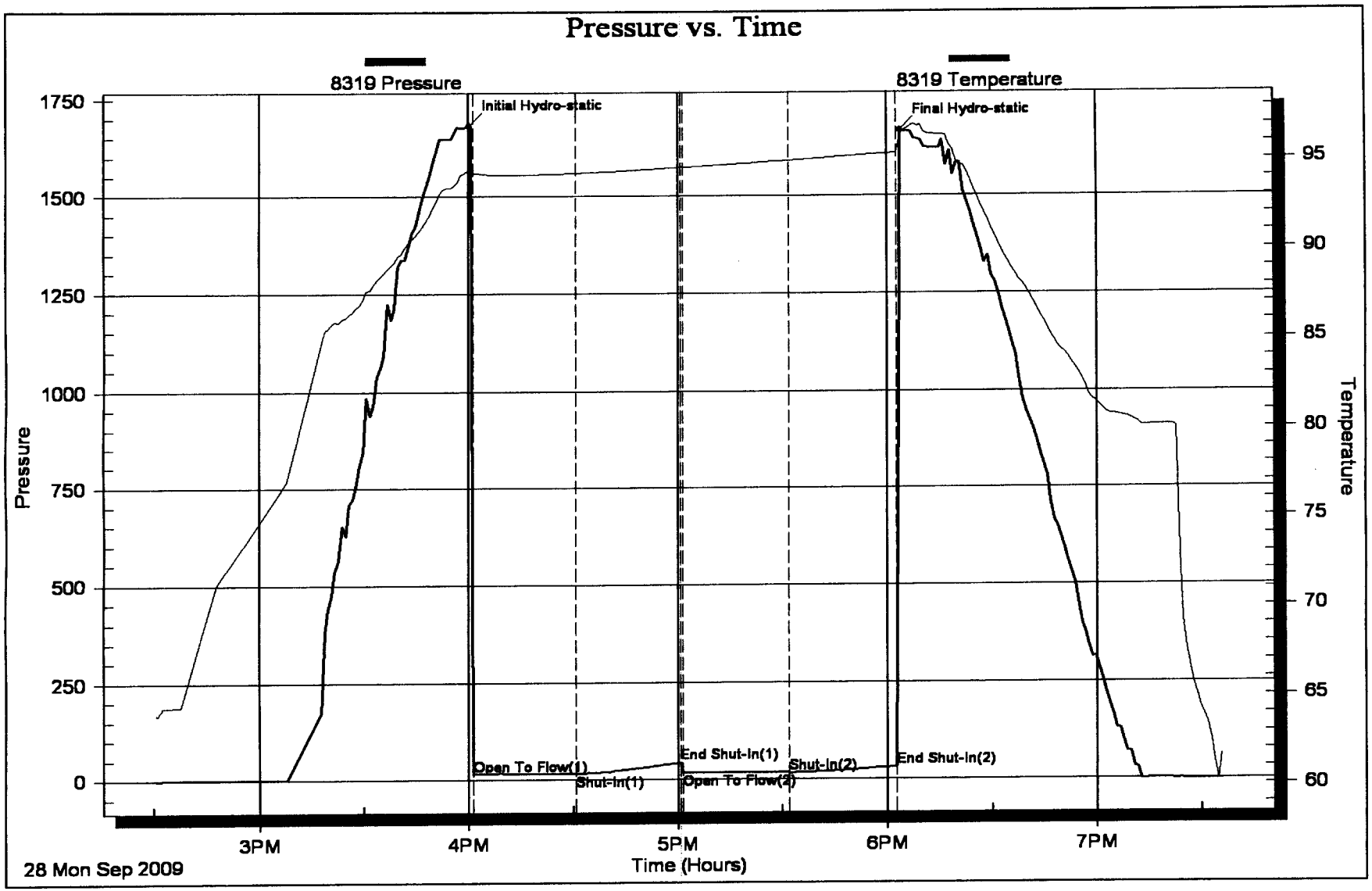
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
8319 Pressure
8319 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
1750
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
60
3PM
4PM
5PM
6PM
7PM
Time (Hours)
28 Mon Sep 2009