15-039-21064 8-3s-26w

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

8 3S 26W Decatur KS

Hix # 1-8

Start Date: 2008.07.12 @ 04:44:32
End Date: 2008.07.12 @ 12:07:02
Job Ticket #: 32418 DST #: 1

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WICHITA, KS

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

DRILL STEM TEST REPORT

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32418 **DST#: 1**

Test Start: 2008.07.12 @ 04:44:32

GENERAL INFORMATION:

Formation: **Tor- LKC "A-B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:13:32
Time Test Ended: 12:07:02

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 31

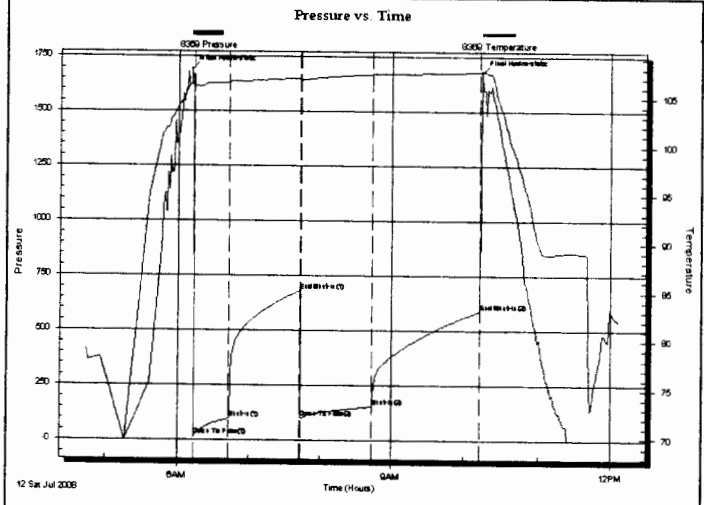
Interval: 3449.00 ft (KB) To 3522.00 ft (KB) (TVD)
Total Depth: 3522.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2559.00 ft (KB)
2554.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**
Press@RunDepth: 154.08 psig @ 3453.00 ft (KB)
Start Date: 2008.07.12 End Date: 2008.07.12
Start Time: 04:44:37 End Time: 12:07:01

Capacity: 7000.00 psig
Last Calib.: 2008.07.12
Time On Btm: 2008.07.12 @ 06:11:32
Time Off Btm: 2008.07.12 @ 10:14:02

TEST COMMENT: IF 1/2 " Built to 7 3/4 "
FF Surface in 7 min built to 1/2 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.88	106.37	Initial Hydro-static
2	18.95	106.20	Open To Flow (1)
31	96.03	106.54	Shut-In(1)
91	680.64	106.97	End Shut-In(1)
92	101.47	106.78	Open To Flow (2)
152	154.08	107.41	Shut-In(2)
242	590.62	107.63	End Shut-In(2)
243	1677.18	107.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	HMCW 30%W 70%M	0.07
90.00	HWCM 60%W 40%M	0.44
90.00	HWCM 55%W 45%M	0.44
95.00	100%M	0.47

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32418 **DST#: 1**

Test Start: 2008.07.12 @ 04:44:32

Tool Information

Drill Pipe:	Length:	2882.00 ft	Diameter:	3.82 inches	Volume:	40.85 bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	550.00 ft	Diameter:	2.25 inches	Volume:	2.70 bbl	
					Total Volume:	43.55 bbl	

Drill Pipe Above KB:	6.00 ft
Depth to Top Packer:	3449.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	73.00 ft
Tool Length:	96.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	93000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	80000.00 lb
Final	81000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3427.00		
Shut In Tool	5.00			3432.00		
Hydraulic tool	5.00			3437.00		
Safety Joint	3.00			3440.00		
Packer	4.00			3444.00	23.00	Bottom Of Top Packer
Packer	5.00			3449.00		
Stubb	1.00			3450.00		
Perforations	2.00			3452.00		
Change Over Sub	1.00			3453.00		
Recorder	0.00	8369	Outside	3453.00		
Recorder	0.00	6669	Inside	3453.00		
Blank Spacing	61.00			3514.00		
Change Over Sub	1.00			3515.00		
Perforations	4.00			3519.00		
Bullnose	3.00			3522.00	73.00	Bottom Packers & Anchor
Total Tool Length:	**96.00**					

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32418 **DST#: 1**

Test Start: 2008.07.12 @ 04:44:32

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:	23000 ppm
Viscosity:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

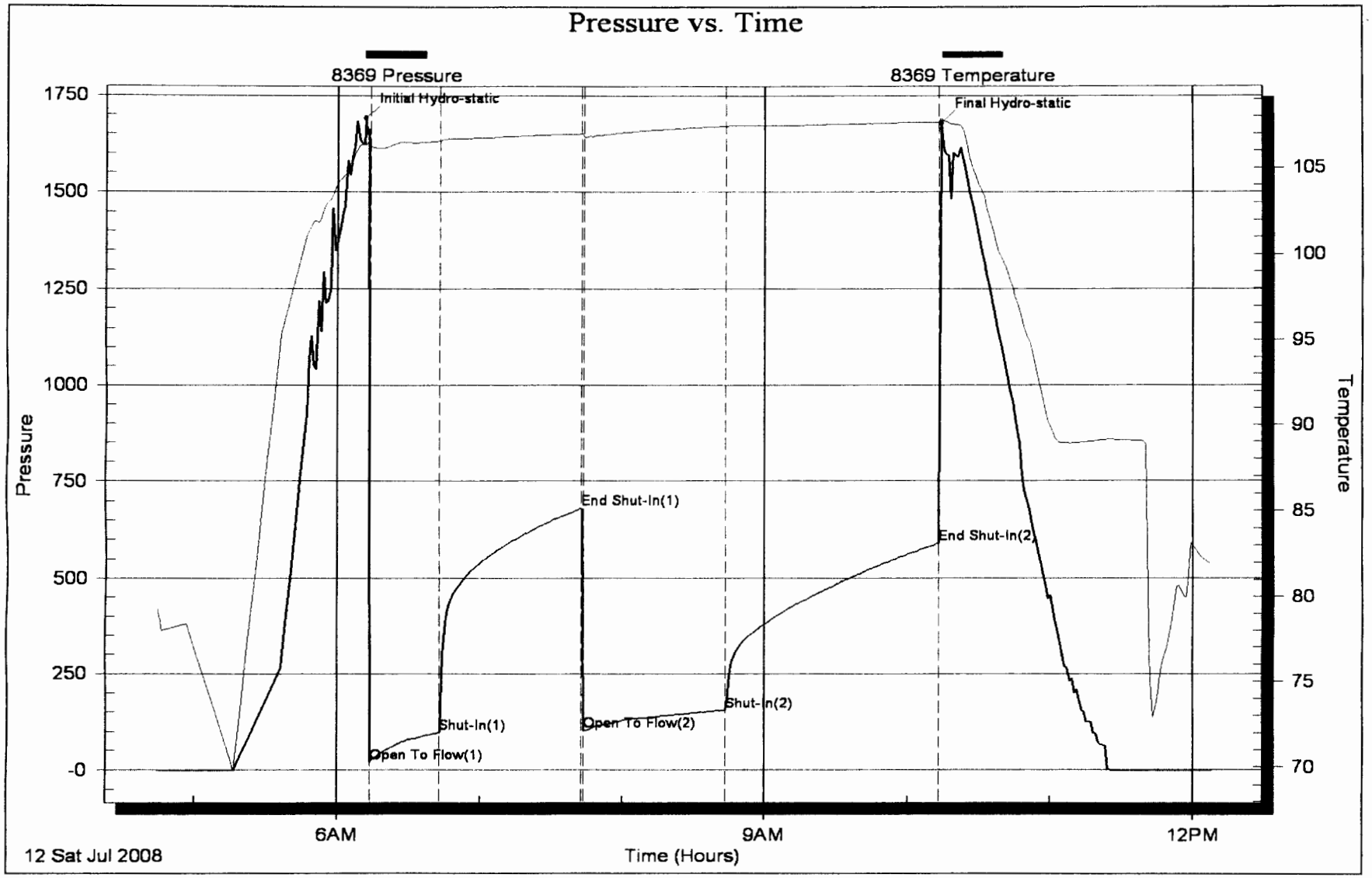
Length ft	Description	Volume bbl
15.00	HMCW 30%W 70%M	0.074
90.00	HWCM 60%W 40%M	0.443
90.00	HWCM 55%W 45%M	0.443
95.00	100%M	0.467

Total Length: 290.00 ft Total Volume: 1.427 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .35 @ 60 deg



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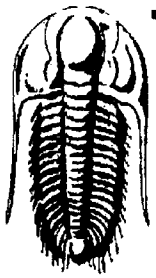

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

8 3S 26W Decatur KS

Hix # 1-8

Start Date: 2008.07.12 @ 19:51:56
End Date: 2008.07.13 @ 03:20:56
Job Ticket #: 32419 DST #: 2

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

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DRILL STEM TEST REPORT

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32419 **DST#: 2**

Test Start: 2008.07.12 @ 19:51:56

GENERAL INFORMATION:

Formation: **LKC "D-G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:16:56
Time Test Ended: 03:20:56

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 31

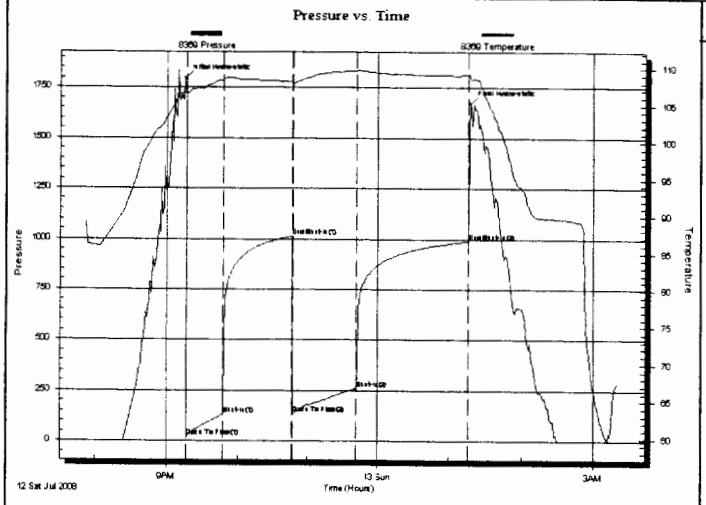
Interval: 3530.00 ft (KB) To 3585.00 ft (KB) (TVD)
Total Depth: 3585.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2559.00 ft (KB)
2554.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**
Press@RunDepth: 259.59 psig @ 3534.00 ft (KB)
Start Date: 2008.07.12 End Date: 2008.07.13
Start Time: 19:52:01 End Time: 03:20:55

Capacity: 7000.00 psig
Last Calib.: 2008.07.13
Time On Btm: 2008.07.12 @ 21:15:26
Time Off Btm: 2008.07.13 @ 01:17:26

TEST COMMENT: IF Surface building to BOB 23 min
FF Surface in 5 min building to 3 1/2 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.75	106.70	Initial Hydro-static
2	18.99	106.55	Open To Flow (1)
32	130.24	108.44	Shut-In(1)
91	1011.61	108.22	End Shut-In(1)
92	134.97	107.92	Open To Flow (2)
147	259.59	109.69	Shut-In(2)
241	988.66	109.06	End Shut-In(2)
242	1670.54	108.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	HWCM 50%W 50%M	0.10
105.00	Water 100%W	0.52
305.00	MCWscumO 90%W 10%M	1.50
90.00	OWCM 3%O 17%W 80%M	0.44

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32419 **DST#: 2**

Test Start: 2008.07.12 @ 19:51:56

Tool Information

Drill Pipe:	Length:	2976.00 ft	Diameter:	3.82 inches	Volume:	42.19 bbl	
Heavy Wt. Pipe:	Length:	ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	550.00 ft	Diameter:	2.25 inches	Volume:	2.70 bbl	
					Total Volume:	44.89 bbl	

Drill Pipe Above KB:	19.00 ft
Depth to Top Packer:	3530.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	55.00 ft
Tool Length:	78.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	86000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	82000.00 lb
Final	83000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3508.00		
Shut In Tool	5.00			3513.00		
Hydraulic tool	5.00			3518.00		
Safety Joint	3.00			3521.00		
Packer	4.00			3525.00	23.00	Bottom Of Top Packer
Packer	5.00			3530.00		
Stubb	1.00			3531.00		
Perforations	2.00			3533.00		
Change Over Sub	1.00			3534.00		
Recorder	0.00	8369	Outside	3534.00		
Recorder	0.00	6669	Inside	3534.00		
Blank Spacing	32.00			3566.00		
Change Over Sub	1.00			3567.00		
Perforations	15.00			3582.00		
Bullnose	3.00			3585.00	55.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32419 **DST#: 2**

Test Start: 2008.07.12 @ 19:51:56

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:	70000 ppm
Viscosity:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.38 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

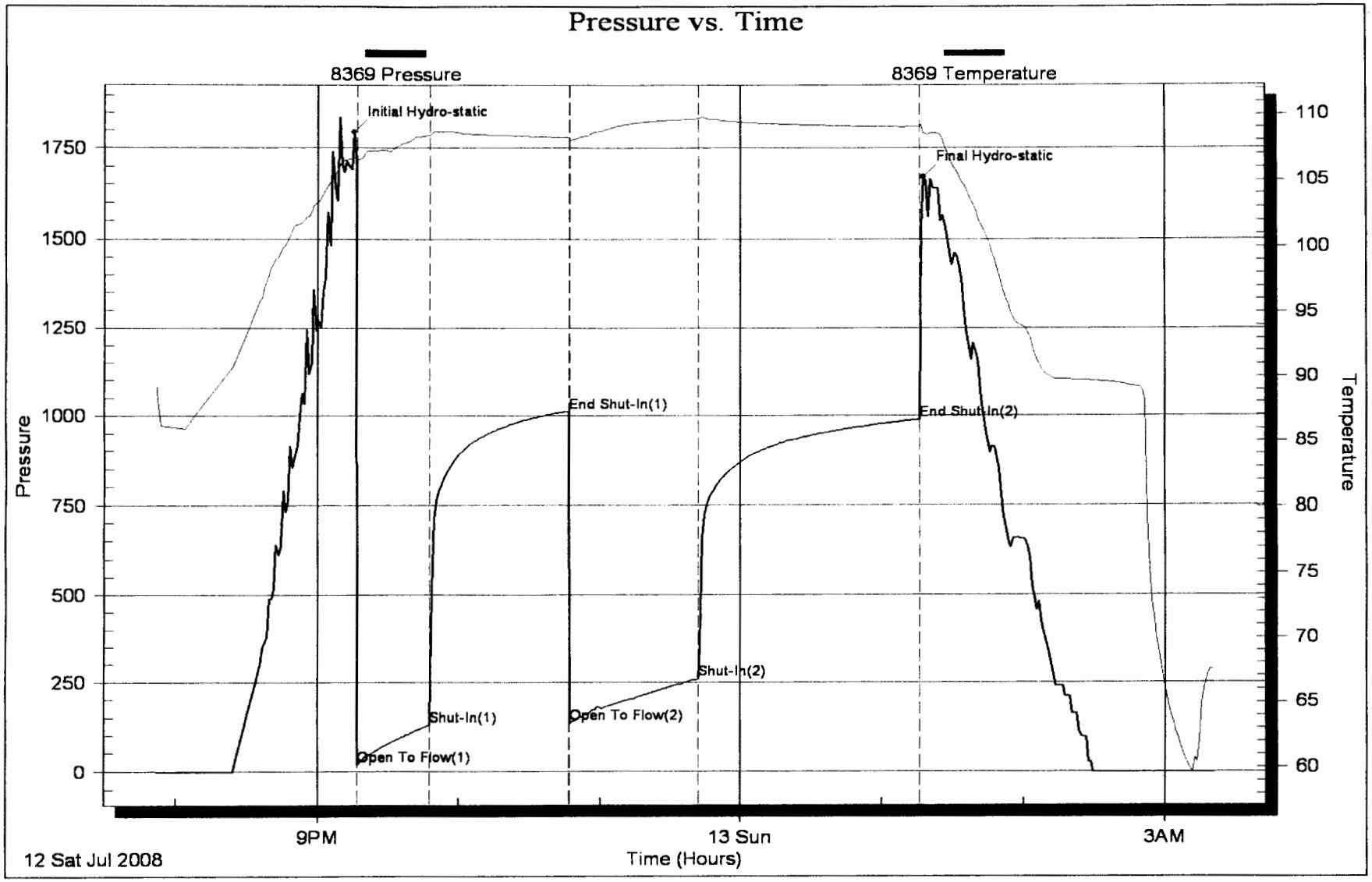
Length ft	Description	Volume bbl
20.00	HWCM 50%W 50%M	0.098
105.00	Water 100%W	0.516
305.00	MCWscumO 90%W 10%M	1.500
90.00	OWCM 3%O 17%W 80%M	0.443

Total Length: 520.00 ft Total Volume: 2.557 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .13 @ 60 deg



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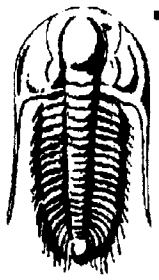

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

8 3S 26W Decatur KS

Hix # 1-8

Start Date: 2008.07.13 @ 13:22:05
End Date: 2008.07.13 @ 19:29:35
Job Ticket #: 32420 DST #: 3

Trilobite Testing, Inc
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DRILL STEM TEST REPORT

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32420 **DST#: 3**

Test Start: 2008.07.13 @ 13:22:05

GENERAL INFORMATION:

Formation: **LKC "H-K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:01:05
Time Test Ended: 19:29:35

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 31

Interval: 3586.00 ft (KB) To 3670.00 ft (KB) (TVD)
Total Depth: 3670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

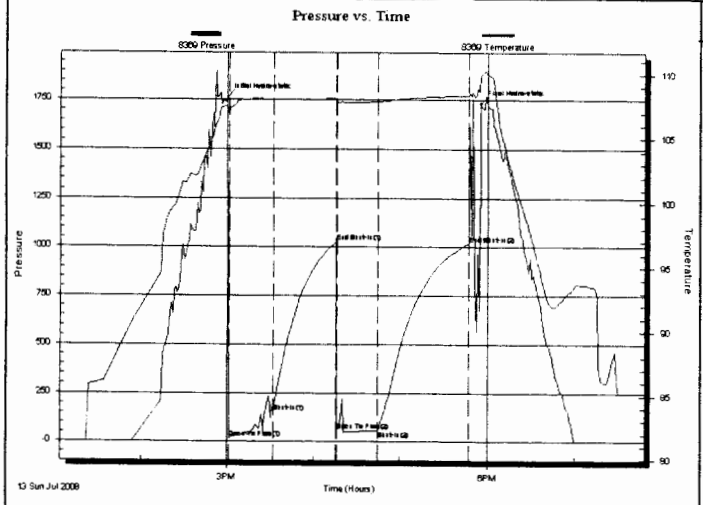
Reference Elevations: 2559.00 ft (KB)
2554.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8369 **Outside**

Press@RunDepth: 57.59 psig @ 3590.00 ft (KB)
Start Date: 2008.07.13 End Date: 2008.07.13
Start Time: 13:22:10 End Time: 19:29:34

Capacity: 7000.00 psig
Last Calib.: 2008.07.13
Time On Btm: 2008.07.13 @ 15:00:05
Time Off Btm: 2008.07.13 @ 17:55:05

TEST COMMENT: IF Weak blow to 1 " died back to 1/2 "
FF Weak surface 10 30 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.00	107.58	Initial Hydro-static
1	18.52	106.79	Open To Flow (1)
32	148.06	108.02	Shut-In(1)
76	1025.64	108.07	End Shut-In(1)
77	54.33	107.81	Open To Flow (2)
105	57.59	107.87	Shut-In(2)
167	1018.21	108.35	End Shut-In(2)
175	1732.14	109.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	HWCM 60%W 40%M	0.22
45.00	Mud	0.22

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32420 **DST#: 3**

Test Start: 2008.07.13 @ 13:22:05

Tool Information

Drill Pipe:	Length:	3039.00 ft	Diameter:	3.82	inches	Volume:	43.08 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	0.00	inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	550.00 ft	Diameter:	2.25	inches	Volume:	2.70 bbl	Weight to Pull Loose:	130000.0 lb
						Total Volume:	45.78 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		26.00 ft						String Weight: Initial	83000.00 lb
Depth to Top Packer:		3586.00 ft						Final	83000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		84.00 ft							
Tool Length:		107.00 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			3564.00		
Shut In Tool	5.00			3569.00		
Hydraulic tool	5.00			3574.00		
Safety Joint	3.00			3577.00		
Packer	4.00			3581.00	23.00	Bottom Of Top Packer
Packer	5.00			3586.00		
Stubb	1.00			3587.00		
Perforations	2.00			3589.00		
Change Over Sub	1.00			3590.00		
Recorder	0.00	8369	Outside	3590.00		
Recorder	0.00	6669	Inside	3590.00		
Blank Spacing	61.00			3651.00		
Change Over Sub	1.00			3652.00		
Perforations	15.00			3667.00		
Bullnose	3.00			3670.00	84.00	Bottom Packers & Anchor
Total Tool Length:	**107.00**					

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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

250 N Water Ste 300
Wichita KS 67202

ATTN: Paul G

Hix # 1-8

8 3S 26W Decatur KS

Job Ticket: 32420 **DST#: 3**

Test Start: 2008.07.13 @ 13:22:05

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:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	inches				

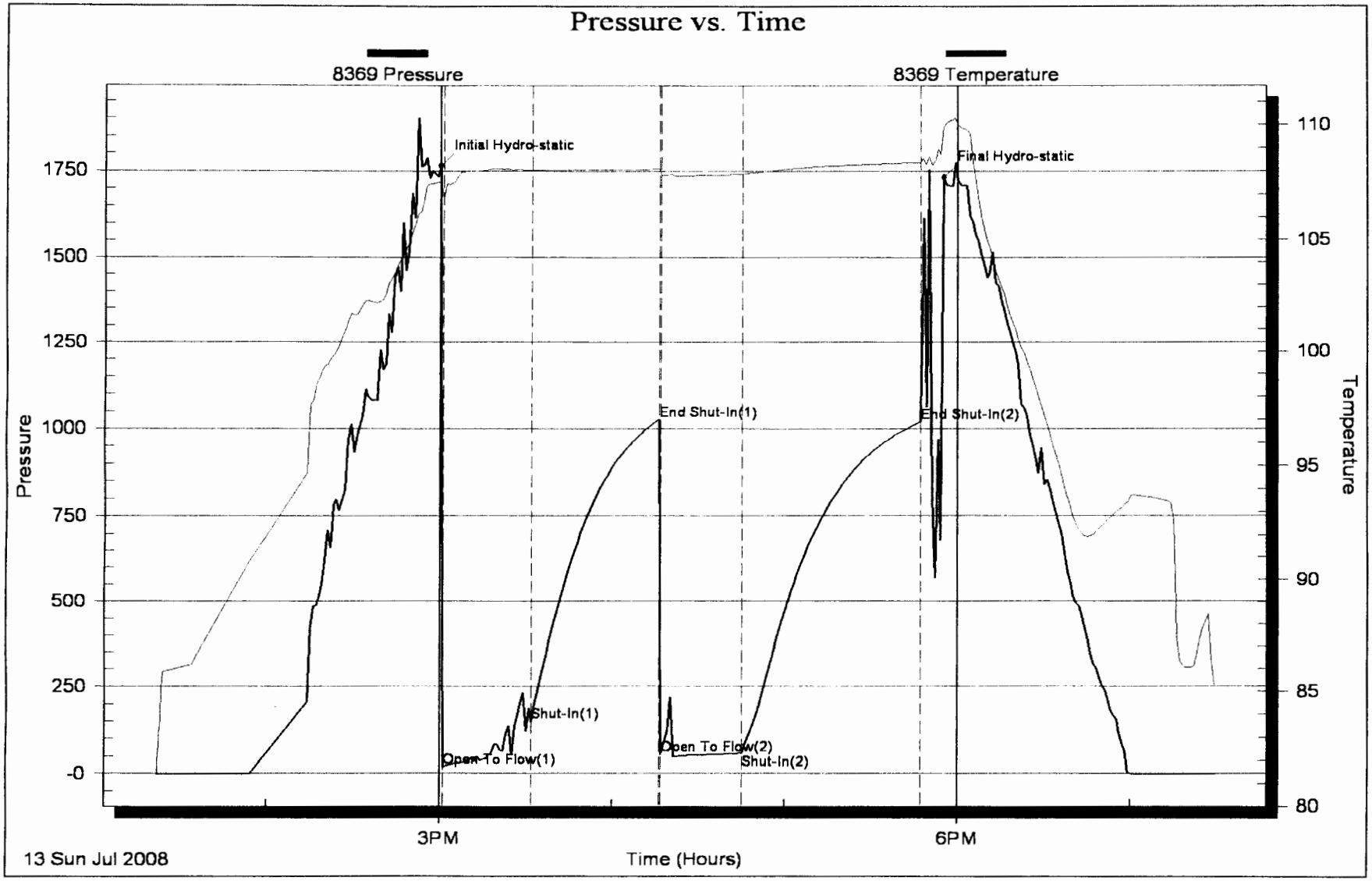
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	HWCM 60%W 40%M	0.221
45.00	Mud	0.221

Total Length: 90.00 ft Total Volume: 0.442 bbl

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



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