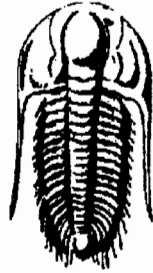


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DRILL STEM TEST REPORT

CONFIDENTIAL
Murfin Drilling Co Inc

250 N Water
Suite 300
Wichita KS 67202

ORIGINAL
KCC

ATTN: Scott Robinson

AUG 09 2002

25-11s-20w Ellis Ks

CONFIDENTIAL

Western Star #1-25

Start Date: 2002.07.01 @ 15:01:28

End Date: 2002.07.01 @ 22:11:57

Job Ticket #: 16045 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Murfin Drilling Co Inc

Western Star #1-25

25-11s-20w Ellis Ks

DST # 1

LKC "C&D"

2002.07.01

CONFIDENTIAL

99588
ORIGINAL



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

Western Star #1-25
25-11s-20w Ellis Ks
Job Ticket: 16045 **DST#: 1**
Test Start: 2002.07.01 @ 15:01:28

GENERAL INFORMATION:

Formation: **LKC "C&D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:45:27
Time Test Ended: 22:11:57

Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 16

KCC

AUG 09 2002

Interval: **3336.00 ft (KB) To 3380.00 ft (KB) (TVD)**
Total Depth: 3380.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Good

Reference Elevations: 2029.00 ft (KB)
2024.00 ft (CF)
KB to GR/CF: 5.00 ft

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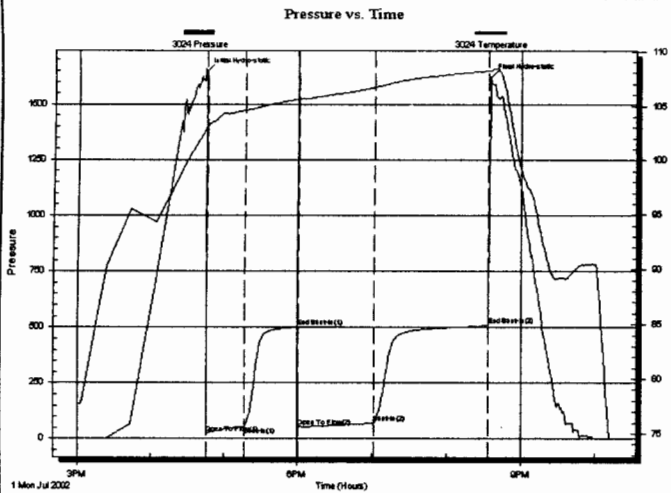
Serial #: 3024

Inside

Press@RunDepth: 71.24 psig @ 3337.01 ft (KB)
Start Date: 2002.07.01 End Date: 2002.07.01
Start Time: 15:01:28 End Time: 22:11:57

Capacity: 7000.00 psig
Last Calib.: 2002.07.01
Time On Btm: 2002.07.01 @ 16:44:57
Time Off Btm: 2002.07.01 @ 20:34:57

TEST COMMENT: IFP-weak blow thru-out 1/4"to 2"blow
FFP-weak blow thru-out 1/2"to 2 1/2"blow
Times 30-45-60-90
weak blow on shut-in 1/4"blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1644.42	103.00	Initial Hydro-static
1	21.90	103.14	Open To Flow (1)
32	52.20	104.61	Shut-in(1)
75	501.19	105.64	End Shut-in(1)
76	53.94	105.66	Open To Flow (2)
137	71.24	106.72	Shut-in(2)
229	509.70	108.21	End Shut-in(2)
230	1617.71	108.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	HO&GCM 5%gas 40%oil 55%mud	0.44
60.00	Clean Oil	0.84

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks
Job Ticket: 16045 **DST#: 1**
Test Start: 2002.07.01 @ 15:01:28

Tool Information

Drill Pipe:	Length: 3233.00 ft	Diameter: 3.80 inches	Volume: 45.35 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 45.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	3336.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.02 ft			
Tool Length:	67.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

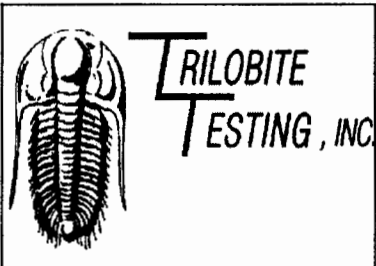
Tool Comments:

16045
AUG 12 2002
KOC WICHITA

Tool Description Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3314.00	
Shut In Tool	5.00			3319.00	
Hydraulic tool	5.00			3324.00	
Safety Joint	2.00			3326.00	
Packer	5.00			3331.00	23.00 Bottom Of Top Packer
Packer	5.00			3336.00	
Stubb	1.00			3337.00	
Recorder	0.01	3024	Inside	3337.01	
Perforations	40.00			3377.01	
Recorder	0.01	11085	Outside	3377.02	
Bullnose	3.00			3380.02	44.02 Bottom Packers & Anchor

Total Tool Length: 67.02



DRILL STEM TEST REPORT	FLUID SUMMARY
Murfin Drilling Co Inc 250 N Water Suite 300 Wichita KS 67202 ATTN: Scott Robinson	Western Star #1-25 25-11s-20w Ellis Ks Job Ticket: 16045 DST#: 1 Test Start: 2002.07.01 @ 15:01:28

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.53 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4200.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

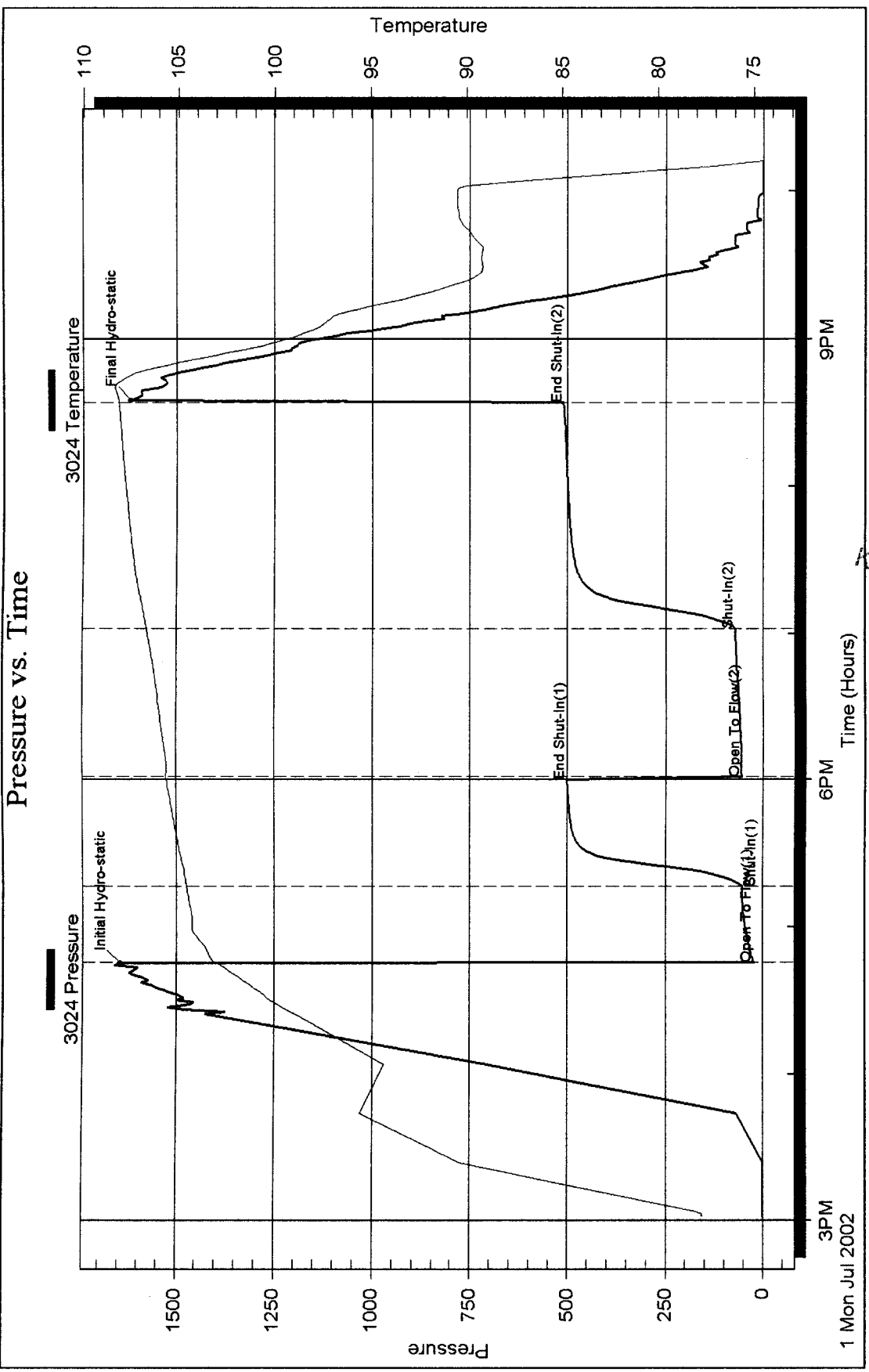
Length ft	Description	Volume bbl
90.00	HO&GCM 5%gas 40%oil 55%mud	0.443
60.00	Clean Oil	0.842

Total Length: 150.00 ft Total Volume: 1.285 bbl

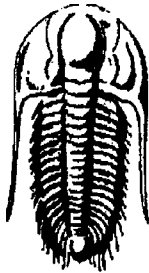
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: 340' Gas in pipe



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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water
Suite 300
Wichita KS 67202

ATTN: Scott Robinson

25-11s-20w Ellis Ks

Western Star #1-25

Start Date: 2002.07.02 @ 04:17:48

End Date: 2002.07.02 @ 11:29:47

Job Ticket #: 16046 DST #: 2

16046
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KCC WICHITA

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202

25-11s-20w Ellis Ks

Job Ticket: 16046

DST#: 2

ATTN: Scott Robinson

Test Start: 2002.07.02 @ 04:17:48

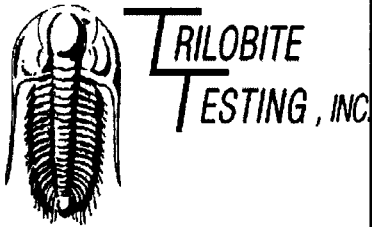
Tool Information

Drill Pipe:	Length: 3286.00 ft	Diameter: 3.80 inches	Volume: 46.09 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 46.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3379.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.02 ft			
Tool Length:	42.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3357.00	
Shut In Tool	5.00			3362.00	
Hydraulic tool	5.00			3367.00	
Safety Joint	2.00			3369.00	
Packer	5.00			3374.00	23.00 Bottom Of Top Packer
Packer	5.00			3379.00	
Stubb	1.00			3380.00	
Recorder	0.01	3024	Inside	3380.01	
Perforations	15.00			3395.01	
Recorder	0.01	11085	Outside	3395.02	
Bullnose	3.00			3398.02	19.02 Bottom Packers & Anchor

Total Tool Length: 42.02

	DRILL STEM TEST REPORT		FLUID SUMMARY
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita KS 67202 ATTN: Scott Robinson	Western Star #1-25 25-11s-20w Ellis Ks Job Ticket: 16046 DST#: 2 Test Start: 2002.07.02 @ 04:17:48	

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 33 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.53 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4200.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MGO 5%gas 60%oil 35%mud	0.863
10.00	Clean oil	0.140

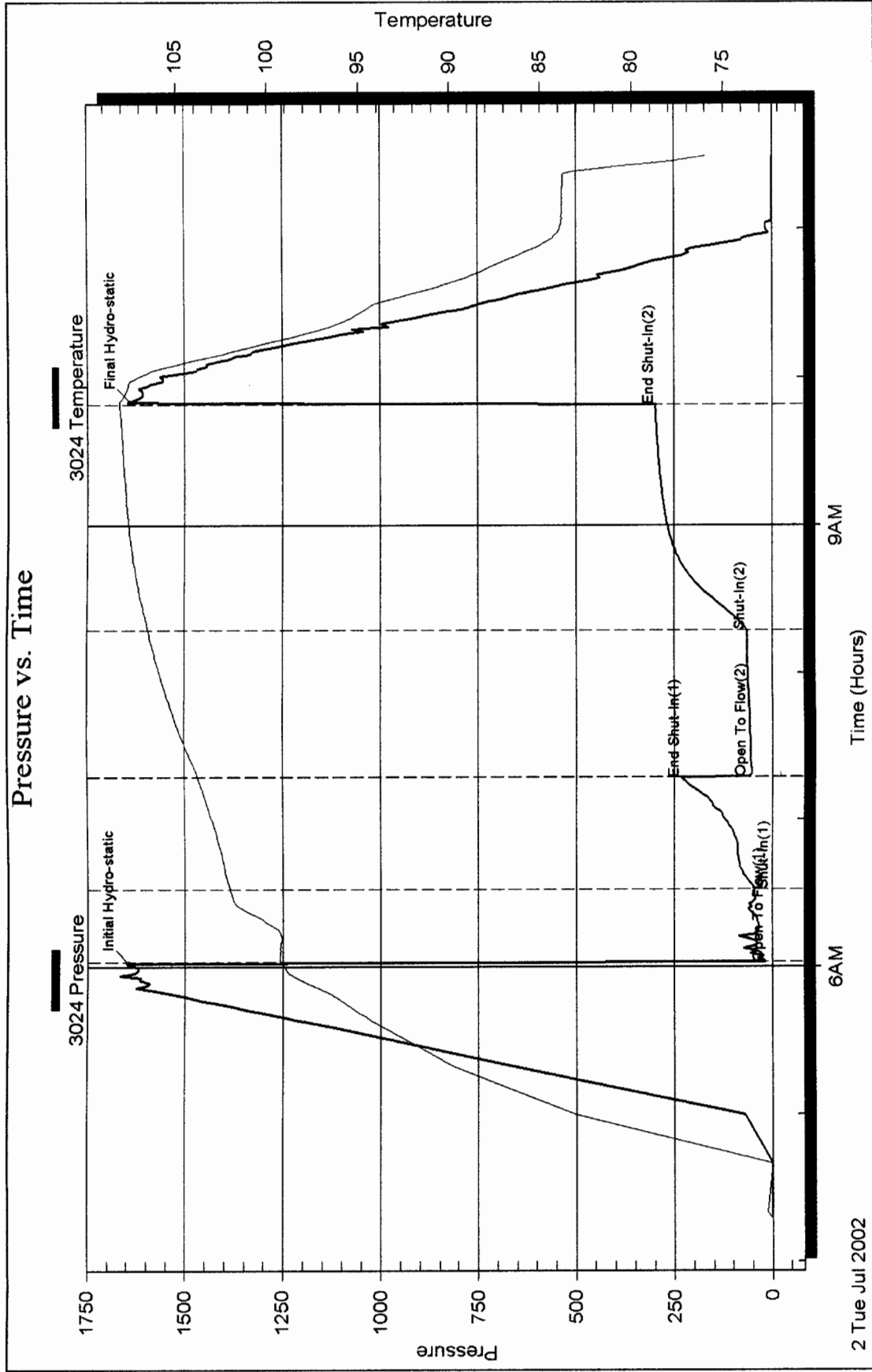
Total Length: 130.00 ft Total Volume: 1.003 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 170' Gas in pipe

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water
Suite 300
Wichita KS 67202

ATTN: Scott Robinson

25-11s-20w Ellis Ks

Western Star #1-25

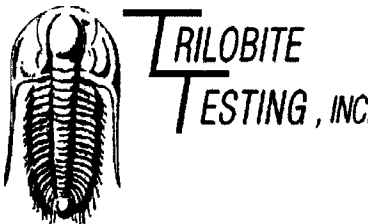
Start Date: 2002.07.02 @ 17:47:07

End Date: 2002.07.03 @ 00:46:06

Job Ticket #: 16047 DST #: 3

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Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

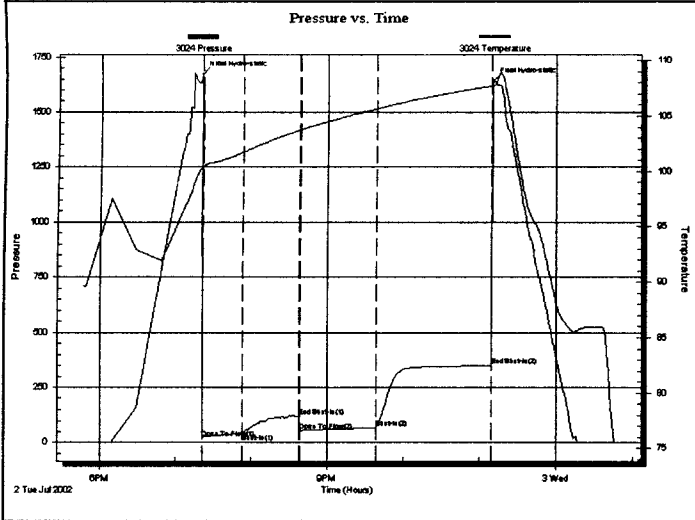
	DRILL STEM TEST REPORT	
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita KS 67202 ATTN: Scott Robinson	Western Star #1-25 25-11s-20w Ellis Ks Job Ticket: 16047 DST#: 3 Test Start: 2002.07.02 @ 17:47:07

GENERAL INFORMATION:

Formation: LKC "G"	Test Type: Conventional Bottom Hole
Deviated: No Whipstock: ft (KB)	Tester: Ray Schwager
Time Tool Opened: 19:21:36	Unit No: 16
Time Test Ended: 00:46:06	Reference Elevations: 2029.00 ft (KB)
Interval: 3400.00 ft (KB) To 3434.00 ft (KB) (TVD)	2024.00 ft (CF)
Total Depth: 3434.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.85 inches Hole Condition: Good	

Serial #: 3024 Inside	Capacity: 7000.00 psig
Press@RunDepth: 67.86 psig @ 3401.01 ft (KB)	Last Calib.: 2002.07.03
Start Date: 2002.07.02 End Date: 2002.07.03	Time On Btrr: 2002.07.02 @ 19:21:06
Start Time: 17:47:07 End Time: 00:46:06	Time Off Btrr: 2002.07.02 @ 23:10:06

TEST COMMENT: IFF-weak blow thru-out 1/2" to 1" blow
 FFP-weak blow thru-out 1/4" to 1/2" blow
 Times 30-45-60-90
 weak surface blow on shut-n



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1671.66	100.34	Initial Hydro-static
1	21.26	100.43	Open To Flow (1)
32	42.00	101.71	Shut-In(1)
77	121.33	103.74	End Shut-In(1)
78	56.06	103.75	Open To Flow (2)
137	67.86	105.65	Shut-In(2)
229	349.07	107.70	End Shut-In(2)
229	1637.55	107.69	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
85.00	SOCMW 1%oil 89%mud 10%w ater	0.42
10.00	Clean oil	0.09

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks
Job Ticket: 16047 **DST#: 3**
Test Start: 2002.07.02 @ 17:47:07

Tool Information

Drill Pipe:	Length: 3299.00 ft	Diameter: 3.80 inches	Volume: 46.28 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 46.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3400.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.02 ft			
Tool Length:	57.02 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			3378.00	
Shut In Tool	5.00			3383.00	
Hydraulic tool	5.00			3388.00	
Safety Joint	2.00			3390.00	
Packer	5.00			3395.00	23.00 Bottom Of Top Packer
Packer	5.00			3400.00	
Stubb	1.00			3401.00	
Recorder	0.01	3024	inside	3401.01	
Perforations	30.00			3431.01	
Recorder	0.01	11085	Outside	3431.02	
Bullnose	3.00			3434.02	34.02 Bottom Packers & Anchor

Total Tool Length: 57.02

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks
Job Ticket: 16047 **DST#: 3**
Test Start: 2002.07.02 @ 17:47:07

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 33 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 67000 ppm
Viscosity: 44.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.32 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6900.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
85.00	SOCMV 1%oil 89%mud 10%w ater	0.418
10.00	Clean oil	0.095

Total Length: 95.00 ft Total Volume: 0.513 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 90' Gas in pipe

Serial #: 3024

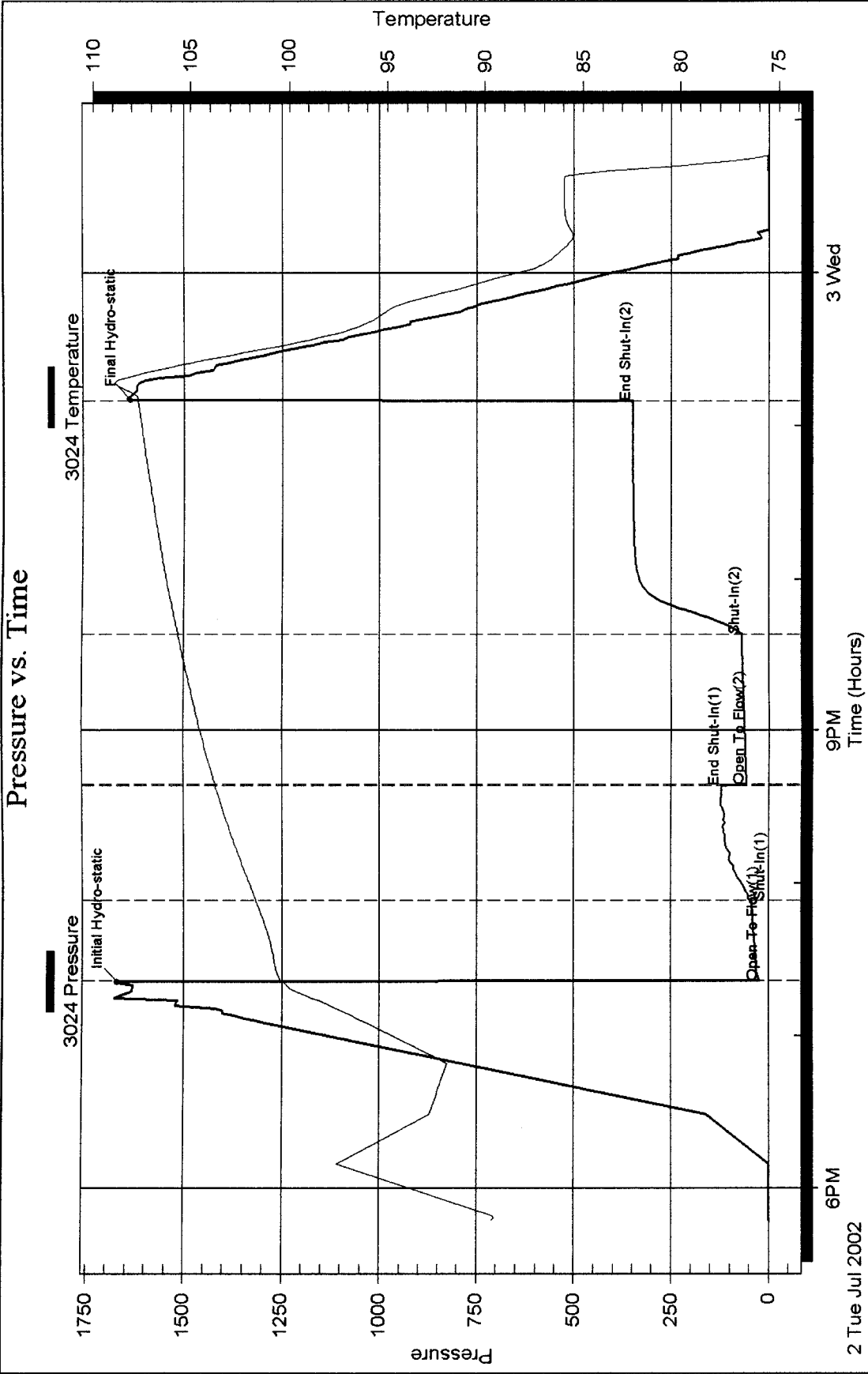
Inside

Murfin Drilling Co Inc

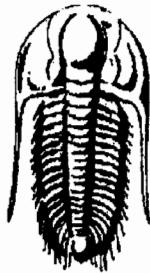
25-11s-20w Ellis Ks

DST Test Number: 3

Pressure vs. Time



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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water
Suite 300
Wichita KS 67202

ATTN: Scott Robinson

25-11s-20w Ellis Ks

Western Star #1-25

Start Date: 2002.07.03 @ 12:06:32

End Date: 2002.07.03 @ 19:52:01

Job Ticket #: 16048 DST #: 4

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KCC WICHITA

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc
250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

Western Star #1-25
25-11s-20w Ellis Ks
Job Ticket: 16048 **DST#: 4**
Test Start: 2002.07.03 @ 12:06:32

Tool Information


Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 75000.00 lb
			Total Volume: 47.17 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3440.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.02 ft			
Tool Length:	113.02 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			3418.00		
Shut In Tool	5.00			3423.00		
Hydraulic tool	5.00			3428.00		
Safety Joint	2.00			3430.00		
Packer	5.00			3435.00	23.00	Bottom Of Top Packer
Packer	5.00			3440.00		
Stubb	1.00			3441.00		
Perforations	3.00			3444.00		
Recorder	0.01	3024	Inside	3444.01		
Change Over Sub	1.00			3445.01		
Blank Spacing	61.00			3506.01		
Change Over Sub	1.00			3507.01		
Perforations	20.00	11085	Outside	3527.01		
Recorder	0.01	11085	Outside	3527.02		
Bullnose	3.00			3530.02	90.02	Bottom Packers & Anchor

Total Tool Length: 113.02

100-1-2-2002
KCC WICHITA

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	FLUID SUMMARY
	Murfin Drilling Co Inc 250 N Water Suite 300 Wichita KS 67202 ATTN: Scott Robinson	Western Star #1-25 25-11s-20w Ellis Ks Job Ticket: 16048 DST#: 4 Test Start: 2002.07.03 @ 12:06:32

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 33 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.94 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6900.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MGO 20%gas 75%oil 5%mud	0.295
280.00	MGO 20%gas 65%oil 15%mud	3.654
685.00	Clean oil	9.609

Total Length: 1025.00 ft Total Volume: 13.558 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 1265' Gas in pipe

DST Test Number: 4

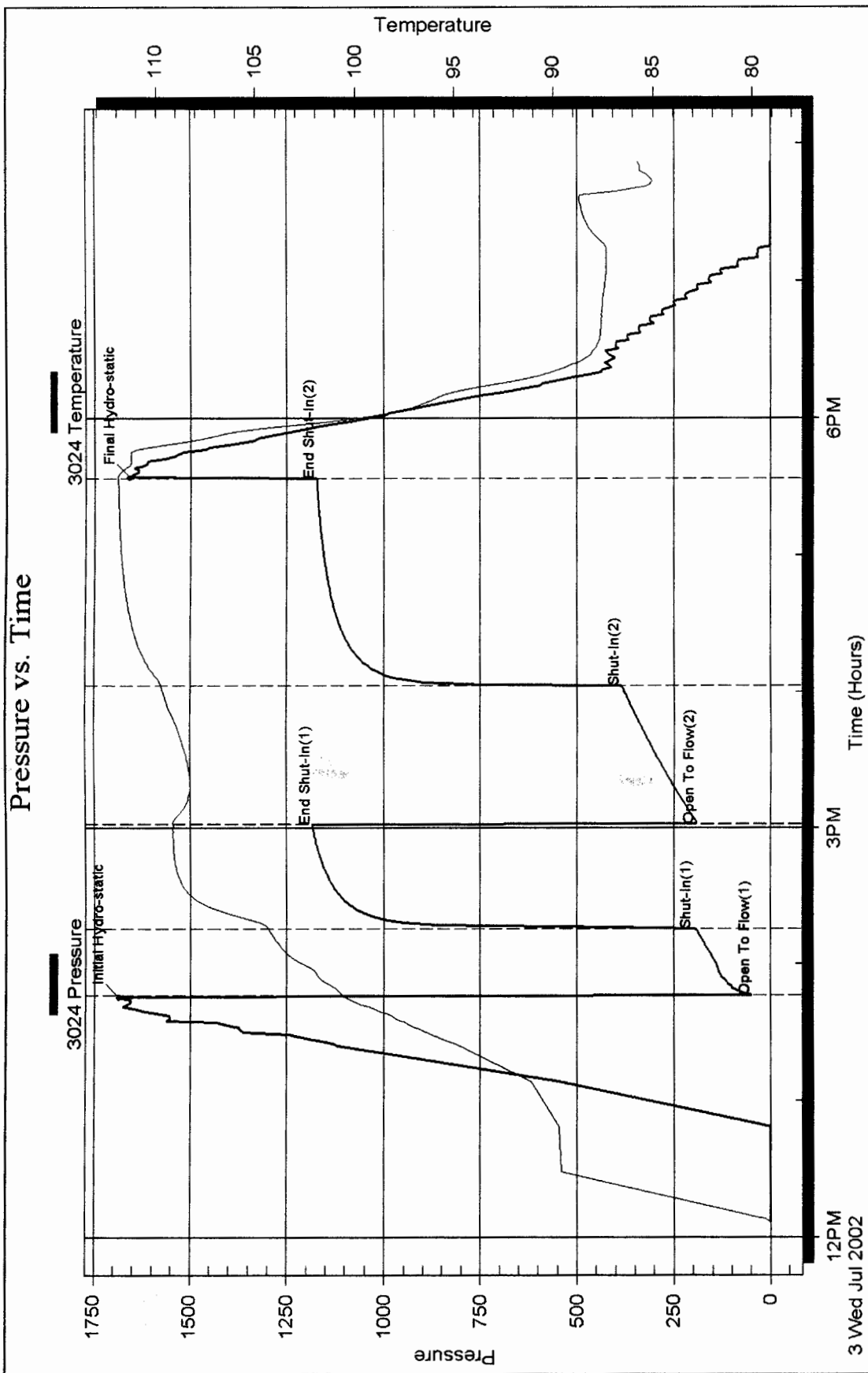
25-11s-20w Ellis Ks

Murfin Drilling Co Inc

Inside

Serial #: 3024

Pressure vs. Time



3 Wed Jul 2002 12PM

3PM

6PM

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KCC WICHITA

Trilobite Testing, Inc

Ref. No: 16048

Printed: 2002.07.08 @ 10:20:03 Page 5



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water
Suite 300
Wichita KS 67202

ATTN: Scott Robinson

25-11s-20w Ellis Ks

Western Star #1-25

Start Date: 2002.07.04 @ 05:50:21

End Date: 2002.07.04 @ 13:47:50

Job Ticket #: 16049 DST #: 5

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Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water
 Suite 300
 Wichita KS 67202
 ATTN: Scott Robinson

Western Star #1-25
25-11s-20w Ellis Ks
 Job Ticket: 16049 **DST#: 5**
 Test Start: 2002.07.04 @ 05:50:21

GENERAL INFORMATION:

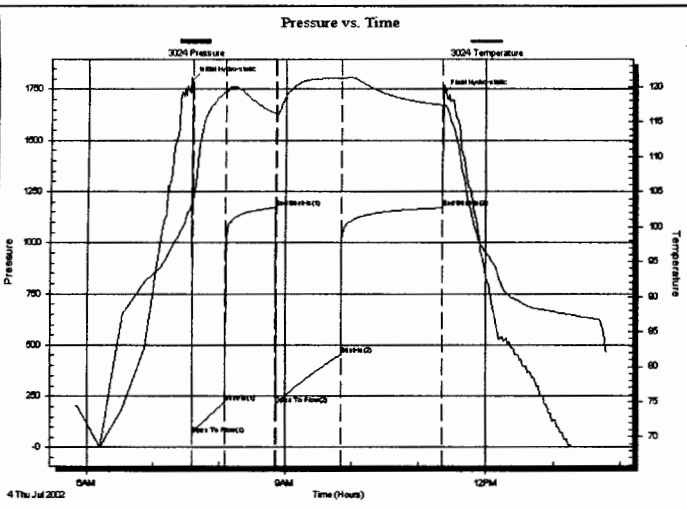
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:35:20
 Time Test Ended: 13:47:50
 Interval: **3618.00 ft (KB) To 3628.00 ft (KB) (TVD)**
 Total Depth: 3628.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Ray Schwager
 Unit No: 16
 Reference Elevations: 2029.00 ft (KB)
 2024.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 3024

Inside

Press@RunDepth: 453.08 psig @ 3619.01 ft (KB) Capacity: 7000.00 psig
 Start Date: 2002.07.04 End Date: 2002.07.04 Last Calib.: 2002.07.04
 Start Time: 05:50:21 End Time: 13:47:50 Time On Btm: 2002.07.04 @ 07:34:50
 Time Off Btm: 2002.07.04 @ 11:21:50

TEST COMMENT: FFP-weak to strong in 4 min
 FFP-w weak to strong in 7 min
 Times 30-45-60-90
 weak surface blow on shut-in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1791.84	103.16	Initial Hydro-static
1	64.55	103.39	Open To Flow (1)
31	219.15	119.30	Shut-In(1)
76	1170.06	116.20	End Shut-In(1)
77	210.11	116.15	Open To Flow (2)
136	453.08	121.19	Shut-In(2)
226	1168.90	117.39	End Shut-In(2)
227	1729.44	117.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MGO 10%gas 60%oil 30%mud	0.30
60.00	MGO 10%gas 85%oil 5%mud	0.57
1055.00	Clean Oil	14.80

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks

Job Ticket: 16049

DST#: 5

Test Start: 2002.07.04 @ 05:50:21

Tool Information

Drill Pipe:	Length: 3516.00 ft	Diameter: 3.80 inches	Volume: 49.32 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 49.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3618.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.01 ft			
Tool Length:	33.01 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3596.00	
Shut In Tool	5.00			3601.00	
Hydraulic tool	5.00			3606.00	
Safety Joint	2.00			3608.00	
Packer	5.00			3613.00	23.00 Bottom Of Top Packer
Packer	5.00			3618.00	
Stubb	1.00			3619.00	
Recorder	0.01	3024	Inside	3619.01	
Perforations	6.00			3625.01	
Bullnose	3.00			3628.01	10.01 Bottom Packers & Anchor
Total Tool Length:	33.01				

LJS 7-2-2002
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TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

Western Star #1-25
25-11s-20w Ellis Ks
Job Ticket: 16049 **DST#: 5**
Test Start: 2002.07.04 @ 05:50:21

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 33 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.95 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 7500.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MGO 10%gas 60%oil 30%mud	0.295
60.00	MGO 10%gas 85%oil 5%mud	0.568
1055.00	Clean Oil	14.799

Total Length: 1175.00 ft Total Volume: 15.662 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 120' Gas in pipe

Serial #: 3024

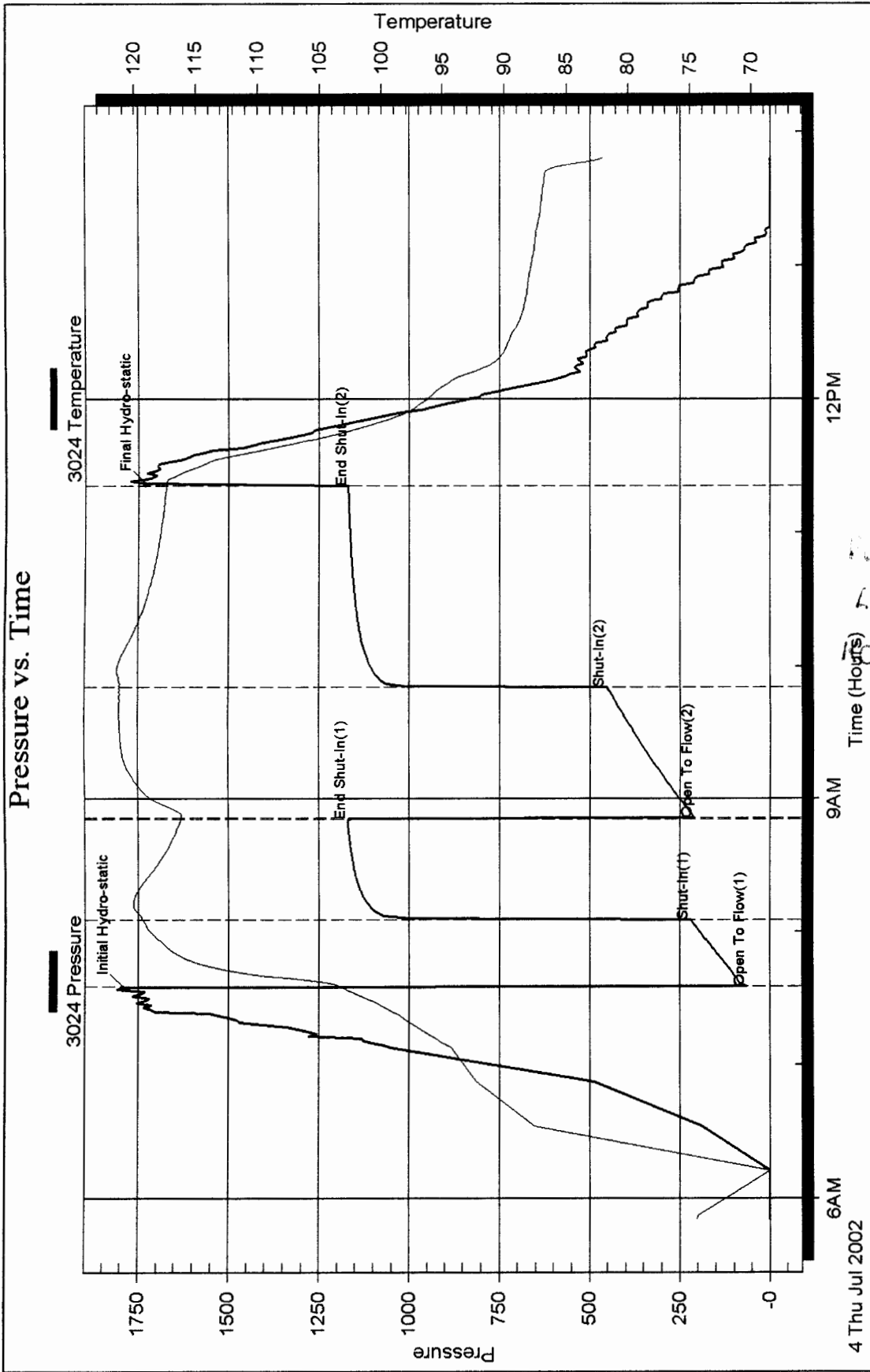
Inside

Murfin Drilling Co Inc

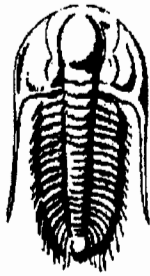
25-11s-20w Ellis Ks

DST Test Number: 5

Pressure vs. Time



3024
 AUG 12 2002
 C WICHITA



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water
Suite 300
Wichita KS 67202

ATTN: Scott Robinson

25-11s-20w Ellis Ks

Western Star #1-25

Start Date: 2002.07.04 @ 19:49:46

End Date: 2002.07.05 @ 03:16:15

Job Ticket #: 16050 DST #: 6

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KCC WICHITA

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water
 Suite 300
 Wichita KS 67202
 ATTN: Scott Robinson

Western Star #1-25
25-11s-20w Ellis Ks
 Job Ticket: 16050 **DST#: 6**
 Test Start: 2002.07.04 @ 19:49:46

GENERAL INFORMATION:

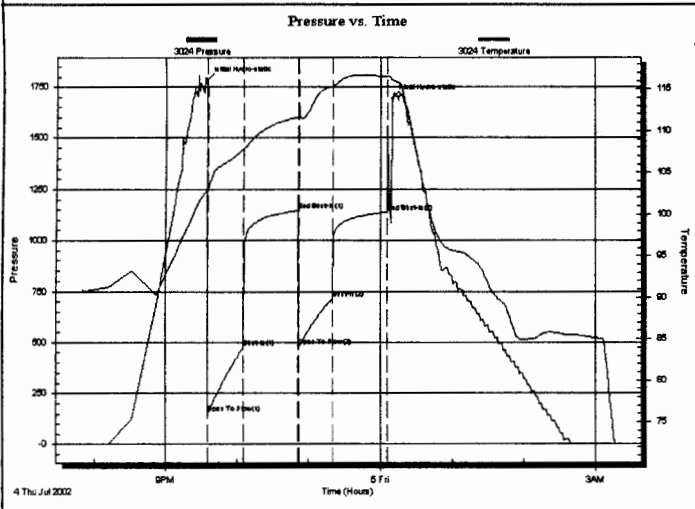
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:35:15
 Time Test Ended: 03:16:15
 Interval: **3630.00 ft (KB) To 3643.00 ft (KB) (TVD)**
 Total Depth: 3643.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Ray Schwager
 Unit No: 16
 Reference Elevations: 2029.00 ft (KB)
 2024.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 3024

Inside

Press@RunDepth: 716.28 psig @ 3631.01 ft (KB) Capacity: 7000.00 psig
 Start Date: 2002.07.04 End Date: 2002.07.05 Last Calib.: 2002.07.05
 Start Time: 19:49:46 End Time: 03:16:15 Time On Btm: 2002.07.04 @ 21:34:45
 Time Off Btm: 2002.07.05 @ 00:10:15

TEST COMMENT: IFP-strong blow in 2 min
 FFP-strong blow in 3 min
 Times 30-45-30-45
 no blow on shut-in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.17	102.78	Initial Hydro-static
1	153.78	102.91	Open To Flow (1)
31	477.12	107.76	Shut-In(1)
77	1145.22	111.68	End Shut-In(1)
77	478.20	111.70	Open To Flow(2)
106	716.28	115.37	Shut-In(2)
151	1138.30	116.53	End Shut-In(2)
156	1692.65	116.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MGO 10%gas 65%oil 25%mud	0.30
1800.00	Clean Oil	24.98

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks
Job Ticket: 16050 **DST#: 6**
Test Start: 2002.07.04 @ 19:49:46

Tool Information

Drill Pipe:	Length: 3547.00 ft	Diameter: 3.80 inches	Volume: 49.76 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 100000.0 lb
			Total Volume: 50.20 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3630.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.02 ft			
Tool Length:	36.02 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			3608.00	
Shut In Tool	5.00			3613.00	
Hydraulic tool	5.00			3618.00	
Safety Joint	2.00			3620.00	
Packer	5.00			3625.00	23.00 Bottom Of Top Packer
Packer	5.00			3630.00	
Stubb	1.00			3631.00	
Recorder	0.01	3024	Inside	3631.01	
Perforations	9.00			3640.01	
Recorder	0.01	11085	Outside	3640.02	
Bullnose	3.00			3643.02	13.02 Bottom Packers & Anchor

Total Tool Length: 36.02

Handwritten: 12/12/02
Stamp: KCC WICHITA



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Western Star #1-25

250 N Water
Suite 300
Wichita KS 67202
ATTN: Scott Robinson

25-11s-20w Ellis Ks
Job Ticket: 16050 **DST#: 6**
Test Start: 2002.07.04 @ 19:49:46

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	33 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MGO 10%gas 65%oil 25%mud	0.295
1800.00	Clean Oil	24.976

Total Length: 1860.00 ft Total Volume: 25.271 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 60' GIP

Serial #: 3024

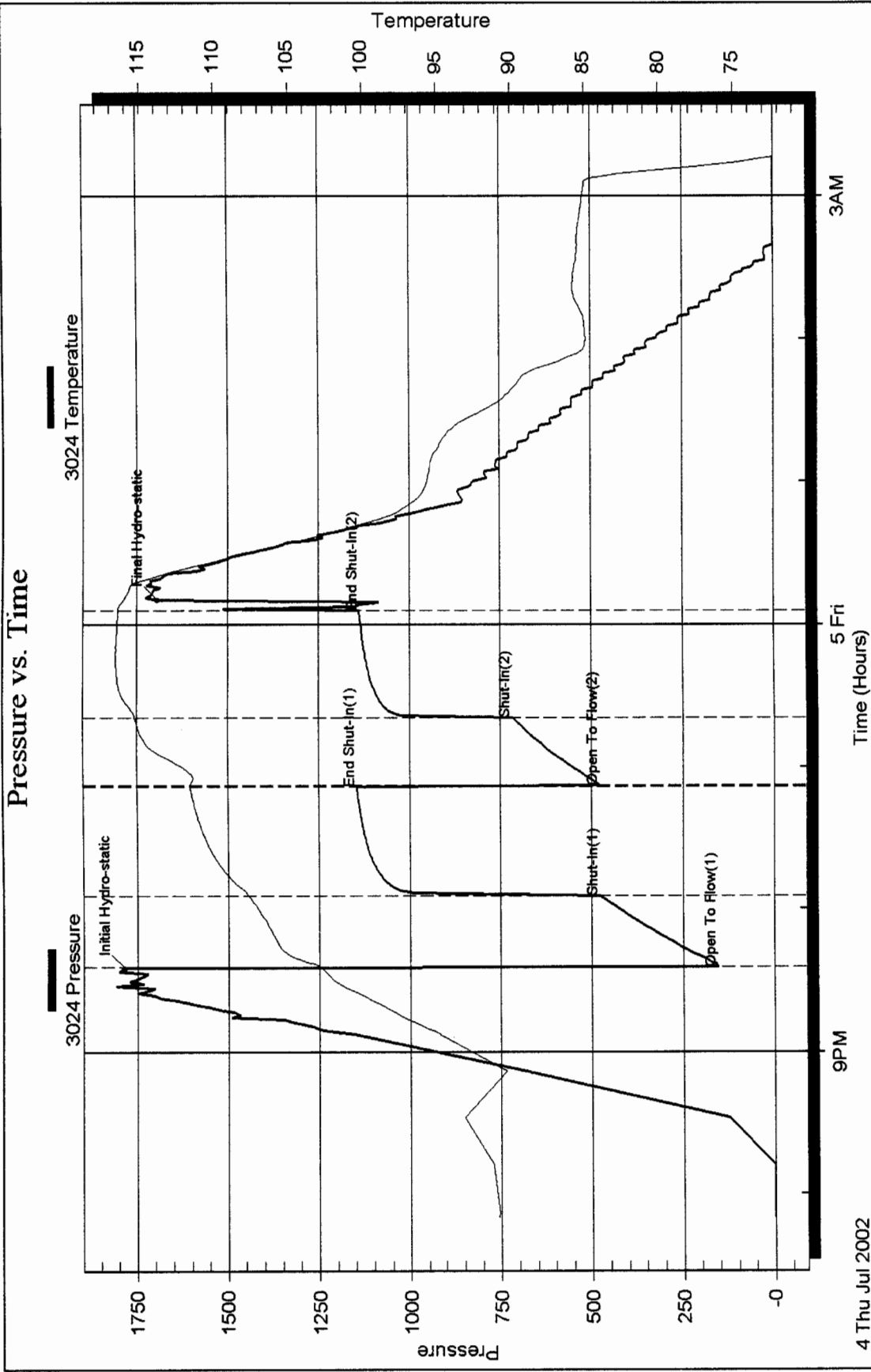
Inside

Murfin Drilling Co Inc

25-11s-20w Ellis Ks

DST Test Number: 6

Pressure vs. Time



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Trilobite Testing, Inc

Ref. No: 16050

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