TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company Inc.**

250 N.Water Suite 300
Wichita,KS 67202

ATTN: C.Scott Robinson

21-10s-19w Rooks KS

Largent-Dick #5-21

Start Date: 2001.05.17 @ 00:42:48

End Date: 2001.05.17 @ 08:30:48

Job Ticket #: 14245 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

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Test Start: 2001.05.17 @ 00:42:48

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:49:33
Time Test Ended: 08:30:48

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: 3723.00 ft (KB) To 3738.00 ft (KB) (TVD)
Total Depth: 3738.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

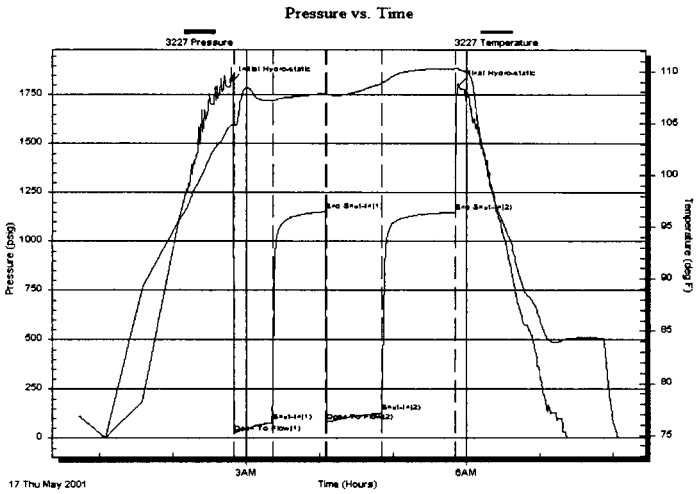
Reference Elevations: 2181.00 ft (KB)
2176.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3227 **Inside**

Press@RunDepth: 128.06 psig @ 3724.01 ft (KB)
Start Date: 2001.05.17 End Date: 2001.05.17
Start Time: 00:42:50 End Time: 08:03:48

Capacity: 7000.00 psig
Last Calib.: 2001.05.17
Time On Btm: 2001.05.17 @ 02:47:48
Time Off Btm: 2001.05.17 @ 05:53:18

TEST COMMENT: IF-Weak Blow 5" ISI no Blow Back
FF-Weak Blow 1" FSI no Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1822.38	104.83	Initial Hydro-static
2	19.13	104.81	Open To Flow (1)
34	77.95	107.16	Shut-In(1)
77	1153.15	107.89	End Shut-In(1)
78	82.46	107.81	Open To Flow (2)
123	128.06	108.88	Shut-In(2)
183	1150.23	110.30	End Shut-In(2)
186	1799.93	110.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
118.00	Muddy w ater 60% w 40%m	0.58
110.00	Oil Cut Mud 5% Gas 25% Oil 70% Mud	0.54
30.00	Gassy oil 56% gas 44% oil	0.28

Gas Rates

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

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TOOL DIAGRAM

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21-10s-19w Rooks KS

Job Ticket: 14245 **DST#: 1**

Test Start: 2001.05.17 @ 00:42:48

Tool Information

Drill Pipe:	Length:	3470.00 ft	Diameter:	3.80 inches	Volume:	48.67 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	243.00 ft	Diameter:	2.25 inches	Volume:	1.20 bbl	Weight to Pull Loose:		55000.00 lb
					Total Volume:	49.87 bbl	Tool Chased		46000.00 ft
Drill Pipe Above KB:		12.00 ft					String Weight:	Initial	45000.00 lb
Depth to Top Packer:		3723.00 ft						Final	45000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		15.02 ft							
Tool Length:		37.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3702.00		
S.I. Tool	5.00			3707.00		
HMV	5.00			3712.00		
Safety Joint	2.00			3714.00		
Packer	4.00			3718.00	22.00	Bottom Of Top Packer
Packer	5.00			3723.00		
Stubb	1.00			3724.00		
Recorder	0.01	3227	Inside	3724.01		
Perforations	11.00			3735.01		
Recorder	0.01	13308	Outside	3735.02		
Bullnose	3.00			3738.02	15.02	Bottom Packers & Anchor
Total Tool Length:	**37.02**					

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FLUID SUMMARY

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21-10s-19w Rooks KS

Job Ticket: 14245 **DST#: 1**

Test Start: 2001.05.17 @ 00:42:48

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:	32000 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

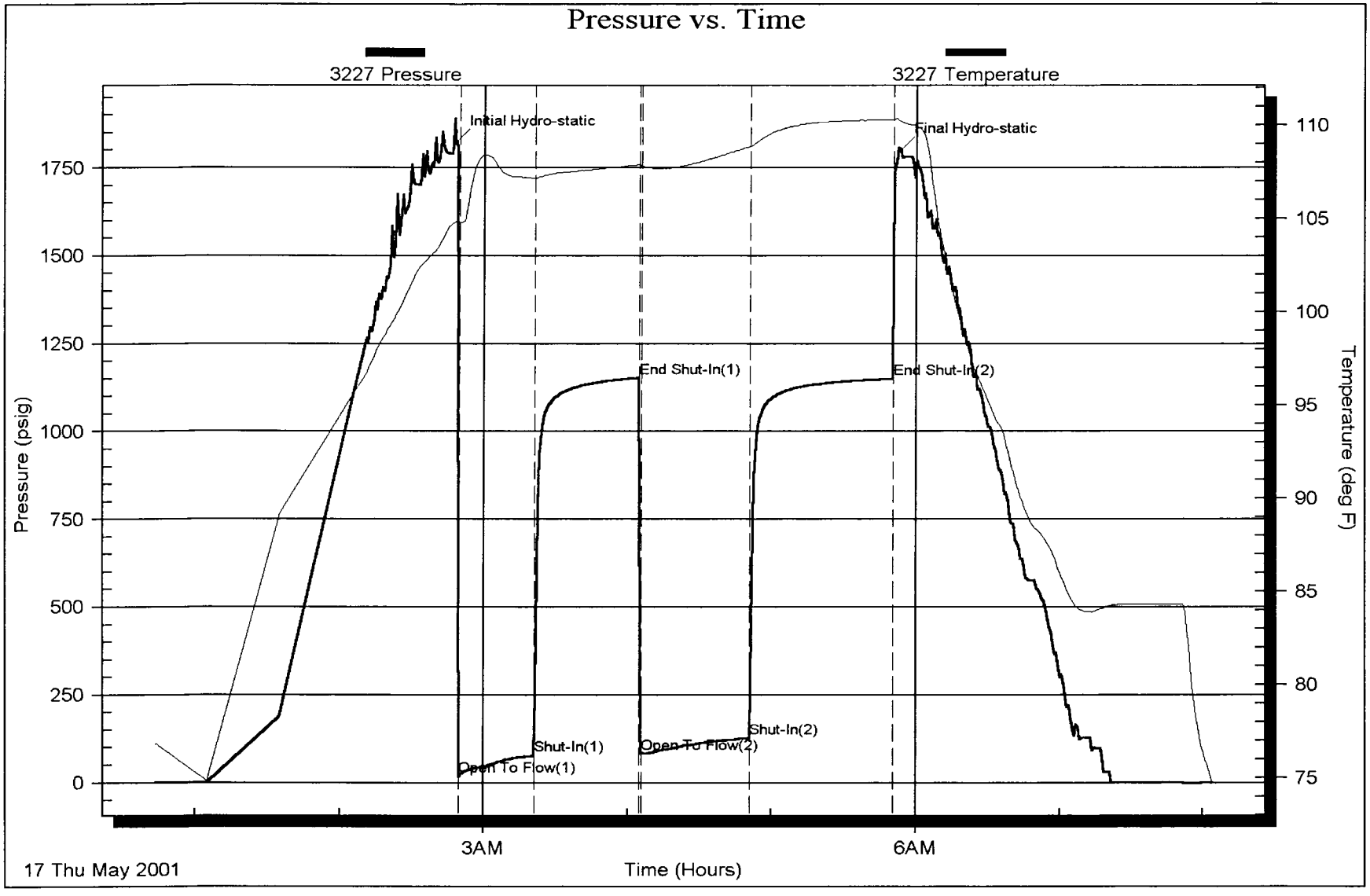
Length ft	Description	Volume bbl
118.00	Muddy w ater 60% w 40%m	0.580
110.00	Oil Cut Mud 5% Gas 25% Oil 70% Mud	0.541
30.00	Gassy oil 56% gas 44% oil	0.284

Total Length: 258.00 ft Total Volume: 1.405 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Tool Slid 1' to Bottom


Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
3AM
6AM
17 Thu May 2001
Time (Hours)