

15-101-22095

6-17s-30w

IND



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.16 @ 00:00:12

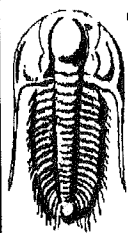
End Date: 2008.05.16 @ 05:41:36

Job Ticket #: 30003 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30003

DST#: 1

Test Start: 2008.05.16 @ 00:00:12

GENERAL INFORMATION:

Formation: **Lans. C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:35:07

Time Test Ended: 05:41:36

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Interval: 3968.00 ft (KB) To 3990.00 ft (KB) (TVD)

Total Depth: 3990.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353

Inside

Press@RunDepth: 60.85 psig @ 3969.00 ft (KB)

Start Date: 2008.05.16

End Date:

2008.05.16

Start Time: 00:00:12

End Time:

05:41:36

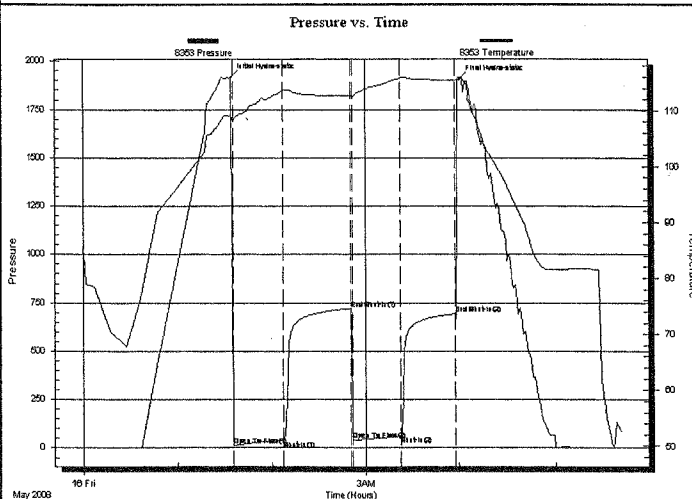
Capacity: 7000.00 psig

Last Calib.: 2008.05.16

Time On Btm: 2008.05.16 @ 01:34:07

Time Off Btm: 2008.05.16 @ 04:00:37

TEST COMMENT: IF Built to 2 1/2 "
IS No return
FF Built to 1 1/4 "
FS No return



PRESSURE SUMMARY

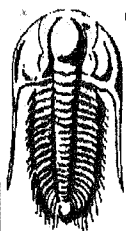
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1915.73	109.07	Initial Hydro-static
1	11.86	108.06	Open To Flow (1)
33	39.44	113.61	Shut-In (1)
77	720.74	112.69	End Shut-In (1)
78	41.28	112.49	Open To Flow (2)
109	60.85	115.87	Shut-In (2)
144	693.36	115.46	End Shut-In (2)
147	1905.92	115.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	GOCM 5%G 15%O 80%M	0.34
0.00	GIP 0	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30003

DST#: 1

ATTN: Tom Funk

Test Start: 2008.05.16 @ 00:00:12

Tool Information

Drill Pipe:	Length: 3857.00 ft	Diameter: 3.80 inches	Volume: 54.10 bbl	Tool Weight:	1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	58000.00 lb
		Total Volume:	54.70 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3968.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	42.00 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			3949.00	
Shut In Tool	5.00			3954.00	
Hydraulic tool	5.00			3959.00	
Packer	5.00			3964.00	20.00 Bottom Of Top Packer
Packer	4.00			3968.00	
Stubb	1.00			3969.00	
Recorder	0.00	8353	Inside	3969.00	
Recorder	0.00	6741	Inside	3969.00	
Perforations	16.00			3985.00	
Bullnose	5.00			3990.00	22.00 Bottom Packers & Anchor
Total Tool Length:		42.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30003

DST#: 1

ATTN: Tom Funk

Test Start: 2008.05.16 @ 00:00:12

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: 6.35 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	GOCM 5%G 15%O 80%M	0.344
0.00	GIP 0	0.000

Total Length: 70.00 ft

Total Volume: 0.344 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

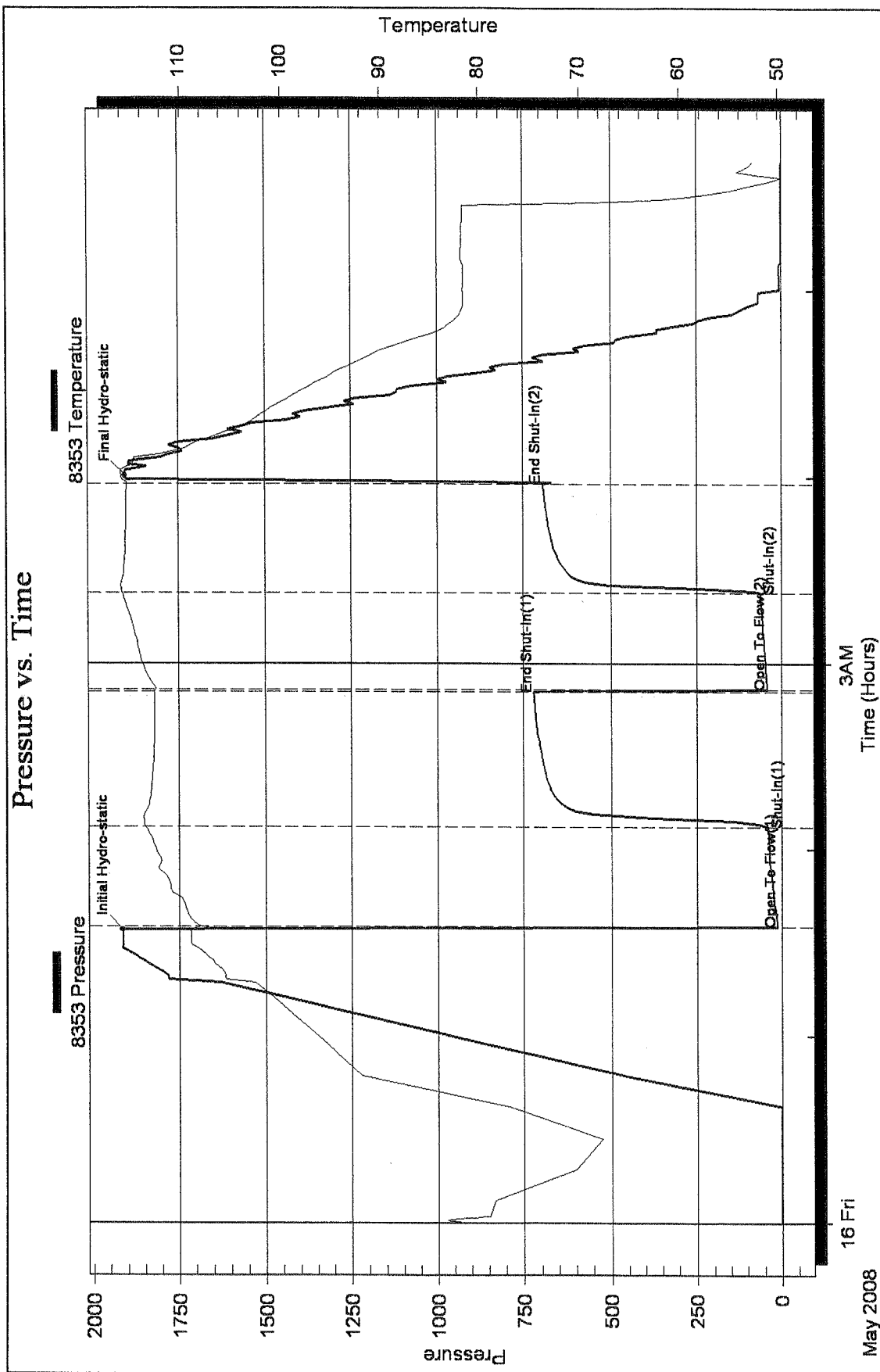
Serial #:

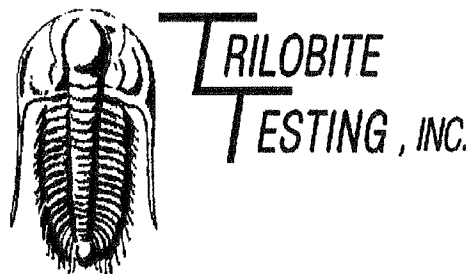
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.16 @ 12:55:37

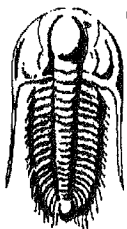
End Date: 2008.05.16 @ 18:22:31

Job Ticket #: 30004 DST #: 2

Trilobite Testing, Inc

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30004

DST#: 2

Test Start: 2008.05.16 @ 12:55:37

GENERAL INFORMATION:

Formation: **Lans. E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:18:32

Time Test Ended: 18:22:31

Interval: **4022.00 ft (KB) To 4045.00 ft (KB) (TVD)**

Total Depth: 4045.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353 Inside

Press@RunDepth: 44.10 psig @ 4023.00 ft (KB)

Start Date: 2008.05.16

End Date: 2008.05.16

Start Time: 12:55:37

End Time: 18:22:31

Capacity: 7000.00 psig

Last Calib.: 2008.05.16

Time On Btm: 2008.05.16 @ 14:18:02

Time Off Btm: 2008.05.16 @ 16:37:02

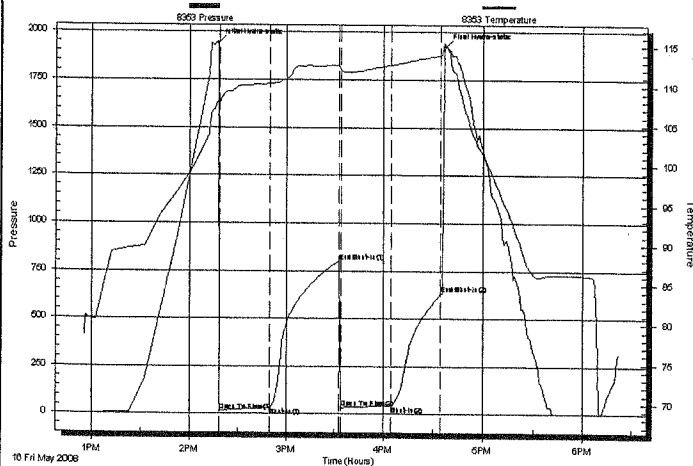
TEST COMMENT: IF Built to 1 1/2 "

IS No return

FF No blow

FS No return

Pressure vs. Time



PRESSURE SUMMARY

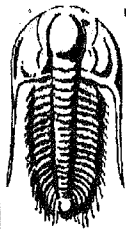
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1942.23	108.03	Initial Hydro-static
1	13.82	107.71	Open To Flow (1)
32	31.03	110.31	Shut-In(1)
75	800.73	112.60	End Shut-In(1)
76	33.32	112.16	Open To Flow(2)
107	44.10	112.64	Shut-In(2)
137	632.44	113.89	End Shut-In(2)
139	1924.21	115.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	OWCM 5%O 15%W 80%M	0.27
5.00	MCO 80%O 20%M	0.02
0.00	GIP 0	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30004

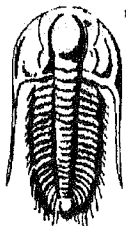
DST#: 2

Test Start: 2008.05.16 @ 12:55:37

Tool Information

Drill Pipe:	Length: 3889.00 ft	Diameter: 3.80 inches	Volume: 54.55 bbl	Tool Weight:	1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	56000.00 lb	
			Total Volume:	55.15 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	48000.00 lb	
Depth to Top Packer:	4022.00 ft			Final	48000.00 lb	
Depth to Bottom Packer:	ft					
Interval between Packers:	23.00 ft					
Tool Length:	43.00 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			4003.00	
Shut In Tool	5.00			4008.00	
Hydraulic tool	5.00			4013.00	
Packer	5.00			4018.00	20.00 Bottom Of Top Packer
Packer	4.00			4022.00	
Stubb	1.00			4023.00	
Recorder	0.00	8353	Inside	4023.00	
Recorder	0.00	6741	Inside	4023.00	
Perforations	17.00			4040.00	
Bullnose	5.00			4045.00	23.00 Bottom Packers & Anchor
Total Tool Length:		43.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30004

DST#: 2

ATTN: Tom Funk

Test Start: 2008.05.16 @ 12:55:37

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 7.15 in³

Resistivity: 0.00 ohm.m

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

31 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	OWCM 5%O 15%W 80%M	0.270
5.00	MCO 80%O 20%M	0.025
0.00	GIP 0	0.000

Total Length: 60.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

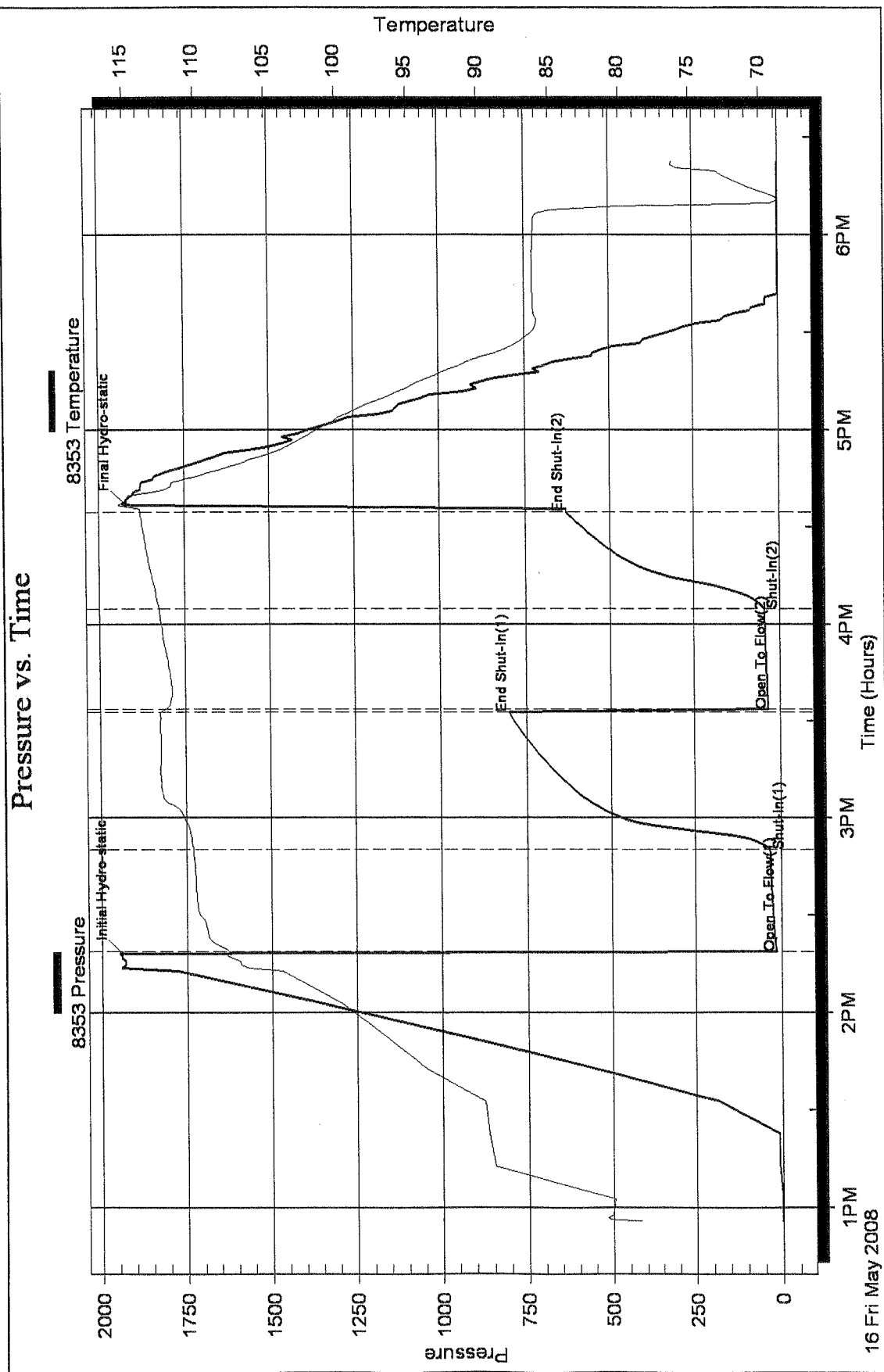
Serial #:

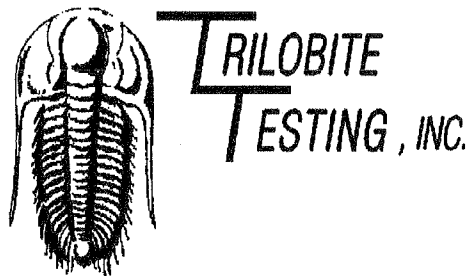
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.17 @ 08:05:06

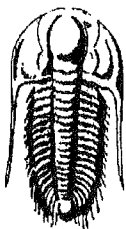
End Date: 2008.05.17 @ 14:42:30

Job Ticket #: 30005 DST #: 3

Trilobite Testing, Inc

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30005

DST#: 3

Test Start: 2008.05.17 @ 08:05:06

GENERAL INFORMATION:

Formation: **Lans. H, I, & J**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 09:39:31

Time Test Ended: 14:42:30

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **25**

Interval: **4118.00 ft (KB) To 4207.00 ft (KB) (TVD)**

Total Depth: **4207.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2894.00 ft (KB)**

2889.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 8353

Inside

Press@RunDepth: **802.80 psig @ 4119.00 ft (KB)**

Start Date: **2008.05.17**

End Date: **2008.05.17**

Start Time: **08:05:06**

End Time: **14:42:30**

Capacity: **7000.00 psig**

Last Calib.: **2008.05.17**

Time On Btm: **2008.05.17 @ 09:37:01**

Time Off Btm: **2008.05.17 @ 12:39:00**

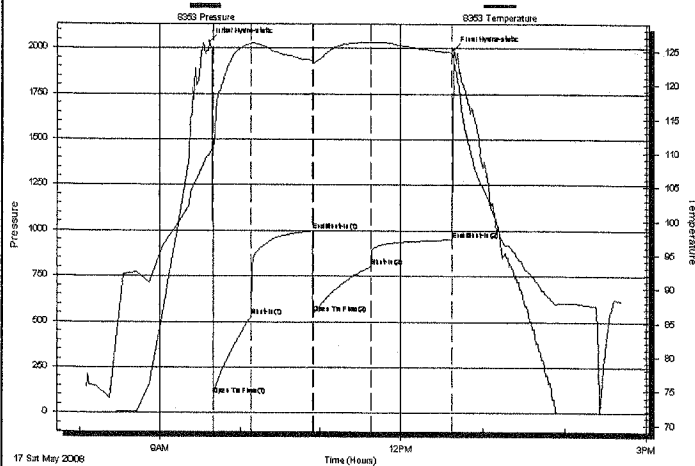
TEST COMMENT: **IF BOB in 2 1/2 mins.**

IS No return

FF BOB in 4 mins.

FS No return

Pressure vs. Time



PRESSURE SUMMARY

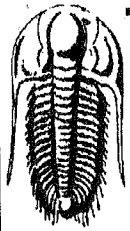
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2034.07	109.68	Initial Hydro-static
3	97.89	110.67	Open To Flow (1)
32	531.69	125.98	Shut-In (1)
78	997.48	123.53	End Shut-In (1)
79	544.98	123.11	Open To Flow (2)
121	802.80	126.24	Shut-In (2)
181	951.27	124.76	End Shut-In (2)
182	1991.15	123.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	WCM 10%W 90%M	0.59
1368.00	MCW 95%W 5%M	19.16
387.00	WM 50%W 50%M	5.43
0.00	GIP 0	0.00

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30005

DST#: 3

ATTN: Tom Funk

Test Start: 2008.05.17 @ 08:05:06

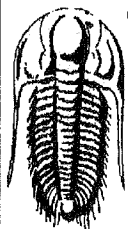
Tool Information

Drill Pipe:	Length: 3980.00 ft	Diameter: 3.80 inches	Volume: 55.83 bbl	Tool Weight: 1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 72000.00 lb
			Total Volume: 56.43 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4118.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	89.00 ft			
Tool Length:	109.00 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			4099.00	
Shut In Tool	5.00			4104.00	
Hydraulic tool	5.00			4109.00	
Packer	5.00			4114.00	20.00 Bottom Of Top Packer
Packer	4.00			4118.00	
Stubb	1.00			4119.00	
Recorder	0.00	8353	Inside	4119.00	
Recorder	0.00	6741	Inside	4119.00	
Perforations	18.00			4137.00	
Change Over Sub	1.00			4138.00	
Drill Pipe	63.00			4201.00	
Change Over Sub	1.00			4202.00	
Bullnose	5.00			4207.00	89.00 Bottom Packers & Anchor

Total Tool Length: 109.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30005

DST#: 3

ATTN: Tom Funk

Test Start: 2008.05.17 @ 08:05:06

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: 52000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.73 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	WCM 10%W 90%M	0.590
1368.00	MCW 95%W 5%M	19.162
387.00	WM 50%W 50%M	5.429
0.00	GIP 0	0.000

Total Length: 1875.00 ft

Total Volume: 25.181 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

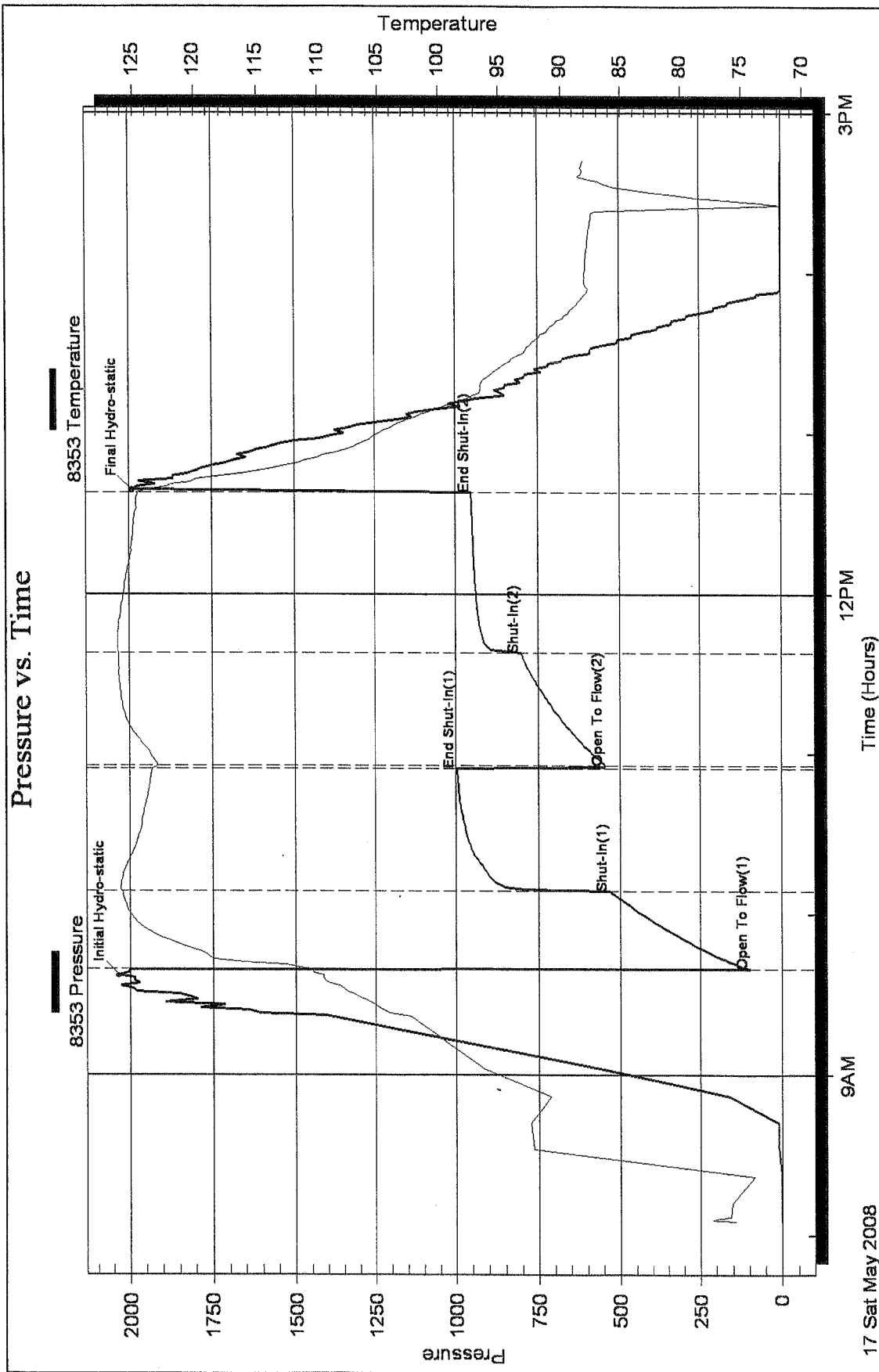
Serial #:

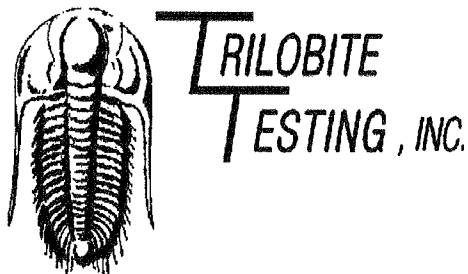
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.18 @ 07:37:02

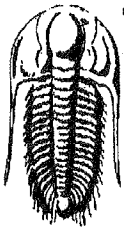
End Date: 2008.05.18 @ 12:41:26

Job Ticket #: 30006 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30006

DST#: 4

Test Start: 2008.05.18 @ 07:37:02

GENERAL INFORMATION:

Formation: **Marm. - Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:11:27

Time Test Ended: 12:41:26

Interval: **4315.00 ft (KB) To 4385.00 ft (KB) (TVD)**

Total Depth: 4385.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353 Inside

Press@RunDepth: 15.18 psig @ 4316.00 ft (KB)

Start Date: 2008.05.18

End Date: 2008.05.18

Start Time: 07:37:02

End Time: 12:41:26

Capacity: 7000.00 psig

Last Calib.: 2008.05.18

Time On Btm: 2008.05.18 @ 09:09:57

Time Off Btm: 2008.05.18 @ 11:12:27

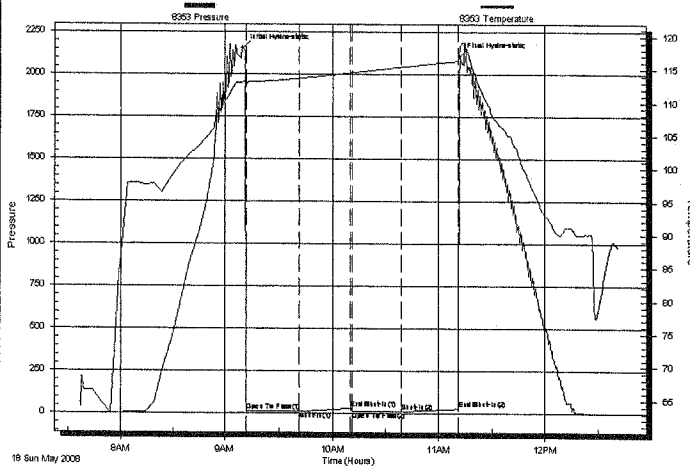
TEST COMMENT: IF 1/4 " died in 8 mins.

IS No return

FF No blow

FS No return

Pressure vs. Time



PRESSURE SUMMARY

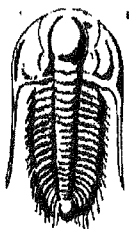
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2153.72	113.17	Initial Hydro-static
2	13.16	112.42	Open To Flow (1)
31	14.57	113.65	Shut-In(1)
61	32.75	114.53	End Shut-In(1)
62	14.11	114.55	Open To Flow (2)
90	15.18	115.41	Shut-In(2)
122	29.32	116.33	End Shut-In(2)
123	2110.01	118.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%M	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30006

DST#: 4

ATTN: Tom Funk

Test Start: 2008.05.18 @ 07:37:02

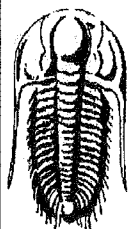
Tool Information

Drill Pipe:	Length: 4202.00 ft	Diameter: 3.80 inches	Volume: 58.94 bbl	Tool Weight: 1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 59.54 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4315.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	90.00 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			4296.00	
Shut In Tool	5.00			4301.00	
Hydraulic tool	5.00			4306.00	
Packer	5.00			4311.00	20.00 Bottom Of Top Packer
Packer	4.00			4315.00	
Stubb	1.00			4316.00	
Recorder	0.00	8353	Inside	4316.00	
Recorder	0.00	6741	Inside	4316.00	
Perforations	31.00			4347.00	
Change Over Sub	1.00			4348.00	
Drill Pipe	31.00			4379.00	
Change Over Sub	1.00			4380.00	
Bullnose	5.00			4385.00	70.00 Bottom Packers & Anchor

Total Tool Length: 90.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30006

DST#: 4

ATTN: Tom Funk

Test Start: 2008.05.18 @ 07:37:02

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: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.53 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%M	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

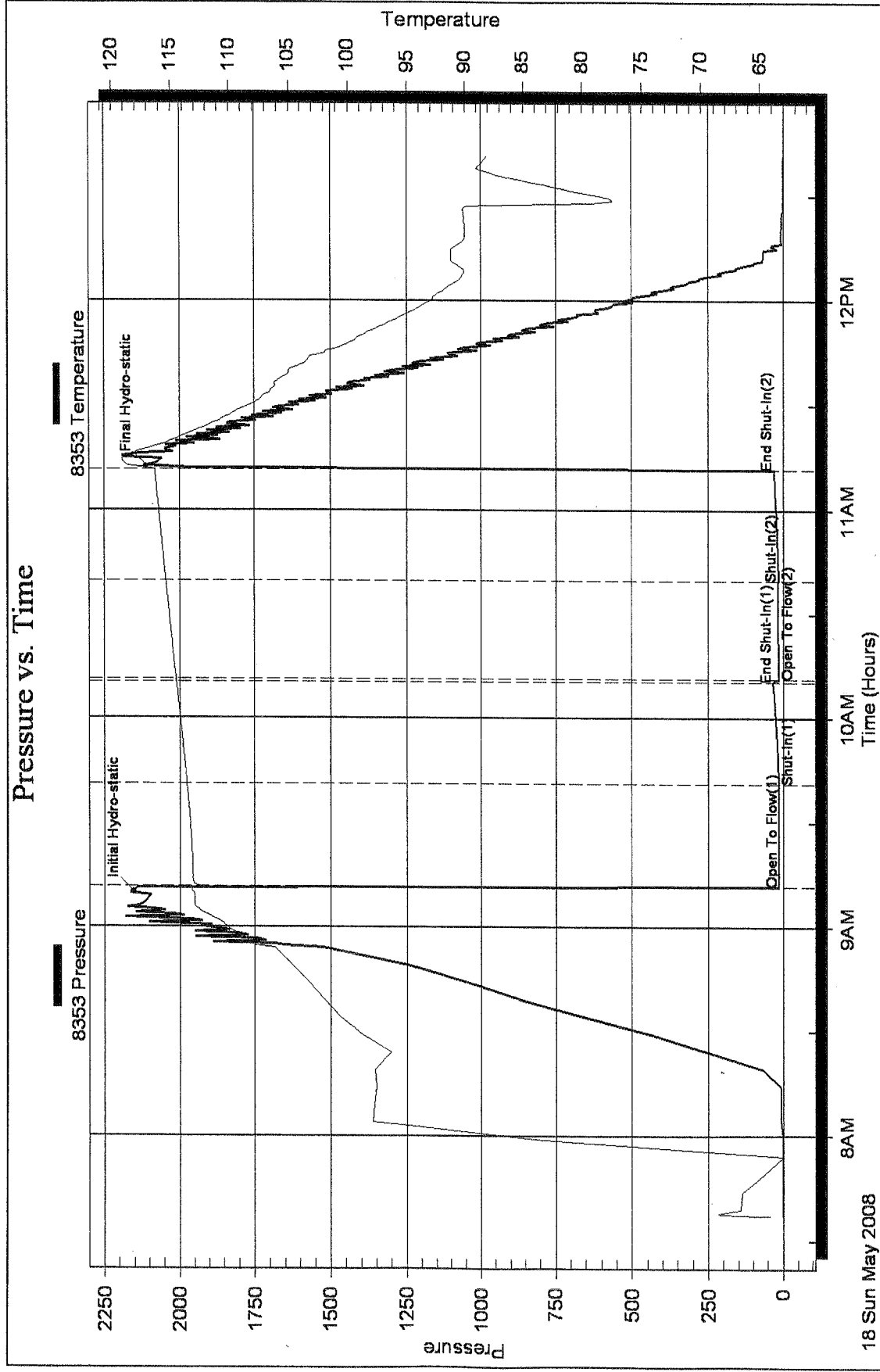
Serial #:

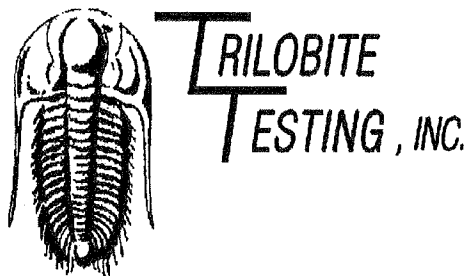
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.19 @ 04:37:43

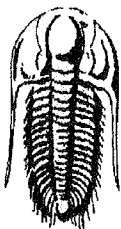
End Date: 2008.05.19 @ 10:10:37

Job Ticket #: 30007 DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30007

DST#: 5

Test Start: 2008.05.19 @ 04:37:43

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:07:38

Time Test Ended: 10:10:37

Interval: **4490.00 ft (KB) To 4548.00 ft (KB) (TVD)**

Total Depth: 4548.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353

Inside

Press@RunDepth: 108.52 psig @ 4491.00 ft (KB)

Start Date: 2008.05.19

End Date: 2008.05.19

Start Time: 04:37:43

End Time: 10:10:37

Capacity: 7000.00 psig

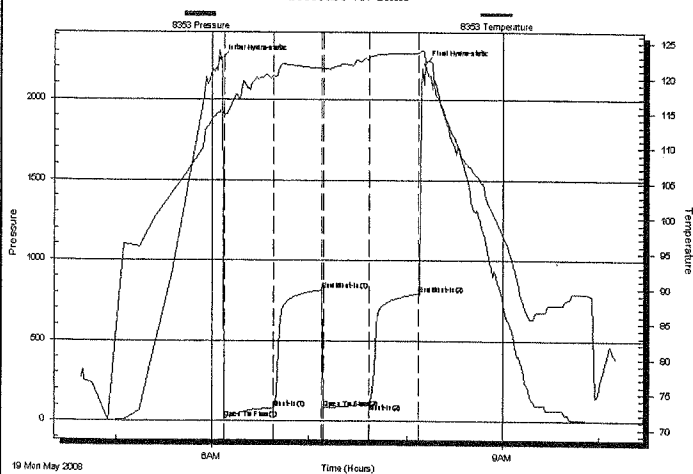
Last Calib.: 2008.05.19

Time On Btm: 2008.05.19 @ 06:05:38

Time Off Btm: 2008.05.19 @ 08:11:08

TEST COMMENT: IF 1/4 " died in 4 mins.
IS No return
FF Surface blow for 2 mins.
FS No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2250.62	115.42	Initial Hydro-static
2	15.39	114.58	Open To Flow (1)
33	82.80	120.33	Shut-In (1)
62	815.66	121.41	End Shut-In (1)
63	83.68	121.20	Open To Flow (2)
91	108.52	122.76	Shut-In (2)
122	794.35	123.57	End Shut-In (2)
126	2220.22	122.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	OGCM 5%G 5%O 90%M	0.62
62.00	OGWCM 5%G 5%O 10%W 80%M	0.87
10.00	SOGCM 7%G 3%O 90%M	0.14
0.00	GIP 50'	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30007

DST#: 5

ATTN: Tom Funk

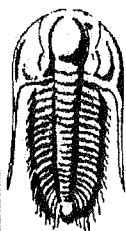
Test Start: 2008.05.19 @ 04:37:43

Tool Information

Drill Pipe:	Length: 4354.00 ft	Diameter: 3.80 inches	Volume: 61.08 bbl	Tool Weight:	1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	61.68 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	52000.00 lb
Depth to Top Packer:	4490.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	58.00 ft				
Tool Length:	78.00 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			4471.00	
Shut In Tool	5.00			4476.00	
Hydraulic tool	5.00			4481.00	
Packer	5.00			4486.00	20.00 Bottom Of Top Packer
Packer	4.00			4490.00	
Stubb	1.00			4491.00	
Recorder	0.00	8353	Inside	4491.00	
Recorder	0.00	6741	Inside	4491.00	
Perforations	21.00			4512.00	
Change Over Sub	1.00			4513.00	
Drill Pipe	29.00			4542.00	
Change Over Sub	1.00			4543.00	
Bullnose	5.00			4548.00	58.00 Bottom Packers & Anchor
Total Tool Length:		78.00			



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30007

DST#: 5

ATTN: Tom Funk

Test Start: 2008.05.19 @ 04:37:43

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: 9.55 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	OGCM 5%G 5%O 90%M	0.619
62.00	OGWCM 5%G 5%O 10%W 80%M	0.870
10.00	SOGCM 7%G 3%O 90%M	0.140
0.00	GIP 50 '	0.000

Total Length: 196.00 ft

Total Volume: 1.629 bbl

Num Fluid Samples: 0

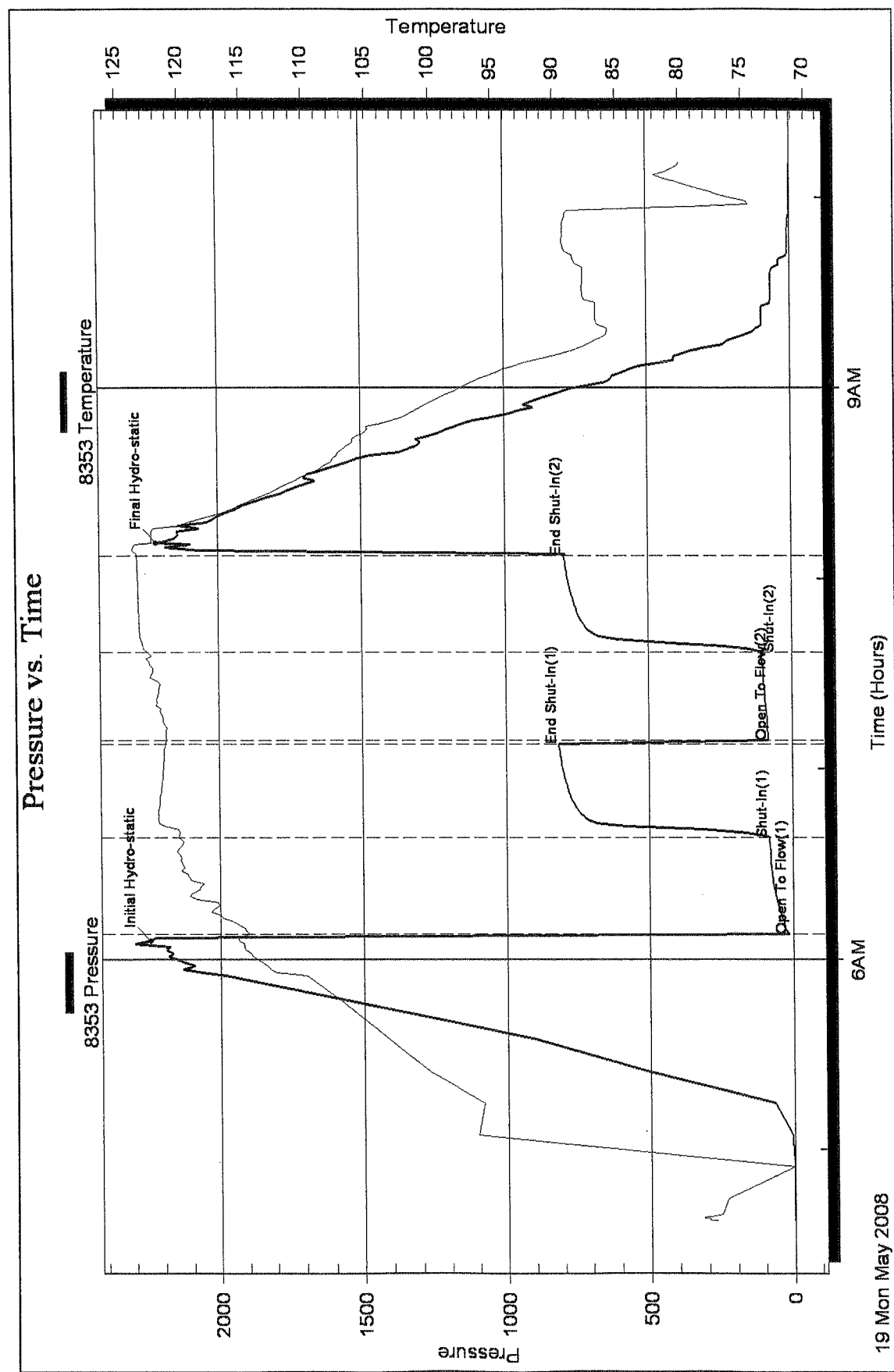
Num Gas Bombs: 0

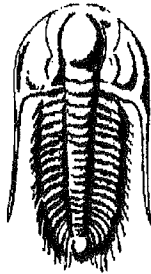
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

6 17S 30W Lane KS

Brooks # 6B-1

Start Date: 2008.05.19 @ 16:27:44

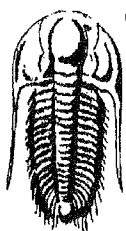
End Date: 2008.05.19 @ 23:17:08

Job Ticket #: 30008 DST #: 6

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

PO Box 783188
Wichita KS 67278

ATTN: Tom Funk

Brooks # 6B-1

6 17S 30W Lane KS

Job Ticket: 30008

DST#: 6

Test Start: 2008.05.19 @ 16:27:44

GENERAL INFORMATION:

Formation: **Ck. Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:06:09

Time Test Ended: 23:17:08

Test Type: Conventional Bottom Hole

Tester: Brandon Domsch

Unit No: 25

Interval: 4548.00 ft (KB) To 4576.00 ft (KB) (TVD)

Total Depth: 4576.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2894.00 ft (KB)

2889.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8353 Inside

Press@RunDepth: 101.68 psig @ 4549.00 ft (KB)

Start Date: 2008.05.19

End Date: 2008.05.19

Start Time: 16:27:44

End Time: 23:17:08

Capacity: 7000.00 psig

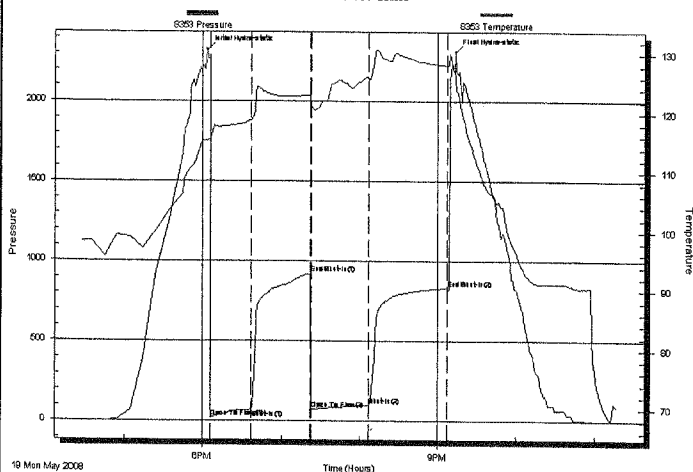
Last Calib.: 2008.05.19

Time On Btm: 2008.05.19 @ 18:03:39

Time Off Btm: 2008.05.19 @ 21:13:38

TEST COMMENT: IF Built to 4 3/4 "
IS No return
FF Built to 6 1/2 "
FS No return

Pressure vs. Time



PRESSURE SUMMARY

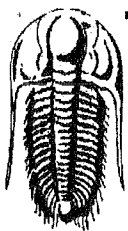
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2320.14	115.44	Initial Hydro-static
3	22.29	115.93	Open To Flow (1)
34	71.75	118.86	Shut-In (1)
78	921.13	123.09	End Shut-In (1)
79	73.84	121.50	Open To Flow (2)
123	101.68	125.82	Shut-In (2)
184	834.25	128.18	End Shut-In (2)
190	2307.47	125.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100%M	0.15
96.00	SMCW 95%W 5%M	0.50
65.00	OCM 15%O 85%M	0.91
10.00	CGO 5%G 95%O	0.14
0.00	GIP 50 ft	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30008

DST#: 6

ATTN: Tom Funk

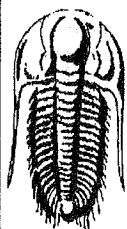
Test Start: 2008.05.19 @ 16:27:44

Tool Information

Drill Pipe:	Length: 4415.00 ft	Diameter: 3.80 inches	Volume: 61.93 bbl	Tool Weight:	1500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	65000.00 lb
		Total Volume:	62.53 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	53000.00 lb
Depth to Top Packer:	4548.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	48.00 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			4529.00	
Shut In Tool	5.00			4534.00	
Hydraulic tool	5.00			4539.00	
Packer	5.00			4544.00	20.00 Bottom Of Top Packer
Packer	4.00			4548.00	
Stubb	1.00			4549.00	
Recorder	0.00	8353	Inside	4549.00	
Recorder	0.00	6741	Inside	4549.00	
Perforations	22.00			4571.00	
Bullnose	5.00			4576.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Brooks # 6B-1

PO Box 783188
Wichita KS 67278

6 17S 30W Lane KS

Job Ticket: 30008

DST#: 6

ATTN: Tom Funk

Test Start: 2008.05.19 @ 16:27:44

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 9.56 in³

Resistivity: 0.00 ohm.m

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

28 deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100%M	0.148
96.00	SMCW 95%W 5%M	0.499
65.00	OCM 15%O 85%M	0.912
10.00	CGO 5%G 95%O	0.140
0.00	GIP 50 ft	0.000

Total Length:

201.00 ft

Total Volume:

1.699 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

