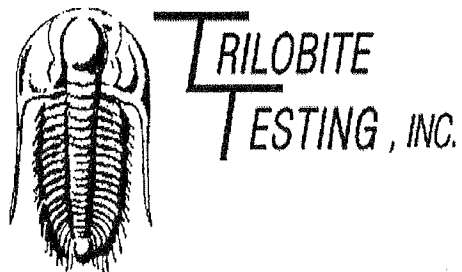


15-171-20584

2-18s-31w



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

ATTN: Kim Schumaker

2-18S-31W Scott KS

Ramsey Trust #1

Start Date: 2004.05.29 @ 11:00:02

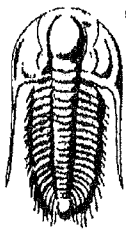
End Date: 2004.05.29 @ 16:33:32

Job Ticket #: 19564 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

Ramsey Trust #1

2-18S-31W Scott KS

Job Ticket: 19564

DST#: 1

Test Start: 2004.05.29 @ 11:00:02

GENERAL INFORMATION:

Formation: **L/KC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:37:32

Time Test Ended: 16:33:32

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: **3954.00 ft (KB) To 3980.00 ft (KB) (TVD)**

Total Depth: 3980.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2921.00 ft (KB)

2916.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6798

Inside

Press@RunDepth: 40.33 psig @ 3955.00 ft (KB)

Start Date: 2004.05.29

End Date:

2004.05.29

Start Time: 11:00:04

End Time:

16:33:32

Capacity: 7000.00 psig

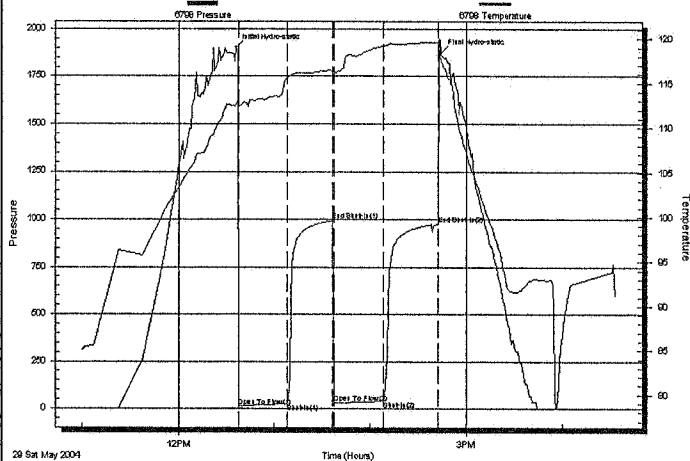
Last Calib.: 1899.12.30

Time On Btm: 2004.05.29 @ 12:36:02

Time Off Btm: 2004.05.29 @ 14:44:02

TEST COMMENT: IF; Weak surface blow slowly built to 3"
FF; Weak surface blow slowly built to 1/2"

Pressure vs. Time



PRESSURE SUMMARY

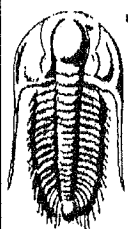
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1900.48	112.59	Initial Hydro-static
2	12.74	112.62	Open To Flow (1)
32	26.11	115.69	Shut-In(1)
61	993.61	116.42	End Shut-In(1)
62	28.38	116.35	Open To Flow (2)
92	40.33	119.16	Shut-In(2)
127	976.50	119.63	End Shut-In(2)
128	1872.47	117.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	WM 30%w tr 70%mud	0.77
10.00	SOCM 5%oil 95%mud	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19564

DST#: 1

Wichita KS. 67226

Test Start: 2004.05.29 @ 11:00:02

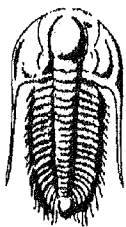
ATTN: Kim Schumaker

Tool Information

Drill Pipe:	Length: 3966.00 ft	Diameter: 3.80 inches	Volume: 55.63 bbl	Tool Weight:	2000.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 lb
			Total Volume: 55.63 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3954.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	45.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3940.00	
Hydraulic tool	5.00			3945.00	
Packer	5.00			3950.00	19.00 Bottom Of Top Packer
Packer	4.00			3954.00	
Stubb	1.00			3955.00	
Recorder	0.00	6798	Inside	3955.00	
Anchor	20.00			3975.00	
Recorder	0.00	13309	Outside	3975.00	
Bullnose	5.00			3980.00	26.00 Bottom Packers & Anchor
Total Tool Length:	45.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

2-18S-31W Scott KS

Job Ticket: 19564

DST#: 1

Test Start: 2004.05.29 @ 11:00:02

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:

28000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.56 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	WM 30%w tr 70%mud	0.772
10.00	SOCM 5%oil 95%mud	0.140

Total Length: 65.00 ft Total Volume: 0.912 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .28 @ 70 deg = 28,000 Chlorides

DST Test Number: 1

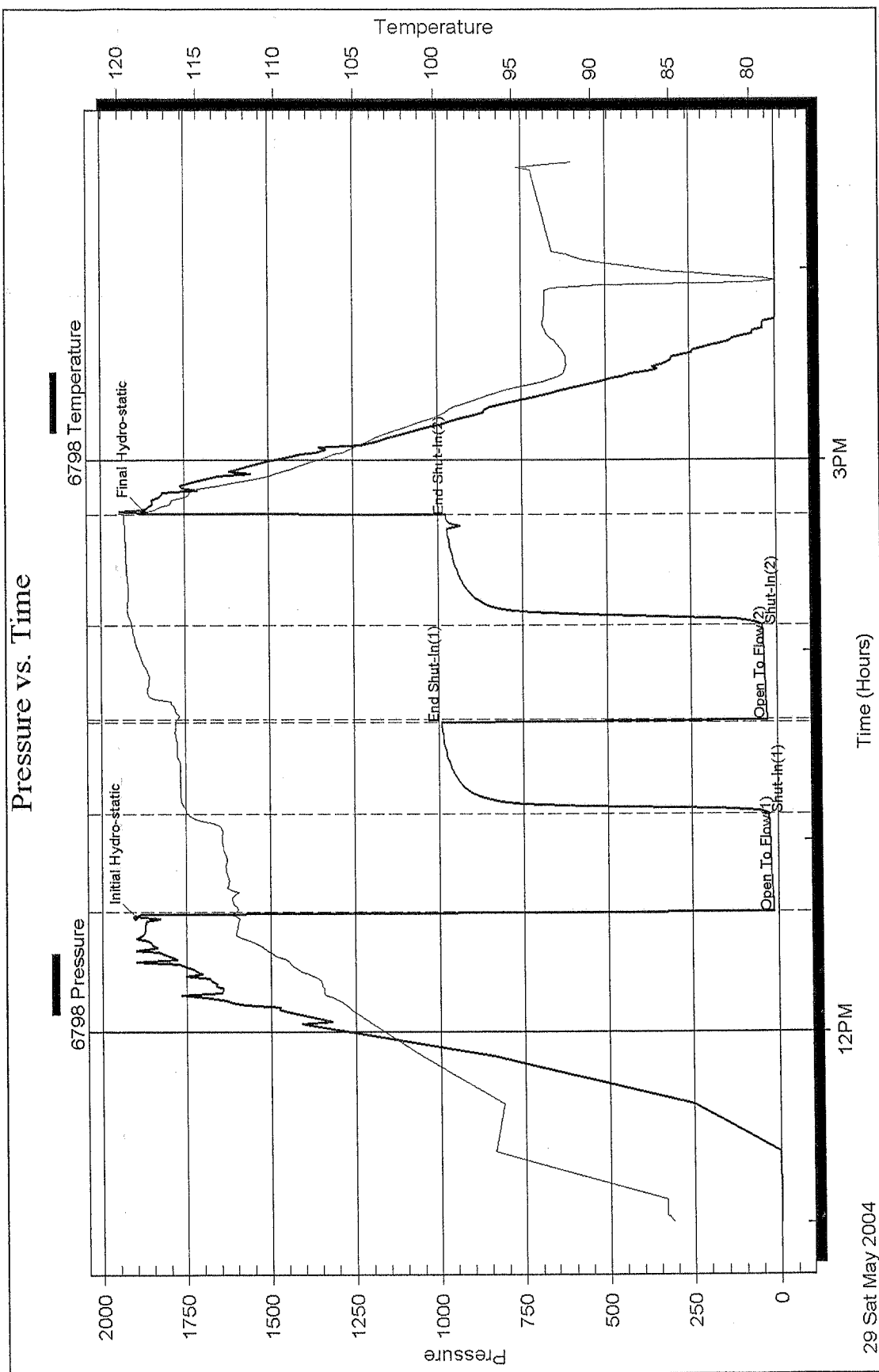
2-18S-31W Scott KS

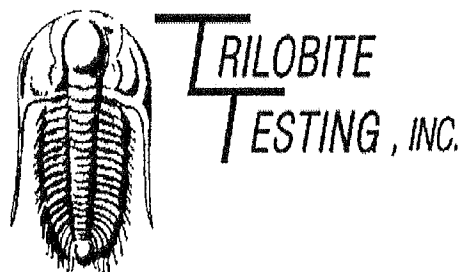
Ritchie Exploration

Inside

Serial #: 6798

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

ATTN: Kim Schumaker

2-18S-31W Scott KS

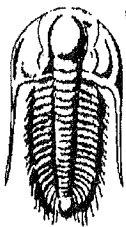
Ramsey Trust #1

Start Date: 2004.05.30 @ 01:08:11

End Date: 2004.05.30 @ 07:40:11

Job Ticket #: 19565 DST #: 2

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

Ramsey Trust #1

2-18S-31W Scott KS

Job Ticket: 19565

DST#: 2

Test Start: 2004.05.30 @ 01:08:11

GENERAL INFORMATION:

Formation: L/KC "E"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:09:41

Time Test Ended: 07:40:11

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: 4012.00 ft (KB) To 4030.00 ft (KB) (TVD)

Total Depth: 3980.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2921.00 ft (KB)

2916.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6798

Inside

Press@RunDepth: 66.69 psig @ 4013.00 ft (KB)

Start Date: 2004.05.30

End Date:

2004.05.30

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 01:08:13

End Time:

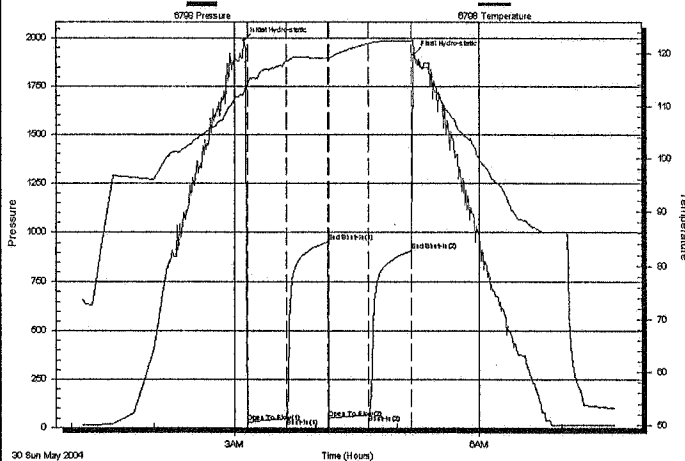
07:40:11

Time On Btm: 2004.05.30 @ 03:07:11

Time Off Btm: 2004.05.30 @ 05:11:56

TEST COMMENT: IF; Weak surface blow built to 3"
FF; Weak surface blow built to 1"

Pressure vs. Time



PRESSURE SUMMARY

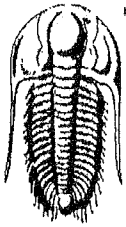
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1987.30	112.37	Initial Hydro-static
3	27.21	113.81	Open To Flow (1)
32	47.65	118.63	Shut-In (1)
62	951.75	119.05	End Shut-In (1)
63	49.96	118.95	Open To Flow (2)
92	66.69	121.92	Shut-In (2)
124	908.66	122.32	End Shut-In (2)
125	1916.45	120.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	WM 90%w tr 10% mud	0.98
10.00	FO	0.14

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19565

DST#: 2

Wichita KS. 67226

Test Start: 2004.05.30 @ 01:08:11

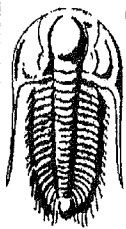
ATTN: Kim Schumaker

Tool Information

Drill Pipe:	Length: 3996.00 ft	Diameter: 3.80 inches	Volume: 56.05 bbl	Tool Weight:	2000.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			Total Volume: 56.05 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	4012.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	37.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3998.00	
Hydraulic tool	5.00			4003.00	
Packer	5.00			4008.00	19.00 Bottom Of Top Packer
Packer	4.00			4012.00	
Stubb	1.00			4013.00	
Recorder	0.00	6798	Inside	4013.00	
Anchor	12.00			4025.00	
Recorder	0.00	13309	Outside	4025.00	
Bullnose	5.00			4030.00	18.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19565

DST#: 2

Wichita KS. 67226

Test Start: 2004.05.30 @ 01:08:11

ATTN: Kim Schumaker

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:

30000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.56 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	WM 90%w tr 10%mud	0.982
10.00	FO	0.140

Total Length: 80.00 ft Total Volume: 1.122 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .24 @ 70 deg = 30,000 Chlorides

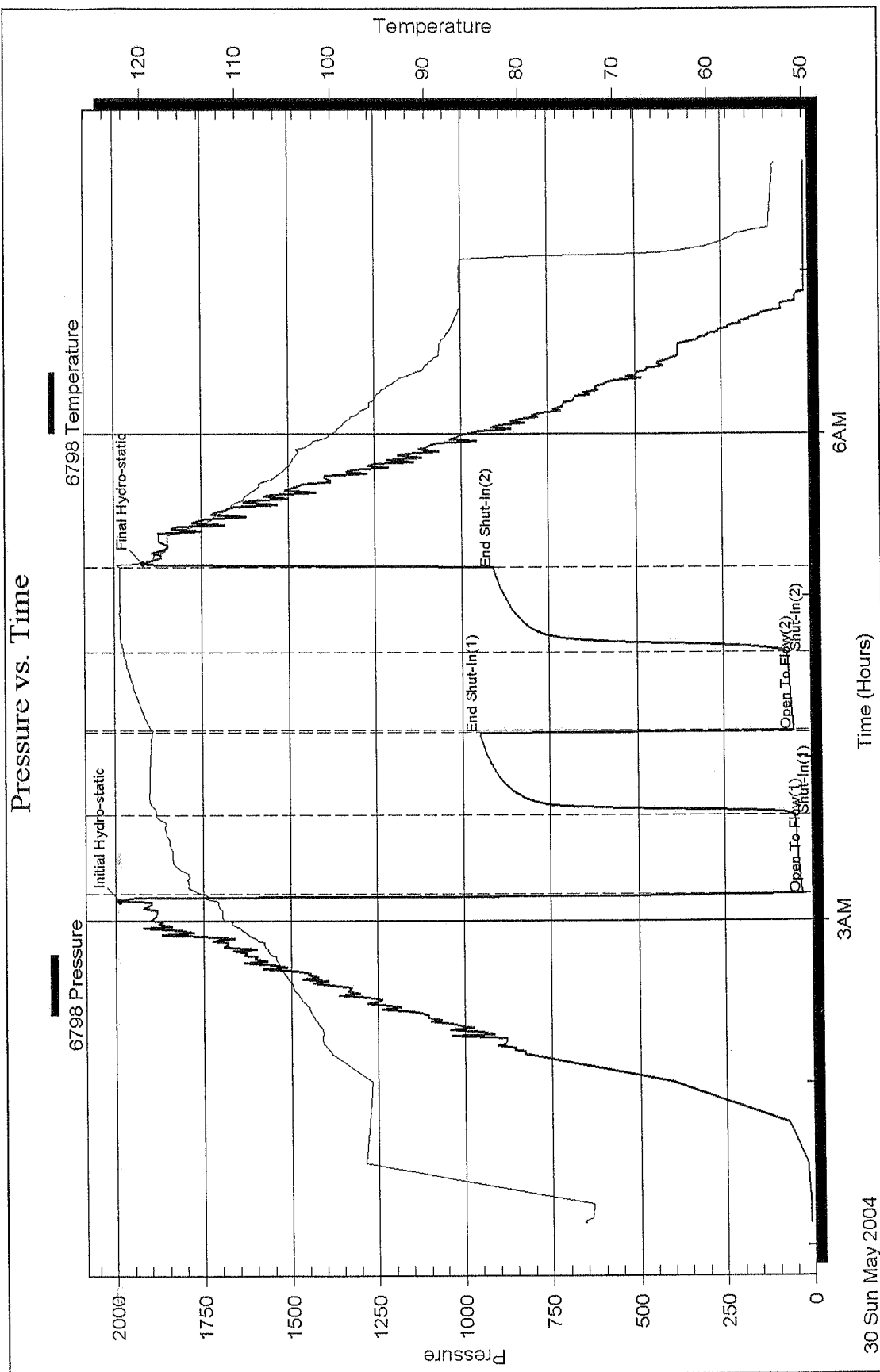
DST Test Number: 2

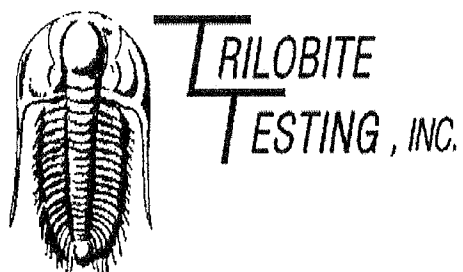
2-18S-31W Scott KS

Inside Ritchie Exploration

Inside

Serial #: 6798





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

ATTN: Kim Schumaker

2-18S-31W Scott KS

Ramsey Trust #1

Start Date: 2004.05.31 @ 03:00:48

End Date: 2004.05.31 @ 10:03:33

Job Ticket #: 19566 DST #: 3

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

Ramsey Trust #1

2-18S-31W Scott KS

Job Ticket: 19566

DST#: 3

Test Start: 2004.05.31 @ 03:00:48

GENERAL INFORMATION:

Formation: **Middle Creek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:56:48

Time Test Ended: 10:03:33

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: 4247.00 ft (KB) To 4258.00 ft (KB) (TVD)

Total Depth: 4258.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2921.00 ft (KB)

2916.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6798

Inside

Press@RunDepth: 168.66 psig @ 4248.00 ft (KB)

Start Date: 2004.05.31

End Date:

2004.05.31

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 03:00:50

End Time:

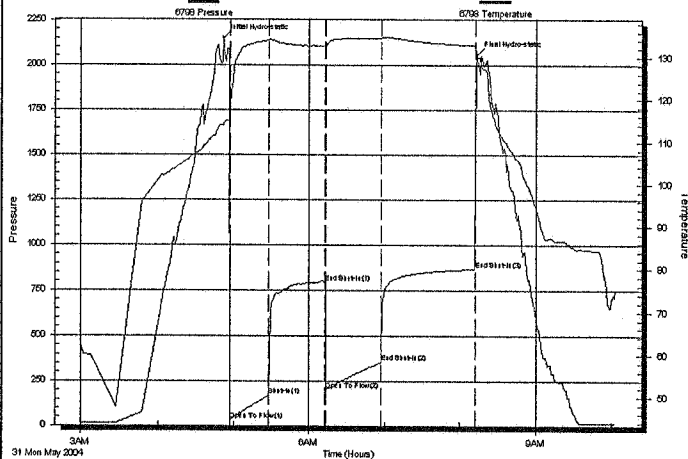
10:03:33

Time On Btm: 2004.05.31 @ 04:51:48

Time Off Btm: 2004.05.31 @ 08:13:33

TEST COMMENT: IF; Fair to strong off btm in 12 mins
IS; Weak return built to 1 1/2"
FF; Fair to strong off btm in 15 mins
FS; No return blow

Pressure vs. Time



PRESSURE SUMMARY

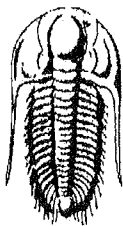
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2149.86	114.07	Initial Hydro-static
5	30.68	116.16	Open To Flow (1)
36	168.66	134.07	Shut-In(1)
81	792.26	132.84	End Shut-In(1)
82	202.08	132.58	Open To Flow (2)
126	353.80	134.62	End Shut-In(2)
201	866.87	132.86	End Shut-In(3)
202	2059.18	130.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
720.00	Sulphur Wtr	10.10

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19566

DST#: 3

Wichita KS. 67226

Test Start: 2004.05.31 @ 03:00:48

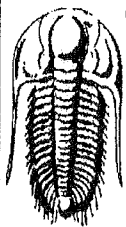
ATTN: Kim Schumaker

Tool Information

Drill Pipe:	Length: 4247.00 ft	Diameter: 3.80 inches	Volume: 59.57 bbl	Tool Weight: 2000.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 59.57 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4247.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	30.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4233.00	
Hydraulic tool	5.00			4238.00	
Packer	5.00			4243.00	19.00 Bottom Of Top Packer
Packer	4.00			4247.00	
Stubb	1.00			4248.00	
Recorder	0.00	6798	Inside	4248.00	
Anchor	5.00			4253.00	
Recorder	0.00	13309	Outside	4253.00	
Bullnose	5.00			4258.00	11.00 Bottom Packers & Anchor
Total Tool Length:		30.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19566

DST#: 3

Wichita KS. 67226

Test Start: 2004.05.31 @ 03:00:48

ATTN: Kim Schumaker

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: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
720.00	Sulpher Wtr	10.100

Total Length: 720.00 ft Total Volume: 10.100 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .19 @ 70 deg = 40,000 Chlorides

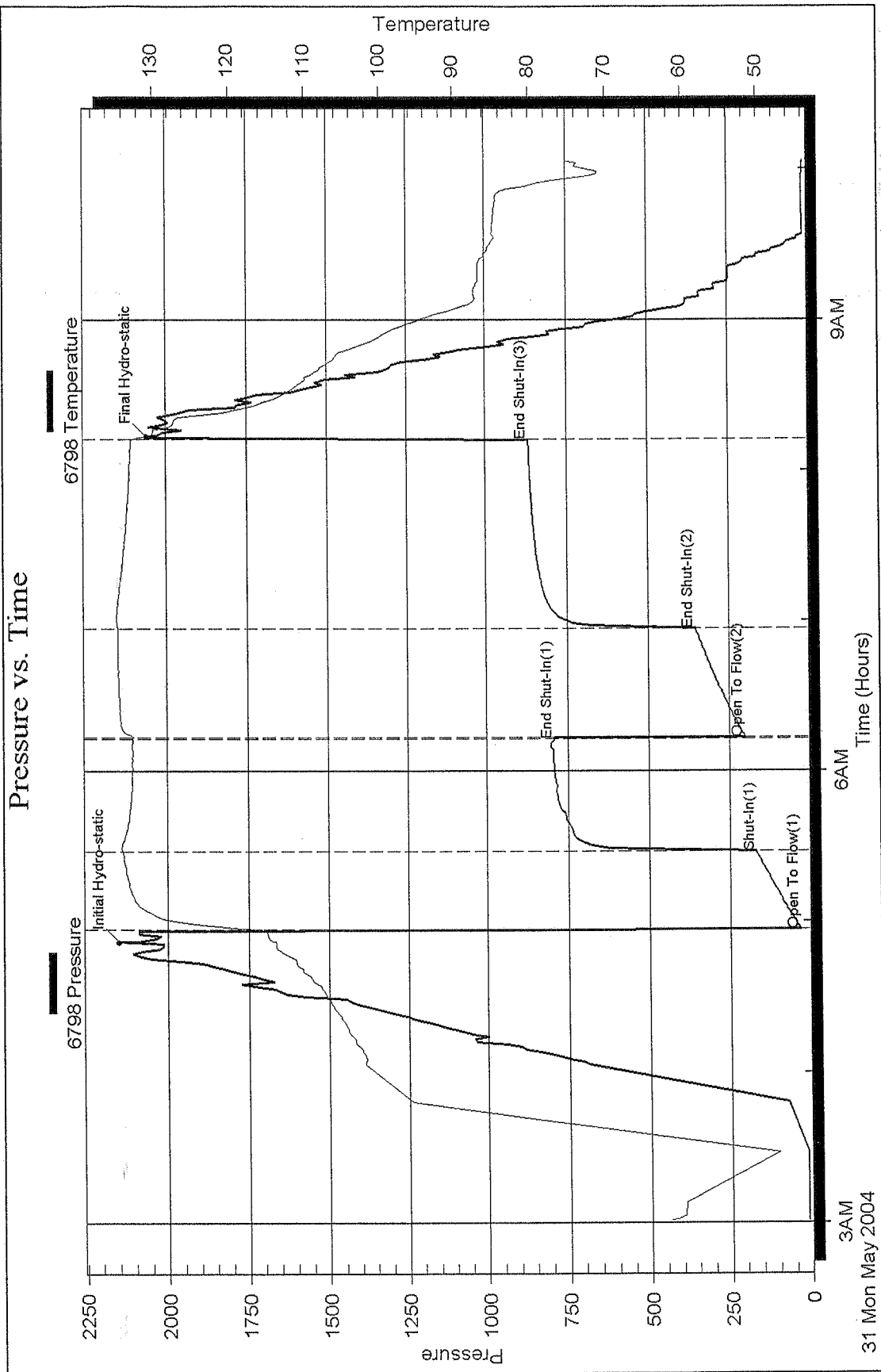
Serial #: 6798

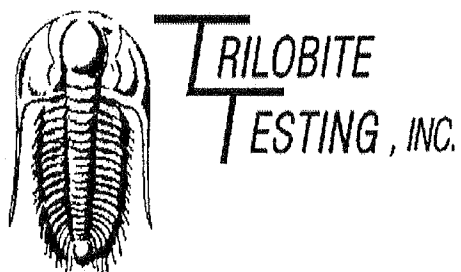
Inside Ritchie Exploration

2-18S-31W Scott KS

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

ATTN: Kim Schumaker

2-18S-31W Scott KS

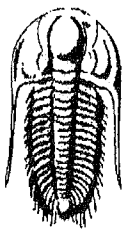
Ramsey Trust #1

Start Date: 2004.06.01 @ 01:20:36

End Date: 2004.06.01 @ 08:28:36

Job Ticket #: 19567 DST #: 4

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

Ramsey Trust #1

2-18S-31W Scott KS

Job Ticket: 19567

DST#: 4

Test Start: 2004.06.01 @ 01:20:36

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:50:06

Time Test Ended: 08:28:36

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: **4295.00 ft (KB) To 4379.00 ft (KB) (TVD)**

Total Depth: 4379.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2921.00 ft (KB)

2916.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6798**

Inside

Press@RunDepth: 264.90 psig @ 4296.00 ft (KB)

Start Date: 2004.06.01

End Date:

2004.06.01

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 01:20:38

End Time:

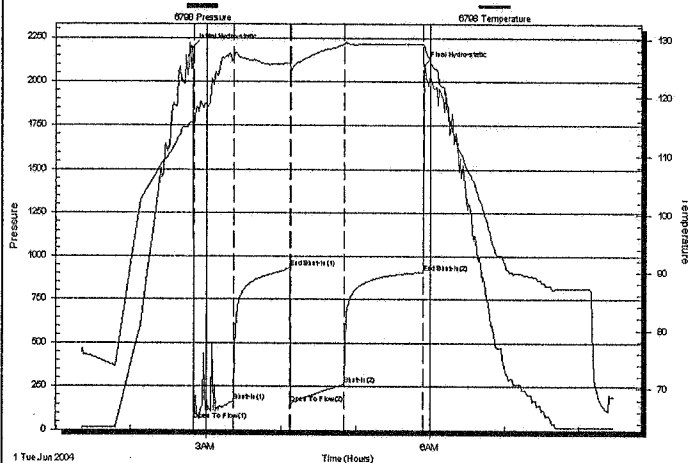
08:28:36

Time On Btm: 2004.06.01 @ 02:48:36

Time Off Btm: 2004.06.01 @ 05:54:36

TEST COMMENT: IF; Fair to strong off btm in 12 mins
IS; No return
FF; Fair to strong off btm in 15 mins
FSI; No return

Pressure vs. Time



PRESSURE SUMMARY

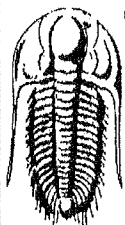
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2191.94	115.84	Initial Hydro-static
2	51.20	114.83	Open To Flow (1)
34	165.50	126.46	Shut-In (1)
79	934.15	125.76	End Shut-In (1)
79	153.54	124.88	Open To Flow (2)
122	264.90	129.14	Shut-In (2)
185	906.98	129.16	End Shut-In (2)
186	2091.28	128.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GSOWCM 20%gas 1%oil 39%w 40%mu	2.60
60.00	GOWCM 40%gas 10%oil 20%w 30%mu	0.84
60.00	GWMCO 10%gas 60%oil 1%w 20%mu	0.84
120.00	GO 20%gas 80%oil	1.68
125.00	GOCM 15%gas 10%oil 75%	1.75
	30 GIP	

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

Ramsey Trust #1

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

2-18S-31W Scott KS

Job Ticket: 19567

DST#: 4

ATTN: Kim Schumaker

Test Start: 2004.06.01 @ 01:20:36

Tool Information

Drill Pipe:	Length: 4280.00 ft	Diameter: 3.80 inches	Volume: 60.04 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	60.04 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4295.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter:	6.75 inches	
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4281.00	
Hydraulic tool	5.00			4286.00	
Packer	5.00			4291.00	19.00 Bottom Of Top Packer
Packer	4.00			4295.00	
Stubb	1.00			4296.00	
Recorder	0.00	6798	Inside	4296.00	
Anchor	14.00			4310.00	
Change Over Sub	1.00			4311.00	
Anchor	62.00			4373.00	
Change Over Sub	1.00			4374.00	
Recorder	0.00	13309	Outside	4374.00	
Bullnose	5.00			4379.00	84.00 Bottom Packers & Anchor

Total Tool Length: 103.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.

2-18S-31W Scott KS

North Bldg. 700

Job Ticket: 19567

DST#: 4

Wichita KS. 67226

Test Start: 2004.06.01 @ 01:20:36

ATTN: Kim Schumaker

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:

25000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	GSOWCM 20%gas 1%oil 39%w 40%mud	2.595
60.00	GOWCM 40%gas 10%oil 20%w 30%mud	0.842
60.00	GWMCO 10%gas 60%oil 1%w 20%mud	0.842
120.00	GO 20%gas 80%oil	1.683
125.00	GOCM 15%gas 10%oil 75%	1.753
	30 GIP	

Total Length: 550.00 ft Total Volume: 7.715 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .28 @ 70 Deg = 25,000 Chlorides

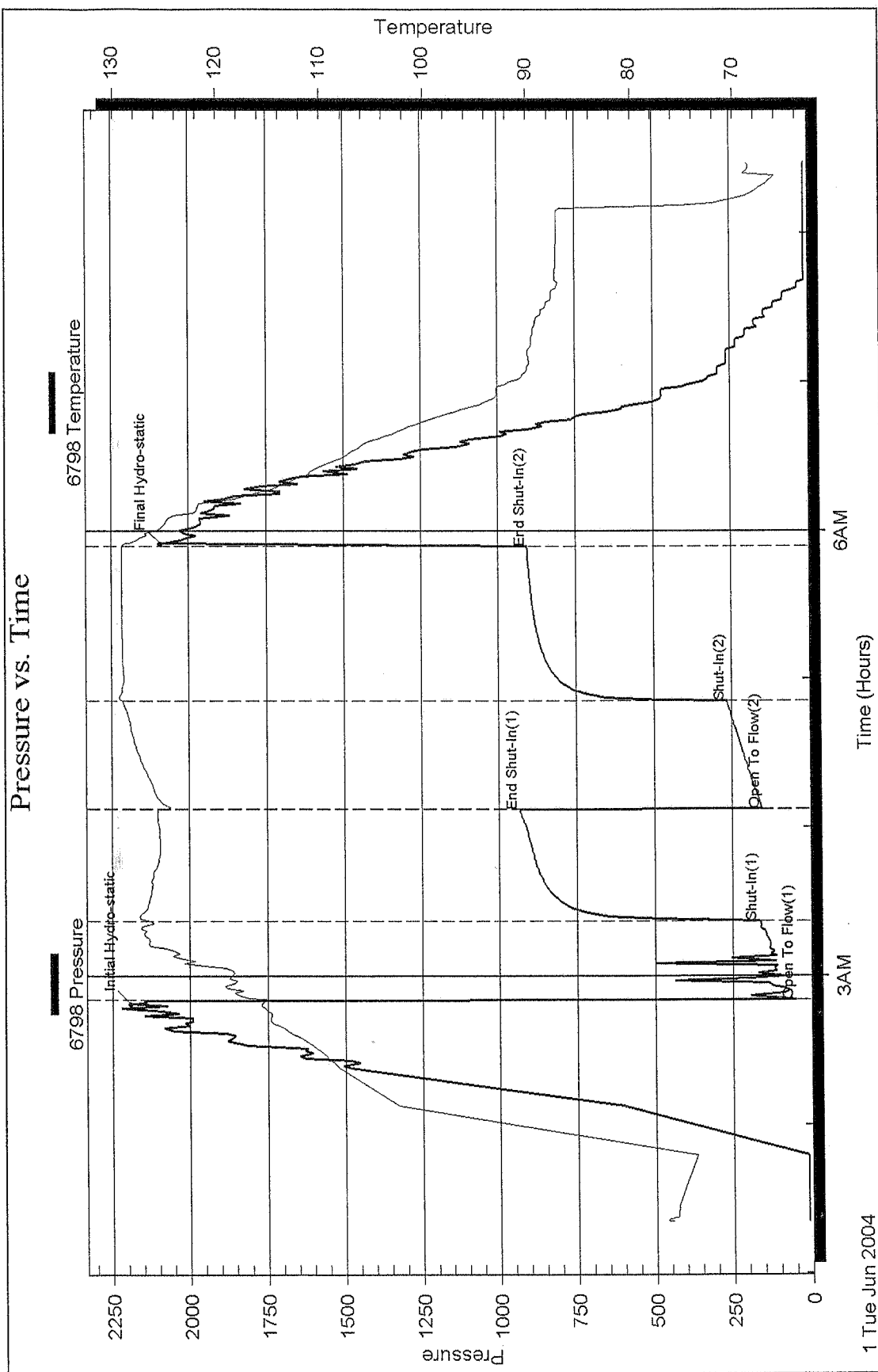
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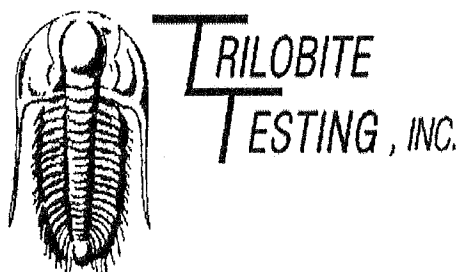
2-18S-31W Scott KS

Ritchie Exploration

Inside

Serial #: 6798





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226

ATTN: Kim Schumaker

2-18S-31W Scott KS

Ramsey Trust #1

Start Date: 2004.06.02 @ 03:43:03

End Date: 2004.06.02 @ 08:41:03

Job Ticket #: 19568

DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

Ramsey Trust #1

2-18S-31W Scott KS

Job Ticket: 19568

DST#: 5

Test Start: 2004.06.02 @ 03:43:03

GENERAL INFORMATION:

Formation: **Cherokee/Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:04:33

Time Test Ended: 08:41:03

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: **4486.00 ft (KB) To 4550.00 ft (KB) (TVD)**

Total Depth: 4550.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2921.00 ft (KB)

2916.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6798

Inside

Press@RunDepth: 32.04 psig @ 4487.00 ft (KB)

Start Date: 2004.06.02

End Date: 2004.06.02

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 03:43:05

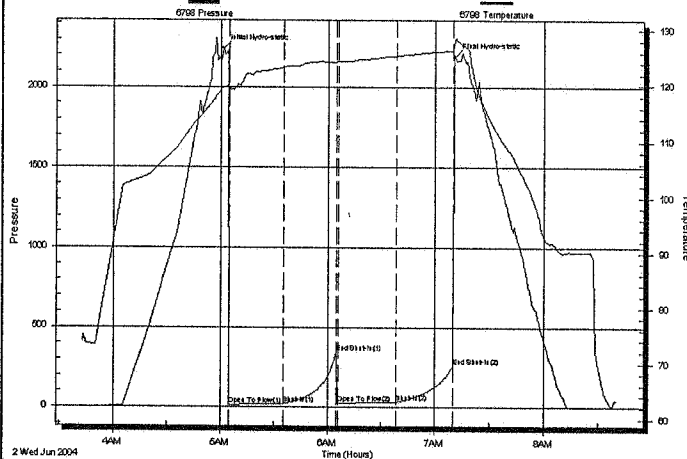
End Time: 08:41:03

Time On Btm: 2004.06.02 @ 05:01:18

Time Off Btm: 2004.06.02 @ 07:11:03

TEST COMMENT: IF; Weak blow built to 4"
IS; No return
FF; Weak blow built to 5"
FS; No return

Pressure vs. Time



PRESSURE SUMMARY

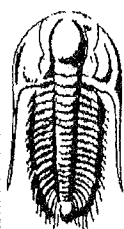
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2238.94	119.59	Initial Hydro-static
4	11.73	119.29	Open To Flow (1)
34	21.52	123.28	Shut-In (1)
64	341.32	124.24	End Shut-In (1)
65	23.05	124.44	Open To Flow (2)
98	32.04	125.32	Shut-In (2)
129	260.74	126.31	End Shut-In (2)
130	2189.79	128.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GOCM 20% gas 20% oil 60% mud	0.84
0.00	90 GIP	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

Ramsey Trust #1

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

2-18S-31W Scott KS

Job Ticket: 19568

DST#: 5

Test Start: 2004.06.02 @ 03:43:03

Tool Information

Drill Pipe:	Length: 4497.00 ft	Diameter: 3.80 inches	Volume: 63.08 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			Total Volume: 63.08 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4486.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4472.00	
Hydraulic tool	5.00			4477.00	
Packer	5.00			4482.00	19.00 Bottom Of Top Packer
Packer	4.00			4486.00	
Stubb	1.00			4487.00	
Recorder	0.00	6798	Inside	4487.00	
Anchor	25.00			4512.00	
Change Over Sub	1.00			4513.00	
Anchor	31.00			4544.00	
Change Over Sub	1.00			4545.00	
Recorder	0.00	13309	Outside	4545.00	
Bullnose	5.00			4550.00	64.00 Bottom Packers & Anchor

Total Tool Length: 83.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Ramsey Trust #1

8100 E. 22nd St.
North Bldg. 700
Wichita KS. 67226
ATTN: Kim Schumaker

2-18S-31W Scott KS
Job Ticket: 19568 **DST#: 5**
Test Start: 2004.06.02 @ 03:43:03

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 7.98 in³
Resistivity: ohm.m
Salinity: 4200.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig
Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GOCM 20%gas 20%oil 60%mud	0.842
0.00	90 GIP	0.000

Total Length: 60.00 ft Total Volume: 0.842 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

