

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Charles N Griffin**

PO Box 347
Pratt, KS 67124

ATTN: Bruce Reed

22 24 13 Stafford KS

#1 Richardson

Start Date: 2011.02.27 @ 07:25:05

End Date: 2011.02.27 @ 15:49:35

Job Ticket #: 041590 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Charles N Griffin

#1 Richardson

22 24 13 Stafford KS

DST # 1

LKC ""

2011.02.27



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

ATTN: Bruce Reed

Job Ticket: 041590

DST#: 1

Test Start: 2011.02.27 @ 07:25:05

GENERAL INFORMATION:

Formation: LKC "I"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:07:35

Time Test Ended: 15:49:35

Test Type: Conventional Bottom Hole

Tester: Leal Cason

Unit No: 45

Interval: 3725.00 ft (KB) To 3760.00 ft (KB) (TVD)

Total Depth: 3760:00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1936.00 ft (KB)

1926.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6798

Inside

Press@RunDepth: 73.33 psig @ 3726.00 ft (KB)

Start Date: 2011.02.27

End Date: 2011.02.27

Start Time: 07:25:06

End Time: 15:49:35

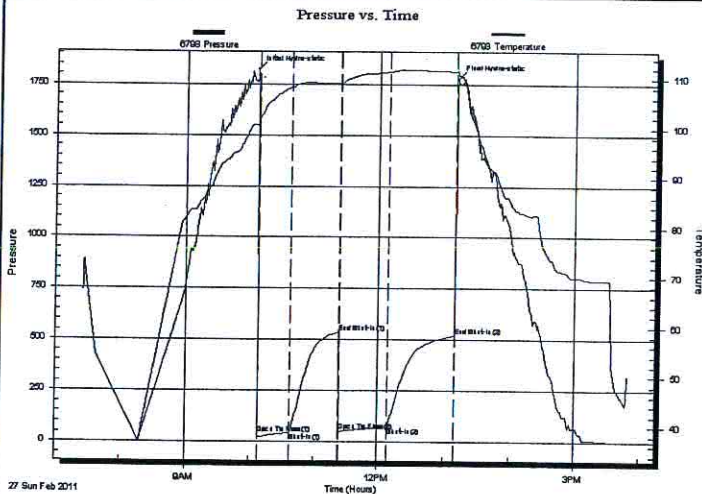
Capacity: 8000.00 psig

Last Calib.: 2011.02.27

Time On Btm: 2011.02.27 @ 10:06:20

Time Off Btm: 2011.02.27 @ 13:10:50

TEST COMMENT: IF: Strong Blow, BOB in 1 minute 45 seconds
IS: Bled Off, No Blow back
FF: Strong Blow, BOB in 1 minute
FS: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1820.59	100.59	Initial Hydro-static
2	40.34	100.10	Open To Flow (1)
32	43.79	108.37	Shut-In(1)
78	537.09	109.11	End Shut-In(1)
78	51.07	108.91	Open To Flow (2)
123	73.33	111.39	Shut-In(2)
184	521.15	111.45	End Shut-In(2)
185	1775.53	111.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GSY OMCW 20%G 4%O 12%M 64%W	0.87
62.00	GSY OWCM 20%G 14%O 32%W 34%	0.87
35.00	GSY OCM 20%G 20%O 60%M	0.49
0.00	300' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041590

DST#: 1

ATTN: Bruce Reed

Test Start: 2011.02.27 @ 07:25:05

Tool Information

Drill Pipe:	Length: 3723.00 ft	Diameter: 3.80 inches	Volume: 52.22 bbl	Tool Weight: 2100.00 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: 65000.00 lb
			<u>Total Volume: 52.22 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3725.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3710.00	
Hydraulic tool	5.00			3715.00	
Packer	5.00			3720.00	20.00 Bottom Of Top Packer
Packer	5.00			3725.00	
Stubb	1.00			3726.00	
Recorder	0.00	6798	Inside	3726.00	
Recorder	0.00	8367	Outside	3726.00	
Perforations	31.00			3757.00	
Bullnose	3.00			3760.00	35.00 Bottom Packers & Anchor
Total Tool Length:	55.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041590

DST#: 1

ATTN: Bruce Reed

Test Start: 2011.02.27 @ 07:25:05

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:

120000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	GSY OMCW 20%G 4%O 12%M 64%W	0.870
62.00	GSY OWCM 20%G 14%O 32%W 34%M	0.870
35.00	GSY OCM 20%G 20%O 60%M	0.491
0.00	300' GIP	0.000

Total Length: 159.00 ft Total Volume: 2.231 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .09 @ 55F = 120000 chlorides

Serial #: 6798

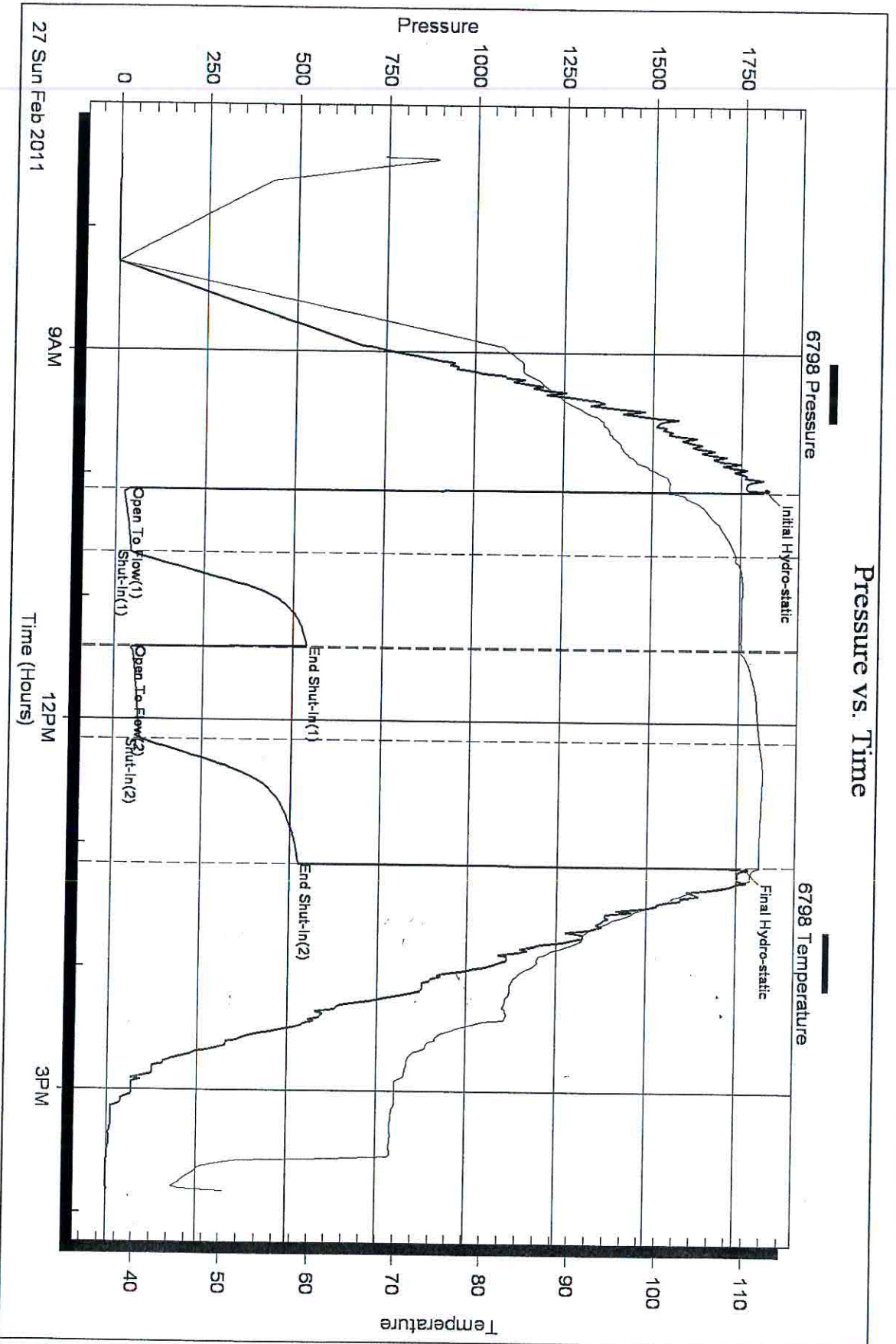
Inside

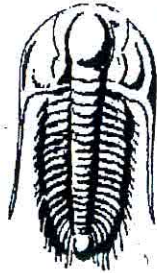
Charles N Griffin

22 24 13 Stafford KS

DST Test Number: 1

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Charles N Griffin**

PO Box 347
Pratt, KS 67124

ATTN: Bruce Reed

22 24 13 Stafford KS

#1 Richardson

Start Date: 2011.02.28 @ 18:31:06

End Date: 2011.03.01 @ 01:02:36

Job Ticket #: 041591 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Charles N Griffin

#1 Richardson

22 24 13 Stafford KS

DST # 2

Simpson

2011.02.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Charles N Griffin
PO Box 347
Pratt, KS 67124
ATTN: Bruce Reed

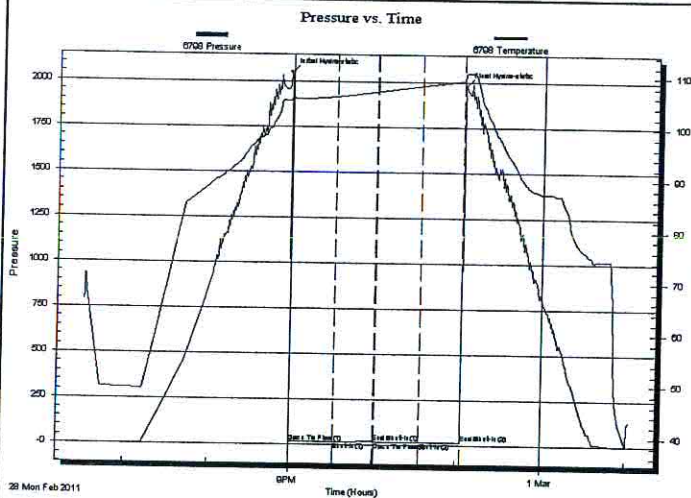
#1 Richardson
22 24 13 Stafford KS
Job Ticket: 041591 DST#: 2
Test Start: 2011.02.28 @ 18:31:06

GENERAL INFORMATION:

Formation: **Simpson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:59:21
Time Test Ended: 01:02:36
Interval: **4065.00 ft (KB) To 4087.00 ft (KB) (TVD)**
Total Depth: **4087.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Good**
Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45
Reference Elevations: 1936.00 ft (KB)
1926.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6798 Inside
Press@RunDepth: 16.41 psig @ 4066.00 ft (KB)
Start Date: 2011.02.28 End Date: 2011.03.01
Start Time: 18:31:07 End Time: 01:02:36
Capacity: 8000.00 psig
Last Calib.: 2011.03.01
Time On Btm: 2011.02.28 @ 20:58:06
Time Off Btm: 2011.02.28 @ 23:04:21

TEST COMMENT: IF: Weak Surface Blow
IS: No Blow back
FF: Weak Surface Blow
FS: No Blow back



PRESSURE SUMMARY

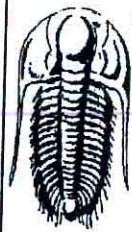
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2047.81	105.29	Initial Hydro-static
2	13.74	104.96	Open To Flow (1)
34	17.02	106.13	Shut-In(1)
63	19.93	107.13	End Shut-In(1)
63	17.25	107.13	Open To Flow (2)
96	16.41	108.31	Shut-In(2)
126	18.11	109.30	End Shut-In(2)
127	1977.33	110.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud	0.03

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

ATTN: Bruce Reed

Job Ticket: 041591

DST#: 2

Test Start: 2011.02.28 @ 18:31:06

Tool Information

Drill Pipe:	Length: 4063.00 ft	Diameter: 3.80 inches	Volume: 56.99 bbl	Tool Weight: 2100.00 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
			<u>Total Volume: 56.99 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4065.00 ft			Final 60000.00 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:

Bottom Packer is a Shale Packer

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4050.00	
Hydraulic tool	5.00			4055.00	
Packer	5.00			4060.00	20.00 Bottom Of Top Packer
Packer	5.00			4065.00	
Stubb	1.00			4066.00	
Recorder	0.00	6798	Inside	4066.00	
Recorder	0.00	8367	Outside	4066.00	
Perforations	18.00			4084.00	
Bullnose	3.00			4087.00	22.00 Bottom Packers & Anchor
Total Tool Length:	42.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041591

DST#: 2

ATTN: Bruce Reed

Test Start: 2011.02.28 @ 18:31:06

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:

ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
2.00	Mud	0.028

Total Length: 2.00 ft

Total Volume: 0.028 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6798

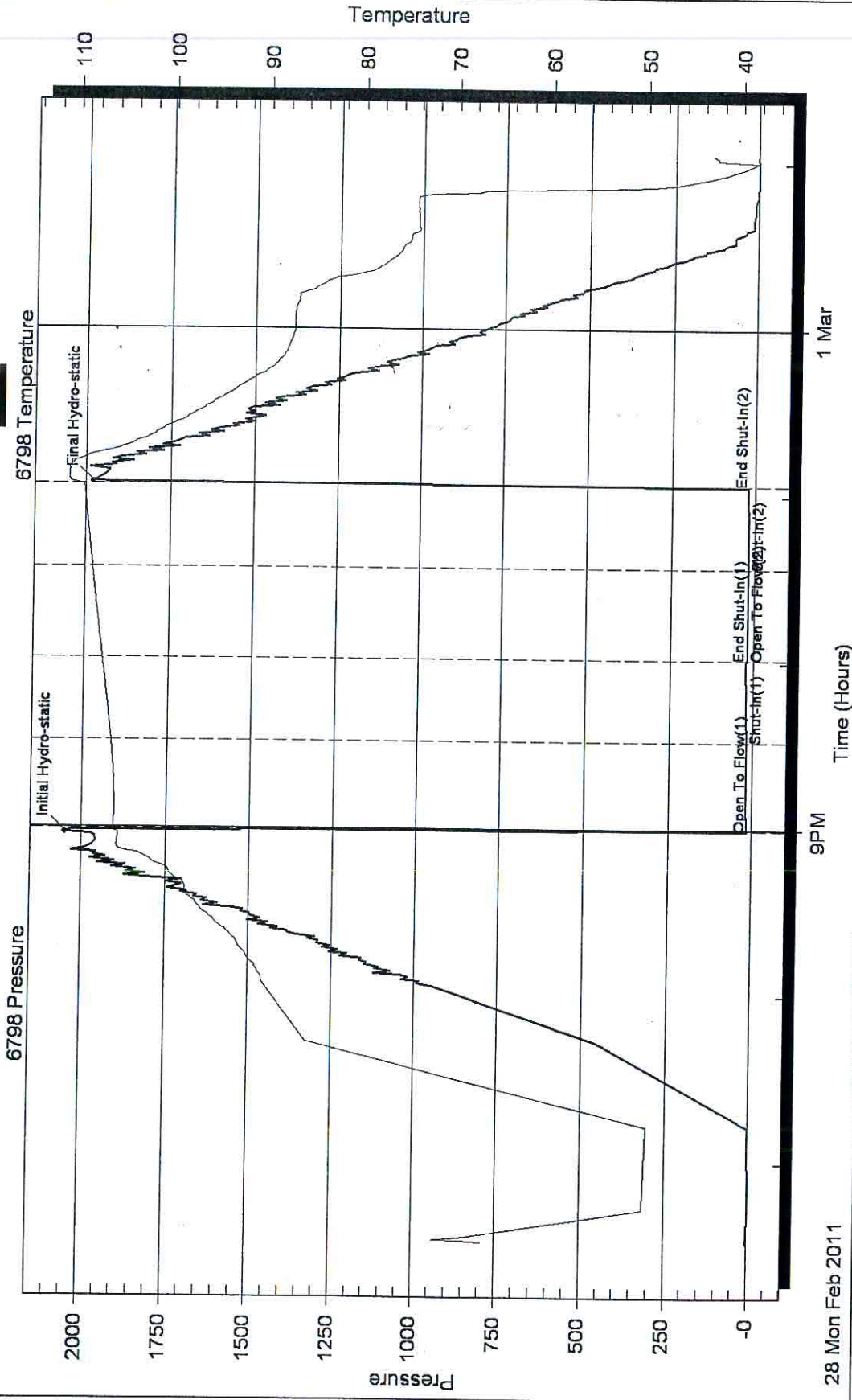
Inside

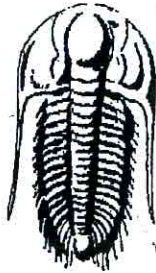
Charles N Griffin

22 24 13 Stafford KS

DST Test Number: 2

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Charles N Griffin**

PO Box 347
Pratt, KS 67124

ATTN: Bruce Reed

22 24 13 Stafford KS

#1 Richardson

Start Date: 2011.03.01 @ 08:12:47

End Date: 2011.03.01 @ 14:34:54

Job Ticket #: 041592 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Charles N Griffin

#1 Richardson

22 24 13 Stafford KS

DST # 3

Arbuckle

2011.03.01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041592 DST#: 3

ATTN: Bruce Reed

Test Start: 2011.03.01 @ 08:12:47

GENERAL INFORMATION:

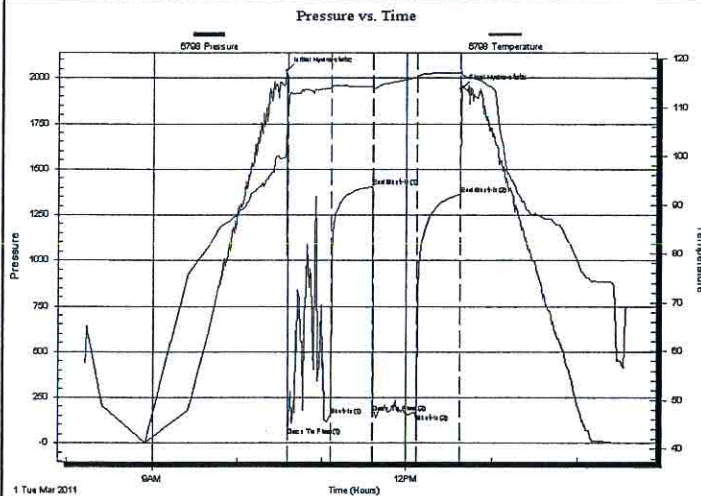
Formation: Arbuckle	Test Type: Conventional Bottom Hole
Deviated: No Whipstock: ft (KB)	Tester: Leal Cason
Time Tool Opened: 10:36:02	Unit No: 45
Time Test Ended: 14:34:54	Reference Elevations: 1936.00 ft (KB)
Interval: 4090.00 ft (KB) To 4095.00 ft (KB) (TVD)	1926.00 ft (CF)
Total Depth: 4095.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches Hole Condition: Good	

Serial #: 6798

Inside

Press@RunDepth: 111.19 psig @ 4091.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2011.03.01	End Date: 2011.03.01
Start Time: 08:12:48	End Time: 14:34:54
Last Calib.: 2011.03.01	Time On Btm: 2011.03.01 @ 10:34:32
Time Off Btm: 2011.03.01 @ 12:38:32	

TEST COMMENT: IF: Fair Blow, 5 inches
IS: Bled Off, No Blow back
FF: Fair Blow, Built to 9 1/2 inches
FS: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2039.43	101.17	Initial Hydro-static
2	36.10	108.88	Open To Flow (1)
32	151.46	114.05	Shut-In(1)
62	1404.29	114.20	End Shut-In(1)
62	164.56	113.73	Open To Flow (2)
93	111.19	116.16	Shut-In(2)
124	1363.57	117.11	End Shut-In(2)
124	1941.60	117.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GSY Oil 5%G 95%O	0.63
0.00	1071 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041592

DST#: 3

ATTN: Bruce Reed

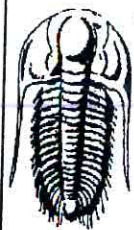
Test Start: 2011.03.01 @ 08:12:47

Tool Information

Drill Pipe:	Length: 4094.00 ft	Diameter: 3.80 inches	Volume: 57.43 bbl	Tool Weight: 2100.00 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: 57.43 bbl	Tool Chased 5.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4090.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	5.00 ft			
Tool Length:	25.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4075.00	
Hydraulic tool	5.00			4080.00	
Packer	5.00			4085.00	20.00 Bottom Of Top Packer
Packer	5.00			4090.00	
Stubb	1.00			4091.00	
Recorder	0.00	6798	Inside	4091.00	
Recorder	0.00	8367	Outside	4091.00	
Perforations	1.00			4092.00	
Bullnose	3.00			4095.00	5.00 Bottom Packers & Anchor
Total Tool Length:	25.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charles N Griffin

#1 Richardson

PO Box 347
Pratt, KS 67124

22 24 13 Stafford KS

Job Ticket: 041592 DST#: 3

ATTN: Bruce Reed

Test Start: 2011.03.01 @ 08:12:47

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 34 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.97 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 9000.00 ppm		
Filter Cake: 0.20 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GSY Oil 5%G 95%O	0.631
0.00	1071 GIP	0.000

Total Length: 45.00 ft Total Volume: 0.631 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

