IND



TRILOBITE TESTING, INC.

CONFIDENTIAL
MAR 18 2008
KCC

DRILL STEM TEST REPORT

Prepared For: **Woolsey Operating Co LLC**

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

6 30 6 Kingman KS

Voran #1

Start Date: 2007.11.26 @ 00:38:33
End Date: 2007.11.26 @ 10:36:18
Job Ticket #: 30116 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION
MAR 18 2008
CONSERVATION DIVISION
WICHITA, KS

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

Woolsey Operating Co LLC Voran #1 6 30 6 Kingman KS DST # 1 Miss. 2007.11.26

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 30116 **DST#: 1**

Test Start: 2007.11.26 @ 00:38:33

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:24:18
Time Test Ended: 10:36:18

Test Type: Conventional Bottom Hole
Tester: Gary Pevoteaux
Unit No: 39

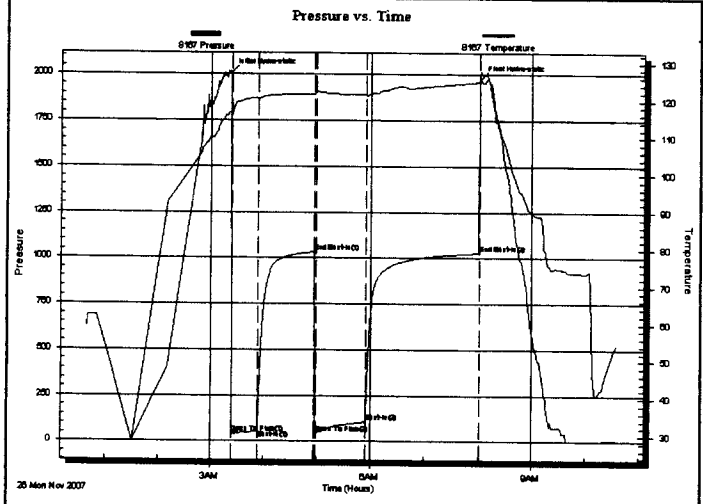
Interval: 4085.00 ft (KB) To 4103.00 ft (KB) (TVD)
Total Depth: 4103.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1446.00 ft (KB)
1436.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8167 **Inside**
Press@RunDepth: 105.28 psig @ 4086.00 ft (KB)
Start Date: 2007.11.26 End Date: 2007.11.26
Start Time: 00:38:38 End Time: 10:36:18

Capacity: 7000.00 psig
Last Calib.: 2007.11.26
Time On Btm: 2007.11.26 @ 03:22:48
Time Off Btm: 2007.11.26 @ 08:02:48

TEST COMMENT: IF Strong blow BOB in 5 secs. GTS in 17 mins.(see gas flow report)
ISI Weak blow 1/4 " Dead in 30 mins.
FF Strong blow (see gas flow report)
FSI Weak blow 1/4 - 1/2 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.17	116.82	Initial Hydro-static
2	42.73	116.59	Open To Flow (1)
32	57.74	120.79	Shut-In(1)
95	1032.73	121.77	End Shut-In(1)
96	44.51	122.35	Open To Flow (2)
152	105.28	121.59	Shut-In(2)
279	1027.36	124.98	End Shut-In(2)
280	1978.22	127.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	G&OCMW 26%G 24%O 22%M 28%W	0.59
0.00	RW .2 OHMS@ 41 deg	0.00
50.00	GOCM 20%G 29%O 51%M	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	29.19
Last Gas Rate	0.25	41.00	87.89
Max. Gas Rate	0.25	41.00	87.89

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 30116 **DST#: 1**

Test Start: 2007.11.26 @ 00:38:33

Tool Information

Drill Pipe:	Length:	3957.00 ft	Diameter:	3.80 inches	Volume:	55.51 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:		23000.00 lb
Drill Collar:	Length:	120.00 ft	Diameter:	2.25 inches	Volume:	0.59 bbl	Weight to Pull Loose:		74000.00 lb
					Total Volume:	56.10 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight:	Initial	62000.00 lb
Depth to Top Packer:		4085.00 ft						Final	62000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		18.00 ft							
Tool Length:		46.00 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			4058.00		
Shut In Tool	5.00			4063.00		
Hydraulic tool	5.00			4068.00		
Jars	5.00			4073.00		
Safety Joint	3.00			4076.00		
Packer	4.00			4080.00	28.00	Bottom Of Top Packer
Packer	5.00			4085.00		
Stubb	1.00			4086.00		
Recorder	0.00	8167	Inside	4086.00		
Recorder	0.00	8357	Inside	4086.00		
Perforations	12.00			4098.00		
Bullnose	5.00			4103.00	18.00	Bottom Packers & Anchor
Total Tool Length:	**46.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 30116 **DST#: 1**

Test Start: 2007.11.26 @ 00:38:33

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:	70000 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.76 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5100.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	G&OCMW 26%G 24%O 22%M 28%W	0.590
0.00	RW .2 OHMS@ 41 deg	0.000
50.00	GOCM 20%G 29%O 51%M	0.701

Total Length: 170.00 ft Total Volume: 1.291 bbl

Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: GP-1

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 30116 **DST#: 1**

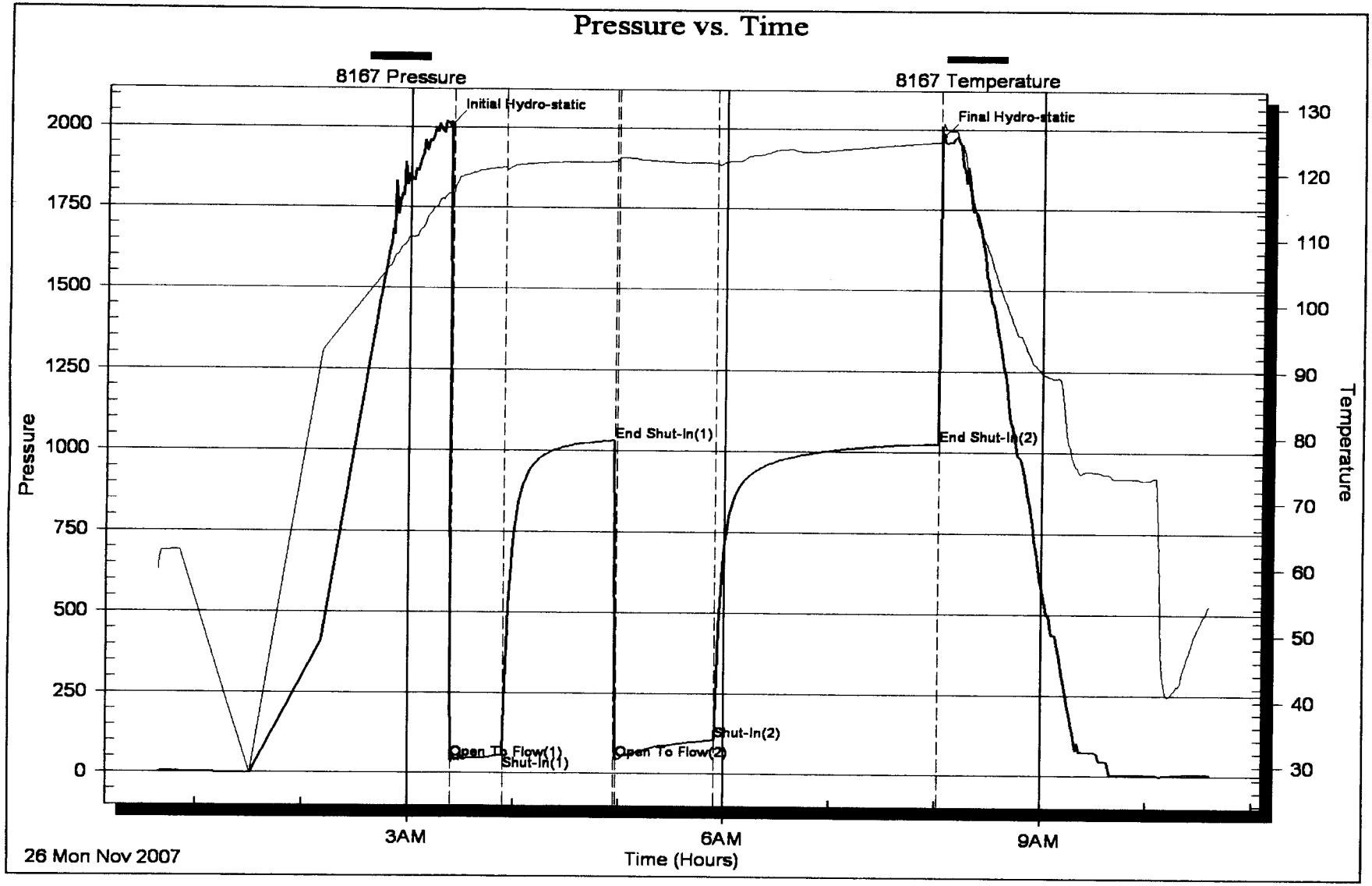
Test Start: 2007.11.26 @ 00:38:33

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
1	20	0.25	4.00	29.19
1	20	0.25	4.00	29.19
1	30	0.25	12.00	41.88
2	10	0.25	21.00	56.16
2	20	0.25	31.00	72.02
2	30	0.25	36.00	79.96
2	40	0.25	38.00	83.13
2	60	0.25	41.00	87.89


Pressure vs. Time
8167 Pressure
8167 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
40
30
3AM
6AM
9AM
Time (Hours)
26 Mon Nov 2007

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Woolsey Operating Co LLC**

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

6 30 6 Kingman KS

Voran #1

Start Date: 2007.11.26 @ 19:26:52
End Date: 2007.11.27 @ 05:33:22
Job Ticket #: 27999 DST #: 2

RECEIVED
KANSAS CORPORATION COMMISSION
MAR 18 2008
CONSERVATION DIVISION
WICHITA, KS

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 27999 **DST#: 2**

Test Start: 2007.11.26 @ 19:26:52

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:38:52
Time Test Ended: 05:33:22

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 36

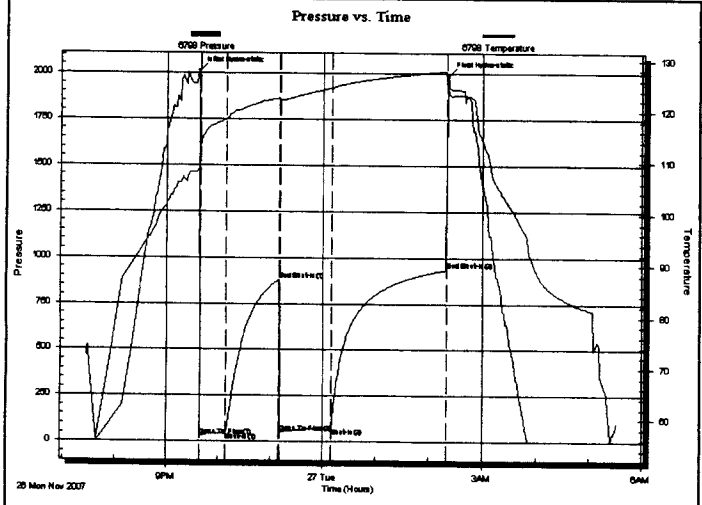
Interval: 4103.00 ft (KB) To 4113.00 ft (KB) (TVD)
Total Depth: 4113.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1446.00 ft (KB)
1436.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 71.70 psig @ 4104.00 ft (KB)
Start Date: 2007.11.26 End Date: 2007.11.27
Start Time: 19:26:53 End Time: 05:33:22

Capacity: 7000.00 psig
Last Calib.: 2007.11.27
Time On Btm: 2007.11.26 @ 21:36:52
Time Off Btm: 2007.11.27 @ 02:21:52

TEST COMMENT: IF Strong blow BOB in 20 secs.
ISI Weak blow Built to 1/2 "
FF Strong blow BOB immediately GTS in 56 mins. TSTM
FSI Weak blow Built to 4 1/4 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2011.17	108.98	Initial Hydro-static
2	25.55	113.27	Open To Flow (1)
32	47.32	118.58	Shut-In(1)
93	879.72	122.61	End Shut-In(1)
94	45.96	122.01	Open To Flow (2)
153	71.70	124.54	Shut-In(2)
283	933.56	127.91	End Shut-In(2)
285	1990.10	123.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	SGO&MCW 20%G 10%O 60%W 10%M	0.30
63.00	HGO&MCW 30%G 20%O 35%W 15%M	0.31
45.00	GO&WCM 10%G 10%O 30%W 50%M	0.63
0.00	3938 ' GIP	0.00
0.00	RW=.2 OHMS@ 41 deg.	0.00

Gas Rates

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

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 27999 **DST#: 2**

Test Start: 2007.11.26 @ 19:26:52

Tool Information

Drill Pipe:	Length:	3983.00 ft	Diameter:	3.80 inches	Volume:	55.87 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:	125.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:		72000.00 lb
					Total Volume:	56.48 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		33.00 ft					String Weight:	Initial	62000.00 lb
Depth to Top Packer:		4103.00 ft						Final	62000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		10.00 ft							
Tool Length:		38.00 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			4076.00		
Shut In Tool	5.00			4081.00		
Hydraulic tool	5.00			4086.00		
Jars	5.00			4091.00		
Safety Joint	3.00			4094.00		
Packer	4.00			4098.00	28.00	Bottom Of Top Packer
Packer	5.00			4103.00		
Stubb	1.00			4104.00		
Recorder	0.00	6798	Inside	4104.00		
Recorder	0.00	8358	Inside	4104.00		
Perforations	6.00			4110.00		
Bullnose	3.00			4113.00	10.00	Bottom Packers & Anchor
Total Tool Length:	**38.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 27999 **DST#: 2**

Test Start: 2007.11.26 @ 19:26:52

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:	70000 ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5200.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

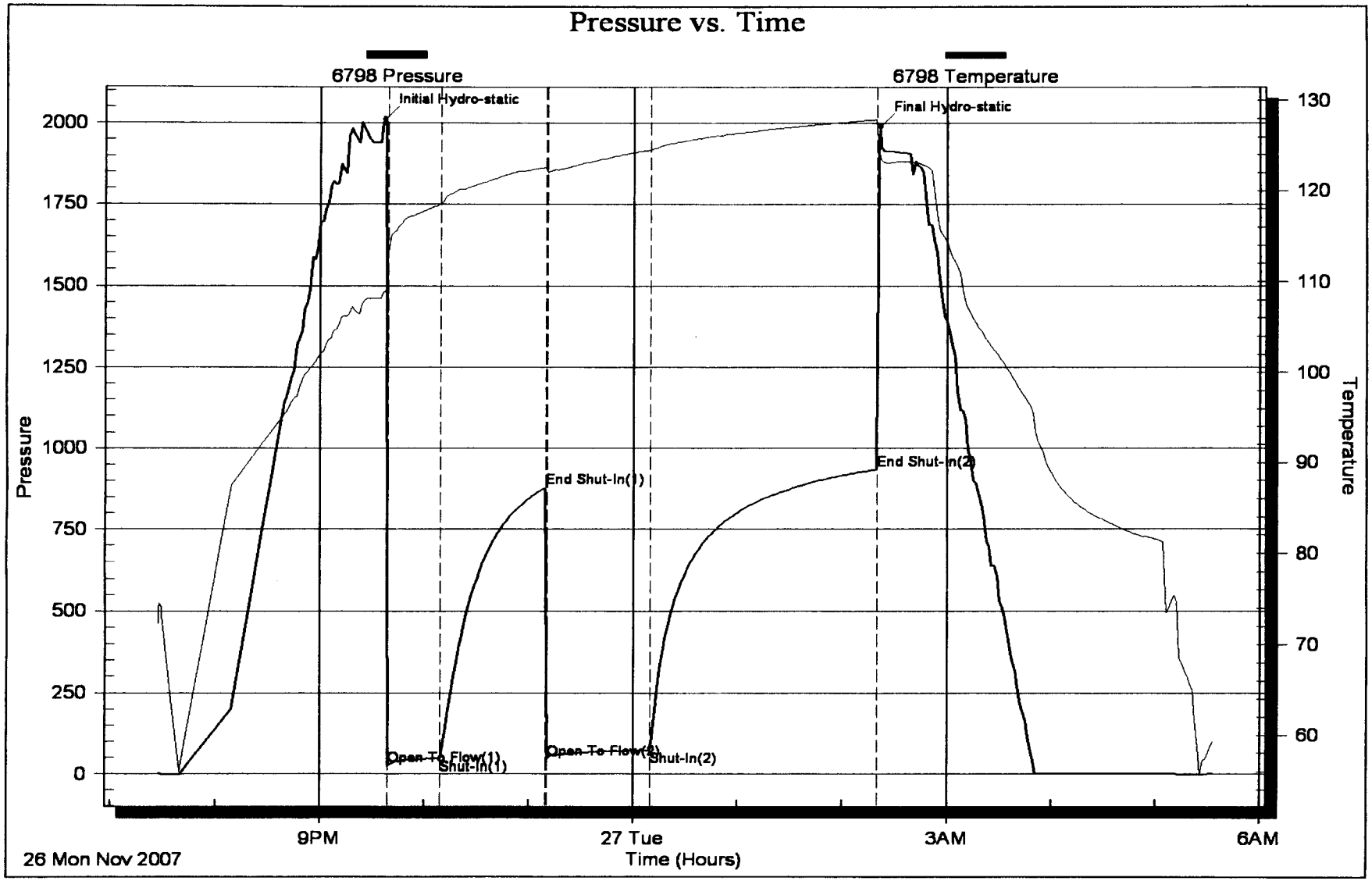
Length ft	Description	Volume bbl
62.00	SGO&MCW 20%G 10%O 60%W 10%M	0.305
63.00	HGO&MCW 30%G 20%O 35%W 15%M	0.310
45.00	GO&WCM 10%G 10%O 30%W 50%M	0.631
0.00	3938 ' GIP	0.000
0.00	RW=.2 OHMS@ 41 deg.	0.000

Total Length: 170.00 ft Total Volume: 1.246 bbl

Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: GA-1

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
9PM
27 Tue
3AM
6AM
26 Mon Nov 2007
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 28000 **DST#: 3**

Test Start: 2007.11.27 @ 15:48:03

GENERAL INFORMATION:

Formation: **Miss./Osage**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:42:03
Time Test Ended: 01:12:03

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 36

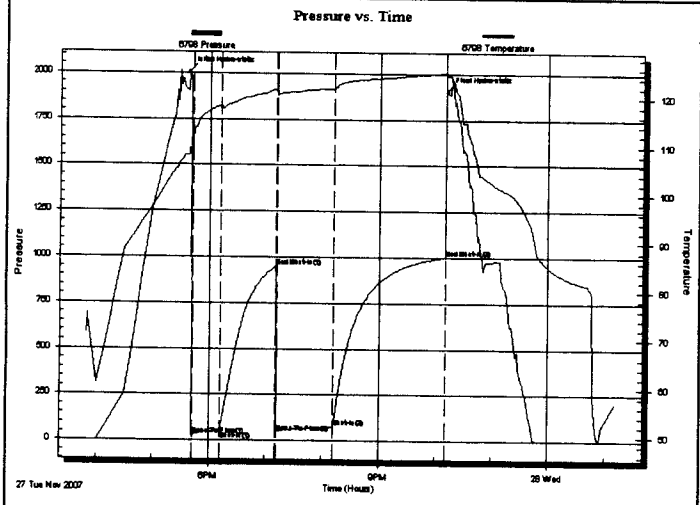
Interval: 4113.00 ft (KB) To 4128.00 ft (KB) (TVD)
Total Depth: 4128.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1446.00 ft (KB)
1436.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6798 **Inside**
Press@RunDepth: 72.36 psig @ 4114.00 ft (KB)
Start Date: 2007.11.27 End Date: 2007.11.28
Start Time: 15:48:04 End Time: 01:12:03

Capacity: 7000.00 psig
Last Calib.: 2007.11.28
Time On Btm: 2007.11.27 @ 17:38:03
Time Off Btm: 2007.11.27 @ 22:12:33

TEST COMMENT: IF Strong blow BOB in 3 mins 15 secs.
ISI Weak surface blow
FF Strong blow BOB immediately
FSI Weak blow Built to 2 1/4 "



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.21	108.41	Initial Hydro-static
4	27.83	111.67	Open To Flow (1)
34	49.99	118.27	Shut-In(1)
93	948.26	121.63	End Shut-In(1)
94	42.10	120.34	Open To Flow (2)
154	72.36	121.86	Shut-In(2)
273	1001.30	125.16	End Shut-In(2)
275	1909.50	124.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
23.00	SGO&MCW 5%G 5%O 65%W 25%M	0.11
102.00	HG&OCMW 35%G 20%O 30%W 15%M	0.50
55.00	GO&WCM 10%G 15%O 30%W 45%M	0.77
0.00	2520 ' GIP	0.00
0.00	RW= .118 OHMS@ 55.5 deg.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 28000 **DST#: 3**

Test Start: 2007.11.27 @ 15:48:03

Tool Information

Drill Pipe:	Length:	3983.00 ft	Diameter:	3.80 inches	Volume:	55.87 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:	125.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	56.48 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		4113.00 ft						Final	64000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		15.00 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			4086.00		
Shut In Tool	5.00			4091.00		
Hydraulic tool	5.00			4096.00		
Jars	5.00			4101.00		
Safety Joint	3.00			4104.00		
Packer	4.00			4108.00	28.00	Bottom Of Top Packer
Packer	5.00			4113.00		
Stubb	1.00			4114.00		
Recorder	0.00	6798	Inside	4114.00		
Recorder	0.00	8358	Inside	4114.00		
Perforations	11.00			4125.00		
Bullnose	3.00			4128.00	15.00	Bottom Packers & Anchor
Total Tool Length:	**43.00**					

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co LLC

125 N Market Ste 1000
Wichita KS 67202

ATTN: Roger L.Martin

Voran #1

6 30 6 Kingman KS

Job Ticket: 28000 **DST#: 3**

Test Start: 2007.11.27 @ 15:48:03

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:	85000 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.39 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	8400.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

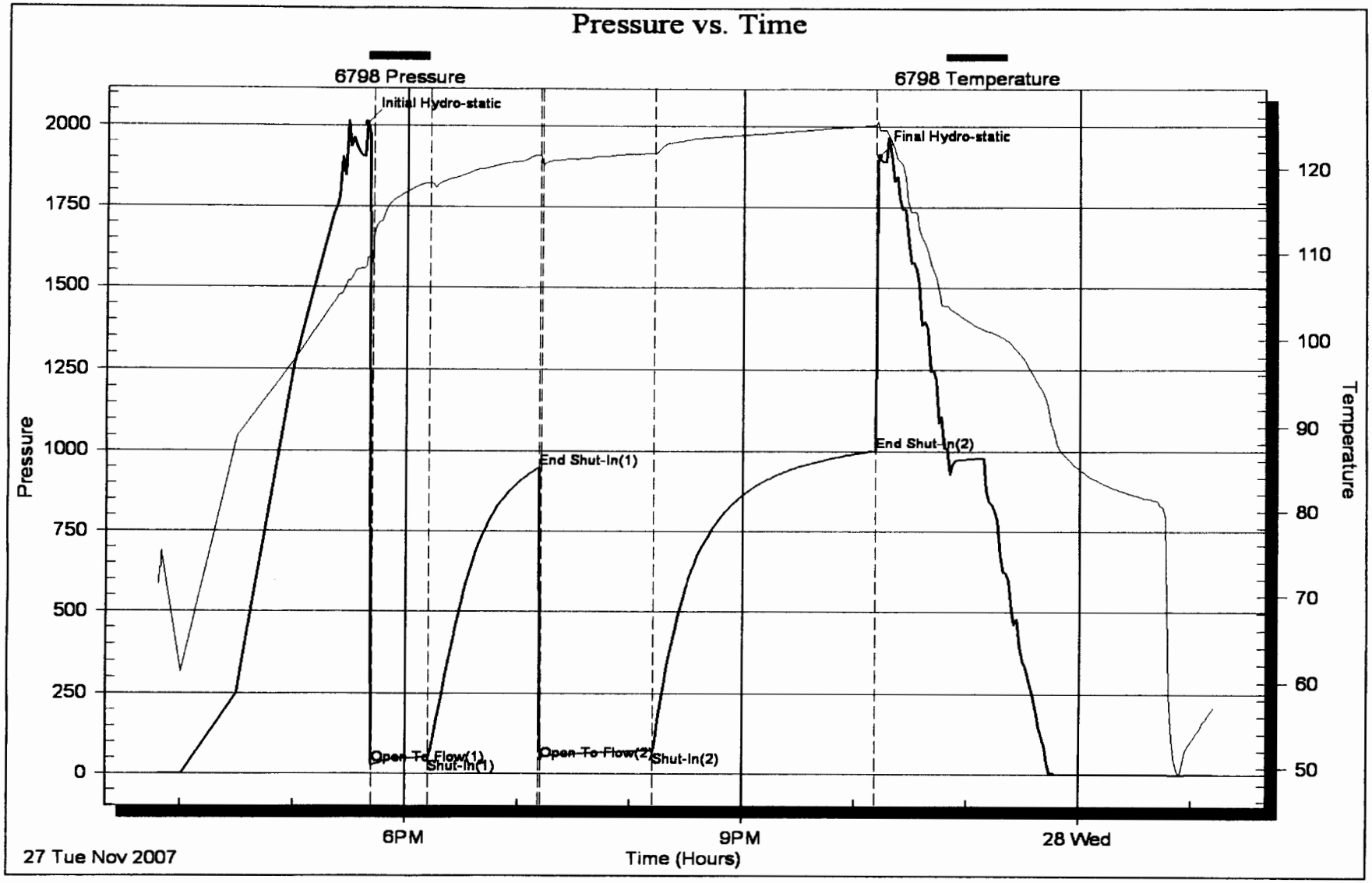
Length ft	Description	Volume bbl
23.00	SGO&MCW 5%G 5%O 65%W 25%M	0.113
102.00	HG&OCMW 35%G 20%O 30%W 15%M	0.502
55.00	GO&WCM 10%G 15%O 30%W 45%M	0.772
0.00	2520 ' GIP	0.000
0.00	RW= .118 OHMS@ 55.5 deg.	0.000

Total Length: 180.00 ft Total Volume: 1.387 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
2000
1750
1500
1250
1000
750
500
250
0
Pressure
120
110
100
90
80
70
60
50
Temperature
6PM
9PM
28 Wed
27 Tue Nov 2007
Time (Hours)