



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Hess Oil Co  
PO Box 1009  
McPherson, KS 67460  
ATTN: Derek Patterson

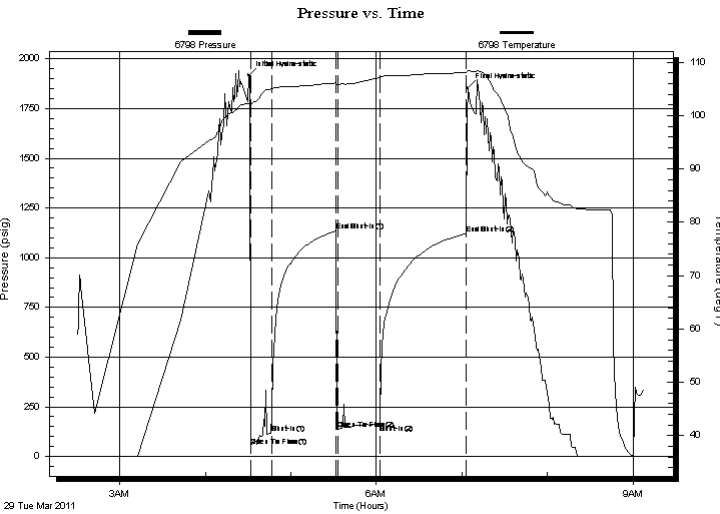
**Wood #1-7**  
**7-21S-14W Stafford**  
Job Ticket: 041399 **DST#: 1**  
Test Start: 2011.03.29 @ 02:30:31

## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 04:31:46  
Time Test Ended: 09:08:16  
Interval: **3670.00 ft (KB) To 3752.00 ft (KB) (TVD)**  
Total Depth: 3752.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Leal Cason  
Unit No: 45  
Reference Elevations: 1932.00 ft (KB)  
1927.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 6798 Inside**  
Press @ Run Depth: 163.34 psig @ 3671.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2011.03.29 End Date: 2011.03.29 Last Calib.: 2011.03.29  
Start Time: 02:30:32 End Time: 09:08:16 Time On Btm: 2011.03.29 @ 04:30:31  
Time Off Btm: 2011.03.29 @ 07:04:16

**TEST COMMENT:** IF: Fair Blow , Built to 7 inches  
IS: Bled Off , No Blow back  
FF: Fair Blow , Built To 7 1/2 inches  
FS: Bled Off , No Blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.51	102.31	Initial Hydro-static
2	53.63	101.95	Open To Flow (1)
16	119.11	105.00	Shut-In(1)
62	1135.36	106.14	End Shut-In(1)
63	135.32	105.85	Open To Flow (2)
92	163.34	107.13	Shut-In(2)
153	1120.06	108.07	End Shut-In(2)
154	1853.73	108.42	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
243.00	GWOCM 5%G 5%W 20%O 70%	1.20
77.00	GOCM 5%G 20%O 75%M	1.08

## Gas Rates

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



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**FLUID SUMMARY**

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ATTN: Derek Patterson

**Wood #1-7**  
**7-21S-14W Stafford**  
Job Ticket: 041399      **DST#: 1**  
Test Start: 2011.03.29 @ 02:30:31

## Mud and Cushion Information

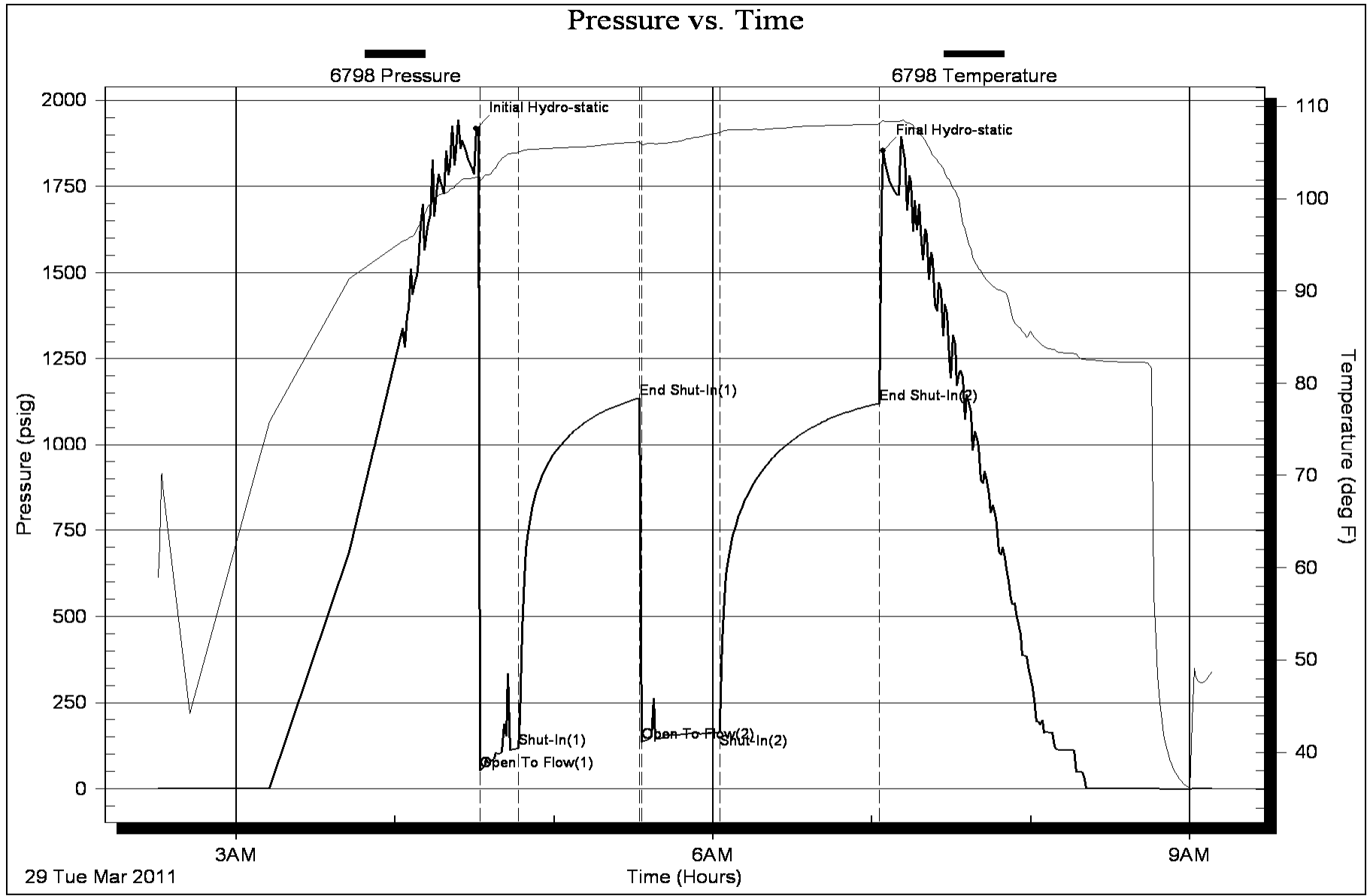
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 0.20 inches			

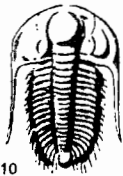
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
243.00	GWOCM 5%G 5%W 20%O 70%	1.195
77.00	GOCM 5%G 20%O 75%M	1.080

Total Length: 320.00 ft      Total Volume: 2.275 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket 155.55

NO. 041897

4/10

Well Name & No. WOOD #1-7 Test No. 1 Date 03/29/11  
 Company Hess oil co Elevation 1932 KB 1927 GL  
 Address PO BOX 1009 McPherson, KS 67460  
 Co. Rep / Geo. Derek Patterson Rig Mallard Rig #1  
 Location: Sec. 7 Twp. 21S Rge. 14W Co. Stafford State KS

Interval Tested 3670 - 3752 Zone Tested Arbuckle  
 Anchor Length 82 Drill Pipe Run 3422 Mud Wt. 9.2  
 Top Packer Depth 3665 Drill Collars Run 243 Vis 49  
 Bottom Packer Depth 3670 Wt. Pipe Run 0 WL 10.0  
 Total Depth 3752 Chlorides 5000 ppm System LCM

Blow Description IF: Fair Blow, Built to 7 inches  
ISI: Bled off, NO Blowback  
FF: Fair Blow, Built to 7 1/2 inches  
FST: Bled off, NO Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>77</u>	<u>Feet of GOCM</u>	<u>5</u>	<u>20</u>	<u>75</u>	
<u>243</u>	<u>Feet of GOWCM</u>	<u>5</u>	<u>20</u>	<u>5</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 320 BHT 108° Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic <u>1917</u>	<input checked="" type="checkbox"/> Test <u>1125"</u>	T-On Location <u>00:45</u>
(B) First Initial Flow <u>54</u>	<input checked="" type="checkbox"/> Jars <u>250"</u>	T-Started <u>02:30</u>
(C) First Final Flow <u>119</u>	<input checked="" type="checkbox"/> Safety Joint <u>75"</u>	T-Open <u>04:31</u>
(D) Initial Shut-In <u>1135</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>07:02</u>
(E) Second Initial Flow <u>135</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>09:08</u>
(F) Second Final Flow <u>163</u>	<input checked="" type="checkbox"/> Mileage <u>100</u> <u>125"</u>	Comments
(G) Final Shut-In <u>1120</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1854</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1575"</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1575"</u>	

Approved By Derek Patterson Our Representative [Signature]

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