

**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Hess Oil Co**

PO Box 1009  
McPherson KS 67460

ATTN: James C.Hess

<sup>14</sup>  
~~1045~~ **22W Trego KS** KCC

### **Juliette # 1**

Start Date: 2006.10.09 @ 05:45:45

End Date: 2006.10.09 @ 12:14:45

Job Ticket #: 26102                      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

**TOOL DIAGRAM**

Hess Oil Co  
PO Box 1009  
McPherson KS 67460  
ATTN: James C.Hess

**Juliette # 1**  
**10 4S 22W Trego KS**  
Job Ticket: 26102      **DST#: 1**  
Test Start: 2006.10.09 @ 05:45:45

**Tool Information**

Drill Pipe:	Length: 3821.00 ft	Diameter: 3.80 inches	Volume: 53.60 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 249.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 54.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4090.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 675.00 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4063.00	
Shut In Tool	5.00			4068.00	
Hydraulic tool	5.00			4073.00	
Jars	5.00			4078.00	
Safety Joint	3.00			4081.00	
Packer	4.00			4085.00	28.00      Bottom Of Top Packer
Packer	5.00			4090.00	
Stubb	1.00			4091.00	
Perforations	3.00			4094.00	
Change Over Sub	1.00			4095.00	
Recorder	0.00	8018	Inside	4095.00	
Blank Spacing	31.00			4126.00	
Change Over Sub	1.00			4127.00	
Recorder	0.00	11084	Outside	4127.00	
Perforations	20.00			4147.00	
Bullnose	3.00			4150.00	60.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>88.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Hess Oil Co

**Juliette # 1**

PO Box 1009  
McPherson KS 67460

**10 4S 22W Trego KS**

ATTN: James C.Hess

Job Ticket: 26102

**DST#: 1**

Test Start: 2006.10.09 @ 05:45:45

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	Muddy Oil 50%M 50%Oil	1.239
50.00	Clean Oil	0.701

Total Length: 300.00 ft

Total Volume: 1.940 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8018

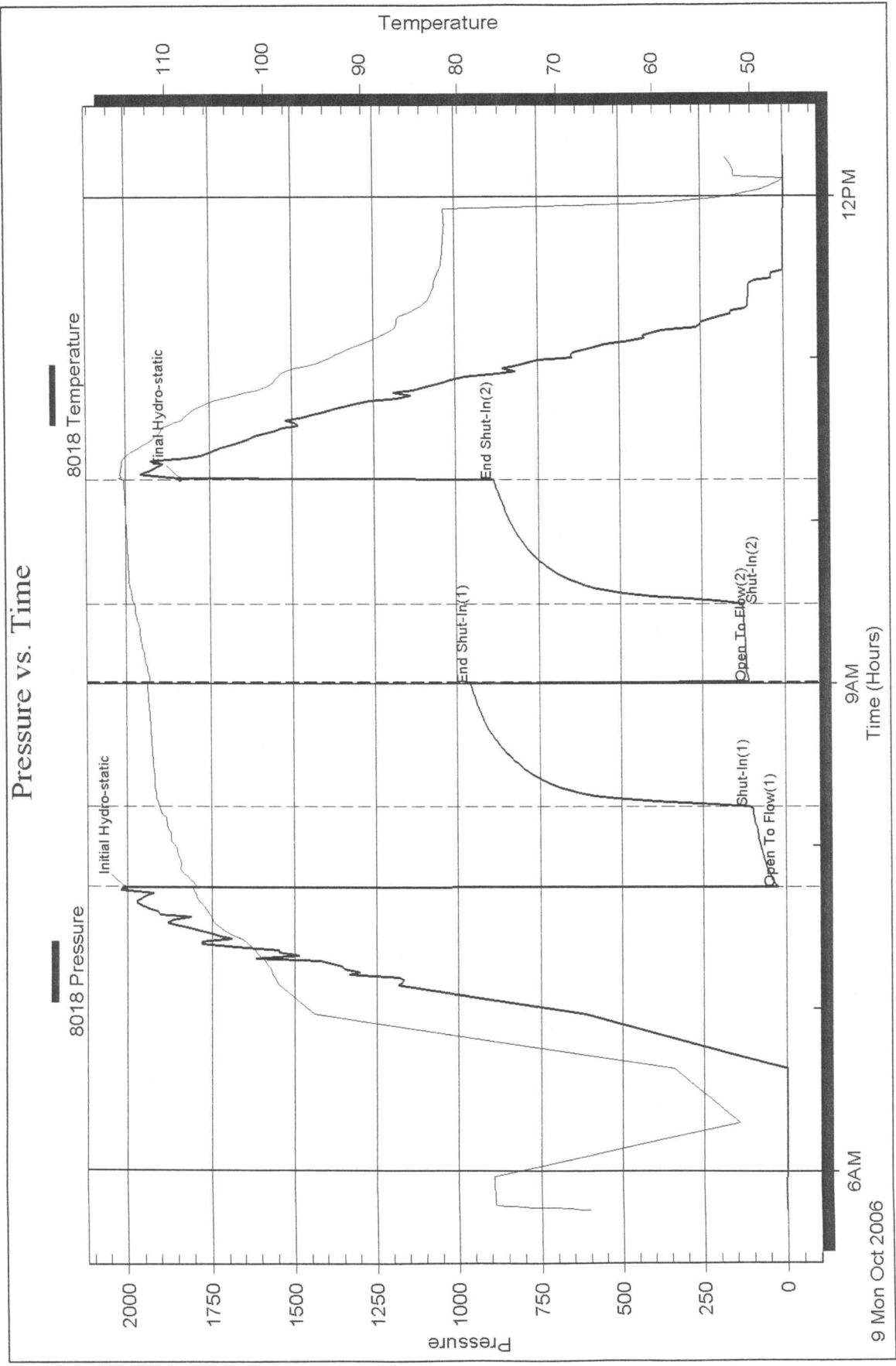
Inside

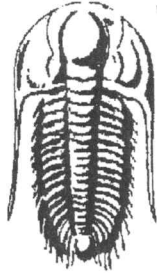
Hess Oil Co

10 4S 22W Trego KS

DST Test Number: 1

### Pressure vs. Time





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Hess Oil Co**

PO Box 1009  
McPherson KS 67460

ATTN: James C.Hess

<sup>14</sup>  
**10 4S 22W Trego KS**

KCC

### **Juliette # 1**

Start Date: 2006.10.09 @ 17:08:12

End Date: 2006.10.10 @ 00:12:12

Job Ticket #: 26102                      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

Hess Oil Co  
 PO Box 1009  
 McPherson KS 67460  
 ATTN: James C.Hess

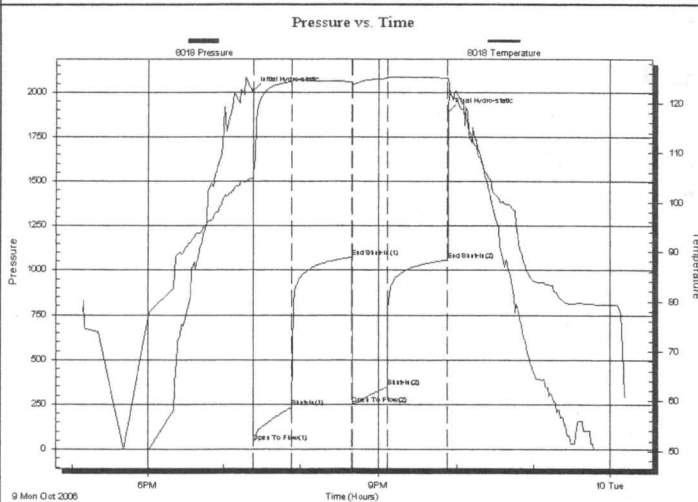
**Juliette # 1**  
**10 4S 22W Trego KS**  
 Job Ticket: 26102      **DST#: 2**  
 Test Start: 2006.10.09 @ 17:08:12

## GENERAL INFORMATION:

Formation: **Cherokee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:23:12  
 Time Test Ended: 00:12:12  
 Test Type: Conventional Bottom Hole  
 Tester: John Schmidt  
 Unit No: 31  
 Interval: **4152.00 ft (KB) To 4160.00 ft (KB) (TVD)**  
 Reference Elevations: 2289.00 ft (KB)  
 Total Depth: 4160.00 ft (KB) (TVD)      2284.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 5.00 ft

**Serial #: 8018**      **Inside**  
 Press@RunDepth: 347.13 psig @ 4154.00 ft (KB)      Capacity: 7000.00 psig  
 Start Date: 2006.10.09      End Date: 2006.10.10      Last Calib.: 2006.10.10  
 Start Time: 17:08:17      End Time: 00:12:11      Time On Btm: 2006.10.09 @ 19:22:42  
 Time Off Btm: 2006.10.09 @ 21:53:42

TEST COMMENT: IF Strong BOB 6 min.  
 ISI Good built to 6 "  
 FF Strong BOB 7 min.  
 FSI Good built to 4 "



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.23	104.74	Initial Hydro-static
1	39.34	105.74	Open To Flow (1)
31	234.13	124.30	Shut-In(1)
77	1072.77	124.29	End Shut-In(1)
77	248.66	123.87	Open To Flow (2)
104	347.13	124.96	Shut-In(2)
150	1058.44	125.08	End Shut-In(2)
151	1892.50	125.08	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
372.00	SW	2.95
474.00	Clean Oil	6.65
0.00	392 Gas in pipe	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hess Oil Co  
PO Box 1009  
McPherson KS 67460  
ATTN: James C.Hess

**Juliette # 1**  
**10 4S 22W Trego KS**  
Job Ticket: 26102      **DST#: 2**  
Test Start: 2006.10.09 @ 17:08:12

### Tool Information

Drill Pipe:	Length: 3883.00 ft	Diameter: 3.80 inches	Volume: 54.47 bbl	Tool Weight:	2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 249.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 55.69 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4152.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	8.00 ft				
Tool Length:	36.00 ft				
Number of Packers:	2	Diameter: 675.00 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4125.00	
Shut In Tool	5.00			4130.00	
Hydraulic tool	5.00			4135.00	
Jars	5.00			4140.00	
Safety Joint	3.00			4143.00	
Packer	4.00			4147.00	28.00      Bottom Of Top Packer
Packer	5.00			4152.00	
Stubb	1.00			4153.00	
Perforations	1.00			4154.00	
Recorder	0.00	8018	Inside	4154.00	
Perforations	3.00			4157.00	
Bullnose	3.00			4160.00	8.00      Bottom Packers & Anchor

**Total Tool Length: 36.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Hess Oil Co

**Juliette # 1**

PO Box 1009  
McPherson KS 67460

**10 4S 22W Trego KS**

Job Ticket: 26102

**DST#: 2**

ATTN: James C.Hess

Test Start: 2006.10.09 @ 17:08:12

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbf
372.00	SW	2.950
474.00	Clean Oil	6.649
0.00	392 Gas in pipe	0.000

Total Length: 846.00 ft

Total Volume: 9.599 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

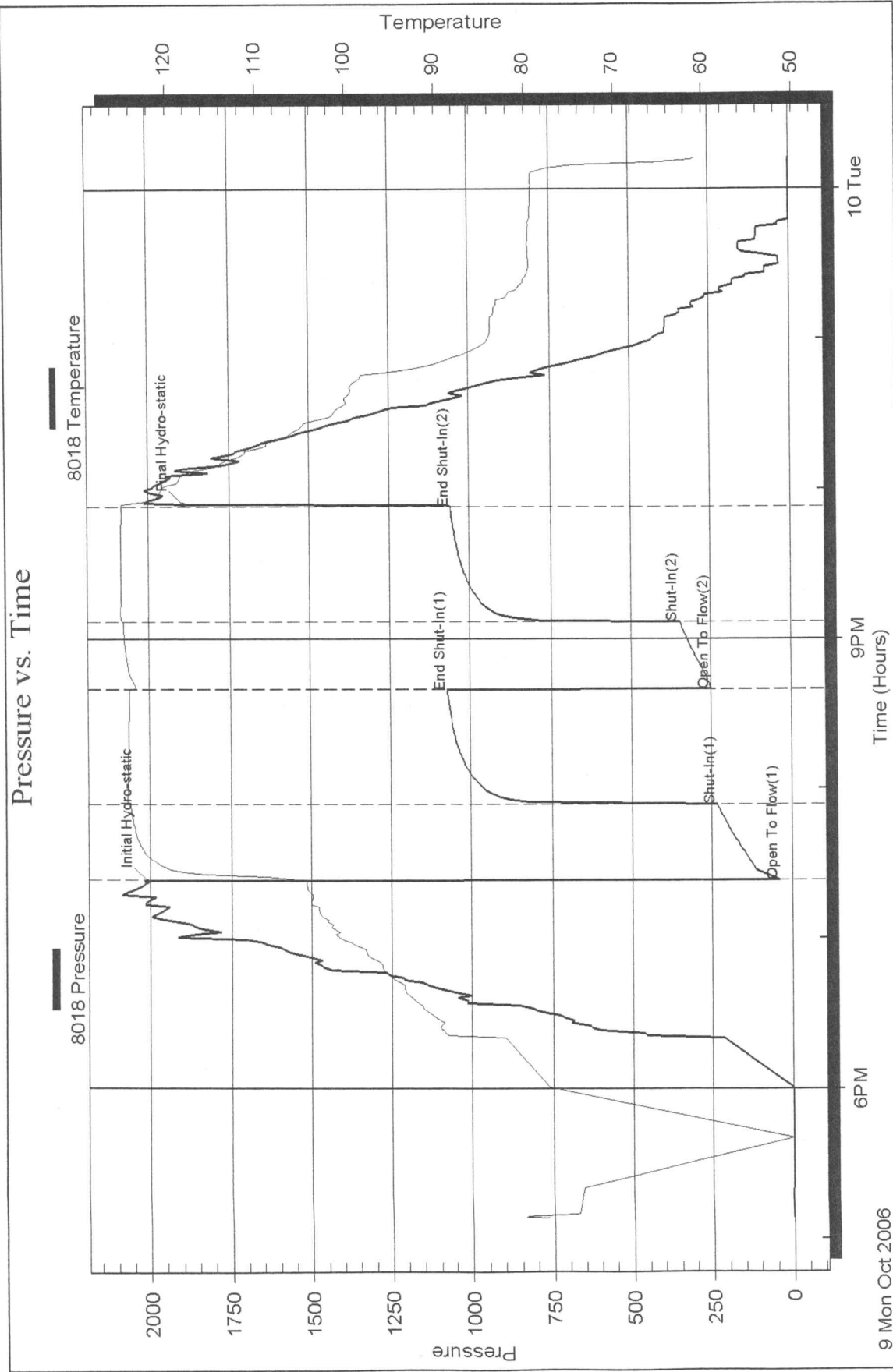
Serial #: 8018

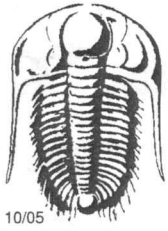
Inside

Hess Oil Co

10 4S 22W Trego KS

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

9378

26102

## Test Ticket

Well Name & No. JULIETTE #1 Test No. #1 Date 10-9-06  
 Company HESS OIL CO. Zone Tested CHEROKEE  
 Address P.O. BOX 1009 Mc PHERSON, KS 67460 Elevation 2289 KB 2284 GL  
 Co. Rep / Geo. JAMES C. HESS Rig MALLARD  
 Location: Sec. 10 Twp. 14S Rge. 22W Co. TREGO State KS  
 Comment: \_\_\_\_\_ Release date / time: \_\_\_\_\_

Interval Tested 4090 TO 4150 Initial Str Wt./Lbs. 60,000 Unseated Str Wt./Lbs. 60,000  
 Anchor Length 60' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 65,000  
 Top Packer Depth 4085 Tool Weight 2600  
 Bottom Packer Depth 4090 Hole Size 7 7/8"  Rubber Size 6 3/4"   
 Total Depth 4150 Wt. Pipe Run 0 Drill Collar Run 249  
 Mud Wt. 9.1 LCM - Vis. 57 WL - Drill Pipe Size 4 1/2 XH Ft. Run 3821  
 Blow Description IF-WEAK TO FAIR BUILT TO 6" IN. ISI-DEAD  
FF-

Recovery - Total Feet 270 GIP - Ft. in DC 249 Ft. in DP 21  
 Rec. 220' Feet of MUDDY OIL %gas 50%oil %water 50%mud  
 Rec. 50 Feet of CLEAN OIL %gas %oil %water %mud  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas %oil %water %mud  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas %oil %water %mud  
 Rec. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas %oil %water %mud  
 BHT 114 °F Gravity 38 °API D @ 80 °F Corrected Gravity 36 °API  
 RW - @ - °F Chlorides - ppm Recovery - Chlorides - ppm System

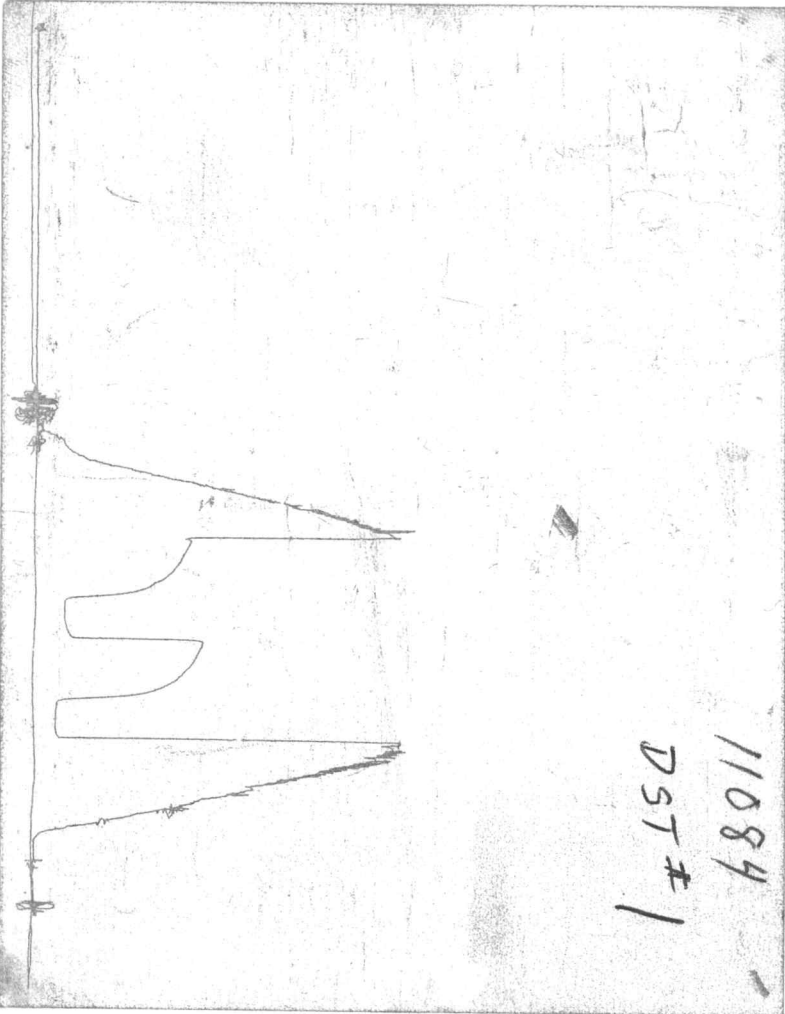
(A) Initial Hydrostatic Mud	AK-1	Alpine	2020	PSI	Recorder No.	8018	Test	<input checked="" type="checkbox"/>	1200
(B) First Initial Flow Pressure			25	PSI	(depth)	4095	Jars	<input checked="" type="checkbox"/>	250
(C) First Final Flow Pressure			108	PSI	Recorder No.	11084	Safety Jt.	<input checked="" type="checkbox"/>	75
(D) Initial Shut-In Pressure			958	PSI	(depth)	4127	Circ Sub		
(E) Second Initial Flow Pressure			108	PSI	Recorder No.		Sampler		
(F) Second Final Flow Pressure			124	PSI	(depth)		Straddle		
(G) Final Shut-In Pressure			882	PSI	Initial Opening	30	Ext. Packer		
(Q) Final Hydrostatic Mud			1836	PSI	Initial Shut-In	45	Shale Packer		
					Final Flow	30	Ruined Packer		
					Final Shut-In	45	Mileage	RT-74	92.50
					T-On Location	04:45	Sub Total:		
					T-Started	05:45	Std. By		
					T-Open	07:44	Acc. Chg:		\$1617.50
					T-Pulled	10:15	Other:		
					T-Out	12:14	Total:		

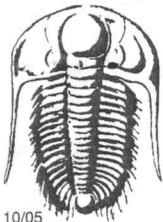
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By James C. Hess  
 Our Representative John J. Schmidt

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart.





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

26103

10/05

## Test Ticket

Well Name & No. JULIETTE #1 Test No. # 2 Date 10-9-06  
 Company HESS OIL CO. Zone Tested CHEROKEE  
 Address \_\_\_\_\_ Elevation 2289 KB 2284 GL  
 Co. Rep / Geo. JAMES C. HESS Rig MALLARD  
 Location: Sec. 10 Twp. 14s Rge. 22w Co. TREGO State KS  
 Comment: \_\_\_\_\_ Release date / time: \_\_\_\_\_

Interval Tested 4152 To 4160 Initial Str Wt./Lbs. 60,000 Unseated Str Wt./Lbs. 64,000  
 Anchor Length 8' Wt. Set Lbs. 29,000 Wt. Pulled Loose/Lbs. 29,000  
 Top Packer Depth 4147 Tool Weight 2,600  
 Bottom Packer Depth 4152 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 4160 Wt. Pipe Run 0 Drill Collar Run 249  
 Mud Wt. 9.1 LCM - Vis. 57 WL - Drill Pipe Size 4 1/2 XH Ft. Run 388.3  
 Blow Description FF-STRONG B.O.B. 6-MIN. ISI-GOOD BUILT TO 6" IN.  
FF-STRONG B.O.B. 7-MIN. FSI-GOOD BUILT TO 4" IN.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>846</u>	<u>392</u>	<u>249'</u>	<u>597</u>
Rec. <u>372</u>	Feet of <u>S.W.</u>	%gas	%oil %water %mud
Rec. <u>474</u>	Feet of <u>CLEAN OIL</u>	%gas	%oil %water %mud
Rec. _____	Feet of _____	%gas	%oil %water %mud
Rec. _____	Feet of _____	%gas	%oil %water %mud
Rec. _____	Feet of _____	%gas	%oil %water %mud
BHT <u>125</u>	°F Gravity <u>37</u>	°API D @ <u>60</u>	°F Corrected Gravity <u>37</u> °API
RW _____ @ _____ °F	Chlorides _____ ppm	Recovery _____	Chlorides _____ ppm System

	AK-1	Alpine	Recorder No.	Test	
(A) Initial Hydrostatic Mud		<u>2008</u> PSI	<u>8018</u>	✓	<u>1200</u>
(B) First Initial Flow Pressure		<u>39</u> PSI	(depth) <u>4154</u>	✓	<u>250</u>
(C) First Final Flow Pressure		<u>234</u> PSI	Recorder No. _____	Safety Jt. ✓	<u>75</u>
(D) Initial Shut-In Pressure		<u>1072</u> PSI	(depth) _____	Circ Sub _____	
(E) Second Initial Flow Pressure		<u>248</u> PSI	Recorder No. _____	Sampler _____	
(F) Second Final Flow Pressure		<u>347</u> PSI	(depth) _____	Straddle _____	
(G) Final Shut-In Pressure		<u>1058</u> PSI	<b>Initial Opening</b> <u>30</u>	Ext. Packer _____	
(Q) Final Hydrostatic Mud		<u>1892</u> PSI	Initial Shut-In <u>45</u>	Shale Packer _____	
			Final Flow <u>30</u>	Ruined Packer _____	
			Final Shut-In <u>34</u>	Mileage <u>RT-24</u> <u>92.50</u>	
			<b>T-On Location</b> <u>16:30</u>	Sub Total: _____	
			T-Started <u>17:08</u>	Std. By _____	
			T-Open <u>19:23</u>	Acc. Chg: <u>\$1617.50</u>	
			T-Pulled <u>21:53</u>	Other: _____	
			T-Out <u>00:12</u>	Total: _____	

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By [Signature]  
 Our Representative John J. Schmitt