

TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Co
Box 1009
McPherson Ks 67460
ATTN: Jamie Hess

Velma # 1
13-17-20-Rush-Ks
Job Ticket: 041700 **DST#: 1**
Test Start: 2011.03.15 @ 01:25:39

GENERAL INFORMATION:

Formation: **Cher**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:22:19
Time Test Ended: 08:29:39
Interval: **3990.00 ft (KB) To 4020.00 ft (KB) (TVD)**
Total Depth: 4020.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 38
Reference Elevations: 2185.00 ft (KB)
2180.00 ft (CF)
KB to GR/CF: 5.00 ft

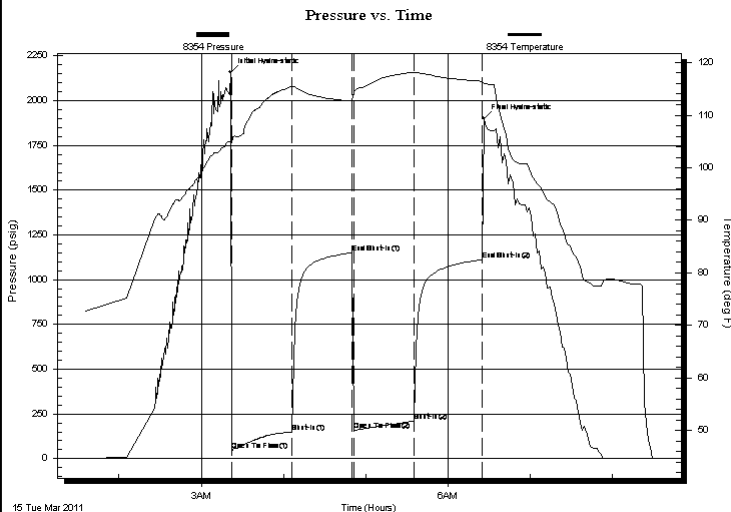
Serial #: 8354 **Inside**
Press@RunDepth: 209.32 psig @ 3991.00 ft (KB)
Start Date: 2011.03.15 End Date: 2011.03.15
Start Time: 01:35:39 End Time: 08:29:39
Capacity: 8000.00 psig
Last Calib.: 2011.03.15
Time On Btm: 2011.03.15 @ 03:21:19
Time Off Btm: 2011.03.15 @ 06:26:09

TEST COMMENT: IF- Weak building to 5"

FF-Weak building to 2"
Times[45-45-45]

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.89	105.18	Initial Hydro-static
1	44.91	104.69	Open To Flow (1)
45	149.64	115.42	Shut-In(1)
89	1150.05	112.69	End Shut-In(1)
91	160.22	114.39	Open To Flow (2)
134	209.32	118.09	Shut-In(2)
184	1111.36	116.43	End Shut-In(2)
185	1901.00	116.05	Final Hydro-static

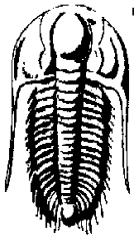


Recovery

Length (ft)	Description	Volume (bbl)
360.00	Mdy Wtr	2.84

Gas Rates

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

Hess Oil Co

Velma # 1

Box 1009
McPherson Ks 67460

13-17-20-Rush-Ks

Job Ticket: 041700

DST#: 1

ATTN: Jamie Hess

Test Start: 2011.03.15 @ 01:25:39

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:

50000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
360.00	Mdy Wtr	2.836

Total Length: 360.00 ft Total Volume: 2.836 bbl

Num Fluid Samples: 0

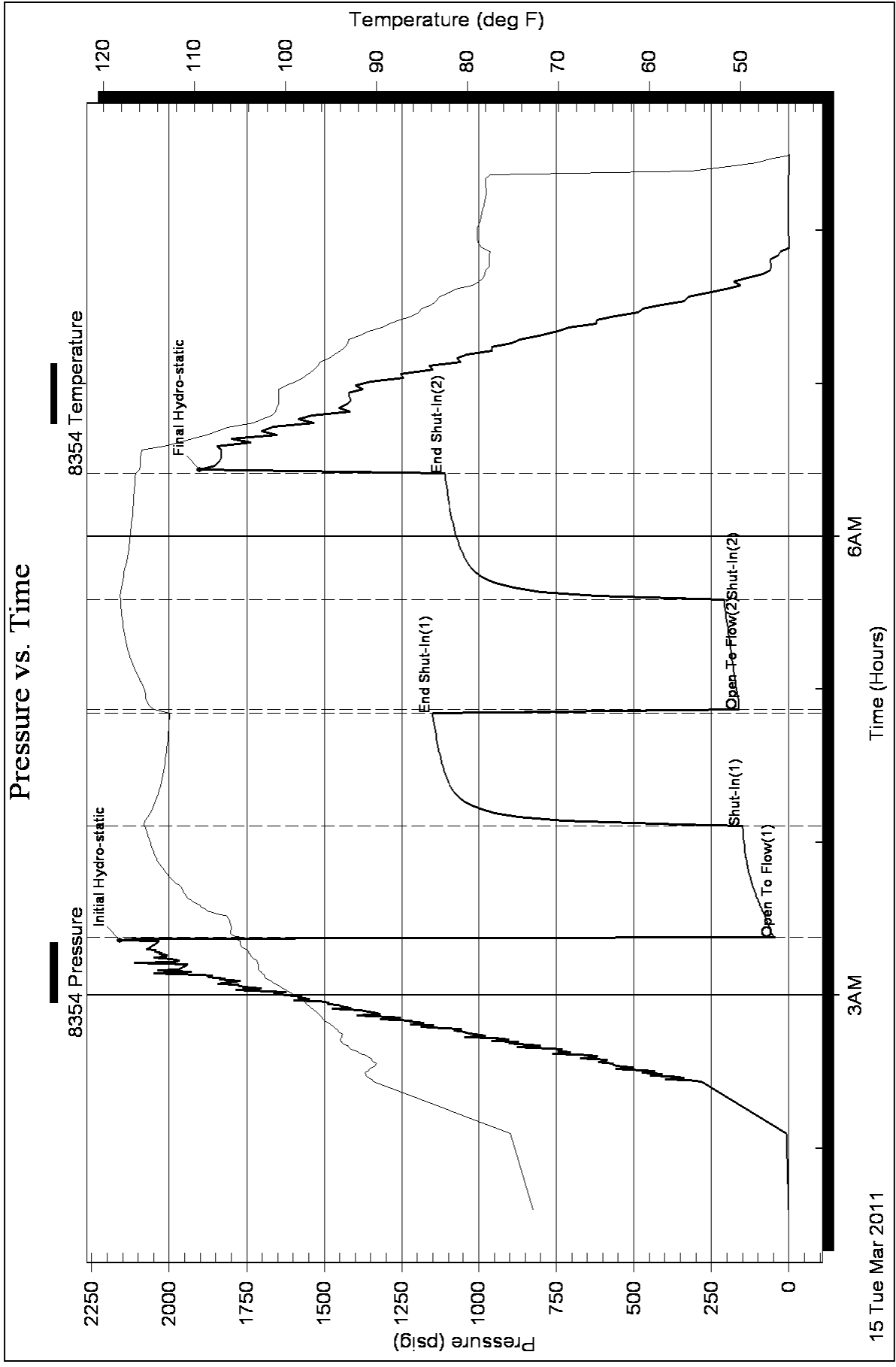
Num Gas Bombs: 0

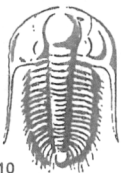
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .17 @ 60 = 50000ppm





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

MAR 15 2011

Test Ticket

NO.

04170015505

Well Name & No. Velma #1 Test No. 1 Date 3-15-11
 Company Hess Oil Co. Elevation 2185 KB 2180 GL
 Address Box 1009 McPherson Ks. 67460
 Co. Rep / Geo. Jamie Hess Rig Mallard
 Location: Sec. 13 Twp. 17 Rge. 20 Co. Rush State Ks

Interval Tested 3990 — 4020 Zone Tested Cher
 Anchor Length 30 Drill Pipe Run 3736 Mud Wt. 9.1
 Top Packer Depth 2985 Drill Collars Run 243 Vis 5.2
 Bottom Packer Depth 3990 Wt. Pipe Run — WL 11
 Total Depth 4020 Chlorides 5000 ppm System LCM
 Blow Description I.F. Weak-building to 5"

F.F. Weak-building to 2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>360</u>	<u>mdy wtr</u>				

Rec Total 360 BHT 116 Gravity — API RW 17 @ 60 °F Chlorides 5000 ppm

(A) Initial Hydrostatic 2157
 (B) First Initial Flow 44
 (C) First Final Flow 149
 (D) Initial Shut-In 1150
 (E) Second Initial Flow 160
 (F) Second Final Flow 209
 (G) Final Shut-In 1111
 (H) Final Hydrostatic 1901

☐ Test 1225
☒ Jars X 250
☒ Safety Joint X 75
☐ Circ Sub
☐ Hourly Standby
☒ Mileage 70 RT 87.50

T-On Location 00:31
 T-Started 01:25
 T-Open 03:20
 T-Pulled 06:20
 T-Out 08:29

Comments

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45

☐ Sampler
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility

☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 8
 Total 1637.50
 MP/DST Disc't

Sub Total 1637.50

Approved By

Our Representative

Dan Kangle

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