



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hess Oil Company
 PO Box 1009
 Mcpherson KS 67460
 ATTN: Bryan Hess

27-18s-1e
Beatrice #1-27
 Job Ticket: 47454 **DST#: 1**
 Test Start: 2012.02.05 @ 21:22:02

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:40:02
 Time Test Ended: 06:39:47
 Interval: **2730.00 ft (KB) To 2784.00 ft (KB) (TVD)**
 Total Depth: 2784.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Chris Staats
 Unit No: 47
 Reference Elevations: 1504.00 ft (KB)
 1500.00 ft (CF)
 KB to GR/CF: 4.00 ft

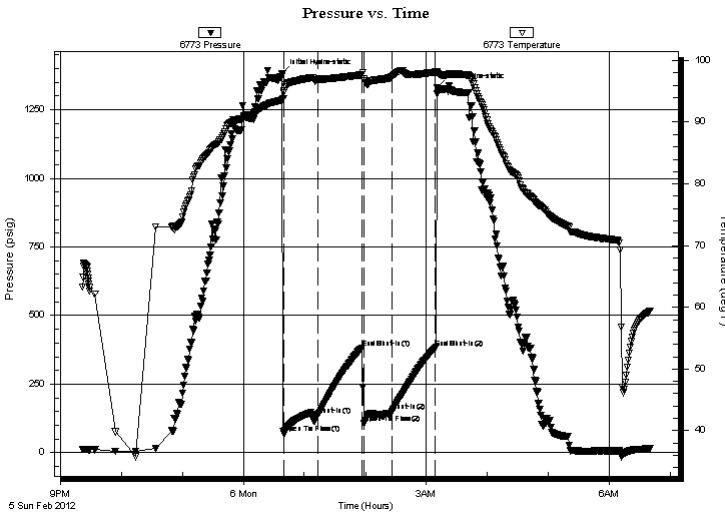
Serial #: 6773

Outside

Press @ Run Depth: 150.70 psig @ 2731.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.02.05 End Date: 2012.02.06 Last Calib.: 2012.02.06
 Start Time: 21:22:07 End Time: 06:39:47 Time On Btm: 2012.02.06 @ 00:38:17
 Time Off Btm: 2012.02.06 @ 03:10:32

TEST COMMENT: IF: Strong blow BOB 2 min
 IS: Weak blow back
 FF: Strong blow BOB 2 sec GTS 10 min
 FS: Weak blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1381.39	93.60	Initial Hydro-static
2	69.84	94.83	Open To Flow (1)
35	137.14	96.94	Shut-In(1)
78	382.04	97.69	End Shut-In(1)
80	108.14	97.02	Open To Flow (2)
108	150.70	97.41	Shut-In(2)
151	383.08	98.12	End Shut-In(2)
153	1331.96	98.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2802' GIP	0.00
312.00	MUD	2.10

Gas Rates

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



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FLUID SUMMARY

Hess Oil Company
PO Box 1009
Mcperson KS 67460
ATTN: Bryan Hess

27-18s-1e
Beatrice #1-27
Job Ticket: 47454 **DST#: 1**
Test Start: 2012.02.05 @ 21:22:02

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 36.00 sec/qt	Cushion Volume: bbl		
Water Loss: 16.59 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1800.00 ppm			
Filter Cake: 0.02 inches			

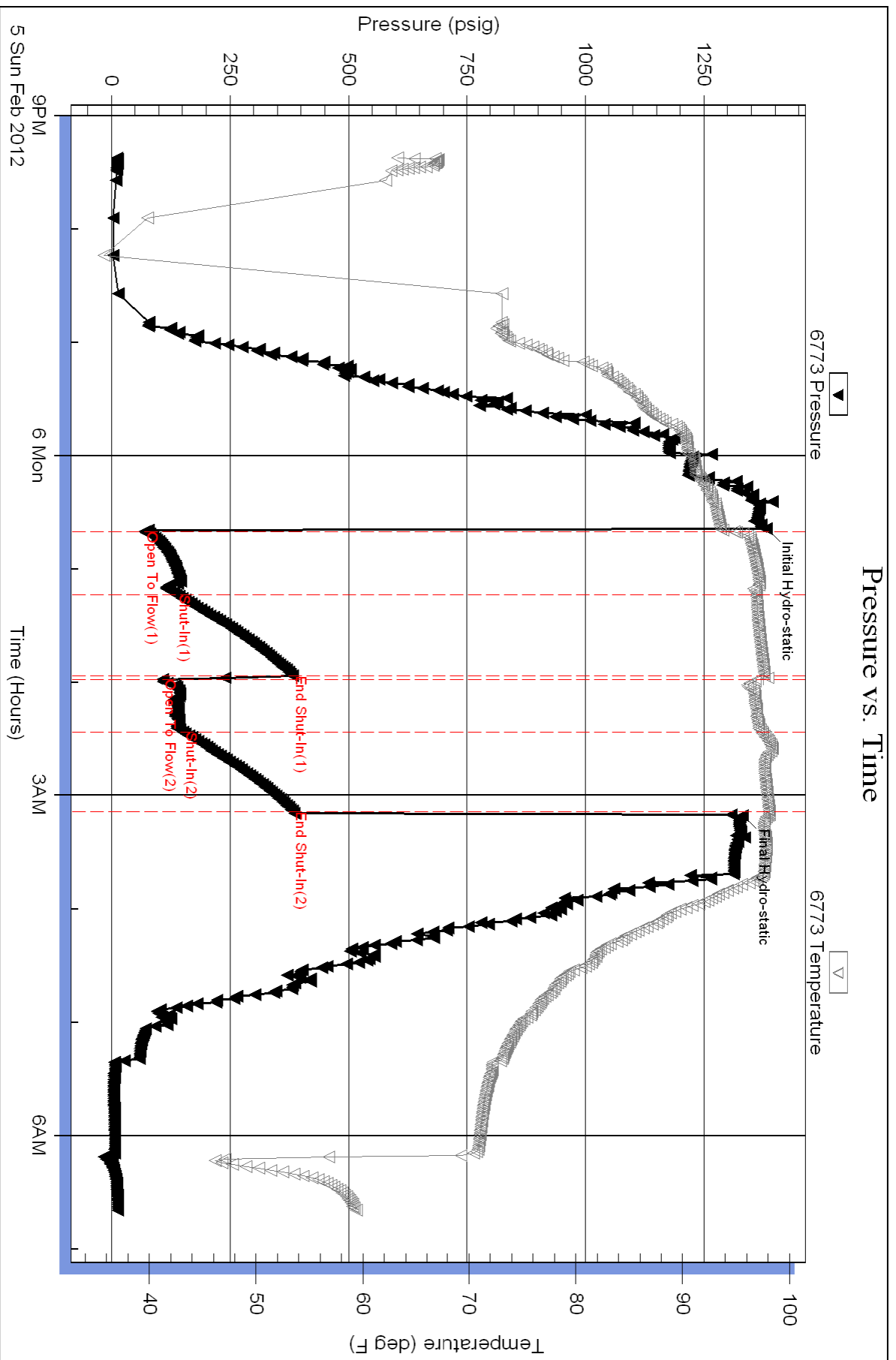
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2802' GIP	0.000
312.00	MUD	2.099

Total Length: 312.00 ft Total Volume: 2.099 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hess Oil Company
PO Box 1009
Mcperson KS 67460
ATTN: Jamie Hess

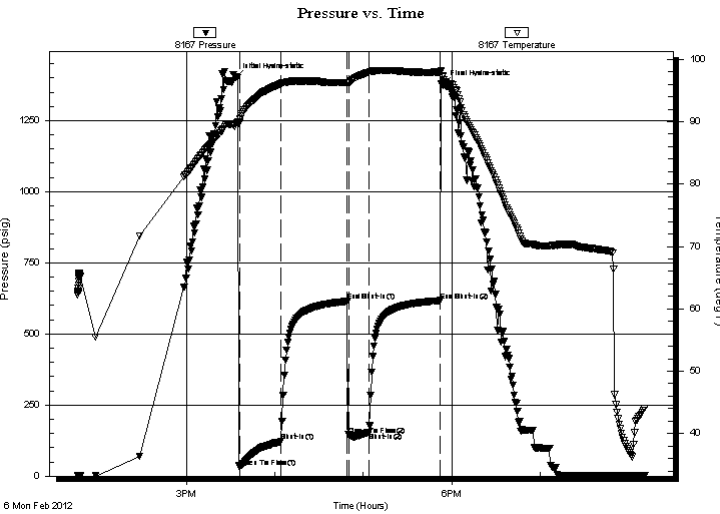
27-18s-1e Marion Ks.
Beatrice #1-27
Job Ticket: 45731 **DST#: 2**
Test Start: 2012.02.06 @ 13:46:15

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:36:00
Time Test Ended: 20:11:15
Interval: **2774.00 ft (KB) To 2794.00 ft (KB) (TVD)**
Total Depth: 2794.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Gary Pevoteaux
Unit No: 56
Reference Elevations: 1509.00 ft (KB)
1500.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8167 Inside
Press @ Run Depth: 154.33 psig @ 2775.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.02.06 End Date: 2012.02.06 Last Calib.: 2012.02.06
Start Time: 13:46:16 End Time: 20:11:15 Time On Btm: 2012.02.06 @ 15:33:30
Time Off Btm: 2012.02.06 @ 17:54:00

TEST COMMENT: IF: Strong blow . B.O.B. in 26 secs.
IS: Weak to fair blow . Increase to 5".
FF: Strong blow . B.O.B. in 5 mins.
FS: Fair blow . Increase to 10".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1401.57	89.66	Initial Hydro-static
3	32.40	89.91	Open To Flow (1)
31	121.49	96.07	Shut-In(1)
76	614.81	96.28	End Shut-In(1)
77	143.87	96.22	Open To Flow (2)
91	154.33	97.92	Shut-In(2)
139	617.09	97.93	End Shut-In(2)
141	1376.70	97.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
215.00	MW 5%w 95%w /Rw .13ohms @46deg	1.06
180.00	WM 36%w 64%w	1.99
0.00	2215 ft of GIP	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

27-18s-1e Marion Ks.

PO Box 1009
Mcperson KS 67460

Beatrice #1-27

Job Ticket: 45731

DST#: 2

ATTN: Jamie Hess

Test Start: 2012.02.06 @ 13:46:15

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:

94000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
215.00	MW 5% _m 95% _w /Rw .13ohms @46deg	1.057
180.00	WM 36% _w 64% _m	1.987
0.00	2215 ftof GIP	0.000

Total Length: 395.00 ft

Total Volume: 3.044 bbl

Num Fluid Samples: 0

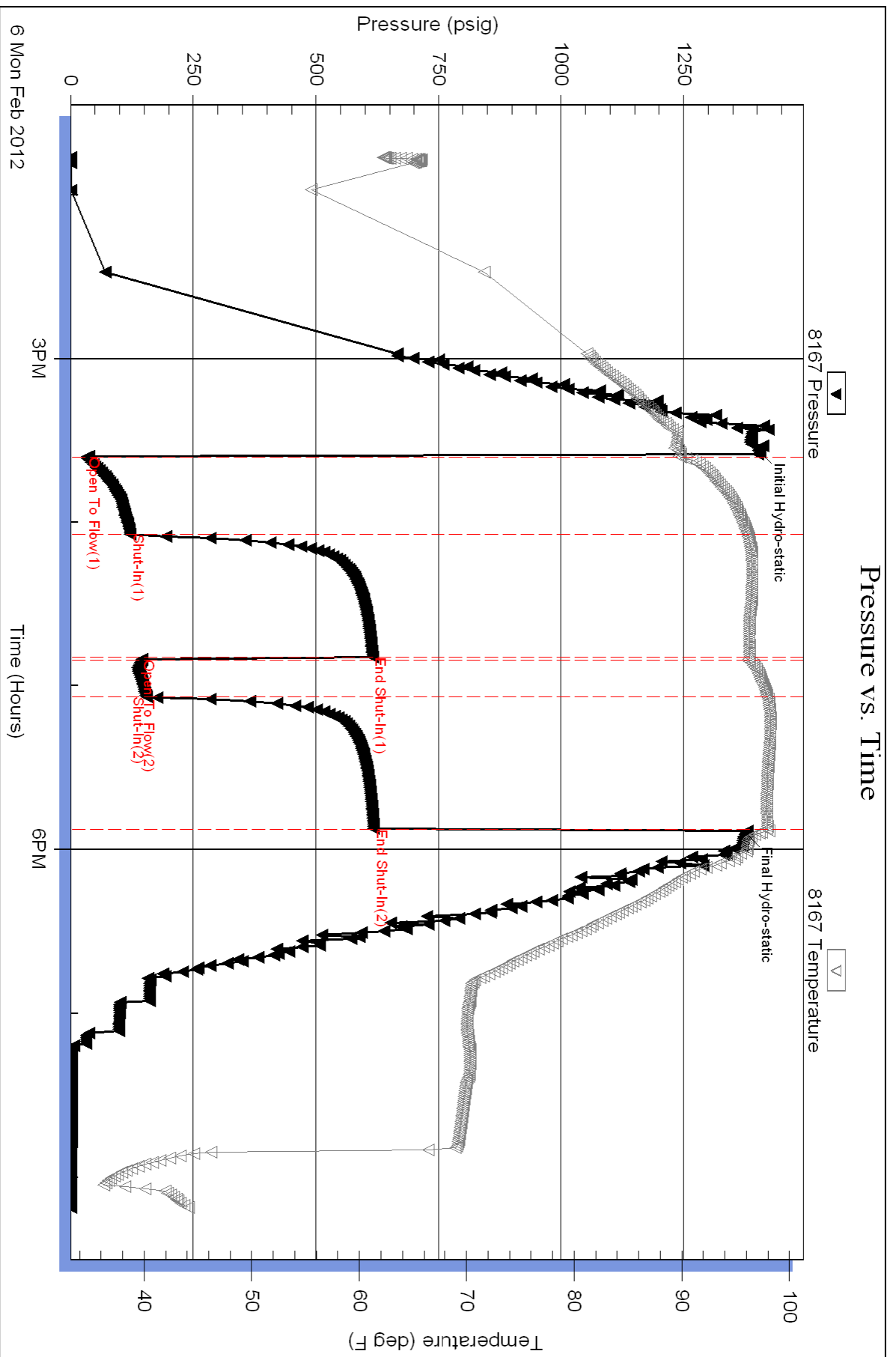
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





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DRILL STEM TEST REPORT

Hess Oil Company
PO Box 1009
Mcperson KS 67460
ATTN: Jamie Hess

27-18s-1e Marion Ks.
Beatrice #1-27
Job Ticket: 46839 **DST#: 3**
Test Start: 2012.02.08 @ 23:30:23

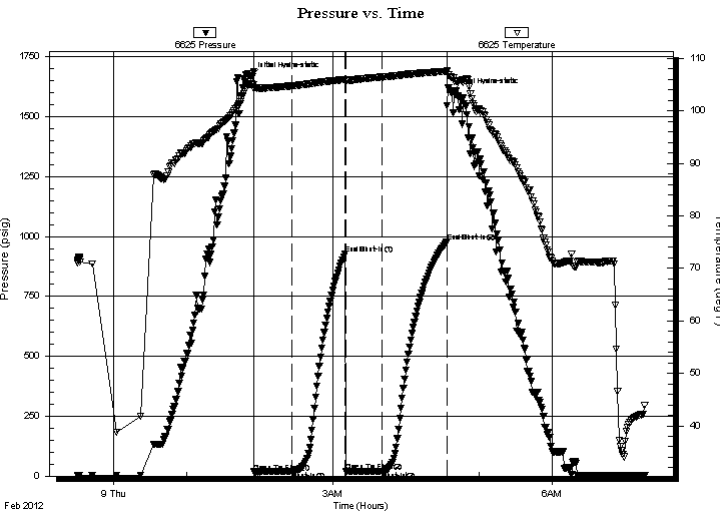
GENERAL INFORMATION:

Formation: **Simpson Sd**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:55:18
Time Test Ended: 07:16:17
Interval: **3314.00 ft (KB) To 3334.00 ft (KB) (TVD)**
Total Depth: 3334.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 1507.00 ft (KB)
1500.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 6625 Inside

Press @ Run Depth: 20.15 psig @ 3315.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.02.08 End Date: 2012.02.09 Last Calib.: 2012.02.09
Start Time: 23:30:23 End Time: 07:16:17 Time On Btm: 2012.02.09 @ 01:52:48
Time Off Btm: 2012.02.09 @ 04:36:47

TEST COMMENT: 30-IFP-surface bl died in 20min
45-ISIP-no bl
30-FFP-no bl
45-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.18	105.08	Initial Hydro-static
3	17.23	104.23	Open To Flow (1)
33	19.72	104.77	Shut-In(1)
77	926.92	105.97	End Shut-In(1)
78	19.76	105.80	Open To Flow (2)
107	20.15	106.44	Shut-In(2)
161	977.18	107.54	End Shut-In(2)
164	1600.72	106.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud	0.05

* Recovery from multiple tests

Gas Rates

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



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FLUID SUMMARY

Hess Oil Company

27-18s-1e Marion Ks.

PO Box 1009
Mcperson KS 67460

Beatrice #1-27

Job Ticket: 46839

DST#: 3

ATTN: Jamie Hess

Test Start: 2012.02.08 @ 23:30:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

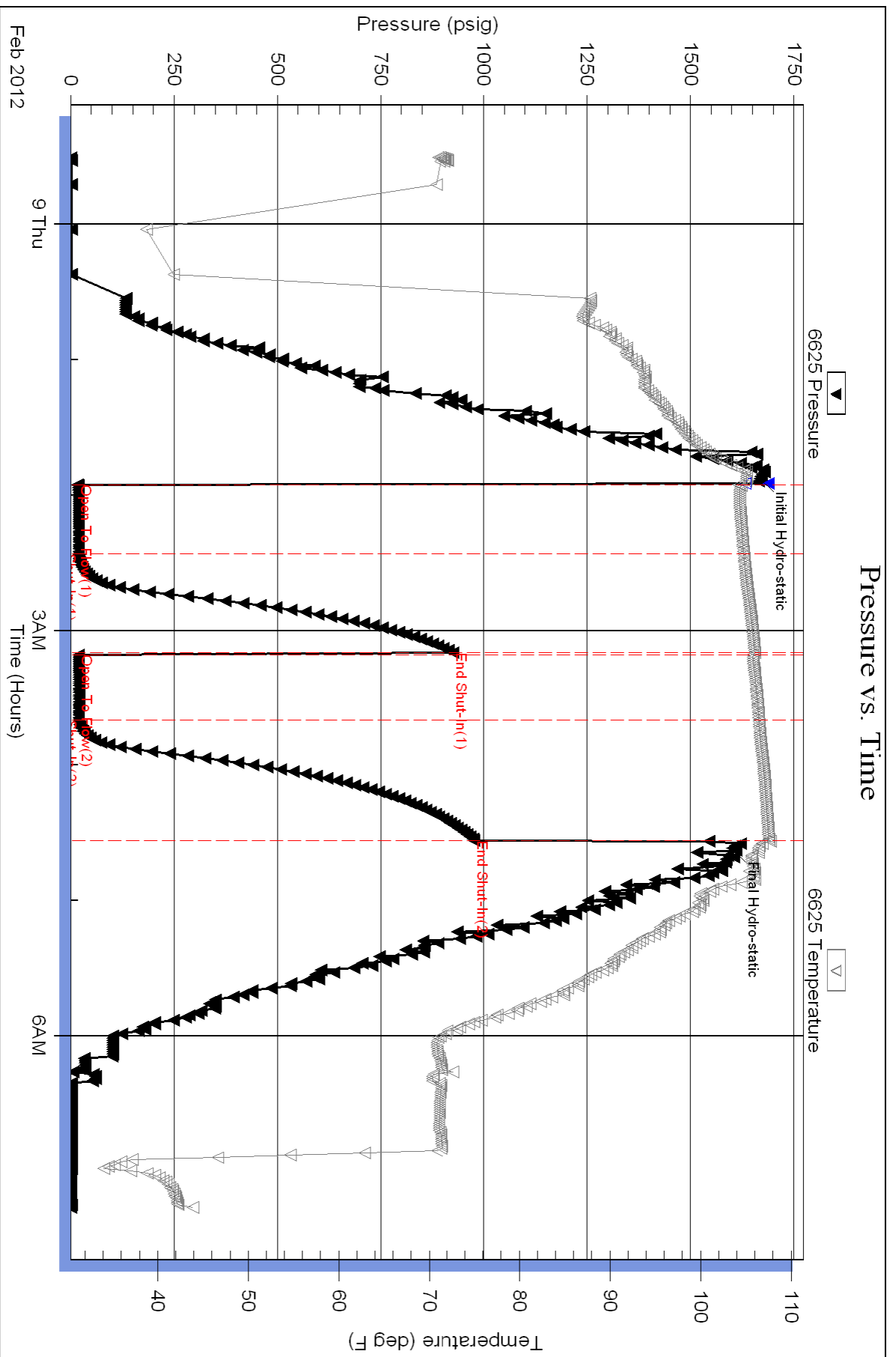
Serial #: 6625

Inside

Hess Oil Company

Beatrice #1-27

DST Test Number: 3





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DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company

27-18s-1e Marion Ks.

PO Box 1009
Mcpheerson KS 67460

Beatrice #1-27

Job Ticket: 46840

DST#: 4

ATTN: Jamie Hess

Test Start: 2012.02.09 @ 13:16:04

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:

17000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	MW 15%M85%W w/show of oil	0.610
372.00	Water	3.888

Total Length: 496.00 ft Total Volume: 4.498 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .67 @ 42F

