



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Hess Oil Company
 P. O. Box 1009
 McPherson KS 67460-1009
 ATTN: Roger Martin

16 11s 16w Ellis
Craig # 1
 Job Ticket: 62399 **DST#: 2**
 Test Start: 2015.08.19 @ 13:00:00

GENERAL INFORMATION:

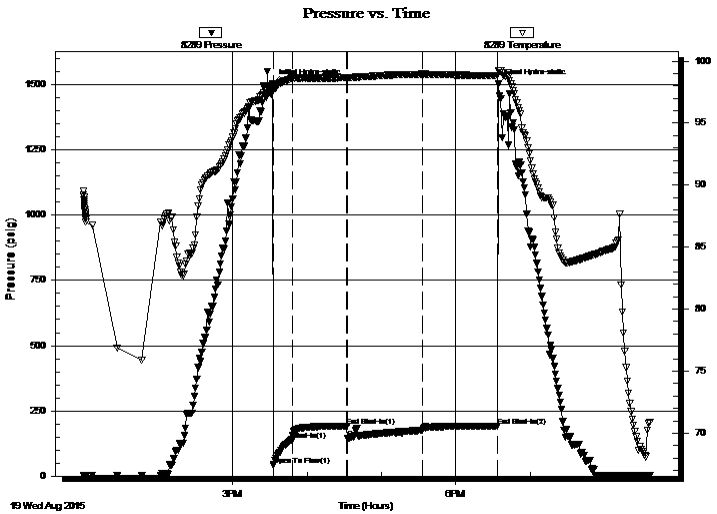
Formation: **LKC " A - G "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:33:00
 Time Test Ended: 20:37:00
 Interval: **2949.00 ft (KB) To 3111.00 ft (KB) (TVD)**
 Total Depth: 3111.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jim Svaty
 Unit No: 76
 Reference Elevations: 1805.00 ft (KB)
 1800.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8289 Outside

Press @ Run Depth: 175.42 psig @ 2957.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.08.19 End Date: 2015.08.19 Last Calib.: 2015.08.19
 Start Time: 13:00:02 End Time: 20:37:00 Time On Btm: 2015.08.19 @ 15:32:30
 Time Off Btm: 2015.08.19 @ 18:34:15

TEST COMMENT: 15-IF- BOB in 14min.
 45-ISI- No Blow
 60-FF- Surface Blow Building to 9 1/2in.
 60-FSI- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1503.98	98.05	Initial Hydro-static
1	40.22	97.68	Open To Flow (1)
16	139.01	98.63	Shut-In(1)
60	192.29	98.66	End Shut-In(1)
61	145.72	98.64	Open To Flow (2)
121	175.42	98.94	Shut-In(2)
181	191.77	98.84	End Shut-In(2)
182	1502.39	99.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	Oil Speck Mud 100%	1.22
77.00	Oil Speck MCW 40% m 60% w	1.08

* Recovery from multiple tests

Gas Rates

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



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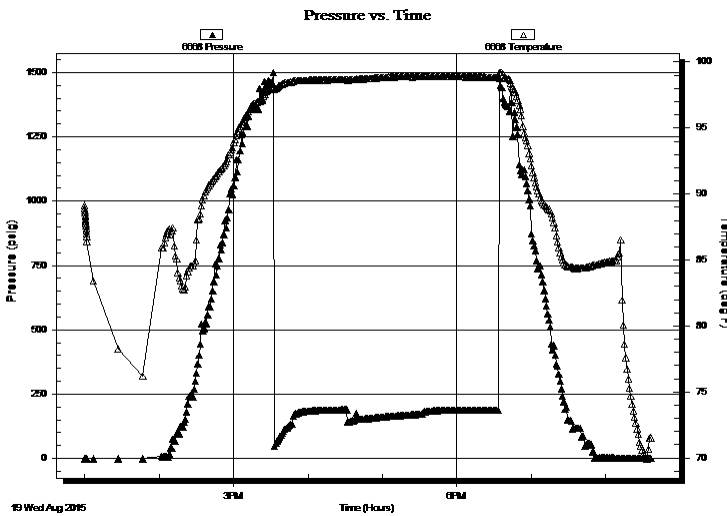
16 11s 16w Ellis
Craig # 1
Job Ticket: 62399 **DST#: 2**
Test Start: 2015.08.19 @ 13:00:00

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Time Test Ended: 20:37:00
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Total Depth: 3111.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 76
Reference Elevations: 1805.00 ft (KB)
1800.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6668 **Inside**
Press @ Run Depth: psig @ 2957.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.08.19 End Date: 2015.08.19 Last Calib.: 2015.08.19
Start Time: 13:00:02 End Time: 20:36:45 Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF- BOB in 14min.
45-ISI- No Blow
60-FF- Surface Blow Building to 9 1/2in.
60-FSI- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
248.00	Oil Speck Mud 100%	1.22
77.00	Oil Speck MCW 40% m 60% w	1.08

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

FLUID SUMMARY

Hess Oil Company
P. O. Box 1009
McPherson KS 67460-1009
ATTN: Roger Martin

16 11s 16w Ellis
Craig # 1
Job Ticket: 62399 **DST#: 2**
Test Start: 2015.08.19 @ 13:00:00

Mud and Cushion Information

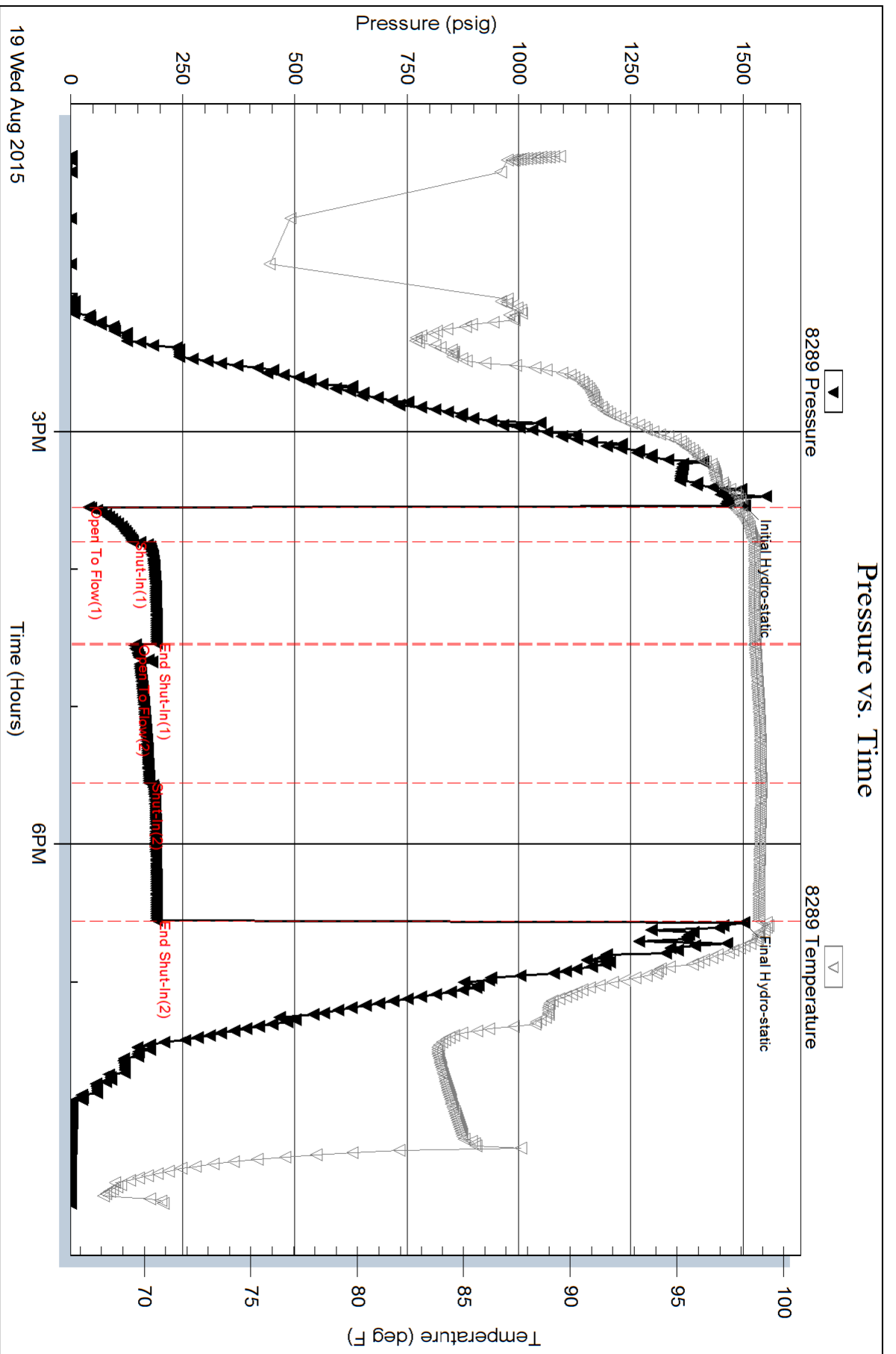
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	40000 ppm
Viscosity: 64.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.60 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7700.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	Oil Speck Mud 100%	1.220
77.00	Oil Speck MCW 40%m 60%w	1.080

Total Length: 325.00 ft Total Volume: 2.300 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .190 @ 73



Serial #: 6668

Inside

Hess Oil Company

Craig # 1

DST Test Number: 2

