



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI Inc
1310 Bison Rd
Hays Ks 67601-9696
ATTN: Tom Denning

Jerry#2
10-15s-19w Ellis
Job Ticket: 43611 **DST#: 1**
Test Start: 2011.06.26 @ 07:00:27

GENERAL INFORMATION:

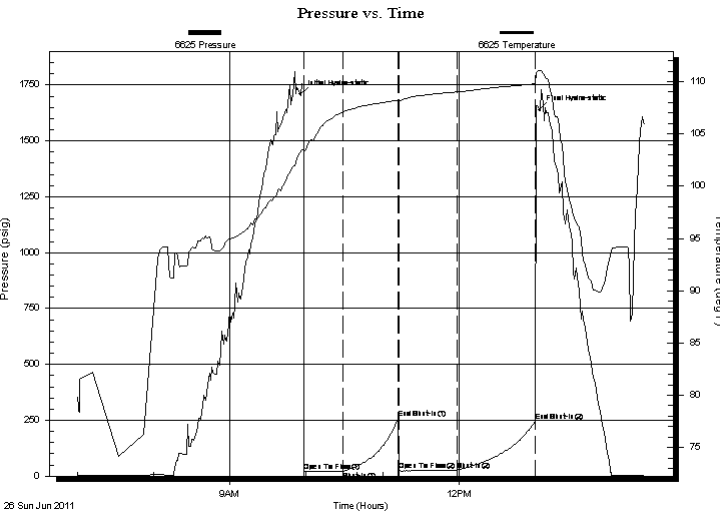
Formation: **LKC H-J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:58:22
Time Test Ended: 14:26:21
Interval: 3450.00 ft (KB) To 3540.00 ft (KB) (TVD)
Total Depth: 3540.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 2245.00 ft (KB)
2235.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6625 Inside

Press @ Run Depth: 27.01 psig @ 3453.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.06.26 End Date: 2011.06.26 Last Calib.: 2011.06.26
Start Time: 07:00:27 End Time: 14:26:21 Time On Btm: 2011.06.26 @ 09:55:22
Time Off Btm: 2011.06.26 @ 13:03:21

TEST COMMENT: 30-IFP-w k bl 1/4"to 1 1/8"bl
45-ISIP-no bl
45-FFP-w k bl 1"to 1 1/2"bl
60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.18	103.24	Initial Hydro-static
3	20.77	103.36	Open To Flow (1)
34	21.81	107.08	Shut-In(1)
77	261.41	108.24	End Shut-In(1)
78	25.95	108.20	Open To Flow (2)
124	27.01	109.01	Shut-In(2)
185	244.86	109.79	End Shut-In(2)
188	1638.54	111.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	60'GIP	0.00
30.00	O&GCM 10%G15%O75%M	0.42

Gas Rates

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



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Job Ticket: 43611 **DST#: 1**
Test Start: 2011.06.26 @ 07:00:27

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: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.16 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5700.00 ppm			
Filter Cake: 1.00 inches			

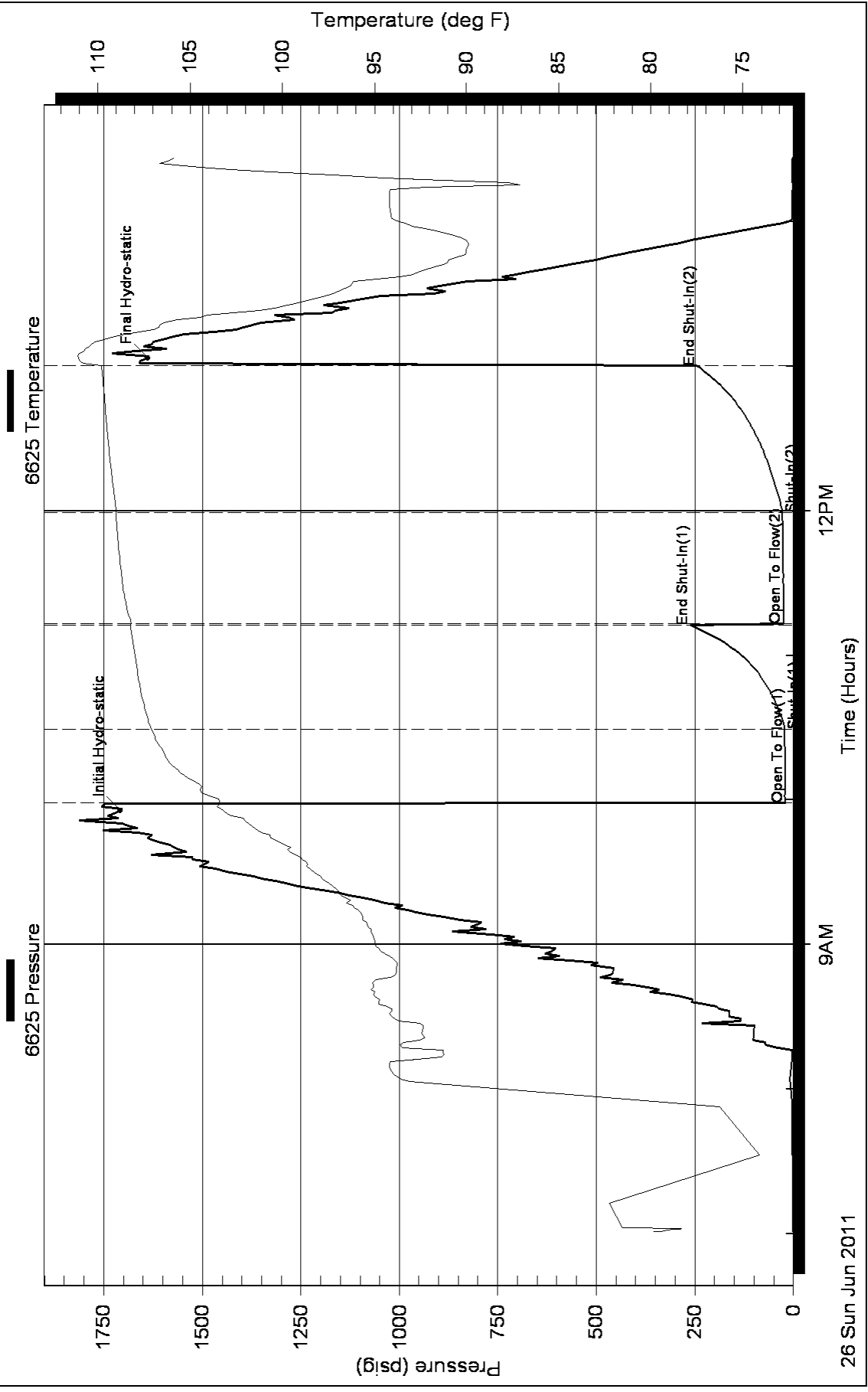
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	60'GIP	0.000
30.00	O&GCM 10%G15%O75%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





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TDI Inc
 1310 Bison Rd
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 ATTN: Tom Denning

Jerry#2
10-15s-19w Ellis
 Job Ticket: 43612 **DST#: 2**
 Test Start: 2011.06.27 @ 12:45:12

GENERAL INFORMATION:

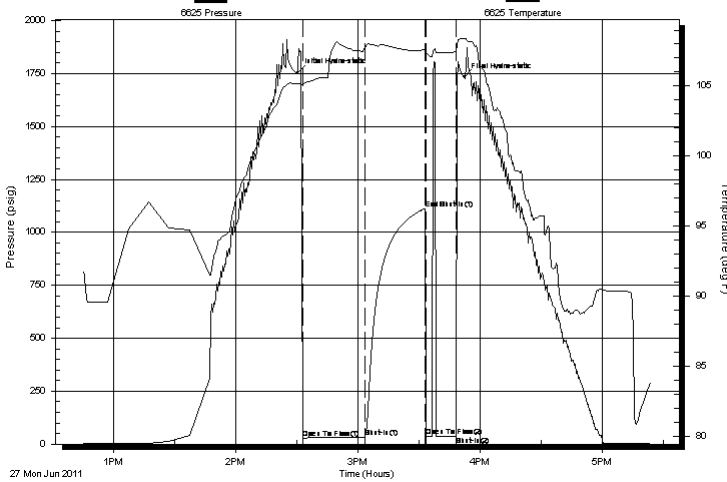
Formation: **Cong. Sd**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole
 Time Tool Opened: 14:32:37 Tester: Ray Schwager
 Time Test Ended: 17:23:36 Unit No: 42
 Interval: **3640.00 ft (KB) To 3670.00 ft (KB) (TVD)** Reference Elevations: 2245.00 ft (KB)
 Total Depth: 3670.00 ft (KB) (TVD) 2235.00 ft (CF)
 Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 6625 Inside

Press @ Run Depth: 32.90 psig @ 3647.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.06.27 End Date: 2011.06.27 Last Calib.: 2011.06.27
 Start Time: 12:45:12 End Time: 17:23:36 Time On Btm: 2011.06.27 @ 14:30:07
 Time Off Btm: 2011.06.27 @ 15:52:07

TEST COMMENT: 30-IFP-w k bl 1 1/2" to 1" bl
 30-ISIP-no bl
 15-FFP-no bl, flushed tool
 pull tool

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1752.50	105.18	Initial Hydro-static
3	28.00	105.03	Open To Flow (1)
33	32.90	107.74	Shut-In(1)
63	1111.32	107.60	End Shut-In(1)
63	34.99	107.33	Open To Flow (2)
78	35.99	107.46	Shut-In(2)
82	1732.57	108.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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



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10-15s-19w Ellis
Job Ticket: 43612 **DST#: 2**
Test Start: 2011.06.27 @ 12:45:12

Mud and Cushion Information

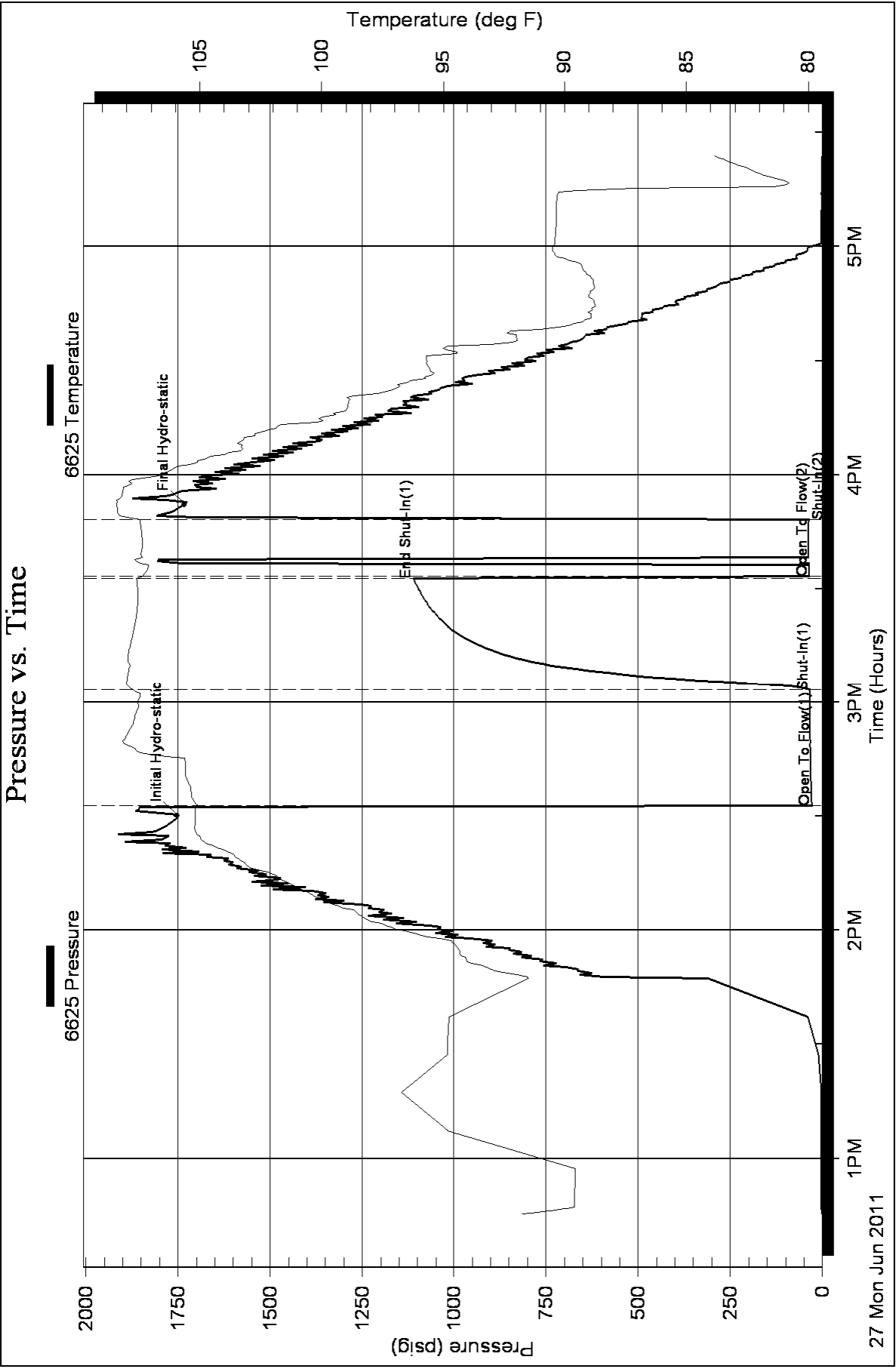
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5800.00 ppm			
Filter Cake: 1.00 inches			

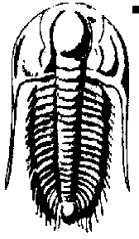
Recovery Information

Recovery Table

Length ft	Description	Volume bbl

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





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TDI Inc
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 ATTN: Tom Denning

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10-15s-19w Ellis
 Job Ticket: 43613 **DST#: 3**
 Test Start: 2011.06.28 @ 06:30:34

GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 08:32:59
 Time Test Ended: 12:30:58
Interval: 3348.00 ft (KB) To 3395.00 ft (KB) (TVD)
 Total Depth: 3718.00 ft (KB) (TVD)
 Hole Diameter: 7.85 inches Hole Condition: Fair
 Test Type: Conventional Straddle
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 2245.00 ft (KB)
 2235.00 ft (CF)
 KB to GR/CF: 10.00 ft

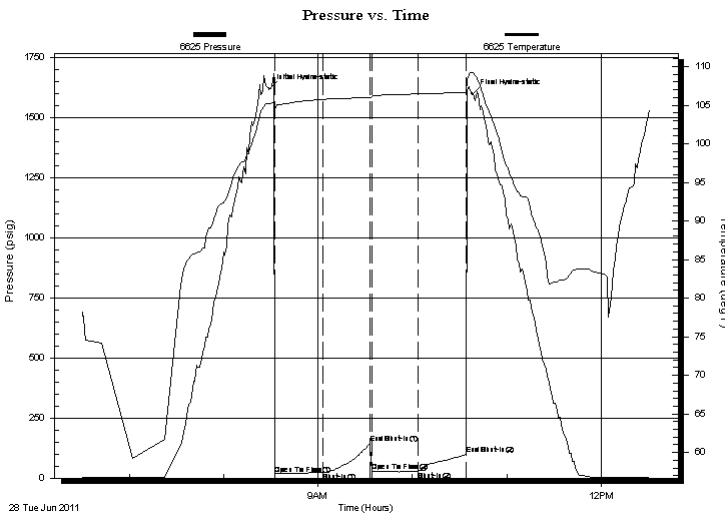
Serial #: 6625

Inside

Press @ Run Depth: 30.21 psig @ 3350.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.06.28 End Date: 2011.06.28 Last Calib.: 2011.06.28
 Start Time: 06:30:23 End Time: 12:30:47 Time On Btm: 2011.06.28 @ 08:29:18
 Time Off Btm: 2011.06.28 @ 10:38:18

TEST COMMENT: 30-IFP-surface bl
 30-ISIP-no bl
 30-FFP-surface bl
 30-FSIP-no bl

PRESSURE SUMMARY



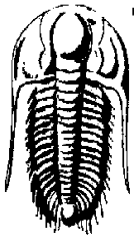
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1621.00	105.25	Initial Hydro-static
4	17.76	104.43	Open To Flow (1)
34	23.62	105.73	Shut-In(1)
64	146.89	106.03	End Shut-In(1)
65	28.95	106.17	Open To Flow (2)
95	30.21	106.46	Shut-In(2)
125	99.04	106.62	End Shut-In(2)
129	1599.94	109.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 3%O97%M	0.42

Gas Rates

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



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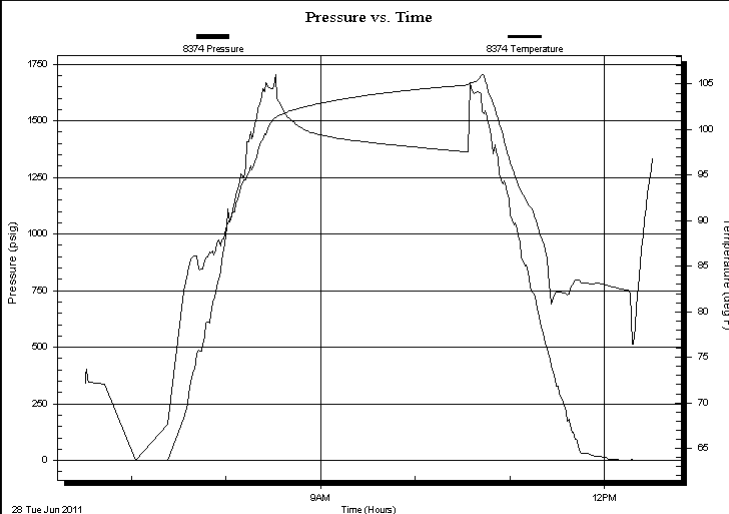
GENERAL INFORMATION:

Formation: LKC C-D	Test Type: Conventional Straddle
Deviated: No Whipstock: ft (KB)	Tester: Ray Schwager
Time Tool Opened: 08:32:59	Unit No: 42
Time Test Ended: 12:30:58	Reference Elevations: 2245.00 ft (KB)
Interval: 3348.00 ft (KB) To 3395.00 ft (KB) (TVD)	2235.00 ft (CF)
Total Depth: 3718.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.85 inches	Hole Condition: Fair

Serial #: 8374 Below (Straddle)

Press @ Run Depth: psig @ 3402.00 ft (KB)	Capacity: 8000.00 psig	
Start Date: 2011.06.28	End Date: 2011.06.28	Last Calib.: 2011.06.28
Start Time: 06:30:59	End Time: 12:30:23	Time On Btm: Time Off Btm:

TEST COMMENT: 30-IFP-surface bl
30-ISIP-no bl
30-FFP-surface bl
30-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 3%O 97%M	0.42

Gas Rates

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



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Job Ticket: 43613 **DST#: 3**
Test Start: 2011.06.28 @ 06:30:34

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: 1.00 inches			

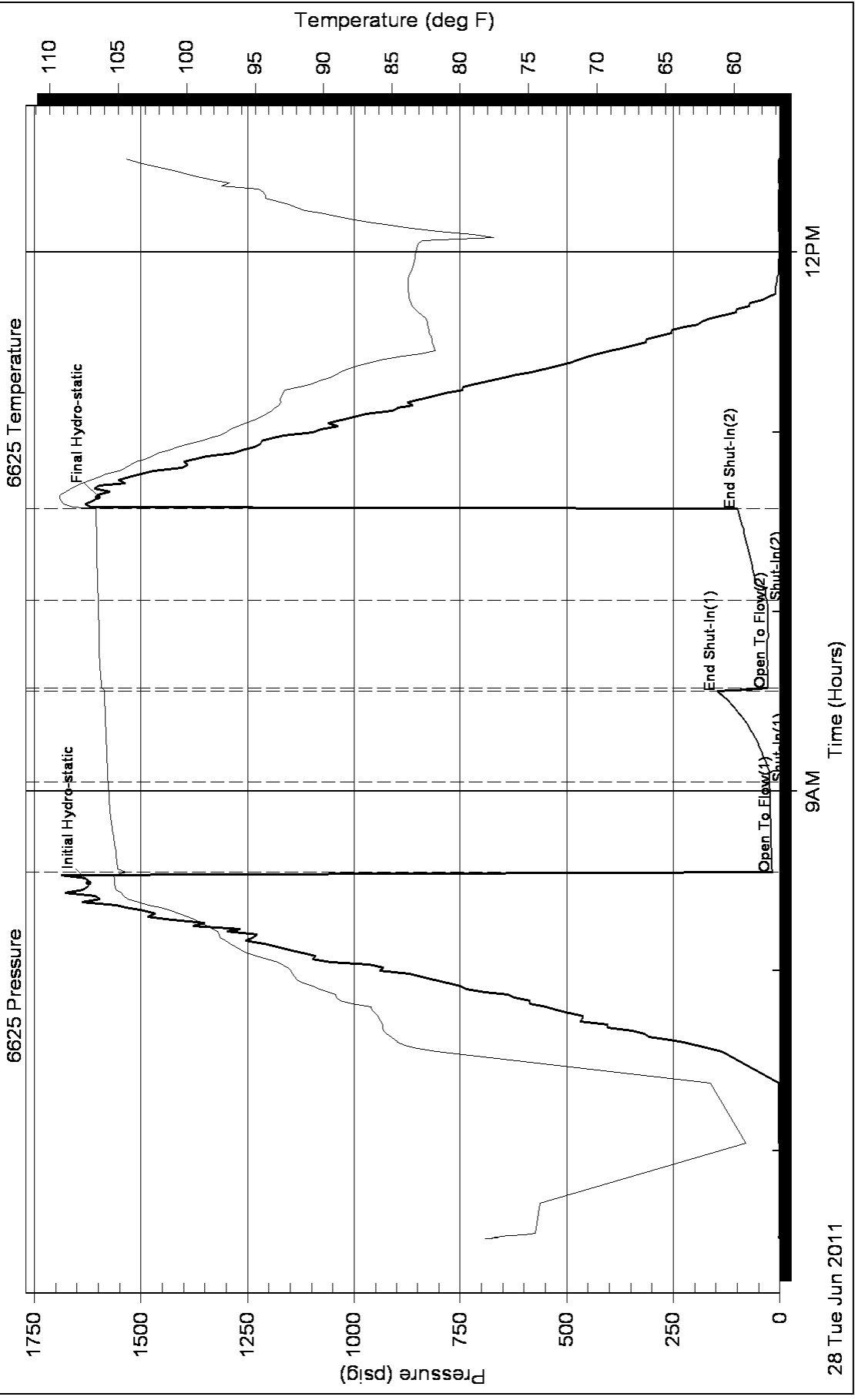
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	SOCM3%O97%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



Serial #: 8374

Below (Straddle)

10-15s-19w Ellis

DST Test Number: 3

