



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling, Co., Inc

May 'B' #1-13

250 N. Water Suite 300
Wichita, KS 67202

13/2s/29w Decatur KS

Job Ticket: 040840

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2011.03.08 @ 11:08:00

GENERAL INFORMATION:

Formation: **LKC "A - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:33:00

Time Test Ended: 19:22:00

Test Type: Conventional Bottom Hole

Tester: James Winder

Unit No: 46

Interval: 3825.00 ft (KB) To 3876.00 ft (KB) (TVD)

Reference Elevations: 2792.00 ft (KB)

Total Depth: 3876.00 ft (KB) (TVD)

2787.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8366

Inside

Press @ Run Depth: 101.46 psig @ 3826.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.08

End Date:

2011.03.08

Last Calib.: 2011.03.08

Start Time: 11:08:05

End Time:

19:21:59

Time On Btm: 2011.03.08 @ 13:31:00

Time Off Btm: 2011.03.08 @ 17:38:30

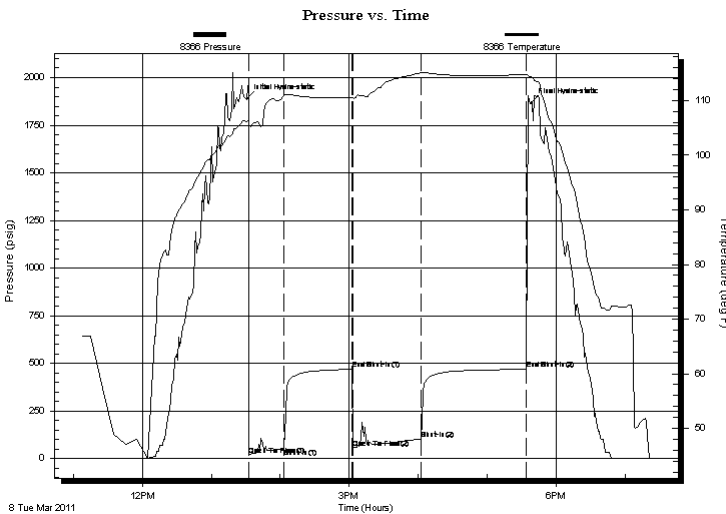
TEST COMMENT: IF: Blow built to 4 3/4" (Diesel in Bucket)

IS: Bled off, No blow back

FF: Blow built to 4 1/2"

FS: Bled off, No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1889.55	106.18	Initial Hydro-static
2	19.89	105.63	Open To Flow (1)
33	52.10	110.91	Shut-In(1)
92	468.56	110.59	End Shut-In(1)
92	56.01	110.49	Open To Flow (2)
152	101.46	115.11	Shut-In(2)
243	468.15	114.77	End Shut-In(2)
248	1867.56	114.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	WCM 61%w, 39%w	0.30
59.00	MCW 71%w, 29%w	0.29
57.00	SWCM 92%w, 8%w	0.28
0.00	Trace of Oil in Tool	0.00

Gas Rates

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



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Job Ticket: 040840

DST#: 1

ATTN: Paul Gunzelman

Test Start: 2011.03.08 @ 11:08:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 1400.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	WCM 61%m, 39%w	0.305
59.00	MCW 71%w , 29%m	0.290
57.00	SWCM 92%m, 8%w	0.280
0.00	Trace of Oil in Tool	0.000

Total Length: 178.00 ft Total Volume: 0.875 bbl

Num Fluid Samples: 0

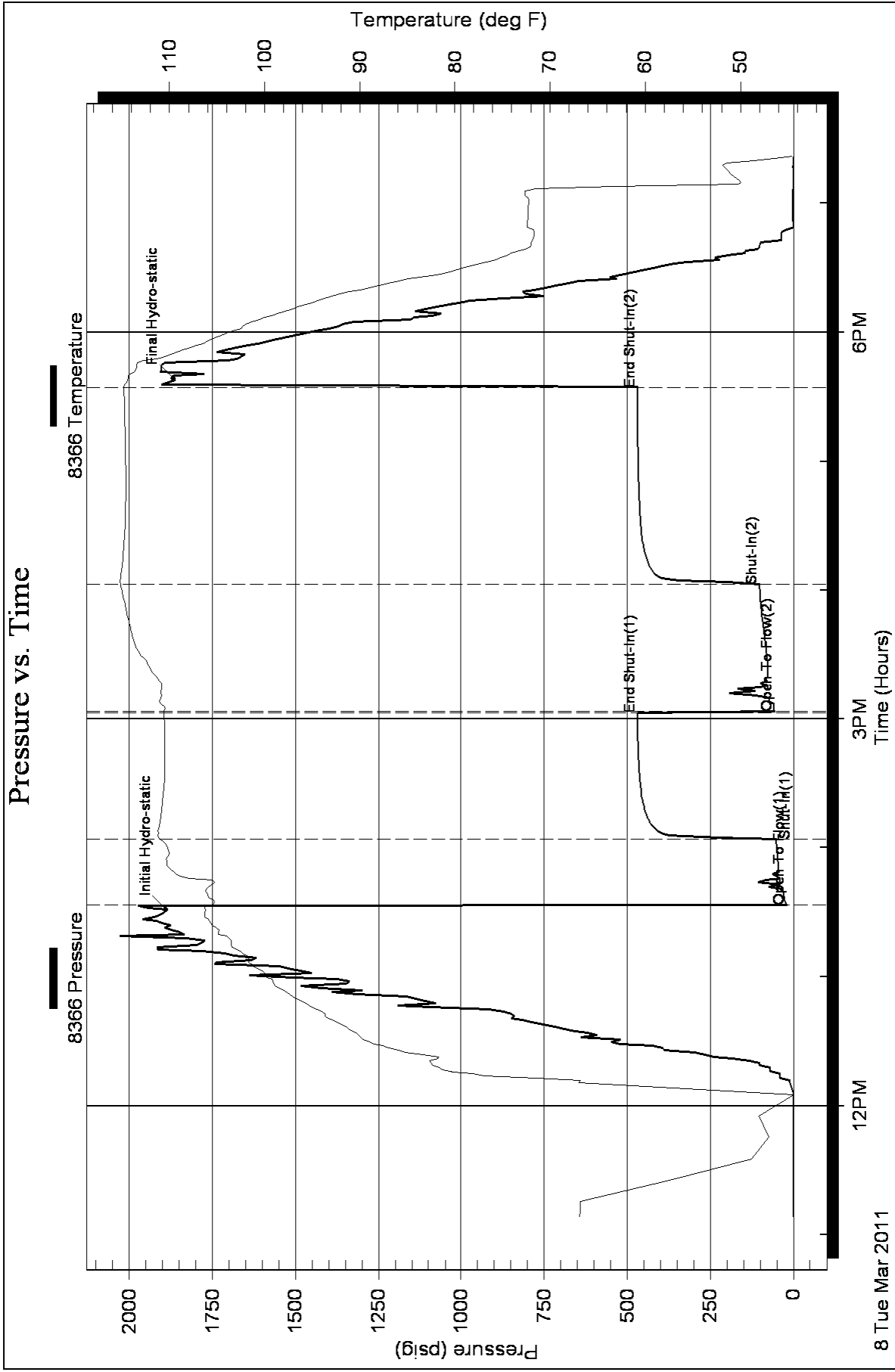
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .261 ohms @ 60.9 deg F Chlorides = 31,000 ppm Some mud plugging on both flow s





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ATTN: Paul Gunzelman

Job Ticket: 040841

DST#: 2

Test Start: 2011.03.09 @ 07:40:00

GENERAL INFORMATION:

Formation: **LKC "G - H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:40:00

Time Test Ended: 15:56:00

Test Type: Conventional Bottom Hole

Tester: James Winder

Unit No: 46

Interval: 3876.00 ft (KB) To 3950.00 ft (KB) (TVD)

Reference Elevations: 2792.00 ft (KB)

Total Depth: 3950.00 ft (KB) (TVD)

2787.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8366

Inside

Press @ Run Depth: 149.06 psig @ 3877.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.09

End Date:

2011.03.09

Last Calib.:

2011.03.09

Start Time:

07:40:05

End Time:

15:55:59

Time On Btm:

2011.03.09 @ 09:38:30

Time Off Btm:

2011.03.09 @ 13:52:30

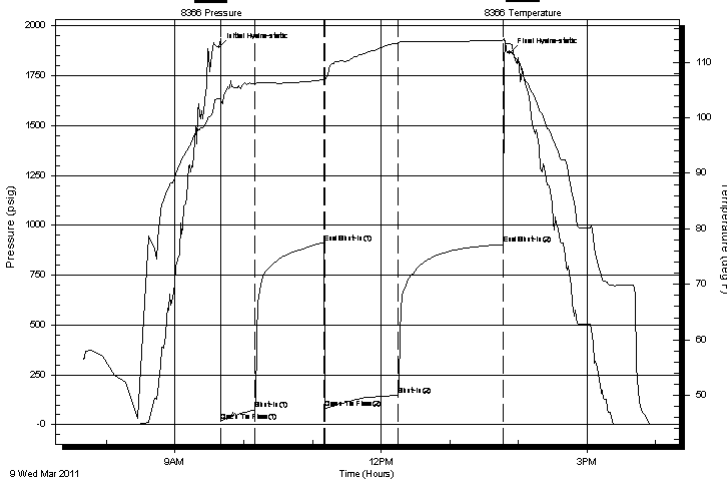
TEST COMMENT: IF: Blow built to 6 3/4" (Diesel in bucket)

IS: Bled off, No blow back

FF: Blow built to 9 1/2"

FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1894.34	103.46	Initial Hydro-static
2	19.41	102.15	Open To Flow (1)
32	76.17	106.16	Shut-In(1)
92	913.42	106.84	End Shut-In(1)
92	81.96	106.66	Open To Flow (2)
157	149.06	113.49	Shut-In(2)
249	904.70	113.99	End Shut-In(2)
254	1866.76	113.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
31.00	Mud 100%	0.15
120.00	WCM 82%m, 18%w	0.59
119.00	WM 51%m, 49%w	0.87

Gas Rates

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



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13/2s/29w Decatur KS

Job Ticket: 040841

DST#: 2

ATTN: Paul Gunzelman

Test Start: 2011.03.09 @ 07:40:00

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:

38000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
31.00	Mud 100%	0.152
120.00	WCM 82%m, 18%w	0.590
119.00	WM 51%m, 49%w	0.868

Total Length: 270.00 ft Total Volume: 1.610 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

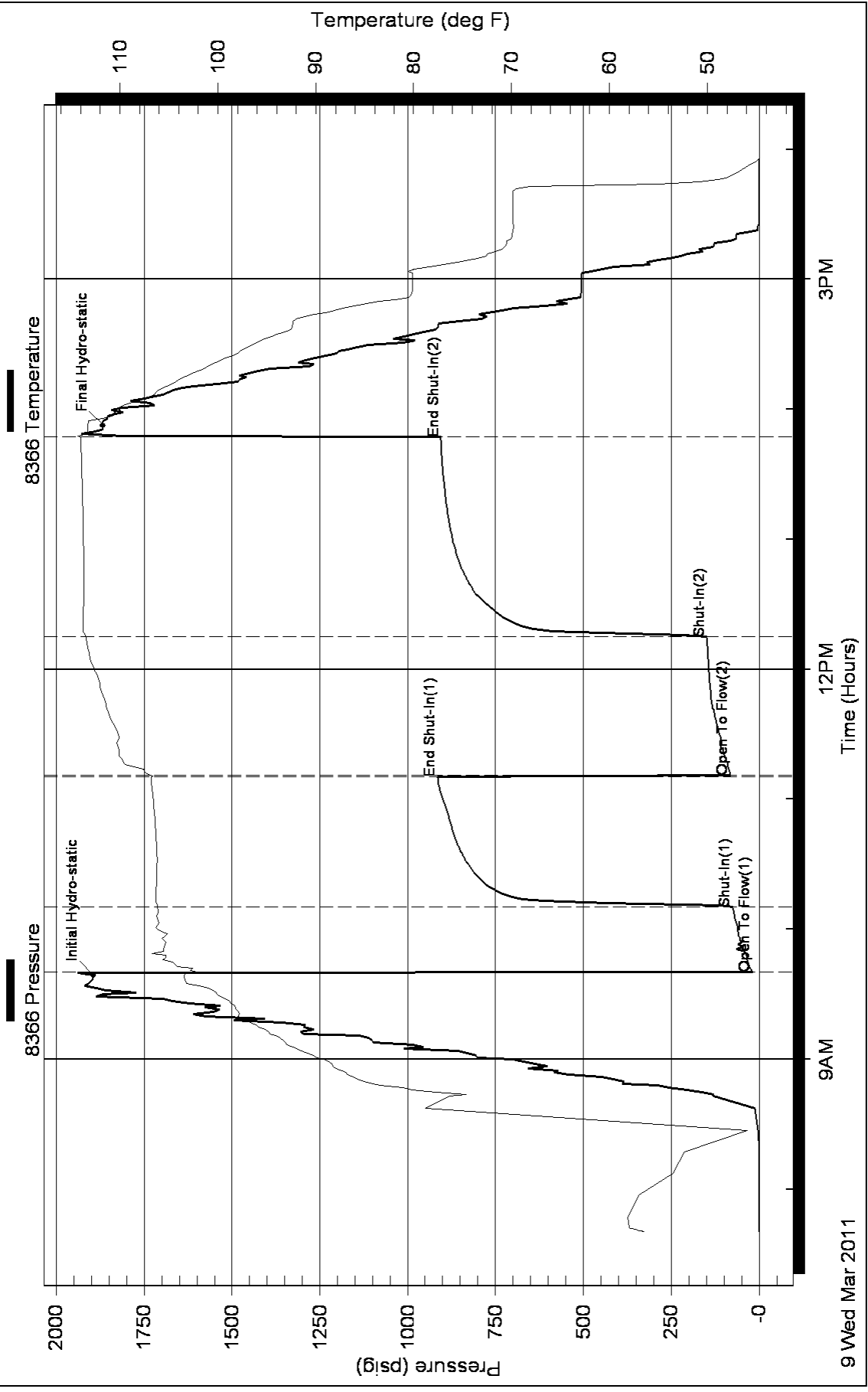
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .228 ohms @ 59.7 deg F Chlorides = 38,000 ppm

Pressure vs. Time





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ATTN: Paul Gunzelman

Job Ticket: 040842

DST#: 3

Test Start: 2011.03.10 @ 01:35:00

GENERAL INFORMATION:

Formation: **LKC "J - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:42:00

Time Test Ended: 08:09:00

Test Type: Conventional Bottom Hole

Tester: James Winder

Unit No: 46

Interval: 3949.00 ft (KB) To 4019.00 ft (KB) (TVD)

Reference Elevations: 2792.00 ft (KB)

Total Depth: 4019.00 ft (KB) (TVD)

2787.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8366

Inside

Press @ Run Depth: 26.72 psig @ 3950.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.03.10

End Date:

2011.03.10

Last Calib.: 2011.03.10

Start Time: 01:35:05

End Time:

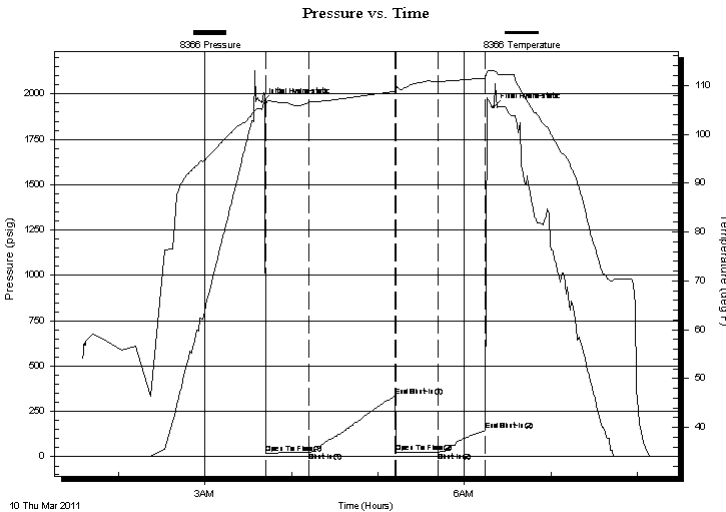
08:08:59

Time On Btm: 2011.03.10 @ 03:39:30

Time Off Btm: 2011.03.10 @ 06:20:00

TEST COMMENT: IF: 1/2" Blow at open, built to 1", slowly died back to 3/4" at close
IS: Bled off, No blow back
FF: No blow
FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1953.80	105.13	Initial Hydro-static
3	18.31	105.77	Open To Flow (1)
33	23.56	106.52	Shut-In(1)
93	336.16	108.76	End Shut-In(1)
93	23.65	108.97	Open To Flow (2)
122	26.72	110.81	Shut-In(2)
155	146.09	111.51	End Shut-In(2)
161	1925.18	113.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud 100%	0.02

Gas Rates

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



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DST#: 3

ATTN: Paul Gunzelman

Test Start: 2011.03.10 @ 01:35:00

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:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100%	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

