



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drlg. Co
250 N. Water
STE. 300
Wichita Ks. 67202+1216
ATTN: Robert Peterson

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041536 **DST#: 1**
Test Start: 2011.01.24 @ 00:03:00

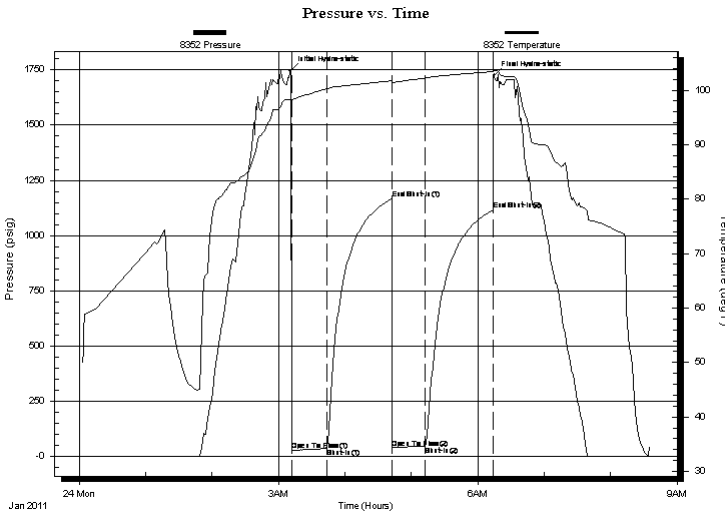
GENERAL INFORMATION:

Formation: **ORead/Tor/LKC"A"**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole
Time Tool Opened: 03:12:00 Tester: Andy Carreira
Time Test Ended: 08:35:19 Unit No: 31
Interval: 3485.00 ft (KB) To 3600.00 ft (KB) (TVD) Reference Elevations: 2265.00 ft (KB)
Total Depth: 3600.00 ft (KB) (TVD) 2260.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8352 Outside
Press @ Run Depth: 46.69 psig @ 3492.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.24 End Date: 2011.01.24 Last Calib.: 2011.01.24
Start Time: 00:03:05 End Time: 08:35:20 Time On Btm: 2011.01.24 @ 03:11:00
Time Off Btm: 2011.01.24 @ 06:15:00

TEST COMMENT: IF: Weak blow, 1"
IS: No Return
FF: Weak blow, 1"
FS: No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1746.53	98.45	Initial Hydro-static
1	25.68	97.72	Open To Flow (1)
33	35.30	100.23	Shut-In(1)
91	1165.19	101.71	End Shut-In(1)
92	38.49	101.15	Open To Flow (2)
122	46.69	102.18	Shut-In(2)
183	1115.56	103.42	End Shut-In(2)
184	1724.68	103.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud w / oil specks in tool	0.30
0.00	GIP=560ft	0.00

Gas Rates

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



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ATTN: Robert Peterson

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041536 **DST#: 1**
Test Start: 2011.01.24 @ 00:03:00

Mud and Cushion Information

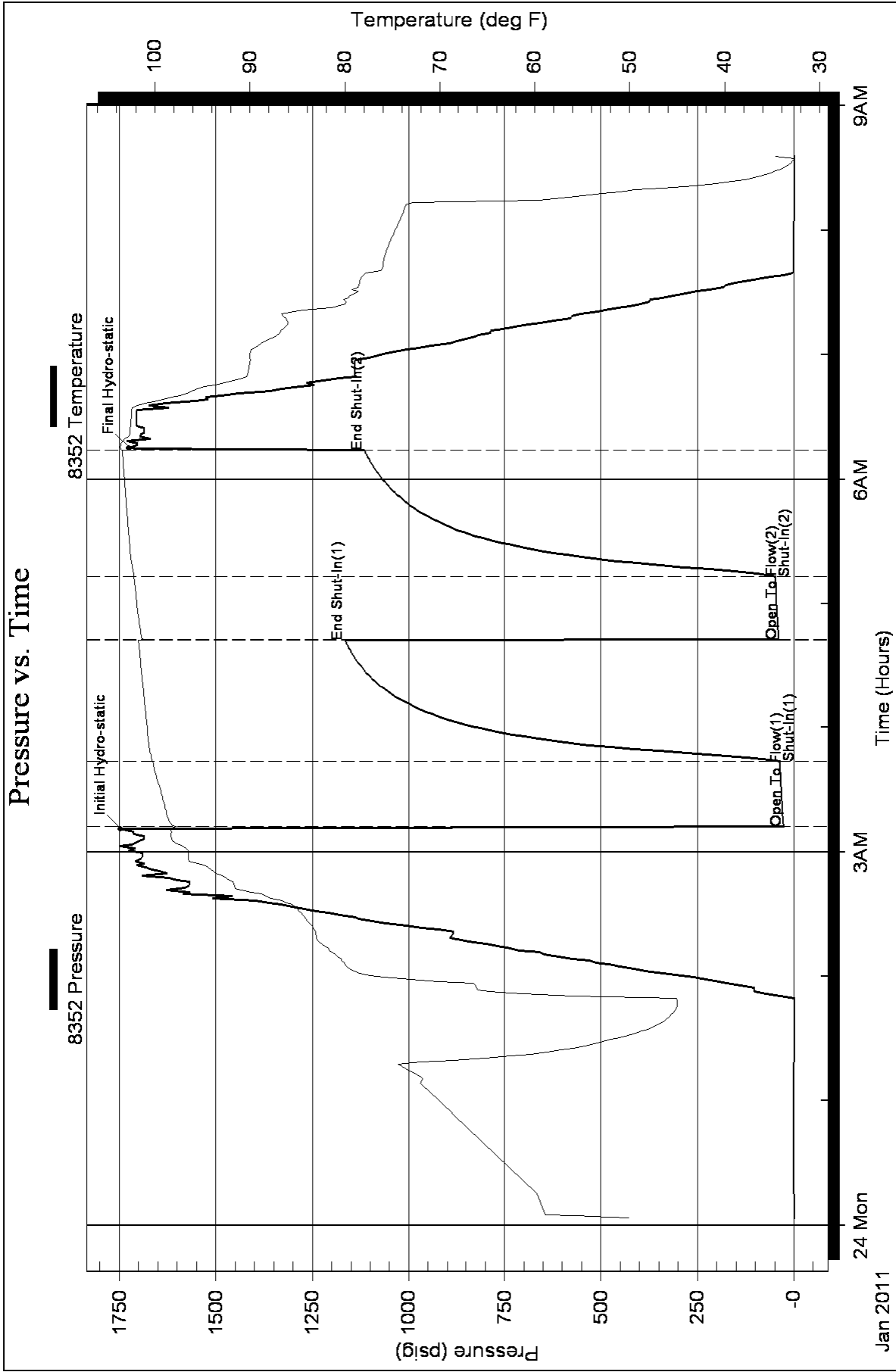
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Mud w / oil specks in tool	0.295
0.00	GIP=560ft	0.000

Total Length: 60.00 ft Total Volume: 0.295 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





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Murfin Drlg. Co
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ATTN: Robert Peterson

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041537 **DST#: 2**
Test Start: 2011.01.24 @ 16:49:05

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: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: inches			

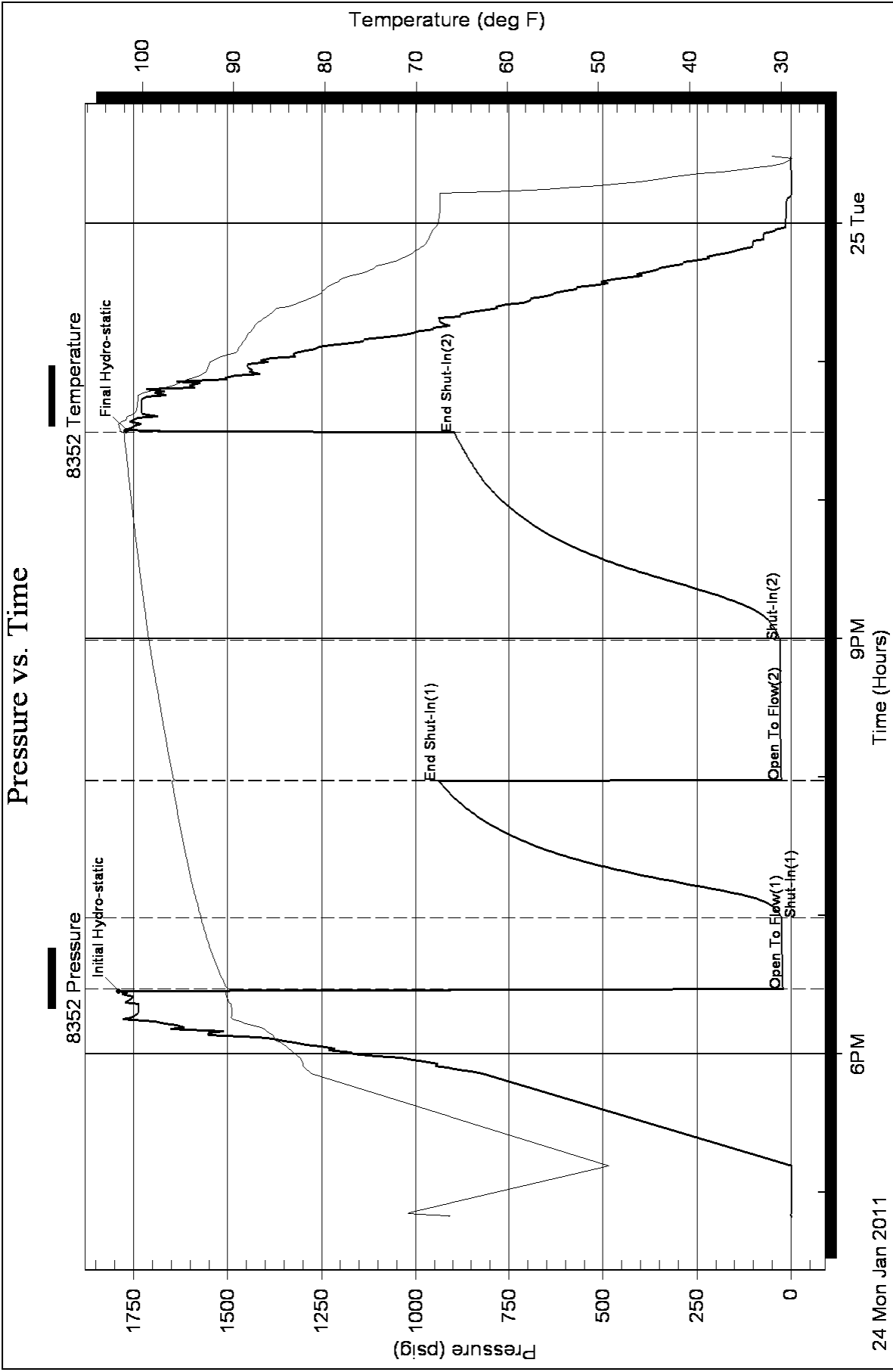
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Slightly Oil spotted Mud	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time





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Murfin Drlg. Co
250 N. Water
STE. 300
Wichita KS 67202+1216
ATTN: Robert Peterson

Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041538 **DST#: 3**
Test Start: 2011.01.25 @ 07:55:05

GENERAL INFORMATION:

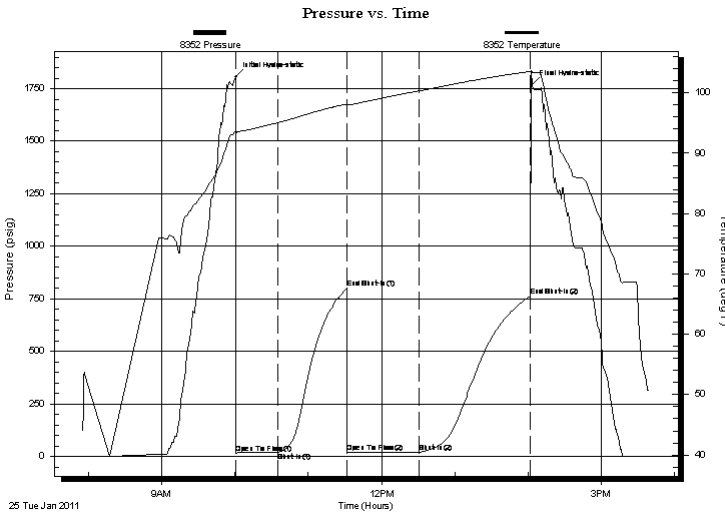
Formation: **LKC "E&F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:00:50
Time Test Ended: 15:40:20
Interval: **3640.00 ft (KB) To 3668.00 ft (KB) (TVD)**
Total Depth: 3668.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Andy Carreira
Unit No: 31
Reference Elevations: 2265.00 ft (KB)
2260.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8352 Outside

Press @ Run Depth: 21.80 psig @ 3665.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.25 End Date: 2011.01.25 Last Calib.: 2011.01.25
Start Time: 07:55:05 End Time: 15:40:20 Time On Btm: 2011.01.25 @ 10:00:40
Time Off Btm: 2011.01.25 @ 14:03:09

TEST COMMENT: IF: Weak, One & one half inch blow .
IS: No Return
FF: Weak, One inch blow .
FS: No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1806.87	93.71	Initial Hydro-static
1	16.61	93.01	Open To Flow (1)
35	18.40	95.07	Shut-In(1)
91	801.56	98.17	End Shut-In(1)
92	19.55	97.78	Open To Flow (2)
150	21.80	100.33	Shut-In(2)
242	763.36	103.57	End Shut-In(2)
243	1770.41	103.53	Final Hydro-static

Recovery

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

Gas Rates

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



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FLUID SUMMARY

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ATTN: Robert Peterson

Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041538 **DST#: 3**
Test Start: 2011.01.25 @ 07:55:05

Mud and Cushion Information

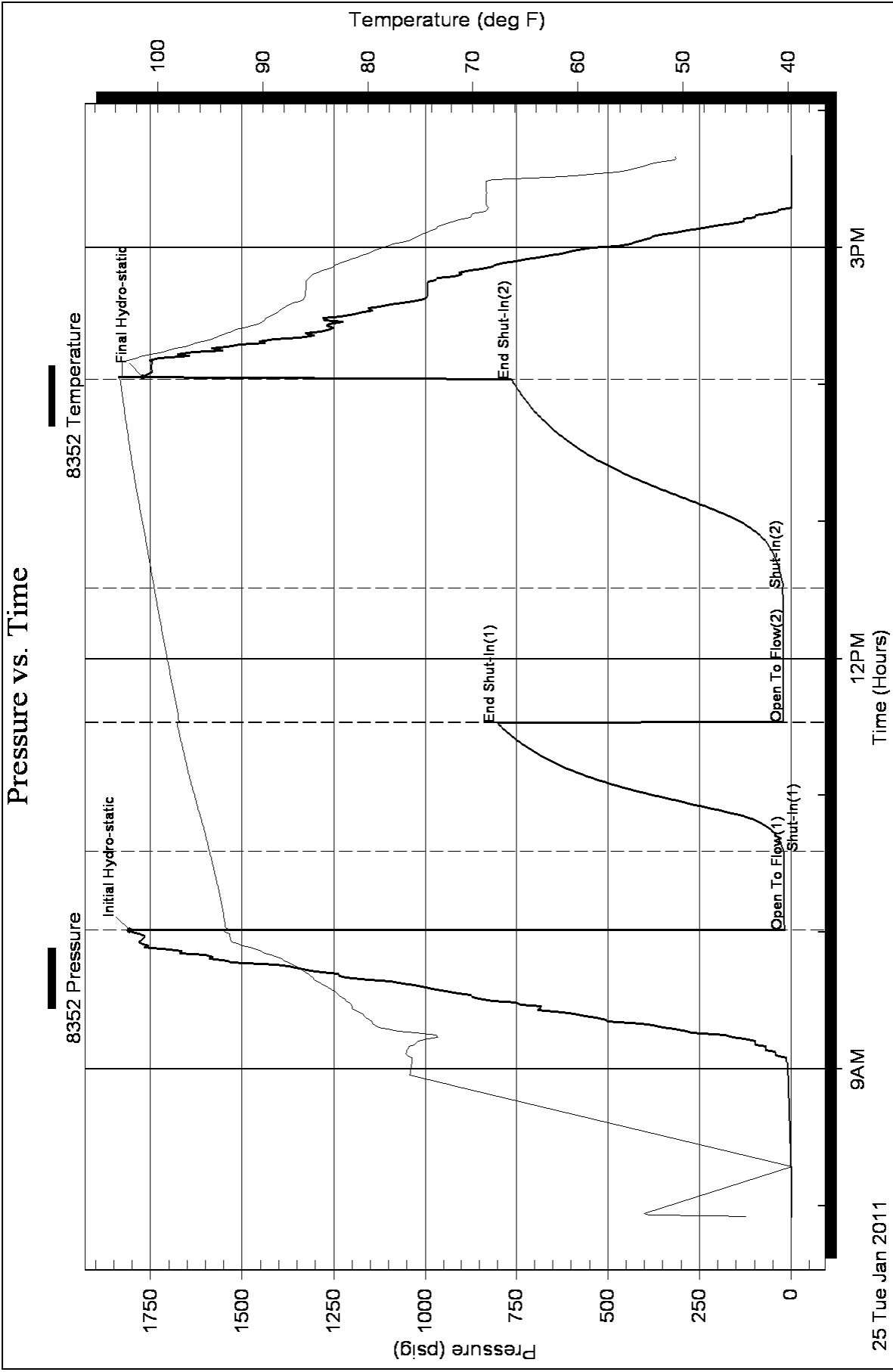
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

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:





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Wichita Ks. 67202+1216
ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041539 **DST#: 4**
Test Start: 2011.01.25 @ 23:00:05

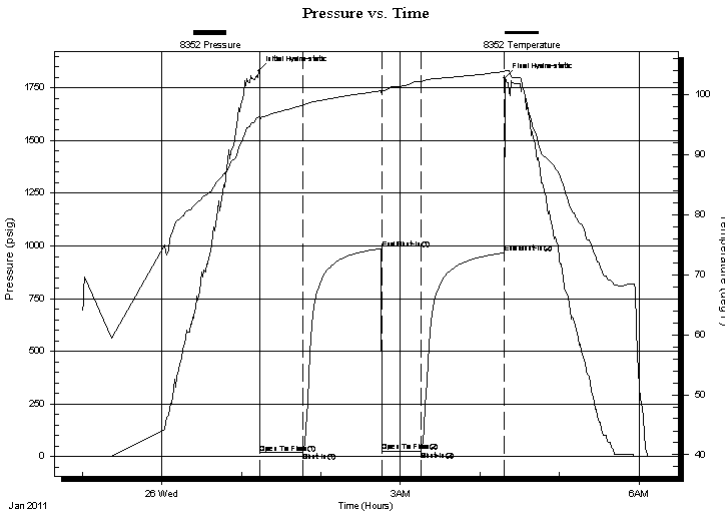
GENERAL INFORMATION:

Formation: **LKC"G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:14:00
Time Test Ended: 06:08:29
Interval: **3666.00 ft (KB) To 3694.00 ft (KB) (TVD)**
Total Depth: 3694.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Andy Carreira
Unit No: 31
Reference Elevations: 2265.00 ft (KB)
2260.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8352 Outside
Press @ Run Depth: 26.34 psig @ 3667.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.25 End Date: 2011.01.26 Last Calib.: 2011.01.26
Start Time: 23:00:05 End Time: 06:08:29 Time On Btm: 2011.01.26 @ 01:13:20
Time Off Btm: 2011.01.26 @ 04:18:39

TEST COMMENT: IF: Weak, half inch.
IS: No Return
FF: Weak, half inch
FS: No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1830.70	96.26	Initial Hydro-static
1	16.62	95.64	Open To Flow (1)
33	21.26	98.23	Shut-In(1)
93	987.08	100.62	End Shut-In(1)
93	22.39	100.02	Open To Flow (2)
122	26.34	102.15	Shut-In(2)
185	966.67	103.79	End Shut-In(2)
186	1798.75	103.99	Final Hydro-static

Recovery

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

Gas Rates

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



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ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041539 **DST#: 4**
Test Start: 2011.01.25 @ 23:00:05

Mud and Cushion Information

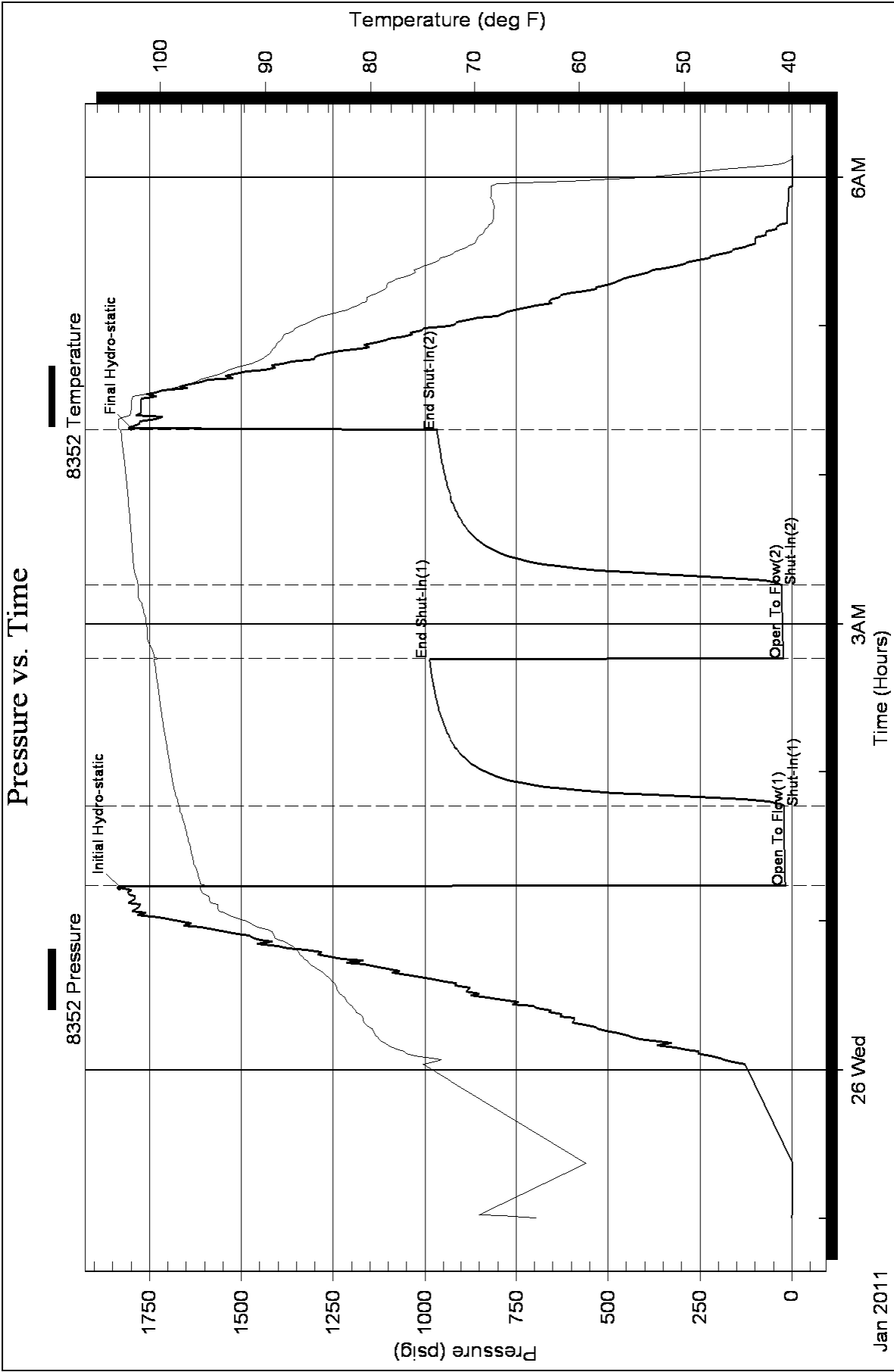
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	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:





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ATTN: Robert Petersen

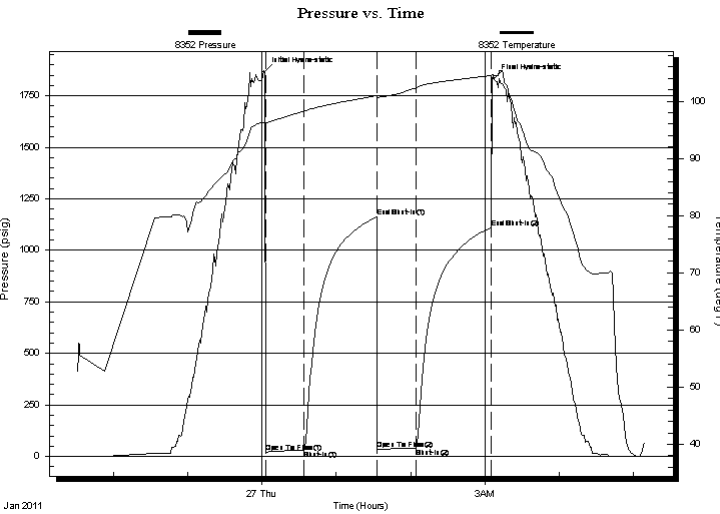
Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041540 **DST#: 5**
Test Start: 2011.01.26 @ 21:31:05

GENERAL INFORMATION:

Formation: **LKC "I,J,K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:02:40
Time Test Ended: 05:09:20
Test Type: Conventional Bottom Hole
Tester: Andy Carreira
Unit No: 31
Interval: **3724.00 ft (KB) To 3800.00 ft (KB) (TVD)**
Reference Elevations: 2265.00 ft (KB)
Total Depth: 3800.00 ft (KB) (TVD) 2260.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8352 Outside
Press @ Run Depth: 41.19 psig @ 3729.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.26 End Date: 2011.01.27 Last Calib.: 2011.01.27
Start Time: 21:31:05 End Time: 05:09:20 Time On Btm: 2011.01.27 @ 00:02:00
Time Off Btm: 2011.01.27 @ 03:07:20

TEST COMMENT: IF: 2 inch blow
IS: No Return
FF: 1&1/2 inch blow
FS: No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1865.38	96.49	Initial Hydro-static
1	20.78	95.96	Open To Flow (1)
33	30.94	98.24	Shut-In(1)
91	1161.31	100.98	End Shut-In(1)
92	33.14	100.31	Open To Flow (2)
122	41.19	102.36	Shut-In(2)
184	1110.31	104.51	End Shut-In(2)
186	1833.89	104.55	Final Hydro-static

Recovery

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

Gas Rates

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



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ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis KS
Job Ticket: 041540 **DST#: 5**
Test Start: 2011.01.26 @ 21:31:05

Mud and Cushion Information

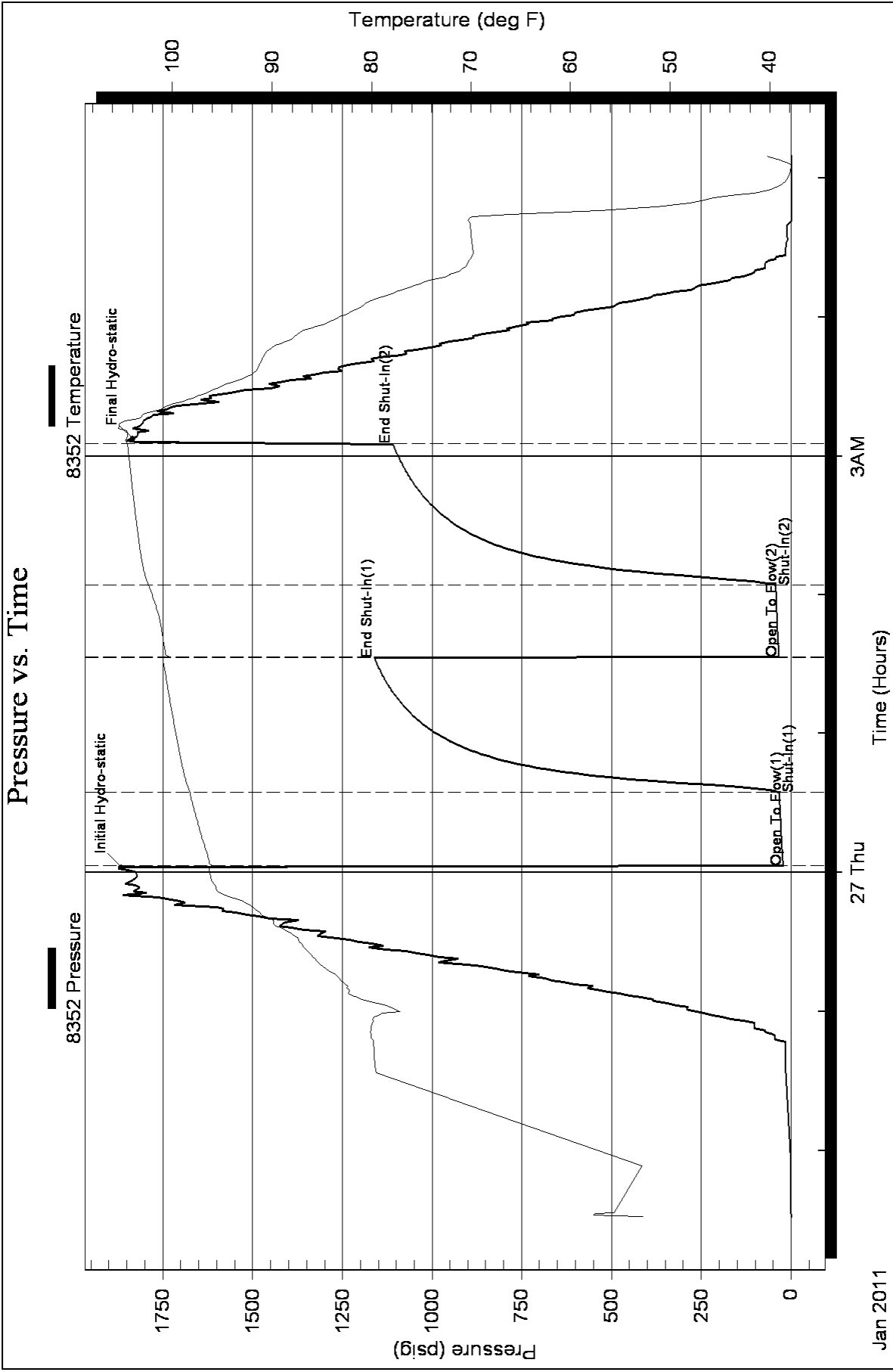
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2600.00 ppm			
Filter Cake: inches			

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:





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Wichita Ks. 67202+1216
ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041541 **DST#: 6**
Test Start: 2011.01.27 @ 16:50:05

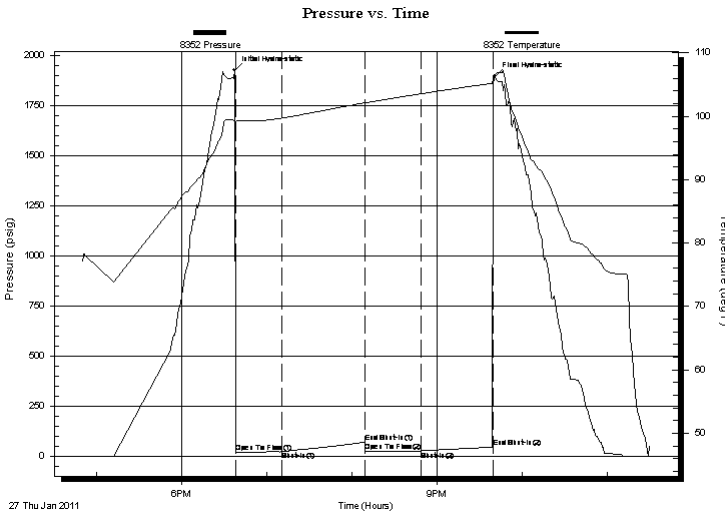
GENERAL INFORMATION:

Formation: **Lower Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:37:50
Time Test Ended: 23:29:59
Test Type: Conventional Bottom Hole
Tester: Andy Carreira
Unit No: 31
Interval: **3817.00 ft (KB) To 3884.00 ft (KB) (TVD)**
Reference Elevations: 2265.00 ft (KB)
Total Depth: 3884.00 ft (KB) (TVD) 2260.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8352 Outside
Press @ Run Depth: 27.92 psig @ 3823.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.01.27 End Date: 2011.01.27 Last Calib.: 2011.01.27
Start Time: 16:50:05 End Time: 23:29:59 Time On Btm: 2011.01.27 @ 18:37:00
Time Off Btm: 2011.01.27 @ 21:40:29

TEST COMMENT: IF: Weak, 1 inch
IS: No Return
FF: No Blow
FS: No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1926.16	99.47	Initial Hydro-static
1	21.01	98.95	Open To Flow (1)
34	23.83	99.73	Shut-In(1)
92	71.00	102.14	End Shut-In(1)
93	23.65	102.12	Open To Flow (2)
132	27.92	103.56	Shut-In(2)
183	46.58	105.22	End Shut-In(2)
184	1895.69	106.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud	0.01

Gas Rates

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



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Murfin Drlg. Co
250 N. Water
STE. 300
Wichita Ks. 67202+1216
ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041541 **DST#: 6**
Test Start: 2011.01.27 @ 16:50:05

Mud and Cushion Information

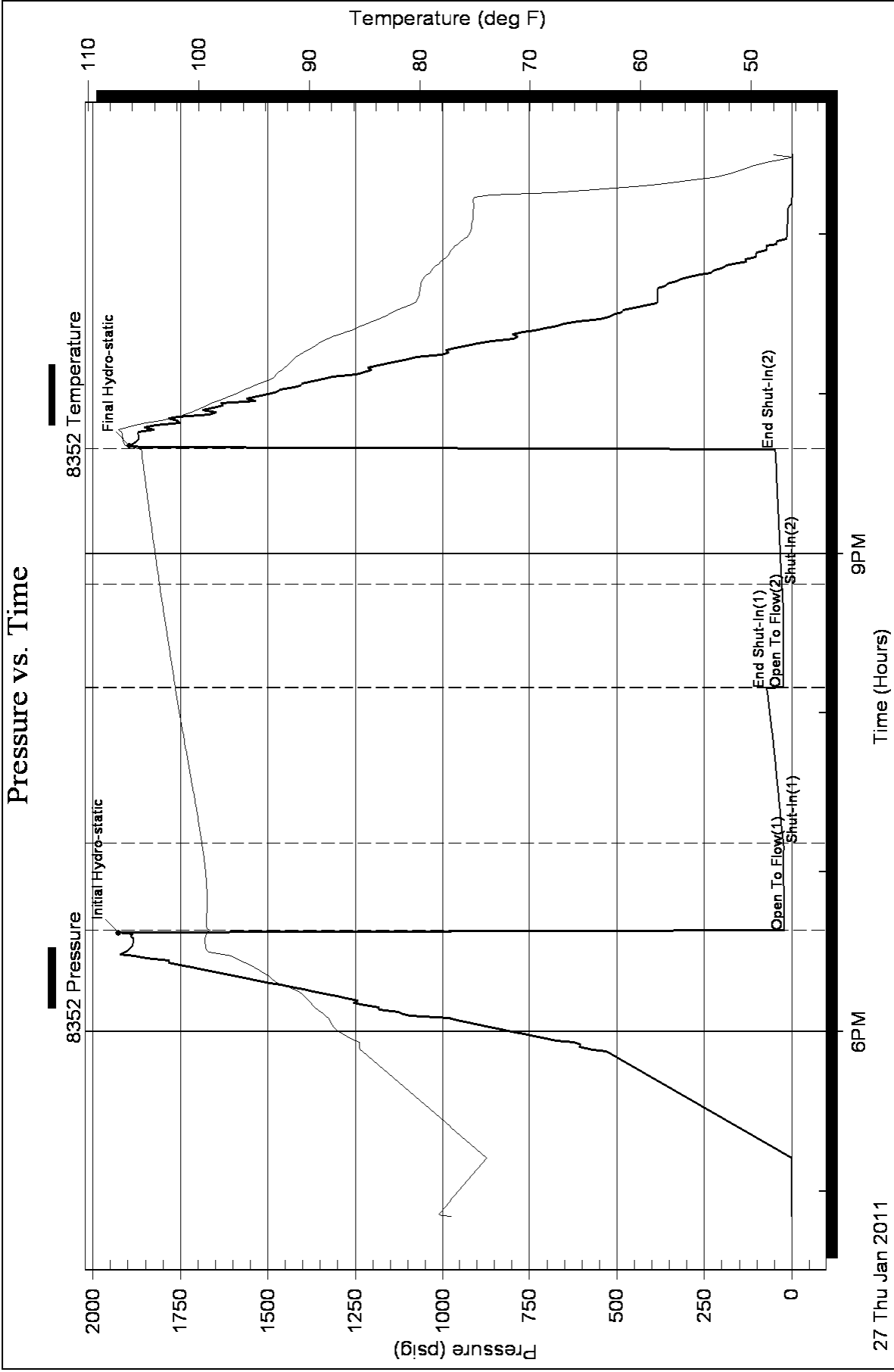
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:





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DRILL STEM TEST REPORT

Murfin Drlg. Co
 250 N. Water
 STE. 300
 Wichita Ks. 67202+1216
 ATTN: Robert Petersen

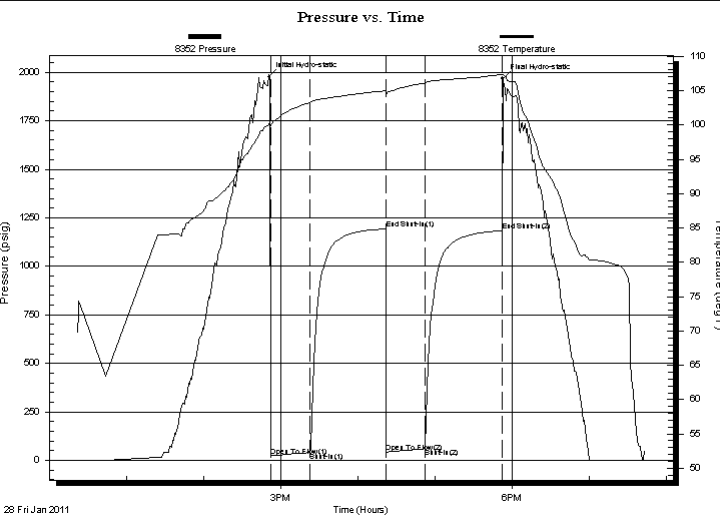
Freida #1-13
13-12s-20w Ellis co.
 Job Ticket: 041542 **DST#: 7**
 Test Start: 2011.01.28 @ 12:22:05

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:52:30
 Time Test Ended: 19:43:20
 Interval: **3865.00 ft (KB) To 3965.00 ft (KB) (TVD)**
 Total Depth: 3965.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole
 Tester: Andy Carreira
 Unit No: 31
 Reference Elevations: 2265.00 ft (KB)
 2260.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8352 Outside
 Press @ RunDepth: 60.88 psig @ 3871.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.01.28 End Date: 2011.01.28 Last Calib.: 2011.01.28
 Start Time: 12:22:05 End Time: 19:43:20 Time On Btm: 2011.01.28 @ 14:51:10
 Time Off Btm: 2011.01.28 @ 17:53:09

TEST COMMENT: IF: 2 inch blow
 IS: No Return
 FF: Half inch blow
 FS: No Return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1976.76	100.18	Initial Hydro-static
2	23.10	99.85	Open To Flow (1)
32	40.40	103.27	Shut-In(1)
91	1192.35	104.98	End Shut-In(1)
92	42.49	104.26	Open To Flow (2)
122	60.88	106.12	Shut-In(2)
182	1183.58	107.35	End Shut-In(2)
182	1967.43	107.37	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
65.00	Mud	0.32

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)



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ATTN: Robert Petersen

Freida #1-13
13-12s-20w Ellis co.
Job Ticket: 041542 **DST#: 7**
Test Start: 2011.01.28 @ 12:22:05

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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Mud	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

