



## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

P.O. Box 33,  
Russell, KS 67665

ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**#8 Richards**

Start Date: 2001.01.26 @ 10:11:00

End Date: 2001.01.26 @ 15:42:00

Job Ticket #: 14163                      DST #: 1

Trilobite Testing Inc.  
Box 362 Hays KS 67601  
785.625.4778 trilobite@eaglecom.net



# DRILL STEM TEST REPORT

Mai Oil Operations

#8 Richards

P.O. Box 33,  
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6-11-20 Ellis co KS

ATTN: Allen Bangert

Job Ticket: 14163

DST#: 1

Test Start: 2001.01.26 @ 10:11:00

## GENERAL INFORMATION:

Formation: "C" LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:13:39

Time Test Ended: 15:42:00

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 11

Interval: 3345.00 ft (KB) To 3364.00 ft (KB) (TVD)

Total Depth: 3364.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2045.00 ft (KB)

2040.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357 Inside

Press@RunDepth: 250.08 psig @ 3351.01 ft (KB)

Start Date: 2001.01.26

End Date:

2001.01.26

Start Time: 09:16:40

End Time:

19:13:39

Capacity: 7000.00 psig

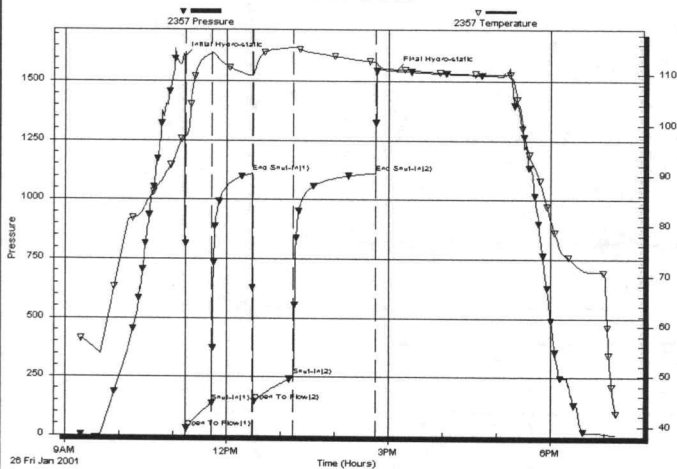
Last Calib.: 2001.01.26

Time On Btm: 2001.01.26 @ 11:12:39

Time Off Btm: 2001.01.26 @ 15:08:09

TEST COMMENT: 410 Gas in pipe IF-Strong B.O.B. in 6 min  
FF-Strong B.O.B. in 8 min

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
116	1603.54	97.72	Initial Hydro-static
117	28.14	97.72	Open To Flow (1)
147	136.75	114.20	Shut-In(1)
192	110.45	109.85	End Shut-In(1)
193	142.42	109.86	Open To Flow (2)
237	250.08	115.47	Shut-In(2)
329	1112.46	112.55	End Shut-In(2)
352	1543.58	111.13	Final Hydro-static

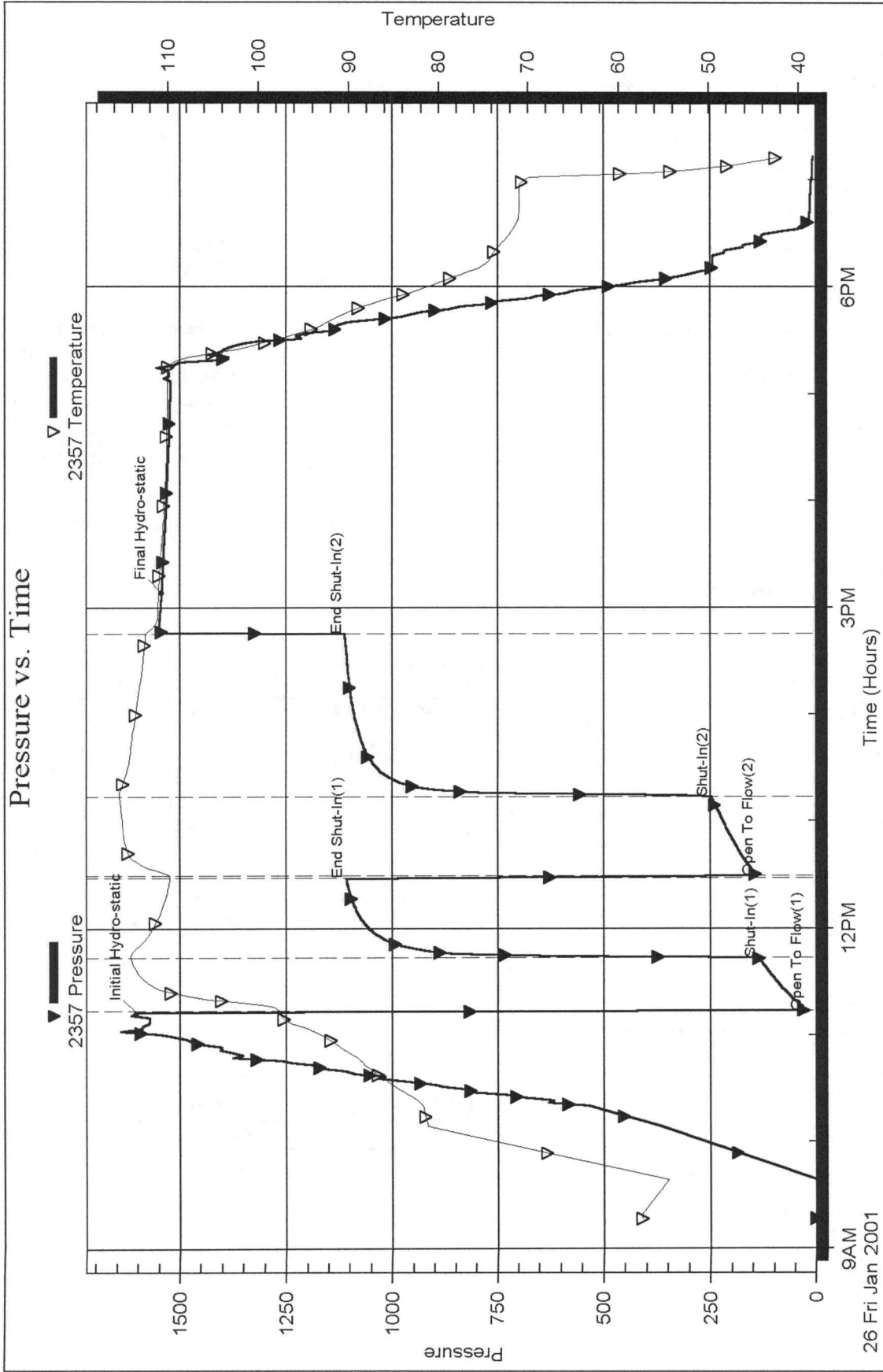
Recovery

Length (ft)	Description	Volume (bbl)
90.00	Clean oil	1.26
10.00	Oil cut water 10%o 80%w	0.14
510.00	Muddy water 80%w 20%w Rw.13@60=70000	7.15

Gas Rates

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

### Pressure vs. Time





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ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**#8 Richards**

Start Date: 2001.01.27 @ 05:31:00

End Date: 2001.01.27 @ 11:40:00

Job Ticket #: 14164                      DST #: 2

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Mai Oil Operations

#8 Richards

6-11-20 Ellis co KS

DST #: 2

"F-G"

LK

2001.01.27



# DRILL STEM TEST REPORT

Mai Oil Operations

#8 Richards

P.O. Box 33,  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 14164

DST#: 2

ATTN: Allen Bangert

Test Start: 2001.01.27 @ 05:31:00

## GENERAL INFORMATION:

Formation: "F-G" LK  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:12:38  
Time Test Ended: 11:40:00

Test Type: Conventional Bottom Hole  
Tester: Dan Bangle  
Unit No: 11

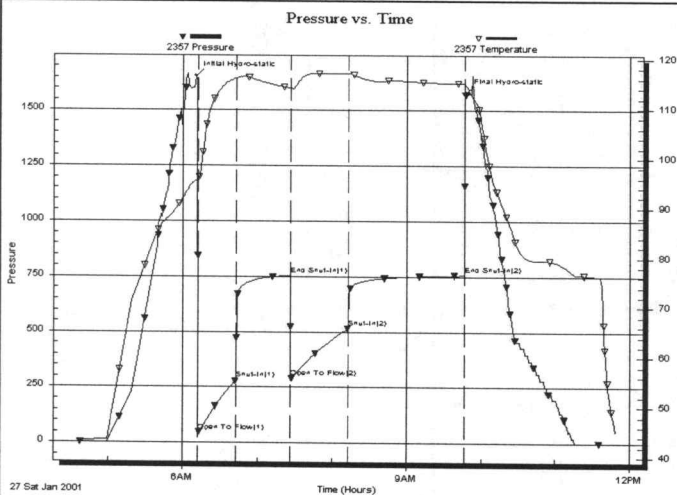
Interval: 3401.00 ft (KB) To 3424.00 ft (KB) (TVD)  
Total Depth: 3424.00 ft (KB)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2045.00 ft (KB)  
2040.00 ft (CF)  
KB to GR/CF: 5.00 ft

Serial #: 2357 Inside  
Press@RunDepth: 515.83 psig @ 3402.01 ft (KB)  
Start Date: 2001.01.27 End Date: 2001.01.27  
Start Time: 04:37:09 End Time: 11:48:38

Capacity: 7000.00 psig  
Last Calib.: 2001.01.26  
Time On Btm: 2001.01.27 @ 06:10:38  
Time Off Btm: 2001.01.27 @ 09:47:38

TEST COMMENT: 750 Gas in pipe IF-Strong B.O.B. in 3 min  
FF-Strong B.O.B. in 7 min



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
94	1652.75	95.47	Initial Hydro-static
96	45.11	95.82	Open To Flow (1)
126	282.19	116.15	Shut-In(1)
169	754.99	114.22	End Shut-In(1)
170	289.40	114.19	Open To Flow (2)
216	515.83	117.05	Shut-In(2)
309	756.23	115.11	End Shut-In(2)
311	1580.09	114.87	Final Hydro-static

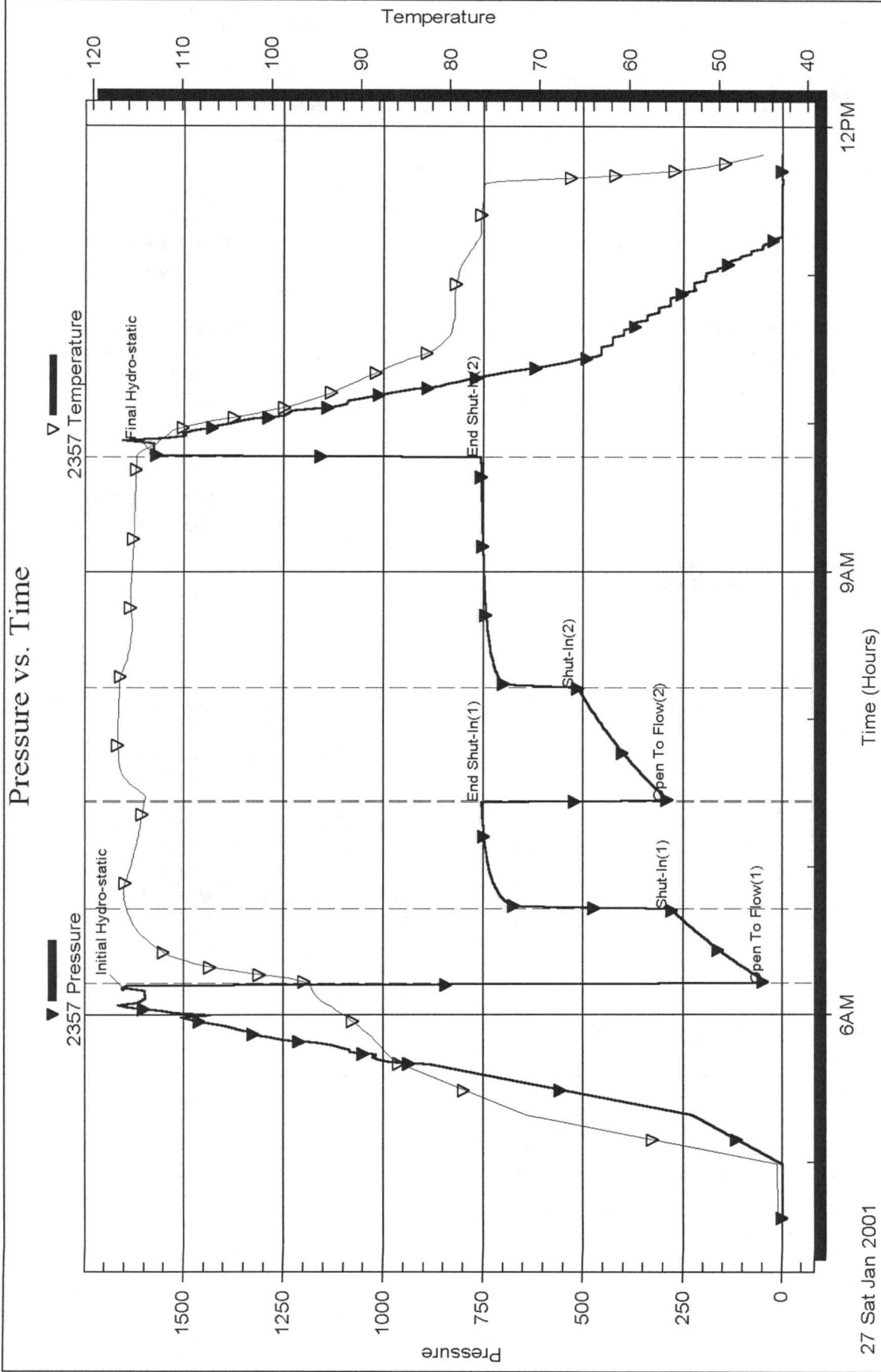
## Recovery

Length (ft)	Description	Volume (bbl)
280.00	Clean gassy oil	3.93
62.00	Water cut oil 60%o 40%w	0.87
879.00	Water Rw .13 @ 70=62000	12.33

## Gas Rates

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

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations**

P.O. Box 33,  
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ATTN: Allen Bangert

**6-11-20 Ellis co KS**

**#8 Richards**

Start Date: 2001.01.27 @ 22:15:00

End Date: 2001.01.28 @ 04:15:00

Job Ticket #: 14165                      DST #: 3

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# DRILL STEM TEST REPORT

Mai Oil Operations

#8 Richards

P.O. Box 33,  
Russell, KS 67665

6-11-20 Ellis co KS

Job Ticket: 14165

DST#: 3

ATTN: Allen Bangert

Test Start: 2001.01.27 @ 22:15:00

## GENERAL INFORMATION:

Formation: "H-I-J" LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:22

Time Test Ended: 04:15:00

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 11

Interval: 3441.00 ft (KB) To 3503.00 ft (KB) (TVD)

Total Depth: 3503.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2045.00 ft (KB)

2040.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357 Inside

Press@RunDepth: 324.08 psig @ 3447.01 ft (KB)

Start Date: 2001.01.27

End Date:

2001.01.28

Start Time: 21:21:23

End Time:

06:44:52

Capacity: 7000.00 psig

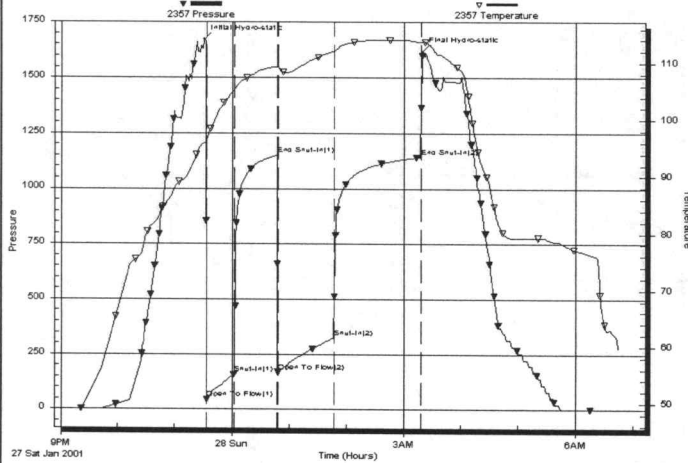
Last Calib.: 2001.01.26

Time On Btm: 2001.01.27 @ 23:30:52

Time Off Btm: 2001.01.28 @ 03:19:22

TEST COMMENT: Hit several bridges last 5 stds in-w ent right to bottom 1342 Gas in pipe IF-Strong B.O.B. in 3 min  
FF-Strong B.O.B in 8 min

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
130	1669.96	95.93	Initial Hydro-static
132	43.82	96.28	Open To Flow (1)
161	158.10	105.38	Shut-In(1)
206	1148.13	109.45	End Shut-In(1)
207	168.09	109.37	Open To Flow (2)
265	324.08	112.16	Shut-In(2)
357	1142.18	113.71	End Shut-In(2)
358	1615.60	113.81	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
578.00	Clean gassy oil	8.11
246.00	Heavy mud cut oil 80%o 20%o	3.45
62.00	Heavy oil cut mud 40%o 60%o	0.87

## Gas Rates

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

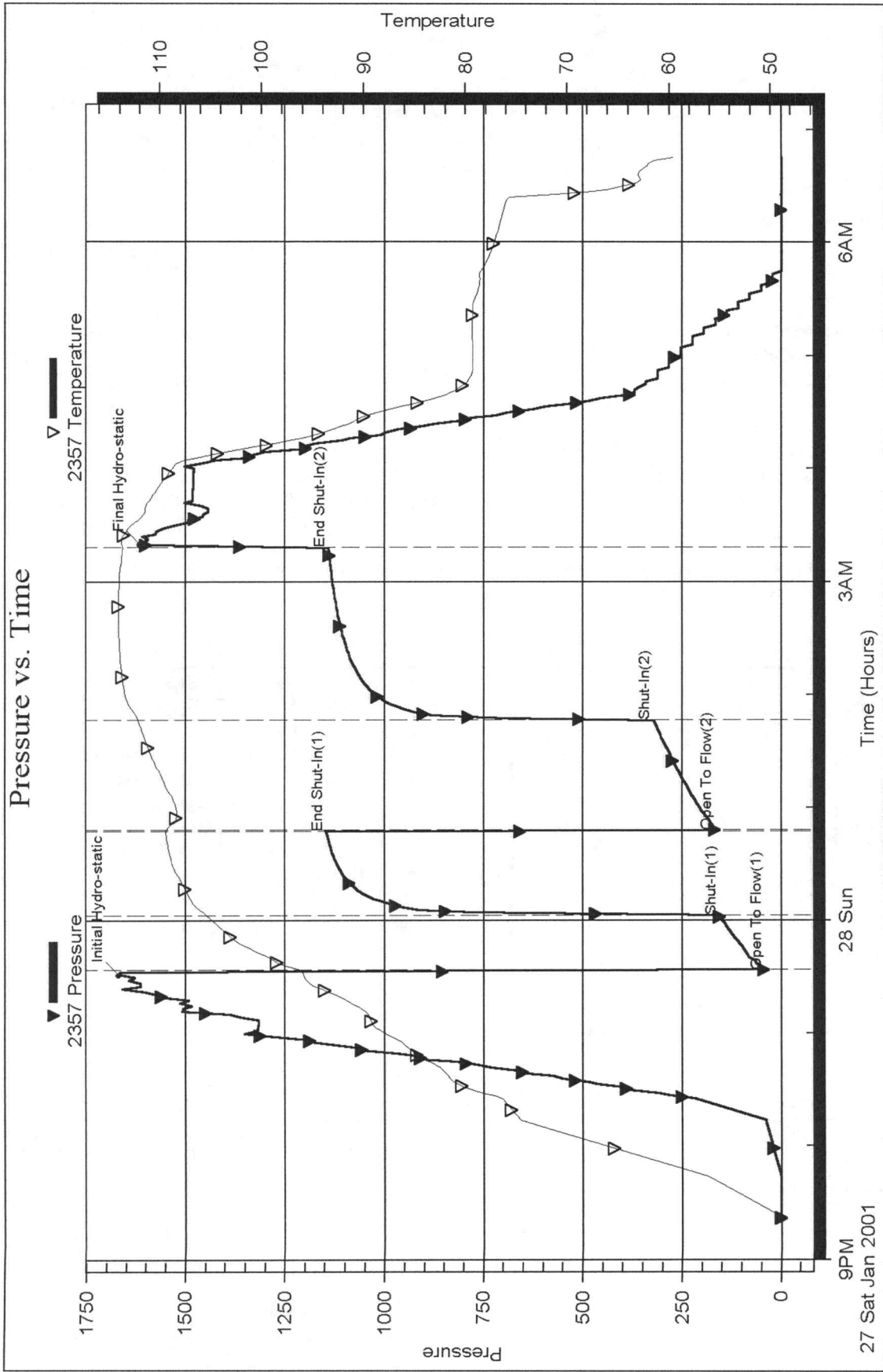
Serial #: 2357

Inside

Mai Oil Operations

6-11-20 Ellis co KS

### Pressure vs. Time





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Start Date: 2001.01.28 @ 10:11:00

End Date: 2001.01.28 @ 18:40:00

Job Ticket #: 14166                      DST #: 4

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Mai Oil Operations

#8 Richards

6-11-20 Ellis co KS

DST #: 4

"K"

LKC

2001.01.28



# DRILL STEM TEST REPORT

Mai Oil Operations

#8 Richards

P.O. Box 33,  
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6-11-20 Ellis co KS

Job Ticket: 14166

DST#: 4

ATTN: Allen Bangert

Test Start: 2001.01.28 @ 10:11:00

## GENERAL INFORMATION:

Formation: "K" LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:42:57

Time Test Ended: 18:40:00

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 11

Interval: 3506.00 ft (KB) To 3534.00 ft (KB) (TVD)

Total Depth: 3534.00 ft (KB)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2045.00 ft (KB)

2040.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357 Inside

Press@RunDepth: 15.91 psig @ 3507.01 ft (KB)

Start Date: 2001.01.28

End Date:

2001.01.28

Capacity: 7000.00 psig

Last Calib.: 2001.01.26

Start Time: 14:08:28

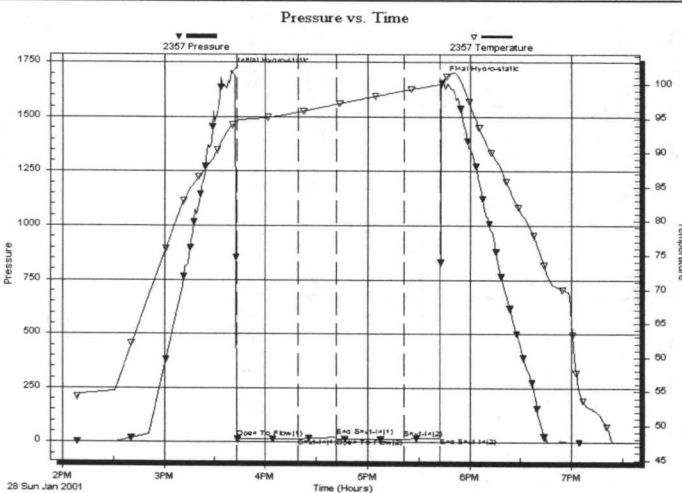
End Time:

19:23:57

Time On Btm: 2001.01.28 @ 15:39:57

Time Off Btm: 2001.01.28 @ 17:43:57

TEST COMMENT: IF-w k 1/4" decr. to w ksurbflow  
FF: no blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
92	1703.90	93.90	Initial Hydro-static
95	12.68	94.59	Open To Flow (1)
131	15.81	95.91	Shut-In(1)
153	23.48	97.05	End Shut-In(1)
154	13.96	97.08	Open To Flow (2)
193	15.91	99.03	Shut-In(2)
214	21.09	99.99	End Shut-In(2)
216	1667.51	100.31	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drilling mud	0.07

## Gas Rates

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

### Pressure vs. Time

