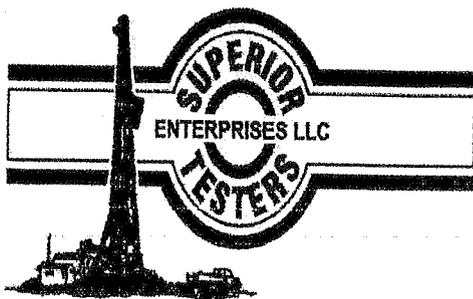


15-009-25405

4-20s-11w



### DRILL STEM TEST REPORT

Prepared For: Rama Operating Company Inc.

101 South Main Street  
Stafford, Kansas 67578-1429

ATTN: Josh Austin

**4-20s-11w Barton**

**Grant #7-4**

Start Date: 2010.04.05 @ 01:10:00

End Date: 2010.04.05 @ 00:00:00

Job Ticket #: 15901      DST #: 1

**KGS LIBRARY**

Rama Operating Company Inc.    Grant #7-4    4-20s-11w Barton    DST # 1    Kansas City "B-F"    2010.04.05

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.04.07 @ 12:43:31



# DRILL STEM TEST REPORT

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15901

DST#: 1

ATTN: Josh Austin

Test Start: 2010.04.05 @ 01:10:00

## GENERAL INFORMATION:

Formation: **Kansas City "B-F"**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Gene Budig**

Unit No: **3335-29**

Interval: **3060.00 ft (KB) To 3125.00 ft (KB) (TVD)**

Reference Elevations: **1783.00 ft (KB)**

Total Depth: **3125.00 ft (KB) (TVD)**

**1771.00 ft (CF)**

Hole Diameter: **7.80 inches** Hole Condition:

**KB to GR/CF: 12.00 ft**

Serial #: **8405**

Inside

Press@RunDepth: **1234.94 psia @ 3120.51 ft (KB)**

Capacity: **5000.00 psia**

Start Date: **2010.04.05**

End Date: **2010.04.05**

Last Calib.: **2010.04.05**

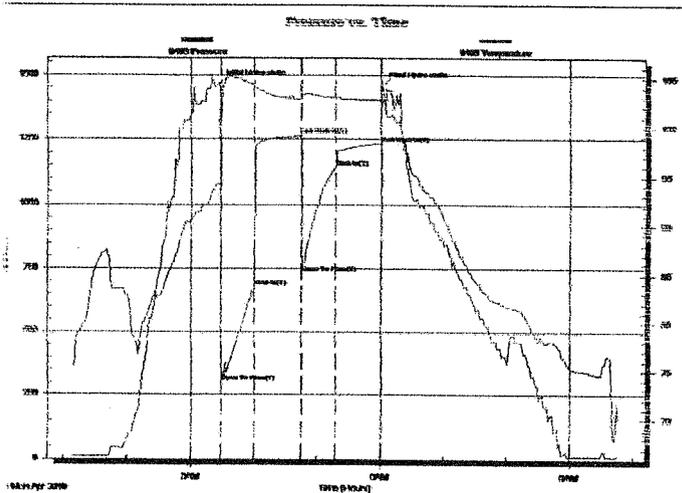
Start Time: **01:10:01**

End Time: **09:45:46**

Time On Btm: **2010.04.05 @ 03:26:45**

Time Off Btm: **2010.04.05 @ 06:01:46**

**TEST COMMENT:** 1st Opening 30 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 3 minutes  
1st Shut-In 45 Minutes-Fair blow back  
2nd flow 30 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 2 minutes  
2nd Shut-In 45 Minutes -Fair blow back



## PRESSURE SUMMARY

Time (Mn.)	Pressure (psia)	Temp (deg F)	Annotation
0	1464.47	94.30	Initial Hydro-static
2	299.64	95.59	Open To Flow (1)
34	674.91	104.34	Shut-In(1)
79	1266.48	102.90	End Shut-In(1)
80	730.75	103.20	Open To Flow (2)
111	1140.98	103.02	Shut-In(2)
155	1234.94	102.80	End Shut-In(2)
156	1456.77	102.97	Final Hydro-static

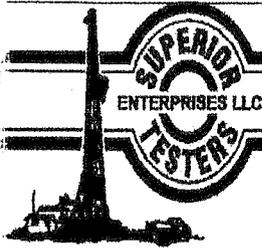
## Recovery

Length (ft)	Description	Volume (bbl)
250.00	Mud	1.52
250.00	Muddy water	3.51
2000.00	Water Chlorides 54000	28.05
0.00	RW .85 @ 86 Degrees	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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# DRILL STEM TEST REPORT

TOOL DIAGRAM

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15901

DST#: 1

ATTN: Josh Austin

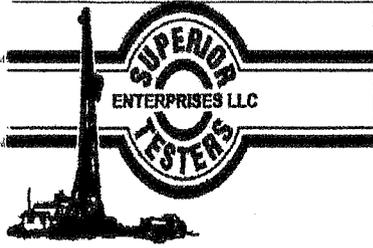
Test Start: 2010.04.05 @ 01:10:00

## Tool Information

Drill Pipe:	Length: 2838.00 ft	Diameter: 3.80 inches	Volume: 39.81 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 218.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 110000.0 lb
			Total Volume: - bbl	Tool Chased 25.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 68.00 lb
Depth to Top Packer:	3060.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.51 ft			
Tool Length:	85.51 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Slid tool 17 feet to bottom picked up drilling mud while we were sliding

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3040.00	
Shut-In Tool	5.00			3045.00	
Hydroflo Tool	5.00			3050.00	
Packer	5.00			3055.00	21.00 Bottom Of Top Packer
Packer	5.00			3060.00	
Perforations	5.00			3065.00	
Change Over Sub	0.75			3066.75	
Drill Pipe	32.01			3097.76	
Change Over Sub	0.75			3098.51	
Perforations	21.00			3119.51	
Recorder	1.00	8405	Inside	3120.51	
Recorder	1.00	8524	Outside	3121.51	
Bullnose	3.00			3124.51	64.51 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>85.51</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15901      DST#: 1

ATTN: Josh Austin

Test Start: 2010.04.05 @ 01:10:00

### 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: 42.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2500.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	Mud	1.521
250.00	Muddy water	3.507
2000.00	Water Chlorides 54000	28.055
0.00	RW .95 @ 86 Degrees	0.000

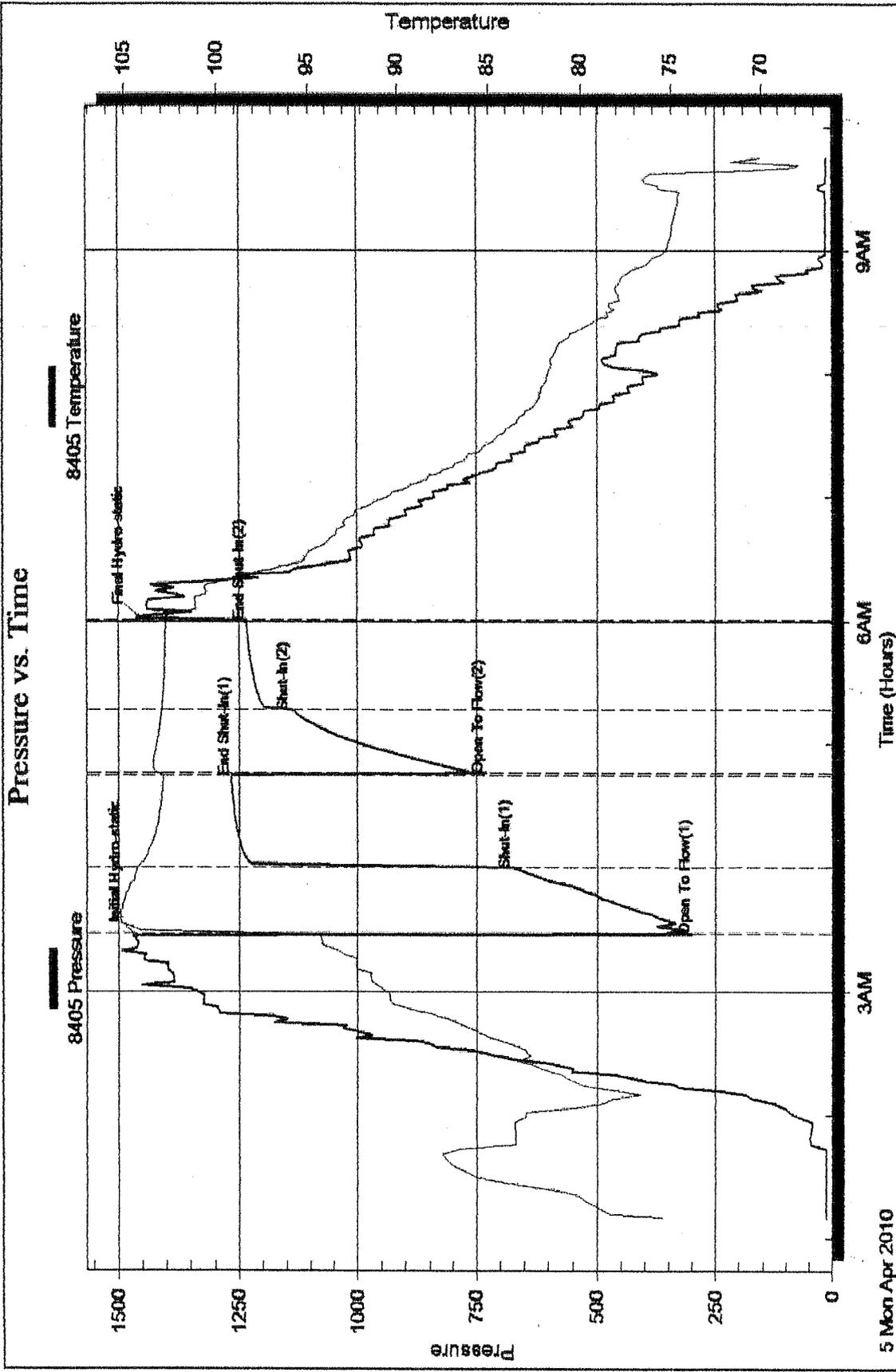
Total Length: 2500.00 ft      Total Volume: 33.083 bbl

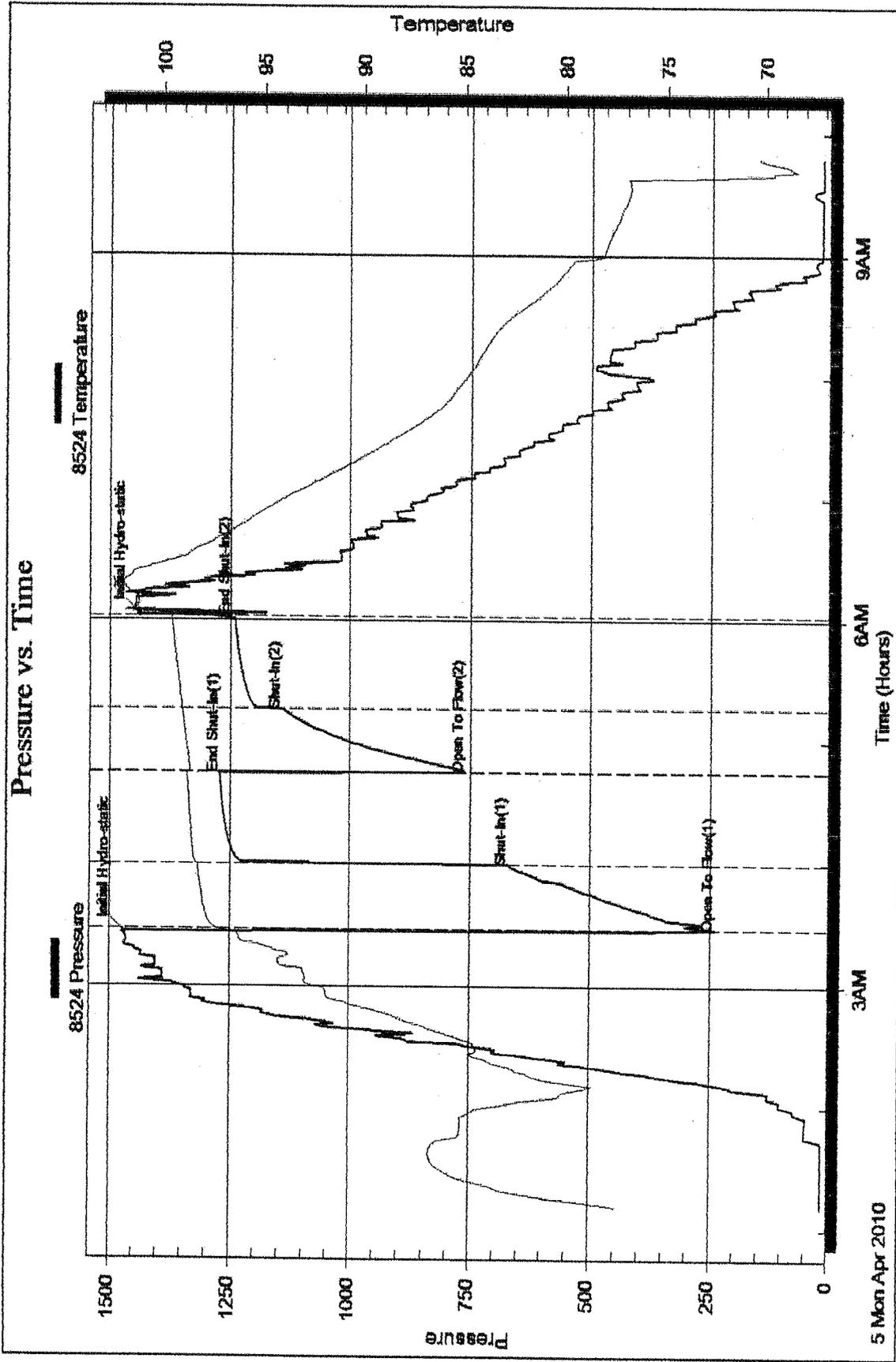
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

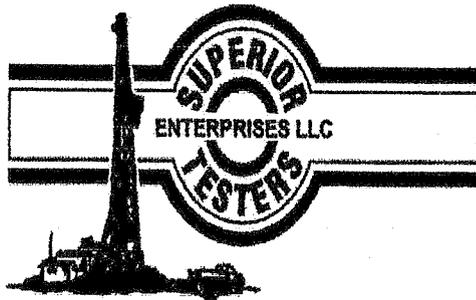
Laboratory Name:      Laboratory Location:

Recovery Comments:

# Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Rama Operating Company Inc.**

101 South Main Street  
Stafford ,Kansas 67578-1429

ATTN: Josh Austin

**4-20s-11w Barton**

**Grant #7-4**

Start Date: 2010.04.06 @ 03:20:00

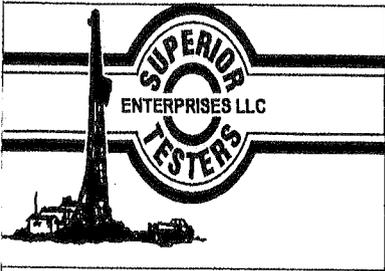
End Date: 2010.04.06 @ 00:00:00

Job Ticket #: 15902                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.04.07 @ 12:43:18

Rama Operating Company Inc.      Grant #7-4      4-20s-11w Barton      DST # 2      Arhockie      2010.04.06



# DRILL STEM TEST REPORT

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15902

DST#: 2

ATTN: Josh Austin

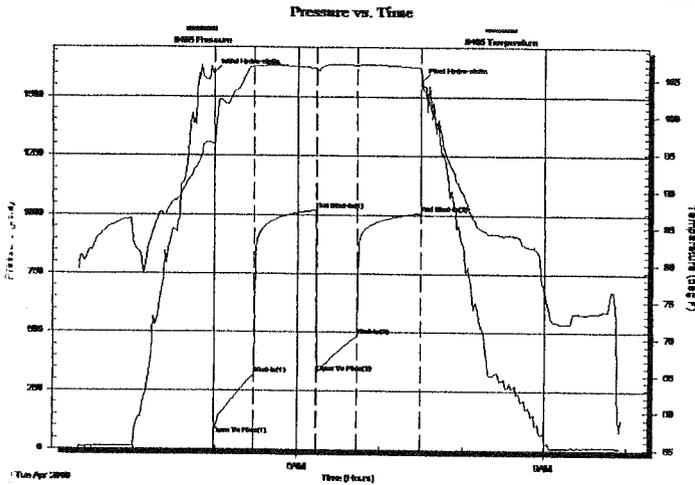
Test Start: 2010.04.06 @ 03:20:00

## GENERAL INFORMATION:

Formation: **Arbckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-29  
 Interval: **3290.00 ft (KB) To 3317.00 ft (KB) (TVD)**  
 Total Depth: 3317.00 ft (KB) (TVD)  
 Reference Elevations: 1783.00 ft (KB)  
 1771.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 KB to GR/CF: 12.00 ft

Serial #: **8405** Inside  
 Press@RunDepth: 1009.28 psia @ 3313.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.04.06 End Date: 2010.04.06 Last Calib.: 2010.04.06  
 Start Time: 03:20:01 End Time: 09:56:16 Time On Btm: 2010.04.06 @ 04:58:16  
 Time Off Btm: 2010.04.06 @ 07:29:46

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 7 minutes  
 1st Shut-In 45 Minutes-No blow back  
 2nd Opening 30 Minutes-  
 2nd Shut-In 45 Minutes- No blow back



## PRESSURE SUMMARY

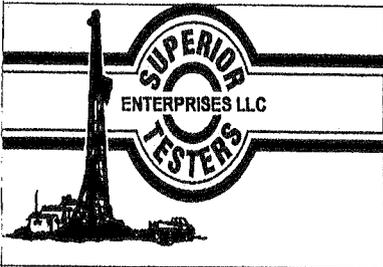
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1602.23	96.31	Initial Hydro-static
1	58.71	96.29	Open To Flow (1)
30	320.33	106.71	Shut-in(1)
76	1021.50	106.54	End Shut-in(1)
76	327.90	106.31	Open To Flow (2)
106	487.13	107.00	Shut-in(2)
151	1009.28	106.62	End Shut-in(2)
152	1567.94	105.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Watery oil 5G% 45%O 10%M 40%W	0.59
120.00	Watery Oil 10%G 45%O 10%M 35%W	0.79
120.00	Watery Oil 10%G 40%O 5%M 45%w	1.68
120.00	Watery Oil 10%G 40%O 3%M 47%W	1.68
120.00	SOCW 7%G 5%O 3%M 97%	1.68
420.00	W w ith a trace of oil 1%O 2%M 97%W	5.89

## Gas Rates

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



# DRILL STEM TEST REPORT

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15902

DST#: 2

ATTN: Josh Austin

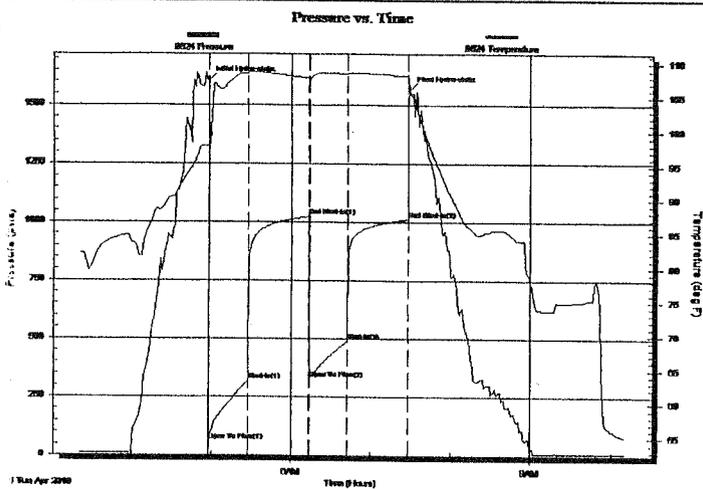
Test Start: 2010.04.06 @ 03:20:00

## GENERAL INFORMATION:

Formation: **Arbckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-29  
 Interval: **3290.00 ft (KB) To 3317.00 ft (KB) (TVD)**  
 Total Depth: 3317.00 ft (KB) (TVD)  
 Reference Elevations: 1783.00 ft (KB)  
 1771.00 ft (CF)  
 Hole Diameter: 7.80 inches-Hole Condition: Fair  
 KB to GR/CF: 12.00 ft

Serial #: **8524** Outside  
 Press@RunDepth: 1012.04 psia @ 3314.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.04.06 End Date: 2010.04.06 Last Calib.: 2010.04.06  
 Start Time: 03:21:00 End Time: 10:11:00 Time On Btm: 2010.04.06 @ 04:57:30  
 Time Off Btm: 2010.04.06 @ 07:29:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built to the bottom of a 5 gallon bucket in 7 minutes  
 1st Shut-In 45 Minutes-No blow back  
 2nd Opening 30 Minutes-  
 2nd Shut-In 45 Minutes- No blow back



## PRESSURE SUMMARY

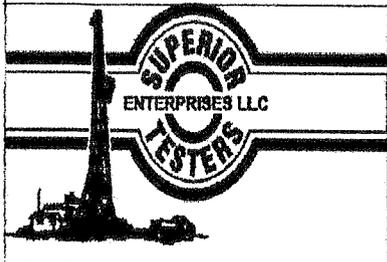
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1606.76	98.08	Initial Hydro-static
1	58.77	97.91	Open To Flow (1)
30	321.10	108.58	Shut-In(1)
76	1024.34	107.94	End Shut-In(1)
76	328.94	107.66	Open To Flow (2)
105	488.39	108.52	Shut-In(2)
151	1012.04	108.27	End Shut-In(2)
152	1564.34	106.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Watery oil 5G% 45%O 10%M 40%W	0.59
120.00	Watery Oil 10%G 45%O 10%M 35%W	0.79
120.00	Watery Oil 10%G 40%O 5%M 45%w	1.68
120.00	Watery Oil 10%G 40%O 3%M 47%W	1.68
120.00	SOCW 7%G 5%O 3%M 97%	1.68
420.00	W with a trace of oil 1%O 2%M 97%W	5.89

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

Rama Operating Company Inc.

Grant #7-4

101 South Main Street  
Stafford, Kansas 67578-1429

4-20s-11w Barton

Job Ticket: 15902

DST#: 2

ATTN: Josh Austin

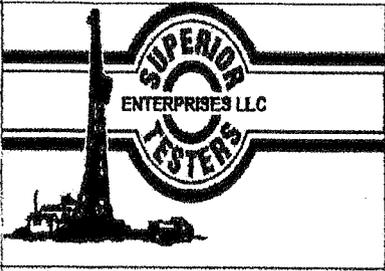
Test Start: 2010.04.06 @ 03:20:00

## Tool Information

Drill Pipe:	Length: 3065.00 ft	Diameter: 3.80 inches	Volume: 42.99 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.76 inches	Volume: - bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 218.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume: - bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	3290.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3270.00	
Shut-In Tool	5.00			3275.00	
Hydraulic Tool	5.00			3280.00	
Packer	5.00			3285.00	21.00 Bottom Of Top Packer
Packer	5.00			3290.00	
Perforations	22.00			3312.00	
Recorder	1.00	8405	Inside	3313.00	
Recorder	1.00	8524	Outside	3314.00	
Bullnose	3.00			3317.00	27.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>48.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Rama Operating Company Inc.  
 101 South Main Street  
 Stafford, Kansas 67578-1429  
 ATTN: Josh Austin

Grant #7-4  
 4-20s-11w Barton  
 Job Ticket: 15902      DST#: 2  
 Test Start: 2010.04.06 @ 03:20:00

### Mud and Cushion Information

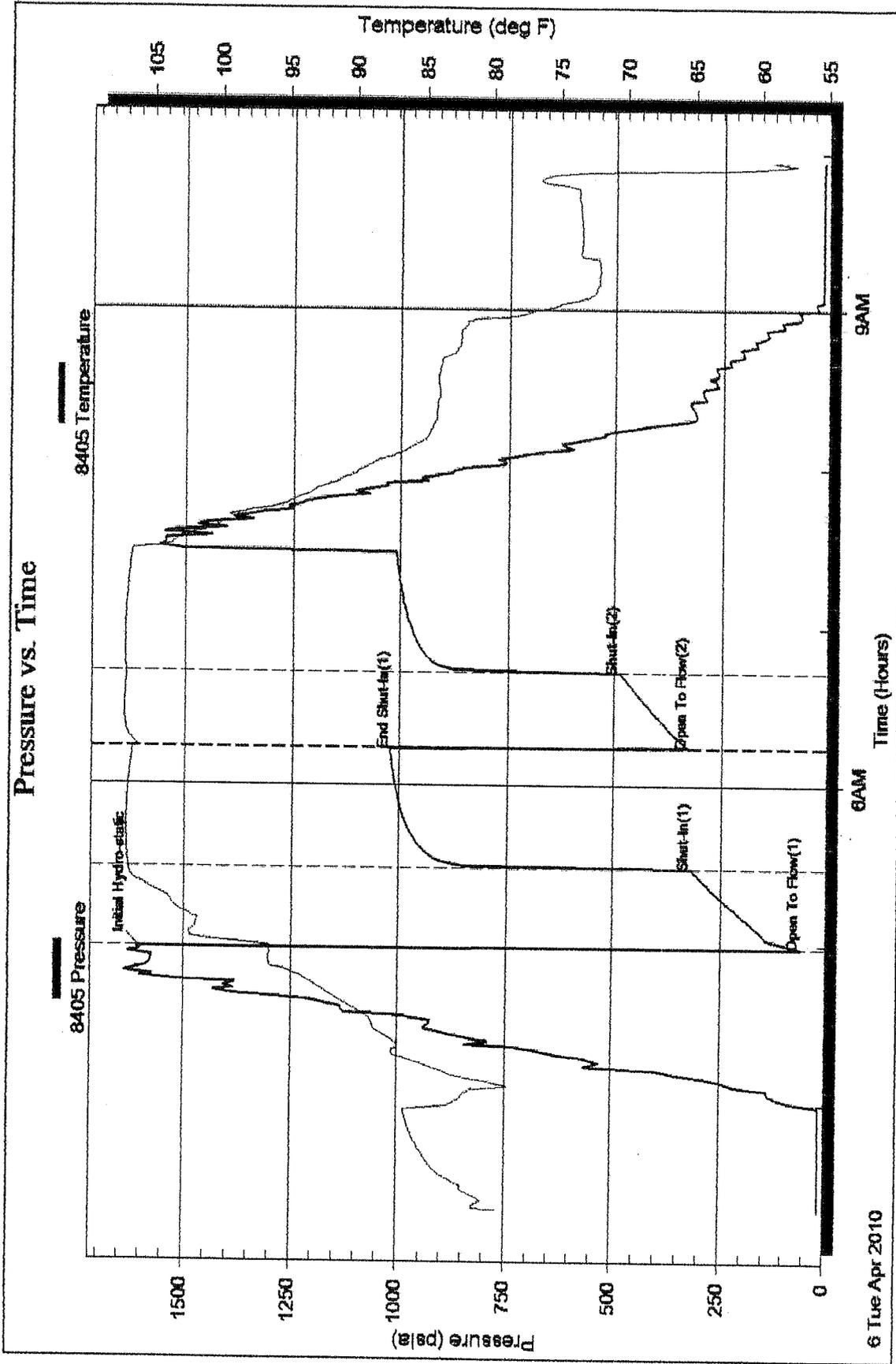
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.39 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 10000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Watery oil 5G% 45%O 10%M 40%W	0.590
120.00	Watery Oil 10%G 45%O 10%M 35%W	0.791
120.00	Watery Oil 10%G 40%O 5%M 45%w	1.683
120.00	Watery Oil 10%G 40%O 3%M 47%W	1.683
120.00	SOCW 7%G 5%O 3%M 97%	1.683
420.00	W with a trace of oil 1%O 2%M 97%W	5.891
0.00	RW .41 @ 56 Degrees chlorides 19000	0.000

Total Length: 1020.00 ft      Total Volume: 12.321 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



6 Tue Apr 2010

6AM

9AM

