

**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **IA Operating Inc**

9915 W 21st St N  
Wichita KS 67205

ATTN: Hal Porter

**10 11 16 Ellis KS**

**Roger # 10-1**

Start Date: 2008.06.21 @ 02:21:44

End Date: 2008.06.21 @ 09:48:14

Job Ticket #: 31947                      DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

IA Operating Inc  
Roger # 10-1  
10 11 16 Ellis KS  
DST # 1  
Tom/C  
LKC  
2008.06.21

**CONFIDENTIAL**  
MAY 12 2008  
KCC



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

IA Operating Inc  
 9915 W 21st St N  
 Wichita KS 67205  
 ATTN: Hal Porter

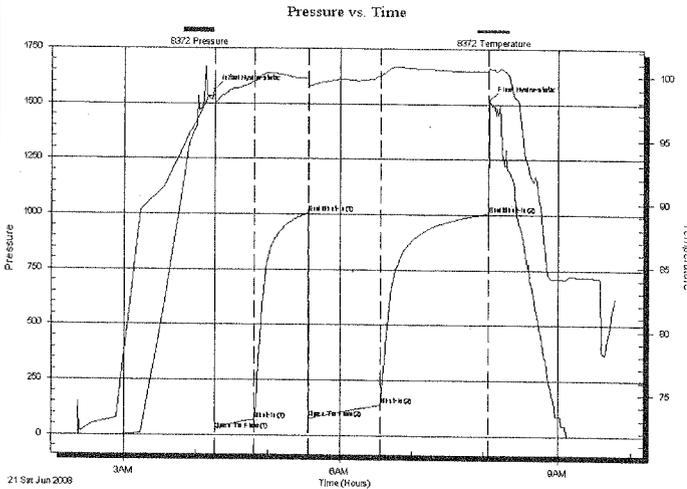
**Roger # 10-1**  
**10 11 16 Ellis KS**  
 Job Ticket: 31947      **DST#: 1**  
 Test Start: 2008.06.21 @ 02:21:44

## GENERAL INFORMATION:

Formation: **Tor/C LKC**  
 Deviated: **No Whipstock:**      ft (KB)  
 Time Tool Opened: 04:16:14  
 Time Test Ended: 09:48:14  
 Interval: **3198.00 ft (KB) To 3292.00 ft (KB) (TVD)**  
 Total Depth: **3292.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**  
 Test Type: **Conventional Bottom Hole**  
 Tester: **Dan Bangle**  
 Unit No: **38**  
 Reference Elevations: **2033.00 ft (KB)**  
    **2028.00 ft (CF)**  
    **KB to GR/CF: 5.00 ft**

**Serial #: 8372      Inside**  
 Press@RunDepth: **138.20 psig @ 3201.00 ft (KB)**      Capacity: **7000.00 psig**  
 Start Date: **2008.06.21**      End Date: **2008.06.21**      Last Calib.: **2008.06.21**  
 Start Time: **02:21:45**      End Time: **09:48:14**      Time On Btm: **2008.06.21 @ 04:15:44**  
    **09:48:14**      Time Off Btm: **2008.06.21 @ 08:04:44**

**TEST COMMENT:** IF Strong BB in 10 min  
 ISI Weak building to 1/2 "  
 FF Strong BB in 11 min  
 FSI Weak building to 1/2 "



## PRESSURE SUMMARY

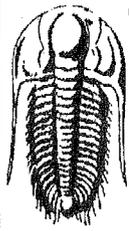
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1562.21	98.53	Initial Hydro-static
1	19.21	97.99	Open To Flow (1)
32	71.15	99.60	Shut-In(1)
78	1005.90	99.87	End Shut-In(1)
78	77.04	99.37	Open To Flow (2)
138	138.20	100.06	Shut-In(2)
228	1005.41	100.45	End Shut-In(2)
229	1520.62	100.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	MW 80%W 20%M	0.71
142.00	OCGsyM 10%G 40%O 50%M	1.99
80.00	CGsyO 20%G 80%O	1.12
0.00	940 GIP	0.00

## Gas Rates

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



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TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

IA Operating Inc

**Roger # 10-1**

9915 W 21st St N  
Wichita KS 67205

**10 11 16 Ellis KS**

Job Ticket: 31947

**DST#: 1**

ATTN: Hal Porter

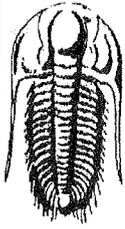
Test Start: 2008.06.21 @ 02:21:44

### Tool Information

Drill Pipe:	Length: 3178.00 ft	Diameter: 3.80 inches	Volume: 44.58 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 44.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3198.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	94.00 ft			
Tool Length:	115.00 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			3178.00	
Shut In Tool	5.00			3183.00	
Hydraulic tool	5.00			3188.00	
Packer	5.00			3193.00	21.00 Bottom Of Top Packer
Packer	5.00			3198.00	
Stubb	1.00			3199.00	
Perforations	1.00			3200.00	
Change Over Sub	1.00			3201.00	
Recorder	0.00	8372	Inside	3201.00	
Recorder	0.00	8368	Outside	3201.00	
Drill Pipe	62.00			3263.00	
Change Over Sub	1.00			3264.00	
Perforations	25.00			3289.00	
Bullnose	3.00			3292.00	94.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>115.00</b>				



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**FLUID SUMMARY**

IA Operating Inc

**Roger # 10-1**

9915 W 21st St N  
Wichita KS 67205

**10 11 16 Ellis KS**

Job Ticket: 31947

**DST#: 1**

ATTN: Hal Porter

Test Start: 2008.06.21 @ 02:21:44

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.79 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 3800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

36 deg API

Water Salinity:

78 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	MW 80%W 20%M	0.709
142.00	OCCsyM 10%G 40%O 50%M	1.992
80.00	CGsyO 20%G 80%O	1.122
0.00	940 GIP	0.000

Total Length: 292.00 ft      Total Volume: 3.823 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .12 @ 80 = 78000ppm

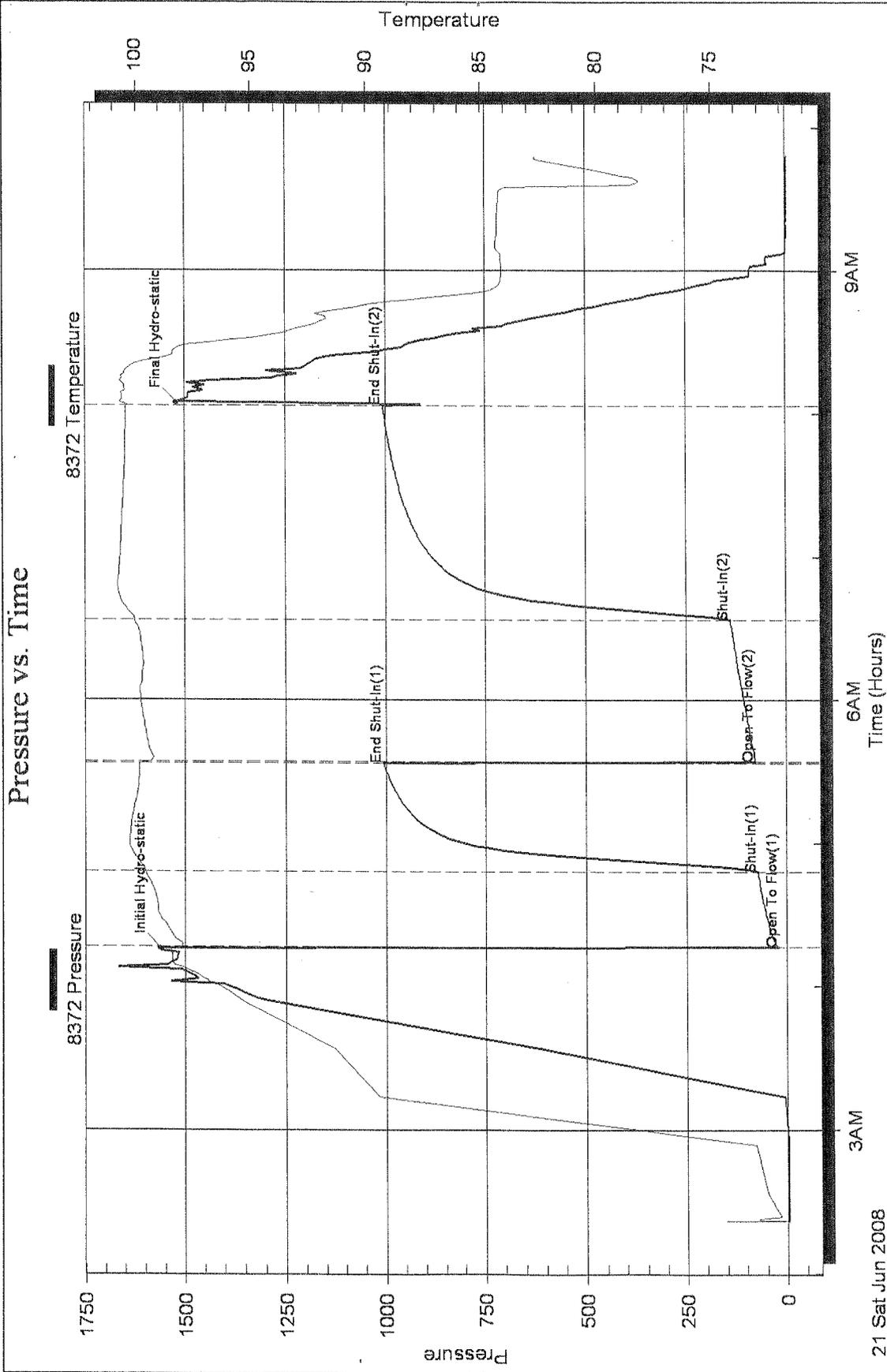
Serial #: 8372

Inside. IA Operating Inc

10 11 16 Ellis KS

DST Test Number: 1

### Pressure vs. Time



21 Sat Jun 2008

3AM

6AM

9AM

Time (Hours)



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **IA Operating Inc**

9915 W 21st St N  
Wichita KS 67205

ATTN: Hal Porter

**10 11 16 Ellis KS**

**Roger # 10-1**

Start Date: 2008.06.21 @ 16:00:59

End Date: 2008.06.21 @ 21:09:29

Job Ticket #: 31948                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

IA Operating Inc

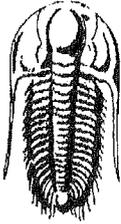
Roger # 10-1

10 11 16 Ellis KS

DST # 2

D-F

2008.06.21



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IA Operating Inc  
9915 W 21st St N  
Wichita KS 67205  
ATTN: Hal Porter

**Roger # 10-1**  
**10 11 16 Ellis KS**  
Job Ticket: 31948      **DST#: 2**  
Test Start: 2008.06.21 @ 16:00:59

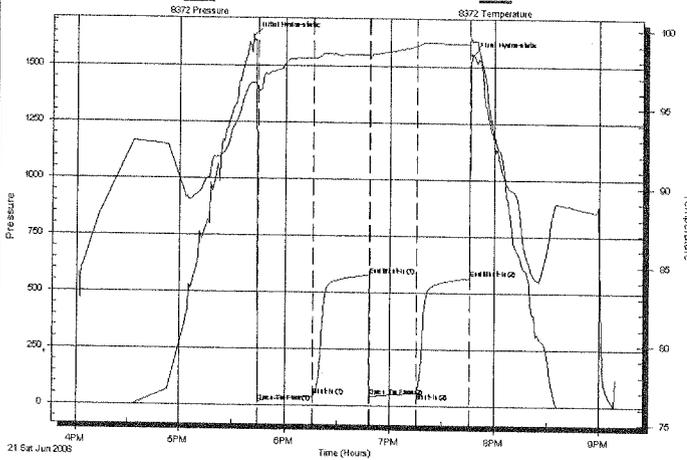
## GENERAL INFORMATION:

Formation: **D-F**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 17:44:29  
Time Test Ended: 21:09:29  
Interval: **3289.00 ft (KB) To 3340.00 ft (KB) (TVD)**  
Total Depth: 3340.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Good  
Test Type: Conventional Bottom Hole  
Tester: Dan Bangle  
Unit No: 38  
Reference Elevations: 2033.00 ft (KB)  
2028.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8372      Inside**  
Press@RunDepth: 58.46 psig @ 3292.00 ft (KB)      Capacity: 7000.00 psig  
Start Date: 2008.06.21      End Date: 2008.06.21      Last Calib.: 2008.06.21  
Start Time: 16:01:00      End Time: 21:09:29      Time On Btm: 2008.06.21 @ 17:41:59  
Time Off Btm: 2008.06.21 @ 19:47:29

TEST COMMENT: IF Weak building to 2 "  
FF Weak building to 1 "

Pressure vs. Time



## PRESSURE SUMMARY

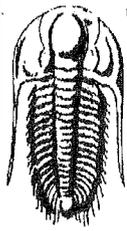
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1633.53	96.62	Initial Hydro-static
3	13.91	96.06	Open To Flow (1)
34	39.83	98.17	Shut-In (1)
66	577.33	98.42	End Shut-In (1)
67	42.71	98.10	Open To Flow (2)
94	58.46	98.97	Shut-In (2)
124	566.08	99.19	End Shut-In (2)
126	1553.95	99.31	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 20%O 80%M	0.57
40.00	MCO 60%O 40%M	0.56
0.00	185 GIP	0.00

## Gas Rates

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



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**TOOL DIAGRAM**

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ATTN: Hal Porter

**Roger # 10-1**  
**10 11 16 Ellis KS**  
Job Ticket: 31948      **DST#: 2**  
Test Start: 2008.06.21 @ 16:00:59

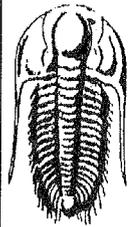
### Tool Information

Drill Pipe:	Length: 3242.00 ft	Diameter: 3.80 inches	Volume: 45.48 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 45.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3289.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	72.00 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			3269.00	
Shut In Tool	5.00			3274.00	
Hydraulic tool	5.00			3279.00	
Packer	5.00			3284.00	21.00      Bottom Of Top Packer
Packer	5.00			3289.00	
Stubb	1.00			3290.00	
Perforations	1.00			3291.00	
Change Over Sub	1.00			3292.00	
Recorder	0.00	8372	Inside	3292.00	
Recorder	0.00	8368	Outside	3292.00	
Drill Pipe	31.00			3323.00	
Change Over Sub	1.00			3324.00	
Perforations	13.00			3337.00	
Bullnose	3.00			3340.00	51.00      Bottom Packers & Anchor

**Total Tool Length: 72.00**



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Job Ticket: 31948

**DST#: 2**

ATTN: Hal Porter

Test Start: 2008.06.21 @ 16:00:59

### 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: 9.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 20%O 80%M	0.568
40.00	MCO 60%O 40%M	0.561
0.00	185 GIP	0.000

Total Length: 100.00 ft      Total Volume: 1.129 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

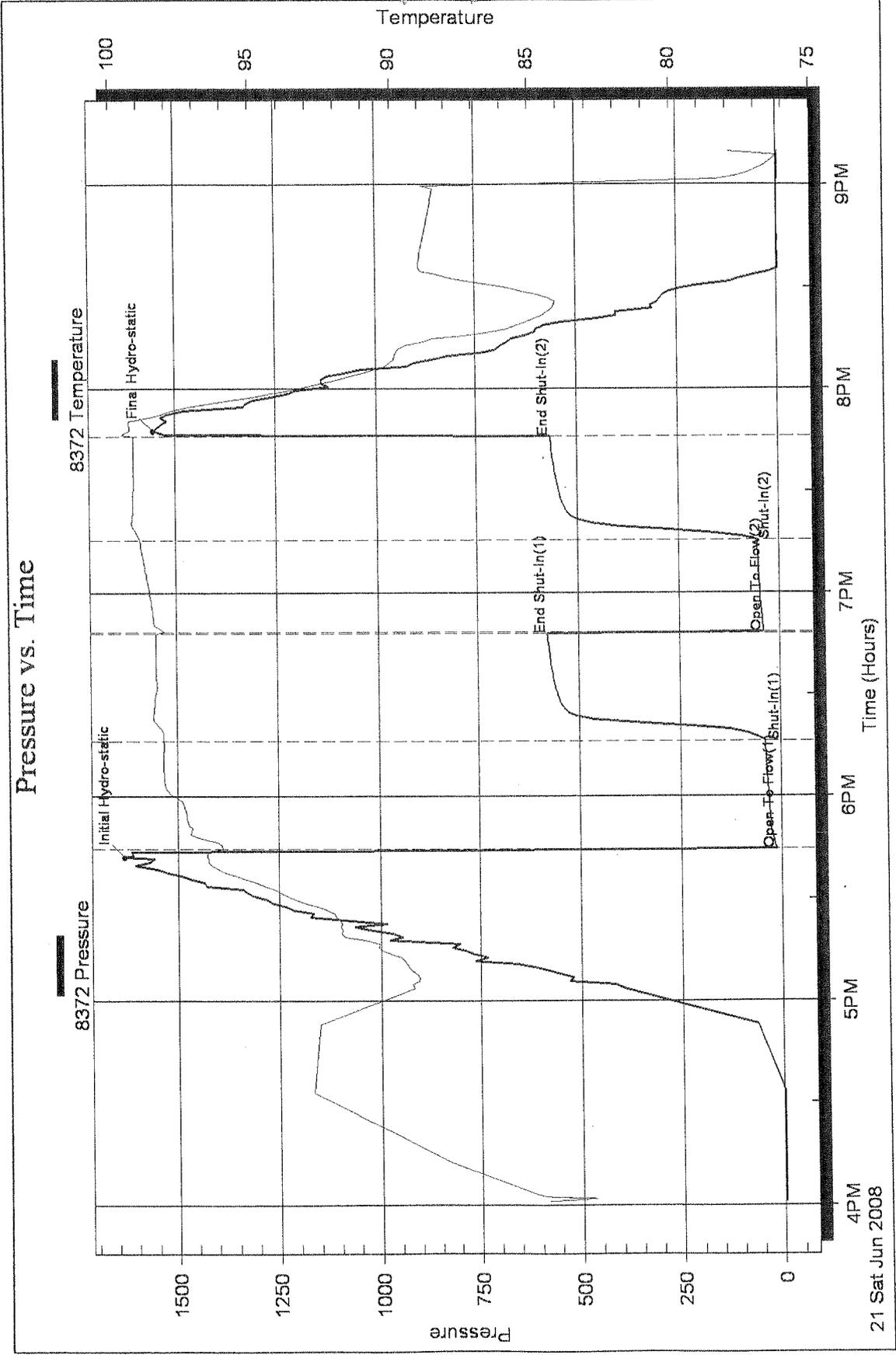
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



21 Sat Jun 2008