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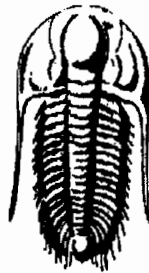
13-27-35W

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15-067-21503

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**TRILOBITE
TESTING, INC.**

KCC
FEB 24 2003
CONFIDENTIAL

DRILL STEM TEST REPORT

RELEASED

Prepared For: **OXY USA Inc.**

MAR 15 2003

P. O. Box 2528
Liberal, KS 67905

FROM CONFIDENTIAL

ATTN: Cal Wylie

13-27S-35W Grant KS

Ladner F #3

Start Date: 2002.11.06 @ 22:35:37

End Date: 2002.11.07 @ 07:31:07

Job Ticket #: 15164 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

OXY USA Inc.

Ladner F #3

13-27S-35W Grant KS

DST # 1

Lansing

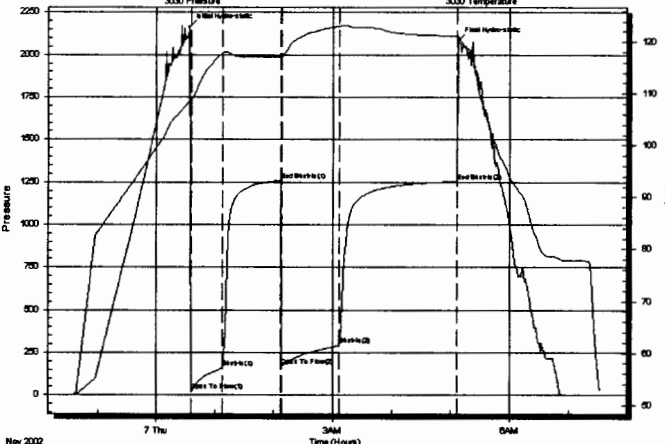
2002.11.06

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		
OXY USA Inc. P. O. Box 2528 Liberal, KS 67905 ATTN: Cal Wylie		Ladner F #3 13-27S-35W Grant KS Job Ticket: 15164 DST#: 1 Test Start: 2002.11.06 @ 22:35:37	

GENERAL INFORMATION:			
Formation:	Lansing		
Deviated:	No	Whipstock:	ft (KB)
Time Tool Opened:	00:35:52		
Time Test Ended:	07:31:07		
Interval:	4475.00 ft (KB) To 4503.00 ft (KB) (TVD)		
Total Depth:	4503.00 ft (KB) (TVD)		
Hole Diameter:	7.88 inches		
Hole Condition:	Fair		
Test Type:	Conventional Bottom Hole		
Tester:	Rod Steinbrink		
Unit No:	22		
Reference Elevations:	3027.00 ft (KB)		
	3016.00 ft (CF)		
	KB to GR/CF: 11.00 ft		

Serial #: 3030 Inside			
Press@RunDepth:	292.62 psig @	4476.00 ft (KB)	
Start Date:	2002.11.06	End Date:	2002.11.07
Start Time:	22:35:39	End Time:	07:31:07
Capacity:	7000.00 psig		
Last Calib.:	1899.12.30		
Time On Btm:	2002.11.07 @ 00:33:52		
Time Off Btm:	2002.11.07 @ 05:07:07		

TEST COMMENT: F; Strong blow off btm in 1 min
 IS; No return blow
 FF; Weak to fair off btm in 15 mins
 FSI; No return blow

Pressure vs. Time 	PRESSURE SUMMARY <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>2164.12</td> <td>108.52</td> <td>Initial Hydro-static</td> </tr> <tr> <td>2</td> <td>22.79</td> <td>108.86</td> <td>Open To Flow (1)</td> </tr> <tr> <td>35</td> <td>159.64</td> <td>117.83</td> <td>Shut-In(1)</td> </tr> <tr> <td>94</td> <td>1261.44</td> <td>117.07</td> <td>End Shut-In(1)</td> </tr> <tr> <td>95</td> <td>170.75</td> <td>117.08</td> <td>Open To Flow (2)</td> </tr> <tr> <td>154</td> <td>292.62</td> <td>123.06</td> <td>Shut-In(2)</td> </tr> <tr> <td>272</td> <td>1255.07</td> <td>121.14</td> <td>End Shut-In(2)</td> </tr> <tr> <td>274</td> <td>2081.35</td> <td>121.11</td> <td>Final Hydro-static</td> </tr> </tbody> </table>	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	2164.12	108.52	Initial Hydro-static	2	22.79	108.86	Open To Flow (1)	35	159.64	117.83	Shut-In(1)	94	1261.44	117.07	End Shut-In(1)	95	170.75	117.08	Open To Flow (2)	154	292.62	123.06	Shut-In(2)	272	1255.07	121.14	End Shut-In(2)	274	2081.35	121.11	Final Hydro-static
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Recovery <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Length (ft)</th> <th>Description</th> <th>Volume (bbl)</th> </tr> </thead> <tbody> <tr> <td>40.00</td> <td>Drig. Mud</td> <td>0.28</td> </tr> <tr> <td>560.00</td> <td>Water</td> <td>4.24</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Length (ft)	Description	Volume (bbl)	40.00	Drig. Mud	0.28	560.00	Water	4.24													Gas Rates <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Choke (inches)</th> <th>Pressure (psig)</th> <th>Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)												
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

OXY USA Inc.

Ladner F #3

 P. O. Box 2528
 Liberal, KS 67905

13-27S-35W Grant KS

Job Ticket: 15164

DST#: 1

ATTN: Cal Wylie

Test Start: 2002.11.06 @ 22:35:37

Tool Information

Drill Pipe:	Length: 3973.00 ft	Diameter: 3.80 inches	Volume: 55.73 bbl	Tool Weight: 1800.00 lb
Heavy Wt. Pipe:	Length: 285.00 ft	Diameter: 2.70 inches	Volume: 2.02 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume:	58.78 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4475.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter:	6.75 inches	
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			4450.00	
Sampler	3.00			4453.00	
HMV	5.00			4458.00	
Jars	5.00			4463.00	
Safety Joint	2.00			4465.00	
Packer	5.00			4470.00	30.00 Bottom Of Top Packer
Packer	5.00			4475.00	
Stubb	1.00			4476.00	
Recorder	0.00	3030	Inside	4476.00	
Perforations	22.00			4498.00	
Recorder	0.00	13371	Outside	4498.00	
Bullnose	5.00			4503.00	28.00 Bottom Packers & Anchor

Total Tool Length: 58.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

OXY USA Inc.

Ladner F #3

P. O. Box 2528
Liberal, KS 67905

13-27S-35W Grant KS

Job Ticket: 15164

DST#: 1

ATTN: Cal Wylie

Test Start: 2002.11.06 @ 22:35:37

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:

22000 ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Drig. Mud	0.283
560.00	Water	4.241

Total Length: 600.00 ft

Total Volume: 4.524 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

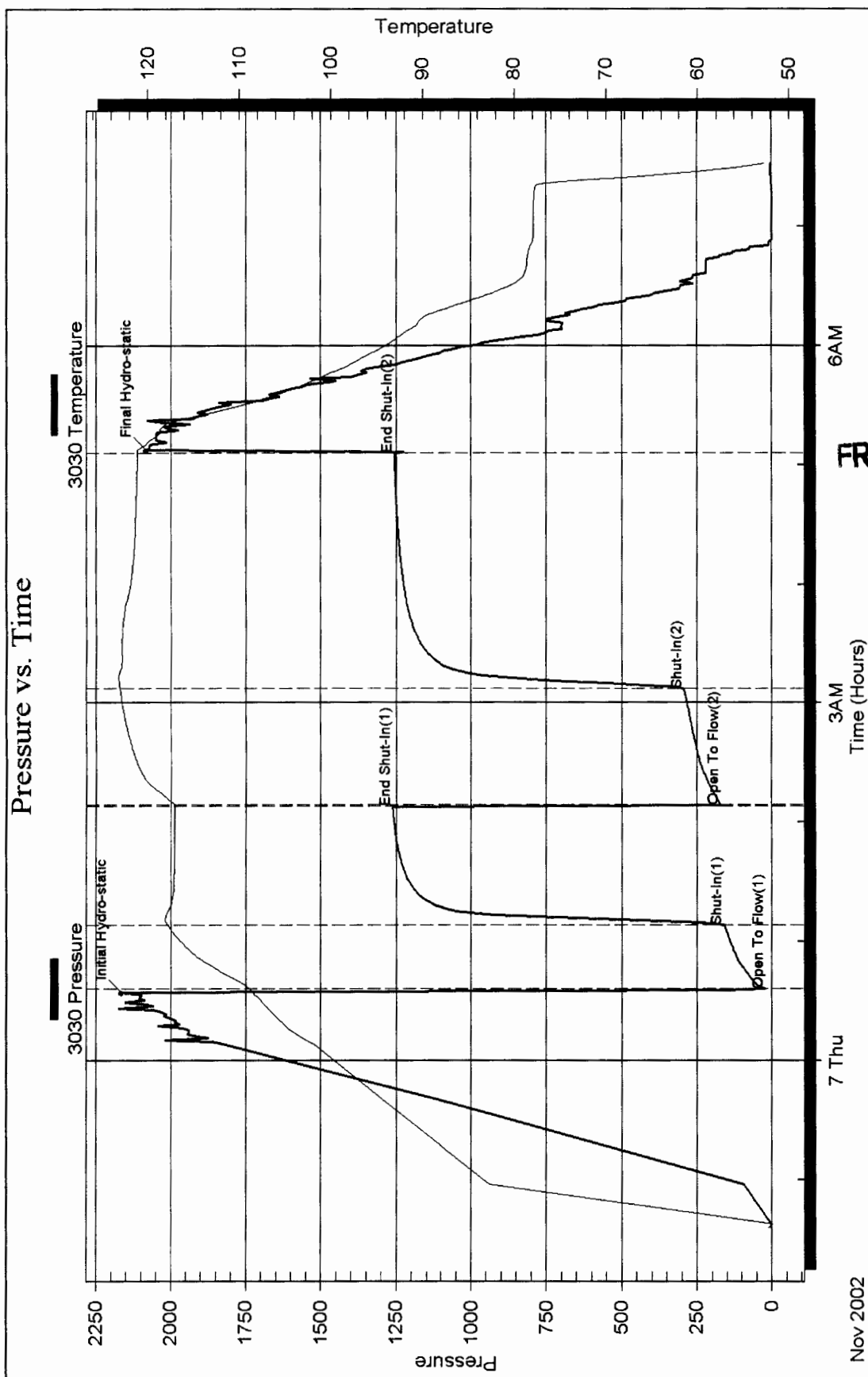
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data;
Water; 3800 ml

Pressure vs. Time

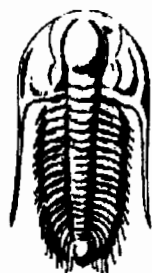


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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **OXY USA Inc.**

P. O. Box 2528
Liberal, KS 67905

ATTN: Cal Wylie

13-27S-35W Grant KS

Ladner F #3

Start Date: 2002.11.09 @ 09:12:19

End Date: 2002.11.09 @ 19:05:04

Job Ticket #: 15165 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

OXY USA Inc.

Ladner F #3

13-27S-35W Grant KS

DST # 2

Morrow

2002.11.09



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

OXY USA Inc.

P. O. Box 2528
Liberal, KS 67905

ATTN: Cal Wylie

Ladner F #3

13-27S-35W Grant KS

Job Ticket: 15165

DST#: 2

Test Start: 2002.11.09 @ 09:12:19

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:58:04

Time Test Ended: 19:05:04

Test Type: Conventional Bottom Hole

Tester: Rod Steinbrink

Unit No: 22

Interval: **5040.00 ft (KB) To 5194.00 ft (KB) (TVD)**

Total Depth: 4503.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3027.00 ft (KB)

3016.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 3030

Inside

Press@RunDepth: 248.90 psig @ 5041.00 ft (KB)

Start Date: 2002.11.09

End Date:

2002.11.09

Start Time:

09:12:21

End Time:

19:05:04

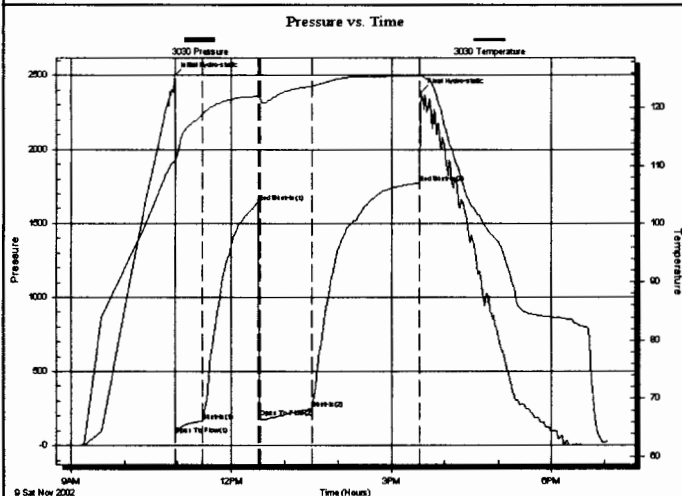
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.11.09 @ 10:56:49

Time Off Btm: 2002.11.09 @ 15:33:19

TEST COMMENT: F; Weak to fair off btm in 5 mins.
IS; Weak return off btm in 5 mins.
FF; Weak to fair off btm in 5 mins.
FS; GTS while bleeding off blow - off btm in 20 mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2497.64	110.89	Initial Hydro-static
2	73.72	111.08	Open To Flow (1)
32	166.51	118.86	Shut-In (1)
94	1640.83	121.97	End Shut-In (1)
96	187.56	121.85	Open To Flow (2)
154	248.90	123.70	Shut-In (2)
275	1772.69	125.46	End Shut-In (2)
277	2385.93	125.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	CGO 15%gas 85%oil	1.57
370.00	MCO 10%gas 65%oil 25%mud	4.12

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

OXY USA Inc.

Ladner F #3

P. O. Box 2528
Liberal, KS 67905

13-27S-35W Grant KS

Job Ticket: 15165

DST#: 2

ATTN: Cal Wylie

Test Start: 2002.11.09 @ 09:12:19

Tool Information

Drill Pipe: Length: 4664.00 ft Diameter: 3.80 inches Volume: 65.42 bbl
Heavy Wt. Pipe: Length: 158.00 ft Diameter: 2.70 inches Volume: 1.12 bbl
Drill Collar: Length: 210.00 ft Diameter: 2.25 inches Volume: 1.03 bbl
Total Volume: 67.57 bbl

Drill Pipe Above KB: 22.00 ft
Depth to Top Packer: 5040.00 ft
Depth to Bottom Packer: ft
Interval between Packers: 154.00 ft
Tool Length: 184.00 ft
Number of Packers: 2 Diameter: 6.75 inches
Tool Comments:

Tool Weight: 3000.00 lb
Weight set on Packer: 25000.00 lb
Weight to Pull Loose: 80000.00 lb
Tool Chased 0.00 ft
String Weight: Initial 70000.00 lb
Final 73000.00 lb

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
S.I. Tool	5.00			5015.00	
Sampler	3.00			5018.00	
HMV	5.00			5023.00	
Jars	5.00			5028.00	
Safety Joint	2.00			5030.00	
Packer	5.00			5035.00	30.00 Bottom Of Top Packer
Packer	5.00			5040.00	
Stubb	1.00			5041.00	
Recorder	0.00	3030	Inside	5041.00	
Perforations	18.00			5059.00	
Change Over Sub	1.00			5060.00	
Anchor	128.00			5188.00	
Change Over Sub	1.00			5189.00	
Recorder	0.00	13371	Outside	5189.00	
Bullnose	5.00			5194.00	154.00 Bottom Packers & Anchor

Total Tool Length: 184.00



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Ladner F #3

P. O. Box 2528
Liberal, KS 67905

13-27S-35W Grant KS

Job Ticket: 15165

DST#: 2

ATTN: Cal Wylie

Test Start: 2002.11.09 @ 09:12:19

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

1100 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.89 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	CGO 15%gas 85%oil	1.571
370.00	MCO 10%gas 65%oil 25%mud	4.115

Total Length: 620.00 ft

Total Volume:

5.686 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

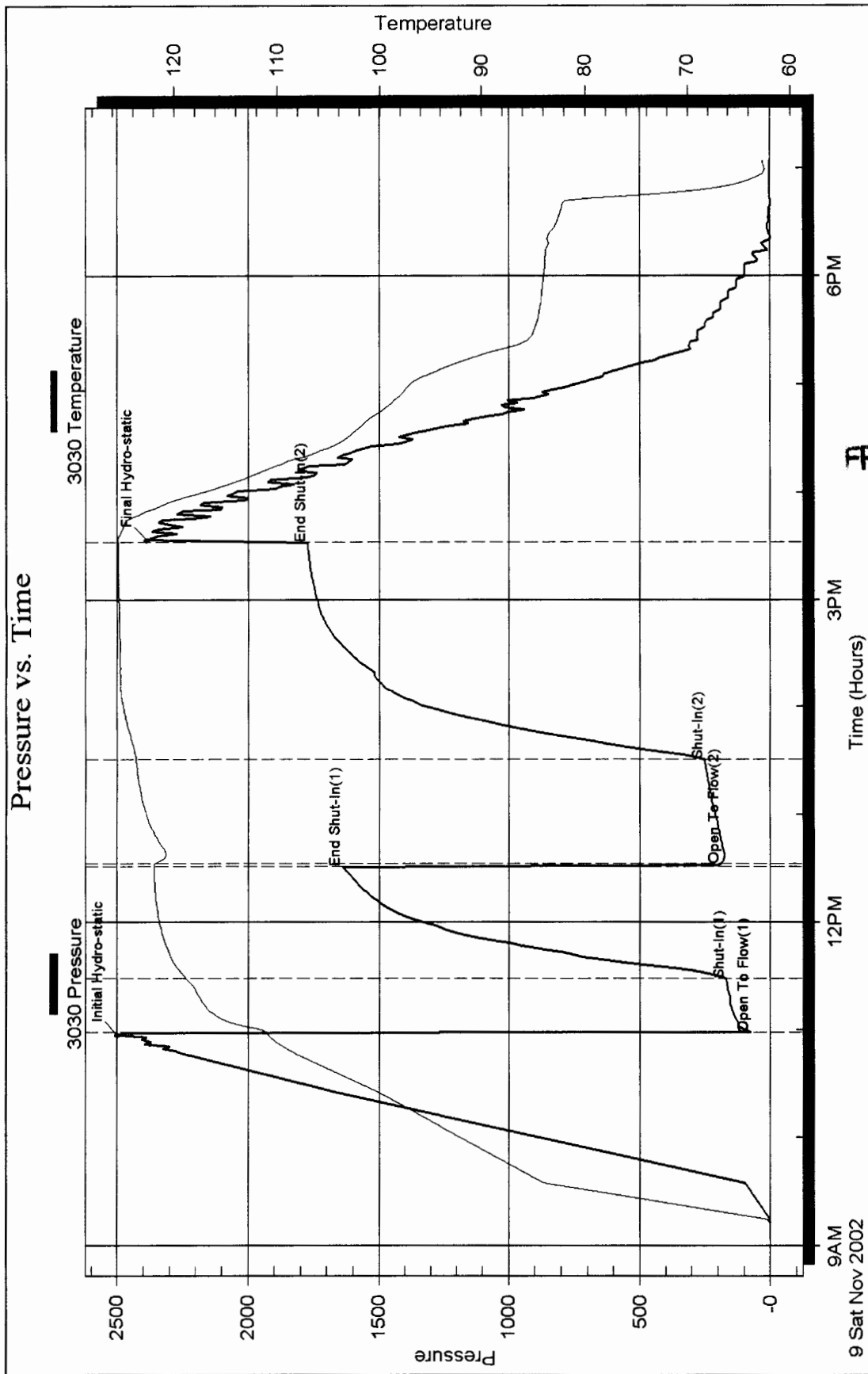
Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data;

Gas; 400 ml

Pressure vs. Time



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