



DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

Shaw #1

18-4s-18w Phillips,KS

Start Date: 2012.06.01 @ 17:15:31

End Date: 2012.06.01 @ 22:02:55

Job Ticket #: 47162 DST #: 1

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

Printed: 2012.06.13 @ 11:11:45

John O Farmer Inc
18-4s-18w Phillips,KS
Shaw #1
DST # 1
Toronto-LKC A
2012.06.01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O Farmer Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: John O Farmer IV

18-4s-18w Phillips,KS
Shaw #1
 Job Ticket: 47162 **DST#: 1**
 Test Start: 2012.06.01 @ 17:15:31

GENERAL INFORMATION:

Formation: **Toronto-LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:44:26
 Time Test Ended: 22:02:55
 Interval: **3070.00 ft (KB) To 3130.00 ft (KB) (TVD)**
 Total Depth: 3130.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6625

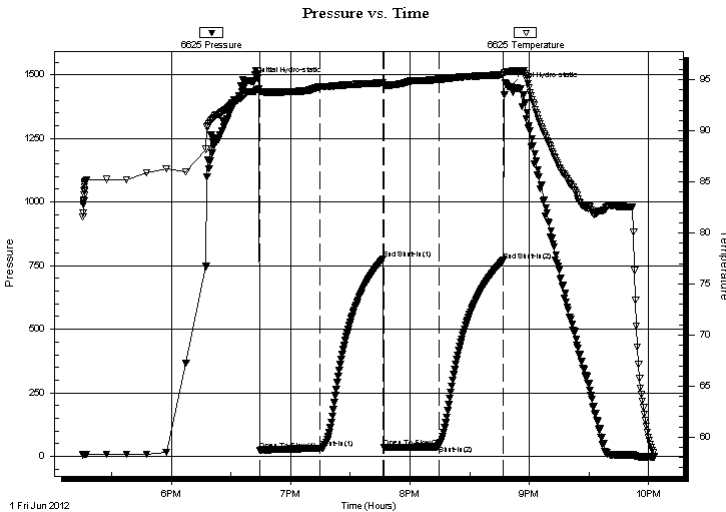
Inside

Press @ Run Depth: 41.89 psig @ 3075.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01
 Start Time: 17:15:31 End Time: 22:02:55 Time On Btm: 2012.06.01 @ 18:40:56
 Time Off Btm: 2012.06.01 @ 20:50:26

TEST COMMENT: 30-IFP-w k bl 1/4" to surface bl
 30-ISIP-no bl
 30-FFP-no bl
 30-FSIP-no bl

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1474.52	93.87	Initial Hydro-static
4	25.11	93.84	Open To Flow (1)
34	32.04	94.30	Shut-In(1)
66	776.21	94.70	End Shut-In(1)
66	35.84	94.53	Open To Flow (2)
94	41.89	95.05	Shut-In(2)
126	770.40	95.49	End Shut-In(2)
130	1452.57	95.81	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 2%O98%M	0.15

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47162

DST#: 1

ATTN: John O Farmer IV

Test Start: 2012.06.01 @ 17:15:31

Tool Information

Drill Pipe:	Length: 3044.00 ft	Diameter: 3.80 inches	Volume: 42.70 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 42.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3070.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3050.00	
Shut In Tool	5.00			3055.00	
Hydraulic tool	5.00			3060.00	
Packer	5.00			3065.00	21.00 Bottom Of Top Packer
Packer	5.00			3070.00	
Stubb	1.00			3071.00	
Perforations	4.00			3075.00	
Recorder	0.00	6625	Inside	3075.00	
Recorder	0.00	8700	Outside	3075.00	
Blank Spacing	32.00			3107.00	
Perforations	20.00			3127.00	
Bullnose	3.00			3130.00	60.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47162

DST#: 1

ATTN: John O Farmer IV

Test Start: 2012.06.01 @ 17:15:31

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.52 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	SOCM 2% O98% M	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

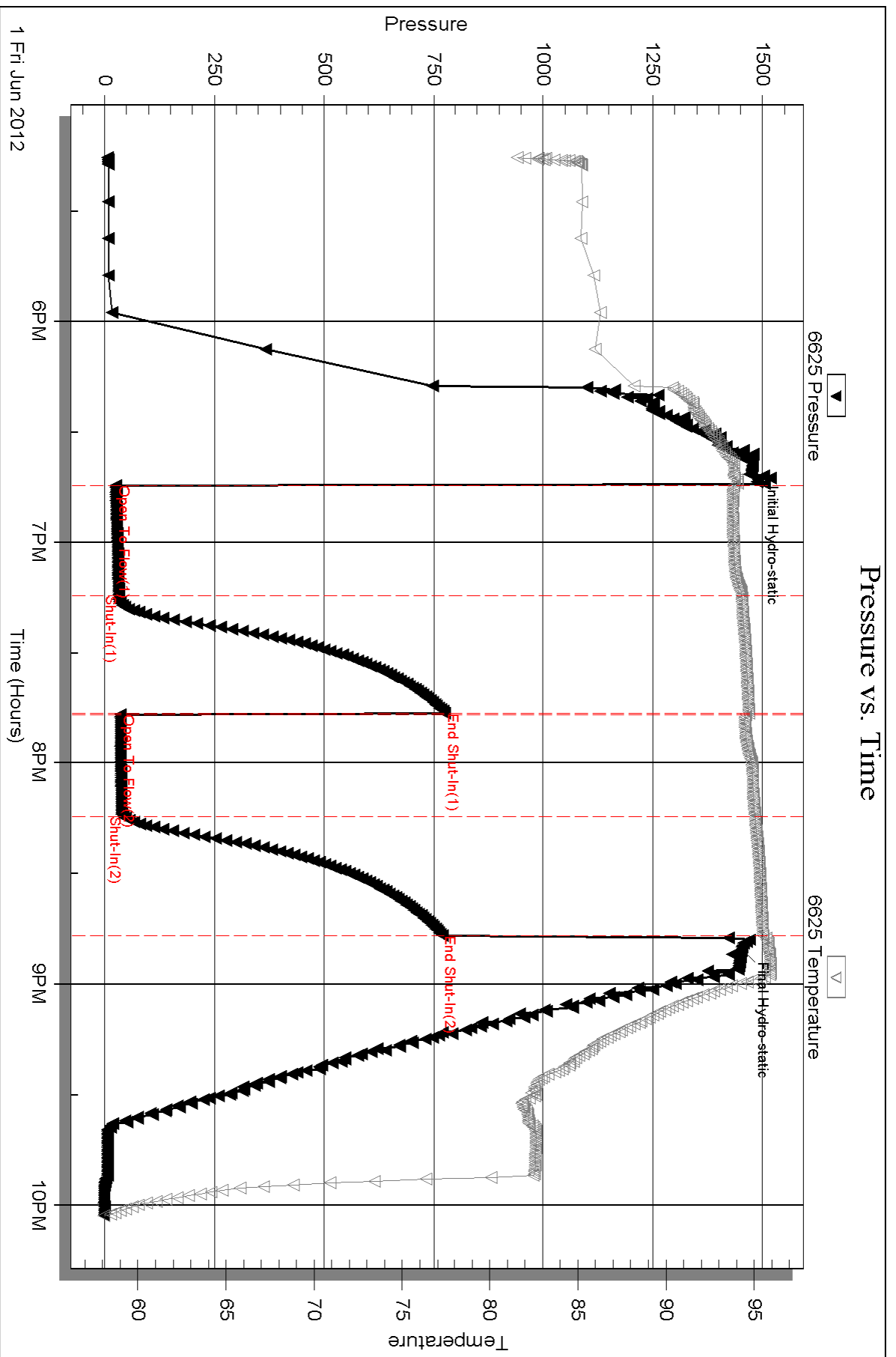
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

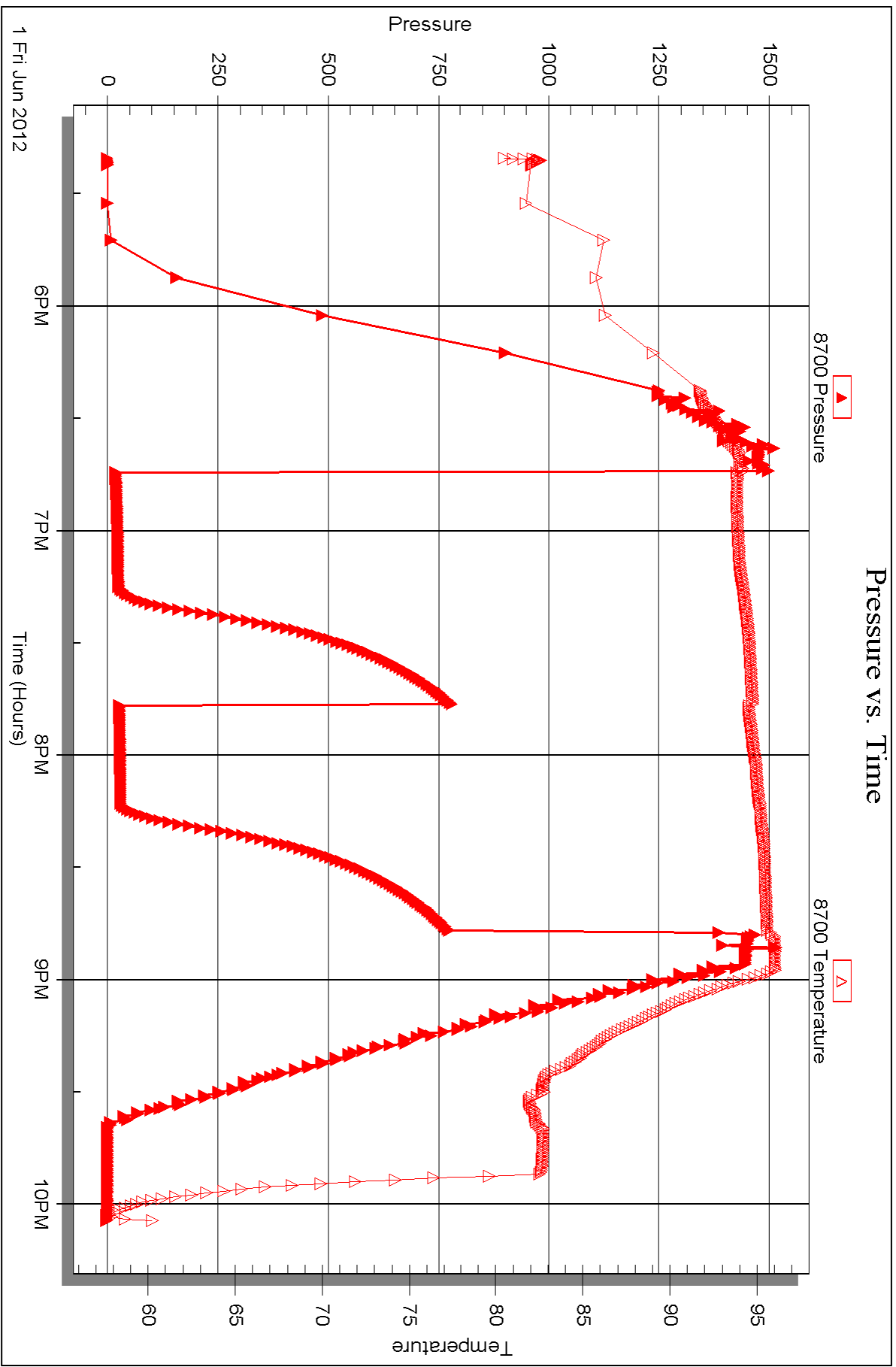


Serial #: 8700

Outside John O Farmer Inc

Shaw #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

Shaw #1

18-4s-18w Phillips,KS

Start Date: 2012.06.02 @ 06:10:45

End Date: 2012.06.02 @ 10:56:39

Job Ticket #: 47163 DST #: 2

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

Printed: 2012.06.13 @ 11:10:58

John O Farmer Inc
18-4s-18w Phillips,KS
Shaw #1
DST # 2
LKC-C-D
2012.06.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O Farmer Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: John O Farmer IV

18-4s-18w Phillips,KS

Shaw #1

Job Ticket: 47163

DST#: 2

Test Start: 2012.06.02 @ 06:10:45

GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:39:40
 Time Test Ended: 10:56:39
 Interval: **3148.00 ft (KB) To 3188.00 ft (KB) (TVD)**
 Total Depth: 3188.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

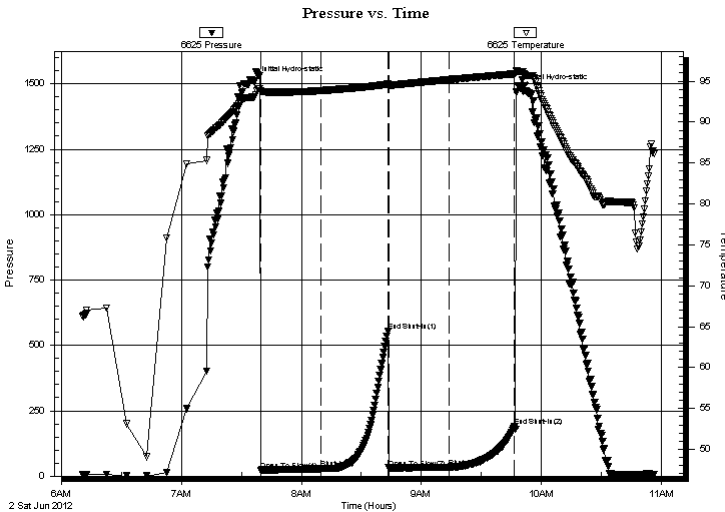
Serial #: 6625

Inside

Press @ Run Depth: 34.91 psig @ 3156.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.02 End Date: 2012.06.02 Last Calib.: 2012.06.02
 Start Time: 06:10:45 End Time: 10:56:39 Time On Btm: 2012.06.02 @ 07:36:40
 Time Off Btm: 2012.06.02 @ 09:49:40

TEST COMMENT: 30-IFP-w k bl 1/4" to surface
 30-ISIP-no bl
 30-FFP-no bl
 30-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1510.81	93.09	Initial Hydro-static
3	23.41	93.81	Open To Flow (1)
33	28.53	93.85	Shut-In(1)
67	553.26	94.63	End Shut-In(1)
67	31.39	94.53	Open To Flow (2)
97	34.91	95.19	Shut-In(2)
130	190.81	95.91	End Shut-In(2)
133	1482.92	96.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O90%M	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

John O Farmer Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: John O Farmer IV

18-4s-18w Phillips,KS

Shaw #1

Job Ticket: 47163

DST#: 2

Test Start: 2012.06.02 @ 06:10:45

GENERAL INFORMATION:

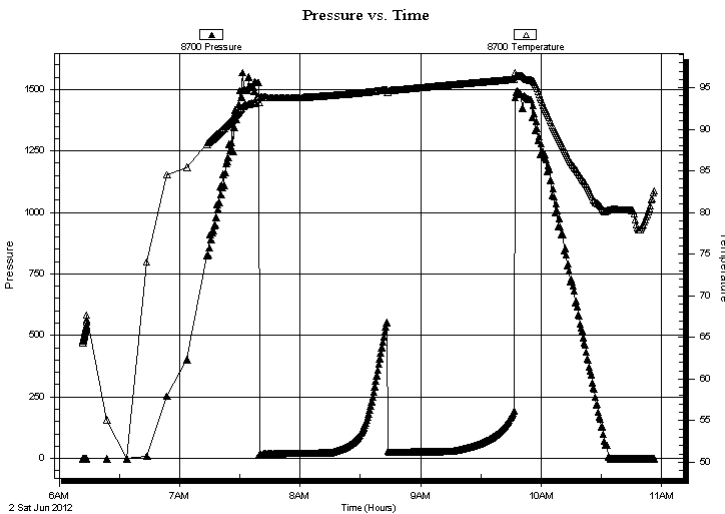
Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:39:40
 Time Test Ended: 10:56:39
 Interval: **3148.00 ft (KB) To 3188.00 ft (KB) (TVD)**
 Total Depth: 3188.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press @ Run Depth: psig @ 3156.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.02 End Date: 2012.06.02 Last Calib.: 2012.06.02
 Start Time: 06:11:42 End Time: 10:56:36 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-w k bl 1/4" to surface
 30-ISIP-no bl
 30-FFP-no bl
 30-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O90%M	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47163

DST#: 2

ATTN: John O Farmer IV

Test Start: 2012.06.02 @ 06:10:45

Tool Information

Drill Pipe:	Length: 3106.00 ft	Diameter: 3.80 inches	Volume: 43.57 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 43.72 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3148.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	61.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3128.00	
Shut In Tool	5.00			3133.00	
Hydraulic tool	5.00			3138.00	
Packer	5.00			3143.00	21.00 Bottom Of Top Packer
Packer	5.00			3148.00	
Stubb	1.00			3149.00	
Perforations	7.00			3156.00	
Recorder	0.00	6625	Inside	3156.00	
Recorder	0.00	8700	Outside	3156.00	
Perforations	29.00			3185.00	
Bullnose	3.00			3188.00	40.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47163

DST#: 2

ATTN: John O Farmer IV

Test Start: 2012.06.02 @ 06:10:45

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 50.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.52 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 10%O90%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

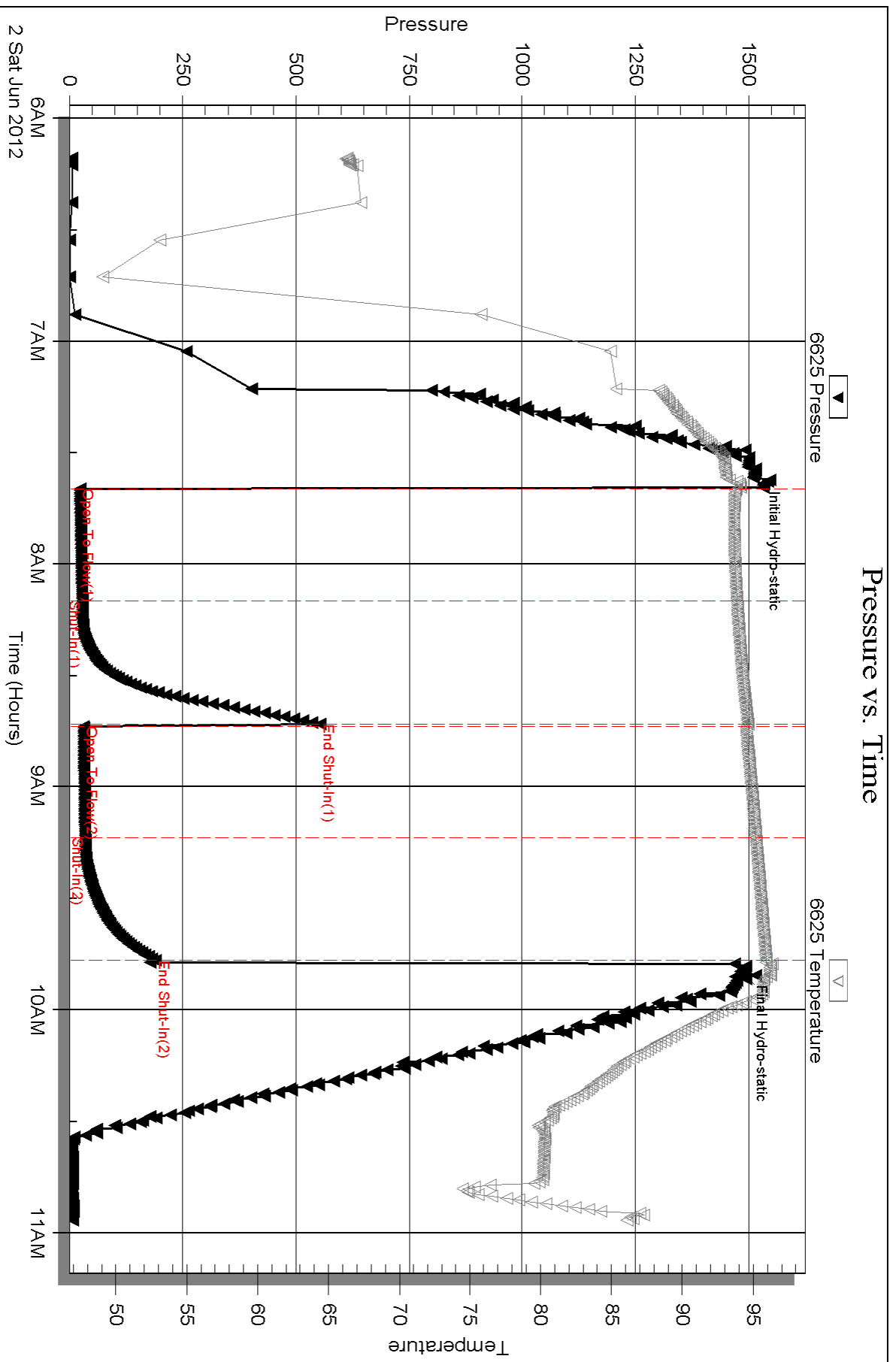
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

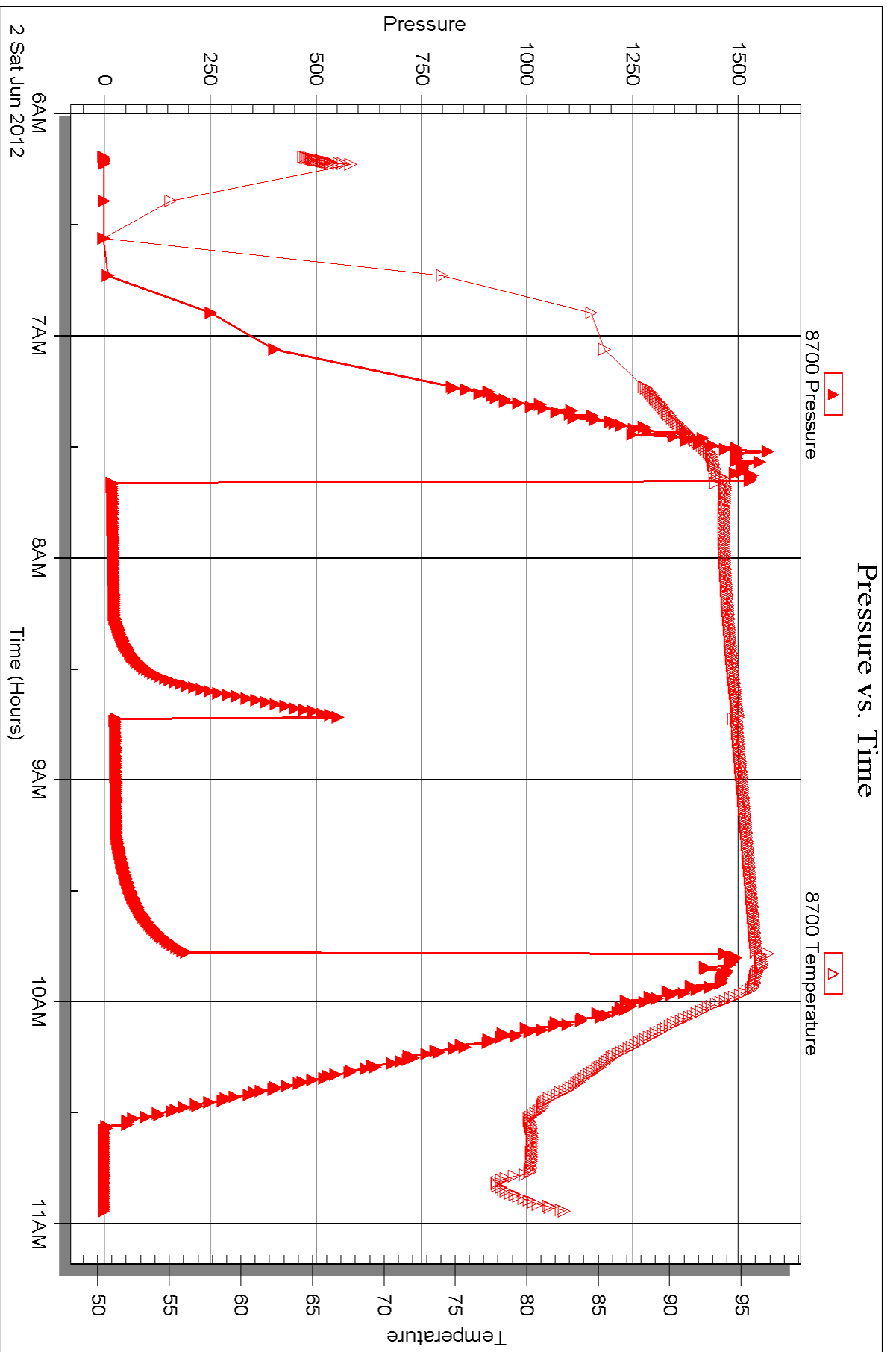


Serial #: 8700

Outside John O Farmer Inc

Shaw #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

Shaw #1

18-4s-18w Phillips,KS

Start Date: 2012.06.02 @ 16:55:53

End Date: 2012.06.02 @ 22:53:47

Job Ticket #: 47164 DST #: 3

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

Printed: 2012.06.13 @ 11:10:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O Farmer Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: John O Farmer IV

18-4s-18w Phillips,KS

Shaw #1

Job Ticket: 47164

DST#: 3

Test Start: 2012.06.02 @ 16:55:53

GENERAL INFORMATION:

Formation: **LKC E-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:23:48
 Time Test Ended: 22:53:47
 Interval: **3186.00 ft (KB) To 3212.00 ft (KB) (TVD)**
 Total Depth: 3212.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

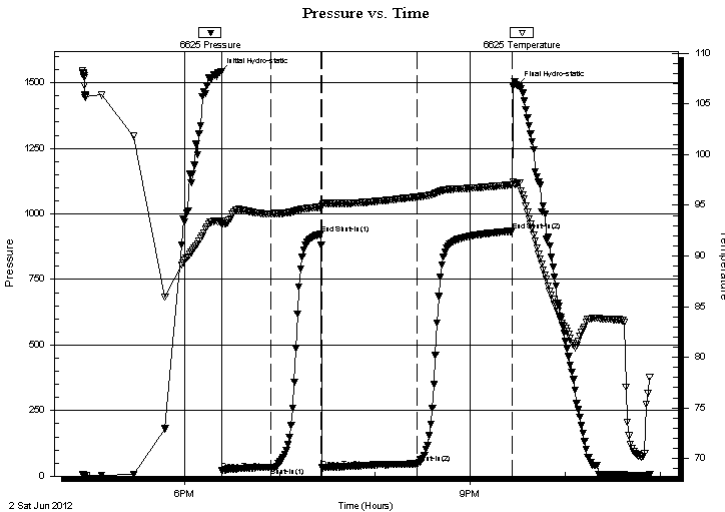
Serial #: 6625

Inside

Press @ Run Depth: 47.86 psig @ 3190.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.02 End Date: 2012.06.02 Last Calib.: 2012.06.02
 Start Time: 16:55:53 End Time: 22:53:47 Time On Btm: 2012.06.02 @ 18:22:18
 Time Off Btm: 2012.06.02 @ 21:29:47

TEST COMMENT: 30-IFP-surface bl thru-out
 30-ISIP-no bl
 60-FFP-w k bl thru-out 1/2" to 1 1/4" bl
 60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1538.51	93.40	Initial Hydro-static
2	22.60	93.17	Open To Flow (1)
32	33.08	94.15	Shut-In(1)
64	923.43	94.81	End Shut-In(1)
65	31.41	94.89	Open To Flow (2)
125	47.86	95.82	Shut-In(2)
185	934.29	97.01	End Shut-In(2)
188	1490.67	97.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	O&GCM 10%G40%M50%O	0.15
40.00	CO	0.56
0.00	60'GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47164

DST#: 3

ATTN: John O Farmer IV

Test Start: 2012.06.02 @ 16:55:53

Tool Information

Drill Pipe:	Length: 3139.00 ft	Diameter: 3.80 inches	Volume: 44.03 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 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: 44.18 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3186.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	47.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3166.00	
Shut In Tool	5.00			3171.00	
Hydraulic tool	5.00			3176.00	
Packer	5.00			3181.00	21.00 Bottom Of Top Packer
Packer	5.00			3186.00	
Stubb	1.00			3187.00	
Perforations	3.00			3190.00	
Recorder	0.00	6625	Inside	3190.00	
Recorder	0.00	8700	Outside	3190.00	
Perforations	19.00			3209.00	
Bullnose	3.00			3212.00	26.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47164

DST#: 3

ATTN: John O Farmer IV

Test Start: 2012.06.02 @ 16:55:53

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 49.00 sec/qt
Water Loss: 7.94 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 36 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	O&GCM 10%G40%M50%O	0.148
40.00	CO	0.561
0.00	60'GIP	0.000

Total Length: 70.00 ft Total Volume: 0.709 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

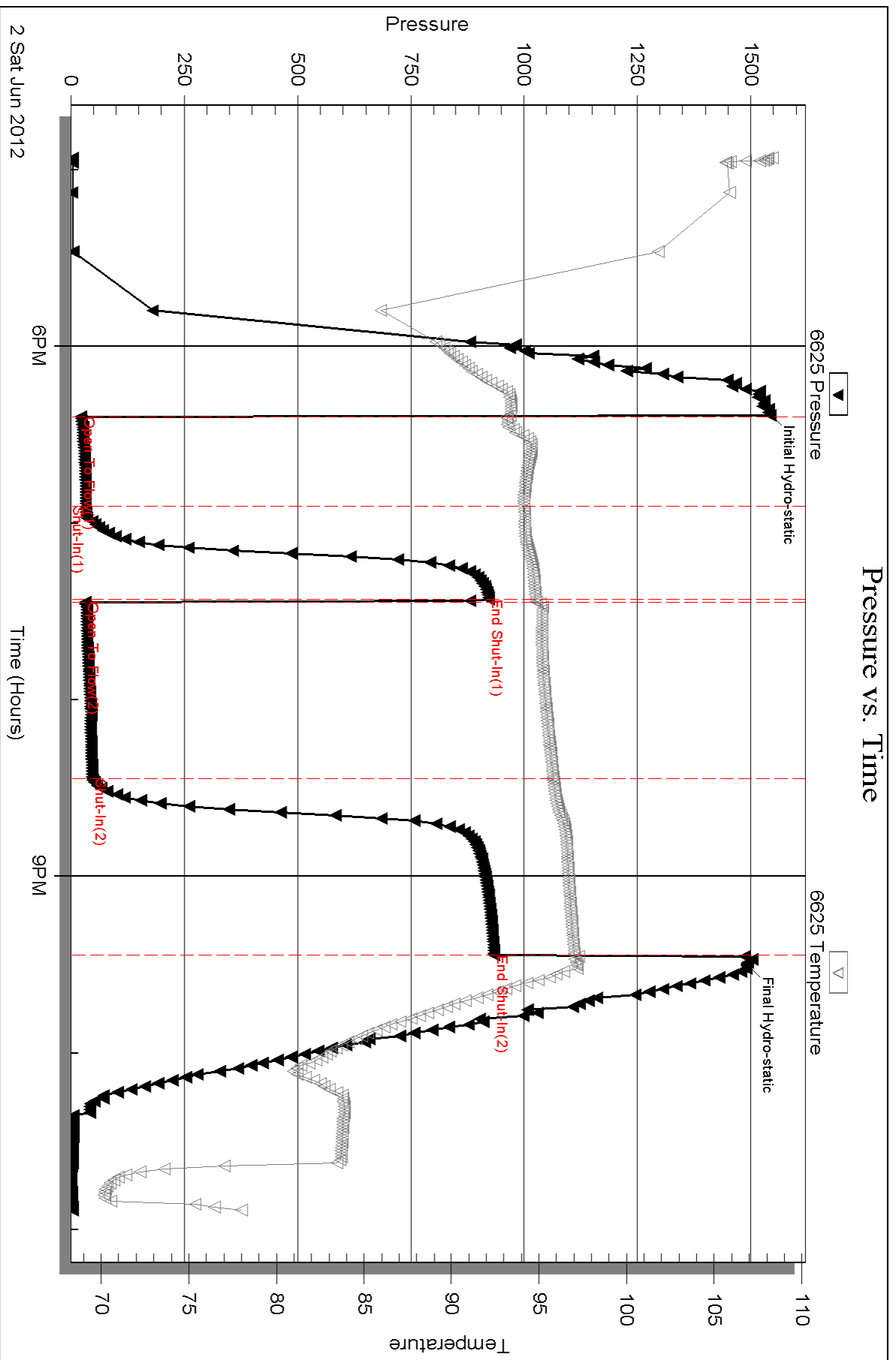
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

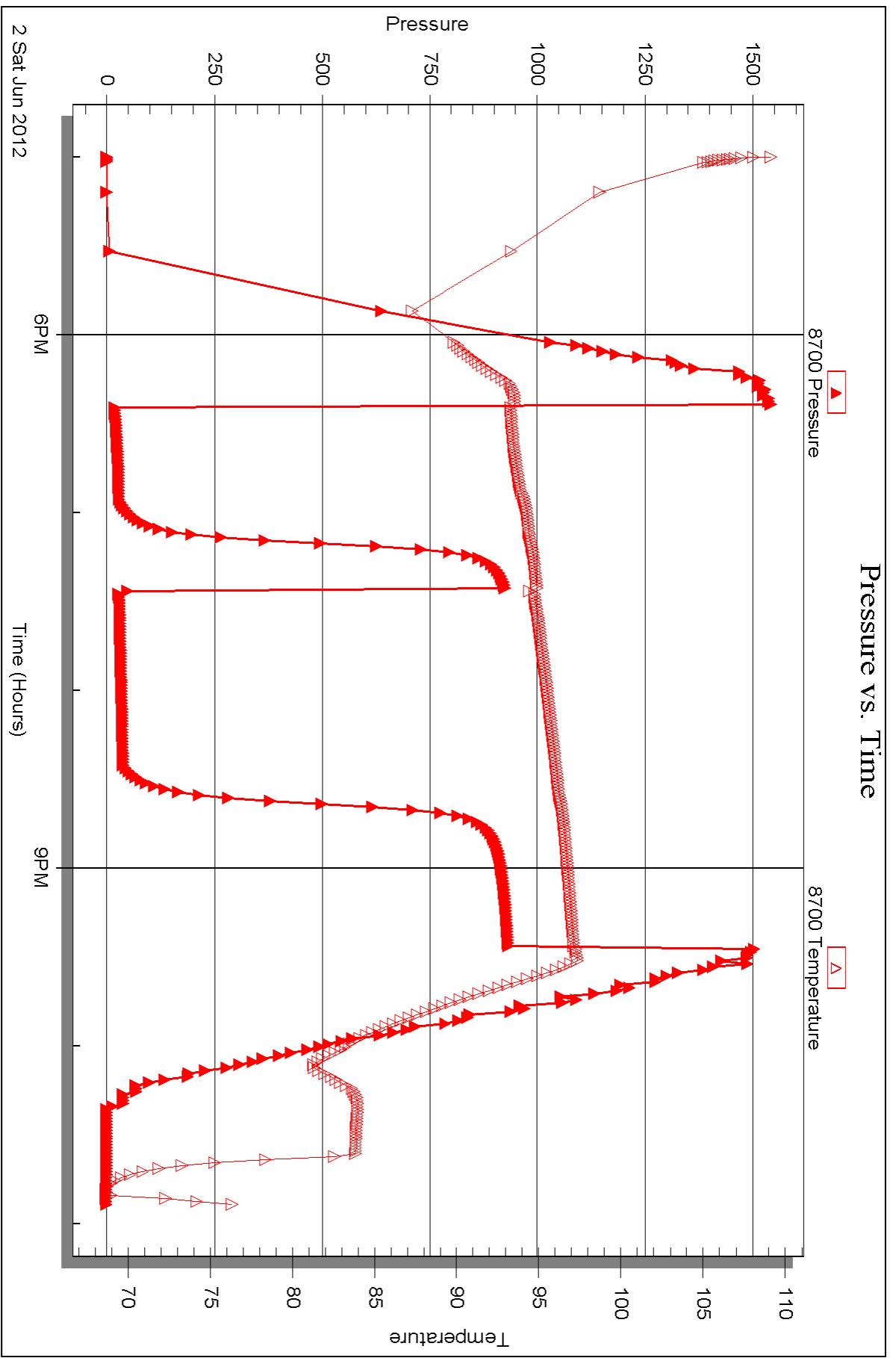


Serial #: 8700

Outside John O Farmer Inc

Shaw #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 47164

Printed: 2012.06.13 @ 11:10:11



DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

Shaw #1

18-4s-18w Phillips,KS

Start Date: 2012.06.03 @ 05:00:25

End Date: 2012.06.03 @ 09:28:49

Job Ticket #: 47165 DST #: 4

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

Printed: 2012.06.13 @ 11:09:10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O Farmer Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: John O Farmer IV

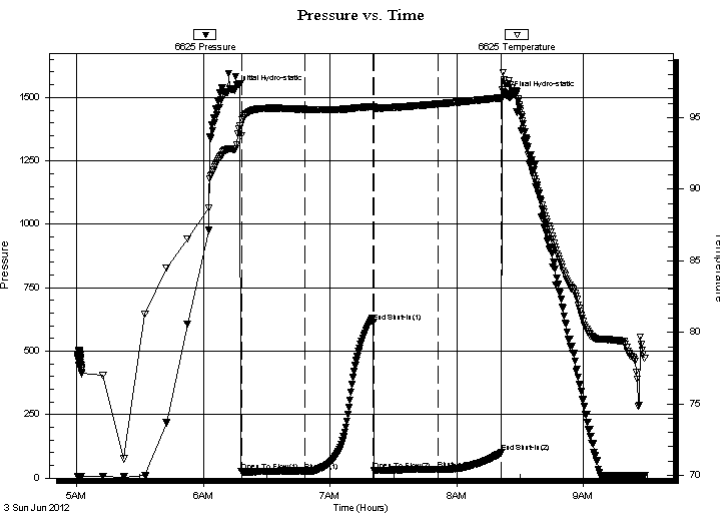
18-4s-18w Phillips,KS
Shaw #1
 Job Ticket: 47165 **DST#: 4**
 Test Start: 2012.06.03 @ 05:00:25

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:17:50
 Time Test Ended: 09:28:49
 Interval: **3212.00 ft (KB) To 3228.00 ft (KB) (TVD)**
 Total Depth: 3228.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 1910.00 ft (KB)
 1902.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6625 Inside
 Press @ Run Depth: 34.14 psig @ 3215.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.03 End Date: 2012.06.03 Last Calib.: 2012.06.03
 Start Time: 05:00:25 End Time: 09:28:49 Time On Btm: 2012.06.03 @ 06:14:20
 Time Off Btm: 2012.06.03 @ 08:23:50

TEST COMMENT: 30-IFP-w k bl , 1/4"
 30-ISIP-no bl
 30-FFP-surface bl thru-out
 30-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1530.15	92.80	Initial Hydro-static
4	25.86	93.76	Open To Flow (1)
34	28.44	95.58	Shut-In(1)
66	614.92	95.77	End Shut-In(1)
67	29.74	95.68	Open To Flow (2)
97	34.14	95.95	Shut-In(2)
127	100.36	96.38	End Shut-In(2)
130	1508.24	97.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	CO	0.01
15.00	O&GCM 5%G15%O80%M	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47165

DST#: 4

ATTN: John O Farmer IV

Test Start: 2012.06.03 @ 05:00:25

Tool Information

Drill Pipe:	Length: 3169.00 ft	Diameter: 3.80 inches	Volume: 44.45 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 44.60 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3214.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	35.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3194.00	
Shut In Tool	5.00			3199.00	
Hydraulic tool	5.00			3204.00	
Packer	5.00			3209.00	21.00 Bottom Of Top Packer
Packer	5.00			3214.00	
Stubb	1.00			3215.00	
Recorder	0.00	6625	Inside	3215.00	
Recorder	0.00	8700	Outside	3215.00	
Perforations	10.00			3225.00	
Bullnose	3.00			3228.00	14.00 Bottom Packers & Anchor
Total Tool Length:	35.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47165

DST#: 4

ATTN: John O Farmer IV

Test Start: 2012.06.03 @ 05:00:25

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	CO	0.010
15.00	O&GCM 5%G15%O80%M	0.074

Total Length: 17.00 ft Total Volume: 0.084 bbl

Num Fluid Samples: 0

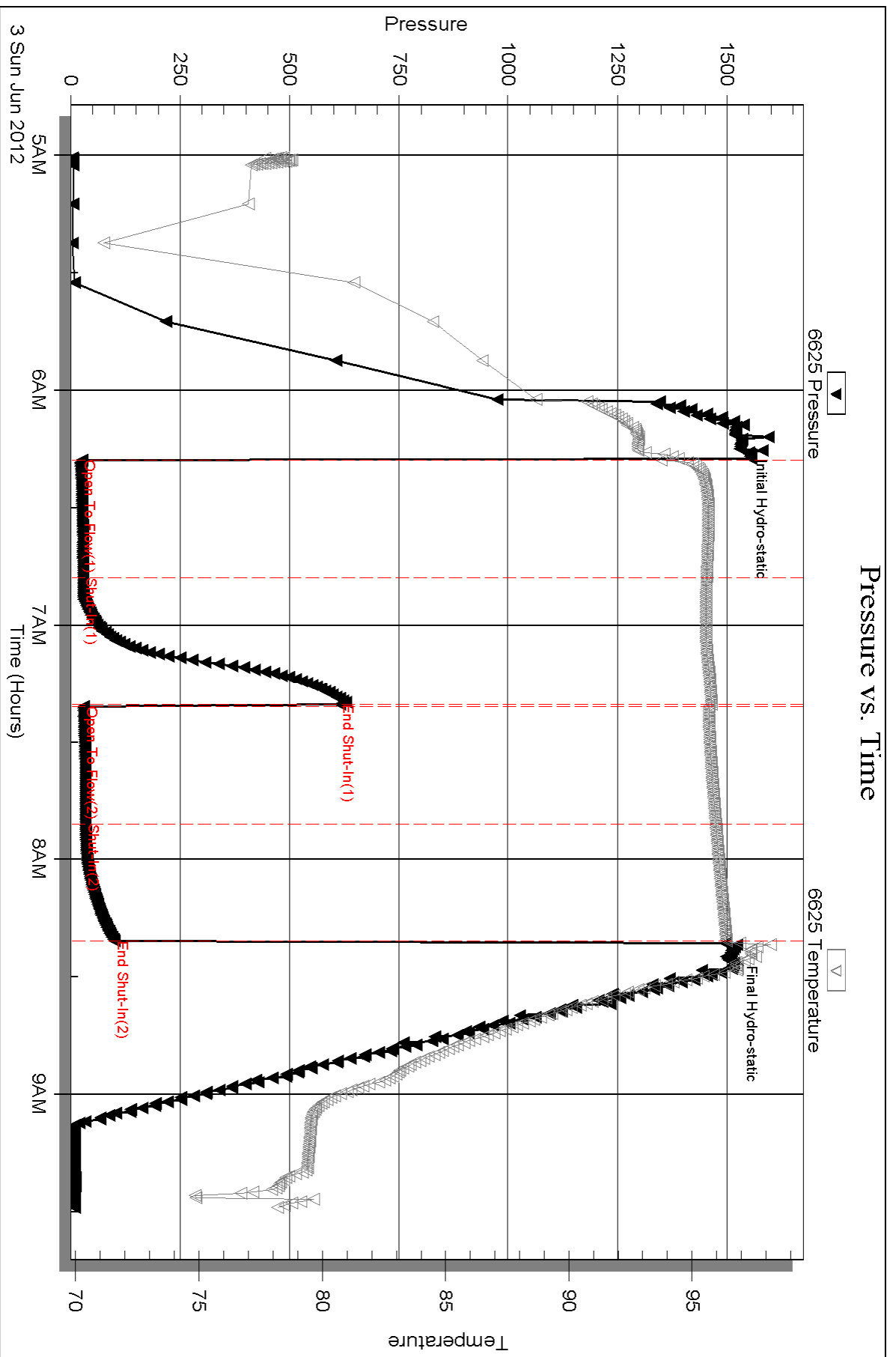
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

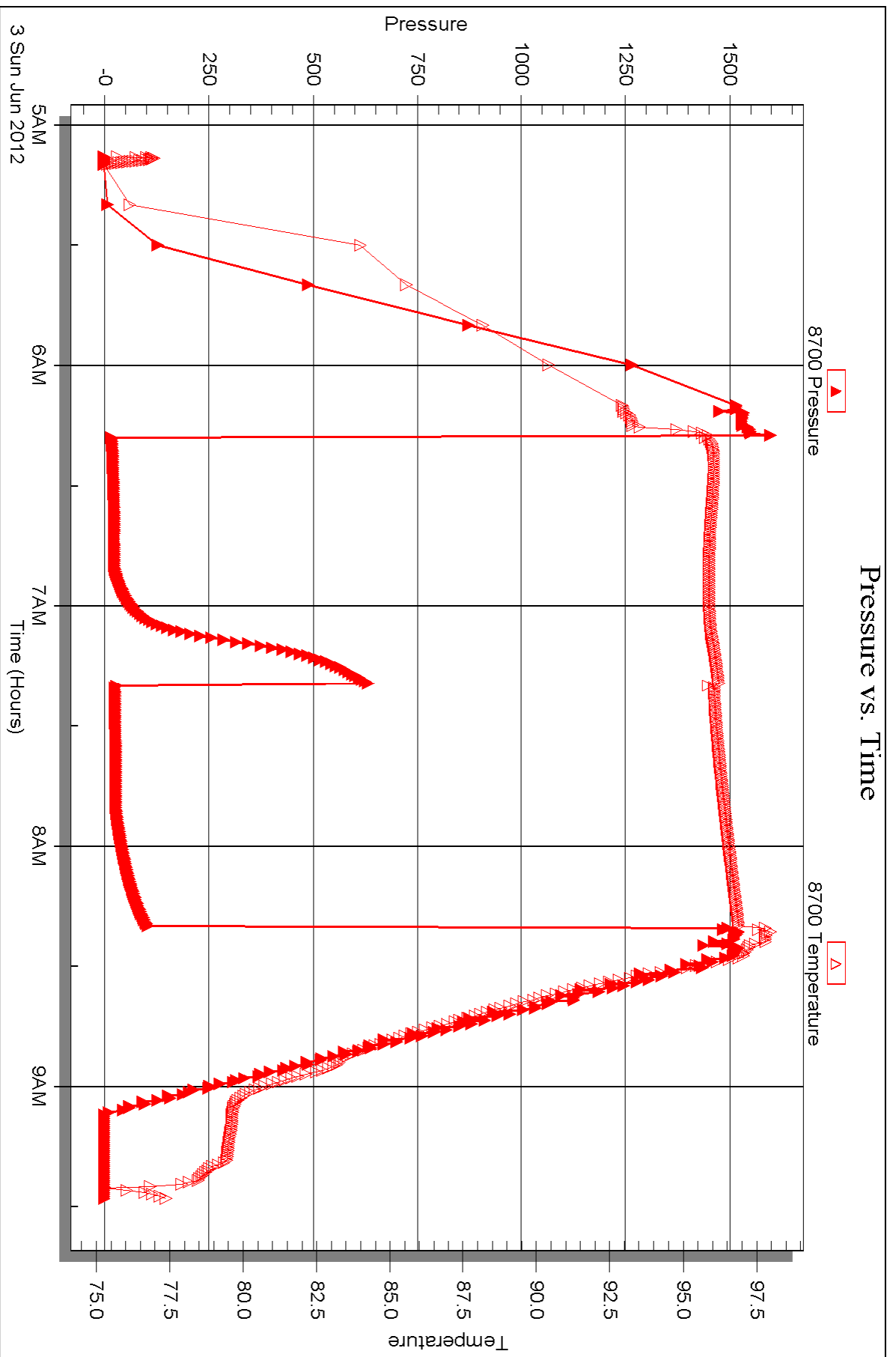


Serial #: 8700

Outside John O Farmer Inc

Shaw #1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell KS 67665-2635

ATTN: John O Farmer IV

Shaw #1

18-4s-18w Phillips,KS

Start Date: 2012.06.03 @ 19:55:28

End Date: 2012.06.04 @ 02:17:40

Job Ticket #: 47166 DST #: 5

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

Printed: 2012.06.13 @ 11:08:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47166

DST#: 5

ATTN: John O Farmer IV

Test Start: 2012.06.03 @ 19:55:28

Tool Information

Drill Pipe:	Length: 3197.00 ft	Diameter: 3.80 inches	Volume: 44.85 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 45.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3226.00 ft			Final 41000.00 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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3206.00	
Shut In Tool	5.00			3211.00	
Hydraulic tool	5.00			3216.00	
Packer	5.00			3221.00	21.00 Bottom Of Top Packer
Packer	5.00			3226.00	
Stubb	1.00			3227.00	
Perforations	5.00			3232.00	
Recorder	0.00	6625	Inside	3232.00	
Recorder	0.00	8700	Outside	3232.00	
Blank Spacing	65.00			3297.00	
Perforations	20.00			3317.00	
Bullnose	3.00			3320.00	94.00 Bottom Packers & Anchor

Total Tool Length: 115.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

18-4s-18w Phillips,KS

PO Box 352
Russell KS 67665-2635

Shaw #1

Job Ticket: 47166

DST#: 5

ATTN: John O Farmer IV

Test Start: 2012.06.03 @ 19:55:28

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

49000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	SOCMW 1%O20%M79%W	0.596
62.00	OCWM 10%O40%W50%M	0.870
75.00	OCM 10%O90%M	1.052
30.00	CO	0.421

Total Length: 229.00 ft Total Volume: 2.939 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

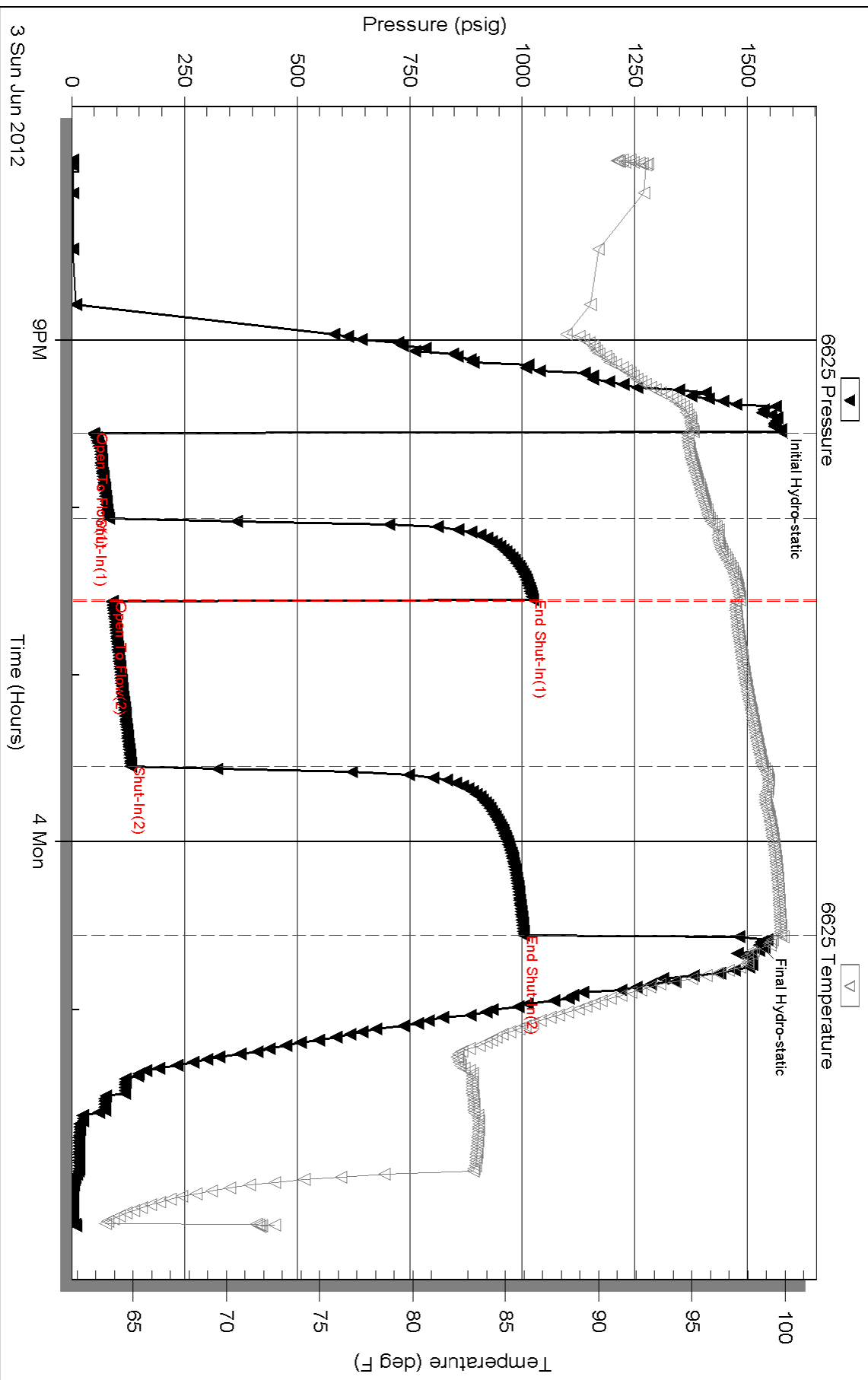
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .15 @ 73F

Pressure vs. Time



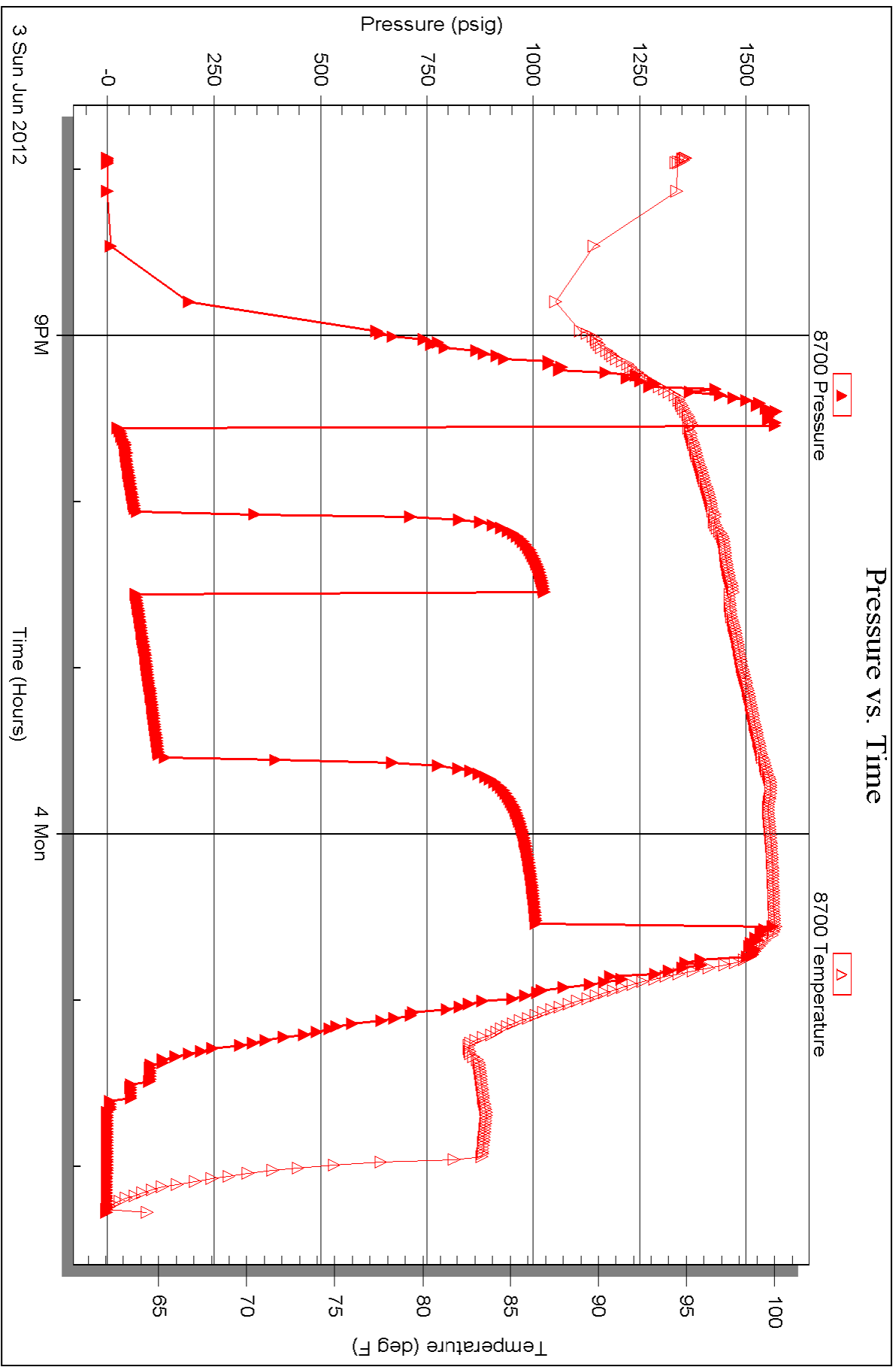
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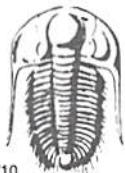
Outside

John O Farmer Inc

Shaw #1

DST Test Number: 5





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47162

Well Name & No. Shaw #1 Test No. 1 Date 6-1-12
 Company John D. Farmer, Inc Elevation 1910 KB 1902 GL
 Address PO Box 352 Russell, Ks 67665-2635
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 1
 Location: Sec. 18 Twp. 45 Rge. 18^w Co. Phillips State 1

Interval Tested 3070 - 3130 Zone Tested Top run to - LKC "A"
 Anchor Length 60 Drill Pipe Run 3044 Mud Wt. 8.7
 Top Packer Depth 3065 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3070 Wt. Pipe Run - WL 7.6
 Total Depth 3130 Chlorides 500 ppm System LCM 2#
 Blow Description IFP - Weak Blow 1/4" To surface Blow
ISTP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>50 CM</u>		<u>2</u>		<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 95 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1474</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1640</u>
(B) First Initial Flow <u>25</u>	<input type="checkbox"/> Jars	T-Started <u>1715</u>
(C) First Final Flow <u>32</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1845</u>
(D) Initial Shut-In <u>776</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2045</u>
(E) Second Initial Flow <u>35</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2202</u>
(F) Second Final Flow <u>41</u>	<input checked="" type="checkbox"/> Mileage <u>130 RT</u> 201.50	Comments
(G) Final Shut-In <u>770</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1452</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1351.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1351.50</u>	

Approved By _____ Our Representative RAY SCHWAGER Thank you

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47163

Well Name & No. Shaw #1 Test No. 2 Date 6-2-12
 Company John O Farmer Inc Elevation 1910 KB 1902 GL
 Address P O BOX 352 Russell, Ks 67665-2635
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 1
 Location: Sec. 18 Twp. 4^s Rge. 18^w Co. rego State K

Interval Tested 3148-3188 Zone Tested LKC C-D
 Anchor Length 40 Drill Pipe Run 3106 Mud Wt. 8.5
 Top Packer Depth 3143 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3148 Wt. Pipe Run - WL 7.6
 Total Depth 3188 Chlorides 500 ppm System LCM 2#

Blow Description IFP - WEAK BLOW 4" TO SURFACE BLOW
ISIP - NO BLOW
FFP - NO BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>DCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 96 Gravity - API RW - @ - °F Chlorides - ppm

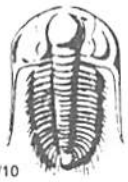
(A) Initial Hydrostatic 1510 Test 1150 T-On Location 0530
 (B) First Initial Flow 23 Jars T-Started 0610
 (C) First Final Flow 28 Safety Joint T-Open 0740
 (D) Initial Shut-In 553 Circ Sub T-Pulled 0940
 (E) Second Initial Flow 31 Hourly Standby T-Out 1056
 (F) Second Final Flow 34 Mileage 201.50 Comments
 (G) Final Shut-In 190 Sampler
 (H) Final Hydrostatic 1482 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1351.50
 Accessibility MP/DST Disc't

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Sub Total 1351.50

Approved By Austin B Klaus Our Representative RAY SCHWAGER Thank you

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47164

Well Name & No. Shaw #1 Test No. 3 Date 6-2-12
 Company John O. Farmer Inc Elevation 1910 KB 1902 GL
 Address PO Box 352 Russell, Ks 67665-2635
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 1
 Location: Sec. 1B Twp. 4^s Rge. 18^w Co. Phillips State Ks

Interval Tested 3186 - 3212 Zone Tested LKC E-F
 Anchor Length 26 Drill Pipe Run 3139 Mud Wt. 8.9
 Top Packer Depth 3181 Drill Collars Run 30 Vis 49
 Bottom Packer Depth 3186 Wt. Pipe Run - WL 8
 Total Depth 3212 Chlorides 1000 ppm System LCM 2#
 Blow Description IFP - SURFACE BLOW THRU-OUT
ISIP - NO BLOW
FFP - WEAK BLOW THRU-OUT 1/2" TO 1 1/4" BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
60	GIP				
40	CO				
30	M60	10	50		40

Rec Total 70 BHT 97 Gravity 36 API RW - @ - °F Chlorides - ppm

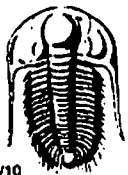
(A) Initial Hydrostatic 1538 Test 1150 T-On Location 1630
 (B) First Initial Flow 22 Jars - T-Started 1655
 (C) First Final Flow 33 Safety Joint - T-Open 1825
 (D) Initial Shut-In 923 Circ Sub - T-Pulled 2125
 (E) Second Initial Flow 31 Hourly Standby - T-Out 2253
 (F) Second Final Flow 47 Mileage 201.50 Comments -
 (G) Final Shut-In 934 Sampler -
 (H) Final Hydrostatic 1490 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Extra Recorder - Sub Total 0
 Day Standby - Total 1351.50
 Accessibility - MP/DST Disc't -
 Sub Total 1351.50

Approved By _____ Our Representative RAY SCHWAGER Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

Test Ticket

NO. 47165



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Well Name & No. Shaw #1 Test No. 4 Date 6-3-12
 Company John O Farmer, Inc Elevation 1910 KB 1902 GL
 Address PO Box 352 Russell, Ks 67665-2635
 Co. Rep / Geo. Austin Klaus Rig Discovery 191
 Location: Sec. 18 Twp. 4^s Rge. 18^w Co. Phillips State K

Interval Tested 3214-3228 Zone Tested LKC "G"
 Anchor Length 14 Drill Pipe Run 3169 Mud Wt. 9.1
 Top Packer Depth 3209 Drill Collars Run 30 Vis 48
 Bottom Packer Depth 3214 Wt. Pipe Run - WL 8
 Total Depth 3228 Chlorides 1000 ppm System LCM 2#

Blow Description IFP - Weak Blow, 1/4"
TSIP - NO BLOW
FFP - surface Blow thru-out
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>CO</u>				
<u>15</u>	<u>046CM</u>	<u>5</u>	<u>15</u>		<u>80</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 17 BHT 96 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1530 Test 1150 T-On Location 0445
 (B) First Initial Flow 25 Jars _____ T-Started 0500
 (C) First Final Flow 28 Safety Joint _____ T-Open 0620
 (D) Initial Shut-In 614 Circ Sub _____ T-Pulled 0820
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 0928
 (F) Second Final Flow 34 Mileage 201.50 Comments _____
 (G) Final Shut-In 100 Sampler _____
 (H) Final Hydrostatic 1508 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1351.50 Sub Total 0
 Total 1351.50 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Approved By Austin Klaus Our Representative Ray Schwager **Thank You**

Triobite Testing Inc. shall not be liable for damaged or any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47166

Well Name & No. Shaw #1 Test No. 5 Date 6-3-12
 Company John O Farmer Inc Elevation 1910 KB 1902 GL
 Address PO Box 352 Russell, Ks 67665-2635
 Co. Rep / Geo. Austin Klaus Rig Discovery rig 1
 Location: Sec. 18 Twp. 4^s Rge. 18^w Co. Phillips State Ks

Interval Tested 3226-3320 Zone Tested LKC H-K
 Anchor Length 94 Drill Pipe Run 3197 Mud Wt. 9.1
 Top Packer Depth 3221 Drill Collars Run 30 Vis 60
 Bottom Packer Depth 3226 Wt. Pipe Run - WL 8.8
 Total Depth 3320 Chlorides 1000 ppm System LCM 2#

Blow Description IFP - WEAK TO A FAIR BLOW 1/2" TO 4" BLOW
ISIP - NO BLOW
FFP - WEAK BLOW, SURFACE TO 2" BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
62	SOC MW	1	79	20	
62	OCWM	10	40	50	
75	OCM	10		90	
30	CO				

Rec Total 229 BHT 100 Gravity 28 API RW .15 @ 73 °F Chlorides 49000 ppm

(A) Initial Hydrostatic 1560 Test 1150 T-On Location 1910
 (B) First Initial Flow 48 Jars T-Started 1955
 (C) First Final Flow 82 Safety Joint T-Open 2135
 (D) Initial Shut-In 1023 Circ Sub T-Pulled 0035
 (E) Second Initial Flow 98 Hourly Standby T-Out 0217
 (F) Second Final Flow 130 Mileage 201.50 Comments Loaded Tool
 (G) Final Shut-In 1003 Sampler 3AM 6-4-12
 (H) Final Hydrostatic 1526 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies

Initial Open 30
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 60
 Sub Total 0
 Total 1351.50
 MP/DST Disc't _____

Approved By Austin Klaus Our Representative Ray Schwager Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.