



DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

Waugh B #2

18-15s-12w Wabaunsee,KS

Start Date: 2012.06.27 @ 07:46:09

End Date: 2012.06.27 @ 14:59:09

Job Ticket #: 47408 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.05 @ 11:14:59

John O Farmer Inc

18-15s-12w Wabaunsee,KS

Waugh B #2

DST # 1

Simpson Sand

2012.06.27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O Farmer Inc

18-15s-12w Wabaunsee,KS

PO Box 352
Russell, KS 67665

Waugh B #2

Job Ticket: 47408

DST#: 1

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:41:09

Time Test Ended: 14:59:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Brian Fairbank

Unit No: 41

Interval: 2990.00 ft (KB) To 3015.00 ft (KB) (TVD)

Reference Elevations: 1313.00 ft (KB)

Total Depth: 3015.00 ft (KB) (TVD)

1305.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 500.59 psig @ 2997.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.27

End Date: 2012.06.27

Last Calib.: 2012.06.27

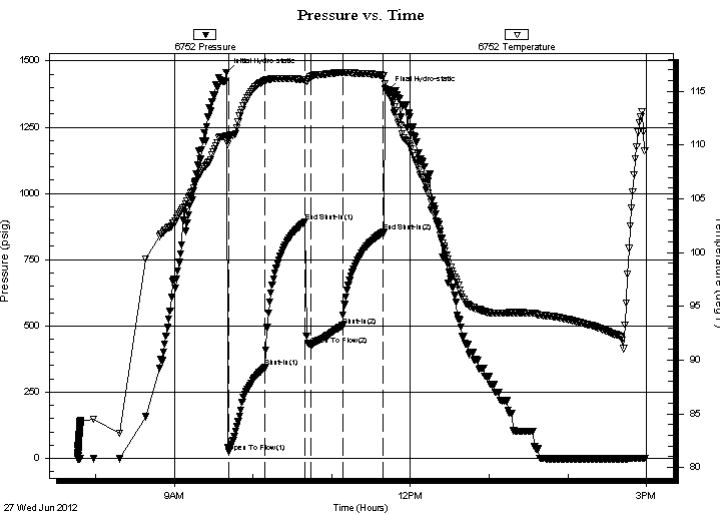
Start Time: 07:46:10

End Time: 14:59:09

Time On Btm: 2012.06.27 @ 09:39:39

Time Off Btm: 2012.06.27 @ 11:43:09

TEST COMMENT: IFP - BOB 7 min
ISI - no blow back
FFP - BOB 2 min
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1456.99	110.90	Initial Hydro-static
2	24.60	110.64	Open To Flow (1)
30	342.75	116.01	Shut-In(1)
60	891.75	116.07	End Shut-In(1)
64	428.83	116.33	Open To Flow (2)
89	500.59	116.76	Shut-In(2)
120	853.84	116.50	End Shut-In(2)
124	1388.90	114.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
820.00	Sand CO 75%O, 15%S	8.05
105.00	OCM 15%O, 85%M	1.47
0.00	60' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

John O Farmer Inc

18-15s-12w Wabaunsee,KS

PO Box 352
Russell, KS 67665

Waugh B #2

Job Ticket: 47408

DST#: 1

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

Tool Information

Drill Pipe:	Length: 2613.00 ft	Diameter: 3.80 inches	Volume: 36.65 bbl	Tool Weight: 2500.00 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: 379.00 ft	Diameter: 2.25 inches	Volume: 1.86 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 38.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	2990.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	50.00 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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Shut In Tool	5.00			2975.00	
Hydraulic tool	5.00			2980.00	
Packer	5.00			2985.00	20.00 Bottom Of Top Packer
Packer	5.00			2990.00	
Stubb	1.00			2991.00	
Perforations	6.00			2997.00	
Recorder	0.00	6752	Inside	2997.00	
Recorder	0.00	6741	Outside	2997.00	
Perforations	20.00			3017.00	
Bullnose	3.00			3020.00	30.00 Bottom Packers & Anchor
Total Tool Length:	50.00				



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FLUID SUMMARY

John O Farmer Inc

18-15s-12w Wabaunsee,KS

PO Box 352
Russell, KS 67665

Waugh B #2

Job Ticket: 47408

DST#: 1

ATTN: Austin Klaus

Test Start: 2012.06.27 @ 07:46:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
820.00	Sand CO 75%O, 15%S	8.050
105.00	OCM 15%O, 85%M	1.473
0.00	60' GIP	0.000

Total Length: 925.00 ft Total Volume: 9.523 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

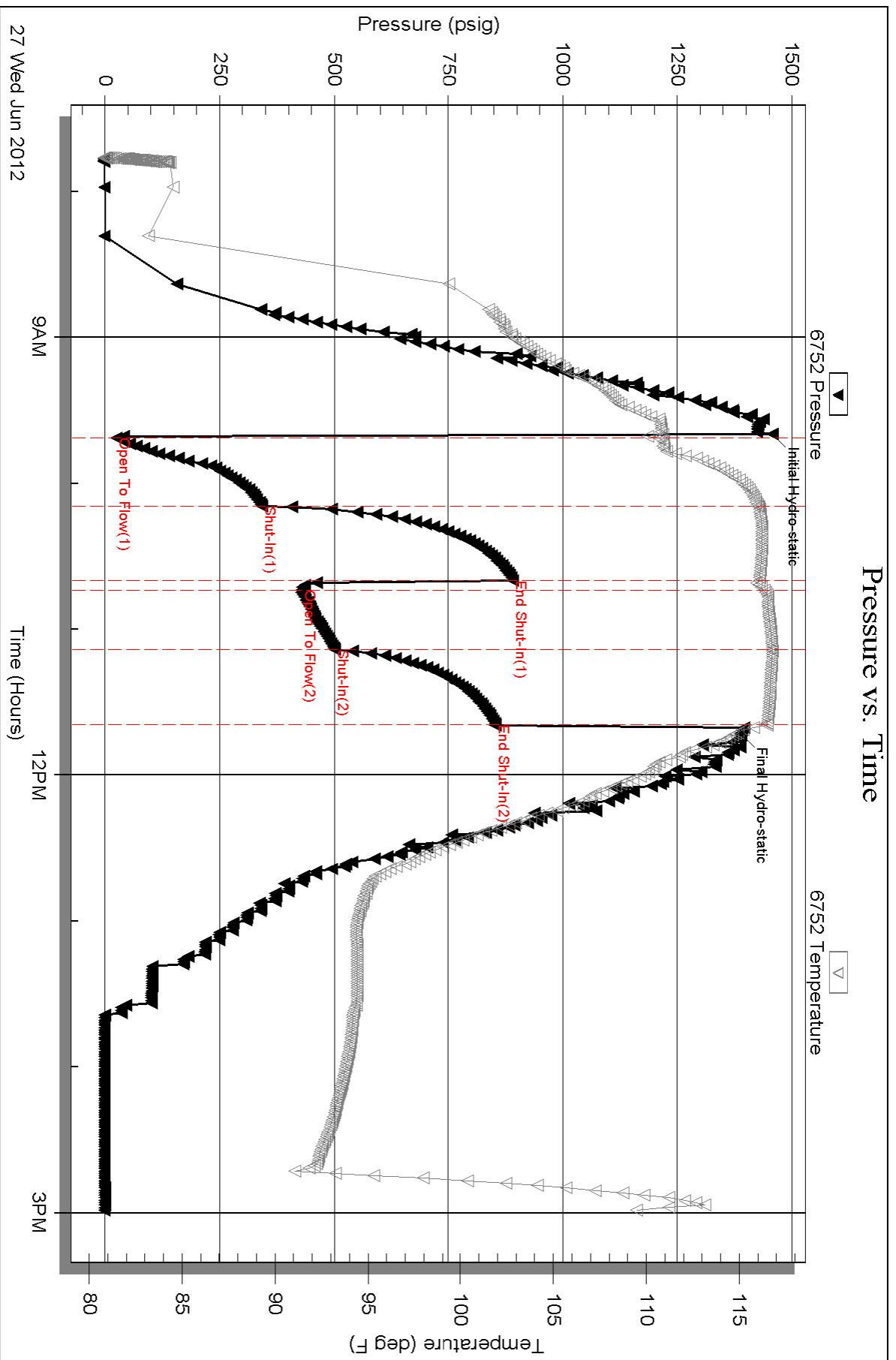
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



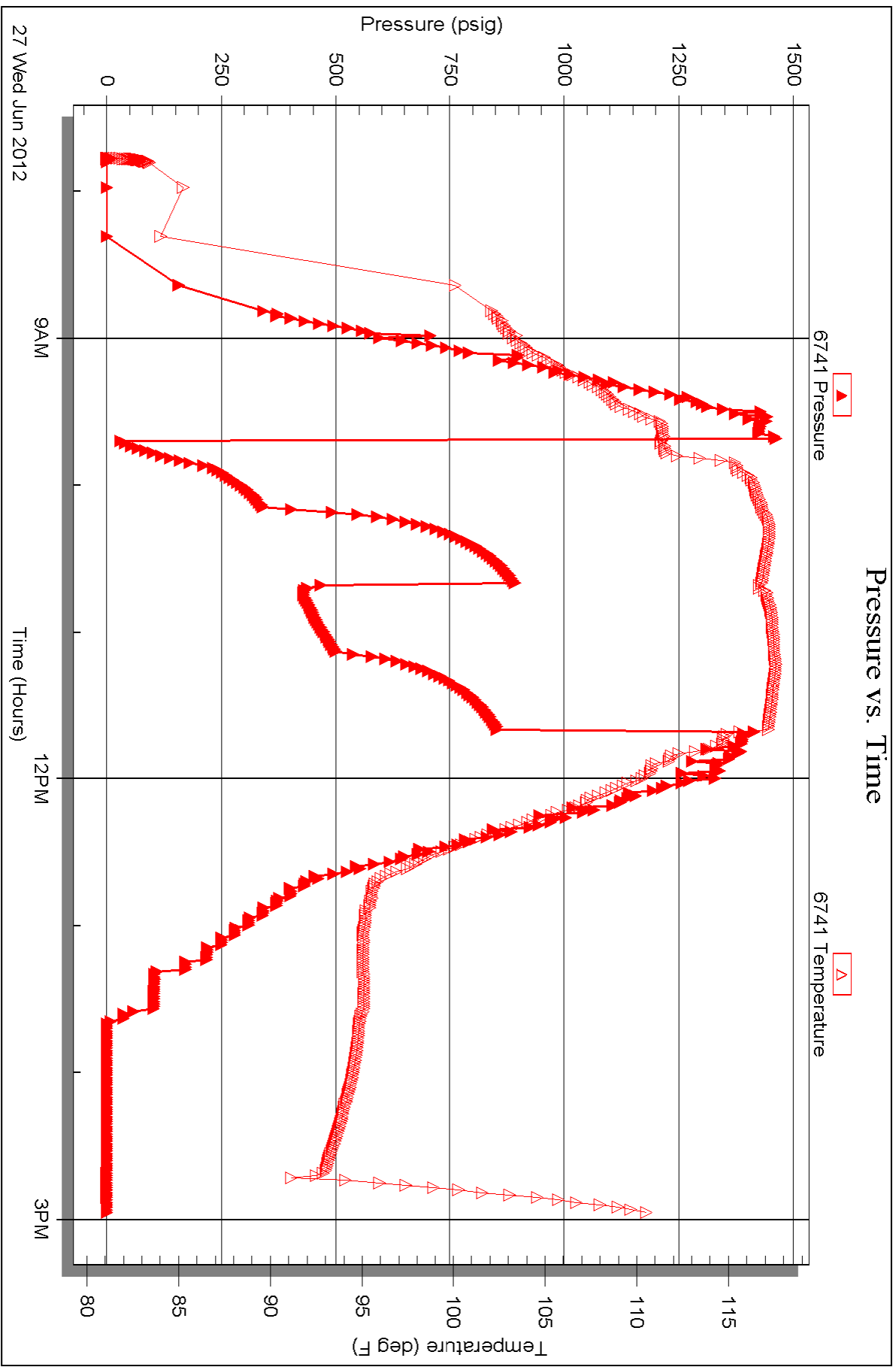
Serial #: 6741

Outside

John O Farmer Inc

Maugh B #2

DST Test Number: 1





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47408

4/10

Well Name & No. Waugh B #2 Test No. 1 Date 6-27-12
 Company JOF Elevation 1313 KB 1305 GL
 Address 370 W Wichita Ave PO Box 352 Russell, K1 67665
 Co. Rep / Geo. Austin Klaus Rig Gulick 1
 Location: Sec. 18 Twp. 15 Rge. 12 Co. Wabunsee State K

Interval Tested 2990 - 3015 Zone Tested Simpson Sand
 Anchor Length 25 Drill Pipe Run 2613 Mud Wt. 9.1
 Top Packer Depth 2985 Drill Collars Run 379 Vis 46
 Bottom Packer Depth 2990 Wt. Pipe Run — WL 8.6
 Total Depth 3015 Chlorides 600 ppm System LCM

Blow Description IFP- BOB 7 min
ISI- no blow back
FFP- BOB 2 min
FSI- no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>GIP</u>				
<u>105</u>	<u>OCM</u>		<u>15</u>		<u>85</u>
<u>820</u>	<u>OCM sand CO</u>		<u>75</u>		<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 925 BHT 117 Gravity 21 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 1457 Test 1150 T-On Location 0723
 (B) First Initial Flow 25 Jars T-Started 0746
 (C) First Final Flow 343 Safety Joint T-Open 0940
 (D) Initial Shut-In 892 Circ Sub T-Pulled 1140
 (E) Second Initial Flow 429 Hourly Standby T-Out 1500
 (F) Second Final Flow 501 Mileage 402 RT 623.10 Comments
 (G) Final Shut-In 854 Sampler
 (H) Final Hydrostatic 1389 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1773.10
 Total 1773.10
 MP/DST Disc't

Approved By _____ Our Representative Brian Farbank

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