



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665-2635

ATTN: John O Farmer IV

**Brenner B #6**

**13-15s-21w Trego,KS**

Start Date: 2012.11.09 @ 20:10:41

End Date: 2012.11.10 @ 03:20:05

Job Ticket #: 48592                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.19 @ 15:00:41



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

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

**13-15s-21w Trego,KS**  
**Brenner B #6**  
Job Ticket: 48592      **DST#: 1**  
Test Start: 2012.11.09 @ 20:10:41

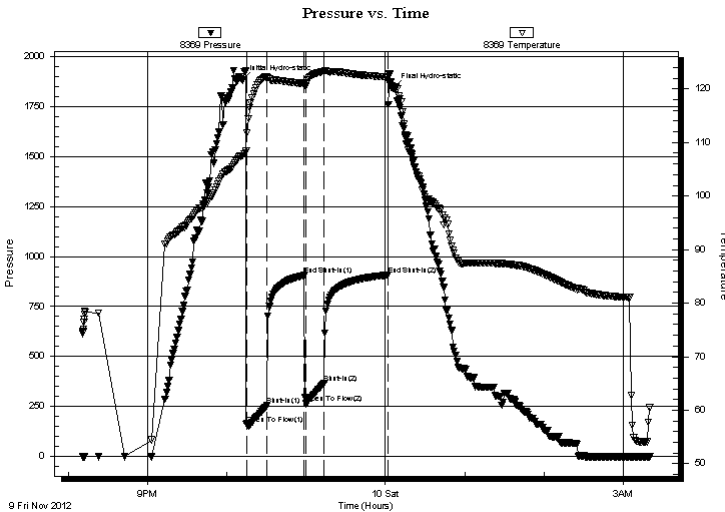
## GENERAL INFORMATION:

Formation: **Congl Sd**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 22:14:36  
Time Test Ended: 03:20:05  
Interval: **3915.00 ft (KB) To 3936.00 ft (KB) (TVD)**  
Total Depth: 3936.00 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: 2193.00 ft (KB)  
2188.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8369      Inside**  
Press @ Run Depth: 366.08 psig @ 3916.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.11.09      End Date: 2012.11.10      Last Calib.: 2012.11.10  
Start Time: 20:10:41      End Time: 03:20:05      Time On Btm: 2012.11.09 @ 22:11:36  
Time Off Btm: 2012.11.10 @ 00:06:36

**TEST COMMENT:** 15-IFP-strg bl in 3 min  
30-ISIP-1/2" bl bk  
15-FFP-strg bl in 3 min  
45-FSIP-1" bl bk

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1881.51	107.55	Initial Hydro-static
3	159.75	108.36	Open To Flow (1)
19	255.18	122.37	Shut-In(1)
47	905.75	120.92	End Shut-In(1)
48	264.78	120.41	Open To Flow (2)
62	366.08	123.31	Shut-In(2)
110	906.92	122.20	End Shut-In(2)
115	1844.33	120.13	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	0.65
124.00	O&GCW 10%G10%O80%W	1.74
560.00	CO	7.86
140.00	MGO 10%G30%M60%O	1.96
0.00	175'GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**13-15s-21w Trego,KS**

PO Box 352  
Russell KS 67665-2635

**Brenner B #6**

Job Ticket: 48592

**DST#: 1**

ATTN: John O Farmer IV

Test Start: 2012.11.09 @ 20:10:41

## Tool Information

Drill Pipe:	Length: 3790.00 ft	Diameter: 3.80 inches	Volume: 53.16 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3915.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 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			3888.00	
Shut In Tool	5.00			3893.00	
Hydraulic tool	5.00			3898.00	
Jars	5.00			3903.00	
Safety Joint	2.00			3905.00	
Packer	5.00			3910.00	28.00 Bottom Of Top Packer
Packer	5.00			3915.00	
Stubb	1.00			3916.00	
Recorder	0.00	8369	Inside	3916.00	
Recorder	0.00	8700	Outside	3916.00	
Perforations	17.00			3933.00	
Bullnose	3.00			3936.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**13-15s-21w Trego,KS**

PO Box 352  
Russell KS 67665-2635

**Brenner B #6**

Job Ticket: 48592

**DST#: 1**

ATTN: John O Farmer IV

Test Start: 2012.11.09 @ 20:10:41

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	Water	0.646
124.00	O&GCW 10%G10%O80%W	1.739
560.00	CO	7.855
140.00	MGO 10%G30%M60%O	1.964
0.00	175'GIP	0.000

Total Length: 948.00 ft      Total Volume: 12.204 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

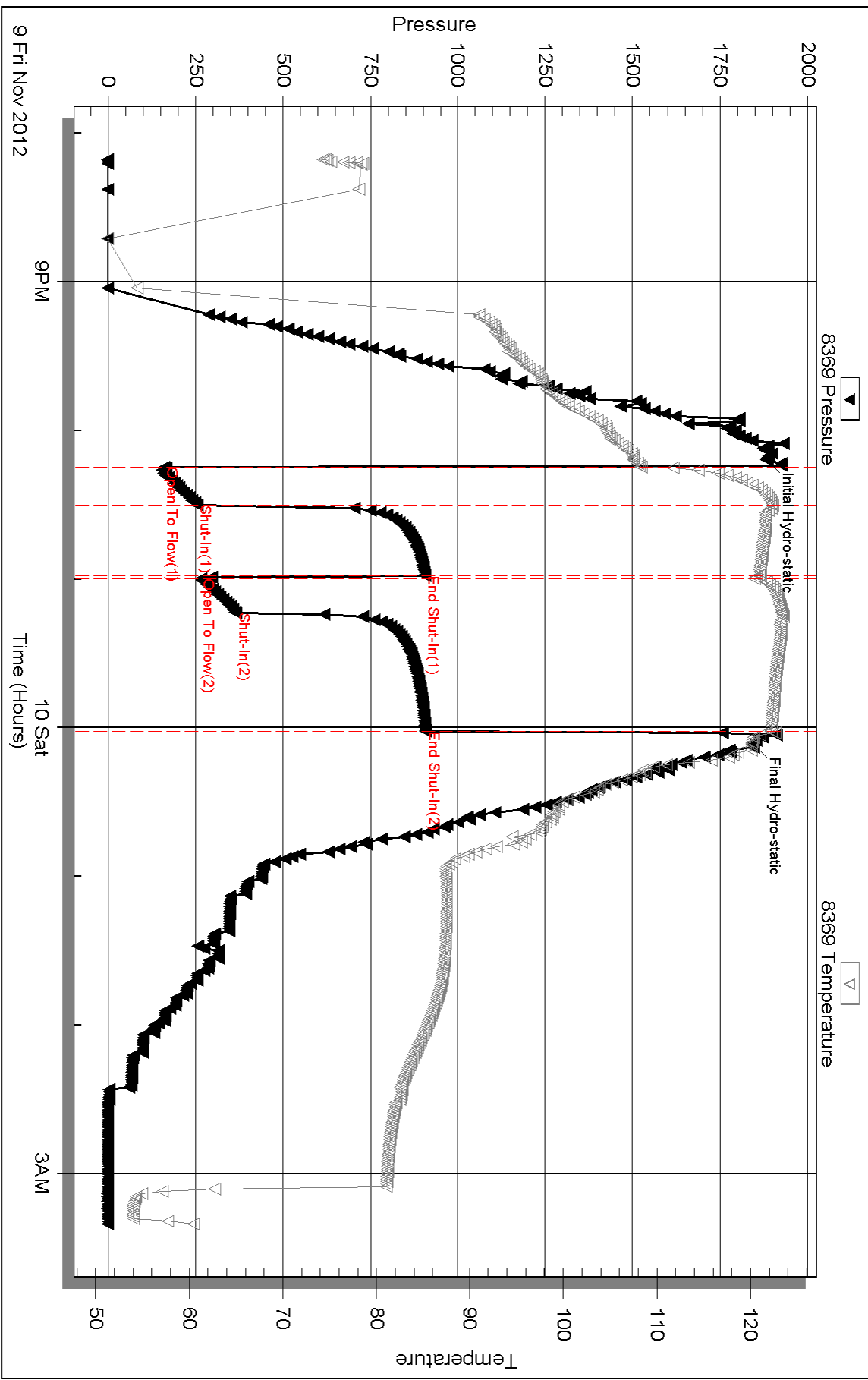
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .18 @ 60F

# Pressure vs. Time

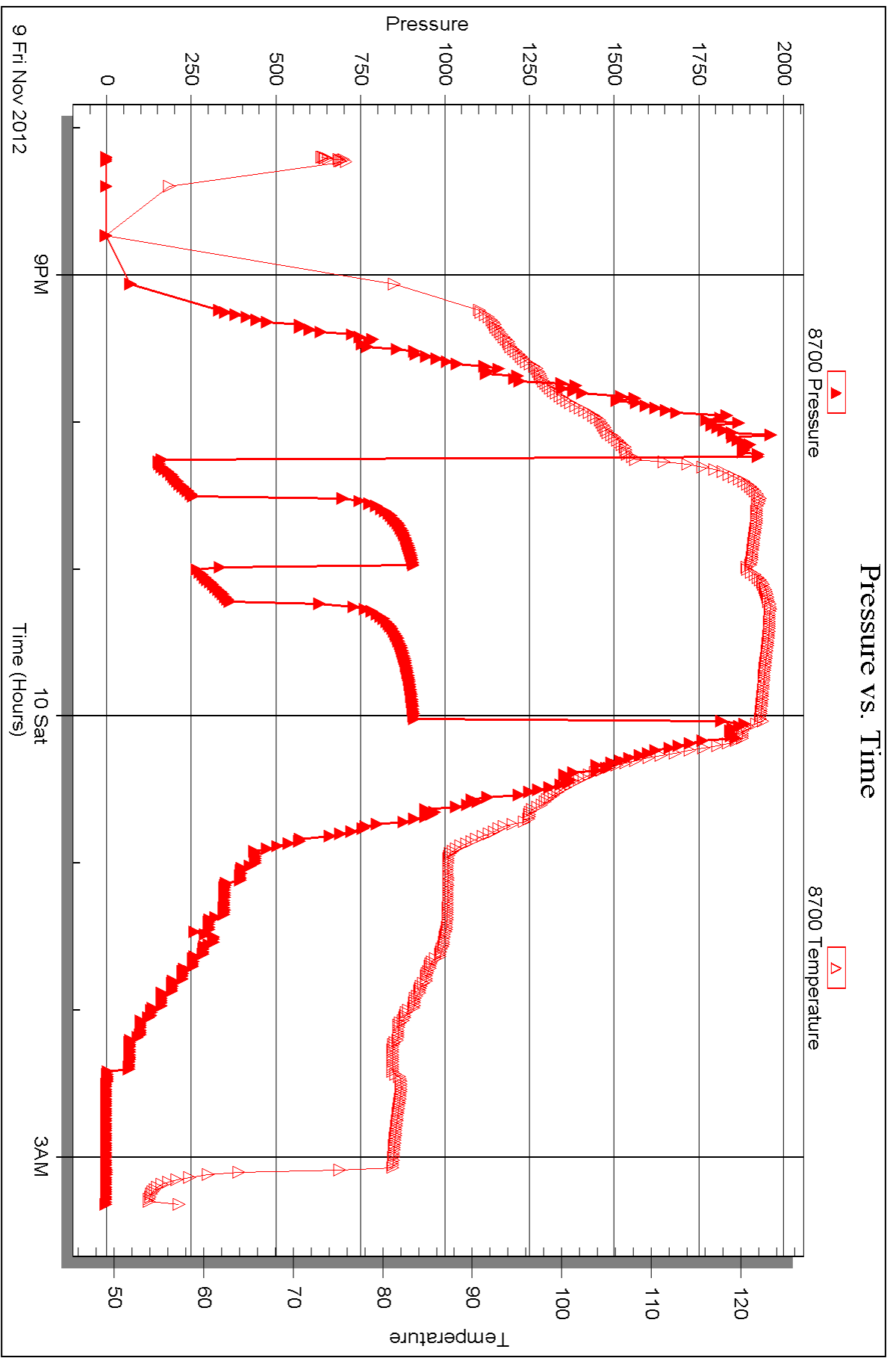


Serial #: 8700

Outside John O Farmer Inc

Brenner B #6

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

### **Brenner B #6**

### **13-15s-21w Trego,KS**

Start Date: 2012.11.10 @ 09:15:15

End Date: 2012.11.10 @ 15:01:39

Job Ticket #: 48593                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.19 @ 14:59:42





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

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

**13-15s-21w Trego,KS**  
**Brenner B #6**  
 Job Ticket: 48593 **DST#: 2**  
 Test Start: 2012.11.10 @ 09:15:15

## GENERAL INFORMATION:

Formation: **Congl Sd**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 10:53:10 Tester: Ray Schwager  
 Time Test Ended: 15:01:39 Unit No: 42  
 Interval: **3942.00 ft (KB) To 3960.00 ft (KB) (TVD)** Reference Elevations: 2193.00 ft (KB)  
 Total Depth: 3960.00 ft (KB) (TVD) 2188.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

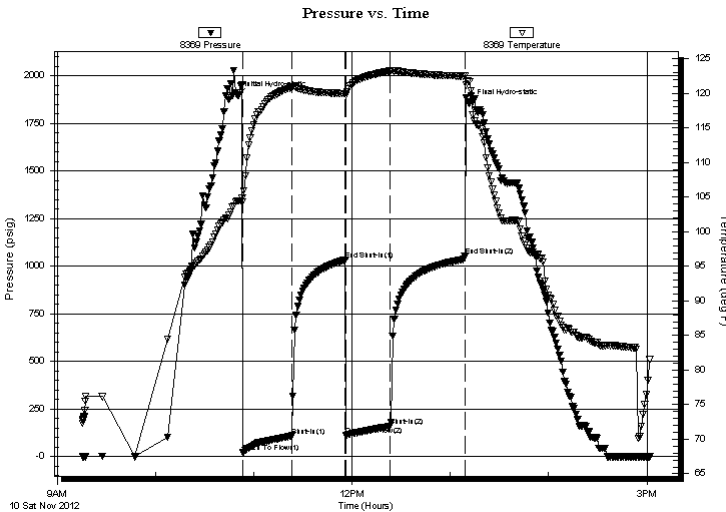
## Serial #: 8369

Inside

Press @ Run Depth: 159.90 psig @ 3943.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.11.10 End Date: 2012.11.10 Last Calib.: 2012.11.10  
 Start Time: 09:15:15 End Time: 15:01:39 Time On Btm: 2012.11.10 @ 10:50:10  
 Time Off Btm: 2012.11.10 @ 13:11:40

TEST COMMENT: 30-IFP-w k to a gd bl 1/2" to 7" bl  
 30-ISIP-no bl  
 30-FFP-w k to a gd bl surface to 7" bl  
 45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1898.34	104.44	Initial Hydro-static
3	21.00	104.31	Open To Flow (1)
33	108.94	120.87	Shut-In(1)
66	1032.45	119.97	End Shut-In(1)
66	112.37	119.74	Open To Flow (2)
93	159.90	123.22	Shut-In(2)
139	1052.62	122.52	End Shut-In(2)
142	1854.55	121.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
240.00	Water	2.27
90.00	MW 15%M 85%W	1.26
1.00	CO	0.01

\* Recovery from multiple tests

## Gas Rates

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





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TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**13-15s-21w Trego,KS**

PO Box 352  
Russell KS 67665-2635

**Brenner B #6**

Job Ticket: 48593

**DST#: 2**

ATTN: John O Farmer IV

Test Start: 2012.11.10 @ 09:15:15

## Tool Information

Drill Pipe:	Length: 3810.00 ft	Diameter: 3.80 inches	Volume: 53.44 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 54.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3942.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	46.00 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			3915.00	
Shut In Tool	5.00			3920.00	
Hydraulic tool	5.00			3925.00	
Jars	5.00			3930.00	
Safety Joint	2.00			3932.00	
Packer	5.00			3937.00	28.00 Bottom Of Top Packer
Packer	5.00			3942.00	
Stubb	1.00			3943.00	
Recorder	0.00	8369	Inside	3943.00	
Recorder	0.00	8700	Outside	3943.00	
Perforations	14.00			3957.00	
Bullnose	3.00			3960.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 46.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**13-15s-21w Trego,KS**

PO Box 352  
Russell KS 67665-2635

**Brenner B #6**

Job Ticket: 48593

**DST#: 2**

ATTN: John O Farmer IV

Test Start: 2012.11.10 @ 09:15:15

## 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:

46000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	Water	2.273
90.00	MW 15%M 85%W	1.262
1.00	CO	0.014

Total Length: 331.00 ft      Total Volume: 3.549 bbl

Num Fluid Samples: 0

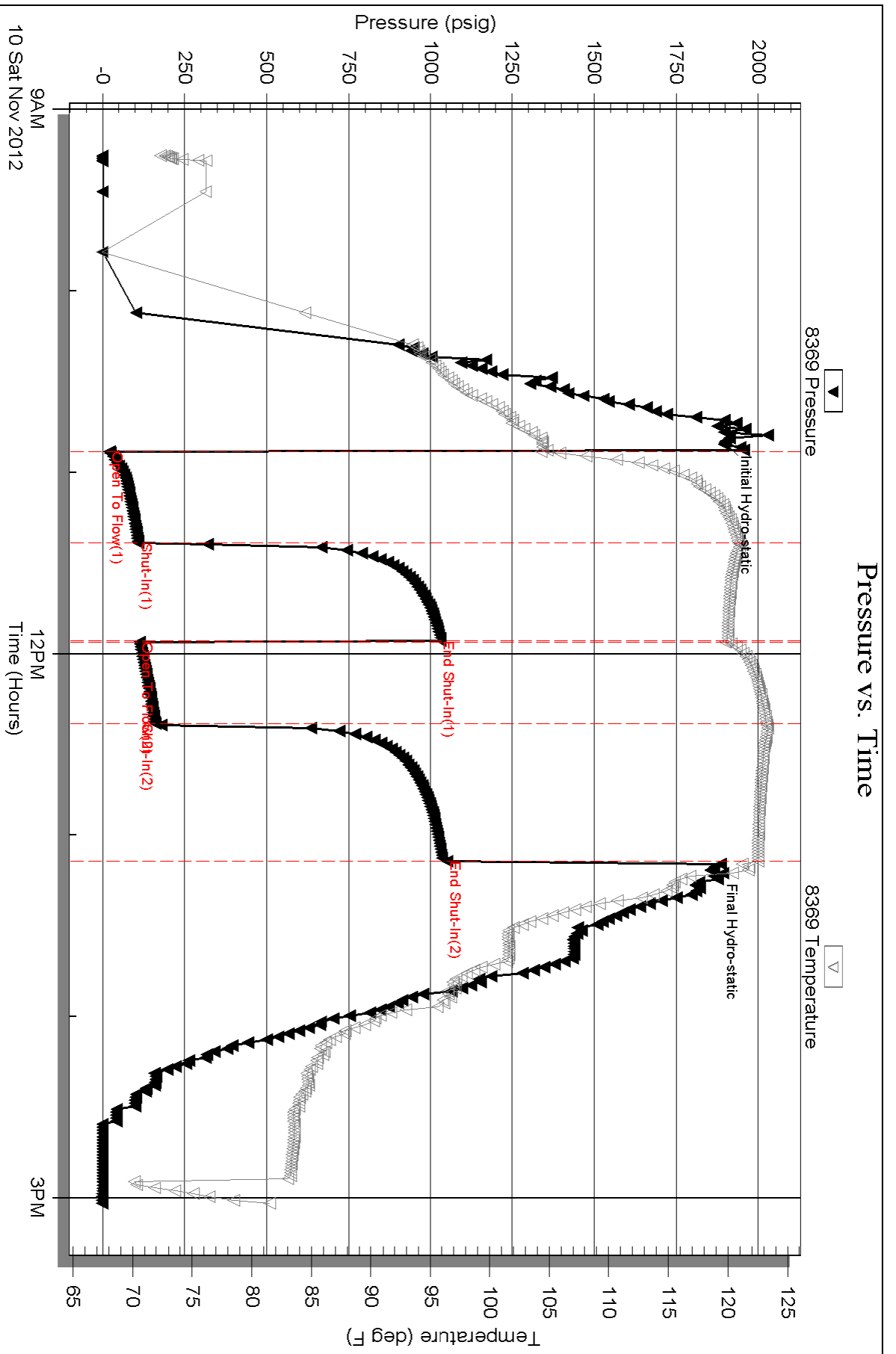
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .16@70F

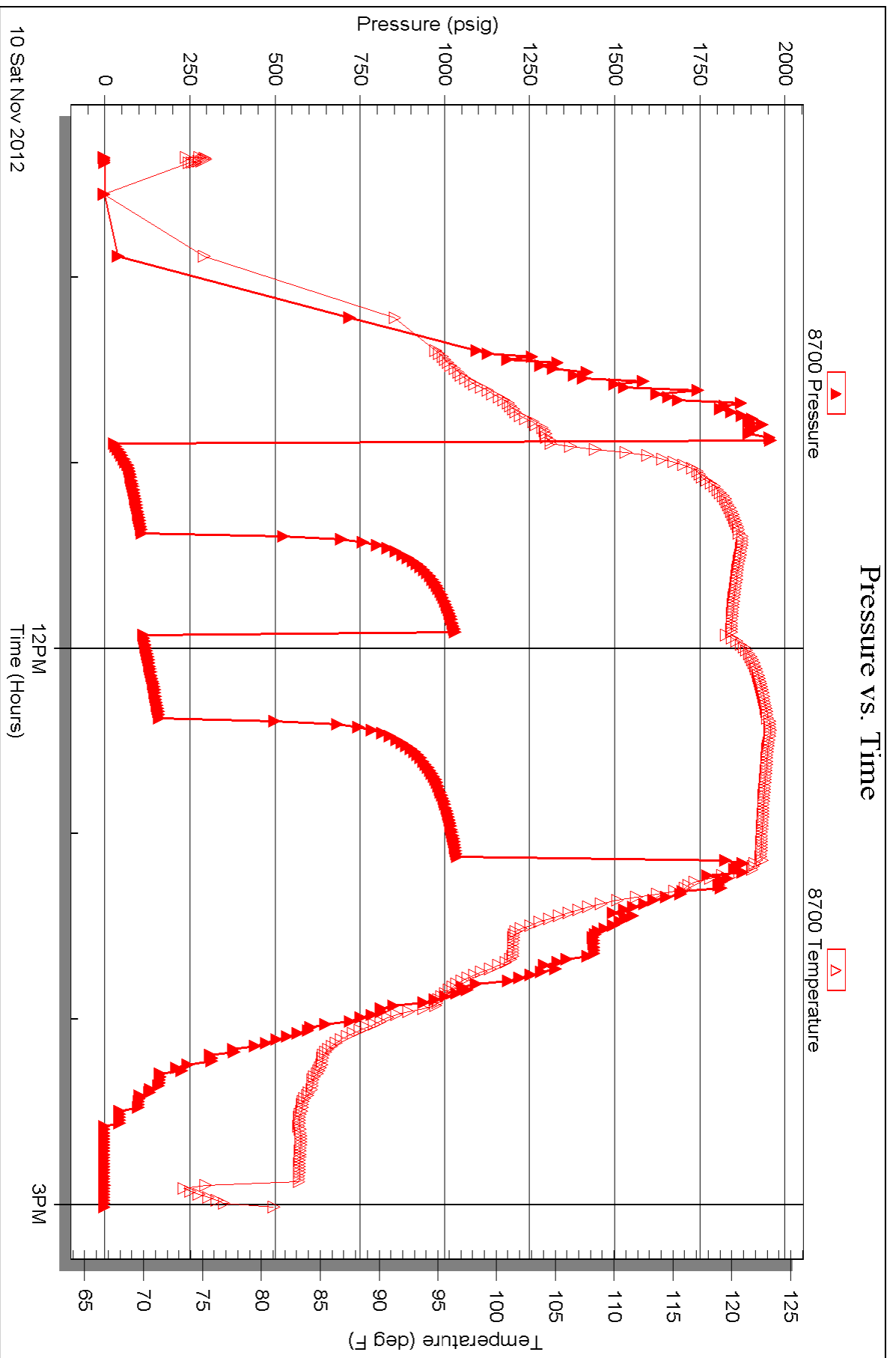


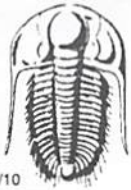
Serial #: 8700

Outside John O Farmer Inc

Brenner B #6

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48592

Well Name & No. Brenner B#6 Test No. 1 Date 11-9-11  
 Company John O. Farmer Inc Elevation 2193 KB 2188 GL  
 Address 370 W. WICHITA AVE. PO Box 352 Russell, Ks 67665-2635  
 Co. Rep / Geo. AUSTIN KLAUS Rig WW rig 8  
 Location: Sec. 13 Twp. 15<sup>s</sup> Rge. 21<sup>w</sup> Co. Trego State Ks

Interval Tested 3915-3936 Zone Tested Congl. sd.  
 Anchor Length 21 Drill Pipe Run 3790 Mud Wt. 9.2  
 Top Packer Depth 3910 Drill Collars Run 120 Vis 60  
 Bottom Packer Depth 3915 Wt. Pipe Run — WL 7.4  
 Total Depth 3936 Chlorides 1100 ppm System LCM 2#

Blow Description IFP - STRONG BLOW IN 3min  
ISIP - 1/2" Blow Back  
FFP - STRONG BLOW IN 3min  
FSIP - 1" Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>175</u>	<u>GIP</u>				
<u>140</u>	<u>MGO</u>	<u>10</u>	<u>60</u>		<u>30</u>
<u>560</u>	<u>CO</u>				
<u>124</u>	<u>0 G CW.</u>	<u>10</u>	<u>10</u>	<u>80</u>	
<u>124</u>	<u>WATER</u>				

Rec Total 948 BHT 122 Gravity 37 API RW .18 @ 60 ° F Chlorides 46000 ppm

(A) Initial Hydrostatic 1881  Test 1150 T-On Location 1845  
 (B) First Initial Flow 159  Jars 250 T-Started 2010  
 (C) First Final Flow 255  Safety Joint 75 T-Open 2215  
 (D) Initial Shut-In 905  Circ Sub \_\_\_\_\_ T-Pulled 0000  
 (E) Second Initial Flow 264  Hourly Standby \_\_\_\_\_ T-Out 0320  
 (F) Second Final Flow 366  Mileage 52 RT 80.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 906  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1844  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 15  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 15  Day Standby \_\_\_\_\_ Total 1555.60  
 Final Shut-In 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1555.60

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. 48593

Well Name & No. Brenner B#6 Test No. 2 Date 11-10-12  
 Company John O. Farmer Inc Elevation 2193 KB 2188 GL  
 Address 370 W. WICHITA AVE. PO Box 352 Russell, KS 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW1.98  
 Location: Sec. 13 Twp. 15<sup>s</sup> Rge. 21<sup>w</sup> Co. rego State Ks

Interval Tested 3942-3960 Zone Tested Congl sd.  
 Anchor Length 18 Drill Pipe Run 3810 Mud Wt. 9  
 Top Packer Depth 3937 Drill Collars Run 120 Vis 57  
 Bottom Packer Depth 3942 Wt. Pipe Run - WL 7.2  
 Total Depth 3960 Chlorides 1200 ppm System LCM 1<sup>st</sup>  
 Blow Description IFP - Weak To A Good Blow 1/2" To 7" Blow  
ISIP - NO Blow  
FFP - Weak To A Good Blow surface To 7" Blow  
FSTP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>CO</u>				
<u>90</u>	<u>MW</u>		<u>85</u>		<u>15</u>
<u>240</u>	<u>WATER</u>				

Rec Total 331 BHT 122 Gravity - API RW 46 @ 70 ° F Chlorides 46000 ppm

(A) Initial Hydrostatic <u>1898</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>0905</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>0915</u>
(C) First Final Flow <u>108</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1055</u>
(D) Initial Shut-In <u>1032</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1310</u>
(E) Second Initial Flow <u>112</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1501</u>
(F) Second Final Flow <u>159</u>	<input checked="" type="checkbox"/> Mileage <u>52 RT</u> 80.60	Comments _____
(G) Final Shut-In <u>1052</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1854</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>45</u>	<input type="checkbox"/> Day Standby	Total <u>1555.60</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1555.60</u>	

Approved By \_\_\_\_\_

Our Representative RAY SCHWAGN *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.