



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

#### **21-10s-18w Rooks,KS**

Start Date: 2013.07.05 @ 09:25:00

End Date: 2013.07.05 @ 15:52:00

Job Ticket #: 54302                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:29:39



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54302

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 09:25:00

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:02:30

Time Test Ended: 15:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 41

**Interval: 3326.00 ft (KB) To 3368.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3368.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322 Outside**

Press @ Run Depth: 193.20 psig @ 3331.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.05 End Date: 2013.07.05

Last Calib.: 2013.07.05

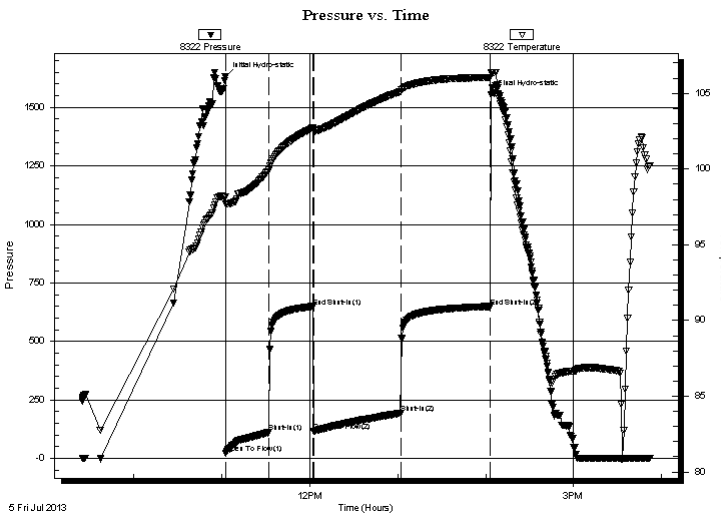
Start Time: 09:25:01 End Time: 15:52:00

Time On Btm: 2013.07.05 @ 11:02:20

Time Off Btm: 2013.07.05 @ 14:03:30

**TEST COMMENT:** 30-IFP- BOB in 22 min.  
30-ISIP- No Blow  
60-FFP- BOB in 31 min.  
60-FSIP- No Blow

## PRESSURE SUMMARY



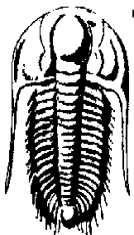
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1631.38	98.16	Initial Hydro-static
1	22.67	97.66	Open To Flow (1)
30	112.05	99.97	Shut-In(1)
60	649.00	102.70	End Shut-In(1)
61	117.40	102.55	Open To Flow (2)
120	193.20	105.13	Shut-In(2)
181	649.49	106.02	End Shut-In(2)
182	1554.20	106.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
360.00	MCW 15% m 85% w	3.96
8.00	CO 100%	0.11

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks, KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54302

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 09:25:00

### GENERAL INFORMATION:

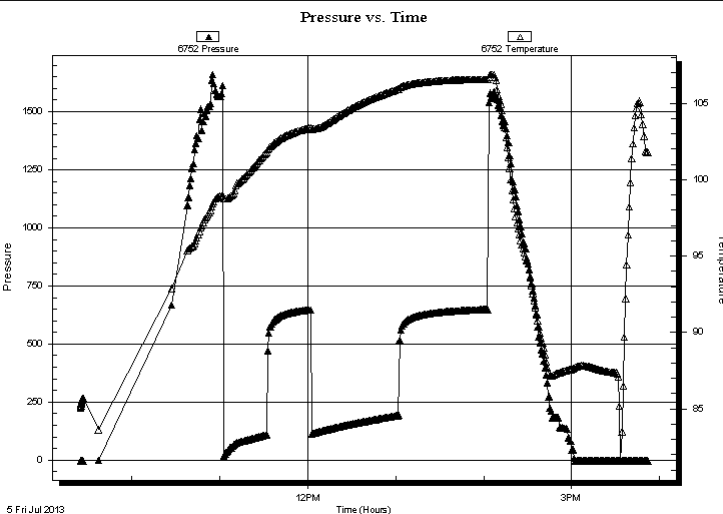
Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:02:30  
 Time Test Ended: 15:52:00  
 Interval: **3326.00 ft (KB) To 3368.00 ft (KB) (TVD)**  
 Total Depth: 3368.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jim Svaty  
 Unit No: 41  
 Reference Elevations: 2148.00 ft (KB)  
 2143.00 ft (CF)  
 KB to GR/CF: 5.00 ft

### Serial #: 6752

Inside

Press @ Run Depth: psig @ 3331.00 ft (KB)  
 Start Date: 2013.07.05 End Date: 2013.07.05  
 Start Time: 09:25:01 End Time: 15:52:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2013.07.05  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 22 min.  
 30-ISIP- No Blow  
 60-FFP- BOB in 31 min.  
 60-FSIP- No Blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
360.00	MCW 15% m 85% w	3.96
8.00	CO 100%	0.11

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54302

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 09:25:00

## Tool Information

Drill Pipe:	Length: 3212.00 ft	Diameter: 3.80 inches	Volume: 45.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 45000.00 lb
			<u>Total Volume: 45.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3326.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	62.00 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			3311.00	
Hydraulic tool	5.00			3316.00	
Packer	5.00			3321.00	20.00 Bottom Of Top Packer
Packer	5.00			3326.00	
Stubb	1.00			3327.00	
Perforations	4.00			3331.00	
Recorder	0.00	6752	Inside	3331.00	
Recorder	0.00	8322	Outside	3331.00	
Change Over Sub	1.00			3332.00	
Blank Spacing	32.00			3364.00	
Change Over Sub	1.00			3365.00	
Bullnose	3.00			3368.00	42.00 Bottom Packers & Anchor

**Total Tool Length: 62.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54302

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 09:25:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

125000 ppm

Viscosity: 84.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.68 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.50 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
360.00	MCW 15%m 85%w	3.957
8.00	CO 100%	0.112

Total Length: 368.00 ft      Total Volume: 4.069 bbl

Num Fluid Samples: 0

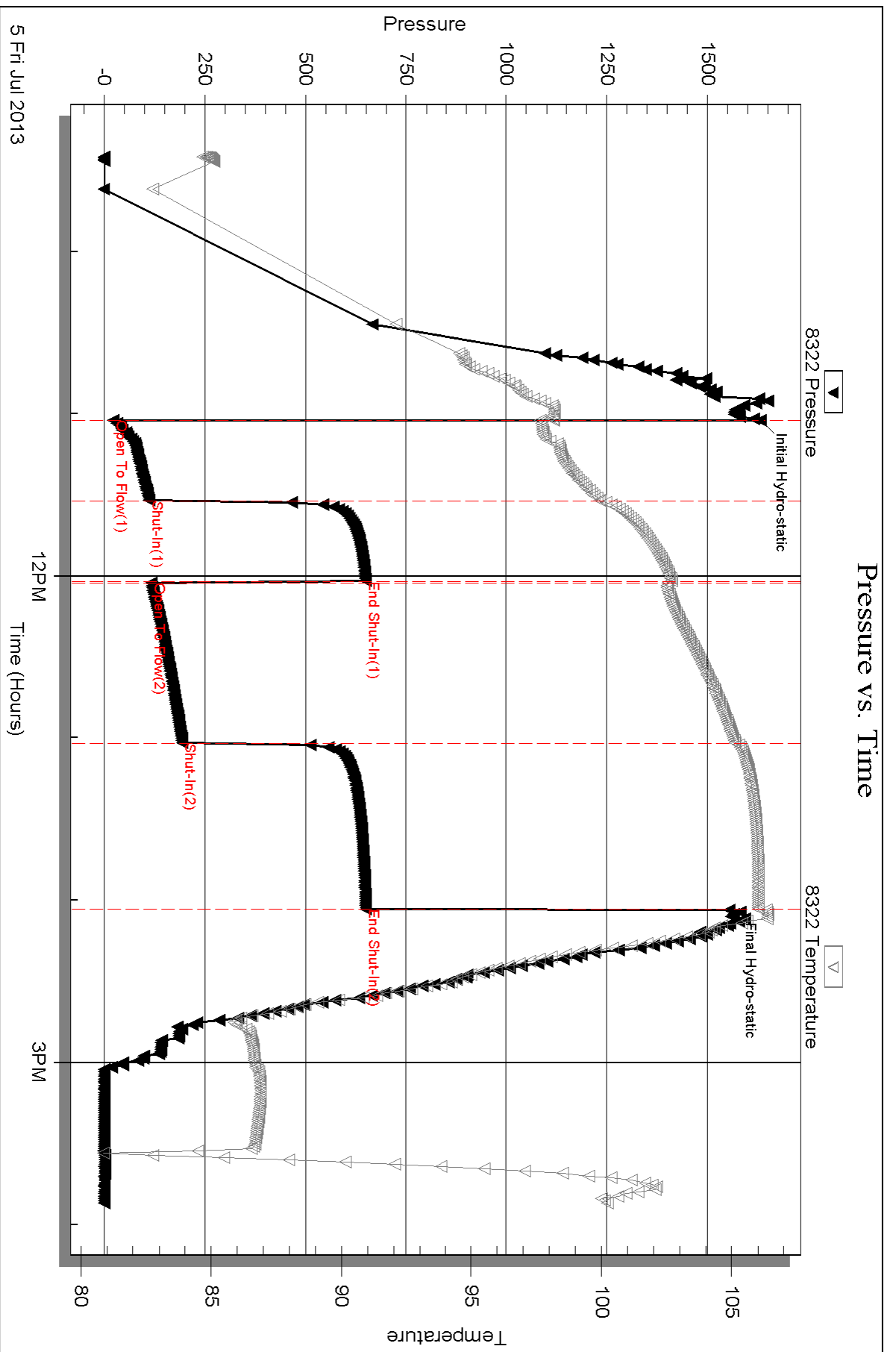
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .050 @ 94



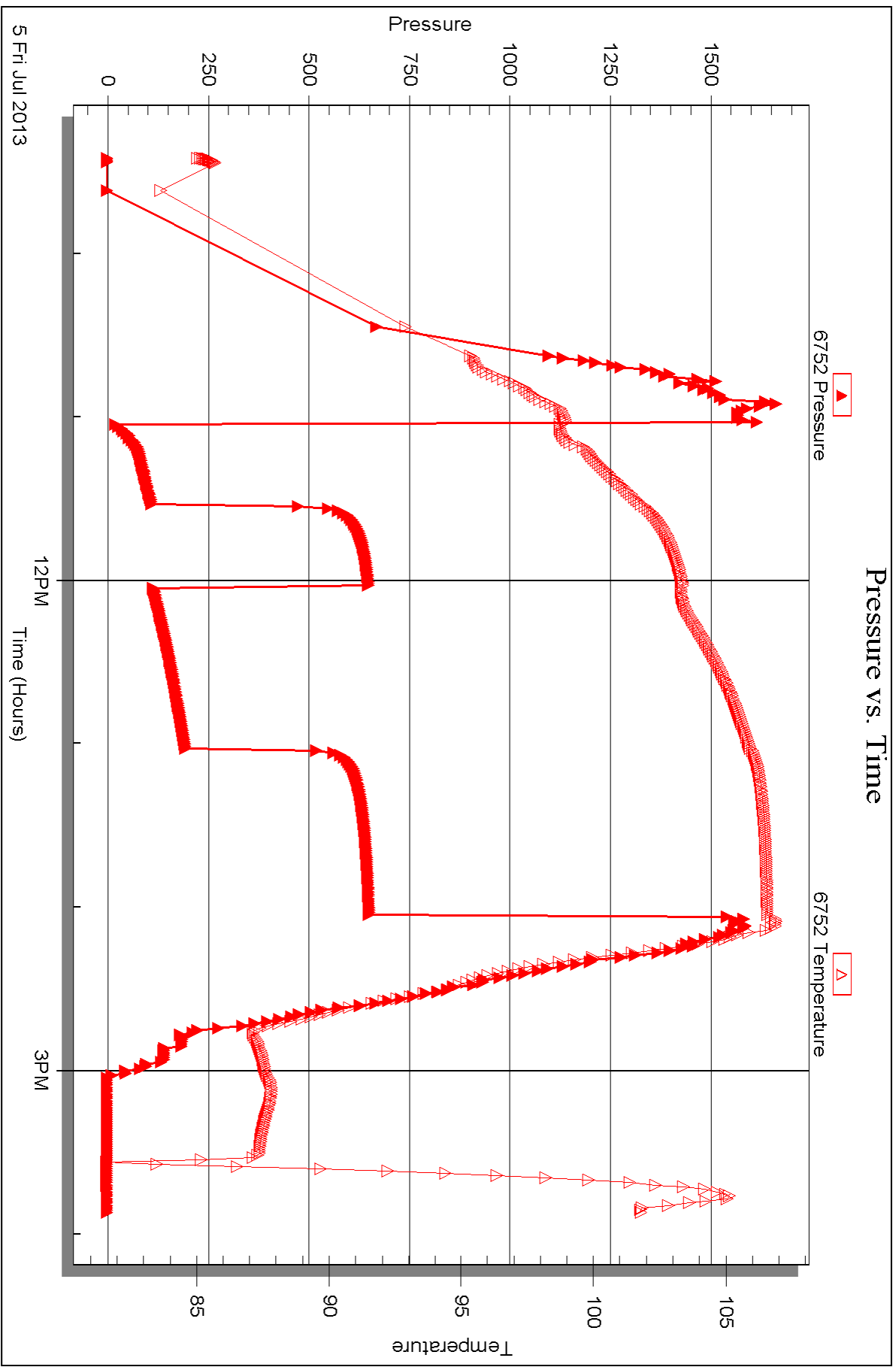
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

#### **21-10s-18w Rooks,KS**

Start Date: 2013.07.05 @ 23:22:00

End Date: 2013.07.06 @ 04:44:00

Job Ticket #: 54303                      DST #: 2

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

Printed: 2013.07.10 @ 11:29:07





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54303

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 23:22:00

## GENERAL INFORMATION:

Formation: **LKC " B "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:16:30

Time Test Ended: 04:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3374.00 ft (KB) To 3400.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322 Outside**

Press @ Run Depth: 13.33 psig @ 3375.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.05

End Date:

2013.07.06

Last Calib.:

2013.07.06

Start Time: 23:22:01

End Time:

04:43:50

Time On Btm:

2013.07.06 @ 01:16:20

Time Off Btm:

2013.07.06 @ 03:17:10

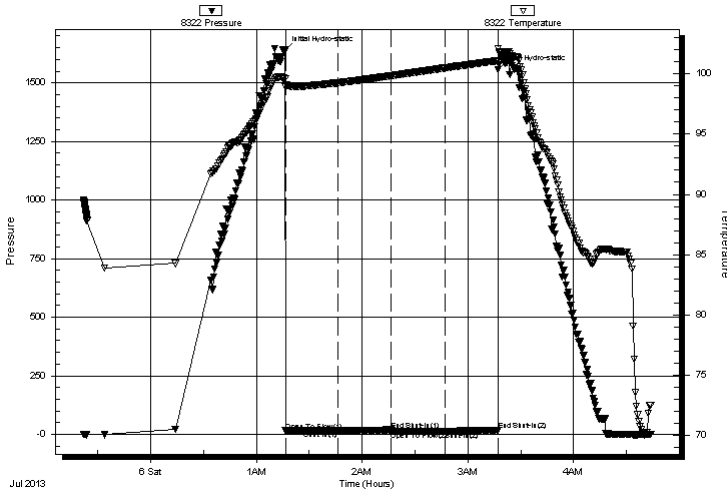
**TEST COMMENT:** 30-IFP- No Blow Good Surge on Open

30-ISIP- No Blow

30-FFP- No Blow

30-FSIP- No Blow

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.34	99.60	Initial Hydro-static
1	15.19	98.87	Open To Flow (1)
30	15.26	99.24	Shut-In(1)
60	19.10	99.82	End Shut-In(1)
61	14.06	99.83	Open To Flow (2)
91	13.33	100.47	Shut-In(2)
121	17.85	101.08	End Shut-In(2)
121	1555.17	102.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100%	0.00

\* Recovery from multiple tests

## Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O Farmer Inc
PO Box 352
Russell, KS 67665
ATTN: Austin Klaus

21-10s-18w Rooks, KS
Peavey #1
Job Ticket: 54303 DST#: 2
Test Start: 2013.07.05 @ 23:22:00

GENERAL INFORMATION:

Formation: LKC " B "
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:16:30
Time Test Ended: 04:44:00
Interval: 3374.00 ft (KB) To 3400.00 ft (KB) (TVD)
Total Depth: 3400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41
Reference Elevations: 2148.00 ft (KB)
2143.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6752 Inside

Press @ Run Depth: psig @ 3375.00 ft (KB)
Start Date: 2013.07.05 End Date: 2013.07.06
Start Time: 23:22:01 End Time: 04:43:30

Capacity: 8000.00 psig
Last Calib.: 2013.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP- No Blow Good Surge on Open
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow

PRESSURE SUMMARY

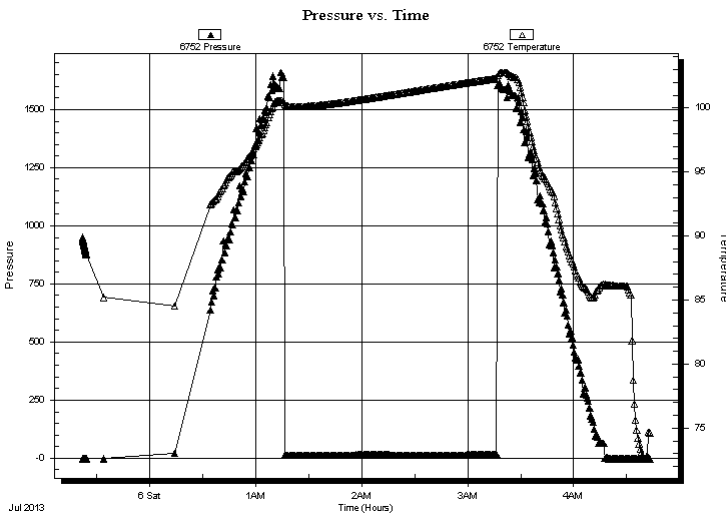


Table with 4 columns: Time (Min.), Pressure (psig), Temp (deg F), Annotation

Recovery

Table with 3 columns: Length (ft), Description, Volume (bbl)

Gas Rates

Table with 4 columns: Choke (inches), Pressure (psig), Gas Rate (Mcf/d)

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54303

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 23:22:00

## Tool Information

Drill Pipe:	Length: 3245.00 ft	Diameter: 3.80 inches	Volume: 45.52 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 43000.00 lb
			<u>Total Volume: 46.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3374.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 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
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3359.00	
Hydraulic tool	5.00			3364.00	
Packer	5.00			3369.00	20.00 Bottom Of Top Packer
Packer	5.00			3374.00	
Stubb	1.00			3375.00	
Recorder	0.00	6752	Inside	3375.00	
Recorder	0.00	8322	Outside	3375.00	
Perforations	22.00			3397.00	
Bullnose	3.00			3400.00	26.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>46.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54303

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2013.07.05 @ 23:22:00

## 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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.49 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud 100%	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

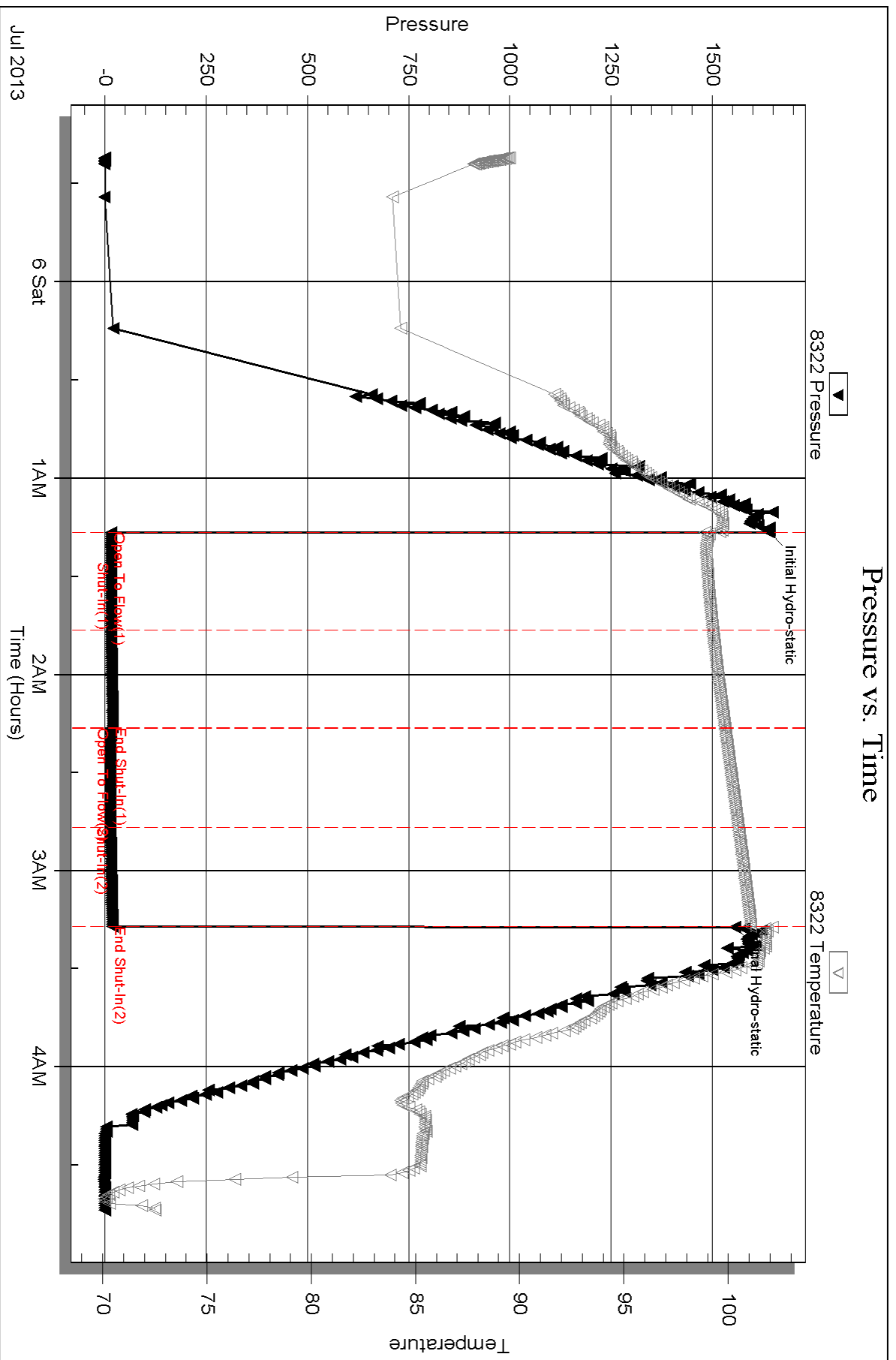
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



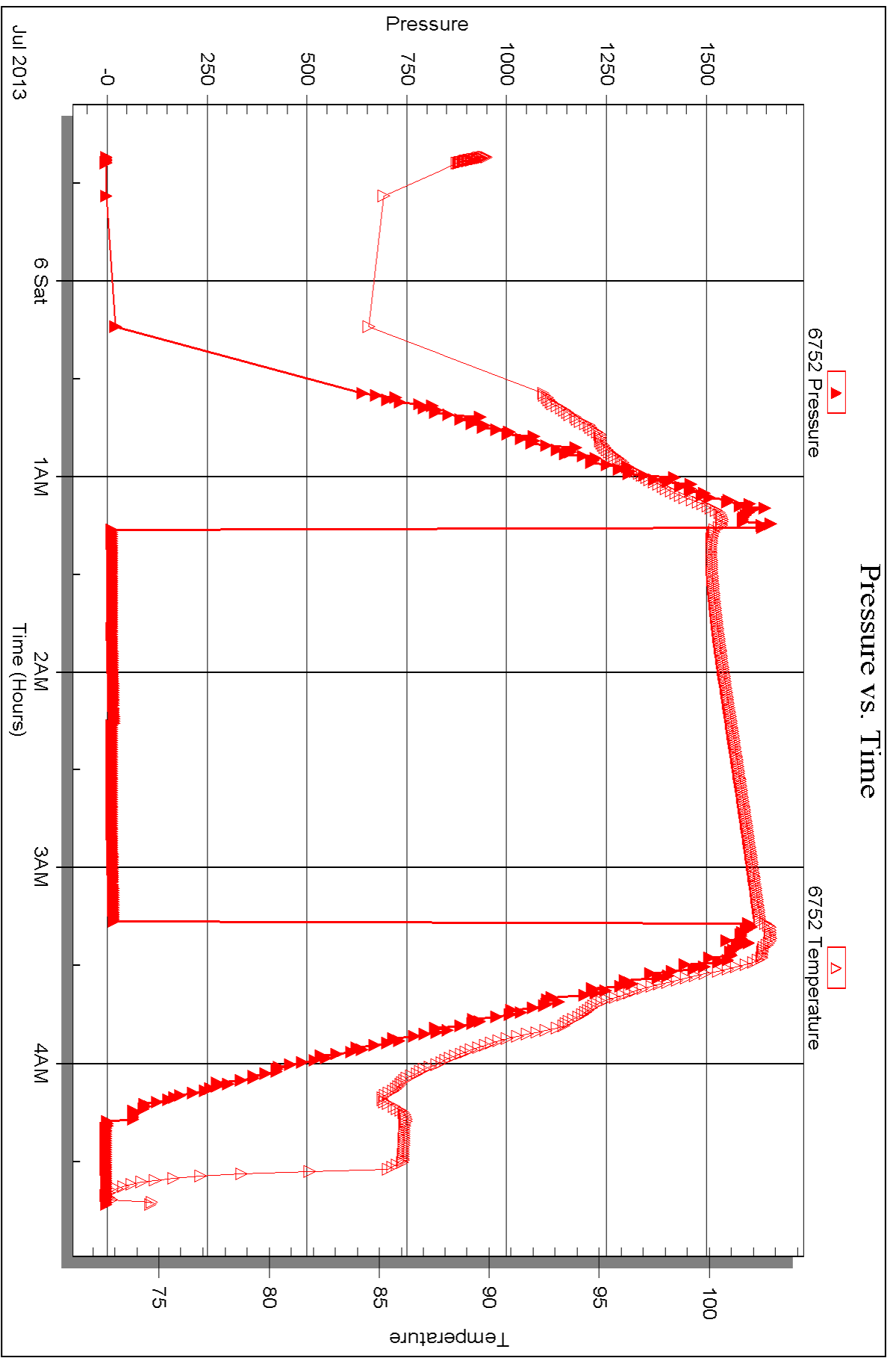
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

### **21-10s-18w Rooks,KS**

Start Date: 2013.07.06 @ 13:19:00

End Date: 2013.07.06 @ 18:58:00

Job Ticket #: 54304                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:28:30



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell, KS 67665  
ATTN: Austin Klaus

**21-10s-18w Rooks,KS**  
**Peavey #1**  
Job Ticket: 54304      **DST#: 3**  
Test Start: 2013.07.06 @ 13:19:00

## GENERAL INFORMATION:

Formation: **LKC " C & D "**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 14:43:40      Tester: Jim Svaty  
Time Test Ended: 18:58:00      Unit No: 41  
**Interval: 3395.00 ft (KB) To 3445.00 ft (KB) (TVD)**      Reference Elevations: 2148.00 ft (KB)  
Total Depth: 3445.00 ft (KB) (TVD)      2143.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 5.00 ft

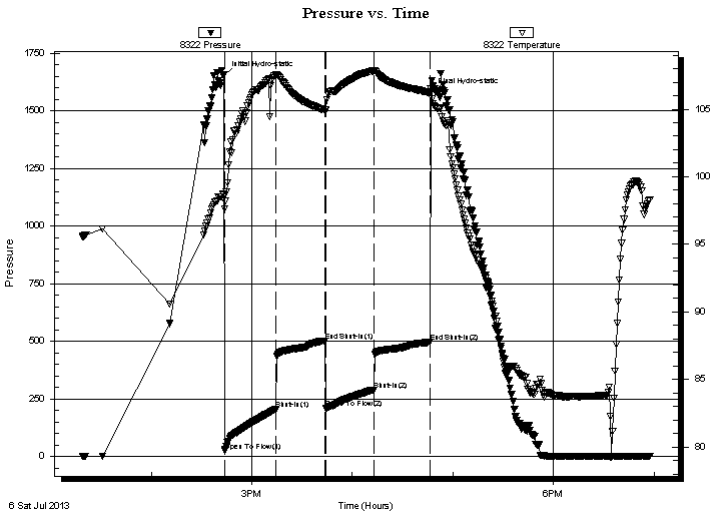
## Serial #: 8322

**Outside**

Press @ Run Depth: 287.26 psig @ 3409.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2013.07.06      End Date: 2013.07.06      Last Calib.: 2013.07.06  
Start Time: 13:19:01      End Time: 18:57:30      Time On Btm: 2013.07.06 @ 14:43:30  
Time Off Btm: 2013.07.06 @ 16:46:40

**TEST COMMENT:** 30-IFP- BOB in 8 min.  
30-ISIP- No Blow  
30-FFP- BOB in 14 min.  
30-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.00	98.60	Initial Hydro-static
1	24.29	97.62	Open To Flow (1)
31	203.47	107.47	Shut-In(1)
60	501.99	104.92	End Shut-In(1)
61	207.58	104.93	Open To Flow (2)
90	287.26	107.83	Shut-In(2)
123	495.43	106.23	End Shut-In(2)
124	1579.17	106.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	OMCW 5%o 15%m 80%w	0.59
372.00	OMCW 3%o 30%m 67%w	5.22
37.00	OMCW 3%o 47%m 50%w	0.52

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54304

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2013.07.06 @ 13:19:00

### GENERAL INFORMATION:

Formation: **LKC " C & D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:43:40

Time Test Ended: 18:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3395.00 ft (KB) To 3445.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3445.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @RunDepth: psig @ 3409.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.06

End Date: 2013.07.06

Last Calib.: 2013.07.06

Start Time: 13:19:01

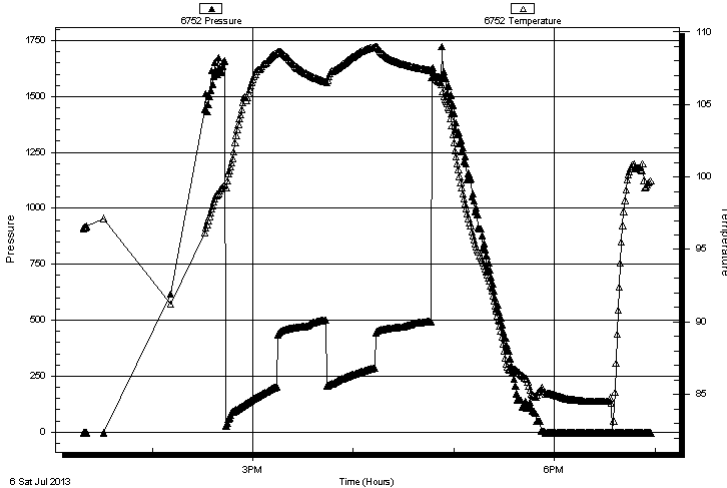
End Time: 18:57:30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IFP- BOB in 8 min.  
30-ISIP- No Blow  
30-FFP- BOB in 14 min.  
30-FSIP- No Blow

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
120.00	OMCW 5%o 15%m 80%w	0.59
372.00	OMCW 3%o 30%m 67%w	5.22
37.00	OMCW 3%o 47%m 50%w	0.52

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54304

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2013.07.06 @ 13:19:00

## Tool Information

Drill Pipe:	Length: 3277.00 ft	Diameter: 3.80 inches	Volume: 45.97 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 45000.00 lb
			<u>Total Volume: 46.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3395.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3380.00	
Hydraulic tool	5.00			3385.00	
Packer	5.00			3390.00	20.00 Bottom Of Top Packer
Packer	5.00			3395.00	
Stubb	1.00			3396.00	
Perforations	13.00			3409.00	
Recorder	0.00	6752	Inside	3409.00	
Recorder	0.00	8322	Outside	3409.00	
Change Over Sub	1.00			3410.00	
Blank Spacing	31.00			3441.00	
Change Over Sub	1.00			3442.00	
Bullnose	3.00			3445.00	50.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54304

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2013.07.06 @ 13:19:00

## 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:

96000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.49 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	OMCW 5%o 15%m 80%w	0.590
372.00	OMCW 3%o 30%m 67%w	5.218
37.00	OMCW 3%o 47%m 50%w	0.519

Total Length: 529.00 ft

Total Volume: 6.327 bbl

Num Fluid Samples: 0

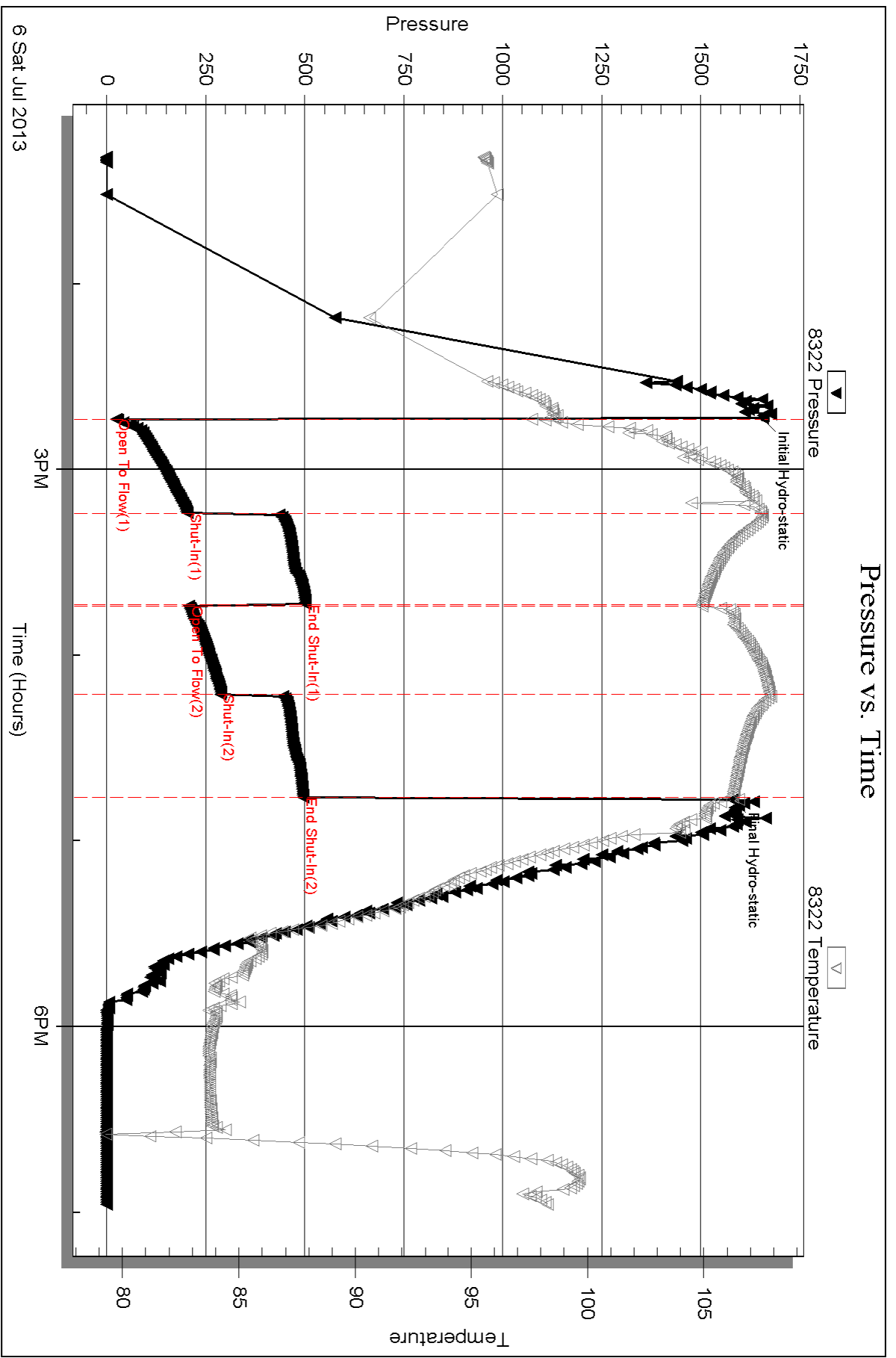
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .059 @ 96



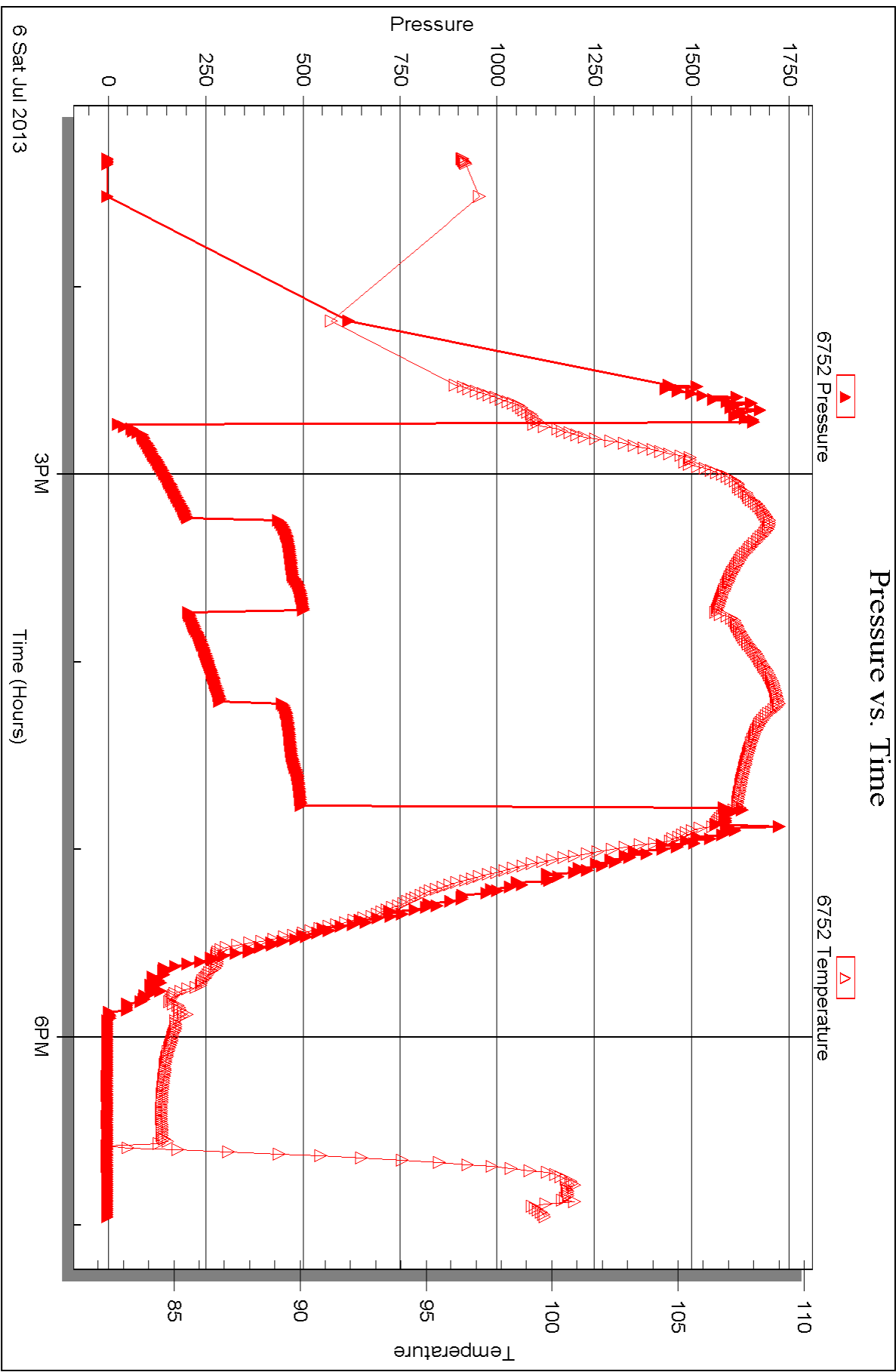
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

### **21-10s-18w Rooks,KS**

Start Date: 2013.07.07 @ 01:14:00

End Date: 2013.07.07 @ 07:01:00

Job Ticket #: 54305                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:27:42



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54305

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 01:14:00

## GENERAL INFORMATION:

Formation: **LKC " E & F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:56:00

Time Test Ended: 07:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3445.00 ft (KB) To 3472.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3472.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322 Outside**

Press @ Run Depth: 403.51 psig @ 3446.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.07

End Date:

2013.07.07

Last Calib.: 2013.07.07

Start Time: 01:14:01

End Time:

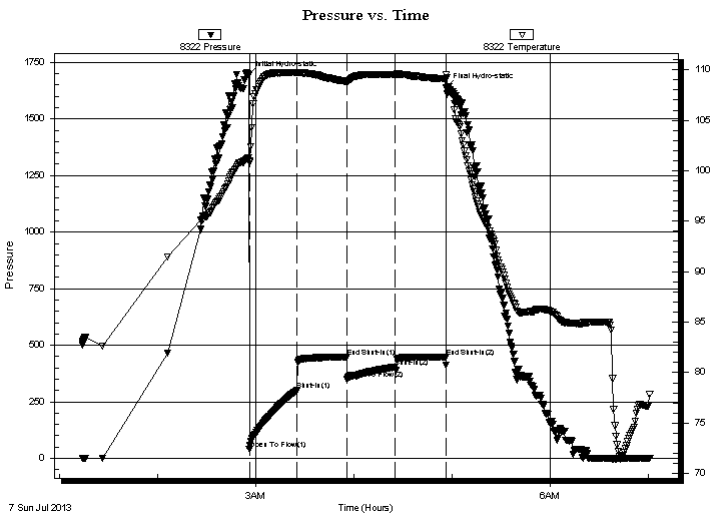
07:01:00

Time On Btm: 2013.07.07 @ 02:55:40

Time Off Btm: 2013.07.07 @ 04:56:30

**TEST COMMENT:** 30-IFP- BOB in 4 min.  
30-ISIP- No Blow  
30-FFP- BOB in 12 min.  
30-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.68	101.28	Initial Hydro-static
1	41.53	100.82	Open To Flow (1)
30	299.31	109.70	Shut-In(1)
60	447.51	108.87	End Shut-In(1)
60	348.28	108.83	Open To Flow (2)
90	403.51	109.56	Shut-In(2)
121	448.63	109.08	End Shut-In(2)
121	1638.83	109.47	Final Hydro-static

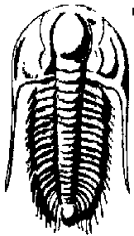
## Recovery

Length (ft)	Description	Volume (bbl)
554.00	OMCW 2%o 3% m 95% w	6.68
231.00	OMCW 2%o 20% m 78% w	3.24
1.00	MWCO 5% m 10% w 85% o	0.01

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks, KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

ATTN: Austin Klaus

Job Ticket: 54305

**DST#: 4**

Test Start: 2013.07.07 @ 01:14:00

### GENERAL INFORMATION:

Formation: **LKC " E & F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:56:00

Time Test Ended: 07:01:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3445.00 ft (KB) To 3472.00 ft (KB) (TVD)**

Total Depth: 3472.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2148.00 ft (KB)

2143.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6752** Inside

Press @ Run Depth: psig @ 3446.00 ft (KB)

Start Date: 2013.07.07 End Date: 2013.07.07

Start Time: 01:14:01 End Time: 07:01:00

Capacity: 8000.00 psig

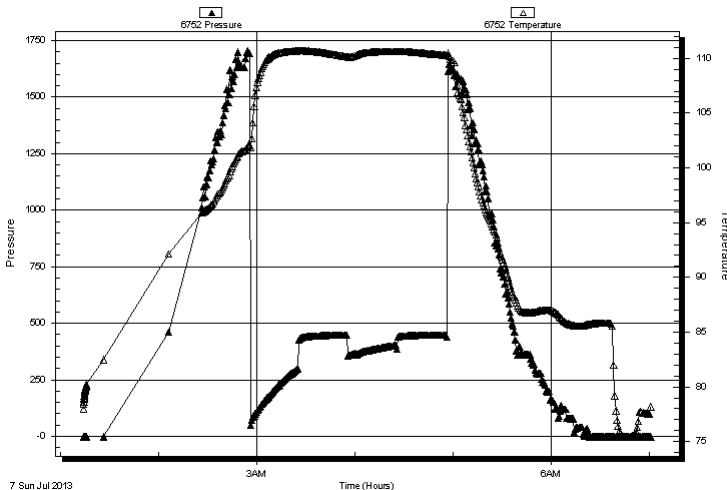
Last Calib.: 2013.07.07

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IFP- BOB in 4 min.  
30-ISIP- No Blow  
30-FFP- BOB in 12 min.  
30-FSIP- No Blow

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
554.00	OMCW 2%o 3% m 95% w	6.68
231.00	OMCW 2%o 20% m 78% w	3.24
1.00	MVCO 5% m 10% w 85% o	0.01

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54305

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 01:14:00

### Tool Information

Drill Pipe:	Length: 3308.00 ft	Diameter: 3.80 inches	Volume: 46.40 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 47000.00 lb
			<u>Total Volume: 46.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3445.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 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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Shut In Tool	5.00			3430.00	
Hydraulic tool	5.00			3435.00	
Packer	5.00			3440.00	20.00 Bottom Of Top Packer
Packer	5.00			3445.00	
Stubb	1.00			3446.00	
Recorder	0.00	6752	Inside	3446.00	
Recorder	0.00	8322	Outside	3446.00	
Perforations	23.00			3469.00	
Bullnose	3.00			3472.00	27.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>47.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54305

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 01:14:00

## 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: 124000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.51 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
554.00	OMCW 2%o 3%m 95%w	6.678
231.00	OMCW 2%o 20%m 78%w	3.240
1.00	MWCO 5%m 10%w 85%o	0.014

Total Length: 786.00 ft      Total Volume: 9.932 bbl

Num Fluid Samples: 0

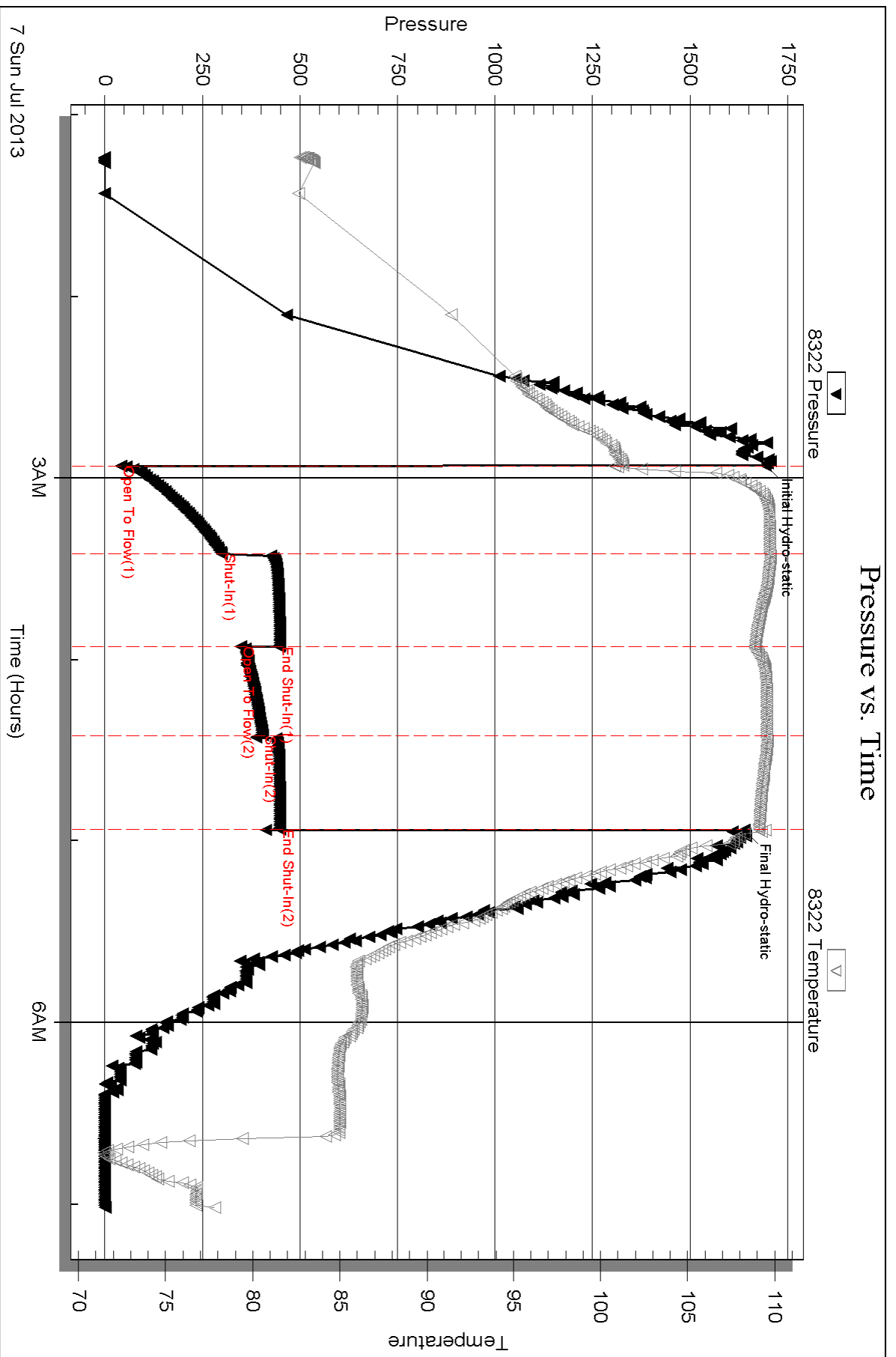
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .065 @ 75



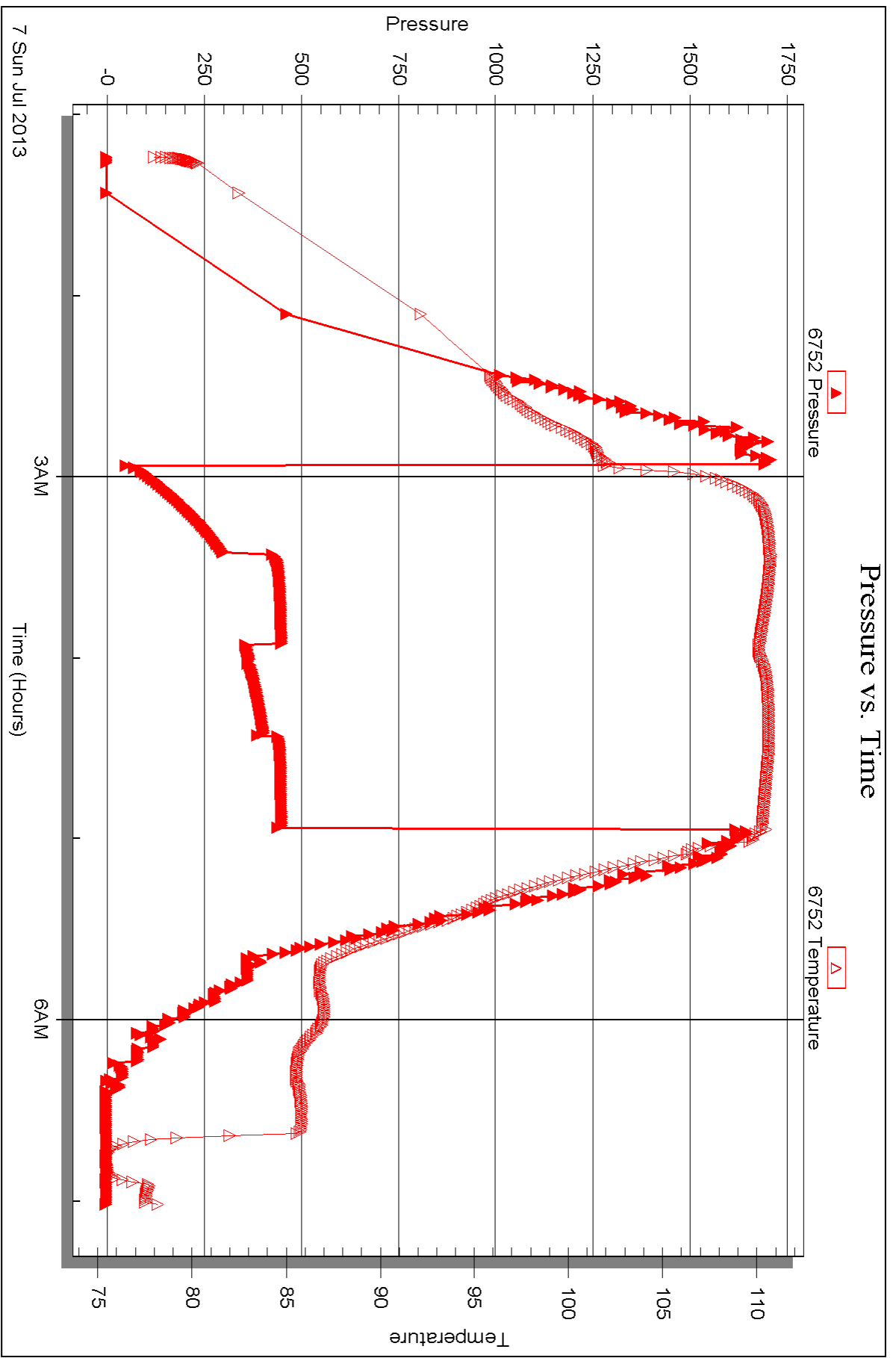
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

### **21-10s-18w Rooks,KS**

Start Date: 2013.07.07 @ 16:31:00

End Date: 2013.07.07 @ 22:22:00

Job Ticket #: 54306                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:26:53



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54306

**DST#: 5**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 16:31:00

## GENERAL INFORMATION:

Formation: **LKC " I & J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:21:30

Time Test Ended: 22:22:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3516.00 ft (KB) To 3568.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3568.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322 Outside**

Press @ RunDepth: 23.87 psig @ 3531.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.07

End Date: 2013.07.07

Last Calib.: 2013.07.07

Start Time: 16:31:01

End Time: 22:21:40

Time On Btm: 2013.07.07 @ 18:21:20

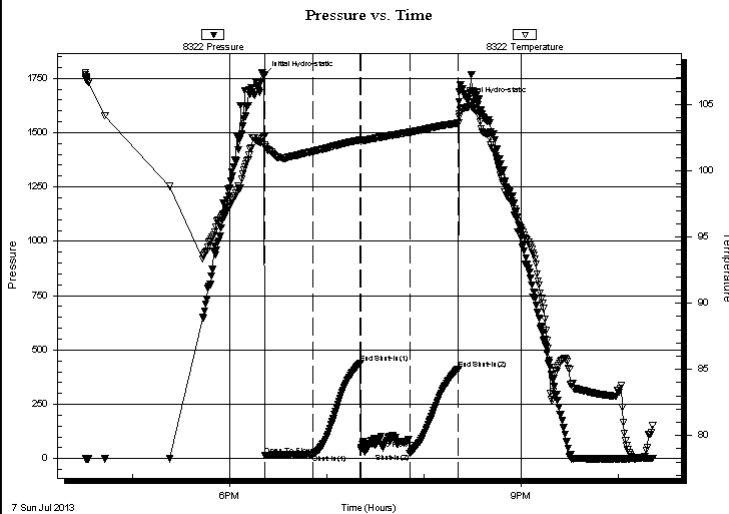
Time Off Btm: 2013.07.07 @ 20:21:40

**TEST COMMENT:** 30-IFP- Good Surge on Open Surface Blow Died in 10 min.

30-ISIP- No Blow

30-FFP- Surge No Blow

30-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.72	102.57	Initial Hydro-static
1	14.90	101.92	Open To Flow (1)
30	20.00	101.46	Shut-In(1)
60	439.06	102.33	End Shut-In(1)
60	43.55	102.22	Open To Flow (2)
90	23.87	102.89	Shut-In(2)
120	412.33	103.60	End Shut-In(2)
121	1644.15	104.06	Final Hydro-static

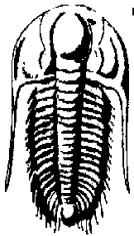
## Recovery

Length (ft)	Description	Volume (bbl)
3.00	OCM 2%o 98%m	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks, KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

ATTN: Austin Klaus

Job Ticket: 54306

**DST#: 5**

Test Start: 2013.07.07 @ 16:31:00

### GENERAL INFORMATION:

Formation: **LKC " I & J "**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 18:21:30 Tester: Jim Svaty  
Time Test Ended: 22:22:00 Unit No: 41  
Interval: **3516.00 ft (KB) To 3568.00 ft (KB) (TVD)** Reference Elevations: 2148.00 ft (KB)  
Total Depth: 3568.00 ft (KB) (TVD) 2143.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

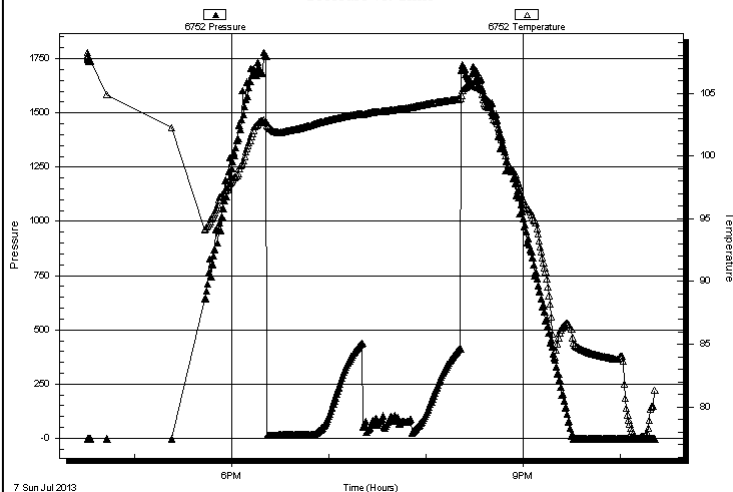
**Serial #: 6752**

**Inside**

Press@RunDepth: psig @ 3531.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2013.07.07 End Date: 2013.07.07 Last Calib.: 2013.07.07  
Start Time: 16:31:01 End Time: 22:21:40 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IFP- Good Surge on Open Surface Blow Died in 10 min.  
30-ISIP- No Blow  
30-FFP- Surge No Blow  
30-FSIP- No Blow

Pressure vs. Time



### PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
3.00	OCM 2%o 98% m	0.01

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54306

**DST#: 5**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 16:31:00

## Tool Information

Drill Pipe:	Length: 3403.00 ft	Diameter: 3.80 inches	Volume: 47.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 44000.00 lb
			<u>Total Volume: 48.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3516.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 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
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Shut In Tool	5.00			3501.00	
Hydraulic tool	5.00			3506.00	
Packer	5.00			3511.00	20.00 Bottom Of Top Packer
Packer	5.00			3516.00	
Stubb	1.00			3517.00	
Perforations	14.00			3531.00	
Recorder	0.00	6752	Inside	3531.00	
Recorder	0.00	8322	Outside	3531.00	
Change Over Sub	1.00			3532.00	
Blank Spacing	32.00			3564.00	
Change Over Sub	1.00			3565.00	
Bullnose	3.00			3568.00	52.00 Bottom Packers & Anchor

**Total Tool Length: 72.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54306

**DST#: 5**

ATTN: Austin Klaus

Test Start: 2013.07.07 @ 16:31:00

## 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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	OCM 2%o 98%m	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0

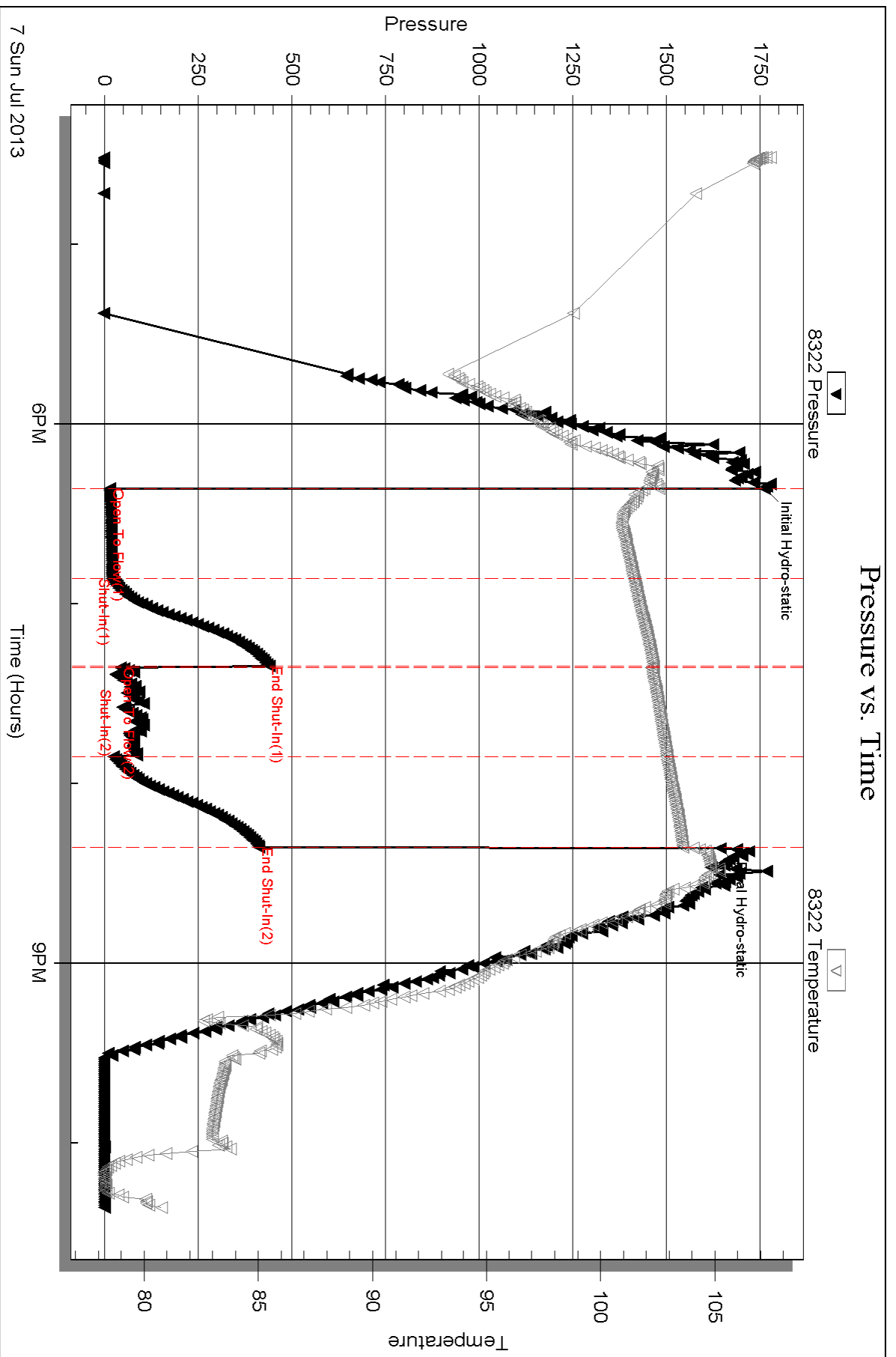
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



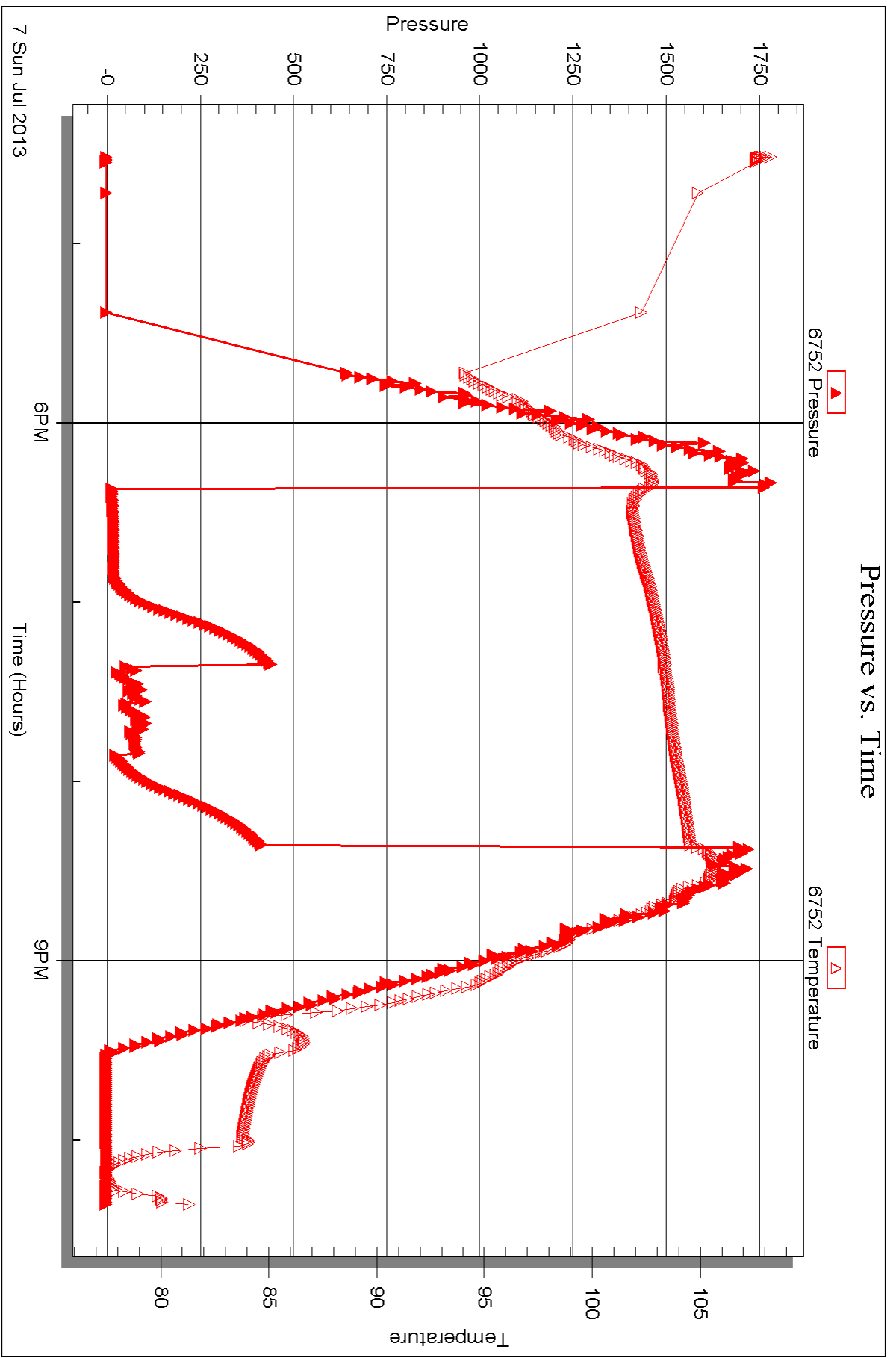
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 54306

Printed: 2013.07.10 @ 11:26:56



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

### **21-10s-18w Rooks,KS**

Start Date: 2013.07.08 @ 08:41:00

End Date: 2013.07.08 @ 11:30:00

Job Ticket #: 54307                      DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:26:15



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell, KS 67665  
ATTN: Austin Klaus

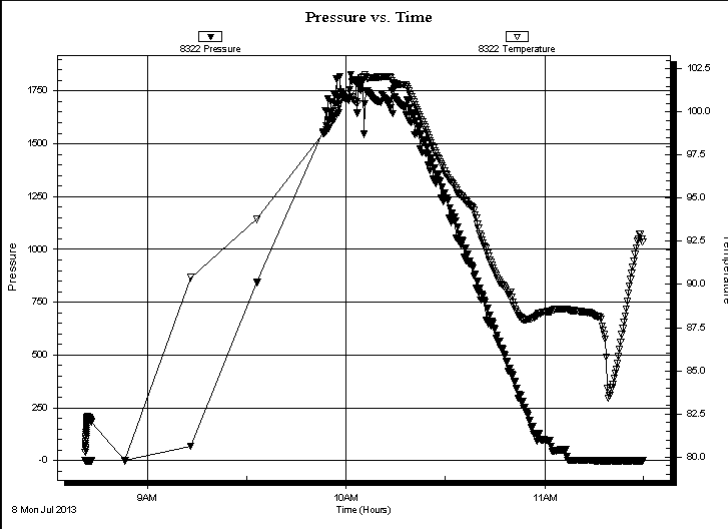
**21-10s-18w Rooks, KS**  
**Peavey #1**  
Job Ticket: 54307 **DST#: 6**  
Test Start: 2013.07.08 @ 08:41:00

### GENERAL INFORMATION:

Formation: **LKC "K & L"**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 10:04:00 Tester: Jim Svaty  
 Time Test Ended: 11:30:00 Unit No: 41  
**Interval: 3558.00 ft (KB) To 3618.00 ft (KB) (TVD)** Reference Elevations: 2148.00 ft (KB)  
 Total Depth: 3618.00 ft (KB) (TVD) 2143.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 8322** Outside  
 Press @ RunDepth: psig @ 3581.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.07.08 End Date: 2013.07.08 Last Calib.: 2013.07.08  
 Start Time: 08:41:01 End Time: 11:29:50 Time On Btm:  
 Time Off Btm:

TEST COMMENT: Mis-Run Packer Failed

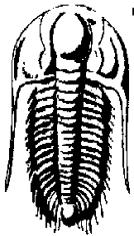


PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)

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

\* Recovery from multiple tests



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks, KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54307

**DST#: 6**

ATTN: Austin Klaus

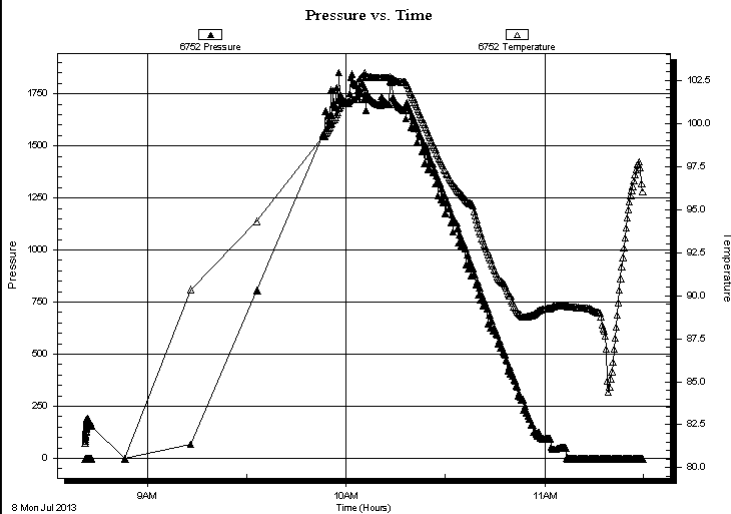
Test Start: 2013.07.08 @ 08:41:00

### GENERAL INFORMATION:

Formation: <b>LKC " K &amp; L "</b>		
Deviated: No Whipstock: ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 10:04:00	Tester: Jim Svaty	
Time Test Ended: 11:30:00	Unit No: 41	
<b>Interval: 3558.00 ft (KB) To 3618.00 ft (KB) (TVD)</b>	Reference Elevations: 2148.00 ft (KB)	
Total Depth: 3618.00 ft (KB) (TVD)	2143.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft

<b>Serial #: 6752</b>	<b>Inside</b>			
Press@RunDepth: psig @ 3581.00 ft (KB)	Capacity: 8000.00 psig			
Start Date: 2013.07.08	End Date: 2013.07.08	Last Calib.: 2013.07.08		
Start Time: 08:41:01	End Time: 11:29:40	Time On Btm:		
		Time Off Btm:		

TEST COMMENT: Mis-Run Packer Failed



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)

\* 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

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54307

**DST#: 6**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 08:41:00

## Tool Information

Drill Pipe:	Length: 3430.00 ft	Diameter: 3.80 inches	Volume: 48.11 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 41000.00 lb
			<u>Total Volume: 48.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3558.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	80.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3543.00	
Hydraulic tool	5.00			3548.00	
Packer	5.00			3553.00	20.00 Bottom Of Top Packer
Packer	5.00			3558.00	
Stubb	1.00			3559.00	
Perforations	22.00			3581.00	
Recorder	0.00	6752	Inside	3581.00	
Recorder	0.00	8322	Outside	3581.00	
Change Over Sub	1.00			3582.00	
Blank Spacing	32.00			3614.00	
Change Over Sub	1.00			3615.00	
Bullnose	3.00			3618.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54307

**DST#: 6**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 08:41:00

**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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl

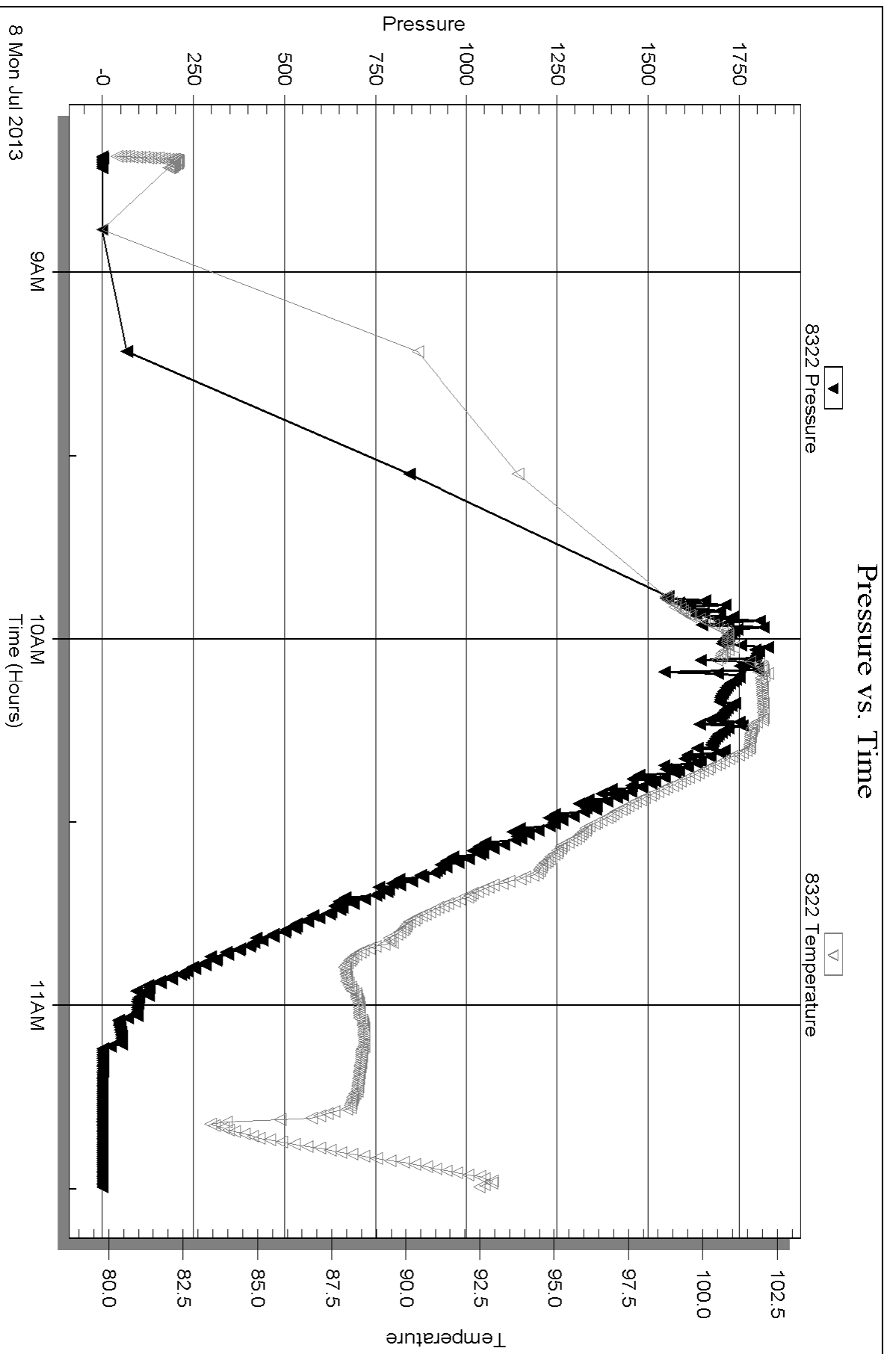
Total Length:                      ft      Total Volume:                      bbl

Num Fluid Samples: 0                      Num Gas Bombs:      0                      Serial #:

Laboratory Name:                      Laboratory Location:

Recovery Comments:





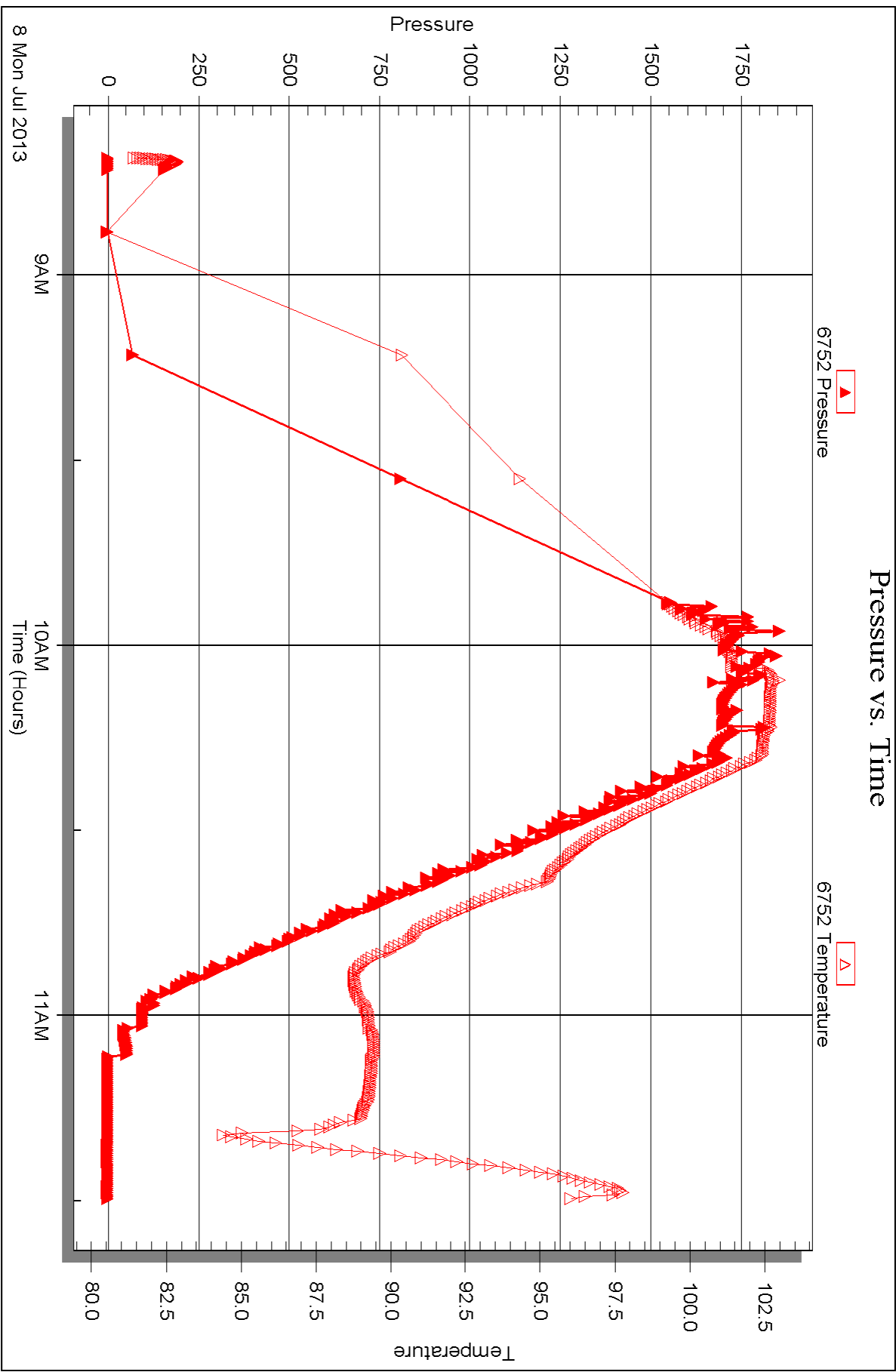
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 6





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

### **21-10s-18w Rooks,KS**

Start Date: 2013.07.08 @ 11:49:00

End Date: 2013.07.08 @ 16:47:00

Job Ticket #: 54308                      DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.10 @ 11:25:29



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54308

**DST#: 7**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 11:49:00

## GENERAL INFORMATION:

Formation: **LKC " K & L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:01:00

Time Test Ended: 16:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3550.00 ft (KB) To 3618.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3618.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 83.11 psig @ 3581.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.08

End Date:

2013.07.08

Last Calib.: 2013.07.08

Start Time: 11:49:01

End Time:

16:46:30

Time On Btm: 2013.07.08 @ 12:51:00

Time Off Btm: 2013.07.08 @ 15:00:20

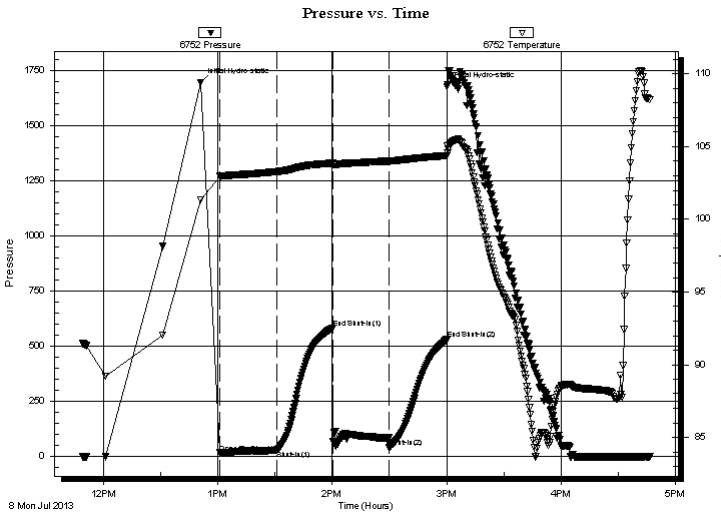
**TEST COMMENT:** 30-IFP- Surface Blow

30-ISIP- No Blow

30-FFP- No Blow

30-FSIP- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1696.49	101.35	Initial Hydro-static
10	15.31	102.95	Open To Flow (1)
40	26.72	103.28	Shut-In(1)
70	581.08	103.87	End Shut-In(1)
70	68.08	103.74	Open To Flow (2)
99	83.11	104.02	Shut-In(2)
130	530.23	104.38	End Shut-In(2)
130	1679.99	105.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCO 40% m 60% o	0.05
5.00	CO 100%	0.02

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell, KS 67665  
ATTN: Austin Klaus

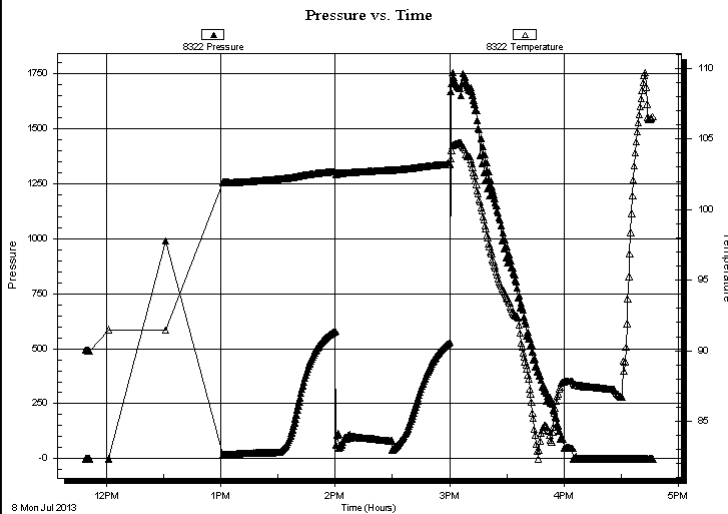
**21-10s-18w Rooks,KS**  
**Peavey #1**  
Job Ticket: 54308      **DST#: 7**  
Test Start: 2013.07.08 @ 11:49:00

## GENERAL INFORMATION:

Formation: **LKC "K & L"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:01:00  
Time Test Ended: 16:47:00  
**Interval: 3550.00 ft (KB) To 3618.00 ft (KB) (TVD)**  
Total Depth: 3618.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Jim Svaty  
Unit No: 41  
Reference Elevations: 2148.00 ft (KB)  
2143.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8322**      **Outside**  
Press @ Run Depth:      psig @      3581.00 ft (KB)      Capacity:      8000.00 psig  
Start Date:      2013.07.08      End Date:      2013.07.08      Last Calib.:      2013.07.08  
Start Time:      11:49:01      End Time:      16:46:40      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IFP- Surface Blow  
30-ISIP- No Blow  
30-FFP- No Blow  
30-FSIP- No Blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCO 40% m 60% o	0.05
5.00	CO 100%	0.02

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54308

**DST#: 7**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 11:49:00

## Tool Information

Drill Pipe:	Length: 3434.00 ft	Diameter: 3.80 inches	Volume: 48.17 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 42000.00 lb
			<u>Total Volume: 48.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3550.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3535.00	
Hydraulic tool	5.00			3540.00	
Packer	5.00			3545.00	20.00 Bottom Of Top Packer
Packer	5.00			3550.00	
Stubb	1.00			3551.00	
Perforations	30.00			3581.00	
Recorder	0.00	6752	Inside	3581.00	
Recorder	0.00	8322	Outside	3581.00	
Change Over Sub	1.00			3582.00	
Blank Spacing	32.00			3614.00	
Change Over Sub	1.00			3615.00	
Bullnose	3.00			3618.00	68.00 Bottom Packers & Anchor

**Total Tool Length: 88.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54308

**DST#: 7**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 11:49:00

## 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:

ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.50 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
10.00	MCO 40% <sub>m</sub> 60% <sub>o</sub>	0.049
5.00	CO 100%	0.025

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

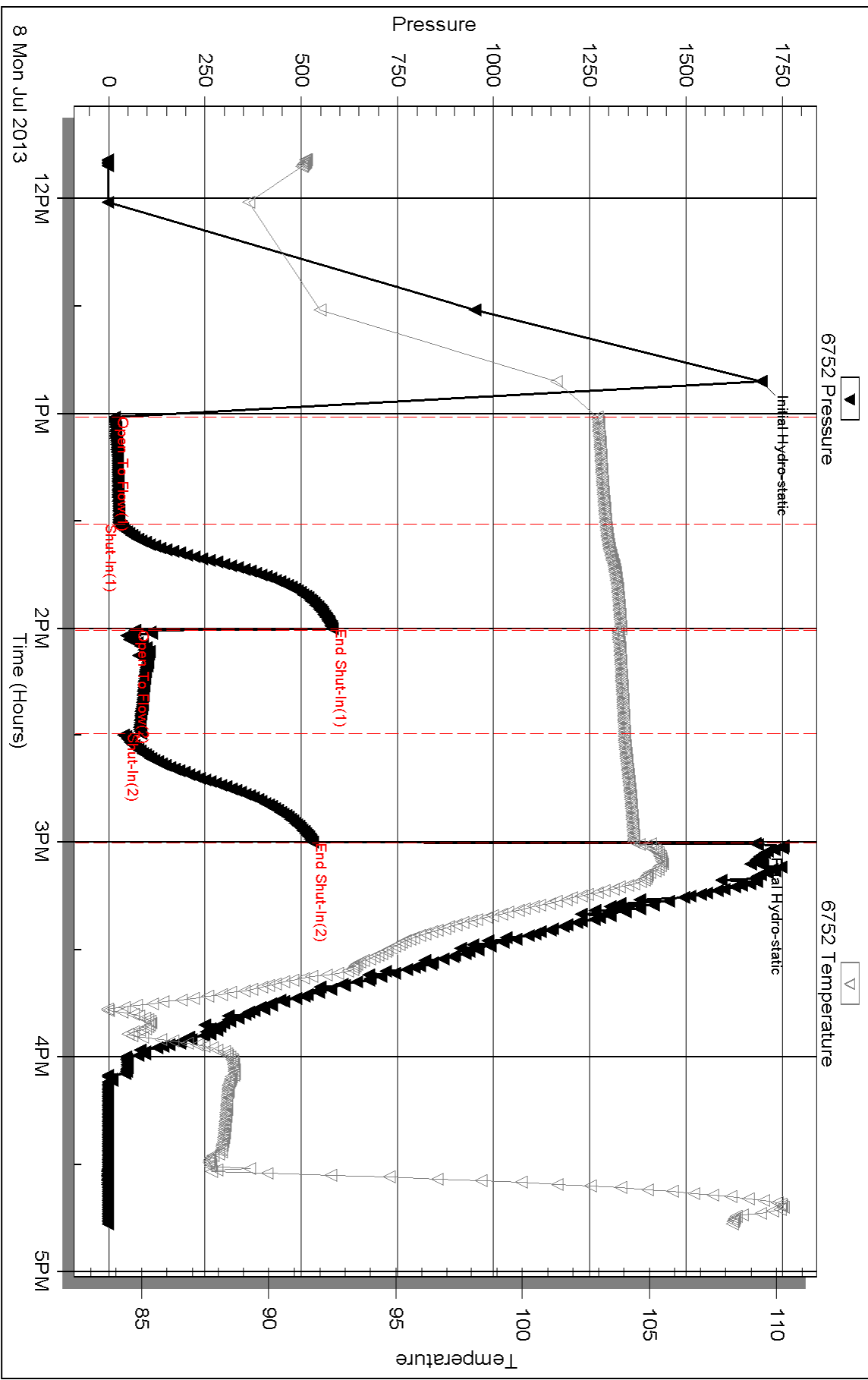
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



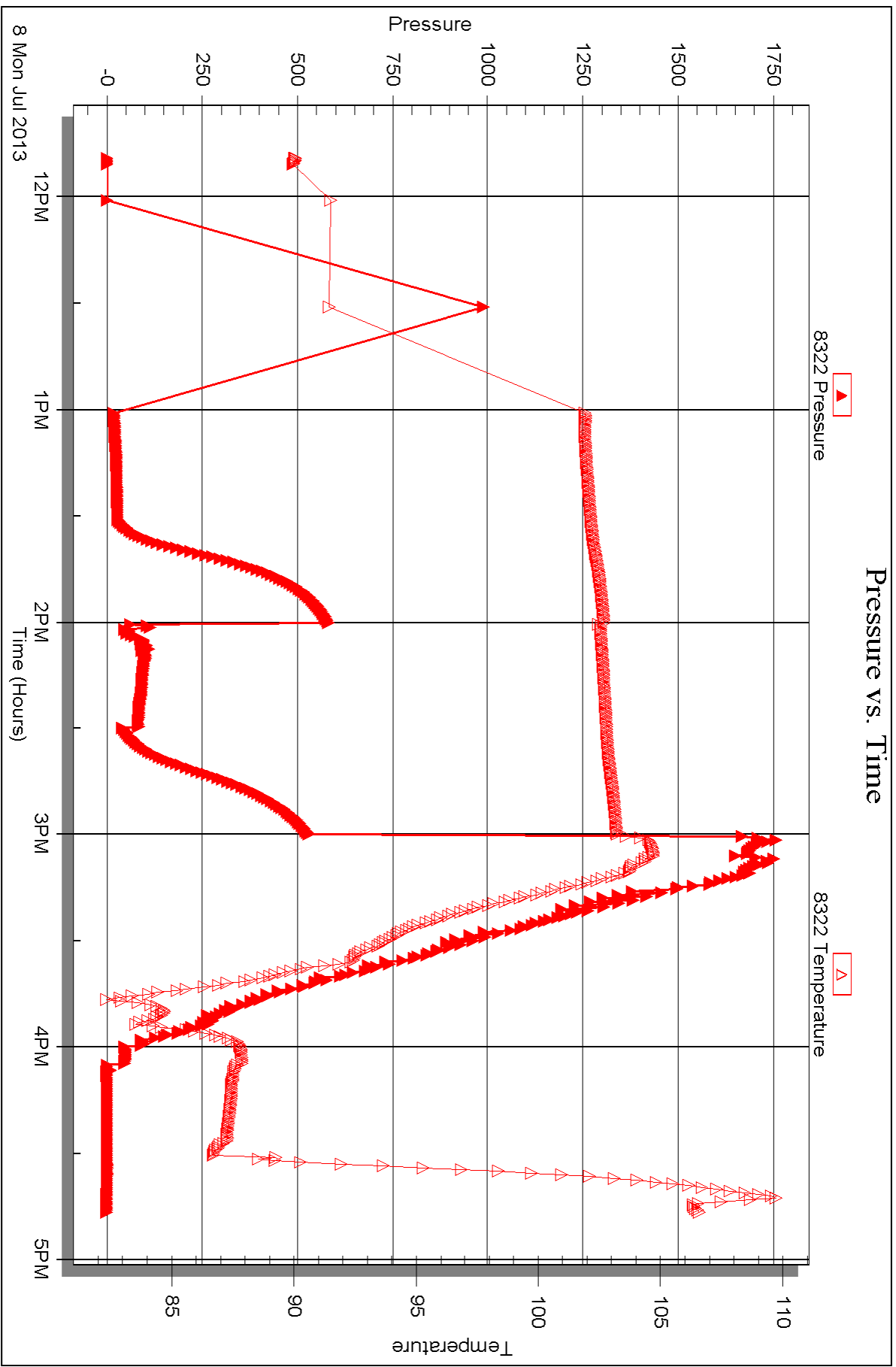


Serial #: 8322

Outside John O Farmer Inc

Peavey #1

DST Test Number: 7





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell, KS 67665

ATTN: Austin Klaus

### **Peavey #1**

#### **21-10s-18w Rooks,KS**

Start Date: 2013.07.08 @ 23:26:00

End Date: 2013.07.09 @ 06:28:00

Job Ticket #: 54309                      DST #: 8

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

Printed: 2013.07.10 @ 11:24:45



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54309

**DST#: 8**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 23:26:00

## GENERAL INFORMATION:

Formation: **Cong Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:22:40

Time Test Ended: 06:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

**Interval: 3600.00 ft (KB) To 3660.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3660.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 1042.34 psig @ 3624.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.08

End Date:

2013.07.09

Last Calib.: 2013.07.09

Start Time: 23:26:01

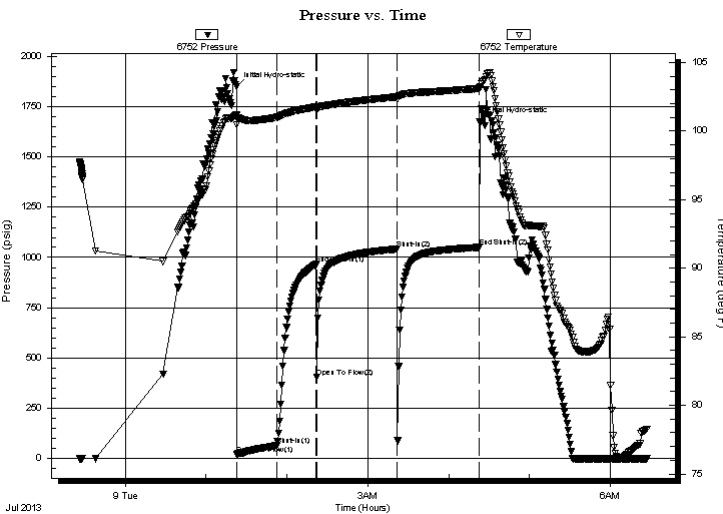
End Time:

06:27:30

Time On Btm: 2013.07.09 @ 01:22:30

Time Off Btm: 2013.07.09 @ 04:23:10

**TEST COMMENT:** 30-IFP- Very Weak Surface Blow  
30-ISIP- No Blow  
60-FFP- Surging Surface Blow Died in 10 min.  
60-FSIP- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1851.41	101.17	Initial Hydro-static
1	18.09	100.45	Open To Flow (1)
30	62.98	101.00	Shut-In(1)
60	965.63	101.77	End Shut-In(1)
60	402.95	101.47	Open To Flow (2)
120	1042.34	102.50	Shut-In(2)
181	1050.59	103.10	End Shut-In(2)
181	1674.42	103.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	WOCM 5%w 10%o 85%m	0.39

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54309

**DST#: 8**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 23:26:00

**GENERAL INFORMATION:**

Formation: **Cong Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:22:40

Time Test Ended: 06:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 41

Interval: **3600.00 ft (KB) To 3660.00 ft (KB) (TVD)**

Reference Elevations: 2148.00 ft (KB)

Total Depth: 3660.00 ft (KB) (TVD)

2143.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8322 Outside**

Press @ Run Depth: psig @ 3624.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.08

End Date:

2013.07.09

Last Calib.:

2013.07.09

Start Time: 23:26:01

End Time:

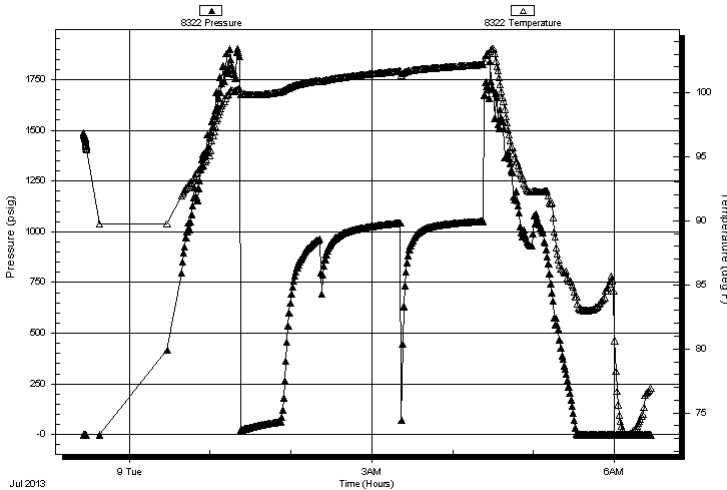
06:27:40

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IFP- Very Weak Surface Blow  
30-ISIP- No Blow  
60-FFP- Surging Surface Blow Died in 10 min.  
60-FSIP- No Blow

Pressure vs. Time



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
80.00	WOCM 5%w 10%o 85%m	0.39

\* 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

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54309

**DST#: 8**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 23:26:00

## Tool Information

Drill Pipe:	Length: 3467.00 ft	Diameter: 3.80 inches	Volume: 48.63 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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:	43000.00 lb
			<u>Total Volume: 49.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3600.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	80.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3585.00	
Hydraulic tool	5.00			3590.00	
Packer	5.00			3595.00	20.00 Bottom Of Top Packer
Packer	5.00			3600.00	
Stubb	1.00			3601.00	
Perforations	23.00			3624.00	
Recorder	0.00	6752	Inside	3624.00	
Recorder	0.00	8322	Outside	3624.00	
Change Over Sub	1.00			3625.00	
Blank Spacing	31.00			3656.00	
Change Over Sub	1.00			3657.00	
Bullnose	3.00			3660.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 80.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

John O Farmer Inc

**21-10s-18w Rooks,KS**

PO Box 352  
Russell, KS 67665

**Peavey #1**

Job Ticket: 54309

**DST#: 8**

ATTN: Austin Klaus

Test Start: 2013.07.08 @ 23:26:00

**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: 42.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.16 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.50 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
80.00	WOCM 5%w 10%o 85%m	0.393

Total Length: 80.00 ft      Total Volume: 0.393 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

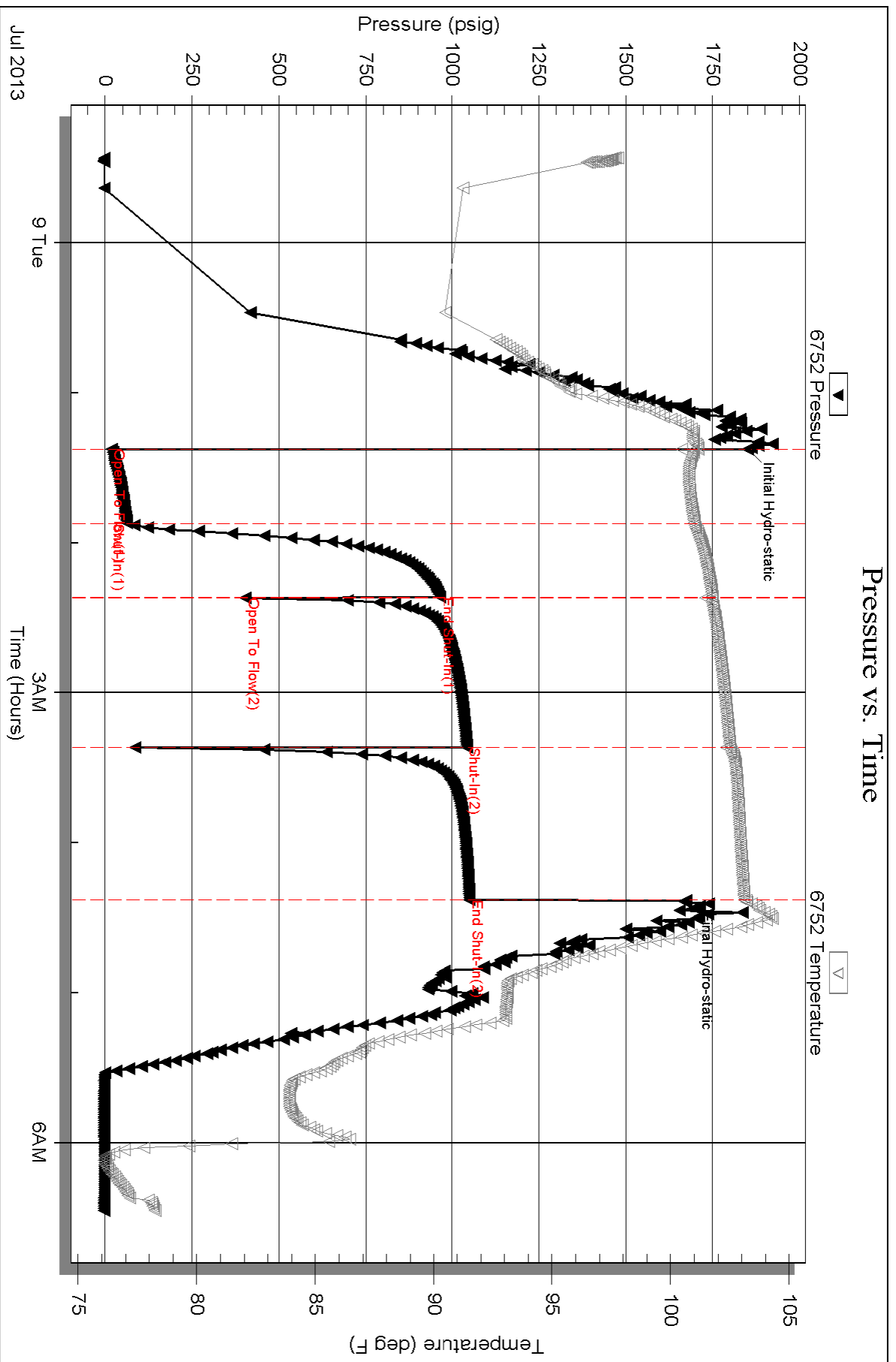
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

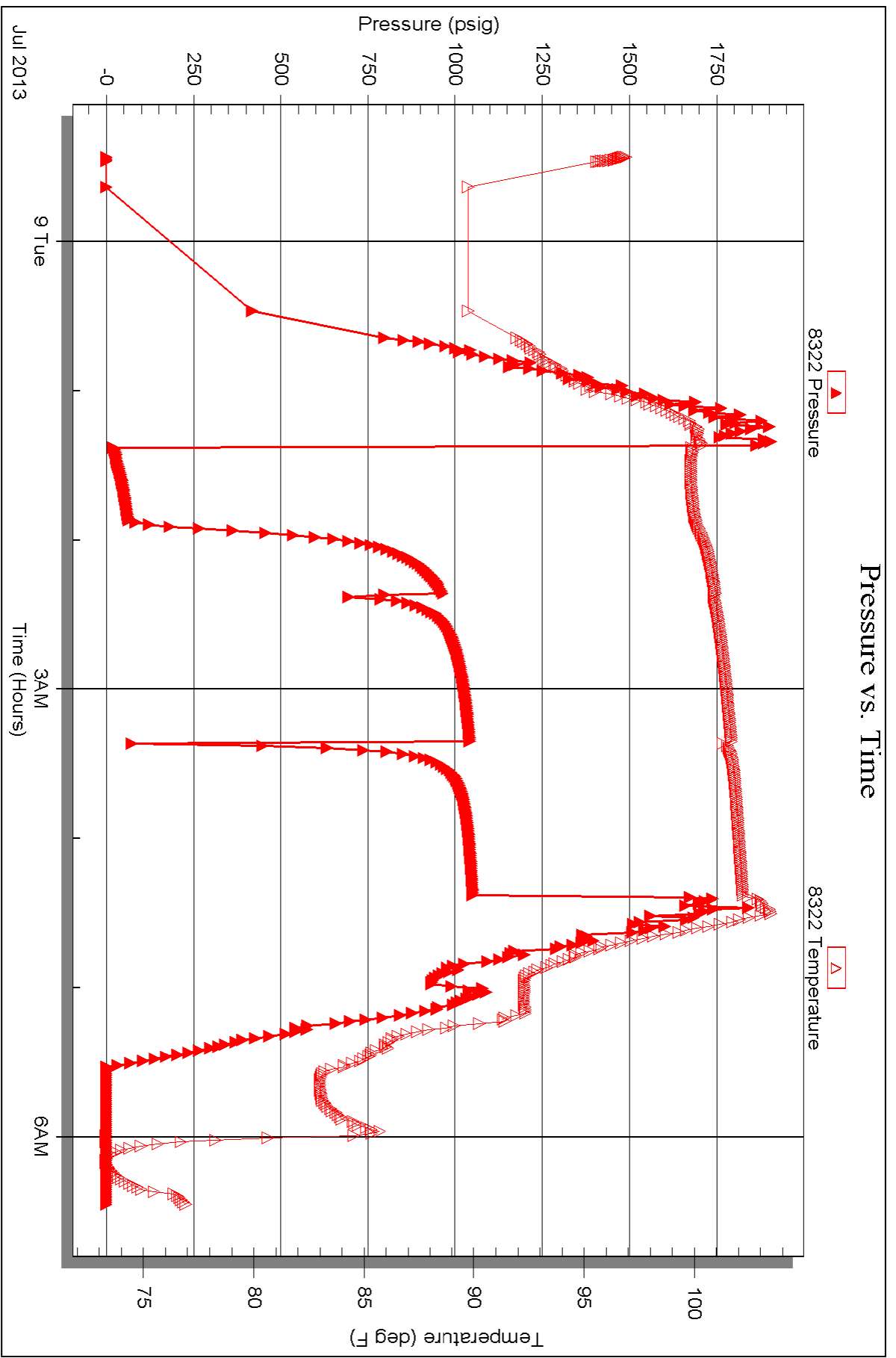


Serial #: 8322

Outside John O Farmer Inc

Peavey #1

DST Test Number: 8







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54302

Well Name & No. Peavey #1 Test No. 1 Date 7-5-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell KS 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10 S Rge. 18 W Co. Rooks State KS

Interval Tested 3326-3368 Zone Tested Toronto  
 Anchor Length 42 Drill Pipe Run 3212 Mud Wt. 8.5  
 Top Packer Depth 3321 Drill Collars Run 120 Vis 84  
 Bottom Packer Depth 3326 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3368 Chlorides 1000 ppm System LCM 2 1/2

Blow Description IFP- BOB in 22min  
ISIP- No Blow  
FFP- BOB in 36min  
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>360</u>	<u>MCW</u>		<u>85</u>	<u>15</u>	
<u>8</u>	<u>CO</u>	<u>100</u>			

Rec Total 368 BHT 106 Gravity 30 API RW .050 @ 94 °F Chlorides 125000 ppm  
 (A) Initial Hydrostatic 1631  Test 1150 T-On Location 08:25  
 (B) First Initial Flow 22  Jars \_\_\_\_\_ T-Started 09:25  
 (C) First Final Flow 112  Safety Joint \_\_\_\_\_ T-Open 11:03  
 (D) Initial Shut-In 649  Circ Sub \_\_\_\_\_ T-Pulled 14:03  
 (E) Second Initial Flow 117  Hourly Standby \_\_\_\_\_ T-Out 15:52  
 (F) Second Final Flow 193  Mileage 50 RT 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 649  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1554  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1227.50  
 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 60  
 Final Shut-In 60

Approved By \_\_\_\_\_ Our Representative [Signature]

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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54303

Well Name & No. Peavey # 1 Test No. 2 Date 7-5-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 214.3 GL  
 Address P.O. Box 352 Russell KS 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. Rooks State KS

Interval Tested 3374-3400 Zone Tested LRC "B"  
 Anchor Length 26 Drill Pipe Run 3245 Mud Wt. 9  
 Top Packer Depth 3369 Drill Collars Run 120 Vis 4.5  
 Bottom Packer Depth 3374 Wt. Pipe Run ⊕ WL 9.6  
 Total Depth 3400 Chlorides 3000 ppm System LCM 2

Blow Description IFP - No Blow - Good Surge on Open  
ISIP - No Blow  
FFP - No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>mud</u>			<u>100</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 1 BHT 102 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1639  Test 1150 T-On Location 23:18  
 (B) First Initial Flow 15  Jars \_\_\_\_\_ T-Started 23:22  
 (C) First Final Flow 15  Safety Joint \_\_\_\_\_ T-Open 01:17  
 (D) Initial Shut-In 19  Circ Sub \_\_\_\_\_ T-Pulled 03:17  
 (E) Second Initial Flow 14  Hourly Standby \_\_\_\_\_ T-Out 04:44  
 (F) Second Final Flow 13  Mileage 50 RT 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 17  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1555  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

Sub Total 1227.50  
 Total 1227.50  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54304

Well Name & No. Peavey #1 Test No. 3 Date 7-6-13  
 Company John O. Farmer Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell Ks. 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig W W 6  
 Location: Sec. 21 Twp. 10 S Rge. 18 W Co. Reels State KS

Interval Tested 3395-3445 Zone Tested LKC "C & D"  
 Anchor Length 50 Drill Pipe Run 3277 Mud Wt. 9.1  
 Top Packer Depth 3390 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3395 Wt. Pipe Run 0 WL 9.6  
 Total Depth 3445 Chlorides 5000 ppm System LCM 2

Blow Description IFP - BOB in 8 min.  
ISIP - No Blow  
FFP - BOB in 14 min  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>0mcw</u>	<u>5</u>	<u>80</u>	<u>15</u>	<u>0</u>
<u>372</u>	<u>0mcw</u>	<u>3</u>	<u>67</u>	<u>30</u>	<u>0</u>
<u>37</u>	<u>0mcw</u>	<u>3</u>	<u>50</u>	<u>47</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 529 BHT 106 Gravity \_\_\_\_\_ API RW .059 @ 96 °F Chlorides 96000 ppm  
 (A) Initial Hydrostatic 1655  Test 1150 T-On Location 12:50  
 (B) First Initial Flow 24  Jars T-Started 13:19  
 (C) First Final Flow 203  Safety Joint T-Open 14:44  
 (D) Initial Shut-In 501  Circ Sub T-Pulled 16:44  
 (E) Second Initial Flow 207  Hourly Standby T-Out 18:58  
 (F) Second Final Flow 287  Mileage 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 495  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1579  Straddle \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Copies \_\_\_\_\_  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1227.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1227.50

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54305

4/10

Well Name & No. Peavey #1 Test No. 4 Date 7-7-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell KS 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. Rooks State KS

Interval Tested 3445-3472 Zone Tested LRC "E & F"  
 Anchor Length 27 Drill Pipe Run 3308 Mud Wt. 9.1  
 Top Packer Depth 3440 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3475 Wt. Pipe Run 0 WL 9.6  
 Total Depth 3472 Chlorides 5000 ppm System LCM 2

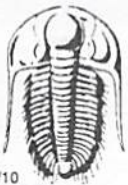
Blow Description IFP - BOB in 4 min  
ISIP - No Blow.  
FFP - BOB in 12 min  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
554	0 MCW	2	95	3	
231	0 MCW	2	78	20	
1	MWCO	85	10	5	

Rec Total 786 BHT 109 Gravity \_\_\_\_\_ API RW 065 @ 75 °F Chlorides 124000 ppm

(A) Initial Hydrostatic 1693  Test 1150 T-On Location 01:11  
 (B) First Initial Flow 41  Jars T-Started 01:14  
 (C) First Final Flow 299  Safety Joint T-Open 02:56  
 (D) Initial Shut-In 447  Circ Sub T-Pulled 09:56  
 (E) Second Initial Flow 348  Hourly Standby T-Out 07:01  
 (F) Second Final Flow 403  Mileage 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 448  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1638  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1227.50  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1227.50

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54306

Well Name & No. Peavey #1 Test No. 5 Date 7-7-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell Ks 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. Rooks State KS

Interval Tested 3516-3568 Zone Tested LKC "I+J"  
 Anchor Length 52 Drill Pipe Run 3403 Mud Wt. 9.1  
 Top Packer Depth 3511 Drill Collars Run 120 Vis 57  
 Bottom Packer Depth 3516 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3568 Chlorides 6000 ppm System LCM 2

Blow Description IFP - Good Surge on Open Surface Blow Dried in 10 min.  
ISIP - No Blow  
FFP - Good Surge No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>OCM</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 3 BHT 104 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1762  Test 1150 T-On Location 15:50  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 16:31  
 (C) First Final Flow 20  Safety Joint \_\_\_\_\_ T-Open 18:22  
 (D) Initial Shut-In 439  Circ Sub \_\_\_\_\_ T-Pulled 20:22  
 (E) Second Initial Flow 43  Hourly Standby \_\_\_\_\_ T-Out 22:22  
 (F) Second Final Flow 23  Mileage 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 412  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1644  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1227.50  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1227.50

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54307

Well Name & No. Peavey #1 Test No. 6 Date 7-8-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell KS. 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. Rooks State KS.

Interval Tested 3558-3618 Zone Tested LKC "K+L"  
 Anchor Length 60 Drill Pipe Run 3430 Mud Wt. 9.1  
 Top Packer Depth 3553 Drill Collars Run 120 Vis 57  
 Bottom Packer Depth 3558 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3618 Chlorides 6000 ppm System LCM 2

Blow Description IFP-  
ISIP-  
FFP-  
FSIP-

Miss-Run

Packer Failed

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 \_\_\_\_\_ T-On Location 08:40  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 08:41  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open 10:04  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 10:10  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 11:30  
 (F) Second Final Flow \_\_\_\_\_  Mileage 77.50 \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_

Initial Open \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Final Flow \_\_\_\_\_  Extra Packer \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1027.50  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1027.50

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54308

Well Name & No. Peavey #1 Test No. 7 Date 7-8-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell KS. 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. Rooks State KS

Interval Tested 3550-3618 Zone Tested LKC "K&L"  
 Anchor Length 68 Drill Pipe Run 3434 Mud Wt. 9.2  
 Top Packer Depth 3545 Drill Collars Run 120 Vis 42  
 Bottom Packer Depth 3550 Wt. Pipe Run 0 WL 10.2  
 Total Depth 3618 Chlorides 8000 ppm System LCM 1.5

Blow Description IFF - Surface Blow  
ISIP - No Blow  
FFP - No Blow  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mco</u>	<u>60</u>		<u>40</u>	
<u>5</u>	<u>CO</u>	<u>100</u>			

Rec Total 15 BHT 105 Gravity 28 API RW @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1696  Test 1150 T-On Location 08:40  
 (B) First Initial Flow 15  Jars T-Started 11:49  
 (C) First Final Flow 26  Safety Joint T-Open 13:01  
 (D) Initial Shut-In 581  Circ Sub T-Pulled 15:01  
 (E) Second Initial Flow 68  Hourly Standby T-Out 16:47  
 (F) Second Final Flow 83  Mileage \_\_\_\_\_  
 (G) Final Shut-In 530  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1679  Straddle \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1150  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54309

Well Name & No. Peavey #1 Test No. 8 Date 7-8-13  
 Company John O. Farmer, Inc. Elevation 2148 KB 2143 GL  
 Address P.O. Box 352 Russell KS 67665-2635  
 Co. Rep / Geo. Austin Klaus Rig WW6  
 Location: Sec. 21 Twp. 10<sup>s</sup> Rge. 18<sup>w</sup> Co. ROOKS State KS

Interval Tested 3600-3660 Zone Tested Cong. Sand  
 Anchor Length 60 Drill Pipe Run 3467 Mud Wt. 9.2  
 Top Packer Depth 3595 Drill Collars Run 120 Vis 42  
 Bottom Packer Depth 3600 Wt. Pipe Run 0 WL 10.2  
 Total Depth 3660 Chlorides 8000 ppm System LCM 1.5

Blow Description IFP - Good Surge on Open Very Weak Surface Blow  
ISIP - No Blow  
FFP - Surging Surface Blow Died in 10 min  
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>WOCM</u>	<u>10</u>	<u>5</u>	<u>85</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 80 BHT 103 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1851  Test 1150 T-On Location 23:05  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 23:26  
 (C) First Final Flow 62  Safety Joint \_\_\_\_\_ T-Open 01:23  
 (D) Initial Shut-In 965  Circ Sub \_\_\_\_\_ T-Pulled 04:23  
 (E) Second Initial Flow 402  Hourly Standby \_\_\_\_\_ T-Out 06:28  
 (F) Second Final Flow 1042  Mileage 155 Comments \_\_\_\_\_  
 (G) Final Shut-In 1050  Sampler \_\_\_\_\_ called to PU tool  
 (H) Final Hydrostatic 1674  Straddle \_\_\_\_\_ 2:00 7-9-13

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Recorder \_\_\_\_\_  
 Final Flow 60  Day Standby \_\_\_\_\_  
 Final Shut-In 60  Accessibility \_\_\_\_\_  
 Sub Total 1305 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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