

Confidentiality Requested:

Yes  No


**KANSAS CORPORATION COMMISSION 1161946**  
**OIL & GAS CONSERVATION DIVISION**

Form ACO-1  
August 2013

**Form must be Typed**  
**Form must be Signed**  
**All blanks must be Filled**

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover  
 Oil       WSW       SWD       SIOW  
 Gas       D&A       ENHR       SIGW  
 OG       GSW       Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD  
 Plug Back       Conv. to GSW       Conv. to Producer  
  
 Commingled      Permit #: \_\_\_\_\_  
 Dual Completion      Permit #: \_\_\_\_\_  
 SWD      Permit #: \_\_\_\_\_  
 ENHR      Permit #: \_\_\_\_\_  
 GSW      Permit #: \_\_\_\_\_

_____	_____	_____
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_- Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE     NW     SE     SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

- Confidentiality Requested  
 Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
 ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1161946

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 08, 2013

Marge Schulte  
Farmer, John O., Inc.  
370 W WICHITA AVE  
PO BOX 352  
RUSSELL, KS 67665-2635

Re: ACO1  
API 15-163-24126-00-00  
Peavey 1  
NW/4 Sec.21-10S-18W  
Rooks County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Marge Schulte

# ALLIED OIL & GAS SERVICES, LLC 054141

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell

DATE <u>7-1-13</u>	SEC. <u>21</u>	TWP. <u>10</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30 pm</u>	JOB FINISH <u>8:00 pm</u>
LEASE <u>Parvey</u> WELL# <u>1</u>			LOCATION <u>Plainville KS SS 2 1/2 W Winto</u>		COUNTY <u>Rooks</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR <u>JW#6</u>	OWNER
TYPE OF JOB <u>surface</u>	CEMENT
HOLE SIZE <u>12 1/4</u> T.D. <u>218</u>	AMOUNT ORDERED <u>170 com 39 acc 29 gel</u>
CASING SIZE <u>8 5/8</u> <u>23"</u> DEPTH <u>217.92</u>	
TUBING SIZE DEPTH	
DRILL PIPE DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <u>170</u> @ <u>17.90</u> <u>3043.00</u>
MEAS. LINE SHOE JOINT <u>15</u>	POZMIX @
CEMENT LEFT IN CSG. <u>15</u>	GEL <u>3</u> @ <u>23.40</u> <u>70.20</u>
PERFS.	CHLORIDE <u>6</u> @ <u>64.00</u> <u>384.00</u>
DISPLACEMENT <u>12 3/4 bbl</u>	ASC @
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Allen W</u>	
# <u>417</u> HELPER <u>Woody O</u>	
BULK TRUCK	
# <u>481</u> DRIVER <u>Robert Y</u>	
BULK TRUCK	
# DRIVER	
	HANDLING <u>183.51</u> <u>473</u> @ <u>2.48</u> <u>455.11</u>
	MILEAGE <u>209.50</u> <u>+/m</u> <u>2.60</u> <u>544.70</u>
	TOTAL <u>4497.01</u>

REMARKS:

ran 5jts of 8 5/8 23" csg. receive circulation  
mix 170 com 39 acc 29 gel displac  
12 3/4 bbl of water shut in

Cement did circulate to surface

*Thank you*

CHARGE TO: John O'Farren  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB <u>218</u>	
PUMP TRUCK CHARGE <u>1512.25</u>	
EXTRA FOOTAGE @	
MILEAGE <u>25</u> <u>HVMI</u> @ <u>7.70</u> <u>192.50</u>	
MANIFOLD @	
<u>25</u> <u>LVMI</u> @ <u>4.40</u> <u>110.00</u>	
TOTAL <u>1814.75</u>	

PLUG & FLOAT EQUIPMENT

_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
_____ @ _____	
TOTAL _____	

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME: Jason Richeson

SIGNATURE: [Signature]

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGES 6311.76  
DISCOUNT 1646.06 IF PAID IN 30 DAYS  
Net 4670.20

# ALLIED OIL & GAS SERVICES, LLC 056640

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Russell, Ks

DATE <u>7.10.13</u>	SEC <u>21</u>	TWP. <u>10</u>	RANGE <u>18</u>	CALLED OUT	ON LOCATION	JOB START <u>7:00</u>	JOB FINISH <u>7:30</u>
LEASE <u>Peavey</u>	WELL # <u>1</u>	LOCATION <u>Plainville Ks</u>			COUNTY <u>Moore</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>		<u>55 to cord 2w n into</u>					

CONTRACTOR WW #6  
 TYPE OF JOB PTA  
 HOLE SIZE 7 7/8 T.D.  
 CASING SIZE DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE 2 3/8 4 1/2 DEPTH 1520'  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS.  
 DISPLACEMENT See "Remarks"

OWNER  
 CEMENT AMOUNT ORDERED 205 60/40  
47 gal 1/4 # Flo-Seal  
 COMMON 123sk @ 17.90 \$ 2,201.40  
 POZMIX 82sk @ 9.35 \$ 764.70  
 GEL 7sk @ 23.40 \$ 163.80  
 CHLORIDE @  
 ASC @  
 2SK Flo-Seal D @  
450 @ 2.97 \$ 1,343.50  
 @  
 @  
 @  
 @  
 @  
 @  
 HANDLING 220. F/KS @ 2.48 \$ 545.60  
 MILEAGE 229.75 1/m @ 2.60 \$ 597.35  
 TOTAL \$ 4,423.65

REMARKS:

P1 = 25sk @ 1.520' = 410.50<sup>gal</sup> string  
Dis = 2.14 5/8" mud / dia  
P2 = 100sk @ 9.17' = 16.42<sup>gal</sup> string  
Dis = 1.47 2 3/8"  
P3 = 40sk @ 2.67' = 6.57<sup>gal</sup> string  
Dis = 1.17 2 3/8"  
P4 = 10sk @ 40'  
1x 8 5/8 wooden plug  
Fill to surface! RATAHOLE = 3ash  
Frank

SERVICE

DEPTH OF JOB 1520'  
 PUMP TRUCK CHARGE \$ 2,249.84  
 EXTRA FOOTAGE @  
 MILEAGE Heavy 25m @ 7.70 \$ 192.5  
 MANIFOLD Light 25m @ 4.40 \$ 110.0  
 @  
 @  
 TOTAL \$ 2,552.34

CHARGE TO: John D' Farmer  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

1x 8 5/8 wooden plug @ - \$ 64.80  
 @  
 @  
 @  
 @  
 TOTAL \$ 64.80

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (if Any) \_\_\_\_\_  
 TOTAL CHARGES \$ 7040.79  
 DISCOUNT \$ 2,092.80 IF PAID IN 30 DAYS  
net 4947.99

PRINTED NAME Jason Richerson  
 SIGNATURE [Signature]



## 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

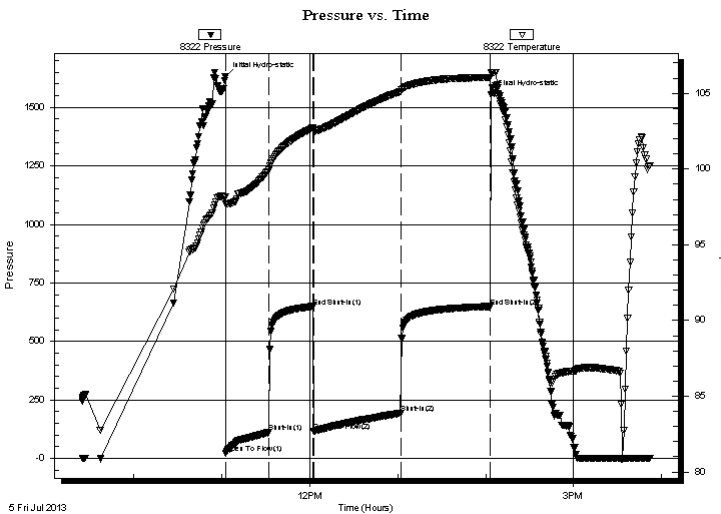
Start Time: 09:25:01 End Time: 15:52:00

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  
 PO Box 352  
 Russell, KS 67665  
 ATTN: Austin Klaus

**21-10s-18w Rooks, KS**  
**Peavey #1**  
 Job Ticket: 54302 **DST#: 1**  
 Test Start: 2013.07.05 @ 09:25:00

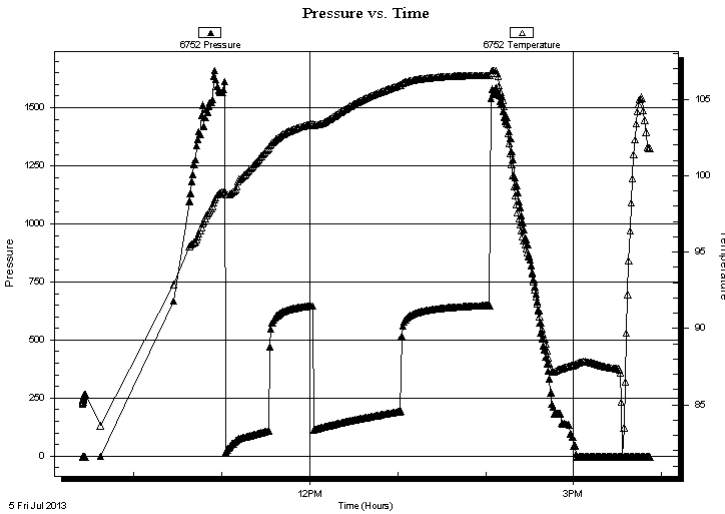
## GENERAL INFORMATION:

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

**Serial #: 6752 Inside**  
 Press @ Run Depth: 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:  
 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
------------------	-------------	------------	----------	------------	----------------

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

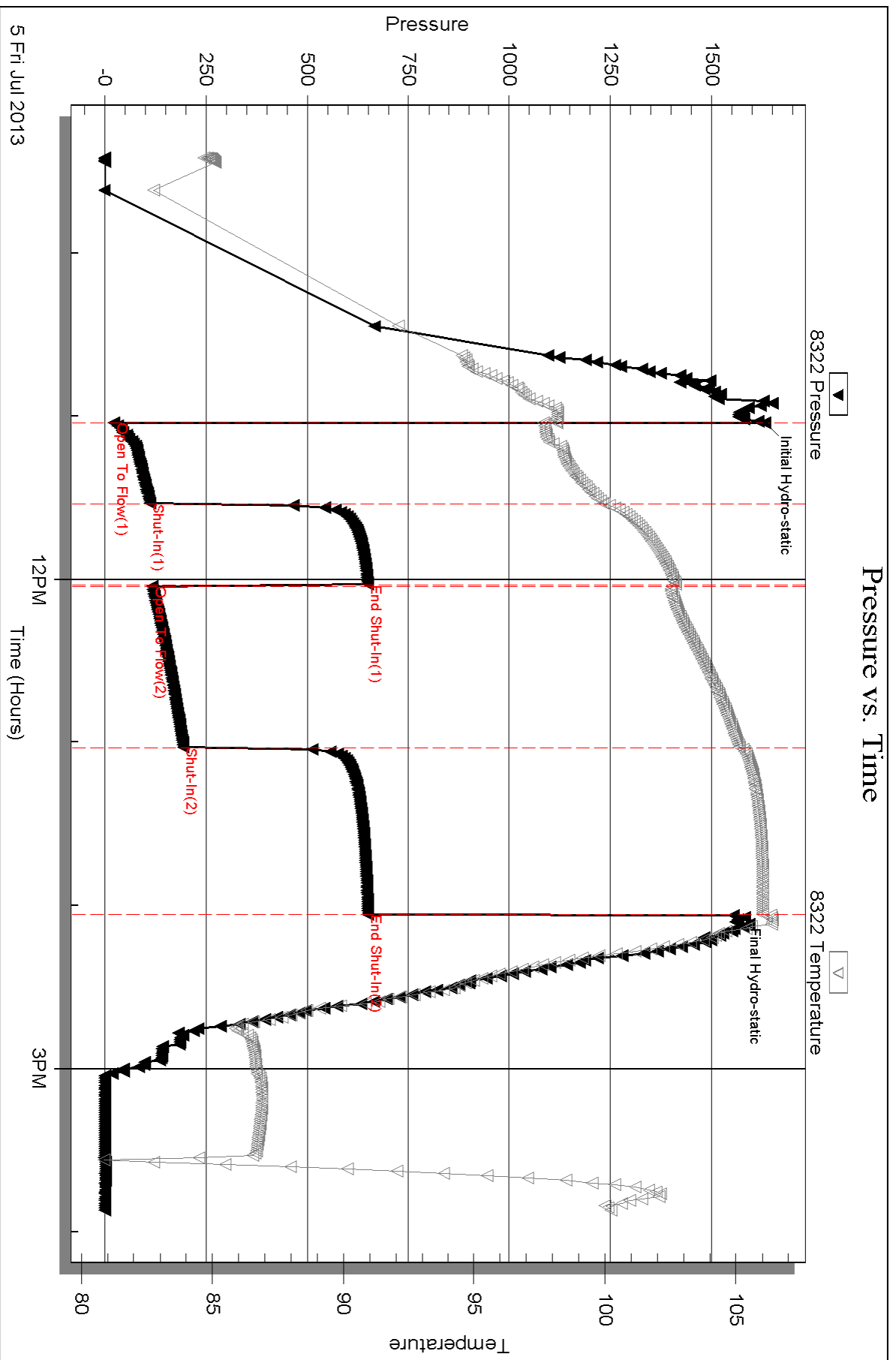
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .050 @ 94

# Pressure vs. Time



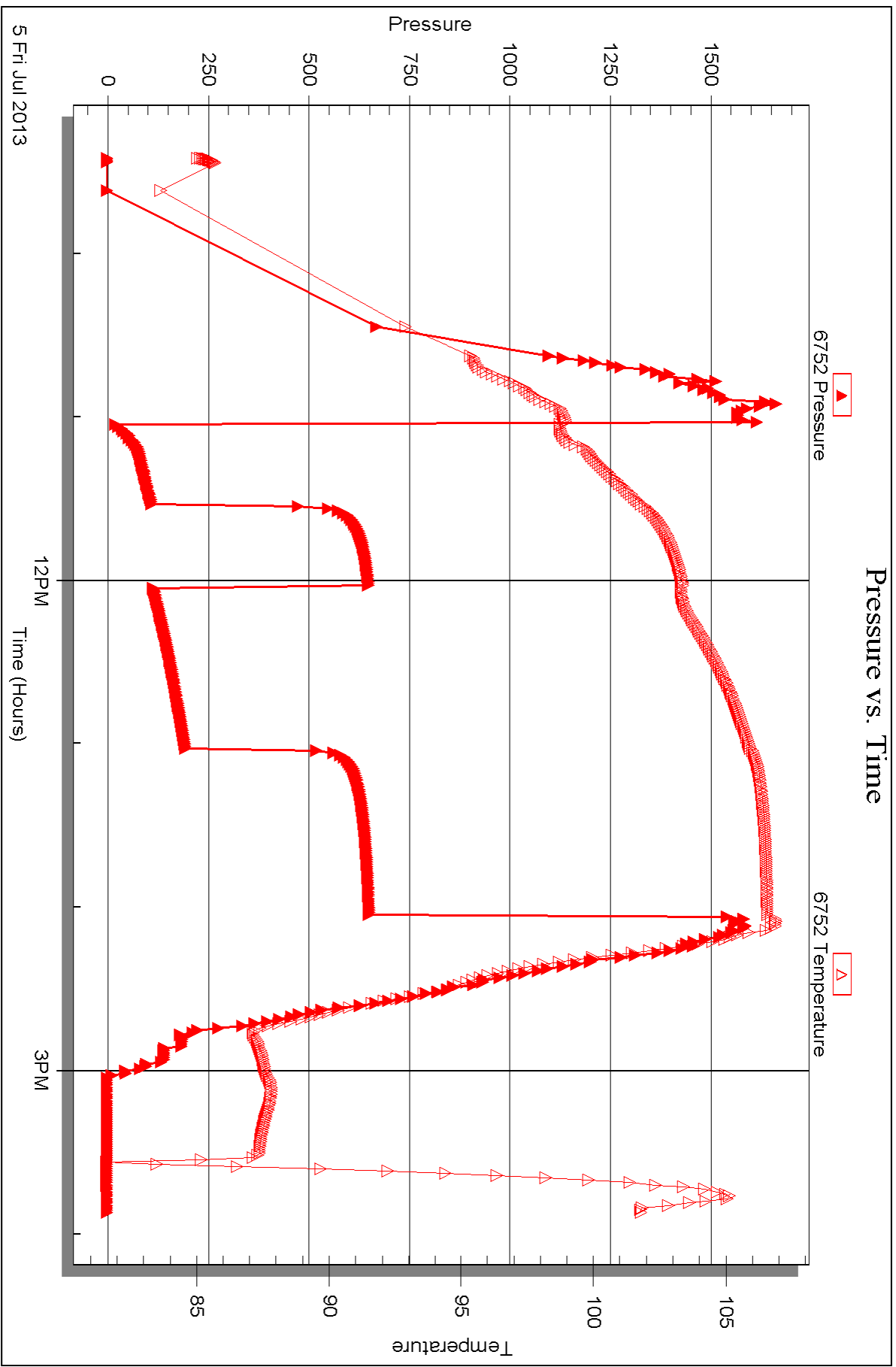
Serial #: 6752

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

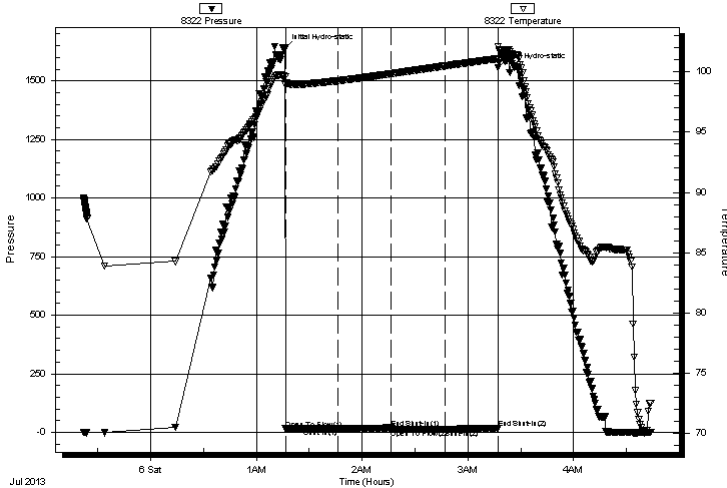
**TEST COMMENT:** 30-IFP- No Blow Good Surge on Open

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

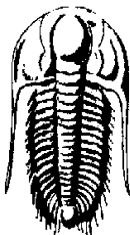
## Recovery

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

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 #: 6752 Inside**

Press @RunDepth: 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: 04:43:30

Time On Btm:

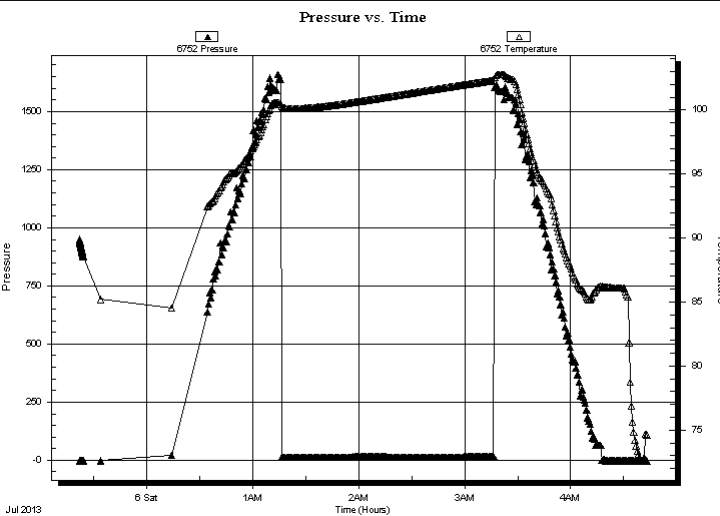
Time Off Btm:

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

30-ISIP- No Blow

30-FFP- No Blow

30-FSIP- No Blow



### PRESSURE SUMMARY

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

### Recovery

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

### 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: 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

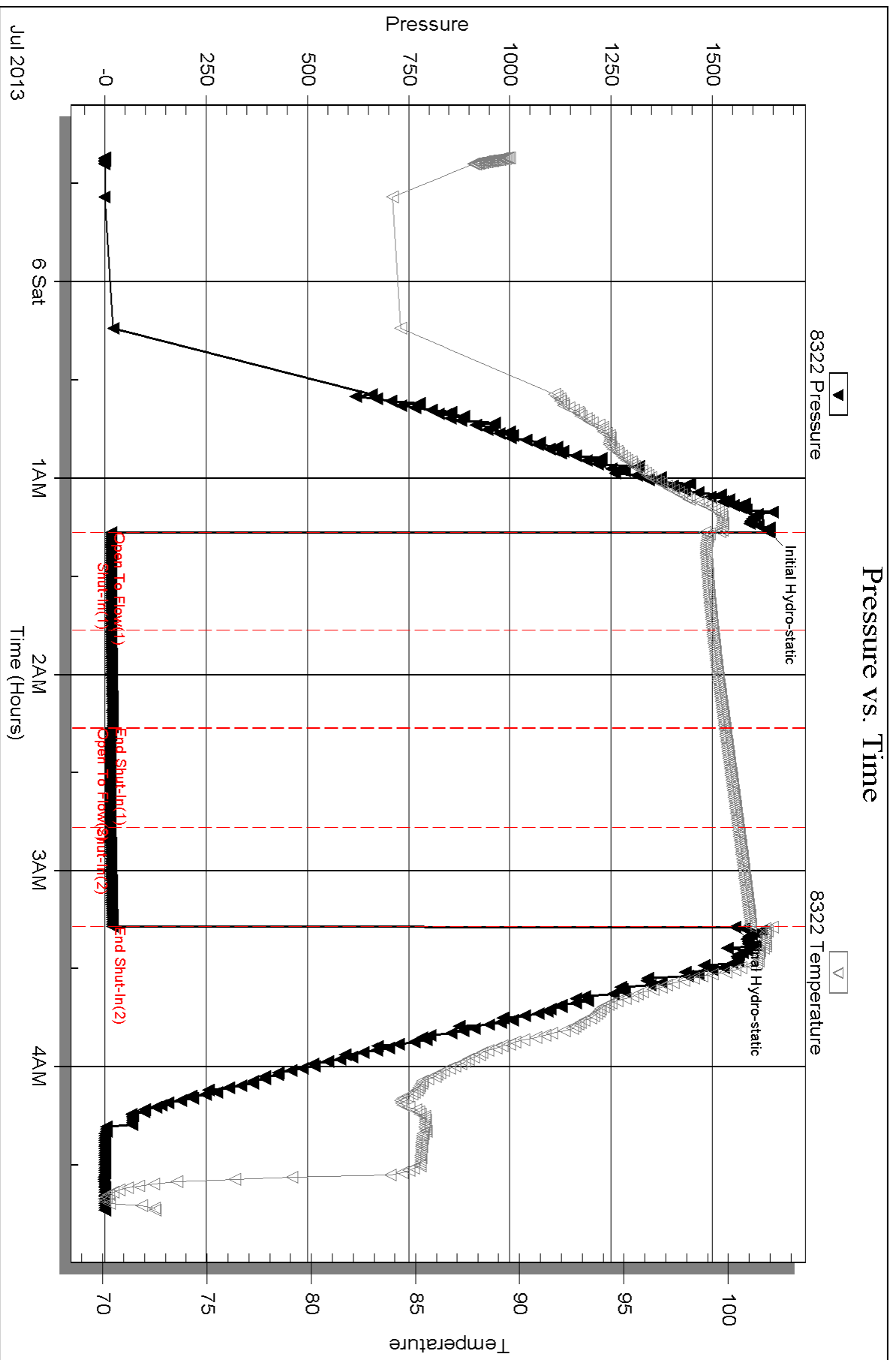
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



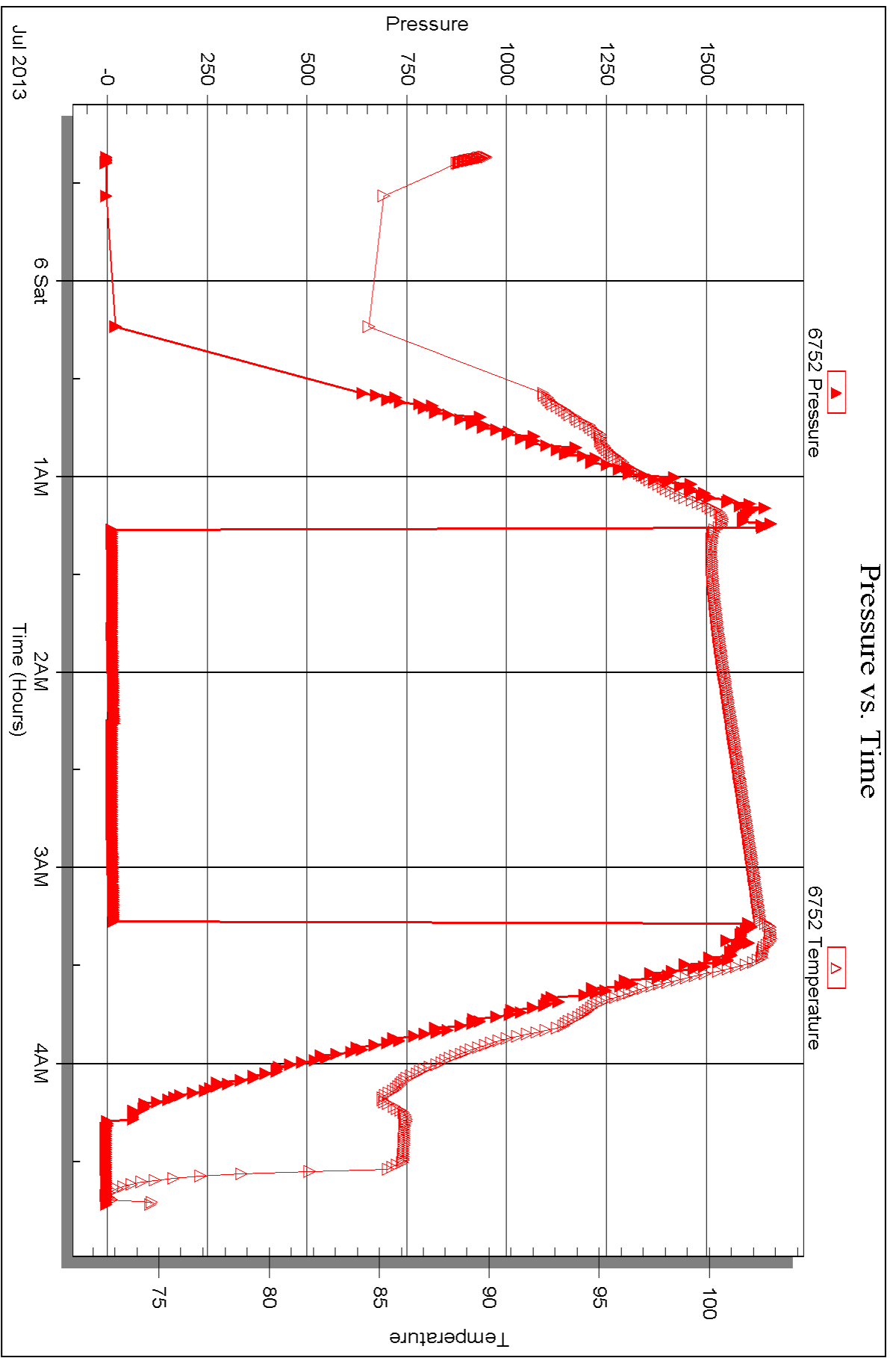
Serial #: 6752

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

John O Farmer Inc  
21-10s-18w Rooks,KS  
Peavey #1  
DST # 3  
LKC " C & D "  
2013.07.06



**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

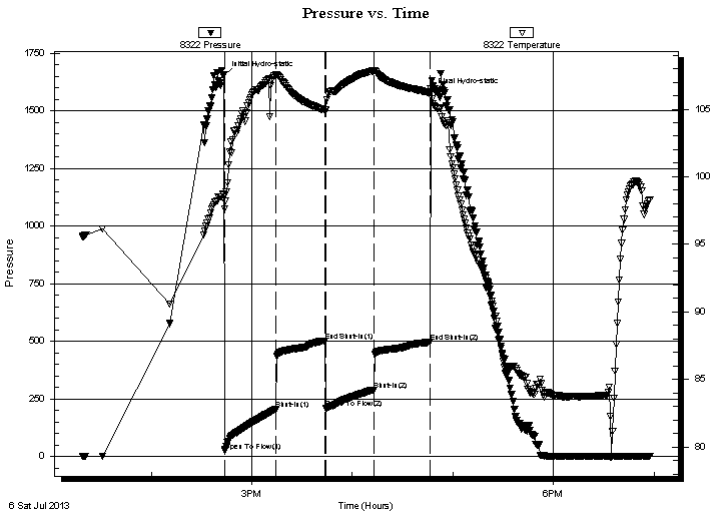
## Serial #: 8322

**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

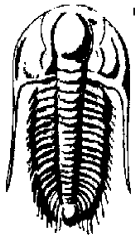
## Recovery

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)**

Total Depth: **3445.00 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 @ 3409.00 ft (KB)**

Start Date: **2013.07.06**

End Date: **2013.07.06**

Start Time: **13:19:01**

End Time: **18:57:30**

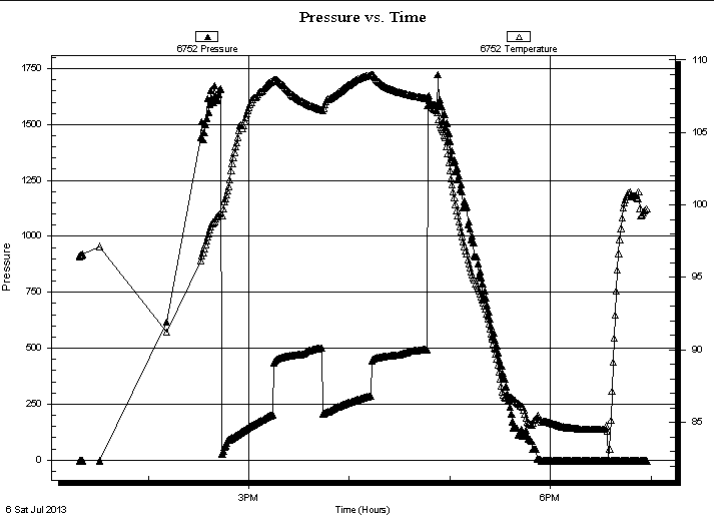
Capacity: **8000.00 psig**

Last Calib.: **2013.07.06**

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 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 #:

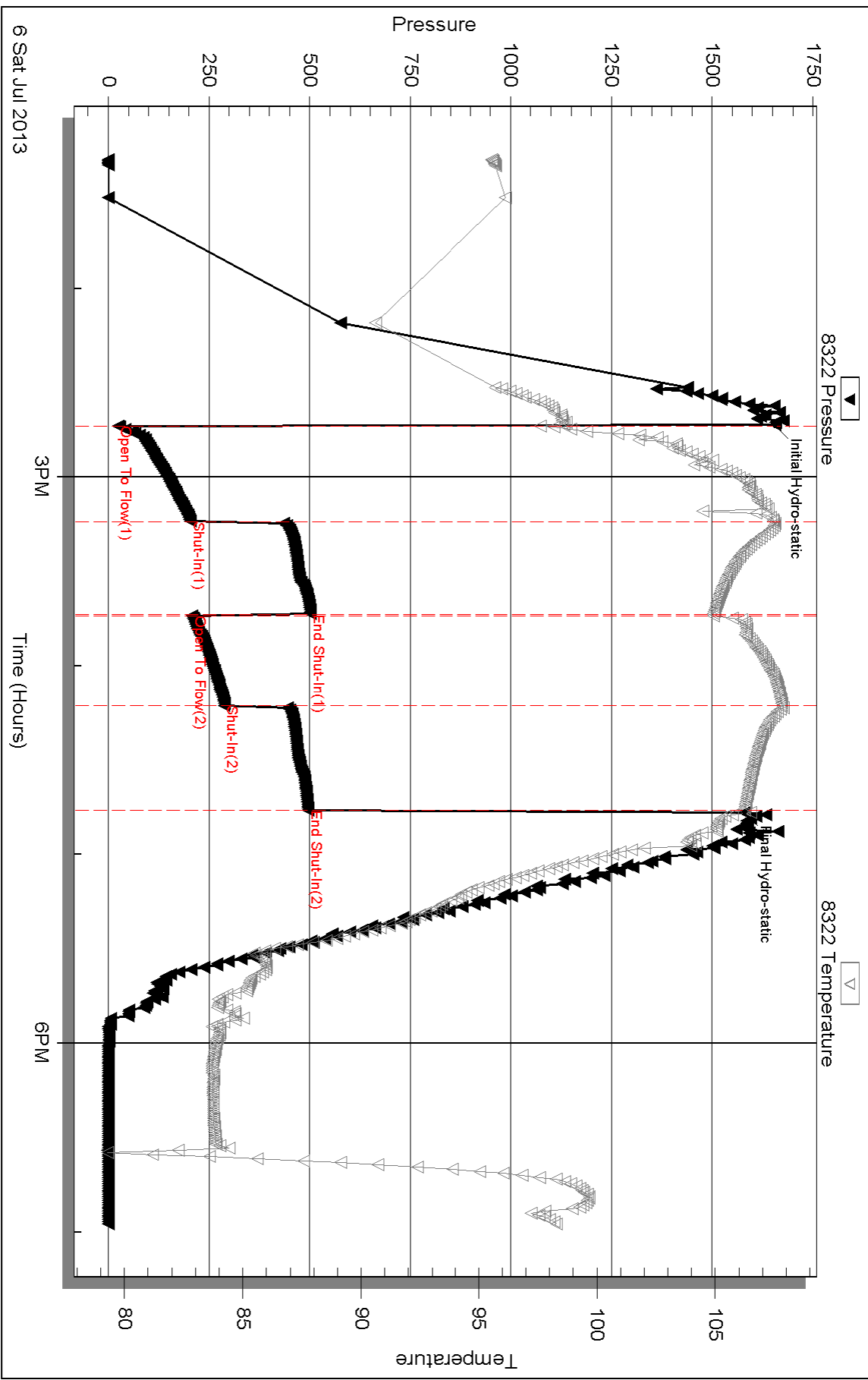
Laboratory Name:

Laboratory Location:

Recovery Comments: .059 @ 96



### Pressure vs. Time



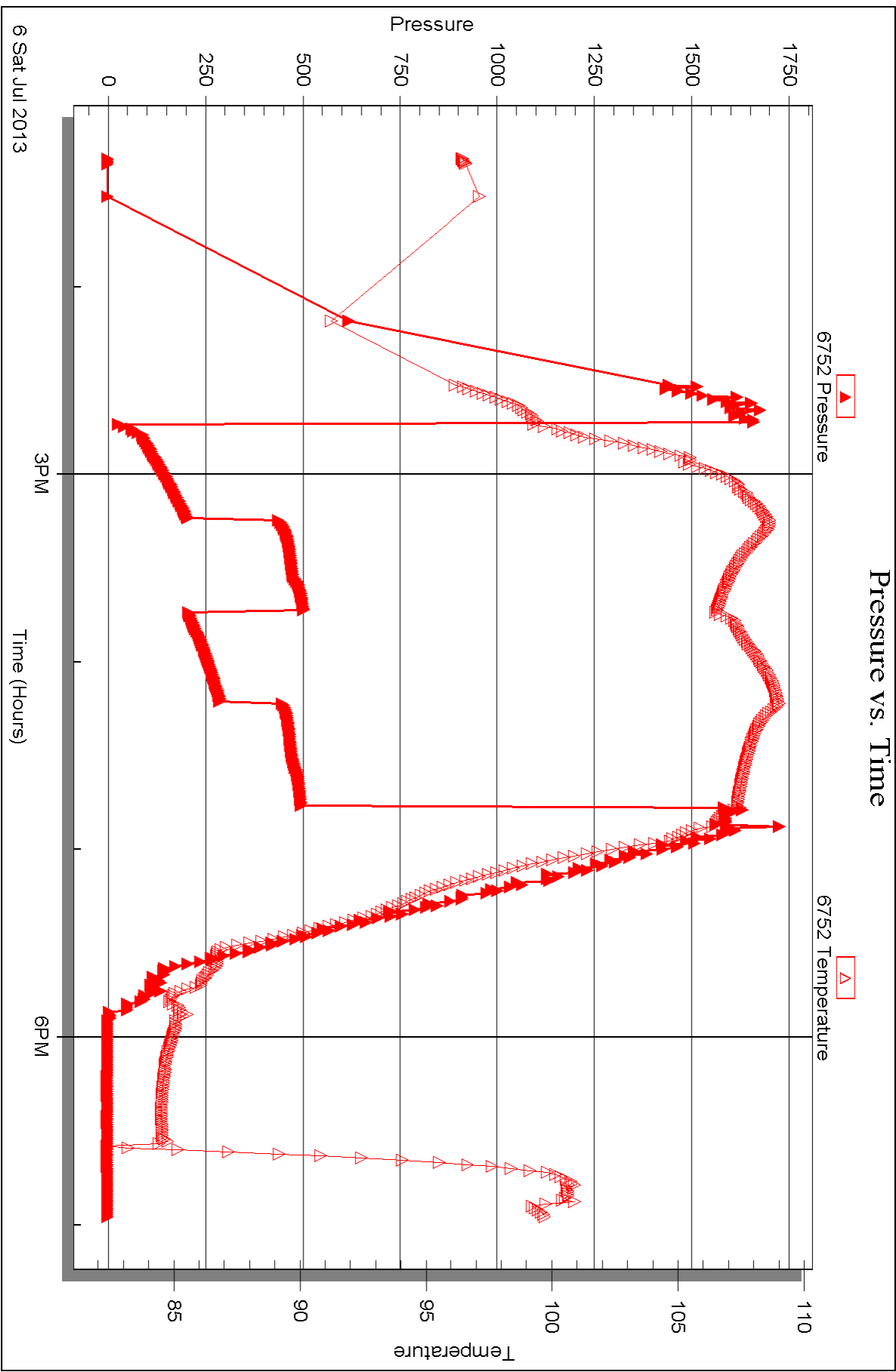
Serial #: 6752

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

John O Farmer Inc  
21-10s-18w Rooks,KS  
Peavey #1  
DST # 4  
LKC " E & F "  
2013.07.07



**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: 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:

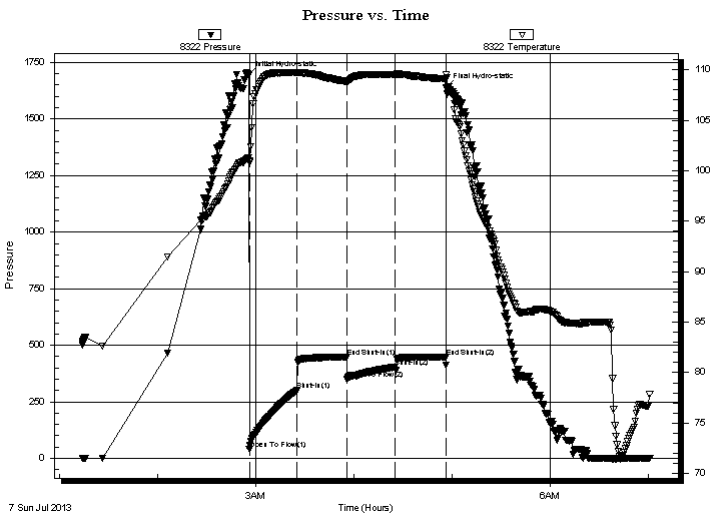
2013.07.07 @ 02:55:40

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**

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 #: 6752 Inside**

Press @ Run Depth: 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:

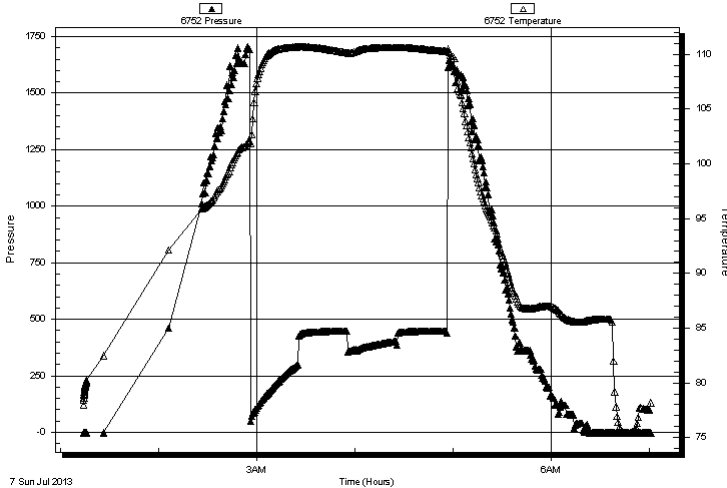
07:01:00

Time On Btm:

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
------------------	-------------	------------	----------	------------	----------------

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

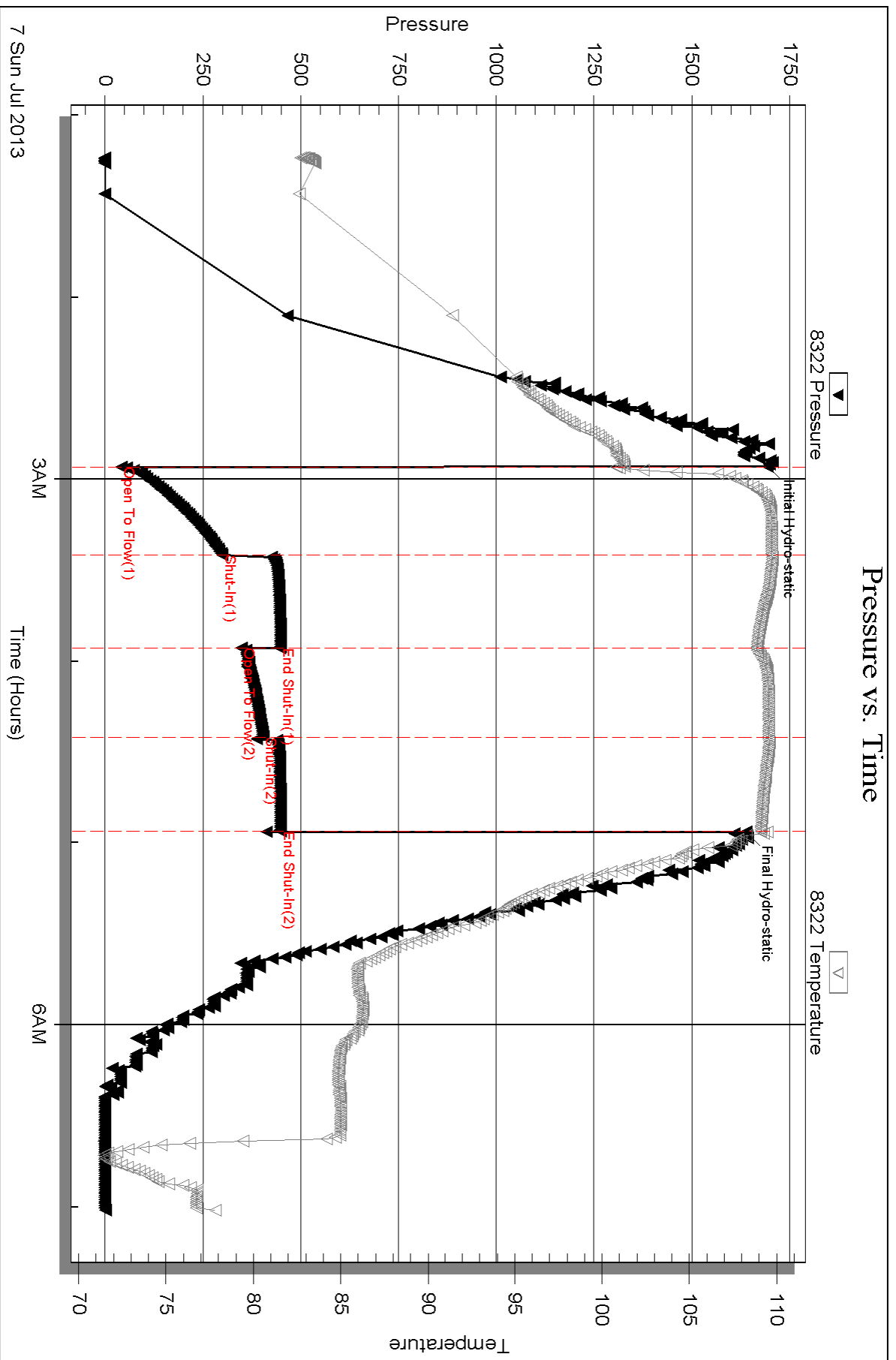
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .065 @ 75

### Pressure vs. Time





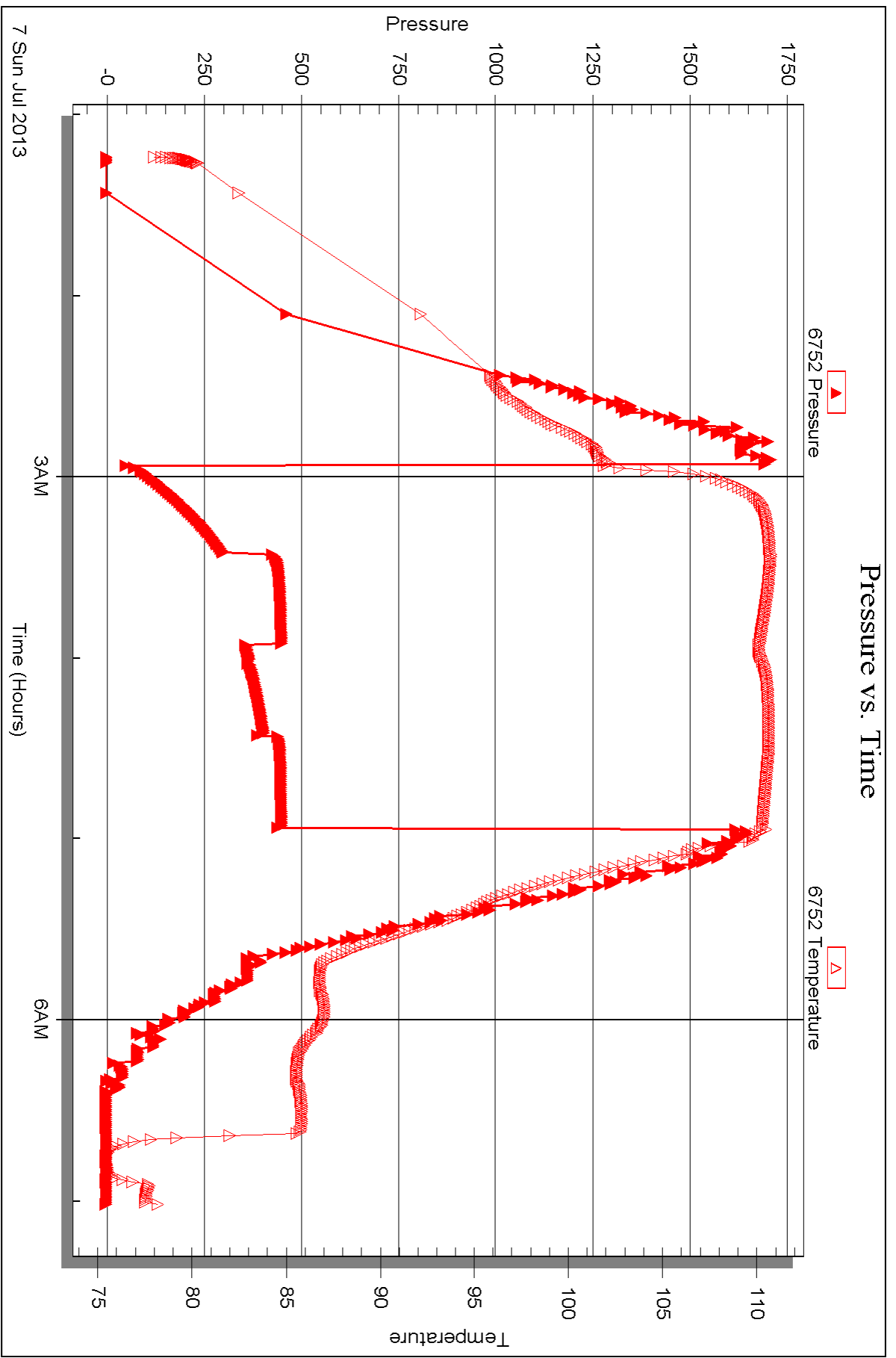
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 54305

Printed: 2013.07.10 @ 11:27:46



## 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

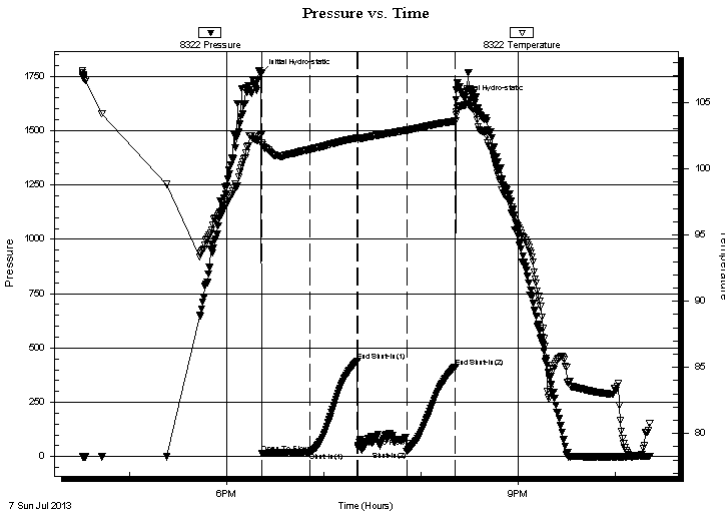
**TEST COMMENT:** 30-IFP- Good Surge on Open Surface Blow Died in 10 min.

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

## 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: 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
------------------	-------------	------------	----------	------------	----------------

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

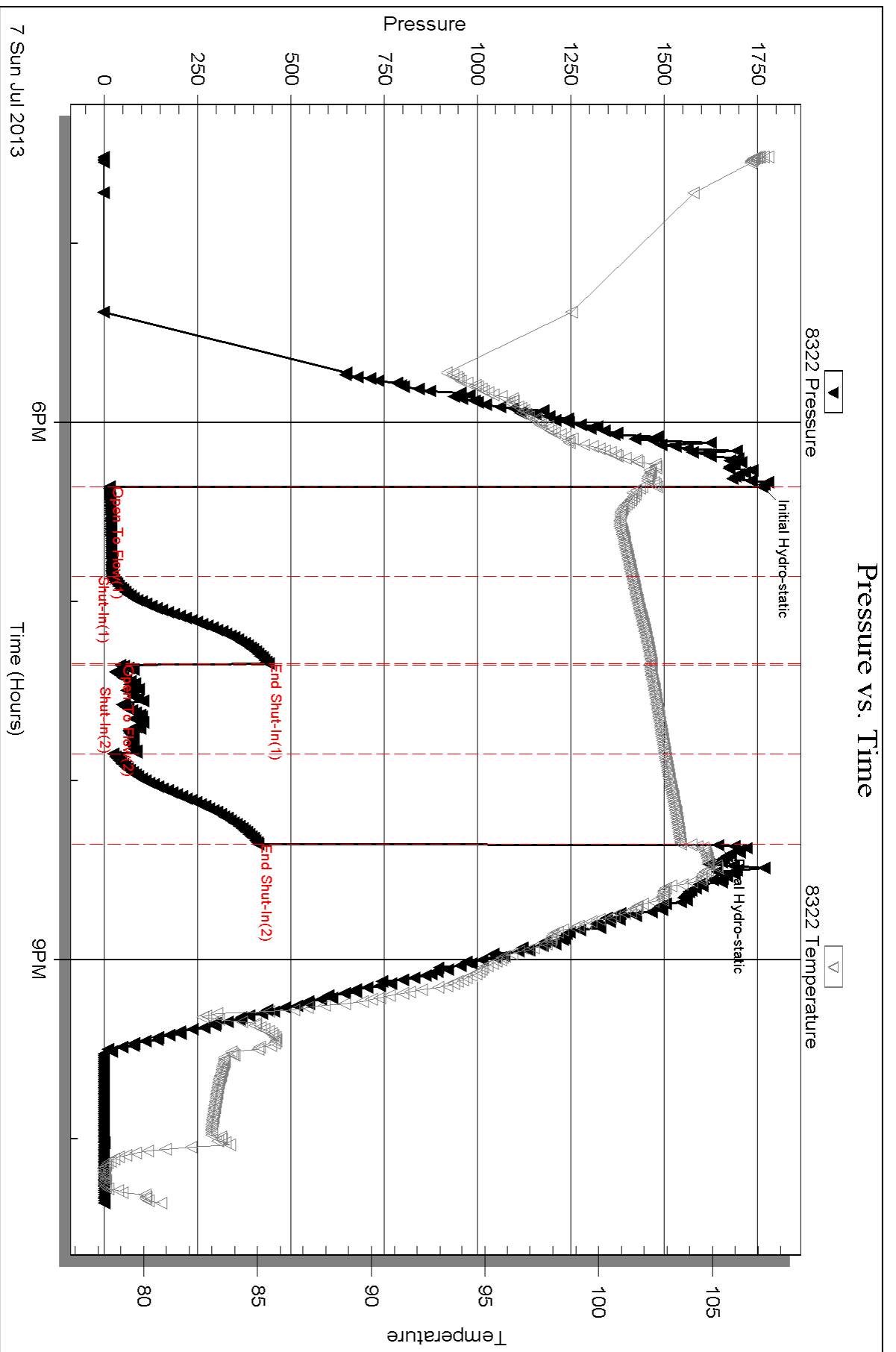
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



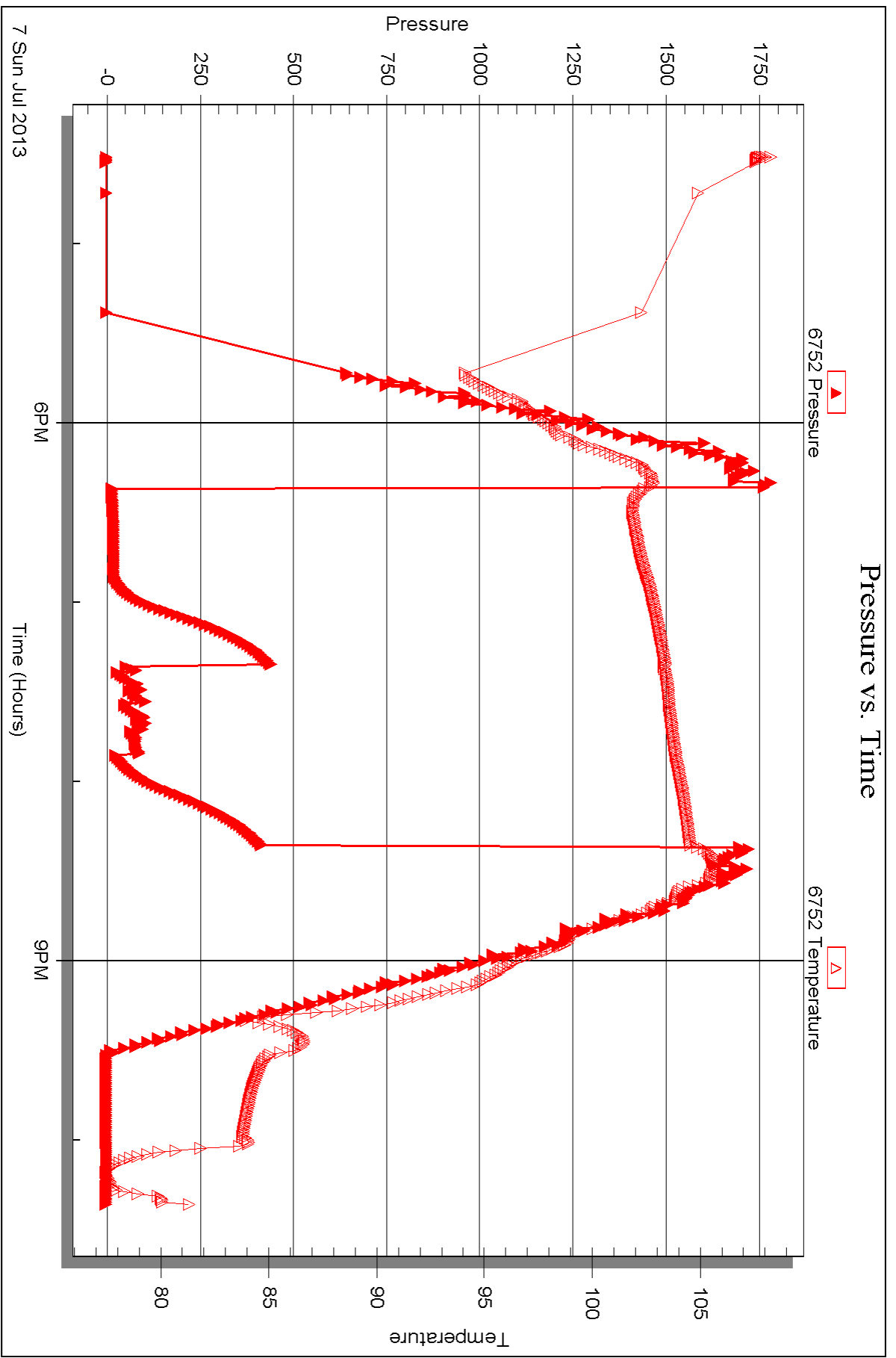
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 5







## 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

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:04:00

Time Test Ended: 11:30:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

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 @ Run Depth: psig @ 3581.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.08 End Date: 2013.07.08

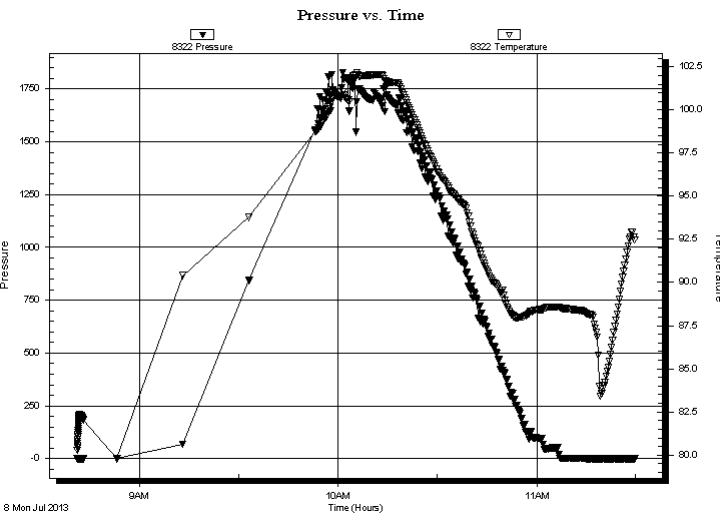
Last Calib.: 2013.07.08

Start Time: 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

**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: bbl

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

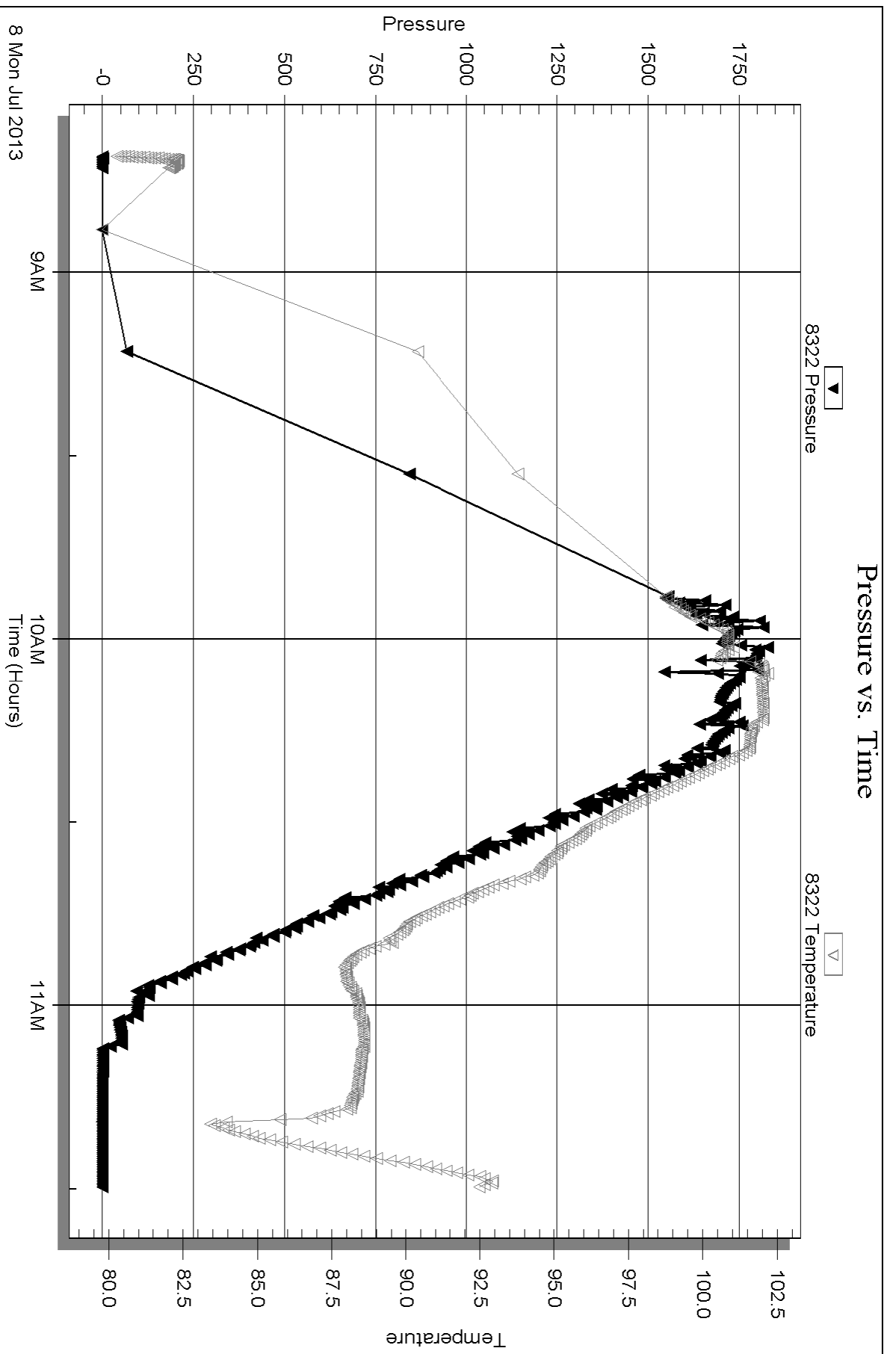
Length ft	Description	Volume bbl

Total Length: ft Total Volume: bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



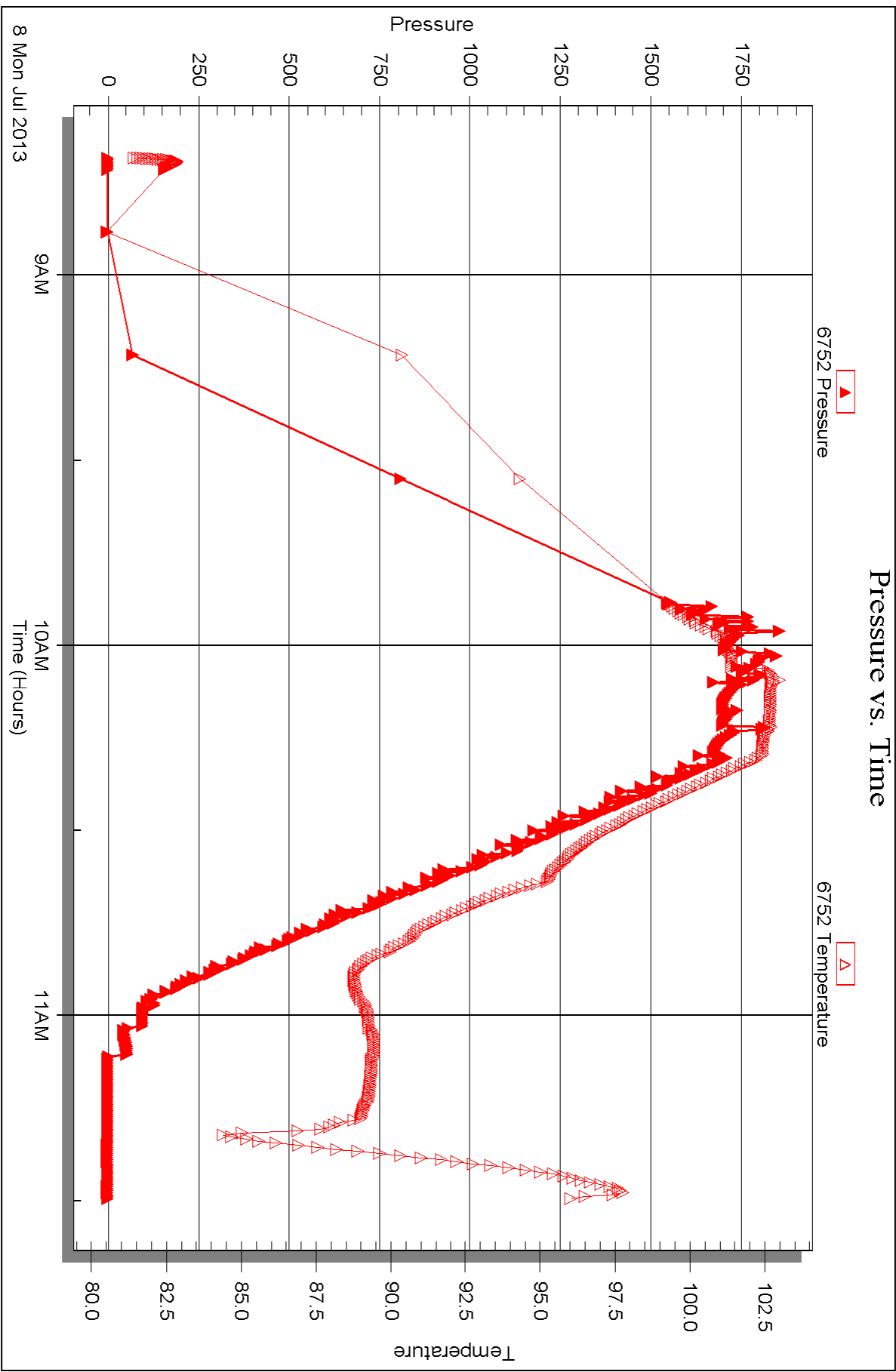
Serial #: 6752

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

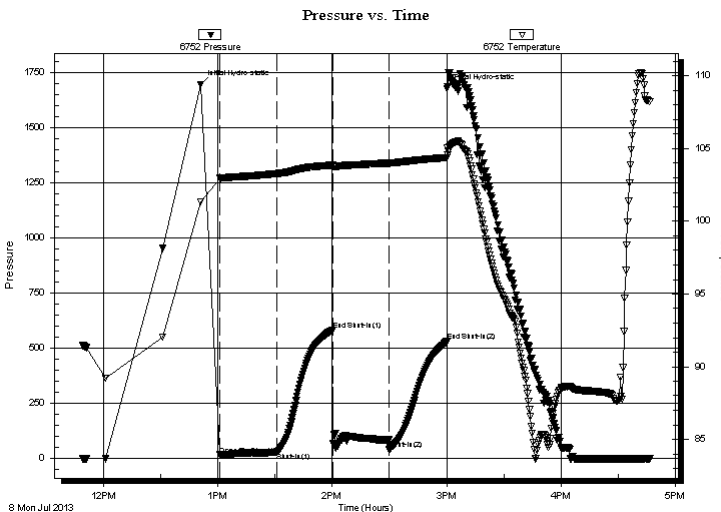
Start Time: 11:49:01 End Time: 16:46:30

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

**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:**

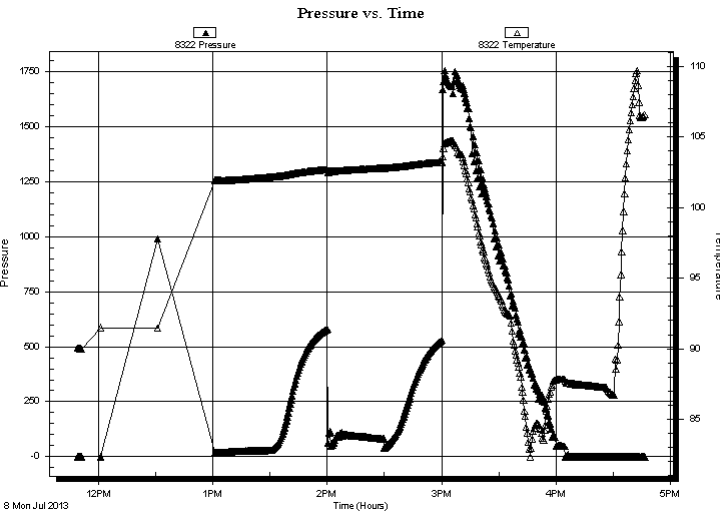
Formation: <b>LKC " K &amp; L "</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 13:01:00		Tester: Jim Svaty	
Time Test Ended: 16:47:00		Unit No: 41	
<b>Interval: 3550.00 ft (KB) To 3618.00 ft (KB) (TVD)</b>		Reference Elevations: 2148.00 ft (KB)	
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	

**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:

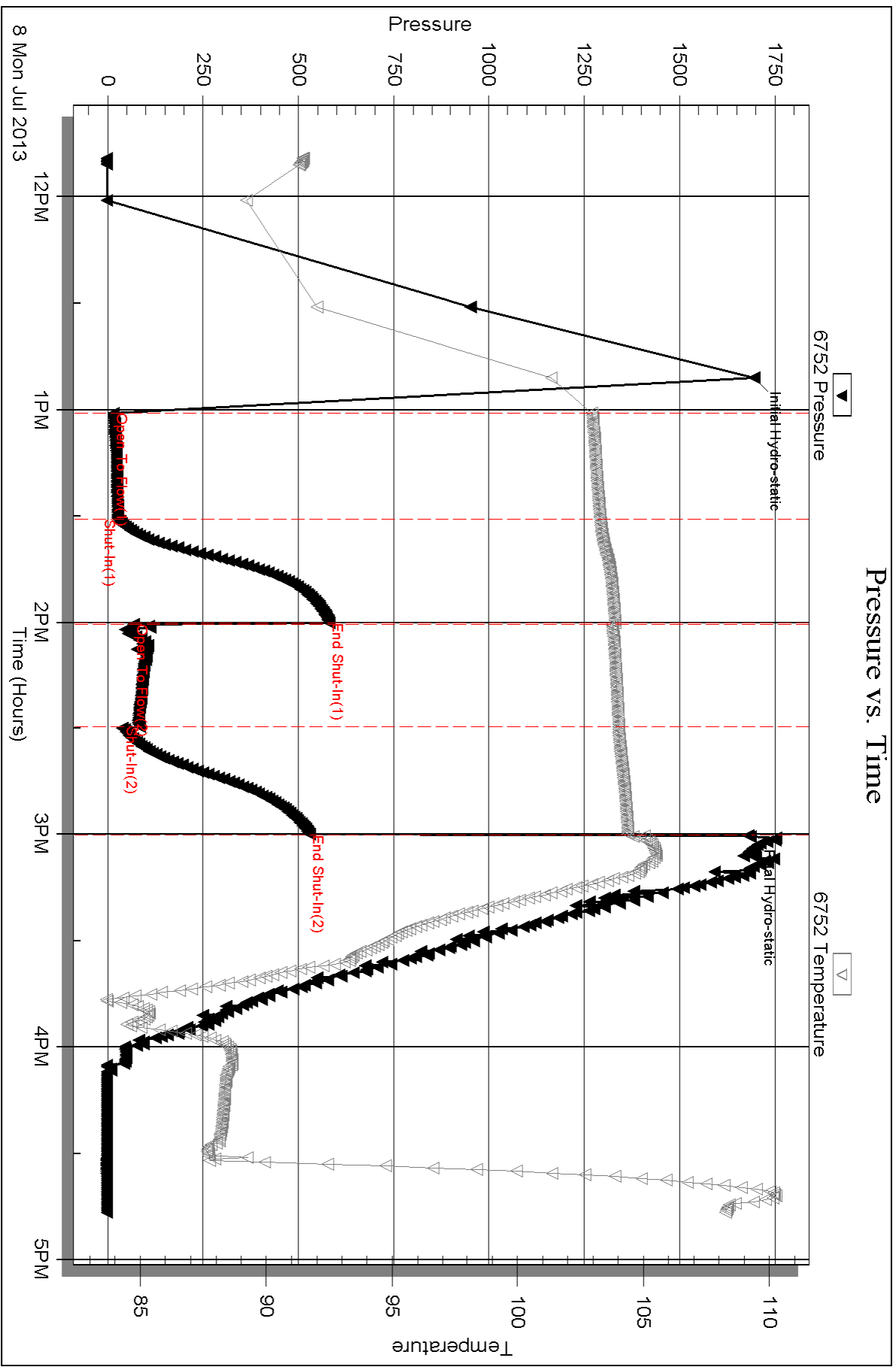
Serial #: 6752

Inside

John O Farmer Inc

Peavey #1

DST Test Number: 7

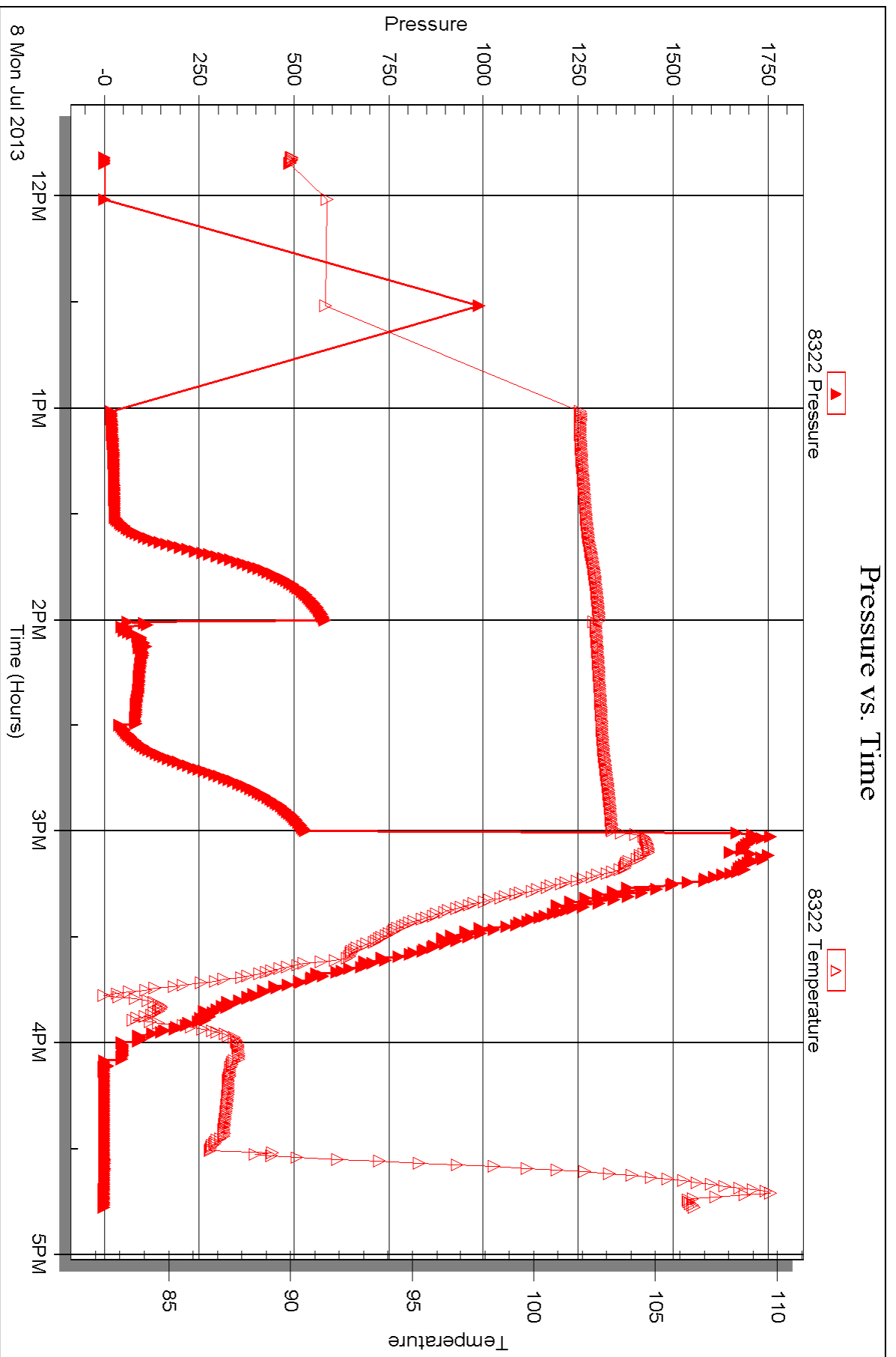


Serial #: 8322

Outside John O Farmer Inc

Peavey #1

DST Test Number: 7



Triobite Testing, Inc

Ref. No: 54308

Printed: 2013.07.10 @ 11:25:33



## 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  
 PO Box 352  
 Russell, KS 67665  
 ATTN: Austin Klaus

**21-10s-18w Rooks, KS**  
**Peavey #1**  
 Job Ticket: 54309 **DST#: 8**  
 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  
 Interval: **3600.00 ft (KB) To 3660.00 ft (KB) (TVD)**  
 Total Depth: 3660.00 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

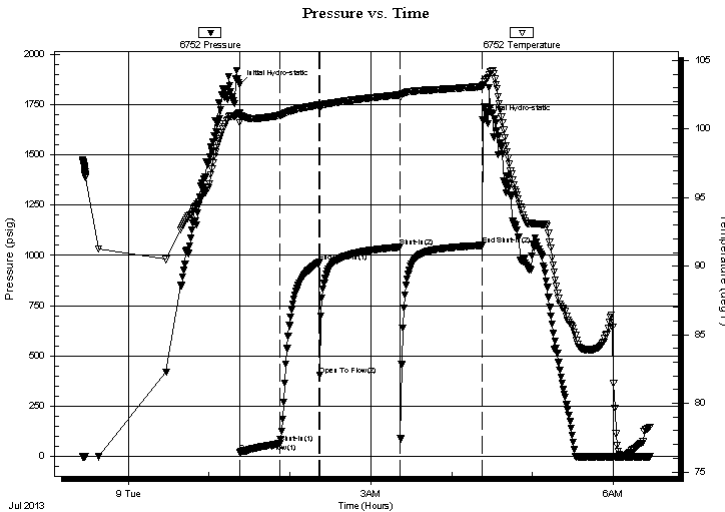
## Serial #: 6752

Inside

Press @ Run Depth: 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:

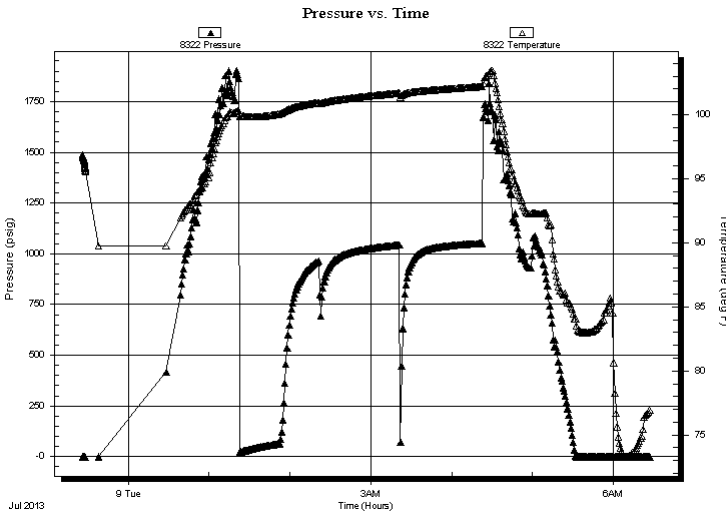
06:27:40

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 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

## 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: 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

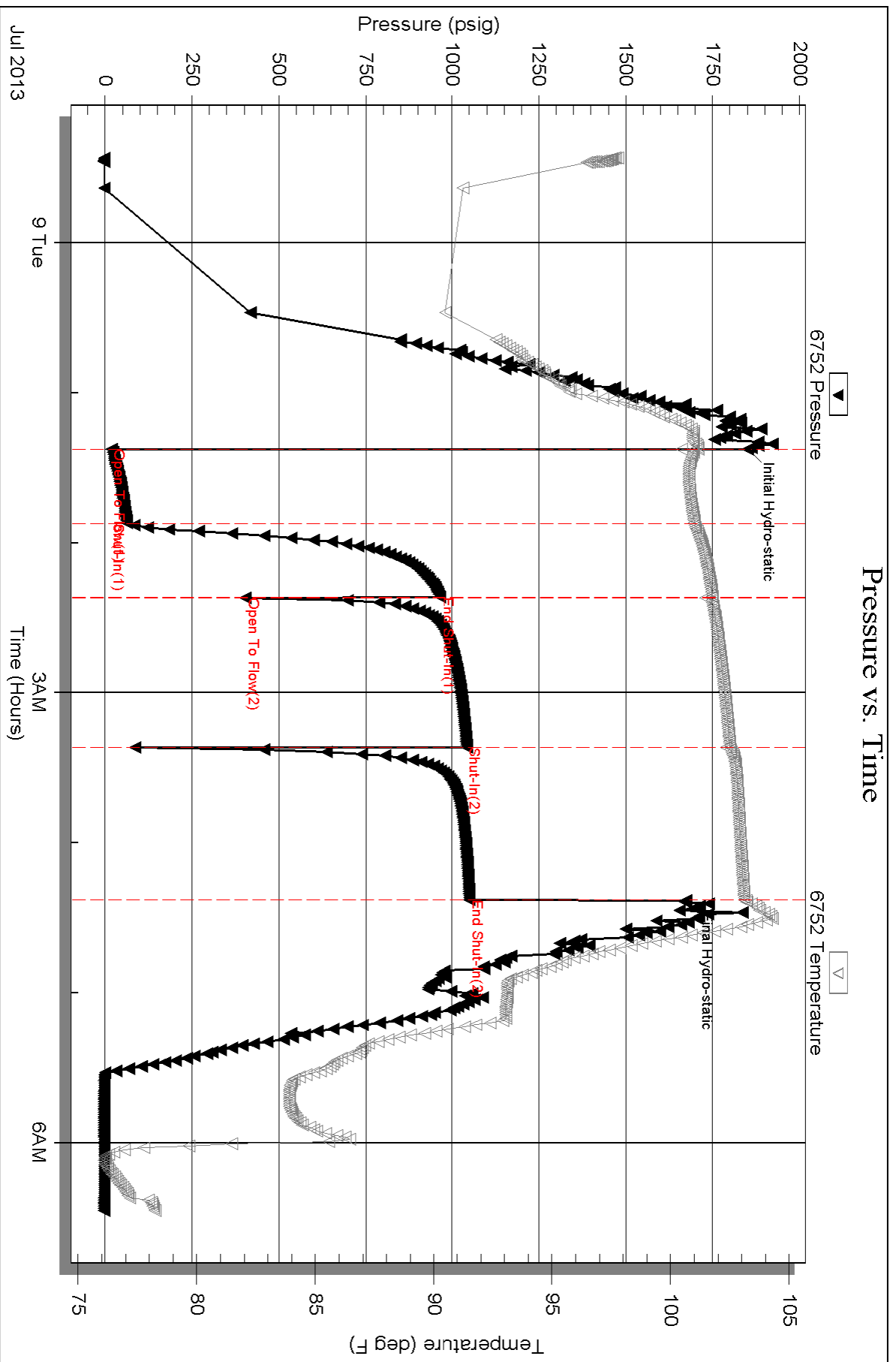
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

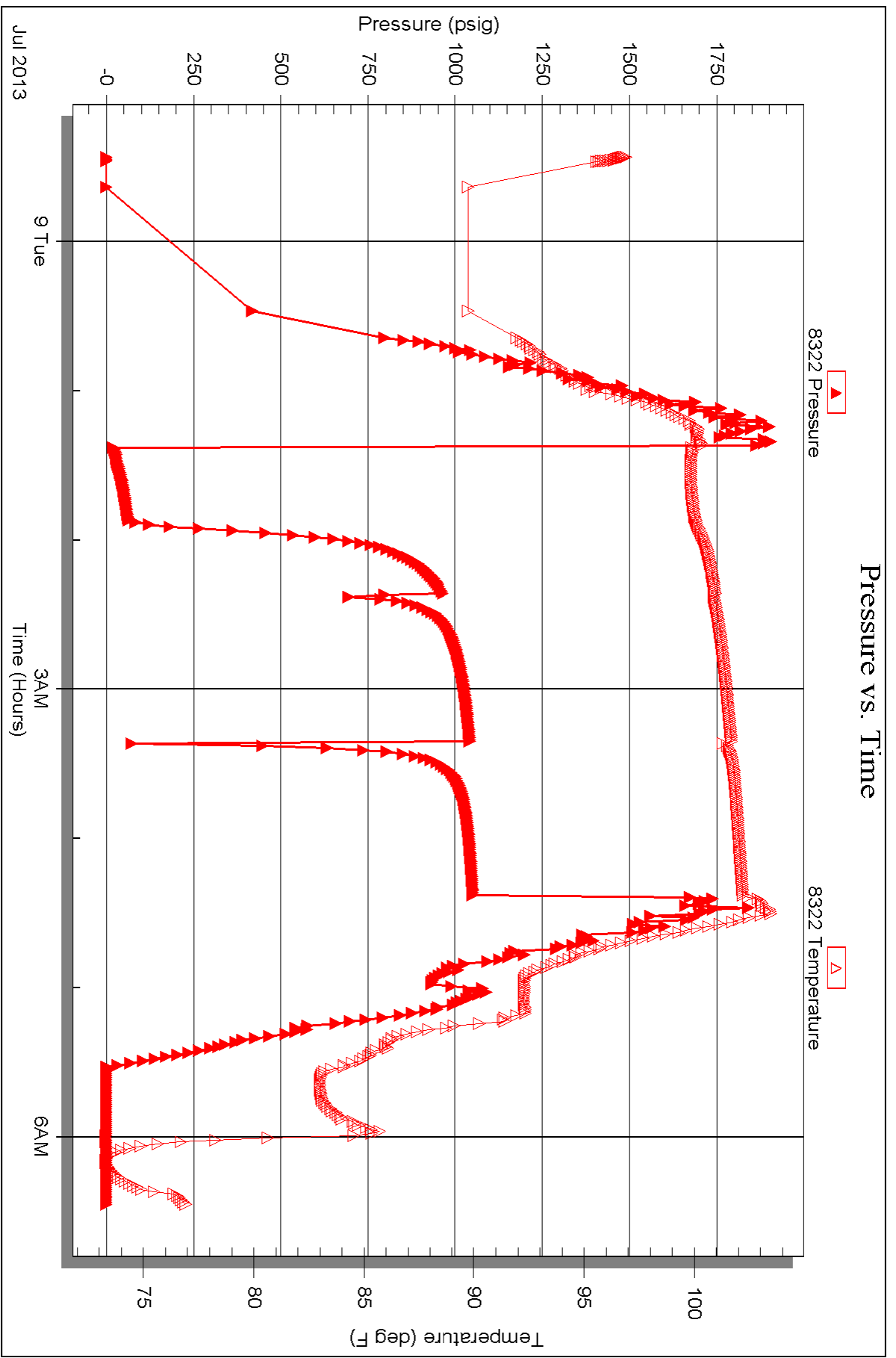


Serial #: 8322

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 \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 60  Extra Packer \_\_\_\_\_  
 Final Shut-In 60  Extra Recorder \_\_\_\_\_  
 Sub Total 0  
 Total 1227.50  
 MP/DST Disc't \_\_\_\_\_

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 0 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 \_\_\_\_\_  
 Ruined 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. 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. Reeks 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

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 3445 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

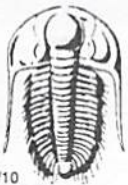
(A) Initial Hydrostatic 1693  Test 1150 T-On Location 01:11  
 (B) First Initial Flow 41  Jars \_\_\_\_\_ T-Started 01:14  
 (C) First Final Flow 299  Safety Joint \_\_\_\_\_ T-Open 02:56  
 (D) Initial Shut-In 447  Circ Sub \_\_\_\_\_ T-Pulled 09:56  
 (E) Second Initial Flow 348  Hourly Standby \_\_\_\_\_ 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 \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  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. 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

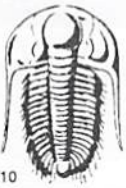
(A) Initial Hydrostatic 1762  Test 1150 T-On Location 15:50  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 16:31  
 (C) First Final Flow 20  Safety Joint \_\_\_\_\_ T-Open 18:22  
 (D) Initial Shut-In 439  Circ Sub \_\_\_\_\_ T-Pulled 20:22  
 (E) Second Initial Flow 43  Hourly Standby \_\_\_\_\_ 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 \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  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. 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 \_\_\_\_\_ Comments \_\_\_\_\_

(G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_

(H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open \_\_\_\_\_  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Shut-In \_\_\_\_\_  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_

Final Flow \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0

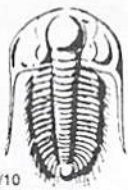
Final Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1027.50

MP/DST Disc't \_\_\_\_\_

Sub Total 1027.50

Approved By \_\_\_\_\_ Our Representative

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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 IFP - 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]

Tribolite 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. 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

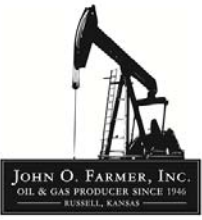
Rec Total 80 BHT 103 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(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  
 Initial Shut-In 30  
 Final Flow 60  
 Final Shut-In 60  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1305  
 Sub Total 1305

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

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# AUSTIN B. KLAUS



Cell 785.650.3629  
Work 785.483.3145  
Ext 225

PO BOX 352  
Russell, KS 67665  
austin.klaus@johnofarmer.com

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Peavey #1  
Location: Rooks County  
License Number: API #15-163-24,126-0000  
Spud Date: 7/1/2013  
Surface Coordinates: Section 21 - Township - 10 South - Range 18 West  
1,490' FNL & 1,740' FWL  
Bottom Hole Coordinates: Vertical well with minimal deviation, same as above  
Ground Elevation (ft): 2,142' K.B. Elevation (ft): 2,147'  
Logged Interval (ft): 3,100' To: RTD Total Depth (ft): 3,720'  
Formation: Toronto, Lansing  
Type of Drilling Fluid: Chemical (Andy's)

Region: Kansas  
Drilling Completed: 7/9/2013

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

## OPERATOR

Company: John O. Farmer, Inc.  
Address: P.O. Box 352  
Russell, KS 67665-0352

## Comments

The Peavey #1 well was drilled by WW Drilling Rig #6 (Tool Pusher: Jason Richeson).

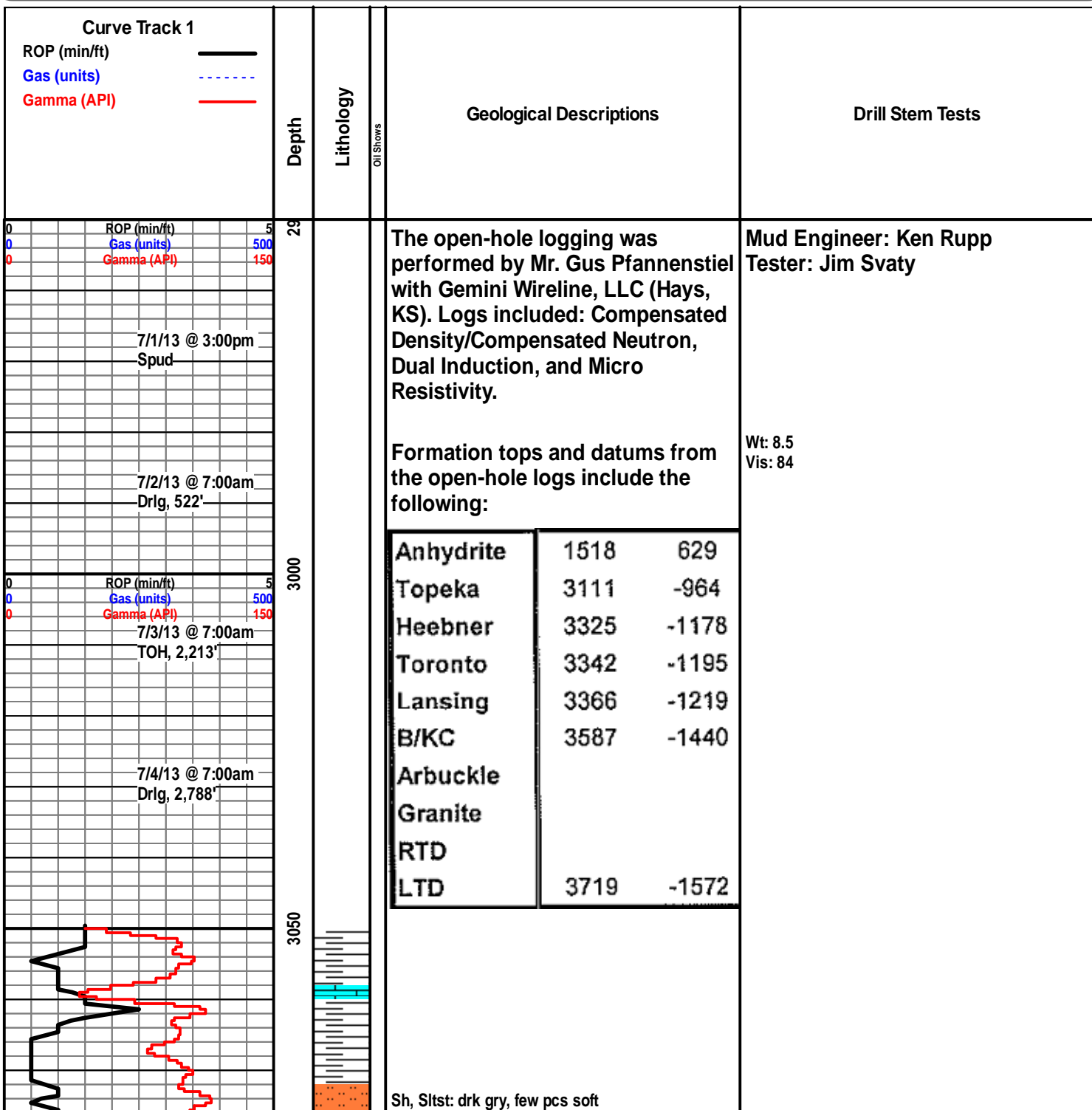
The location for the Peavey #1 well was located via 3D seismic survey. Geologic samples were collected and examined from 3,050-3,720'. After all sample, log, and drill stem test data was gathered and evaluated, the decision was made to plug and abandon the Peavey #1 well on 7/10/13.

**ROCK TYPES**

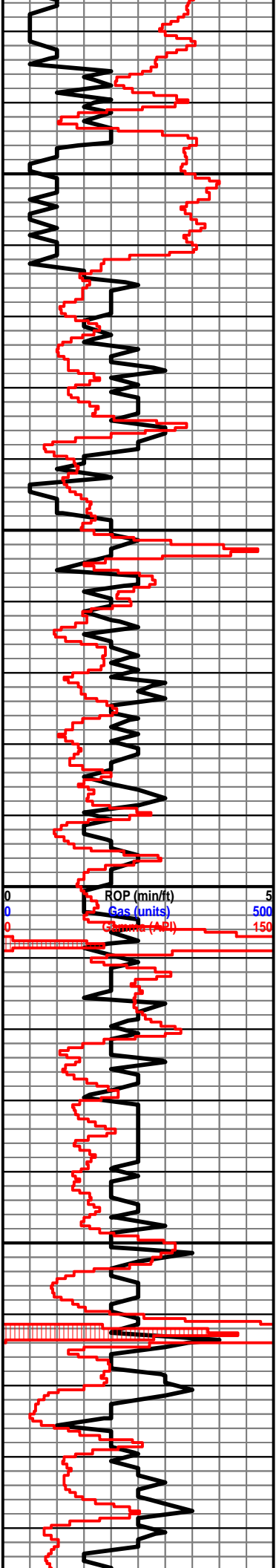
Anhy	Clyst	Gyp	Mrlst	Shgy
Bent	Coal	Igne	Salt	Slstst
Brec	Congl	Lmst	Shale	Ss
Cht	Dol	Meta	Shcol	Till

**OTHER SYMBOLS**

<b>POROSITY</b>	<input type="checkbox"/> Vuggy	<b>ROUNDING</b>	<input type="checkbox"/> Spotted	<b>EVENT</b>
<input type="checkbox"/> Earthy		<input type="checkbox"/> Rounded	<input type="checkbox"/> Ques	<input type="checkbox"/> Rft
<input type="checkbox"/> Fenest	<b>SORTING</b>	<input type="checkbox"/> Subrnd	<input type="checkbox"/> Dead	<input type="checkbox"/> Sidewall
<input type="checkbox"/> Fracture	<input type="checkbox"/> Well	<input type="checkbox"/> Subang		
<input type="checkbox"/> Inter	<input type="checkbox"/> Moderate	<input type="checkbox"/> Angular	<b>INTERVAL</b>	
<input type="checkbox"/> Moldic	<input type="checkbox"/> Poor		<input type="checkbox"/> Core	
<input type="checkbox"/> Organic		<b>OIL SHOW</b>	<input type="checkbox"/> Dst	
<input type="checkbox"/> Pinpoint		<input type="checkbox"/> Even		



Sh, Slstst: drk gry, few pcs soft



Ls: lt gry-tan, fn-sub xln, mostly DNS, sl fossil

Sh: lt-drk gry, soft

**Topeka 3116' (-968)**

Ls: off wh-tan, fn-sub xln, scat vuggy porosity, scat oil st, NSFO, chalky

Ls: off wh-lt gry, fn-sub xln, mostly DNS, sl fossil, chalky

Ls: lt gry-tan, fn-sub xln, mostly DNS, fossil, chalky

Sh, Slstst: lt-drk gry

Ls: lt gry-tan, fn-sub xln, vry DNS, chalky, sl fossil, sl chert

Ls: ala

Sh: lt gry, scat slstst

Sh: ala

Ls: tan-brn, fn xln, fossil, poor int fossil porosity, NSFO, sl chalky

Sh: drk gry

Ls: off wh-tan, fn-sub xln, mostly DNS, sl fossil, NSFO

Sh: drk gry-brn

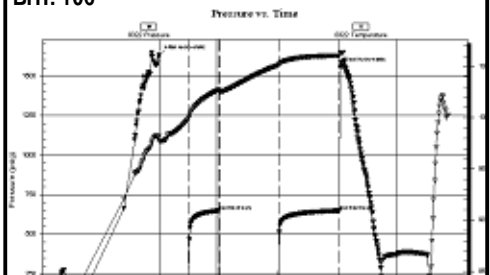
Sh: drk gry-blk-grn

Ls: off wh-tan, fn xln, fair pp vuggy porosity, fossil, chalky, lt oil st in porosity, NSFO, sl odor

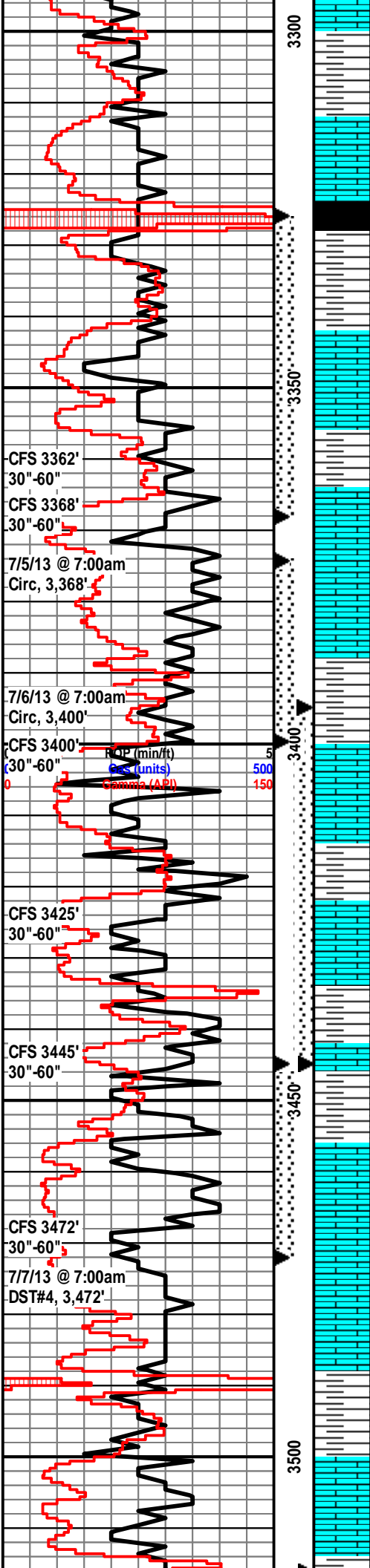
Ls: tan-brn, fn-sub xln, vry DNS

DST #1 3,326'-3,368' (Toronto)  
30"-30"-30"-30"

IF: BOB in 22 minutes, no blow back  
 FF: BOB in 31 minutes, no blow back  
 Rec: 8' CO (30 API), 360' MCW (15% M, 85% W)  
 FP: 23-112#, 117-193#  
 SIP: 649-649#  
 HP: 1,631-1,554#  
 BHT: 106







Ls: ala

Ls: tan-lt gry, fn-sub xln, mostly DNS, sl chalky sl fossil

**Heebner 3329' (-1182)**

Sh: drk gry-blk, carb, fissile

Sh: lt-drk gry, soft

**Toronto 3350' (-1203)**

Ls: off wh-tan, fn xln, poor-fair int xln & pp vuggy porosity, lt-fair oil st, VSSFO, sl odor, sl chalky

Sh: lt-drk gry-brn

Ls: off wh-tan, fn-sub xln, moslty DNS, sl chalky

**Lansing 3373' (-1225)**

Ls: off wh-tan, fn xln, poor int xln & vuggy porosity, lt oil st in porosity, NSFO, no odor, chert-off wh

Sh: drk gry-lt grn

Ls: off wh-tan, fn xln, poor int xln porosity, lt-fair oil st in porosity, VSSFO, sl odor, fossil

Sh: drk gry-brn-grn

Ls: off wh-tan, fn xln, poor int xln porosity, dead oil st, VSSFO, sl odor, fossil, sl chalky

Sh: lt-drk gry

Ls: off wh-tan, fn xln, fossil, fair int fossil & int xln porosity, fair oil st, SSFO, sl-fair odor, chert-off wh

Sh: drk gry-brn-grn

Ls: off wh-tan, fn xln, ool, fair intpart porosity, fair oil st, VSSFO, sl odor

Ls: off wh-tan, fn xln, ool, fossil, poor-fair intpart porosity, dead oil st, NSFO, sl chert-off wh

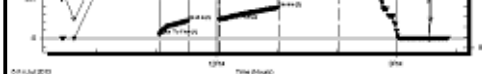
Sh: drk gry

Ls: ala, scat qtz

Sh: drk gry-brn-grn

Sh: lt-drk gry, few pcs sltst

Ls: off wh-tan, fn-sub xln, moslty DNS, chert-off wh, sl chalky



Wt: 9

Vis: 45

**DST #2 3,374'-3,400' (Lansing B)  
30"-30"-30"-30"**

IF: no blow, no blow back

FF: no blow, no blow back

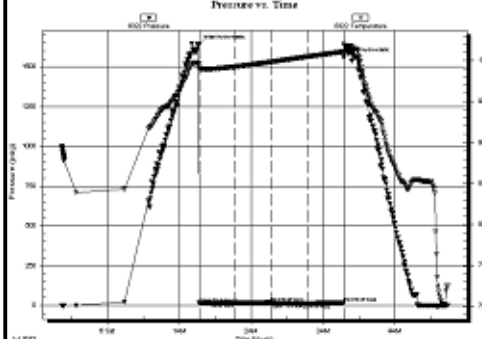
Rec: 1' drilling mud

FP: 15-15#, 14-13#

SIP: 19-18#

HP: 1,639-1,555#

BHT: 101



Wt: 9.1

Vis: 50

**DST #3 3,395'-3,445' (Lansing C & D)  
30"-30"-30"-30"**

IF: BOB in 8 minutes, no blow back

FF: BOB in 14 minutes, no blow back

Rec: 120' OCMW (5% O, 15% M, 80% W)

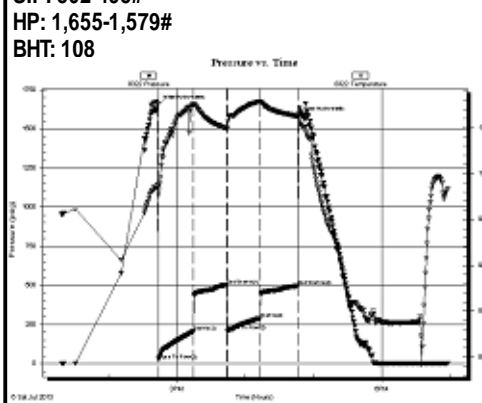
372' OCMW (3% O, 30% M, 67% W), 37' OCMW (3% O, 47% M, 50% W)

FP: 24-203#, 208-287#

SIP: 502-495#

HP: 1,655-1,579#

BHT: 108



Wt: 9.1

Vis: 57

**DST #4 3,445'-3,472' (Lansing E & F)  
30"-30"-30"-30"**

IF: BOB in 4 minutes, no blow back

FF: BOB in 12 minutes, no blow back

Rec: 1' MWCO (5% M, 10% W, 85% O)

231' OMCW (2% O, 20% M, 78% W)

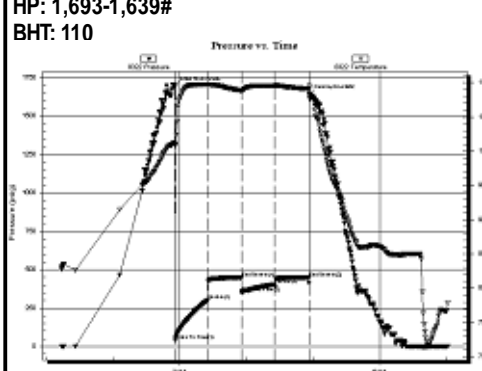
554' OMCW (2% O, 3% M, 95% W)

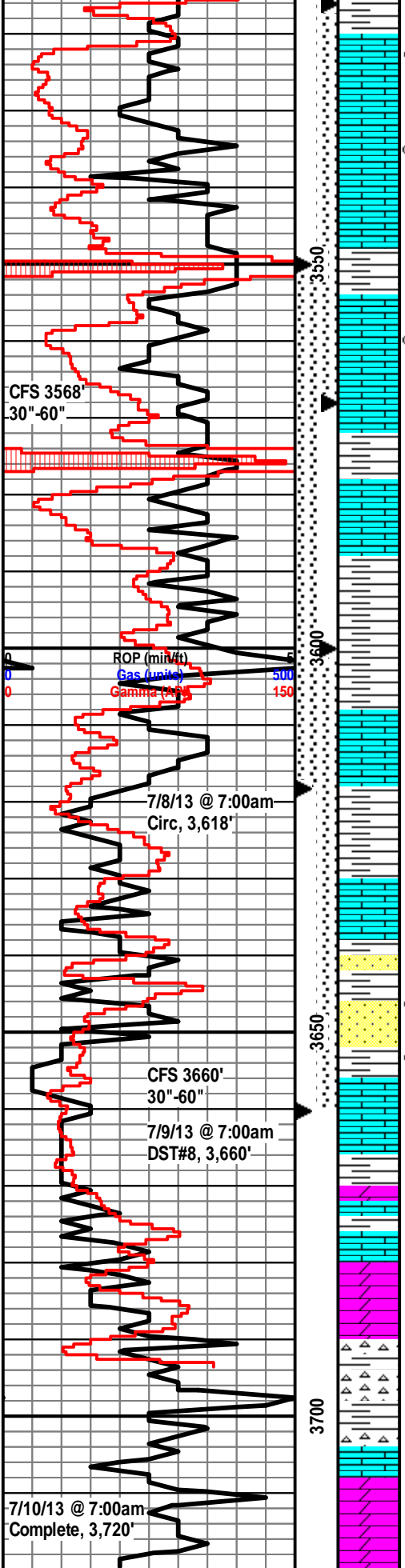
FP: 41-299#, 348-403#

SIP: 447-449#

HP: 1,693-1,639#

BHT: 110





Sh: lt-drk gry-brn

Ls: off wh-tan, fn xln, poor int xln porosity, fair oil st, SSFO, fair odor, sl fossil, hvy chert-off wh

Ls: off wh-tan, fn-md xln, poor-fair int xln porosity, fair-drk oil st, SSFO, good odor, sl chalky

Ls: off wh-tan, fn xln, poor int part porosity, lt oil st, NSFO, sl odor, fossil, sl chalky

Sh: drk gry

Ls: off wh-tan, fn xln, fair vuggy porosity, fair oil st sat, SSFO, sl-fair odor, chalky

Qtz: clr, fn-md grn, fairly well rounded, well sorted, poor int grn porosity, vry DNS

Sh: drk gry-brn-grn

Ls: off wh-tan, fn xln, poor int xln porosity, lt oil st, sl fossil, chert-off wh, NSFO, vry sl odor

Sh: drk gry-brn-grn

**BKC 3603' (-1455)**

Sh, Sltst: drk gry-brn-grn

Ls: lt gry-tan, fn-sub xln, mostly DNS, sl fossil, chalky, sl chert-off wh

Sh: drk gry-brn-grn

Sh: ala

Ls: off wh-lt gry, fn-sub xln, mostly DNS, chert-off wh

Sh: drk gry-drk brn-grn

**Conglomerate 3645 (-1497)**

Qtz: fn-md grn, sub rounded, poorly sorted, fair-poorly cemented, fair-good oil sat, SFO, fair-good odor

Ls: off wh-lt gry-brn, fn-sub xln, hvy chert-off wh, Sh: drk gry-brn

Cong, Sh: drk gry-brn-grn, few pcs blk; chert-off wh

Sh: drk gry-brn-grn-red

Dolo: tan-brn, fn xln, vry DNS, chert-off wh, chalky

Dolo: ala

Chert: off wh-tan-brn, Sh: drk gry-brn-grn, few pcs waxy

Sh, Chert: ala, sl fossil

Ls: off wh-tan, fn-sub xln, DNS, chalky, sl fossil

Dolo: off wh-tan, fn xln, poor int xln porosity, dead oil st, sl odor, Sh: drk gry-brn-grn, chert-off wh-tan

Wt: 8.6  
Vis: 57  
DST #5 3,516'-3,568' (Lansing I & J)  
30"-30"-30"-30"  
IF: surface blow died in 10 minutes, no blow back

FF: no blow  
Rec: 3' OCM (2% O, 98% M)  
FP: 15-20#, 44-24#  
SIP: 439-412#  
HP: 1,763-1,644#  
BHT: 104

DST #6 3,558'-3,618' (Lansing K & L)  
Packer Failure

DST #7 3,550'-3,618' (Lansing K & L)  
30"-30"-30"-30"

IF: surface blow  
FF: no blow  
Rec: 5' CO, 10' HMCO (40% M, 60% O)  
FP: 15-27#-68-83#  
SIP: 581-530#  
HP: 1,696-1,680#  
BHT: 105

DST #8 3,600'-3,660' (Conglomerate)  
30"-30"-60"-60"

IF: weak surface blow  
FF: too plugged  
Rec: 80' W%OCM (5% W, 10% O, 85% M)  
FP: 18-63#, 402-1,042#  
SIP: 966-1,051#  
HP: 1,851-1,674#  
BHT: 103