

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

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

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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>	PRODUCTION INTERVAL: Top _____ Bottom _____
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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# Discovery Drilling

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

## DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548  
370 West Wichita Avenue - P.O. Box 352 PO Box 763  
Russell, KS 67665 + 2635 Hays, KS 67601

Lease: Drilling "D" # 1 Location: 430 FSL - 1660 FWL  
NE/SW/SE/SW  
Section 24/ 12S/ 16W  
Ellis County, KS

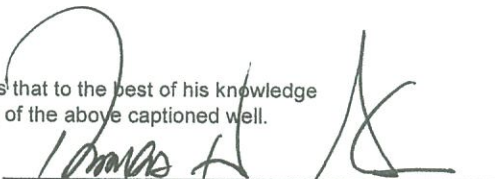
Loggers Total Depth: 3442' API#15- 051-26,931-00-00  
Rotary Total Depth: 3440' Elevation: 1861 GL - 1869 KB  
Commenced: 10/1/2018 Completed: 10/9/2018  
Casing: 8 5/8" @ 220.81'W/150sks Status: D & A  
KCC Contact: Case Morris  
Plugging Info: (1st Plug @ 3338'W/50sks)(2nd Plug @ 1025'W/50sks)  
(3rd Plug @ 500'W/80sks)(4th Plug @ 275'W/50sks)  
(5th Plug @ 40'W/10sks)(30sks In Rat Hole)(15sks In  
Mouse Hole)(Total 285sks 60/40Poz 4%Gel-1/4\$ FS/sk)  
(Completed @ 1:30PM 10/9/2018)

### DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>1036'</u>
Dakota Sand	<u>384'</u>	Shale & Lime	<u>1596'</u>
Shale	<u>410'</u>	Shale	<u>1944'</u>
Cedar Hill Sand	<u>599'</u>	Shale & Lime	<u>2336'</u>
Red Bed Shale	<u>801'</u>	Lime & Shale	<u>3043'</u>
Anhydrite	<u>998'</u>	RTD	<u>3440'</u>
Base Anhydrite	<u>1036'</u>		

STATE OF KANSAS )  
) ss  
COUNTY OF ELLIS )

Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.

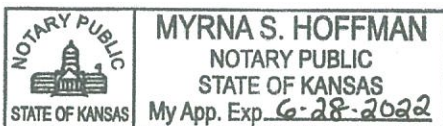
  
Thomas H. Alm

Subscribed and sworn to before me on 10-18-18

My Commission expires: 6-28-2022

(Place stamp or seal below)

  
Notary Public



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 959

Date	10-1-19	Sec.	24	Twp.	12	Range	16	County	Ellis	State	KS	On Location		Finish	11:30 PM		
Lease								Location		Corham 1W N to Locus Grove 1/2 W N int							
Dreiling "D"								Well No. #1		Owner							
Contractor								Discovery #2		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job								Surface		Charge To							
Hole Size								12 1/4		T.D.		220'					
Csg.								8 5/8		Depth		220'					
Tbg. Size										Street							
Tool										City		State					
Cement Left in Csg.								20'		Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.					
Meas Line								Displace		12 3/4 bbl							
EQUIPMENT								Common		120							
Pumptrk								17		No. Cementer		Helper Brett					
Bulktrk								9		No. Driver		David					
Bulktrk										No. Driver		Jack					
JOB SERVICES & REMARKS								Hulls									
Remarks:								Salt									
Rat Hole								Flowseal									
Mouse Hole								Kol-Seal									
Centralizers								Mud CLR 48									
Baskets								CFL-117 or CD110 CAF 38									
D/V or Port Collar								Sand									
Ran 220' 8 5/8 + Est circulation								Handling		139							
Mix 150 sx								Mileage									
Displace 12 3/4 bbl								FLOAT EQUIPMENT									
Cement did circulate !!								Guide Shoe									
								Centralizer									
								Baskets									
								AFU Inserts									
								Float Shoe									
								Latch Down									
								Pumptrk Charge		Surface							
								Mileage		17							
Signature								Tax									
								Discount									
								Total Charge									

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 984

Date	10-9-18	Sec.	24	Twp.	12	Range	16	County	Ellis	State	KS	On Location		Finish	1:30 PM
Lease								Location		Gorham 1W 10N 1/2 W N into					
Dreiling "D"								Well No. #1		Owner					
Contractor Discovery #2								To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job Plug								Charge To John O Farmer							
Hole Size 7 7/8								T.D. 3440'		Street					
Csg. Drill pipe								Depth		City					
Tbg. Size								Depth		State					
Tool								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
Cement Left in Csg.								Shoe Joint		Cement Amount Ordered 285 6 0/40 4 0/6 gel					
Meas Line								Displace							
<b>EQUIPMENT</b>								Common 170							
Pumptrk 18 No. Cementer								Poz. Mix 115							
Helper Brett								Gel. 10							
Bulktrk 15 No. Driver								Calcium							
Driver Craig								Hulls							
Bulktrk No. Driver								Salt							
Driver Doug								Flowseal 75#							
<b>JOB SERVICES &amp; REMARKS</b>								Kol-Seal							
Remarks:								Mud CLR 48							
Rat Hole 30 sx								CFL-117 or CD110 CAF 38							
Mouse Hole 15 sx								Sand							
Centralizers								Handling 295							
Baskets								Mileage							
D/V or Port Collar								<b>FLOAT EQUIPMENT</b>							
1st 3358 w/ 150 sx								Guide Shoe							
2nd 1025 w/ 150 sx								Centralizer							
3rd 500 w/ 80 sx								Baskets							
4th 275 w/ 150 sx								AFU Inserts							
5th 40 w/ 10 sx								Float Shoe							
								Latch Down							
								1 8 3/4 plug							
								Pumptrk Charge plug							
								Mileage 17 plug							
								Tax							
								Discount							
								Total Charge							
X Signature															

*[Handwritten signature]*

Cell 785.650.3629 PO BOX 352  
 Work 785.483.3145 Russell, KS 67665  
 Ext 225 austin.klaus@johnofarmer.com

Scale 1:240 (3"=100') Imperial  
 Measured Depth Log

Well Name: Drilling D #1  
 Location: Ellis County, Kansas  
 License Number: 081-615-001-26-031-000  
 Surface Coordinates: Section 12, Township 12 South, Range 18 West  
 Section 12, Township 12 South, Range 18 West  
 Bottom Hole Coordinates: Vertical well w/ minimal variation, same as above  
 Ground Elevation (ft): 1360  
 Logpad Elevation (ft): 1360  
 Formation: LKC, Adair (Andy's Mud Co.)  
 Type of Drilling Fluid: Chemical (Andy's Mud Co.)  
 Drilling Complete: 10/9/2018  
 Total Depth (ft): 1480

**OPERATOR**

Company: John O. Farmer, Inc.  
 Address: 210 W. Wichita Ave.  
 Russell, KS 67665

**Comments**

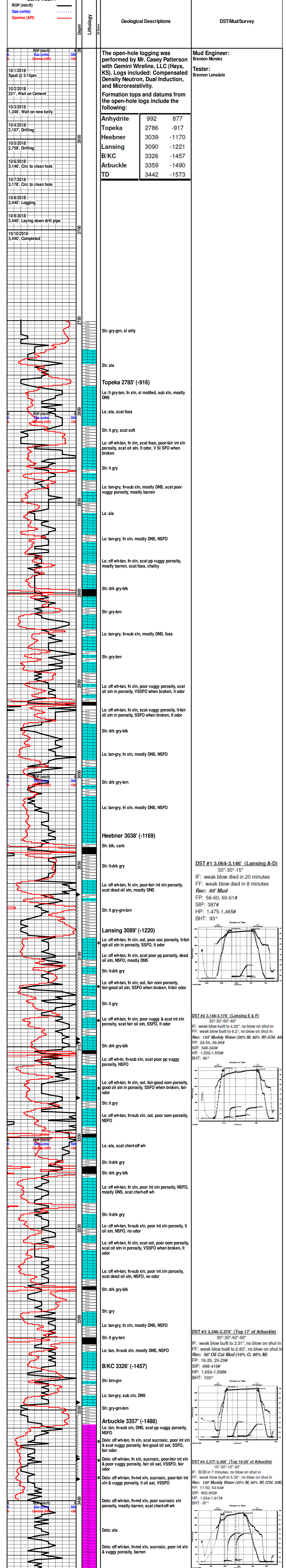
The Drilling D #1 well was drilled by Discovery Drilling (Paul Fisher, Terry Watson). The location for the Drilling D #1 was discovered via 2D seismic survey. Rock samples were gathered and evaluated from 2,707' - 3,450'. Oil shows were encountered in LKC, A.C.G.J. and Adair. Structurally, the Lansing log was picked 2' high in the comparison well. Drilling D #1 is a slight structural trapping structure and the Adair was picked 4' high in the comparison well. After evaluation of all oil shows, drill stem test results, & micro logs, the decision was made to plug and abandon the Drilling D #1 on 10/10/2018.

**ROCK TYPES**

Arky	Cryst	Cyp	Mist	Shy
Ber	Clay	Con	Shale	Sh
Blc	Coal	Grd	Shale	St
Clc	Cond	Grd	Shale	St
Clc	Con	Grd	Shale	St

**OTHER SYMBOLS**

POSSIBL	Vuggy	BOUNDING	Spotted	EVENT
Earth	SOFTING	Subs	Clay	Clay
Favos	Sh	Subs	Dead	Subwell
Fluc	Inter	Subs	Core	
Modic	Moderate	Angul	TEMPAL	
Organic	Four	GR. SHOW	Core	
Propriet		GR. SHOW	Core	





## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer Inc.**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Dreiling D #1**

#### **24-12s-16w Ellis,KS**

Start Date: 2018.10.06 @ 09:40:00

End Date: 2018.10.06 @ 14:33:30

Job Ticket #: 64783                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.10.11 @ 16:31:03





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64783

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 09:40:00

## GENERAL INFORMATION:

Formation: **LKC A-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:41:30

Time Test Ended: 14:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale/Ben

Unit No: 73

**Interval: 3064.00 ft (KB) To 3146.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3146.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

**Serial #: 6753**

**Inside**

Press@RunDepth: 59.79 psig @ 3065.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.06

End Date: 2018.10.06

Last Calib.: 2018.10.06

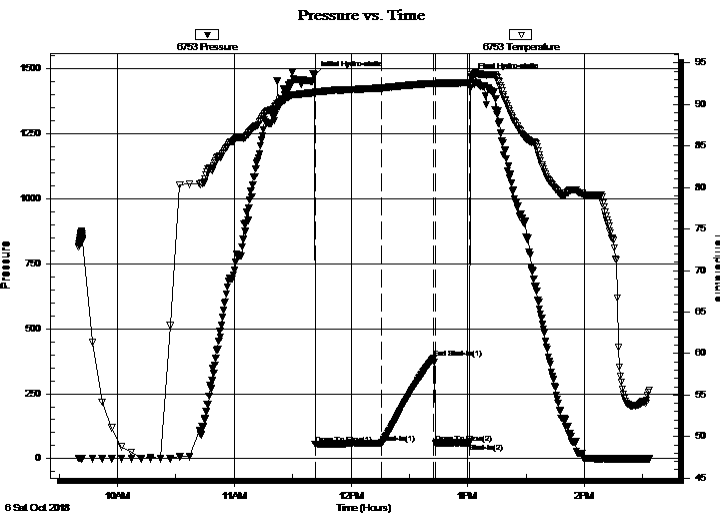
Start Time: 09:40:05

End Time: 14:33:29

Time On Btm: 2018.10.06 @ 11:41:00

Time Off Btm: 2018.10.06 @ 13:02:00

**TEST COMMENT:** 30-IF-Weak surface blow died in 20 mins  
30-ISI-No blow  
15-FF-Intermittent surface blow died in 8 mins. Pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1475.47	91.42	Initial Hydro-static
1	56.09	91.33	Open To Flow (1)
35	59.79	91.98	Shut-In(1)
62	386.97	92.55	End Shut-In(1)
63	60.46	92.52	Open To Flow (2)
80	60.99	92.65	Shut-In(2)
81	1464.94	93.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	Mud	0.59

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64783

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 09:40:00

## Tool Information

Drill Pipe:	Length: 2753.00 ft	Diameter: 3.82 inches	Volume: 39.02 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: 41.30 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3064.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3045.00	
Shut In Tool	5.00			3050.00	
Hydraulic tool	5.00			3055.00	
Packer	5.00			3060.00	20.00 Bottom Of Top Packer
Packer	4.00			3064.00	
Stubb	1.00			3065.00	
Recorder	0.00	6753	Inside	3065.00	
Recorder	0.00	6771	Outside	3065.00	
Perforations	14.00			3079.00	
Change Over Sub	1.00			3080.00	
Drill Pipe	62.00			3142.00	
Change Over Sub	1.00			3143.00	
Bullnose	3.00			3146.00	82.00 Bottom Packers & Anchor

**Total Tool Length: 102.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64783

**DST#: 1**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 09:40:00

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Mud	0.588

Total Length: 80.00 ft      Total Volume: 0.588 bbl

Num Fluid Samples: 0

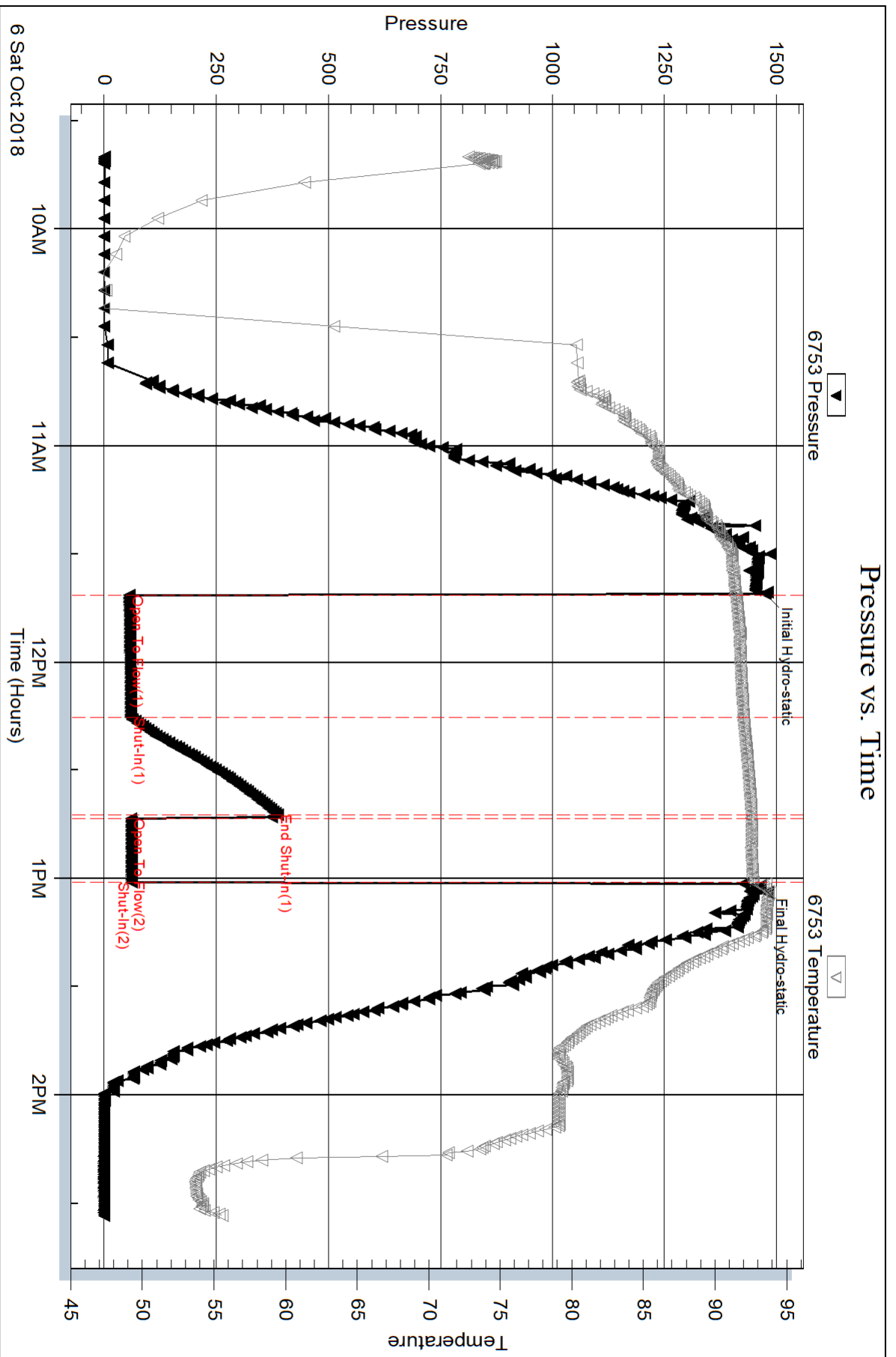
Num Gas Bombs: 0

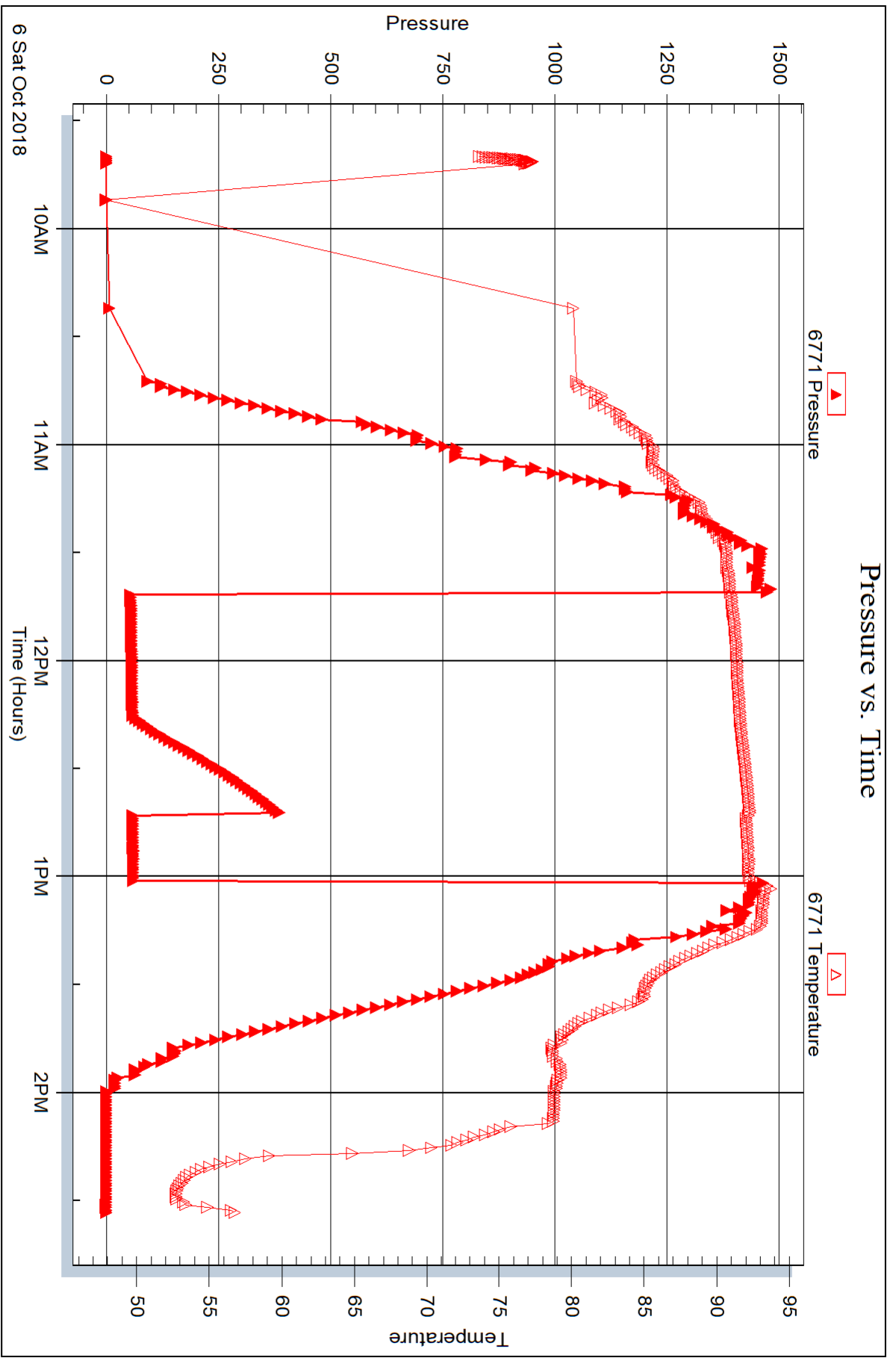
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer Inc.**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Dreiling D #1**

#### **24-12s-16w Ellis,KS**

Start Date: 2018.10.06 @ 21:56:57

End Date: 2018.10.07 @ 04:39:27

Job Ticket #: 64784                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.10.11 @ 16:29:14



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64784

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 21:56:57

## GENERAL INFORMATION:

Formation: **LKC E - F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:02:57

Time Test Ended: 04:39:27

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale/Ben

Unit No: 73

**Interval: 3148.00 ft (KB) To 3178.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3178.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6753**

**Inside**

Press@RunDepth: 95.04 psig @ 3149.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.06 End Date: 2018.10.07

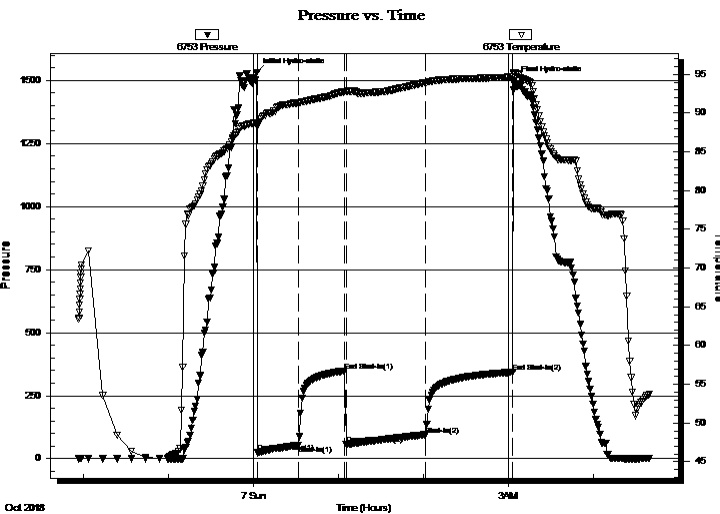
Last Calib.: 2018.10.07

Start Time: 21:57:02 End Time: 04:39:26

Time On Btm: 2018.10.07 @ 00:02:27

Time Off Btm: 2018.10.07 @ 03:03:57

**TEST COMMENT:** 30-IF- Weak blow built to 4.22"  
30-ISI-No blow back  
60-FF-Weak blow built to 6.20"  
60-FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1531.75	88.78	Initial Hydro-static
1	23.74	88.49	Open To Flow (1)
30	54.19	91.34	Shut-In(1)
62	348.00	92.76	End Shut-In(1)
63	55.98	92.75	Open To Flow (2)
119	95.04	93.94	Shut-In(2)
181	342.90	94.67	End Shut-In(2)
182	1499.55	95.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW 20% mud 80% w ater	1.14

\* 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.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64784

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 21:56:57

## Tool Information

Drill Pipe:	Length: 2846.00 ft	Diameter: 3.82 inches	Volume: 40.34 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 42.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3148.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3129.00	
Shut In Tool	5.00			3134.00	
Hydraulic tool	5.00			3139.00	
Packer	5.00			3144.00	20.00 Bottom Of Top Packer
Packer	4.00			3148.00	
Stubb	1.00			3149.00	
Recorder	0.00	6753	Inside	3149.00	
Recorder	0.00	6771	Outside	3149.00	
Perforations	26.00			3175.00	
Bullnose	3.00			3178.00	30.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>50.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64784

**DST#: 2**

ATTN: Austin Klaus

Test Start: 2018.10.06 @ 21:56:57

## 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:

40000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
155.00	MW 20% mud 80% w ater	1.139

Total Length: 155.00 ft      Total Volume: 1.139 bbl

Num Fluid Samples: 0

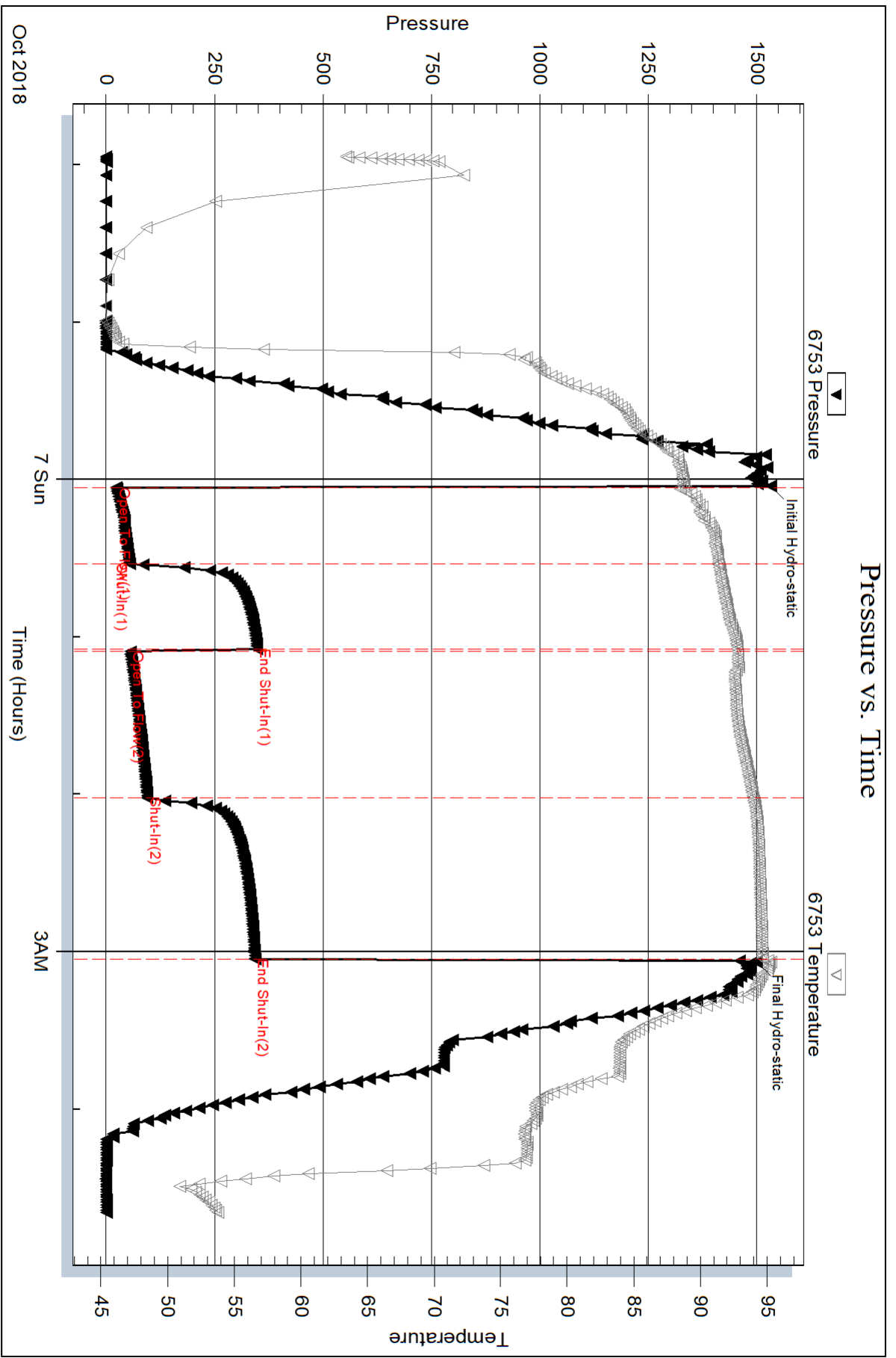
Num Gas Bombs: 0

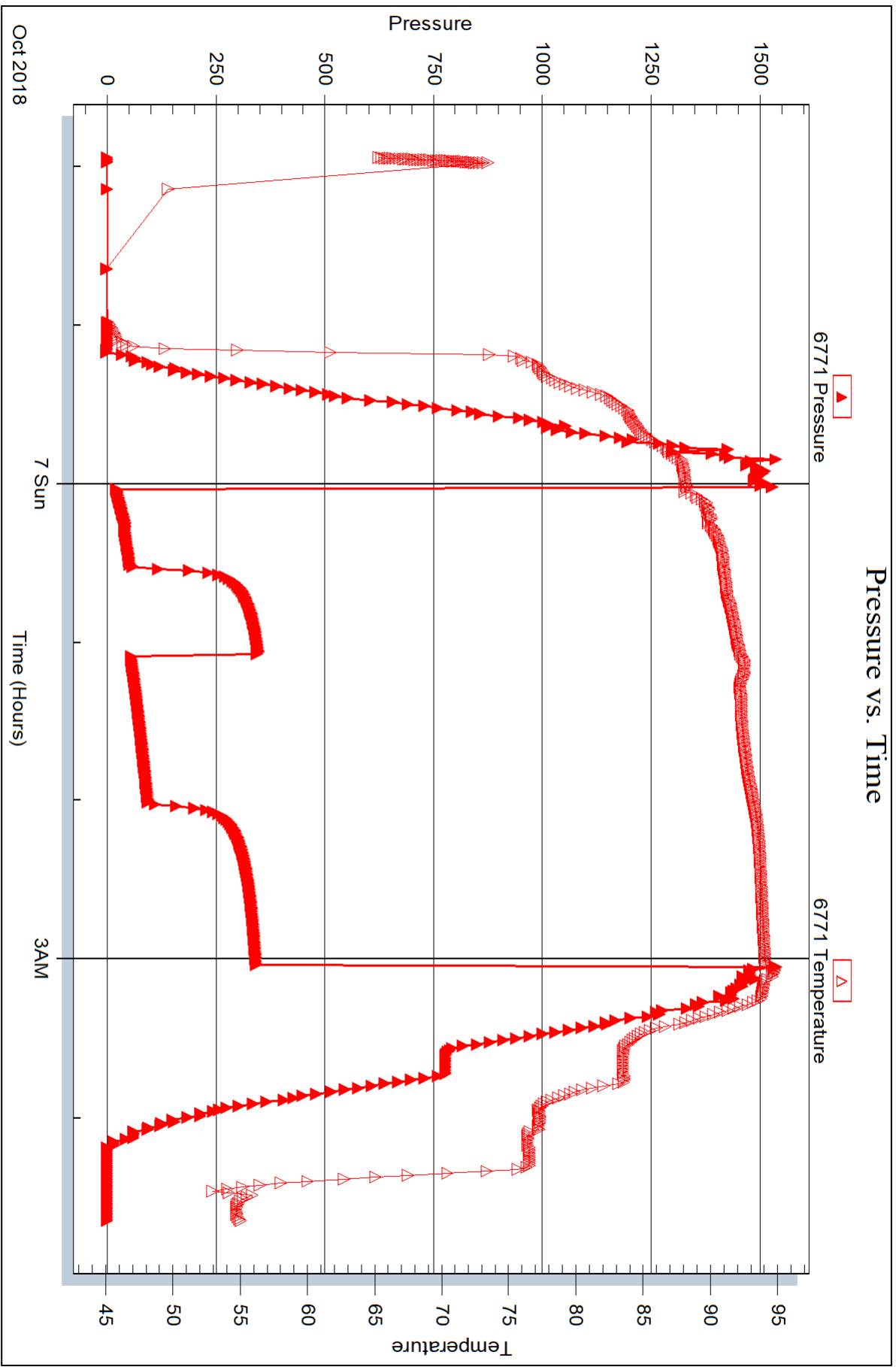
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: 0.22 at 52 deg







## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer Inc.**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Dreiling D #1**

#### **24-12s-16w Ellis,KS**

Start Date: 2018.10.08 @ 10:24:08

End Date: 2018.10.08 @ 17:44:44

Job Ticket #: 64785                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.10.11 @ 16:14:24



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64785

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2018.10.08 @ 10:24:08

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:01:29

Time Test Ended: 17:44:44

Test Type: Conventional Straddle (Reset)

Tester: Brannan Lonsdale/Ben

Unit No: 73

**Interval: 3346.00 ft (KB) To 3376.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6771 Outside**

Press@RunDepth: 29.49 psig @ 3347.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.08 End Date: 2018.10.08

Last Calib.: 2018.10.08

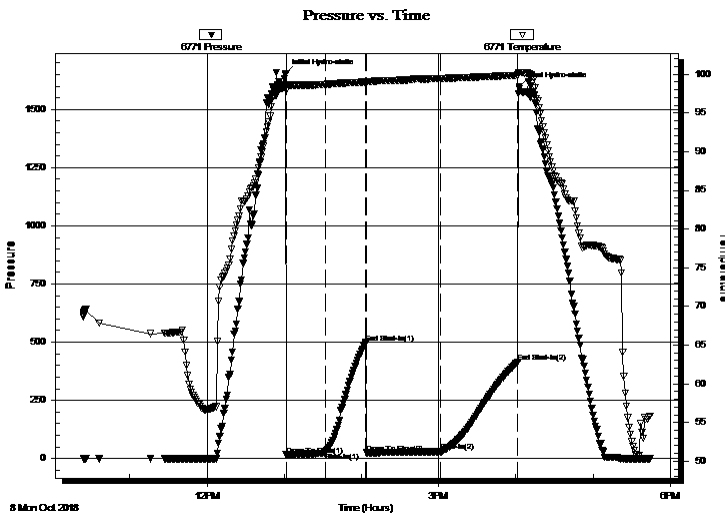
Start Time: 10:24:09 End Time: 17:44:44

Time On Btm: 2018.10.08 @ 13:01:14

Time Off Btm: 2018.10.08 @ 16:02:44

**TEST COMMENT:** 30-IF-Weak blow built to 2.31"  
30-ISI- No blow back  
60-FF-Weak blow built to 2.83"  
60-FSI-No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1654.17	98.65	Initial Hydro-static
1	15.96	97.94	Open To Flow (1)
31	25.37	98.68	Shut-In(1)
63	498.44	98.99	End Shut-In(1)
63	24.53	98.95	Open To Flow (2)
120	29.49	99.43	Shut-In(2)
181	415.70	99.87	End Shut-In(2)
182	1598.02	100.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	OCM 10% OIL 90% MUD	0.37

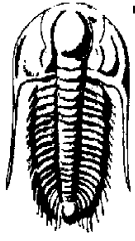
\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64785

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2018.10.08 @ 10:24:08

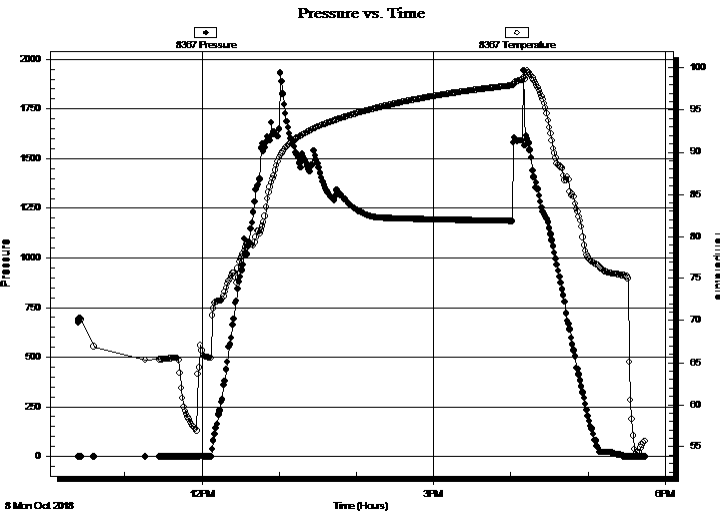
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:01:29  
 Time Test Ended: 17:44:44  
 Interval: **3346.00 ft (KB) To 3376.00 ft (KB) (TVD)**  
 Total Depth: 3440.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Brannan Lonsdale/Ben  
 Unit No: 73  
 Reference Elevations: 1869.00 ft (KB)  
 1861.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8367 Below (Straddle)

Press@RunDepth: psig @ 3379.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.10.08 End Date: 2018.10.08 Last Calib.: 2018.10.08  
 Start Time: 10:24:06 End Time: 17:44:41 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Weak blow built to 2.31"  
 30-ISI- No blow back  
 60-FF-Weak blow built to 2.83"  
 60-FSI-No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	OCM 10% OIL 90% MUD	0.37

\* 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.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64785

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2018.10.08 @ 10:24:08

## Tool Information

Drill Pipe:	Length: 3036.00 ft	Diameter: 3.82 inches	Volume: 43.04 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 45.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3346.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	3376.00 ft			
Interval between Packers:	30.00 ft			
Tool Length:	115.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3327.00	
Shut In Tool	5.00			3332.00	
Hydraulic tool	5.00			3337.00	
Packer	5.00			3342.00	20.00 Bottom Of Top Packer
Packer	4.00			3346.00	
Stubb	1.00			3347.00	
Recorder	0.00	6753	Inside	3347.00	
Recorder	0.00	6771	Outside	3347.00	
Perforations	25.00			3372.00	
Blank Off Sub	1.00			3373.00	
Blank Spacing	3.00			3376.00	30.00 Tool Interval
Packer	1.00			3377.00	
Stubb	1.00			3378.00	
Change Over Sub	1.00			3379.00	
Recorder	0.00	8367	Below	3379.00	
Drill Pipe	62.00			3441.00	65.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>115.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64785

**DST#: 3**

ATTN: Austin Klaus

Test Start: 2018.10.08 @ 10:24:08

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	OCM 10% OIL 90% MUD	0.367

Total Length: 50.00 ft      Total Volume: 0.367 bbl

Num Fluid Samples: 0

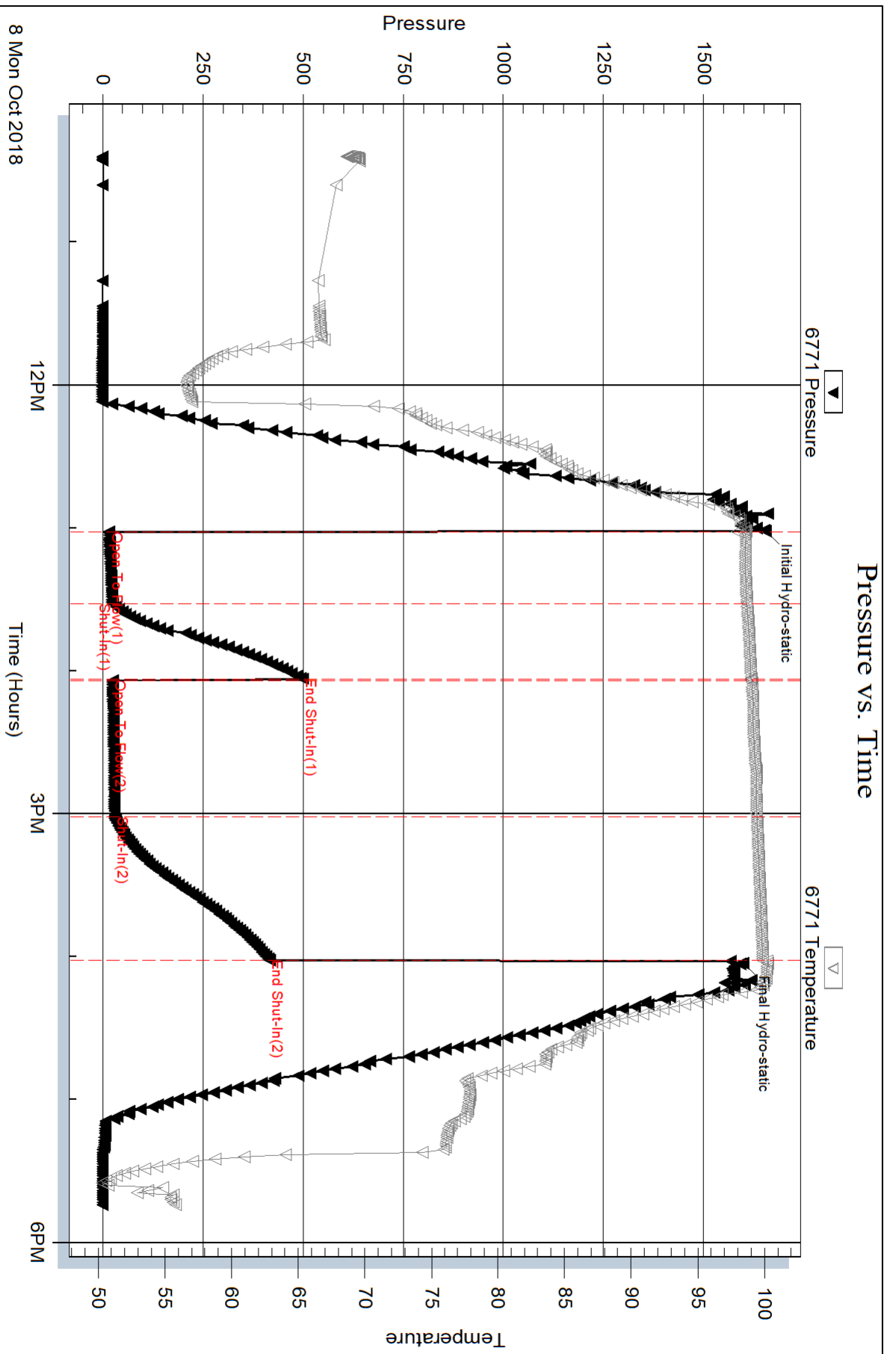
Num Gas Bombs: 0

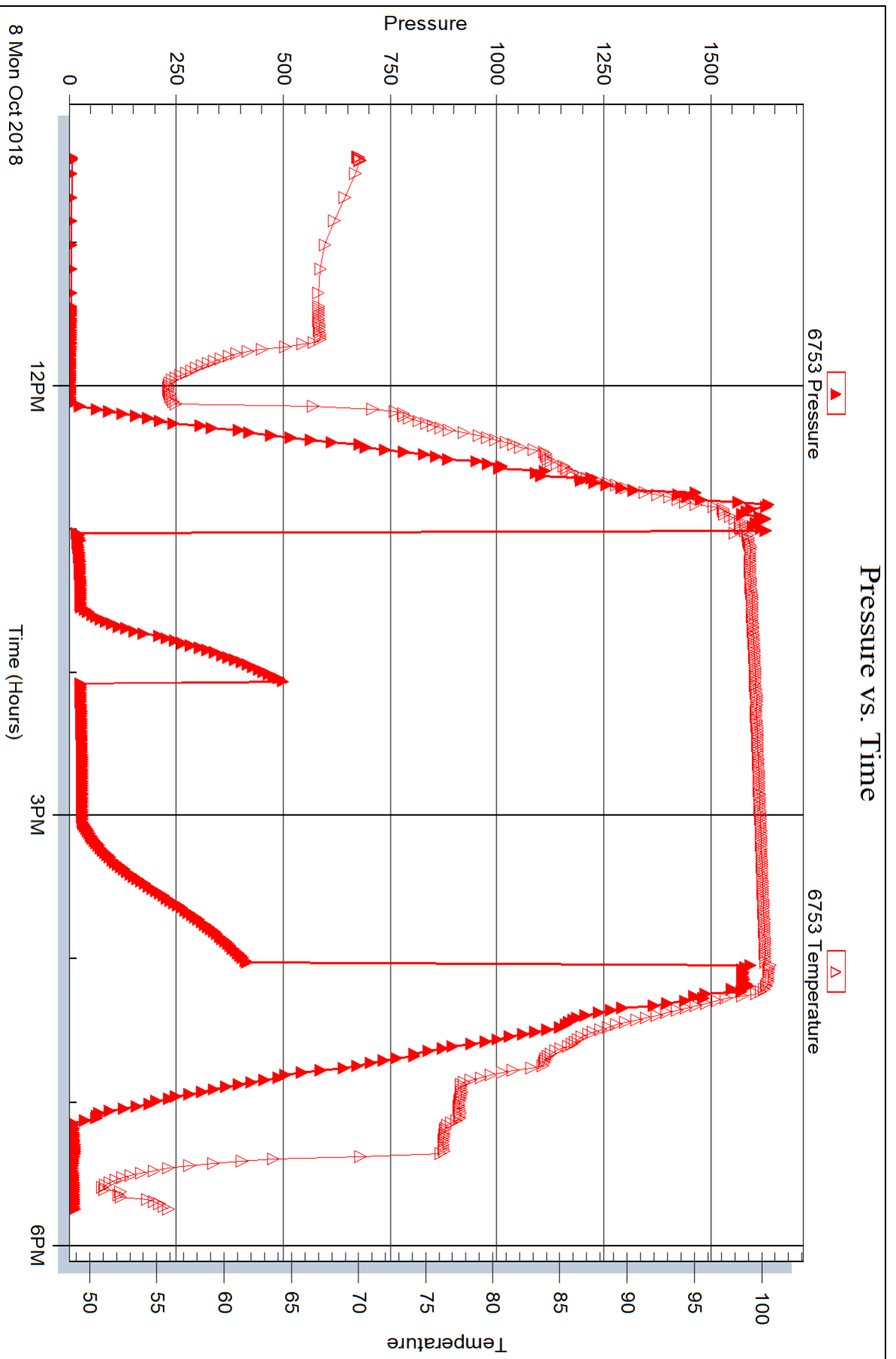
Serial #:

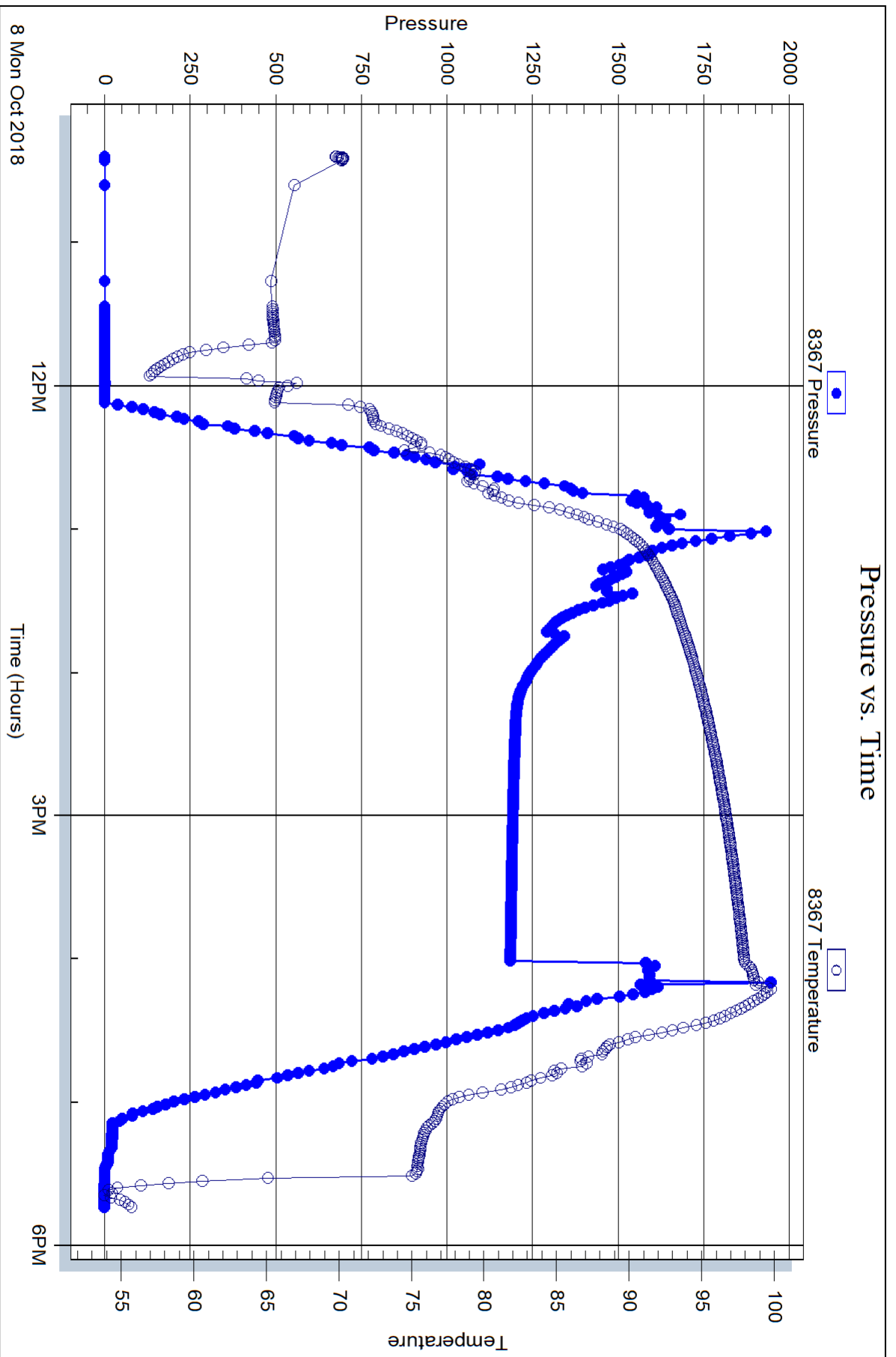
Laboratory Name:

Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **John O. Farmer Inc.**

PO Box 352  
Russell KS 67665

ATTN: Austin Klaus

### **Dreiling D #1**

#### **24-12s-16w Ellis,KS**

Start Date: 2018.10.09 @ 00:19:45

End Date: 2018.10.09 @ 05:30:36

Job Ticket #: 64786                      DST #: 4

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.10.11 @ 16:13:48



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64786

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2018.10.09 @ 00:19:45

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:56:21

Time Test Ended: 05:30:36

Test Type: Conventional Straddle (Reset)

Tester: Brannan Lonsdale/Ben

Unit No: 73

**Interval: 3377.00 ft (KB) To 3388.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6771 Outside**

Press@RunDepth: 63.95 psig @ 3378.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.09 End Date: 2018.10.09

Last Calib.: 2018.10.09

Start Time: 00:19:46 End Time: 05:30:36

Time On Btm: 2018.10.09 @ 01:55:51

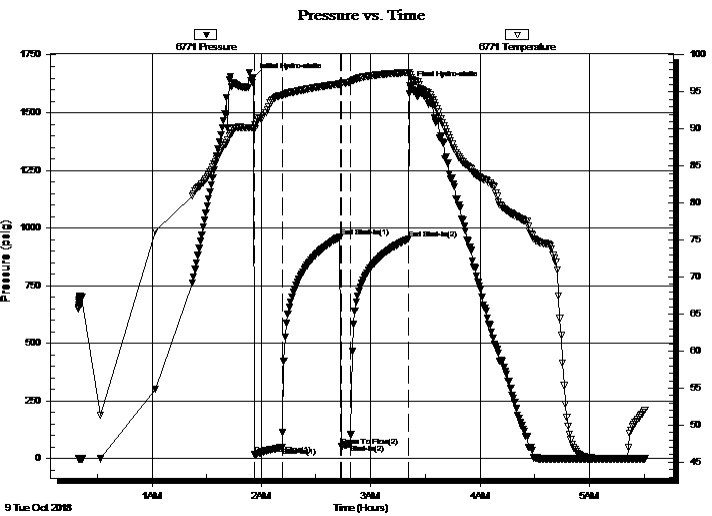
Time Off Btm: 2018.10.09 @ 03:21:36

**TEST COMMENT:** 15- IF- BOB 7 mins. Built to 14.59"

30- IS- No blow back

10- FF- Weak blow built to 5.32"

30- FSI- No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1653.79	90.17	Initial Hydro-static
1	17.46	90.06	Open To Flow (1)
16	49.89	94.51	Shut-In(1)
48	962.14	96.08	End Shut-In(1)
48	53.74	95.97	Open To Flow (2)
53	63.95	96.33	Shut-In(2)
85	951.89	97.63	End Shut-In(2)
86	1617.22	97.32	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW, 35%M 65%W	0.88

\* 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.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64786

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2018.10.09 @ 00:19:45

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:56:21

Time Test Ended: 05:30:36

Test Type: Conventional Straddle (Reset)

Tester: Brannan Lonsdale/Ben

Unit No: 73

**Interval: 3377.00 ft (KB) To 3388.00 ft (KB) (TVD)**

Reference Elevations: 1869.00 ft (KB)

Total Depth: 3440.00 ft (KB) (TVD)

1861.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6753 Inside**

Press@RunDepth: psig @ 3378.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.10.09 End Date: 2018.10.09

Last Calib.: 2018.10.09

Start Time: 00:19:53 End Time: 05:30:47

Time On Btm:

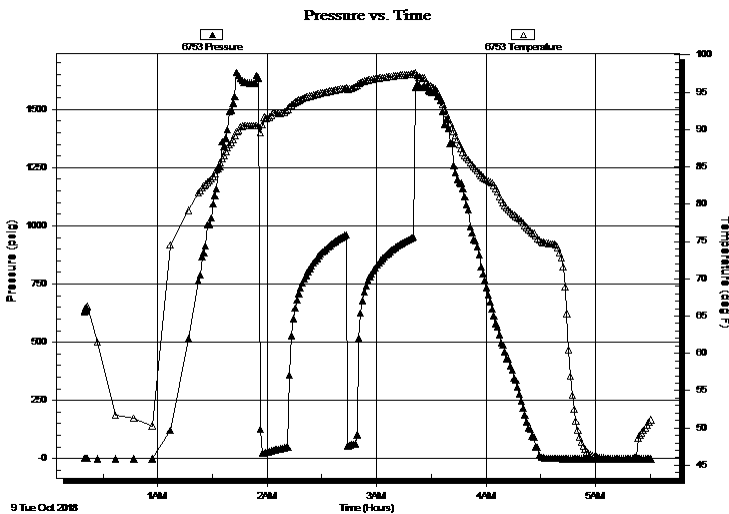
Time Off Btm:

TEST COMMENT: 15- IF- BOB 7 mins. Built to 14.59"

30- IS- No blow back

10- FF- Weak blow built to 5.32"

30- FS- No blow back



### PRESSURE SUMMARY

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

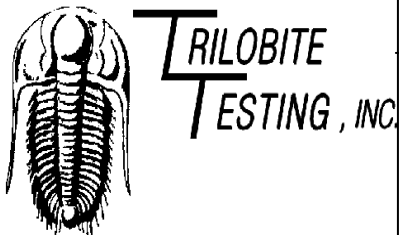
### Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW, 35%M 65%W	0.88

### Gas Rates

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

\* Recovery from multiple tests



# DRILL STEM TEST REPORT

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

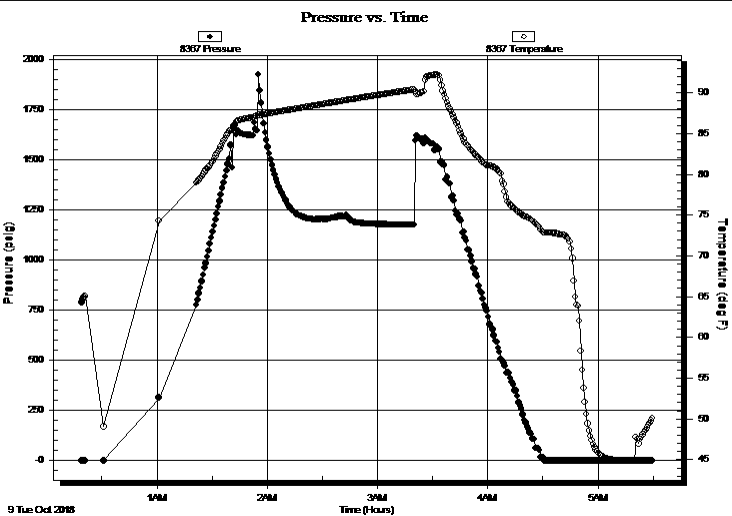
**24-12s-16w Ellis, KS**  
**Drilling D #1**  
 Job Ticket: 64786 **DST#: 4**  
 Test Start: 2018.10.09 @ 00:19:45

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Straddle (Reset)  
 Time Tool Opened: 01:56:21 Tester: Brannan Lonsdale/Ben  
 Time Test Ended: 05:30:36 Unit No: 73  
 Interval: **3377.00 ft (KB) To 3388.00 ft (KB) (TVD)** Reference Elevations: 1869.00 ft (KB)  
 Total Depth: 3440.00 ft (KB) (TVD) 1861.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

**Serial #: 8367 Below (Straddle)**  
 Press@RunDepth: psig @ 3405.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.10.09 End Date: 2018.10.09 Last Calib.: 2018.10.09  
 Start Time: 00:19:08 End Time: 05:29:58 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 15- IF- BOB 7 mins. Built to 14.59"  
 30- IS- No blow back  
 10- FF- Weak blow built to 5.32"  
 30- FS- No blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
120.00	MW, 35%M 65%W	0.88

\* 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.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64786

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2018.10.09 @ 00:19:45

## Tool Information

Drill Pipe:	Length: 3066.00 ft	Diameter: 3.82 inches	Volume: 43.46 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 45.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3377.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	3388.00 ft			
Interval between Packers:	11.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

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

Change Over Sub	1.00			3358.00	
Shut In Tool	5.00			3363.00	
Hydraulic tool	5.00			3368.00	
Packer	5.00			3373.00	20.00 Bottom Of Top Packer
Packer	4.00			3377.00	
Stubb	1.00			3378.00	
Recorder	0.00	6753	Inside	3378.00	
Recorder	0.00	6771	Outside	3378.00	
Perforations	6.00			3384.00	
Blank Off Sub	1.00			3385.00	
Blank Spacing	3.00			3388.00	11.00 Tool Interval
Packer	1.00			3389.00	
Stubb	1.00			3390.00	
Perforations	14.00			3404.00	
Change Over Sub	1.00			3405.00	
Recorder	0.00	8367	Below	3405.00	
Drill Pipe	31.00			3436.00	
Change Over Sub	1.00			3437.00	
Bullnose	3.00			3440.00	52.00 Bottom Packers & Anchor

**Total Tool Length: 83.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

John O. Farmer Inc.

**24-12s-16w Ellis,KS**

PO Box 352  
Russell KS 67665

**Dreiling D #1**

Job Ticket: 64786

**DST#: 4**

ATTN: Austin Klaus

Test Start: 2018.10.09 @ 00:19:45

## 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:

33000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
120.00	MW, 35%M 65%W	0.882

Total Length: 120.00 ft      Total Volume: 0.882 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

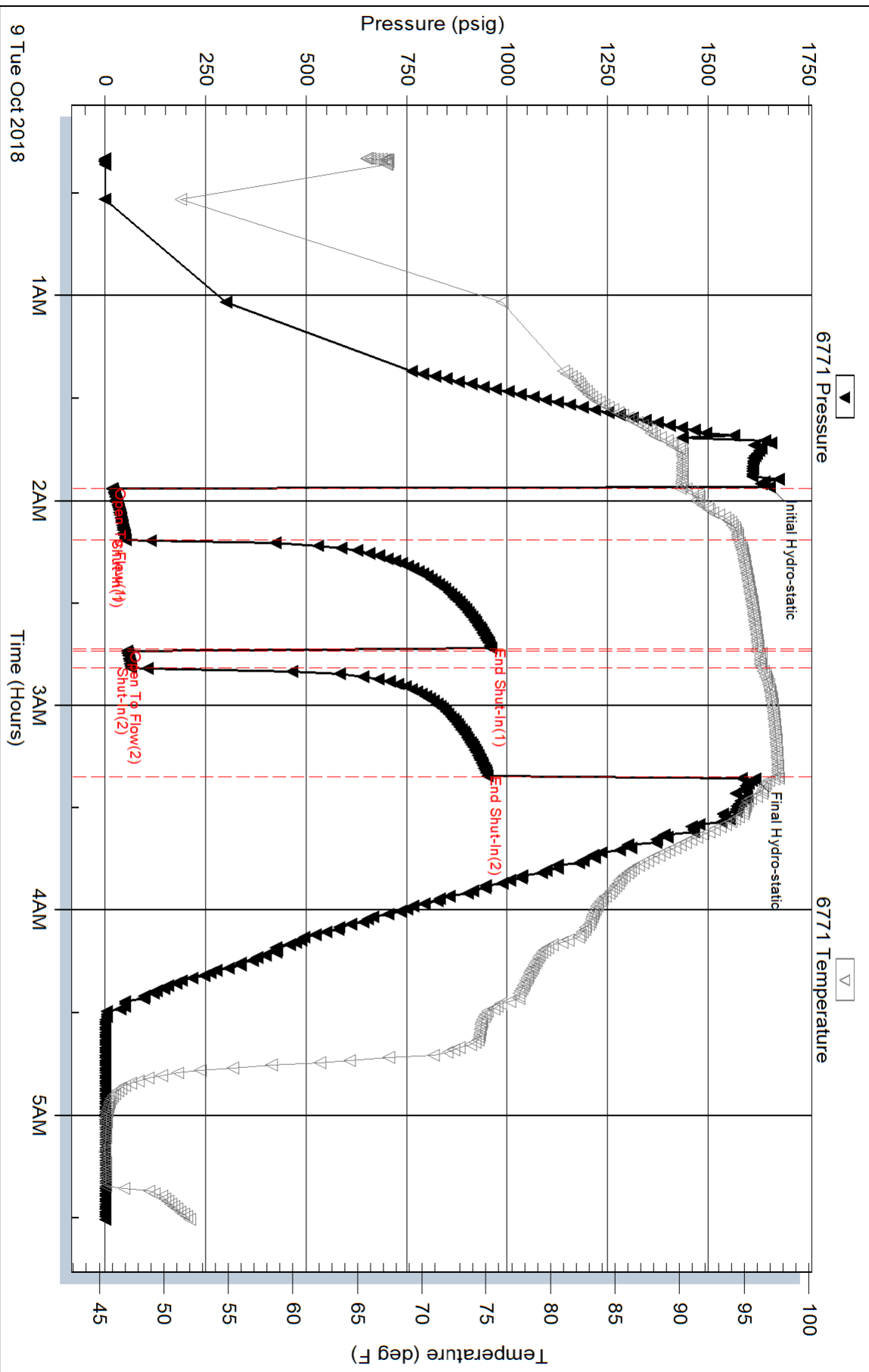
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .25@55deg

# Pressure vs. Time



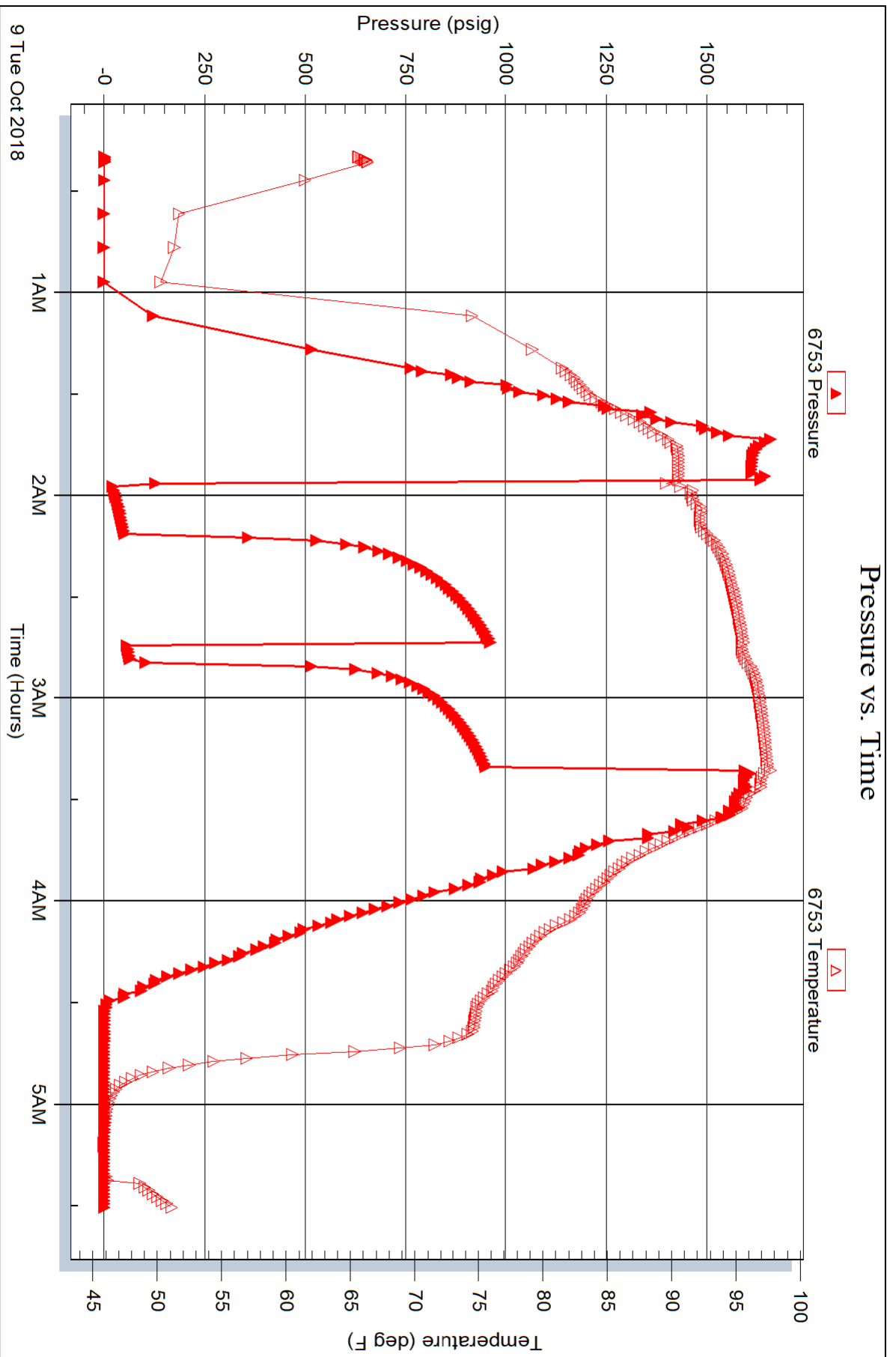
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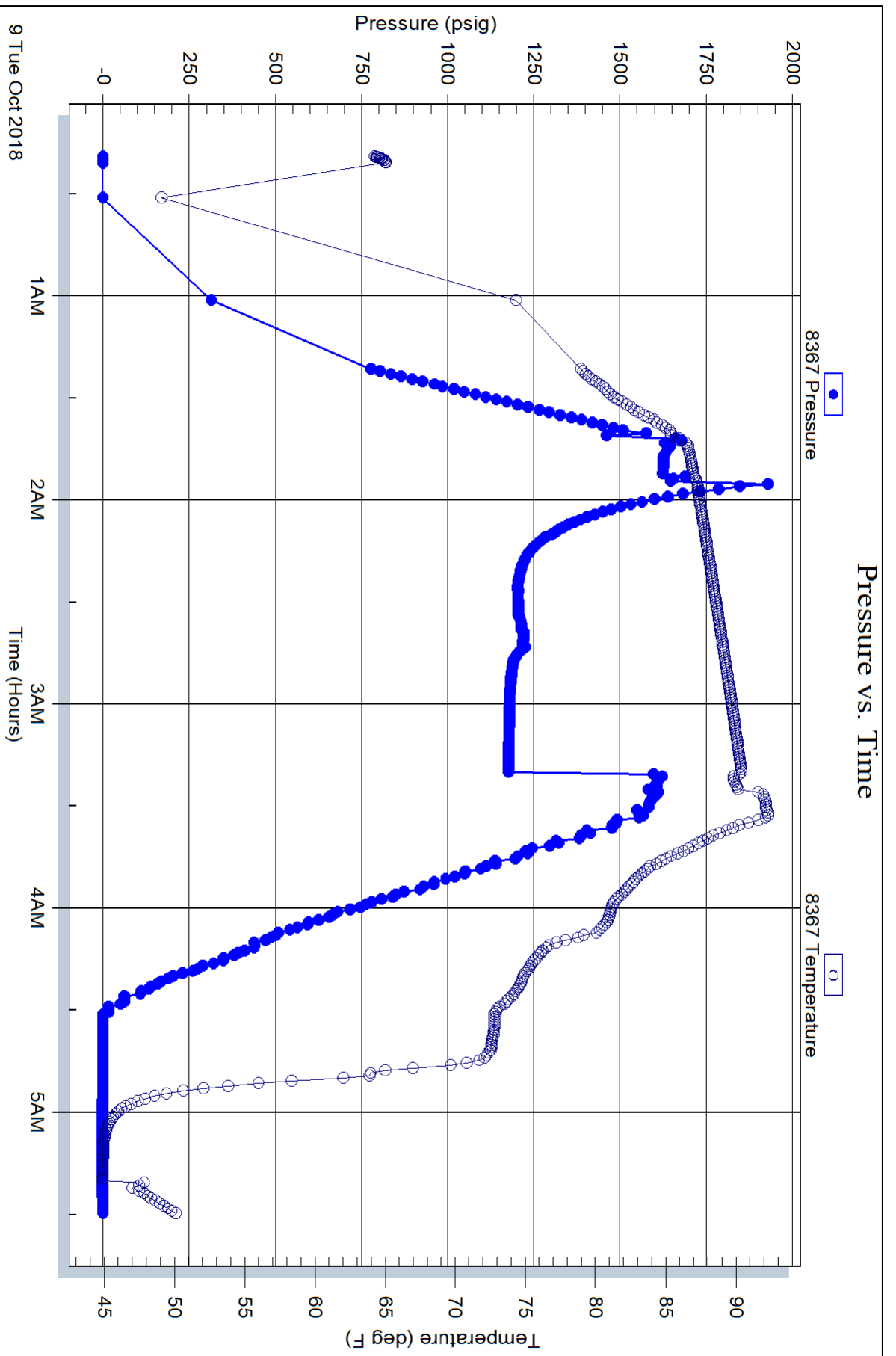
Inside

John O. Farmer Inc.

Drilling D#1

DST Test Number: 4







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64783**

Well Name & No. Dreiling D #1 Test No. 1 Date 10-6-2018  
 Company John O. Farmer Inc. Elevation 1869 KB 1861 GL  
 Address 370 Wichita Ave P.O. box 352 Russell KS 67665  
 Co. Rep / Geo. Austin Klaus Rig Disco #2  
 Location: Sec. 24 Twp 12S Rge. 16W Co. Ellis State KS

Interval Tested 3064'-3146' Zone Tested A-D LKC  
 Anchor Length 82' Drill Pipe Run 2753' Mud Wt. 8.9  
 Top Packer Depth 3059' Drill Collars Run — Vis 53  
 Bottom Packer Depth 3064' Wt. Pipe Run 310' WL 8.0  
 Total Depth 3146' Chlorides 4000 ppm System LCM 1#  
 Blow Description IF/weak surface blow died in 20 mins  
ISI/no blow  
F.F./Intermittent surface blow died in 8 mins. Pulled tool  
FST/

Rec	Feet of	%gas	%oil	%water	%mud
80	Mud				

Rec Total 80 ft BHT 93° Gravity — API RW — @ — °F Chlorides — ppm

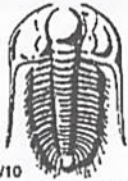
(A) Initial Hydrostatic <u>1475</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>09:21</u>
(B) First Initial Flow <u>56</u>	<input type="checkbox"/> Jars <u>—</u>	T-Started <u>09:40</u>
(C) First Final Flow <u>60</u>	<input type="checkbox"/> Safety Joint <u>—</u>	T-Open <u>11:40</u>
(D) Initial Shut-In <u>387</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>12:55</u>
(E) Second Initial Flow <u>60</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>14:33</u>
(F) Second Final Flow <u>61</u>	<input checked="" type="checkbox"/> Mileage <u>58 RT 58</u>	Comments <u>—</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>1465</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> EM Tool <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Shut-In <u>—</u>	<input type="checkbox"/> Day Standby <u>—</u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u>—</u>	Total <u>1108</u>
	Sub Total <u>1108</u>	MP/DST Disc't <u>—</u>

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

Our Representative Brannan Lonsdale/Benny Mulligan

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. 64784

Well Name & No. Dreiling D #1 Test No. 2 Date 10-6-2018  
 Company John O. Farmer Inc. Elevation 1869 KB 1861 GL  
 Address 370 Wichita Ave P.O. box 352 Russell KS 67665  
 Co. Rep / Geo. Austin Klaus Rig Disco #2  
 Location: Sec. 24 Twp 12S Rge. 16W Co. Ellis State KS

Interval Tested 3148-3178 Zone Tested LKC E-F  
 Anchor Length 30' Drill Pipe Run 2846' Mud Wt. 8.9  
 Top Packer Depth 3143 Drill Collars Run — Vis 53  
 Bottom Packer Depth 3148 Wt. Pipe Run 310' WL 8.0  
 Total Depth 3178 Chlorides 4000 ppm System LCM 1#

Blow Description IF - slowly built to 4.22"  
ISI - no blow  
FF - slowly built to 6.20"  
FST - no blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>155'</u>	<u>muddy water</u>		<u>80</u>	<u>20</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 155' BHT 95° Gravity — API RW 0.22 @ 52 °F Chlorides 40,000 ppm

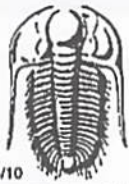
(A) Initial Hydrostatic 1532  Test 1050 T-On Location 21:40  
 (B) First Initial Flow 24  Jars \_\_\_\_\_ T-Started 21:57  
 (C) First Final Flow 54  Safety Joint \_\_\_\_\_ T-Open 00:02  
 (D) Initial Shut-In 348  Circ Sub \_\_\_\_\_ T-Pulled 03:02  
 (E) Second Initial Flow 56  Hourly Standby \_\_\_\_\_ T-Out 04:39  
 (F) Second Final Flow 95  Mileage 58 RT 58 Comments \_\_\_\_\_  
 (G) Final Shut-In 343  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1500  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

Sub Total 1108 MP/DST Disc't \_\_\_\_\_  
 Total 1108

Approved By \_\_\_\_\_ Our Representative Brennan Lonsdale/Benny Mulligan

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64785**

Well Name & No. Dreiling D #1 Test No. 3 Date 10-8-2018  
 Company John O. Farmer Inc. Elevation 1869 KB 1861 GL  
 Address 370 Wichita Ave P.O. box 352 Russell KS 67665  
 Co. Rep / Geo. Austin Klaus Rig Disco #2  
 Location: Sec. 24 Twp 12s Rge. 16w Co. Ellis State KS

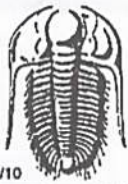
Interval Tested 3346-3376 Zone Tested Arbuckle  
 Anchor Length 30' tail 64' Drill Pipe Run 3036' Mud Wt. 9.0  
 Top Packer Depth 3341-3346 Drill Collars Run --- Vis 51  
 Bottom Packer Depth 3376 Wt. Pipe Run 310' WL 8.8  
 Total Depth 3340 Chlorides 4,000 ppm System LCM 3#  
 Blow Description IF - slowly built to 2.31"  
RF - no blow  
FF - slowly built to 2.83"  
FSI - no blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 50 BHT 100° Gravity 30 API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1654  Test 1050 T-On Location 10:00  
 (B) First Initial Flow 16  Jars \_\_\_\_\_ T-Started 10:24  
 (C) First Final Flow 25  Safety Joint \_\_\_\_\_ T-Open 13:01  
 (D) Initial Shut-In 498  Circ Sub \_\_\_\_\_ T-Pulled 16:01  
 (E) Second Initial Flow 25  Hourly Standby \_\_\_\_\_ T-Out 17:44  
 (F) Second Final Flow 29  Mileage 58 RT 58 Comments \_\_\_\_\_  
 (G) Final Shut-In 416  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1598  Straddle 600  EM Tool \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 1708  
 Sub Total 1708 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Brennan Lonsdale / Benny Mulligan  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64786

Well Name & No. Dreiling D #1 Test No. 4 Date 10-9-2018  
 Company John O Farmer Inc Elevation 1869 KB 1861 GL  
 Address 370 Wichita Ave P.O box 352 Russell KS 67665  
 Co. Rep / Geo. Austin Klaus Rig Disco #2  
 Location: Sec. 24 Twp 12s Rge. 16w Co. Ellis State KS

Interval Tested 3377-3388 Zone Tested Arbuckle  
 Anchor Length 11' tail 52' Drill Pipe Run 3086 Mud Wt. 9.0  
 Top Packer Depth 3372-3377 Drill Collars Run — Vis 51  
 Bottom Packer Depth 3388 Wt. Pipe Run 310 WL 8.8  
 Total Depth 3440 Chlorides 4000 ppm System LCM 3#  
 Blow Description IF-bob 7mins, built to 14.59"  
ISI- no blow  
FF- slowly built to 5.32"  
FSI- no blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>muddy water</u>		<u>65</u>	<u>35</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120' BHT 98° Gravity — API RW 0.25 @ 55 °F Chlorides 33,000 ppm

(A) Initial Hydrostatic <u>1654</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>00:05</u>
(B) First Initial Flow <u>17</u>	<input type="checkbox"/> Jars	T-Started <u>00:19</u>
(C) First Final Flow <u>50</u>	<input type="checkbox"/> Safety Joint	T-Open <u>01:55</u>
(D) Initial Shut-In <u>962</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>03:20</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:30</u>
(F) Second Final Flow <u>64</u>	<input checked="" type="checkbox"/> Mileage <u>58 RT</u> 58	Comments
(G) Final Shut-In <u>952</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1617</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> EM Tool
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>10</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1708</u>
	Sub Total <u>1708</u>	MP/DST Disc't

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