

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. 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
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

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) (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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Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	REICH 1
Doc ID	1598930

Tops

Name	Top	Datum
Anhydrite	949'	(+908)
Topeka	2700'	(-843)
Heebner	2953'	(-1096)
Toronto	2972'	(-1115')
Lansing	3002'	(-1145)
Base/KC	3260'	(-1403)
Arbuckle	3351'	(-1494)
L.T.D.	3422'	(-1565)





# 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 + 0352 Hays, KS 67601

Lease: Reich # 1 Location: 2300 FNL - 1620 FEL  
NE/SE/SW/NE  
Section 15/ 11S/ 15W  
Russell County, KS

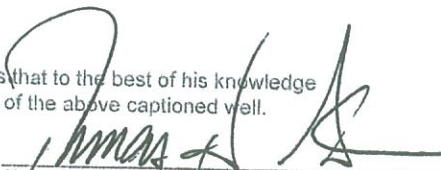
Loggers Total Depth: 3422' API#15- 167-24,105-00-00  
Rotary Total Depth: 3425' Elevation: 1847 GL - 1857 KB  
Commenced: 8/11/2021 Completed: 8/17/2021  
Casing: 8 5/8" @ 222'W/150sks Status: D & A  
KCC Contact: Case Morris  
Plugging Info: (1st Plug @ 3332'W/50sks)(2nd Plug @ 1000'W/50sks)  
(3rd Plug @ 475'W/50sks)(4th Plug @ 275'W/50sks)  
(5th Plug @ 40'W/10sks)(30sks In Rat Hole)(15sks In  
Mouse Hole)(Total 255sks 60/40Poz 4%Gel-1/4# FS/sk  
By Quality Oilwell Cementing-Completed @ 7:45AM  
8/17/2021)

### DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shale	<u>0'</u>	Shale	<u>984'</u>
Dakota Sand	<u>433'</u>	Shale & Lime	<u>1631'</u>
Shale	<u>495'</u>	Shale	<u>1951'</u>
Cedar Hill Sand	<u>555'</u>	Shale & Lime	<u>2496'</u>
Red Bed Shale	<u>680'</u>	Lime & Shale	<u>2940'</u>
Anhydrite	<u>970'</u>	RTD	<u>3425'</u>
Base Anhydrite	<u>984'</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 8-26-2021

My Commission expires: 6-28-2022

(Place stamp or seal below)

  
Notary Public



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071  
Cell 785-324-1041

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

No. 2452

Date	8/11/21	Sec.	15	Twp.	11	Range	15	County	Russell	State	Kansas	On Location		Finish	H. Cooper
Lease								Location				Paradise 15 1/2 W 15 2 W 3/4 N W 1/4			
Lease Reich								Well No. 1				Owner			
Contractor								Discovery Drilling				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.			
Csg.								2 5/8				Depth			
Tbg. Size												Depth			
Tool												Depth			
Cement Left in Csg.								15'				Shoe Joint			
Meas Line												Displace			
								13							
<b>EQUIPMENT</b>															
Pumptrk 16								No. Cementer				David			
Bulktrk 9								No. Driver				Brett			
Bulktrk								No. Driver							
<b>JOB SERVICES &amp; REMARKS</b>															
Remarks:								Hulls							
Rat Hole								Salt							
Mouse Hole								Flowseal							
Centralizers								Kol-Seal							
Baskets								Mud CLR 48							
D/V or Port Collar								CFL-117 or CD110 CAF 38							
Ran 8 5/8 and est. circulation								Handling							
Cemented with 150 sks								Mileage							
<b>FLOAT EQUIPMENT</b>															
								Guide Shoe							
								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
Cement did circulation								Pumptrk Charge							
								Mileage							
<b>TOTAL CHARGE</b>															
Signature												Tax			
[Signature]												Discount			
												Total Charge			

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071

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

No. 2399

Cell 785-324-1041

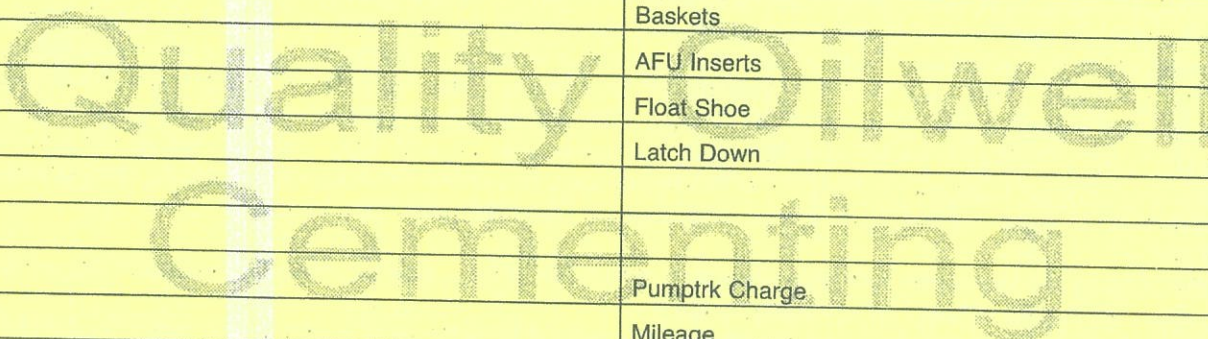
Date	8/17/21	Sec.	15	Twp.	11	Range	15	County	Russell	State	KS	On Location		Finish	7:45 AM
Location															

Lease	Rechn	Well No.	1	Owner	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.
Contractor	Discovery #2				
Type Job	Rotary Plug				
Hole Size	7 7/8	T.D.	3425	Charge To	J.O. Fanner
Csg.		Depth		Street	
Tbg. Size		Depth		City	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	255 60/10 4/62 AFFO

Meas Line	Displace				
<b>EQUIPMENT</b>					
Pumptrk	16	No.	Cementer	Coig	Common
			Helper		
Bulktrk		No.	Driver	David	Poz. Mix
			Driver		Gel.
Bulktrk	15	No.	Driver	Doug	Calcium
			Driver		

<b>JOB SERVICES &amp; REMARKS</b>					
Remarks:					
Rat Hole	30SK	Flowseal			
Mouse Hole	15SK	Kol-Seal			
Centralizers	Mud CLR 48				
Baskets	CFL-117 or CD110 CAF 38				
D/V or Port Collar	Sand				
12" 3332	50SK	Handling			
24" 1000	50SK	Mileage			
34" 475	50SK	<b>FLOAT EQUIPMENT</b>			
4" 275	50SK	Guide Shoe			
5" 40"	10SK	Centralizer			
Baskets					
AFU Inserts					
Float Shoe					
Latch Down					
Pumptrk Charge					
Mileage					

X Signature		Tax	
		Discount	
		Total Charge	





## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665+0352

ATTN: Austin Klaus

### **Reich #1**

#### **15-11s-15w Russell,KS**

Start Date: 2021.08.14 @ 06:20:00

End Date: 2021.08.14 @ 13:58:27

Job Ticket #: 66897                      DST #: 1

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

Printed: 2021.08.18 @ 08:31:11





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
Job Ticket: 66897 **DST#: 1**  
Test Start: 2021.08.14 @ 06:20:00

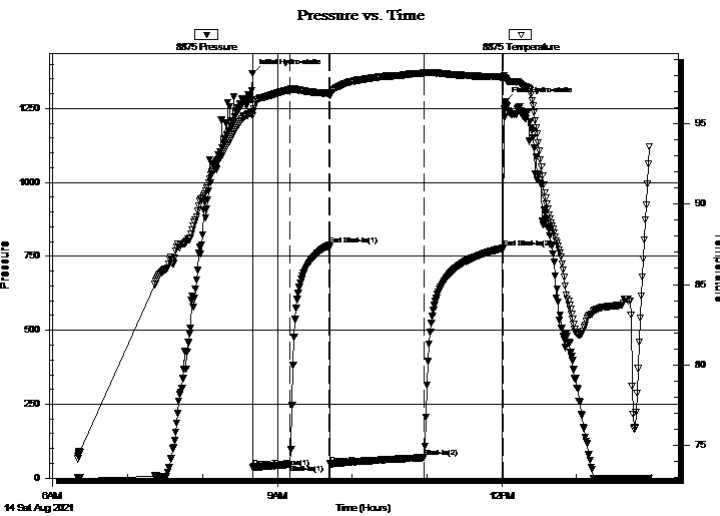
## GENERAL INFORMATION:

Formation: **Topeka 30'**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 08:40:07  
Time Test Ended: 13:58:27  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Spencer J Staab  
Unit No: 84  
Interval: **2728.00 ft (KB) To 2746.00 ft (KB) (TVD)**  
Reference Elevations: 1857.00 ft (KB)  
Total Depth: 2746.00 ft (KB) (TVD) 1849.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

## Serial #: 8875 Outside

Press@RunDepth: 69.73 psig @ 2729.00 ft (KB) Capacity: psig  
Start Date: 2021.08.14 End Date: 2021.08.14 Last Calib.: 2021.08.14  
Start Time: 06:20:01 End Time: 13:58:26 Time On Btm: 2021.08.14 @ 08:39:52  
Time Off Btm: 2021.08.14 @ 12:02:56

TEST COMMENT: 30-IF-Tool Slid 11' Bled off Surface blow built to 1 1/2"  
30-ISI-No Return  
60-FF-Surface to 5 1/2"  
60-FSI-Weak Surface Died in 5 mins



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1368.66	95.71	Initial Hydro-static
1	37.59	95.48	Open To Flow (1)
31	46.52	97.12	Shut-In(1)
62	787.18	96.88	End Shut-In(1)
63	48.36	96.76	Open To Flow (2)
138	69.73	98.15	Shut-In(2)
202	778.03	97.92	End Shut-In(2)
204	1271.72	97.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
105.00	MCW w/oil spots 30%M 70%W	1.21
5.00	GO 20%G 80%O	0.07
0.00	60 GIP 100%G	0.00

## 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+0352  
 ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
 Job Ticket: 66897 **DST#: 1**  
 Test Start: 2021.08.14 @ 06:20:00

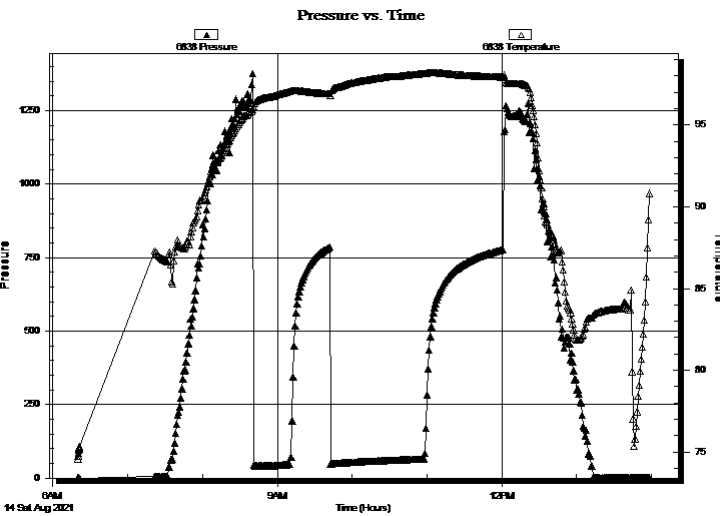
## GENERAL INFORMATION:

Formation: **Topeka 30'**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 08:40:07  
 Time Test Ended: 13:58:27  
 Interval: **2728.00 ft (KB) To 2746.00 ft (KB) (TVD)**  
 Total Depth: 2746.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1857.00 ft (KB)  
 1849.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 6838 Inside

Press@RunDepth: psig @ 2729.00 ft (KB) Capacity: psig  
 Start Date: 2021.08.14 End Date: 2021.08.14 Last Calib.: 2021.08.14  
 Start Time: 06:20:01 End Time: 13:59:07 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Tool Slid 11' Bled off Surface blow built to 1 1/2"  
 30-ISI-No Return  
 60-FF-Surface to 5 1/2"  
 60-FSI-Weak Surface Died in 5 mins



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
105.00	MCW w/oil spots 30%M 70%W	1.21
5.00	GO 20%G 80%O	0.07
0.00	60 GIP 100%G	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
Job Ticket: 66897 **DST#: 1**  
Test Start: 2021.08.14 @ 06:20:00

## Tool Information

Drill Pipe:	Length: 2685.00 ft	Diameter: 3.82 inches	Volume: 38.06 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 41000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 11.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	2728.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2701.00	
Change Over Sub	1.00			2702.00	
Shut In Tool	5.00			2707.00	
Hydraulic tool	5.00		Fluid	2712.00	
Gap Sub	4.00			2716.00	
Safety Joint	3.00			2719.00	
Packer	5.00			2724.00	28.00 Bottom Of Top Packer
Packer	4.00			2728.00	
Stubb	1.00			2729.00	
Recorder	0.00	6838	Inside	2729.00	
Recorder	0.00	8875	Outside	2729.00	
Perforations	14.00			2743.00	
Bullnose	3.00			2746.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 46.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
Job Ticket: 66897      **DST#: 1**  
Test Start: 2021.08.14 @ 06:20:00

### Mud and Cushion Information

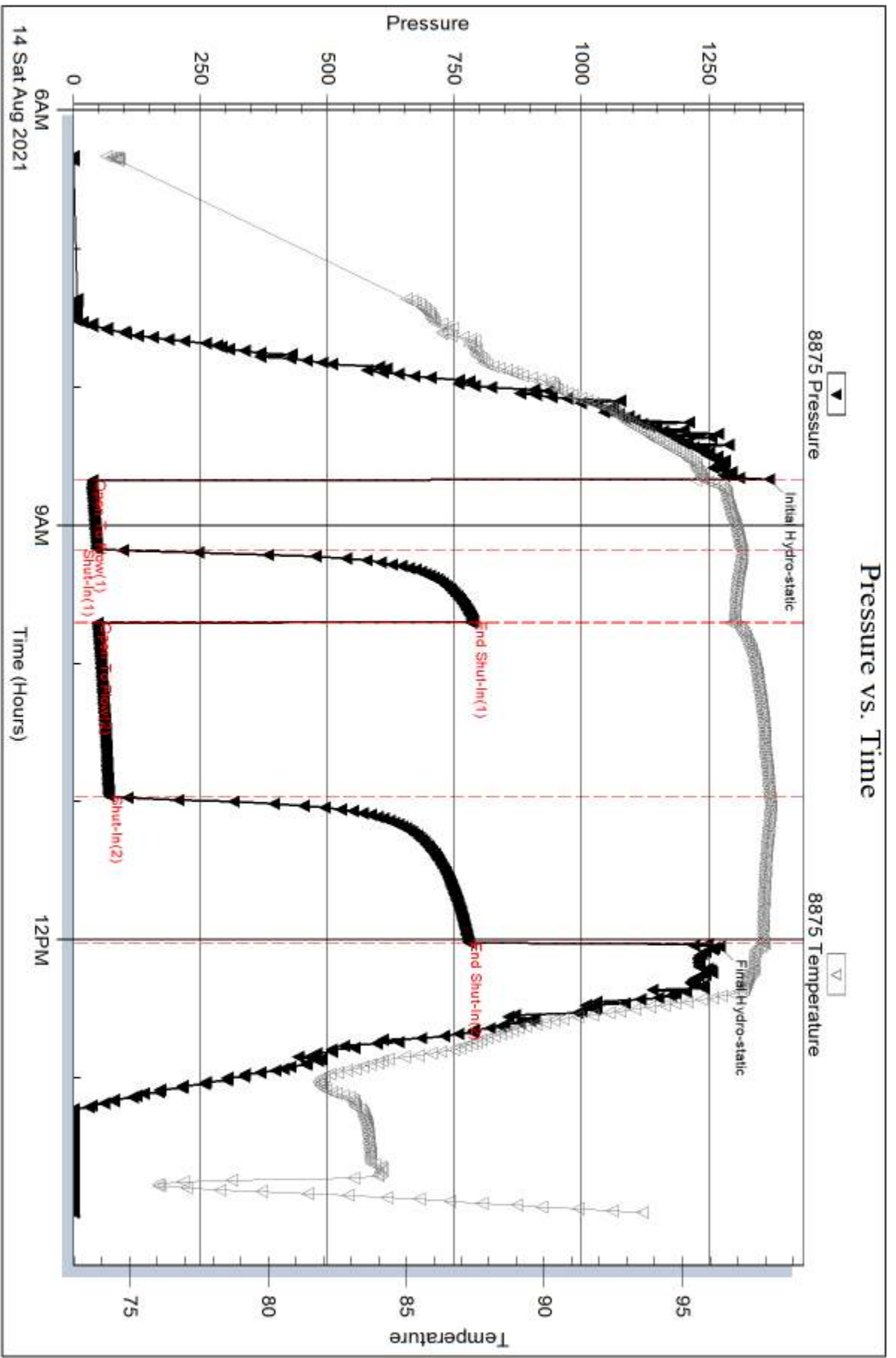
Mud Type: Gel Chem	Cushion Type:	Oil API: 24 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 43000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2500.00 ppm		
Filter Cake: inches		

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
105.00	MCW w/oil spots 30%M 70%W	1.211
5.00	GO 20%G 80%O	0.071
0.00	60 GIP 100%G	0.000

Total Length: 110.00 ft      Total Volume: 1.282 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: 2#LCM  
                                  RW=.145@82F



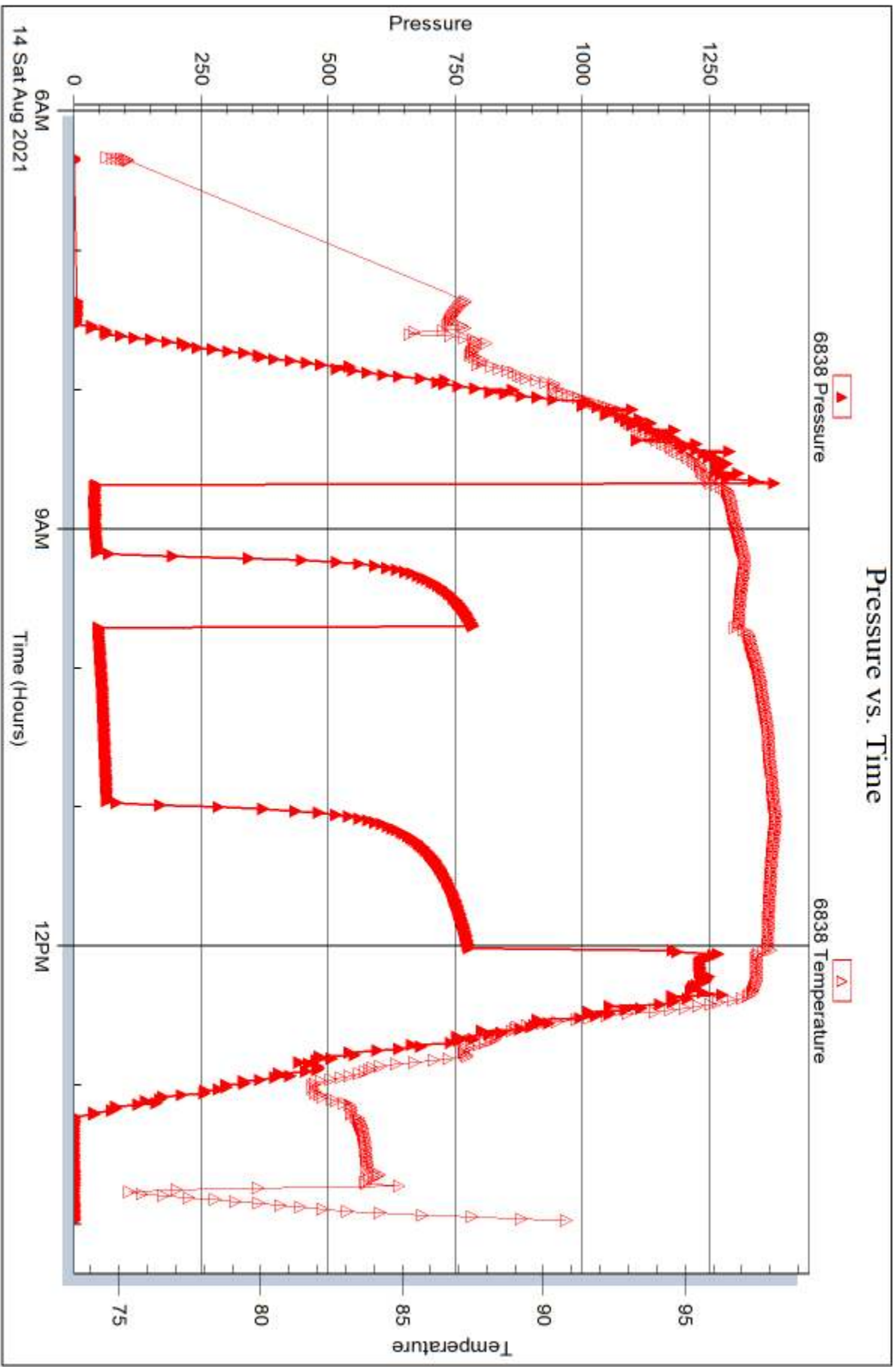
Serial #: 6838

Inside

John O Farmer Inc

Reich #1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 66897

Printed: 2021.08.18 @ 08:31:12



## DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

PO Box 352  
Russell KS 67665+0352

ATTN: Austin Klaus

### **Reich #1**

#### **15-11s-15w Russell,KS**

Start Date: 2021.08.16 @ 16:10:00

End Date: 2021.08.16 @ 22:37:52

Job Ticket #: 66898                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2021.08.18 @ 08:30:35



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

John O Farmer Inc  
 PO Box 352  
 Russell KS 67665+0352  
 ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
 Job Ticket: 66898 **DST#: 2**  
 Test Start: 2021.08.16 @ 16:10:00

## GENERAL INFORMATION:

Formation: **Simpson & Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:41:47  
 Time Test Ended: 22:37:52  
 Interval: **3323.00 ft (KB) To 3368.00 ft (KB) (TVD)**  
 Total Depth: 3425.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1857.00 ft (KB)  
 1849.00 ft (CF)  
 KB to GR/CF: 8.00 ft

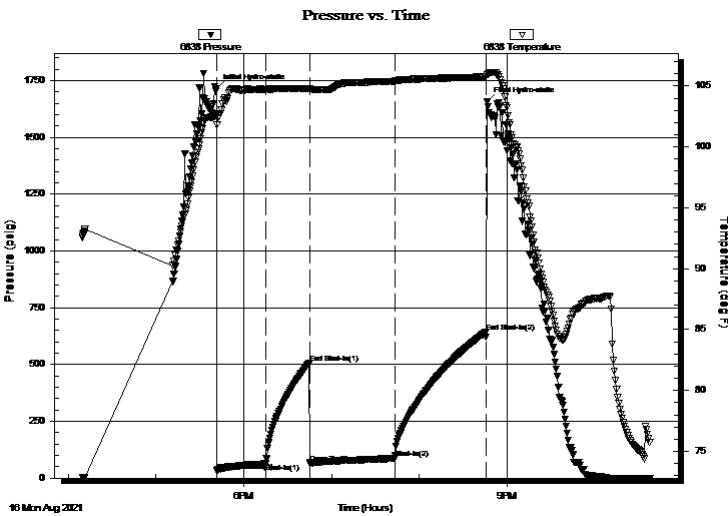
## Serial #: 6838

Inside

Press@RunDepth: 87.90 psig @ 3326.00 ft (KB) Capacity: psig  
 Start Date: 2021.08.16 End Date: 2021.08.16 Last Calib.: 2021.08.16  
 Start Time: 16:10:01 End Time: 22:37:52 Time On Btm: 2021.08.16 @ 17:41:42  
 Time Off Btm: 2021.08.16 @ 20:46:22

TEST COMMENT: 30-IF-Surface to 6 1/2"  
 30-ISI-No Return  
 60-FF-Surface to 2 1/4"  
 60-FSI-Very Weak Surface Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1714.63	102.59	Initial Hydro-static
1	31.69	101.81	Open To Flow (1)
34	63.66	104.72	Shut-In(1)
64	508.07	104.76	End Shut-In(1)
64	66.72	104.67	Open To Flow (2)
122	87.90	105.39	Shut-In(2)
184	642.17	105.75	End Shut-In(2)
185	1657.08	105.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	GV/SWCM w/oilspots 3%G 2%W 95%M	0.57
90.00	GM 5%G 95%M	1.28

\* 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+0352  
 ATTN: Austin Klaus

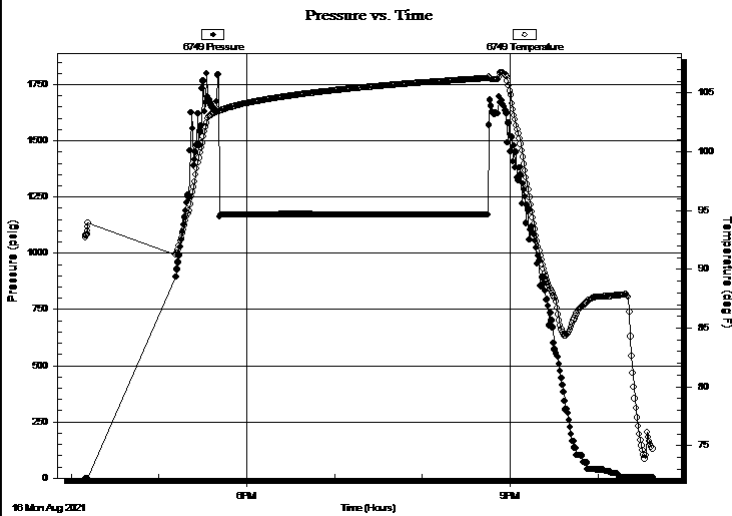
**15-11s-15w Russell,KS**  
**Reich #1**  
 Job Ticket: 66898 **DST#: 2**  
 Test Start: 2021.08.16 @ 16:10:00

## GENERAL INFORMATION:

Formation: **Simpson & Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:41:47  
 Time Test Ended: 22:37:52  
 Interval: **3323.00 ft (KB) To 3368.00 ft (KB) (TVD)**  
 Total Depth: 3425.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Spencer J Staab  
 Unit No: 84  
 Reference Elevations: 1857.00 ft (KB)  
 1849.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 6749 Below (Straddle)**  
 Press@RunDepth: psig @ 3387.00 ft (KB) Capacity: psig  
 Start Date: 2021.08.16 End Date: 2021.08.16 Last Calib.: 2021.08.16  
 Start Time: 16:10:01 End Time: 22:37:11 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 6 1/2"  
 30-ISI-No Return  
 60-FF-Surface to 2 1/4"  
 60-FSI-Very Weak Surface Blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	GV/SWCM w /oilspots 3%G 2%W 95%M	0.57
90.00	GM 5%G 95%M	1.28

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  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
Job Ticket: 66898 **DST#: 2**  
Test Start: 2021.08.16 @ 16:10:00

## Tool Information

Drill Pipe:	Length: 3283.00 ft	Diameter: 3.82 inches	Volume: 46.54 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3323.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	3425.00 ft			
Interval between Packers:	102.00 ft			
Tool Length:	130.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Change Over Sub	1.00			3296.00	
Change Over Sub	1.00			3297.00	
Shut In Tool	5.00			3302.00	
Hydraulic tool	5.00		Fluid	3307.00	
Gap Sub	4.00			3311.00	
Safety Joint	3.00			3314.00	
Packer	5.00			3319.00	28.00 Bottom Of Top Packer
Packer	4.00			3323.00	
Stubb	1.00			3324.00	
Perforations	1.00			3325.00	
Change Over Sub	1.00			3326.00	
Recorder	0.00	6838	Inside	3326.00	
Recorder	0.00	8875	Inside	3326.00	
Drill Pipe	31.00			3357.00	
Change Over Sub	1.00			3358.00	
Perforations	5.00			3363.00	
Blank Off Sub	1.00			3364.00	
B. Straddle Packer	4.00			3368.00	
Stubb	1.00			3369.00	
Perforations	17.00			3386.00	
Change Over Sub	1.00			3387.00	
Recorder	0.00	6749	Below	3387.00	
Drill Pipe	32.00			3419.00	
Change Over Sub	1.00			3420.00	
Perforations	2.00			3422.00	
Bullnose	3.00			3425.00	102.00 Bottom Packers & Anchor

**Total Tool Length: 130.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

John O Farmer Inc  
PO Box 352  
Russell KS 67665+0352  
ATTN: Austin Klaus

**15-11s-15w Russell,KS**  
**Reich #1**  
Job Ticket: 66898      **DST#: 2**  
Test Start: 2021.08.16 @ 16:10:00

### Mud and Cushion Information

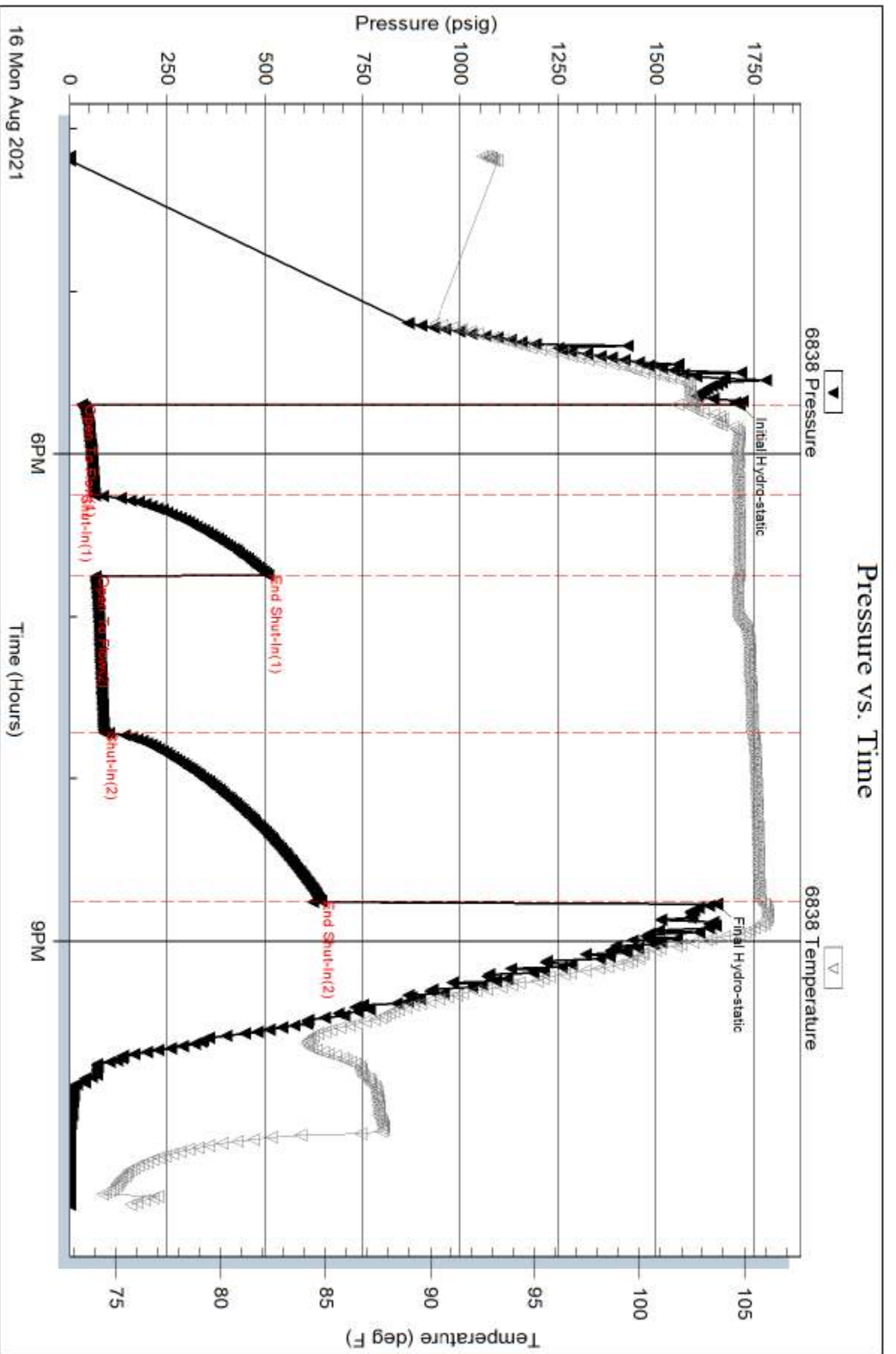
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	22000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5500.00 ppm			
Filter Cake: inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GVSWCM w /oilspots 3%G 2%W 95%M	0.573
90.00	GM 5%G 95%M	1.276

Total Length: 150.00 ft      Total Volume: 1.849 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: 3#LCM  
RW=.308@70F



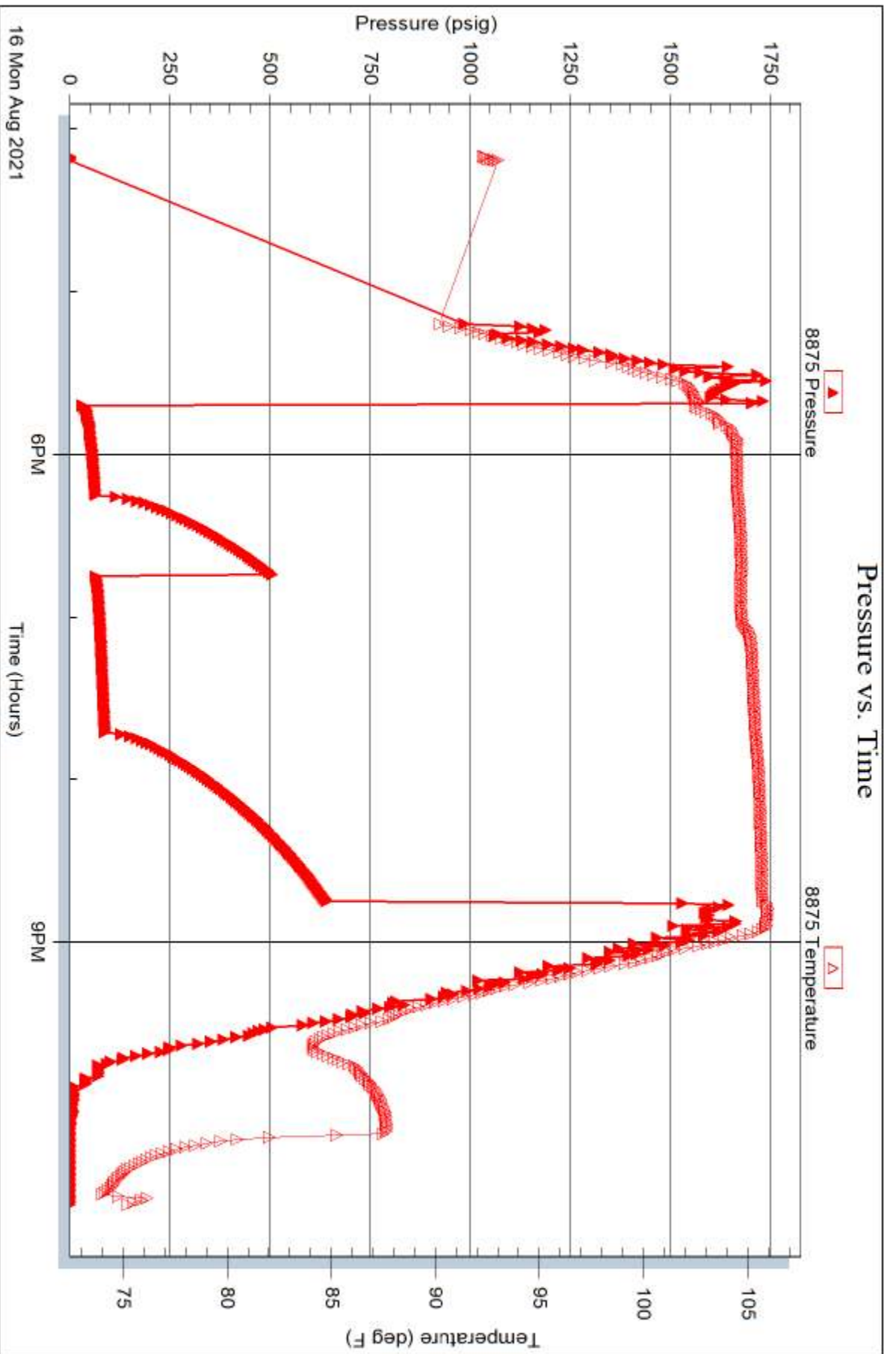
Serial #: 8875

Inside

John O Farmer Inc

Reich #1

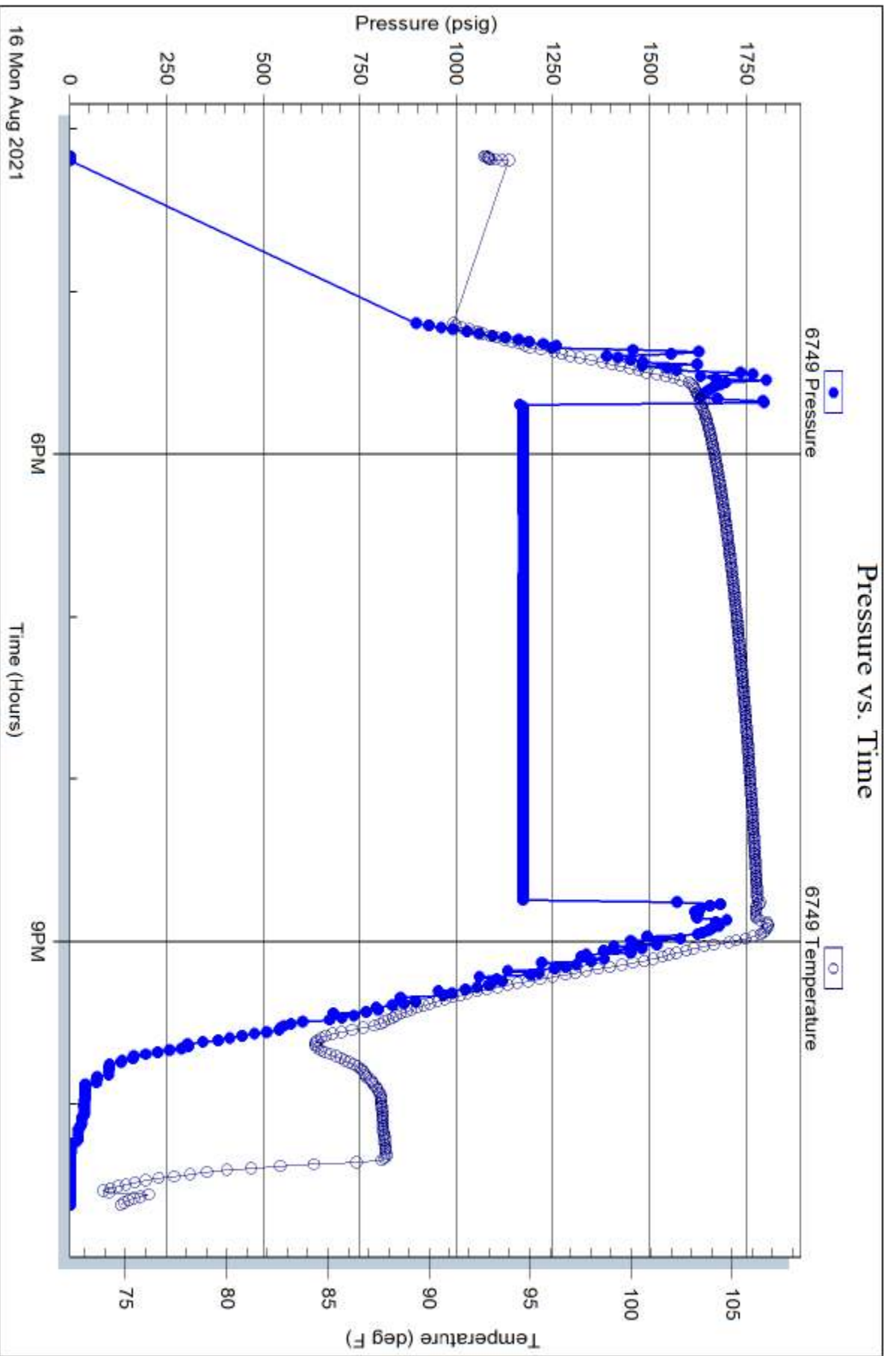
DST Test Number: 2

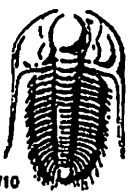


Triobite Testing, Inc

Ref. No: 66898

Printed: 2021.08.18 @ 08:30:36





# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 66897

Well Name & No. Reich #1 Test No. 1 Date 08/14/2021  
 Company Farmer, John O., Inc. Elevation 1857 KB 1849 GL  
 Address 370 W Wichita Ave PO BOX 352 Russell KS 67665  
 Co. Rep / Geo. Austin Klaus Rig Discovery #2  
 Location: Sec. 15 Twp 11s Rge. 15w Co. Russell State Ks

Interval Tested 2728'-2746' Zone Tested Topeka 30'  
 Anchor Length 18' Drill Pipe Run 2685' Mud Wt. 8.9  
 Top Packer Depth 2723' Drill Collars Run 30 Vls 50  
 Bottom Packer Depth 2728' Wt. Pipe Run - WL 7.6  
 Total Depth 2746' Chlorides 2500 ppm System LCM 2H

Blow Description 77- Tool slid 11"; Bled off; Surface blow built to 1 1/2"

78- No Return

79- Surface to 5 1/2"

79- Weak Surface; Dried in 5 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>105</u>	<u>MCW w/ oil spots</u>		<u>70</u>	<u>30</u>	
<u>5</u>	<u>GO</u>	<u>20</u>	<u>80</u>		
	<u>60' GIP</u>	<u>100</u>			

Rec Total 110' BHT 97° Gravity 24° API RW .145 @ 82° F Chlorides 43,000 ppm

- (A) Initial Hydrostatic 1368
- (B) First Initial Flow 37
- (C) First Final Flow 46
- (D) Initial Shut-In 787
- (E) Second Initial Flow 48
- (F) Second Final Flow 69
- (G) Final Shut-In 778
- (H) Final Hydrostatic 1271

- Test 1300
  - Jars
  - Safety Joint
  - Circ Sub
  - Hourly Standby
  - Mileage 7007 87.50
  - Sampler
  - Straddle
  - Shale Packer
  - Extra Packer
  - Extra Recorder
  - Day Standby
  - Accessibility
- Sub Total 1387.50

- T-On Location 04:26
- T-Started 06:20
- T-Open 08:36
- T-Pulled 11:36
- T-Out 13:55
- Comments
- EM Tool 350
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total 350
- Total 1737.50
- MP/DST Disc't

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

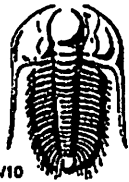
Approved By \_\_\_\_\_

Our Representative James J. Stueb Thanks

Triobite 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 note shall be paid for at cost by the party for whom the test is made.

785-259-0056





# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 66898

Well Name & No. Reich #1 Test No. 2 Date 08/16/2021  
 Company Farmer, John O, Inc Elevation 1857 KB 1849 GL  
 Address 370 W Wichita Ave PO BOX 352 Russell KS 67665-0352  
 Co. Rep / Geo. Austin Klaus Rig Discovery #2  
 Location: Sec. 15 Twp 11s Rge. 15w Co. Russell State Ks

Interval Tested 3323' - 3368' Zone Tested Jimerson + Arbuckle  
 Anchor Length 45' 57' tail Drill Pipe Run 3283' Mud Wt. 9.3  
 Top Packer Depth 3323' Drill Collars Run 30' Vis 50  
 Bottom Packer Depth 3368' Wt. Pipe Run - WL 8.8  
 Total Depth 3425' Chlorides 5500 ppm System LCM 3#

Blow Description 17 - Surface to 6.5"  
151 - No Return  
77 - Surface to 2 1/4"  
28 - Very Weak Surface

Rec	Feet of	%gas	%oil	%water	%mud
<u>60'</u>	<u>GVSWM w/oil spots</u>	<u>3</u>	<u>2</u>	<u>95</u>	<u></u>
<u>90'</u>	<u>GM w/oil spots</u>	<u>5</u>	<u></u>	<u>95</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 150' BHT 105° Gravity - API RW .308 @ 70 °F Chlorides 22,000 ppm

(A) Initial Hydrostatic 1714  Test 1300 T-On Location 15:00  
 (B) First Initial Flow 31  Jars \_\_\_\_\_ T-Started 16:10  
 (C) First Final Flow 63  Safety Joint \_\_\_\_\_ T-Open 17:38  
 (D) Initial Shut-In 508  Circ Sub \_\_\_\_\_ T-Pulled 20:38  
 (E) Second Initial Flow 66  Hourly Standby \_\_\_\_\_ T-Out 22:34  
 (F) Second Final Flow 87  Mileage 7027 87.50 Comments loaded after test  
 (G) Final Shut-In 642  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1657  Straddle 600  EM Tool 350

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 60  Extra Recorder \_\_\_\_\_  
 Final Shut-In 60  Day Standby 50 hrs 2d 1hr 833.33 Sub Total 350+833.33  
 Accessibility \_\_\_\_\_ Total 3170.83  
 Sub Total 1987.50 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Spencer J. Stahl Thanks!  
 Triobite 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.

785-259-0056



# 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:** Reich #1  
**API:** 15-167-24105-00-00  
**Location:** Russell County  
**License Number:**  
**Spud Date:** 8/12/2021  
**Surface Coordinates:** Section 15 - Township 11 South - Range 15 West  
2,300' FNL & 1,620' FEL  
**Bottom Hole Coordinates:** Vertical well w/ minimal deviation, same as above  
**Ground Elevation (ft):** 1,849  
**Logged Interval (ft):** 2,700  
**Formation:** Topeka - Arbuckle  
**Type of Drilling Fluid:** Chemical (Andy's Mud)

**Region:** Kansas  
**Drilling Completed:** 8/16/2021  
**K.B. Elevation (ft):** 1,857  
**Total Depth (ft):** 3,425  
**To:** RTD

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

## OPERATOR

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


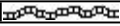
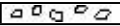



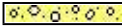




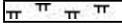


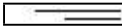
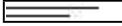



### Comments

The Reich #1 was drilled by Discovery Drilling Rig #2 (Tool Pusher: Terry Wickham).

The location for the Reich #1 was discovered via 3D seismic survey. Drill time was recorded and rock samples were gathered and evaluated from 2,700' - 3,425'. Oil shows were encountered in the Topeka and Arbuckle. Structurally, the Lansing top was picked 3' low to the comparison well, Reich C #1 (Shields Oil) . One bottom-hole drill stem test was conducted to evaluate the Topeka 30' zone, yielding 5' Gassy Oil and 105' MCW w/ oil spots; 780# shut-in pressure. Structural thickening occurred and the Arbuckle top was picked 18' low to the comparison well. After evaluation of all oil shows & electric logs, the decision was made to straddle test the Arbuckle. That test yielded 60' GVSWCM w/ oil spots and 90' GM; 640# shut-in pressure.

After comprehensive evaluation of oil shows, structural position, electric logs, and drill stem test results, the decision was made to plug and abandon the Reich #1 on August 17, 2021.

### ROCK TYPES

 <b>Anhy</b>  <b>Bent</b>  <b>Brec</b>  <b>Cht</b>	 <b>Clyst</b>  <b>Coal</b>  <b>Congl</b>  <b>Dol</b>	 <b>Gyp</b>  <b>Igne</b>  <b>Lmst</b>  <b>Meta</b>	 <b>Mrlst</b>  <b>Salt</b>  <b>Shale</b>  <b>Shcol</b>	 <b>Shgy</b>  <b>Sltst</b>  <b>Ss</b>  <b>Till</b>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### OTHER SYMBOLS

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

Curve Track 1 ROP (min/ft) ——— Gas (units) - - - - - Gamma (API) ———	MD	Lithology	Geological Descriptions	DST/Mud/Survey																								
0 ROP (min/ft) 500 0 Gas (units) 500 0 Gamma (API) 150	25	Lithology	<p>The open-hole logging was performed by Mr. Casey Patterson with Gemini Wireline, LLC (Hays, KS). Logs included: Compensated Density Neutron, Dual Induction, and Microresistivity.</p> <p>Formation tops and datums from the open-hole logs include the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Formation</th> <th>E-Log</th> <th>Datum</th> </tr> </thead> <tbody> <tr><td>Anhydrite</td><td>949</td><td>908</td></tr> <tr><td>Topeka</td><td>2700</td><td>-843</td></tr> <tr><td>Heebner</td><td>2953</td><td>-1096</td></tr> <tr><td>Toronto</td><td>2972</td><td>-1115</td></tr> <tr><td>Lansing</td><td>3002</td><td>-1145</td></tr> <tr><td>B/KC</td><td>3260</td><td>-1403</td></tr> <tr><td>Arbuckle</td><td>3351</td><td>-1494</td></tr> </tbody> </table>	Formation	E-Log	Datum	Anhydrite	949	908	Topeka	2700	-843	Heebner	2953	-1096	Toronto	2972	-1115	Lansing	3002	-1145	B/KC	3260	-1403	Arbuckle	3351	-1494	<p><b>Mud Engineer:</b> Brandon Mendez</p> <p><b>Tester:</b> Spencer Staab</p>
Formation	E-Log	Datum																										
Anhydrite	949	908																										
Topeka	2700	-843																										
Heebner	2953	-1096																										
Toronto	2972	-1115																										
Lansing	3002	-1145																										
B/KC	3260	-1403																										
Arbuckle	3351	-1494																										
0 ROP (min/ft) 500 0 Gas (units) 500 0 Gamma (API) 150	2600	Lithology																										
<b>Daily Activity</b> 8/11/2021 Spud @ 4PM 8/12/2021 222' Drilling																												

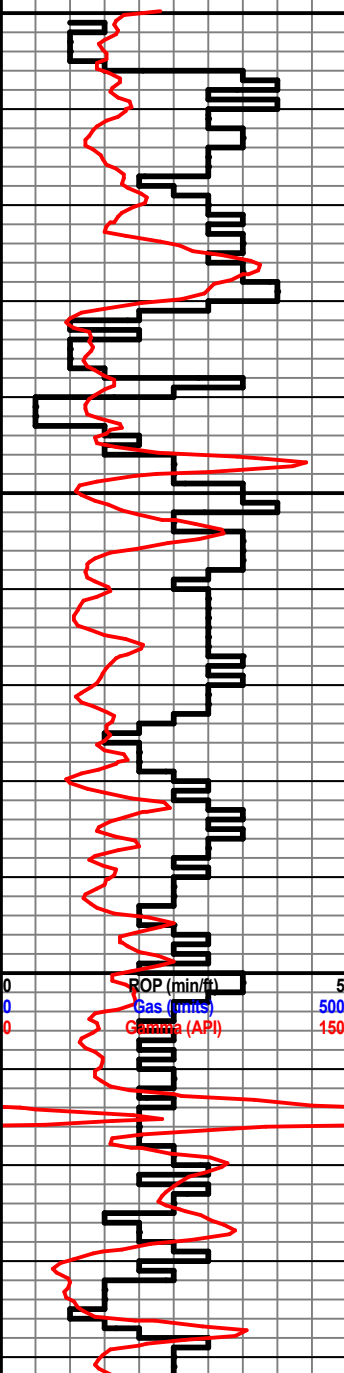
8/13/2021 2,222', Drilling  
 8/14/2021 2,746', Drilling  
 8/15/2021 3,030', Drilling  
 8/16/2021 3,425', Circulating for samples  
 8/17/2021 3,425', Plugging

2650

2700

2750

2800 MD



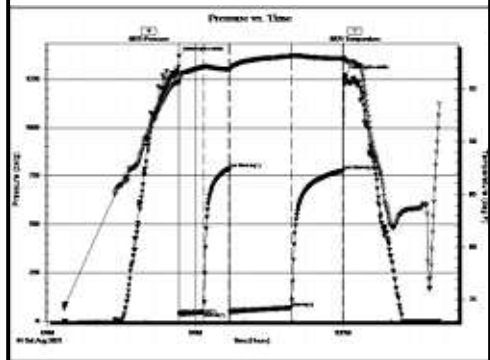
**Topeka 2706' (-849)**

- Ls: off wh, fn-sub xln, DNS, chalky, scat foss
- Ls: tan-lt gry, fn-sub xln, DNS, foss
- Sh: lt-drk gry
- Ls: off wh-tan, fn xln, poor int xln & scat pp vuggy porosity, fair-good oil sat, SSFO, fair odor
- Sh: blk, carb
- Ls: tan-lt gry, fn-sub xln, mostly DNS, chalky
- Ls: ala
- Ls: tan-lt gry, fn xln, scat poor int xln porosity, NSFO, scat foss
- Ls: tan-lt gry, fn-sub xln, scat int xln porosity, NSFO, scat chalk
- Sh: drk gry-blk, carb
- Ls: off wh-tan, fn xln, scat foss, chalky

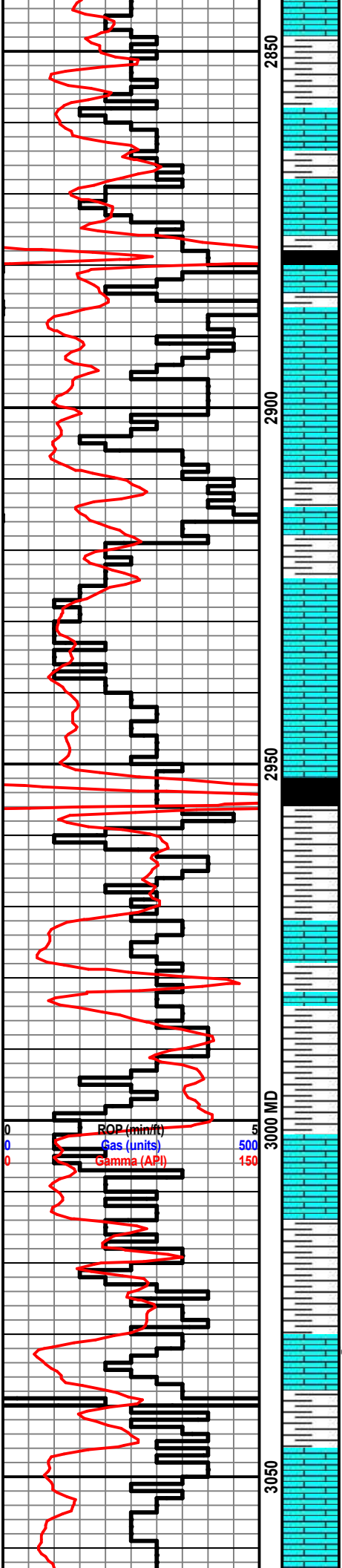
Wt: 8.9  
 Vis: 50

**DST #1 2,728-2,746' (Topeka 30' Zone)**

30"-30"-60"-60"  
 IF: weak blow built to 1.5", no blow back  
 FF: weak blow built to 5.5", no blow back  
 Rec: 60' GIP  
 5' Gassy Oil (20%G, 80%O)  
 105' Mud Cut Water (30%M, 70%W)  
 FP: 38-47, 48-70#  
 SIP: 787-778#  
 HP: 1,369-1,272#  
 BHT: 98



ROP (min/ft) 500  
 Gas (gms) 150  
 Gamma (API)



Ls: ala

Ls: tan-gry, fn xln, scat foss, mostly DNS, NSFO

Sh: drk gry-blk, carb

Ls: tan-lt gry, fn-sub xln, foss, NSFO, scat chalk

Ls: ala

Sh: lt-drk gry

Ls: off wh-tan, fn xln, fair scat pp vuggy porosity, lt oil stn, NSFO, no odor, chalky

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

**Heebner 2957' (-1100)**

Sh: blk, carb, fissile

Sh: lt-drk gry, scat gm

**Toronto 2977' (-1120)**

Ls: off wh-tan, fn xln, poor int xln porosity, lt-scat oil stn, NSFO

Sh: lt-drk gry, scat gm

Sh: ala

**Lansing 3007' (-1150)**

Ls: off wh-tan, fn xln, poor scat pp porosity, scat oil stn, scat chalk

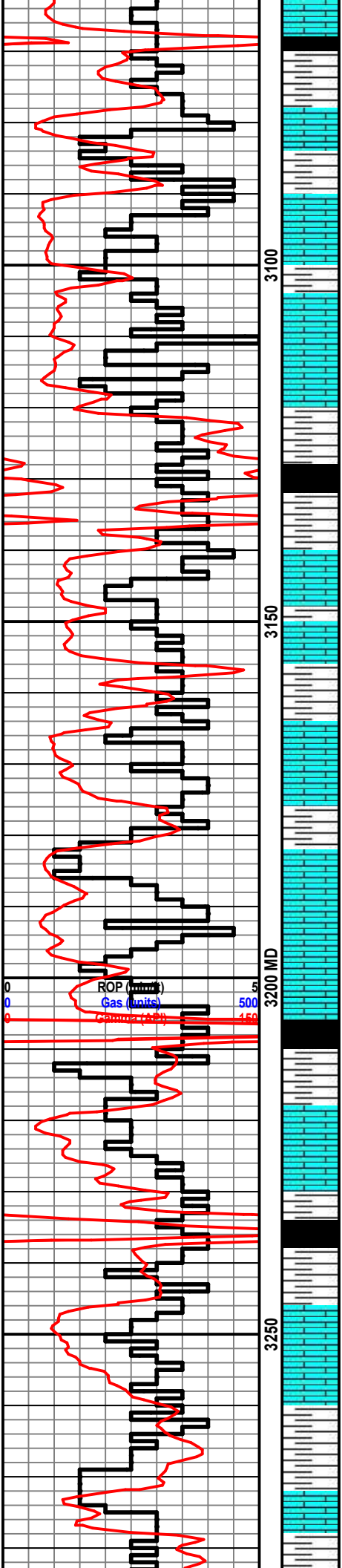
Sh: lt-drk gry, bm, soft

Ls: off wh-tan, fn xln, few pcs ool, scat ool porosity, lt-fair oil stn, VSSFO, fnt odor, scat chert

Sh: lt gry

Ls: off wh-tan, fn xln, ool, poor int xln porosity, scat edge stn, NSFO, chalky

Ls: off wh-tan, fn xln, ool, scat ool porosity, trace oil stn, NSFO



NSFO

Sh: lt-drk gry

Ls: off wh-tan, fn-sub xln, DNS

Sh: lt-drk gry

Ls: off wh-tan, fn xln, scat ool, poor-fair ool porosity, scat oil strn, NSFO

3100

Ls: off wh-tan, fn xln, ool, fair-good ool porosity, lt bm oil strn, NSFO, scat chalk

Ls: tan-lt gry, fn-sub xln, DNS, scat chert

Sh: blk, carb

Wt: 8.9  
Vis: 44

Ls: tan-lt gry, foss, poor int xln porosity, NSFO, scat chalk

3150

Sh: lt-drk gry, gm

Ls: off wh-tan, fn xln, ool, poor int xln porosity, tr lt bm strn, NSFO, scat chert

Sh: lt-drk gry, scat blk

Ls: off wh-tan, fn xln, mostly DNS, NSFO, chalky

Ls: off wh-tan, fn xln, few pcs ool, scat fair ool porosity, trace strn, chalky

3200 MD

ROP (m/min)  
Gas (units)  
Chime (m/s)

0 500 450

Sh: blk, carb

Sh: lt-drk gry

Ls: off wh-tan, fn xln, foss, poor int xln porosity, scat oil strn, chert

Sh: lt-drk gry

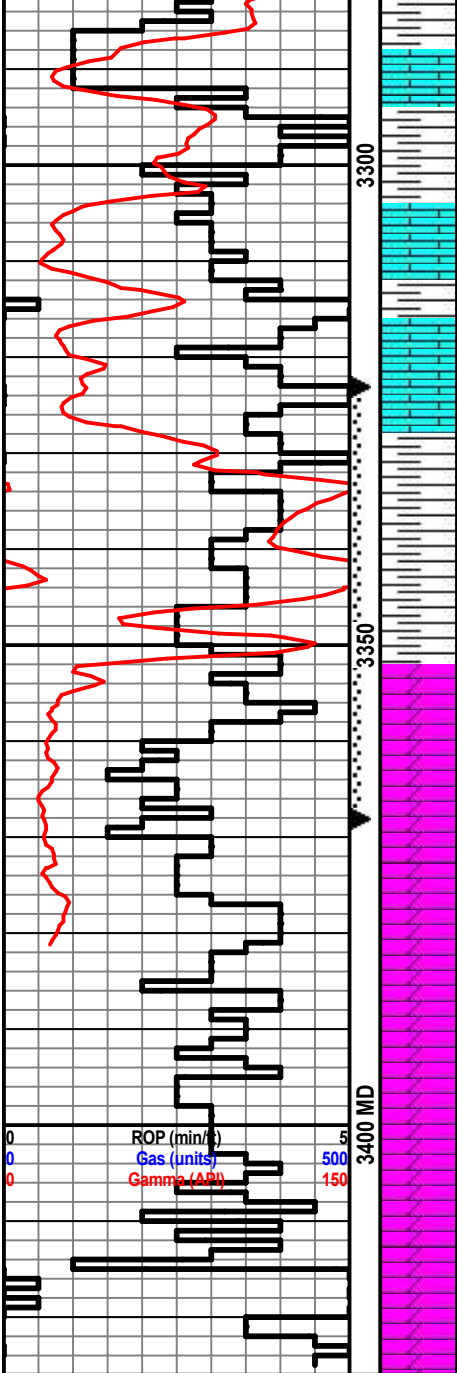
Ls: tan-gry, fn xln, foss, poor int xln porosity, scat chalky

3250

**B/KC 3266' (-1409)**

Sh & Sltst: lt-drk gry-bm, scat red

Sh: ala



Ls: tan-gry, fn-sub xln, DNS, chert

Ls: off wh-tan, fn-sub xln, mostly DNS, hvy chert-off wh

Ls: ala

Sh: gm, waxy, soft

**Arbuckle 3354' (-1497)**

Dolo: off wh-tan, fn-md xln, fair int xln porosity, fair-good oil sat, F-GSFO, good odor, good yel fluor

Dolo: off wh-tan, fn-md xln, fair-good int xln porosity, good drk bm oil sat, GSFO, strong odor, fair-good yel fluor

Dolo: off wh-tan, fn xln, scat fair-poor int xln porosity, fair oil sat, VSSFO, fair-good odor, dull yel fluor

Dolo: off wh-tan, fn xln, poor-fair int xln porosity, fair oil sat, NSFO, scat chert

Dolo: off wh-tan, fn xln, poor int xln porosity, barren, chert-off wh

Dolo: ala

**DST #2 3,323-3,368' (Arbuckle)**

30"-30"-60"-60"

IF: weak blow built to 6.5", no blow back

FF: weak blow built to 2.25", very weak surface blow back

Rec: 60' GVSWCM w/ oil spots (3%G, 2%W, 95%M)

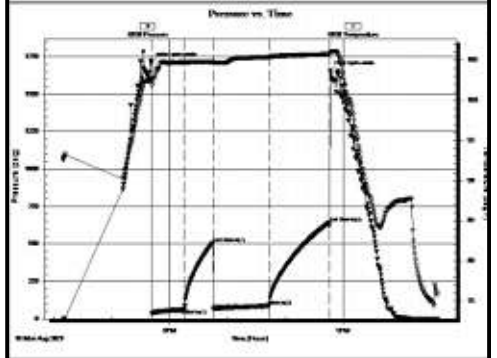
90' GM (5%G, 95%M)

FP: 32-64, 67-88#

SIP: 508-642#

HP: 1,714-1,657#

BHT: 106



Wt: 9.3

Vis: 50