

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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Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	BUERKLE FARMS 1-13
Doc ID	1453080

All Electric Logs Run

Resistivity
Microlog
GR-CNL-LDT
Sonic

Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	BUERKLE FARMS 1-13
Doc ID	1453080

Tops

Name	Top	Datum
Heebner	3958	-834
Lansing	4009	-885
Stark Shale	4332	-1198
Hushpuckney	4374	-1250
Base KC	4462	-1338
Marmaton	4495	-1371
Pawnee	4585	-1461
Ft. Scott	4608	-1484
Johnson	4726	-1602
Morrow	4824	-1700
Mississippian	4920	-1796





## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co.**

301 S Market St.  
Wichita, KS 67202

ATTN: Steve Davis

### **Buerkle #1-13**

#### **13-20s-35w Wichita,KS**

Start Date: 2018.11.17 @ 07:46:00

End Date: 2018.11.17 @ 15:32:30

Job Ticket #: 64427                      DST #: 1

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

Printed: 2018.11.21 @ 10:40:08



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64427

**DST#: 1**

ATTN: Steve Davis

Test Start: 2018.11.17 @ 07:46:00

## GENERAL INFORMATION:

Formation: **Marmaton A-B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:30

Time Test Ended: 15:32:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

**Interval: 4504.00 ft (KB) To 4540.00 ft (KB) (TVD)**

Reference Elevations: 3124.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

3119.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8319**

**Inside**

Press@RunDepth: 47.37 psig @ 4505.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.17

End Date:

2018.11.17

Last Calib.: 2018.11.17

Start Time: 07:46:05

End Time:

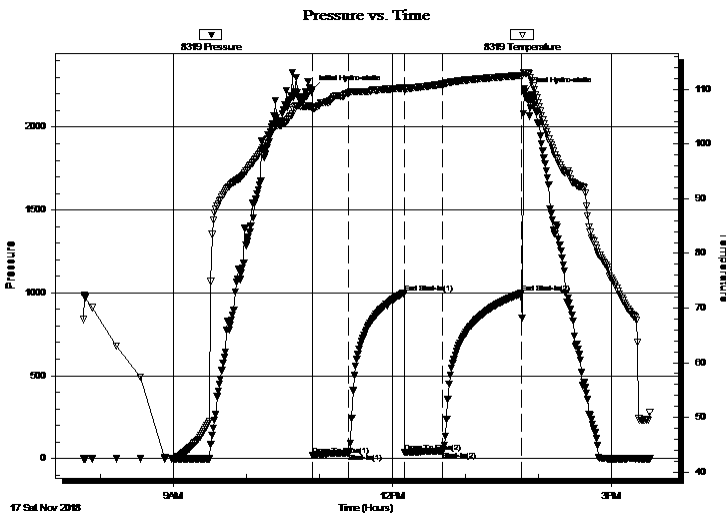
15:32:29

Time On Btm: 2018.11.17 @ 10:54:15

Time Off Btm: 2018.11.17 @ 13:49:00

TEST COMMENT: IF 30 - 1 1/2" blow.  
ISI 45- No return.  
FF 30 - Surface blow.  
FSI 60 - No return.

## PRESSURE SUMMARY



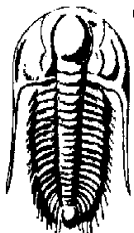
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.27	106.88	Initial Hydro-static
1	20.52	106.43	Open To Flow (1)
30	35.02	109.38	Shut-In(1)
76	1001.29	110.30	End Shut-In(1)
76	37.79	109.87	Open To Flow (2)
107	47.37	110.95	Shut-In(2)
172	996.70	112.55	End Shut-In(2)
175	2215.53	113.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	w cm 30w 70m w/oil spots	0.30

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64427

**DST#: 1**

ATTN: Steve Davis

Test Start: 2018.11.17 @ 07:46:00

**GENERAL INFORMATION:**

Formation: **Marmaton A-B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:30

Time Test Ended: 15:32:30

Interval: **4504.00 ft (KB) To 4540.00 ft (KB) (TVD)**

Total Depth: 4520.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Reference Elevations: 3124.00 ft (KB)

3119.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8522**     **Outside**

Press@RunDepth:                    psig @     4505.00 ft (KB)

Capacity:     8000.00 psig

Start Date:                                 2018.11.17             End Date:                                         2018.11.17

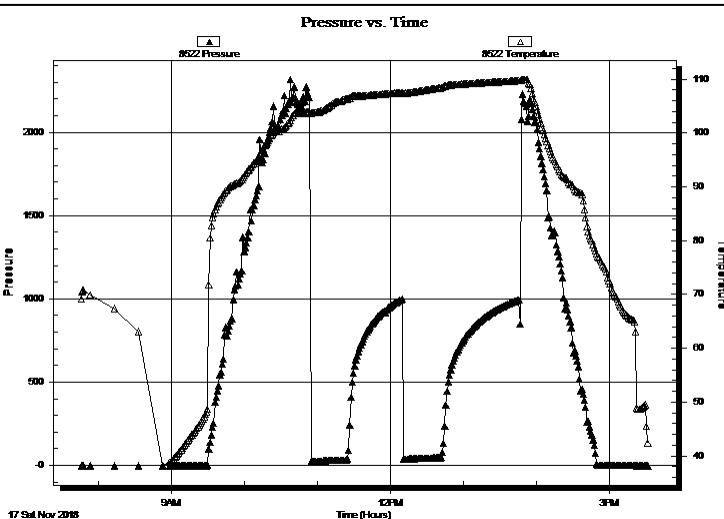
Last Calib.:     2018.11.17

Start Time:                                         07:46:05             End Time:                                         15:32:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF 30 - 1 1/2" blow .  
ISI 45- No return.  
FF 30 - Surface blow .  
FSI 60 - No return.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
60.00	w cm 30w 70m w/oil spots	0.30

**Gas Rates**

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64427

**DST#: 1**

ATTN: Steve Davis

Test Start: 2018.11.17 @ 07:46:00

## Tool Information

Drill Pipe:	Length: 4386.00 ft	Diameter: 3.80 inches	Volume: 61.52 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4504.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	63.00 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			4478.00	
Shut In Tool	5.00		Fluid	4483.00	
Hydraulic tool	5.00			4488.00	
Jars	5.00			4493.00	
Safety Joint	2.00			4495.00	
Packer	5.00		Inside	4500.00	27.00 Bottom Of Top Packer
Packer	4.00			4504.00	
Stubb	1.00			4505.00	
Recorder	0.00	8319	Inside	4505.00	
Recorder	0.00	8522	Outside	4505.00	
Perforations	32.00			4537.00	
Bullnose	3.00			4540.00	36.00 Bottom Packers & Anchor

**Total Tool Length: 63.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64427

**DST#: 1**

ATTN: Steve Davis

Test Start: 2018.11.17 @ 07:46:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

29000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	w cm 30w 70m w/oil spots	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .268 @ 62F = 29000ppm

Serial #: 8319

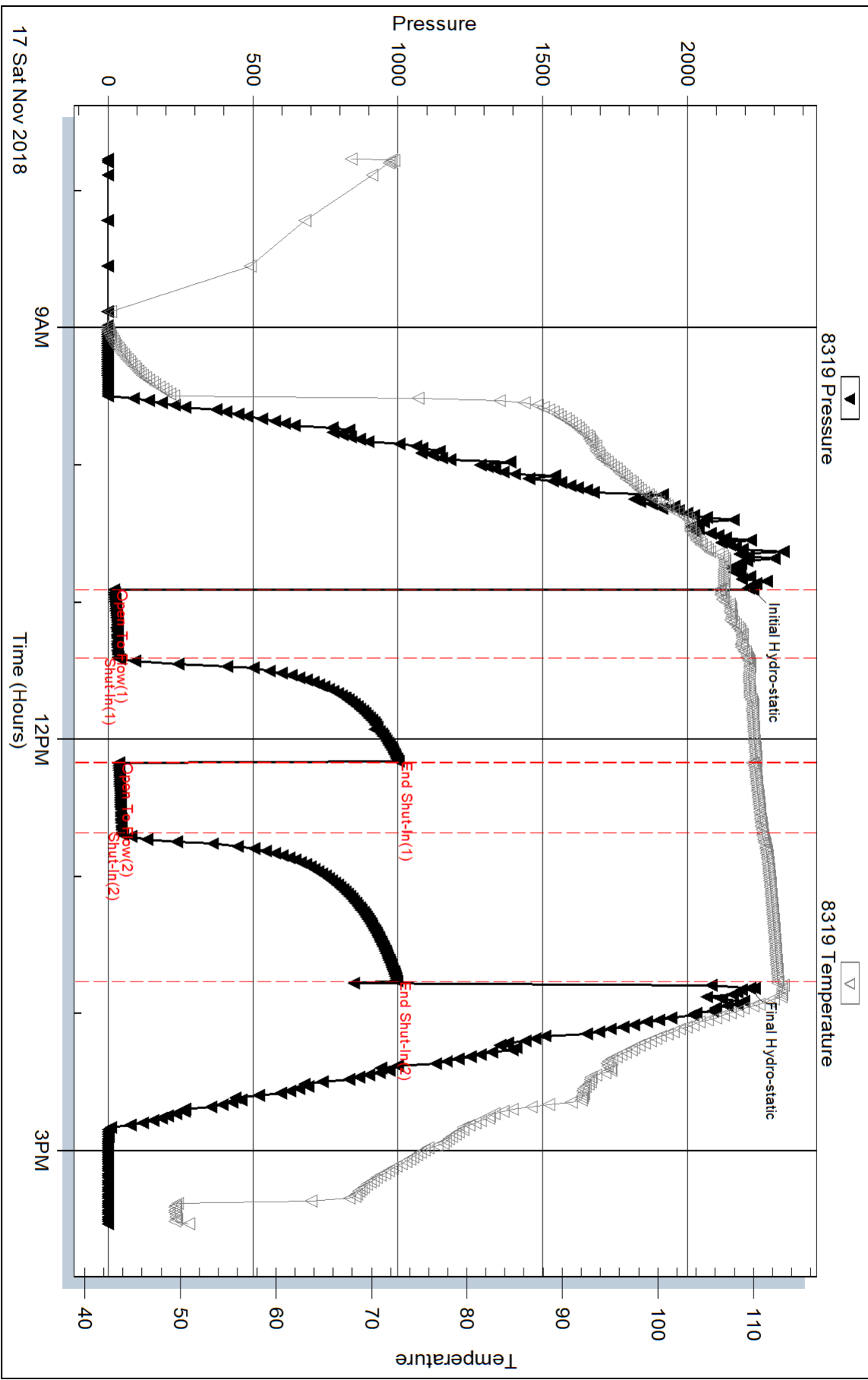
Inside

Lario Oil & Gas Co.

Buerkle #1-13

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64427

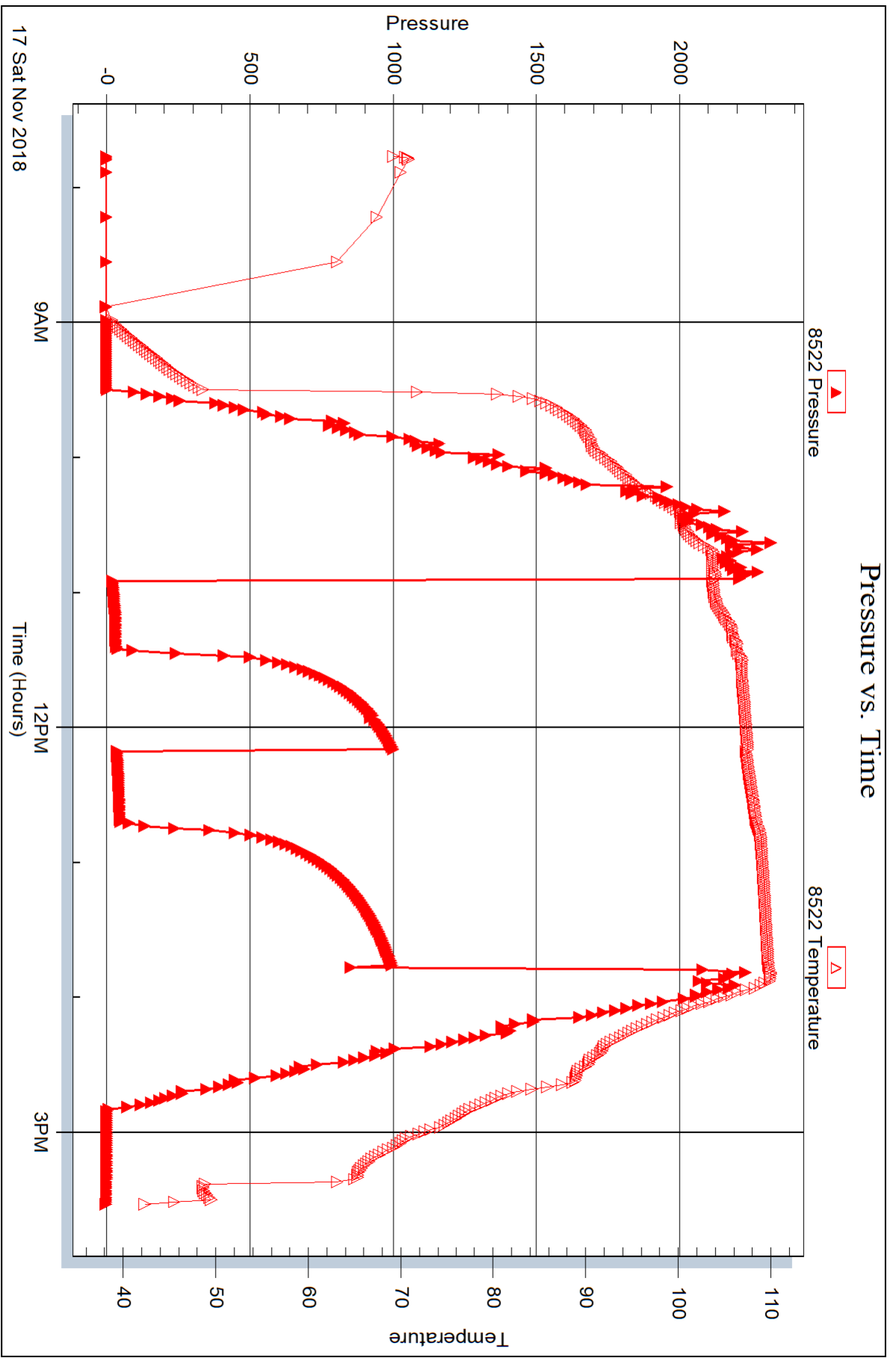
Printed: 2018.11.21 @ 10:40:09

Serial #: 8522

Outside Lario Oil & Gas Co.

Buerkle #1-13

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 64427

Printed: 2018.11.21 @ 10:40:09



## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co.**

301 S Market St.  
Wichita, KS 67202

ATTN: Steve Davis

### **Buerkle #1-13**

#### **13-20s-35w Wichita,KS**

Start Date: 2018.11.18 @ 03:37:00

End Date: 2018.11.18 @ 11:30:00

Job Ticket #: 64428                      DST #: 2

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

Printed: 2018.11.21 @ 10:39:44



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64428

**DST#: 2**

ATTN: Steve Davis

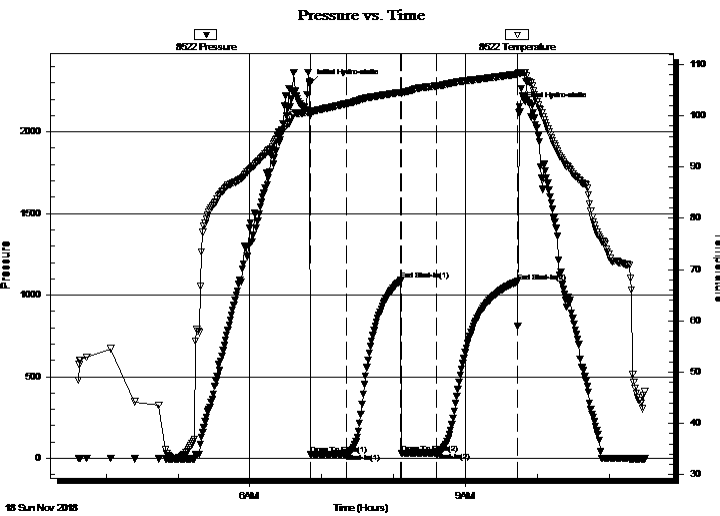
Test Start: 2018.11.18 @ 03:37:00

## GENERAL INFORMATION:

Formation: **Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:50:30  
 Time Test Ended: 11:30:00  
 Interval: **4567.00 ft (KB) To 4597.00 ft (KB) (TVD)**  
 Total Depth: 4597.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3124.00 ft (KB)  
 3119.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8522 Outside**  
 Press@RunDepth: 33.96 psig @ 4568.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.11.18 End Date: 2018.11.18 Last Calib.: 2018.11.18  
 Start Time: 03:37:05 End Time: 11:29:59 Time On Btm: 2018.11.18 @ 06:50:15  
 Time Off Btm: 2018.11.18 @ 09:45:00

TEST COMMENT: 30- IF: 1" blow .  
 45- IS: No return.  
 30- FF: no blow .  
 60- FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2296.50	100.90	Initial Hydro-static
1	23.18	100.05	Open To Flow (1)
31	27.64	102.33	Shut-In(1)
76	1089.93	104.58	End Shut-In(1)
77	31.07	104.36	Open To Flow (2)
106	33.96	105.79	Shut-In(2)
174	1082.76	108.11	End Shut-In(2)
175	2152.45	108.27	Final Hydro-static

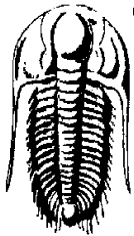
## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100m w/oil spots	0.10

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Lario Oil & Gas Co.

301 S Market St.  
Wichita, KS 67202

ATTN: Steve Davis

13-20s-35w Wichita,KS

Buerkle #1-13

Job Ticket: 64428

DST#: 2

Test Start: 2018.11.18 @ 03:37:00

### GENERAL INFORMATION:

Formation: **Pawnee**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 06:50:30  
Time Test Ended: 11:30:00  
**Interval: 4567.00 ft (KB) To 4597.00 ft (KB) (TVD)**  
Total Depth: 4597.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

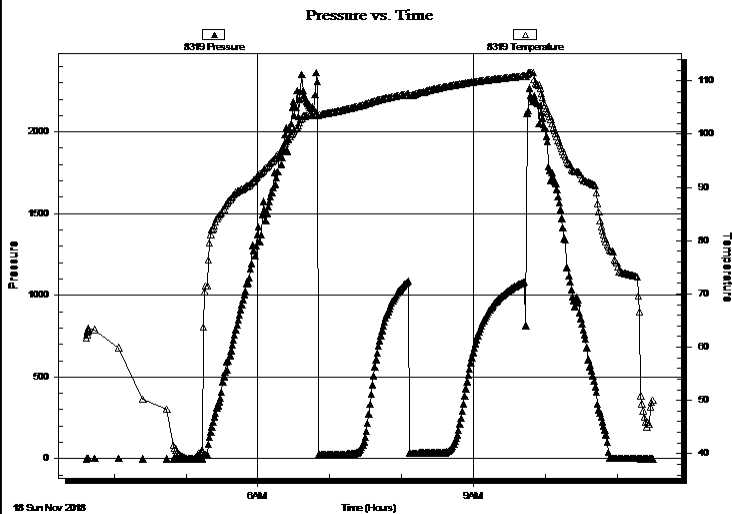
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 78  
Reference Elevations: 3124.00 ft (KB)  
3119.00 ft (CF)  
KB to GR/CF: 5.00 ft

Serial #: 8319

Inside

Press@RunDepth: psig @ 4568.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.11.18 End Date: 2018.11.18 Last Calib.: 2018.11.18  
Start Time: 03:37:05 End Time: 11:29:59 Time On Btm:  
Time Off Btm:

TEST COMMENT: 30- IF: 1" blow.  
45- IS: No return.  
30- FF: no blow.  
60- FS: No return.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100m w/oil spots	0.10

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64428

**DST#: 2**

ATTN: Steve Davis

Test Start: 2018.11.18 @ 03:37:00

## Tool Information

Drill Pipe:	Length: 4449.00 ft	Diameter: 3.80 inches	Volume: 62.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4567.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 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			4541.00	
Shut In Tool	5.00		Fluid	4546.00	
Hydraulic tool	5.00			4551.00	
Jars	5.00			4556.00	
Safety Joint	2.00			4558.00	
Packer	5.00		Inside	4563.00	27.00 Bottom Of Top Packer
Packer	4.00			4567.00	
Stubb	1.00			4568.00	
Recorder	0.00	8319	Inside	4568.00	
Recorder	0.00	8522	Outside	4568.00	
Perforations	26.00			4594.00	
Bullnose	3.00			4597.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co.

**13-20s-35w Wichita,KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64428

**DST#: 2**

ATTN: Steve Davis

Test Start: 2018.11.18 @ 03:37:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud 100m w/oil spots	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

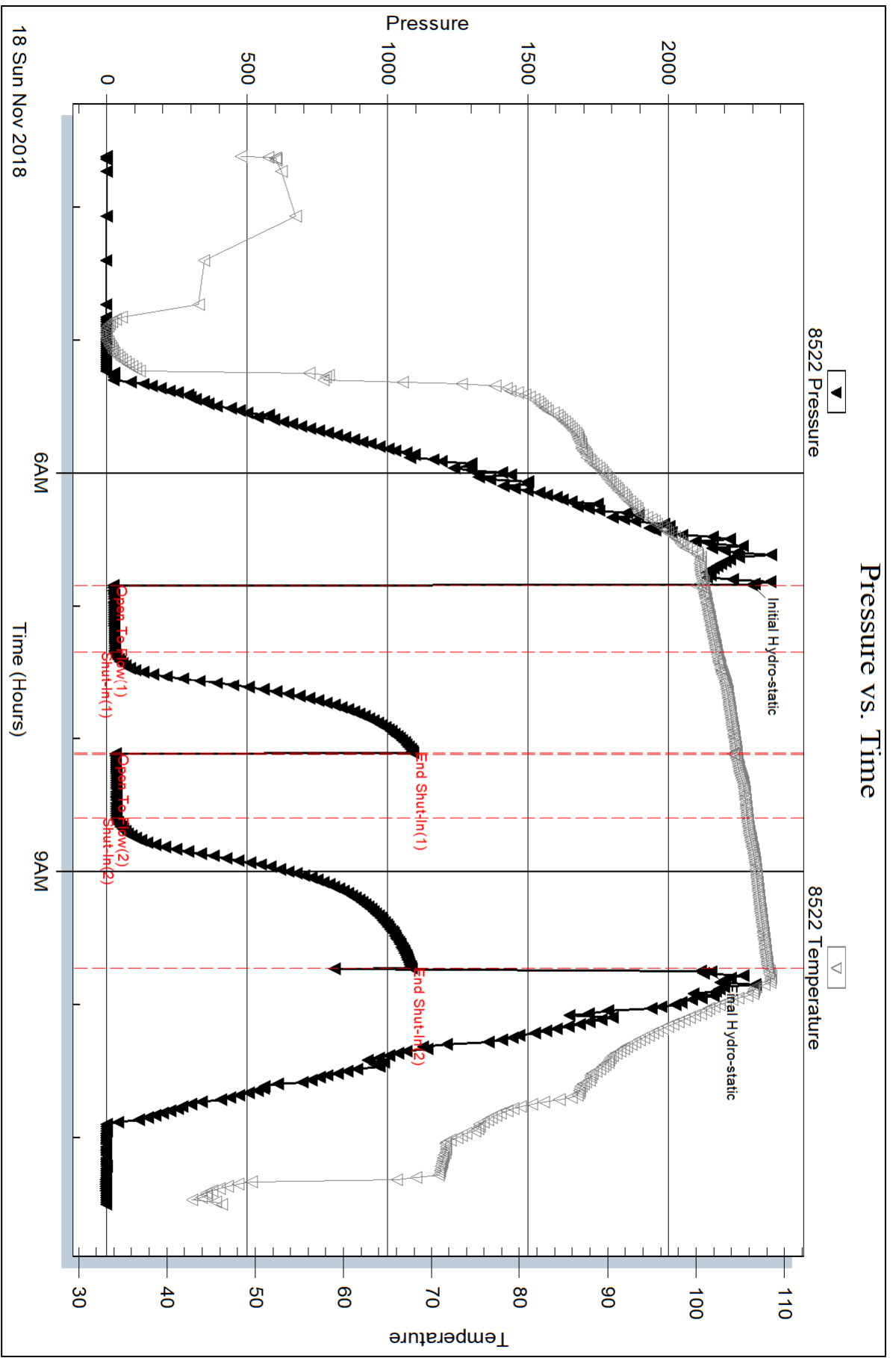
Recovery Comments:

Serial #: 8522

Outside Lario Oil & Gas Co.

Buerkle #1-13

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64428

Printed: 2018.11.21 @ 10:39:45

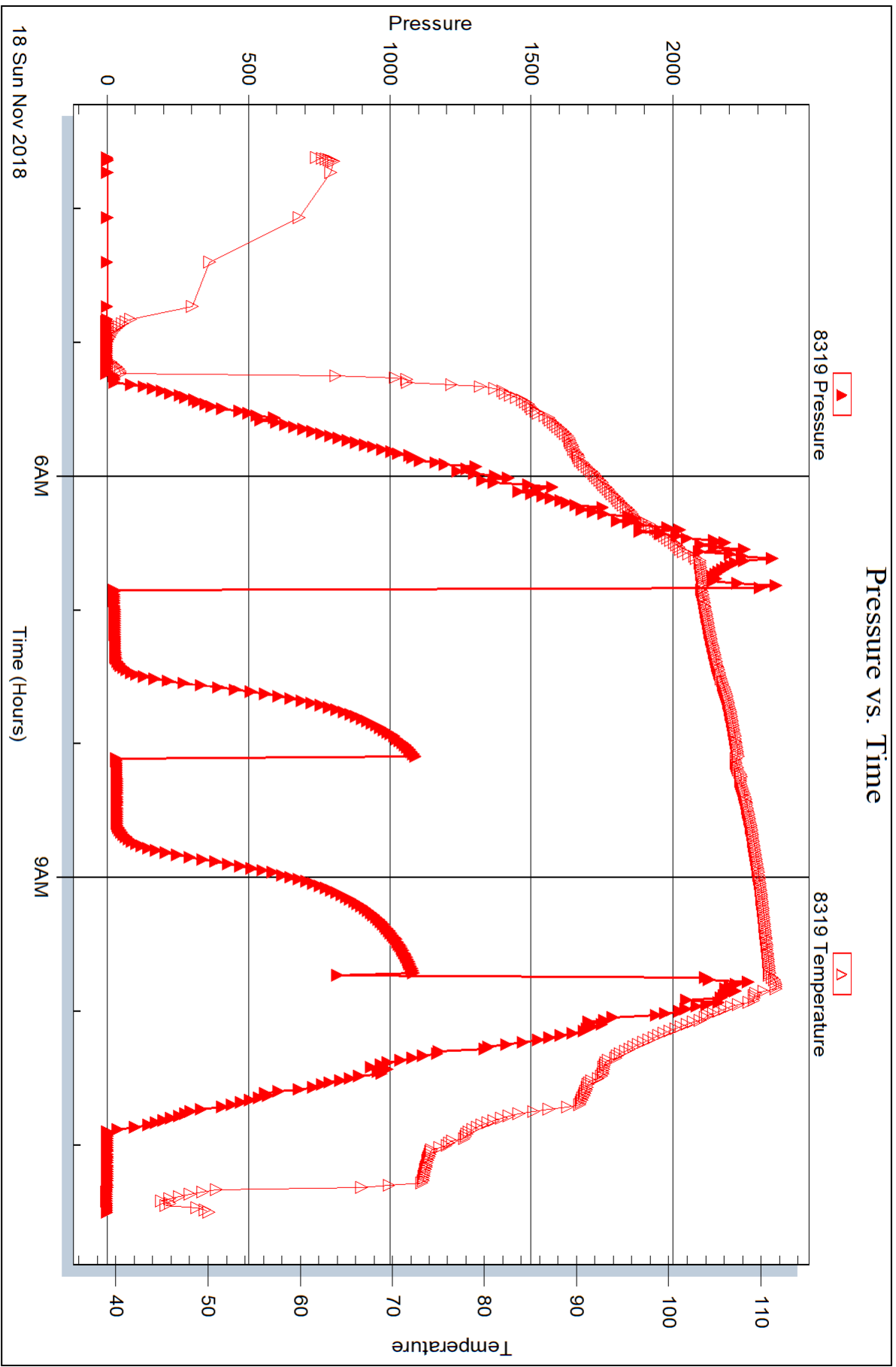
Serial #: 8319

Inside

Lario Oil & Gas Co.

Buerkle #1-13

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64428

Printed: 2018.11.21 @ 10:39:46



## DRILL STEM TEST REPORT

Prepared For: **Lario Oil & Gas Co.**

301 S Market St.  
Wichita, KS 67202

ATTN: Steve Davis

### **Buerkle #1-13**

#### **13-20s-35w Wichita,KS**

Start Date: 2018.11.18 @ 20:21:00

End Date: 2018.11.19 @ 03:24:00

Job Ticket #: 64429                      DST #: 3

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

Printed: 2018.11.21 @ 10:39:19



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64429

**DST#: 3**

ATTN: Steve Davis

Test Start: 2018.11.18 @ 20:21:00

## GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:14:45

Time Test Ended: 03:24:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

**Interval: 4600.00 ft (KB) To 4630.00 ft (KB) (TVD)**

Reference Elevations: 3124.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

3119.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8522 Outside**

Press@RunDepth: 50.48 psig @ 4601.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.18

End Date:

2018.11.19

Last Calib.: 2018.11.19

Start Time: 20:21:05

End Time:

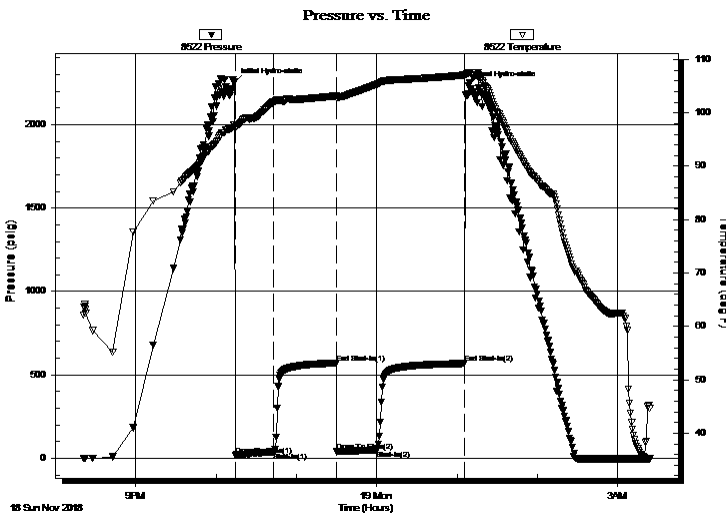
03:23:59

Time On Btm: 2018.11.18 @ 22:13:45

Time Off Btm: 2018.11.19 @ 01:08:15

**TEST COMMENT:** 30 - IF: 3" blow .  
45 - IS: No return.  
30 - FF: 2" blow .  
60 - FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2250.95	97.76	Initial Hydro-static
1	19.21	97.35	Open To Flow (1)
29	37.76	102.00	Shut-In(1)
76	571.00	103.20	End Shut-In(1)
77	40.02	102.77	Open To Flow (2)
106	50.48	105.30	Shut-In(2)
172	568.59	107.07	End Shut-In(2)
175	2234.59	107.44	Final Hydro-static

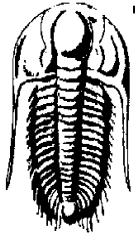
## Recovery

Length (ft)	Description	Volume (bbl)
65.00	w cm 20w 80m w/oil spots in tool	0.32

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Lario Oil & Gas Co.  
 301 S Market St.  
 Wichita, KS 67202  
 ATTN: Steve Davis

**13-20s-35w Wichita,KS**

**Buerkle #1-13**

Job Ticket: 64429

**DST#: 3**

Test Start: 2018.11.18 @ 20:21:00

### GENERAL INFORMATION:

Formation: **Ft Scott**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:14:45  
 Time Test Ended: 03:24:00  
 Interval: **4600.00 ft (KB) To 4630.00 ft (KB) (TVD)**  
 Total Depth: 4630.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 78  
 Reference Elevations: 3124.00 ft (KB)  
 3119.00 ft (CF)  
 KB to GR/CF: 5.00 ft

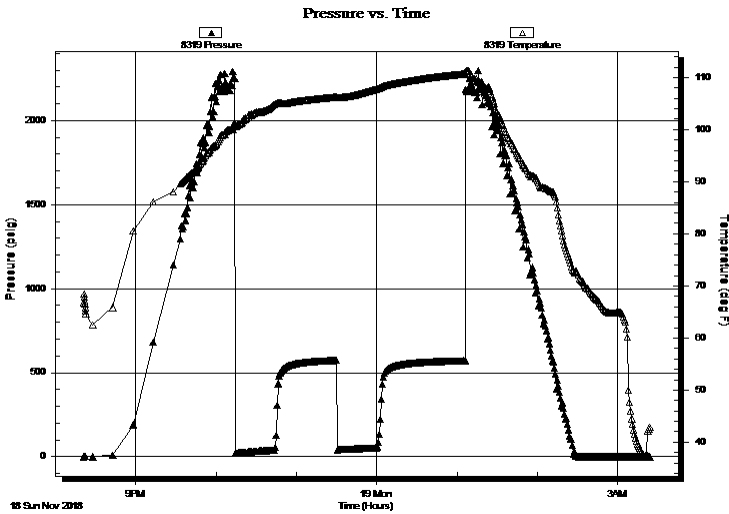
**Serial #: 8319**

**Inside**

Press@RunDepth: psig @ 4601.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.11.18 End Date: 2018.11.19 Last Calib.: 2018.11.19  
 Start Time: 20:21:05 End Time: 03:23:59 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30 - IF: 3" blow .  
 45 - IS: No return.  
 30 - FF: 2" blow .  
 60 - FS: No return.

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
65.00	w cm 20w 80m w/oil spots in tool	0.32

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64429

**DST#: 3**

ATTN: Steve Davis

Test Start: 2018.11.18 @ 20:21:00

## Tool Information

Drill Pipe:	Length: 4480.00 ft	Diameter: 3.80 inches	Volume: 62.84 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 63.42 bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4600.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 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			4574.00	
Shut In Tool	5.00		Fluid	4579.00	
Hydraulic tool	5.00			4584.00	
Jars	5.00			4589.00	
Safety Joint	2.00			4591.00	
Packer	5.00		Inside	4596.00	27.00 Bottom Of Top Packer
Packer	4.00			4600.00	
Stubb	1.00			4601.00	
Recorder	0.00	8319	Inside	4601.00	
Recorder	0.00	8522	Outside	4601.00	
Perforations	26.00			4627.00	
Bullnose	3.00			4630.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Lario Oil & Gas Co.

**13-20s-35w Wichita, KS**

301 S Market St.  
Wichita, KS 67202

**Buerkle #1-13**

Job Ticket: 64429

**DST#: 3**

ATTN: Steve Davis

Test Start: 2018.11.18 @ 20:21:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
65.00	w cm 20w 80m w/oil spots in tool	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .240 @ 57f = 36000

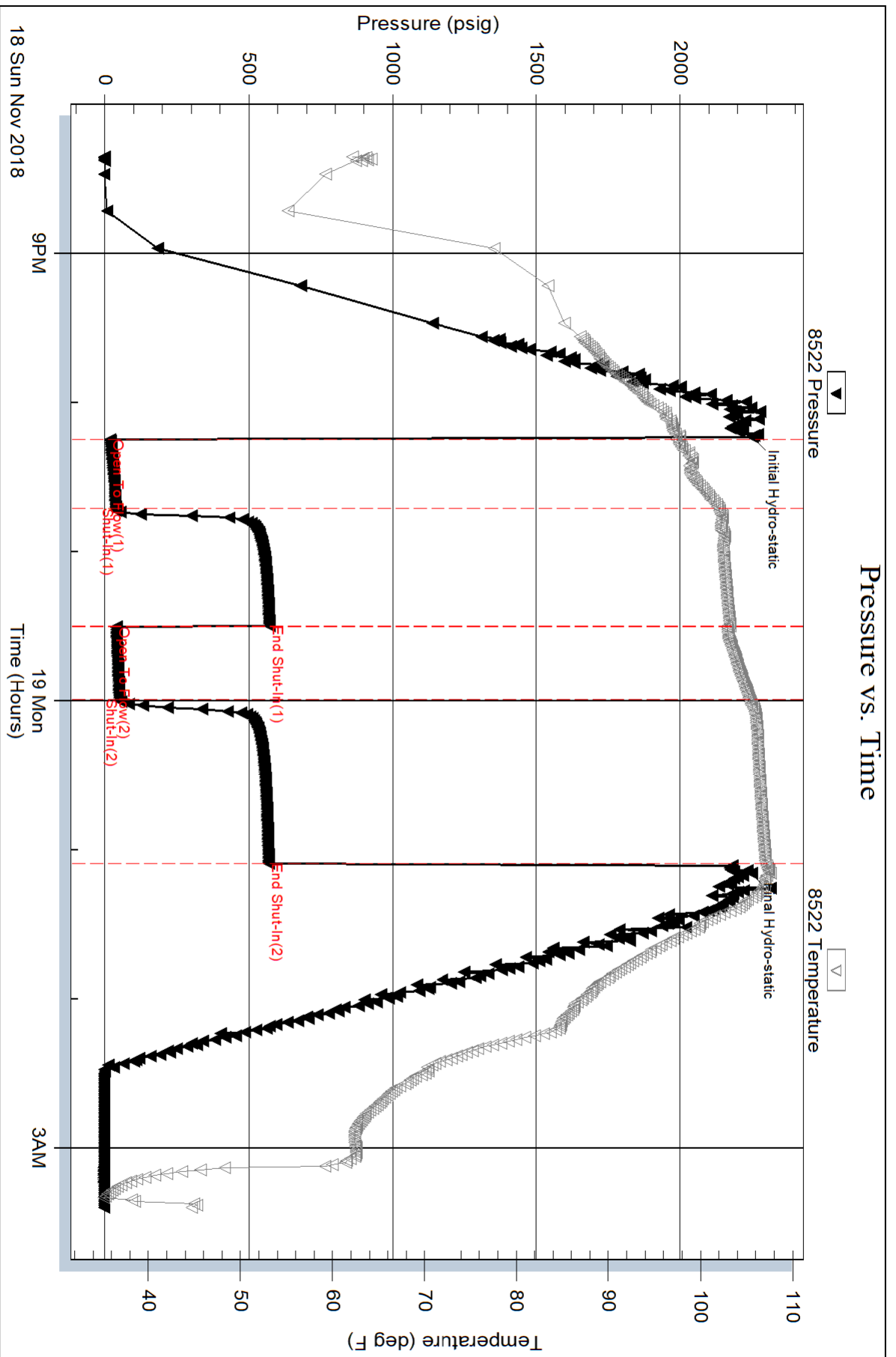


Serial #: 8522

Outside Lario Oil & Gas Co.

Buerkle #1-13

DST Test Number: 3



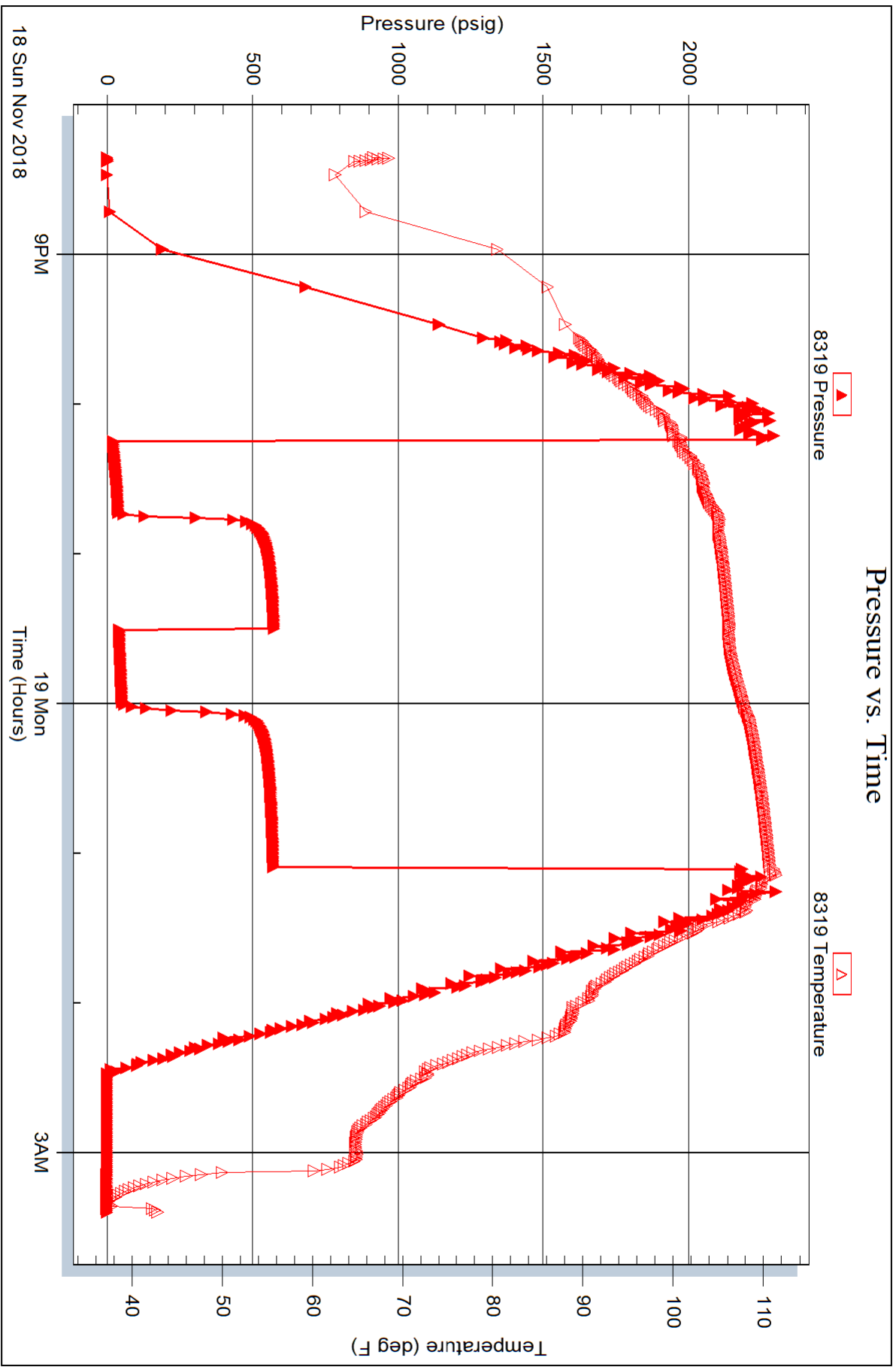
Serial #: 8319

Inside

Lario Oil & Gas Co.

Buerkle #1-13

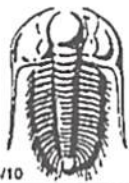
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 64429

Printed: 2018.11.21 @ 10:39:20



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **64427**

Well Name & No. BuenKLE #1-13 Test No. 1 Date 11/17/2018  
 Company Lario Oil & Gas Co Elevation 3124 KB 3119 GL  
 Address 301 S Market St Wichita, Ks 67202  
 Co. Rep / Geo. Steve Davis Rig WW #2  
 Location: Sec. 12 Twp 20s Rge. 35 w Co. Wichita State Ks

Interval Tested 4504 - 4540 Zone Tested Marmaton A-B  
 Anchor Length 36 Drill Pipe Run 4386 Mud Wt. 9.2  
 Top Packer Depth 4499 Drill Collars Run 117 Vis 63  
 Bottom Packer Depth 4504 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4540 Chlorides 4400 ppm System LCM 2#

Blow Description IF 1 1/2" blow  
IBI No return  
FF Surface blow  
FSI No return

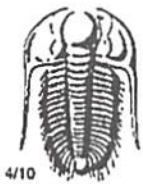
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>WCM (OIL SPOTS)</u>			<u>30</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60 BHT 113 Gravity — API RW .268 @ Ø2 °F Chlorides 29,000 ppm

(A) Initial Hydrostatic 2225  Test 1150 T-On Location 0630  
 (B) First Initial Flow 21  Jars 250 T-Started 0746  
 (C) First Final Flow 35  Safety Joint 75 T-Open 1055  
 (D) Initial Shut-In 1001  Circ Sub N/C T-Pulled 1340  
 (E) Second Initial Flow 38  Hourly Standby \_\_\_\_\_ T-Out 1533  
 (F) Second Final Flow 47  Mileage 62 Rt 62 Comments \_\_\_\_\_  
 (G) Final Shut-In 997  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2216  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1537  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1537

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64428

Well Name & No. Buerkle #1-13 Test No. 2 Date 11/17/2018  
 Company Lario Oil & Gas Co Elevation 3124 KB 3119 GL  
 Address 301 S Market St Wichita, Ks 67202  
 Co. Rep / Geo. Steve Davis Rig WLD #2  
 Location: Sec. 12 Twp 20s Rge. 35w Co. Wichita State Ks

Interval Tested 4567-4597 Zone Tested Marxat Pawnee  
 Anchor Length 30' Drill Pipe Run 4449 Mud Wt. 9.2  
 Top Packer Depth 4562 Drill Collars Run 117 Vis 60  
 Bottom Packer Depth 4567 Wt. Pipe Run Ø WL 8.0  
 Total Depth 4597 Chlorides 4400 ppm System LCM 2#

Blow Description IF: 1" bleed  
ISI: no return,  
FF: NO surface bleed  
FST: No return,

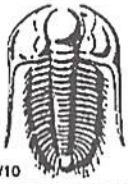
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mod</u>	<u>100</u>			
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2297  Test 1150 T-On Location 0300  
 (B) First Initial Flow 23  Jars 250 T-Started 0337  
 (C) First Final Flow 28  Safety Joint 75 T-Open 0645  
 (D) Initial Shut-In 1090  Circ Sub NC T-Pulled 0930  
 (E) Second Initial Flow 31  Hourly Standby \_\_\_\_\_ T-Out 1130  
 (F) Second Final Flow 34  Mileage 62kt 62 Comments \_\_\_\_\_  
 (G) Final Shut-In 1883  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2152  Straddle \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_  
 Final Shut-In 60  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1537

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64429

Well Name & No. Boertke # 1-13 Test No. 3 Date 11/19/2018  
 Company Lario Oil & Gas Co Elevation 3124 KB 3119 GL  
 Address 301 S Market St Wichita, ks 67202  
 Co. Rep / Geo. Steve Davis Rig WW#2  
 Location: Sec. 12 Twp 20s Rge. 35w Co. Wichita State Ks

Interval Tested 4600-4630 Zone Tested Ft. Scott  
 Anchor Length 30 Drill Pipe Run 4480 Mud Wt. 9.1  
 Top Packer Depth 4595 Drill Collars Run 117 Vis 53  
 Bottom Packer Depth 4600 Wt. Pipe Run Ø WL 8.8  
 Total Depth 4630 Chlorides 5500 ppm System LCM 2#

Blow Description IF 3" blow  
ISL No return  
FF 2" blow  
FSI No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>Wcm</u>			<u>20</u>	<u>80</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65 BHT 107 Gravity — API RW 1240 @ 57 °F Chlorides 36000 ppm

(A) Initial Hydrostatic 2251  Test 1150 T-On Location 2000  
 (B) First Initial Flow 19  Jars 250 T-Started 2021  
 (C) First Final Flow 38  Safety Joint 75 T-Open 2212  
 (D) Initial Shut-In 571  Circ Sub N/C T-Pulled 0100  
 (E) Second Initial Flow 40  Hourly Standby \_\_\_\_\_ T-Out 0324  
 (F) Second Final Flow 50  Mileage 62 Rt + 2 62+62  
 (G) Final Shut-In 569  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2235  Straddle \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 60  Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1599

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

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# LARIO OIL & GAS COMPANY

## BUERKLE FARMS #1-13

335' FNL & 335' FWL of Section 13-T20S-R35W  
WICHITA COUNTY, KANSAS  
API#15-203-20348-00-00

### Geologist's Report

### WellSight Systems

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

Well Name: Lario Oil & Gas Company Buerkle Farms #1-13  
API: 15-203-20348-00-00  
Location: 335' FNL & 335' FWL of Section 13-T20S-R35W  
License Number: 5214  
Spud Date: 11/10/2018  
Surface Coordinates: 335' FNL & 335' FWL of Section 13-T20S-R35W  
Region: Wichita Co., Kansas  
Drilling Completed: 11/21/2018  
Wildcat  
Bottom Hole Vertical Test D&A  
Coordinates:  
Ground Elevation (ft): 3119 K.B. Elevation (ft): 3124  
Logged Interval (ft): RTD To: 3500 Total Depth (ft): RTD 5000 LTD 5001  
Formation: Mississippi  
Type of Drilling Fluid: Chemical (Displaced @ 3430 )

Printed by MudLog from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### Operator

Company: Lario Oil & Gas Company  
Address: 301 S Market  
Wichita, Kansas 67202  
Division Geologist: John Hastings

### Geologist

Name: Richard S.(Steve) Davis Jr.  
Company: Consulting Petroleum Geologist  
Address: 7329 E. Norfolk  
Wichita, Kansas 67206  
Cell 316-772-6479 Home 316-686-1193

**KB 3124**

Formation	Sample	E-Log	Datum	Formation	Sample	E-Log	Datum
Anhydrite	2268	2269	+855	Hushpuckney	4375	4374	-1250
B/Anhydrite	2283	2284	+840	Lansing L	4381	4382	-1258
Stotler	3535	3532	-408	BKC	4459	4462	-1338
Topeka	3759	3761	-637	Marmaton	4490	4495	-1371
Heebner	3959	3958	-834	Pawnee	4585	4585	-1461
Toronto	3980	3980	-856	Fort Scott	4606	4608	-1484
Lansing	4008	4009	-885	Cherokee Sh	4628	4629	-1505
Lansing D	4099	4099	-975	Lwr Cherokee	4661	4661	-1537
Muncie Creek	4208	4208	-1084	Johnson	4730	4726	-1602
Lansing H	4219	4219	-1095	Morrow	4823	4824	-1700
Lansing I	4255	4255	-1131	Basal Penn Sd	4909	4910	-1786
Lansing J	4282	4284	-1160	Mississippi	4919	4920	-1796
Stark	4322	4322	-1198				
Lansing K	4330	4330	-1206	Total Depth	5000	5001	-1877

**DAILY PENETRATION: 7:00 AM**

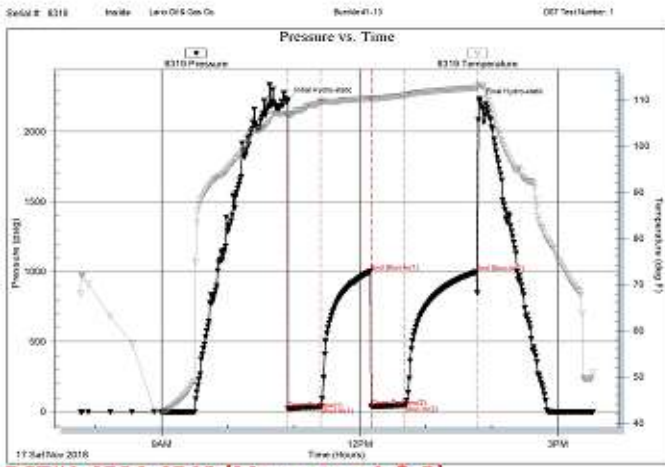
Date	Depth	Activity
11/10/18	0	MIRU & Spud
11/11	343	WOC
11/12	1906	Drlg
11/13	2950	Drlg
11/14	3500	Drlg
11/15	3850	Drlg
11/16	4270	Drlg
11/17	4540	DST#1
11/18	4597	DST#2
11/19	4635	Drlg
11/20	4945	Drlg
11/21	5000	P&A

**CONTRACTOR:**

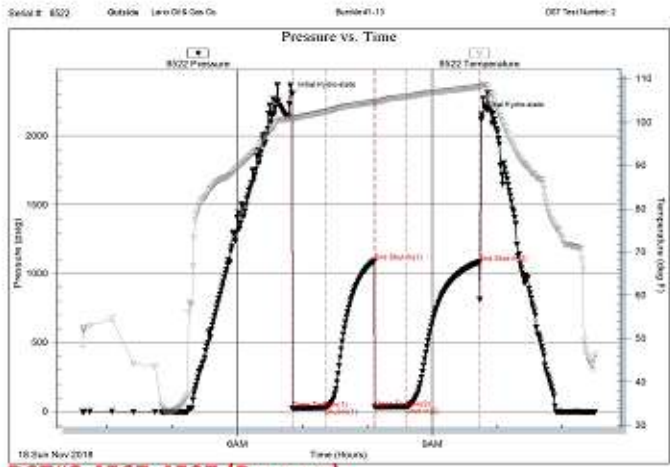
**WW Drilling Rig #2**  
 Toolpusher: John Nichodemus  
**MUD:**  
 Mud Co (displacement complete @ 3430')  
 Reed Atkins  
**DRILL STEM TESTING:** Trilobite Testing Inc.  
 Bradley Walter (Walt)  
**ELECTRIC LOG:**  
 Eli: Jeff Luebbers  
 (DIL, CDL/CNL, PE & MEL)  
**CASING RECORD:**  
 Surface: 8 5/8" @ 343' w/ 205 sx  
 Production: None

**Bit Record:**

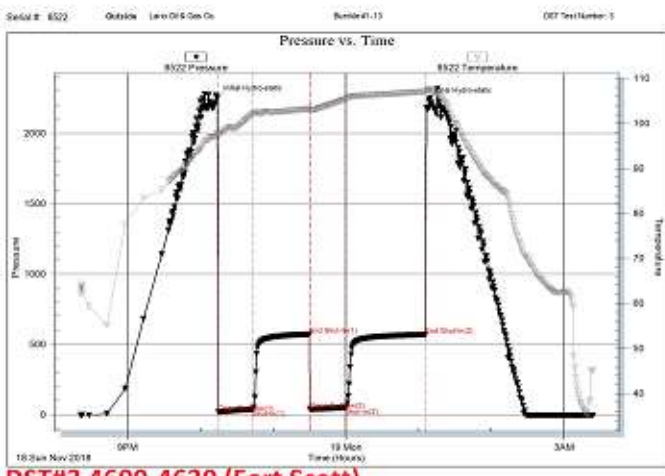
Bit No./Size	Make/Type	Out	Ftg	Hrs
#1/ 12 1/4"	Smith RR	343	343	3 3/4
#2/ 7 7/8"	Smith F27I	5000	4657	149



**DST#1 4504-4540 (Marmaton A & B)**  
 Hobbs Testing, Inc. Ref. No.: 64427 Poreo 2018.11.11 @ 10:22:28



**DST#2 4567-4597 (Pawnee)**  
 Hobbs Testing, Inc. Ref. No.: 64427 Poreo 2018.11.16 @ 22:39:45



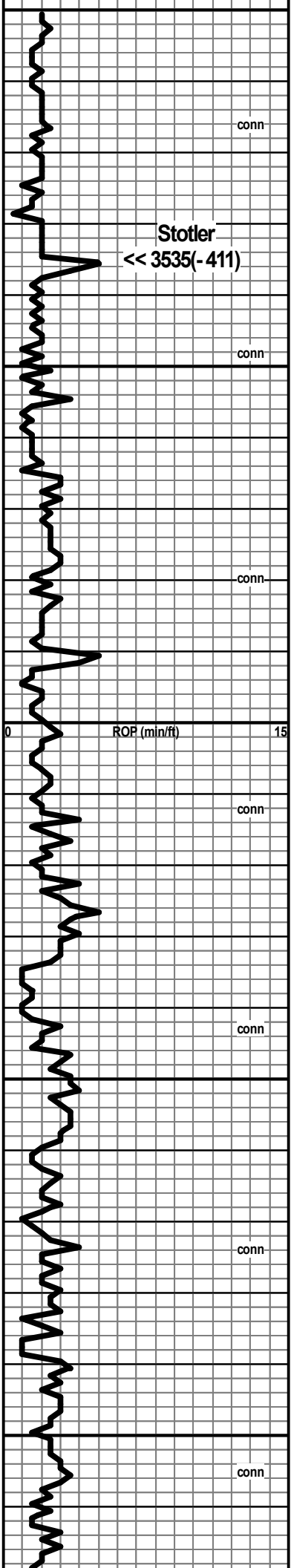
**DST#3 4600-4630 (Fort Scott)**  
 Hobbs Testing, Inc. Ref. No.: 64427 Poreo 2018.11.19 @ 07:28:14

**Rock Types**

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

ROP (min/ft)	Depth	Lithology	Geological Descriptions	Remarks
<p>ROP (min/ft)</p> <p>15</p> <p>Anhydrite            &lt;&lt; 2268(+ 856)</p> <p>B/Anhydrite            &lt;&lt; 2283(+ 841)</p>		Shows		





Stotler  
<< 3535(- 411)

conn

conn

conn

conn

conn

conn

conn

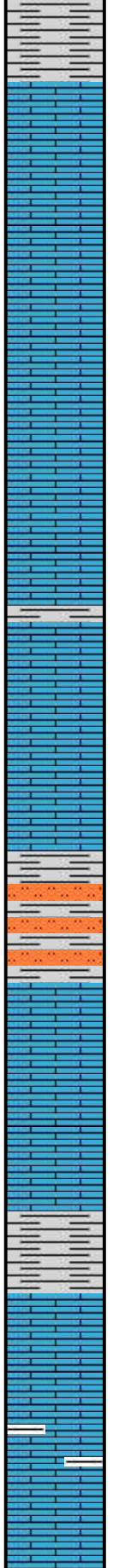
3500

3550

3600

3650

3700



Most Shale, gy, gn blk & mar

LS, tan-bm, vf-micxn, foss, NV por, hd + Shale, vcol

LS, gy-bm, f-vfxn, foss & ool, chky-arg IP, rP ixln por, most NV por, NS, hd

LS, gy-bm, f-vfxn, foss & ool, chky IP, P ixln por & rP pp-vgy por, NS, msft

LS, gy-bm, f-vfxn, foss & ool, chky IP, P ixln por, NS, sft + Shale, gy, gn & mar

LS, gy-bm, vf-micxn, foss, NV por, dns

Shale, blk, dk gy, gn & mar + Stst, gy-gn

LS, tan-bm-gy, vf-micxn, foss & ool, most dns, NV por, rP vgy por, NS

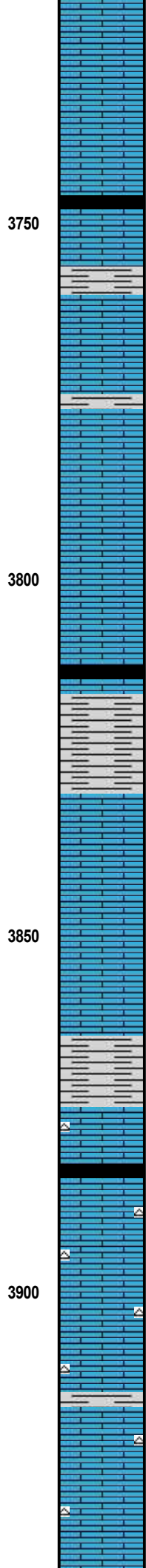
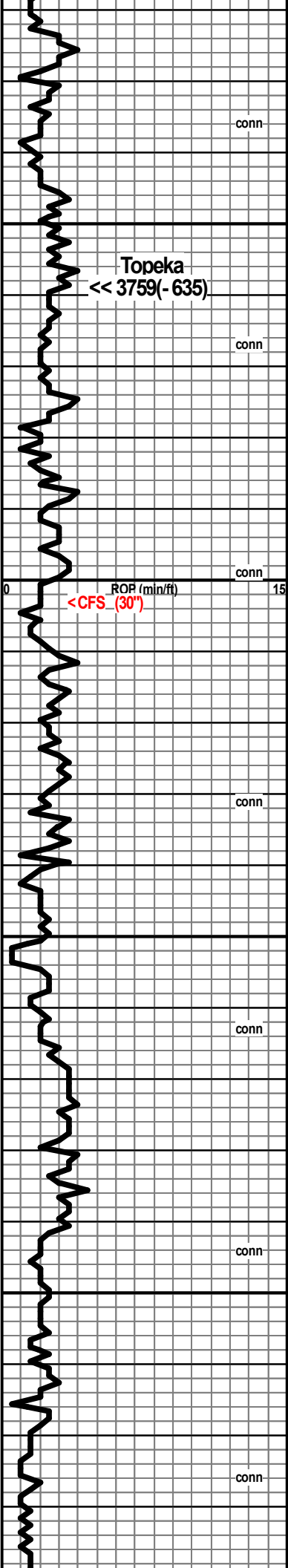
LS, bm-tan, f-vfxn, ool-foss, chky, P ixln por & rP pp-vgy por, NS, msft

LS AA w/ inc Shale, blk, gy, gn & mar

LS, bm-gy, f-vfxn, ool-foss, P ixln por, NS, hd

LS, gy-bm, fxln, arg, foss-sub ool, NV por, hd

Vis 64 Wt 8.6 Fil 6.4 PH 11.5  
Chl 2,500 LCM 3#  
11/14/2018 @ 3580



LS, cm-fair, ixln, foss & ool, chky IP, P ipart por, NS + LS, gy-tan, f-vfxln, NV por, hd

LS, gy-tan-bm, vf-ixln, chky IP, foss-sub ool, NV por, hd

LS AA w/ inc Shale, blk, sub carb & dk gy

Abnt Shale, blk, dy gy + LS, gy-bm, f-vfxln, arg, foss, r P pp-vgy por, NS, m hd

LS, cm-wh, f-vfxln, chky, sub ool-foss, P ixln por, NS, m hd-sft + abnt Shale, blk, sub carb & dk gy

LS, gy-bm, f-vfxln, foss & ool, arg-sub chky, NV por, m hd + abnt Shale, blk- dk gy

Shale, blk, sub carb

Shale, gy, blk, gn & mar (HTW)

LS, bm-gy, fxln, gran, sltly foss-ool, P ixln por, NS, m hd

LS, gy-bm, f-vfxln, arg-chky IP, foss, NV por, m hd

Shale, blk, gy, gn & mar

Shale, blk, sub carb + LS, tan-bm, vfxln, NV por, dns & Cht, wh, sltly foss, opq

LS, gy-cm-bm, f-vfxln, chky IP, sltly foss-ool, NV por, m sft + Cht, wh-tan, opq

LS, gy-cm, f-vfxln, chky IP, sltly foss-ool, P ixln por, spt'd gil stn, NSFO, N odor + Cht, gy, opq

LS, bm-gy, f-vfxln, sub ool-foss, arg, NV por, hd + few pc's Cht, wh-gy, foss, opq

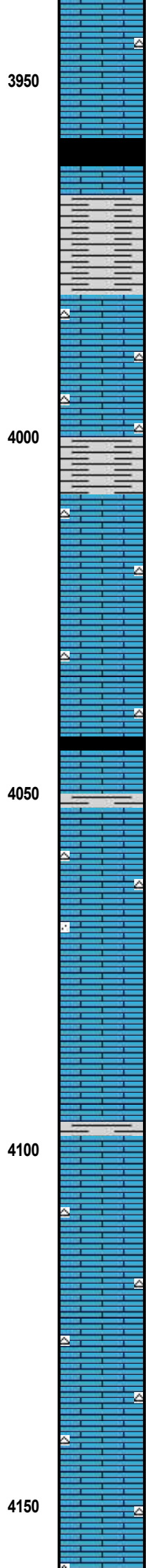
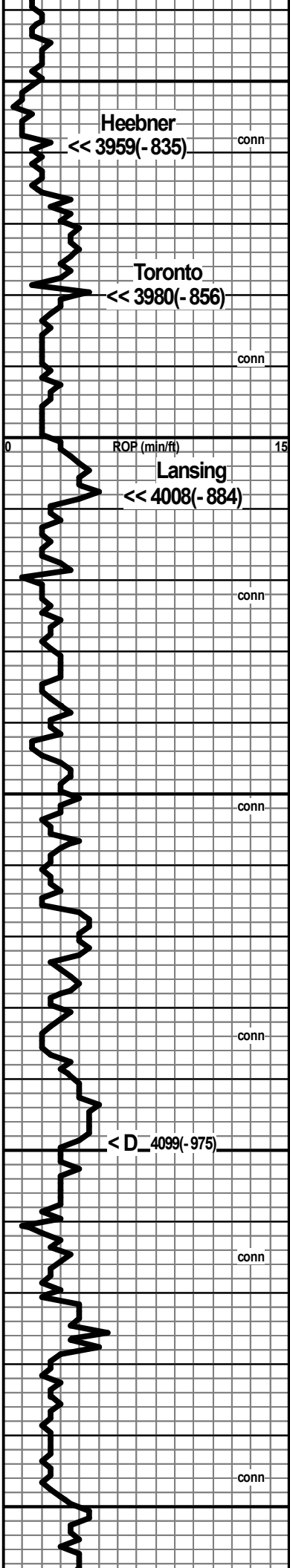
LS, gy-wh, f-vfxln, chky-arg, sltly foss, NV por, sft + abnd Shale, mar, gy & few pc's Cht, wh-gy, foss, opq

Vis 57 Wt 8.6 LCM 2#

**Trip out of hole @ 3803**  
 (Found crack in drill pipe)  
 Pipe Strap & Survey @ 3803  
 Strap .49 long  
 Survey 1 1/4 deg

**Start 10' Wet & Dry Samples @ 3900'**

Vis 58 Wt 8.9 Fl 6.4 PH 11.0  
 Chl 3,200 LCM 3#  
 11/15/2018 @ 3924



LS, bm-gy-cm, f-vfxln, gran, arg, sltly foss, NV por, m sft

Shale, blk, carb (3980 spl)

LS, bm-gy, vf-micxln, arg, foss-ool, NV por, m hd

Shale, mar, lt gy-gn, sft

LS, wh-cm, f-vfxln, chky IP, foss & ool, P ipart por & P vgy-pp por, rr spt'd gil stn, NSFO, N odor+ Cht, wh-cm, opq-tmsl

Shale, blk, sub carb, mar & gy-gn

LS, cm-gy, f-vfxln, sltly foss-ool, chky IP, rr P pp por & P iool por, NS + Cht, wh, sub ool-foss, opq

LS, cm-tan, f-vfxln, sltly foss, chky-cthy IP, NV por; hd + Cht, sub ool, tmsl-opq

LS, tan-cm, f-vfxln, chky-cthy IP, NV por; hd + Cht, wh-lt gy, op-tmsl

Shale, blk, carb + pyr

LS, cm-wh, f-vfxln, sub ool-foss, NV por, most dns + Shale, gy, blk, gn & mar

LS, wh-cm-lt gy, chky, sub ool, foss, rr P pp-vgy por, NS + Cht, lt gy opq

LS, cm-wh-tan, vf-micxln, sub ool-foss, NV por, chty IP, most dns + Cht, lt gy, opq

LS, cm-wh, f-vfxln, chky IP, foss & ool, rr P pp por, NS, most NV por, hd

LS, bm-gy, vf-micxln, NV por, dns

LS, gy-tan, f-vfxln, sub ool, chky IP, F-P ixln por & rr P vgy por, NS, m hd

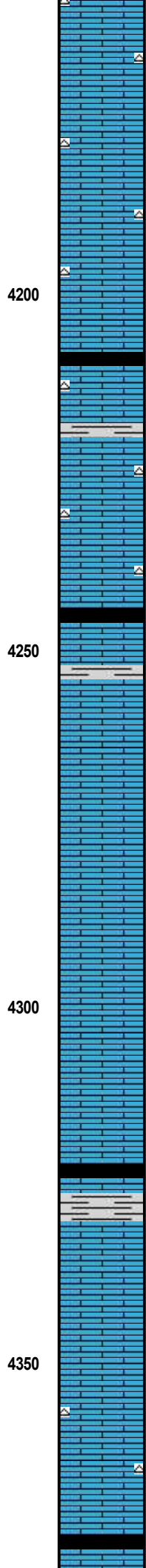
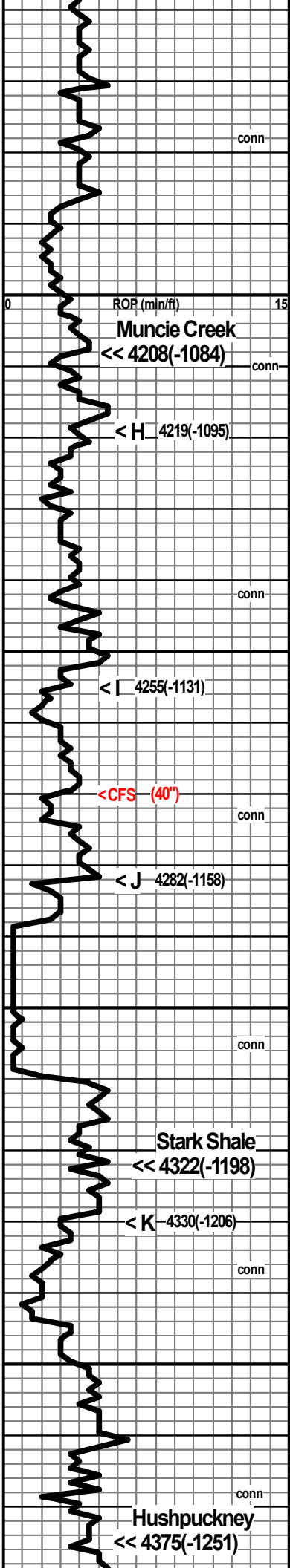
LS, cm-bm-gy, vf-micxln, foss-ool, NV por, most dns + Cht, lt gy, sltly foss, opq

LS, tan-lt gy, micxln, chty, sharp, sltly foss, NV por, hd

LS, gy-bm-tan, micxln, sub ool-foss, NV por, hd + Cht, lt gy-tan, opq-tmsl

LS, cm-wh, fxln, gran, chky, NV por, hd + Cht, wh-lt gy, opq

Work on pump @4084



LS, cm-wh, fxln, chky IP, hd, NV por, hd + Cht, lt gy, tmsl

LS, lt gy-tan, vf-micxn, dns, NV por, dns + Cht, wh-cm, tmsl

LS, lt gy-tan, f-vfxln, sub ool- foss, chky IP, NV por, m sft + Cht, lt gy-wh, opq-tmsl

LS, lt gy-tan, micxn, chty IP, sharp, NV por, dns

Shale, blk, carb (4230 spl)

LS, gy-tan, vf-micxn, NV por, dns + Cht, gy, foss, tmsl

LS, bm-gy, f-vfxln, sub ool-foss, rr P pp & vgy por, NS, m hd + Cht, gy, foss, tmsl

LS, gy-bm, vf-micxn, sltly foss, NV por, most dns + Cht, bm-wh, foss, opq

Shale, blk, carb + pyr

LS, cm-tan-bm, vfxln, sltly foss, chty-chky IP, NV por, hd + Shale, blk, gy-gn & mar

LS, lt gy-wh, fxln, ool & foss, F ipart por & F-P vgy-pp por, S-FSFO, spt'd stn & fluor, F odor

LS, tan-wh, vfxln, ool, P iool por, NS, dns + LS cm-tan, vfxln, chky-dns, NV por

LS, bm-dk gy, micxn, sub ool-foss, NV por, chty IP, dns, NV por + Shale, gy & mar

LS, off wh-gy-tan, f-vfxln, ool, F-G oom por, NS, sft

LS, off wh-gy-tan, fxln, ool, F-G oom por, NS, sft

LS, gy-bm, vfxln, ool, F-P oom por, NS + LS, gy-cm, f-vfxln, sub ool, NV por, dns

Shale, blk, carb

Shale, blk, gy-gn & mar

LS, bm-gy, vf-micxn, chky IP, ool, F-P oom por, NS

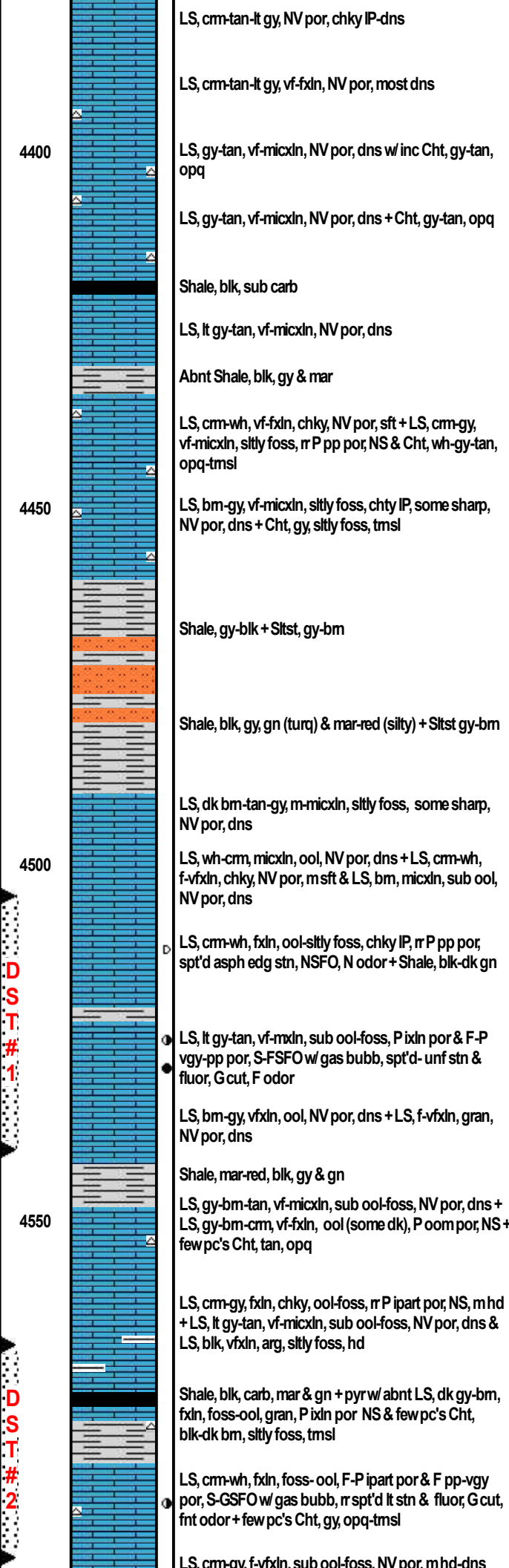
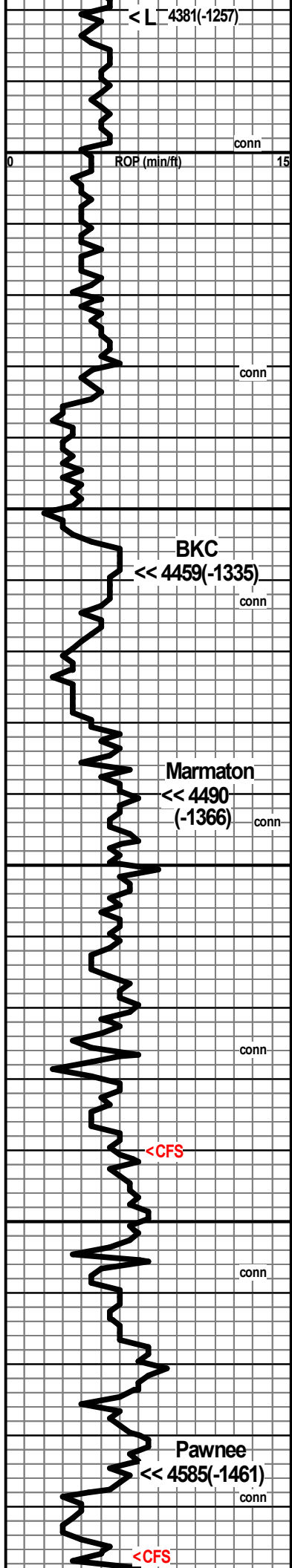
LS, bm-gy, vf-fxn, sub ool, rr P pp por, NS + LS, tan-lt gy, vfxln, NV por, dns

LS, bm-tan, fxln, gran, NV por, dns + Cht, tan-lt gy, foss, tmsl-opq

LS, bm-gy, vfxln, gran, sltly foss, rr P vgy por, NS, some sharp, hd

Shale, blk, carb (4390 spl)

Vis 61 Wt 9.2 Fil 8.8 PH 10.5  
 Chl 3,000 LCM 2#  
 11/16/2018 @ 4350

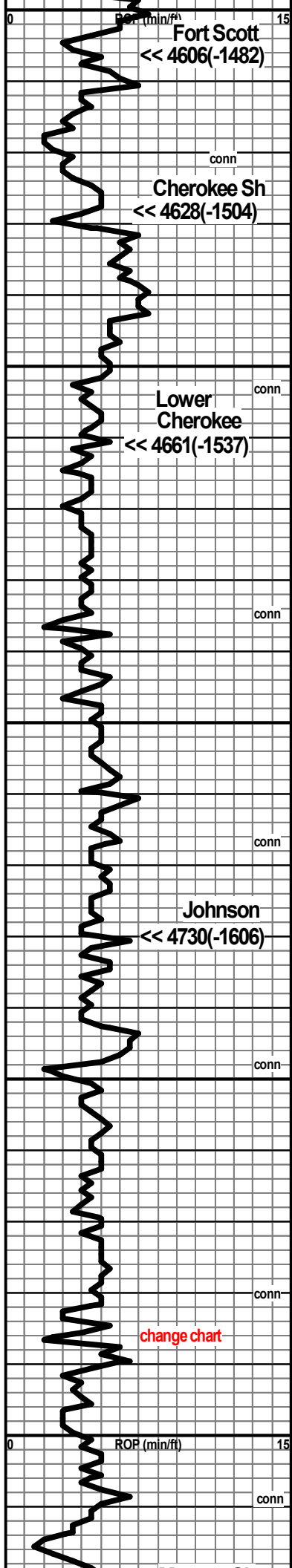


Survey @ 4540, 1 1/4 deg

**DST #1 4504 - 4540**  
 (Marmaton A & B)  
 30 45 30 60  
 BLOW:  
 IF Weak bldg to 1 1/2"  
 ISI No return  
 FF Surface blow  
 FSI No return  
 RECOVERY:  
 60' WCM w/ oil spots  
 (30%w 70%am Chl 29,000)  
 IH 2225  
 IF 21 - 35  
 ISI 1001  
 FF 38 - 47  
 FSI 997  
 FH 2216 BHT 113 deg F

Vis 63 Wt 9.2 Fil 8.0 PH 10.5  
 Chl 4,400 LCM 2#  
 11/17/2018 @ 4540

**DST #2 4567 - 4597**  
 (Pawnee)  
 30 45 30 60  
 BLOW:  
 IF Built to 1"  
 ISI No return  
 FF No blow  
 FSI No return  
 RECOVERY:  
 20' M w/ oil spots (100%am)  
 IH 2297  
 IF 23 - 28  
 ISI 1090  
 FF 31 - 34  
 FSI 1083  
 FH 2152 BHT 108 deg F



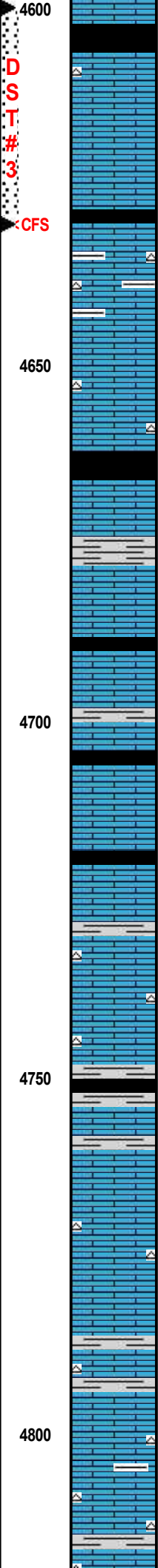
Fort Scott  
 << 4606(-1482)

Cherokee Sh  
 << 4628(-1504)

Lower Cherokee  
 << 4661(-1537)

Johnson  
 << 4730(-1606)

change chart



Shale, blk, carb  
 LS, cm-gy, vfxln, ool, NV por, hd + Cht, wh-lt gy, ool, tmsl-opq  
 LS, bm-gy, f-vfxln, sub foss & ool, P ixn por + P oom & vgy por, S-FSFO (bleeding) w few gas bubb, spt'd-unf stn & fluor, G cut, fnt odor & LS, gy- cm, fxin, chky, ool, NV por, NS, sft

Shale, blk, carb, dk gy, gn & mar+ pyr  
 LS, bm-gy, fxin ool, NV por, hd + Cht, gy-wh, ool, tmsl-opq + Shale, vcol  
 LS, bm-gy, vf-fxin, ool-sub ool, NV por, dns + Shale, vcol  
 LS, bm-tan, vf-micxln, some sharp, NV por, dns + Cht, bm-tan, opq-transl

Shale, blk, carb, gy-gm & mar  
 LS, bm-gy, micxln, NV por, dns + Cht, bm, opq  
 Shale, blk, gy, gn & mar  
 LS, cm-off wh, fxin, chky IP, sub ool-foss, m hd, NV por  
 Shale, blk, carb-sub carb, mar & gy  
 LS, gy-cm, vf-micxln, sub ool & foss-ool packed, NV por, dns + Shale, vcol

LS, tan-lt-gy-bm, vf-micxln, sltly foss, NV por, dns + Shale, red, gy, gn & blk, carb  
 Shale, blk, sub carb  
 LS, tan-bm, fxin, chky IP, sltly foss, NV por + Shale, red(silty), gy, turq, & blk  
 LS, lt tan-off wh, vfxln, gran, chky IP, sub ool-foss, some sharp, r P pp por w spt'd asph stn, NSFO, N odor + Cht, bm, tmsl-opq  
 LS, tan-gy, vf-micxln, sharp, NV por, dns + Cht, lt gy-tan, opq-tmsl

Shale, gn, gy & bm + blk, carb  
 LS, tan-gy, vf-micxln, NV por, dns + LS, wh-lt gy, vfxln, ool & foss, NV por, dns  
 LS, tan-lt gy-off wh, vf-fxin, sltly foss, NV por, dns + LS, dk bm, chty, sltly foss, NV por, dns (abnt Shale, vcol)

LS, tan-cm, vf-micxln, chty IP, sharp, NV por, dns + Shale, blk, dk gy-gn & Cht, bm, sltly foss, tmsl-opq  
 Abnt Shale, gn, gy & blk  
 LS, gy-cm, fxin, chky-arg, sltly foss, NV por, m hd + LS, blk-gy, vf-micxln, chty IP, NV por, dns

Cht, blk-dk bm & tan, opq-tmsl + LS, blk-bm-gy, micxln, chty IP, sharp, sltly foss, NV por, dns + Shale, blk, sub carb, gy & gn

Vis 58 Wt 9.2 FI 8.8 PH 10.5  
 Chl 5,500 LCM 2#  
 11/18/2018 @ 4597

**DST#3 4600 - 4630**  
 (Fort Scott)  
 30 45 30 60  
 BLOW:  
 IF Built to 3"  
 ISI No return  
 FF Built to 2"  
 FSI No return  
 RECOVERY:  
 65' WCM w/ oil spots  
 (20%w 80%am Chl 36,000)  
 IH 2251  
 IF 19 - 38  
 ISI 571  
 FF 40 - 50  
 FSI 569  
 FH 2235 BHT 107 deg F

Vis 64 Wt 8.9 FI 7.2 PH 10.5  
 Chl 7,700 LCM 4#  
 11/19/2018 @ 4671

Morrow Sh  
<< 4823(-1699)

"No sand in spls"

conn

4850

Most Shale, blk, dk gy & gn + LS & Cht AA

Shale, blk, gy, gn + pyr

LS, tan-gy, fxln, arg-sub chky, stly foss, NV por, m hd +  
Shale, blk, gy & gn

conn

Most shale, blk, gy & gn + few loose qtz gn, mgn, ang  
& Cht, gy-bm, tmsl

SS, few clus, gy, f-mgm, glauc & arg, mod sort, sub  
rd-rd, fri, F-P ig por, NS  
SS, gy, vf-fgm, pyr, mod sort, sub rd-rd, comp, P ig por,  
NS, most NV por + Abnt Shale, gy, gn & blk

<CFS

4900

Basal Penn Sd  
<< 4909(-1785)

conn

Shale, gy, gn & blk

Most Shale, gy & blk + SS, wh-clr qtz, f-vfgm, rd, well  
sort, fri, F-G ig por, NS + loose qtz gms, f-mgm

Mississippi  
<< 4919(-1795)

LS, wh-lt gy, f-vfxln, sdy, NV por

LS, wh-cm, f-vfxln, sdy, vfgm, chky IP, NV por, m hd

conn

LS, wh-lt gy-cm, fxln, sdy, fgm, NV por, hd

LS, wh-cm, vf-micxln, sdy, fgm, NV por, hd

4950

LS, cm-wh, vf-micxln, ool, NV por + LS, wh-lt gy, sdy,  
fgm, hd

LS, cm-wh, vf-micxln, ool, NV por, hd

LS, cm-tan, vf-fxln, ool & sdy, f-mgm, hd

conn

LS, wh-cm, fxln, chky IP, ool, rP iool por, NS, m sft,  
most NV por

Vis 57 Wt 9.1 Fil 8.8 PH 10.0  
Chl 6,000 LCM 2#  
11/20/2018 @ 4987

RTD

<< 5000(-1876)  
11:00 AM  
11/20/2018

<CFS

5000

LS, wh-cm, sdy, fgm, chky, NV por, sft

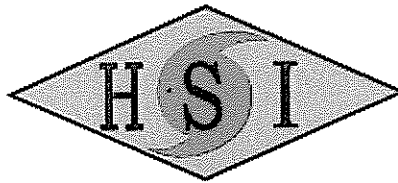
Survey @ 5000, 1 1/2 deg

ELI LTD 5001(-1877)

Lario Oil & Gas Co.  
Buerkle Farms #1-13  
Sec 13-T20S-R35W  
335' FNL & 335' FWL  
Wichita, County, KS.  
API#15-203-20348-00-00







**HURRICANE SERVICES INC**

Remit To: Hurricane Services, Inc.  
 250 N. Water, Suite 200  
 Wichita, KS 67202  
 316-303-9515

Customer:  
 LARIO OIL & GAS  
 BOX 1093  
 GARDEN CITY, KS 67846

APF 18-135  
 APPROVED NOV 15 2018

Invoice Date: 11/10/2018  
 Invoice #: 0040939  
 Lease Name: Buerkle Farms  
 Well #: 1-13 (New)  
 County: Wichita

Date/Description	HRS/QTY	Rate	Total
ICT1560 <u>Surface</u>	0.000	0.000	0.00
Heavy Eq Mileage	120.000	3.000	360.00
Light Eq Mileage	60.000	1.500	90.00
Ton Mileage	578.200	1.125	650.48
Cement pump #231	1.000	562.500	562.50
H-325	205.000	15.000	3,075.00

ICC 22

		XC	OK TO PAY		
Acct	Expl	FILE			
GC					
KG			NOV 19 2018		DB
PV					
	JS	KF	BB	SF	DM
OD	XC				

**Total** 4,737.98

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 1/2% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**



HURRICANE SERVICES INC

<b>Customer</b> Lario oil and gas		<b>Lease &amp; Well #</b> Buerkle Farms 1-13		<b>Date</b> 11/10/2018		
<b>Service District</b> Oakley,KS		<b>County &amp; State</b> Wichita KS		<b>Legal's STR</b> 13-20-35		
<b>Job Type</b> Surface		<input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD		<b>Now Well?</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> No		
<b>Equipment #</b>		<b>Driver</b>		<b>Trickett #</b> ICT1560		
231		Ryan		Job Safety Analysis - A Discussion of Hazards & Safety Procedures		
165/256		Daryl		<input type="checkbox"/> Hard hat <input type="checkbox"/> Gloves <input type="checkbox"/> Lockout/Tagout <input type="checkbox"/> Warning Signs & Flagging <input type="checkbox"/> H2S Monitor <input type="checkbox"/> Eye Protection <input type="checkbox"/> Required Permits <input type="checkbox"/> Fall Protection		
26		Travis		<input checked="" type="checkbox"/> Safety Footwear <input type="checkbox"/> Respiratory Protection <input type="checkbox"/> Slip/Trip/Fall Hazards <input type="checkbox"/> Specific Job Sequence/Expectations <input type="checkbox"/> FRC/Protective Clothing <input type="checkbox"/> Additional Chemical/Acid PPE <input type="checkbox"/> Overhead Hazards <input type="checkbox"/> Muster Point/Medical Locations <input type="checkbox"/> Hearing Protection <input type="checkbox"/> Fire Extinguisher <input type="checkbox"/> Additional concerns or issues noted below		
<b>Comments</b>						
All cement and chemicals came from Oakley KS						
Product/Service Code		Description	Unit of Measure	Quantity	Net/Amount	
M010		Heavy Equipment Mileage	mi	120.00	\$360.00	
M015		Light Equipment Mileage	mi	60.00	\$90.00	
M020		Ton Mileage	tn	578.20	\$650.48	
C010		Cement Pump	ea	1.00	\$562.50	
CF015		H-325	sack	205.00	\$3,075.00	
<b>Customer Section: On the following scale how would you rate Hurricane Services Inc.?</b>					<b>Net:</b>	<b>\$4,737.98</b>
Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<b>Total Taxable</b> \$ - <b>Tax Rate:</b> State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.	<b>Sale Tax:</b> \$ -  <b>Total:</b> \$ 4,737.98	
Urchely 1   2   3   4   5   6   7   8   9   10   Extremely Likely				<b>HSI Representative:</b> <i>Travis Williams</i>		

**TERMS:** Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X

**CUSTOMER AUTHORIZATION SIGNATURE**



**CEMENT TREATMENT REPORT**

Customer: Lario	Well: Buerkle Farms 1-13	Ticket: ICT1560
City, State: Wichita Ks	County: Wichita KS	Date: 11/10/2018
Field Rep: Johnny	S-T-R: 13-20-25	Service: Cement

**Downhole Information**

Hole Size:	in
Hole Depth:	ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	bbls

**Slurry**

Weight:	15.2 # / sk
Water / Sk:	gal / sk
Yield:	1 2/5 ft <sup>3</sup> / sk
Bbls / Ft:	
Depth:	ft
Volume:	bbls
Excess:	%
Total Slurry:	51.5 bbls
Total Sacks:	205 sk

**Cement Blend**

Product	%	#
Class A	100.0	19270
Gel	2.0	385
CaCl	3.0	578
Metso		
KolSeal		
PhenoSeal		
Salt		

**Total 20,233**

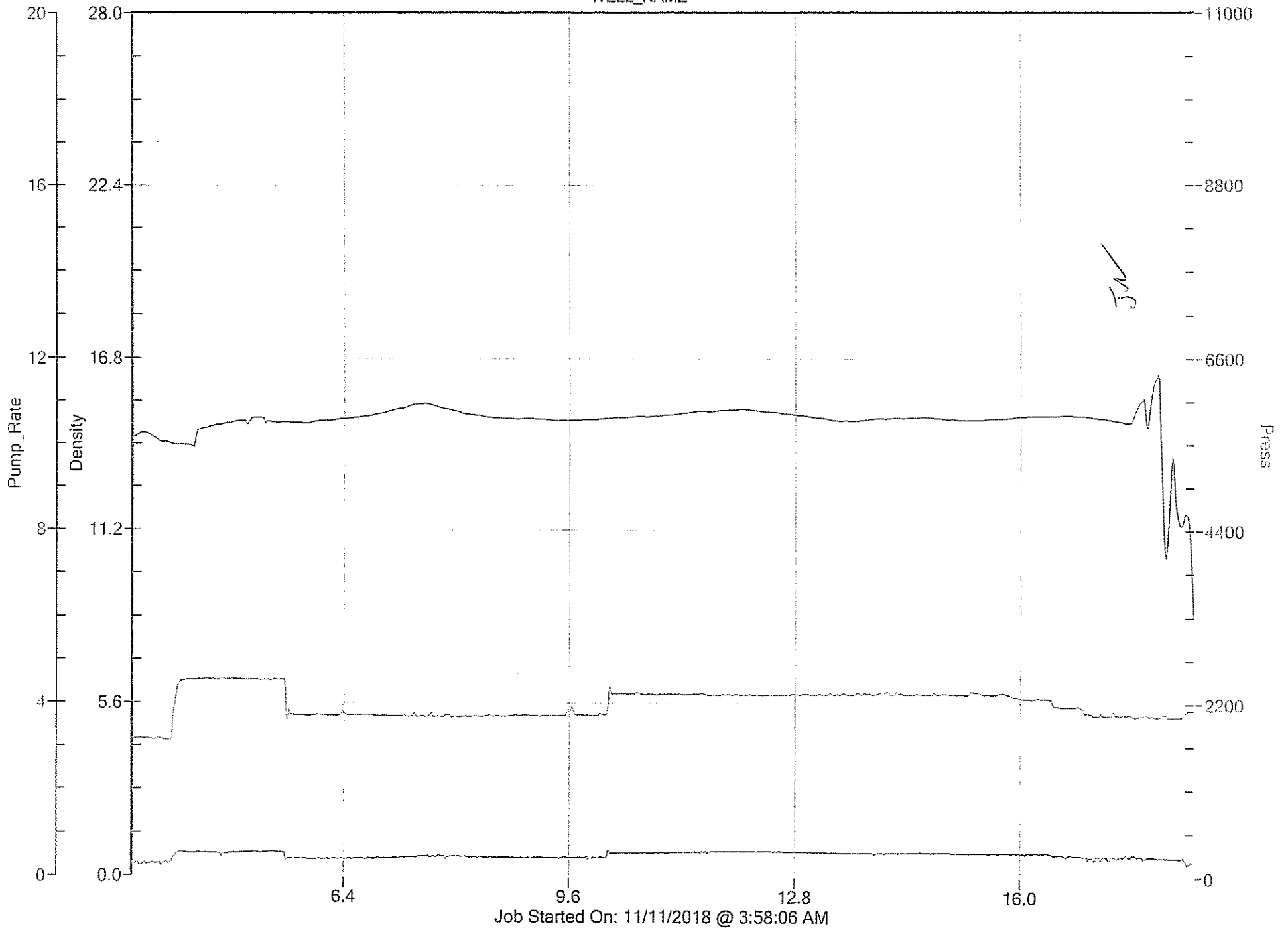
TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
10:20 PM				Arrive					
10:26 PM				Safety meeting					
10:30 PM				Rig up					
12:30 AM				Rig runs casing					
2:30 AM				Casing on bottom/ Circulate					
2:45 AM	4.0	350.0	51.5	Mix 205 sks					
3:00 AM	4.0	350.0	20.5	Displace					
3:26 AM		300.0		End displacement/ shut in well					
3:30 AM				Wash up					
3:40 AM				Rig down					
3:56 AM				Depart					
				Approx. 10 bbls to pit					

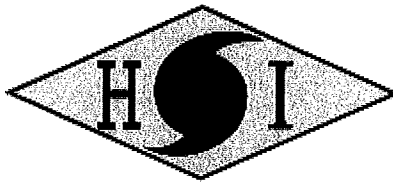
	CREW	UNIT
Cementer:	Travis	
Pump Operator:	Ryan	
Bulk #1:	Daryl	
Bulk #2:		

**SUMMARY**

Average Rate	Average Pressure	Total Fluid
4 bpm	333.33 psi	72.00 bbls

Lario  
WELL\_NAME





# HURRICANE SERVICES INC

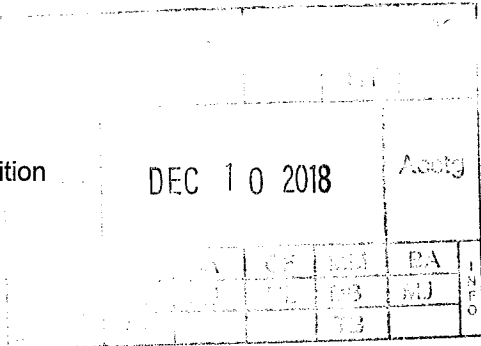
Remit To: Hurricane Services, Inc.  
250 N. Water, Suite 200  
Wichita, KS 67202  
316-303-9515

Customer:  
LARIO OIL & GAS  
BOX 1093  
GARDEN CITY, KS 67846

*AFE 18-135 /*  
*P+A*  
**APPROVED NOV 30 2018 RP**

Invoice Date: 11/20/2018  
Invoice #: 0050028  
Lease Name: **Buerkle Farms**  
Well #: 1-13  
County: Wichita

Date/Description	HRS/QTY	Rate	Total
ICT1594 PTA	0.000	0.000	0.00
Heavy Eq Mileage	140.000	3.400	476.00
Light Eq Mileage	70.000	1.700	119.00
Ton Mileage	876.500	1.275	1,117.54
Cement pump #231	1.000	637.500	637.50
Cement Data Acquisition	1.000	212.500	212.50
Class H Cement	280.000	16.150	4,522.00



*se*  
*se*  
DEC 3 2018  
*[Signature]*

Net Invoice	7,084.54
Sales Tax:	379.25
<b>Total</b>	<b>7,463.79</b>

**TERMS:** Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.  
**SALES TAX:** Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

**WE APPRECIATE YOUR BUSINESS!**





**CEMENT TREATMENT REPORT**

Customer:	Lario Oil and Gas	Well:	Buerkle Farms 1-13	Ticket:	ICT1594
City, State:	Wichita, Ks	County:	Wichita	Date:	11/21/2018
Field Rep:	John	S-T-R:	13-20-35	Service:	Oakley

Downhole Information	
Hole Size:	in
Hole Depth:	ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	bbfs

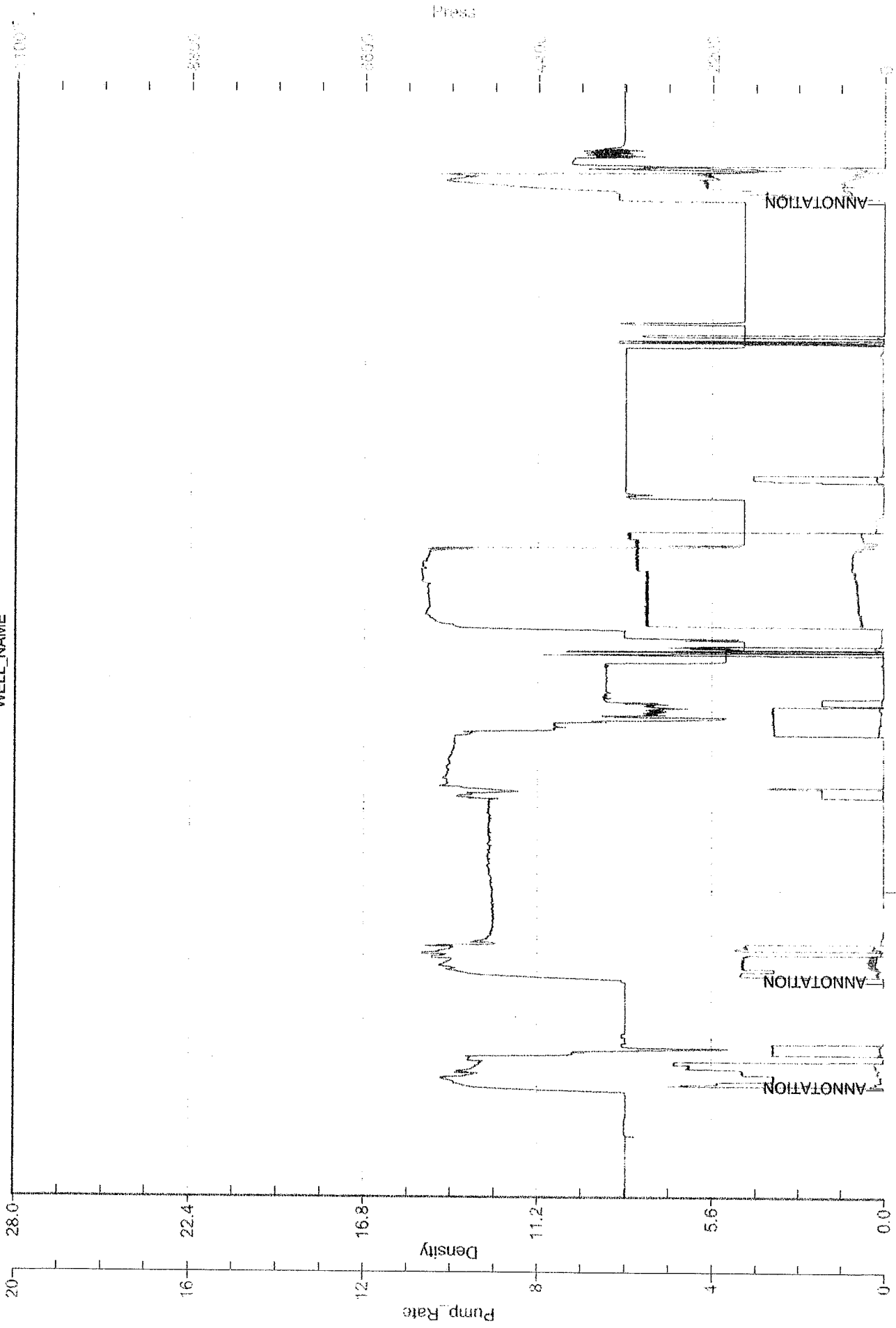
Slurry	
Weight:	13.8 # / sk
Water / Sk:	6 8/9 gal / sk
Yield:	1 3/7 ft <sup>3</sup> / sk
Bbls / Ft.:	
Depth:	ft
Volume:	bbfs
Excess:	%
Total Slurry:	bbfs
Total Sacks:	280 sk

Cement Blend		
Product	%	#
Class A		
Gel		
CaCl		
Metso		
KolSeal		
PhenoSeal		
Salt		
Total		-

TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
2:00 AM				Arrive on location					
2:08 AM				Safety meeting					
2:10 AM				Rig up					
2:50 AM	4.0	400.0	5.0	Pump water ahead					
2:52 AM	4.0	320.0	45.0	Mix 60 sks and displace @ 2290					
3:00 AM				Pull pipe					
3:42 AM	4.0	280.0	38.0	Mix 80 sks and displace @ 1250					
4:00 AM				Pull pipe					
4:19 AM	4.0	270.0	21.8	Mix 60 sks and displace @ 626					
4:24 AM				Pull pipe					
4:36 AM	4.0	190.0	17.0	Mix 60 sks @ 370					
4:45 AM				Pull pipe					
6:00 AM	3.0	90.0	12.5	Plug top 60 and RH					
6:10 AM				Wash up					
6:16 AM				Rig down					
6:50 AM				Depart					

CREW		UNIT	SUMMARY		
Cementer:	Dane Retzliff	78.0	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Dane/josh	231.0	3.833333 bpm	258.33 psi	139.00 bbfs
Bulk #1:	Alan	165.0			
Bulk #2:					

CUSTOMER  
WELL\_NAME



Job Started On: 11/21/2018 @ 1:39:30 PM

760.8