

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 \_\_\_\_\_ 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
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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) (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	BEREXCO LLC
Well Name	CARMICHAEL 1-31
Doc ID	1706048

All Electric Logs Run

Microlog
Induction
Porosity
Sonic



FEB 23 2023

# Invoice



416 Main Street  
 P.O. Box 225  
 Victoria, KS 67671  
 Office (785) 639-3949  
 24 Hour Service Line (785) 639-7269

Date	Invoice #
2/13/2023	0863

Please Pay from this Invoice.  
 Remit Payment to:  
 416 Main Street PO BOX 225  
 Victoria, KS 67671  
 Billing Questions-Call Tianna at  
 (785) 639-3949  
 Email: franksoilfield@yahoo.com

KCC License Number  
 35469

Bill To
Berexco, LLC 800 Commerce Pkwy #A Hays, KS 67601

County/State	Lease/Well#	Terms	Job Type
Cheyenne County, KS	<i>not in MWL</i> Carmichael 1-31	Net 30	Surface

Description	Quantity	Rate	Amount
Pump Charge	1	1,150.00	1,150.00
Mileage	98	6.50	637.00
13.48 tons at 98 miles	1,321.04	1.50	1,981.56
Surface Blend	275	25.50	7,012.50T
Discount		-539.05	-539.05

*Thank you*

*Cement Surface Casing*  
*BCP Intan*  
*MK*

Accounts Due Net 10th. 1-1/2% Per Month on all Past Due Accounts. 18% Annual Rate.	<b>Subtotal</b>	\$10,242.01
<i>We appreciate your business and look forward to serving you again!</i>	<b>Sales Tax (8.5%)</b>	\$566.26
	<b>Balance Due</b>	\$10,808.27

BM?

# FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269  
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0863  
 LOCATION Hoxie  
 FOREMAN Tom Williams

## FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
2-13-23	34318	Carmichael 1-31	31	4	27	Cherokee

CUSTOMER <u>Bernaca LLC</u>		
MAILING ADDRESS <u>2020 N Bramblewood</u>		
CITY <u>Wichita</u>	STATE <u>KS</u>	ZIP CODE <u>67206</u>

TRUCK #	DRIVER	TRUCK #	DRIVER
<u>103</u>	<u>Tom W</u>		
<u>41301</u>	<u>Jack T</u>		

JOB TYPE <u>Surface</u>	HOLE SIZE <u>12 1/4</u>	HOLE DEPTH <u>378'</u>	CASING SIZE & WEIGHT <u>5 1/8 23#</u>
CASING DEPTH <u>378'</u>	DRILL PIPE _____	TUBING _____	OTHER _____
SLURRY WEIGHT _____	SLURRY VOL _____	WATER gal/sk _____	CEMENT LEFT in CASING _____
DISPLACEMENT _____	DISPLACEMENT PSI _____	MIX PSI _____	RATE _____

REMARKS: Safety meeting & set up on Duky #4. Circulate mod. mix 2754 surface blend & displace 22.5 BM shot in 6:30.  
Cement did circulate

*Thanks Tom & Jack*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PC002	1	PUMP CHARGE <u>Surface</u>	\$1150 <sup>00</sup>	\$1150 <sup>00</sup>
M001	98	MILEAGE	\$1.50	\$147 <sup>00</sup>
M002	13.48 tons	Ton Mileage Delivery	\$1981 <sup>56</sup>	\$1981 <sup>56</sup>
CB004	2754	class A 3900 270 gal	\$25 <sup>50</sup>	\$7012 <sup>50</sup>
			subtotal	\$10,781 <sup>06</sup>
			less 5% disc.	\$539 <sup>05</sup>
			sub total	\$10,242 <sup>01</sup>
			SALES TAX	566.26
			ESTIMATED TOTAL	10,808.27

AUTHORIZATION Chad Sprunger TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



MAR 20 2023

# Invoice



**HP Oilfield Services, LLC**  
 383 Inverness Parkway, Suite 330  
 Englewood, CO 80112

Date	Invoice #
3/1/2023	34418

Bill To
Berexco 808 S. Hwy 83 Frontage Rd. Garden City, KS 67029

Lease
Carmichael #1-31

Order by / P.O. No.	Terms
	Net 30

Description	Unit	Hrs / Qty	U/M	Rate	Amount
Cement Service Field Ticket: 2703-KC Description: Please see Attached Field Ticket					
Pump Charge for Cement	103	1	ea	1,500.00	1,500.00
Pumptruck Mileage	103	75	ea	7.15	536.25
Mileage Delivery of Bulk Material - 75 x 10.32 = 774 x 1.75 = 1354.50	103	774	ea	1.75	1,354.50
Liteweight Blend V	CMT	240	SKS	16.00	3,840.00T
Flol-Seal	CMT	60	lb	3.00	180.00T
Top Wooden Plug - 8 5/8" (4/Box)	CMT	1	ea	165.00	165.00T
Discount - Non-Taxable Items	CMT	1	ea	-508.61	-508.61
Discount - Taxable Items	CMT	1	ea	-627.75	-627.75T
Subtotal prior to Sales Taxes					6,439.39
KS & Cheyenne Ctry Sales Tax				8.50%	302.37
<i>BCP Intern</i>					
<i>MK P+A</i>					

Thank you for your business.	<b>Total</b>	\$6,741.76
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785-953-0222

TICKET NUMBER **2703K-C**  
 LOCATION Hugoton, Ks  
 FOREMAN Walt Dinicola

**FIELD TICKET & TREATMENT REPORT  
 CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
3-1-23		Carmichael #1-31	31	4 <sup>3</sup>	37W	Cheyenne	
CUSTOMER		Birdcote		TRUCK #		DRIVER	
Mailing Address		6 1/2 S		103		Cory D.	
CITY		E S		801-857		Jason A.	
STATE		ZIP CODE					

JOB TYPE PTA HOLE SIZE 7 7/8 HOLE DEPTH 5200' CASING SIZE & WEIGHT \_\_\_\_\_  
 CASING DEPTH \_\_\_\_\_ DRILL PIPE 4 1/2 XH TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 13.5 SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT \_\_\_\_\_ DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting, Rig up on Duke #4, Plug as ordered

50 SKs @ 32.50'  
100 SKs @ 2300'  
50 SKs @ 425'  
10 SKs @ 40' w/ wiper Plug  
30 SKs in AH.  
240 SKs 60#/600, 4 1/2 gal, 1 1/4" #6 seal

Thank You  
Walt & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
	1	PUMP CHARGE	1,500.00	1,500.00
	75	MILEAGE	7.15	536.25
1	10.32	Ton mileage Delivery	117.5	1,354.50
	240 SKs	light weight Blend Y	16.00	3,840.00
	60 #	Fluor Seal	3.00	180.00
	1	8 1/2" wooden Plug	165.00	165.00
				7,575.75
		Less 15% DISC.		-1,136.36
				6,439.39
			SALES TAX	
			ESTIMATED TOTAL	

AUTHORIZATION Chad Springer TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payments terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

11/11/23 #34418





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N. Bramblewood  
 Wichita, KS 67206  
 ATTN: Kevin Kessler

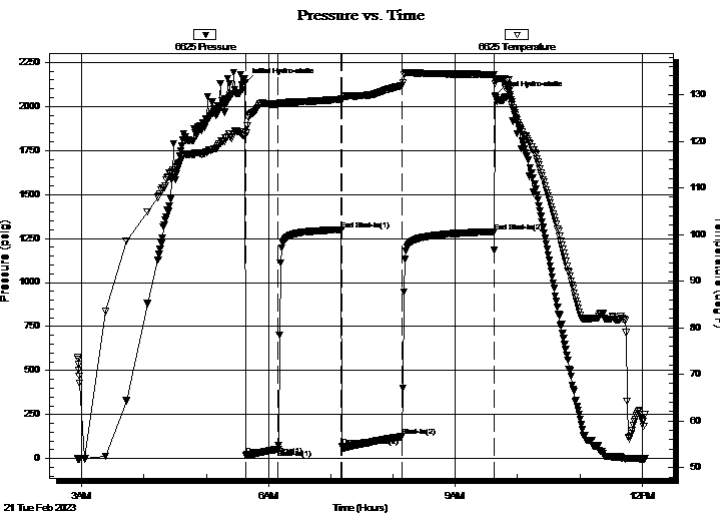
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
 Job Ticket: 70139 **DST#: 1**  
 Test Start: 2023.02.21 @ 02:56:00

## GENERAL INFORMATION:

Formation: **LKC A**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:38:30  
 Time Test Ended: 12:02:45  
 Interval: **4285.00 ft (KB) To 4355.00 ft (KB) (TVD)**  
 Total Depth: 4355.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Day  
 Unit No: 70  
 Reference Elevations: 3482.00 ft (KB)  
 3473.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**  
 Press@RunDepth: 125.24 psig @ 4286.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.02.21 End Date: 2023.02.21 Last Calib.: 2023.02.21  
 Start Time: 02:56:05 End Time: 12:02:45 Time On Btm: 2023.02.21 @ 05:38:00  
 Time Off Btm: 2023.02.21 @ 09:38:15

TEST COMMENT: IF-30- Built to 8"  
 SI1-60- No return  
 FF-60- Built to 8"  
 SI2-90- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.72	121.32	Initial Hydro-static
1	19.38	121.84	Open To Flow (1)
32	53.49	127.87	Shut-In(1)
93	1299.77	129.00	End Shut-In(1)
93	71.46	128.73	Open To Flow (2)
151	125.24	131.97	Shut-In(2)
240	1288.62	134.36	End Shut-In(2)
241	2062.40	132.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
115.00	SGOCM 5% gas 10% oil 85% mud	1.61
125.00	SGOHWCM 5% gas 10% oil 30% water	51.75 mud

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70139

**DST#: 1**

ATTN: Kevin Kessler

Test Start: 2023.02.21 @ 02:56:00

### 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:

19000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
115.00	SGOCM 5% gas 10% oil 85% mud	1.613
125.00	SGOHWCM 5% gas 10% oil 30% water 55%	1.753

Total Length: 240.00 ft

Total Volume: 3.366 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: LCM 3#

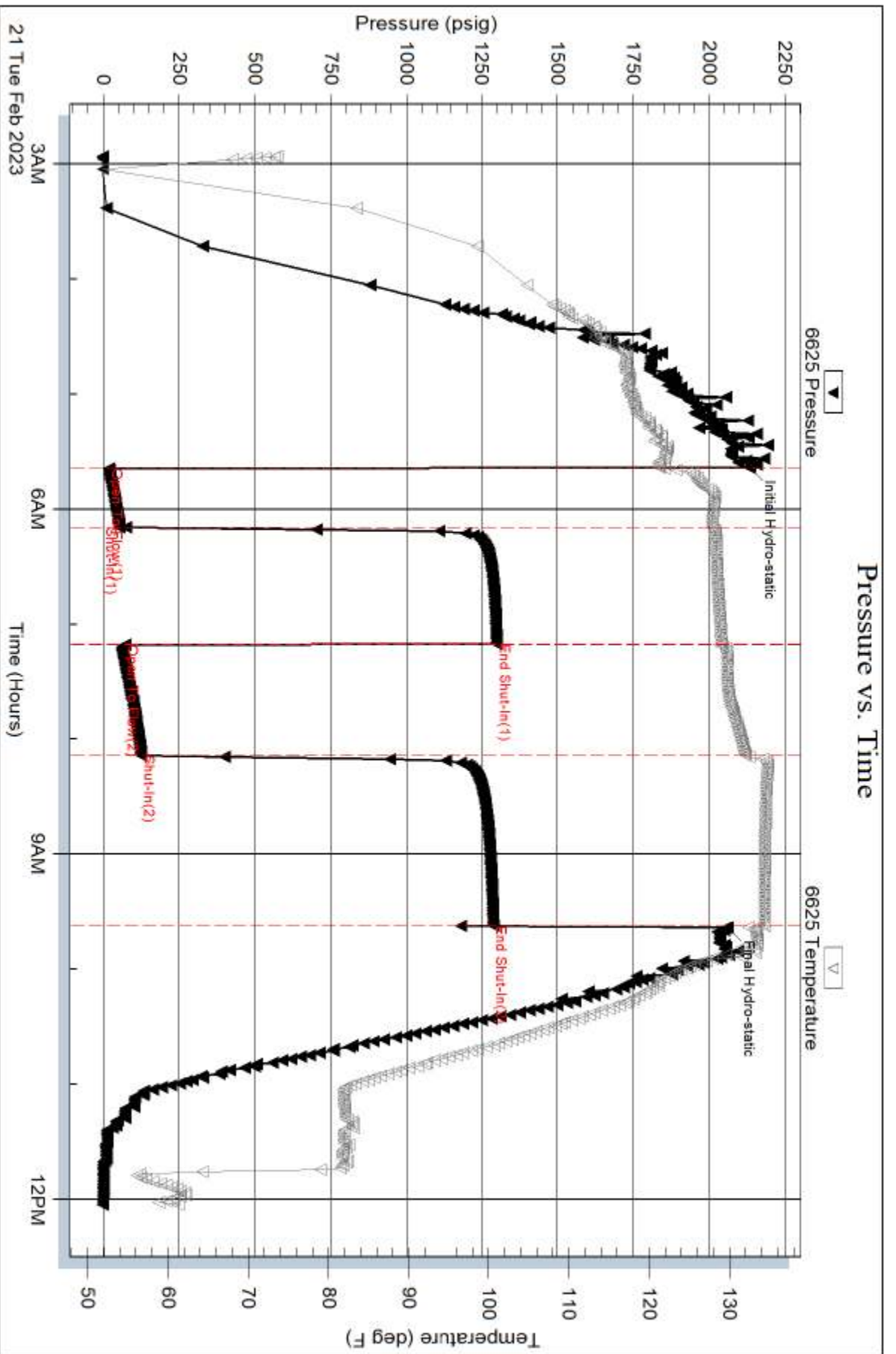
Serial #: 6625

Inside

Berexco LLC

Carmichael #1-31

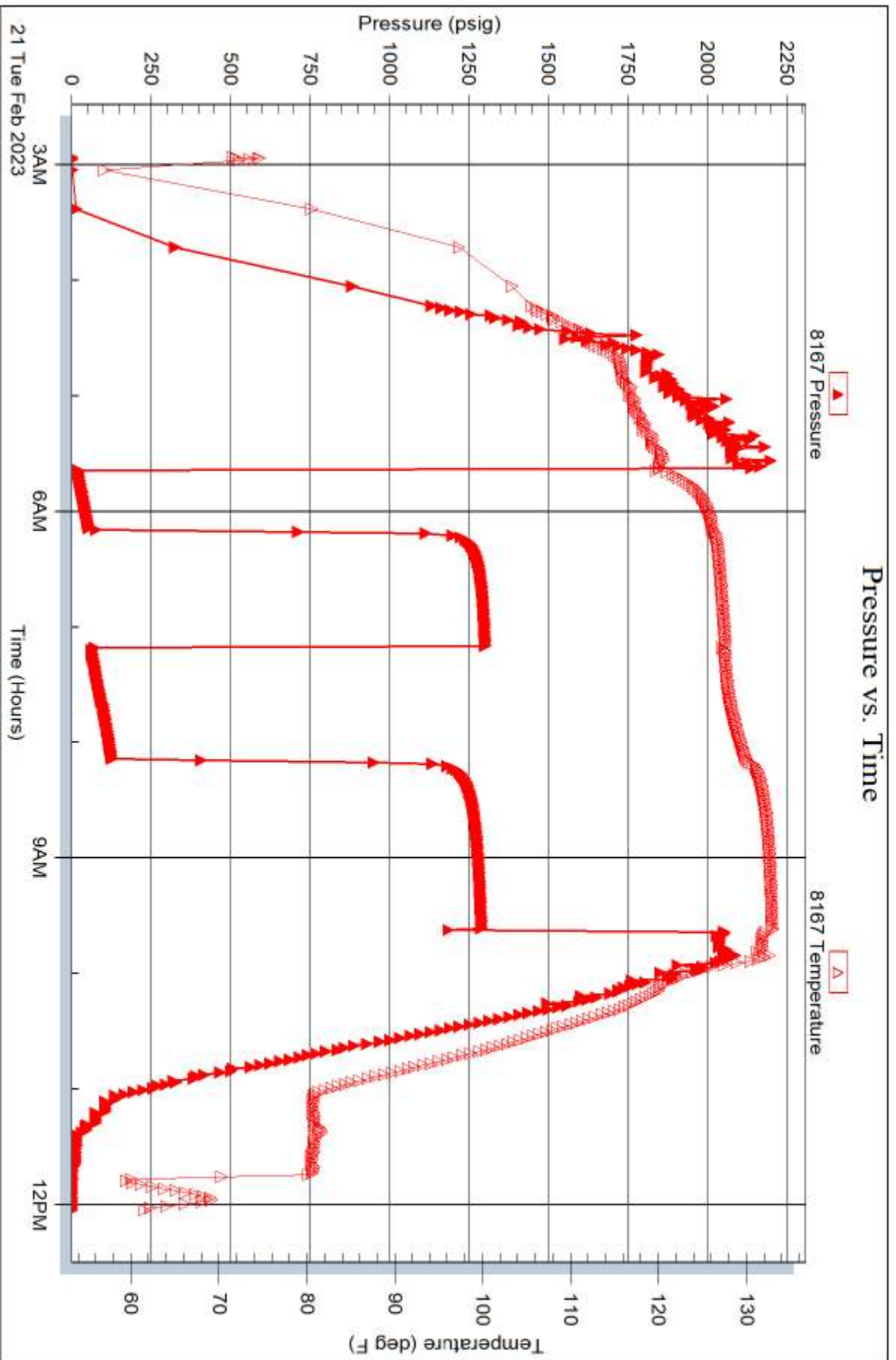
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 70139

Printed: 2023.02.21 @ 14:36:33







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
2020 N. Bramblewood  
Wichita, KS 67206  
ATTN: Kevin Kessler

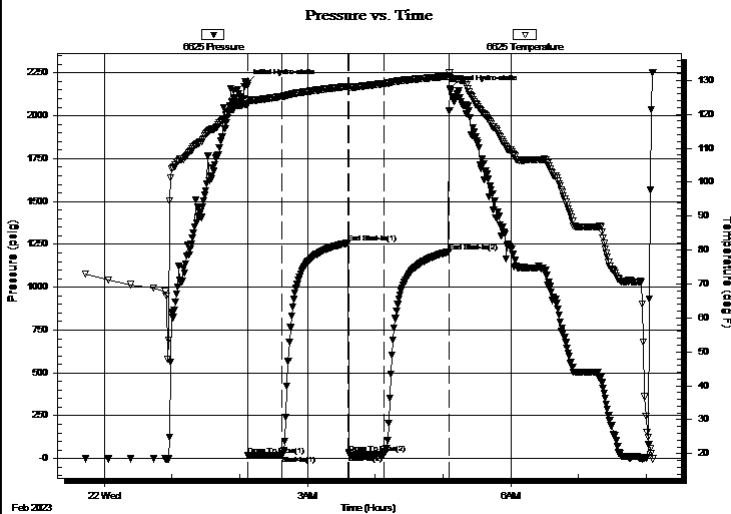
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
Job Ticket: 70140 **DST#: 2**  
Test Start: 2023.02.21 @ 23:43:00

## GENERAL INFORMATION:

Formation: **LKC B**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 02:07:23  
Time Test Ended: 08:06:08  
Interval: **4360.00 ft (KB) To 4400.00 ft (KB) (TVD)**  
Total Depth: 4400.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition:  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Dustin Day  
Unit No: 70  
Reference Elevations: 3482.00 ft (KB)  
3473.00 ft (CF)  
KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**  
Press@RunDepth: 23.50 psig @ 4361.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2023.02.21 End Date: 2023.02.22 Last Calib.: 2023.02.22  
Start Time: 23:43:23 End Time: 08:06:08 Time On Btm: 2023.02.22 @ 02:06:23  
Time Off Btm: 2023.02.22 @ 05:06:23

TEST COMMENT: IF-30- Built to 1 1/4"  
SI1-60- No return  
FF-30- No blow  
SI2-60- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2188.83	123.08	Initial Hydro-static
1	18.19	123.23	Open To Flow (1)
31	19.61	125.27	Shut-In(1)
90	1258.25	128.28	End Shut-In(1)
91	28.93	128.03	Open To Flow (2)
121	23.50	129.04	Shut-In(2)
179	1207.06	131.23	End Shut-In(2)
180	2155.49	130.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70140

**DST#: 2**

ATTN: Kevin Kessler

Test Start: 2023.02.21 @ 23:43:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

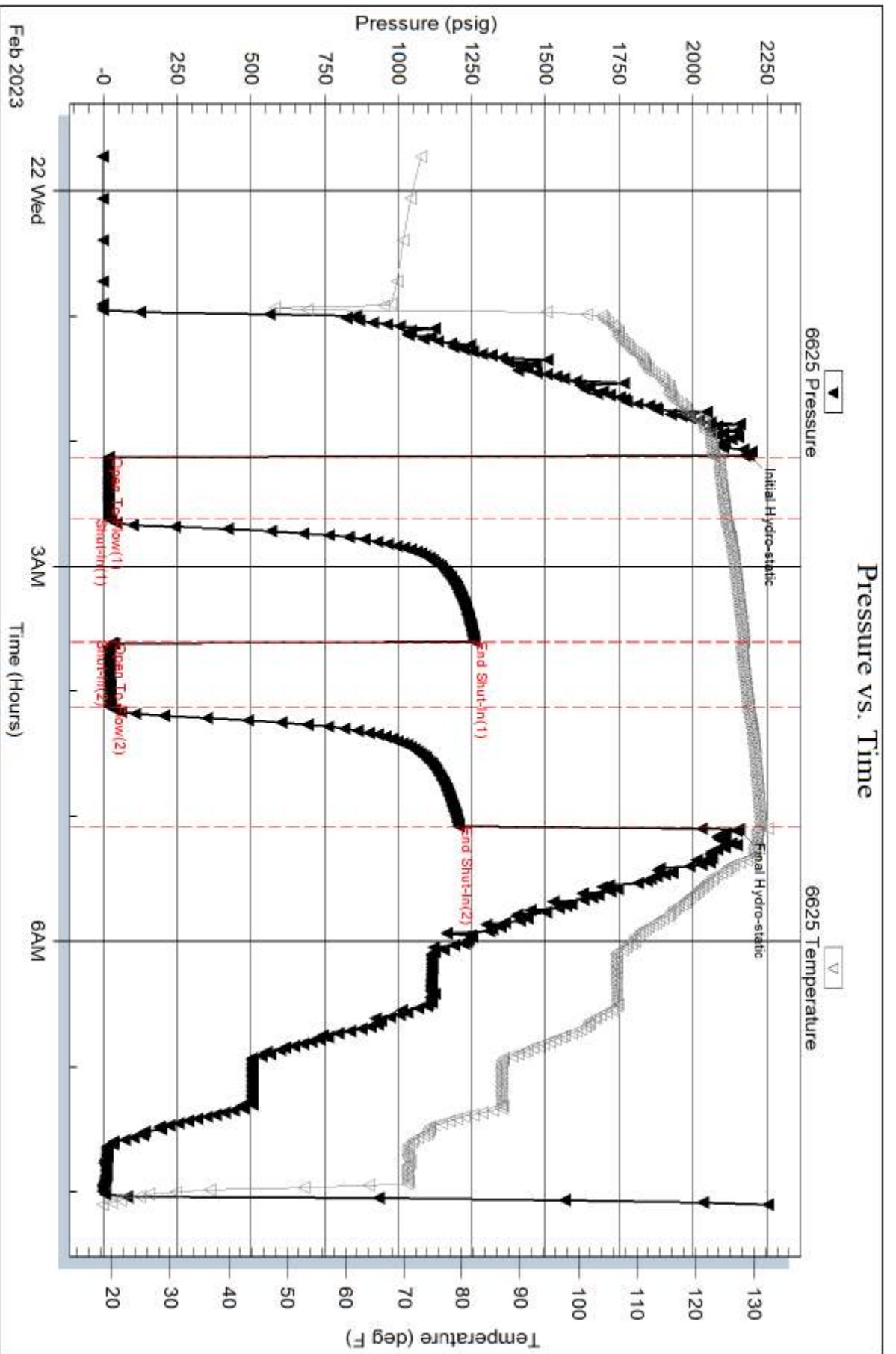
Num Gas Bombs: 0

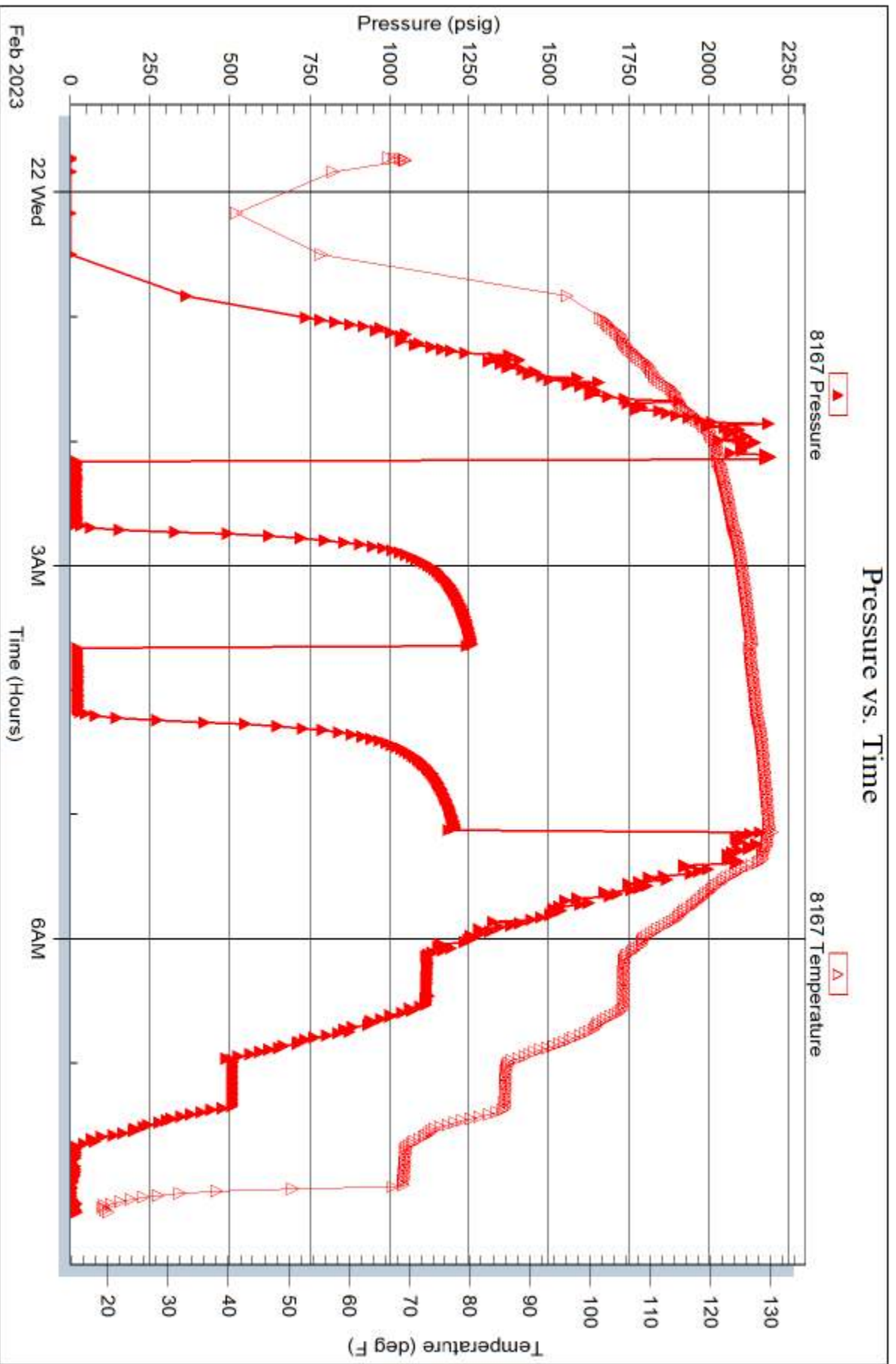
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: LCM 2#













**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70141

**DST#: 3**

ATTN: Kevin Kessler

Test Start: 2023.02.21 @ 02:56:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

#### Recovery Table

Length ft	Description	Volume bbl
1386.00	mud	19.442

Total Length: 1386.00 ft

Total Volume: 19.442 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2# LCM

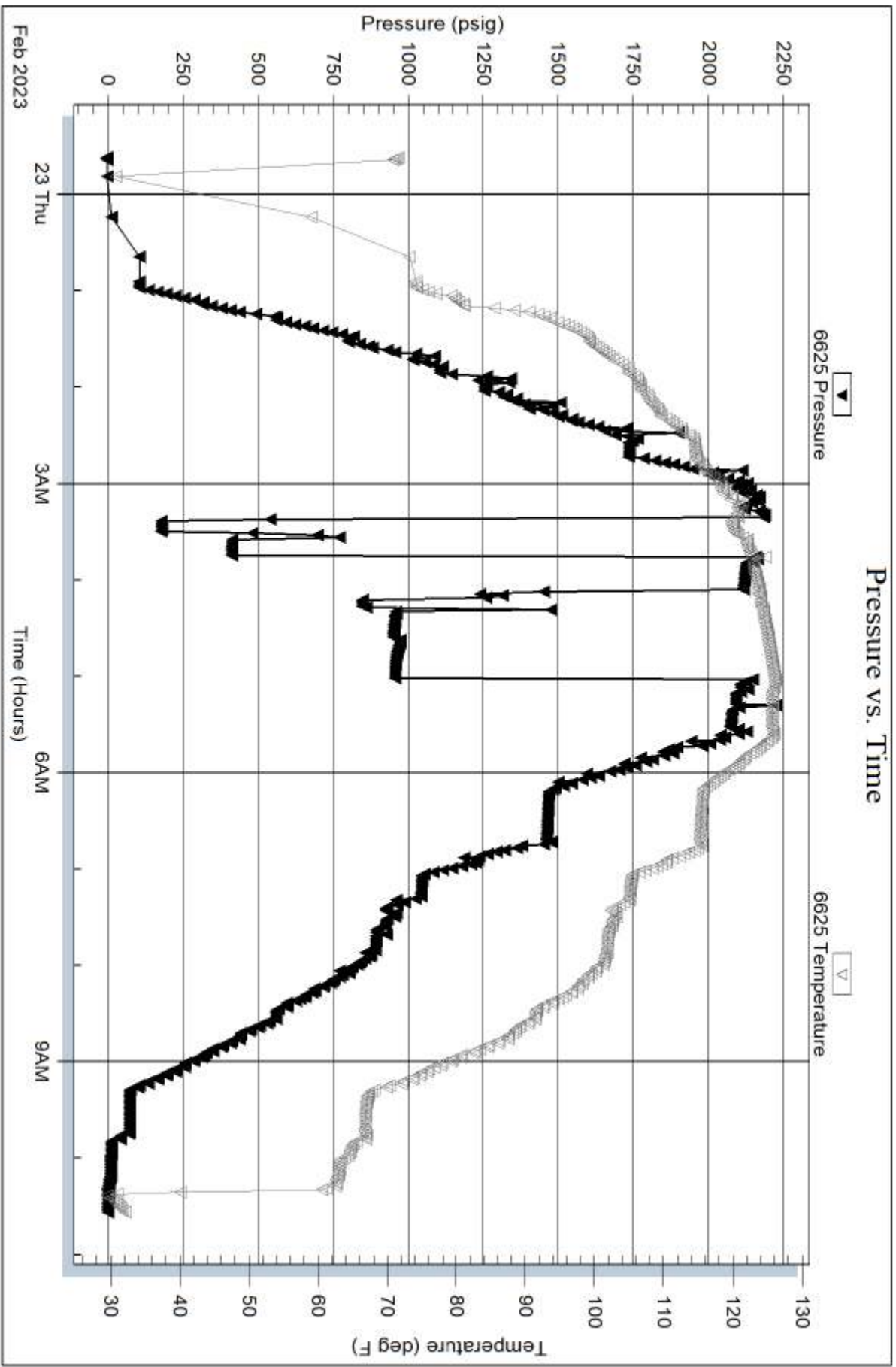
Serial #: 6625

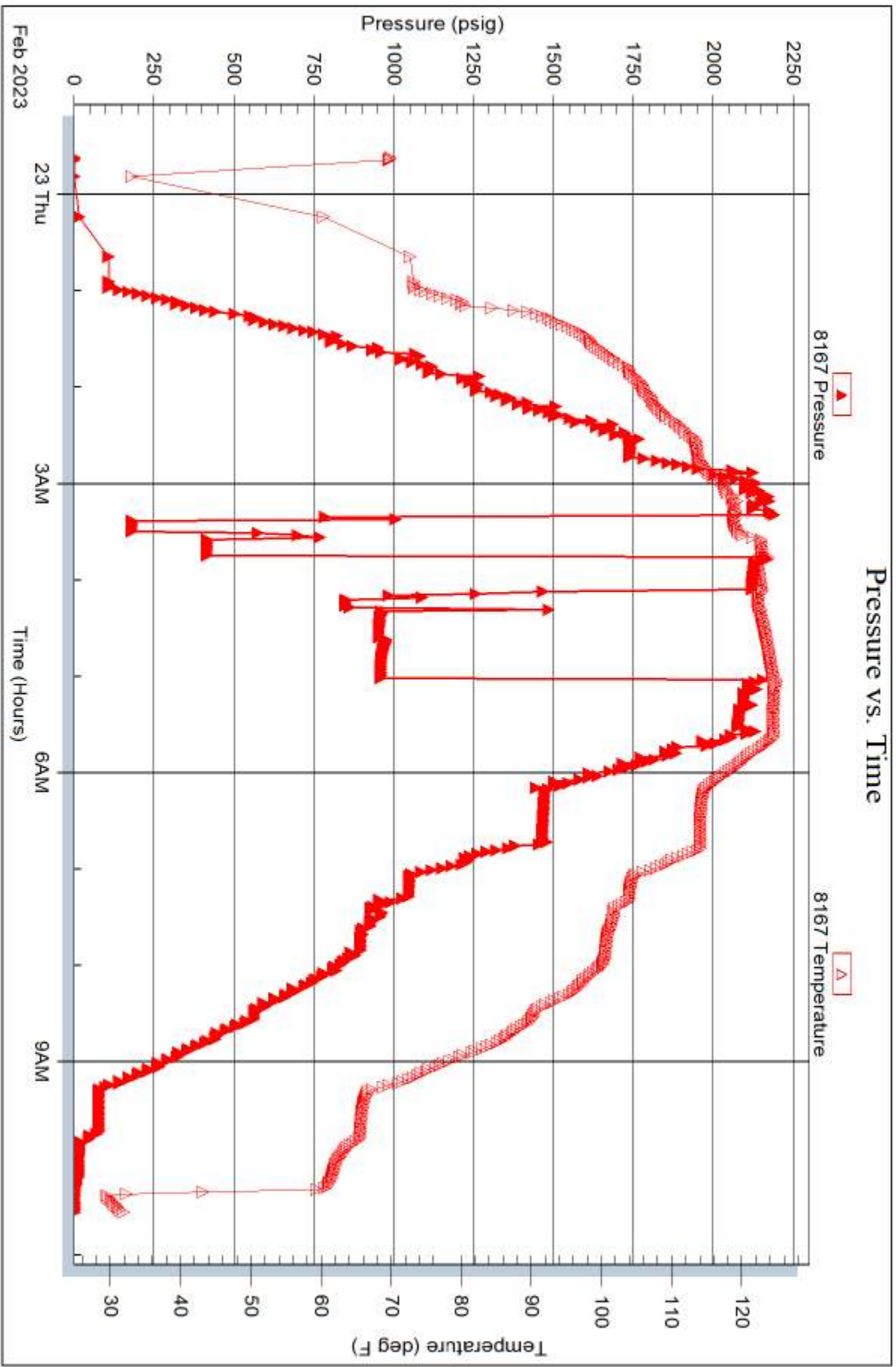
Inside

Berexco LLC

Carmichael #1-31

DST Test Number: 3









**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N. Bramblewood  
 Wichita, KS 67206  
 ATTN: Kevin Kessler

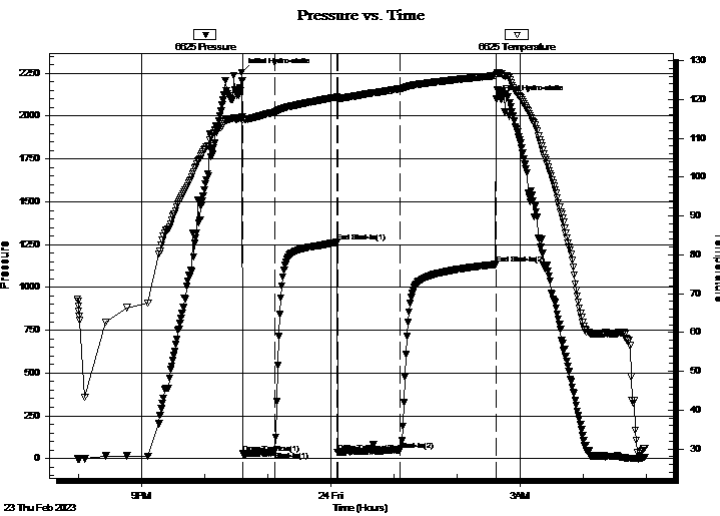
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
 Job Ticket: 70142 **DST#: 4**  
 Test Start: 2023.02.23 @ 19:59:00

## GENERAL INFORMATION:

Formation: **LKC C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:36:30  
 Time Test Ended: 04:59:15  
 Interval: **4390.00 ft (KB) To 4460.00 ft (KB) (TVD)**  
 Total Depth: 4460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Dustin Day  
 Unit No: 70  
 Reference Elevations: 3482.00 ft (KB)  
 3473.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**  
 Press@RunDepth: 49.83 psig @ 4391.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.02.23 End Date: 2023.02.24 Last Calib.: 2023.02.24  
 Start Time: 19:59:05 End Time: 04:59:15 Time On Btm: 2023.02.23 @ 22:35:00  
 Time Off Btm: 2023.02.24 @ 02:37:30

TEST COMMENT: IF-30- Built to 2"  
 SI1-60- No return  
 FF-60- Built to 1"  
 SI2-90- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2255.26	115.26	Initial Hydro-static
2	28.15	114.84	Open To Flow (1)
32	45.35	116.76	Shut-In(1)
91	1263.19	120.61	End Shut-In(1)
92	38.06	120.36	Open To Flow (2)
151	49.83	122.75	Shut-In(2)
242	1134.68	126.14	End Shut-In(2)
243	2099.02	126.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	mud 100%	0.91

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N. Bramblewood  
 Wichita, KS 67206  
 ATTN: Kevin Kessler

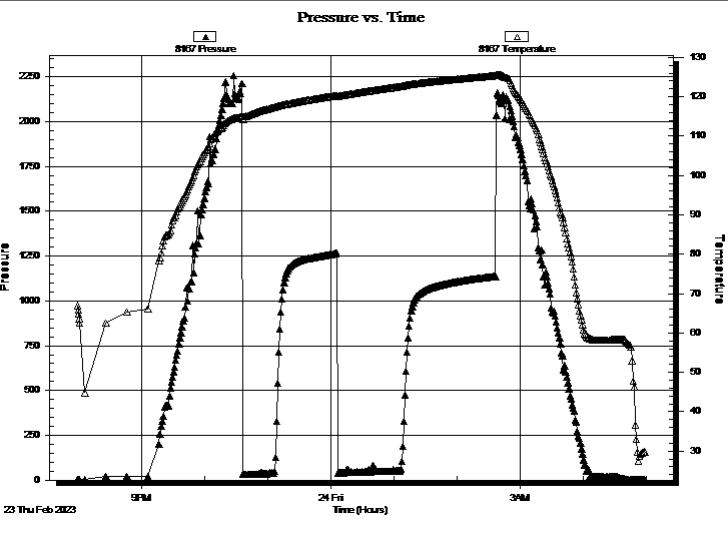
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
 Job Ticket: 70142      **DST#: 4**  
 Test Start: 2023.02.23 @ 19:59:00

**GENERAL INFORMATION:**

Formation: **LKC C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:36:30  
 Time Test Ended: 04:59:15  
 Interval: **4390.00 ft (KB) To 4460.00 ft (KB) (TVD)**  
 Total Depth: 4460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Dustin Day  
 Unit No: 70  
 Reference Elevations: 3482.00 ft (KB)  
 3473.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8167      Outside**  
 Press@RunDepth: psig @ 4391.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2023.02.23      End Date: 2023.02.24      Last Calib.: 2023.02.24  
 Start Time: 19:59:05      End Time: 04:59:15      Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF-30- Built to 2"  
 SI1-60- No return  
 FF-60- Built to 1"  
 SI2-90- No return



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

Recovery		
Length (ft)	Description	Volume (bbl)
65.00	mud 100%	0.91

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70142

**DST#: 4**

ATTN: Kevin Kessler

Test Start: 2023.02.23 @ 19:59:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	mud 100%	0.912

Total Length: 65.00 ft

Total Volume: 0.912 bbl

Num Fluid Samples: 0

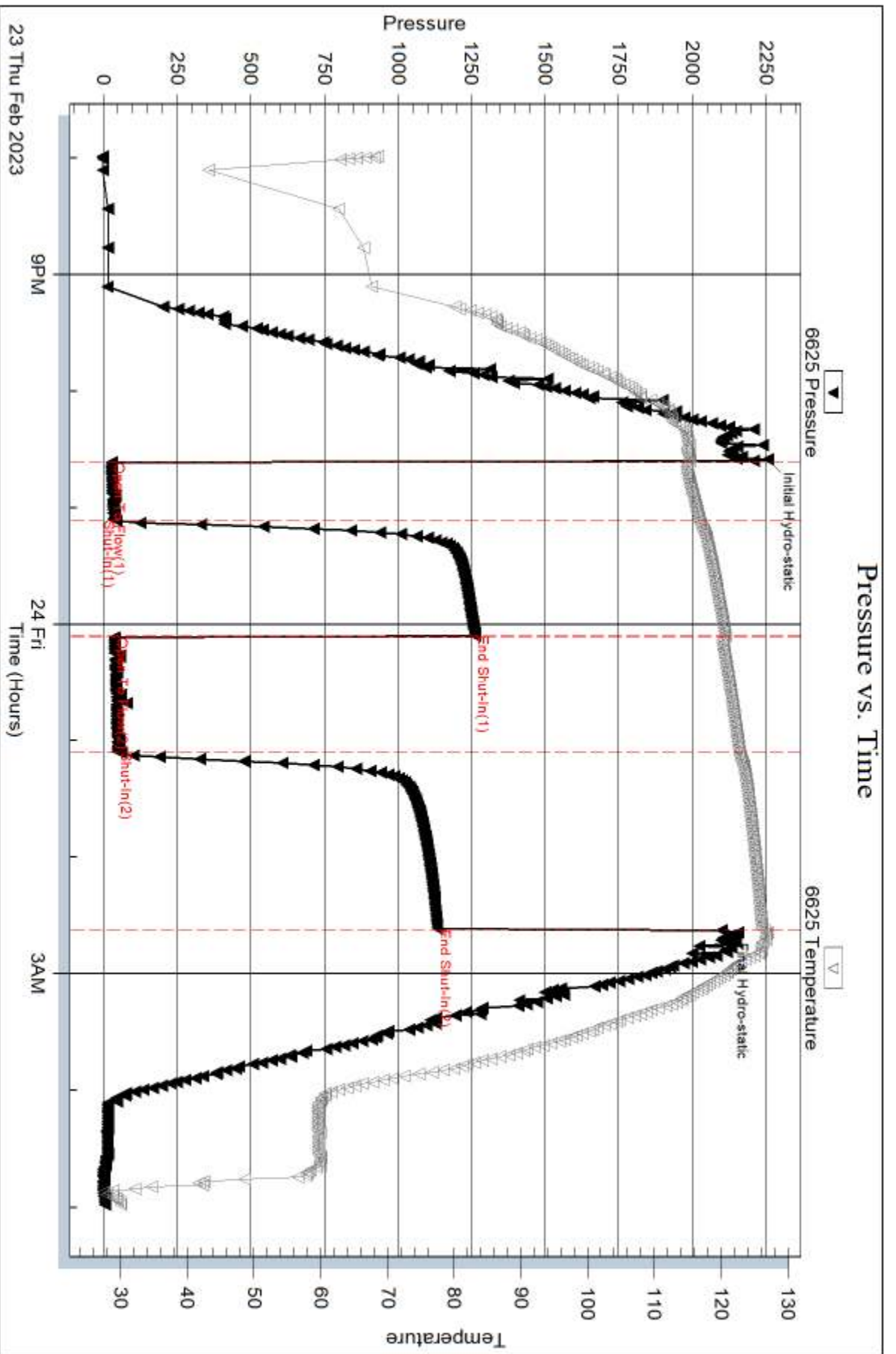
Num Gas Bombs: 0

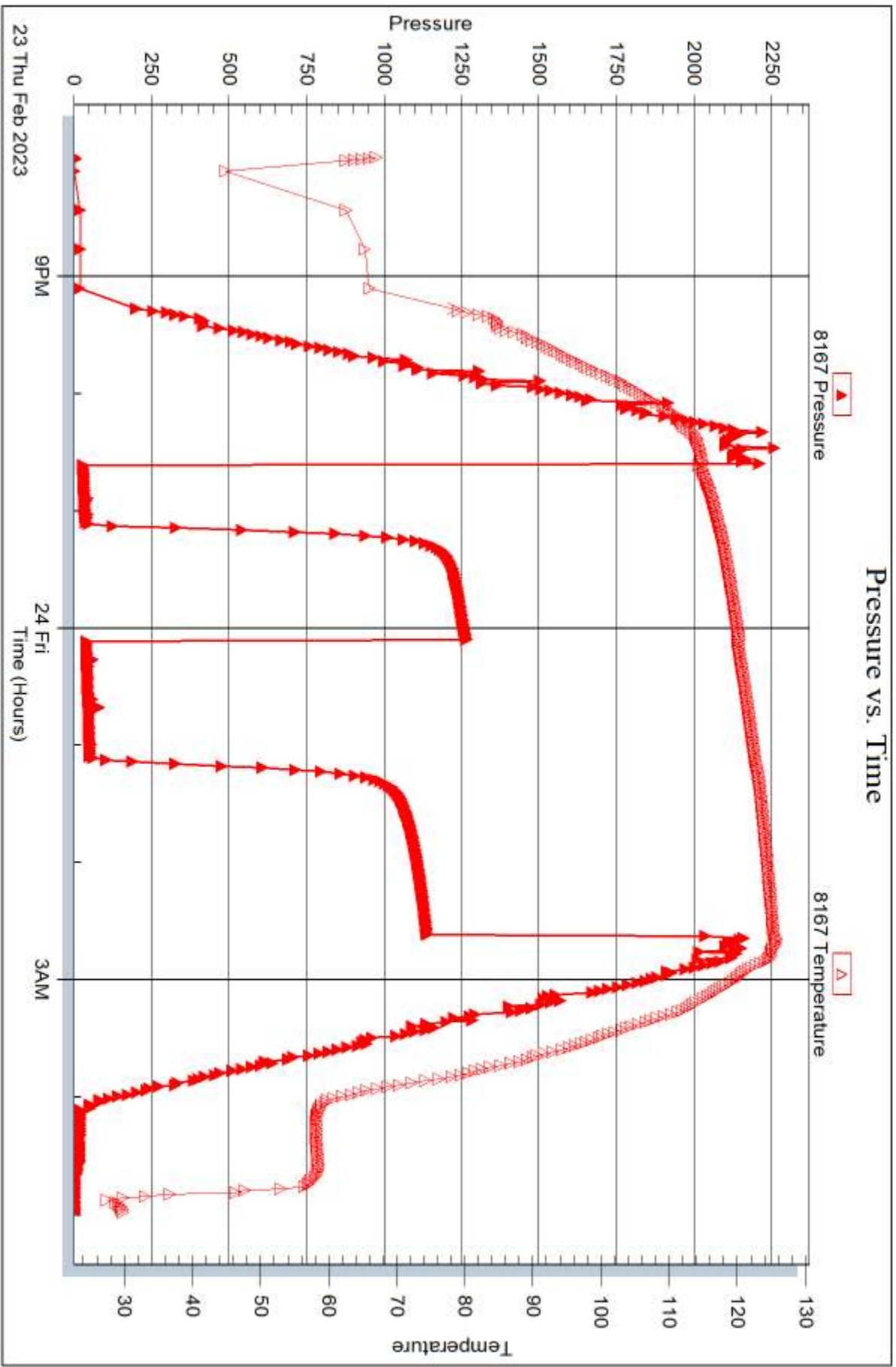
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4# LCM







**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N. Bramblewood  
 Wichita, KS 67206  
 ATTN: Kevin Kessler

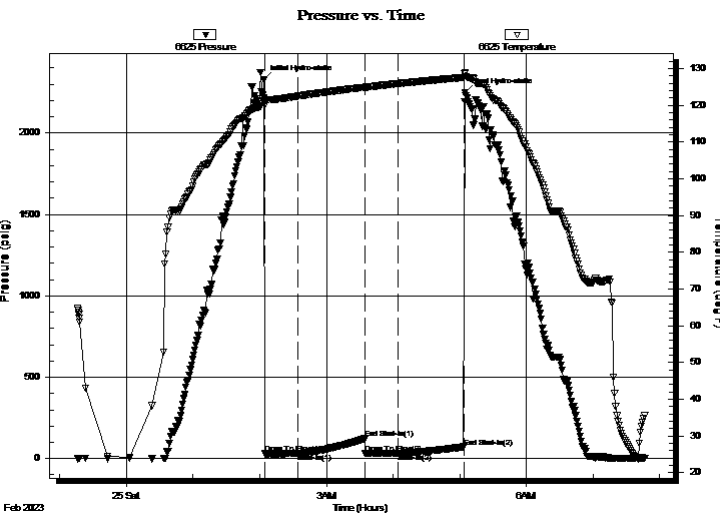
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
 Job Ticket: 70143 **DST#: 5**  
 Test Start: 2023.02.24 @ 23:16:00

## GENERAL INFORMATION:

Formation: **LKC E-F**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 02:04:30 Tester: Dustin Day  
 Time Test Ended: 07:46:30 Unit No: 70  
 Interval: **4480.00 ft (KB) To 4565.00 ft (KB) (TVD)** Reference Elevations: 3482.00 ft (KB)  
 Total Depth: 4565.00 ft (KB) (TVD) 3473.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**  
 Press@RunDepth: 32.86 psig @ 4481.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.02.24 End Date: 2023.02.25 Last Calib.: 2023.02.25  
 Start Time: 23:16:05 End Time: 07:46:29 Time On Btm: 2023.02.25 @ 02:03:45  
 Time Off Btm: 2023.02.25 @ 05:05:00

**TEST COMMENT:** IF-30- Built to 1"  
 SI1-60- No return  
 FF-30- no blow  
 SI2-60- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2325.70	121.19	Initial Hydro-static
1	28.97	119.97	Open To Flow (1)
31	29.99	122.52	Shut-In(1)
91	121.67	124.92	End Shut-In(1)
91	30.63	124.91	Open To Flow (2)
121	32.86	125.92	Shut-In(2)
180	71.94	127.59	End Shut-In(2)
182	2250.19	128.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% (oil spots in tool)	0.07

\* Recovery from multiple tests

## Gas Rates

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



# DRILL STEM TEST REPORT

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70143

**DST#: 5**

ATTN: Kevin Kessler

Test Start: 2023.02.24 @ 23:16:00

## GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:04:30

Time Test Ended: 07:46:30

**Interval: 4480.00 ft (KB) To 4565.00 ft (KB) (TVD)**

Total Depth: 4565.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Reference Elevations: 3482.00 ft (KB)

3473.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8167**

**Outside**

Press@RunDepth: psig @ 4481.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2023.02.24

End Date: 2023.02.25

Last Calib.: 2023.02.25

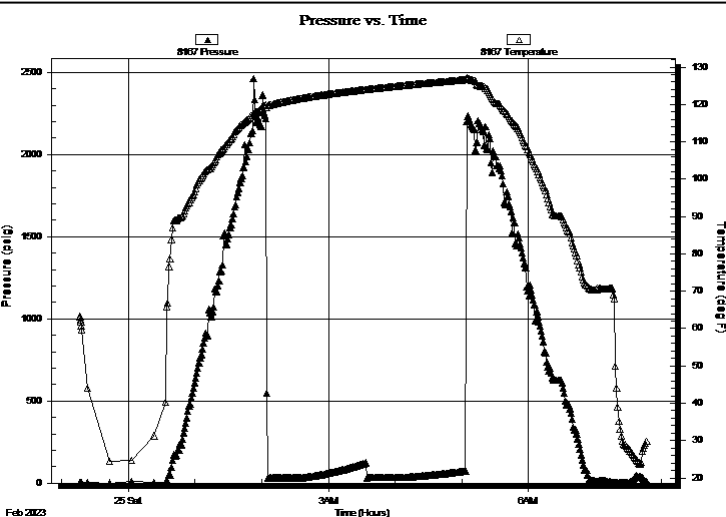
Start Time: 23:16:05

End Time: 07:46:29

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF-30- Built to 1"  
SI1-60- No return  
FF-30- no blow  
SI2-60- No return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% (oil spots in tool)	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70143

**DST#: 5**

ATTN: Kevin Kessler

Test Start: 2023.02.24 @ 23:16:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% (oil spots in tool)	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

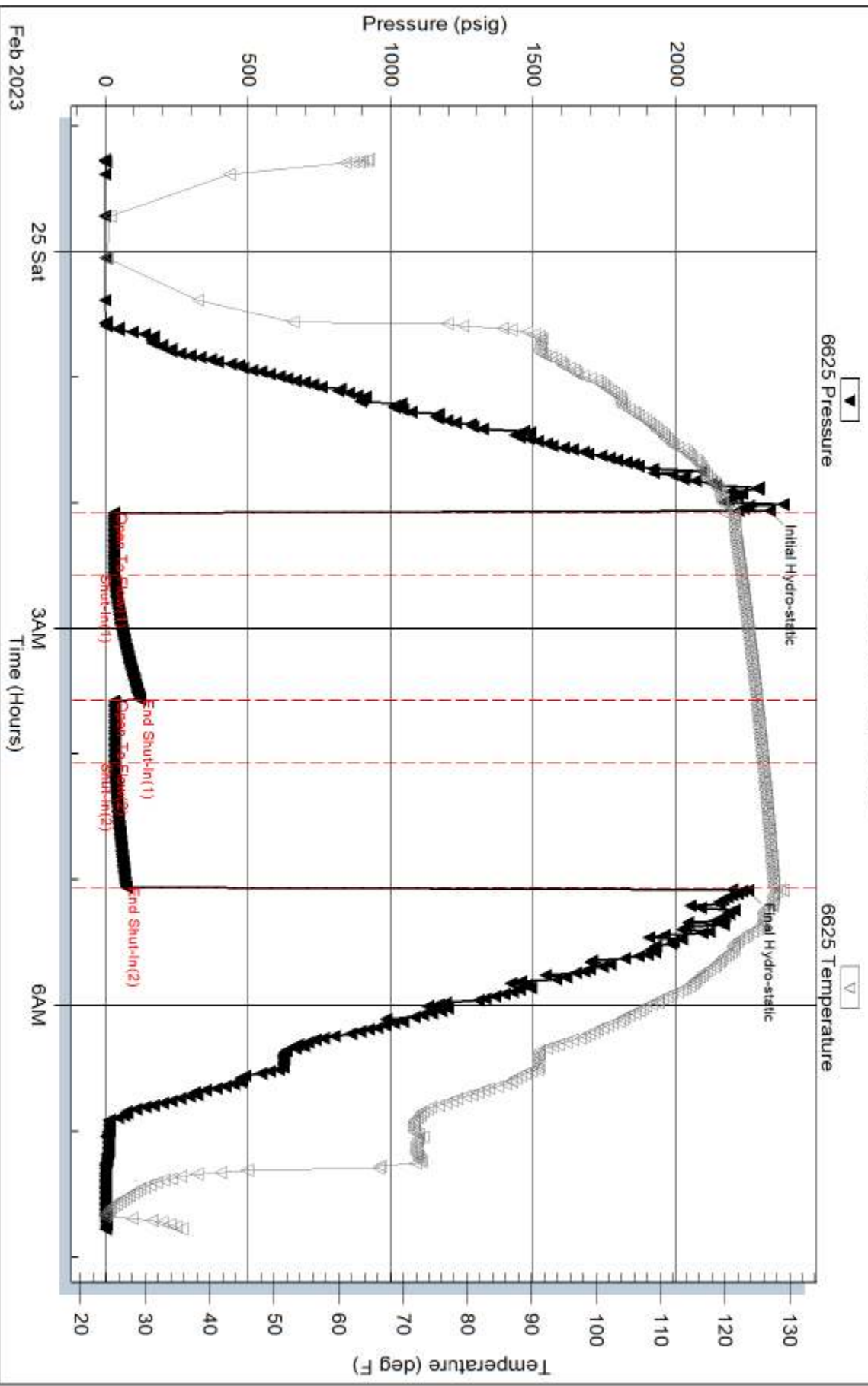
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 5# LCM

### Pressure vs. Time







**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
 2020 N. Bramblewood  
 Wichita, KS 67206  
 ATTN: Kevin Kessler

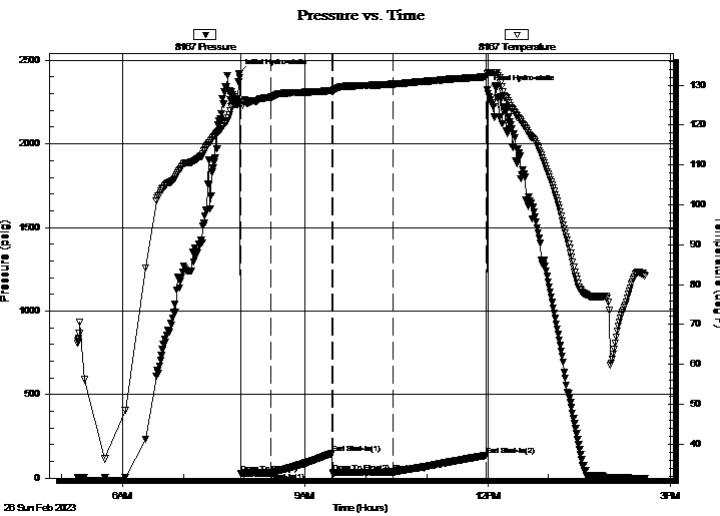
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
 Job Ticket: 70144 **DST#: 6**  
 Test Start: 2023.02.26 @ 05:16:00

## GENERAL INFORMATION:

Formation: **Altamont C**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:56:30  
 Time Test Ended: 14:34:45  
 Interval: **4635.00 ft (KB) To 4695.00 ft (KB) (TVD)**  
 Total Depth: 4695.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Dustin Day  
 Unit No: 70  
 Reference Elevations: 3482.00 ft (KB)  
 3473.00 ft (CF)  
 KB to GR/CF: 9.00 ft

**Serial #: 8167 Outside**  
 Press@RunDepth: 36.81 psig @ 4636.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2023.02.26 End Date: 2023.02.26 Last Calib.: 2023.02.26  
 Start Time: 05:16:05 End Time: 14:34:45 Time On Btm: 2023.02.26 @ 07:55:00  
 Time Off Btm: 2023.02.26 @ 11:59:30

TEST COMMENT: IF-30- Built to 5"  
 SI1-60- No return  
 FF-60- Built to 3 1/2"  
 SI2-90- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2421.86	125.56	Initial Hydro-static
2	26.45	124.95	Open To Flow (1)
32	32.01	127.00	Shut-In(1)
92	148.36	128.66	End Shut-In(1)
93	32.69	128.64	Open To Flow (2)
152	36.81	130.28	Shut-In(2)
244	136.19	132.12	End Shut-In(2)
245	2322.15	132.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	SGOCM 2% gas 3% oil 95% mud	0.56
0.00	25' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
2020 N. Bramblewood  
Wichita, KS 67206  
ATTN: Kevin Kessler

**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
Job Ticket: 70144      **DST#: 6**  
Test Start: 2023.02.26 @ 05:16:00

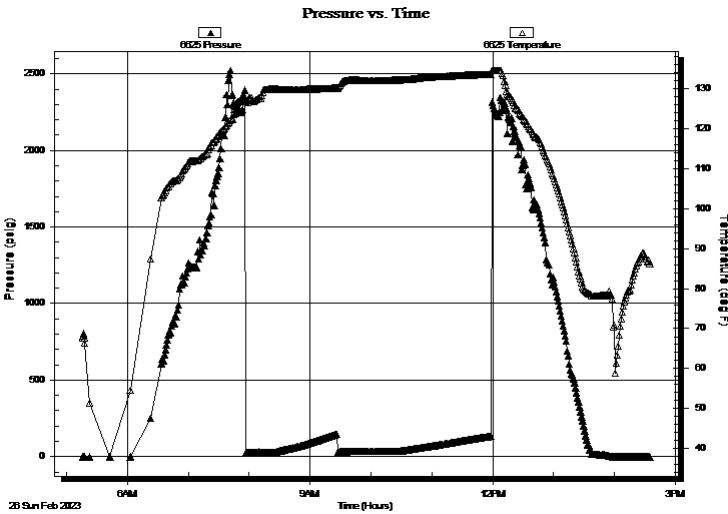
## GENERAL INFORMATION:

Formation: <b>Altamont C</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 07:56:30		Tester: Dustin Day	
Time Test Ended: 14:34:45		Unit No: 70	
<b>Interval: 4635.00 ft (KB) To 4695.00 ft (KB) (TVD)</b>		Reference Elevations: 3482.00 ft (KB)	
Total Depth: 4695.00 ft (KB) (TVD)		3473.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition:	KB to GR/CF: 9.00 ft	

<b>Serial #: 6625</b>	<b>Inside</b>		
Press@RunDepth:	psig @ 4636.00 ft (KB)	Capacity:	8000.00 psig
Start Date: 2023.02.26	End Date: 2023.02.26	Last Calib.:	2023.02.26
Start Time: 05:16:05	End Time: 14:34:45	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: IF-30- Built to 5"  
 SI1-60- No return  
 FF-60- Built to 3 1/2"  
 SI2-90- No return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	SGOCM 2% gas 3% oil 95% mud	0.56
0.00	25' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70144

**DST#: 6**

ATTN: Kevin Kessler

Test Start: 2023.02.26 @ 05:16:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	SGOCM 2% gas 3% oil 95% mud	0.561
0.00	25' GIP	0.000

Total Length: 40.00 ft      Total Volume: 0.561 bbl

Num Fluid Samples: 0

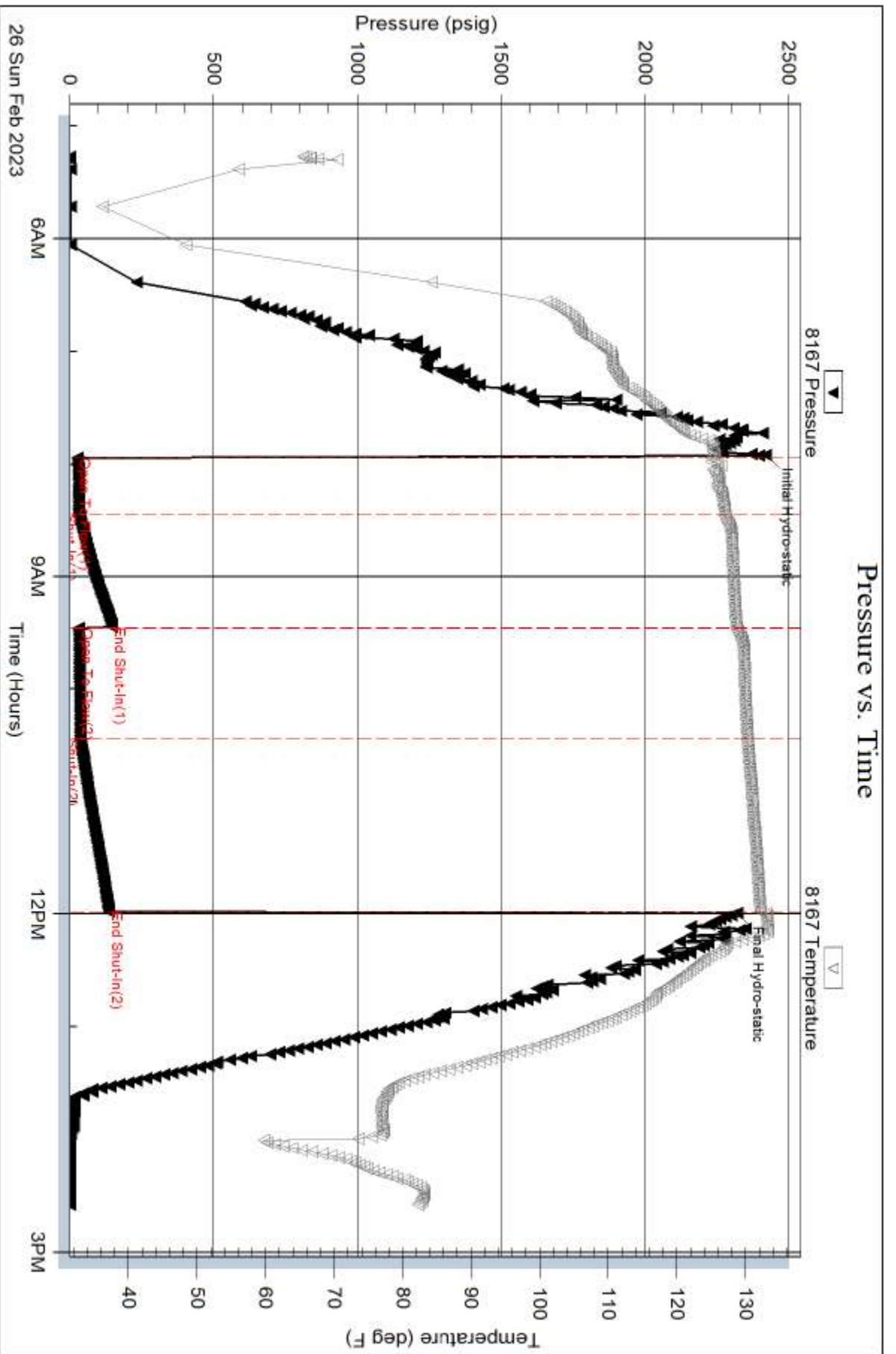
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 5# LCM





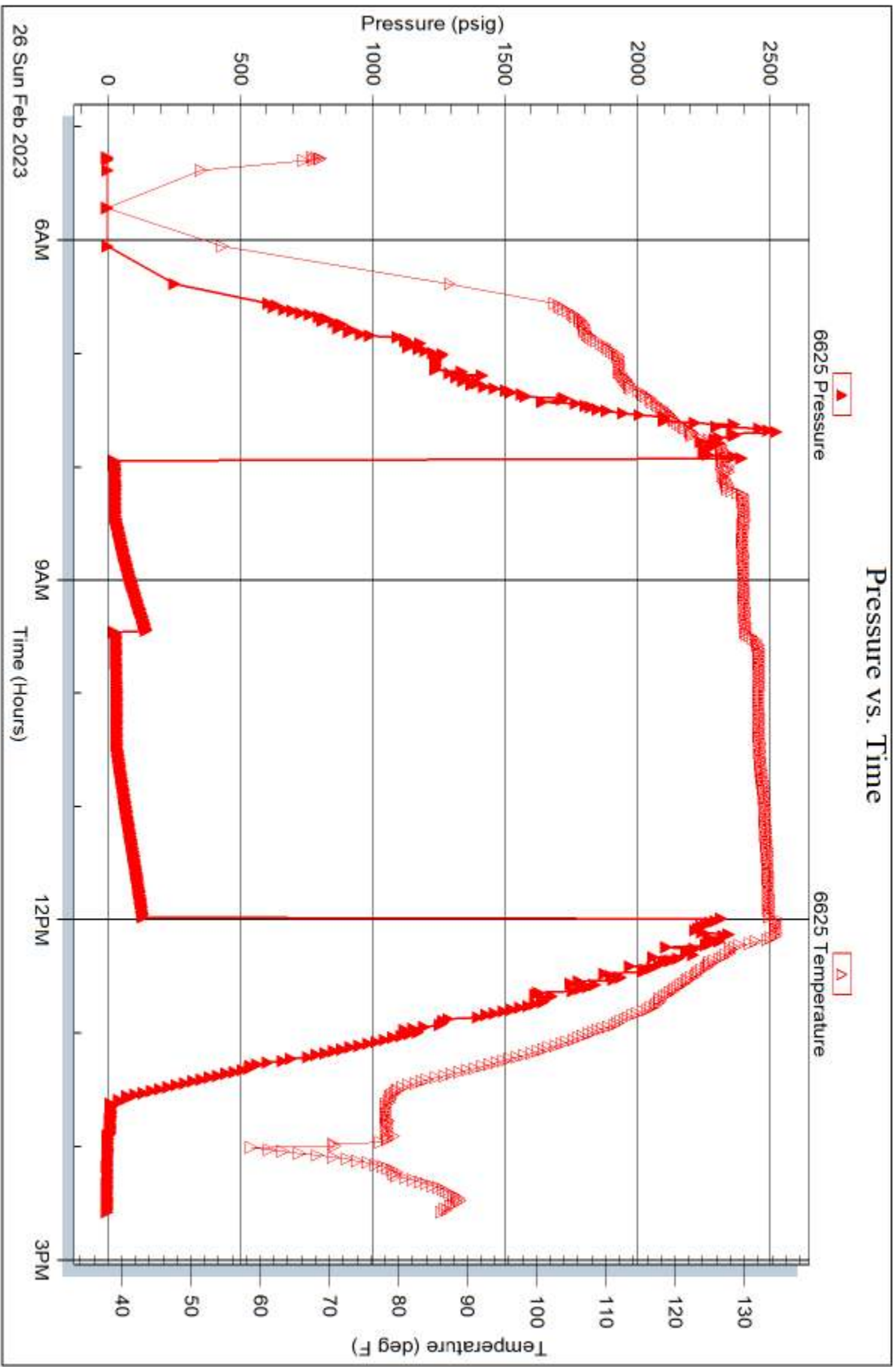
Serial #: 6625

Inside

Berexco LLC

Carnichael #1-31

DST Test Number: 6





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Berexco LLC  
2020 N. Bramblewood  
Wichita, KS 67206  
ATTN: Kevin Kessler

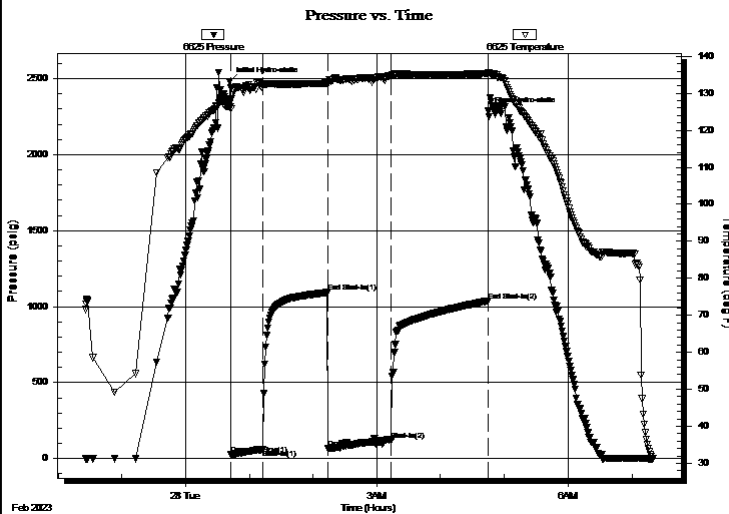
**31-4S-37W Cheyenne, KS**  
**Carmichael #1-31**  
Job Ticket: 70145 **DST#: 7**  
Test Start: 2023.02.27 @ 22:26:00

## GENERAL INFORMATION:

Formation: **Pawnee-Cherokee**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 00:43:00  
Time Test Ended: 07:19:45  
Interval: **4690.00 ft (KB) To 4950.00 ft (KB) (TVD)**  
Total Depth: 4950.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition:  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Dustin Day  
Unit No: 70  
Reference Elevations: 3482.00 ft (KB)  
3473.00 ft (CF)  
KB to GR/CF: 9.00 ft

**Serial #: 6625 Inside**  
Press@RunDepth: 121.65 psig @ 4691.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2023.02.27 End Date: 2023.02.28 Last Calib.: 1899.12.30  
Start Time: 22:26:05 End Time: 07:19:45 Time On Btm: 2023.02.28 @ 00:41:45  
Time Off Btm: 2023.02.28 @ 04:45:00

TEST COMMENT: IF-30- Built to 6"  
SI1-60- No return  
FF-60- Built to 6 1/2"  
SI2-90- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2479.62	126.46	Initial Hydro-static
2	28.04	125.85	Open To Flow (1)
31	59.51	132.39	Shut-In(1)
92	1093.36	132.74	End Shut-In(1)
93	64.29	132.85	Open To Flow (2)
152	121.65	134.87	Shut-In(2)
243	1037.09	135.27	End Shut-In(2)
244	2286.03	135.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
212.00	mud 100% mud w / oil spots	2.97

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Berexco LLC

**31-4S-37W Cheyenne, KS**

2020 N. Bramblewood  
Wichita, KS 67206

**Carmichael #1-31**

Job Ticket: 70145

**DST#: 7**

ATTN: Kevin Kessler

Test Start: 2023.02.27 @ 22:26:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
212.00	mud 100% mud w / oil spots	2.974

Total Length: 212.00 ft

Total Volume: 2.974 bbl

Num Fluid Samples: 0

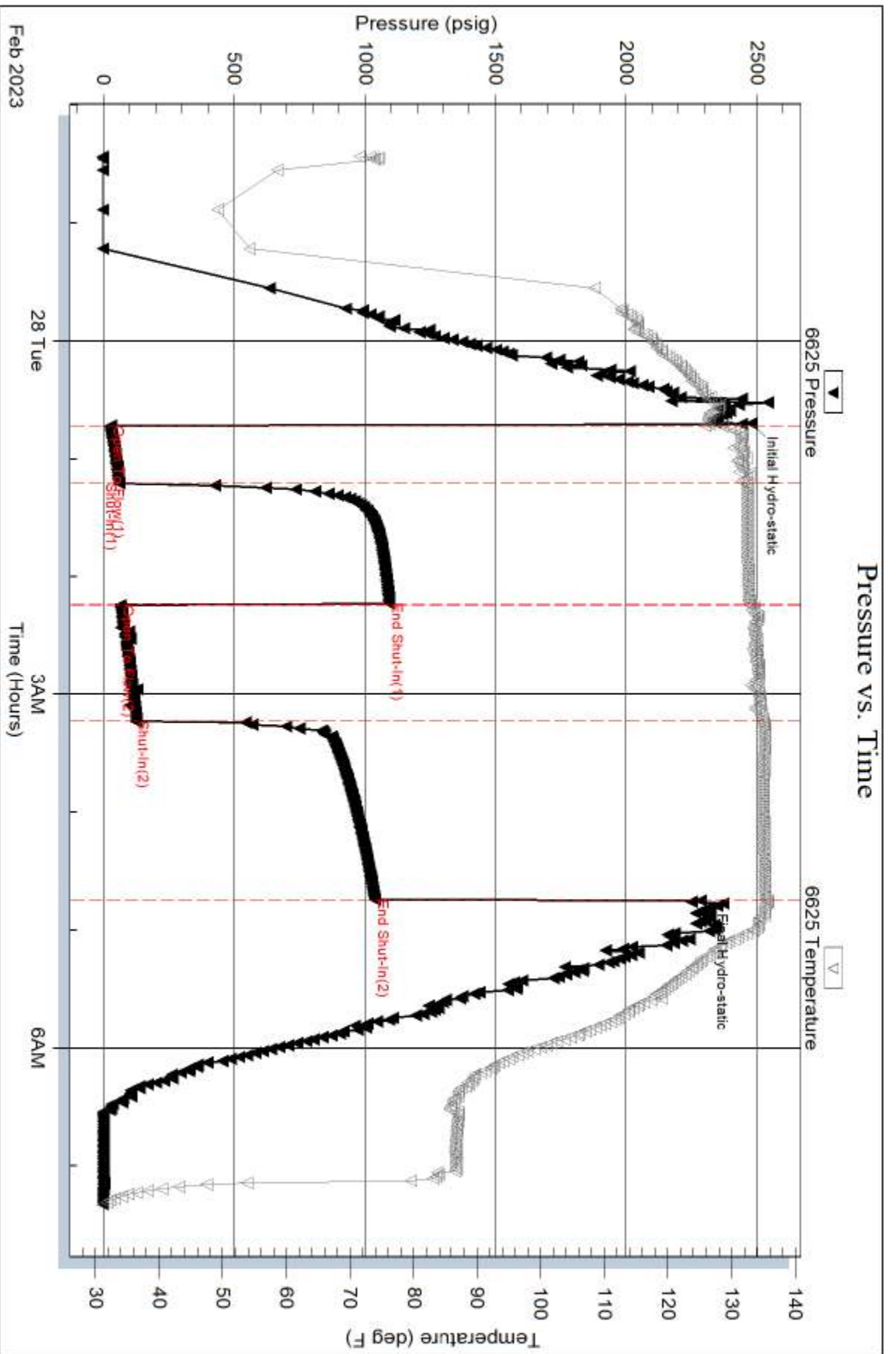
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4# LCM

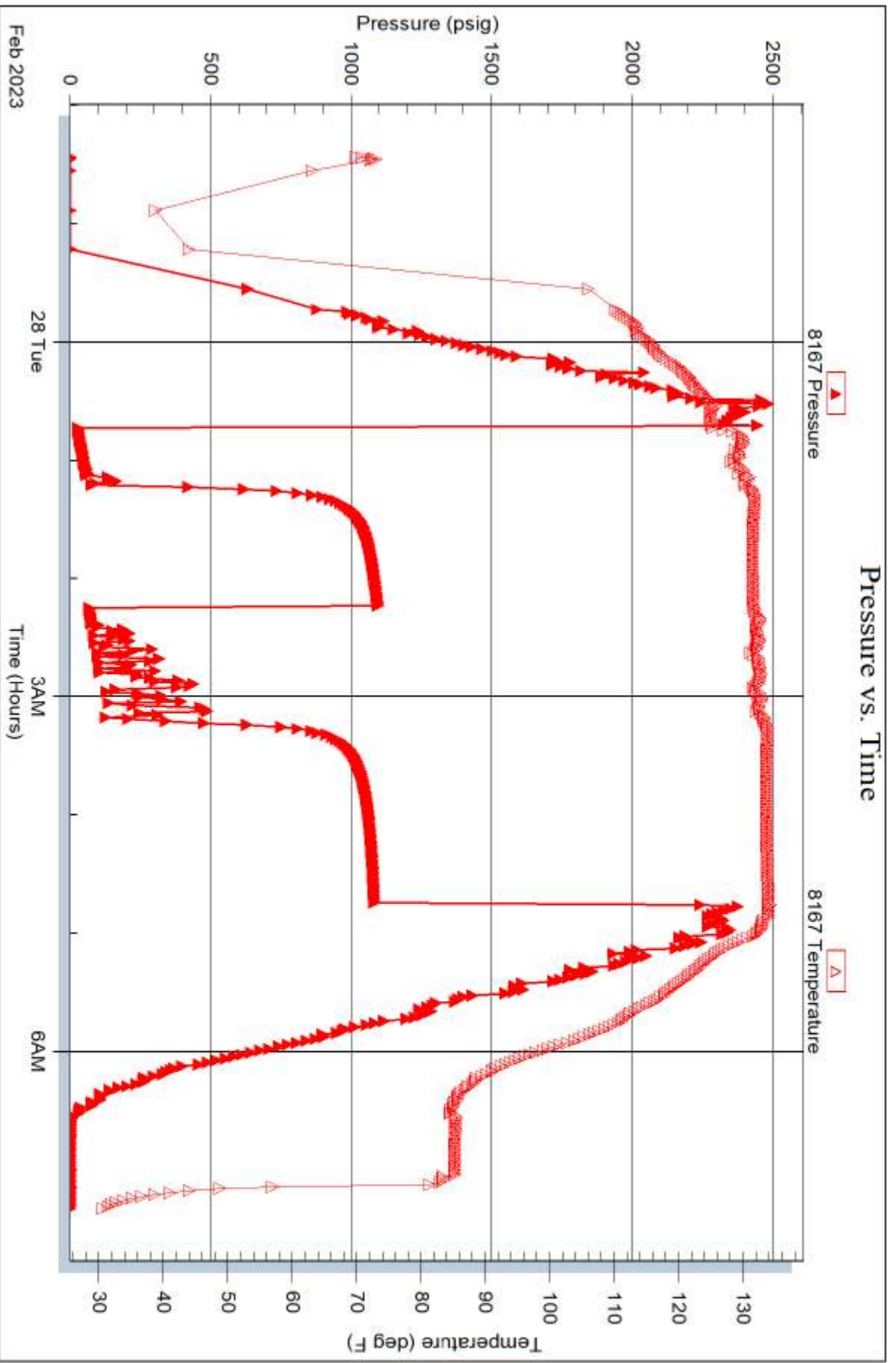


Serial #: 8167

Outside Berexco LLC

Carrichael #1-31

DST Test Number: 7



# KEVIN L. KESSLER

CONSULTING PETROLEUM GEOLOGIST

( 316 ) 522 - 7338

**OPERATOR :** BEREXCO LLC

**LEASE :** CARMICHAEL

**WELL # :** 1 - 31

**LOCATION :** 800' FSL & 500' FWL

**SEC :** 31

**TWP :** 04S

**RGE :** 37W

**COUNTY :** CHEYENNE

**STATE :** KANSAS

**ELEVATION**

**KB:** 3482'

**GL:** 3473'

MEASUREMENTS FROM:

**KB**

**CONTRACTOR:** DUKE DRILLING RIG #4

**COMM:** 02/13/2023

**COMP:** 03/01/2023

**RTD:** 5200

**LTD:** 5200

**GEOLOGICAL SUPERVISION FROM:** 3700'

**TO:** RTD

**SAMPLES SAVED FROM:** 3700'

**TO:** RTD

**CASING RECORD:**

**SURFACE:**

8 5/8" @ 378'

**PRODUCTION:**

NONE

FORMATION:	LOG		SAMPLE		COMP.
	TOP	DATUM	TOP	DATUM	
OREAD	4208	- 726	4208	- 726	.
HEEBNER	4288	- 806	4288	- 806	.
LANSING	4343	- 861	4343	- 861	.
STARK	4554	- 1072	4554	- 1072	.
BASE/KC	4610	- 1182	4610	- 1182	.
FORT SCOTT	4794	- 1312	4794	- 1312	.
CHEROKEE	4818	- 1336	4818	- 1336	.
MISSISSIPPI	5047	- 1565	5047	- 1565	.
.	.	.	.	.	.

ELECTRICAL SURVEYS:

DIL

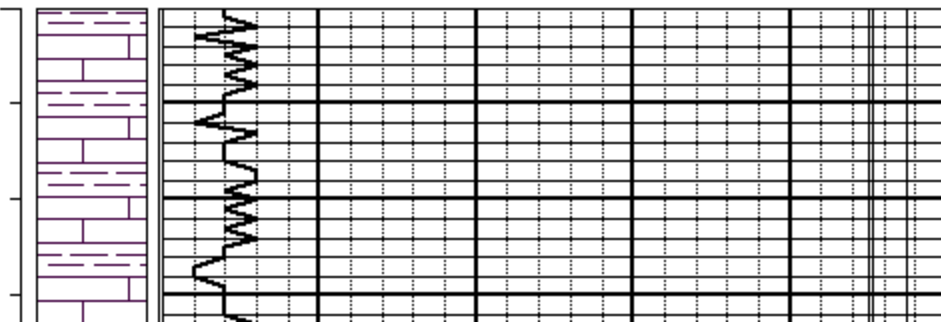
CNL/CDL

MICRO

SONIC

REFERENCE WELL FOR STRUCTURAL COMPARISON:

3700





3750

3800

3850

3900

3950

MUD CHECK @ 3740  
VIS: 52  
WT: 8.7

MUD CHECK @ 3840  
VIS: 57  
WT: 8.9

MUD CHECK @ 3950

LST: CRM - GRAY FXTAL DNSE HARD  
RARE FOSS. ABUNDANT RED BED SILTY  
SHALE. NO VIS. POR. NSO

SHALE: RED - GRAY SILTY SANDY WITH  
FEW SAND CLUSTERS LST. A. A. NO VIS.  
POR. NSO

LST: W/ SHALE A. A. VERY SILTY SANDY  
NO VIS. POR. NSO

LST: CRM - GRAY FXTAL SUBCHKY -  
DNSE FOSS IN PRT SANDY IN PART FR  
AMT GRAY CALC. AND RES SILTY SHALE

LST: CRM - GRAY - WHIT FXTAL  
SUBCHKY - DNSE FOSS IN PART SANDY  
NO VIS. POR. NSO

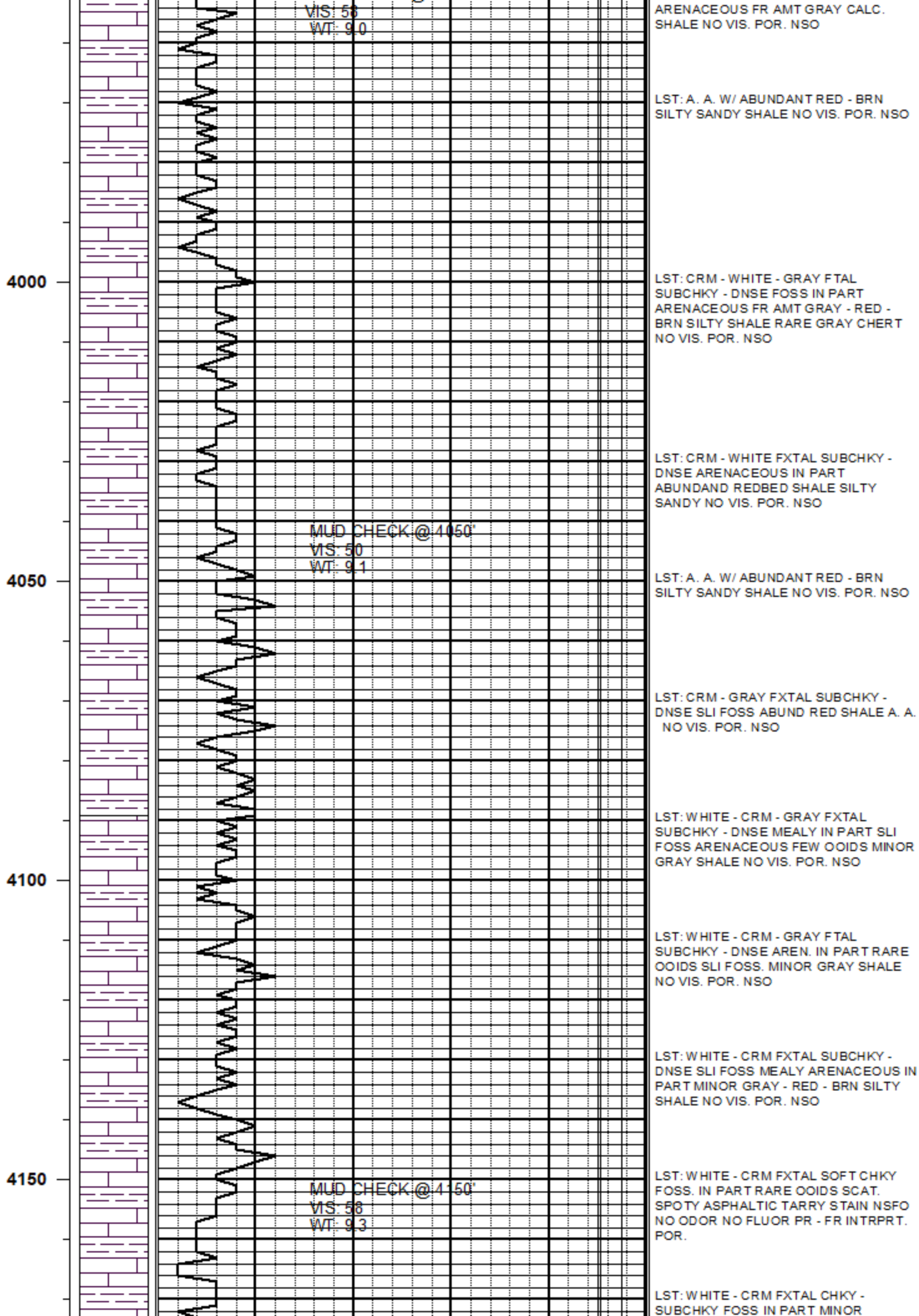
LST: CRM - GRAY - WHITE FXTAL  
SUBCHKY - DNSE SANDY IN PART FR  
AMT REXTALIZED SILICEOUS IN PART  
RARE FOSS FR AMT BRN - GRAY CHERT.  
NO VIS. POR. NSO

LST: A. A. W/ ABUNDANT RED - BRN  
SILTY AND GRAY CALC. SHALE NO VIS.  
POR. NSO

LST: CRM - TAN - BRN FXTAL MOSTLY  
DNSE ARENACEOUS SLI FOSS MINOR  
BRN CHERT W/ FR AMT SHALE A. A. NO  
VIS. POR. NSO

SHALE: GRAY CALCAREOUS VERY  
FOSSILIF. ABUNDANT CRINOID &  
ECHINOID FRAGMENTS IN SHALE  
MATRIX NO VIS. POR. NSO

LST: CRM - WHT - GRAY FXTAL  
SUBCHKY - DNSE FOSS IN PART



4200

4250

4300

4350

OREAD 4208 ( 726 )

HEEBNER 4288 ( 806 )

DST # 1 ( 4285 - 4355 )  
REC: 240' SG&OCWCM 10% O  
IFP: 19 - 53#  
ISIP: 1300#  
FFP: 71 - 125#  
FSIP: 1288#

LANSING 4343 ( - 861 )

DST # 2 ( 4360 - 4400 )  
REC: 5' MUD  
IFP: 18 - 20#  
ISIP: 1258#  
FFP: 29 - 24#  
FSIP: 1207#

DST # 1

DST # 2

OOLITES PR - FR CHLK FILLED INTRPRT POR. NSO

SHALE: BLACK CARBONACEOUS W/FR AMT DNSE MOTTLED LST. NO VIS. POR. NSO

SHALE: GRAY - DRK GRAY CALCAREOUS NO VIS. POR. NSO

LST: CRM - WHITE FXTAL SUBCHKY - DNSE FOSS IN PART OOLITIC ARENACEOUS PR INTRPRT POR NSO

LST: WHITE - CRM FXTAL CHKY - SUBCHKY - DNSE ARENACEOUS SLI FOSS MINOR OOLITES FR AMT PR CHK FILLED INTRPRT POR. NSO

LST: WHITE - CRM FTAL SUBCHKY - DNSE ARENACEOUS SLI FOSS NO VIS. POR. NSO

SHALE: BLACK CARB. FW PCS DNSE MOTTLED FOSS LST. NO VIS. POR. NSO

SHALE: GRAY CALC. NSO

LST: WHITE - CRM FXTAL SUBCKY - DNSE FOSS IN PART RARE OOLITES NO VIS. POR. NSO

SHALE: BLACK CARB. NO VIS. POR. NSO

LST: WHITE - GRAY FXTAL SOFT VERY SANDY ARENACEOUS SLI DOLOMITIC SHLY IN PART PR - FR INTRPRT POR NSO

LST: A. A. SOFT SANDY NO VIS. POR NSO

SHALE: GRAY - GREEN CALCAREOUS IN PART NO VIS. POR. NSO

LST: WHITE - CRM FXTAL SUBCHKY - DNSE VRY FOSS SLI OOLITIC FSFO FNT ODOR SCAT - ABUNDANT LT - MED BRN SUBSAT - SAT STN FR INTRPRT & VUGGY POR

SHALE GRAY CALCAREOUS NO VIS. POR. NSO

LST: CRM - WHITE FXTAL SUBCHKY - DNSE FOSS. NSFO NO ODOR ABUND DRK BRN - BLACK SPYTY - SUBSAT STN PR INTRPRT POR.

SHALE: GRAY - GREEN CALCAREOUS NO VIS. POR. NSO

LST: CRM - WHITE - GRAY FXTAL SUBCHKY - DNSE FOSS IN PART RARE

4400

DST #3 (4395 - 4460)  
MISRUN

OOLITE SSFO LT BRN GSSY VRY FNT  
ODOR SCATT LT. - MED BRN SUBSAT -  
SAT STN PR - FR INTRPRT POR.

SHALE: BLACK CARBONACEOUS W/  
MINOR DNSE MOTTLED REGRESSIVE  
LST. NO VIS. POR. NSO  
SHALE: GRAY - DRK GRAY CALCAREOUS  
NO VIS. POR. NSO

4450

DST #4 (4390 - 4460)  
REC: 65' MUD  
IFP: 28 - 45#  
ISIP: 1263#  
FFP: 38 - 50#  
FSIP: 1135#

DST #4

LST: WHITE - CRM FXTAL MOSTLY DNSE  
SLI FOSS. NO VIS. POR. NSO

SHALE: GRAY CALC. NO VIS. POR. NSO

LST: CRM - GRAY FXTAL SUBCHKY -  
DNSE VRY FOSS MINOR OOLITES  
ABUND 2ndARY OVERGROWTHS VGSFO  
OIL BLEEDING FROM CUTTINGS FR  
ODOR ABUND SAT LT - MED BRN STN PR  
- FR INTRPRT & VUGGY POR.

LST: WHITE DNSE NO VIS. POR. NSO

SHALE: BLACK CARBONACEOUS W/  
DNSE MOTTLED REGRESSIVE LST. NO  
VIS. POR. NSO  
SHALE: GRAY - DRK GRAY CALCAREOUS  
NO VIS. POR. NSO

4500

DST #5 (4480 - 4565)  
REC: 5' MUD SSC  
IFP: 25 - 30#  
ISIP: 122#  
FFP: 31 - 33#  
FSIP: 72#

DST #5

LST: CRM - GRAY FXTAL SUBCHKY -  
DNSE FOSS IN PART SLI OOLITIC  
TIGHTLY CEMENTED W/ CALCITE  
SECONDARY OVERGROWTHS NO VIS.  
POR. NSO  
LST: A. A. NO VIS. POR. NSO

SHALE: GRAY - GREEN CALC. NO VIS.  
POR. NSO

LST: WHITE - CRM - GRAY FXTAL  
SUBCHKY - DNSE FOSS IN PART RARE  
OOLITE MEALY NO VIS. POR. NSO

SHALE: BLACK CARB. W/ FEW PCS DNSE  
MOTTLED REGRESSIVE LST. NO VIS.  
POR. NSO

4550

MUD CHECK @ 4550'  
VIS: 65  
WT: 9.4

STARK 4584 (- 1072)

SHALE: GRAY - DRK GRAY - GREEN NO  
VIS. POR. NSO

LST: CRM - GRAY FXTAL MOST DNSE  
FOSS IN PART VSSFO FR ODOR SCATT  
MED - DRK BRN SPTY - SUBSAT STN PR  
PIPOINT & VUGGY POR.

SHALE: BLACK CARBONACEOUS NO VIS.  
POR. NSO

SHALE: GRAY W/ DNSE MOTTLED LST  
NO VIS. POR. NSO

LST: WHITE - CRM FXTAL DNSE SLI  
FOSS NO VIS. POR. NSO

4600

BASE KC 4610 (- 1182)

SHALE: V. C. GRAY - GREEN - BLUE -  
MAROON SILTY NO VIS. POR. NSO

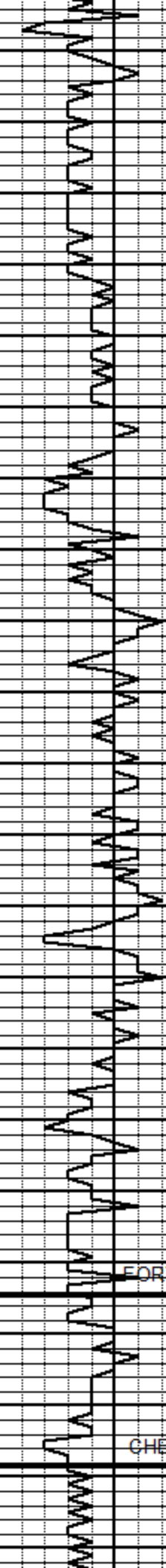
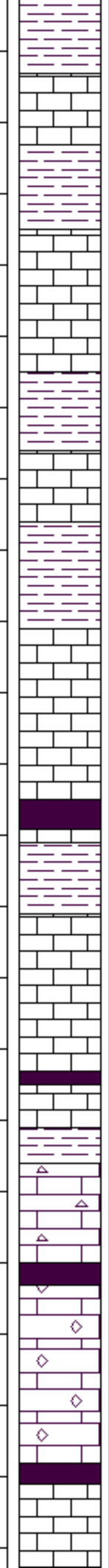
LST: CRM - TAN FXTAL RARE FOSS  
MICRITIC IN PART NO VIS. POR. NSO

4650

4700

4750

4800



MUD CHECK @ 4650'  
 VIS: 57  
 WT: 9.3  
 DST # 6 (4635 - 4695)  
 REC: 25' GIP  
 40' SOCM 3% O  
 IFP: 26 - 32#  
 ISIP: 148#  
 FFP: 33 - 37#  
 FSIP: 136#

DST # 7 (4690 - 4950)  
 REC: 212' MUD VSSO  
 IFP: 28 - 60#  
 ISIP: 1093#  
 FFP: 64 - 122#  
 FSIP: 1037#

FORT SCOTT 4794 (- 1312)

CHEROKEE 4818 (- 1336)

DST # 6

DST # 7

SHALE: RED - BRN ARGILACEOUS  
 EARTHY SILTY IN PART NO VIS. POR.  
 NSO

A. A. NSO

LST: CRM - GRAY - TAN FXTAL MOSTLY  
 DNSE RARE FOSS. MINOR OOLITE NO  
 VIS. POR. NSO

LST: CRM - GRAY - TAN FXTAL MOSTLY  
 DNSE FOSS IN PART RARE OOLITE NO  
 VIS. POR. NSO

SHALE: RED - BRN SILTY ARGILACEOUS  
 NO VIS. POR. NSO

LST: CRM - GRAY - DRK GRAY VERY  
 DNSE BLOCKY MASSIVE FXTAL -  
 MICRITIC VERY RARE FOSS. NO VIS.  
 POR. NSO

LST: A. A. VRY DNSE NO VIS. POR. NSO

LST: WHITE - CRM FXTAL SUBCHKY -  
 MOSTLY DNSE BRITTLE FOSS / OOLITIC  
 GSGSSYFO FR ODOR ABUNDANT MED  
 BRN SUBSAT - SAT STN FR INTRPT &  
 VUGGY POR.

LST: WHITE - CRM FXTAL DNSE SLI  
 FOSS NO VIS. POR. NSO

SHALE: BLACK CARBONACEOUS NO VIS.  
 POR. NSO

LST: CRM - GRAY - WHITE FXTAL MOST  
 DNSE HARD BLOCKY RARE FOSS NO  
 VIS. POR. NSO  
 SHALE: GRAY SILTY NO VIS. POR. NSO

LST: WHITE - CRM FXTAL DNSE HARD  
 RARE FOSS. NO VIS. POR. NSO

SHALE: BLACK CARB. NO VIS. POR. NSO

LST: CRM - GRAY FXTAL DNSE RARE  
 FOSS. MINOR GRAY - WHITE CHERT NO  
 VIS. POR. NSO

LST: A. A. FR AMT GRAY SHALE NO VIS.  
 POR. NSO

SHALE: BLACK CARBONACEOUS NO VIS.  
 POR. NSO

LST: CRM - TAN FXTAL DNSE HARD  
 OOLITIC IN PART NO VIS. POR. NSO

LST: CRM - TAN A. A. MINOR OOLITES  
 NO VIS. POR. NSO

SHALE: BLACK CARBONACEOUS NO VIS.  
 POR. NSO

LST: CRM - GRAY FXTAL DNSE HARD

4850

4900

4950

5000

5050

MUD CHECK @ 4850'  
VIS: 56  
WT: 9.2

MISSISSIPPI 5047 (- 1563)

BLOCKY RARE FOSS SLI ARENACEOUS  
NO VIS. POR. NSO

LST: A. A. MINOR GRAY SILTY SHALE NO  
VIS. POR. NSO

SHALE: GRAY - DARK GRAY SILTY  
SANDY IN PART NO VIS. POR. NSO

SHALE: DARK GRAY SILTY IN PART NO  
VIS. POR. NSO

SAND: FN - MED GRAIN POORLY  
SORTED WELL CEMENTED TIGHT QTZ  
CLUSTERS MINOR GLAUC. NO VIS. POR.  
NSO

SAND: A. A. NO VIS. POR. NSO TIGHT

SHALE: GRAY - DARK GRAY SILTY  
SANDY IN PART NO VIS. POR. NSO

LST: CRM - GRAY FXTAL DNSE AREN. IN  
PART NO VIS. POR. NSO

SHALE: GRAY SILTY SANDY IN PART NO  
VIS. POR. NSO

LST: CRM - TAN FXTAL DNSE  
ARENACEOUS SANDY IN PART FR AMT  
GRAY SILTY SHALE NO VIS. POR. NSO

A. A. FR AMT GRAY SHALE NO VIS. POR.  
NSO

LST: CRM - TAN A. A. ARENACEOUS NO  
VIS. POR. NSO

SHALE: BRN - DRK BRN ARGILACEOUS  
EARTHY SOME SILTY NO VIS. POR. NSO

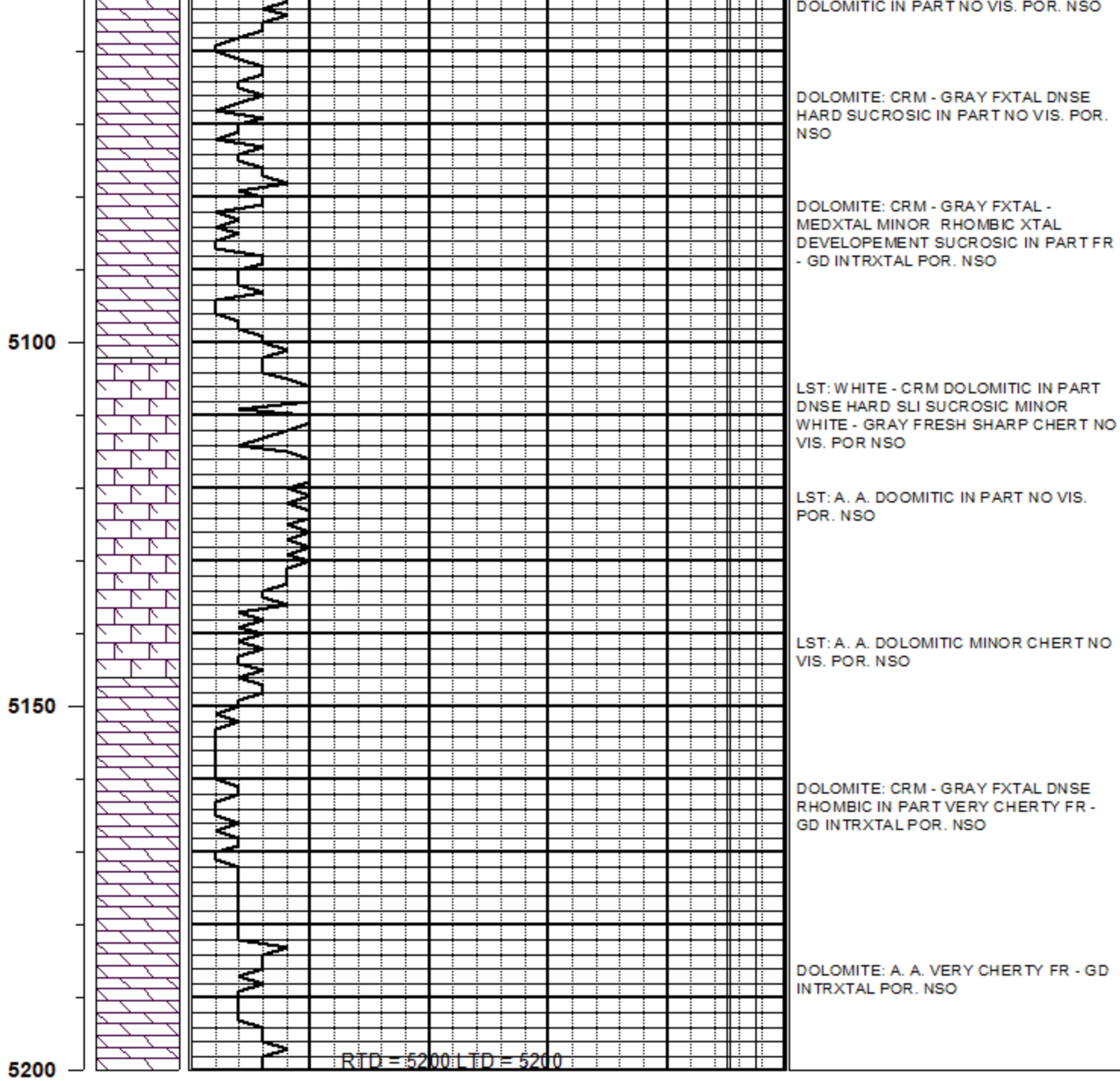
SHALE: BRN - DRK BRN ARGILACEOUS  
FEW SAND GRAINS SILTY NO VIS. POR.  
NSO

SHALE: A. A. NO VIS. POR. NSO

SHALE: BRN - DRK BRN ARGILACEOUS  
EARTHY FEW LOOSE GRAINS SAND NO  
VIS. POR. NSO

SHALE A. A. FEW TIGHT CLUSTER WELL  
CEMENTED ANGULAR QTZ GRAINS NO  
VIS. POR. NSO

LST: CRM - GRAY FTAL DNSE



COMMENTS :

DUE TO NEGATIVE DST RESULTS THIS WELL  
WAS PLUGGED AND ABANDONED

KEVIN L. KESSLER