

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	--	------------------------------------

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:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	MRM 1
Doc ID	1481365

All Electric Logs Run

Resistivity
Porosity
Microlog
Sonic



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING

Job Log

Customer:	Berexco LLC	Cement Pump No.:	38117, 19919 11Hrs.	Operator TRK No.:	96816	
Address:	2020 N. Bramblewood	Ticket #:	1718 19675 L	Bulk TRK No.:	27808, 19578 Oscar	30464, 37547 Sam
City, State, Zip:	Wichita, Kansas 67206-1094	Job Type:	Z-42 Cement Two-Stage			
Service District:	1718 - Liberal, Ks.	Well Type:				
Well Name and No.:	MRM #1	Well Location:	15 - 10S - 33W	County:	Thomas	State: Kansas

Type of Cmt	Sacks	Additives	Truck Loaded On		
A-Serv Lite	125	1/4# Polyflake	27808, 19578 Oscar	Front	Back
AA2 Cement	225	10% Gypsum, 10% SALT, 6pps Gilsonite, .5% C-17, 1/2# Defoamer	30464, 37547 Sam	Front	Back
A-Serv Lite	525	1/4# Polyflake	37712, 19883 Corey	Front	Back
Rat & Mouse	50		27808, 19578 Oscar	Front	Back

Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Lead:	13	1.73	9.08	216.25	TT Man Hours:	105
Tail:	15	1.46	6.16	328.5		
Tail 2:	13	1.73	9.08	908.25		
					# of Men on Job:	5

Time (am/pm)	BPM	Volume (BBLs)	Pumps		Pressure (PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
15:00							ON LOCATION & SAFETY MEETING
0:30							RUN FLOAT EQUIPMENT
2:30 AM							RIG UP
3:20 AM							RIG TO CIRCULATE
5:15 AM							RIG TO PT
5:21	5.5	38.5 slurry				160	PUMP 125SX LEAD @ 13#
5:30	5.3	58.5 slurry				150	PUMP 225SX TAIL @ 15#
5:50							SHUTDOWN / DROP PLUG / WP
5:59	5.8	10				120	DISPLACE W/ H2O
	5.8	20				120	
	5.8	30				120	
	5.8	40				120	
	4.4	47				90	DISPLACE W/ MUD
	6.8	60				160	
	6.1	70				300	
	5.7	80				480	
	5.7	90				550	
	5.7	100				740	
6:20	5.7	101				760	SLOW RATE TO 2.0BPM @ 610PSI
	1.9	110				710	

Size Hole	7 7/8"	Depth				TYPE	Plug Container	
Size & Wt. Csg.	5 1/2" 15.5#	Depth	4745'	DV Tool	2677'	Packer	Depth	
Landing Press. 1	861.3psi	Landing Press. 2	648.6psi			Retainer	Depth	
Shoe Jt.	74'	Type				Perfs	CIBP	

Customer Signature: <i>X</i>	Basic Representative:	Daniel Beck
	Basic Signature:	<i>Daniel Beck</i>
	Date of Service:	10/5/2019



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64813

DST#: 1

ATTN: Bryan Bynog

Test Start: 2019.09.27 @ 10:25:00

GENERAL INFORMATION:

Formation: **Lower Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:04:15

Time Test Ended: 19:30:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3991.00 ft (KB) To 4061.00 ft (KB) (TVD)

Reference Elevations: 3156.00 ft (KB)

Total Depth: 4061.00 ft (KB) (TVD)

3148.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8522

Inside

Press@RunDepth: 973.86 psig @ 3992.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.27

End Date:

2019.09.27

Last Calib.:

2019.09.27

Start Time: 10:25:05

End Time:

19:30:45

Time On Btm:

2019.09.27 @ 14:03:30

Time Off Btm:

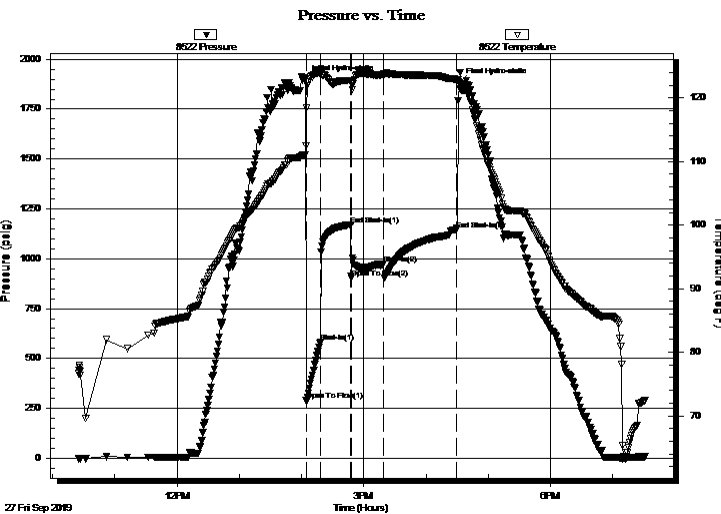
2019.09.27 @ 16:31:45

TEST COMMENT: 15- IF: BOB @ 1 1/2 min. built to 130"

30- IS: No return.

30- FF: BOB @ 3 min. built to 112".

60- FSI: 26" return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1897.72	111.03	Initial Hydro-static
1	290.38	112.46	Open To Flow (1)
15	582.37	123.92	Shut-In(1)
44	1170.79	122.73	End Shut-In(1)
45	903.10	122.43	Open To Flow (2)
76	973.86	123.72	Shut-In(2)
146	1146.42	122.82	End Shut-In(2)
149	1881.09	122.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2370.00	somcw 1o 2m 97w	32.70
30.00	oil 100o	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64813

DST#: 1

ATTN: Bryan Bynog

Test Start: 2019.09.27 @ 10:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

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
2370.00	somcw 1o 2m97w	32.698
30.00	oil 100o	0.421

Total Length: 2400.00 ft Total Volume: 33.119 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

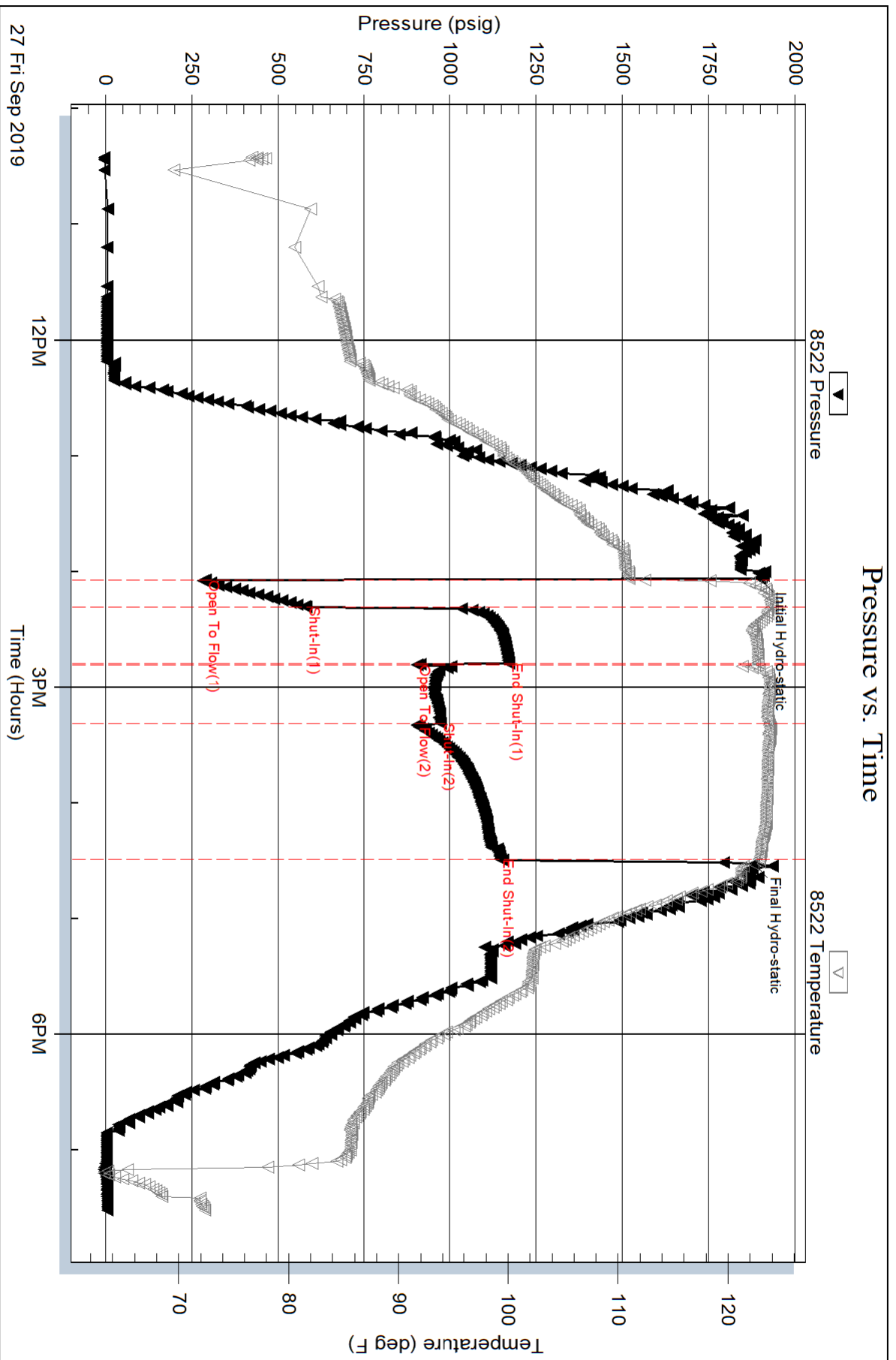
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .188 @ 78f = 3200

Pressure vs. Time

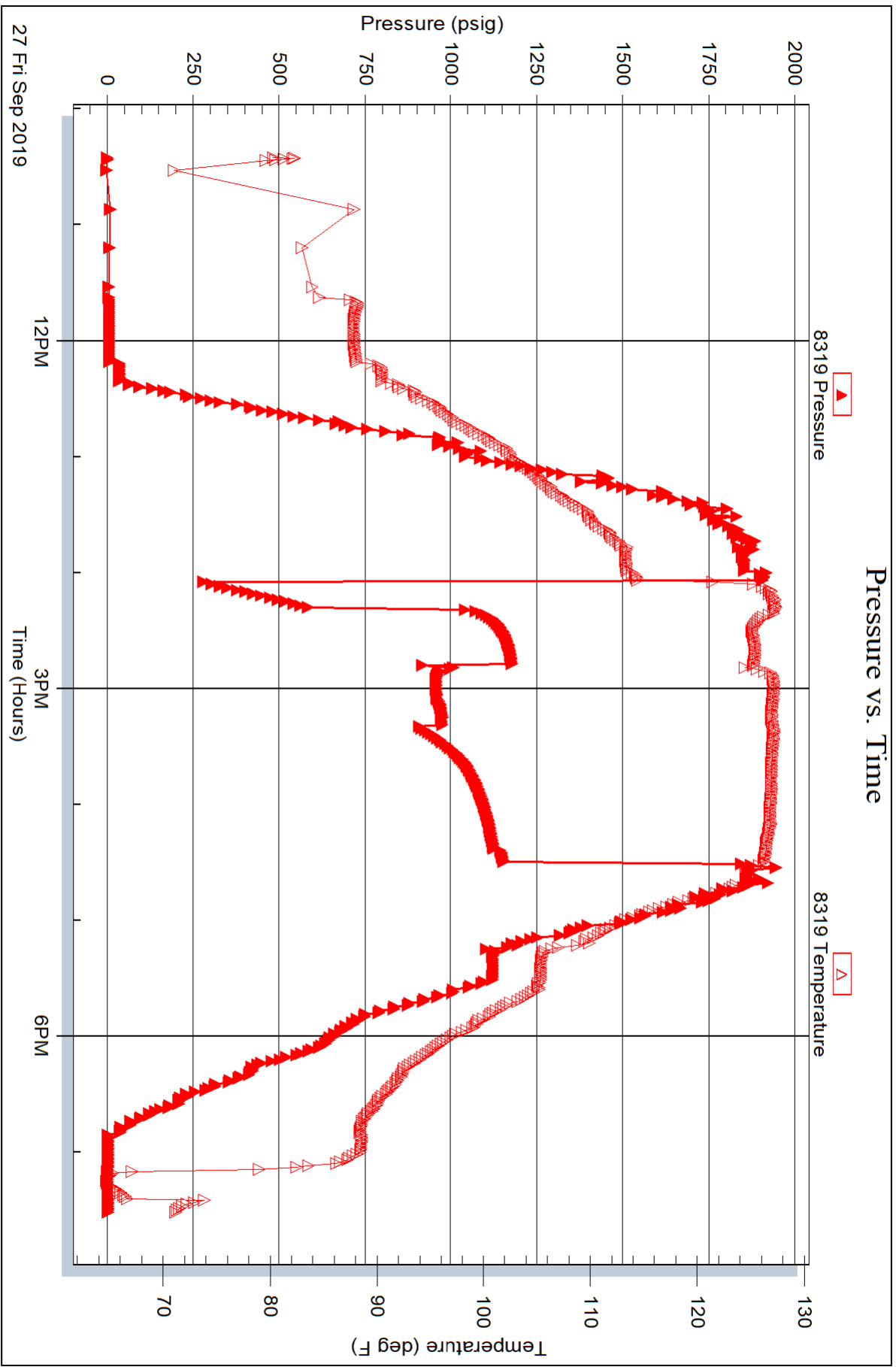


Serial #: 8319

Outside Berexco, LLC

MRM#1

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64814

DST#: 2

ATTN: Bryan Bynog

Test Start: 2019.09.28 @ 04:55:00

GENERAL INFORMATION:

Formation: **Toronto - LKC- A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:02:15

Time Test Ended: 14:47:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4032.00 ft (KB) To 4100.00 ft (KB) (TVD)

Reference Elevations: 3156.00 ft (KB)

Total Depth: 4100.00 ft (KB) (TVD)

3148.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8522 Inside

Press@RunDepth: 493.78 psig @ 4033.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.28 End Date: 2019.09.28

Last Calib.: 2019.09.28

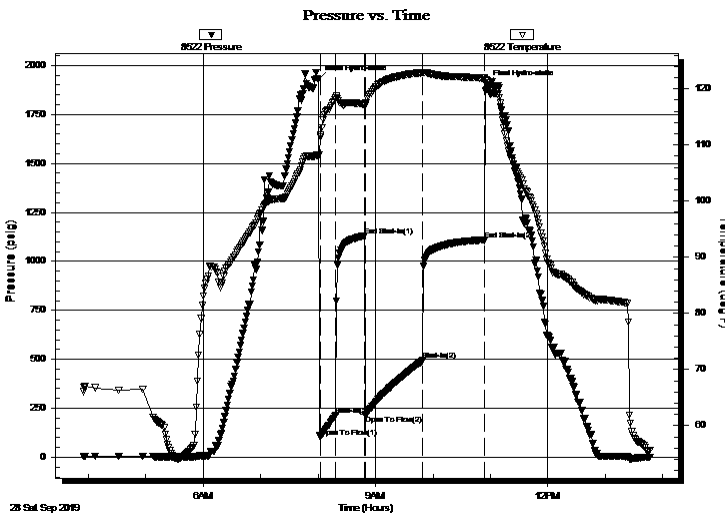
Start Time: 03:55:05 End Time: 13:47:00

Time On Btm: 2019.09.28 @ 08:00:45

Time Off Btm: 2019.09.28 @ 10:55:45

TEST COMMENT: 15- IF: BOB @ 3.5 min. built to 25".
30- IS: 1/2" return.
60- FF: BOB @ 3.5 min. built to 102".
60- FSI: 3.5" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1925.45	108.19	Initial Hydro-static
2	102.05	111.40	Open To Flow (1)
18	213.32	118.35	Shut-In(1)
48	1131.55	117.23	End Shut-In(1)
49	213.77	117.18	Open To Flow (2)
109	493.78	122.87	Shut-In(2)
173	1109.78	121.88	End Shut-In(2)
175	1900.44	121.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
230.00	somcw 1o 4m 95w	2.71
330.00	gw mco 30g 20m 20w 30o	4.63
540.00	go 35g 65o	7.57
0.00	150' GIP	0.00

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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64814

DST#: 2

ATTN: Bryan Bynog

Test Start: 2019.09.28 @ 04:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

26000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

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 bbbl
230.00	somcw 1o 4m 95w	2.707
330.00	gw mco 30g 20m 20w 30o	4.629
540.00	go 35g 65o	7.575
0.00	150' GIP	0.000

Total Length: 1100.00 ft Total Volume: 14.911 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

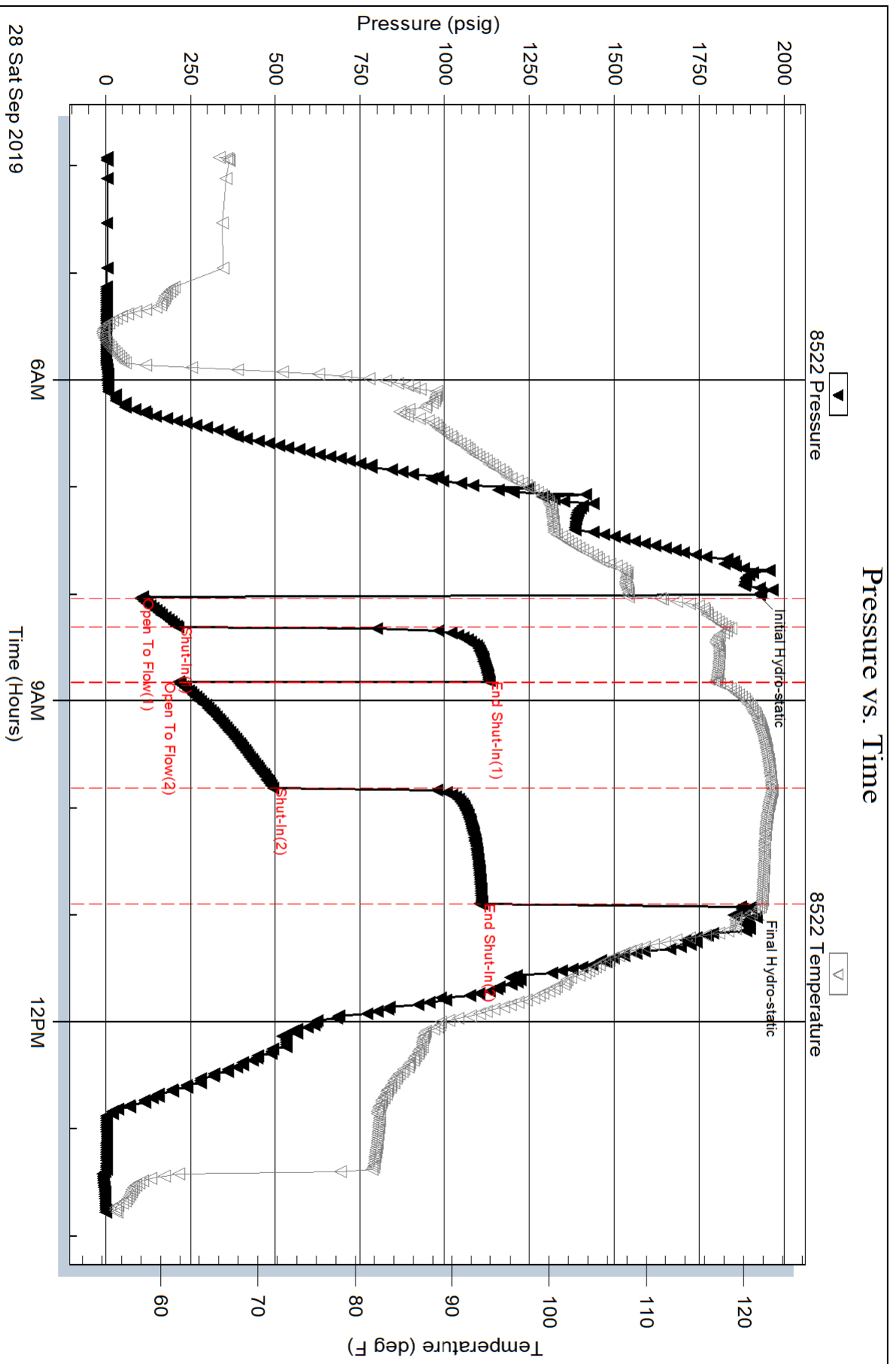
Serial #:

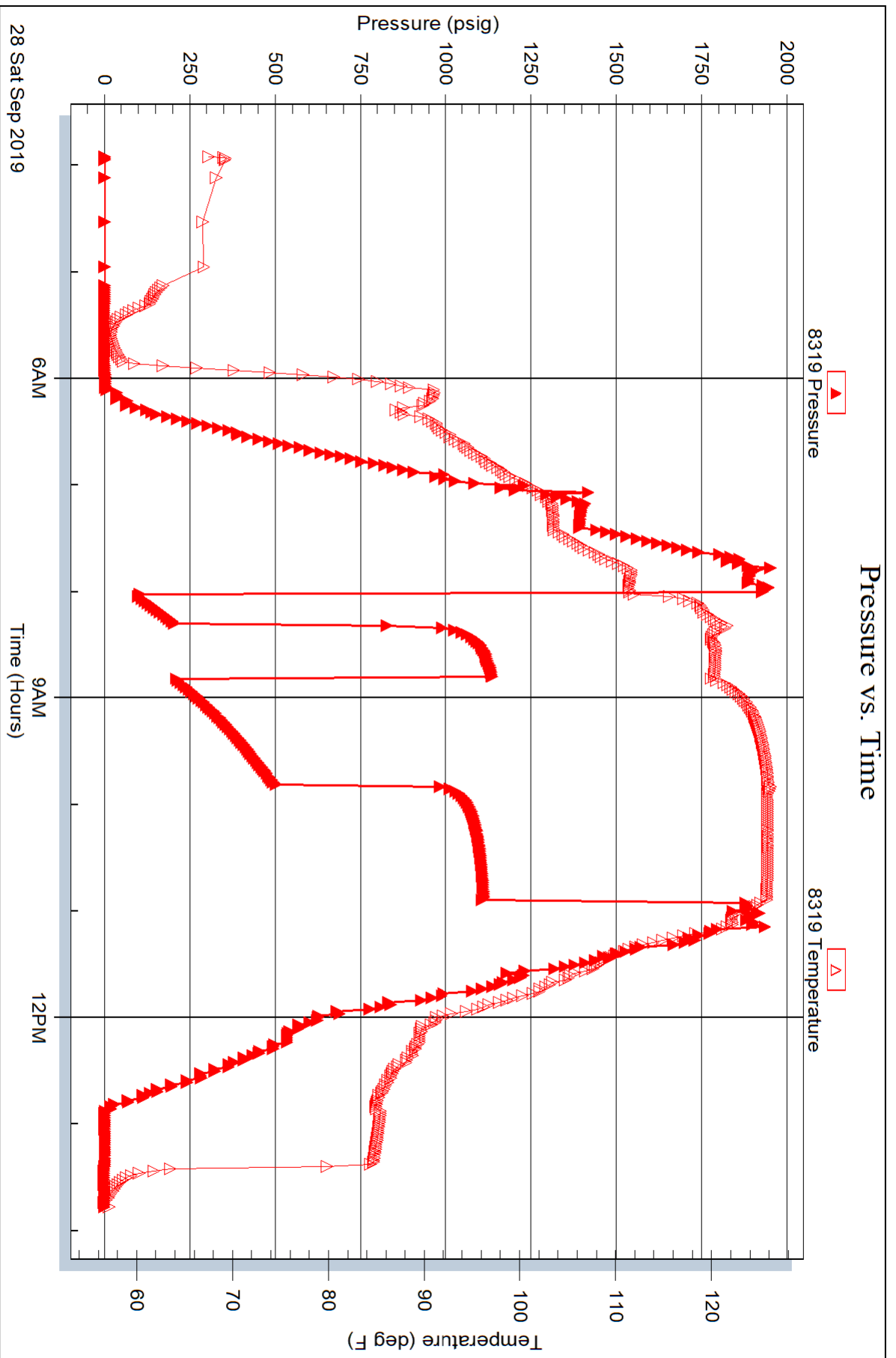
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .303 @ 60f = 26000ppm

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64815

DST#: 3

ATTN: Bryan Bynog

Test Start: 2019.09.29 @ 01:25:00

GENERAL INFORMATION:

Formation: **LKC- B-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:21:30

Time Test Ended: 11:25:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4092.00 ft (KB) To 4150.00 ft (KB) (TVD)

Reference Elevations: 3156.00 ft (KB)

Total Depth: 4150.00 ft (KB) (TVD)

3148.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8522

Inside

Press@RunDepth: 940.26 psig @ 4093.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.29

End Date:

2019.09.29

Last Calib.:

2019.09.29

Start Time: 01:25:05

End Time:

11:25:30

Time On Btm:

2019.09.29 @ 04:20:15

Time Off Btm:

2019.09.29 @ 07:43:30

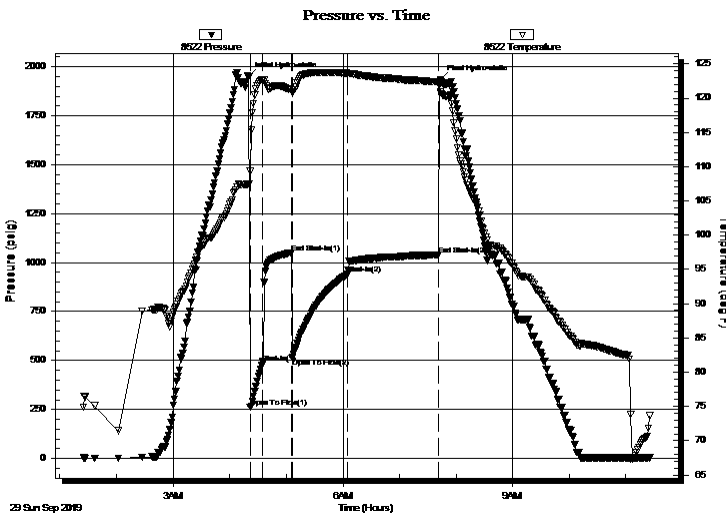
TEST COMMENT: 15- IF: BOB @ 1 min. built to 120"

30- IS: 1" return.

60- FF: BOB @ 1 min, built to 213".

90- FSI: 4 1/2" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1950.06	107.47	Initial Hydro-static
2	260.35	109.33	Open To Flow (1)
15	488.97	122.70	Shut-In(1)
46	1050.89	121.15	End Shut-In(1)
46	511.13	120.88	Open To Flow (2)
105	940.26	123.62	Shut-In(2)
201	1038.34	122.34	End Shut-In(2)
204	1931.94	120.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
360.00	smcw 2m 98w (oil spots)	4.50
280.00	gocw 30g 20o 50w	3.93
1380.00	gmw co 40g 5m 20w 35o	19.36
180.00	gmco 30g 20m 50o	2.52
0.00	90' GIP	0.00

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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64815

DST#: 3

ATTN: Bryan Bynog

Test Start: 2019.09.29 @ 01:25:00

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:

42000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

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 bbbl
360.00	smcw 2m 98w (oil spots)	4.503
280.00	gocw 30g 20o 50w	3.928
1380.00	gmw co 40g 5m 20w 35o	19.358
180.00	gmco 30g 20m 50o	2.525
0.00	90' GIP	0.000

Total Length: 2200.00 ft Total Volume: 30.314 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

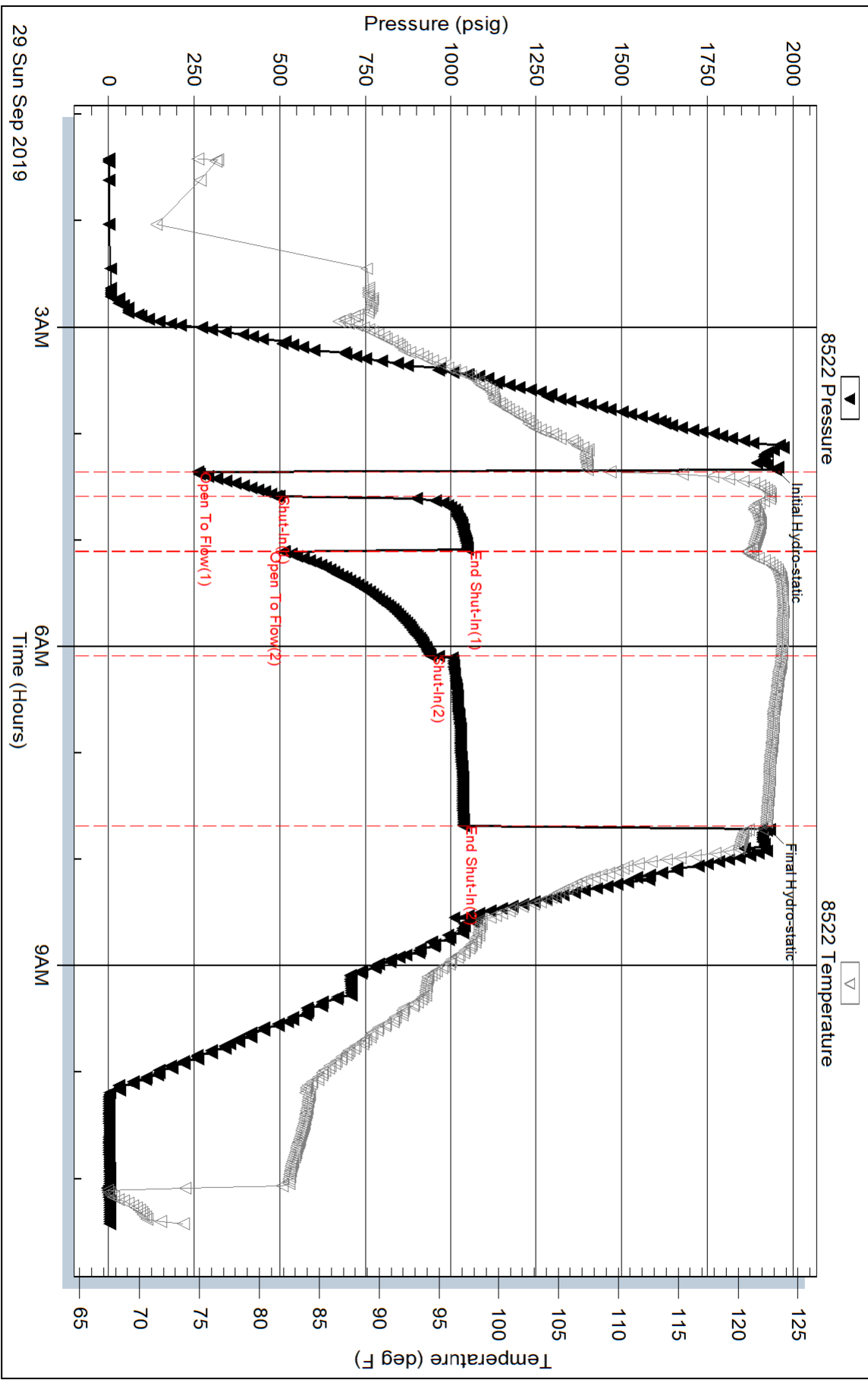
Serial #:

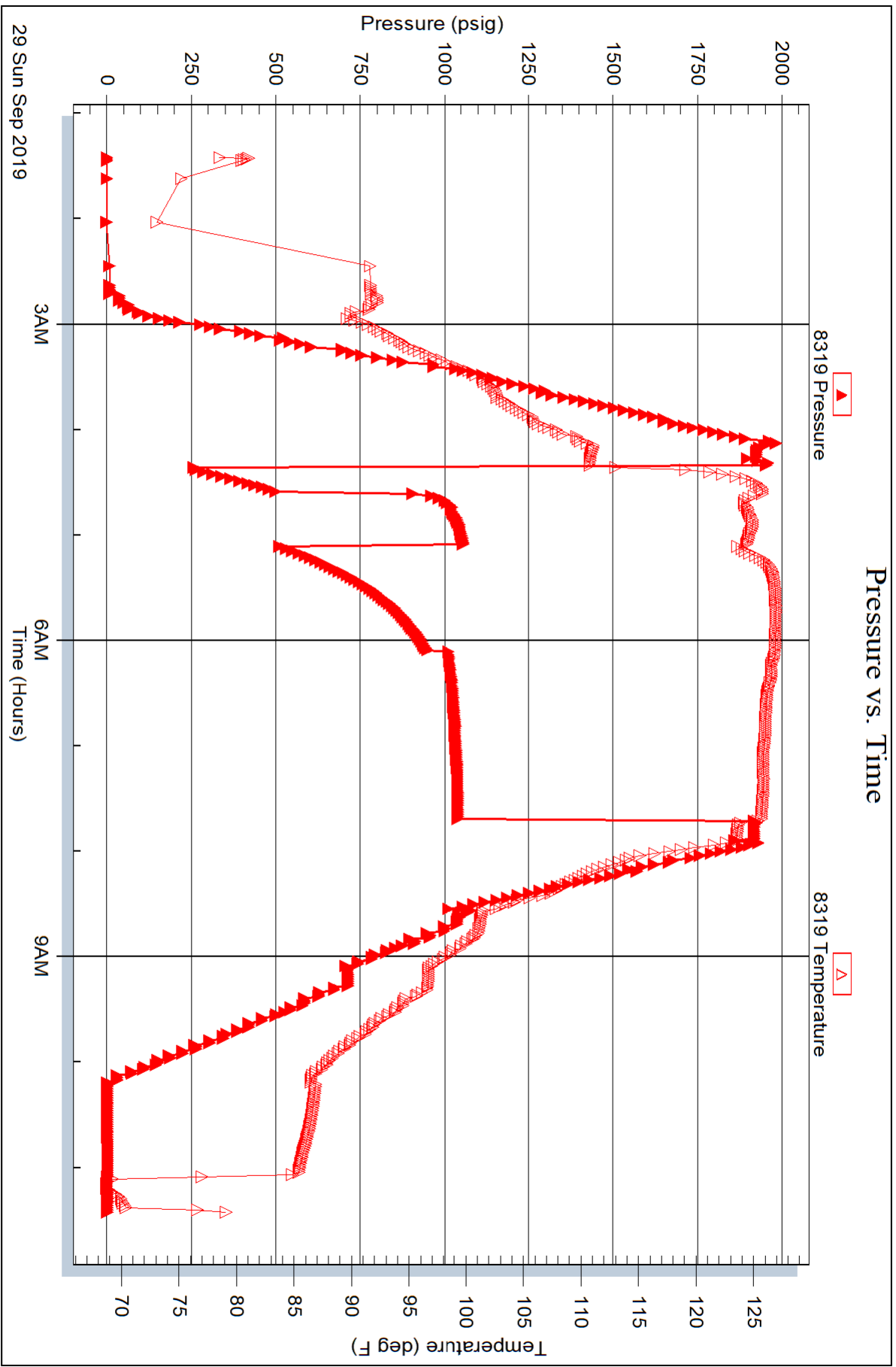
Laboratory Name:

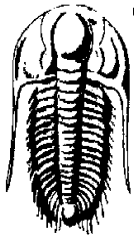
Laboratory Location:

Recovery Comments: rw is .181 @ 67f = 42000ppm

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64816

DST#: 4

ATTN: Bryan Bynog

Test Start: 2019.09.29 @ 20:55:00

GENERAL INFORMATION:

Formation: **LKC- E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:24:15

Time Test Ended: 05:51:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4140.00 ft (KB) To 4165.00 ft (KB) (TVD)

Total Depth: 4061.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3156.00 ft (KB)

3148.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8522

Inside

Press@RunDepth: 533.80 psig @ 4141.00 ft (KB)

Start Date: 2019.09.29

End Date:

2019.09.30

Start Time: 20:55:05

End Time:

05:51:45

Capacity: 8000.00 psig

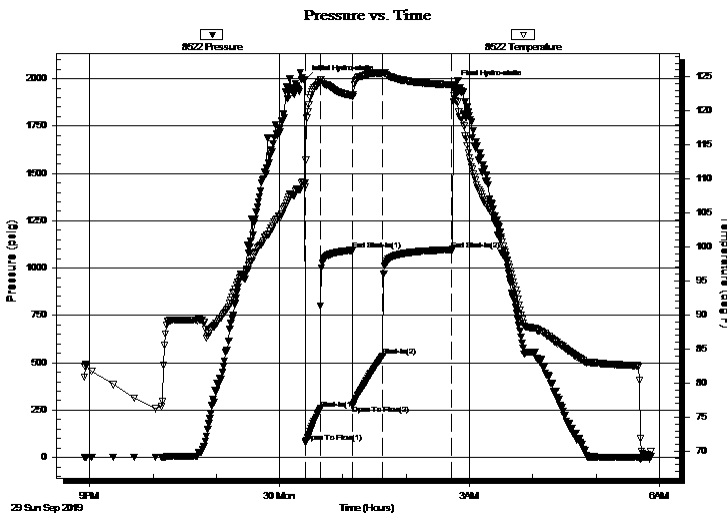
Last Calib.: 2019.09.30

Time On Btm: 2019.09.30 @ 00:24:00

Time Off Btm: 2019.09.30 @ 02:45:15

TEST COMMENT: 15- IF: BOB @ 2 1/2 min.
30- IS: No return.
30- FF: BOB @ 3 min.
60- FSI: Surface return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1996.35	109.38	Initial Hydro-static
1	77.55	108.83	Open To Flow (1)
15	256.62	124.28	Shut-In(1)
45	1094.24	122.19	End Shut-In(1)
46	276.39	122.03	Open To Flow (2)
74	533.80	125.58	Shut-In(2)
139	1097.58	123.82	End Shut-In(2)
142	1970.47	122.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	somcw 1o 2m 97w	1.98
780.00	ocw 5o 95w	10.94
240.00	rw co 10m 10w 80o	3.37
0.00	60' GIP	0.00

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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64816

DST#: 4

ATTN: Bryan Bynog

Test Start: 2019.09.29 @ 20:55:00

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:

22000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	somcw 1o 2m 97w	1.978
780.00	ocw 5o 95w	10.941
240.00	mw co 10m 10w 80o	3.367
0.00	60' GIP	0.000

Total Length: 1200.00 ft Total Volume: 16.286 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

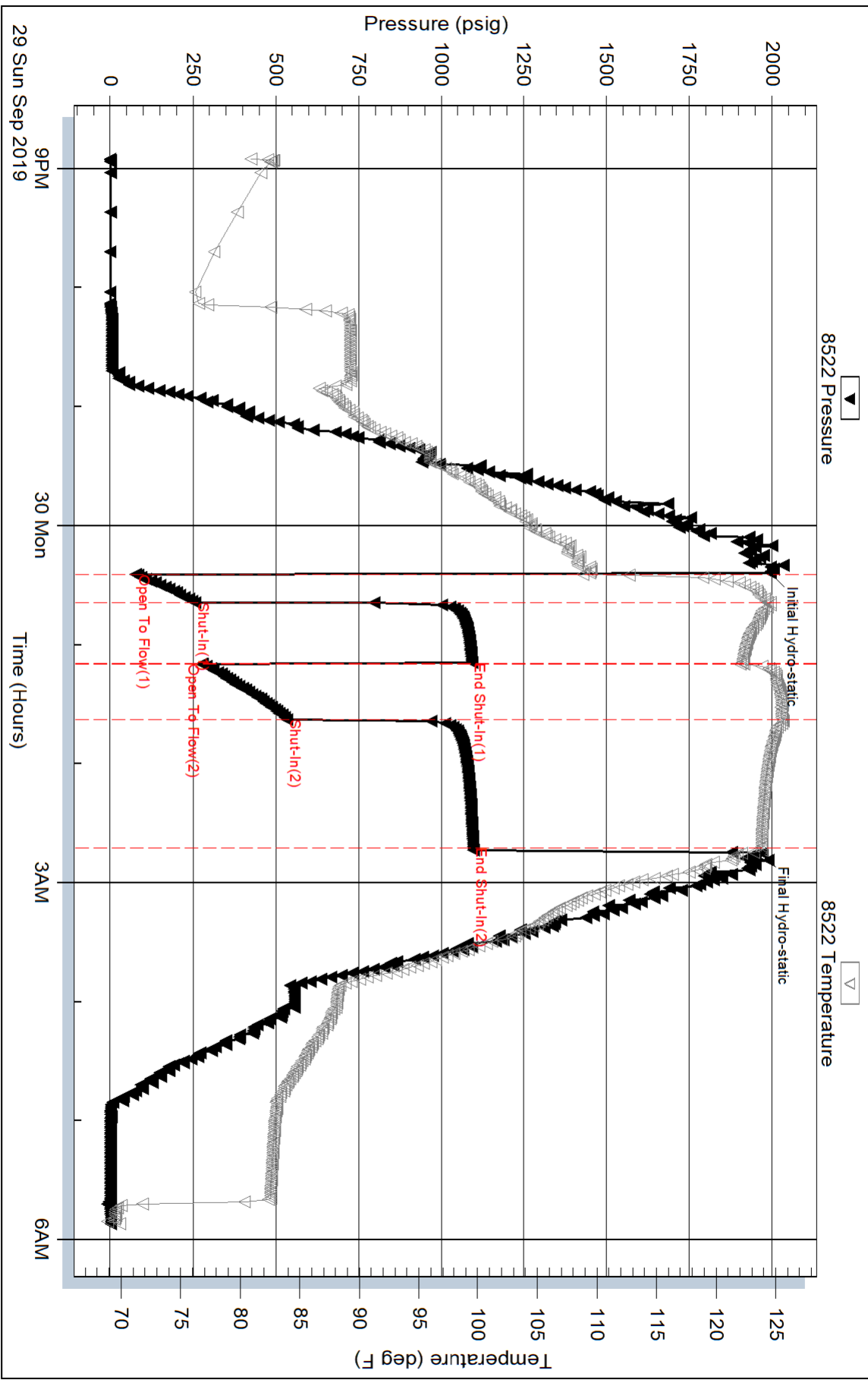
Serial #:

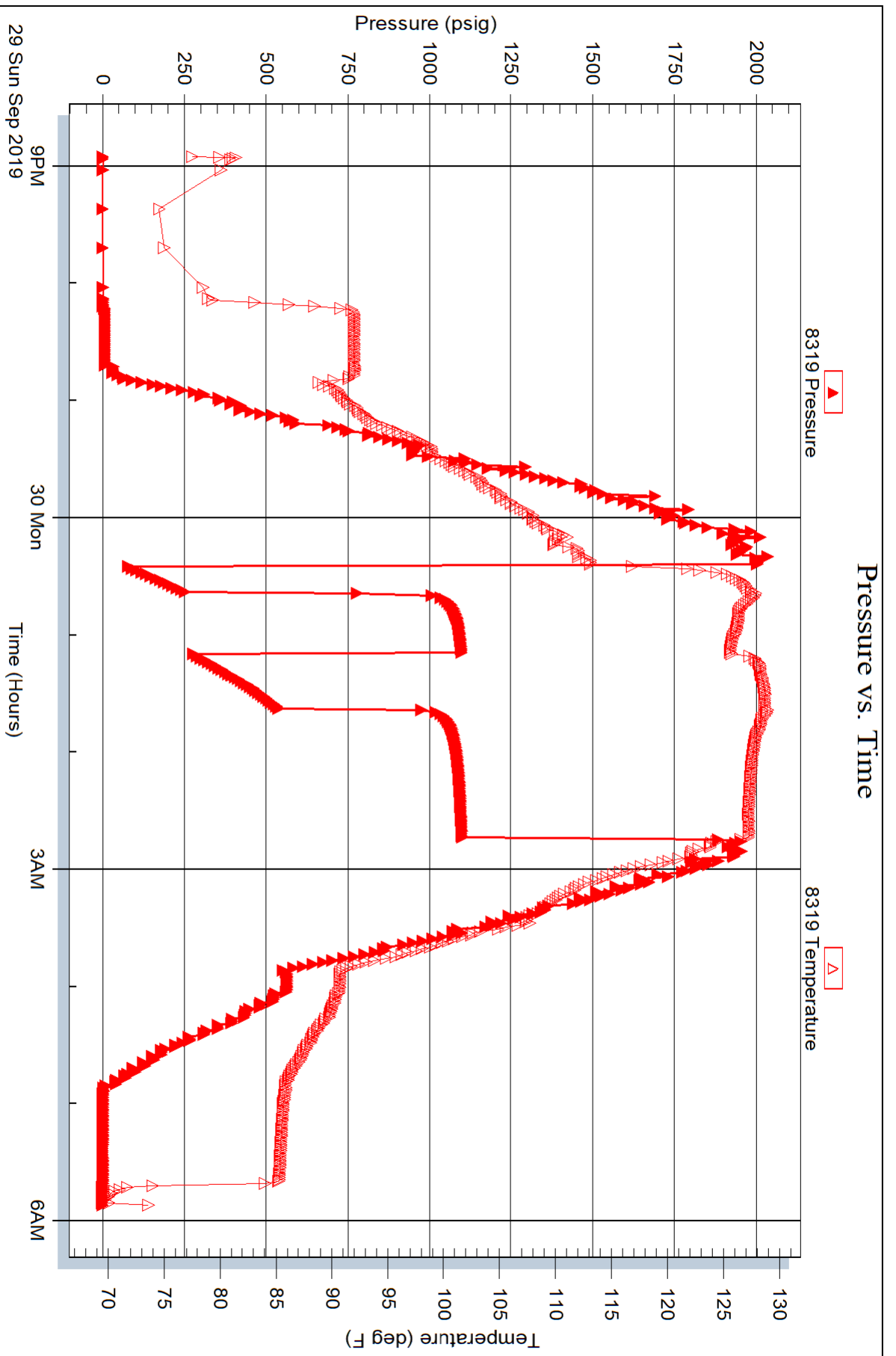
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .317 @ 70f = 22,000ppm

Pressure vs. Time







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64817

DST#: 5

ATTN: Bryan Bynog

Test Start: 2019.09.30 @ 17:20:00

GENERAL INFORMATION:

Formation: **LKC- H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:25:45

Time Test Ended: 04:15:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4205.00 ft (KB) To 4245.00 ft (KB) (TVD)

Reference Elevations: 3156.00 ft (KB)

Total Depth: 4245.00 ft (KB) (TVD)

3148.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8522

Inside

Press@RunDepth: 854.70 psig @ 4206.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.09.30

End Date:

2019.10.01

Last Calib.: 2019.10.01

Start Time:

17:20:05

End Time:

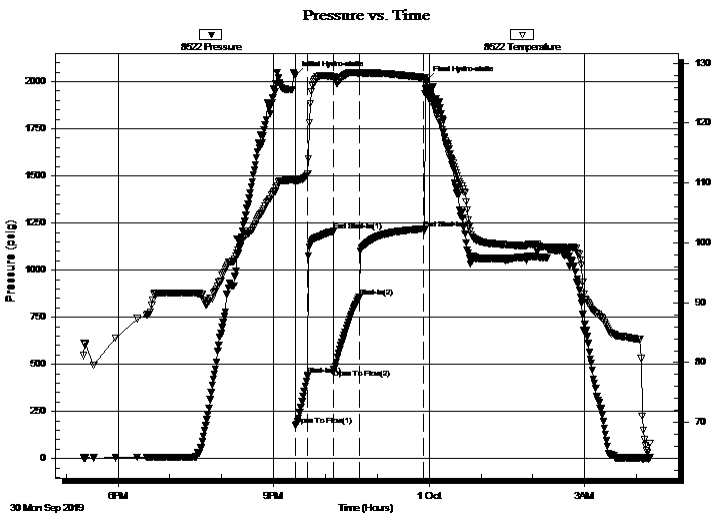
04:15:15

Time On Btm: 2019.09.30 @ 21:25:15

Time Off Btm: 2019.09.30 @ 23:56:15

TEST COMMENT: 15- IF: BOB @ 1 min. built to 130".
30- IS: BOB @ 10 min. built to 20".
30- FF: BOB @ 1 min. built to 211"
60 FSI: 8" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2030.84	110.43	Initial Hydro-static
1	174.52	110.23	Open To Flow (1)
15	443.23	111.61	Shut-In(1)
44	1206.05	127.76	End Shut-In(1)
45	472.10	127.72	Open To Flow (2)
74	854.70	128.32	Shut-In(2)
148	1219.29	127.62	End Shut-In(2)
151	2003.59	125.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gmw co 40g 20m 15w 25o	1.14
2180.00	go 30g 70o	30.58
0.00	260' GIP	0.00

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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 64817

DST#: 5

ATTN: Bryan Bynog

Test Start: 2019.09.30 @ 17:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	gmw co 40g 20m 15w 25o	1.137
2180.00	go 30g 70o	30.580
0.00	260' GIP	0.000

Total Length: 2300.00 ft Total Volume: 31.717 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

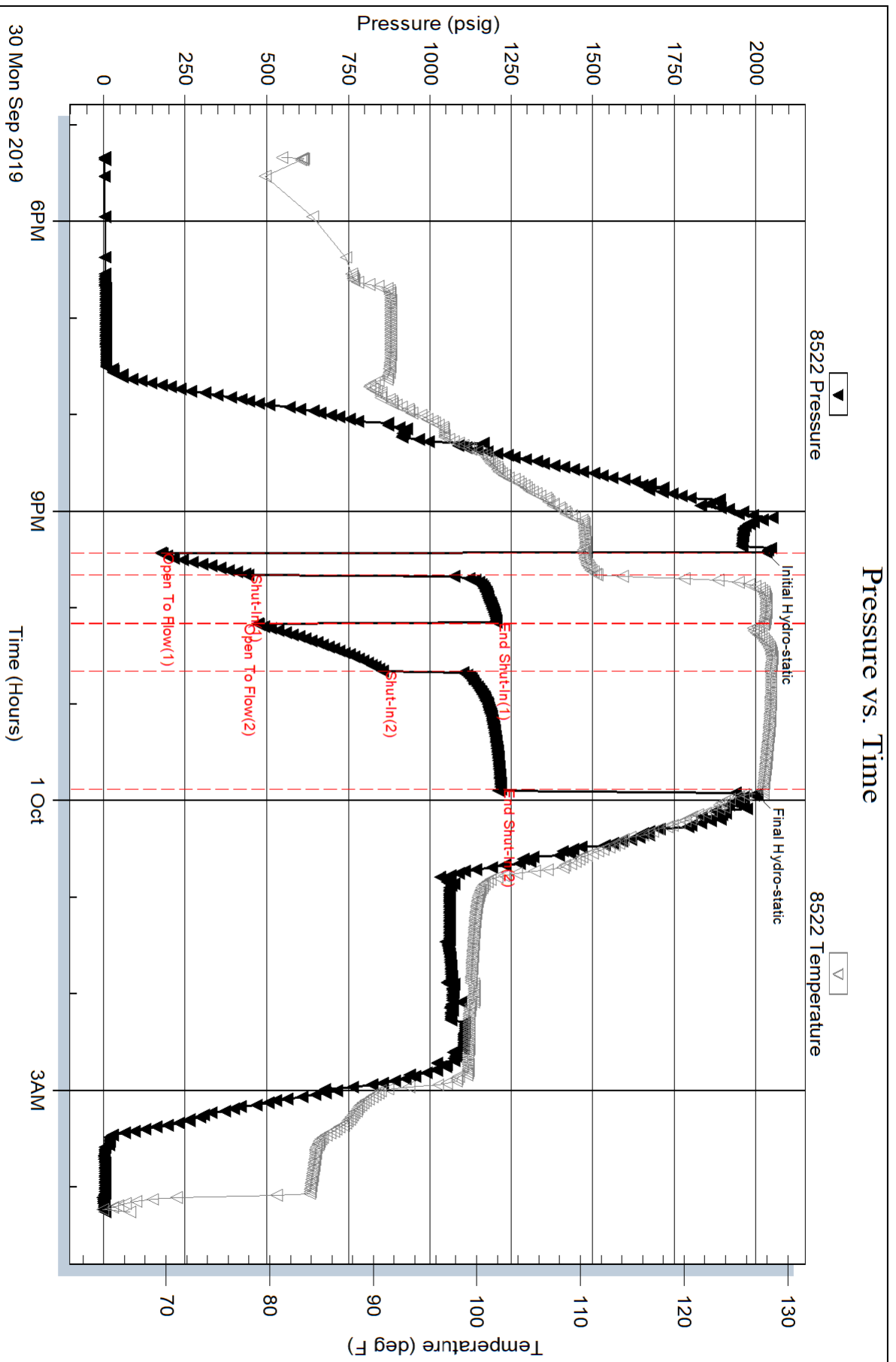
Serial #:

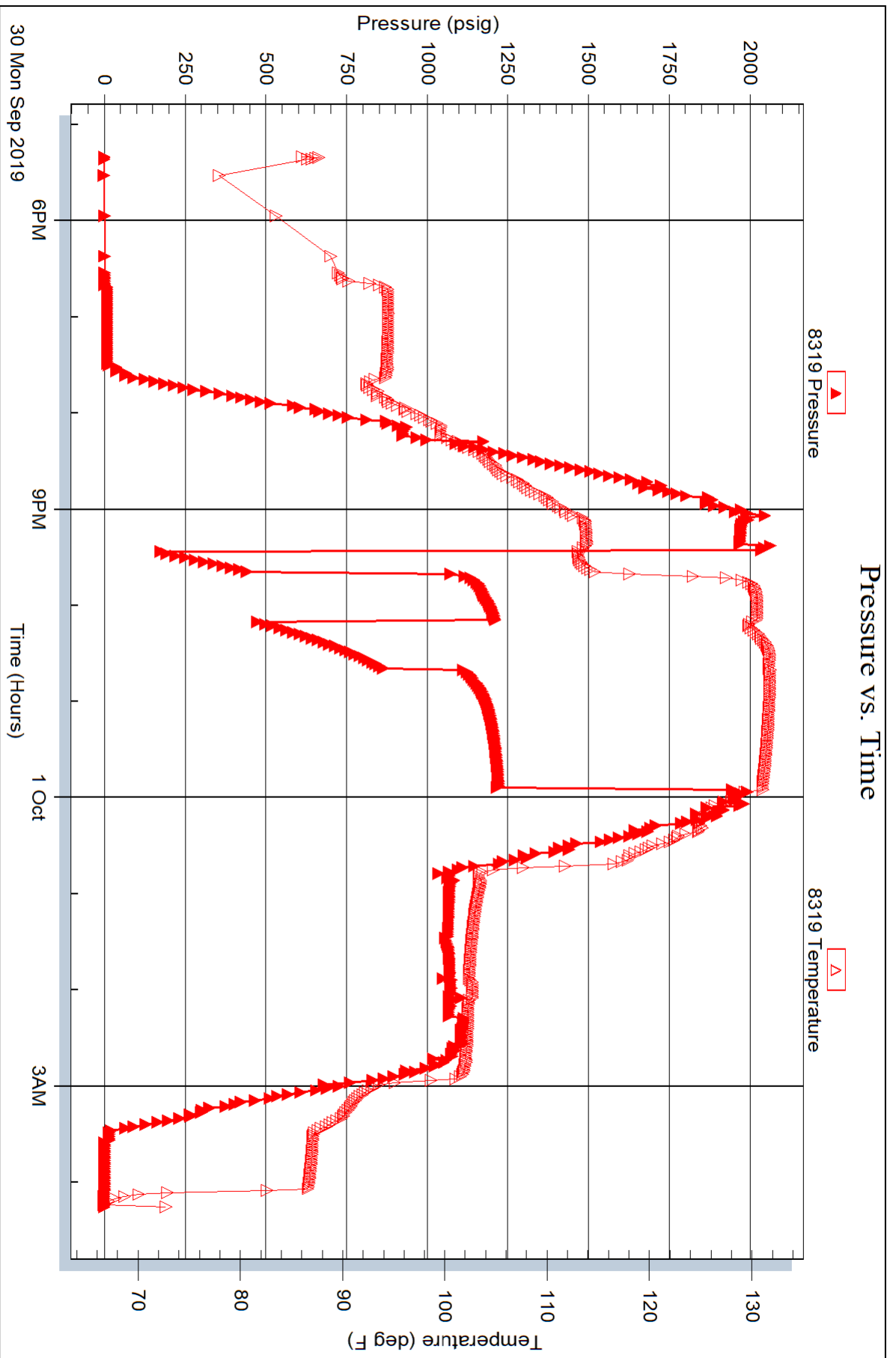
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

ATTN: Bryan Bynog

Job Ticket:

DST#: 6

Test Start: 2019.10.01 @ 16:19:15

GENERAL INFORMATION:

Formation: **I-J**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 18:52:45
 Time Test Ended: 00:39:00
 Interval: **4344.00 ft (KB) To 4300.00 ft (KB) (TVD)**
 Total Depth: 4300.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 3156.00 ft (KB)
 3148.00 ft (CF)
 KB to GR/CF: 8.00 ft

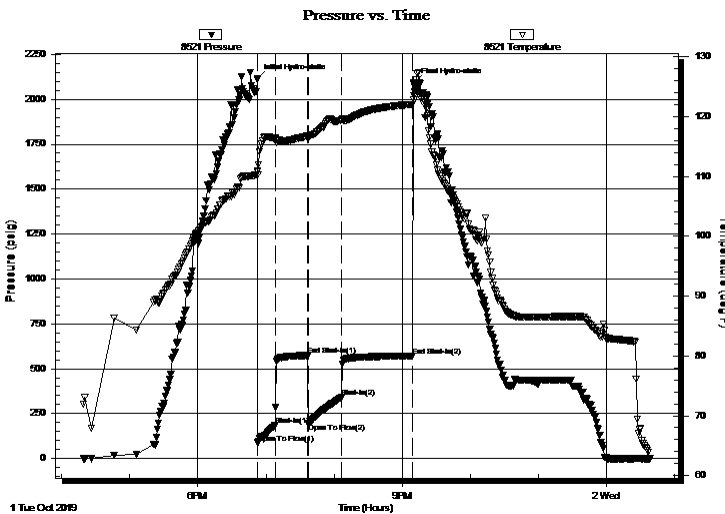
Serial #: 8521

Inside

Press@RunDepth: 340.60 psig @ 4280.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.10.01 End Date: 2019.10.02 Last Calib.: 1899.12.30
 Start Time: 16:19:15 End Time: 00:39:00 Time On Btm: 2019.10.01 @ 18:52:30
 Time Off Btm: 2019.10.01 @ 21:10:30

TEST COMMENT: IF: Built to 41" BOB 5 min.
 IS: Built to 20" BOB 7 min.
 FF: Built to 64" BOB 3 min.
 FS: Built to 30" BOB 4 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.72	110.93	Initial Hydro-static
1	87.16	110.29	Open To Flow (1)
16	186.61	116.30	Shut-In(1)
45	573.57	116.72	End Shut-In(1)
45	197.72	116.40	Open To Flow (2)
75	340.60	119.47	Shut-In(2)
137	570.91	122.05	End Shut-In(2)
138	2091.60	123.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 310 ft	0.00
868.00	gco 5%g 95%o	11.63

* 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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket:

DST#: 6

ATTN: Bryan Bynog

Test Start: 2019.10.01 @ 16:19:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.07 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP= 310 ft	0.000
868.00	gco 5%g 95%o	11.629

Total Length: 868.00 ft Total Volume: 11.629 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

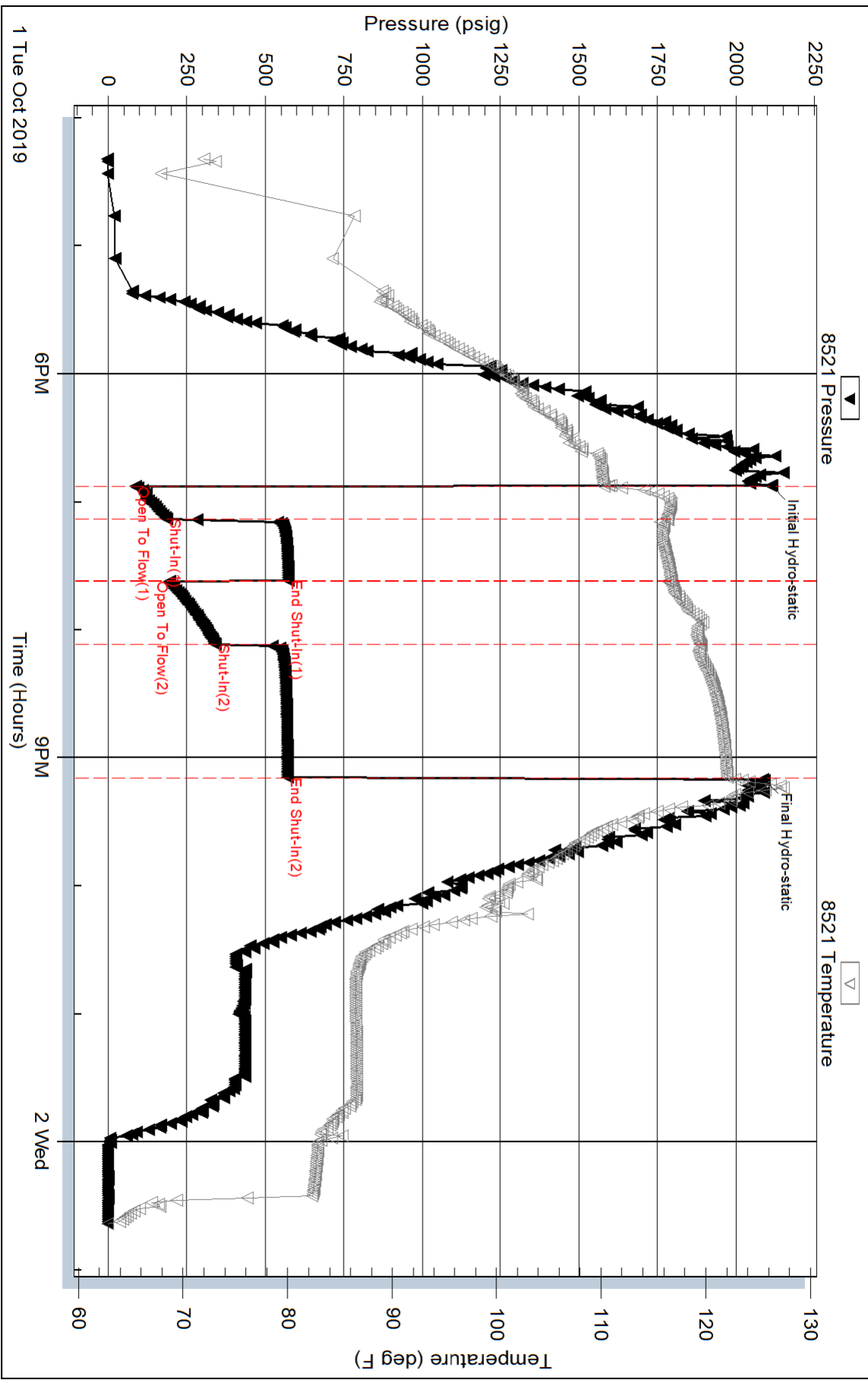
Serial #:

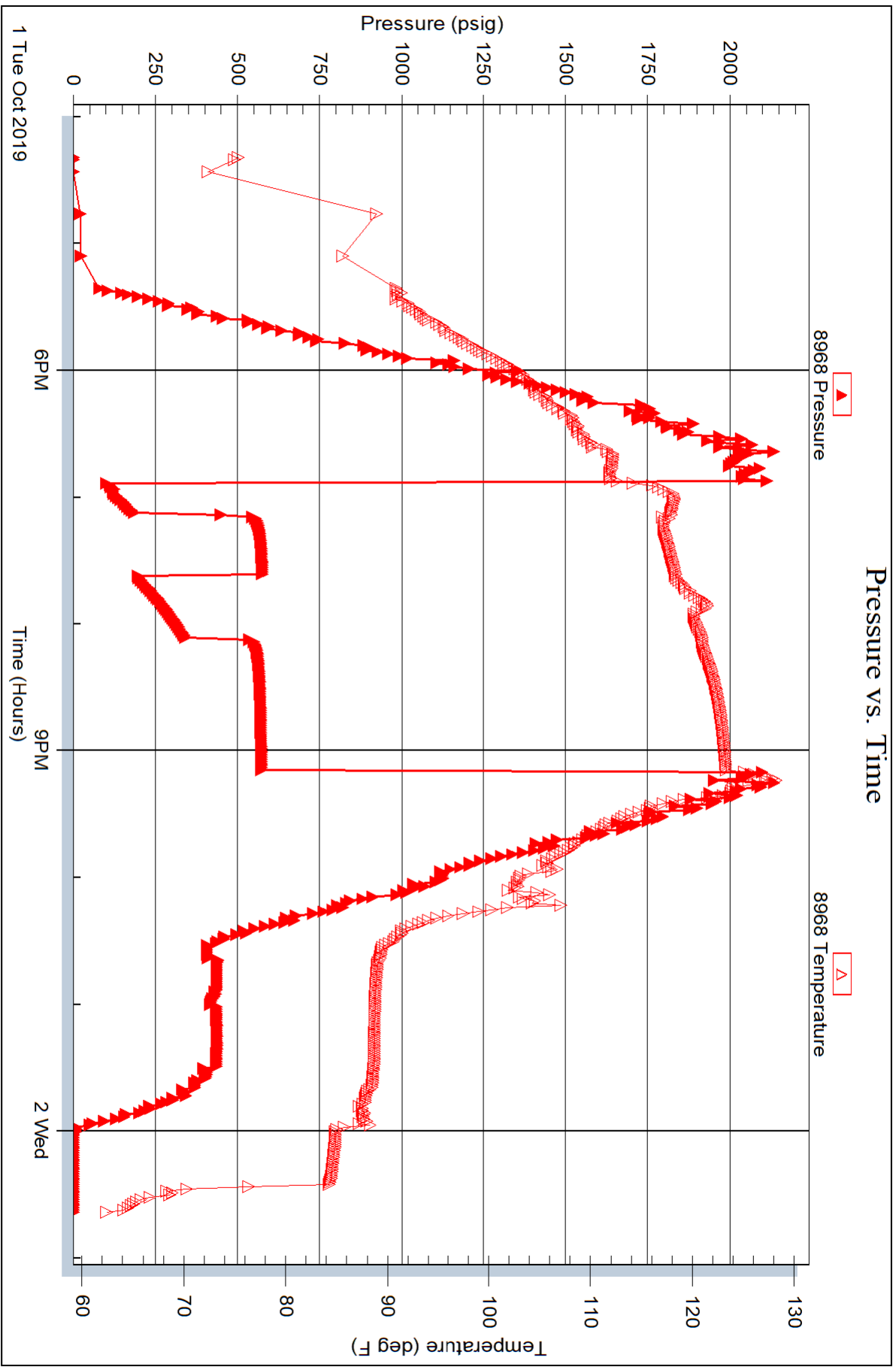
Laboratory Name:

Laboratory Location:

Recovery Comments: API= 32 @ 60

Pressure vs. Time







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 63933

DST#: 7

ATTN: Bryan Bynog

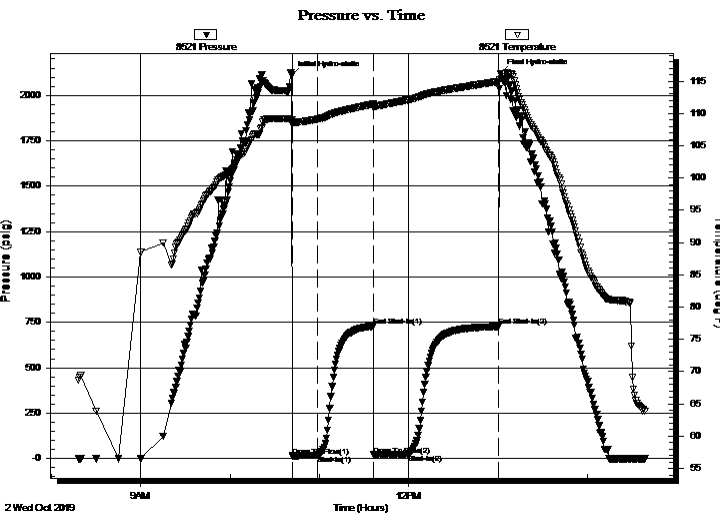
Test Start: 2019.10.02 @ 08:18:15

GENERAL INFORMATION:

Formation: **K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:41:45
 Time Test Ended: 14:38:45
 Interval: **4300.00 ft (KB) To 4340.00 ft (KB) (TVD)**
 Total Depth: 4340.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 3156.00 ft (KB)
 3148.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8521 Inside
 Press@RunDepth: 25.19 psig @ 4335.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.10.02 End Date: 2019.10.02 Last Calib.: 2019.10.02
 Start Time: 08:18:15 End Time: 14:38:45 Time On Btm: 2019.10.02 @ 10:41:30
 Time Off Btm: 2019.10.02 @ 13:01:45

TEST COMMENT: IF: Built to 3/4" blow
 IS: No return blow
 FF: Built to weak surface blow
 FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2110.81	109.07	Initial Hydro-static
1	13.92	108.31	Open To Flow (1)
18	18.05	109.11	Shut-In(1)
55	728.72	111.45	End Shut-In(1)
55	20.20	110.83	Open To Flow (2)
78	25.19	112.10	Shut-In(2)
139	727.38	114.96	End Shut-In(2)
141	2118.84	116.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud with oil spots	0.02

* 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

15 10s 33w Thomas, Ks

2020 N Bramblewood
Wichita, Ks 67206

MRM #1

Job Ticket: 63933

DST#: 7

ATTN: Bryan Bynog

Test Start: 2019.10.02 @ 08:18:15

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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	mud with oil spots	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

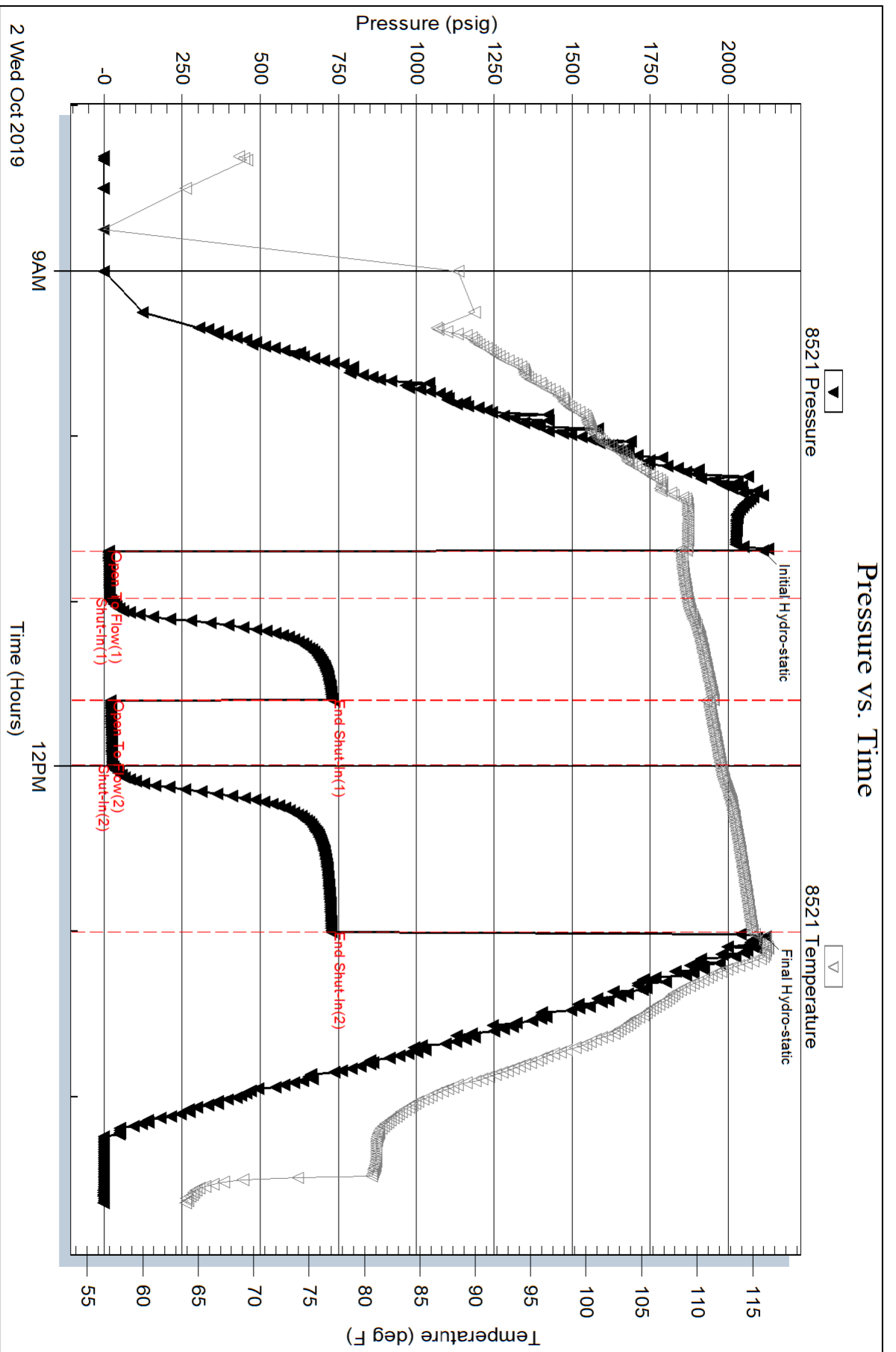
Num Gas Bombs: 0

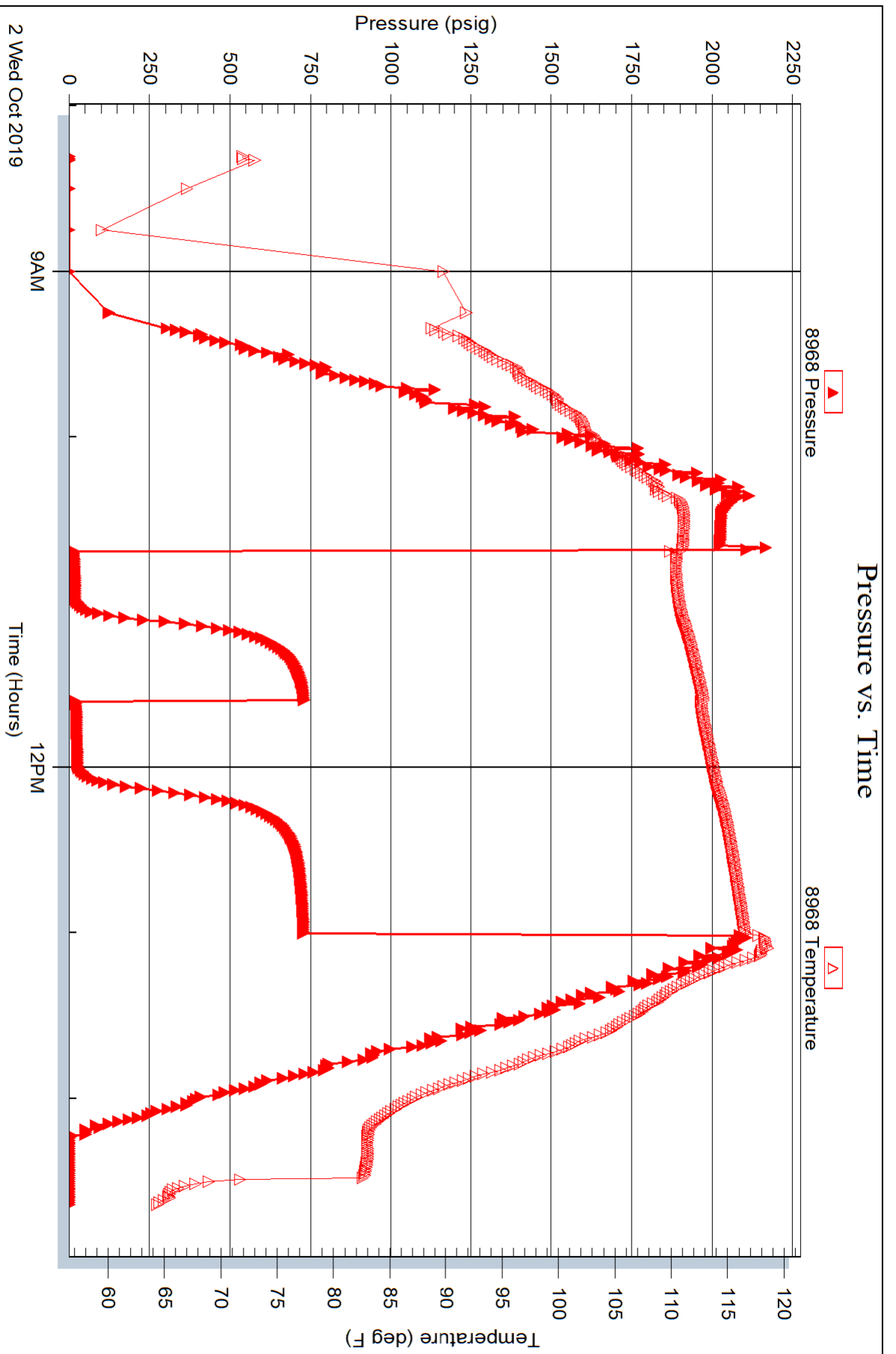
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





LITHOLOGY STRIP LOG

WellSight Systems

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

Measured Depth Log

Well Name: MRM #1
Location: E2NENE SECTION 15 10S-33W THOMAS COUNTY, KANSAS
License Number: 15-193-21055
Spud Date: 9-20-2019
Surface Coordinates: 660' FNL & 330' FEL
Region: Midcontinent
Drilling Completed: 10-4-2019

Bottom Hole Coordinates:
Ground Elevation (ft): 3148
Logged Interval (ft): 3600 To: 4750
Formation: LKC, FT. SCOTT, JOHNSON & MISSISSIPPI
Type of Drilling Fluid: WBM

K.B. Elevation (ft): 3156

Total Depth (ft): 4750

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

OPERATOR

Company: BEREXCO, LLC.
Address: 2020 N. Bramblewood
Wichita, Kansas 67206

GEOLOGIST

Name: William B. Bynog
Company:
Address: P.O.Box 687
Pinecliffe, Co. 80471

Surveys

DEPTH ANGLE

395'	1
3615'	.5
4100'	.25


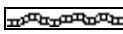
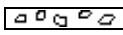
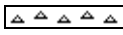
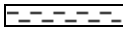
DSTs






DST#1 3991-4061', DST#2 4032-4100', DST#3 4092-4150', DST#4 4140-4165', DST#5 4205-4245', DST#6 4244-4300, DST#7 4300-4340



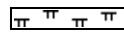
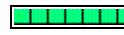
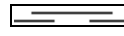
Remarks

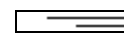
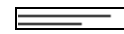



PRODUCTIVE WELL

ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst

	Coal
	Congl
	Dol
	Gyp
	Igne

	Lmst
	Meta
	Mrlst
	Salt
	Shale

	Shcol
	Shgy
	Sltst
	Ss
	Till

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral

- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol

- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOW

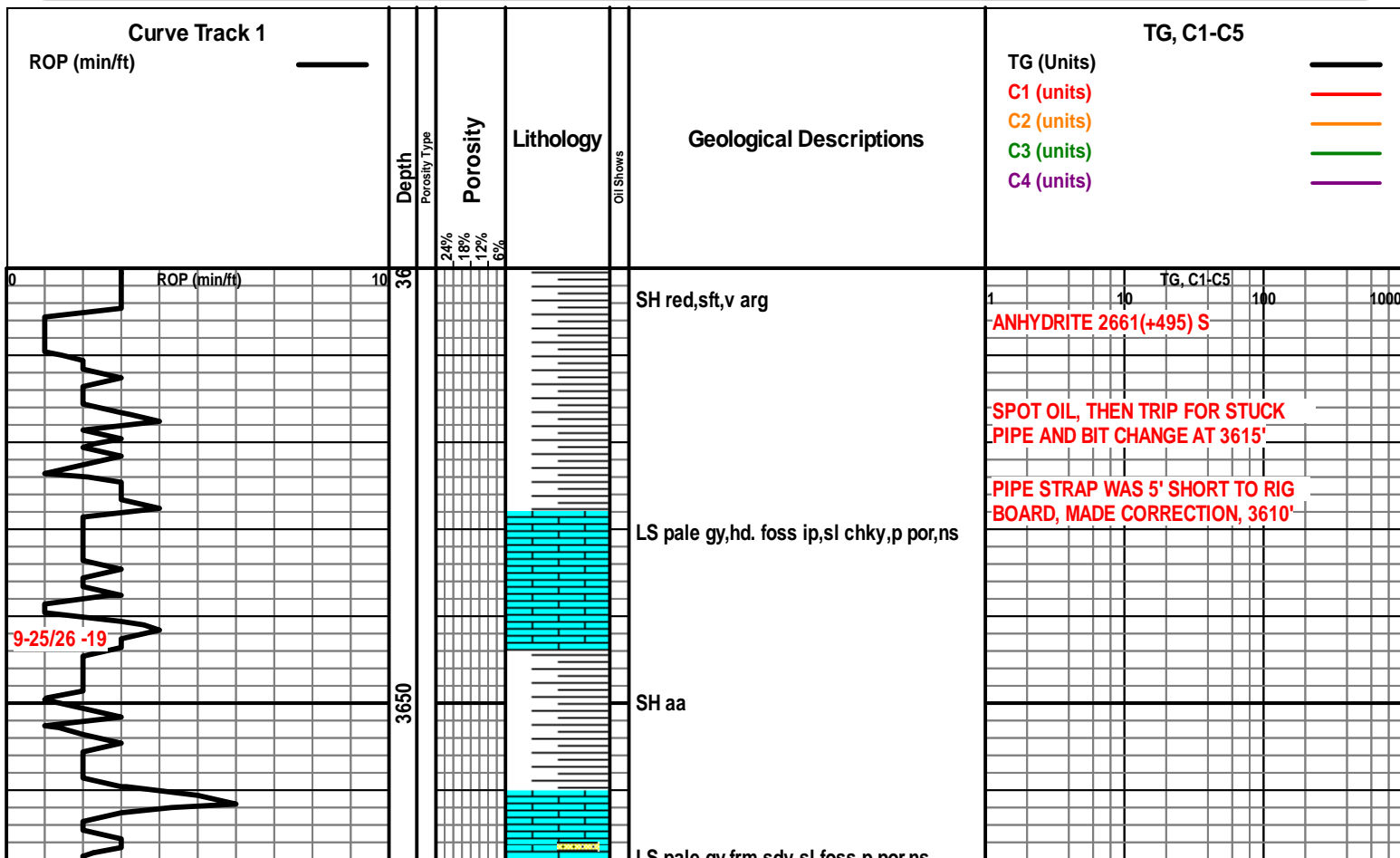
- Even
- Spotted
- Ques
- Dead

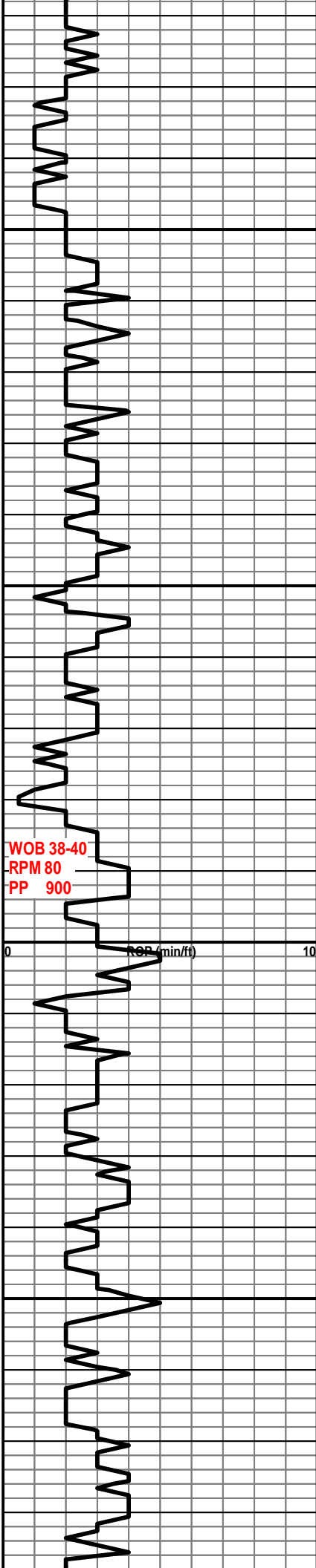
INTERVAL

- Dst
- Dst

EVENT

- Rft
- Sidewall





3700
3750
3800
3850

WOB 38-40
RPM 80
PP 900

ROP (min/ft)

0 10

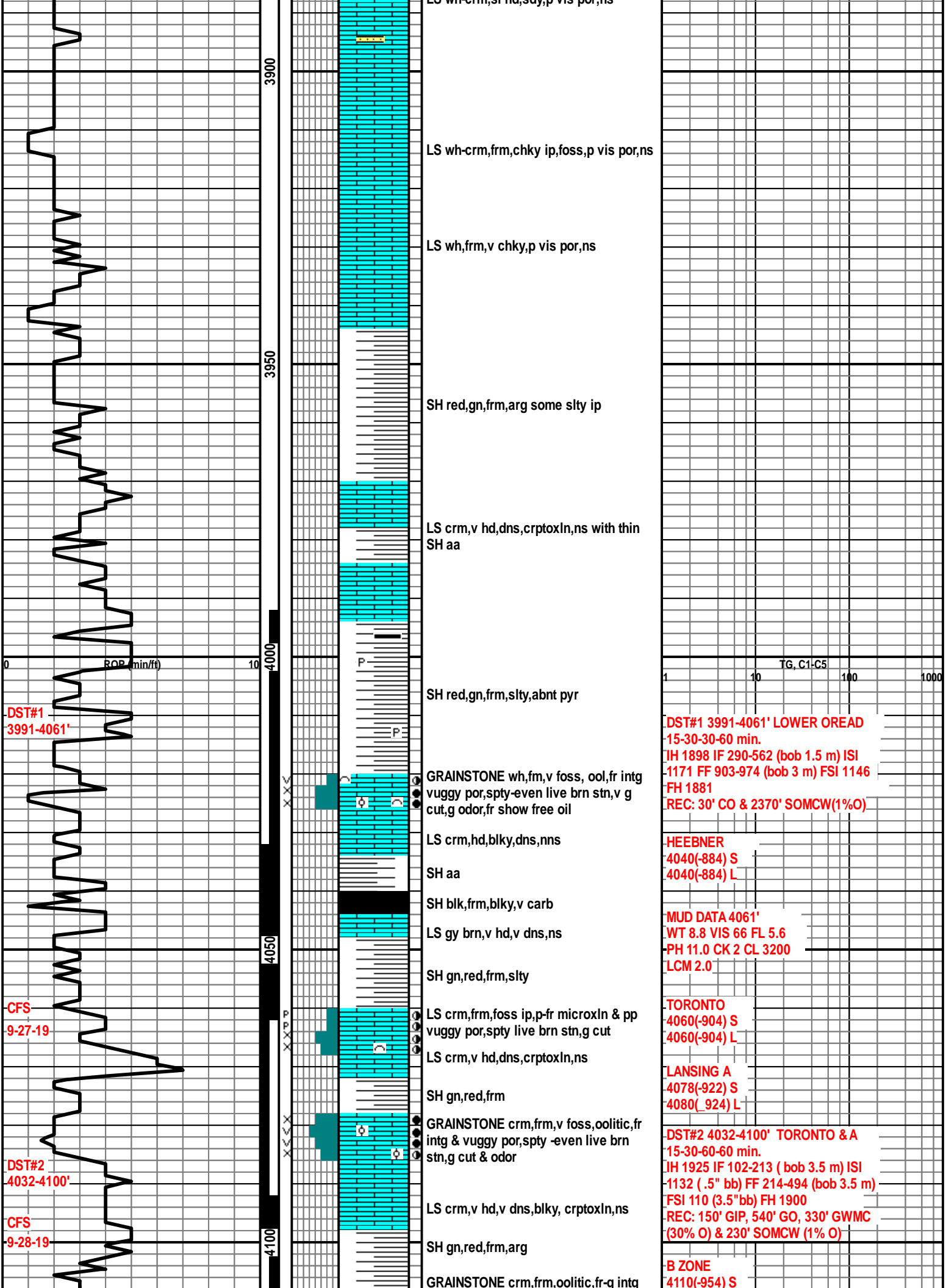


LS pale gy, n ml, sdy, sh loss, p por, ns
SH gy, frm, arg,
SH aa abnt blk, carb
LS crm-pale gy, hd, blk, dns, crptoxln, p por, ns
SH aa sft, v arg
LS crm, hd, sdy ip, p por, ns
SH red, v sft, gummy
LS crm, v hd, dns, ns with thin SH aa
LS aa
SH red, v sft, gummy
LS crm, v hd, dns, crptoxln, no vis por, ns
LS wh-crm, frm, chky ip, p por, ns
LS wh, frm, foss, chky, p-fr vuggy por, ns
SH gn, red, frm, slty ip
LS wh-crm sl hd sdy, no vis por, ns

MUD DATA 3704'
WT 8.5 VIS 116 FL 5.6
PH 12.0 CK 1 CL 2900
LCM 3.0

1 10 100 1000 TG, C1-C5

TOPEKA
3830(-674) S
3828(-672) L



3900
3950
4000
4050
4100

ROP (min/ft)

DST#1
3991-4061'

CFS
9-27-19

DST#2
4032-4100'

CFS
9-28-19

LS wh-crm,frm,chky ip,foss,p vis por,ns

LS wh,frm,v chky,p vis por,ns

SH red,gn,frm,arg some slty ip

LS crm,v hd,dns,crptoxln,ns with thin SH aa

SH red,gn,frm,slty,abnt pyr

GRAINSTONE wh,frm,v foss,ool,fr intg vuggy por,spty-even live brn stn,v g cut,g odor,fr show free oil

LS crm,hd,blky,dns,nns

SH aa

SH blk,frm,blky,v carb

LS gy brn,v hd,v dns,ns

SH gn,red,frm,slty

LS crm,frm,foss ip,p-fr microxln & pp vuggy por,spty live brn stn,g cut

LS crm,v hd,dns,crptoxln,ns

SH gn,red,frm

GRAINSTONE crm,frm,v foss,oolitic,fr intg & vuggy por,spty -even live brn stn,g cut & odor

LS crm,v hd,v dns,blky, crptoxln,ns

SH gn,red,frm,arg

GRAINSTONE crm,frm,oolitic,fr-g intg

TG, C1-C5

DST#1 3991-4061' LOWER OREAD
15-30-30-60 min.
IH 1898 IF 290-562 (bob 1.5 m) ISI
1171 FF 903-974 (bob 3 m) FSI 1146
FH 1881
REC: 30' CO & 2370' SOMCW(1%O)

HEEBNER
4040(-884) S
4040(-884) L

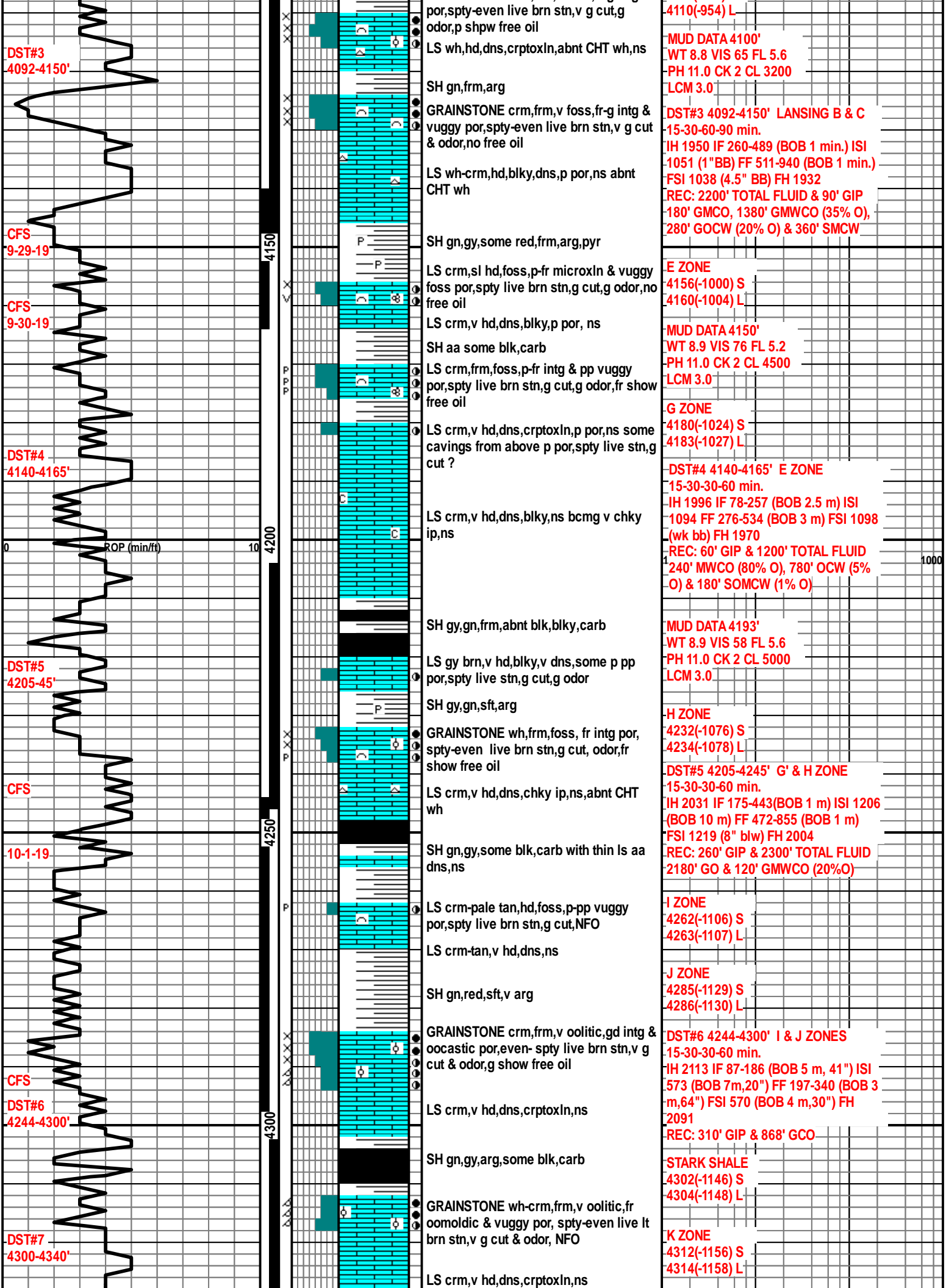
MUD DATA 4061'
WT 8.8 VIS 66 FL 5.6
PH 11.0 CK 2 CL 3200
LCM 2.0

TORONTO
4060(-904) S
4060(-904) L

LANSING A
4078(-922) S
4080(-924) L

DST#2 4032-4100' TORONTO & A
15-30-60-60 min.
IH 1925 IF 102-213 (bob 3.5 m) ISI
1132 (.5" bb) FF 214-494 (bob 3.5 m)
FSI 110 (3.5"bb) FH 1900
REC: 150' GIP, 540' GO, 330' GWMC
(30% O) & 230' SOMCW (1% O)

B ZONE
4110(-954) S



4110(-954) L
MUD DATA 4100'
WT 8.8 VIS 65 FL 5.6
PH 11.0 CK 2 CL 3200
LCM 3.0
DST#3 4092-4150' LANSING B & C
15-30-60-90 min.
IH 1950 IF 260-489 (BOB 1 min.) ISI
1051 (1"BB) FF 511-940 (BOB 1 min.)
FSI 1038 (4.5" BB) FH 1932
REC: 2200' TOTAL FLUID & 90' GIP
180' GMCO, 1380' GMWCO (35% O),
280' GOCW (20% O) & 360' SMCW

E ZONE
4156(-1000) S
4160(-1004) L

MUD DATA 4150'
WT 8.9 VIS 76 FL 5.2
PH 11.0 CK 2 CL 4500
LCM 3.0

G ZONE
4180(-1024) S
4183(-1027) L

DST#4 4140-4165' E ZONE
15-30-30-60 min.
IH 1996 IF 78-257 (BOB 2.5 m) ISI
1094 FF 276-534 (BOB 3 m) FSI 1098
(wk bb) FH 1970
REC: 60' GIP & 1200' TOTAL FLUID
240' MWCO (80% O), 780' OCW (5%
O) & 180' SOMCW (1% O)

MUD DATA 4193'
WT 8.9 VIS 58 FL 5.6
PH 11.0 CK 2 CL 5000
LCM 3.0

H ZONE
4232(-1076) S
4234(-1078) L

DST#5 4205-4245' G' & H ZONE
15-30-30-60 min.
IH 2031 IF 175-443(BOB 1 m) ISI 1206
(BOB 10 m) FF 472-855 (BOB 1 m)
FSI 1219 (8" blw) FH 2004
REC: 260' GIP & 2300' TOTAL FLUID
2180' GO & 120' GMWCO (20%O)

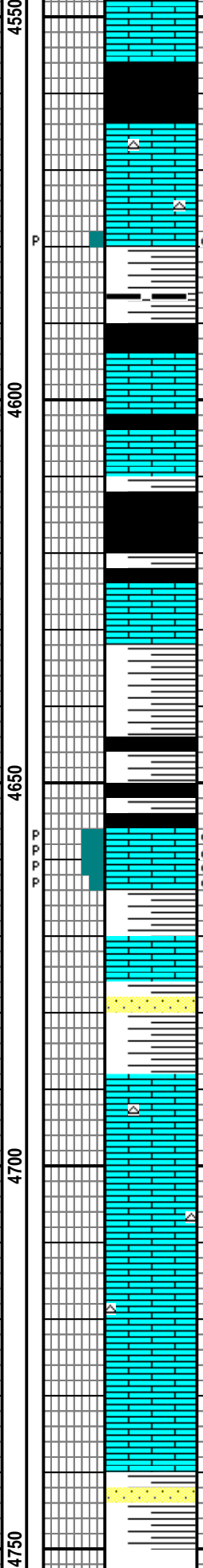
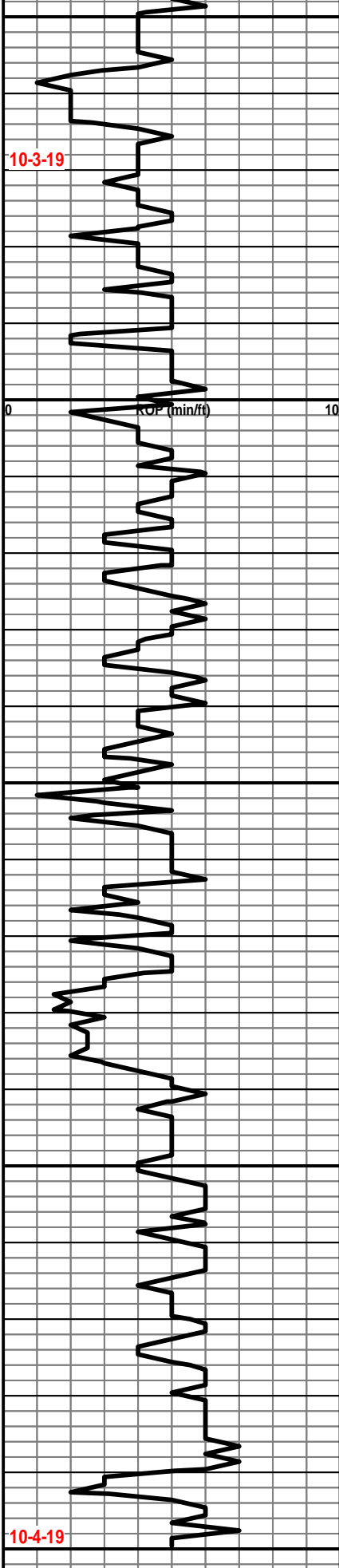
I ZONE
4262(-1106) S
4263(-1107) L

J ZONE
4285(-1129) S
4286(-1130) L

DST#6 4244-4300' I & J ZONES
15-30-30-60 min.
IH 2113 IF 87-186 (BOB 5 m, 41") ISI
573 (BOB 7m,20") FF 197-340 (BOB 3
m,64") FSI 570 (BOB 4 m,30") FH
2091
REC: 310' GIP & 868' GCO

STARK SHALE
4302(-1146) S
4304(-1148) L

K ZONE
4312(-1156) S
4314(-1158) L



LS crm,v hd,blky,v dns,p por,ns
 SH gy,gn,red,abnt blk,carb
 LS tan,v hd,dns,no por,ns v abnt CHT wh
 LS aa tr LS p por,v spty live brn stn,slow cut
 SH aa abnt blk,frm,carb
 S crm,hd,blky,dns,ns
 SH aa abnt blk,frm,carb
 LS crm-tan,v hd,blky,v dns, crptoxln,ns
 SH gn,gy,red,blk,frm,arg abnt blk, carb
 LS crm,hd,dns,some with p pp vuggy por,spty live blk stn,g cut & odor,SSFO
 SH gn,gy,yell,frm,arg
 LS crm,v hd,dns,ns
 SH gn,yell,gy,frm, some SS wh,fri,vfg,ns
 LS tan,v hd,dns,blky,crptoxln,ns abnt CHT wh,org
 LS crm,hd,blky,sdy ip,dns,ns
 SH gn,yell,gy,frm,fiss some SS wh,fri,vfg,fr por,ns

FT SCOTT
 4564(-1408) S
 4564(-1408) L

CHEROKEE SHALE
 4590(-1434) S
 4591(-1435) L

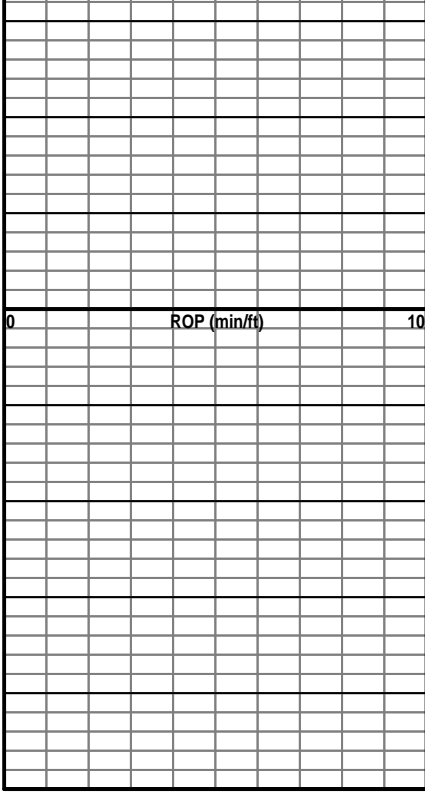
TG, C1-C5
 1 10 100 1000

MUD DATA 4608'
 WT 9.2 VIS 49 FL 6.8
 PH 10.5 CK 2 CL 5100
 LCM 1.0

JOHNSON
 4626(-1470) S
 4624(-1468) L

MISSISSIPPIAN
 4688(-1632) S
 4688(-1632) L

RTD 4750'
 LTD 4751'



4800

50

