

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
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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	Murfin Drilling Co., Inc.
Well Name	GEYER 6-35
Doc ID	1483568

All Electric Logs Run

DIL
DUCP
MEL
BHCS

Geyer #6-35
 330' FSL 475' FWL
 Sec. 35-T10S-R24W
 2356' KB

Formation	Sample tops	Datum	Ref	Log Tops	Datum	Ref
Anhydrite	1969	+387	+3	1970	+386	+2
B/Anhydrite	2015	+341	-1	2015	+341	-1
Topeka	3445	-1089	Flat	3446	-1090	-1
Heebner	3666	-1310	-3	3667	-1311	-4
Toronto	3687	-1331	-3	3689	-1333	-5
Lansing	3704	-1348	-5	3705	-1349	-6
Mound City	3932	-1576	-2	3940	-1584	-10
RTD	4000					
LTD				4002		



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Saman Sharifaie

Geyer #6-35

3-10s-24w Graham,KS

Start Date: 2019.09.20 @ 14:15:00

End Date: 2019.09.20 @ 22:52:02

Job Ticket #: 65994 DST #: 1

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

Printed: 2019.09.24 @ 14:31:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water STE 300
Wichita KS 67202+1216
ATTN: Saman Sharifaie

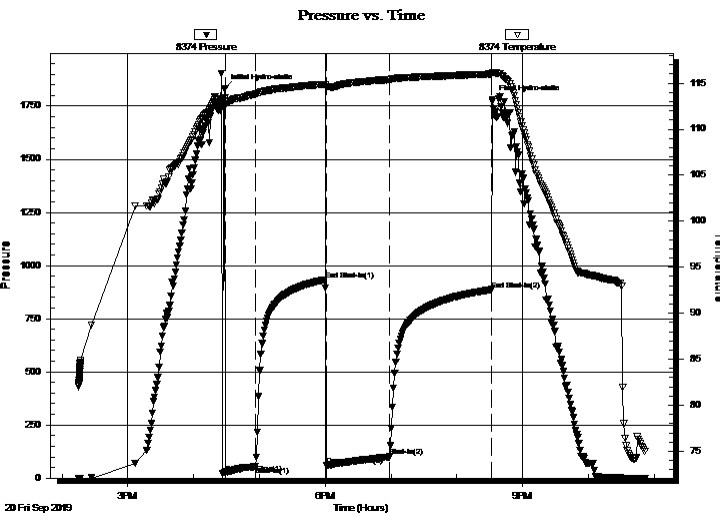
3-10s-24w Graham,KS
Geyer #6-35
Job Ticket: 65994 **DST#: 1**
Test Start: 2019.09.20 @ 14:15:00

GENERAL INFORMATION:

Formation: **Tor-LKC 'A'**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:28:32
Time Test Ended: 22:52:02
Interval: **3665.00 ft (KB) To 3720.00 ft (KB) (TVD)**
Total Depth: 3720.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2356.00 ft (KB)
2351.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Spencer J Staab
Unit No: 84

Serial #: 8374 Inside
Press@RunDepth: 100.71 psig @ 3668.00 ft (KB) Capacity: psig
Start Date: 2019.09.20 End Date: 2019.09.20 Last Calib.: 2019.09.20
Start Time: 14:15:01 End Time: 22:52:02 Time On Btm: 2019.09.20 @ 16:28:17
Time Off Btm: 2019.09.20 @ 20:32:32

TEST COMMENT: 30-IF-Weak; Built to 4"
60-ISI-No Return
60-FF-Weak; Built to 3&3/4"
90-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1830.33	113.47	Initial Hydro-static
1	24.37	112.63	Open To Flow (1)
29	54.94	113.83	Shut-In(1)
92	933.25	114.85	End Shut-In(1)
93	59.54	114.62	Open To Flow (2)
150	100.71	115.39	Shut-In(2)
244	886.84	116.01	End Shut-In(2)
245	1779.64	116.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	SOCWM 7%O 40%W 53%M	0.30
80.00	OCM 20%O 80%M	0.39
10.00	MCO 10%M 90%O	0.05

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Saman Sharifaie

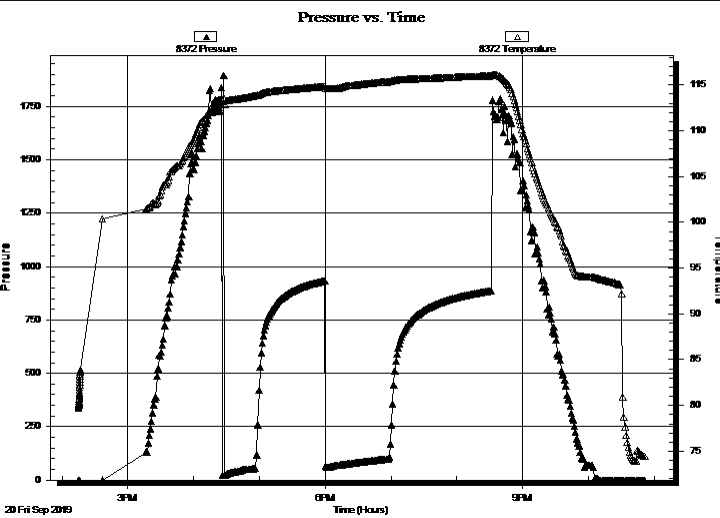
3-10s-24w Graham,KS
Geyer #6-35
 Job Ticket: 65994 **DST#: 1**
 Test Start: 2019.09.20 @ 14:15:00

GENERAL INFORMATION:

Formation: **Tor-LKC 'A'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:28:32 Tester: Spencer J Staab
 Time Test Ended: 22:52:02 Unit No: 84
 Interval: **3665.00 ft (KB) To 3720.00 ft (KB) (TVD)** Reference Elevations: 2356.00 ft (KB)
 Total Depth: 3720.00 ft (KB) (TVD) 2351.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8372 Inside
 Press@RunDepth: psig @ 3668.00 ft (KB) Capacity: psig
 Start Date: 2019.09.20 End Date: 2019.09.20 Last Calib.: 2019.09.20
 Start Time: 14:15:01 End Time: 22:52:02 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Weak; Built to 4"
 60-ISI-No Return
 60-FF-Weak; Built to 3&3/4"
 90-FSI-No Return



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

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	SOCWM 7%O 40%W 53%M	0.30
80.00	OCM 20%O 80%M	0.39
10.00	MCO 10%M 90%O	0.05

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65994

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2019.09.20 @ 14:15:00

Tool Information

Drill Pipe:	Length: 3474.00 ft	Diameter: 3.82 inches	Volume: 49.25 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3665.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3637.00	
Shut In Tool	5.00			3642.00	
Hydraulic tool	5.00			3647.00	
Jars	5.00			3652.00	
Safety Joint	3.00			3655.00	
Packer	5.00			3660.00	29.00 Bottom Of Top Packer
Packer	5.00			3665.00	
Stubb	1.00			3666.00	
Perforations	1.00			3667.00	
Change Over Sub	1.00			3668.00	
Recorder	0.00	8374	Inside	3668.00	
Recorder	0.00	8372	Inside	3668.00	
Drill Pipe	32.00			3700.00	
Change Over Sub	1.00			3701.00	
Perforations	15.00			3716.00	
Bullnose	4.00			3720.00	55.00 Bottom Packers & Anchor
Total Tool Length:	84.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65994

DST#: 1

ATTN: Saman Sharifaie

Test Start: 2019.09.20 @ 14:15:00

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:

22000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SOCWM 7%O 40%W 53%M	0.295
80.00	OCM 20%O 80%M	0.393
10.00	MCO 10%M 90%O	0.049

Total Length: 150.00 ft Total Volume: 0.737 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.284@75F

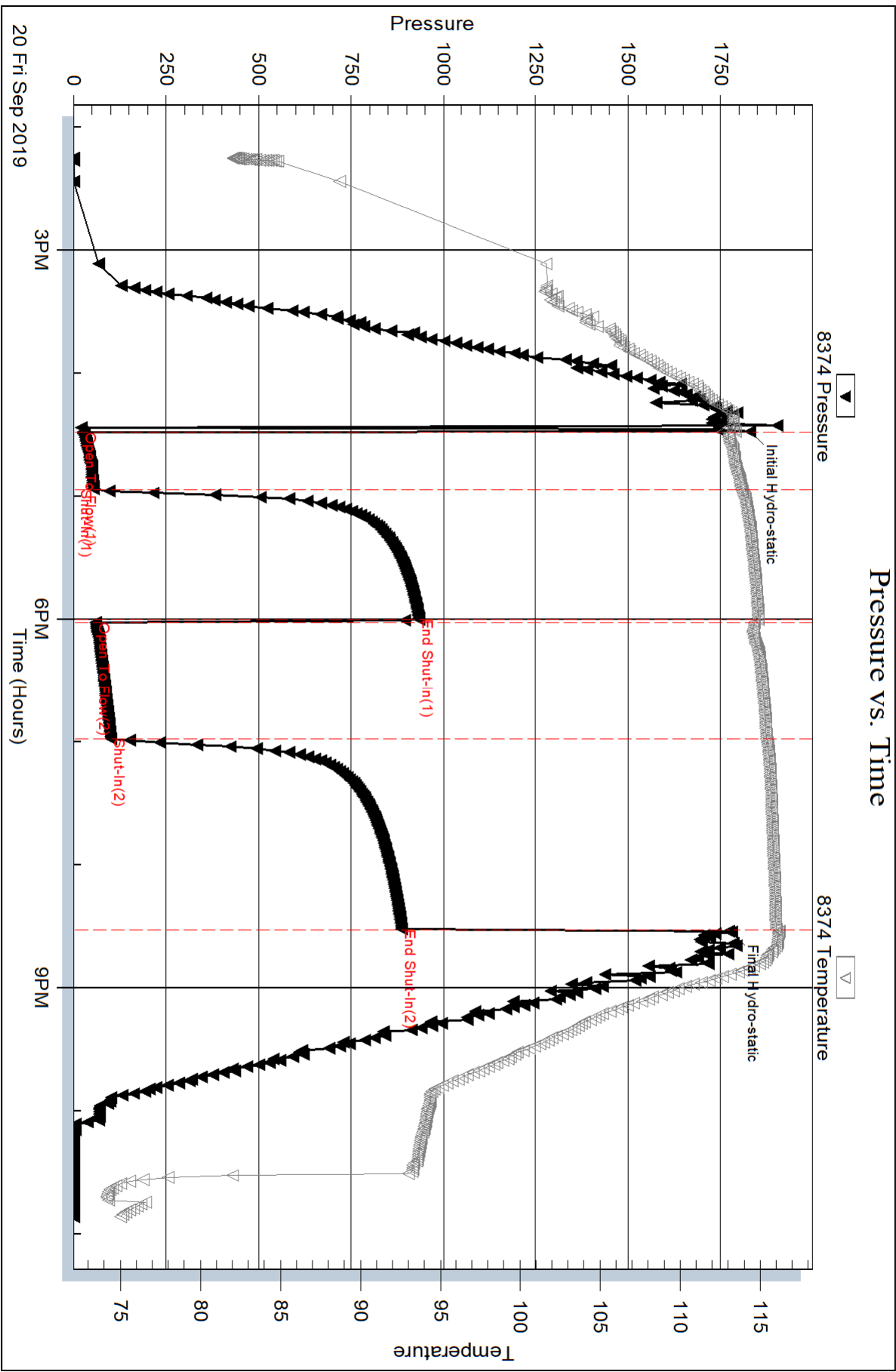
Serial #: 8374

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 1



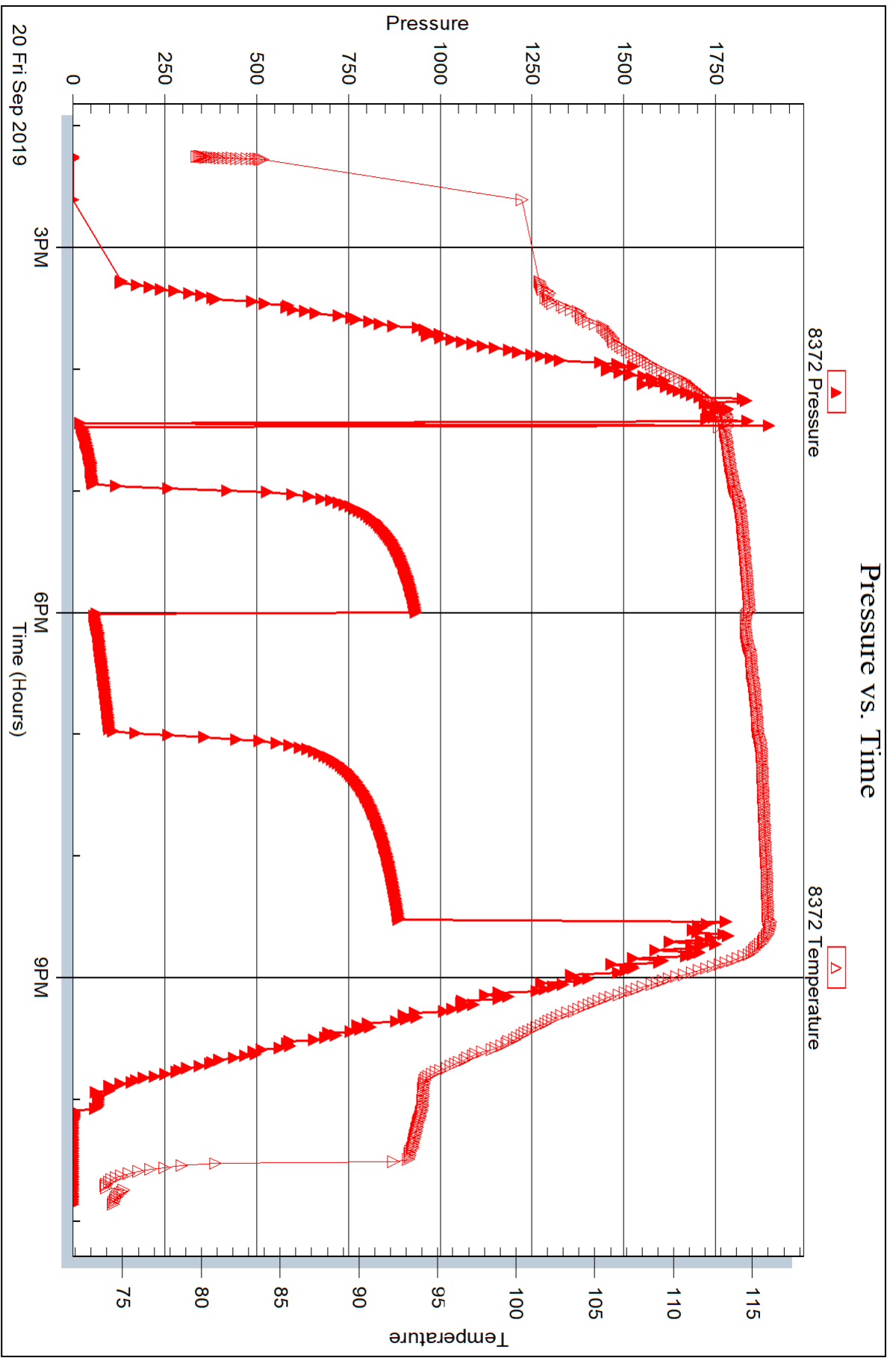
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65994

Printed: 2019.09.24 @ 14:31:04



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Saman Sharifaie

Geyer #6-35

3-10s-24w Graham,KS

Start Date: 2019.09.21 @ 07:08:00

End Date: 2019.09.21 @ 15:47:02

Job Ticket #: 65995 DST #: 2

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

Printed: 2019.09.24 @ 14:27:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Saman Sharifaie

3-10s-24w Graham,KS
Geyer #6-35
 Job Ticket: 65995 **DST#: 2**
 Test Start: 2019.09.21 @ 07:08:00

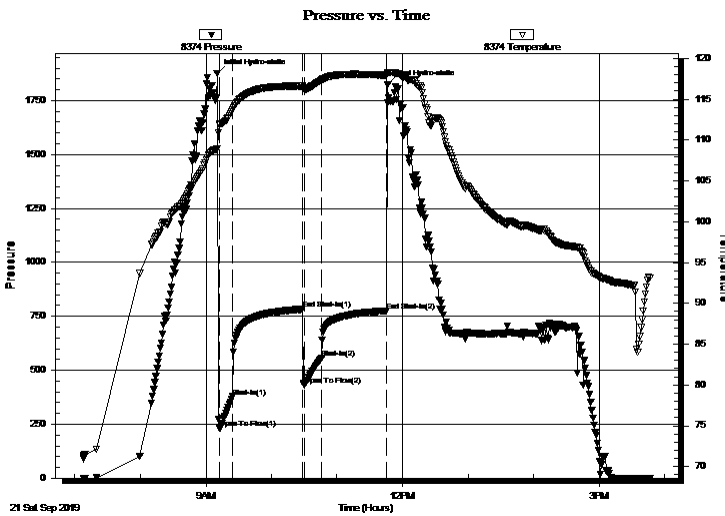
GENERAL INFORMATION:

Formation: **LKC 'B-D'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 09:12:47 Tester: Spencer J Staab
 Time Test Ended: 15:47:02 Unit No: 84
 Interval: **3720.00 ft (KB) To 3766.00 ft (KB) (TVD)** Reference Elevations: 2356.00 ft (KB)
 Total Depth: 3766.00 ft (KB) (TVD) 2351.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8374 Inside
 Press@RunDepth: 556.34 psig @ 3724.00 ft (KB) Capacity: psig
 Start Date: 2019.09.21 End Date: 2019.09.21 Last Calib.: 2019.09.21
 Start Time: 07:08:01 End Time: 15:47:02 Time On Btm: 2019.09.21 @ 09:10:17
 Time Off Btm: 2019.09.21 @ 11:46:32

TEST COMMENT: 15-IF-BOB 30secs; Built to 214"
 60-ISI-BOB 1 min after 8 min bleed off; Built to 113"
 15-FF-BOB instantaneously; Built to 105"; GTS TSTM @ 12 min
 60-FSI-BOB 2mins after 6 min bleed off; Built to 112"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1875.71	108.91	Initial Hydro-static
3	232.31	111.94	Open To Flow (1)
14	376.82	113.64	Shut-In(1)
79	782.72	116.58	End Shut-In(1)
80	430.65	116.21	Open To Flow (2)
96	556.34	117.33	Shut-In(2)
156	775.80	117.97	End Shut-In(2)
157	1824.76	118.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SOCMW 5%O 10%M 85%W	0.89
1270.00	GO 20%G 80%O	17.97

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Saman Sharifaie

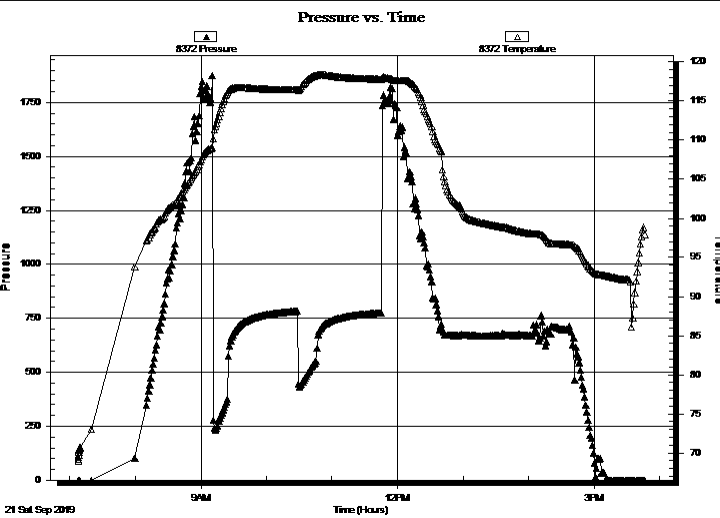
3-10s-24w Graham,KS
Geyer #6-35
 Job Ticket: 65995 **DST#: 2**
 Test Start: 2019.09.21 @ 07:08:00

GENERAL INFORMATION:

Formation: **LKC 'B-D'**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 09:12:47 Tester: Spencer J Staab
 Time Test Ended: 15:47:02 Unit No: 84
 Interval: **3720.00 ft (KB) To 3766.00 ft (KB) (TVD)** Reference Elevations: 2356.00 ft (KB)
 Total Depth: 3766.00 ft (KB) (TVD) 2351.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8372 Inside
 Press@RunDepth: psig @ 3724.00 ft (KB) Capacity: psig
 Start Date: 2019.09.21 End Date: 2019.09.21 Last Calib.: 2019.09.21
 Start Time: 07:08:01 End Time: 15:47:02 Time On Btm:
 Time Off Btm:

TEST COMMENT: 15-IF-BOB 30secs; Built to 214"
 60-ISI-BOB 1 min after 8 min bleed off; Built to 113"
 15-FF-BOB instantaneously; Built to 105"; GTS TSTM @ 12 min
 60-FSI-BOB 2mins after 6 min bleed off; Built to 112"



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

Recovery		
Length (ft)	Description	Volume (bbl)
180.00	SOCMW 5%O 10%M 85%W	0.89
1270.00	GO 20%G 80%O	17.97

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65995

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 07:08:00

Tool Information

Drill Pipe:	Length: 3536.00 ft	Diameter: 3.82 inches	Volume: 50.12 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 61000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3720.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	75.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			3692.00	
Shut In Tool	5.00			3697.00	
Hydraulic tool	5.00			3702.00	
Jars	5.00			3707.00	
Safety Joint	3.00			3710.00	
Packer	5.00			3715.00	29.00 Bottom Of Top Packer
Packer	5.00			3720.00	
Stubb	1.00			3721.00	
Perforations	2.00			3723.00	
Change Over Sub	1.00			3724.00	
Recorder	0.00	8374	Inside	3724.00	
Recorder	0.00	8372	Inside	3724.00	
Drill Pipe	32.00			3756.00	
Change Over Sub	1.00			3757.00	
Perforations	5.00			3762.00	
Bullnose	4.00			3766.00	46.00 Bottom Packers & Anchor
Total Tool Length:	75.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65995

DST#: 2

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 07:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

43 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	SOCMW 5%O 10%M 85%W	0.885
1270.00	GO 20%G 80%O	17.966

Total Length: 1450.00 ft Total Volume: 18.851 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.143@95F

Serial #: 8374

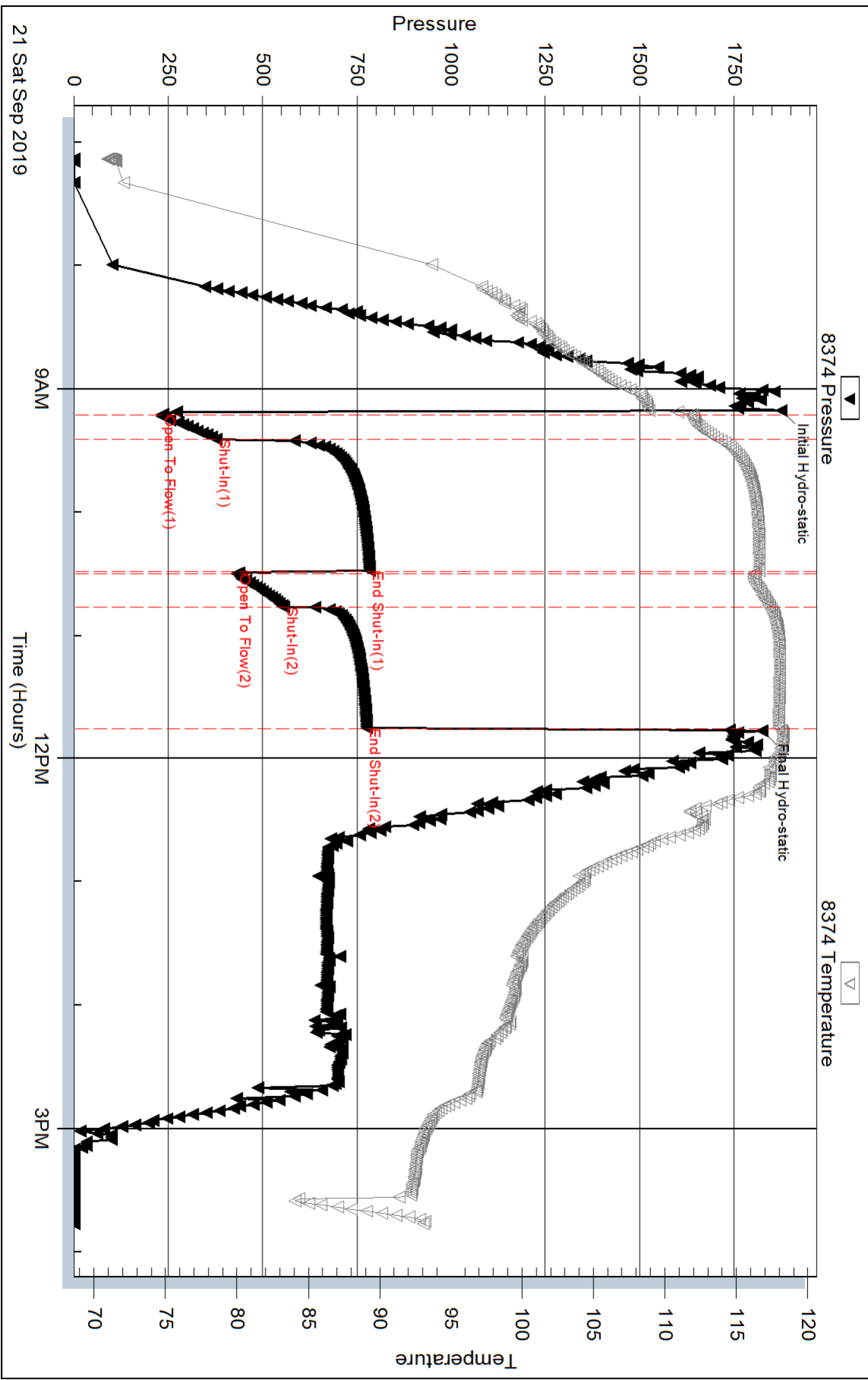
Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 2

Pressure vs. Time



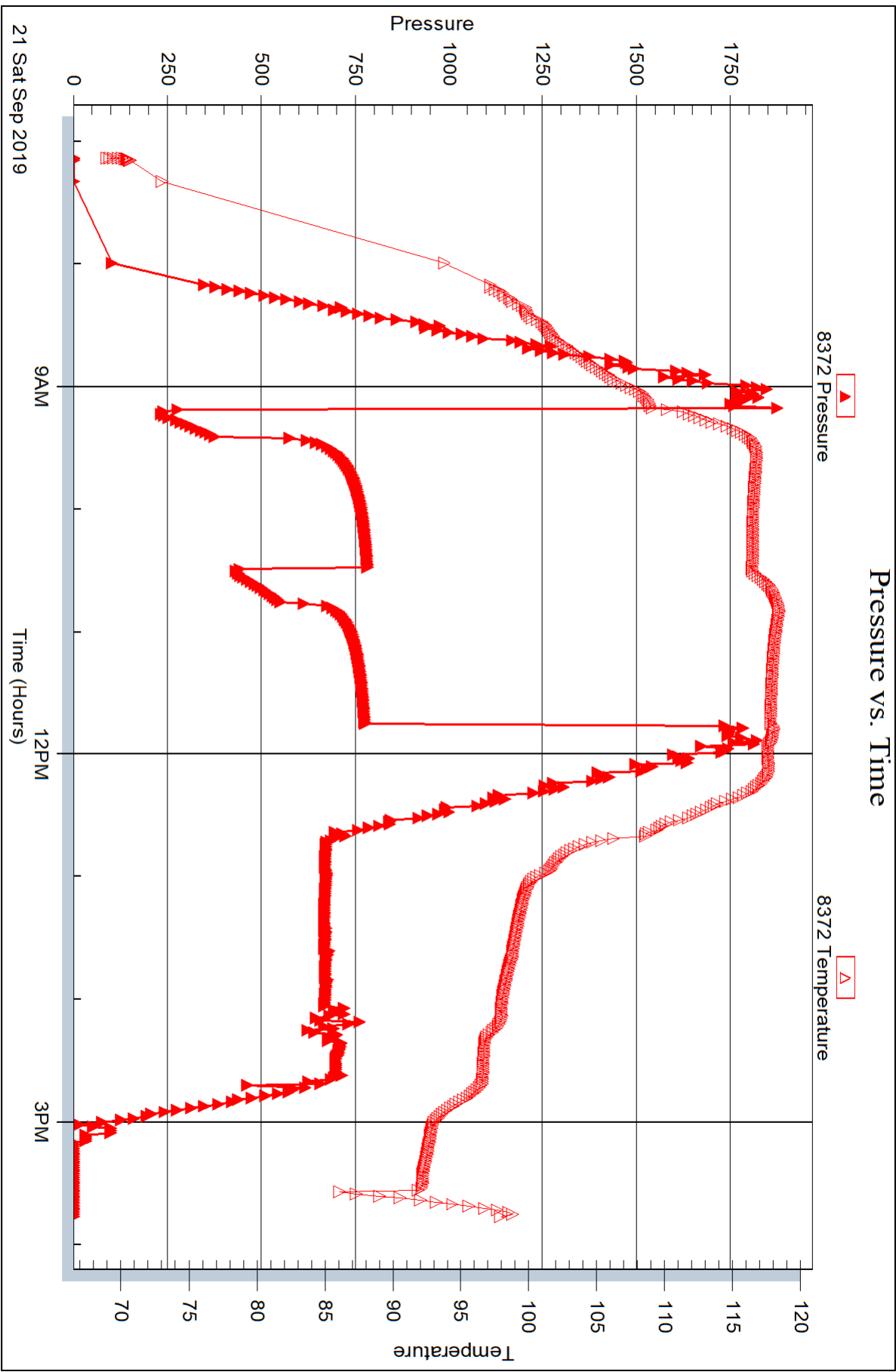
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Saman Sharifaie

Geyer #6-35

3-10s-24w Graham,KS

Start Date: 2019.09.21 @ 22:40:00

End Date: 2019.09.22 @ 06:49:02

Job Ticket #: 65996 DST #: 3

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

Printed: 2019.09.24 @ 14:23:32



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Saman Sharifaie

3-10s-24w Graham,KS
Geyer #6-35
 Job Ticket: 65996 **DST#: 3**
 Test Start: 2019.09.21 @ 22:40:00

GENERAL INFORMATION:

Formation: **LKC 'E-F'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:24:17
 Time Test Ended: 06:49:02
 Interval: **3766.00 ft (KB) To 3790.00 ft (KB) (TVD)**
 Total Depth: 3790.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2356.00 ft (KB)
 2351.00 ft (CF)
 KB to GR/CF: 5.00 ft

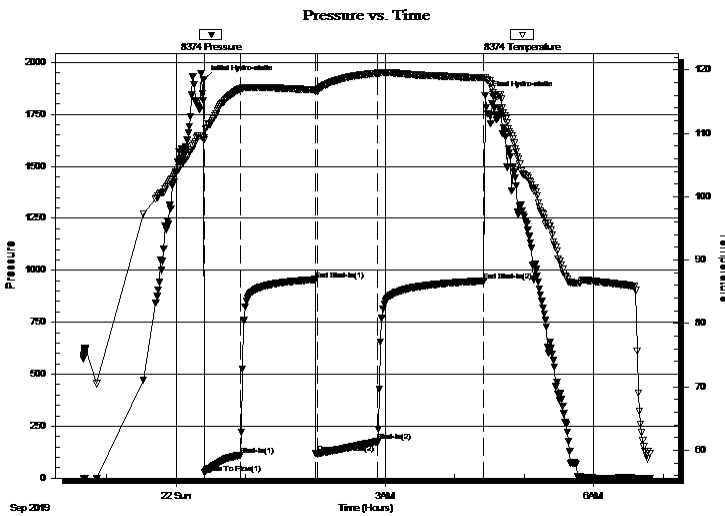
Serial #: 8374

Inside

Press@RunDepth: 175.44 psig @ 3768.00 ft (KB) Capacity: psig
 Start Date: 2019.09.21 End Date: 2019.09.22 Last Calib.: 2019.09.22
 Start Time: 22:40:01 End Time: 06:49:02 Time On Btm: 2019.09.22 @ 00:23:47
 Time Off Btm: 2019.09.22 @ 04:26:17

TEST COMMENT: 30-IF-BOB 15 mins; Built to 21"
 60-ISI-Weak; Built to 3"
 60-FF-BOB 17 mins; Built to 44"
 90-FSI-Fair; Built to 6"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1916.15	109.27	Initial Hydro-static
1	25.23	109.01	Open To Flow (1)
32	110.59	117.02	Shut-In(1)
96	954.78	116.82	End Shut-In(1)
98	117.22	116.65	Open To Flow (2)
150	175.44	119.48	Shut-In(2)
242	949.00	118.74	End Shut-In(2)
243	1841.55	118.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GSOCMW 5%G 5%O 10%M 80%W	0.59
60.00	GSOCWM 15%G 5%O 30%W 50%M	0.30
60.00	GSOCM 5%G 10%O 85%M	0.81
40.00	GO 70%G 30%O	0.57
0.00	500' GIP 100%G	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65996

DST#: 3

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 22:40:00

Tool Information

Drill Pipe:	Length: 3568.00 ft	Diameter: 3.82 inches	Volume: 50.58 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose:	54000.00 lb
			<u>Total Volume:</u>	Tool Chased	ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	15.00 ft			Final	52000.00 lb
Depth to Top Packer:	3766.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	53.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3738.00	
Shut In Tool	5.00			3743.00	
Hydraulic tool	5.00			3748.00	
Jars	5.00			3753.00	
Safety Joint	3.00			3756.00	
Packer	5.00			3761.00	29.00 Bottom Of Top Packer
Packer	5.00			3766.00	
Stubb	1.00			3767.00	
Perforations	1.00			3768.00	
Recorder	0.00	8374	Inside	3768.00	
Recorder	0.00	8372	Inside	3768.00	
Perforations	18.00			3786.00	
Bullnose	4.00			3790.00	24.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65996

DST#: 3

ATTN: Saman Sharifaie

Test Start: 2019.09.21 @ 22:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

45 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

80000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
120.00	GSOCMW 5%G 5%O 10%M 80%W	0.590
60.00	GSOCWM 15%G 5%O 30%W 50%M	0.295
60.00	GSOCM 5%G 10%O 85%M	0.813
40.00	GO 70%G 30%O	0.567
0.00	500' GIP 100%G	0.000

Total Length: 280.00 ft Total Volume: 2.265 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2#LCM

RW=.135@54F

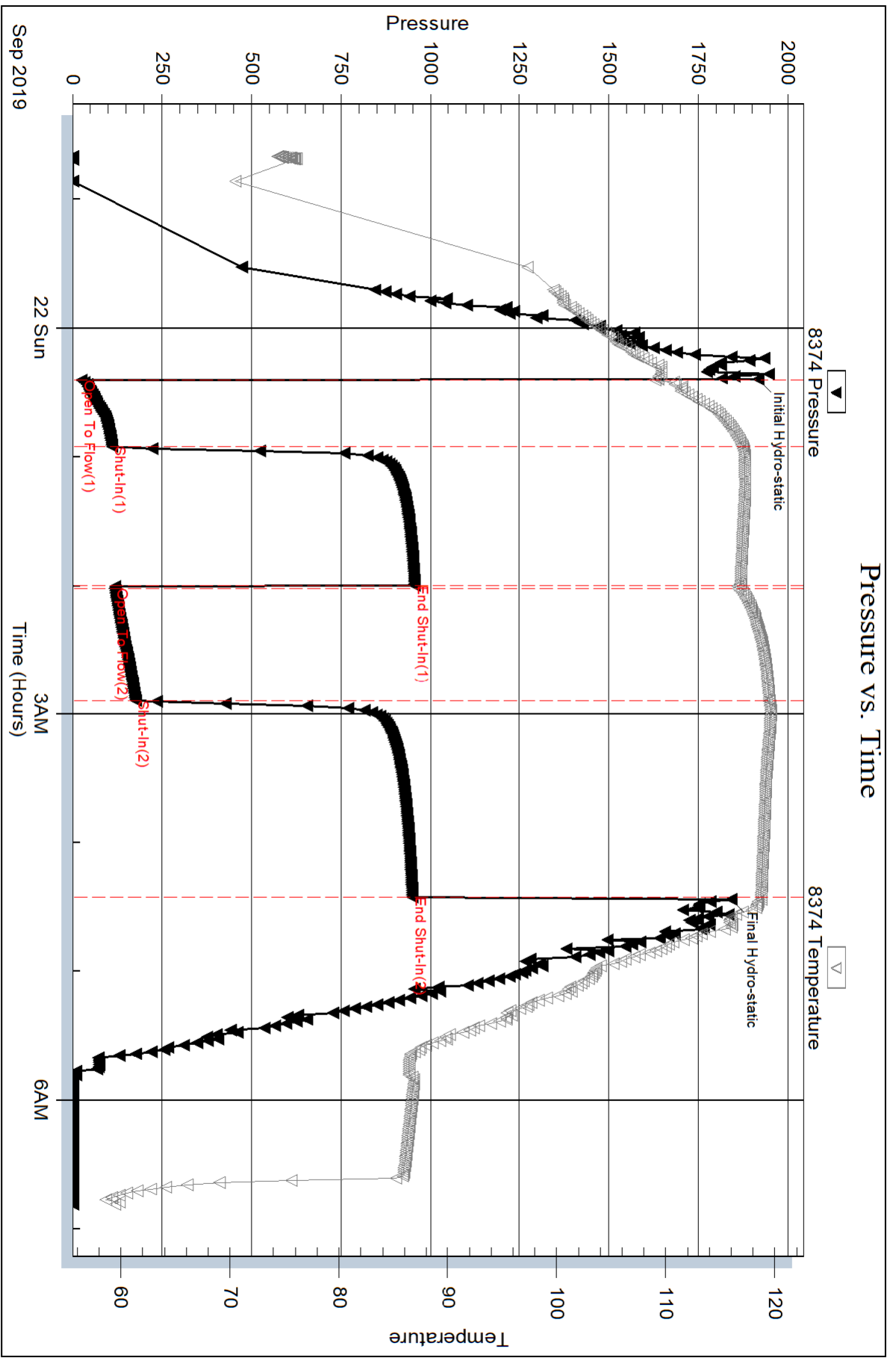
Serial #: 8374

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 3



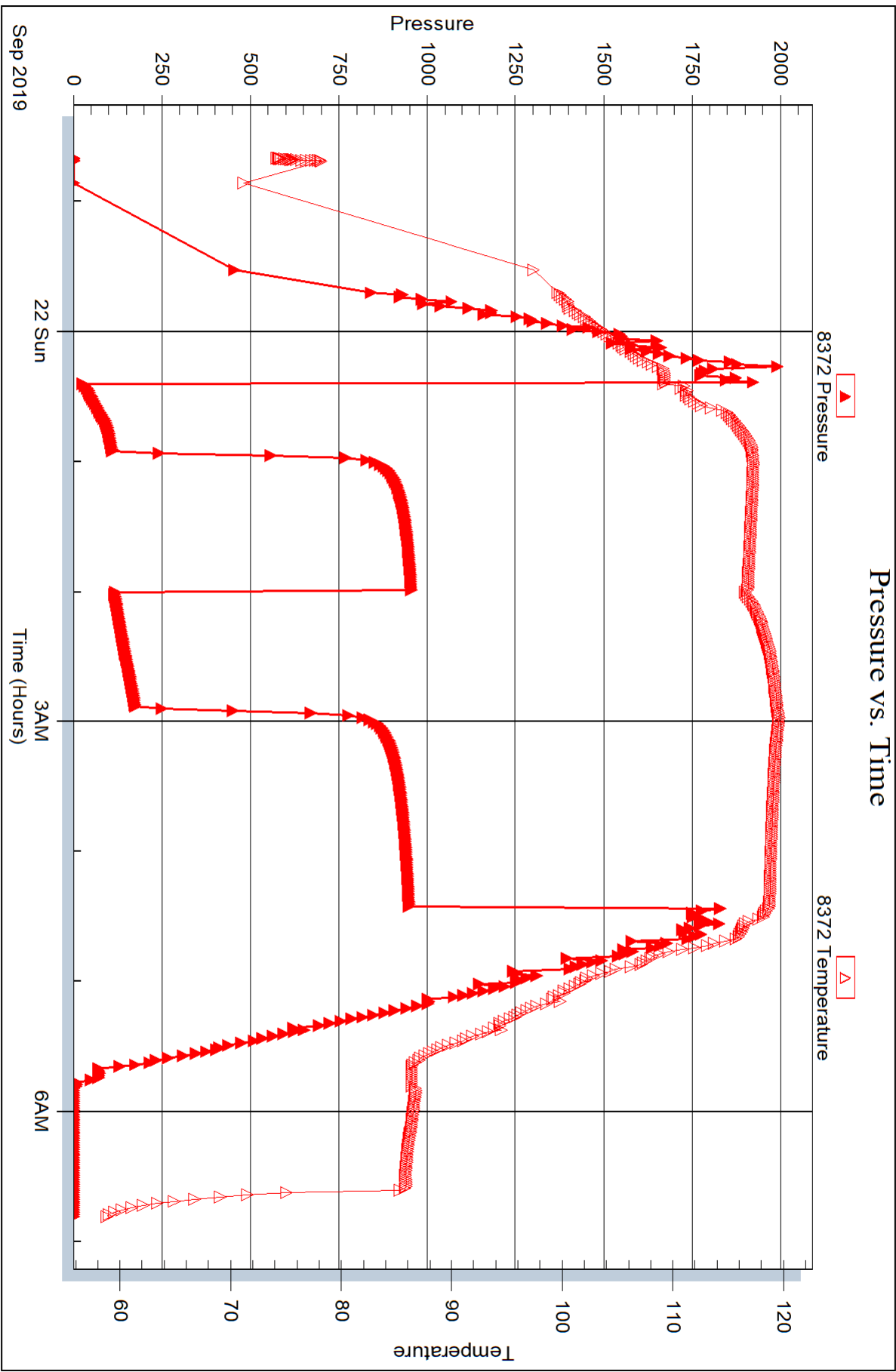
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Saman Sharifaie

Geyer #6-35

3-10s-24w Graham,KS

Start Date: 2019.09.22 @ 18:40:00

End Date: 2019.09.23 @ 02:57:02

Job Ticket #: 65997 DST #: 4

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

Printed: 2019.09.24 @ 14:15:16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
 250 N Water STE 300
 Wichita KS 67202+1216
 ATTN: Saman Sharifaie

3-10s-24w Graham,KS
Geyer #6-35
 Job Ticket: 65997 **DST#: 4**
 Test Start: 2019.09.22 @ 18:40:00

GENERAL INFORMATION:

Formation: **LKC 'H-J'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:51:17
 Time Test Ended: 02:57:02
 Interval: **3814.00 ft (KB) To 3890.00 ft (KB) (TVD)**
 Total Depth: 3890.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2356.00 ft (KB)
 2351.00 ft (CF)
 KB to GR/CF: 5.00 ft

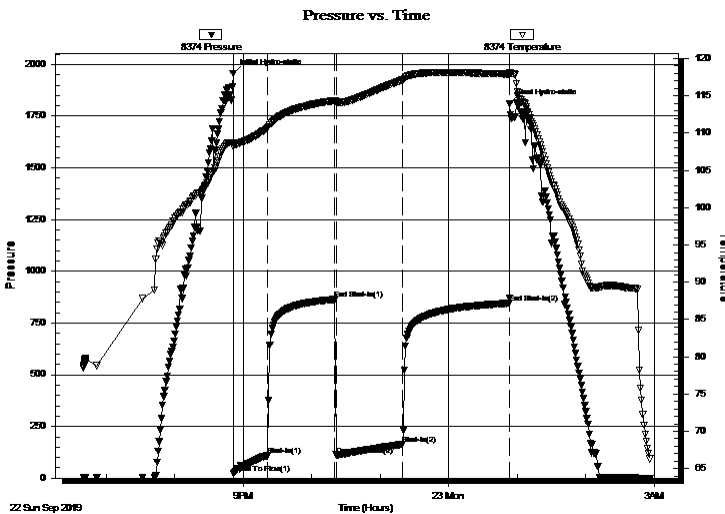
Serial #: 8374

Inside

Press@RunDepth: 163.74 psig @ 3818.00 ft (KB) Capacity: psig
 Start Date: 2019.09.22 End Date: 2019.09.23 Last Calib.: 2019.09.23
 Start Time: 18:40:01 End Time: 02:57:02 Time On Btm: 2019.09.22 @ 20:51:02
 Time Off Btm: 2019.09.23 @ 00:53:32

TEST COMMENT: 30-IF-Fair; Built to 7"
 60-ISI-No Return
 60-FF-Fair; Built to 6"
 90-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1956.94	108.75	Initial Hydro-static
1	22.52	108.17	Open To Flow (1)
31	108.75	110.68	Shut-In(1)
90	863.82	114.35	End Shut-In(1)
91	112.18	114.17	Open To Flow (2)
149	163.74	117.14	Shut-In(2)
242	845.63	117.94	End Shut-In(2)
243	1811.88	118.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
350.00	MW 30%M 70%W	3.26

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65997

DST#: 4

ATTN: Saman Sharifaie

Test Start: 2019.09.22 @ 18:40:00

Tool Information

Drill Pipe:	Length: 3633.00 ft	Diameter: 3.82 inches	Volume: 51.50 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3814.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	105.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			3786.00	
Shut In Tool	5.00			3791.00	
Hydraulic tool	5.00			3796.00	
Jars	5.00			3801.00	
Safety Joint	3.00			3804.00	
Packer	5.00			3809.00	29.00 Bottom Of Top Packer
Packer	5.00			3814.00	
Stubb	1.00			3815.00	
Perforations	2.00			3817.00	
Change Over Sub	1.00			3818.00	
Recorder	0.00	8374	Inside	3818.00	
Recorder	0.00	8372	Inside	3818.00	
Drill Pipe	62.00			3880.00	
Change Over Sub	1.00			3881.00	
Perforations	5.00			3886.00	
Bullnose	4.00			3890.00	76.00 Bottom Packers & Anchor
Total Tool Length:	105.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65997

DST#: 4

ATTN: Saman Sharifaie

Test Start: 2019.09.22 @ 18:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

58000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
350.00	MW 30%M 70%W	3.258

Total Length: 350.00 ft Total Volume: 3.258 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.167@55F

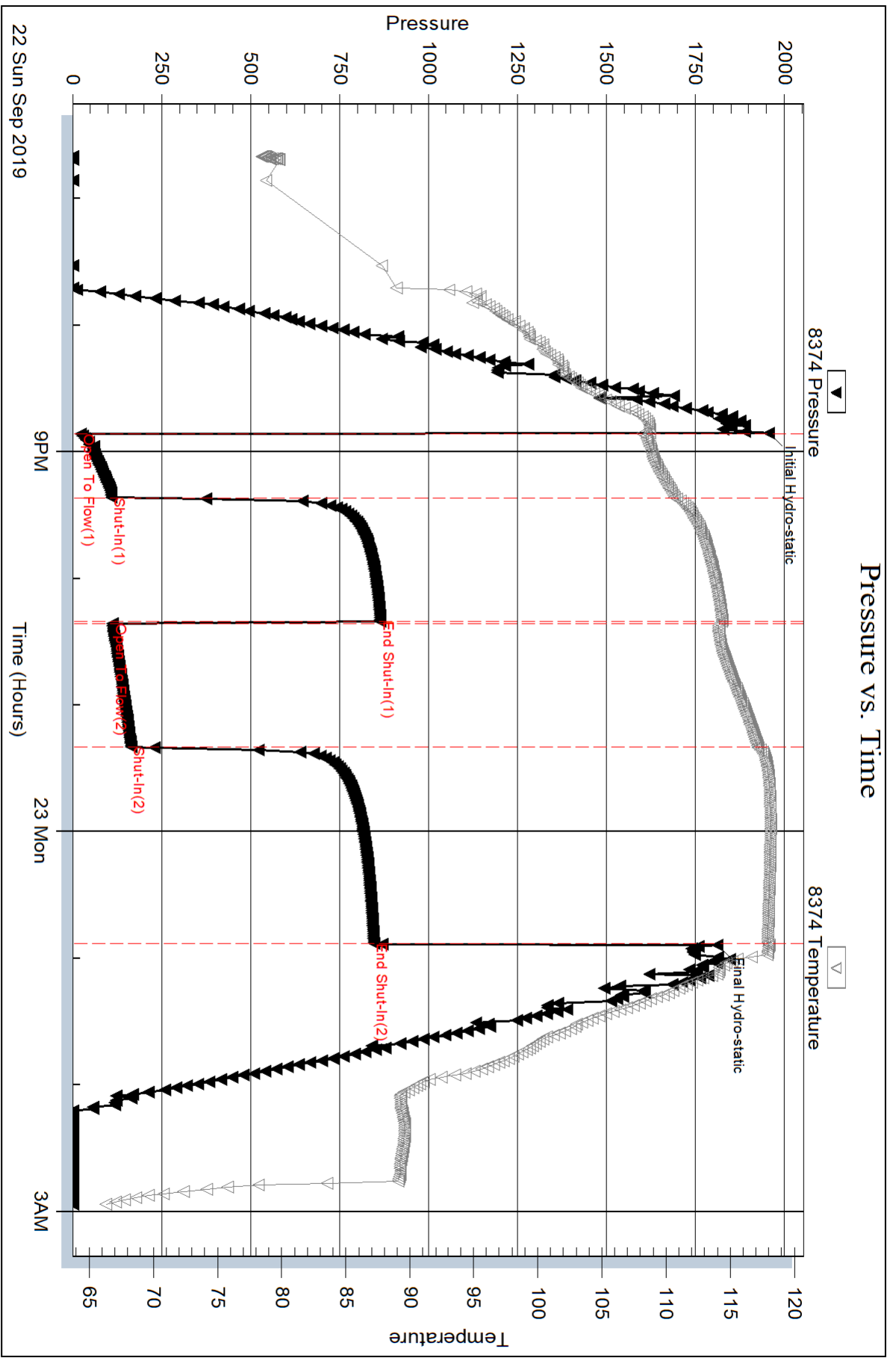
Serial #: 8374

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 65997

Printed: 2019.09.24 @ 14:15:17

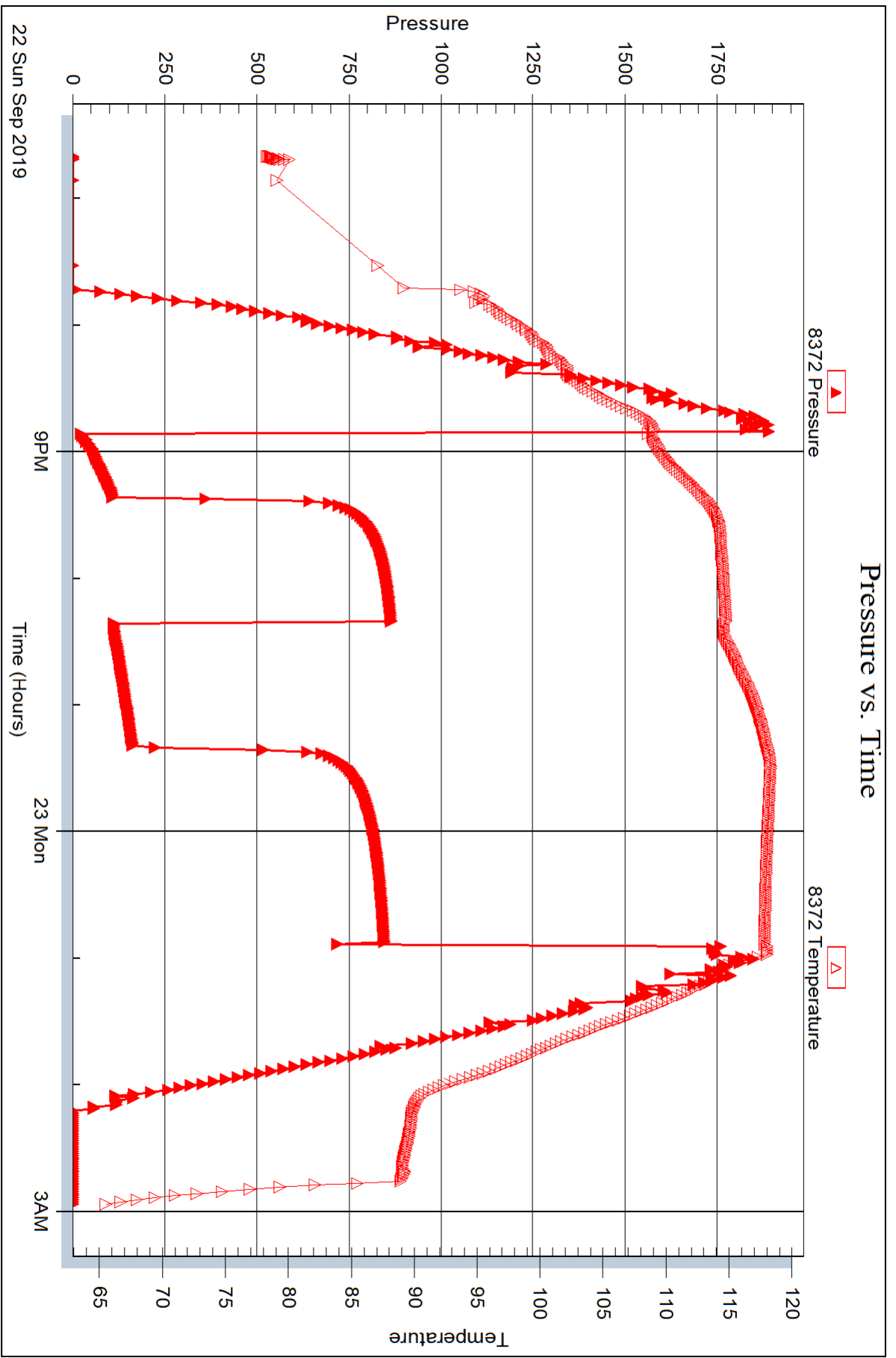
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 65997

Printed: 2019.09.24 @ 14:15:17



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N Water STE 300
Wichita KS 67202+1216

ATTN: Saman Sharifaie

Geyer #6-35

3-10s-24w Graham,KS

Start Date: 2019.09.23 @ 11:30:00

End Date: 2019.09.23 @ 19:05:02

Job Ticket #: 65998 DST #: 5

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

Printed: 2019.09.24 @ 14:13:00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N Water STE 300
Wichita KS 67202+1216
ATTN: Saman Sharifaie

3-10s-24w Graham,KS
Geyer #6-35
Job Ticket: 65998 **DST#: 5**
Test Start: 2019.09.23 @ 11:30:00

GENERAL INFORMATION:

Formation: **LKC 'K-L'**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 13:22:17 Tester: Spencer J Staab
Time Test Ended: 19:05:02 Unit No: 84
Interval: 3890.00 ft (KB) To 3934.00 ft (KB) (TVD) Reference Elevations: 2356.00 ft (KB)
Total Depth: 3934.00 ft (KB) (TVD) 2351.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

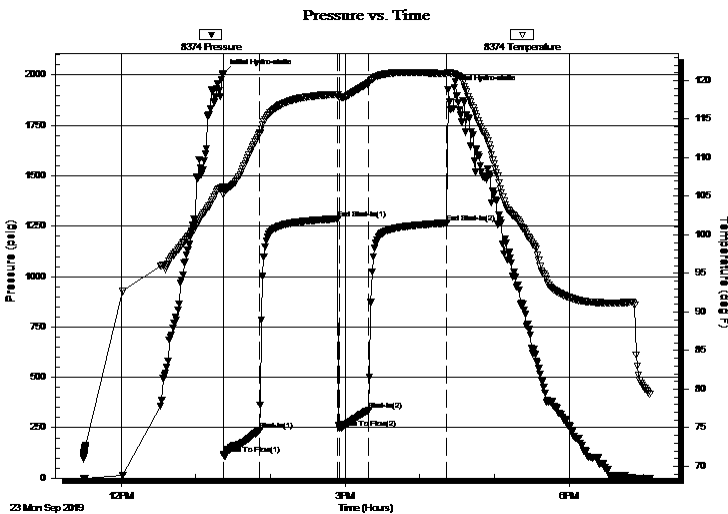
Serial #: 8374

Inside

Press@RunDepth: 337.76 psig @ 3897.00 ft (KB) Capacity: psig
Start Date: 2019.09.23 End Date: 2019.09.23 Last Calib.: 2019.09.23
Start Time: 11:30:01 End Time: 19:05:02 Time On Btm: 2019.09.23 @ 13:22:02
Time Off Btm: 2019.09.23 @ 16:22:47

TEST COMMENT: 30-IF-BOB 3 mins; Built to 87"
60-ISI-BOB 5 mins after 6 mins to Bleed off; Built to 12"
30-FF-BOB 1 min; Built to 53"
60-FSI-BOB 59 mins after 4 mins to Bleed off

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2008.41	106.20	Initial Hydro-static
1	118.11	105.18	Open To Flow (1)
30	237.21	113.12	Shut-In(1)
93	1285.55	118.16	End Shut-In(1)
94	247.70	117.84	Open To Flow (2)
118	337.76	119.67	Shut-In(2)
180	1265.95	120.91	End Shut-In(2)
181	1927.39	120.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	GOCW 10%G 5%O 85%W	0.89
510.00	GO 60%G 40%O	7.19
60.00	GMCO 20%G 10%M 70%O	0.85
0.00	1150' GIP 100%G	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65998

DST#: 5

ATTN: Saman Sharifaie

Test Start: 2019.09.23 @ 11:30:00

Tool Information

Drill Pipe:	Length: 3692.00 ft	Diameter: 3.82 inches	Volume: 52.34 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3890.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

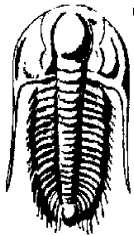
Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3862.00	
Shut In Tool	5.00			3867.00	
Hydraulic tool	5.00			3872.00	
Jars	5.00			3877.00	
Safety Joint	3.00			3880.00	
Packer	5.00			3885.00	29.00 Bottom Of Top Packer
Packer	5.00			3890.00	
Stubb	1.00			3891.00	
Perforations	5.00			3896.00	
Change Over Sub	1.00			3897.00	
Recorder	0.00	8374	Inside	3897.00	
Recorder	0.00	8372	Inside	3897.00	
Drill Pipe	32.00			3929.00	
Change Over Sub	1.00			3930.00	
Bullnose	4.00			3934.00	44.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

3-10s-24w Graham,KS

250 N Water STE 300
Wichita KS 67202+1216

Geyer #6-35

Job Ticket: 65998

DST#: 5

ATTN: Saman Sharifaie

Test Start: 2019.09.23 @ 11:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	GOCW 10%G 5%O 85%W	0.885
510.00	GO 60%G 40%O	7.192
60.00	GMCO 20%G 10%M 70%O	0.851
0.00	1150' GIP 100%G	0.000

Total Length: 750.00 ft

Total Volume: 8.928 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.178@74F

Serial #: 8374

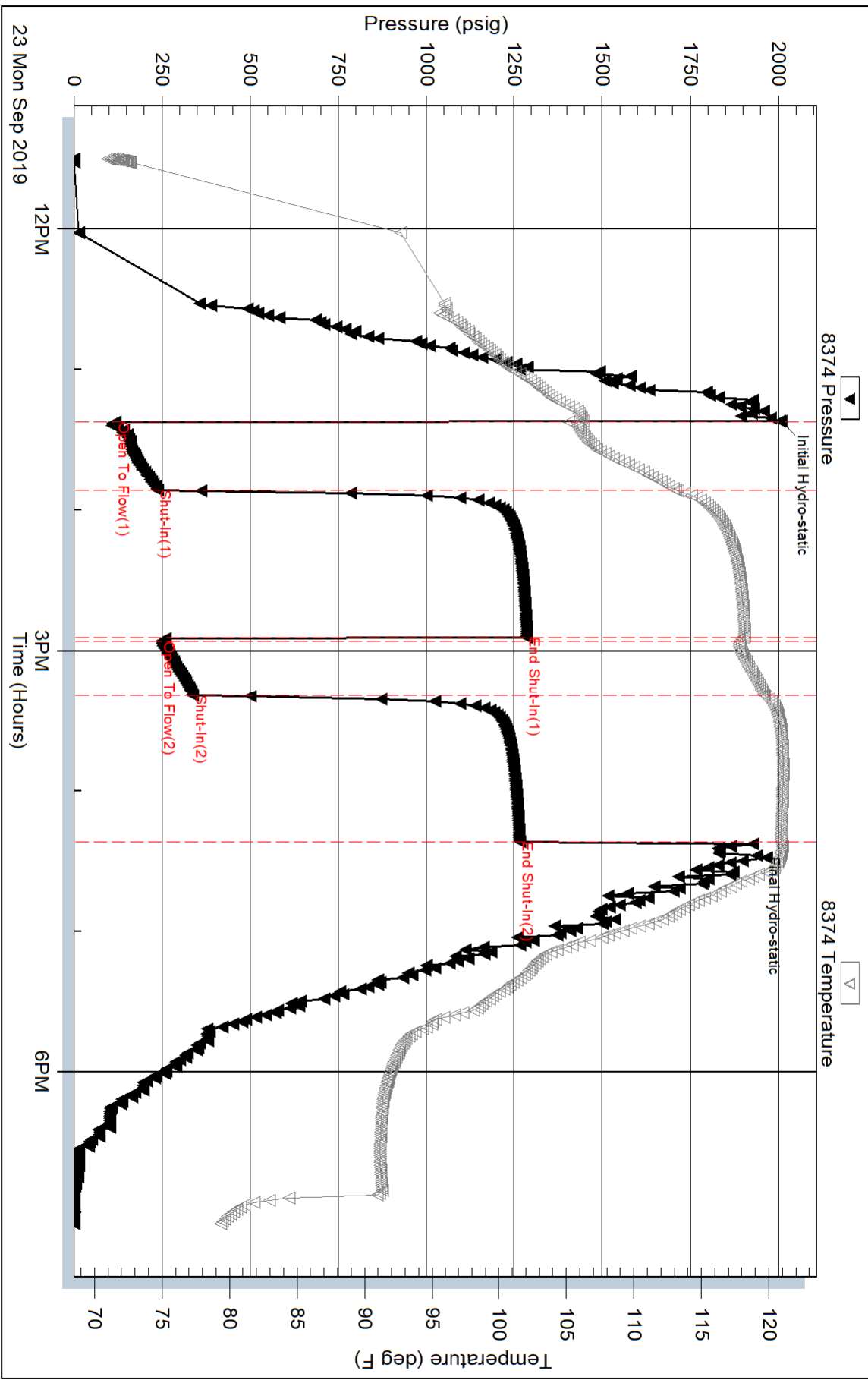
Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 5

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65998

Printed: 2019.09.24 @ 14:13:01

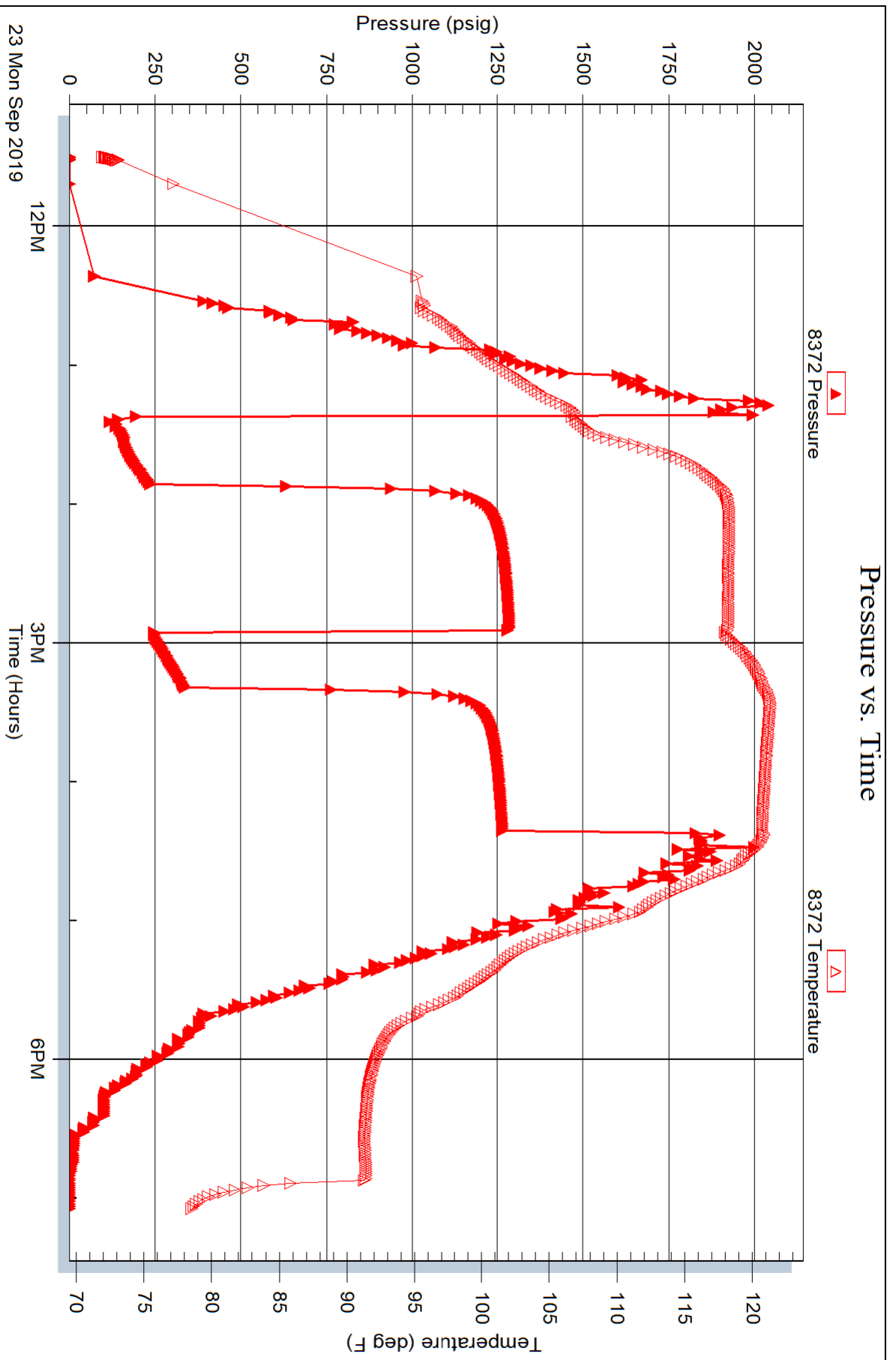
Serial #: 8372

Inside

Murfin Drilling Co Inc

Geyer #6-35

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 65998

Printed: 2019.09.24 @ 14:13:01



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65994

NO.

Well Name & No. Neyer #6-35 Test No. 1 Date 09/20/2019
 Company Murphy Drilling Co Inc Elevation 2356' KB 2351 GL
 Address 250 N Water STE 300 Wichita KS 67202+1216
 Co. Rep / Geo. Samon Sharifai Rig Murphy #8
 Location: Sec. 3 Twp 80S Rge. 24W Co. Graham State KS

Interval Tested 3665' - 3720' Zone Tested Toronto, LNC 'A'
 Anchor Length 55' Drill Pipe Run 3474' Mud Wt. 9.2
 Top Packer Depth 3660' Drill Collars Run 184' Vis 57
 Bottom Packer Depth 3665' Wt. Pipe Run - WL 7.4
 Total Depth 3720' Chlorides 1200' ppm System LCM 2#

Blow Description 27-Weak; Built to 4"
ISA - No Return
77-Weak; Built to 3 3/4"
75D - No Return

Rec	Feet of	%gas	%oil	%water	%mud
60'	SOCWM	7	40	53	
80'	OCM	20		80	
10'	MCO	90		10	

Rec Total 150' BHT 116° Gravity 36° API RW 284 @ 75 ° F Chlorides 22,000 ppm

(A) Initial Hydrostatic <u>1830</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>12:45</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:15</u>
(C) First Final Flow <u>54</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:25</u>
(D) Initial Shut-In <u>933</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>20:25</u>
(E) Second Initial Flow <u>59</u>	<input checked="" type="checkbox"/> Hourly Standby <u>X1</u>	T-Out <u>22:50</u>
(F) Second Final Flow <u>100</u>	<input checked="" type="checkbox"/> Mileage <u>100K17</u> 100	Comments
(G) Final Shut-In <u>886</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1779</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1625

MP/DST Disc't

Approved By _____ Our Representative Samon Sharifai *Thanks!*

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.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65995

NO.

Well Name & No. Levor #6-35 Test No. 2 Date 09/21/2009
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL
 Address 250 1/2 Water STE 300 Wichita KS 67202 +1216
 Co. Rep / Geo. Saman Sharifai Rig Murfin #8
 Location: Sec. 3 Twp 10S Rge. 24W Co. Graham State KS

Interval Tested 3720' - 3766' Zone Tested LKC 'B-D'
 Anchor Length 46' Drill Pipe Run 3536' Mud Wt. 9.2
 Top Packer Depth 3715' Drill Collars Run 184' Vis 57
 Bottom Packer Depth 3720' Wt. Pipe Run - WL 7.2
 Total Depth 3766' Chlorides 1400 ppm System LCM 2H

Blow Description 77- BOB; 30 secs; Built to 214"
55- 8 min bleed off; BOB 1 min; Built to 113"
77- BOB instantaneously; Built to 105" JTS7M @ 12 min
75- 6 min bleed off; BOB 2 min; Built 112"

Rec	Feet of	%gas	%oil	%water	%mud
<u>180'</u>	<u>SOCMW</u>	<u>5</u>	<u>85</u>	<u>10</u>	
<u>1270'</u>	<u>GO</u>	<u>20</u>	<u>80</u>		

Rec Total 1450' BHT 118° Gravity 43° API RW 143 @ 95 °F Chlorides 36000 ppm

(A) Initial Hydrostatic <u>1875</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>06:15</u>
(B) First Initial Flow <u>232</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>07:08</u>
(C) First Final Flow <u>376</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>09:06</u>
(D) Initial Shut-In <u>780</u>	<input checked="" type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>11:40</u>
(E) Second Initial Flow <u>430</u>	<input checked="" type="checkbox"/> Hourly Standby <u>X1</u>	T-Out <u>15:43</u>
(F) Second Final Flow <u>556</u>	<input checked="" type="checkbox"/> Mileage <u>100K7</u> 100	Comments _____
(G) Final Shut-In <u>775</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1824</u>	<input type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> EM Tool <u>350</u>

Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1675</u>
	Sub Total <u>1675</u>	MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Hinds Thanks!

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

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

65996

NO.

Well Name & No. Deyer #6-35 Test No. 3 Date 09/21/2019
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL
 Address 850 N Water STE 300 Wichita KS 67202 + 1216
 Co. Rep / Geo. Sannam Sharifue Rig Murfin #8
 Location: Sec. 3 Twp 10A Rge. 24W Co. Graham State Ks

Interval Tested 3766' - 3790' Zone Tested LPC 'E-7'
 Anchor Length 24' Drill Pipe Run 3568' Mud Wt. 9.2
 Top Packer Depth 3761' Drill Collars Run 184' Vis 57
 Bottom Packer Depth 3766' Wt. Pipe Run - WL 7.2
 Total Depth 3790' Chlorides 1400 ppm System LCM 2#

Blow Description 7- BOB 15 mins; Built to 21"
SD - 9 Weab; Built to 3"
77- BOB 17 mins; Built to 44"
75- Fair; Built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
120'	G.SOC MW	5	5	80	10
60'	G.SOC M	5	10		85
60'	G.SOC WM	15	5	30	50
40'	GO	70	30		
	500' GTP	100			

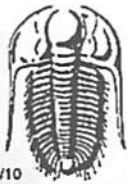
Rec Total 280' BHT 118° Gravity 45° API RW 1.35 @ 54 °F Chlorides 80,000 ppm

(A) Initial Hydrostatic 1916 Test 1200 T-On Location 10:28
 (B) First Initial Flow 25 Jars 250 T-Started 10:40
 (C) First Final Flow 110 Safety Joint 75 T-Open 08:22 09/22/2019
 (D) Initial Shut-In 954 Circ Sub _____ T-Pulled 04:22
 (E) Second Initial Flow 117 Hourly Standby _____ T-Out 06:47
 (F) Second Final Flow 175 Mileage 10027 100
 (G) Final Shut-In 949 Sampler _____
 (H) Final Hydrostatic 1841 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1625
 Sub Total 1625 MP/DST Disc't _____

Approved By _____ Our Representative Spencer J. Fiala

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785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65997

NO.

Well Name & No. Weyer # 6-35 Test No. 4 Date 09/22/2019
 Company Murphy Drilling Co Inc Elevation 2356 KB 2351 GL
 Address 250 N. Water STE 300 Wichita KS 67202 +1216
 Co. Rep / Geo. Saman Sharifaie Rig _____
 Location: Sec. 3 Twp 10A Rge. 24W Co. Graham State KS

Interval Tested 3814' - 3890' Zone Tested LAC 'H-J'
 Anchor Length 76' Drill Pipe Run 3633' Mud Wt. 9.0
 Top Packer Depth 3809' Drill Collars Run 184' Vis 60+
 Bottom Packer Depth 3814' Wt. Pipe Run - WL 6.4
 Total Depth 3890' Chlorides 1200 ppm System LCM 1#

Blow Description 7- Fair; Buill to 7"
51- No Return
77- Fair; Buill to 6"
75- No Return

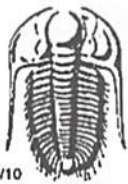
Rec	Feet of	%gas	%oil	%water	%mud
<u>350'</u>	<u>MW</u>		<u>70</u>	<u>30</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 350' BHT 118° Gravity - API RW 167 @ 55° F Chlorides 58,000 ppm
 (A) Initial Hydrostatic 1956 Test 1200 T-On Location 17:40
 (B) First Initial Flow 22 Jars 250 T-Started 18:40
 (C) First Final Flow 108 Safety Joint 75 T-Open 20:46
 (D) Initial Shut-In 863 Circ Sub _____ T-Pulled 00:46 09/23/2019
 (E) Second Initial Flow 112 Hourly Standby X1 T-Out 02:53
 (F) Second Final Flow 163 Mileage 100R7 100 Comments _____
 (G) Final Shut-In 845 Sampler _____
 (H) Final Hydrostatic 1811 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1625
 Sub Total 1625 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 80
 Final Shut-In 90

Approved By _____ Our Representative Francis J. Jural Thanks!
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785-259-0036



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65998

NO.

Well Name & No. Jeyer #6-35 Test No. 5 Date 09/23/2019
 Company Murfin Drilling Co Inc Elevation 2356 KB 2351 GL
 Address 250 W Water STE 300 Wichita KS 67202 +1216
 Co. Rep / Geo. Saman Sharifkai Rig Murfin #8
 Location: Sec. 3 Twp 10S Rge. 24W Co. Osage State KS

Interval Tested 3890' - 3934' Zone Tested LKC 'H-L'
 Anchor Length 44' Drill Pipe Run 3692' Mud Wt. 9.2
 Top Packer Depth 3885' Drill Collars Run 184' Vls 51
 Bottom Packer Depth 3890' Wt. Pipe Run - WL 7.8
 Total Depth 3934' Chlorides 1500 ppm System LCM 1#

Blow Description 7- BOB 3mins; Built to 87"
2SD- BOB 5mins; 6mins to bleed off; Built to 13"
77- BOB 1min; Built to 53"
7SD- BOB 59mins; 4mins to bleed off

Rec	Feet of	%gas	%oil	%water	%mud
<u>180'</u>	<u>GOCW</u>	<u>10</u>	<u>5</u>	<u>85</u>	
<u>510</u>	<u>GO</u>	<u>60</u>	<u>40</u>		
<u>60'</u>	<u>GMCO</u>	<u>20</u>	<u>70</u>		<u>10</u>
<u>Rec</u>	<u>Feet of 1150' GJP</u>	<u>100</u>			
<u>Rec</u>	<u>Feet of</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

Rec Total 750 BHT 120° Gravity 26° API RW .178 @ 74 °F Chlorides 39000 ppm

(A) Initial Hydrostatic 2008 Test 1200 T-On Location 11:07
 (B) First Initial Flow 118 Jars 250 T-Started 11:30
 (C) First Final Flow 237 Safety Joint 75 T-Open 13:18
 (D) Initial Shut-In 1285 Circ Sub _____ T-Pulled 16:18
 (E) Second Initial Flow 247 Hourly Standby _____ T-Out 19:02
 (F) Second Final Flow 337 Mileage 10027 100 Comments loaded after test
 (G) Final Shut-In 1265 Sampler _____
 (H) Final Hydrostatic 1927 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1625
 Sub Total 1625 MP/DST Disc# _____

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

Approved By _____ Our Representative Spencer J. [Signature] Thanks!
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785-259-0058

Saman Sharifaie

Petroleum Geologist

GEOLOGISTS REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **Murfin Drilling Co., Inc.**
LEASE: **Murfin #3-5**

FIELD: **Wildcat**
LOCATION: **330' FSL & 475' FWL**
SEC: **35** TWP: **10S** RGE: **24W**

COUNTRY: **Greenham** STATE: **Kansas**
CONTRACTOR: **Murfin Drilling #8**
SPUD: **09/16/19** COMP: **09/25/19**

RTD: **4000'** LTD: **4000'**
WUD UP: **3340'** TYPE WUD: **Chemical**

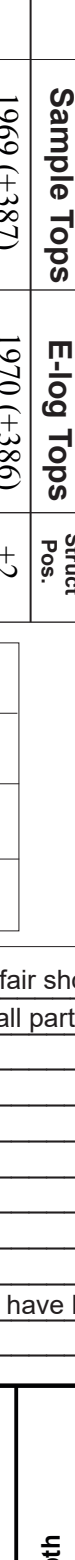
SAMPLES KEPT FROM: **3340'** TO RTD
DRILLING TIME FROM: **3340'** TO RTD
SAMPLER EXAMINED FROM: **3340'** TO **3350'**

CONDUCTOR: **8-5/8" at 260'**
SURFACE: **5-1/2" at 4000'**
CASING: **ELECTRICAL**

GEOLOGICAL SUPERVISION FROM: **3040'**
CND: **DIL. MEL. Some**

REFERENCE WELL: **MDCI - Ceycer #4-35**
Pioneer Hydraulic

Formation	Sample Tops	E-log Tops	Struct
Amblydrite	1969 (-387)	1970 (+386)	+2
Base Amblydrite	2015 (+341)	2015 (+341)	-1
Topeka	3445 (-1089)	3446 (-1090)	-1
LecO completion	3570 (-1214)	3571 (-1215)	-1
Oreoid	3614 (-1258)	3615 (-1259)	-4
Heobner	3667 (-1310)	3667 (-1311)	-4
Toronto	3687 (-1331)	3689 (-1333)	-5
Lansing	3704 (-1348)	3705 (-1349)	-5
Stark	3894 (-1538)	3896 (-1540)	-5



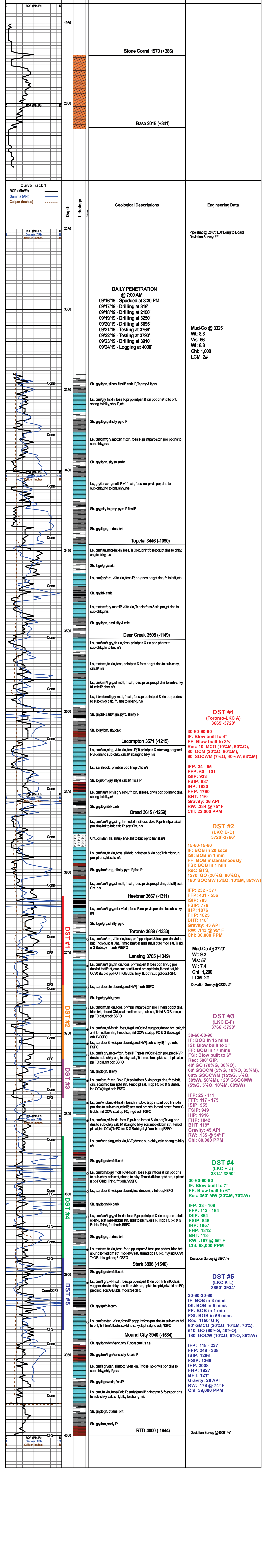
REMARKS: Due to fair shows of oil in multiple potential pay zones and positive DST results, it is recommended and agreed upon by all parties that production casing be set to further evaluate this well.

Respectfully Submitted,

API #15-065-24172

Saman Sharifaie
Petroleum Geologist

*Tops have been adjusted to electric logs



Depth (ft)	Geological Descriptions	Engineering Data
1970	Stone Corral 1970 (+386)	
2015	Base 2015 (+341)	
3446	Topeka 3446 (-1090)	
3505	Deer Creek 3505 (-1149)	DST #1 (Toronto-LKC A) 3665'-3720'
3571	Lecompton 3571 (-1215)	DST #2 (LKC B-D) 3720'-3766'
3615	Oread 3615 (-1259)	DST #3 (LKC E-F) 3766'-3790'
3667	Heobner 3667 (-1311)	DST #4 (LKC H-J) 3814'-3930'
3689	Toronto 3689 (-1333)	DST #5 (LKC K-L) 3890'-3934'
3705	Lansing 3705 (-1349)	
3896	Stark 3896 (-1540)	
4000	RTD 4000 (-1644)	



CEMENT TREATMENT REPORT

Customer: Murfin Drilling Co	Well: Geyer #6-35	Ticket: ICT2456
City, State: Wichita, KS	County: Graham, KS	Date: 9/24/2019
Field Rep: Shaun	S-T-R: Sec35 - T10S - R24W	Service: Production

Downhole Information	
Hole Size:	7.875 in
Hole Depth:	4000 ft
Casing Size:	5.5 in
Casing Depth:	0.0238 ft
Tubing / Liner:	in
Depth:	4000 ft
Tool / Packer:	
Depth:	ft
Displacement:	94.7 bbls

Calculated Slurry	
Weight:	14.8 # / sx
Water / Sx:	6.61 gal / sx
Yield:	1.50 ft ³ / sx
Bbls / Ft.:	0.0309
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	53.4 bbls
Total Sacks:	220 sx

Product	% / #	#
Class A	100.00	20680
Poz		
Gel	1.00	207
CAF-38	0.25	52
Gypsum	5.00	1034
CAL-160	0.60	124
Kol Seal	5.00	1100
Flo Seal		
Salt (brw)	10.00	1211
Total		24,407

TIME	RATE	PSI	BBLs	REMARKS
12:30				Call out
14:00				Depart Oakley yard
15:00				Arrive on locn. Rig TOH w/ DP & laying down same
16:05				JSA, discuss moving on, spotting & rigging up equipment
16:10				Move on, spot & rig-up equipment
16:45				Rig-up complete. Wait on rig.
16:38				Rig laydown Kelly, rathole & mousehole
17:20				Rig-up casing crew
17:45				Start to RIH w/ 5.5" 15.5# casing
19:35				Casing @ setting depth
19:53	7.5	350.0		Circulate & condition hole. Rotate csg every 10 mins
21:04	2.0	150.0	5.0	Pump H2O spacer
21:08		2,000.0		Pressure test
21:08	5.0	230.0	10.0	Pump mudflush spacer
21:10	5.0	230.0	5.0	Pump H2O spacer
21:14			8.0	Plug rathole w/ 30sx cement.
21:18			5.4	Plug mousehole w/ 20sx cement.
21:23	3.5	175.0	45.4	Mix & pump 170sx cement slurry @ 14.8ppg. Y - 1.50cuft/sk; MR - 6.61g/sk
21:35				Shutdown. Wash-up pumps & lines. Load latchdown plug.
21:40	6.0	310.0		Pump displacement
21:54	2.5	520.0	80.0	Slow rate
21:59		1,300.0	94.7	Bump plug. Final circulating pressure - 800psi @ 2.5bpm
22:01				Bleed off & check float. 3/4bbl back.
22:05				End Job. Wash-up pumps & lines to pit
22:15				Rig down & rack up equipment
22:45				Depart location
				Thanks for calling Hurricane Svcs Inc.

CREW		UNIT	SUMMARY		
Cementer:	Scott Green	74	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Jesse Jones	230	4.5 bpm	585 psi	254 bbls
Bulk #1:	John Polley	194 / 254			
Bulk #2:	Dane Retzdoff	78			

