

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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**CEMENT TREATMENT REPORT**

Customer: Val Energy	Well: Lehman V1-12	Ticket: ICT2248
City, State:	County: Sherman, KS	Date: 8/16/2019
Field Rep: Rick Smith	S-T-R: 9-3s-31w	Service: cement

Downhole Information	
Hole Size:	7.875
Hole Depth:	4950'
Casing Size:	5.5"
Casing Depth:	4910'
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Depth:	ft
Displacement:	119

Slurry	
Weight:	14.6 # / sx
Water / Sx:	7 gal / sx
Yield:	1 5/9 ft³ / sx
Bbls / Ft.:	
Depth:	ft
Volume:	bbbls
Excess:	%
Total Slurry:	43 bbbls
Total Sacks:	155 sx

Cement Blend		
Product	%	#
Class A		14570
Gel		291
CaCl		
Metso		
KolSeal		777
PhenoSeal		
Salt		840
Plaster		874

<b>Total</b>	<b>17,352</b>
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TIME	RATE	PSI	BBLs	REMARKS	TIME	RATE	PSI	BBLs	REMARKS
330pm				Arrival					
335pm				Safety meeting					
340pm				Rig up equip					
1135pm				Rig run in casing					
				Centralizers on Jnts 5,7,9,11,13					
1135am				Rig circulate casing on bottom					
3am	4.0	200.0	12.0	Pump mud flush					
315am	3.0		8.0	Mix 30sx RH					
320am	4.0	200.0	35.0	Mix 125sx					
335am				Shut down clear pump and lines					
336am				Release plug					
340am	5.0	700.0	119.0	Displace plug					
4am	3.5	1,150.0	119.0	Plug down					
410am				Rig down equip					
430am				Depart					

CREW		UNIT	SUMMARY		
Cementer:	Miles Shaw	73.0	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael Rebarchek	231.0	3.9 bpm	562.50 psi	293.00 bbbls
Bulk #1:	John Polley	242.0			
Bulk #2:					

Hurricane Services, Inc.  
 250 N. Water  
 Wichita, KS 67202



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

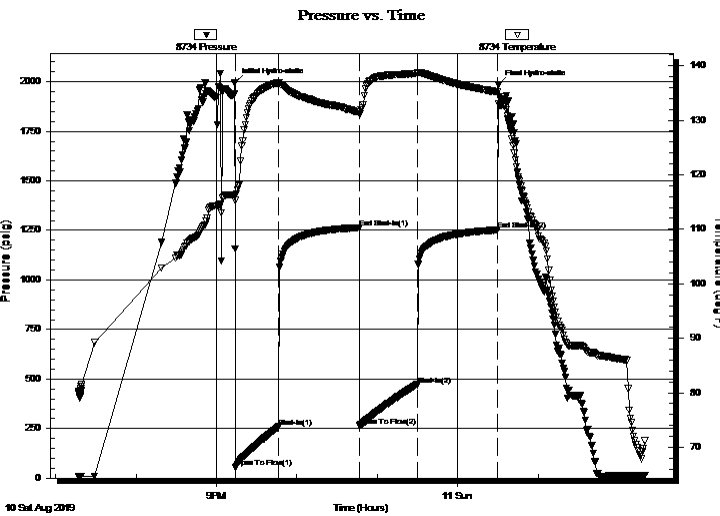
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
Job Ticket: 64367 **DST#: 1**  
Test Start: 2019.08.10 @ 19:17:00

## GENERAL INFORMATION:

Formation: **Lansing " A - B "**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 21:14:00 Tester: Martine Salinas  
Time Test Ended: 02:20:00 Unit No: 82  
**Interval: 4205.00 ft (KB) To 4250.00 ft (KB) (TVD)** Reference Elevations: 3427.00 ft (KB)  
Total Depth: 4250.00 ft (KB) (TVD) 3422.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**  
Press@RunDepth: 471.40 psig @ 4206.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2019.08.10 End Date: 2019.08.11 Last Calib.: 2019.08.11  
Start Time: 19:17:01 End Time: 02:20:00 Time On Btm: 2019.08.10 @ 21:13:40  
Time Off Btm: 2019.08.11 @ 00:30:30

**TEST COMMENT:** 30-IF-1" blow built to B.O.B (11 inches) @ 9 mins (blow increased to 30")  
60-ISI-No blow back  
45-FF-S.blow built to B.O.B (11 inches) @ 13 mins ( blow increased to 37 1/2")  
60-FSI-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1995.00	116.01	Initial Hydro-static
1	55.32	115.34	Open To Flow (1)
33	257.08	136.84	Shut-In(1)
93	1264.15	131.50	End Shut-In(1)
94	263.60	131.14	Open To Flow (2)
136	471.40	138.59	Shut-In(2)
197	1252.31	135.19	End Shut-In(2)
197	1983.25	132.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
835.00	MSW 2%M, 98%W	10.52
100.00	MW 18%M, 82%W	1.40
20.00	100% Mud	0.28

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**

**V1- 12 Lehman**

Job Ticket: 64367

**DST#: 1**

Test Start: 2019.08.10 @ 19:17:00

### GENERAL INFORMATION:

Formation: **Lansing "A - B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:14:00

Time Test Ended: 02:20:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Martine Salinas

Unit No: 82

**Interval: 4205.00 ft (KB) To 4250.00 ft (KB) (TVD)**

Total Depth: 4250.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3427.00 ft (KB)

3422.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8959**

**Inside**

Press@RunDepth: psig @ 4206.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.08.10

End Date:

2019.08.11

Last Calib.:

2019.08.11

Start Time: 19:16:01

End Time:

02:19:00

Time On Btm:

Time Off Btm:

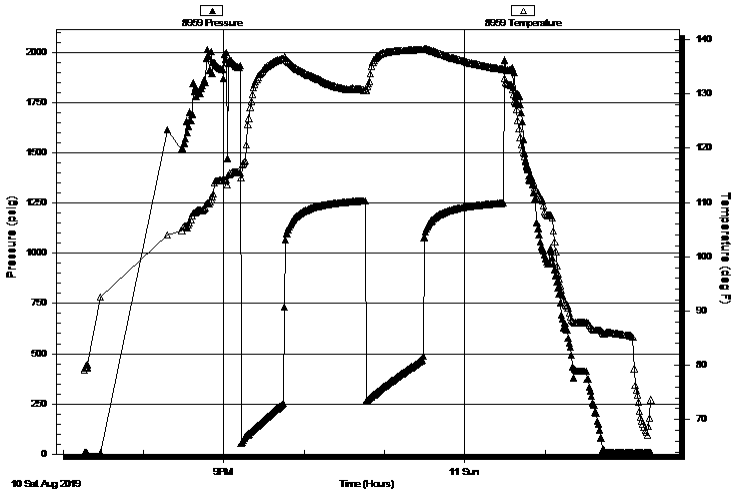
**TEST COMMENT:** 30-IF-1" blow built to B.O.B (11 inches) @ 9 mins (blow increased to 30")

60-ISI-No blow back

45-FF-S.blow built to B.O.B (11 inches) @ 13 mins (blow increased to 37 1/2")

60-FSI-No blow back

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
835.00	MSW 2%M, 98%W	10.52
100.00	MW 18%M, 82%W	1.40
20.00	100% Mud	0.28

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy INC

**12- 8S.- 37W. Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64367 **DST#: 1**

Test Start: 2019.08.10 @ 19:17:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 62.00 sec/qt  
Water Loss: in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 22000.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: 120000 ppm

### Recovery Information

Recovery Table

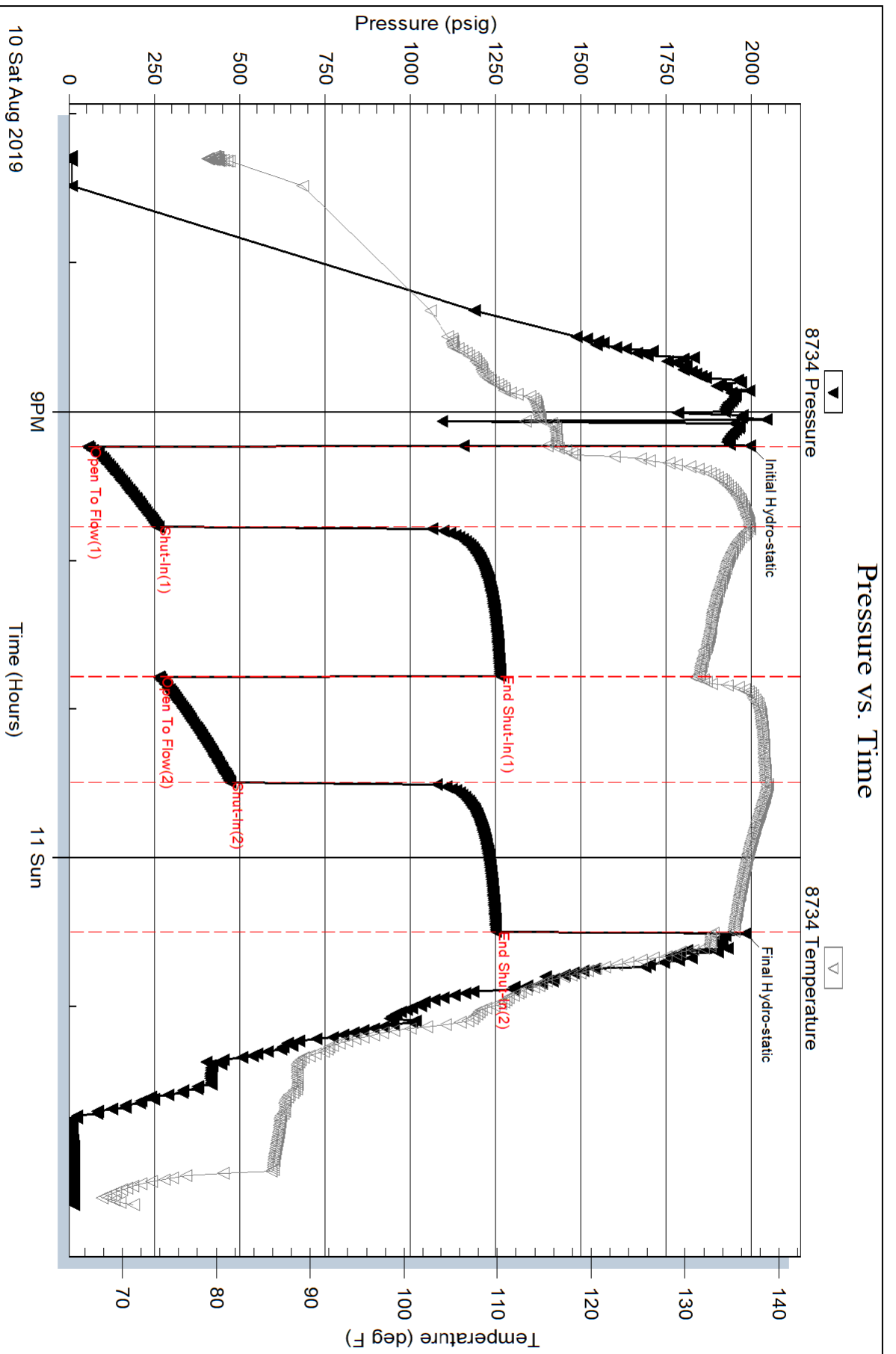
Length ft	Description	Volume bbl
835.00	MSW 2%M, 98%W	10.520
100.00	MW 18%M, 82%W	1.403
20.00	100% Mud	0.281

Total Length: 955.00 ft Total Volume: 12.204 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .079 @ 65 degs = 120,000 PPM





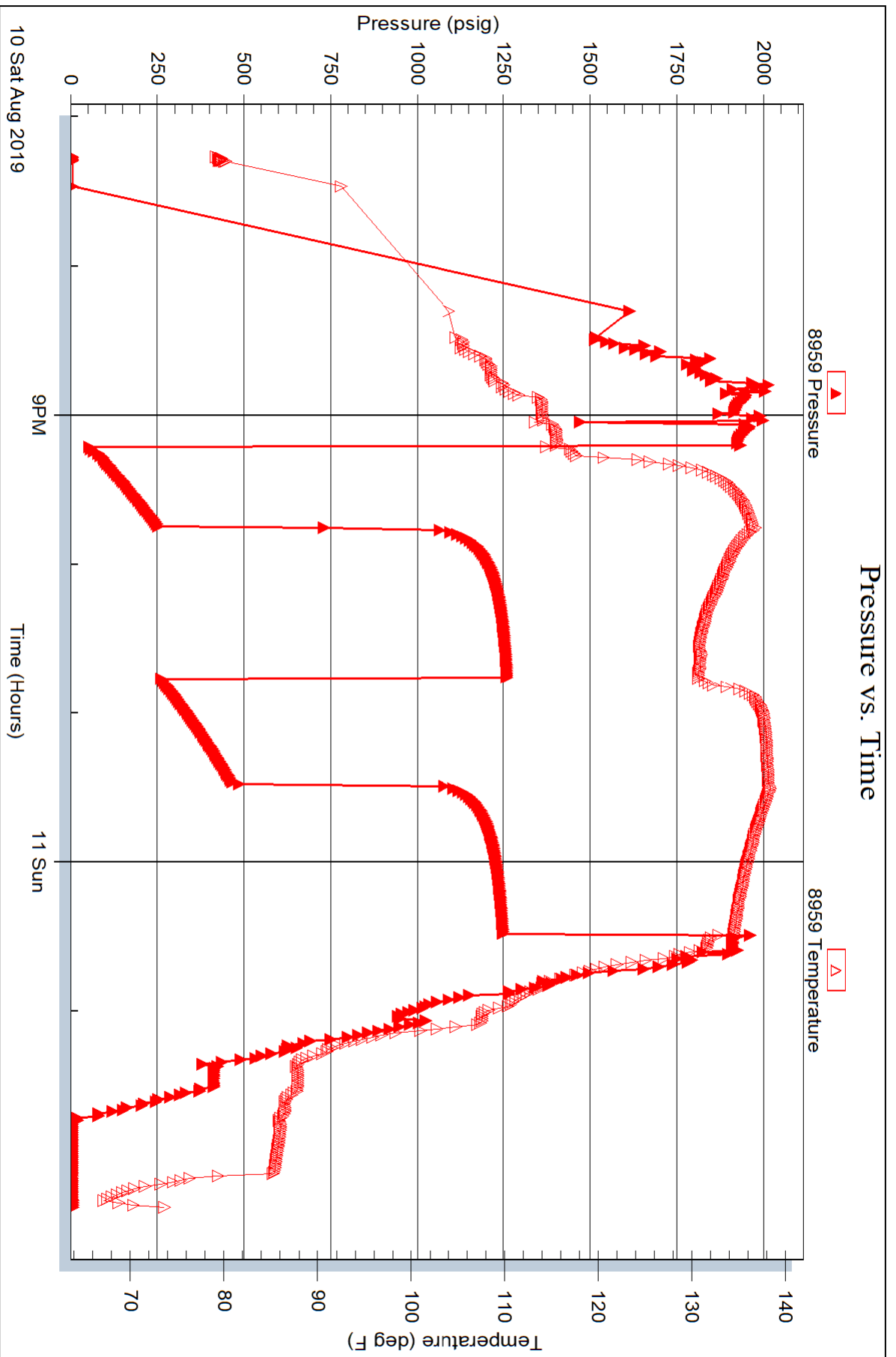
Serial #: 8959

Inside

Val Energy INC

V1- 12 Lehman

DST Test Number: 1





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

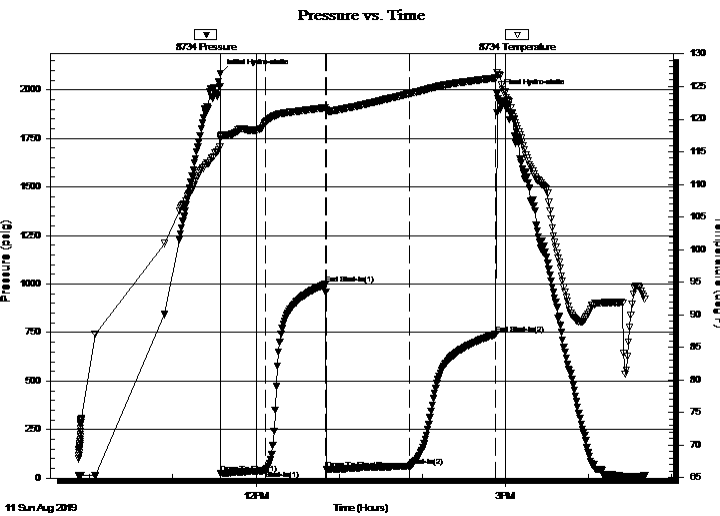
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
Job Ticket: 64368 **DST#: 2**  
Test Start: 2019.08.11 @ 09:52:00

## GENERAL INFORMATION:

Formation: **Lansing " D - F "**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 11:34:30  
Time Test Ended: 16:40:30  
Interval: **4262.00 ft (KB) To 4298.00 ft (KB) (TVD)**  
Total Depth: 4298.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Martine Salinas  
Unit No: 82  
Reference Elevations: 3427.00 ft (KB)  
3422.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**  
Press@RunDepth: 61.82 psig @ 4263.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2019.08.11 End Date: 2019.08.11 Last Calib.: 2019.08.11  
Start Time: 09:52:01 End Time: 16:40:30 Time On Btm: 2019.08.11 @ 11:34:20  
Time Off Btm: 2019.08.11 @ 14:54:00

**TEST COMMENT:** 30-IF-1/4" blow built to 2 1/2"  
45-ISI-No blow back  
60-FF-S.blow built to 2 1/4"  
60-FSI-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2085.11	117.30	Initial Hydro-static
1	25.00	117.02	Open To Flow (1)
33	38.74	119.40	Shut-In(1)
76	998.15	121.77	End Shut-In(1)
77	46.10	121.45	Open To Flow (2)
137	61.82	123.92	Shut-In(2)
199	740.63	126.30	End Shut-In(2)
200	1978.47	127.12	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	GOCM 10%G, 15%M, 75%O	0.10
100.00	CGO 17%G, 83%O	0.49

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**

**V1- 12 Lehman**

Job Ticket: 64368

**DST#: 2**

Test Start: 2019.08.11 @ 09:52:00

## GENERAL INFORMATION:

Formation: **Lansing " D - F "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:34:30

Time Test Ended: 16:40:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

**Interval: 4262.00 ft (KB) To 4298.00 ft (KB) (TVD)**

Total Depth: 4298.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3427.00 ft (KB)

3422.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8959**

**Inside**

Press@RunDepth: psig @ 4263.00 ft (KB)

Start Date: 2019.08.11

End Date:

2019.08.11

Capacity: 8000.00 psig

Last Calib.:

2019.08.11

Start Time: 09:52:01

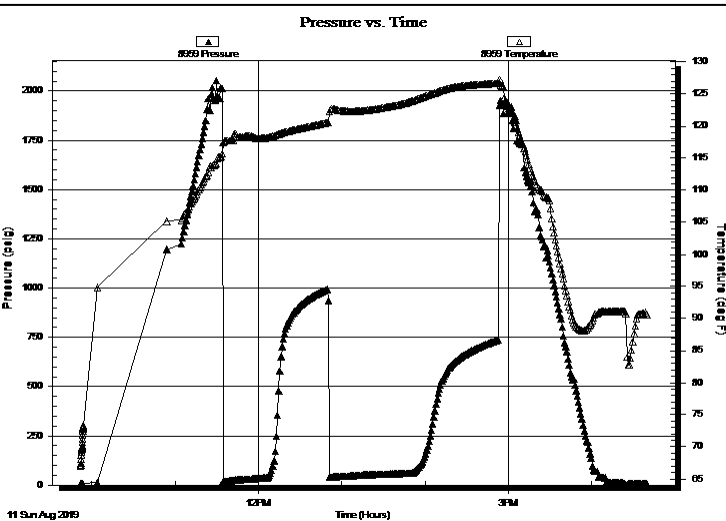
End Time:

16:40:20

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-1/4" blow built to 2 1/2"  
45-ISI-No blow back  
60-FF-S.blow built to 2 1/4"  
60-FSI-No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	GOCM 10%G, 15%M, 75%O	0.10
100.00	CGO 17%G, 83%O	0.49

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy INC

**12- 8S.- 37W. Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64368 **DST#: 2**

Test Start: 2019.08.11 @ 09:52:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 59.00 sec/qt  
Water Loss: 7.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4000.00 ppm  
Filter Cake: 2.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 31.2 deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

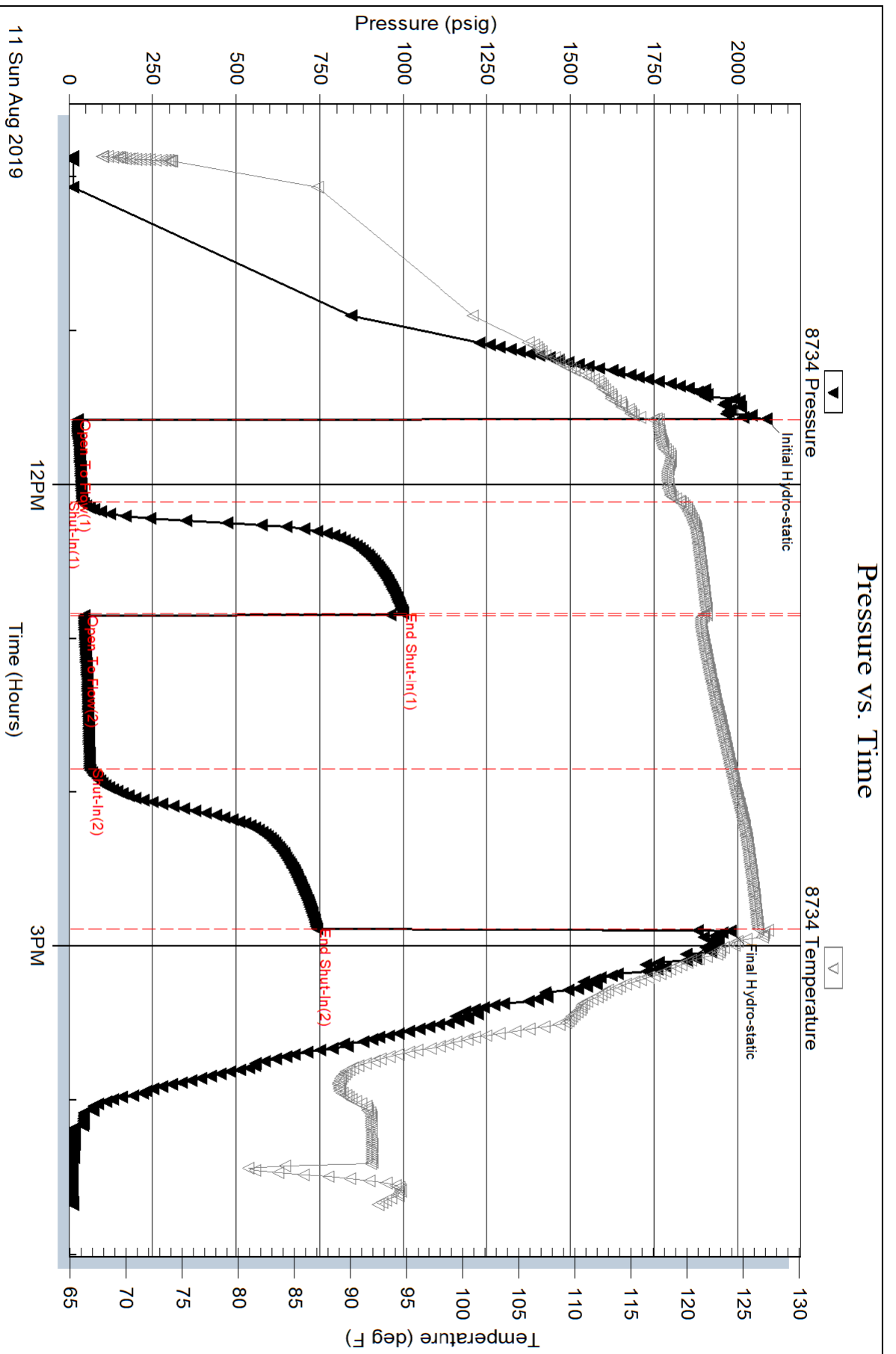
Length ft	Description	Volume bbl
20.00	GOCM 10%G, 15%M, 75%O	0.098
100.00	CGO 17%G, 83%O	0.492

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity of oil = 34.6 @ 94 degs  
Gravity corrected to 31.2 @ 60 degs



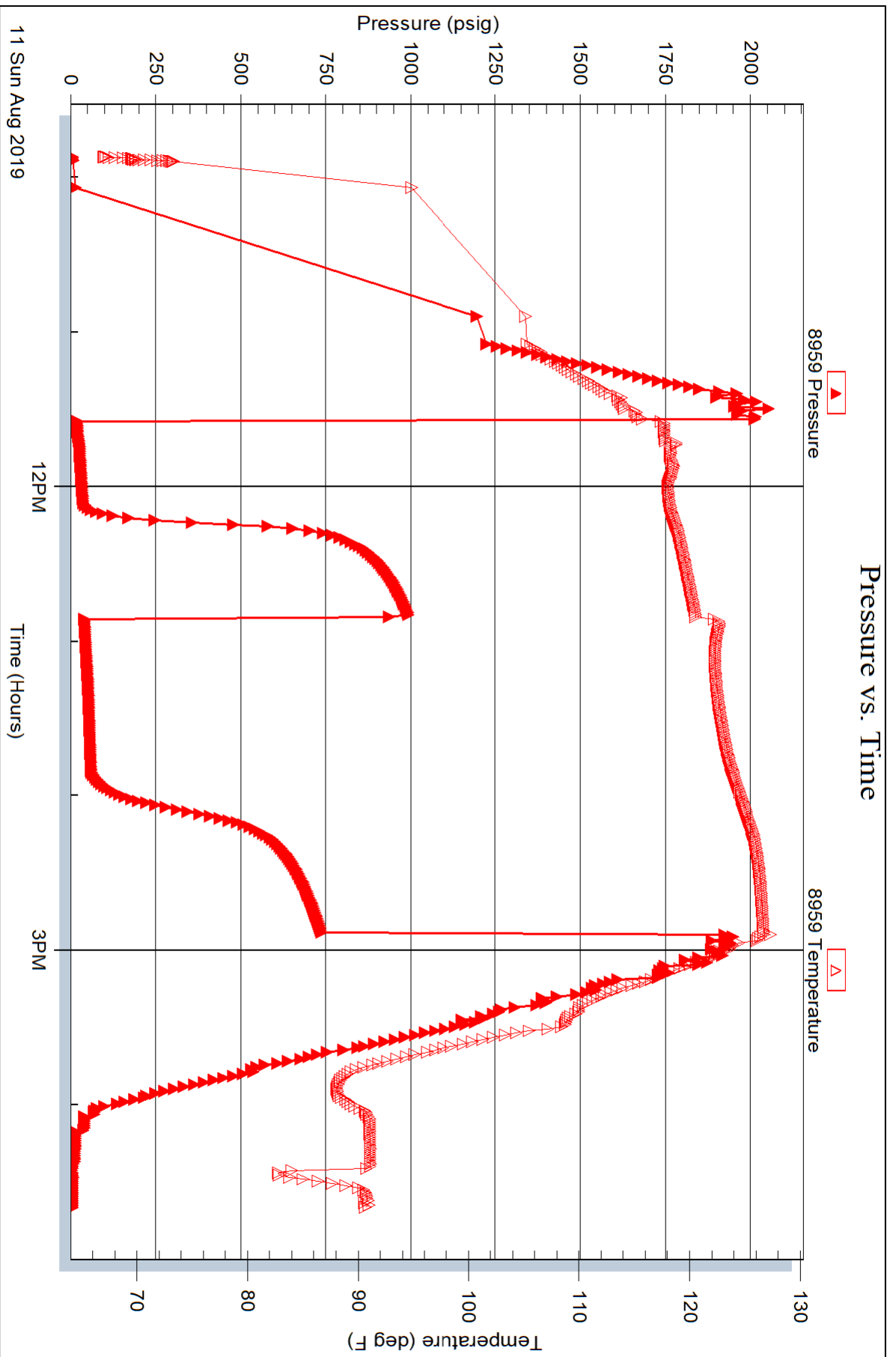
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 2





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
Job Ticket: 64369 **DST#: 3**  
Test Start: 2019.08.12 @ 05:32:00

## GENERAL INFORMATION:

Formation: **LKC " H - J "**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 07:11:30 Tester: Martine Salinas  
Time Test Ended: 10:57:50 Unit No: 82  
**Interval: 4347.00 ft (KB) To 4410.00 ft (KB) (TVD)** Reference Elevations: 3427.00 ft (KB)  
Total Depth: 4410.00 ft (KB) (TVD) 3422.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

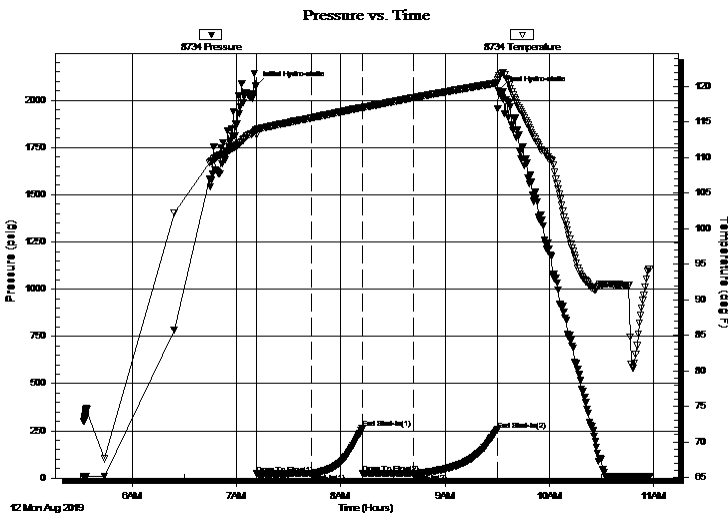
## Serial #: 8734

**Outside**

Press@RunDepth: 25.79 psig @ 4348.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12  
Start Time: 05:32:01 End Time: 10:57:50 Time On Btm: 2019.08.12 @ 07:11:20  
Time Off Btm: 2019.08.12 @ 09:30:40

**TEST COMMENT:** 30-IF-S. blow built to 3/4"  
30-ISI-No blow back  
30-FF-No blow  
45-FSI-No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.72	113.94	Initial Hydro-static
1	22.63	113.13	Open To Flow (1)
32	23.86	115.58	Shut-In(1)
61	261.98	117.06	End Shut-In(1)
62	26.63	116.99	Open To Flow (2)
91	25.79	118.43	Shut-In(2)
139	255.76	120.51	End Shut-In(2)
140	2051.51	121.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	OCM 10%O, 90%M	0.01
2.00	CO 100% O	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

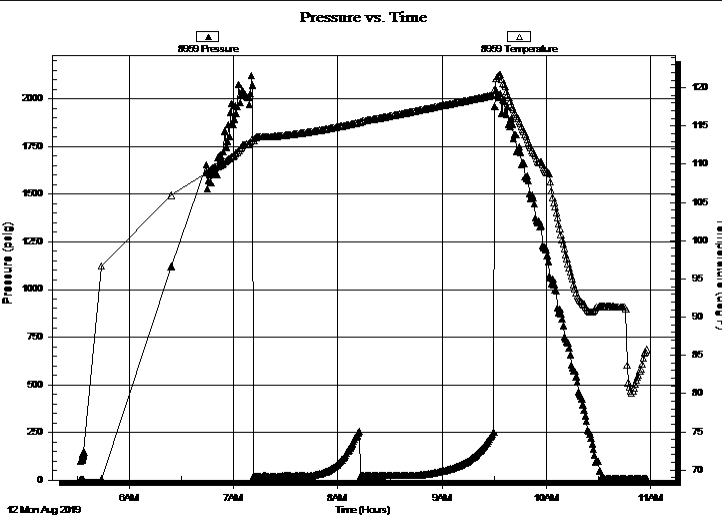
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64369 **DST#: 3**  
 Test Start: 2019.08.12 @ 05:32:00

## GENERAL INFORMATION:

Formation: **LKC " H - J "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:11:30  
 Time Test Ended: 10:57:50  
 Interval: **4347.00 ft (KB) To 4410.00 ft (KB) (TVD)**  
 Total Depth: 4410.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 3427.00 ft (KB)  
 3422.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**  
 Press@RunDepth: psig @ 4348.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12  
 Start Time: 05:32:01 End Time: 10:57:50 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF-S. blow built to 3/4"  
 30-ISI-No blow back  
 30-FF-No blow  
 45-FSI-No blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
3.00	OCM 10%O, 90%M	0.01
2.00	CO 100% O	0.01

\* Recovery from multiple tests

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





**TRILOBITE**  
**TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Val Energy INC

**12- 8S.- 37W.**

**Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64369

**DST#: 3**

Test Start: 2019.08.12 @ 05:32:00

**Mud and Cushion Information**

Mud Type: Gel Chem

Cushion Type:

Oil API:

32.2 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
3.00	OCM 10%O, 90%M	0.015
2.00	CO 100% O	0.010

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

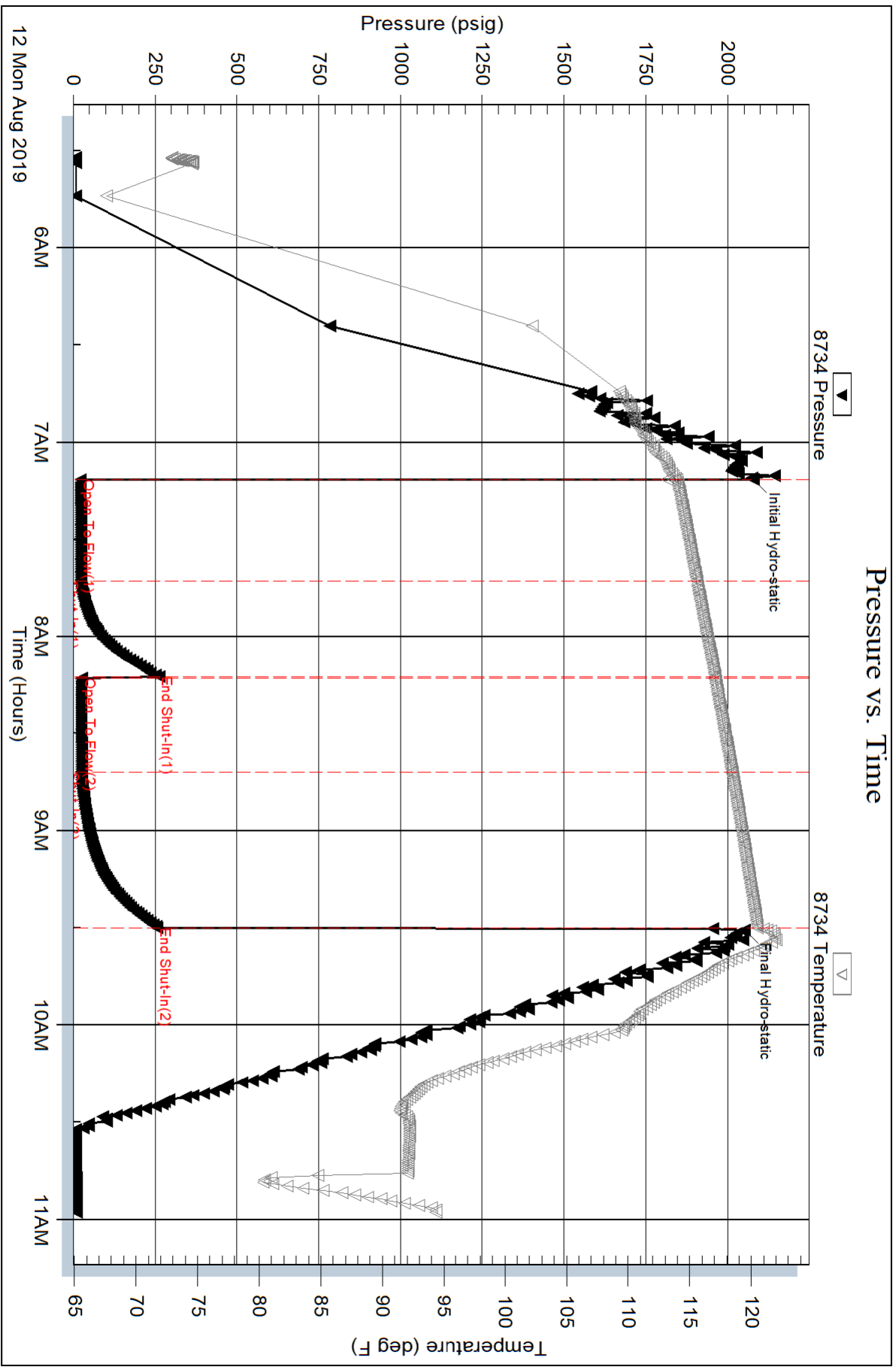
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 35 @ 88 degs

Gravity corrected to 32.2 @ 60 degs



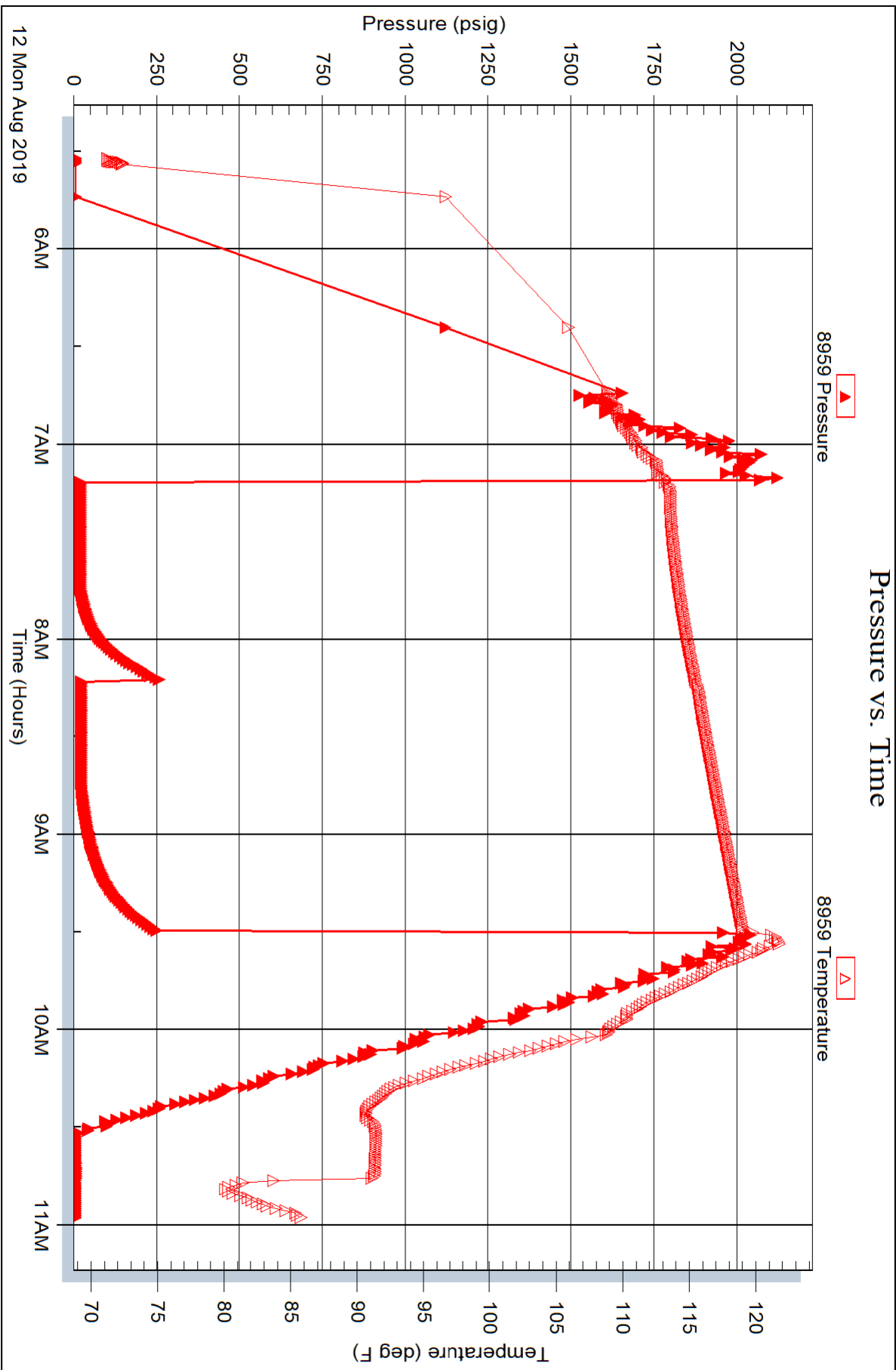
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 3





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

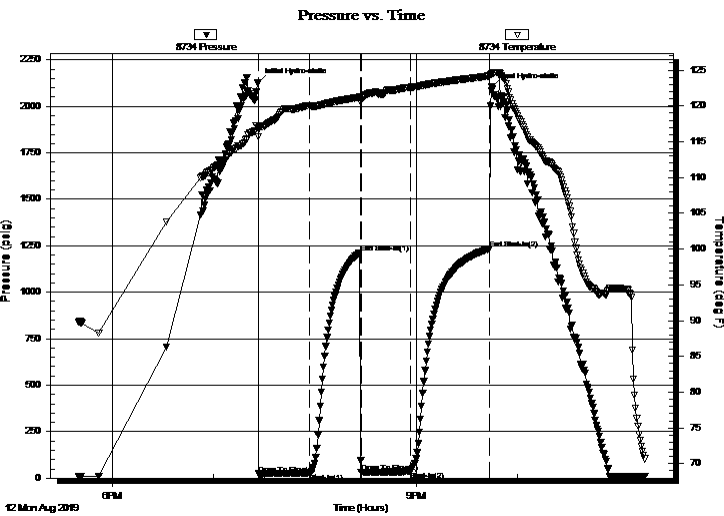
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64370 **DST#: 4**  
 Test Start: 2019.08.12 @ 17:40:00

## GENERAL INFORMATION:

Formation: **LKC " K "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:26:20  
 Time Test Ended: 23:15:30  
 Interval: **4406.00 ft (KB) To 4450.00 ft (KB) (TVD)**  
 Total Depth: 4450.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 3427.00 ft (KB)  
 3422.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**  
 Press@RunDepth: 36.75 psig @ 4407.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12  
 Start Time: 17:40:01 End Time: 23:15:30 Time On Btm: 2019.08.12 @ 19:26:10  
 Time Off Btm: 2019.08.12 @ 21:44:30

**TEST COMMENT:** 30-IF-Weak s.blow built to 1/2" @ 20 mins and maintained blow  
 30-ISI-No blow back  
 30-FF-No blow  
 45-FSI-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2128.85	116.90	Initial Hydro-static
1	22.56	115.66	Open To Flow (1)
31	27.56	120.03	Shut-In(1)
61	1214.19	121.24	End Shut-In(1)
61	30.14	120.90	Open To Flow (2)
90	36.75	122.60	Shut-In(2)
137	1234.84	124.19	End Shut-In(2)
139	2102.85	124.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OSM 3%O, 97%M	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

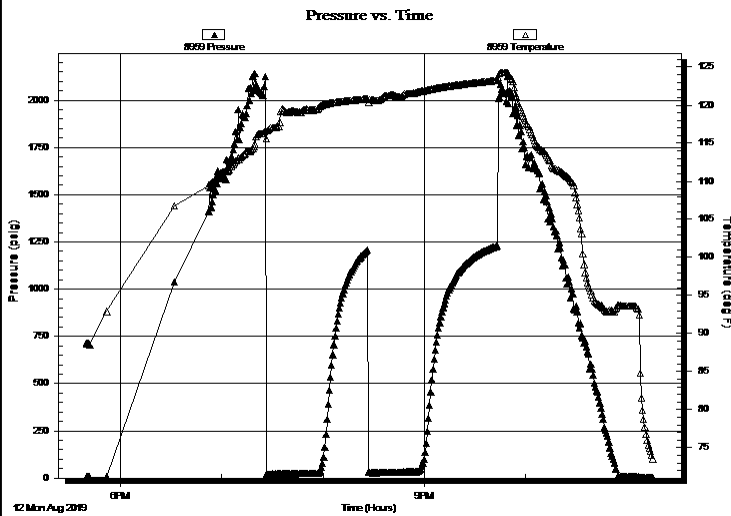
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
Job Ticket: 64370 **DST#: 4**  
Test Start: 2019.08.12 @ 17:40:00

## GENERAL INFORMATION:

Formation: **LKC " K "**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 19:26:20  
Time Test Ended: 23:15:30  
Interval: **4406.00 ft (KB) To 4450.00 ft (KB) (TVD)**  
Total Depth: 4450.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches  
Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Martine Salinas  
Unit No: 82  
Reference Elevations: 3427.00 ft (KB)  
3422.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**  
Press@RunDepth: psig @ 4407.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2019.08.12 End Date: 2019.08.12 Last Calib.: 2019.08.12  
Start Time: 17:40:01 End Time: 23:15:20 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IF-Weak s.blow built to 1/2" @ 20 mins and maintained blow  
30-ISI-No blow back  
30-FF-No blow  
45-FSI-No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OSM 3%O, 97%M	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Val Energy INC

**12- 8S.- 37W.**

**Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64370

**DST#: 4**

Test Start: 2019.08.12 @ 17:40:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 60.00 sec/qt

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

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OSM 3%O, 97%M	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

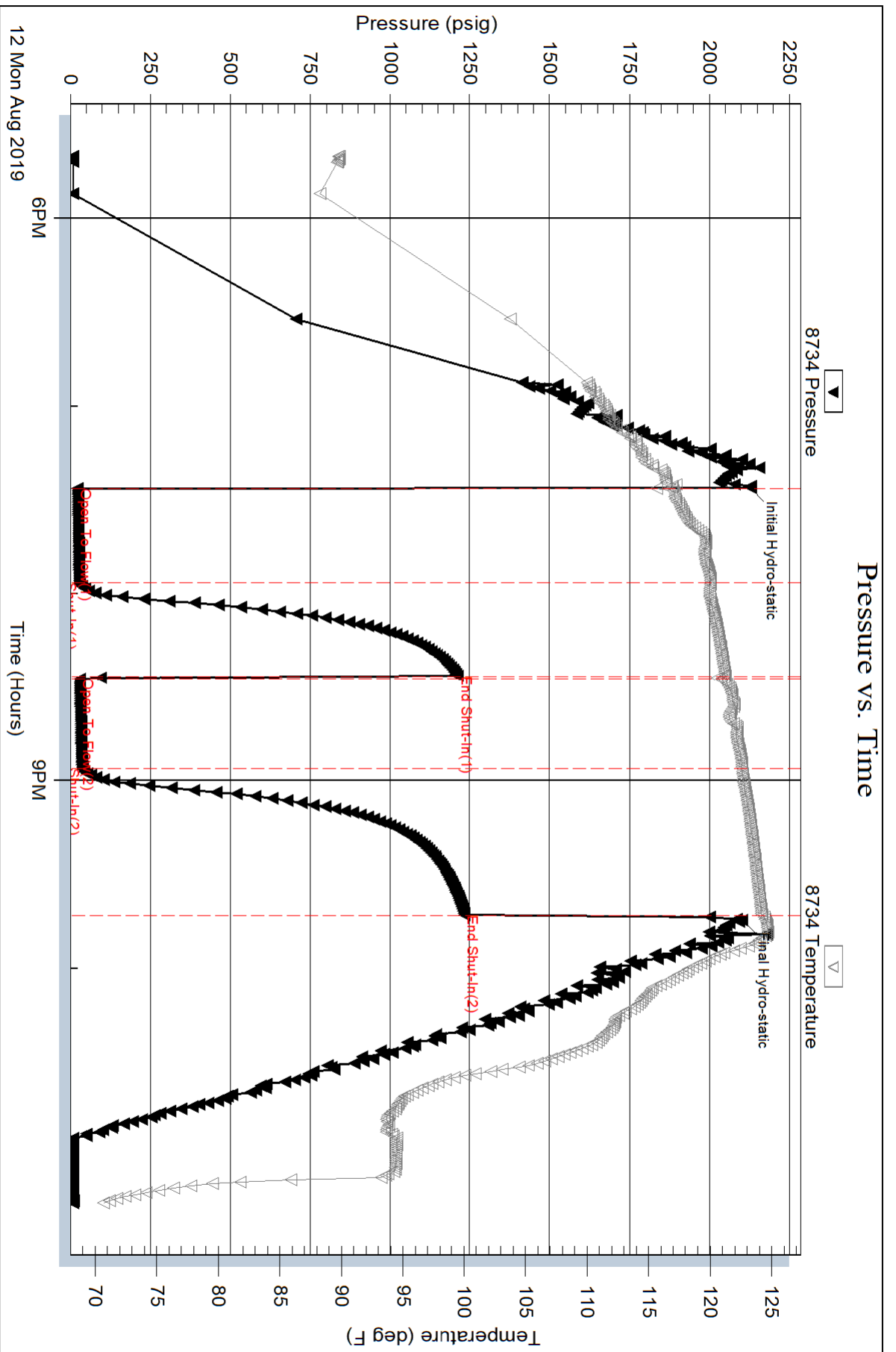
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



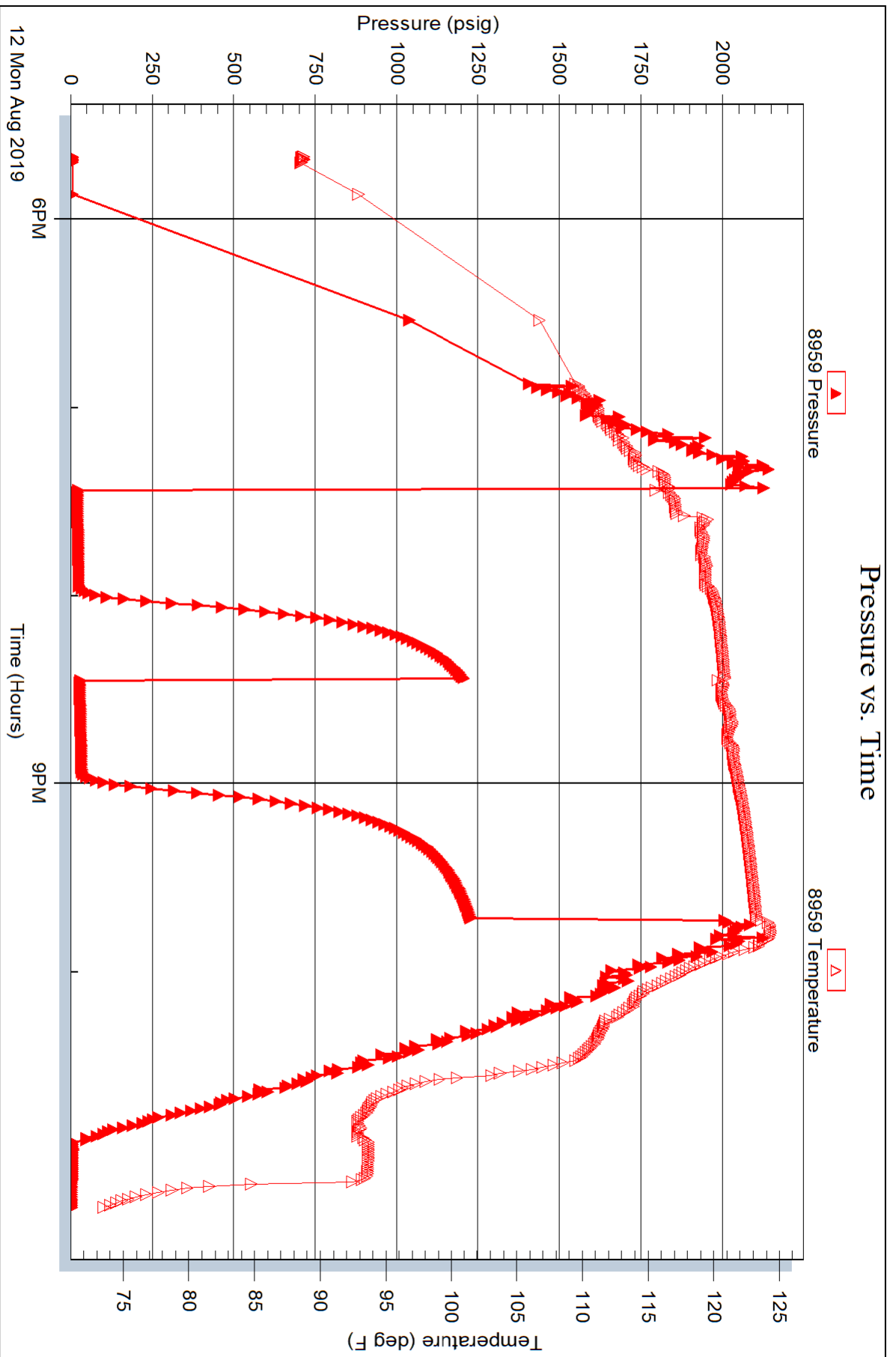
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 4







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

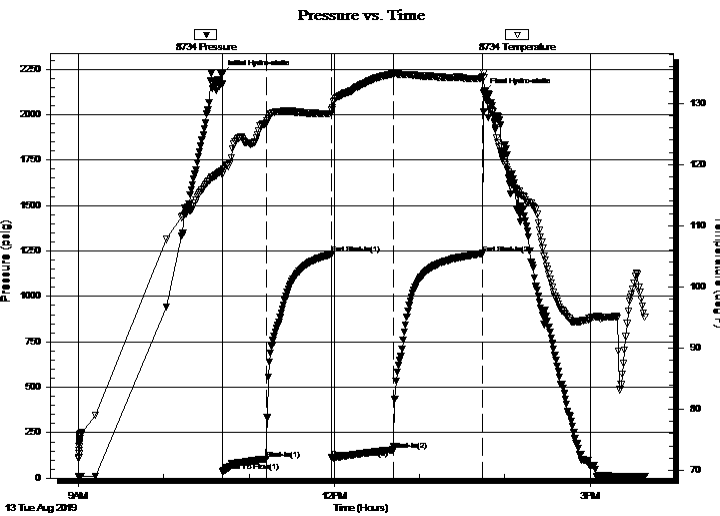
**12- 8S.- 37W. Sherman,KS**  
**Lehman V1- 12**  
 Job Ticket: 64371 **DST#: 5**  
 Test Start: 2019.08.13 @ 09:00:00

## GENERAL INFORMATION:

Formation: **LKC L - Marmaton B "**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 10:41:10 Tester: Martine Salinas  
 Time Test Ended: 15:38:30 Unit No: 82  
 Interval: **4451.00 ft (KB) To 4555.00 ft (KB) (TVD)** Reference Elevations: 3427.00 ft (KB)  
 Total Depth: 4555.00 ft (KB) (TVD) 3422.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**  
 Press@RunDepth: 155.71 psig @ 4452.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.13 End Date: 2019.08.13 Last Calib.: 2019.08.13  
 Start Time: 09:00:01 End Time: 15:38:30 Time On Btm: 2019.08.13 @ 10:40:50  
 Time Off Btm: 2019.08.13 @ 13:45:20

TEST COMMENT: 30-IF-S.blow built to 9"  
 45-ISI-No blow back  
 45-FF-S.blow built to 9"  
 60-FSI-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2219.26	118.99	Initial Hydro-static
1	36.94	118.34	Open To Flow (1)
32	105.49	126.86	Shut-In(1)
77	1231.15	128.36	End Shut-In(1)
78	111.68	128.90	Open To Flow (2)
121	155.71	134.88	Shut-In(2)
184	1236.21	134.34	End Shut-In(2)
185	2118.50	134.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	MCW w/ oil scum 25%M, 75%W	3.16

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**  
**Lehman V1- 12**  
Job Ticket: 64371      **DST#: 5**  
Test Start: 2019.08.13 @ 09:00:00

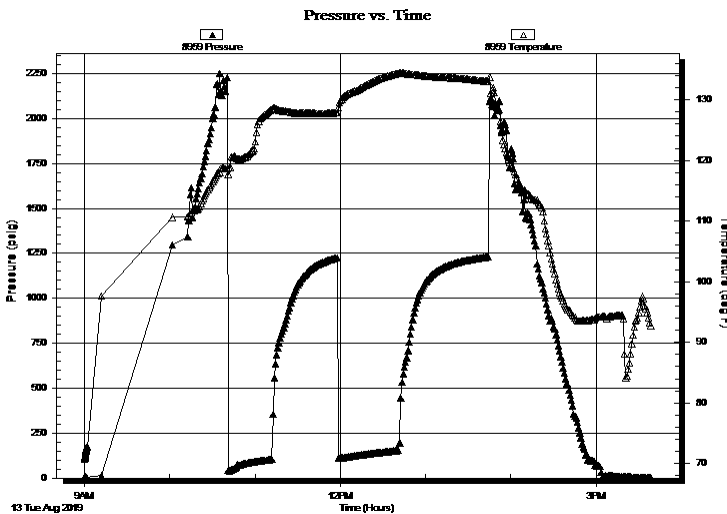
## GENERAL INFORMATION:

Formation: **LKC L - Marmaton B "**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 10:41:10      Tester: Martine Salinas  
Time Test Ended: 15:38:30      Unit No: 82  
**Interval: 4451.00 ft (KB) To 4555.00 ft (KB) (TVD)**      Reference Elevations: 3427.00 ft (KB)  
Total Depth: 4555.00 ft (KB) (TVD)      3422.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**  
Press@RunDepth: psig @ 4452.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2019.08.13      End Date: 2019.08.13      Last Calib.: 2019.08.13  
Start Time: 09:00:01      End Time: 15:38:30      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IF-S.blow built to 9"  
45-ISI-No blow back  
45-FF-S.blow built to 9"  
60-FSI-No blow back

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	MCW w/ oil scum 25%M, 75%W	3.16

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Val Energy INC

**12- 8S.- 37W. Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**Lehman V1- 12**

Job Ticket: 64371 **DST#: 5**

Test Start: 2019.08.13 @ 09:00:00

**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:	60000 ppm
Viscosity: 71.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.39 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7000.00 ppm			
Filter Cake: 2.00 inches			

**Recovery Information**

Recovery Table

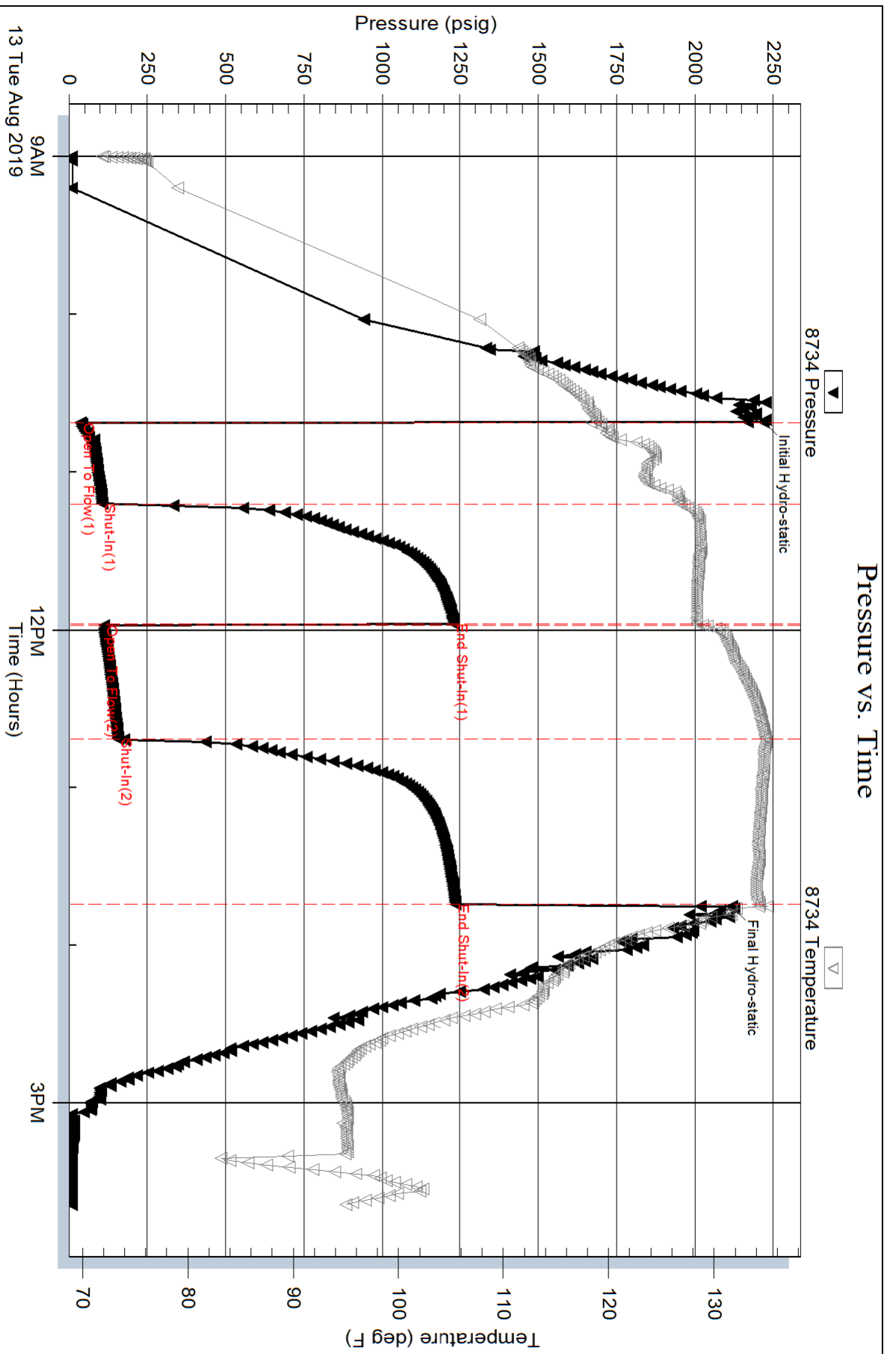
Length ft	Description	Volume bbl
310.00	MCW w / oil scum 25%M, 75%W	3.155

Total Length: 310.00 ft Total Volume: 3.155 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW= .106 @ 87.5 degs = 60,000 PPM



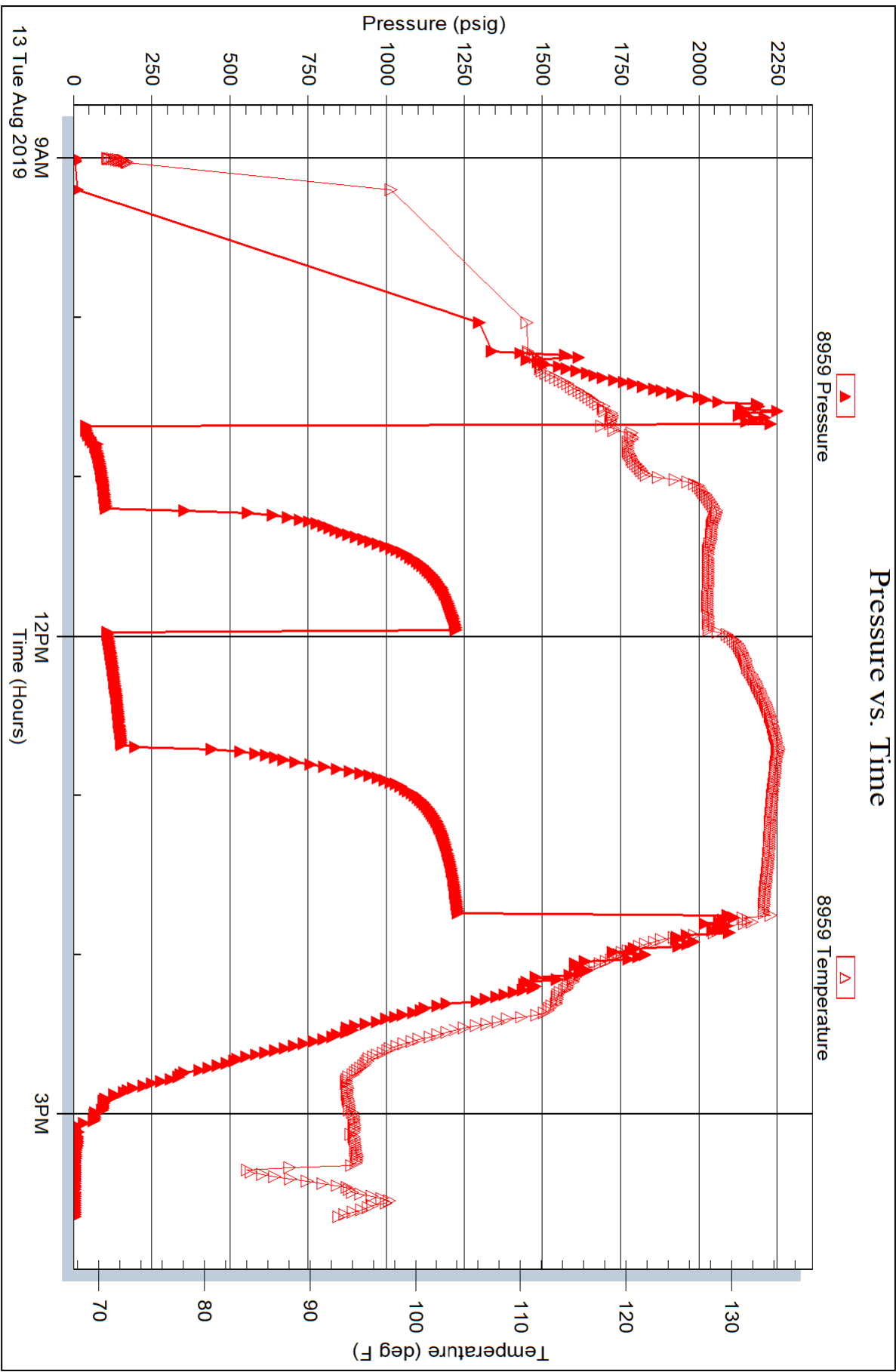
Serial #: 8959

Inside

Val Energy INC

Lehman V1- 12

DST Test Number: 5





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
Job Ticket: 64372 **DST#: 6**  
Test Start: 2019.08.14 @ 00:24:00

## GENERAL INFORMATION:

Formation: **"Marmaton "C" - Pawn**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:10

Time Test Ended: 05:50:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4559.00 ft (KB) To 4620.00 ft (KB) (TVD)**

Reference Elevations: 3427.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

3422.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**

Press@RunDepth: 26.01 psig @ 4560.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.08.14 End Date: 2019.08.14

Last Calib.: 2019.08.14

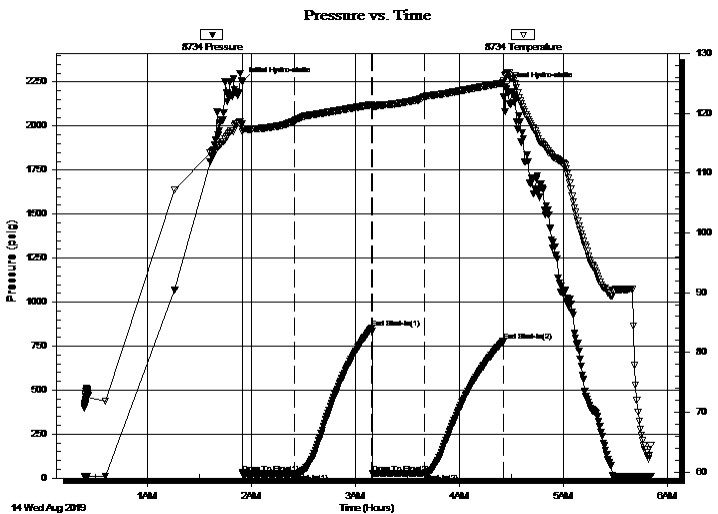
Start Time: 00:24:01 End Time: 05:50:20

Time On Btm: 2019.08.14 @ 01:54:50

Time Off Btm: 2019.08.14 @ 04:26:40

**TEST COMMENT:** 30-IF-S.blow built to 1"  
45-ISI-S.blow back @ 7 mins built to 1/4" ( Thermal Expansion)  
30--FF-No blow  
45-FSI-No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2249.63	118.31	Initial Hydro-static
1	25.15	117.44	Open To Flow (1)
30	25.56	118.70	Shut-In(1)
75	853.61	121.45	End Shut-In(1)
75	28.08	120.99	Open To Flow (2)
106	26.01	122.76	Shut-In(2)
151	775.71	125.04	End Shut-In(2)
152	2222.31	126.47	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.02
0.00	Oil spots in tool	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**

**V1- 12 Lehman**

Job Ticket: 64372

**DST#: 6**

Test Start: 2019.08.14 @ 00:24:00

## GENERAL INFORMATION:

Formation: **"Marmaton "C" - Pawn**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:55:10

Time Test Ended: 05:50:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Martine Salinas

Unit No: 82

Interval: **4559.00 ft (KB) To 4620.00 ft (KB) (TVD)**

Total Depth: 4620.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3427.00 ft (KB)

3422.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**

Press@RunDepth: psig @ 4560.00 ft (KB)

Start Date: 2019.08.14

End Date: 2019.08.14

Start Time: 00:24:01

End Time: 05:50:10

Capacity: 8000.00 psig

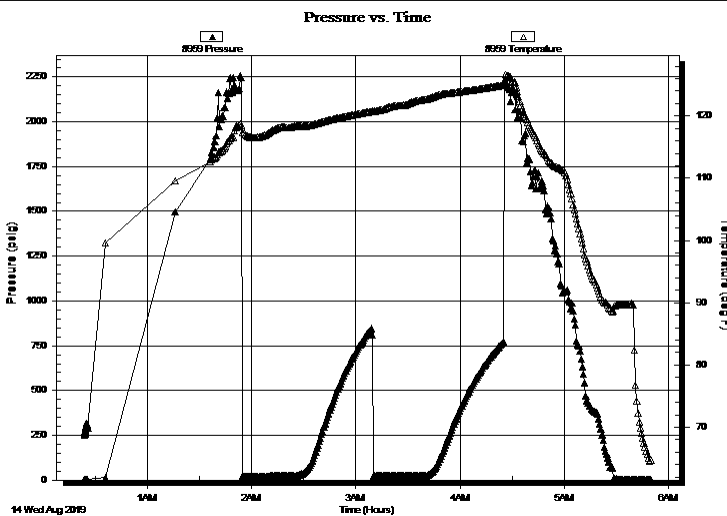
Last Calib.: 2019.08.14

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-S.blow built to 1"  
45-ISI-S.blow back @ 7 mins built to 1/4" ( Thermal Expansion)  
30--FF-No blow  
45-FSI-No blow back

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.02
0.00	Oil spots in tool	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

Val Energy INC

**12- 8S.- 37W.**

**Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64372

**DST#: 6**

Test Start: 2019.08.14 @ 00:24:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100%Mud	0.025
0.00	Oil spots in tool	0.000

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

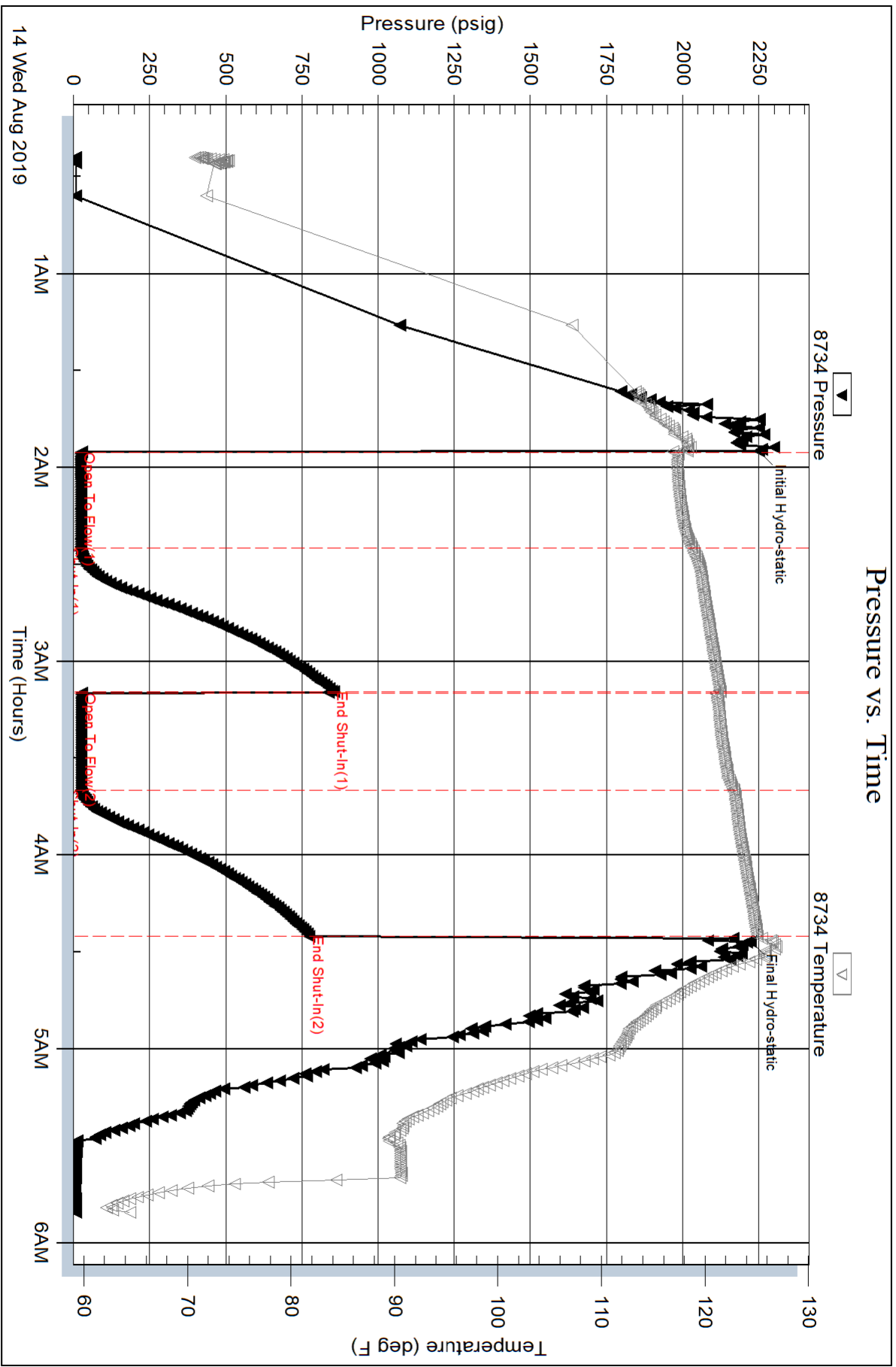
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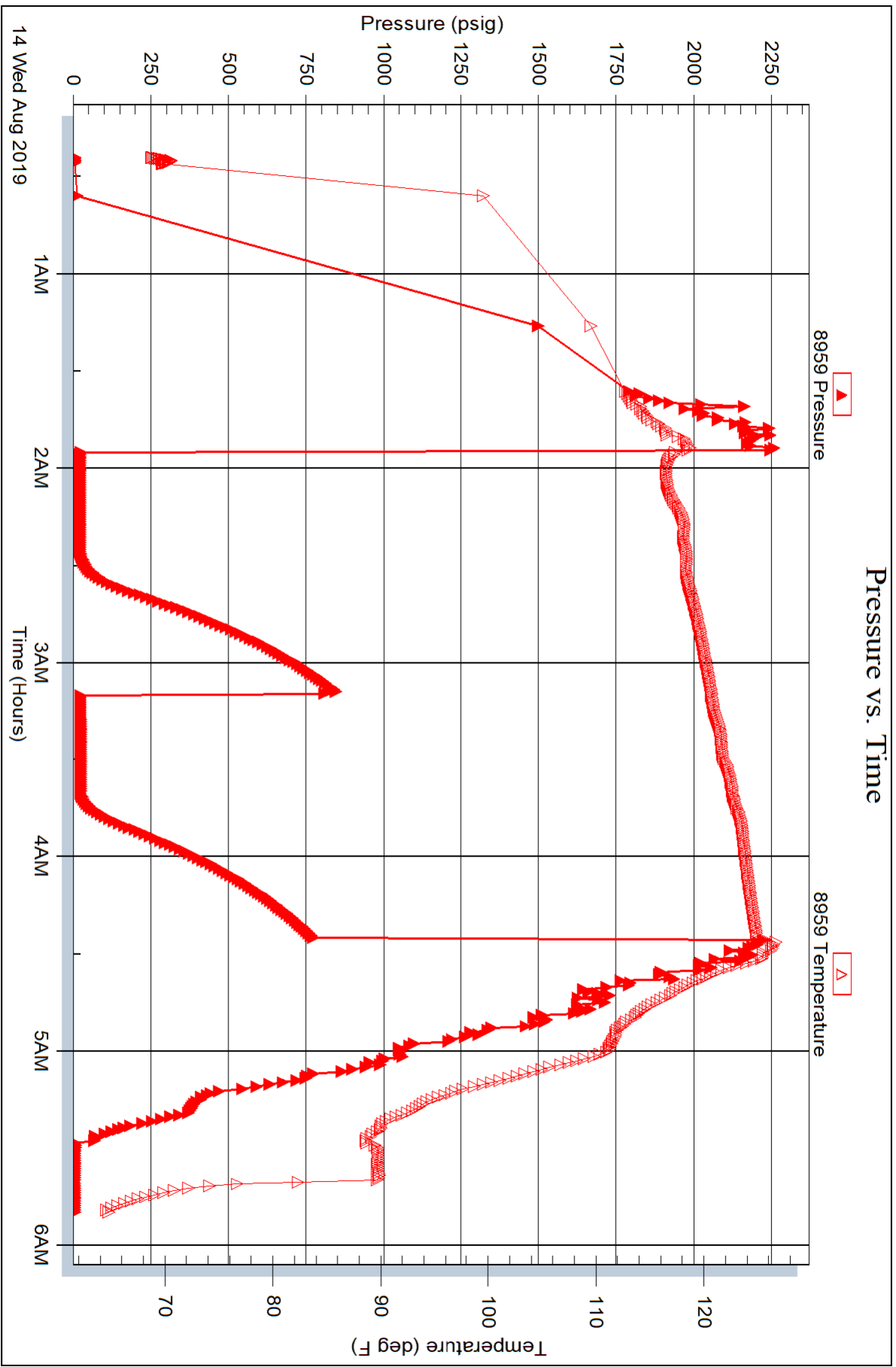
Laboratory Name:

Laboratory Location:

Recovery Comments:









**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

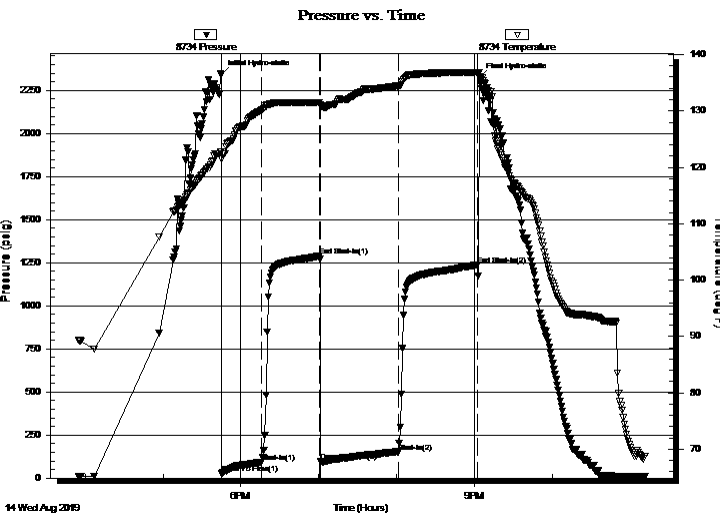
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64373 **DST#: 7**  
 Test Start: 2019.08.14 @ 15:55:00

## GENERAL INFORMATION:

Formation: **Myric Station- Chero**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:45:10  
 Time Test Ended: 23:11:09  
 Interval: **4619.00 ft (KB) To 4710.00 ft (KB) (TVD)**  
 Total Depth: 4710.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 3427.00 ft (KB)  
 3422.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8734 Outside**  
 Press@RunDepth: 152.45 psig @ 4620.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.14 End Date: 2019.08.14 Last Calib.: 2019.08.14  
 Start Time: 15:55:01 End Time: 23:11:10 Time On Btm: 2019.08.14 @ 17:45:00  
 Time Off Btm: 2019.08.14 @ 21:03:30

**TEST COMMENT:** 30-IF-S.blow built to B.O.B (11 inches) @ 24 mins ( blow increased to 14 1/2")  
 45-ISI-S.blow back @ 4 mins built to 1/4" @ 7 mins dead @ 32 mins  
 60-FF-S.blow built to B.O.B (1 inches) @ 24 mins ( blow increased to 26 1/2")  
 60-FSI-S.blow back built to 3"



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2343.12	122.71	Initial Hydro-static
1	25.03	121.43	Open To Flow (1)
31	91.72	130.14	Shut-In(1)
76	1288.98	131.49	End Shut-In(1)
77	96.72	131.02	Open To Flow (2)
136	152.45	134.43	Shut-In(2)
198	1236.80	136.83	End Shut-In(2)
199	2320.98	136.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
330.00	GMCO 33%G, 23%M, 44%O	3.44
0.00	180' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

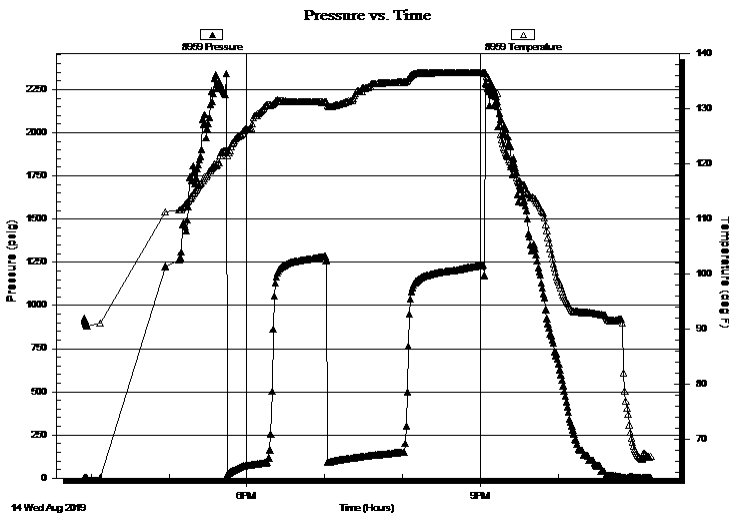
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64373 **DST#: 7**  
 Test Start: 2019.08.14 @ 15:55:00

## GENERAL INFORMATION:

Formation: **Myric Station- Chero**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:45:10  
 Time Test Ended: 23:11:09  
 Interval: **4619.00 ft (KB) To 4710.00 ft (KB) (TVD)**  
 Total Depth: 4710.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 3427.00 ft (KB)  
 3422.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**  
 Press@RunDepth: psig @ 4620.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.14 End Date: 2019.08.14 Last Calib.: 2019.08.14  
 Start Time: 15:55:01 End Time: 23:11:00 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF-S.blow built to B.O.B (11 inches) @ 24 mins ( blow increased to 14 1/2")  
 45-ISI-S.blow back @ 4 mins built to 1/4" @ 7 mins dead @ 32 mins  
 60-FF-S.blow built to B.O.B (1 inches) @ 24 mins ( blow increased to 26 1/2")  
 60-FSI-S.blow back built to 3"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
330.00	GMCO 33%G, 23%M, 44%O	3.44
0.00	180' 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

Val Energy INC

**12- 8S.- 37W.**

**Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64373

**DST#: 7**

Test Start: 2019.08.14 @ 15:55:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
330.00	GMCO 33%G, 23%M, 44%O	3.436
0.00	180' GIP	0.000

Total Length: 330.00 ft      Total Volume: 3.436 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

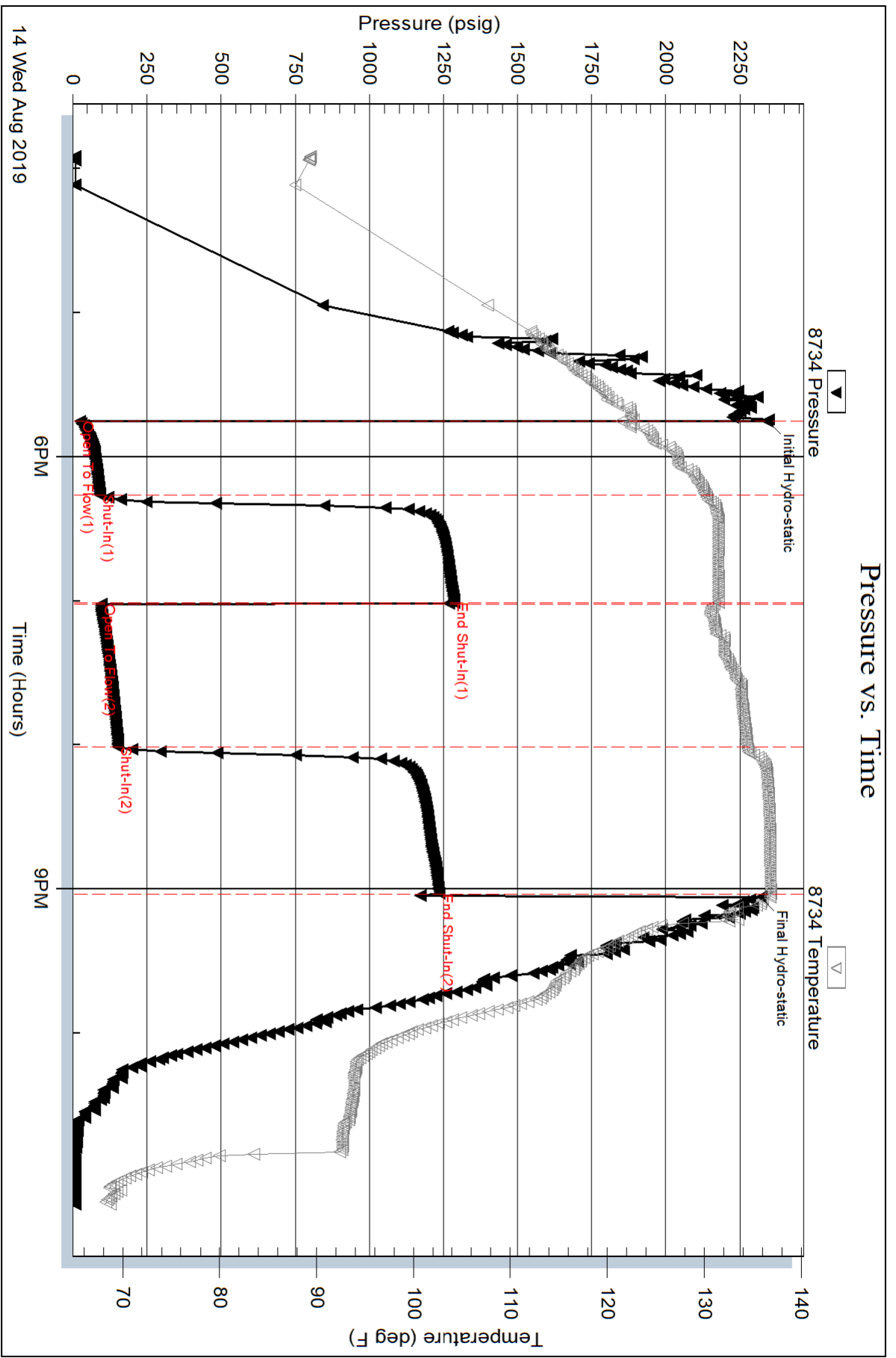
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 29 @ 70 degs

Gravity corrected to 28 @ 60 degs



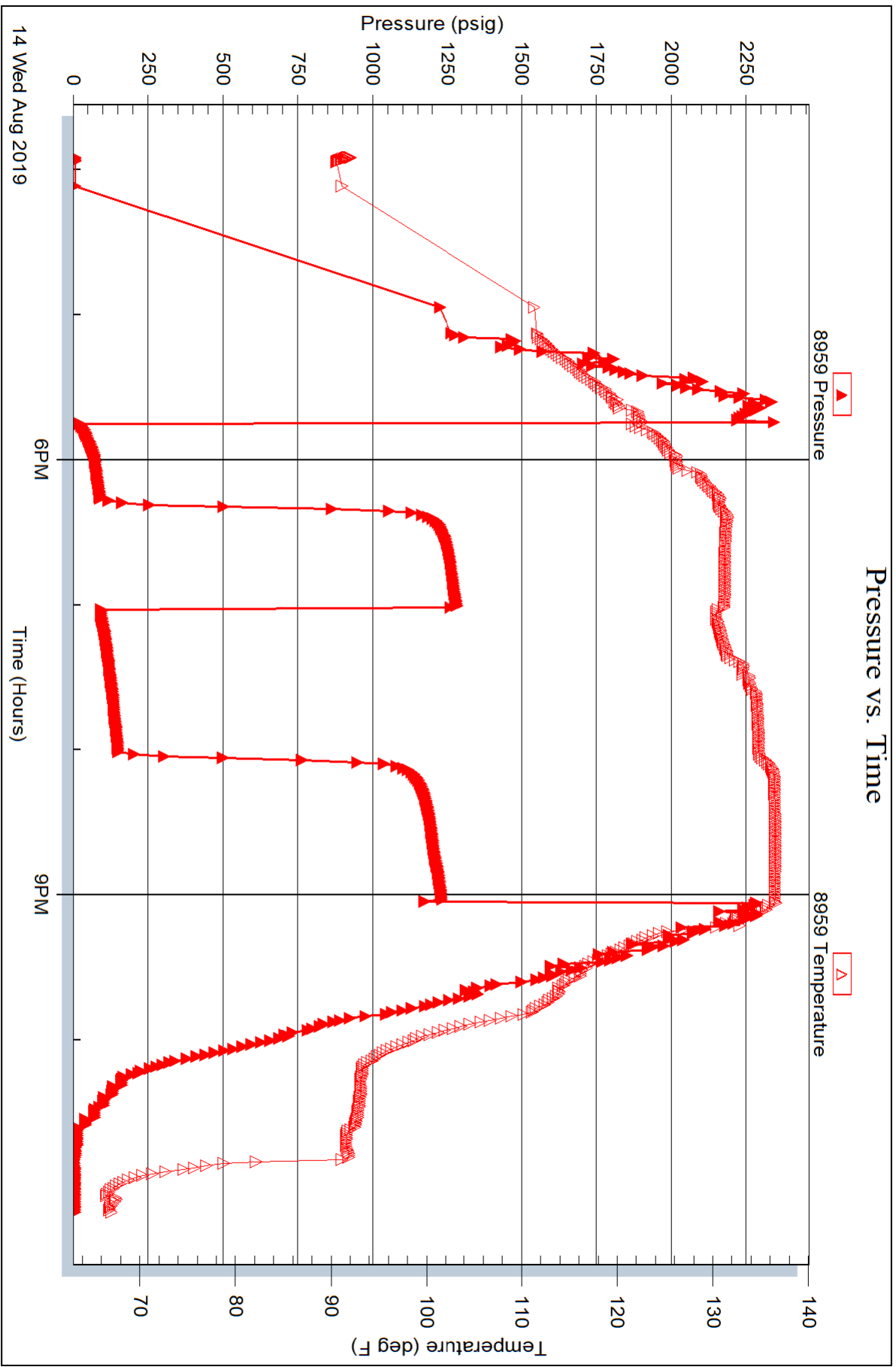
Serial #: 8959

Inside

Val Energy INC

V1-12 Lehman

DST Test Number: 7





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64374 **DST#: 8**  
 Test Start: 2019.08.15 @ 05:17:00

## GENERAL INFORMATION:

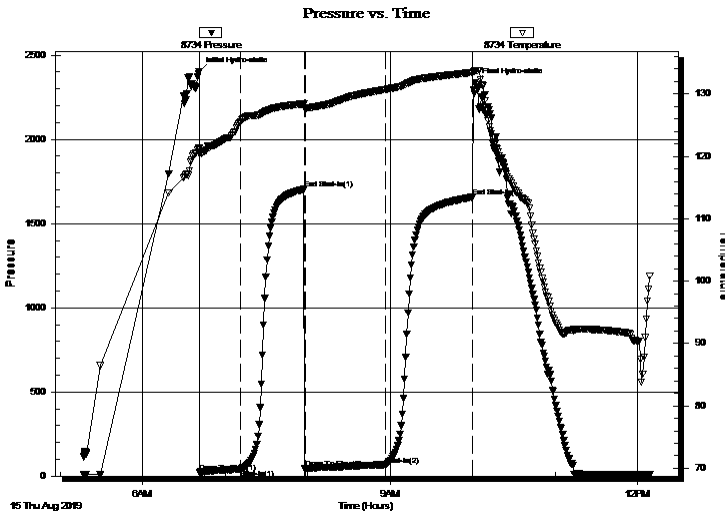
Formation: **Johnson**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:41:10  
 Time Test Ended: 12:09:00  
 Interval: **4705.00 ft (KB) To 4736.00 ft (KB) (TVD)**  
 Total Depth: 4736.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Martine Salinas  
 Unit No: 82  
 Reference Elevations: 3427.00 ft (KB)  
 3422.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8734 Outside

Press@RunDepth: 66.30 psig @ 4706.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.15 End Date: 2019.08.15 Last Calib.: 2019.08.15  
 Start Time: 05:17:01 End Time: 12:09:00 Time On Btm: 2019.08.15 @ 06:41:00  
 Time Off Btm: 2019.08.15 @ 10:02:09

TEST COMMENT: 30-IF-S.blow built to 2 1/2"  
 45-ISI-S.blow back @ 32 mins maintained surface blow  
 60-FF-S.blow built to 4"  
 60-FSI-S.blow back @ 25 mins dead @ 34 mins

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2404.30	121.30	Initial Hydro-static
1	24.22	120.40	Open To Flow (1)
30	40.94	125.54	Shut-In(1)
77	1704.16	128.45	End Shut-In(1)
78	45.09	127.72	Open To Flow (2)
136	66.30	130.74	Shut-In(2)
199	1656.60	133.46	End Shut-In(2)
202	2337.70	133.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	GMCO 20%G, 30%M, 50%O	0.39
20.00	CGO 10%G, 90%O	0.10
0.00	100' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Val Energy INC  
 125 N Market St.  
 STE 1110  
 Wichita, KS 67202  
 ATTN: Tim Priest

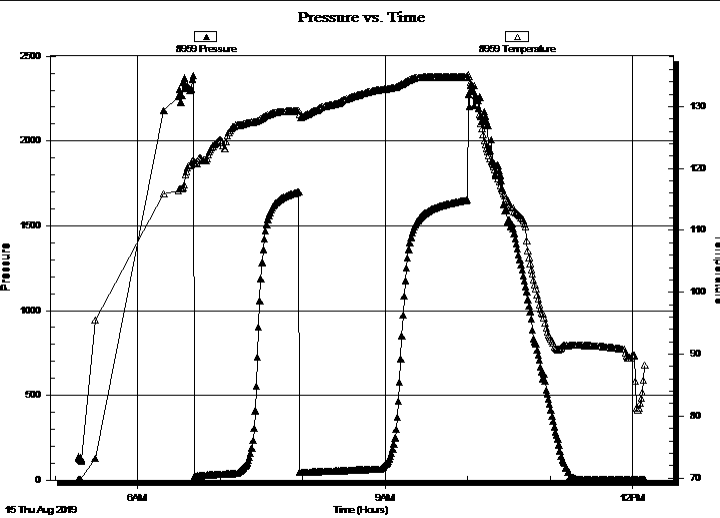
**12- 8S.- 37W. Sherman,KS**  
**V1- 12 Lehman**  
 Job Ticket: 64374 **DST#: 8**  
 Test Start: 2019.08.15 @ 05:17:00

**GENERAL INFORMATION:**

Formation: **Johnson**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 06:41:10 Tester: Martine Salinas  
 Time Test Ended: 12:09:00 Unit No: 82  
 Interval: **4705.00 ft (KB) To 4736.00 ft (KB) (TVD)** Reference Elevations: 3427.00 ft (KB)  
 Total Depth: 4736.00 ft (KB) (TVD) 3422.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8959 Inside**  
 Press@RunDepth: psig @ 4706.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2019.08.15 End Date: 2019.08.15 Last Calib.: 2019.08.15  
 Start Time: 05:17:01 End Time: 12:08:50 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IF-S.blow built to 2 1/2"  
 45-ISI-S.blow back @ 32 mins maintained surface blow  
 60-FF-S.blow built to 4"  
 60-FSI-S.blow back @ 25 mins dead @ 34 mins



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

Recovery		
Length (ft)	Description	Volume (bbl)
80.00	GMCO 20%G, 30%M, 50%O	0.39
20.00	CGO 10%G, 90%O	0.10
0.00	100' 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

Val Energy INC

**12- 8S.- 37W.**

**Sherman,KS**

125 N Market St.  
STE 1110  
Wichita, KS 67202  
ATTN: Tim Priest

**V1- 12 Lehman**

Job Ticket: 64374

**DST#: 8**

Test Start: 2019.08.15 @ 05:17:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	GMCO 20%G, 30%M, 50%O	0.393
20.00	CGO 10%G, 90%O	0.098
0.00	100' GIP	0.000

Total Length: 100.00 ft      Total Volume: 0.491 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

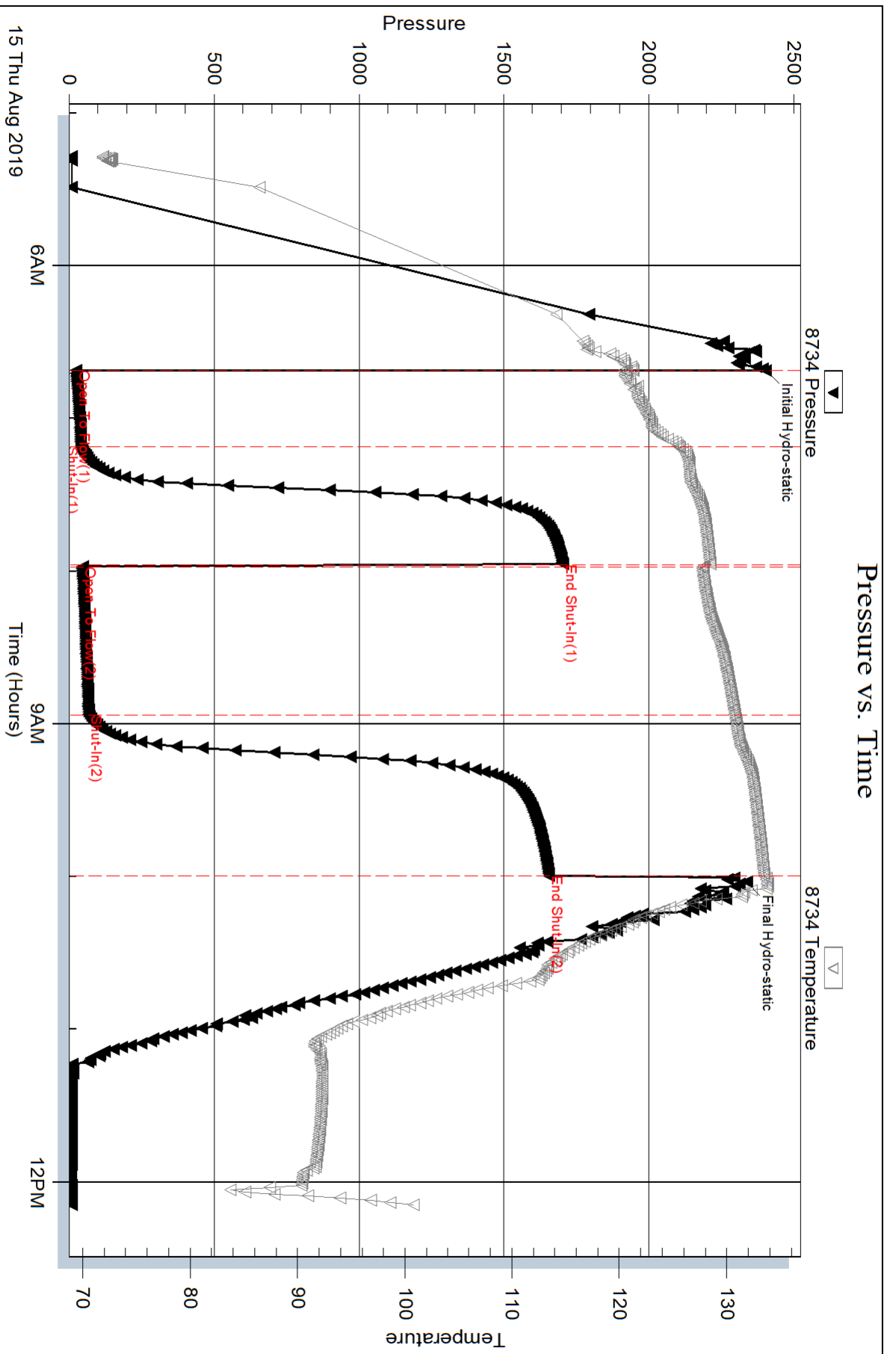
Serial #:

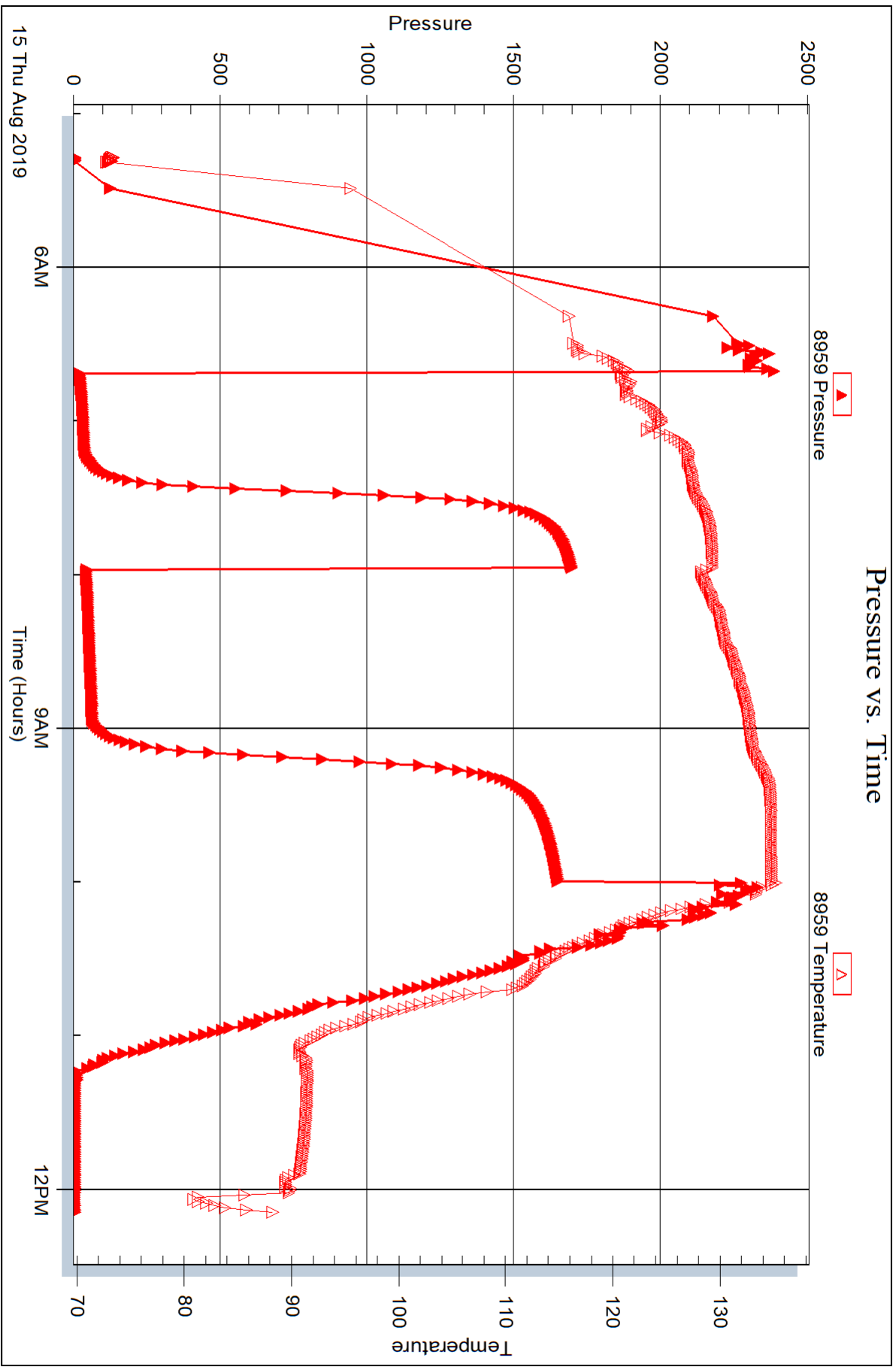
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity of oil = 36.6 @ 96 degs

Gravity corrected to 33 @ 60 degs





**GEOLOGIST'S REPORT**  
**DRILLING TIME AND SAMPLE LOG**

COMPANY **VAL ENERGY, INC.** ELEVATIONS  
 LEASE **LEHMAN V1-12 "OWWO"** KG 3426'  
 FIELD **Whitetail** DF \_\_\_\_\_  
 LOCATION **7999 FST, 767 FEL** GL 3421'  
 SEC **12 T1MS 8S** RGE **37W**  
 COUNTY **Thomas** STATE **Kansas** Measurements Are All From **KB**  
 CONTRACTOR **WW Drilling, Rig #10**  
 SPUD **8/9/2019** COMP **CASING**  
 RTD **4950'** LTD **4948'** CONDUCTION **N/A**  
 MUD UP **4216'** TYPE MUD **Chemical** SURFACE **04.8-58" @ 23'**  
 PRODUCTION **5.17Z @ 4907'**  
 SAMPLES SAVED FROM **4220'** to RTD  
 DRILLING TIME KEPT FROM **4216'** to RTD  
 SAMPLES EXAMINED FROM **4216'** to RTD  
 GEOLOGICAL SUPERVISION FROM **4216'** to RTD  
 GEOLOGIST ON WELL **Tim Priest**  
 ELECTRICAL SURVEYS  
 CND/D/SP: Micro  
 By: **Step Energy Services**

FORMATION TOPS ELECTRIC LOG SAMPLE

Ambydrite	2931 (-495)	(0102970 (-438))
Heebner Shale	4157 (-731)	(0104133 (-728))
Lansing	4186 (-760)	(0104199 (-771))
Marmaton	4402 (-972)	4409 (-983)
	4508 (-1082)	4513 (-1087)
Fort Scott	4644 (-1260)	4649 (-1223)
Cherokee Shale	4677 (-1231)	4684 (-1258)
Mississippiann	4880 (-1454)	4878 (-1452)

REMARKS Due to the positive results of DSTs, it was decided to set production casing to further test the well.

Respectfully Submitted,

**API #15-193-20626** Tim Priest  
 Petroleum Geologist

