

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1236406
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1236406

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 List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Risley 1-36
Doc ID	1236406

Tops

Name	Top	Datum
Anhydrite	2151	+710
B Anhydrite	2210	+651
Heebner	3916	-1055
Lansing	3957	-1096
Stark Sh	4243	-1382
Marmaton	4373	-1512
Pawnee	4434	-1573
Ft. Scott	4483	-1622
Cherokee Sh	4508	-1647
Mississippi	4570	-1709

QUALITY WELL SERVICE, INC.

6244

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	9-19-14	Sec.	36	Twp.	18	Range	30	County	Lane	State	Ks	On Location		Finish	5:00
Lease	Risley	Well No.	1-36		Location Dighton 7W 2 1/2 S East into										
Contractor	H O Drilling							Owner							
Type Job	Surface							To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Hole Size	12 1/2		T.D. 258												
Csg.	8 5/8		Depth 258												
Tbg. Size			Depth												
Tool			Depth												
Cement Left in Csg.	15		Shoe Joint												
Meas Line			Displace 15.5												
EQUIPMENT							2 3/8 Gel 3 3/8 CC								
Pumptrk	8	No.	Dave		Common 165										
Bulktrk	7	No.	M. Ke		Poz. Mix										
Bulktrk		No.			Gel. 3										
Pickup		No.			Calcium 6										
JOB SERVICES & REMARKS							Hulls								
Rat Hole							Salt								
Mouse Hole							Flowseal								
Centralizers							Kol-Seal								
Baskets							Mud CLR 48								
D/V or Port Collar							CFL-117 or CD110 CAF 38								
Ran 6 jts 8 5/8 csg 20#							Sand								
Established circulation with							Handling 174								
Mud Pump.							Mileage 40								
							FLOAT EQUIPMENT								
Mixed 165sx Common 2 3/8 Gel							Guide Shoe								
3 3/8 CC. Displaced with 15.5 bbls							Centralizer								
H 7/8. Shut in 300 psi							Baskets								
							AFU Inserts								
Cement did circulate to surface							Float Shoe								
							Latch Down								
							LMU 40								
							Service supervision								
							Pumptrk Charge Surface								
							Mileage 40 x 2								
							Tax								
							Discount								
X Signature <i>Richard Larson</i>							Total Charge								



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.26 @ 20:30:00

End Date: 2014.09.27 @ 01:13:30

Job Ticket #: 57474 DST #: 1

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

Printed: 2014.10.03 @ 13:40:16



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz KS 67564-8561
 ATTN: Vern Schrag

36-18s-30w Lane, KS
Risley #1-36
 Job Ticket: 57474 **DST#: 1**
 Test Start: 2014.09.26 @ 20:30:00

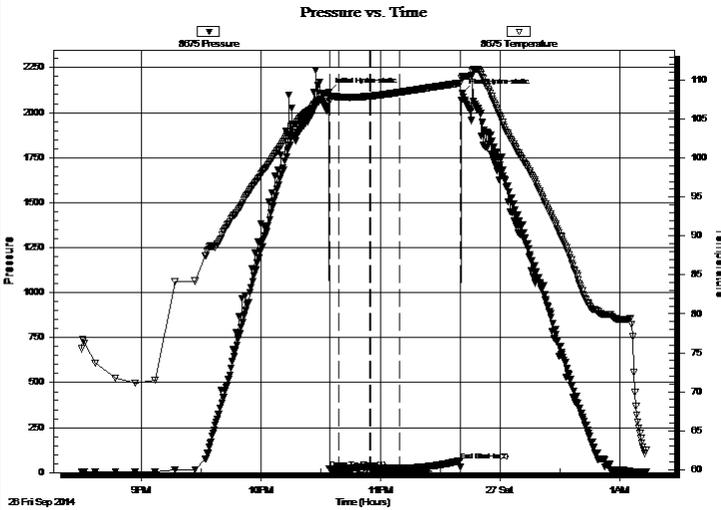
GENERAL INFORMATION:

Formation: **LKC "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:34:30
 Time Test Ended: 01:13:30
 Interval: **4135.00 ft (KB) To 4155.00 ft (KB) (TVD)**
 Total Depth: 4155.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jace McKinney
 Unit No: 75
 Reference Elevations: 2861.00 ft (KB)
 2854.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8675 Inside
 Press@RunDepth: 23.18 psig @ 4152.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.09.26 End Date: 2014.09.27 Last Calib.: 2014.09.27
 Start Time: 20:30:15 End Time: 01:13:30 Time On Btm: 2014.09.26 @ 22:34:00
 Time Off Btm: 2014.09.26 @ 23:41:15

TEST COMMENT: Surface blow
 No return blow
 No blow
 No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2112.49	108.34	Initial Hydro-static
1	20.60	107.29	Open To Flow (1)
5	22.11	107.86	Shut-In(1)
21	35.18	107.95	End Shut-In(1)
22	22.38	107.96	Open To Flow (2)
36	23.18	108.44	Shut-In(2)
66	66.95	109.65	End Shut-In(2)
68	2106.44	110.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57474

DST#: 1

ATTN: Vern Schrag

Test Start: 2014.09.26 @ 20:30:00

Tool Information

Drill Pipe:	Length: 4013.18 ft	Diameter: 3.80 inches	Volume: 56.29 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 56.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.81 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4135.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	47.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4108.50	
Shut In Tool	5.00			4113.50	
Hydraulic tool	5.00			4118.50	
Jars	5.00			4123.50	
Safety Joint	2.50			4126.00	
Packer	5.00			4131.00	27.50 Bottom Of Top Packer
Packer	4.00			4135.00	
Stubb	1.00			4136.00	
Perforations	16.00			4152.00	
Change Over Sub	0.00			4152.00	
Recorder	0.00	8675	Inside	4152.00	
Recorder	0.00	8650	Outside	4152.00	
Drill Pipe	0.00			4152.00	
Change Over Sub	0.00			4152.00	
Perforations	0.00			4152.00	
Bullnose	3.00			4155.00	20.00 Bottom Packers & Anchor
Total Tool Length:	47.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57474

DST#: 1

ATTN: Vern Schrag

Test Start: 2014.09.26 @ 20:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

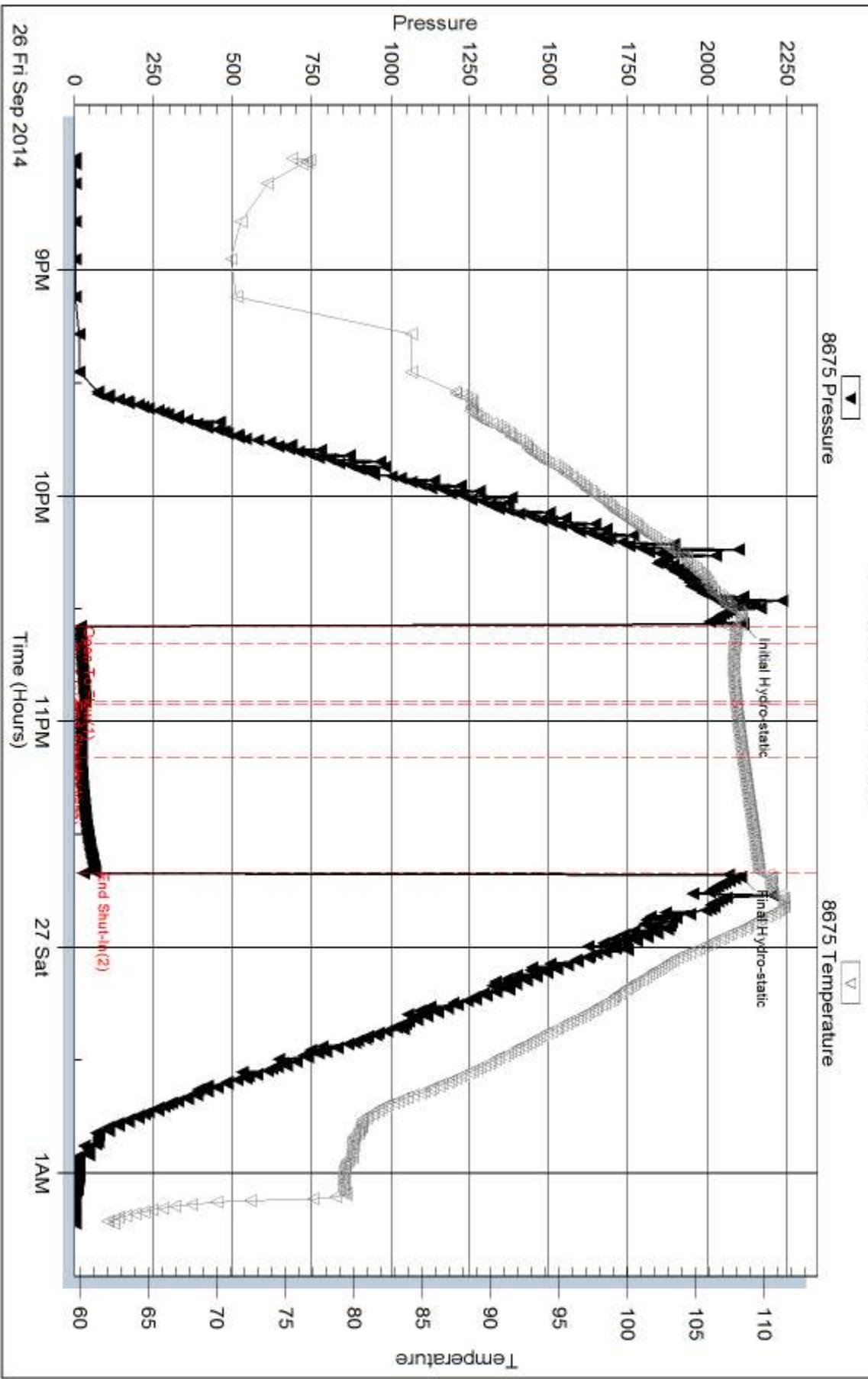
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.27 @ 18:35:00

End Date: 2014.09.27 @ 23:00:15

Job Ticket #: 57275 DST #: 2

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

Printed: 2014.10.03 @ 13:39:49



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57275

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.09.27 @ 18:35:00

GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:25:00

Time Test Ended: 23:00:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4242.00 ft (KB) To 4259.00 ft (KB) (TVD)

Reference Elevations: 2861.00 ft (KB)

Total Depth: 4259.00 ft (KB) (TVD)

2854.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 24.85 psig @ 4256.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.27

End Date:

2014.09.27

Last Calib.:

2014.09.27

Start Time: 18:35:15

End Time:

23:00:15

Time On Btm:

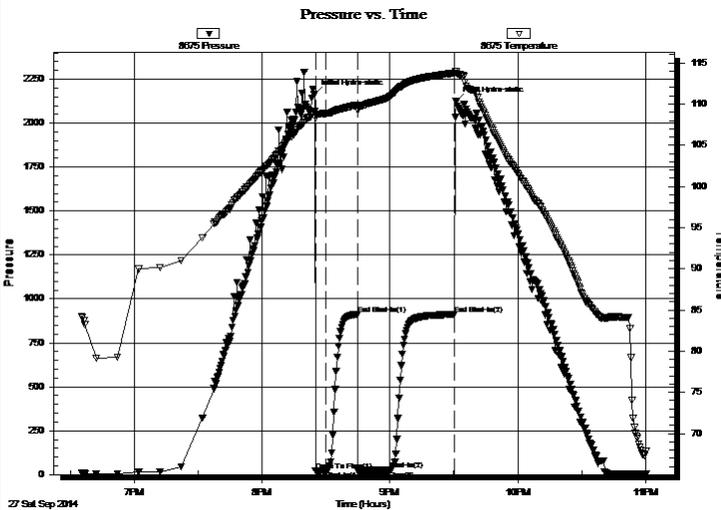
2014.09.27 @ 20:24:45

Time Off Btm:

2014.09.27 @ 21:31:00

TEST COMMENT: Surface blow
No return blow
No blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2164.33	109.10	Initial Hydro-static
1	20.41	108.35	Open To Flow (1)
6	22.05	108.86	Shut-In(1)
20	912.55	109.88	End Shut-In(1)
21	21.97	109.23	Open To Flow (2)
36	24.85	110.92	Shut-In(2)
66	911.81	113.77	End Shut-In(2)
67	2126.41	113.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57275

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.09.27 @ 18:35:00

Tool Information

Drill Pipe:	Length: 4107.02 ft	Diameter: 3.80 inches	Volume: 57.61 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 58.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.65 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4242.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	44.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4215.50	
Shut In Tool	5.00			4220.50	
Hydraulic tool	5.00			4225.50	
Jars	5.00			4230.50	
Safety Joint	2.50			4233.00	
Packer	5.00			4238.00	27.50 Bottom Of Top Packer
Packer	4.00			4242.00	
Stubb	1.00			4243.00	
Perforations	13.00			4256.00	
Change Over Sub	0.00			4256.00	
Recorder	0.00	8675	Inside	4256.00	
Recorder	0.00	8650	Outside	4256.00	
Drill Pipe	0.00			4256.00	
Change Over Sub	0.00			4256.00	
Perforations	0.00			4256.00	
Bullnose	3.00			4259.00	17.00 Bottom Packers & Anchor
Total Tool Length:	44.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57275

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.09.27 @ 18:35:00

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

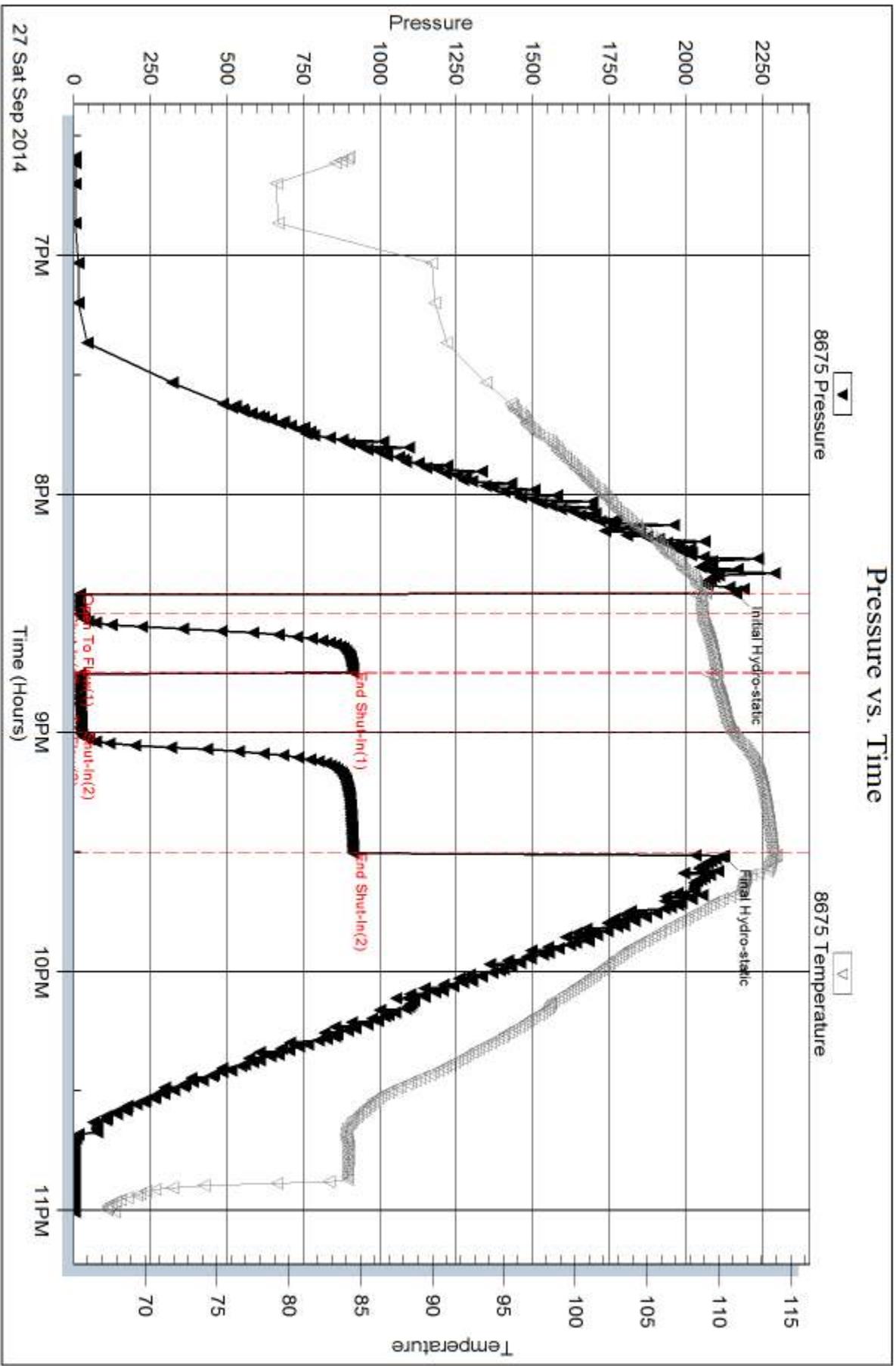
Num Gas Bombs: 0

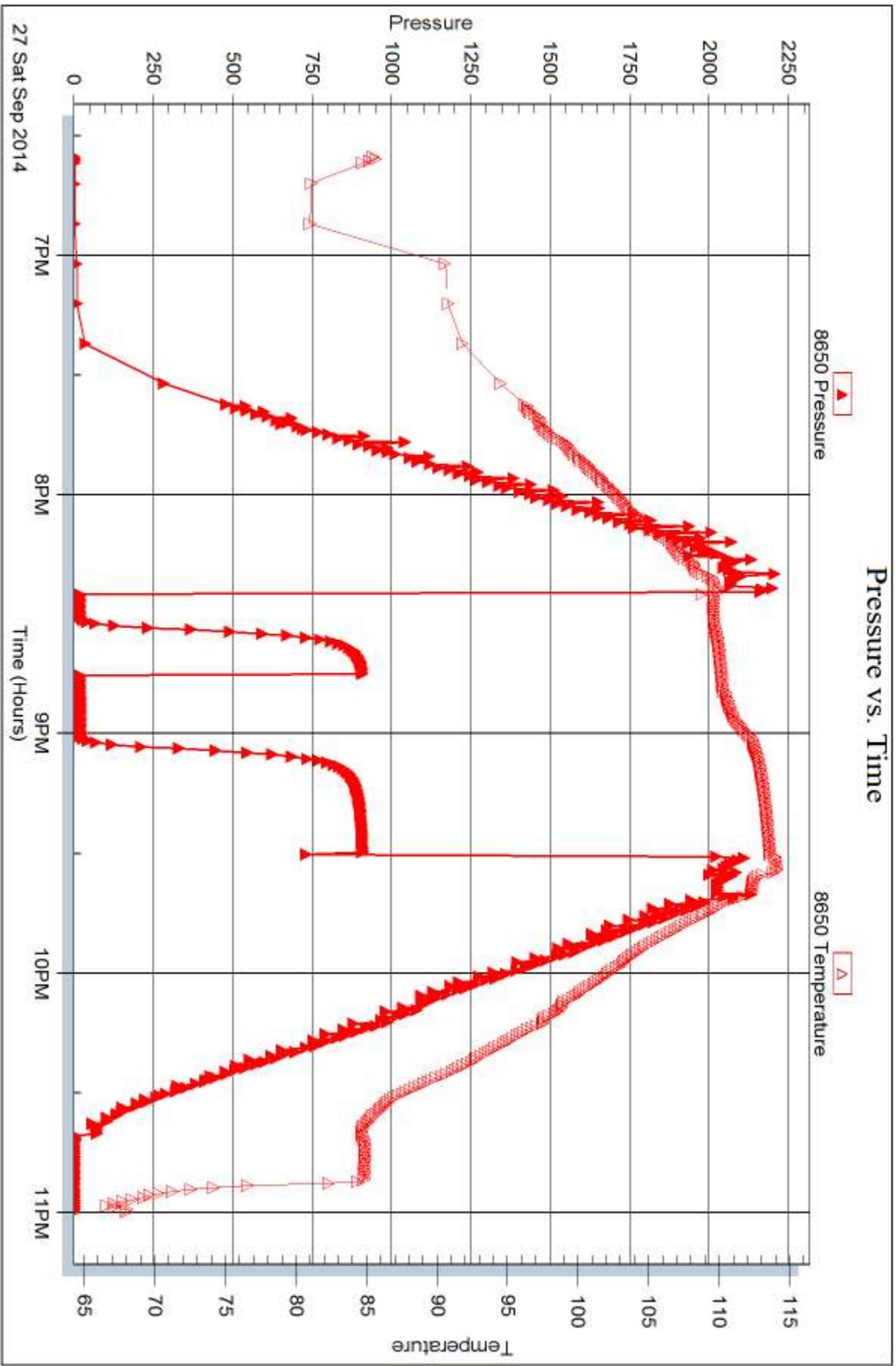
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.28 @ 08:35:15

End Date: 2014.09.28 @ 13:18:30

Job Ticket #: 57276 DST #: 3

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

Printed: 2014.10.03 @ 13:39:29



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57276

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 08:35:15

GENERAL INFORMATION:

Formation: **Middle Creek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:33:30

Time Test Ended: 13:18:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4271.00 ft (KB) To 4285.00 ft (KB) (TVD)

Reference Elevations: 2861.00 ft (KB)

Total Depth: 4285.00 ft (KB) (TVD)

2854.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 21.78 psig @ 4282.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.28

End Date:

2014.09.28

Last Calib.:

2014.09.28

Start Time: 08:35:15

End Time:

13:18:30

Time On Btm:

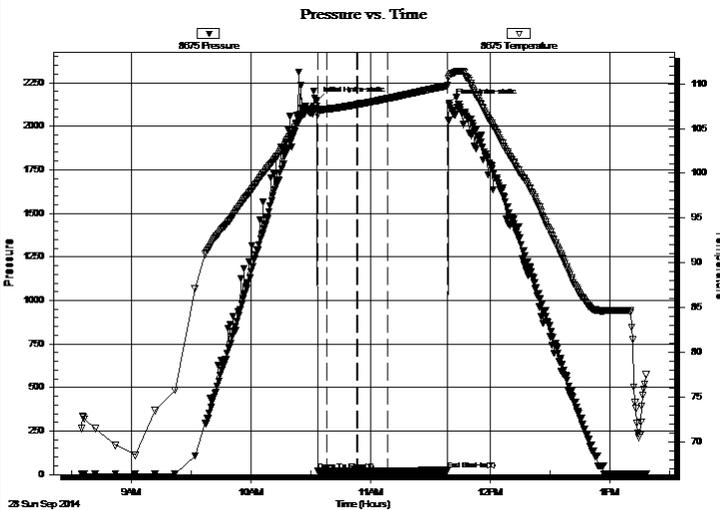
2014.09.28 @ 10:33:15

Time Off Btm:

2014.09.28 @ 11:39:30

TEST COMMENT: Surface blow
No return blow
No blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2145.00	107.52	Initial Hydro-static
1	20.33	106.52	Open To Flow (1)
5	21.57	107.16	Shut-In(1)
20	23.46	107.66	End Shut-In(1)
21	21.22	107.68	Open To Flow (2)
36	21.78	108.34	Shut-In(2)
66	25.30	109.79	End Shut-In(2)
67	2132.61	110.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57276

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 08:35:15

Tool Information

Drill Pipe:	Length: 4139.17 ft	Diameter: 3.80 inches	Volume: 58.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 58.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.80 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4271.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	41.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4244.50	
Shut In Tool	5.00			4249.50	
Hydraulic tool	5.00			4254.50	
Jars	5.00			4259.50	
Safety Joint	2.50			4262.00	
Packer	5.00			4267.00	27.50 Bottom Of Top Packer
Packer	4.00			4271.00	
Stubb	1.00			4272.00	
Perforations	10.00			4282.00	
Change Over Sub	0.00			4282.00	
Recorder	0.00	8675	Inside	4282.00	
Recorder	0.00	8650	Outside	4282.00	
Drill Pipe	0.00			4282.00	
Change Over Sub	0.00			4282.00	
Perforations	0.00			4282.00	
Bullnose	3.00			4285.00	14.00 Bottom Packers & Anchor
Total Tool Length:	41.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57276

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 08:35:15

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

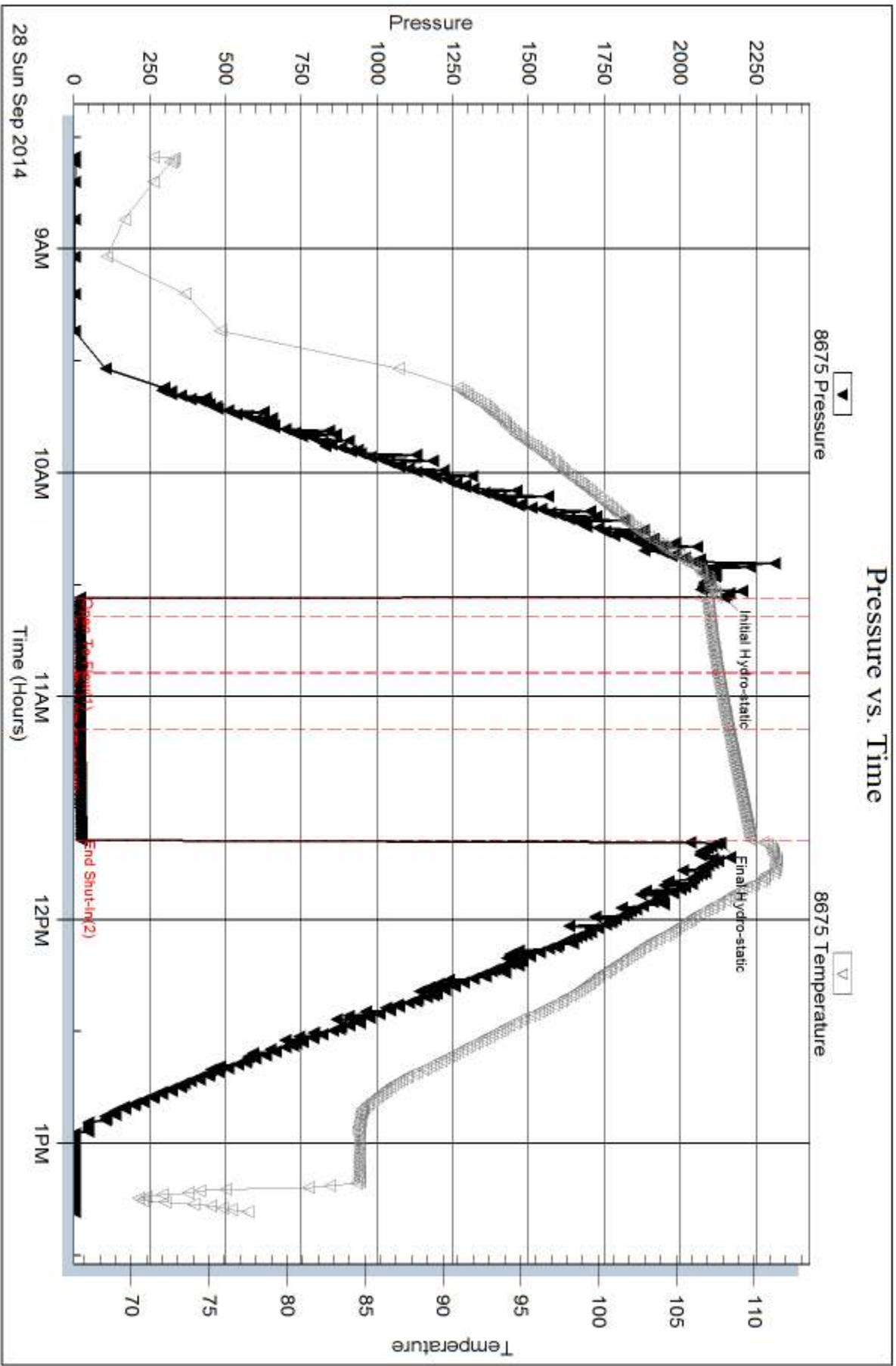
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.28 @ 21:10:00

End Date: 2014.09.29 @ 01:44:15

Job Ticket #: 57277 DST #: 4

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

Printed: 2014.10.03 @ 13:39:05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57277

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 21:10:00

GENERAL INFORMATION:

Formation: **LKC "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:09:30

Time Test Ended: 01:44:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4278.00 ft (KB) To 4296.00 ft (KB) (TVD)

Reference Elevations: 2861.00 ft (KB)

Total Depth: 4296.00 ft (KB) (TVD)

2854.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 22.10 psig @ 4293.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.28

End Date:

2014.09.29

Last Calib.:

2014.09.29

Start Time: 21:10:15

End Time:

01:44:15

Time On Btm:

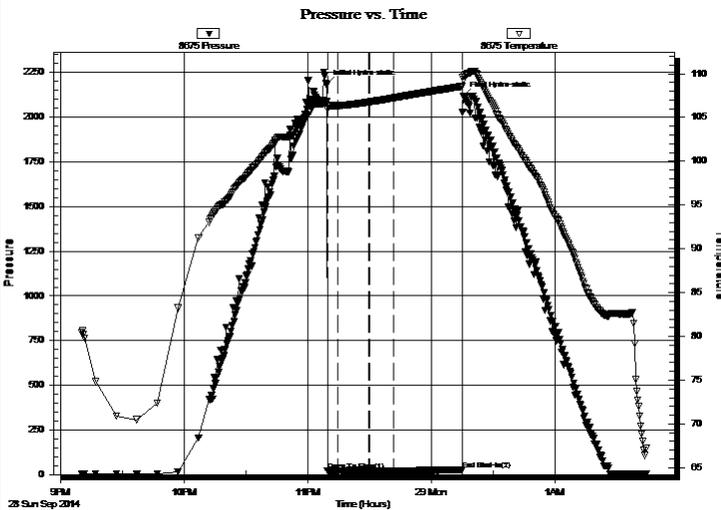
2014.09.28 @ 23:09:15

Time Off Btm:

2014.09.29 @ 00:15:45

TEST COMMENT: Surface blow
No return blow
No blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2183.39	106.82	Initial Hydro-static
1	21.78	105.93	Open To Flow (1)
6	22.52	106.36	Shut-In(1)
21	24.83	106.77	End Shut-In(1)
21	21.82	106.78	Open To Flow (2)
33	22.10	107.23	Shut-In(2)
66	28.34	108.58	End Shut-In(2)
67	2118.23	109.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57277

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 21:10:00

Tool Information

Drill Pipe:	Length: 4138.92 ft	Diameter: 3.80 inches	Volume: 58.06 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 58.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.55 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4278.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	45.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			4251.50	
Shut In Tool	5.00			4256.50	
Hydraulic tool	5.00			4261.50	
Jars	5.00			4266.50	
Safety Joint	2.50			4269.00	
Packer	5.00			4274.00	27.50 Bottom Of Top Packer
Packer	4.00			4278.00	
Stubb	1.00			4279.00	
Perforations	14.00			4293.00	
Change Over Sub	0.00			4293.00	
Recorder	0.00	8675	Inside	4293.00	
Recorder	0.00	8650	Outside	4293.00	
Drill Pipe	0.00			4293.00	
Change Over Sub	0.00			4293.00	
Perforations	0.00			4293.00	
Bullnose	3.00			4296.00	18.00 Bottom Packers & Anchor
Total Tool Length:	45.50				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57277

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.09.28 @ 21:10:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

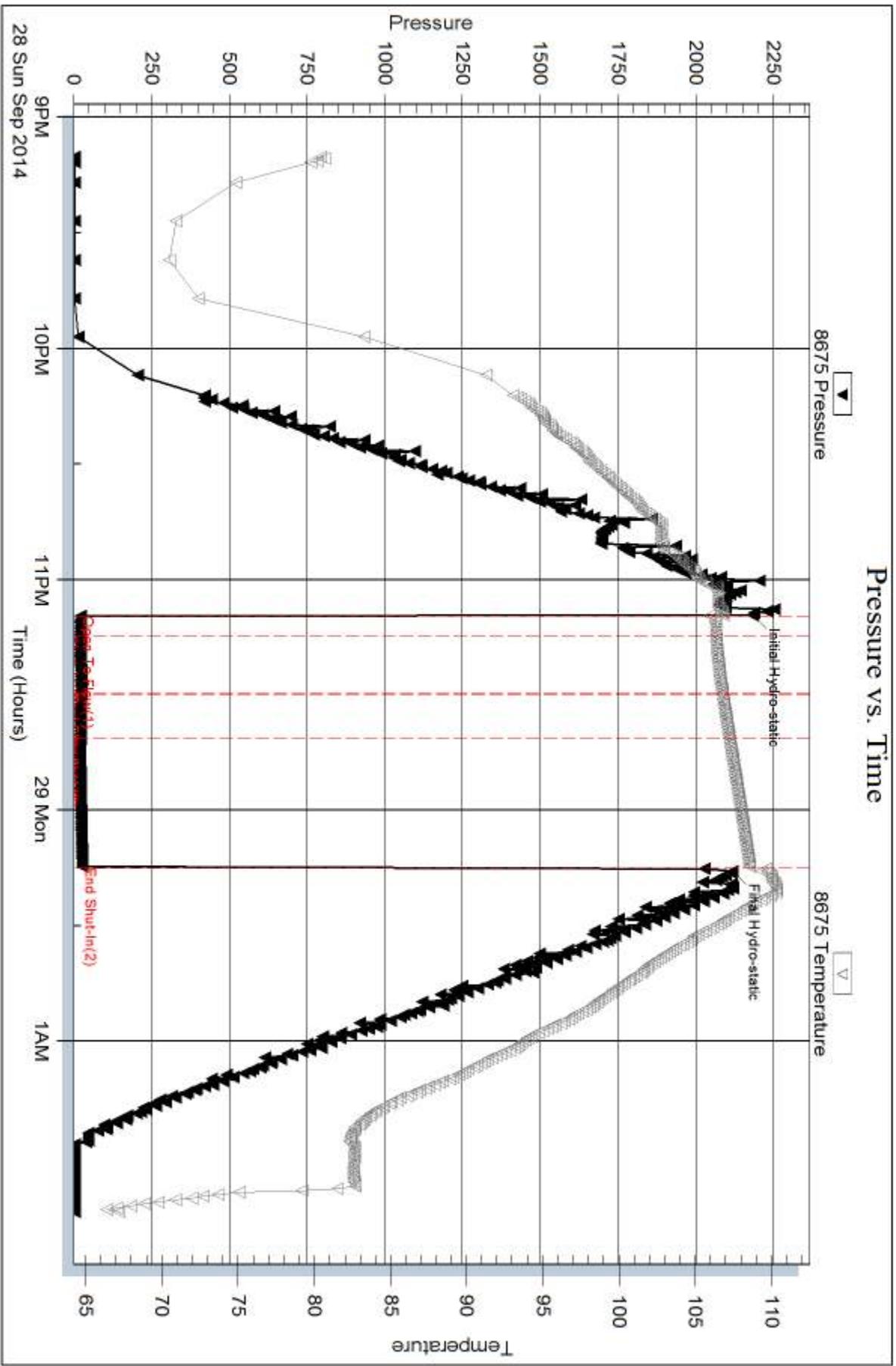
Num Gas Bombs: 0

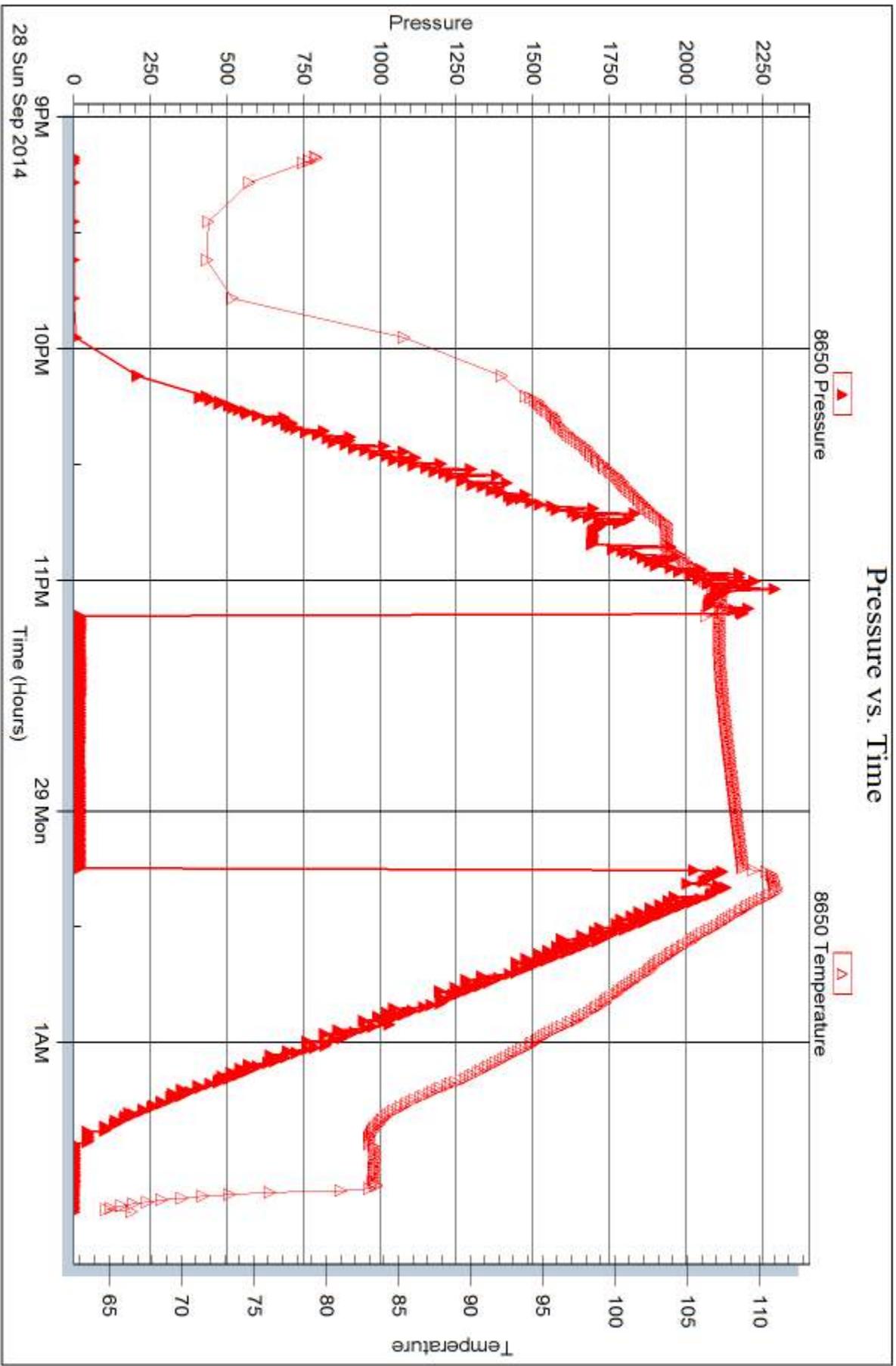
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.29 @ 10:18:00

End Date: 2014.09.29 @ 15:22:30

Job Ticket #: 57472 DST #: 5

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

Printed: 2014.10.03 @ 13:36:57



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57472

DST#: 5

ATTN: Vern Schrag

Test Start: 2014.09.29 @ 10:18:00

GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:34:15

Time Test Ended: 15:22:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 75

Interval: 4276.00 ft (KB) To 4310.00 ft (KB) (TVD)

Reference Elevations: 2861.00 ft (KB)

Total Depth: 4310.00 ft (KB) (TVD)

2854.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 23.55 psig @ 4277.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.29

End Date:

2014.09.29

Last Calib.:

2014.09.29

Start Time: 10:18:15

End Time:

15:22:30

Time On Btm:

2014.09.29 @ 12:34:00

Time Off Btm:

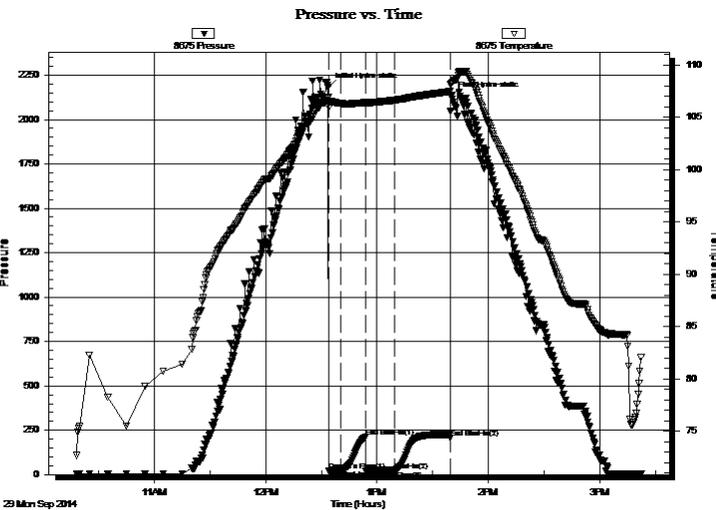
2014.09.29 @ 13:40:00

TEST COMMENT: 05: Weak surface blow .

15: No Return.

15: No Blow .

30: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2182.73	106.85	Initial Hydro-static
1	21.93	105.95	Open To Flow (1)
7	24.97	106.31	Shut-In(1)
20	211.24	106.40	End Shut-In(1)
20	21.98	106.29	Open To Flow (2)
36	23.55	106.63	Shut-In(2)
66	204.95	107.44	End Shut-In(2)
66	2131.61	108.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57472

DST#: 5

ATTN: Vern Schrag

Test Start: 2014.09.29 @ 10:18:00

Tool Information

Drill Pipe:	Length: 4137.37 ft	Diameter: 3.80 inches	Volume: 58.04 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 58.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4276.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	61.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4249.50	
Shut In Tool	5.00			4254.50	
Hydraulic tool	5.00			4259.50	
Jars	5.00			4264.50	
Safety Joint	2.50			4267.00	
Packer	5.00			4272.00	27.50 Bottom Of Top Packer
Packer	4.00			4276.00	
Stubb	1.00			4277.00	
Recorder	0.00	8675	Inside	4277.00	
Recorder	0.00	8650	Outside	4277.00	
Perforations	30.00			4307.00	
Bullnose	3.00			4310.00	34.00 Bottom Packers & Anchor

Total Tool Length: 61.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57472

DST#: 5

ATTN: Vern Schrag

Test Start: 2014.09.29 @ 10:18:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	100% Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

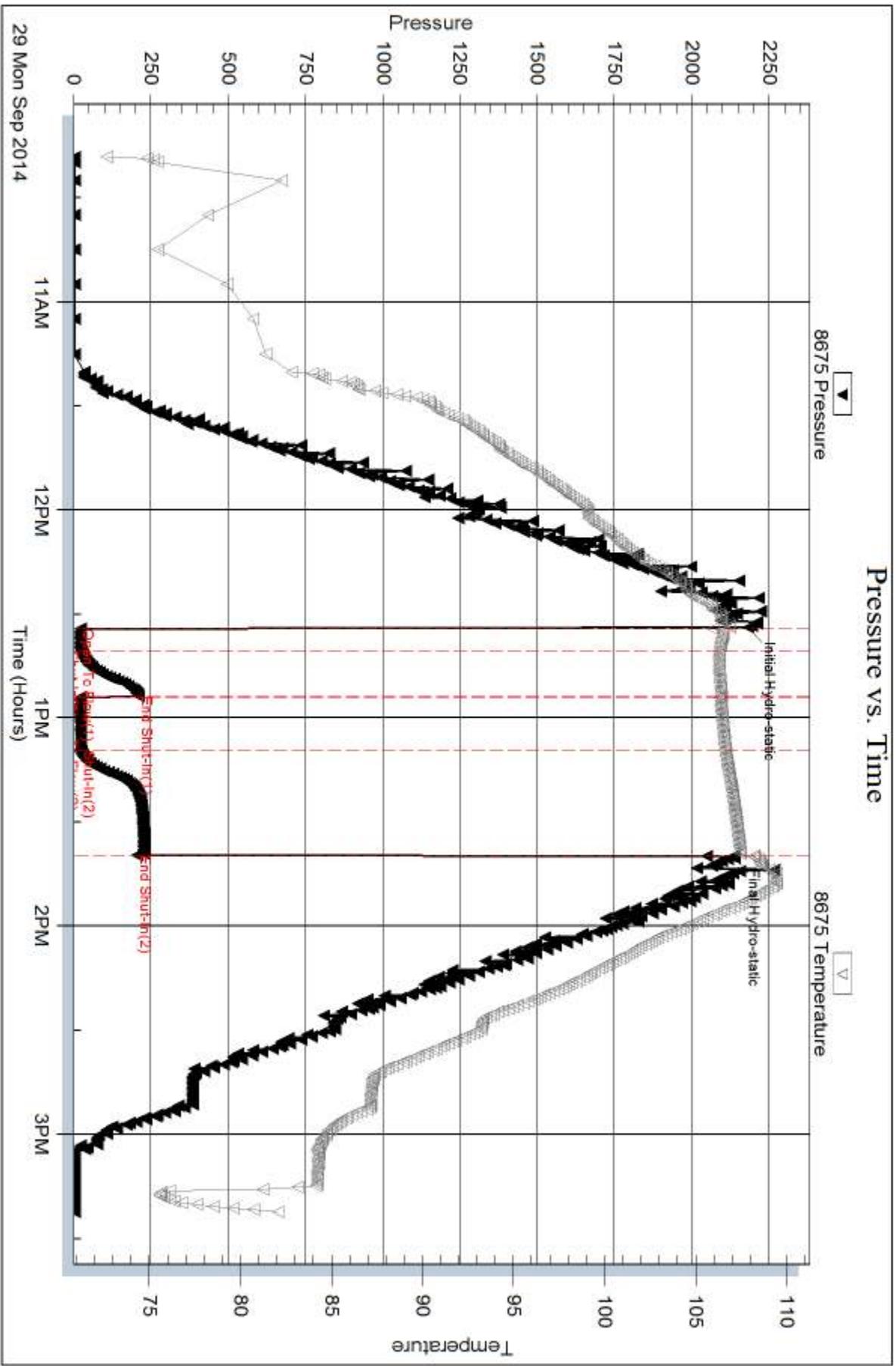
Num Gas Bombs: 0

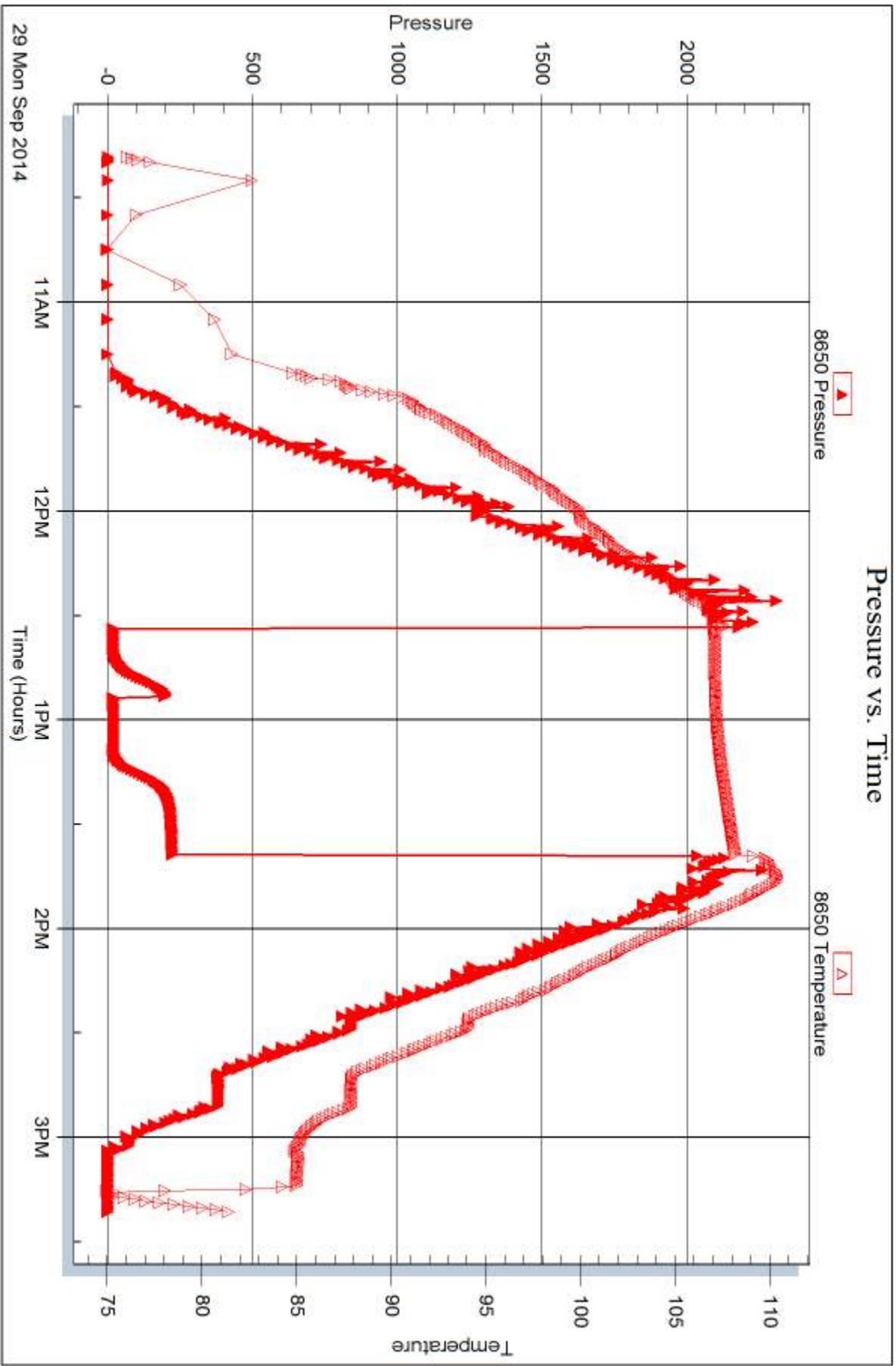
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.09.30 @ 08:11:00

End Date: 2014.09.30 @ 14:11:45

Job Ticket #: 57476 DST #: 6

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

Printed: 2014.10.03 @ 13:36:29



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57476

DST#: 6

ATTN: Vern Schrag

Test Start: 2014.09.30 @ 08:11:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:34:45

Time Test Ended: 14:11:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Justin Harris

Unit No: 75

Interval: 4316.00 ft (KB) To 4415.00 ft (KB) (TVD)

Reference Elevations: 2861.00 ft (KB)

Total Depth: 4415.00 ft (KB) (TVD)

2854.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 68.87 psig @ 4318.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.09.30

End Date:

2014.09.30

Last Calib.:

2014.09.30

Start Time: 08:11:15

End Time:

14:11:45

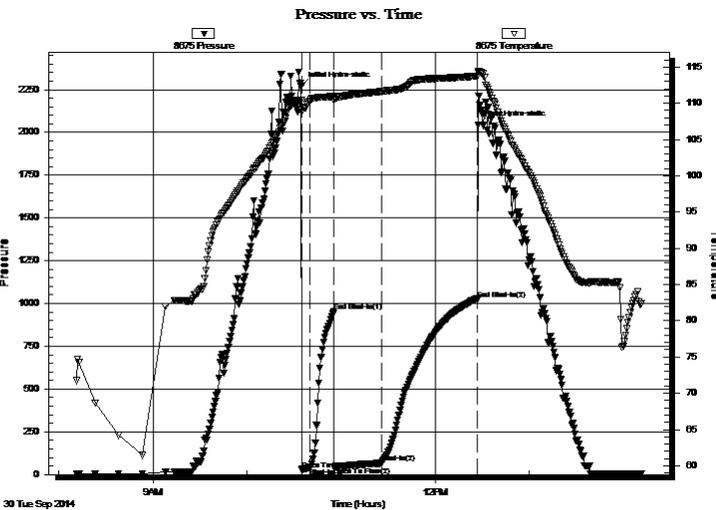
Time On Btm:

2014.09.30 @ 10:34:30

Time Off Btm:

2014.09.30 @ 12:27:15

TEST COMMENT: 05: Weak blow to 1"
15: No Return.
15: Weak blow build to 2 1/2"
30: No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2270.62	110.43	Initial Hydro-static
1	27.74	108.84	Open To Flow (1)
6	39.70	110.28	Shut-In(1)
21	954.70	111.00	End Shut-In(1)
21	45.92	110.44	Open To Flow (2)
51	68.87	111.63	Shut-In(2)
113	1027.26	113.77	End Shut-In(2)
113	2041.74	114.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
66.00	gocm 5%g 30%o 65%m	0.32
60.00	clean oil	0.31

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57476

DST#: 6

ATTN: Vern Schrag

Test Start: 2014.09.30 @ 08:11:00

Tool Information

Drill Pipe:	Length: 4193.37 ft	Diameter: 3.80 inches	Volume: 58.82 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 59.43 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4316.00 ft			Final	61000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	99.00 ft				
Tool Length:	126.50 ft				
Number of Packers:	2	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			4289.50	
Shut In Tool	5.00			4294.50	
Hydraulic tool	5.00			4299.50	
Jars	5.00			4304.50	
Safety Joint	2.50			4307.00	
Packer	5.00			4312.00	27.50 Bottom Of Top Packer
Packer	4.00			4316.00	
Stubb	1.00			4317.00	
Change Over Sub	1.00			4318.00	
Recorder	0.00	8675	Inside	4318.00	
Recorder	0.00	8650	Outside	4318.00	
Drill Pipe	63.00			4381.00	
Change Over Sub	1.00			4382.00	
Perforations	30.00			4412.00	
Bullnose	3.00			4415.00	99.00 Bottom Packers & Anchor

Total Tool Length: 126.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57476

DST#: 6

ATTN: Vern Schrag

Test Start: 2014.09.30 @ 08:11:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
66.00	gocm 5%g 30%o 65%m	0.325
60.00	clean oil	0.312

Total Length: 126.00 ft

Total Volume: 0.637 bbl

Num Fluid Samples: 0

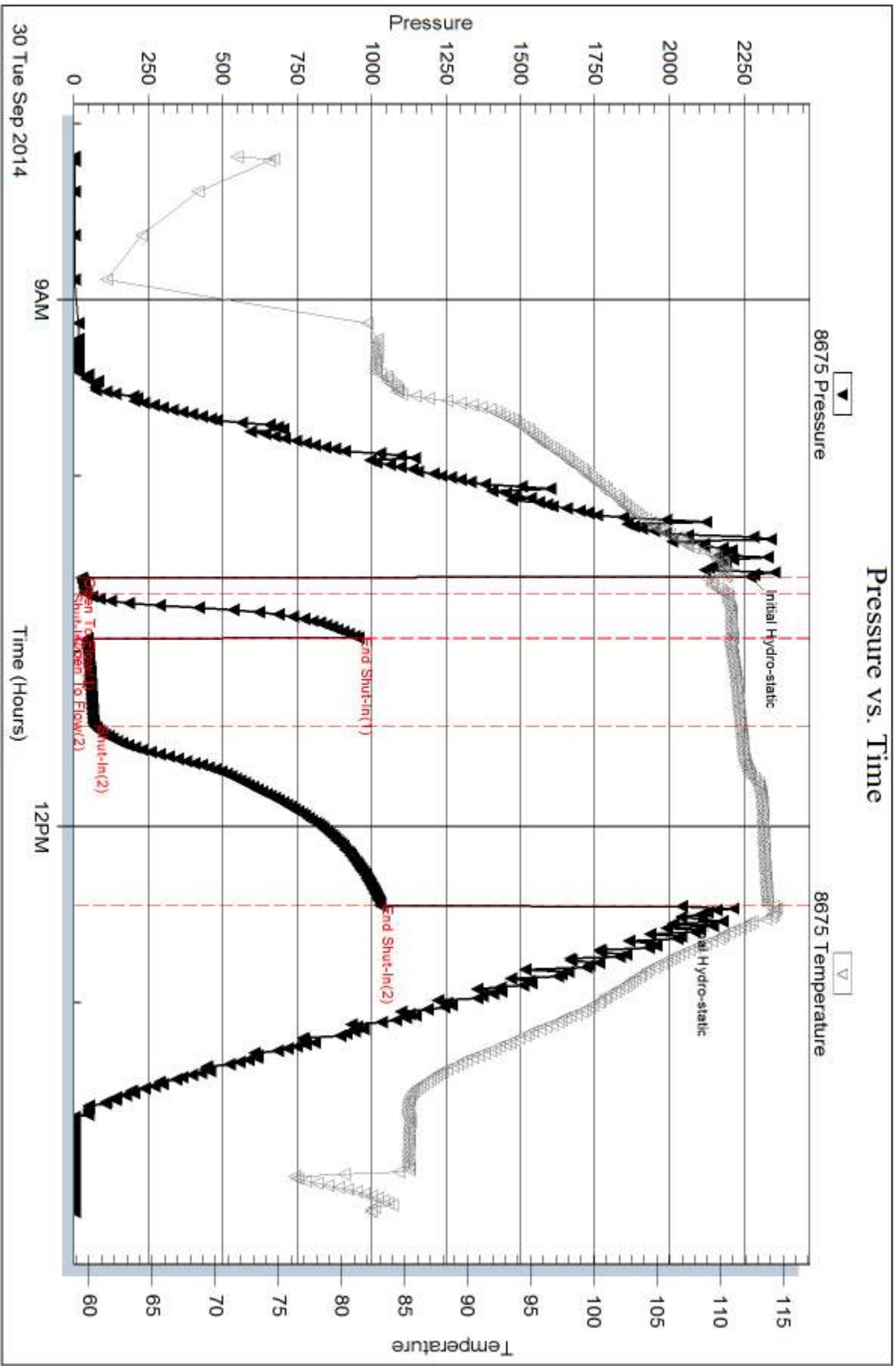
Num Gas Bombs: 0

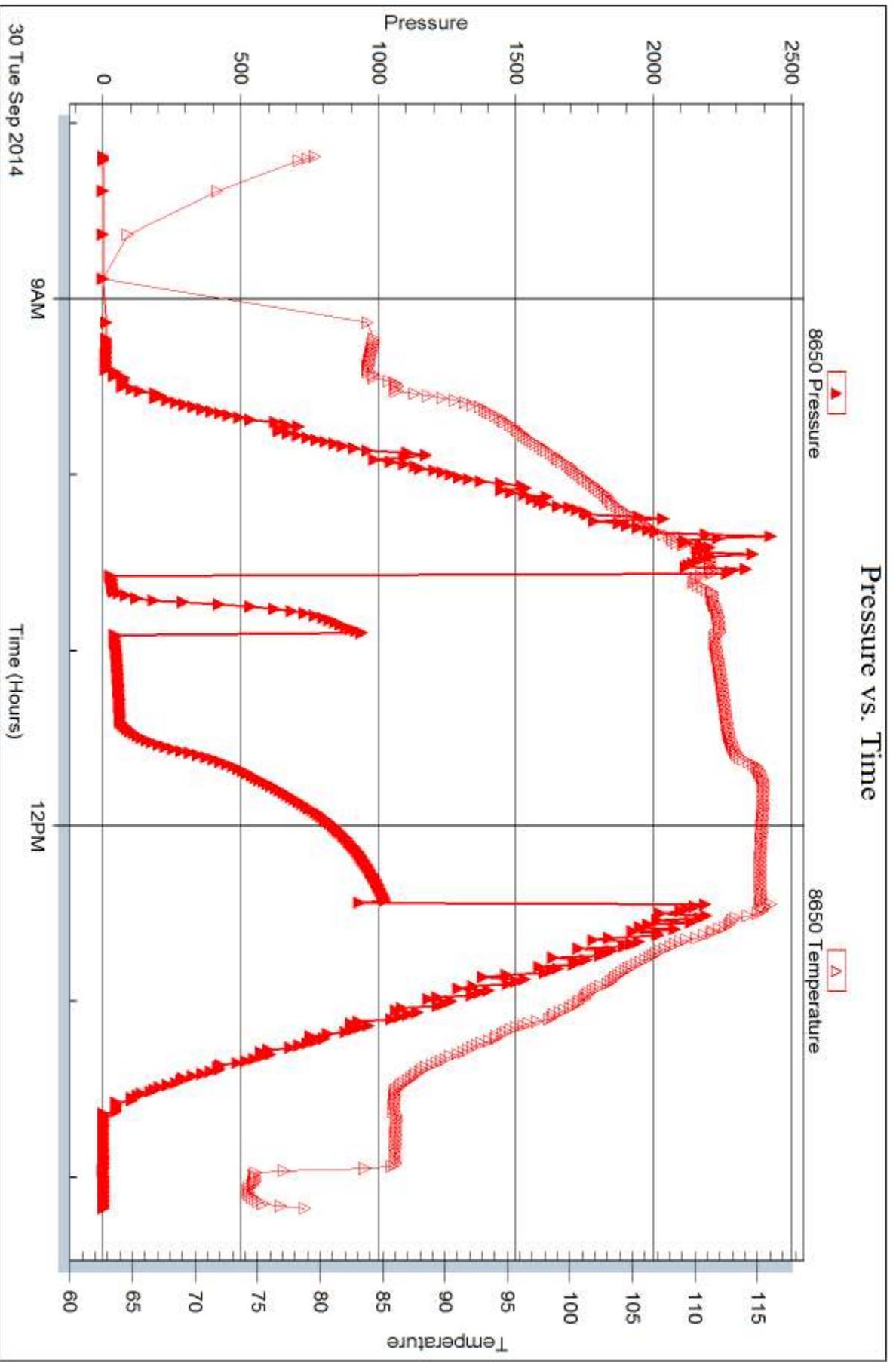
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.10.01 @ 09:08:00

End Date: 2014.10.01 @ 14:30:45

Job Ticket #: 57477 DST #: 7

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

Printed: 2014.10.03 @ 13:34:43



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz KS 67564-8561
 ATTN: Vern Schrag

36-18s-30w Lane, KS
Risley #1-36
 Job Ticket: 57477 **DST#: 7**
 Test Start: 2014.10.01 @ 09:08:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 11:38:00
 Tester: Justin Harris
 Time Test Ended: 14:30:45
 Unit No: 75
Interval: 4431.00 ft (KB) To 4565.00 ft (KB) (TVD)
 Reference Elevations: 2861.00 ft (KB)
 Total Depth: 4565.00 ft (KB) (TVD)
 2854.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Poor
 KB to GR/CF: 7.00 ft

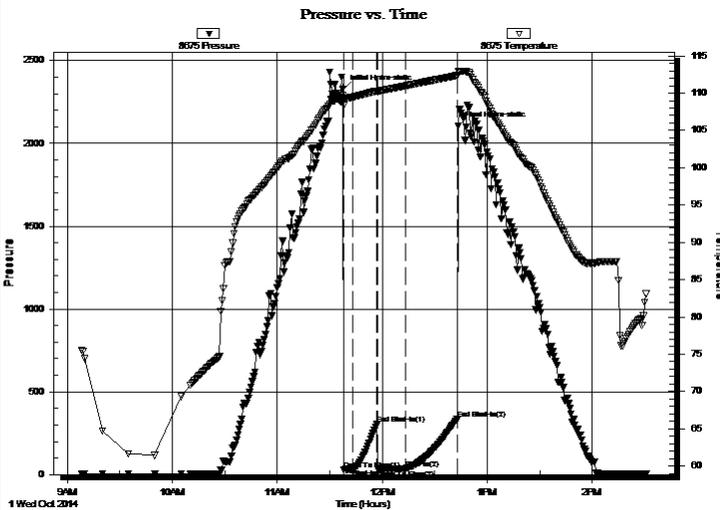
Serial #: 8675

Inside

Press@RunDepth: 34.72 psig @ 4433.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.01 End Date: 2014.10.01 Last Calib.: 2014.10.01
 Start Time: 09:08:15 End Time: 14:30:45 Time On Btm: 2014.10.01 @ 11:37:45
 Time Off Btm: 2014.10.01 @ 12:43:30

TEST COMMENT: 05: Weak blow to 1/2"
 15: No Return.
 15: No Blow .
 30: No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2327.12	109.71	Initial Hydro-static
1	30.26	108.34	Open To Flow (1)
6	32.20	109.47	Shut-In(1)
20	303.68	110.30	End Shut-In(1)
20	31.90	110.14	Open To Flow (2)
36	34.72	110.96	Shut-In(2)
66	336.95	112.38	End Shut-In(2)
66	2106.92	112.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100% Mud	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57477

DST#: 7

ATTN: Vern Schrag

Test Start: 2014.10.01 @ 09:08:00

Tool Information

Drill Pipe:	Length: 4291.37 ft	Diameter: 3.80 inches	Volume: 60.20 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4431.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	134.00 ft			
Tool Length:	161.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4404.50	
Shut In Tool	5.00			4409.50	
Hydraulic tool	5.00			4414.50	
Jars	5.00			4419.50	
Safety Joint	2.50			4422.00	
Packer	5.00			4427.00	27.50 Bottom Of Top Packer
Packer	4.00			4431.00	
Stubb	1.00			4432.00	
Change Over Sub	1.00			4433.00	
Recorder	0.00	8675	Inside	4433.00	
Recorder	0.00	8650	Outside	4433.00	
Drill Pipe	94.00			4527.00	
Change Over Sub	1.00			4528.00	
Perforations	34.00			4562.00	
Bullnose	3.00			4565.00	134.00 Bottom Packers & Anchor

Total Tool Length: 161.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 57477

DST#: 7

ATTN: Vern Schrag

Test Start: 2014.10.01 @ 09:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

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 bbl
10.00	100% Mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

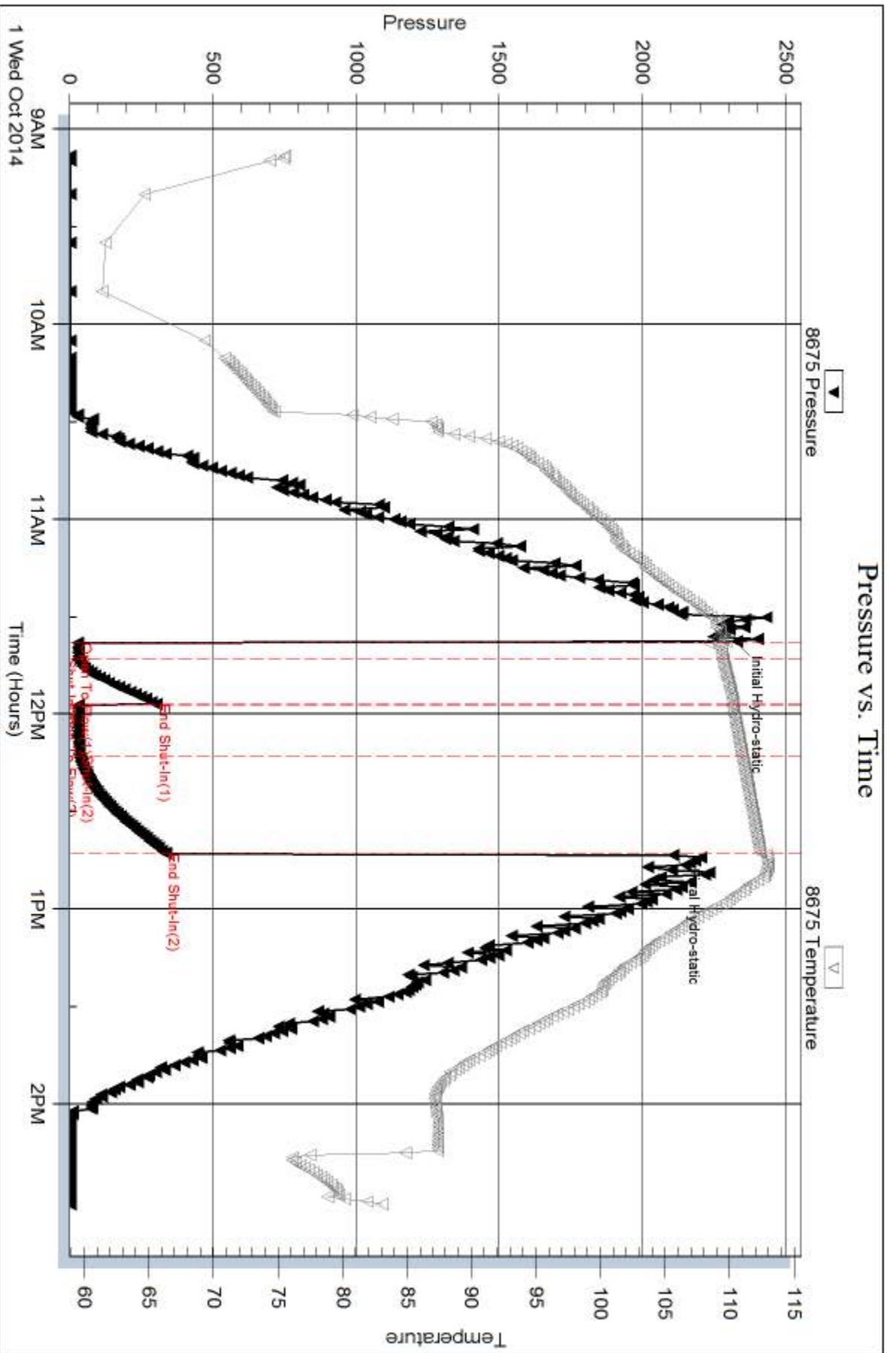
Num Gas Bombs: 0

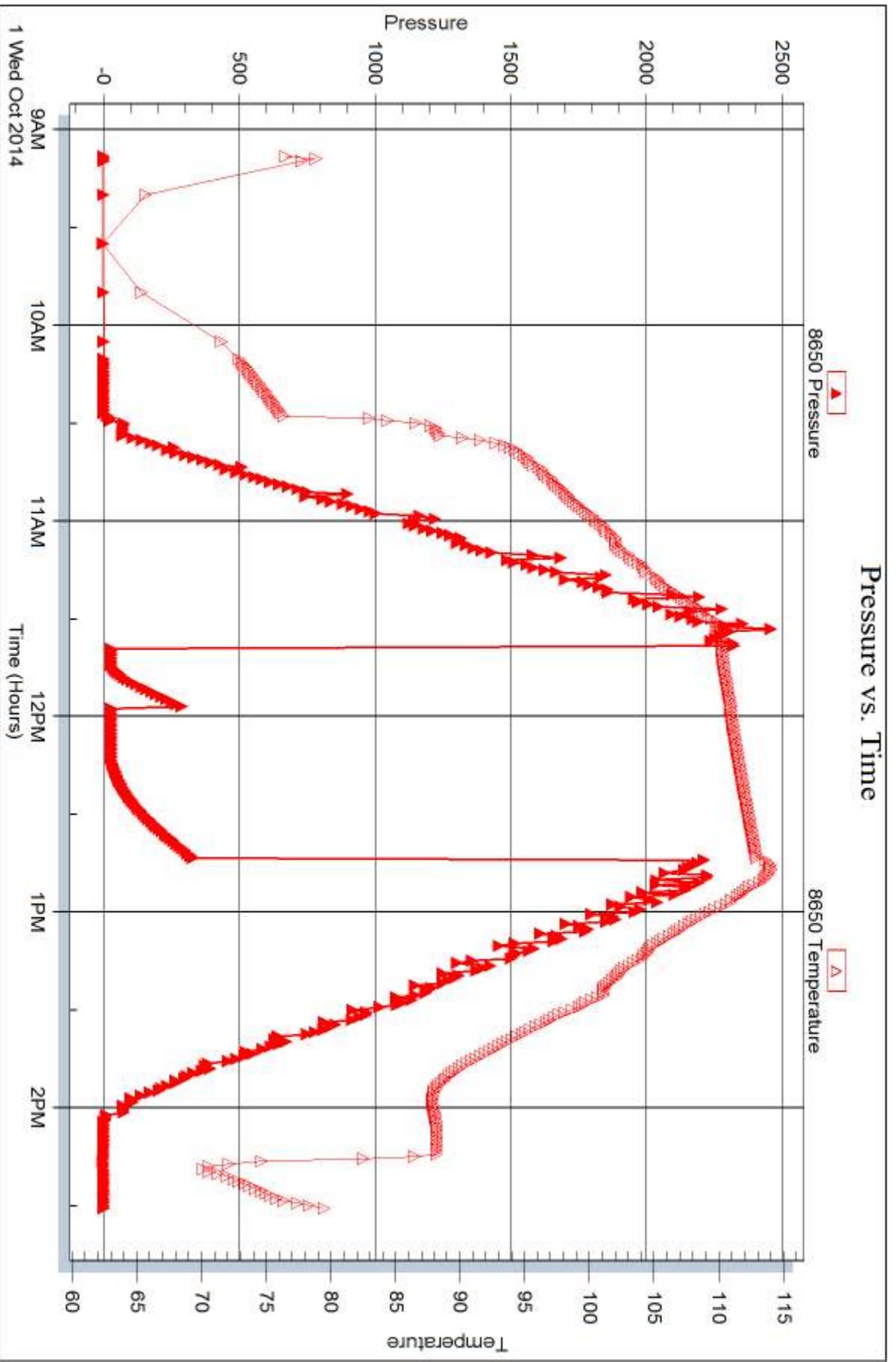
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz KS 67564-8561

ATTN: Vern Schrag

Risley #1-36

36-18s-30w Lane,KS

Start Date: 2014.10.02 @ 06:53:14

End Date: 2014.10.02 @ 12:51:14

Job Ticket #: 59042 DST #: 8

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

Printed: 2014.10.03 @ 13:34:26



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz KS 67564-8561
 ATTN: Vern Schrag

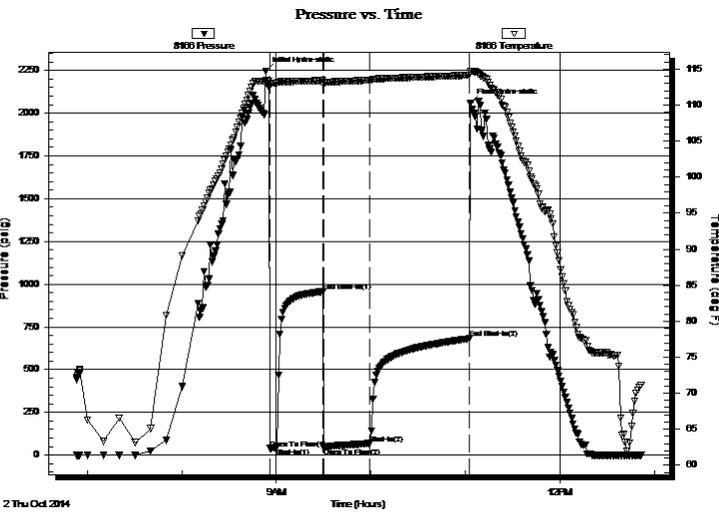
36-18s-30w Lane, KS
Risley #1-36
 Job Ticket: 59042 **DST#: 8**
 Test Start: 2014.10.02 @ 06:53:14

GENERAL INFORMATION:

Formation: **LKC H**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:55:44
 Time Test Ended: 12:51:14
 Interval: **4127.00 ft (KB) To 4172.00 ft (KB) (TVD)**
 Total Depth: 4614.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Straddle (Reset)
 Tester: Brandon Turley
 Unit No: 60
 Reference Elevations: 2861.00 ft (KB)
 2854.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8166 Outside
 Press@RunDepth: 67.73 psig @ 4128.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.10.02 End Date: 2014.10.02 Last Calib.: 2014.10.02
 Start Time: 06:53:19 End Time: 12:51:13 Time On Btm: 2014.10.02 @ 08:53:14
 Time Off Btm: 2014.10.02 @ 11:03:14

TEST COMMENT: IF: 1/4" blow built to 1" in 5 min.
 IS: No return.
 FF: Surface blow built to 1" in 30 min.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2246.66	113.49	Initial Hydro-static
3	38.10	112.60	Open To Flow (1)
7	44.08	113.01	Shut-In(1)
36	954.86	113.42	End Shut-In(1)
37	44.87	112.78	Open To Flow (2)
66	67.73	113.46	Shut-In(2)
129	680.65	114.15	End Shut-In(2)
130	2058.60	114.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	mud 100% m	0.32

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 59042

DST#: 8

ATTN: Vern Schrag

Test Start: 2014.10.02 @ 06:53:14

Tool Information

Drill Pipe:	Length: 3982.00 ft	Diameter: 3.80 inches	Volume: 55.86 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 124.13 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.13 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4127.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	4168.00 ft			
Interval between Packers:	41.00 ft			
Tool Length:	515.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Stubb	1.00			4100.00	
Shut In Tool	5.00			4105.00	
Hydraulic tool	5.00			4110.00	
Jars	5.00			4115.00	
Safety Joint	3.00			4118.00	
Packer	5.00			4123.00	28.00 Bottom Of Top Packer
Packer	4.00			4127.00	
Stubb	1.00			4128.00	
Recorder	0.00	8373	Inside	4128.00	
Recorder	0.00	8166	Outside	4128.00	
Perforations	1.00			4129.00	
Change Over Sub	1.00			4130.00	
Drill Pipe	31.00			4161.00	
Change Over Sub	1.00			4162.00	
Perforations	5.00			4167.00	
Blank Off Sub	1.00			4168.00	41.00 Tool Interval
Packer	4.00			4172.00	
Stubb	1.00			4173.00	
Change Over Sub	1.00			4174.00	
Recorder	0.00	8360	Below	4174.00	
Drill Pipe	440.00			4614.00	446.00 Bottom Packers & Anchor

Total Tool Length: 515.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-30w Lane, KS

562 West State Rd 4
Olmitz KS 67564-8561

Risley #1-36

Job Ticket: 59042

DST#: 8

ATTN: Vern Schrag

Test Start: 2014.10.02 @ 06:53:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 104.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	mud 100%m	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

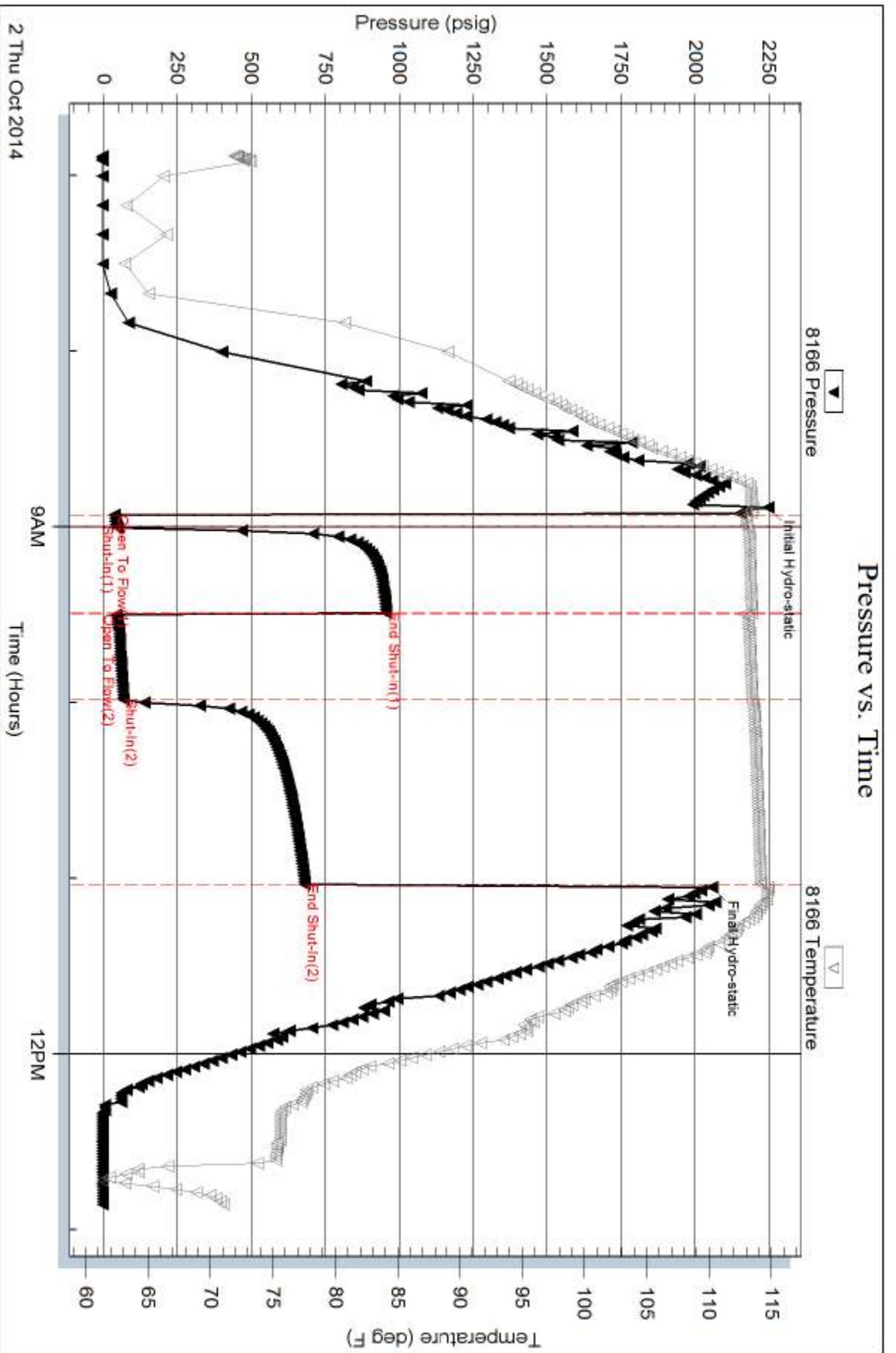
Num Gas Bombs: 0

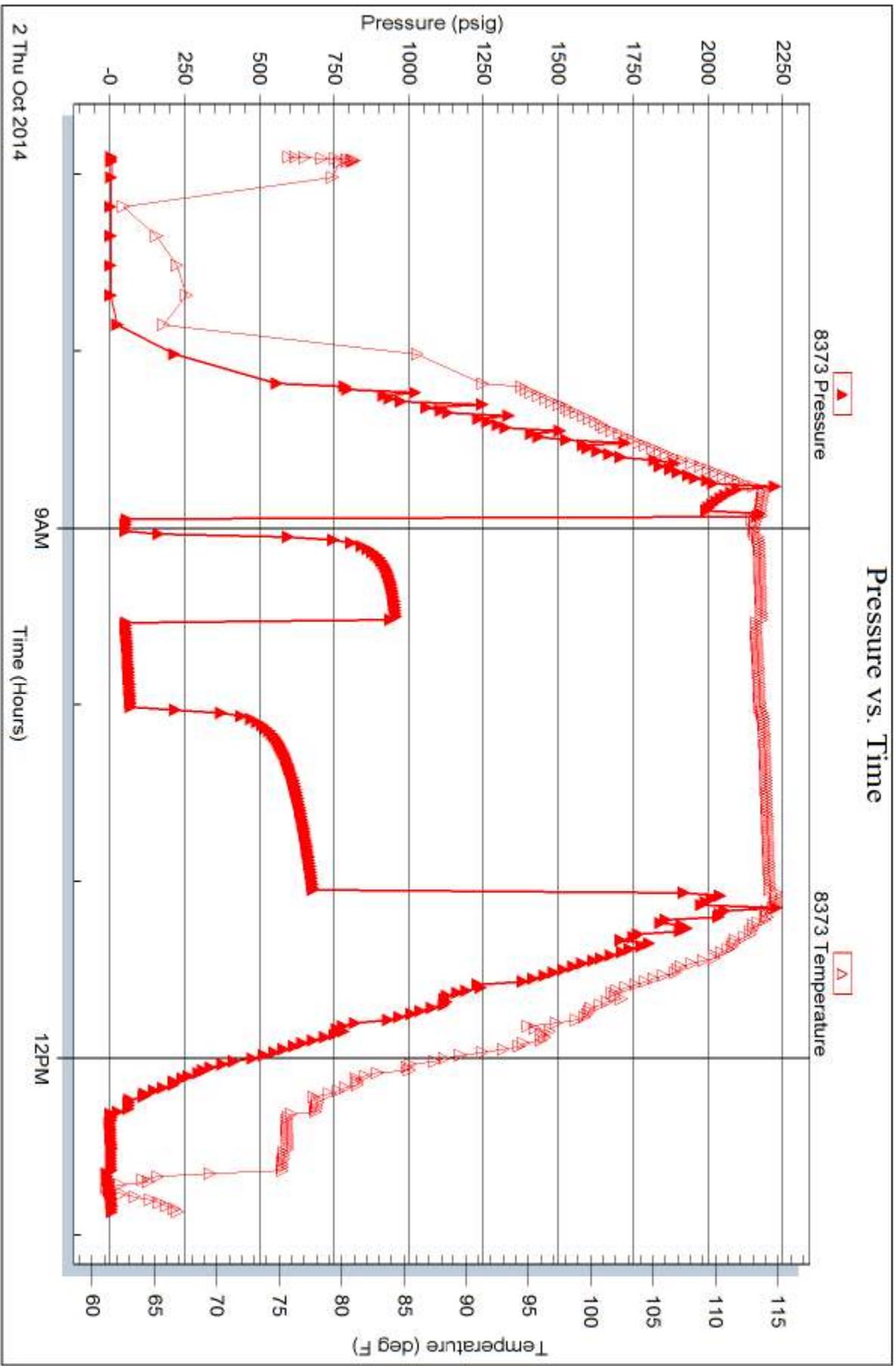
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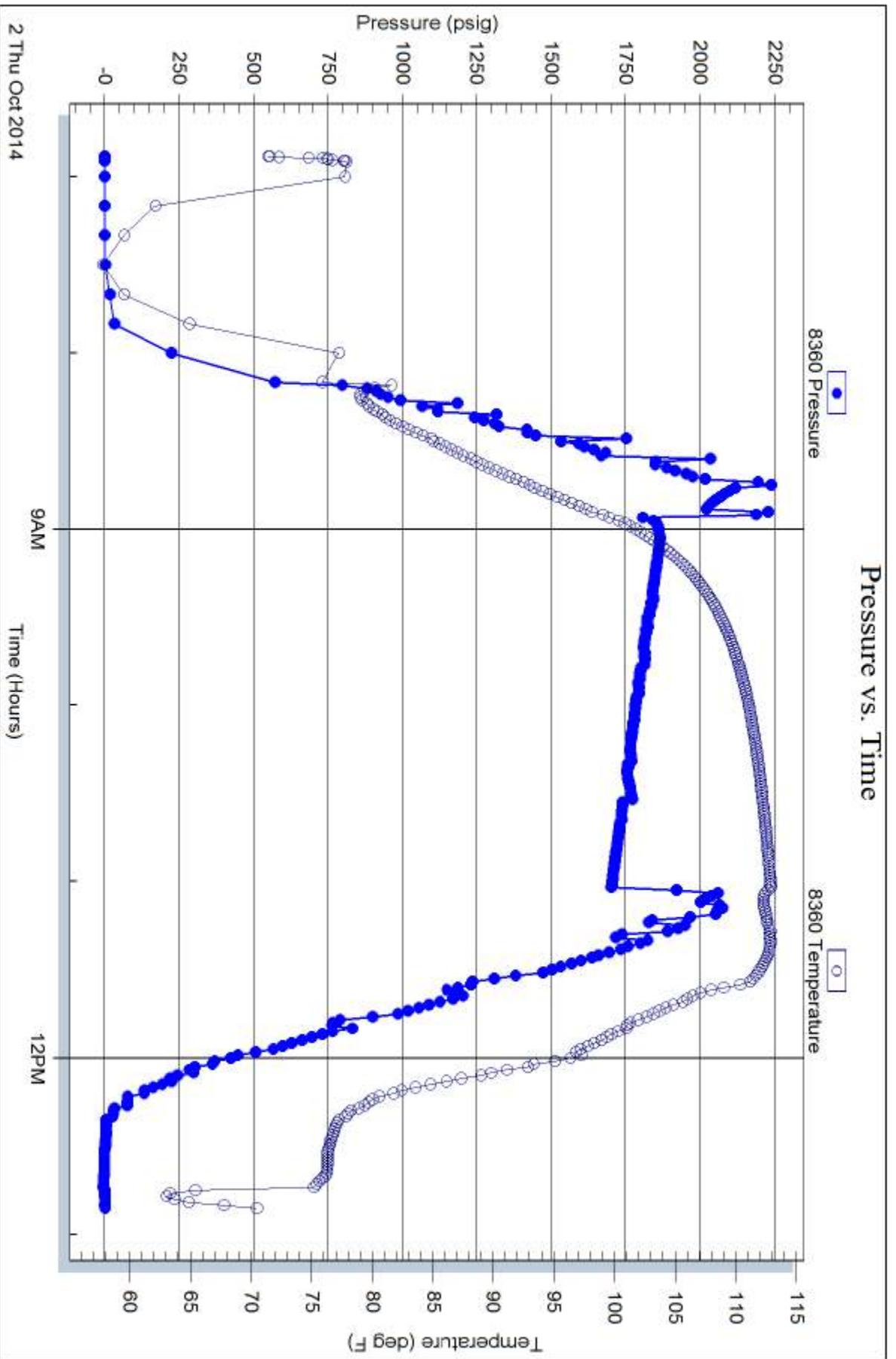
Laboratory Name:

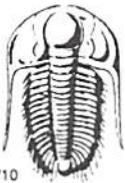
Laboratory Location:

Recovery Comments:









TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57276

4/10

Well Name & No. Riskey #1-36 Test No. 3 Date 9/28/14
 Company Harrison Engineering, Inc Elevation 2861 KB 2854 GL
 Address 562 West State Rd 4, Omitz KS, 67564-8561
 Co. Rep / Geo. Vern Schrag Rig H/D Rig 3
 Location: Sec. 36 Twp. 9Bs Rge. 30w Co. Lane County State KS

Interval Tested 4271-4285 Zone Tested Middle Creek
 Anchor Length 14 Drill Pipe Run _____ Mud Wt. 8.9
 Top Packer Depth 4267 Drill Collars Run 124.13 Vis 51
 Bottom Packer Depth 4271 Wt. Pipe Run _____ WL 9.2
 Total Depth 4285 Chlorides 3,400 ppm System LCM 2#

Blow Description Surface below
no return below
No below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

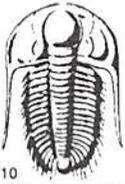
Rec Total 5 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2,145</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>07:50</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>08:35</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>10:34</u>
(D) Initial Shut-In <u>23</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>11:39</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>13:18</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>40 RT</u> 62	Comments _____
(G) Final Shut-In <u>25</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2133</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Total <u>1637</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1637</u>	

Approved By _____

Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57277

4/10

Well Name & No. Risley # 1-36 Test No. 4 Date 9/28/16 9/29/16
 Company Larson Engineering, Inc. Elevation 2861 KB 2854 GL
 Address 562 West State Rd 4, Olmitz KS, 67664-8561
 Co. Rep / Geo. Dan Schrag Rig HD Rig 3
 Location: Sec. 36 Twp. 18s Rge. 30w Co. Lane County State KS

Interval Tested 4278-4296 Zone Tested Kansas City "L"
 Anchor Length 18 Drill Pipe Run 4138.92 Mud Wt. 9.1
 Top Packer Depth 4274 Drill Collars Run 124.13 Vis 49
 Bottom Packer Depth 4278 Wt. Pipe Run _____ WL 8.4
 Total Depth 4296 Chlorides 3,100 ppm System LCM 2#

Blow Description Surface below
No return below
No below
No return below

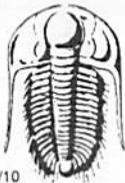
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 6 BHT 108 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 2,183 Test 1250 T-On Location 20:20
 (B) First Initial Flow 22 Jars 250 T-Started 21:10
 (C) First Final Flow 23 Safety Joint 75 T-Open ~~22:09~~ 23:09
 (D) Initial Shut-In 25 Circ Sub N/C T-Pulled 00:14
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 01:44
 (F) Second Final Flow 22 Mileage 40 MI 62 Comments _____
 (G) Final Shut-In 28 Sampler _____
 (H) Final Hydrostatic 2,118 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1637
 Sub Total _____
 Total 1637
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57472

4/10

Well Name & No. Risley # 1-36 Test No. 5 Date 9-29-14
 Company Larson Engineering, Inc. Elevation 2861 KB 2854 GL
 Address 562 West State RD 4 Olmitz KS, 67564-8561
 Co. Rep / Geo. Vern Schrag Rig HD Rig 3
 Location: Sec. 36 Twp. 18S Rge. 30W Co. lane State KS

Interval Tested 4276 4310 Zone Tested Kansas City
 Anchor Length 34 Drill Pipe Run 4137.37 Mud Wt. 9.1
 Top Packer Depth 4272 Drill Collars Run 124 Vis 49
 Bottom Packer Depth 4276 Wt. Pipe Run 0 WL 8.4
 Total Depth 4310 Chlorides 3100 ppm System LCM 2

Blow Description 5 Weak surface Blw
15 No Return
15 No Blow
30 No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100%</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 107 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2183</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>9:45</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:18</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:33</u>
(D) Initial Shut-In <u>211</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>13:38</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>15:22</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>40 RT 62</u>	Comments
(G) Final Shut-In <u>205</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2132</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 5 Shale Packer
 Initial Shut-In 15 Extra Packer
 Final Flow 15 Extra Recorder
 Final Shut-In 30 Day Standby
 Accessibility
 Sub Total 1637

Approved By Vern Schrag Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57476

Well Name & No. Risley # 1-36 Test No. 6 Date 9-30-14
 Company Larson Engineering, Inc. Elevation 2861 KB 2854 GL
 Address 562 West State RD 4 Olmitz Ks, 67564-8561
 Co. Rep / Geo. Vern Schrag Rig H0 #3
 Location: Sec. 36 Twp. 18S Rge. 30W Co. Jane State Ks

Interval Tested 4314 4415 Zone Tested Marmaton
 Anchor Length 99 Drill Pipe Run 4193.37 Mud Wt. 9.3
 Top Packer Depth 4312 Drill Collars Run 124 Vis 50
 Bottom Packer Depth 4314 Wt. Pipe Run 0 WL 8.4
 Total Depth 4415 Chlorides 3600 ppm System LCM 2

Blow Description 5 Weak Blow to 1"
15 No Return
30 ~~blow~~ Weak Blow Build to 2 1/2"
40 No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>66</u>	<u>goco goco</u>	<u>5</u>	<u>30</u>		<u>65</u>
<u>60</u>	<u>clean oil</u>	<u>1</u>	<u>99</u>		

Rec Total 126 BHT 114 Gravity 23 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2271</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>7:43</u>
(B) First Initial Flow <u>28</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>8:11</u>
(C) First Final Flow <u>40</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:36</u>
(D) Initial Shut-In <u>955</u>	<input checked="" type="checkbox"/> Circ Sub <u>NYC</u>	T-Pulled <u>12:26</u>
(E) Second Initial Flow <u>46</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:11</u>
(F) Second Final Flow <u>69</u>	<input checked="" type="checkbox"/> Mileage <u>40 RT</u> 62	Comments
(G) Final Shut-In <u>1027</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2042</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1637

Total 1637
 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57477

4/10

Well Name & No. Risley #1-36 Test No. 7 Date 10-1-14
 Company Larson Engineering, Inc. Elevation 2861 KB 2854 GL
 Address 562 West State RD 4 Omitz KS, 67564-8561
 Co. Rep / Geo. Vern Schrag Rig HD Rig 3
 Location: Sec. 36 Twp. 18s Rge. 30w Co. Lanc State KS

Interval Tested 4431 4565 Zone Tested Cherokee
 Anchor Length 134' Drill Pipe Run 4291.37 Mud Wt. 9.3
 Top Packer Depth 4427 Drill Collars Run 1241 Vis 62
 Bottom Packer Depth 4431 Wt. Pipe Run Ø WL 9.2
 Total Depth 4565 Chlorides 4000 ppm System LCM 2
 Blow Description 5 weat Blow to 1/2"
15 No Return
15 No Blow
30 No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

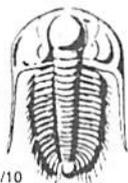
Rec Total 10 BHT 112 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2327</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>8:30</u>
(B) First Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>9:08</u>
(C) First Final Flow <u>32</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>11:38</u>
(D) Initial Shut-In <u>304</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>12:42</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:31</u>
(F) Second Final Flow <u>35</u>	<input checked="" type="checkbox"/> Mileage <u>40 RT 62</u>	Comments
(G) Final Shut-In <u>337</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2107</u>	<input type="checkbox"/> Straddle	
Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>15</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>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1887</u>
	Sub Total <u>1887</u>	MP/DST Disc't

Approved By V. Schrag

Our Representative Justin Flowers

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59042

Well Name & No. Risley 1-36 Test No. 8 Date 10-2-14
 Company LARSON Engineering Inc Elevation 2861 KB 2854 GL
 Address _____
 Co. Rep / Geo. Vern Schrag Rig HD #3
 Location: Sec. 36 Twp. 18^s Rge. 30^w Co. Lane State KS

Interval Tested 4127 4172 Zone Tested H
 Anchor Length 45 Drill Pipe Run 3982 Mud Wt. 9.4
 Top Packer Depth 4127 Drill Collars Run 124 Vis 104
 Bottom Packer Depth 4172 Wt. Pipe Run _____ WL 8.8
 Total Depth 4614 Chlorides 3300 ppm System LCM 2
 Blow Description IF: 1/4 blow built to 1 in 5 min.
IS: No return.
FF: surface blow built to 1 in 30 min.
FS: No return.

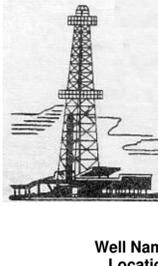
Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65 BHT _____ Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2246</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>5:45</u>
(B) First Initial Flow <u>38</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>6:53</u>
(C) First Final Flow <u>448</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>8:55</u>
(D) Initial Shut-In <u>954</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>11:00</u>
(E) Second Initial Flow <u>44</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>12:50</u>
(F) Second Final Flow <u>67</u>	<input checked="" type="checkbox"/> Mileage <u>62</u>	Comments _____
(G) Final Shut-In <u>680</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2058</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer _____	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>320</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>2557</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>2237</u>	

Approved By [Signature] Our Representative [Signature]

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WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: **RISLEY #1-36**
Location: **SE NW SW NW OF SEC. 36-18S-30W**
Licence Number: **API: 15-101-22538** Region: **Lane Co., KS**
Spud Date: **September 19, 2014** Drilling Completed: **October 2, 2014**
Surface Coordinates: **1844 FNL & 588 FWL**

Bottom Hole Coordinates:
Ground Elevation (ft): **2854'** K.B. Elevation (ft): **2861'**
Logged Interval (ft): **3800'** To: **RTD** Total Depth (ft): **4613'**
Formation: **Mississippi**
Type of Drilling Fluid: **Chemical Premix (Displaced)**

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: **Larson Engineering Inc.**
Address: **562 West State Road 4
Olmits, KS 67564-8561**

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #3 (Co. Tools)

DP 4.5" XH (16.6#); DC 6-1/4" x 2-3/8" x 556', Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20Q, 7-7/8", standard jets 15-15-15; rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

CASING:

Set 8-5/8" casing at 256'

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60-62 spm, Chemical, premix, earth pits, Morgan Mud, Inc., Cade Lines.

OPEN HOLE LOGS:

DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to surface casing; LogTech-Pioneer Wireline, Hays, KS, Dan Schmidt, Log total depth (4614') was one foot long to rotary total depth (4613').

DRILL STEM TEST #1:

LKC (H-zone): Interval: 4135-4155 (20'); Blow: weak surf IFP, no RB, no blow 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2112-2106, SIP: 35-69, FP: 21-22, 22-23; BHT: 109 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #2:

LKC (K-zone): Interval: 4242-4259 (17'); Blow: weak surf IFP, no RB, no blow 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2164-2126, SIP: 913-912, FP: 20-22, 22-25; BHT: 114 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #3:

LKC (K2, Middle Creek Lime): Interval: 4271-4285 (14'); Blow: weak surf IFP, no RB, blow died 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2145-2133, SIP: 23-25, FP: 20-22, 21-22; BHT: 109 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #4:

LKC (L-zone): Interval: 4278-4296 (18'); Blow: weak surf IFP, no RB, died 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2183-2118, SIP: 25-28, FP: 22-23, 22-22; BHT: 108 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #5:

LKC (Lower L-zone): Interval: 4276-4310 (34'); Blow: weak surf IFP, no RB, no blow 2nd open; Times: 5-15-15-30; Recovery: 5' mud (100%M); Pressures: HP: 2183-2132, SIP: 211-205; FP: 22-25, 22-24; BHT: 107 F; Trilobite Testing, Inc., Scott City, KS, Justin Harris.

DRILL STEM TEST #6:

Pleasanton thru Marmaton: Interval: 4316-4415 (99'); Blow: weak incr 1" IFP, no RB, weak incr 2-1/2" FFP, no RB; Times: 5-15-30-60; Recovery: 126' TF; Grindouts: 60' Oil (1%G, 99%O, 23 grav.), 66' HGOCM (5%G, 30%O, 65%M); Pressures: HP: 2271-2042, SIP: 955-1027, FP: 28-40, 46-69; BHT: 114 F; Trilobite Testing, Inc., Scott City, KS, Justin Harris.

DRILL STEM TEST #7:

Pawnee thru Cherokee: Interval: 4431-4565 (134'); Blow: weak incr 1/2" IFP, no RB, no blow 2nd open; Times: 5-15-15-30; Recovery: 10' mud (100%M); Pressures: HP: 2327-2107; SIP: 304-337, FP: 30-32, 32-35; BHT: 112 F; Trilobite Testing, Inc., Scott City, KS, Justin Harris.

DRILL STEM TEST #8:

LKC (H-zone): Straddle Interval: 4127-4172 (45' anchor, 442' tailpipe): Blow: weak incr 1" IFP, no RB, weak incr 1" FFP, no RB; Times: 5-15-30-60; Recovery: 65' mud (100%M); Pressures: HP: 2246-2058, SIP: 954-680, FP: 38-44, 44-67; Trilobite Testing, Inc., Scott City, KS, Brandon Turley.

