



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1105215  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_



1105215

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](mailto: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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	SS 2-10
Doc ID	1105215

Tops

Name	Top	Datum
Anhydrite	2167	+659
B/Anhydrite	2196	+630
Heebner	3956	-1130
Lansing	3999	-1173
Stark Sh	4283	-1457
Marmaton	4395	-1569
Pawnee	4481	-1655
Ft Scott	4529	-1703
Cherokee	4552	-1726
Mississippi	4614	-1788



# ALLIED OIL & GAS SERVICES, LLC 053788

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Leaet Annykes

DATE <u>8-31-12</u>	SEC. <u>10</u>	TWP. <u>19s</u>	RANGE <u>29w</u>	CALLED OUT	ON LOCATION	JOB START <u>7:00</u>	JOB FINISH <u>8:00</u>
LEASE <u>S.S.</u>	WELL # <u>2-10</u>	LOCATION <u>Dighton KS 25 2w</u>			COUNTY <u>Leaet</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)		<u>2 3/4 5 Winters</u>			<u>1.01</u>	<u>6'</u>	

CONTRACTOR <u>H.P. Drilling Brg #3</u>	OWNER _____
TYPE OF JOB <u>Surf. Frac.</u>	CEMENT AMOUNT ORDERED <u>175 SKS Class A 3Hcc</u>
HOLE SIZE <u>12 1/4</u> T.D. _____	2 1/2 gal
CASING SIZE <u>5 5/8</u> DEPTH <u>264.89</u>	COMMON <u>175</u> @ <u>14.25</u> <u>2,843.25</u>
TUBING SIZE _____ DEPTH _____	POZMIX @ _____
DRILL PIPE <u>1 1/2</u> DEPTH _____	GEL <u>3</u> @ <u>21.25</u> <u>63.75</u>
TOOL _____ DEPTH _____	CHLORIDE <u>6</u> @ <u>58.20</u> <u>349.20</u>
PRES. MAX _____ MINIMUM _____	ASC @ _____
MEAS. LINE _____ SHOE JOINT _____	_____ @ _____
CEMENT LEFT IN CSG. <u>15 Ft</u>	_____ @ _____
PERFS: _____	_____ @ _____
DISPLACEMENT <u>15.91 bbls Freshwater</u>	_____ @ _____
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Russell Chambers</u>	_____ @ _____
# <u>398</u> HELPER <u>John Campbell</u>	_____ @ _____
BULK TRUCK _____	_____ @ _____
# <u>349-170</u> DRIVER <u>Joel Monahan</u>	_____ @ _____
BULK TRUCK _____	_____ @ _____
# _____ DRIVER _____	_____ @ _____

REMARKS:  
Break circulation with Btg Mud  
Pump 5 bbls Freshwater ahead  
put 175 SKS Class A 3Hcc 2 1/2 gal  
Displace 15.91 bbls Freshwater  
@ 54ms 1a  
Cemented 1st structure  
Plug Down 6' depth  
Btg Down

HANDLING <u>188.5 x</u>	@ <u>2.10</u>	<u>395.85</u>
MILEAGE <u>8.61 x 30 x</u>	<u>2.35</u>	<u>607.35</u>
<u>258.44</u>		TOTAL <u>4,259.20</u>

CHARGE TO: Varizon Engineering  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB <u>264</u>	
PUMP TRUCK CHARGE _____	<u>1125.00</u>
EXTRA FOOTAGE @ _____	
MILEAGE <u>Hum 30</u>	@ <u>7.00</u> <u>210.00</u>
MANIFOLD @ _____	
<u>Hum 30</u>	@ <u>4.00</u> <u>120.00</u>
TOTAL <u>1455.00</u>	

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PLUG & FLOAT EQUIPMENT

_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
TOTAL _____		

PRINTED NAME X Leukyne Tresner  
 SIGNATURE X Leukyne Tresner  
Thank you!!

SALES TAX (If Any) <u>205.17</u>	
TOTAL CHARGES <u>5,714.20</u>	
DISCOUNT <u>27%</u> <u>1,543.03</u>	
TOTAL <u>4,171.87</u>	

IF PAID IN 30 DAYS

# ALLIED OIL & GAS SERVICES, LLC 053799

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
*Carroll Bridge*

DATE <i>9-15-12</i>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <i>11:00</i>	JOB FINISH <i>12:00 AM</i>
LEASE <i>9-2</i>	WELL# <i>2-10</i>		LOCATION <i>Pigtoys KS 252425</i>		COUNTY <i>Love</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one) <i>NEW</i>			WIND				

CONTRACTOR *H.D. Drilling R/R #3* OWNER \_\_\_\_\_  
 TYPE OF JOB *Rotary Plug*  
 HOLE SIZE *12 1/4* T.D. \_\_\_\_\_  
 CASING SIZE *6 5/8* DEPTH \_\_\_\_\_  
 TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_  
 DRILL PIPE *4 1/2* DEPTH *2190*  
 TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_  
 PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_  
 MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_  
 CEMENT LEFT IN CSG. *All*  
 PERFS. \_\_\_\_\_  
 DISPLACEMENT *Freshwater*  
 EQUIPMENT \_\_\_\_\_

PUMP TRUCK CEMENTER *Dustin Chambers*  
 # *793* HELPER *Tosh Isaac*  
 BULK TRUCK \_\_\_\_\_  
 # *341* DRIVER *Jool Monahan*  
 BULK TRUCK \_\_\_\_\_  
 # \_\_\_\_\_ DRIVER \_\_\_\_\_

REMARKS:  
*Fill Hole with Rig Mud*  
*1,2190-50 SKS*  
*2,1410-30 SKS*  
*3, 720-50 SKS*  
*4, 300-50 SKS*  
*5, 60-20 SKS*  
*6, 30 SKS*  
*plug down 11:30 pm*

CHARGE TO: *Larsen Engineering*  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME *X CULWINE-TRESNER*  
 SIGNATURE *X Culwaine-Tresner*  
*Thank You!!*

CEMENT  
 AMOUNT ORDERED *280 SKS 60% class 404-1002 4 bags 1/4 flo-seal*  
 COMMON *168* @ *17.90* *3007.20*  
 POZMIX *112* @ *9.35* *1047.20*  
 GEL *10* @ *23.70* *237.00*  
 CHLORIDE @ \_\_\_\_\_  
 ASC @ \_\_\_\_\_  
*flo seal 70* @ *2.97* *207.90*  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 HANDLING *301* @ *2.48* *746.48*  
 MILEAGE *12.57 x 30 x 2.40* *980.40*  
 TOTAL *6,223.24*

SERVICE  
 DEPTH OF JOB *2190*  
 PUMP TRUCK CHARGE *2483.59*  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE *Hum 30* @ *7.70* *231.00*  
 MANIFOLD @ \_\_\_\_\_  
*Hum 30* @ *4.40* *132.00*  
 @ \_\_\_\_\_  
 TOTAL *2,846.59*

PLUG & FLOAT EQUIPMENT  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_  
 @ \_\_\_\_\_

TOTAL \_\_\_\_\_  
 SALES TAX (If Any) *571.40*  
 TOTAL CHARGES *9,068.83*  
 DISCOUNT *33%* *2,992.71* IF PAID IN 30 DAYS  
*6,076.11*



## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.06 @ 22:45:00

End Date: 2012.09.07 @ 05:58:00

Job Ticket #: 48438                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:52:16

Larson Engineering, Inc  
10-19s-29w Lane,KS  
SS #2-10  
DST # 1  
LKC - J  
2012.09.06



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W State Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

**10-19s-29w Lane, KS**

**SS #2-10**

Job Ticket: 48438

**DST#: 1**

Test Start: 2012.09.06 @ 22:45:00

## GENERAL INFORMATION:

Formation: **LKC - J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:34:00

Time Test Ended: 05:58:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 53

**Interval: 4248.00 ft (KB) To 4267.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4267.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

**Serial #: 8522 Outside**

Press @ Run Depth: 96.93 psig @ 4249.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.06

End Date:

2012.09.07

Last Calib.:

2012.09.07

Start Time: 22:45:05

End Time:

05:57:59

Time On Btm:

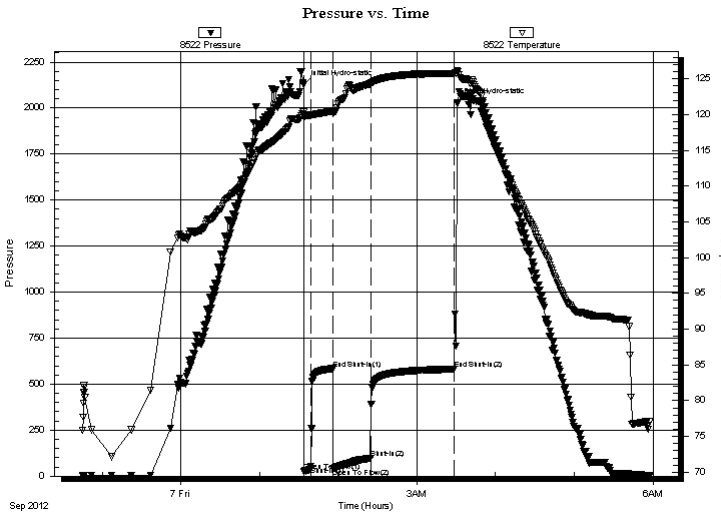
2012.09.07 @ 01:33:45

Time Off Btm:

2012.09.07 @ 03:30:30

TEST COMMENT: IF: 1" blow.  
IS: No return.  
FF: 6" blow.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2128.23	120.33	Initial Hydro-static
1	24.54	119.62	Open To Flow (1)
6	52.17	119.83	Shut-In(1)
23	584.17	120.48	End Shut-In(1)
23	41.36	120.17	Open To Flow (2)
51	96.93	124.27	Shut-In(2)
115	581.66	125.74	End Shut-In(2)
117	2031.03	126.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
150.00	sow cm 2o 38w 60m (6" oil on top)	0.77

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48438

**DST#: 1**

ATTN: Vern Schrag

Test Start: 2012.09.06 @ 22:45:00

## Tool Information

Drill Pipe:	Length: 4097.00 ft	Diameter: 3.80 inches	Volume: 57.47 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: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 58.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4248.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	46.00 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			4222.00	
Shut In Tool	5.00			4227.00	
Hydraulic tool	5.00			4232.00	
Jars	5.00			4237.00	
Safety Joint	2.00			4239.00	
Packer	5.00			4244.00	27.00 Bottom Of Top Packer
Packer	4.00			4248.00	
Stubb	1.00			4249.00	
Recorder	0.00	8677	Inside	4249.00	
Recorder	0.00	8522	Outside	4249.00	
Perforations	15.00			4264.00	
Bullnose	3.00			4267.00	19.00 Bottom Packers & Anchor

**Total Tool Length: 46.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48438

**DST#: 1**

ATTN: Vern Schrag

Test Start: 2012.09.06 @ 22:45:00

## 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:

32000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.33 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	sow cm 2o 38w 60m (6" oil on top)	0.765

Total Length: 150.00 ft      Total Volume: 0.765 bbl

Num Fluid Samples: 0

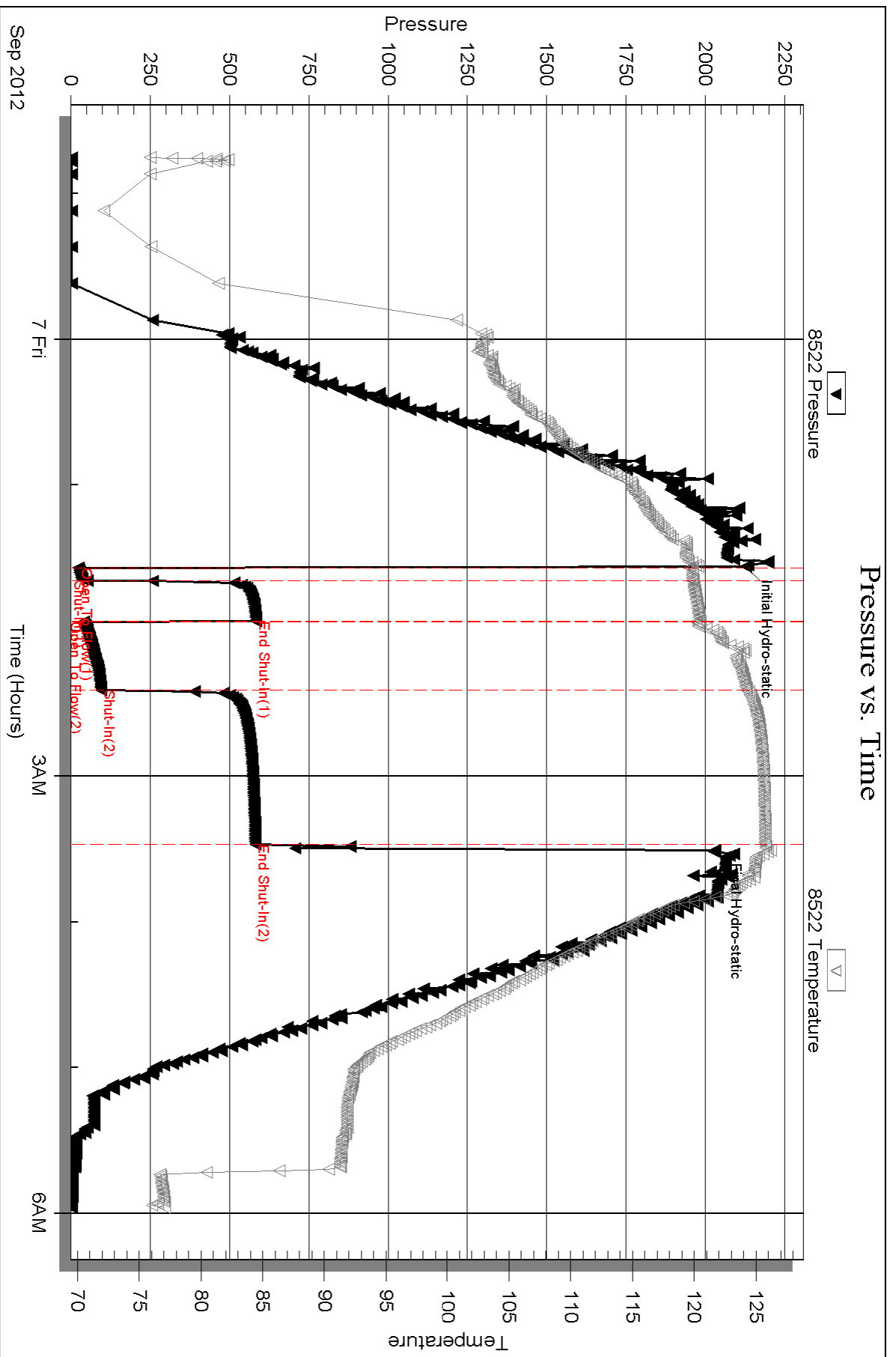
Num Gas Bombs: 0

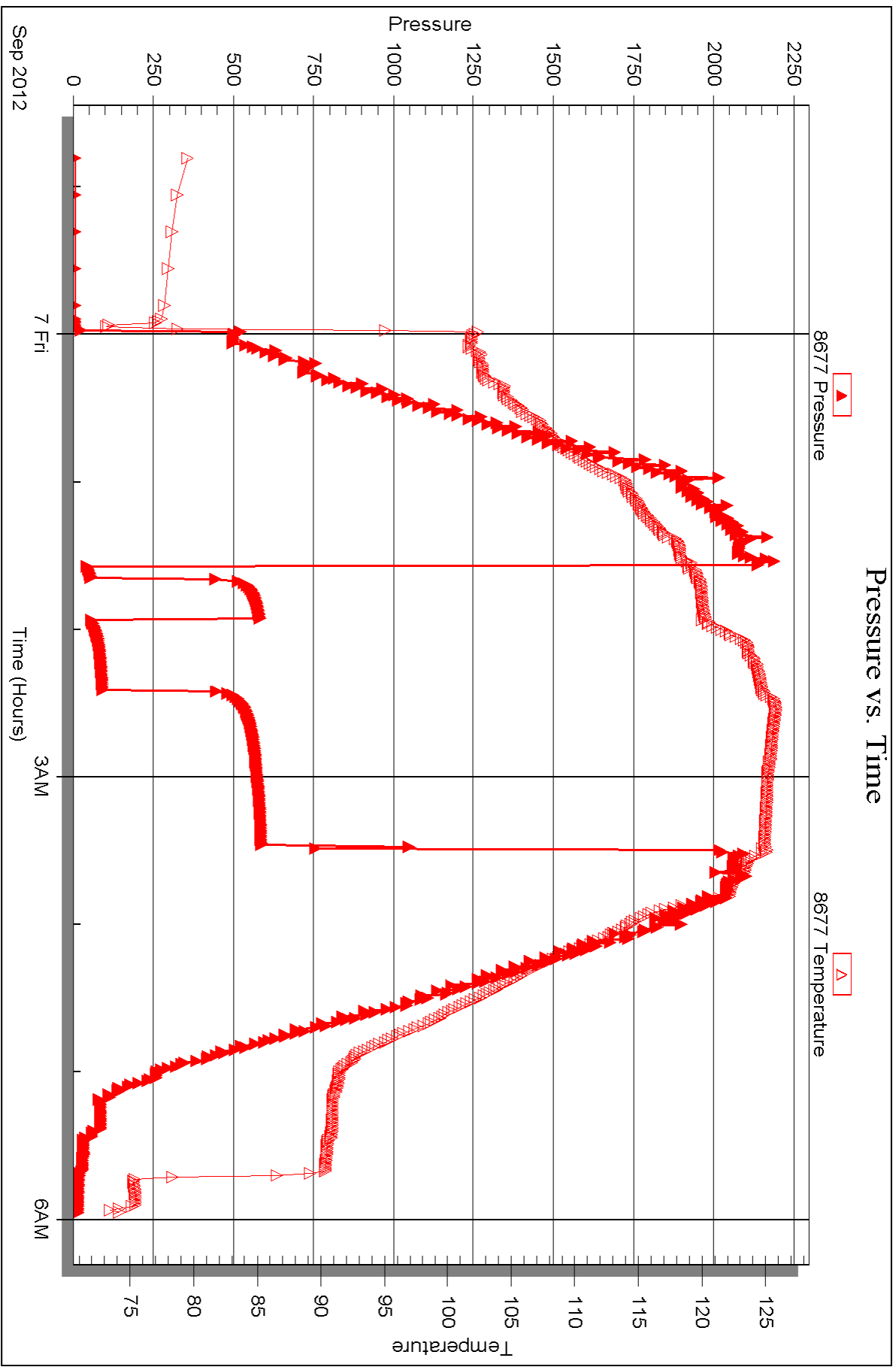
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .230 @ 66F = 32000ppm







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.07 @ 14:10:00

End Date: 2012.09.07 @ 19:29:45

Job Ticket #: 48439                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:51:18



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W State Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

**10-19s-29w Lane, KS**  
**SS #2-10**  
Job Ticket: 48439      **DST#: 2**  
Test Start: 2012.09.07 @ 14:10:00

## GENERAL INFORMATION:

Formation: **LKC - Lower J**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 16:25:00  
Time Test Ended: 19:29:45  
Interval: **4271.00 ft (KB) To 4282.00 ft (KB) (TVD)**  
Total Depth: 4282.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 53  
Reference Elevations: 2826.00 ft (KB)  
2820.00 ft (CF)  
KB to GR/CF: 6.00 ft

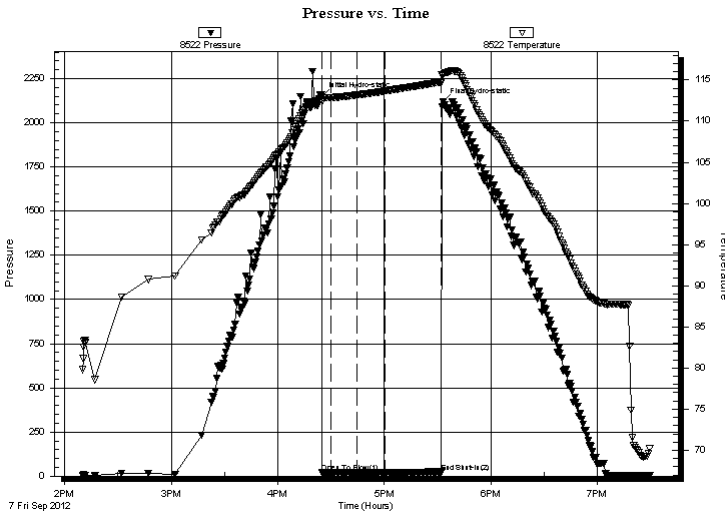
## Serial #: 8522

Outside

Press @ Run Depth: 20.52 psig @ 4272.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.09.07 End Date: 2012.09.07 Last Calib.: 2012.09.07  
Start Time: 14:10:05 End Time: 19:29:44 Time On Btm: 2012.09.07 @ 16:24:45  
Time Off Btm: 2012.09.07 @ 17:33:00

TEST COMMENT: IF: Weak Surface blow , died @ 3 min.  
IS: No return.  
FF: No blow .  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.68	113.22	Initial Hydro-static
1	19.17	112.43	Open To Flow (1)
6	18.97	112.87	Shut-In(1)
20	22.58	113.17	End Shut-In(1)
20	19.93	113.17	Open To Flow (2)
36	20.52	113.65	Shut-In(2)
68	23.33	114.76	End Shut-In(2)
69	2116.45	115.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	mud 100m	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W State Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

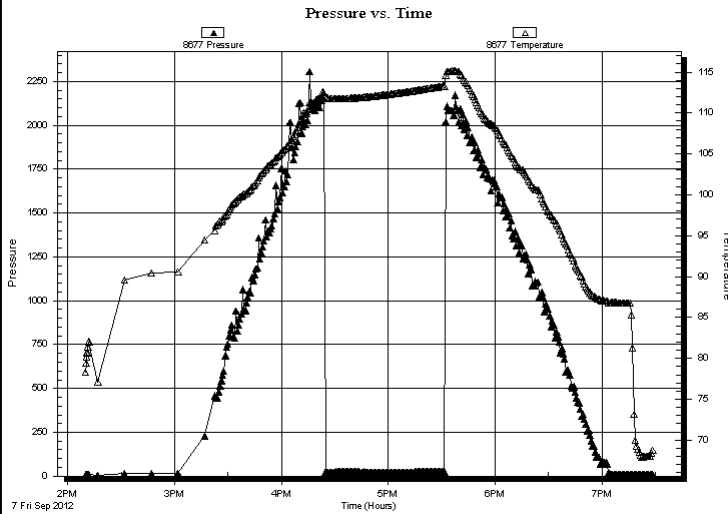
**10-19s-29w Lane, KS**  
**SS #2-10**  
Job Ticket: 48439 **DST#: 2**  
Test Start: 2012.09.07 @ 14:10:00

## GENERAL INFORMATION:

Formation: **LKC - Lower J**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 16:25:00  
Time Test Ended: 19:29:45  
Interval: **4271.00 ft (KB) To 4282.00 ft (KB) (TVD)**  
Total Depth: 4282.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Bradley Walter  
Unit No: 53  
Reference Elevations: 2826.00 ft (KB)  
2820.00 ft (CF)  
KB to GR/CF: 6.00 ft

**Serial #: 8677 Inside**  
Press @ RunDepth: psig @ 4272.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.09.07 End Date: 2012.09.07 Last Calib.: 2012.09.07  
Start Time: 14:10:05 End Time: 19:28:44 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF: Weak Surface blow, died @ 3 min.  
IS: No return.  
FF: No blow.  
FS: No return.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	mud 100m	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48439

**DST#: 2**

ATTN: Vern Schrag

Test Start: 2012.09.07 @ 14:10:00

## Tool Information

Drill Pipe:	Length: 4112.00 ft	Diameter: 3.80 inches	Volume: 57.68 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:	25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose:	74000.00 lb
			<u>Total Volume: 58.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4271.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	11.00 ft				
Tool Length:	38.00 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			4245.00	
Shut In Tool	5.00			4250.00	
Hydraulic tool	5.00			4255.00	
Jars	5.00			4260.00	
Safety Joint	2.00			4262.00	
Packer	5.00			4267.00	27.00 Bottom Of Top Packer
Packer	4.00			4271.00	
Stubb	1.00			4272.00	
Recorder	0.00	8677	Inside	4272.00	
Recorder	0.00	8522	Outside	4272.00	
Perforations	7.00			4279.00	
Bullnose	3.00			4282.00	11.00 Bottom Packers & Anchor

**Total Tool Length: 38.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Larson Engineering, Inc

**10-19s-29w Lane,KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48439

**DST#: 2**

ATTN: Vern Schrag

Test Start: 2012.09.07 @ 14:10:00

### 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.35 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud 100m	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

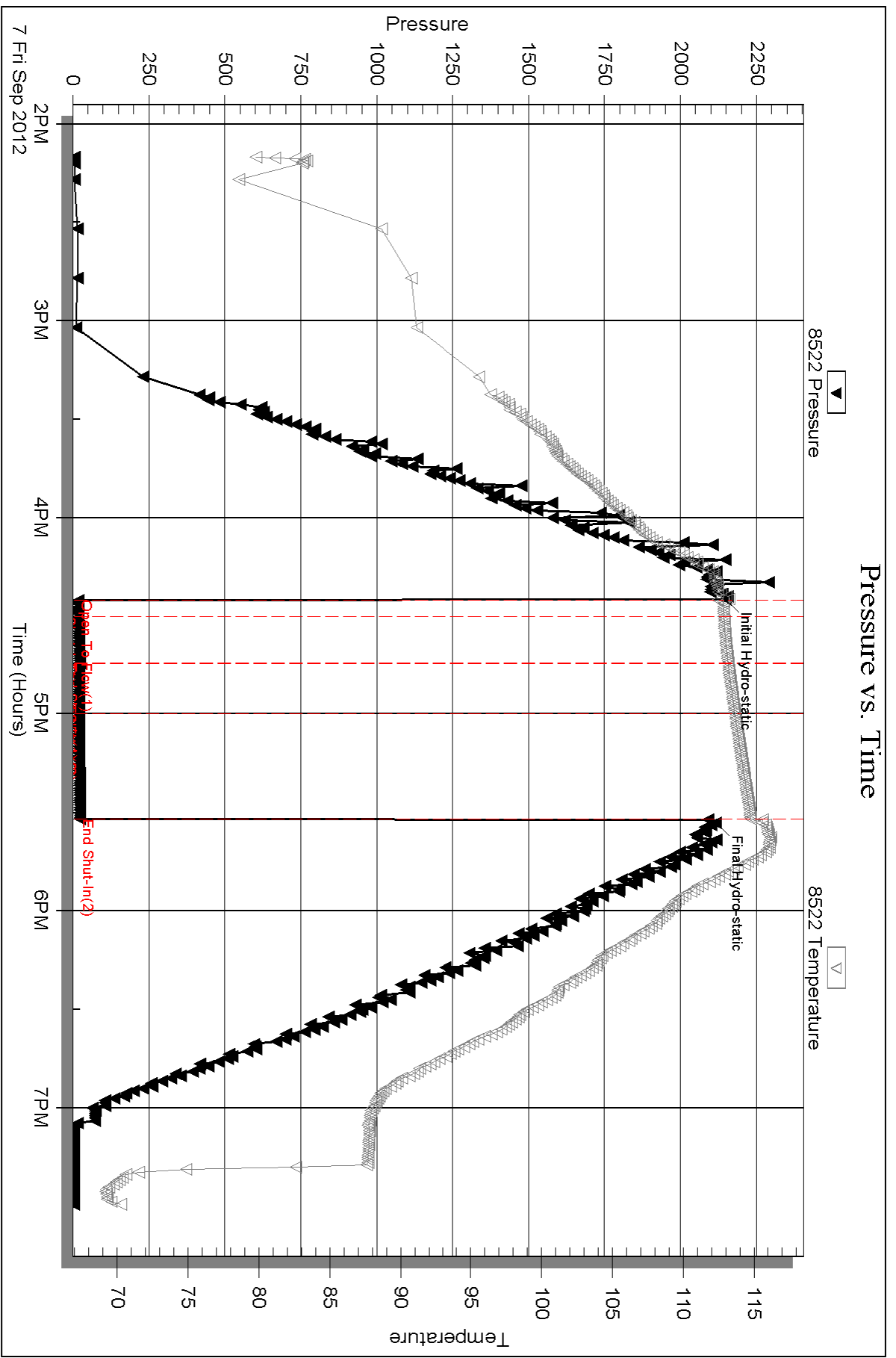
Num Gas Bombs: 0

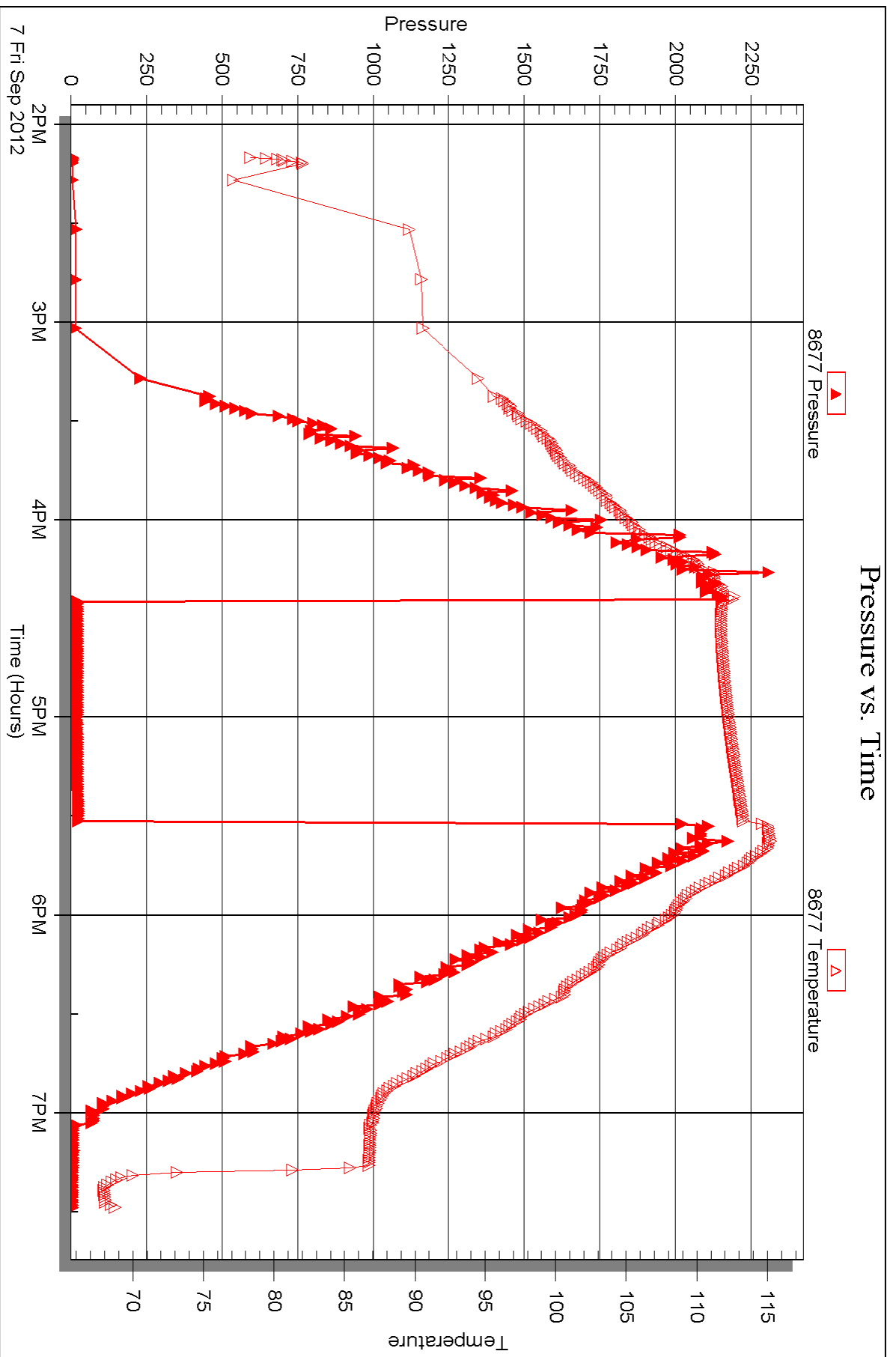
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.08 @ 04:09:00

End Date: 2012.09.08 @ 09:58:00

Job Ticket #: 48440                      DST #: 3

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:50:30



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
 562 W State Rd 4  
 Olmitz, KS 67564  
 ATTN: Vern Schrag

**10-19s-29w Lane, KS**

**SS #2-10**

Job Ticket: 48440

**DST#: 3**

Test Start: 2012.09.08 @ 04:09:00

## GENERAL INFORMATION:

Formation: **LKC - K**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:55:45  
 Time Test Ended: 09:58:00  
 Interval: **4283.00 ft (KB) To 4300.00 ft (KB) (TVD)**  
 Total Depth: 4300.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bradley Walter  
 Unit No: 53  
 Reference Elevations: 2826.00 ft (KB)  
 2820.00 ft (CF)  
 KB to GR/CF: 6.00 ft

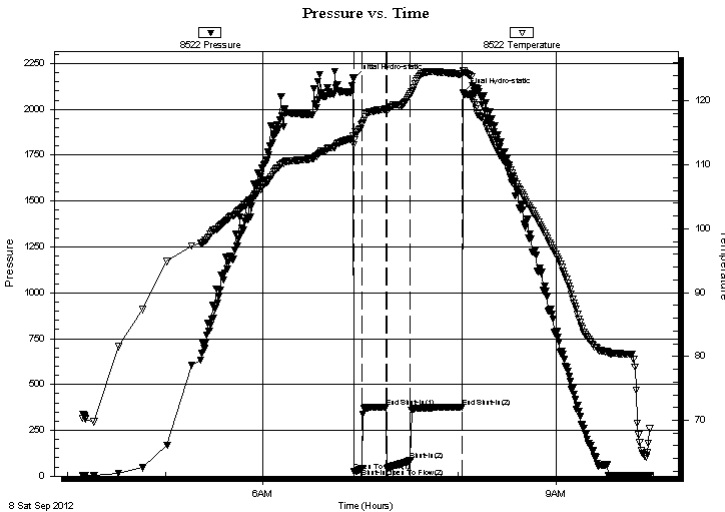
## Serial #: 8522

**Outside**

Press @ Run Depth: 85.14 psig @ 4284.00 ft (KB)  
 Start Date: 2012.09.08 End Date: 2012.09.08  
 Start Time: 04:09:05 End Time: 09:57:59  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.09.08  
 Time On Btm: 2012.09.08 @ 06:55:30  
 Time Off Btm: 2012.09.08 @ 08:02:45

TEST COMMENT: IF: 1 1/2" blow.  
 IS: No return.  
 FF: 3 1/2" blow.  
 FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2170.09	114.59	Initial Hydro-static
1	24.31	113.21	Open To Flow (1)
6	41.05	116.51	Shut-In(1)
20	376.80	118.75	End Shut-In(1)
21	42.87	118.62	Open To Flow (2)
35	85.14	121.07	Shut-In(2)
67	375.77	124.22	End Shut-In(2)
68	2090.94	124.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
160.00	WCM 45w 55m	0.91

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Larson Engineering, Inc

10-19s-29w Lane, KS

562 W State Rd 4  
Olmitz, KS 67564

SS #2-10

Job Ticket: 48440

DST#: 3

ATTN: Vern Schrag

Test Start: 2012.09.08 @ 04:09:00

### GENERAL INFORMATION:

Formation: **LKC - K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:55:45

Time Test Ended: 09:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: **4283.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

Serial #: **8677** Inside

Press @ RunDepth: psig @ 4284.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.08

End Date:

2012.09.08

Last Calib.:

1899.12.30

Start Time: 04:09:20

End Time:

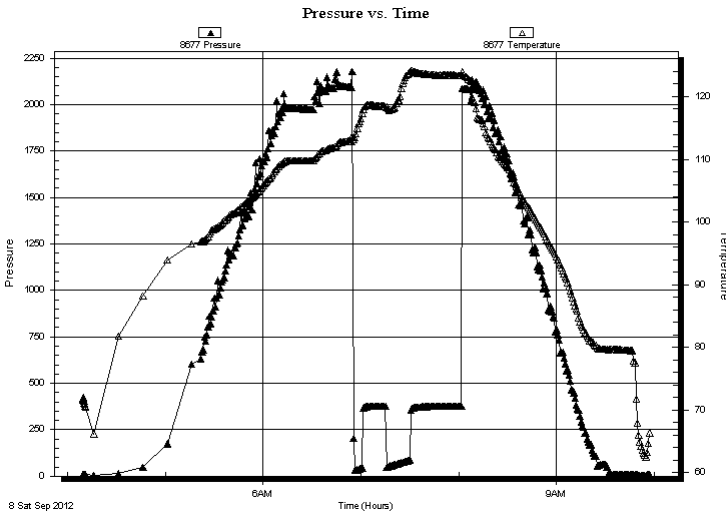
09:57:14

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 1 1/2" blow.  
IS: No return.  
FF: 3 1/2" blow.  
FS: No return.

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
160.00	WCM 45w 55m	0.91

### 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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48440

**DST#: 3**

ATTN: Vern Schrag

Test Start: 2012.09.08 @ 04:09:00

## Tool Information

Drill Pipe:	Length: 4140.00 ft	Diameter: 3.80 inches	Volume: 58.07 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:	25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose:	73000.00 lb
			<u>Total Volume: 58.79 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4283.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	44.00 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			4257.00	
Shut In Tool	5.00			4262.00	
Hydraulic tool	5.00			4267.00	
Jars	5.00			4272.00	
Safety Joint	2.00			4274.00	
Packer	5.00			4279.00	27.00 Bottom Of Top Packer
Packer	4.00			4283.00	
Stubb	1.00			4284.00	
Recorder	0.00	8677	Inside	4284.00	
Recorder	0.00	8522	Outside	4284.00	
Perforations	13.00			4297.00	
Bullnose	3.00			4300.00	17.00 Bottom Packers & Anchor

**Total Tool Length: 44.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane,KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48440

**DST#: 3**

ATTN: Vern Schrag

Test Start: 2012.09.08 @ 04:09:00

## 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:

29000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.36 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
160.00	WCM 45w 55m	0.905

Total Length: 160.00 ft      Total Volume: 0.905 bbl

Num Fluid Samples: 0

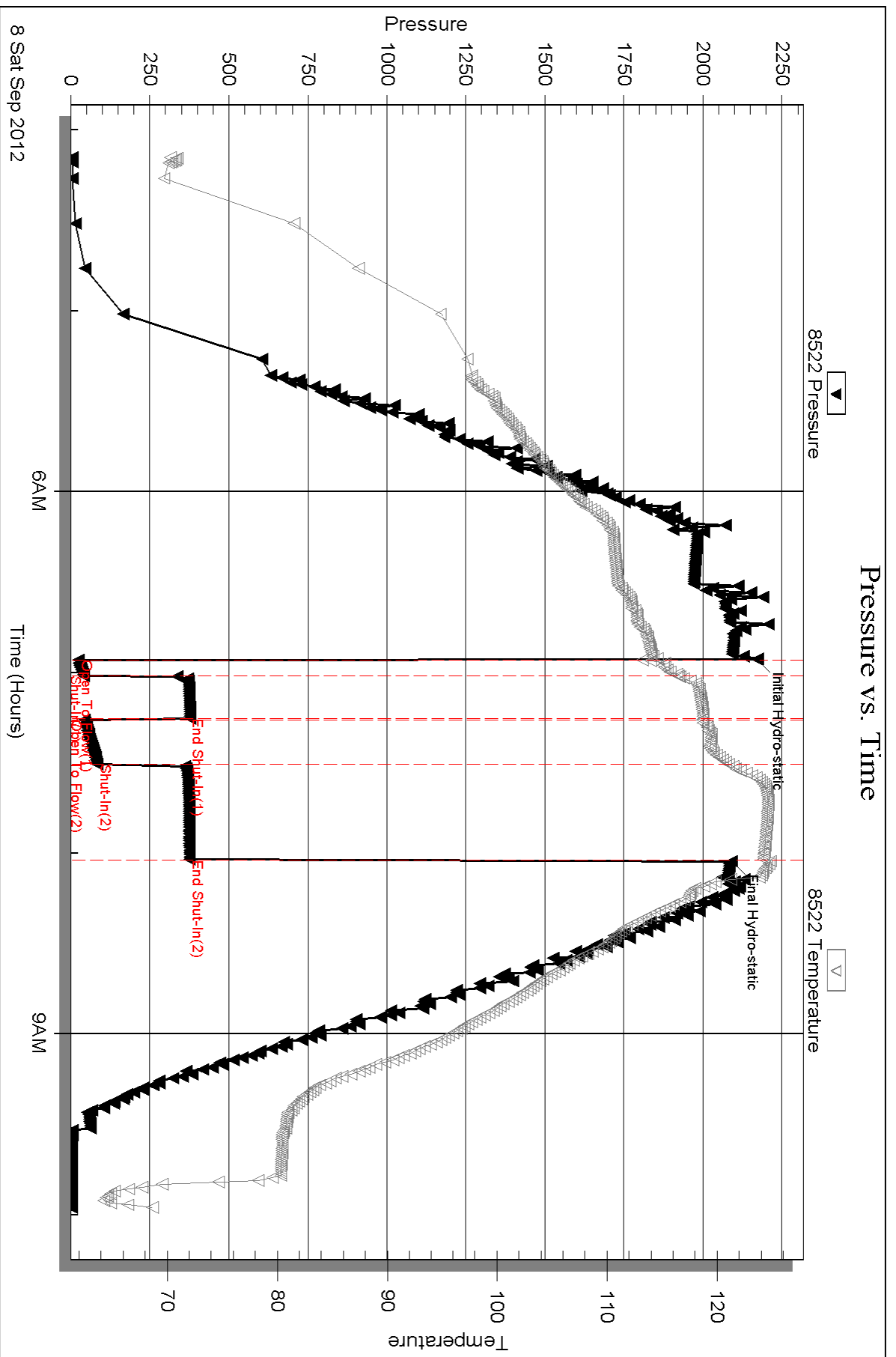
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .260 @ 64f = 29000ppm



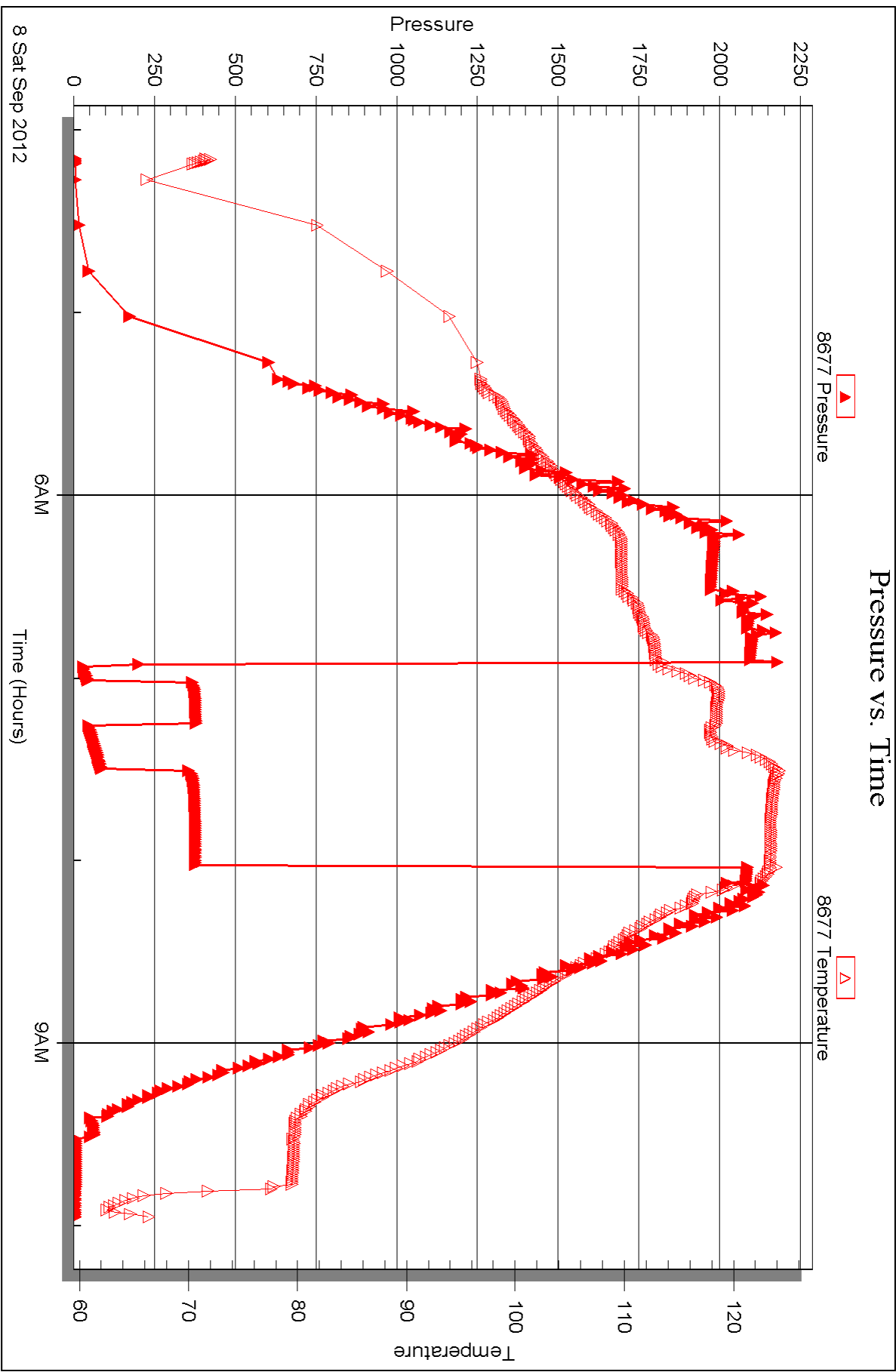
Serial #: 8677

Inside

Larson Engineering, Inc

SS #2-10

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 48440

Printed: 2012.09.17 @ 15:50:39



## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.08 @ 22:14:30

End Date: 2012.09.09 @ 04:20:45

Job Ticket #: 48441                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:49:28



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W State Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

**10-19s-29w Lane, KS**

**SS #2-10**

Job Ticket: 48441

**DST#: 4**

Test Start: 2012.09.08 @ 22:14:30

## GENERAL INFORMATION:

Formation: **LKC "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:52:00

Time Test Ended: 04:20:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4318.00 ft (KB) To 4334.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4318.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

**Serial #: 8522 Outside**

Press @ RunDepth: 108.15 psig @ 4319.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.08

End Date:

2012.09.09

Last Calib.: 2012.09.08

Start Time: 22:14:35

End Time:

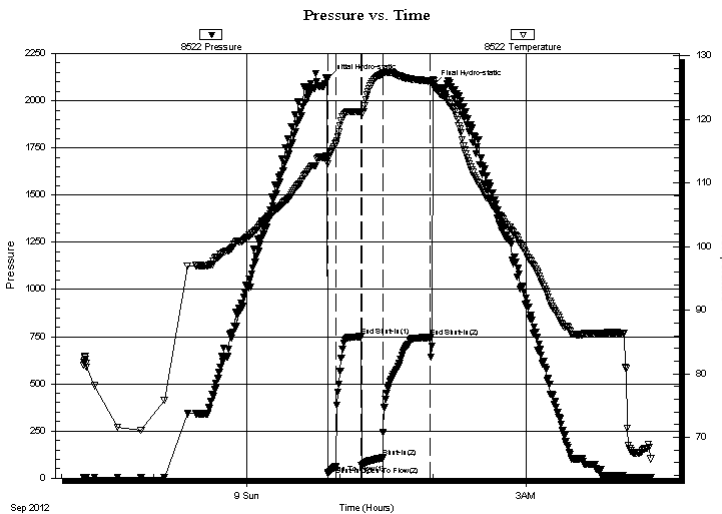
04:20:44

Time On Btm: 2012.09.09 @ 00:51:45

Time Off Btm: 2012.09.09 @ 02:00:15

**TEST COMMENT:** IF: 3 1/2" blow.  
IS: NO return.  
FF: 5 1/2" blow.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2116.45	114.25	Initial Hydro-static
1	25.40	113.08	Open To Flow (1)
6	61.26	116.28	Shut-In(1)
22	750.39	121.20	End Shut-In(1)
22	65.13	120.85	Open To Flow (2)
36	108.15	127.19	Shut-In(2)
67	745.55	126.02	End Shut-In(2)
69	2084.82	126.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	mcw 30m 70w	1.47
1.00	oil 100o	0.01

## 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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48441

**DST#: 4**

ATTN: Vern Schrag

Test Start: 2012.09.08 @ 22:14:30

## Tool Information

Drill Pipe:	Length: 4174.00 ft	Diameter: 3.80 inches	Volume: 58.55 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: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 59.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4318.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	43.00 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			4292.00	
Shut In Tool	5.00			4297.00	
Hydraulic tool	5.00			4302.00	
Jars	5.00			4307.00	
Safety Joint	2.00			4309.00	
Packer	5.00			4314.00	27.00 Bottom Of Top Packer
Packer	4.00			4318.00	
Stubb	1.00			4319.00	
Recorder	0.00	8677	Inside	4319.00	
Recorder	0.00	8522	Outside	4319.00	
Perforations	12.00			4331.00	
Bullnose	3.00			4334.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 43.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48441

**DST#: 4**

ATTN: Vern Schrag

Test Start: 2012.09.08 @ 22:14:30

## 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:

40000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.36 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	mcw 30m 70w	1.466
1.00	oil 100o	0.014

Total Length: 201.00 ft      Total Volume: 1.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

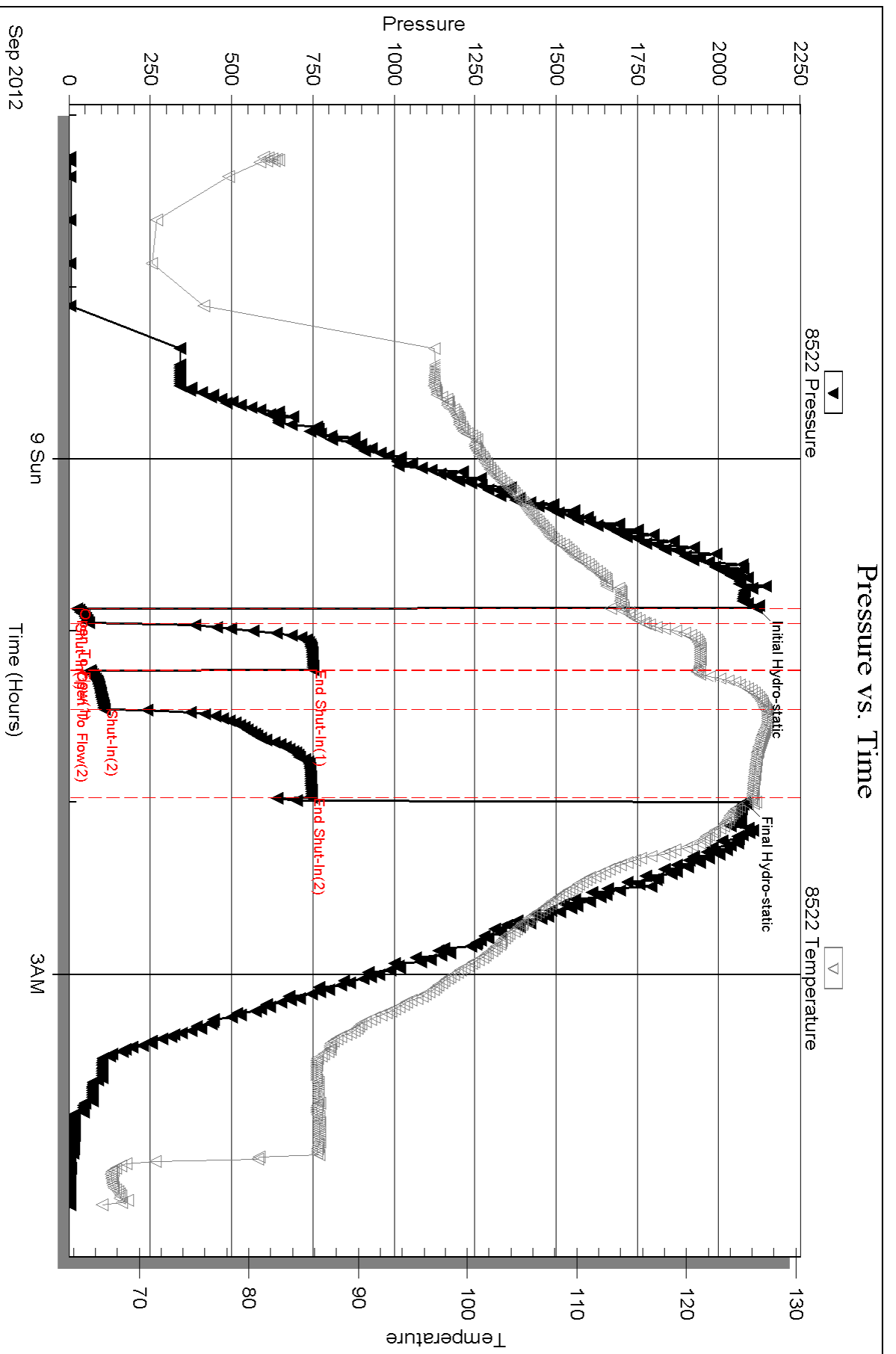
Serial #:

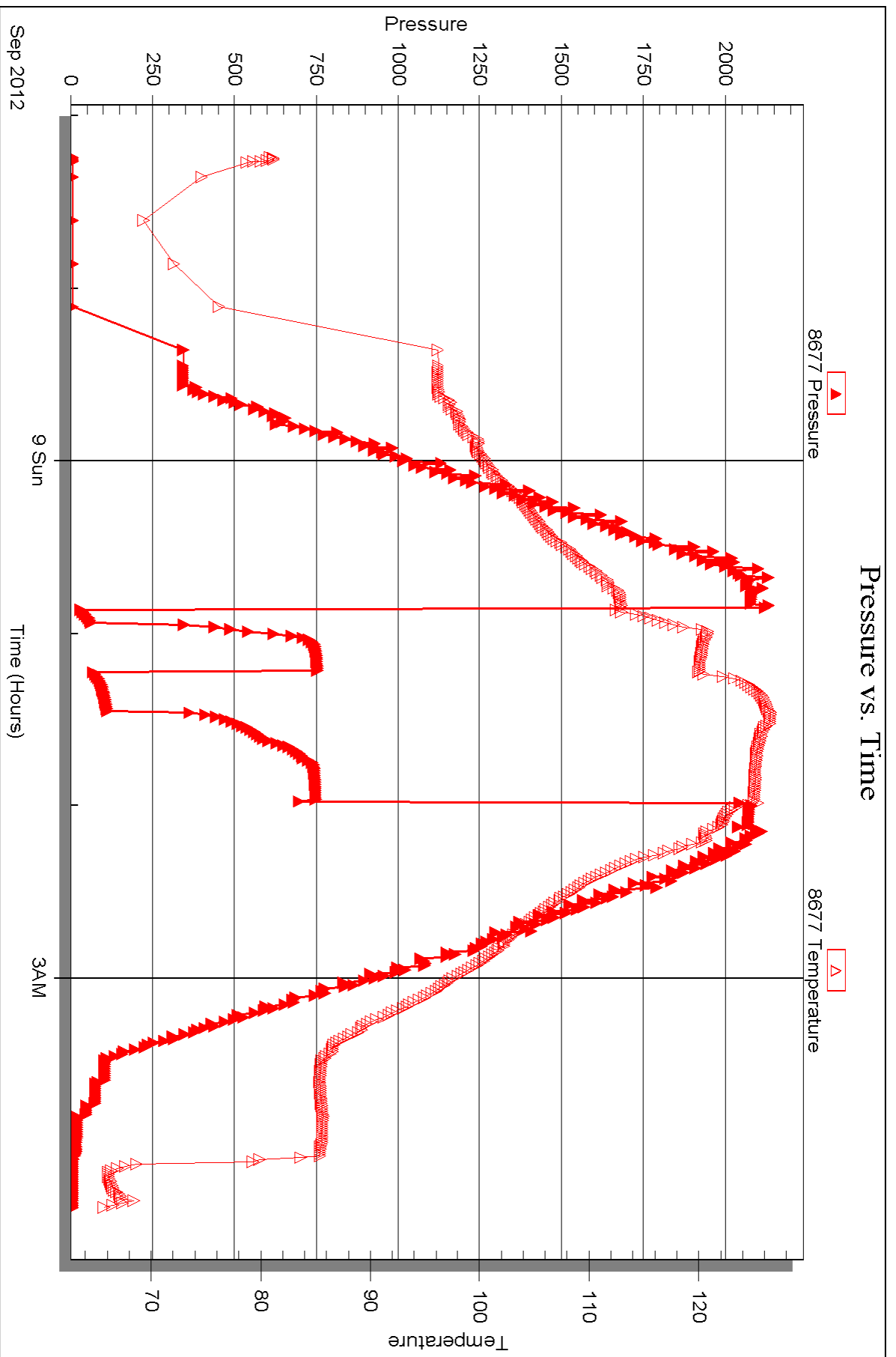
Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .220 @ 56F = 40000ppm









## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.09 @ 17:03:00

End Date: 2012.09.09 @ 22:58:00

Job Ticket #: 48442                      DST #: 5

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:48:39



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc  
562 W State Rd 4  
Olmitz, KS 67564  
ATTN: Vern Schrag

**10-19s-29w Lane, KS**

**SS #2-10**

Job Ticket: 48442

**DST#: 5**

Test Start: 2012.09.09 @ 17:03:00

## GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:36:15

Time Test Ended: 22:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4363.00 ft (KB) To 4385.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4385.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

**Serial #: 8522 Outside**

Press @ RunDepth: 24.18 psig @ 4364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.09

End Date:

2012.09.09

Last Calib.:

2012.09.09

Start Time:

17:03:05

End Time:

22:57:59

Time On Btm:

2012.09.09 @ 19:36:00

Time Off Btm:

2012.09.09 @ 20:46:00

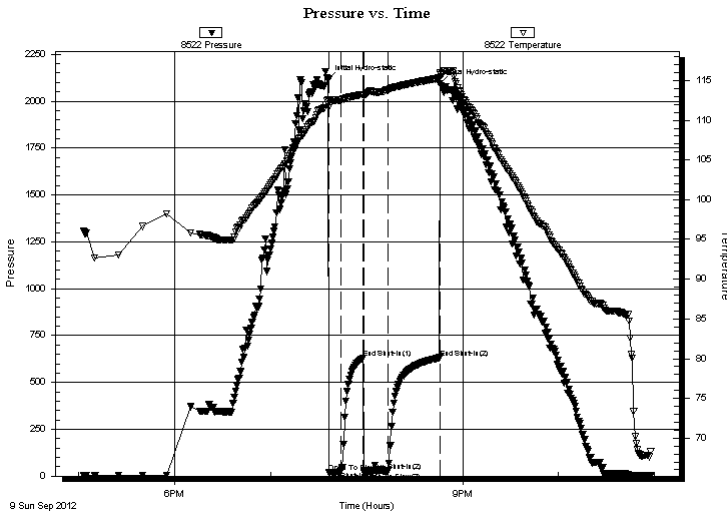
TEST COMMENT: IF: Weak Surface blow .

IS: No return.

FF: No blow .

FS: No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2115.37	112.64	Initial Hydro-static
1	20.05	111.63	Open To Flow (1)
8	26.91	112.55	Shut-In(1)
22	629.28	113.24	End Shut-In(1)
23	21.60	113.10	Open To Flow (2)
37	24.18	113.81	Shut-In(2)
70	632.09	115.32	End Shut-In(2)
70	2093.57	115.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100m	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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48442

**DST#: 5**

ATTN: Vern Schrag

Test Start: 2012.09.09 @ 17:03:00

## Tool Information

Drill Pipe:	Length: 4205.00 ft	Diameter: 3.80 inches	Volume: 58.99 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: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4363.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	49.00 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			4337.00	
Shut In Tool	5.00			4342.00	
Hydraulic tool	5.00			4347.00	
Jars	5.00			4352.00	
Safety Joint	2.00			4354.00	
Packer	5.00			4359.00	27.00 Bottom Of Top Packer
Packer	4.00			4363.00	
Stubb	1.00			4364.00	
Recorder	0.00	8677	Inside	4364.00	
Recorder	0.00	8522	Outside	4364.00	
Perforations	18.00			4382.00	
Bullnose	3.00			4385.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane,KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48442

**DST#: 5**

ATTN: Vern Schrag

Test Start: 2012.09.09 @ 17:03:00

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100m	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

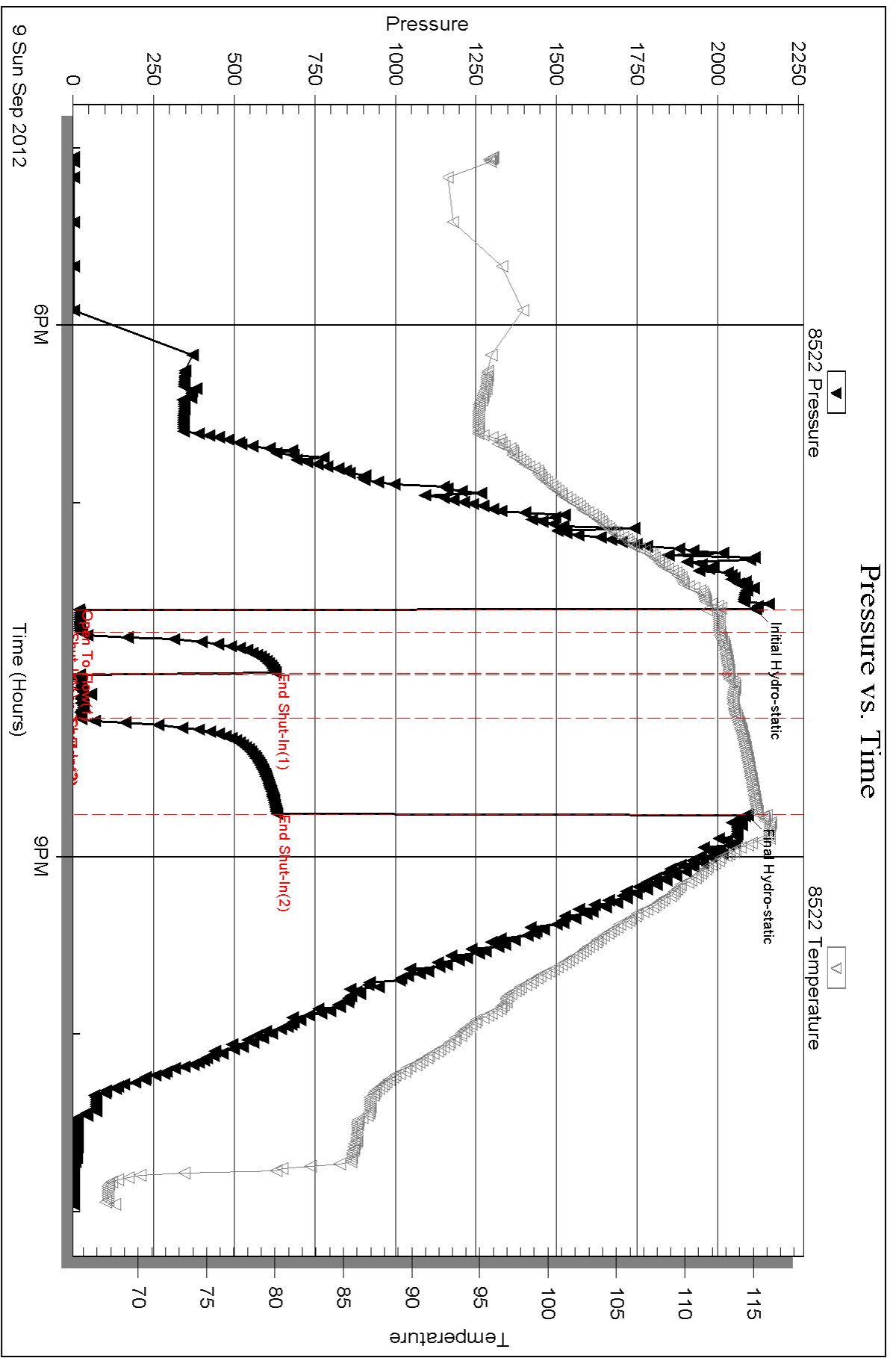
Num Gas Bombs: 0

Serial #:

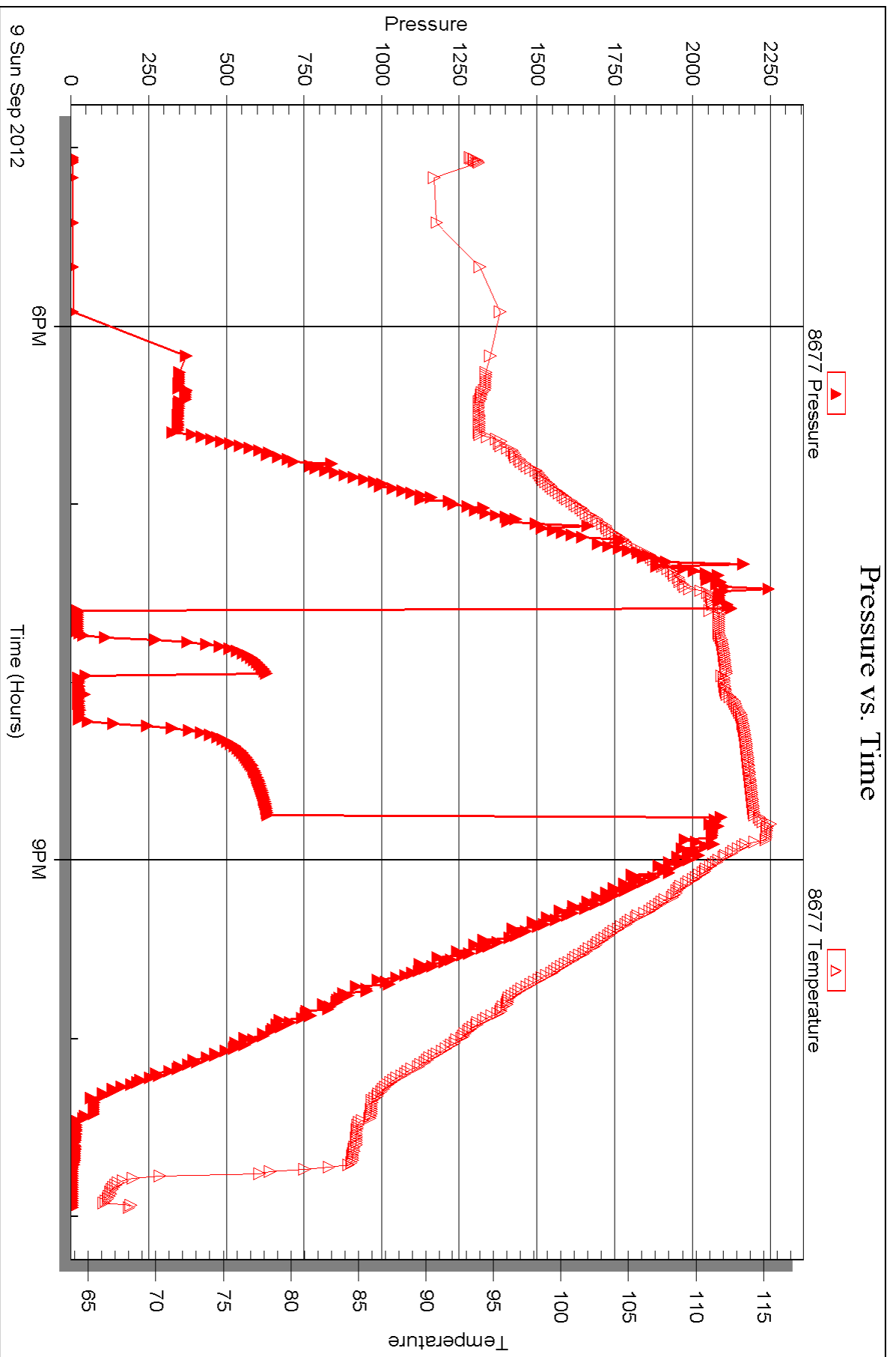
Laboratory Name:

Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.10 @ 11:34:00

End Date: 2012.09.10 @ 17:28:15

Job Ticket #: 48443                      DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:47:33



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc

10-19s-29w Lane, KS

562 W State Rd 4  
Olmitz, KS 67564

SS #2-10

Job Ticket: 48443

DST#: 6

ATTN: Vern Schrag

Test Start: 2012.09.10 @ 11:34:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:40:00

Time Test Ended: 17:28:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: **4382.00 ft (KB) To 4459.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4459.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

Serial #: **8522** Outside

Press @ Run Depth: 54.32 psig @ 4383.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.10

End Date:

2012.09.10

Last Calib.: 2012.09.10

Start Time: 11:34:05

End Time:

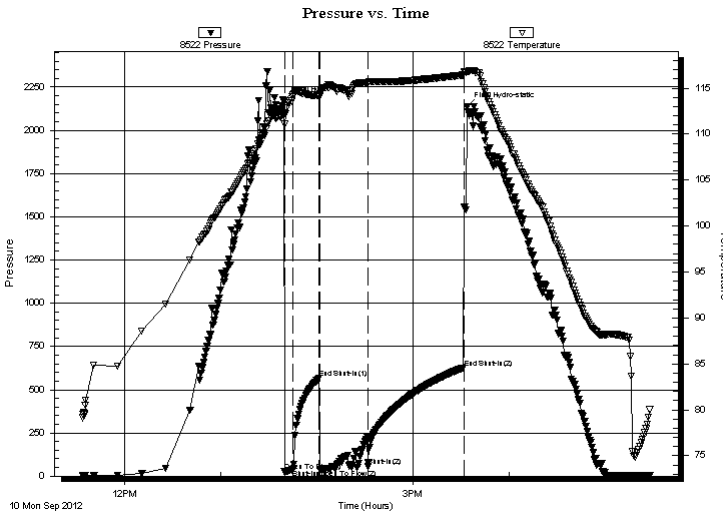
17:28:14

Time On Btm: 2012.09.10 @ 13:39:45

Time Off Btm: 2012.09.10 @ 15:33:45

TEST COMMENT: IF: 1" blow.  
IS: No return.  
FF: Surface blow, died @ 20 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2168.84	112.15	Initial Hydro-static
1	24.85	111.09	Open To Flow (1)
6	39.71	114.33	Shut-In(1)
22	565.67	114.22	End Shut-In(1)
23	38.41	114.07	Open To Flow (2)
53	54.32	115.51	Shut-In(2)
112	627.17	116.43	End Shut-In(2)
114	2134.75	116.81	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud 100m (heavy mud)	0.30

\* 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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48443

**DST#: 6**

ATTN: Vern Schrag

Test Start: 2012.09.10 @ 11:34:00

## Tool Information

Drill Pipe:	Length: 4234.00 ft	Diameter: 3.80 inches	Volume: 59.39 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: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4382.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	104.00 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			4356.00	
Shut In Tool	5.00			4361.00	
Hydraulic tool	5.00			4366.00	
Jars	5.00			4371.00	
Safety Joint	2.00			4373.00	
Packer	5.00			4378.00	27.00 Bottom Of Top Packer
Packer	4.00			4382.00	
Stubb	1.00			4383.00	
Recorder	0.00	8677	Inside	4383.00	
Recorder	0.00	8522	Outside	4383.00	
Perforations	8.00			4391.00	
Change Over Sub	1.00			4392.00	
Drill Pipe	63.00			4455.00	
Change Over Sub	1.00			4456.00	
Bullnose	3.00			4459.00	77.00 Bottom Packers & Anchor

**Total Tool Length: 104.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48443

**DST#: 6**

ATTN: Vern Schrag

Test Start: 2012.09.10 @ 11:34:00

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	mud 100m (heavy mud)	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

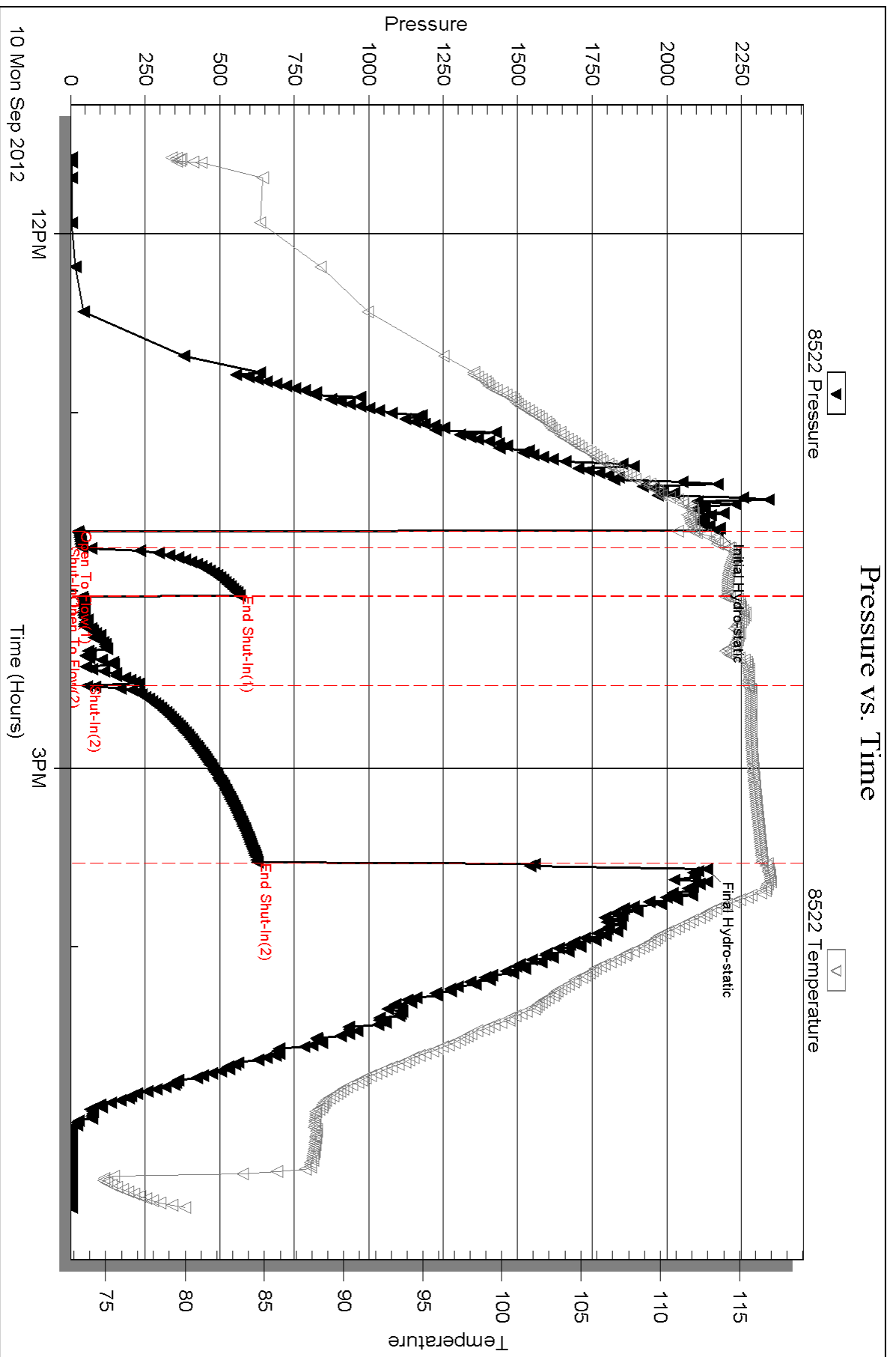
Num Gas Bombs: 0

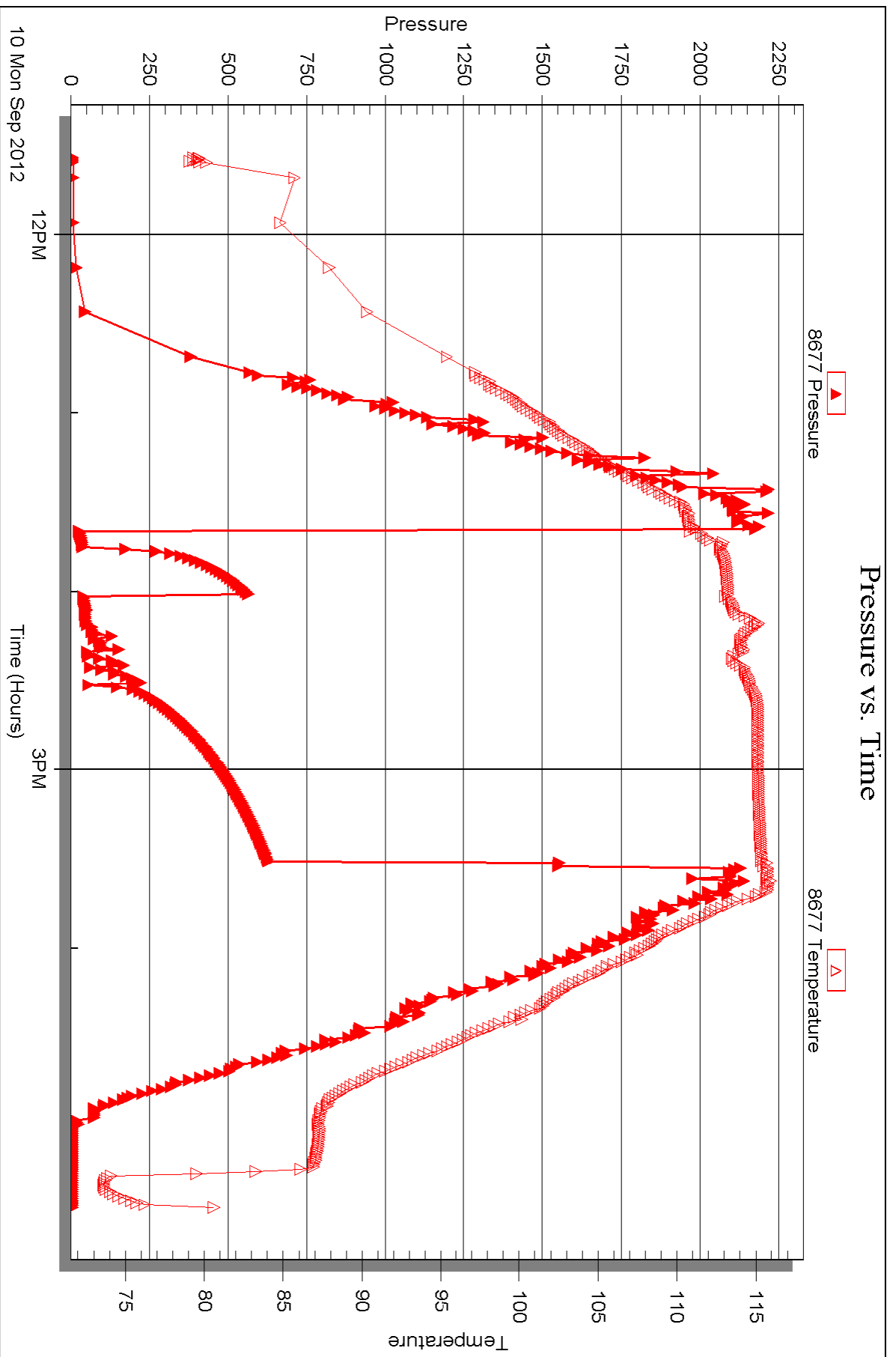
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.11 @ 08:45:00

End Date: 2012.09.11 @ 14:24:15

Job Ticket #: 48444                      DST #: 7

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:46:36



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48444

**DST#: 7**

ATTN: Vern Schrag

Test Start: 2012.09.11 @ 08:45:00

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:08:00

Time Test Ended: 14:24:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4458.00 ft (KB) To 4553.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4553.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

**Serial #: 8522 Outside**

Press @ RunDepth: 34.79 psig @ 4459.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.11

End Date:

2012.09.11

Last Calib.: 2012.09.11

Start Time: 08:45:05

End Time:

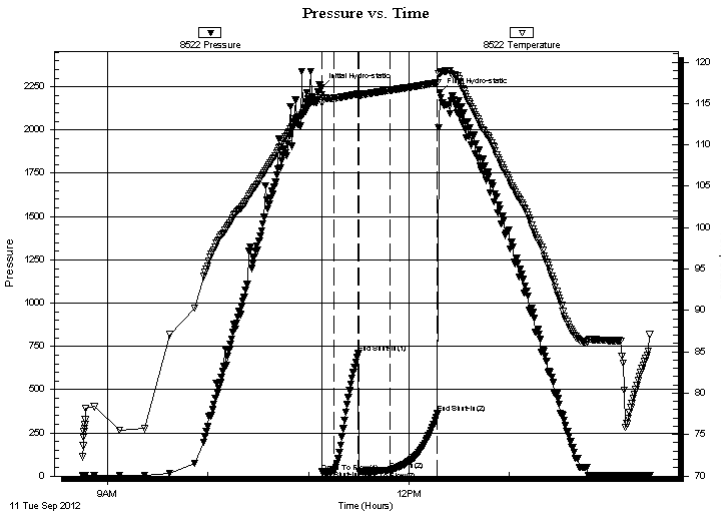
14:24:14

Time On Btm: 2012.09.11 @ 11:07:45

Time Off Btm: 2012.09.11 @ 12:18:30

**TEST COMMENT:** IF: Surface blow.  
IS: No return.  
FF: Surge @ open, Surface blow @ 15 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2244.86	116.10	Initial Hydro-static
1	23.80	115.04	Open To Flow (1)
8	32.67	115.64	Shut-In(1)
22	710.85	116.16	End Shut-In(1)
23	27.97	115.81	Open To Flow (2)
41	34.79	116.60	Shut-In(2)
70	361.11	117.53	End Shut-In(2)
71	2216.43	118.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud 100m	0.10

\* 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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48444

**DST#: 7**

ATTN: Vern Schrag

Test Start: 2012.09.11 @ 08:45:00

## Tool Information

Drill Pipe:	Length: 4300.00 ft	Diameter: 3.80 inches	Volume: 60.32 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:	20000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose:	82000.00 lb
			<u>Total Volume: 61.04 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	69000.00 lb
Depth to Top Packer:	4458.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	95.00 ft				
Tool Length:	122.00 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			4432.00	
Shut In Tool	5.00			4437.00	
Hydraulic tool	5.00			4442.00	
Jars	5.00			4447.00	
Safety Joint	2.00			4449.00	
Packer	5.00			4454.00	27.00 Bottom Of Top Packer
Packer	4.00			4458.00	
Stubb	1.00			4459.00	
Recorder	0.00	8677	Inside	4459.00	
Recorder	0.00	8522	Outside	4459.00	
Perforations	26.00			4485.00	
Change Over Sub	1.00			4486.00	
Drill Pipe	63.00			4549.00	
Change Over Sub	1.00			4550.00	
Bullnose	3.00			4553.00	95.00 Bottom Packers & Anchor

**Total Tool Length: 122.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48444

**DST#: 7**

ATTN: Vern Schrag

Test Start: 2012.09.11 @ 08:45:00

## 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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	mud 100m	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

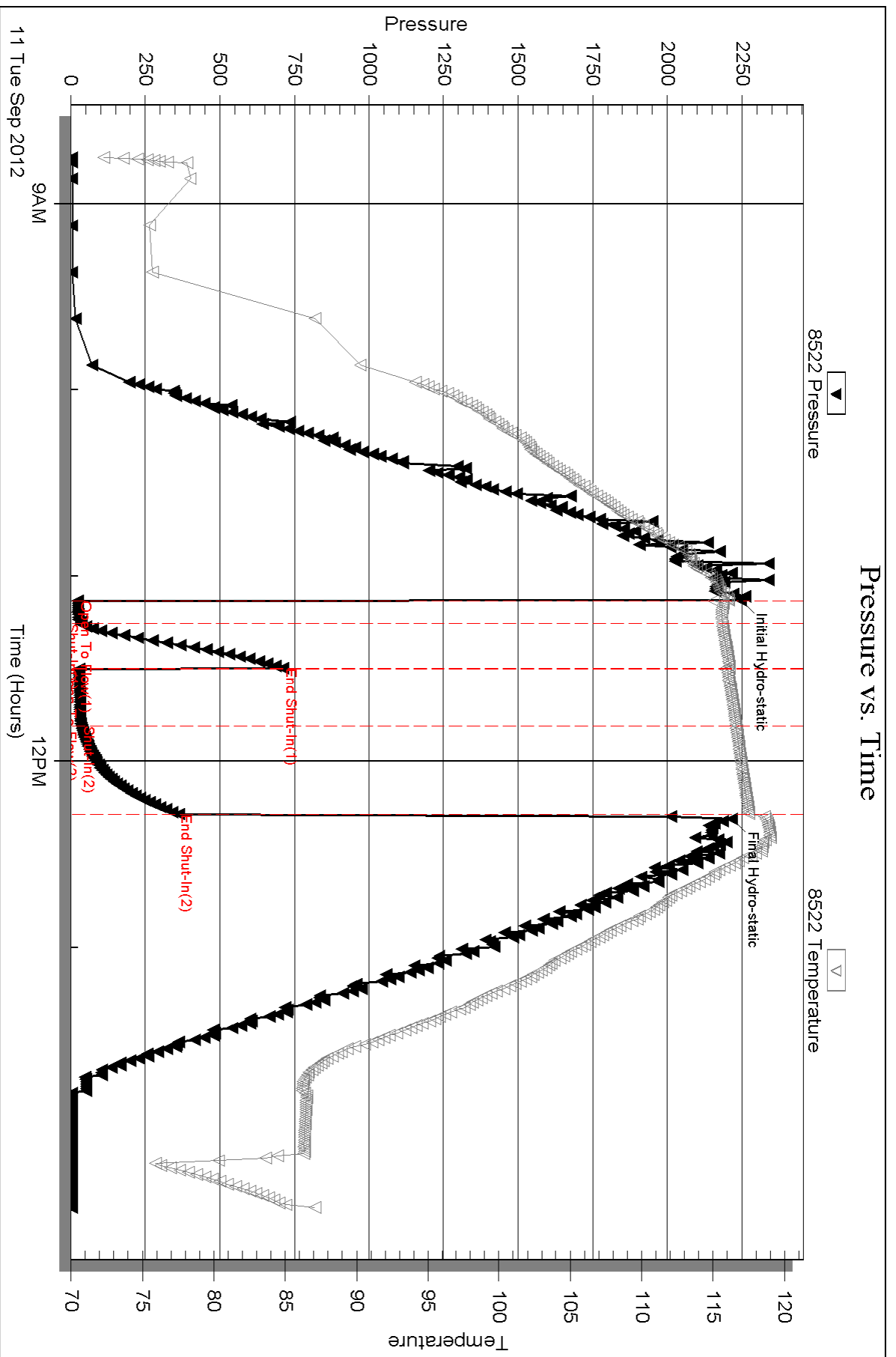
Num Gas Bombs: 0

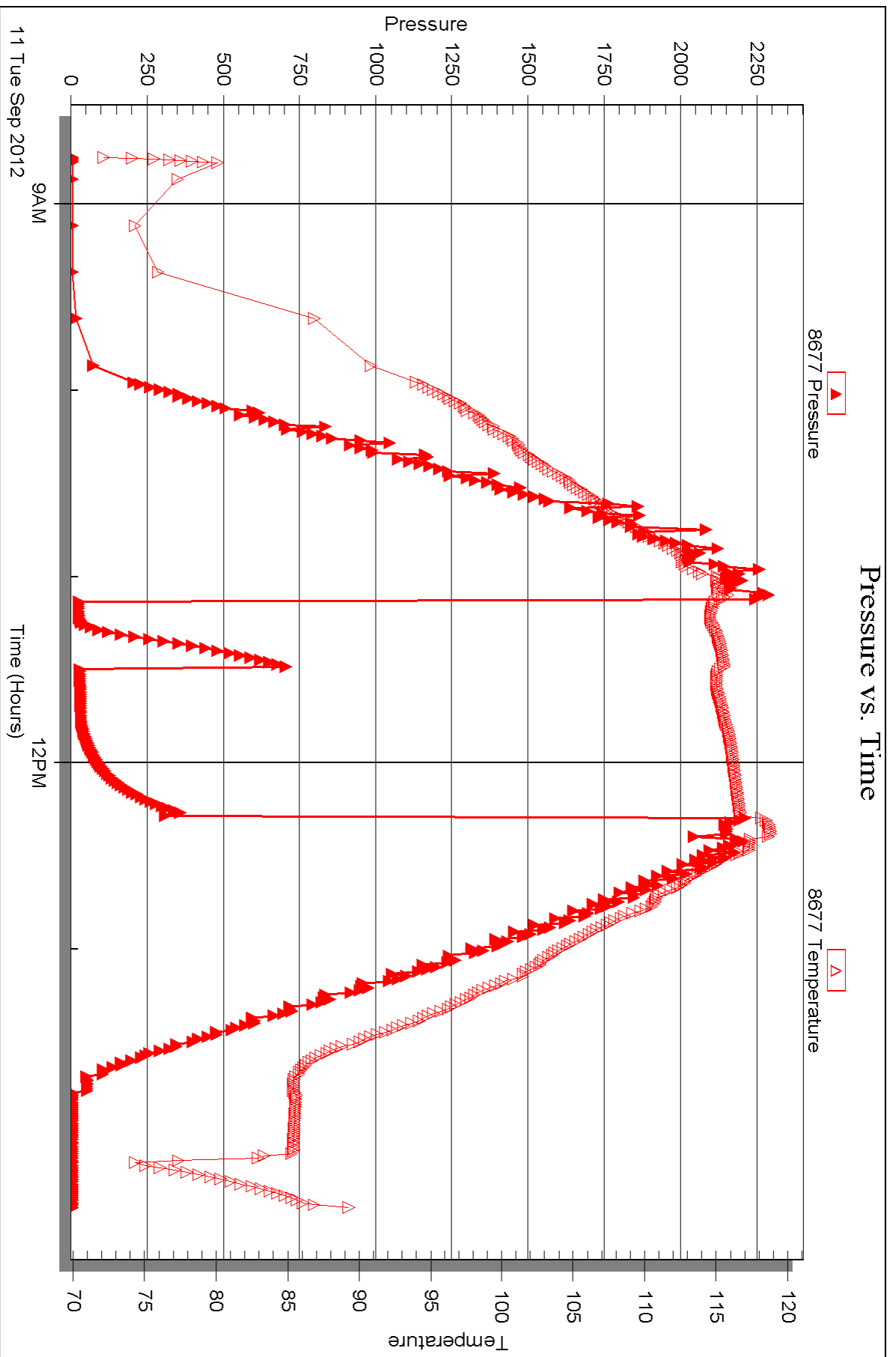
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc**

562 W State Rd 4  
Olmitz, KS 67564

ATTN: Vern Schrag

**SS #2-10**

**10-19s-29w Lane,KS**

Start Date: 2012.09.12 @ 01:53:00

End Date: 2012.09.12 @ 08:33:30

Job Ticket #: 48445                      DST #: 8

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.09.17 @ 15:45:23





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48445

**DST#: 8**

ATTN: Vern Schrag

Test Start: 2012.09.12 @ 01:53:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:40:45

Time Test Ended: 08:33:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

**Interval: 4551.00 ft (KB) To 4608.00 ft (KB) (TVD)**

Reference Elevations: 2826.00 ft (KB)

Total Depth: 4608.00 ft (KB) (TVD)

2820.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

**Serial #: 8522 Outside**

Press @ Run Depth: 24.73 psig @ 4552.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.12

End Date:

2012.09.12

Last Calib.:

2012.09.12

Start Time: 01:53:05

End Time:

08:33:29

Time On Btm:

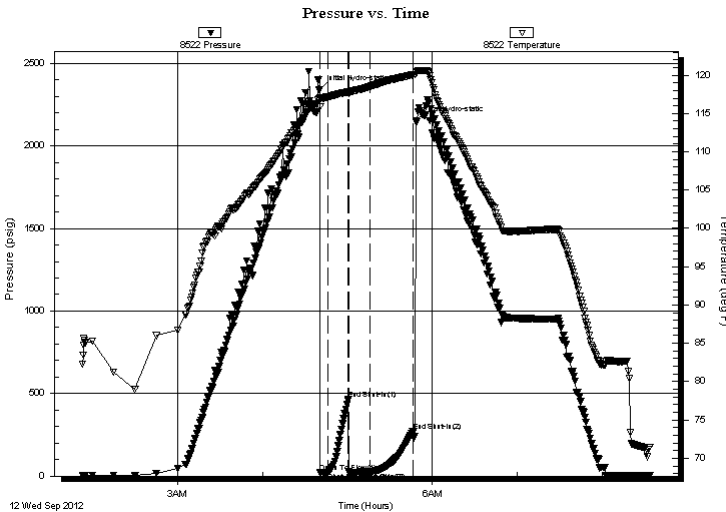
2012.09.12 @ 04:40:30

Time Off Btm:

2012.09.12 @ 05:48:30

**TEST COMMENT:** IF: Surface blow ,  
IS: No return.  
FF: No blow .  
FS: No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2342.41	117.10	Initial Hydro-static
1	23.10	115.88	Open To Flow (1)
6	25.43	117.16	Shut-In(1)
20	464.86	117.81	End Shut-In(1)
21	25.76	117.55	Open To Flow (2)
36	24.73	118.51	Shut-In(2)
66	273.06	120.04	End Shut-In(2)
68	2153.79	120.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100m	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

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48445

**DST#: 8**

ATTN: Vern Schrag

Test Start: 2012.09.12 @ 01:53:00

## Tool Information

Drill Pipe:	Length: 4392.00 ft	Diameter: 3.80 inches	Volume: 61.61 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: 25000.00 lb
Drill Collar:	Length: 147.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 79000.00 lb
			<u>Total Volume: 62.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4551.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	84.00 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			4525.00	
Shut In Tool	5.00			4530.00	
Hydraulic tool	5.00			4535.00	
Jars	5.00			4540.00	
Safety Joint	2.00			4542.00	
Packer	5.00			4547.00	27.00 Bottom Of Top Packer
Packer	4.00			4551.00	
Stubb	1.00			4552.00	
Recorder	0.00	8677	Inside	4552.00	
Recorder	0.00	8522	Outside	4552.00	
Perforations	19.00			4571.00	
Change Over Sub	1.00			4572.00	
Drill Pipe	32.00			4604.00	
Change Over Sub	1.00			4605.00	
Bullnose	3.00			4608.00	57.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Larson Engineering, Inc

**10-19s-29w Lane, KS**

562 W State Rd 4  
Olmitz, KS 67564

**SS #2-10**

Job Ticket: 48445

**DST#: 8**

ATTN: Vern Schrag

Test Start: 2012.09.12 @ 01:53:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100m	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

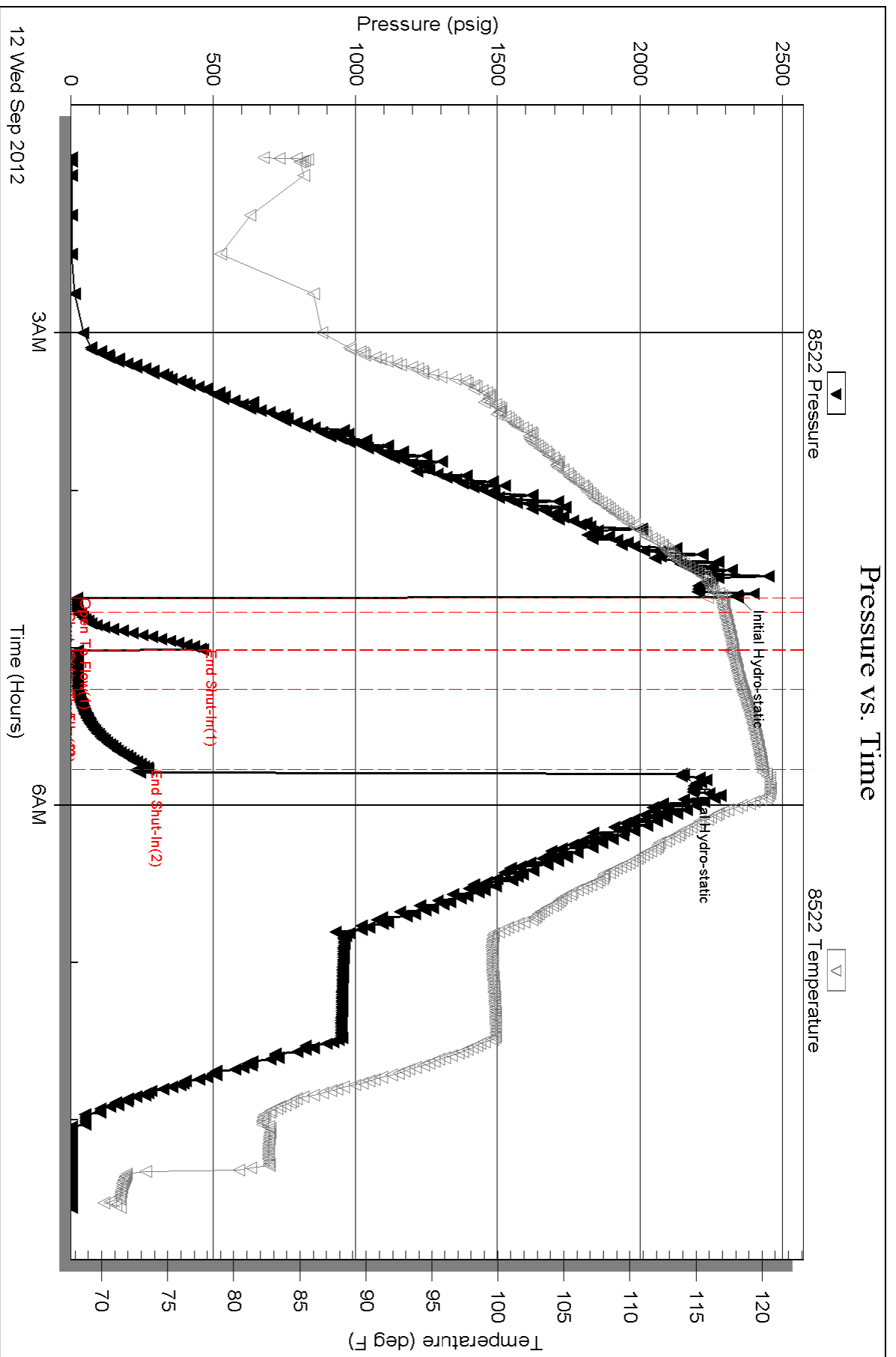
Num Gas Bombs: 0

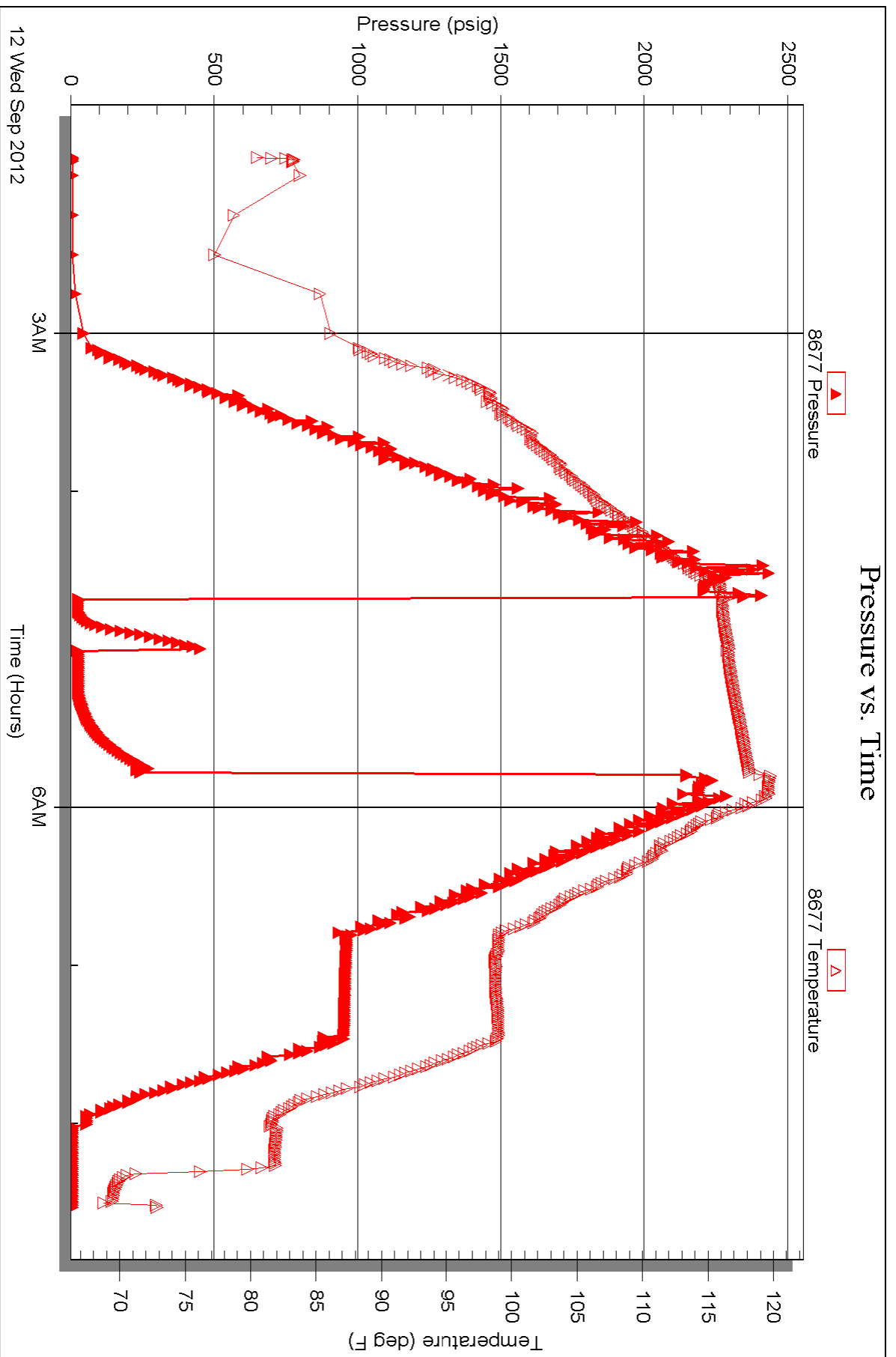
Serial #:

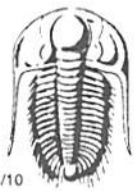
Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48438

Well Name & No. SS #2-10 Test No. 1 Date 09/07/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W. State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schwag Rig 410#3  
 Location: Sec. 10 Twp. 19S Rge. 29W Co. Lane State \_\_\_\_\_

Interval Tested 4248 - 4267 Zone Tested LKC '5'  
 Anchor Length 19 Drill Pipe Run 4097 Mud Wt. 9.1  
 Top Packer Depth 4243 Drill Collars Run 147 Vis 57  
 Bottom Packer Depth 4248 Wt. Pipe Run 0 WL 8.4  
 Total Depth 4267 Chlorides 2400 ppm System LCM I#

Blow Description FF: 1" blow  
ISI: No return.  
FF: 6" blow  
FSI: No return.

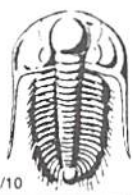
Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>50wcm</u>		<u>2</u>	<u>38</u>	<u>60</u>
Rec	Feet of <u>(6" OIL ON TOP)</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 150 BHT 124 Gravity — API RW .230 @ 66 ° F Chlorides 32,000 ppm

(A) Initial Hydrostatic <u>2128</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>2210</u> <u>09/06/12</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2241</u>
(C) First Final Flow <u>52</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0135</u> <u>09/07/12</u>
(D) Initial Shut-In <u>584</u>	<input checked="" type="checkbox"/> Circ Sub <u>H/L</u>	T-Pulled <u>0325</u>
(E) Second Initial Flow <u>41</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0558</u>
(F) Second Final Flow <u>97</u>	<input checked="" type="checkbox"/> Mileage <u>55</u> <u>85.25</u>	Comments _____
(G) Final Shut-In <u>582</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2031</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1660.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1660.25</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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48439

Well Name & No. SS# 2-10 Test No. 2 Date 09/07/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schrag Rig HD #3  
 Location: Sec. 10 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4271 - 4282 Zone Tested LKC - Lower J  
 Anchor Length 11' Drill Pipe Run 4112 Mud Wt. 9.1  
 Top Packer Depth 4266 Drill Collars Run 147 Vis 53  
 Bottom Packer Depth 4271 Wt. Pipe Run 0 WL 8.4  
 Total Depth 4282 Chlorides 2500 ppm System LCM 1#

Blow Description IF: Surface blow, died @ 3 min  
ISI: No return.  
FF: No blow  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</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

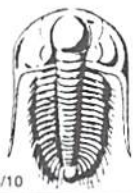
Rec Total 1 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2148</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>1345</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1410</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1625</u>
(D) Initial Shut-In <u>23</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1730</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1930</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>55 R/T</u> 85.25	Comments _____
(G) Final Shut-In <u>23</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2116</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>1660.25</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1660.25</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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48440

Well Name & No. SS # 2-10 Test No. 3 Date 09/08/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Straug Rig HD#3  
 Location: Sec. 10 Twp. 19s Rge. 29w Co. Lane State Ks

Interval Tested 4283 4300 Zone Tested LKC - 'K'  
 Anchor Length 17' Drill Pipe Run 4140 Mud Wt. 9.2  
 Top Packer Depth 4278 Drill Collars Run 147 Vis 50  
 Bottom Packer Depth 4283 Wt. Pipe Run 0 WL 8.4  
 Total Depth 4300 Chlorides 2500 ppm System LCM 1#

Blow Description IF: 1 1/2" blow.  
ISI: No return.  
FF: 3 1/2" blow.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>160</u>	<u>WCM</u>			<u>45</u>	<u>55</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

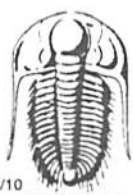
Rec Total 160 BHT 125 Gravity — API RW .260 @ 64 ° F Chlorides 29,000 ppm

(A) Initial Hydrostatic 2170  Test 1250 T-On Location 0330  
 (B) First Initial Flow 24  Jars 250 T-Started 0409  
 (C) First Final Flow 41  Safety Joint 75 T-Open 0656  
 (D) Initial Shut-In 377  Circ Sub 4/c T-Pulled 0801  
 (E) Second Initial Flow 43  Hourly Standby \_\_\_\_\_ T-Out 0958  
 (F) Second Final Flow 85  Mileage SS At 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 376  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2091  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 5  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 15  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 15  Day Standby \_\_\_\_\_ Total 1660.25  
 Final Shut-In 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1660.25

Approved By \_\_\_\_\_ Our Representative

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48441

Well Name & No. SS #2-10 Test No. 4 Date 09/09/12  
 Company Larson Engineering Elevation 2826 KB 2820 GL  
 Address 562 W State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schrag Rig HD #3  
 Location: Sec. 10 Twp. 19S Rge. 29W Co. Lawe State Ks

Interval Tested 4318-4334 ~~4283-4300~~ Zone Tested LKC L  
 Anchor Length 16 Drill Pipe Run 4174 Mud Wt. 9.1  
 Top Packer Depth 4313 Drill Collars Run 147 Vis 53  
 Bottom Packer Depth 4318 Wt. Pipe Run 0 WL 8.4  
 Total Depth 4334 Chlorides 2500 ppm System LCM 1 #

Blow Description IF: 3 1/2" blow.  
ISI: No return.  
FF: 5 1/2" blow  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>OIL</u>	<u>100</u>			
<u>200</u>	<u>MCD</u>			<u>70</u>	<u>30</u>

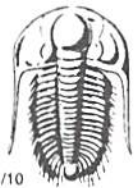
Rec Total 201 BHT 127 Gravity — API RW .220 @ 56 °F Chlorides 40,000 ppm

(A) Initial Hydrostatic 2116  Test 1250 T-On Location 2145  
 (B) First Initial Flow 25  Jars 250 T-Started 2215  
 (C) First Final Flow 61  Safety Joint 75 T-Open 0052 09/09  
 (D) Initial Shut-In 750  Circ Sub N/C T-Pulled 0157  
 (E) Second Initial Flow 65  Hourly Standby \_\_\_\_\_ T-Out 0421  
 (F) Second Final Flow 108  Mileage 55 Rt 85.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 746  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2085  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 5  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 15  Day Standby \_\_\_\_\_ Total 1660.25  
 Final Flow 15  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1660.25

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48442

Well Name & No. SS # 2-10 Test No. 5 Date 9/09/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W. State Rd #4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schrag Rig H10 #3  
 Location: Sec. 10 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4363 - 4385 Zone Tested Pleasanton  
 Anchor Length 22 Drill Pipe Run 4205 Mud Wt. 9.1  
 Top Packer Depth 4358 Drill Collars Run 147 Vis 50  
 Bottom Packer Depth 4363 Wt. Pipe Run 0 WL 7.6  
 Total Depth 4385 Chlorides 2400 ppm System LCM 1 #

Blow Description IF: Beat surface blow  
ISI: No return.  
FF: No blow.  
FSI: No return

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

Rec Total 10 BHT 116 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2115</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1645</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1703</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1938</u>
(D) Initial Shut-In <u>629</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>2043</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2258</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>SS 47</u> 85.25	Comments
(G) Final Shut-In <u>632</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2094</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1660.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1660.25</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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48443

Well Name & No. SS#2-10 Test No. 6 Date 9/10/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W. State Rd #4 Olmitz, KS 67564  
 Co. Rep / Geo. Vern Schrag Rig HD #3  
 Location: Sec. 10 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4382 4459 Zone Tested Marmaton.  
 Anchor Length 77' Drill Pipe Run 4341 Mud Wt. 9.1  
 Top Packer Depth 4377 Drill Collars Run 147 Vis 50  
 Bottom Packer Depth 4382 Wt. Pipe Run Ø WL 7.6  
 Total Depth 4459 Chlorides 2400 ppm System LCM 1#

Blow Description IF: 1" blow  
TSI: No return.  
FF: Surface blow, died @ 20 min.  
FSI: No return.

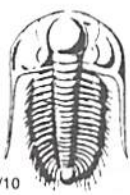
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>MUD (HEAVY)</u>			<u>100</u>	

Rec Total 60 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2169</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1100</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1134</u>
(C) First Final Flow <u>40</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1342</u>
(D) Initial Shut-In <u>566</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/A</u>	T-Pulled <u>1532</u>
(E) Second Initial Flow <u>38</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1729</u>
(F) Second Final Flow <u>54</u>	<input checked="" type="checkbox"/> Mileage <u>55 RT</u> <u>85.25</u>	Comments
(G) Final Shut-In <u>627</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2135</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Open <u>5</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1910.25</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1910.25</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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48444

Well Name & No. Larson Engineering, Inc SS#2-10 Test No. 7 Date 9/11/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W. State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schrag Rig HD#3  
 Location: Sec. 10 Twp. 19s Rge. 29w Co. Lano State Ks

Interval Tested 4458-4553 Zone Tested Pawnee  
 Anchor Length 95' Drill Pipe Run 4300 Mud Wt. 9.1  
 Top Packer Depth 4453 Drill Collars Run 147 Vis 57  
 Bottom Packer Depth 4458 Wt. Pipe Run Ø WL 7.2  
 Total Depth 4553 Chlorides 2900 ppm System LCM 1/2

Blow Description IF: Surface blow.  
IST: No return.  
FF: No blow Surge @ open, Surface blow @ 15 min.  
FSI: No return.

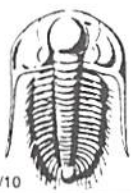
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MUD</u>			<u>100</u>	

Rec Total 20 BHT 118 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2245</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0800</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0845</u>
(C) First Final Flow <u>33</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1110</u>
(D) Initial Shut-In <u>711</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1215</u>
(E) Second Initial Flow <u>28</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1425</u>
(F) Second Final Flow <u>35</u>	<input checked="" type="checkbox"/> Mileage <u>55RT</u> <u>85.25</u>	Comments
(G) Final Shut-In <u>361</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2216</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Open <u>5</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>15</u>	<input type="checkbox"/> Day Standby	Total <u>1910.25</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1910.25</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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48445

Well Name & No. SS # 2-10 Test No. 8 Date 9/12/12  
 Company Larson Engineering, Inc Elevation 2826 KB 2820 GL  
 Address 562 W State Rd 4 Olmitz, Ks 67564  
 Co. Rep / Geo. Vern Schrag Rig HD #3  
 Location: Sec. 10 Twp. 19s Rge. 29w Co. Lane State Ks

Interval Tested 4551 - 4608 Zone Tested Johnson  
 Anchor Length 57' Drill Pipe Run 4392 Mud Wt. 9.2  
 Top Packer Depth 4546 Drill Collars Run 147 Vis 60  
 Bottom Packer Depth 4551 Wt. Pipe Run 0 WL 7.2  
 Total Depth 4608 Chlorides 3800 ppm System LCM 1 1/2

Blow Description IF: Surface blow  
ISI: No return.  
FF: No blow  
FSI: No return.

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

Rec Total 5 BHT 121 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2342</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0015</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0153</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0439</u>
(D) Initial Shut-In <u>465</u>	<input checked="" type="checkbox"/> Circ Sub	T-Pulled <u>0544</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0833</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>53 R/L</u> <u>85.25</u>	Comments
(G) Final Shut-In <u>273</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2156</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>320</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>3820.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1910.25</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.

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

December 28, 2012

Thomas Larson  
Larson Engineering, Inc. dba Larson Operating  
Company  
562 W STATE RD 4  
OLMITZ, KS 67564-8561

Re: ACO1  
API 15-101-22399-00-00  
SS 2-10  
SE/4 Sec.10-19S-29W  
Lane County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Thomas Larson