



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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- 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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1155798

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

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

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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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	Riley Unit 1-10
Doc ID	1155798

Tops

Name	Top	Datum
Anhydrite	2149	+644
Base Anhydrite	2179	+614
Heebner	3916	-1123
Lansing	3957	-1164
Stark SH	4224	-1431
Pawnee	4429	-1636
Ft. Scott	4477	-1684
Cherokee Sh	4502	-1709
Mississippi	4589	-1796



PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

258518

TICKET NUMBER 39908
LOCATION Oakley, KS
FOREMAN Kelly Gabe

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-3-13	41802	Riley unit #1-10	10	18 ^s	29 ^w	Lake
CUSTOMER Larsen Engr		Dighton west to Jaegger RD 1 1/2 N west into	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			4163	Cory		
CITY	STATE	ZIP CODE	693	Mike		

JOB TYPE Surface HOLE SIZE 13 1/4 HOLE DEPTH 276 CASING SIZE & WEIGHT 8 5/8 251#
CASING DEPTH 276 DRILL PIPE _____ TUBING _____ OTHER _____
SLURRY WEIGHT 140 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 20'
DISPLACEMENT 16 bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: safety meeting, rigged up on H-2 #3, hooked up to circulate, mixed 175 SKS com 370 cc 290 gel, displaced with 16 bbl water, shut in, washed out pumps & lines rigged down.

Cement did circulate

Approx 7 bbl to pit

Thank You
Kelly Gabe

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
54015	1	PUMP CHARGE	1150.00	1150.00
5406	35	MILEAGE	5.25	183.75
11045	175 SKS	C1955A Cement	18.55	3246.25
1102	493#	Calcium chloride	.94	463.42
1108B	329#	Bentonite	.27	88.83
5407A	8.22	Ton Mileage delivery	172	503.44
				5635.90
				563.59
				5072.31
			SALES TAX	215.38
			ESTIMATED TOTAL	5287.69

completed

John 10/20

Revin 3737

5:30 PM

AUTHORIZATION

Butyr Home

TITLE

Resher

DATE 5-3-13

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



CHARGE TO: **LARSON ENGINEERING**
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET No. **24763**

SERVICE LOCATION: 1. **NESS CITY, KS.**
 WELL/PROJECT NO.: **RILEY UNIT #10** LEASE: **LANE** COUNTY/PARISH: **KS.** CITY: **DIGHTON, KS.** DATE: **14 MAY 13** OWNER:
 2. TICKET TYPE: SERVICE SALES CONTRACTOR: **HD DRILLING RIG #3** RIG NAME/NO.: SHIPPED VIA: DELIVERED TO: ORDER NO.:
 3. WELL TYPE: **OIL** WELL CATEGORY: **DEVELOPMENT** JOB PURPOSE: **5 1/2 LONGSTRING** WELL PERMIT NO.: WELL LOCATION: **2W, 1 1/2 N, WINTO**
 4. REFERRAL LOCATION: INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE # 115	40	MIL			6.00	240.00
578					Pump CHARGE	1	JOB			1500.00	1500.00
280					FLOCHECK 21	500	gal			3.00	1500.00
221					LIQUID KCL	2	gal			25.00	50.00
419					ROTATING HEAD RENTAL	1	JOB			200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: **14 MAY 13** TIME SIGNED: **1400** A.M. P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	AMOUNT
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				1	3490.00
WE UNDERSTOOD AND MET YOUR NEEDS?				2	5331.65
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				subtotal	8821.65
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Lane TAX 7.3%	470.43
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO		TOTAL	9292.08
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: *[Signature]* APPROVAL:

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 24763

PRICE REFERENCE	SECONDARY REFERENCE PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M	QTY	U/M		
276						FLDCELE	40	lbs			2 ⁰⁰	80 ⁰⁰
283						SALT	800	lbs			2 ⁰⁰	160 ⁰⁰
284						CALSEAL	7	15X			35 ⁰⁰	245 ⁰⁰
277						GILSONITE	1085	1085	lbs		7 ⁵⁰	813 ⁷⁵
292						HALAD-322	150	lbs			7 ⁵⁰	1162 ⁵⁰
290						D-AIR	1 1/2	gal			42 ⁰⁰	63 ⁰⁰
325						STANDARD CEMENT EA-2	155	155	155	155	14 ⁰⁰	2170 ⁰⁰
581						SERVICE CHARGE					2 ⁰⁰	310 ⁰⁰
583						MILEAGE CHARGE					1 ⁰⁰	327 ⁴⁰
							TOTAL WEIGHT	16370				
							LOADED MILES	40				
							TON MILES	327.40				
											CONTINUATION TOTAL	5331 ⁶⁵

JOB LOG

SWIFT Services, Inc.

DATE 14 MAY 13 PAGE NO.

CUSTOMER
LARSON ENGINEERING

WELL NO.

LEASE RILEY UNIT 1-10

JOB TYPE 5 1/2 LONGSTRING

TICKET NO. 24763

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1130							ON LOCATION 5 1/2 - 15.5#
								RTD @ 4635 LTD @ 4637 SHAQJT, 42.4D SET @ 4636 PORT COLLAR @ 2127
	1205							DROP BALL - CIRCULATE
	1238	6	15	✓		300		Pump 15 BBL KCL FLUSH
		6	20	✓		300		Pump 500 gal FLOCKER 21
		6	5	✓		300		Pump 5 BBL KCL FLUSH
	1243		7					PLUG RH - 30sx
	1245	4	30	✓				MIX 125sx EA-2
	1258							WASH OUT PUMP & LINES.
	1302	6		✓				START DISPLACING PLUG
	1320		109 1/2	✓		1500		PLUG DOWN PSI up - LATCH PLUG IN
	1322			✓				RELEASE PSI - DRY
	1326							WASH TRUCK
	1400							JOB COMPLETE THANKS #115 JASON JEFF FLINT



CHARGE TO: Adson Engineering
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

TICKET
 No 24720

SWIFT SERVICES, INC.
 785-798-2300

PAGE 1 OF 1

SERVICE LOCATIONS: Neosho, KS WELLPROJECT NO: 1-10 LEASE: Riley Unit COUNTY/PARISH: Lane STATE: KS CITY: Dighton DATE: 23 May 13 OWNER: _____
 TICKET TYPE: SERVICE SALES CONTRACTOR: _____ RIG NAME NO: _____ SHIPPED: WCT DELIVERED TO: Location ORDER NO: _____
 WELL TYPE: 0-1 WELL CATEGORY: Development JOB PURPOSE: cement port collar WELL PERMIT NO: _____ WELL LOCATION: 10-18-29
 REFERRAL LOCATION: _____ INVOICE INSTRUCTIONS: _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575												
576D					TRB 114							
330					Pump Charge	30	in	1	ea	1500.00	1500.00	
376					Fluoride	145	sk			12.00	2975.00	
29D					Drain	50	lb			2.00	100.00	
583					Drayage	235	sk	2	gal	42.00	84.00	
581					Drayage charge	235	sk	350	7M	1.00	350.77	
										2.00	472.00	

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: _____ TIME SIGNED: A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY: OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? WE UNDERSTOOD AND MET YOUR NEEDS? OUR SERVICE WAS PERFORMED WITHOUT DELAY? WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? ARE YOU SATISFIED WITH OUR SERVICE?

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: 5659.77
 TAX 8%: 230.61
 TOTAL: 5890.38

SWIFT OPERATOR: _____ APPROVAL: _____

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: The customer hereby acknowledges receipt of the materials and services listed on this ticket.

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 23 MAY 13 PAGE NO. 1

CUSTOMER Laram Engineering WELL NO. 1-10 LEASE Riley unit JOB TYPE cement port collar TICKET NO. 24720

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								235 sk SMD w/ 1/4" floccle
								5 1/2 x 2 3/8 port collar 2128'
	0845							on loc est TRK 114
	0858					1000	1000	test to 1000 psi - held open port collar
	0905							inj rate 3 1/2 bpm @ 300 psi
	0908	3					200	mix SMD cement @ 11.2 ppm
		5	18				200	fluid to surface
	0935	3	92				400	cement to surface
	0936		7					flush w/ H ₂ O close port collar <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 0 5px; display: inline-block;"> 175 sk mixed 20 to pit </div>
	0943					1000	1000	test to 1000 - held
	0950							Run 5 joints
	0955		25					Reverse hole clean - 2 count flags -
	1010							walk track - pull tool Back up
	1035							job complete Thanks Issac, Dave, TJ, Gideon, Blake



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.08 @ 19:44:00

End Date: 2013.05.09 @ 01:13:09

Job Ticket #: 49246 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:51:08



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49246

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.05.08 @ 19:44:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:15:25

Time Test Ended: 01:13:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 58

Interval: 4125.00 ft (KB) To 4147.00 ft (KB) (TVD)

Total Depth: 4147.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2793.00 ft (KB)

2786.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 17.48 psig @ 4127.00 ft (KB)

Start Date: 2013.05.08

End Date: 2013.05.09

Start Time: 19:44:00

End Time: 01:13:09

Capacity: 8000.00 psig

Last Calib.: 2013.05.09

Time On Btm: 2013.05.08 @ 22:15:10

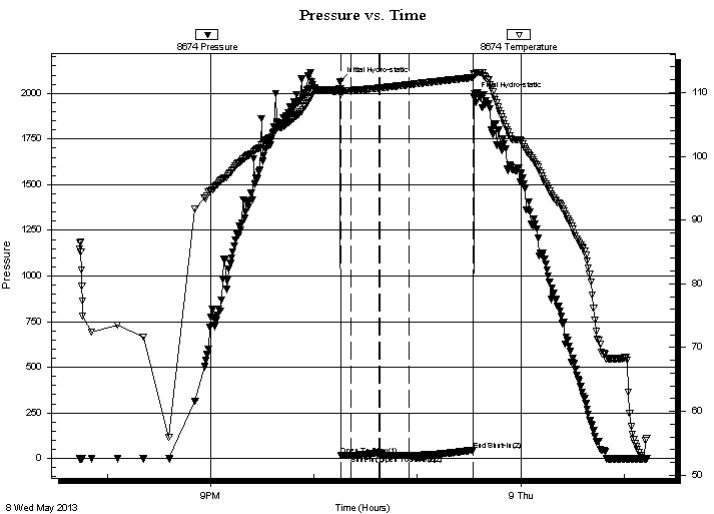
Time Off Btm: 2013.05.08 @ 23:32:40

TEST COMMENT: IF- Weak Surface Blow

IS- No Blow

FF- No Blow

FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.44	110.55	Initial Hydro-static
1	16.60	109.67	Open To Flow (1)
6	17.27	110.32	Shut-In(1)
23	33.25	110.73	End Shut-In(1)
23	16.42	110.72	Open To Flow (2)
40	17.48	111.23	Shut-In(2)
77	47.41	112.36	End Shut-In(2)
78	1980.16	112.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	100% mud	0.01

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49246

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.05.08 @ 19:44:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:15:25

Time Test Ended: 01:13:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 58

Interval: 4125.00 ft (KB) To 4147.00 ft (KB) (TVD)

Reference Elevations: 2793.00 ft (KB)

Total Depth: 4147.00 ft (KB) (TVD)

2786.00 ft (CF)

Hole Diameter: 7.88 inchesHole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8355 Outside

Press @RunDepth: psig @ 4127.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.08

End Date: 2013.05.09

Last Calib.: 2013.05.09

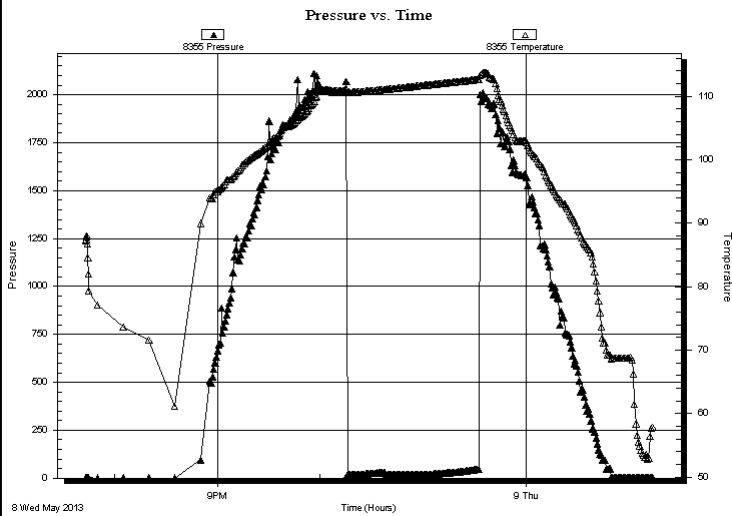
Start Time: 19:43:15

End Time: 01:13:39

Time On Btm:

Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow
IS- No Blow
FF- No Blow
FS- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	100%mud	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49246

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.05.08 @ 19:44:00

Tool Information

Drill Pipe:	Length: 4014.00 ft	Diameter: 3.80 inches	Volume: 56.31 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	14000.00 lb
			<u>Total Volume: 56.89 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	4125.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	50.00 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			4098.00	
Shut In Tool	5.00			4103.00	
Hydraulic tool	5.00			4108.00	
Jars	5.00			4113.00	
Safety Joint	3.00			4116.00	
Packer	5.00			4121.00	28.00 Bottom Of Top Packer
Packer	4.00			4125.00	
Stubb	1.00			4126.00	
Perforations	1.00			4127.00	
Recorder	0.00	8355	Outside	4127.00	
Recorder	0.00	8674	Inside	4127.00	
Perforations	15.00			4142.00	
Bullnose	5.00			4147.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49246

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.05.08 @ 19:44:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.12 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	100% mud	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

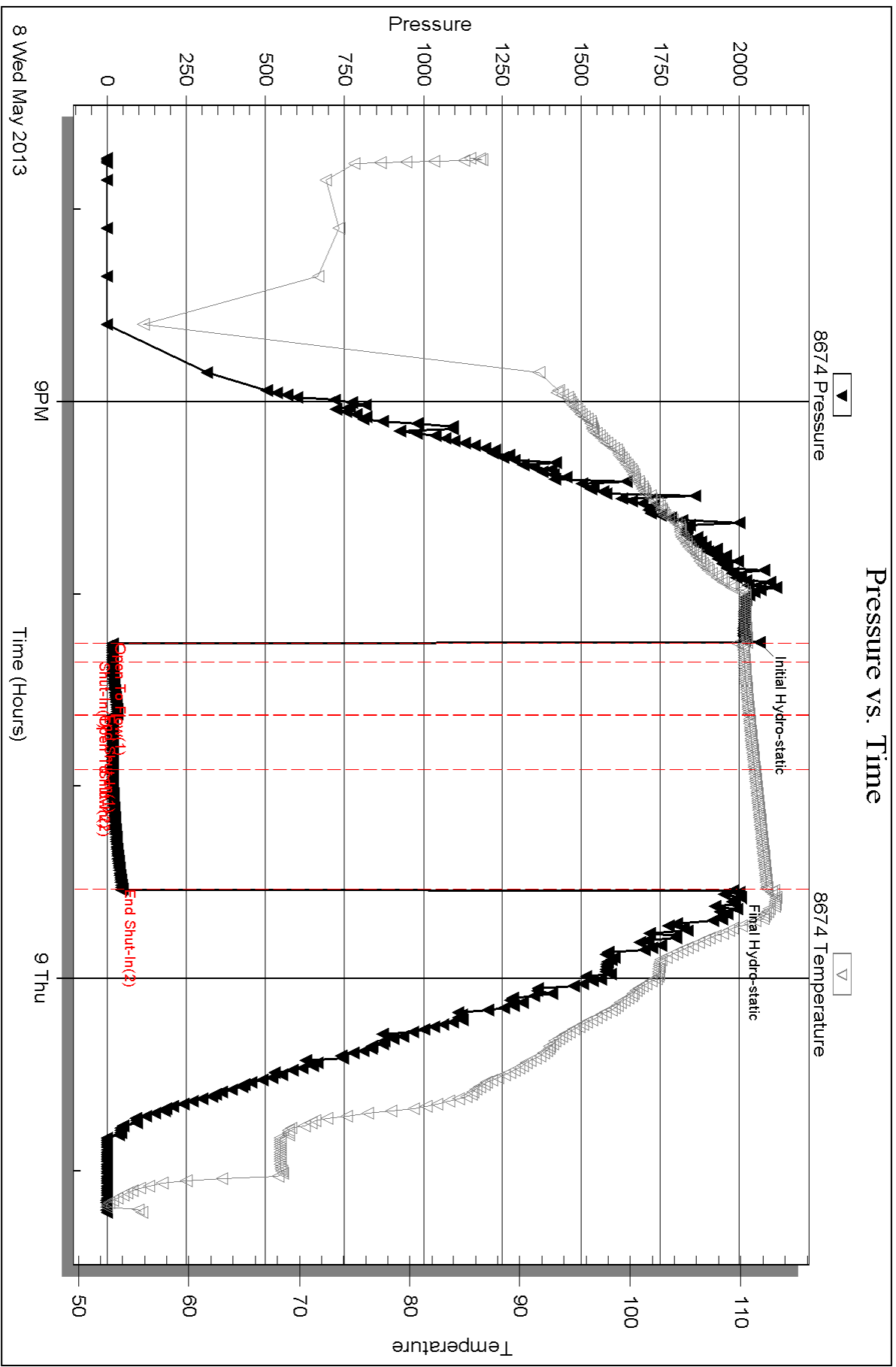
Num Gas Bombs: 0

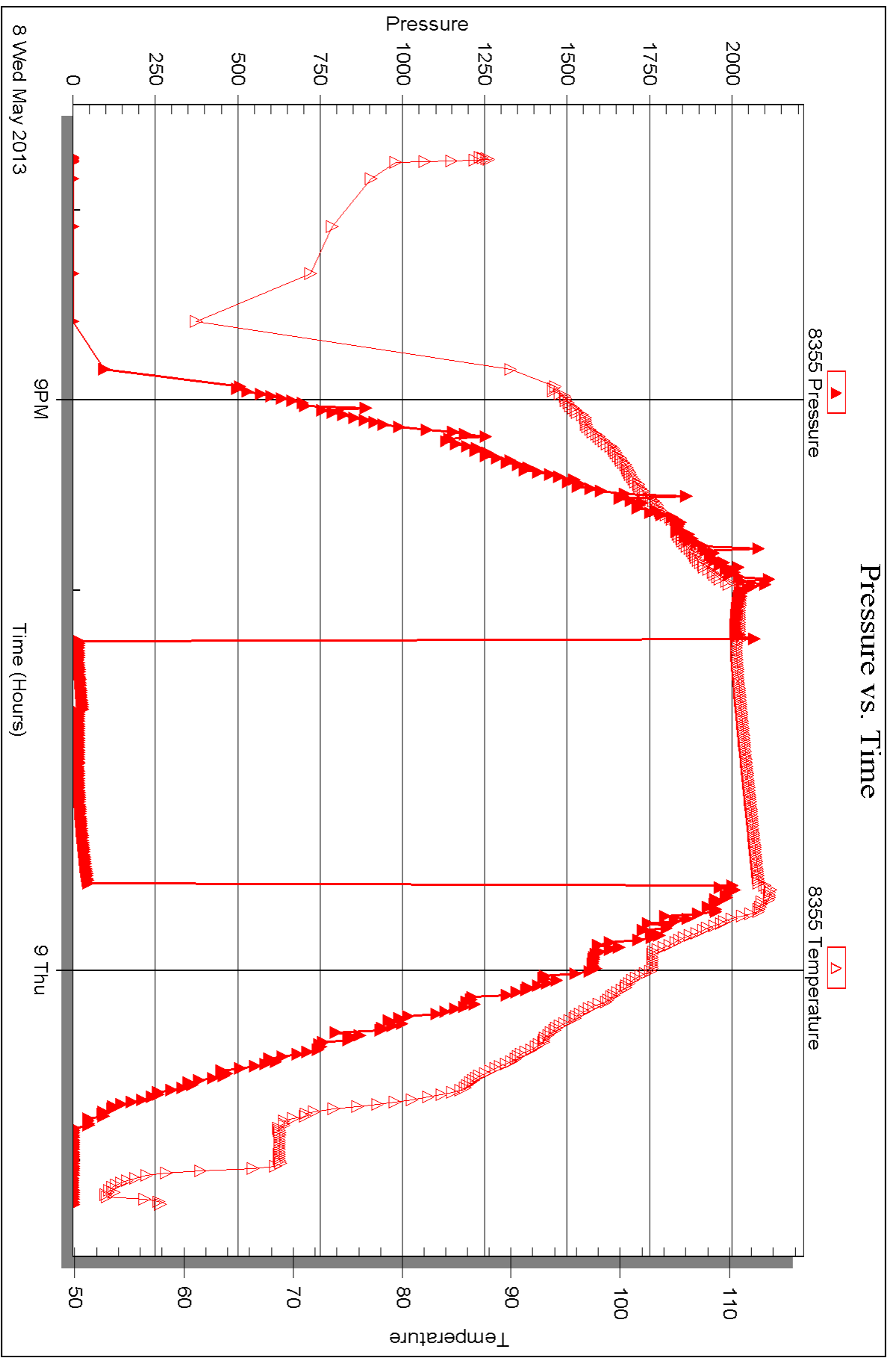
Serial #:

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

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.09 @ 10:40:00

End Date: 2013.05.09 @ 14:53:25

Job Ticket #: 49247 DST #: 2

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

Printed: 2013.05.18 @ 08:50:31



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

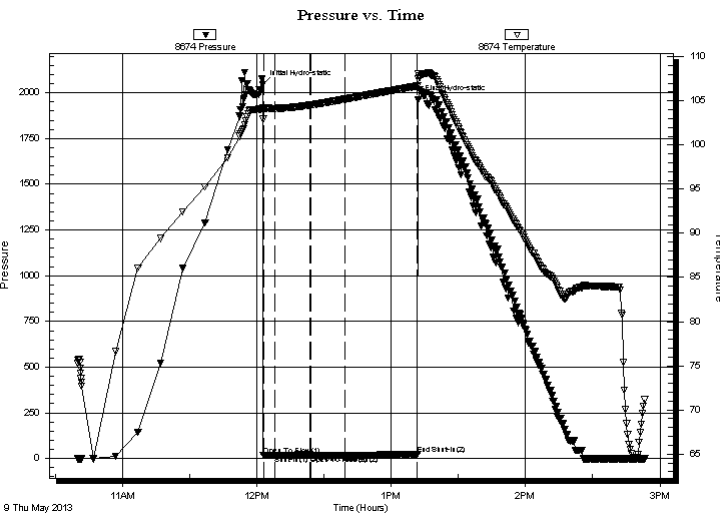
10-18s-29w Lane, KS
Riley Unit #1-10
 Job Ticket: 49247 **DST#: 2**
 Test Start: 2013.05.09 @ 10:40:00

GENERAL INFORMATION:

Formation: **LKC "I"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:02:55
 Time Test Ended: 14:53:25
 Interval: **4166.00 ft (KB) To 4195.00 ft (KB) (TVD)**
 Total Depth: 4147.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 58
 Reference Elevations: 2793.00 ft (KB)
 2786.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8674 Inside
 Press @ Run Depth: 18.19 psig @ 4170.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.09 End Date: 2013.05.09 Last Calib.: 2013.05.09
 Start Time: 10:40:00 End Time: 14:53:25 Time On Btm: 2013.05.09 @ 12:02:40
 Time Off Btm: 2013.05.09 @ 13:11:55

TEST COMMENT: IF- Weak Surface Blow
 IS- No Blow
 FF- Weak Surface Blow Died in 2 min
 FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2044.12	104.27	Initial Hydro-static
1	17.66	102.95	Open To Flow (1)
6	17.86	104.16	Shut-In(1)
21	22.08	104.53	End Shut-In(1)
22	17.21	104.53	Open To Flow (2)
37	18.19	105.21	Shut-In(2)
69	24.51	106.70	End Shut-In(2)
70	1961.49	108.10	Final Hydro-static

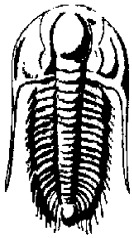
Recovery

Length (ft)	Description	Volume (bbl)
2.00	100% mud w with a Few Oil Spots	0.01

* 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

10-18s-29w Lane, KS

Riley Unit #1-10

Job Ticket: 49247

DST#: 2

Test Start: 2013.05.09 @ 10:40:00

GENERAL INFORMATION:

Formation: **LKC " I "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:02:55

Time Test Ended: 14:53:25

Interval: 4166.00 ft (KB) To 4195.00 ft (KB) (TVD)

Total Depth: 4147.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Reference Elevations: 2793.00 ft (KB)

2786.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8355 Outside

Press @ RunDepth: psig @ 4170.00 ft (KB)

Start Date: 2013.05.09 End Date: 2013.05.09

Start Time: 10:39:15 End Time: 14:53:40

Capacity: 8000.00 psig

Last Calib.: 2013.05.09

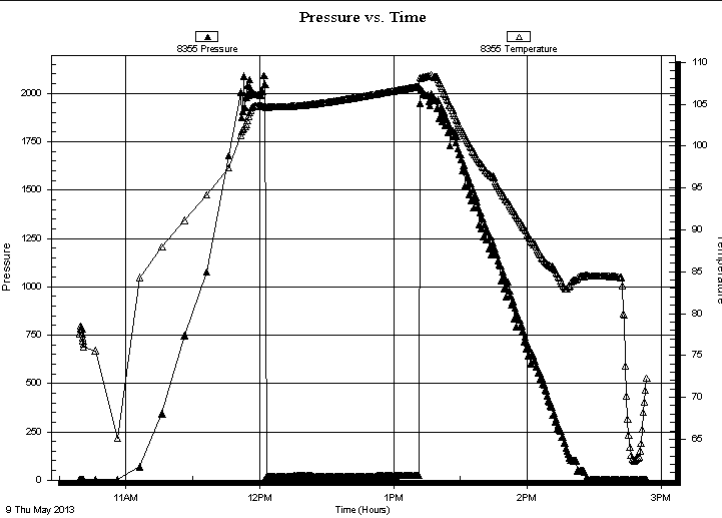
Time On Btm:

Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow
 IS- No Blow
 FF- Weak Surface Blow Died in 2 min
 FS- No Blow

PRESSURE SUMMARY

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



Recovery

Length (ft)	Description	Volume (bbl)
2.00	100% mud w with a Few Oil Spots	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

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49247

DST#: 2

ATTN: Vern Schrag

Test Start: 2013.05.09 @ 10:40:00

Tool Information

Drill Pipe:	Length: 4045.00 ft	Diameter: 3.80 inches	Volume: 56.74 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 57.32 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4166.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 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			4139.00	
Shut In Tool	5.00			4144.00	
Hydraulic tool	5.00			4149.00	
Jars	5.00			4154.00	
Safety Joint	3.00			4157.00	
Packer	5.00			4162.00	28.00 Bottom Of Top Packer
Packer	4.00			4166.00	
Stubb	1.00			4167.00	
Perforations	3.00			4170.00	
Recorder	0.00	8355	Outside	4170.00	
Recorder	0.00	8674	Inside	4170.00	
Perforations	20.00			4190.00	
Bullnose	5.00			4195.00	29.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49247

DST#: 2

ATTN: Vern Schrag

Test Start: 2013.05.09 @ 10:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.13 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	100% mud with a Few Oil Spots	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

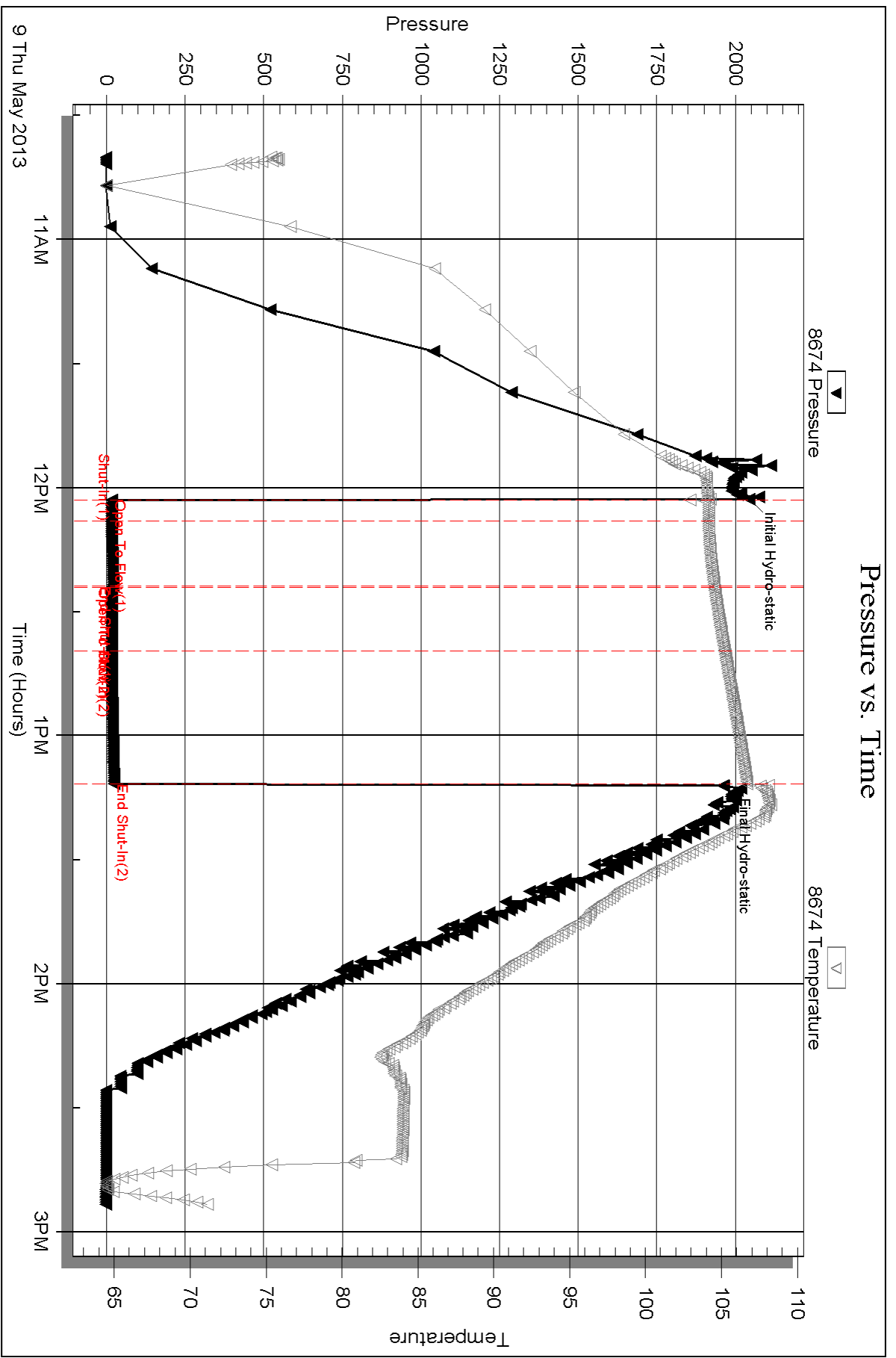
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

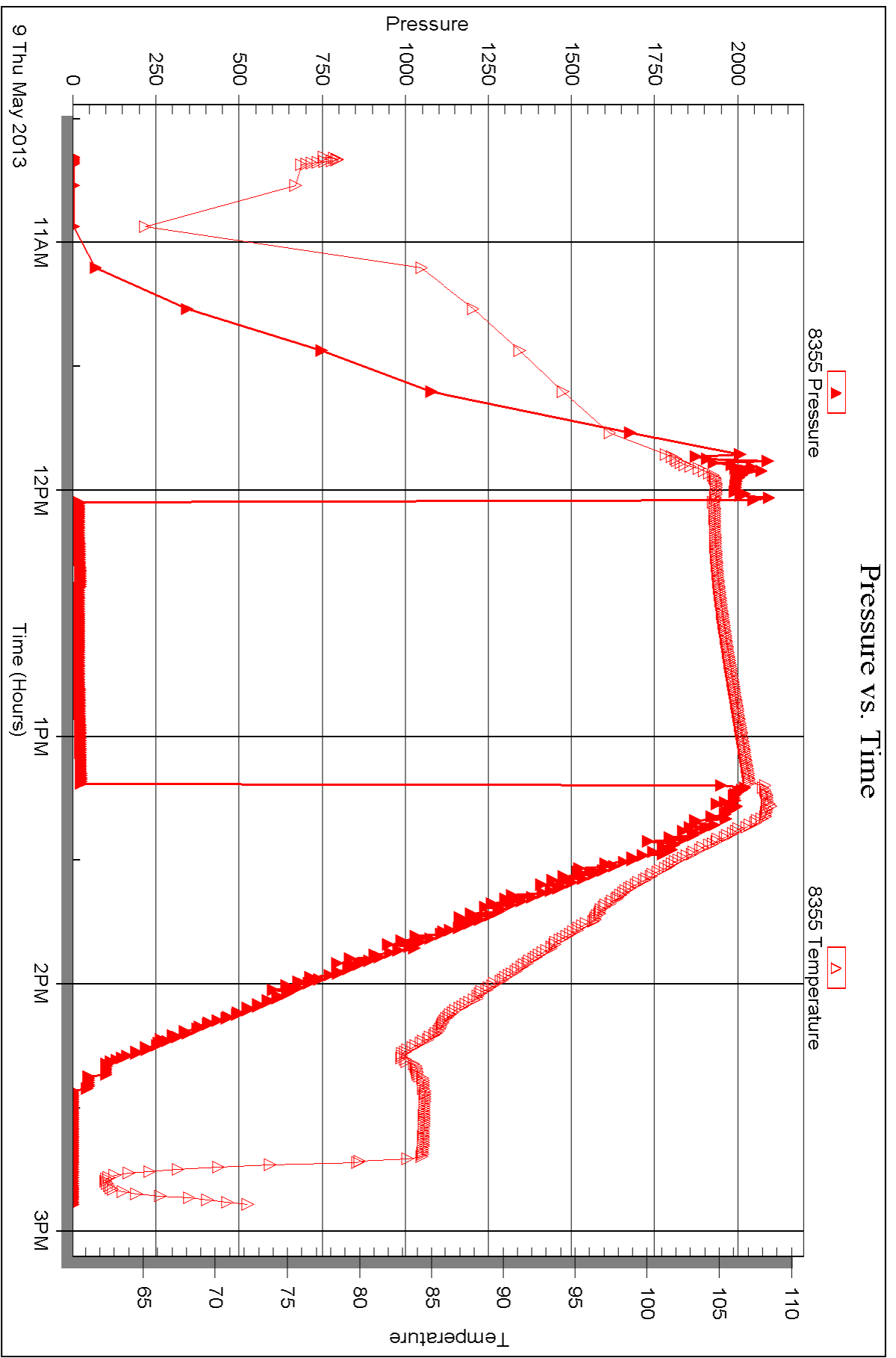


Serial #: 8355

Outside Larson Engineering Inc

Riley Unit #1-10

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.09 @ 22:08:00

End Date: 2013.05.10 @ 03:33:24

Job Ticket #: 49248 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:49:37



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

ATTN: Vern Schrag

Job Ticket: 49248

DST#: 3

Test Start: 2013.05.09 @ 22:08:00

GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:03:10

Time Test Ended: 03:33:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: **4194.00 ft (KB) To 4214.00 ft (KB) (TVD)**

Reference Elevations: 2793.00 ft (KB)

Total Depth: 4214.00 ft (KB) (TVD)

2786.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 591.01 psig @ 4195.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.09

End Date:

2013.05.10

Last Calib.: 2013.05.10

Start Time: 22:08:00

End Time:

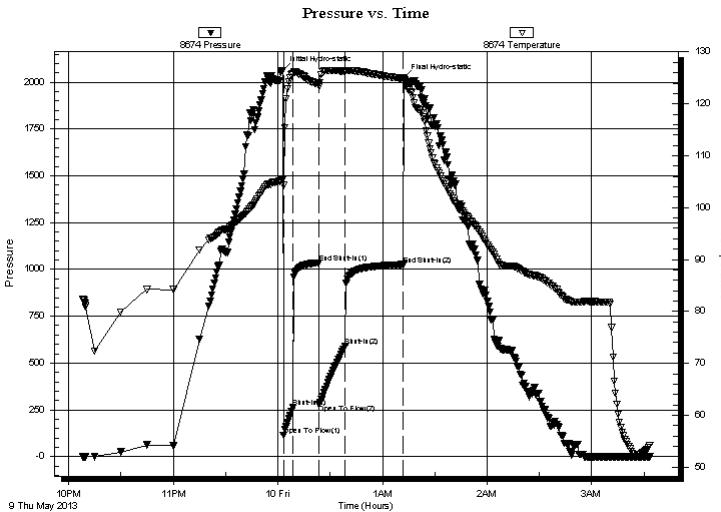
03:33:24

Time On Btm: 2013.05.10 @ 00:02:55

Time Off Btm: 2013.05.10 @ 01:12:10

TEST COMMENT: IF- Surface Blow Built to BOB in 1 3/4 min
IS- Weak Surface Blow in 7 min
FF- Surface Blow Built to BOB in 1 3/4 min
FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2061.45	105.49	Initial Hydro-static
1	114.14	104.27	Open To Flow (1)
6	261.95	125.70	Shut-In(1)
21	1036.61	123.90	End Shut-In(1)
21	279.92	123.40	Open To Flow (2)
36	591.01	126.26	Shut-In(2)
69	1026.32	124.85	End Shut-In(2)
70	2022.07	125.09	Final Hydro-static

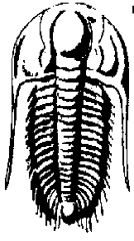
Recovery

Length (ft)	Description	Volume (bbl)
737.00	MCW 4%w 96%w	9.27
310.00	MCW 24%w 76%w	4.35
149.00	WCM 32%w 68%w	2.09

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49248 **DST#: 3**

ATTN: Vern Schrag

Test Start: 2013.05.09 @ 22:08:00

GENERAL INFORMATION:

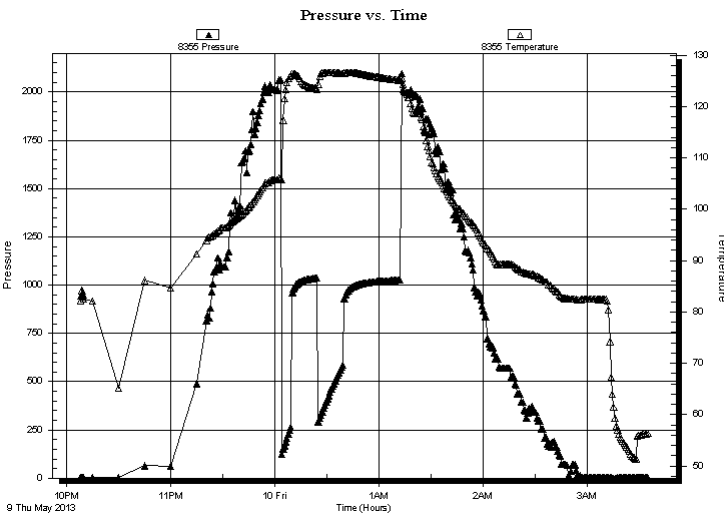
Formation: **LKC "J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:03:10 Test Type: Conventional Bottom Hole (Reset)
 Time Test Ended: 03:33:24 Tester: Will MacLean
 Unit No: 58
 Interval: **4194.00 ft (KB) To 4214.00 ft (KB) (TVD)** Reference Elevations: 2793.00 ft (KB)
 Total Depth: 4214.00 ft (KB) (TVD) 2786.00 ft (CF)
 Hole Diameter: 7.88 inchesHole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8355

Outside

Press @RunDepth: psig @ 4195.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.09 End Date: 2013.05.10 Last Calib.: 2013.05.10
 Start Time: 22:08:05 End Time: 03:34:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF- Surface Blow Built to BOB in 1 3/4 min
 IS- Weak Surface Blow in 7 min
 FF- Surface Blow Built to BOB in 1 3/4 min
 FS- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
737.00	MCW 4%m 96%w	9.27
310.00	MCW 24%m 76%w	4.35
149.00	WCM 32%w 68%m	2.09

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

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49248

DST#: 3

ATTN: Vern Schrag

Test Start: 2013.05.09 @ 22:08:00

Tool Information

Drill Pipe:	Length: 4075.00 ft	Diameter: 3.80 inches	Volume: 57.16 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 8000.00 lb
			<u>Total Volume: 57.74 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4194.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4167.00	
Shut In Tool	5.00			4172.00	
Hydraulic tool	5.00			4177.00	
Jars	5.00			4182.00	
Safety Joint	3.00			4185.00	
Packer	5.00			4190.00	28.00 Bottom Of Top Packer
Packer	4.00			4194.00	
Stubb	1.00			4195.00	
Recorder	0.00	8355	Outside	4195.00	
Recorder	0.00	8674	Inside	4195.00	
Perforations	14.00			4209.00	
Bullnose	5.00			4214.00	20.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49248

DST#: 3

ATTN: Vern Schrag

Test Start: 2013.05.09 @ 22:08:00

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:

56000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.53 in³

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
737.00	MCW 4%m 96%w	9.272
310.00	MCW 24%m 76%w	4.348
149.00	WCM 32%w 68%m	2.090

Total Length: 1196.00 ft Total Volume: 15.710 bbl

Num Fluid Samples: 0

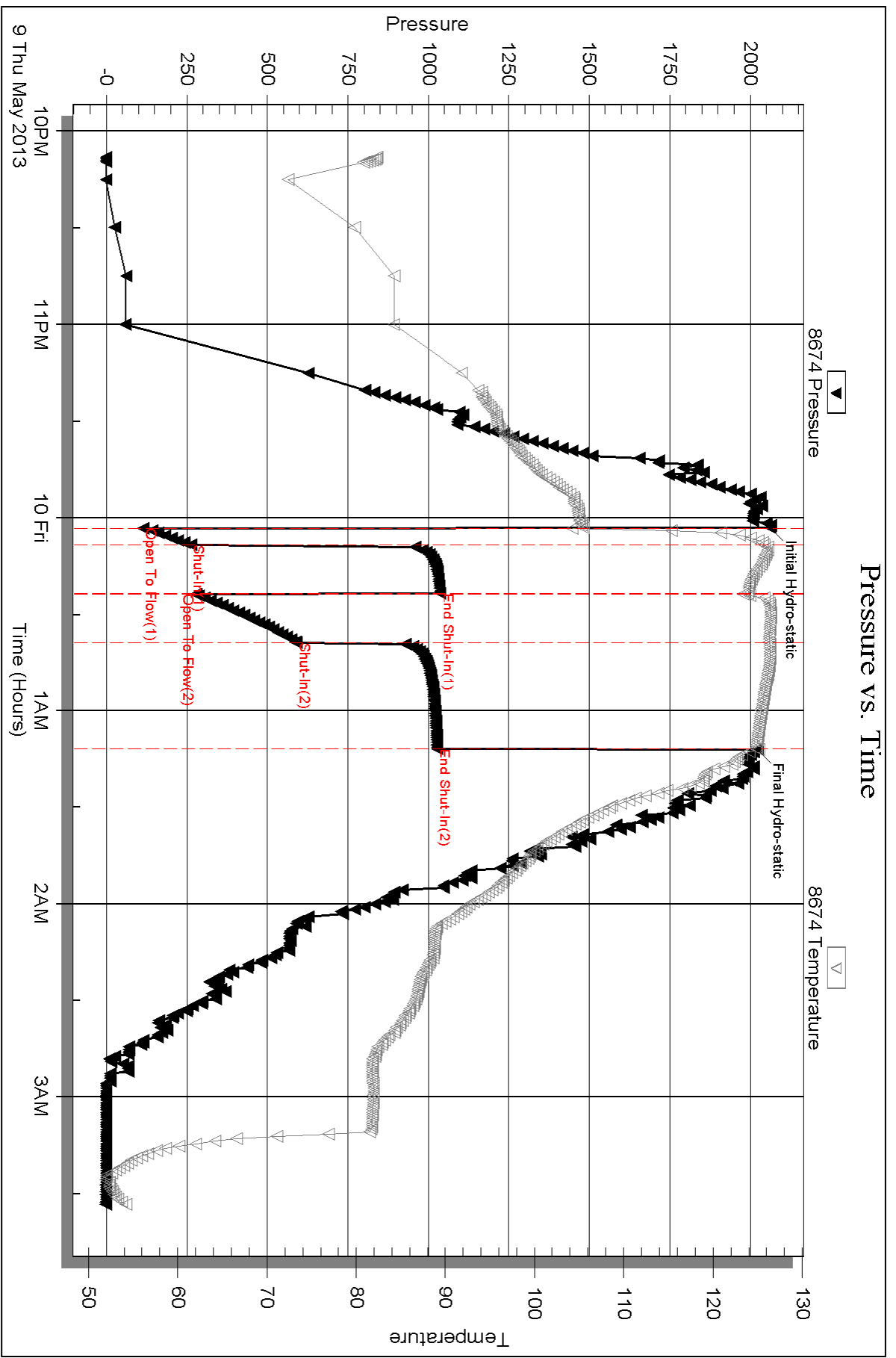
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .204 @ 55f = 56000

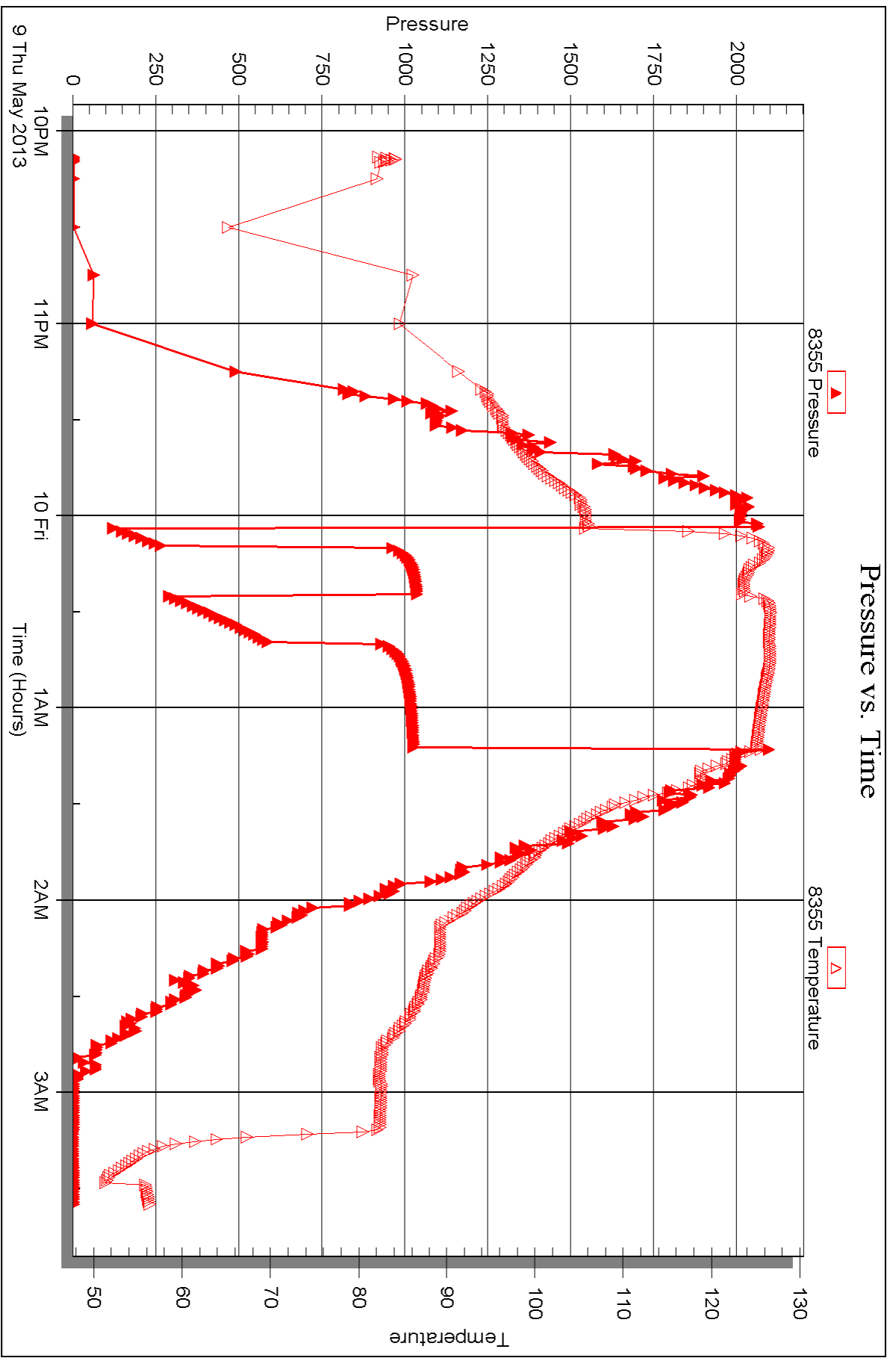


Serial #: 8355

Outside Larson Engineering Inc

Riley Unit #1-10

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 49248

Printed: 2013.05.18 @ 08:49:40



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.10 @ 11:00:00

End Date: 2013.05.10 @ 15:17:09

Job Ticket #: 49249 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:48:56



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

10-18s-29w Lane, KS
Riley Unit #1-10
 Job Ticket: 49249 **DST#: 4**
 Test Start: 2013.05.10 @ 11:00:00

GENERAL INFORMATION:

Formation: **LKC " K "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:33:25
 Time Test Ended: 15:17:09
 Interval: **4220.00 ft (KB) To 4240.00 ft (KB) (TVD)**
 Total Depth: 4240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 58
 Reference Elevations: 2793.00 ft (KB)
 2786.00 ft (CF)
 KB to GR/CF: 7.00 ft

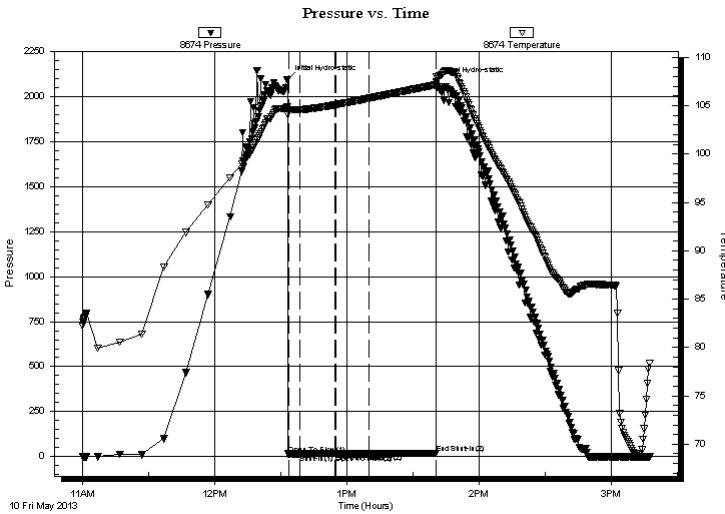
Serial #: 8674

Inside

Press @ Run Depth: 16.13 psig @ 4221.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.10 End Date: 2013.05.10 Last Calib.: 2013.05.10
 Start Time: 11:00:00 End Time: 15:17:09 Time On Btm: 2013.05.10 @ 12:32:55
 Time Off Btm: 2013.05.10 @ 13:40:25

TEST COMMENT: IF- Weak Surface Blow
 IS- No Blow
 FF- No Blow
 FS- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2093.10	104.91	Initial Hydro-static
1	14.84	104.53	Open To Flow (1)
6	15.49	104.60	Shut-In(1)
22	20.35	105.08	End Shut-In(1)
22	15.27	105.08	Open To Flow (2)
37	16.13	105.76	Shut-In(2)
68	20.34	107.14	End Shut-In(2)
68	2082.82	107.95	Final Hydro-static

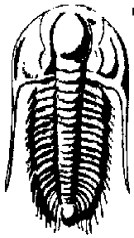
Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% m with Oil Spots	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

10-18s-29w Lane,KS

Riley Unit #1-10

Job Ticket: 49249

DST#: 4

Test Start: 2013.05.10 @ 11:00:00

GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:33:25

Time Test Ended: 15:17:09

Interval: 4220.00 ft (KB) To 4240.00 ft (KB) (TVD)

Total Depth: 4240.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Reference Elevations: 2793.00 ft (KB)

2786.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8355 **Outside**

Press @ Run Depth: psig @ 4221.00 ft (KB)

Start Date: 2013.05.10

End Date: 2013.05.10

Start Time: 11:00:05

End Time: 15:18:14

Capacity: 8000.00 psig

Last Calib.: 2013.05.10

Time On Btm:

Time Off Btm:

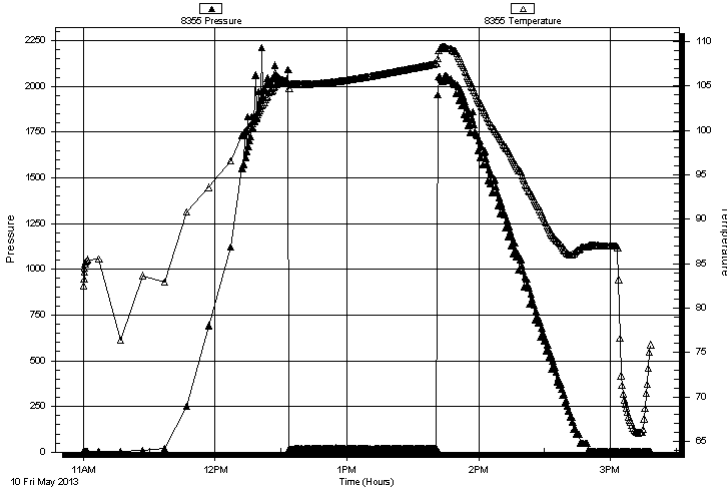
TEST COMMENT: IF- Weak Surface Blow

IS- No Blow

FF- No Blow

FS- No Blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	100% m with Oil Spots	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

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49249

DST#: 4

ATTN: Vern Schrag

Test Start: 2013.05.10 @ 11:00:00

Tool Information

Drill Pipe:	Length: 4105.00 ft	Diameter: 3.80 inches	Volume: 57.58 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 14000.00 lb
			<u>Total Volume: 58.16 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4220.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	48.00 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			4193.00	
Shut In Tool	5.00			4198.00	
Hydraulic tool	5.00			4203.00	
Jars	5.00			4208.00	
Safety Joint	3.00			4211.00	
Packer	5.00			4216.00	28.00 Bottom Of Top Packer
Packer	4.00			4220.00	
Stubb	1.00			4221.00	
Recorder	0.00	8355	Outside	4221.00	
Recorder	0.00	8674	Inside	4221.00	
Perforations	14.00			4235.00	
Bullnose	5.00			4240.00	20.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49249

DST#: 4

ATTN: Vern Schrag

Test Start: 2013.05.10 @ 11:00:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.54 in³

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
1.00	100% m with Oil Spots	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:

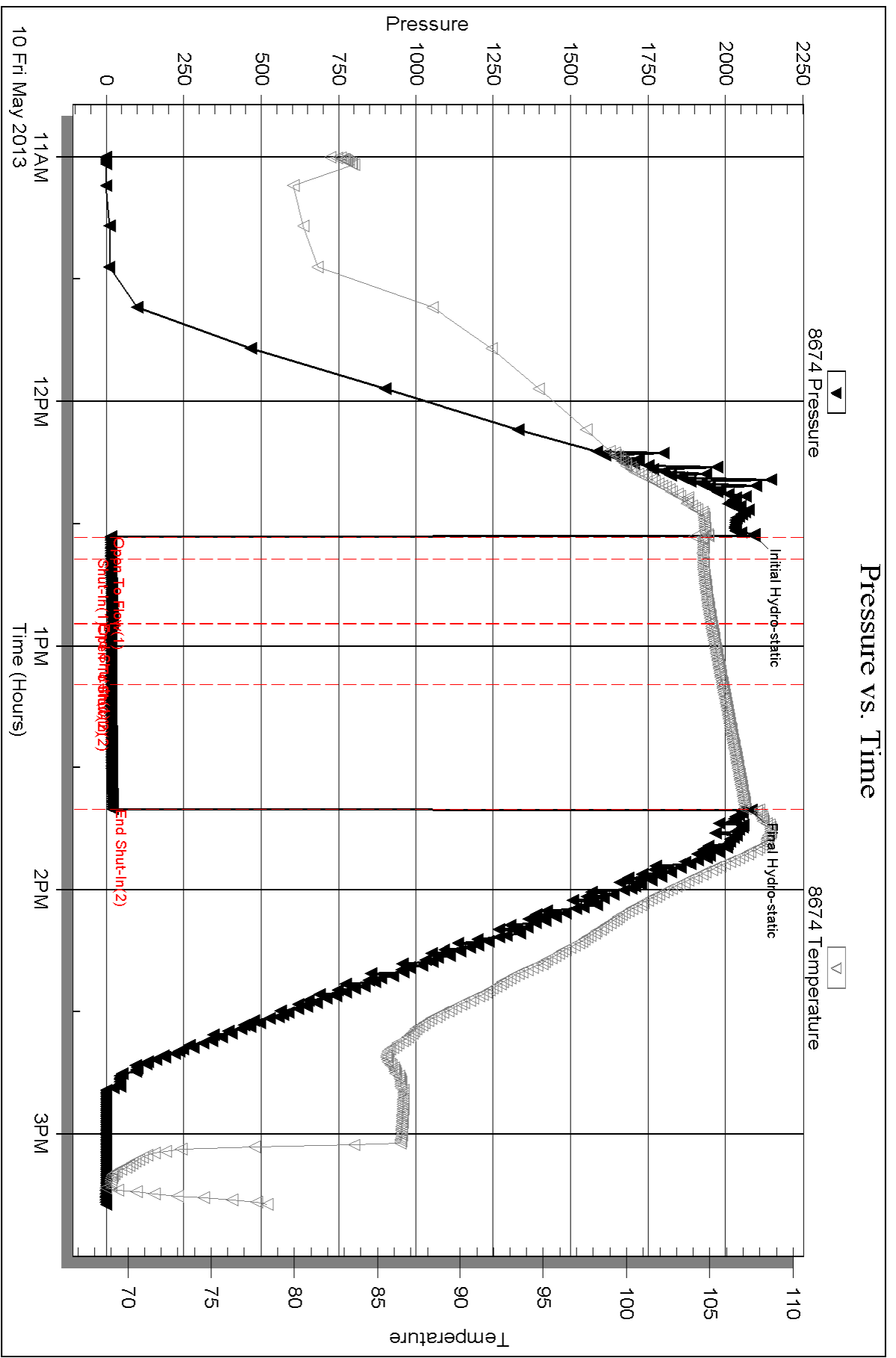
Serial #: 8674

Inside

Larson Engineering Inc

Riley Unit #1-10

DST Test Number: 4

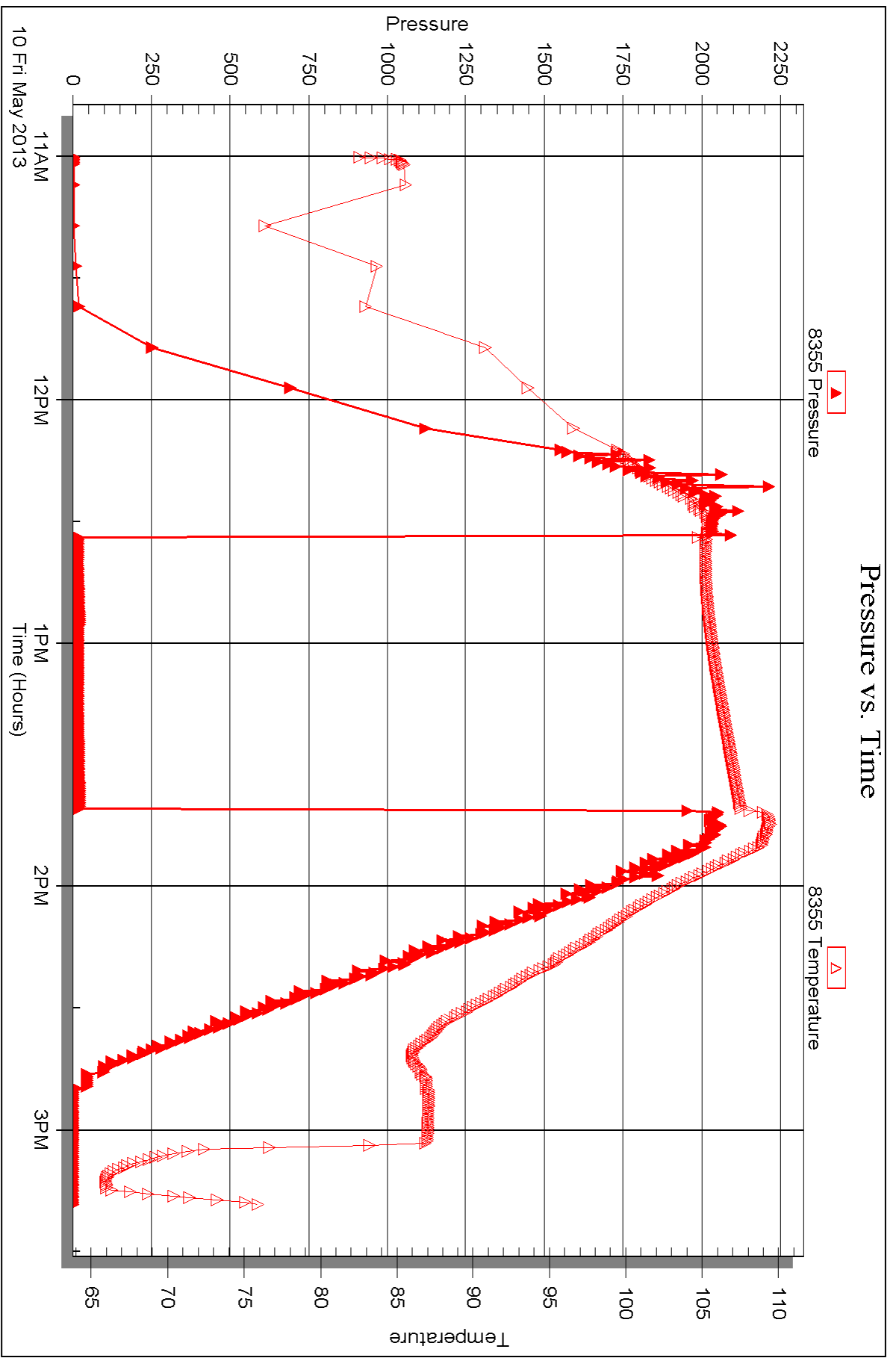


Serial #: 8355

Outside Larson Engineering Inc

Riley Unit #1-10

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.10 @ 23:10:00

End Date: 2013.05.11 @ 06:48:24

Job Ticket #: 49250 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:48:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

10-18s-29w Lane, KS
Riley Unit #1-10
 Job Ticket: 49250 **DST#: 5**
 Test Start: 2013.05.10 @ 23:10:00

GENERAL INFORMATION:

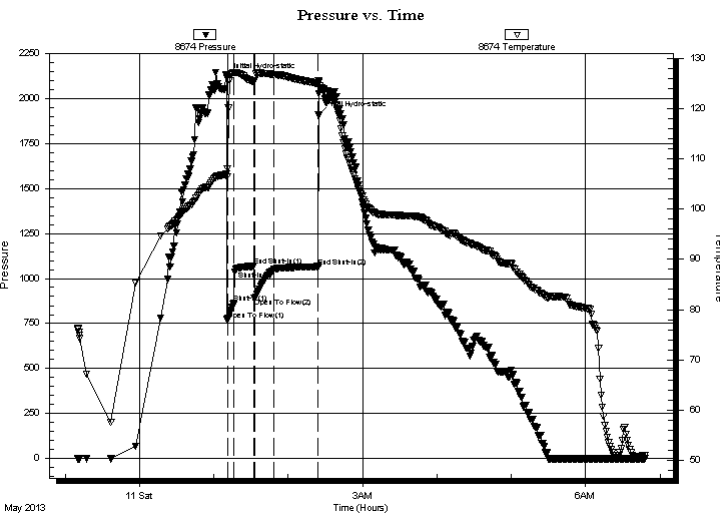
Formation: **Middle Creek**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 01:10:55 Tester: Will MacLean
 Time Test Ended: 06:48:24 Unit No: 58
 Interval: **4252.00 ft (KB) To 4266.00 ft (KB) (TVD)** Reference Elevations: 2793.00 ft (KB)
 Total Depth: 4266.00 ft (KB) (TVD) 2786.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 1044.27 psig @ 4256.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.10 End Date: 2013.05.11 Last Calib.: 2013.05.11
 Start Time: 23:10:00 End Time: 06:48:24 Time On Btm: 2013.05.11 @ 01:10:25
 Time Off Btm: 2013.05.11 @ 02:24:25

TEST COMMENT: IF- Strong Surface Blow Built to BOB in 15 sec
 IS- No Blow
 FF- Strong Surface Blow Built to BOB in 20 sec
 FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2114.04	106.95	Initial Hydro-static
1	771.90	107.99	Open To Flow (1)
6	863.43	127.11	Shut-In(1)
22	1068.23	125.35	End Shut-In(1)
23	891.60	125.57	Open To Flow (2)
38	1044.27	126.75	Shut-In(2)
74	1066.18	125.00	End Shut-In(2)
74	1906.72	125.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1109.00	OMCW 1%oil 4%m 95%w	14.49
186.00	GOMCW 9%g 11%oil 12%m 69%w	2.61
558.00	MGWCO 3%m 4%g 15%w 78%oil	7.83
372.00	MGWCO 7%m 8%g 30%w 55%oil	5.22
164.00	GMMCO 6%g 11%m 22%w 61%oil	2.30

* 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

10-18s-29w Lane, KS
Riley Unit #1-10
 Job Ticket: 49250 **DST#: 5**
 Test Start: 2013.05.10 @ 23:10:00

GENERAL INFORMATION:

Formation: **Middle Creek**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 01:10:55 Tester: Will MacLean
 Time Test Ended: 06:48:24 Unit No: 58
Interval: 4252.00 ft (KB) To 4266.00 ft (KB) (TVD)
 Reference Elevations: 2793.00 ft (KB)
 Total Depth: 4266.00 ft (KB) (TVD) 2786.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

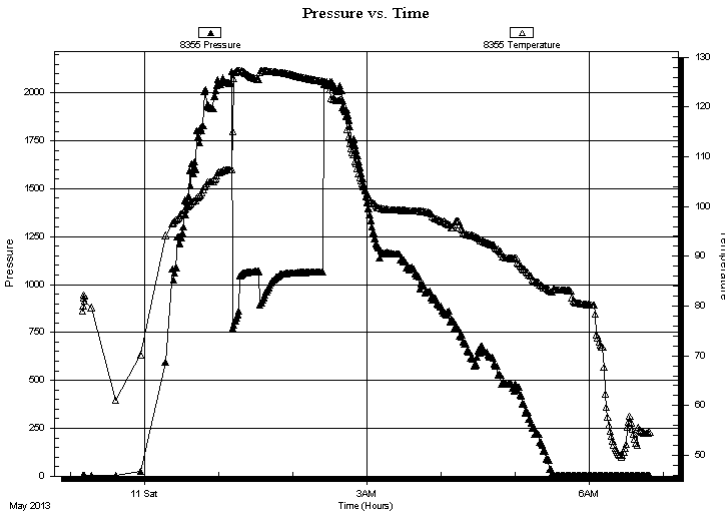
Serial #: 8355

Outside

Press @ Run Depth: psig @ 4256.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.10 End Date: 2013.05.11 Last Calib.: 2013.05.11
 Start Time: 23:09:30 End Time: 06:49:24 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF- Strong Surface Blow Built to BOB in 15 sec
 IS- No Blow
 FF- Strong Surface Blow Built to BOB in 20 sec
 FS- No Blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
1109.00	OMCW 1%oil 4%m 95%w	14.49
186.00	GOMCW 9%g 11%oil 12%m 69%w	2.61
558.00	MGWCO 3%m 4%g 15%w 78%oil	7.83
372.00	MGWCO 7%m 8%g 30%w 55%oil	5.22
164.00	GMMCO 6%g 11%m 22%w 61%oil	2.30

* 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

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49250

DST#: 5

ATTN: Vern Schrag

Test Start: 2013.05.10 @ 23:10:00

Tool Information

Drill Pipe:	Length: 4137.00 ft	Diameter: 3.80 inches	Volume: 58.03 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 8000.00 lb
			<u>Total Volume: 58.61 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4252.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	42.00 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			4225.00	
Shut In Tool	5.00			4230.00	
Hydraulic tool	5.00			4235.00	
Jars	5.00			4240.00	
Safety Joint	3.00			4243.00	
Packer	5.00			4248.00	28.00 Bottom Of Top Packer
Packer	4.00			4252.00	
Stubb	1.00			4253.00	
Perforations	3.00			4256.00	
Recorder	0.00	8355	Outside	4256.00	
Recorder	0.00	8674	Inside	4256.00	
Perforations	5.00			4261.00	
Bullnose	5.00			4266.00	14.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 49250

DST#: 5

ATTN: Vern Schrag

Test Start: 2013.05.10 @ 23:10:00

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:

75000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.16 in³

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 bbf
1109.00	OMCW 1%oil 4%m 95%w	14.491
186.00	GOMCW 9%g 11%oil 12%m 69%w	2.609
558.00	MGWCO 3%m 4%g 15%w 78%oil	7.827
372.00	MGWCO 7%m 8%g 30%w 55%oil	5.218
164.00	GMWCO 6%g 11%m 22%w 61%oil	2.300

Total Length: 2389.00 ft Total Volume: 32.445 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .140 @ 50f = 75000

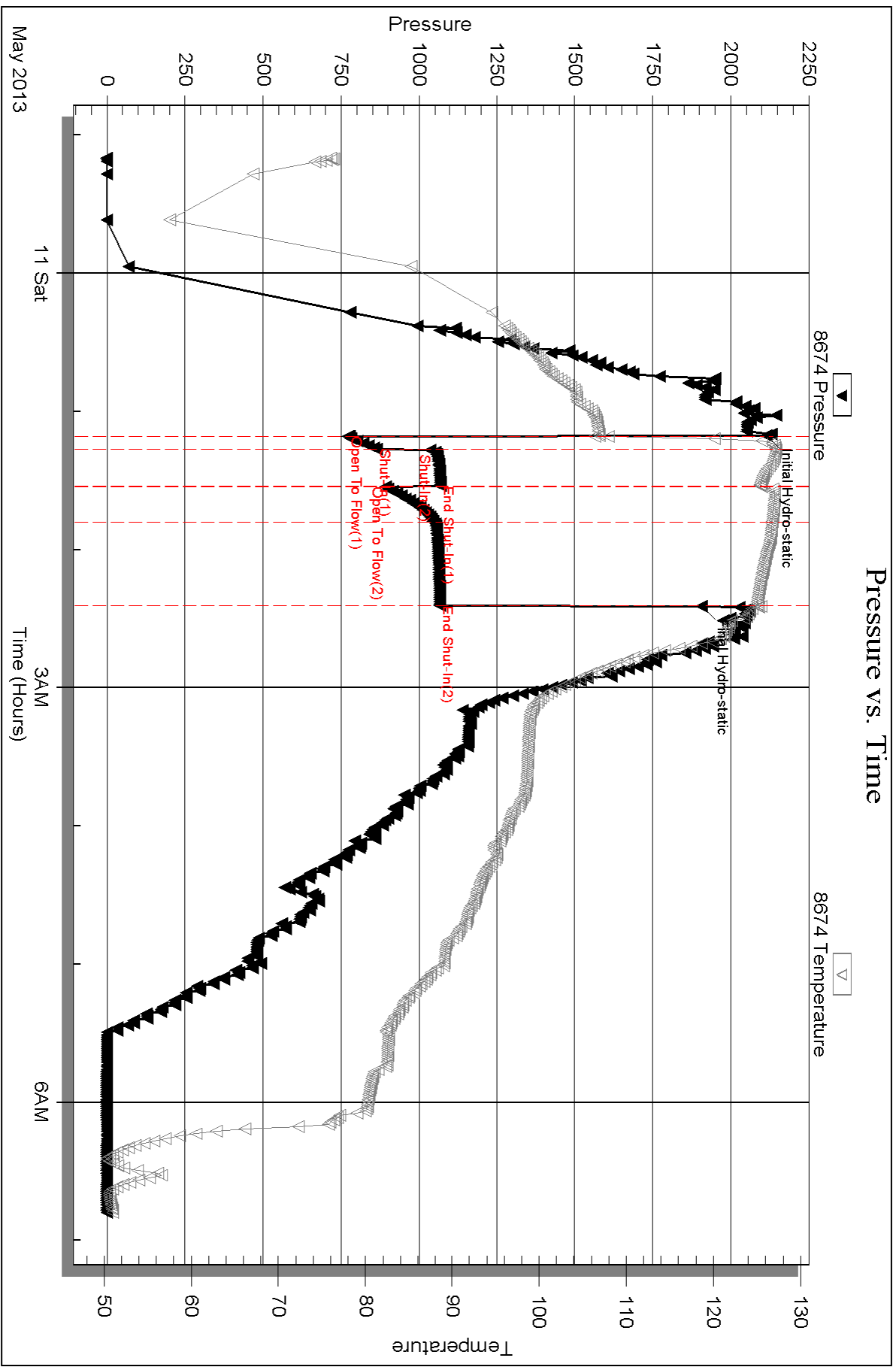
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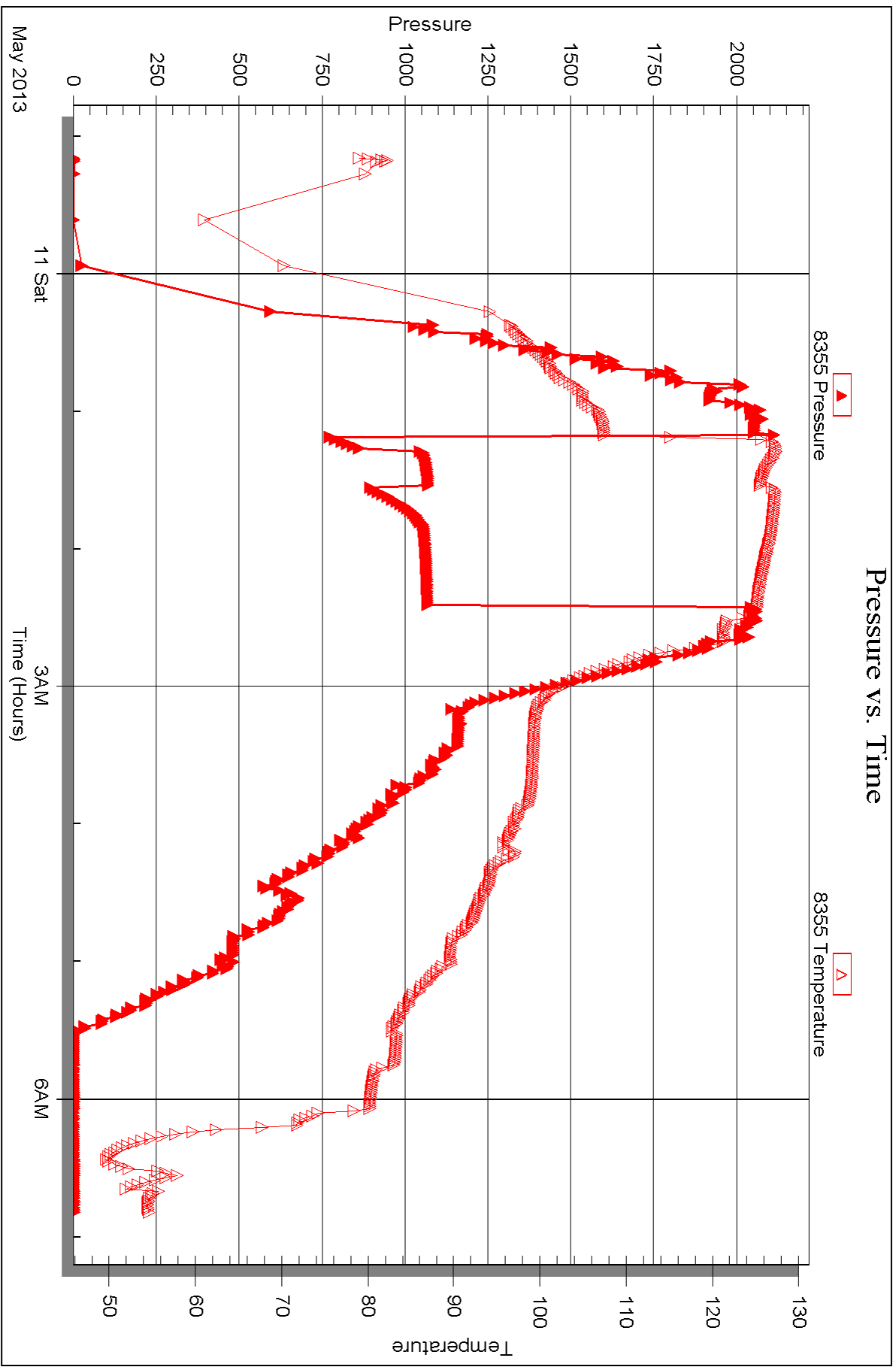
Inside

Larson Engineering Inc

Riley Unit #1-10

DST Test Number: 5







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.11 @ 22:32:00

End Date: 2013.05.12 @ 04:57:24

Job Ticket #: 48854 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:47:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

ATTN: Vern Schrag

Job Ticket: 48854

DST#: 6

Test Start: 2013.05.11 @ 22:32:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:55

Time Test Ended: 04:57:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: **4316.00 ft (KB) To 4397.00 ft (KB) (TVD)**

Reference Elevations: 2793.00 ft (KB)

Total Depth: 4397.00 ft (KB) (TVD)

2786.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8674

Inside

Press @ Run Depth: 107.74 psig @ 4318.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.11

End Date:

2013.05.12

Last Calib.: 2013.05.12

Start Time: 22:32:00

End Time:

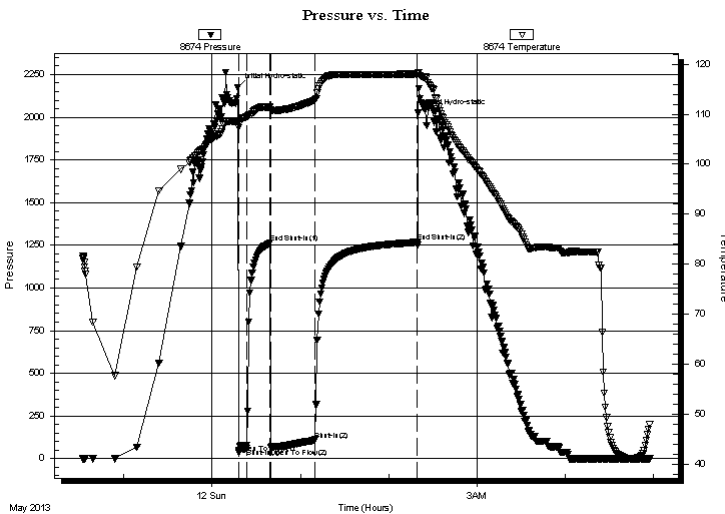
04:57:24

Time On Btm: 2013.05.12 @ 00:17:40

Time Off Btm: 2013.05.12 @ 02:19:55

TEST COMMENT: IF- Weak Surface Blow Built to 4 3/4"
IS- No Blow
FF- Weak Surface Blow Built to BOB in 18 min
FS- Weak Surface Blow in 24 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2173.24	108.46	Initial Hydro-static
1	32.98	107.36	Open to Flow (1)
6	59.06	109.41	Shut-In(1)
22	1262.33	111.40	End Shut-In(1)
23	62.26	110.90	Open To Flow (2)
52	107.74	112.82	Shut-In(2)
122	1266.99	118.04	End Shut-In(2)
123	2023.13	118.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
59.00	WMGCO 2%w 20%m 38%g 40%oil	0.29
121.00	GMCO 24%g 25%m 51%oil	1.17
40.00	GMCO 3%g 28%m 69%oil	0.56
20.00	MGCO 3%m 12%g 85%oil	0.28
0.00	310' of GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48854

DST#: 6

ATTN: Vern Schrag

Test Start: 2013.05.11 @ 22:32:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:55

Time Test Ended: 04:57:24

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 58

Interval: 4316.00 ft (KB) To 4397.00 ft (KB) (TVD)

Reference Elevations: 2793.00 ft (KB)

Total Depth: 4397.00 ft (KB) (TVD)

2786.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8355 Outside

Press @ Run Depth: psig @ 4318.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.11

End Date:

2013.05.12

Last Calib.:

2013.05.12

Start Time: 22:31:30

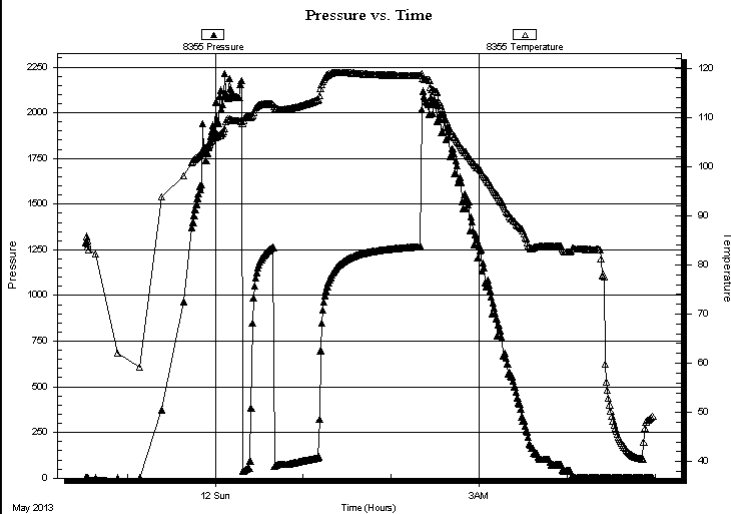
End Time:

04:58:09

Time On Btm:

Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow Built to 4 3/4"
IS- No Blow
FF- Weak Surface Blow Built to BOB in 18 min
FS- Weak Surface Blow in 24 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
59.00	WMGCO 2%w 20%m 38%g 40%oil	0.29
121.00	GMCO 24%g 25%m 51%oil	1.17
40.00	GMCO 3%g 28%m 69%oil	0.56
20.00	MGCO 3%m 12%g 85%oil	0.28
0.00	310' of GIP	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

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48854

DST#: 6

ATTN: Vern Schrag

Test Start: 2013.05.11 @ 22:32:00

Tool Information

Drill Pipe:	Length: 4201.00 ft	Diameter: 3.80 inches	Volume: 58.93 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	4000.00 lb
			<u>Total Volume: 59.51 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	66000.00 lb
Depth to Top Packer:	4316.00 ft			Final	66000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	81.00 ft				
Tool Length:	109.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4289.00	
Shut In Tool	5.00			4294.00	
Hydraulic tool	5.00			4299.00	
Jars	5.00			4304.00	
Safety Joint	3.00			4307.00	
Packer	5.00			4312.00	28.00 Bottom Of Top Packer
Packer	4.00			4316.00	
Stubb	1.00			4317.00	
Perforations	1.00			4318.00	
Recorder	0.00	8355	Outside	4318.00	
Recorder	0.00	8674	Inside	4318.00	
Perforations	10.00			4328.00	
Change Over Sub	1.00			4329.00	
Drill Pipe	62.00			4391.00	
Change Over Sub	1.00			4392.00	
Bullnose	5.00			4397.00	81.00 Bottom Packers & Anchor
Total Tool Length:	109.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48854

DST#: 6

ATTN: Vern Schrag

Test Start: 2013.05.11 @ 22:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

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
59.00	WMGCO 2%w 20%m 38%g 40%oil	0.290
121.00	GMCO 24%g 25%m 51%oil	1.169
40.00	GMCO 3%g 28%m 69%oil	0.561
20.00	MGCO 3%m 12%g 85%oil	0.281
0.00	310' of GIP	0.000

Total Length: 240.00 ft Total Volume: 2.301 bbl

Num Fluid Samples: 0

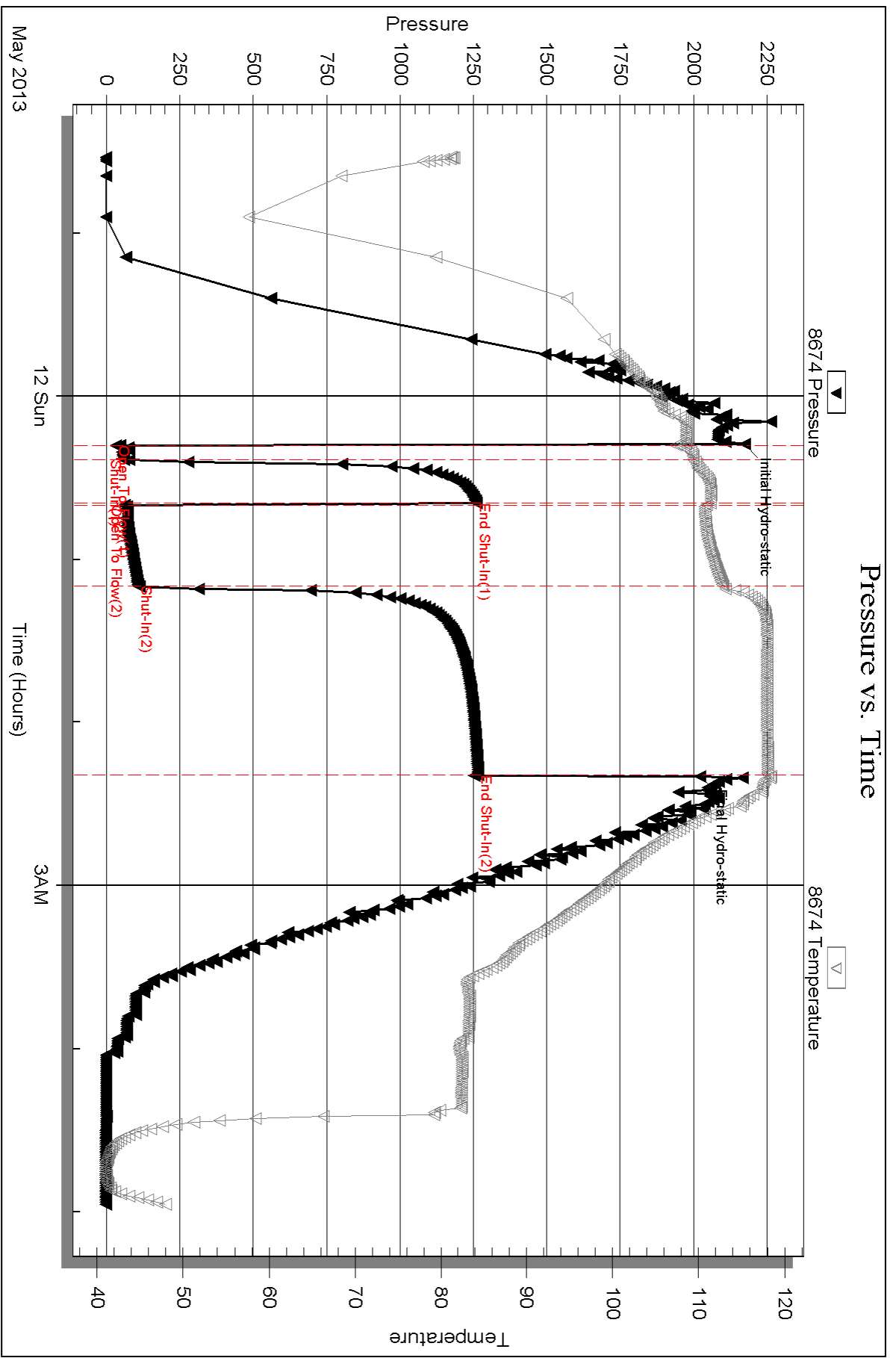
Num Gas Bombs: 0

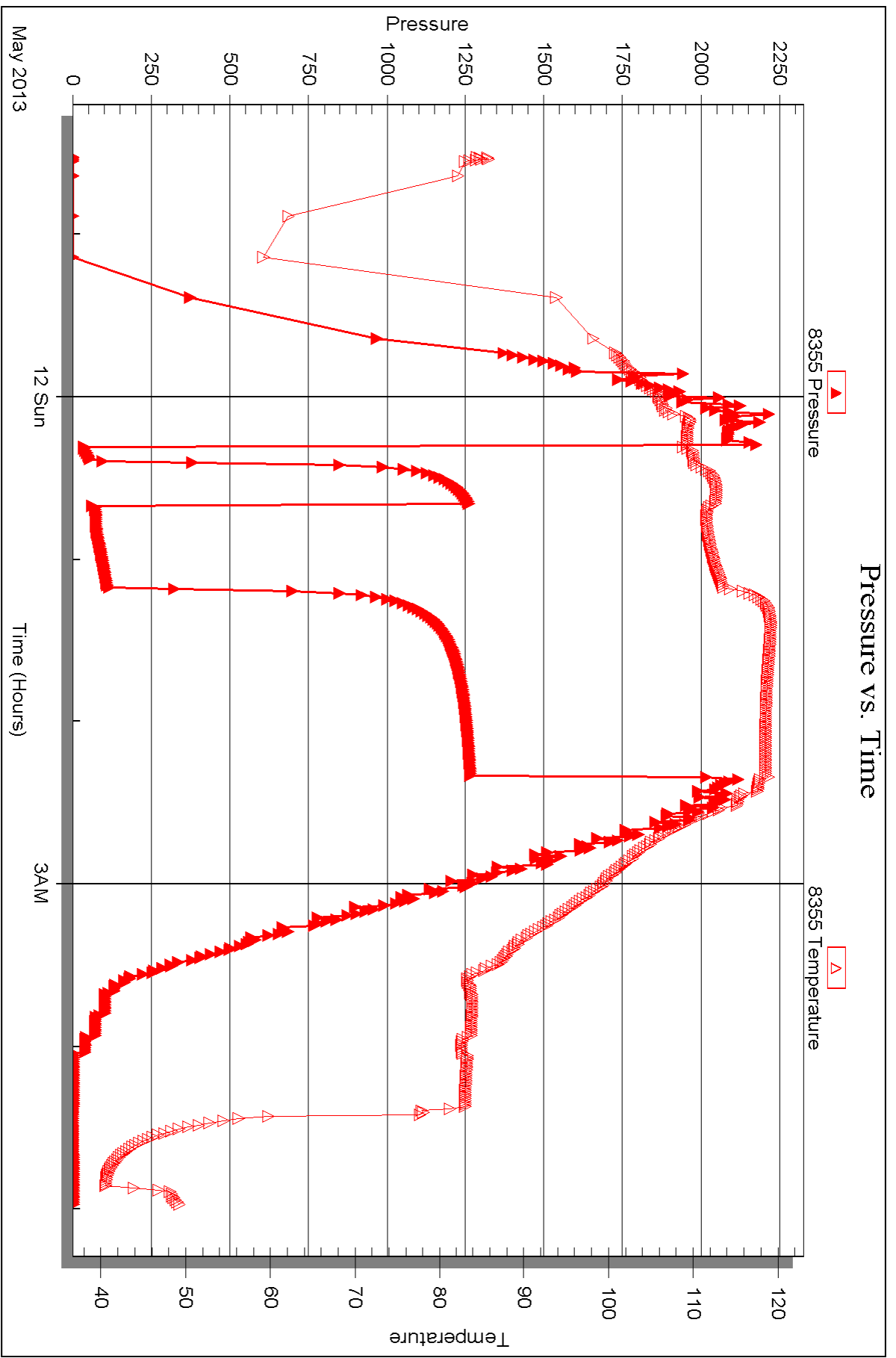
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API is 32 @ 50f = 33







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc**

562 W. State Rd 4
Olmitz KS 67564

ATTN: Vern Schrag

Riley Unit #1-10

10-18s-29w Lane,KS

Start Date: 2013.05.12 @ 23:32:00

End Date: 2013.05.13 @ 05:45:39

Job Ticket #: 48855 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.18 @ 08:46:54



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

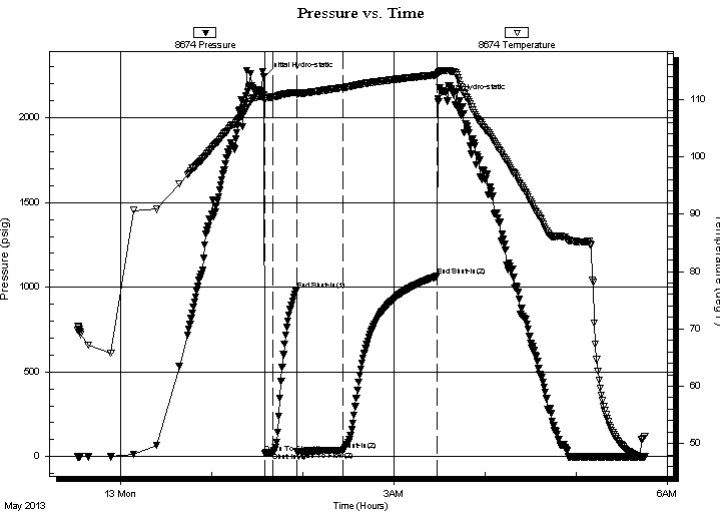
10-18s-29w Lane, KS
Riley Unit #1-10
Job Ticket: 48855 **DST#: 7**
Test Start: 2013.05.12 @ 23:32:00

GENERAL INFORMATION:

Formation: **Cherokee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:35:10
Time Test Ended: 05:45:39
Interval: **4449.00 ft (KB) To 4575.00 ft (KB) (TVD)**
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Will MacLean
Unit No: 58
Reference Elevations: 2793.00 ft (KB)
2786.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8674 Inside
Press @ Run Depth: 38.68 psig @ 4451.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.05.12 End Date: 2013.05.13 Last Calib.: 2013.05.13
Start Time: 23:32:00 End Time: 05:45:39 Time On Btm: 2013.05.13 @ 01:34:55
Time Off Btm: 2013.05.13 @ 03:29:10

TEST COMMENT: IF- Weak Surface Blow 3/4"
IS- No Blow
FF- Weak Surface Blow Built to 1 1/4"
FS- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.46	110.75	Initial Hydro-static
1	20.58	109.72	Open To Flow (1)
6	26.32	110.43	Shut-In(1)
21	985.02	111.24	End Shut-In(1)
22	29.43	110.89	Open To Flow (2)
52	38.68	112.04	Shut-In(2)
114	1064.79	114.28	End Shut-In(2)
115	2114.23	114.64	Final Hydro-static

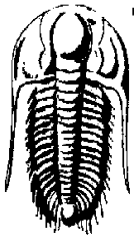
Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 7%oil 93% <i>m</i>	0.10

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48855 **DST#: 7**

ATTN: Vern Schrag

Test Start: 2013.05.12 @ 23:32:00

GENERAL INFORMATION:

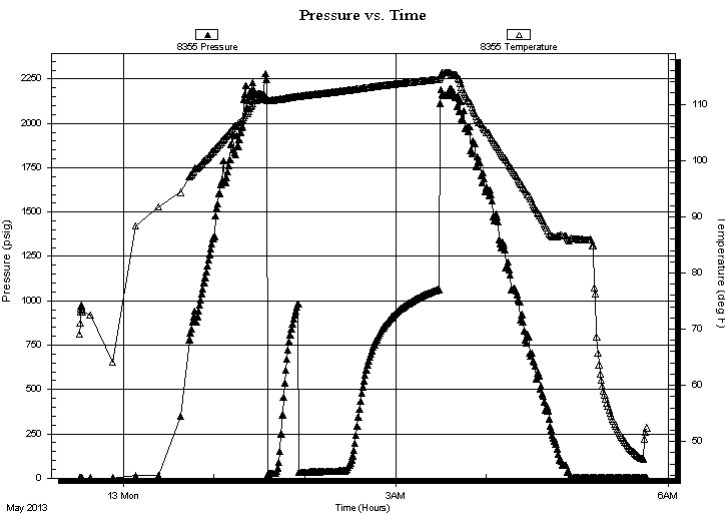
Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:35:10
 Time Test Ended: 05:45:39
 Interval: **4449.00 ft (KB) To 4575.00 ft (KB) (TVD)**
 Total Depth: 4575.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)
 Tester: Will MacLean
 Unit No: 58
 Reference Elevations: 2793.00 ft (KB)
 2786.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8355 Outside

Press @ RunDepth: psig @ 4451.00 ft (KB)
 Start Date: 2013.05.12 End Date: 2013.05.13
 Start Time: 23:31:15 End Time: 05:46:09
 Capacity: 8000.00 psig
 Last Calib.: 2013.05.13
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow 3/4"
 IS- No Blow
 FF- Weak Surface Blow Built to 1 1/4"
 FS- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 7%oil 93% <i>m</i>	0.10

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

10-18s-29w Lane, KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48855

DST#: 7

ATTN: Vern Schrag

Test Start: 2013.05.12 @ 23:32:00

Tool Information

Drill Pipe:	Length: 4328.00 ft	Diameter: 3.80 inches	Volume: 60.71 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 6000.00 lb
			<u>Total Volume: 61.29 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4449.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	126.00 ft			
Tool Length:	154.00 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			4422.00	
Shut In Tool	5.00			4427.00	
Hydraulic tool	5.00			4432.00	
Jars	5.00			4437.00	
Safety Joint	3.00			4440.00	
Packer	5.00			4445.00	28.00 Bottom Of Top Packer
Packer	4.00			4449.00	
Stubb	1.00			4450.00	
Perforations	1.00			4451.00	
Recorder	0.00	8355	Outside	4451.00	
Recorder	0.00	8674	Inside	4451.00	
Perforations	19.00			4470.00	
Change Over Sub	1.00			4471.00	
Drill Pipe	93.00			4564.00	
Change Over Sub	1.00			4565.00	
Perforations	5.00			4570.00	
Bullnose	5.00			4575.00	126.00 Bottom Packers & Anchor
Total Tool Length:	154.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc

10-18s-29w Lane,KS

562 W. State Rd 4
Olmitz KS 67564

Riley Unit #1-10

Job Ticket: 48855

DST#: 7

ATTN: Vern Schrag

Test Start: 2013.05.12 @ 23:32:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	OCM 7%oil 93%m	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

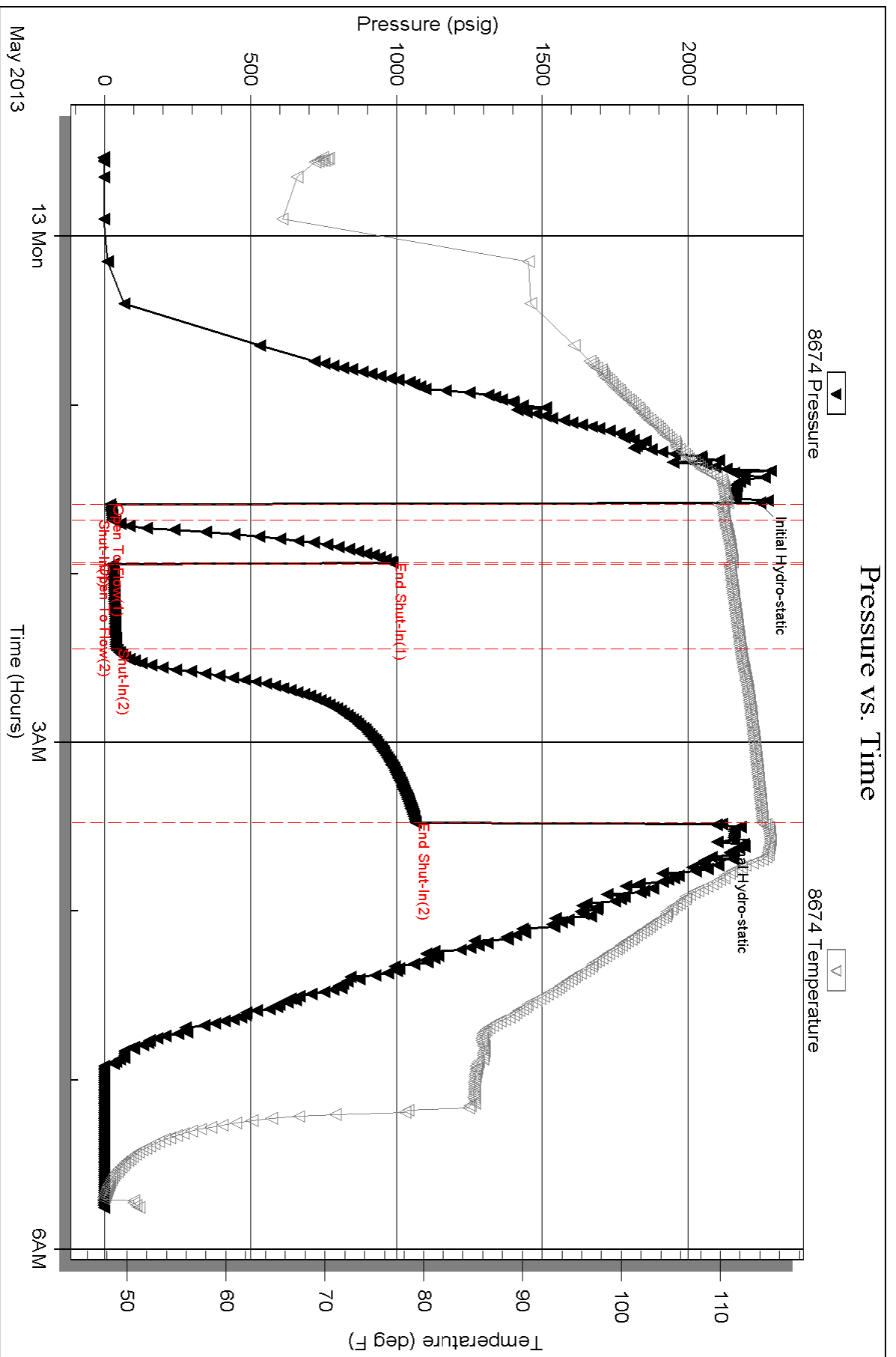
Num Gas Bombs: 0

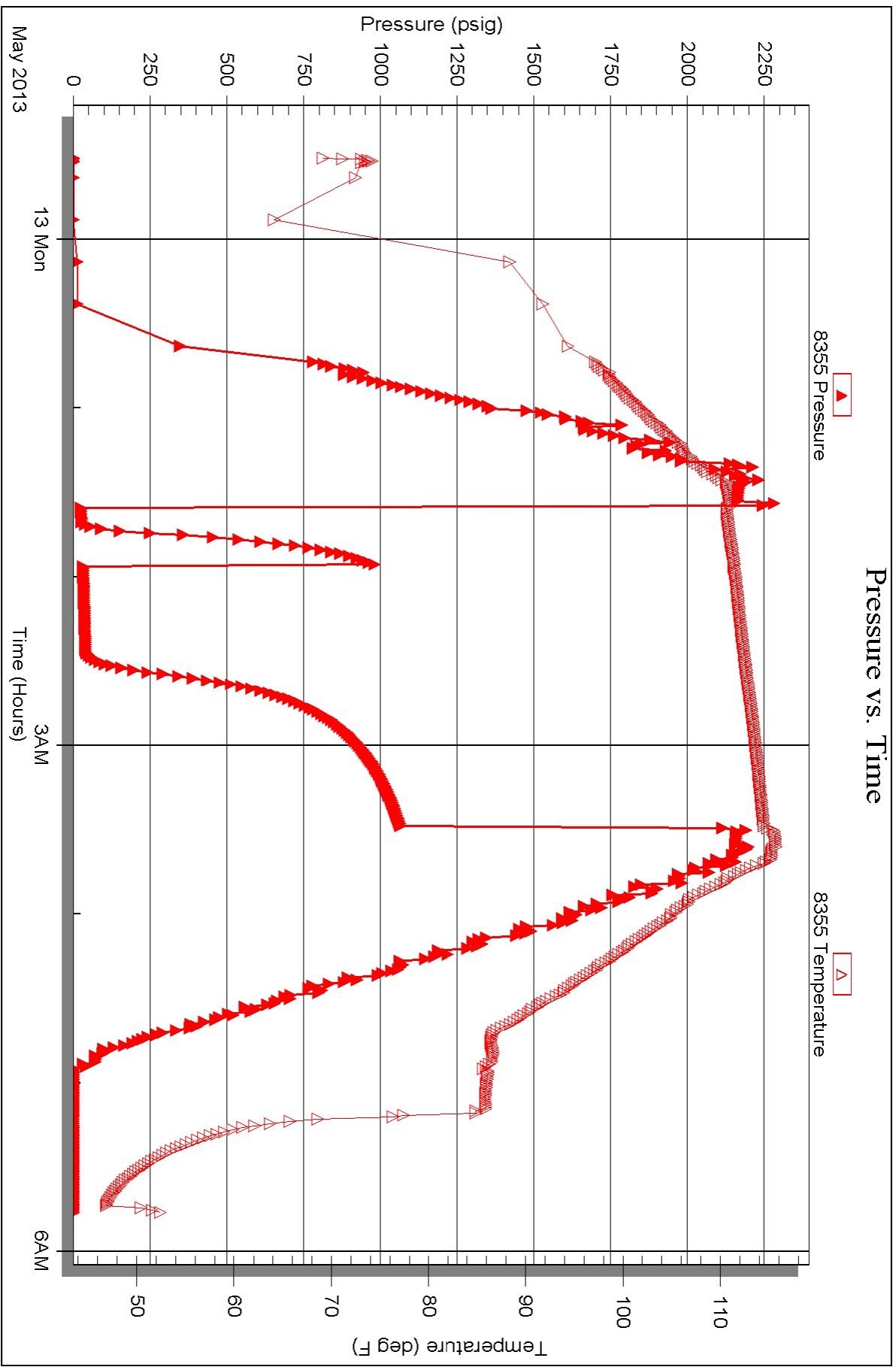
Serial #:

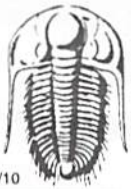
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49246

Well Name & No. Riley Unit #1-10 Test No. DST #1 Date 5-8-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D Rg #3
 Location: Sec. 10 Twp. 18s Rge. 29w Co. Lane State KS

Interval Tested 4125-4147 Zone Tested LKC "H"
 Anchor Length 22 Drill Pipe Run 4014 Mud Wt. 9.0
 Top Packer Depth 4121 Drill Collars Run 117 Vis 57
 Bottom Packer Depth 4125 Wt. Pipe Run 0 WL 7.2
 Total Depth 4147 Chlorides 1900 ppm System LCM 116
 Blow Description IF- Weak Surface Blow
ISI- No Blow
FF- No Blow
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</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 2 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

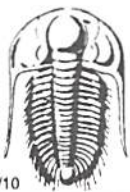
(A) Initial Hydrostatic 2063 Test 1250 T-On Location 19:20
 (B) First Initial Flow 16 Jars 250 T-Started 19:44
 (C) First Final Flow 17 Safety Joint 75 T-Open 22:15
 (D) Initial Shut-In 33 Circ Sub N/C T-Pulled 23:32
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 1:13
 (F) Second Final Flow 17 Mileage 46 R/T 71.30 Comments _____
 (G) Final Shut-In 47 Sampler _____
 (H) Final Hydrostatic 1980 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1646.30

Approved By Vern Schrag Our Representative Neil Maza

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. 49247

Well Name & No. Riley Unit #1-10 Test No. DST #2 Date 5-9-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D Rig #3
 Location: Sec. 10 Twp. 18s Rge. 29W Co. Lane State KS

Interval Tested 4166 - 4195 Zone Tested LRC "I"
 Anchor Length 29 Drill Pipe Run 4045 Mud Wt. 9.0
 Top Packer Depth 4162 Drill Collars Run 117 Vis 57
 Bottom Packer Depth 4166 Wt. Pipe Run 0 WL 7.2
 Total Depth 4195 Chlorides 1900 ppm System LCM 116

Blow Description IF - Weak Surface Blow
ISI - No Blow
FF - Weak Surface Blow Dried in 2min
FST - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud with Few Oil Spots</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 2 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

- (A) Initial Hydrostatic 2044
- (B) First Initial Flow 17
- (C) First Final Flow 17
- (D) Initial Shut-In 22
- (E) Second Initial Flow 17
- (F) Second Final Flow 18
- (G) Final Shut-In 24
- (H) Final Hydrostatic 1961

- Test 1250
- Jars 250
- Safety Joint 75
- Circ Sub NIC
- Hourly Standby
- Mileage 46 RIT 71.30
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1646.30

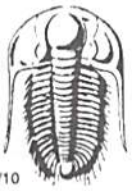
T-On Location 10:28
 T-Started 10:40
 T-Open 12:02
 T-Pulled 13:11
 T-Out 14:53

Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1646.30
 MP/DST Disc't _____

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

Approved By Vern C Schrag Our Representative Will Mae

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TRILOBITE TESTING INC.

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Test Ticket

NO. 49248

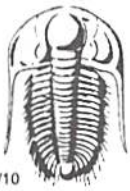
Well Name & No. Riley Unit #1-10 Test No. DST #3 Date 5-9-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D Rig #3
 Location: Sec. 10 Twp. 18S Rge. 29W Co. Lane State KS

Interval Tested 4194-4214 Zone Tested LKC "J"
 Anchor Length 20 Drill Pipe Run 4075 Mud Wt. 9.1
 Top Packer Depth 4190 Drill Collars Run 117 Vis 54
 Bottom Packer Depth 4194 Wt. Pipe Run 0 WL 7.6
 Total Depth 4214 Chlorides 2400 ppm System LCM 116
 Blow Description IF - Surface Blow Built to BOB in 1 3/4 min
ISI - Weak Surface Blow in 7 min
FF - Surface Blow Built to BOB in 1 3/4 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>149</u>	<u>WCM</u>			<u>32</u>	<u>68</u>
<u>310</u>	<u>MCW</u>			<u>76</u>	<u>24</u>
<u>737</u>	<u>MCW</u>			<u>96</u>	<u>4</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1196 BHT 124 Gravity _____ API RW 204 @ 55 °F Chlorides 56000 ppm
 (A) Initial Hydrostatic 2061 Test 1250 T-On Location 21:34
 (B) First Initial Flow 114 Jars 250 T-Started 22:08
 (C) First Final Flow 261 Safety Joint 75 T-Open 00:03
 (D) Initial Shut-In 1036 Circ Sub NIC T-Pulled 1:12
 (E) Second Initial Flow 279 Hourly Standby _____ T-Out 3:33
 (F) Second Final Flow 591 Mileage 46 RIT 71.30 Comments _____
 (G) Final Shut-In 1026 Sampler _____
 (H) Final Hydrostatic 2022 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30
 Sub Total 1646.30
 MP/DST Disc't _____

Approved By Vern C Schrag Our Representative Will Mark
 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. 49249

Well Name & No. Riley Unit # 1-10 Test No. DST #4 Date 5-10-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D Rig #3
 Location: Sec. 10 Twp. 18S Rge. 29W Co. Lane State KS

Interval Tested 4220-4240 Zone Tested LRC "K"
 Anchor Length 20 Drill Pipe Run 4105 Mud Wt. 9.1
 Top Packer Depth 4216 Drill Collars Run 117 Vis 54
 Bottom Packer Depth 4220 Wt. Pipe Run 0 WL 7.6
 Total Depth 4240 Chlorides 2400 ppm System LCM 116

Blow Description IF- Weak Surface Blow
ISI- No Blow
FF- No Blow
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud with Oil Spots</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 1 BHT 107 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2093 Test 1250 T-On Location 10:44
 (B) First Initial Flow 14 Jars 250 T-Started 11:00
 (C) First Final Flow 15 Safety Joint 75 T-Open 12:33
 (D) Initial Shut-In 20 Circ Sub N/C T-Pulled 13:40
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 15:17
 (F) Second Final Flow 16 Mileage 46 R/T 71.30 Comments _____
 (G) Final Shut-In 20 Sampler _____
 (H) Final Hydrostatic 2082 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

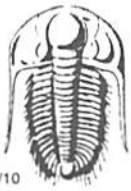
Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30

Sub Total 1646.30

MP/DST Disc't _____

Approved By Vern Schrag Our Representative Keith M...

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. 49250

Well Name & No. Riley Unit #1-10 Test No. DST #5 Date 5-10-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D R/S #3
 Location: Sec. 10 Twp. 18s Rge. 29W Co. Lane State KS

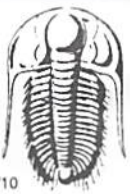
Interval Tested 4252-4266 Zone Tested Middle Creek
 Anchor Length 14 Drill Pipe Run 4137 Mud Wt. 9.1
 Top Packer Depth 4248 Drill Collars Run 117 Vis 52
 Bottom Packer Depth 4252 Wt. Pipe Run 0 WL 7.2
 Total Depth 4266 Chlorides 2400 ppm System LCM 116
 Blow Description IF- Strong Surface Blow Built to BOB in 15 sec
ISI- No Blow
FF- Strong Surface Blow Built to BOB in 20 sec
FSI- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>164</u>	<u>G-MWCO</u>	<u>6%</u>	<u>61%</u>	<u>22%</u>	<u>11%</u>
<u>372</u>	<u>MGWCO</u>	<u>8%</u>	<u>55%</u>	<u>30%</u>	<u>7%</u>
<u>558</u>	<u>MGWCO (ST)</u>	<u>4%</u>	<u>78%</u>	<u>15%</u>	<u>3%</u>
<u>186</u>	<u>G-OMCW</u>	<u>9%</u>	<u>11%</u>	<u>69%</u>	<u>12%</u>
<u>1109</u>	<u>OMCW</u>	<u>%gas</u>	<u>1%oil</u>	<u>95%</u>	<u>4%</u>

Rec Total 2389 BHT 118 Gravity _____ API RW 140 @ 50 ° F Chlorides 75000 ppm
 (A) Initial Hydrostatic 2114 Test 1250 T-On Location 22:32
 (B) First Initial Flow 771 Jars 250 T-Started 23:10
 (C) First Final Flow 863 Safety Joint 75 T-Open 1:10
 (D) Initial Shut-In 1068 Circ Sub NIC T-Pulled 2:24
 (E) Second Initial Flow 891 Hourly Standby _____ T-Out 6:48
 (F) Second Final Flow 1044 Mileage 46 RIT 71.30 Comments _____
 (G) Final Shut-In 1066 Sampler _____
 (H) Final Hydrostatic 1906 Straddle _____
 Initial Open 5 Shale Packer _____
 Initial Shut-In 15 Shale Packer _____
 Final Flow 15 Extra Packer _____
 Final Shut-In 30 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1646.30 MP/DST Disc't _____

Approved By Vernon C Schrag Our Representative Vernon C Schrag

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48854

Well Name & No. Riley Unit #1-10 Test No. DST #6 Date 5-11-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D R/s #3
 Location: Sec. 10 Twp. 18S Rge. 29W Co. Lane State KS

Interval Tested 4316 - 4397 Zone Tested Marmanton
 Anchor Length 81 Drill Pipe Run 4201 Mud Wt. 9.1
 Top Packer Depth 4312 Drill Collars Run 117 Vis 53
 Bottom Packer Depth 4316 Wt. Pipe Run 0 WL 6.8
 Total Depth 4397 Chlorides 3800 ppm System LCM 116
 Blow Description IF - Weak Surface Blow Built to 4 3/4"
ISI - No Blow
FF - Weak Surface Blow Built to BOB in 18 min
FSI - Weak Surface Blow in 24 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MCO</u>	<u>12</u>	<u>85</u>	<u>3</u>	<u>0</u>
<u>40</u>	<u>G-MCO</u>	<u>3</u>	<u>69</u>	<u>28</u>	<u>0</u>
<u>121</u>	<u>G-MCO</u>	<u>24</u>	<u>51</u>	<u>25</u>	<u>0</u>
<u>59</u>	<u>WMCO</u>	<u>38</u>	<u>40</u>	<u>2</u>	<u>20</u>
<u>310'</u>	<u>of G-IP</u>				

Rec Total 240 BHT 110 Gravity 33 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2173 Test 1250 T-On Location 21:46
 (B) First Initial Flow 32 Jars 250 T-Started 22:32
 (C) First Final Flow 59 Safety Joint 75 T-Open 00:17
 (D) Initial Shut-In 1262 Circ Sub NIC T-Pulled 2:19
 (E) Second Initial Flow 62 Hourly Standby _____ T-Out 4:57
 (F) Second Final Flow 107 Mileage 46 R/T 71.30 Comments _____
 (G) Final Shut-In 1266 Sampler _____ API is 32 + 50 = 33
 (H) Final Hydrostatic 2023 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 5 Extra Recorder _____ Sub Total 0
 Initial Shut-In 15 Day Standby _____ Total 1896.30
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1896.30

Approved By [Signature] Our Representative [Signature]
 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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48855

Well Name & No. Riley Unit #1-10 Test No. DST #7 Date 5-12-13
 Company Larson Engineering Inc Elevation 2793 KB 2786 GL
 Address 562 W. State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig H-D Rig #3
 Location: Sec. 10 Twp. 18s Rge. 29w Co. Lane State KS

Interval Tested 4449-4575 Zone Tested Cherokee
 Anchor Length 126 Drill Pipe Run 4328 Mud Wt. 9.1
 Top Packer Depth 4445 Drill Collars Run 117 Vis 65
 Bottom Packer Depth 4449 Wt. Pipe Run 0 WL 7.2
 Total Depth 4575 Chlorides 3700 ppm System LCM 11b

Blow Description IF-Weak Surface Blow 3/4"
ISI- No Blow
EF-Weak Surface Blow Built to 1/4"
FSI-No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>OCM</u>		<u>7</u>		<u>93</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 20 BHT 110 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2243 Test 1250 T-On Location 22:38
 (B) First Initial Flow 20 Jars 250 T-Started 23:32
 (C) First Final Flow 26 Safety Joint 75 T-Open 1:35
 (D) Initial Shut-In 985 Circ Sub NIC T-Pulled 3:29
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 5:45
 (F) Second Final Flow 38 Mileage 46 RIT 71.30 Comments _____
 (G) Final Shut-In 1064 Sampler _____
 (H) Final Hydrostatic 2114 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1646.30
 Total 1646.30
 MP/DST Disc't _____

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: RILEY UNIT #1-10
Location: NW NE NE SEC. 10-18s-29w
Licence Number: API: 15-101-22439
Spud Date: May 3, 2013
Surface Coordinates: 2573' FSL & 517' FEL

Region: Lane Co., KS
Drilling Completed: May 13, 2013

Bottom Hole Coordinates:
Ground Elevation (ft): 2786' K.B. Elevation (ft): 2793'
Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4635'
Formation: Mississippian
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
 Olmitz, KS 67564-8561

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #3
 DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 560', Kelly 40.30', Tool Joint 5.5" ; Bit: 7-7/8" ENP-0123 to 4575, MD-23M to RTD, 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 273' (KB)
 Set 5-1/2" casing at 4636' (log)

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60 spm, Chemical, premix, displaced 3395 to 3412'; earth pits, Morgan Mud, Inc., David Lines, 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, Chris Desaire, Log total depth (4637') was two feet long to rotary total depth (4635').

DRILL STEM TEST #1:

LKC "H": Interval: 4125-4147 (22'): Blow: weak surf IFP, no RB, no blow FFP; Times: 5-15-15-30; Recovery: 2' mud (100%M); Pressures: HP: 2063-1980, SIP: 33-47, FP: 16-17, 16-17; BHT: 109 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #2:

LKC "I": Interval: 4166-4195 (29'): Blow: weak surf IFP, no RB, weak surf blow died 2 min FFP; Times: 5-15-15-30; Recovery: 2' mud w/oil spots (100%M); Pressures: HP: 2044-1961, SIP: 22-24, FP: 17-17, 17-18; BHT: 105 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #3:

LKC "J": Interval: 4194-4214 (20'): Blow: BOB 1.75 min IFP, no RB, BOB 1.75 min FFP, no RB; Times: 5-15-15-30; Recovery: 1196' TF: 149' WCM (32%W, 68%M), 310' MCW (76%W, 24%M), 737' MCW (96%W, 4%M, Rw 0.204 at 55 F, chlorides 56k); Pressures: HP: 2061-2022, SIP: 1036-1026, FP: 114-261, 279-591; BHT: 124 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #4:

LKC "K": Interval: 4220-4240 (20'): Blow: weak surf IFP, no RB, no blow FFP; Times: 5-15-15-30; Recovery: 1' mud w/oil spots; Pressures: HP: 2093-2082, SIP: 20-20, FP: 14-15, 15-16; BHT: 107 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #5:

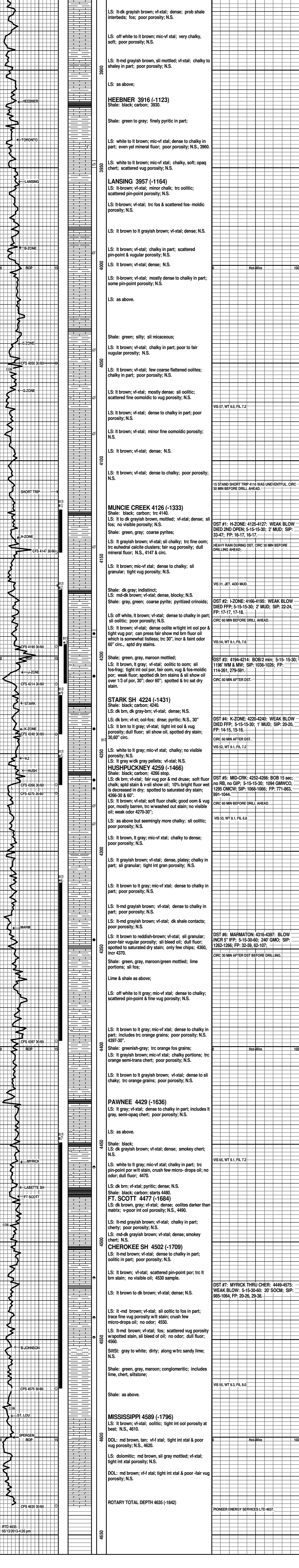
LKC Lower "K", Middle Creek, Top of "L": Interval: 4252-4266 (14'): Blow: BOB 15 sec. IFP, no RB, BOB 20 sec FFP, no RB; Times: 5-15-15-30; Recovery: 2389' TF, no GIP: 164' GMWCO (6%G, 61%O, 22%W, 11%M), 372' GMWCO (8%G, 55%O, 30%W, 7%M), 558' GMWCO (4%G, 78%O, 15%W, 3%M), 186' GOMCW (9%G, 11%O, 69%W, 12%M), 1109' OMW (1%O, 95%W, 4%M, Rw 0.14 at 50 F, chlorides 75k); Pressures: HP: 2114-1906, SIP: 1068-1066, FP: 771-863, 891-1044; BHT: 118 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #6:

Marmaton: Interval: 4316-4397 (81'): Blow: weak incr 4.75" IFP, no RB, BOB 18 min FFP, weak surf RB after 24 min FSIP; Times: 5-15-30-60; Recovery: 240' TF: 20' MGO (12%G, 85%O, 3%M, Grav 33), 40' GMO (3%G, 69%O, 28%M), 121' GOM (24%G, 51%O, 25%M), 59' WGMO (38%G, 40%O, 2%W, 20%M); Pressures: HP: 2173-2023, SIP: 1262-1266; FP: 32-59, 62-107; BHT: 110 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.

DRILL STEM TEST #7:

Myrick thru Cherokee: Interval: 4449-4575 (126'): Blow: weak incr to 3/4" IFP, no RB, weak incr to 1.25" FFP, no RB; Times: 5-15-30-60; Recovery: 20' SOCM (7%O, 93%M), Pressures: HP: 2243-2114, SIP: 985-1064, FP: 20-26, 29-38; BHT: 110 F; Trilobite Testing, Inc., Scott City, KS, Will MacLeon.



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

September 09, 2013

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

Re: ACO1
API 15-101-22439-00-00
Riley Unit 1-10
SE/4 Sec.10-18S-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

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



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Fax: 316-337-6211
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Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 13, 2013

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

Re: ACO-1
API 15-101-22439-00-00
Riley Unit 1-10
SE/4 Sec.10-18S-29W
Lane County, Kansas

Dear Thomas Larson:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 5/3/2013 and the ACO-1 was received on September 09, 2013 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department