



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1098084
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

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

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

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



1098084

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

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

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Busst Unit 1-27
Doc ID	1098084

Tops

Name	Top	Datum
Anhydrite	2102	+666
Base Anhydrite	2131	+637
Heebner Sh	3983	-1215
Lansing-KC	4022	-1254
Stark SH	4300	-1532
Base KC	4379	-1611
Marmaton	4400	-1632
Pawnee	4505	-1737
Ft Scott	4555	-1787
Cherokee	4574	-1806
Mississippi	4646	-1878



CONSOLIDATED
Oil Well Services, LLC

TICKET NUMBER 37006

LOCATION Oaklawn

FOREMAN Mikes Shaw

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

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
7-24-12	4802	Bussat Unit # 1-27	27	19S	28W	Lanc
CUSTOMER <u>Larson Engineering</u>			Dropper 45 30 15 15 165 water			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
CITY			<u>USA TIR</u>	<u>Bobby S</u>		
STATE			<u>566</u>	<u>Loes P</u>		
ZIP CODE						

JOB TYPE Surf HOLE SIZE 12 1/4 HOLE DEPTH 245 CASING SIZE & WEIGHT 1 3/8 20 1/2
 CASING DEPTH 264.88' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.36 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 15 1/4 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting and rig upon H-D drilling. Circulate cement mix 175 slk
Common 3% calcium 28 gel displaced 154 bbls water. Shut in cement
did circulate approx 7 bbls to pit

Thanks Mikes & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405	1	PUMP CHARGE	1085. ⁰⁰	1085. ⁰⁰
5406	20	MILEAGE	5. ⁰⁰	100. ⁰⁰
5407	8.23	Ton mileage Delivers min	410. ⁰⁰	410. ⁰⁰
1104S	175 slk	Common Class A cement	17.65	3078.75
1102	493.5 #	Calcium chloride	.89	439.22
1118B	329 #	Bentonite gel	.25	82.25
			Subtotal	5205.22
			less 10% discount	520.52
			Subtotal	4684.70
			SALES TAX	204.70
			ESTIMATED TOTAL	4889.40

COMPLETED

Rev'n 3737

AUTHORIZATION [Signature] TITLE Pusher DATE 7-24-12

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.

251595



CONSOLIDATED

Oil Well Services, LLC S

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

FIELD TICKET & TREATMENT REPORT
CEMENT

TICKET NUMBER 37057
LOCATION Dakley, KS
FOREMAN Kelly Kane

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-5-12	41802	Bust Unit #1-27	27	19 ^s	28 ^W	Lane KS
CUSTOMER <u>Hanson Eng'g</u>		Dighton 65 th St 3E 15 1E 1/2 ^s W side	TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			399	Damon M		
CITY			566	Thomas B		
STATE	ZIP CODE					

JOB TYPE PTA HOLE SIZE 7 1/4 HOLE DEPTH 4200 CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14² SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: safety meeting, rigged up on HD drilling rig #3, mixed cement plugs & displaced down.
50 SKS @ 2130
80 SKS @ 1350
50 SKS @ 720
50 SKS @ 300
20 SKS @ 100
30 SKS RA

*Thank You
Kelly & Crew*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405N	1	PUMP CHARGE	1325 ⁰⁰	1325 ⁰⁰
5406	20	MILEAGE	5 ⁰⁰	100 ⁰⁰
1131	280 SKS	60/40 P02	15 ¹⁰	4228 ⁰⁰
1118B	963 [#]	Bentonite	.25	240 ⁷⁵
1107	20 [#]	Flo-seal	2.82	197 ⁴⁰
5407A	12.04	Ton mileage delivery	1.67	410 ⁰⁰
				650 ¹⁵
				650 ¹²
				5851 ⁰³
			SALES TAX	264.57
			ESTIMATED TOTAL	6115.60

Revin 3737
 5:00 PM AUTHORIZATION Dwayne Jones TITLE Super DATE 8-5-12

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

251795



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.07.30 @ 15:25:54

End Date: 2012.07.30 @ 21:09:54

Job Ticket #: 48371 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.09 @ 11:07:08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48371

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2012.07.30 @ 15:25:54

GENERAL INFORMATION:

Formation: **Lansing I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:21:24

Time Test Ended: 21:09:54

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Interval: 4232.00 ft (KB) To 4276.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4276.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 155.78 psig @ 4233.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.30

End Date:

2012.07.30

Last Calib.:

2012.07.30

Start Time: 15:25:59

End Time:

21:09:53

Time On Btm:

2012.07.30 @ 17:20:24

Time Off Btm:

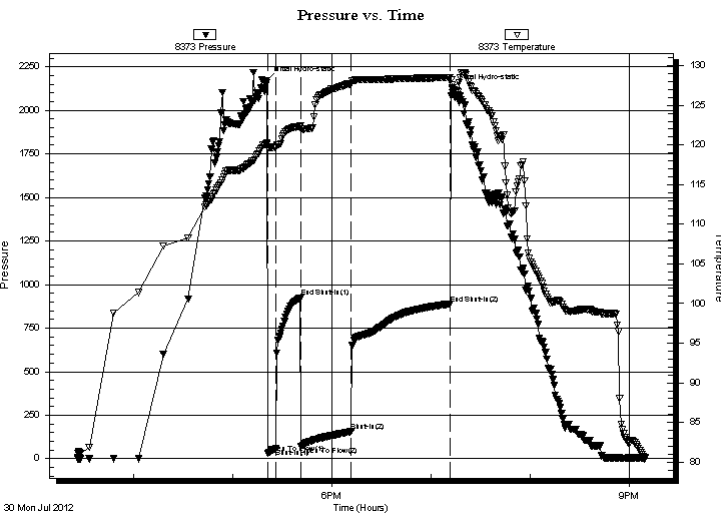
2012.07.30 @ 19:12:39

TEST COMMENT: IF: 1/4" blow built to 3.

IS: No return.

FF: BOB in 16 min.

FS: No return.



PRESSURE SUMMARY

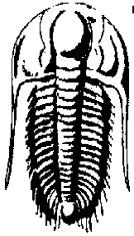
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2170.29	120.12	Initial Hydro-static
1	31.23	119.62	Open To Flow (1)
6	57.45	119.74	Shut-In(1)
21	926.24	122.39	End Shut-In(1)
21	70.15	122.00	Open To Flow (2)
52	155.78	127.74	Shut-In(2)
112	889.36	128.52	End Shut-In(2)
113	2123.62	127.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cm 40%w 60%m	0.30
124.00	ocw m 5%o 25%w 75%m	0.96
129.00	ocm 50%o 50%m	1.81

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering
 562 W State Rd 4
 Olmitz, KS 67564
 ATTN: Bob Lewellyn

27-19s-28w Lane, KS

Busst Unit #1-27

Job Ticket: 48371

DST#: 1

Test Start: 2012.07.30 @ 15:25:54

GENERAL INFORMATION:

Formation: **Lansing I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:21:24

Time Test Ended: 21:09:54

Interval: **4232.00 ft (KB) To 4276.00 ft (KB) (TVD)**

Total Depth: 4276.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 60

Reference Elevations: 2768.00 ft (KB)

2761.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: **8356** Outside

Press @ Run Depth: psig @ 4233.00 ft (KB)

Start Date: 2012.07.30

End Date:

2012.07.30

Capacity: 8000.00 psig

Last Calib.:

2012.07.30

Start Time: 15:26:00

End Time:

21:10:09

Time On Btm:

Time Off Btm:

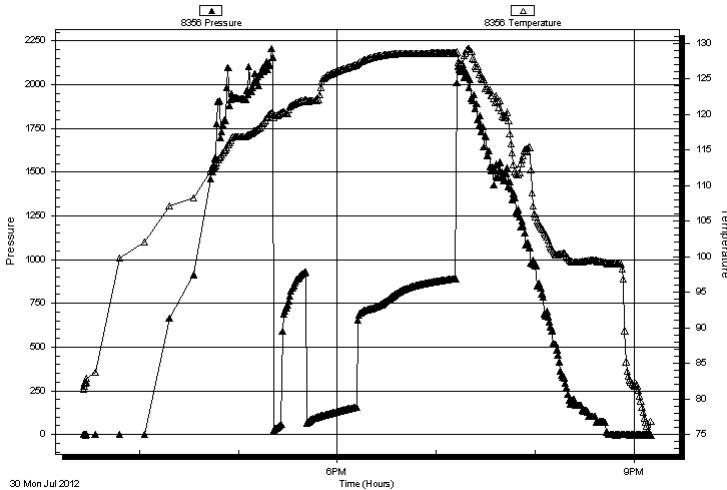
TEST COMMENT: IF: 1/4" blow built to 3.

IS: No return.

FF: BOB in 16 min.

FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	w cm 40%w 60%m	0.30
124.00	ocw m 5%o 25%w 75%m	0.96
129.00	ocm 50%o 50%m	1.81

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48371

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2012.07.30 @ 15:25:54

Tool Information

Drill Pipe:	Length: 4076.00 ft	Diameter: 3.80 inches	Volume: 57.18 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: 20000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 57.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4232.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4205.00	
Shut In Tool	5.00			4210.00	
Hydraulic tool	5.00			4215.00	
Jars	5.00			4220.00	
Safety Joint	3.00			4223.00	
Packer	5.00			4228.00	28.00 Bottom Of Top Packer
Packer	4.00			4232.00	
Stubb	1.00			4233.00	
Recorder	0.00	8373	Inside	4233.00	
Recorder	0.00	8356	Outside	4233.00	
Perforations	5.00			4238.00	
Change Over Sub	1.00			4239.00	
Drill Pipe	31.00			4270.00	
Change Over Sub	1.00			4271.00	
Bullnose	5.00			4276.00	44.00 Bottom Packers & Anchor

Total Tool Length: 72.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48371

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2012.07.30 @ 15:25:54

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:

23000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	w cm 40%w 60%m	0.305
124.00	ocw m 5%o 25%w 75%m	0.956
129.00	ocm 50%o 50%m	1.810

Total Length: 315.00 ft Total Volume: 3.071 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

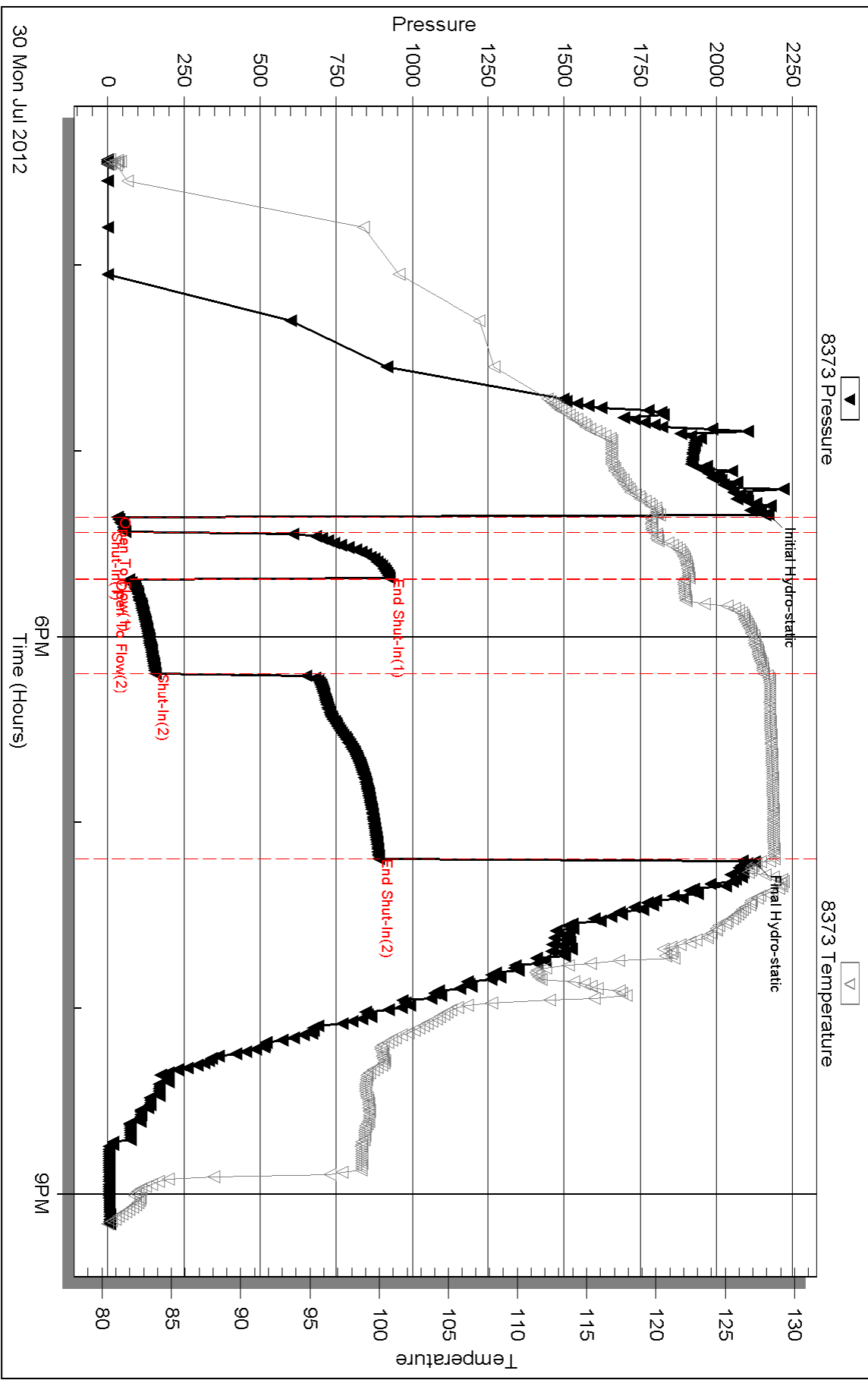
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .21@96=23000

Pressure vs. Time

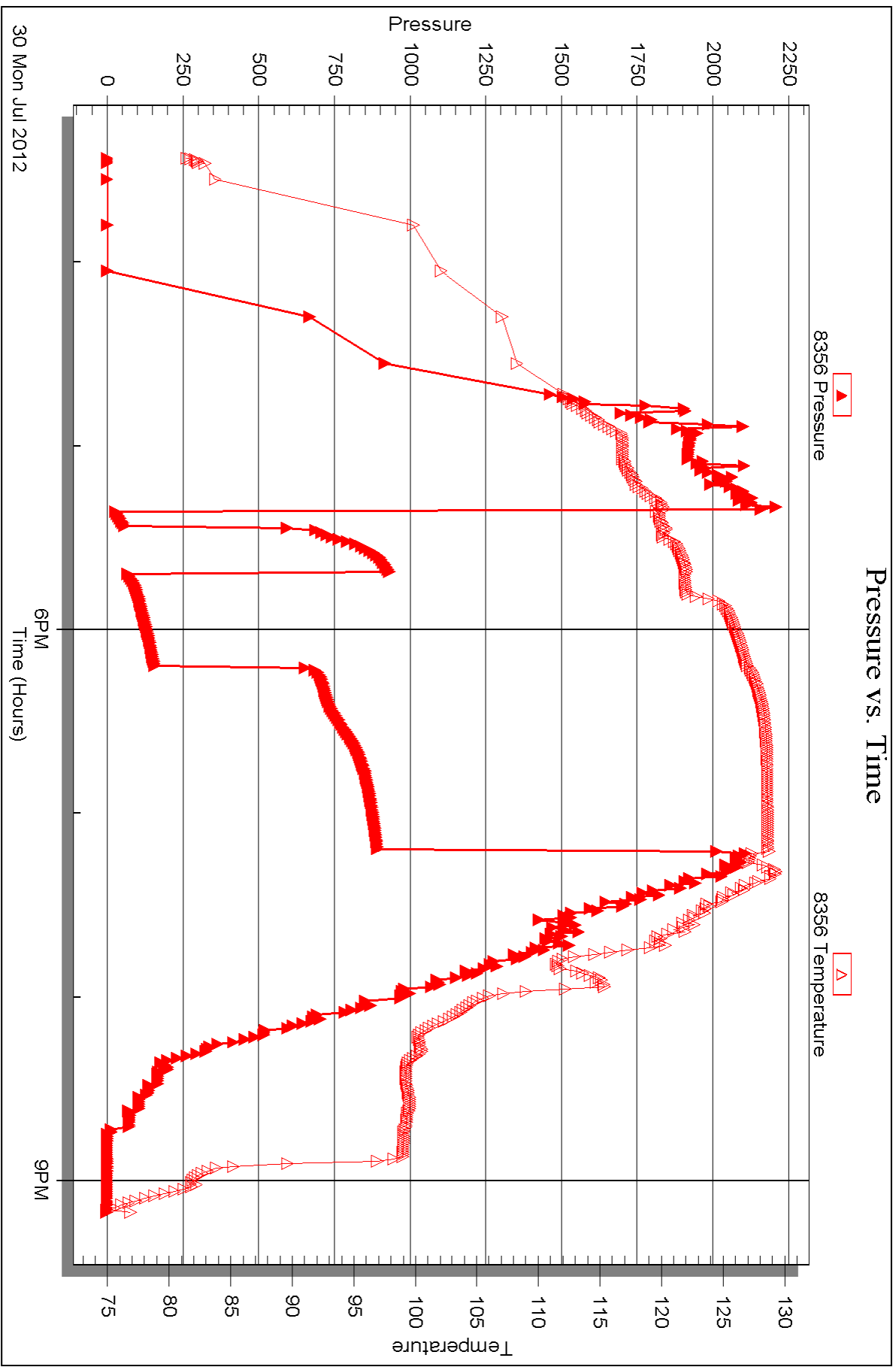


Serial #: 8356

Outside Larson Engineering

Busst Unit #1-27

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.07.31 @ 03:53:41

End Date: 2012.07.31 @ 09:27:41

Job Ticket #: 48372 DST #: 2

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

Printed: 2012.08.09 @ 11:05:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48372

DST#: 2

Test Start: 2012.07.31 @ 03:53:41

GENERAL INFORMATION:

Formation: **Laning J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:53:11

Time Test Ended: 09:27:41

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4276.00 ft (KB) To 4282.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4282.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373 Inside

Press @ RunDepth: 122.00 psig @ 4277.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.31

End Date:

2012.07.31

Last Calib.: 2012.07.31

Start Time: 03:53:46

End Time:

09:27:40

Time On Btm: 2012.07.31 @ 05:52:56

Time Off Btm: 2012.07.31 @ 07:43:41

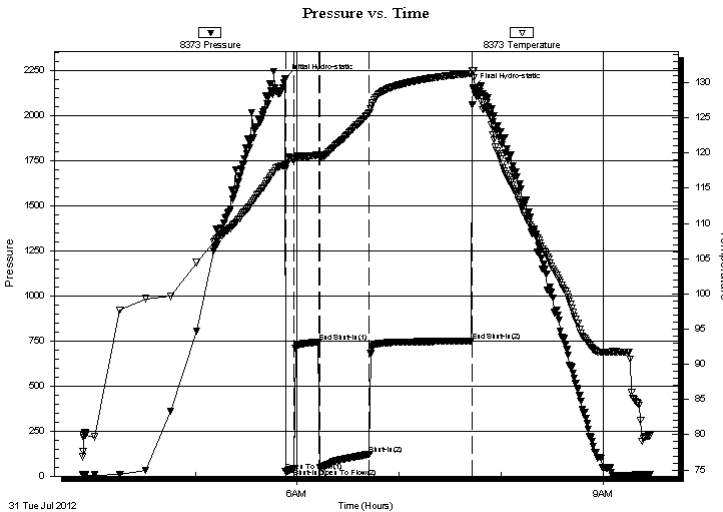
TEST COMMENT: IF: 1/4" blow built to 2.

IS: No return.

FF: BOB in 27 min.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2207.91	118.31	Initial Hydro-static
1	25.88	117.75	Open To Flow (1)
6	41.72	118.96	Shut-In(1)
20	745.42	119.76	End Shut-In(1)
21	45.45	119.43	Open To Flow (2)
50	122.00	125.76	Shut-In(2)
110	748.61	131.31	End Shut-In(2)
111	2158.48	131.64	Final Hydro-static

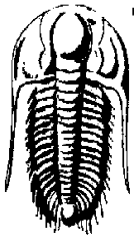
Recovery

Length (ft)	Description	Volume (bbl)
124.00	mcw 95%w 5%m	0.61
82.00	mcw 90%w 10%m	0.93

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48372

DST#: 2

Test Start: 2012.07.31 @ 03:53:41

GENERAL INFORMATION:

Formation: **Laning J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:53:11

Time Test Ended: 09:27:41

Interval: 4276.00 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: Brandon Turley

Unit No: 60

Reference Elevations: 2768.00 ft (KB)

2761.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8356 Outside

Press @ Run Depth: psig @ 4277.00 ft (KB)

Start Date: 2012.07.31

End Date:

Capacity: 8000.00 psig

Last Calib.:

2012.07.31

Start Time: 03:54:01

End Time:

2012.07.31

Time On Btm:

09:27:55

Time Off Btm:

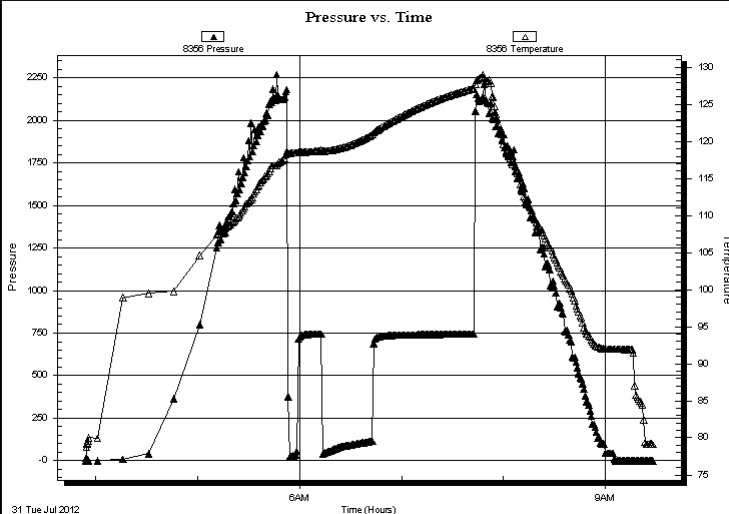
TEST COMMENT: IF: 1/4" blow built to 2.

IS: No return.

FF: BOB in 27 min.

FS: No return.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mcw 95%w 5%m	0.61
82.00	mcw 90%w 10%m	0.93

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

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48372

DST#: 2

ATTN: Bob Lew ellyn

Test Start: 2012.07.31 @ 03:53:41

Tool Information

Drill Pipe:	Length: 4107.00 ft	Diameter: 3.80 inches	Volume: 57.61 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:	20000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 58.34 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4276.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	6.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4249.00	
Shut In Tool	5.00			4254.00	
Hydraulic tool	5.00			4259.00	
Jars	5.00			4264.00	
Safety Joint	3.00			4267.00	
Packer	5.00			4272.00	28.00 Bottom Of Top Packer
Packer	4.00			4276.00	
Stubb	1.00			4277.00	
Recorder	0.00	8373	Inside	4277.00	
Recorder	0.00	8356	Outside	4277.00	
Bullnose	5.00			4282.00	6.00 Bottom Packers & Anchor

Total Tool Length: 34.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48372

DST#: 2

ATTN: Bob Lew ellyn

Test Start: 2012.07.31 @ 03:53:41

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:

36000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	mcw 95%w 5%m	0.610
82.00	mcw 90%w 10%m	0.932

Total Length: 206.00 ft Total Volume: 1.542 bbl

Num Fluid Samples: 0

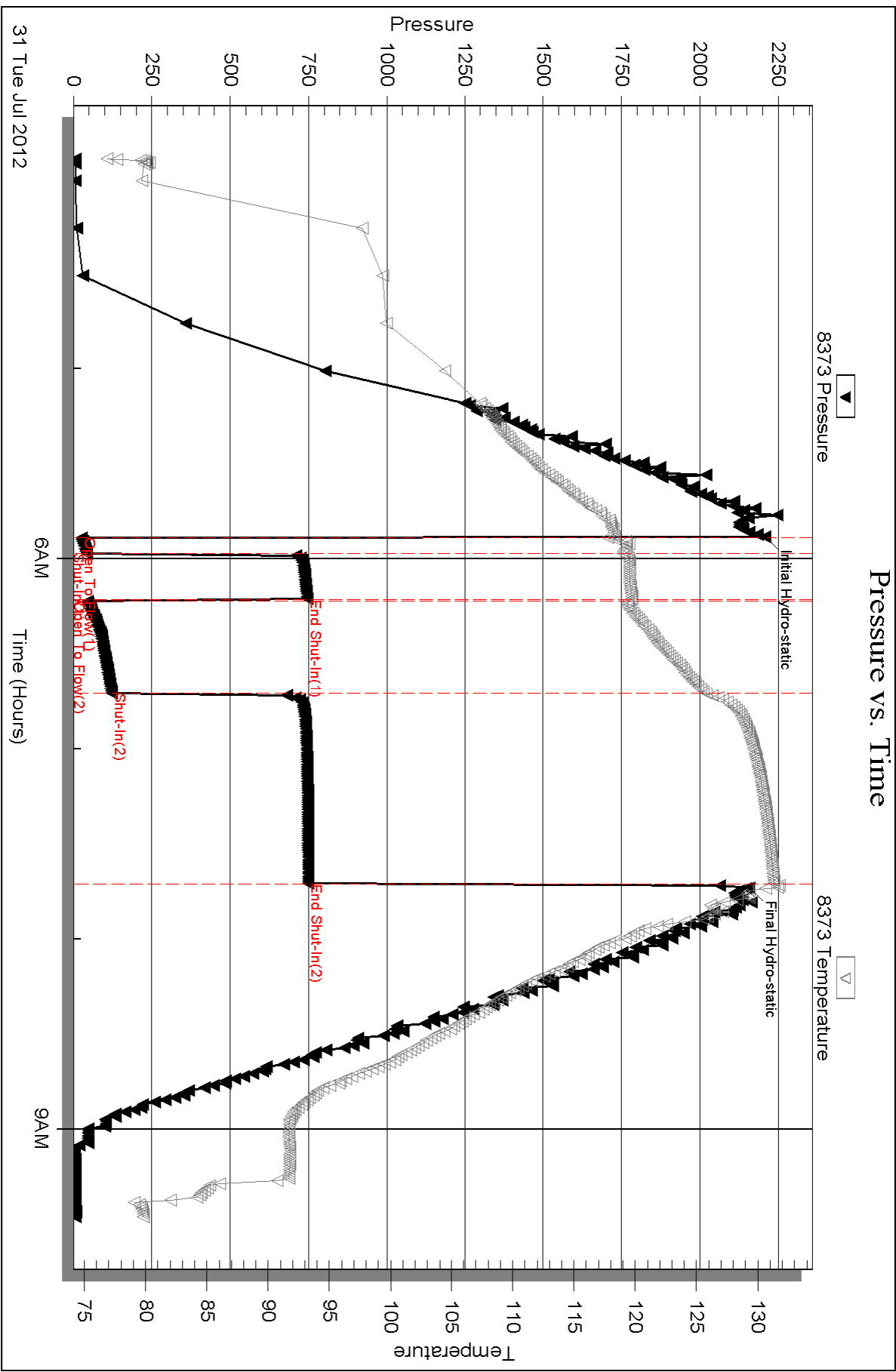
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .18@78=36000

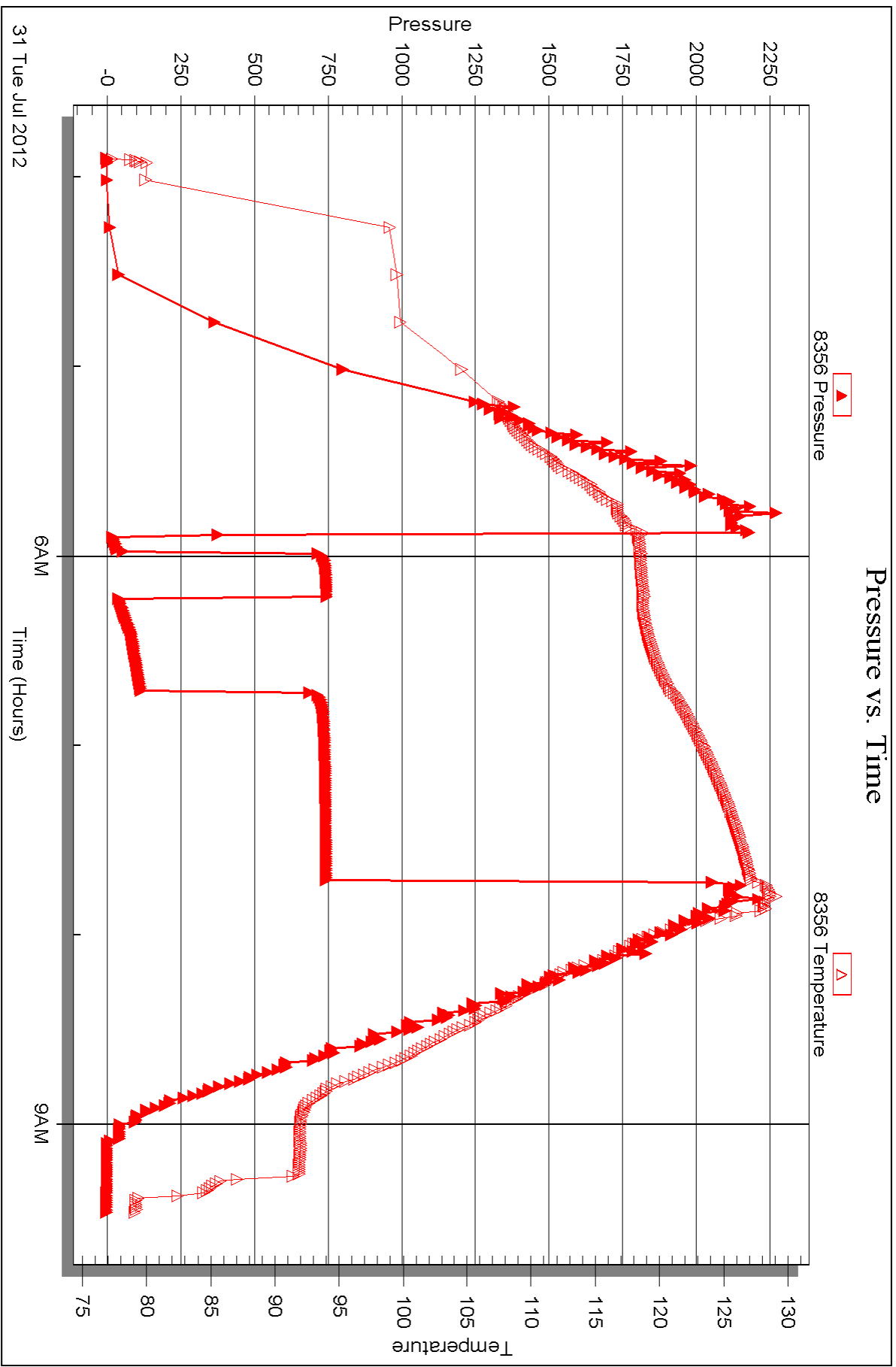


Serial #: 8356

Outside Larson Engineering

Busst Unit #1-27

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.07.31 @ 22:28:04

End Date: 2012.08.01 @ 03:10:49

Job Ticket #: 48373 DST #: 3

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

Printed: 2012.08.09 @ 11:05:04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48373

DST#: 3

Test Start: 2012.07.31 @ 22:28:04

GENERAL INFORMATION:

Formation: **Middle Creek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:15:34

Time Test Ended: 03:10:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4336.00 ft (KB) To 4342.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4342.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 33.66 psig @ 4337.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.31

End Date:

2012.08.01

Last Calib.: 2012.08.01

Start Time: 22:28:09

End Time:

03:10:48

Time On Btm: 2012.08.01 @ 00:14:04

Time Off Btm: 2012.08.01 @ 01:21:34

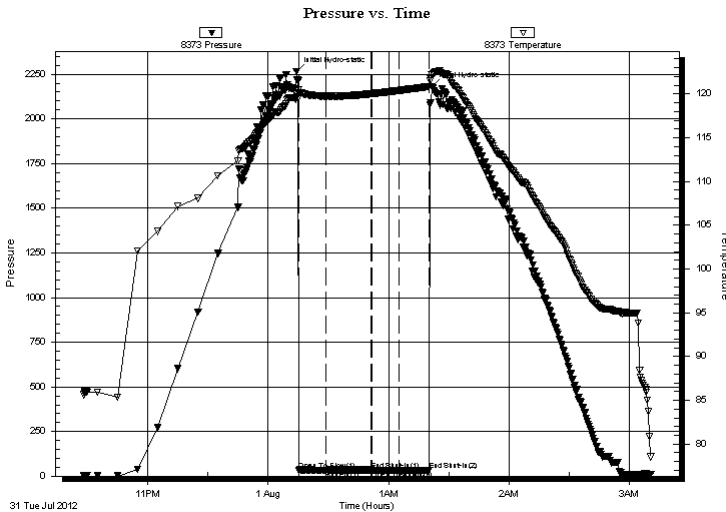
TEST COMMENT: IF: Surface blow died in 3 min.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2266.76	119.99	Initial Hydro-static
2	33.23	119.67	Open To Flow (1)
15	34.27	119.75	Shut-In(1)
38	34.52	120.02	End Shut-In(1)
38	33.61	120.03	Open To Flow (2)
51	33.66	120.39	Shut-In(2)
66	33.67	120.86	End Shut-In(2)
68	2179.75	122.24	Final Hydro-static

Recovery

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

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48373

DST#: 3

ATTN: Bob Lew ellyn

Test Start: 2012.07.31 @ 22:28:04

GENERAL INFORMATION:

Formation: **Middle Creek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:15:34

Time Test Ended: 03:10:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4336.00 ft (KB) To 4342.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4342.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8356 Outside

Press @ RunDepth: psig @ 4337.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.31

End Date:

2012.08.01

Last Calib.:

2012.08.01

Start Time: 22:28:22

End Time:

03:11:01

Time On Btm:

Time Off Btm:

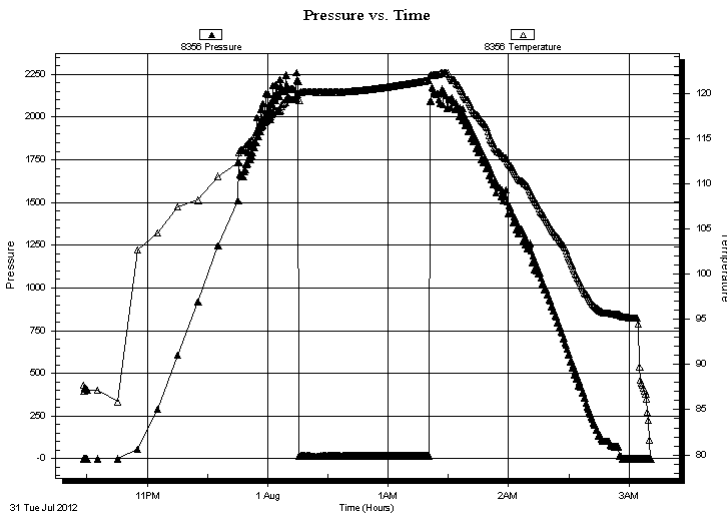
TEST COMMENT: IF: Surface blow died in 3 min.

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 100%m	0.00

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

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48373

DST#: 3

ATTN: Bob Lewellyn

Test Start: 2012.07.31 @ 22:28:04

Tool Information

Drill Pipe:	Length: 4171.00 ft	Diameter: 3.80 inches	Volume: 58.51 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:	20000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 59.24 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4336.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	6.00 ft				
Tool Length:	34.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4309.00	
Shut In Tool	5.00			4314.00	
Hydraulic tool	5.00			4319.00	
Jars	5.00			4324.00	
Safety Joint	3.00			4327.00	
Packer	5.00			4332.00	28.00 Bottom Of Top Packer
Packer	4.00			4336.00	
Stubb	1.00			4337.00	
Recorder	0.00	8373	Inside	4337.00	
Recorder	0.00	8356	Outside	4337.00	
Bullnose	5.00			4342.00	6.00 Bottom Packers & Anchor

Total Tool Length: 34.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48373

DST#: 3

ATTN: Bob Lew ellyn

Test Start: 2012.07.31 @ 22:28:04

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: 8.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud 100%m	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

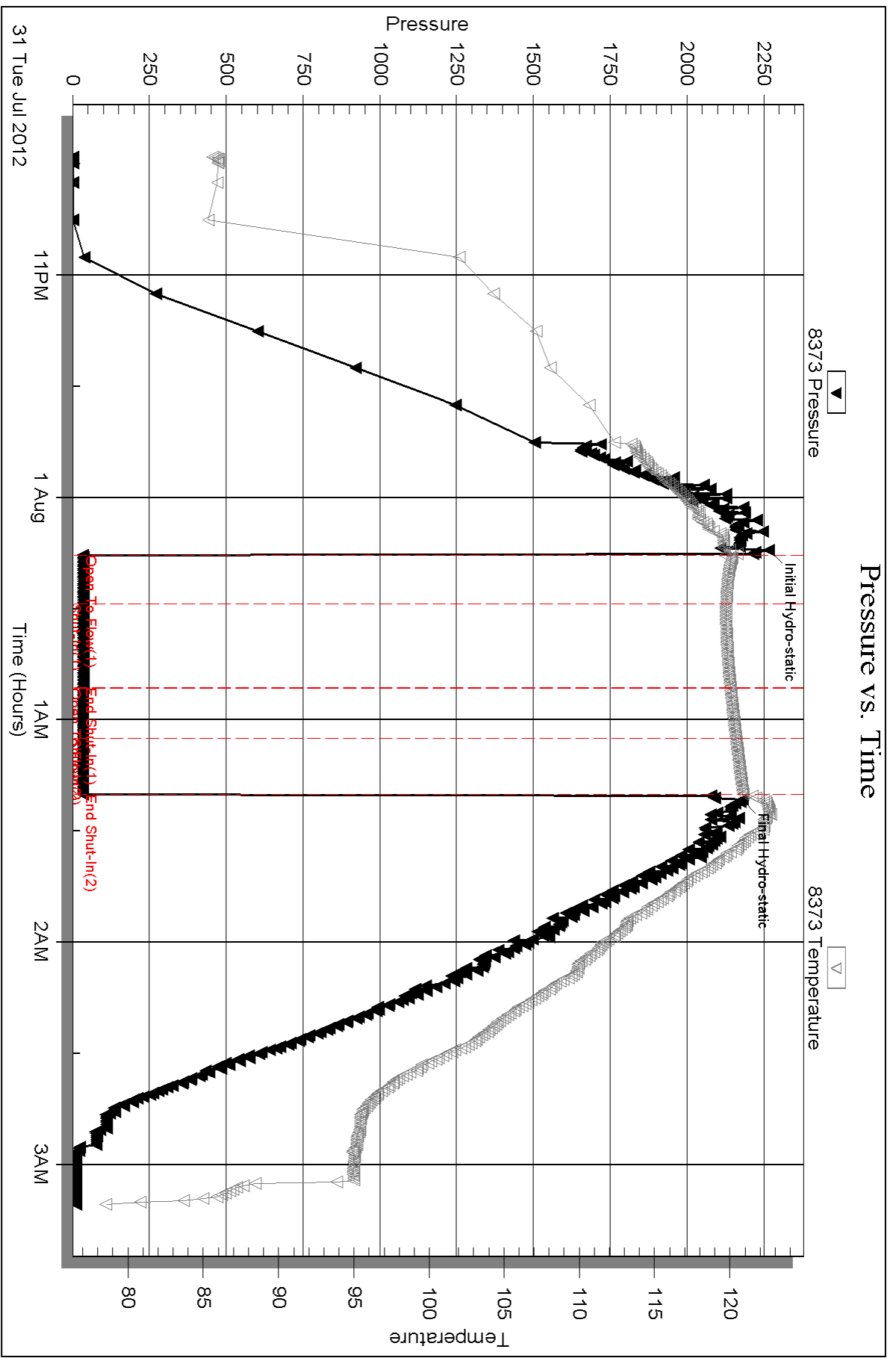
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

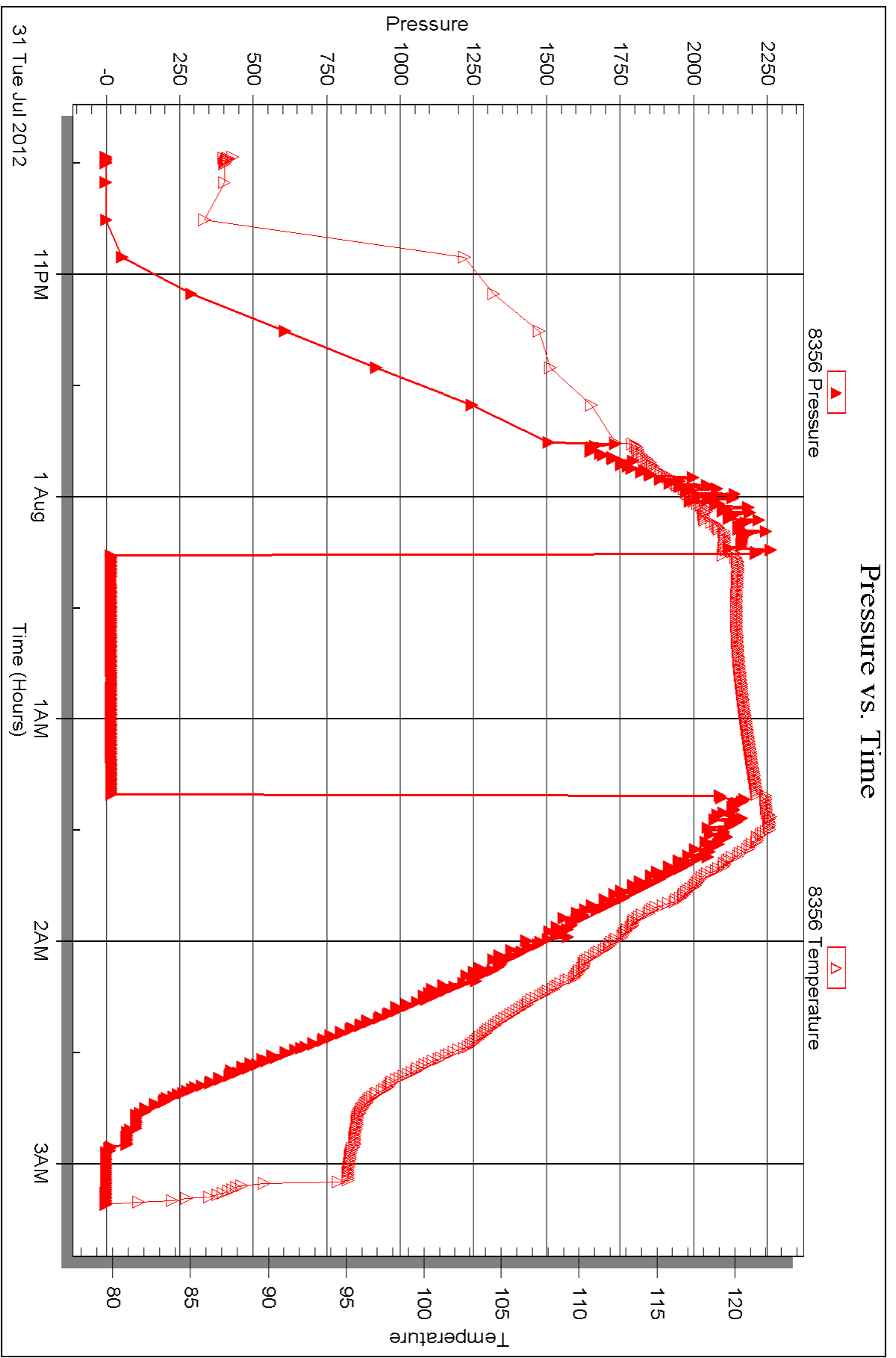


Serial #: 8356

Outside Larson Engineering

Busst Unit #1-27

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.08.01 @ 10:15:53

End Date: 2012.08.01 @ 14:49:08

Job Ticket #: 48374 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.09 @ 11:04:20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48374

DST#: 4

Test Start: 2012.08.01 @ 10:15:53

GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:01:23

Time Test Ended: 14:49:08

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4339.00 ft (KB) To 4349.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4349.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373

Inside

Press @ RunDepth: 24.21 psig @ 4340.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.01

End Date:

2012.08.01

Last Calib.:

2012.08.01

Start Time: 10:15:58

End Time:

14:49:07

Time On Btm:

2012.08.01 @ 11:59:53

Time Off Btm:

2012.08.01 @ 13:07:38

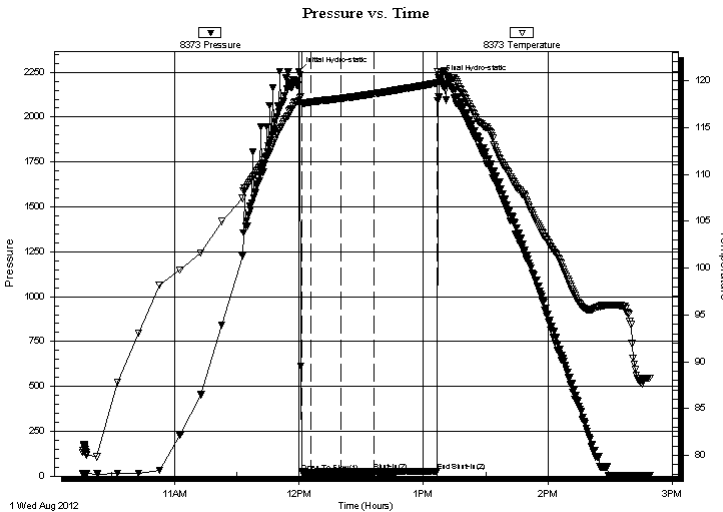
TEST COMMENT: IF: Weak blow died in 4 min.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2255.09	117.87	Initial Hydro-static
2	23.64	117.64	Open To Flow (1)
6	22.74	117.71	Shut-In(1)
21	24.22	118.10	End Shut-In(1)
21	24.22	118.10	Open To Flow (2)
37	24.21	118.61	Shut-In(2)
67	25.88	119.75	End Shut-In(2)
68	2210.06	120.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	mud 100%m	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
 562 W State Rd 4
 Olmitz, KS 67564
 ATTN: Bob Lew ellyn

27-19s-28w Lane, KS

Busst Unit #1-27

Job Ticket: 48374

DST#: 4

Test Start: 2012.08.01 @ 10:15:53

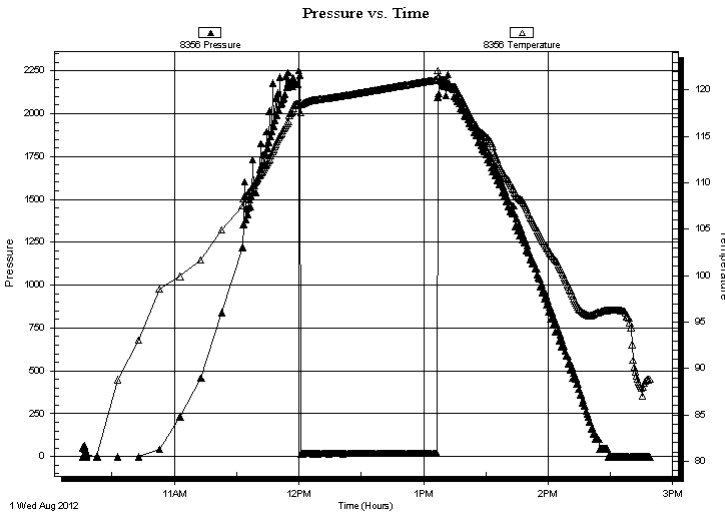
GENERAL INFORMATION:

Formation: LKC L		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 12:01:23		Tester: Brandon Turley
Time Test Ended: 14:49:08		Unit No: 60
Interval: 4339.00 ft (KB) To 4349.00 ft (KB) (TVD)		Reference Elevations: 2768.00 ft (KB)
Total Depth: 4349.00 ft (KB) (TVD)		2761.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 7.00 ft

Serial #: 8356	Outside		
Press @ Run Depth:	psig @	4340.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2012.08.01	End Date: 2012.08.01		Last Calib.: 2012.08.01
Start Time: 10:15:51	End Time: 14:49:00		Time On Btm:
			Time Off Btm:

TEST COMMENT: IF: Weak blow died in 4 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 100%m	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

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48374

DST#: 4

ATTN: Bob Lew ellyn

Test Start: 2012.08.01 @ 10:15:53

Tool Information

Drill Pipe:	Length: 4170.00 ft	Diameter: 3.80 inches	Volume: 58.49 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:	25000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 59.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4339.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	38.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4312.00	
Shut In Tool	5.00			4317.00	
Hydraulic tool	5.00			4322.00	
Jars	5.00			4327.00	
Safety Joint	3.00			4330.00	
Packer	5.00			4335.00	28.00 Bottom Of Top Packer
Packer	4.00			4339.00	
Stubb	1.00			4340.00	
Recorder	0.00	8373	Inside	4340.00	
Recorder	0.00	8356	Outside	4340.00	
Perforations	4.00			4344.00	
Bullnose	5.00			4349.00	10.00 Bottom Packers & Anchor

Total Tool Length: 38.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48374

DST#: 4

ATTN: Bob Lew ellyn

Test Start: 2012.08.01 @ 10:15:53

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:

bbl

Water Loss: 8.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud 100%m	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

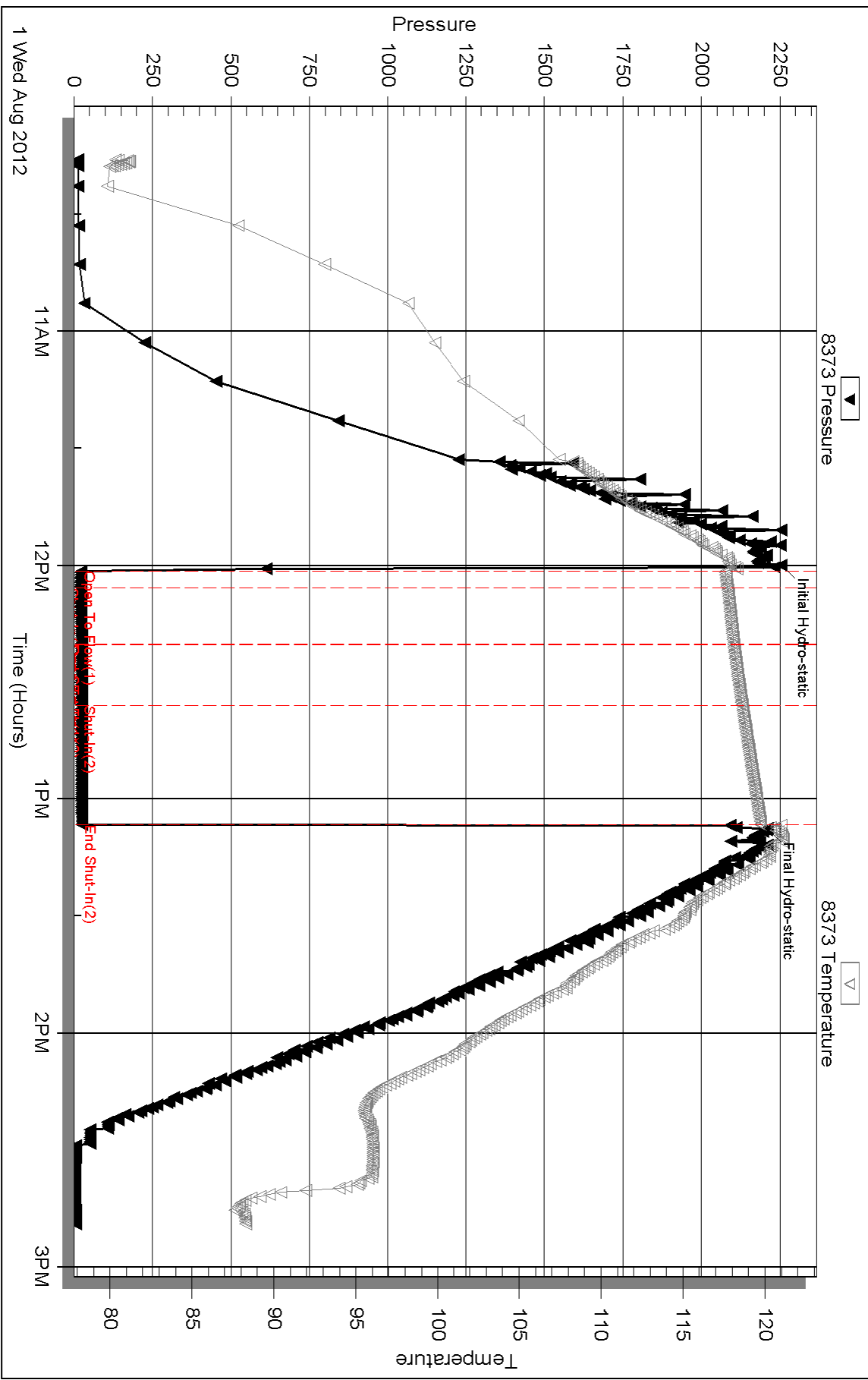
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

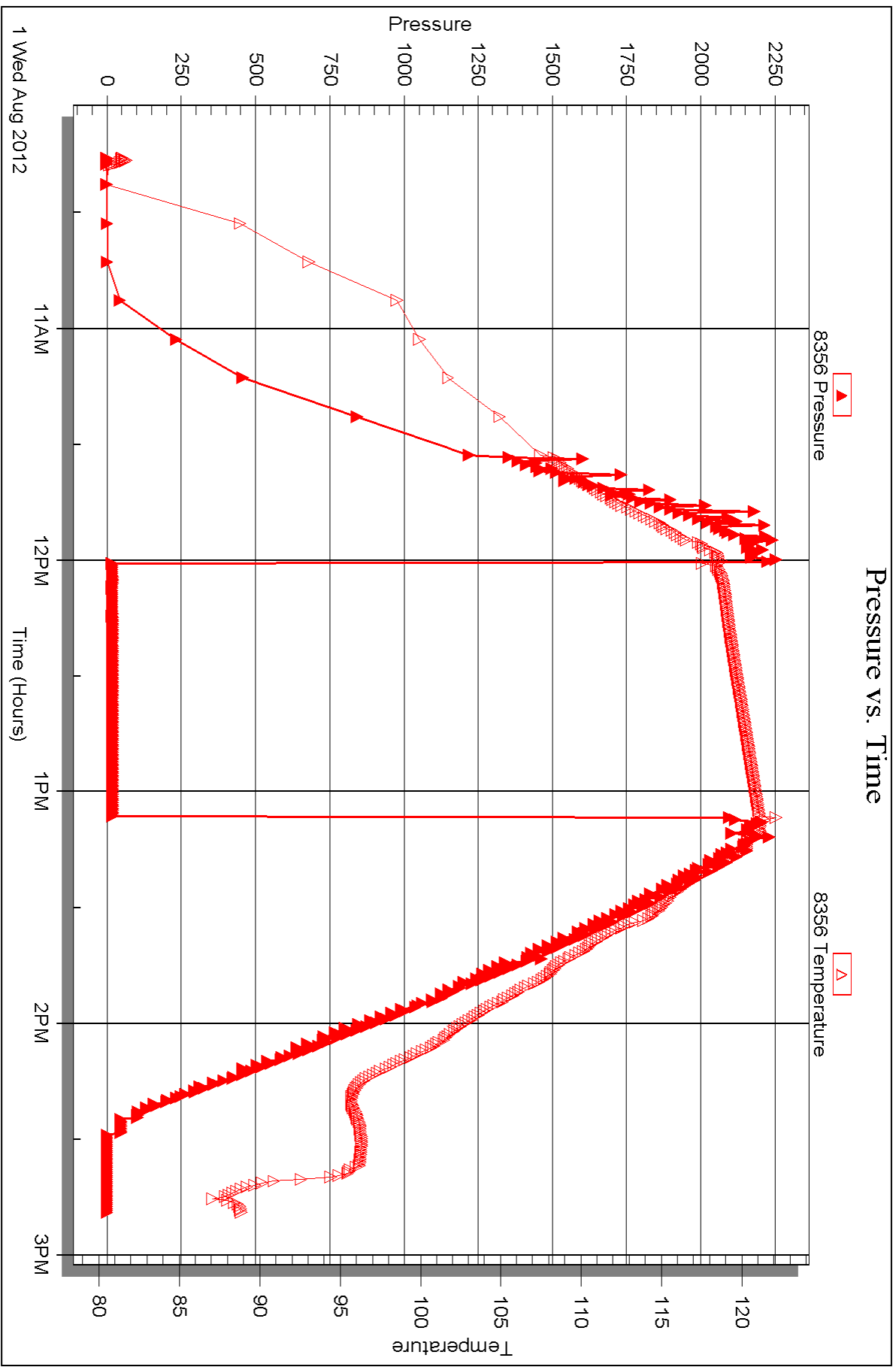


Serial #: 8356

Outside Larson Engineering

Busst Unit #1-27

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.08.01 @ 22:02:26

End Date: 2012.08.02 @ 03:26:56

Job Ticket #: 48375 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.09 @ 11:03:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48375

DST#: 5

Test Start: 2012.08.01 @ 22:02:26

GENERAL INFORMATION:

Formation: **Lansing L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:41

Time Test Ended: 03:26:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4344.00 ft (KB) To 4354.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4354.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373 Inside

Press @ Run Depth: 31.81 psig @ 4345.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.01

End Date:

2012.08.02

Last Calib.: 2012.08.02

Start Time: 22:02:31

End Time:

03:26:55

Time On Btm: 2012.08.02 @ 00:15:41

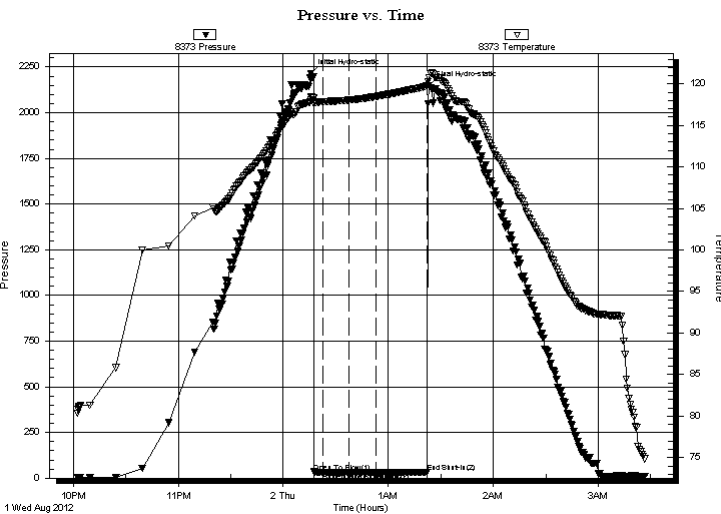
Time Off Btm: 2012.08.02 @ 01:23:26

TEST COMMENT: IF: Weak blow died in 4 min.

IS: No return.

FF: No blow.

FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2215.97	118.13	Initial Hydro-static
2	33.75	117.67	Open To Flow (1)
7	32.51	117.86	Shut-In(1)
22	32.41	118.05	End Shut-In(1)
22	31.37	118.05	Open To Flow (2)
37	31.81	118.48	Shut-In(2)
67	31.94	119.73	End Shut-In(2)
68	2148.85	120.79	Final Hydro-static

Recovery

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

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48375

DST#: 5

Test Start: 2012.08.01 @ 22:02:26

GENERAL INFORMATION:

Formation: **Lansing L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:41

Time Test Ended: 03:26:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4344.00 ft (KB) To 4354.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4354.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8356 Outside

Press @ RunDepth: psig @ 4345.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.01

End Date:

2012.08.02

Last Calib.:

2012.08.02

Start Time: 22:02:36

End Time:

03:27:00

Time On Btm:

Time Off Btm:

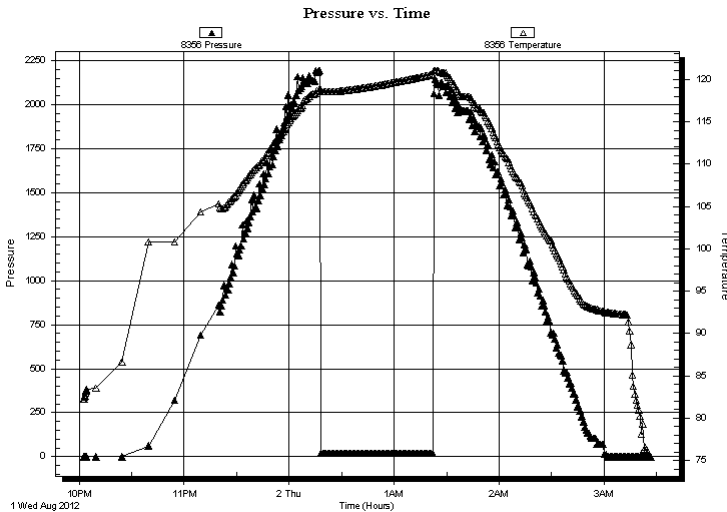
TEST COMMENT: IF: Weak blow died in 4 min.

IS: No return.

FF: No blow.

FS: No return.

PRESSURE SUMMARY



Time (Min.)

Pressure (psig)

Temp (deg F)

Annotation

Recovery

Gas Rates

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

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48375

DST#: 5

ATTN: Bob Lew ellyn

Test Start: 2012.08.01 @ 22:02:26

Tool Information

Drill Pipe:	Length: 4172.00 ft	Diameter: 3.80 inches	Volume: 58.52 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:	25000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 59.25 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4344.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	38.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4317.00	
Shut In Tool	5.00			4322.00	
Hydraulic tool	5.00			4327.00	
Jars	5.00			4332.00	
Safety Joint	3.00			4335.00	
Packer	5.00			4340.00	28.00 Bottom Of Top Packer
Packer	4.00			4344.00	
Stubb	1.00			4345.00	
Recorder	0.00	8373	Inside	4345.00	
Recorder	0.00	8356	Outside	4345.00	
Perforations	4.00			4349.00	
Bullnose	5.00			4354.00	10.00 Bottom Packers & Anchor

Total Tool Length: 38.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48375

DST#: 5

ATTN: Bob Lew ellyn

Test Start: 2012.08.01 @ 22:02:26

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud 100%m	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

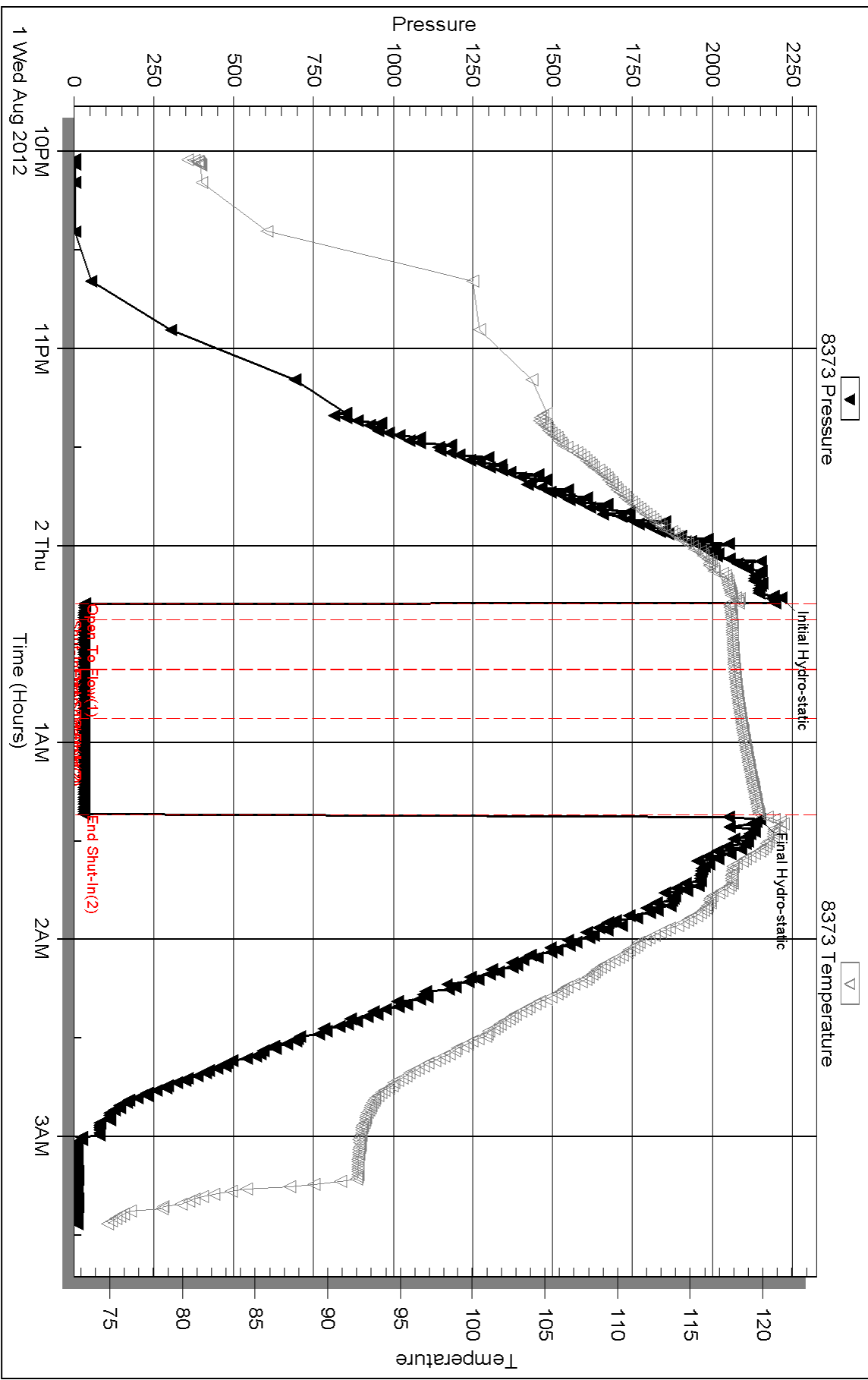
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



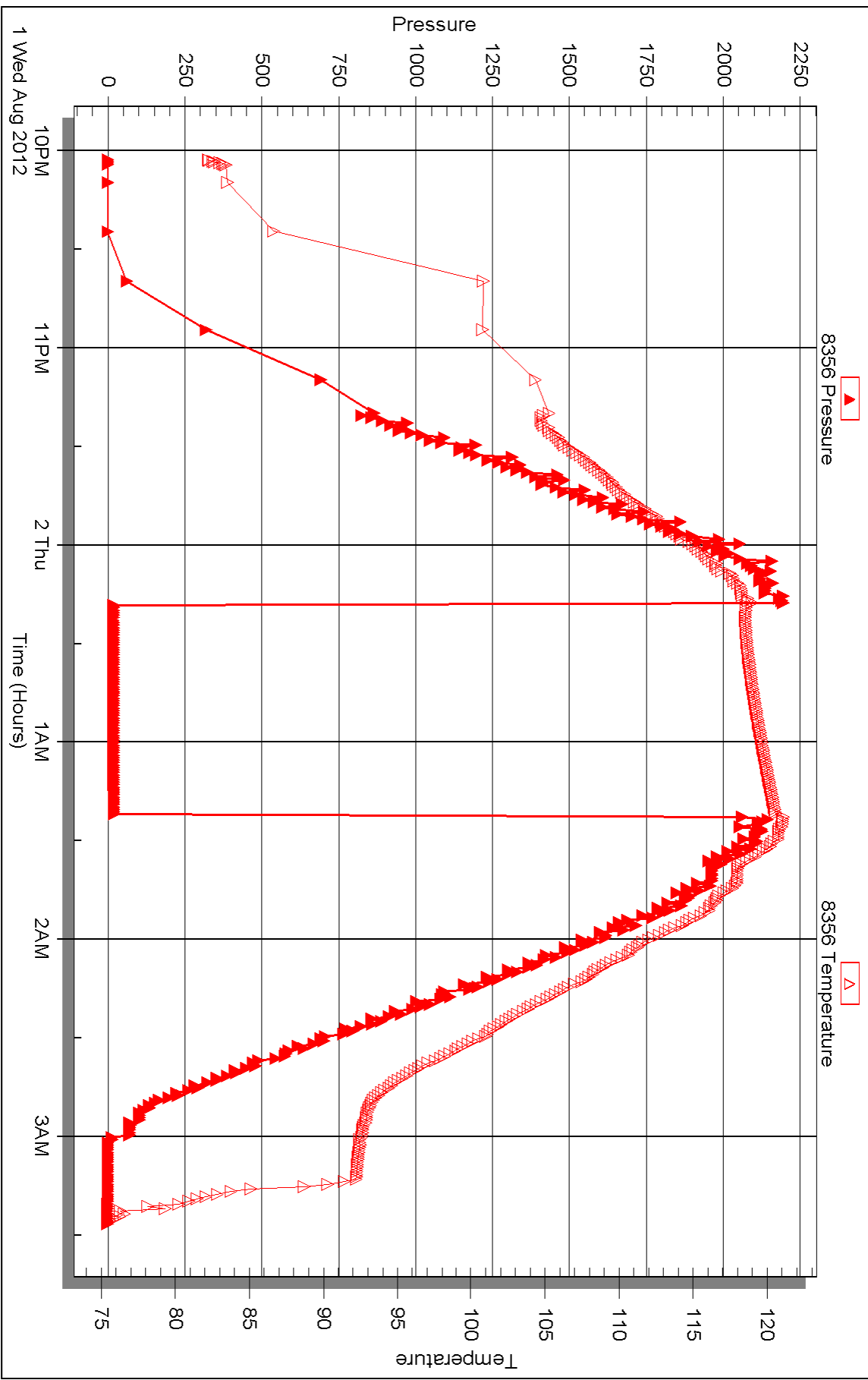
Serial #: 8356

Outside Larson Engineering

Busst Unit #1-27

DST Test Number: 5

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48375

Printed: 2012.08.09 @ 11:03:44



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.08.02 @ 19:54:56

End Date: 2012.08.03 @ 01:03:56

Job Ticket #: 48401 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.09 @ 11:02:41



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48401

DST#: 6

Test Start: 2012.08.02 @ 19:54:56

GENERAL INFORMATION:

Formation: **Marmton- Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:51:26

Time Test Ended: 01:03:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4374.00 ft (KB) To 4476.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4476.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8356 Outside

Press @ RunDepth: 21.82 psig @ 4379.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.02

End Date: 2012.08.03

Last Calib.: 2012.08.03

Start Time: 19:55:01

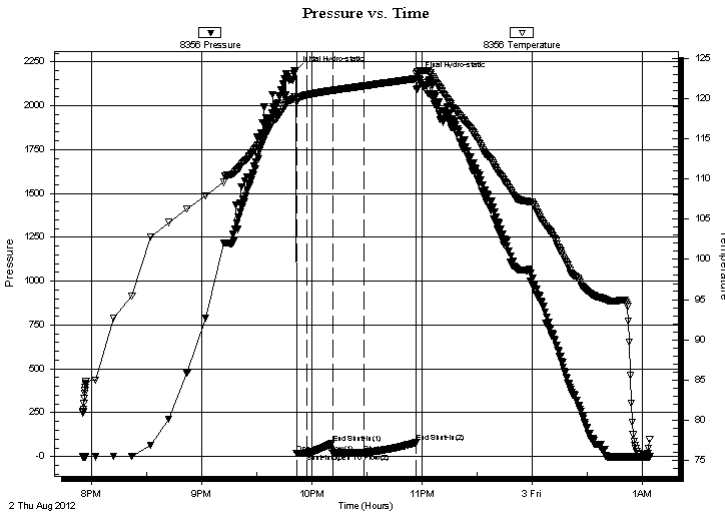
End Time: 01:03:55

Time On Btm: 2012.08.02 @ 21:51:11

Time Off Btm: 2012.08.02 @ 22:57:41

TEST COMMENT: IF: Weak Blow .
IS: No return.
FF: No blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2200.72	120.33	Initial Hydro-static
1	19.02	119.54	Open To Flow (1)
6	20.77	120.44	Shut-In(1)
20	76.90	121.02	End Shut-In(1)
21	20.60	121.02	Open To Flow (2)
37	21.82	121.58	Shut-In(2)
66	79.43	122.48	End Shut-In(2)
67	2165.74	123.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48401

DST#: 6

ATTN: Bob Lew ellyn

Test Start: 2012.08.02 @ 19:54:56

Tool Information

Drill Pipe:	Length: 4203.00 ft	Diameter: 3.80 inches	Volume: 58.96 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: 25000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	1.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4374.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	106.00 ft			
Tool Length:	130.00 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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Stubb	1.00			4351.00	
Shut In Tool	5.00			4356.00	
Hydraulic tool	5.00			4361.00	
Jars	5.00			4366.00	
Safety Joint	3.00			4369.00	
Packer	5.00			4374.00	24.00 Bottom Of Top Packer
Packer - Shale	4.00			4378.00	
Stubb	1.00			4379.00	
Recorder	0.00	8373	Inside	4379.00	
Recorder	0.00	8356	Outside	4379.00	
Perforations	2.00			4381.00	
Change Over Sub	1.00			4382.00	
Drill Pipe	92.00			4474.00	
Change Over Sub	1.00			4475.00	
Bullnose	5.00			4480.00	106.00 Anchor Tool

Total Tool Length: 130.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48401

DST#: 6

ATTN: Bob Lew ellyn

Test Start: 2012.08.02 @ 19:54:56

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: 55.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

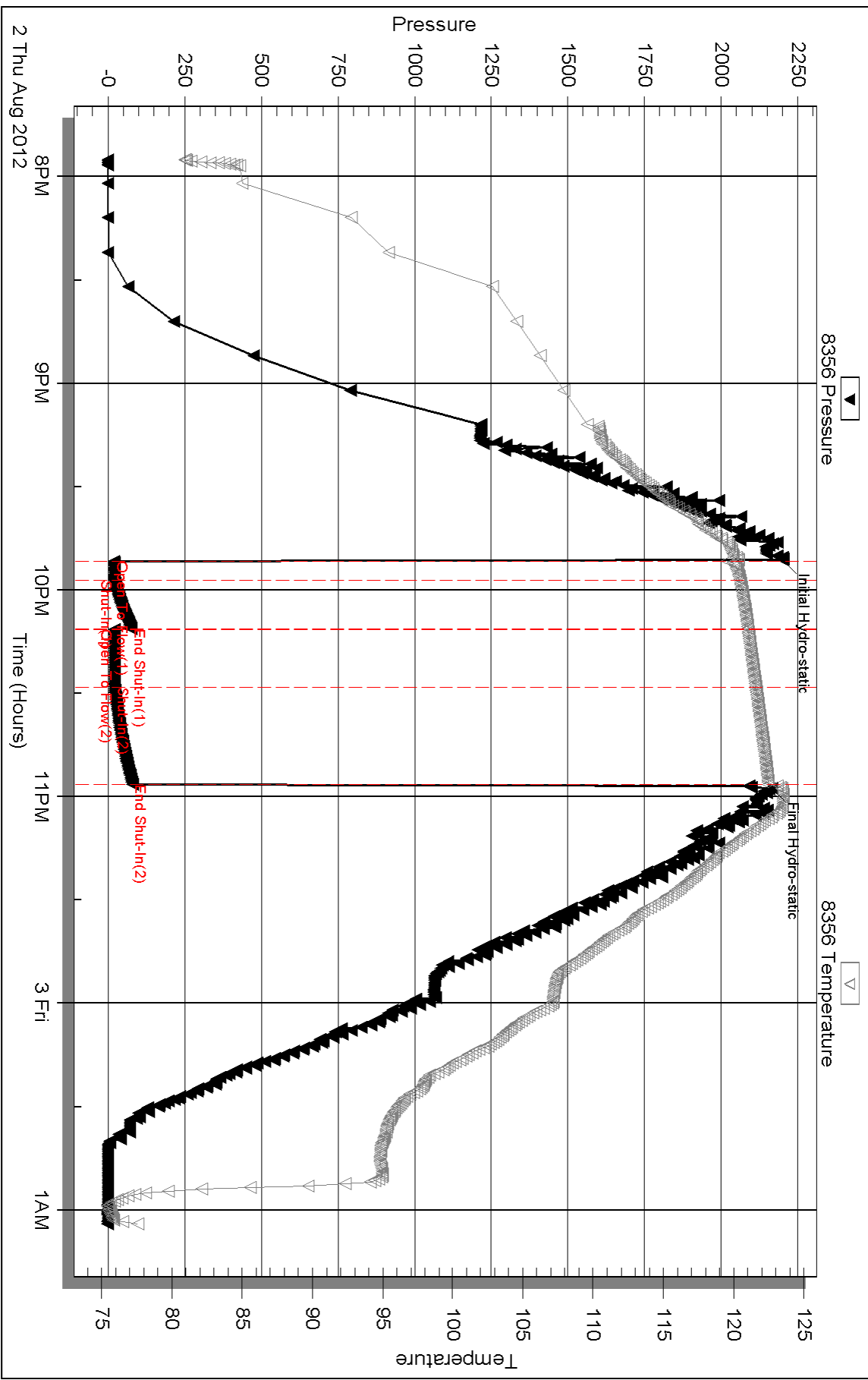
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



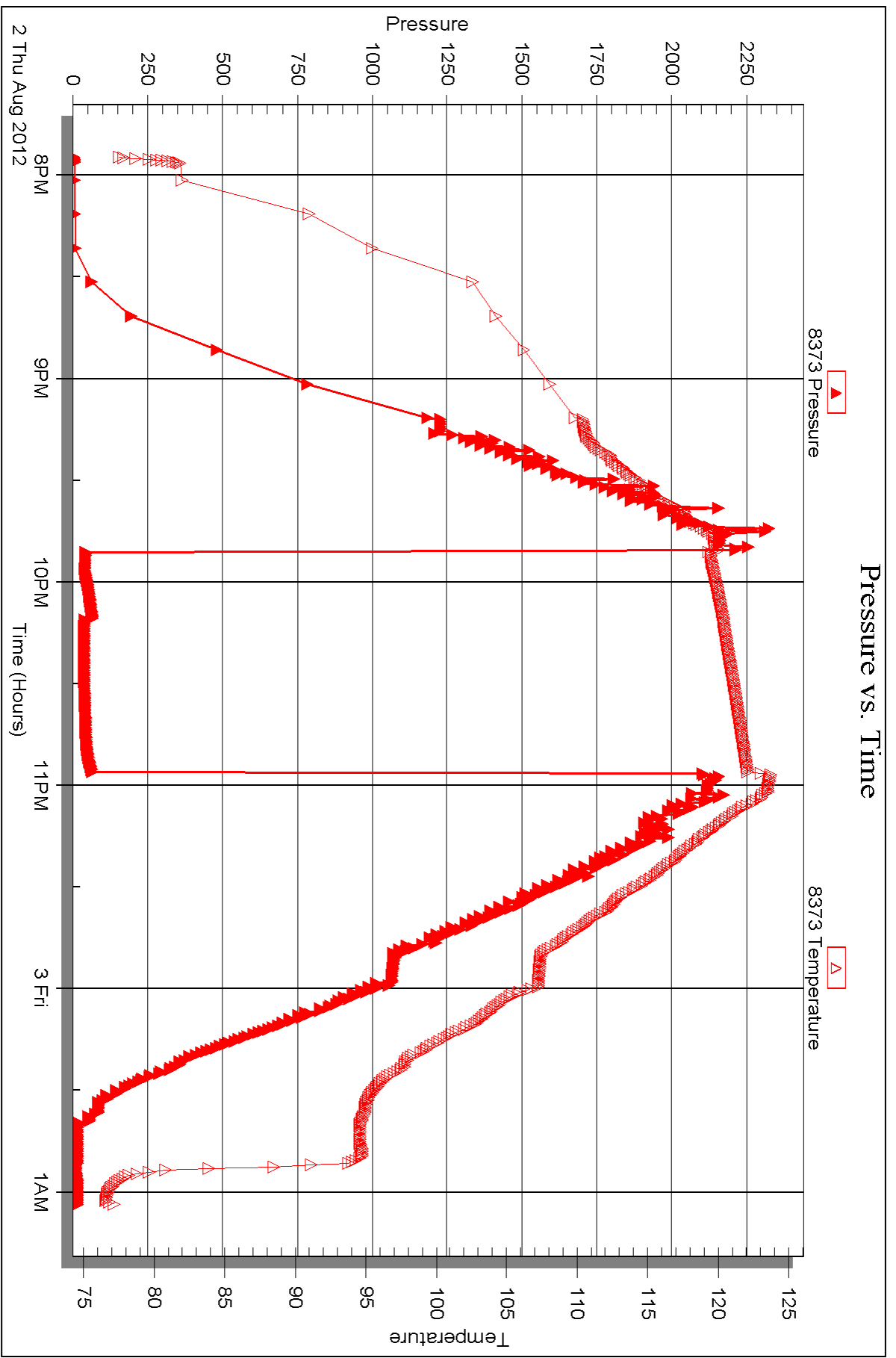
Serial #: 8373

Inside

Larson Engineering

Busst Unit #1-27

DST Test Number: 6





DRILL STEM TEST REPORT

Prepared For: **Larson Engineering**

562 W State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Busst Unit #1-27

27-19s-28w Lane,KS

Start Date: 2012.08.03 @ 16:28:50

End Date: 2012.08.03 @ 22:30:05

Job Ticket #: 48402 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.09 @ 11:02:00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

ATTN: Bob Lew ellyn

Job Ticket: 48402

DST#: 7

Test Start: 2012.08.03 @ 16:28:50

GENERAL INFORMATION:

Formation: **Pawnee Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:10:35

Time Test Ended: 22:30:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 60

Interval: 4498.00 ft (KB) To 4590.00 ft (KB) (TVD)

Reference Elevations: 2768.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

2761.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8373

Inside

Press @ Run Depth: 25.36 psig @ 4503.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.03

End Date:

2012.08.03

Last Calib.: 2012.08.03

Start Time: 16:28:55

End Time:

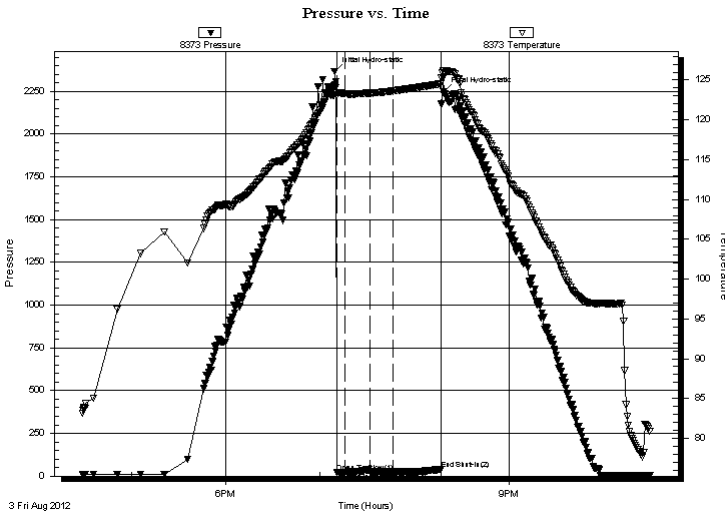
22:30:04

Time On Btm: 2012.08.03 @ 19:09:05

Time Off Btm: 2012.08.03 @ 20:18:35

TEST COMMENT: IF: Weak blow .
IS: No return.
FF: No blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2367.17	124.30	Initial Hydro-static
2	22.49	123.04	Open To Flow (1)
7	23.64	123.27	Shut-In(1)
23	39.61	123.38	End Shut-In(1)
23	24.22	123.37	Open To Flow (2)
38	25.36	123.64	Shut-In(2)
68	38.95	124.52	End Shut-In(2)
70	2248.16	126.16	Final Hydro-static

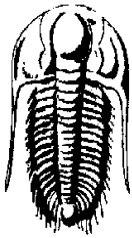
Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48402 **DST#: 7**

ATTN: Bob Lew ellyn

Test Start: 2012.08.03 @ 16:28:50

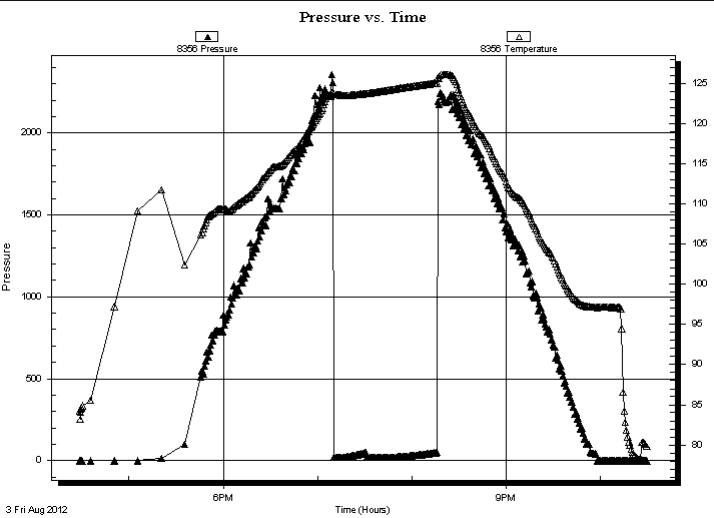
GENERAL INFORMATION:

Formation: **Pawnee Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:10:35
 Time Test Ended: 22:30:05
 Interval: **4498.00 ft (KB) To 4590.00 ft (KB) (TVD)**
 Total Depth: 4590.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 60
 Reference Elevations: 2768.00 ft (KB)
 2761.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8356 Outside

Press @ Run Depth: psig @ 4503.00 ft (KB)
 Start Date: 2012.08.03 End Date: 2012.08.03
 Start Time: 16:28:39 End Time: 22:29:48
 Capacity: 8000.00 psig
 Last Calib.: 2012.08.03
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow .
 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)
5.00	mud 100% _m	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48402

DST#: 7

ATTN: Bob Lew ellyn

Test Start: 2012.08.03 @ 16:28:50

Tool Information

Drill Pipe:	Length: 4327.00 ft	Diameter: 3.80 inches	Volume: 60.70 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: 25000.00 lb
Drill Collar:	Length: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 61.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	1.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4498.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	96.00 ft			
Tool Length:	120.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Stubb	1.00			4475.00	
Shut In Tool	5.00			4480.00	
Hydraulic tool	5.00			4485.00	
Jars	5.00			4490.00	
Safety Joint	3.00			4493.00	
Packer	5.00			4498.00	24.00 Bottom Of Top Packer
Packer - Shale	4.00			4502.00	
Stubb	1.00			4503.00	
Recorder	0.00	8373	Inside	4503.00	
Recorder	0.00	8356	Outside	4503.00	
Perforations	21.00			4524.00	
Change Over Sub	1.00			4525.00	
Drill Pipe	63.00			4588.00	
Change Over Sub	1.00			4589.00	
Bullnose	5.00			4594.00	96.00 Anchor Tool

Total Tool Length: 120.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering

27-19s-28w Lane, KS

562 W State Rd 4
Olmitz, KS 67564

Busst Unit #1-27

Job Ticket: 48402

DST#: 7

ATTN: Bob Lew ellyn

Test Start: 2012.08.03 @ 16:28:50

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

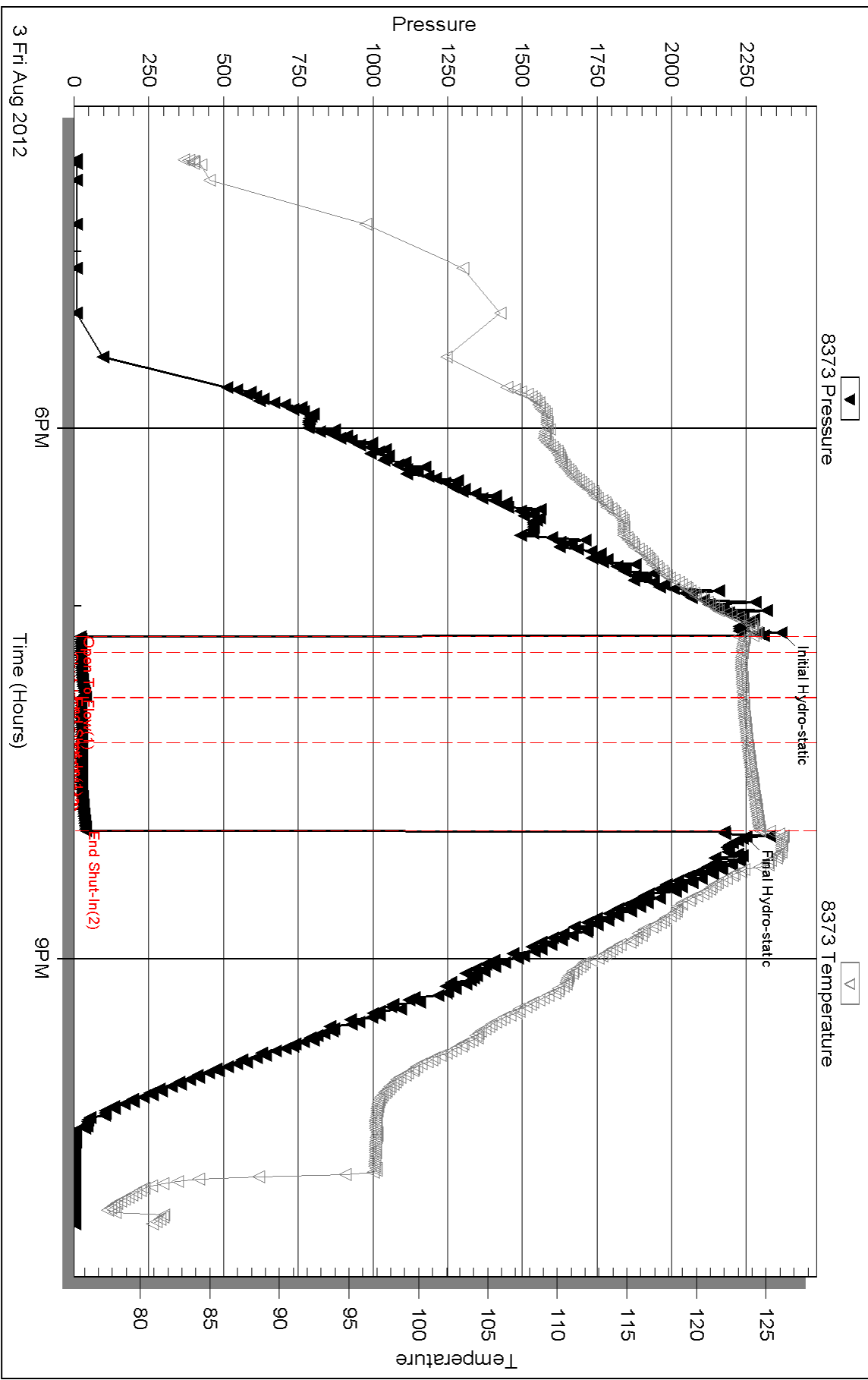
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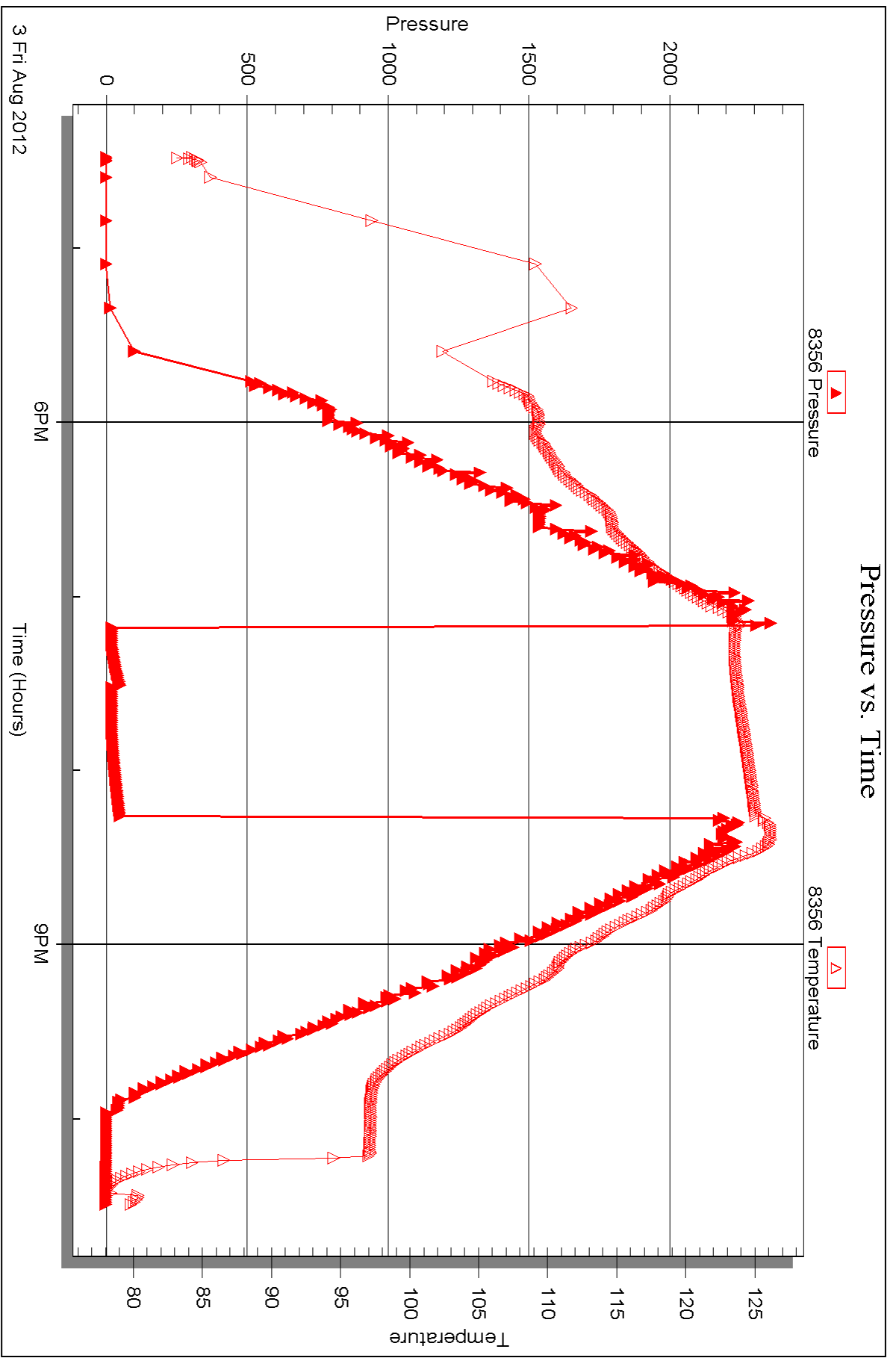
Laboratory Name:

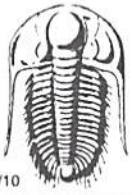
Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48371

Well Name & No. Buss Unit 1-27 Test No. 1 Date 7-30-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address 562 W State Rd Omitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Lane State KS

Interval Tested 4232 4276 Zone Tested Lmsing I
 Anchor Length 44 Drill Pipe Run 4076 Mud Wt. 9.4
 Top Packer Depth 4227 Drill Collars Run 148 Vis 68
 Bottom Packer Depth 4232 Wt. Pipe Run — WL 8.0
 Total Depth 4276 Chlorides 3000 ppm System LCM 1

Blow Description IF: 1/4 blow built to 3;
IS: No return.
FF: BoB in 16 min,
FS: No return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>129</u>	<u>ocm</u>	<u>50</u>		<u>50</u>	
<u>124</u>	<u>ocwm</u>	<u>5</u>	<u>25</u>	<u>75</u>	
<u>62</u>	<u>wcm</u>		<u>40</u>	<u>60</u>	

Rec Total 315 BHT Gravity — API RW .21 @ 96 ° F Chlorides 23,000 ppm

(A) Initial Hydrostatic 2170 Test 1250 T-On Location 15:00
 (B) First Initial Flow 31 Jars 250 T-Started 15:25
 (C) First Final Flow 57 Safety Joint 75 T-Open 17:20
 (D) Initial Shut-In 926 Circ Sub N/C T-Pulled 19:10
 (E) Second Initial Flow 70 Hourly Standby T-Out 21:10
 (F) Second Final Flow 155 Mileage 76- 117.80
 (G) Final Shut-In 889 Sampler
 (H) Final Hydrostatic 2123 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

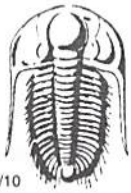
Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60

Sub Total 1692.80

MP/DST Disc't

Approved By [Signature] 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. 48372

Well Name & No. Buss Unit 1-27 Test No. 2 Date 7-31-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lowellyn Rig HD#3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Lar State KS

Interval Tested 4276 4282 Zone Tested Lansing J
 Anchor Length _____ 6 Drill Pipe Run 4107 Mud Wt. 9.4
 Top Packer Depth _____ 4271 Drill Collars Run 148 Vis 68
 Bottom Packer Depth _____ 4276 Wt. Pipe Run _____ WL 8.0
 Total Depth _____ 4282 Chlorides 3000 ppm System LCM 1

Blow Description IF: 1/4 blow built to 2.
IS: No return,
FF: BoB in 27 min,
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>82</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
<u>124</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Rec Total 206 BHT 131 Gravity _____ API RW .18 @ 78 ° F Chlorides 36,000 ppm

(A) Initial Hydrostatic 2207 Test 1250 T-On Location 3:20
 (B) First Initial Flow 25 Jars 250 T-Started 3:53
 (C) First Final Flow 41 Safety Joint 75 T-Open 5:52
 (D) Initial Shut-In 745 Circ Sub NIC T-Pulled 7:42
 (E) Second Initial Flow 45 Hourly Standby T-Out 9:30
 (F) Second Final Flow 122 Mileage 78- 117.80 Comments _____
 (G) Final Shut-In 748 Sampler _____
 (H) Final Hydrostatic 2158 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 1692.90

Approved By [Signature] 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. 48373

Well Name & No. B455t Unit 1-27 Test No. 3 Date 7-31-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD#3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Lane State K5

Interval Tested 4336 4342 Zone Tested Middle creek
 Anchor Length _____ 6 Drill Pipe Run 4171 Mud Wt. 9.3
 Top Packer Depth _____ 4331 Drill Collars Run 148 Vis 60
 Bottom Packer Depth _____ 4336 Wt. Pipe Run _____ WL 8.4
 Total Depth _____ 4342 Chlorides 4000 ppm System LCM 1

Blow Description IF! Surface blow died in 3 min.
IS! No return,
FF! No blow,
FS! 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

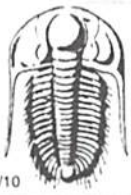
Rec Total 1 BHT 120 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2266 Test 1250 T-On Location 21:50
 (B) First Initial Flow 33 Jars 250 T-Started 22:28
 (C) First Final Flow 34 Safety Joint 75 T-Open 00:15
 (D) Initial Shut-In 33 Circ Sub N/C T-Pulled 1:20
 (E) Second Initial Flow 33 Hourly Standby T-Out 3:10
 (F) Second Final Flow 33 Mileage 76- 117.90 Comments _____
 (G) Final Shut-In 33 Sampler _____
 (H) Final Hydrostatic 2179 Straddle _____

Initial Open 5 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 15 Shale Packer _____ Ruined Packer _____
 Final Flow 15 Extra Packer _____ Extra Copies _____
 Final Shut-In 30 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1692.90
 Accessibility _____ MP/DST Disc't _____

Sub Total 1692.90
 Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48374

Well Name & No. B455t Unit 1-27 Test No. 4 Date 8-1-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD#3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Larson State KS

Interval Tested 4339 4349 Zone Tested Lansing-L
 Anchor Length _____ 10 Drill Pipe Run 4190 Mud Wt. 9.3
 Top Packer Depth _____ 4334 Drill Collars Run 148 Vis 60
 Bottom Packer Depth _____ 4339 Wt. Pipe Run _____ WL 8.4
 Total Depth _____ 4349 Chlorides 4000 ppm System LCM 4000
 Blow Description IF! Weak blow died in 4 min.
FS: No return.
FF! NO blow.
FS! No return.

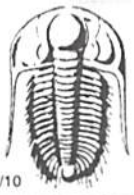
Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 121 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2255</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>9:50</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>10:15</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>12:00</u>
(D) Initial Shut-In <u>24</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>13:05</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:50</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>76-</u> 117.90	Comments _____
(G) Final Shut-In <u>25</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2210</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>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1692.90</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1692.90</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48375

Well Name & No. B455T Unit 1-27 Test No. 5 Date 8-1-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD#3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Lame State KS

Interval Tested 4344 4354 Zone Tested Lansing - L
 Anchor Length _____ 10 Drill Pipe Run 4172 Mud Wt. 9.5
 Top Packer Depth _____ 4339 Drill Collars Run 148 Vis 48
 Bottom Packer Depth _____ 4344 Wt. Pipe Run _____ WL 8.4
 Total Depth _____ 4354 Chlorides 3600 ppm System LCM 1
 Blow Description IF: Weak blow died in 4 min.
IS: No return.
FK: NO blow.
FS: No return.

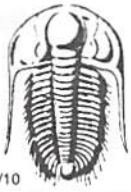
Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

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

(A) Initial Hydrostatic <u>2215</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>9:15 p.m.</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>10:02 p.m.</u>
(C) First Final Flow <u>32</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>00:17</u>
(D) Initial Shut-In <u>32</u>	<input checked="" type="checkbox"/> Circ Sub <u>NK</u>	T-Pulled <u>1:22</u>
(E) Second Initial Flow <u>31</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>3:25</u>
(F) Second Final Flow <u>31</u>	<input checked="" type="checkbox"/> Mileage <u>76-</u> 117.90	Comments _____
(G) Final Shut-In <u>31</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2148</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>15</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1692.90</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1692.90</u>	

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48401

Well Name & No. Busst Unit 1-27 Test No. 6 Date 8-2-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Linc State KS

Interval Tested 4374 4476 Zone Tested Marmton - Aftamont
 Anchor Length _____ 102 Drill Pipe Run 4203 Mud Wt. 9.3
 Top Packer Depth _____ 4369 Drill Collars Run 148 Vis 55
 Bottom Packer Depth _____ 4374 Wt. Pipe Run _____ WL 8.4
 Total Depth _____ 4476 Chlorides 2800 ppm System LCM 1.5

Blow Description IF; Weak blow.
IS; No return.
FF; No blow.
FS; No return.

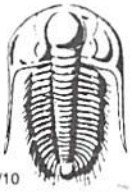
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 122 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2200 Test 1250 T-On Location 19:15
 (B) First Initial Flow 19 Jars 250 T-Started 19:54
 (C) First Final Flow 20 Safety Joint 75 T-Open 21:50
 (D) Initial Shut-In 76 Circ Sub N/C T-Pulled 22:55
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 1:05
 (F) Second Final Flow 21 Mileage 76- 117.90 Comments _____
 (G) Final Shut-In 79 Sampler _____
 (H) Final Hydrostatic 2165 Straddle _____ Ruined Shale Packer 350
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 5 Extra Recorder _____ Sub Total 350
 Initial Shut-In 15 Day Standby _____ Total 2292.90
 Final Flow 15 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1942.90

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48402

Well Name & No. B455t Unit 1-27 Test No. 7 Date 8-3-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD#3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Larson State KS

Interval Tested 4498 4590 Zone Tested Pawnee - Ft. Scott
 Anchor Length 92 Drill Pipe Run 4327 Mud Wt. 9.5
 Top Packer Depth 4493 Drill Collars Run 148 Vis 57
 Bottom Packer Depth 4498 Wt. Pipe Run --- WL 9.2
 Total Depth 4590 Chlorides 3400 ppm System LCM 1.5

Blow Description IF! Weak blow.
FS! No return.
FF! No blow.
FS! No return.

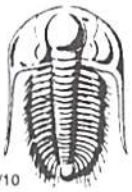
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 124 Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>2367</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>15:25</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>16:28</u>
(C) First Final Flow <u>23</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>19:10</u>
(D) Initial Shut-In <u>39</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIL</u>	T-Pulled <u>20:15</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:30</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>76-</u> 117.90	Comments _____
(G) Final Shut-In <u>30</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2248</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer 250	<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>1942.90</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1942.90</u>	

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48403

Well Name & No. Busst unit 1-27 Test No. 8 Date 8-4-12
 Company Larson Engineering Elevation 2768 KB 2761 GL
 Address _____
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 27 Twp. 19S Rge. 28W Co. Lame State KS

Interval Tested 4555 4635 Zone Tested Johnson
 Anchor Length 80 Drill Pipe Run 4398 Mud Wt. 9.5
 Top Packer Depth 4550 Drill Collars Run 148 Vis 57
 Bottom Packer Depth 4555 Wt. Pipe Run — WL 9.2
 Total Depth 4635 Chlorides 3400 ppm System LCM 1.5

Blow Description IF: 1/4 blow died to surface.
IS: No return.
FF: No blow.
FS: No return.

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

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

(A) Initial Hydrostatic <u>2331</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>7:50</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>9:07</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>11:04</u>
(D) Initial Shut-In <u>77</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>12:09</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:05</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>76-</u> 117.90	Comments _____
(G) Final Shut-In <u>100</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2279</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer 350
Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer 250	<input type="checkbox"/> Ruined Packer _____
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>350</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>2292.90</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1942.90</u>	

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P. O. Box 375
Kechi, Kansas 67067-0375
316-518-0495
boblewellyn@yahoo.com

GEOLOGICAL REPORT

Larson Engineering, Inc.

No. 1-27 Busst Unit
2540' FSL & 93' FEL Sec. 27-19S-28W
Lane County, Kansas

CONTRACTOR: H D Drilling, LLC Rig 3
SPUDED: July 24, 2012
DRILLING COMPLETED: August 5, 2012
SURFACE CASING: 8 5/8" @ 261 KBM/175 sx.
ELECTRIC LOGS: DIL CNL/CDL MEL
ELEVATIONS: 2768 KB 2761 GL
FORMATION TOPS: (Electric Log)

Anhydrite	2102 (+ 666)
Base Anhydrite	2131 (+ 637)
Heebner Shale	3983 (-1215)
Lansing-Kansas City Group	4022 (-1254)
Muncie Creek Shale	4193 (-1425)
Stark Shale	4300 (-1532)
Hushpuckney Shale	4337 (-1569)
Base Kansas City	4379 (-1611)
Marmaton	4400 (-1632)
Altamont	4425 (-1657)
Pawnee	4505 (-1737)
Myrick Station	4529 (-1761)
Fort Scott	4555 (-1787)
Cherokee	4574 (-1806)
Mississippian	4646 (-1878)
Electric Log Total Depth	4700 (-1932)

Samples were examined microscopically from 3800 to Rotary Total Depth. Samples were examined wet and dry and samples from potentially productive zones were viewed under a fluoroscope and checked for oil cut. Following is a description of zones of interest, Drill Stem Tests, etc. For a

complete lithologic description of all formations refer to the sample log in the back pages of this report.
Lansing-Kansas City Zones:

4031-4036 (A Zone)

Limestone, cream to buff, finely crystalline and mealy, some dense, partly fossiliferous, trace of scattered oolitic, scattered poor intercrystalline and interoolitic porosity, rare trace of dead stain, no shows of live oil, some chert, gray, fresh, opaque.

4053-4063 (B Zone)

Limestone, broken, cream to buff, finely crystalline and dense, some mealy, some chalky, trace of poor scattered intercrystalline porosity, no show of oil, some scattered gray speckled dense limestone, some dark gray to gray-black mottled limestone, finely crystalline, fossiliferous and oolitic, tight, no show of oil.

4080-4083 (C/D Zone)

Limestone, cream to buff, some gray, dense to finely crystalline and slightly fossiliferous, chalky in part, some scattered poor intercrystalline porosity, no show of oil.

4111-4120 (E Zone)

Limestone, cream to buff, some tan, dense to finely crystalline, trace of slightly oolitic, some chalky, scattered very poor intercrystalline porosity, no show of oil. Some chert, light gray, fresh, opaque.

4128-4134 (F Zone)

Limestone, buff to tan, trace of brown, dense to finely crystalline and fossiliferous, partly oolitic, very poor intercrystalline and interfossil porosity with scattered dead stain, no shows of live oil.

4140-4148 (G Zone)

Limestone, cream to buff to tan, finely crystalline and oolitic, fair ooliticastic porosity, no shows of oil. Lower portion grades to cream, dense to finely crystalline and chalky limestone, mostly tight, with no shows of oil.

4208-4212 (H Zone)

Limestone, buff, some tan, trace of brown, dense, some finely crystalline with trace of very poor intercrystalline porosity, no show of oil, some chert, gray, fresh, opaque.

4249-4252 (I Zone)

Limestone, buff, dense to finely crystalline, some medium crystalline, partly oolitic, partly fossiliferous, fair scattered intercrystalline porosity, poor to fair spotted stain, show of free oil, good odor, poor fluorescence, fair cut.

Drill Stem Test No. 1

4232-4276

5-15-30-60; quarter-inch blow built to three inch blow on first flow, no blowback; blew off bottom of bucket in 16 minutes of second flow, no blowback. Recovered 315 feet of fluid: 129 feet of oil cut mud (50% oil, 50% mud), 124 feet of oil cut watery mud (5% oil, 25% water, 75% mud), 62 feet of water cut mud (40% water, 60% mud). ISIP 926# FSIP 889# IFP 31-57# FFP 70-155# IHP 2170# FHP 2123# BHT N/A.

4277-4289 (J Zone)

Limestone, buff to tan, some brown, finely crystalline and oolitic, good oolitic porosity, poor to fair spotted stain, good show of free oil, good odor, fair fluorescence, fair cut, porosity is 55-65% barren.

Drill Stem Test No. 2 4276-4282

5-15-30-60; quarter-inch blow built to two inch blow on first flow, no blowback; blew off bottom of bucket in 27 minutes of second flow, no blowback. Recovered 82 feet of mud cut water (90% water, 10% mud) and 124 feet of mud cut water (95% water, 5% mud). ISIP 745# FSIP 748# IFP 25-41# FFP 45-122# IHP 2207# FHP 2158# BHT 131 degrees F.

4308-4320 (K Zone)

Limestone, buff to tan, finely crystalline and fossiliferous, poor intercrystalline porosity, trace of poor interfossil porosity, no show of oil.

4330-4335 (Lower K Zone)

Limestone, buff to tan, dense to finely crystalline and oolitic, poor to fair intercrystalline porosity, some poor oolitic porosity, no show of oil.

4339-4342 (Middle Creek Zone)

Limestone, buff to tan, dense to finely crystalline, partly fossiliferous, scattered poor intercrystalline and small vug porosity, poor spotted stain, slight show of free oil, faint fleeting odor, poor fluorescence, poor to fair cut, some stain on fracture faces on dense limestone.

Drill Stem Test No. 3 4336-4342

5-15-15-30; weak surface blow, died in three minutes, no blowback; blow did not return on second flow. Recovered one foot of mud. ISIP 34# FSIP 33# IFP 33-34# FFP 33-33# IHP 2266# FHP 2179# BHT 120 degrees F.

4344-4349 (L Zone)

Limestone, buff to tan, some brown, dense to finely crystalline, fossiliferous, partly oolitic, poor to fair intercrystalline porosity, some interoolitic porosity, scattered poor to fair spotted stain, very slight show of free oil, faint odor, poor fluorescence, poor to fair cut.

Drill Stem Test No. 4 4339-4349

5-15-15-30; weak blow, died in four minutes of first flow, no blowback; blow did not return on second flow. Recovered one foot of mud. ISIP 24# FSIP 25# IFP 23-23# FFP 24-24# IHP 2255# FHP 2210# BHT 121 degrees F.

4349-4354 (Middle L Zone)

Limestone, buff to tan and brown, some gray, dense to finely crystalline and fossiliferous, partly oolitic, poor to fair intercrystalline and interoolitic porosity, poor to fair spotted stain, show of free oil, faint to fair odor, poor fluorescence, fair cut.

Drill Stem Test No. 5 4344-4354

5-15-15-30; weak blow, died in four minutes, no blowback; blow did not return on second flow.

Recovered one foot of mud. ISIP 32# FSIP 31# IFP 33-32# FFP 31-31# IHP 2215# FHP 2148#
BHT N/A

4379-4397 (Pleasanton Zone)

The Pleasanton section consisted of limestone, buff, some tan, finely crystalline and partly mealy, some dense, poor scattered intercrystalline porosity with trace of very poor spotted stain, faint fleeting odor, no free oil, poor fluorescence, poor cut.

4400-4414 (Marmaton Zone)

Limestone, buff to tan to brown, some mottled, dense to finely crystalline, some medium crystalline, poor intercrystalline porosity, poor scattered stain with traces of dead stain, very slight show of free oil, faint fleeting odor, poor fluorescence, poor cut.

4462-4465 (Altamont "A" Zone)

Limestone, cream to buff, some tan, dense to finely crystalline, fossiliferous, some slightly oolitic, fair scattered intercrystalline and small vug porosity, poor interfossil porosity, poor spotted stain, very slight show of free oil, faint odor, poor fluorescence, fair cut.

Drill Stem Test No. 6 4374-4476

5-15-15-30; weak blow throughout first flow period, no blowback; blow did not return on second flow period. Recovered five feet of mud. ISIP 76# FSIP 79# IFP 19-20# FFP 20-21# IHP 2200# FHP 2165# BHT 122 degrees F.

4505-4512 (Pawnee Zone)

Limestone, buff to tan, trace of scattered brown, some gray, dense to finely crystalline, poor intercrystalline porosity with scattered poor spotted stain, trace of free oil, faint fleeting odor, poor fluorescence, poor cut.

4529-4533 (Myrick Station Zone)

Limestone, buff to tan and brown, some mottled, dense to finely crystalline, some scattered medium crystalline and fossiliferous, some slightly oolitic, scattered poor interoolitic and interfossil porosity, poor spotted stain, trace of free oil, faint questionable odor, poor fluorescence, poor cut.

4491-4496 (Fort Scott Zone)

Limestone, buff, tan and brown to mottled, dense to finely crystalline, slightly fossiliferous, oolitic in part, poor vugular and intercrystalline porosity, scattered poor spotted stain, very slight show of free oil, very faint odor, poor fluorescence, poor cut.

Drill Stem Test No. 7 4498-4590

5-15-15-30; weak blow throughout first flow period, no blowback; blow did not return on second flow. Recovered five feet of mud. ISIP 39# FSIP 38# IFP 22-23# FFP 24-25# IHP 2367# FHP 2248#
BHT 124 degrees F.

4611-4628 (Johnson Zone)

Limestone, buff to tan, some gray, fine to medium crystalline and fossiliferous, fair intercrystalline porosity, some interfossil porosity, scattered poor spotted stain, very slight show of free oil, faint questionable odor, very poor fluorescence, poor cut.

Drill Stem Test No. 8 4555-4635

5-15-15-30; weak blow, died to surface blow, no blowback; blow did not return on second flow period. Recovered five feet of mud. ISIP 77# FSIP 100# IFP 18-19# FFP 18-20# IHP 2331# FHP 2279#
BHT 121 degrees F.

4628-4646 (Detrital Zone)

Chert, white to light gray with scattered varicolored, fresh with some scattered tripolitic chert, brown to varicolored shale, rare trace of sand, white, very fine grained, well sorted, well cemented, tight, no show of oil.

4646-4700 (Mississippi Zone)

Limestone, partly dolomitic, buff to tan, dense to finely crystalline, some mealy, trace of chalky, zone is mostly tight with no shows of oil.

4700 Electric Log Total Depth

Conclusions and Recommendations:

Sample examination, drill stem testing, and electric logging revealed no zones capable of commercial production with the possible exception of the Lansing "I" zone. While the "I" zone had a somewhat favorable recovery on drill stem test No. 1, because of the thinness of the zone, poor structural position, and the water present in the recovery, the decision was made to plug and abandon the No 1-27 Busst Unit.

Respectfully submitted,

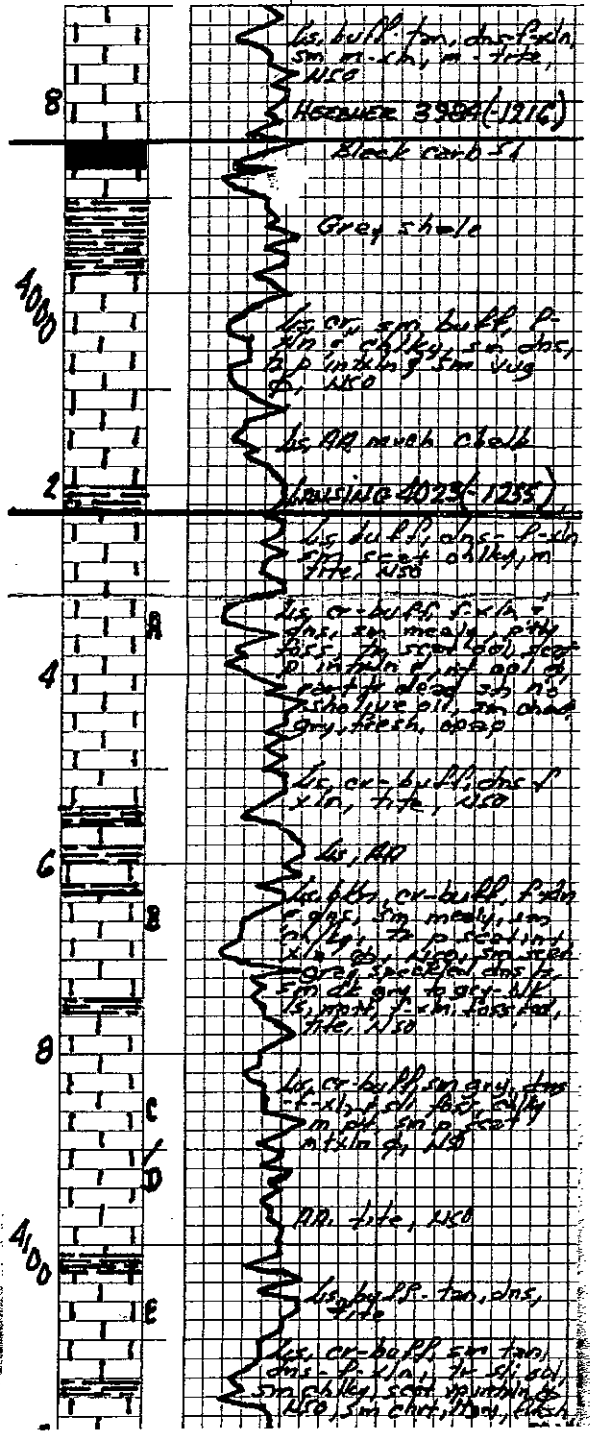
Robert C. Lewellyn
Consulting Petroleum Geologist

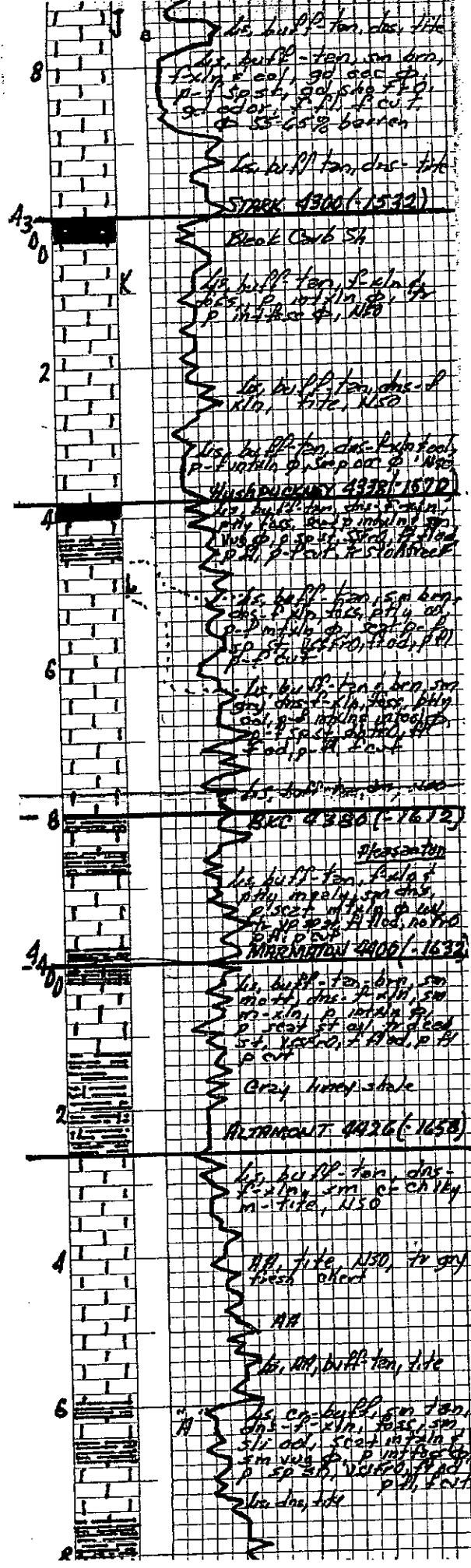
RCL:me

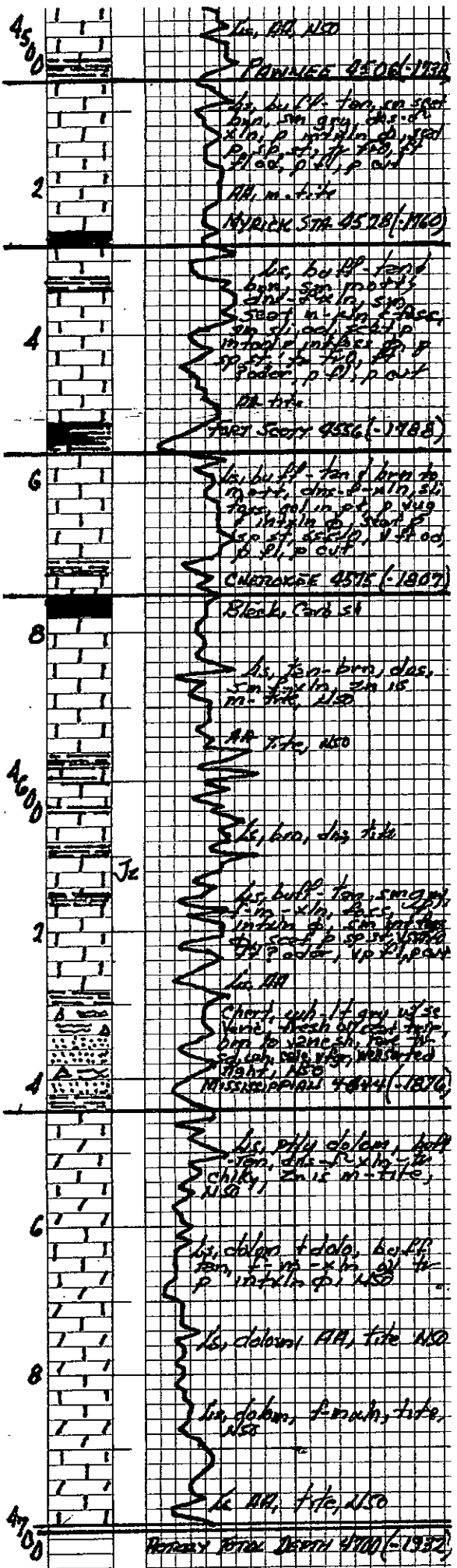
STATE KANSAS		COMPANY LARSON ENGINEERING INC	
COUNTY LANE	FARM BUSST UNIT	WELL NO. 1-27	
BLOCK	SURVEY 2540 FSL & 03'		
SEC. 27			
T. 19S	R. 28W	TOTAL DEPTH 4700	
CONTRACTOR H.D. Drilling, LLC			
COMMENCED 07-24-12			
COMPLETED 08-05-12			
REMARKS			
ALTIMETER 2168 KB			
PRODUCTION D & A			
Geologist Robert C. Lawallyn - Geol.			

CASING RECORD

8 5/8" @ 261 KBM / 175 xx







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

November 19, 2012

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

Re: ACO1
API 15-101-22394-00-00
Busst Unit 1-27
SE/4 Sec.27-19S-28W
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