

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	BOWIE 29-1
Doc ID	1368396

All Electric Logs Run

Compensated Density Neutron
Dual Induction
Microresistivity
Sector Bond Log

Form	ACO1 - Well Completion
Operator	Russell Oil, Inc.
Well Name	BOWIE 29-1
Doc ID	1368396

Tops

Name	Top	Datum
ANHYDRITE	2594	+484
BASE ANHYDRITE	2614	+454
TOPEKA	3810	-732
HEEBNER	4036	-958
TORONTO	4056	-978
LANSING	4078	-1000
MUNCIE CREEK	4219	-1141
STARK SHALE	4298	-1220
HUSH SHALE	4331	-1253
BASE KC	4355	-1277
MARMATON	4398	-1320
PAWNEE	4490	-1412
FT SCOTT	4550	-1472
CHEROKEE SH	4577	-1499
JONHSON	4621	-1543
MORROW SHALE	4644	-1566
MISSISSIPPI	4662	-1584
LTD	4732	-1654
RTD	4730	1652



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc

29-11s-32w Logan, Ks

P.O. Box 8050
Edmond, Ok 73083

Bowie 29-1

Job Ticket: 63865

DST#: 1

ATTN: Kitt Noah

Test Start: 2017.08.04 @ 04:10:32

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:

75000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1674.00	water 100%w	22.389
310.00	mcw 90%w 10%m	4.348
341.00	w cm 30%w 70%m	4.783

Total Length: 2325.00 ft Total Volume: 31.520 bbl

Num Fluid Samples: 0

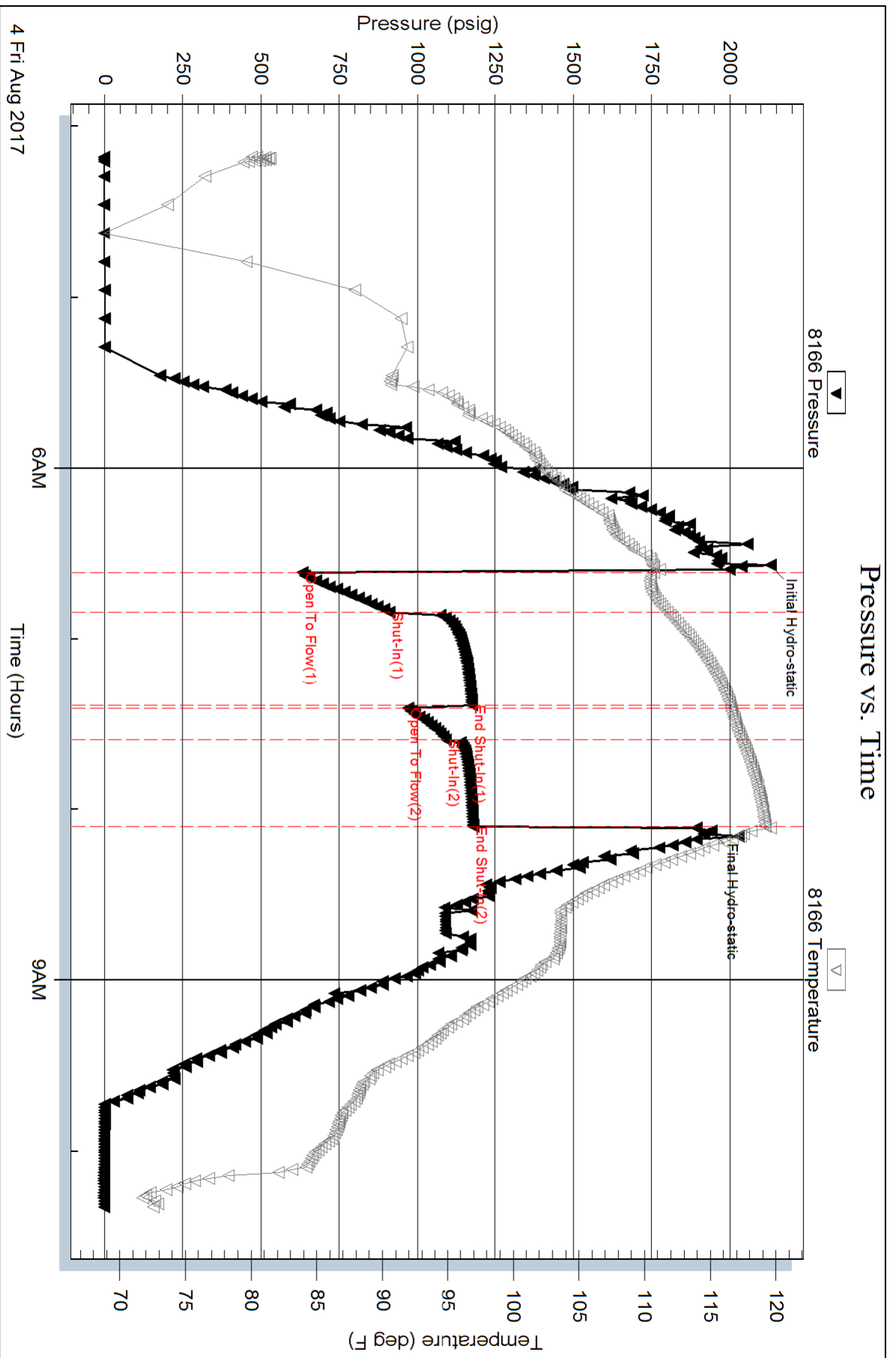
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .12@61=75000



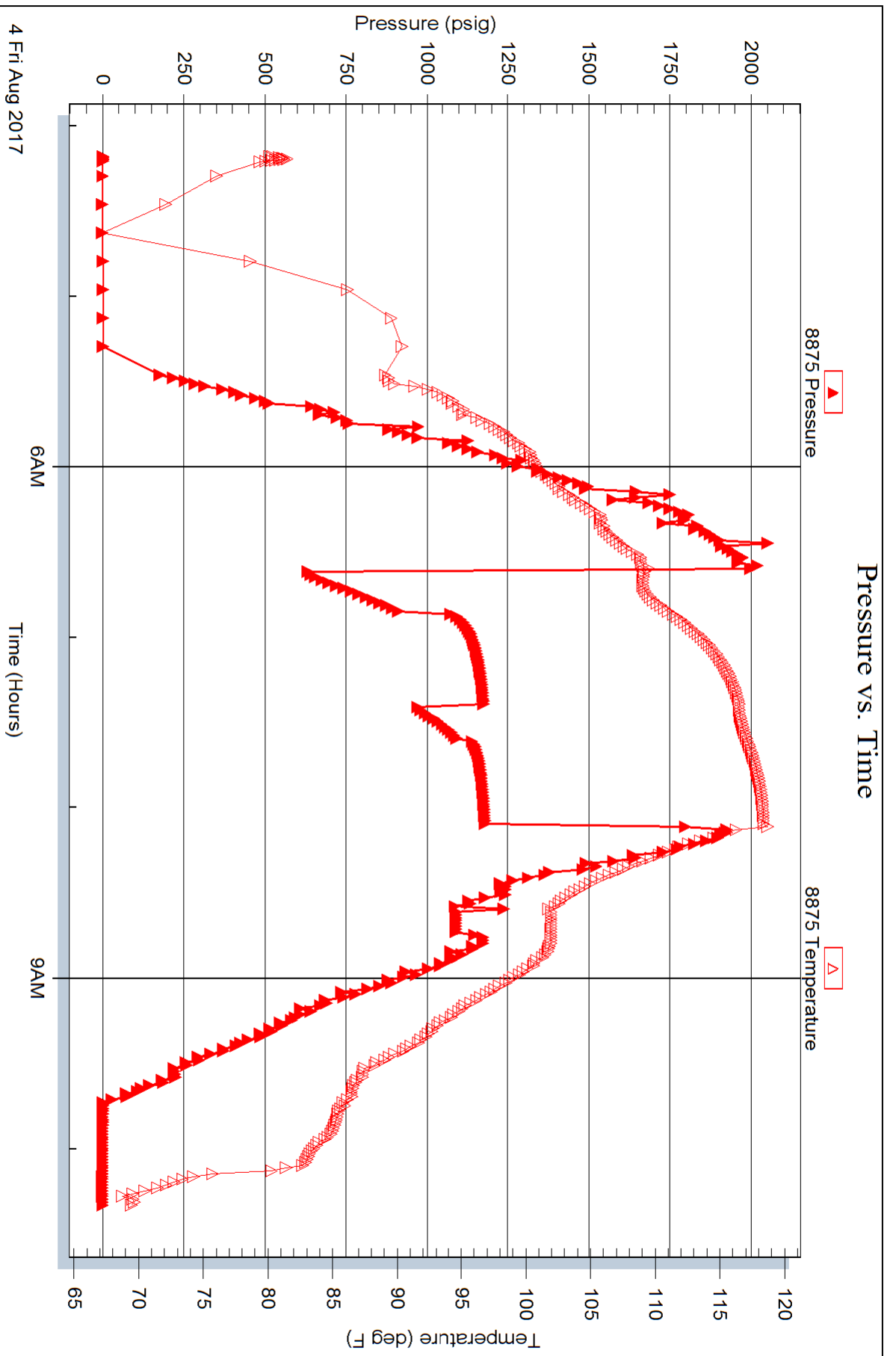
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63865

Printed: 2017.08.04 @ 10:54:28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Russell Oil Inc
 P.O. Box 8050
 Edmond, Ok 73083
 ATTN: Kitt Noah

29-11s-32w Logan, Ks
Bowie 29-1
 Job Ticket: 63866 **DST#: 2**
 Test Start: 2017.08.04 @ 23:35:24

GENERAL INFORMATION:

Formation: **LKC E-F**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:08:24
 Time Test Ended: 04:52:24
 Interval: **4148.00 ft (KB) To 4175.00 ft (KB) (TVD)**
 Total Depth: 4175.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3078.00 ft (KB)
 3073.00 ft (CF)
 KB to GR/CF: 5.00 ft

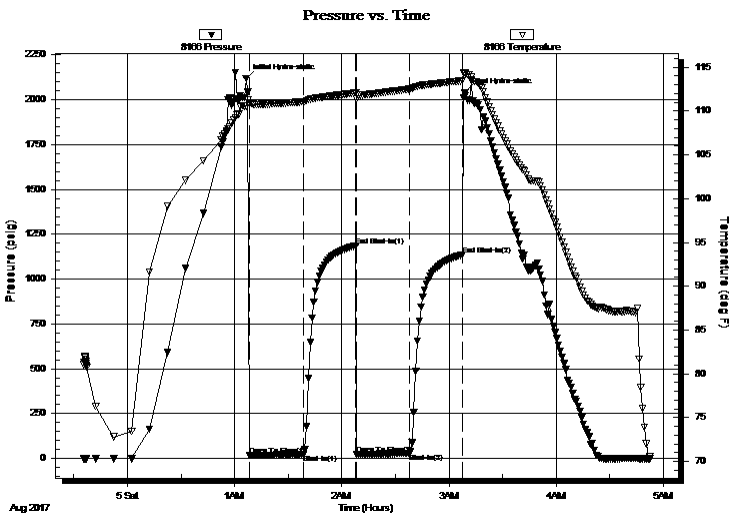
Serial #: 8166

Outside

Press@RunDepth: 27.81 psig @ 4149.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.04 End Date: 2017.08.05 Last Calib.: 2017.08.05
 Start Time: 23:35:29 End Time: 04:52:23 Time On Btm: 2017.08.05 @ 01:06:24
 Time Off Btm: 2017.08.05 @ 03:08:54

TEST COMMENT: IF: Surface blow built to 1/4.
 IS: No return.
 FF: No blow.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2116.98	110.57	Initial Hydro-static
2	15.76	110.84	Open To Flow (1)
32	20.75	111.06	Shut-In(1)
62	1187.00	112.07	End Shut-In(1)
62	23.79	111.43	Open To Flow (2)
92	27.81	112.51	Shut-In(2)
121	1135.56	113.45	End Shut-In(2)
123	2038.38	114.40	Final Hydro-static

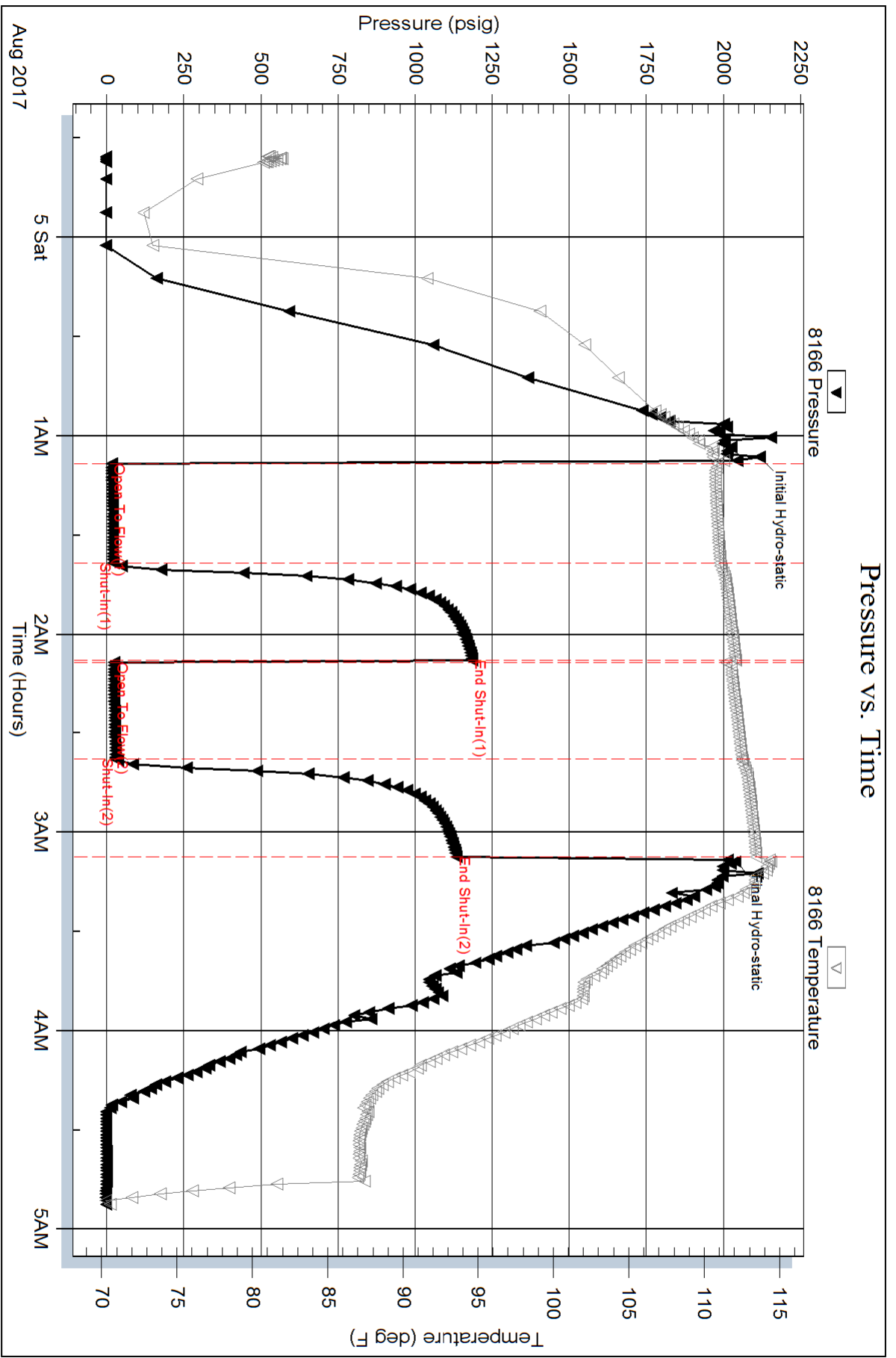
Recovery

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

* Recovery from multiple tests

Gas Rates

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



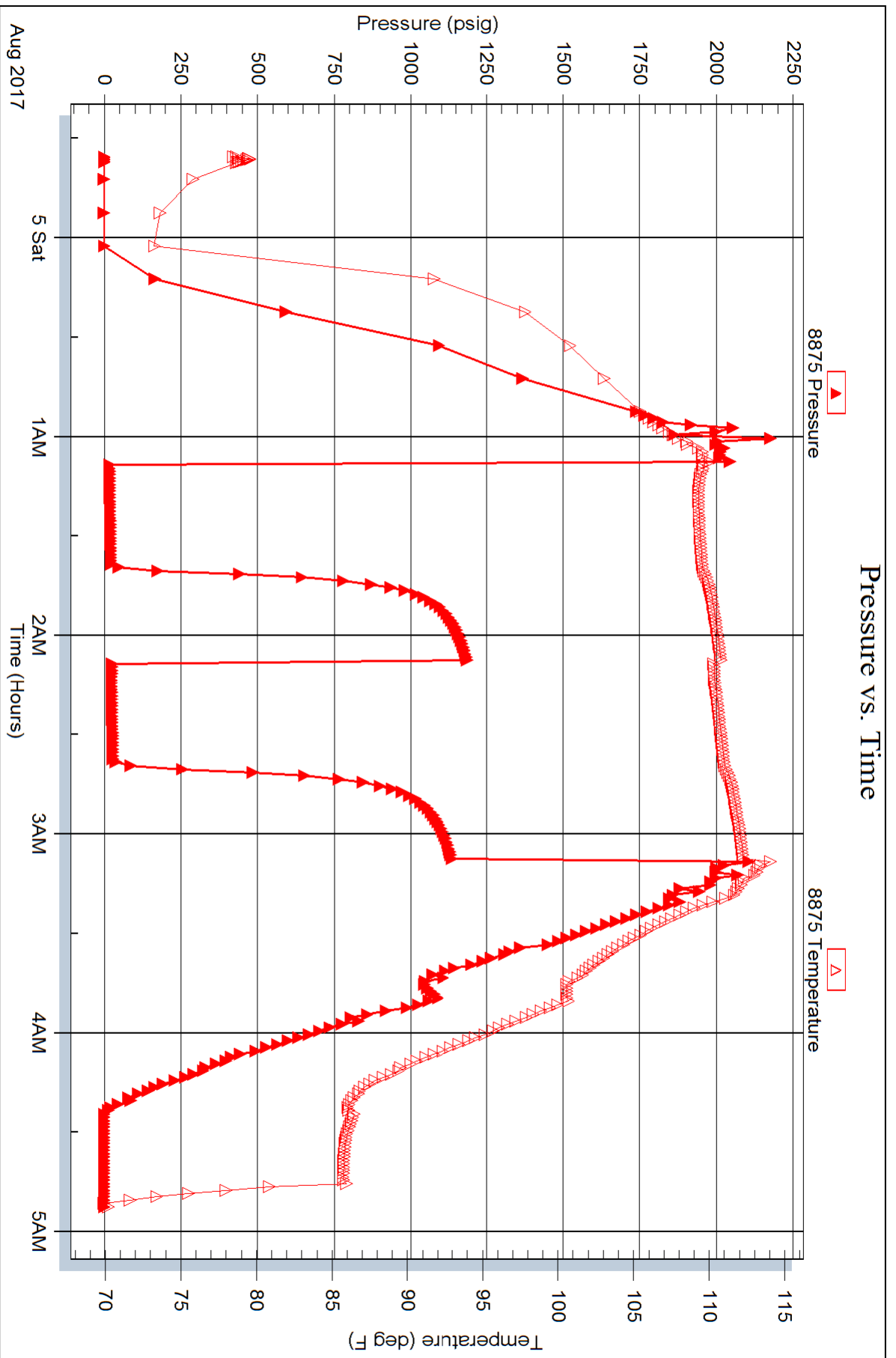
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc

29-11s-32w Logan, Ks

P.O. Box 8050
Edmond, Ok 73083

Bowie 29-1

Job Ticket: 63867

DST#: 3

ATTN: Kitt Noah

Test Start: 2017.08.05 @ 13:40:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	gocm 30%g 10%o 60%m	1.516
186.00	mcgo 15%g 80%m 5%o	2.609
484.00	go 10%g 90%o	6.789
0.00	1500 GIP	0.000

Total Length: 856.00 ft

Total Volume: 10.914 bbl

Num Fluid Samples: 0

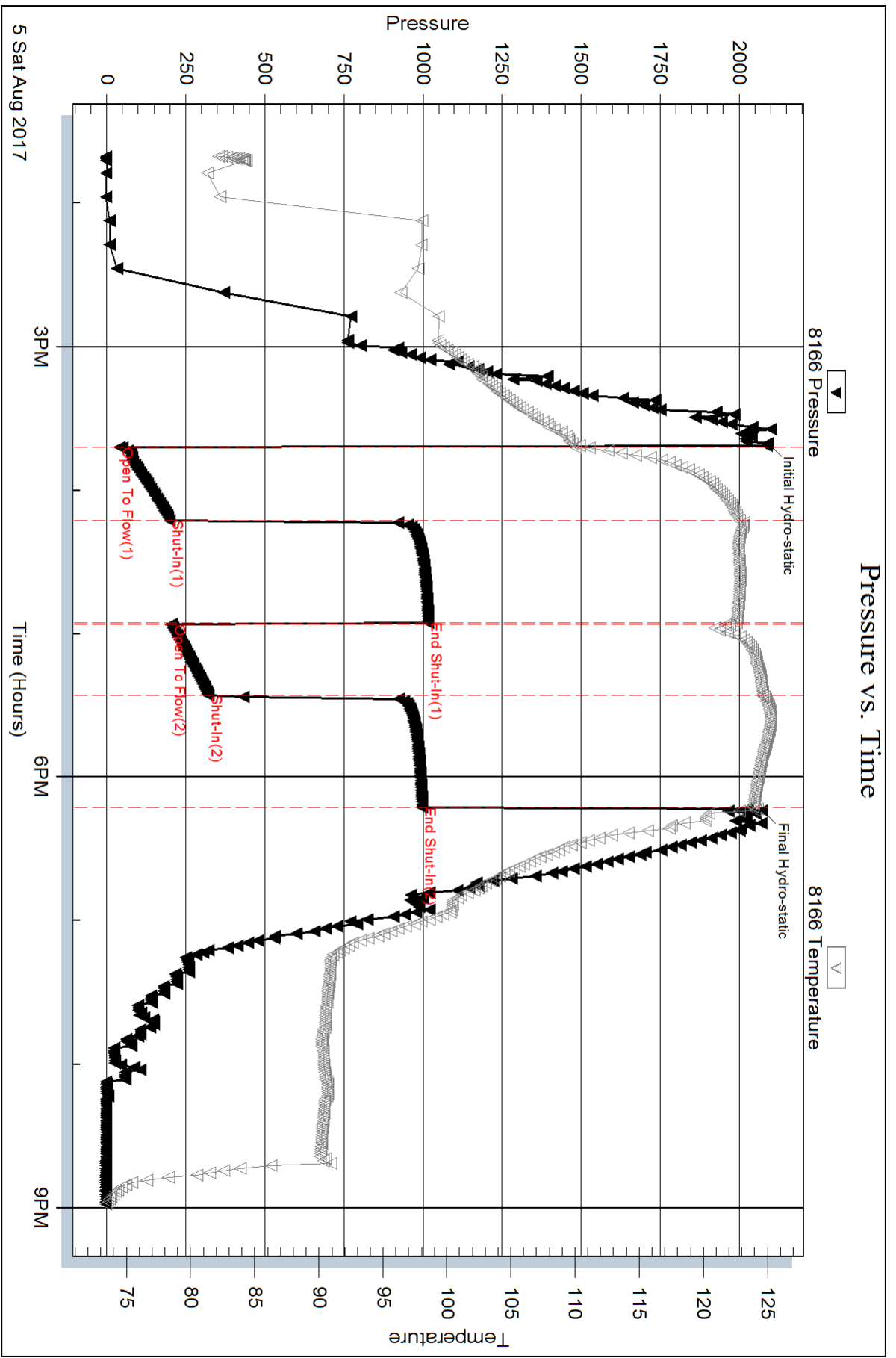
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 38@80=36



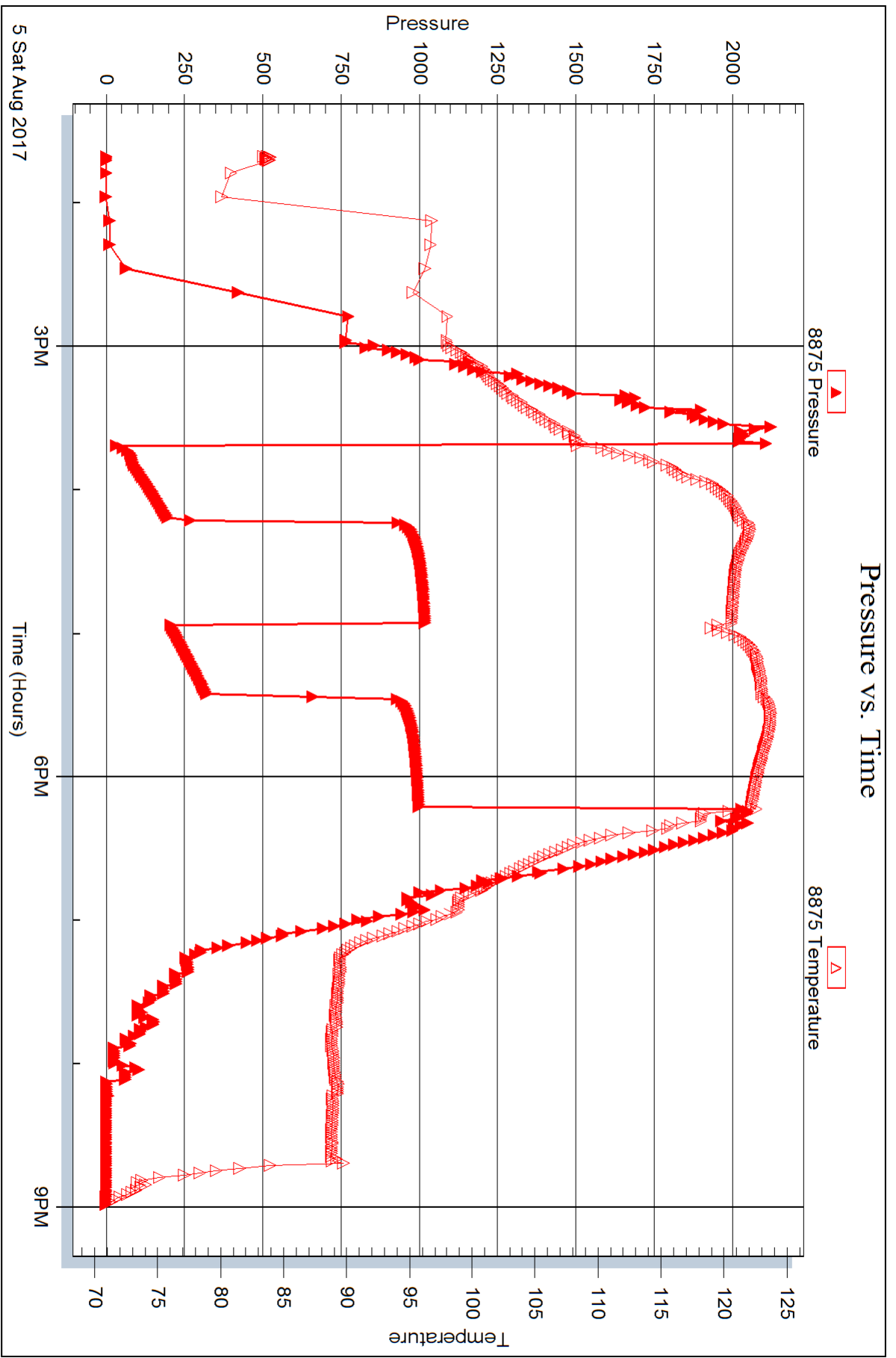
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 63867

Printed: 2017.08.05 @ 22:54:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Russell Oil Inc
 P.O. Box 8050
 Edmond, Ok 73083
 ATTN: Kitt Noah

29-11s-32w Logan, Ks
Bowie 29-1
 Job Ticket: 63868 **DST#: 4**
 Test Start: 2017.08.06 @ 04:08:15

GENERAL INFORMATION:

Formation: **LKC I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:49:45
 Time Test Ended: 10:57:45
 Interval: **4243.00 ft (KB) To 4274.00 ft (KB) (TVD)**
 Total Depth: 4274.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3078.00 ft (KB)
 3073.00 ft (CF)
 KB to GR/CF: 5.00 ft

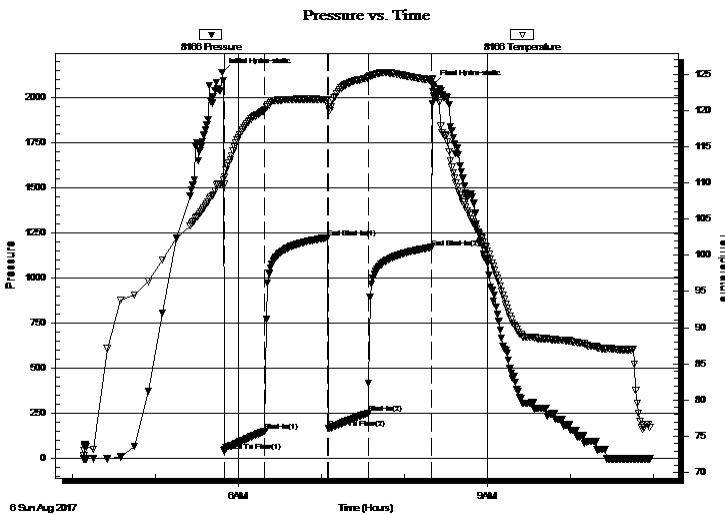
Serial #: 8166

Outside

Press@RunDepth: 250.63 psig @ 4244.00 ft (KB)
 Start Date: 2017.08.06 End Date: 2017.08.06
 Start Time: 04:08:20 End Time: 10:57:44
 Capacity: 8000.00 psig
 Last Calib.: 2017.08.06
 Time On Btm: 2017.08.06 @ 05:48:15
 Time Off Btm: 2017.08.06 @ 08:20:45

TEST COMMENT: IF: BOB in 3 min.
 IS: BOB in 7 min.
 FF: BOB in 5 min.
 FS: BOB in 9 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2141.64	109.88	Initial Hydro-static
2	42.69	109.80	Open To Flow (1)
31	152.79	120.06	Shut-In(1)
76	1224.47	121.48	End Shut-In(1)
77	166.76	120.55	Open To Flow (2)
106	250.63	124.49	Shut-In(2)
151	1170.35	124.17	End Shut-In(2)
153	2074.66	122.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 40%g 10%o 50%m	0.65
248.00	mogo 20%g 70%o 10%m	3.48
298.00	go 20%g 80%o	4.18
0.00	1810 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc

29-11s-32w Logan, Ks

P.O. Box 8050
Edmond, Ok 73083

Bowie 29-1

Job Ticket: 63868

DST#: 4

ATTN: Kitt Noah

Test Start: 2017.08.06 @ 04:08:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gocm 40%g 10%o 50%m	0.646
248.00	mcgo 20%g 70%o 10%m	3.479
298.00	go 20%g 80%o	4.180
0.00	1810 GIP	0.000

Total Length: 670.00 ft

Total Volume: 8.305 bbl

Num Fluid Samples: 0

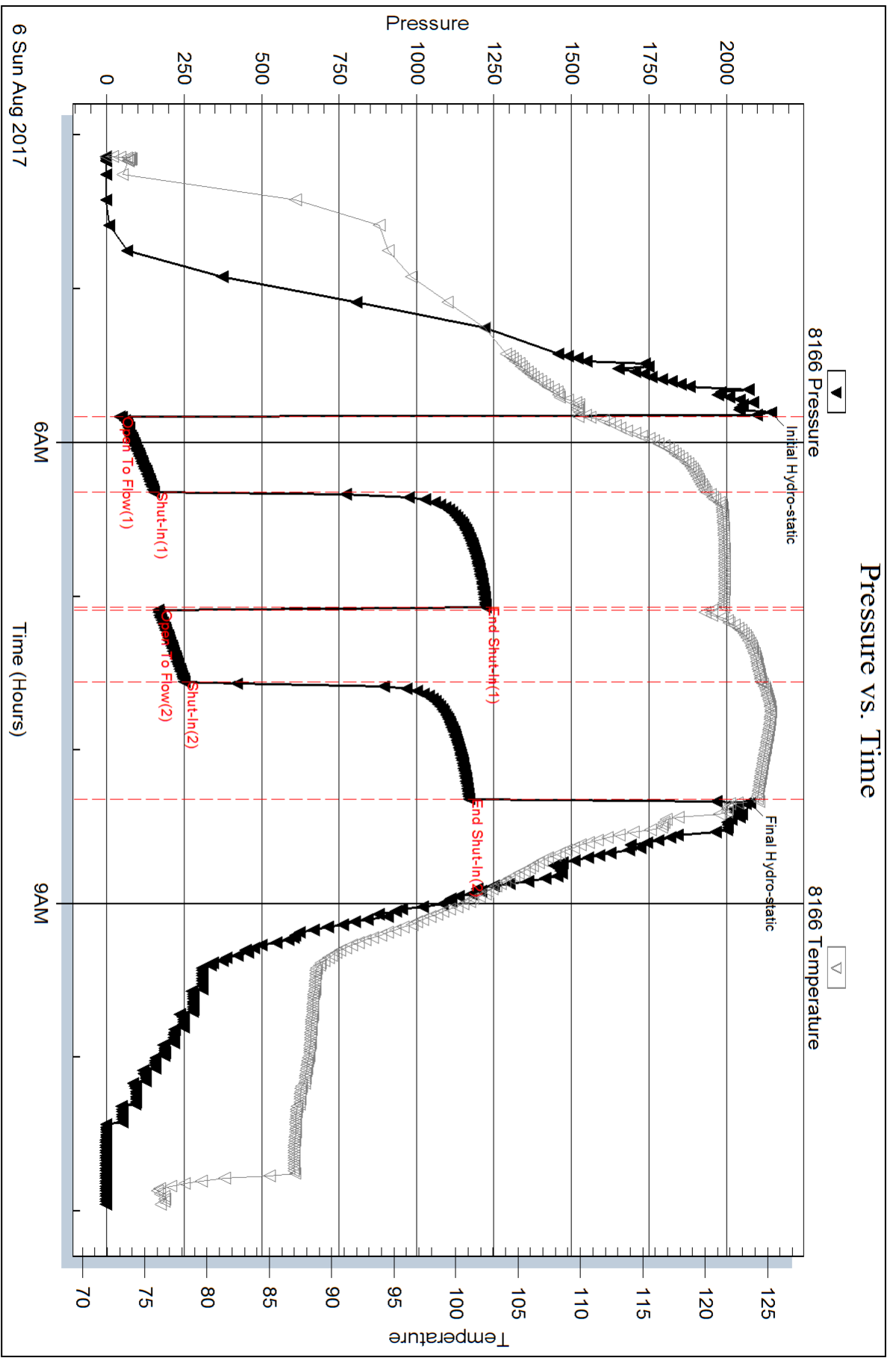
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 36@70=35



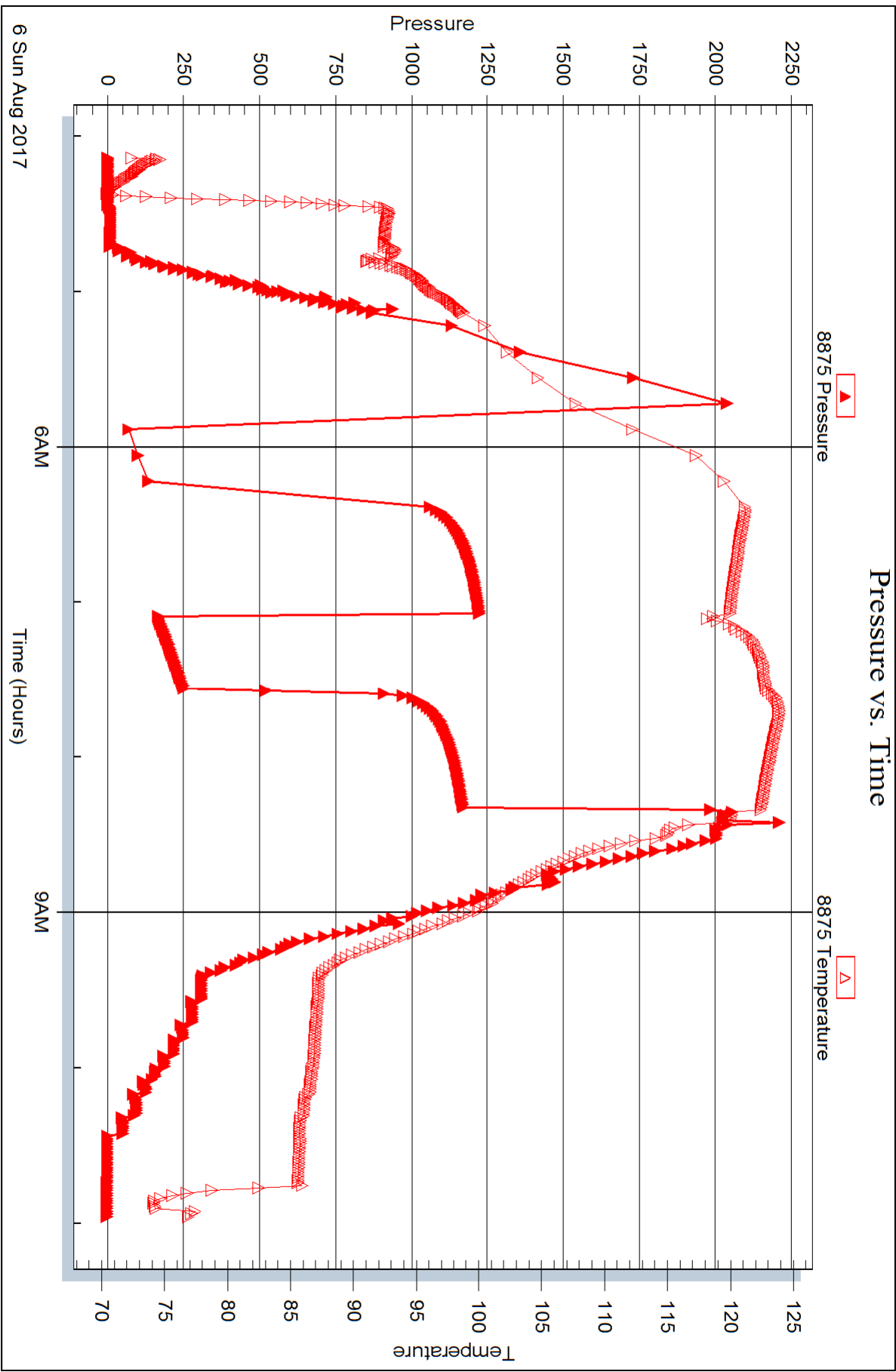
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 4





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Russell Oil Inc
 P.O. Box 8050
 Edmond, Ok 73083
 ATTN: Kitt Noah

29-11s-32w Logan, Ks
Bowie 29-1
 Job Ticket: 63869 **DST#: 5**
 Test Start: 2017.08.06 @ 17:39:11

GENERAL INFORMATION:

Formation: **LKC J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:26:11
 Time Test Ended: 00:00:41
Interval: 4267.00 ft (KB) To 4300.00 ft (KB) (TVD)
 Total Depth: 4300.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3078.00 ft (KB)
 3073.00 ft (CF)
 KB to GR/CF: 5.00 ft

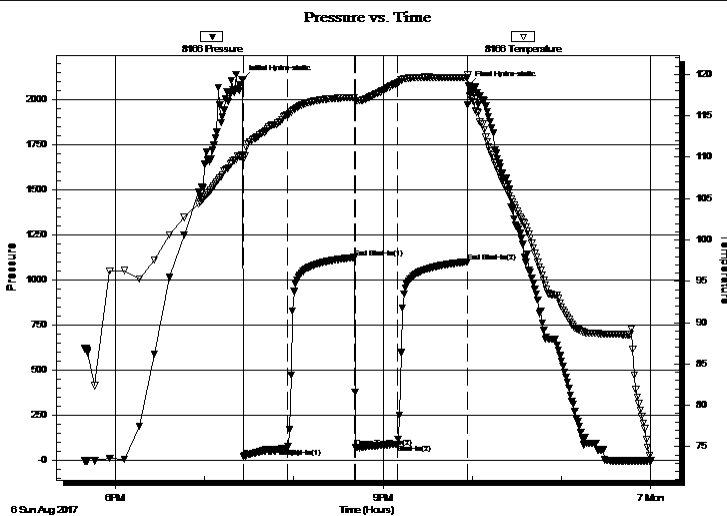
Serial #: 8166

Outside

Press@RunDepth: 91.34 psig @ 4268.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.06 End Date: 2017.08.07 Last Calib.: 2017.08.07
 Start Time: 17:39:16 End Time: 00:00:40 Time On Btm: 2017.08.06 @ 19:25:41
 Time Off Btm: 2017.08.06 @ 21:57:41

TEST COMMENT: IF: BOB in 17 min.
 IS: Surface blow built to 1/4 died in 20 min.
 FF: BOB in 11 min.
 FS: Surface blow built to 1/4 died in 15 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2111.90	110.32	Initial Hydro-static
1	19.92	109.66	Open To Flow (1)
30	68.30	115.16	Shut-In(1)
75	1125.06	117.23	End Shut-In(1)
76	73.26	116.85	Open To Flow (2)
104	91.34	118.95	Shut-In(2)
151	1101.26	119.61	End Shut-In(2)
152	2076.36	118.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gocm 40%g 20%o 40%m	0.65
87.00	go 10%g 90%o	1.22
0.00	471 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc
P.O. Box 8050
Edmond, Ok 73083
ATTN: Kitt Noah

29-11s-32w Logan, Ks
Bowie 29-1
Job Ticket: 63869 **DST#: 5**
Test Start: 2017.08.06 @ 17:39:11

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.20 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 4000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gocm 40%g 20%o 40%m	0.646
87.00	go 10%g 90%o	1.220
0.00	471 GIP	0.000

Total Length: 211.00 ft Total Volume: 1.866 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 35@60=35

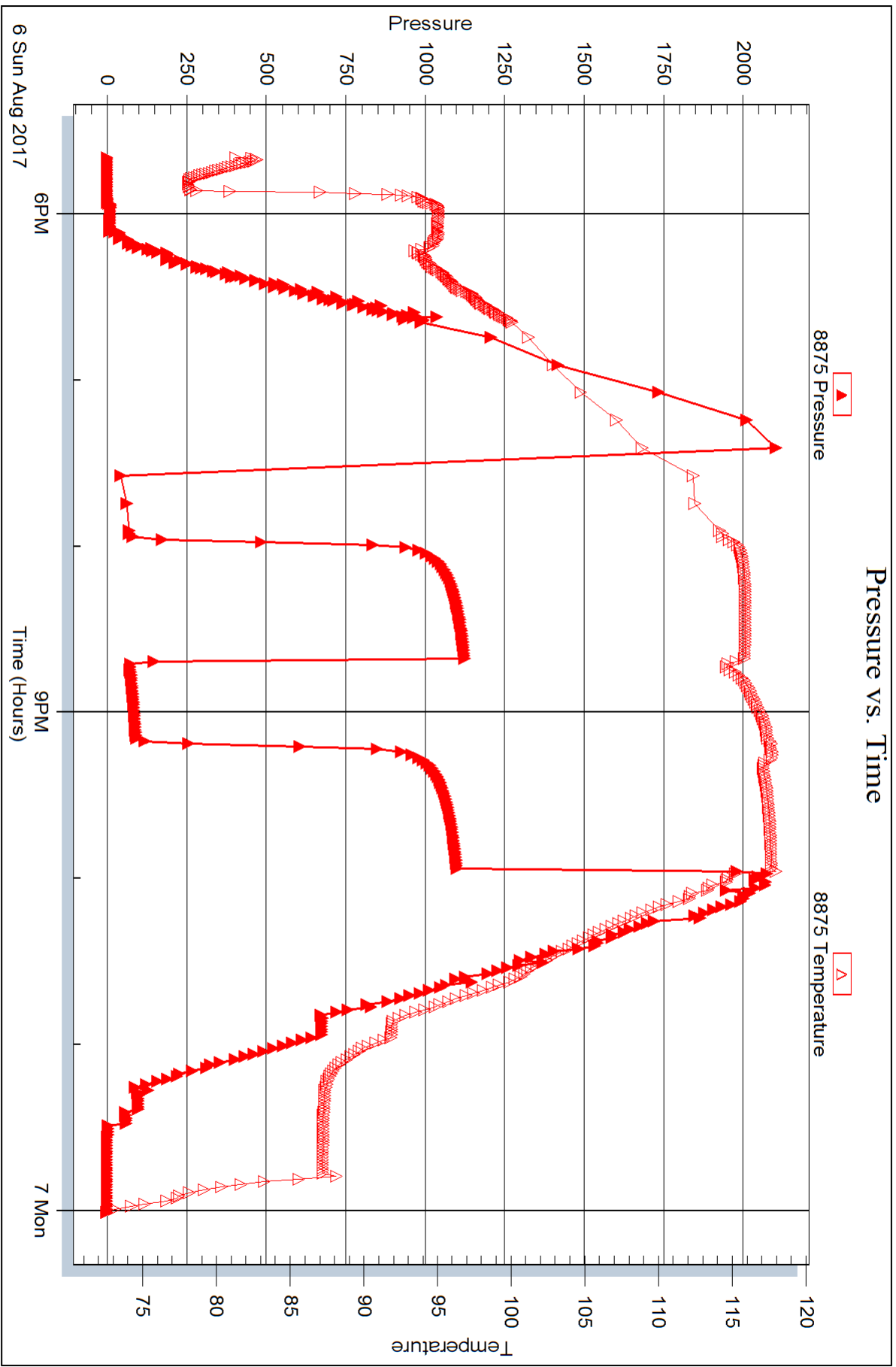
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 63869

Printed: 2017.08.07 @ 07:13:03



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc

29-11s-32w Logan, Ks

P.O. Box 8050
Edmond, Ok 73083

Bowie 29-1

Job Ticket: 63870

DST#: 6

ATTN: Kitt Noah

Test Start: 2017.08.07 @ 09:11:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 92.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	mcgo 40%g 40%o 20%m	0.646
124.00	mcgo 20%g 60%o 20%m	1.739
0.00	806 GIP	0.000

Total Length: 248.00 ft Total Volume: 2.385 bbl

Num Fluid Samples: 0

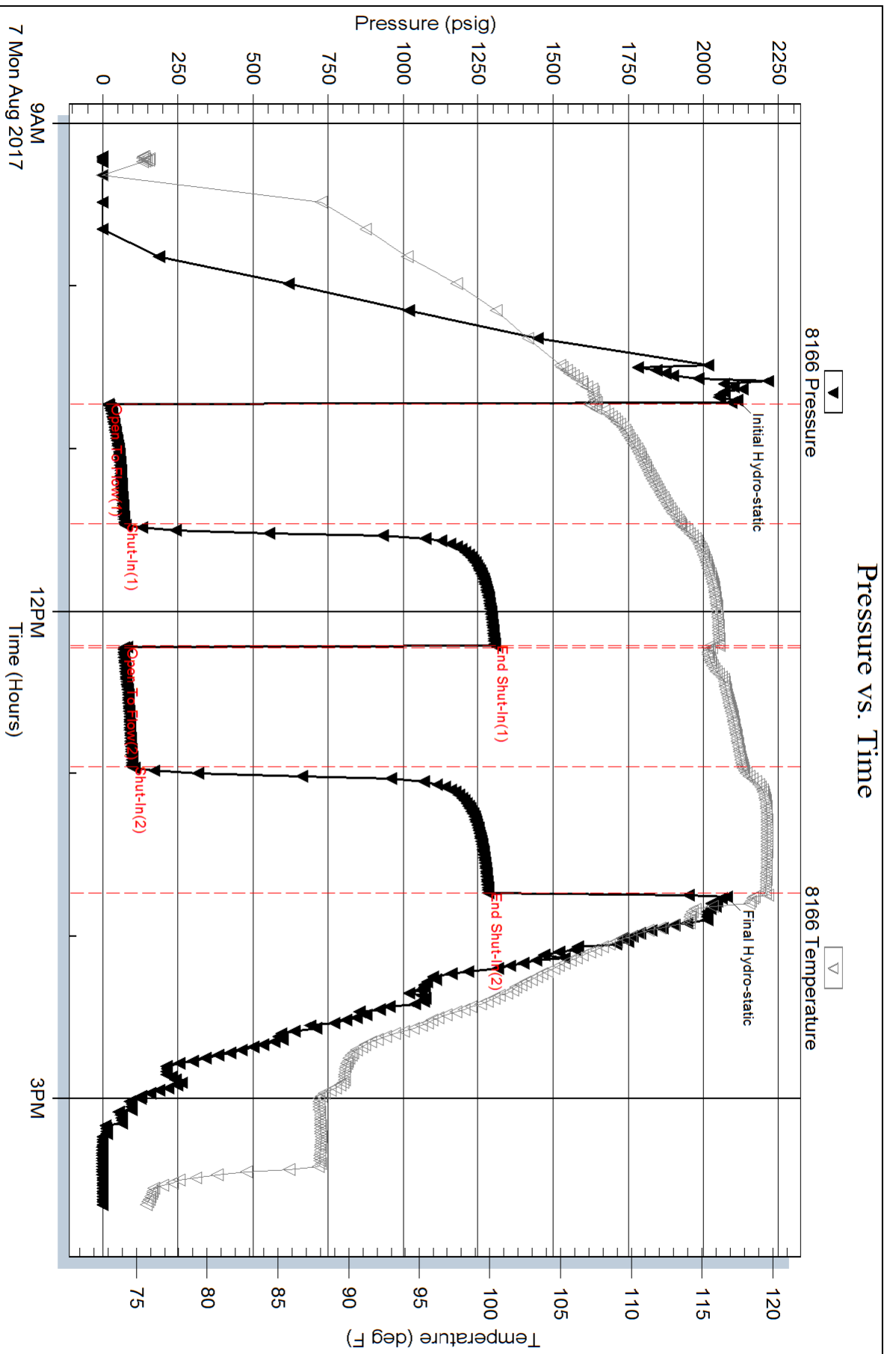
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



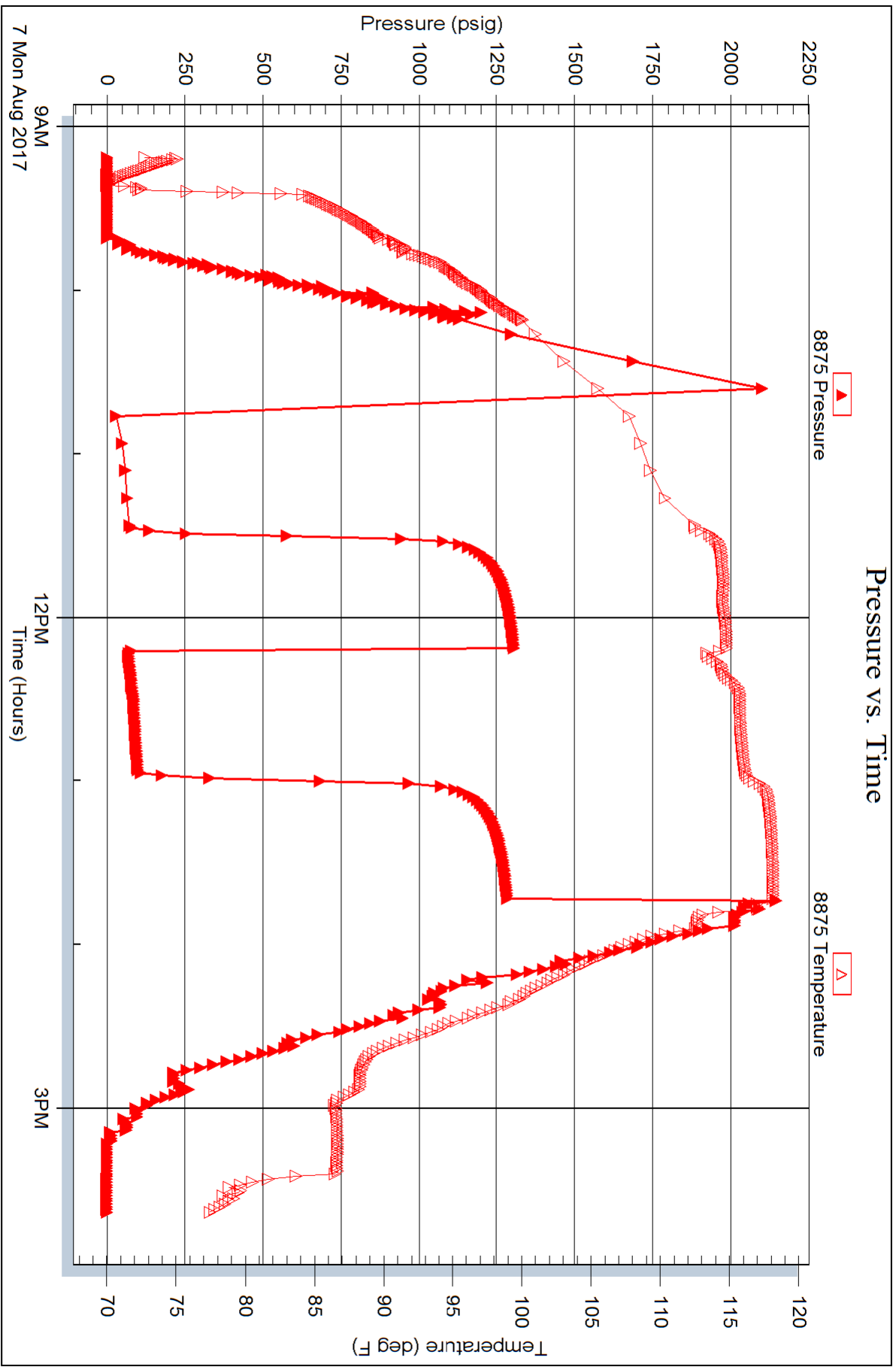
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 6





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Russell Oil Inc
 P.O. Box 8050
 Edmond, Ok 73083
 ATTN: Kitt Noah

29-11s-32w Logan, Ks
Bowie 29-1
 Job Ticket: 63871 **DST#: 7**
 Test Start: 2017.08.08 @ 20:15:04

GENERAL INFORMATION:

Formation: **Johnson zn**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:22:04
 Tester: Brandon Turley
 Time Test Ended: 04:01:34
 Unit No: 79
 Interval: **4596.00 ft (KB) To 4644.00 ft (KB) (TVD)**
 Reference Elevations: 3078.00 ft (KB)
 Total Depth: 4644.00 ft (KB) (TVD)
 3073.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good
 KB to GR/CF: 5.00 ft

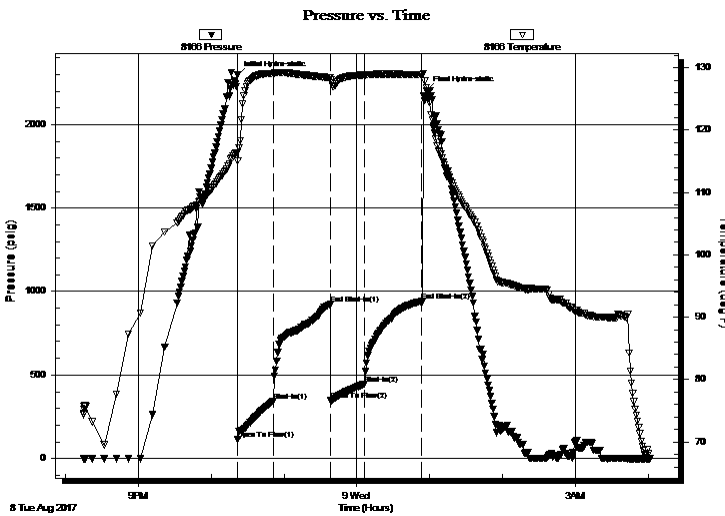
Serial #: 8166

Outside

Press@RunDepth: 444.24 psig @ 4597.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.08 End Date: 2017.08.09 Last Calib.: 2017.08.09
 Start Time: 20:15:09 End Time: 04:01:33 Time On Btm: 2017.08.08 @ 22:21:34
 Time Off Btm: 2017.08.09 @ 00:57:04

TEST COMMENT: IF: BOB in 2 min.
 IS: Surface blow BOB in 18 min.
 FF: BOB in 5 min.
 FS: BOB in 30 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.74	116.33	Initial Hydro-static
1	113.13	115.07	Open To Flow (1)
30	342.76	129.10	Shut-In(1)
77	922.47	128.39	End Shut-In(1)
77	347.60	128.02	Open To Flow (2)
105	444.24	128.81	Shut-In(2)
152	940.97	128.85	End Shut-In(2)
156	2200.55	126.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
248.00	gocm 20%g 10%o 70%m	2.39
908.00	go 30%g 70%o	12.74
0.00	952 Weak GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Russell Oil Inc

29-11s-32w Logan, Ks

P.O. Box 8050
Edmond, Ok 73083

Bowie 29-1

Job Ticket: 63871

DST#: 7

ATTN: Kitt Noah

Test Start: 2017.08.08 @ 20:15:04

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

27 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	gocm 20%g 10%o 70%m	2.386
908.00	go 30%g 70%o	12.737
0.00	952 Weak GIP	0.000

Total Length: 1156.00 ft Total Volume: 15.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

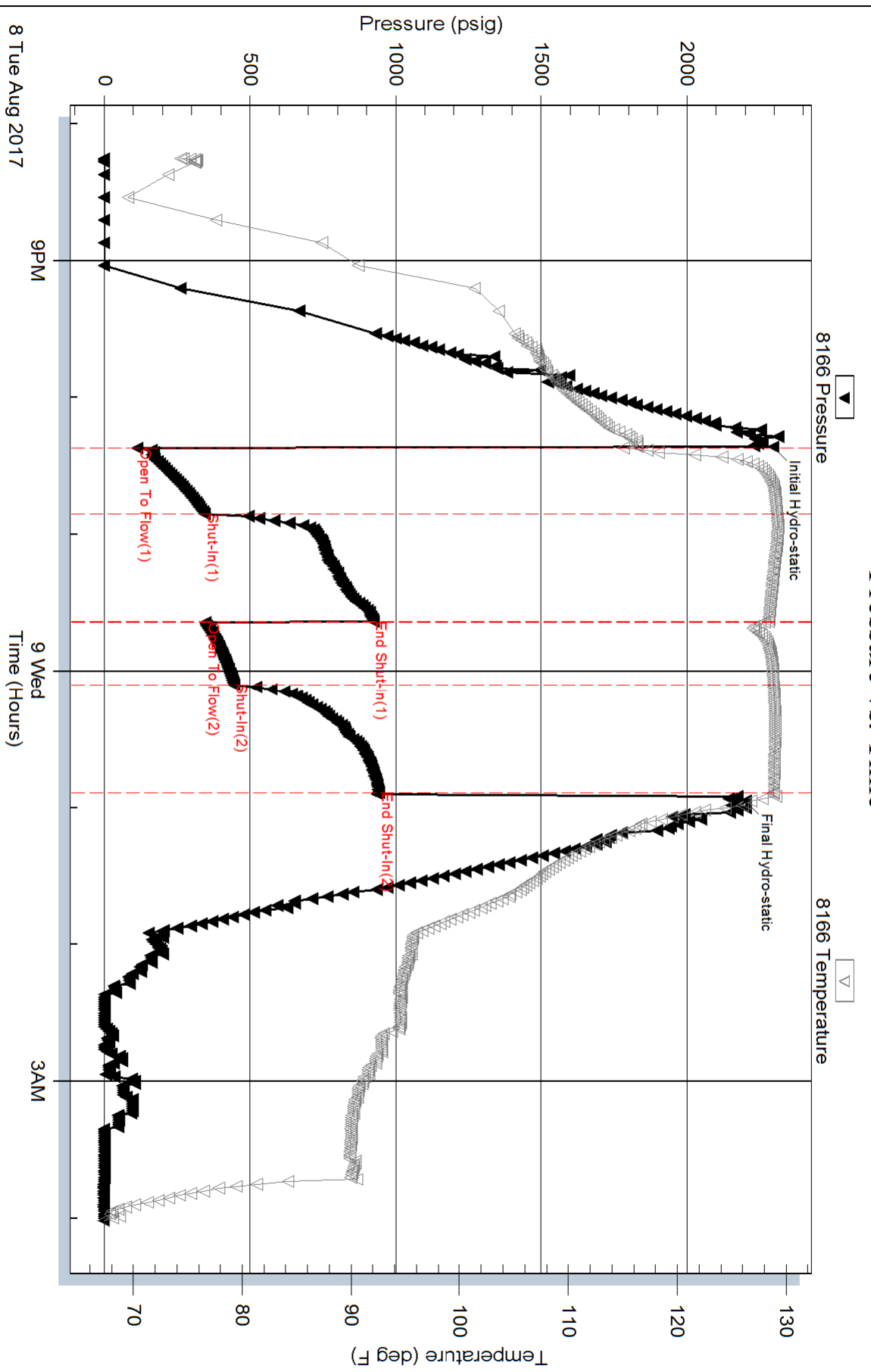
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 28@70=27

Pressure vs. Time



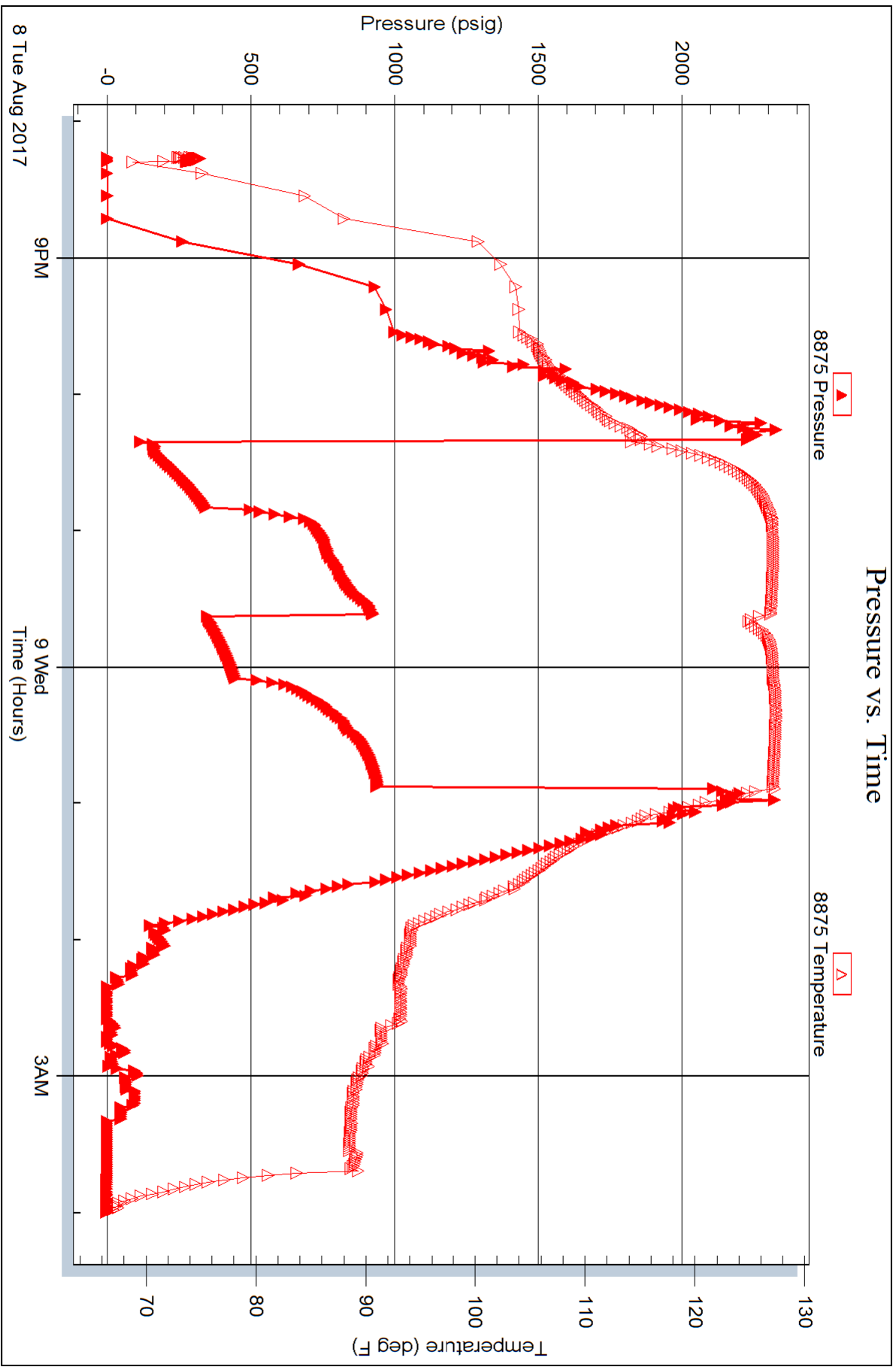
Serial #: 8875

Inside

Russell Oil Inc

Bowie 29-1

DST Test Number: 7



BASIC

energy services, L.P.

TREATMENT REPORT

Customer <i>Russel Oil, Inc</i>	Lease No.	Date <i>8/10/17</i>
Lease <i>Bowie</i>	Well # <i>29-1</i>	
Field Order # <i>15205 A</i>	Station <i>Pratt KS</i>	Casing- <i>5 1/2</i> Depth <i>4725'</i>
Type/Job <i>5 1/2 7 stage long string 243</i>	Formallon	County <i>Logan</i> State <i>KS</i>
		Legal Description

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>5 1/2</i>								
Depth <i>4725</i>	Depth	From	To	Pre Pad	Max	<i>600</i>	5 Min.	
Volume <i>112.45</i>	Volume	From	To	Pad	Min	<i>3.5</i>	10 Min.	
Max Press <i>2000</i>	Max Press	From	To	Frac	Avg	<i>5</i>	15 Min.	
Well Connection <i>5 1/2</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <i>4725</i>	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative <i>Todd Brown</i>	Station Manager <i>Tustin Westerman</i>	Treater <i>Scott G.</i>
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Service Units	<i>8848</i>	<i>84981</i>	<i>19843</i>	<i>27808</i>	<i>19885</i>	<i>19827</i>	<i>19808</i>				
Driver Names	<i>Scott</i>	<i>Mike</i>	<i>Yoshi</i>	<i>-</i>	<i>Billy</i>	<i>-</i>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	* Bottom #	Service Log
<i>8:15</i>	<i>8/9/17</i>					<i>On location Safety meeting</i>
<i>1:30</i>	<i>8/10/17</i>					<i>Rid up</i>
<i>3:35</i>						<i>Run Flood equipment Prated 10.5</i>
						<i>Trachis 3, 6, 9, 12, 14, 18, 53</i>
						<i>D.V. Tool 52 D 2593'</i>
<i>5:30</i>						<i>Break circulation on bottom</i>
<i>6:41</i>	<i>700</i>			<i>3.5</i>		<i>Pump H2O spacer</i>
<i>6:44</i>	<i>700</i>		<i>5</i>	<i>3.5</i>		<i>Pump 1000 gallons Super Flush II</i>
<i>6:51</i>	<i>700</i>		<i>24</i>	<i>5</i>		<i>Pump H2O spacer</i>
<i>6:52</i>	<i>300</i>		<i>5</i>	<i>5</i>		<i>Mix 175 sacks AA7 15.3 ppg</i>
<i>7:01</i>	<i>0</i>		<i>44.6</i>	<i>0</i>		<i>Shut down</i>
<i>7:04</i>						<i>Wash pump + lines clean</i>
<i>7:05</i>						<i>Down Plug</i>
<i>7:06</i>	<i>100</i>			<i>5</i>		<i>Start Displacement H2O</i>
<i>7:17</i>	<i>100</i>		<i>50</i>	<i>5</i>		<i>Start Displacement Mud</i>
<i>7:23</i>	<i>300</i>		<i>305</i>	<i>5</i>		<i>1st Pressure</i>
<i>7:28</i>	<i>400</i>		<i>25</i>	<i>3.5</i>		<i>Reduce Rate</i>
<i>7:30</i>	<i>600</i>		<i>5</i>	<i>3.5</i>		<i>Plug landed</i>
<i>7:30</i>	<i>1500</i>					<i>Increase Pressure Held</i>
<i>7:31</i>	<i>1500</i>					<i>Shut down</i>
<i>7:32</i>	<i>0</i>					<i>Release Pressure NO Returns</i>

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energy services, L.P.

TREATMENT REPORT

Customer <i>Russell Oil, Inc</i>	Lease No.	Date <i>8/10/17</i>
Lease <i>Bovine</i>	Well # <i>29-1</i>	
Field Order # <i>192954</i>	Station <i>Pratt KS</i>	Casing <i>5 1/2</i>
Type Job <i>5 1/2 2 stage long string</i>	Depth <i>2593'</i>	County <i>Lodan</i>
	Formation	State <i>KS</i>
		Legal Description

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>3 1/2</i>								
Depth <i>2593'</i>	Depth	From	To	Pre Pad	Max		5 Min.	
Volume <i>61.7</i>	Volume	From	To	Pad	Min		10 Min.	
Max Press <i>2100</i>	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection <i>5 1/2</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative <i>Todd Brown</i>	Station Manager <i>Justin Westerman</i>	Treater <i>Scott G.</i>
Service Units <i>35550 84981 14503 19827 19808 27808 19863</i>		
Driver Names <i>Scott Mihl - Billy - Yoshi -</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
7:33					Tap & Deep Div. open Tool
7:46	1100				Pressure up
7:47	150			3	Div. Tool open
7:50					Circulate w/ Rig 1 hour
8:50	100			5	Pump H ₂ O spacer
8:57	200		5	6	Mix 340 slcs A-con 11.6 ppb
9:25	150		168	0	Shut down
9:26					blush pump + lines clean
9:27					Release Plug
9:29	700			6	Start Displacement
9:40	400		52	3.5	Reduce Rate
9:45	450		63.75	3.5	Plug landed
9:45	1400				Pressure up, Div. shut
9:46					shut down
9:47	0				Release Pressure NO Returns
9:50	0			3	Plug out Hole 30 slcs AA7
9:54			9		Shut down
10:00					blush up Equipment
10:15					Job Complete

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 278

Date	7-31-17	Sec.	29	Twp.	11	Range	32	County	Logan	State	Ks	On Location		Finish	8:45 PM
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Lease	Bowie	Well No.	29-1	Owner	420 Rd IN, IN, IN
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Contractor	WW 10	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
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Type Job	Surface	Charge To	Russell oil
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Hole Size	12 1/4"	T.D.	302'
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Csg.	8 3/8"	Depth	302'
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Tbg. Size		Depth	
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Tool		Depth	
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Cement Left in Csg.	15'	Shoe Joint	15'	Cement Amount Ordered	170 80/20 342
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Meas Line		Displace	18 1/4 BLS
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EQUIPMENT			Common
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Pumptrk	20	No.	Cement	Helper	Travis	Poz. Mix
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Bulktrk	9	No.	Driver	Aug	Gel.
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Bulktrk	P.V.	No.	Driver	Rick	Calcium
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JOB SERVICES & REMARKS			Hulls
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Remarks:	Cement did Circulate	Salt
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Rat Hole		Flowseal
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Mouse Hole		Kol-Seal
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Centralizers		Mud CLR 48
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Baskets		CFL-117 or CD110 CAF 38
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D/V or Port Collar		Sand
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		Handling
--	--	----------

		Mileage
--	--	---------

FLOAT EQUIPMENT		
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		Guide Shoe
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		Centralizer
--	--	-------------

		Baskets
--	--	---------

		AFU Inserts
--	--	-------------

		Float Shoe
--	--	------------

		Latch Down
--	--	------------

		Pumptrk Charge
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		Mileage
--	--	---------

		Tax
--	--	-----

		Discount
--	--	----------

		Total Charge
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Richie Wilson
Signature