



DRILL STEM TEST REPORT

Prepared For: **Quest Energy LLC**

2732 N. Reese Rd.
Brookville KS 67425-9812

ATTN: Tracy Hynes / Ken Wa

Irvin Trust #1

10-17s-19w Rush,KS

Start Date: 2014.01.07 @ 23:45:24

End Date: 2014.01.08 @ 07:12:33

Job Ticket #: 55469 DST #: 1

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

Printed: 2014.01.10 @ 09:21:23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Quest Energy LLC

10-17s-19w Rush, KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

Job Ticket: 55469

DST#: 1

ATTN: Tracy Hynes / Ken Wa

Test Start: 2014.01.07 @ 23:45:24

GENERAL INFORMATION:

Formation: **Conglomerate - Arbuc**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:31:19

Time Test Ended: 07:12:33

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

Interval: 3847.00 ft (KB) To 3880.00 ft (KB) (TVD)

Reference Elevations: 2146.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

2141.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8369

Inside

Press@RunDepth: 87.19 psig @ 3852.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.07

End Date:

2014.01.08

Last Calib.: 2014.01.08

Start Time: 23:45:24

End Time:

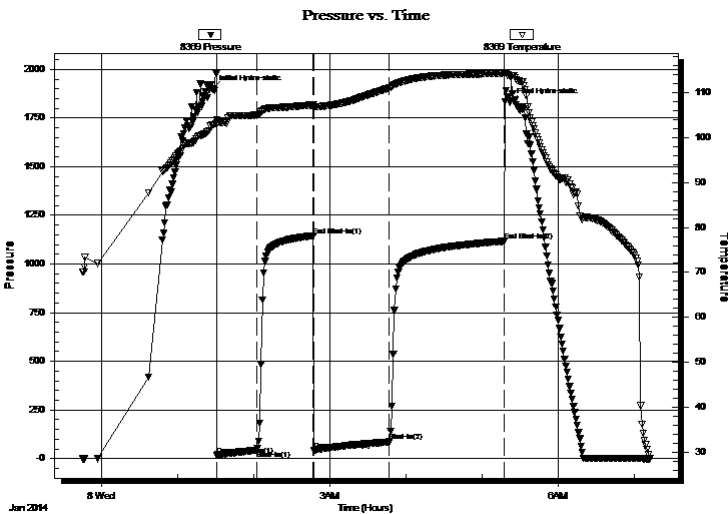
07:12:33

Time On Btm: 2014.01.08 @ 01:28:04

Time Off Btm: 2014.01.08 @ 05:21:48

TEST COMMENT: 30-IFP-w k to a gd bl 1/2" to 7" bl
45-ISIP-no bl
60-FFP-w k to a strg bl in 57 min
90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1898.22	102.82	Initial Hydro-static
4	18.57	103.24	Open To Flow (1)
35	44.07	105.07	Shut-In(1)
79	1145.53	107.30	End Shut-In(1)
80	43.32	106.96	Open To Flow (2)
139	87.19	111.09	Shut-In(2)
229	1116.71	114.28	End Shut-In(2)
234	1830.88	113.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	190'GIP	0.00
85.00	CO	1.19
90.00	MGO 10%G40%M50%O	1.26

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Quest Energy LLC

10-17s-19w Rush,KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

Job Ticket: 55469

DST#: 1

ATTN: Tracy Hynes / Ken Wa

Test Start: 2014.01.07 @ 23:45:24

Tool Information

Drill Pipe:	Length: 3837.00 ft	Diameter: 3.80 inches	Volume: 53.82 bbl	Tool Weight: 2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3847.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3824.00	
Shut In Tool	5.00			3829.00	
Hydraulic tool	5.00			3834.00	
Safety Joint	3.00			3837.00	
Packer	5.00			3842.00	24.00 Bottom Of Top Packer
Packer	5.00			3847.00	
Stubb	1.00			3848.00	
Perforations	4.00			3852.00	
Recorder	0.00	8369	Inside	3852.00	
Recorder	0.00	8700	Outside	3852.00	
Perforations	25.00			3877.00	
Bullnose	3.00			3880.00	33.00 Bottom Packers & Anchor

Total Tool Length: 57.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Quest Energy LLC

10-17s-19w Rush,KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

Job Ticket: 55469

DST#: 1

ATTN: Tracy Hynes / Ken Wa

Test Start: 2014.01.07 @ 23:45:24

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	190'GIP	0.000
85.00	CO	1.192
90.00	MGO 10%G40%M50%O	1.262

Total Length: 175.00 ft

Total Volume: 2.454 bbl

Num Fluid Samples: 0

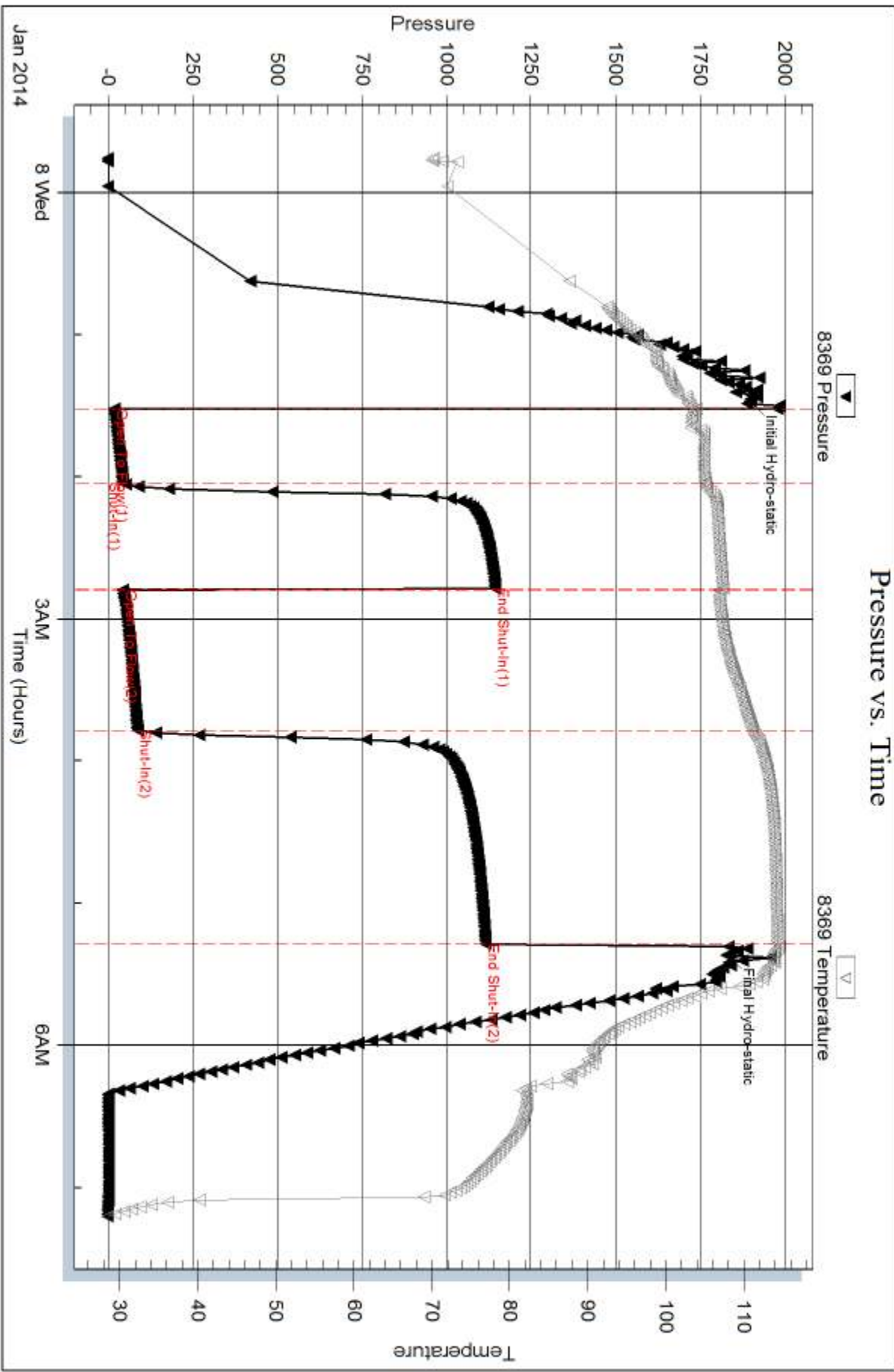
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

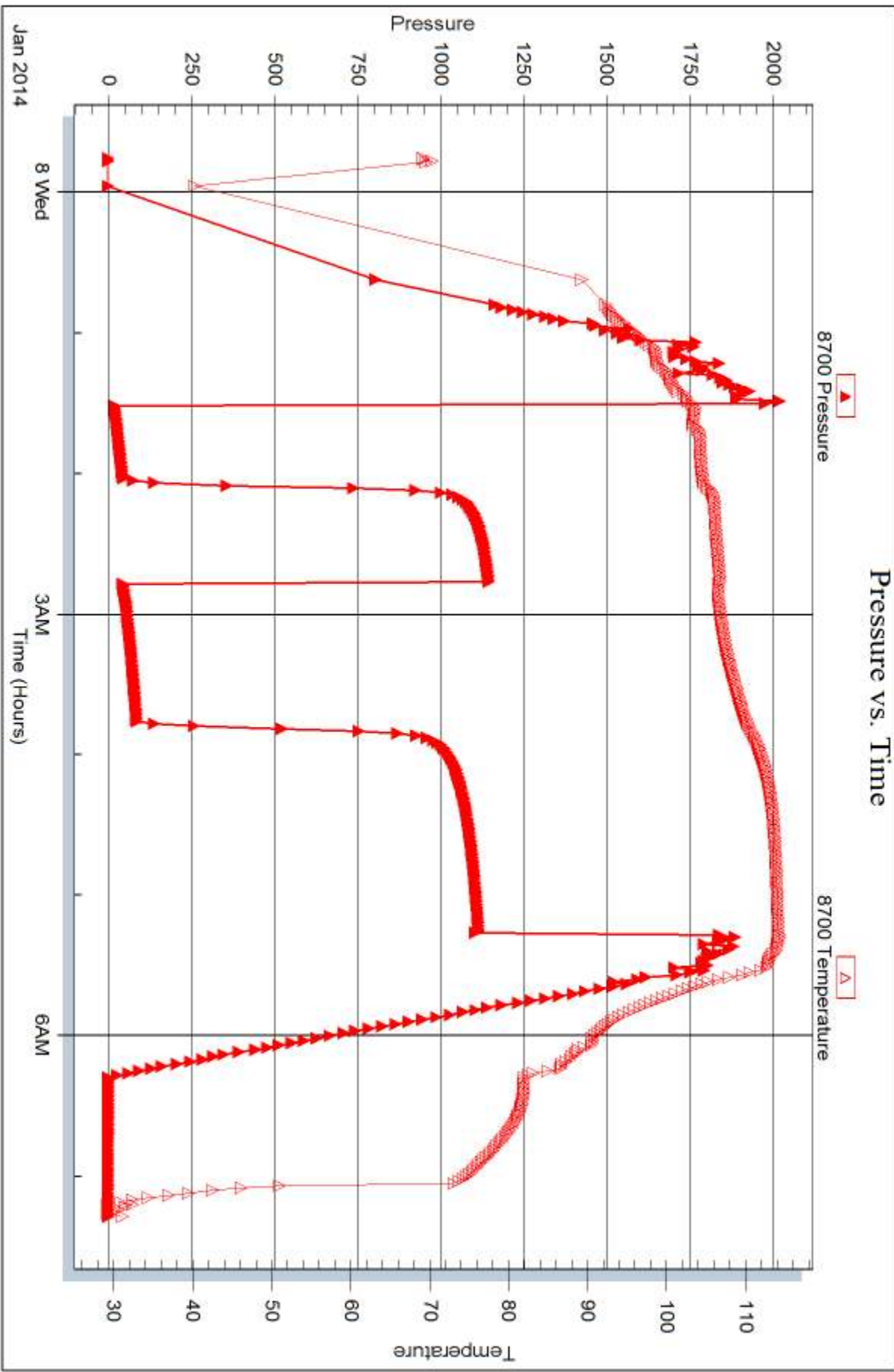


Serial #: 8700

Outside Quest Energy LLC

Ivvin Trust #1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55469

Printed: 2014.01.10 @ 09:21:25



DRILL STEM TEST REPORT

Prepared For: **Quest Energy LLC**

2732 N. Reese Rd.
Brookville KS 67425-9812

ATTN: Tracy Hynes / Ken Wa

Irvin Trust #1

10-17s-19w Rush,KS

Start Date: 2014.01.09 @ 01:50:11

End Date: 2014.01.09 @ 09:23:50

Job Ticket #: 55470 DST #: 2

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

Printed: 2014.01.10 @ 09:20:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Quest Energy LLC

10-17s-19w Rush, KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

ATTN: Tracy Hynes / Ken Wa

Job Ticket: 55470

DST#: 2

Test Start: 2014.01.09 @ 01:50:11

GENERAL INFORMATION:

Formation: **Conglomerate**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:28:36
 Time Test Ended: 09:23:50
 Interval: **3824.00 ft (KB) To 3874.00 ft (KB) (TVD)**
 Total Depth: 3935.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Ray Schwager
 Unit No: 70
 Reference Elevations: 2146.00 ft (KB)
 2141.00 ft (CF)
 KB to GR/CF: 5.00 ft

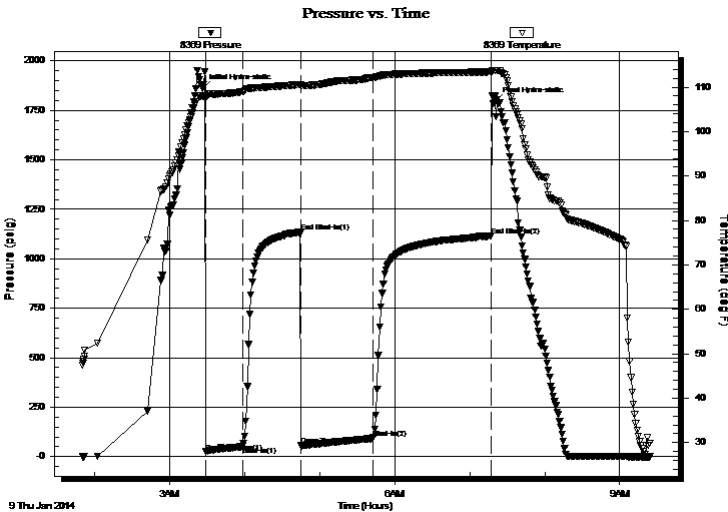
Serial #: 8369

Inside

Press@RunDepth: 91.87 psig @ 3832.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.09 End Date: 2014.01.09 Last Calib.: 2014.01.09
 Start Time: 01:50:11 End Time: 09:23:50 Time On Btm: 2014.01.09 @ 03:25:51
 Time Off Btm: 2014.01.09 @ 07:20:35

TEST COMMENT: 30-IFP-w k to a fr bl 1/2" to 4" bl
 45-ISIP-no bl
 60-FFP-w k bl thru-out 1/2" to 3" bl
 90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1861.89	108.00	Initial Hydro-static
3	24.28	107.41	Open To Flow (1)
33	51.29	108.95	Shut-In(1)
79	1134.29	110.59	End Shut-In(1)
79	54.93	110.32	Open To Flow (2)
137	91.87	112.19	Shut-In(2)
232	1114.56	113.46	End Shut-In(2)
235	1796.35	113.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	90'GIP	0.00
10.00	CO	0.14
80.00	HO&GCM 10%G40%O50%M	1.12
60.00	HO&GCM 10%G30%O60%M	0.84

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Quest Energy LLC

10-17s-19w Rush,KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

Job Ticket: 55470

DST#: 2

ATTN: Tracy Hynes / Ken Wa

Test Start: 2014.01.09 @ 01:50:11

Tool Information

Drill Pipe:	Length: 3833.00 ft	Diameter: 3.80 inches	Volume: 53.77 bbl	Tool Weight: 2200.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 53.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3824.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	3874.00 ft			
Interval between Packers:	50.00 ft			
Tool Length:	138.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Change Over Sub	1.00			3801.00	
Shut In Tool	5.00			3806.00	
Hydraulic tool	5.00			3811.00	
Safety Joint	3.00			3814.00	
Packer	5.00			3819.00	24.00 Bottom Of Top Packer
Packer	5.00			3824.00	
Stubb	1.00			3825.00	
Perforations	7.00			3832.00	
Recorder	0.00	8369	Inside	3832.00	
Recorder	0.00	8700	Outside	3832.00	
Blank Spacing	33.00			3865.00	
Perforations	5.00			3870.00	
Blank Off Sub	1.00			3871.00	
Blank Spacing	3.00			3874.00	50.00 Tool Interval
Packer	5.00			3879.00	
Stubb	1.00			3880.00	
Perforations	22.00			3902.00	
Recorder	0.00	8374	Below	3902.00	
Blank Spacing	33.00			3935.00	
Bullnose	3.00			3938.00	64.00 Bottom Packers & Anchor

Total Tool Length: 138.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Quest Energy LLC

10-17s-19w Rush,KS

2732 N. Reese Rd.
Brookville KS 67425-9812

Irvin Trust #1

Job Ticket: 55470

DST#: 2

ATTN: Tracy Hynes / Ken Wa

Test Start: 2014.01.09 @ 01:50:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.73 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	90'GIP	0.000
10.00	CO	0.140
80.00	HO&GCM 10%G40%O50%M	1.122
60.00	HO&GCM 10%G30%O60%M	0.842

Total Length: 150.00 ft

Total Volume: 2.104 bbl

Num Fluid Samples: 0

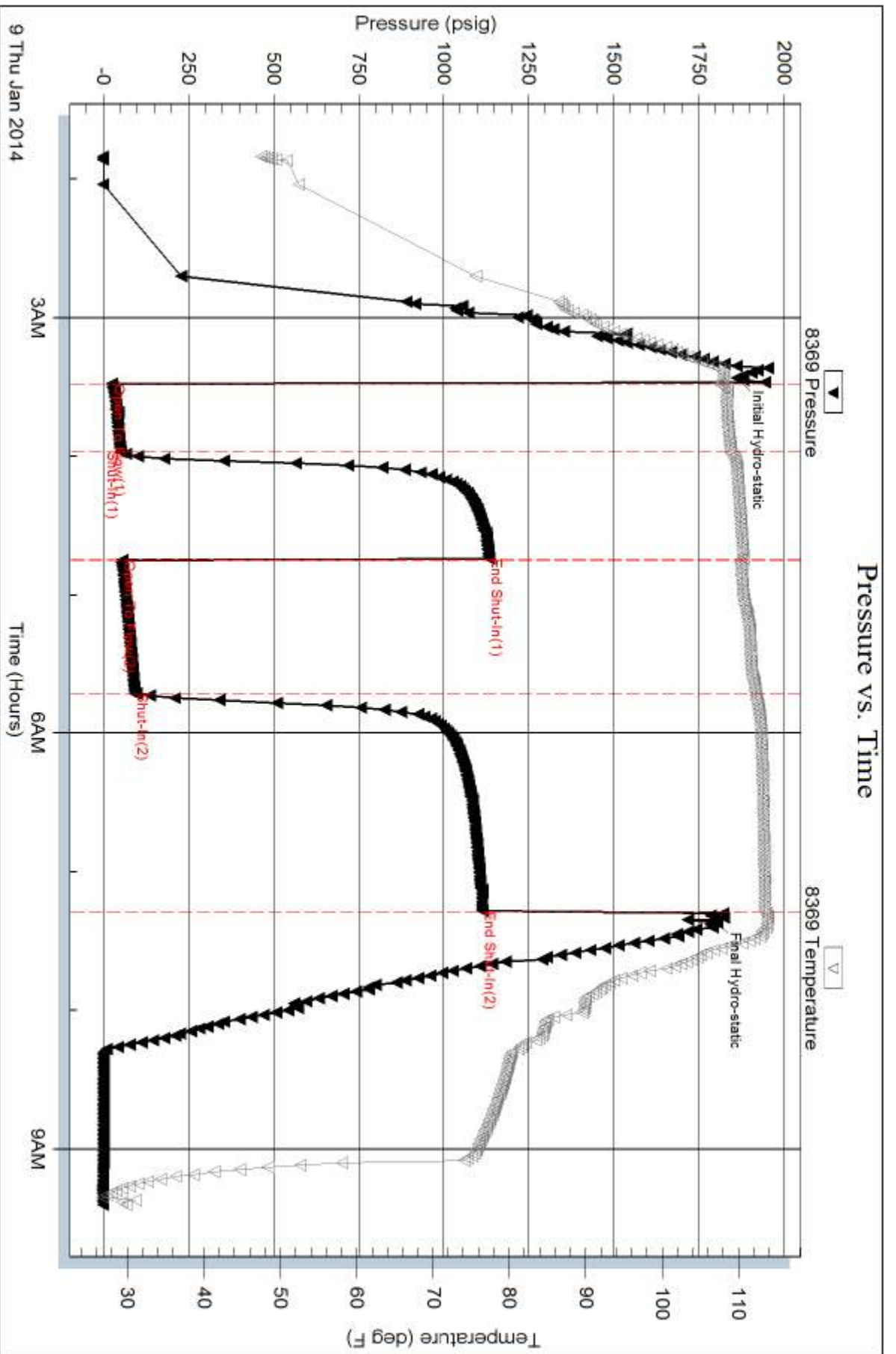
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

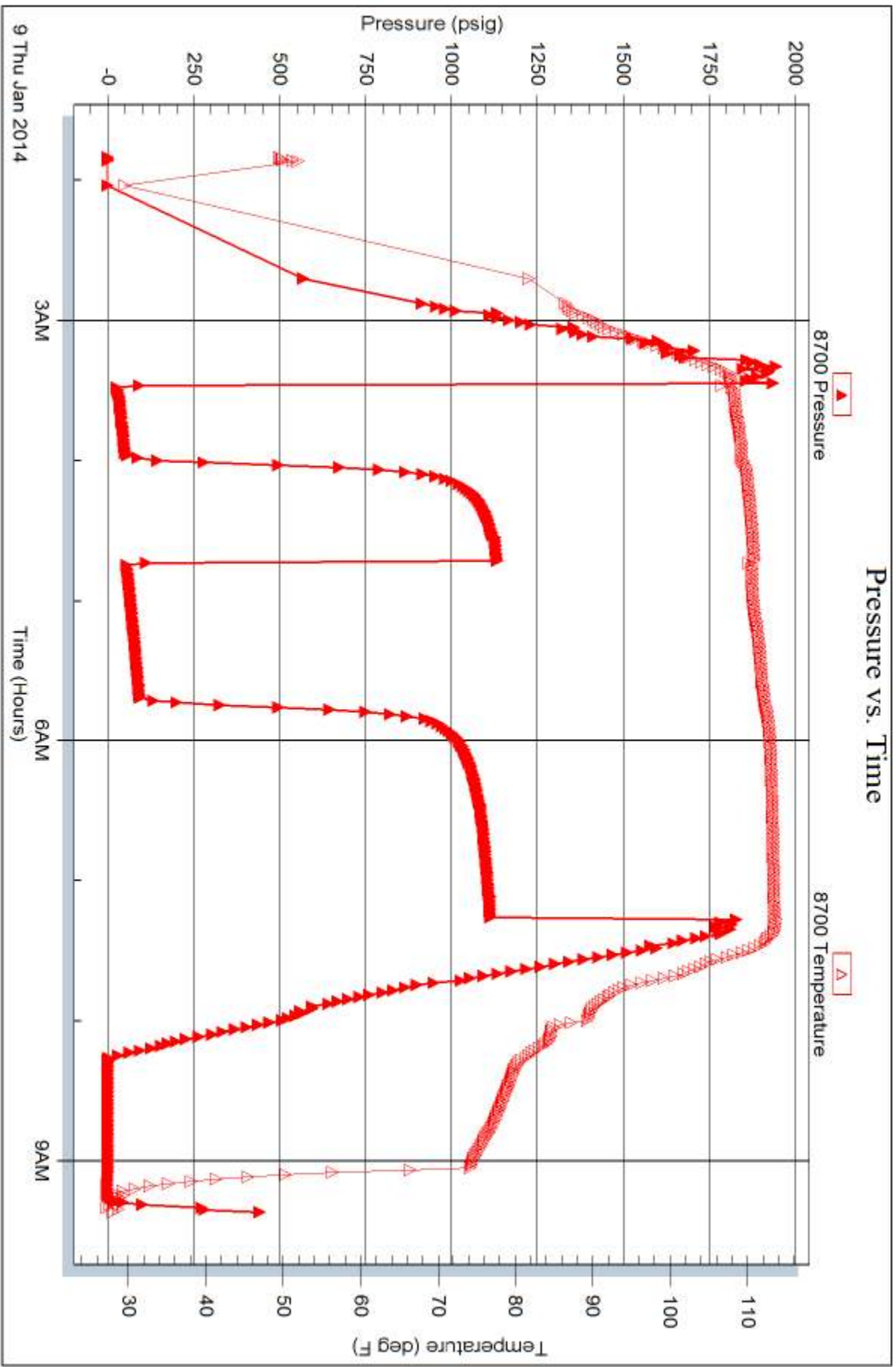


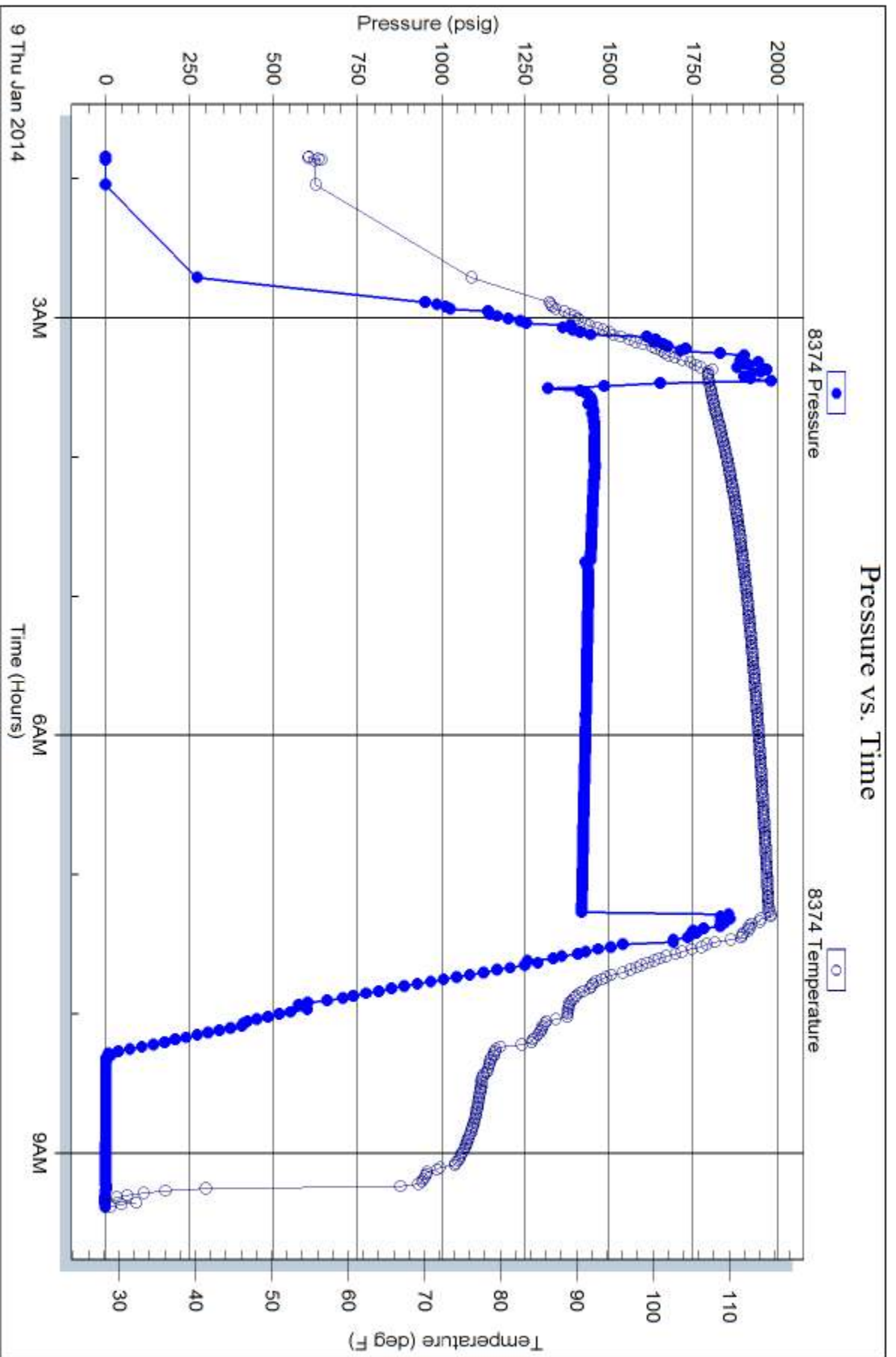
Serial #: 8700

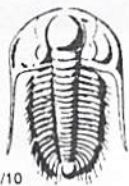
Outside Quest Energy LLC

Ivin Trust #1

DST Test Number: 2







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55469

Well Name & No. Irvin Trust #1 Test No. 1 Date 1-7-14
 Company Quest Energy LLC Elevation 2146 KB 2141 GL
 Address 2732 N. Reese Rd. Brookville, Mo 67425-9812
 Co. Rep / Geo. Ken Wallace Rig Royal rig
 Location: Sec. 10 Twp. 17^s Rge. 19^w Co. Rush State Mo

Interval Tested 3847-3880 Zone Tested Cond - Arbuckle
 Anchor Length 33 Drill Pipe Run 3837 Mud Wt. 9.3
 Top Packer Depth 3842 Drill Collars Run - Vis 51
 Bottom Packer Depth 3847 Wt. Pipe Run - WL 8.8
 Total Depth 3880 Chlorides 4000 ppm System LCM 2#
 Blow Description I FP - WEAK TO A GOOD BLOW 1/2" TO 7" BLOW
ISIP - NO BLOW
FFP - WEAK TO A STRONG BLOW IN 57 MIN
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>6IP</u>				
<u>85</u>	<u>CO</u>				
<u>90</u>	<u>MGO</u>	<u>10</u>	<u>50</u>		<u>40</u>

Rec Total 175 BHT 114 Gravity 37 API RW - @ - ° F Chlorides - ppm
 Test 1150 T-On Location 2155
 Jars T-Started 2345
 Safety Joint 75 T-Open 0130
 Circ Sub T-Pulled 0515
 Hourly Standby T-Out 0712
 Mileage 56 RT 86.80 Comments _____
 Sampler _____
 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90
 Sub Total 0
 Total 1311.80
 MP/DST Disc't _____
 Sub Total 1311.80

Approved By Ken Wallace Our Representative Ray Schwager *Thank you*

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55470

Well Name & No. IRVIN Trust #1 Test No. 2 Date 1-9-14
 Company QUEST Energy LLC Elevation 2146 KB 2141 GL
 Address 2732 N. Reese Rd. Brookville, Mo 6425-9812
 Co. Rep / Geo. Ken Wallace Rig Royal rig 1
 Location: Sec. 10 Twp. 17^s Rge. 19^w Co. Rush State Mo

Interval Tested 3824-3874 Zone Tested Congl.
 Anchor Length 50 Drill Pipe Run 3833 Mud Wt. 9.1
 Top Packer Depth 3824-3819 Drill Collars Run - Vis 55
 Bottom Packer Depth 3874 Wt. Pipe Run - WL 8.8
 Total Depth 3935 Chlorides 5000 ppm System LCM 2#

Blow Description IFP - WEAK TO A FAIR BLOW 1/2" TO 4" BLOW
ISIP - NO BLOW
FFP - WEAK BLOW THRU-OUT 1/2" TO 3" BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>GIP</u>				
<u>10</u>	<u>CO</u>				
<u>80</u>	<u>H0+GCM</u>	<u>10</u>	<u>40</u>		<u>50</u>
<u>60</u>	<u>H0+GCM</u>	<u>10</u>	<u>30</u>		<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 150 BHT 113 Gravity 37 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1861</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0105</u>
(B) First Initial Flow <u>24</u>	<input type="checkbox"/> Jars	T-Started <u>0150</u>
(C) First Final Flow <u>51</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0325</u>
(D) Initial Shut-In <u>1134</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0710</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0923</u>
(F) Second Final Flow <u>91</u>	<input checked="" type="checkbox"/> Mileage <u>56RT</u> <u>86.80</u>	Comments
(G) Final Shut-In <u>1114</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1796</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1911.80</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1911.80</u>	

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90

Approved By Ken Wallace Our Representative Ray Schwager Thank you

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