



DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co.,LLc**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #4-13

Start Date: 2014.05.09 @ 16:57:00

End Date: 2014.05.10 @ 00:26:15

Job Ticket #: 58951 DST #: 1

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

Printed: 2014.05.15 @ 11:42:02

Baird Oil Co.,LLc
Esther Worcester #4-13
13-7s-22w Graham,KS
DST # 1
Arbuckle
2014.05.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 58951

DST#: 1

Test Start: 2014.05.09 @ 16:57:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:22:15

Time Test Ended: 00:26:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 3648.00 ft (KB) To 3711.00 ft (KB) (TVD)

Reference Elevations: 2176.00 ft (KB)

Total Depth: 3711.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957

Inside

Press@RunDepth: 113.29 psig @ 3654.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.10

Last Calib.: 2014.05.10

Start Time: 16:57:05

End Time:

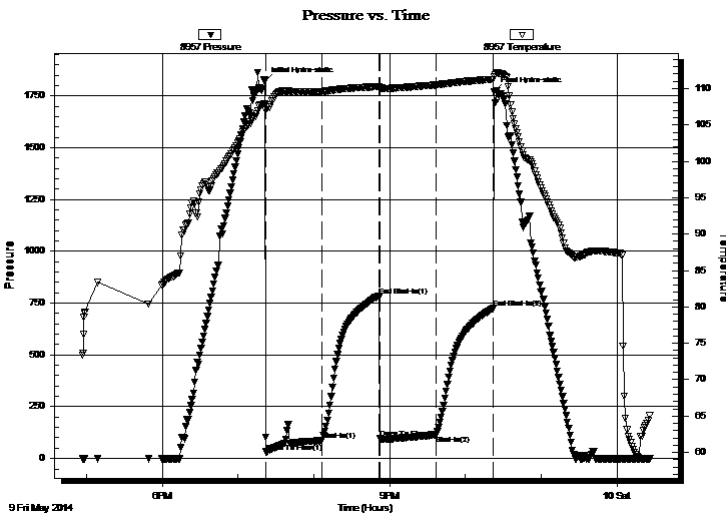
00:26:14

Time On Btm: 2014.05.09 @ 19:21:15

Time Off Btm: 2014.05.09 @ 22:22:45

TEST COMMENT: IF-BOB in 42 min
IS-No blow
FF-8in blow
FSI-Weak surface blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1821.26	107.95	Initial Hydro-static
1	31.71	107.49	Open To Flow (1)
46	86.71	109.54	Shut-In(1)
91	784.66	110.26	End Shut-In(1)
91	95.54	110.05	Open To Flow (2)
136	113.29	110.49	Shut-In(2)
181	724.36	111.25	End Shut-In(2)
182	1769.97	111.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSGOCM 5%G 20%O 75%M	0.30
40.00	SGOCM 10%G 35%O 55%M	0.20
150.00	SGO 10%G 90%O	1.92
0.00	115ft GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58951

DST#: 1

ATTN: Richard Bell

Test Start: 2014.05.09 @ 16:57:00

Tool Information

Drill Pipe:	Length: 3509.00 ft	Diameter: 3.80 inches	Volume: 49.22 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3648.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	91.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3625.00	
Hydraulic tool	5.00			3630.00	
Jars	5.00			3635.00	
Safety Joint	3.00			3638.00	
Packer	5.00			3643.00	28.00 Bottom Of Top Packer
Packer	5.00			3648.00	
Stubb	1.00			3649.00	
Perforations	5.00			3654.00	
Recorder	0.00	8957	Inside	3654.00	
Recorder	0.00	8934	Outside	3654.00	
Change Over Sub	1.00			3655.00	
Drill Pipe	30.00			3685.00	
Change Over Sub	1.00			3686.00	
Perforations	22.00			3708.00	
Bullnose	3.00			3711.00	63.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58951 **DST#: 1**

ATTN: Richard Bell

Test Start: 2014.05.09 @ 16:57:00

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: ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.79 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSGOCM 5%G 20%O 75%M	0.295
40.00	SGOCM 10%G 35%O 55%M	0.197
150.00	SGO 10%G 90%O	1.922
0.00	115ft GIP	0.000

Total Length: 250.00 ft Total Volume: 2.414 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8957

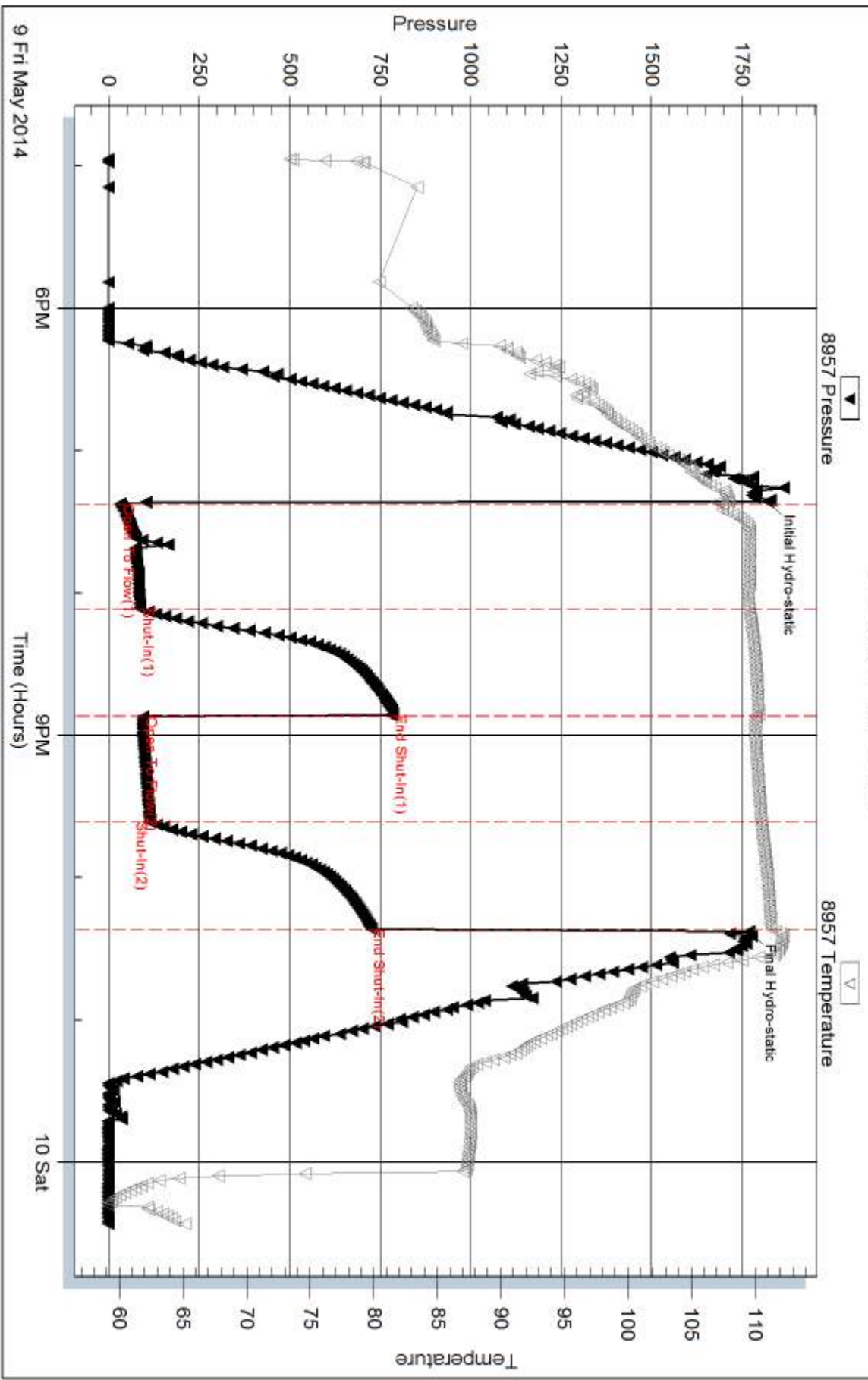
Inside

Baird Oil Co., LLC

13-7s-22w Graham, KS

DST Test Number: 1

Pressure vs. Time



Tribble Testing, Inc

Ref. No: 58951

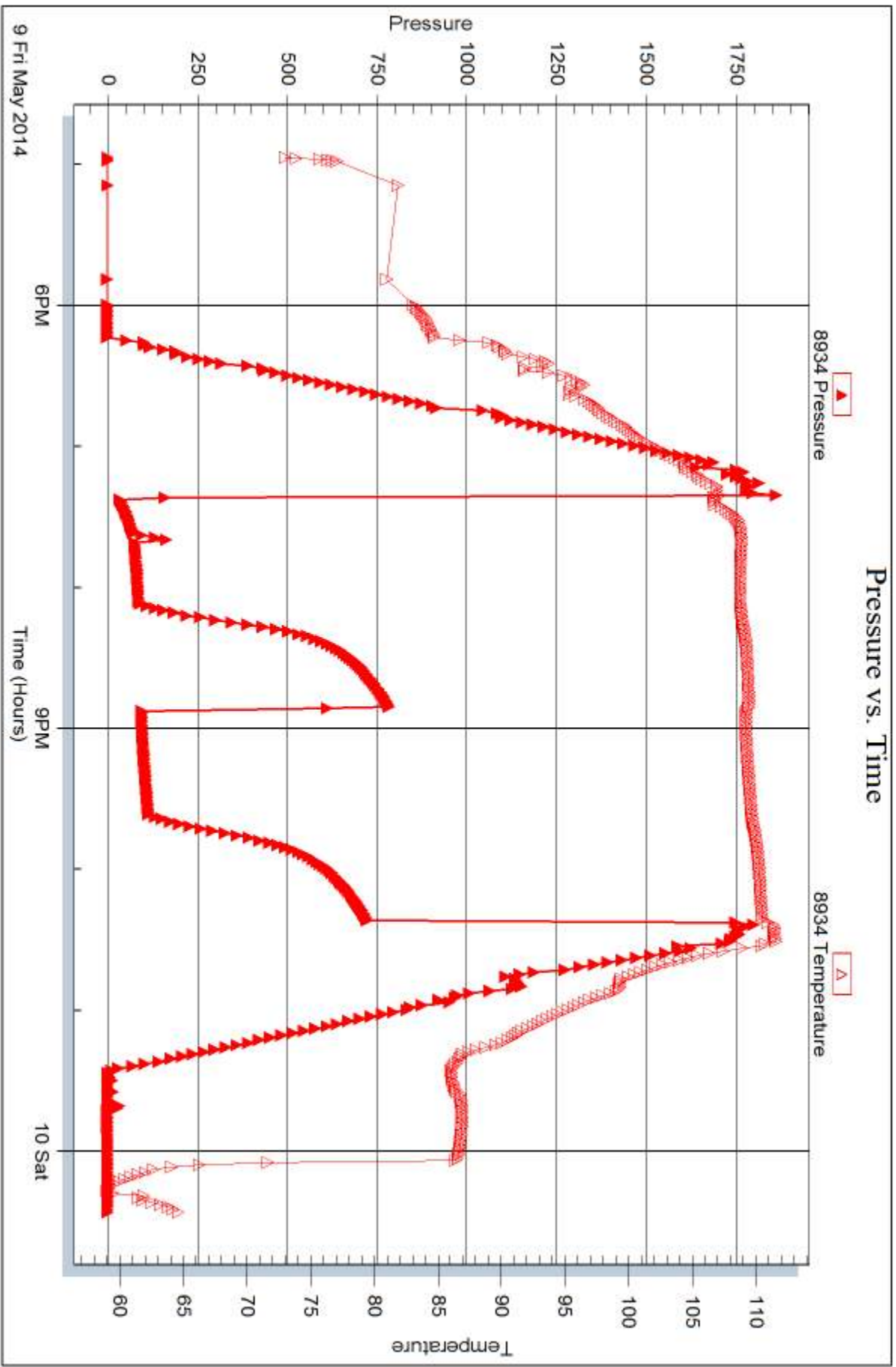
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Serial #: 8934

Outside Baird Oil Co., LLC

13-7s-22w Graham, KS

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 58951

Printed: 2014.05.15 @ 11:42:03



DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co.,LLc**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #4-13

Start Date: 2014.05.10 @ 05:28:00

End Date: 2014.05.10 @ 12:20:15

Job Ticket #: 58952 DST #: 2

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

Printed: 2014.05.15 @ 11:41:36

Baird Oil Co.,LLc
Esther Worcester #4-13
13-7s-22w Graham,KS
DST # 2
Arbuckle
2014.05.10



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 58952

DST#: 2

Test Start: 2014.05.10 @ 05:28:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:34:45

Time Test Ended: 12:20:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3711.00 ft (KB) To 3726.00 ft (KB) (TVD)

Reference Elevations: 2176.00 ft (KB)

Total Depth: 3726.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957 Inside

Press@RunDepth: 88.72 psig @ 3713.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.10

End Date: 2014.05.10

Last Calib.: 2014.05.10

Start Time: 05:28:05

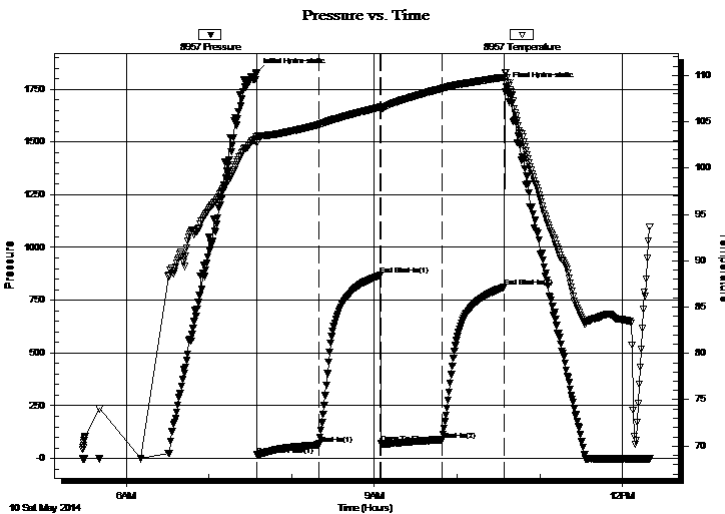
End Time: 12:20:14

Time On Btm: 2014.05.10 @ 07:34:15

Time Off Btm: 2014.05.10 @ 10:35:30

TEST COMMENT: IF-8 1/2" blow
IS-No blow
FF-5" blow
FSI-Weak Surface blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1829.77	103.36	Initial Hydro-static
1	16.69	102.74	Open To Flow (1)
46	65.19	104.68	Shut-In(1)
90	867.77	106.58	End Shut-In(1)
91	69.74	106.41	Open To Flow (2)
135	88.72	108.58	Shut-In(2)
180	812.49	109.81	End Shut-In(2)
182	1764.21	110.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VSGMCO 5%G 30%M 65%O	0.30
190.00	SGO 10%G 90%O	2.12
0.00	55ft GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58952

DST#: 2

ATTN: Richard Bell

Test Start: 2014.05.10 @ 05:28:00

Tool Information

Drill Pipe:	Length: 3569.00 ft	Diameter: 3.80 inches	Volume: 50.06 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
				String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	6.00 ft			Final	51000.00 lb
Depth to Top Packer:	3711.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	43.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3688.00	
Hydraulic tool	5.00			3693.00	
Jars	5.00			3698.00	
Safety Joint	3.00			3701.00	
Packer	5.00			3706.00	28.00 Bottom Of Top Packer
Packer	5.00			3711.00	
Stubb	1.00			3712.00	
Perforations	1.00			3713.00	
Recorder	0.00	8957	Inside	3713.00	
Recorder	0.00	8934	Outside	3713.00	
Perforations	10.00			3723.00	
Bullnose	3.00			3726.00	15.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58952 **DST#: 2**

ATTN: Richard Bell

Test Start: 2014.05.10 @ 05:28:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.78 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VSGMCO 5%G 30%M 65%O	0.295
190.00	SGO 10%G 90%O	2.119
0.00	55ft GIP	0.000

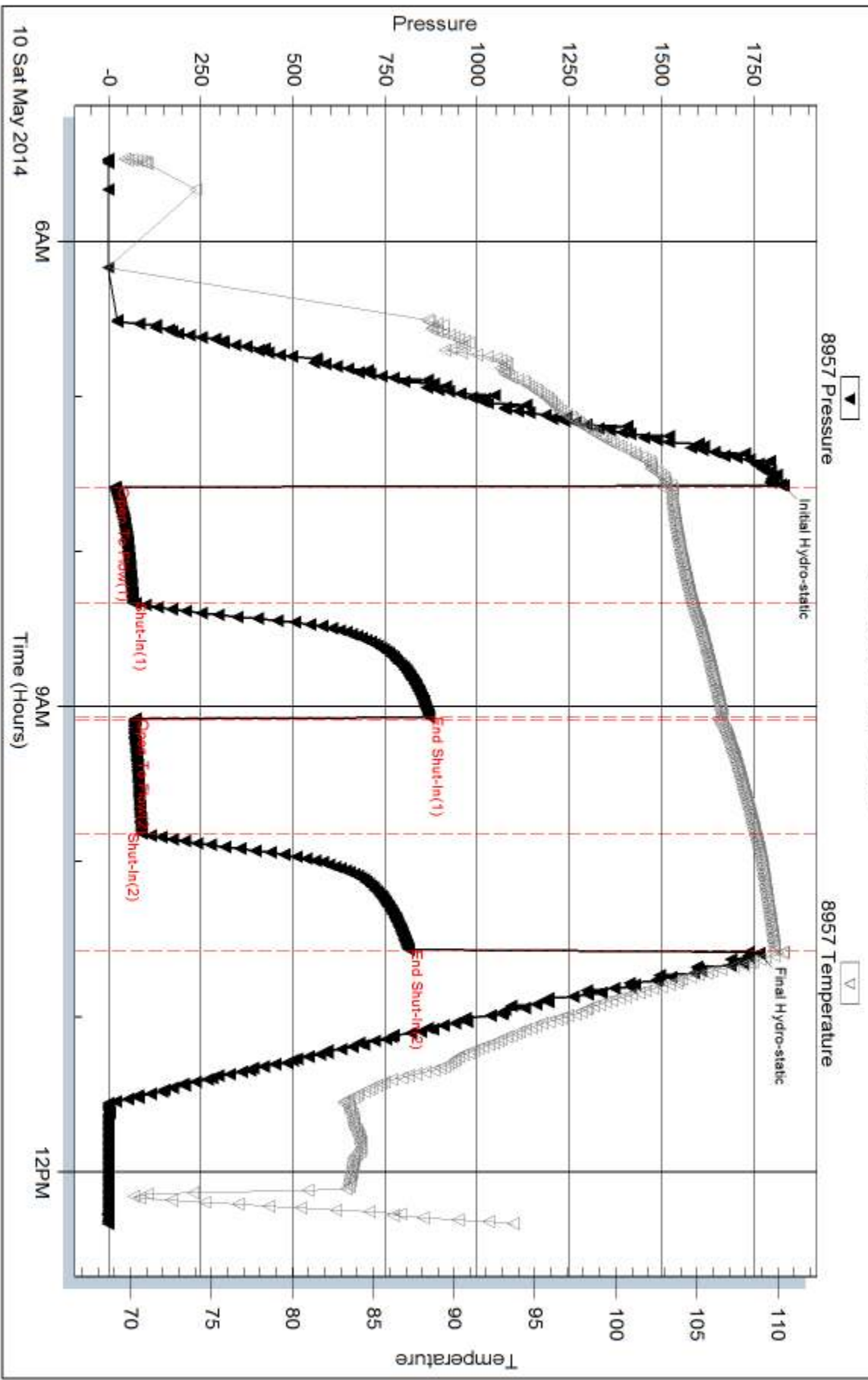
Total Length: 250.00 ft Total Volume: 2.414 bbl

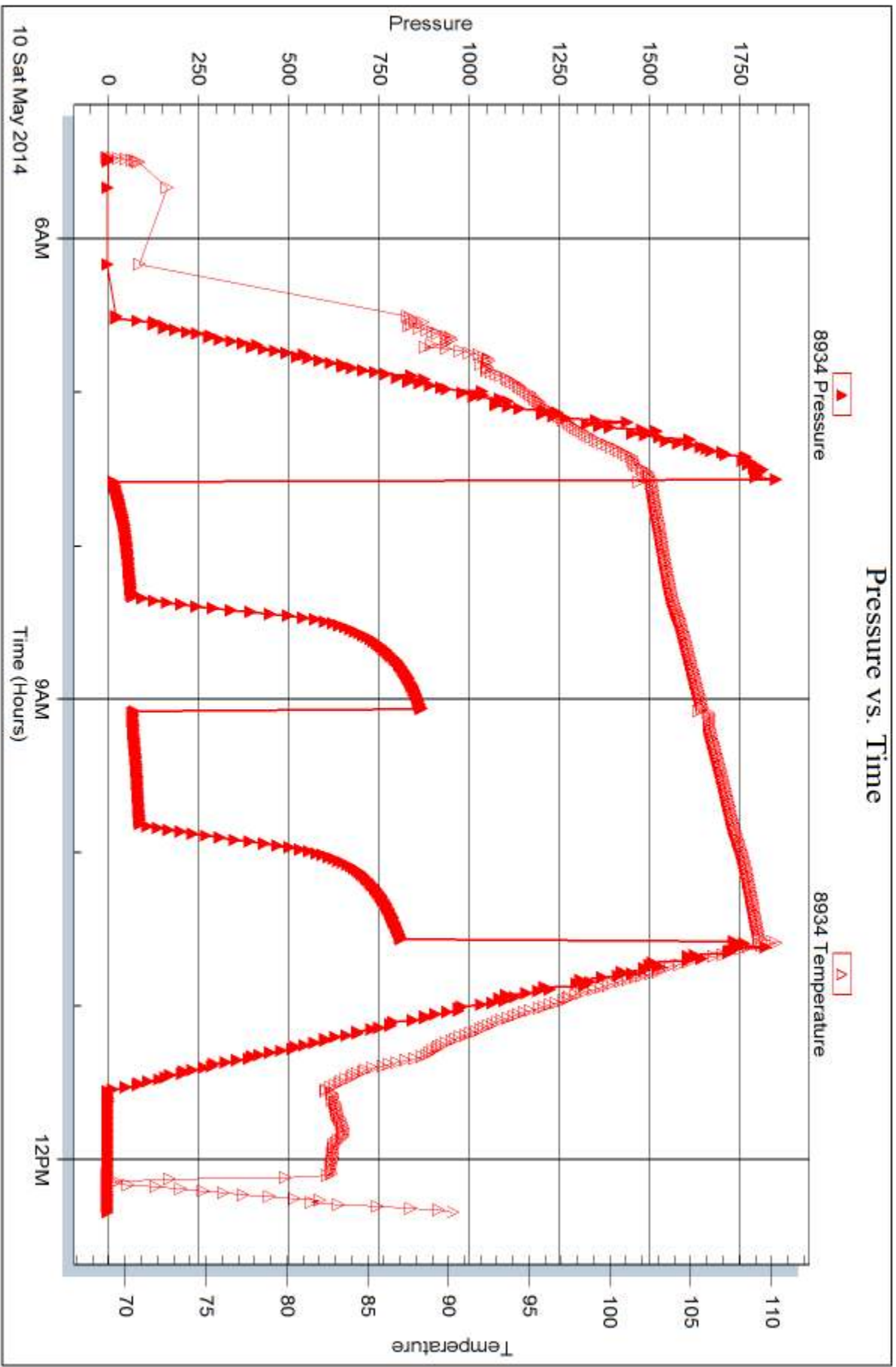
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co.,LLc**

PO Box 428
Logan KS 67646

ATTN: Richard Bell

13-7s-22w Graham,KS

Esther Worcester #4-13

Start Date: 2014.05.10 @ 17:40:00

End Date: 2014.05.10 @ 23:43:00

Job Ticket #: 58953 DST #: 3

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

Printed: 2014.05.15 @ 11:41:09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

ATTN: Richard Bell

Job Ticket: 58953

DST#: 3

Test Start: 2014.05.10 @ 17:40:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:00

Time Test Ended: 23:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 3726.00 ft (KB) To 3741.00 ft (KB) (TVD)

Reference Elevations: 2176.00 ft (KB)

Total Depth: 3741.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8957

Inside

Press@RunDepth: 25.36 psig @ 3728.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.10

End Date:

2014.05.10

Last Calib.:

2014.05.10

Start Time: 17:40:05

End Time:

23:42:59

Time On Btm:

2014.05.10 @ 20:03:30

Time Off Btm:

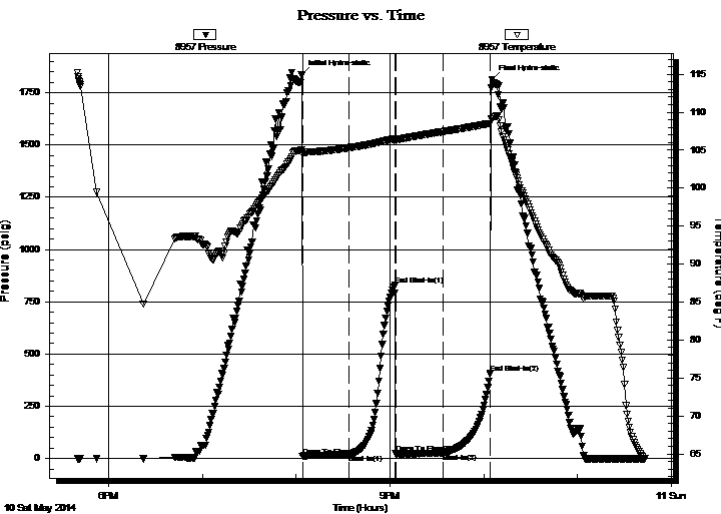
2014.05.10 @ 22:05:30

TEST COMMENT: IF-Weak surface blow

IS-No blow

FF-No blow

FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.23	105.13	Initial Hydro-static
1	12.05	104.40	Open To Flow (1)
31	18.84	105.33	Shut-In(1)
60	828.32	106.52	End Shut-In(1)
60	22.61	106.12	Open To Flow (2)
91	25.36	107.45	Shut-In(2)
121	406.92	108.56	End Shut-In(2)
122	1811.73	109.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	VSGOCM 5%G 40%O 55%M	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58953

DST#: 3

ATTN: Richard Bell

Test Start: 2014.05.10 @ 17:40:00

Tool Information

Drill Pipe:	Length: 3608.00 ft	Diameter: 3.80 inches	Volume: 50.61 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	30.00 ft			Final	50000.00 lb
Depth to Top Packer:	3726.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	43.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3703.00	
Hydraulic tool	5.00			3708.00	
Jars	5.00			3713.00	
Safety Joint	3.00			3716.00	
Packer	5.00			3721.00	28.00 Bottom Of Top Packer
Packer	5.00			3726.00	
Stubb	1.00			3727.00	
Perforations	1.00			3728.00	
Recorder	0.00	8957	Inside	3728.00	
Recorder	0.00	8934	Outside	3728.00	
Perforations	10.00			3738.00	
Bullnose	3.00			3741.00	15.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Baird Oil Co.,LLc

Esther Worcester #4-13

PO Box 428
Logan KS 67646

13-7s-22w Graham,KS

Job Ticket: 58953

DST#: 3

ATTN: Richard Bell

Test Start: 2014.05.10 @ 17:40:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
30.00	VSGOCM 5%G 40%O 55%M	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

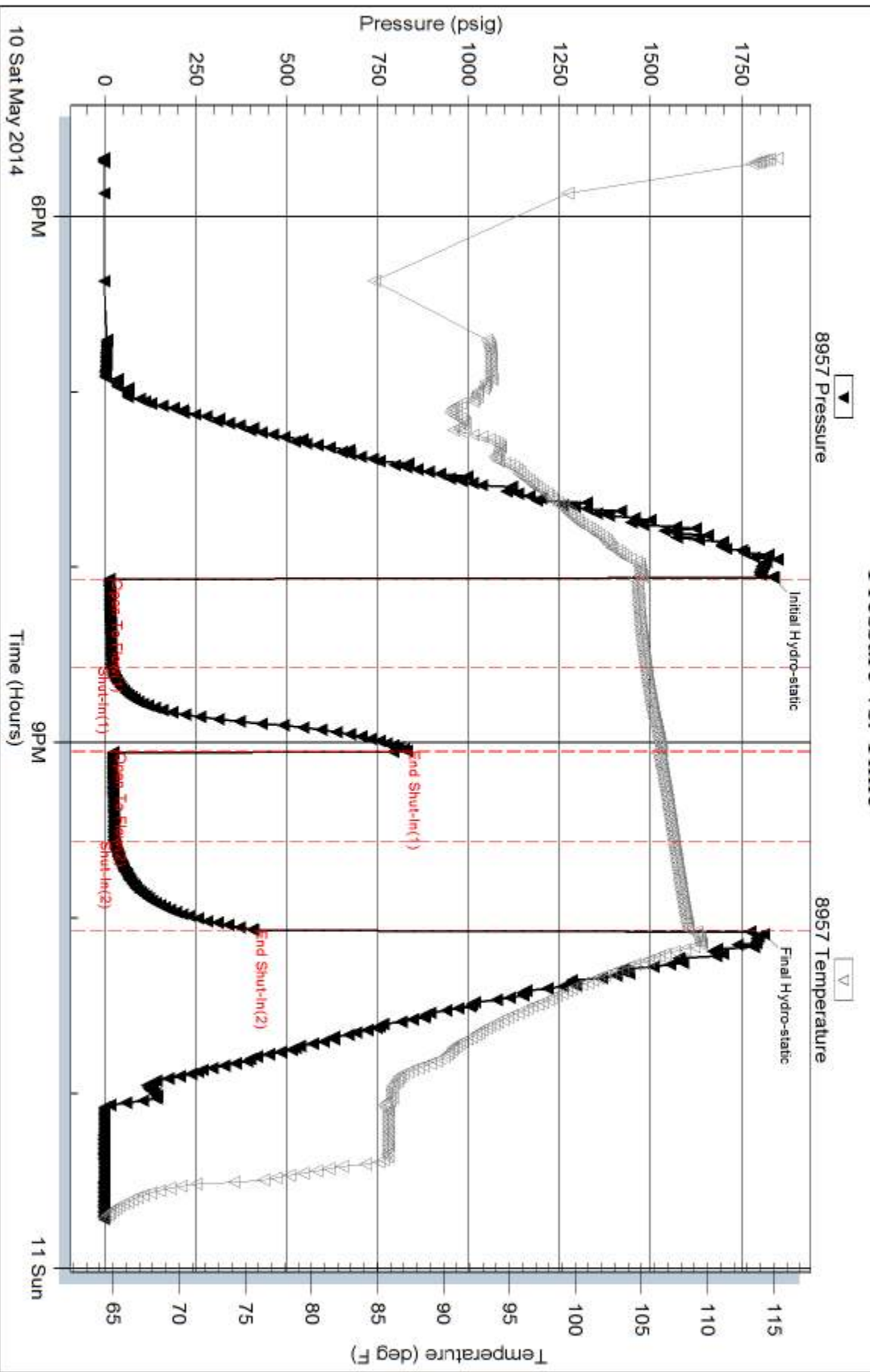
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

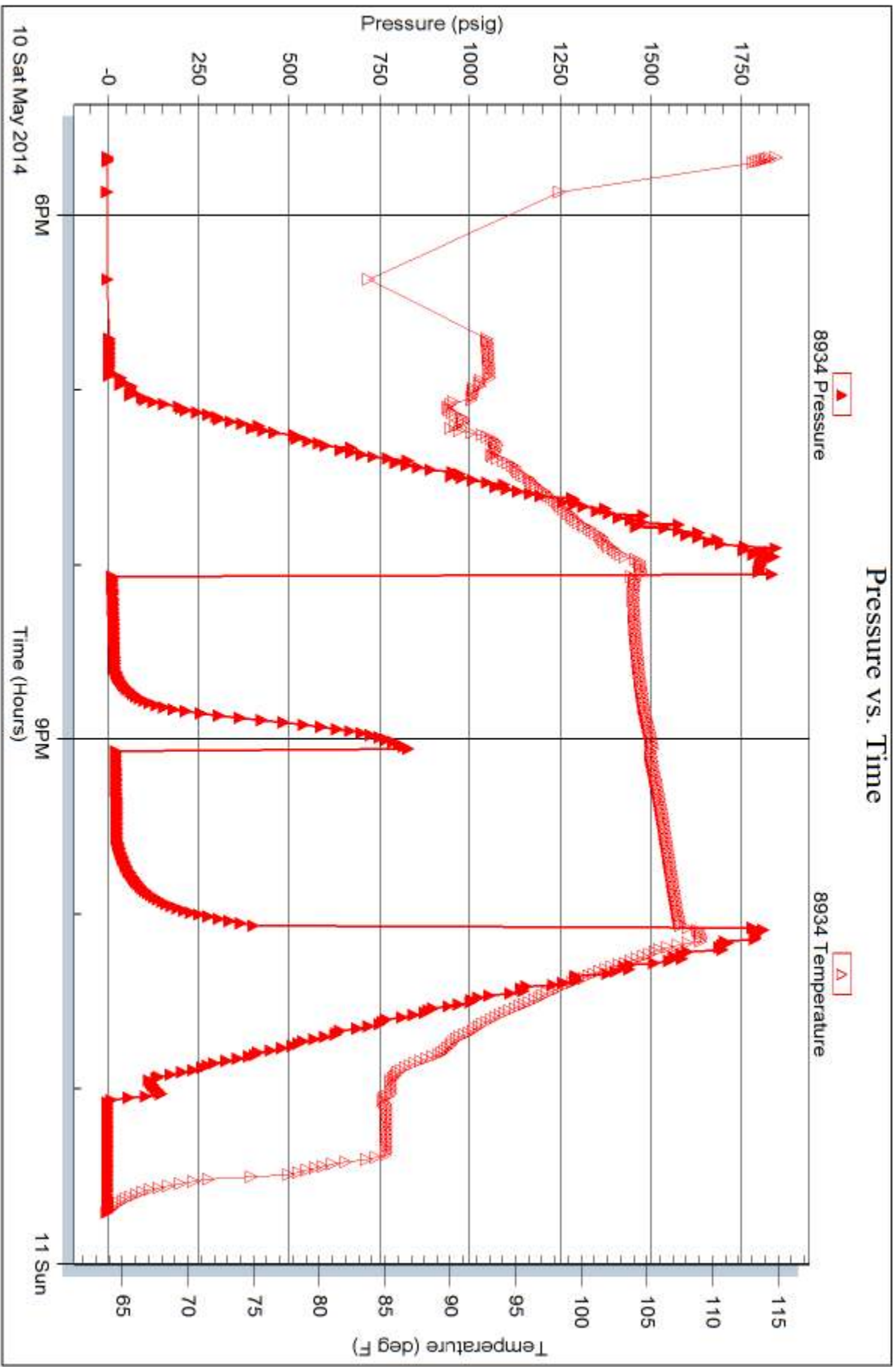


Serial #: 8934

Outside Baird Oil Co., LLC

13-7s-22w Graham, KS

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58953

Printed: 2014.05.15 @ 11:41:11



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58951

Well Name & No. Esther Worcester #4-13 Test No. 1 Date 5/9/14
 Company Baird Oil Company, LLC Elevation 2176 KB 2168 GL
 Address PO BOX 428 Logan KS 67646
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7S Rge. 22W Co. Graham State KS

Interval Tested 3648-3711 Zone Tested Arbuckle
 Anchor Length 63 Drill Pipe Run _____ Mud Wt. 9.0
 Top Packer Depth 3643 Drill Collars Run 120 Vis 57
 Bottom Packer Depth 3648 Wt. Pipe Run — WL 6.8
 Total Depth 3711 Chlorides 1,500 ppm System LCM 2[#]

Blow Description 7F-BOB in 42 min
ISI-No blow
FF-8 in blow
ISI-Surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>VSGOCM</u>	<u>5</u>	<u>20</u>	<u>75</u>	
<u>40</u>	<u>SGOCM</u>	<u>10</u>	<u>35</u>	<u>55</u>	
<u>150</u>	<u>SGO</u>	<u>10</u>	<u>90</u>		
____	<u>113 GGP</u>	____	____	____	____
____	____	____	____	____	____

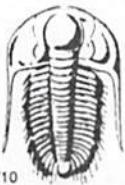
Rec Total 250 BHT 111 Gravity 27 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,821 Test 1150 T-On Location 16:40
 (B) First Initial Flow 32 Jars _____ T-Started 16:57
 (C) First Final Flow 87 Safety Joint _____ T-Open 19:22
 (D) Initial Shut-In 785 Circ Sub _____ T-Pulled 22:22
 (E) Second Initial Flow 96 Hourly Standby _____ T-Out 00:26
 (F) Second Final Flow 113 Mileage 90-T 139.50 Comments _____
 (G) Final Shut-In 724 Sampler _____
 (H) Final Hydrostatic 1,770 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1289.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1289.50

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45

Approved By _____ Our Representative Bull D...

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. 58952

4/10

Well Name & No. Esther Worcester #4-13 Test No. 2 Date 5/10/14
 Company Baird Oil Company, LLC Elevation 2176 KB 2168 GL
 Address PO BOX 428 Logan KS 67646
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7s Rge. 22w Co. Graham State KS

Interval Tested 3711 - 3726 Zone Tested Arb.
 Anchor Length 15 Drill Pipe Run _____ Mud Wt. 9.0
 Top Packer Depth 3706 Drill Collars Run 120 Vis 57
 Bottom Packer Depth 3711 Wt. Pipe Run — WL 6.8
 Total Depth 3726 Chlorides 1,500 ppm System LCM 2#
 Blow Description IF - 8 1/2 in blow
FSI - No blow
FF - 5 in blow
FSI - weak surface blow

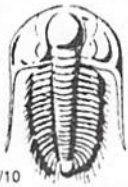
Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>VSGMCO</u>	<u>5</u>	<u>65</u>	<u>30</u>	
<u>190</u>	<u>360</u>	<u>10</u>	<u>90</u>		
	<u>55 ft GIP</u>				

Rec Total 250 BHT 110 Gravity 26 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,830 Test 1150 T-On Location _____
 (B) First Initial Flow 17 Jars _____ T-Started 6:28
 (C) First Final Flow 65 Safety Joint _____ T-Open 7:30
 (D) Initial Shut-In 868 Circ Sub _____ T-Pulled 10:30
 (E) Second Initial Flow 70 Hourly Standby _____ T-Out 12:17
 (F) Second Final Flow 89 Mileage 90.7 139.50 Comments _____
 (G) Final Shut-In 812 Sampler _____
 (H) Final Hydrostatic 1,764 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1289.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1289.50

Approved By _____ Our Representative Butt D...

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. 58953

4/10

Well Name & No. Esther Worcester Test No. 3 Date 5/10/14
 Company Baird Oil Company, LLC Elevation 2176 KB 2168 GL
 Address _____
 Co. Rep / Geo. Richard Bell Rig WW #12
 Location: Sec. 13 Twp. 7s Rge. 22w Co. Graham State KS

Interval Tested 3726-3741 Zone Tested Arb
 Anchor Length 15 Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 3721 Drill Collars Run 120 Vis 55
 Bottom Packer Depth 3726 Wt. Pipe Run — WL 7.2
 Total Depth 3741 Chlorides 6800 ppm System LCM 1#
 Blow Description IF - weak surface blow
ISF - No blow
FF - No blow
FSF - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>VSGOCM</u>	<u>5</u>	<u>40</u>	<u>55</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,837 Test 1150 T-On Location 17:40
 (B) First Initial Flow 12 Jars _____ T-Started 17:40
 (C) First Final Flow 19 Safety Joint _____ T-Open 20:02
 (D) Initial Shut-In 828 Circ Sub _____ T-Pulled 22:02
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 23:40
 (F) Second Final Flow 25 Mileage 90-7 139.50 Comments _____
 (G) Final Shut-In 407 Sampler _____
 (H) Final Hydrostatic 1,812 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1289.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1289.50

Approved By _____ Our Representative Burt D... [Signature]

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