



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723
Alma, NE. 68920

ATTN: Bob Peterson

OFB #1

2-1n-19w Phillips, KS

Start Date: 2014.02.01 @ 01:08:00

End Date: 2014.02.01 @ 07:45:30

Job Ticket #: 55164 DST #: 1

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

Printed: 2014.02.04 @ 13:49:26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55164

DST#: 1

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 01:08:00

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:48:15

Time Test Ended: 07:45:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 3396.00 ft (KB) To 3468.00 ft (KB) (TVD)

Reference Elevations: 2011.00 ft (KB)

Total Depth: 3468.00 ft (KB) (TVD)

2006.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8879

Inside

Press@RunDepth: 20.87 psig @ 3397.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.01

End Date:

2014.02.01

Last Calib.: 2014.02.01

Start Time: 01:08:05

End Time:

07:45:29

Time On Btm: 2014.02.01 @ 02:48:00

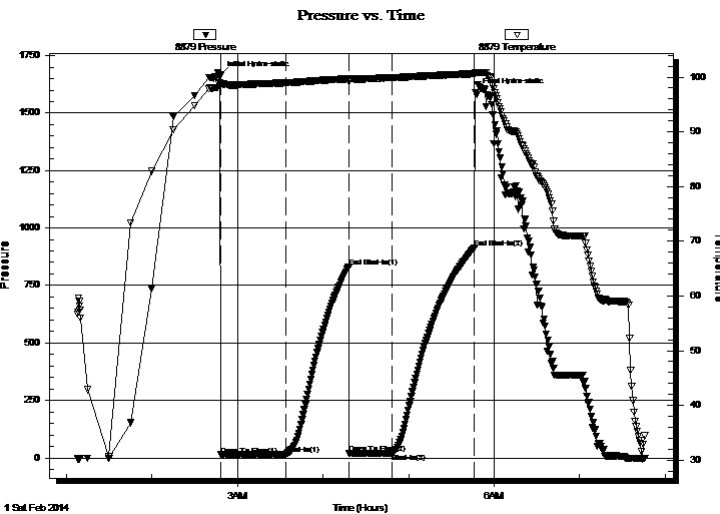
Time Off Btm: 2014.02.01 @ 05:47:00

TEST COMMENT: 45 - IF - Surface blow steadily built to 1"

45 - ISI - No Return

30 - FF - No Surface blow

45 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.43	98.91	Initial Hydro-static
1	13.27	98.40	Open To Flow (1)
46	16.85	98.96	Shut-In(1)
90	830.19	99.69	End Shut-In(1)
91	18.59	99.07	Open To Flow (2)
121	20.87	99.92	Shut-In(2)
179	914.55	100.61	End Shut-In(2)
179	1589.65	100.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud - 100M	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55164

DST#: 1

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 01:08:00

Tool Information

Drill Pipe:	Length: 3265.00 ft	Diameter: 3.80 inches	Volume: 45.80 bbl	Tool Weight:	2500.00 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: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 46.37 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3396.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	72.00 ft				
Tool Length:	99.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

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

Shut In Tool	5.00			3374.00	
Hydraulic tool	5.00			3379.00	
Jars	5.00			3384.00	
Safety Joint	3.00			3387.00	
Packer	4.00			3391.00	27.00 Bottom Of Top Packer
Packer	5.00			3396.00	
Stubb	1.00			3397.00	
Recorder	0.00	6669	Inside	3397.00	
Recorder	0.00	8879	Inside	3397.00	
Perforations	35.00			3432.00	
Change Over Sub	1.00			3433.00	
Drill Pipe	31.00			3464.00	
Change Over Sub	1.00			3465.00	
Bullnose	3.00			3468.00	72.00 Bottom Packers & Anchor

Total Tool Length: 99.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55164

DST#: 1

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 01:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbf

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
3.00	Mud - 100M	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbf

Num Fluid Samples: 0

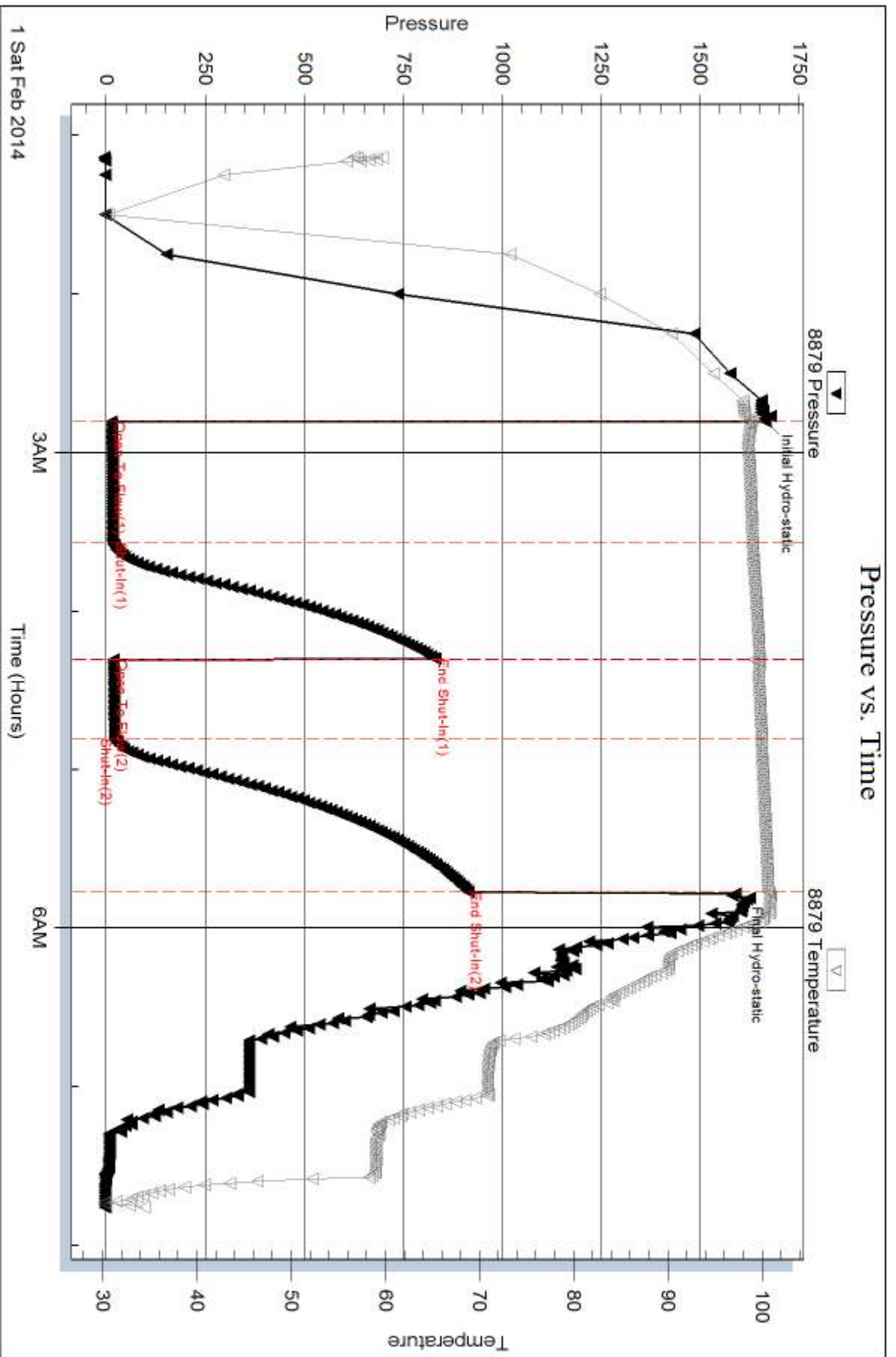
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



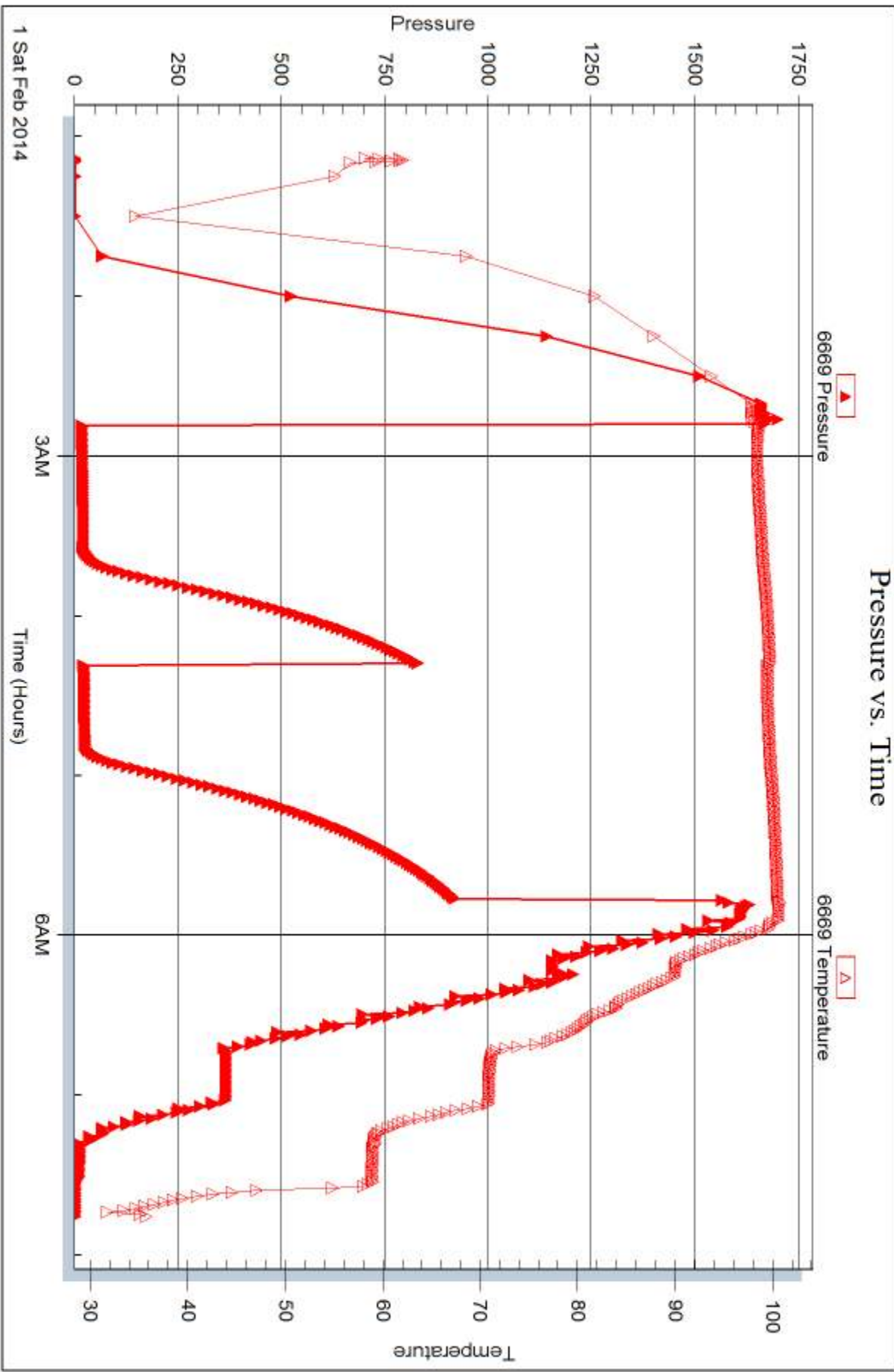
Serial #: 6669

Inside

Bach Oil Production

OFB #1

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 55164

Printed: 2014.02.04 @ 13:49:28



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723
Alma, NE. 68920

ATTN: Bob Peterson

OFB #1

2-1n-19w Phillips, KS

Start Date: 2014.02.01 @ 09:20:00

End Date: 2014.02.01 @ 16:02:45

Job Ticket #: 55165 DST #: 2

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

Printed: 2014.02.04 @ 13:48:34



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55165

DST#: 2

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 09:20:00

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:10:15

Time Test Ended: 16:02:45

Test Type: Conventional Straddle (Initial)

Tester: Royal Fisher

Unit No: #54

Interval: 3214.00 ft (KB) To 3364.00 ft (KB) (TVD)

Reference Elevations: 2011.00 ft (KB)

Total Depth: 3468.00 ft (KB) (TVD)

2006.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8879 Outside

Press@RunDepth: 91.79 psig @ 3222.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.01 End Date: 2014.02.01

Last Calib.: 2014.02.01

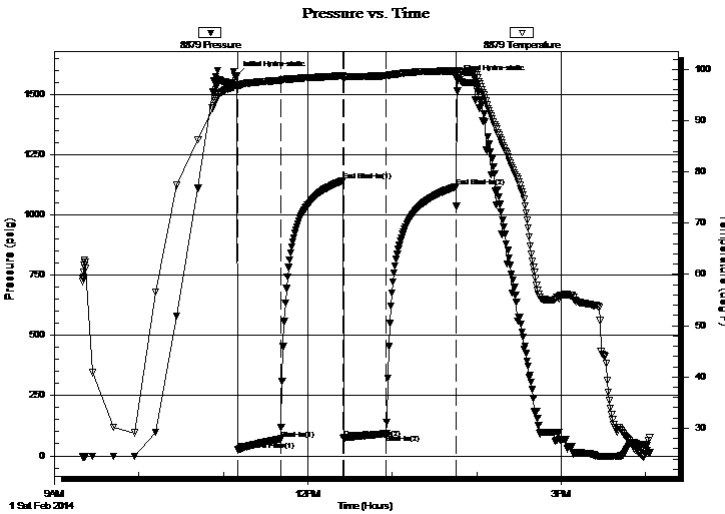
Start Time: 09:20:05 End Time: 16:02:44

Time On Btm: 2014.02.01 @ 11:09:45

Time Off Btm: 2014.02.01 @ 13:45:45

TEST COMMENT: 30 - IF - Surface blow built to 1/2" then died off in 20 min.
45 - ISI - No Return
30 - FF - Had a Weak Surface blow then died off in 15 min.
45 - FSI - No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1576.81	96.99	Initial Hydro-static
1	24.56	96.63	Open To Flow (1)
31	70.35	97.84	Shut-In(1)
76	1142.26	98.83	End Shut-In(1)
76	72.55	98.08	Open To Flow (2)
106	91.79	98.75	Shut-In(2)
156	1116.85	99.69	End Shut-In(2)
156	1564.18	99.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
171.00	OSM - 100m - Oil spots	1.35

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55165

DST#: 2

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 09:20:00

Tool Information

Drill Pipe:	Length: 3085.00 ft	Diameter: 3.80 inches	Volume: 43.27 bbl	Tool Weight: 2500.00 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: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 43.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3214.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	3475.00 ft			
Interval between Packers:	261.00 ft			
Tool Length:	287.00 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			3193.00	
Hydraulic tool	5.00			3198.00	
Jars	5.00			3203.00	
Safety Joint	2.00			3205.00	
Packer	4.00			3209.00	26.00 Bottom Of Top Packer
Packer	5.00			3214.00	
Stubb	1.00			3215.00	
Perforations	6.00			3221.00	
Change Over Sub	1.00			3222.00	
Recorder	0.00	6669	Inside	3222.00	
Recorder	0.00	8879	Outside	3222.00	
Drill Pipe	126.00			3348.00	
Change Over Sub	1.00			3349.00	
Perforations	10.00			3359.00	
Blank Spacing	1.00			3360.00	
Packer - Shale	5.00			3365.00	
Stubb	1.00			3366.00	
Perforations	10.00			3376.00	
Change Over Sub	1.00			3377.00	
Recorder	0.00	6667	Below	3377.00	
Drill Pipe	94.00			3471.00	
Change Over Sub	1.00			3472.00	
Bullnose	3.00			3475.00	261.00 Bottom Packers & Anchor
Total Tool Length:	287.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

2-1n-19w Phillips,KS

P.O. Box 723
Alma, NE. 68920

OFB #1

Job Ticket: 55165

DST#: 2

ATTN: Bob Peterson

Test Start: 2014.02.01 @ 09:20:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
171.00	OSM - 100m - Oil spots	1.351

Total Length: 171.00 ft Total Volume: 1.351 bbl

Num Fluid Samples: 0

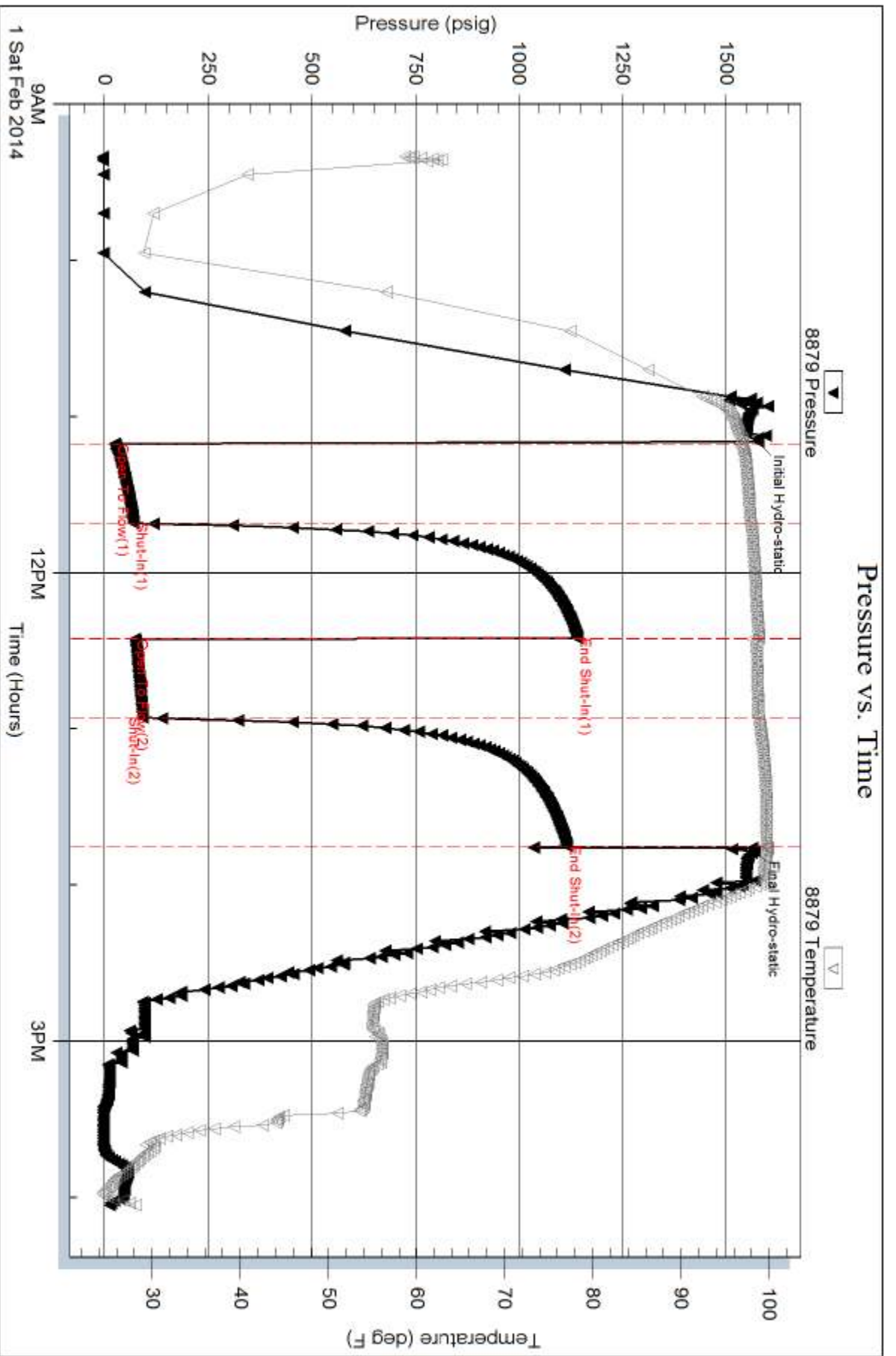
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



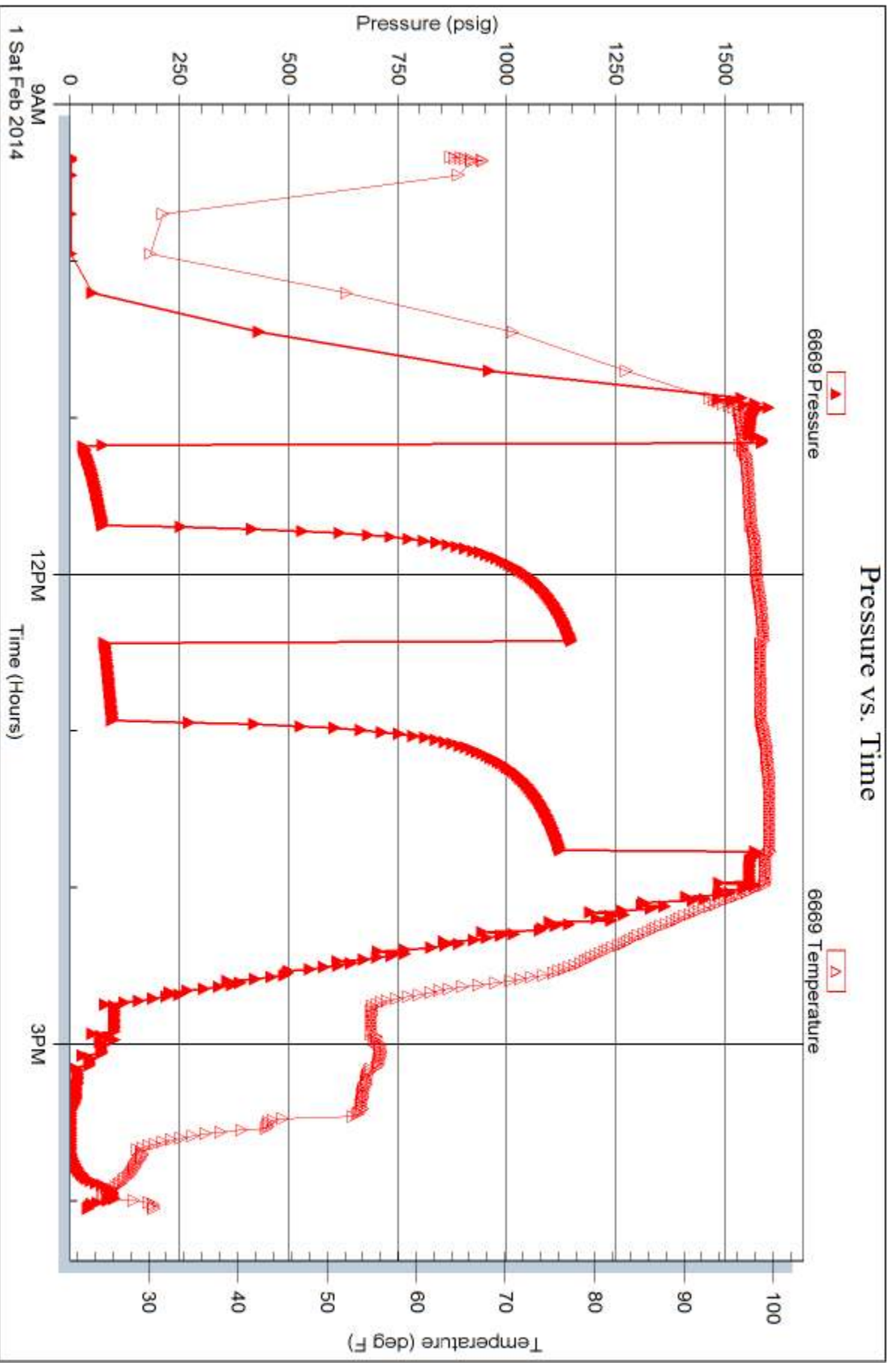
Serial #: 6669

Inside

Bach Oil Production

OFB #1

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 55165

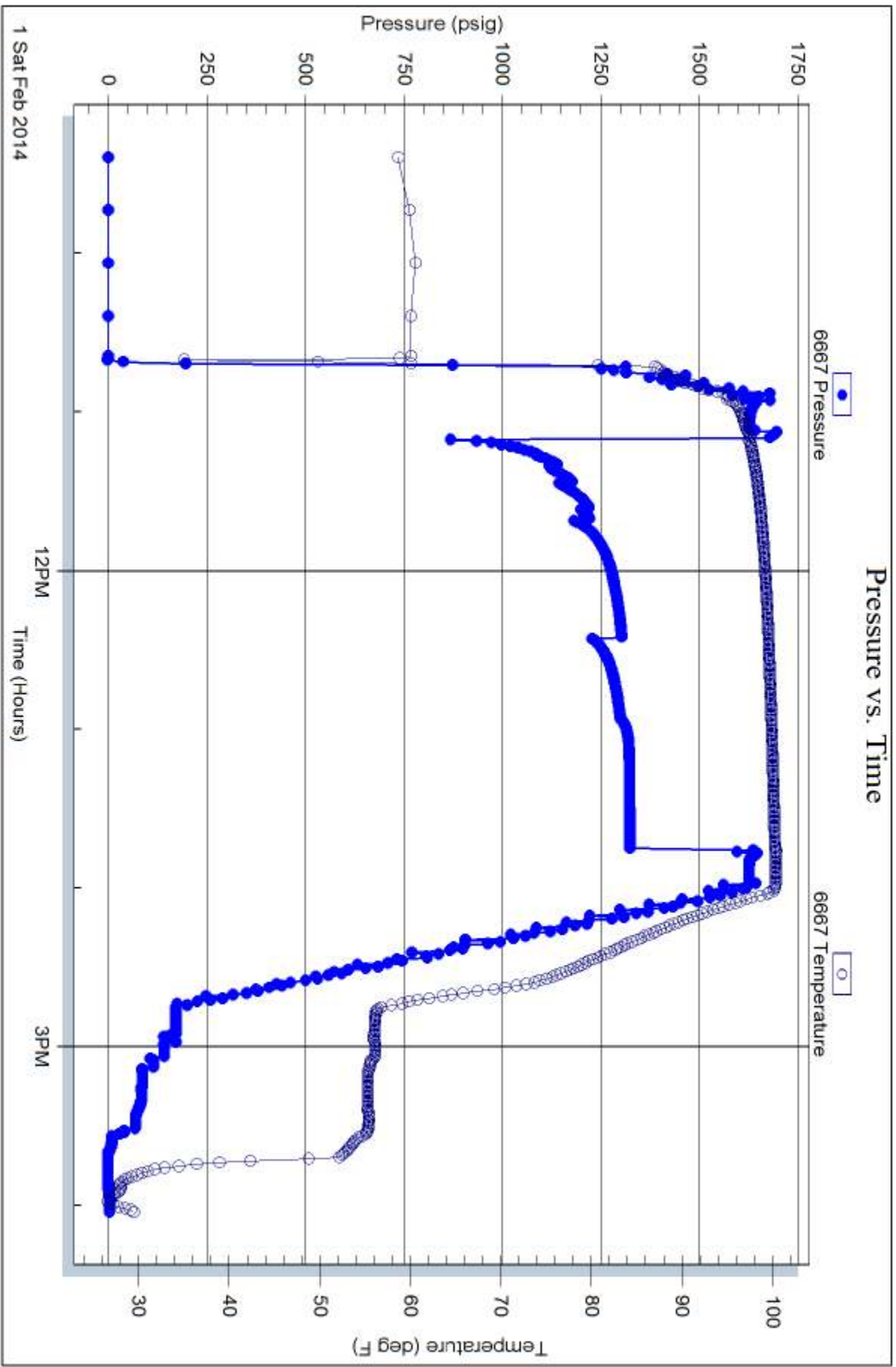
Printed: 2014.02.04 @ 13:48:37

Serial #: 6667

Below (Stratfield) Oil Production

OFB #1

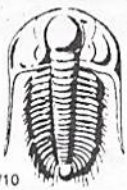
DST Test Number: 2



Tribble Testing, Inc

Ref. No: 55165

Printed: 2014.02.04 @ 13:48:37



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55164

Well Name & No. OFB #1 Test No. 1 Date 2-1-14
 Company Bach Oil Production Elevation 2011 KB 2006 GL
 Address P.O. Box 723 Alma Ne. 68920
 Co. Rep / Geo. Bob Peterson Rig Murfin #24
 Location: Sec. 2 Twp. 1 Rge. 19W Co. Phillips State KS

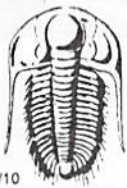
Interval Tested 3396 to 3468 Zone Tested _____
 Anchor Length 72' Drill Pipe Run 3265 Mud Wt. 8.8
 Top Packer Depth 3392 Drill Collars Run 115' Vis 60
 Bottom Packer Depth 3396 Wt. Pipe Run 0 WL 4.8
 Total Depth 3468 Chlorides 200 ppm System LCM TR
 Blow Description IF - Surface blow steadily built to 1"
ISI - No return
FF - No surface blow
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>3'</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 3' BHT 100°F Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1665</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>12:10 am</u>
(B) First Initial Flow <u>13</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:08 am</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:48 am</u>
(D) Initial Shut-In <u>830</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>5:45 am</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>7:46 am</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>125 R/T</u> 193.75	Comments <u>waited on</u>
(G) Final Shut-In <u>914</u>	<input type="checkbox"/> Sampler _____	<u>Driller to finish paperwork</u>
(H) Final Hydrostatic <u>1589</u>	<input type="checkbox"/> Straddle _____	<u>before he would unset tool</u>
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Total <u>1668.75</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1668.75</u>	

Approved By _____ 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55165**

Well Name & No. OEB #1 Test No. 2 Date 2-1-14
 Company Bach Oil Production Elevation 2011 KB 2006 GL
 Address P.O. Box 723 Alma Ne, 68920
 Co. Rep / Geo. Bob Peterson Rig Murfin #24
 Location: Sec. 2 Twp. 1 Rge. 19W Co. Phillips State KS

Interval Tested 3214 - 3364 Zone Tested _____
 Anchor Length 150' Drill Pipe Run 3085 Mud Wt. 8.8
 Top Packer Depth 3214 Drill Collars Run 115' Vis 60
 Bottom Packer Depth 3364 Wt. Pipe Run 0 WL 4.8
 Total Depth 3468 Chlorides 200 ppm System LCM TR
 Blow Description IF - Surface blow built to 1/2" then died off in 20 min.
ISI - No Return
FF - Had A weak surface blow then died off in 15 min.
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>171'</u>	<u>0.5m</u>	<u>spots</u>		<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 171' BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1576 Test 1150 T-On Location 12:10am
 (B) First Initial Flow 24 Jars 250 T-Started 9:20am
 (C) First Final Flow 70 Safety Joint 75 T-Open 11:10am
 (D) Initial Shut-In 1142 Circ Sub D/C T-Pulled 11:45pm
 (E) Second Initial Flow 72 Hourly Standby _____ T-Out 4:03pm
 (F) Second Final Flow 91 Mileage 125 R/T 193.75 Comments _____
 (G) Final Shut-In 1116 Sampler _____
 (H) Final Hydrostatic 1564 Straddle 600 Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 2518.75
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 2518.75

Approved By _____

Our Representative [Signature]

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