



## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723  
Alma NE 68920

ATTN: Bob Peterson

### **Delimont #3**

### **8-2s-19w Phillips,KS**

Start Date: 2014.01.07 @ 00:48:00

End Date: 2014.01.07 @ 09:04:30

Job Ticket #: 55152                      DST #: 1

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

Printed: 2014.01.10 @ 09:16:16



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55152

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.01.07 @ 00:48:00

## GENERAL INFORMATION:

Formation: **C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:28:15

Time Test Ended: 09:04:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #44

**Interval: 3515.00 ft (KB) To 3570.00 ft (KB) (TVD)**

Reference Elevations: 2264.00 ft (KB)

Total Depth: 3570.00 ft (KB) (TVD)

2259.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8879**

**Inside**

Press@RunDepth: 102.09 psig @ 3516.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.07 End Date: 2014.01.07

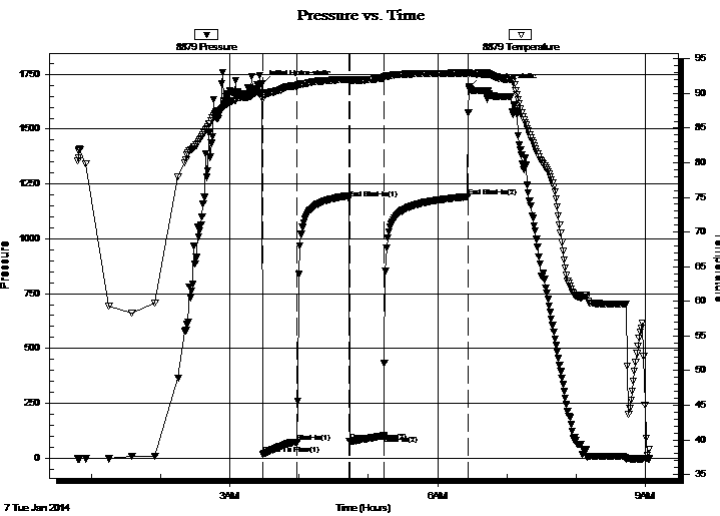
Last Calib.: 2014.01.08

Start Time: 00:48:05 End Time: 09:04:29

Time On Btm: 2014.01.07 @ 03:28:00

Time Off Btm: 2014.01.07 @ 06:27:15

**TEST COMMENT:** 30 - IF - Surface blow built to 7"  
45 - ISI - No return  
30 - FF - Surface blow built to 3"  
60 - FSI - No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1705.59	90.07	Initial Hydro-static
1	15.00	89.14	Open To Flow (1)
31	72.89	91.09	Shut-In(1)
76	1182.75	92.04	End Shut-In(1)
76	76.00	91.66	Open To Flow (2)
106	102.09	92.21	Shut-In(2)
178	1191.97	92.96	End Shut-In(2)
180	1691.62	92.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	OSM - 100M - oil spots	0.31
141.00	WM - 55W - 45M	1.42

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55152

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.01.07 @ 00:48:00

## GENERAL INFORMATION:

Formation: **C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:28:15

Time Test Ended: 09:04:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Royal Fisher

Unit No: #44

**Interval: 3515.00 ft (KB) To 3570.00 ft (KB) (TVD)**

Reference Elevations: 2264.00 ft (KB)

Total Depth: 3570.00 ft (KB) (TVD)

2259.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6669** **Inside**

Press@RunDepth: psig @ 3516.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.07 End Date: 2014.01.07

Last Calib.: 2014.01.08

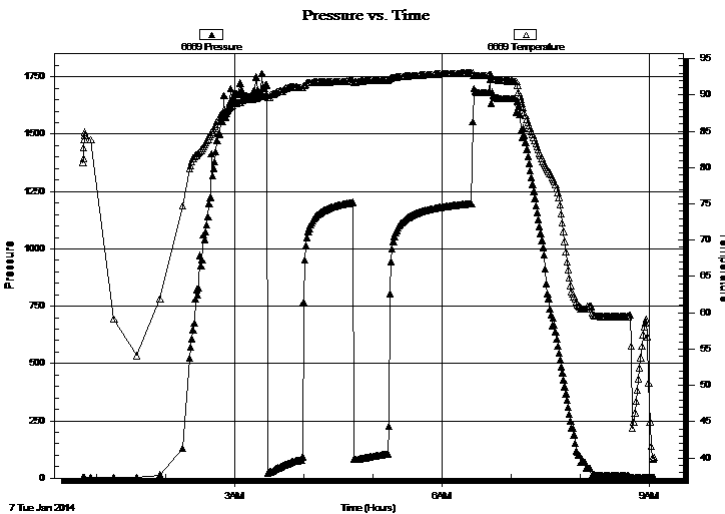
Start Time: 00:48:05 End Time: 09:04:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF - Surface blow built to 7"  
45 - ISI - No return  
30 - FF - Surface blow built to 3"  
60 - FSI - No return

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	OSM- 100M - oil spots	0.31
141.00	WM - 55W - 45M	1.42

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55152

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.01.07 @ 00:48:00

## Tool Information

Drill Pipe:	Length: 3392.00 ft	Diameter: 3.80 inches	Volume: 47.58 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: 124.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	54000.00 lb
			<u>Total Volume: 48.19 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3515.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	55.00 ft				
Tool Length:	82.00 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			3493.00	
Hydraulic tool	5.00			3498.00	
Jars	5.00			3503.00	
Safety Joint	3.00			3506.00	
Packer	4.00			3510.00	27.00 Bottom Of Top Packer
Packer	5.00			3515.00	
Stubb	1.00			3516.00	
Recorder	0.00	6669	Inside	3516.00	
Recorder	0.00	8879	Inside	3516.00	
Perforations	18.00			3534.00	
Change Over Sub	1.00			3535.00	
Drill Pipe	31.00			3566.00	
Change Over Sub	1.00			3567.00	
Bullnose	3.00			3570.00	55.00 Bottom Packers & Anchor

**Total Tool Length: 82.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55152

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2014.01.07 @ 00:48:00

## 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:

70000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	OSM - 100M - oil spots	0.310
141.00	WM - 55W - 45M	1.422

Total Length: 204.00 ft

Total Volume: 1.732 bbl

Num Fluid Samples: 0

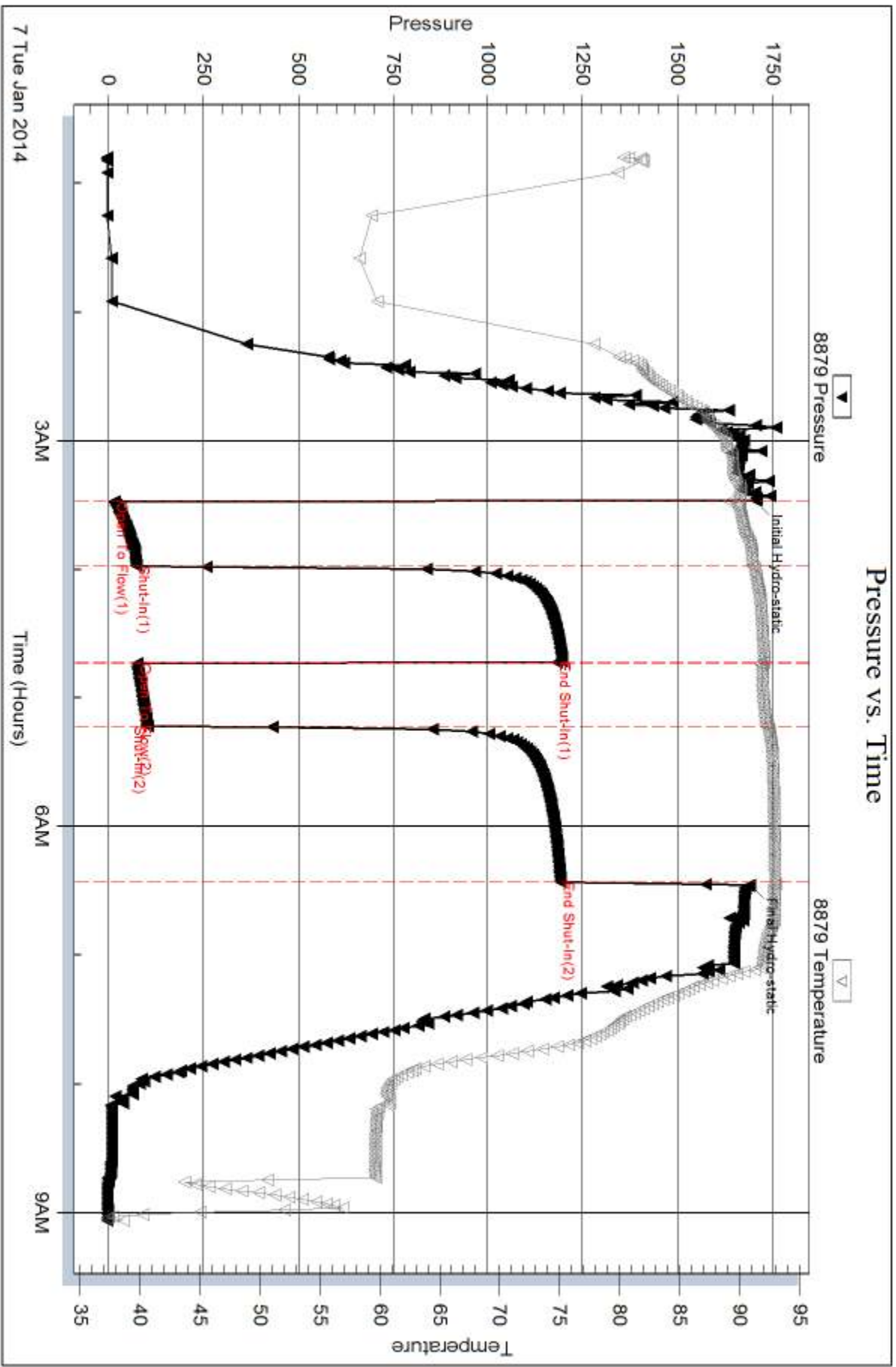
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



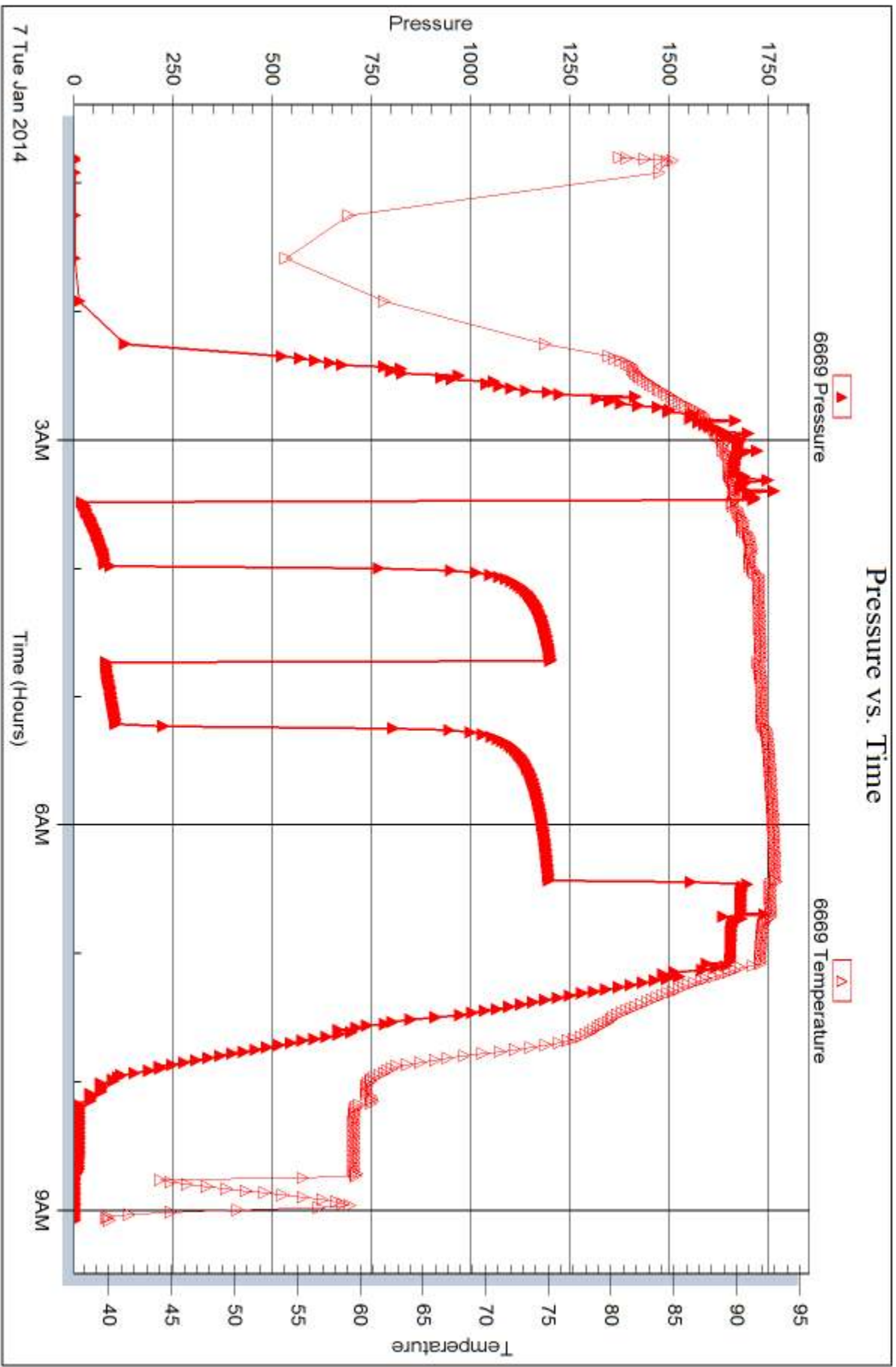
Serial #: 6669

Inside

Bach Oil Production

Delmont #3

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 55152

Printed: 2014.01.10 @ 09:16:18



## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P.O. Box 723  
Alma NE 68920

ATTN: Bob Peterson

### **Delimont #3**

### **8-2s-19w Phillips,KS**

Start Date: 2014.01.08 @ 20:06:00

End Date: 2014.01.09 @ 03:52:00

Job Ticket #: 55153                      DST #: 2

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

Printed: 2014.01.10 @ 09:15:40





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55153

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.01.08 @ 20:06:00

## GENERAL INFORMATION:

Formation: **I-J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:53:00  
 Time Test Ended: 03:52:00  
 Interval: **3629.00 ft (KB) To 3676.00 ft (KB) (TVD)**  
 Total Depth: 3676.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Royal Fisher  
 Unit No: #44  
 Reference Elevations: 2264.00 ft (KB)  
 2259.00 ft (CF)  
 KB to GR/CF: 5.00 ft

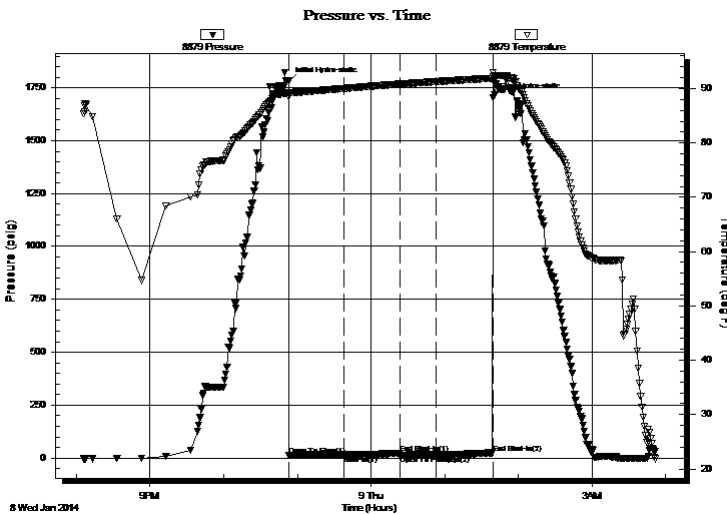
## Serial #: 8879

Inside

Press@RunDepth: 14.56 psig @ 3630.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.01.08 End Date: 2014.01.09 Last Calib.: 2014.01.09  
 Start Time: 20:06:05 End Time: 03:51:59 Time On Btm: 2014.01.08 @ 22:52:45  
 Time Off Btm: 2014.01.09 @ 01:39:15

TEST COMMENT: 45 - IF - Surface blow built to 1" then died off an 1/8"  
 45 - ISI - No Return  
 30 - FF - No Surface blow  
 45 - FSI - No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.32	89.19	Initial Hydro-static
1	12.28	88.53	Open To Flow (1)
46	14.19	90.02	Shut-In(1)
91	22.99	90.82	End Shut-In(1)
91	12.71	90.81	Open To Flow (2)
121	14.56	91.28	Shut-In(2)
167	23.75	91.90	End Shut-In(2)
167	1705.27	92.97	Final Hydro-static

## Recovery

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

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55153

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.01.08 @ 20:06:00

### GENERAL INFORMATION:

Formation: **I-J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:53:00  
 Time Test Ended: 03:52:00

Test Type: Conventional Bottom Hole (Initial)  
 Tester: Royal Fisher  
 Unit No: #44

Interval: **3629.00 ft (KB) To 3676.00 ft (KB) (TVD)**  
 Total Depth: 3676.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

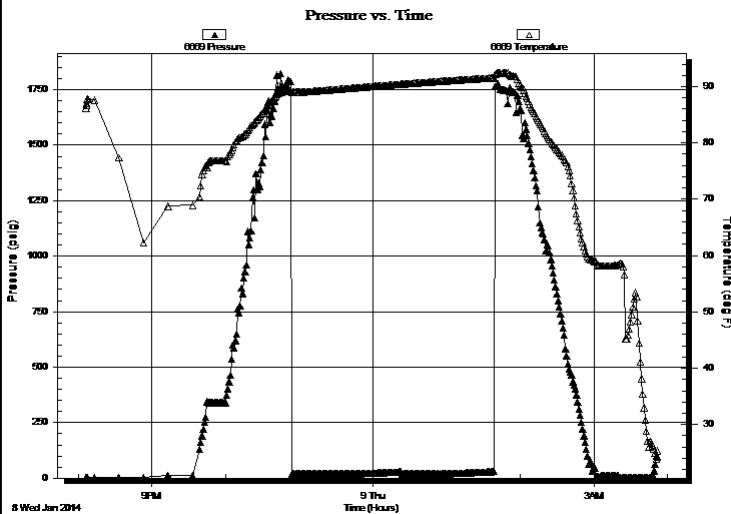
Reference Elevations: 2264.00 ft (KB)  
 2259.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6669** Inside

Press@RunDepth: psig @ 3630.00 ft (KB)  
 Start Date: 2014.01.08 End Date: 2014.01.09  
 Start Time: 20:06:05 End Time: 03:52:14

Capacity: 8000.00 psig  
 Last Calib.: 2014.01.09  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 45 - IF - Surface blow built to 1" then died off an 1/8"  
 45 - ISI - No Return  
 30 - FF - No Surface blow  
 45 - FSI - No Return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
2.00	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

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55153

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.01.08 @ 20:06:00

## Tool Information

Drill Pipe:	Length: 3500.00 ft	Diameter: 3.80 inches	Volume: 49.10 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:	56000.00 lb
			<u>Total Volume: 49.67 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3629.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	47.00 ft				
Tool Length:	74.00 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			3607.00	
Hydraulic tool	5.00			3612.00	
Jars	5.00			3617.00	
Safety Joint	3.00			3620.00	
Packer	4.00			3624.00	27.00 Bottom Of Top Packer
Packer	5.00			3629.00	
Stubb	1.00			3630.00	
Recorder	0.00	6669	Inside	3630.00	
Recorder	0.00	8879	Inside	3630.00	
Perforations	10.00			3640.00	
Change Over Sub	1.00			3641.00	
Drill Pipe	31.00			3672.00	
Change Over Sub	1.00			3673.00	
Bullnose	3.00			3676.00	47.00 Bottom Packers & Anchor

**Total Tool Length: 74.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Bach Oil Production

**8-2s-19w Phillips,KS**

P.O. Box 723  
Alma NE 68920

**Delimont #3**

Job Ticket: 55153

**DST#: 2**

ATTN: Bob Peterson

Test Start: 2014.01.08 @ 20:06:00

### 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: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud - 100M	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

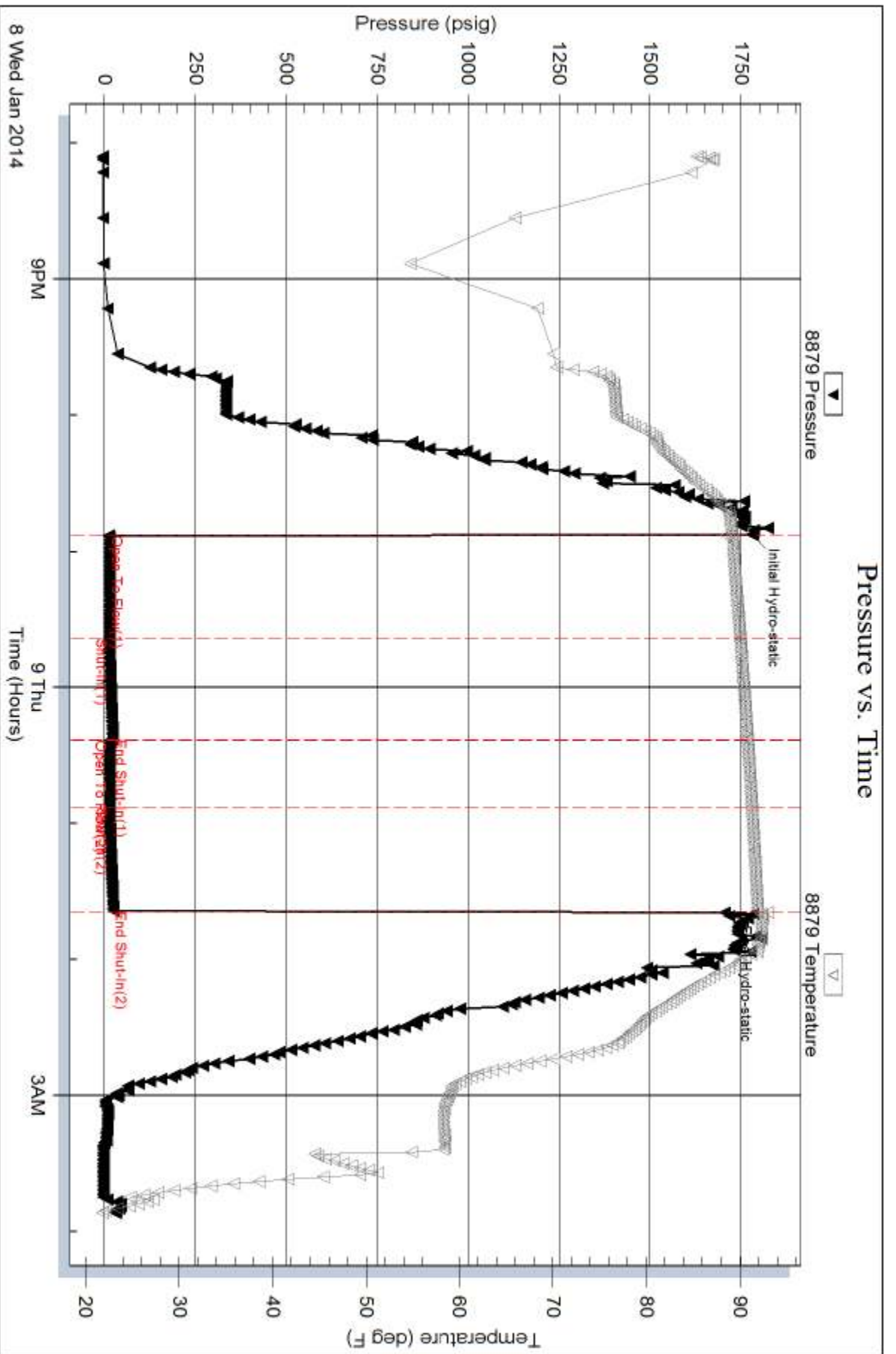
Serial #: 8879

Inside

Bach Oil Production

Delmont #3

DST Test Number: 2



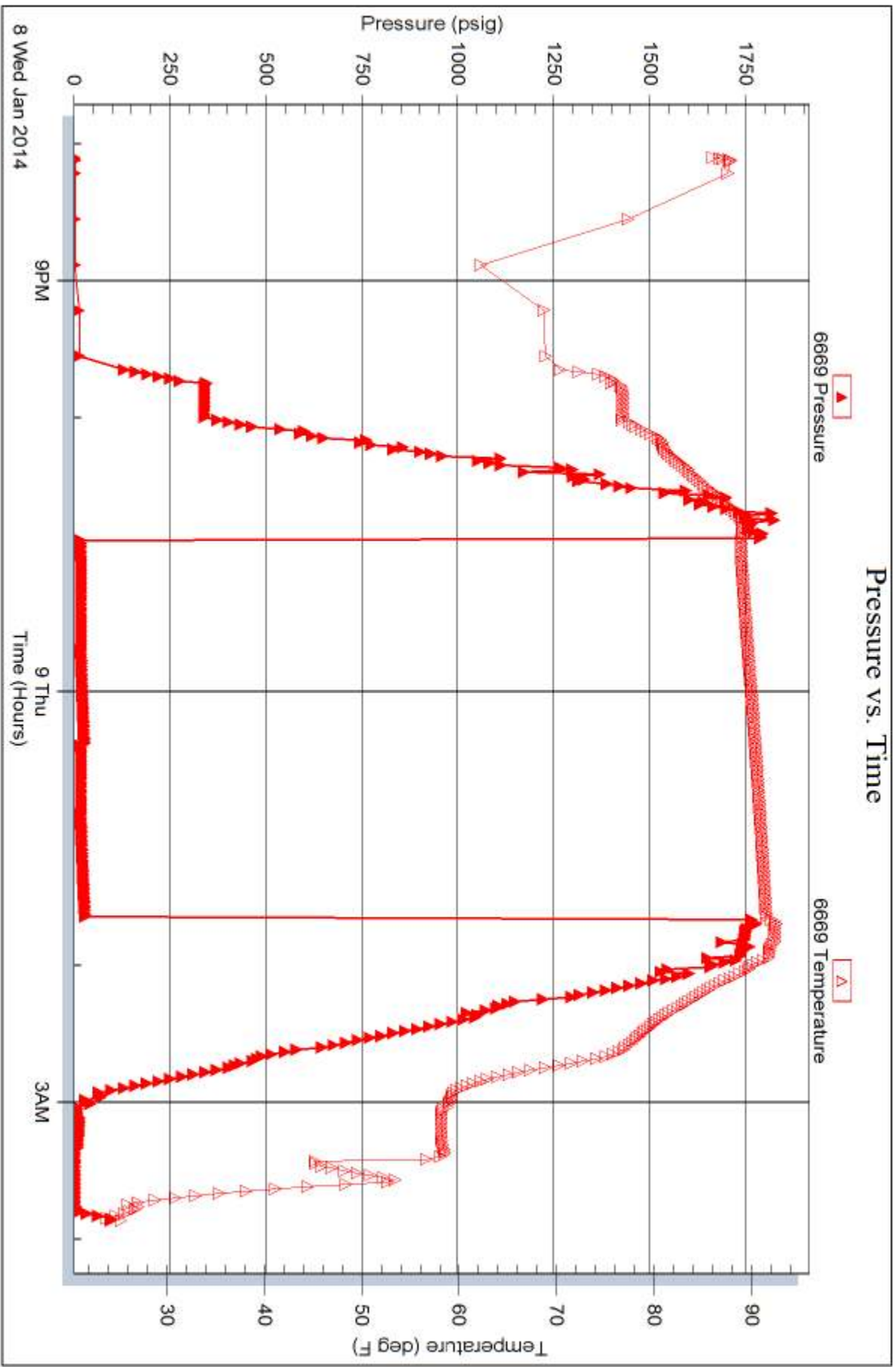
Serial #: 6669

Inside

Batch Oil Production

Delmont #3

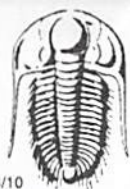
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 55153

Printed: 2014.01.10 @ 09:15:43



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **55152**

Well Name & No. Delimant #3 Test No. 1 Date 1-7-2014  
 Company Bach Oil Production Elevation 2264 KB 2259 GL  
 Address P.O. Box 723 Alma Ne. 68920  
 Co. Rep / Geo. Bob Peterson Rig Murfin #24  
 Location: Sec. 8 Twp. 2 Rge. 19W Co. Phillips State KS

Interval Tested 3515 - 3570 Zone Tested C-D  
 Anchor Length 55 Drill Pipe Run 3392 Mud Wt. 8.9  
 Top Packer Depth 3511 Drill Collars Run 124 Vis 600  
 Bottom Packer Depth 3515 Wt. Pipe Run 8 WL 5.6  
 Total Depth 3570 Chlorides 200 ppm System LCM 1/2#

Blow Description IF - Surface blow built to 7"  
ISI - No return  
FF - Surface blow built to 3"  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>141'</u>	<u>WM</u>		<u>55</u>	<u>45</u>	
<u>63</u>	<u>asm</u>	<u>spots</u>		<u>100</u>	

Rec Total 204' BHT 93F Gravity API RW 294 @ 27 °F Chlorides 70,000 ppm

(A) Initial Hydrostatic 1705  Test 1150 T-On Location 11:40pm  
 (B) First Initial Flow 15  Jars 250 T-Started 12:48am  
 (C) First Final Flow 72  Safety Joint 75 T-Open 3:28am  
 (D) Initial Shut-In 1182  Circ Sub N/C T-Pulled 6:13am  
 (E) Second Initial Flow 76  Hourly Standby \_\_\_\_\_ T-Out 9:06am  
 (F) Second Final Flow 102  Mileage 170 R/T 263.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 1191  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 11691  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 30  Day Standby \_\_\_\_\_ Total 1738.50  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1738.50

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. **55153**

4/10

Well Name & No. Delimont #3 Test No. 2 Date 1-8-14  
 Company Bach Oil Production Elevation 2264 KB 2259 GL  
 Address P.O. Box 723 Alma Ne. 68920  
 Co. Rep / Geo. Bob Peterson Rig Murfin 24  
 Location: Sec. 8 Twp. 2 Rge. 19w Co. Phillips State KS

Interval Tested 3629-3676 Zone Tested I-J  
 Anchor Length 47' Drill Pipe Run 3500 Mud Wt. 9.2  
 Top Packer Depth 3625 Drill Collars Run 115' Vis 60  
 Bottom Packer Depth 3629 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3676 Chlorides 1000 ppm System LCM 1/2#  
 Blow Description IF - Surface blow built to 1" then died off an 1/8"  
ISI - No Return  
FF - No Surface blow  
FSI - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2'</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 2' BHT 93°F Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1781</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>7:00pm</u>
(B) First Initial Flow <u>12</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>8:06pm</u>
(C) First Final Flow <u>14</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:53pm</u>
(D) Initial Shut-In <u>22</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1:38am</u>
(E) Second Initial Flow <u>12</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>3:52am</u>
(F) Second Final Flow <u>14</u>	<input checked="" type="checkbox"/> Mileage <u>170 B/T</u> 263.50	Comments <u>loaded tool after test</u>
(G) Final Shut-In <u>23</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1705</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1738.50</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1738.50</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.