

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P O Box 723
Alma Ne 68920

ATTN: Jason Bach

27-15-19-Ellis KS

Legleiter # 5

Start Date: 2011.04.02 @ 18:55:43

End Date: 2011.04.03 @ 00:57:13

Job Ticket #: 042410 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bach Oil Production

P O Box 723
Alma Ne 68920

ATTN: Jason Bach

Legleiter # 5

27-15-19-Ellis KS

Job Ticket: 042410

DST#: 1

Test Start: 2011.04.02 @ 18:55:43

GENERAL INFORMATION:

Formation: **Toronto /A LKC**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 20:49:13

Time Test Ended: 00:57:13

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **3256.00 ft (KB) To 3320.00 ft (KB) (TVD)**

Total Depth: **3320.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2010.00 ft (KB)**

2005.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: **8354**

Inside

Press@RunDepth: **64.06 psig @ 3260.00 ft (KB)**

Start Date: **2011.04.02**

End Date:

2011.04.03

Capacity: **8000.00 psig**

Last Calib.: **2011.04.03**

Start Time: **19:05:43**

End Time:

00:57:13

Time On Btm: **2011.04.02 @ 20:48:13**

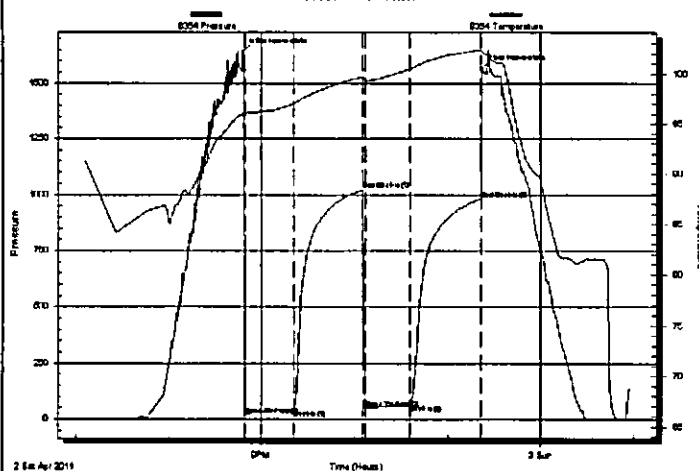
Time Off Btm: **2011.04.02 @ 23:22:13**

TEST COMMENT: IF-Weak building to 1 1/2"

FF-Weak steady surface blow

Times-30-45-30-45

Pressure vs Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1640.57	96.06	Initial Hydro-static
1	18.28	95.61	Open To Flow (1)
33	44.82	97.07	Shut-In(1)
77	1022.17	99.71	End Shut-In(1)
79	49.92	99.41	Open To Flow (2)
108	64.06	100.50	Shut-In(2)
153	982.63	102.39	End Shut-In(2)
154	1565.11	102.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
95.00	Wtr	1.06

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

Legleiter # 5

P O Box 723
Alma Ne 68920

27-15-19-ELLIS KS

Job Ticket: 042410

DST#: 1

ATTN: Jason Bach

Test Start: 2011.04.02 @ 18:55:43

Tool Information

Drill Pipe:	Length:	3203.00 ft	Diameter:	3.80 inches	Volume:	44.93 bbl	Tool Weight:	2800.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	65000.00 lb
					Total Volume:	45.08 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3256.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		64.00 ft						
Tool Length:		92.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3229.00	
Shut In Tool	5.00			3234.00	
Hydraulic tool	5.00			3239.00	
Jars	5.00			3244.00	
Safety Joint	3.00			3247.00	
Packer	5.00			3252.00	28.00 Bottom Of Top Packer
Packer	4.00			3256.00	
Stubb	1.00			3257.00	
Perforations	2.00			3259.00	
Change Over Sub	1.00			3260.00	
Recorder	0.00	8354	Inside	3260.00	
Recorder	0.00	8520	Outside	3260.00	
Drill Pipe	31.00			3291.00	
Change Over Sub	1.00			3292.00	
Perforations	25.00			3317.00	
Bullnose	3.00			3320.00	64.00 Bottom Packers & Anchor
Total Tool Length:	92.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

Legleiter # 5

P O Box 723
Alma Ne 68920

27-15-19-Ellis KS

Job Ticket: 042410

DST#: 1

ATTN: Jason Bach

Test Start: 2011.04.02 @ 18:55:43

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:

60000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
95.00	Wtr	1.059

Total Length: 95.00 ft

Total Volume: 1.059 bbl

Num Fluid Samples: 0

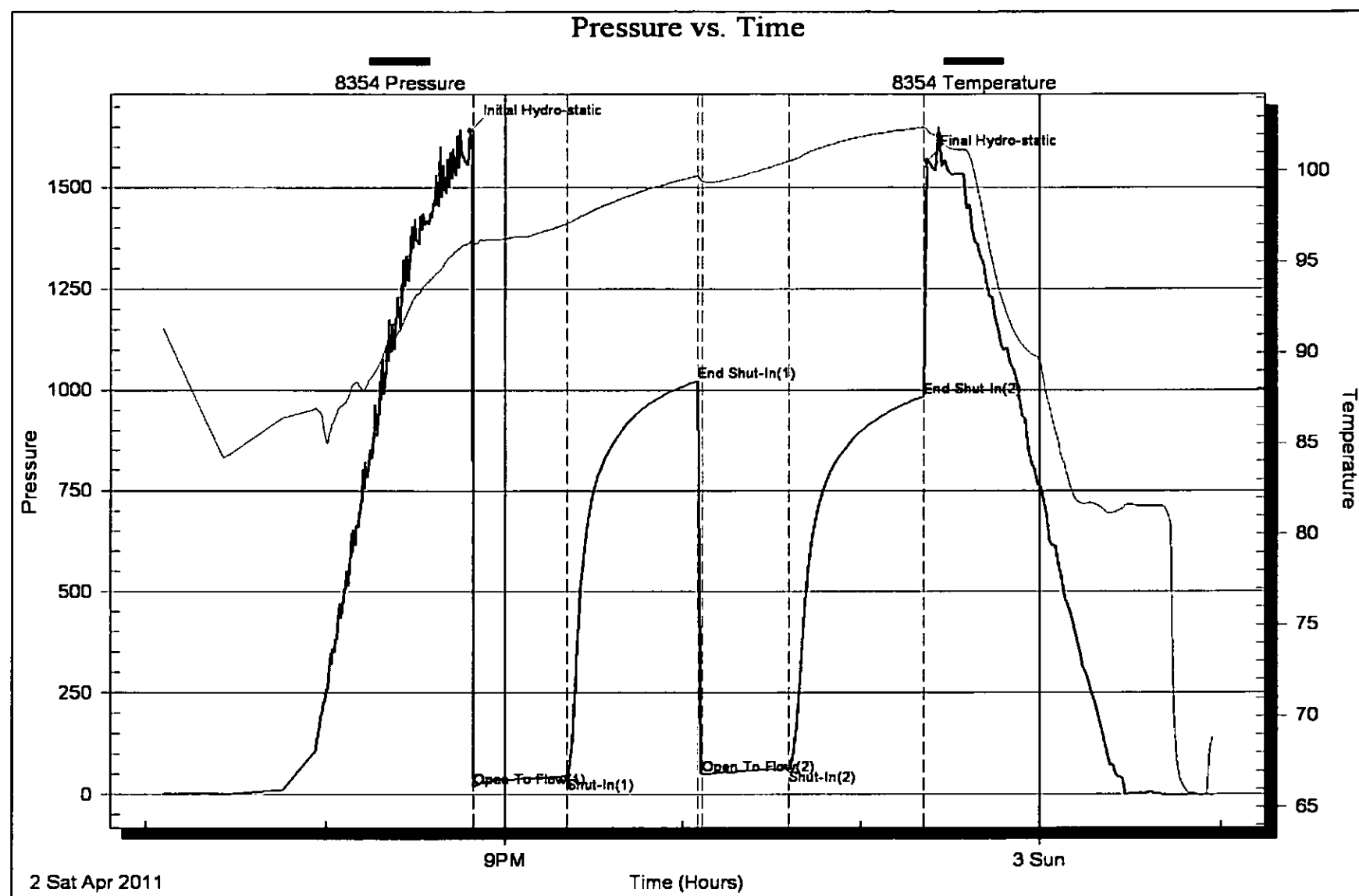
Num Gas Bombs: 0

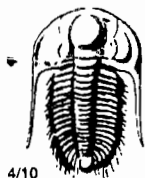
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .13 @ 70 = 60000 ppm





**TRILOBITE
TESTING INC.**

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 042410 15608

Well Name & No.	<u>Legleiter #5</u>	Test No.	<u>1</u>	Date	<u>4-8-11</u>
Company	<u>Bach Oil Production</u>	Elevation	<u>7010</u>	KB	<u>1005</u>
Address	<u>PO Box 713 Alma Ne 68920</u>				
Co. Rep / Geo.	<u>Bob Petersen</u>	Rig	<u>Murfin #16</u>		
Location: Sec.	<u>27</u>	Twp.	<u>15</u>	Rge.	<u>19</u>
Co.	<u>Ellis</u>	State	<u>Ks</u>		

Interval Tested	<u>3256 --- 3320</u>	Zone Tested	<u>TORONTO - A LKC</u>		
Anchor Length	<u>64</u>	Drill Pipe Run	<u>3203</u>	Mud Wt.	<u>9</u>
Top Packer Depth	<u>3251</u>	Drill Collars Run	<u>30</u>	Vis	<u>50</u>
Bottom Packer Depth	<u>3256</u>	Wt. Pipe Run	<u>—</u>	WL	<u>8.5</u>
Total Depth	<u>3320</u>	Chlorides	<u>4,000</u>	ppm System	LCM <u>—</u>
Blow Description	<u>IF Weak-building to 1 1/2"</u>				

F.F. Weak steady surface blow

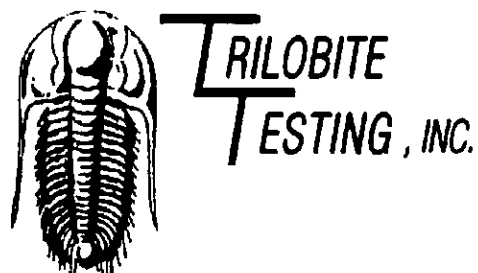
Rec <u>95</u>	Feet of <u>WTR</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec Total <u>95</u>	BHT <u>102</u>	Gravity	API RW <u>113</u> @ <u>78</u> °F Chlorides <u>69,000</u> ppm		
(A) Initial Hydrostatic	<u>1640</u>	☐ Test	<u>1125</u>	T-On Location	<u>15:55</u>
(B) First Initial Flow	<u>18</u>	☐ Jars <u>X</u>	<u>250</u>	T-Started	<u>18:55</u>
(C) First Final Flow	<u>44</u>	☐ Safety Joint <u>X</u>	<u>75</u>	T-Open	<u>20:50</u>
(D) Initial Shut-In	<u>1022</u>	☐ Circ Sub		T-Pulled	<u>23:20</u>
(E) Second Initial Flow	<u>49</u>	☐ Hourly Standby		T-Out	<u>00:57</u>
(F) Second Final Flow	<u>64</u>	☐ Mileage <u>40 RT</u>	<u>55</u>	Comments	<u>Had to short Trip again</u>
(G) Final Shut-In	<u>982</u>	☐ Sampler			
(H) Final Hydrostatic	<u>1565</u>	☐ Straddle		☐ Ruined Shale Packer	
Initial Open	<u>30</u>	☐ Shale Packer		☐ Ruined Packer	
Initial Shut-In	<u>45</u>	☐ Extra Packer		☐ Extra Copies	
Final Flow	<u>30</u>	☐ Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>45</u>	☐ Day Standby		Total	<u>1500</u>
		☐ Accessibility		MP/DST Disc't	
		Sub Total	<u>1500</u>		

Approved By

Our Representative

Dan Bangle

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.



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

P O Box 723
Alma Ne 68920

ATTN: Jason Bach

27-15-19-Ellis KS

Legleiter # 5

Start Date: 2011.04.03 @ 10:30:06

End Date: 2011.04.03 @ 16:30:06

Job Ticket #: 042411 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Bach Oil Production

P O Box 723
Alma Ne 68920

ATTN: Jason Bach

Legleiter # 5

27-15-19-ELLIS KS

Job Ticket: 042411

DST#: 2

Test Start: 2011.04.03 @ 10:30:06

GENERAL INFORMATION:

Formation: **B-D-F LKC**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 12:20:26

Time Test Ended: 16:30:06

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **3312.00 ft (KB) To 3378.00 ft (KB) (TVD)**

Total Depth: **3378.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2010.00 ft (KB)**

2005.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: **8354**

Inside

Press@RunDepth: **42.73 psig @ 3316.00 ft (KB)**

Start Date: **2011.04.03**

End Date:

2011.04.03

Capacity: **8000.00 psig**

Last Calib.: **2011.04.03**

Start Time: **10:40:06**

End Time:

16:30:06

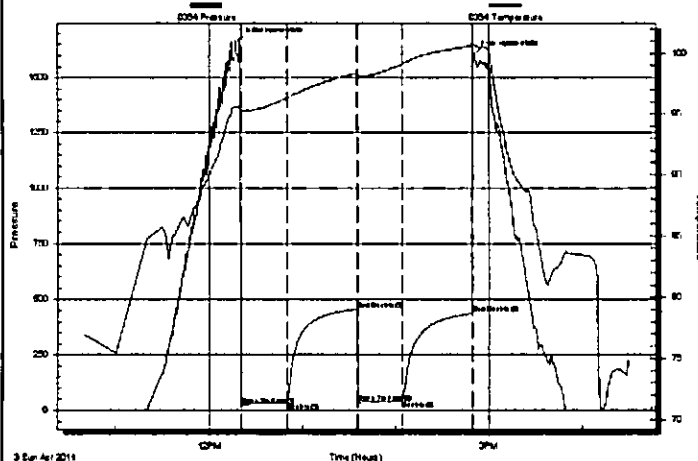
Time On Btm: **2011.04.03 @ 12:19:36**

Time Off Btm: **2011.04.03 @ 14:50:36**

TEST COMMENT: IF-Weak building to 1"

FF-Weak steady surface blow
Times-30-45-30-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.83	95.58	Initial Hydro-static
1	20.59	94.82	Open To Flow (1)
31	35.65	96.30	Shut-In(1)
76	454.75	98.36	End Shut-In(1)
77	36.79	98.23	Open To Flow (2)
105	42.73	99.07	Shut-In(2)
150	436.65	100.60	End Shut-In(2)
151	1605.35	100.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Wtr	0.10
35.00	Drig Mud	0.40

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

Legleiter # 5

P O Box 723
Alma Ne 68920

27-15-19-ELLIS KS

Job Ticket: 042411

DST#: 2

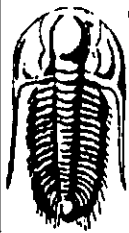
ATTN: Jason Bach

Test Start: 2011.04.03 @ 10:30:06

Tool Information

Drill Pipe:	Length: 3266.00 ft	Diameter: 3.80 inches	Volume: 45.81 bbl	Tool Weight: 2800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			Total Volume: 45.96 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3312.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3285.00	
Shut In Tool	5.00			3290.00	
Hydraulic tool	5.00			3295.00	
Jars	5.00			3300.00	
Safety Joint	3.00			3303.00	
Packer	5.00			3308.00	28.00 Bottom Of Top Packer
Packer	4.00			3312.00	
Stubb	1.00			3313.00	
Perforations	2.00			3315.00	
Change Over Sub	1.00			3316.00	
Recorder	0.00	8354	Inside	3316.00	
Recorder	0.00	8520	Outside	3316.00	
Drill Pipe	31.00			3347.00	
Change Over Sub	1.00			3348.00	
Perforations	27.00			3375.00	
Bullnose	3.00			3378.00	66.00 Bottom Packers & Anchor
Total Tool Length:	94.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

Legleiter # 5

P O Box 723
Alma Ne 68920

27-15-19-Elis KS

Job Ticket: 042411

DST#: 2

ATTN: Jason Bach

Test Start: 2011.04.03 @ 10:30:06

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:

80000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.08 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Wtr	0.098
35.00	Drig Mud	0.400

Total Length: 55.00 ft Total Volume: 0.498 bbl

Num Fluid Samples: 0

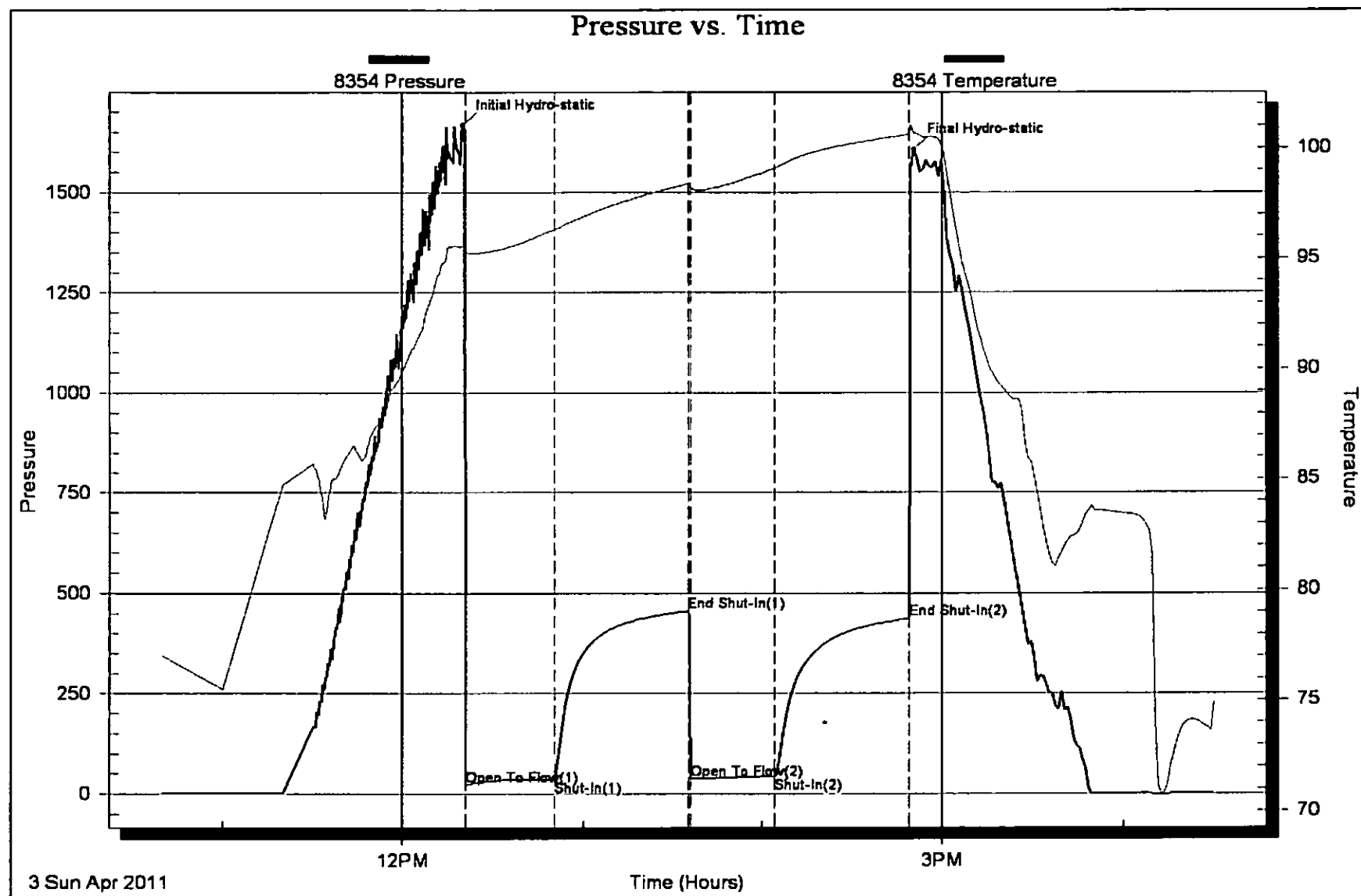
Num Gas Bombs: 0

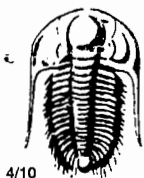
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .1 @ 70 = 80000ppm





**TRILOBITE
TESTING INC.**

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 042411

Well Name & No. Legleiter #5 Test No. 2 Date 4-3-11
Company Bach Oil Production Elevation 2010 KB 2005 GL
Address _____
Co. Rep / Geo. Bob Petersen Rig Murfin #16
Location: Sec. 27 Twp. 15 Rge. 19 Co. Ellis State Ks

Interval Tested 3312 — 3378 Zone Tested B-D-F LKC
Anchor Length 66 Drill Pipe Run 3766 Mud Wt. 9.1
Top Packer Depth 3307 Drill Collars Run 30 Vis 50
Bottom Packer Depth 3312 Wt. Pipe Run — WL 9.1
Total Depth 3378 Chlorides 5100 ppm System LCM 1/2 #
Blow Description I.F. Weak - building to 1"

F.F. weak - steady surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>Drilg Mud</u>				
<u>20</u>	<u>Wtfr</u>				
____	Feet of _____	%gas	%oil	%water	%mud
____	Feet of _____	%gas	%oil	%water	%mud
____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 55 BHT 4100 Gravity _____ API RW 1 @ 70 °F Chlorides 80,200 ppm

(A) Initial Hydrostatic <u>1665</u>	☐ Test <u>1125</u>	T-On Location <u>09:05</u>
(B) First Initial Flow <u>20</u>	☐ Jars <u>X 250</u>	T-Started <u>10:30</u>
(C) First Final Flow <u>35</u>	☐ Safety Joint <u>X 75</u>	T-Open <u>12:20</u>
(D) Initial Shut-In <u>454</u>	☐ Circ Sub _____	T-Pulled <u>14:50</u>
(E) Second Initial Flow <u>36</u>	☐ Hourly Standby _____	T-Out <u>16:30</u>
(F) Second Final Flow <u>42</u>	☐ Mileage <u>40 RT 50</u>	Comments _____
(G) Final Shut-In <u>436</u>	☐ Sampler _____	
(H) Final Hydrostatic <u>1605</u>	☐ Straddle _____	

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

☐ Shale Packer _____
☐ Extra Packer _____
☐ Extra Recorder _____
☐ Day Standby _____
☐ Accessibility _____
Sub Total 1500

☐ Ruined Shale Packer _____
☐ Ruined Packer _____
☐ Extra Copies _____
Sub Total 8
Total 1500
MP/DST Disc't _____

Approved By _____

Our Representative Dan Bangle

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