



DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma NE 68920-0723

ATTN: Bob Petersen

Pete's Pond #2

14-1s-19w Phillips,KS

Start Date: 2014.05.08 @ 19:00:47

End Date: 2014.05.09 @ 01:17:11

Job Ticket #: 55339 DST #: 1

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

Printed: 2014.05.13 @ 10:58:45



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55339

DST#: 1

ATTN: Bob Petersen

Test Start: 2014.05.08 @ 19:00:47

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:22:12

Time Test Ended: 01:17:11

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

Interval: 3336.00 ft (KB) To 3380.00 ft (KB) (TVD)

Reference Elevations: 2085.00 ft (KB)

Total Depth: 3380.00 ft (KB) (TVD)

2080.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8369

Inside

Press@RunDepth: 81.41 psig @ 3344.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.08

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time:

19:00:47

End Time:

01:17:11

Time On Btm:

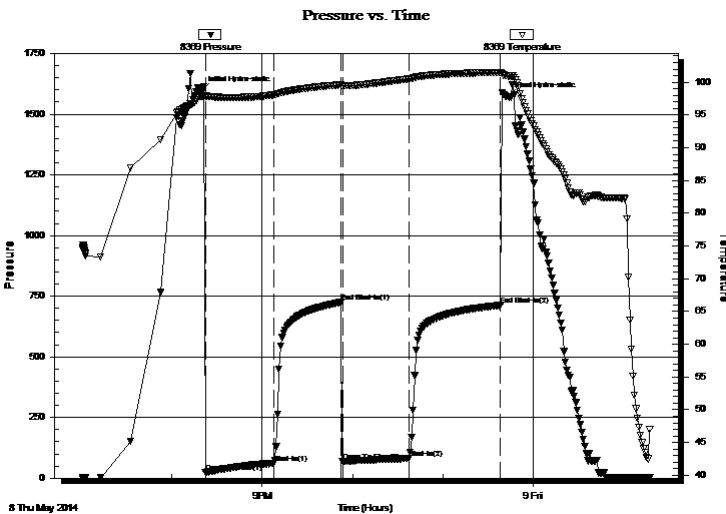
2014.05.08 @ 20:19:42

Time Off Btm:

2014.05.08 @ 23:43:11

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

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1596.26	97.86	Initial Hydro-static
3	22.66	97.87	Open To Flow (1)
48	60.28	98.06	Shut-In(1)
93	724.35	99.60	End Shut-In(1)
94	68.87	99.44	Open To Flow (2)
138	81.41	100.49	Shut-In(2)
199	713.03	101.50	End Shut-In(2)
204	1571.62	100.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 10%M90%W w/show of oil	0.30
70.00	SOCMW 1%O10%M89%W	0.71
3.00	CO	0.04

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55339

DST#: 1

ATTN: Bob Petersen

Test Start: 2014.05.08 @ 19:00:47

Tool Information

Drill Pipe:	Length: 3237.00 ft	Diameter: 3.80 inches	Volume: 45.41 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 45.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3336.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	73.00 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			3308.00	
Shut In Tool	5.00			3313.00	
Hydraulic tool	5.00			3318.00	
Jars	5.00			3323.00	
Safety Joint	3.00			3326.00	
Packer	5.00			3331.00	29.00 Bottom Of Top Packer
Packer	5.00			3336.00	
Stubb	1.00			3337.00	
Perforations	7.00			3344.00	
Recorder	0.00	8369	Inside	3344.00	
Recorder	0.00	8700	Outside	3344.00	
Blank Spacing	33.00			3377.00	
Bullnose	3.00			3380.00	44.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55339

DST#: 1

ATTN: Bob Petersen

Test Start: 2014.05.08 @ 19:00:47

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:

41000 ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	MW 10%M90%W w/show of oil	0.295
70.00	SOCMW 1%O10%M89%W	0.709
3.00	CO	0.042

Total Length: 133.00 ft Total Volume: 1.046 bbl

Num Fluid Samples: 0

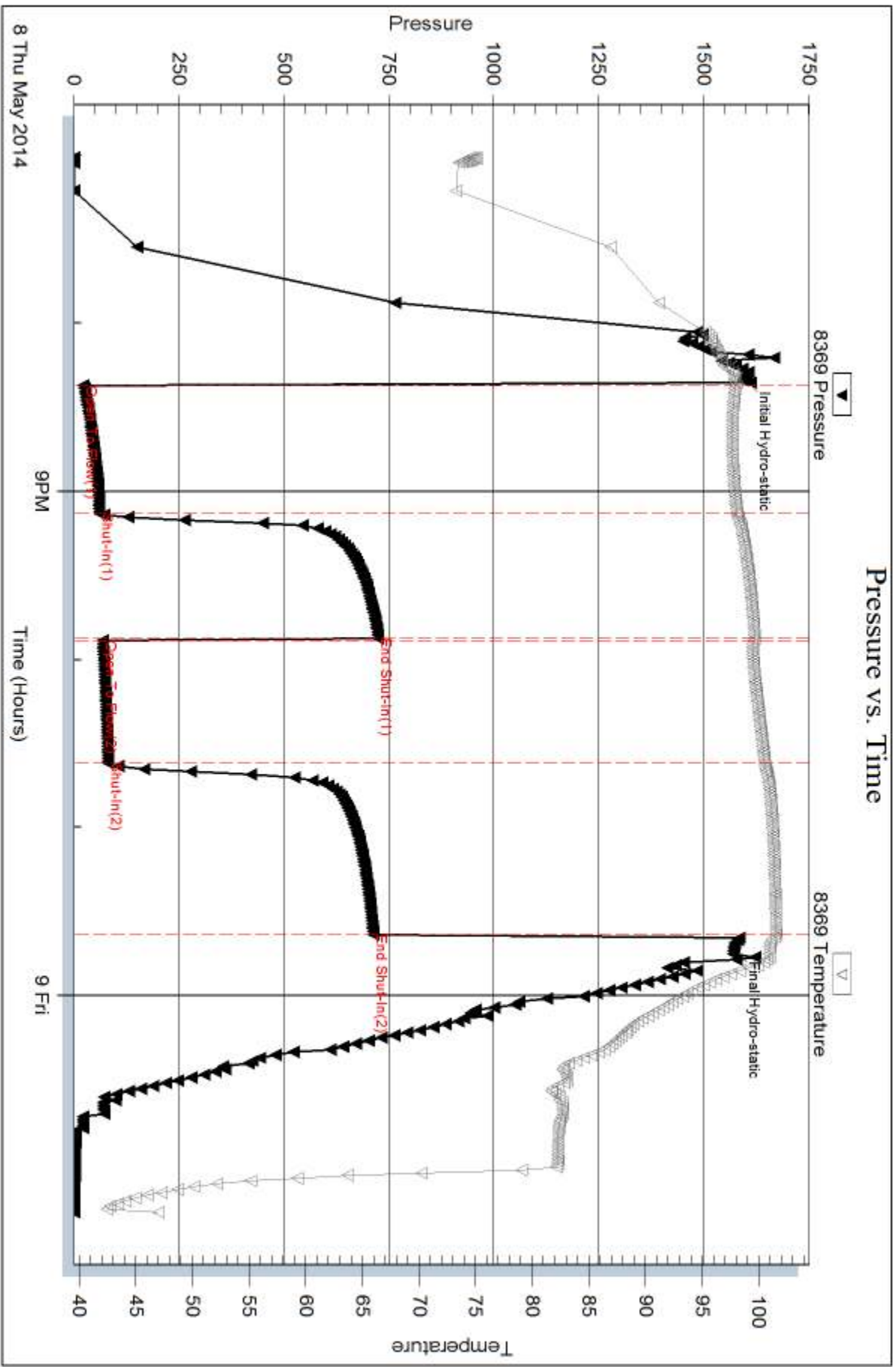
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .2 @ 65F





DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma NE 68920-0723

ATTN: Bob Petersen

Pete's Pond #2

14-1s-19w Phillips,KS

Start Date: 2014.05.09 @ 08:45:39

End Date: 2014.05.09 @ 14:32:39

Job Ticket #: 55340 DST #: 2

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

Printed: 2014.05.13 @ 10:57:56



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55340

DST#: 2

ATTN: Bob Petersen

Test Start: 2014.05.09 @ 08:45:39

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:41:09

Time Test Ended: 14:32:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3454.00 ft (KB) To 3480.00 ft (KB) (TVD)

Reference Elevations: 2085.00 ft (KB)

Total Depth: 3480.00 ft (KB) (TVD)

2080.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8369 Inside

Press@RunDepth: 17.59 psig @ 3455.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time: 08:45:44

End Time:

14:32:38

Time On Btm:

2014.05.09 @ 10:38:39

Time Off Btm:

2014.05.09 @ 13:17:09

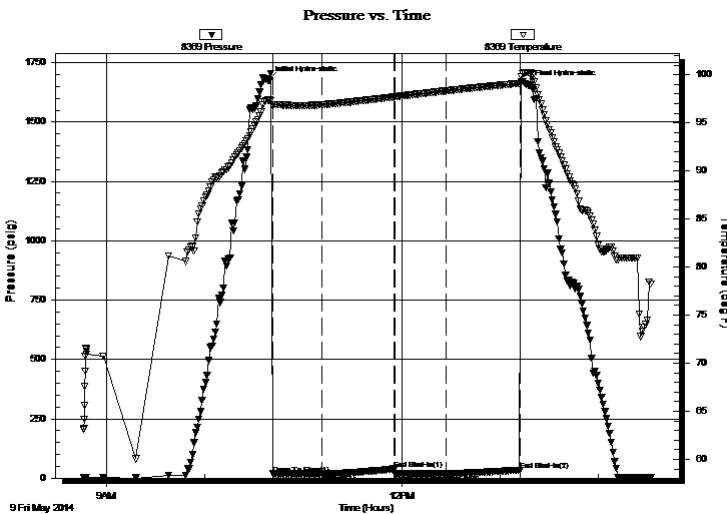
TEST COMMENT: 30-IFP-surface bl , died in 15 min

45-ISIP-no bl

30-FFP-no bl

45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.66	97.36	Initial Hydro-static
3	17.67	96.84	Open To Flow (1)
33	18.23	96.89	Shut-In(1)
77	39.02	97.70	End Shut-In(1)
78	17.65	97.70	Open To Flow (2)
109	17.59	98.32	Shut-In(2)
154	34.32	99.11	End Shut-In(2)
159	1656.48	100.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	SOCM 3%O97%M	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55340

DST#: 2

ATTN: Bob Petersen

Test Start: 2014.05.09 @ 08:45:39

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:41:09

Time Test Ended: 14:32:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

Interval: 3454.00 ft (KB) To 3480.00 ft (KB) (TVD)

Reference Elevations: 2085.00 ft (KB)

Total Depth: 3480.00 ft (KB) (TVD)

2080.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3455.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.09

End Date:

2014.05.09

Last Calib.:

2014.05.09

Start Time: 08:45:07

End Time:

14:30:31

Time On Btm:

Time Off Btm:

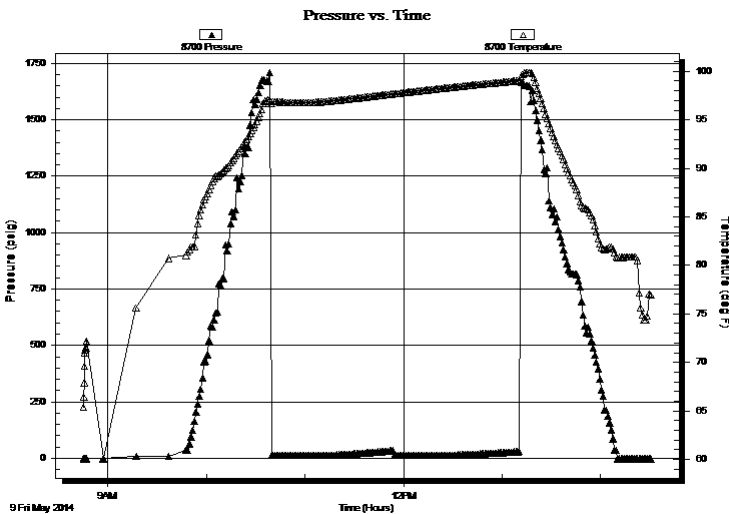
TEST COMMENT: 30-IFP-surface bl , died in 15 min

45-ISIP-no bl

30-FFP-no bl

45-FSIP-no bl

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	SOCM 3%O97%M	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

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55340

DST#: 2

ATTN: Bob Petersen

Test Start: 2014.05.09 @ 08:45:39

Tool Information

Drill Pipe:	Length: 3355.00 ft	Diameter: 3.80 inches	Volume: 47.06 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: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 47.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3454.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	55.00 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			3426.00	
Shut In Tool	5.00			3431.00	
Hydraulic tool	5.00			3436.00	
Jars	5.00			3441.00	
Safety Joint	3.00			3444.00	
Packer	5.00			3449.00	29.00 Bottom Of Top Packer
Packer	5.00			3454.00	
Stubb	1.00			3455.00	
Recorder	0.00	8369	Inside	3455.00	
Recorder	0.00	8700	Outside	3455.00	
Perforations	22.00			3477.00	
Bullnose	3.00			3480.00	26.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

14-1s-19w Phillips,KS

PO Box 723
Alma NE 68920-0723

Pete's Pond #2

Job Ticket: 55340

DST#: 2

ATTN: Bob Petersen

Test Start: 2014.05.09 @ 08:45:39

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	SOCM 3% O97%M	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8369

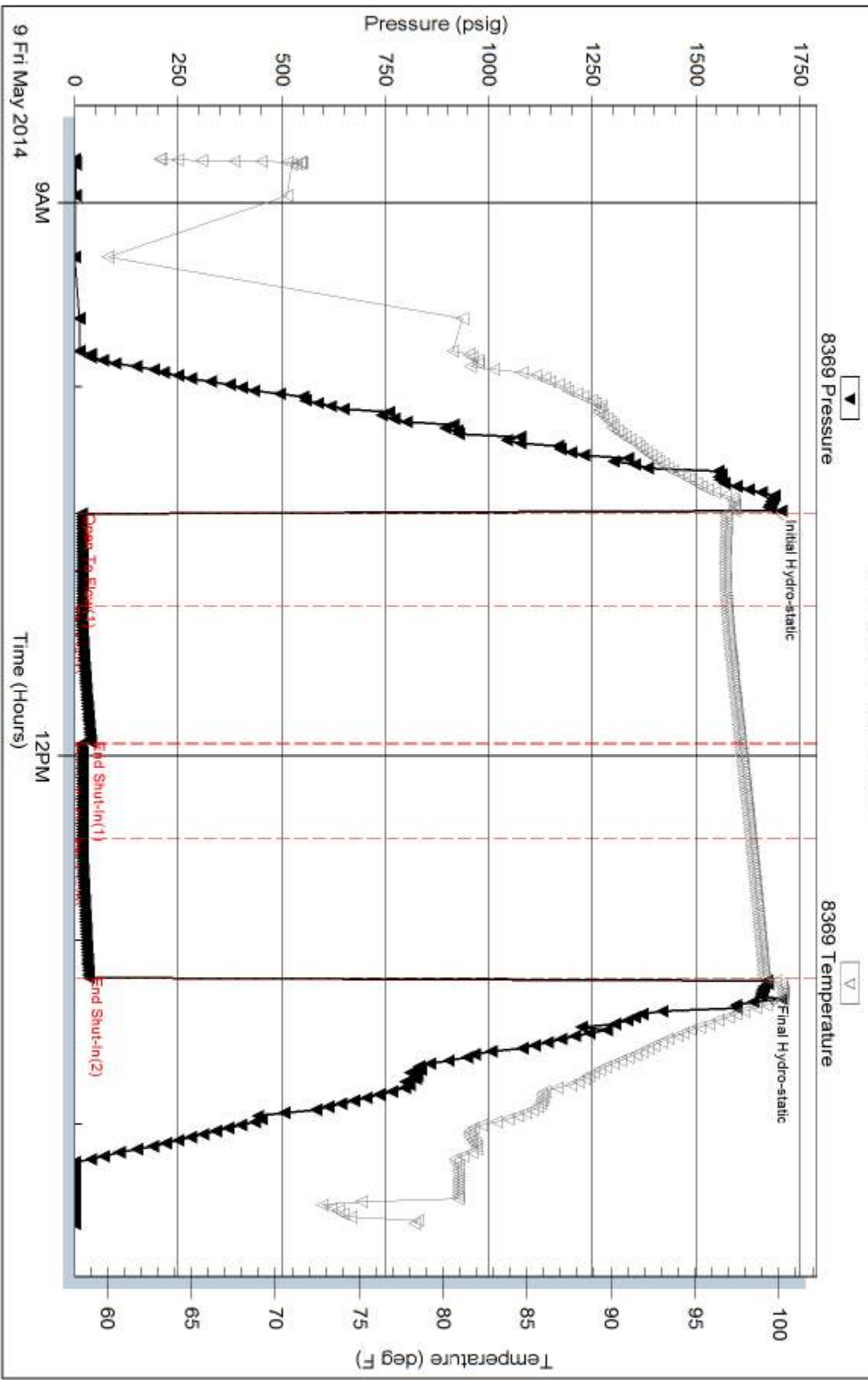
Inside

Bach Oil Production

Pete's Pond #2

DST Test Number: 2

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 55340

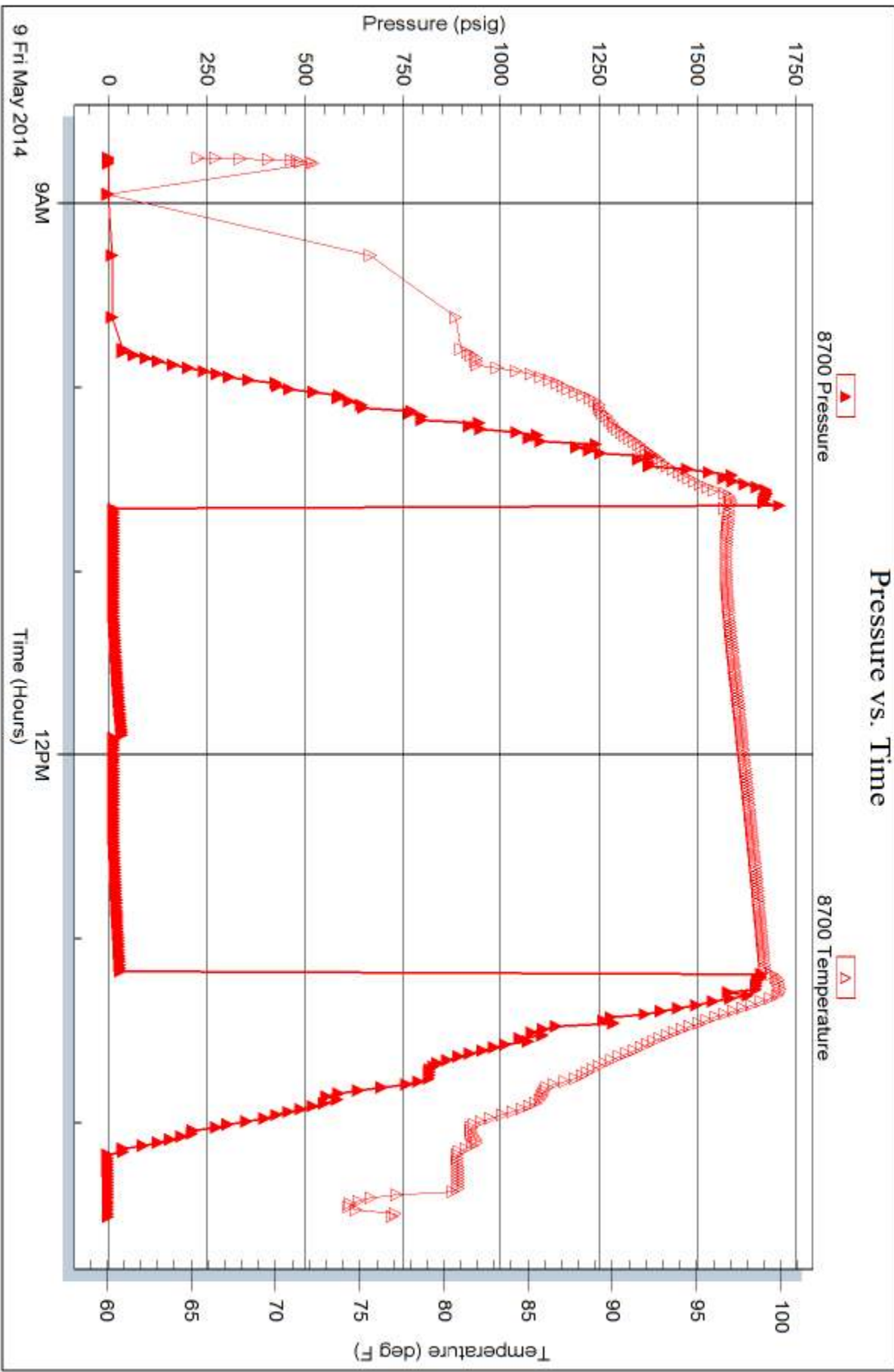
Printed: 2014.05.13 @ 10:57:57

Serial #: 8700

Outside Bach Oil Production

Pete's Pond #2

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55339

Well Name & No. Pete's Pond #2 Test No. 1 Date 5-8-14
 Company Back Oil Production Elevation 2085 KB 2080 GL
 Address P O Box 723 ALMA, NE. 68920-0723
 Co. Rep / Geo. Bob Petersen Rig Murphy rig 24
 Location: Sec. 14 Twp. 1^s Rge. 19^w Co. Phillips State Ks

Interval Tested 3336-3380 Zone Tested LKC C-0
 Anchor Length 44 Drill Pipe Run 3237 Mud Wt. 8.9
 Top Packer Depth 3331 Drill Collars Run 90 Vis 67
 Bottom Packer Depth 3336 Wt. Pipe Run - WL 4.8
 Total Depth 3380 Chlorides 300 ppm System LCM 1#

Blow Description TFP - WEAK TO A FAIR BLOW 1/2" TO 4 3/4" BLOW
ISIP - NO BLOW
FFP - WEAK BLOW THRU-OUT, SURFACE TO 3/4" BLOW
FSTP - NO BLOW

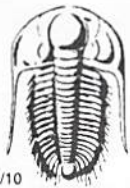
Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>CO</u>				
<u>70</u>	<u>SOC MW</u>		<u>1</u>	<u>89</u>	<u>10</u>
<u>60</u>	<u>MW w/show of oil</u>			<u>90</u>	<u>10</u>

Rec Total 130 BHT 101 Gravity - API RW .2 @ 65 ° F Chlorides 41000 ppm
 (A) Initial Hydrostatic 1596 Test 1150 T-On Location 1840
 (B) First Initial Flow 22 Jars 250 T-Started 1900
 (C) First Final Flow 60 Safety Joint 75 T-Open 2020
 (D) Initial Shut-In 724 Circ Sub _____ T-Pulled 2335
 (E) Second Initial Flow 68 Hourly Standby _____ T-Out 0117
 (F) Second Final Flow 81 Mileage 180 RT 130rt 201.50
 (G) Final Shut-In 713 Sampler _____
 (H) Final Hydrostatic 1571 Straddle _____

Initial Open 45 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 45 Shale Packer _____ Ruined Packer _____
 Final Flow 45 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1676.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1676.50

Approved By _____ Our Representative RAY SCHWAGER HAAR 409

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. 55340

Well Name & No. Pete's Pond #2 Test No. 2 Date 5-9-14
 Company Bach Oil Production Elevation 2085 KB 2080 GL
 Address PO Box 723 Alma, NE 68920-0723
 Co. Rep / Geo. Bob Peterson Rig Murfin rig 24
 Location: Sec. 14 Twp. 1^s Rge. 19^w Co. Phillips State Ks

Interval Tested 3454-3480 Zone Tested LKC I
 Anchor Length 26 Drill Pipe Run 3355 Mud Wt. 8.9
 Top Packer Depth 3449 Drill Collars Run 90 Vis 61
 Bottom Packer Depth 3454 Wt. Pipe Run - WL 4.8
 Total Depth 3480 Chlorides 300 ppm System LCM 1#

Blow Description IFP - SURFACE Blow, died in 15 min
ISIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>50CM</u>	<u>3</u>		<u>99</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 1 BHT 99 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1676 Test 1150 T-On Location 0740
 (B) First Initial Flow 17 Jars 250 T-Started 0845
 (C) First Final Flow 18 Safety Joint 75 T-Open 1040
 (D) Initial Shut-In 39 Circ Sub _____ T-Pulled 1310
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 1432
 (F) Second Final Flow 17 Mileage 201.50 Comments _____
 (G) Final Shut-In 34 Sampler _____
 (H) Final Hydrostatic 1656 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 1676.50
 Final Shut-In 45 Accessibility _____ MP/DST Disc't _____
 Sub Total 1676.50

Approved By _____ Our Representative RAY SCHWAB 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.