

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

Tien #1

15/2s/19w Phillips KS

Start Date: 2012.01.04 @ 01:15:00

End Date: 2012.01.04 @ 08:52:00

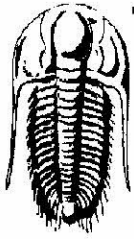
Job Ticket #: 042976 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.06 @ 08:50:36



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042976

DST#: 1

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 01:15:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:35:00

Time Test Ended: 08:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3365.00 ft (KB) To 3435.00 ft (KB) (TVD)**

Reference Elevations: 2217.00 ft (KB)

Total Depth: 3435.00 ft (KB) (TVD)

2212.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6719

Press@RunDepth: 56.76 psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.04 End Date: 2012.01.04

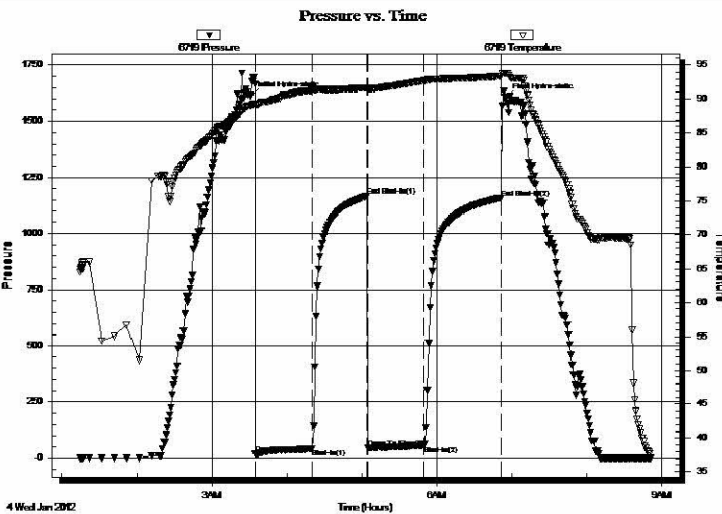
Last Calib.: 2012.01.04

Start Time: 01:15:05 End Time: 08:51:59

Time On Btm: 2012.01.04 @ 03:31:30

Time Off Btm: 2012.01.04 @ 06:55:00

TEST COMMENT: 45 - IF: Blow built to 4 1/2"
45 - IS: Bled off, No blow back
45 - FF: Blow built to 1 1/2"
60 - FS: Bled off, No blow back



PRESSURE SUMMARY

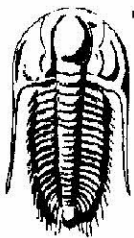
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.36	89.02	Initial Hydro-static
4	17.74	89.07	Open To Flow (1)
49	41.81	91.28	Shut-In(1)
93	1168.78	91.70	End Shut-In(1)
94	44.87	91.30	Open To Flow (2)
139	56.76	92.73	Shut-In(2)
200	1160.03	93.42	End Shut-In(2)
204	1603.33	93.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
93.00	WCM w /trace oil 76%m, 24%w	1.03

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042976

DST#: 1

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 01:15:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:35:00

Time Test Ended: 08:52:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

Interval: **3365.00 ft (KB) To 3435.00 ft (KB) (TVD)**

Reference Elevations: 2217.00 ft (KB)

Total Depth: 3435.00 ft (KB) (TVD)

2212.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8320

Outside

Press@RunDepth: psig @ 3366.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.04

End Date:

2012.01.04

Last Calib.:

2012.01.04

Start Time: 01:15:05

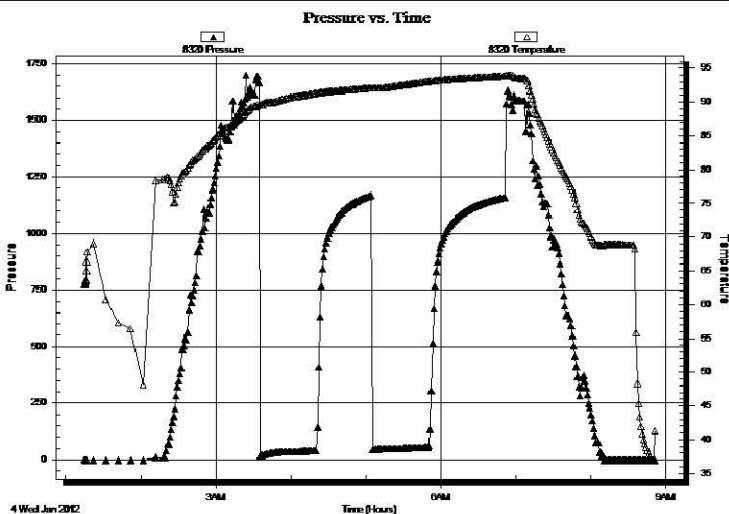
End Time:

08:51:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 45 - IF: Blow built to 4 1/2"
45 - ISI: Bled off, No blow back
45 - FF: Blow built to 1 1/2"
60 - FS: Bled off, No blow back



PRESSURE SUMMARY

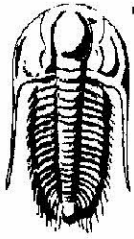
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
93.00	WCM w /trace oil 76%m, 24%w	1.03

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042976

DST#: 1

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 01:15:00

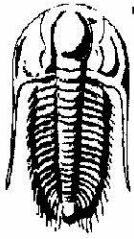
Tool Information

Drill Pipe:	Length: 3329.00 ft	Diameter: 3.80 inches	Volume: 46.70 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 46.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3365.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	98.00 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			3342.00	
Hydraulic tool	5.00			3347.00	
Jars	5.00			3352.00	
Safety Joint	3.00			3355.00	
Packer	5.00			3360.00	28.00 Bottom Of Top Packer
Packer	5.00			3365.00	
Stubb	1.00			3366.00	
Recorder	0.00	8719	Inside	3366.00	
Recorder	0.00	8320	Outside	3366.00	
Perforations	30.00			3396.00	
Blank Spacing	33.00			3429.00	
Perforations	3.00			3432.00	
Bullnose	3.00			3435.00	70.00 Bottom Packers & Anchor

Total Tool Length: 98.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042976

DST#: 1

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 01:15:00

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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
93.00	WCM w /trace oil 76%m, 24%w	1.031

Total Length: 93.00 ft Total Volume: 1.031 bbl

Num Fluid Samples: 0

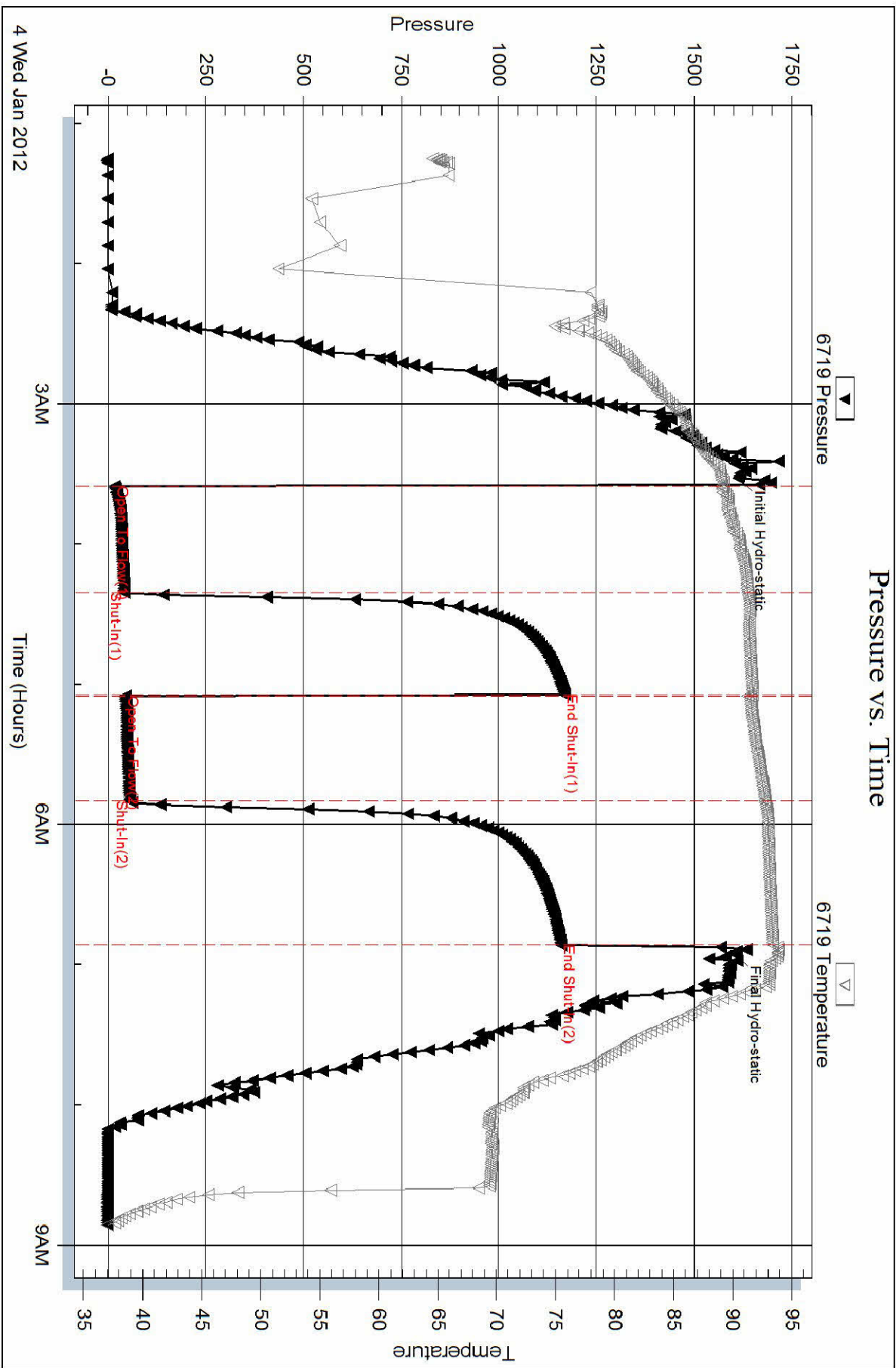
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .324 ohms @ 70.2 deg F
Chlorides =

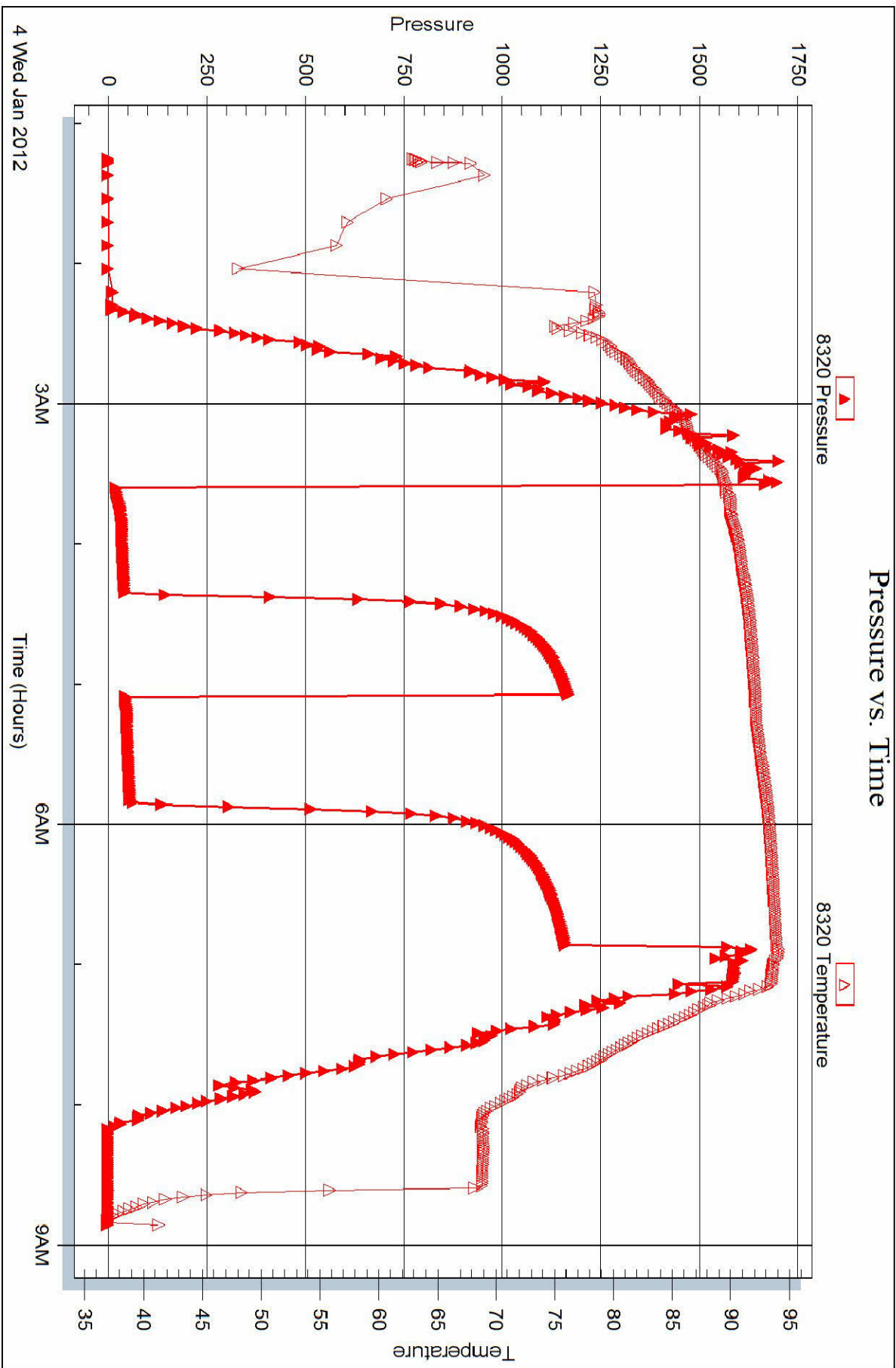


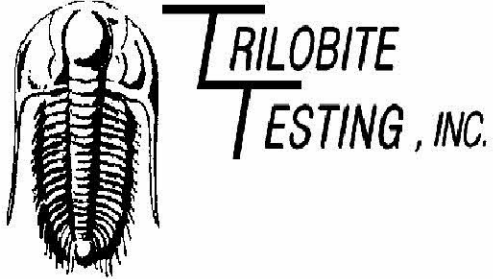
Serial #: 8320

Outside Bach Oil Production

Tien #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920

ATTN: Bob Peterson

Tien #1

15/2s/19w Phillips KS

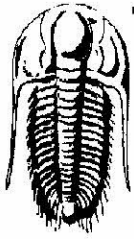
Start Date: 2012.01.04 @ 20:45:00

End Date: 2012.01.05 @ 04:11:30

Job Ticket #: 042977 DST #: 2

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

Printed: 2012.02.06 @ 08:53:06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042977

DST#: 2

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 20:45:00

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:15:30

Time Test Ended: 04:11:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3550.00 ft (KB) To 3575.00 ft (KB) (TVD)**

Reference Elevations: 2217.00 ft (KB)

Total Depth: 3575.00 ft (KB) (TVD)

2212.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6719

Press@RunDepth: 21.73 psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.04 End Date: 2012.01.05

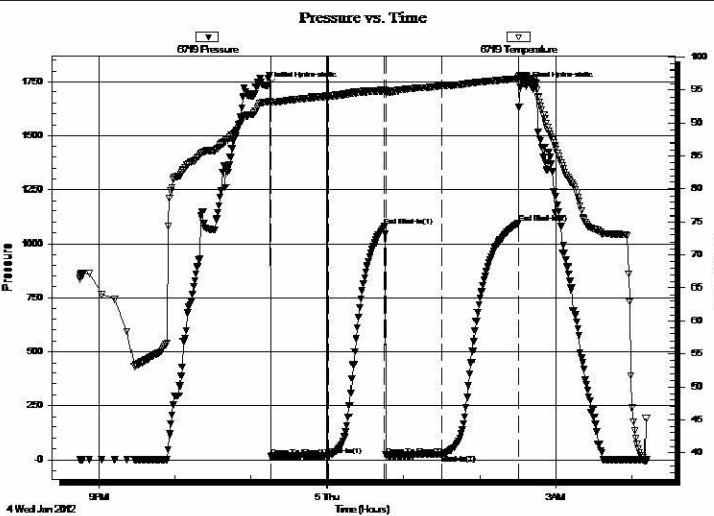
Last Calib.: 2012.01.05

Start Time: 20:45:05 End Time: 04:11:29

Time On Btm: 2012.01.04 @ 23:13:00

Time Off Btm: 2012.01.05 @ 02:36:30

TEST COMMENT: 45 - IF: Blow built to 1/2"
45 - IS: Bled off, No blow back
45 - FF: On/Off surface blow from 12 min. till close
60 - FS: Bled off, No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1728.90	93.17	Initial Hydro-static
3	15.05	93.17	Open To Flow (1)
48	17.13	94.04	Shut-In(1)
92	1081.72	94.98	End Shut-In(1)
93	20.32	94.75	Open To Flow (2)
137	21.73	95.62	Shut-In(2)
198	1095.51	96.75	End Shut-In(2)
204	1728.14	97.32	Final Hydro-static

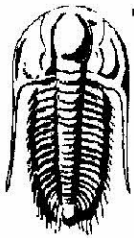
Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCO 65%o, 35%m	0.05

Gas Rates

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

* Recovery from multiple tests



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DRILL STEM TEST REPORT

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042977

DST#: 2

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 20:45:00

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:15:30

Time Test Ended: 04:11:30

Interval: **3550.00 ft (KB) To 3575.00 ft (KB) (TVD)**

Total Depth: 3575.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Reference Elevations: 2217.00 ft (KB)

2212.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8320

Outside

Press@RunDepth: psig @ 3551.00 ft (KB)

Start Date: 2012.01.04

End Date:

2012.01.05

Start Time: 20:45:05

End Time:

04:10:59

Capacity: 8000.00 psig

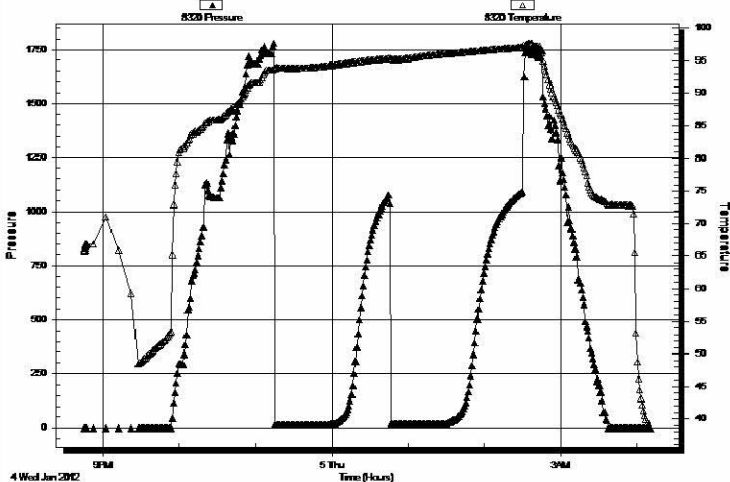
Last Calib.: 2012.01.05

Time On Btm:

Time Off Btm:

TEST COMMENT: 45 - IF: Blow built to 1/2"
45 - IS: Bled off, No blow back
45 - FF: On/Off surface blow from 12 min. till close
60 - FS: Bled off, No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

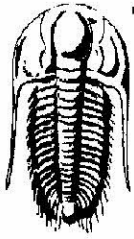
Recovery

Length (ft)	Description	Volume (bbl)
10.00	MCO 65%o, 35%m	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042977

DST#: 2

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 20:45:00

Tool Information

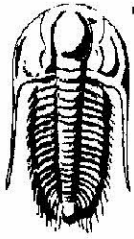
Drill Pipe:	Length: 3519.00 ft	Diameter: 3.80 inches	Volume: 49.36 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
		Total Volume: 49.51 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3550.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 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			3527.00	
Hydraulic tool	5.00			3532.00	
Jars	5.00			3537.00	
Safety Joint	3.00			3540.00	
Packer	5.00			3545.00	28.00 Bottom Of Top Packer
Packer	5.00			3550.00	
Stubb	1.00			3551.00	
Recorder	0.00	8719	Inside	3551.00	
Recorder	0.00	8320	Outside	3551.00	
Perforations	21.00			3572.00	
Bullnose	3.00			3575.00	25.00 Bottom Packers & Anchor

Total Tool Length: 53.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

15/2s/19w Phillips KS

PO Box 723
Alma, NE 68920

Tien #1

Job Ticket: 042977

DST#: 2

ATTN: Bob Peterson

Test Start: 2012.01.04 @ 20:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 69.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	MCO 65%o, 35%m	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

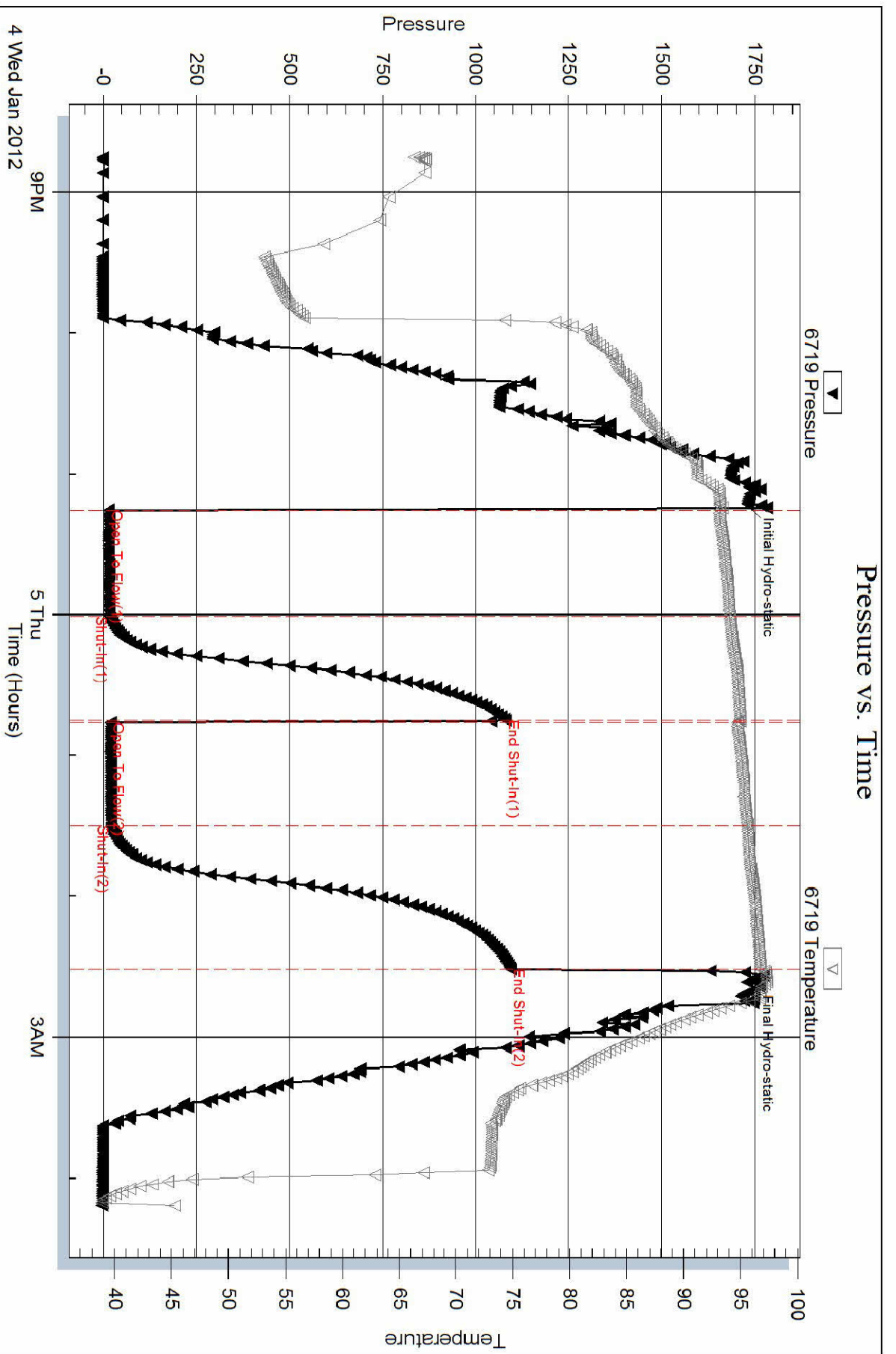
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8320

Outside Bach Oil Production

Tien #1

DST Test Number: 2

