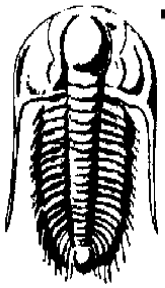


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

Knape #3

13-1s-19w Phillips KS

Start Date: 2012.09.21 @ 23:10:00
End Date: 2012.09.22 @ 05:50:00
Job Ticket #: 48145 DST #: 1

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

Printed: 2012.09.26 @ 11:42:41

DRILL STEM TEST REPORT

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48145 **DST#: 1**

Test Start: 2012.09.21 @ 23:10:00

GENERAL INFORMATION:

Formation: **LKC "B - G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:59:30
Time Test Ended: 05:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 57

Interval: 3388.00 ft (KB) To 3465.00 ft (KB) (TVD)
Total Depth: 3465.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

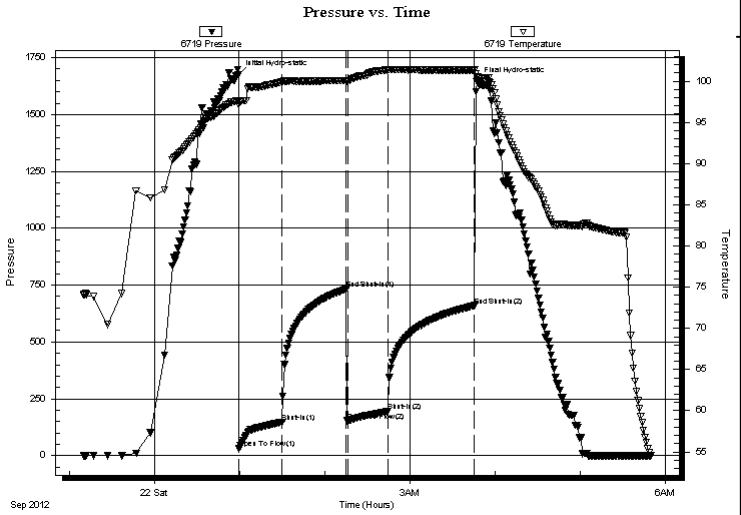
Reference Elevations: 2143.00 ft (KB)
2138.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6719 **Inside**

Press@RunDepth: 193.97 psig @ 3389.00 ft (KB)
Start Date: 2012.09.21 End Date: 2012.09.22
Start Time: 23:10:05 End Time: 05:49:59

Capacity: 8000.00 psig
Last Calib.: 2012.09.22
Time On Btm: 2012.09.22 @ 00:59:00
Time Off Btm: 2012.09.22 @ 03:47:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 11 3/4 min.
45 - ISI: Bled off, No blow back
30 - FF: Blow built to BOB in 28 min.
60 - FSI: Bled off, No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1675.00	97.68	Initial Hydro-static
1	31.19	97.17	Open To Flow (1)
31	148.35	99.92	Shut-In(1)
76	732.39	100.09	End Shut-In(1)
77	153.31	100.07	Open To Flow (2)
106	193.97	101.37	Shut-In(2)
167	659.90	101.37	End Shut-In(2)
168	1644.34	100.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
196.00	Water w/trace oil 96%w , 4%m	1.05
115.00	WM w/trace oil 54%m, 46%w	1.61
62.00	WCM w/trace oil 86%m, 14%w	0.87
19.00	OCM 89%m, 11%o	0.27

Gas Rates

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

DRILL STEM TEST REPORT

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48145 **DST#: 1**

Test Start: 2012.09.21 @ 23:10:00

GENERAL INFORMATION:

Formation: **LKC "B - G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:59:30
Time Test Ended: 05:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: James Winder
Unit No: 57

Interval: 3388.00 ft (KB) To 3465.00 ft (KB) (TVD)
Total Depth: 3465.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

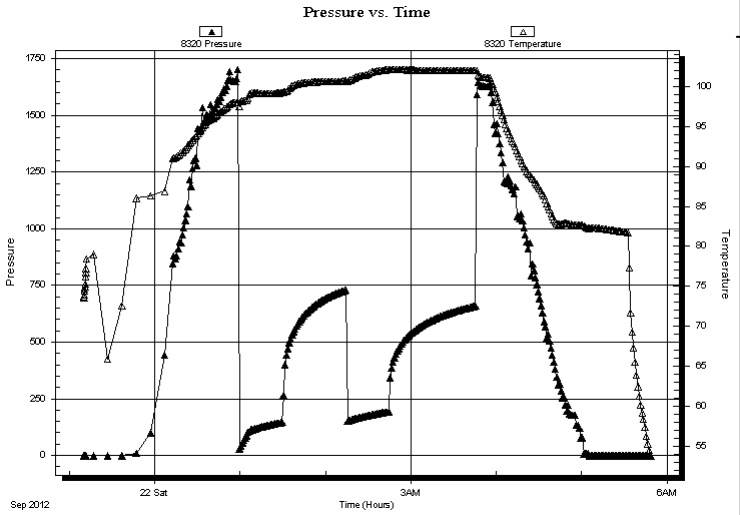
Reference Elevations: 2143.00 ft (KB)
2138.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8320 **Outside**

Press@RunDepth: psig @ 3389.00 ft (KB)
Start Date: 2012.09.21 End Date: 2012.09.22
Start Time: 23:10:05 End Time: 05:48:59

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") in 11 3/4 min.
45 - ISI: Bled off, No blow back
30 - FF: Blow built to BOB in 28 min.
60 - FSI: Bled off, No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
196.00	Water w/trace oil 96%w , 4%m	1.05
115.00	WM w/trace oil 54%m, 46%w	1.61
62.00	WCM w/trace oil 86%m, 14%w	0.87
19.00	OCM 89%m, 11%o	0.27

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48145 **DST#: 1**

Test Start: 2012.09.21 @ 23:10:00

Tool Information

Drill Pipe:	Length:	3189.00 ft	Diameter:	3.80 inches	Volume:	44.73 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:	186.00 ft	Diameter:	2.25 inches	Volume:	0.91 bbl	Weight to Pull Loose:		46000.00 lb
					Total Volume:	45.64 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	46000.00 lb
Depth to Top Packer:		3388.00 ft						Final	46000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		77.00 ft							
Tool Length:		105.00 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			3365.00		
Hydraulic tool	5.00			3370.00		
Jars	5.00			3375.00		
Safety Joint	3.00			3378.00		
Packer	5.00			3383.00	28.00	Bottom Of Top Packer
Packer	5.00			3388.00		
Stubb	1.00			3389.00		
Recorder	0.00	6719	Inside	3389.00		
Recorder	0.00	8320	Outside	3389.00		
Perforations	6.00			3395.00		
Blank Spacing	65.00			3460.00		
Perforations	2.00			3462.00		
Bullnose	3.00			3465.00	77.00	Bottom Packers & Anchor
Total Tool Length:	**105.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48145 **DST#: 1**

Test Start: 2012.09.21 @ 23:10:00

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:	35000 ppm
Viscosity:	61.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
196.00	Water w/trace oil 96%w, 4%m	1.055
115.00	WM w/trace oil 54%m, 46%w	1.613
62.00	WCM w/trace oil 86%m, 14%w	0.870
19.00	OCM 89%m, 11%o	0.267

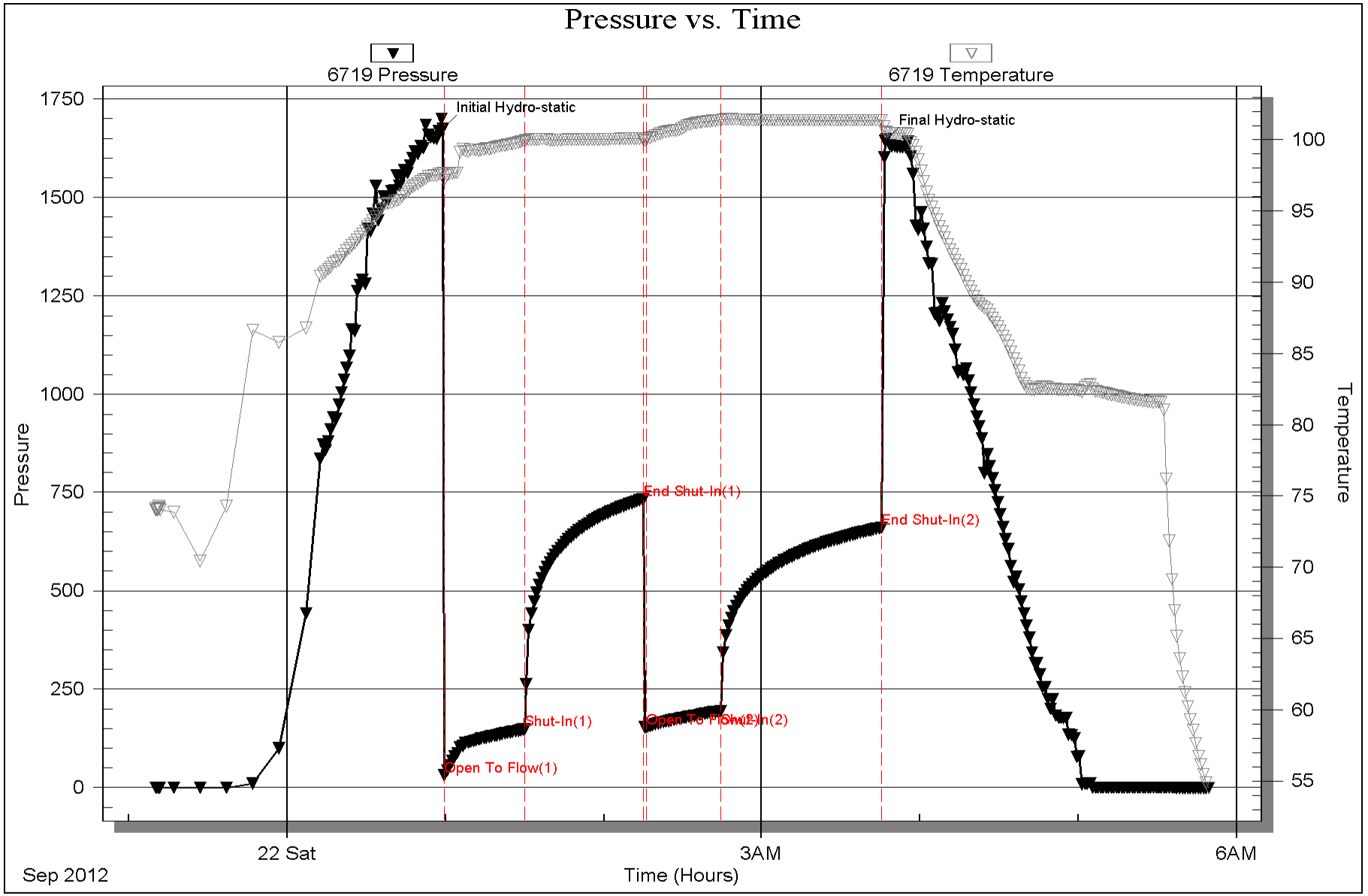
Total Length: 392.00 ft Total Volume: 3.805 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

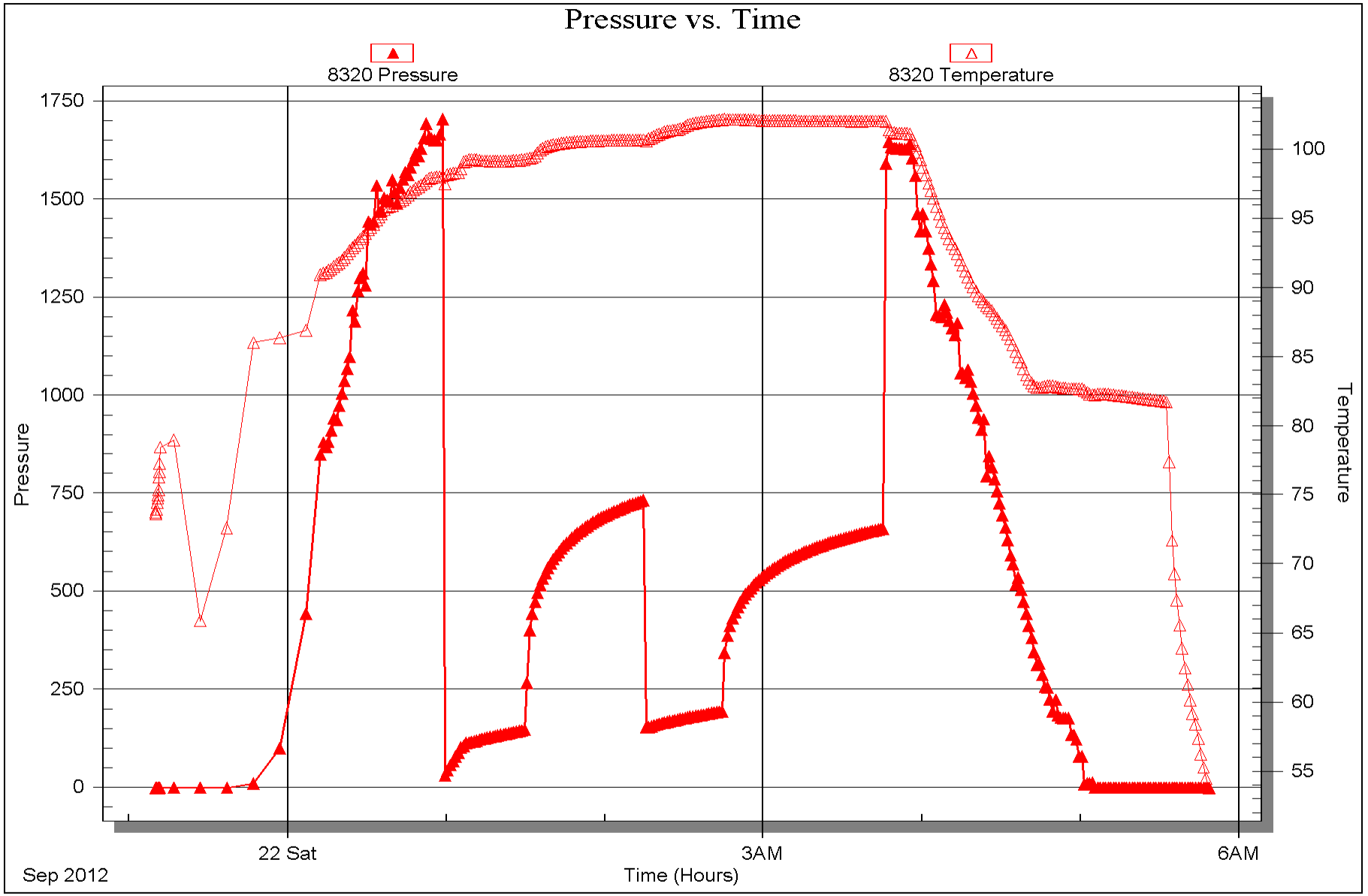
Recovery Comments: RW= .287 ohms @ 50.7 deg F
Chlorides = 35,000 ppm

Serial #: 6719 **Inside** Bach Oil Production Knape #3 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48145 Printed: 2012.09.26 @ 11:42:45

Serial #: 8320 **Outside** Bach Oil Production Knape #3 DST Test Number: 1



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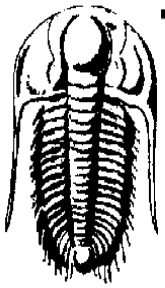


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

Knape #3

13-1s-19w Phillips KS

Start Date: 2012.09.22 @ 13:43:00
End Date: 2012.09.22 @ 20:11:30
Job Ticket #: 48146 DST #: 2

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

Printed: 2012.09.26 @ 11:41:49

DRILL STEM TEST REPORT

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48146 **DST#: 2**

Test Start: 2012.09.22 @ 13:43:00

GENERAL INFORMATION:

Formation: **LKC "H - I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:36:00
Time Test Ended: 20:11:30

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 57

Interval: 3456.00 ft (KB) To 3530.00 ft (KB) (TVD)
Total Depth: 3530.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

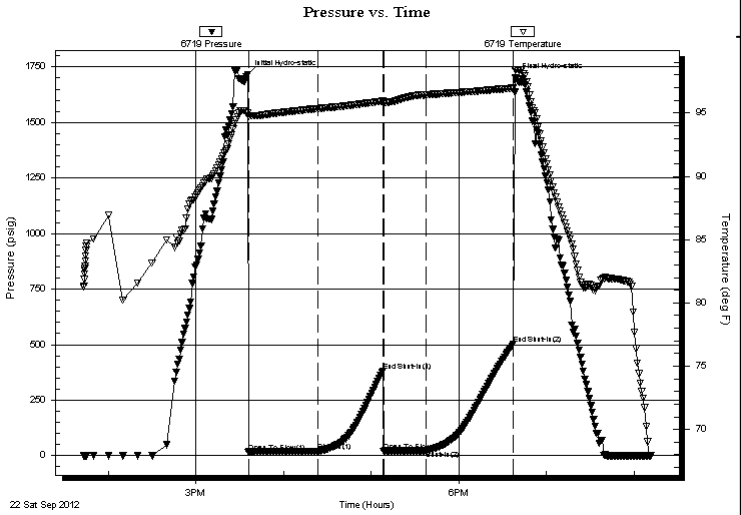
Reference Elevations: 2143.00 ft (KB)
2138.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6719 **Inside**

Press@RunDepth: 22.90 psig @ 3457.00 ft (KB)
Start Date: 2012.09.22 End Date: 2012.09.22
Start Time: 13:43:05 End Time: 20:11:29

Capacity: 8000.00 psig
Last Calib.: 2012.09.22
Time On Btm: 2012.09.22 @ 15:35:30
Time Off Btm: 2012.09.22 @ 18:39:00

TEST COMMENT: 45 - IF: Blow built to 1/4", blew at 1/4" for about 30 min., then died back, dead at 41 min.
45 - ISI: No blow back
30 - FF: No blow
60 - FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1714.57	94.99	Initial Hydro-static
1	16.70	94.71	Open To Flow (1)
48	20.78	95.35	Shut-In(1)
93	382.20	95.94	End Shut-In(1)
93	21.47	95.80	Open To Flow (2)
122	22.90	96.43	Shut-In(2)
182	503.30	96.98	End Shut-In(2)
184	1700.64	98.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 88%m, 12%o	0.07
2.00	OM 56%m, 44%o	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48146 **DST#: 2**

Test Start: 2012.09.22 @ 13:43:00

GENERAL INFORMATION:

Formation: **LKC "H - I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:36:00
Time Test Ended: 20:11:30

Test Type: Conventional Bottom Hole (Reset)
Tester: James Winder
Unit No: 57

Interval: 3456.00 ft (KB) To 3530.00 ft (KB) (TVD)
Total Depth: 3530.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

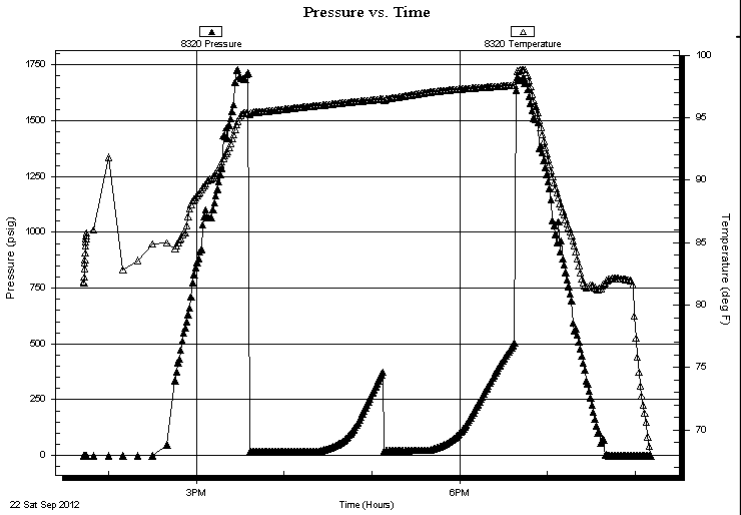
Reference Elevations: 2143.00 ft (KB)
2138.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8320 **Outside**

Press@RunDepth: psig @ 3457.00 ft (KB)
Start Date: 2012.09.22 End Date: 2012.09.22
Start Time: 13:43:05 End Time: 20:10:59

Capacity: 8000.00 psig
Last Calib.: 2012.09.22
Time On Btm:
Time Off Btm:

TEST COMMENT: 45 - IF: Blow built to 1/4", blew at 1/4" for about 30 min., then died back, dead at 41 min.
45 - ISI: No blow back
30 - FF: No blow
60 - FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 88%m, 12%o	0.07
2.00	OM 56%m, 44%o	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48146 **DST#: 2**

Test Start: 2012.09.22 @ 13:43:00

Tool Information

Drill Pipe:	Length:	3253.00 ft	Diameter:	3.80 inches	Volume:	45.63 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:	186.00 ft	Diameter:	2.25 inches	Volume:	0.91 bbl	Weight to Pull Loose:		48000.00 lb
					Total Volume:	46.54 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		11.00 ft					String Weight:	Initial	48000.00 lb
Depth to Top Packer:		3456.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		74.00 ft							
Tool Length:		102.00 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			3433.00		
Hydraulic tool	5.00			3438.00		
Jars	5.00			3443.00		
Safety Joint	3.00			3446.00		
Packer	5.00			3451.00	28.00	Bottom Of Top Packer
Packer	5.00			3456.00		
Stubb	1.00			3457.00		
Recorder	0.00	6719	Inside	3457.00		
Recorder	0.00	8320	Outside	3457.00		
Perforations	6.00			3463.00		
Blank Spacing	64.00			3527.00		
Bullnose	3.00			3530.00	74.00	Bottom Packers & Anchor
Total Tool Length:	**102.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Bach Oil Production

PO Box 723
Alma, NE 68920-0723

ATTN: Bob Peterson

13-1s-19w Phillips KS

Knape #3

Job Ticket: 48146 **DST#: 2**

Test Start: 2012.09.22 @ 13:43:00

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:	61.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

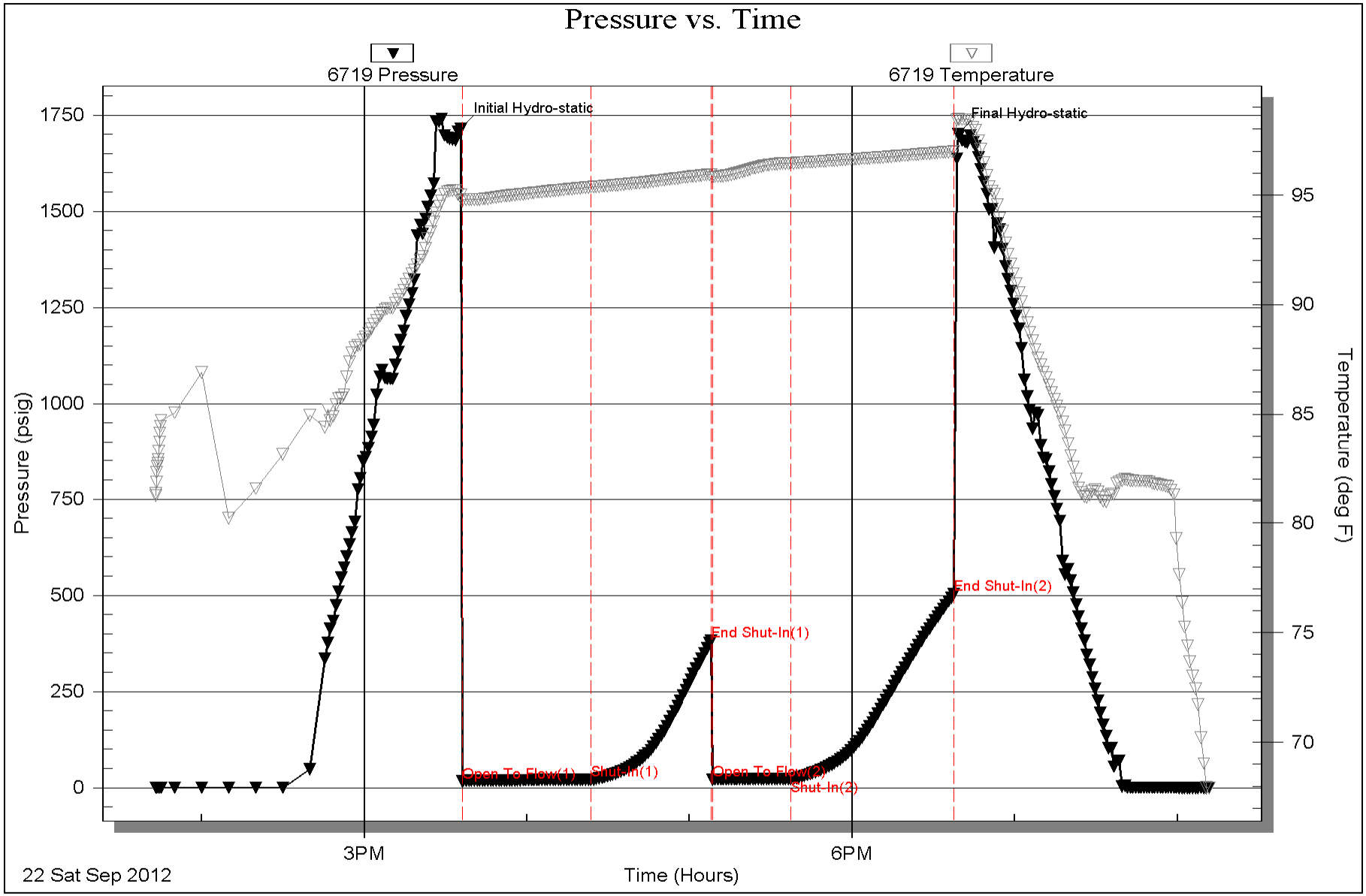
Recovery Table

Length ft	Description	Volume bbl
15.00	OCM 88%m, 12%o	0.074
2.00	OM 56%m, 44%o	0.010

Total Length: 17.00 ft Total Volume: 0.084 bbl

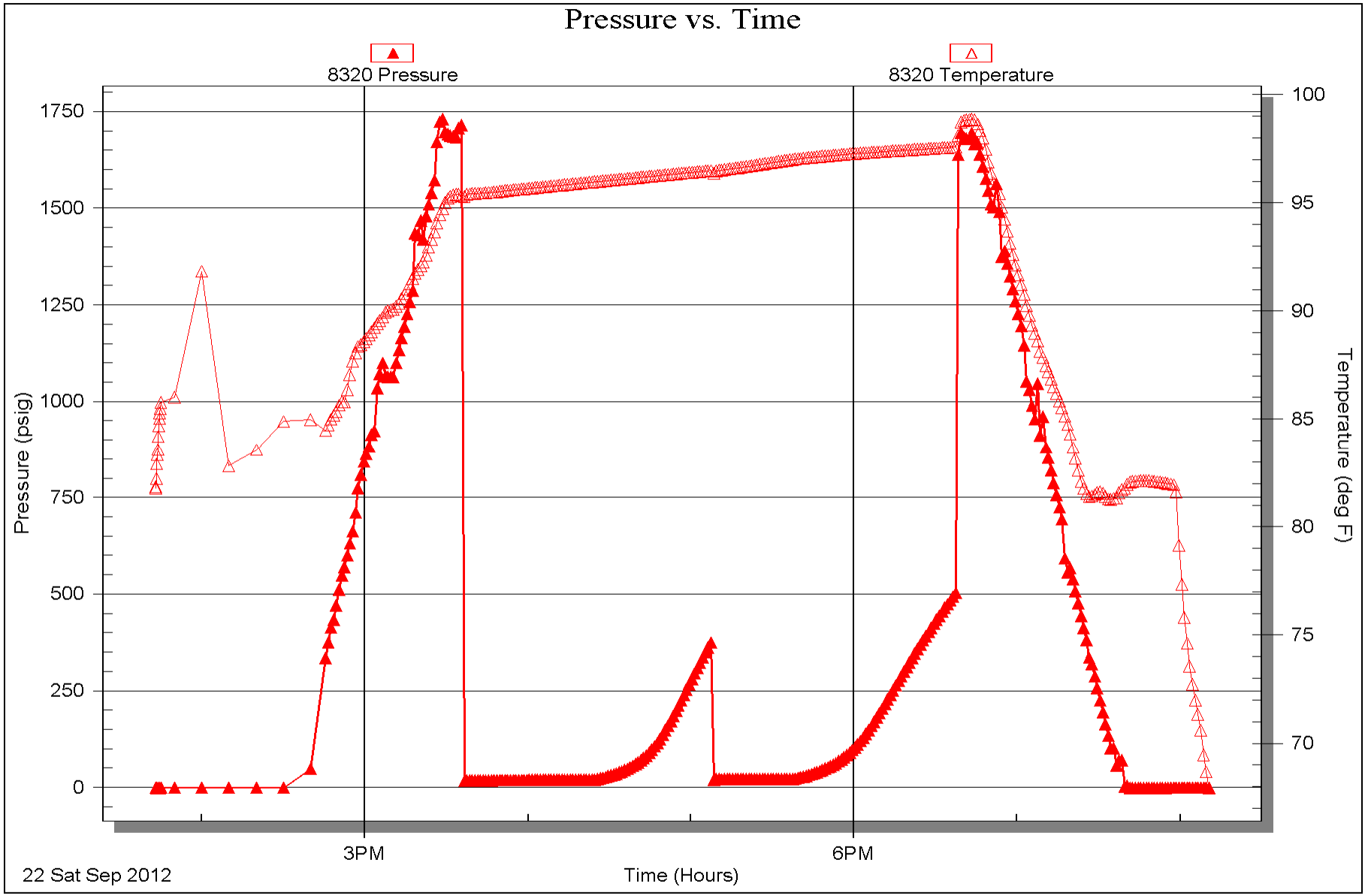
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6719 **Inside** Bach Oil Production Knape #3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 48146 Printed: 2012.09.26 @ 11:41:53

Serial #: 8320 **Outside** Bach Oil Production Knape #3 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 48146 Printed: 2012.09.26 @ 11:41:54

TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48145

Well Name & No. Knape #3 Test No. 1 Date 9-22-12

Company Bach Oil Production Elevation ~~2152~~ 2143 KB ~~2147~~ 2138 GL

Address PO Box 723 Alma, NE 68920-0723

Co. Rep / Geo. Bob Peterson Rig Murfin #8

Location: Sec. 13 ~~Twp.~~ Twp. ~~15~~ 15 Rge. ~~20W~~ 19W Co. Phillips State KS

Interval Tested 3388 - 3465 Zone Tested LKC "B-G"

Anchor Length 77 Drill Pipe Run 3189 Mud Wt. 8.9

Top Packer Depth 3383 Drill Collars Run 186 Vis 61

Bottom Packer Depth 3388 Wt. Pipe Run - WL 6.4

Total Depth 3465 Chlorides 1000 ppm System LCM 2#

Blow Description IF: Blow built to BOB (11") in 11 3/4 min.
ISI: Bled off, No blowback
FF: Blow built to BOB in 28 min.
FSI: Bled off, No blowback

Rec 19	Feet of OCM	- %gas	11 %oil	- %water	89 %mud
Rec 62	Feet of WCM w/trace of oil	- %gas	trace %oil	14 %water	86 %mud
Rec 105	Feet of WM w/trace of Oil	- %gas	trace %oil	46 %water	54 %mud
Rec 196	Feet of Water w/trace of Oil	- %gas	trace %oil	96 %water	4 %mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 392 BHT 101 Gravity - API RW .287 @ 50.7 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic 1675
(B) First Initial Flow 31
(C) First Final Flow 148
(D) Initial Shut-In 732
(E) Second Initial Flow 153
(F) Second Final Flow 194
(G) Final Shut-In 660
(H) Final Hydrostatic 1644

Initial Open 30
Initial Shut-In 45
Final Flow 30
Final Shut-In 60

- ☐ Test ★ 1150
- ☐ Jars ★ 250
- ☐ Safety Joint ★ 75
- ☑ Circ Sub ★ NA
- ☑ Hourly Standby
- ☐ Mileage 130 RT 201.50
- ☑ Sampler
- ☑ Straddle
- ☑ Shale Packer
- ☑ Extra Packer
- ☑ Extra Recorder
- ☑ Day Standby
- ☑ Accessibility

Sub Total 1676.50

T-On Location 22:15 9/21
T-Started 23:10 9/21
T-Open 00:59
T-Pulled 3:45
T-Out 5:45

Comments (Hotel)

- ☑ Ruined Shale Packer
- ☑ Ruined Packer
- ☑ Extra Copies

Sub Total 0

Total 1676.50

MP/DST Disc't

Approved By Our Representative James Winder

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48146

Well Name & No. Knape #3 Test No. 2 Date 9-22-12

Company Bach Oil Production Elevation 2143 KB 2138 GL

Address PO Box 723 Alma, NE 68920-0723

Co. Rep / Geo. Bob Peterson Rig Murfin #8

Location: Sec. 13 Twp. 1s Rge. 19w Co. Phillips State KS

Interval Tested 3456 - 3530 Zone Tested LKC "H-I"

Anchor Length 74 Drill Pipe Run 3253 Mud Wt. 8.9

Top Packer Depth 3451 Drill Collars Run 186 Vis 61

Bottom Packer Depth 3456 Wt. Pipe Run - WL 6.4

Total Depth 3530 Chlorides 1000 ppm System LCM 2#

Blow Description IF: Blow built to ¼", blew at ¼" for about 30min then died back, dead at 41min.

ISI: No blowback

FF:

FSI:

Rec 2	Feet of OM	- %gas	44 %oil	- %water	56 %mud
Rec 15	Feet of OCM	- %gas	12 %oil	- %water	88 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 17 BHT 97 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1715

(B) First Initial Flow 17

(C) First Final Flow 21

(D) Initial Shut-In 382

(E) Second Initial Flow 21

(F) Second Final Flow 23

(G) Final Shut-In 503

(H) Final Hydrostatic 1701

Initial Open 45

Initial Shut-In 45

Final Flow 30

Final Shut-In 60

- ☐ Test ✱ 1150
- ☐ Jars ✱ 250
- ☐ Safety Joint ✱ 75
- ☑ Circ Sub ✱NA
- ☑ Hourly Standby
- ☐ Mileage 130 RT 201.50
- ☑ Sampler
- ☑ Straddle
- ☑ Shale Packer
- ☑ Extra Packer
- ☑ Extra Recorder
- ☑ Day Standby
- ☑ Accessibility

Sub Total 1676.50

T-On Location 13:10

T-Started 13:43

T-Open 15:36

T-Pulled 18:37

T-Out 20:05

Comments

- ☑ Ruined Shale Packer
- ☑ Ruined Packer
- ☑ Extra Copies

Sub Total 0

Total 1676.50

MP/DST Disc't

Approved By Our Representative James Winder