



DRILL STEM TEST REPORT

Prepared For: **Chieftain Oil Co**

PO Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Phye #2

23-31s-12w Barber,KS

Start Date: 2013.04.22 @ 04:51:27

End Date: 2013.04.22 @ 12:59:57

Job Ticket #: 50916 DST #: 1

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

Printed: 2013.04.29 @ 14:44:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50916

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2013.04.22 @ 04:51:27

GENERAL INFORMATION:

Formation: **Elgin Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:05:42

Time Test Ended: 12:59:57

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 45

Interval: 3415.00 ft (KB) To 3524.00 ft (KB) (TVD)

Reference Elevations: 1584.00 ft (KB)

Total Depth: 3524.00 ft (KB) (TVD)

1576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press @ Run Depth: 575.45 psig @ 3416.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.22

End Date:

2013.04.22

Last Calib.:

2013.04.22

Start Time: 04:51:28

End Time:

12:59:57

Time On Btm:

2013.04.22 @ 07:49:27

Time Off Btm:

2013.04.22 @ 10:17:42

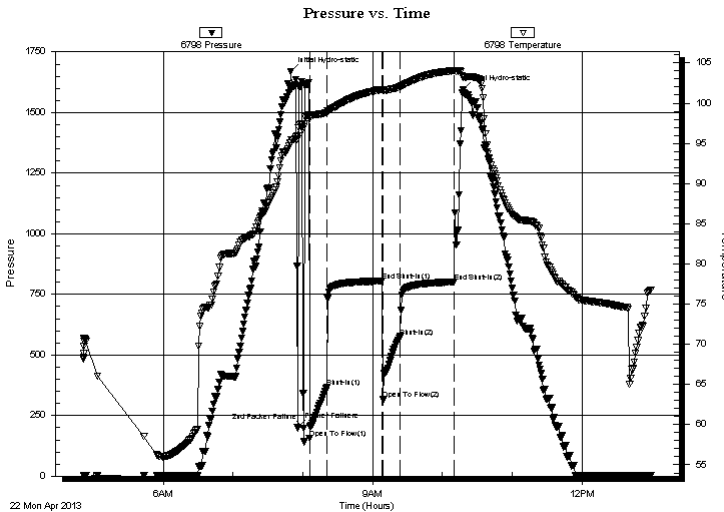
TEST COMMENT: IF: Packer Failure Twice, Held On Third Attempt, Strong Blow, BOB in 1 minutes

IS: GTS While Bleeding Off, 4 inch Blow Back

FF: Strong Blow, BOB & GTS Immediate, Caught Sample, Gas was TSTM

FS: Blow Back Built to 6 inches

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1670.17	95.08	Initial Hydro-static
6	199.68	95.91	Packer Failure
11	198.46	97.03	2nd Packer Failure
17	155.72	98.07	Open To Flow (1)
31	365.88	98.84	Shut-In(1)
79	804.59	101.71	End Shut-In(1)
80	316.21	101.57	Open To Flow (2)
95	575.45	102.07	Shut-In(2)
141	800.94	104.05	End Shut-In(2)
149	1592.75	103.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1388 GIP	0.00
1575.00	GSY Water 10%G 90%W	19.05
376.00	GWCM 10%G 40%W 50%M	5.27
65.00	GCM 15%G 85%M	0.91

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50916

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2013.04.22 @ 04:51:27

GENERAL INFORMATION:

Formation: **Elgin Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:05:42

Time Test Ended: 12:59:57

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 45

Interval: **3415.00 ft (KB) To 3524.00 ft (KB) (TVD)**

Reference Elevations: 1584.00 ft (KB)

Total Depth: 3524.00 ft (KB) (TVD)

1576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8367 Outside

Press @ Run Depth: psig @ 3416.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.22 End Date: 2013.04.22

Last Calib.: 2013.04.22

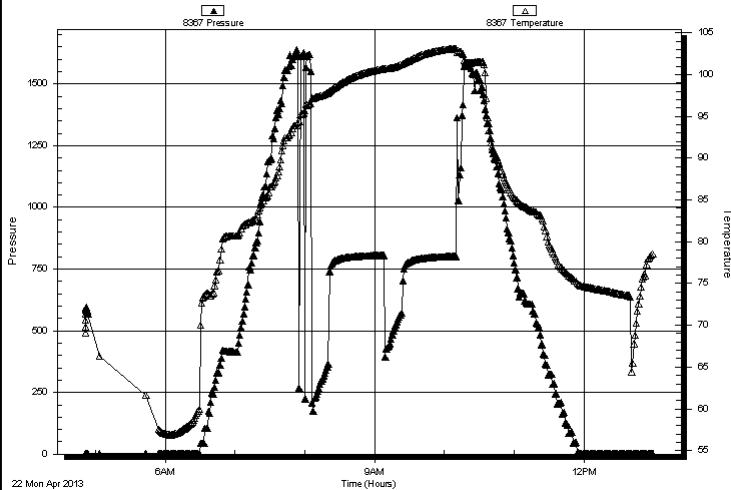
Start Time: 04:51:28 End Time: 12:59:57

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Packer Failure Twice, Held On Third Attempt, Strong Blow, BOB in 1 minutes
IS: GTS While Bleeding Off, 4 inch Blow Back
FF: Strong Blow, BOB & GTS Immediate, Caught Sample, Gas was TSTM
FS: Blow Back Built to 6 inches

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1388 GIP	0.00
1575.00	GSY Water 10%G 90%W	19.05
376.00	GWCM 10%G 40%W 50%M	5.27
65.00	GCM 15%G 85%M	0.91

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50916

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2013.04.22 @ 04:51:27

Tool Information

Drill Pipe:	Length: 3070.00 ft	Diameter: 3.80 inches	Volume: 43.06 bbl	Tool Weight: 2100.00 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: 334.00 ft	Diameter: 2.25 inches	Volume: 1.64 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 44.70 bbl</u>	Tool Chased 7.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3415.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	109.00 ft			
Tool Length:	129.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Ran 2 shale Packers

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3400.00	
Hydraulic tool	5.00			3405.00	
Packer - Shale	5.00			3410.00	
Packer	5.00			3415.00	20.00 Bottom Of Top Packer
Stubb	1.00			3416.00	
Recorder	0.00	6798	Inside	3416.00	
Recorder	0.00	8367	Outside	3416.00	
Perforations	4.00			3420.00	
Change Over Sub	1.00			3421.00	
Drill Pipe	94.00			3515.00	
Change Over Sub	1.00			3516.00	
Perforations	5.00			3521.00	
Bullnose	3.00			3524.00	109.00 Anchor Tool

Total Tool Length: 129.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Co

23-31s-12w Barber,KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50916

DST#: 1

ATTN: Arden Ratzlaff

Test Start: 2013.04.22 @ 04:51:27

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:

150000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.48 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4300.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1388 GIP	0.000
1575.00	GSY Water 10%G 90%W	19.051
376.00	GWCM 10%G 40%W 50%M	5.274
65.00	GCM 15%G 85%M	0.912

Total Length: 2016.00 ft

Total Volume: 25.237 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

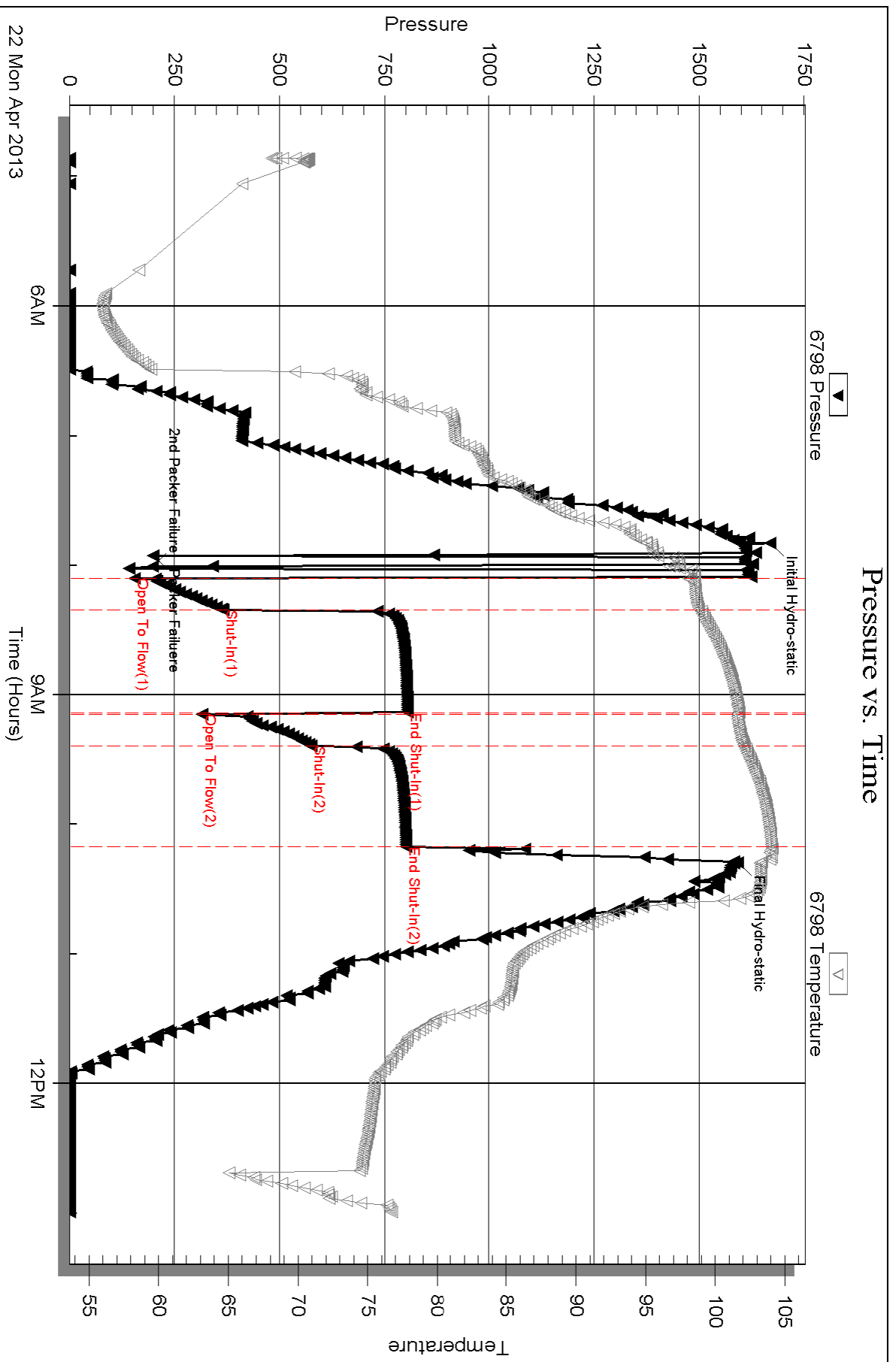
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .07 @ 60 degrees

Pressure vs. Time

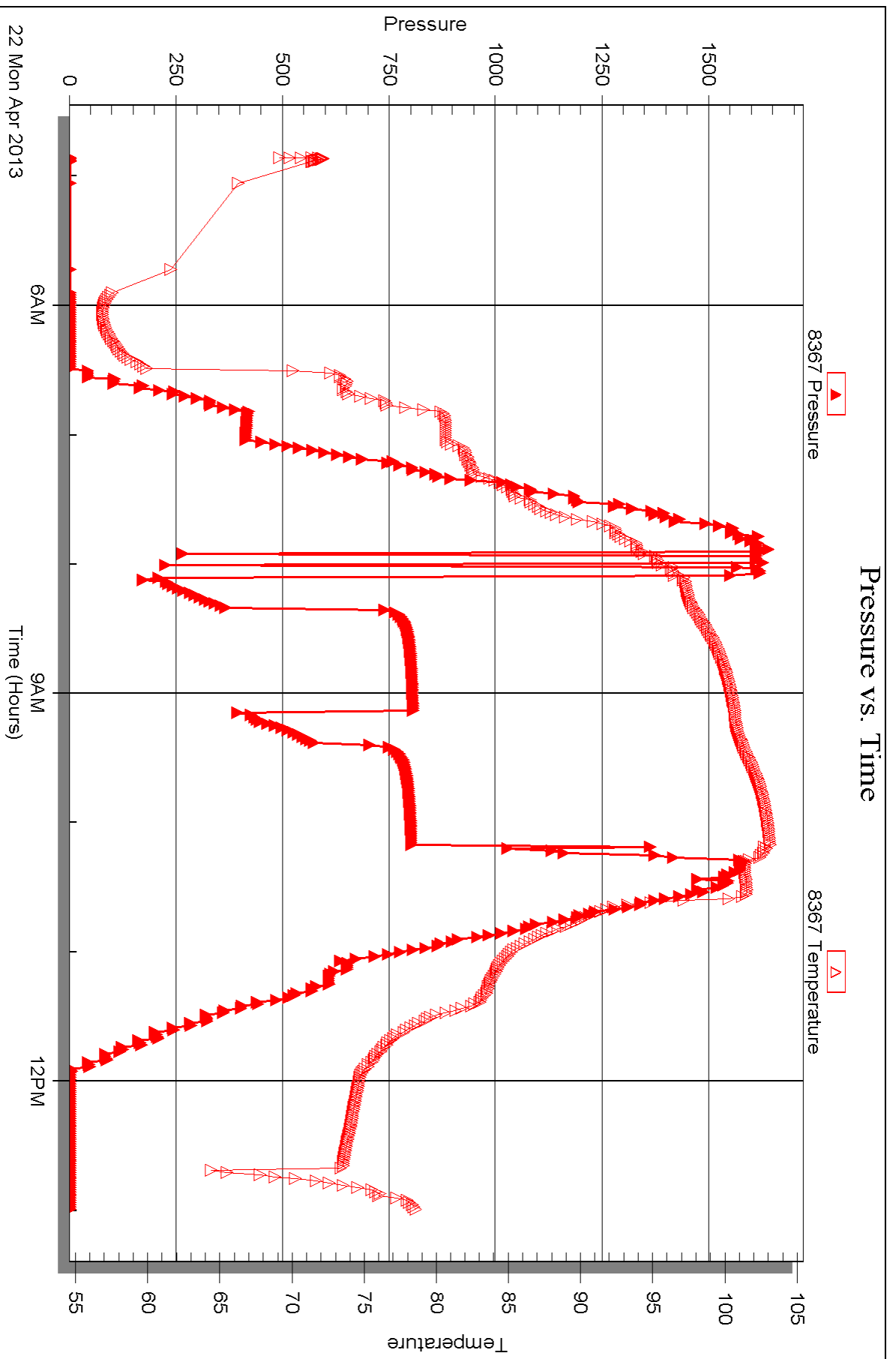


Serial #: 8367

Outside Chieftain Oil Co

Fhye #2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Chieftain Oil Co**

PO Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Phye #2

23-31s-12w Barber,KS

Start Date: 2013.04.25 @ 12:02:19

End Date: 2013.04.25 @ 20:04:19

Job Ticket #: 50917 DST #: 2

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

Printed: 2013.04.29 @ 14:43:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50917

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2013.04.25 @ 12:02:19

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:08:49

Time Test Ended: 20:04:19

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

Interval: 4303.00 ft (KB) To 4319.00 ft (KB) (TVD)

Reference Elevations: 1584.00 ft (KB)

Total Depth: 4319.00 ft (KB) (TVD)

1576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6798

Inside

Press @ Run Depth: 42.93 psig @ 4304.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.25

End Date:

2013.04.25

Last Calib.:

2013.04.25

Start Time: 12:02:20

End Time:

20:04:19

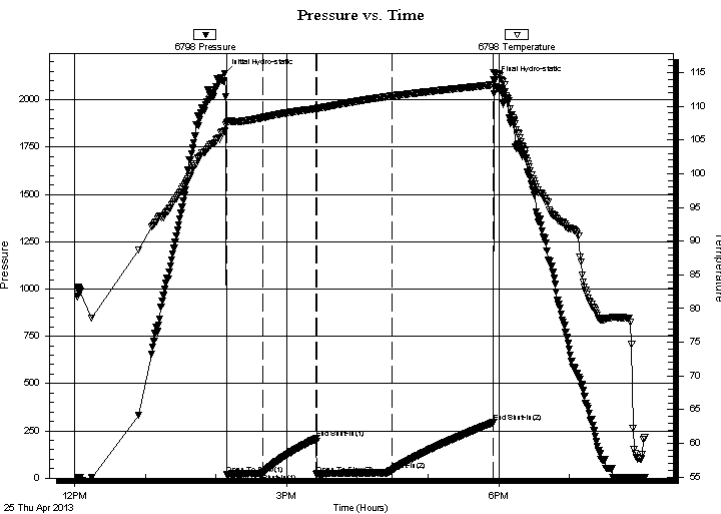
Time On Btm:

2013.04.25 @ 14:07:04

Time Off Btm:

2013.04.25 @ 17:55:49

TEST COMMENT: IF: Strong Blow , BOB in 45 seconds
IS: No Blow Back
FF: Strong Blow , BOB in 4 minutes
FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2140.27	106.32	Initial Hydro-static
2	19.53	107.47	Open To Flow (1)
33	26.98	108.33	Shut-In(1)
78	208.58	109.65	End Shut-In(1)
79	18.15	109.56	Open To Flow (2)
143	42.93	111.54	Shut-In(2)
229	293.35	113.19	End Shut-In(2)
229	2104.10	115.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	620 GIP	0.00
10.00	SGCM 2%G 98%M	0.05

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50917

DST#: 2

ATTN: Arden Ratzlaff

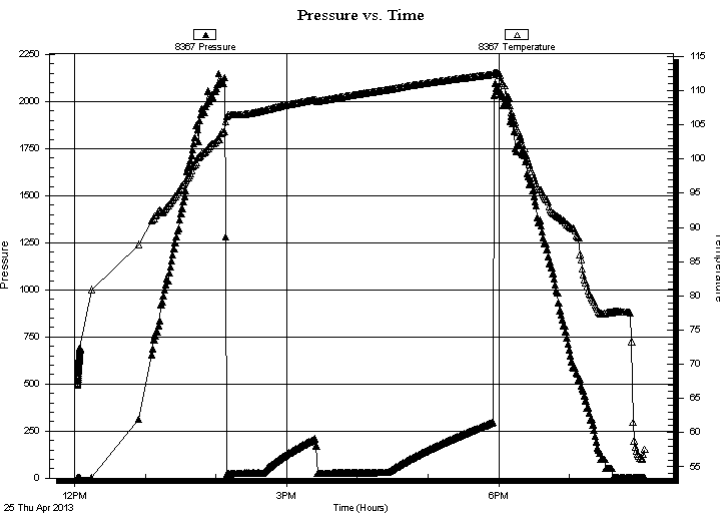
Test Start: 2013.04.25 @ 12:02:19

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 14:08:49 Tester: Leal Cason
 Time Test Ended: 20:04:19 Unit No: 45
 Interval: **4303.00 ft (KB) To 4319.00 ft (KB) (TVD)** Reference Elevations: 1584.00 ft (KB)
 Total Depth: 4319.00 ft (KB) (TVD) 1576.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 8.00 ft

Serial #: 8367 Outside
 Press @ Run Depth: psig @ 4304.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.25 End Date: 2013.04.25 Last Calib.: 2013.04.25
 Start Time: 12:02:20 End Time: 20:04:19 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Strong Blow, BOB in 45 seconds
 IS: No Blow Back
 FF: Strong Blow, BOB in 4 minutes
 FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
0.00	620 GIP	0.00
10.00	SGCM 2%G 98%M	0.05

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50917

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2013.04.25 @ 12:02:19

Tool Information

Drill Pipe:	Length: 4139.00 ft	Diameter: 3.80 inches	Volume: 58.06 bbl	Tool Weight: 2100.00 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: 153.00 ft	Diameter: 2.25 inches	Volume: 0.75 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 58.81 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4303.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	36.00 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			4288.00	
Hydraulic tool	5.00			4293.00	
Packer	5.00			4298.00	20.00 Bottom Of Top Packer
Packer	5.00			4303.00	
Stubb	1.00			4304.00	
Recorder	0.00	6798	Inside	4304.00	
Recorder	0.00	8367	Outside	4304.00	
Perforations	12.00			4316.00	
Bullnose	3.00			4319.00	16.00 Bottom Packers & Anchor
Total Tool Length:	36.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Co

23-31s-12w Barber,KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50917

DST#: 2

ATTN: Arden Ratzlaff

Test Start: 2013.04.25 @ 12:02:19

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.08 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	620 GIP	0.000
10.00	SGCM 2%G 98%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 #: 6798

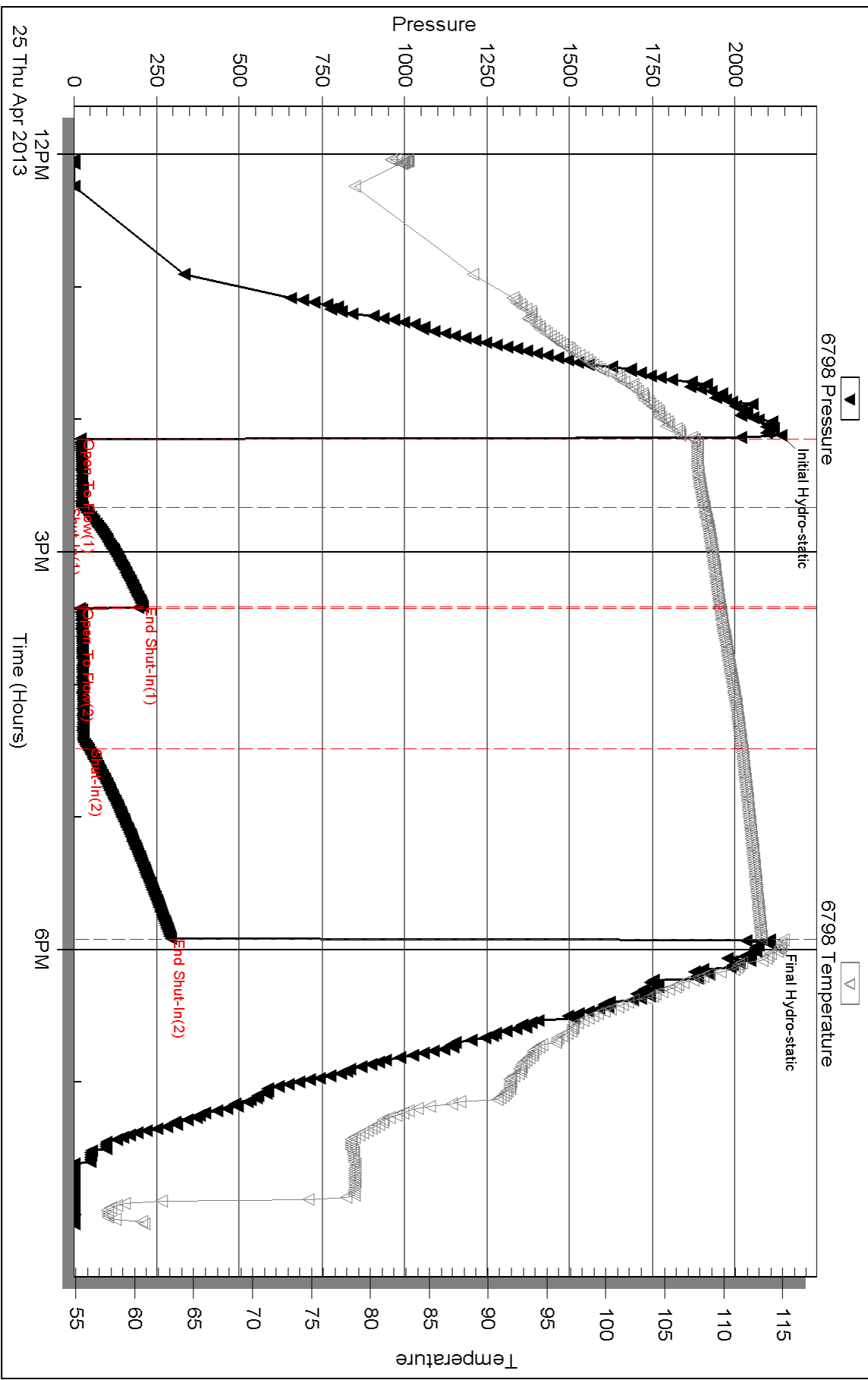
Inside

Chieftain Oil Co

Hy# 2

DST Test Number: 2

Pressure vs. Time

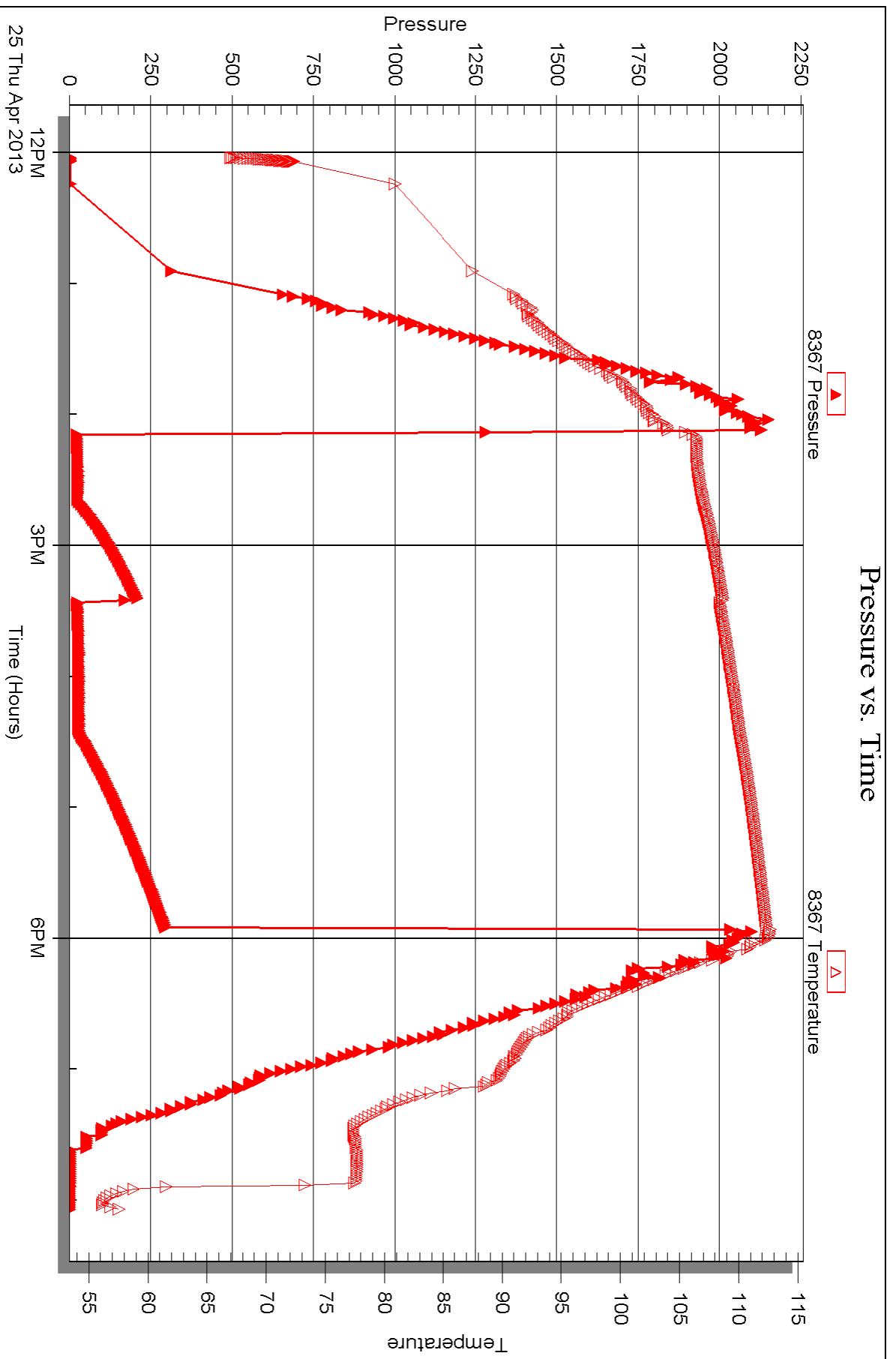


Serial #: 8367

Outside Chieftain Oil Co

Flye #2

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Chieftain Oil Co**

PO Box 124
Kiowa, KS 67070

ATTN: Arden Ratzlaff

Phye #2

23-31s-12w Barber,KS

Start Date: 2013.04.26 @ 05:05:33

End Date: 2013.04.26 @ 14:10:33

Job Ticket #: 50482 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.29 @ 14:42:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50482

DST#: 3

ATTN: Arden Ratzlaff

Test Start: 2013.04.26 @ 05:05:33

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:29:18

Time Test Ended: 14:10:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Reynolds

Unit No: 48

Interval: 4319.00 ft (KB) To 4339.00 ft (KB) (TVD)

Reference Elevations: 1584.00 ft (KB)

Total Depth: 4339.00 ft (KB) (TVD)

1576.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8790

Inside

Press @ Run Depth: 20.81 psig @ 4320.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.26

End Date:

2013.04.26

Last Calib.:

2013.04.26

Start Time: 05:05:38

End Time:

14:10:33

Time On Btm:

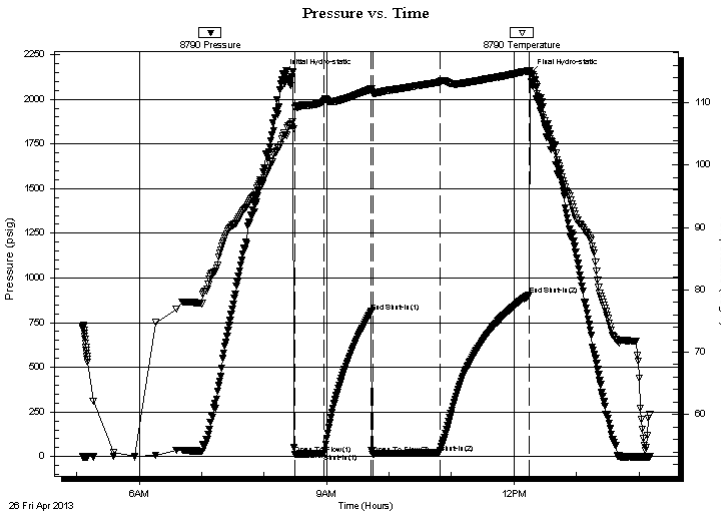
2013.04.26 @ 08:18:18

Time Off Btm:

2013.04.26 @ 12:15:18

TEST COMMENT: IF: Strong blow . BOB @ 6 min. No GTS.
IS: No blow
FF: Strong blow . BOB immed. No GTS.
FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2145.00	104.75	Initial Hydro-static
11	12.01	109.17	Open To Flow (1)
40	16.30	110.38	Shut-In(1)
85	810.86	112.23	End Shut-In(1)
86	12.91	111.54	Open To Flow (2)
151	20.81	113.33	Shut-In(2)
237	903.47	115.15	End Shut-In(2)
237	2144.37	115.21	Final Hydro-static

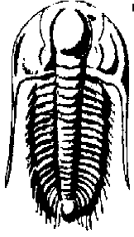
Recovery

Length (ft)	Description	Volume (bbl)
0.00	1465' GIP	0.00
30.00	SLI OCM 1%oil, 99%mud	0.15
0.00	Free oil in hyd. tool	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50482

DST#: 3

ATTN: Arden Ratzlaff

Test Start: 2013.04.26 @ 05:05:33

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:29:18

Time Test Ended: 14:10:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Reynolds

Unit No: 48

Interval: 4319.00 ft (KB) To 4339.00 ft (KB) (TVD)

Total Depth: 4339.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1584.00 ft (KB)

1576.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8792 Outside

Press @ Run Depth: psig @ 4320.00 ft (KB)

Start Date: 2013.04.26

End Date: 2013.04.26

Start Time: 04:57:40

End Time: 14:12:35

Capacity: 8000.00 psig

Last Calib.: 2013.04.26

Time On Btm:

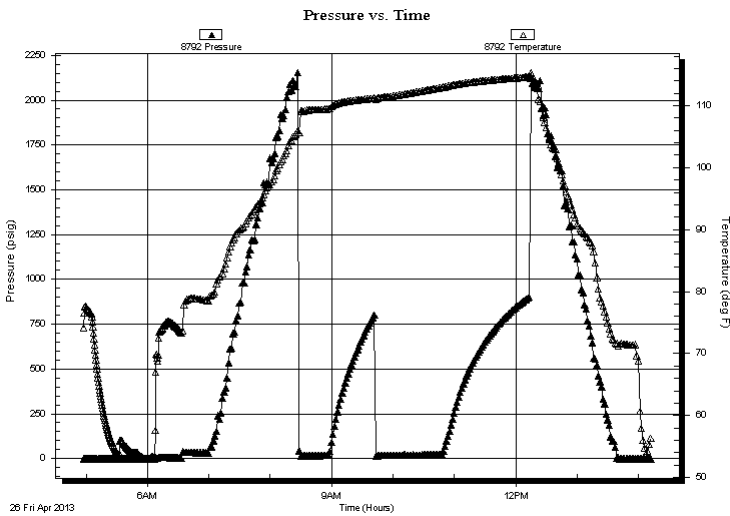
Time Off Btm:

TEST COMMENT: IF: Strong blow . BOB @ 6 min. No GTS.

IS: No blow

FF: Strong blow . BOB immed. No GTS.

FS: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1465' GIP	0.00
30.00	SLI OCM 1%oil, 99%mud	0.15
0.00	Free oil in hyd. tool	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Chieftain Oil Co

23-31s-12w Barber, KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50482

DST#: 3

ATTN: Arden Ratzlaff

Test Start: 2013.04.26 @ 05:05:33

Tool Information

Drill Pipe:	Length: 4170.00 ft	Diameter: 3.80 inches	Volume: 58.49 bbl	Tool Weight: 2100.00 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: 154.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 59.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4319.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 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			4304.00	
Hydraulic tool	5.00			4309.00	
Packer	5.00			4314.00	20.00 Bottom Of Top Packer
Packer	5.00			4319.00	
Stubb	1.00			4320.00	
Recorder	0.00	8790	Inside	4320.00	
Recorder	0.00	8792	Outside	4320.00	
Perforations	16.00			4336.00	
Bullnose	3.00			4339.00	20.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Chieftain Oil Co

23-31s-12w Barber,KS

PO Box 124
Kiowa, KS 67070

Phye #2

Job Ticket: 50482

DST#: 3

ATTN: Arden Ratzlaff

Test Start: 2013.04.26 @ 05:05:33

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:

6300 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1465' GIP	0.000
30.00	SLI OCM 1%oil, 99%mud	0.148
0.00	Free oil in hyd. tool	0.000

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8790

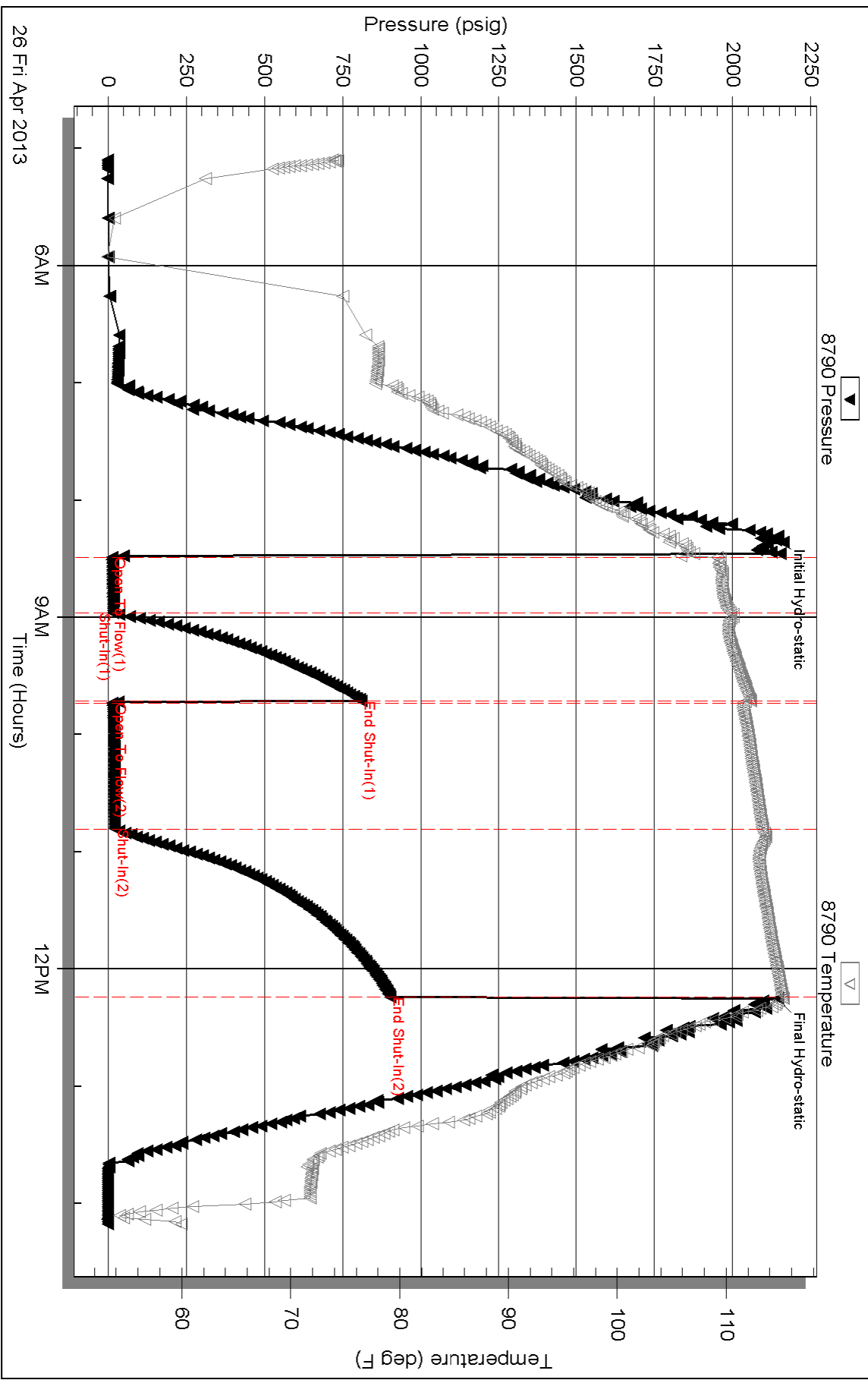
Inside

Chieftain Oil Co

Phye #2

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50482

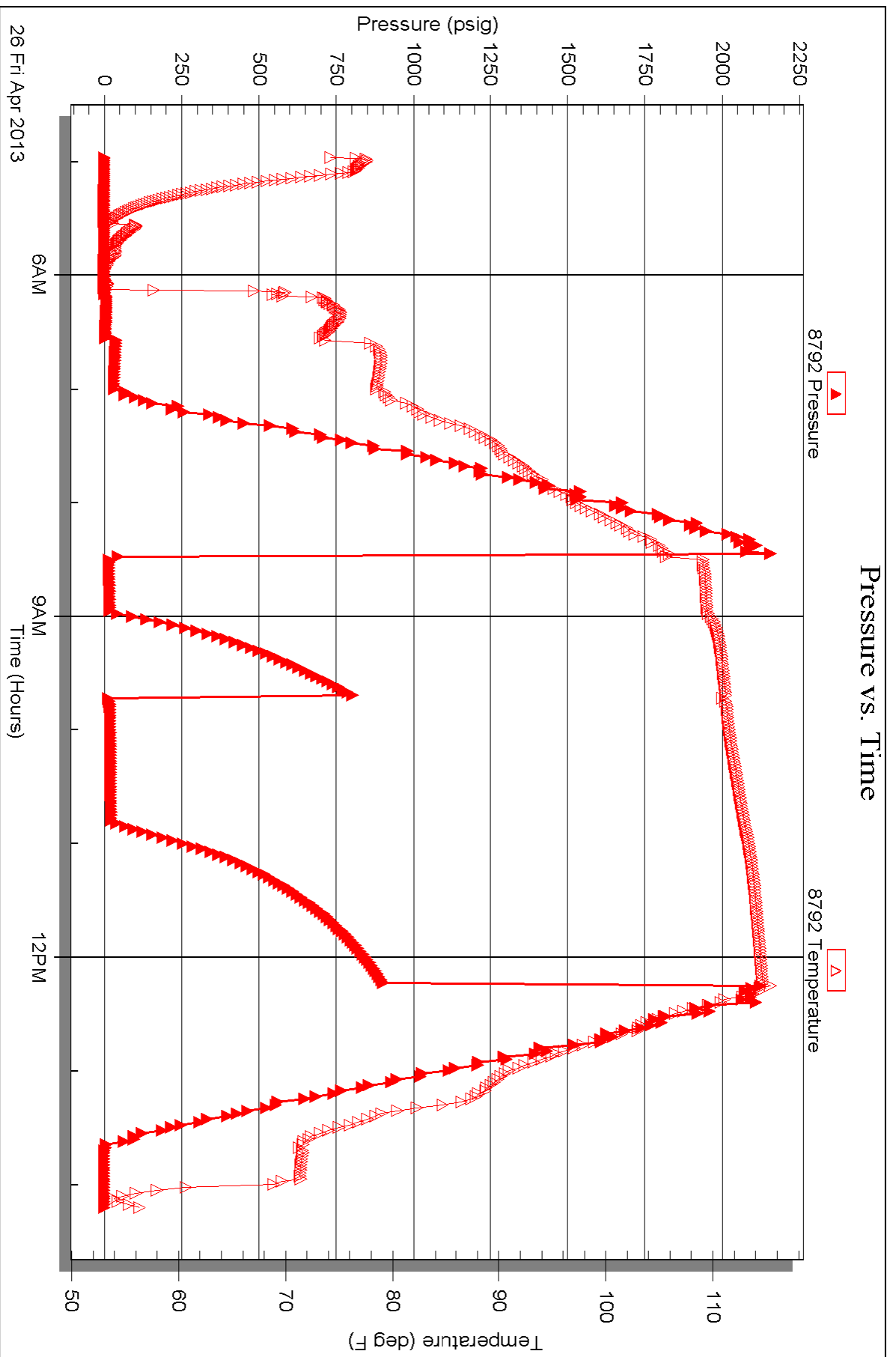
Printed: 2013.04.29 @ 14:42:56

Serial #: 8792

Outside Chieftain Oil Co

Flye #2

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50916

Well Name & No. Phye 2 Test No. 1 Date 04/22/13
 Company Chieftain Oil Co Elevation ~~1584~~ 1576 GL
 Address PO Box 124 Kiowa, KS 67070
 Co. Rep / Geo. Arden Ratzlaff Rig Fossil 2
 Location: Sec. 23 Twp. 31S Rge. 12W Co. ~~Barber~~ Barber State KS

Interval Tested 3415 - 3524 Zone Tested Elgin Sand
 Anchor Length 109 Drill Pipe Run 3070 Mud Wt. 9.0
 Top Packer Depth 3410 Drill Collars Run 334 Vis 50
 Bottom Packer Depth 3415 Wt. Pipe Run 0 WL 8.5
 Total Depth 3524 Chlorides 4300 ppm System LCM

Blow Description IFi Packer Failure twice, held on 3rd attempt, strong blow, BOB in 1 minute
TSI: GTS while bleeding off, 3 inch Blow Back
FFi: strong blow, BOB + GTS immediate, caught gas sample, gas was TSTM
FSI: Blow Back Built to 6 inches

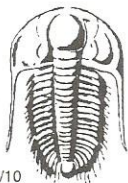
Rec	Feet of	%gas	%oil	%water	%mud
<u>1388</u>	<u>GIP</u>				
<u>65</u>	<u>GCM</u>	<u>15</u>			<u>85</u>
<u>376</u>	<u>GWCM</u>	<u>10</u>		<u>40</u>	<u>50</u>
<u>1575</u>	<u>G54 water</u>	<u>10</u>		<u>90</u>	

Rec Total 2016 BHT 103° Gravity NIC API RW .07 @ 60° F Chlorides 150,000 ppm

(A) Initial Hydrostatic <u>1670</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>04:00</u>
(B) First Initial Flow <u>156</u>	<input type="checkbox"/> Jars	T-Started <u>04:51</u>
(C) First Final Flow <u>366</u>	<input type="checkbox"/> Safety Joint	T-Open <u>08:05</u>
(D) Initial Shut-In <u>805</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>10:10</u>
(E) Second Initial Flow <u>316</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>12:59</u>
(F) Second Final Flow <u>575</u>	<input checked="" type="checkbox"/> Mileage <u>70.1</u> 108.50	Comments
(G) Final Shut-In <u>801</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1593</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>2</u> 500	<input type="checkbox"/> Ruined Packer
Initial Open <u>15</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>15</u>	<input type="checkbox"/> Day Standby	Total <u>1758.50</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1758.50</u>	

Approved By Arden Ratzlaff 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. 50917

Well Name & No. Phye 2 Test No. 2 Date 04/25/13
 Company Chieftain Oil Co Elevation 1584 KB 1576 GL
 Address PO Box 124 Kiowa, KS 67070
 Co. Rep / Geo. Arden Ratzlaff Rig Fossil 2
 Location: Sec. 23 Twp. 31S Rge. 12W Co. Barber State KS

Interval Tested 4303 - 4319 Zone Tested Mississippi
 Anchor Length 16 Drill Pipe Run 4139 Mud Wt. 9.4
 Top Packer Depth 4298 Drill Collars Run 153 Vis 54
 Bottom Packer Depth 4303 Wt. Pipe Run 0 WL 8.1
 Total Depth 4319 Chlorides 5800 ppm System LCM

Blow Description IF: Strong Blow, BOB in 45 seconds
ISF: NO Blow Back
FF: Strong Blow, BOB in 4 minutes
FSF: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>620</u>	<u>GIP</u>				
<u>10</u>	<u>SGCM</u>	<u>2</u>		<u>98</u>	

Rec Total 10 BHT 115 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic <u>2140</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>11:30</u>
(B) First Initial Flow <u>19</u>	<input type="checkbox"/> Jars	T-Started <u>12:02</u>
(C) First Final Flow <u>27</u>	<input type="checkbox"/> Safety Joint	T-Open <u>14:08</u>
(D) Initial Shut-In <u>209</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>17:55</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:04</u>
(F) Second Final Flow <u>43</u>	<input checked="" type="checkbox"/> Mileage <u>70</u> 108.50	Comments
(G) Final Shut-In <u>293</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2104</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	Sub Total <u>1550</u>
	Total <u>2908.50</u>
	MP/DST Disc't
Sub Total <u>1358.50</u>	

Approved By Arden Ratzlaff Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50482

4/10

Well Name & No. Phye #2 Test No. 3 Date 4-26-13
 Company Chiefstain Oil Co. Elevation 1584 KB 1576 GL
 Address P.O. Box 124 Kiowa, KS 67070
 Co. Rep / Geo. Arden Ratzloff Rig Fossil #2
 Location: Sec. 23 Twp. 31s. Rge. 12w. Co. Barber State KS

Interval Tested 4319 - 4339 Zone Tested Miss.
 Anchor Length 20' Drill Pipe Run 4170 Mud Wt. 9.3
 Top Packer Depth 4314 Drill Collars Run 154 Vis 58
 Bottom Packer Depth 4319 Wt. Pipe Run Ø WL 7.0
 Total Depth 4339 Chlorides 6300 ppm System LCM 3#

Blow Description IF: Strong blow. BoB @ 6 min. No GTS.
ISI: No blow
FF: Strong blow. BoB immed. No GTS.
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1465</u>	<u>GIP</u>	<u>100</u>			
<u>30</u>	<u>SLI ocm</u>		<u>1</u>		<u>99</u>
	<u>(Free oil in hyd. tool)</u>				

Rec Total 1495 BHT 115 Gravity N/L API RW N/L @ N/L °F Chlorides 6300 ppm

(A) Initial Hydrostatic	<u>2145</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>0445</u>
(B) First Initial Flow	<u>12</u>	<input type="checkbox"/> Jars		T-Started	<u>0506</u>
(C) First Final Flow	<u>16</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>0829</u>
(D) Initial Shut-In	<u>811</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>1217</u>
(E) Second Initial Flow	<u>13</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>1411</u>
(F) Second Final Flow	<u>21</u>	<input checked="" type="checkbox"/> Mileage	<u>70 + 70</u> ^{Test} ^{Pickup Tools} ₂₁₇	Comments	<u>loaded tools 8:30 on 4/28</u>
(G) Final Shut-In	<u>903</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2144</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>45</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>800</u>
Final Shut-In	<u>90</u>	<input checked="" type="checkbox"/> Day Standby	<u>1 day</u> 18.25h	Total	<u>2267</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1467</u>		

Approved By Arden Ratzloff Our Representative Ryan Reynolds
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