



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Dave Goldak

Vose #2

34-6s-20w Rooks,KS

Start Date: 2014.03.08 @ 16:45:00

End Date: 2014.03.08 @ 18:26:00

Job Ticket #: 56224 DST #: 1

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

Printed: 2014.03.17 @ 10:10:01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.

34-6s-20w Rooks, KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 56224

DST#: 1

ATTN: Dave Goldak

Test Start: 2014.03.08 @ 16:45:00

Tool Information

Drill Pipe:	Length: 3105.00 ft	Diameter: 3.80 inches	Volume: 43.55 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	lb
			<u>Total Volume: - bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	lb
Depth to Top Packer:	3369.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	70.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3346.00	
Hydraulic tool	5.00			3351.00	
Jars	5.00			3356.00	
Safety Joint	3.00			3359.00	
Packer	5.00			3364.00	28.00 Bottom Of Top Packer
Packer	5.00			3369.00	
Stubb	1.00			3370.00	
Perforations	5.00			3375.00	
Recorder	0.00	8934	Inside	3375.00	
Recorder	0.00	8736	Outside	3375.00	
Change Over Sub	1.00			3376.00	
Drill Pipe	31.00			3407.00	
Change Over Sub	1.00			3408.00	
Bullnose	3.00			3411.00	42.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 56224

DST#: 1

ATTN: Dave Goldak

Test Start: 2014.03.08 @ 16:45:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length: ft Total Volume: bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

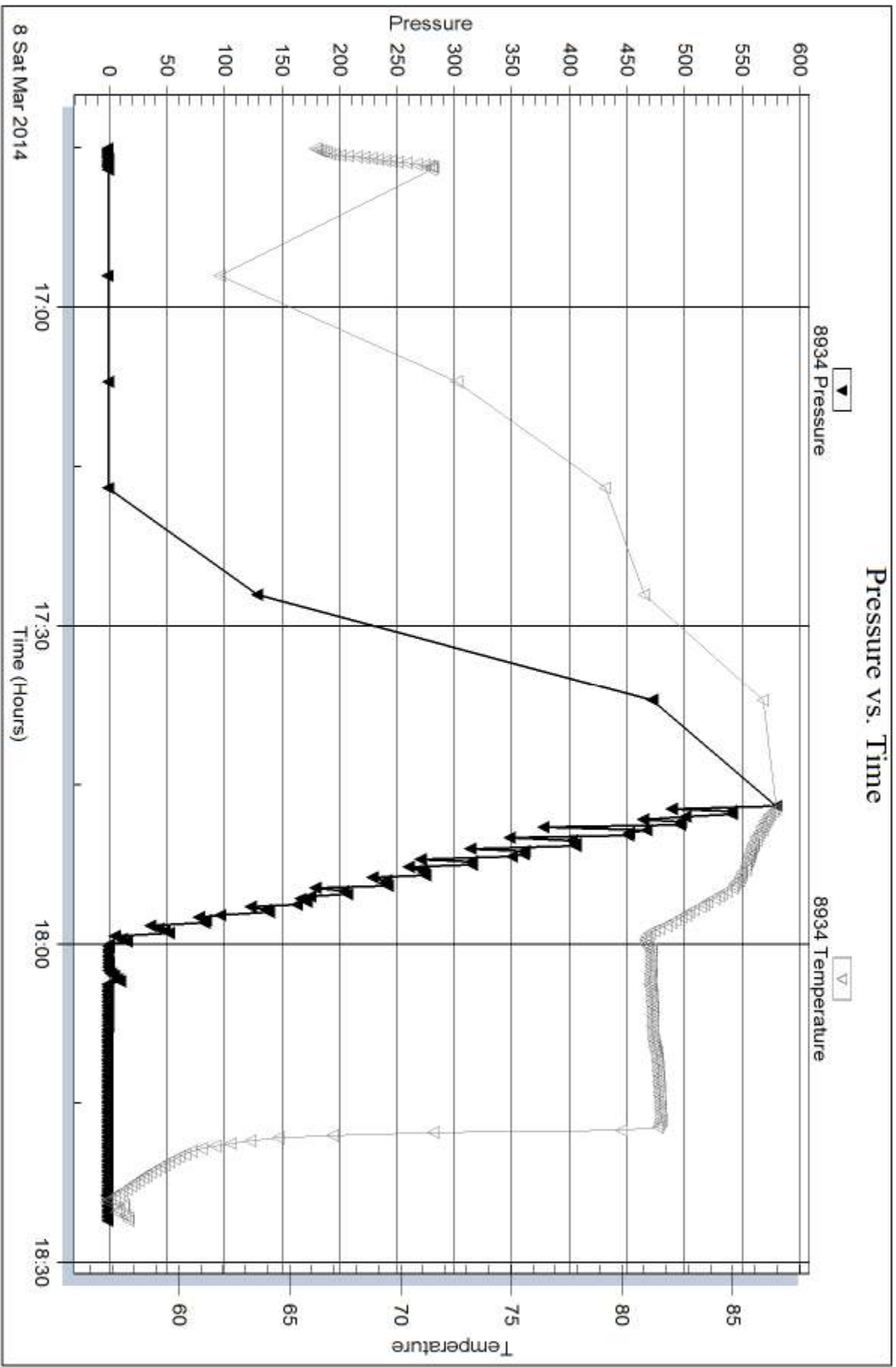
Serial #: 8934

Inside

Carmen Schmitt Inc.

Vose #2

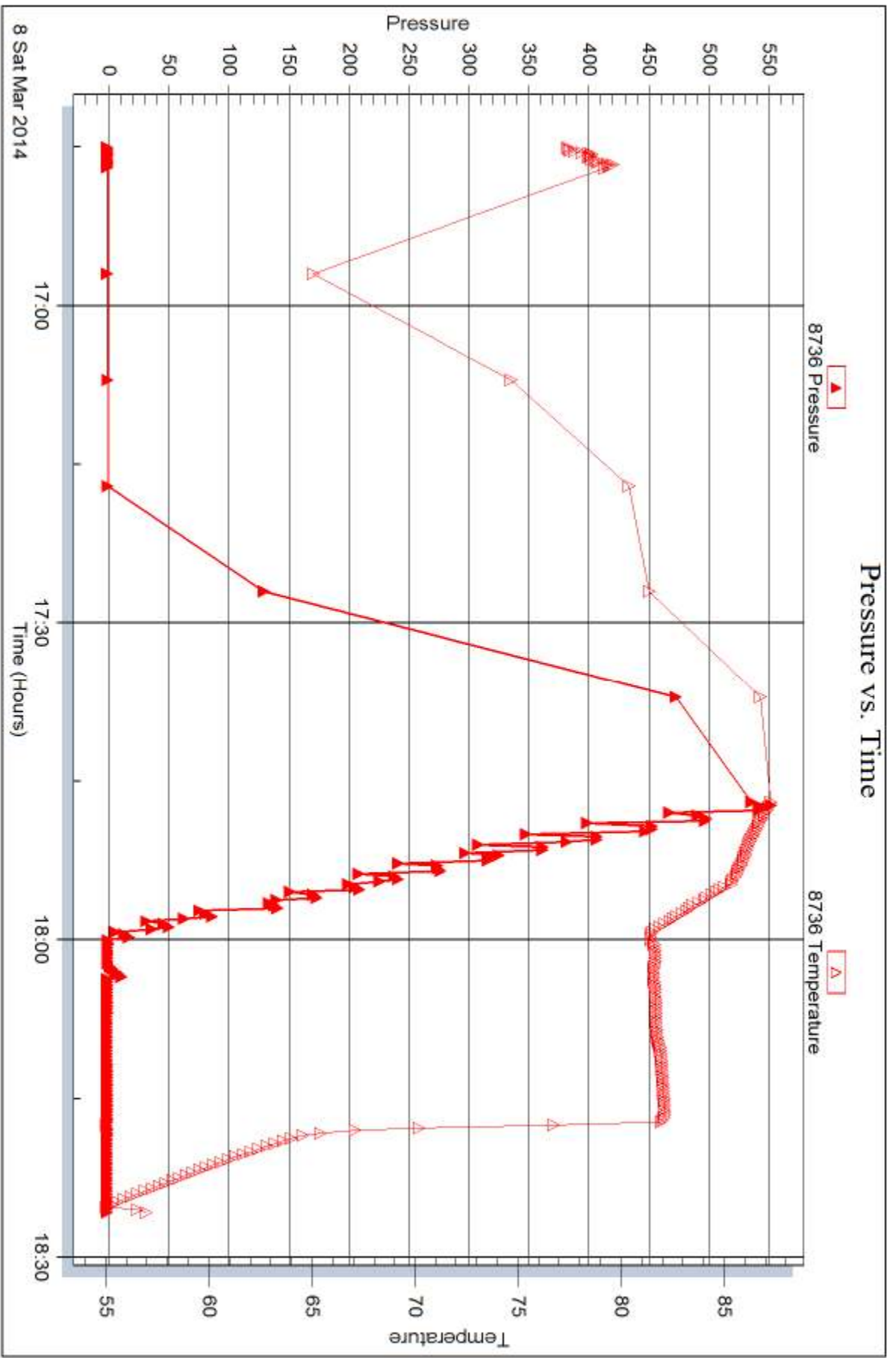
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 56224

Printed: 2014.03.17 @ 10:10:03





DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Dave Goldak

Vose #2

34-6s-20w Rooks,KS

Start Date: 2014.03.08 @ 22:45:00

End Date: 2014.03.09 @ 05:56:30

Job Ticket #: 56225 DST #: 2

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

Printed: 2014.03.17 @ 10:09:35



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Dave Goldak

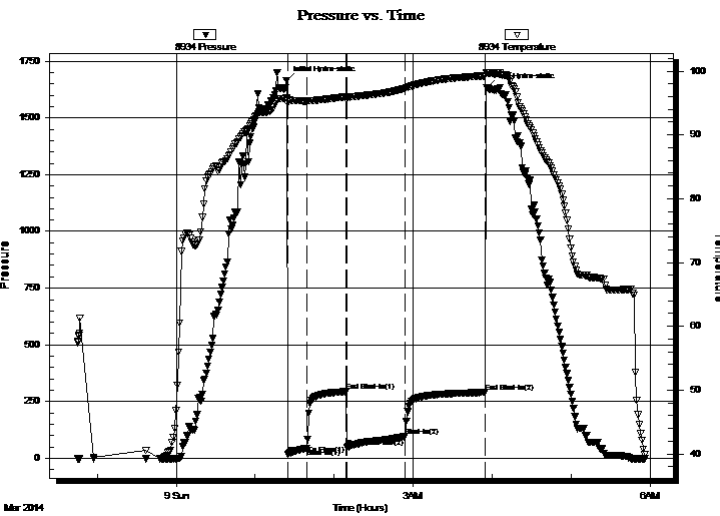
34-6s-20w Rooks, KS
Vose #2
 Job Ticket: 56225 **DST#: 2**
 Test Start: 2014.03.08 @ 22:45:00

GENERAL INFORMATION:

Formation: **Toronto-KC"A"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:24:30
 Time Test Ended: 05:56:30
 Interval: **3369.00 ft (KB) To 3411.00 ft (KB) (TVD)**
 Total Depth: 3411.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2175.00 ft (KB)
 2170.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8934 **Inside**
 Press@RunDepth: 96.23 psig @ 3375.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.08 End Date: 2014.03.09 Last Calib.: 2014.03.09
 Start Time: 22:45:05 End Time: 05:56:29 Time On Btm: 2014.03.09 @ 01:23:45
 Time Off Btm: 2014.03.09 @ 03:56:15

TEST COMMENT: IF-3" blow
 IS-No blow
 FF-3 1/4" blow
 FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1664.24	95.77	Initial Hydro-static
1	17.76	94.92	Open To Flow (1)
16	45.13	95.31	Shut-In(1)
45	294.28	95.96	End Shut-In(1)
46	48.31	95.90	Open To Flow (2)
91	96.23	97.30	Shut-In(2)
152	290.96	99.27	End Shut-In(2)
153	1634.28	99.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	VSWCM 2%O 28%W 70%M	0.61

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 56225

DST#: 2

ATTN: Dave Goldak

Test Start: 2014.03.08 @ 22:45:00

Tool Information

Drill Pipe:	Length: 3105.00 ft	Diameter: 3.80 inches	Volume: 43.55 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	49000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	49000.00 lb
Drill Pipe Above KB:	12.00 ft			Final	49000.00 lb
Depth to Top Packer:	3369.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	70.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3346.00	
Hydraulic tool	5.00			3351.00	
Jars	5.00			3356.00	
Safety Joint	3.00			3359.00	
Packer	5.00			3364.00	28.00 Bottom Of Top Packer
Packer	5.00			3369.00	
Stubb	1.00			3370.00	
Perforations	5.00			3375.00	
Recorder	0.00	8934	Inside	3375.00	
Recorder	0.00	8736	Outside	3375.00	
Change Over Sub	1.00			3376.00	
Drill Pipe	31.00			3407.00	
Change Over Sub	1.00			3408.00	
Bullnose	3.00			3411.00	42.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 56225

DST#: 2

ATTN: Dave Goldak

Test Start: 2014.03.08 @ 22:45:00

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:

38000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	VSWCM 2%O 28%W 70%M	0.615

Total Length: 125.00 ft Total Volume: 0.615 bbl

Num Fluid Samples: 0

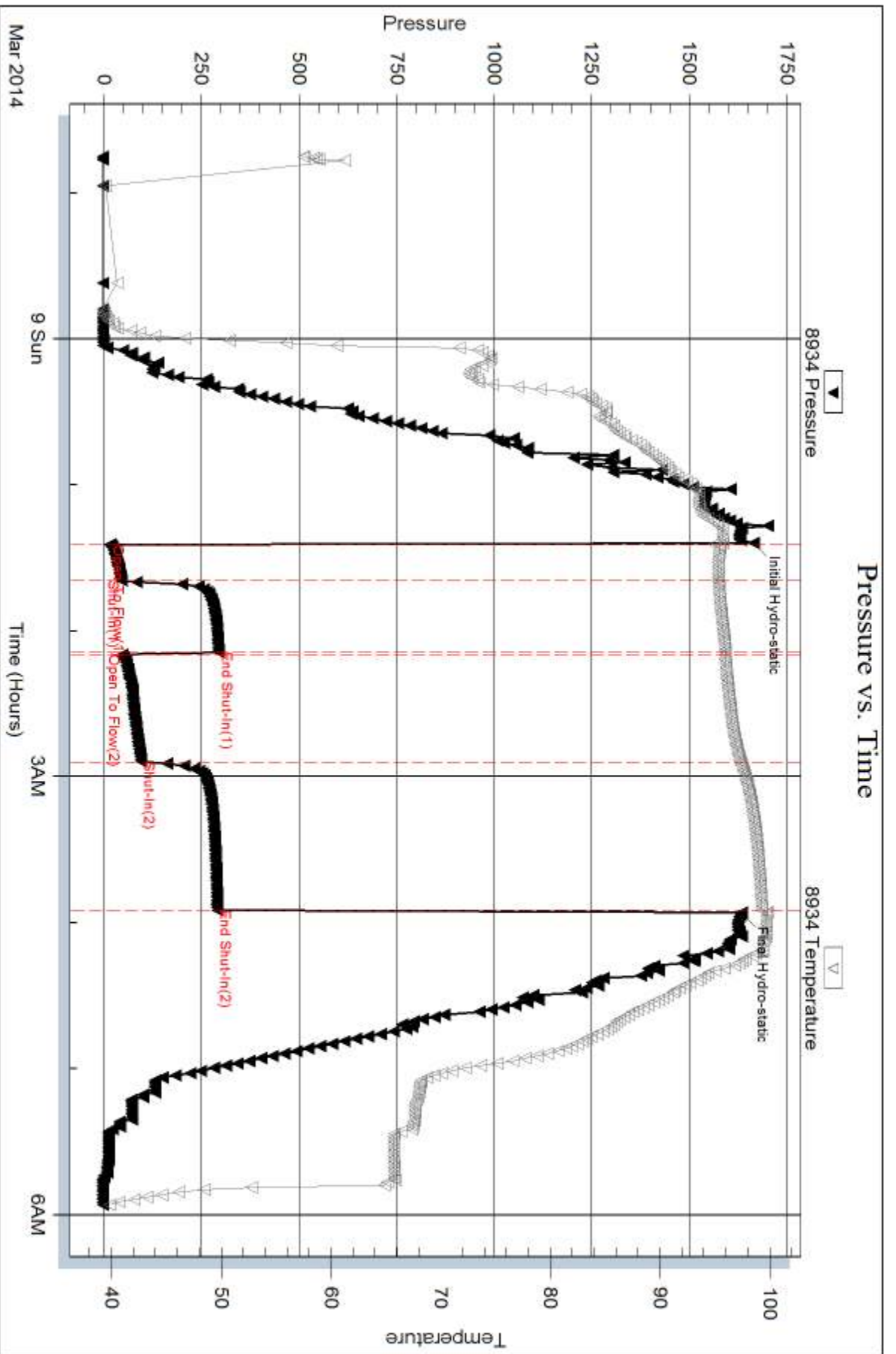
Num Gas Bombs: 0

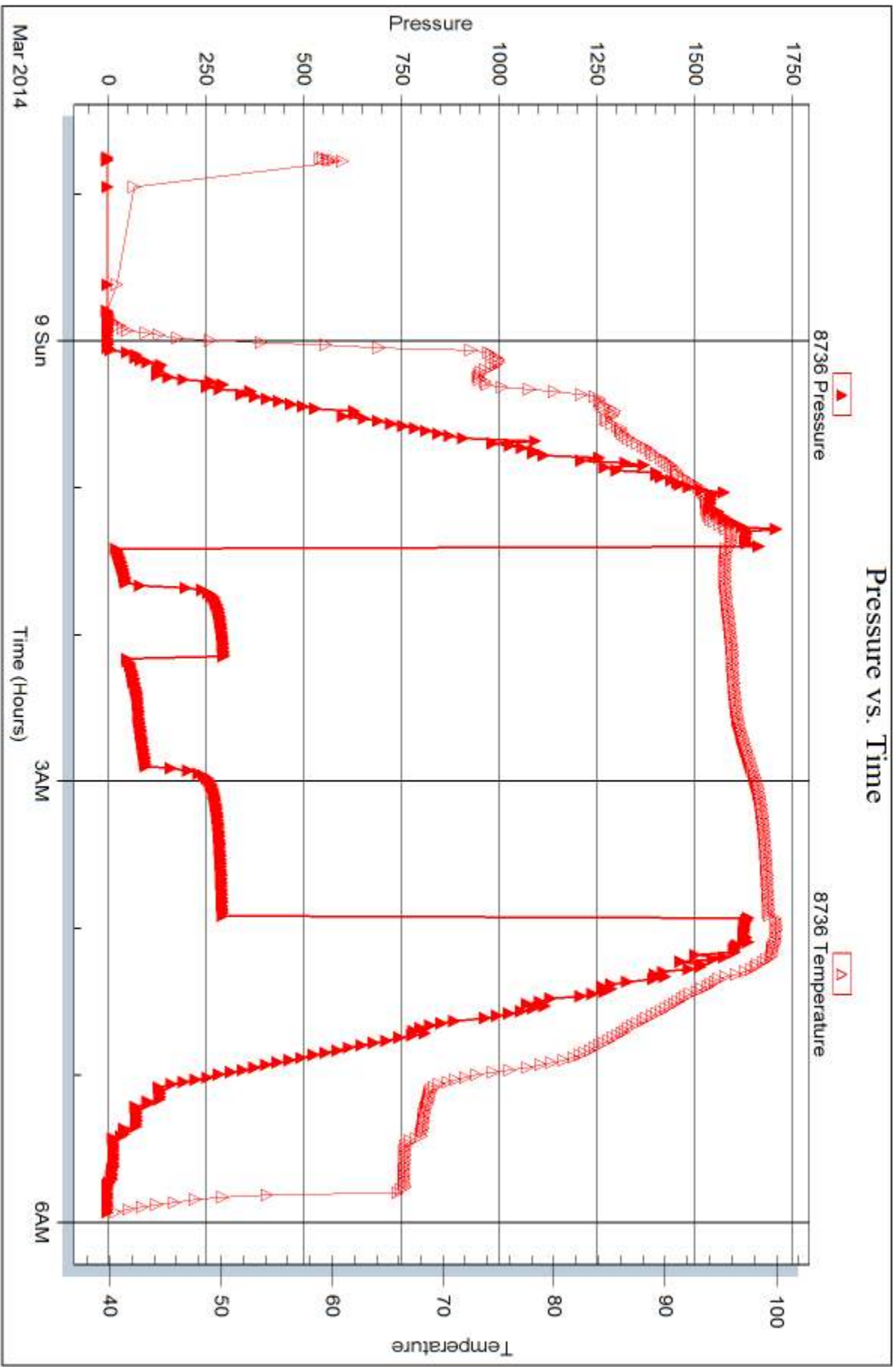
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Dave Goldak

Vose #2

34-6s-20w Rooks,KS

Start Date: 2014.03.09 @ 18:55:00

End Date: 2014.03.10 @ 01:25:30

Job Ticket #: 54101 DST #: 3

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

Printed: 2014.03.17 @ 10:09:09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Dave Goldak

34-6s-20w Rooks,KS

Vose #2

Job Ticket: 54101

DST#: 3

Test Start: 2014.03.09 @ 18:55:00

GENERAL INFORMATION:

Formation: **KC "D-F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:59:15
 Time Test Ended: 01:25:30
 Interval: **3431.00 ft (KB) To 3491.00 ft (KB) (TVD)**
 Total Depth: 3491.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2175.00 ft (KB)
 2170.00 ft (CF)
 KB to GR/CF: 5.00 ft

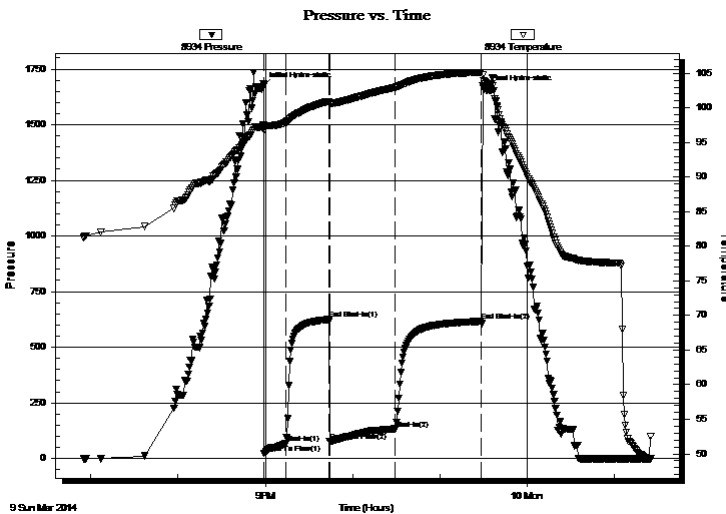
Serial #: 8934

Inside

Press@RunDepth: 133.15 psig @ 3437.00 ft (KB)
 Start Date: 2014.03.09 End Date: 2014.03.10
 Start Time: 18:55:05 End Time: 01:25:29
 Capacity: 8000.00 psig
 Last Calib.: 2014.03.10
 Time On Btm: 2014.03.09 @ 20:58:30
 Time Off Btm: 2014.03.09 @ 23:30:45

TEST COMMENT: IF-6" blow
 IS-No blow
 FF-8" blow
 FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.97	97.36	Initial Hydro-static
1	22.54	96.77	Open To Flow (1)
16	66.51	97.90	Shut-In(1)
45	624.53	100.94	End Shut-In(1)
46	75.44	100.73	Open To Flow (2)
91	133.15	102.98	Shut-In(2)
150	616.73	105.13	End Shut-In(2)
153	1657.60	103.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	V SOMCW 2%O 78%W 20%M	0.61
110.00	SWOCM 20%O 5%W 75%M	0.54
30.00	SGO 5%G 95%O	0.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.

34-6s-20w Rooks, KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 54101

DST#: 3

ATTN: Dave Goldak

Test Start: 2014.03.09 @ 18:55:00

Tool Information

Drill Pipe:	Length: 3165.00 ft	Diameter: 3.80 inches	Volume: 44.40 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	10.00 ft			Final	50000.00 lb
Depth to Top Packer:	3431.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	60.00 ft				
Tool Length:	88.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3408.00	
Hydraulic tool	5.00			3413.00	
Jars	5.00			3418.00	
Safety Joint	3.00			3421.00	
Packer	5.00			3426.00	28.00 Bottom Of Top Packer
Packer	5.00			3431.00	
Stubb	1.00			3432.00	
Perforations	5.00			3437.00	
Recorder	0.00	8934	Inside	3437.00	
Recorder	0.00	8736	Outside	3437.00	
Change Over Sub	1.00			3438.00	
Drill Pipe	31.00			3469.00	
Change Over Sub	1.00			3470.00	
Perforations	18.00			3488.00	
Bullnose	3.00			3491.00	60.00 Bottom Packers & Anchor

Total Tool Length: 88.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 54101

DST#: 3

ATTN: Dave Goldak

Test Start: 2014.03.09 @ 18:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

95000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	VSOMCW 2%O 78%W 20%M	0.615
110.00	SWOCM 20%O 5%W 75%M	0.541
30.00	SGO 5%G 95%O	0.302

Total Length: 265.00 ft

Total Volume: 1.458 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

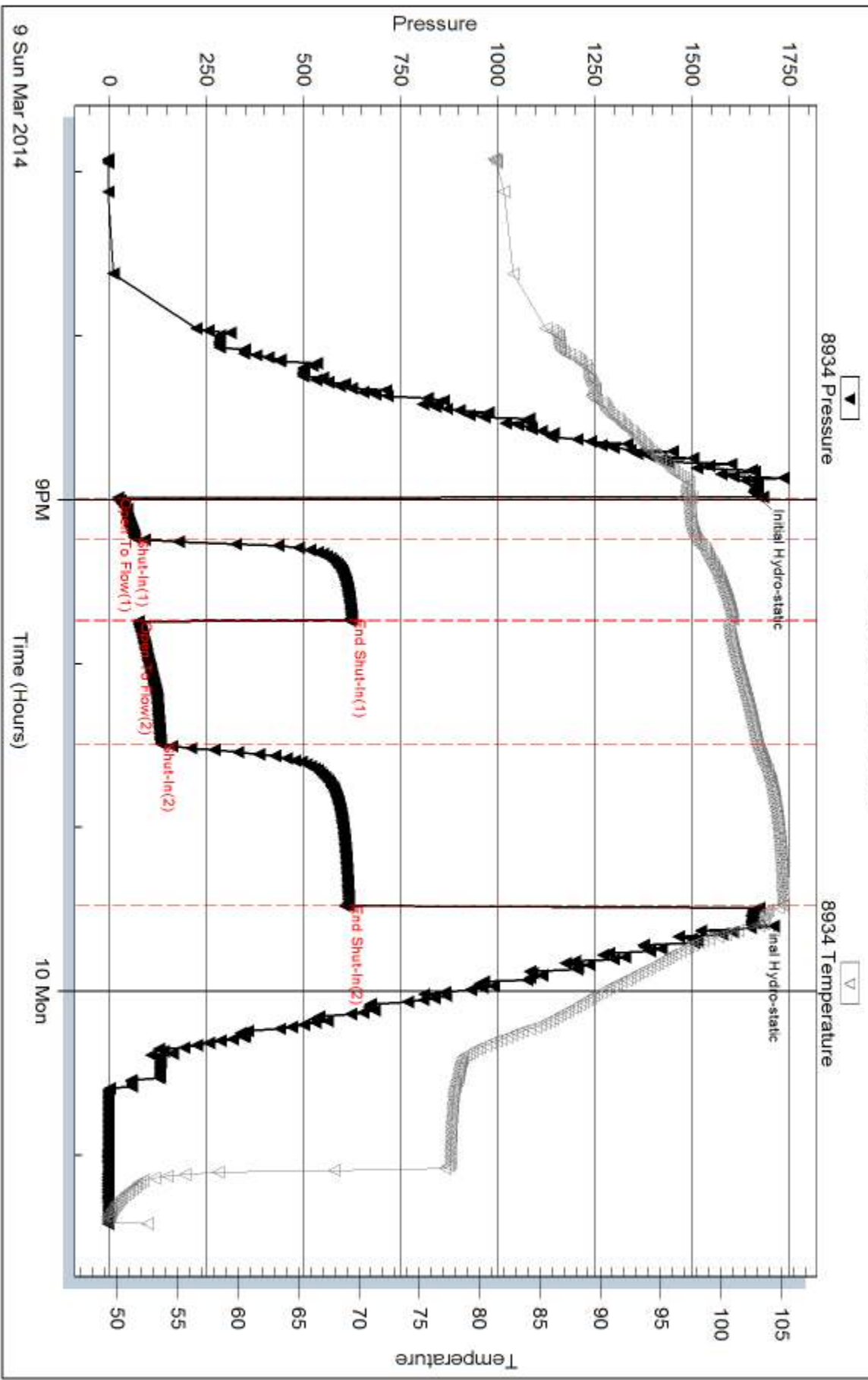
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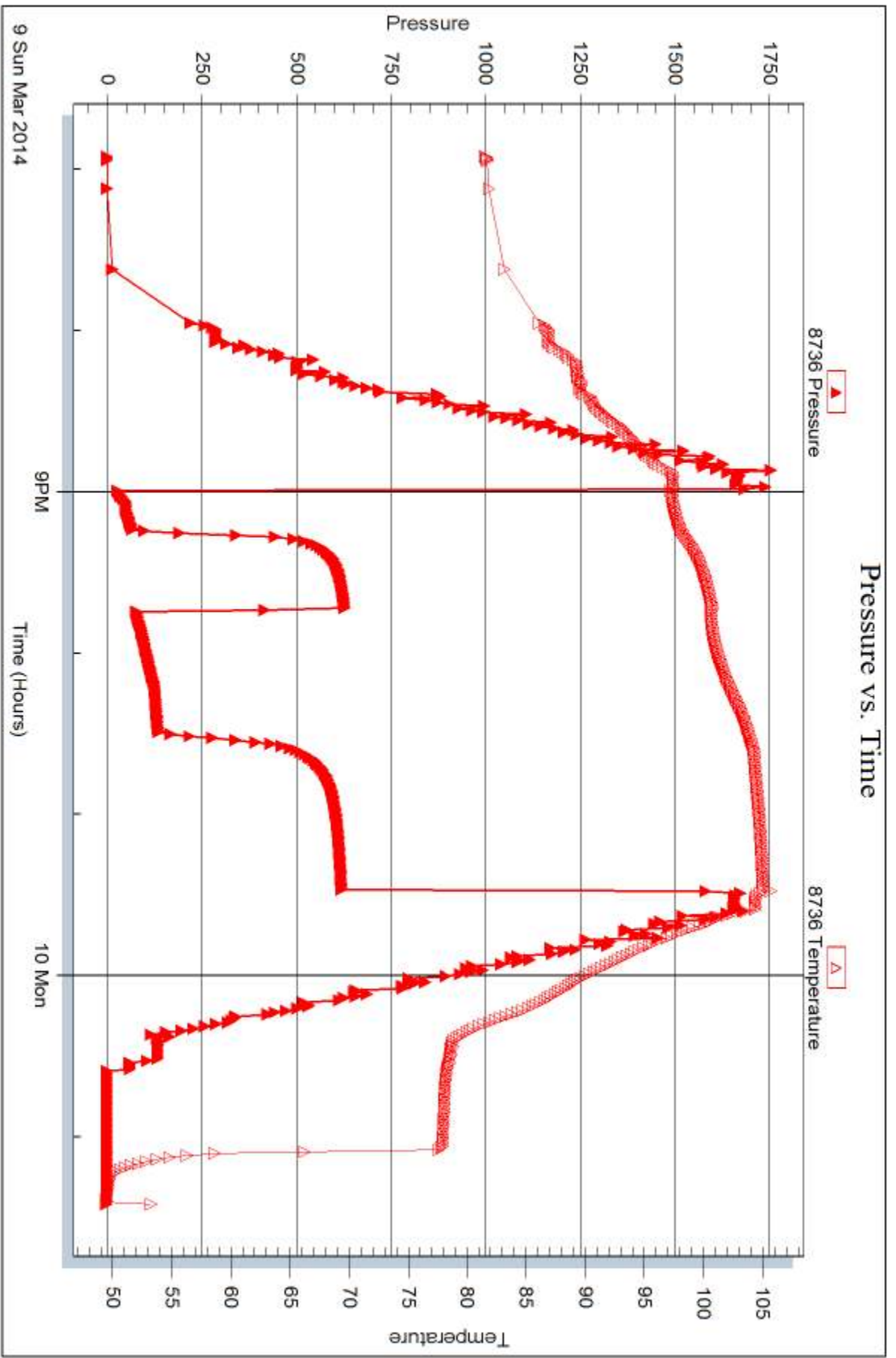
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Dave Goldak

Vose #2

34-6s-20w Rooks,KS

Start Date: 2014.03.10 @ 13:10:00

End Date: 2014.03.10 @ 19:35:30

Job Ticket #: 54102 DST #: 4

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

Printed: 2014.03.17 @ 10:08:43

Carmen Schmitt Inc.
34-6s-20w Rooks,KS
Vose #2
DST # 4
KC" I-J"
2014.03.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Dave Goldak

34-6s-20w Rooks,KS
Vose #2
Job Ticket: 54102 **DST#: 4**
Test Start: 2014.03.10 @ 13:10:00

GENERAL INFORMATION:

Formation: **KC" I-J"**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 15:24:15 Tester: Brett Dickinson
Time Test Ended: 19:35:30 Unit No: 59
Interval: 3543.00 ft (KB) To 3578.00 ft (KB) (TVD) Reference Elevations: 2175.00 ft (KB)
Total Depth: 3578.00 ft (KB) (TVD) 2170.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

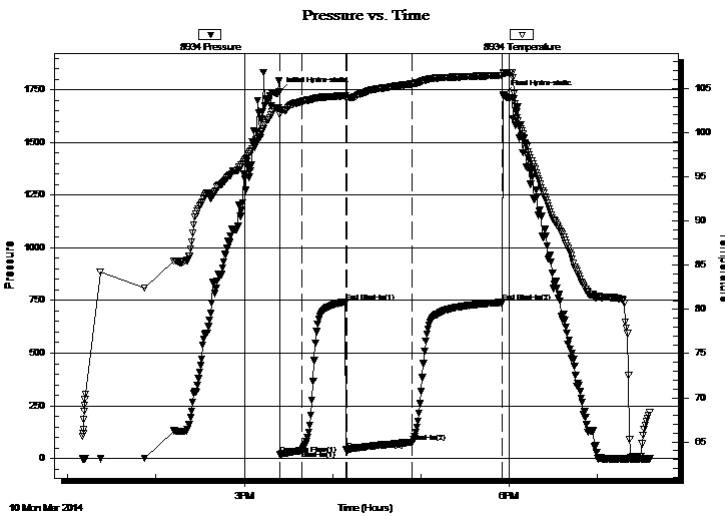
Serial #: 8934

Inside

Press@RunDepth: 77.78 psig @ 3575.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.03.10 End Date: 2014.03.10 Last Calib.: 2014.03.10
Start Time: 13:10:05 End Time: 19:35:29 Time On Btm: 2014.03.10 @ 15:23:45
Time Off Btm: 2014.03.10 @ 17:56:15

TEST COMMENT: IF-2 1/2" blow
IS-No blow
FF 7 1/2" blow
FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1743.29	102.84	Initial Hydro-static
1	18.71	102.08	Open To Flow (1)
16	37.97	103.53	Shut-In(1)
45	744.29	104.18	End Shut-In(1)
46	41.15	103.97	Open To Flow (2)
91	77.78	105.52	Shut-In(2)
152	740.90	106.49	End Shut-In(2)
153	1726.04	106.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OCM 40%O 60%M	0.32
65.00	MCO 30%M 70%O	0.32
5.00	SGO 5%G 95%O	0.02
0.00	120ft GIP	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

Carmen Schmitt Inc.

34-6s-20w Rooks, KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 54102

DST#: 4

ATTN: Dave Goldak

Test Start: 2014.03.10 @ 13:10:00

Tool Information

Drill Pipe:	Length: 3287.00 ft	Diameter: 3.80 inches	Volume: 46.11 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
				String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	20.00 ft			Final	51000.00 lb
Depth to Top Packer:	3543.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	35.00 ft				
Tool Length:	63.00 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			3520.00	
Hydraulic tool	5.00			3525.00	
Jars	5.00			3530.00	
Safety Joint	3.00			3533.00	
Packer	5.00			3538.00	28.00 Bottom Of Top Packer
Packer	5.00			3543.00	
Stubb	1.00			3544.00	
Perforations	31.00			3575.00	
Recorder	0.00	8934	Inside	3575.00	
Recorder	0.00	8736	Outside	3575.00	
Bullnose	3.00			3578.00	35.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Dave Goldak

34-6s-20w Rooks,KS
Vose #2
Job Ticket: 54102 **DST#: 4**
Test Start: 2014.03.10 @ 13:10:00

Mud and Cushion Information

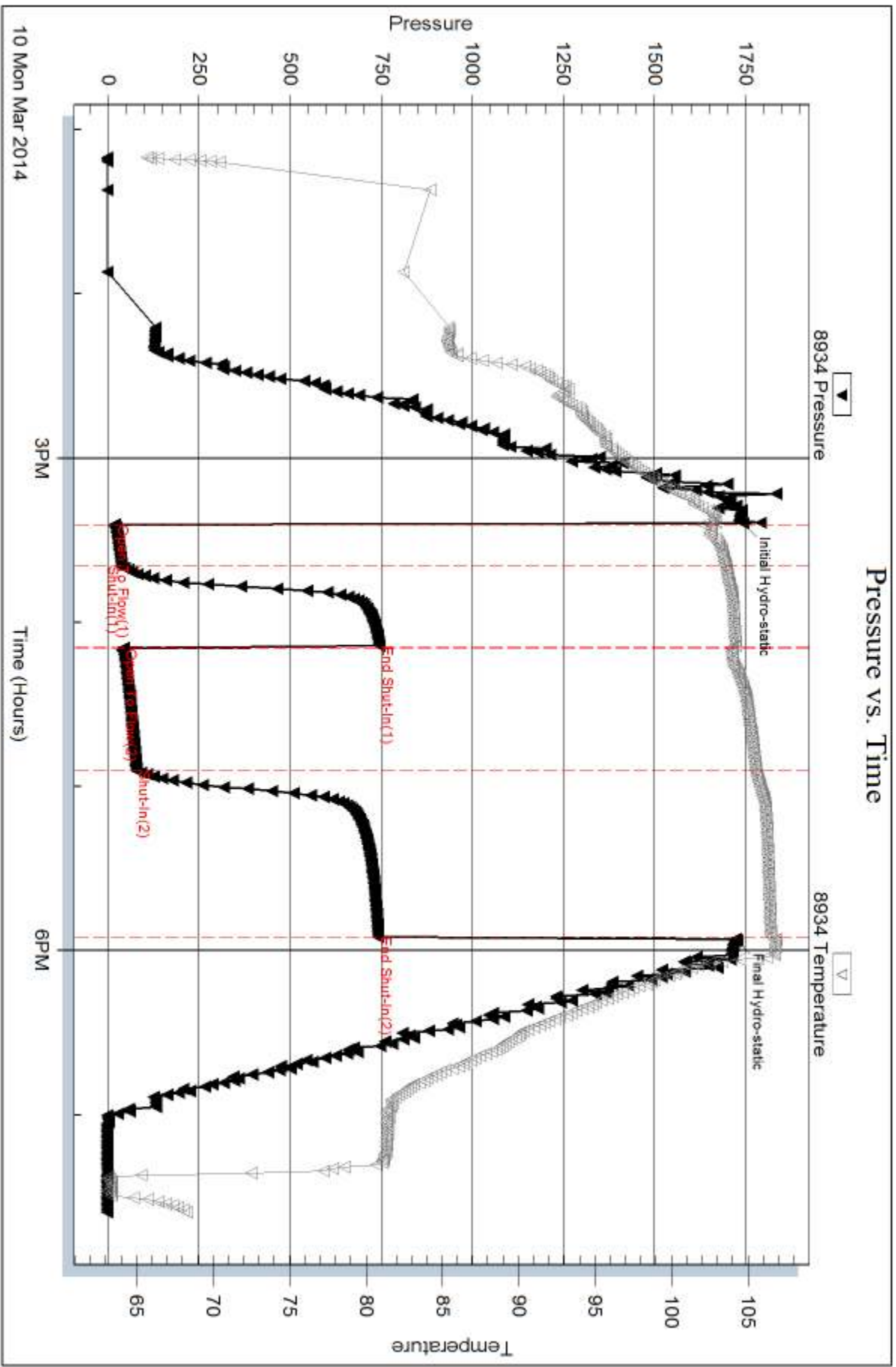
Mud Type: Gel Chem	Cushion Type:	Oil API: 32 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.98 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1100.00 ppm		
Filter Cake: inches		

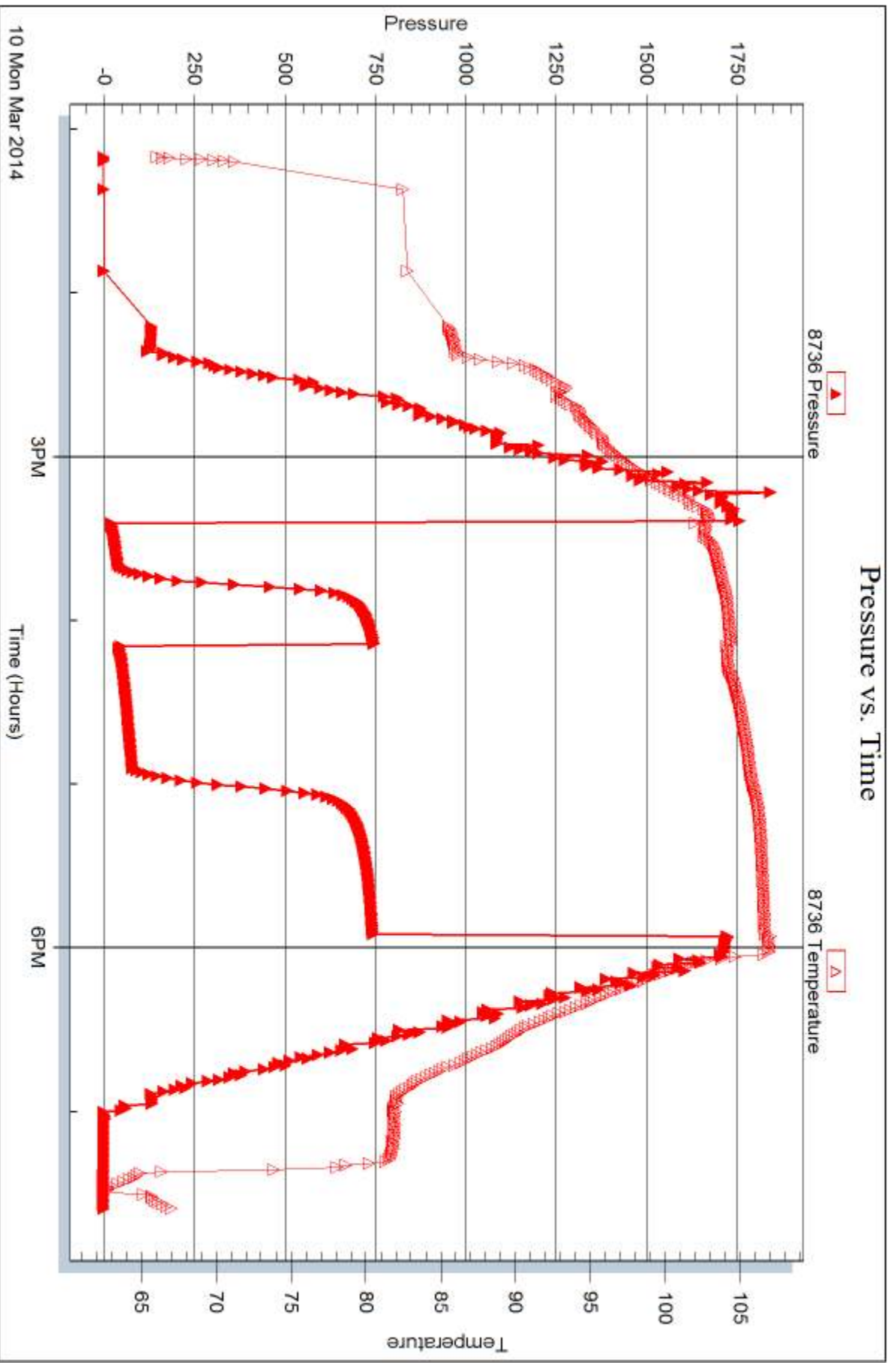
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	OCM 40%O 60%M	0.320
65.00	MCO 30%M 70%O	0.320
5.00	SGO 5%G 95%O	0.025
0.00	120ft GIP	0.000

Total Length: 135.00 ft Total Volume: 0.665 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Dave Goldak

Vose #2

34-6s-20w Rooks,KS

Start Date: 2014.03.11 @ 02:35:00

End Date: 2014.03.11 @ 09:17:30

Job Ticket #: 54103 DST #: 5

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

Printed: 2014.03.17 @ 10:08:04

Carmen Schmitt Inc.
34-6s-20w Rooks,KS
Vose #2
DST # 5
KC "K-L"
2014.03.11



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Dave Goldak

34-6s-20w Rooks,KS
Vose #2
 Job Ticket: 54103 **DST#: 5**
 Test Start: 2014.03.11 @ 02:35:00

GENERAL INFORMATION:

Formation: **KC "K-L"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:48:45
 Time Test Ended: 09:17:30
 Interval: **3576.00 ft (KB) To 3606.00 ft (KB) (TVD)**
 Total Depth: 3606.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 59
 Reference Elevations: 2175.00 ft (KB)
 2170.00 ft (CF)
 KB to GR/CF: 5.00 ft

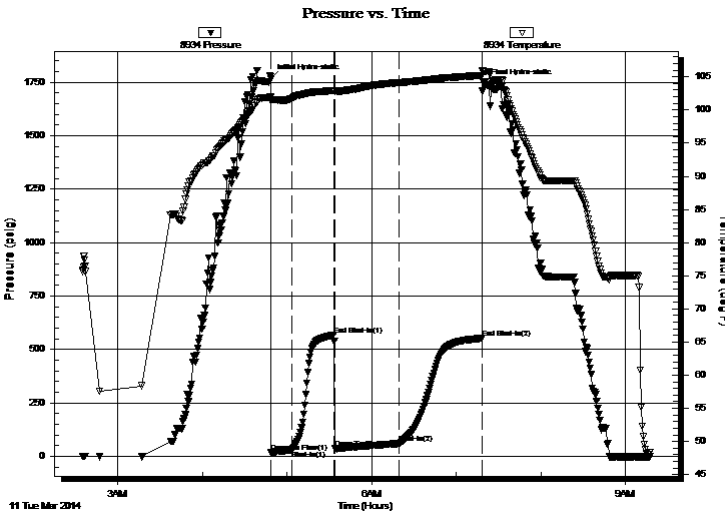
Serial #: 8934

Inside

Press@RunDepth: 60.63 psig @ 3577.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.11 End Date: 2014.03.11 Last Calib.: 2014.03.11
 Start Time: 02:35:05 End Time: 09:17:29 Time On Btm: 2014.03.11 @ 04:48:15
 Time Off Btm: 2014.03.11 @ 07:19:30

TEST COMMENT: IF-1 1/2" blow
 IS-No blow
 FF-2" blow
 FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.87	101.92	Initial Hydro-static
1	17.35	101.37	Open To Flow (1)
15	30.73	101.71	Shut-In(1)
45	568.94	102.92	End Shut-In(1)
46	37.22	102.73	Open To Flow (2)
92	60.63	104.11	Shut-In(2)
150	552.35	105.22	End Shut-In(2)
152	1745.67	105.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Free Oil	0.05
65.00	OCM 20%O 80%M	0.32

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 54103

DST#: 5

ATTN: Dave Goldak

Test Start: 2014.03.11 @ 02:35:00

Tool Information

Drill Pipe:	Length: 3320.00 ft	Diameter: 3.80 inches	Volume: 46.57 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	20.00 ft			Final	50000.00 lb
Depth to Top Packer:	3576.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	30.00 ft				
Tool Length:	58.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3553.00	
Hydraulic tool	5.00			3558.00	
Jars	5.00			3563.00	
Safety Joint	3.00			3566.00	
Packer	5.00			3571.00	28.00 Bottom Of Top Packer
Packer	5.00			3576.00	
Stubb	1.00			3577.00	
Recorder	0.00	8934	Inside	3577.00	
Recorder	0.00	8736	Outside	3577.00	
Perforations	26.00			3603.00	
Bullnose	3.00			3606.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.

34-6s-20w Rooks,KS

PO Box 47
Great Bend KS 67530

Vose #2

Job Ticket: 54103

DST#: 5

ATTN: Dave Goldak

Test Start: 2014.03.11 @ 02:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
10.00	Free Oil	0.049
65.00	OCM 20%O 80%M	0.320

Total Length: 75.00 ft Total Volume: 0.369 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

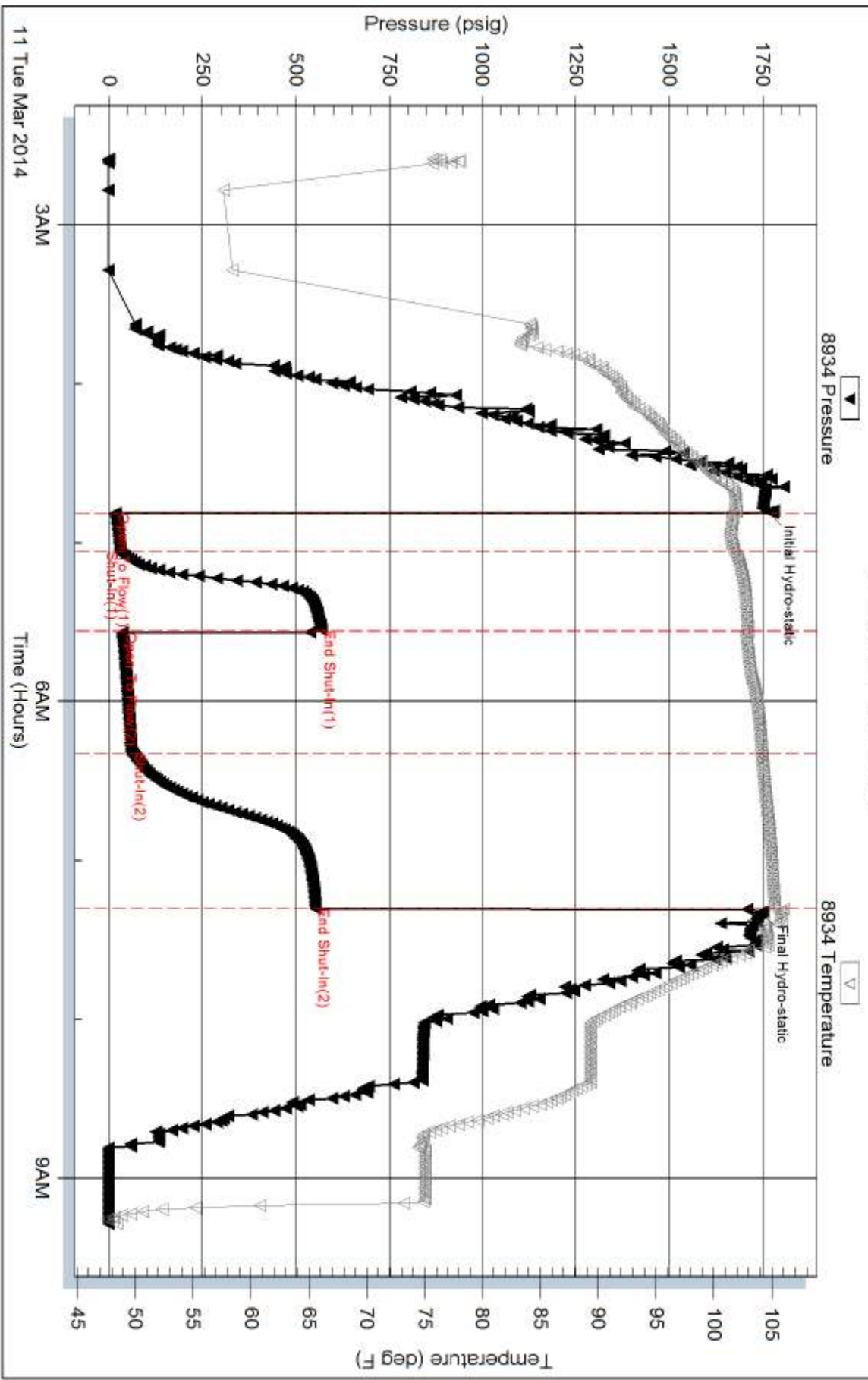
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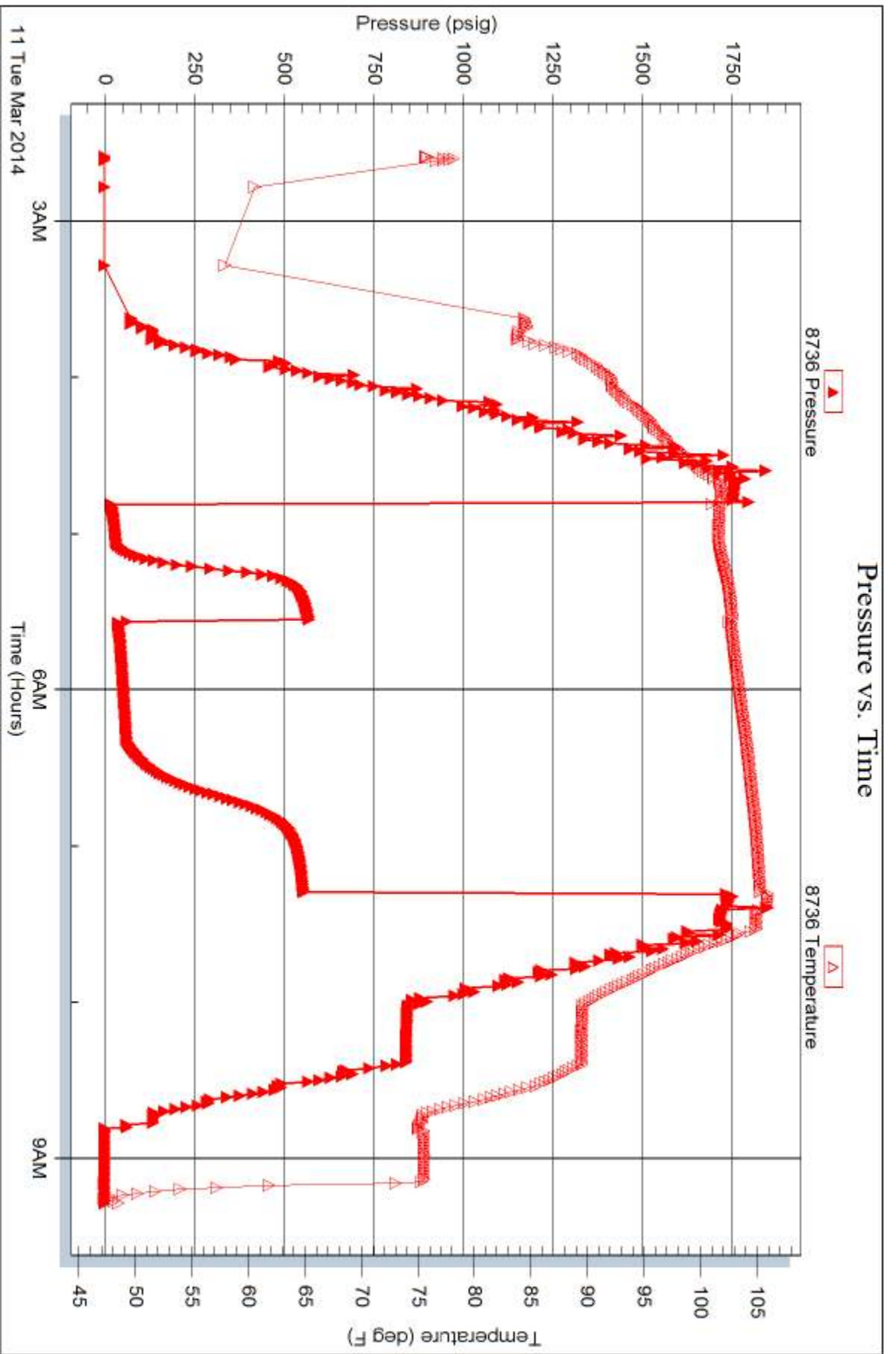
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56225**

Well Name & No. Vose #2 Test No. 2 Date 3/8/14
 Company Carmen Schmitt, Inc. Elevation 2175 KB 2170 GL
 Address PO Box 47 Greatbend KS 67530
 Co. Rep / Geo. Dave Goldak Rig Mallard
 Location: Sec. 34 Twp. 6 Rge. 20 Co. Roots State KS

Interval Tested 3369 - 3411 Zone Tested Toronto - KC "A"
 Anchor Length 42 Drill Pipe Run 3105 Mud Wt. 8.9
 Top Packer Depth 3364 Drill Collars Run 248 Vis 52
 Bottom Packer Depth 3369 Wt. Pipe Run — WL 6.0
 Total Depth 3411 Chlorides 1100 ppm System LCM

Blow Description IF - 3in blow
ISI - No blow
FF - 3 1/4 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>VSO WCM</u>	<u>2</u>	<u>28</u>	<u>70</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 125 BHT 99 Gravity — API RW .38 @ 40 °F Chlorides 38000 ppm

(A) Initial Hydrostatic 1,664 Test 1150 T-On Location 22:35
 (B) First Initial Flow 18 Jars 250 T-Started 22:45
 (C) First Final Flow 45 Safety Joint 75 T-Open 2:25
 (D) Initial Shut-In 294 Circ Sub _____ T-Pulled 4:55
 (E) Second Initial Flow 48 Hourly Standby _____ T-Out 6:57
 (F) Second Final Flow 96 Mileage 124rT 192.20 Comments _____
 (G) Final Shut-In 291 Sampler _____
 (H) Final Hydrostatic 1,634 Straddle _____

Initial Open 15 Shale Packer _____
 Initial Shut-In 30 Shale Packer _____
 Final Flow 45 Extra Packer _____
 Final Shut-In 60 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1667.20

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1667.20
 MP/DST Disc't _____

Approved By _____ Our Representative Burt Dick

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54101

Well Name & No. Vosc #2 Test No. 3 Date 3/9/14
 Company Carmen Schmitt, Inc. Elevation 2175 KB 2170 GL
 Address PO Box 47 Greatbend KS 67530
 Co. Rep / Geo. Pave Galdak Rig Mallard
 Location: Sec. 34 Twp. 6 Rge. 20 Co. Rooks State KS

Interval Tested 3431-3491 Zone Tested LC "D-F"
 Anchor Length 60 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3426 Drill Collars Run 248 Vis _____
 Bottom Packer Depth 3431 Wt. Pipe Run _____ WL _____
 Total Depth 3491 Chlorides _____ ppm System LCM _____
 Blow Description AF- 6 in blow
ISF- No blow

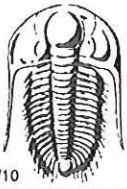
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>SGO</u>	<u>5</u>	<u>95</u>		
<u>110</u>	<u>SWOCM</u>		<u>20</u>	<u>5</u>	<u>75</u>
<u>125</u>	<u>VSOMC MCW</u>		<u>2</u>	<u>78</u>	<u>20</u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 265 BHT 105 Gravity 35 API RW 50 @ -12 °F Chlorides 95,000 ppm

(A) Initial Hydrostatic 1,670 Test 1150 T-On Location 18:25
 (B) First Initial Flow 23 Jars 250 T-Started 18:55
 (C) First Final Flow 67 Safety Joint 75 T-Open 20:57
 (D) Initial Shut-In 625 Circ Sub _____ T-Pulled 21:27
 (E) Second Initial Flow 75 Hourly Standby _____ T-Out 1:25
 (F) Second Final Flow 133 Mileage 124.1 192.20 Comments _____
 (G) Final Shut-In 617 Sampler _____
 (H) Final Hydrostatic 1,658 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 15 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1667.20
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1667.20

Approved By _____ Our Representative Bert Durr

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54102

Well Name & No. Vose #2 Test No. 4 Date 3/10/14
 Company Carmen Schmitt, Inc. Elevation 2175 KB 2170 GL
 Address PO Box 47 Greatbend KS 67530
 Co. Rep / Geo. Pave Galdak Rig Mallard
 Location: Sec. 34 Twp. 6 Rge. 20 Co. Books State KS

Interval Tested 3543 - 3578 Zone Tested KC "I-D"
 Anchor Length 35 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3538 Drill Collars Run 248 Vis _____
 Bottom Packer Depth 3543 Wt. Pipe Run _____ WL _____
 Total Depth 3578 Chlorides _____ ppm System LCM _____

Blow Description 2F - 2 1/2 in blow
1ST - No blow
FF - 7 1/2 in blow
FST - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>OCM</u>	<u>40</u>	<u>60</u>	<u>60</u>	<u>60</u>
<u>66</u>	<u>MCO</u>	<u>70</u>	<u>30</u>	<u>30</u>	<u>30</u>
<u>5</u>	<u>360</u>	<u>5</u>	<u>95</u>		
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 135 BHT _____ Gravity 32 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1,743 Test 1150 T-On Location 12:55
 (B) First Initial Flow 19 Jars 250 T-Started 13:10
 (C) First Final Flow 38 Safety Joint 75 T-Open 15:25
 (D) Initial Shut-In 744 Circ Sub _____ T-Pulled 17:55
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 18:35
 (F) Second Final Flow 78 Mileage 124.7 192.20 Comments _____
 (G) Final Shut-In 741 Sampler _____
 (H) Final Hydrostatic 1,726 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

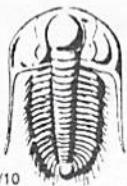
Initial Open 15
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 60

Sub Total 1667.20

MP/DST Disc't _____

Approved By _____ Our Representative Butt...

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54103

Well Name & No. Vose #2 Test No. 5 Date 3/11/14
 Company Carmen Schmitt, Inc. Elevation 2175 KB 2170 GL
 Address PO Box 47 Greatbend KS 67530
 Co. Rep / Geo. Dave Goldak Rig Mallard
 Location: Sec. 34 Twp. 6 Rge. 20 Co. Rooks State KS

Interval Tested 3576 - 3606 Zone Tested KC "K-L"
 Anchor Length 30 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3571 Drill Collars Run 248 Vis _____
 Bottom Packer Depth 3526 Wt. Pipe Run _____ WL _____
 Total Depth 3606 Chlorides _____ ppm System LCM _____

Blow Description FF - 1 1/2 in blow
ISI - No blow
FF - 2 in
ISI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>oil</u>	<u>100</u>			
<u>65</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
____	____	____	____	____	____
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 75 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1,765</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2:30</u>
(B) First Initial Flow <u>17</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2:35</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>4:50</u>
(D) Initial Shut-In <u>569</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>7:20</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>9:17</u>
(F) Second Final Flow <u>61</u>	<input checked="" type="checkbox"/> Mileage <u>124.7</u> <u>192.20</u>	Comments <u>Lead</u>
(G) Final Shut-In <u>352</u>	<input type="checkbox"/> Sampler _____	<u>Tools</u>
(H) Final Hydrostatic <u>1,746</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1667.20</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1667.20</u>	

Approved By _____ Our Representative Bett Duer

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