

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmidt Inc**

PO Box 47
Great Bend KS 67530-0047

ATTN: Carmen Schmidt, Brad

WP Unit 4-7

7-14s-25w Trego,KS

Start Date: 2017.12.08 @ 12:10:44

End Date: 2017.12.08 @ 18:46:23

Job Ticket #: 63237 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.13 @ 14:30:57



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63237 **DST#: 1**
 Test Start: 2017.12.08 @ 12:10:44

GENERAL INFORMATION:

Formation: **LKC "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:51:09
 Time Test Ended: 18:46:23
 Interval: **3846.00 ft (KB) To 3880.00 ft (KB) (TVD)**
 Total Depth: 3880.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2435.00 ft (KB)
 2430.00 ft (CF)
 KB to GR/CF: 5.00 ft

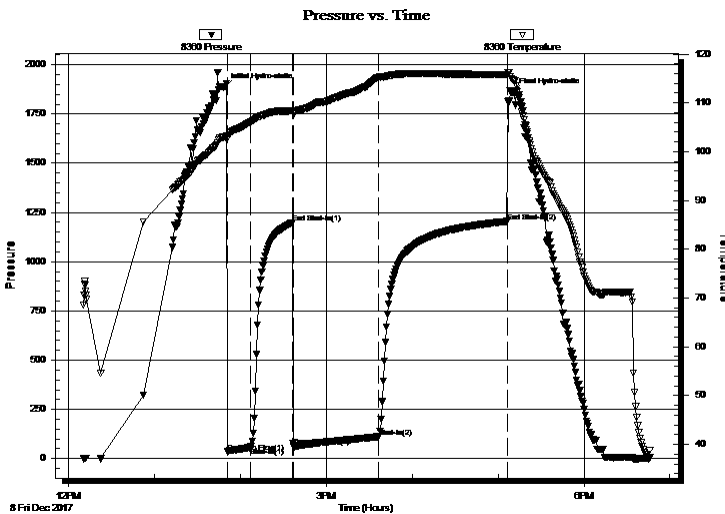
Serial #: 8360

Inside

Press@RunDepth: 110.42 psig @ 3848.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.08 End Date: 2017.12.08 Last Calib.: 2017.12.08
 Start Time: 12:10:44 End Time: 18:46:23 Time On Btm: 2017.12.08 @ 13:48:39
 Time Off Btm: 2017.12.08 @ 17:09:53

TEST COMMENT: 15-IFP-weak to a good blow 1/2" to 9" blow
 30-ISIP-no blow back
 60-FFP-weak to BOB in 35 min
 90-FSIP-surface blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1885.08	102.92	Initial Hydro-static
3	33.71	102.58	Open To Flow (1)
19	56.39	106.00	Shut-In(1)
48	1197.96	108.36	End Shut-In(1)
49	61.79	107.96	Open To Flow (2)
108	110.42	115.22	Shut-In(2)
198	1204.46	115.81	End Shut-In(2)
202	1860.13	114.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	HO&GCM 10%G30%O60%M	0.57
90.00	MGO 10%G20%M70%O	1.26
65.00	CO	0.91
0.00	465' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63237 **DST#: 1**
 Test Start: 2017.12.08 @ 12:10:44

Tool Information

Drill Pipe:	Length: 3799.00 ft	Diameter: 3.80 inches	Volume: 53.29 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 53.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3846.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 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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Change Over Sub	1.00			3818.00	
Shut In Tool	5.00			3823.00	
Hydraulic tool	5.00			3828.00	
Jars	5.00			3833.00	
Safety Joint	3.00			3836.00	
Packer	5.00			3841.00	29.00 Bottom Of Top Packer
Packer	5.00			3846.00	
Stubb	1.00			3847.00	
Perforations	1.00			3848.00	
Recorder	0.00	8360	Inside	3848.00	
Recorder	0.00	8673	Outside	3848.00	
Perforations	29.00			3877.00	
Bullnose	3.00			3880.00	34.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63237 **DST#: 1**
 Test Start: 2017.12.08 @ 12:10:44

Mud and Cushion Information

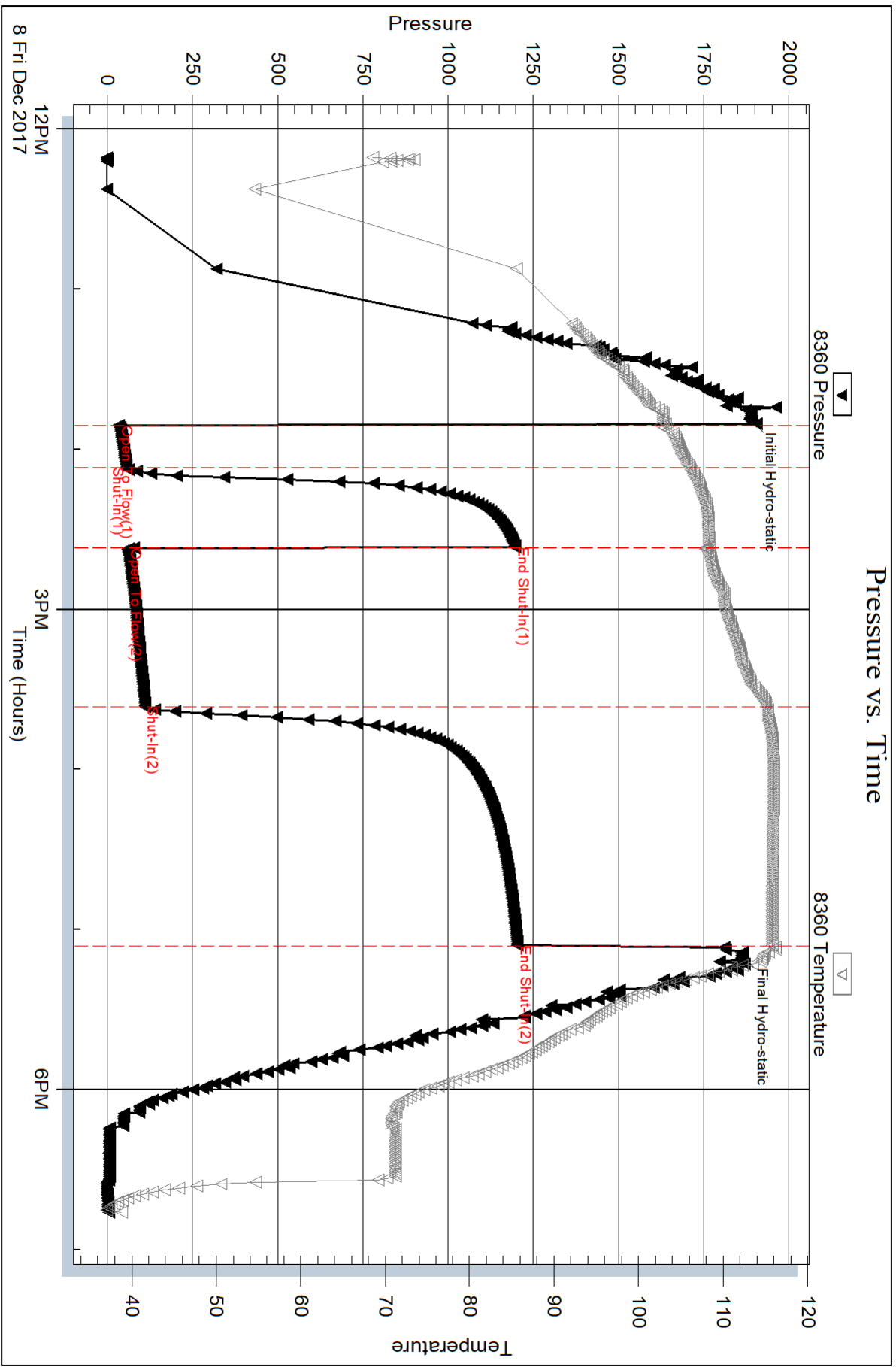
Mud Type: Gel Chem	Cushion Type:	Oil API: 29 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.73 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1200.00 ppm		
Filter Cake: 1.00 inches		

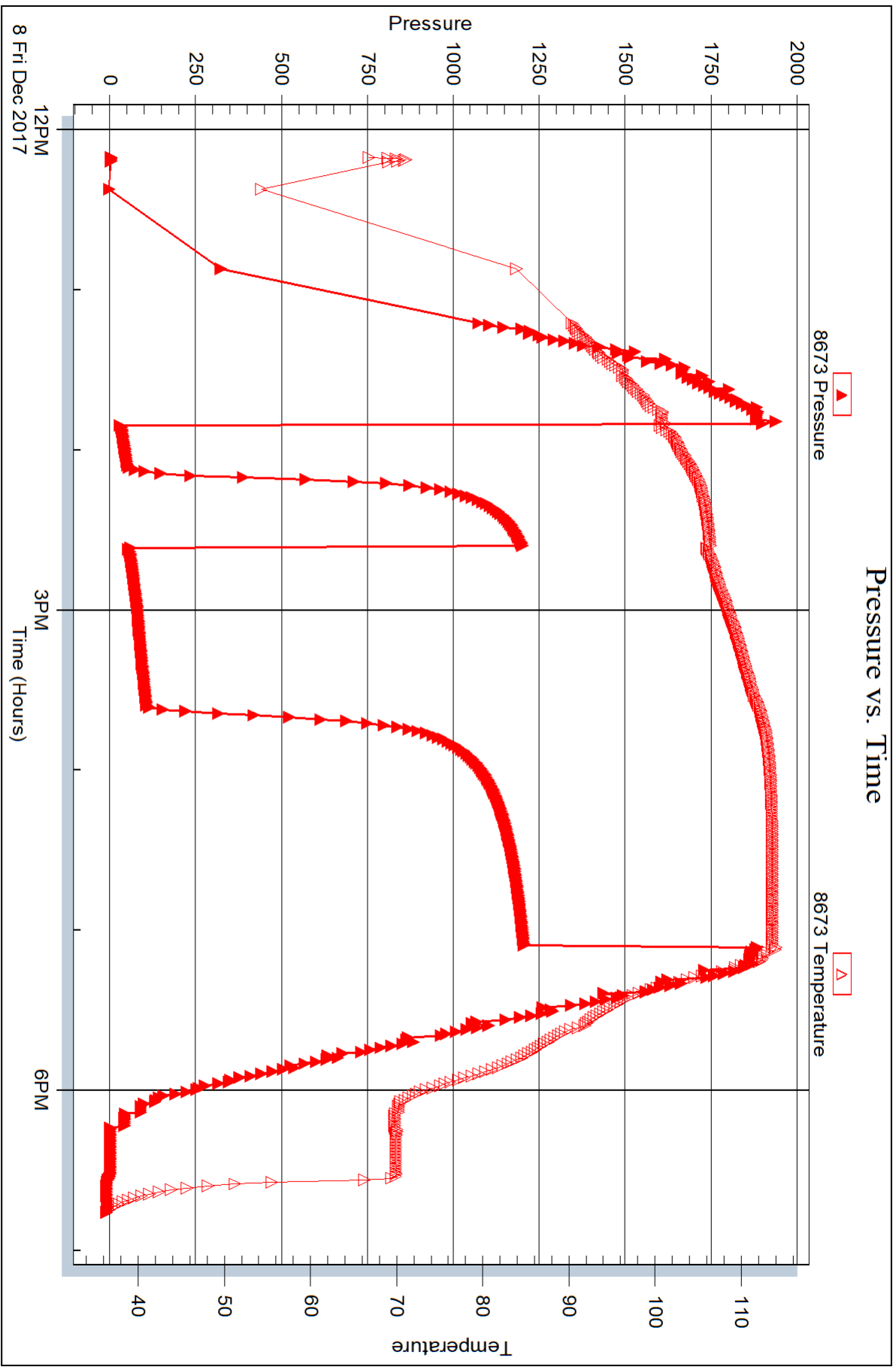
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	HO&GCM 10%G30%O60%M	0.568
90.00	MGO 10%G20%M70%O	1.262
65.00	CO	0.912
0.00	465' GIP	0.000

Total Length: 215.00 ft Total Volume: 2.742 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmidt Inc**

PO Box 47
Great Bend KS 67530-0047

ATTN: Carmen Schmidt, Brad

WP Unit 4-7

7-14s-25w Trego,KS

Start Date: 2017.12.09 @ 04:40:34

End Date: 2017.12.09 @ 09:15:13

Job Ticket #: 63238 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.13 @ 13:42:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63238 **DST#: 2**
 Test Start: 2017.12.09 @ 04:40:34

GENERAL INFORMATION:

Formation: **LKC I-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:39:59
 Time Test Ended: 09:15:13
 Interval: **3883.00 ft (KB) To 3936.00 ft (KB) (TVD)**
 Total Depth: 3936.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2435.00 ft (KB)
 2430.00 ft (CF)
 KB to GR/CF: 5.00 ft

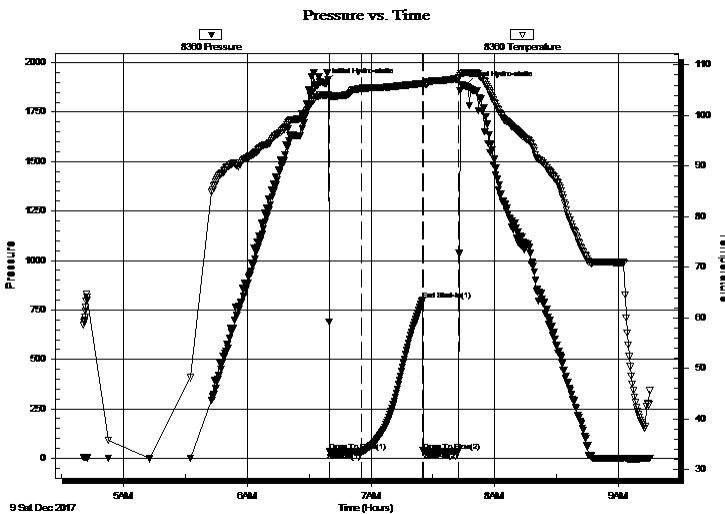
Serial #: 8360

Inside

Press@RunDepth: 32.06 psig @ 3885.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.09 End Date: 2017.12.09 Last Calib.: 2017.12.09
 Start Time: 04:40:34 End Time: 09:15:13 Time On Btm: 2017.12.09 @ 06:37:44
 Time Off Btm: 2017.12.09 @ 07:45:44

TEST COMMENT: 15-IFP-weak blow thru-out 1/2" blow
 30-ISIP-no blow
 15-FFP-surface blow , died in 5 min
 pulled tool

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1896.85	104.06	Initial Hydro-static
3	33.02	103.66	Open To Flow (1)
18	32.06	105.35	Shut-In(1)
48	799.87	106.29	End Shut-In(1)
48	34.15	106.08	Open To Flow (2)
65	33.42	107.21	Shut-In(2)
68	1881.88	108.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCM 5% O95%M	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63238 **DST#: 2**
 Test Start: 2017.12.09 @ 04:40:34

Tool Information

Drill Pipe:	Length: 3831.00 ft	Diameter: 3.80 inches	Volume: 53.74 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 53.89 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3883.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

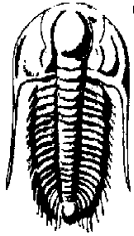
Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3855.00	
Shut In Tool	5.00			3860.00	
Hydraulic tool	5.00			3865.00	
Jars	5.00			3870.00	
Safety Joint	3.00			3873.00	
Packer	5.00			3878.00	29.00 Bottom Of Top Packer
Packer	5.00			3883.00	
Stubb	1.00			3884.00	
Perforations	1.00			3885.00	
Recorder	0.00	8360	Inside	3885.00	
Recorder	0.00	8673	Outside	3885.00	
Blank Spacing	33.00			3918.00	
Perforations	15.00			3933.00	
Bullnose	3.00			3936.00	53.00 Bottom Packers & Anchor

Total Tool Length: 82.00



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmidt Inc
PO Box 47
Great Bend KS 67530-0047
ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
Job Ticket: 63238 **DST#: 2**
Test Start: 2017.12.09 @ 04:40:34

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: bbl		
Water Loss: 6.72 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

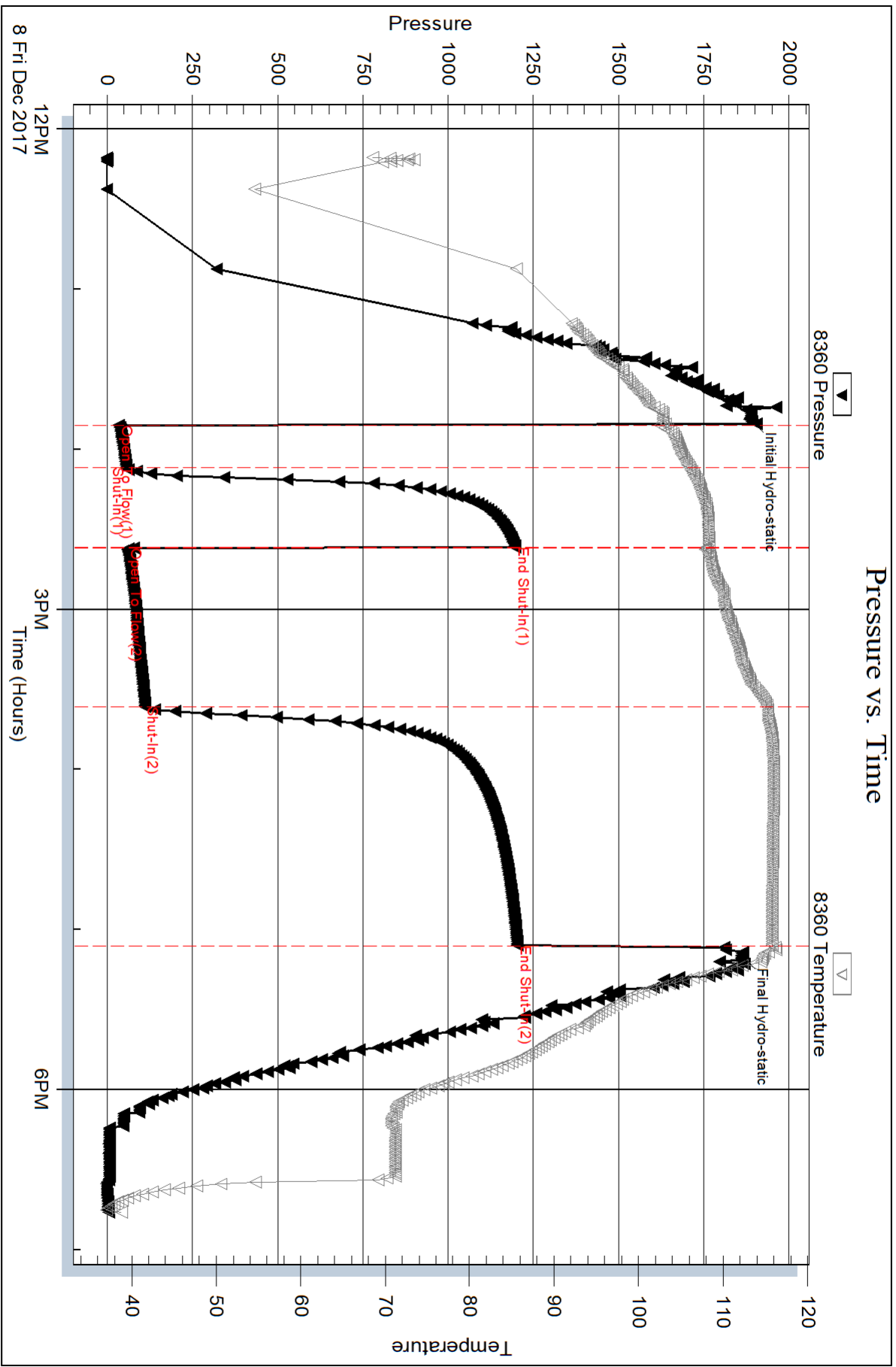
Length ft	Description	Volume bbl
20.00	SOCM 5%O95%M	0.098

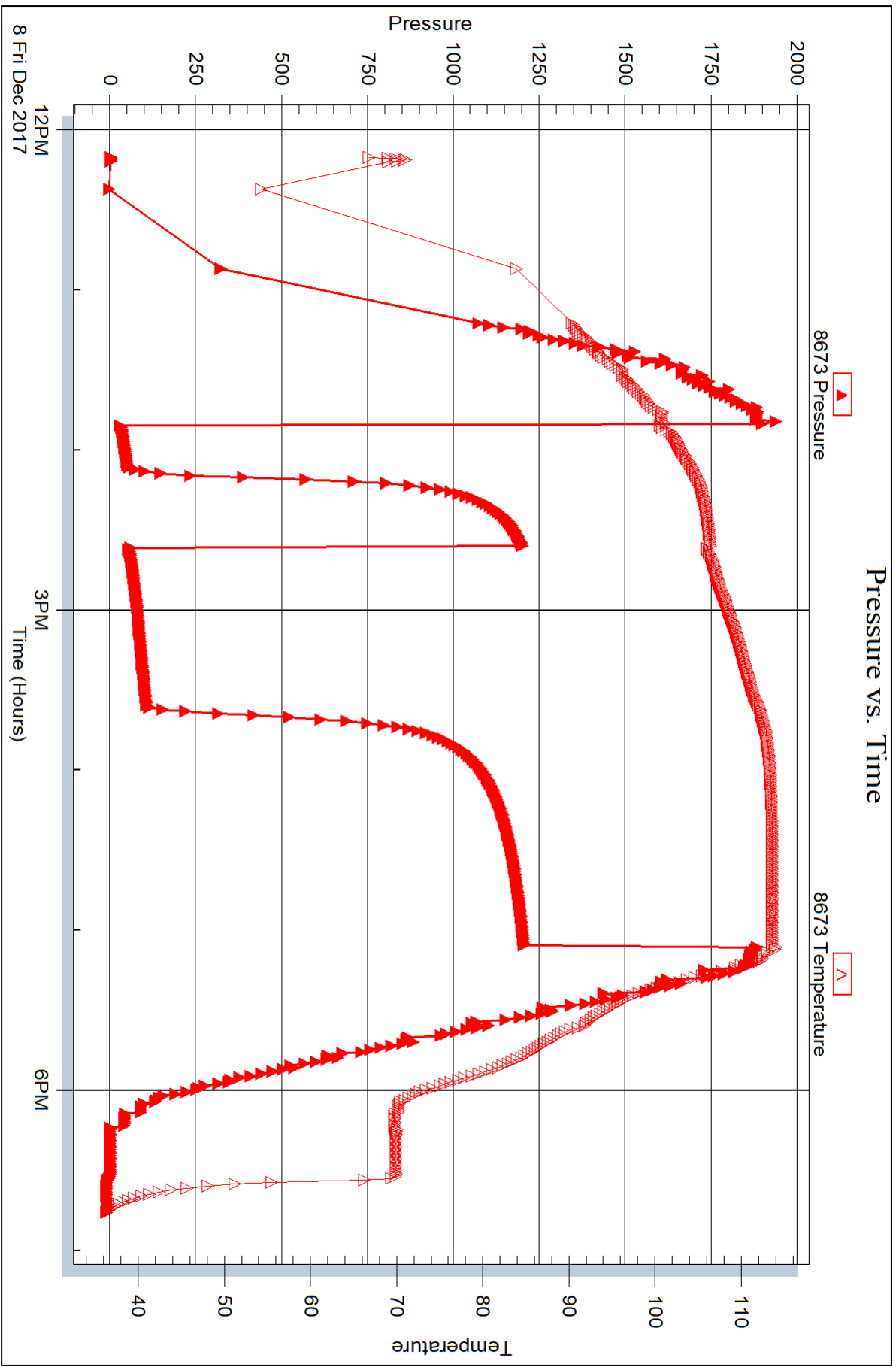
Total Length: 20.00 ft Total Volume: 0.098 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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ATTN: Carmen Schmidt, Brad

WP Unit 4-7

7-14s-25w Trego,KS

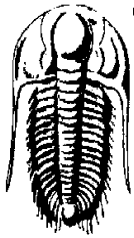
Start Date: 2017.12.09 @ 15:55:39

End Date: 2017.12.09 @ 21:44:03

Job Ticket #: 63239 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.13 @ 13:41:08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63239 **DST#: 3**
 Test Start: 2017.12.09 @ 15:55:39

GENERAL INFORMATION:

Formation: **LKC "K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:28:49
 Time Test Ended: 21:44:03
 Interval: **3946.00 ft (KB) To 3965.00 ft (KB) (TVD)**
 Total Depth: 3965.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2435.00 ft (KB)
 2430.00 ft (CF)
 KB to GR/CF: 5.00 ft

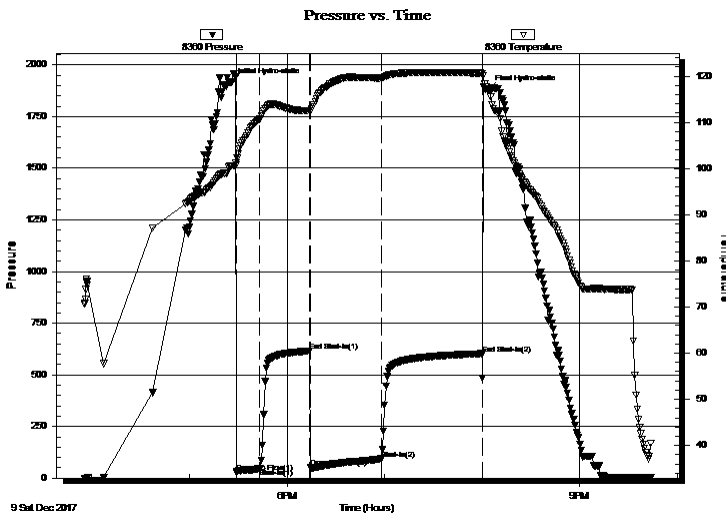
Serial #: 8360

Inside

Press@RunDepth: 93.20 psig @ 3947.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.09 End Date: 2017.12.09 Last Calib.: 2017.12.09
 Start Time: 15:55:39 End Time: 21:44:03 Time On Btm: 2017.12.09 @ 17:26:04
 Time Off Btm: 2017.12.09 @ 20:03:34

TEST COMMENT: 15-IFP-weak to BOB in 6 min
 30-ISIP-no blow back
 45- FFP-weak to BOB in 5 min
 60-FSIP-surface blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1912.72	100.63	Initial Hydro-static
3	29.28	100.83	Open To Flow (1)
18	46.54	110.66	Shut-In(1)
48	615.25	112.56	End Shut-In(1)
49	51.49	112.43	Open To Flow (2)
92	93.20	119.58	Shut-In(2)
154	602.04	120.63	End Shut-In(2)
158	1879.15	117.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	GMO 30%G12%M58%O	0.99
155.00	CO	2.17
0.00	1365' GIP	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

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63239 **DST#: 3**
 Test Start: 2017.12.09 @ 15:55:39

Tool Information

Drill Pipe:	Length: 3894.00 ft	Diameter: 3.80 inches	Volume: 54.62 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 54.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3946.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3918.00	
Shut In Tool	5.00			3923.00	
Hydraulic tool	5.00			3928.00	
Jars	5.00			3933.00	
Safety Joint	3.00			3936.00	
Packer	5.00			3941.00	29.00 Bottom Of Top Packer
Packer	5.00			3946.00	
Stubb	1.00			3947.00	
Recorder	0.00	8360	Inside	3947.00	
Recorder	0.00	8673	Outside	3947.00	
Perforations	15.00			3962.00	
Bullnose	3.00			3965.00	19.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmidt Inc
PO Box 47
Great Bend KS 67530-0047
ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
Job Ticket: 63239 **DST#: 3**
Test Start: 2017.12.09 @ 15:55:39

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.73 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

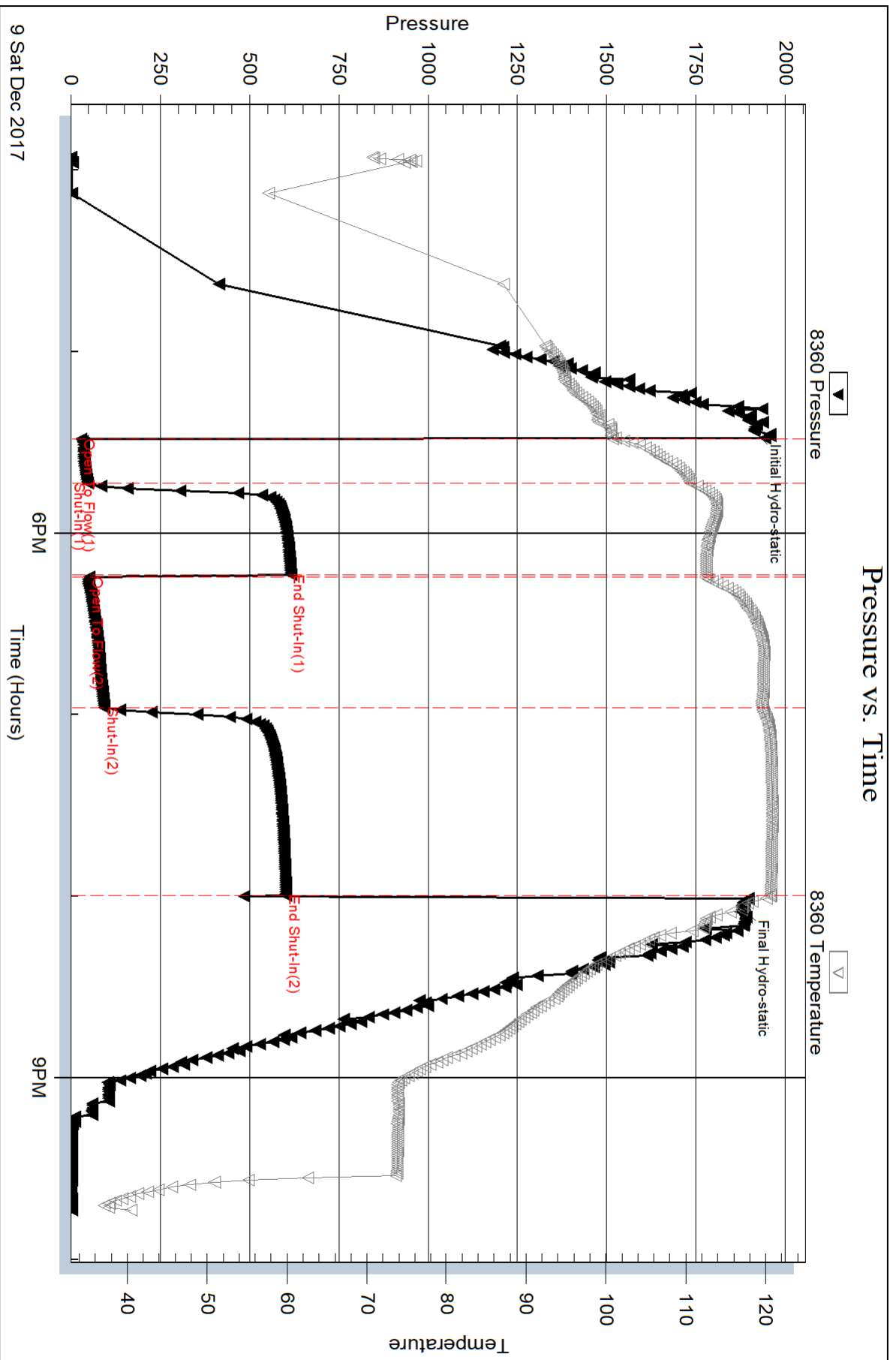
Length ft	Description	Volume bbl
90.00	GMO 30%G12%M58%O	0.989
155.00	CO	2.174
0.00	1365' GIP	0.000

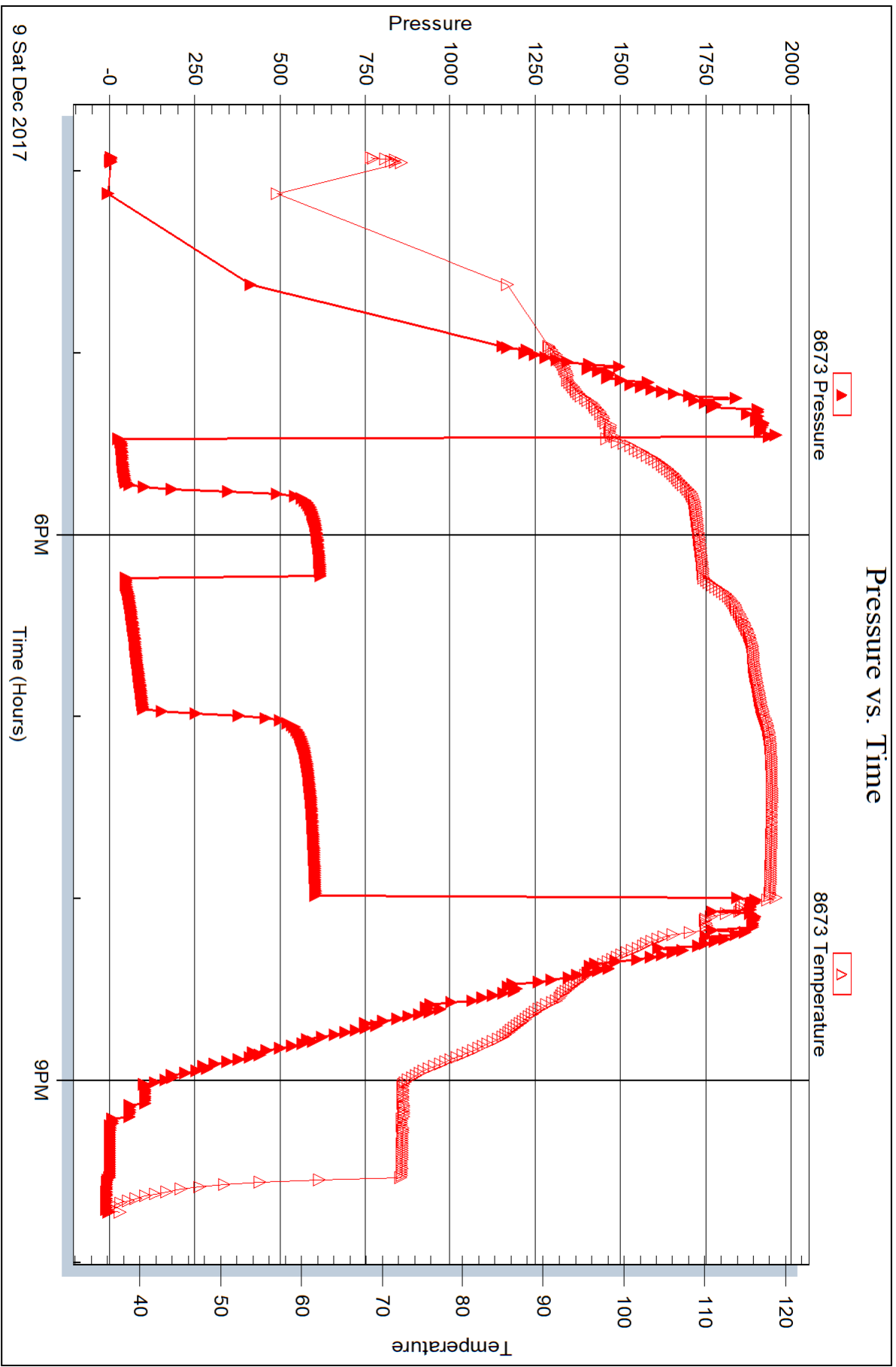
Total Length: 245.00 ft Total Volume: 3.163 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmidt Inc**

PO Box 47
Great Bend KS 67530-0047

ATTN: Carmen Schmidt, Brad

WP Unit 4-7

7-14s-25w Trego,KS

Start Date: 2017.12.10 @ 05:10:09

End Date: 2017.12.10 @ 10:15:02

Job Ticket #: 63240 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.13 @ 13:40:12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63240 **DST#: 4**
 Test Start: 2017.12.10 @ 05:10:09

GENERAL INFORMATION:

Formation: **LKC "L"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:00:49
 Time Test Ended: 10:15:02
 Interval: **3965.00 ft (KB) To 4001.00 ft (KB) (TVD)**
 Total Depth: 4001.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2435.00 ft (KB)
 2430.00 ft (CF)
 KB to GR/CF: 5.00 ft

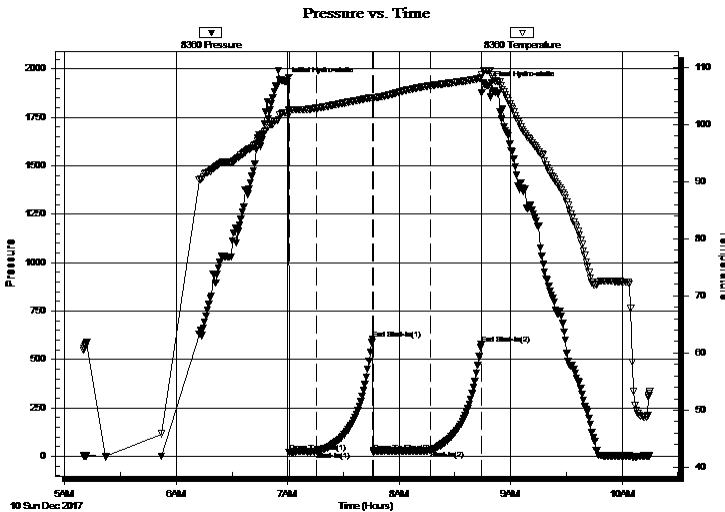
Serial #: 8360

Inside

Press@RunDepth: 32.75 psig @ 3970.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.10 End Date: 2017.12.10 Last Calib.: 2017.12.10
 Start Time: 05:10:09 End Time: 10:15:02 Time On Btm: 2017.12.10 @ 06:58:49
 Time Off Btm: 2017.12.10 @ 08:47:34

TEST COMMENT: 15-IFP-surface blow thru-out
 30-ISIP-no blow back
 30-FFP-surface blow back
 30-FSIP-no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.96	102.05	Initial Hydro-static
2	22.74	101.95	Open To Flow (1)
17	25.05	102.80	Shut-In(1)
47	605.16	104.72	End Shut-In(1)
48	22.11	104.62	Open To Flow (2)
78	32.75	106.76	Shut-In(2)
106	577.64	108.09	End Shut-In(2)
109	1913.61	109.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	HOCM 30% O70%M	0.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63240 **DST#: 4**
 Test Start: 2017.12.10 @ 05:10:09

Tool Information

Drill Pipe:	Length: 3926.00 ft	Diameter: 3.80 inches	Volume: 55.07 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 55.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3965.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	65.00 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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Change Over Sub	1.00			3937.00	
Shut In Tool	5.00			3942.00	
Hydraulic tool	5.00			3947.00	
Jars	5.00			3952.00	
Safety Joint	3.00			3955.00	
Packer	5.00			3960.00	29.00 Bottom Of Top Packer
Packer	5.00			3965.00	
Stubb	1.00			3966.00	
Perforations	4.00			3970.00	
Recorder	0.00	8360	Inside	3970.00	
Recorder	0.00	8673	Outside	3970.00	
Perforations	28.00			3998.00	
Bullnose	3.00			4001.00	36.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63240 **DST#: 4**
 Test Start: 2017.12.10 @ 05:10:09

Mud and Cushion Information

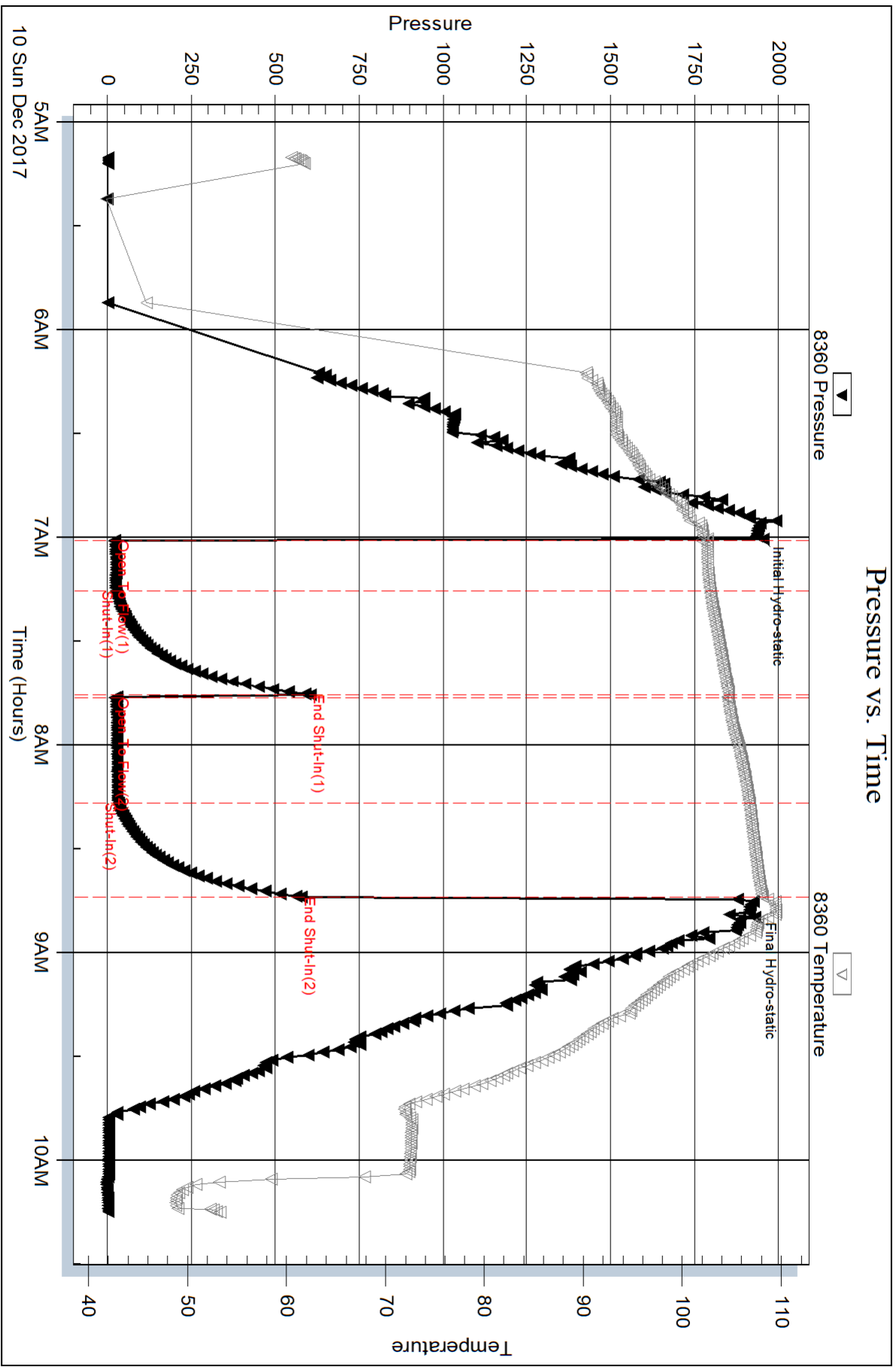
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.73 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 1.00 inches			

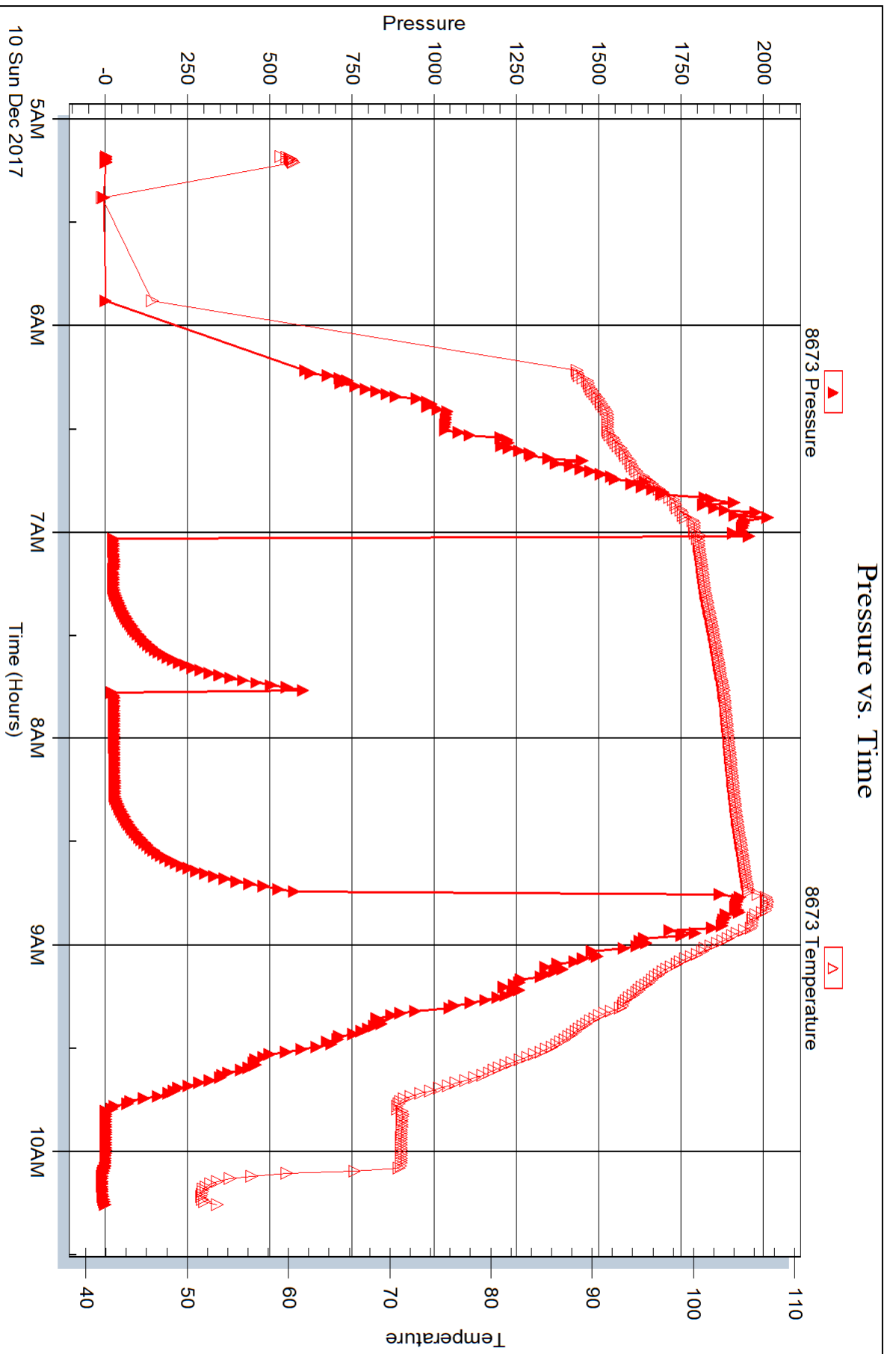
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	HOCM 30% O70%M	0.218

Total Length: 35.00 ft Total Volume: 0.218 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmidt Inc**

PO Box 47
Great Bend KS 67530-0047

ATTN: Carmen Schmidt, Brad

WP Unit 4-7

7-14s-25w Trego,KS

Start Date: 2017.12.11 @ 06:10:24

End Date: 2017.12.11 @ 10:54:48

Job Ticket #: 63241 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.12.13 @ 13:37:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Carmen Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63241 **DST#: 5**
 Test Start: 2017.12.11 @ 06:10:24

GENERAL INFORMATION:

Formation: **Ft Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:14:04
 Time Test Ended: 10:54:48
 Interval: **4166.00 ft (KB) To 4235.00 ft (KB) (TVD)**
 Total Depth: 4235.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2435.00 ft (KB)
 2430.00 ft (CF)
 KB to GR/CF: 5.00 ft

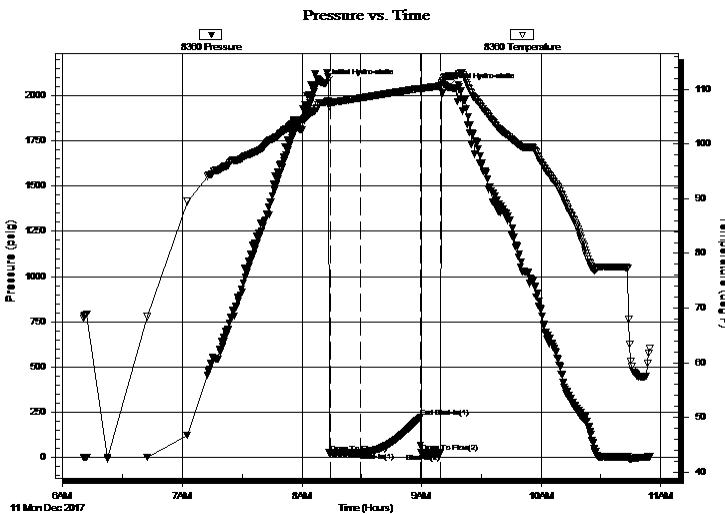
Serial #: 8360

Inside

Press@RunDepth: 26.45 psig @ 4171.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.11 End Date: 2017.12.11 Last Calib.: 2017.12.11
 Start Time: 06:10:24 End Time: 10:54:48 Time On Btm: 2017.12.11 @ 08:11:49
 Time Off Btm: 2017.12.11 @ 09:13:04

TEST COMMENT: 15-IFP-weak blow 1/8", died in 12 min
 30-ISIP-no blow
 15-FFP-no blow
 pulled tool

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2066.61	107.61	Initial Hydro-static
3	26.08	107.60	Open To Flow (1)
18	26.45	108.42	Shut-In(1)
48	221.61	110.18	End Shut-In(1)
48	26.51	110.16	Open To Flow (2)
58	26.19	110.64	Shut-In(2)
62	2046.30	112.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w / slight show of oil	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 Schmidt Inc
 PO Box 47
 Great Bend KS 67530-0047
 ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
 Job Ticket: 63241 **DST#: 5**
 Test Start: 2017.12.11 @ 06:10:24

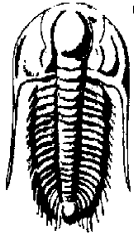
Tool Information

Drill Pipe:	Length: 4116.00 ft	Diameter: 3.80 inches	Volume: 57.74 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 57.89 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	51000.00 lb
Depth to Top Packer:	4166.00 ft			Final	51000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	69.00 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
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Change Over Sub	1.00			4138.00	
Shut In Tool	5.00			4143.00	
Hydraulic tool	5.00			4148.00	
Jars	5.00			4153.00	
Safety Joint	3.00			4156.00	
Packer	5.00			4161.00	29.00 Bottom Of Top Packer
Packer	5.00			4166.00	
Stubb	1.00			4167.00	
Perforations	4.00			4171.00	
Recorder	0.00	8360	Inside	4171.00	
Recorder	0.00	8673	Outside	4171.00	
Blank Spacing	33.00			4204.00	
Perforations	28.00			4232.00	
Bullnose	3.00			4235.00	69.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmidt Inc
PO Box 47
Great Bend KS 67530-0047
ATTN: Carmen Schmidt, Brad

7-14s-25w Trego,KS
WP Unit 4-7
Job Ticket: 63241 **DST#: 5**
Test Start: 2017.12.11 @ 06:10:24

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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 900.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud w / slight show of oil	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

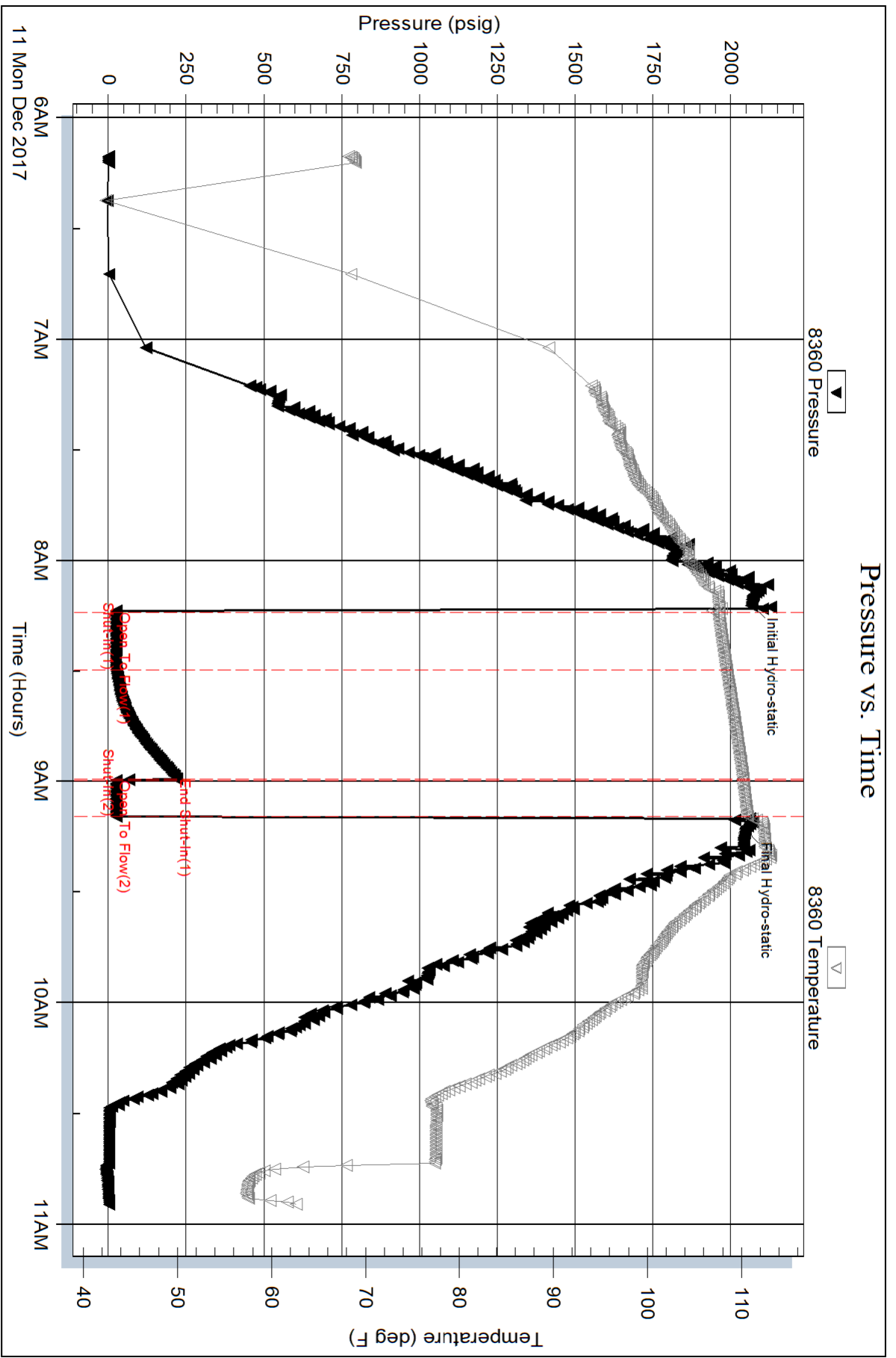
Serial #: 8360

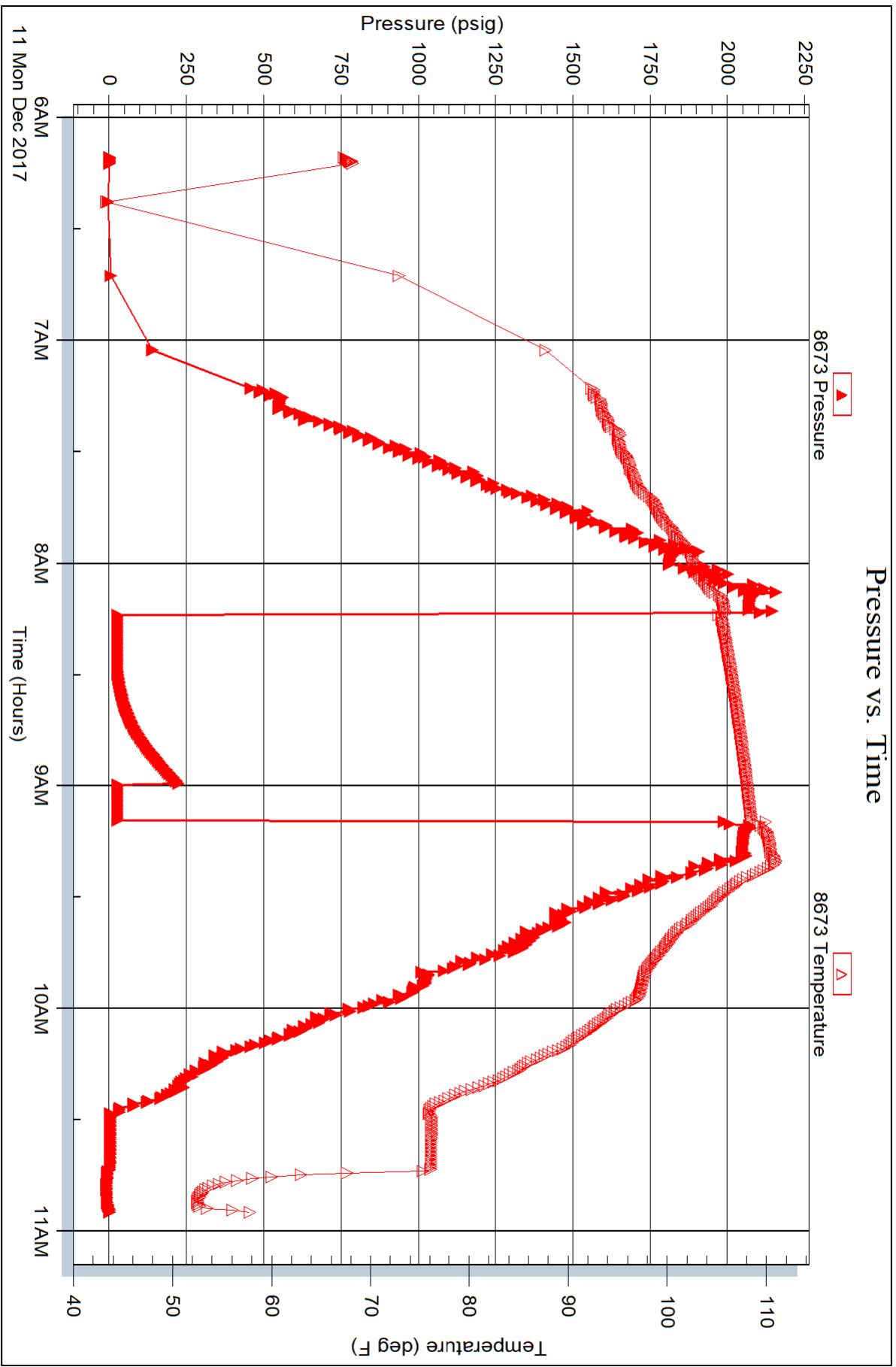
Inside

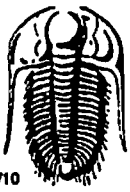
Carmen Schmidt Inc

WP Unit 4-7

DST Test Number: 5







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63237

Well Name & No. WP Unit 4-7 Test No. 1 Date 12-8-17
 Company Carmen Schmidt Inc Elevation 2435 KB 2430 GL
 Address PO Box 47 Great Bend, Ks 67530-0047
 Co. Rep / Geo. Brad Rine Rig Murfin rig Ks
 Location: Sec. 7 Twp. 14^s Rge. 25^w Co. rego State Ks

Interval Tested 3846-3880 Zone Tested LKC "H"
 Anchor Length 34 Drill Pipe Run 3799 Mud Wt. 9
 Top Packer Depth 3841 Drill Collars Run 30 Vis 60
 Bottom Packer Depth 3846 Wt. Pipe Run — WL 6.8
 Total Depth 3880 Chlorides 1200 ppm System LCM 2[#]

Blow Description TSP - Weak To A Good Blow 1/2" To 9" Blow
TSTP - NO Blow Back
FFP - Weak To BOB IN 35 MIN
FSTP - SURFACE Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>465</u>	<u>GIP</u>				
<u>65</u>	<u>CO</u>				
<u>90</u>	<u>M60</u>	<u>10</u>	<u>70</u>		<u>20</u>
<u>60</u>	<u>H0x6CM</u>	<u>10</u>	<u>30</u>		<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 215 BHT 115 Gravity 29 API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 1885
- (B) First Initial Flow 33
- (C) First Final Flow 56
- (D) Initial Shut-In 1197
- (E) Second Initial Flow 61
- (F) Second Final Flow 110
- (G) Final Shut-In 1204
- (H) Final Hydrostatic 1860

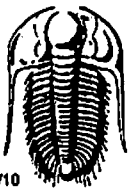
- Test 1050
- Jars 250
- Safety Joint 75
- Circ Sub
- Hourly Standby
- Mileage 123 RT 92.25
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1467.25

T-On Location 1125
 T-Started 1210
 T-Open 1350
 T-Pulled 1705
 T-Out 1846
 Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1467.25
 MP/DST Disc't _____

Initial Open 15
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 90

Approved By Brad Rine Our Representative Ray Schwaner Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63238

Well Name & No. WP Unit 4-7 Test No. 2 Date 12-9-17
 Company CARMA SCHMIDT INC Elevation 2435 KB 2430 GL
 Address PO Box 47 GREAT BEND, KS 67530-0047
 Co. Rep / Geo. BRAD RINE Rig MURFIN rig 16
 Location: Sec. 7 Twp. 14^s Rge. 25^w Co. Trego State Ks

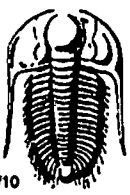
Interval Tested 3883-3936 Zone Tested LKC I-J
 Anchor Length 53 Drill Pipe Run 3831 Mud Wt. 9.2
 Top Packer Depth 3878 Drill Collars Run 30 Vis 52
 Bottom Packer Depth 3883 Wt. Pipe Run - WL 6.8
 Total Depth 3936 Chlorides 1200 ppm System LCM 2#
 Blow Description IFP - weak blow thru-out 1/2" blow
ISIP - NO BLOW
FFP - SURFACE BLOW, died in 5 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>50CM</u>	<u>5</u>		<u>95</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 20 BHT 107 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1896</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0345</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0440</u>
(C) First Final Flow <u>32</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0640</u>
(D) Initial Shut-In <u>799</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0740</u>
(E) Second Initial Flow <u>34</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0915</u>
(F) Second Final Flow <u>32</u>	<input checked="" type="checkbox"/> Mileage <u>92.25</u>	Comments
(G) Final Shut-In <u>-</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1881</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>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>out</u>	<input type="checkbox"/> Day Standby	Total <u>1467.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1467.25</u>	

Approved By Brad Rine Our Representative Ray Schwager *Thank you*
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63237

Well Name & No. WP Unit 4-7 Test No. 3 Date 12-9-17
 Company Carmen Schmidt Inc Elevation 2435 KB 2430 GL
 Address PO Box 47 Great Bend, Ks 67530-0047
 Co. Rep / Geo. Brad Rine Rig Murfin rig 16
 Location: Sec. 7 Twp. 14^s Rge. 25^w Co. 7 Rego State Ko

Interval Tested 3946-3965 Zone Tested LKC "K"
 Anchor Length 19 Drill Pipe Run 3894 Mud Wt. 9.1
 Top Packer Depth 3941 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 3946 Wt. Pipe Run - WL 6.8
 Total Depth 3965 Chlorides 1000 ppm System LCM 2#

Blow Description TFP - Weak To BOB IN 6 min
ISIP - NO Blow Back
FFP - Weak To BOB IN 5 min
FSIP - surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1365</u>	<u>GIP</u>				
<u>155</u>	<u>CO</u>				
<u>90</u>	<u>GMO</u>	<u>30</u>	<u>58</u>		<u>12</u>

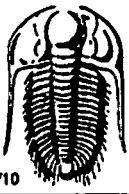
Rec Total 245 BHT 120 Gravity 38 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1912</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1520</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1555</u>
(C) First Final Flow <u>46</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1725</u>
(D) Initial Shut-In <u>615</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1955</u>
(E) Second Initial Flow <u>51</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2144</u>
(F) Second Final Flow <u>93</u>	<input checked="" type="checkbox"/> Mileage <u>92.25</u>	Comments
(G) Final Shut-In <u>602</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1879</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1717.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1717.25</u>	

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

Approved By Brad Rine Our Representative Ray Schwager Thank you

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63240

Well Name & No. WP Unit 4-7 Test No. 4 Date 12-10-17
 Company CARMA SCHMIDT INC Elevation 2435 KB 2430 GL
 Address PO Box 47 GREAT BEND, Ks 67530-0047
 Co. Rep / Geo. BRAD RINE Rig MURFIN rig 16
 Location: Sec. 7 Twp. 14^s Rge. 25^w Co. rego State Ks

Interval Tested 3965-4001 Zone Tested LKC "L"
 Anchor Length 36 Drill Pipe Run 3926 Mud Wt. 9
 Top Packer Depth 3960 Drill Collars Run 30 Vis 55
 Bottom Packer Depth 3965 Wt. Pipe Run — WL 6.8
 Total Depth 4001 Chlorides 1000 ppm System LCM 2#

Blow Description IFP - SURFACE BLOW THRU-OUT
ISTP - NO BLOW BACK
FFP - SURFACE BLOW THRU-OUT
FSIP - NO BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>35</u>	<u>HO CM</u>	<u>30</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 Total 35 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

- (A) Initial Hydrostatic 1935
- (B) First Initial Flow 22
- (C) First Final Flow 25
- (D) Initial Shut-In 605
- (E) Second Initial Flow 22
- (F) Second Final Flow 32
- (G) Final Shut-In 577
- (H) Final Hydrostatic 1913

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub
- Hourly Standby
- Mileage 92.25
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility

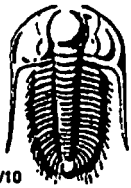
T-On Location 0430
 T-Started 0510
 T-Open 0700
 T-Pulled 0845
 T-Out 1015

Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1567.25
 MP/DST Disc't _____

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

Approved By Brad Rine Our Representative Rayschwager *Thank you*

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63241

Well Name & No. WP Unit 4-7 Test No. 5 Date 12-11-17
 Company CARMEN SCHMIDT Inc Elevation 2435 KB 2430 GL
 Address PO Box 47 GREAT Bend, Ks 67530-0047
 Co. Rep / Geo. BRAD RINE Rig MURFIN rig 16
 Location: Sec. 7 Twp. 14^s Rge. 25^w Co. rego State Ks

Interval Tested 4166-4235 Zone Tested FT. SCOTT
 Anchor Length 69 Drill Pipe Run 4166 Mud Wt. 9.3
 Top Packer Depth 4161 Drill Collars Run 30 Vis 59
 Bottom Packer Depth 4166 Wt. Pipe Run - WL 6.4
 Total Depth 4235 Chlorides 900 ppm System LCM 2#

Blow Description IFP - Weak Blow 1/8" died in 12 min
ISIP - No Blow
FFP - NO Blow
FSEP Pulled Tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</u>				
	<u>w/slight show of oil</u>				

Rec Total 1 BHT 110 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2066
 (B) First Initial Flow 26
 (C) First Final Flow 26
 (D) Initial Shut-In 221
 (E) Second Initial Flow 26
 (F) Second Final Flow 26
 (G) Final Shut-In -
 (H) Final Hydrostatic 2046

Test 1150
 Jars 250
 Safety Joint 75
 Circ Sub
 Hourly Standby
 Mileage 92.25+92.25
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1659.50

T-On Location 0430
 T-Started 0610
 T-Open 0810
 T-Pulled 0905
 T-Out 1054

Comments Released Tool 2230
12-11-17
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1659.50
 MP/DST Disc't

Initial Open 15
 Initial Shut-In 30
 Final Flow 10
 Final Shut-In out

Approved By Brad Rine Our Representative RAY SCHWAGER *Thank you*

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