



DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Brad Rine

Karlin #1

13-11s-30w Gove,KS

Start Date: 2019.08.24 @ 22:08:15

End Date: 2019.08.25 @ 05:42:00

Job Ticket #: 64845 DST #: 1

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

Printed: 2019.08.29 @ 11:47:50



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
 Job Ticket: 64845 **DST#: 1**
 Test Start: 2019.08.24 @ 22:08:15

GENERAL INFORMATION:

Formation: **LKC E**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:45:30
 Time Test Ended: 05:42:00
 Interval: **4004.00 ft (KB) To 4024.00 ft (KB) (TVD)**
 Total Depth: 4024.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2890.00 ft (KB)
 2880.00 ft (CF)
 KB to GR/CF: 10.00 ft

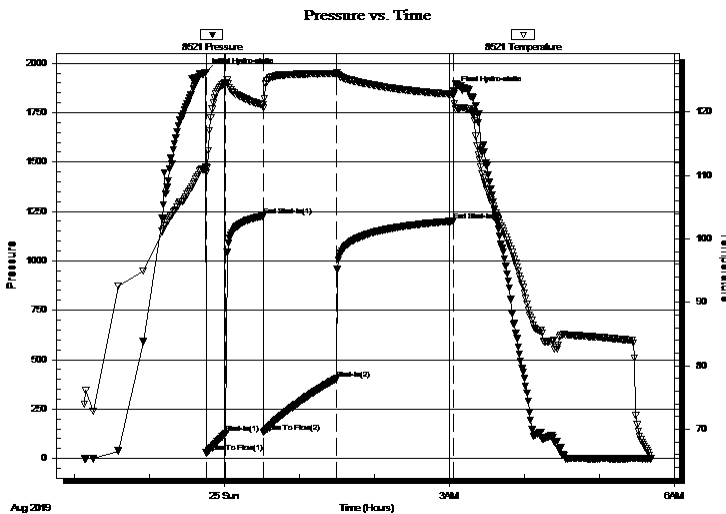
Serial #: 8521

Inside

Press@RunDepth: 403.99 psig @ 4005.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.24 End Date: 2019.08.25 Last Calib.: 2019.08.25
 Start Time: 22:08:15 End Time: 05:42:00 Time On Btm: 2019.08.24 @ 23:45:15
 Time Off Btm: 2019.08.25 @ 03:03:45

TEST COMMENT: IF: Built to 3" blow
 IS: No return blow
 FF: BOB in 13 min. Built to 40" blow
 FS: Very weak surface blow that died in 15 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1953.37	111.32	Initial Hydro-static
1	29.19	110.39	Open To Flow (1)
16	127.72	124.62	Shut-In(1)
46	1226.09	121.10	End Shut-In(1)
46	132.99	120.59	Open To Flow (2)
105	403.99	126.03	Shut-In(2)
198	1201.31	122.72	End Shut-In(2)
199	1862.42	122.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	free oil 100%o	0.14
330.00	ocw m 5%o 45%w 50%m	4.63
248.00	ocw 5%o 95%w	3.48
310.00	sw 100% sw	4.35

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64845 **DST#: 1**
Test Start: 2019.08.24 @ 22:08:15

Tool Information

Drill Pipe:	Length: 3993.00 ft	Diameter: 3.80 inches	Volume: 56.01 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	4004.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 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
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Change Over Sub	1.00			3977.00	
Shut In Tool	5.00			3982.00	
Hydraulic tool	5.00			3987.00	
Jars	5.00			3992.00	
Safety Joint	3.00			3995.00	
Packer	5.00			4000.00	28.00 Bottom Of Top Packer
Packer	4.00			4004.00	
Stubb	1.00			4005.00	
Recorder	0.00	8968	Outside	4005.00	
Recorder	0.00	8521	Inside	4005.00	
Perforations	14.00			4019.00	
Bullnose	5.00			4024.00	20.00 Bottom Packers & Anchor

Total Tool Length: 48.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64845 **DST#: 1**
Test Start: 2019.08.24 @ 22:08:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 60 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 10000 ppm
Viscosity: 40.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.17 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1500.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

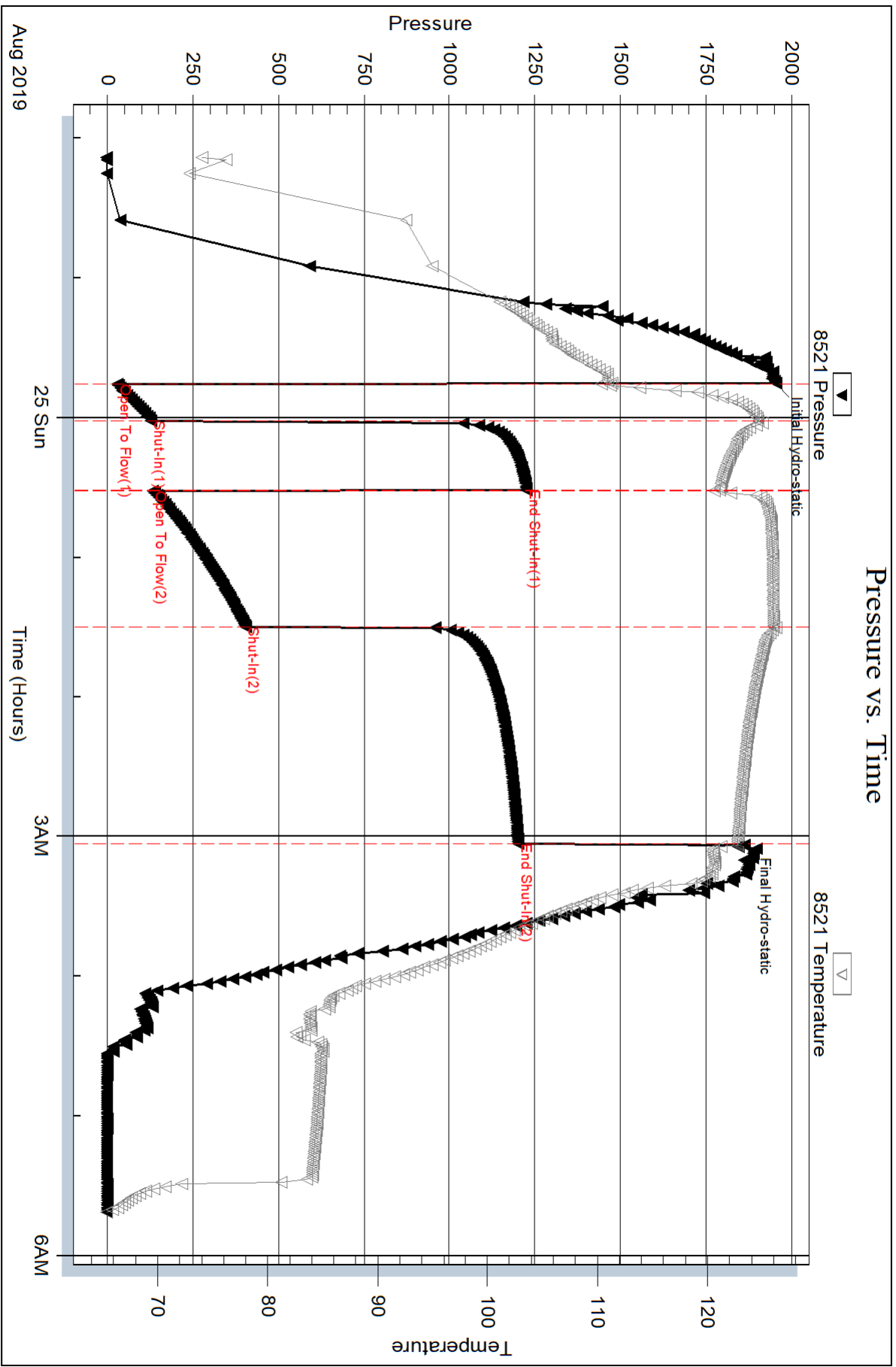
Length ft	Description	Volume bbl
10.00	free oil 100%o	0.140
330.00	ocw m 5%o 45%w 50%m	4.629
248.00	ocw 5%o 95%w	3.479
310.00	sw 100% sw	4.348

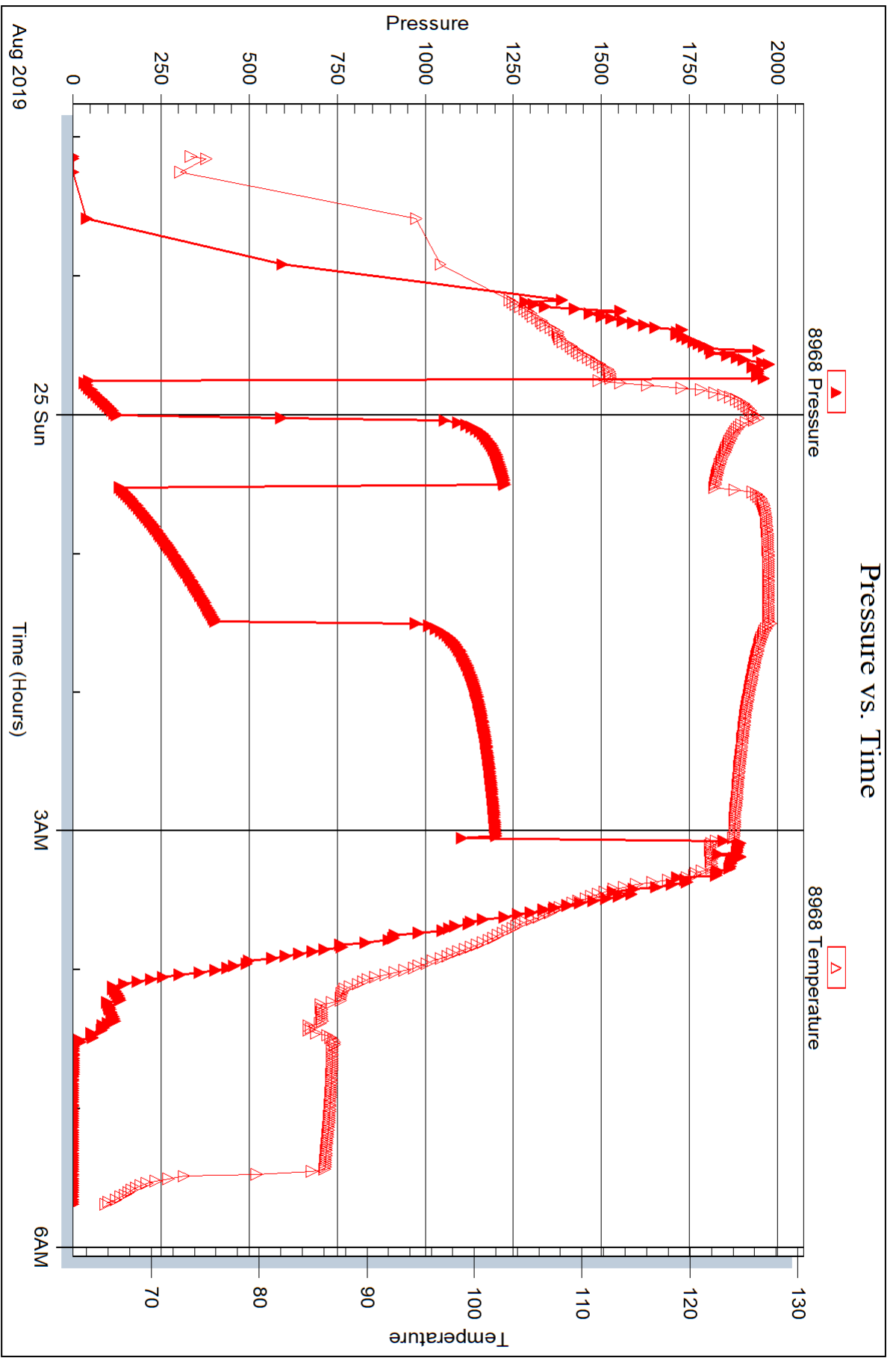
Total Length: 898.00 ft Total Volume: 12.596 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: API= 29@ 70 corrected to 28
RW= .847@ 58.8= 10,000 ppm







DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt Inc.**

PO Box 47
Great Bend KS 67530

ATTN: Brad Rine

Karlin #1

13-11s-30w Gove,KS

Start Date: 2019.08.26 @ 07:58:15

End Date: 2019.08.26 @ 12:23:00

Job Ticket #: 64846 DST #: 2

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

Printed: 2019.08.29 @ 11:12:59



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Brad Rine

13-11s-30w Gove, KS
Karlin #1
 Job Ticket: 64846 **DST#: 2**
 Test Start: 2019.08.26 @ 07:58:15

GENERAL INFORMATION:

Formation: **LKC H - I**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:38:00
 Time Test Ended: 12:23:00
 Interval: **4057.00 ft (KB) To 4125.00 ft (KB) (TVD)**
 Total Depth: 4125.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2890.00 ft (KB)
 2880.00 ft (CF)
 KB to GR/CF: 10.00 ft

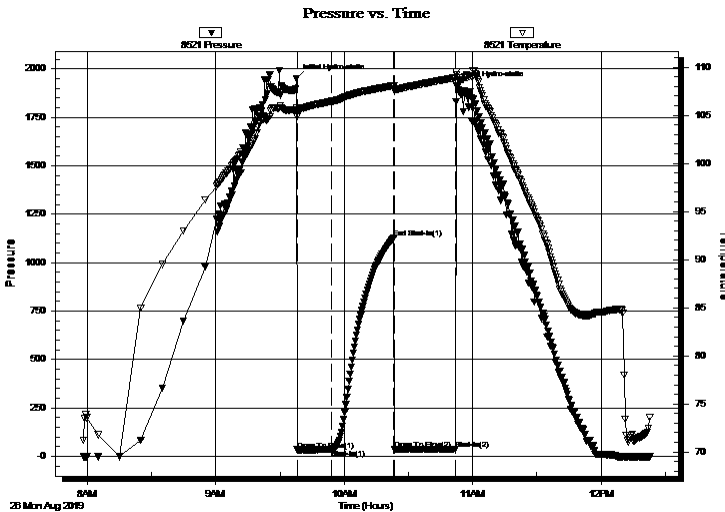
Serial #: 8521

Inside

Press@RunDepth: 35.10 psig @ 4096.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.26 End Date: 2019.08.26 Last Calib.: 2019.08.26
 Start Time: 07:58:15 End Time: 12:23:00 Time On Btm: 2019.08.26 @ 09:37:45
 Time Off Btm: 2019.08.26 @ 10:52:30

TEST COMMENT: IF: Built to 3/4" blow and died back to 1/2" blow
 IS: No return blow
 FF: Built to weak surface blow
 FS: Pulled test

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1950.79	105.79	Initial Hydro-static
1	33.82	104.85	Open To Flow (1)
17	35.10	106.44	Shut-In(1)
46	1126.46	108.10	End Shut-In(1)
46	36.46	107.52	Open To Flow (2)
74	37.92	108.90	Shut-In(2)
75	1911.50	109.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100% m ...oil spots in tool	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64846 **DST#: 2**
Test Start: 2019.08.26 @ 07:58:15

Tool Information

Drill Pipe:	Length: 4056.00 ft	Diameter: 3.80 inches	Volume: 56.90 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4057.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	96.00 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			4030.00	
Shut In Tool	5.00			4035.00	
Hydraulic tool	5.00			4040.00	
Jars	5.00			4045.00	
Safety Joint	3.00			4048.00	
Packer	5.00			4053.00	28.00 Bottom Of Top Packer
Packer	4.00			4057.00	
Stubb	1.00			4058.00	
Perforations	4.00			4062.00	
Change Over Sub	1.00			4063.00	
Drill Pipe	32.00			4095.00	
Change Over Sub	1.00			4096.00	
Recorder	0.00	8968	Outside	4096.00	
Recorder	0.00	8521	Inside	4096.00	
Perforations	24.00			4120.00	
Bullnose	5.00			4125.00	68.00 Bottom Packers & Anchor
Total Tool Length:	96.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64846 **DST#: 2**
Test Start: 2019.08.26 @ 07:58:15

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: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

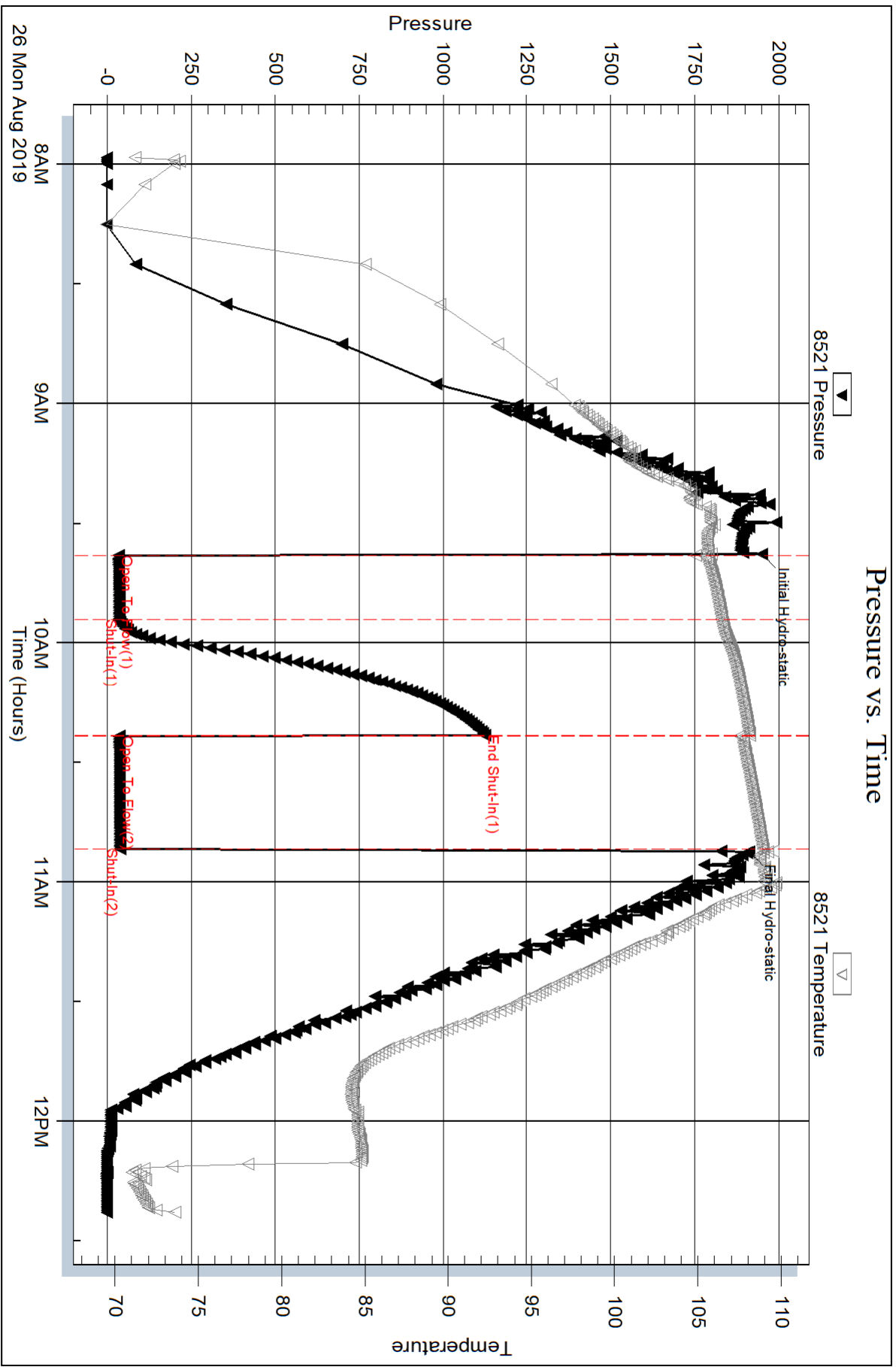
Length ft	Description	Volume bbl
10.00	mud 100% m ...oil spots in tool	0.140

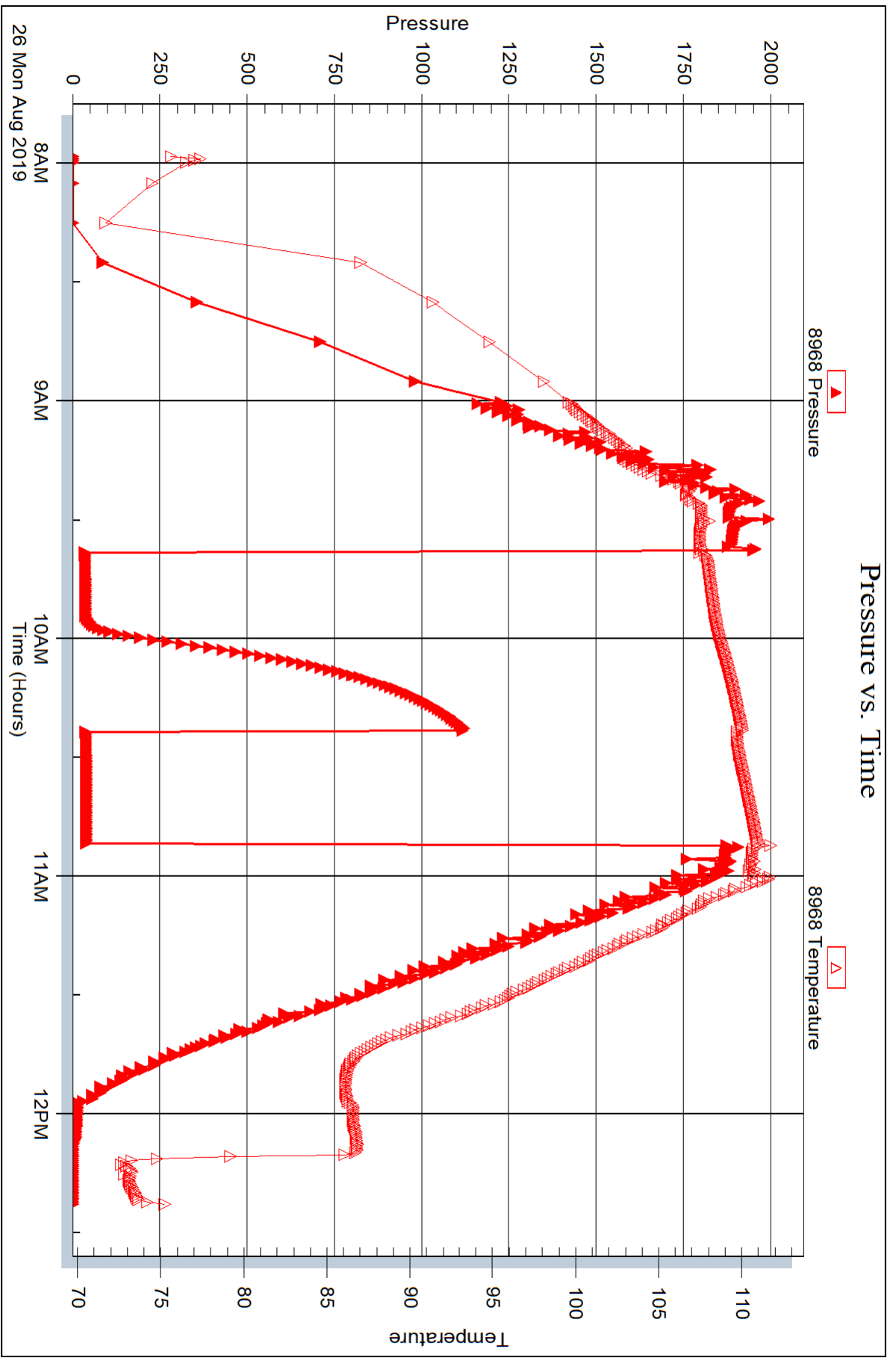
Total Length: 10.00 ft Total Volume: 0.140 bbl

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: Brad Rine

Karlin #1

13-11s-30w Gove,KS

Start Date: 2019.08.26 @ 01:25:15

End Date: 2019.08.26 @ 06:14:15

Job Ticket #: 64847 DST #: 3

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

Printed: 2019.08.29 @ 11:10:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
 Job Ticket: 64847 **DST#: 3**
 Test Start: 2019.08.26 @ 01:25:15

GENERAL INFORMATION:

Formation: **LKC J - K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:24:15
 Time Test Ended: 06:14:15
 Interval: **4122.00 ft (KB) To 4185.00 ft (KB) (TVD)**
 Total Depth: 4185.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2890.00 ft (KB)
 2880.00 ft (CF)
 KB to GR/CF: 10.00 ft

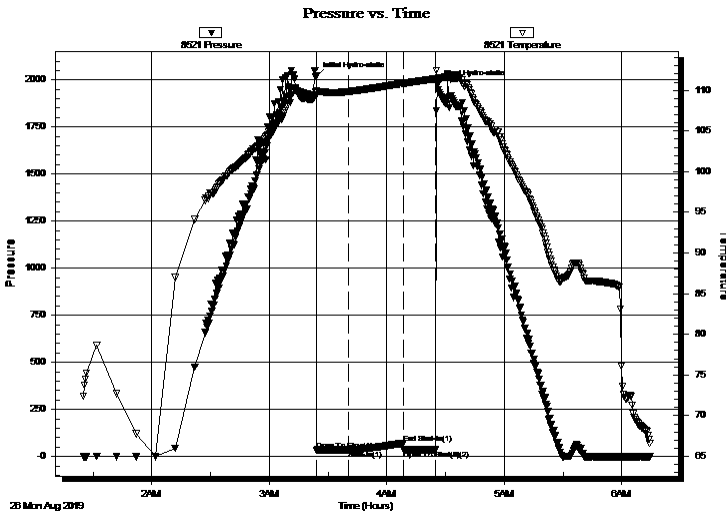
Serial #: 8521

Inside

Press@RunDepth: 35.11 psig @ 4161.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.26 End Date: 2019.08.26 Last Calib.: 2019.08.27
 Start Time: 01:25:15 End Time: 06:14:15 Time On Btm: 2019.08.26 @ 03:24:00
 Time Off Btm: 2019.08.26 @ 04:25:45

TEST COMMENT: IF: Built to 3/4" blow
 IS: No return blow
 FF: Very weak surface blow that died in 5 min.
 FS: Pulled test

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2019.51	109.95	Initial Hydro-static
1	34.46	109.39	Open To Flow (1)
17	35.11	109.84	Shut-In(1)
45	71.94	110.86	End Shut-In(1)
45	35.08	110.82	Open To Flow (2)
61	35.14	111.43	Shut-In(2)
62	1972.49	111.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.07

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

Carmen Schmitt Inc.
 PO Box 47
 Great Bend KS 67530
 ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
 Job Ticket: 64847 **DST#: 3**
 Test Start: 2019.08.26 @ 01:25:15

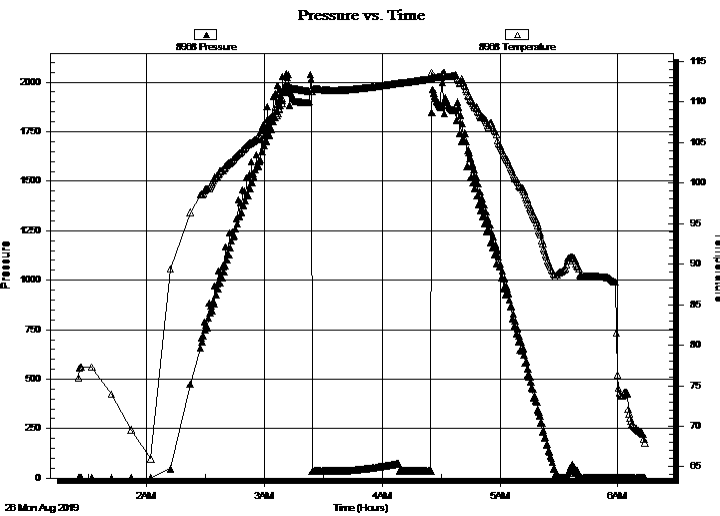
GENERAL INFORMATION:

Formation: **LKC J - K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:24:15
 Time Test Ended: 06:14:15
 Interval: **4122.00 ft (KB) To 4185.00 ft (KB) (TVD)**
 Total Depth: 4185.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2890.00 ft (KB)
 2880.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8968 Outside

Press@RunDepth: psig @ 4161.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.08.26 End Date: 2019.08.26 Last Calib.: 2019.08.27
 Start Time: 01:25:15 End Time: 06:14:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Built to 3/4" blow
 IS: No return blow
 FF: Very weak surface blow that died in 5 min.
 FS: Pulled test



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.07

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.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64847 **DST#: 3**
Test Start: 2019.08.26 @ 01:25:15

Tool Information

Drill Pipe:	Length: 4122.00 ft	Diameter: 3.80 inches	Volume: 57.82 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 57.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4122.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	91.00 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			4095.00	
Shut In Tool	5.00			4100.00	
Hydraulic tool	5.00			4105.00	
Jars	5.00			4110.00	
Safety Joint	3.00			4113.00	
Packer	5.00			4118.00	28.00 Bottom Of Top Packer
Packer	4.00			4122.00	
Stubb	1.00			4123.00	
Perforations	4.00			4127.00	
Change Over Sub	1.00			4128.00	
Drill Pipe	32.00			4160.00	
Change Over Sub	1.00			4161.00	
Recorder	0.00	8968	Outside	4161.00	
Recorder	0.00	8521	Inside	4161.00	
Perforations	19.00			4180.00	
Bullnose	5.00			4185.00	63.00 Bottom Packers & Anchor
Total Tool Length:	91.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64847 **DST#: 3**
Test Start: 2019.08.26 @ 01:25:15

Mud and Cushion Information

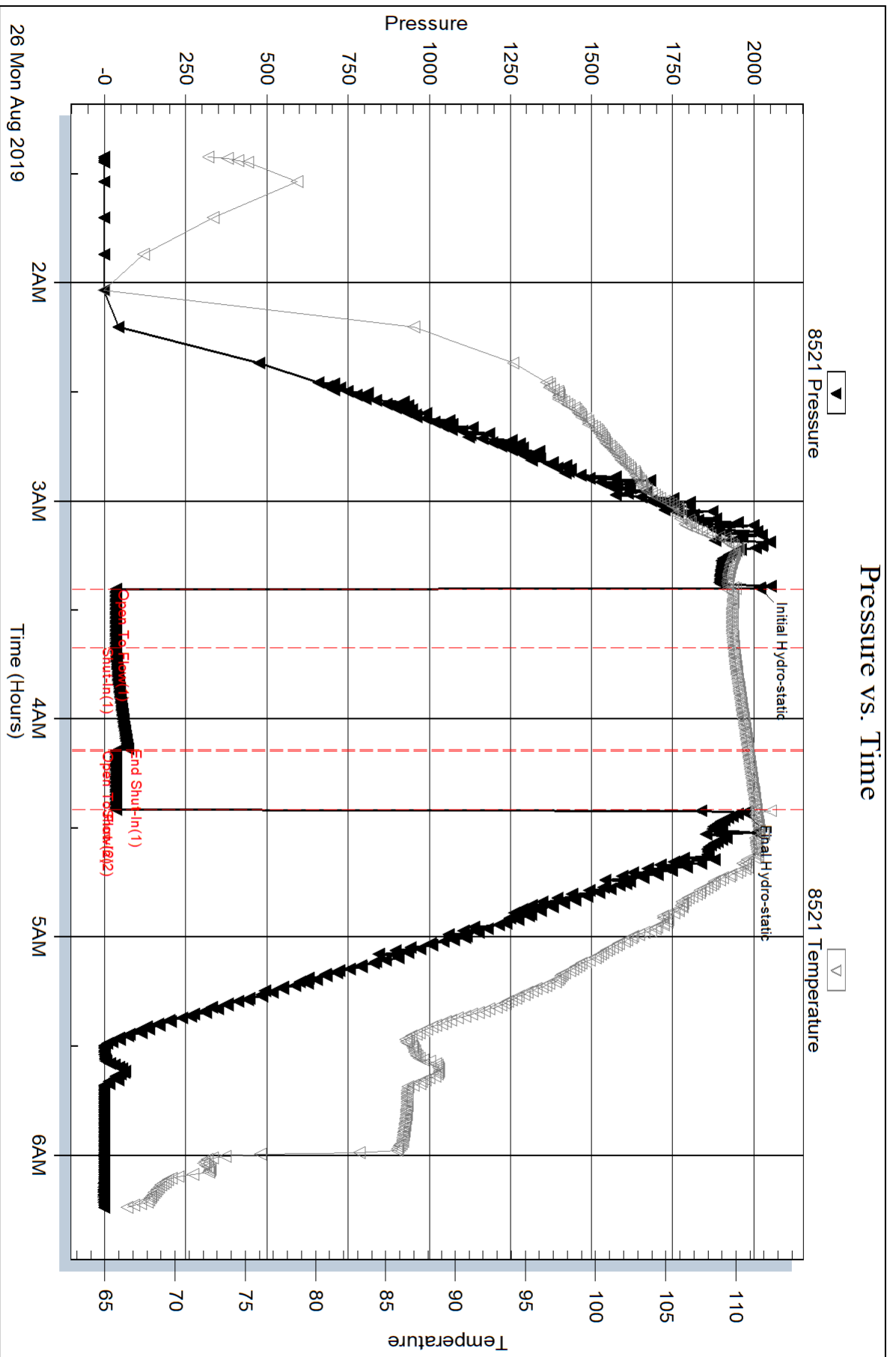
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

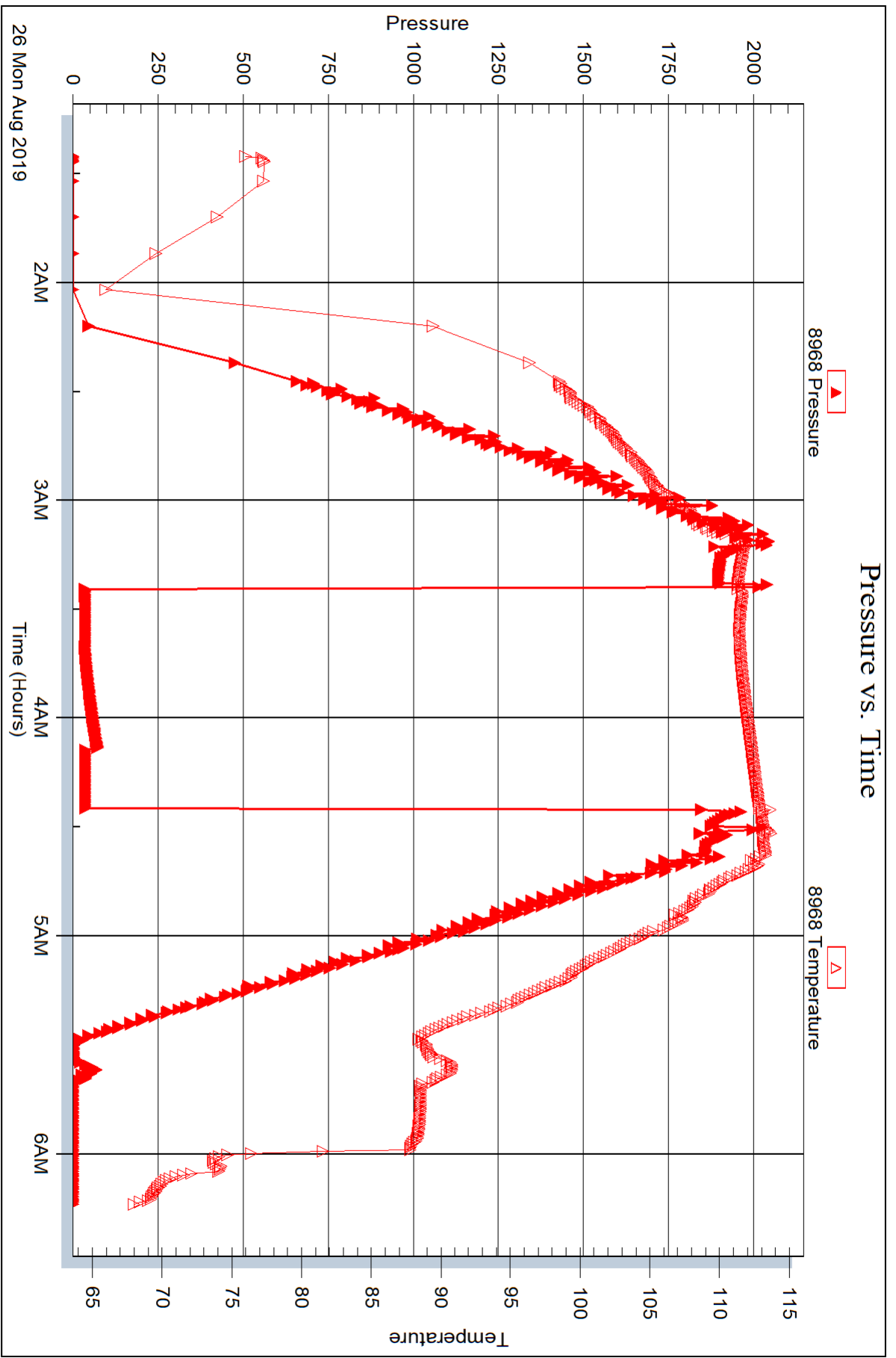
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 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: Brad Rine

Karlin #1

13-11s-30w Gove,KS

Start Date: 2019.08.27 @ 14:28:15

End Date: 2019.08.27 @ 18:36:15

Job Ticket #: 64848 DST #: 4

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

Printed: 2019.08.29 @ 11:09:49



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

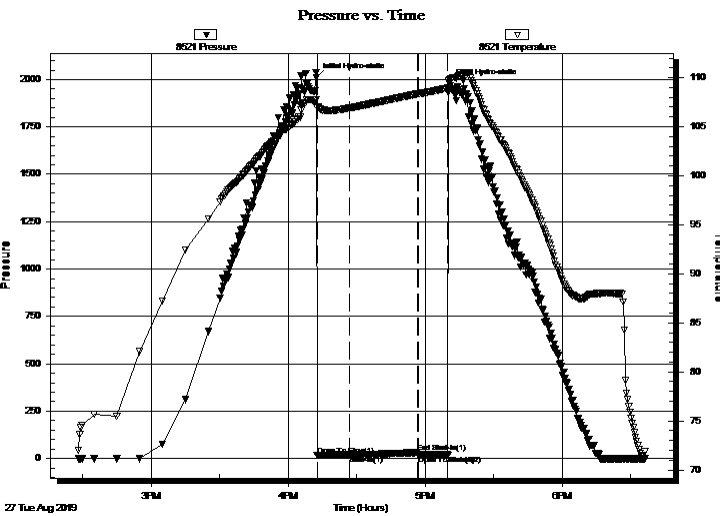
13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64848 **DST#: 4**
Test Start: 2019.08.27 @ 14:28:15

GENERAL INFORMATION:

Formation: **LKC L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:12:45
Time Test Ended: 18:36:15
Interval: **4180.00 ft (KB) To 4220.00 ft (KB) (TVD)**
Total Depth: 4220.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 81
Reference Elevations: 2890.00 ft (KB)
2880.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8521 Inside
Press@RunDepth: 18.87 psig @ 4181.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.08.27 End Date: 2019.08.27 Last Calib.: 2019.08.27
Start Time: 14:28:15 End Time: 18:36:15 Time On Btm: 2019.08.27 @ 16:12:30
Time Off Btm: 2019.08.27 @ 17:10:45

TEST COMMENT: IF: Built to 3/4" blow
IS: No return blow
FF: Very weak surface blow
FS: Pulled test



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.71	107.78	Initial Hydro-static
1	16.89	106.92	Open To Flow (1)
15	18.87	106.91	Shut-In(1)
45	31.47	108.36	End Shut-In(1)
45	18.09	108.36	Open To Flow (2)
58	18.25	108.94	Shut-In(2)
59	1977.74	109.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	mud 100% m	0.04

* 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.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64848 **DST#: 4**
Test Start: 2019.08.27 @ 14:28:15

Tool Information

Drill Pipe:	Length: 4184.00 ft	Diameter: 3.80 inches	Volume: 58.69 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 58.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	4180.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	68.00 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			4153.00	
Shut In Tool	5.00			4158.00	
Hydraulic tool	5.00			4163.00	
Jars	5.00			4168.00	
Safety Joint	3.00			4171.00	
Packer	5.00			4176.00	28.00 Bottom Of Top Packer
Packer	4.00			4180.00	
Stubb	1.00			4181.00	
Recorder	0.00	8968	Outside	4181.00	
Recorder	0.00	8521	Inside	4181.00	
Perforations	34.00			4215.00	
Bullnose	5.00			4220.00	40.00 Bottom Packers & Anchor

Total Tool Length: 68.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt Inc.
PO Box 47
Great Bend KS 67530
ATTN: Brad Rine

13-11s-30w Gove,KS
Karlin #1
Job Ticket: 64848 **DST#: 4**
Test Start: 2019.08.27 @ 14:28:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	mud 100% m	0.042

Total Length: 3.00 ft Total Volume: 0.042 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

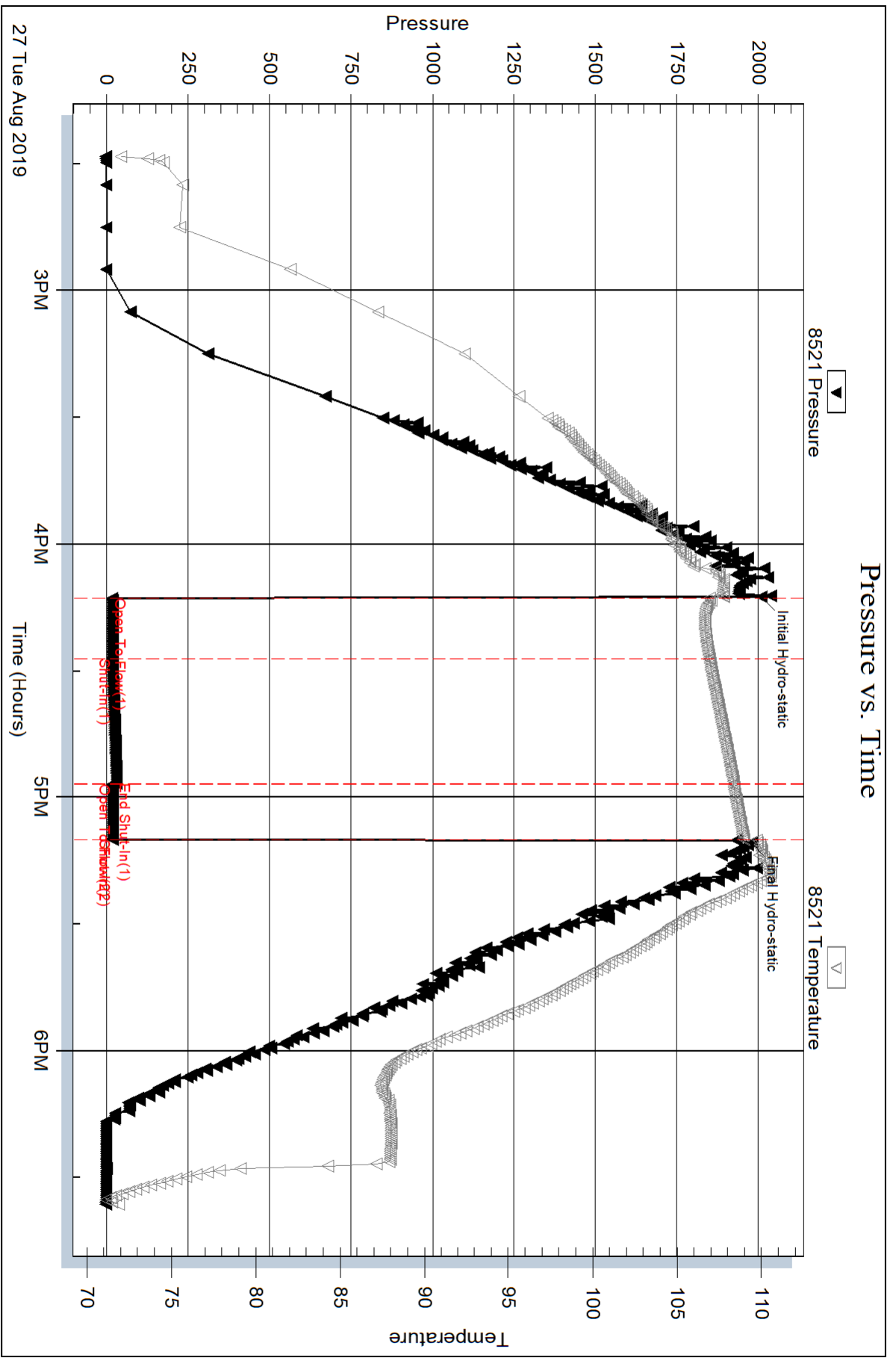
Serial #: 8521

Inside

Carmen Schmitt Inc.

Karlin #1

DST Test Number: 4

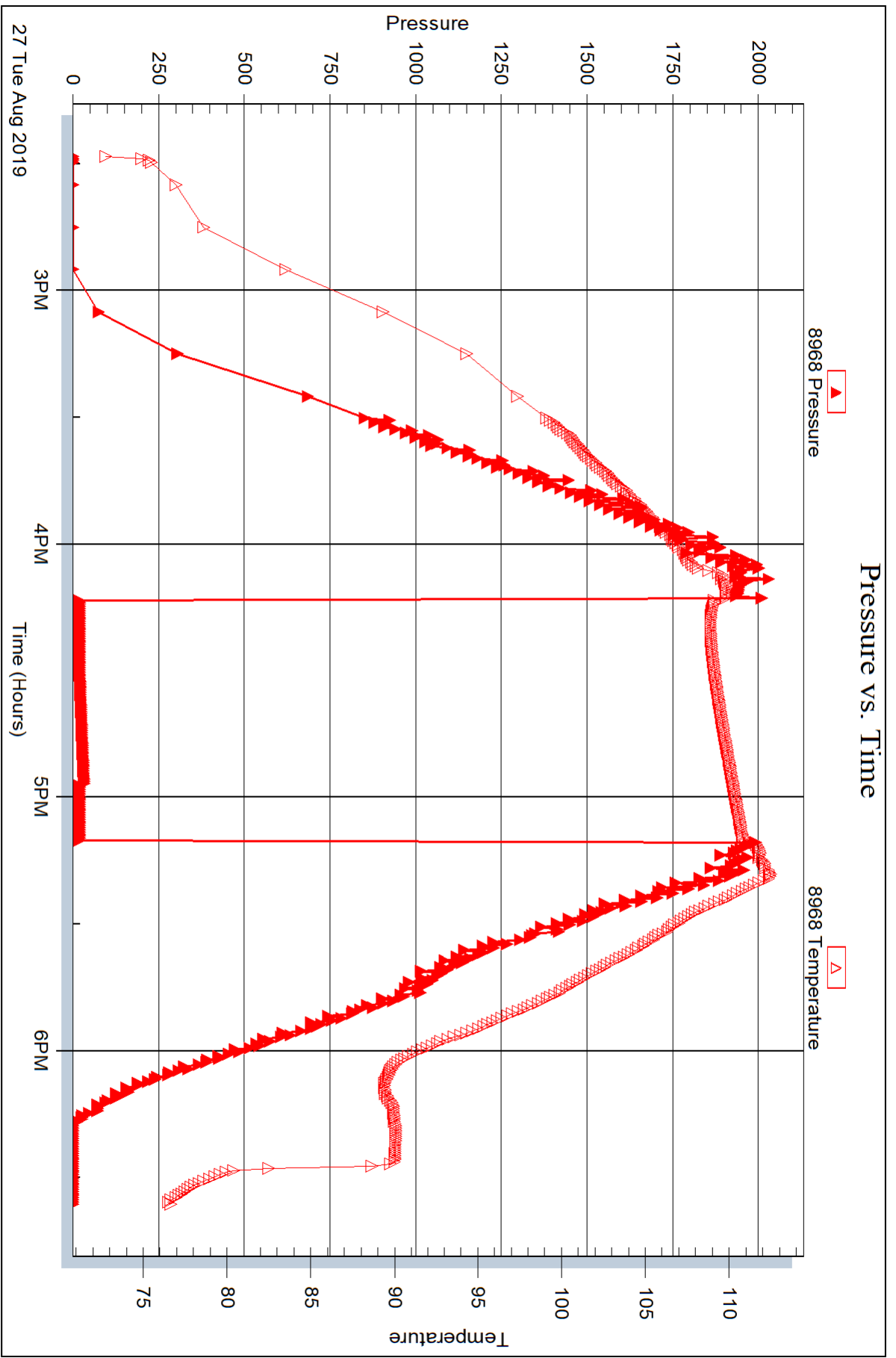


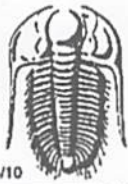
Serial #: 8968

Outside Carmen Schmitt Inc.

Karlin #1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64845

Well Name & No. Karlin #1 Test No. 1 Date 8-24-19
 Company Carmen Schmitt Inc Elevation 2890 KB 2880 GL
 Address P.O. Box 47 Great Bend KS 67530
 Co. Rep / Geo. Brad Rine Rig Southwind 1
 Location: Sec. 13 Twp 11s Rge. 30w Co. Grove State KS

Interval Tested 4004-4024 Zone Tested Lansing E
 Anchor Length 20 Drill Pipe Run 3993 Mud Wt. 9.1
 Top Packer Depth 3999 Drill Collars Run 0 Vis 40
 Bottom Packer Depth 4004 Wt. Pipe Run 0 WL 7.2
 Total Depth 4024 Chlorides 1500 ppm System LCM 1

Blow Description IF: Built to 3'
IS: No Return Blow
FF: BOB 13 Min Built to 40"
FS: Weak Surface that died in 15 Min

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Free Oil</u>	<u>100</u>			
<u>330</u>	<u>OCWM</u>	<u>5</u>	<u>45</u>	<u>50</u>	
<u>248</u>	<u>OCW</u>	<u>5</u>	<u>95</u>		
<u>310</u>	<u>SW</u>				

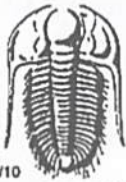
Rec Total 898 BHT 123 Gravity 60 API RW 847 @ 58.8°F Chlorides 10000 ppm

(A) Initial Hydrostatic 1953 Test 1300 T-On Location 20:15
 (B) First Initial Flow 29 Jars 250 T-Started 22:08
 (C) First Final Flow 127 Safety Joint 75 T-Open 23:45
 (D) Initial Shut-In 1226 Circ Sub _____ T-Pulled 03:00
 (E) Second Initial Flow 132 Hourly Standby _____ T-Out 05:42
 (F) Second Final Flow 403 Mileage 124 RT 124 Comments _____
 (G) Final Shut-In 1201 Sampler _____
 (H) Final Hydrostatic 1862 Straddle _____

Initial Open 15 Shale Packer _____ EM Tool _____
 Initial Shut-In 30 Extra Packer _____ Ruined Shale Packer _____
 Final Flow 4560 Extra Recorder _____ Ruined Packer _____
 Final Shut-In 90 Extra Recorder _____ Extra Copies _____
 Sub Total 0
 Total 1749
 Sub Total 1749 MP/DST Disc't _____

Approved By Brad Rine Our Representative Mike Roberts

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. 64846

Well Name & No. Karlin #1 Test No. 2 Date 8-26-19
 Company Carmen Schmitt Inc Elevation 2890 KB 2080 GL
 Address P.O. Box 47 Great Bend KS 67530
 Co. Rep / Geo. Brad Rine Rig Southwind 1
 Location: Sec. 13 Twp 11s Rge. 30w Co. Grove State KS

Interval Tested 4057-4125 Zone Tested H-I
 Anchor Length 68 Drill Pipe Run 4056 Mud Wt. 9.1
 Top Packer Depth 4052 Drill Collars Run 0 Vis 57
 Bottom Packer Depth 4057 Wt. Pipe Run 0 WL 8.0
 Total Depth 4125 Chlorides 2500 ppm System LCM 5
 Blow Description IF: Built to 3/4" & Led to 1/2" Blow
IS: NO Return Blow
FF: Built to Weak Surface Blow
FS: Pulled Test

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud - oil spots in tool</u>			<u>100</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 10 BHT 109 Gravity 1300 API RW 124 @ 124 °F Chlorides 2500 ppm
 (A) Initial Hydrostatic 1950 Test 1300 T-On Location 07:20
 (B) First Initial Flow 33 Jars 250 T-Started 07:58
 (C) First Final Flow 35 Safety Joint 75 T-Open 09:38
 (D) Initial Shut-In 1126 Circ Sub NC T-Pulled 10:53
 (E) Second Initial Flow 36 Hourly Standby _____ T-Out 12:23
 (F) Second Final Flow 37 Mileage 124 RT 124 Comments _____
 (G) Final Shut-In Pulled Test Sampler _____
 (H) Final Hydrostatic 1911 Straddle _____

Initial Open 15 Shale Packer _____ EM Tool _____
 Initial Shut-In 30 Extra Packer _____ Ruined Shale Packer _____
 Final Flow 30 Extra Recorder _____ Ruined Packer _____
 Final Shut-In Pull Day Standby _____ Extra Copies _____
 Sub Total 0 Accessibility _____ Sub Total 0
 Sub Total 1749 Total 1749 MP/DST Disc't _____

Approved By Brad Rine Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64847

Well Name & No. Karlin #1 Test No. 3 Date 8-26-19
 Company Carmen Schmitt Inc Elevation 2890 KB 2880 GL
 Address P.O. Box 47 Great Bend KS 67530
 Co. Rep / Geo. Brad Rine Rig Southwind 1
 Location: Sec. 13 Twp 11s Rge. 30w Co. Gove State KS

Interval Tested 4122-4185 Zone Tested J+k
 Anchor Length 63 Drill Pipe Run 4122 Mud Wt. 9.0
 Top Packer Depth 4117 Drill Collars Run Ø Vis 53
 Bottom Packer Depth 4122 Wt. Pipe Run Ø WL 8.8
 Total Depth 4185 Chlorides 1500 ppm System LCM Ø6
 Blow Description IF: Built to 3/4" Blow
IS: No Return Blow
FF: Weak surface Blow died in 5 min
FS: Pulled Test

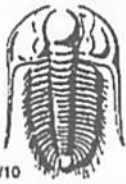
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MVP</u>			<u>100</u>	

Rec Total 5 BHT 111 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2019</u>	<input checked="" type="checkbox"/> Test <u>1300</u>	T-On Location <u>21:30</u>
(B) First Initial Flow <u>34</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>01:25</u>
(C) First Final Flow <u>35</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>03:24</u>
(D) Initial Shut-In <u>71</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>04:20</u>
(E) Second Initial Flow <u>35</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>06:14</u>
(F) Second Final Flow <u>35</u>	<input checked="" type="checkbox"/> Mileage <u>124 RT</u> 124	Comments
(G) Final Shut-In <u>Pulled Test</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1972</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> EM Tool
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1749</u>
	Sub Total <u>1749</u>	MP/DST Disc't

Approved By Brad Rine Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64848

Well Name & No. Karlin #1 Test No. 4 Date 8-27-19
 Company Carmen Schmitt Inc Elevation 2890 KB 2880 GL
 Address P.O. Box 47 Great Bend KS 67530
 Co. Rep / Geo. Brad Rine Rig Southwind
 Location: Sec. 13 Twp 11s Rge. 30W Co. Grove State KS

Interval Tested 4180-4220 Zone Tested L
 Anchor Length 40 Drill Pipe Run 4184 Mud Wt. 9.0
 Top Packer Depth 4175 Drill Collars Run Ø Vis 49
 Bottom Packer Depth 4180 Wt. Pipe Run Ø WL 8.0
 Total Depth 4220 Chlorides 2200 ppm System LCM 6
 Blow Description IF: Built to 3/4" Blow
IS: NO Return Blow
FF: Weak surface Blow
FS: Pulled Test

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>MUD</u>			<u>100</u>	

Rec Total 3 BHT 109 Gravity API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2009 Test 1300 T-On Location 14:10
 (B) First Initial Flow 16 Jars 250 T-Started 14:28
 (C) First Final Flow 18 Safety Joint 75 T-Open 16:12
 (D) Initial Shut-In 31 Circ Sub NO T-Pulled 17:07
 (E) Second Initial Flow 18 Hourly Standby T-Out 18:36
 (F) Second Final Flow 18 Mileage 124 RT X2 Comments Loaded Tools
 (G) Final Shut-In Pulled Test Sampler 124+124 @ 10:00 8-29-19
 (H) Final Hydrostatic 1977 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby 1.5d 3.5h
 Accessibility

Initial Open 15
 Initial Shut-In 30
 Final Flow 10
 Final Shut-In Pull
 Sub Total 800
 Total 2673
 Sub Total 1873 MP/DST Disc't

Approved By Brad Rine Our Representative Mike Roberts

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