



DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206

ATTN: Leah Kasten

Woelk #1-19

19-13s-14w Russell,KS

Start Date: 2015.01.13 @ 10:50:00

End Date: 2015.01.13 @ 15:24:00

Job Ticket #: 61900 DST #: 1

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

Printed: 2015.01.19 @ 10:27:50

CMX Inc
19-13s-14w Russell,KS
Woelk #1-19
DST # 1
Topeka
2015.01.13



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkwy Bldg 300 B
 Wichita KS 67206
 ATTN: Leah Kasten

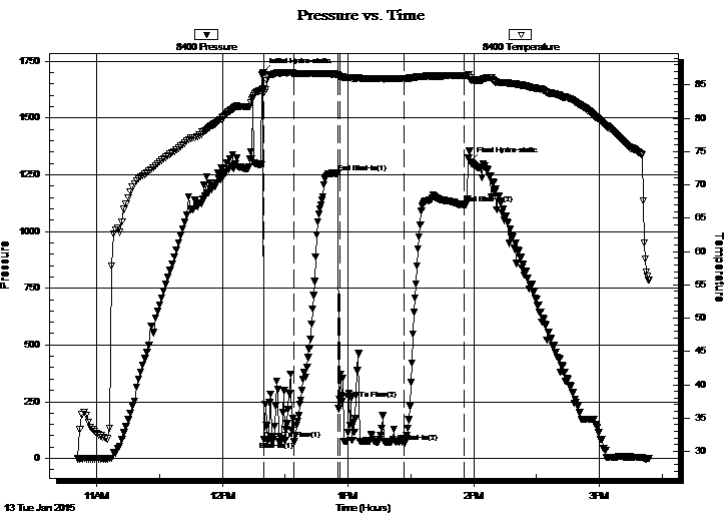
19-13s-14w Russell,KS
Woelk #1-19
 Job Ticket: 61900 **DST#: 1**
 Test Start: 2015.01.13 @ 10:50:00

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:20:00
 Time Test Ended: 15:24:00
 Interval: **2725.00 ft (KB) To 2762.00 ft (KB) (TVD)**
 Total Depth: 2762.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 55
 Reference Elevations: 1857.00 ft (KB)
 1849.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8400 Inside
 Press@RunDepth: 72.16 psig @ 2758.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2015.01.13 End Date: 2015.01.13 Last Calib.: 2015.01.13
 Start Time: 10:51:00 End Time: 15:24:00 Time On Btm: 2015.01.13 @ 12:19:30
 Time Off Btm: 2015.01.13 @ 13:58:30

TEST COMMENT: IFP-15 Minutes-Weak surface blow did not build
 ISIP-20 Minutes-No blow back
 FFP-30 Minutes-Very weak blow did not build
 FSIP-30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.84	84.44	Initial Hydro-static
1	83.18	83.86	Open To Flow (1)
15	74.17	86.73	Shut-In(1)
36	1257.13	86.59	End Shut-In(1)
37	260.55	86.22	Open To Flow (2)
67	72.16	85.95	Shut-In(2)
96	1120.31	86.42	End Shut-In(2)
99	1307.09	85.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell, KS
Woelk #1-19
Job Ticket: 61900 **DST#: 1**
Test Start: 2015.01.13 @ 10:50:00

Tool Information

Drill Pipe:	Length: 2723.00 ft	Diameter: 3.80 inches	Volume: 38.20 bbl	Tool Weight: 1000.00 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: 55000.00 lb
			<u>Total Volume: 38.20 bbl</u>	Tool Chased 16000.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2725.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 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
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			2702.00	
Hydraulic tool	5.00			2707.00	
Jars	6.00			2713.00	
Safety Joint	2.00			2715.00	
Packer	5.00			2720.00	28.00 Bottom Of Top Packer
Packer	5.00			2725.00	
Anchor	32.00			2757.00	
Recorder	1.00	8400	Inside	2758.00	
Recorder	1.00	6999	Outside	2759.00	
Bullnose	3.00			2762.00	37.00 Bottom Packers & Anchor
Total Tool Length:	65.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc

19-13s-14w Russell,KS

1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206

Woelk #1-19

Job Ticket: 61900

DST#: 1

ATTN: Leah Kasten

Test Start: 2015.01.13 @ 10:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 0.50 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0

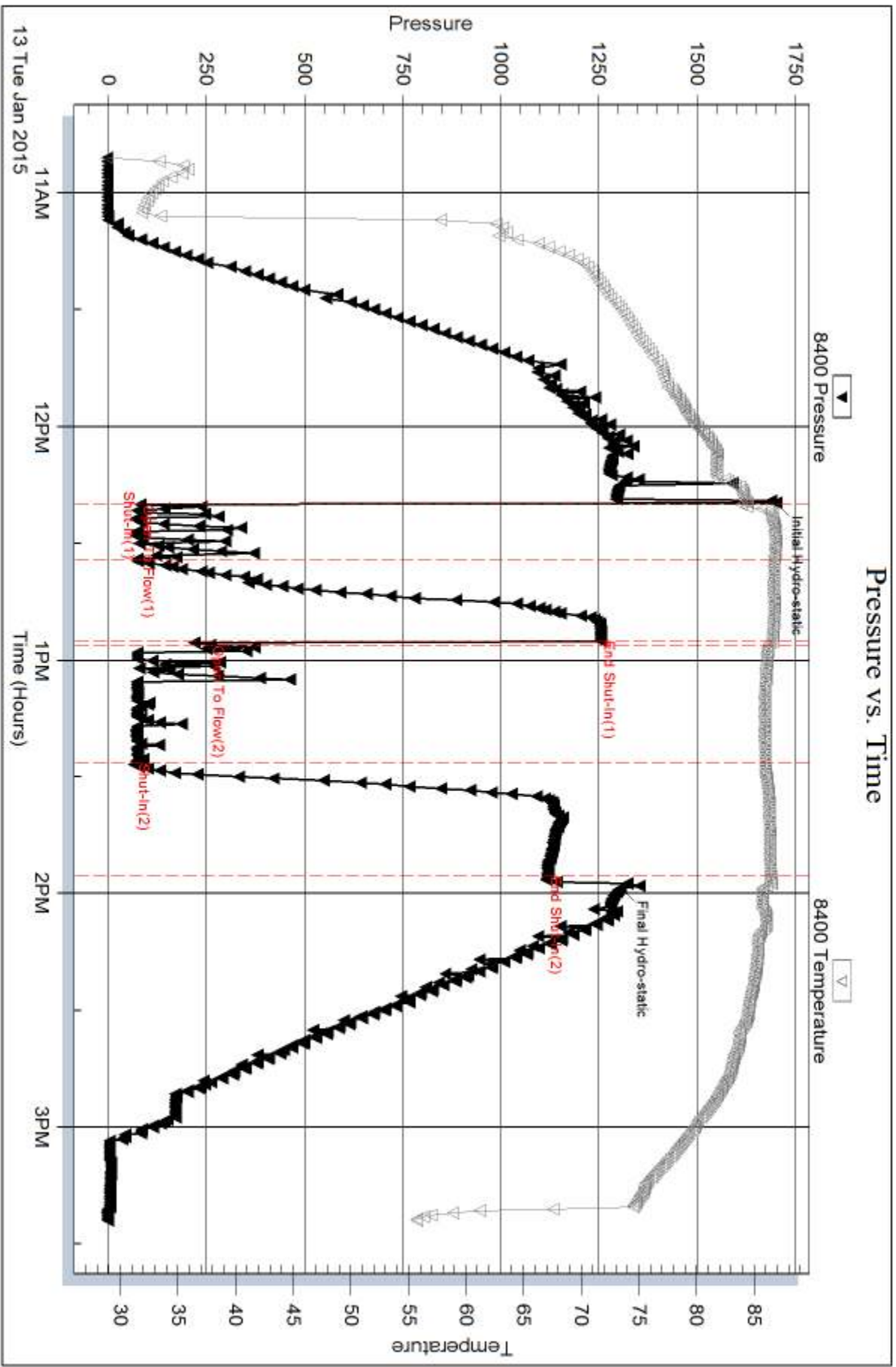
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206

ATTN: Leah Kasten

Woelk #1-19

19-13s-14w Russell,KS

Start Date: 2015.01.14 @ 15:50:00

End Date: 2015.01.14 @ 22:27:00

Job Ticket #: 62901 DST #: 2

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

Printed: 2015.01.19 @ 10:27:27

CMX Inc
19-13s-14w Russell,KS
Woelk #1-19
DST # 2
LKC A - C
2015.01.14



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

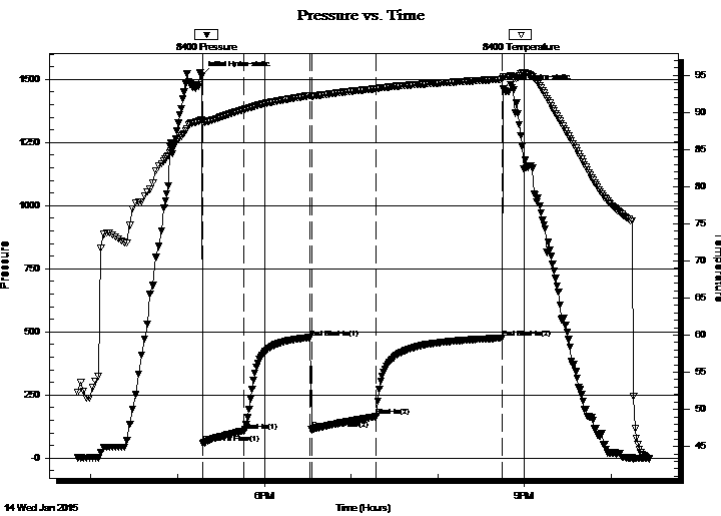
19-13s-14w Russell,KS
Woelk #1-19
Job Ticket: 62901 **DST#: 2**
Test Start: 2015.01.14 @ 15:50:00

GENERAL INFORMATION:

Formation: **LKC A - C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:17:30
Time Test Ended: 22:27:00
Interval: **2997.00 ft (KB) To 3071.00 ft (KB) (TVD)**
Total Depth: 3071.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1857.00 ft (KB)
1849.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8400 Inside
Press@RunDepth: 167.07 psig @ 3067.00 ft (KB) Capacity: 5000.00 psig
Start Date: 2015.01.14 End Date: 2015.01.14 Last Calib.: 2015.01.14
Start Time: 15:51:00 End Time: 22:27:00 Time On Btm: 2015.01.14 @ 17:16:30
Time Off Btm: 2015.01.14 @ 20:45:30

TEST COMMENT: IFP-30 Minutes-Strong blow built bottom of bucket in 12 1/2 minutes
ISIP-45 Minutes-2 inch blow back
FFP-45 Minutes-Strong blow built bottom of bucket in 6 1/2 minutes
FFP-90 Minutes-3 1/2 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1512.93	88.95	Initial Hydro-static
1	58.14	88.65	Open To Flow (1)
30	107.88	90.38	Shut-In(1)
75	477.06	92.24	End Shut-In(1)
76	113.01	92.16	Open To Flow (2)
121	167.07	93.18	Shut-In(2)
208	475.64	94.46	End Shut-In(2)
209	1464.35	94.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mw 80%w ater 20%mud	0.84
60.00	mw 70%w ater 20%mud	0.84
60.00	mw 50%w ater 50%mud	0.84
30.00	o w m 60%oil 30%mud 10%w ater	0.42
0.00	240 feet gas in pipe	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkwy Bldg 300 B
 Wichita KS 67206
 ATTN: Leah Kasten

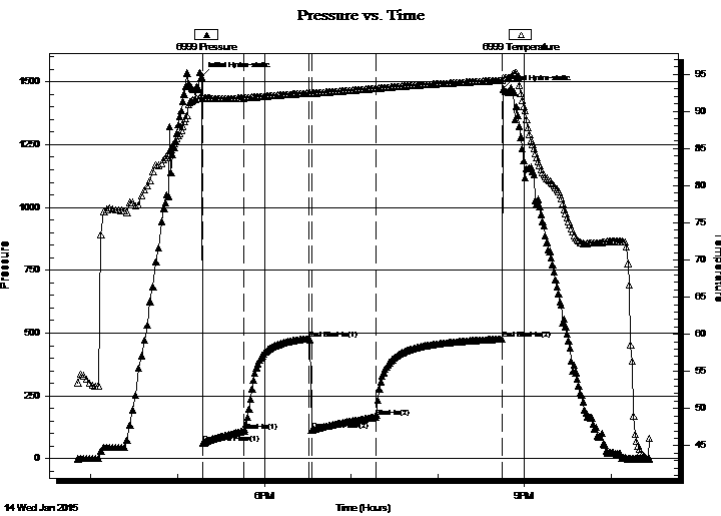
19-13s-14w Russell, KS
Woelk #1-19
 Job Ticket: 62901 **DST#: 2**
 Test Start: 2015.01.14 @ 15:50:00

GENERAL INFORMATION:

Formation: **LKC A - C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:17:30
 Time Test Ended: 22:27:00
 Interval: **2997.00 ft (KB) To 3071.00 ft (KB) (TVD)**
 Total Depth: 3071.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 55
 Reference Elevations: 1857.00 ft (KB)
 1849.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6999 Outside
 Press@RunDepth: 476.24 psig @ 3068.00 ft (KB) Capacity: psig
 Start Date: 2015.01.14 End Date: 2015.01.14 Last Calib.: 2015.01.14
 Start Time: 15:51:00 End Time: 22:26:30 Time On Btm: 2015.01.14 @ 17:16:30
 Time Off Btm: 2015.01.14 @ 20:45:30

TEST COMMENT: IFP-30 Minutes-Strong blow built bottom of bucket in 12 1/2 minutes
 ISIP-45 Minutes-2 inch blow back
 FFP-45 Minutes-Strong blow built bottom of bucket in 6 1/2 minutes
 FFP-90 Minutes-3 1/2 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1519.54	92.08	Initial Hydro-static
1	60.40	91.82	Open To Flow (1)
30	108.27	91.79	Shut-In(1)
75	478.11	92.47	End Shut-In(1)
76	113.27	92.43	Open To Flow (2)
121	165.44	93.06	Shut-In(2)
208	476.24	94.18	End Shut-In(2)
209	1470.87	94.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mw 80%w ater 20%mud	0.84
60.00	mw 70%w ater 20%mud	0.84
60.00	mw 50%w ater 50%mud	0.84
30.00	o w m 60%oil 30%mud 10%w ater	0.42
0.00	240 feet gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkw y Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell,KS
Woelk #1-19
Job Ticket: 62901 **DST#: 2**
Test Start: 2015.01.14 @ 15:50:00

Tool Information

Drill Pipe:	Length: 3002.00 ft	Diameter: 3.80 inches	Volume: 42.11 bbl	Tool Weight: 1000.00 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: 55000.00 lb
			<u>Total Volume: 42.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	2997.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			2974.00	
Hydraulic tool	5.00			2979.00	
Jars	6.00			2985.00	
Safety Joint	2.00			2987.00	
Packer	5.00			2992.00	28.00 Bottom Of Top Packer
Packer	5.00			2997.00	
Anchor	1.00			2998.00	
Change Over Sub	0.75			2998.75	
Drill Pipe	31.50			3030.25	
Change Over Sub	0.75			3031.00	
Anchor	35.00			3066.00	
Recorder	1.00	8400	Inside	3067.00	
Recorder	1.00	6999	Outside	3068.00	
Bullnose	3.00			3071.00	74.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell,KS
Woelk #1-19
Job Ticket: 62901 **DST#: 2**
Test Start: 2015.01.14 @ 15:50:00

Mud and Cushion Information

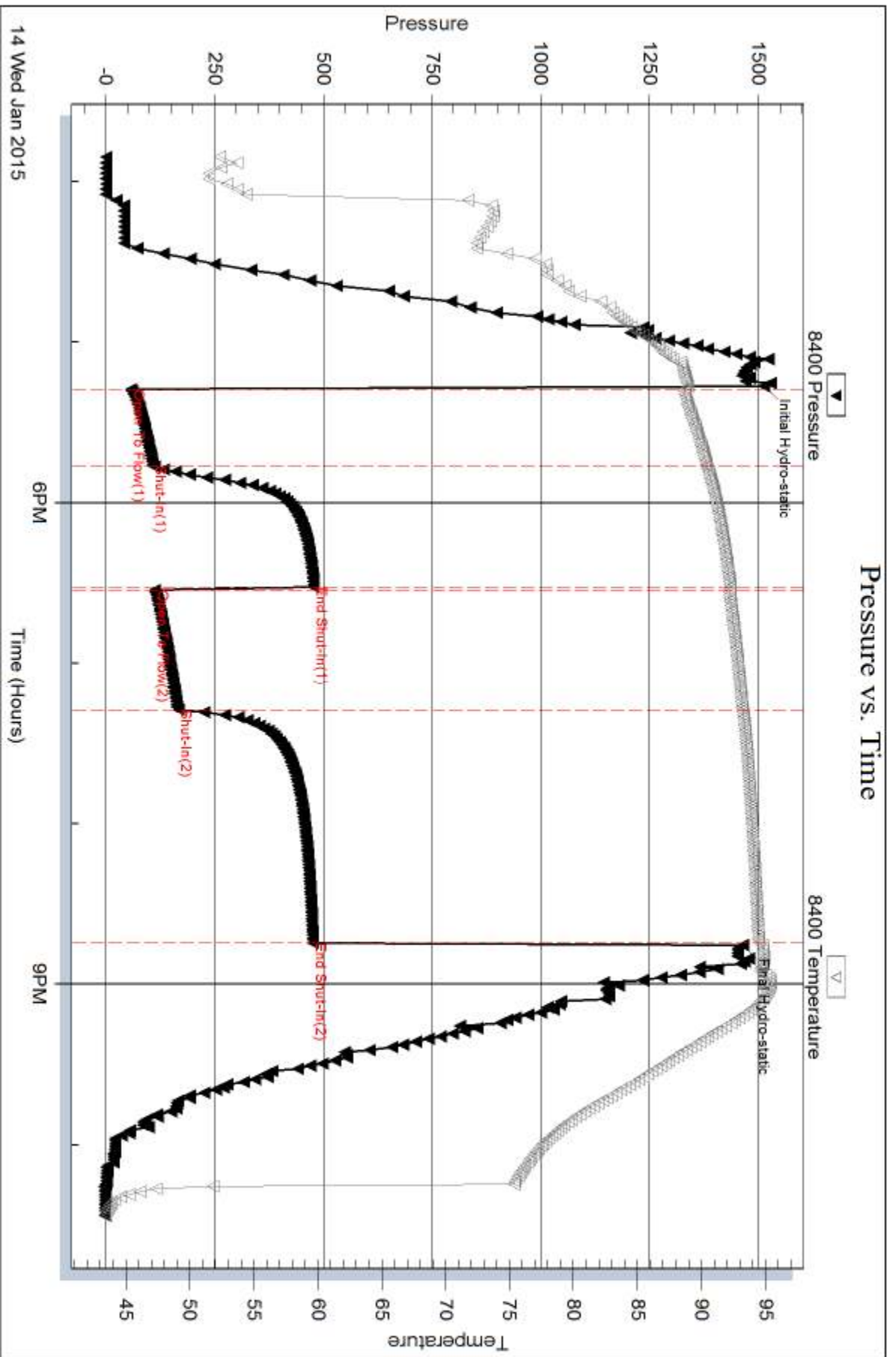
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	35000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5500.00 ppm			
Filter Cake: 1.00 inches			

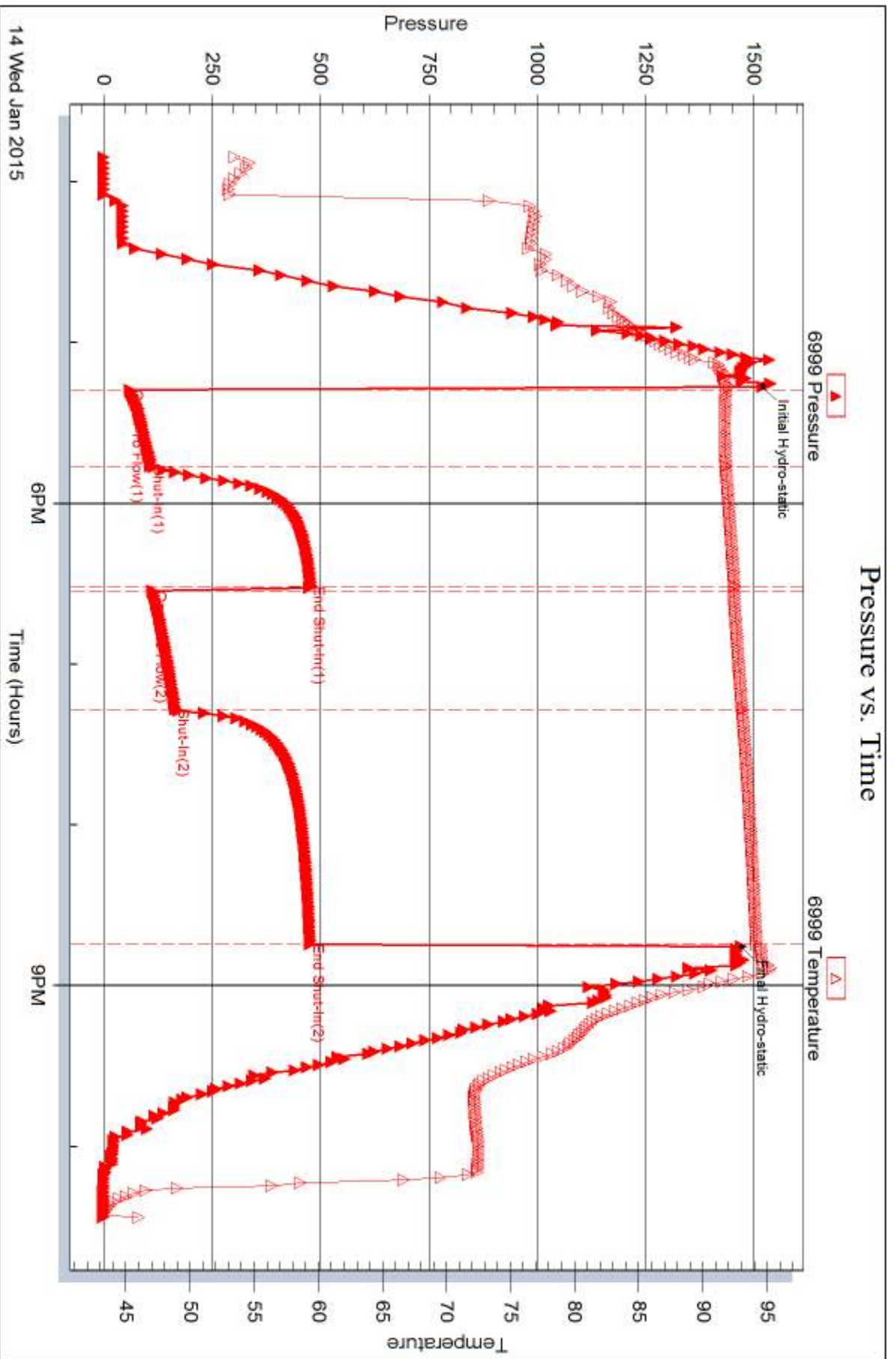
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	mw 80%w ater 20%mud	0.842
60.00	mw 70%w ater 20%mud	0.842
60.00	mw 50%w ater 50%mud	0.842
30.00	o w m 60%oil 30%mud 10%w ater	0.421
0.00	240 feet gas in pipe	0.000

Total Length: 210.00 ft Total Volume: 2.947 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: chlorideds 35,000







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206

ATTN: Leah Kasten

Woelk #1-19

19-13s-14w Russell,KS

Start Date: 2015.01.15 @ 18:50:00

End Date: 2015.01.15 @ 23:38:30

Job Ticket #: 62902 DST #: 3

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

Printed: 2015.01.19 @ 10:27:05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkwy Bldg 300 B
 Wichita KS 67206
 ATTN: Leah Kasten

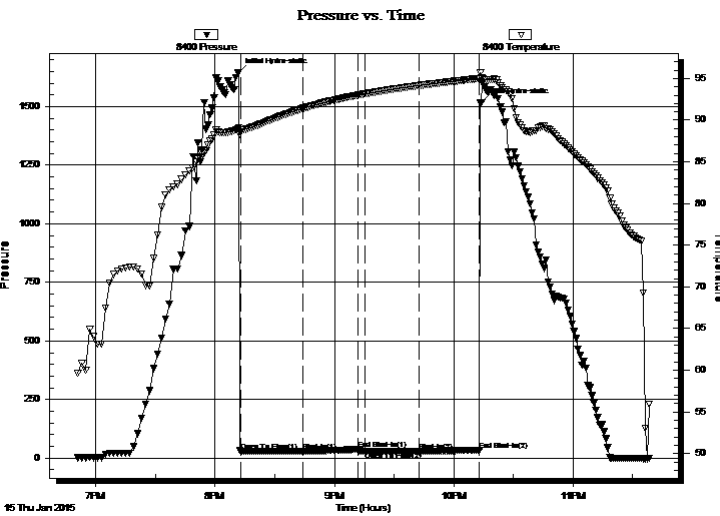
19-13s-14w Russell,KS
Woelk #1-19
 Job Ticket: 62902 **DST#: 3**
 Test Start: 2015.01.15 @ 18:50:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:13:00
 Time Test Ended: 23:38:30
 Interval: **32679.0 ft (KB) To 3295.00 ft (KB) (TVD)**
 Total Depth: 3295.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 55-Great Bend -90
 Reference Elevations: 1857.00 ft (KB)
 1849.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8400 Inside
 Press@RunDepth: 30.06 psig @ 3291.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2015.01.15 End Date: 2015.01.15 Last Calib.: 2015.01.15
 Start Time: 18:51:00 End Time: 23:38:30 Time On Btm: 2015.01.15 @ 20:12:00
 Time Off Btm: 2015.01.15 @ 22:14:00

TEST COMMENT: IFP-30 Minutes-Very weak surface blow built 1/8 inch into water
 ISIP-30 Minutes-No blow back
 FFP-30 Minutes-Very weak surge did not build
 FSIP-30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1645.80	89.06	Initial Hydro-static
1	30.00	88.78	Open To Flow (1)
32	29.08	91.40	Shut-In(1)
60	36.98	93.00	End Shut-In(1)
64	29.97	93.15	Open To Flow (2)
91	30.06	94.15	Shut-In(2)
121	33.92	95.00	End Shut-In(2)
122	1517.77	95.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	mud	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell, KS
Woelk #1-19
Job Ticket: 62902 **DST#: 3**
Test Start: 2015.01.15 @ 18:50:00

Tool Information

Drill Pipe:	Length: 3253.00 ft	Diameter: 3.80 inches	Volume: 45.63 bbl	Tool Weight: 1000.00 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: 55000.00 lb
			<u>Total Volume: 45.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3269.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3246.00	
Hydraulic tool	5.00			3251.00	
Jars	6.00			3257.00	
Safety Joint	2.00			3259.00	
Packer	5.00			3264.00	28.00 Bottom Of Top Packer
Packer	5.00			3269.00	
Anchor	21.00			3290.00	
Recorder	1.00	8400	Inside	3291.00	
Recorder	1.00	6999	Outside	3292.00	
Bullnose	3.00			3295.00	26.00 Bottom Packers & Anchor
Total Tool Length:	54.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell, KS
Woelk #1-19
Job Ticket: 62902 **DST#: 3**
Test Start: 2015.01.15 @ 18:50:00

Mud and Cushion Information

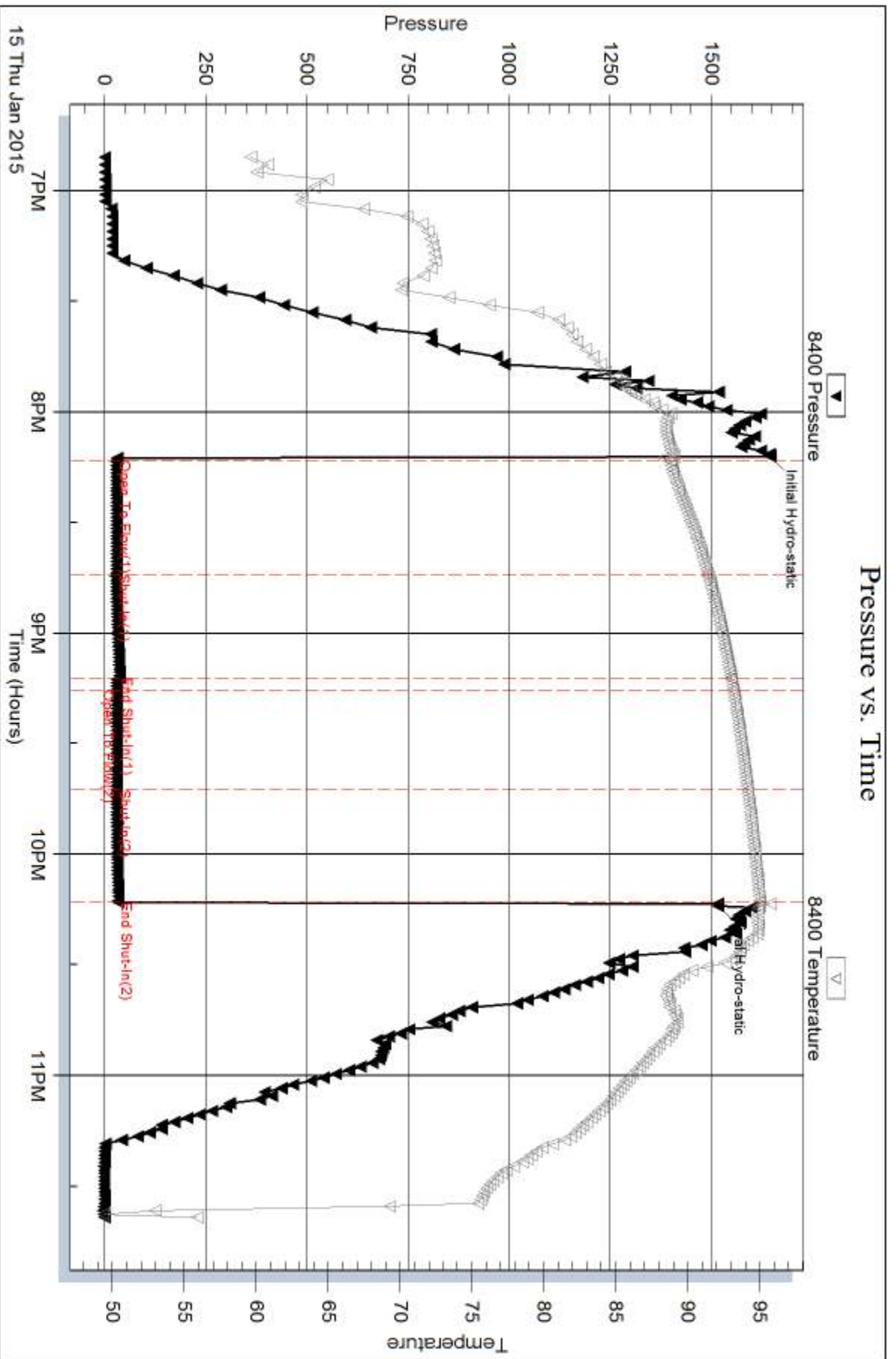
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4200.00 ppm			
Filter Cake: 1.00 inches			

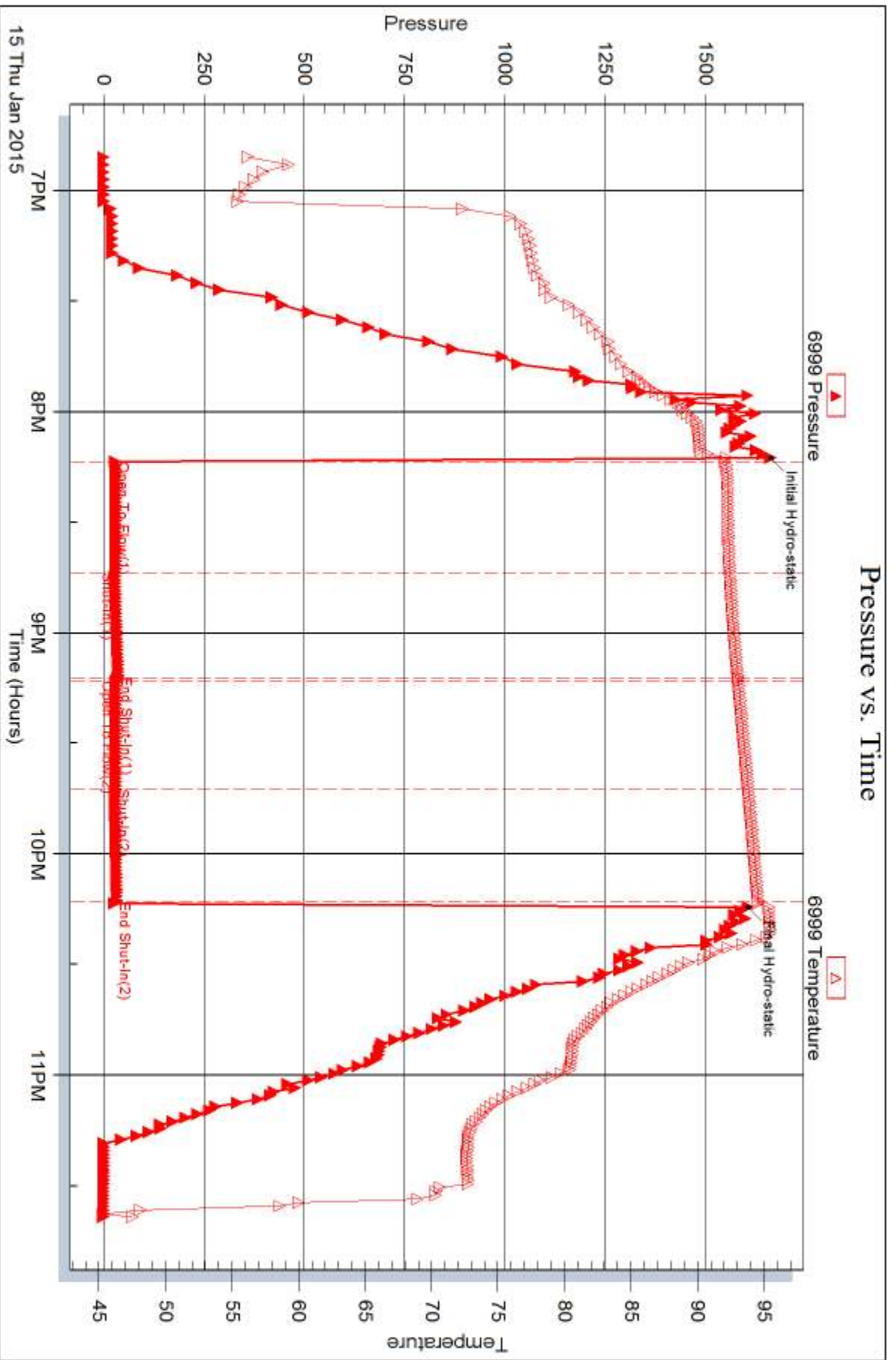
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	mud	0.014

Total Length: 1.00 ft Total Volume: 0.014 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **CMX Inc**

1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206

ATTN: Leah Kasten

Woelk #1-19

19-13s-14w Russell,KS

Start Date: 2015.01.16 @ 05:30:00

End Date: 2015.01.16 @ 12:55:00

Job Ticket #: 62903 DST #: 4

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

Printed: 2015.01.19 @ 10:26:23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

CMX Inc
 1700 N Waterfront Pkwy Bldg 300 B
 Wichita KS 67206
 ATTN: Leah Kasten

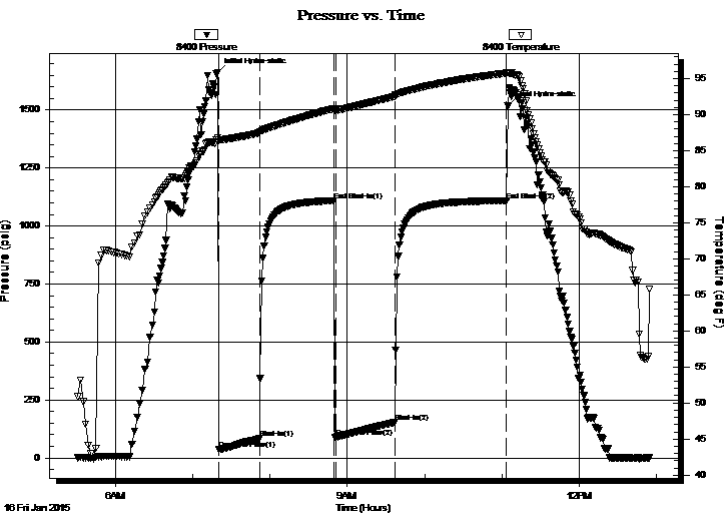
19-13s-14w Russell, KS
Woelk #1-19
 Job Ticket: 62903 **DST#: 4**
 Test Start: 2015.01.16 @ 05:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 07:20:30 Tester: Jared Scheck
 Time Test Ended: 12:55:00 Unit No: 55-Great Bend-90
 Interval: **3269.00 ft (KB) To 3303.00 ft (KB) (TVD)** Reference Elevations: 1857.00 ft (KB)
 Total Depth: 3303.00 ft (KB) (TVD) 1849.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8400 Inside
 Press@RunDepth: 153.88 psig @ 3299.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2015.01.16 End Date: 2015.01.16 Last Calib.: 2015.01.16
 Start Time: 05:31:00 End Time: 12:55:00 Time On Btm: 2015.01.16 @ 07:19:30
 Time Off Btm: 2015.01.16 @ 11:04:30

TEST COMMENT: IFP-30 Minutes-Strong blow built bottom of bucket in 18 minutes
 ISIP-60 Minutes-Very weak blow back
 FFP-45 Minutes-Strong blow built bottom of bucket in 24 minutes
 FSIP-90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1662.59	86.78	Initial Hydro-static
1	38.31	86.47	Open To Flow (1)
33	83.40	87.50	Shut-In(1)
90	1109.14	90.83	End Shut-In(1)
92	88.50	90.60	Open To Flow (2)
138	153.88	92.55	Shut-In(2)
224	1109.52	95.75	End Shut-In(2)
225	1517.58	95.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	100%oil	4.21
60.00	oil mud 40%oil 60%mud	0.84
0.00	120 feet gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell,KS
Woelk #1-19
Job Ticket: 62903 **DST#: 4**
Test Start: 2015.01.16 @ 05:30:00

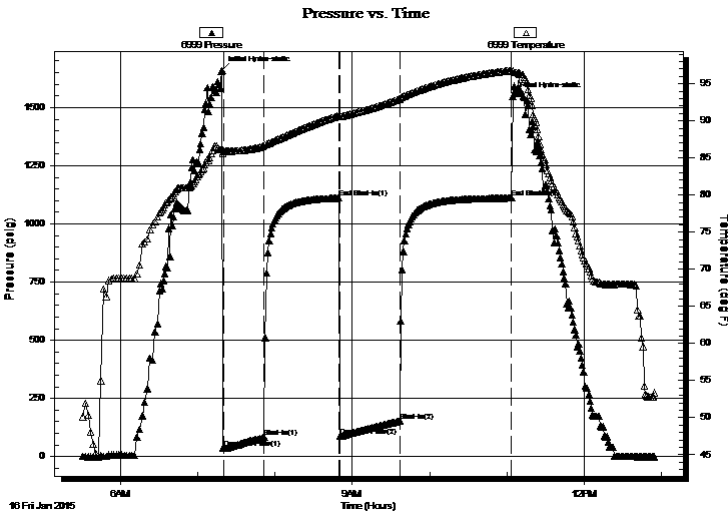
GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:20:30
Time Test Ended: 12:55:00
Interval: **3269.00 ft (KB) To 3303.00 ft (KB) (TVD)**
Total Depth: 3303.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 55-Great Bend-90
Reference Elevations: 1857.00 ft (KB)
1849.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6999 Outside
Press@RunDepth: 1111.35 psig @ 3300.00 ft (KB) Capacity: 5000.00 psig
Start Date: 2015.01.16 End Date: 2015.01.16 Last Calib.: 2015.01.16
Start Time: 05:31:00 End Time: 12:54:30 Time On Btm: 2015.01.16 @ 07:19:00
Time Off Btm: 2015.01.16 @ 11:04:30

TEST COMMENT: IFP-30 Minutes-Strong blow built bottom of bucket in 18 minutes
ISIP-60 Minutes-Very weak blow back
FFP-45 Minutes-Strong blow built bottom of bucket in 24 minutes
FSIP-90 Minutes-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1659.69	86.18	Initial Hydro-static
1	36.03	85.90	Open To Flow (1)
33	82.60	86.61	Shut-In(1)
91	1110.87	90.68	End Shut-In(1)
92	86.67	90.55	Open To Flow (2)
138	153.72	92.97	Shut-In(2)
225	1111.35	96.80	End Shut-In(2)
226	1546.92	96.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	100%oil	4.21
60.00	oil mud 40%oil 60%mud	0.84
0.00	120 feet gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

CMX Inc

19-13s-14w Russell,KS

1700 N Waterfront Pkw y Bldg 300 B
Wichita KS 67206

Woelk #1-19

Job Ticket: 62903

DST#: 4

ATTN: Leah Kasten

Test Start: 2015.01.16 @ 05:30:00

Tool Information

Drill Pipe:	Length: 3259.00 ft	Diameter: 3.80 inches	Volume: 45.72 bbl	Tool Weight:	1000.00 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:	58000.00 lb
			<u>Total Volume: 45.72 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3269.00 ft			Final	52000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	62.00 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			3246.00	
Hydraulic tool	5.00			3251.00	
Jars	6.00			3257.00	
Safety Joint	2.00			3259.00	
Packer	5.00			3264.00	28.00 Bottom Of Top Packer
Packer	5.00			3269.00	
Anchor	29.00			3298.00	
Recorder	1.00	8400	Inside	3299.00	
Recorder	1.00	6999	Outside	3300.00	
Bullnose	3.00			3303.00	34.00 Bottom Packers & Anchor
Total Tool Length:	62.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

CMX Inc
1700 N Waterfront Pkwy Bldg 300 B
Wichita KS 67206
ATTN: Leah Kasten

19-13s-14w Russell, KS
Woelk #1-19
Job Ticket: 62903 **DST#: 4**
Test Start: 2015.01.16 @ 05:30:00

Mud and Cushion Information

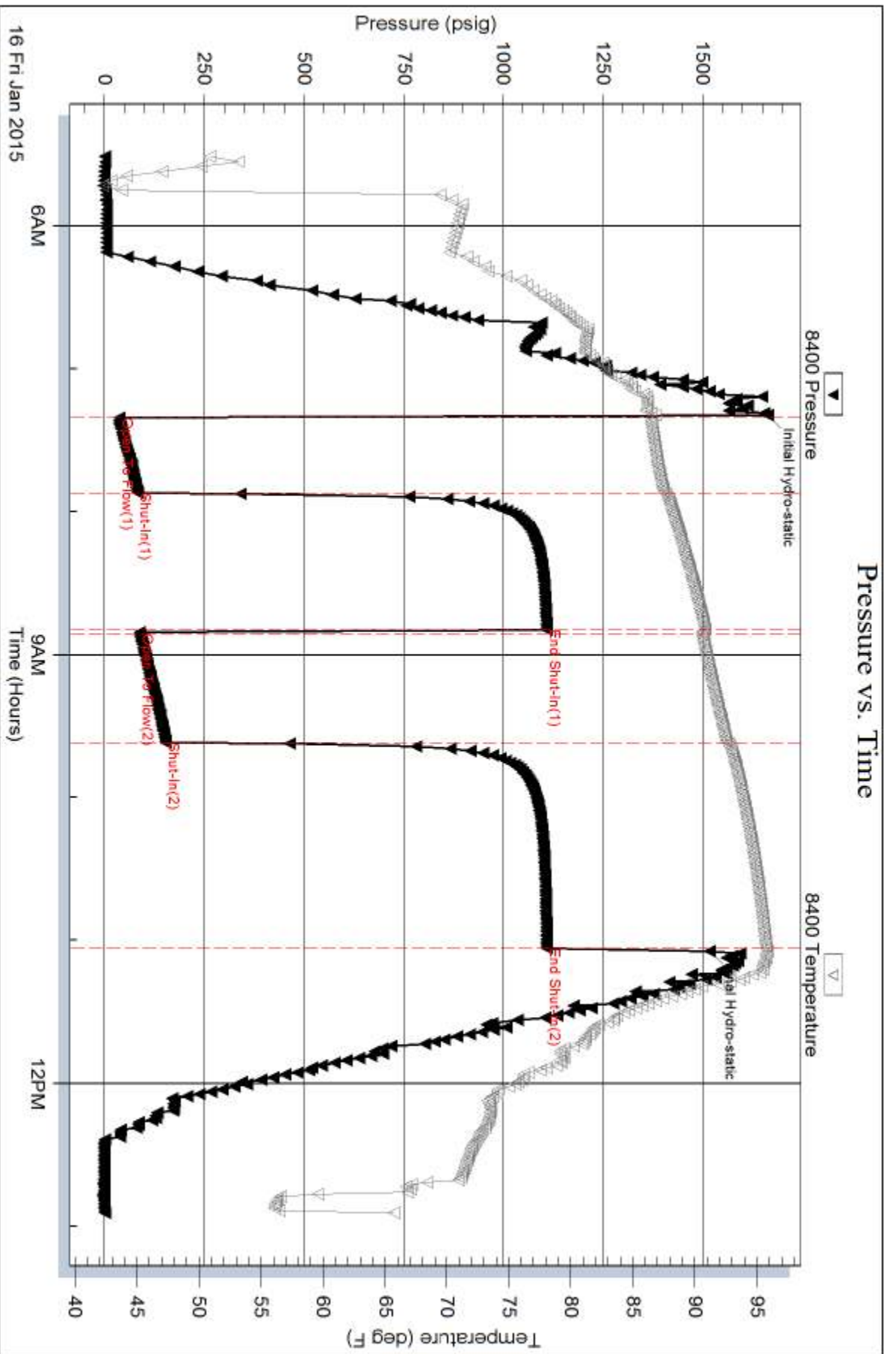
Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.99 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 4200.00 ppm		
Filter Cake: 1.00 inches		

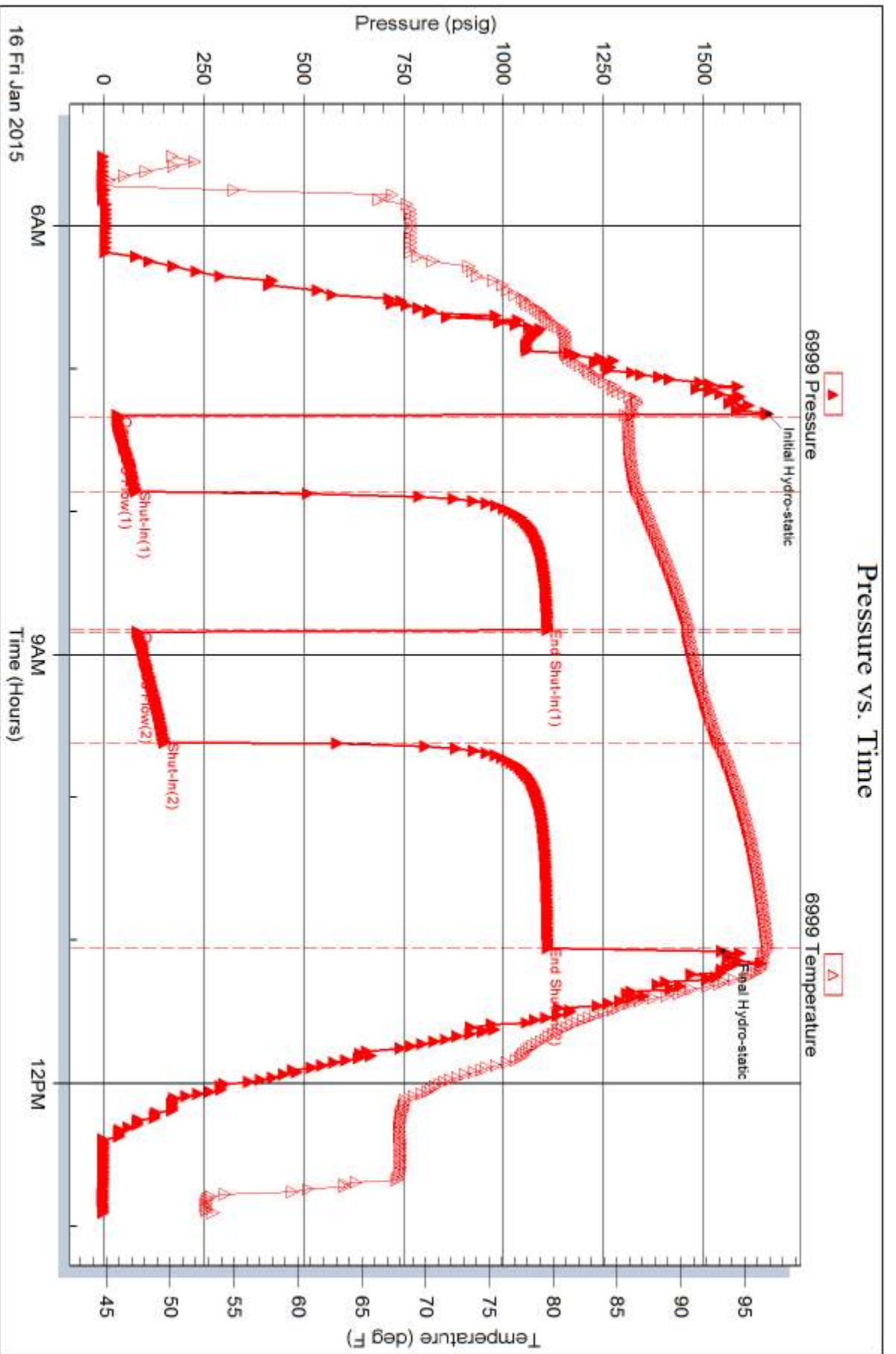
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	100%oil	4.208
60.00	oil mud 40%oil 60%mud	0.842
0.00	120 feet gas in pipe	0.000

Total Length: 360.00 ft Total Volume: 5.050 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61900

Well Name & No. Woeik #1-19 Test No. 1 Date 1-13-2015
 Company CMX Inc Elevation 1857 KB 1849 GL
 Address 1700 N Waterfront PKWY Bldg 300B Wichita KS 67206
 Co. Rep / Geo. Leah Kasten Rig Dulce Drilling R/S #2
 Location: Sec. 19 Twp. 13s Rge. 14w Co. Russell State KS

Interval Tested 2725 - 2762 Zone Tested Topeka
 Anchor Length 37 Drill Pipe Run _____ Mud Wt. 8.5
 Top Packer Depth 2730 Drill Collars Run _____ Vis 8.5
 Bottom Packer Depth 2725 Wt. Pipe Run _____ WL 4.1
 Total Depth 2762 Chlorides _____ ppm System LCM _____

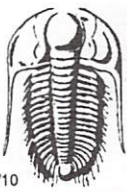
Blow Description IFA - Weak Surface Blow Did not Build
ISIP - NO Blow Back
FFP - Very weak Surface Blow Did not Build
FSIP - NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>				
_____	_____				
_____	_____				
_____	_____				
_____	_____				

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

(A) Initial Hydrostatic 1700 Test 850 T-On Location 9:00am
 (B) First Initial Flow 83 Jars 250 T-Started 10:50am
 (C) First Final Flow 74 Safety Joint 75 T-Open 12:20
 (D) Initial Shut-In 1257 Circ Sub _____ T-Pulled 1:55
 (E) Second Initial Flow 260 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 72 Mileage 90 RTG Great Bend 47 Comments Tool closed 10 feet
 (G) Final Shut-In 1120 Sampler _____
 (H) Final Hydrostatic 1307 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 15 Extra Recorder _____ Sub Total 0
 Initial Shut-In 20 Day Standby _____ Total 1222
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1222

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62901

Well Name & No. Wojcik # 1-19 Test No. 2 Date 1-14-2015
 Company CMX Inc Elevation 1857 KB 1849 GL
 Address 1700 W Waterfront Pkwy Bldg 300B Wichita KS 67206
 Co. Rep / Geo. Leah Kasten Rig Dike Drilling Rig #2
 Location: Sec. 19 Twp. 13S Rge. 14W Co. Russell State KS

Interval Tested 2997 - 3071 Zone Tested Lansing A, B, C
 Anchor Length 74 Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 2992 Drill Collars Run _____ Vis 89
 Bottom Packer Depth 2997 Wt. Pipe Run _____ WL 6.0
 Total Depth 3071 Chlorides 9900 ppm System LCM _____

Blow Description IFP Strong Blow Built Bottom Bucket in 12 minutes
2 SSP - 2 inch Blow Back
IFP - Strong Blow Built Bottom Bucket in 6 minutes
RSP 3 1/2 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>mw</u>			<u>80</u>	<u>20</u>
<u>60</u>	<u>mw</u>			<u>70</u>	<u>30</u>
<u>60</u>	<u>mw</u>			<u>50</u>	<u>50</u>
<u>30</u>	<u>OWM</u>		<u>60</u>	<u>10</u>	<u>30</u>
<u>240</u>	<u>Gas pipe</u>				

Rec Total _____ BHT 94 Gravity _____ API RW _____ @ _____ °F Chlorides 35,000 ppm

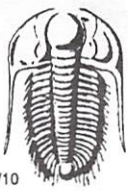
(A) Initial Hydrostatic 1512 Test 1050 T-On Location 3:00pm
 (B) First Initial Flow 58 Jars 250 T-Started 3:50pm
 (C) First Final Flow 107 Safety Joint 75 T-Open 5:20
 (D) Initial Shut-In 477 Circ Sub _____ T-Pulled 8:58
 (E) Second Initial Flow 113 Hourly Standby _____ T-Out 11:00pm
 (F) Second Final Flow 167 Mileage 90 RT 6 feed Bank 47 Comments _____
 (G) Final Shut-In 475 Sampler _____
 (H) Final Hydrostatic 1464 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 90

Sub Total 1422
 Total 1422
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62902

Well Name & No. Woelk # 1-19 Test No. 3 Date 1-15-2015
 Company CMX Inc Elevation 1857 KB 1849 GL
 Address 1700 W Waterfront Pkwy Bldg 300B Wichita KS 67206
 Co. Rep / Geo. Leah Kasten Rig Dike Drilling Rir #2
 Location: Sec. 19 Twp. 13s Rge. 14w Co. Russell State KS

Interval Tested 3269-3295 Zone Tested Arbuckle
 Anchor Length 26 Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 3274 Drill Collars Run _____ Vis 49
 Bottom Packer Depth 3269 Wt. Pipe Run _____ WL 6.0
 Total Depth 3295 Chlorides 4200 ppm System LCM _____

Blow Description IFP- Very Weak Surface Blow Built 1/8 inch to water
ISIP- NO Blow Back
FFP- Very Weak Surge Did not Build
ESIP- NO Blow Back

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

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

(A) Initial Hydrostatic 1645 Test 1050 T-On Location 5:30pm
 (B) First Initial Flow 30 Jars 250 T-Started 6:50pm
 (C) First Final Flow 29 Safety Joint 75 T-Open 8:15pm
 (D) Initial Shut-In 36 Circ Sub _____ T-Pulled 10:15pm
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out 11:38
 (F) Second Final Flow 30 Mileage 90 RT Great Bend 47 Comments _____
 (G) Final Shut-In 33 Sampler _____
 (H) Final Hydrostatic 1517 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1422
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1422

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62903

Well Name & No. Woelk #1-19 Test No. 4 Date 1-2015
 Company CMX Inc Elevation 1857 KB 1849 GL
 Address 1700 N Waterfront Pkwy Bldg 300B Wichita KS 67206
 Co. Rep / Geo. Leah Kasten Rig Dike Drilling Rig #2
 Location: Sec. 19 Twp. 13s Rge. 14w Co. Russell State KS

Interval Tested 3209+3303 Zone Tested Albuckle
 Anchor Length 34 Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth 3264 Drill Collars Run _____ Vis _____
 Bottom Packer Depth 3209 Wt. Pipe Run _____ WL _____
 Total Depth 3303 Chlorides _____ ppm System LCM _____

Blow Description I&F - Strong Blow Built Bottom Bucket in 18 minutes
I&F - Very weak
F&F - Strong Blow Built Bottom of Bucket in 24 minutes
F&F - NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>clean oil</u>		<u>100</u>		
<u>120</u>	<u>clean oil</u>		<u>100</u>		
<u>60</u>	<u>oil mud</u>		<u>40</u>		<u>60</u>
<u>120</u>	<u>Gas in pipe</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity 38 API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>11662</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>4:30</u>
(B) First Initial Flow <u>38</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:30</u>
(C) First Final Flow <u>83</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>7:18</u>
(D) Initial Shut-In <u>1109</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>10:18</u>
(E) Second Initial Flow <u>88</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>12:55</u>
(F) Second Final Flow <u>153</u>	<input checked="" type="checkbox"/> Mileage <u>90 Rt Grad Bed</u> 47	Comments _____
(G) Final Shut-In <u>1109</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1517</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</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>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1422</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1422</u>	

Approved By Leah A. Kasten Our Representative [Signature]

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