



DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W Wichita Ave Box 352
Russell KS 67665-2635

ATTN: Austin Klaus

Anderson #1

20-10s-18w Rooks,KS

Start Date: 2013.11.16 @ 23:54:00

End Date: 2013.11.17 @ 05:31:00

Job Ticket #: 55787 DST #: 1

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

Printed: 2013.11.22 @ 10:26:00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55787 **DST#: 1**
Test Start: 2013.11.16 @ 23:54:00

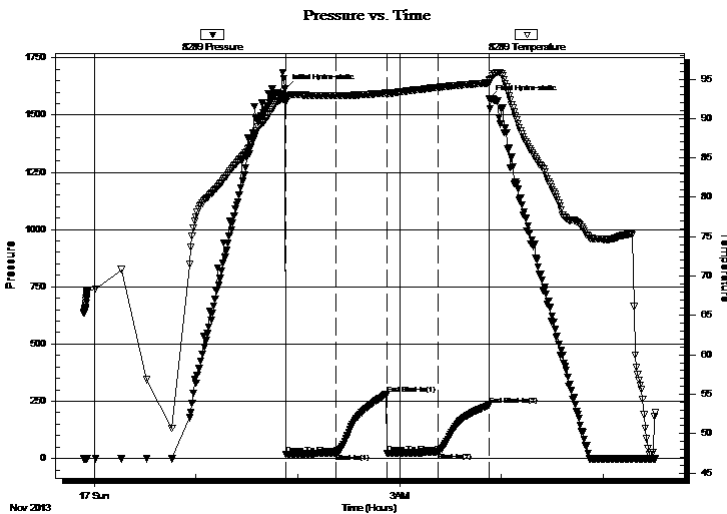
GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: 2176.00 ft (KB)
Time Tool Opened: 01:53:00
Time Test Ended: 05:31:00
Interval: **3364.00 ft (KB) To 3400.00 ft (KB) (TVD)**
Total Depth: 3400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 54
Reference Elevations: 2176.00 ft (KB)
2168.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 Outside
Press@RunDepth: 25.85 psig @ 3365.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.11.16 End Date: 2013.11.17 Last Calib.: 2013.11.17
Start Time: 23:54:02 End Time: 05:31:15 Time On Btm: 2013.11.17 @ 01:52:45
Time Off Btm: 2013.11.17 @ 03:53:00

TEST COMMENT: 30-IFP- Surface Blow Building to 1" in 10min.
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1614.40	92.69	Initial Hydro-static
1	16.78	92.05	Open To Flow (1)
30	21.87	92.86	Shut-In(1)
60	280.38	93.21	End Shut-In(1)
60	22.69	93.06	Open To Flow (2)
90	25.85	93.94	Shut-In(2)
120	231.64	94.52	End Shut-In(2)
121	1569.55	94.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
7.00	OCM 5%o 95%m	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55787 **DST#: 1**
Test Start: 2013.11.16 @ 23:54:00

Tool Information

Drill Pipe:	Length: 3350.00 ft	Diameter: 3.80 inches	Volume: 46.99 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 46.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3364.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	57.00 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			3344.00	
Shut In Tool	5.00			3349.00	
Hydraulic tool	5.00			3354.00	
Packer	5.00			3359.00	21.00 Bottom Of Top Packer
Packer	5.00			3364.00	
Stubb	1.00			3365.00	
Recorder	0.00	8789	Inside	3365.00	
Recorder	0.00	8289	Outside	3365.00	
Perforations	32.00			3397.00	
Bullnose	3.00			3400.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

20-10s-18w Rooks,KS

370 W Wichita Ave Box 352
Russell KS 67665-2635

Anderson #1

Job Ticket: 55787

DST#: 1

ATTN: Austin Klaus

Test Start: 2013.11.16 @ 23:54:00

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: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.36 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 4.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
7.00	OCM 5%o 95%m	0.098

Total Length: 7.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

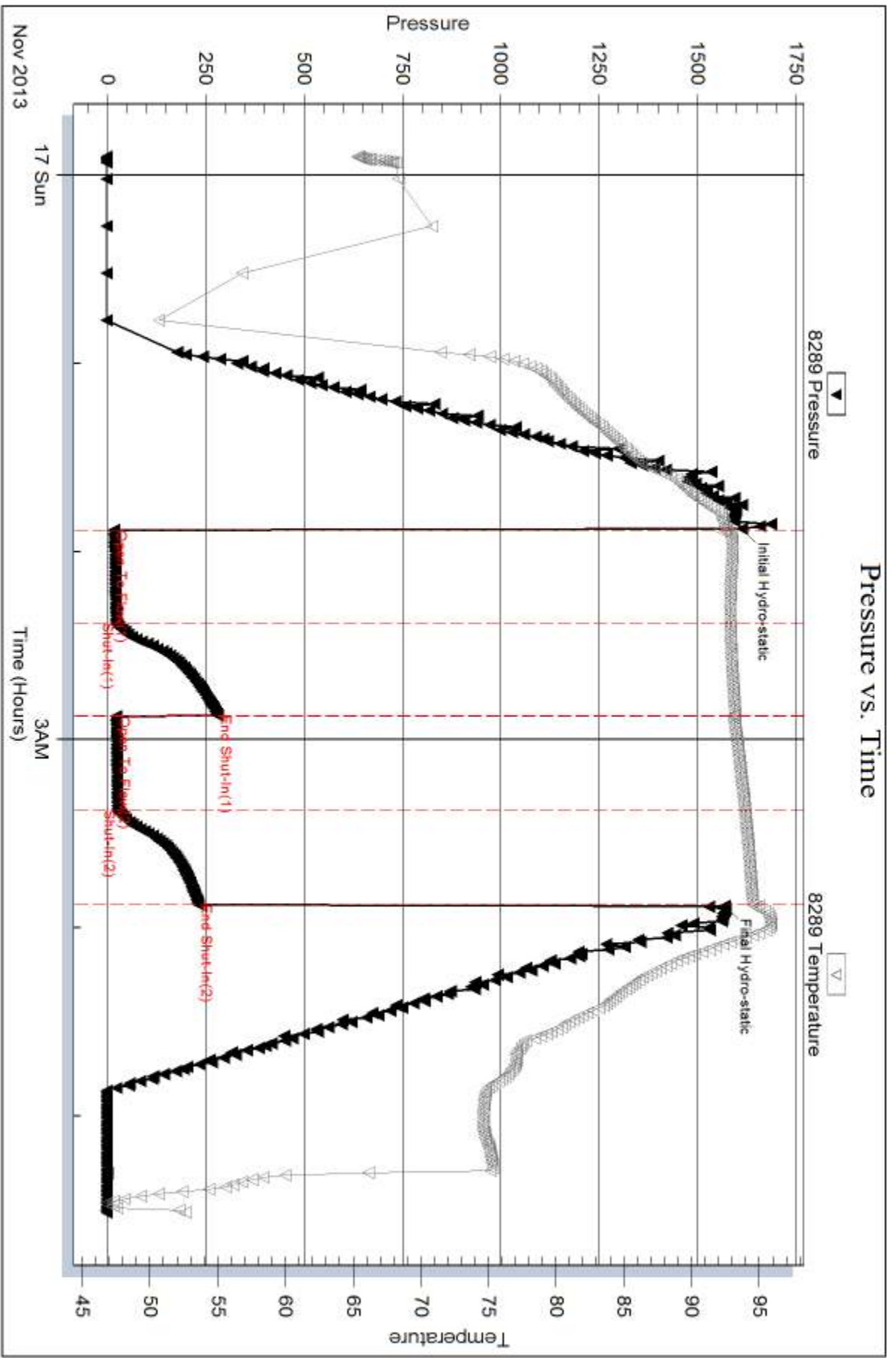
Num Gas Bombs: 0

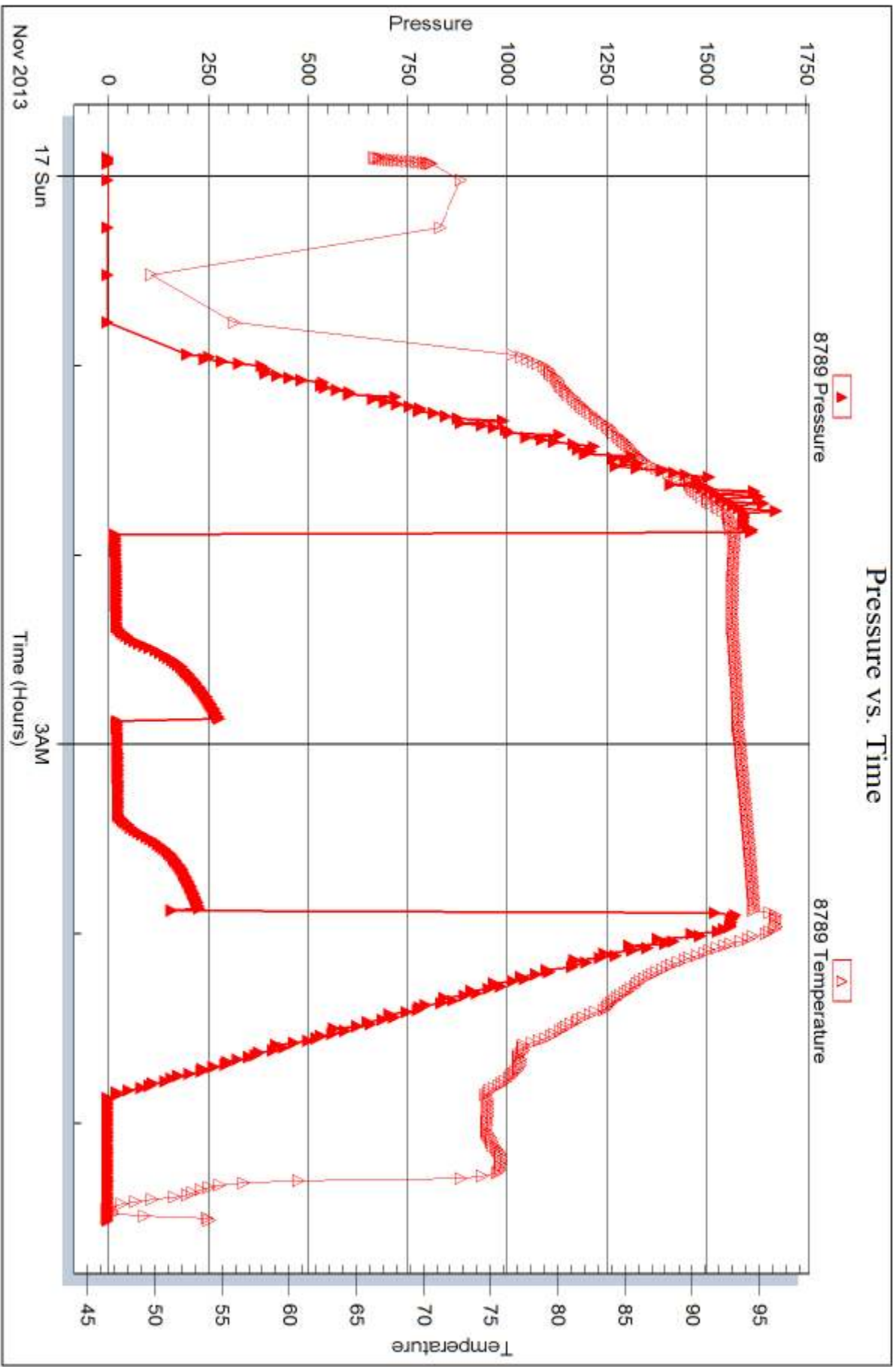
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W Wichita Ave Box 352
Russell KS 67665-2635

ATTN: Austin Klaus

Anderson #1

20-10s-18w Rooks,KS

Start Date: 2013.11.17 @ 15:48:00

End Date: 2013.11.17 @ 22:34:00

Job Ticket #: 55788 DST #: 2

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

Printed: 2013.11.22 @ 10:25:25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55788 **DST#: 2**
Test Start: 2013.11.17 @ 15:48:00

GENERAL INFORMATION:

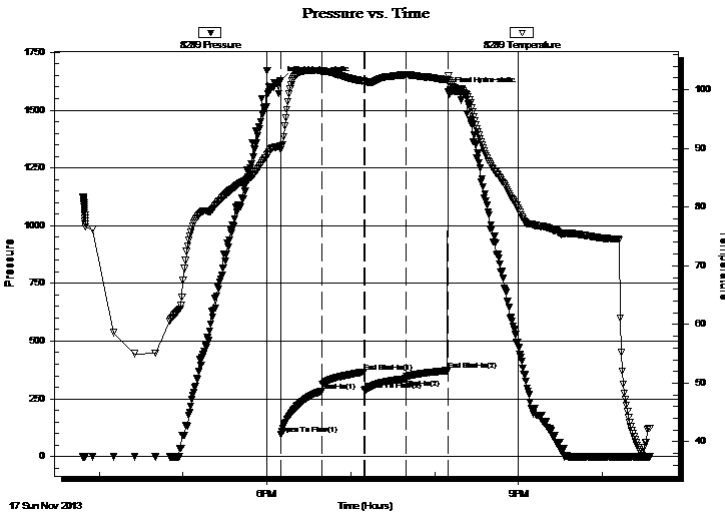
Formation: **LKC " A - C "**
Deviated: No Whipstock: 2176.00 ft (KB)
Time Tool Opened: 18:10:00
Time Test Ended: 22:34:00
Interval: **3393.00 ft (KB) To 3458.00 ft (KB) (TVD)**
Total Depth: 3458.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 54
Reference Elevations: 2176.00 ft (KB)
2168.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 Outside

Press@RunDepth: 337.25 psig @ 3394.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.11.17 End Date: 2013.11.17 Last Calib.: 2013.11.17
Start Time: 15:48:02 End Time: 22:33:45 Time On Btm: 2013.11.17 @ 18:09:45
Time Off Btm: 2013.11.17 @ 20:09:45

TEST COMMENT: 30-IFP- BOB in 2 min.
30-ISIP- No Blow
30-FFP- BOB in 16 min.
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.50	90.45	Initial Hydro-static
1	96.08	89.75	Open To Flow (1)
30	284.14	103.18	Shut-In(1)
60	366.18	101.44	End Shut-In(1)
60	288.20	101.38	Open To Flow (2)
90	337.25	102.54	Shut-In(2)
120	372.51	101.67	End Shut-In(2)
120	1581.70	102.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
600.00	MCW 10% m 90% w	8.42
45.00	WCM 45% w 55% m	0.63

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55788 **DST#: 2**
Test Start: 2013.11.17 @ 15:48:00

Tool Information

Drill Pipe:	Length: 3382.00 ft	Diameter: 3.80 inches	Volume: 47.44 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 47.44 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	3393.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	65.00 ft				
Tool Length:	86.00 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			3373.00	
Shut In Tool	5.00			3378.00	
Hydraulic tool	5.00			3383.00	
Packer	5.00			3388.00	21.00 Bottom Of Top Packer
Packer	5.00			3393.00	
Stubb	1.00			3394.00	
Recorder	0.00	8789	Inside	3394.00	
Recorder	0.00	8289	Outside	3394.00	
Perforations	28.00			3422.00	
Change Over Sub	1.00			3423.00	
Blank Spacing	31.00			3454.00	
Change Over Sub	1.00			3455.00	
Bullnose	3.00			3458.00	65.00 Bottom Packers & Anchor

Total Tool Length: 86.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

20-10s-18w Rooks,KS

370 W Wichita Ave Box 352
Russell KS 67665-2635

Anderson #1

Job Ticket: 55788

DST#: 2

ATTN: Austin Klaus

Test Start: 2013.11.17 @ 15:48:00

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:

100000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
600.00	MCW 10%m 90%w	8.416
45.00	WCM 45%w 55%m	0.631

Total Length: 645.00 ft Total Volume: 9.047 bbl

Num Fluid Samples: 0

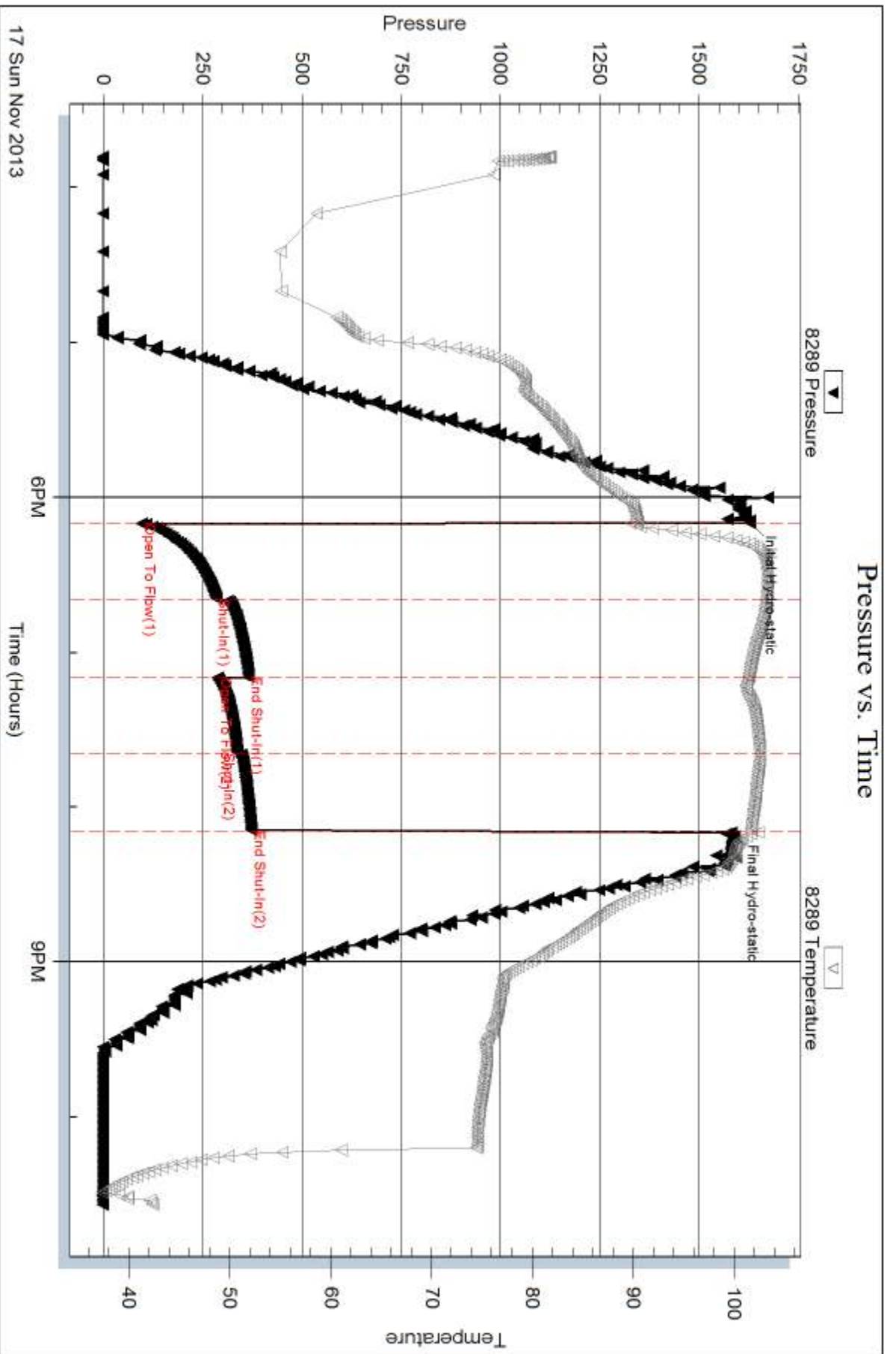
Num Gas Bombs: 0

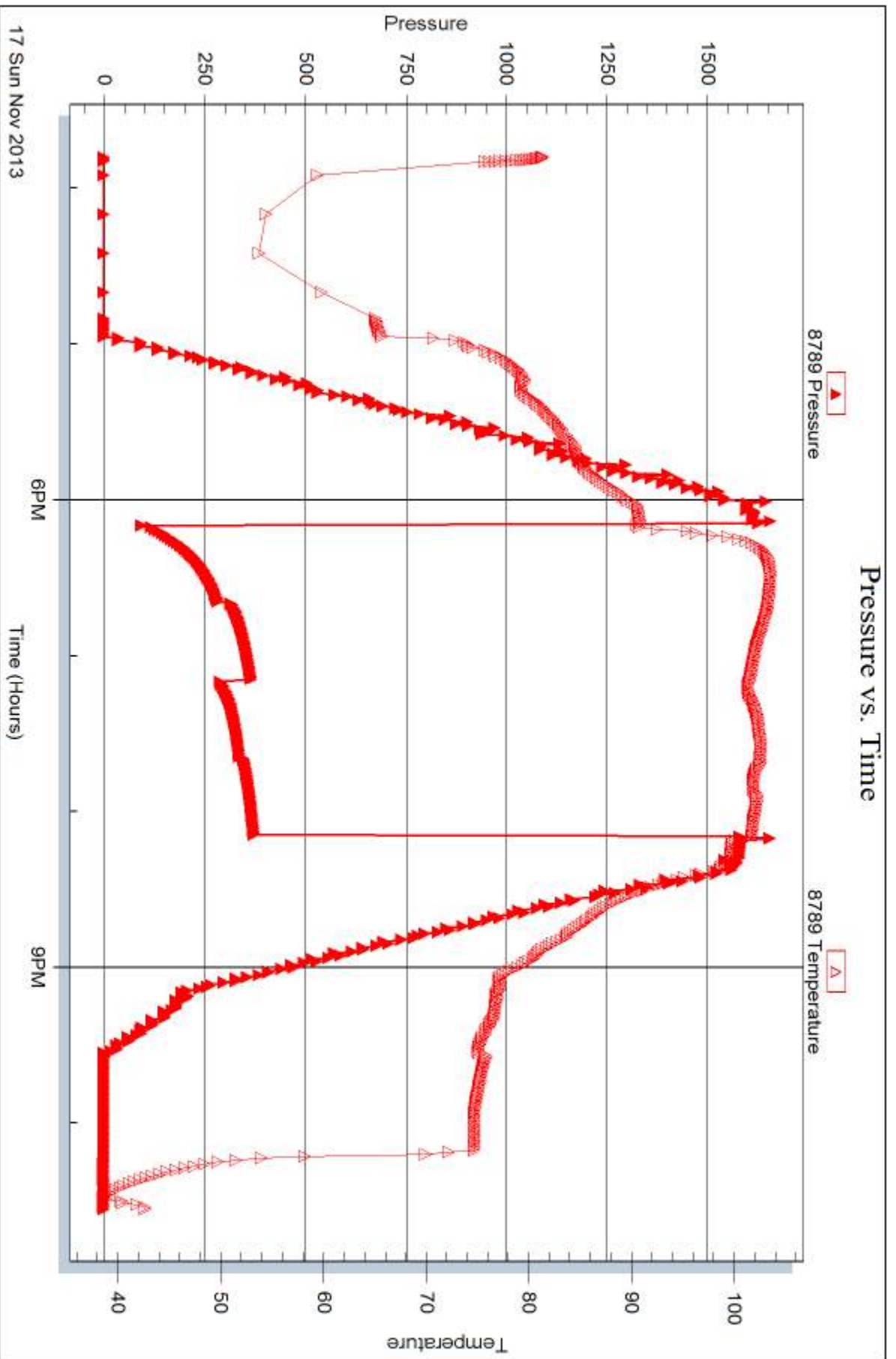
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .147 @ 41







DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W Wichita Ave Box 352
Russell KS 67665-2635

ATTN: Austin Klaus

Anderson #1

20-10s-18w Rooks,KS

Start Date: 2013.11.18 @ 07:47:00

End Date: 2013.11.18 @ 14:45:00

Job Ticket #: 55789 DST #: 3

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

Printed: 2013.11.22 @ 10:24:32

John O Farmer Inc
20-10s-18w Rooks,KS
Anderson #1
DST # 3
LKC " E & F "
2013.11.18



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

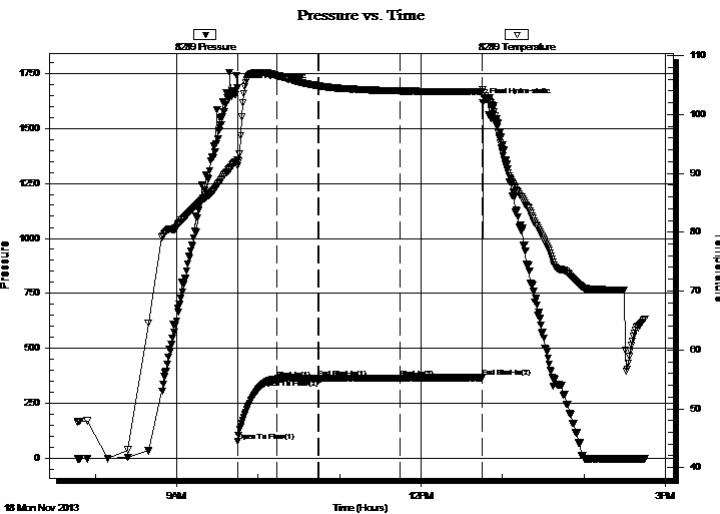
20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55789 **DST#: 3**
Test Start: 2013.11.18 @ 07:47:00

GENERAL INFORMATION:

Formation: **LKC " E & F "**
Deviated: No Whipstock: 2176.00 ft (KB)
Time Tool Opened: 09:45:00
Time Test Ended: 14:45:00
Interval: **3473.00 ft (KB) To 3503.00 ft (KB) (TVD)**
Total Depth: 3503.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 54
Reference Elevations: 2176.00 ft (KB)
2168.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 Outside
Press@RunDepth: 366.64 psig @ 3474.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.11.18 End Date: 2013.11.18 Last Calib.: 2013.11.18
Start Time: 07:47:02 End Time: 14:45:00 Time On Btm: 2013.11.18 @ 09:44:45
Time Off Btm: 2013.11.18 @ 12:45:30

TEST COMMENT: 30-IFP- BOB in 1 1/2 min.
30-ISIP- No Blow Back For 6 min. Good Surface Blow After.
60-FFP- Surface Blow Building to 1 3/4" Died Back in 22 min.
60-FSIP- No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1683.59	92.20	Initial Hydro-static
1	78.13	91.23	Open To Flow (1)
30	361.45	106.60	Shut-In(1)
60	365.31	104.87	End Shut-In(1)
60	361.22	104.86	Open To Flow (2)
120	366.64	103.99	Shut-In(2)
181	367.48	103.87	End Shut-In(2)
181	1617.65	104.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
555.00	MCW 5% m 95% w	7.79
115.00	MCW 30% m 70% w	1.61

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55789 **DST#: 3**
Test Start: 2013.11.18 @ 07:47:00

Tool Information

Drill Pipe:	Length: 3477.00 ft	Diameter: 3.80 inches	Volume: 48.77 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 48.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3473.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3453.00	
Shut In Tool	5.00			3458.00	
Hydraulic tool	5.00			3463.00	
Packer	5.00			3468.00	21.00 Bottom Of Top Packer
Packer	5.00			3473.00	
Stubb	1.00			3474.00	
Recorder	0.00	8789	Inside	3474.00	
Recorder	0.00	8289	Outside	3474.00	
Perforations	26.00			3500.00	
Bullnose	3.00			3503.00	30.00 Bottom Packers & Anchor
Total Tool Length:	51.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

20-10s-18w Rooks,KS

370 W Wichita Ave Box 352
Russell KS 67665-2635

Anderson #1

Job Ticket: 55789

DST#: 3

ATTN: Austin Klaus

Test Start: 2013.11.18 @ 07:47:00

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:

85000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
555.00	MCW 5%m 95%w	7.785
115.00	MCW 30%m 70%w	1.613

Total Length: 670.00 ft

Total Volume: 9.398 bbl

Num Fluid Samples: 0

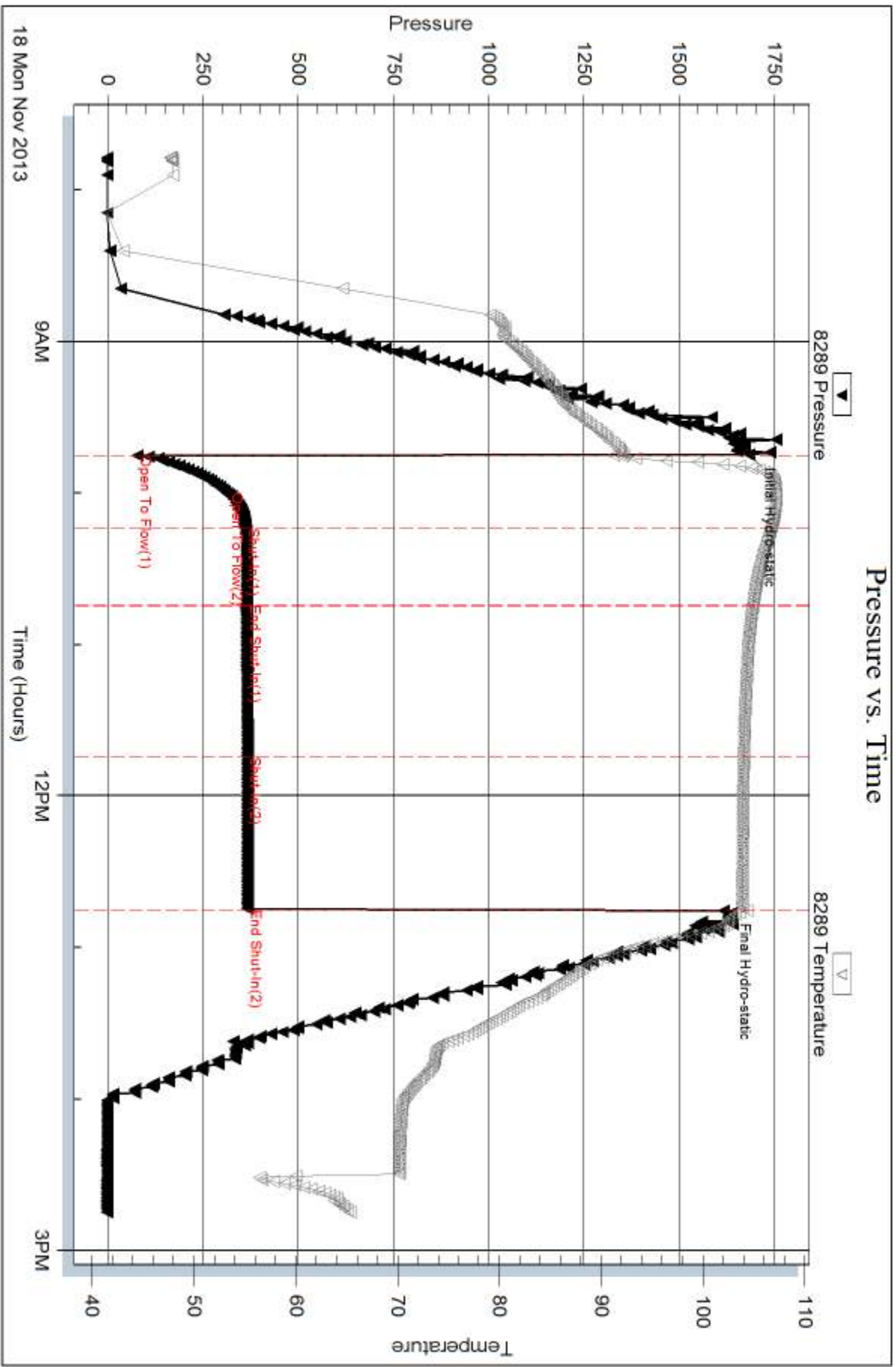
Num Gas Bombs: 0

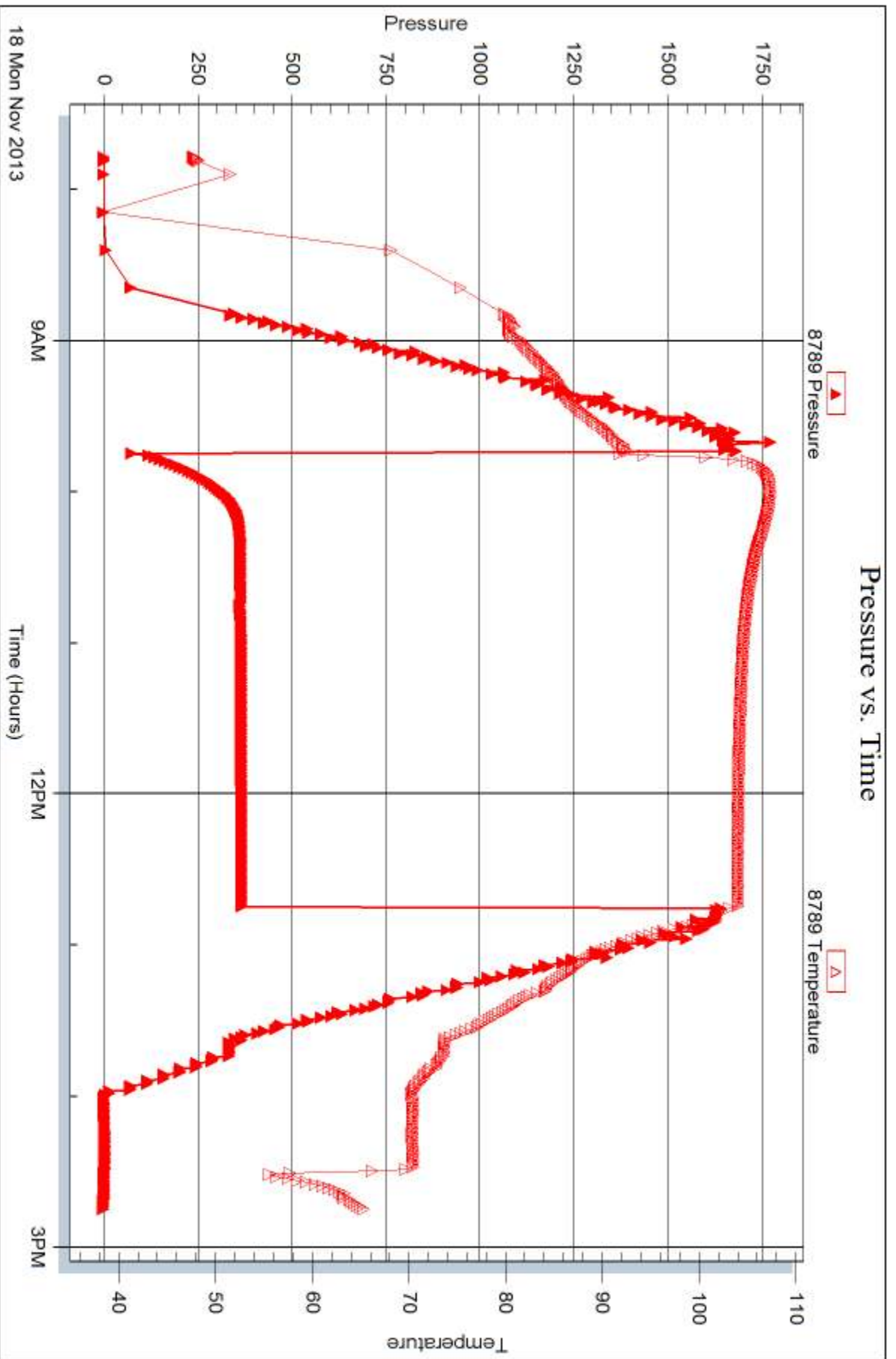
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .116 @ 59







DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W Wichita Ave Box 352
Russell KS 67665-2635

ATTN: Austin Klaus

Anderson #1

20-10s-18w Rooks,KS

Start Date: 2013.11.19 @ 06:17:00

End Date: 2013.11.19 @ 13:23:00

Job Ticket #: 55790 DST #: 4

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

Printed: 2013.11.22 @ 10:23:42



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

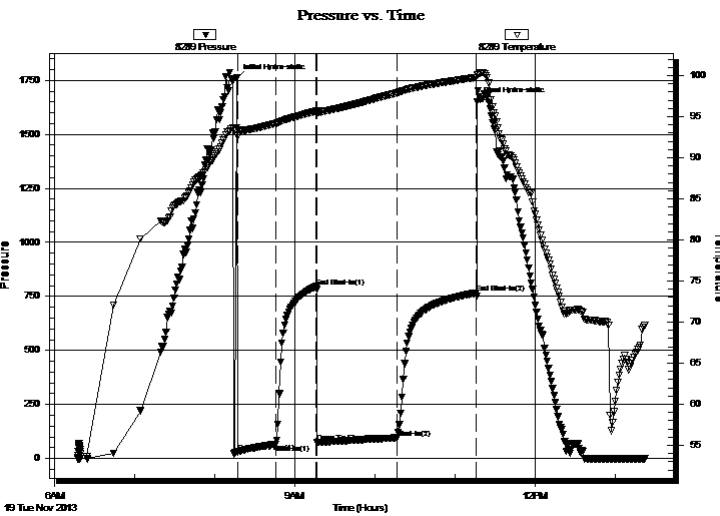
20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55790 **DST#: 4**
Test Start: 2013.11.19 @ 06:17:00

GENERAL INFORMATION:

Formation: **LKC "I - L "**
Deviated: No Whipstock: 2176.00 ft (KB)
Time Tool Opened: 08:16:45
Time Test Ended: 13:23:00
Interval: **3559.00 ft (KB) To 3635.00 ft (KB) (TVD)**
Total Depth: 3635.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 54
Reference Elevations: 2176.00 ft (KB)
2168.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 Outside
Press@RunDepth: 95.69 psig @ 3569.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.11.19 End Date: 2013.11.19 Last Calib.: 2013.11.19
Start Time: 06:17:02 End Time: 13:22:45 Time On Btm: 2013.11.19 @ 08:16:30
Time Off Btm: 2013.11.19 @ 11:16:30

TEST COMMENT: 30-IFP- Surface Blow Died in 5 min.
30-ISIP- No Blow
60-FFP- Surface Blow Building to 4"
60-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.89	93.62	Initial Hydro-static
1	30.70	92.62	Open To Flow (1)
30	67.43	94.16	Shut-In(1)
60	795.89	95.64	End Shut-In(1)
60	75.88	95.37	Open To Flow (2)
120	95.69	97.87	Shut-In(2)
180	765.78	99.77	End Shut-In(2)
180	1652.34	100.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
147.00	OWCM 2%o 3%w 95%m	0.95
20.00	CO 100%	0.28
0.00	20 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55790 **DST#: 4**
Test Start: 2013.11.19 @ 06:17:00

Tool Information

Drill Pipe:	Length: 3450.00 ft	Diameter: 3.80 inches	Volume: 48.39 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 61000.00 lb
			<u>Total Volume: 48.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3559.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	97.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3539.00	
Shut In Tool	5.00			3544.00	
Hydraulic tool	5.00			3549.00	
Packer	5.00			3554.00	21.00 Bottom Of Top Packer
Packer	5.00			3559.00	
Stubb	1.00			3560.00	
Perforations	8.00			3568.00	
Change Over Sub	1.00			3569.00	
Recorder	0.00	8789	Inside	3569.00	
Recorder	0.00	8289	Outside	3569.00	
Blank Spacing	62.00			3631.00	
Change Over Sub	1.00			3632.00	
Bullnose	3.00			3635.00	76.00 Bottom Packers & Anchor

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

20-10s-18w Rooks,KS

370 W Wichita Ave Box 352
Russell KS 67665-2635

Anderson #1

Job Ticket: 55790

DST#: 4

ATTN: Austin Klaus

Test Start: 2013.11.19 @ 06:17:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 5.78 in³
Resistivity: ohm.m
Salinity: 2500.00 ppm
Filter Cake: 6.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 30 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
147.00	OWCM 2%o 3%w 95%m	0.951
20.00	CO 100%	0.281
0.00	20 GIP	0.000

Total Length: 167.00 ft Total Volume: 1.232 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

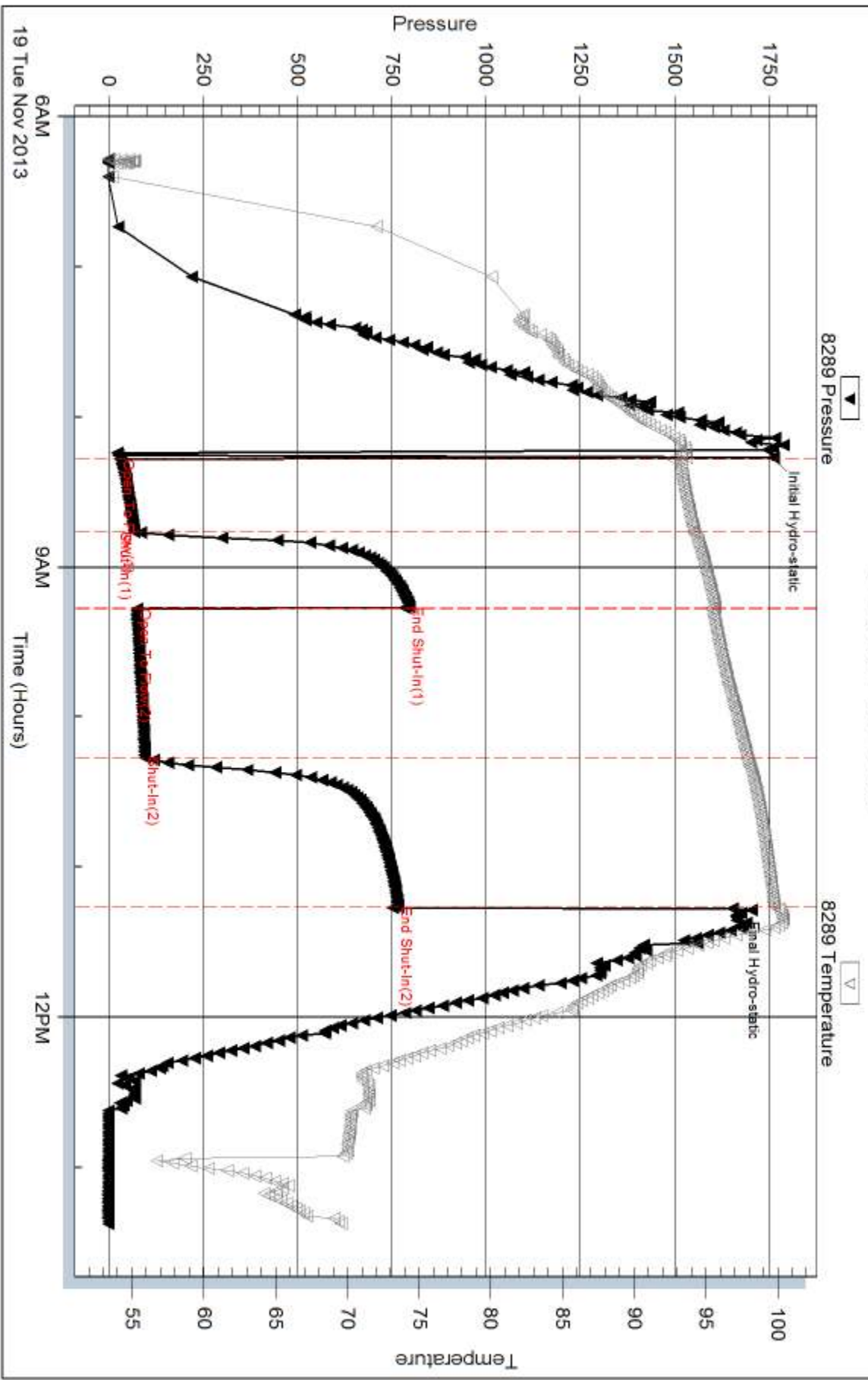
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



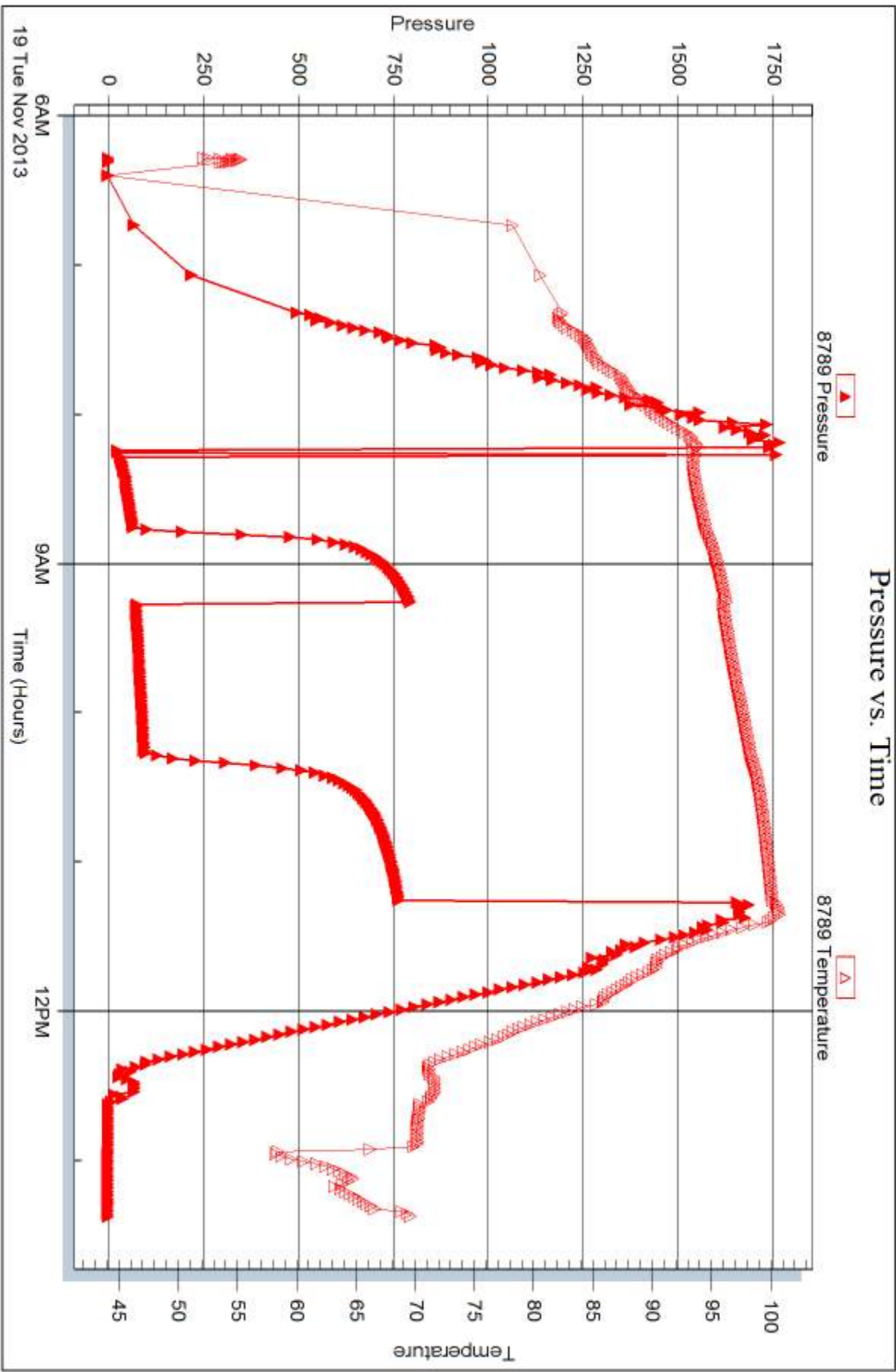
Serial #: 8789

Inside

John O Farmer Inc

Anderson #1

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 55790

Printed: 2013.11.22 @ 10:23:45



DRILL STEM TEST REPORT

Prepared For: **John O Farmer Inc**

370 W Wichita Ave Box 352
Russell KS 67665-2635

ATTN: Austin Klaus

Anderson #1

20-10s-18w Rooks,KS

Start Date: 2013.11.19 @ 23:11:00

End Date: 2013.11.20 @ 04:40:00

Job Ticket #: 55791 DST #: 5

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

Printed: 2013.11.22 @ 10:13:44

John O Farmer Inc
20-10s-18w Rooks,KS
Anderson #1
DST # 5
Conglomerate Sand
2013.11.19



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55791 **DST#: 5**
Test Start: 2013.11.19 @ 23:11:00

GENERAL INFORMATION:

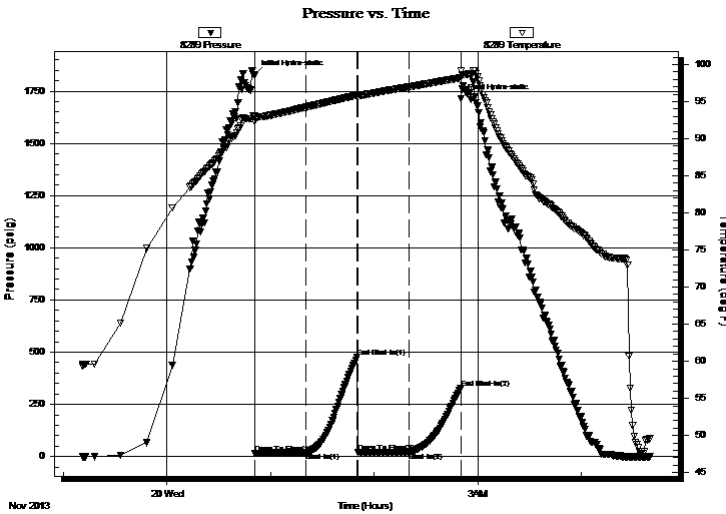
Formation: **Conglomerate Sand**
Deviated: No Whipstock: 2176.00 ft (KB)
Time Tool Opened: 00:50:45
Time Test Ended: 04:40:00
Interval: **3667.00 ft (KB) To 3709.00 ft (KB) (TVD)**
Total Depth: 3709.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 54
Reference Elevations: 2176.00 ft (KB)
2168.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 Outside

Press@RunDepth: 20.70 psig @ 3674.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.11.19 End Date: 2013.11.20 Last Calib.: 2013.11.20
Start Time: 23:11:02 End Time: 04:39:45 Time On Btm: 2013.11.20 @ 00:50:30
Time Off Btm: 2013.11.20 @ 02:50:15

TEST COMMENT: 30-IFP- Surface Blow Strg to Wk
30-ISIP- No Blow
30-FFP- No Blow
30-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1827.14	93.14	Initial Hydro-static
1	15.58	92.32	Open To Flow (1)
30	18.22	94.23	Shut-In(1)
60	474.46	95.85	End Shut-In(1)
60	19.09	95.70	Open To Flow (2)
90	20.70	96.98	Shut-In(2)
120	326.98	98.18	End Shut-In(2)
120	1714.36	99.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Oil Speck Mud	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer Inc
370 W Wichita Ave Box 352
Russell KS 67665-2635
ATTN: Austin Klaus

20-10s-18w Rooks,KS
Anderson #1
Job Ticket: 55791 **DST#: 5**
Test Start: 2013.11.19 @ 23:11:00

Tool Information

Drill Pipe:	Length: 3544.00 ft	Diameter: 3.80 inches	Volume: 49.71 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 59000.00 lb
			<u>Total Volume: 50.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3667.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 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
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3647.00	
Shut In Tool	5.00			3652.00	
Hydraulic tool	5.00			3657.00	
Packer	5.00			3662.00	21.00 Bottom Of Top Packer
Packer	5.00			3667.00	
Stubb	1.00			3668.00	
Perforations	5.00			3673.00	
Change Over Sub	1.00			3674.00	
Recorder	0.00	8789	Inside	3674.00	
Recorder	0.00	8289	Outside	3674.00	
Blank Spacing	31.00			3705.00	
Change Over Sub	1.00			3706.00	
Bullnose	3.00			3709.00	42.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer Inc

20-10s-18w Rooks,KS

370 W Wichita Ave Box 352
Russell KS 67665-2635

Anderson #1

Job Ticket: 55791

DST#: 5

ATTN: Austin Klaus

Test Start: 2013.11.19 @ 23:11:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Oil Speck Mud	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

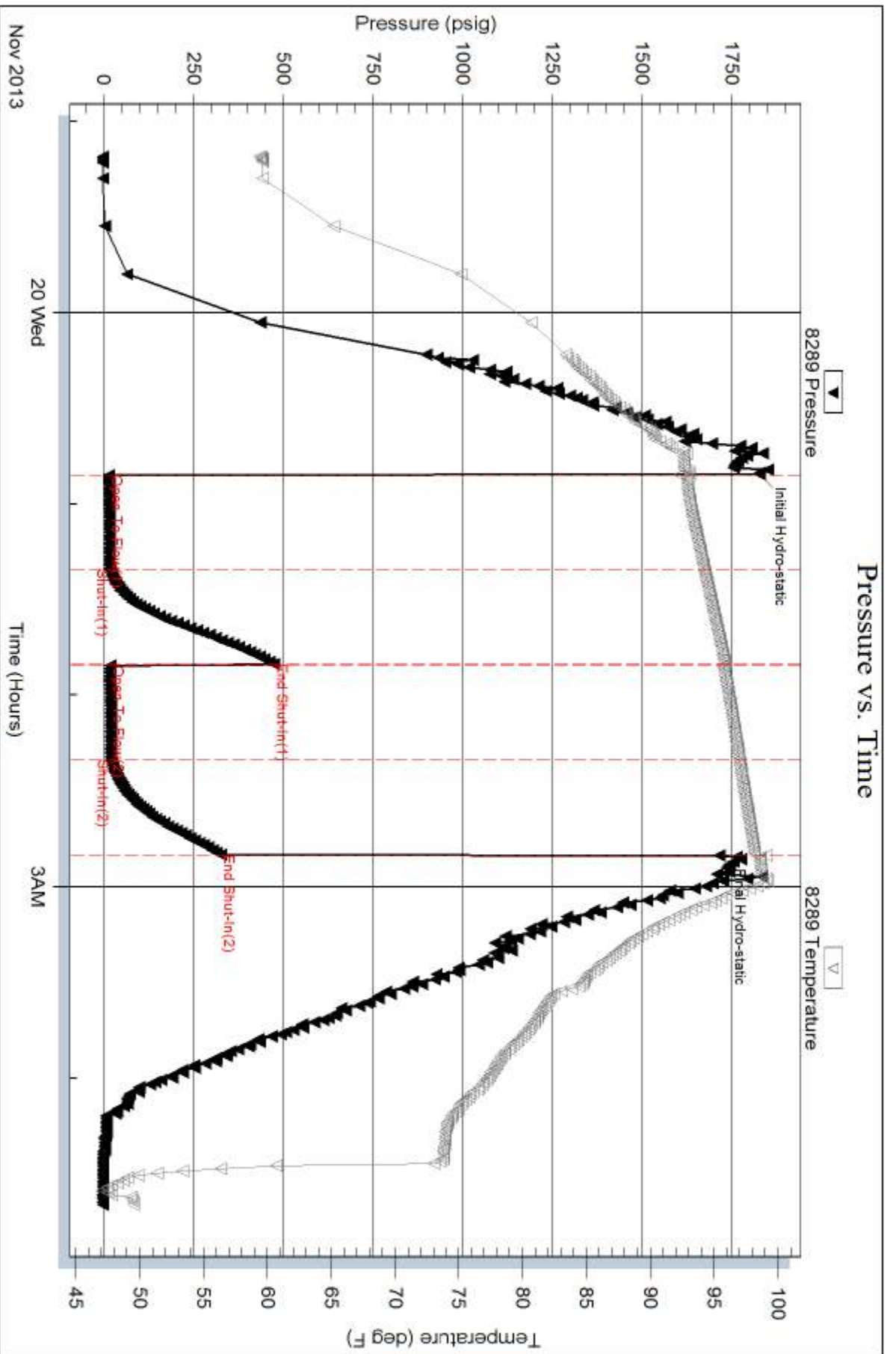
Num Gas Bombs: 0

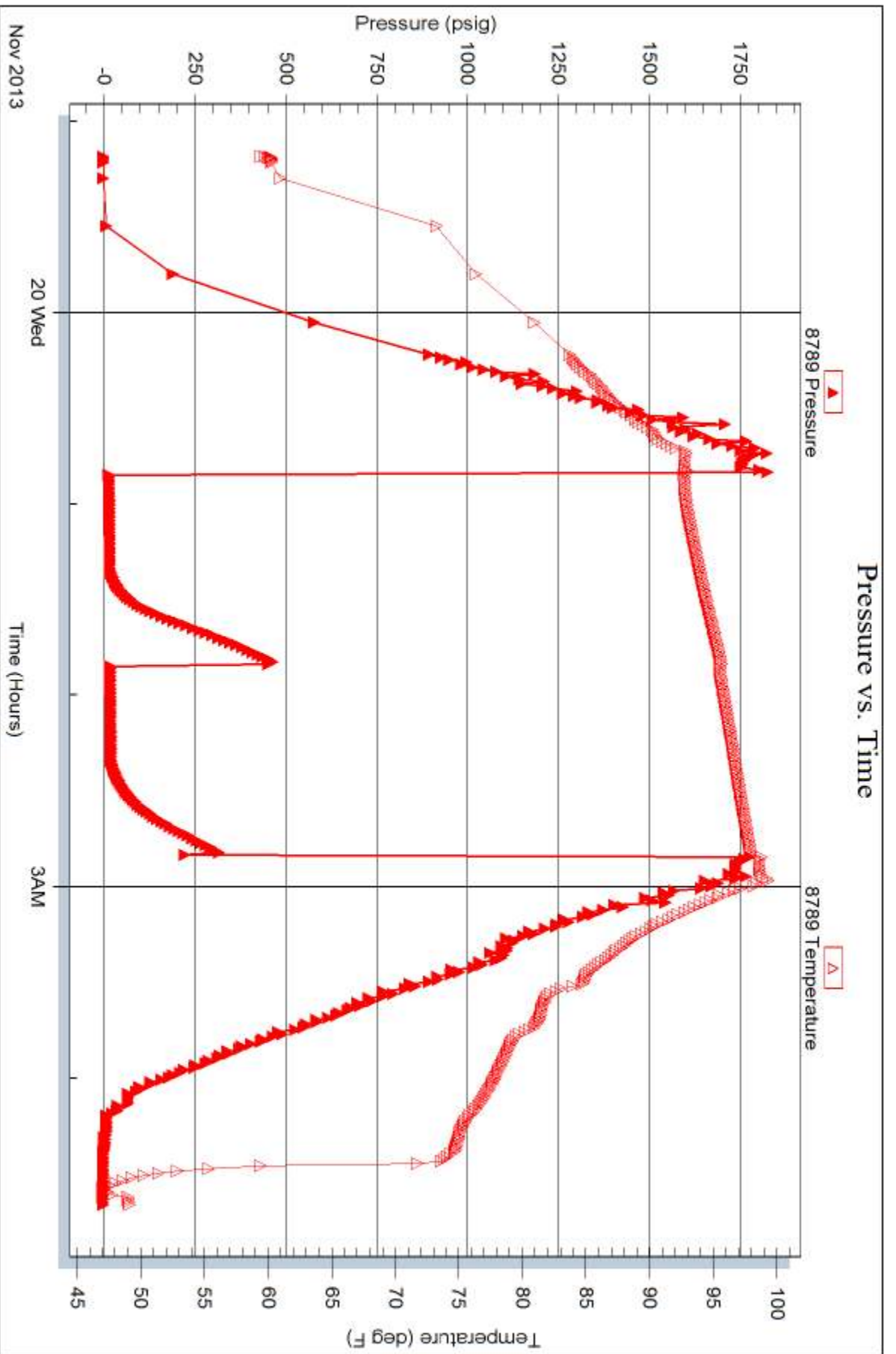
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55787

4/10

Well Name & No. Anderson #1 Test No. 1 Date 11-16-13
 Company John O. Farmer Inc. Elevation 2176 KB 2168 GL
 Address 370 W. Wichita Ave Box 352 Russell KS 67665-2635
 Co. Rep / Geo. Austin Klaus Rig WW#12
 Location: Sec. 20 Twp. 10^s Rge. 18^w Co. Rocks State KS

Interval Tested 3364-3400 Zone Tested Toronto
 Anchor Length 36 Drill Pipe Run 3350 Mud Wt. 8.8
 Top Packer Depth 3359 Drill Collars Run 122 Vis 59
 Bottom Packer Depth 3364 Wt. Pipe Run 0 WL 5.4
 Total Depth 3400 Chlorides 2500 ppm System LCM 4

Blow Description ITP - Surface Blow Building to 1 in. IN 10 min.
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>7</u>	<u>0cm</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 7 BHT 95 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1614 Test 1150 T-On Location 22:40
 (B) First Initial Flow 16 Jars _____ T-Started 23:54
 (C) First Final Flow 21 Safety Joint _____ T-Open 01:53
 (D) Initial Shut-In 280 Circ Sub _____ T-Pulled 03:53
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 05:31
 (F) Second Final Flow 25 Mileage 52 RT 80.60 Comments _____
 (G) Final Shut-In 231 Sampler _____
 (H) Final Hydrostatic 1569 Straddle _____ Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 30 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 30 Day Standby _____ Total 1230.60
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1230.60

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. 55788

4/10

Well Name & No. Anderson #1 Test No. 2 Date 11-17-13
 Company John O Farmer Inc. Elevation 2176 KB 2168 GL
 Address 370 W. Wichita Ave. Box 352 Russell KS 67665-2635
 Co. Rep / Geo. Austin Klaus Rig WW #12
 Location: Sec. 20 Twp. 10^s Rge. 18^w Co. Rooks State KS

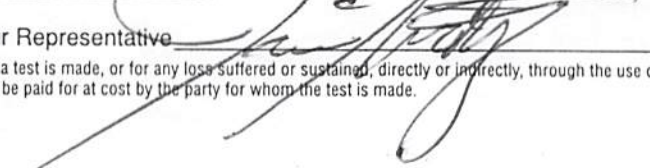
Interval Tested 3393-3458 Zone Tested LKC 'A-C'
 Anchor Length 65 Drill Pipe Run 3382 Mud Wt. 8.9
 Top Packer Depth 3388 Drill Collars Run 122 Vis 53
 Bottom Packer Depth 3393 Wt. Pipe Run ⊕ WL 5.8
 Total Depth 3458 Chlorides 2100 ppm System LCM 6

Blow Description FFP- BOB in 2 min.
ISIP- No Blow
FFP- BOB in 16 min.
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>600</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
<u>45</u>	<u>WCM</u>		<u>45</u>	<u>55</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 645 BHT 102 Gravity _____ API RW .147 @ 41 °F Chlorides 100,000 ppm
 (A) Initial Hydrostatic 1628 Test 1150 T-On Location 15:30
 (B) First Initial Flow 96 Jars _____ T-Started 16:48
 (C) First Final Flow 284 Safety Joint _____ T-Open 18:10
 (D) Initial Shut-In 366 Circ Sub _____ T-Pulled 20:10
 (E) Second Initial Flow 288 Hourly Standby _____ T-Out 22:34
 (F) Second Final Flow 337 Mileage 52 RT 80.60 Comments _____
 (G) Final Shut-In 372 Sampler _____
 (H) Final Hydrostatic 1581 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 0
 Total 1230.60
 Sub Total 1230.60
 MP/DST Disc't _____

Approved By _____ Our Representative 

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. 55789

Well Name & No. Anderson #1 Test No. 3 Date 11-18-13
 Company John O. Farmer Inc. Elevation 2176 KB 2168 GL
 Address 370 W. Wichita Ave Box 352 Russell KS 67665-2635
 Co. Rep / Geo. Austin Klaus Rig WW #12
 Location: Sec. 20 Twp. 10 S Rge. 18 W Co. Rooks State KS

Interval Tested 3473-3503 Zone Tested LKC "E & F"
 Anchor Length 30 Drill Pipe Run 3477 Mud Wt. 9.0
 Top Packer Depth 3468 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3473 Wt. Pipe Run 0 WL 6.2
 Total Depth 3503 Chlorides 2400 ppm System LCM 6

Blow Description IFP - BOB in 1 1/2 min.
ISIP - No Blow Back for 6 min. Good Surface Blow After.
FFP - Surface Blow Building to 1 3/4 in. Ried Back in 22 min.
FSIP - No Blow Back

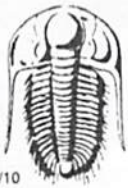
Rec	Feet of	%gas	%oil	%water	%mud
<u>555</u>	<u>MCW</u>		<u>95</u>	<u>5</u>	
<u>115</u>	<u>MCW</u>		<u>70</u>	<u>30</u>	

Rec Total 670 BHT 104 Gravity _____ API RW .116 @ 59 °F Chlorides 85000 ppm
 (A) Initial Hydrostatic 1683 Test 1150 T-On Location 07:37
 (B) First Initial Flow 78 Jars _____ T-Started 07:47
 (C) First Final Flow 361 Safety Joint _____ T-Open 09:45
 (D) Initial Shut-In 365 Circ Sub _____ T-Pulled 12:45
 (E) Second Initial Flow 361 Hourly Standby _____ T-Out 14:45
 (F) Second Final Flow 366 Mileage 80.60 Comments _____
 (G) Final Shut-In 367 Sampler _____
 (H) Final Hydrostatic 1617 Straddle _____ Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 30 Extra Packer _____ Extra Copies _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1230.60
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1230.60

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. 55790

4/10

Well Name & No. Andersson #1 Test No. 4 Date 11-19-13
 Company John O. Farmer Inc. Elevation 2176 KB 2168 GL
 Address 370 W. Wichita Ave. Box 352 Russell KS 67665-2635
 Co. Rep / Geo. Austin Klaus Rig WW #12
 Location: Sec. 20 Twp. 10^s Rge. 18^w Co. ROOKS State KS

Interval Tested 3559-3635 Zone Tested LKC "I-L"
 Anchor Length 76 Drill Pipe Run 3450 Mud Wt. 9.1
 Top Packer Depth 3554 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3559 Wt. Pipe Run 0 WL 5.8
 Total Depth 3635 Chlorides 2500 ppm System LCM 6

Blow Description IFP - Surface Blow Died in 5 min.
ISIP - No Blow
FFP - Surface Building to 4 in.
FSIP - No Blow Back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>147</u>	<u>OWCM</u>	<u>2</u>	<u>3</u>	<u>95</u>	
<u>20</u>	<u>CO</u>	<u>100</u>			
	<u>20 SSIP</u>				

Rec Total 167 BHT 100 Gravity 30 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1759 Test 1150 T-On Location 05:55
 (B) First Initial Flow 30 Jars _____ T-Started 06:17
 (C) First Final Flow 67 Safety Joint _____ T-Open 08:17
 (D) Initial Shut-In 795 Circ Sub _____ T-Pulled 11:17
 (E) Second Initial Flow 75 Hourly Standby _____ T-Out 13:23
 (F) Second Final Flow 95 Mileage 80.60 Comments _____
 (G) Final Shut-In 765 Sampler _____
 (H) Final Hydrostatic 1652 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30
 Initial Shut-In 30
 Final Flow 60
 Final Shut-In 60
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1230.60
 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. **55791**

Well Name & No. Anderson #1 Test No. 5 Date 11-19-13
 Company John O. Farmer Inc. Elevation 2176 KB 2168 GL
 Address 370 W. Wichita Ave Box 352 Russell KS 67665-2635
 Co. Rep / Geo. Austin Klaus Rig WW #12
 Location: Sec. 20 Twp. 10^s Rge. 18W Co. ROOKS State KS

Interval Tested 3667-3709 Zone Tested Conglomerate Sand
 Anchor Length 42 Drill Pipe Run 3544 Mud Wt. 9.1
 Top Packer Depth 3662 Drill Collars Run 122 Vis 50
 Bottom Packer Depth 3667 Wt. Pipe Run 0 WL 5.8
 Total Depth 3709 Chlorides 2500 ppm System LCM 6

Blow Description IFP- Surface Blow Strong to Weak
ISIP- No Blow
FFP- No Blow
FSIP- No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Oil Speck Mud</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 2 BHT 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1827 Test 1150 T-On Location 22:50
 (B) First Initial Flow 15 Jars _____ T-Started 23:11
 (C) First Final Flow 18 Safety Joint _____ T-Open 00:51
 (D) Initial Shut-In 474 Circ Sub _____ T-Pulled 02:51
 (E) Second Initial Flow 19 Hourly Standby _____ T-Out 04:40
 (F) Second Final Flow 20 Mileage 161.20 Comments _____
 (G) Final Shut-In 326 Sampler _____ loaded tools 11/20 22:00
 (H) Final Hydrostatic 1714 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1311.20
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1311.20

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.