



DRILL STEM TEST REPORT

Prepared For: **John O Farmer, Inc**

PO Box 352
Russell KS 67665-2635

ATTN: Jason Alm

Mishler F #1

15-17s-25w Ness,KS

Start Date: 2013.05.26 @ 13:15:00

End Date: 2013.05.26 @ 20:47:30

Job Ticket #: 53068 DST #: 1

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

Printed: 2013.05.31 @ 11:03:08



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O Farmer, Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: Jason Alm

15-17s-25w Ness, KS
Mishler F #1
 Job Ticket: 53068 **DST#: 1**
 Test Start: 2013.05.26 @ 13:15:00

Tool Information

Drill Pipe:	Length: 4248.76 ft	Diameter: 3.80 inches	Volume: 59.60 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 29.70 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 59.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.46 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4290.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	70.00 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			4271.00	
Shut In Tool	5.00			4276.00	
Hydraulic tool	5.00			4281.00	
Packer	5.00			4286.00	20.00 Bottom Of Top Packer
Packer	4.00			4290.00	
Stubb	1.00			4291.00	
Recorder	0.00	8675	Inside	4291.00	
Recorder	0.00	8650	Outside	4291.00	
Perforations	13.00			4304.00	
Change Over Sub	1.00			4305.00	
Drill Pipe	31.00			4336.00	
Change Over Sub	1.00			4337.00	
Bullnose	3.00			4340.00	50.00 Bottom Packers & Anchor

Total Tool Length: 70.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer, Inc
PO Box 352
Russell KS 67665-2635
ATTN: Jason Alm

15-17s-25w Ness,KS
Mishler F #1
Job Ticket: 53068 **DST#: 1**
Test Start: 2013.05.26 @ 13:15:00

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: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

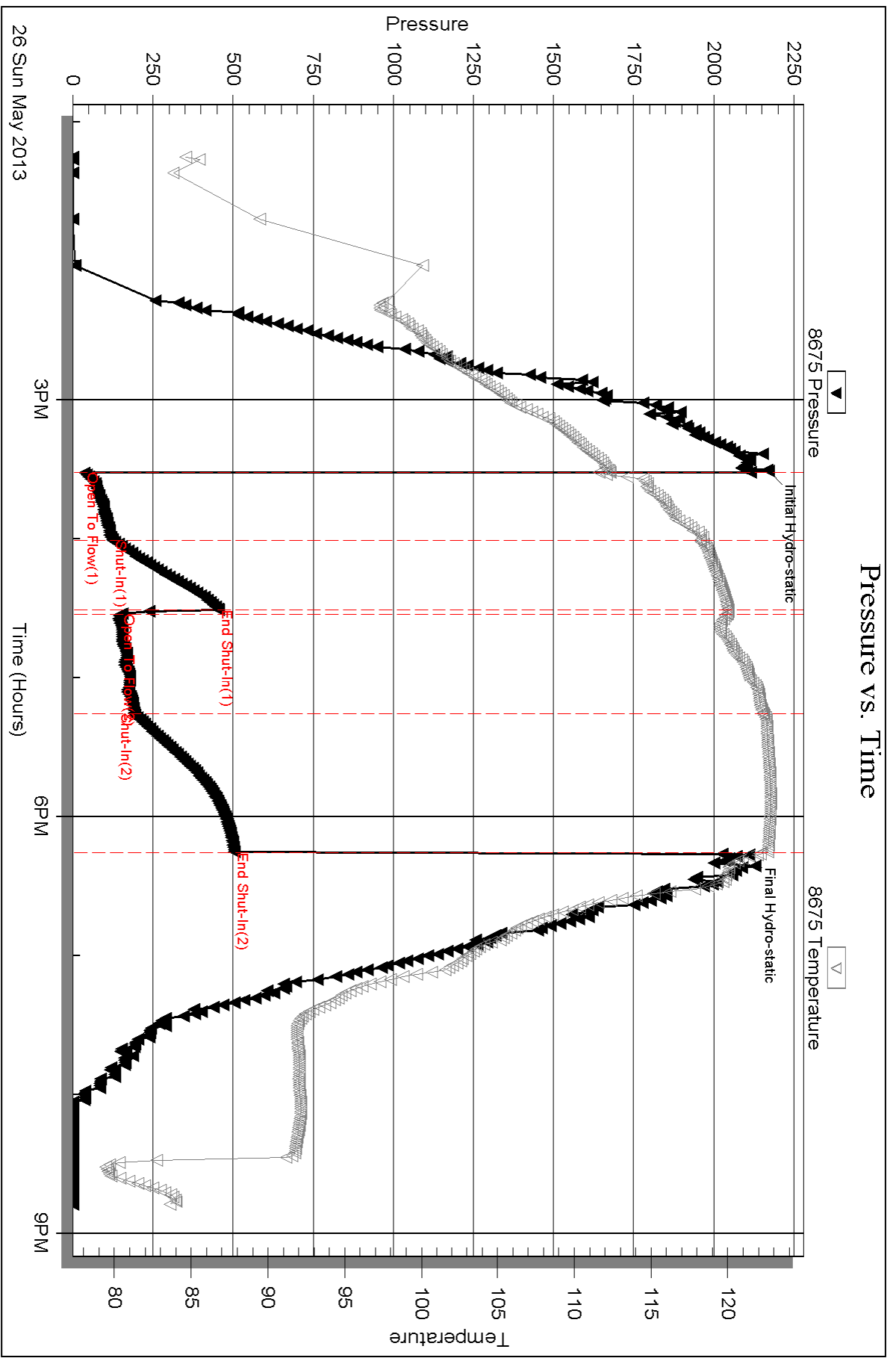
Length ft	Description	Volume bbl
126.00	gcom 30%G 30%O 40%M	1.497
189.00	gcmo 30%G 30%M 40%O	2.651
63.00	mcog 15%M 20%O 65%G	0.884
126.00	ogm 20%O 80%M	1.767
0.00	1005 Feet Gas In Pipe	0.000

Total Length: 504.00 ft Total Volume: 6.799 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

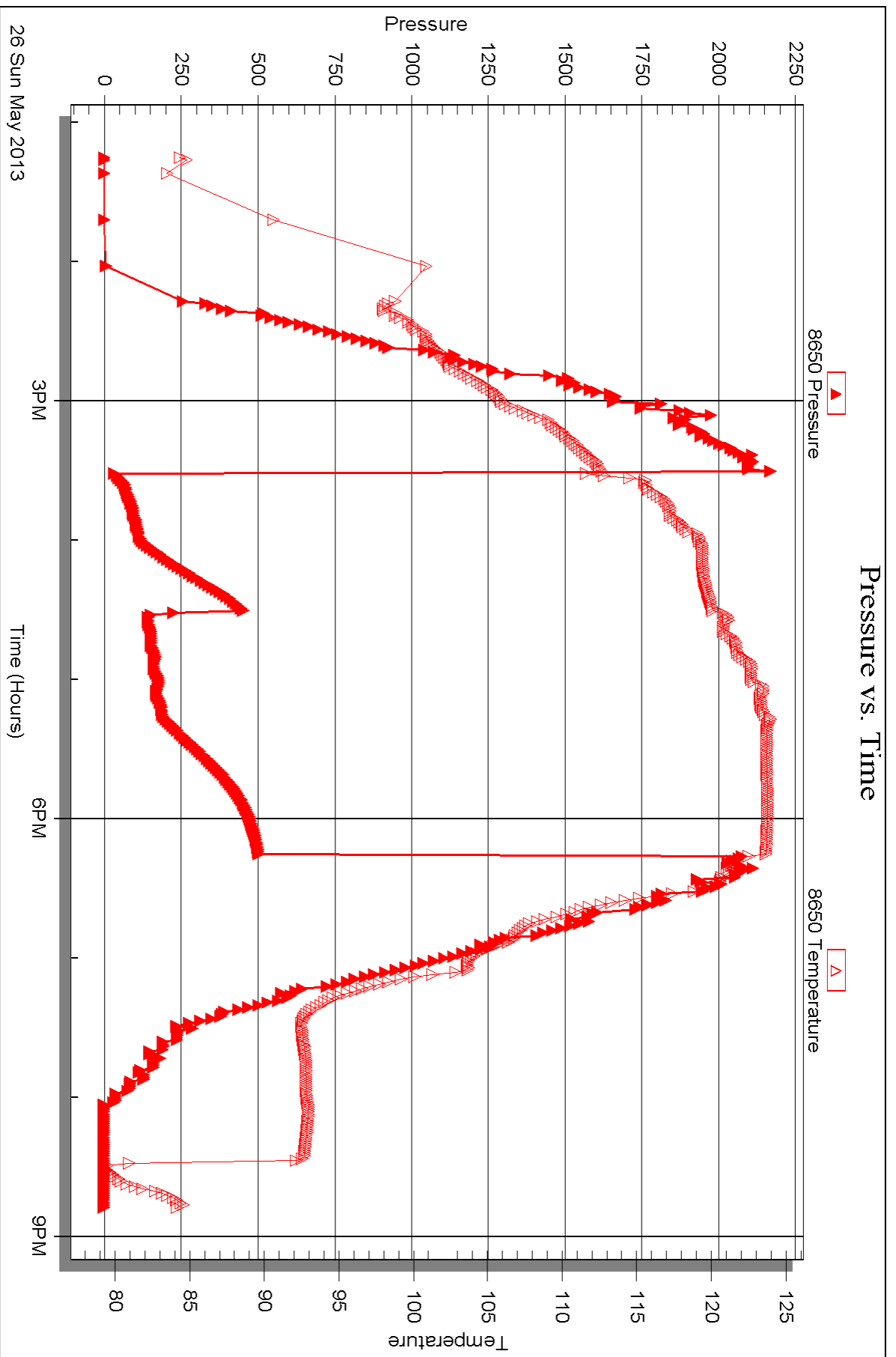


Serial #: 8650

Outside John O Farmer, Inc

Mshler F #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **John O Farmer, Inc**

PO Box 352
Russell KS 67665-2635

ATTN: Jason Alm

Mishler F #1

15-17s-25w Ness,KS

Start Date: 2013.05.27 @ 14:55:00

End Date: 2013.05.27 @ 22:06:30

Job Ticket #: 53069 DST #: 2

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

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

John O Farmer, Inc
 PO Box 352
 Russell KS 67665-2635
 ATTN: Jason Alm

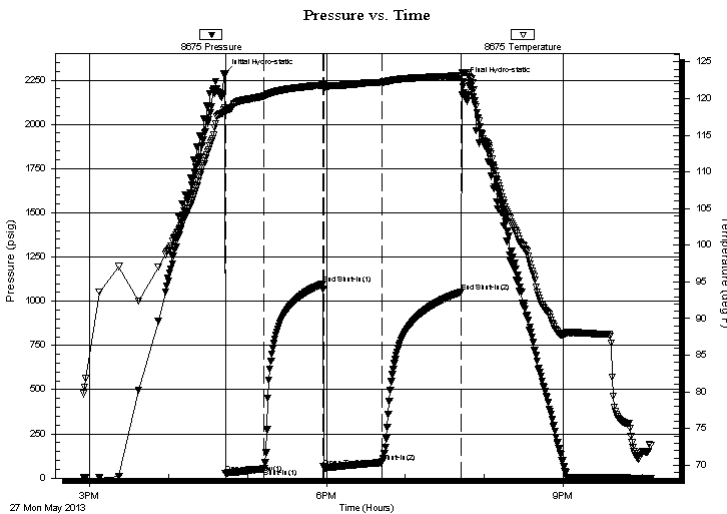
15-17s-25w Ness, KS
Mishler F #1
 Job Ticket: 53069 **DST#: 2**
 Test Start: 2013.05.27 @ 14:55:00

GENERAL INFORMATION:

Formation: **Miss**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:43:00
 Time Test Ended: 22:06:30
 Interval: **4407.00 ft (KB) To 4441.00 ft (KB) (TVD)**
 Total Depth: 4475.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Jace McKinney
 Unit No: 46
 Reference Elevations: 2449.00 ft (KB)
 2441.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8675 Inside
 Press @ Run Depth: 87.99 psig @ 4408.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.05.27 End Date: 2013.05.27 Last Calib.: 2013.05.27
 Start Time: 14:55:15 End Time: 22:06:30 Time On Btm: 2013.05.27 @ 16:42:45
 Time Off Btm: 2013.05.27 @ 19:43:30

TEST COMMENT: B.O.B. in 23 min.
 Bled off for 5 min. No return blow
 B.O.B. in 37 min.
 Bled off for 5 min. Weak surface return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2288.48	118.75	Initial Hydro-static
1	26.77	118.10	Open To Flow (1)
30	52.61	120.31	Shut-In(1)
75	1097.92	121.82	End Shut-In(1)
75	63.62	121.43	Open To Flow (2)
120	87.99	122.21	Shut-In(2)
180	1052.61	123.09	End Shut-In(2)
181	2238.87	123.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	mco 40%M 60%O	0.61
157.00	gco 5%G 95%O	2.20
0.00	282 Feet Gas In Pipe	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
 PO Box 352
 Russell KS 67665-2635
 ATTN: Jason Alm

15-17s-25w Ness, KS
Mishler F #1
 Job Ticket: 53069 **DST#: 2**
 Test Start: 2013.05.27 @ 14:55:00

Tool Information

Drill Pipe:	Length: 4375.75 ft	Diameter: 3.80 inches	Volume: 61.38 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 29.70 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 61.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.45 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4407.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	4441.00 ft			
Interval between Packers:	34.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4392.00	
Hydraulic tool	5.00			4397.00	
Jars	0.00			4397.00	
Safety Joint	0.00		Fluid	4397.00	
Packer	5.00			4402.00	20.00 Bottom Of Top Packer
Packer	5.00			4407.00	
Stubb	1.00			4408.00	
Recorder	0.00	8675	Inside	4408.00	
Recorder	0.00	8650	Outside	4408.00	
Perforations	32.00			4440.00	
Change Over Sub	0.00			4440.00	
drill Pipe	0.00			4440.00	
change Over Sub	0.00			4440.00	
Perforations	0.00			4440.00	
Blank Off Sub	1.00			4441.00	34.00 Tool Interval
Packer	5.00			4446.00	
Stubb	1.00			4447.00	
Change Over Sub	1.00			4448.00	
Recorder	0.00	6672	Below	4448.00	
Drill Pipe	32.00			4480.00	
Change Over Sub	0.00			4480.00	
Bullnose	0.00			4480.00	39.00 Bottom Packers & Anchor

Total Tool Length: 93.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

John O Farmer, Inc
PO Box 352
Russell KS 67665-2635
ATTN: Jason Alm

15-17s-25w Ness,KS
Mishler F #1
Job Ticket: 53069 **DST#: 2**
Test Start: 2013.05.27 @ 14:55:00

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: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 8.78 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	mco 40%M 60%O	0.613
157.00	gco 5%G 95%O	2.202
0.00	282 Feet Gas In Pipe	0.000

Total Length: 220.00 ft Total Volume: 2.815 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: API 39 @ 70 F = 38

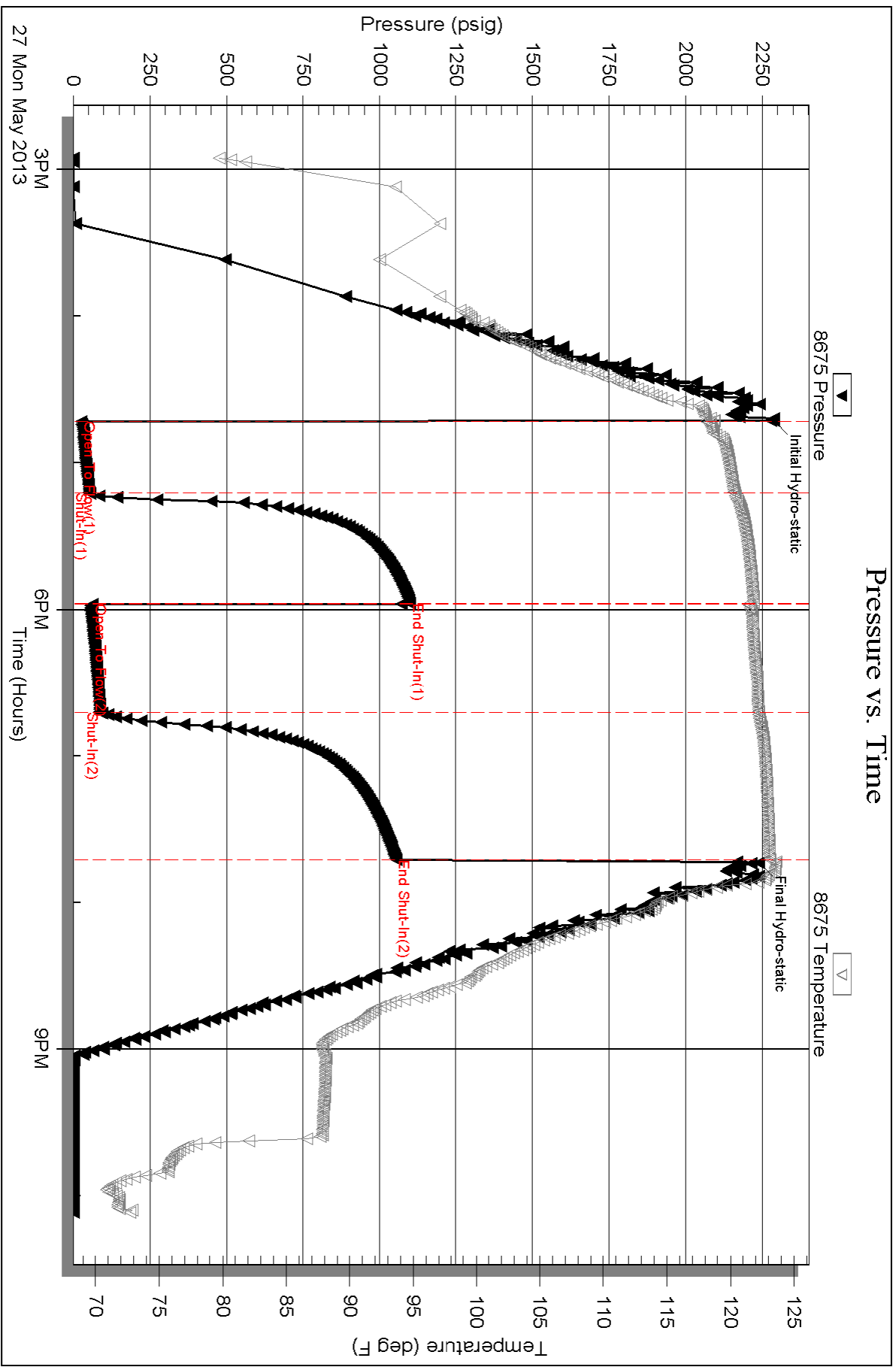
Serial #: 8675

Inside

John O Farmer, Inc

Mshler F #1

DST Test Number: 2

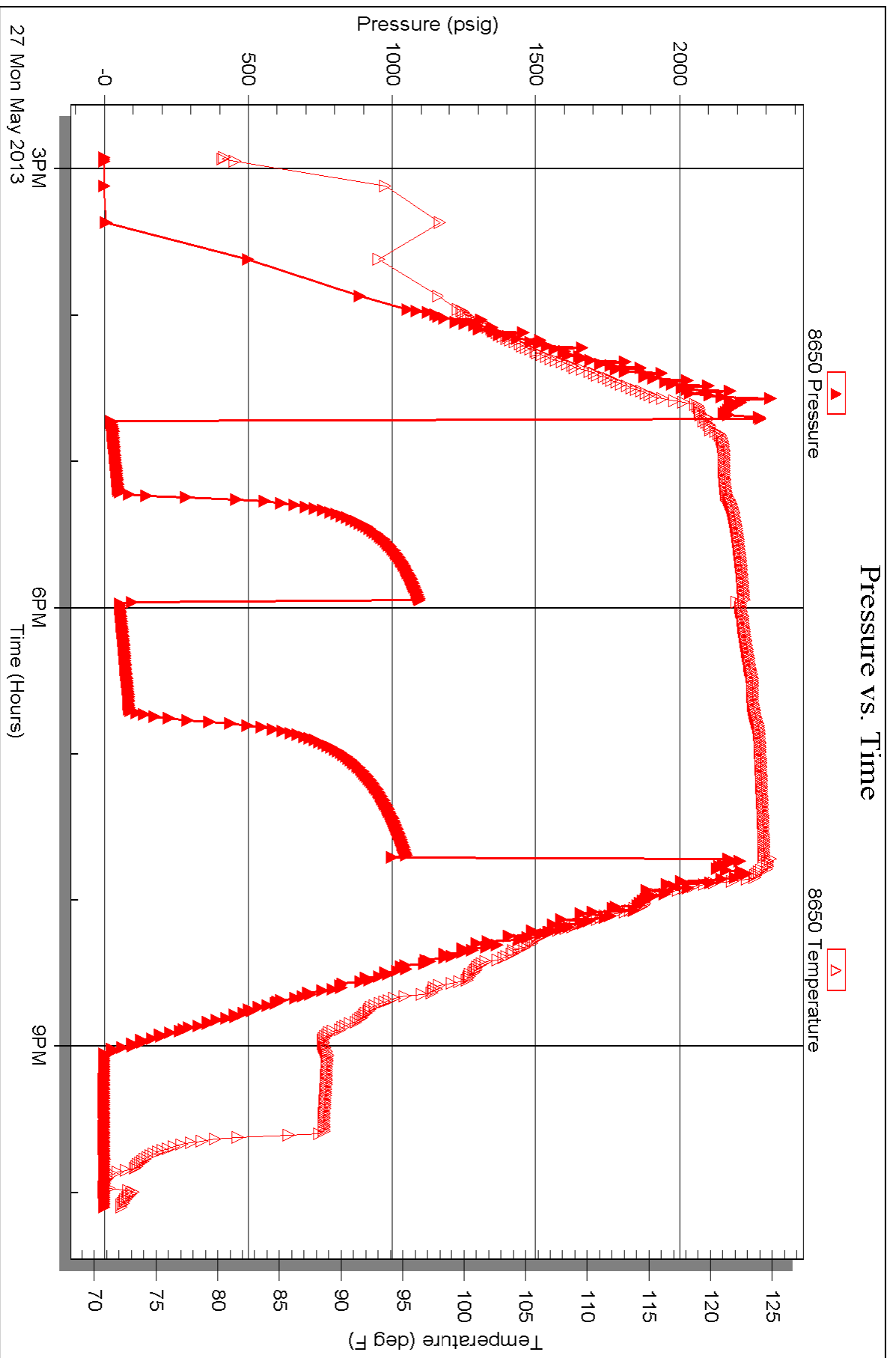


Serial #: 8650

Outside John O Farmer, Inc

Mshler F #1

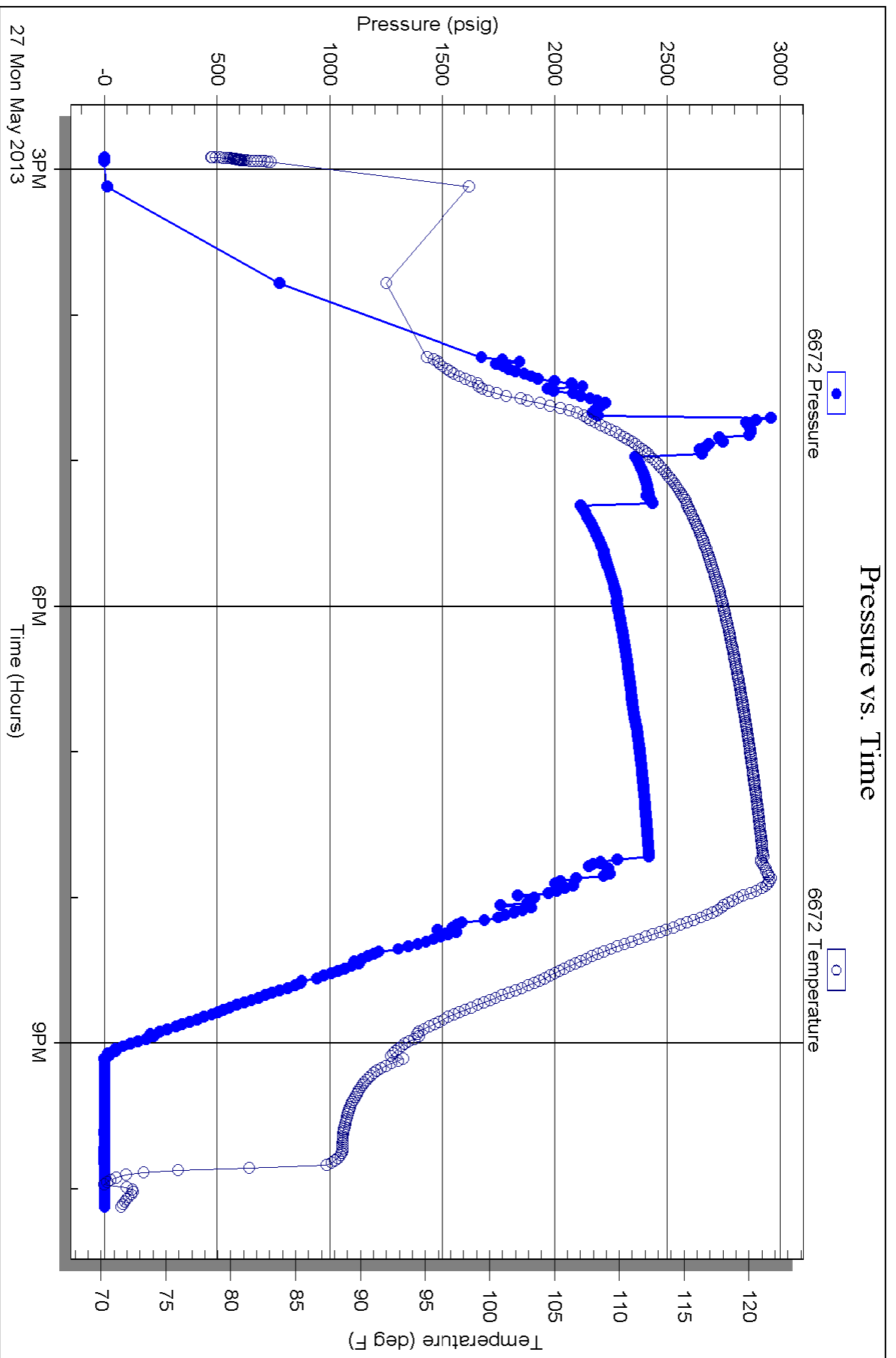
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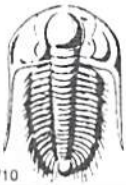


Triobite Testing, Inc

Ref. No: 53069

Printed: 2013.05.31 @ 11:01:33





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53068

Well Name & No. Mighler F # 1 Test No. 1 Date 5/26/13
 Company John O Farmer, Inc Elevation 2449 KB 2441 GL
 Address 370 W Wichita Ave, Po Box 352, Russell KS 67665-2635
 Co. Rep / Geo. Jason Alm Rig Discovery Rig 3
 Location: Sec. 15 Twp. 12s Rge. 25w Co. Ness Co. State KS

Interval Tested 4290 - 4340 Zone Tested Fort Scott
 Anchor Length 50 Drill Pipe Run 4248.76 Mud Wt. 9.4
 Top Packer Depth 4286 Drill Collars Run 29.90 Vis 55
 Bottom Packer Depth 4290 Wt. Pipe Run _____ WL 8.8
 Total Depth 4340 Chlorides 5,000 ppm System LCM 1#

Blow Description B.O.B. in 10 min.
Bled off for 5 min. No return below
B.O.B. in 3 1/2 min.
Bled off for 5 min. weak surface in 20 min, died in 45 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>1005 Feet Gas In Pipe</u>				
<u>126</u>	<u>0 gm</u>		<u>20</u>		<u>80</u>
<u>63</u>	<u>mcoo</u>	<u>65</u>	<u>20</u>		<u>15</u>
<u>189</u>	<u>gcmo</u>	<u>30</u>	<u>40</u>		<u>30</u>
<u>126</u>	<u>gcom</u>	<u>30</u>	<u>30</u>		<u>40</u>

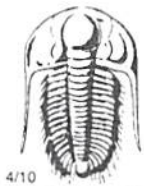
Rec Total 504 BHT 123 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2,172 Test 1250 T-On Location 12:20
 (B) First Initial Flow 37 Jars _____ T-Started 13:15
 (C) First Final Flow 126 Safety Joint _____ T-Open 15:31
 (D) Initial Shut-In 456 Circ Sub N/C T-Pulled 18:16
 (E) Second Initial Flow 150 Hourly Standby _____ T-Out 20:47
 (F) Second Final Flow 191 Mileage 130 RT 201.50
 (G) Final Shut-In 504 Sampler _____
 (H) Final Hydrostatic 2,110 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Shale Packer _____ Ruined Packer _____
 Final Flow 45 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1451.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1451.50

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. 53069

Well Name & No. Mishler F # 1 Test No. 2 Date 5/27/13
 Company John O Farmer, Inc Elevation 2449 KB 2441 GL
 Address 370 W Wichita Ave, Po Box 352, Russell KS 67665-2635
 Co. Rep / Geo. Jason Alm Rig Discovery Rig 3
 Location: Sec. 15 Twp. 17S Rge. 25W Co. Ness Co. State KS

Interval Tested 4407-4441 TP 4475 Zone Tested Miss
 Anchor Length 34 Anchor 34 1/2 pipe Drill Pipe Run 4375.25 Mud Wt. 9.4
 Top Packer Depth 4402 Drill Collars Run 29.70 Vis 56
 Bottom Packer Depth 4407 Wt. Pipe Run _____ WL 8.8
 Total Depth 4475 Chlorides 5000 ppm System LCM 2#

Blow Description B.O.B. in 23 min.
Bled off for 5 min. No return below

B.O.B. in 37 min.
Bled off for 5 min. Weak surface return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>282 Feet Gas In Pipe</u>				
<u>157</u>	<u>600</u>	<u>5</u>	<u>95</u>		
<u>63</u>	<u>MCO</u>		<u>60</u>		<u>40</u>
____	____	____	____	____	____
____	____	____	____	____	____

Rec Total 220 BHT 123 Gravity 38 API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2,288 Test 1250 T-On Location 13:40
 (B) First Initial Flow 27 Jars _____ T-Started 14:55
 (C) First Final Flow 53 Safety Joint _____ T-Open 16:48
 (D) Initial Shut-In 1,098 Circ Sub NIC T-Pulled 19:43
 (E) Second Initial Flow 64 Hourly Standby _____ T-Out 22:06
 (F) Second Final Flow 88 Mileage 130 RT 201.50 Comments _____
 (G) Final Shut-In 1,053 Sampler _____
 (H) Final Hydrostatic 2,239 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 45 Day Standby _____ Total 2051.50
 Final Shut-In 60 Accessibility _____ MP/DST Disc't _____
 Sub Total 2051.50

Approved By _____ Our Representative

Triobite 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.