



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 Water Ste 300  
Wichita KS 67202-1216

ATTN: Rocky Milford

### **Alexia Unit #1-12**

### **12-15s-19w Ellis,KS**

Start Date: 2013.04.01 @ 05:34:24

End Date: 2013.04.01 @ 13:30:03

Job Ticket #: 48516                      DST #: 1

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

Printed: 2013.04.08 @ 11:56:49







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48516      **DST#: 1**  
Test Start: 2013.04.01 @ 05:34:24

**Tool Information**

Drill Pipe:	Length: 3297.00 ft	Diameter: 3.80 inches	Volume: 46.25 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 46.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3331.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	107.00 ft			
Tool Length:	127.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3312.00	
Shut In Tool	5.00			3317.00	
Hydraulic tool	5.00			3322.00	
Packer	4.00			3326.00	20.00      Bottom Of Top Packer
Packer	5.00			3331.00	
Stubb	1.00			3332.00	
Perforations	5.00			3337.00	
Change Over Sub	1.00			3338.00	
Drill Pipe	63.00			3401.00	
Change Over Sub	1.00			3402.00	
Recorder	0.00	6625	Outside	3402.00	
Recorder	0.00	8679	Inside	3402.00	
Perforations	33.00			3435.00	
Bullnose	3.00			3438.00	107.00      Bottom Packers & Anchor

**Total Tool Length: 127.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48516      **DST#: 1**  
Test Start: 2013.04.01 @ 05:34:24

## Mud and Cushion Information

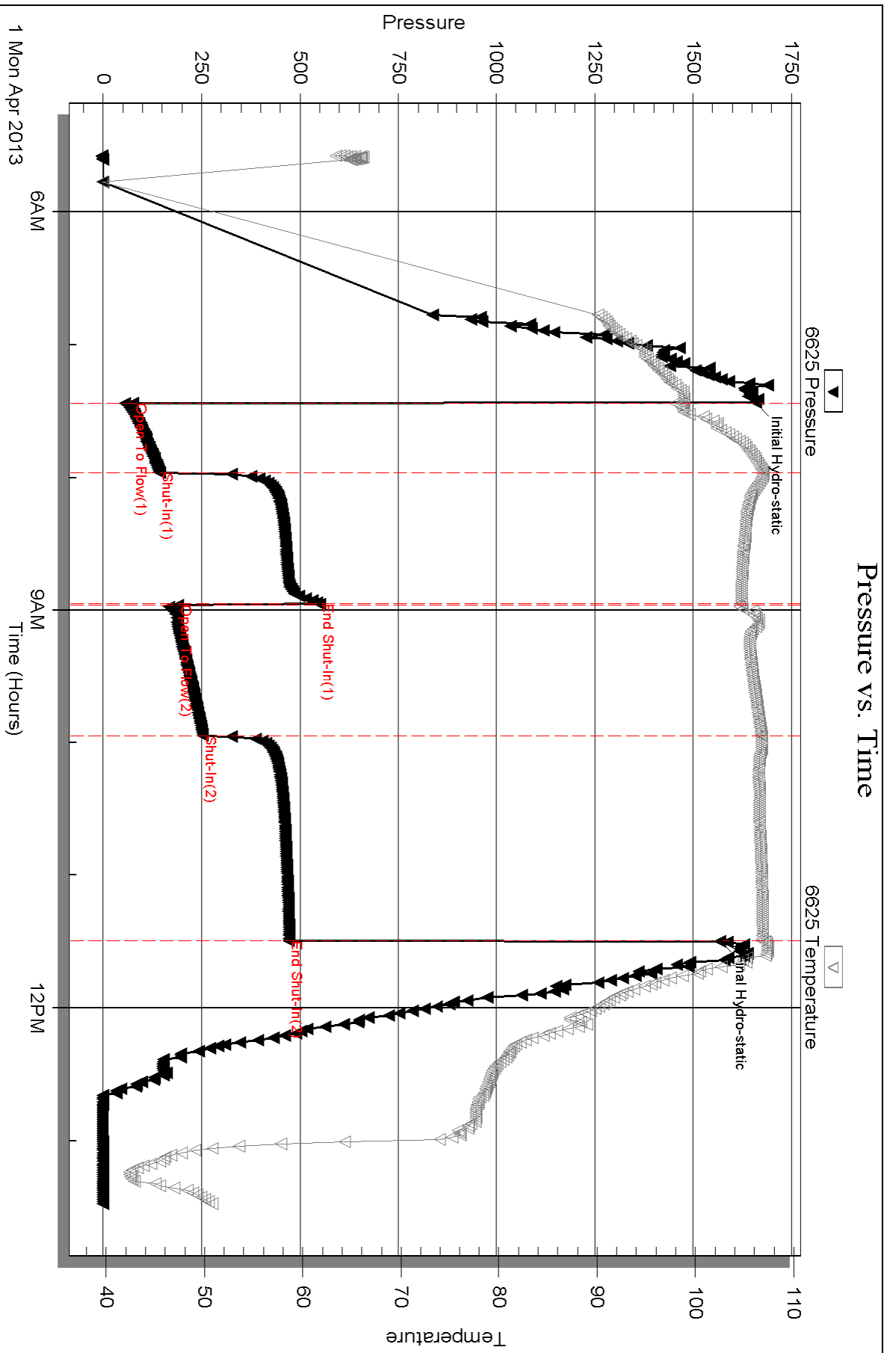
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
252.00	MW 10%M 90%W	3.271
126.00	WM 30%W 70%M	1.767
45.00	Mud with oil spots	0.631

Total Length: 423.00 ft      Total Volume: 5.669 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



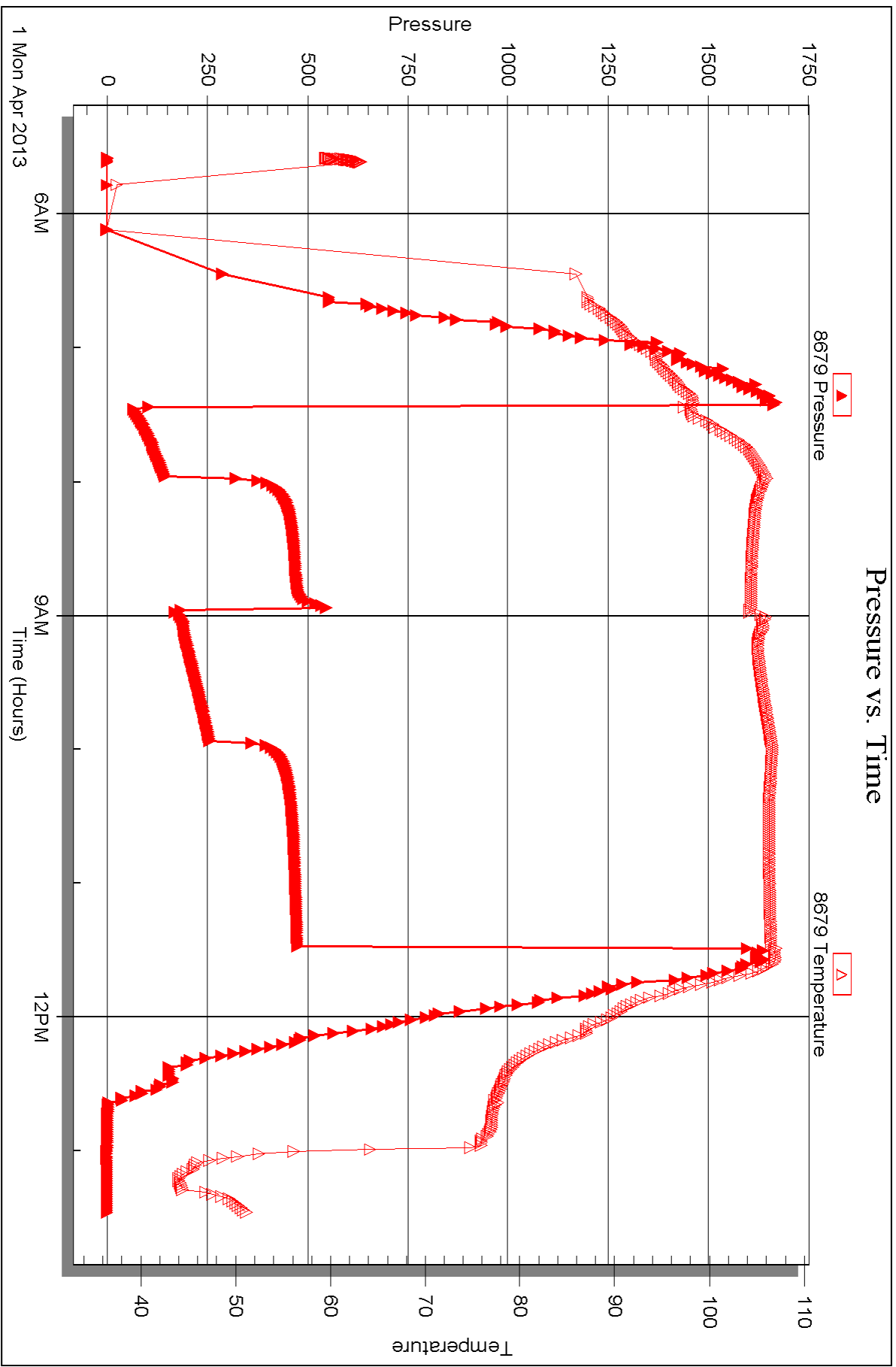
Serial #: 8679

Inside

Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 Water Ste 300  
Wichita KS 67202-1216

ATTN: Rocky Milford

### **Alexia Unit #1-12**

### **12-15s-19w Ellis,KS**

Start Date: 2013.04.01 @ 18:45:09

End Date: 2013.04.02 @ 01:05:29

Job Ticket #: 48517                      DST #: 2

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

Printed: 2013.04.08 @ 11:56:09





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 Water Ste 300  
 Wichita KS 67202-1216  
 ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
 Job Ticket: 48517 **DST#: 2**  
 Test Start: 2013.04.01 @ 18:45:09

## GENERAL INFORMATION:

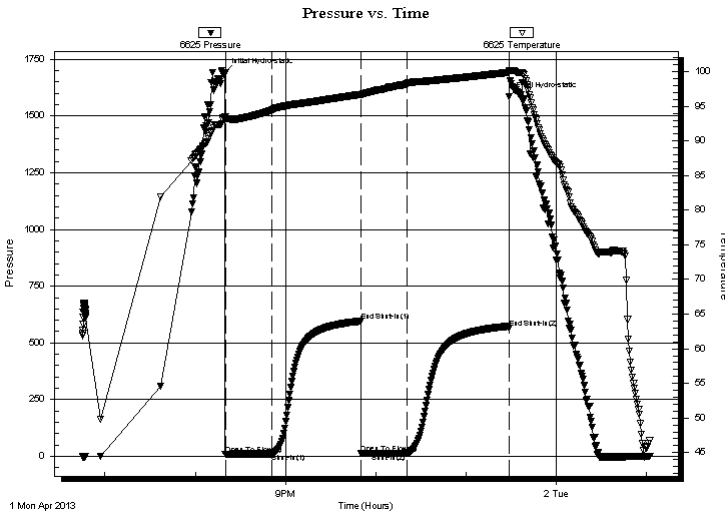
Formation: **Lansing E & F**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:19:59  
 Time Test Ended: 01:05:29  
 Interval: **3436.00 ft (KB) To 3460.00 ft (KB) (TVD)**  
 Total Depth: 3460.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jeff Brown  
 Unit No: 67  
 Reference Elevations: 2085.00 ft (KB)  
 2080.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6625 Outside

Press @ Run Depth: 12.74 psig @ 3437.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.01 End Date: 2013.04.02 Last Calib.: 2013.04.02  
 Start Time: 18:45:10 End Time: 01:02:29 Time On Btm: 2013.04.01 @ 20:19:49  
 Time Off Btm: 2013.04.01 @ 23:28:48

TEST COMMENT: IFP-Weakblow built to 1 1/8"  
 ISI-Dead no blow back  
 FFP-Dead no blow  
 FSI-Dead no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1690.83	93.43	Initial Hydro-static
1	8.70	93.16	Open To Flow (1)
31	11.49	94.49	Shut-In(1)
91	596.25	96.73	End Shut-In(1)
91	12.48	96.72	Open To Flow (2)
121	12.74	98.23	Shut-In(2)
189	565.09	99.89	End Shut-In(2)
189	1587.13	100.13	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud with oil spots	0.02

\* 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**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48517      **DST#: 2**  
Test Start: 2013.04.01 @ 18:45:09

**Tool Information**

Drill Pipe:	Length: 3392.00 ft	Diameter: 3.80 inches	Volume: 47.58 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose:	52000.00 lb
			<u>Total Volume: 47.72 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	3436.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	44.00 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			3417.00	
Shut In Tool	5.00			3422.00	
Hydraulic tool	5.00			3427.00	
Packer	4.00			3431.00	20.00      Bottom Of Top Packer
Packer	5.00			3436.00	
Stubb	1.00			3437.00	
Recorder	0.00	6625	Outside	3437.00	
Recorder	0.00	8679	Inside	3437.00	
Perforations	20.00			3457.00	
Bullnose	3.00			3460.00	24.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



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**FLUID SUMMARY**

Murfin Drilling Co Inc  
250 Water Ste 300  
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ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48517      **DST#: 2**  
Test Start: 2013.04.01 @ 18:45:09

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.37 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud w ith oil spots	0.025

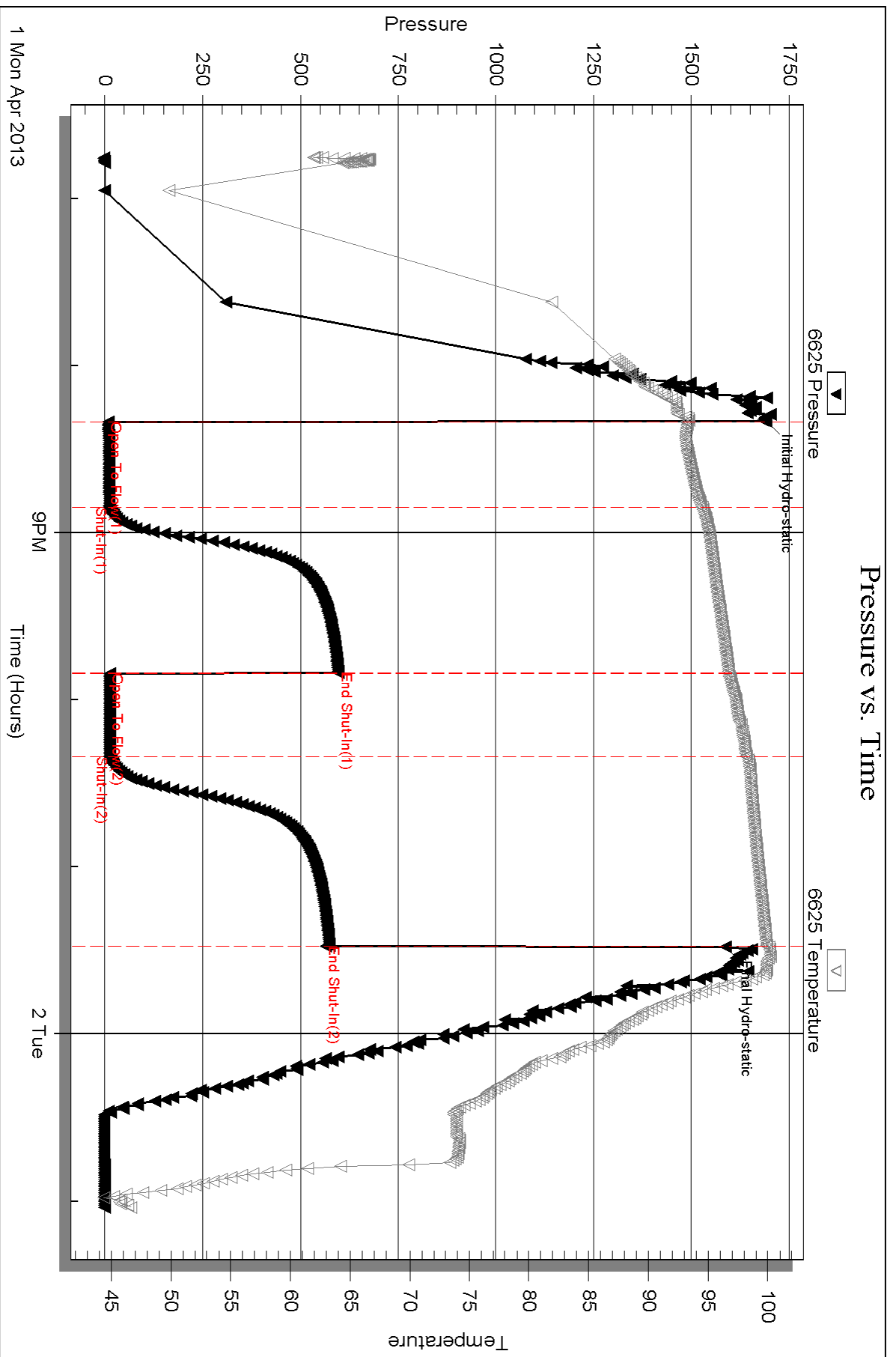
Total Length: 5.00 ft      Total Volume: 0.025 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 6625

Outside Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 2



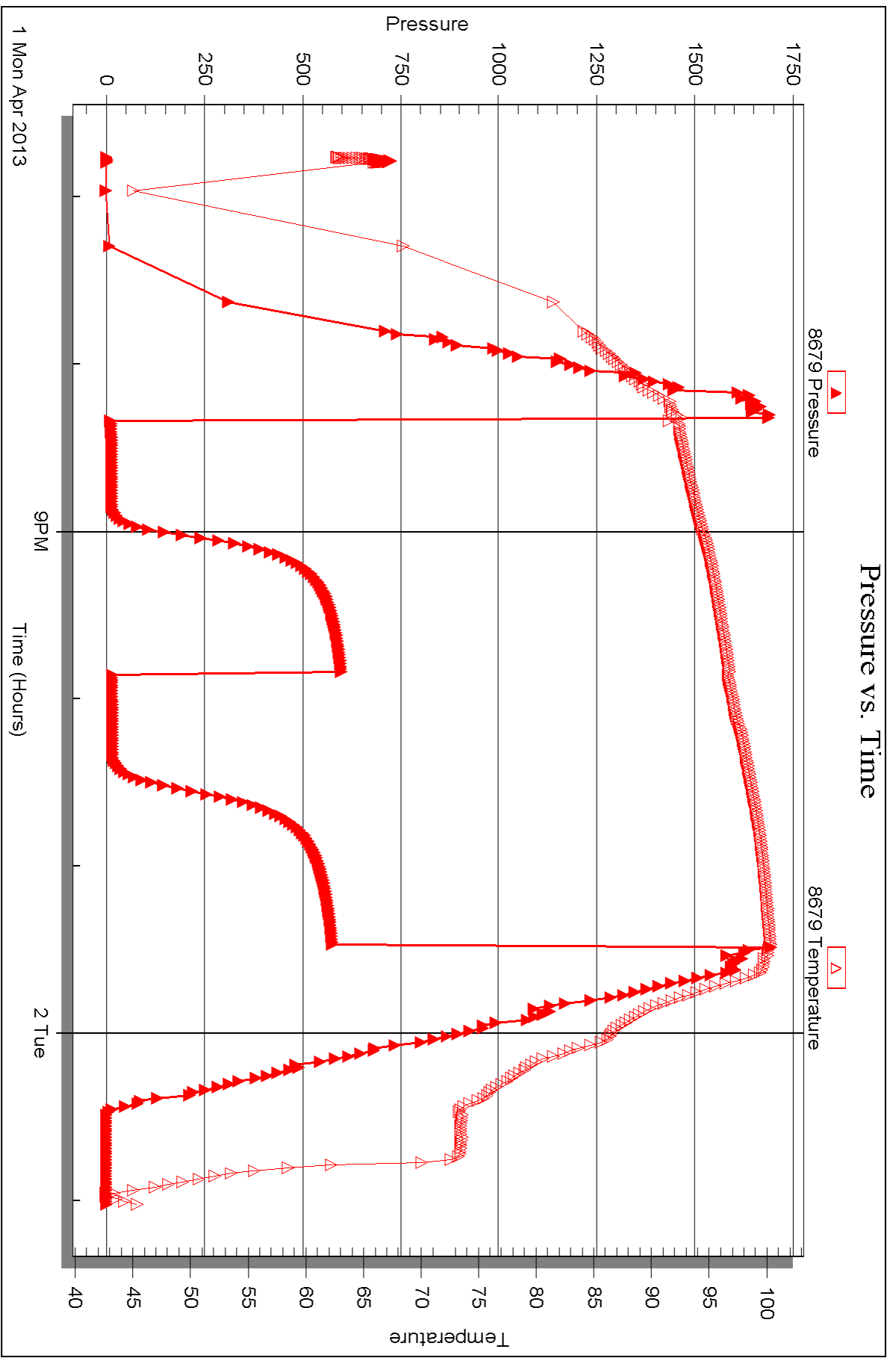
Serial #: 8679

Inside

Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 48517

Printed: 2013.04.08 @ 11:56:12



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 Water Ste 300  
Wichita KS 67202-1216

ATTN: Rocky Milford

### **Alexia Unit #1-12**

### **12-15s-19w Ellis,KS**

Start Date: 2013.04.02 @ 14:49:58

End Date: 2013.04.02 @ 22:15:18

Job Ticket #: 48518                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.04.08 @ 11:55:28



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling Co Inc  
 250 Water Ste 300  
 Wichita KS 67202-1216  
 ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
 Job Ticket: 48518 **DST#: 3**  
 Test Start: 2013.04.02 @ 14:49:58

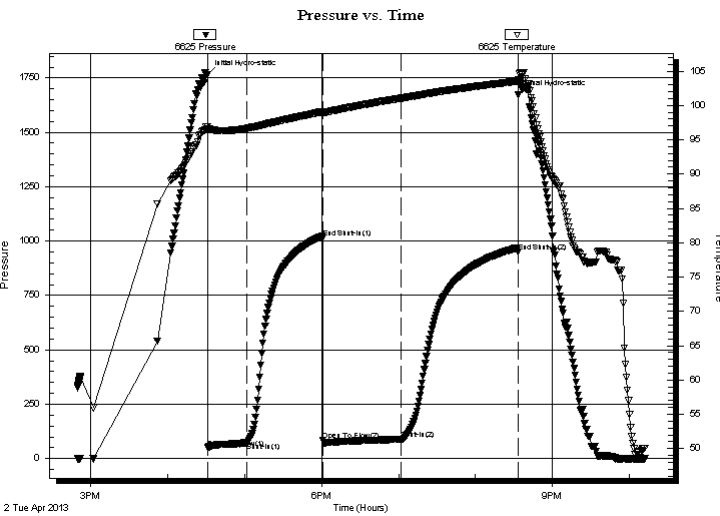
## GENERAL INFORMATION:

Formation: **Lansing H-J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:31:08  
 Time Test Ended: 22:15:18  
 Interval: **3491.00 ft (KB) To 3600.00 ft (KB) (TVD)**  
 Total Depth: 3600.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jeff Brown  
 Unit No: 67  
 Reference Elevations: 2085.00 ft (KB)  
 2080.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6625 Outside

Press @ Run Depth: 88.85 psig @ 3564.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.02 End Date: 2013.04.02 Last Calib.: 2013.04.02  
 Start Time: 14:49:59 End Time: 22:12:18 Time On Btm: 2013.04.02 @ 16:30:58  
 Time Off Btm: 2013.04.02 @ 20:33:18

TEST COMMENT: IFP-Fair blow built to 6"  
 ISI-Dead no blow back  
 FFP-Fair blow built to 6 3/4"  
 FSI-Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1765.83	96.89	Initial Hydro-static
1	49.26	96.39	Open To Flow (1)
31	72.62	96.66	Shut-In(1)
90	1013.50	99.08	End Shut-In(1)
91	83.46	98.91	Open To Flow (2)
151	88.85	101.04	Shut-In(2)
242	950.48	103.52	End Shut-In(2)
243	1674.92	103.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
92.00	V SOCGM 2%G 8%O 90%M	1.03
0.00	63-GIP	0.00

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48518      **DST#: 3**  
Test Start: 2013.04.02 @ 14:49:58

**Tool Information**

Drill Pipe:	Length: 3455.00 ft	Diameter: 3.80 inches	Volume: 48.46 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 48.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3491.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	109.00 ft			
Tool Length:	129.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3472.00	
Shut In Tool	5.00			3477.00	
Hydraulic tool	5.00			3482.00	
Packer	4.00			3486.00	20.00      Bottom Of Top Packer
Packer	5.00			3491.00	
Stubb	1.00			3492.00	
Perforations	7.00			3499.00	
Change Over Sub	1.00			3500.00	
Drill Pipe	63.00			3563.00	
Change Over Sub	1.00			3564.00	
Recorder	0.00	6625	Outside	3564.00	
Recorder	0.00	8679	Inside	3564.00	
Perforations	33.00			3597.00	
Bullnose	3.00			3600.00	109.00      Bottom Packers & Anchor

**Total Tool Length: 129.00**



**TRILOBITE  
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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48518      **DST#: 3**  
Test Start: 2013.04.02 @ 14:49:58

## Mud and Cushion Information

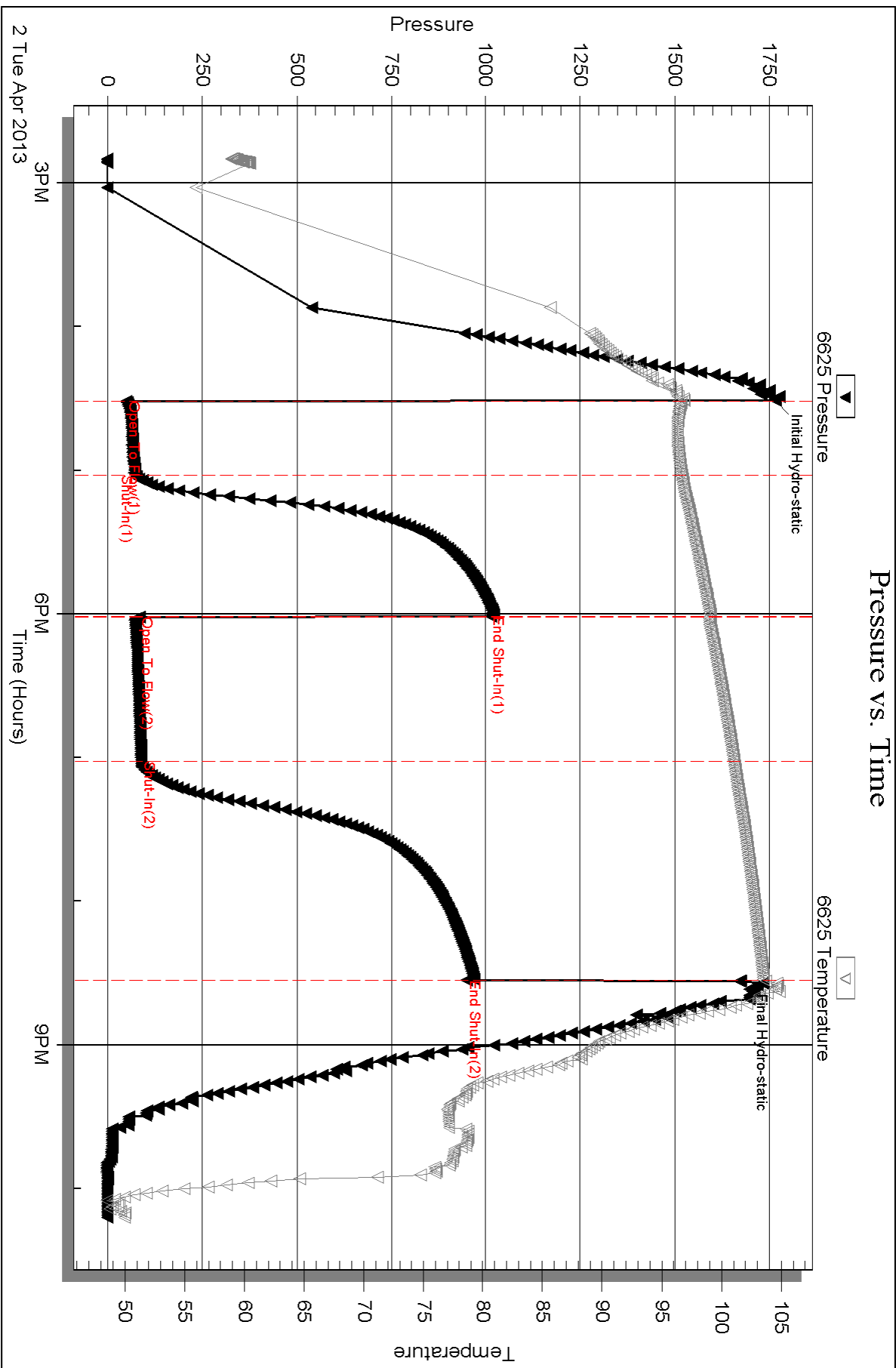
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
92.00	VSOCGM 2%G 8%O 90%M	1.026
0.00	63-GIP	0.000

Total Length: 92.00 ft      Total Volume: 1.026 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



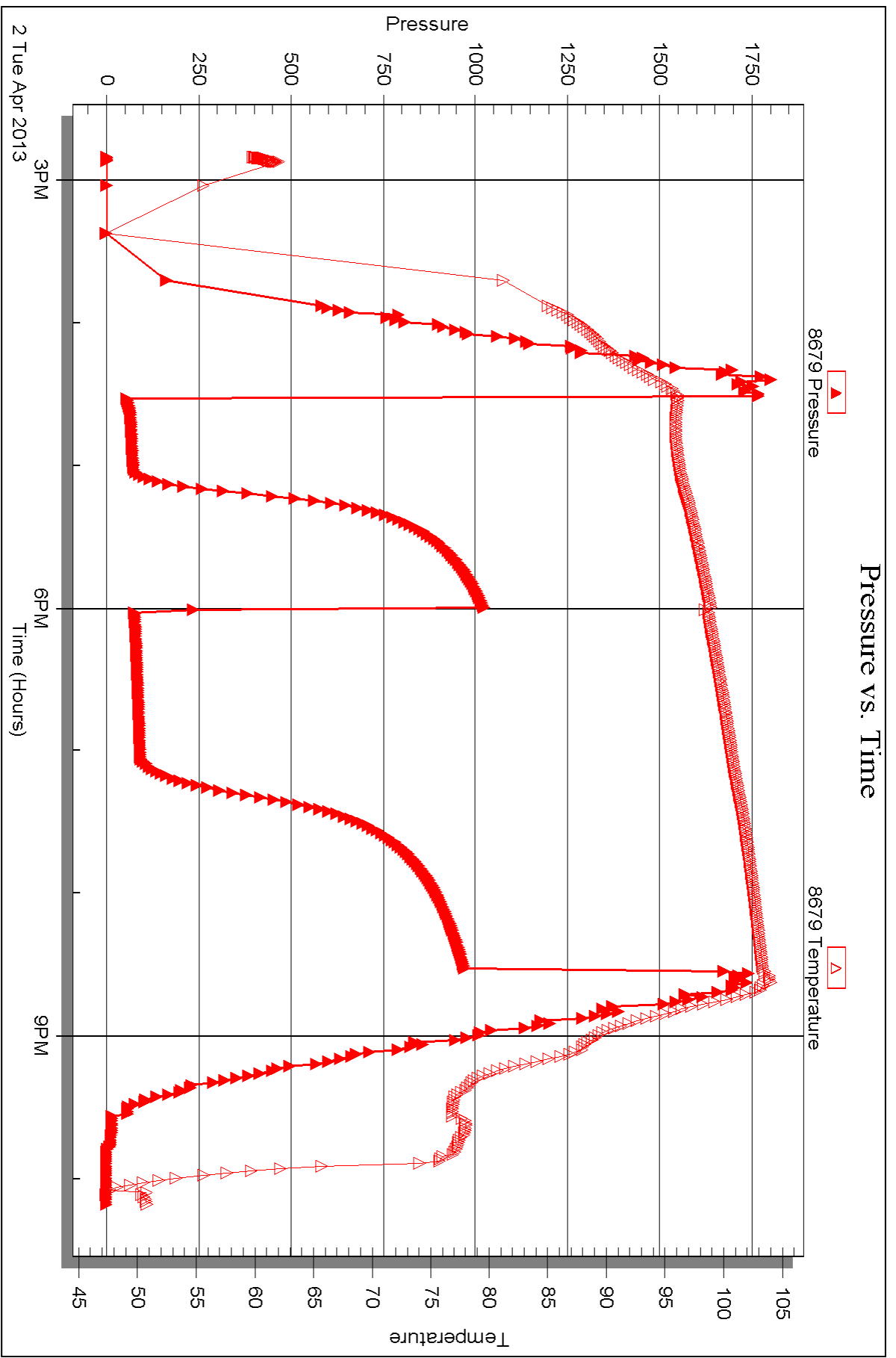
Serial #: 8679

Inside

Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 48518

Printed: 2013.04.08 @ 11:55:31



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 Water Ste 300  
Wichita KS 67202-1216

ATTN: Rocky Milford

### **Alexia Unit #1-12**

#### **12-15s-19w Ellis,KS**

Start Date: 2013.04.03 @ 11:09:17

End Date: 2013.04.03 @ 18:30:17

Job Ticket #: 48519                      DST #: 4

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

Murfin Drilling Co Inc  
 250 Water Ste 300  
 Wichita KS 67202-1216  
 ATTN: Rocky Milford

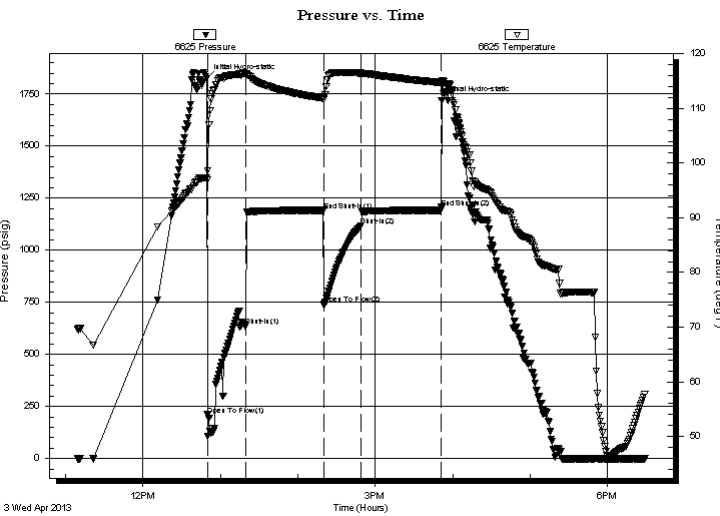
**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
 Job Ticket: 48519 **DST#: 4**  
 Test Start: 2013.04.03 @ 11:09:17

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:49:47  
 Time Test Ended: 18:30:17  
 Interval: **3665.00 ft (KB) To 3710.00 ft (KB) (TVD)**  
 Total Depth: 3438.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jeff Brown  
 Unit No: 67  
 Reference Elevations: 2085.00 ft (KB)  
 2080.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 6625 Outside**  
 Press @ Run Depth: 1116.67 psig @ 3702.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.04.03 End Date: 2013.04.03 Last Calib.: 2013.04.03  
 Start Time: 11:09:18 End Time: 18:29:17 Time On Btm: 2013.04.03 @ 12:49:37  
 Time Off Btm: 2013.04.03 @ 15:51:27

**TEST COMMENT:** IFP-Strong blow BOB in 1 1/4 min  
 ISI-Dead no blow back  
 FFP-Strong blow BOB in 45 sec  
 FSI-Dead no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1826.07	97.39	Initial Hydro-static
1	209.93	97.02	Open To Flow (1)
30	635.82	116.18	Shut-In(1)
91	1192.12	111.89	End Shut-In(1)
91	740.25	111.73	Open To Flow (2)
120	1116.67	116.48	Shut-In(2)
182	1206.13	114.76	End Shut-In(2)
182	1717.58	114.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2080.00	MW 10%M 90%W	28.91
360.00	WM 10%W 90%M	5.05

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48519      **DST#: 4**  
Test Start: 2013.04.03 @ 11:09:17

**Tool Information**

Drill Pipe:	Length: 3645.00 ft	Diameter: 3.80 inches	Volume: 51.13 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3665.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3646.00	
Shut In Tool	5.00			3651.00	
Hydraulic tool	5.00			3656.00	
Packer	4.00			3660.00	20.00      Bottom Of Top Packer
Packer	5.00			3665.00	
Stubb	1.00			3666.00	
Perforations	3.00			3669.00	
Change Over Sub	1.00			3670.00	
Drill Pipe	31.00			3701.00	
Change Over Sub	1.00			3702.00	
Recorder	0.00	6625	Outside	3702.00	
Recorder	0.00	8679	Inside	3702.00	
Perforations	5.00			3707.00	
Bullnose	3.00			3710.00	45.00      Bottom Packers & Anchor

**Total Tool Length: 65.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling Co Inc  
250 Water Ste 300  
Wichita KS 67202-1216  
ATTN: Rocky Milford

**12-15s-19w Ellis,KS**  
**Alexia Unit #1-12**  
Job Ticket: 48519      **DST#: 4**  
Test Start: 2013.04.03 @ 11:09:17

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2080.00	MW 10%M 90%W	28.913
360.00	WM 10%W 90%M	5.050

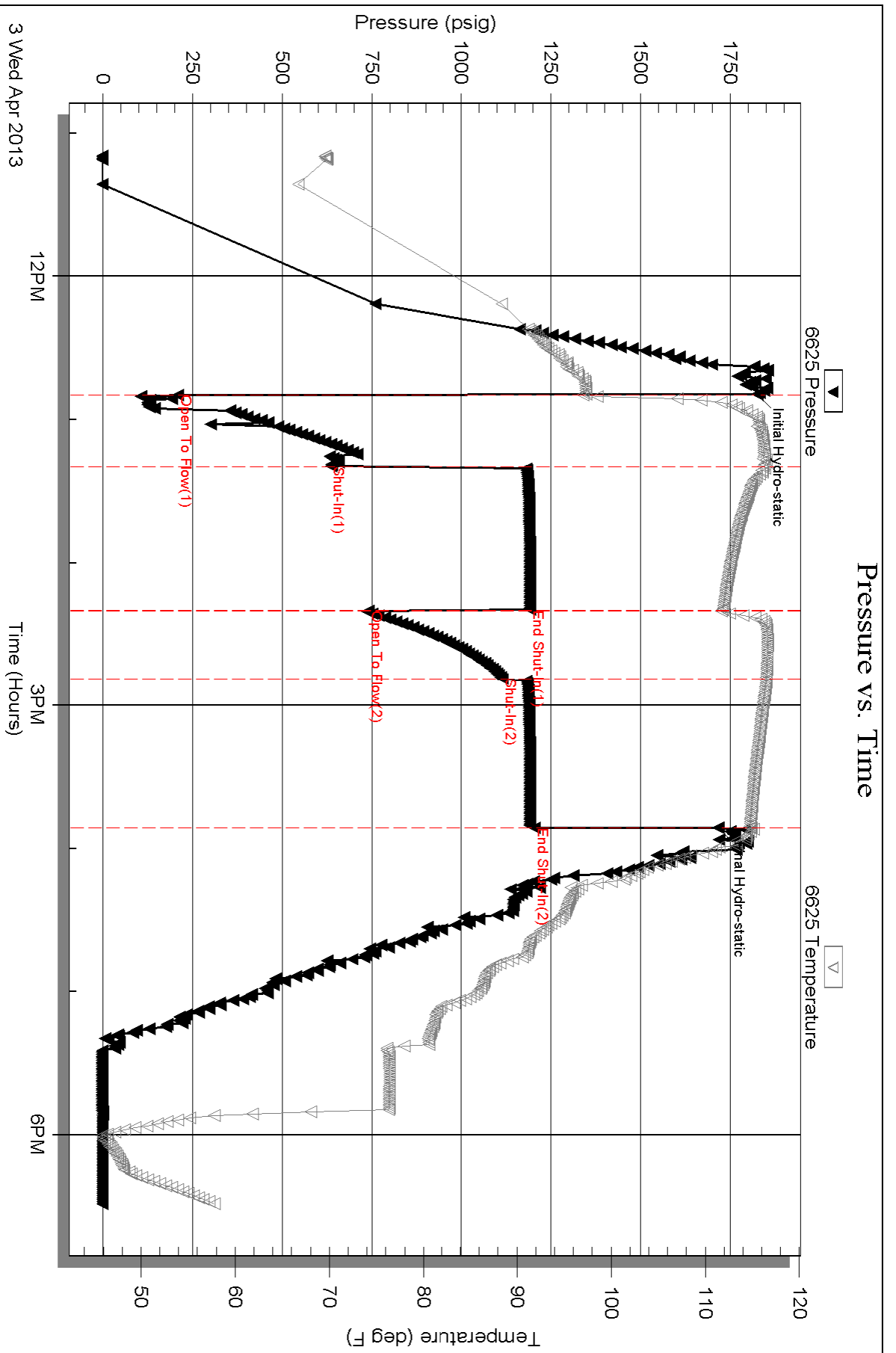
Total Length: 2440.00 ft      Total Volume: 33.963 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 6625

Outside Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 4



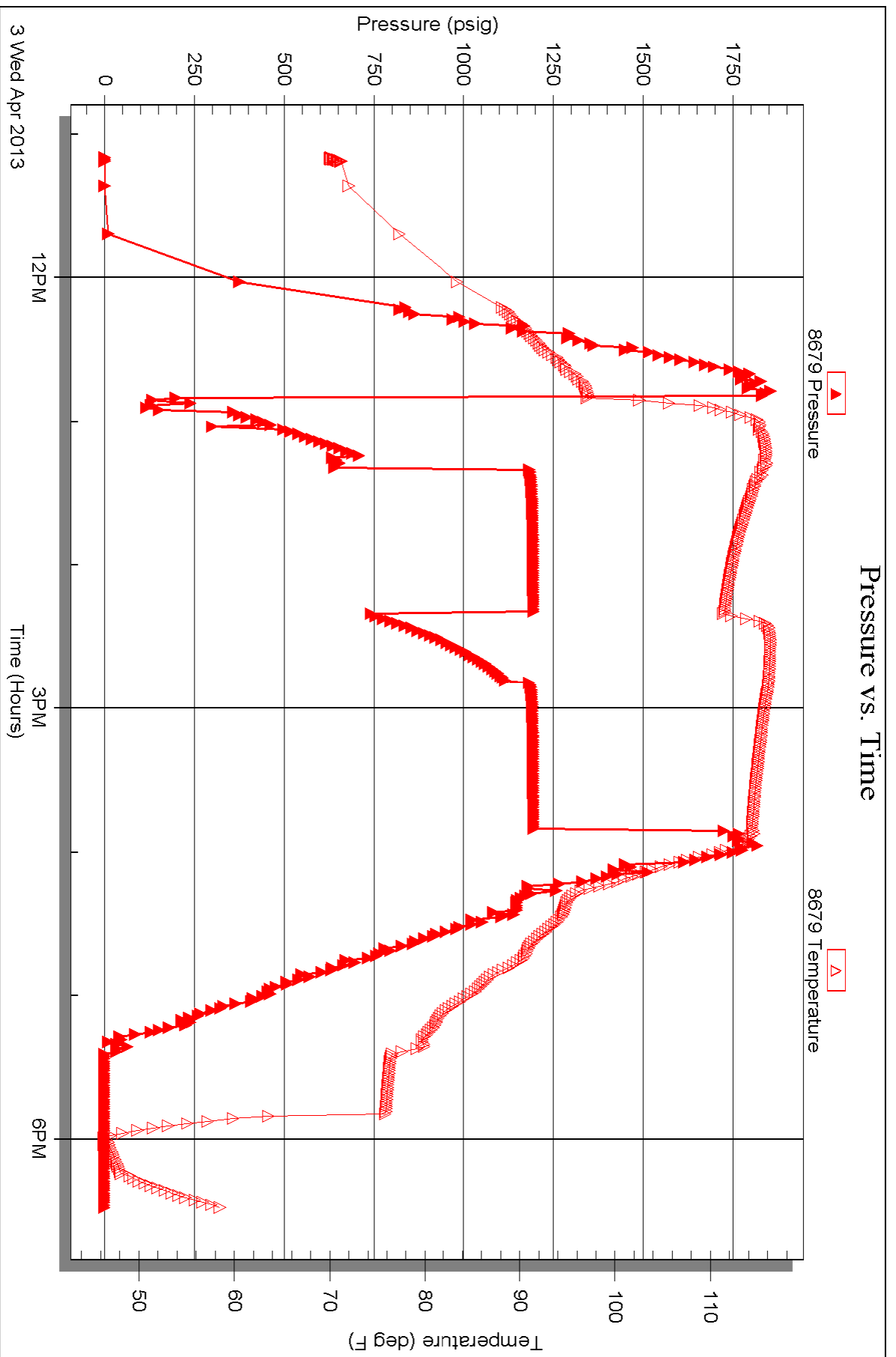
Serial #: 8679

Inside

Murfin Drilling Co Inc

Alexia Unit #1-12

DST Test Number: 4





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48516

Well Name & No. Alexia Unit #1-12 Test No. 1 Date 4-1-13  
 Company Murfin Drilling Co INC Elevation 2085 KB 2080 GL  
 Address 250 N Water Ste 300 Wichita KS 67202 + 1216  
 Co. Rep / Geo. Rocky Milford Rig Murfin #16  
 Location: Sec. 12 Twp. 15S Rge. 19W Co. ELLIS State KS

Interval Tested 3331 - 3438 Zone Tested Toronto - Lansing D  
 Anchor Length 107 Drill Pipe Run 3297 Mud Wt. 9.1  
 Top Packer Depth 3326 Drill Collars Run 29 Vis 50  
 Bottom Packer Depth 3331 Wt. Pipe Run 0 WL 7.4  
 Total Depth 3438 Chlorides 2400 ppm System LCM 1

Blow Description IP-Weak Blow Built to 2 1/4 IN ~~IN~~ Dies Back to 1 IN  
IS-Dead No Blow Back  
FP-Good Blow BoB IN 25 min  
FS-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>252</u>	<u>MW</u>			<u>90%</u>	<u>10%</u>
<u>126</u>	<u>WM</u>			<u>30%</u>	<u>70%</u>
<u>45</u>	<u>MUD WITH OIL SPOTS</u>				<u>100%</u>

Rec Total 423 BHT 107 Gravity \_\_\_\_\_ API RW 165 @ 48.2° F Chlorides 70,000 ppm  
 (A) Initial Hydrostatic 1659  Test 1150 T-On Location 4:42  
 (B) First Initial Flow 76  Jars \_\_\_\_\_ T-Started 5:34  
 (C) First Final Flow 143  Safety Joint \_\_\_\_\_ T-Open 7:27  
 (D) Initial Shut-In 550  Circ Sub \_\_\_\_\_ T-Pulled 11:27  
 (E) Second Initial Flow 190  Hourly Standby \_\_\_\_\_ T-Out 13:30  
 (F) Second Final Flow 253  Mileage 28 RT 43.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 471  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1568  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 6090  Day Standby \_\_\_\_\_ Total 1193.40  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1193.40

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48517

Well Name & No. Alexia Unit #1-12 Test No. 2 Date 4-1-13  
 Company Murfin Drilling Co INC Elevation 2085 KB 8080 GL  
 Address 250 N Water St 300 Wichita KS 67202  
 Co. Rep / Geo. Rocky milford Rig Murfin #14  
 Location: Sec. 12 Twp. 15S Rge. 19W Co. ELLIS State KS

Interval Tested 3436 - 3440 Zone Tested Lansing E-F  
 Anchor Length 24 Drill Pipe Run 3392 Mud Wt. 9.1  
 Top Packer Depth 3431 Drill Collars Run 29 Vis 50  
 Bottom Packer Depth 3436 Wt. Pipe Run 0 WL 7.4  
 Total Depth 3440 Chlorides 2400 ppm System LCM 1

Blow Description FP-Weak Blow Built to 1 1/8 IN  
EST-Dead No Blow Back  
FP-Dead No Blow  
EST-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD WITH OIL SPOTS</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 Total 5 BHT 100 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1691  
 (B) First Initial Flow 9  
 (C) First Final Flow 11  
 (D) Initial Shut-In 596  
 (E) Second Initial Flow 12  
 (F) Second Final Flow 13  
 (G) Final Shut-In 565  
 (H) Final Hydrostatic 1587

Test 1150  
 Jars \_\_\_\_\_  
 Safety Joint \_\_\_\_\_  
 Circ Sub \_\_\_\_\_  
 Hourly Standby \_\_\_\_\_  
 Mileage 43.40  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1193.40

T-On Location 18:24  
 T-Started 18:45  
 T-Open 20:21  
 T-Pulled 23:21  
 T-Out 1:05  
 Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1193.40  
 MP/DST Disc't \_\_\_\_\_

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

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48518

Well Name & No. Alexia Unit #1-12 Test No. 3 Date 4-2-13  
 Company Murfin Drilling Co Inc Elevation 2085 KB 2080 GL  
 Address 250 N Water Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin #16  
 Location: Sec. 12 Twp. 15s Rge. 19W Co. ELLIS State KS

Interval Tested 3491 - 3600 Zone Tested Lansing - HIJK  
 Anchor Length 108 Drill Pipe Run 3455 Mud Wt. 9.1  
 Top Packer Depth 3486 3486 Drill Collars Run 29 Vis 56  
 Bottom Packer Depth 3492 3491 Wt. Pipe Run 0 WL 7.6  
 Total Depth 3600 Chlorides 2500 ppm System LCM 1

Blow Description FF - fair Blow Built to 6 IN  
ISI - Dead No Blow Back  
FF - fair Blow Built to 6 3/4 IN  
ISI - Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>92</u>	<u>SOC GM</u>	<u>2</u>	<u>8</u>		<u>90</u>
	<u>63 - GIP</u>				

Rec Total 92 BHT 104 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1766</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>14:33</u>
(B) First Initial Flow <u>49</u>	<input type="checkbox"/> Jars _____	T-Started <u>14:49</u>
(C) First Final Flow <u>73</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>16:32</u>
(D) Initial Shut-In <u>1014</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>20:32</u>
(E) Second Initial Flow <u>83</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>22:15</u>
(F) Second Final Flow <u>89</u>	<input checked="" type="checkbox"/> Mileage <u>43.40</u>	Comments _____
(G) Final Shut-In <u>950</u>	<input type="checkbox"/> Sampler _____	<input type="checkbox"/> Ruined Shale Packer _____
(H) Final Hydrostatic <u>1675</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Extra Copies _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Total <u>1193.40</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility _____	
	Sub Total <u>1193.40</u>	

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48519

Well Name & No. Alexia Unit #1-12 Test No. 4 Date 4-3-13  
 Company Murfin Drilling Co INC Elevation 2085 KB 2080 GL  
 Address 250 N Water Ste 300 Wichita KS 67202  
 Co. Rep / Geo. Rocky Milford Rig Murfin #116  
 Location: Sec. 12 Twp. 15 S Rge. 19 W Co. ELLIS State KS

Interval Tested 3665 - 3710 Zone Tested Arbuckle  
 Anchor Length 45 Drill Pipe Run 3645 Mud Wt. 9.2  
 Top Packer Depth 3660 Drill Collars Run 29 Vis 54  
 Bottom Packer Depth 3665 Wt. Pipe Run 0 WL 7.8  
 Total Depth 3710 Chlorides 2500 ppm System LCM 2 #

Blow Description FF-Strong Blow Bob In 1 1/4 min  
1st-Dead No Blow Back  
FF-Strong Blow Bob In 45 sec  
1st-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>2080</u>	<u>MW</u>			<u>90</u>	<u>10</u>
<u>360</u>	<u>WM</u>			<u>10</u>	<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2440 BHT 115 Gravity \_\_\_\_\_ API RW. 344 @ 50.3 °F Chlorides 28,000 ppm

(A) Initial Hydrostatic 1826  Test 1150 T-On Location 10:35  
 (B) First Initial Flow 210  Jars \_\_\_\_\_ T-Started 11:09  
 (C) First Final Flow 636  Safety Joint \_\_\_\_\_ T-Open 12:50  
 (D) Initial Shut-In 1192  Circ Sub \_\_\_\_\_ T-Pulled 15:50  
 (E) Second Initial Flow 740  Hourly Standby \_\_\_\_\_ T-Out 18:30  
 (F) Second Final Flow 1117  Mileage 43.40 Comments \_\_\_\_\_  
 (G) Final Shut-In 1206  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1718  Straddle \_\_\_\_\_

Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1443.40  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1443.40

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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