



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.15 @ 10:30:58

End Date: 2012.04.15 @ 19:58:53

Job Ticket #: 45047 DST #: 1

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

Printed: 2012.04.23 @ 14:48:25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

19-5s-31w Rawlins, KS

Anderson-Ryan #1-19

Job Ticket: 45047

DST#: 1

Test Start: 2012.04.15 @ 10:30:58

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:33:53
 Time Test Ended: 19:58:53
 Interval: **3802.00 ft (KB) To 3830.00 ft (KB) (TVD)**
 Total Depth: 3830.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Turley
 Unit No: 60
 Reference Elevations: 2953.00 ft (KB)
 2948.00 ft (CF)
 KB to GR/CF: 5.00 ft

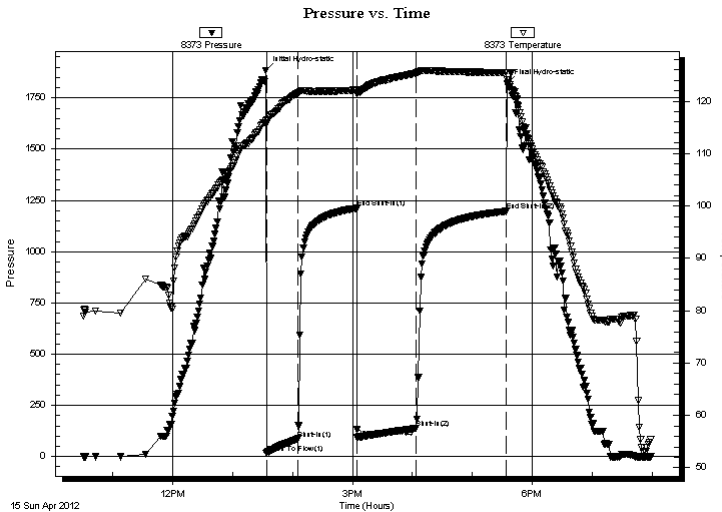
Serial #: 8373

Inside

Press @ Run Depth: 137.22 psig @ 3803.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.15 End Date: 2012.04.15 Last Calib.: 2012.04.15
 Start Time: 10:30:58 End Time: 19:58:53 Time On Btm: 2012.04.15 @ 13:33:23
 Time Off Btm: 2012.04.15 @ 17:34:37

TEST COMMENT: IF: 1/4" blow built to 6".
 IS: No return.
 FF: BOB in 55 min.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.43	116.29	Initial Hydro-static
1	17.15	115.74	Open To Flow (1)
32	86.03	121.53	Shut-In(1)
91	1211.94	122.11	End Shut-In(1)
92	93.13	121.67	Open To Flow (2)
151	137.22	125.37	Shut-In(2)
241	1197.00	125.48	End Shut-In(2)
242	1820.83	124.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mcw 90%w 10%m	0.61
62.00	mcw 60%w 40%m	0.30
63.00	mcgo 5%g 55%o 40%m	0.88
31.00	mcgo 5%g 65%o 30%m	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 45047

DST#: 1

ATTN: Jeff Christian

Test Start: 2012.04.15 @ 10:30:58

Tool Information

Drill Pipe:	Length: 3598.00 ft	Diameter: 3.80 inches	Volume: 50.47 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 51.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3802.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	56.00 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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Stubb	1.00			3775.00	
Shut In Tool	5.00			3780.00	
Hydraulic tool	5.00			3785.00	
Jars	5.00			3790.00	
Safety Joint	3.00			3793.00	
Packer	5.00			3798.00	28.00 Bottom Of Top Packer
Packer	4.00			3802.00	
Stubb	1.00			3803.00	
Recorder	0.00	8373	Inside	3803.00	
Recorder	0.00	8356	Outside	3803.00	
Perforations	22.00			3825.00	
Bullnose	5.00			3830.00	28.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 45047

DST#: 1

ATTN: Jeff Christian

Test Start: 2012.04.15 @ 10:30:58

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

46000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	mcw 90%w 10%m	0.610
62.00	mcw 60%w 40%m	0.305
63.00	mcgo 5%g 55%o 40%m	0.884
31.00	mcgo 5%g 65%o 30%m	0.435

Total Length: 280.00 ft Total Volume: 2.234 bbl

Num Fluid Samples: 0

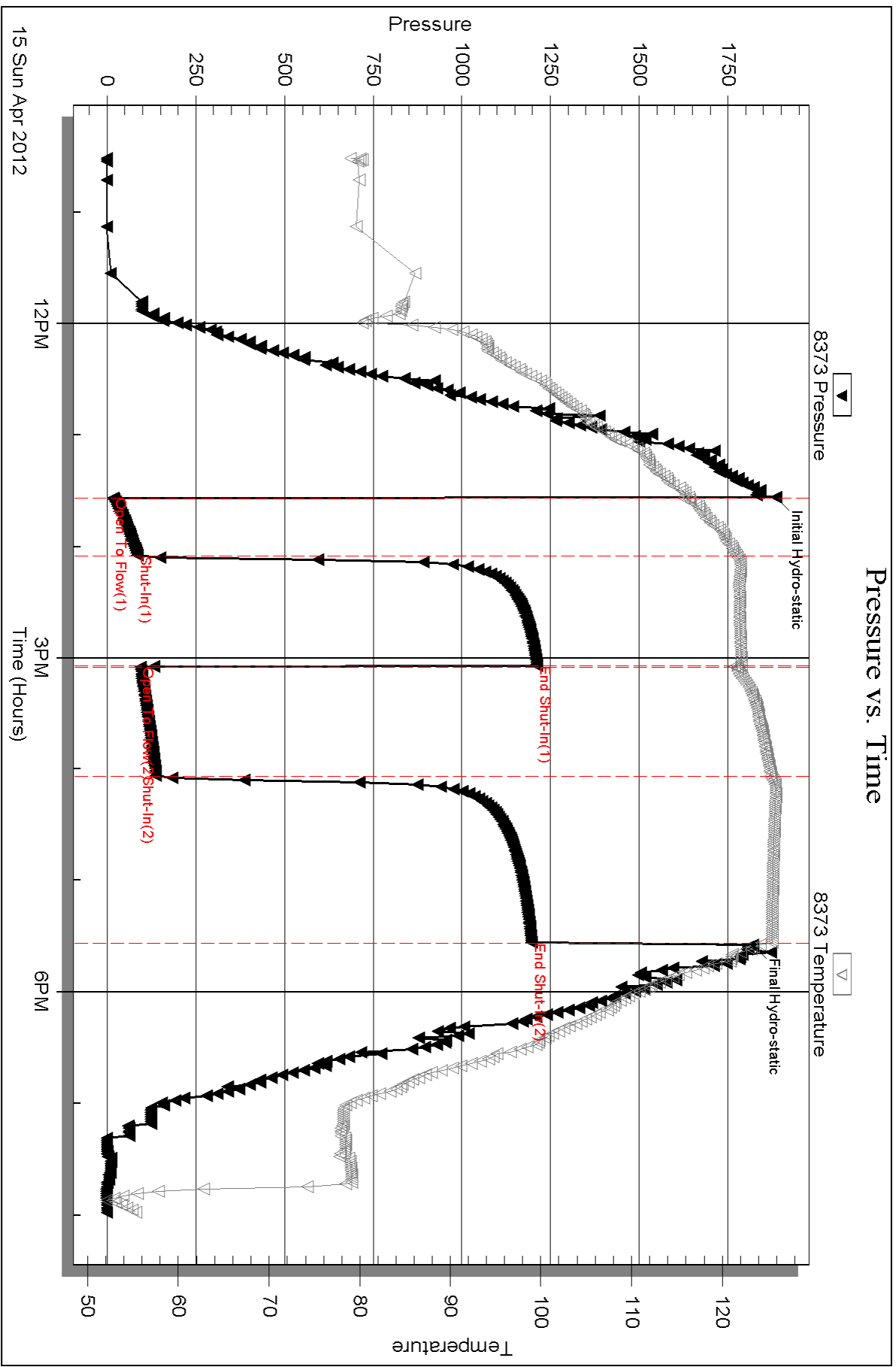
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .22@52=46000

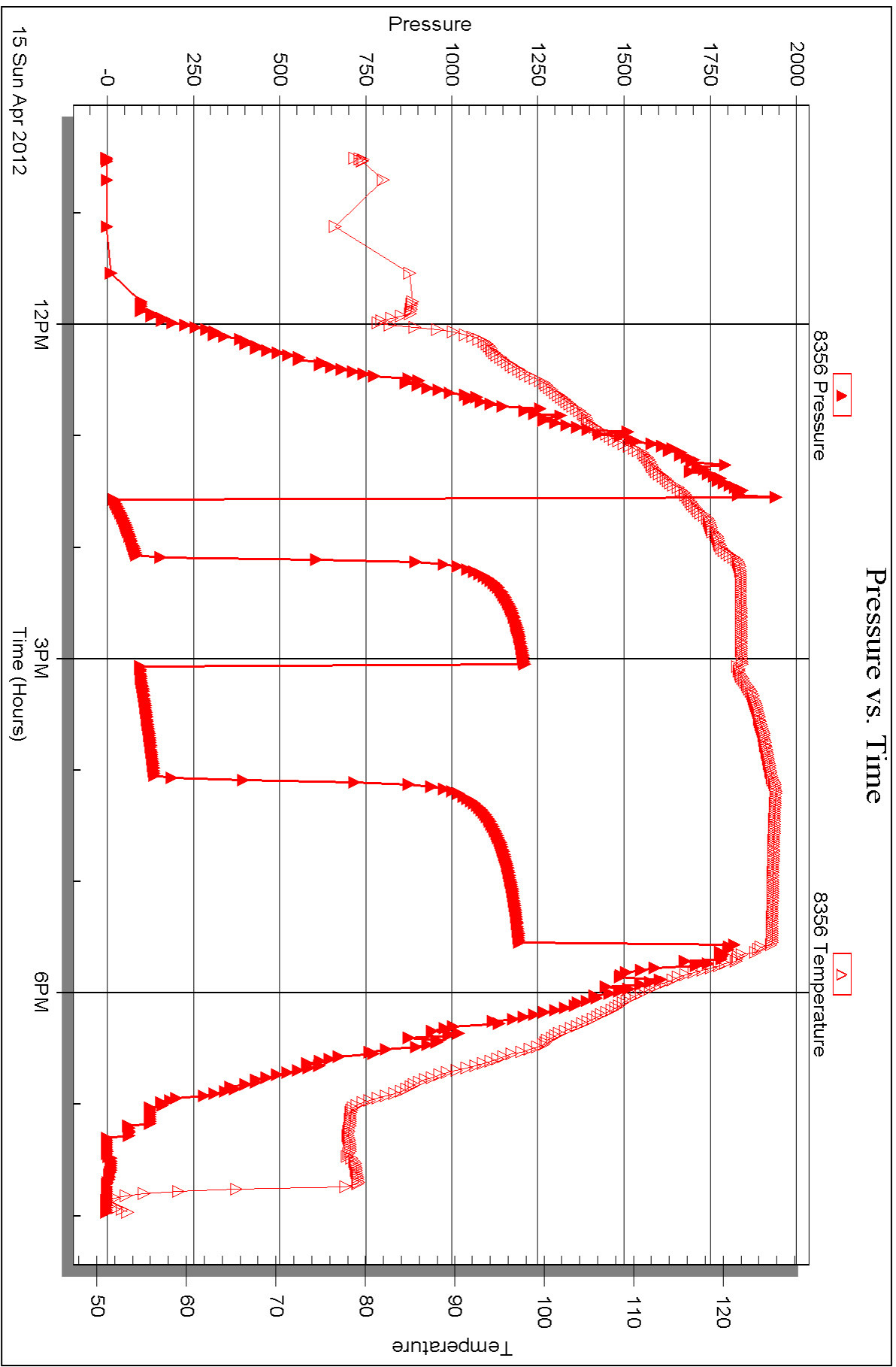


Serial #: 8356

Outside Murfin Drilling Company

Anderson-Ryan #1-19

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.16 @ 04:20:50

End Date: 2012.04.16 @ 11:39:44

Job Ticket #: 45048 DST #: 2

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

Printed: 2012.04.23 @ 14:47:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

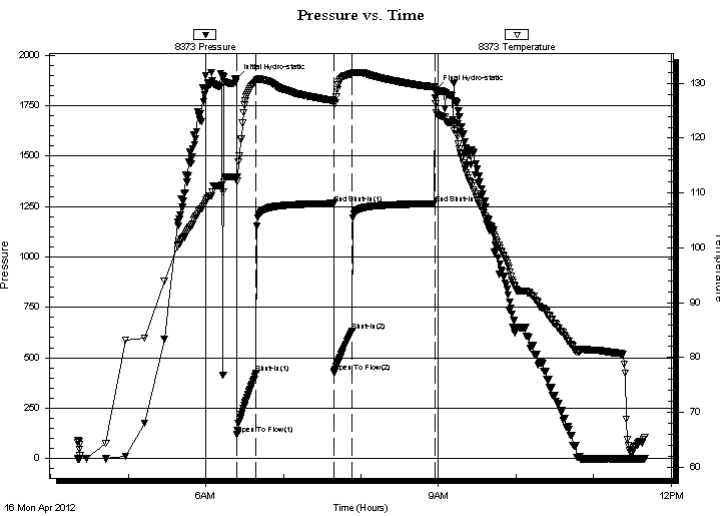
19-5s-31w Rawlins, KS
Anderson-Ryan #1-19
 Job Ticket: 45048 **DST#: 2**
 Test Start: 2012.04.16 @ 04:20:50

GENERAL INFORMATION:

Formation: **Oread**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 06:24:15 Tester: Brandon Turley
 Time Test Ended: 11:39:44 Unit No: 60
 Interval: **3843.00 ft (KB) To 3892.00 ft (KB) (TVD)** Reference Elevations: 2953.00 ft (KB)
 Total Depth: 3892.00 ft (KB) (TVD) 2948.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

Serial #: 8373 Inside
 Press @ Run Depth: 632.48 psig @ 3844.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.16 End Date: 2012.04.16 Last Calib.: 2012.04.16
 Start Time: 04:20:50 End Time: 11:39:44 Time On Btm: 2012.04.16 @ 06:24:00
 Time Off Btm: 2012.04.16 @ 08:57:44

TEST COMMENT: IF: BOB in 2 min.
 IS: No return.
 FF: BOB in 2 1/2 min.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.33	112.82	Initial Hydro-static
1	120.15	112.15	Open To Flow (1)
15	423.13	130.32	Shut-In(1)
75	1265.31	126.86	End Shut-In(1)
76	428.34	126.47	Open To Flow (2)
90	632.48	131.73	Shut-In(2)
153	1263.93	129.32	End Shut-In(2)
154	1827.89	126.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
819.00	water 100%w	9.79
252.00	mcw 60%w 40%m	3.53
262.00	w cm 40%w 60%m	3.68

* 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 Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 45048

DST#: 2

ATTN: Jeff Christian

Test Start: 2012.04.16 @ 04:20:50

Tool Information

Drill Pipe:	Length: 3661.00 ft	Diameter: 3.80 inches	Volume: 51.35 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 52.26 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3843.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	77.00 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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Stubb	1.00			3816.00	
Shut In Tool	5.00			3821.00	
Hydraulic tool	5.00			3826.00	
Jars	5.00			3831.00	
Safety Joint	3.00			3834.00	
Packer	5.00			3839.00	28.00 Bottom Of Top Packer
Packer	4.00			3843.00	
Stubb	1.00			3844.00	
Recorder	0.00	8373	Inside	3844.00	
Recorder	0.00	8356	Outside	3844.00	
Perforations	10.00			3854.00	
Change Over Sub	1.00			3855.00	
Drill Pipe	31.00			3886.00	
Change Over Sub	1.00			3887.00	
Bullnose	5.00			3892.00	49.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company
250 N Water Ste 300
Wichita, KS 67202
ATTN: Jeff Christian

19-5s-31w Rawlins,KS
Anderson-Ryan #1-19
Job Ticket: 45048 **DST#: 2**
Test Start: 2012.04.16 @ 04:20:50

Mud and Cushion Information

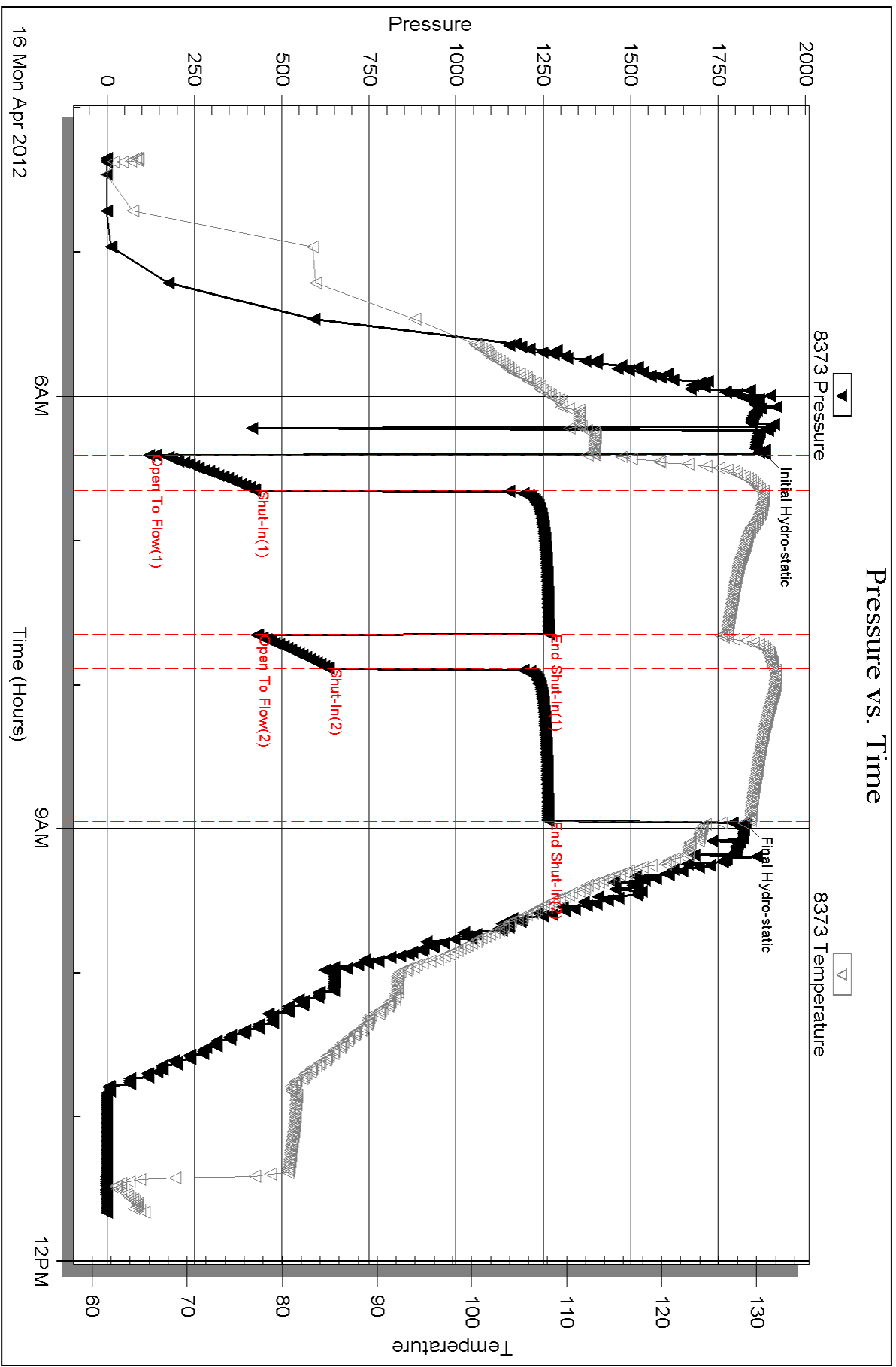
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 48000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.97 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 800.00 ppm		
Filter Cake: 2.00 inches		

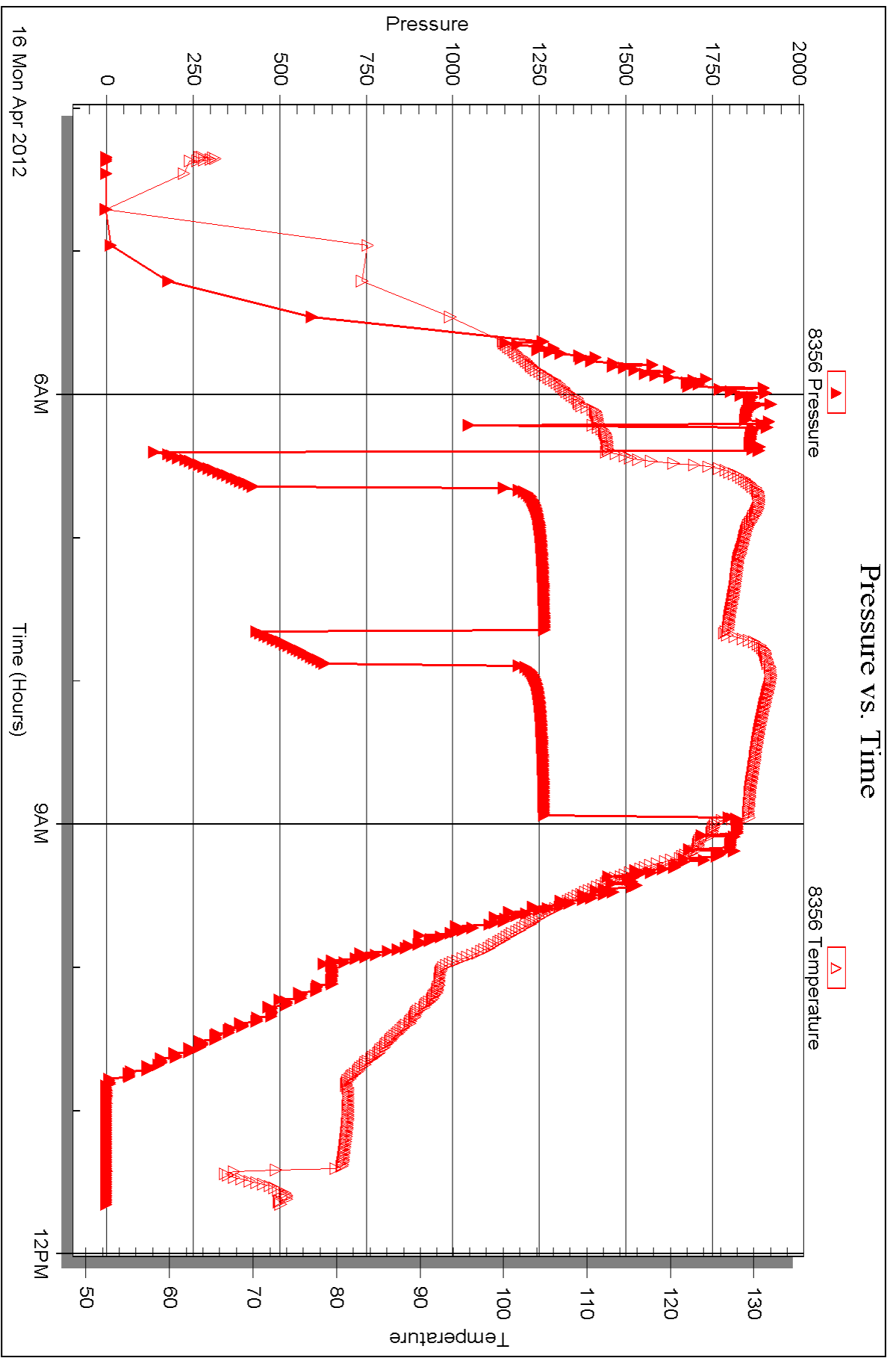
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
819.00	water 100%w	9.794
252.00	mcw 60%w 40%m	3.535
262.00	w cm 40%w 60%m	3.675

Total Length: 1333.00 ft Total Volume: 17.004 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .19@58=48000







DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.16 @ 21:12:25

End Date: 2012.04.17 @ 03:25:04

Job Ticket #: 45049 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.04.23 @ 14:46:48

Murfin Drilling Company

19-5s-31w Rawlins,KS

Anderson-Ryan #1-19

DST # 3

Toronto- LKC A&B

2012.04.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

19-5s-31w Rawlins, KS
Anderson-Ryan #1-19
 Job Ticket: 45049 **DST#: 3**
 Test Start: 2012.04.16 @ 21:12:25

GENERAL INFORMATION:

Formation: **Toronto- LKC A&B**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 22:35:50 Tester: Brandon Turley
 Time Test Ended: 03:25:04 Unit No: 60
 Interval: **3881.00 ft (KB) To 3968.00 ft (KB) (TVD)** Reference Elevations: 2953.00 ft (KB)
 Total Depth: 3968.00 ft (KB) (TVD) 2948.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

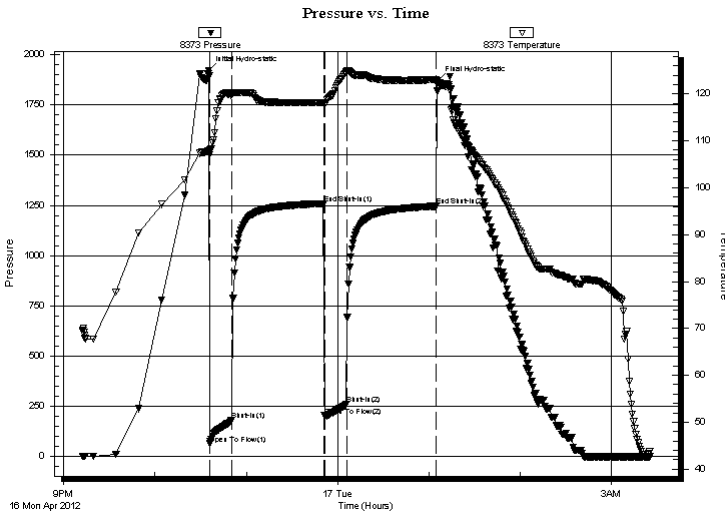
Serial #: 8373

Inside

Press @ Run Depth: 259.23 psig @ 3882.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.16 End Date: 2012.04.17 Last Calib.: 2012.04.17
 Start Time: 21:12:25 End Time: 03:25:04 Time On Btm: 2012.04.16 @ 22:35:05
 Time Off Btm: 2012.04.17 @ 01:06:05

TEST COMMENT: IF: BOB in 5 min.
 IS: No return.
 FF: BOB in 7 min.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1921.91	107.82	Initial Hydro-static
1	62.70	107.01	Open To Flow (1)
16	181.45	119.79	Shut-In(1)
76	1259.19	118.11	End Shut-In(1)
77	200.74	117.89	Open To Flow (2)
91	259.23	124.68	Shut-In(2)
150	1246.32	122.97	End Shut-In(2)
151	1870.57	121.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	mcw 90%w 10%m	0.62
126.00	ocmw 10%o 80%w 10%m	1.22
335.00	ocm 10%o 90%m	4.70

* 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 Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 45049

DST#: 3

ATTN: Jeff Christian

Test Start: 2012.04.16 @ 21:12:25

Tool Information

Drill Pipe:	Length: 3692.00 ft	Diameter: 3.80 inches	Volume: 51.79 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 52.70 bbl</u>	Tool Chased 8.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3881.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	87.00 ft			
Tool Length:	115.00 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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Stubb	1.00			3854.00	
Shut In Tool	5.00			3859.00	
Hydraulic tool	5.00			3864.00	
Jars	5.00			3869.00	
Safety Joint	3.00			3872.00	
Packer	5.00			3877.00	28.00 Bottom Of Top Packer
Packer	4.00			3881.00	
Stubb	1.00			3882.00	
Recorder	0.00	8373	Inside	3882.00	
Recorder	0.00	8356	Outside	3882.00	
Perforations	16.00			3898.00	
Change Over Sub	1.00			3899.00	
Drill Pipe	63.00			3962.00	
Change Over Sub	1.00			3963.00	
Bullnose	5.00			3968.00	87.00 Bottom Packers & Anchor

Total Tool Length: 115.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 45049

DST#: 3

ATTN: Jeff Christian

Test Start: 2012.04.16 @ 21:12:25

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
126.00	mcw 90%w 10%m	0.620
126.00	ocmw 10%o 80%w 10%m	1.221
335.00	ocm 10%o 90%m	4.699

Total Length: 587.00 ft

Total Volume: 6.540 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

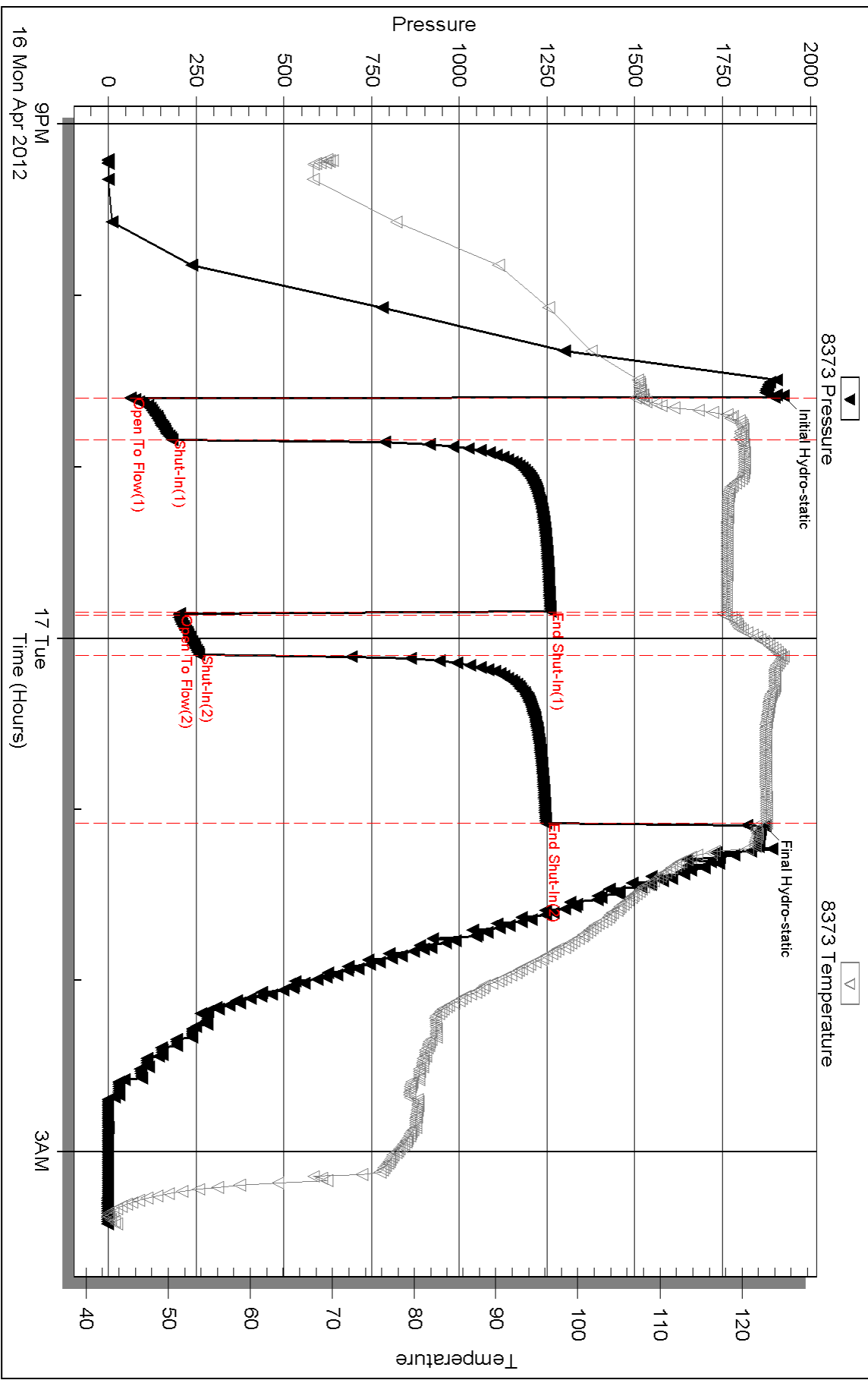
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .29@43=42000

Pressure vs. Time

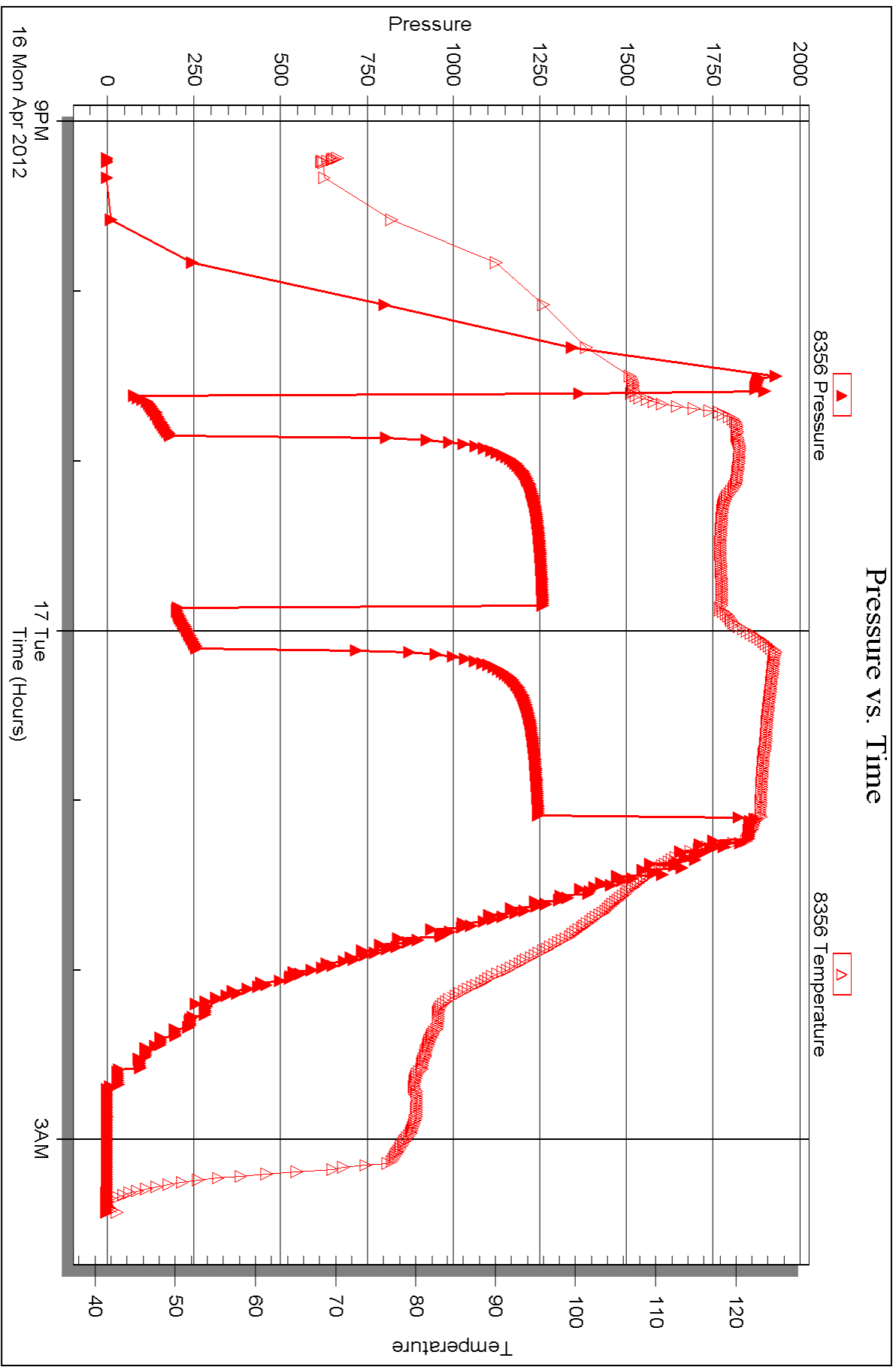


Serial #: 8356

Outside Murfin Drilling Company

Anderson-Ryan #1-19

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.17 @ 13:00:00

End Date: 2012.04.17 @ 19:46:00

Job Ticket #: 46058 DST #: 4

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

Printed: 2012.04.23 @ 14:46:07

Murfin Drilling Company

19-5s-31w Rawlins,KS

Anderson-Ryan #1-19

DST # 4

LKC-EJF

2012.04.17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfyn Drilling Company
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

19-5s-31w Rawlins, KS
Anderson-Ryan #1-19
 Job Ticket: 46058 **DST#: 4**
 Test Start: 2012.04.17 @ 13:00:00

GENERAL INFORMATION:

Formation: **LKC-EF**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:15:45
 Time Test Ended: 19:46:00
 Interval: **3990.00 ft (KB) To 4016.00 ft (KB) (TVD)**
 Total Depth: 3830.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2953.00 ft (KB)
 2948.00 ft (CF)
 KB to GR/CF: 5.00 ft

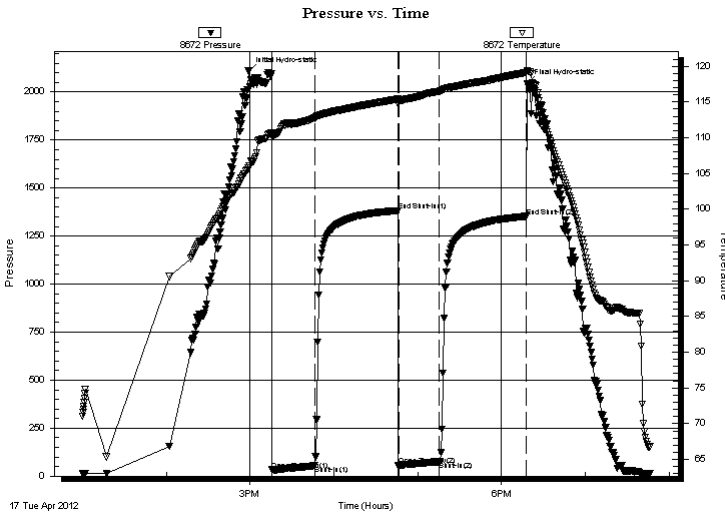
Serial #: 8672

Outside

Press @ Run Depth: 76.20 psig @ 3993.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.17 End Date: 2012.04.17 Last Calib.: 2012.04.17
 Start Time: 13:00:05 End Time: 19:45:59 Time On Btm: 2012.04.17 @ 14:58:45
 Time Off Btm: 2012.04.17 @ 18:18:15

TEST COMMENT: IF: Weak surface blow over 30 mins.
 IS: No blow back over 60 mins.
 FF: Weak surface blow over 30 mins.
 FS: No blow back over 60 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2108.32	105.73	Initial Hydro-static
17	32.28	110.20	Open To Flow (1)
48	54.75	112.72	Shut-In(1)
107	1382.98	115.41	End Shut-In(1)
108	56.64	115.09	Open To Flow (2)
137	76.20	116.49	Shut-In(2)
199	1352.56	119.12	End Shut-In(2)
200	2042.91	119.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	mud w ith oil specs	0.33

* 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 Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46058

DST#: 4

ATTN: Jeff Christian

Test Start: 2012.04.17 @ 13:00:00

Tool Information

Drill Pipe:	Length: 3792.00 ft	Diameter: 3.80 inches	Volume: 53.19 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 54.10 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3990.00 ft			Final 62000.00 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
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Stubb	1.00			3963.00	
Shut In Tool	5.00			3968.00	
Hydraulic tool	5.00			3973.00	
Jars	5.00			3978.00	
Safety Joint	3.00			3981.00	
Packer	5.00			3986.00	28.00 Bottom Of Top Packer
Packer	4.00			3990.00	
Stubb	1.00			3991.00	
Perforations	2.00			3993.00	
Recorder	0.00	6752	Inside	3993.00	
Recorder	0.00	8672	Outside	3993.00	
Perforations	20.00			4013.00	
Bullnose	3.00			4016.00	26.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46058

DST#: 4

ATTN: Jeff Christian

Test Start: 2012.04.17 @ 13:00:00

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: 74.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 4.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
67.00	mud w ith oil specs	0.329

Total Length: 67.00 ft Total Volume: 0.329 bbl

Num Fluid Samples: 0

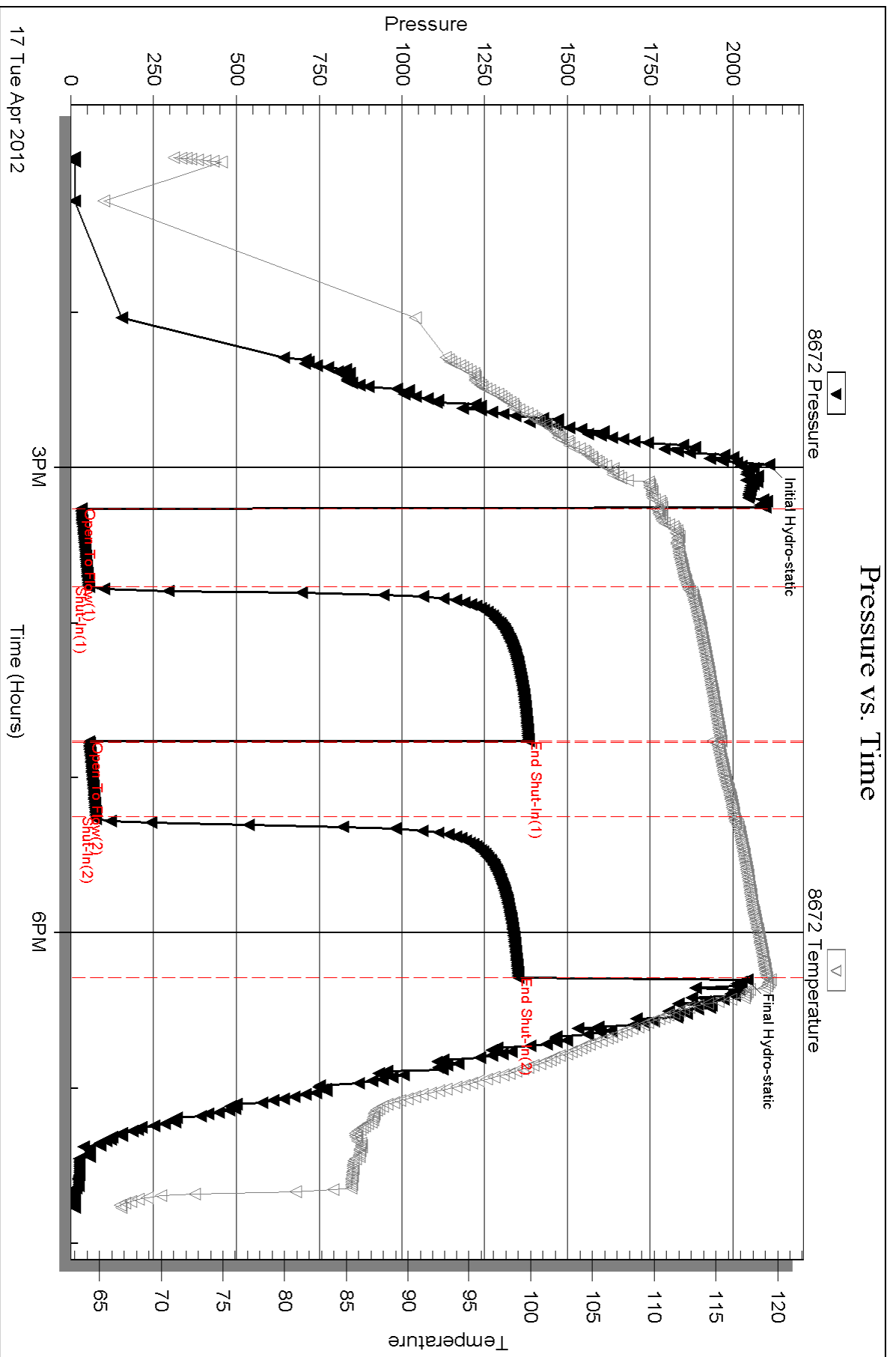
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



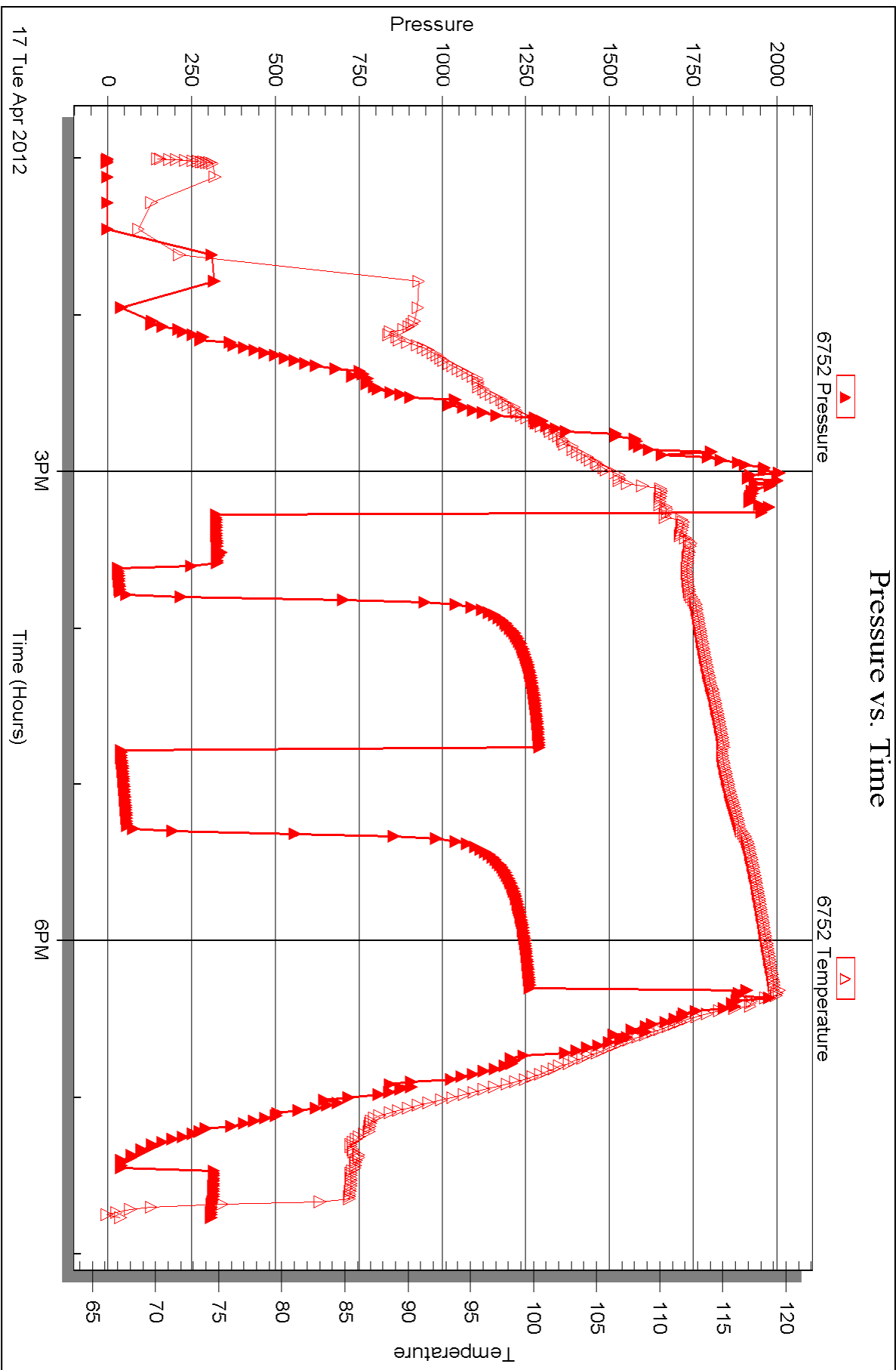
Serial #: 6752

Inside

Murfin Drilling Company

Anderson-Ryan #1-19

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.18 @ 10:00:00

End Date: 2012.04.18 @ 17:11:00

Job Ticket #: 46059 DST #: 5

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

Printed: 2012.04.23 @ 14:40:02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Company
250 N Water Ste 300
Wichita, KS 67202
ATTN: Jeff Christian

19-5s-31w Rawlins,KS
Anderson-Ryan #1-19
Job Ticket: 46059 **DST#: 5**
Test Start: 2012.04.18 @ 10:00:00

GENERAL INFORMATION:

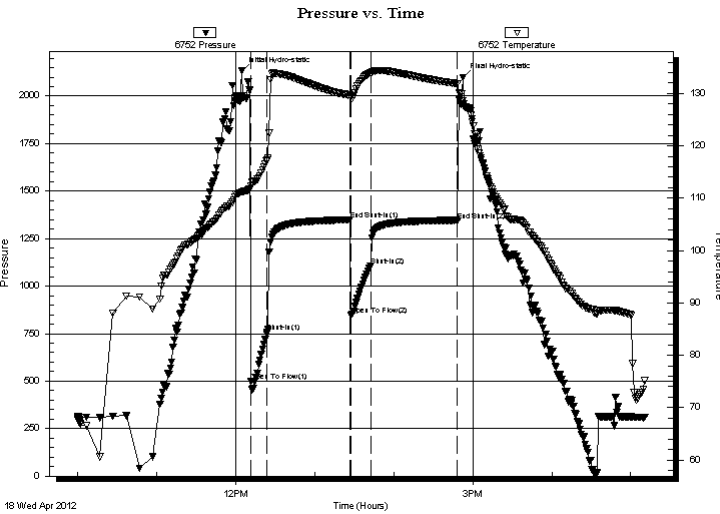
Formation: **LKC-H,I,J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:11:30
Time Test Ended: 17:11:00
Interval: **4038.00 ft (KB) To 4150.00 ft (KB) (TVD)**
Total Depth: 4150.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Chuck Kreuzer Jr.
Unit No: 61
Reference Elevations: 2953.00 ft (KB)
2948.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press @ RunDepth: 1106.79 psig @ 4041.60 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.04.18 End Date: 2012.04.18 Last Calib.: 2012.04.18
Start Time: 10:00:05 End Time: 17:10:59 Time On Btm: 2012.04.18 @ 12:04:30
Time Off Btm: 2012.04.18 @ 14:52:30

TEST COMMENT: IF: Strong blow , Built to B.O.B in 1 min.
IS: Bled off for 3 mins. Blow back after 2 mins. Blow died after 30 mins.
FF: Strong blow , Built to B.O.B in 30 sec.
FS: Bled off for 5 mins. No blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2131.11	111.16	Initial Hydro-static
7	498.05	112.31	Open To Flow (1)
20	758.48	117.36	Shut-In(1)
82	1348.51	129.64	End Shut-In(1)
83	849.08	129.36	Open To Flow (2)
98	1106.79	133.91	Shut-In(2)
164	1344.94	131.86	End Shut-In(2)
168	2098.10	128.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2046.00	salt w ater-100%	27.01
124.00	mcw -50% m 50% w	1.74
340.00	w cm-20% w 80% m	4.77

* 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 Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46059

DST#: 5

ATTN: Jeff Christian

Test Start: 2012.04.18 @ 10:00:00

Tool Information

Drill Pipe:	Length: 3856.00 ft	Diameter: 3.80 inches	Volume: 54.09 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.00 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4038.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	112.46 ft			
Tool Length:	132.46 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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Stubb	1.00			4019.00	
Shut In Tool	5.00			4024.00	
Hydraulic tool	5.00			4029.00	
Packer	5.00			4034.00	20.00 Bottom Of Top Packer
Packer	4.00			4038.00	
Stubb	1.00			4039.00	
Perforations	2.00			4041.00	
Change Over Sub	0.60			4041.60	
Recorder	0.00	6752	Inside	4041.60	
Recorder	0.00	8672	Outside	4041.60	
Blank Spacing	95.26			4136.86	
Change Over Sub	0.60			4137.46	
Perforations	10.00			4147.46	
Bullnose	3.00			4150.46	112.46 Bottom Packers & Anchor

Total Tool Length: 132.46



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46059

DST#: 5

ATTN: Jeff Christian

Test Start: 2012.04.18 @ 10:00:00

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:

58000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: 0.11 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2046.00	salt water-100%	27.006
124.00	mcw -50% m50%w	1.739
340.00	w cm-20%w 80%m	4.769

Total Length: 2510.00 ft Total Volume: 33.514 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

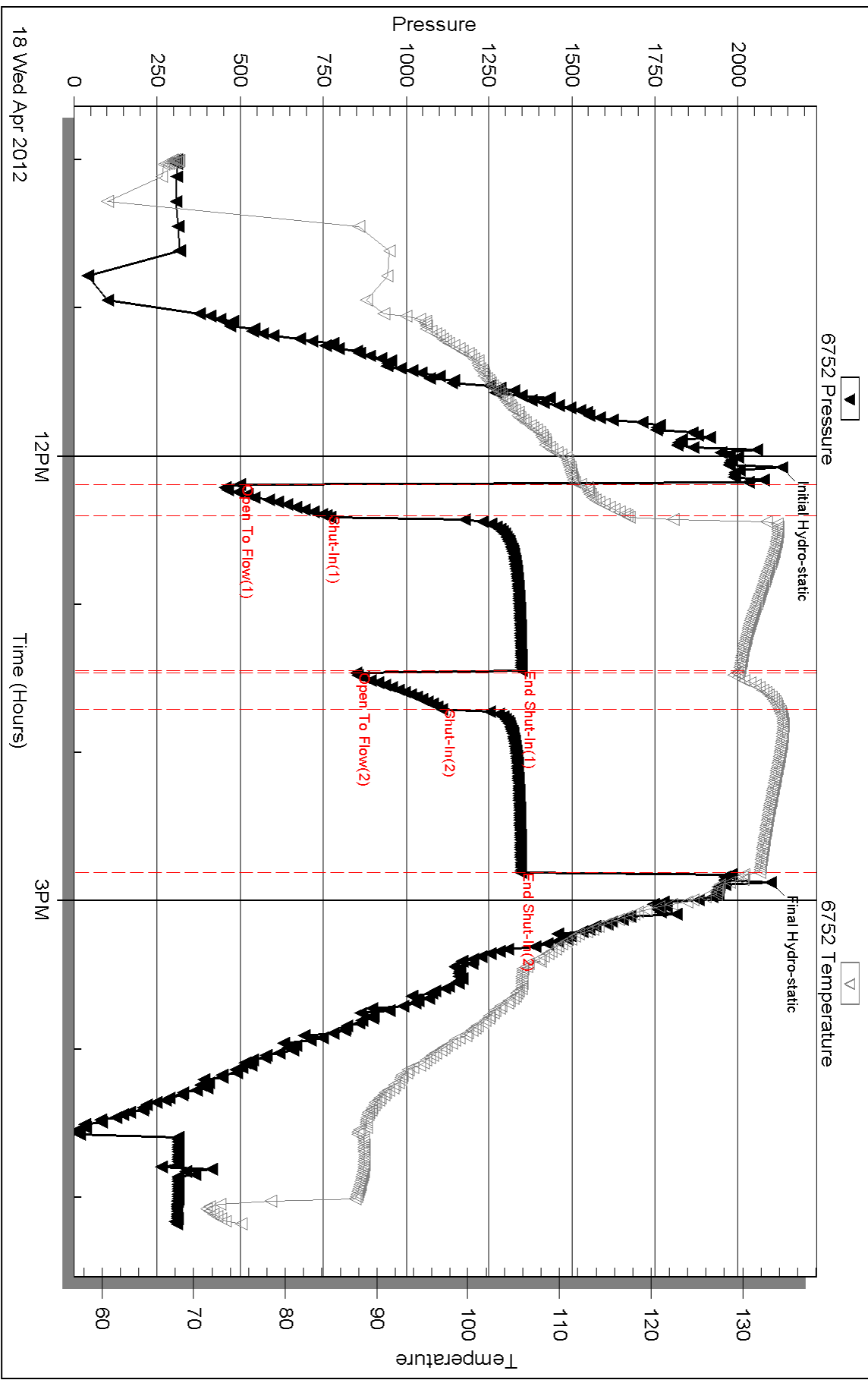
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .11@82*=58000ppm

Pressure vs. Time



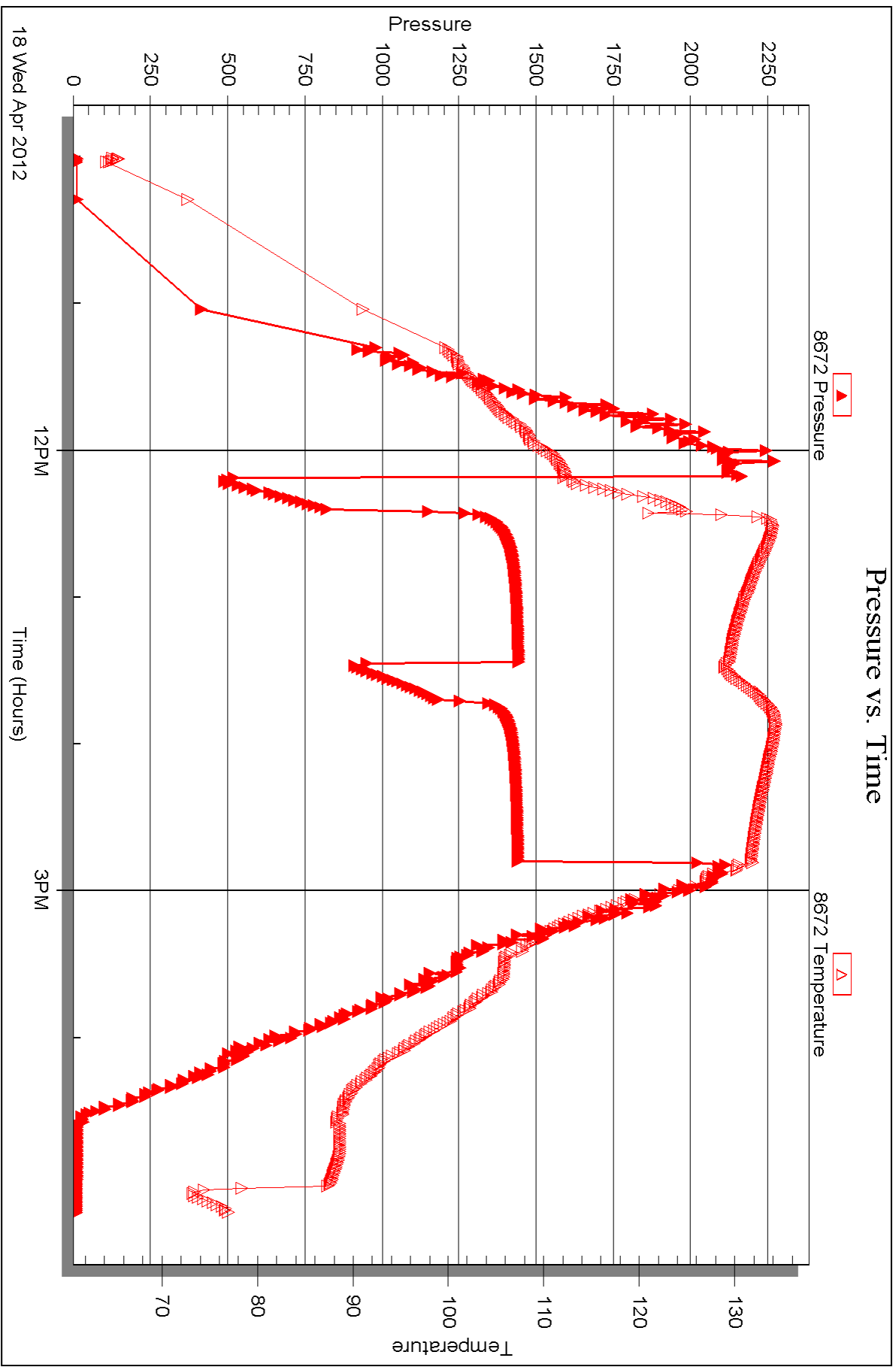
18 Wed Apr 2012

Serial #: 8672

Outside Murfin Drilling Company

Anderson-Ryan #1-19

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Company**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Jeff Christian

Anderson-Ryan #1-19

19-5s-31w Rawlins,KS

Start Date: 2012.04.19 @ 11:30:00

End Date: 2012.04.19 @ 19:19:30

Job Ticket #: 46060 DST #: 6

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

Printed: 2012.04.23 @ 14:39:09

Murfin Drilling Company

19-5s-31w Rawlins,KS

Anderson-Ryan #1-19

DST # 6

Pawnee

2012.04.19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Company
 250 N Water Ste 300
 Wichita, KS 67202
 ATTN: Jeff Christian

19-5s-31w Rawlins, KS

Anderson-Ryan #1-19

Job Ticket: 46060

DST#: 6

Test Start: 2012.04.19 @ 11:30:00

GENERAL INFORMATION:

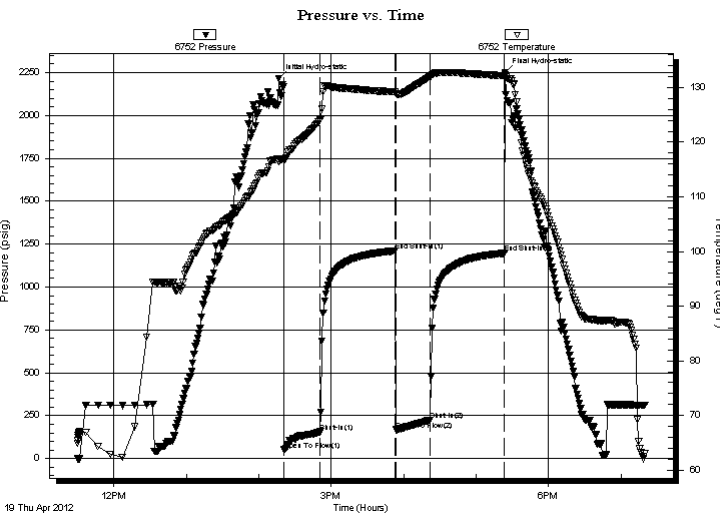
Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:21:00
 Time Test Ended: 19:19:30
 Interval: **4260.00 ft (KB) To 4340.00 ft (KB) (TVD)**
 Total Depth: 4340.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreuzer Jr.
 Unit No: 61
 Reference Elevations: 2953.00 ft (KB)
 2948.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press @ Run Depth: 222.78 psig @ 4263.60 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.04.19 End Date: 2012.04.19 Last Calib.: 2012.04.19
 Start Time: 11:30:05 End Time: 19:19:29 Time On Btm: 2012.04.19 @ 14:16:30
 Time Off Btm: 2012.04.19 @ 17:24:00

TEST COMMENT: IF: Fair blow, Built to B.O.B in 16 mins.
 IS: No blow back over 60 mins.
 FF: Weak blow, Built to B.O.B in 26 mins.
 FS: Blow back after 5 mins. Built to 1/4 in over 60 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2215.55	116.38	Initial Hydro-static
5	50.64	116.68	Open To Flow (1)
35	155.71	124.13	Shut-In(1)
97	1209.98	129.16	End Shut-In(1)
97	167.08	128.83	Open To Flow (2)
125	222.78	131.89	Shut-In(2)
187	1196.95	132.12	End Shut-In(2)
188	2250.71	132.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	ocmw -5%o15%w80%w	0.91
186.00	ocw m-10%o30%w 60%m	2.61
62.00	ocw m-15%o20%w 65%m	0.87
30.00	oil-100%	0.42

* 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 Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46060

DST#: 6

ATTN: Jeff Christian

Test Start: 2012.04.19 @ 11:30:00

Tool Information

Drill Pipe:	Length: 4079.00 ft	Diameter: 3.80 inches	Volume: 57.22 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 186.00 ft	Diameter: 2.25 inches	Volume: 0.91 bbl	Weight to Pull Loose: 680000.0 lb
			<u>Total Volume: 58.13 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4260.00 ft			Final 640000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.58 ft			
Tool Length:	100.58 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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Stubb	1.00			4241.00	
Shut In Tool	5.00			4246.00	
Hydraulic tool	5.00			4251.00	
Packer	5.00			4256.00	20.00 Bottom Of Top Packer
Packer	4.00			4260.00	
Stubb	1.00			4261.00	
Perforations	2.00			4263.00	
Change Over Sub	0.60			4263.60	
Recorder	0.00	6752	Inside	4263.60	
Recorder	0.00	8672	Outside	4263.60	
Blank Spacing	63.38			4326.98	
Change Over Sub	0.60			4327.58	
Perforations	10.00			4337.58	
Bullnose	3.00			4340.58	80.58 Bottom Packers & Anchor

Total Tool Length: 100.58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Company

19-5s-31w Rawlins,KS

250 N Water Ste 300
Wichita, KS 67202

Anderson-Ryan #1-19

Job Ticket: 46060

DST#: 6

ATTN: Jeff Christian

Test Start: 2012.04.19 @ 11:30:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.59 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
186.00	ocmw -5%o15%m80%w	0.915
186.00	ocw m-10%o30%w 60%m	2.609
62.00	ocw m-15%o20%w 65%m	0.870
30.00	oil-100%	0.421

Total Length: 464.00 ft

Total Volume: 4.815 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

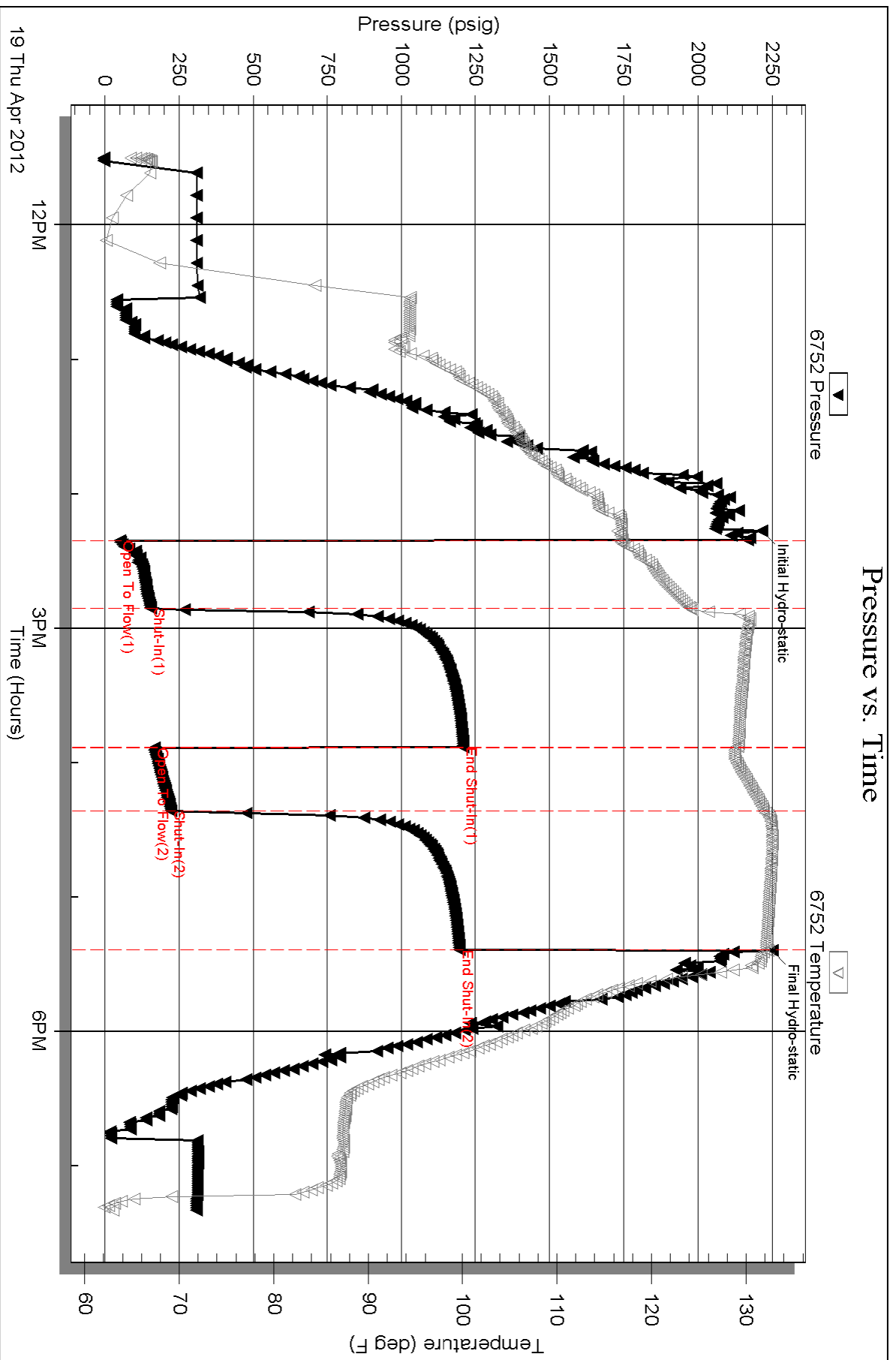
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

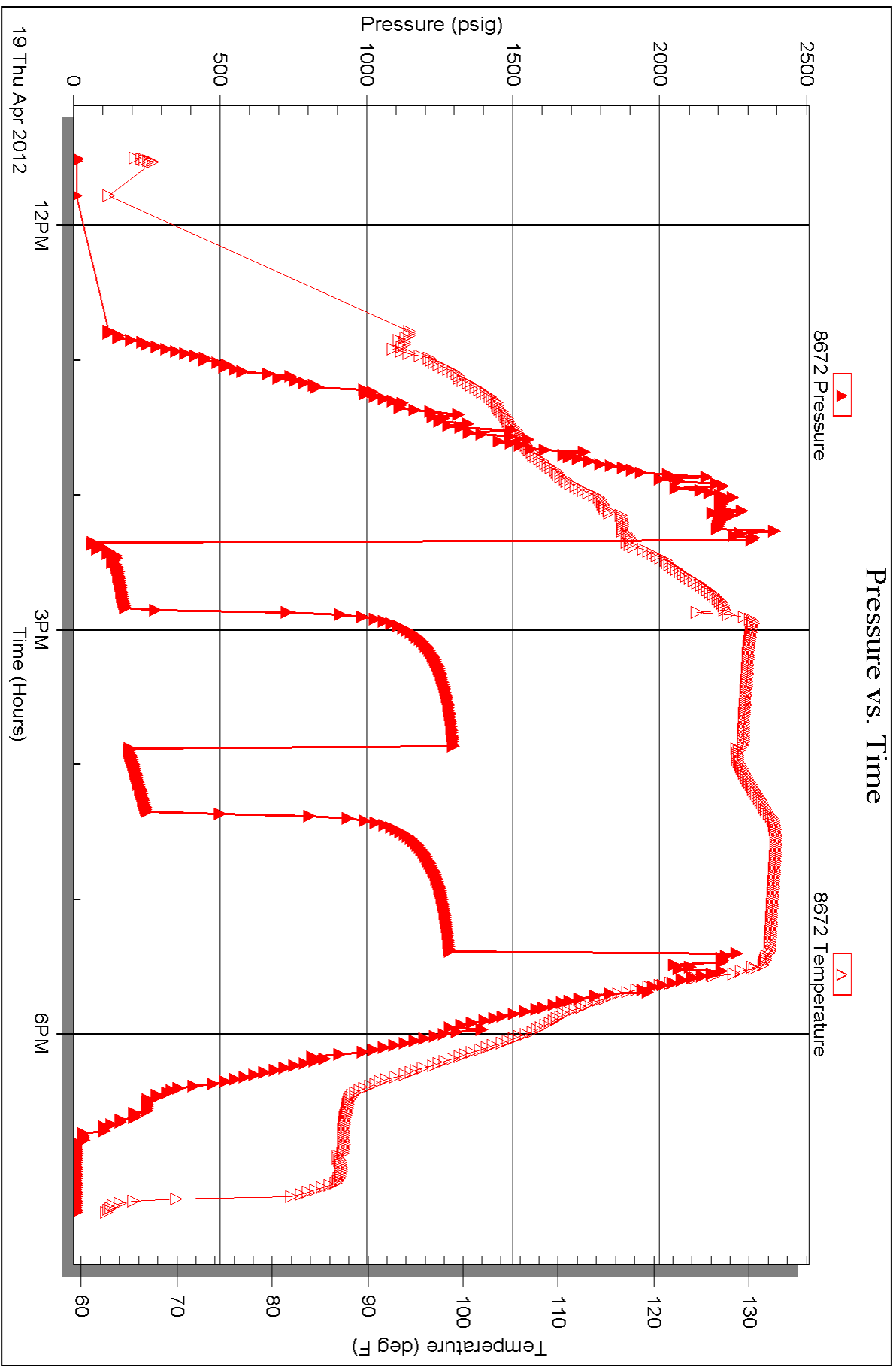


Serial #: 8672

Outside Murfin Drilling Company

Anderson-Ryan #1-19

DST Test Number: 6





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
APR 17 2012
BY: _____

Test Ticket

NO. 45047

Well Name & No. Anderson Ryan 1-19 Test No. 1 Date 4-15-12
 Company Murfin Drilling Company Elevation 2953 KB 2948 GL
 Address 250 N. Water, Ste 300 Wichita, KS 67202
 Co. Rep / Geo. Jeff Christian Rig Murfin 8
 Location: Sec. 19 Twp. 55 Rge. 31W Co. Rawlins State KS

Interval Tested 3802 3830 Zone Tested Topeka
 Anchor Length 28 Drill Pipe Run 3598 Mud Wt. 9.0
 Top Packer Depth 3797 Drill Collars Run 186 Vis 57
 Bottom Packer Depth 3802 Wt. Pipe Run - WL 6.0
 Total Depth 3830 Chlorides 800 ppm System LCM 8

Blow Description IF: 1/4 blow built to 6.
IS: No return.
FF: BoB in 55 min.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>31</u>	<u>MC90</u>	<u>5</u>	<u>65</u>	<u>30</u>	
<u>63</u>	<u>MC90</u>	<u>5</u>	<u>55</u>	<u>40</u>	
<u>62</u>	<u>MW</u>			<u>60</u>	<u>40</u>
<u>184</u>	<u>MCW</u>			<u>90</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 280 BHT 125 Gravity - API RW 122 @ 52° F Chlorides 46,000 ppm

(A) Initial Hydrostatic 1984 Test 1150' T-On Location 9:00
 (B) First Initial Flow 17 Jars 250' T-Started 10:30
 (C) First Final Flow 86 Safety Joint 75' T-Open 13:33
 (D) Initial Shut-In 1211 Circ Sub N/C T-Pulled 17:33
 (E) Second Initial Flow 93 Hourly Standby 2 hrs 200' T-Out 20:00
 (F) Second Final Flow 137 Mileage 90 RT 93' Comments _____
 (G) Final Shut-In 1197 Sampler _____
 (H) Final Hydrostatic 1920 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 1768
 Total 1768.00
 MP/DST Disc't _____

Approved By Jeff Christian 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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
APR 17 2012

Test Ticket

NO. 45048

Well Name & No. Anderson-Ryan 1-19 Test No. 2 Date 4-16-12
 Company Murfin Drilling Company Elevation 2953 KB 2848 GL
 Address _____
 Co. Rep / Geo. Jeff Christman Rig Murfin 8
 Location: Sec. 19 Twp. 5S Rge. 31W Co. Rawlins State KS

Interval Tested 3843 3892 Zone Tested Ore rd
 Anchor Length _____ Drill Pipe Run 3661 Mud Wt. 9.0
 Top Packer Depth _____ Drill Collars Run 186 Vis 57
 Bottom Packer Depth 3843 Wt. Pipe Run _____ WL 6.0
 Total Depth 3892 Chlorides 800 ppm System LCM 8

Blow Description IF: BoB in 2 min,
IS: No return,
FF: BoB in 2 1/2 min,
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>262</u>	<u>Feet of MCW MCW</u>		<u>40</u>	<u>60</u>	
<u>252</u>	<u>Feet of MCW MCW</u>		<u>60</u>	<u>40</u>	
<u>819</u>	<u>Feet of water</u>		<u>100</u>		
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 1333 BHT 129 Gravity _____ API RW 119 @ 58 °F Chlorides 48,000 ppm

(A) Initial Hydrostatic <u>1883</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>3:45</u>
(B) First Initial Flow <u>120</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>4:20</u>
(C) First Final Flow <u>423</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>6:23</u>
(D) Initial Shut-In <u>1265</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>8:53</u>
(E) Second Initial Flow <u>428</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>11:40</u>
(F) Second Final Flow <u>632</u>	<input checked="" type="checkbox"/> Mileage <u>60 RT 93</u>	Comments _____
(G) Final Shut-In <u>1263</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1827</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 15 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 60 Extra Packer _____ Extra Copies _____
 Final Flow 15 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1568
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1568

Approved By Jeff Christman 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 of 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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
APR 17 2012

Test Ticket

NO. 45049

Well Name & No. Anderson-Ryan 1-99 Test No. 3 Date 4-16-12
 Company Murfin Drilling Company Elevation 2953 KB 2848 GL
 Address _____
 Co. Rep / Geo. Jeff Christian Rig Murfin 8
 Location: Sec. 19 Twp. 55 Rge. 31W Co. Atchison State KS

Interval Tested 3881 3968 Zone Tested Toronto-Like Ad B
 Anchor Length 87 Drill Pipe Run 3692 Mud Wt. 9.1
 Top Packer Depth 3876 Drill Collars Run 186 Vis 50
 Bottom Packer Depth 3881 Wt. Pipe Run — WL 5.6
 Total Depth 3968 Chlorides 1000 ppm System LCM 6

Blow Description IF: Bob in 5 min,
IS: No return.
FF: Bob in 7 min,
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>335</u>	<u>ocm</u>	<u>10</u>		<u>90</u>	
<u>126</u>	<u>ocmw</u>	<u>10</u>	<u>80</u>	<u>10</u>	
<u>126</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 587 BHT 124 Gravity — API RW .29 @ 43 °F Chlorides 42,000 ppm

(A) Initial Hydrostatic 1921 Test 1150' T-On Location 29:00
 (B) First Initial Flow 62 Jars 250' T-Started 21:17
 (C) First Final Flow 181 Safety Joint 75' T-Open 22:36
 (D) Initial Shut-In 1259 Circ Sub N/C T-Pulled 1:06
 (E) Second Initial Flow 206 Hourly Standby T-Out 3:30
 (F) Second Final Flow 259 Mileage 60 RT 93' Comments _____
 (G) Final Shut-In 1246 Sampler _____
 (H) Final Hydrostatic 1870 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 15
 Initial Shut-In 60
 Final Flow 15
 Final Shut-In 60

Sub Total 1508
 Total 1508
 MP/DST Disc't _____

Approved By [Signature] 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.



TRIBOLITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
APR 23 2012

Test Ticket

NO. 46058

BY: _____

Well Name & No. Anderson Ryan #1-19 Test No. 4 Date 4-17-2012
 Company Murfin Drilling Co. Elevation 2953 KB 2948 GL
 Address 250 N. Water stc 300 wichita KS. 67
 Co. Rep / Geo. Jeff Chritian Rig Murfin #18
 Location: Sec. 19 Twp. 5S Rge. 31W Co. Rawlins State KF

Interval Tested 3990 4016 Zone Tested LKC-F-F
 Anchor Length 26 Drill Pipe Run ~~086~~ 3792 Mud Wt. 9.0
 Top Packer Depth 3985 Drill Collars Run 186 Vis 74
 Bottom Packer Depth 3490 Wt. Pipe Run -0- WL 4.8
 Total Depth 4016 Chlorides 1000 ppm System LCM 6#

Blow Description IF: Weak surface blow over 30mins.
ISF: No blow back over 60mins.
FF: Weak blow, built to surface over 30mins.
FST: No blow back over 60mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>mud with oil specs</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total	BHT	Gravity	API RW	@	F	Chlorides	ppm
<u>67</u>	<u>119</u>	<input checked="" type="checkbox"/> Test <u>1250</u>					
(A) Initial Hydrostatic	<u>2108</u>	<input checked="" type="checkbox"/> Jars <u>250</u>					
(B) First Initial Flow	<u>32</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>					
(C) First Final Flow	<u>55</u>	<input type="checkbox"/> Circ Sub					
(D) Initial Shut-In	<u>1393</u>	<input type="checkbox"/> Hourly Standby					
(E) Second Initial Flow	<u>57</u>	<input checked="" type="checkbox"/> Mileage <u>30x2=60x1.55</u> <u>93</u>					
(F) Second Final Flow	<u>76</u>	<input type="checkbox"/> Sampler					
(G) Final Shut-In	<u>1353</u>	<input type="checkbox"/> Straddle					
(H) Final Hydrostatic	<u>2043</u>	<input type="checkbox"/> Shale Packer					

Initial Open	<u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In	<u>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Ruined Packer
Final Flow	<u>30</u>	<input type="checkbox"/> Day Standby	<input type="checkbox"/> Extra Copies
Final Shut-In	<u>60</u>	<input type="checkbox"/> Accessibility	Sub Total <u>0</u>
		Sub Total <u>12608</u>	Total <u>12608</u>
			MP/DST Disc't

Approved By

Jeff Chritian

Our Representative

Chuck Hoyer

Tribolite 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.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED Test Ticket

APR 23 2012

NO. 46059

Well Name & No. Anderson ^{Ryan} #1-19 BY: _____ Test No. 5 Date 4-18-2012
 Company Murphy Drilling Co Elevation 2953 KB 2998 GL _____
 Address 250 N. water Ste 300 Wichita Ks.
 Co. Rep / Geo. Jeff Christian Rig Murphy #18
 Location: Sec. 19 Twp. 5 S Rge. 31 W Co. Rawlins State Ks

Interval Tested 4038 4150 Zone Tested LKC - M, I, J
 Anchor Length 112 Drill Pipe Run 3856 Mud Wt. 9.1
 Top Packer Depth 4038 Drill Collars Run 186 Vis 58
 Bottom Packer Depth 4038 Wt. Pipe Run 0 WL 5.6
 Total Depth 4150 Chlorides 1,400 ppm System LCM 6 #

Blow Description IF: ~~weak~~ ^{strong} blow, Built to B.O.B in 1 min.
SET: Bled off for 2 mins. Weak blow back after 3 mins, Dead after 30 mins.
FF: Strong blow, Built to B.O.B in 30 sec.
FBI: Bled off, NO Blow Back over 60 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>340</u>	<u>mcm</u>			<u>20%</u>	<u>80%</u>
<u>124</u>	<u>mcm</u>			<u>50%</u>	<u>50%</u>
<u>2046</u>	<u>water</u>			<u>100%</u>	<u>%mud</u>
_____	_____	%gas	%oil	%water	%mud
_____	_____	%gas	%oil	%water	%mud

Rec Total 2510 BHT 131.9 Gravity _____ API RW .11 @ 82 °F Chlorides 58000 ppm

(A) Initial Hydrostatic 2131 Test 1250 T-On Location 9:35
 (B) First Initial Flow 498 Jars _____ T-Started 10:00
 (C) First Final Flow 758 Safety Joint _____ T-Open 12:11
 (D) Initial Shut-In 1349 Circ Sub _____ T-Pulled 14:50
 (E) Second Initial Flow 849 Hourly Standby _____ T-Out 17:11
 (F) Second Final Flow 1107 Mileage 30x2=60x1.40 93 Comments _____
 (G) Final Shut-In 1345 Sampler _____
 (H) Final Hydrostatic 2098 Straddle _____

Initial Open 15 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Shale Packer _____ Ruined Packer _____
 Final Flow 15 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1343
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1343

Approved By _____ Our Representative Chuck Meyer

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TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

APR 23 2012

Test Ticket

NO. 46060

BY:

Well Name & No. Anderson Ryan # 1-1A Test No. 6 Date 4-19-2012
 Company MurFin Drilling Co. Elevation 2453 KB 2948 GL
 Address 250 N. Water Ste 300 Wichita KS.
 Co. Rep / Geo. Jeff Christian Rig MurFin #8
 Location: Sec. 19 Twp. 5S Rge. 31W Co. Rawlins State KS

Interval Tested 4260 4340 Zone Tested Pawnee
 Anchor Length 80 Drill Pipe Run 4079 Mud Wt. 9.1
 Top Packer Depth 4255 Drill Collars Run 184 Vis 58
 Bottom Packer Depth 4260 Wt. Pipe Run 0- WL 5.6
 Total Depth 4340 Chlorides 1,400 ppm System LCM 6 #

Blow Description IF: Fair blow, Built to B.O.B in 16 mins.

EST: No blow back over 60 mins.

FF: Weak blow, Built to B.O.B in 26 mins.

FST: ~~to blow back~~ Weak blow back after 5 mins. Built to 1/4 in over 60 mins

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>oil</u>	<u>10.0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>62</u>	<u>OCWM</u>	<u>15</u>	<u>0</u>	<u>20</u>	<u>65</u>
<u>186</u>	<u>OCWM</u>	<u>10</u>	<u>0</u>	<u>30</u>	<u>60</u>
<u>186</u>	<u>OCMW</u>	<u>5</u>	<u>0</u>	<u>80</u>	<u>15</u>

Rec Total 464 BHT 132 Gravity 1.0 API RW 10 @ 81 °F Chlorides 57000 ppm

(A) Initial Hydrostatic 2216
 (B) First Initial Flow 51
 (C) First Final Flow 156
 (D) Initial Shut-In 1210
 (E) Second Initial Flow 167
 (F) Second Final Flow 223
 (G) Final Shut-In 1197
 (H) Final Hydrostatic 2251

Test 1250
 Jars
 Safety Joint
 Circ Sub
 Hourly Standby
 Mileage $30 \times 2 = 60 \times 1.40 = 93$
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1343

T-On Location 11:00
 T-Started 11:30
 T-Open 14:01
 T-Pulled 17:15
 T-Out 19:19
 Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1343
 MP/DST Disc't _____

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

Approved By _____

Our Representative Chuck [Signature]

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