



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc.**

250 North Water Ste.300
Wichita, KS 67202

ATTN: Steve Miller

Smith #2-30

30-12s-32w Logan,KS

Start Date: 2013.07.26 @ 13:26:10

End Date: 2013.07.26 @ 20:24:04

Job Ticket #: 52839 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.30 @ 16:25:07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52839

DST#: 1

ATTN: Steve Miller

Test Start: 2013.07.26 @ 13:26:10

GENERAL INFORMATION:

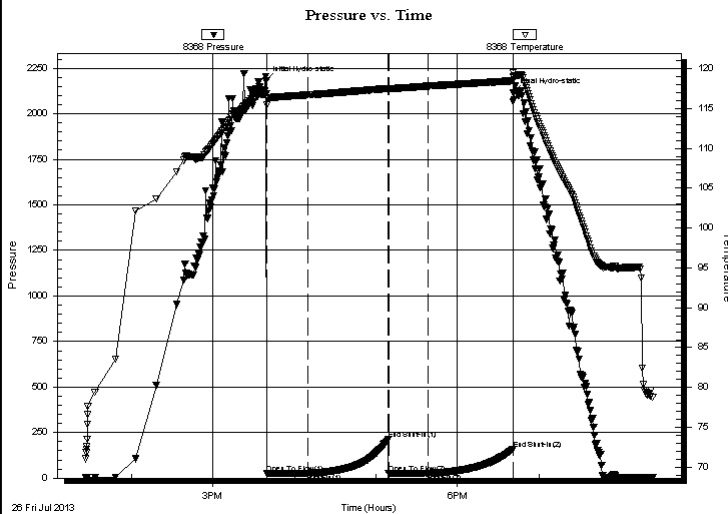
Formation: **H**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:39:20 Tester: Shane McBride
 Time Test Ended: 20:24:04 Unit No: 55
 Interval: **4209.00 ft (KB) To 4236.00 ft (KB) (TVD)** Reference Elevations: 3086.00 ft (KB)
 Total Depth: 4236.00 ft (KB) (TVD) 3076.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8368

Outside

Press @ Run Depth: 27.35 psig @ 4210.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.26 End Date: 2013.07.26 Last Calib.: 2013.07.26
 Start Time: 13:26:10 End Time: 20:24:04 Time On Btm: 2013.07.26 @ 15:39:05
 Time Off Btm: 2013.07.26 @ 18:41:05

TEST COMMENT: Weak blow died in 5 1/2 min
 No return
 No blow
 No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2182.53	116.84	Initial Hydro-static
1	26.22	115.43	Open To Flow (1)
31	26.71	116.71	Shut-In(1)
90	212.48	117.52	End Shut-In(1)
90	25.58	117.42	Open To Flow (2)
120	27.35	117.81	Shut-In(2)
182	160.36	118.49	End Shut-In(2)
182	2113.86	119.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100% m	0.01

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.
 250 North Water Ste.300
 Wichita, KS 67202
 ATTN: Steve Miller

30-12s-32w Logan,KS

Smith #2-30

Job Ticket: 52839

DST#: 1

Test Start: 2013.07.26 @ 13:26:10

GENERAL INFORMATION:

Formation: **H**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 15:39:20 Tester: Shane McBride
 Time Test Ended: 20:24:04 Unit No: 55
Interval: 4209.00 ft (KB) To 4236.00 ft (KB) (TVD)
 Reference Elevations: 3086.00 ft (KB)
 Total Depth: 4236.00 ft (KB) (TVD) 3076.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

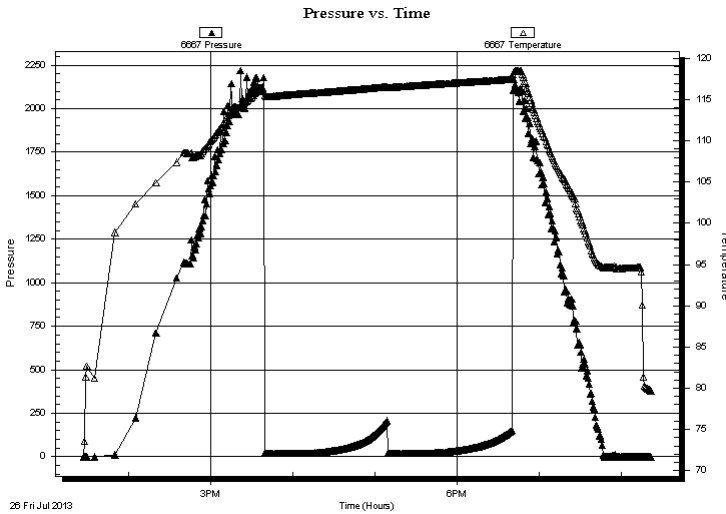
Serial #: 6667

Inside

Press@RunDepth: psig @ 4210.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.26 End Date: 2013.07.26 Last Calib.: 1899.12.30
 Start Time: 13:27:03 End Time: 20:22:11 Time On Btm:
 Time Off Btm:

TEST COMMENT: Weak blow died in 5 1/2 min
 No return
 No blow
 No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100%m	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52839

DST#: 1

ATTN: Steve Miller

Test Start: 2013.07.26 @ 13:26:10

Tool Information

Drill Pipe:	Length: 3977.00 ft	Diameter: 3.80 inches	Volume: 55.79 bbl	Tool Weight: 1500.00 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: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 56.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4209.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 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			4182.00	
Shut In Tool	5.00			4187.00	
Hydraulic tool	5.00			4192.00	
Jars	5.00			4197.00	
Safety Joint	3.00			4200.00	
Packer	5.00			4205.00	28.00 Bottom Of Top Packer
Packer	4.00			4209.00	
Stubb	1.00			4210.00	
Recorder	0.00	6667	Inside	4210.00	
Recorder	0.00	8368	Outside	4210.00	
Perforations	21.00			4231.00	
Bullnose	5.00			4236.00	27.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52839

DST#: 1

ATTN: Steve Miller

Test Start: 2013.07.26 @ 13:26:10

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:

0 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100%m	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:

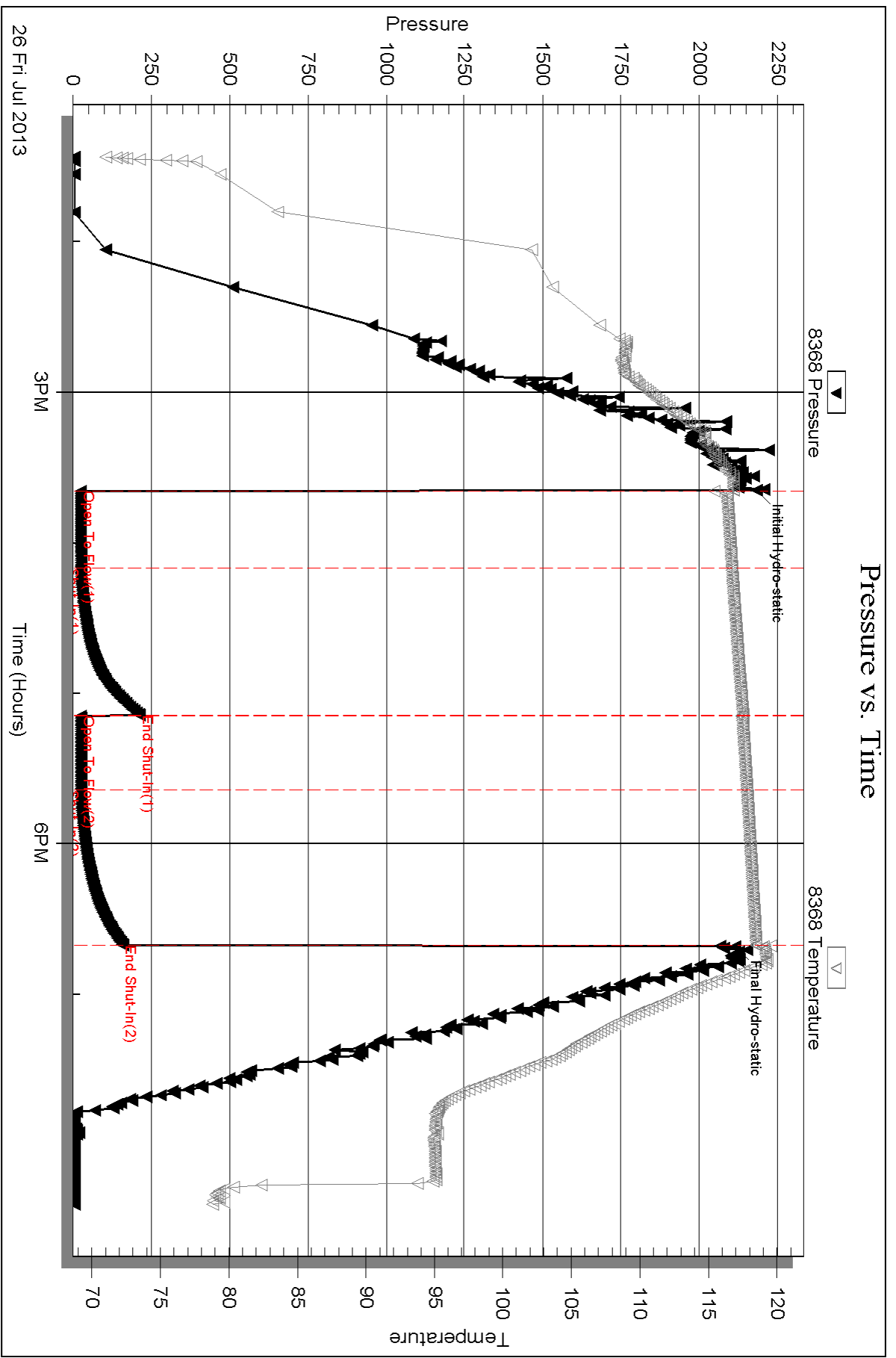
Recovery Comments:

Serial #: 8368

Outside Murfin Drilling Co Inc.

Smith #2-30

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 52839

Printed: 2013.07.30 @ 16:25:10

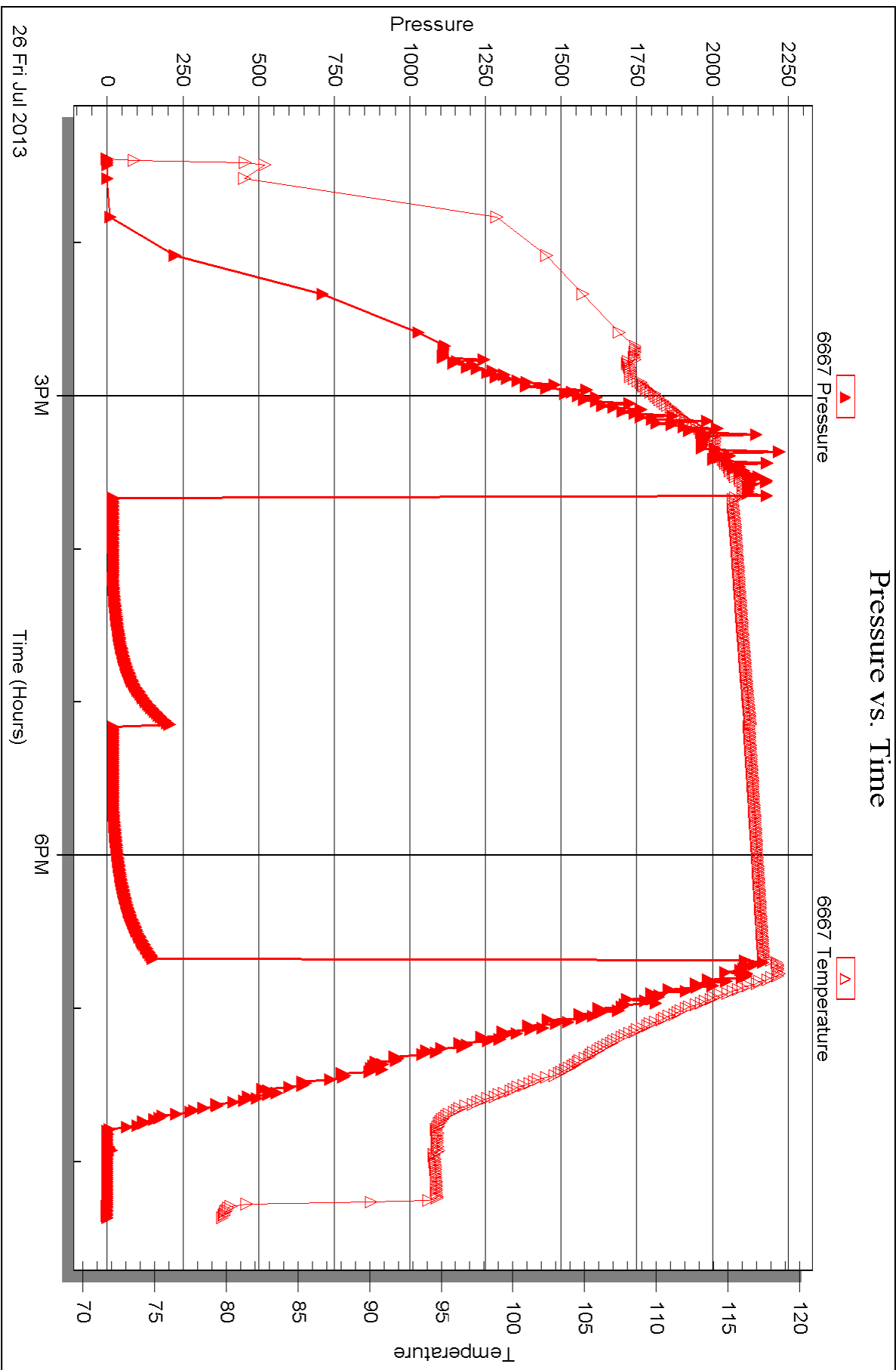
Serial #: 6667

Inside

Murfin Drilling Co Inc.

Smith #2-30

DST Test Number: 1



26 Fri Jul 2013

3PM

Time (Hours)

6PM

Temperature

Pressure

6667 Pressure

6667 Temperature

0 250 500 750 1000 1250 1500 1750 2000 2250

70 75 80 85 90 95 100 105 110 115 120

Triobite Testing, Inc

Ref. No: 52839

Printed: 2013.07.30 @ 16:25:10



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc.**

250 North Water Ste.300
Wichita, KS 67202

ATTN: Steve Miller

Smith #2-30

30-12s-32w Logan,KS

Start Date: 2013.07.27 @ 09:35:34

End Date: 2013.07.27 @ 17:56:13

Job Ticket #: 52840 DST #: 2

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

Printed: 2013.07.30 @ 16:23:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.
 250 North Water Ste.300
 Wichita, KS 67202
 ATTN: Steve Miller

30-12s-32w Logan,KS

Smith #2-30

Job Ticket: 52840

DST#: 2

Test Start: 2013.07.27 @ 09:35:34

GENERAL INFORMATION:

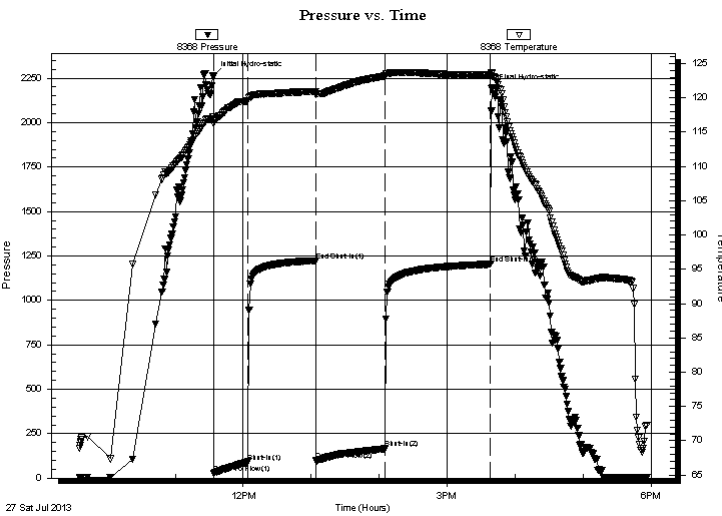
Formation: **K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:33:59
 Time Test Ended: 17:56:13
Interval: 4290.00 ft (KB) To 4318.00 ft (KB) (TVD)
 Total Depth: 4318.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3086.00 ft (KB)
 3076.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8368

Outside

Press @ Run Depth: 165.75 psig @ 4291.00 ft (KB)
 Start Date: 2013.07.27 End Date: 2013.07.27
 Start Time: 09:35:34 End Time: 17:56:13
 Capacity: 8000.00 psig
 Last Calib.: 2013.07.27
 Time On Btm: 2013.07.27 @ 11:33:44
 Time Off Btm: 2013.07.27 @ 15:39:29

TEST COMMENT: 4" blow
 No return
 6" blow
 No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2262.13	117.28	Initial Hydro-static
1	27.08	116.21	Open To Flow (1)
31	91.23	119.61	Shut-In(1)
90	1223.84	120.93	End Shut-In(1)
91	98.14	120.46	Open To Flow (2)
152	165.75	123.18	Shut-In(2)
245	1204.27	123.29	End Shut-In(2)
246	2190.71	123.59	Final Hydro-static

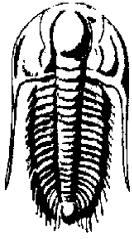
Recovery

Length (ft)	Description	Volume (bbl)
240.00	m c w 25m 75w	1.22
90.00	m c w w/oil scum 50m 50w	1.26

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.
 250 North Water Ste.300
 Wichita, KS 67202
 ATTN: Steve Miller

30-12s-32w Logan,KS

Smith #2-30

Job Ticket: 52840

DST#: 2

Test Start: 2013.07.27 @ 09:35:34

GENERAL INFORMATION:

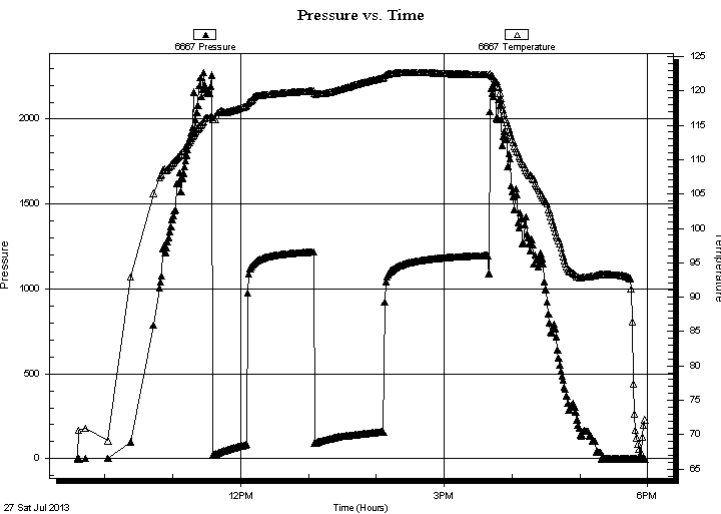
Formation: **K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:33:59
 Time Test Ended: 17:56:13
 Interval: **4290.00 ft (KB) To 4318.00 ft (KB) (TVD)**
 Total Depth: 4318.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3086.00 ft (KB)
 3076.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 6667

Inside

Press @RunDepth: psig @ 4291.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.27 End Date: 2013.07.27 Last Calib.: 2013.07.27
 Start Time: 09:35:49 End Time: 17:57:19 Time On Btm:
 Time Off Btm:

TEST COMMENT: 4" blow
 No return
 6" blow
 No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
240.00	m c w 25m 75w	1.22
90.00	m c w w/oil scum 50m 50w	1.26

* 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.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52840

DST#: 2

ATTN: Steve Miller

Test Start: 2013.07.27 @ 09:35:34

Tool Information

Drill Pipe:	Length: 4039.00 ft	Diameter: 3.80 inches	Volume: 56.66 bbl	Tool Weight:	1500.00 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: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose:	85000.00 lb
			<u>Total Volume: 57.82 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4290.00 ft			Final	70000.00 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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Change Over Sub	1.00			4263.00	
Shut In Tool	5.00			4268.00	
Hydraulic tool	5.00			4273.00	
Jars	5.00			4278.00	
Safety Joint	3.00			4281.00	
Packer	5.00			4286.00	28.00 Bottom Of Top Packer
Packer	4.00			4290.00	
Stubb	1.00			4291.00	
Recorder	0.00	6667	Inside	4291.00	
Recorder	0.00	8368	Outside	4291.00	
Perforations	22.00			4313.00	
Bullnose	5.00			4318.00	28.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52840

DST#: 2

ATTN: Steve Miller

Test Start: 2013.07.27 @ 09:35:34

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:

47500 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	m c w 25m 75w	1.217
90.00	m c w w/oil scum 50m 50w	1.262

Total Length: 330.00 ft Total Volume: 2.479 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

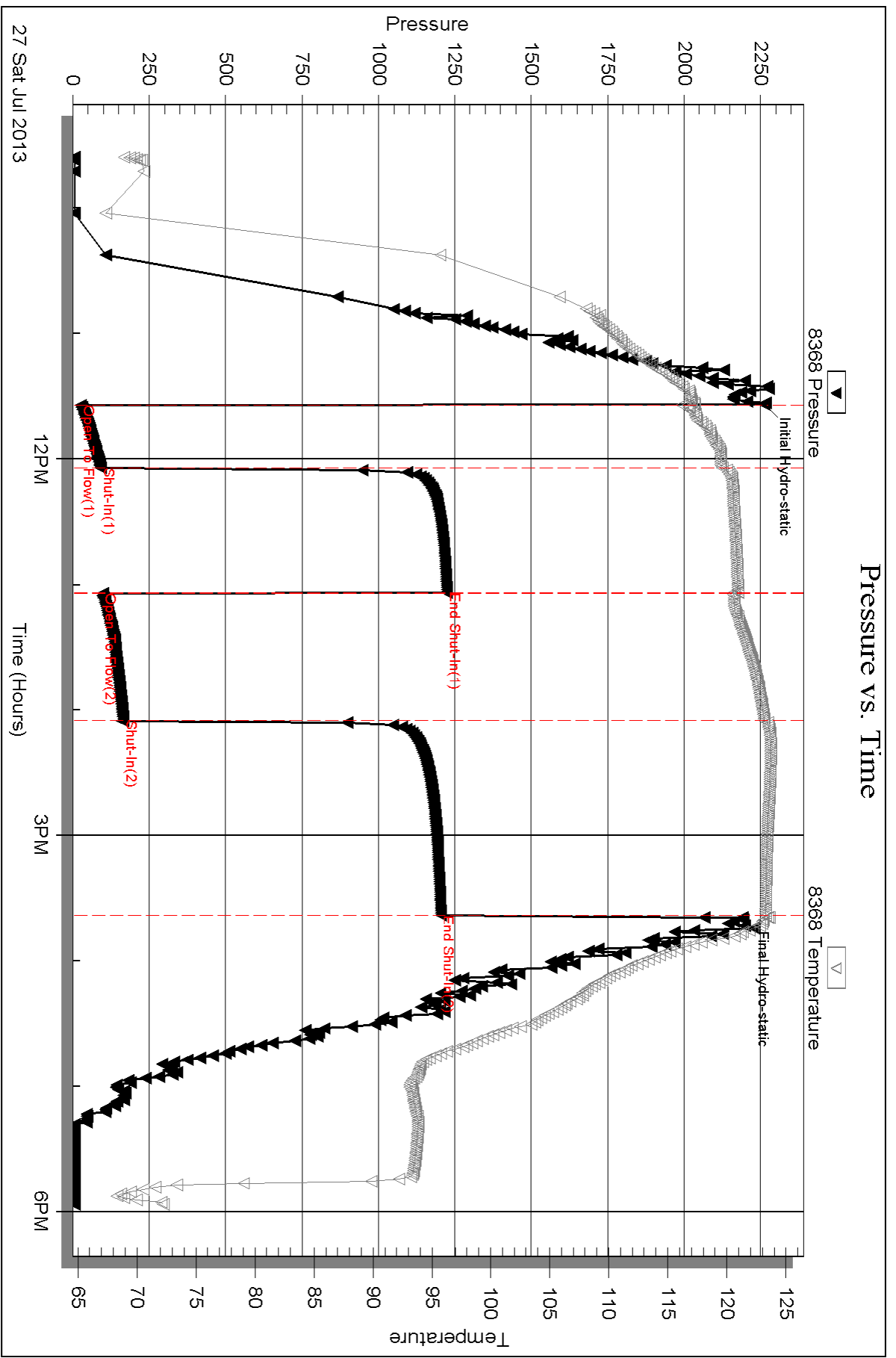
Recovery Comments: rw .143 @ 77*f=47,500 chlor

Serial #: 8368

Outside Murfin Drilling Co Inc.

Smith #2-30

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52840

Printed: 2013.07.30 @ 16:23:45

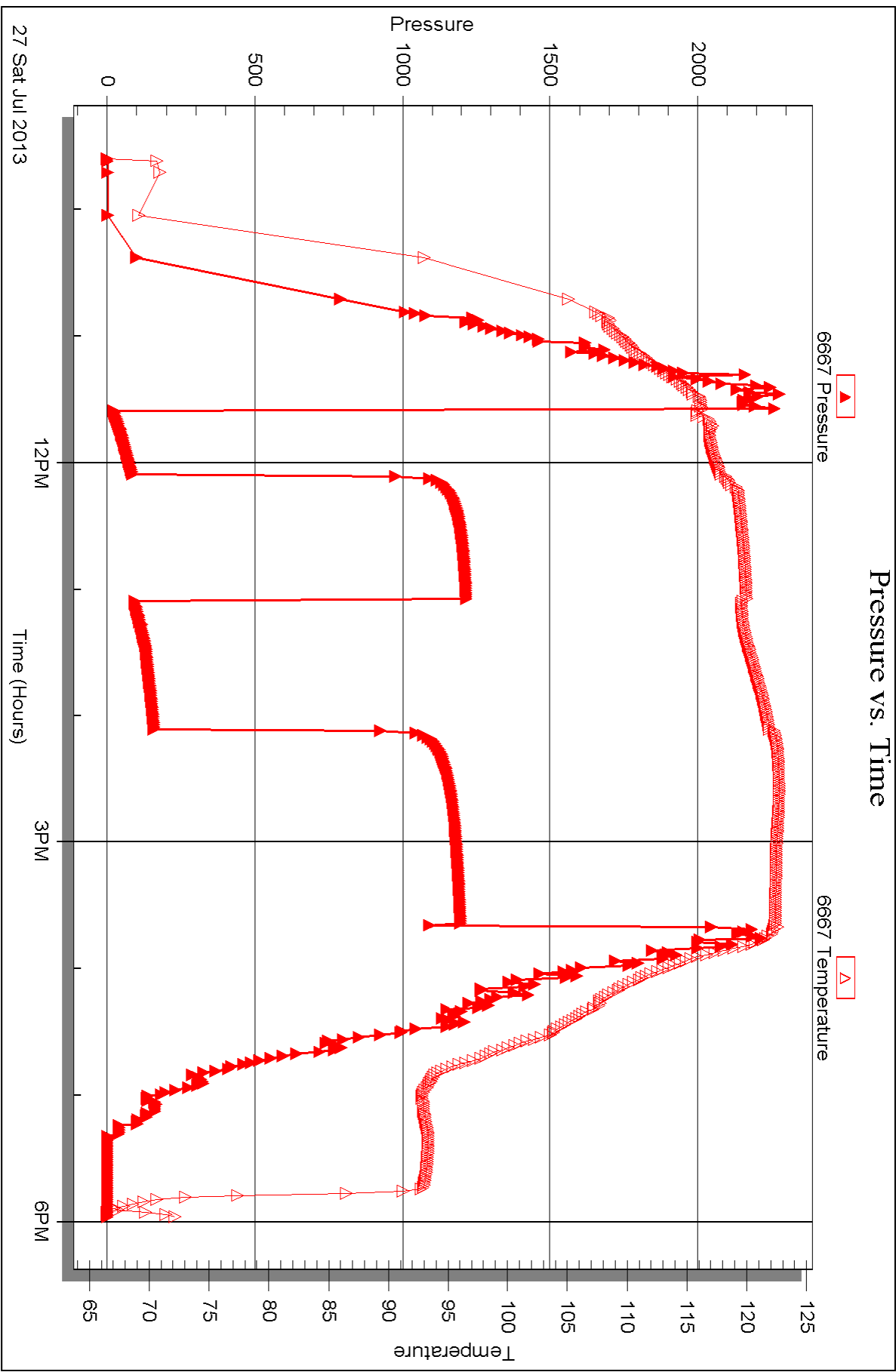
Serial #: 6667

Inside

Murfin Drilling Co Inc.

Smith #2-30

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52840

Printed: 2013.07.30 @ 16:23:46



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc.**

250 North Water Ste.300
Wichita, KS 67202

ATTN: Steve Miller

Smith #2-30

30-12s-32w Logan,KS

Start Date: 2013.07.29 @ 03:15:40

End Date: 2013.07.29 @ 12:18:20

Job Ticket #: 52841 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.30 @ 16:22:58



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.
 250 North Water Ste.300
 Wichita, KS 67202
 ATTN: Steve Miller

30-12s-32w Logan,KS

Smith #2-30

Job Ticket: 52841

DST#: 3

Test Start: 2013.07.29 @ 03:15:40

GENERAL INFORMATION:

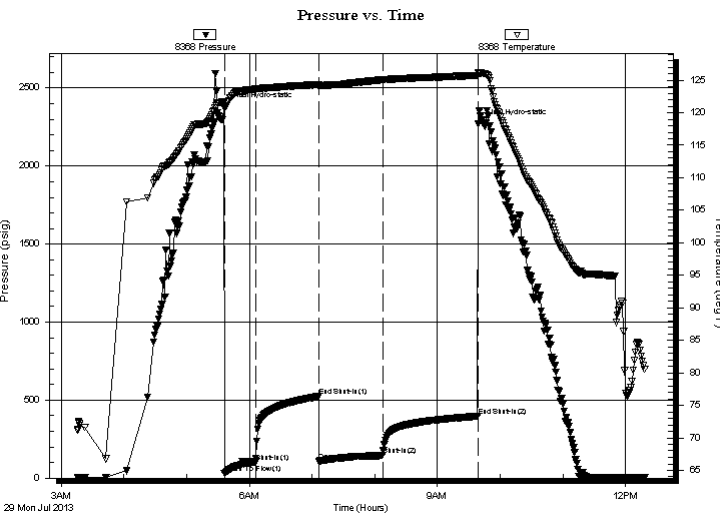
Formation: **Johnson**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:36:05
 Time Test Ended: 12:18:20
 Interval: **4568.00 ft (KB) To 4630.00 ft (KB) (TVD)**
 Total Depth: 4630.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3086.00 ft (KB)
 3076.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8368

Outside

Press @ Run Depth: 144.15 psig @ 4569.00 ft (KB)
 Start Date: 2013.07.29 End Date: 2013.07.29
 Start Time: 03:15:40 End Time: 12:18:20
 Capacity: 8000.00 psig
 Last Calib.: 2013.07.29
 Time On Btm: 2013.07.29 @ 05:35:50
 Time Off Btm: 2013.07.29 @ 09:39:35

TEST COMMENT: 4 1/4" blow
 No return
 1 1/2" blow
 No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2384.49	121.77	Initial Hydro-static
1	30.94	120.76	Open To Flow (1)
30	104.61	123.61	Shut-In(1)
91	523.53	124.31	End Shut-In(1)
91	108.37	124.06	Open To Flow (2)
152	144.15	125.06	Shut-In(2)
243	396.75	125.74	End Shut-In(2)
244	2270.30	126.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
175.00	o & w c m 5%o 10%w 85%m	0.86
75.00	s o & w c m 2%o 5%w 93%m	0.50

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin Drilling Co Inc.
250 North Water Ste.300
Wichita, KS 67202
ATTN: Steve Miller

30-12s-32w Logan,KS
Smith #2-30
Job Ticket: 52841 **DST#: 3**
Test Start: 2013.07.29 @ 03:15:40

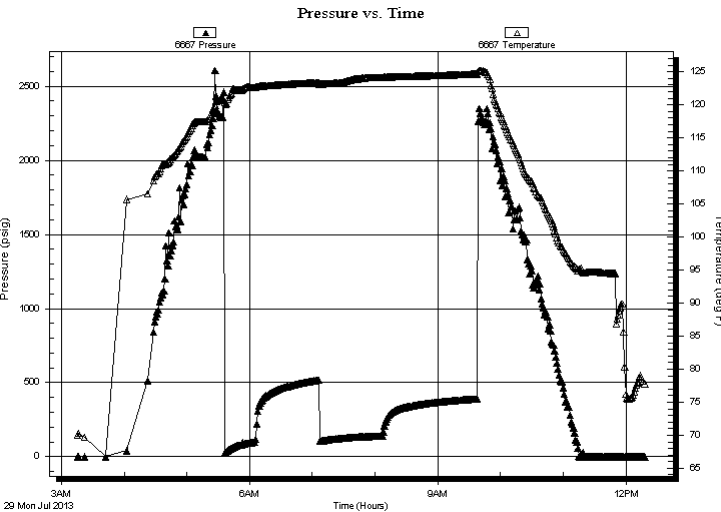
GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:36:05
Time Test Ended: 12:18:20
Interval: **4568.00 ft (KB) To 4630.00 ft (KB) (TVD)**
Total Depth: 4630.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Shane McBride
Unit No: 55
Reference Elevations: 3086.00 ft (KB)
3076.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6667 Inside

Press @ Run Depth: psig @ 4569.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.07.29 End Date: 2013.07.29 Last Calib.: 2013.07.29
Start Time: 03:15:29 End Time: 12:17:59 Time On Btm:
Time Off Btm:

TEST COMMENT: 4 1/4" blow
No return
1 1/2" blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
175.00	o & w c m 5%o 10%w 85%m	0.86
75.00	s o & w c m 2%o 5%w 93%m	0.50

* 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.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52841

DST#: 3

ATTN: Steve Miller

Test Start: 2013.07.29 @ 03:15:40

Tool Information

Drill Pipe:	Length: 4324.00 ft	Diameter: 3.80 inches	Volume: 60.65 bbl	Tool Weight: 1500.00 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: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 61.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4568.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 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			4541.00	
Shut In Tool	5.00			4546.00	
Hydraulic tool	5.00			4551.00	
Jars	5.00			4556.00	
Safety Joint	3.00			4559.00	
Packer	5.00			4564.00	28.00 Bottom Of Top Packer
Packer	4.00			4568.00	
Stubb	1.00			4569.00	
Recorder	0.00	6667	Inside	4569.00	
Recorder	0.00	8368	Outside	4569.00	
Perforations	22.00			4591.00	
Change Over Sub	1.00			4592.00	
Drill Pipe	32.00			4624.00	
Change Over Sub	1.00			4625.00	
Bullnose	5.00			4630.00	62.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc.

30-12s-32w Logan,KS

250 North Water Ste.300
Wichita, KS 67202

Smith #2-30

Job Ticket: 52841

DST#: 3

ATTN: Steve Miller

Test Start: 2013.07.29 @ 03:15:40

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:

29500 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
175.00	o & w c m 5%o 10%w 85%m	0.861
75.00	s o & w c m 2%o 5%w 93%m	0.496

Total Length: 250.00 ft Total Volume: 1.357 bbl

Num Fluid Samples: 0

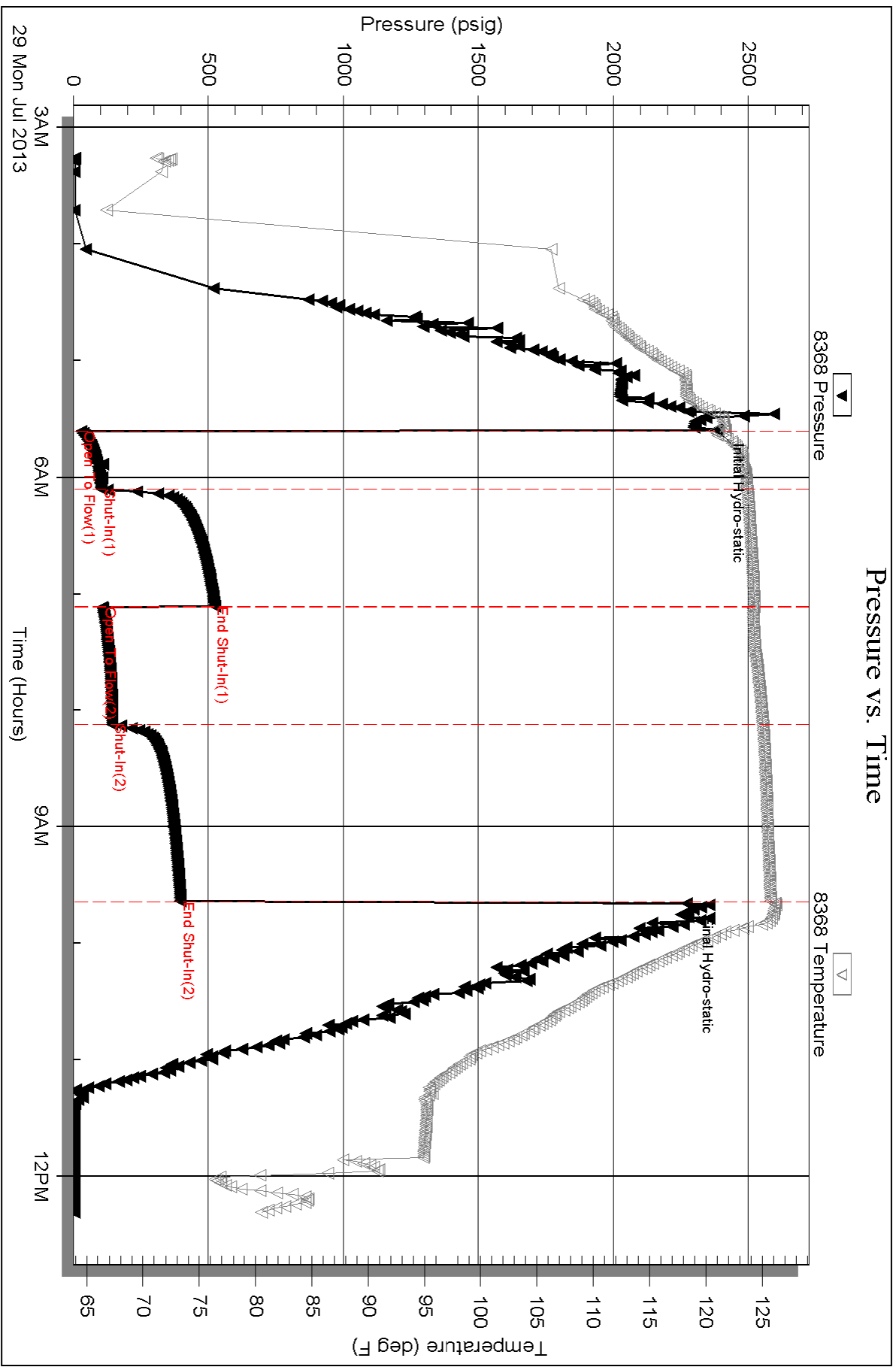
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .201 @ 78*8f = 29,500 chlor



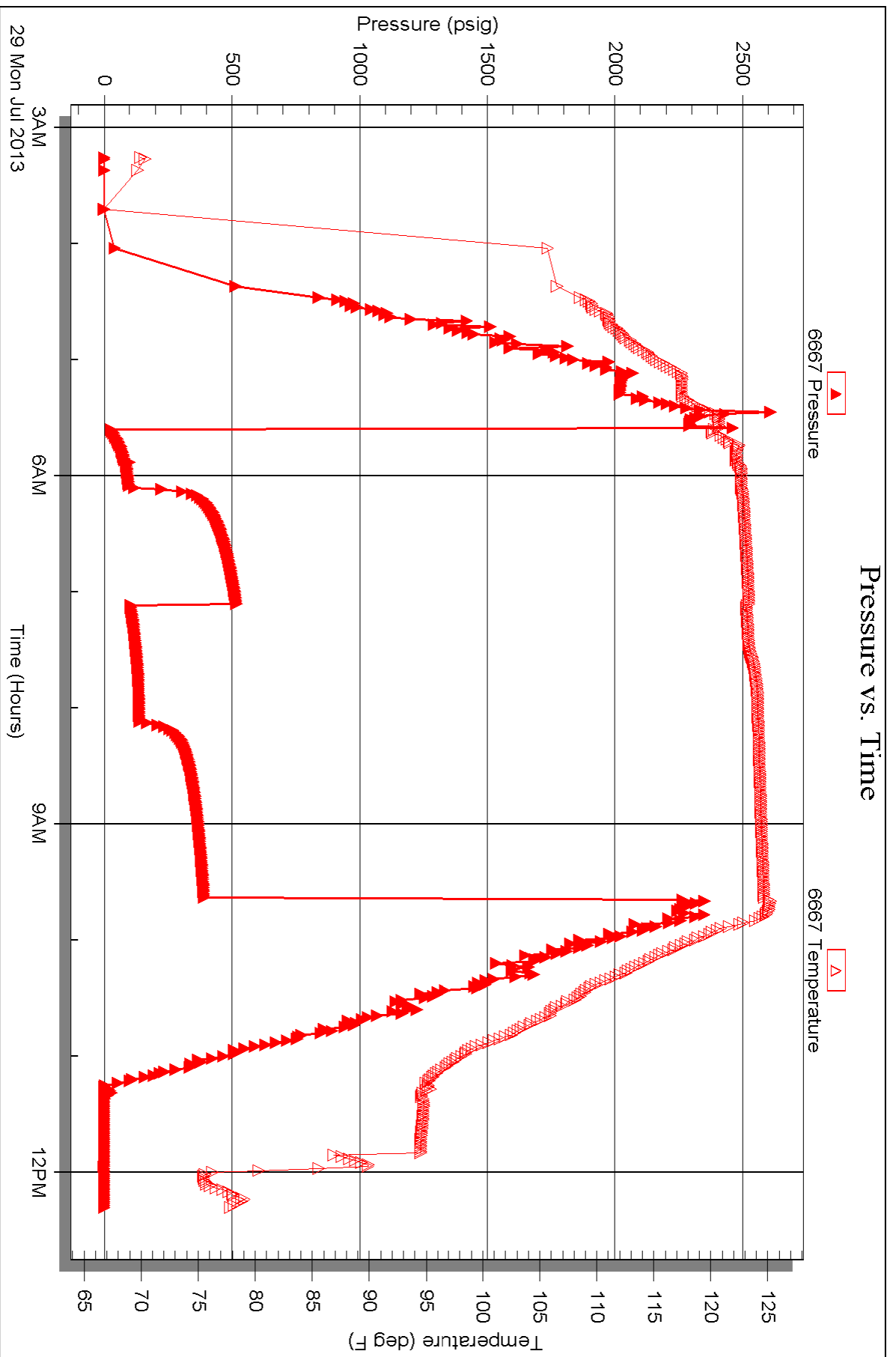
Serial #: 6667

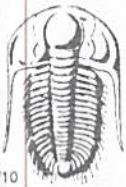
Inside

Murfin Drilling Co Inc.

Smith #2-30

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52839

Well Name & No. Smith # 2-30 Test No. #1 Date 7/26/13
 Company Murkin Drilling Co Inc Elevation 3086 KB 3076 GL
 Address 250 N. Water Ste. 300 Wich. Ave, KS
 Co. Rep / Geol. Steve Miller Rig Murkin #22
 Location: Sec. 30 Twp. 12 Rge. 32w Co. Logan State KS

Interval Tested 4209 4236 Zone Tested H
 Anchor Length 27 Drill Pipe Run 3977 Mud Wt. 9.2
 Top Packer Depth 4205 Drill Collars Run 236 Vis 62
 Bottom Packer Depth 4209 Wt. Pipe Run --- WL 7.4
 Total Depth 4236 Chlorides 9200 ppm System LCM #4

Blow Description Weak blow dried in 5 1/2 min
No return
No blow
No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2'</u>	<u>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 119° Gravity --- API RW --- @ --- ° F Chlorides --- ppm

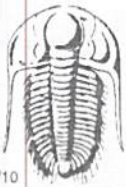
(A) Initial Hydrostatic <u>2182</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>12:45</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>13:26</u>
(C) First Final Flow <u>26</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>15:40</u>
(D) Initial Shut-In <u>212</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>18:40</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:30</u>
(F) Second Final Flow <u>27</u>	<input checked="" type="checkbox"/> Mileage <u>88 RT</u> 136.40	Comments
(G) Final Shut-In <u>140</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2113</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

Sub Total 1711.40

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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52840

Well Name & No. Smith # 2-30 Test No. #2 Date 7/27/13
 Company Murphy Drilling Co. Inc. Elevation 3980 KB 3076 GL
 Address 250 N. Water St. 300 W. Wichita, KS 67202
 Co. Rep / Geol. Steve Miller Rig Murphy #22
 Location: Sec. 30 Twp. 12 S Rge. 32 W Co. Logan State KS

Interval Tested 4290 4318 Zone Tested 41
 Anchor Length 28 Drill Pipe Run 4039' Mud Wt. 9.3
 Top Packer Depth 4285 Drill Collars Run 236' Vis 59
 Bottom Packer Depth 4290 Wt. Pipe Run --- WL 8.0
 Total Depth 4318 Chlorides 9200 ppm System LCM std

Blow Description 4" in. blow
No return
6" in. blow
No return

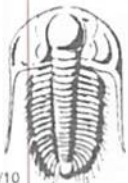
Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>Feet of mcw w/o:1 Scum</u>	<u>Scum</u>		<u>50</u>	<u>50</u>
<u>240</u>	<u>Feet of mcw</u>			<u>75</u>	<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 330' BHT 124° Gravity --- API RW 143 @ 77° F Chlorides 47,500 ppm

(A) Initial Hydrostatic 2262 Test 1250 T-On Location 09:10
 (B) First Initial Flow 27 Jars 250 T-Started 09:35
 (C) First Final Flow 91 Safety Joint 75 T-Open 11:33
 (D) Initial Shut-In 1223 Circ Sub N/C T-Pulled 15:33
 (E) Second Initial Flow 98 Hourly Standby T-Out 18:05
 (F) Second Final Flow 165 Mileage 88 RT 136.40
 (G) Final Shut-In 1204 Sampler
 (H) Final Hydrostatic 2190 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 1711.40
 Total 1711.40
 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52841

4/10

Well Name & No. Smith #2-30 Test No. #3 Date 7/29/13
 Company Mustard Drilling Co Inc. Elevation 3086 KB 3076 GL
 Address 250 N. Water Ste. 300 Wichita, KS 67202
 Co. Rep / Gea. Steve Miller Rig Mustard #22
 Location: Sec. 30 Twp. 12s Rge. 32w Co. Jagan State KS

Interval Tested 4568 4630 Zone Tested Johnson
 Anchor Length 62 Drill Pipe Run 4324' Mud Wt. 9.3
 Top Packer Depth 4563 Drill Collars Run 236' Vis 43
 Bottom Packer Depth 4568 Wt. Pipe Run --- WL 8.0
 Total Depth 4630 Chlorides 9600 ppm System LCM #3

Blow Description 4 1/4" blow
No return
1 1/2" blow
No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>75'</u>	<u>SO 3/4 w cm</u>	<u>2</u>	<u>5</u>	<u>93</u>	<u>---</u>
<u>175'</u>	<u>O 3/4 w cm</u>	<u>5</u>	<u>10</u>	<u>85</u>	<u>---</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 250 BHT 126.0 Gravity --- API RW 201 @ 78 ° F Chlorides 29,500 ppm

(A) Initial Hydrostatic 2384 Test 1250 T-On Location 02:45
 (B) First Initial Flow 30 Jars --- T-Started 03:15
 (C) First Final Flow 104 Safety Joint --- T-Open 05:37
 (D) Initial Shut-In 523 Circ Sub N/C T-Pulled 09:37
 (E) Second Initial Flow 108 Hourly Standby --- T-Out 12:25
 (F) Second Final Flow 144 Mileage BBRT 272.80 Comments loaded tools 7/30 13:30
 (G) Final Shut-In 396 Sampler ---
 (H) Final Hydrostatic 2270 Straddle --- Ruined Shale Packer ---
 Shale Packer --- Ruined Packer ---

Initial Open 30 Extra Packer --- Extra Copies ---
 Initial Shut-In 60 Extra Recorder --- Sub Total 800
 Final Flow 60 Day Standby 1d 1h Total 2322.80
 Final Shut-In 90 Accessibility --- MP/DST Disc't ---
 Sub Total 1522.80

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