



## DRILL STEM TEST REPORT

Prepared For: **New Gulf Operating LLC**

6310 E 102nd ST.  
Tulsa OK 74137

ATTN: Curtis Covey

### **Anderson #1**

### **29-14s-34w Logan,KS**

Start Date: 2012.07.18 @ 06:04:00

End Date: 2012.07.18 @ 10:32:54

Job Ticket #: 45925                      DST #: 1

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

Printed: 2012.07.26 @ 11:08:01



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

New Gulf Operating LLC

**29-14s-34w Logan, KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 45925

**DST#: 1**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 06:04:00

## GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 10:32:54

Test Type: Conventional Bottom Hole (Initial)

Tester: Will MacLean

Unit No: 40

**Interval: 4368.00 ft (KB) To 4394.00 ft (KB) (TVD)**

Reference Elevations: 3100.00 ft (KB)

Total Depth: 4394.00 ft (KB) (TVD)

3090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

**Serial #: 8360 Inside**

Press @ Run Depth: psig @ 4371.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.18

End Date:

2012.07.18

Last Calib.: 2012.07.18

Start Time: 06:04:00

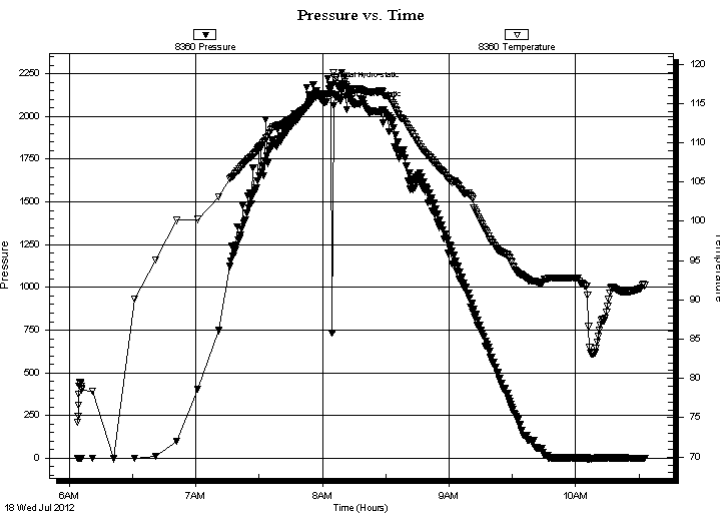
End Time:

10:32:54

Time On Btm: 2012.07.18 @ 08:04:10

Time Off Btm: 2012.07.18 @ 08:05:10

TEST COMMENT: IF- Packer Failure



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2176.34	116.24	Initial Hydro-static
1	2063.92	118.97	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
233.00	100%m	3.27

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 45925

**DST#: 1**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 06:04:00

## Tool Information

Drill Pipe:	Length: 4348.00 ft	Diameter: 3.80 inches	Volume: 60.99 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 60.99 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4368.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4342.00	
Shut In Tool	5.00			4347.00	
Hydraulic tool	5.00			4352.00	
Jars	5.00			4357.00	
Safety Joint	2.00			4359.00	
Packer	5.00			4364.00	27.00 Bottom Of Top Packer
Packer	4.00			4368.00	
Stubb	1.00			4369.00	
Perforations	2.00			4371.00	
Recorder	0.00	8360	Inside	4371.00	
Recorder	0.00	8322	Outside	4371.00	
Perforations	20.00			4391.00	
Bullnose	3.00			4394.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 45925

**DST#: 1**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 06:04:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.72 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
233.00	100%m	3.268

Total Length: 233.00 ft      Total Volume: 3.268 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

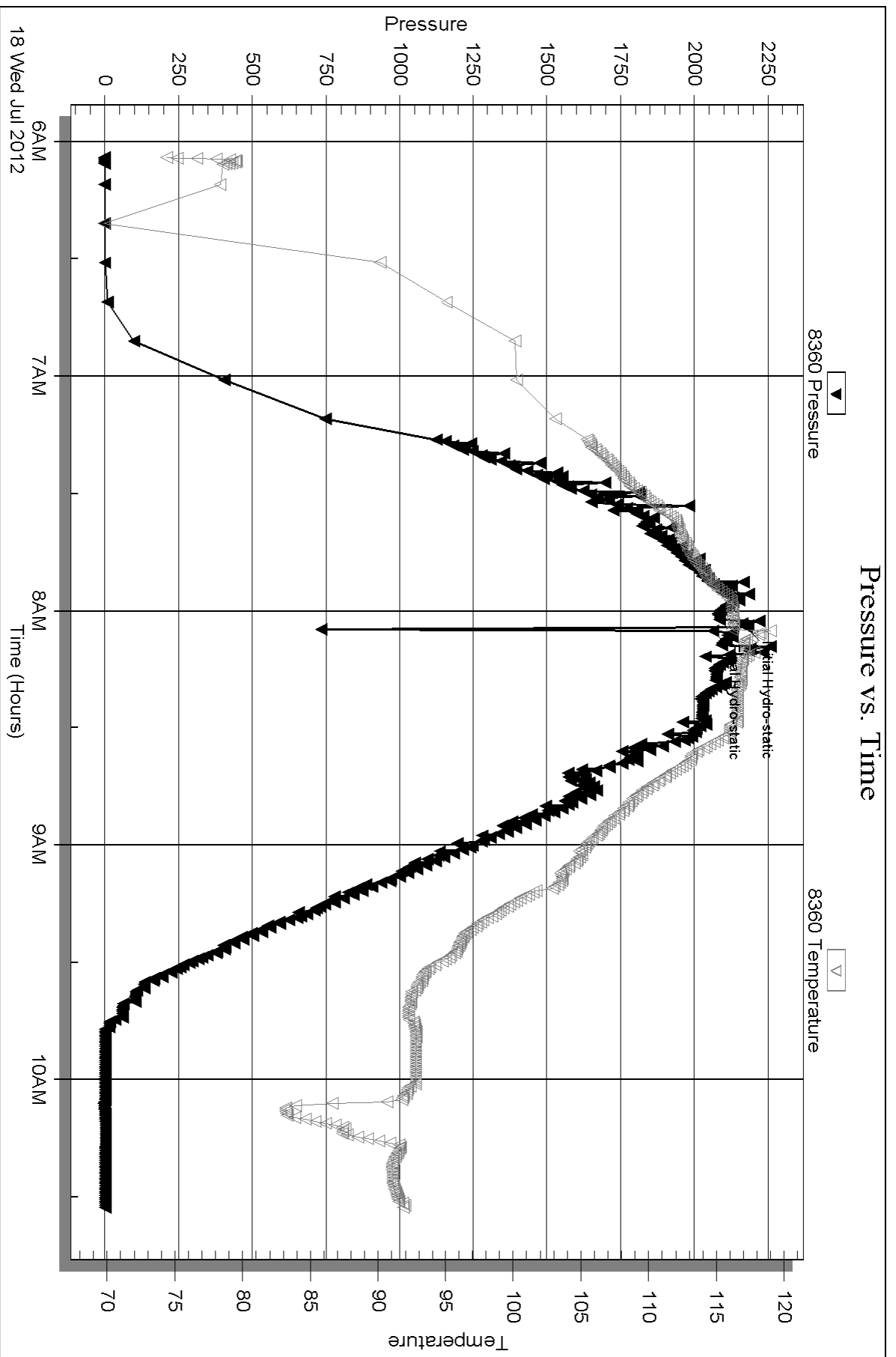
Serial #: 8360

Inside

New Gulf Operating LLC

Anderson #1

DST Test Number: 1

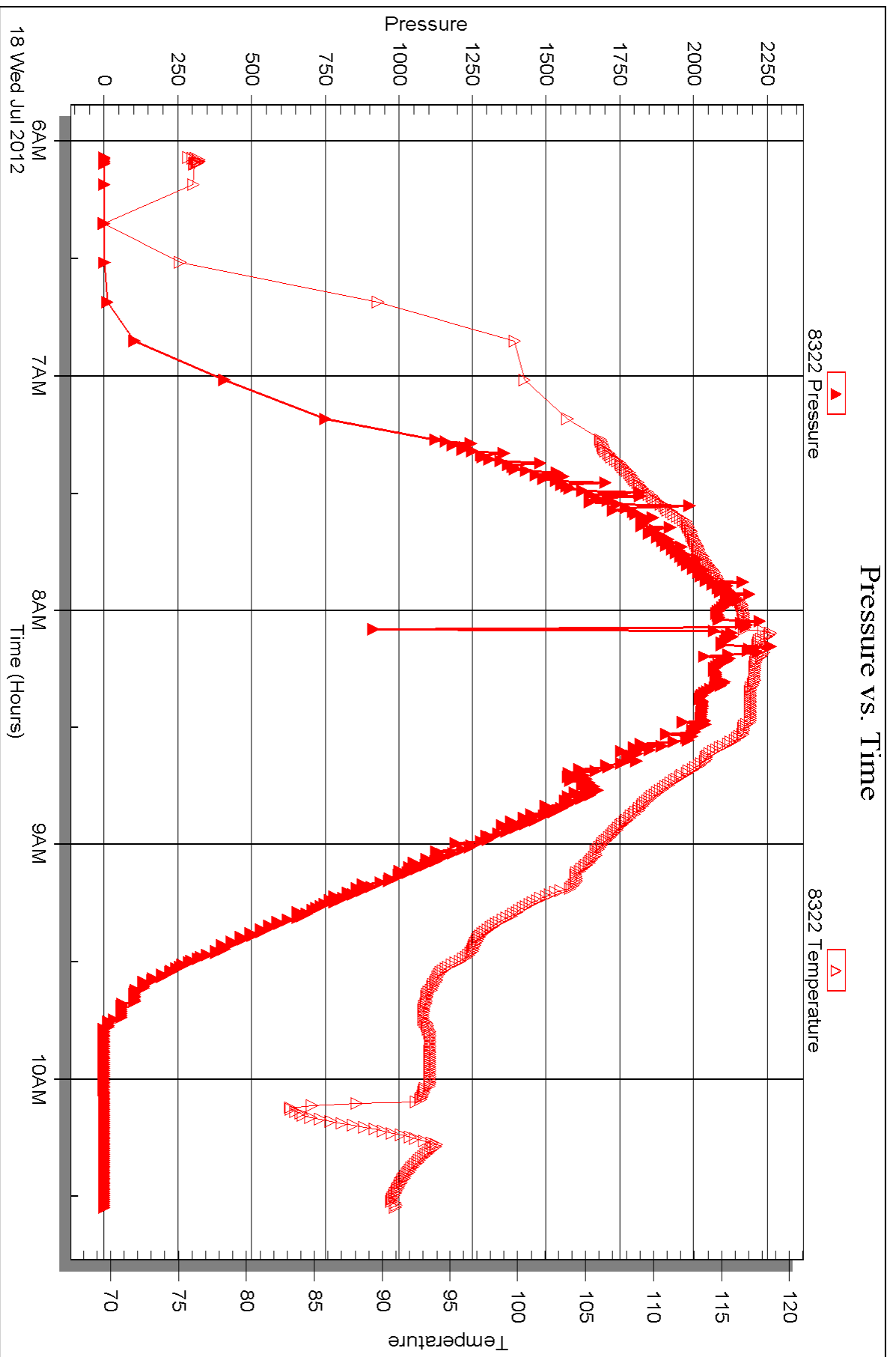


Serial #: 8322

Outside New Gulf Operating LLC

Anderson #1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **New Gulf Operating LLC**

6310 E 102nd ST.  
Tulsa OK 74137

ATTN: Curtis Covey

### **Anderson #1**

### **29-14s-34w Logan,KS**

Start Date: 2012.07.18 @ 11:44:00

End Date: 2012.07.18 @ 14:05:40

Job Ticket #: 48802                      DST #: 2

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

Printed: 2012.07.26 @ 11:07:15





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48802

**DST#: 2**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 11:44:00

## GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 14:05:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

**Interval: 4361.00 ft (KB) To 4394.00 ft (KB) (TVD)**

Reference Elevations: 3100.00 ft (KB)

Total Depth: 4394.00 ft (KB) (TVD)

3090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 10.00 ft

**Serial #: 8360 Inside**

Press @ Run Depth: psig @ 4364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.18

End Date: 2012.07.18

Last Calib.: 2012.07.18

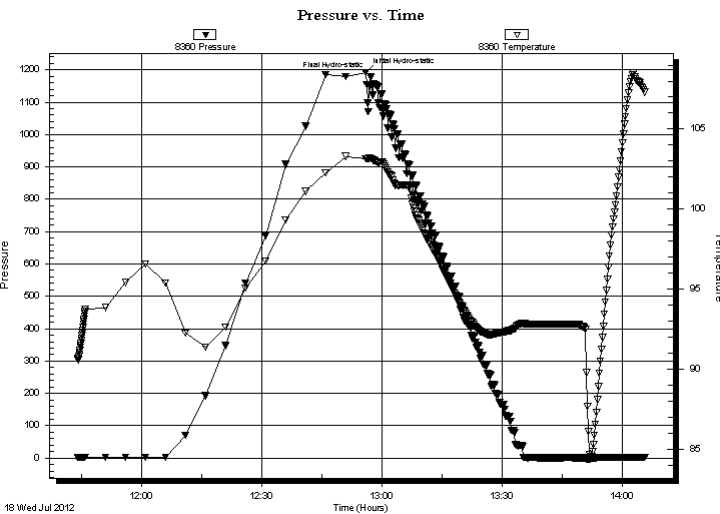
Start Time: 11:44:00

End Time: 14:05:40

Time On Btm: 2012.07.18 @ 12:55:55

Time Off Btm: 2012.07.18 @ 12:57:10

**TEST COMMENT:** Hit a Bridge at 2464 and it set the Packers was told to come out of the hole by the Company Man



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1191.91	103.16	Initial Hydro-static
2	1178.01	103.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48802

**DST#: 2**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 11:44:00

## Tool Information

Drill Pipe:	Length:	ft	Diameter:	3.80 inches	Volume:	- bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	lb
					Total Volume:	- bbl	Tool Chased	ft
Drill Pipe Above KB:	-4334.00 ft						String Weight: Initial	lb
Depth to Top Packer:	4361.00 ft						Final	lb
Depth to Bottom Packer:	ft							
Interval between Packers:	33.00 ft							
Tool Length:	60.00 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			4335.00	
Shut In Tool	5.00			4340.00	
Hydraulic tool	5.00			4345.00	
Jars	5.00			4350.00	
Safety Joint	2.00			4352.00	
Packer	5.00			4357.00	27.00 Bottom Of Top Packer
Packer	4.00			4361.00	
Stubb	1.00			4362.00	
Perforations	2.00			4364.00	
Recorder	0.00	8360	Inside	4364.00	
Recorder	0.00	8322	Outside	4364.00	
Perforations	27.00			4391.00	
Bullnose	3.00			4394.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



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TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48802

**DST#: 2**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 11:44:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.73 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

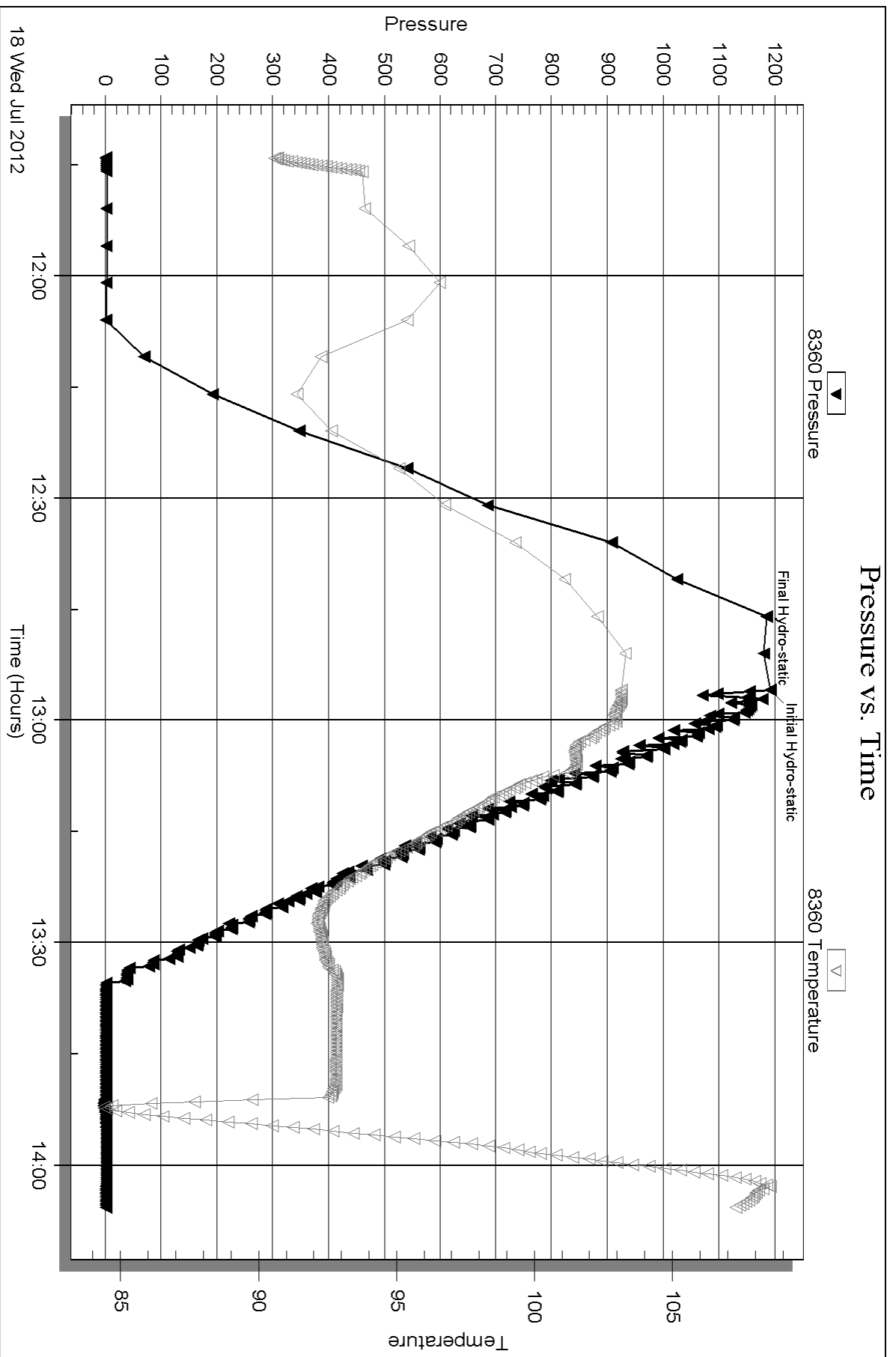
Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

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

Laboratory Name:                      Laboratory Location:

Recovery Comments:

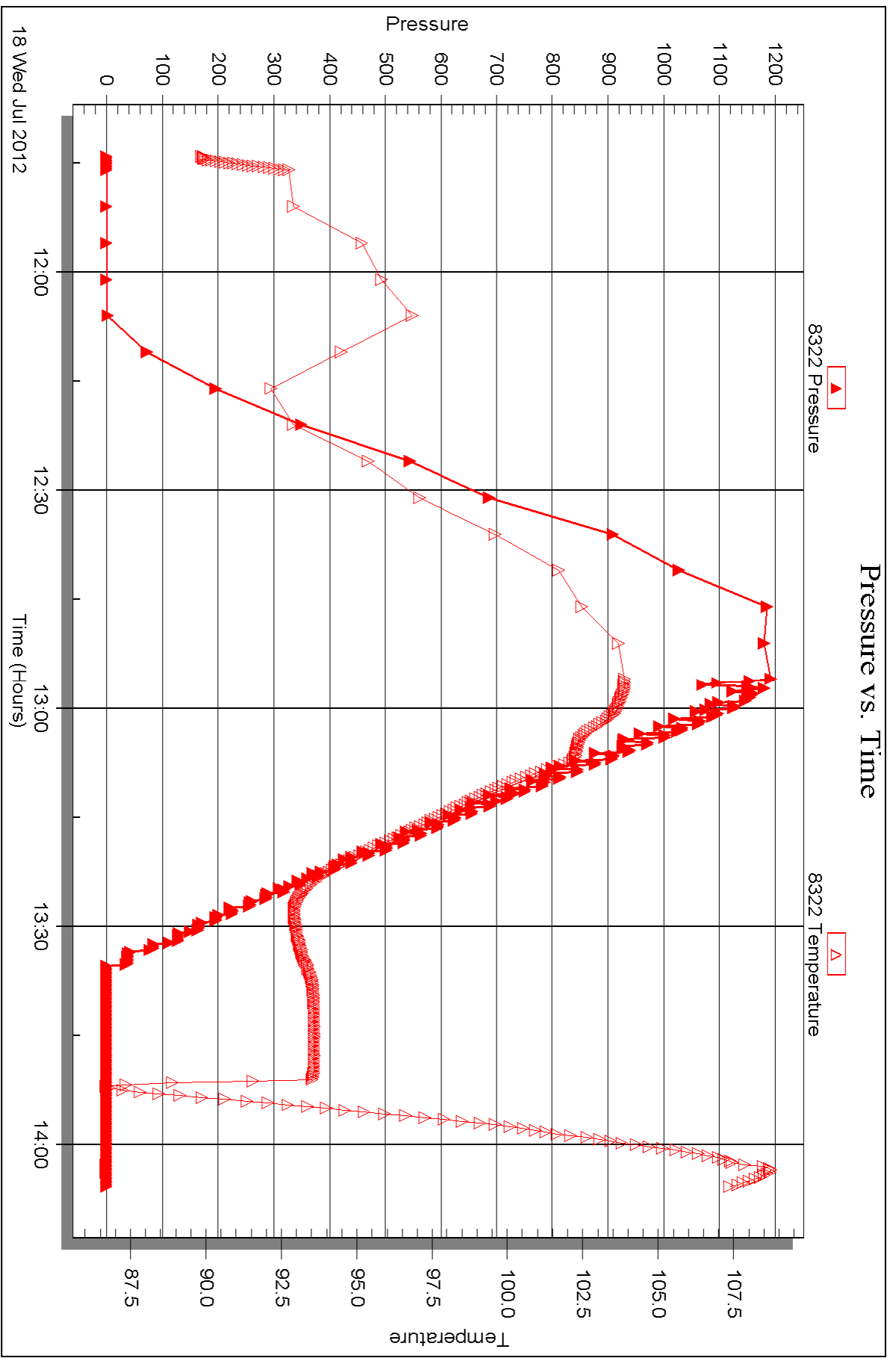


Serial #: 8322

Outside New Gulf Operating LLC

Anderson #1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **New Gulf Operating LLC**

6310 E 102nd ST.  
Tulsa OK 74137

ATTN: Curtis Covey

### **Anderson #1**

### **29-14s-34w Logan,KS**

Start Date: 2012.07.18 @ 20:24:00

End Date: 2012.07.19 @ 05:20:55

Job Ticket #: 48803                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.26 @ 11:06:34



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48803

**DST#: 3**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 20:24:00

## GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:31:25

Time Test Ended: 05:20:55

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

**Interval: 4361.00 ft (KB) To 4394.00 ft (KB) (TVD)**

Reference Elevations: 3100.00 ft (KB)

Total Depth: 4394.00 ft (KB) (TVD)

3090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8360**

**Inside**

Press @ Run Depth: 204.13 psig @ 4364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.18

End Date:

2012.07.19

Last Calib.:

2012.07.19

Start Time:

20:24:00

End Time:

05:20:55

Time On Btm:

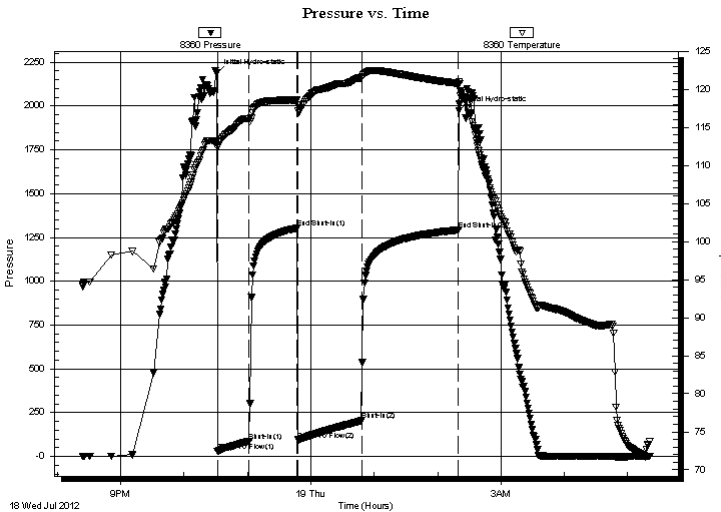
2012.07.18 @ 22:30:55

Time Off Btm:

2012.07.19 @ 02:20:09

**TEST COMMENT:** IF- Surface Blow Built to BOB in 8 3/4 min  
IS- Weak Surface Blow in 6 min Built to 3"  
FF- Surface Blow Built to BOB in 9 1/2 min  
FS- Weak Surface Blow Built to 3 3/4"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.18	113.26	Initial Hydro-static
1	29.28	112.37	Open To Flow (1)
31	87.42	116.18	Shut-In(1)
77	1303.33	118.57	End Shut-In(1)
78	94.07	117.23	Open To Flow (2)
137	204.13	121.47	Shut-In(2)
229	1292.65	120.76	End Shut-In(2)
230	1973.63	120.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
61.00	GOCM 15%g 17%oil 68%m	0.86
122.00	GMCO 9%g 12%m 79%oil	1.71
183.00	GO 26%g 74%oil	2.57
122.00	GO 14%g 86%oil	1.71
0.00	488' of GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48803

**DST#: 3**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 20:24:00

## Tool Information

Drill Pipe:	Length: 4348.00 ft	Diameter: 3.80 inches	Volume: 60.99 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 6000.00 lb
			<u>Total Volume: 60.99 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4361.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	60.00 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			4335.00	
Shut In Tool	5.00			4340.00	
Hydraulic tool	5.00			4345.00	
Jars	5.00			4350.00	
Safety Joint	2.00			4352.00	
Packer	5.00			4357.00	27.00 Bottom Of Top Packer
Packer	4.00			4361.00	
Stubb	1.00			4362.00	
Perforations	2.00			4364.00	
Recorder	0.00	8360	Inside	4364.00	
Recorder	0.00	8322	Outside	4364.00	
Perforations	27.00			4391.00	
Bullnose	3.00			4394.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48803

**DST#: 3**

ATTN: Curtis Covey

Test Start: 2012.07.18 @ 20:24:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	GOCM 15%g 17%oil 68%m	0.856
122.00	GMCO 9%g 12%m 79%oil	1.711
183.00	GO 26%g 74%oil	2.567
122.00	GO 14%g 86%oil	1.711
0.00	488' of GIP	0.000

Total Length: 488.00 ft      Total Volume: 6.845 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API is 36 @ 80f = 34

Serial #: 8360

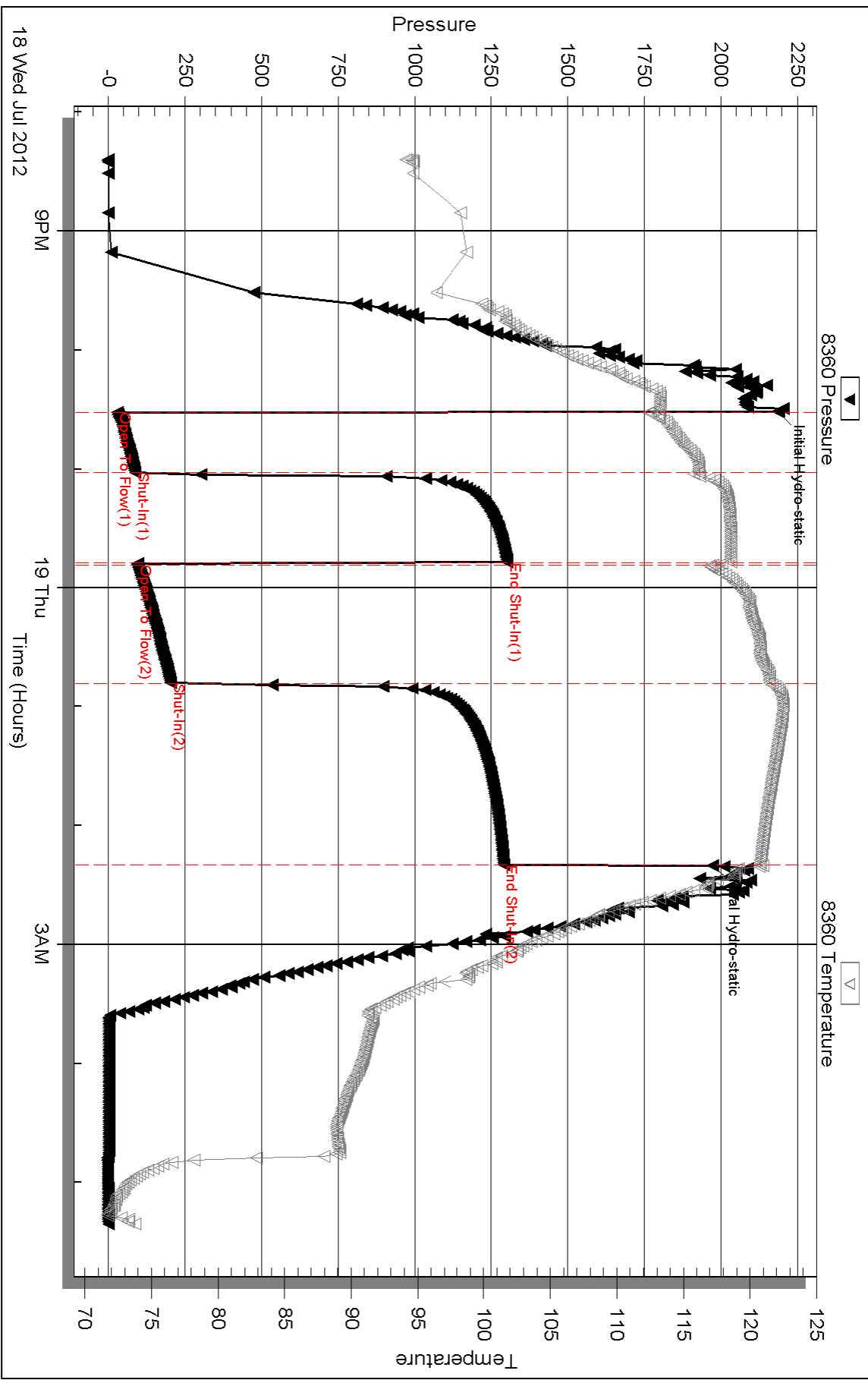
Inside

New Gulf Operating LLC

Anderson #1

DST Test Number: 3

# Pressure vs. Time

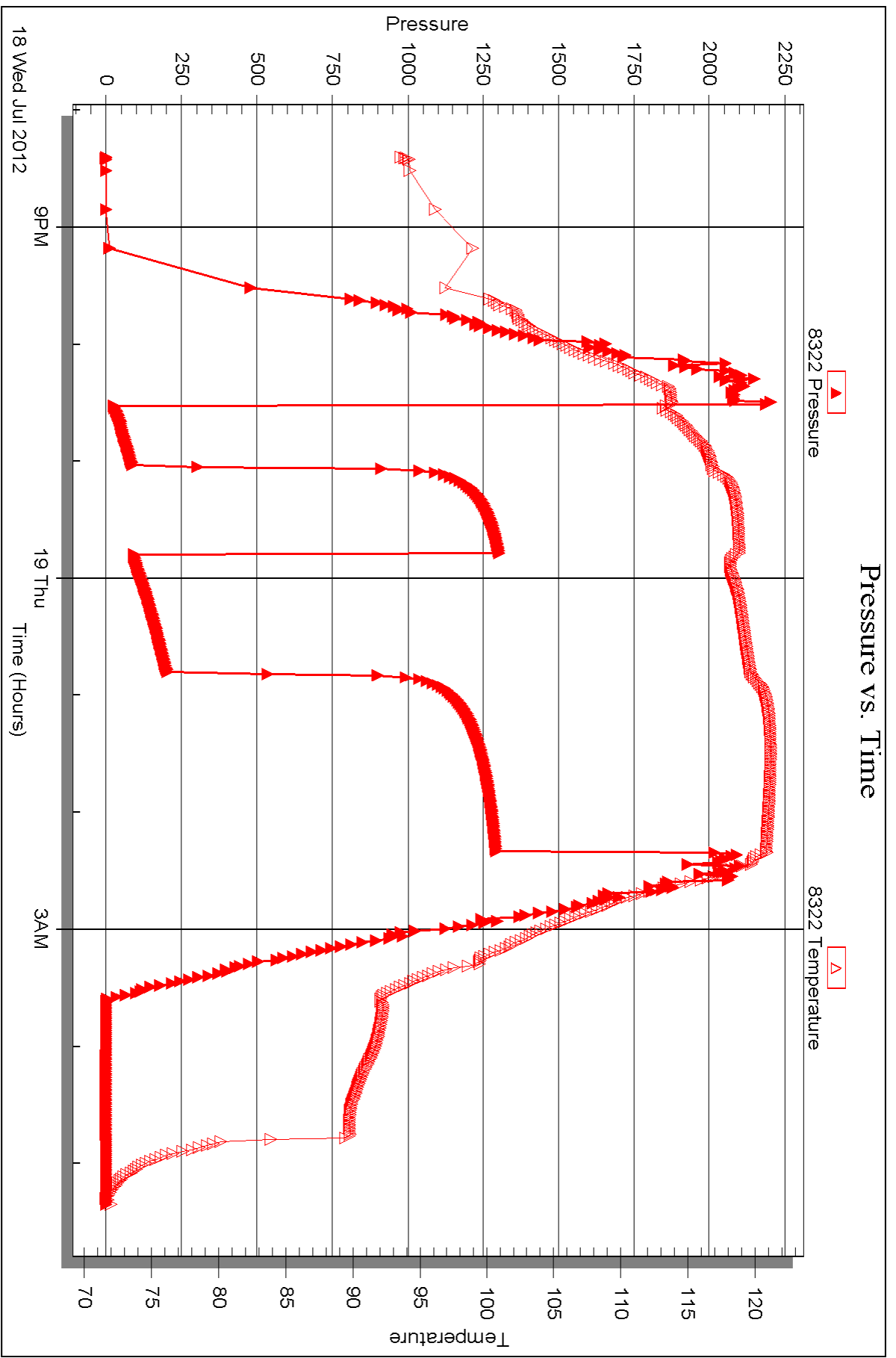


Serial #: 8322

Outside New Gulf Operating LLC

Anderson #1

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **New Gulf Operating LLC**

6310 E 102nd ST.  
Tulsa OK 74137

ATTN: Curtis Covey

### **Anderson #1**

### **29-14s-34w Logan,KS**

Start Date: 2012.07.20 @ 01:16:00

End Date: 2012.07.20 @ 07:50:54

Job Ticket #: 48804                      DST #: 4

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

Printed: 2012.07.26 @ 11:06:00



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

New Gulf Operating LLC

**29-14s-34w Logan, KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48804

**DST#: 4**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 01:16:00

## GENERAL INFORMATION:

Formation: **Cherokee Shale**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:46:40

Time Test Ended: 07:50:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

**Interval: 4460.00 ft (KB) To 4543.00 ft (KB) (TVD)**

Reference Elevations: 3100.00 ft (KB)

Total Depth: 4394.00 ft (KB) (TVD)

3090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 8360**

**Inside**

Press @ Run Depth: 30.59 psig @ 4461.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.20

End Date:

2012.07.20

Last Calib.:

2012.07.20

Start Time: 01:16:00

End Time:

07:50:54

Time On Btm:

2012.07.20 @ 03:46:25

Time Off Btm:

2012.07.20 @ 05:50:39

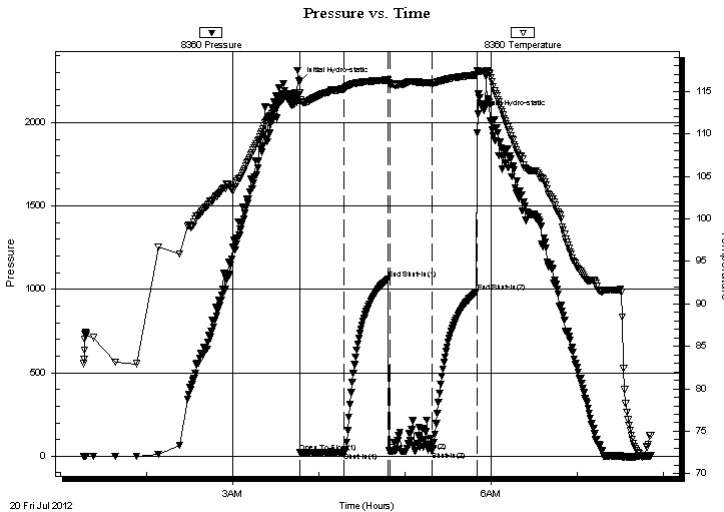
**TEST COMMENT:** IF- Weak Surface Blow Built to 1/2"

IS- No Blow

FF- No Blow

FS- No Blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.72	114.81	Initial Hydro-static
1	22.98	113.82	Open To Flow (1)
31	25.53	115.27	Shut-In(1)
62	1063.55	116.35	End Shut-In(1)
63	27.95	115.90	Open To Flow (2)
92	30.59	115.98	Shut-In(2)
124	986.62	116.94	End Shut-In(2)
125	2050.13	117.45	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	100% mud w with Few Oil Spots	0.21

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48804

**DST#: 4**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 01:16:00

## Tool Information

Drill Pipe:	Length: 4441.00 ft	Diameter: 3.80 inches	Volume: 62.30 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 62.30 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4460.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	110.00 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			4434.00	
Shut In Tool	5.00			4439.00	
Hydraulic tool	5.00			4444.00	
Jars	5.00			4449.00	
Safety Joint	2.00			4451.00	
Packer	5.00			4456.00	27.00 Bottom Of Top Packer
Packer	4.00			4460.00	
Stubb	1.00			4461.00	
Recorder	0.00	8360	Inside	4461.00	
Recorder	0.00	8322	Outside	4461.00	
Perforations	15.00			4476.00	
Change Over Sub	1.00			4477.00	
Drill Pipe	62.00			4539.00	
Change Over Sub	1.00			4540.00	
Bullnose	3.00			4543.00	83.00 Bottom Packers & Anchor

**Total Tool Length: 110.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48804

**DST#: 4**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 01:16:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.54 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	100% mud with Few Oil Spots	0.210

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

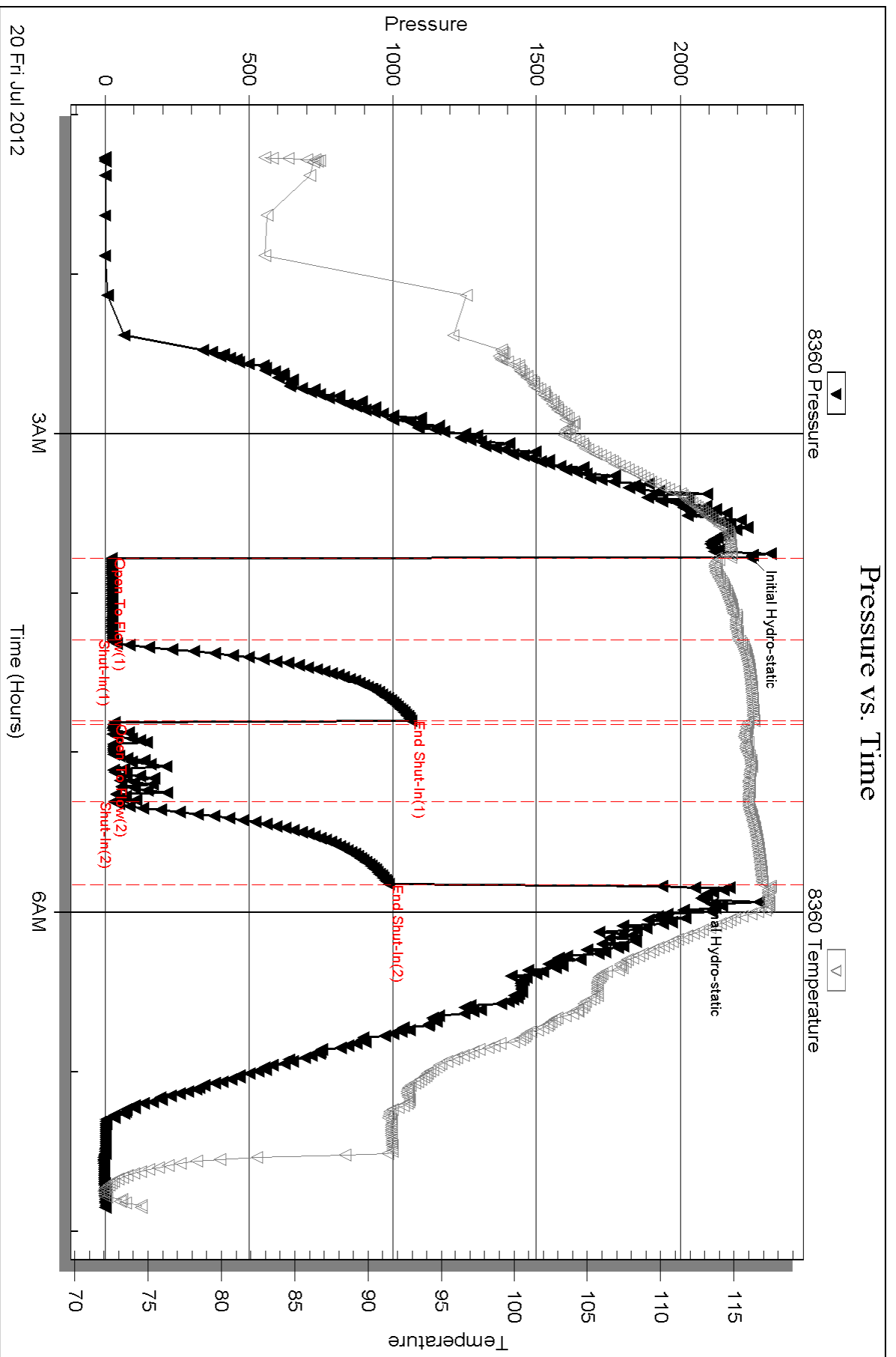
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

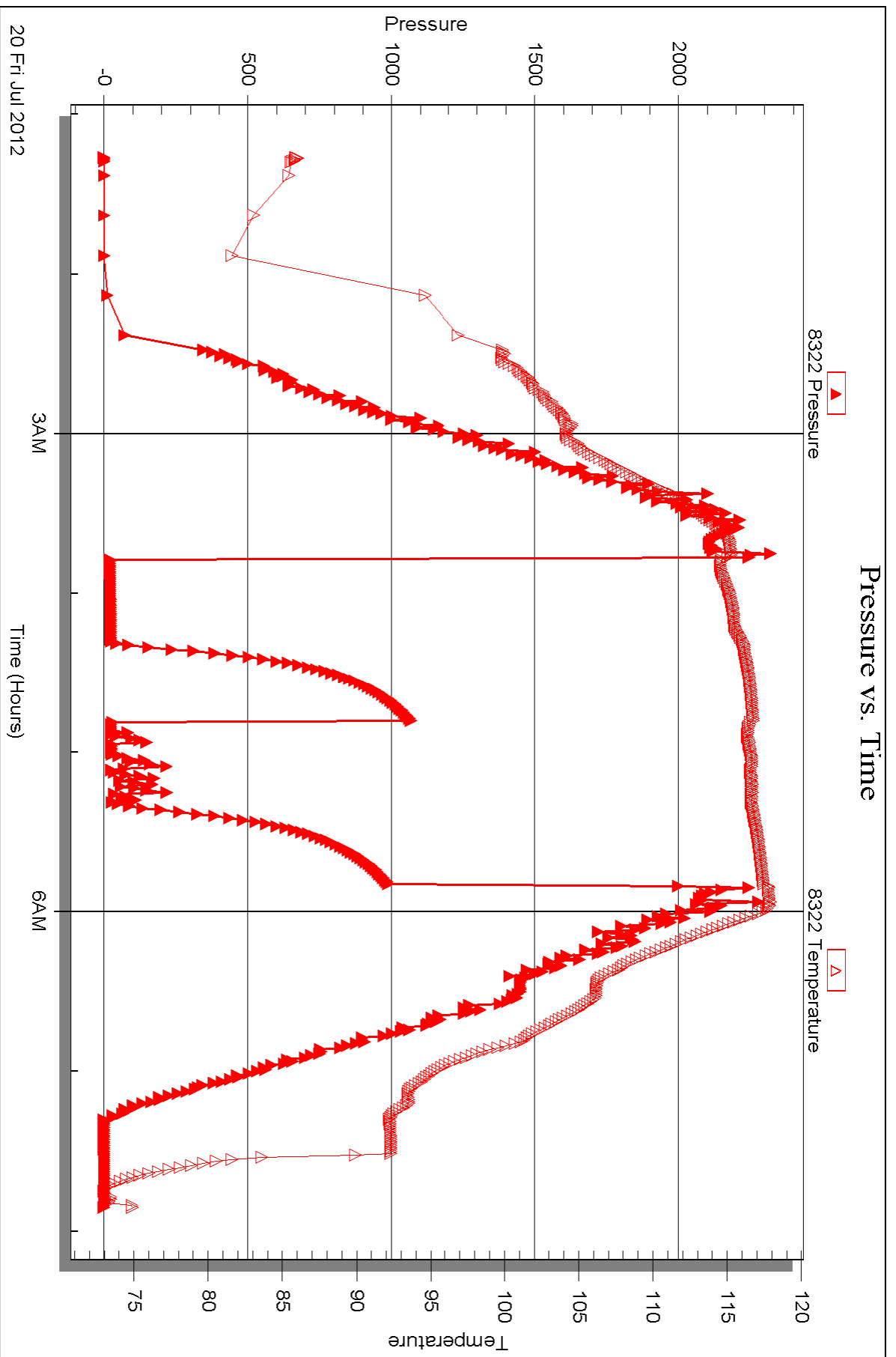


Serial #: 8322

Outside New Gulf Operating LLC

Anderson #1

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **New Gulf Operating LLC**

6310 E 102nd ST.  
Tulsa OK 74137

ATTN: Curtis Covey

### **Anderson #1**

### **29-14s-34w Logan,KS**

Start Date: 2012.07.20 @ 20:32:00

End Date: 2012.07.21 @ 04:07:39

Job Ticket #: 48806                      DST #: 5

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

Printed: 2012.07.26 @ 11:05:03



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48806

**DST#: 5**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 20:32:00

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:00:25

Time Test Ended: 04:07:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Will MacLean

Unit No: 40

**Interval: 4518.00 ft (KB) To 4641.00 ft (KB) (TVD)**

Reference Elevations: 3100.00 ft (KB)

Total Depth: 4641.00 ft (KB) (TVD)

3090.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

**Serial #: 8360**

**Inside**

Press @ Run Depth: 27.69 psig @ 4519.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.20

End Date:

2012.07.21

Last Calib.: 2012.07.21

Start Time: 20:32:00

End Time:

04:07:39

Time On Btm: 2012.07.20 @ 22:59:55

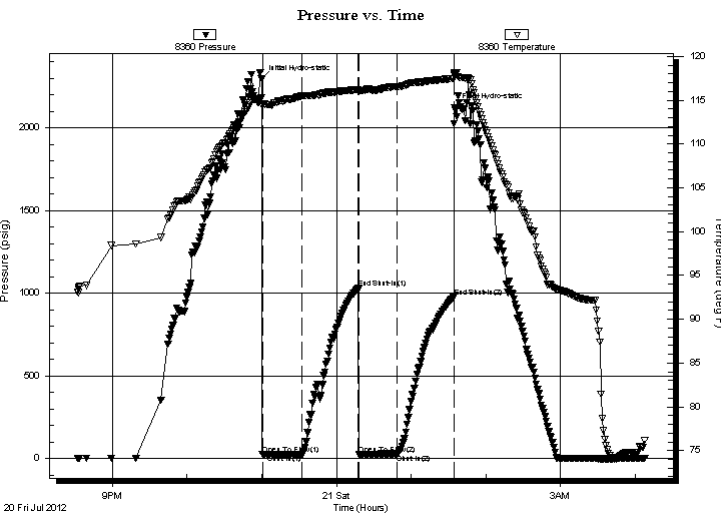
Time Off Btm: 2012.07.21 @ 01:34:54

**TEST COMMENT:** IF- Weak Surface Blow Built to 3/4"

IS- No Blow

FF- No Blow

FS- No Blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.22	115.25	Initial Hydro-static
1	23.59	114.46	Open To Flow (1)
33	23.58	115.48	Shut-In(1)
78	1031.80	116.20	End Shut-In(1)
79	27.09	115.94	Open To Flow (2)
109	27.69	116.51	Shut-In(2)
155	975.00	117.47	End Shut-In(2)
155	2123.95	117.92	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	100% mud Oil Spots in Tool	0.28

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48806

**DST#: 5**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 20:32:00

## Tool Information

Drill Pipe:	Length: 4503.00 ft	Diameter: 3.80 inches	Volume: 63.17 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 18000.00 lb
			<u>Total Volume: 63.17 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4518.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	123.00 ft			
Tool Length:	150.00 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			4492.00	
Shut In Tool	5.00			4497.00	
Hydraulic tool	5.00			4502.00	
Jars	5.00			4507.00	
Safety Joint	2.00			4509.00	
Packer	5.00			4514.00	27.00 Bottom Of Top Packer
Packer	4.00			4518.00	
Stubb	1.00			4519.00	
Recorder	0.00	8360	Inside	4519.00	
Recorder	0.00	8322	Outside	4519.00	
Perforations	20.00			4539.00	
Change Over Sub	1.00			4540.00	
Drill Pipe	94.00			4634.00	
Change Over Sub	1.00			4635.00	
Perforations	3.00			4638.00	
Bullnose	3.00			4641.00	123.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>150.00</b>				





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

New Gulf Operating LLC

**29-14s-34w Logan,KS**

6310 E 102nd ST.  
Tulsa OK 74137

**Anderson #1**

Job Ticket: 48806

**DST#: 5**

ATTN: Curtis Covey

Test Start: 2012.07.20 @ 20:32:00

## 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.36 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100% mud Oil Spots in Tool	0.281

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8360

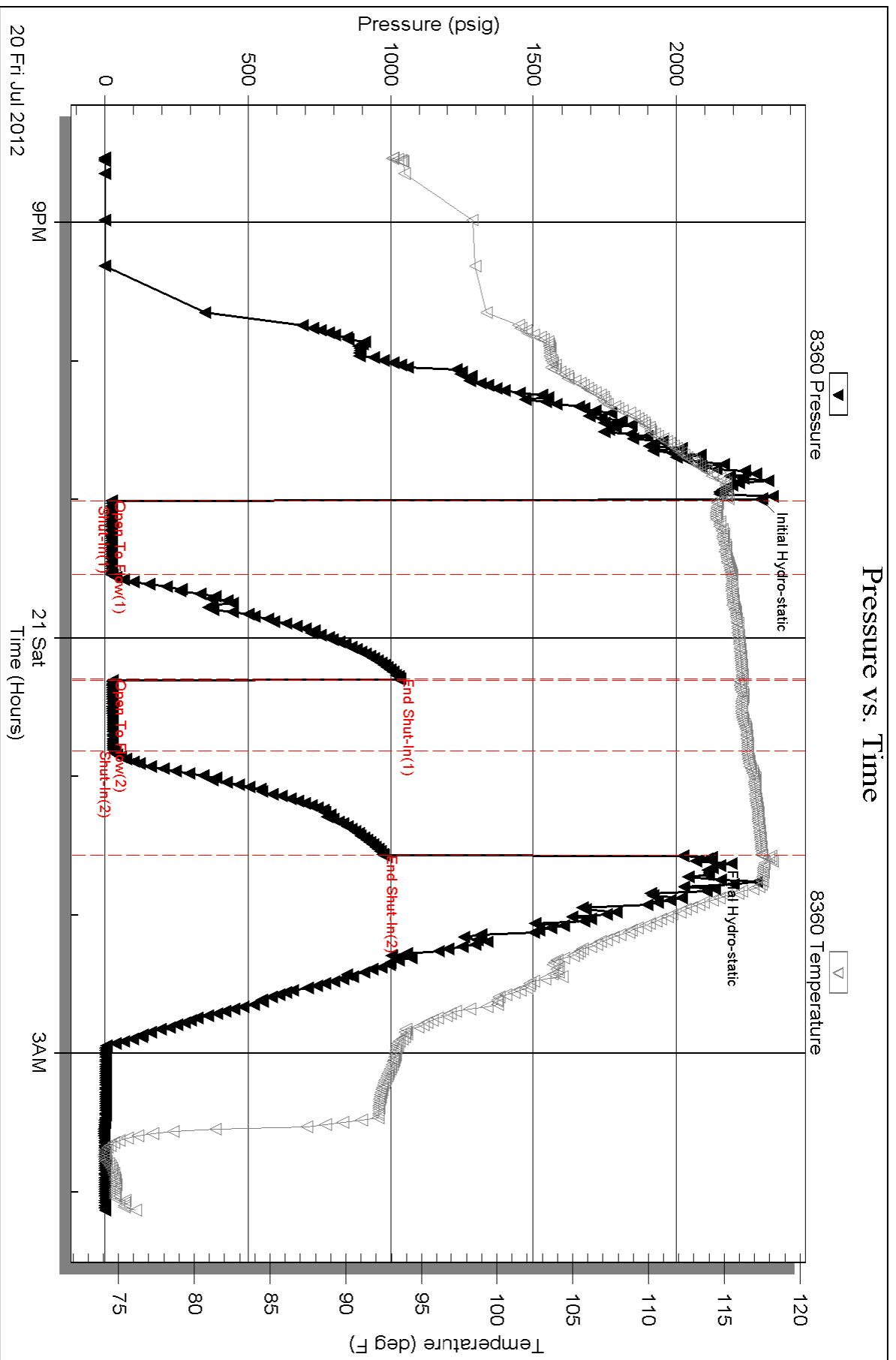
Inside

New Gulf Operating LLC

Anderson #1

DST Test Number: 5

# Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48806

Printed: 2012.07.26 @ 11:05:06





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 45925

4/10

Well Name & No. Anderson #1 Test No. DST #1 Date 7-18-12  
 Company New Gulf Operating LLC Elevation 3100 KB 3090 GL  
 Address 6310 E 102nd St. Tulsa OK 74137  
 Co. Rep / Geo. Curtis Covey Rig Val Energy Rig #4  
 Location: Sec. 29 Twp. 14s Rge. 34W Co. Logan State KS

Interval Tested 4368-4394 Zone Tested Altamont  
 Anchor Length 26 Drill Pipe Run 4348 Mud Wt. 9.2  
 Top Packer Depth 4364 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 4368 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4394 Chlorides 5000 ppm System LCM 215  
 Blow Description IF- Packer Failure

Rec	Feet of	%gas	%oil	%water	%mud
<u>233</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 233 BHT 115 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2176  Test 1050 T-On Location 3:54  
 (B) First Initial Flow \_\_\_\_\_  Jars 250 T-Started 6:04  
 (C) First Final Flow \_\_\_\_\_  Safety Joint 75 T-Open 8:04  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub N/C T-Pulled 8:05  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 10:32  
 (F) Second Final Flow \_\_\_\_\_  Mileage 80rt 124 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 (H) Final Hydrostatic 2063  Straddle \_\_\_\_\_  Ruined Packer X2 640  
 Initial Open \_\_\_\_\_  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 640  
 Final Flow \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 2289  
 Final Shut-In \_\_\_\_\_  Accessibility 150 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1649

Approved By Curtis Covey (Geo)

Our Representative Will [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48803

Well Name & No. Anderson #1 Test No. DST #3 Date 7-18-12  
 Company New Gult Operating LLC Elevation 3100 KB 3090 GL  
 Address 6310 E 102nd St. Tulsa OK 74137  
 Co. Rep / Geo. Curtis Covey Rig Val Energy R.s #4  
 Location: Sec. 29 Twp. 14S Rge. 34W Co. Logan State KS

Interval Tested 4361-4394 Zone Tested Altamont  
 Anchor Length 33 Drill Pipe Run 4348 Mud Wt. 9.2  
 Top Packer Depth 4357 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 4361 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4394 Chlorides 5000 ppm System LCM 216  
 Blow Description IF-Surface Blow Built to BOB in 8 3/4 min  
ISI-Weak Surface Blow in 6 min Built to 3"  
FF-Surface Blow Built to BOB in 9 1/2 min  
FSI-Weak Surface Blow Built to 3 3/4"

Rec	Feet of	%gas	%oil	%water	%mud
122	60	14	86		
183	60	26	74		
122	6-MCO	9	79	12	
61	6-OCM	15	17	68	
Rec	Feet of <u>488' of G-IP</u>	%gas	%oil	%water	%mud

Rec Total 488 BHT 118 Gravity 34 API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2186  Test 1250 T-On Location 18:56  
 (B) First Initial Flow 29  Jars 250 T-Started 20:24  
 (C) First Final Flow 87  Safety Joint 75 T-Open 22:31  
 (D) Initial Shut-In 1303  Circ Sub N/C T-Pulled 2:20  
 (E) Second Initial Flow 94  Hourly Standby \_\_\_\_\_ T-Out 5:20  
 (F) Second Final Flow 204  Mileage 80 RIT 124 Comments API is 36 @ 80' - 34  
 (G) Final Shut-In 1292  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1973  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility 150 Total 2099  
 Sub Total 2099 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 60  
 Final Shut-In 90

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48804

Well Name & No. Anderson #1 Test No. DST #4 Date 7-20-12  
 Company New Gulf Operating LLC Elevation 3100 KB 3090 GL  
 Address 6310 E 102<sup>nd</sup> St. Tulsa OK 74137  
 Co. Rep / Geo. Curtis Covey Rig Val Energy Ris #4  
 Location: Sec. 29 Twp. 14s Rge. 34w Co. Logan State KS

Interval Tested 4460-4543 Zone Tested Cherokee Shale  
 Anchor Length 83 Drill Pipe Run 4441 Mud Wt. 9.1  
 Top Packer Depth 4456 Drill Collars Run 0 Vis 59  
 Bottom Packer Depth 4460 Wt. Pipe Run 0 WL 9.6  
 Total Depth 4543 Chlorides 7000 ppm System LCM 216

Blow Description IF - Weak Surface Blow Built to 1/2"  
ISI - No Blow  
FF - No Blow  
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud with Few 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	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 112 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2243</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>00:14</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1:16</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>3:46</u>
(D) Initial Shut-In <u>1063</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>5:50</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>7:50</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>80R/T</u> 124	Comments _____
(G) Final Shut-In <u>986</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2050</u>	<input type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> Ruined Shale Packer 350
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>350</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>2199</u>
	<input checked="" type="checkbox"/> Accessibility 150	MP/DST Disc't _____
	Sub Total <u>1849</u>	

Approved By Curtis Covey (Geo) Our Representative Wah Mue

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48806

Well Name & No. Anderson #1 Test No. DST #5 Date 7-20-12  
 Company New Gult Operating LLC Elevation 3100 KB 3090 GL  
 Address 6310 E 102nd St. Tulsa OK 74137  
 Co. Rep / Geo. Curtis Covey Rig Val Energy Rig #4  
 Location: Sec. 29 Twp. 14s Rge. 34w Co. Logan State KS

Interval Tested 4518-4641 Zone Tested Johnson  
 Anchor Length 123 Drill Pipe Run 4503 Mud Wt. 9.2  
 Top Packer Depth 4514 Drill Collars Run 0 Vis 62  
 Bottom Packer Depth 4518 Wt. Pipe Run 0 WL 10.4  
 Total Depth 4641 Chlorides 6000 ppm System LCM 216

Blow Description IF-Weak Surface Blow Built to 3/4"  
ISI-No Blow  
FF-No Blow  
FSI-No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud (Oil spots in Tool)</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 20 BHT 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2295  Test 1250 T-On Location 19:50  
 (B) First Initial Flow 23  Jars 250 T-Started 20:32  
 (C) First Final Flow 23  Safety Joint 75 T-Open 23:00  
 (D) Initial Shut-In 1031  Circ Sub N/C T-Pulled 1:34  
 (E) Second Initial Flow 27  Hourly Standby \_\_\_\_\_ T-Out 4:07  
 (F) Second Final Flow 27  Mileage 80 R/T x 2 <sup>248</sup> Comments \_\_\_\_\_  
 (G) Final Shut-In 975  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2123  Straddle \_\_\_\_\_  
 Shale Packer 250  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility 150 Total 2223  
 Sub Total 2223 MP/DST Disc't \_\_\_\_\_

Approved By Curtis Covey (Signature)

Our Representative Nick Mas (Signature)

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