



DRILL STEM TEST REPORT

Prepared For: **Charter Energy, Inc.**

P.O. Box 252
Great Bend, KS 67530-0252

ATTN: Jim Musgrove

Symns #1

28-22s-14w Stafford,KS

Start Date: 2013.10.16 @ 03:57:42

End Date: 2013.10.16 @ 09:36:27

Job Ticket #: 52462 DST #: 1

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

Printed: 2013.10.18 @ 15:49:11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford, KS
Symns #1
Job Ticket: 52462 **DST#: 1**
Test Start: 2013.10.16 @ 03:57:42

GENERAL INFORMATION:

Formation: **LKC I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:46:42
Time Test Ended: 09:36:27
Interval: **3640.00 ft (KB) To 3660.00 ft (KB) (TVD)**
Total Depth: 3660.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1957.00 ft (KB)
1950.00 ft (CF)
KB to GR/CF: 7.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 48

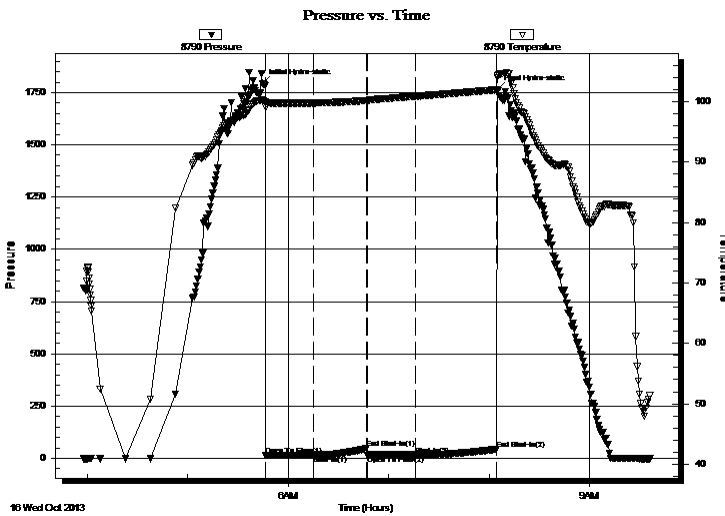
Serial #: 8790

Inside

Press @ Run Depth: 17.15 psig @ 3641.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.10.16 End Date: 2013.10.16 Last Calib.: 2013.10.16
Start Time: 03:57:47 End Time: 09:36:26 Time On Btm: 2013.10.16 @ 05:44:42
Time Off Btm: 2013.10.16 @ 08:04:57

TEST COMMENT: IF: Weak blow . 1/4" - 1/2"
IS: No blow
FF: No blow
FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.59	100.22	Initial Hydro-static
2	12.89	99.08	Open To Flow (1)
31	16.55	99.78	Shut-In(1)
62	46.79	100.16	End Shut-In(1)
63	15.19	100.15	Open To Flow (2)
92	17.15	100.87	Shut-In(2)
140	43.33	101.96	End Shut-In(2)
141	1764.56	103.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	O Sptd M 2%oil, 98%mud	0.07

Gas Rates

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



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P.O. Box 252
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ATTN: Jim Musgrove

28-22s-14w Stafford, KS
Symns #1
Job Ticket: 52462 **DST#: 1**
Test Start: 2013.10.16 @ 03:57:42

GENERAL INFORMATION:

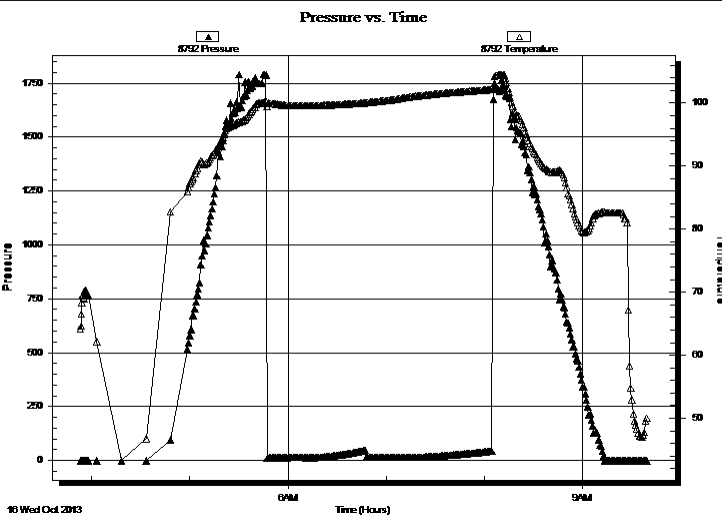
Formation: **LKC I**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 05:46:42 Tester: Ryan Reynolds
Time Test Ended: 09:36:27 Unit No: 48

Interval: 3640.00 ft (KB) To 3660.00 ft (KB) (TVD) Reference Elevations: 1957.00 ft (KB)
Total Depth: 3660.00 ft (KB) (TVD) 1950.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

Serial #: 8792 Outside

Press @ Run Depth: psig @ 3641.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.10.16 End Date: 2013.10.16	Last Calib.: 2013.10.16
Start Time: 03:53:22 End Time: 09:39:01	Time On Btm:
	Time Off Btm:

TEST COMMENT: IF: Weak blow . 1/4" - 1/2"
IS: No blow
FF: No blow
FS: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	O Sptd M 2%oil, 98%mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52462 **DST#: 1**
Test Start: 2013.10.16 @ 03:57:42

Tool Information

Drill Pipe:	Length: 3630.00 ft	Diameter: 3.80 inches	Volume: 50.92 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: 50.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3640.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 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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Shut In Tool	5.00			3625.00	
Hydraulic tool	5.00			3630.00	
Packer	5.00			3635.00	20.00 Bottom Of Top Packer
Packer	5.00			3640.00	
Stubb	1.00			3641.00	
Recorder	0.00	8790	Inside	3641.00	
Recorder	0.00	8792	Outside	3641.00	
Perforations	16.00			3657.00	
Bullnose	3.00			3660.00	20.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52462 **DST#: 1**
Test Start: 2013.10.16 @ 03:57:42

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:	6800 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6800.00 ppm			
Filter Cake: 0.02 inches			

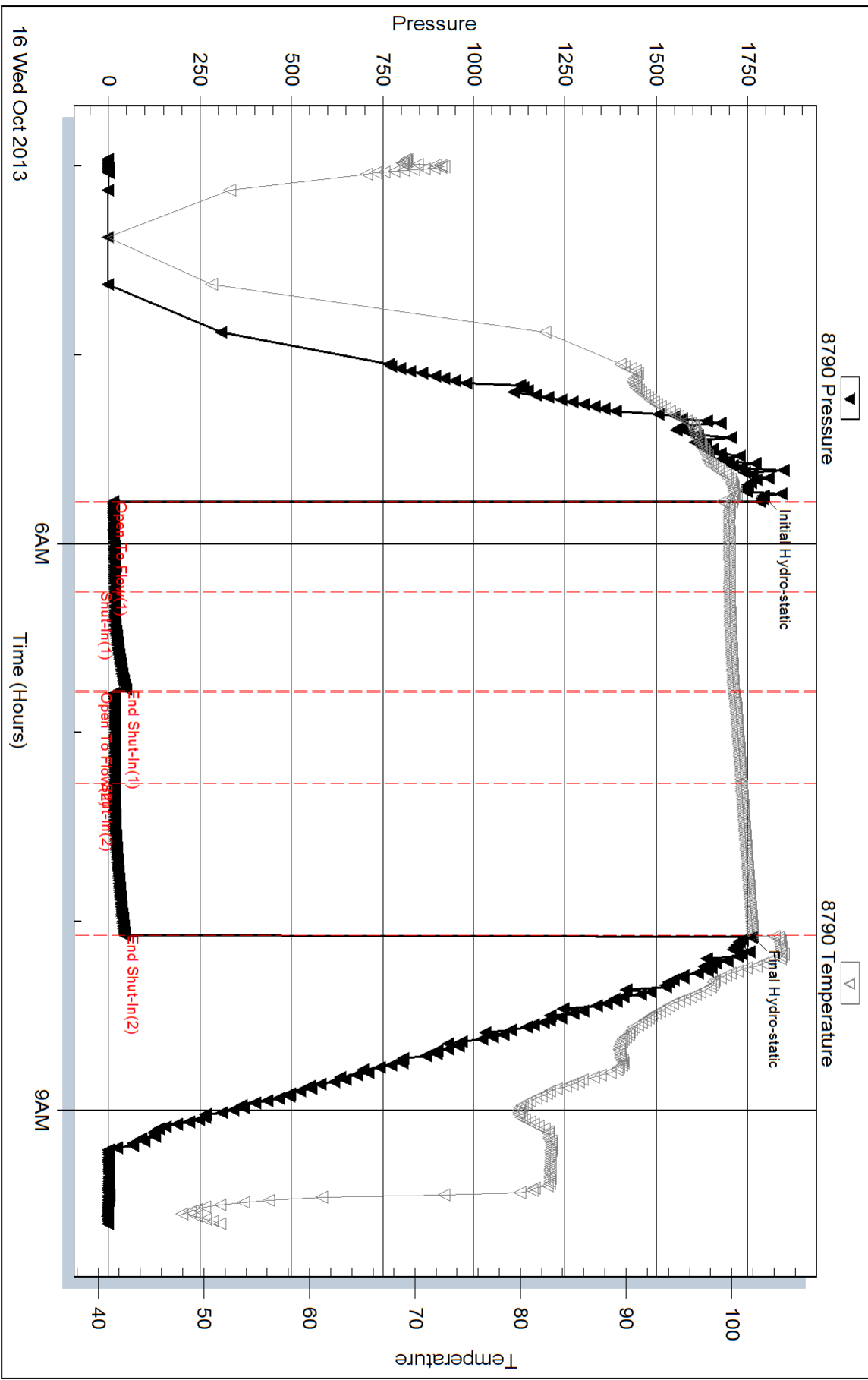
Recovery Information

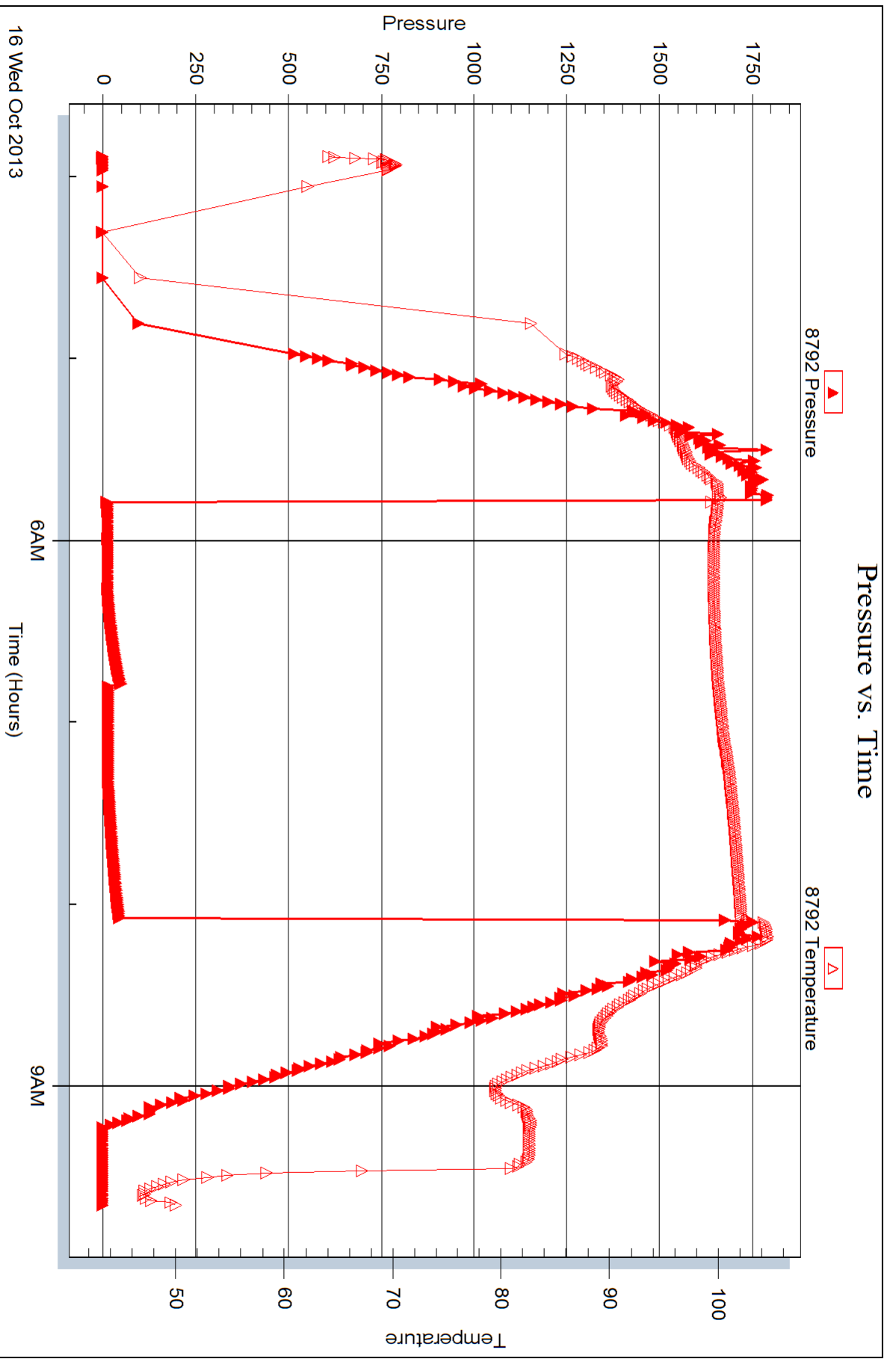
Recovery Table

Length ft	Description	Volume bbl
5.00	O Sptd M 2%oil, 98%mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Charter Energy, Inc.**

P.O. Box 252
Great Bend, KS 67530-0252

ATTN: Jim Musgrove

Symns #1

28-22s-14w Stafford,KS

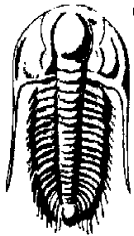
Start Date: 2013.10.16 @ 16:25:45

End Date: 2013.10.16 @ 21:37:45

Job Ticket #: 52463 DST #: 2

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

Printed: 2013.10.18 @ 15:47:36



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DRILL STEM TEST REPORT

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS

Symns #1

Job Ticket: 52463

DST#: 2

Test Start: 2013.10.16 @ 16:25:45

GENERAL INFORMATION:

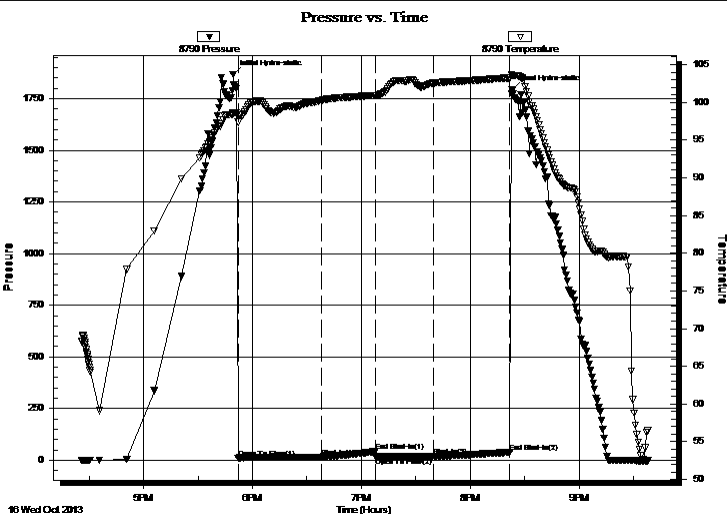
Formation: **LKC J.**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:52:00
 Time Test Ended: 21:37:45
 Interval: **3661.00 ft (KB) To 3700.00 ft (KB) (TVD)**
 Total Depth: 3700.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 48
 Reference Elevations: 1957.00 ft (KB)
 1950.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8790

Inside

Press @ Run Depth: 18.19 psig @ 3662.00 ft (KB)
 Start Date: 2013.10.16 End Date: 2013.10.16
 Start Time: 16:25:50 End Time: 21:37:44
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.16
 Time On Btm: 2013.10.16 @ 17:49:15
 Time Off Btm: 2013.10.16 @ 20:23:00

TEST COMMENT: IF: Weak blow . 1/4" - 1"
 IS: No blow
 FF: Weak - dead @ 16 min.
 FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1866.87	98.66	Initial Hydro-static
3	10.62	97.38	Open To Flow (1)
49	15.56	100.25	Shut-In(1)
79	42.42	100.93	End Shut-In(1)
79	16.32	100.84	Open To Flow (2)
111	18.19	102.54	Shut-In(2)
153	39.03	103.22	End Shut-In(2)
154	1791.42	103.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	O spkd M trc%oil, 99%mud	0.14

Gas Rates

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

* Recovery from multiple tests



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Charter Energy, Inc.
 P.O. Box 252
 Great Bend, KS 67530-0252
 ATTN: Jim Musgrove

28-22s-14w Stafford, KS

Symns #1

Job Ticket: 52463 **DST#: 2**
 Test Start: 2013.10.16 @ 16:25:45

GENERAL INFORMATION:

Formation: **LKC J.**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 17:52:00 Tester: Ryan Reynolds
 Time Test Ended: 21:37:45 Unit No: 48
 Interval: **3661.00 ft (KB) To 3700.00 ft (KB) (TVD)** Reference Elevations: 1957.00 ft (KB)
 Total Depth: 3700.00 ft (KB) (TVD) 1950.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

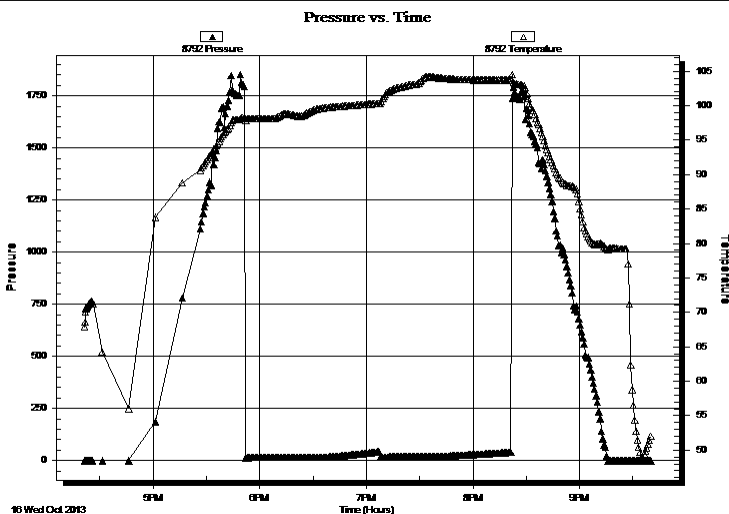
Serial #: 8792

Outside

Press @ Run Depth: psig @ 3662.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.10.16 End Date: 2013.10.16 Last Calib.: 2013.10.16
 Start Time: 16:21:24 End Time: 21:40:03 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow . 1/4" - 1"
 IS: No blow
 FF: Weak - dead @ 16 min.
 FS: No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	O spkd M trc%oil, 99%mud	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52463 **DST#: 2**
Test Start: 2013.10.16 @ 16:25:45

Tool Information

Drill Pipe:	Length: 3658.00 ft	Diameter: 3.80 inches	Volume: 51.31 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 63000.00 lb
			<u>Total Volume: 51.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3661.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	59.00 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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Shut In Tool	5.00			3646.00	
Hydraulic tool	5.00			3651.00	
Packer	5.00			3656.00	20.00 Bottom Of Top Packer
Packer	5.00			3661.00	
Stubb	1.00			3662.00	
Recorder	0.00	8790	Inside	3662.00	
Recorder	0.00	8792	Outside	3662.00	
Perforations	35.00			3697.00	
Bullnose	3.00			3700.00	39.00 Bottom Packers & Anchor
Total Tool Length:	59.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52463 **DST#: 2**
Test Start: 2013.10.16 @ 16:25:45

Mud and Cushion Information

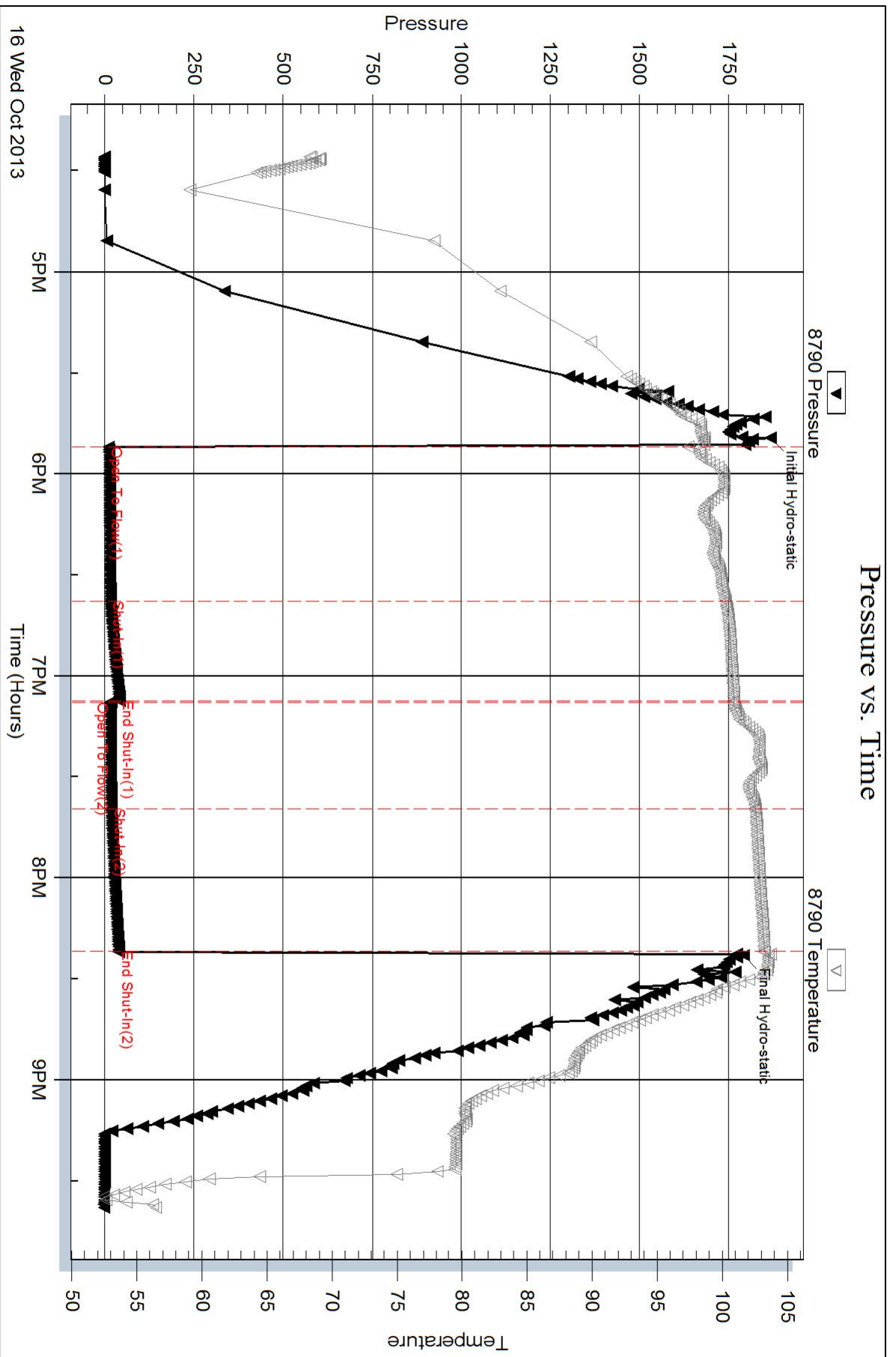
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	10400 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 10400.00 ppm			
Filter Cake: 0.02 inches			

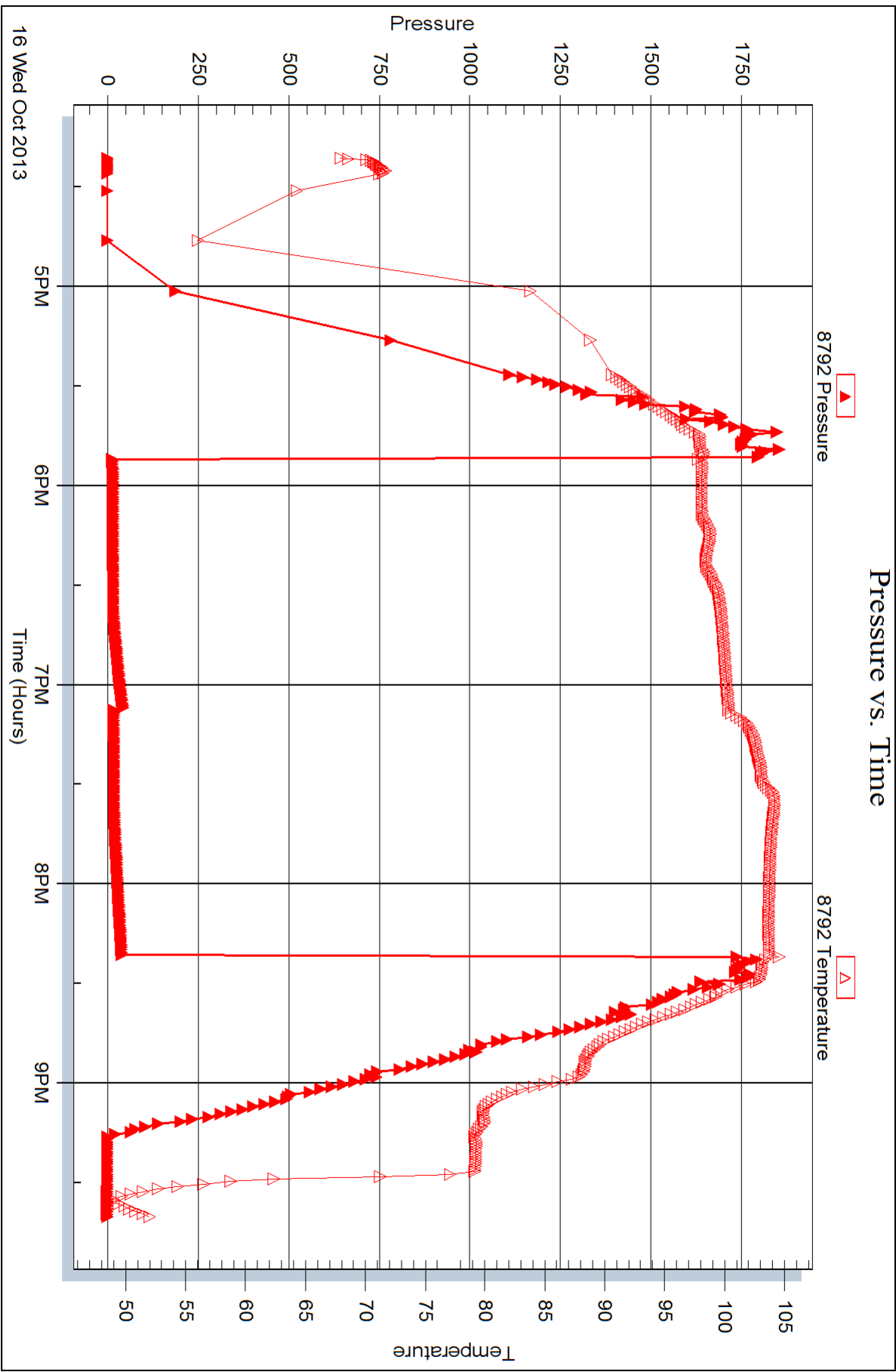
Recovery Information

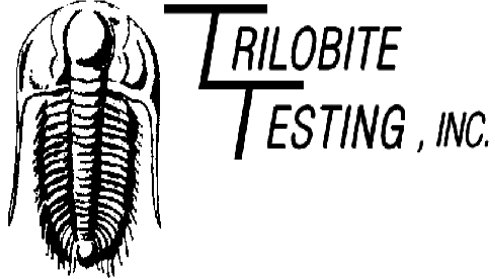
Recovery Table

Length ft	Description	Volume bbl
10.00	O spkd M trc%oil, 99%mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Charter Energy, Inc.**

P.O. Box 252
Great Bend, KS 67530-0252

ATTN: Jim Musgrove

Symms #1

28-22s-14w Stafford,KS

Start Date: 2013.10.17 @ 15:13:51

End Date: 2013.10.17 @ 19:23:36

Job Ticket #: 52464 DST #: 3

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

Printed: 2013.10.18 @ 15:47:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Charter Energy, Inc.
 P.O. Box 252
 Great Bend, KS 67530-0252
 ATTN: Jim Musgrove

28-22s-14w Stafford, KS
Symns #1
 Job Ticket: 52464 **DST#: 3**
 Test Start: 2013.10.17 @ 15:13:51

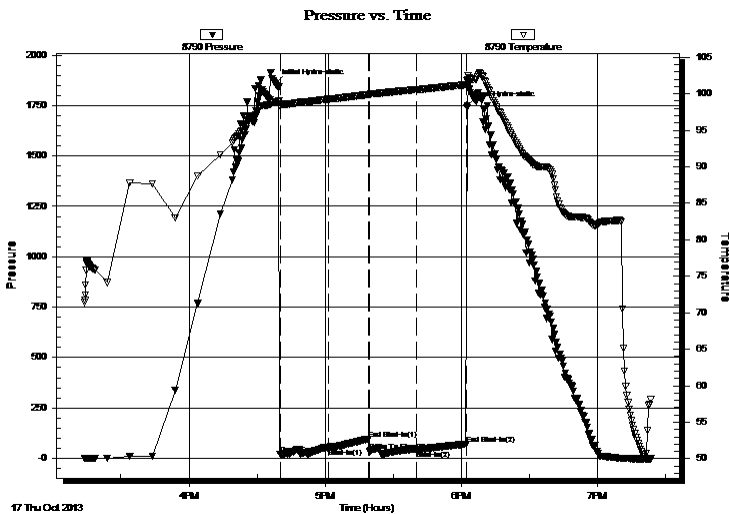
GENERAL INFORMATION:

Formation: **Lans. Cong. Base**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:40:06 Tester: Ryan Reynolds
 Time Test Ended: 19:23:36 Unit No: 48
 Interval: **3734.00 ft (KB) To 3880.00 ft (KB) (TVD)** Reference Elevations: 1957.00 ft (KB)
 Total Depth: 3880.00 ft (KB) (TVD) 1950.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

Serial #: 8790 Inside
 Press @ Run Depth: 39.94 psig @ 3735.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.10.17 End Date: 2013.10.17 Last Calib.: 2013.10.17
 Start Time: 15:13:56 End Time: 19:23:36 Time On Btm: 2013.10.17 @ 16:38:06
 Time Off Btm: 2013.10.17 @ 18:02:51

TEST COMMENT: IF: Weak blow . 1/4 - 1/2"
 IS: No blow
 FF: Weak - dead @ 3min.
 FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1856.95	98.89	Initial Hydro-static
2	19.03	98.42	Open To Flow (1)
24	50.83	99.25	Shut-In(1)
41	96.20	99.88	End Shut-In(1)
42	33.32	99.87	Open To Flow (2)
62	39.94	100.55	Shut-In(2)
84	70.35	101.22	End Shut-In(2)
85	1749.84	101.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	drlg mud	0.07

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Charter Energy, Inc.
 P.O. Box 252
 Great Bend, KS 67530-0252
 ATTN: Jim Musgrove

28-22s-14w Stafford, KS
Symns #1
 Job Ticket: 52464 **DST#: 3**
 Test Start: 2013.10.17 @ 15:13:51

GENERAL INFORMATION:

Formation: **Lans. Cong. Base**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:40:06
 Time Test Ended: 19:23:36
 Interval: **3734.00 ft (KB) To 3880.00 ft (KB) (TVD)**
 Total Depth: 3880.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 48
 Reference Elevations: 1957.00 ft (KB)
 1950.00 ft (CF)
 KB to GR/CF: 7.00 ft

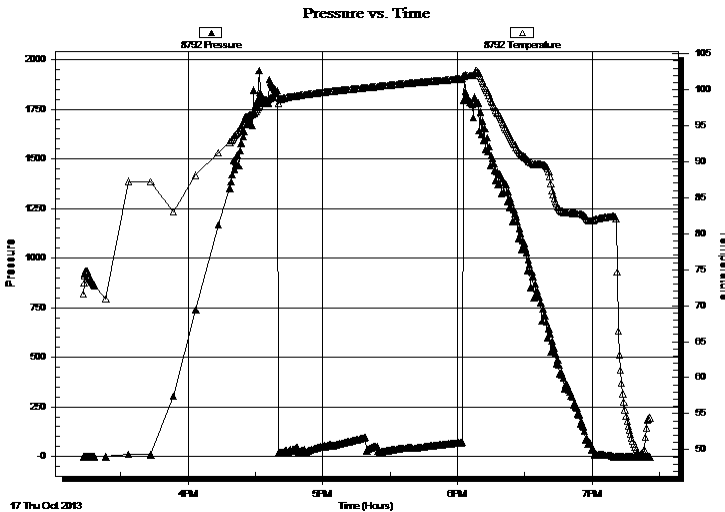
Serial #: 8792

Outside

Press @ Run Depth: psig @ 3735.00 ft (KB)
 Start Date: 2013.10.17 End Date: 2013.10.17
 Start Time: 15:13:26 End Time: 19:25:51
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.17
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow . 1/4 - 1/2"
 IS: No blow
 FF: Weak - dead @ 3min.
 FS: No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	drlg mud	0.07

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52464 **DST#: 3**
Test Start: 2013.10.17 @ 15:13:51

Tool Information

Drill Pipe:	Length: 3723.00 ft	Diameter: 3.80 inches	Volume: 52.22 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:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 52.22 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3734.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	146.00 ft				
Tool Length:	166.00 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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Shut In Tool	5.00			3719.00	
Hydraulic tool	5.00			3724.00	
Packer	5.00			3729.00	20.00 Bottom Of Top Packer
Packer	5.00			3734.00	
Stubb	1.00			3735.00	
Recorder	0.00	8790	Inside	3735.00	
Recorder	0.00	8792	Outside	3735.00	
Perforations	5.00			3740.00	
Blank Spacing	127.00			3867.00	
Perforations	10.00			3877.00	
Bullnose	3.00			3880.00	146.00 Bottom Packers & Anchor

Total Tool Length: 166.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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P.O. Box 252
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ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52464 **DST#: 3**
Test Start: 2013.10.17 @ 15:13:51

Mud and Cushion Information

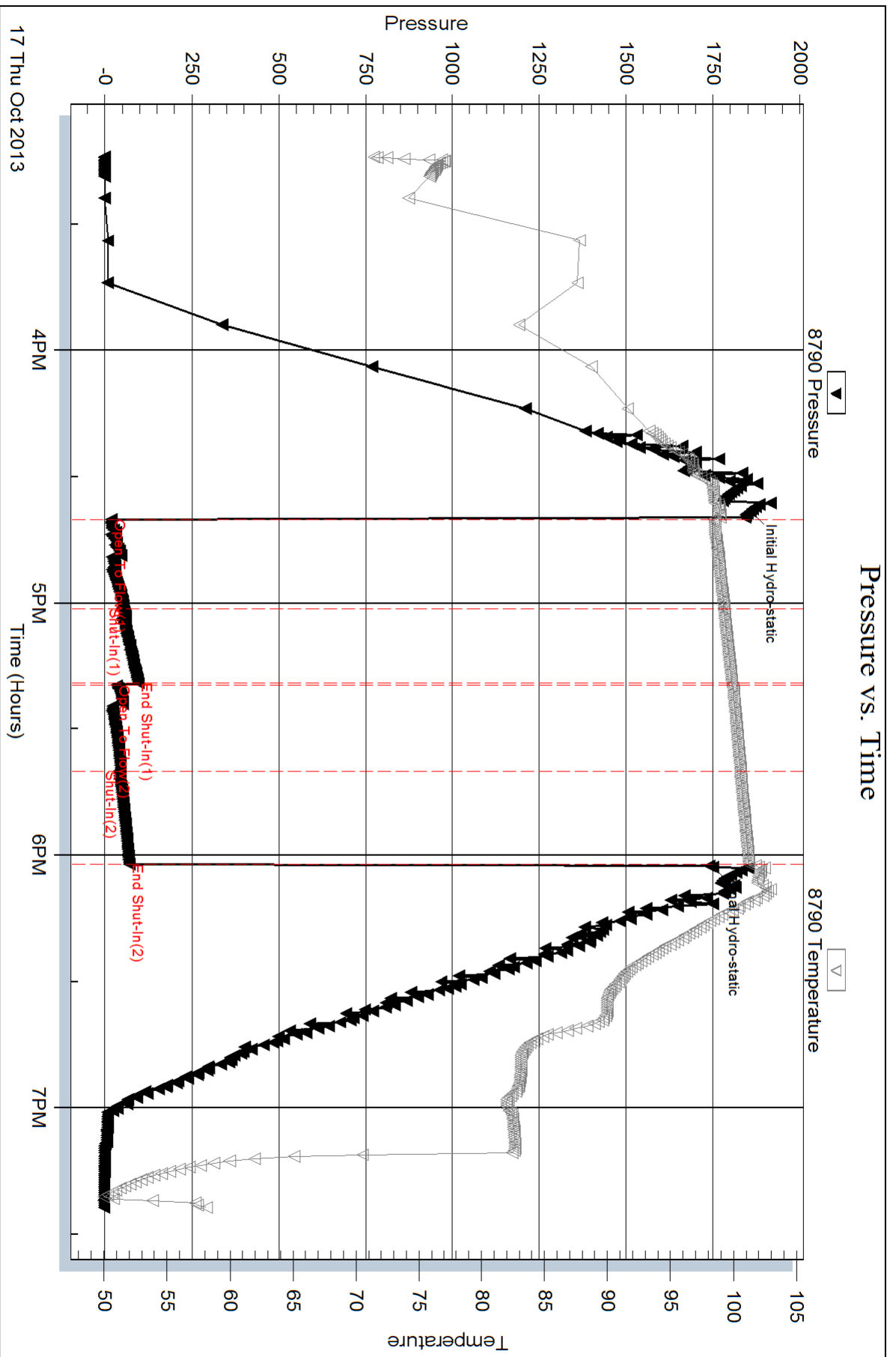
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	13400 ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.88 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 13400.00 ppm			
Filter Cake: 0.02 inches			

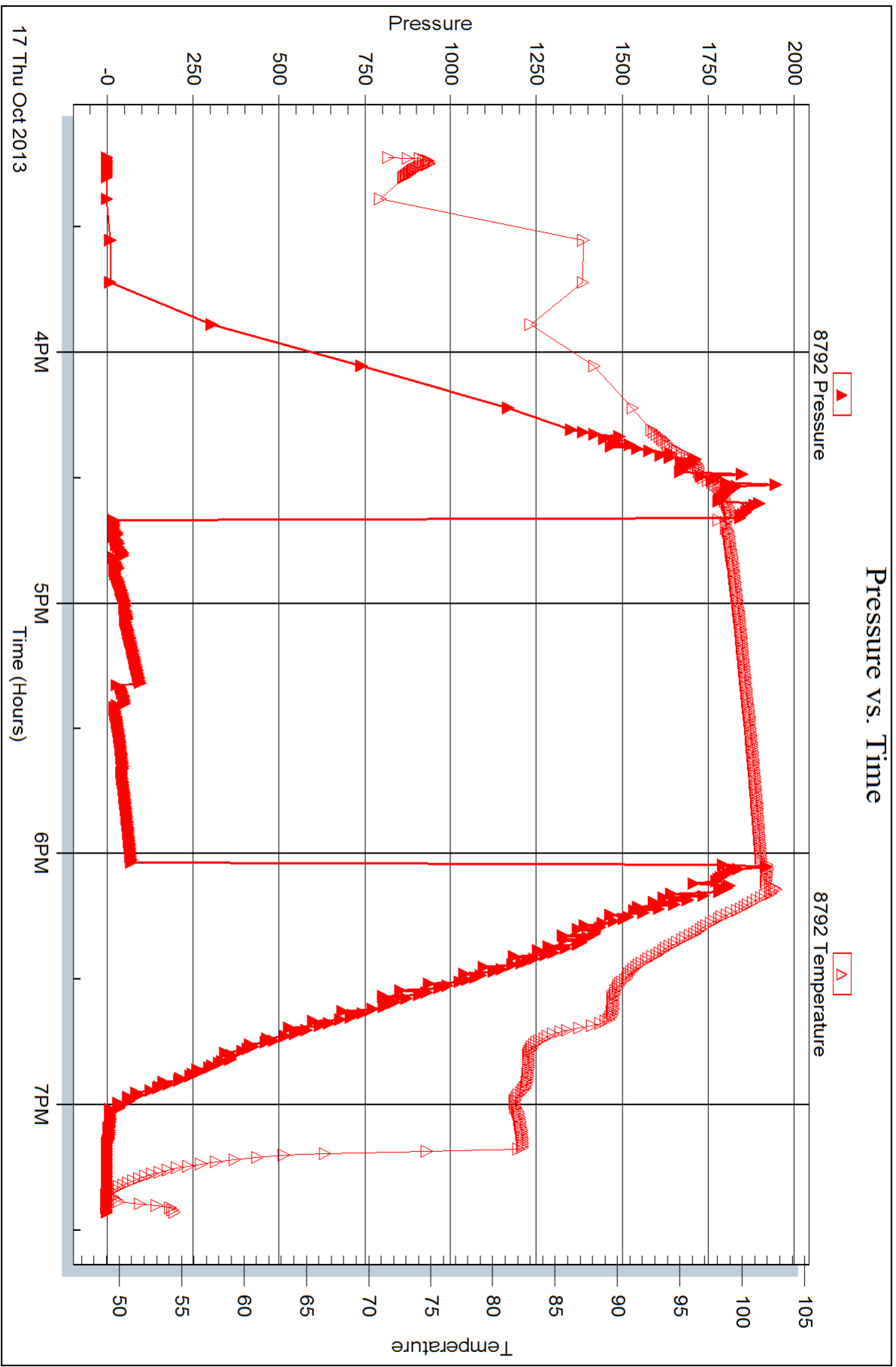
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	drlg mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Charter Energy, Inc.**

P.O. Box 252
Great Bend, KS 67530-0252

ATTN: Jim Musgrove

Symns #1

28-22s-14w Stafford,KS

Start Date: 2013.10.18 @ 07:30:03

End Date: 2013.10.18 @ 14:07:03

Job Ticket #: 52465 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.18 @ 15:46:40



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford, KS

Symns #1

Job Ticket: 52465

DST#: 4

Test Start: 2013.10.18 @ 07:30:03

GENERAL INFORMATION:

Formation: **Simpson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:53:48

Time Test Ended: 14:07:03

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Reynolds

Unit No: 48

Interval: 3900.00 ft (KB) To 3975.00 ft (KB) (TVD)

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3975.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8790 Inside

Press @ Run Depth: 326.84 psig @ 3901.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.18

End Date:

2013.10.18

Last Calib.: 2013.10.18

Start Time: 07:30:08

End Time:

14:07:02

Time On Btm: 2013.10.18 @ 08:51:33

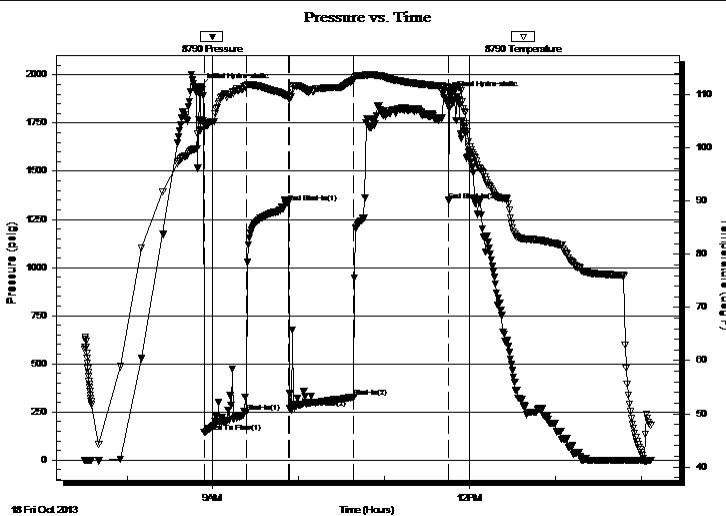
Time Off Btm: 2013.10.18 @ 11:46:18

TEST COMMENT: IF: Strong blow . BOB @ 12 min.

IS: No blow

FF: Strong blow . BOB @ 8 min. No GTS

FS: Weak 2" blow throughout



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1937.10	105.18	Initial Hydro-static
3	143.23	104.37	Open To Flow (1)
32	247.80	111.58	Shut-In(1)
62	1336.44	109.70	End Shut-In(1)
62	267.36	109.08	Open To Flow (2)
108	326.84	112.74	Shut-In(2)
174	1348.69	111.08	End Shut-In(2)
175	1893.25	110.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
195.00	GMCO 10%gas, 40%mud, 50%oil	2.74
380.00	CGO 25%gas, 75%oil	5.33
250.00	OCM 15%oil, 85%mud	3.51
0.00	120' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

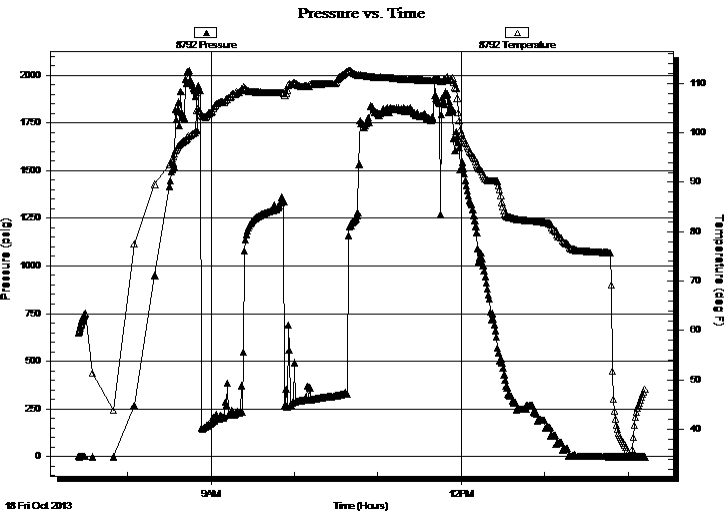
28-22s-14w Stafford, KS
Symns #1
Job Ticket: 52465 **DST#: 4**
Test Start: 2013.10.18 @ 07:30:03

GENERAL INFORMATION:

Formation: Simpson		Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)		Tester: Ryan Reynolds
Time Tool Opened: 08:53:48		Unit No: 48
Time Test Ended: 14:07:03		
Interval: 3900.00 ft (KB) To 3975.00 ft (KB) (TVD)		Reference Elevations: 1957.00 ft (KB)
Total Depth: 3975.00 ft (KB) (TVD)		1950.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 7.00 ft

Serial #: 8792	Outside				
Press @ Run Depth: psig @ 3901.00 ft (KB)		Capacity: 8000.00 psig			
Start Date: 2013.10.18	End Date: 2013.10.18	Last Calib.: 2013.10.18			
Start Time: 07:24:44	End Time: 14:11:53	Time On Btm:			
		Time Off Btm:			

TEST COMMENT: IF: Strong blow . BOB @ 12 min.
IS: No blow
FF: Strong blow . BOB @ 8 min. No GTS
FS: Weak 2" blow throughout



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
195.00	GMCO 10%gas, 40%mud, 50%oil	2.74
380.00	CGO 25%gas, 75%oil	5.33
250.00	OCM 15%oil, 85%mud	3.51
0.00	120' 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

Charter Energy, Inc.
P.O. Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

28-22s-14w Stafford,KS
Symns #1
Job Ticket: 52465 **DST#: 4**
Test Start: 2013.10.18 @ 07:30:03

Tool Information

Drill Pipe:	Length: 3910.00 ft	Diameter: 3.80 inches	Volume: 54.85 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 103000.0 lb
			<u>Total Volume: 54.85 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3900.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	95.00 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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Shut In Tool	5.00			3885.00	
Hydraulic tool	5.00			3890.00	
Packer	5.00			3895.00	20.00 Bottom Of Top Packer
Packer	5.00			3900.00	
Stubb	1.00			3901.00	
Recorder	0.00	8790	Inside	3901.00	
Recorder	0.00	8792	Outside	3901.00	
Perforations	1.00			3902.00	
Blank Spacing	65.00			3967.00	
Perforations	5.00			3972.00	
Bullnose	3.00			3975.00	75.00 Bottom Packers & Anchor

Total Tool Length: 95.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy, Inc.

28-22s-14w Stafford,KS

P.O. Box 252
Great Bend, KS 67530-0252

Symns #1

Job Ticket: 52465

DST#: 4

ATTN: Jim Musgrove

Test Start: 2013.10.18 @ 07:30:03

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 61.00 sec/qt
Water Loss: 12.88 in³
Resistivity: ohm.m
Salinity: 13400.00 ppm
Filter Cake: 0.02 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 13400 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
195.00	GMCO 10%gas, 40%mud, 50%oil	2.735
380.00	CGO 25%gas, 75%oil	5.330
250.00	OCM 15%oil, 85%mud	3.507
0.00	120' GIP	0.000

Total Length: 825.00 ft Total Volume: 11.572 bbl

Num Fluid Samples: 0

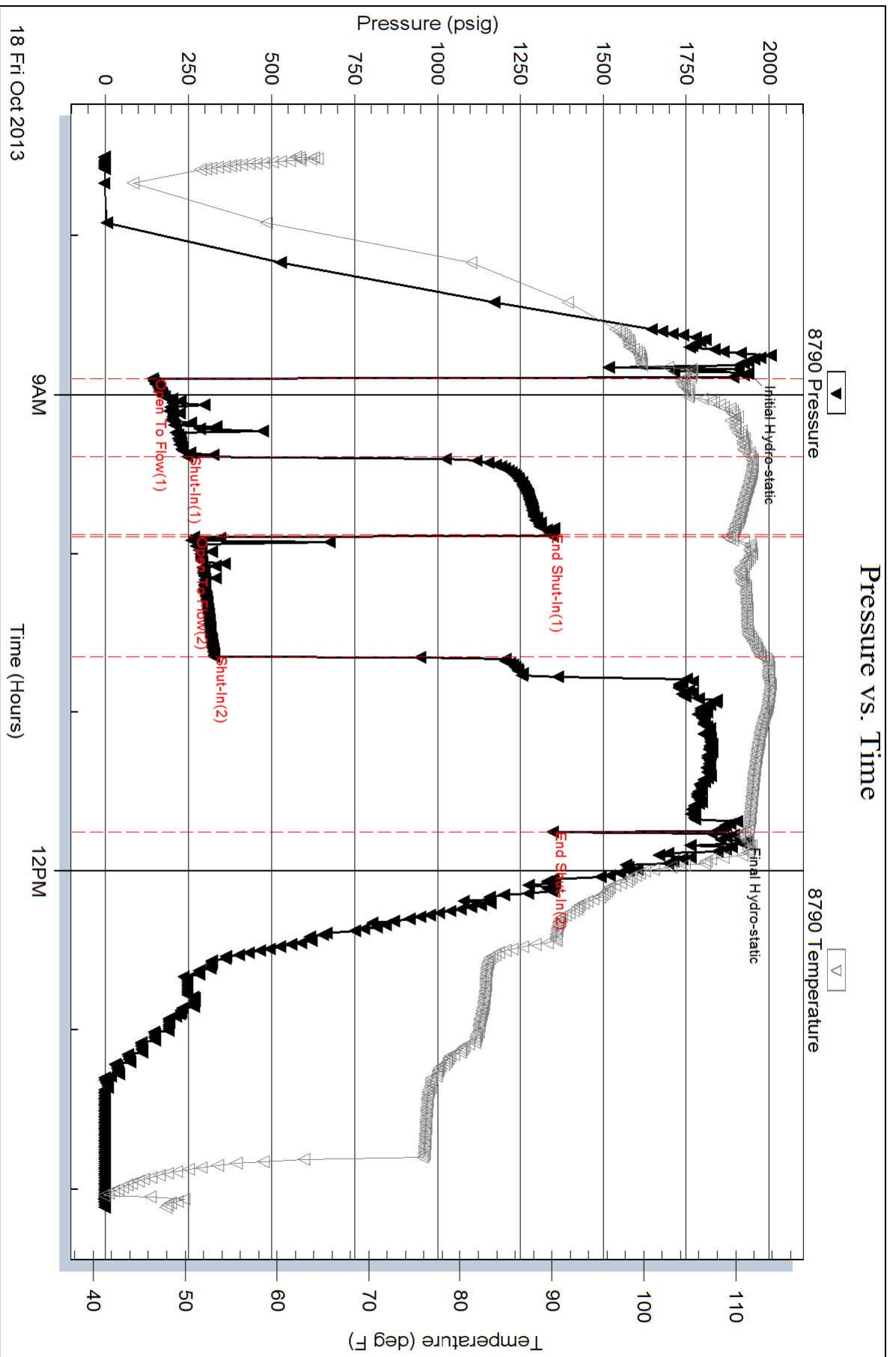
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

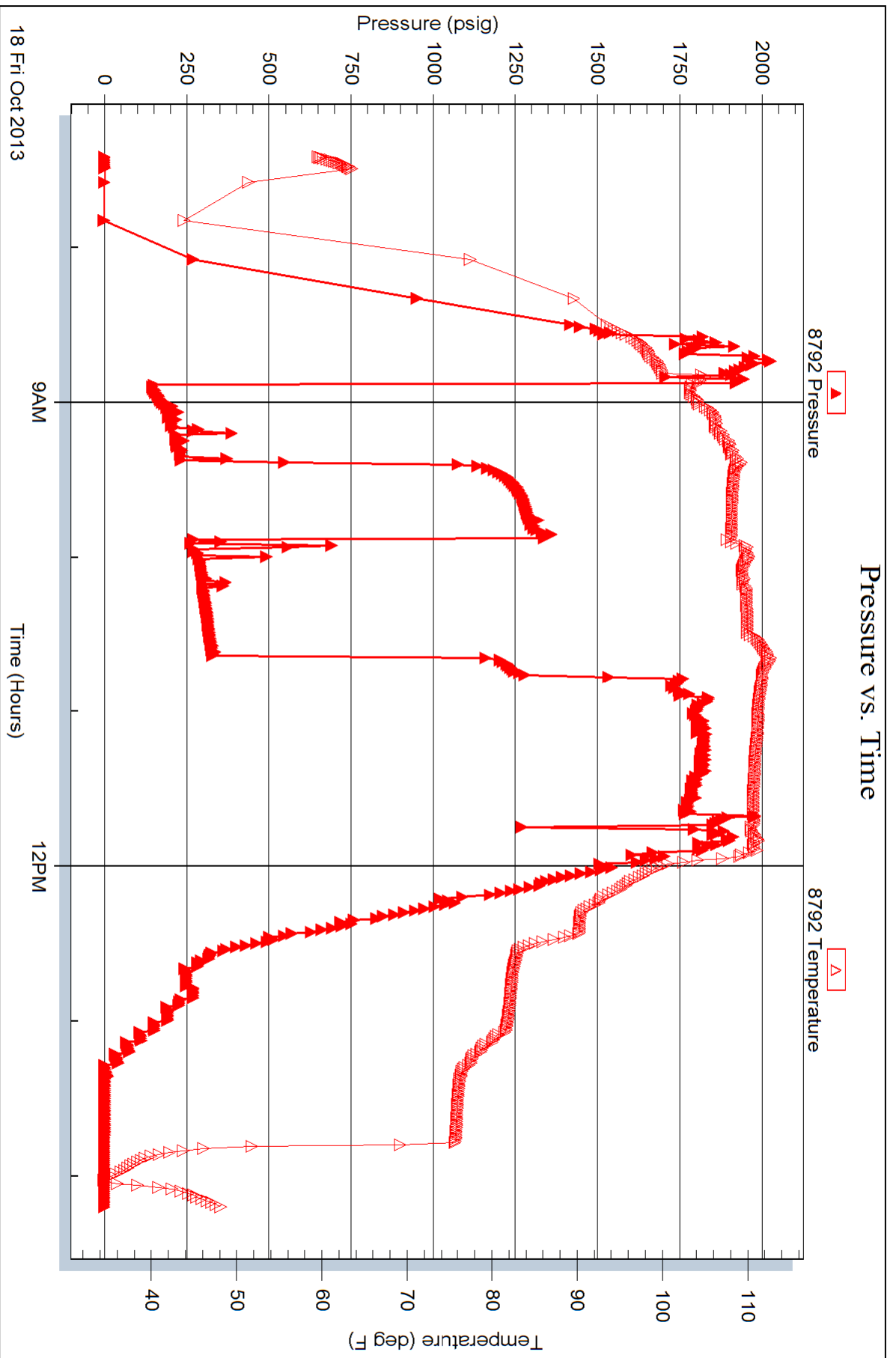


Serial #: 8792

Outside Charter Energy, Inc.

Syms #1

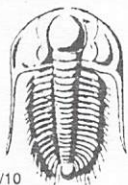
DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 52465

Printed: 2013.10.18 @ 15:46:42



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52462

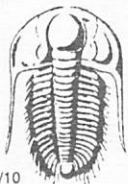
Well Name & No. Symms # 1 Test No. 1 Date 10-16-13
 Company Charter Energy, Inc. Elevation 1957 KB 1950 GL
 Address P.O. Box 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Royal # 2
 Location: Sec. 28 Twp. 22s. Rge. 14w. Co. Stafford State KS

Interval Tested 3640-3660 Zone Tested _____
 Anchor Length 20' Drill Pipe Run 3630 Mud Wt. 8.8
 Top Packer Depth 3635 Drill Collars Run Ø Vis 49
 Bottom Packer Depth 3640 Wt. Pipe Run Ø WL 8.8
 Total Depth 3660 Chlorides 6800 ppm System LCM 1#
 Blow Description IF: Weak blow. 1/4" - 1/2" ISI: No blow.
FF: No blow. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>0 Sptd/M</u>		<u>2</u>	<u>98</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 5 BHT 104 Gravity N/C API RW N/C @ N/C °F Chlorides 6800 ppm
 (A) Initial Hydrostatic 1793 Test 1150 T-On Location 0300
 (B) First Initial Flow 13 Jars _____ T-Started 0358
 (C) First Final Flow 17 Safety Joint _____ T-Open 0547
 (D) Initial Shut-In 47 Circ Sub _____ T-Pulled 0803
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 0936
 (F) Second Final Flow 17 Mileage 80 124 Comments _____
 (G) Final Shut-In 43 Sampler _____
 (H) Final Hydrostatic 1765 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 45
 Sub Total 1274
 Total 1274
 MP/DST Disc't _____

Approved By _____ Our Representative Ryan Reynolds
 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. 52463

Well Name & No. Symms #1 Test No. 2 Date 10-16-13
 Company Charter Energy, Inc. Elevation 1957 KB 1950 GL
 Address P.O. Box 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Royal #2
 Location: Sec. 28 Twp. 22s. Rge. 14w. Co. Stafford State KS

Interval Tested 3661-3700 Zone Tested _____
 Anchor Length 39' Drill Pipe Run 3658 Mud Wt. 9.2
 Top Packer Depth 3656 Drill Collars Run Ø Vis 55
 Bottom Packer Depth 3661 Wt. Pipe Run Ø WL 8.8
 Total Depth 3700 Chlorides 10,400 ppm System LCM 1#
 Blow Description IF: Weak blow, 1/4" - 1" IST: No blow
FF: Weak - Dead @ 16 min. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>0 spkd M</u>	<u>Trc</u>		<u>99</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 10 BHT 104 Gravity N/C API RW N/C @ N/C °F Chlorides 10400 ppm
 (A) Initial Hydrostatic 1867 Test 1150 T-On Location 1615
 (B) First Initial Flow 11 Jars _____ T-Started 1626
 (C) First Final Flow 16 Safety Joint _____ T-Open 1752
 (D) Initial Shut-In 42 Circ Sub _____ T-Pulled 2022
 (E) Second Initial Flow 16 Hourly Standby _____ T-Out 2138
 (F) Second Final Flow 18 Mileage 80 124 Comments _____
 (G) Final Shut-In 39 Sampler _____
 (H) Final Hydrostatic 1791 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 45 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1274
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1274

Approved By _____ Our Representative Ryan Reynolds
 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. 52464

Well Name & No. Symas #1 Test No. 3 Date 10-17-13
 Company Charter Energy, Inc. Elevation 1957 KB 1950 GL
 Address P.O. Box 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Royal #2
 Location: Sec. 28 Twp. 22s. Rge. 14w. Co. Stafford State KS

Interval Tested 3734-3880 Zone Tested _____
 Anchor Length 146 Drill Pipe Run 3723 Mud Wt. 9.3
 Top Packer Depth 3729 Drill Collars Run Ø Vis 61
 Bottom Packer Depth 3734 Wt. Pipe Run Ø WL 12.9
 Total Depth 3880 Chlorides 13400 ppm System LCM 1#
 Blow Description IF: Weak blow. 1/4" - 1/2" IFI: No blow
FF: Weak blow. Dead @ 3 min. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Feet of Dry 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 5 BHT 102 Gravity n/c API RW n/c @ n/c °F Chlorides 13400 ppm
 (A) Initial Hydrostatic 1857 Test 1150 T-On Location 1530
 (B) First Initial Flow 19 Jars _____ T-Started 1514
 (C) First Final Flow 51 Safety Joint _____ T-Open 11640
 (D) Initial Shut-In 96 Circ Sub _____ T-Pulled 1840
 (E) Second Initial Flow 33 Hourly Standby _____ T-Out 1924
 (F) Second Final Flow 40 Mileage 80 124 Comments _____
 (G) Final Shut-In 70 Sampler _____
 (H) Final Hydrostatic 1750 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Initial Open 20
 Initial Shut-In 20
 Final Flow 20
 Final Shut-In 20
 Sub Total 1274
 Total 1274
 MP/DST Disc't _____

Approved By _____ Our Representative Ryan Reynolds
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52465

Well Name & No. Symas #1 Test No. 4 Date 10-18-13
 Company Charter Energy, Inc. Elevation 1957 KB 1950 GL
 Address P.O. Box 252 Great Bend, KS 67530-0252
 Co. Rep / Geo. Jim Musgrove Rig Royal #2
 Location: Sec. 28 Twp. 22s. Rge. 14w. Co. Stafford State KS

Interval Tested 3900 - 3975 Zone Tested Simpson
 Anchor Length 75 Drill Pipe Run 3910 Mud Wt. 9.3
 Top Packer Depth 3895 Drill Collars Run Ø Vis 61
 Bottom Packer Depth 3900 Wt. Pipe Run Ø WL 12.9
 Total Depth 3975 Chlorides 13400 ppm System LCM 1#

Blow Description IF: Strong blow. BoB @ 12 min. IST: No blow.
FF: Strong blow. BoB @ 8 min.
FST: Weak 2" BB throughout

Rec	Feet of	%gas	%oil	%water	%mud
120	GIP	100			
250	OCM		15	85	
380	Clean gassy oil	25	75		
195	MC60	10	50	40	

Rec Total 825 BHT 113 Gravity 31 API RW N/C @ N/C °F Chlorides 13400 ppm

(A) Initial Hydrostatic 1937 Test 1150 T-On Location 0715
 (B) First Initial Flow 143 Jars T-Started 0736
 (C) First Final Flow 248 Safety Joint T-Open 0854
 (D) Initial Shut-In 1336 Circ Sub T-Pulled 1140
 (E) Second Initial Flow 267 Hourly Standby T-Out 1407
 (F) Second Final Flow 327 Mileage 80 124 Comments _____
 (G) Final Shut-In 1349 Sampler _____
 (H) Final Hydrostatic 1893 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1274

Sub Total 1274

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