



KANSAS CORPORATION COMMISSION 1094514  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

June 2009

Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1094514

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing    Pumping    Gas Lift    Other (Explain) \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Jim Musgrove

**CJ&M "A" #1**

**26-20s-16w Pawnee,KS**

Start Date: 2012.07.03 @ 14:11:26

End Date: 2012.07.03 @ 20:48:15

Job Ticket #: 47611                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 15:47:03



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Jim Musgrove

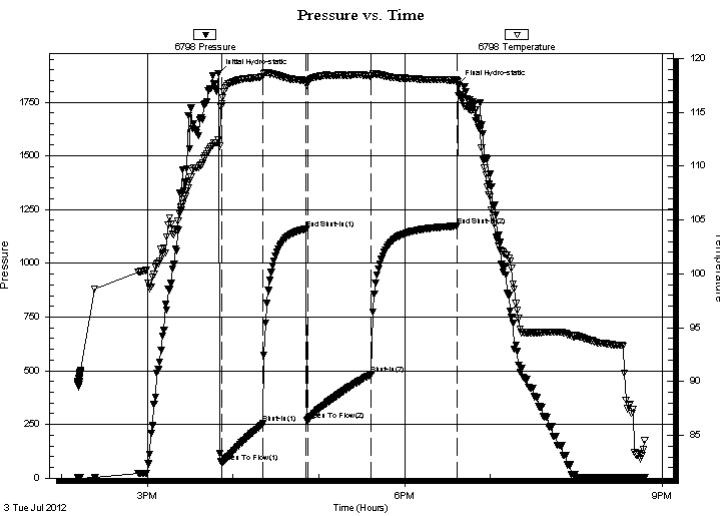
**26-20s-16w Pawnee, KS**  
**CJ&M "A" #1**  
 Job Ticket: 47611 **DST#: 1**  
 Test Start: 2012.07.03 @ 14:11:26

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:52:00  
 Time Test Ended: 20:48:15  
 Interval: **3750.00 ft (KB) To 3760.00 ft (KB) (TVD)**  
 Total Depth: 3760.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition:  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Leal Cason  
 Unit No: 45  
 Reference Elevations: 2041.00 ft (KB)  
 2034.00 ft (CF)  
 KB to GR/CF: 7.00 ft

**Serial #: 6798 Inside**  
 Press @ Run Depth: 483.83 psig @ 3751.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.07.03 End Date: 2012.07.03 Last Calib.: 2012.07.03  
 Start Time: 14:11:27 End Time: 20:48:14 Time On Btm: 2012.07.03 @ 15:49:45  
 Time Off Btm: 2012.07.03 @ 18:37:30

**TEST COMMENT:** IF: Strong Blow , BOB in 2 minutes  
 IS: 1 inch Blow Back  
 FF: Fair Blow , BOB in 5 minutes  
 FS: Weak Surface Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.25	112.43	Initial Hydro-static
3	75.86	115.82	Open To Flow (1)
32	254.96	118.31	Shut-In(1)
62	1160.94	117.91	End Shut-In(1)
63	268.39	117.47	Open To Flow (2)
107	483.83	118.40	Shut-In(2)
168	1173.54	117.96	End Shut-In(2)
168	1831.61	117.85	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	120 GIP	0.00
1054.00	Water	14.78
164.00	SOWCM 2%O 46%W 52%M	2.30

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47611      **DST#: 1**  
Test Start: 2012.07.03 @ 14:11:26

**Tool Information**

Drill Pipe:	Length: 3740.00 ft	Diameter: 3.80 inches	Volume: 52.46 bbl	Tool Weight: 2100.00 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 52.46 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3750.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	37.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3728.00	
Hydraulic tool	5.00			3733.00	
Jars	5.00			3738.00	
Safety Joint	2.00			3740.00	
Packer	5.00			3745.00	27.00      Bottom Of Top Packer
Packer	5.00			3750.00	
Stubb	1.00			3751.00	
Recorder	0.00	6798	Inside	3751.00	
Recorder	0.00	8367	Outside	3751.00	
Perforations	6.00			3757.00	
Bullnose	3.00			3760.00	10.00      Bottom Packers & Anchor

**Total Tool Length: 37.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47611      **DST#: 1**  
Test Start: 2012.07.03 @ 14:11:26

## 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:	51000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.17 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

Recovery Table

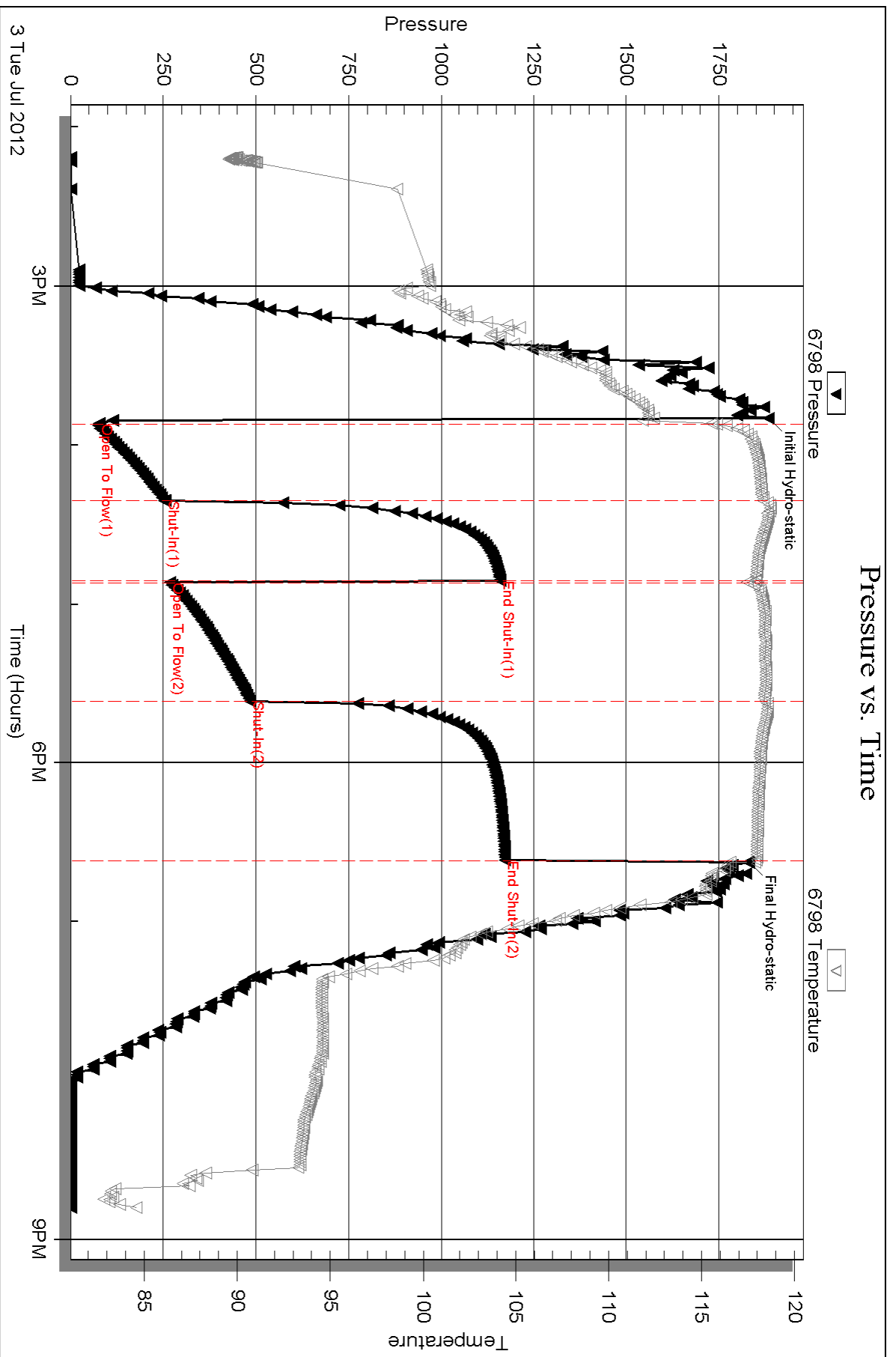
Length ft	Description	Volume bbl
0.00	120 GIP	0.000
1054.00	Water	14.785
164.00	SOWCM 2%O 46%W 52%M	2.300

Total Length: 1218.00 ft      Total Volume: 17.085 bbl

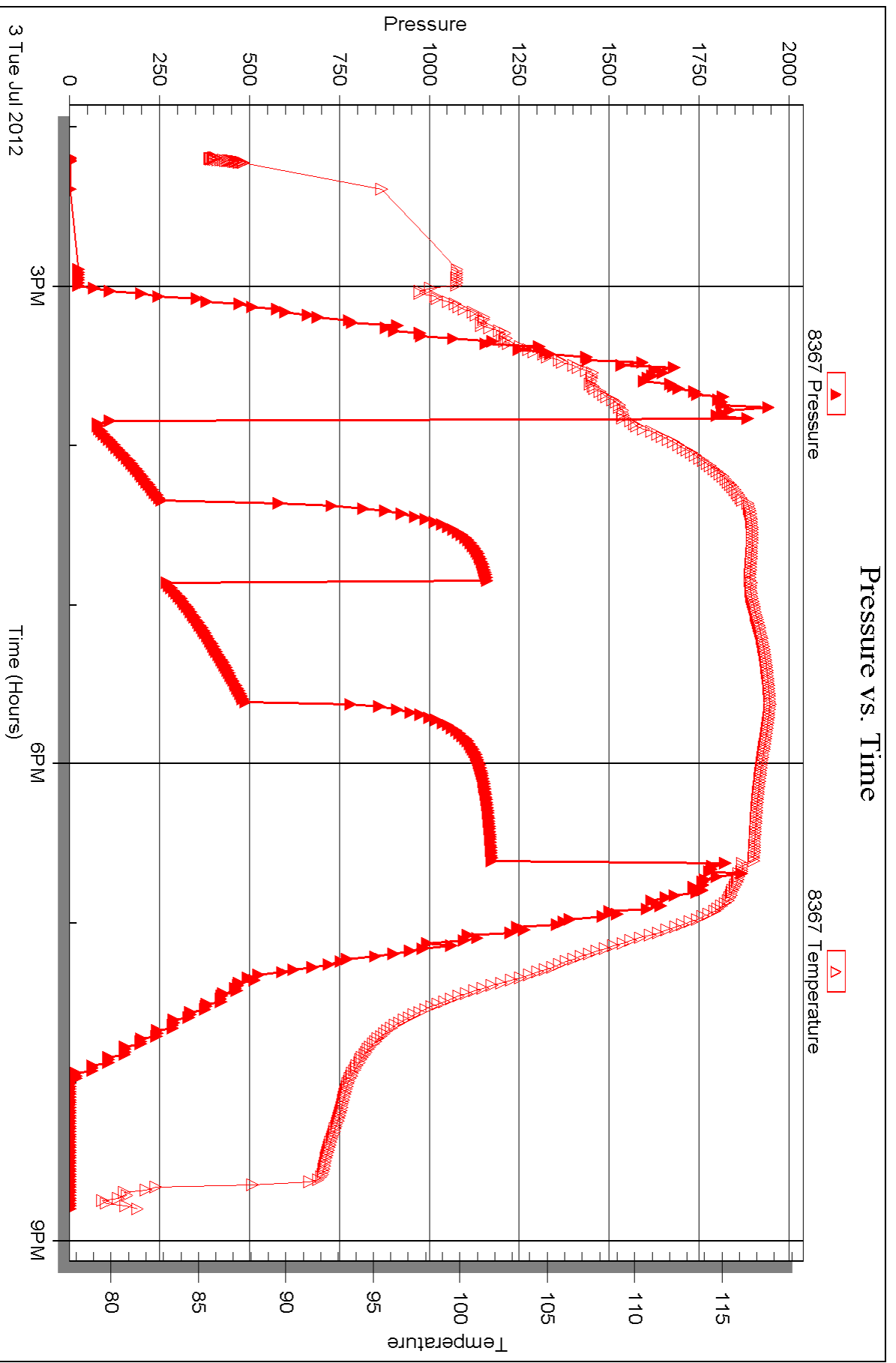
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: RW w as .11 @ 94 degrees









## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Jim Musgrove

**CJ&M "A" #1**

**26-20s-16w Pawnee,KS**

Start Date: 2012.07.04 @ 01:27:15

End Date: 2012.07.04 @ 06:53:02

Job Ticket #: 47612                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 15:45:54







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47612      **DST#: 2**  
Test Start: 2012.07.04 @ 01:27:15

**Tool Information**

Drill Pipe:	Length: 3740.00 ft	Diameter: 3.80 inches	Volume: 52.46 bbl	Tool Weight:	2100.00 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 52.46 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3762.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	40.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3740.00	
Hydraulic tool	5.00			3745.00	
Jars	5.00			3750.00	
Safety Joint	2.00			3752.00	
Packer	5.00			3757.00	27.00      Bottom Of Top Packer
Packer	5.00			3762.00	
Stubb	1.00			3763.00	
Recorder	0.00	6798	Inside	3763.00	
Recorder	0.00	8367	Outside	3763.00	
Perforations	9.00			3772.00	
Bullnose	3.00			3775.00	13.00      Bottom Packers & Anchor

**Total Tool Length: 40.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47612      **DST#: 2**  
Test Start: 2012.07.04 @ 01:27:15

## 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:	49000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.17 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6500.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1426.00	Water	20.003
186.00	MOCW 5%M 10%O 85%W	2.609
186.00	GSY MOCW 25%G 5%M 30%O 40%W	2.609

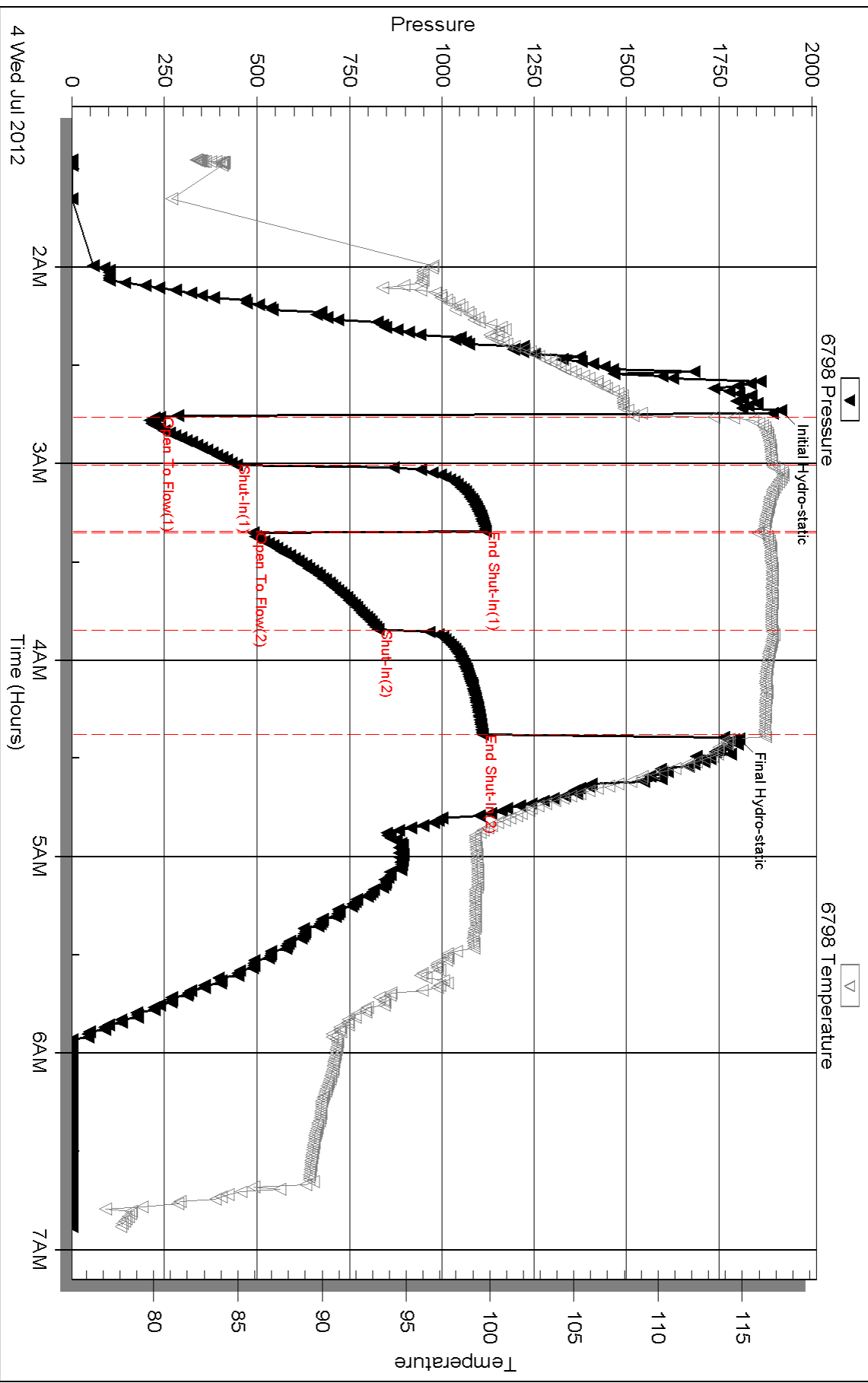
Total Length: 1798.00 ft      Total Volume: 25.221 bbl

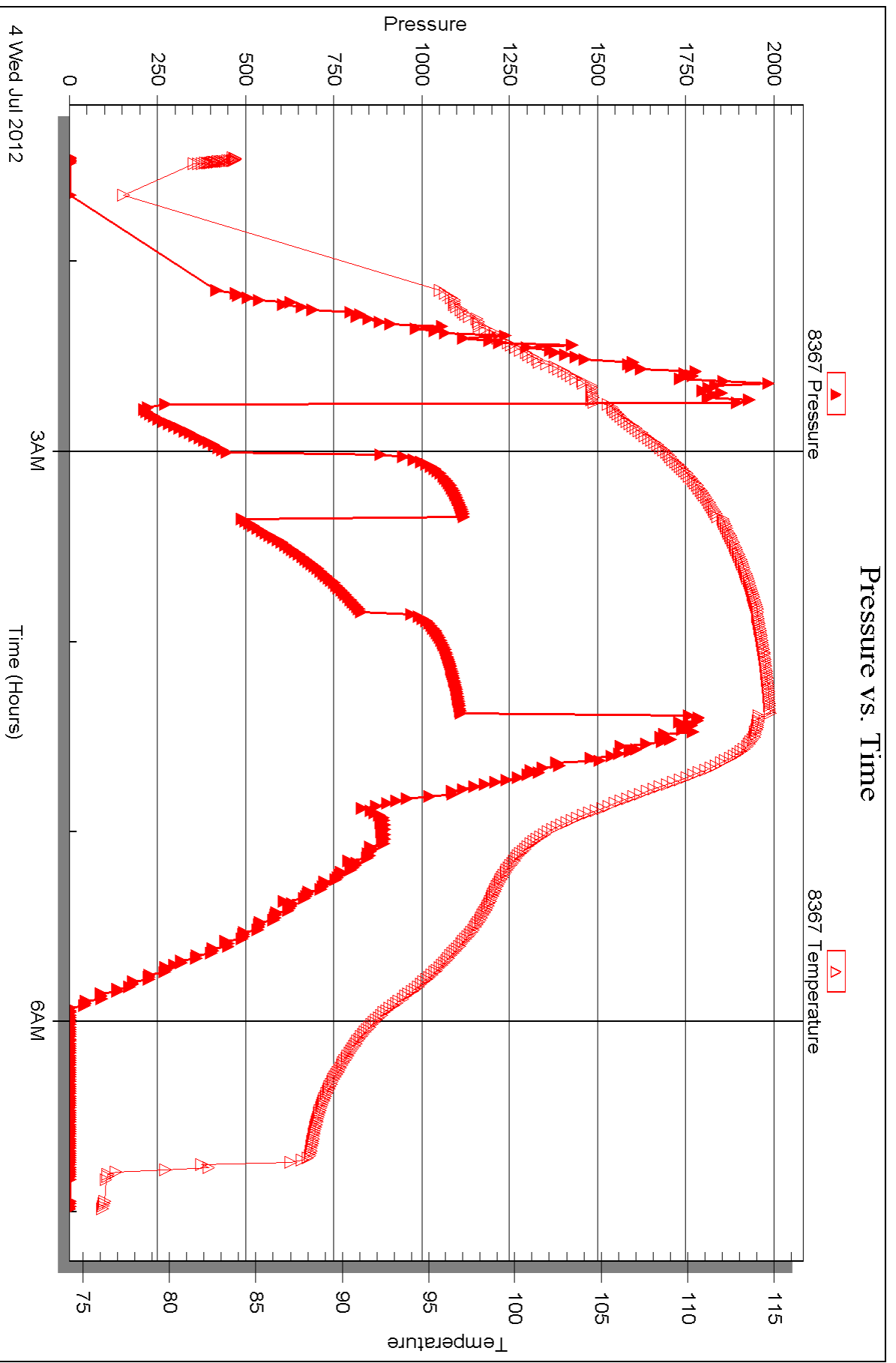
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: RW w as .13 @ 85 degrees

### Pressure vs. Time









## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Jim Musgrove

**CJ&M "A" #1**

**26-20s-16w Pawnee,KS**

Start Date: 2012.07.04 @ 11:41:26

End Date: 2012.07.04 @ 17:28:11

Job Ticket #: 47613                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 15:45:09







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47613      **DST#: 3**  
Test Start: 2012.07.04 @ 11:41:26

**Tool Information**

Drill Pipe:	Length: 3771.00 ft	Diameter: 3.80 inches	Volume: 52.90 bbl	Tool Weight: 2100.00 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 52.90 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3778.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3756.00	
Hydraulic tool	5.00			3761.00	
Jars	5.00			3766.00	
Safety Joint	2.00			3768.00	
Packer	5.00			3773.00	27.00      Bottom Of Top Packer
Packer	5.00			3778.00	
Stubb	1.00			3779.00	
Recorder	0.00	6798	Inside	3779.00	
Recorder	0.00	8367	Outside	3779.00	
Perforations	9.00			3788.00	
Bullnose	3.00			3791.00	13.00      Bottom Packers & Anchor

**Total Tool Length: 40.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47613      **DST#: 3**  
Test Start: 2012.07.04 @ 11:41:26

## 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:	48000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8900.00 ppm			
Filter Cake: 0.02 inches			

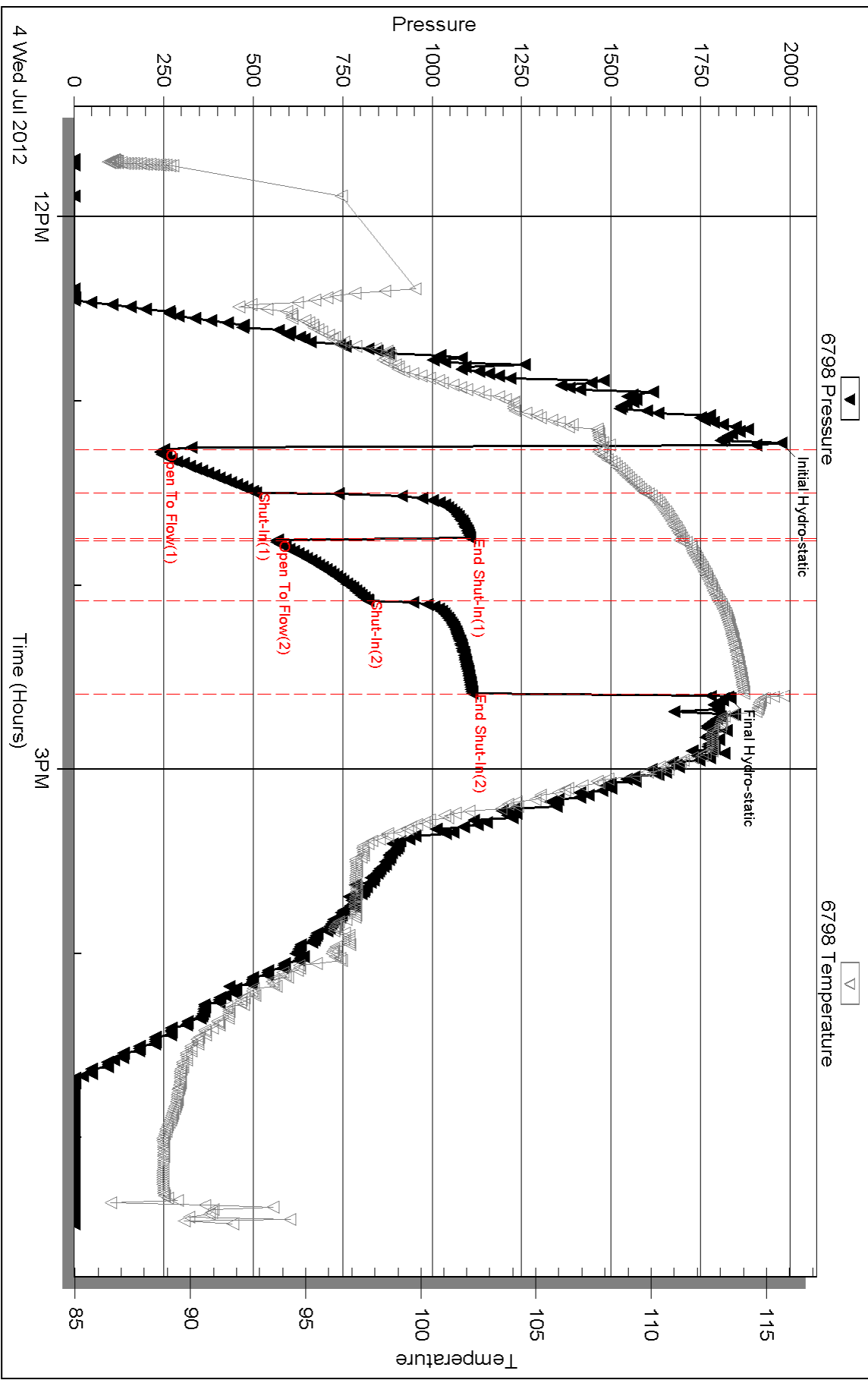
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1356.00	Water	19.021
124.00	SOCW 5%O 95%W	1.739
318.00	GOMCW 15%G 5%O 10%M 70%W	4.461

Total Length: 1798.00 ft      Total Volume: 25.221 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW w as .12 @ 90 degrees

# Pressure vs. Time

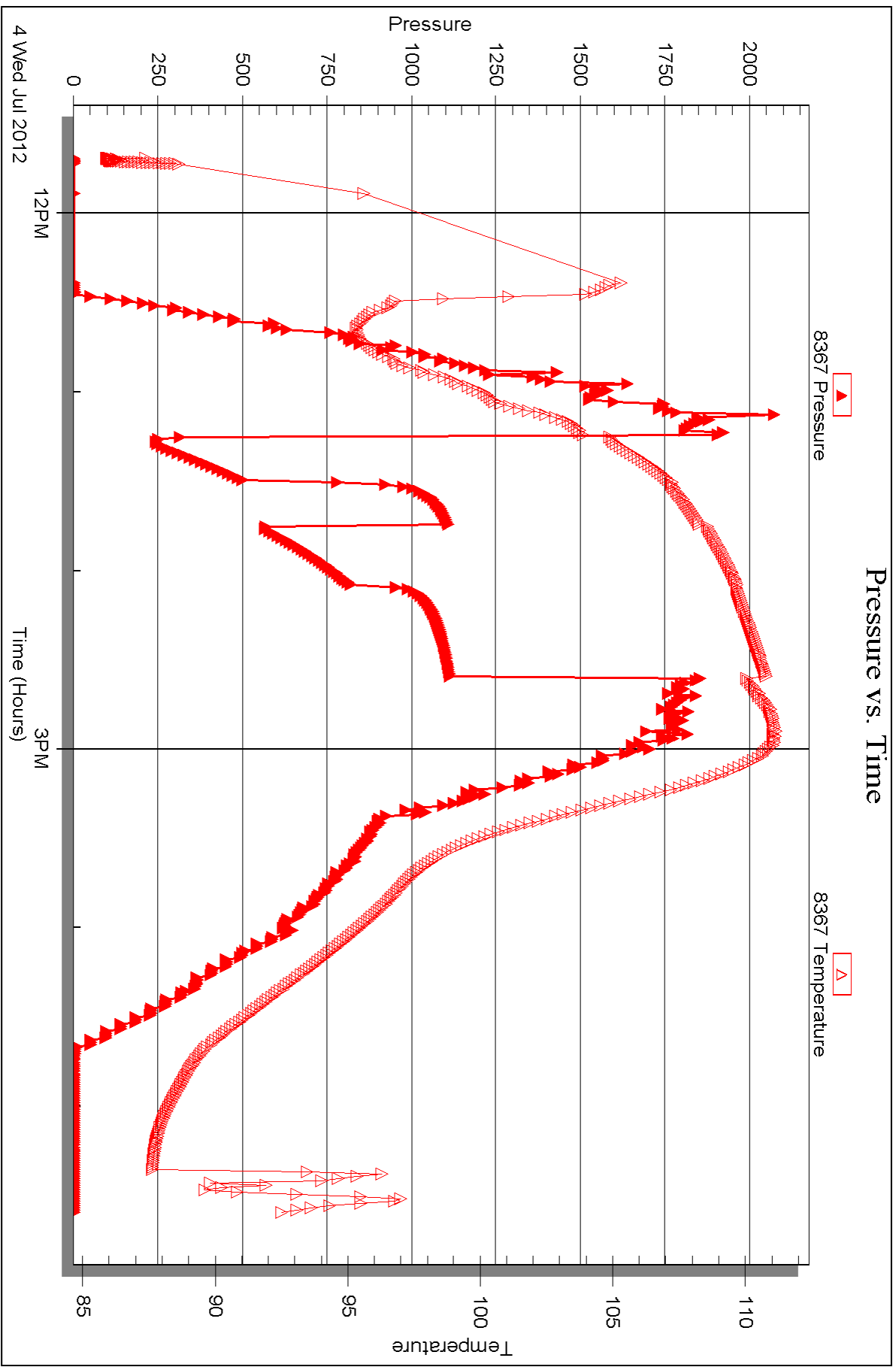


Serial #: 8367

Outside Charter Energy Inc

CU&M "A" #1

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252  
Great Bend, KS 67530

ATTN: Jim Musgrove

**CJ&M "A" #1**

**26-20s-16w Pawnee,KS**

Start Date: 2012.07.04 @ 23:28:40

End Date: 2012.07.05 @ 05:30:49

Job Ticket #: 47614                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.06 @ 15:44:18





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Charter Energy Inc  
 PO Box 252  
 Great Bend, KS 67530  
 ATTN: Jim Musgrove

**26-20s-16w Pawnee, KS**  
**CJ&M "A" #1**  
 Job Ticket: 47614 **DST#: 4**  
 Test Start: 2012.07.04 @ 23:28:40

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 01:22:10  
 Tester: Leal Cason  
 Time Test Ended: 05:30:49  
 Unit No: 45  
 Interval: **3792.00 ft (KB) To 3804.00 ft (KB) (TVD)**  
 Reference Elevations: 2041.00 ft (KB)  
 Total Depth: 3804.00 ft (KB) (TVD)  
 2034.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 KB to GR/CF: 7.00 ft

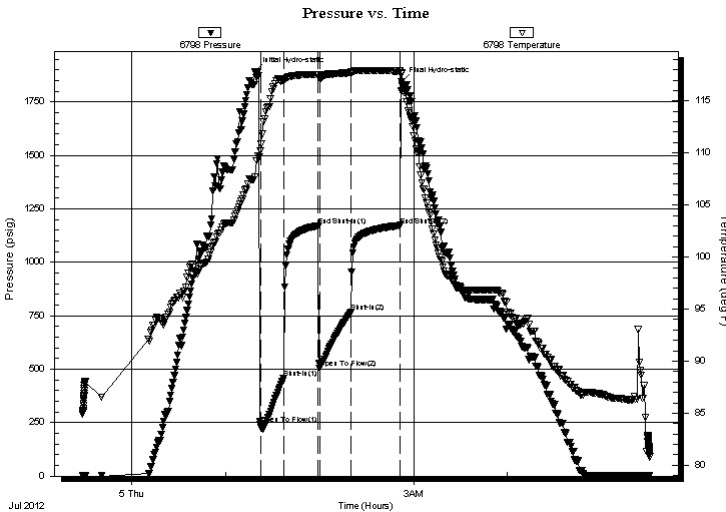
## Serial #: 6798

Inside

Press @ Run Depth: 765.60 psig @ 3793.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.07.04 End Date: 2012.07.05 Last Calib.: 2012.07.05  
 Start Time: 23:28:41 End Time: 05:30:49 Time On Btm: 2012.07.05 @ 01:18:55  
 Time Off Btm: 2012.07.05 @ 02:52:25

**TEST COMMENT:** IF: Strong Blow , BOB in 30 seconds  
 IS: 2 inch Blow Back  
 FF: Strong Blow , BOB in 30 seconds  
 FS: BOB Blow Back in 8 minutes, GTS in 10 minutes

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.53	107.74	Initial Hydro-static
4	242.27	110.22	Open To Flow (1)
18	457.42	116.91	Shut-In(1)
41	1170.50	117.55	End Shut-In(1)
41	504.41	117.24	Open To Flow (2)
62	765.60	117.70	Shut-In(2)
93	1172.46	117.87	End Shut-In(2)
94	1846.76	117.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2025 GIP	0.00
1116.00	Water	15.65
124.00	OCW 10%O 90%W	1.74
372.00	GSY OWCM 15%G 15%O 30%W 40%M	5.22
134.00	GSY MWCO 10%G 5%M 35%W 50%O	1.88

## 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  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47614      **DST#: 4**  
Test Start: 2012.07.04 @ 23:28:40

**Tool Information**

Drill Pipe:	Length: 3771.00 ft	Diameter: 3.80 inches	Volume: 52.90 bbl	Tool Weight: 2100.00 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 52.90 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3792.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	12.00 ft			
Tool Length:	39.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3770.00	
Hydraulic tool	5.00			3775.00	
Jars	5.00			3780.00	
Safety Joint	2.00			3782.00	
Packer	5.00			3787.00	27.00      Bottom Of Top Packer
Packer	5.00			3792.00	
Stubb	1.00			3793.00	
Recorder	0.00	6798	Inside	3793.00	
Recorder	0.00	8367	Outside	3793.00	
Perforations	8.00			3801.00	
Bullnose	3.00			3804.00	12.00      Bottom Packers & Anchor

**Total Tool Length: 39.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Charter Energy Inc  
PO Box 252  
Great Bend, KS 67530  
ATTN: Jim Musgrove

**26-20s-16w Pawnee,KS**  
**CJ&M "A" #1**  
Job Ticket: 47614      **DST#: 4**  
Test Start: 2012.07.04 @ 23:28:40

## 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:	50000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 12.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8900.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2025 GIP	0.000
1116.00	Water	15.655
124.00	OCW 10%O 90%W	1.739
372.00	GSY OWCM 15%G 15%O 30%W 40%M	5.218
134.00	GSY MWCO 10%G 5%M 35%W 50%O	1.880

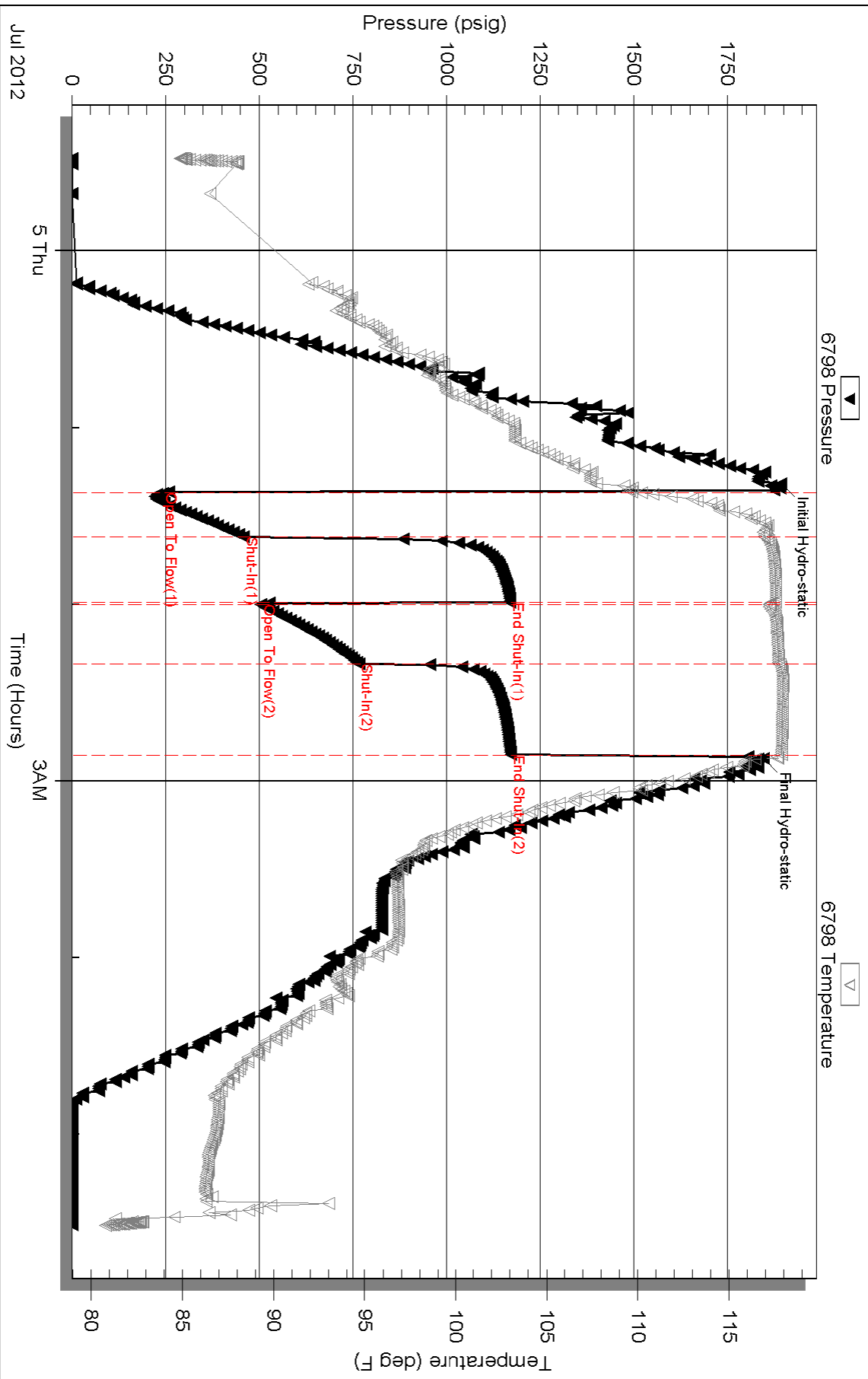
Total Length: 1746.00 ft      Total Volume: 24.492 bbl

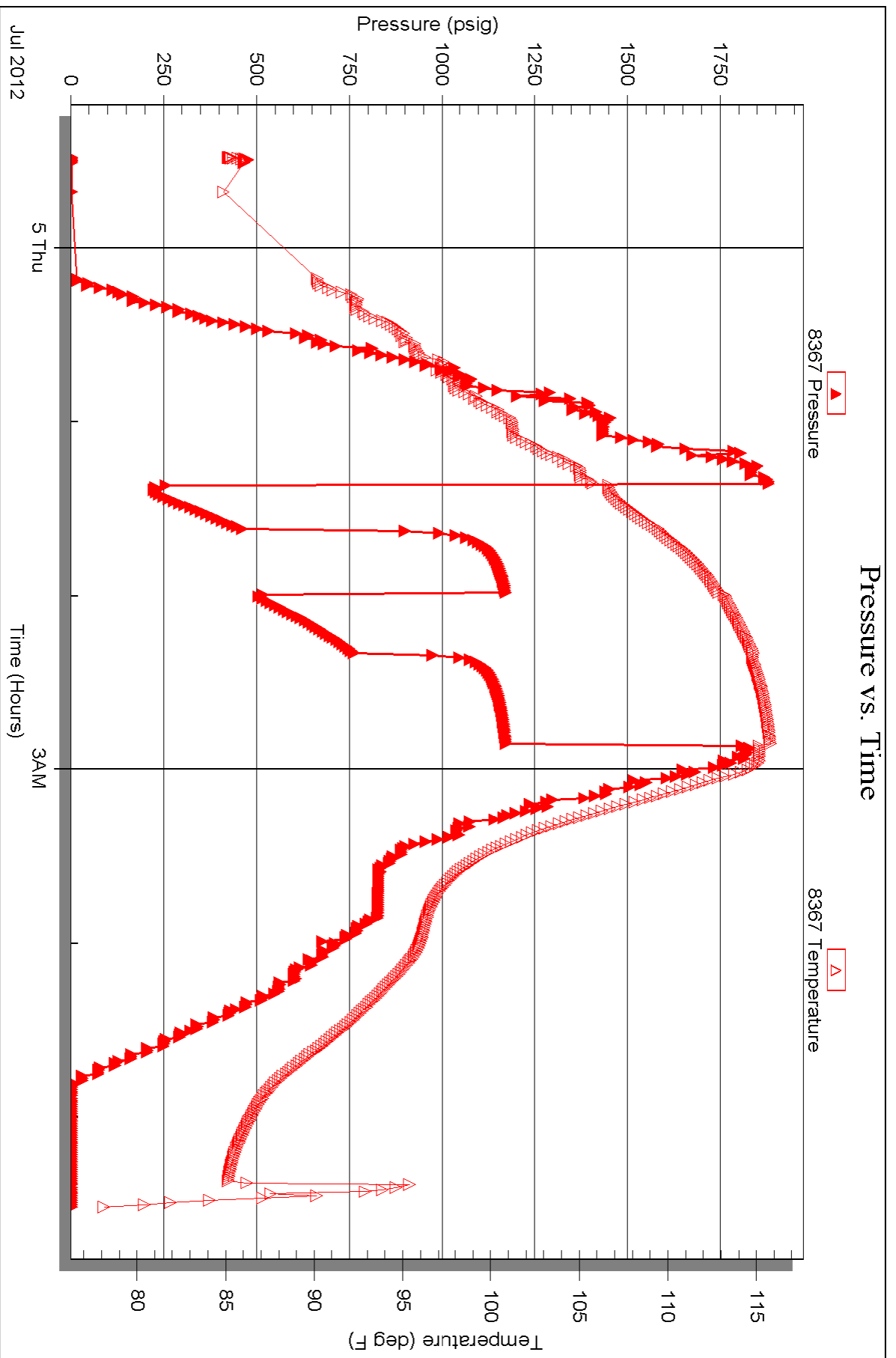
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: RW w as .14 @ 82 degrees

# Pressure vs. Time







# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47611

Well Name & No. CJ+M A 1 Test No. 1 Date 07/03/12  
 Company Charter Energy inc Elevation 2041 KB ~~2034~~ 2034GL  
 Address PO Box 252 Great Bend, KS 67530  
 Co. Rep / Geo. Jim Musgrove Rig Royal 2  
 Location: Sec. 26 Twp. 20S Rge. 16W Co. Pawnee State KS

Interval Tested 3750 - 3760 Zone Tested Arbuckle  
 Anchor Length 10 Drill Pipe Run 3740 Mud Wt. 9.3  
 Top Packer Depth 3745 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 3750 Wt. Pipe Run 0 WL 9.2  
 Total Depth 3760 Chlorides 6500 ppm System LCM

Blow Description I-F: Strong Blow, BOB in 2 minutes

ISI: 1 inch Blow Back

FF: Fair Blow, BOB in 5 minutes

FSI: Weak Surface Blow Back

Rec 120 Feet of GIP %gas %oil %water %mud

Rec 164 Feet of 50 WCM %gas 2 %oil 46 %water 52 %mud

Rec 1054 Feet of Water %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 1218 BHT 118 Gravity N/C API RW .11 @ 94 °F Chlorides 5100 ppm

(A) Initial Hydrostatic 1884  Test 1150 T-On Location 13:30

(B) First Initial Flow 76  Jars 250 T-Started 14:11

(C) First Final Flow 255  Safety Joint 75 T-Open 15:52

(D) Initial Shut-In 1161  Circ Sub T-Pulled 18:37

(E) Second Initial Flow 268  Hourly Standby T-Out 20:48

(F) Second Final Flow 484  Mileage 130 114rt 176.70 Comments

(G) Final Shut-In 1173  Sampler

(H) Final Hydrostatic 1832  Straddle  Ruined Shale Packer

Shale Packer  Ruined Packer

Extra Packer  Extra Copies

Extra Recorder Sub Total 0

Day Standby Total 1651.70

Accessibility MP/DST Disc't

Sub Total 1651.70

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47612

4/10

Well Name & No. CJM A 1 Test No. 2 Date 07/04/12  
 Company Charter Energy inc Elevation 2041 KB 2034 GL  
 Address PO Box 252 Great Bend, KS 67530  
 Co. Rep/Geo. Jim Musgrove Rig Royal 2  
 Location: Sec. 26 Twp. 20S Rge. 11W Co. Pawnee State KS

Interval Tested 3762 - 3775 Zone Tested Arbuckle  
 Anchor Length 13 Drill Pipe Run 3740 Mud Wt. 9.3  
 Top Packer Depth 3758 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 3762 Wt. Pipe Run 0 WL 9.2  
 Total Depth 3775 Chlorides 6500 ppm System LCM

Blow Description IF: Strong Blow, BOB in 30 seconds  
ISI: 3 inch Blow Back  
FF: Strong Blow, BOB in 1 minutes  
FSI: Surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>186</u>	<u>GSY MOCW</u>	<u>25</u>	<u>30</u>	<u>40</u>	<u>5</u>
<u>186</u>	<u>MOCW</u>		<u>10</u>	<u>85</u>	<u>5</u>
<u>1426</u>	<u>water</u>				

Rec Total 1798 BHT 116 Gravity N/C API RW .13 @ 85 °F Chlorides 49000 ppm

(A) Initial Hydrostatic <u>1918</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>01:15</u>
(B) First Initial Flow <u>238</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>01:27</u>
(C) First Final Flow <u>444</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>02:45</u>
(D) Initial Shut-In <u>1120</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>04:22</u>
(E) Second Initial Flow <u>490</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>06:53</u>
(F) Second Final Flow <u>828</u>	<input checked="" type="checkbox"/> Mileage <u>130</u> 176.70	Comments
(G) Final Shut-In <u>1111</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1804</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>20</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1651.70</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1651.70</u>	

Approved By \_\_\_\_\_ 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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47613

Well Name & No. CJM A 1 Test No. 3 Date 07/04/12  
 Company Charter Energy Elevation 2041 KB 2034 GL  
 Address PO BOX 252 Great Bend, KS 67530  
 Co. Rep / Geo. Jim Musgrove Rig Royal 2  
 Location: Sec. 26 Twp. 20S Rge. 11 W Co. Pawnee State KS

Interval Tested 3778 - 3791 Zone Tested Arbuckle  
 Anchor Length 13 Drill Pipe Run 3771 Mud Wt. 9.1  
 Top Packer Depth 3773 Drill Collars Run 0 Vis 58  
 Bottom Packer Depth 3778 Wt. Pipe Run 0 WL 12.4  
 Total Depth 3791 Chlorides 7900 ppm System LCM

Blow Description IF: strong Blow, BOB in 30 seconds

ISA: 1 inch Blow Back

EF: strong Blow, BOB in 1 minute

FSA: 1 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>318</u>	<u>60 MCW</u>	<u>15</u>	<u>5</u>	<u>70</u>	<u>10</u>
<u>124</u>	<u>50 CW</u>		<u>5</u>	<u>95</u>	
<u>1356</u>	<u>water</u>				

Rec Total 1798 BHT 115 Gravity N/C API RW .12 @ 90 °F Chlorides 48000 ppm

(A) Initial Hydrostatic 1976  Test 1150 T-On Location 11:15  
 (B) First Initial Flow 251  Jars 250 T-Started 11:41  
 (C) First Final Flow 507  Safety Joint 75 T-Open 13:15  
 (D) Initial Shut-In 1108  Circ Sub  T-Pulled 14:35  
 (E) Second Initial Flow 564  Hourly Standby  T-Out 17:28  
 (F) Second Final Flow 820  Mileage 130 176.70 Comments   
 (G) Final Shut-In 1113  Sampler   
 (H) Final Hydrostatic 1825  Straddle   Ruined Shale Packer   
 Shale Packer   Ruined Packer   
 Extra Packer   Extra Copies   
 Extra Recorder  Sub Total 0  
 Day Standby  Total 1651.70  
 Accessibility  MP/DST Disc't   
 Sub Total 1651.70

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47614

4/10

Well Name & No. CJM A1 Test No. 4 Date 07/04/12  
 Company Charter Energy Elevation 2041 KB 2034 GL  
 Address PO Box 35 Great Bend, KS 67530  
 Co. Rep / Geo. Jim Musgrove Rig Royal 2  
 Location: Sec. 26 Twp. 20S Rge. 11W Co. Pawnee State KS

Interval Tested 3792 - 3804 Zone Tested Arbuckle  
 Anchor Length 12 Drill Pipe Run 3771 Mud Wt. 9.0  
 Top Packer Depth 3787 Drill Collars Run 0 Vis 51  
 Bottom Packer Depth 3792 Wt. Pipe Run 0 WL 12.4  
 Total Depth 3804 Chlorides 8900 ppm System LCM

Blow Description IF: Strong Blow, BOB in 30 seconds  
ISI: 2 inch Blow Back  
FF: Strong Blow, BOB in 30 seconds  
FSI: BOB Blowback in 8 minutes, GTS in 10 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>2025</u>	<u>GIP</u>				
<u>134</u>	<u>GSY MWCO</u>	<u>10</u>	<u>50</u>	<u>35</u>	<u>5</u>
<u>372</u>	<u>GSY OWCM</u>	<u>15</u>	<u>15</u>	<u>30</u>	<u>40</u>
<u>124</u>	<u>OCW</u>	<u>10</u>	<u>90</u>		
<u>1116</u>	<u>WATER</u>				

Rec Total 1746 BHT 118 Gravity N/C API RW 0.14 @ 82 °F Chlorides 50,000 ppm

- (A) Initial Hydrostatic 1893
- (B) First Initial Flow 242
- (C) First Final Flow 457
- (D) Initial Shut-In 1170
- (E) Second Initial Flow 504
- (F) Second Final Flow 766
- (G) Final Shut-In 1172
- (H) Final Hydrostatic 1847

- Test 1150
- Jars 250
- Safety Joint 75
- Circ Sub
- Hourly Standby
- Mileage 176.70 ~~1300~~
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility

T-On Location 23:00  
 T-Started 23:28  
 T-Open 01:22  
 T-Pulled 02:51  
 T-Out 05:30

Comments \_\_\_\_\_  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 0  
 Total 1651.70  
 MP/DST Disc't \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 20  
 Final Flow 20  
 Final Shut-In 30

Approved By \_\_\_\_\_ Our Representative [Signature]  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 883

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-29-12	26	20	16	PAWNEE	KANSAS		11:00 AM
Lease CJM#A	Well No. #1		Location Pawnee Rock				
Contractor ROYAL #2				Owner CHARTER			
Type Job				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size 12 1/4"	T.D. 1062'		Charge To Charter Energy				
Csg. 8 5/8"	Depth 1062'		Street				
Tbg. Size	Depth		City State				
Tool	Depth		City State				
Cement Left in Csg.	Shoe Joint 32 84		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line	Displace 65' BLS		Cement Amount Ordered 425 com 3% - 9% gel				

**EQUIPMENT**

Pumptrk #15	No.	Cementor	Helper	Common
Bulktrk #4	No.	Driver	DOUG	Poz. Mix
Bulktrk DU	No.	Driver	CESCO	Gel. 8
				Calcium 15

**JOB SERVICES & REMARKS**

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling 1448
CEMENT DID CIRCULATE	Mileage

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down 1 Baffle plate
	1 RUBBER PLUG
	Pumptrk Charge Long Surface
	Mileage 22 23

THANK YOU!

X Signature Doug Brady

Tax  
Discount  
Total Charge





CHARGE TO: **CHARTER ENERGY**  
 ADDRESS  
 CITY STATE ZIP CODE

TICKET No 23151

PAGE 1 OF 2

SERVICE LOCATIONS: 1. **Ness City, KS** WELL/PROJECT NO. **CS4M A #1** LEASE **PAVUE** COUNTY **PAVUE** STATE **KS** CITY **ALBERT, KS** DATE **5 July 12** OWNER  
 2. TICKET TYPE  SERVICE  SALES CONTRACTOR **Royal Drilling Rigs** RIG NAME/NO  
 3. WELL TYPE **OIL** WELL CATEGORY **DEVELOPMENT** JOB PURPOSE **SAHONGSTRING** SHIPPED VIA **DELIVERED TO** ORDER NO.  
 4. REFERRAL LOCATION **INVOICE INSTRUCTIONS** WELL PERMIT NO. **510104 ST 26 35404** WELL LOCATION **245 WILSON**

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY	UM	QTY	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
575					MILEAGE #110	60	mi				360	00
578					PUMP CHARGE	1	hr	3867	hr	1500	1500	00
4D2					CESTRALIZERS	1	ea			700	420	00
4D3					CEMENT BASKET	1	ea			250	250	00
4D6					LATCH DOWNS PLUG & BARELE	1	ea			250	250	00
4D7					INSERT FLOTT SHADE w/AUTO FILL	1	ea			350	350	00
2B1					MUDD FLUSH	500	gal			1	625	00
2A1					LIQUID REL	2	gal			25	50	00

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.  
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.  
 DATE SIGNED **5 July 12** TIME SIGNED **0230**  AM  PM  
 X **[Signature]**

**REMIT PAYMENT TO:**  
**SWIFT SERVICES, INC.**  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

**SURVEY**

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND			

PAGE TOTAL 1 3805 00  
 2 7369 82  
 Subtotal 11174 82  
 PAVUE TAX 8.3% 697 66  
 TOTAL 11,872 48

SWIFT OPERATOR **[Signature]** APPROVAL **[Signature]**  
 CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 Thank You!







