



DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252
Great Bend KS 67530

ATTN: Kurt Talbott

Hammond #1

13-20s-16w Pawnee,KS

Start Date: 2014.07.01 @ 06:16:00

End Date: 2014.07.01 @ 12:52:00

Job Ticket #: 54062 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.07.03 @ 08:24:03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Charter Energy Inc
PO Box 252
Great Bend KS 67530
ATTN: Kurt Talbott

13-20s-16w Pawnee, KS
Hammond #1
Job Ticket: 54062 **DST#: 1**
Test Start: 2014.07.01 @ 06:16:00

GENERAL INFORMATION:

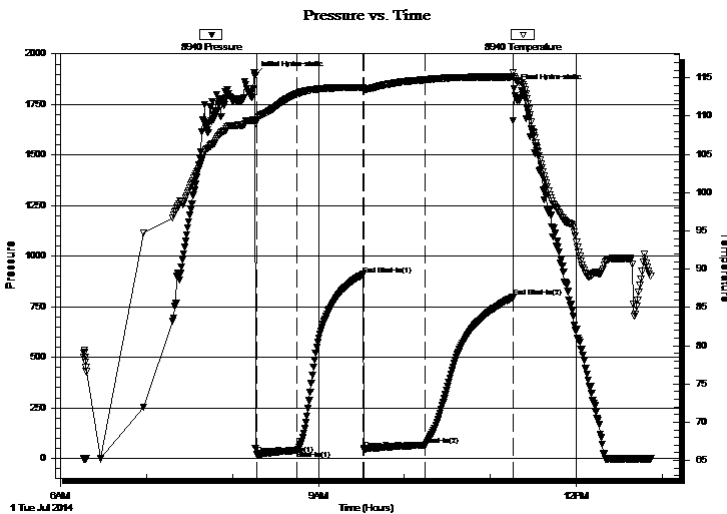
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:16:45
Time Test Ended: 12:52:00
Interval: **3719.00 ft (KB) To 3736.00 ft (KB) (TVD)**
Total Depth: 3736.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Cody Bloedorn
Unit No: 73
Reference Elevations: 2052.00 ft (KB)
2046.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8940 Outside

Press@RunDepth: 66.64 psig @ 3733.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.07.01 End Date: 2014.07.01 Last Calib.: 2014.07.01
Start Time: 06:16:05 End Time: 12:51:59 Time On Btm: 2014.07.01 @ 08:15:45
Time Off Btm: 2014.07.01 @ 11:16:45

TEST COMMENT: 30 - IF- B.O.B. in 4 minutes
45 - IS- No return
45 - FF- 7 1/2" blow
60 - FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1891.82	109.56	Initial Hydro-static
1	19.24	109.57	Open To Flow (1)
30	40.58	112.90	Shut-In(1)
76	909.44	113.71	End Shut-In(1)
77	45.60	113.49	Open To Flow (2)
119	66.64	114.75	Shut-In(2)
180	796.47	115.13	End Shut-In(2)
181	1827.74	115.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	50%W, 50%M	0.87
55.00	Mud, 100%M	0.77

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: Kurt Talbott

13-20s-16w Pawnee,KS
Hammond #1
 Job Ticket: 54062 **DST#: 1**
 Test Start: 2014.07.01 @ 06:16:00

Tool Information

Drill Pipe:	Length: 3709.00 ft	Diameter: 3.80 inches	Volume: 52.03 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 52.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3719.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	38.00 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			3699.00	
Shut In Tool	5.00			3704.00	
Hydraulic tool	5.00			3709.00	
Packer	5.00			3714.00	21.00 Bottom Of Top Packer
Packer	5.00			3719.00	
Perforations	14.00			3733.00	
Recorder	0.00	8648	Inside	3733.00	
Recorder	0.00	8940	Outside	3733.00	
Bullnose	3.00			3736.00	17.00 Bottom Packers & Anchor
Total Tool Length:	38.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy Inc
PO Box 252
Great Bend KS 67530
ATTN: Kurt Talbott

13-20s-16w Pawnee,KS
Hammond #1
Job Ticket: 54062 **DST#: 1**
Test Start: 2014.07.01 @ 06:16:00

Mud and Cushion Information

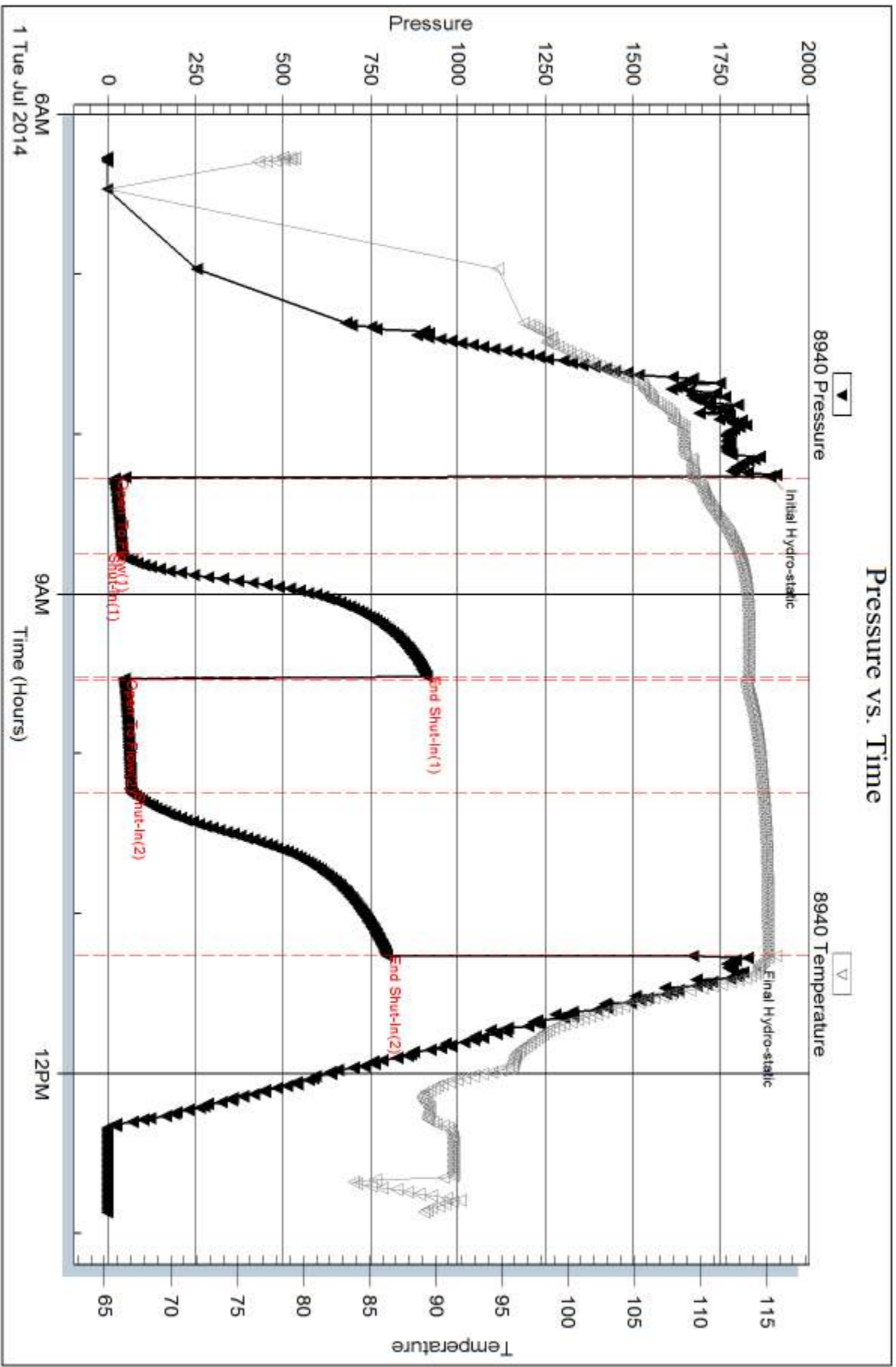
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	43000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5700.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	50%W, 50%M	0.870
55.00	Mud, 100%M	0.772

Total Length: 117.00 ft Total Volume: 1.642 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .14 @ 78 Degrees = 43000



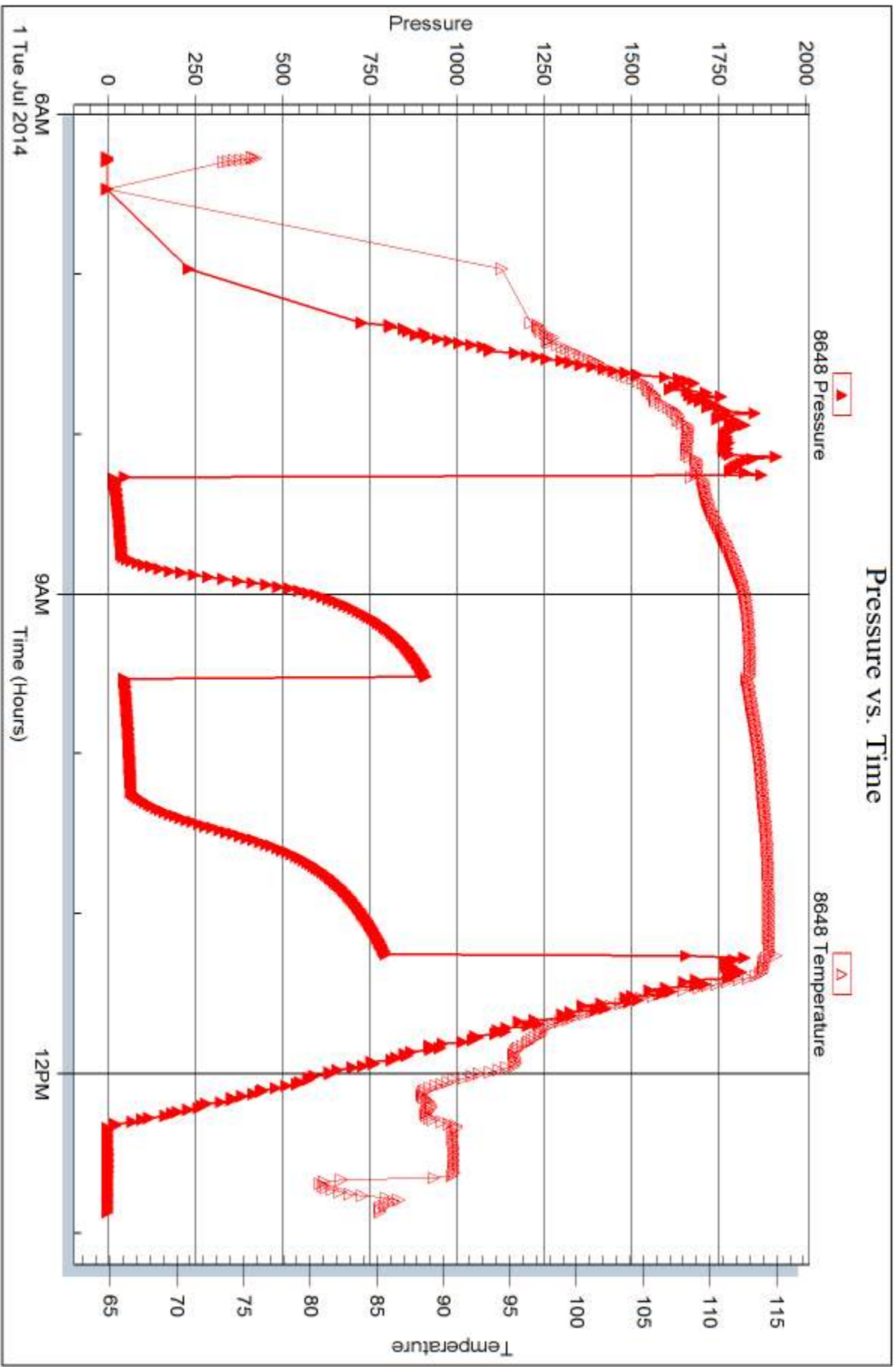
Serial #: 8648

Inside

Charter Energy Inc

Hammond #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

PO Box 252
Great Bend KS 67530

ATTN: Kurt Talbott

Hammond #1

13-20s-16w Pawnee,KS

Start Date: 2014.07.01 @ 19:43:00

End Date: 2014.07.02 @ 03:23:15

Job Ticket #: 54063 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.07.03 @ 08:23:12



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DRILL STEM TEST REPORT

Charter Energy Inc
PO Box 252
Great Bend KS 67530
ATTN: Kurt Talbott

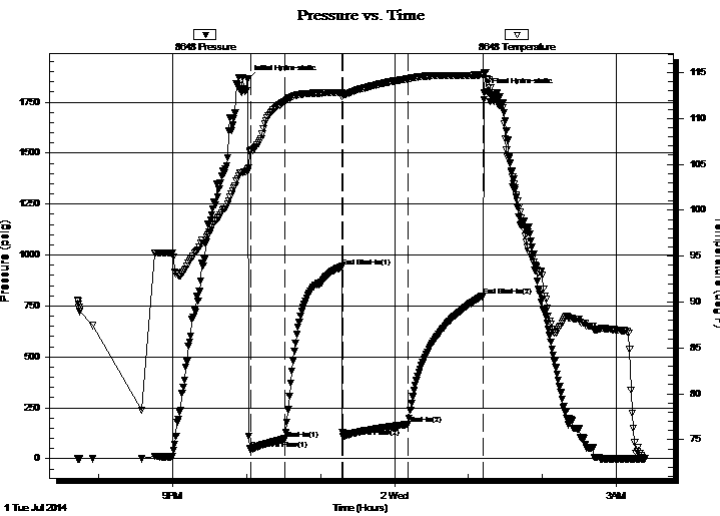
13-20s-16w Pawnee, KS
Hammond #1
Job Ticket: 54063 **DST#: 2**
Test Start: 2014.07.01 @ 19:43:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:03:15
Time Test Ended: 03:23:15
Interval: **3734.00 ft (KB) To 3763.00 ft (KB) (TVD)**
Total Depth: 3763.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 73
Reference Elevations: 2052.00 ft (KB)
2046.00 ft (CF)
KB to GR/CF: 6.00 ft

Serial #: 8648 Inside
Press@RunDepth: 168.91 psig @ 3760.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.07.01 End Date: 2014.07.02 Last Calib.: 2014.07.02
Start Time: 19:43:05 End Time: 03:23:14 Time On Btm: 2014.07.01 @ 22:01:15
Time Off Btm: 2014.07.02 @ 01:13:00

TEST COMMENT: 30 - IF- B.O.B. instantly
45 - IS- 2 1/2" return
45 - FF- B.O.B. in 7 minutes, dying @ 25 minutes, died back to surface blow
60 - FS- Surface return, died in 18 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1862.16	104.52	Initial Hydro-static
2	46.77	106.44	Open To Flow (1)
30	97.21	111.87	Shut-In(1)
77	943.59	112.81	End Shut-In(1)
77	107.05	112.57	Open To Flow (2)
130	168.91	114.30	Shut-In(2)
191	800.60	114.76	End Shut-In(2)
192	1797.86	115.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	MW, 20%M, 80%W	2.61
124.00	WM, 5%W, 95%M	1.74
20.00	V/SOCM, 2%O, 98%M	0.28

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy Inc
 PO Box 252
 Great Bend KS 67530
 ATTN: Kurt Talbott

13-20s-16w Pawnee,KS
Hammond #1
 Job Ticket: 54063 **DST#: 2**
 Test Start: 2014.07.01 @ 19:43:00

Tool Information

Drill Pipe:	Length: 3740.00 ft	Diameter: 3.80 inches	Volume: 52.46 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:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 52.46 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3734.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	29.00 ft				
Tool Length:	50.00 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			3714.00	
Shut In Tool	5.00			3719.00	
Hydraulic tool	5.00			3724.00	
Packer	5.00			3729.00	21.00 Bottom Of Top Packer
Packer	5.00			3734.00	
Stubb	1.00			3735.00	
Perforations	25.00			3760.00	
Recorder	0.00	8648	Inside	3760.00	
Recorder	0.00	8940	Outside	3760.00	
Bullnose	3.00			3763.00	29.00 Bottom Packers & Anchor
Total Tool Length:	50.00				



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PO Box 252
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ATTN: Kurt Talbott

13-20s-16w Pawnee,KS
Hammond #1
Job Ticket: 54063 **DST#: 2**
Test Start: 2014.07.01 @ 19:43:00

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:	50000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5700.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	MW, 20%M, 80%W	2.609
124.00	WM, 5%W, 95%M	1.739
20.00	VSOCM, 2%O, 98%M	0.281

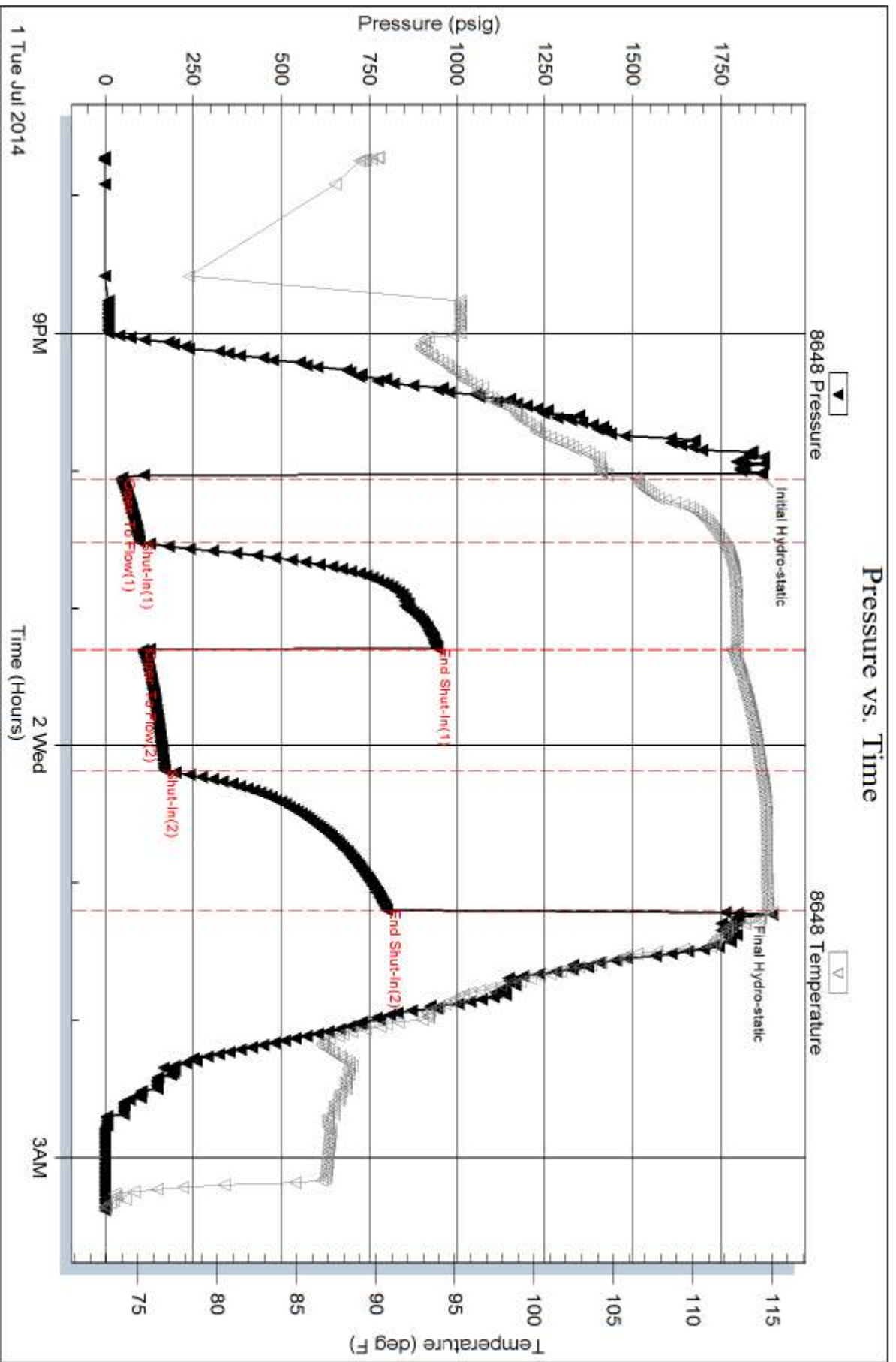
Total Length: 330.00 ft Total Volume: 4.629 bbl

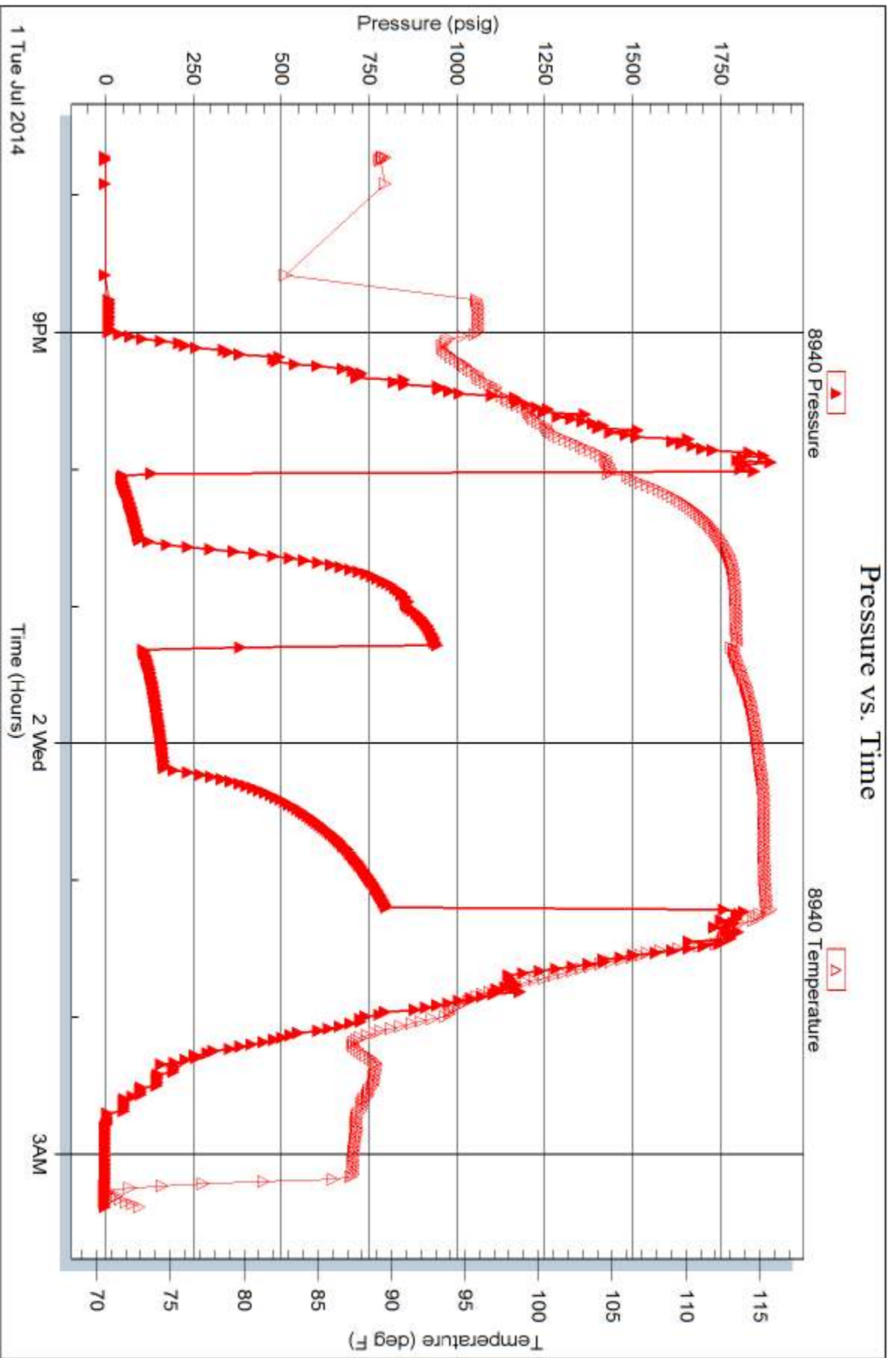
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

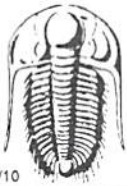
Laboratory Name: Laboratory Location:

Recovery Comments: .15 @ 70 Degrees = 50,000

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54062

Well Name & No. Hammond #1 Test No. I Date 7-1-14
 Company Charter Energy Inc Elevation 2052 KB 2046 GL
 Address Po Box 252, Great Bend KS, 67530
 Co. Rep / Geo. Kurt Rig Royal #1
 Location: Sec. 13 Twp. 20S Rge. 16W Co. Pawnee State KS

Interval Tested 3719-3736 Zone Tested Arbuckle
 Anchor Length 17' Drill Pipe Run 3709' Mud Wt. 9.2
 Top Packer Depth 3714 Drill Collars Run - Vis 51
 Bottom Packer Depth 3719 Wt. Pipe Run - WL 12
 Total Depth 3736 Chlorides 5,700 ppm System LCM -

Blow Description IF-B.O.B. in 4 minutes
ISI - No return
FF - 7.5" blow
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>WM</u>			<u>50</u>	<u>50</u>
<u>5.5</u>	<u>Mud</u>			<u>100</u>	

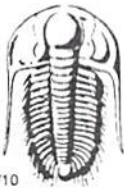
Rec Total 117' BHT 115° Gravity - API RW .14 @ 78° F Chlorides 43,000 ppm

(A) Initial Hydrostatic 1891 Test 1150 T-On Location 06:00
 (B) First Initial Flow 19 Jars - T-Started 0616
 (C) First Final Flow 40 Safety Joint - T-Open 0815
 (D) Initial Shut-In 909 Circ Sub - T-Pulled 1115
 (E) Second Initial Flow 45 Hourly Standby - T-Out 1252
 (F) Second Final Flow 66 Mileage 154RT 120rt 186 Comments Hotel
 (G) Final Shut-In 796 Sampler -
 (H) Final Hydrostatic 1827 Straddle - Ruined Shale Packer -

Initial Open 30 Shale Packer 250 Ruined Packer -
 Initial Shut-In 45 Extra Packer - Extra Copies -
 Final Flow 45 Extra Recorder - Sub Total 0
 Final Shut-In 60 Day Standby - Total 1586
 Accessibility - MP/DST Disc't -
 Sub Total 1586

Approved By _____ Our Representative Cody Blood

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. 54063

Well Name & No. Hammond #1 Test No. 2 Date 7-1-14
 Company Charter Energy Inc Elevation 2052 KB 2046 GL
 Address Po Box 252, Great Bend KS, 67530
 Co. Rep / Geo. Kurt Rig Royal #1
 Location: Sec. 13 Twp. 20s Rge. 16w Co. Pawnee State KS

Interval Tested 3734-3763 Zone Tested Arbuckle
 Anchor Length 29' Drill Pipe Run 3740' Mud Wt. 9.2
 Top Packer Depth 3729 Drill Collars Run - Vis 51
 Bottom Packer Depth 3734 Wt. Pipe Run - WL 12
 Total Depth 3763 Chlorides 5,700 ppm System LCM -

Blow Description IF - B.O.B. instantly
ISI - 2 1/2" return
FF - B.O.B. in 7 minutes, dying @ 25 minutes, died to surface blow
FSE - Surface return, died in 18 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>186</u>	<u>MW</u>		<u>80</u>	<u>20</u>	
<u>124</u>	<u>WM</u>		<u>5</u>	<u>95</u>	
<u>20</u>	<u>VSOCM</u>	<u>2</u>		<u>98</u>	

Rec Total 330' BHT 114° Gravity - API RW .15 @ 70° F Chlorides 50,000 ppm

(A) Initial Hydrostatic 1862 Test 1150 T-On Location 1930
 (B) First Initial Flow 46 ~~1150~~ T-Started 1943
 (C) First Final Flow 97 Safety Joint T-Open 2202
 (D) Initial Shut-In 943 Circ Sub T-Pulled 0112
 (E) Second Initial Flow 107 Hourly Standby T-Out 0323
 (F) Second Final Flow 168 Mileage 154 RT x2 372 Comments Hotel
 (G) Final Shut-In 800 Sampler 1004
 (H) Final Hydrostatic 1797 Straddle Ruined Shale Packer
 Shale Packer 250 Ruined Packer
 Extra Packer Extra Copies
 Initial Open 30 Extra Recorder Sub Total 0
 Initial Shut-In 45 Day Standby Total 1772
 Final Flow 45 Accessibility MP/DST Disc't
 Final Shut-In 60 Sub Total 1772

Approved By _____ Our Representative Cody Bloodom

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.