

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N Ste 700
Wichita, KS 67278

ATTN: Mac Armstrong

Barngrover #1

7-28s-23w Ford,KS

Start Date: 2012.07.20 @ 14:26:46

End Date: 2012.07.20 @ 21:32:31

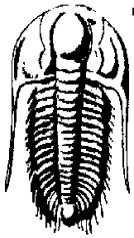
Job Ticket #: 47619 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.24 @ 11:47:09



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N Ste 700
Wichita, KS 67278
ATTN: Mac Armstrong

7-28s-23w Ford,KS

Barngrover #1

Job Ticket: 47619

DST#: 1

Test Start: 2012.07.20 @ 14:26:46

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:39:01

Time Test Ended: 21:32:31

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 45

Interval: 4954.00 ft (KB) To 4986.00 ft (KB) (TVD)

Reference Elevations: 2527.00 ft (KB)

Total Depth: 4986.00 ft (KB) (TVD)

2515.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 12.00 ft

Serial #: 6798 Inside

Press@RunDepth: 132.35 psig @ 4955.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.20

End Date:

2012.07.20

Last Calib.: 2012.07.20

Start Time: 14:26:47

End Time:

21:32:31

Time On Btm: 2012.07.20 @ 16:37:31

Time Off Btm: 2012.07.20 @ 19:40:31

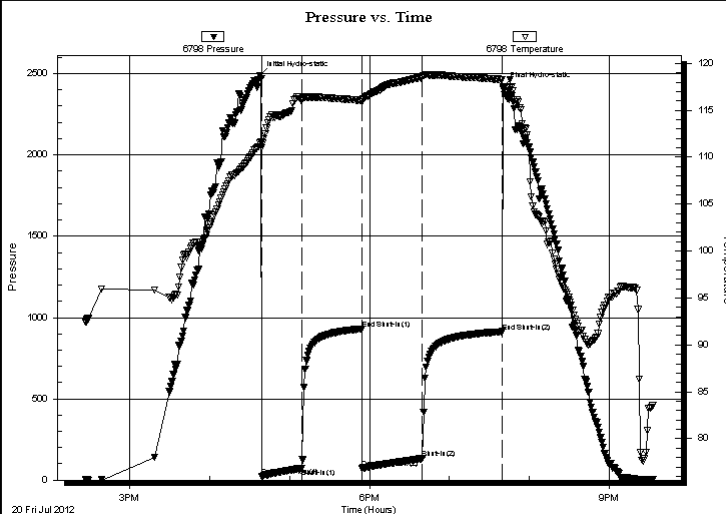
TEST COMMENT: IF: Weak Blow , Built to 2 1/2"

IS: No Blow Back

FF: Weak Surface Blow

FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2489.79	111.50	Initial Hydro-static
2	23.62	110.98	Open To Flow (1)
32	73.10	116.02	Shut-In(1)
77	929.79	116.07	End Shut-In(1)
77	73.64	115.95	Open To Flow (2)
122	132.35	118.48	Shut-In(2)
182	912.89	118.29	End Shut-In(2)
183	2422.06	117.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	Water	2.52
10.00	MCW 20%M 80%W	0.14

Gas Rates

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

ATTN: Mac Armstrong

Barngrover #1

DST#: 1

Test Start: 2012.07.20 @ 14:26:46

KB to GR/CF: 12.00 ft

Time Off Btm:

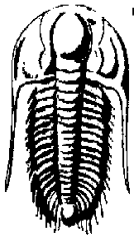
FSI: No Blow Back



Recovery

Gas Rates

Printed: 2012.07.24 @ 11:47:10



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47619

DST#: 1

ATTN: Mac Armstrong

Test Start: 2012.07.20 @ 14:26:46

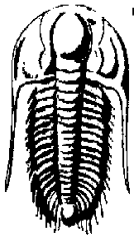
Tool Information

Drill Pipe:	Length:	4941.00 ft	Diameter:	3.80 inches	Volume:	69.31 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:	62000.00 lb
					<u>Total Volume:</u>	<u>69.31 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:		14.00 ft					String Weight: Initial	58000.00 lb
Depth to Top Packer:		4954.00 ft					Final	58000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		32.00 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			4932.00	
Hydraulic tool	5.00			4937.00	
Jars	5.00			4942.00	
Safety Joint	2.00			4944.00	
Packer	5.00			4949.00	27.00 Bottom Of Top Packer
Packer	5.00			4954.00	
Stubb	1.00			4955.00	
Recorder	0.00	6798	Inside	4955.00	
Recorder	0.00	8367	Outside	4955.00	
Perforations	28.00			4983.00	
Bullnose	3.00			4986.00	32.00 Bottom Packers & Anchor

Total Tool Length: 59.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47619

DST#: 1

ATTN: Mac Armstrong

Test Start: 2012.07.20 @ 14:26:46

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 9.98 in³

Resistivity: ohm.m

Salinity: 6400.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 75000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	Water	2.525
10.00	MCW 20%M 80%W	0.140

Total Length: 190.00 ft

Total Volume: 2.665 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .08 @ 90 degrees

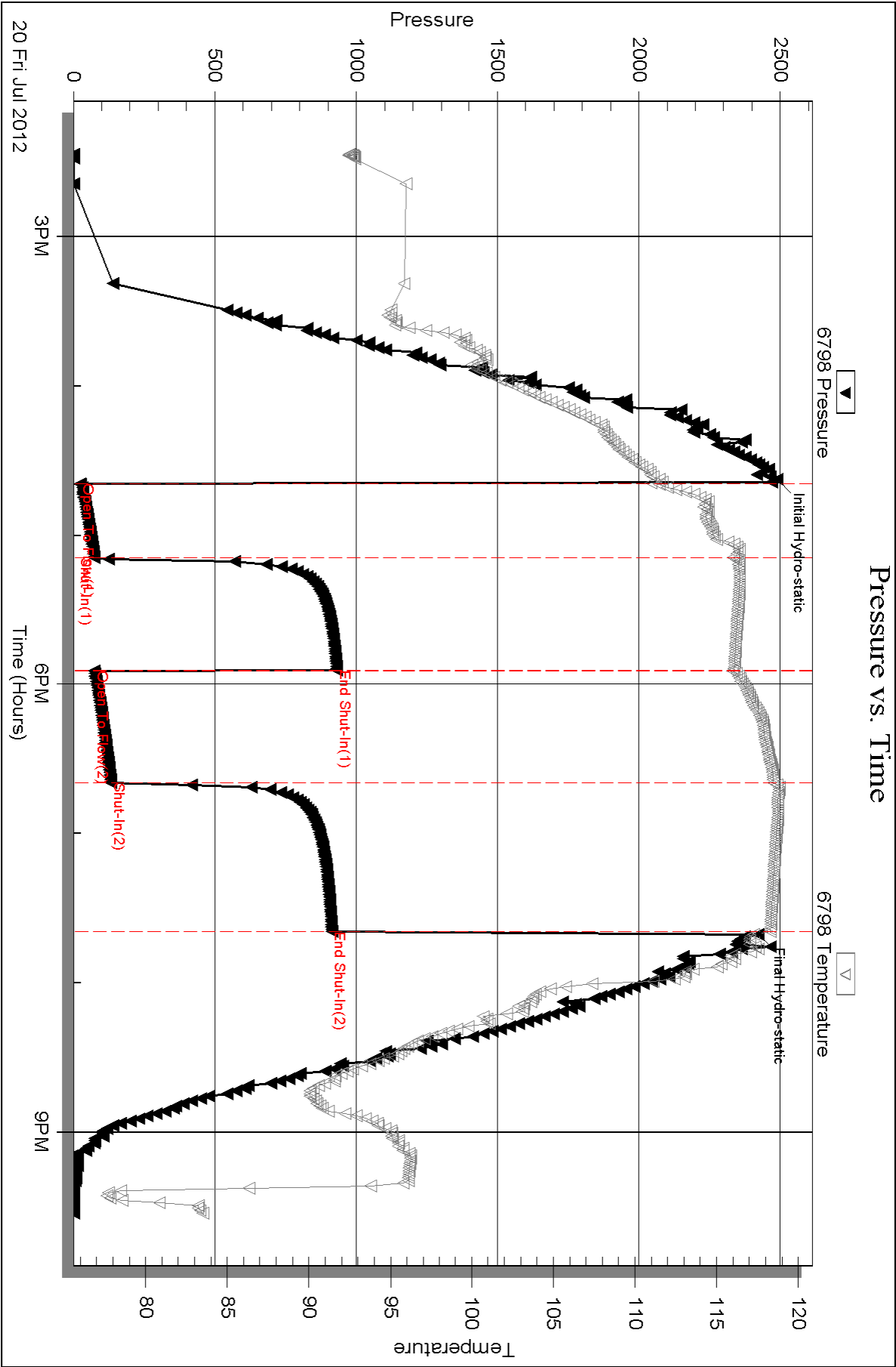
Serial #: 6798

Inside

Ritchie Exploration

Barngrover #1

DST Test Number: 1

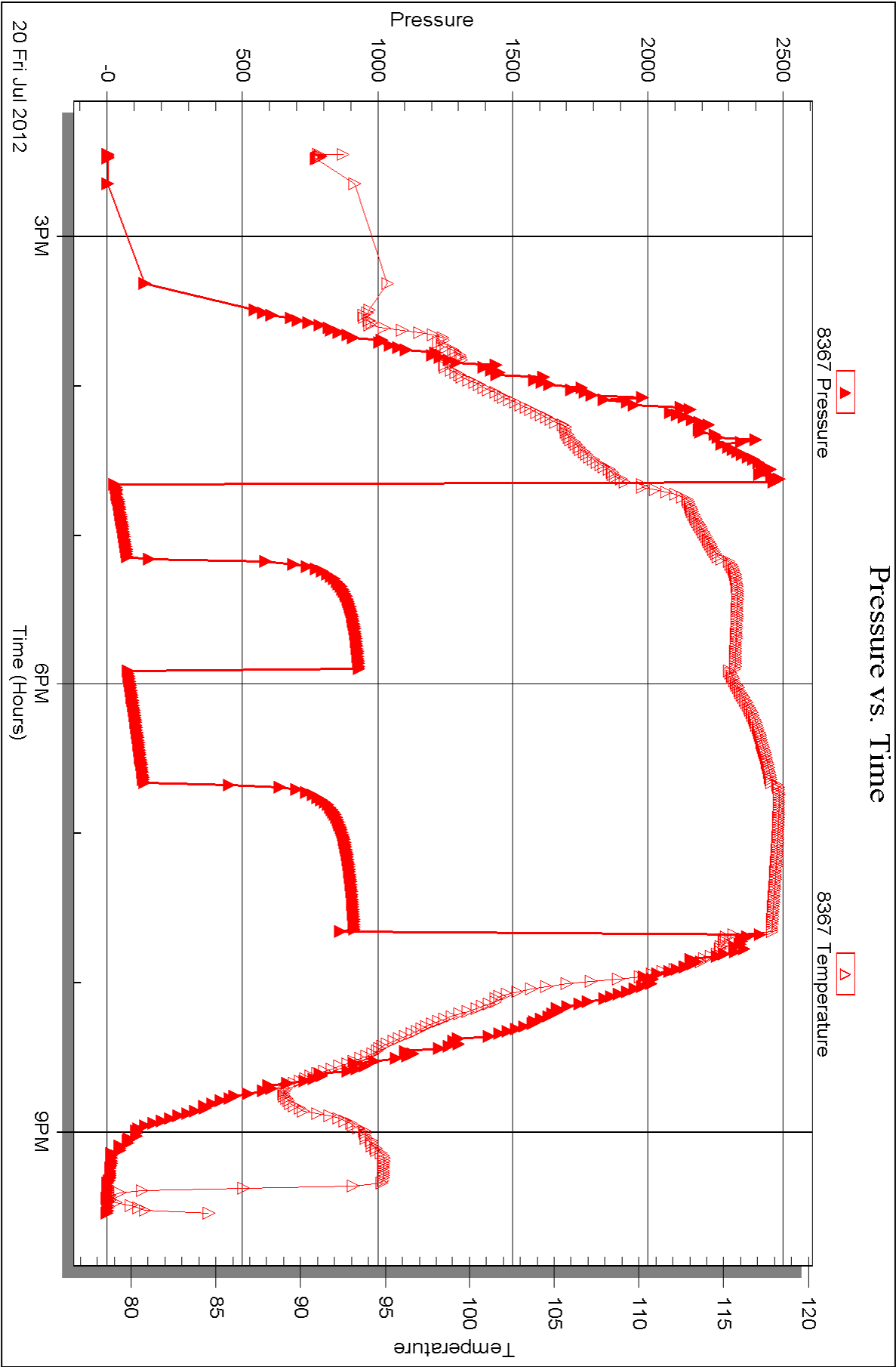


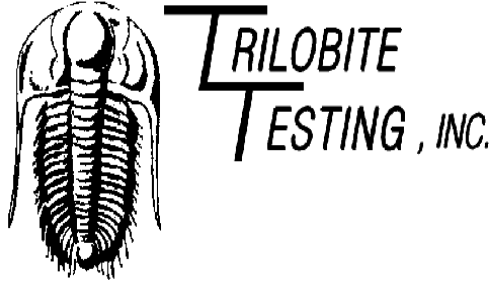
Serial #: 8367

Outside Ritchie Exploration

Barngrover #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N Ste 700
Wichita, KS 67278

ATTN: Mac Armstrong

Barngrover #1

7-28s-23w Ford,KS

Start Date: 2012.07.21 @ 19:06:06

End Date: 2012.07.22 @ 02:12:36

Job Ticket #: 47620 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.24 @ 11:46:11

Ritchie Exploration

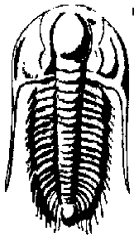
7-28s-23w Ford,KS

Barngrover #1

DST # 2

Huck & Morrow

2012.07.21



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N Ste 700
Wichita, KS 67278
ATTN: Mac Armstrong

7-28s-23w Ford,KS

Barngrover #1

Job Ticket: 47620

DST#: 2

Test Start: 2012.07.21 @ 19:06:06

GENERAL INFORMATION:

Formation: **Huck & Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:13:06

Time Test Ended: 02:12:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

Interval: 5094.00 ft (KB) To 5162.00 ft (KB) (TVD)

Total Depth: 5162.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2527.00 ft (KB)

2515.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6798 Inside

Press@RunDepth: 58.92 psig @ 5095.00 ft (KB)

Start Date: 2012.07.21

End Date:

2012.07.22

Start Time: 19:06:07

End Time:

02:12:36

Capacity: 8000.00 psig

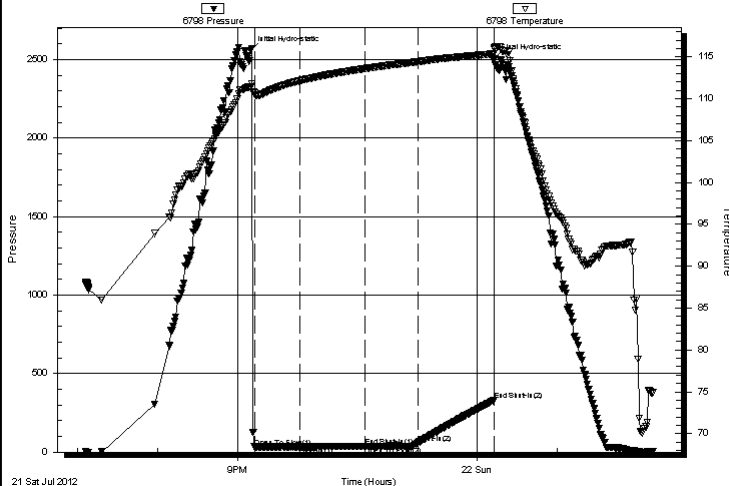
Last Calib.: 2012.07.22

Time On Btm: 2012.07.21 @ 21:09:51

Time Off Btm: 2012.07.22 @ 00:13:06

TEST COMMENT: IF: Fair Blow , Built to 8 inches
IS: No Blow Back
FF: Weak Blow , Built to 4 inches
FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2555.22	111.39	Initial Hydro-static
4	32.23	110.52	Open To Flow (1)
37	33.84	112.14	Shut-In(1)
86	37.15	113.59	End Shut-In(1)
86	35.72	113.59	Open To Flow (2)
126	58.92	114.42	Shut-In(2)
183	330.04	115.36	End Shut-In(2)
184	2506.10	116.09	Final Hydro-static

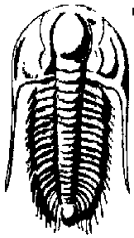
Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud	0.28

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N Ste 700
Wichita, KS 67278

ATTN: Mac Armstrong

7-28s-23w Ford,KS

Barngrover #1

Job Ticket: 47620

DST#: 2

Test Start: 2012.07.21 @ 19:06:06

GENERAL INFORMATION:

Formation: **Huck & Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:13:06

Time Test Ended: 02:12:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

Interval: 5094.00 ft (KB) To 5162.00 ft (KB) (TVD)

Total Depth: 5162.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2527.00 ft (KB)

2515.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8367 Outside

Press@RunDepth: psig @ 5095.00 ft (KB)

Start Date: 2012.07.21

End Date:

2012.07.22

Start Time: 19:06:07

End Time:

02:12:21

Capacity: 8000.00 psig

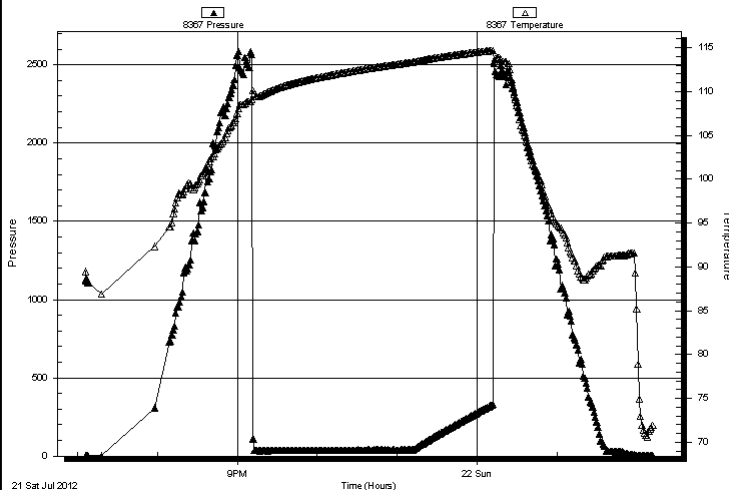
Last Calib.: 2012.07.22

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Fair Blow , Built to 8 inches
IS: No Blow Back
FF: Weak Blow , Built to 4 inches
FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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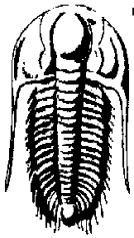
Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud	0.28

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47620

DST#: 2

ATTN: Mac Armstrong

Test Start: 2012.07.21 @ 19:06:06

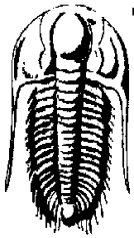
Tool Information

Drill Pipe:	Length:	5097.00 ft	Diameter:	3.80 inches	Volume:	71.50 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:	68000.00 lb
					Total Volume:	71.50 bbl	Tool Chased	ft
Drill Pipe Above KB:		30.00 ft					String Weight: Initial	64000.00 lb
Depth to Top Packer:		5094.00 ft					Final	64000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		68.00 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			5072.00	
Hydraulic tool	5.00			5077.00	
Jars	5.00			5082.00	
Safety Joint	2.00			5084.00	
Packer	5.00			5089.00	27.00 Bottom Of Top Packer
Packer	5.00			5094.00	
Stubb	1.00			5095.00	
Recorder	0.00	6798	Inside	5095.00	
Recorder	0.00	8367	Outside	5095.00	
Perforations	5.00			5100.00	
Change Over Sub	1.00			5101.00	
Drill Pipe	32.00			5133.00	
Change Over Sub	1.00			5134.00	
Perforations	25.00			5159.00	
Bullnose	3.00			5162.00	68.00 Bottom Packers & Anchor

Total Tool Length: 95.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47620

DST#: 2

ATTN: Mac Armstrong

Test Start: 2012.07.21 @ 19:06:06

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 9.19 in³

Resistivity: ohm.m

Salinity: 7900.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud	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:

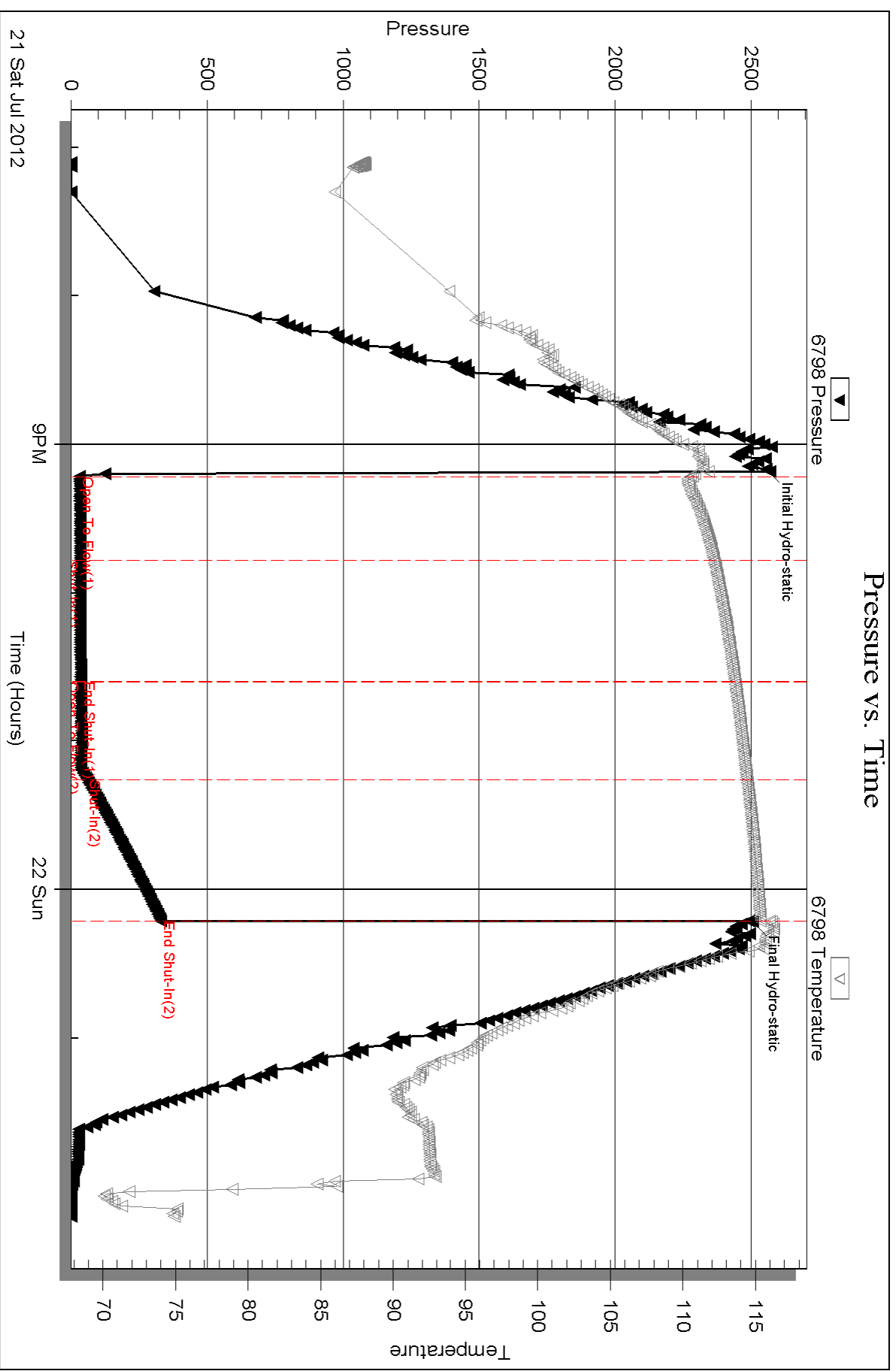
Serial #: 6798

Inside

Ritchie Exploration

Barngrover #1

DST Test Number: 2

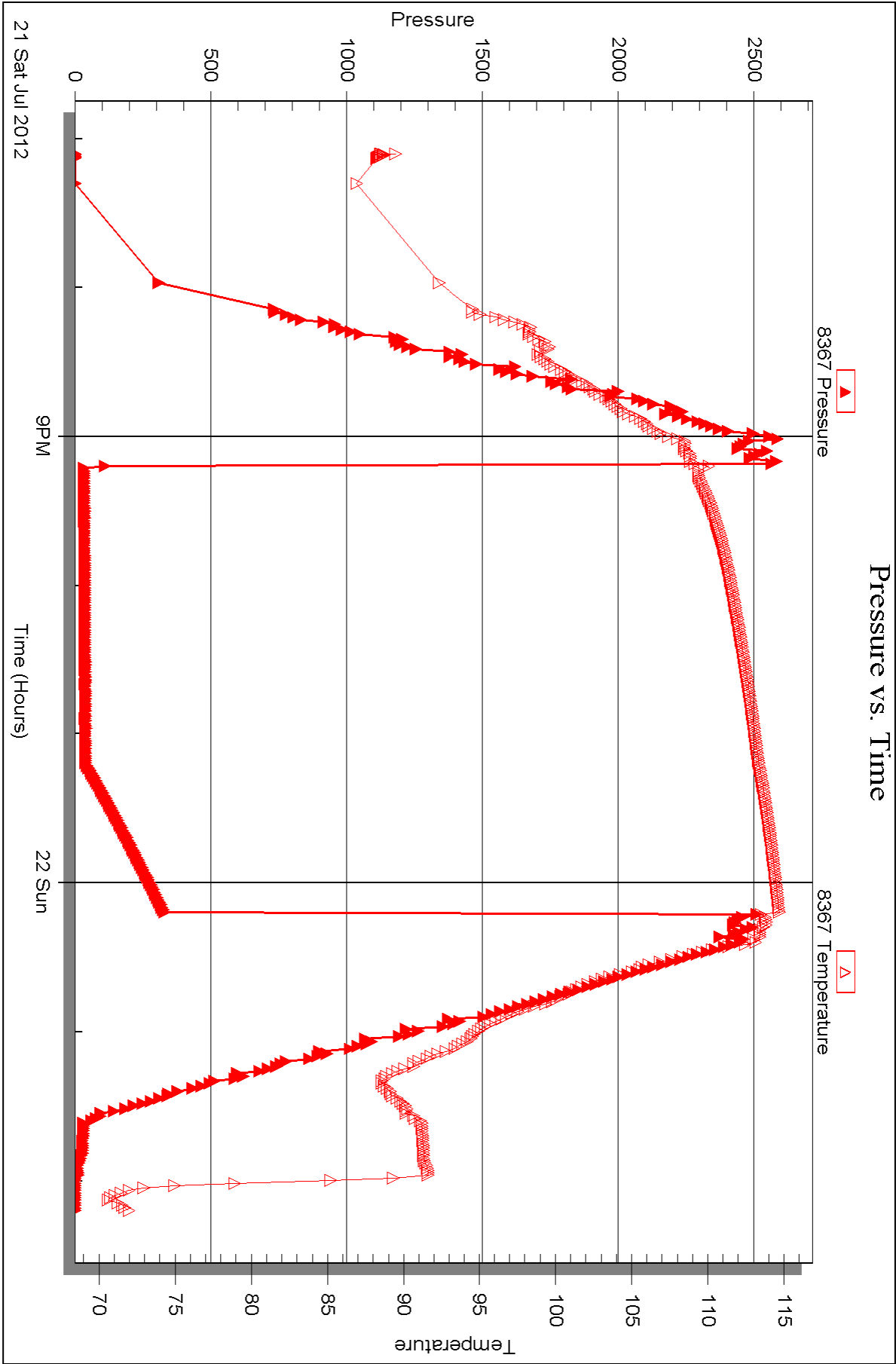


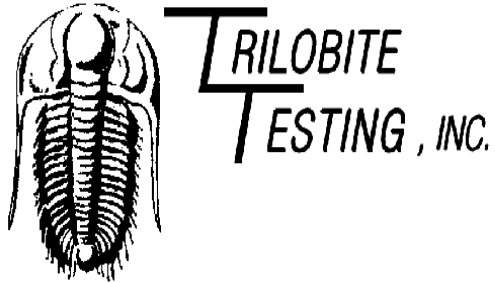
Serial #: 8367

Outside Ritchie Exploration

Barngrover #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N Ste 700
Wichita, KS 67278

ATTN: Mac Armstrong

Barngrover #1

7-28s-23w Ford,KS

Start Date: 2012.07.22 @ 13:16:39

End Date: 2012.07.22 @ 20:52:54

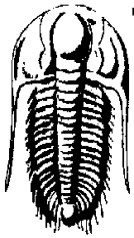
Job Ticket #: 47621 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.07.24 @ 11:45:16



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N Ste 700
Wichita, KS 67278
ATTN: Mac Armstrong

7-28s-23w Ford,KS

Barngrover #1

Job Ticket: 47621

DST#: 3

Test Start: 2012.07.22 @ 13:16:39

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:44:24

Time Test Ended: 20:52:54

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

Interval: 5163.00 ft (KB) To 5210.00 ft (KB) (TVD)

Total Depth: 5210.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2527.00 ft (KB)

2515.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6798 Inside

Press@RunDepth: 116.77 psig @ 5164.00 ft (KB)

Start Date: 2012.07.22

End Date:

2012.07.22

Start Time: 13:16:40

End Time:

20:52:54

Capacity: 8000.00 psig

Last Calib.: 2012.07.22

Time On Btm: 2012.07.22 @ 15:42:24

Time Off Btm: 2012.07.22 @ 18:59:54

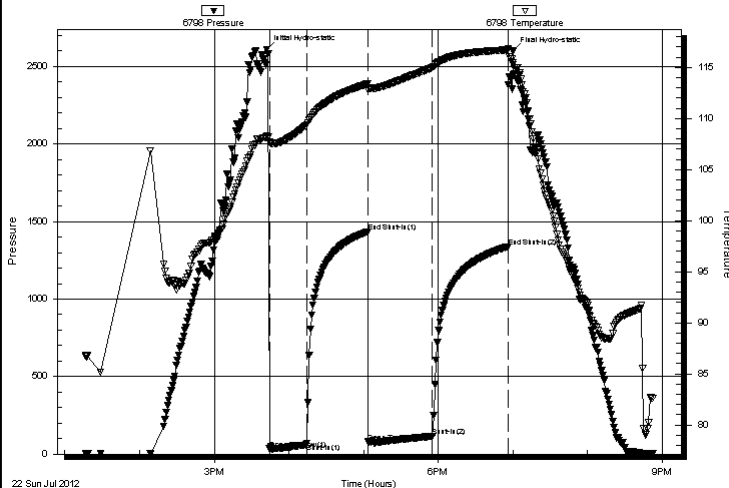
TEST COMMENT: IF: Weak Blow , Built to 3 1/2 inches

IS: No Blow Back

FF: Weak Blow , Built to 1 1/2 inch

FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2610.80	108.25	Initial Hydro-static
2	33.16	107.68	Open To Flow (1)
32	68.43	109.37	Shut-In(1)
82	1434.87	113.39	End Shut-In(1)
82	79.72	112.83	Open To Flow (2)
133	116.77	114.97	Shut-In(2)
194	1338.43	116.72	End Shut-In(2)
198	2599.10	115.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	1.68
70.00	MCW 40%M 60%W	0.98

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



Ritchie Exploration

ATTN: Mac Armstrong

Barngrover #1

DST#: 3

Test Start: 2012.07.22 @ 13:16:39

KB to GR/CF: 12.00 ft

Time Off Btm:

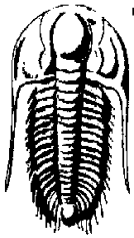
FSI: No Blow Back



Recovery

Gas Rates

Printed: 2012.07.24 @ 11:45:17



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47621

DST#: 3

ATTN: Mac Armstrong

Test Start: 2012.07.22 @ 13:16:39

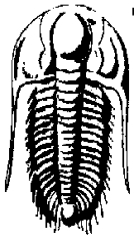
Tool Information

Drill Pipe:	Length:	5160.00 ft	Diameter:	3.80 inches	Volume:	72.38 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:	68000.00 lb
					Total Volume:	72.38 bbl	Tool Chased	ft
Drill Pipe Above KB:		24.00 ft					String Weight: Initial	64000.00 lb
Depth to Top Packer:		5163.00 ft					Final	64000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		47.00 ft						
Tool Length:		74.00 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			5141.00	
Hydraulic tool	5.00			5146.00	
Jars	5.00			5151.00	
Safety Joint	2.00			5153.00	
Packer	5.00			5158.00	27.00 Bottom Of Top Packer
Packer	5.00			5163.00	
Stubb	1.00			5164.00	
Recorder	0.00	6798	Inside	5164.00	
Recorder	0.00	8367	Outside	5164.00	
Perforations	5.00			5169.00	
Change Over Sub	1.00			5170.00	
Drill Pipe	32.00			5202.00	
Change Over Sub	1.00			5203.00	
Perforations	4.00			5207.00	
Bullnose	3.00			5210.00	47.00 Bottom Packers & Anchor

Total Tool Length: 74.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

7-28s-23w Ford,KS

8100 E 22nd St N Ste 700
Wichita, KS 67278

Barngrover #1

Job Ticket: 47621

DST#: 3

ATTN: Mac Armstrong

Test Start: 2012.07.22 @ 13:16:39

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 11.19 in³

Resistivity: ohm.m

Salinity: 8900.00 ppm

Filter Cake: 0.02 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 80000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Water	1.683
70.00	MCW 40%M 60%W	0.982

Total Length: 190.00 ft

Total Volume: 2.665 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .075 @ 90 degrees

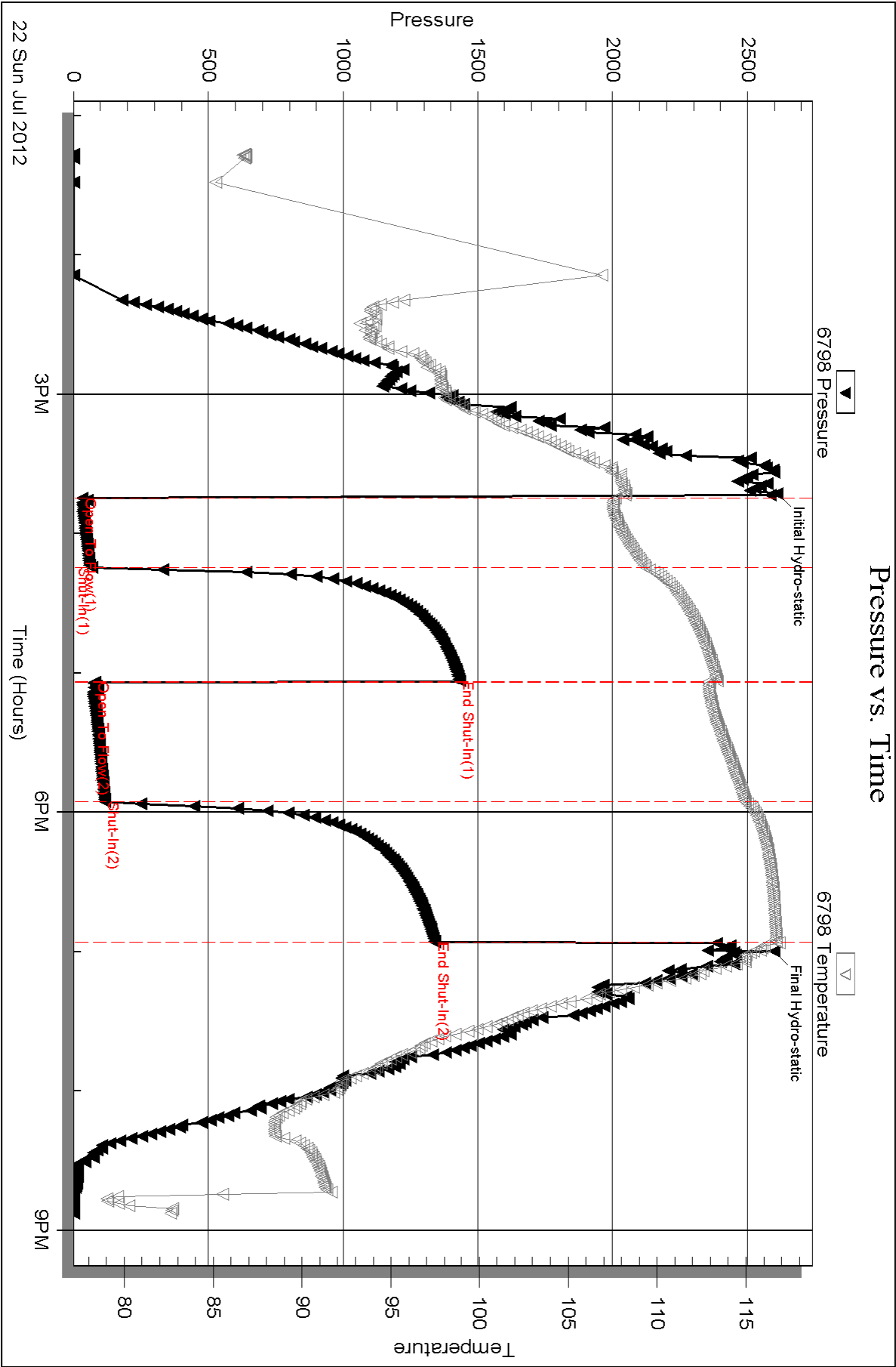
Serial #: 6798

Inside

Ritchie Exploration

Barngrover #1

DST Test Number: 3

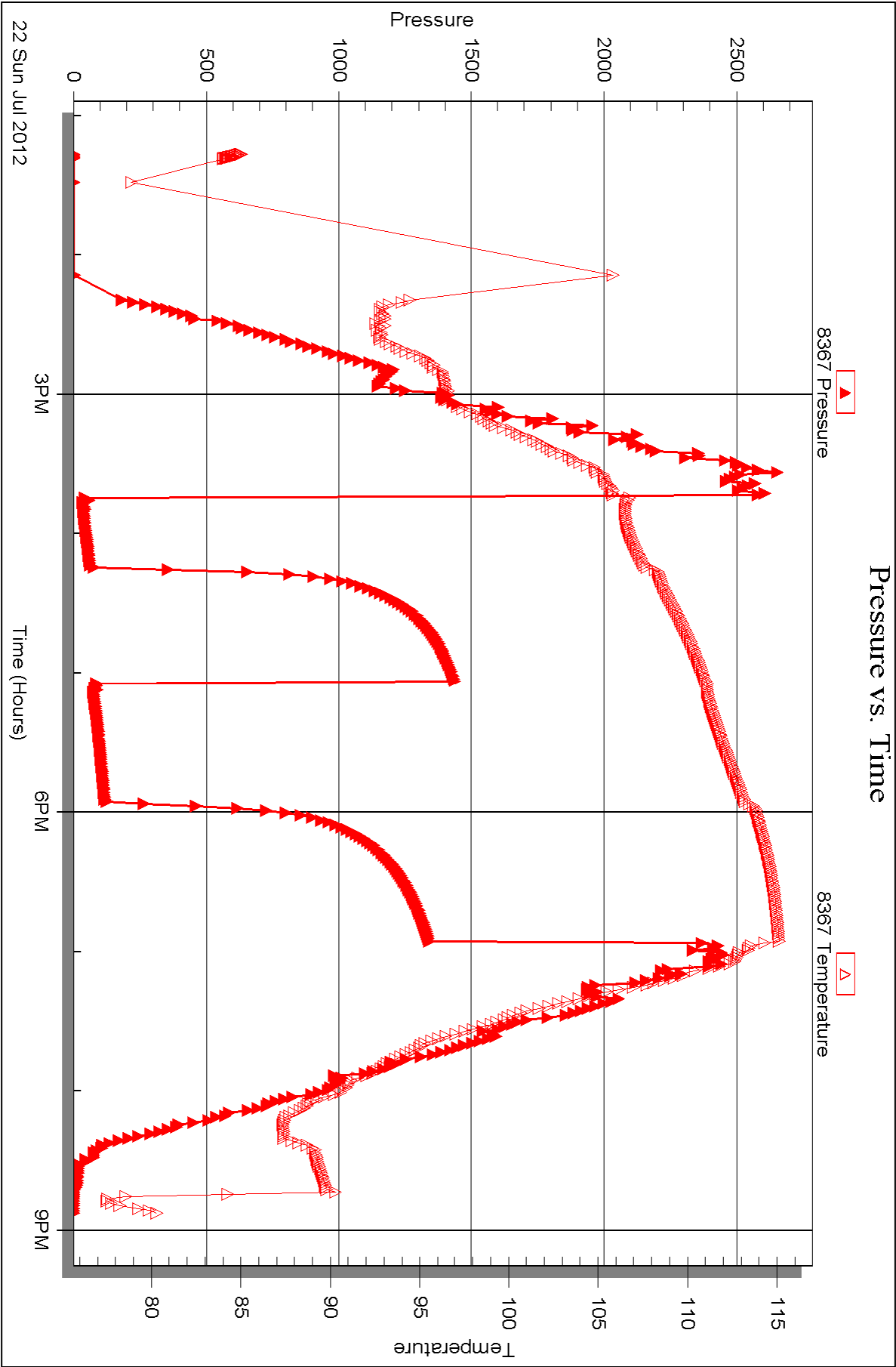


Serial #: 8367

Outside Ritchie Exploration

Barngrover #1

DST Test Number: 3





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47619

Well Name & No. Barngrover 1 Test No. 1 Date 07/20/12
 Company Ritchie Exploration Elevation 2527 KB 2515 GL
 Address 8100 E 22nd St N Ste 700 Wichita, KS 67278
 Co. Rep / Geo. Mac Armstrong Rig Duke 1
 Location: Sec. 7 Twp. 28S Rge. 23W Co. Ford State KS

Interval Tested 4954 - 4986 Zone Tested Pawnee
 Anchor Length 32 Drill Pipe Run 4941 Mud Wt. 9.3
 Top Packer Depth 4949 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 4954 Wt. Pipe Run 0 WL 10.0
 Total Depth 4986 Chlorides 6400 ppm System LCM 1 1/2

Blow Description IF: weak blow, Built to 2 1/2 inches

ISI: NO Blow Back

FI: weak surface blow

FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MCW</u>			<u>80</u>	<u>20</u>
<u>180</u>	<u>water</u>				

Rec Total 190 BHT 118° Gravity N/C API RW .08 @ 90 °F Chlorides 75000 ppm

(A) Initial Hydrostatic 2490
 (B) First Initial Flow 24
 (C) First Final Flow 73
 (D) Initial Shut-In 930
 (E) Second Initial Flow 74
 (F) Second Final Flow 132
 (G) Final Shut-In 913
 (H) Final Hydrostatic 2422

☒ Test 1250
☒ Jars 250
☒ Safety Joint 75
☐ Circ Sub
☐ Hourly Standby
☒ Mileage 160 248
☐ Sampler
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
 Sub Total 1823

T-On Location 13:30
 T-Started 14:26
 T-Open 16:39
 T-Pulled 19:39
 T-Out 21:32
 Comments
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1823
 MP/DST Disc't

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

Approved By Mac Armstrong

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. 47620

Well Name & No. Barngrover 1 Test No. 2 Date 07/21/12
 Company Ritchie Exploration Elevation 2527 KB 2515 GL
 Address 8100 E 22nd St N Ste 700 Wichita, KS 67278
 Co. Rep / Geo. Mac Armstrong Rig Duke 1
 Location: Sec. 7 Twp. 28S Rge. 23W Co. Ford State

Interval Tested 5094 - 5162 Zone Tested Huck + Morrow
 Anchor Length 68 Drill Pipe Run 5697 Mud Wt. 9.0
 Top Packer Depth 5089 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 5094 Wt. Pipe Run 0 WL 9.2
 Total Depth 5162 Chlorides 7900 ppm System LCM 2

Blow Description IF: Fair Blow, Built to 8 inches

ISI: NO Blow Back

FF: weak Blow, Built to 4 inches

FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>				

Rec Total 20 BHT 116 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic	<u>2555</u>	☒ Test	<u>1350</u>	T-On Location	<u>18:30</u>
(B) First Initial Flow	<u>32</u>	☒ Jars	<u>250</u>	T-Started	<u>19:06</u>
(C) First Final Flow	<u>34</u>	☒ Safety Joint	<u>75</u>	T-Open	<u>21:13</u>
(D) Initial Shut-In	<u>37</u>	☐ Circ Sub		T-Pulled	<u>00:12</u>
(E) Second Initial Flow	<u>35</u>	☐ Hourly Standby		T-Out	<u>02:12</u>
(F) Second Final Flow	<u>59</u>	☒ Mileage <u>(160)</u>	<u>248</u>	Comments	
(G) Final Shut-In	<u>330</u>	☐ Sampler			
(H) Final Hydrostatic	<u>2506</u>	☐ Straddle		☐ Ruined Shale Packer	

Initial Open	<u>30</u>	☐ Shale Packer		☐ Ruined Packer	
Initial Shut-In	<u>45</u>	☐ Extra Packer		☐ Extra Copies	
Final Flow	<u>45</u>	☐ Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>60</u>	☐ Day Standby		Total	<u>1823</u>
		☐ Accessibility		MP/DST Disc't	
		Sub Total	<u>1823</u>		

Approved By Matthew M. Armstrong Our Representative [Signature]
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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47621

Well Name & No. Barn grover 1 Test No. 3 Date 07/22/12
Company Ritchie Exploration Elevation 2527 KB 2515 GL
Address 9100 E 22nd St N Ste 700 Wichita, KS 67278
Co. Rep / Geo. Mac Armstrong Rig Duke 1
Location: Sec. 7 Twp. 28S Rge. 11W Co. Ford State KS

Interval Tested 5163 - 5210 Zone Tested Mississippi
Anchor Length 47 Drill Pipe Run 5160 Mud Wt. 9.1
Top Packer Depth 5158 Drill Collars Run 0 Vis 52
Bottom Packer Depth 5163 Wt. Pipe Run 0 WL 11.2
Total Depth 5210 Chlorides 8900 ppm System LCM 2#

Blow Description IF: weak blow, built to 3 1/2 inches

ISI: NO Blow Back

FF: weak blow, built to 1 1/2 inch

FST: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>MCW</u>			<u>60</u>	<u>40</u>
<u>120</u>	<u>water</u>				

Rec Total 190 BHT 115 Gravity N/C API RW .075 @ 90 °F Chlorides 89000 ppm

(A) Initial Hydrostatic 2611
(B) First Initial Flow 33
(C) First Final Flow 68
(D) Initial Shut-In 1435
(E) Second Initial Flow 80
(F) Second Final Flow 117
(G) Final Shut-In 1338
(H) Final Hydrostatic 2599

☒ Test 1250
☒ Jars 250
☒ Safety Joint 75
☐ Circ Sub
☐ Hourly Standby
☒ Mileage 160 248
☐ Sampler
☐ Straddle
☐ Shale Packer
☐ Extra Packer
☐ Extra Recorder
☐ Day Standby
☐ Accessibility
Sub Total 1823

T-On Location 12:30
T-Started 13:16
T-Open 15:44
T-Pulled 18:55
T-Out 20:52
Comments
☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
Sub Total 0
Total 1823
MP/DST Disc't

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

Approved By Marklin M. Armstrong

Our Representative [Signature]

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