



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.05.27 @ 21:09:30

End Date: 2012.05.28 @ 03:36:30

Job Ticket #: 47240 DST #: 1

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

Printed: 2012.06.12 @ 12:32:51



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
 8100 E. 22nd ST. N. #700
 Wichita, KS 67278
 ATTN: Adam Eldani

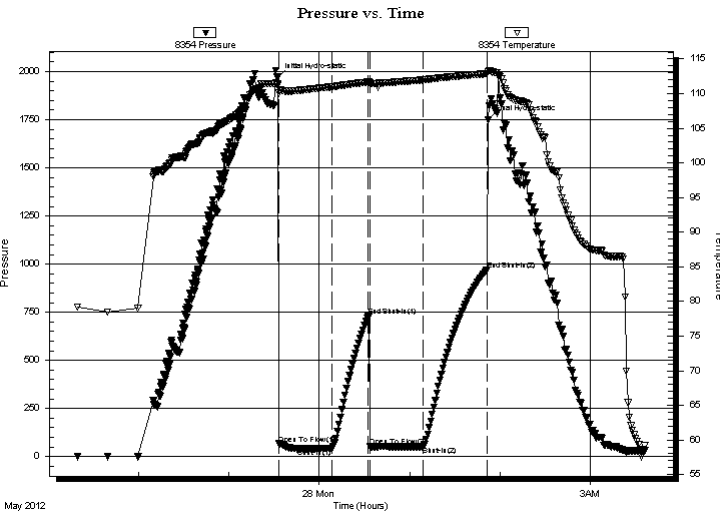
18-14s-31w Gove,KS
Hanna Unit #1
 Job Ticket: 47240 **DST#: 1**
 Test Start: 2012.05.27 @ 21:09:30

GENERAL INFORMATION:

Formation: **Lansing "C&D"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 23:33:00 Tester: Dustin Rash
 Time Test Ended: 03:36:30 Unit No: 38
 Interval: **3880.00 ft (KB) To 3944.00 ft (KB) (TVD)** Reference Elevations: 2825.00 ft (KB)
 Total Depth: 3944.00 ft (KB) (TVD) 2815.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8354 Inside
 Press @ Run Depth: 52.66 psig @ 3920.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.27 End Date: 2012.05.28 Last Calib.: 2012.05.28
 Start Time: 21:19:30 End Time: 03:36:30 Time On Btm: 2012.05.27 @ 23:32:30
 Time Off Btm: 2012.05.28 @ 01:52:00

TEST COMMENT: IF-Weak surface blow . Died @ 4 minutes.
 IS-No Return.
 FF-No Blow . Flushed Tool. No Blow .
 FS-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1967.60	111.24	Initial Hydro-static
1	66.20	110.06	Open To Flow (1)
36	44.53	110.99	Shut-In(1)
60	730.08	111.68	End Shut-In(1)
61	51.61	111.52	Open To Flow (2)
97	52.66	111.99	Shut-In(2)
139	971.35	112.88	End Shut-In(2)
140	1748.35	113.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
8.00	100%Mud	0.04

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47240

DST#: 1

ATTN: Adam Eldani

Test Start: 2012.05.27 @ 21:09:30

Tool Information

Drill Pipe:	Length: 3335.00 ft	Diameter: 3.80 inches	Volume: 46.78 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose:	5000.00 lb
			<u>Total Volume: 49.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	82000.00 lb
Depth to Top Packer:	3880.00 ft			Final	82000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	64.00 ft				
Tool Length:	84.00 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			3861.00	
Shut In Tool	5.00			3866.00	
Hydraulic tool	5.00			3871.00	
Packer	5.00			3876.00	20.00 Bottom Of Top Packer
Packer	4.00			3880.00	
Stubb	1.00			3881.00	
Perforations	5.00			3886.00	
Change Over Sub	1.00			3887.00	
Drill Pipe	32.00			3919.00	
Change Over Sub	1.00			3920.00	
Recorder	0.00	8354	Inside	3920.00	
Recorder	0.00	8520	Outside	3920.00	
Perforations	21.00			3941.00	
Bullnose	3.00			3944.00	64.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47240

DST#: 1

ATTN: Adam Eldani

Test Start: 2012.05.27 @ 21:09:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
8.00	100%Mud	0.039

Total Length: 8.00 ft Total Volume: 0.039 bbl

Num Fluid Samples: 0

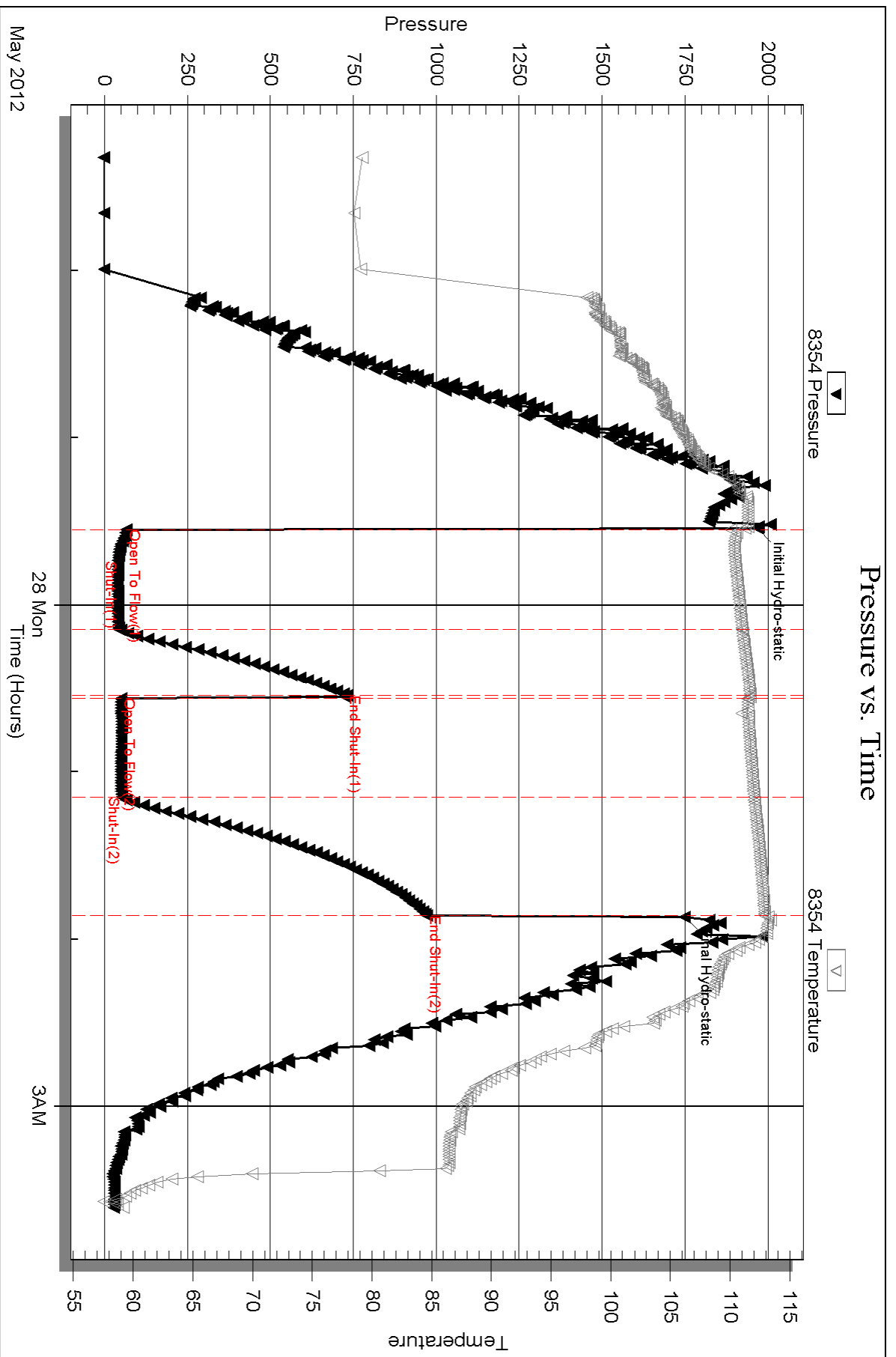
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

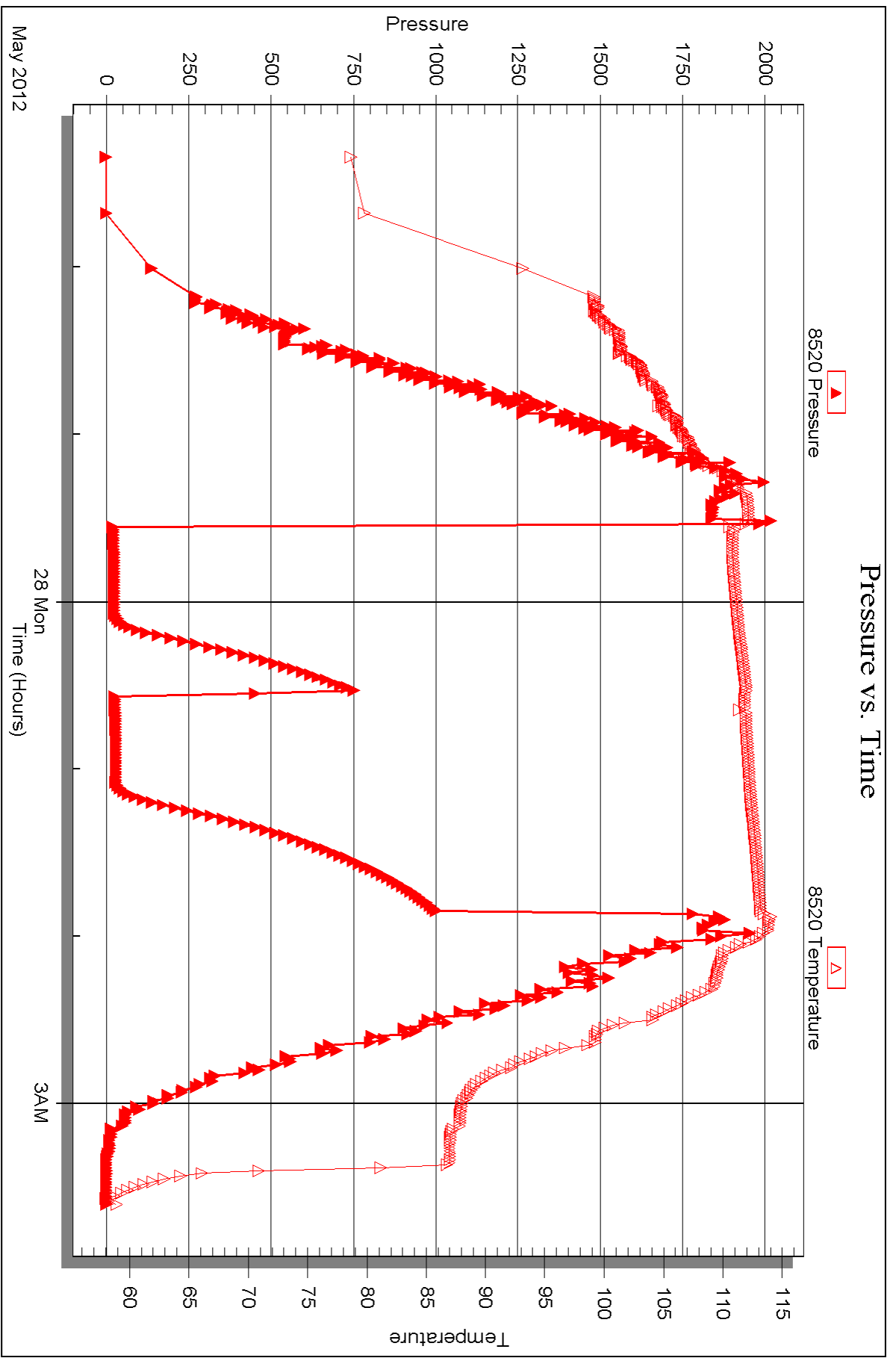


Serial #: 8520

Outside Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.05.28 @ 13:50:30

End Date: 2012.05.28 @ 19:26:30

Job Ticket #: 47241 DST #: 2

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

Printed: 2012.06.12 @ 12:32:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
 8100 E. 22nd ST. N. #700
 Wichita, KS 67278
 ATTN: Adam Eldani

18-14s-31w Gove,KS
Hanna Unit #1
 Job Ticket: 47241 **DST#: 2**
 Test Start: 2012.05.28 @ 13:50:30

GENERAL INFORMATION:

Formation: **Lansing "E-G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:43:50
 Time Test Ended: 19:26:30
 Interval: **3932.00 ft (KB) To 3997.00 ft (KB) (TVD)**
 Total Depth: 3997.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Rash
 Unit No: 38
 Reference Elevations: 2825.00 ft (KB)
 2815.00 ft (CF)
 KB to GR/CF: 10.00 ft

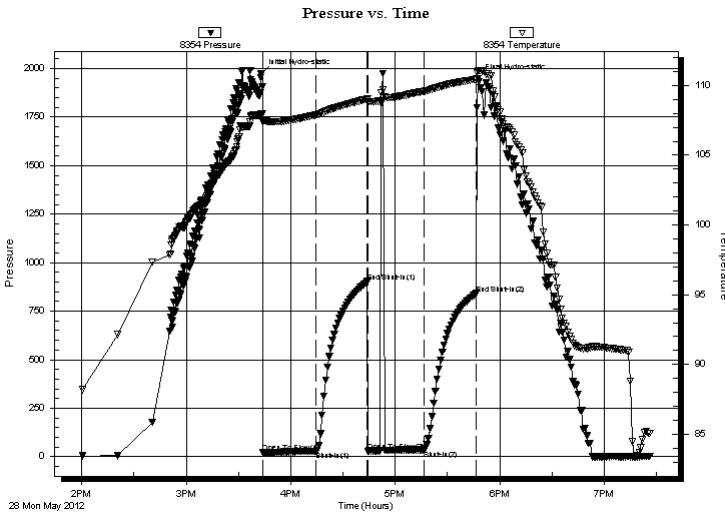
Serial #: 8354

Inside

Press @ Run Depth: 35.16 psig @ 3972.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.28 End Date: 2012.05.28 Last Calib.: 2012.05.28
 Start Time: 14:00:30 End Time: 19:26:30 Time On Btm: 2012.05.28 @ 15:43:30
 Time Off Btm: 2012.05.28 @ 17:47:30

TEST COMMENT: IF-Weak surface blow. Died @ 5 minutes.
 IS-No Return.
 FF-Few bubbles. Flushed Tool. Few bubbles.
 FS-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1972.20	107.98	Initial Hydro-static
1	22.59	107.37	Open To Flow (1)
31	27.52	107.89	Shut-In(1)
61	902.31	109.03	End Shut-In(1)
61	29.60	108.78	Open To Flow (2)
93	35.16	109.57	Shut-In(2)
123	840.94	110.45	End Shut-In(2)
124	1949.53	111.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	100%Mud	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47241

DST#: 2

ATTN: Adam Eldani

Test Start: 2012.05.28 @ 13:50:30

Tool Information

Drill Pipe:	Length: 3391.00 ft	Diameter: 3.80 inches	Volume: 47.57 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose:	5000.00 lb
			<u>Total Volume: 50.19 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	82000.00 lb
Depth to Top Packer:	3932.00 ft			Final	82000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	65.00 ft				
Tool Length:	93.00 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			3905.00	
Shut In Tool	5.00			3910.00	
Hydraulic tool	5.00			3915.00	
Jars	5.00			3920.00	
Safety Joint	3.00			3923.00	
Packer	5.00			3928.00	28.00 Bottom Of Top Packer
Packer	4.00			3932.00	
Stubb	1.00			3933.00	
Perforations	5.00			3938.00	
Change Over Sub	1.00			3939.00	
Drill Pipe	32.00			3971.00	
Change Over Sub	1.00			3972.00	
Recorder	0.00	8354	Inside	3972.00	
Recorder	0.00	8520	Outside	3972.00	
Perforations	22.00			3994.00	
Bullnose	3.00			3997.00	65.00 Bottom Packers & Anchor
Total Tool Length:	93.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47241

DST#: 2

ATTN: Adam Eldani

Test Start: 2012.05.28 @ 13:50:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 67.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	100%Mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

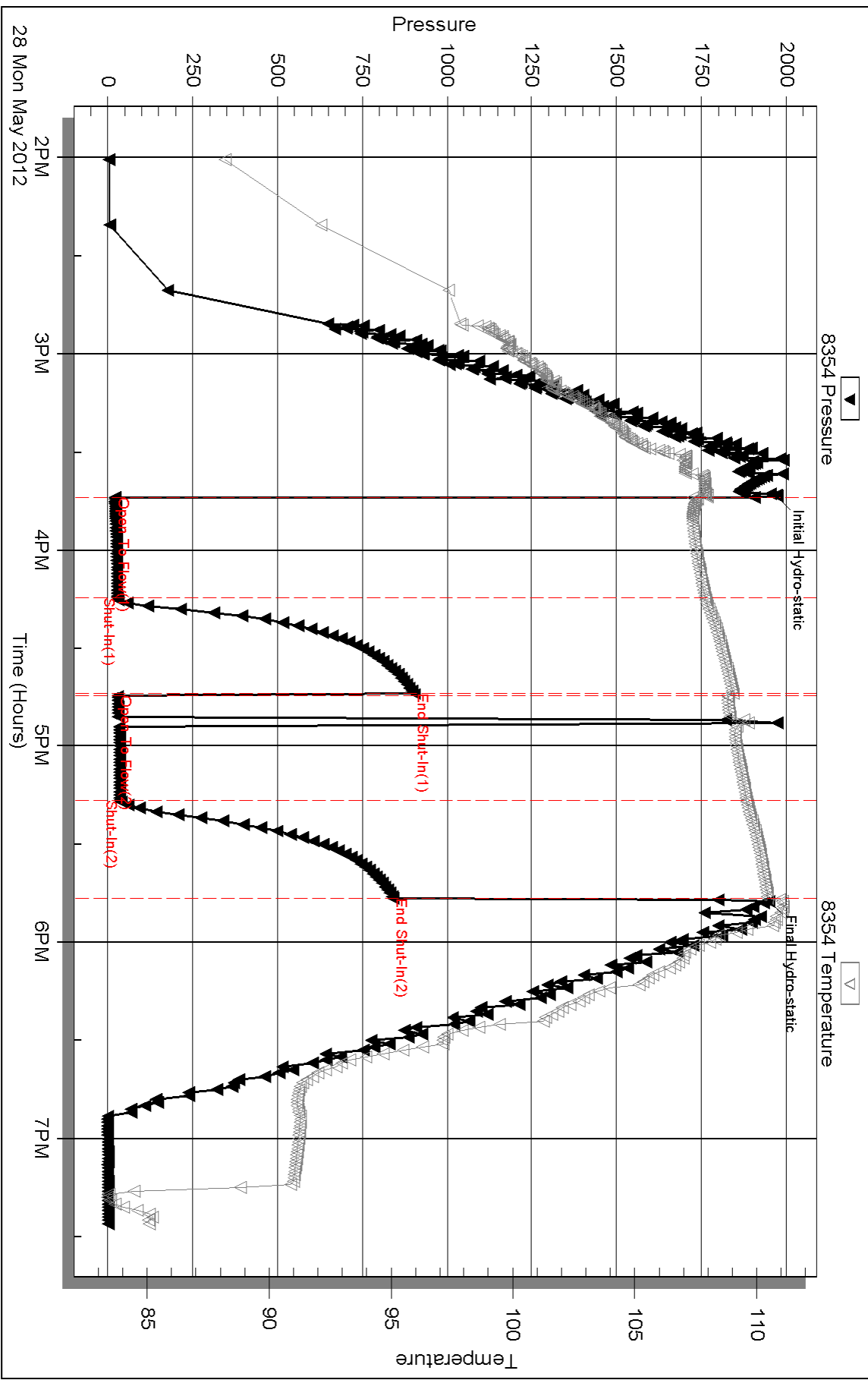
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

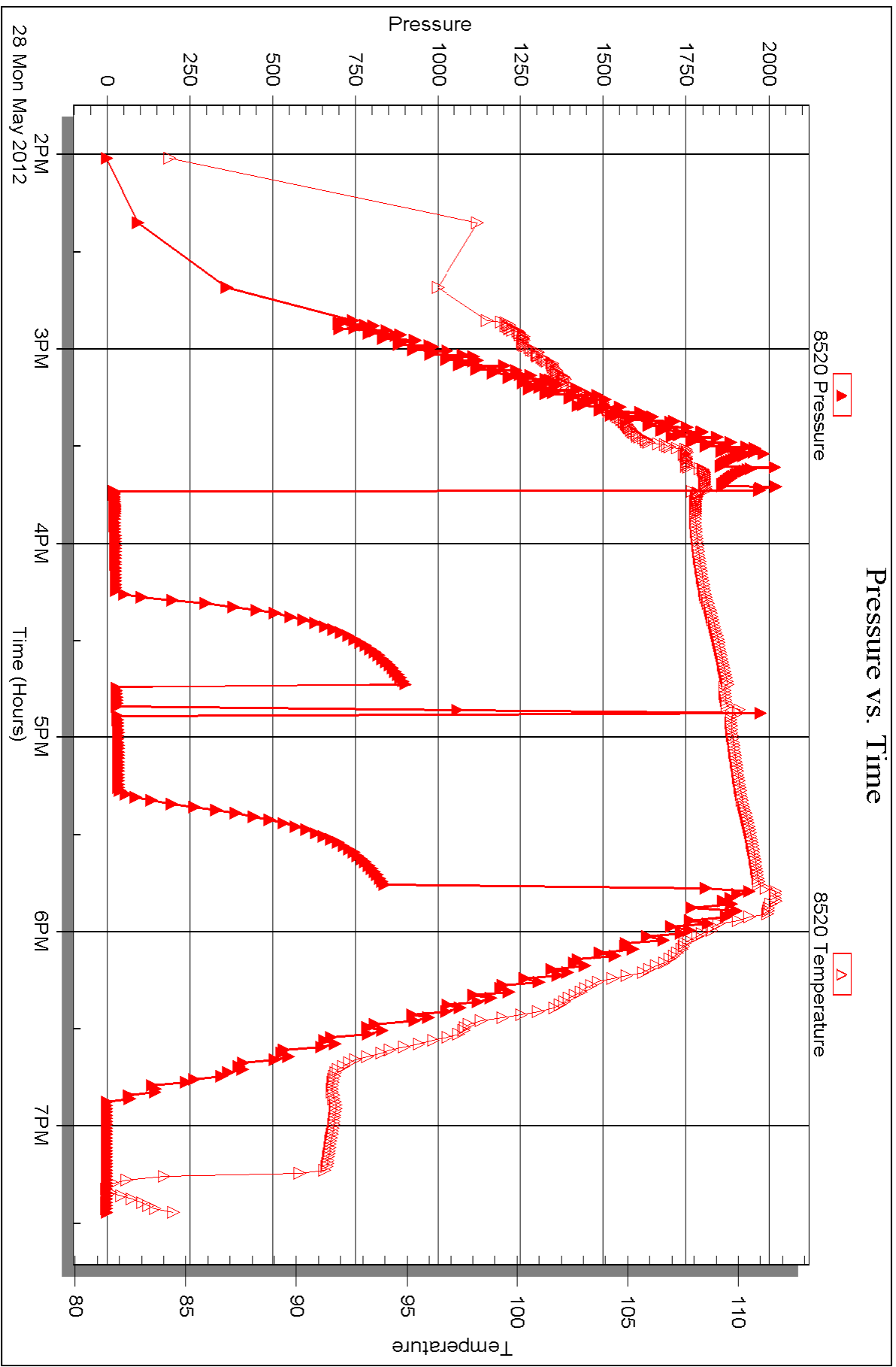


Serial #: 8520

Outside Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.05.29 @ 12:24:15

End Date: 2012.05.29 @ 18:24:45

Job Ticket #: 47242 DST #: 3

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

Printed: 2012.06.12 @ 12:31:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47242

DST#: 3

ATTN: Adam Eldani

Test Start: 2012.05.29 @ 12:24:15

Tool Information

Drill Pipe:	Length: 3486.00 ft	Diameter: 3.80 inches	Volume: 48.90 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 51.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	4019.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	118.00 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			3992.00	
Shut In Tool	5.00			3997.00	
Hydraulic tool	5.00			4002.00	
Jars	5.00			4007.00	
Safety Joint	3.00			4010.00	
Packer	5.00			4015.00	28.00 Bottom Of Top Packer
Packer	4.00			4019.00	
Stubb	1.00			4020.00	
Perforations	5.00			4025.00	
Change Over Sub	1.00			4026.00	
Drill Pipe	63.00			4089.00	
Change Over Sub	1.00			4090.00	
Recorder	0.00	8354	Inside	4090.00	
Recorder	0.00	8520	Outside	4090.00	
Perforations	16.00			4106.00	
Bullnose	3.00			4109.00	90.00 Bottom Packers & Anchor
Total Tool Length:	118.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47242

DST#: 3

ATTN: Adam Eldani

Test Start: 2012.05.29 @ 12:24:15

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:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.55 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	100%Mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

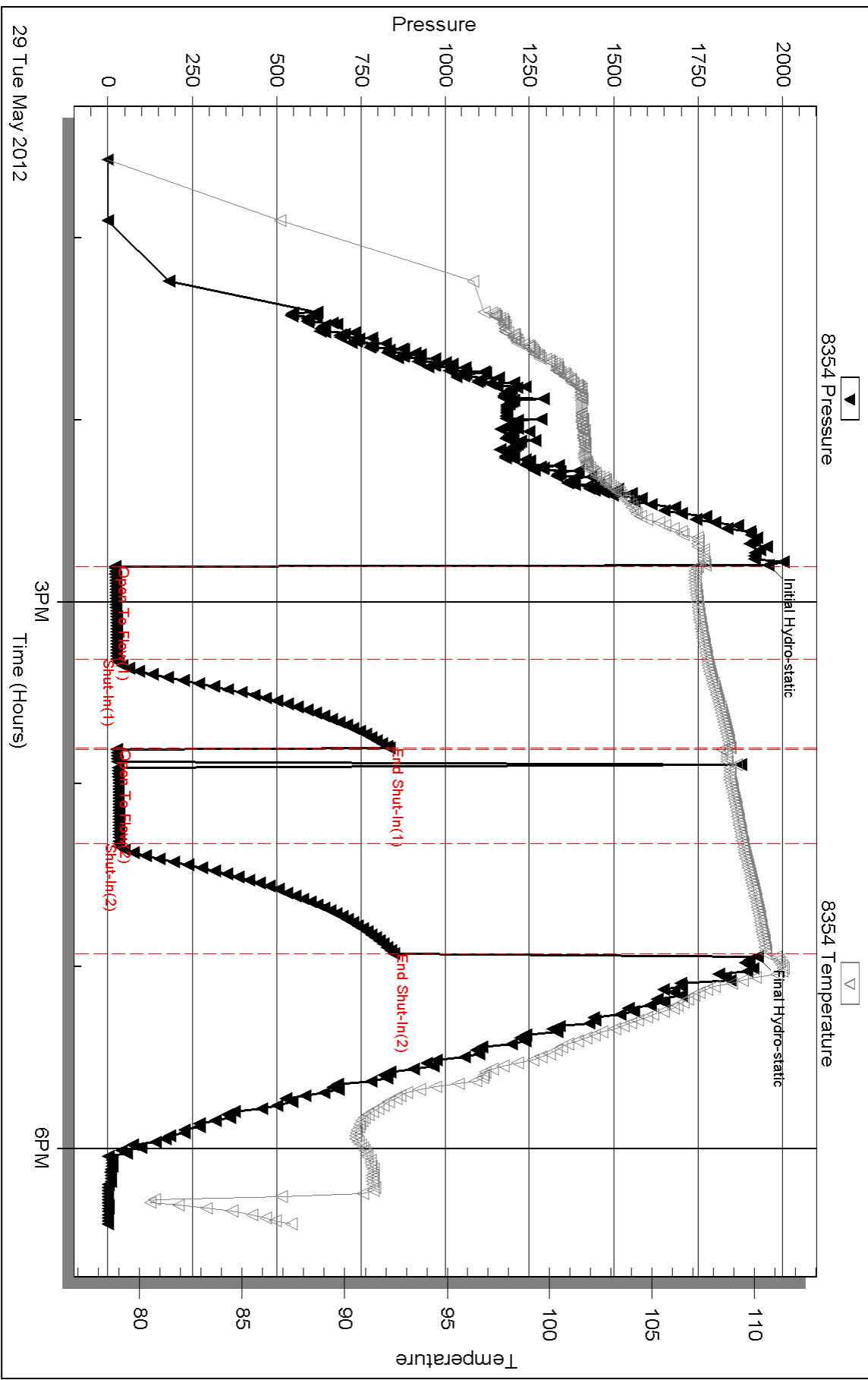
Inside

Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 47242

Printed: 2012.06.12 @ 12:31:18

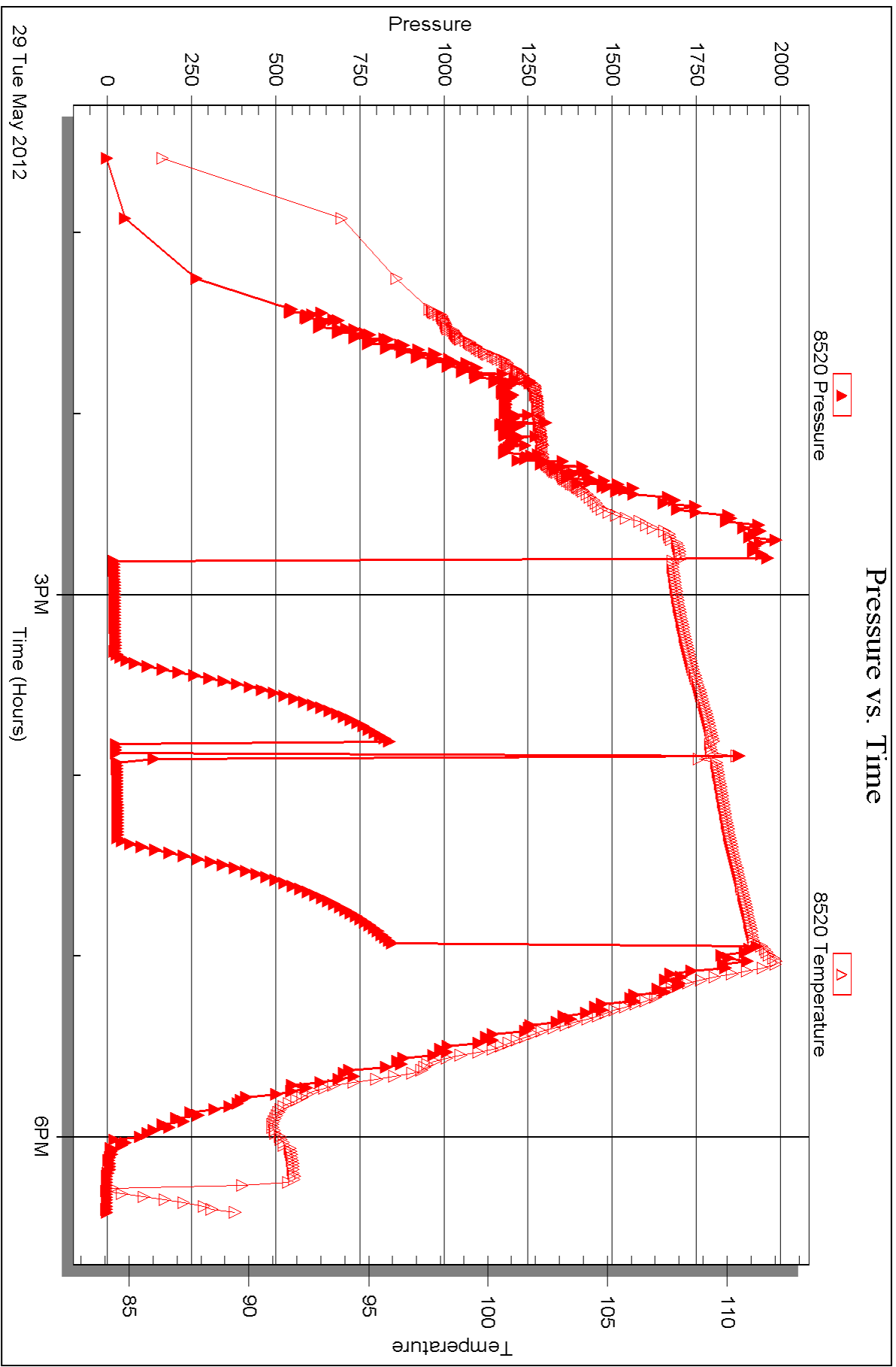
Serial #: 8520

Outside

Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 47242

Printed: 2012.06.12 @ 12:31:18



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.05.30 @ 07:21:30

End Date: 2012.05.30 @ 13:39:00

Job Ticket #: 47243 DST #: 4

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

Printed: 2012.06.12 @ 12:30:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
 8100 E. 22nd ST. N. #700
 Wichita, KS 67278
 ATTN: Adam Eldani

18-14s-31w Gove,KS
Hanna Unit #1
 Job Ticket: 47243 **DST#: 4**
 Test Start: 2012.05.30 @ 07:21:30

GENERAL INFORMATION:

Formation: **LKC "K&L"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 09:23:00 Tester: Dustin Rash
 Time Test Ended: 13:39:00 Unit No: 38
 Interval: **4103.00 ft (KB) To 4180.00 ft (KB) (TVD)** Reference Elevations: 2825.00 ft (KB)
 Total Depth: 4180.00 ft (KB) (TVD) 2815.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

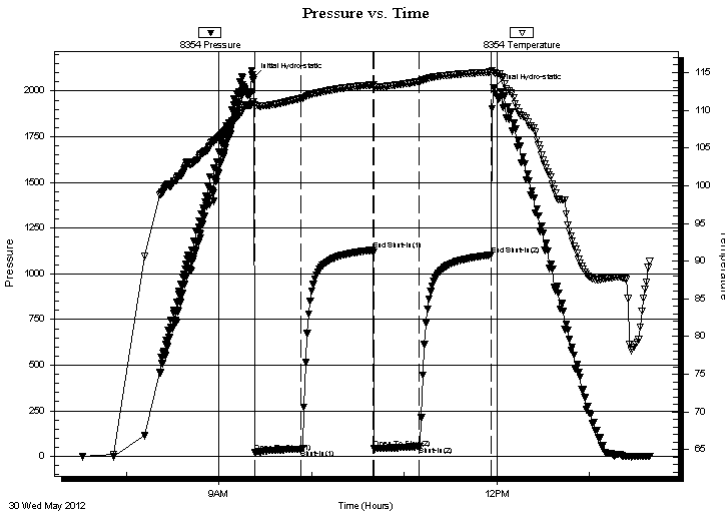
Serial #: 8354

Inside

Press @ Run Depth: 55.43 psig @ 4173.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.30 End Date: 2012.05.30 Last Calib.: 2012.05.30
 Start Time: 07:31:30 End Time: 13:39:00 Time On Btm: 2012.05.30 @ 09:22:30
 Time Off Btm: 2012.05.30 @ 11:58:00

TEST COMMENT: IF-Steady 1/4 inch blow throughout.
 IS-No Return.
 FF-No Blow.
 FSI-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2072.73	111.16	Initial Hydro-static
1	23.44	110.71	Open To Flow (1)
31	41.35	111.57	Shut-In(1)
77	1129.41	113.39	End Shut-In(1)
78	42.77	113.17	Open To Flow (2)
107	55.43	113.81	Shut-In(2)
154	1102.62	115.07	End Shut-In(2)
156	2016.63	114.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	100%Mud	0.25

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47243

DST#: 4

ATTN: Adam Eldani

Test Start: 2012.05.30 @ 07:21:30

Tool Information

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.80 inches	Volume: 49.80 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 52.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 84000.00 lb
Depth to Top Packer:	4103.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	105.00 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			4076.00	
Shut In Tool	5.00			4081.00	
Hydraulic tool	5.00			4086.00	
Jars	5.00			4091.00	
Safety Joint	3.00			4094.00	
Packer	5.00			4099.00	28.00 Bottom Of Top Packer
Packer	4.00			4103.00	
Stubb	1.00			4104.00	
Perforations	5.00			4109.00	
Change Over Sub	1.00			4110.00	
Drill Pipe	62.00			4172.00	
Change Over Sub	1.00			4173.00	
Recorder	0.00	8354	Inside	4173.00	
Recorder	0.00	8520	Outside	4173.00	
Perforations	4.00			4177.00	
Bullnose	3.00			4180.00	77.00 Bottom Packers & Anchor
Total Tool Length:	105.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47243

DST#: 4

ATTN: Adam Eldani

Test Start: 2012.05.30 @ 07:21:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	100%Mud	0.246

Total Length: 50.00 ft Total Volume: 0.246 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

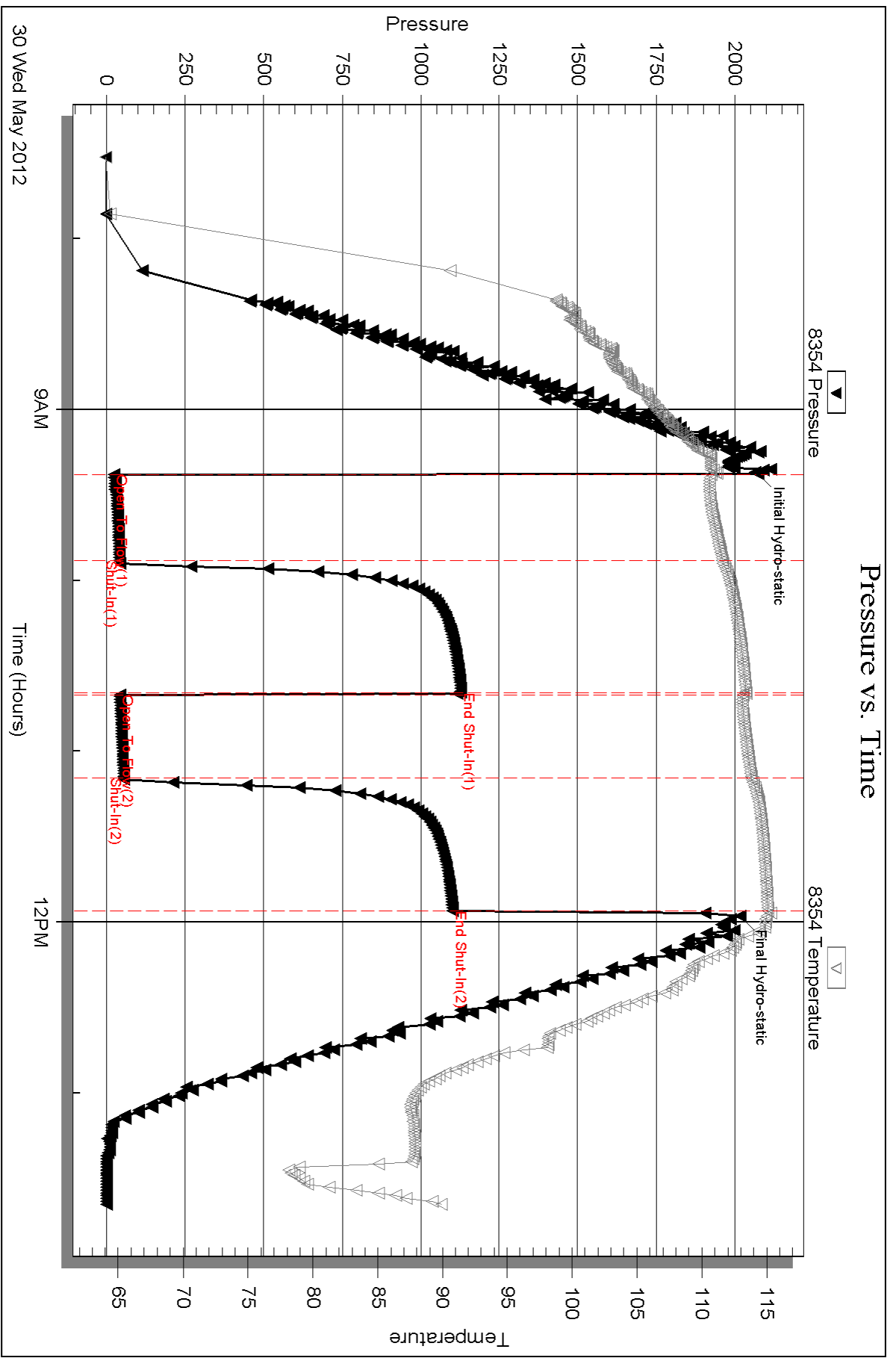
Serial #: 8354

Inside

Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 4

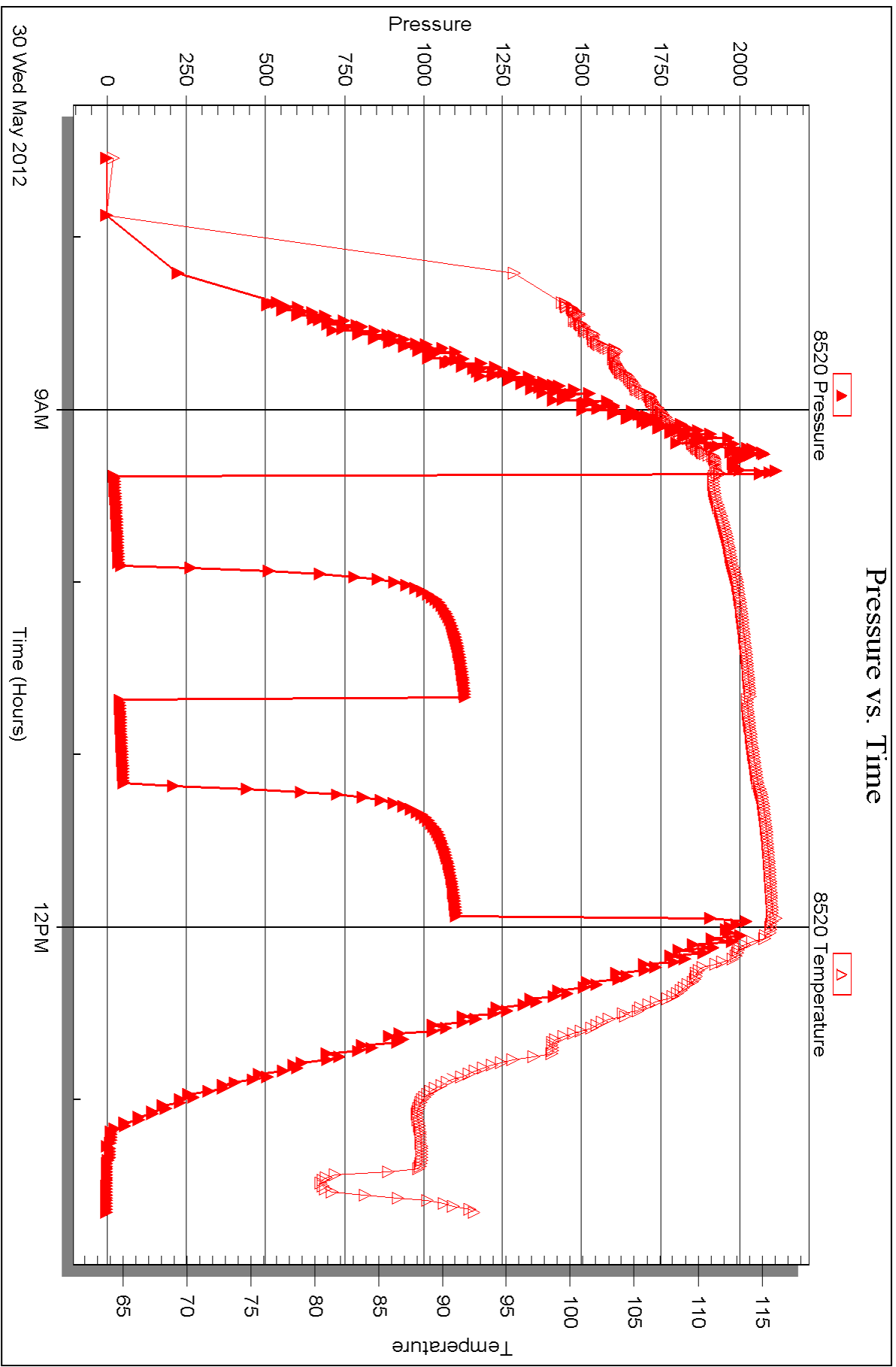


Serial #: 8520

Outside Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.05.31 @ 22:40:15

End Date: 2012.06.01 @ 05:21:15

Job Ticket #: 47244 DST #: 5

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

Printed: 2012.06.12 @ 12:29:38



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
8100 E. 22nd ST. N. #700
Wichita, KS 67278
ATTN: Adam Eldani

18-14s-31w Gove,KS
Hanna Unit #1
Job Ticket: 47244 **DST#: 5**
Test Start: 2012.05.31 @ 22:40:15

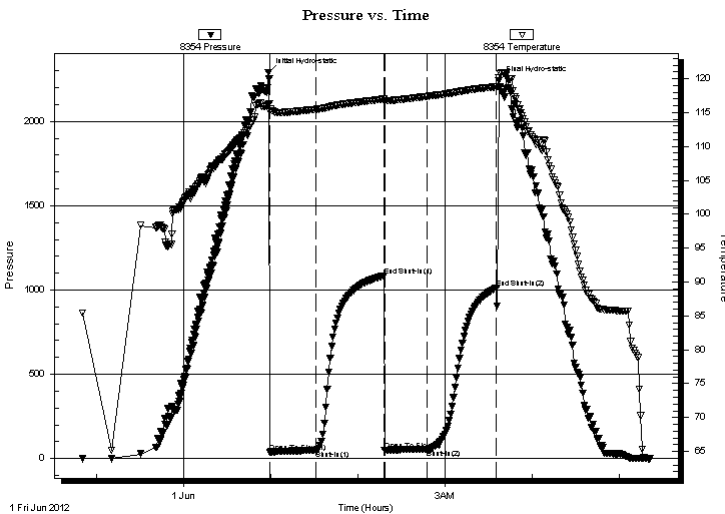
GENERAL INFORMATION:

Formation: **Johnson**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:59:15
Time Test Ended: 05:21:15
Interval: **4410.00 ft (KB) To 4454.00 ft (KB) (TVD)**
Total Depth: 4454.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 38
Reference Elevations: 2825.00 ft (KB)
2815.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8354 Inside
Press @ Run Depth: 56.21 psig @ 4449.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.31 End Date: 2012.06.01 Last Calib.: 2012.06.01
Start Time: 22:50:15 End Time: 05:21:15 Time On Btm: 2012.06.01 @ 00:58:15
Time Off Btm: 2012.06.01 @ 03:36:45

TEST COMMENT: IF-Weak surface blow . Died @ 21 minutes.
ISI-No Return.
FF-Few Bubbles.
FSI-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2290.37	116.16	Initial Hydro-static
1	38.95	115.10	Open To Flow (1)
33	49.04	115.47	Shut-In(1)
80	1085.10	116.99	End Shut-In(1)
80	51.45	116.57	Open To Flow (2)
109	56.21	117.38	Shut-In(2)
157	1012.33	118.81	End Shut-In(2)
159	2241.62	120.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	2%Oil/98%Mud	0.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47244

DST#: 5

ATTN: Adam Eldani

Test Start: 2012.05.31 @ 22:40:15

Tool Information

Drill Pipe:	Length: 3867.00 ft	Diameter: 3.80 inches	Volume: 54.24 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose:	5000.00 lb
			<u>Total Volume: 56.86 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	85000.00 lb
Depth to Top Packer:	4410.00 ft			Final	85000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	72.00 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			4383.00	
Shut In Tool	5.00			4388.00	
Hydraulic tool	5.00			4393.00	
Jars	5.00			4398.00	
Safety Joint	3.00			4401.00	
Packer	5.00			4406.00	28.00 Bottom Of Top Packer
Packer	4.00			4410.00	
Stubb	1.00			4411.00	
Perforations	5.00			4416.00	
Change Over Sub	1.00			4417.00	
Drill Pipe	31.00			4448.00	
Change Over Sub	1.00			4449.00	
Recorder	0.00	8354	Inside	4449.00	
Recorder	0.00	8520	Outside	4449.00	
Perforations	2.00			4451.00	
Bullnose	3.00			4454.00	44.00 Bottom Packers & Anchor
Total Tool Length:	72.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47244

DST#: 5

ATTN: Adam Eldani

Test Start: 2012.05.31 @ 22:40:15

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:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	2%Oil/98%Mud	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

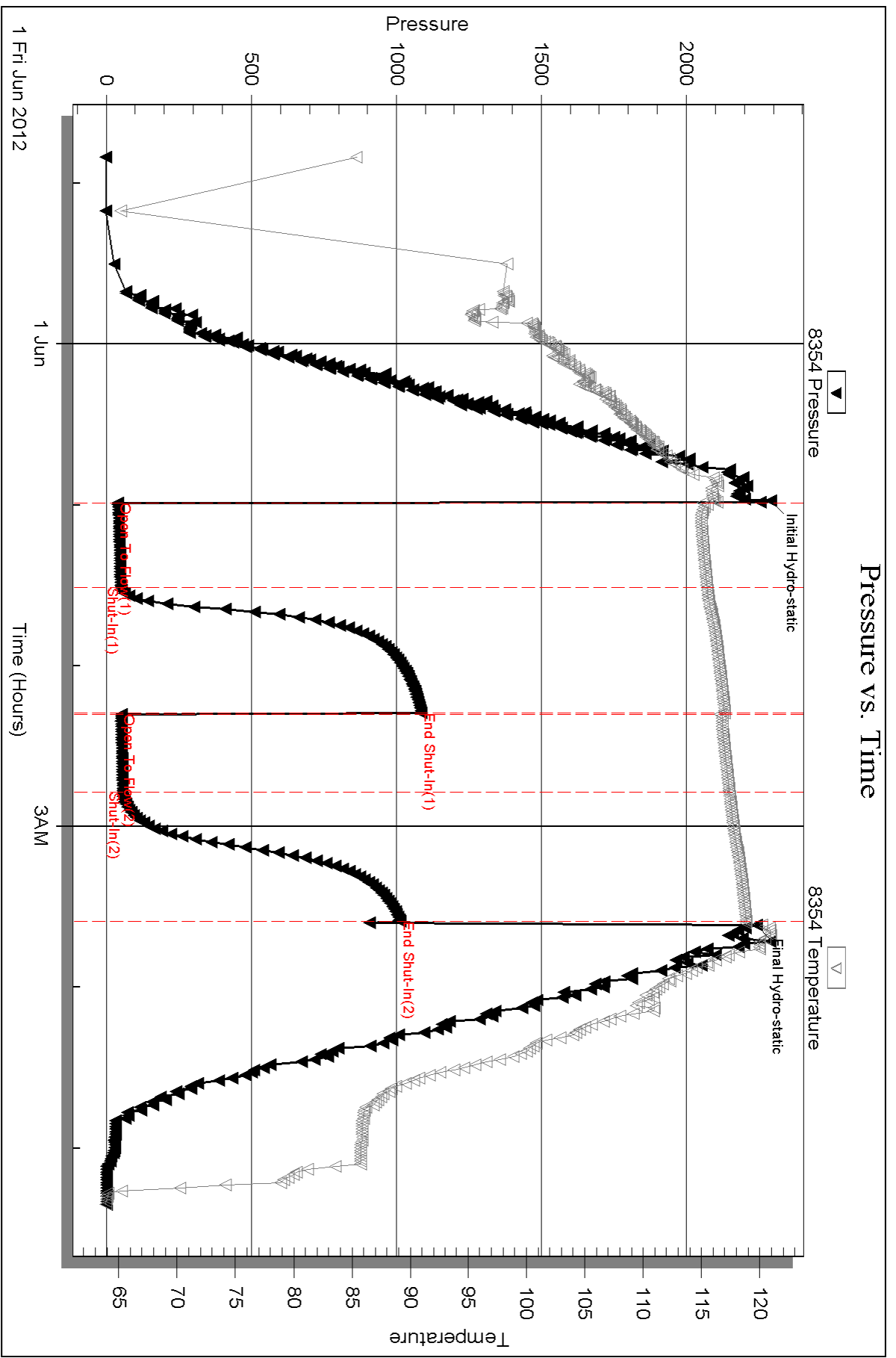
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

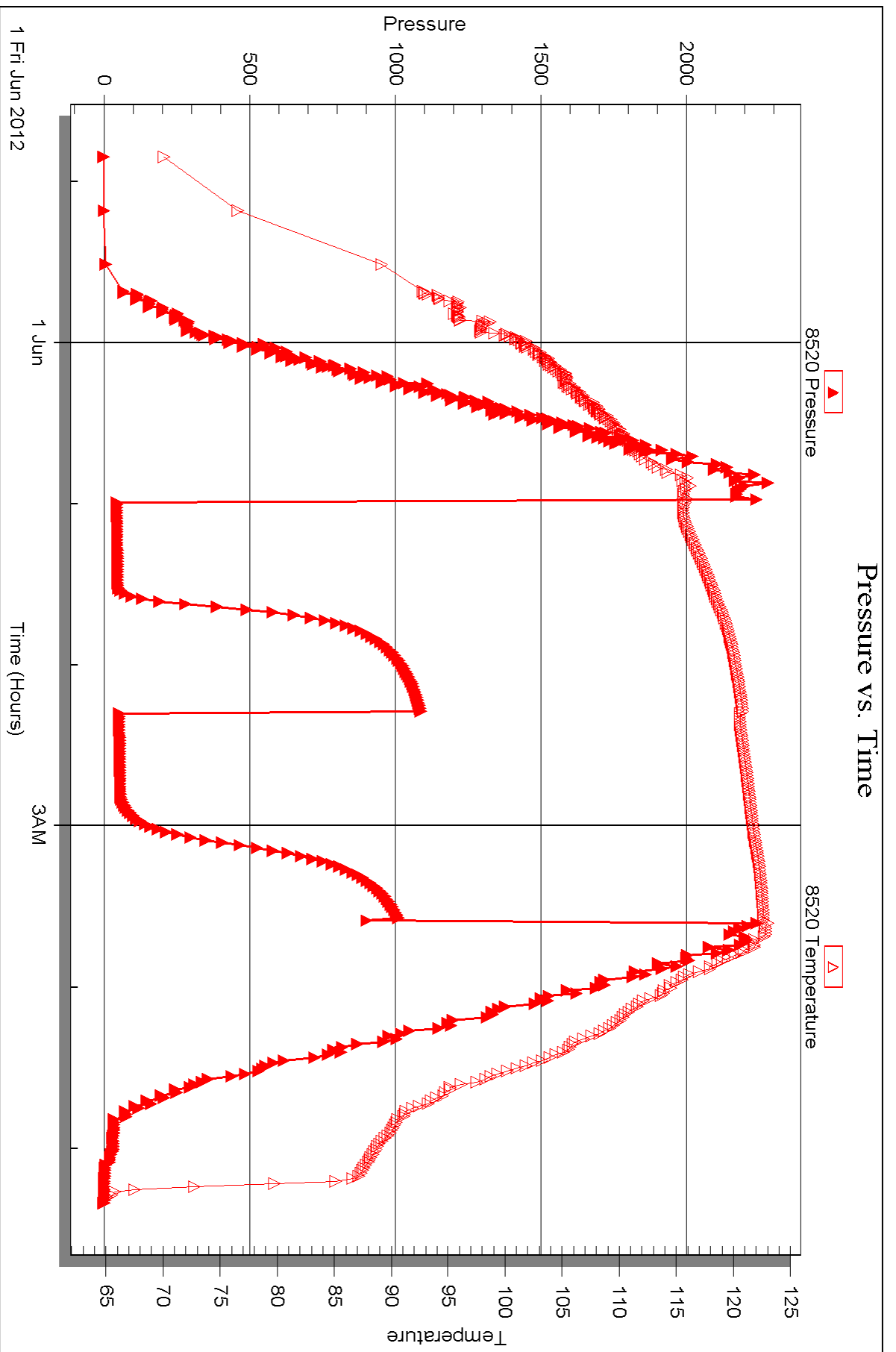


Serial #: 8520

Outside Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 47244

Printed: 2012.06.12 @ 12:29:41



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E. 22nd ST. N. #700
Wichita, KS 67278

ATTN: Adam Eldani

Hanna Unit #1

18-14s-31w Gove,KS

Start Date: 2012.06.01 @ 17:40:15

End Date: 2012.06.01 @ 23:55:15

Job Ticket #: 47245 DST #: 6

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

Printed: 2012.06.12 @ 12:27:11

Ritchie Exploration, Inc.
18-14s-31w Gove,KS
Hanna Unit #1
DST # 6
Morrow Sand
2012.06.01



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.
 8100 E. 22nd ST. N. #700
 Wichita, KS 67278
 ATTN: Adam Eldani

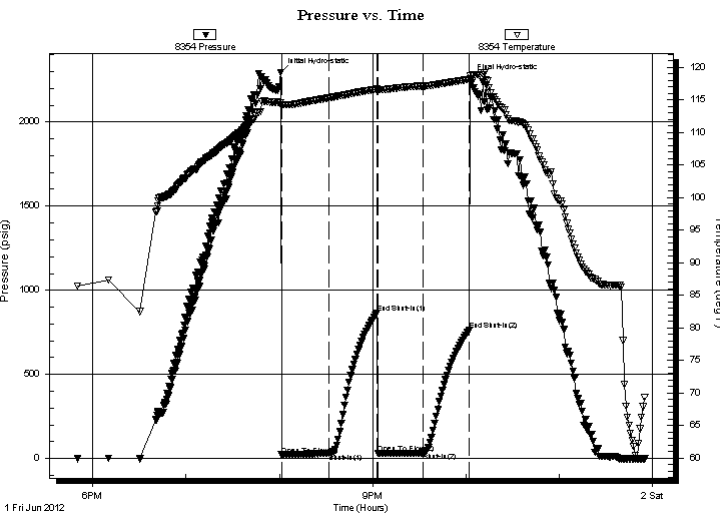
18-14s-31w Gove, KS
Hanna Unit #1
 Job Ticket: 47245 **DST#: 6**
 Test Start: 2012.06.01 @ 17:40:15

GENERAL INFORMATION:

Formation: **Morrow Sand**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 20:01:15 Tester: Dustin Rash
 Time Test Ended: 23:55:15 Unit No: 38
 Interval: **4460.00 ft (KB) To 4512.00 ft (KB) (TVD)** Reference Elevations: 2825.00 ft (KB)
 Total Depth: 4512.00 ft (KB) (TVD) 2815.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8354 Inside
 Press @ Run Depth: 34.50 psig @ 4499.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.01 End Date: 2012.06.01 Last Calib.: 2012.06.01
 Start Time: 17:50:15 End Time: 23:55:15 Time On Btm: 2012.06.01 @ 20:00:45
 Time Off Btm: 2012.06.01 @ 22:02:45

TEST COMMENT: IF-Weak surface blow . Died @ 7 minutes 30 seconds.
 IS- No Return
 FF- No Blow .
 FS- No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2294.38	114.60	Initial Hydro-static
1	22.51	114.01	Open To Flow (1)
31	30.58	115.28	Shut-In(1)
62	865.85	116.64	End Shut-In(1)
63	30.02	116.49	Open To Flow (2)
92	34.50	117.08	Shut-In(2)
121	761.29	118.10	End Shut-In(2)
122	2256.24	118.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	100%Mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

18-14s-31w Gove, KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47245

DST#: 6

ATTN: Adam Eldani

Test Start: 2012.06.01 @ 17:40:15

Tool Information

Drill Pipe:	Length: 3931.00 ft	Diameter: 3.80 inches	Volume: 55.14 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	26000.00 lb
Drill Collar:	Length: 533.00 ft	Diameter: 2.25 inches	Volume: 2.62 bbl	Weight to Pull Loose:	5000.00 lb
			<u>Total Volume: 57.76 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	88000.00 lb
Depth to Top Packer:	4460.00 ft			Final	88000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	52.00 ft				
Tool Length:	80.00 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			4433.00	
Shut In Tool	5.00			4438.00	
Hydraulic tool	5.00			4443.00	
Jars	5.00			4448.00	
Safety Joint	3.00			4451.00	
Packer	5.00			4456.00	28.00 Bottom Of Top Packer
Packer	4.00			4460.00	
Stubb	1.00			4461.00	
Perforations	5.00			4466.00	
Change Over Sub	1.00			4467.00	
Drill Pipe	31.00			4498.00	
Change Over Sub	1.00			4499.00	
Recorder	0.00	8354	Inside	4499.00	
Recorder	0.00	8520	Outside	4499.00	
Perforations	10.00			4509.00	
Bullnose	3.00			4512.00	52.00 Bottom Packers & Anchor
Total Tool Length:	80.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

18-14s-31w Gove,KS

8100 E. 22nd ST. N. #700
Wichita, KS 67278

Hanna Unit #1

Job Ticket: 47245

DST#: 6

ATTN: Adam Eldani

Test Start: 2012.06.01 @ 17:40:15

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:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	100%Mud	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

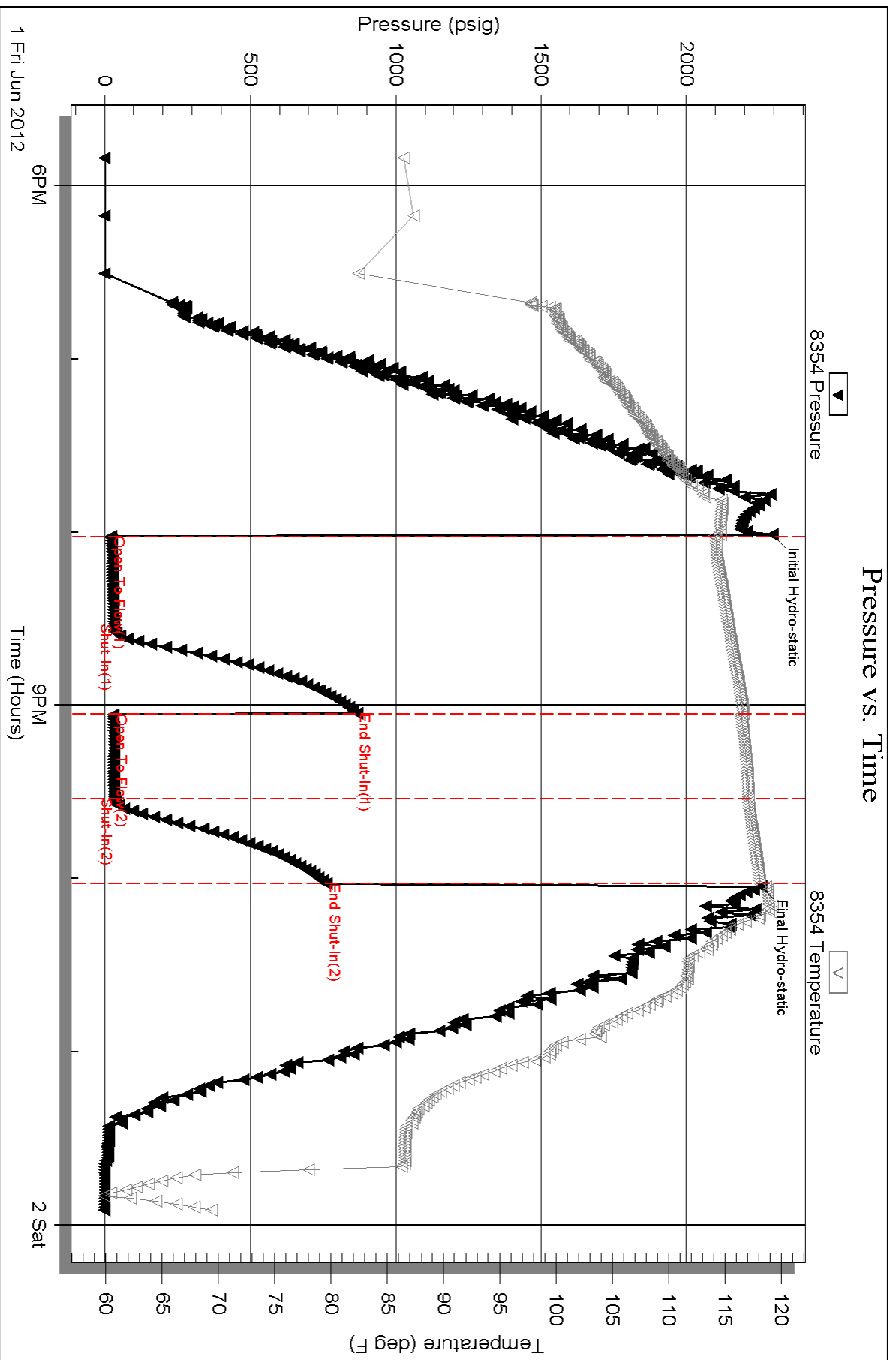
Inside

Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 6

Pressure vs. Time

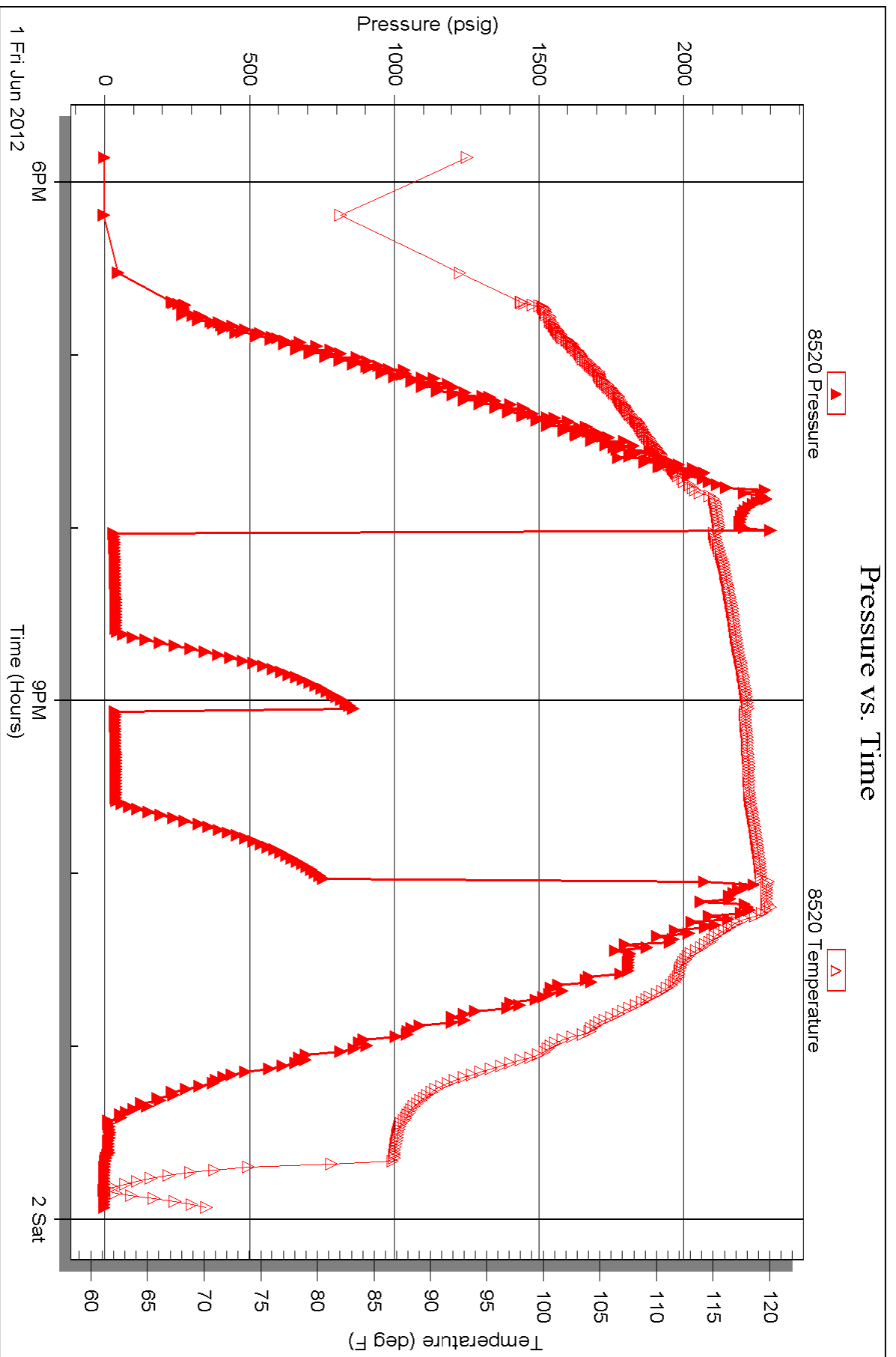


Serial #: 8520

Outside Ritchie Exploration, Inc.

Hanna Unit #1

DST Test Number: 6



Triobite Testing, Inc

Ref. No: 47245

Printed: 2012.06.12 @ 12:27:14



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47240

Well Name & No. Hanna Unit #1 Test No. 1 Date 5-27-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 22nd St. N. #700 Wichita, KS 67278
 Co. Rep / Geo. _____ Rig Murphy 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 3880-3944 Zone Tested Lansing "C+D"
 Anchor Length 64' Drill Pipe Run 3335 Mud Wt. 9.0
 Top Packer Depth 3875 Drill Collars Run 533.14 Vis 57
 Bottom Packer Depth 3880 Wt. Pipe Run 0 WL 7.2
 Total Depth 3944 Chlorides 2400 ppm System LCM 3

Blow Description IF- Weak surface blow. Died @ 4 minutes.
IST- No Return,
FF- No Blow. Flushed tool. No Blow.
FST- No Return,

Rec	Feet of	%gas	%oil	%water	%mud
8	Mud			100	

Rec Total 8 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1968</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>2000</u>
(B) First Initial Flow <u>66</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>2115</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>2332</u>
(D) Initial Shut-In <u>730</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0135</u>
(E) Second Initial Flow <u>52</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>0330</u>
(F) Second Final Flow <u>53</u>	<input checked="" type="checkbox"/> Mileage 117.80	Comments <u>Bar-2109</u>
(G) Final Shut-In <u>971</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1748</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1592.80</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1592.80</u>	

Approved By _____ Our Representative D. Rash

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. 47241

Well Name & No. Hanna Unit #1 Test No. 2 Date 5-28-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 22nd St. N. #700 Wichita, KS 67278
 Co. Rep / Geo. Adam Eldon Rig Mulvan 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 3932-3997 Zone Tested LKC "E,F,+G"
 Anchor Length 65' Drill Pipe Run 3391 Mud Wt. 9.1
 Top Packer Depth 3927 Drill Collars Run 533.14 Vis 67
 Bottom Packer Depth 3932 Wt. Pipe Run 0 WL 8.0
 Total Depth 3997 Chlorides 3500 ppm System LCM 3#

Blow Description TF - Weak surface blow. Died @ 5 minutes.
VST - No Return.
FF - Few bubbles. Flushed Tool. Few bubbles.
FST - No Return.

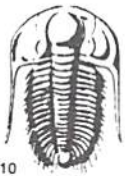
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 111 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1972 Test 1150 T-On Location 1315
 (B) First Initial Flow 23 Jars 250 T-Started 1400
 (C) First Final Flow 28 Safety Joint 75 T-Open 1543
 (D) Initial Shut-In 902 Circ Sub _____ T-Pulled 1745
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out 1930
 (F) Second Final Flow 35 Mileage 38x2 117.80 Comments Bart - 1350
 (G) Final Shut-In 841 Sampler _____
 (H) Final Hydrostatic 1950 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1592.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1592.80

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. 47242

Well Name & No. Hanna Unit #1 Test No. 3 Date 5-29-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 2nd St. N. #700 Wichita, KS 67278
 Co. Rep / Geo. Adam Eldan: Rig Muffin 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4019-4109 Zone Tested LKC "H,I,J"
 Anchor Length 90' Drill Pipe Run 3486 Mud Wt. 9.2
 Top Packer Depth 4014 Drill Collars Run 533.14 Vis 64
 Bottom Packer Depth 4019 Wt. Pipe Run 0 WL 9.6
 Total Depth 4109 Chlorides 4000 ppm System LCM 3#

Blow Description FF- Weak surface blow. Died @ 5 minutes 15 seconds.
FST- No Return.
FF- No Blow. Flushed Tool. Few Bubbles.
FST- No Return.

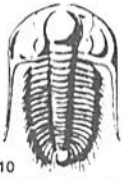
Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1958 Test 1250 T-On Location 1130
 (B) First Initial Flow 22 Jars 250 T-Started 1230
 (C) First Final Flow 25 Safety Joint 75 T-Open 1447
 (D) Initial Shut-In 833 Circ Sub _____ T-Pulled 1650
 (E) Second Initial Flow 26 Hourly Standby _____ T-Out 1830
 (F) Second Final Flow 33 Mileage 38X2 117.80 Comments BHT-1224
 (G) Final Shut-In 847 Sampler _____
 (H) Final Hydrostatic 1926 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1692.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1692.80

Approved By _____ Our Representative D. Rash

Triobite 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. 47243

Well Name & No. Hanna Unit #1 Test No. 4 Date 5-30-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 22nd St. N. #700 Wichita, KS 67278
 Co. Rep / Geo. Adam Eldari Rig Mullin 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4103 - 4180 Zone Tested LKC "K+L"
 Anchor Length 77' Drill Pipe Run 3550 Mud Wt. 9.1
 Top Packer Depth 4098 Drill Collars Run 533.14 Vis 55
 Bottom Packer Depth 4103 Wt. Pipe Run 0 WL 8.0
 Total Depth 4180 Chlorides 4400 ppm System LCM 4

Blow Description IF - Steady 1/4 inch blow throughout,
FSI - No Return.
FF - No Blow.
FSI - No Return.

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

Rec Total 50 BHT 115 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2073 Test 1250 T-On Location 0645
 (B) First Initial Flow 23 Jars 250 T-Started 0730
 (C) First Final Flow 41 Safety Joint 75 T-Open 0922
 (D) Initial Shut-In 1129 Circ Sub T-Pulled 1155
 (E) Second Initial Flow 43 Hourly Standby T-Out 1330
 (F) Second Final Flow 55 Mileage 38X2 117.80 Comments BHT - 0721
 (G) Final Shut-In 1103 Sampler Ruined Shale Packer
 (H) Final Hydrostatic 2017 Straddle Ruined Packer
 Shale Packer Extra Copies
 Extra Packer Extra Recorder
 Extra Recorder Sub Total 0
 Day Standby Total 1692.80
 Accessibility MP/DST Disc't
 Sub Total 1692.80

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. 47244

4/10

Well Name & No. Hama Unit #7 Test No. 5 Date 5-31-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 22nd St. N. #700 Wichita KS 67278
 Co. Rep / Geo. Adam Eldan Rig Mullin 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4410 - 4454 Zone Tested Johnson
 Anchor Length 44' Drill Pipe Run 3867 Mud Wt. 9.3
 Top Packer Depth 4405 Drill Collars Run 533,14 Vis 56
 Bottom Packer Depth 4410 Wt. Pipe Run 0 WL 7.2
 Total Depth 4454 Chlorides 3800 ppm System LCM 3#

Blow Description IF - Weak surface blow. Died @ 21 minutes,
VSI - No Return.
FF - Few bubbles.
FST - No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>USOCM</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 Total 20 BHT 120 Gravity 1250 API RW @ 117.80 °F Chlorides 3800 ppm

(A) Initial Hydrostatic 2290 Test 1250 T-On Location 2100
 (B) First Initial Flow 39 Jars 250 T-Started 2300
 (C) First Final Flow 49 Safety Joint 75 T-Open 0059
 (D) Initial Shut-In 1085 Circ Sub T-Pulled 0335
 (E) Second Initial Flow 51 Hourly Standby T-Out 0515
 (F) Second Final Flow 56 Mileage 38X2 117.80 Comments BHT-2240
 (G) Final Shut-In 1012 Sampler
 (H) Final Hydrostatic 2242 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1692.80
 Accessibility MP/DST Disc't

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

Sub Total 1692.80

Approved By _____ Our Representative D. Rash

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. 47245

4/10

Well Name & No. Hanna Unit #7 Test No. 6 Date 6-1-12
 Company Ritchie Exploration, Inc. Elevation 2825 KB 2815 GL
 Address 8100 E. 22nd St. N. #700 Wichita, KS 67278
 Co. Rep / Geo. Adam Eldari Rig Mulfin 14
 Location: Sec. 18 Twp. 14S Rge. 31W Co. Gove State KS

Interval Tested 4460-4512 Zone Tested Marrow Sand
 Anchor Length 52' Drill Pipe Run 3931 Mud Wt. 9.2
 Top Packer Depth 4455 Drill Collars Run 533,14 Vis 58
 Bottom Packer Depth 4460 Wt. Pipe Run 0 WL 8.0
 Total Depth 4512 Chlorides 4400 ppm System LCM 4#

Blow Description IF - Weak surface blow. Died @ 7 minutes 30 seconds.
~~ISF - No Return.~~
FF - No Blow.
~~FST - No Return.~~

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 119 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2294 Test 1250 T-On Location 1700
 (B) First Initial Flow 23 Jars 250 T-Started 1800
 (C) First Final Flow 31 Safety Joint 75 T-Open 1959
 (D) Initial Shut-In 866 Circ Sub _____ T-Pulled 2200
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 35 Mileage 38X2 117.80 Comments BHT-1740
 (G) Final Shut-In 761 Sampler _____
 (H) Final Hydrostatic 2256 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1692.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1692.80

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.