



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.13 @ 03:18:05

End Date: 2012.05.13 @ 10:13:29

Job Ticket #: 46588 DST #: 1

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

Printed: 2012.05.25 @ 14:39:40



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46588 **DST#: 1**
Test Start: 2012.05.13 @ 03:18:05

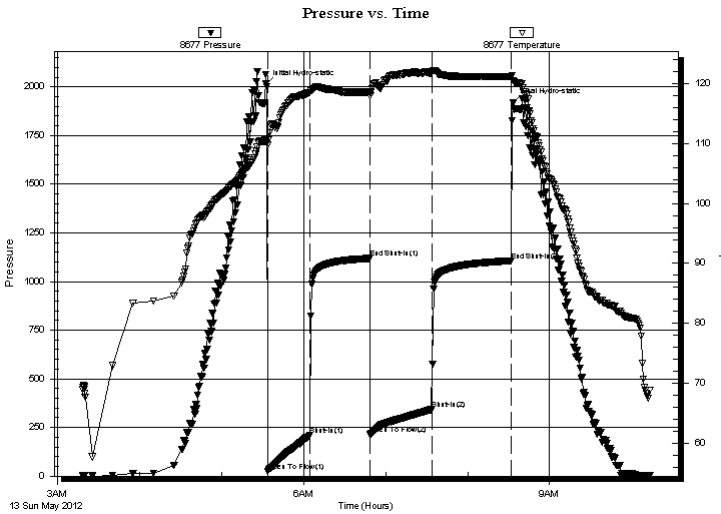
GENERAL INFORMATION:

Formation: **LKC "C"**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 05:33:30
Time Test Ended: 10:13:29
Interval: **3993.00 ft (KB) To 4022.00 ft (KB) (TVD)**
Total Depth: 4022.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Cole Archibald
Unit No: 53
Reference Elevations: 2938.00 ft (KB)
2928.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
Press @ Run Depth: 341.74 psig @ 3994.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.13 End Date: 2012.05.13 Last Calib.: 2012.05.13
Start Time: 03:18:05 End Time: 10:13:29 Time On Btm: 2012.05.13 @ 05:32:15
Time Off Btm: 2012.05.13 @ 08:33:29

TEST COMMENT: IF: Built to 8 1/2 inches
IS: no return
FF: B.O.B 35 minutes
FS: No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2014.00	110.63	Initial Hydro-static
2	24.21	109.71	Open To Flow (1)
33	210.84	118.55	Shut-In(1)
77	1119.41	118.60	End Shut-In(1)
77	214.73	118.00	Open To Flow (2)
122	341.74	121.78	Shut-In(2)
180	1106.25	121.15	End Shut-In(2)
182	1916.37	120.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
705.00	MW 20%M 80%W	5.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46588 **DST#: 1**
Test Start: 2012.05.13 @ 03:18:05

Tool Information

Drill Pipe:	Length: 3457.00 ft	Diameter: 3.80 inches	Volume: 48.49 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 51.09 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	3993.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	56.00 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			3967.00	
Shut In Tool	5.00			3972.00	
Hydraulic tool	5.00			3977.00	
Jars	5.00			3982.00	
Safety Joint	2.00			3984.00	
Packer	5.00			3989.00	27.00 Bottom Of Top Packer
Packer	4.00			3993.00	
Stubb	1.00			3994.00	
Recorder	0.00	8677	Outside	3994.00	
Recorder	0.00	8522	Inside	3994.00	
Perforations	25.00			4019.00	
Bullnose	3.00			4022.00	29.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.

17 13s 31w Gove, KS

8100 E 22nd St N #700
Wichita KS 67278 + 3188

Ottley Bros 17C #1

Job Ticket: 46588

DST#: 1

ATTN: Kim Shoemaker

Test Start: 2012.05.13 @ 03:18:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
705.00	MW 20%M 80%W	5.070

Total Length: 705.00 ft Total Volume: 6.355 bbl

Num Fluid Samples: 0

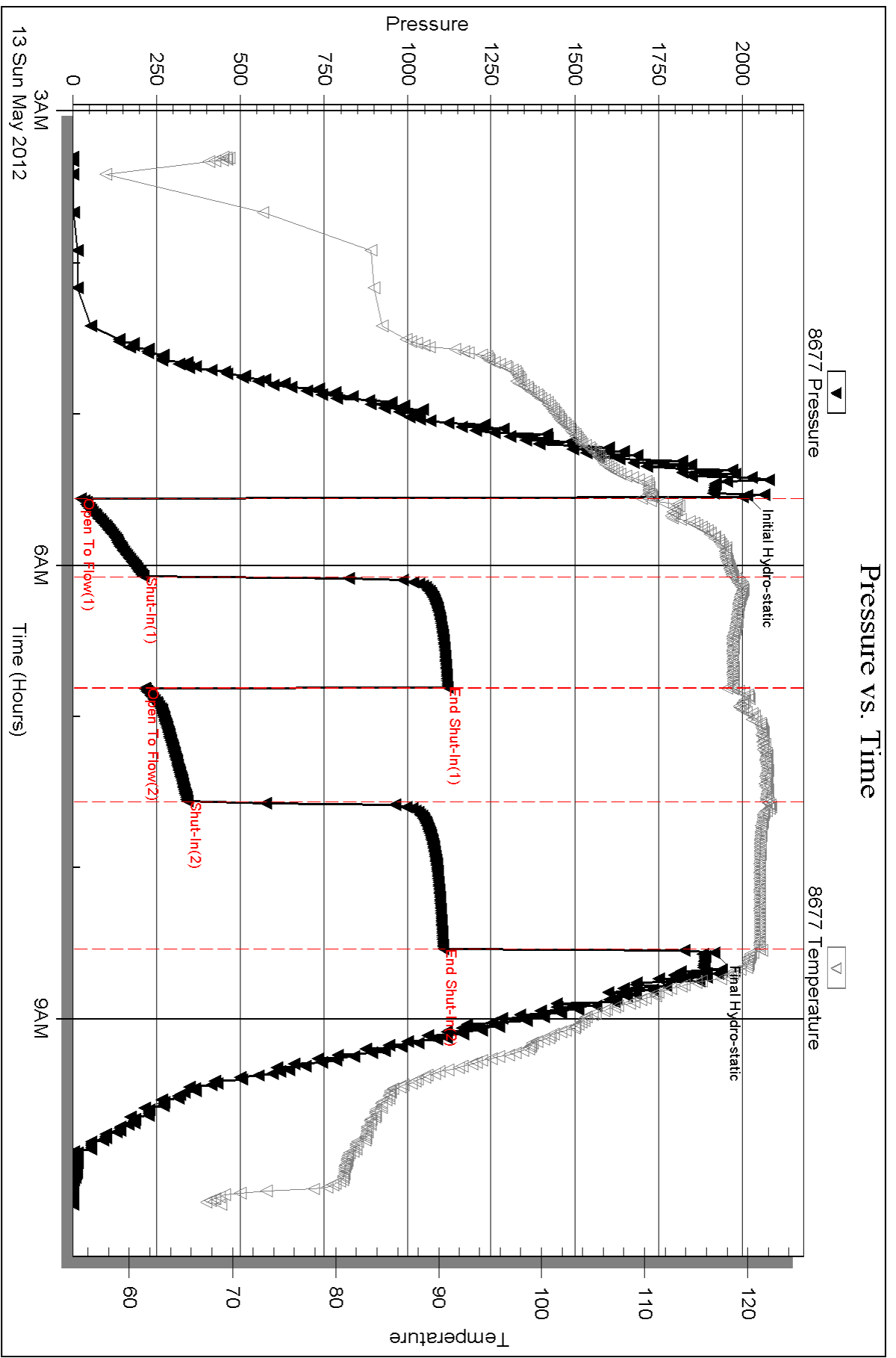
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is 110 @ 57F = 85,000ppm



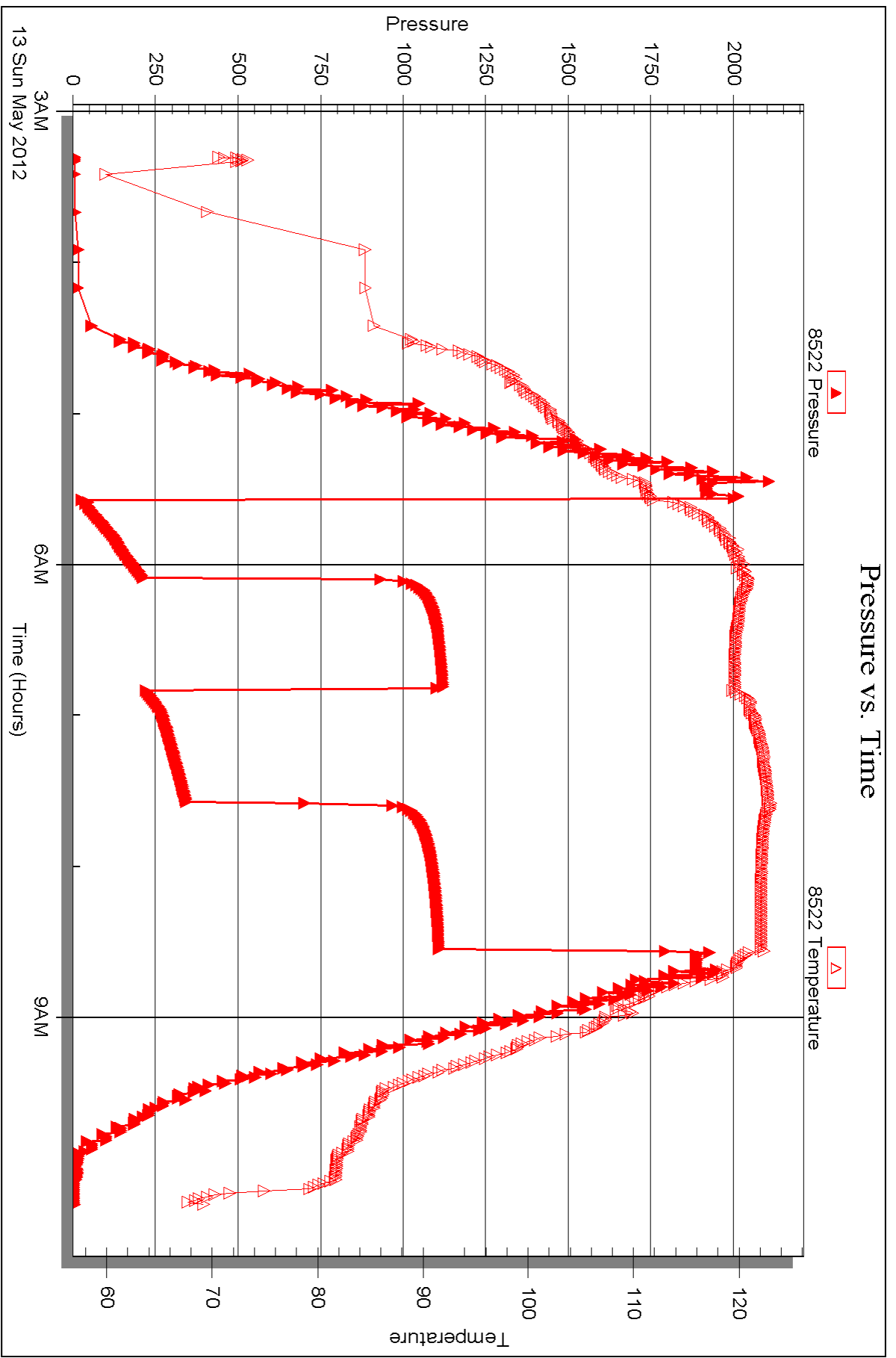
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bros 17C#1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 46588

Printed: 2012.05.25 @ 14:39:43



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.13 @ 19:54:00

End Date: 2012.05.14 @ 02:55:15

Job Ticket #: 46602 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.05.25 @ 14:38:29

Ritchie Exploration inc.

17 13s 31w Gove, KS

Ottley Bros 17C #1

DST # 2

LKC "E-F"

2012.05.13



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration inc.
 8100 E 22nd St N #700
 Wichita KS 67278 + 3188
 ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
 Job Ticket: 46602 **DST#: 2**
 Test Start: 2012.05.13 @ 19:54:00

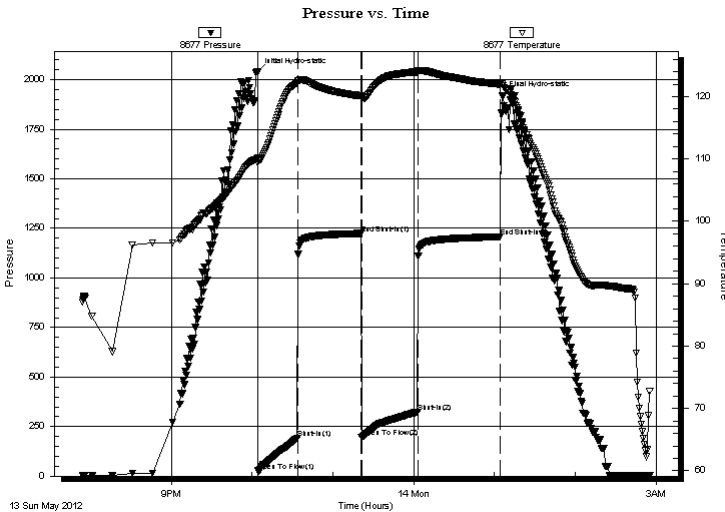
GENERAL INFORMATION:

Formation: **LKC "E-F"**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 22:04:15
 Time Test Ended: 02:55:15
 Interval: **4040.00 ft (KB) To 4068.00 ft (KB) (TVD)**
 Total Depth: 4068.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 2938.00 ft (KB)
 2928.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
 Press @ Run Depth: 324.34 psig @ 4041.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.13 End Date: 2012.05.14 Last Calib.: 2012.05.14
 Start Time: 19:54:05 End Time: 02:55:14 Time On Btm: 2012.05.13 @ 22:04:00
 Time Off Btm: 2012.05.14 @ 01:06:00

TEST COMMENT: IF: BOB @ 25 min.
 IS: No return.
 FF: BOB @ 25 min.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2038.15	110.10	Initial Hydro-static
1	26.35	109.39	Open To Flow (1)
30	192.43	122.17	Shut-In(1)
77	1224.22	120.13	End Shut-In(1)
78	194.38	119.82	Open To Flow (2)
119	324.34	123.94	Shut-In(2)
181	1208.03	121.95	End Shut-In(2)
182	1919.63	121.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
703.00	smcw 5m 95w (oil spots in tool)	5.04

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46602 **DST#: 2**
Test Start: 2012.05.13 @ 19:54:00

Tool Information

Drill Pipe:	Length: 3492.00 ft	Diameter: 3.80 inches	Volume: 48.98 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 92000.00 lb
			<u>Total Volume: 51.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4040.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4014.00	
Shut In Tool	5.00			4019.00	
Hydraulic tool	5.00			4024.00	
Jars	5.00			4029.00	
Safety Joint	2.00			4031.00	
Packer	5.00			4036.00	27.00 Bottom Of Top Packer
Packer	4.00			4040.00	
Stubb	1.00			4041.00	
Recorder	0.00	8677	Outside	4041.00	
Recorder	0.00	8522	Inside	4041.00	
Perforations	24.00			4065.00	
Bullnose	3.00			4068.00	28.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.

17 13s 31w Gove, KS

8100 E 22nd St N #700
Wichita KS 67278 + 3188

Ottley Bros 17C #1

Job Ticket: 46602

DST#: 2

ATTN: Kim Shoemaker

Test Start: 2012.05.13 @ 19:54:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

70000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
703.00	smcw 5m 95w (oil spots in tool)	5.042

Total Length: 703.00 ft Total Volume: 6.327 bbl

Num Fluid Samples: 0

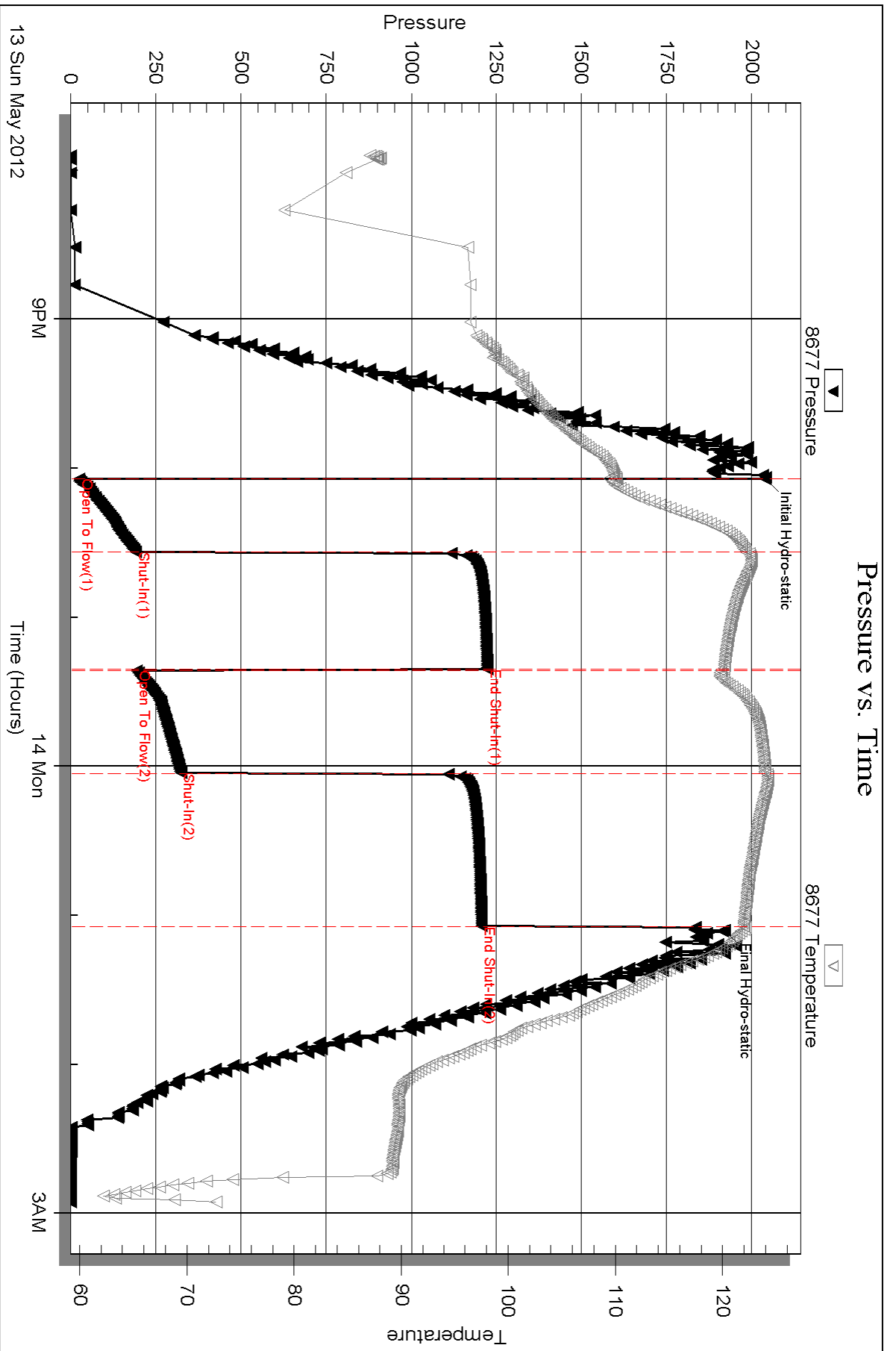
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is 0.175 @ 60F = 70,000ppm



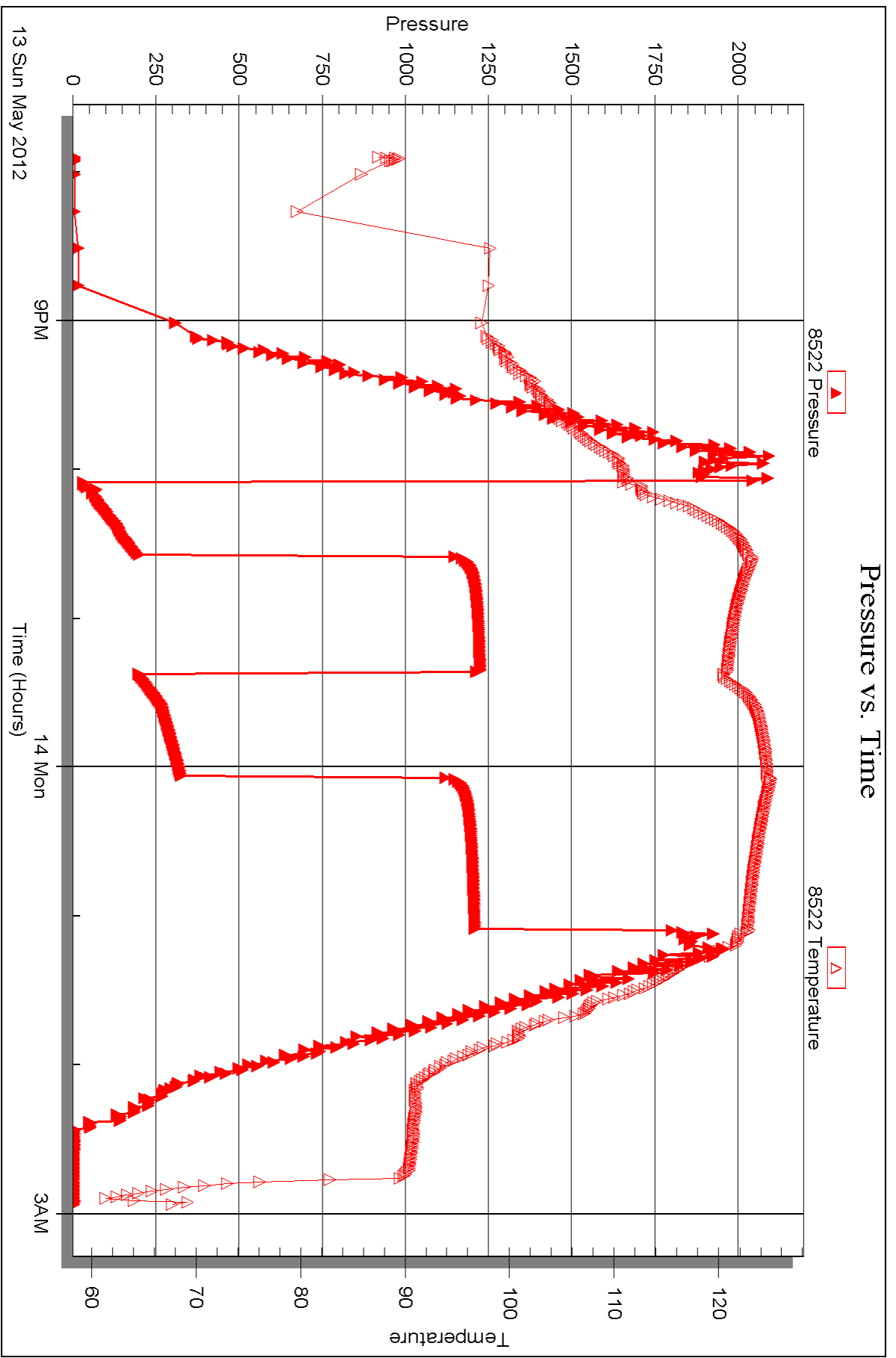
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bros 17C#1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 46602

Printed: 2012.05.25 @ 14:38:32



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.14 @ 12:30:00

End Date: 2012.05.14 @ 19:29:45

Job Ticket #: 46603 DST #: 3

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

Printed: 2012.05.25 @ 14:37:41



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

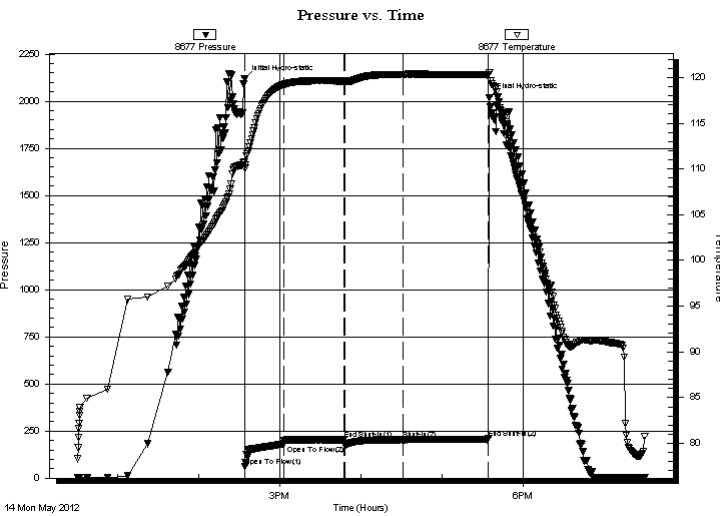
17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46603 **DST#: 3**
Test Start: 2012.05.14 @ 12:30:00

GENERAL INFORMATION:

Formation: **LKC "H"**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 14:34:00
Time Test Ended: 19:29:45
Interval: **4124.00 ft (KB) To 4150.00 ft (KB) (TVD)**
Total Depth: 4150.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 53
Reference Elevations: 2938.00 ft (KB)
2928.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
Press @ RunDepth: 204.24 psig @ 4125.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.14 End Date: 2012.05.14 Last Calib.: 2012.05.14
Start Time: 12:30:05 End Time: 19:29:44 Time On Btm: 2012.05.14 @ 14:33:45
Time Off Btm: 2012.05.14 @ 17:35:00

TEST COMMENT: IF: BOB @ 19 min.
IS: No return.
FF: 2" blow.
FF: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2117.39	110.77	Initial Hydro-static
1	61.68	110.07	Open To Flow (1)
29	182.52	119.21	Shut-In(1)
74	204.38	119.61	End Shut-In(1)
74	174.11	119.60	Open To Flow (2)
118	204.24	120.36	Shut-In(2)
181	212.13	120.34	End Shut-In(2)
182	2017.93	120.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
410.00	mcw 15m 85w (oil spots in tool)	2.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46603 **DST#: 3**
Test Start: 2012.05.14 @ 12:30:00

Tool Information

Drill Pipe:	Length: 3586.00 ft	Diameter: 3.80 inches	Volume: 50.30 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 52.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4124.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 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			4098.00	
Shut In Tool	5.00			4103.00	
Hydraulic tool	5.00			4108.00	
Jars	5.00			4113.00	
Safety Joint	2.00			4115.00	
Packer	5.00			4120.00	27.00 Bottom Of Top Packer
Packer	4.00			4124.00	
Stubb	1.00			4125.00	
Recorder	0.00	8677	Outside	4125.00	
Recorder	0.00	8522	Inside	4125.00	
Perforations	22.00			4147.00	
Bullnose	3.00			4150.00	26.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46603 **DST#: 3**
Test Start: 2012.05.14 @ 12:30:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 61000 ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.77 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6800.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
410.00	mcw 15m 85w (oil spots in tool)	2.016

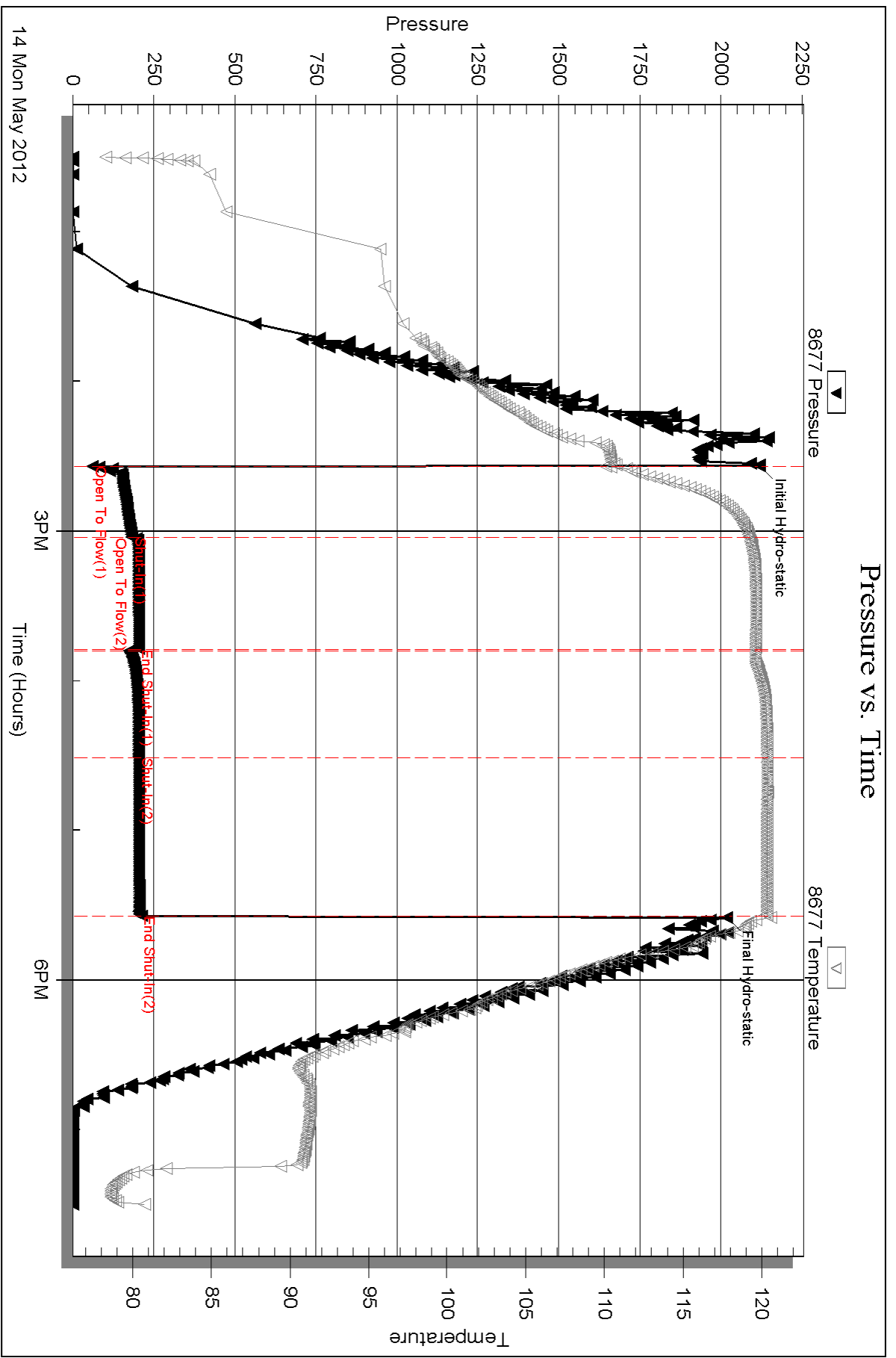
Total Length: 410.00 ft Total Volume: 3.012 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .180 @ 71F = 61,000ppm

Serial #: 8677

Outside Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 46603

Printed: 2012.05.25 @ 14:37:43

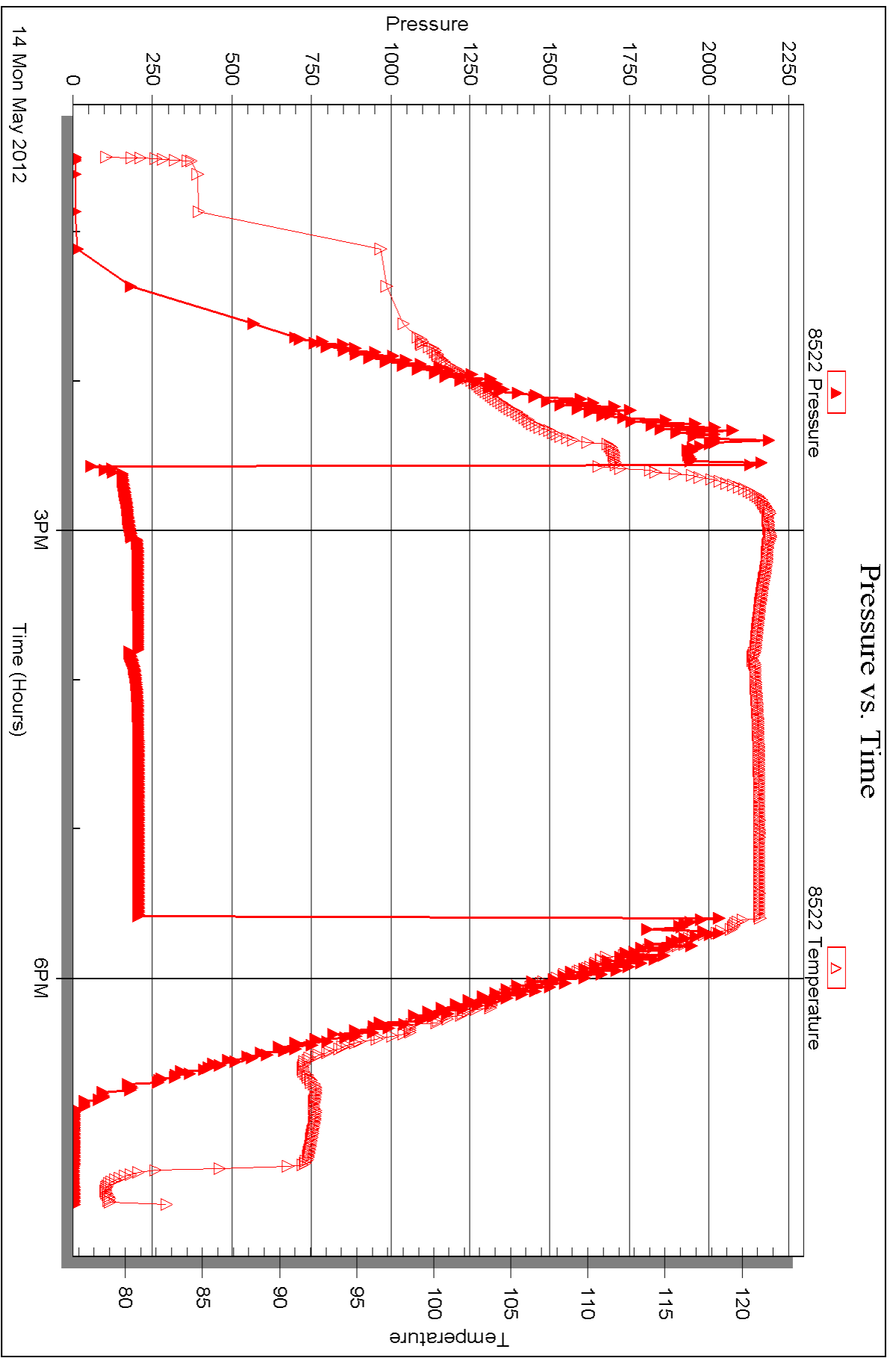
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 46603

Printed: 2012.05.25 @ 14:37:44



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.15 @ 02:34:00

End Date: 2012.05.15 @ 09:32:15

Job Ticket #: 46604 DST #: 4

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

Printed: 2012.05.25 @ 14:36:41



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46604 **DST#: 4**
Test Start: 2012.05.15 @ 02:34:00

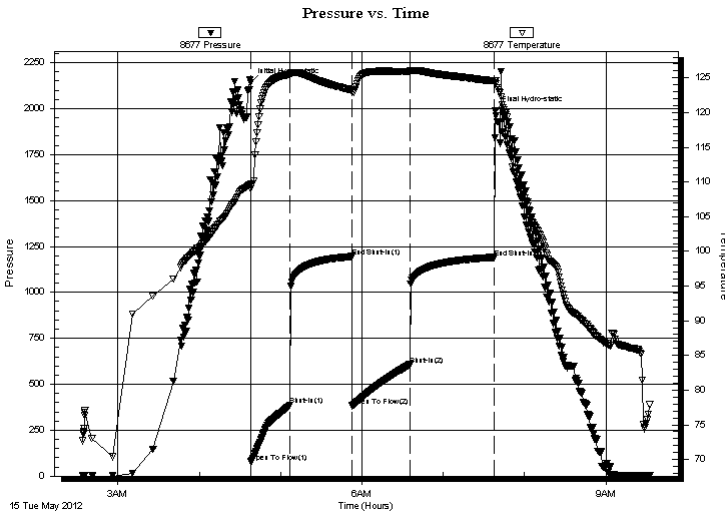
GENERAL INFORMATION:

Formation: **LKC- I**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 04:38:15
Time Test Ended: 09:32:15
Interval: **4156.00 ft (KB) To 4183.00 ft (KB) (TVD)**
Total Depth: 4183.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 53
Reference Elevations: 2938.00 ft (KB)
2928.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
Press @ RunDepth: 606.54 psig @ 4157.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.15 End Date: 2012.05.15 Last Calib.: 2012.05.15
Start Time: 02:34:05 End Time: 09:32:14 Time On Btm: 2012.05.15 @ 04:38:00
Time Off Btm: 2012.05.15 @ 07:38:30

TEST COMMENT: IF: BOB @ 7 min.
IS: No return.
FF: BOB @ 11 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.80	109.64	Initial Hydro-static
1	77.65	109.04	Open To Flow (1)
29	384.78	125.50	Shut-In(1)
75	1195.52	123.25	End Shut-In(1)
75	382.67	122.95	Open To Flow (2)
118	606.54	125.94	Shut-In(2)
180	1190.00	124.53	End Shut-In(2)
181	1987.15	124.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1105.00	smcw 3m 97w	10.68

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46604 **DST#: 4**
Test Start: 2012.05.15 @ 02:34:00

Tool Information

Drill Pipe:	Length: 3617.00 ft	Diameter: 3.80 inches	Volume: 50.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 2500.00 lb
Drill Collar:	Length: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 53.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4156.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4130.00	
Shut In Tool	5.00			4135.00	
Hydraulic tool	5.00			4140.00	
Jars	5.00			4145.00	
Safety Joint	2.00			4147.00	
Packer	5.00			4152.00	27.00 Bottom Of Top Packer
Packer	4.00			4156.00	
Stubb	1.00			4157.00	
Recorder	0.00	8677	Outside	4157.00	
Recorder	0.00	8522	Inside	4157.00	
Perforations	23.00			4180.00	
Bullnose	3.00			4183.00	27.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46604 **DST#: 4**
Test Start: 2012.05.15 @ 02:34:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 92000 ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.77 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6400.00 ppm		
Filter Cake: 1.00 inches		

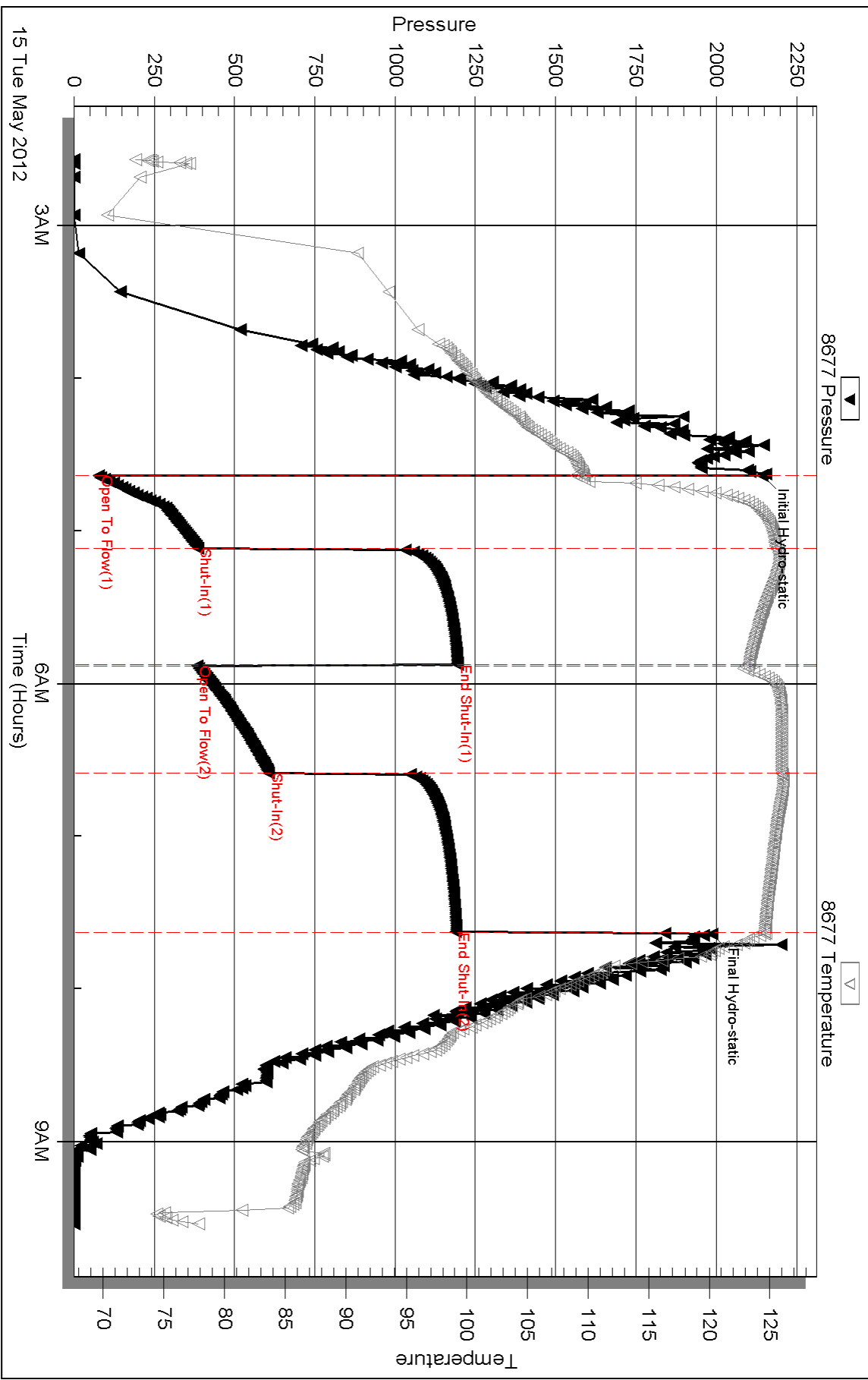
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1105.00	smcw 3m 97w	10.681

Total Length: 1105.00 ft Total Volume: 11.966 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .910 @ 66F = 92,000ppm

Pressure vs. Time



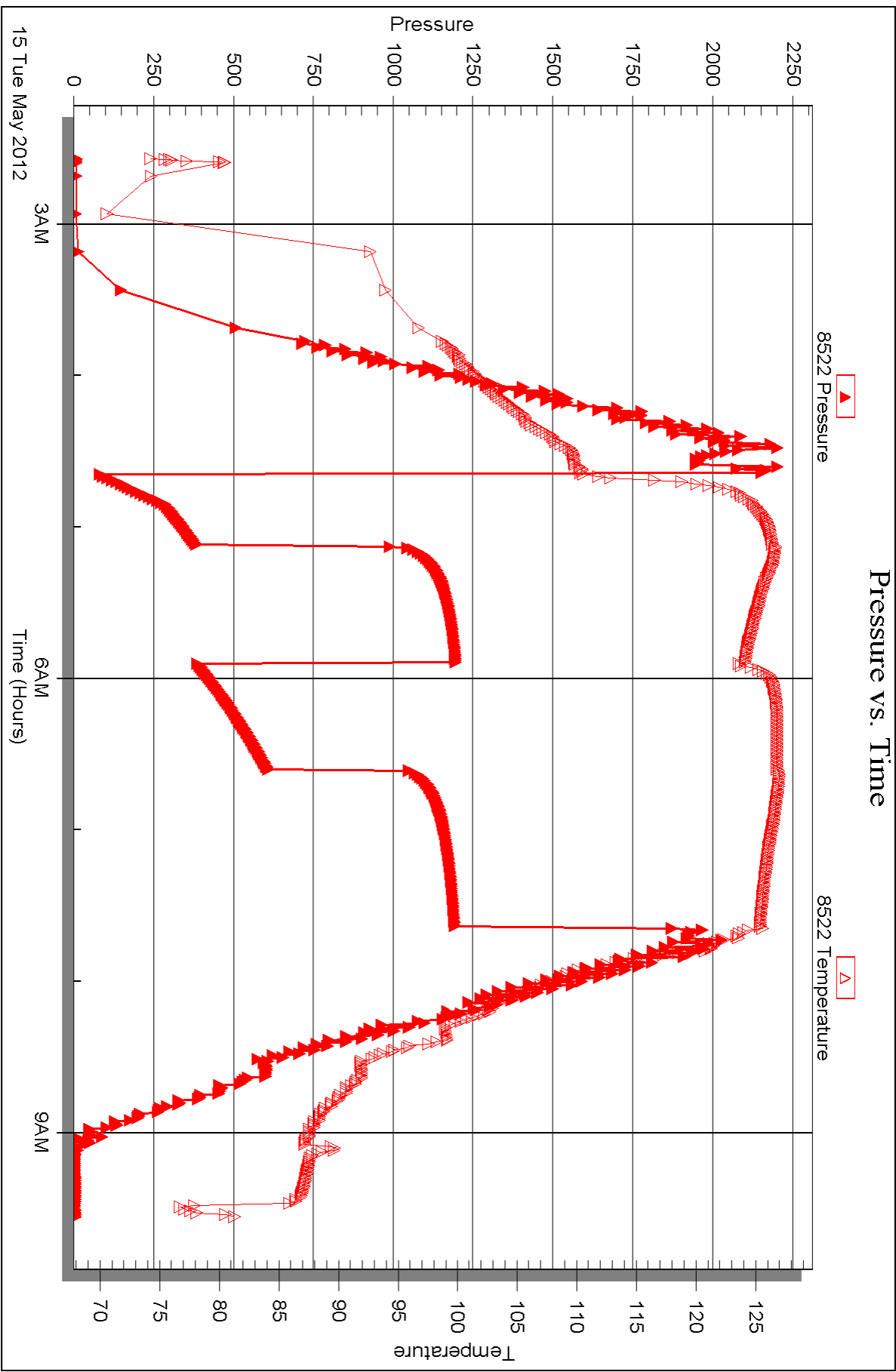
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.15 @ 16:02:00

End Date: 2012.05.15 @ 22:57:45

Job Ticket #: 46605 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.05.25 @ 14:35:29



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46605 **DST#: 5**
Test Start: 2012.05.15 @ 16:02:00

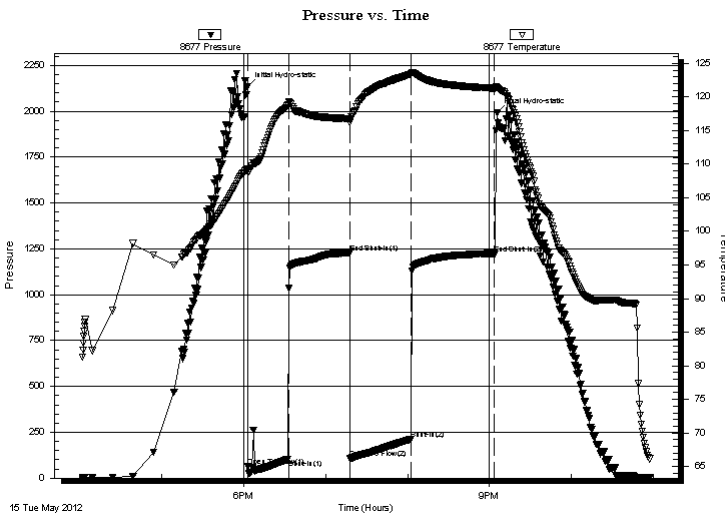
GENERAL INFORMATION:

Formation: **LKC "J"**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 18:03:15
Time Test Ended: 22:57:45
Interval: **4181.00 ft (KB) To 4200.00 ft (KB) (TVD)**
Total Depth: 4200.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 53
Reference Elevations: 2938.00 ft (KB)
2928.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
Press @ Run Depth: 213.09 psig @ 4182.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.15 End Date: 2012.05.15 Last Calib.: 2012.05.15
Start Time: 16:02:05 End Time: 22:57:44 Time On Btm: 2012.05.15 @ 18:03:00
Time Off Btm: 2012.05.15 @ 21:05:30

TEST COMMENT: IF: 6" blow.
IS: No return.
FF: 7" blow.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.54	109.34	Initial Hydro-static
1	63.94	108.80	Open To Flow (1)
30	103.95	118.90	Shut-In(1)
75	1227.38	116.79	End Shut-In(1)
75	106.37	116.22	Open To Flow (2)
120	213.09	123.42	Shut-In(2)
181	1224.62	121.31	End Shut-In(2)
183	1990.45	121.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
430.00	mcw 20m 80w (oil specs)	2.11

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46605 **DST#: 5**
Test Start: 2012.05.15 @ 16:02:00

Tool Information

Drill Pipe:	Length: 3649.00 ft	Diameter: 3.80 inches	Volume: 51.19 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 98000.00 lb
			<u>Total Volume: 53.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4181.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			4155.00	
Shut In Tool	5.00			4160.00	
Hydraulic tool	5.00			4165.00	
Jars	5.00			4170.00	
Safety Joint	2.00			4172.00	
Packer	5.00			4177.00	27.00 Bottom Of Top Packer
Packer	4.00			4181.00	
Stubb	1.00			4182.00	
Recorder	0.00	8677	Outside	4182.00	
Recorder	0.00	8522	Inside	4182.00	
Perforations	15.00			4197.00	
Bullnose	3.00			4200.00	19.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46605 **DST#: 5**
Test Start: 2012.05.15 @ 16:02:00

Mud and Cushion Information

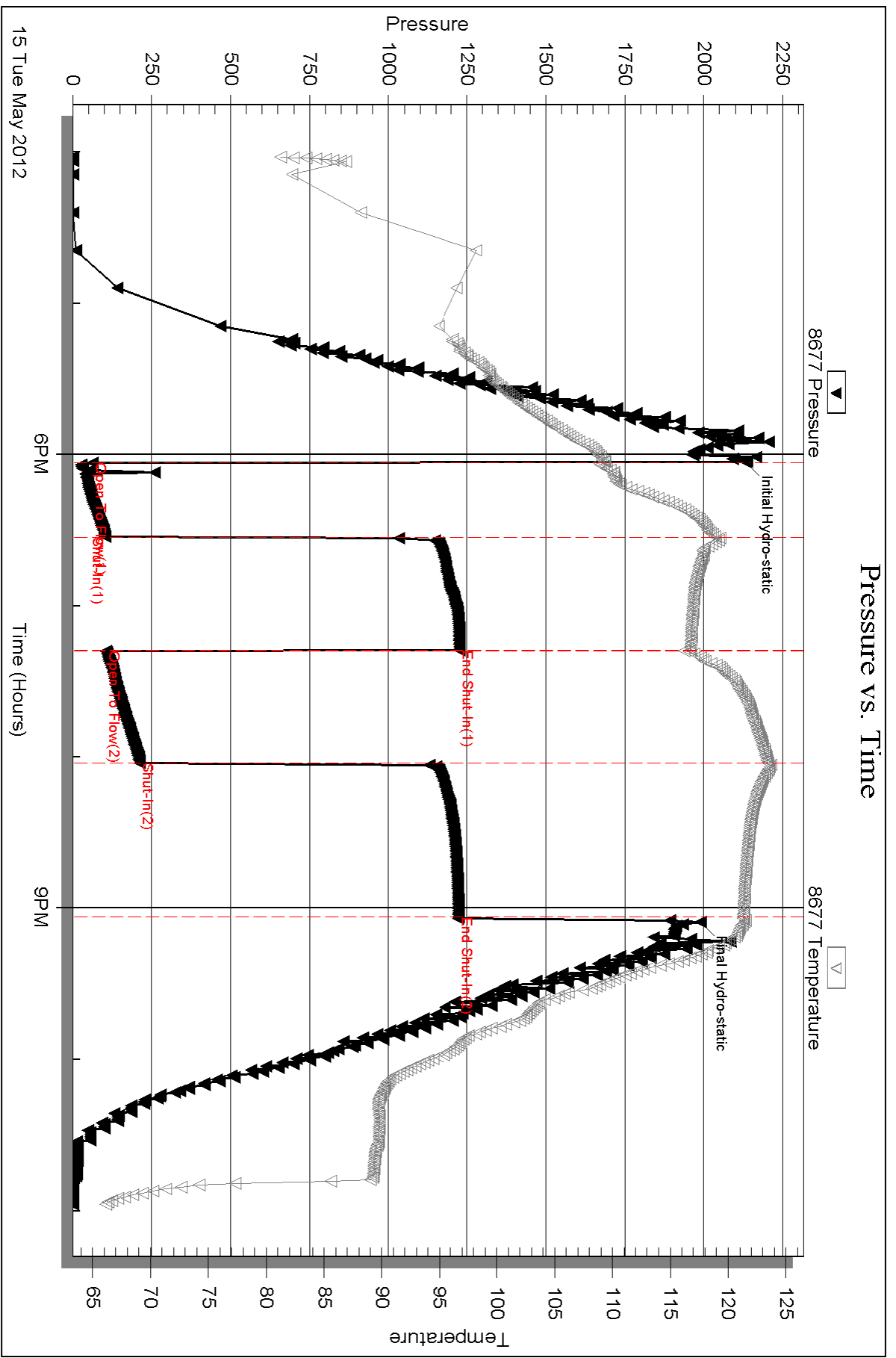
Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 77000 ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.96 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
430.00	mcw 20m 80w (oil specs)	2.115

Total Length: 430.00 ft Total Volume: 3.159 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: rw is .105 @ 66F = 77,000ppm



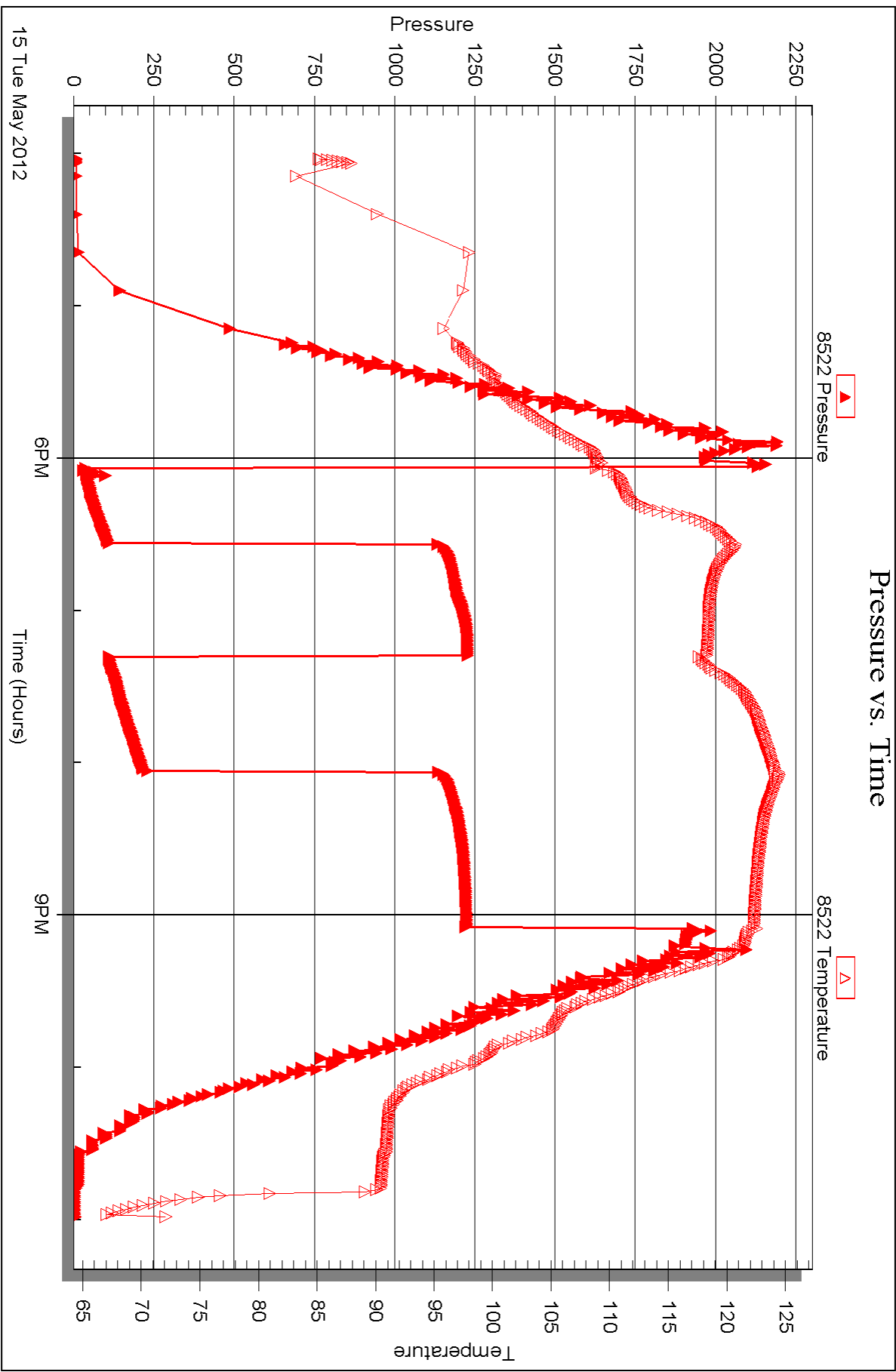
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.16 @ 07:08:00

End Date: 2012.05.16 @ 14:23:00

Job Ticket #: 46606 DST #: 6

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

Printed: 2012.05.25 @ 14:34:41



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46606 **DST#: 6**
Test Start: 2012.05.16 @ 07:08:00

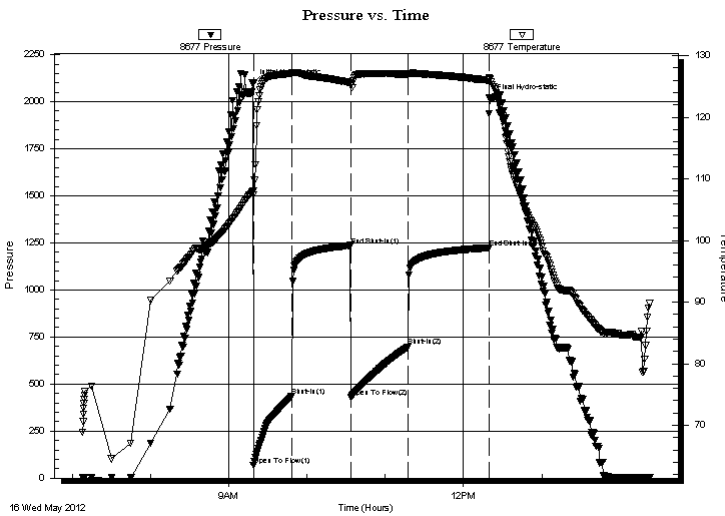
GENERAL INFORMATION:

Formation: **LKC "K"**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 09:19:00
Time Test Ended: 14:23:00
Interval: **4208.00 ft (KB) To 4234.00 ft (KB) (TVD)**
Total Depth: 4234.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 53
Reference Elevations: 2938.00 ft (KB)
2928.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
Press @ Run Depth: 698.89 psig @ 4209.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.16 End Date: 2012.05.16 Last Calib.: 2012.05.16
Start Time: 07:08:05 End Time: 14:22:59 Time On Btm: 2012.05.16 @ 09:18:45
Time Off Btm: 2012.05.16 @ 12:20:00

TEST COMMENT: IF: BOB @ 4 1/2 min.
IS: No return.
FF: BOB @ 5 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2096.79	108.06	Initial Hydro-static
1	66.79	107.37	Open To Flow (1)
30	436.47	127.06	Shut-In(1)
75	1236.12	125.67	End Shut-In(1)
75	431.43	125.26	Open To Flow (2)
119	698.89	127.00	Shut-In(2)
181	1224.02	126.04	End Shut-In(2)
182	2018.54	126.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1500.00	smcw 3m 97w	16.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46606 **DST#: 6**
Test Start: 2012.05.16 @ 07:08:00

Tool Information

Drill Pipe:	Length: 3681.00 ft	Diameter: 3.80 inches	Volume: 51.63 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 115000.0 lb
			<u>Total Volume: 54.23 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	4208.00 ft			Final 84000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 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			4182.00	
Shut In Tool	5.00			4187.00	
Hydraulic tool	5.00			4192.00	
Jars	5.00			4197.00	
Safety Joint	2.00			4199.00	
Packer	5.00			4204.00	27.00 Bottom Of Top Packer
Packer	4.00			4208.00	
Stubb	1.00			4209.00	
Recorder	0.00	8677	Outside	4209.00	
Recorder	0.00	8522	Inside	4209.00	
Perforations	22.00			4231.00	
Bullnose	3.00			4234.00	26.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46606 **DST#: 6**
Test Start: 2012.05.16 @ 07:08:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 76000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.17 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

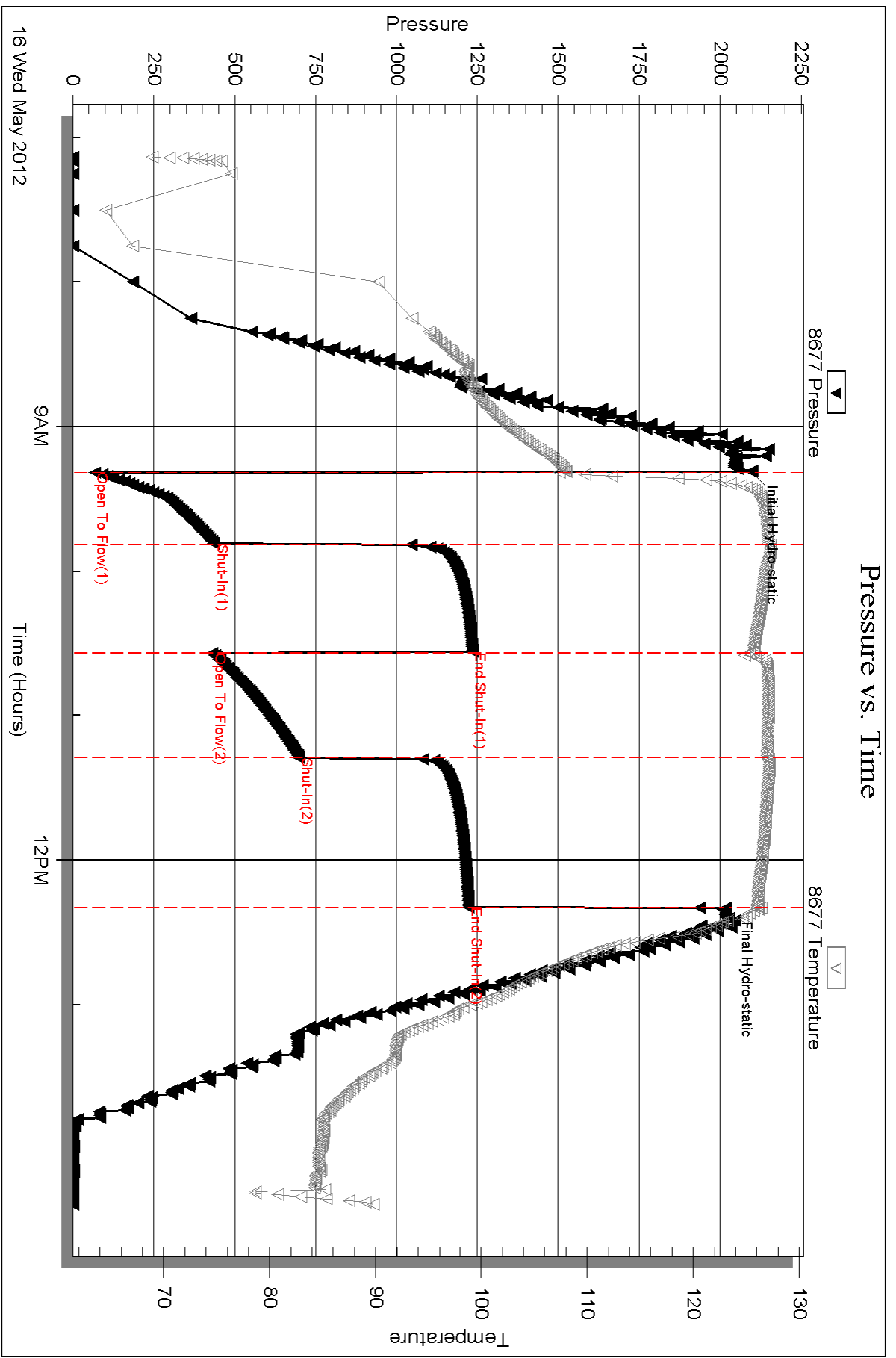
Length ft	Description	Volume bbl
1500.00	smcw 3m 97w	16.222

Total Length: 1500.00 ft Total Volume: 16.222 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: rw is .085n@ 82F = 76,000ppm



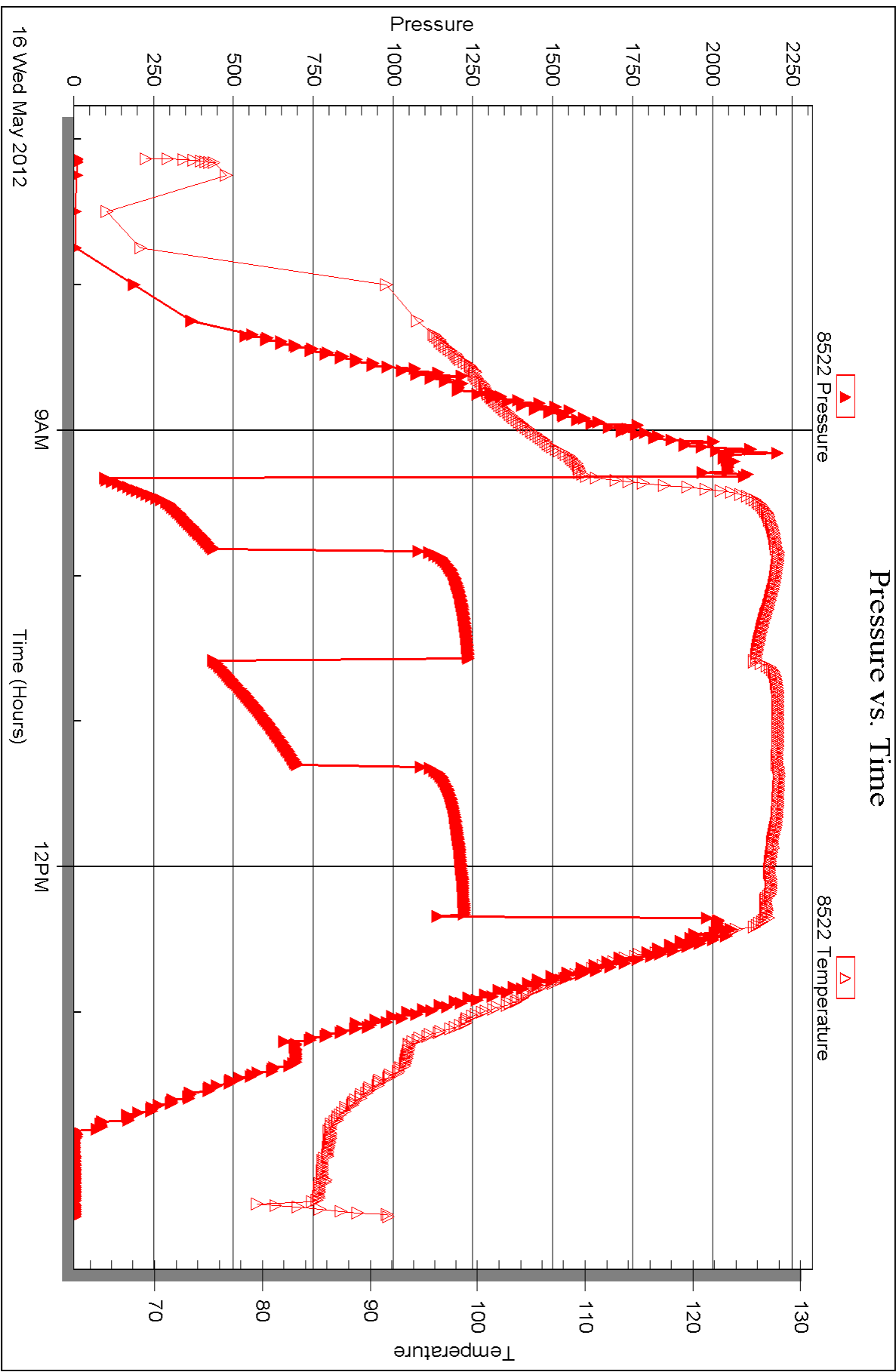
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 6





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.17 @ 23:04:00

End Date: 2012.05.18 @ 06:18:00

Job Ticket #: 46607 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.05.25 @ 14:33:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration inc.
 8100 E 22nd St N #700
 Wichita KS 67278 + 3188
 ATTN: Kim Shoemaker

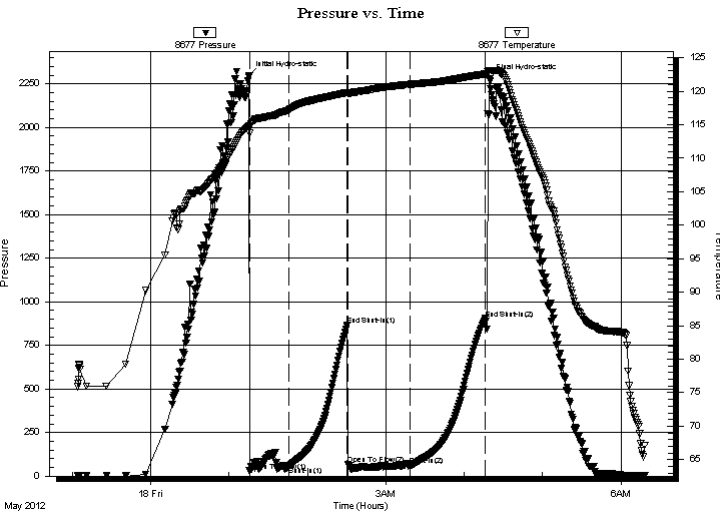
17 13s 31w Gove, KS
Ottley Bros 17C #1
 Job Ticket: 46607 **DST#: 7**
 Test Start: 2012.05.17 @ 23:04:00

GENERAL INFORMATION:

Formation: **Cherokee/Johnson**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 01:15:30
 Time Test Ended: 06:18:00
 Interval: **4505.00 ft (KB) To 4557.00 ft (KB) (TVD)**
 Total Depth: 4557.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 2938.00 ft (KB)
 2928.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
 Press @ Run Depth: 60.47 psig @ 4506.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.17 End Date: 2012.05.18 Last Calib.: 2012.05.18
 Start Time: 23:04:05 End Time: 06:17:59 Time On Btm: 2012.05.18 @ 01:15:15
 Time Off Btm: 2012.05.18 @ 04:19:15

TEST COMMENT: IF: 3" blow .
 IS: No return.
 FF: 8" blow .
 FS: Surface blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.50	114.89	Initial Hydro-static
1	30.26	113.75	Open To Flow (1)
31	57.99	117.23	Shut-In(1)
75	864.96	119.80	End Shut-In(1)
76	69.45	119.58	Open To Flow (2)
123	60.47	121.02	Shut-In(2)
181	902.89	122.55	End Shut-In(2)
184	2278.12	123.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
110.00	gmco 20g 20m 60o	0.54
0.00	370 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46607 **DST#: 7**
Test Start: 2012.05.17 @ 23:04:00

Tool Information

Drill Pipe:	Length: 3966.00 ft	Diameter: 3.80 inches	Volume: 55.63 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 58.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4505.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	79.00 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			4479.00	
Shut In Tool	5.00			4484.00	
Hydraulic tool	5.00			4489.00	
Jars	5.00			4494.00	
Safety Joint	2.00			4496.00	
Packer	5.00			4501.00	27.00 Bottom Of Top Packer
Packer	4.00			4505.00	
Stubb	1.00			4506.00	
Recorder	0.00	8677	Outside	4506.00	
Recorder	0.00	8522	Inside	4506.00	
Perforations	14.00			4520.00	
Change Over Sub	1.00			4521.00	
Drill Pipe	32.00			4553.00	
Change Over Sub	1.00			4554.00	
Bullnose	3.00			4557.00	52.00 Bottom Packers & Anchor

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.

17 13s 31w Gove, KS

8100 E 22nd St N #700
Wichita KS 67278 + 3188

Ottley Bros 17C #1

Job Ticket: 46607

DST#: 7

ATTN: Kim Shoemaker

Test Start: 2012.05.17 @ 23:04:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	gmco 20g 20m 60o	0.541
0.00	370 GIP	0.000

Total Length: 110.00 ft Total Volume: 0.541 bbl

Num Fluid Samples: 0

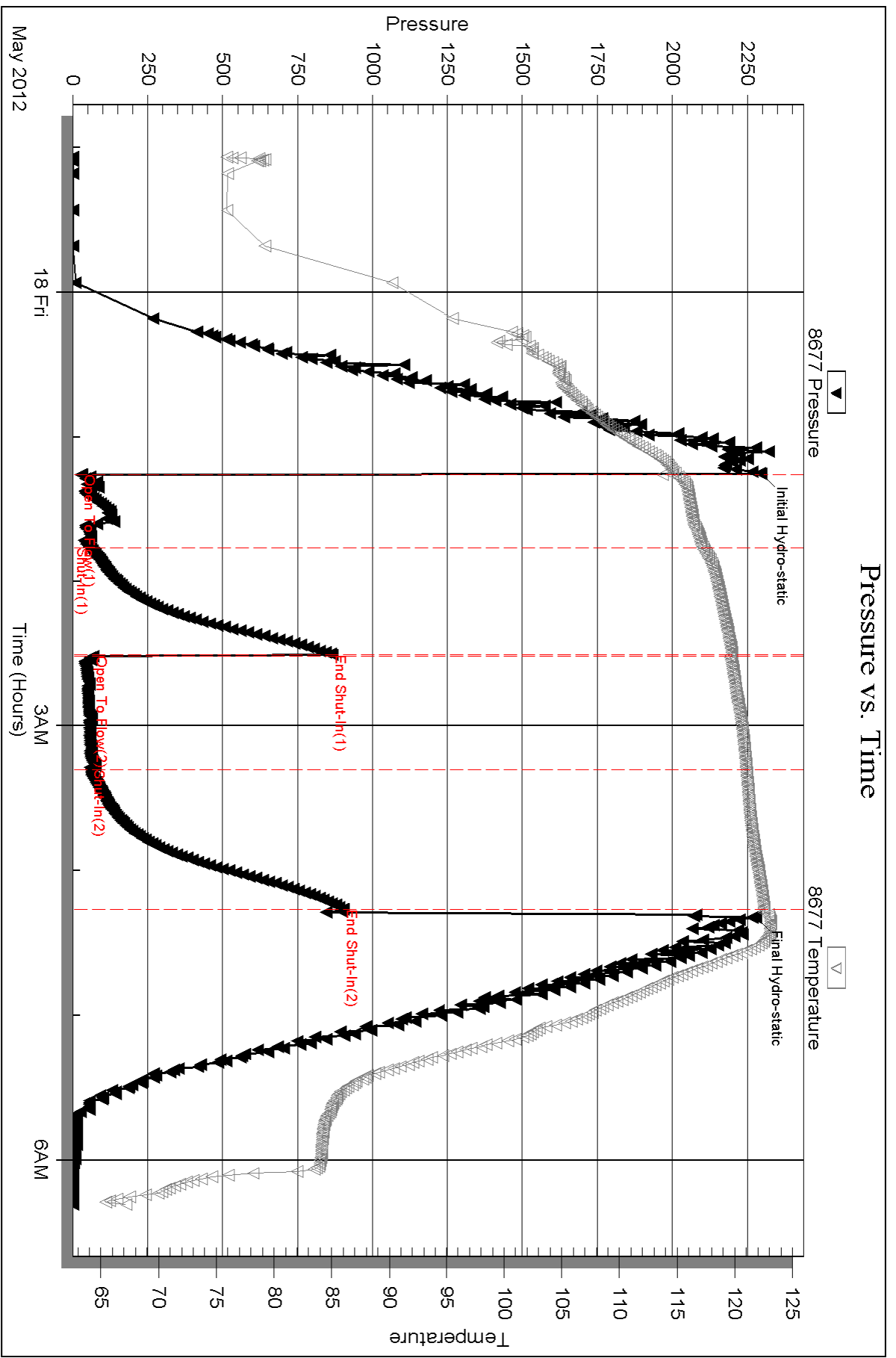
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



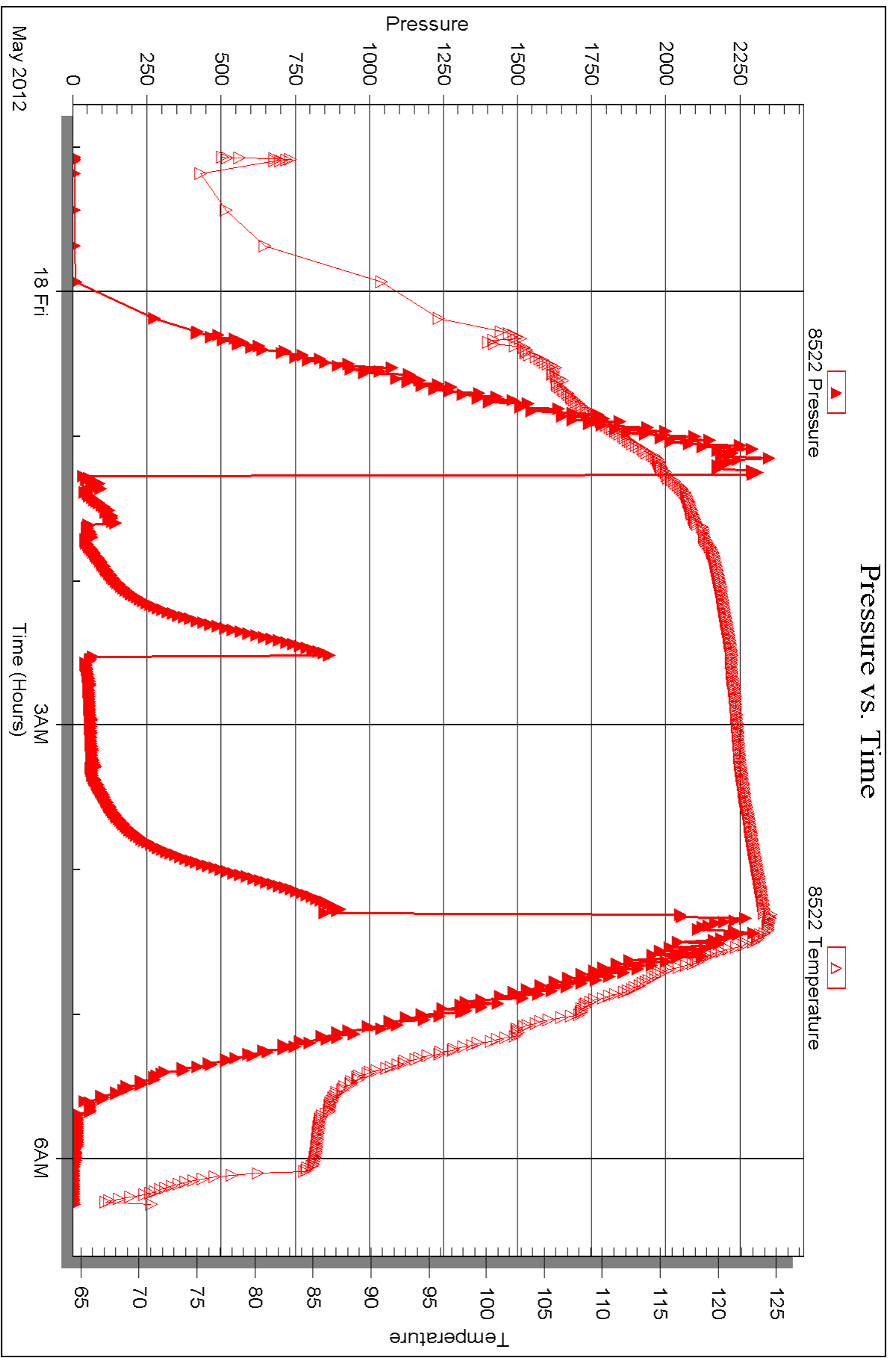
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bos 17C#1

DST Test Number: 7





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration inc.**

8100 E 22nd St N #700
Wichita KS 67278 + 3188

ATTN: Kim Shoemaker

Ottley Bros 17C #1

17 13s 31w Gove, KS

Start Date: 2012.05.18 @ 21:28:00

End Date: 2012.05.19 @ 05:32:15

Job Ticket #: 46608 DST #: 8

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

Printed: 2012.05.25 @ 14:32:22

Ritchie Exploration inc.
17 13s 31w Gove, KS
Ottley Bros 17C #1
DST # 8
Morrow
2012.05.18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration inc.
 8100 E 22nd St N #700
 Wichita KS 67278 + 3188
 ATTN: Kim Shoemaker

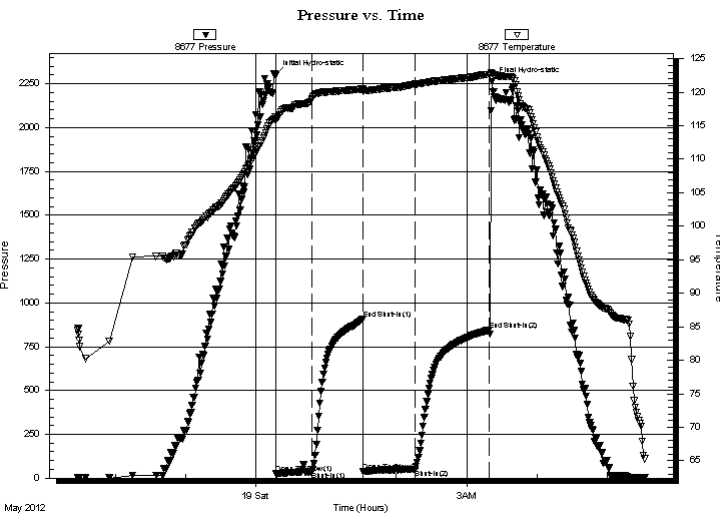
17 13s 31w Gove, KS
Ottley Bros 17C #1
 Job Ticket: 46608 **DST#: 8**
 Test Start: 2012.05.18 @ 21:28:00

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 00:17:15
 Time Test Ended: 05:32:15
 Interval: **4561.00 ft (KB) To 4617.00 ft (KB) (TVD)**
 Total Depth: 4617.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 53
 Reference Elevations: 2938.00 ft (KB)
 2928.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8677 Outside
 Press @ Run Depth: 50.87 psig @ 4562.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.18 End Date: 2012.05.19 Last Calib.: 2012.05.19
 Start Time: 21:28:05 End Time: 05:32:14 Time On Btm: 2012.05.19 @ 00:17:00
 Time Off Btm: 2012.05.19 @ 03:21:30

TEST COMMENT: IF: 1" blow.
 IS: No return.
 FF: Surface blow, Died @ 15 min.
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2300.51	116.42	Initial Hydro-static
1	24.69	115.79	Open To Flow (1)
31	36.75	118.99	Shut-In(1)
75	907.97	120.47	End Shut-In(1)
75	39.42	120.22	Open To Flow (2)
119	50.87	121.20	Shut-In(2)
183	845.28	122.65	End Shut-In(2)
185	2263.45	122.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	mud 100m (oil spots)	0.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46608 **DST#: 8**
Test Start: 2012.05.18 @ 21:28:00

Tool Information

Drill Pipe:	Length: 4030.00 ft	Diameter: 3.80 inches	Volume: 56.53 bbl	Tool Weight: 2500.00 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: 529.00 ft	Diameter: 2.25 inches	Volume: 2.60 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 59.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4561.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			4535.00	
Shut In Tool	5.00			4540.00	
Hydraulic tool	5.00			4545.00	
Jars	5.00			4550.00	
Safety Joint	2.00			4552.00	
Packer	5.00			4557.00	27.00 Bottom Of Top Packer
Packer	4.00			4561.00	
Stubb	1.00			4562.00	
Recorder	0.00	8677	Outside	4562.00	
Recorder	0.00	8522	Inside	4562.00	
Perforations	18.00			4580.00	
Change Over Sub	1.00			4581.00	
Drill Pipe	32.00			4613.00	
Change Over Sub	1.00			4614.00	
Bullnose	3.00			4617.00	56.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration inc.
8100 E 22nd St N #700
Wichita KS 67278 + 3188
ATTN: Kim Shoemaker

17 13s 31w Gove, KS
Ottley Bros 17C #1
Job Ticket: 46608 **DST#: 8**
Test Start: 2012.05.18 @ 21:28:00

Mud and Cushion Information

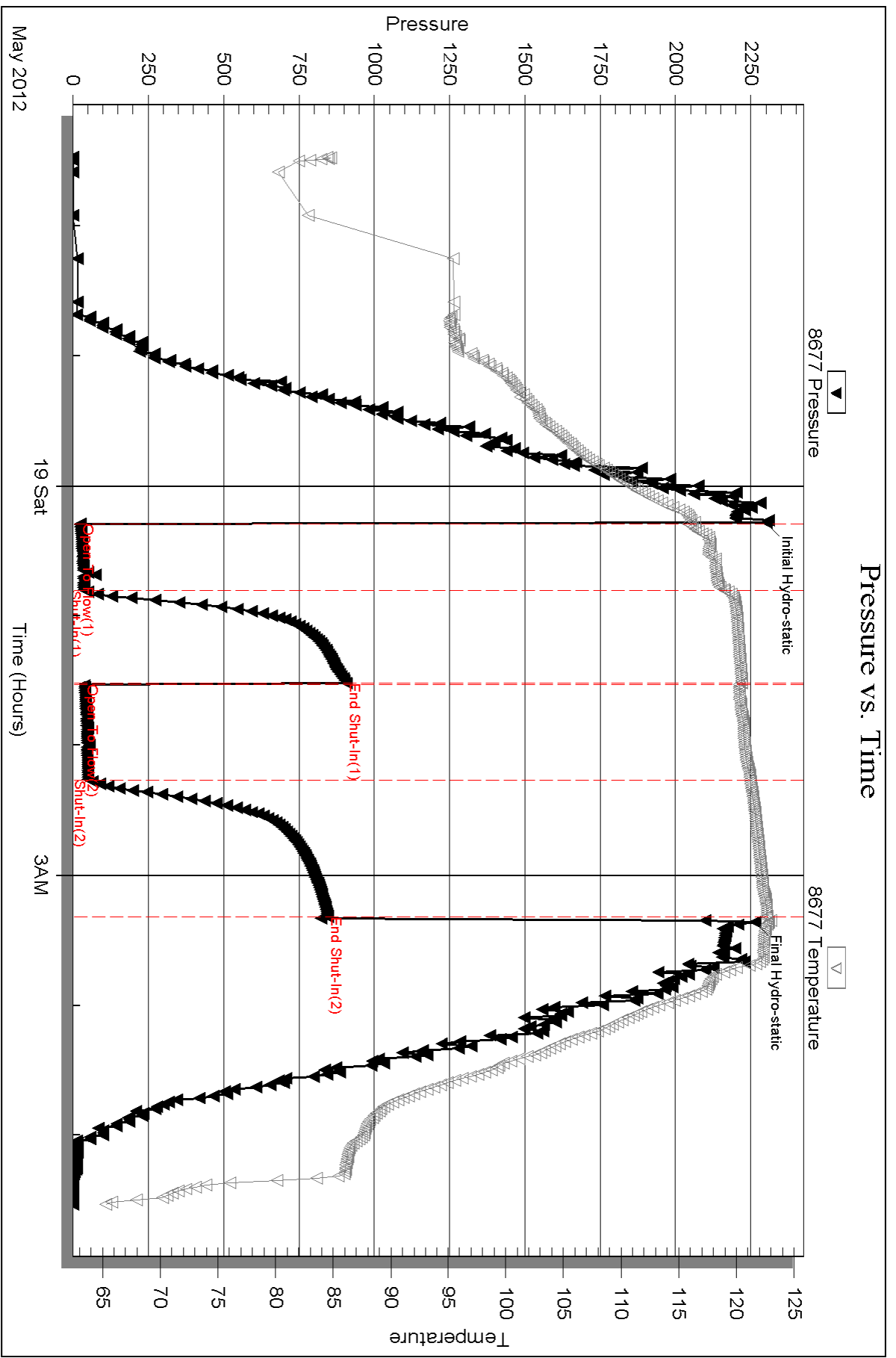
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	mud 100m (oil spots)	0.221

Total Length: 45.00 ft Total Volume: 0.221 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



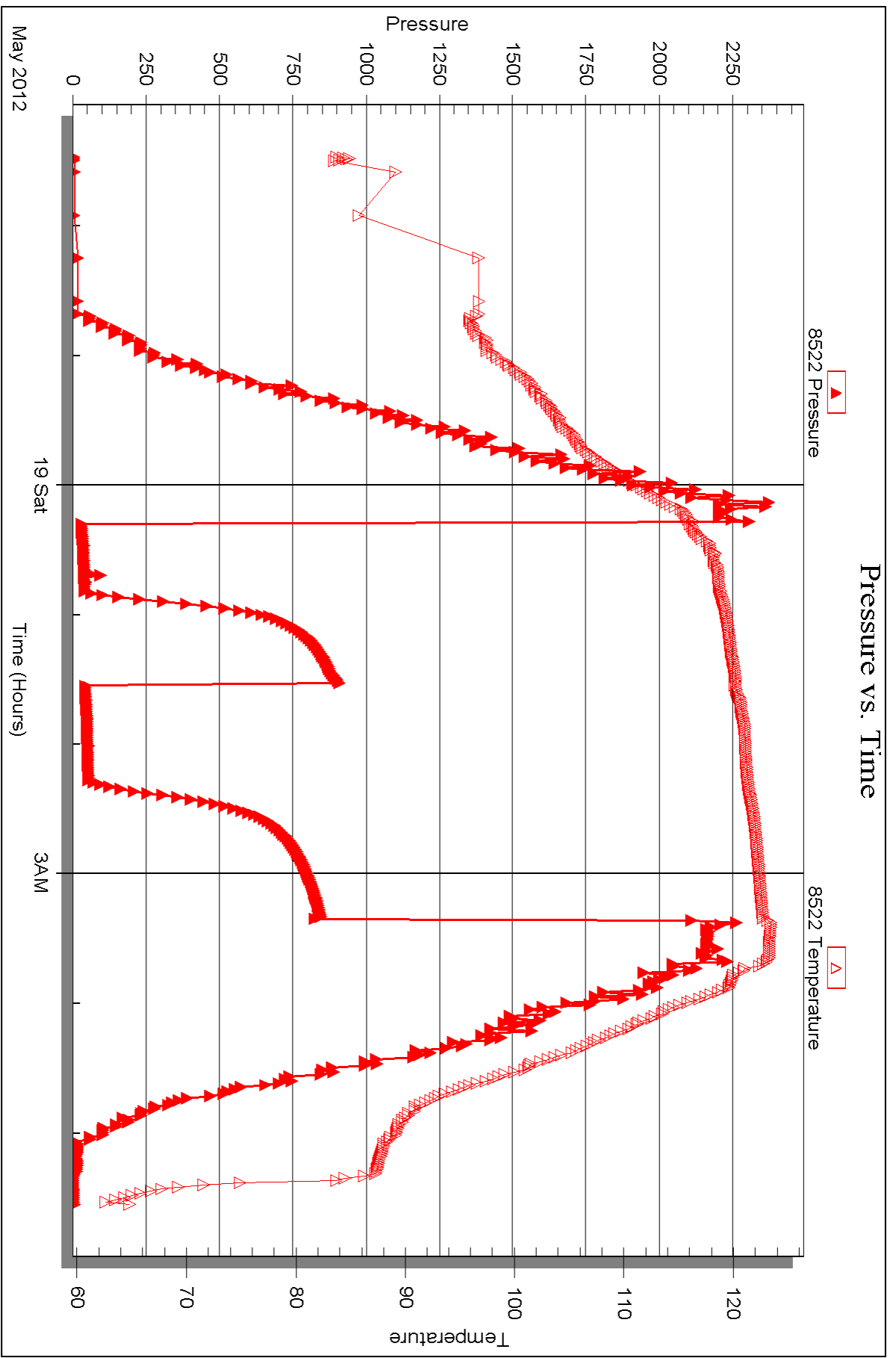
Serial #: 8522

Inside

Ritchie Exploration Inc.

Ottley Bros 17C#1

DST Test Number: 8



Triobite Testing, Inc

Ref. No: 46608

Printed: 2012.05.25 @ 14:32:25



Well Name & No. Ottley Bros. #1 176 Test No. 1 Date 5-13-12
 Company Ritche Exploration Inc Elevation 2938 KB 2928 GL
 Address 8100 E 22nd ST N # 700 Wichita KS 67278 + 3188
 Co. Rep / Geo. Kim Shoemaker Rig Murphy 14
 Location: Sec. 17 Twp. 13 Rge. 31 w Co. Gove State KS

Interval Tested 3993-4022 Zone Tested Lans 'C'
 Anchor Length 29 Drill Pipe Run 3457 Mud Wt. 9.0
 Top Packer Depth 3988 Drill Collars Run 529 Vis 56
 Bottom Packer Depth 3993 Wt. Pipe Run --- WL 6.8
 Total Depth 4022 Chlorides 4,000 ppm System LCM 1
 Blow Description Built to 8 1/2 inch
NO Return
BOB 35 minutes
NO Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>705</u>	<u>MW</u>			<u>80</u>	<u>20</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 705 BHT 121° Gravity --- API RW 110 @ 57 °F Chlorides 85,000 ppm

(A) Initial Hydrostatic <u>2014</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>3:00</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>3:18</u>
(C) First Final Flow <u>211</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>5:35</u>
(D) Initial Shut-In <u>1119</u>	<input checked="" type="checkbox"/> Circ Sub <u>NK</u>	T-Pulled <u>8:35</u>
(E) Second Initial Flow <u>215</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:13</u>
(F) Second Final Flow <u>342</u>	<input checked="" type="checkbox"/> Mileage <u>86</u> ⁷⁵ <u>R/T</u> <u>116.25</u>	Comments _____
(G) Final Shut-In <u>1,106</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1916</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>66</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1691.25</u>
	Sub Total <u>1691.25</u>	MP/DST Disc't _____

Approved By [Signature] Our Representative Col Archibald
 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. 46602

4/10

Well Name & No. Ottley Bros 17c #1 Test No. 2 Date 5/14/12
 Company Ritchie, Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E 22nd St N #700 Wichita, ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig Martin #14
 Location: Sec. 17 Twp. 13 S Rge. 31 W Co. Gove State Ks

Interval Tested 2938 4040 - 4068 Zone Tested LKC E/F
 Anchor Length 28 Drill Pipe Run 3492 Mud Wt. 9.2
 Top Packer Depth 4035 Drill Collars Run 529 Vis 52
 Bottom Packer Depth 4040 Wt. Pipe Run 0 WL 9.2
 Total Depth 4068 Chlorides 5800 ppm System LCM 4#

Blow Description IF: BOB @ 25 min.
ISI: No return.
FF: BOB @ 25 min.
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>703</u>	<u>SMCW (oil spots IN TOOL)</u>			<u>95%</u>	<u>5%</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 703 BHT 122 Gravity — API RW .175 @ 60 °F Chlorides 70,000 ppm

(A) Initial Hydrostatic <u>2038</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1925 5/13</u>
(B) First Initial Flow <u>26</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1954 5/13</u>
(C) First Final Flow <u>192</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2204 ''</u>
(D) Initial Shut-In <u>1224</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0104 5/14</u>
(E) Second Initial Flow <u>194</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0257 ''</u>
(F) Second Final Flow <u>324</u>	<input checked="" type="checkbox"/> Mileage <u>75 50 RT</u> <u>116.25</u>	Comments
(G) Final Shut-In <u>1208</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1920</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer

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

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1691.25

Sub Total 1691.25

MP/DST Disc

Approved By _____ Our Representative

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. 46603

Well Name & No. Otley Bros 17c #1 Test No. 3 Date 5/14/12
 Company Ritchie Exploration, Inc Elevation 2936 KB 2928 GL
 Address 8100 E 22nd St N. #900 Wichita, Ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig MudAn #14
 Location: Sec. 17 Twp. 13s Rge. 31w Co. Gove State Ks

Interval Tested 4124 4150 Zone Tested LKC 'H'
 Anchor Length 26' Drill Pipe Run 3586 Mud Wt. 9.5
 Top Packer Depth 4119 Drill Collars Run 529 Vis LS
 Bottom Packer Depth 4124 Wt. Pipe Run 0 WL 6.8
 Total Depth 4150 Chlorides 6800 ppm System LCM 58

Blow Description IF: BOB @ 19 min.
ISI: No return.
FF: BOB @ ~~23 min~~ 2" blow.
FST: No return.

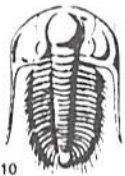
Rec	Feet of	%gas	%oil	%water	%mud
<u>410</u>	<u>MCW</u>			<u>85</u>	<u>15</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 410 BHT 120 Gravity - API RW .140 @ 71 °F Chlorides 61,000 ppm

(A) Initial Hydrostatic <u>2117</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>1145</u>
(B) First Initial Flow <u>62</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1230</u>
(C) First Final Flow <u>183</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1454</u>
(D) Initial Shut-In <u>204</u>	<input checked="" type="checkbox"/> Circ Sub <u>M/C</u>	T-Pulled <u>1734</u>
(E) Second Initial Flow <u>174</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1936</u>
(F) Second Final Flow <u>204</u>	<input checked="" type="checkbox"/> Mileage <u>75 R/T</u> 116.25	Comments _____
(G) Final Shut-In <u>212</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>2017</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1691.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1691.25</u>	

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46604

4/10

Well Name & No. Ottley Bros 17c #1 Test No. 4 Date 5/15/12
 Company Ritchie Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E 22nd St. N #700 Wichita, ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig Mutin #14
 Location: Sec. 17 Twp. 13s Rge. 31w Co. Gore State Ks

Interval Tested 4156 - 4183 Zone Tested LKC "I"
 Anchor Length 26' Drill Pipe Run 3618 Mud Wt. 9.3
 Top Packer Depth 4151 Drill Collars Run 529 Vis 63
 Bottom Packer Depth 4156 Wt. Pipe Run 0 WL 6.8
 Total Depth 4183 Chlorides 6400 ppm System LCM 5#
 Blow Description IF: BOB @ 7 min
IS: No return.
FF: BOB @ 11 min.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
1105	SNCW		97	3	

Rec Total 1105 BHT 125 Gravity — API RW .910 @ 66 °F Chlorides 92,000 ppm

(A) Initial Hydrostatic <u>2143</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0215</u>
(B) First Initial Flow <u>78</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0234</u>
(C) First Final Flow <u>385</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0438</u>
(D) Initial Shut-In <u>1196</u>	<input checked="" type="checkbox"/> Circ Sub N/c	T-Pulled <u>0738</u>
(E) Second Initial Flow <u>383</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0934</u>
(F) Second Final Flow <u>607</u>	<input checked="" type="checkbox"/> Mileage <u>75.47</u> <u>116.25</u>	Comments
(G) Final Shut-In <u>1190</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1987</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1691.25</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1691.25</u>	

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46605

4/10

Well Name & No. Ottley Bros 17c #1 Test No. 5 Date 5/15/12
 Company Ritchie Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E 22nd St. N. #700 Wichita, Ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig Martin #14
 Location: Sec. 17 Twp. 13S Rge. 31W Co. Gove State Ks

Interval Tested 4181 - 4200 Zone Tested LKC '5'
 Anchor Length 19' Drill Pipe Run 3649 Mud Wt. 9.2
 Top Packer Depth 4176 Drill Collars Run 529 Vis 61
 Bottom Packer Depth 4181 Wt. Pipe Run 0 WL 8.0
 Total Depth 4200 Chlorides 6,000 ppm System LCM 4#
 Blow Description IF: 6" blow.
ISI: No return.
FF: 7" blow
FSI: No return.

Rec	Feet of	(Oil Specs)	%gas	%oil	%water	%mud
<u>430</u>	<u>mcw</u>			<u>80</u>	<u>20</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 430 BHT 123 Gravity — API RW .105 @ 66 °F Chlorides 77,000 ppm

(A) Initial Hydrostatic <u>2134</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1530</u>
(B) First Initial Flow <u>64</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1602</u>
(C) First Final Flow <u>104</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1803</u>
(D) Initial Shut-In <u>1227</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/L</u>	T-Pulled <u>2103</u>
(E) Second Initial Flow <u>106</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2259</u>
(F) Second Final Flow <u>213</u>	<input checked="" type="checkbox"/> Mileage <u>75 R/t</u> <u>116.25</u>	Comments
(G) Final Shut-In <u>1225</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1990</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1691.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1691.25</u>	

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46606

4/10

Well Name & No. Ottley Bros 17c #1 Test No. 6 Date 5/16/12
 Company Ritchie Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E. 22nd St N. #700 Wichita, Kc 67278
 Co. Rep / Geo. Kim Shoemaker Rig MurAn #14
 Location: Sec. 17 Twp. 13s Rge. 31w Co. Gove State Ks

Interval Tested 4208 - 4234 Zone Tested LKc K
 Anchor Length 26' Drill Pipe Run 3681 Mud Wt. 9.2
 Top Packer Depth 4203 Drill Collars Run 529 Vis 52
 Bottom Packer Depth 4208 Wt. Pipe Run 0 WL 9.2
 Total Depth 4234 Chlorides 5000 ppm System LCM 3[#]
 Blow Description IF: BOB @ 4^{min}.
TSI: No return
FF: BOB @ 5^{min}.
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1500</u>	<u>5MCW</u>			<u>97%</u>	<u>3</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 1500 BHT 127 Gravity - API RW .085 @ 62 °F Chlorides 76,000 ppm

(A) Initial Hydrostatic <u>2097</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0630</u>
(B) First Initial Flow <u>67</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0708</u>
(C) First Final Flow <u>436</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0919</u>
(D) Initial Shut-In <u>1236</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1219</u>
(E) Second Initial Flow <u>431</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1423</u>
(F) Second Final Flow <u>699</u>	<input checked="" type="checkbox"/> Mileage <u>75 1/4</u> <u>116.25</u>	Comments
(G) Final Shut-In <u>1224</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2019</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1691.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1691.25</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46607

Well Name & No. Ottley Bros 17c #1 Test No. 7 Date 5/18/12
 Company Ritchie Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E. 22nd st N. #700 Wichita, Ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig Murfm #14
 Location: Sec. 17 Twp. 135 Rge. 31w Co. Gove State Ks

Interval Tested 4505 - 4557 Zone Tested Cherokee / Johnson
 Anchor Length 52' Drill Pipe Run 3964 Mud Wt. 9.2
 Top Packer Depth 4500 Drill Collars Run 529 Vis 52
 Bottom Packer Depth 4505 Wt. Pipe Run 0 WL 9.6
 Total Depth 4557 Chlorides 5200 ppm System LCM 3 #
 Blow Description IF: 3" blow
BI: No return
FF: 8" blow
FST: Surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>6MCO</u>	<u>20</u>	<u>60</u>	<u>20</u>	<u>0</u>
	<u>370 GIP</u>				

Rec Total 110 BHT 123 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2296</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>2245 5/17</u>
(B) First Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2304 5/17</u>
(C) First Final Flow <u>58</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0116 5/18</u>
(D) Initial Shut-In <u>865</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0416 "</u>
(E) Second Initial Flow <u>69</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0619 5/18</u>
(F) Second Final Flow <u>60</u>	<input checked="" type="checkbox"/> Mileage <u>75 N/7</u> 116.25	Comments
(G) Final Shut-In <u>902</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2278</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1691.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1691.25</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. 46608

4/10

Well Name & No. Ottley Bros 17c #1 Test No. 8 Date 5/19/12
 Company Ritchie Exploration, Inc Elevation 2938 KB 2928 GL
 Address 8100 E. 22nd st N. #700 Wichita, Ks 67278
 Co. Rep / Geo. Kim Shoemaker Rig Martin #14
 Location: Sec. 17 Twp. 13s Rge. 31w Co. Gove State Ks

Interval Tested 4561 - 4617 Zone Tested Morrow
 Anchor Length 56 Drill Pipe Run 3040 Mud Wt. 9.2
 Top Packer Depth 4556 Drill Collars Run 529 Vis 57
 Bottom Packer Depth 4561 Wt. Pipe Run Ø WL 7.2
 Total Depth 4617 Chlorides 5,000 ppm System LCM 3#
 Blow Description IF: 1" blow.
ISI: No return.
FF: Surface blow, Died @ 15 min.
FST: No returns

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>MUD (OIL SPOTS)</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 45 BHT 123 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2301</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>2115 5/18</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>2128 "</u>
(C) First Final Flow <u>37</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>0017 5/19</u>
(D) Initial Shut-In <u>908</u>	<input checked="" type="checkbox"/> Circ Sub <u>1/4</u>	T-Pulled <u>0317 "</u>
(E) Second Initial Flow <u>39</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0552 :1</u>
(F) Second Final Flow <u>51</u>	<input checked="" type="checkbox"/> Mileage <u>75 R/T</u> 116.25	Comments
(G) Final Shut-In <u>845</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2263</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input checked="" type="checkbox"/> Ruined Packer <u>320</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>2011.25</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1691.25</u>	

Approved By _____ Our Representative [Signature]

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