



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc**

1616 S Voss Rd STE 600
Houston TX 77057-2641

ATTN: Terry McLeod

Unruh #1-6

6-17n-33w Scott,KS

Start Date: 2014.04.27 @ 23:10:00

End Date: 2014.04.28 @ 10:52:45

Job Ticket #: 56475 DST #: 1

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

Printed: 2014.05.02 @ 11:14:02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Landmark Resources, Inc
 1616 S Voss Rd STE 600
 Houston TX 77057-2641
 ATTN: Terry McLeod

6-17n-33w Scott,KS

Unruh #1-6

Job Ticket: 56475

DST#: 1

Test Start: 2014.04.27 @ 23:10:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:03:15

Time Test Ended: 10:52:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 75

Interval: 4404.00 ft (KB) To 4465.00 ft (KB) (TVD)

Reference Elevations: 3098.00 ft (KB)

Total Depth: 4465.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press@RunDepth: 177.74 psig @ 4405.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.27

End Date:

2014.04.28

Last Calib.:

2014.04.28

Start Time:

23:10:15

End Time:

10:52:45

Time On Btm:

2014.04.28 @ 05:01:45

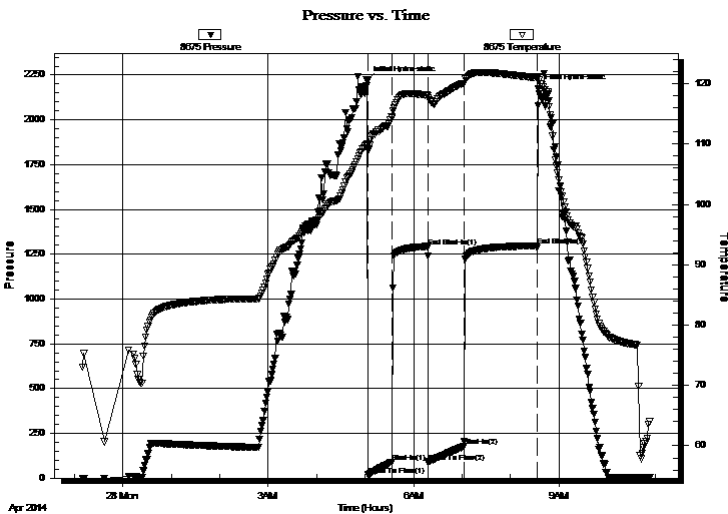
Time Off Btm:

2014.04.28 @ 08:34:45

TEST COMMENT:

Built to 9"
 Bled off for 5 min. No return blow
 B.O.B. in 35 min.
 Bled off for 5 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2220.95	109.74	Initial Hydro-static
2	18.65	109.10	Open To Flow (1)
32	90.44	114.31	Shut-In(1)
76	1293.50	118.09	End Shut-In(1)
77	90.05	117.61	Open To Flow (2)
121	177.74	120.08	Shut-In(2)
211	1296.62	121.00	End Shut-In(2)
213	2176.02	121.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
156.00	100% Mud	2.19
252.00	mcw 20%M 80%W	3.53

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 56475

DST#: 1

ATTN: Terry McLeod

Test Start: 2014.04.27 @ 23:10:00

Tool Information

Drill Pipe:	Length: 4410.92 ft	Diameter: 3.80 inches	Volume: 61.87 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.42 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4404.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	83.50 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			4382.50	
Shut In Tool	5.00			4387.50	
Hydraulic tool	5.00			4392.50	
Safety Joint	2.50			4395.00	
Packer	5.00			4400.00	22.50 Bottom Of Top Packer
Packer	4.00			4404.00	
Stubb	1.00			4405.00	
Recorder	0.00	8675	Inside	4405.00	
Recorder	0.00	8650	Outside	4405.00	
perforations	24.00			4429.00	
Change Over Sub	1.00			4430.00	
Drill Pipe	31.00			4461.00	
Change Over Sub	1.00			4462.00	
Bullnose	3.00			4465.00	61.00 Bottom Packers & Anchor

Total Tool Length: 83.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 56475

DST#: 1

ATTN: Terry McLeod

Test Start: 2014.04.27 @ 23:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
156.00	100% Mud	2.188
252.00	mcw 20%M 80%W	3.535

Total Length: 408.00 ft Total Volume: 5.723 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .20 @ 58 F = 40,000

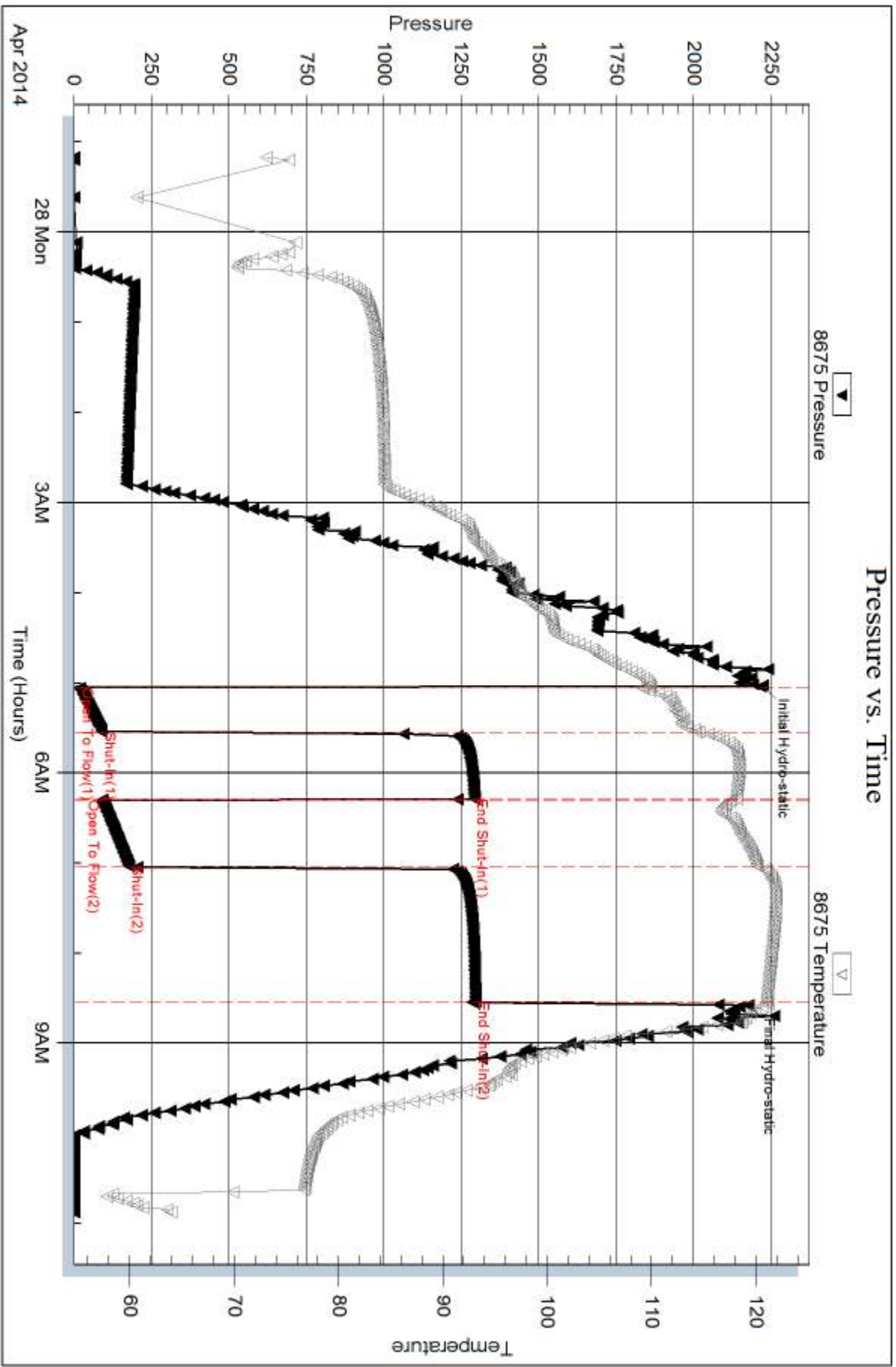
Serial #: 8675

Inside

Landmark Resources, Inc

Unruh #1-6

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56475

Printed: 2014.05.02 @ 11:14:04



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc**

1616 S Voss Rd STE 600
Houston TX 77057-2641

ATTN: Terry McLeod

Unruh #1-6

6-17n-33w Scott,KS

Start Date: 2014.04.28 @ 22:25:00

End Date: 2014.04.29 @ 06:59:45

Job Ticket #: 57001 DST #: 2

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

Printed: 2014.05.02 @ 11:13:35



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources, Inc
 1616 S Voss Rd STE 600
 Houston TX 77057-2641
 ATTN: Terry McLeod

6-17n-33w Scott,KS

Unruh #1-6

Job Ticket: 57001

DST#: 2

Test Start: 2014.04.28 @ 22:25:00

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:16:45
 Time Test Ended: 06:59:45
 Interval: **4463.00 ft (KB) To 4520.00 ft (KB) (TVD)**
 Total Depth: 4520.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Poor
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jace McKinney
 Unit No: 75
 Reference Elevations: 3098.00 ft (KB)
 3093.00 ft (CF)
 KB to GR/CF: 5.00 ft

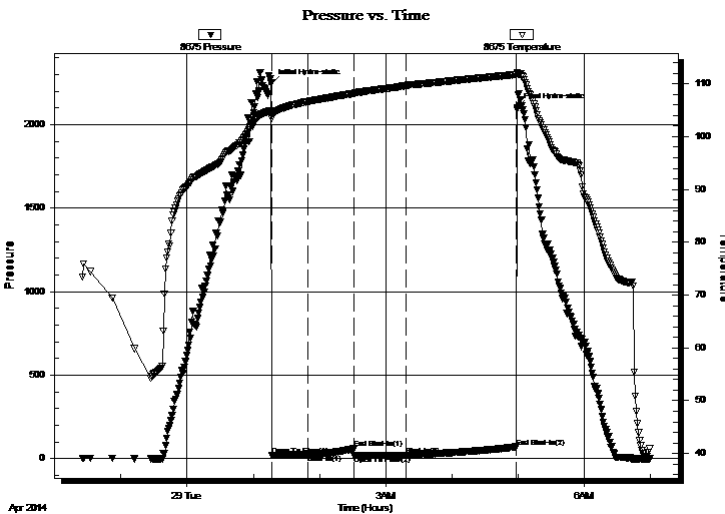
Serial #: 8675

Inside

Press@RunDepth: 21.95 psig @ 4464.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.28 End Date: 2014.04.29 Last Calib.: 2014.04.29
 Start Time: 22:25:15 End Time: 06:59:45 Time On Btm: 2014.04.29 @ 01:16:30
 Time Off Btm: 2014.04.29 @ 04:59:00

TEST COMMENT: Built to 1/2" blow
 No return blow
 No blow
 No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2247.07	104.88	Initial Hydro-static
1	18.70	103.41	Open To Flow (1)
33	23.61	106.65	Shut-In(1)
75	60.56	108.16	End Shut-In(1)
75	21.05	108.13	Open To Flow (2)
123	21.95	109.70	Shut-In(2)
222	71.86	111.75	End Shut-In(2)
223	2100.82	112.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.07

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Landmark Resources, Inc

6-17n-33w Scott, KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57001

DST#: 2

ATTN: Terry McLeod

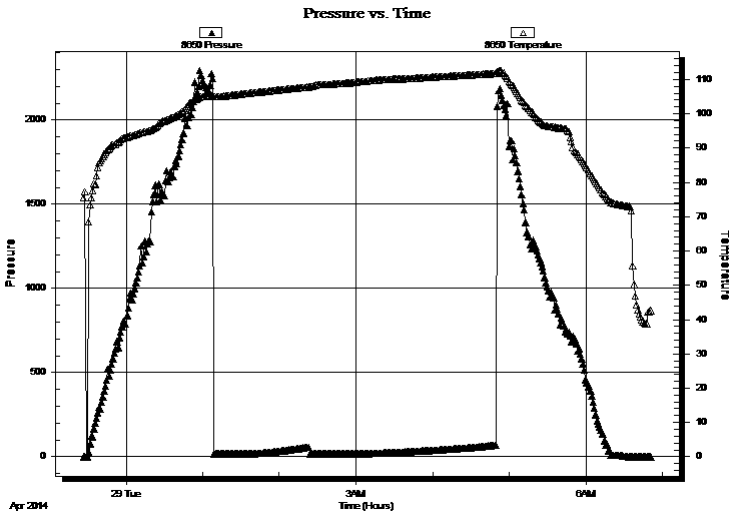
Test Start: 2014.04.28 @ 22:25:00

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 01:16:45
 Tester: Jace McKinney
 Time Test Ended: 06:59:45
 Unit No: 75
Interval: 4463.00 ft (KB) To 4520.00 ft (KB) (TVD)
 Reference Elevations: 3098.00 ft (KB)
 Total Depth: 4520.00 ft (KB) (TVD)
 3093.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Poor
 KB to GR/CF: 5.00 ft

Serial #: 8650 **Outside**
 Press@RunDepth: psig @ 4464.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.28 End Date: 2014.04.29 Last Calib.: 2014.04.29
 Start Time: 23:26:45 End Time: 06:51:15 Time On Btm:
 Time Off Btm:

TEST COMMENT: Built to 1/2" blow
 No return blow
 No blow
 No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100% Mud	0.07

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57001

DST#: 2

ATTN: Terry McLeod

Test Start: 2014.04.28 @ 22:25:00

Tool Information

Drill Pipe:	Length: 4474.64 ft	Diameter: 3.80 inches	Volume: 62.77 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 62.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	34.14 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4463.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	79.50 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			4441.50	
Shut In Tool	5.00			4446.50	
Hydraulic tool	5.00			4451.50	
Safety Joint	2.50			4454.00	
Packer	5.00			4459.00	22.50 Bottom Of Top Packer
Packer	4.00			4463.00	
Stubb	1.00			4464.00	
Recorder	0.00	8675	Inside	4464.00	
Recorder	0.00	8650	Outside	4464.00	
perforations	20.00			4484.00	
Change Over Sub	1.00			4485.00	
Drill Pipe	31.00			4516.00	
Change Over Sub	1.00			4517.00	
Bullnose	3.00			4520.00	57.00 Bottom Packers & Anchor

Total Tool Length: 79.50



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57001

DST#: 2

ATTN: Terry McLeod

Test Start: 2014.04.28 @ 22:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 55.00 sec/qt

Cushion Volume: bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	100% Mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

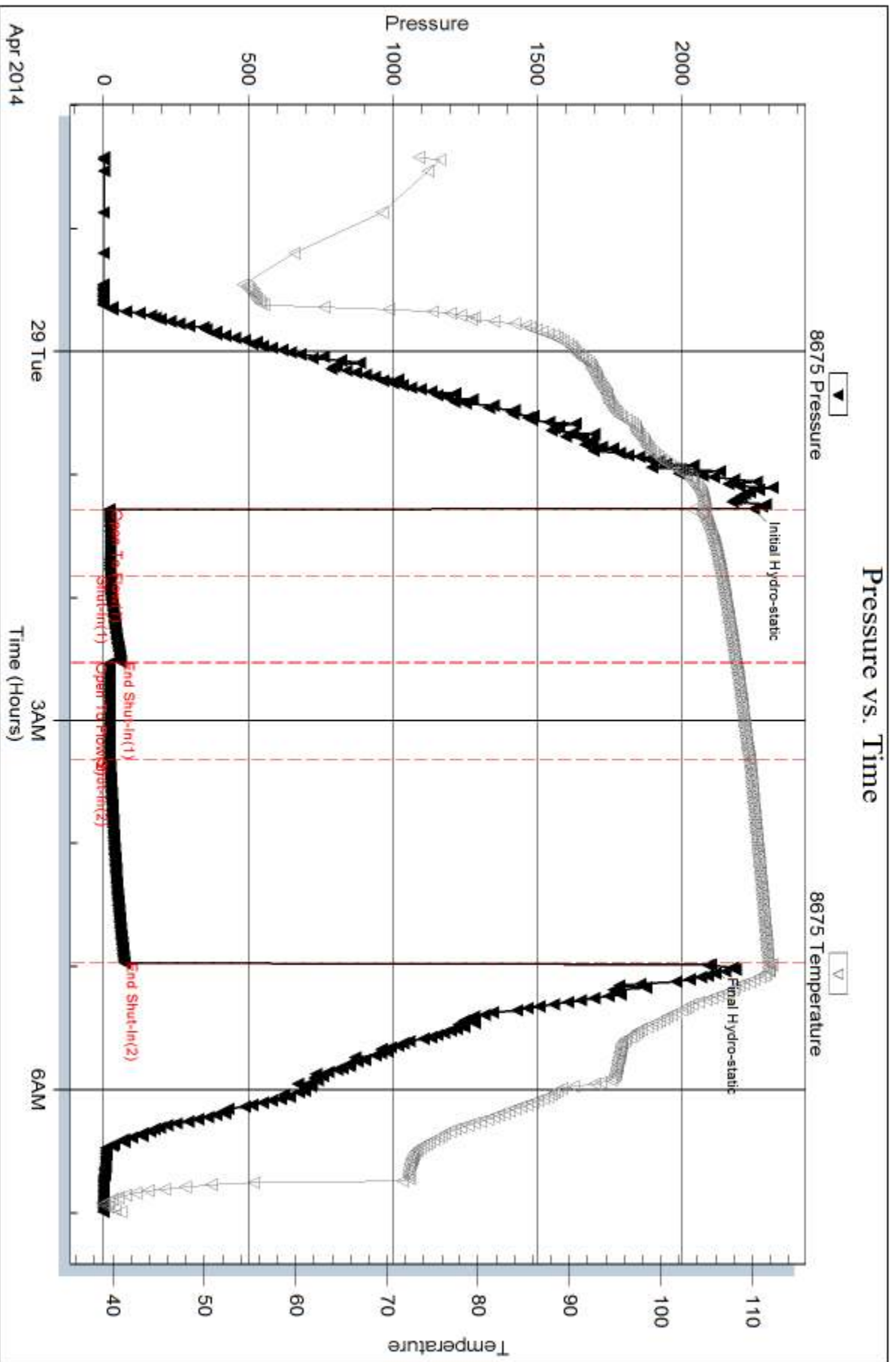
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

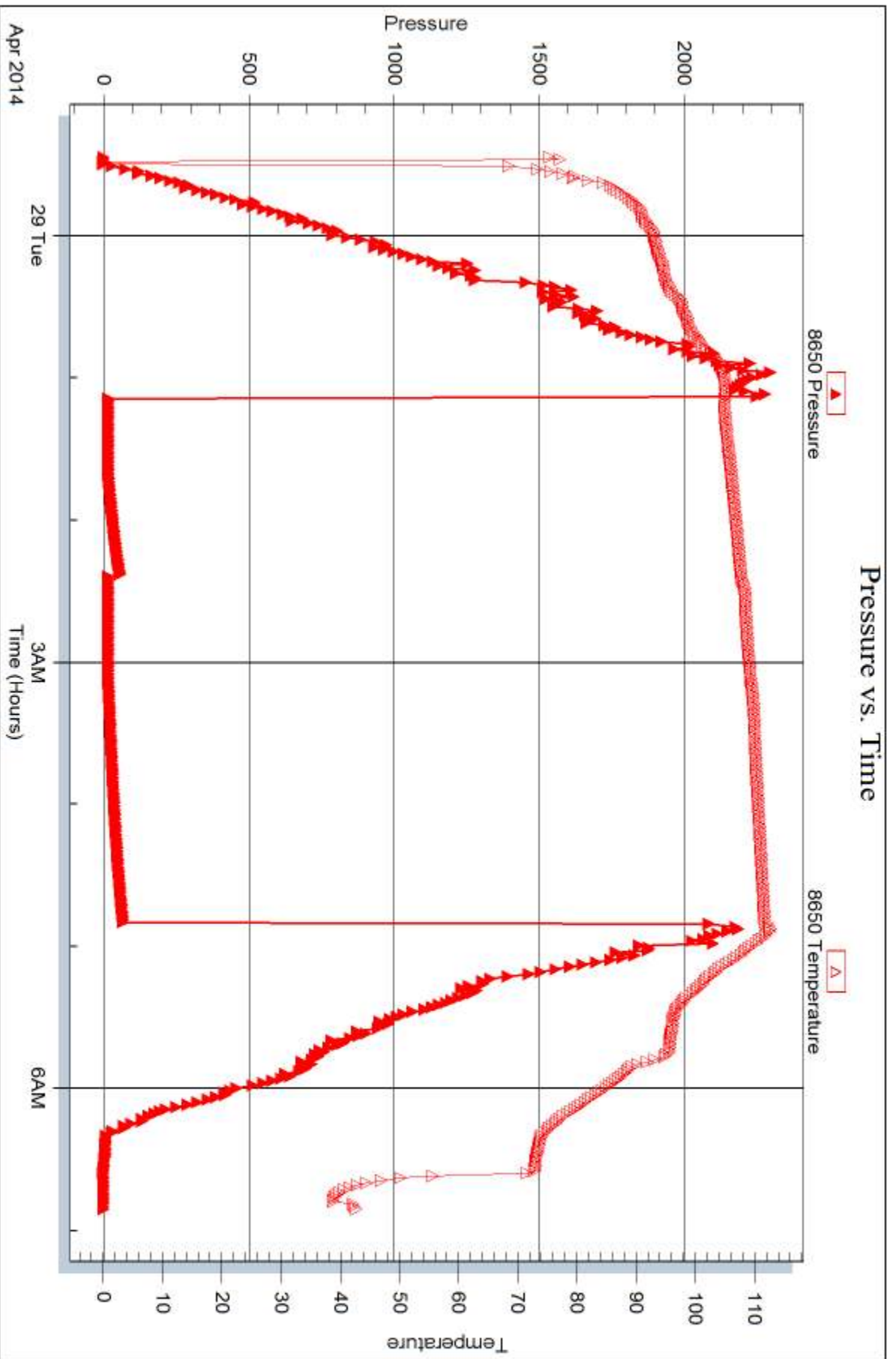


Serial #: 8650

Outside Landmark Resources, Inc

Unruh #1-6

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 57001

Printed: 2014.05.02 @ 11:13:37



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc**

1616 S Voss Rd STE 600
Houston TX 77057-2641

ATTN: Terry McLeod

Unruh #1-6

6-17n-33w Scott,KS

Start Date: 2014.04.29 @ 21:55:00

End Date: 2014.04.30 @ 05:30:15

Job Ticket #: 57002 DST #: 3

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

Printed: 2014.05.02 @ 11:13:02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57002

DST#: 3

ATTN: Terry McLeod

Test Start: 2014.04.29 @ 21:55:00

GENERAL INFORMATION:

Formation: **Myric Station - Fort**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:06:45

Time Test Ended: 05:30:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4546.00 ft (KB) To 4602.00 ft (KB) (TVD)

Reference Elevations: 3098.00 ft (KB)

Total Depth: 4602.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8675

Inside

Press@RunDepth: 34.65 psig @ 4547.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.29

End Date:

2014.04.30

Last Calib.:

2014.04.29

Start Time: 22:01:45

End Time:

05:33:15

Time On Btm:

2014.04.30 @ 00:09:30

Time Off Btm:

2014.04.30 @ 03:40:15

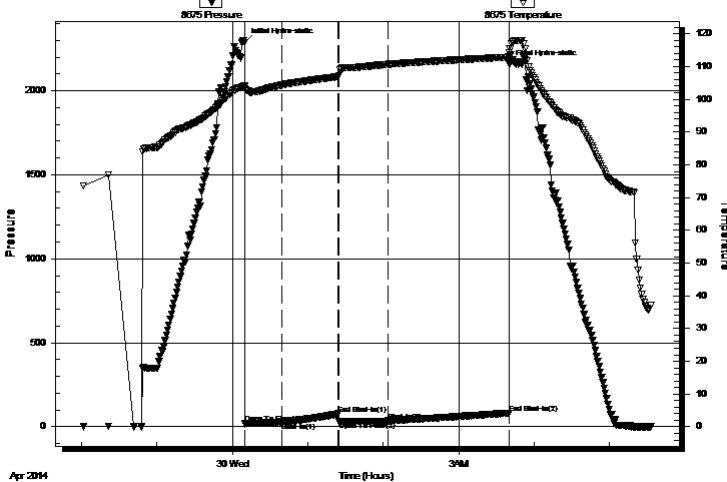
TEST COMMENT: Built to 1 1/4" blow

No return blow

Built to 3/4" blow

No return blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2287.02	103.98	Initial Hydro-static
1	18.45	103.13	Open To Flow (1)
30	25.59	104.37	Shut-In(1)
75	77.05	106.90	End Shut-In(1)
75	29.76	107.27	Open To Flow (2)
115	34.65	110.65	Shut-In(2)
211	81.93	112.86	End Shut-In(2)
211	2158.19	114.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% Mud	0.42

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources, Inc
 1616 S Voss Rd STE 600
 Houston TX 77057-2641
 ATTN: Terry McLeod

6-17n-33w Scott,KS

Unruh #1-6

Job Ticket: 57002

DST#: 3

Test Start: 2014.04.29 @ 21:55:00

GENERAL INFORMATION:

Formation: **Myric Station - Fort**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:06:45

Time Test Ended: 05:30:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4546.00 ft (KB) To 4602.00 ft (KB) (TVD)

Reference Elevations: 3098.00 ft (KB)

Total Depth: 4602.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8650 Outside

Press@RunDepth: psig @ 4547.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.29

End Date: 2014.04.30

Last Calib.: 1899.12.30

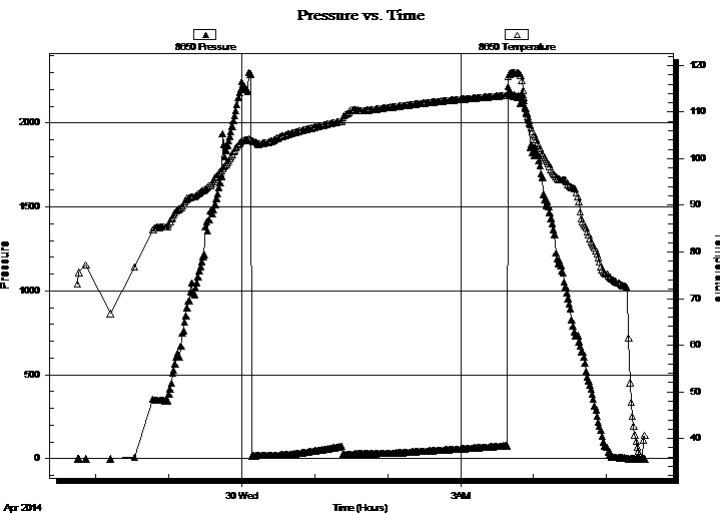
Start Time: 21:45:15

End Time: 05:31:30

Time On Btm:

Time Off Btm:

TEST COMMENT: Built to 1 1/4" blow
 No return blow
 Built to 3/4" blow
 No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	100% Mud	0.42

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57002

DST#: 3

ATTN: Terry McLeod

Test Start: 2014.04.29 @ 21:55:00

Tool Information

Drill Pipe:	Length: 4538.17 ft	Diameter: 3.80 inches	Volume: 63.66 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 63.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.67 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4546.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	78.50 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			4524.50	
Shut In Tool	5.00			4529.50	
Hydraulic tool	5.00			4534.50	
Safety Joint	2.50			4537.00	
Packer	5.00			4542.00	22.50 Bottom Of Top Packer
Packer	4.00			4546.00	
Stubb	1.00			4547.00	
Recorder	0.00	8675	Inside	4547.00	
Recorder	0.00	8650	Outside	4547.00	
perforations	18.00			4565.00	
Change Over Sub	1.00			4566.00	
Drill Pipe	32.00			4598.00	
Change Over Sub	1.00			4599.00	
Bullnose	3.00			4602.00	56.00 Bottom Packers & Anchor

Total Tool Length: 78.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57002

DST#: 3

ATTN: Terry McLeod

Test Start: 2014.04.29 @ 21:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	100% Mud	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

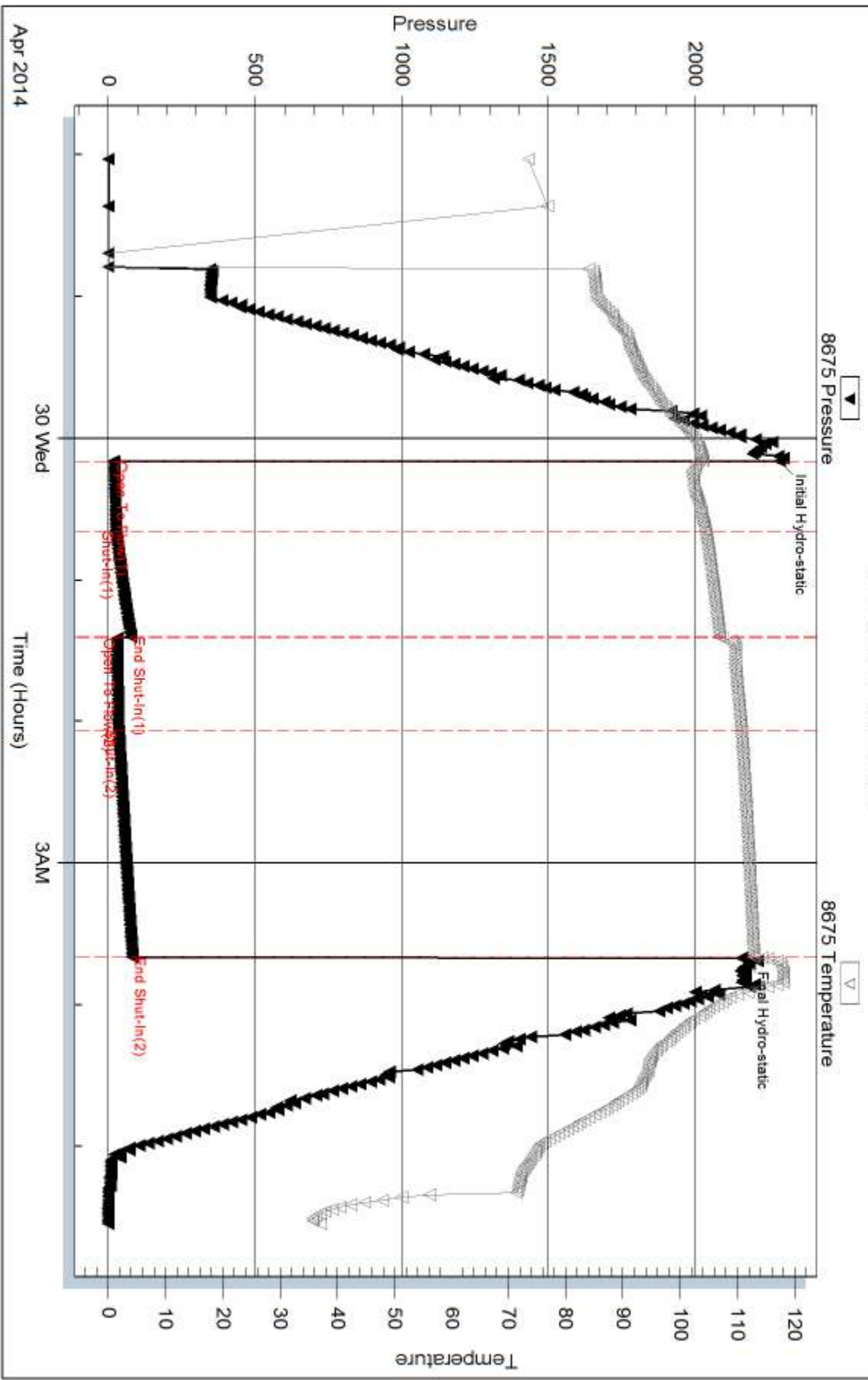
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

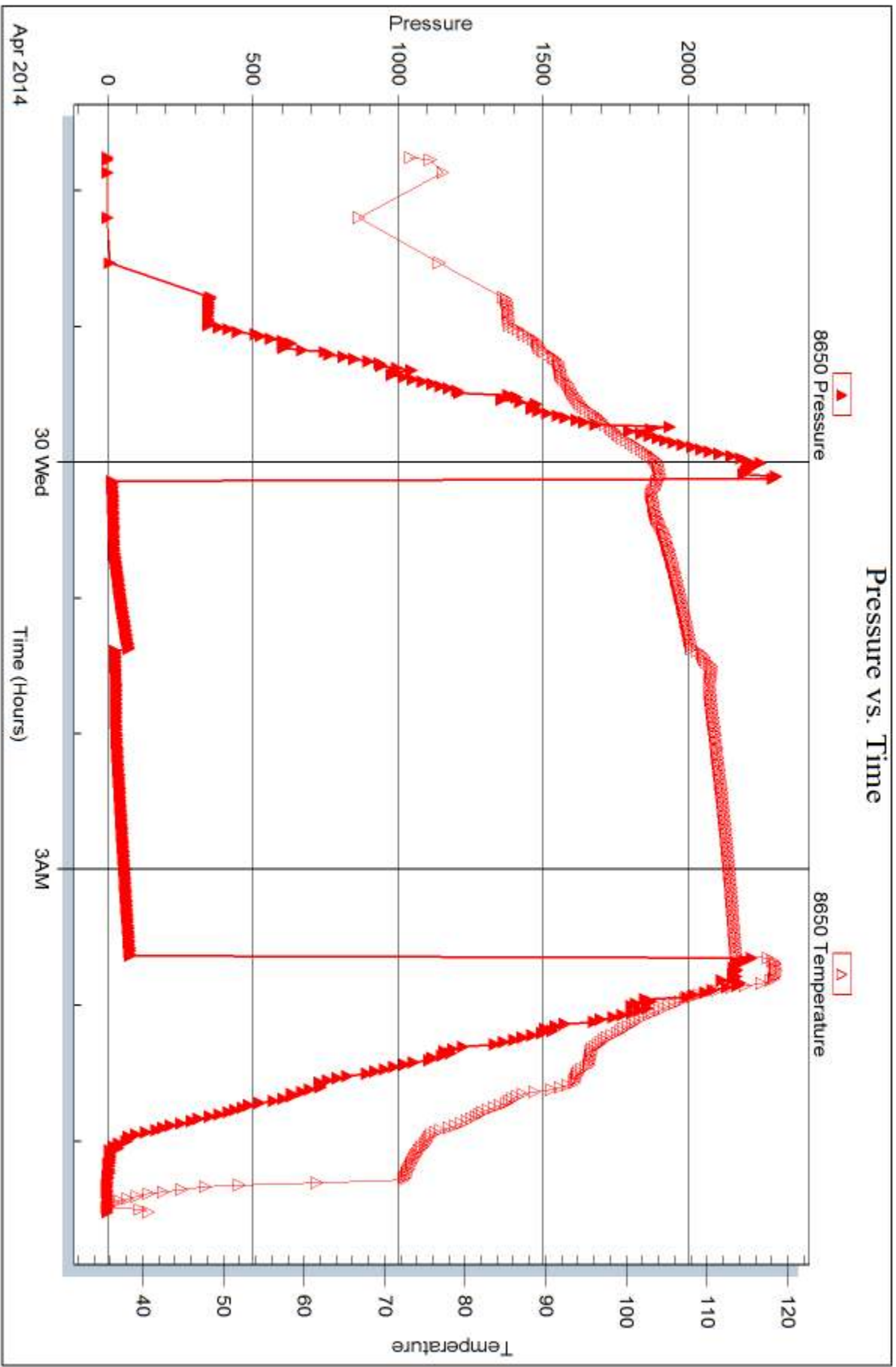


Serial #: 8650

Outside Landmark Resources, Inc

Unruh #1-6

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 57002

Printed: 2014.05.02 @ 11:13:03



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc**

1616 S Voss Rd STE 600
Houston TX 77057-2641

ATTN: Terry McLeod

Unruh #1-6

6-17n-33w Scott,KS

Start Date: 2014.04.30 @ 21:25:00

End Date: 2014.05.01 @ 05:19:00

Job Ticket #: 57003 DST #: 4

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

Printed: 2014.05.02 @ 11:12:16



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57003

DST#: 4

ATTN: Terry McLeod

Test Start: 2014.04.30 @ 21:25:00

GENERAL INFORMATION:

Formation: **Johnson Zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:37:00

Time Test Ended: 05:19:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 75

Interval: 4650.00 ft (KB) To 4719.00 ft (KB) (TVD)

Reference Elevations: 3098.00 ft (KB)

Total Depth: 4719.00 ft (KB) (TVD)

3093.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 8675 Inside

Press@RunDepth: 41.04 psig @ 4651.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.30

End Date:

2014.05.01

Last Calib.: 2014.05.01

Start Time: 21:27:45

End Time:

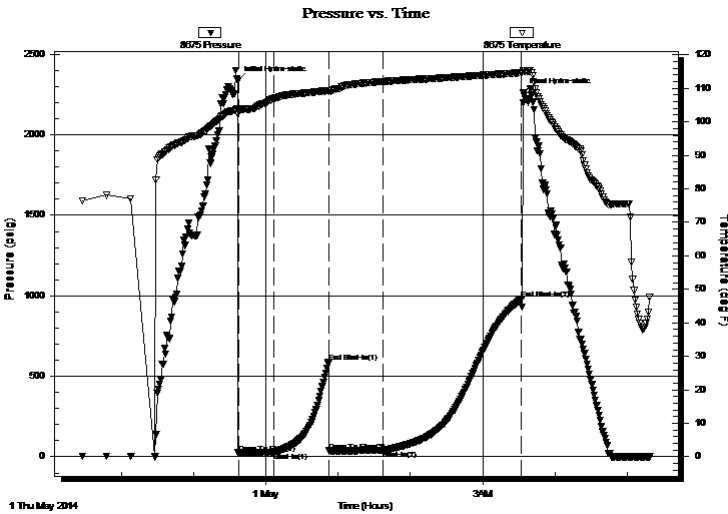
05:19:00

Time On Btm: 2014.04.30 @ 23:36:30

Time Off Btm: 2014.05.01 @ 03:34:00

TEST COMMENT: Built to 3 1/4" blow
No return blow
Built to 5" blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2334.24	103.93	Initial Hydro-static
1	21.12	103.31	Open To Flow (1)
30	30.28	107.01	Shut-In(1)
76	585.43	109.36	End Shut-In(1)
76	36.67	109.16	Open To Flow (2)
121	41.04	112.02	Shut-In(2)
236	978.96	114.69	End Shut-In(2)
238	2260.18	115.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	gcom 5%G 5%O 90%M	0.70

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57003

DST#: 4

ATTN: Terry McLeod

Test Start: 2014.04.30 @ 21:25:00

Tool Information

Drill Pipe:	Length: 4633.48 ft	Diameter: 3.80 inches	Volume: 65.00 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 81000.00 lb
			<u>Total Volume: 65.00 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.98 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4650.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	91.50 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			4628.50	
Shut In Tool	5.00			4633.50	
Hydraulic tool	5.00			4638.50	
Safety Joint	2.50			4641.00	
Packer	5.00			4646.00	22.50 Bottom Of Top Packer
Packer	4.00			4650.00	
Stubb	1.00			4651.00	
Recorder	0.00	8675	Inside	4651.00	
Recorder	0.00	8650	Outside	4651.00	
perforations	32.00			4683.00	
Change Over Sub	1.00			4684.00	
Drill Pipe	31.00			4715.00	
Change Over Sub	1.00			4716.00	
Bullnose	3.00			4719.00	69.00 Bottom Packers & Anchor

Total Tool Length: 91.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc

6-17n-33w Scott,KS

1616 S Voss Rd STE 600
Houston TX 77057-2641

Unruh #1-6

Job Ticket: 57003

DST#: 4

ATTN: Terry McLeod

Test Start: 2014.04.30 @ 21:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: sec/qt

Cushion Volume:

bbbl

Water Loss: 8.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	gcom 5%G 5%O 90%M	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

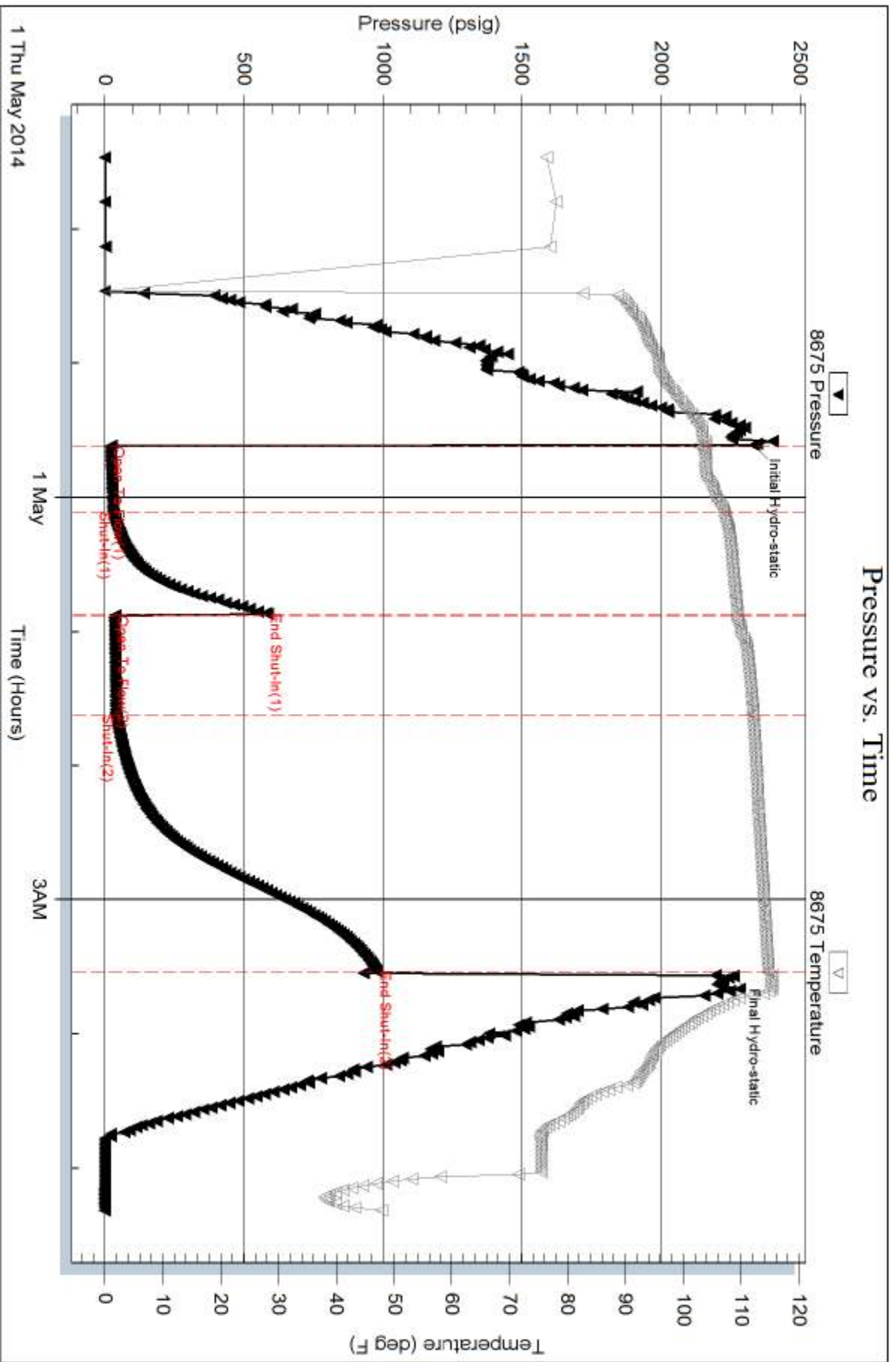
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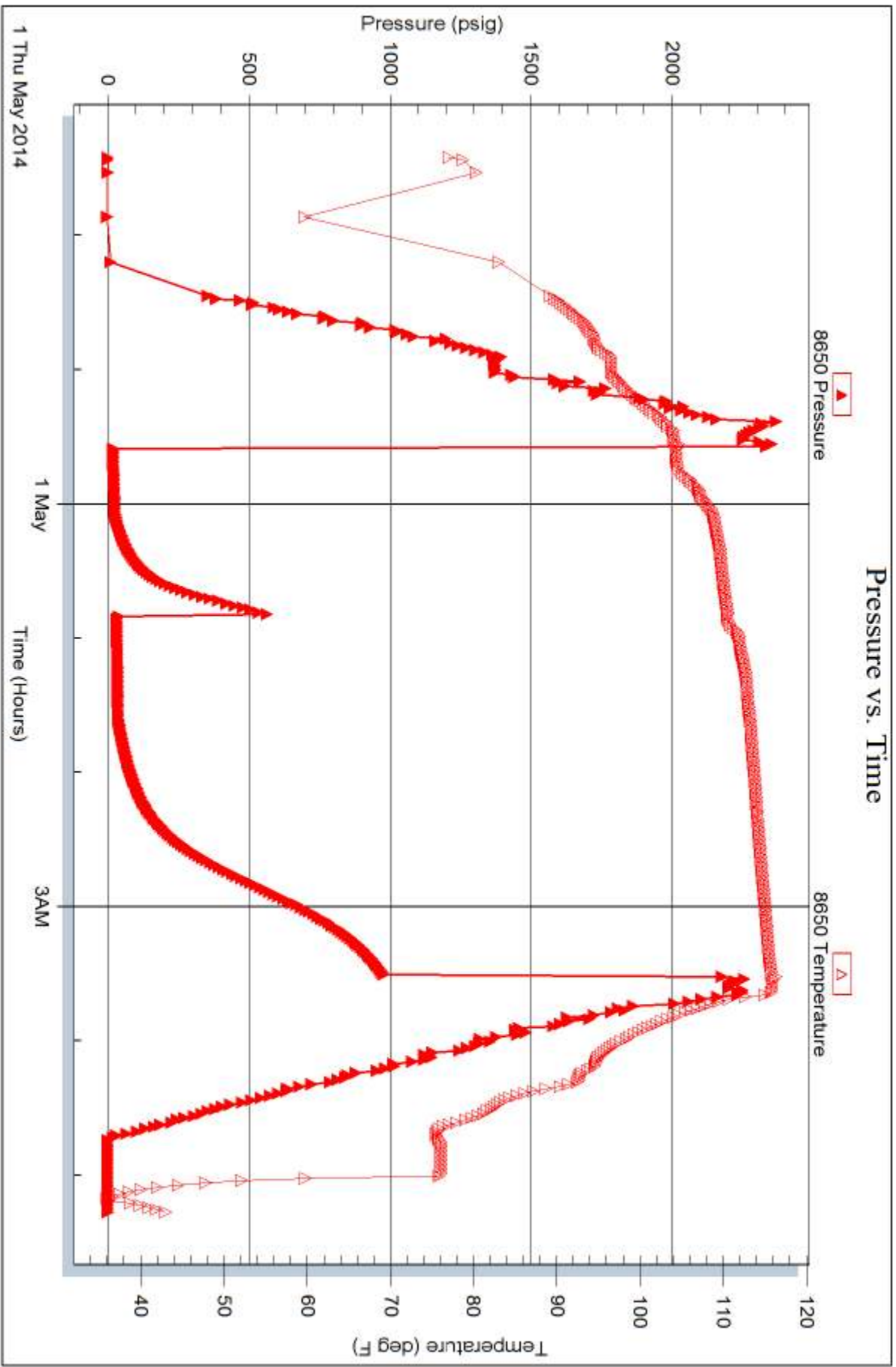
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56475

Well Name & No. Unruh # 1-6 Test No. 1 Date 4/27/14 4/28/14
 Company Landmark Resources, Inc Elevation 3098 KB 3093 GL
 Address 1616 S Voss Rd STE 600 Houston TX, 77057-2641
 Co. Rep / Geo. Terry McLeod Rig LD Rig 2
 Location: Sec. 6 Twp. 17N Rge. 33E Co. Scott County State K5

Interval Tested 4404 - 4465 Zone Tested Marmaton
 Anchor Length 61 Drill Pipe Run 4410.92 Mud Wt. 9.3
 Top Packer Depth 4400 Drill Collars Run _____ Vis 56
 Bottom Packer Depth 4404 Wt. Pipe Run _____ WL 10.4
 Total Depth 4465 Chlorides 3,000 ppm System LCM 2#

Blow Description Built to 9" below
Bled off for 5 min. No return below
B.O.B. in 35 min.

Bled off for 5 min. No return below

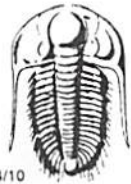
Rec	Feet of	%gas	%oil	%water	%mud
<u>156</u>	<u>Mud</u>			<u>100</u>	
<u>252</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 408 BHT 122 Gravity _____ API RW 20 @ 58 °F Chlorides 40,000 ppm
 (A) Initial Hydrostatic 2,221 Test 1250 T-On Location 21:00
 (B) First Initial Flow 19 Jars _____ T-Started 23:10
 (C) First Final Flow 90 Safety Joint 75 T-Open 05:04
 (D) Initial Shut-In 1,293 Circ Sub N/C T-Pulled 08:34
 (E) Second Initial Flow 90 Hourly Standby 5 hrs 1.75h T-Out 10:52
 (F) Second Final Flow 178 Mileage 34 BT 52.70 Comments _____
 (G) Final Shut-In 1,297 Sampler _____
 (H) Final Hydrostatic 2,176 Straddle _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 45 Extra Packer _____
 Final Shut-In 90 Extra Recorder _____
 Sub Total 1552.70 Day Standby _____
 Total 1552.70 Accessibility _____
 MP/DST Disc't _____

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57001

Well Name & No. Warub #1-6 Test No. 2 Date 4/28/14 4/29/14
 Company Landmark Resources, Inc Elevation 3098 KB 3093 GL
 Address 11011 S Voss STE 600, Houston TX, 77057-2641
 Co. Rep / Geo. Jerry McLeod Rig LD Rig 1
 Location: Sec. 6 Twp. 17N Rge. 33W Co. Scott County State KS

Interval Tested 4463-4520 Zone Tested Altament
 Anchor Length 57 Drill Pipe Run 4474.64 Mud Wt. 9.4
 Top Packer Depth 4459 Drill Collars Run _____ Vis 55
 Bottom Packer Depth 4463 Wt. Pipe Run _____ WL 8.8
 Total Depth 4520 Chlorides 4,400 ppm System LCM 2#

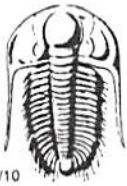
Blow Description Built to 1/2" below
No return below
No below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</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 5 BHT 118 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2,247 Test 1250 T-On Location 21:45
 (B) First Initial Flow 19 Jars _____ T-Started 22:25
 (C) First Final Flow 24 Safety Joint 75 T-Open 01:18
 (D) Initial Shut-In 61 Circ Sub N/C T-Pulled 04:48
 (E) Second Initial Flow 21 Hourly Standby _____ T-Out 06:59
 (F) Second Final Flow 22 Mileage 34 BT 52.70 Comments _____
 (G) Final Shut-In 72 Sampler _____
 (H) Final Hydrostatic 2,101 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1377.70
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1377.70

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57002

Well Name & No. Unruh #1-6 Test No. 3 Date 4/24/14 4/30/14
 Company Landmark Resources Inc Elevation 3098 KB 3093 GL
 Address 11615 Voss STE 600, Houston TX 77057-2641
 Co. Rep / Geo. Terry McLeod Rig LD Rig 1
 Location: Sec. 6 Twp. 17N Rge. 33W Co. Scott County State KS

Interval Tested 4546-4602 Zone Tested Myric Station - Foot Scott
 Anchor Length 56 Drill Pipe Run 4538.17 Mud Wt. 9.3
 Top Packer Depth 4542 Drill Collars Run _____ Vis 57
 Bottom Packer Depth 4546 Wt. Pipe Run _____ WL 10.4
 Total Depth 4602 Chlorides 5,000 ppm System LCM 2#

Blow Description Built to 1 1/4" below
No return below
Built to 3/4" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</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

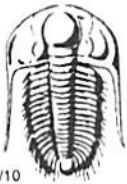
Rec Total 30 BHT 113 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 2,287 Test 1250 T-On Location 19:50
 (B) First Initial Flow 19 Jars _____ T-Started 21:45
 (C) First Final Flow 26 Safety Joint 75 T-Open 00:10
 (D) Initial Shut-In 77 Circ Sub N/C T-Pulled 03:40
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out 05:30
 (F) Second Final Flow 35 Mileage 34 RT 52.70 Comments _____
 (G) Final Shut-In 82 Sampler _____
 (H) Final Hydrostatic 2,158 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1377.70

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 90

Approved By _____ Our Representative [Signature]

Sub Total 1377.70
 Total 1377.70
 MP/DST Disc't _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57003

Well Name & No. Unruh # 1-6 Test No. 4 Date 4/30/14 5/1/14
 Company Landmark Resources, Inc Elevation 3098 KB 3093 GL
 Address Helle S Voss STE 600, Houston TX, 77057-2641
 Co. Rep / Geo. Terry McLeod Rig LD Rig 1
 Location: Sec. 6 Twp. 17w Rge. 33w Co. Scott County State K6

Interval Tested 4650-4719 Zone Tested Johnson Zone
 Anchor Length 69 Drill Pipe Run 4633.48 Mud Wt. 9.2
 Top Packer Depth 4646 Drill Collars Run _____ Vis 65+
 Bottom Packer Depth 4650 Wt. Pipe Run _____ WL 9.0
 Total Depth 4719 Chlorides 6,600 ppm System LCM 1#

Blow Description Built to 3 1/4" below
No return below
Built to 5" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>660M</u>	<u>5</u>	<u>5</u>	<u>90</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 114 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 2334 Test 1250 T-On Location 20:40
 (B) First Initial Flow 21 Jars _____ T-Started 21:25
 (C) First Final Flow 30 Safety Joint 75 T-Open 23:35
 (D) Initial Shut-In 585 Circ Sub N/C T-Pulled 03:00
 (E) Second Initial Flow 37 Hourly Standby _____ T-Out 05:19
 (F) Second Final Flow 41 Mileage 34 BT x 2 105.40 Comments loaded tools
 (G) Final Shut-In 999 Sampler _____ 5/1/14 @ 15:00
 (H) Final Hydrostatic 2260 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1430.40
 Accessibility _____ MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 90
 Sub Total 1430.40

Approved By _____ Our Representative [Signature]
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