

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.16 @ 20:53:00

End Date: 2012.10.17 @ 03:20:30

Job Ticket #: 51012 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 11:36:57



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 51012

DST#: 1

Test Start: 2012.10.16 @ 20:53:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:47:10

Time Test Ended: 03:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 38

Interval: 3252.00 ft (KB) To 3289.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3289.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: 44.15 psig @ 3286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.16

End Date:

2012.10.17

Last Calib.: 2012.10.17

Start Time: 21:03:00

End Time:

03:20:30

Time On Btm: 2012.10.16 @ 22:46:40

Time Off Btm: 2012.10.17 @ 01:49:30

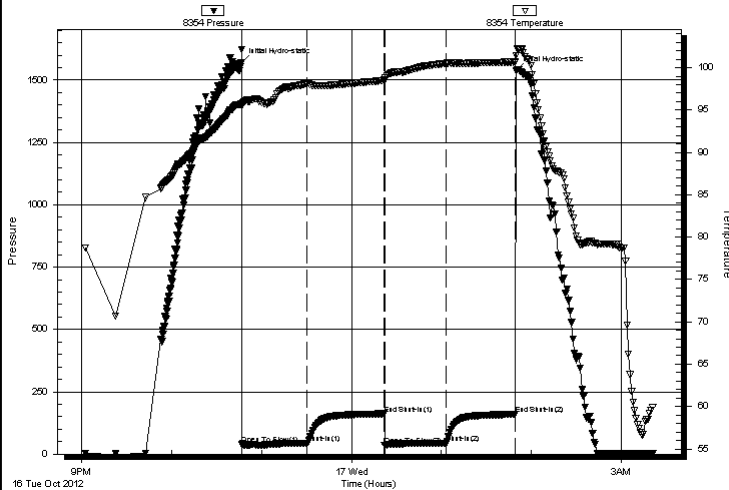
TEST COMMENT: 45 - IF- B.O.B. in 28 Minutes

45 - IS- No blow back

45 - FF- B.O.B. in 3 Min.

45 - FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

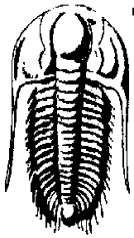
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1569.19	95.68	Initial Hydro-static
1	38.41	95.56	Open To Flow (1)
44	43.00	98.15	Shut-In(1)
95	161.15	98.47	End Shut-In(1)
96	34.89	98.54	Open To Flow (2)
137	44.15	100.52	Shut-In(2)
183	159.57	100.67	End Shut-In(2)
183	1538.28	101.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Mud, 100%M	0.77

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TESTING, INC.

DRILL STEM TEST REPORT

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21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51012

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.16 @ 20:53:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:47:10

Time Test Ended: 03:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 38

Interval: 3252.00 ft (KB) To 3289.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3289.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: psig @ 3286.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.16

End Date:

2012.10.17

Last Calib.:

2012.10.17

Start Time: 21:03:00

End Time:

03:20:00

Time On Btm:

Time Off Btm:

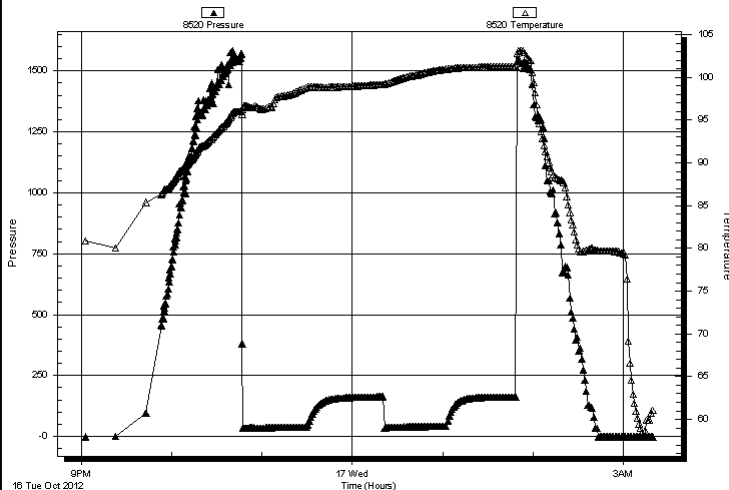
TEST COMMENT: 45 - IF- B.O.B. in 28 Minutes

45 - IS- No blow back

45 - FF- B.O.B. in 3 Min.

45 - FS- No blow back

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51012

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.16 @ 20:53:00

Tool Information

Drill Pipe:	Length:	3231.00 ft	Diameter:	3.80 inches	Volume:	45.32 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	50000.00 lb
					Total Volume:	45.47 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		30.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3252.00 ft					Final	46000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		37.00 ft						
Tool Length:		57.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3233.00	
Shut In Tool	5.00			3238.00	
Hydraulic tool	5.00			3243.00	
Packer	5.00			3248.00	20.00 Bottom Of Top Packer
Packer	4.00			3252.00	
Stubb	1.00			3253.00	
Perforations	33.00			3286.00	
Recorder	0.00	8354	Inside	3286.00	
Recorder	0.00	8520	Outside	3286.00	
Bullnose	3.00			3289.00	37.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51012

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.10.16 @ 20:53:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.95 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 2.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	Mud, 100%M	0.770

Total Length: 75.00 ft

Total Volume: 0.770 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

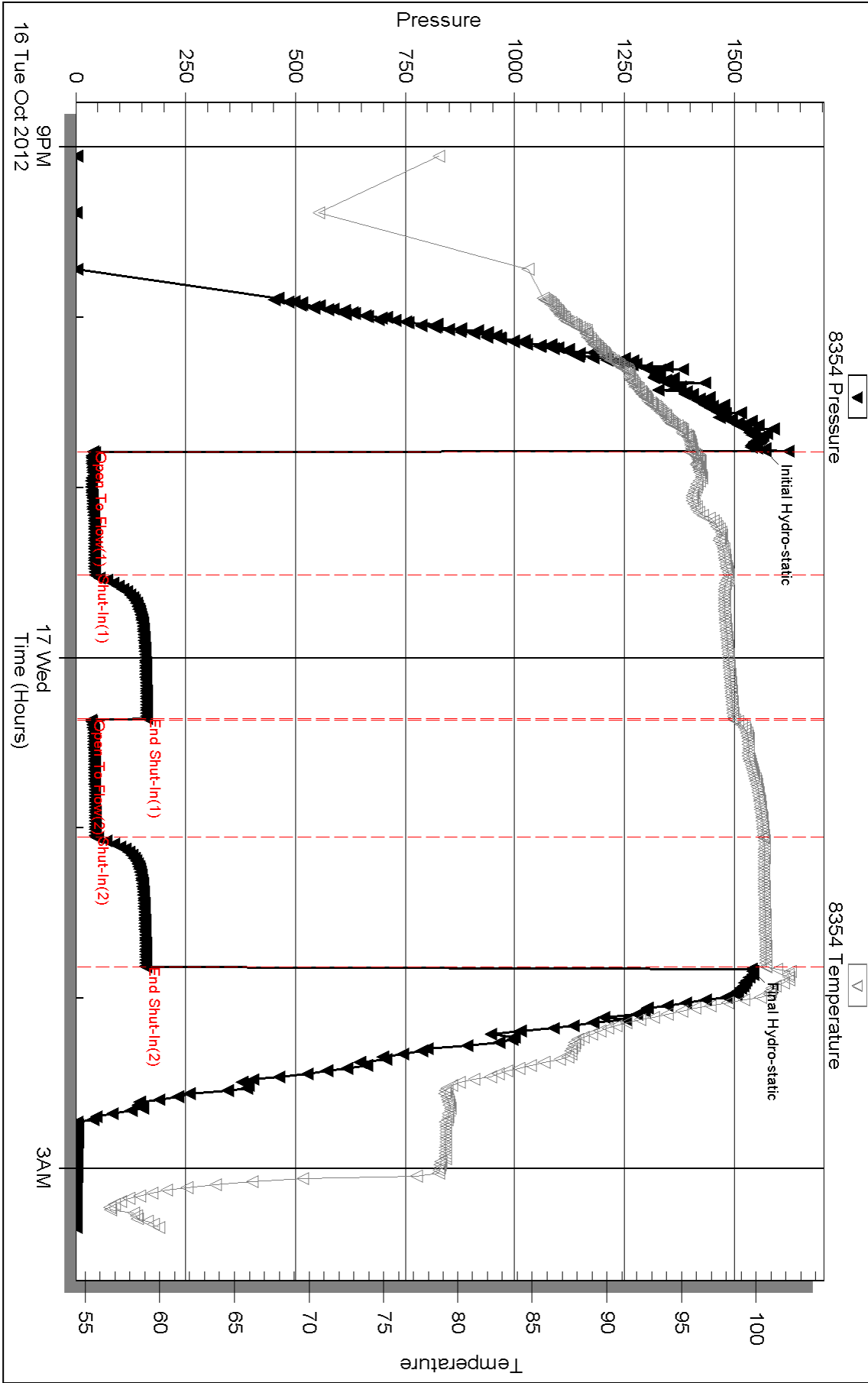
Inside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 1

Pressure vs. Time



Serial #: 8520

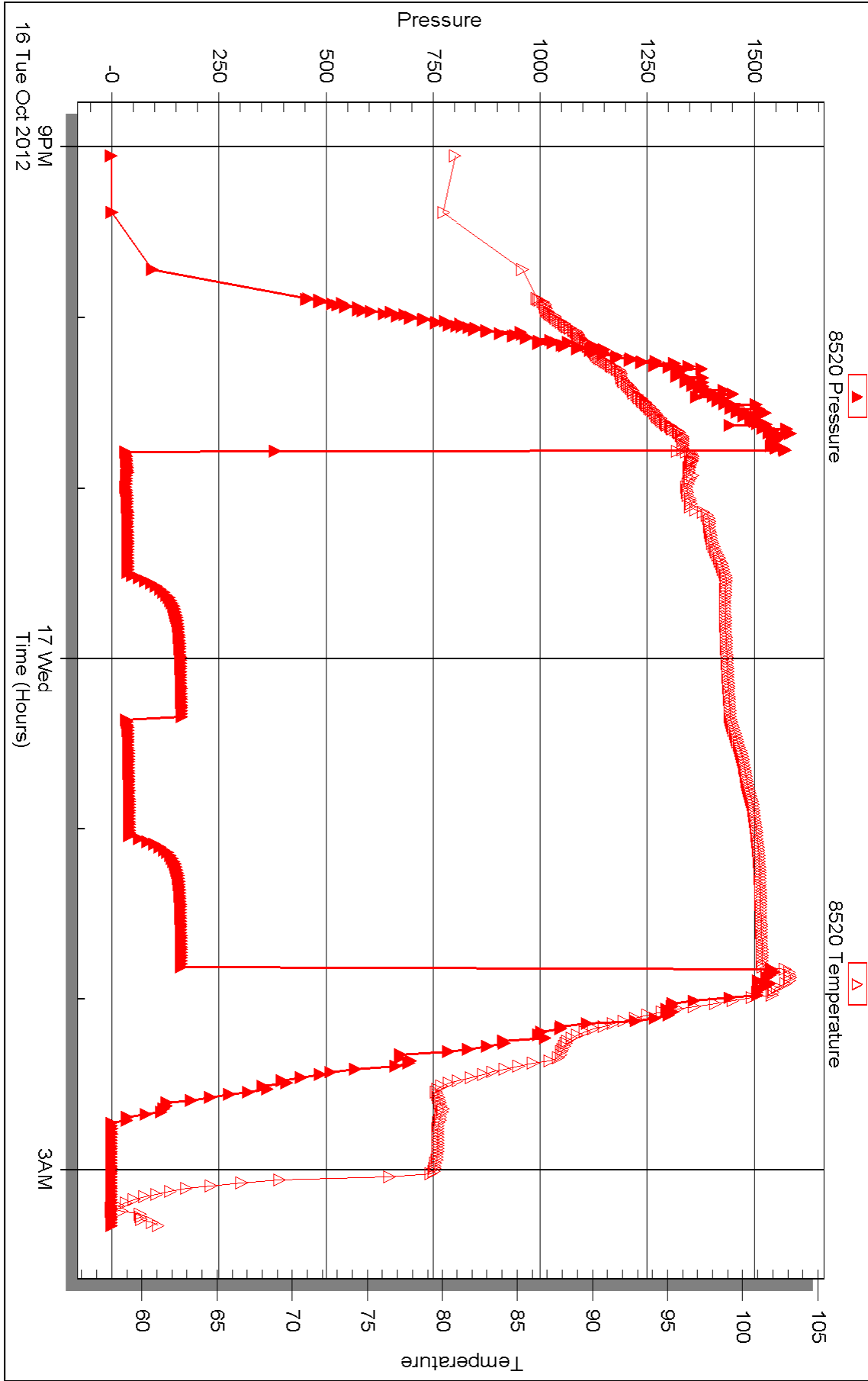
Outside

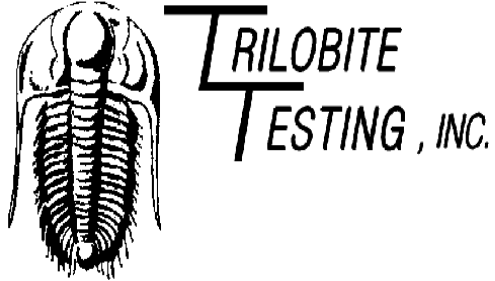
Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 1

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.17 @ 09:12:00

End Date: 2012.10.17 @ 14:49:30

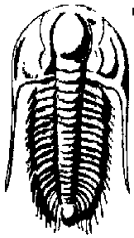
Job Ticket #: 51013 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 11:32:48



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Co

21-16s-17w Rush, KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 51013

DST#: 2

Test Start: 2012.10.17 @ 09:12:00

GENERAL INFORMATION:

Formation: **LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:03:40

Time Test Ended: 14:49:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 38

Interval: 3291.00 ft (KB) To 3310.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3310.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: 30.29 psig @ 3307.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.17

End Date:

2012.10.17

Last Calib.: 2012.10.17

Start Time: 09:22:00

End Time:

14:49:30

Time On Btm: 2012.10.17 @ 11:03:00

Time Off Btm: 2012.10.17 @ 13:04:30

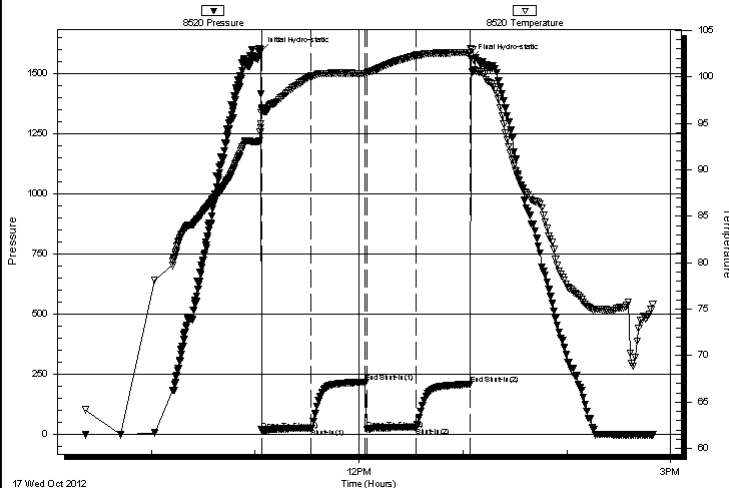
TEST COMMENT: 30 - IF- B.O.B. in 4 Minutes

30 - IS- No blow back

30 - FF- B.O.B. instantly

30 - FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1593.02	94.53	Initial Hydro-static
1	18.13	96.49	Open To Flow (1)
29	26.24	100.04	Shut-In(1)
61	218.14	100.34	End Shut-In(1)
62	21.47	100.40	Open To Flow (2)
90	30.29	102.32	Shut-In(2)
121	209.14	102.59	End Shut-In(2)
122	1561.85	103.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
58.00	GSOCWM, 10%O, 20%G, 20%W, 50%M	0.53
0.00	932' of G.I.P.	0.00

Gas Rates

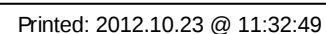
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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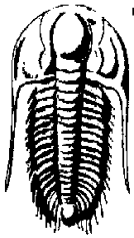
* Recovery from multiple tests



Test Start: 2012.10.17 @ 09:12:00

KB to GR/CF: 5.00 ft





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51013

DST#: 2

ATTN: Ron Nelson

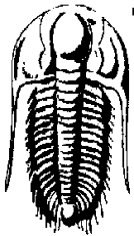
Test Start: 2012.10.17 @ 09:12:00

Tool Information

Drill Pipe:	Length:	3261.00 ft	Diameter:	3.80 inches	Volume:	45.74 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	50000.00 lb
					Total Volume:	45.89 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		21.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3291.00 ft					Final	46000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		19.00 ft						
Tool Length:		39.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3272.00	
Shut In Tool	5.00			3277.00	
Hydraulic tool	5.00			3282.00	
Packer	5.00			3287.00	20.00 Bottom Of Top Packer
Packer	4.00			3291.00	
Stubb	1.00			3292.00	
Perforations	15.00			3307.00	
Recorder	0.00	8354	Inside	3307.00	
Recorder	0.00	8520	Outside	3307.00	
Bullnose	3.00			3310.00	19.00 Bottom Packers & Anchor
Total Tool Length:	39.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co

21-16s-17w Rush, KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51013

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.10.17 @ 09:12:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.95 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 2.50 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
58.00	GSOCWM, 10%O, 20%G, 20%W, 50%M	0.531
0.00	932' of G.I.P.	0.000

Total Length: 58.00 ft

Total Volume: 0.531 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

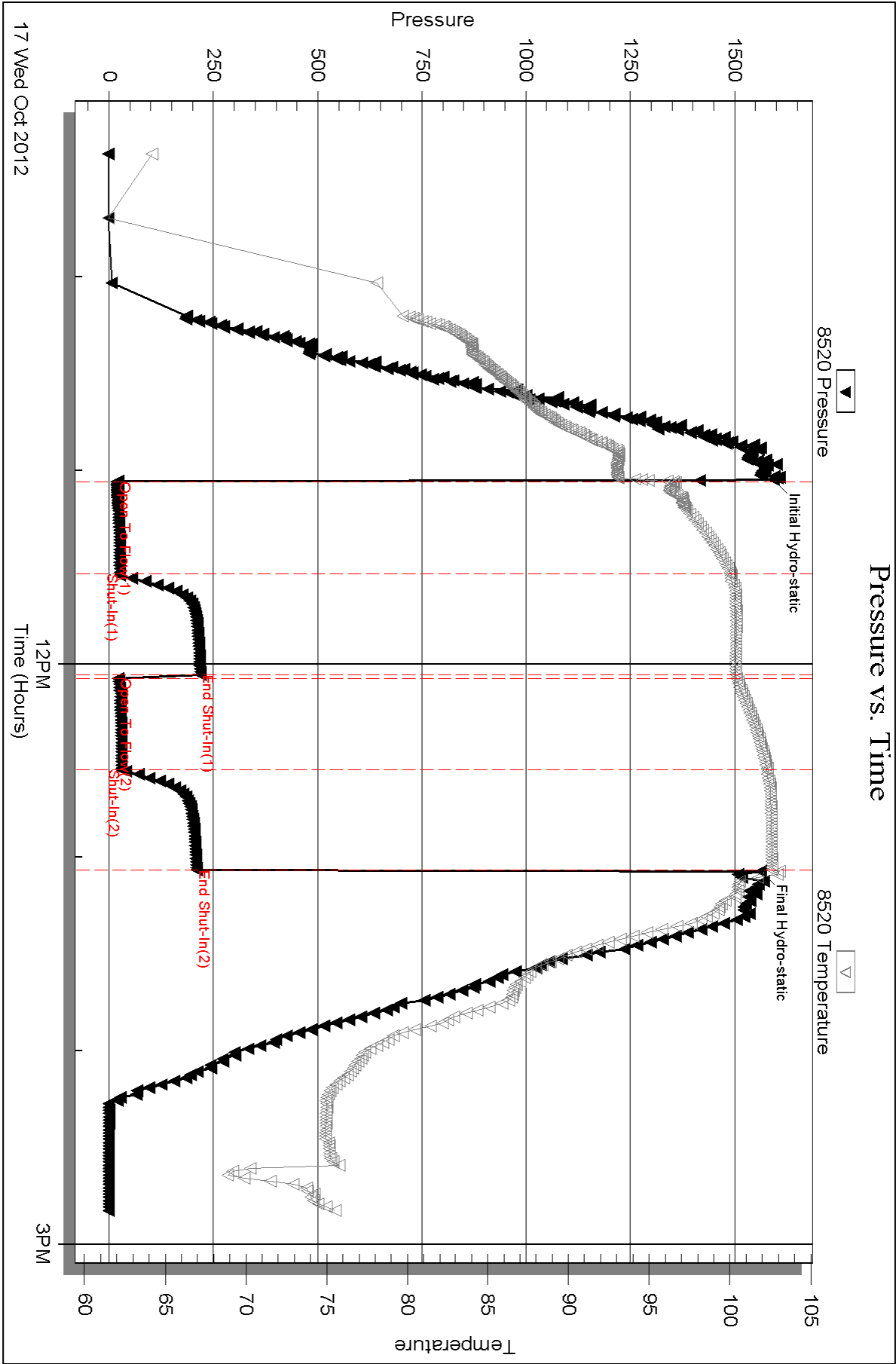
Serial #: 8520

Outside

Dow ning Nelson Oil Co

David Urban #1-21

DST Test Number: 2



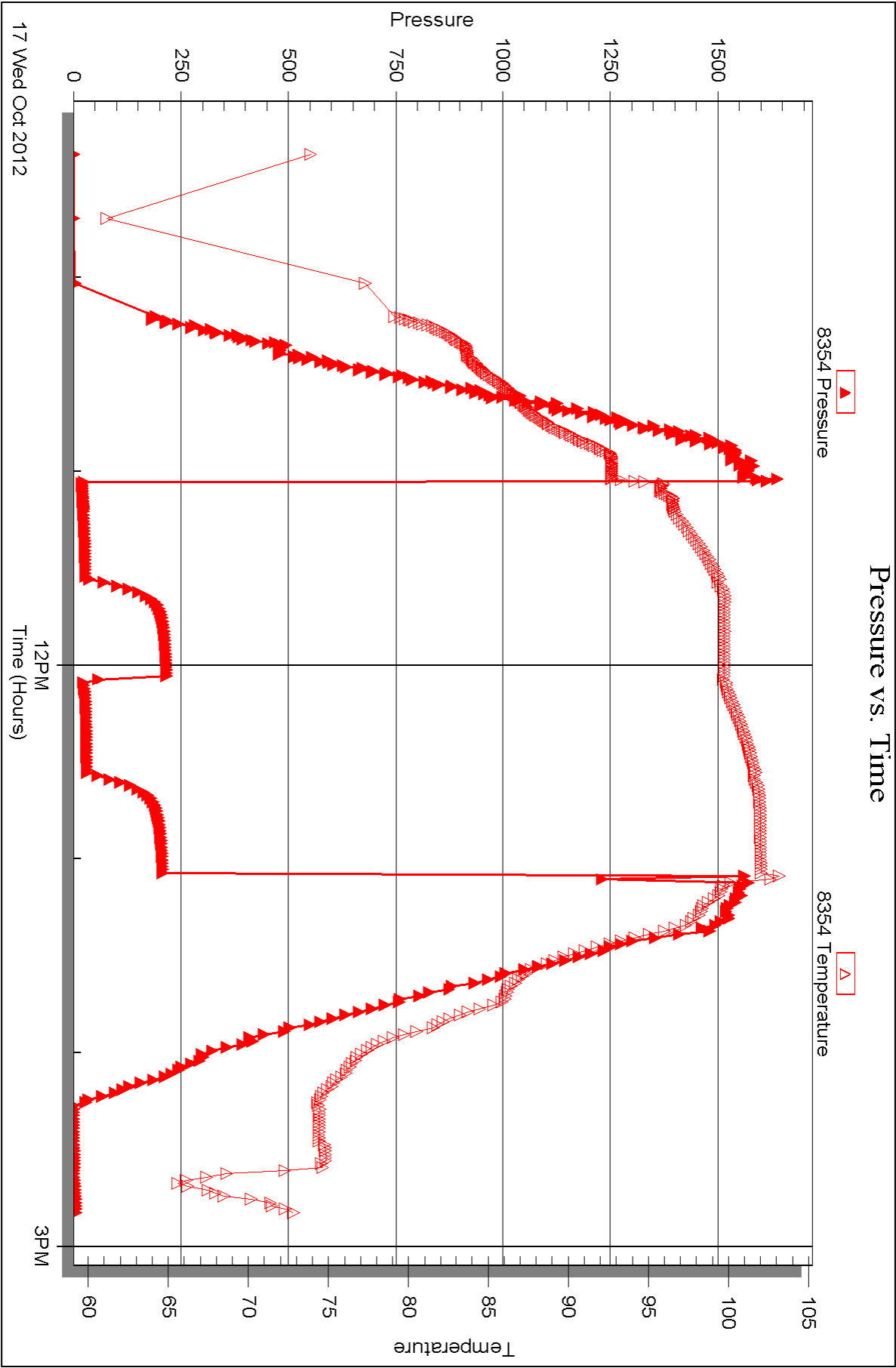
Serial #: 8354

Inside

Dow ning Nelson Oil Co

David Urban #1-21

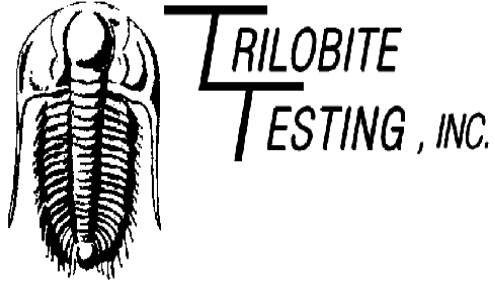
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 51013

Printed: 2012.10.23 @ 11:32:53



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.17 @ 22:15:00

End Date: 2012.10.18 @ 04:06:30

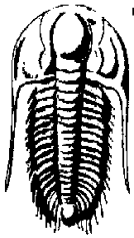
Job Ticket #: 51014 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 11:31:34



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 51014

DST#: 3

Test Start: 2012.10.17 @ 22:15:00

GENERAL INFORMATION:

Formation: **LKC "C-E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:51:30

Time Test Ended: 04:06:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 38

Interval: 3310.00 ft (KB) To 3350.00 ft (KB) (TVD)

Total Depth: 3350.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2001.00 ft (KB)

1996.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: 179.42 psig @ 3347.00 ft (KB)

Start Date: 2012.10.17

End Date:

2012.10.18

Start Time: 22:25:00

End Time:

04:06:30

Capacity: 8000.00 psig

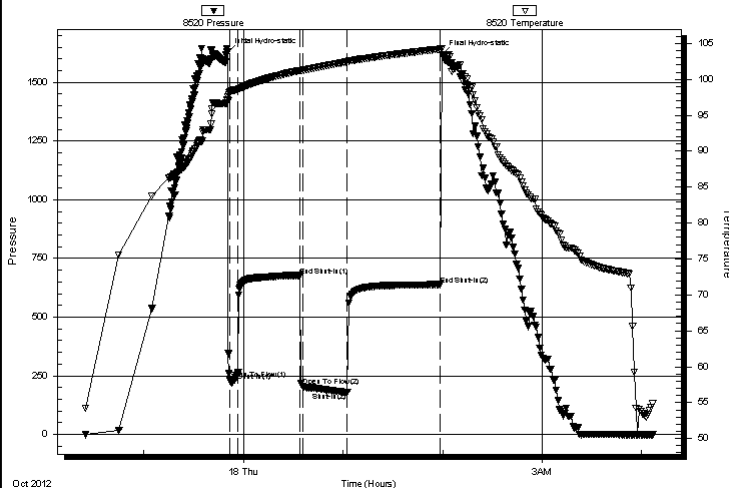
Last Calib.: 2012.10.18

Time On Btm: 2012.10.17 @ 23:50:40

Time Off Btm: 2012.10.18 @ 01:59:30

TEST COMMENT: 10 - IF- B.O.B. instantly, G.T.S
45 - IS- Didnt bleed off
30 - FF- B.O.B. instantly, G.T.S. Gauging
45 - FS- Weak blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.90	97.64	Initial Hydro-static
1	234.75	98.08	Open To Flow (1)
7	264.04	98.64	Shut-In(1)
44	676.52	101.23	End Shut-In(1)
45	206.25	101.25	Open To Flow (2)
72	179.42	102.44	Shut-In(2)
128	638.37	104.22	End Shut-In(2)
129	1618.59	104.32	Final Hydro-static

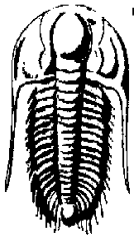
Recovery

Length (ft)	Description	Volume (bbl)
62.00	GHOCM, 20%G, 30%M, 40%O	0.59
93.00	GO, 30%G, 70%	1.30
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	32.00	724.76
Last Gas Rate	0.75	33.00	740.38
Max. Gas Rate	0.75	45.00	927.82

* Recovery from multiple tests



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TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51014

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.10.17 @ 22:15:00

GENERAL INFORMATION:

Formation: **LKC "C-E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:51:30

Time Test Ended: 04:06:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 38

Interval: 3310.00 ft (KB) To 3350.00 ft (KB) (TVD)

Total Depth: 3350.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2001.00 ft (KB)

1996.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: psig @ 3347.00 ft (KB)

Start Date: 2012.10.17

End Date:

2012.10.18

Start Time: 22:24:50

End Time:

04:06:50

Capacity: 8000.00 psig

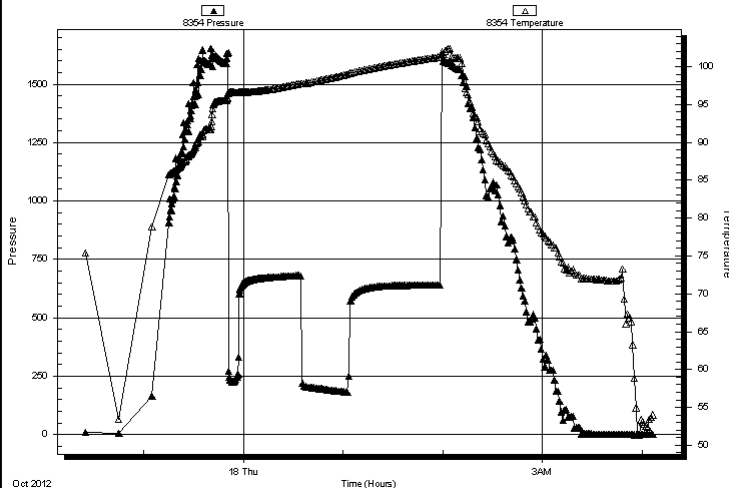
Last Calib.: 2012.10.18

Time On Btm:

Time Off Btm:

TEST COMMENT: 10 - IF- B.O.B. instantly, G.T.S
45 - IS- Didnt bleed off
30 - FF- B.O.B. instantly, G.T.S. Gauging
45 - FS- Weak blow back

Pressure vs. Time



PRESSURE SUMMARY

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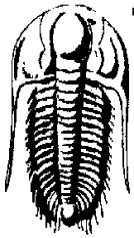
Recovery

Length (ft)	Description	Volume (bbl)
62.00	GHOcm, 20%G, 30%M, 40%O	0.59
93.00	GO, 30%G, 70%	1.30
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	32.00	724.76
Last Gas Rate	0.75	33.00	740.38
Max. Gas Rate	0.75	45.00	927.82

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51014

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.10.17 @ 22:15:00

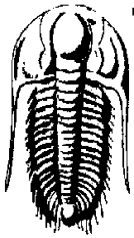
Tool Information

Drill Pipe:	Length:	3293.00 ft	Diameter:	3.80 inches	Volume:	46.19 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	49000.00 lb
					Total Volume:	46.34 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		34.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3310.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		40.00 ft						
Tool Length:		60.00 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			3291.00	
Shut In Tool	5.00			3296.00	
Hydraulic tool	5.00			3301.00	
Packer	5.00			3306.00	20.00 Bottom Of Top Packer
Packer	4.00			3310.00	
Stubb	1.00			3311.00	
Perforations	3.00			3314.00	
Change Over Sub	1.00			3315.00	
Drill Pipe	31.00			3346.00	
Change Over Sub	1.00			3347.00	
Recorder	0.00	8354	Inside	3347.00	
Recorder	0.00	8520	Outside	3347.00	
Bullnose	3.00			3350.00	40.00 Bottom Packers & Anchor

Total Tool Length: 60.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 51014

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.10.17 @ 22:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.74 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	GHOCM, 20%G, 30%M, 40%O	0.587
93.00	GO, 30%G, 70%	1.305
0.00	GTS	0.000

Total Length: 155.00 ft

Total Volume: 1.892 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

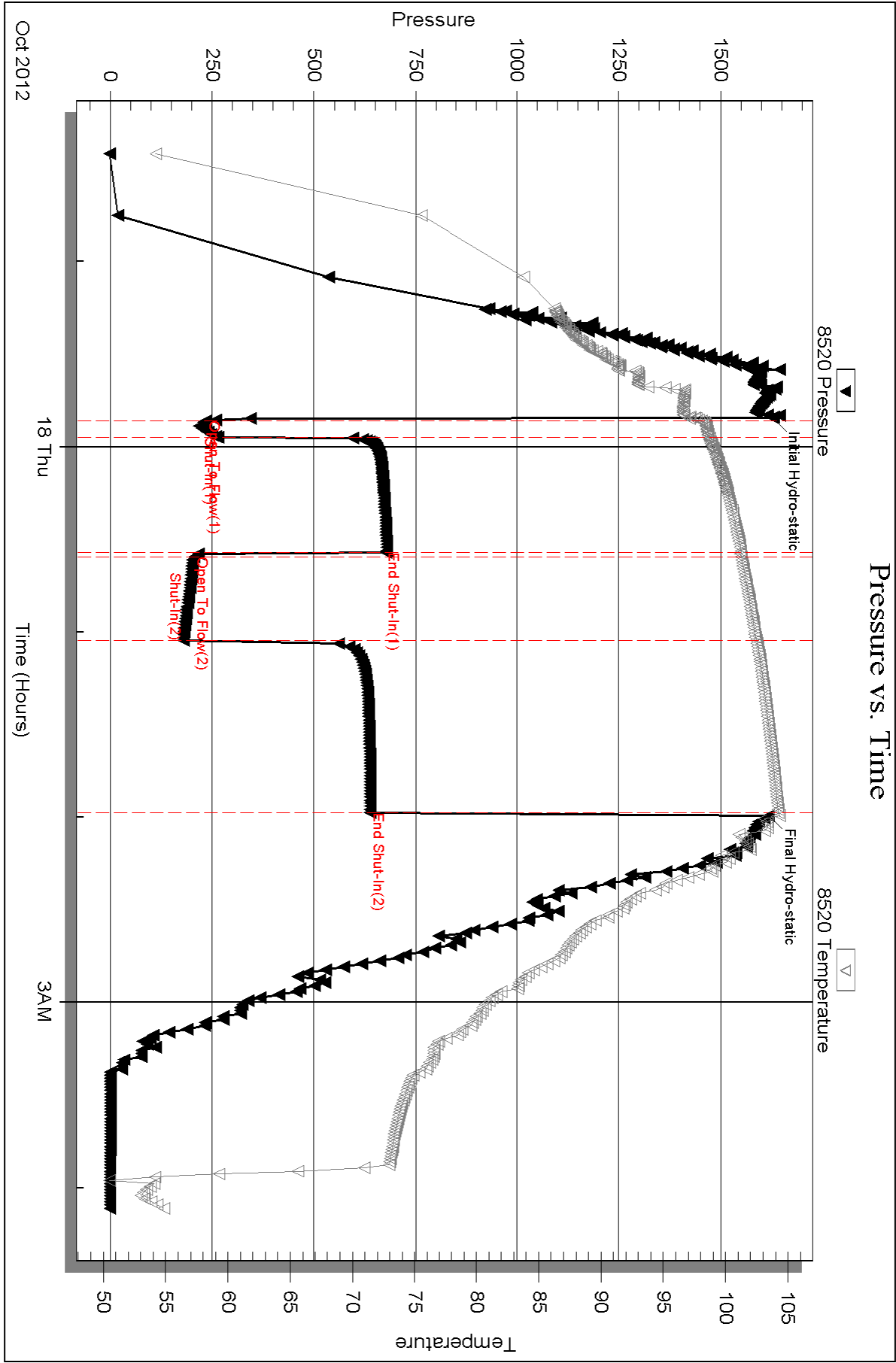
Recovery Comments:

Serial #: 8520

Outside Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 3



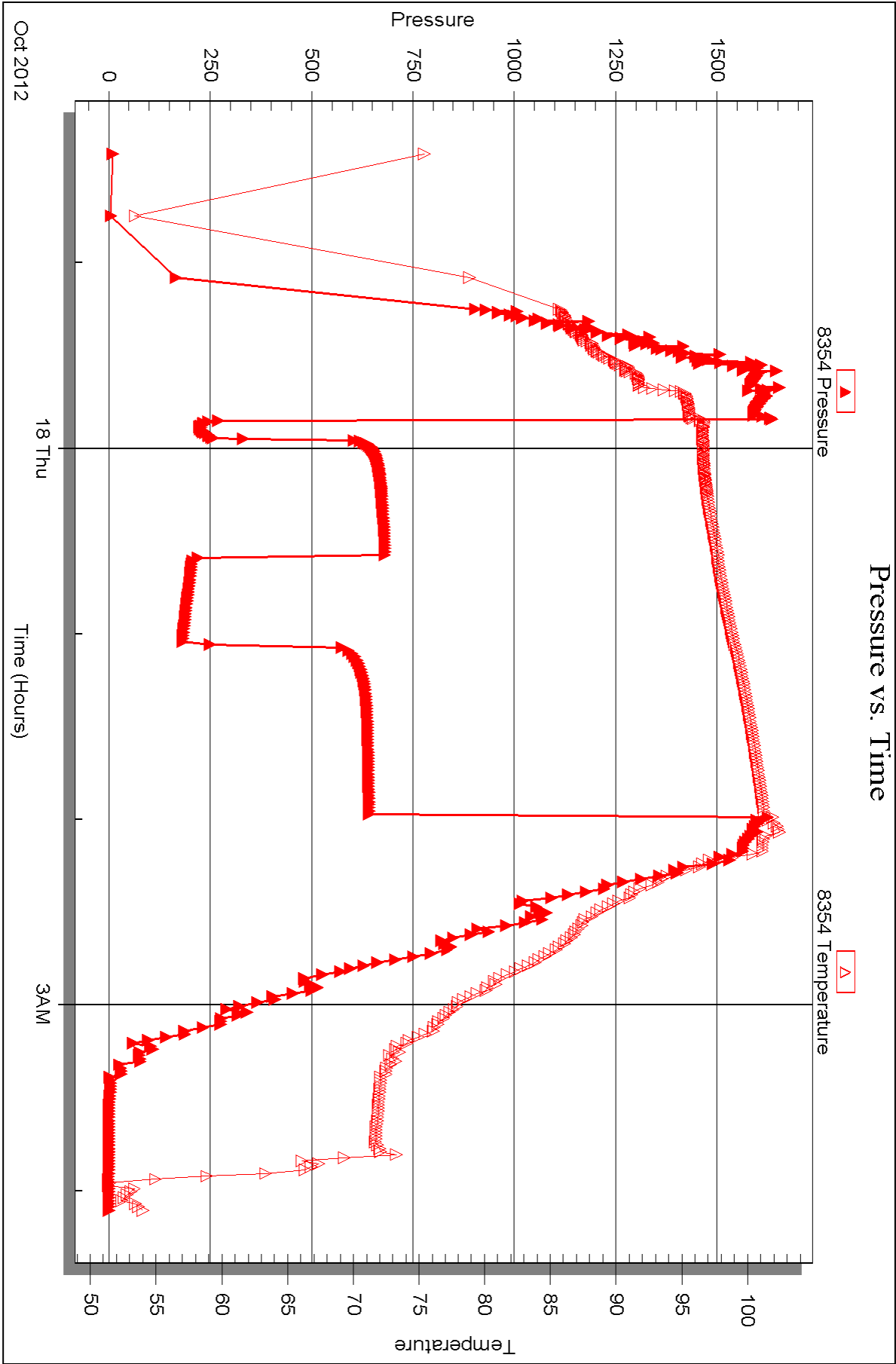
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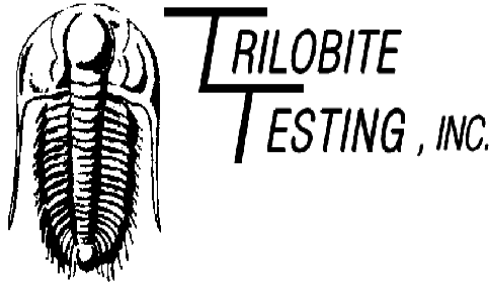
Inside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.18 @ 11:23:30

End Date: 2012.10.18 @ 18:29:30

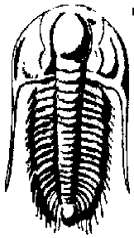
Job Ticket #: 47945 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 11:30:12



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47945

DST#: 4

Test Start: 2012.10.18 @ 11:23:30

GENERAL INFORMATION:

Formation: **LKC "F-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:44:30

Time Test Ended: 18:29:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3347.00 ft (KB) To 3383.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3383.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: 39.63 psig @ 3350.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.18

End Date:

2012.10.18

Last Calib.: 2012.10.18

Start Time: 11:33:30

End Time:

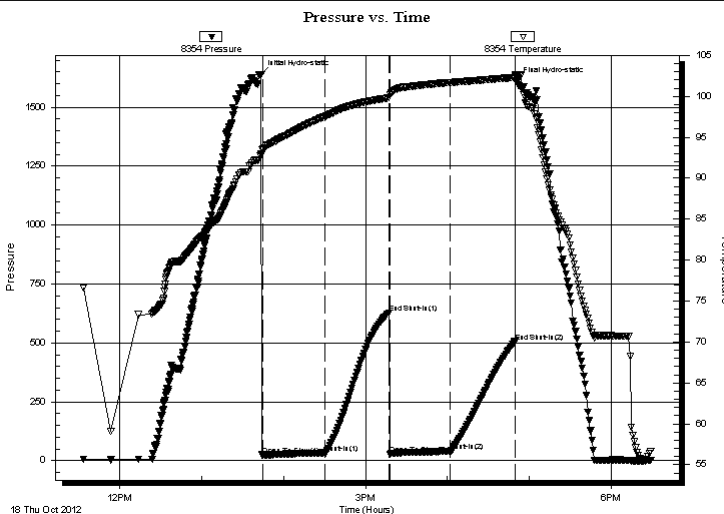
18:29:30

Time On Btm: 2012.10.18 @ 13:43:30

Time Off Btm: 2012.10.18 @ 16:50:30

TEST COMMENT: IF-Fair building blow . BOB in 10 minutes.
ISI-No Return.
FF-Fair building blow . BOB in 8 minutes.
FSI-No Return.

PRESSURE SUMMARY



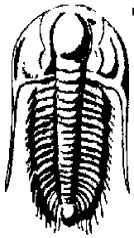
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.21	92.91	Initial Hydro-static
1	21.98	93.45	Open To Flow (1)
47	33.46	97.55	Shut-In(1)
94	626.64	99.81	End Shut-In(1)
95	28.26	100.14	Open To Flow (2)
139	39.63	101.67	Shut-In(2)
186	505.71	102.30	End Shut-In(2)
187	1610.73	102.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	20%Gas/30%Oil/20%Water/30%Mud	0.59
0.00	441' G.I.P.	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47945

DST#: 4

Test Start: 2012.10.18 @ 11:23:30

GENERAL INFORMATION:

Formation: **LKC "F-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:44:30

Time Test Ended: 18:29:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3347.00 ft (KB) To 3383.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3383.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: psig @ 3350.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.18

End Date:

2012.10.18

Last Calib.:

2012.10.18

Start Time: 11:34:30

End Time:

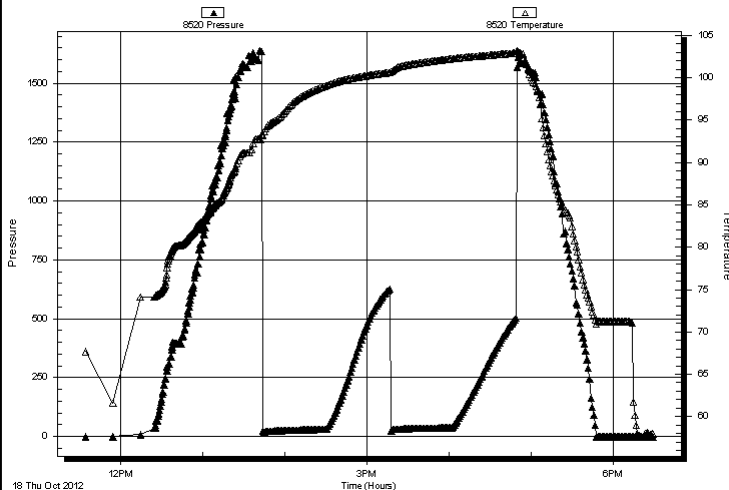
18:29:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-Fair building blow . BOB in 10 minutes.
ISI-No Return.
FF-Fair building blow . BOB in 8 minutes.
FSI-No Return.

Pressure vs. Time



PRESSURE SUMMARY

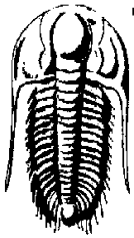
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
62.00	20%Gas/30%Oil/20%Water/30%Mud	0.59
0.00	441' G.I.P.	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47945

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.10.18 @ 11:23:30

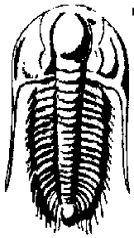
Tool Information

Drill Pipe:	Length:	3325.00 ft	Diameter:	3.80 inches	Volume:	46.64 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	5000.00 lb
					Total Volume:	46.79 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		29.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3347.00 ft					Final	46000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		36.00 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
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3328.00	
Shut In Tool	5.00			3333.00	
Hydraulic tool	5.00			3338.00	
Packer	5.00			3343.00	20.00 Bottom Of Top Packer
Packer	4.00			3347.00	
Stubb	1.00			3348.00	
Perforations	2.00			3350.00	
Recorder	0.00	8354	Inside	3350.00	
Recorder	0.00	8520	Outside	3350.00	
Perforations	30.00			3380.00	
Bullnose	3.00			3383.00	36.00 Bottom Packers & Anchor

Total Tool Length: 56.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47945

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.10.18 @ 11:23:30

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.76 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity:

deg API

ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	20%Gas/30%Oil/20%Water/30%Mud	0.587
0.00	441' G.I.P.	0.000

Total Length: 62.00 ft

Total Volume: 0.587 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

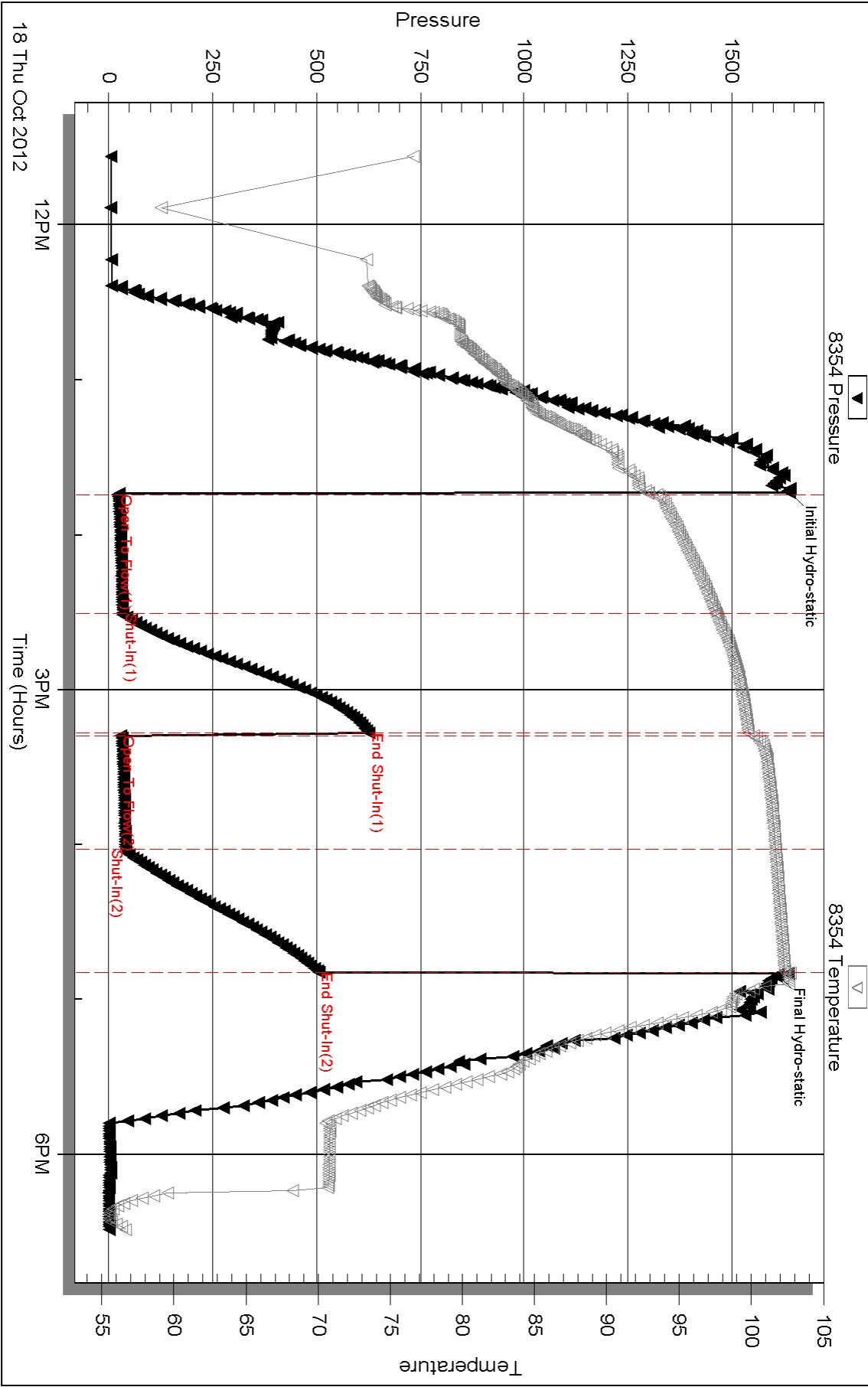
Inside

Dow ning Nelson Oil Co

David Urban #1-21

DST Test Number: 4

Pressure vs. Time



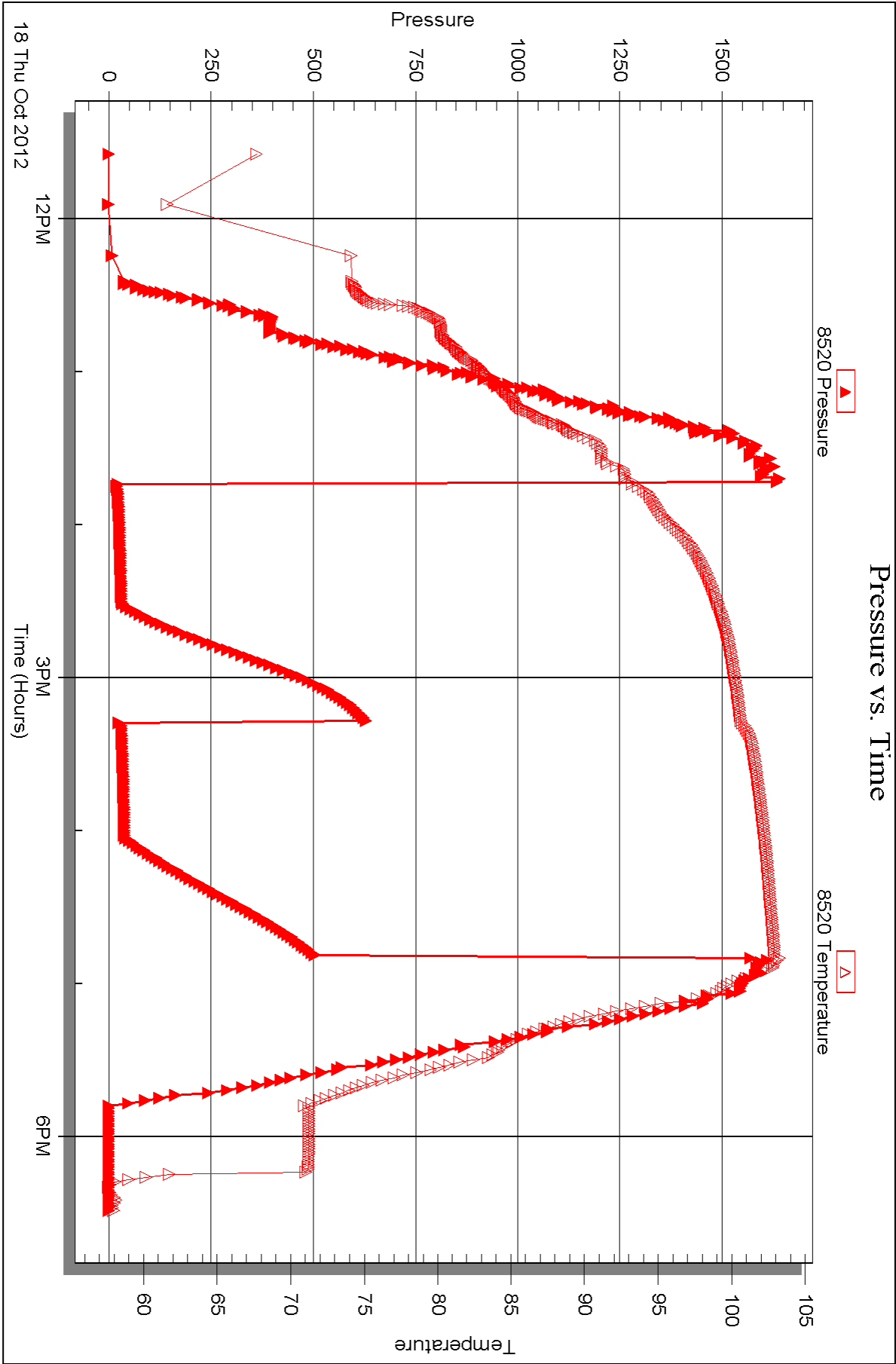
Serial #: 8520

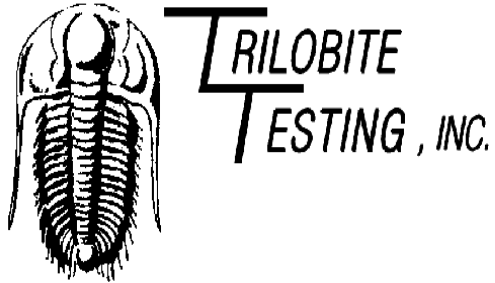
Outside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.19 @ 05:37:15

End Date: 2012.10.19 @ 13:47:45

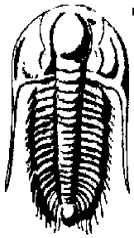
Job Ticket #: 47946 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 11:29:08



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47946

DST#: 5

Test Start: 2012.10.19 @ 05:37:15

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:36:25

Time Test Ended: 13:47:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3380.00 ft (KB) To 3465.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: 531.66 psig @ 3450.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.19

End Date:

2012.10.19

Last Calib.: 2012.10.19

Start Time: 05:47:15

End Time:

13:47:45

Time On Btm: 2012.10.19 @ 07:35:55

Time Off Btm: 2012.10.19 @ 10:12:15

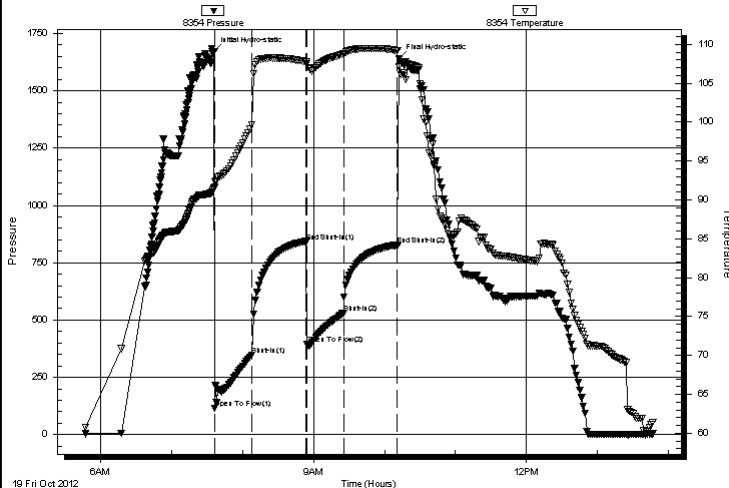
TEST COMMENT: IF-Strong building blow . BOB in 1 minute 30 seconds. GTS in 18 minutes.

ISI-BOB Return @ 45 seconds.

FF-Strong blow . BOB in 10 seconds. GTS. TSTM.

FSI-BOB Return @ 45 seconds. Never bled off.

Pressure vs. Time



PRESSURE SUMMARY

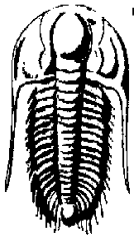
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.61	91.47	Initial Hydro-static
1	116.43	91.61	Open To Flow (1)
32	348.43	99.67	Shut-In(1)
78	843.06	107.72	End Shut-In(1)
79	394.75	107.52	Open To Flow (2)
110	531.66	108.76	Shut-In(2)
155	826.71	109.21	End Shut-In(2)
157	1637.68	107.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	60%Oil/40%Mud	1.46
1426.00	40%Gas/60%Oil	20.00
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Co

21-16s-17w Rush, KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47946

DST#: 5

Test Start: 2012.10.19 @ 05:37:15

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:36:25

Time Test Ended: 13:47:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3380.00 ft (KB) To 3465.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: psig @ 3450.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.19

End Date:

2012.10.19

Last Calib.:

2012.10.19

Start Time: 05:47:45

End Time:

13:47:15

Time On Btm:

Time Off Btm:

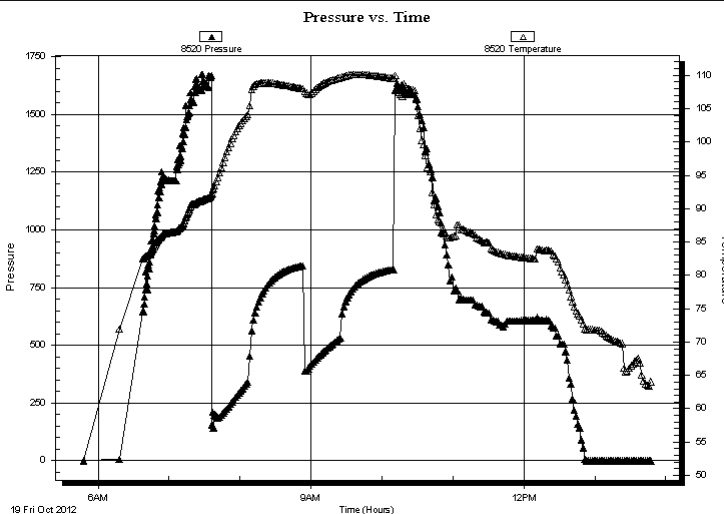
TEST COMMENT: IF-Strong building blow . BOB in 1 minute 30 seconds. GTS in 18 minutes.

ISI-BOB Return @ 45 seconds.

FF-Strong blow . BOB in 10 seconds. GTS. TSTM.

FSI-BOB Return @ 45 seconds. Never bled off.

PRESSURE SUMMARY



Time
(Min.)

Pressure
(psig)

Temp
(deg F)

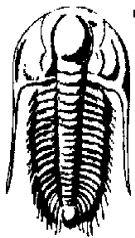
Annotation

Recovery

Length (ft)	Description	Volume (bbl)
124.00	60%Oil/40%Mud	1.46
1426.00	40%Gas/60%Oil	20.00
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47946

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.10.19 @ 05:37:15

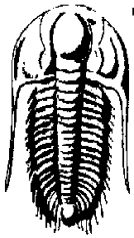
Tool Information

Drill Pipe:	Length:	3355.00 ft	Diameter:	3.80 inches	Volume:	47.06 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	8000.00 lb
					Total Volume:	47.21 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		26.00 ft					String Weight: Initial	48000.00 lb
Depth to Top Packer:		3380.00 ft					Final	51000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		85.00 ft						
Tool Length:		105.00 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			3361.00	
Shut In Tool	5.00			3366.00	
Hydraulic tool	5.00			3371.00	
Packer	5.00			3376.00	20.00 Bottom Of Top Packer
Packer	4.00			3380.00	
Stubb	1.00			3381.00	
Perforations	5.00			3386.00	
Change Over Sub	1.00			3387.00	
Drill Pipe	62.00			3449.00	
Change Over Sub	1.00			3450.00	
Recorder	0.00	8354	Inside	3450.00	
Recorder	0.00	8520	Outside	3450.00	
Perforations	12.00			3462.00	
Bullnose	3.00			3465.00	85.00 Bottom Packers & Anchor

Total Tool Length: 105.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47946

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.10.19 @ 05:37:15

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.76 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

39 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	60%Oil/40%Mud	1.457
1426.00	40%Gas/60%Oil	20.003
0.00	GTS	0.000

Total Length: 1550.00 ft

Total Volume: 21.460 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

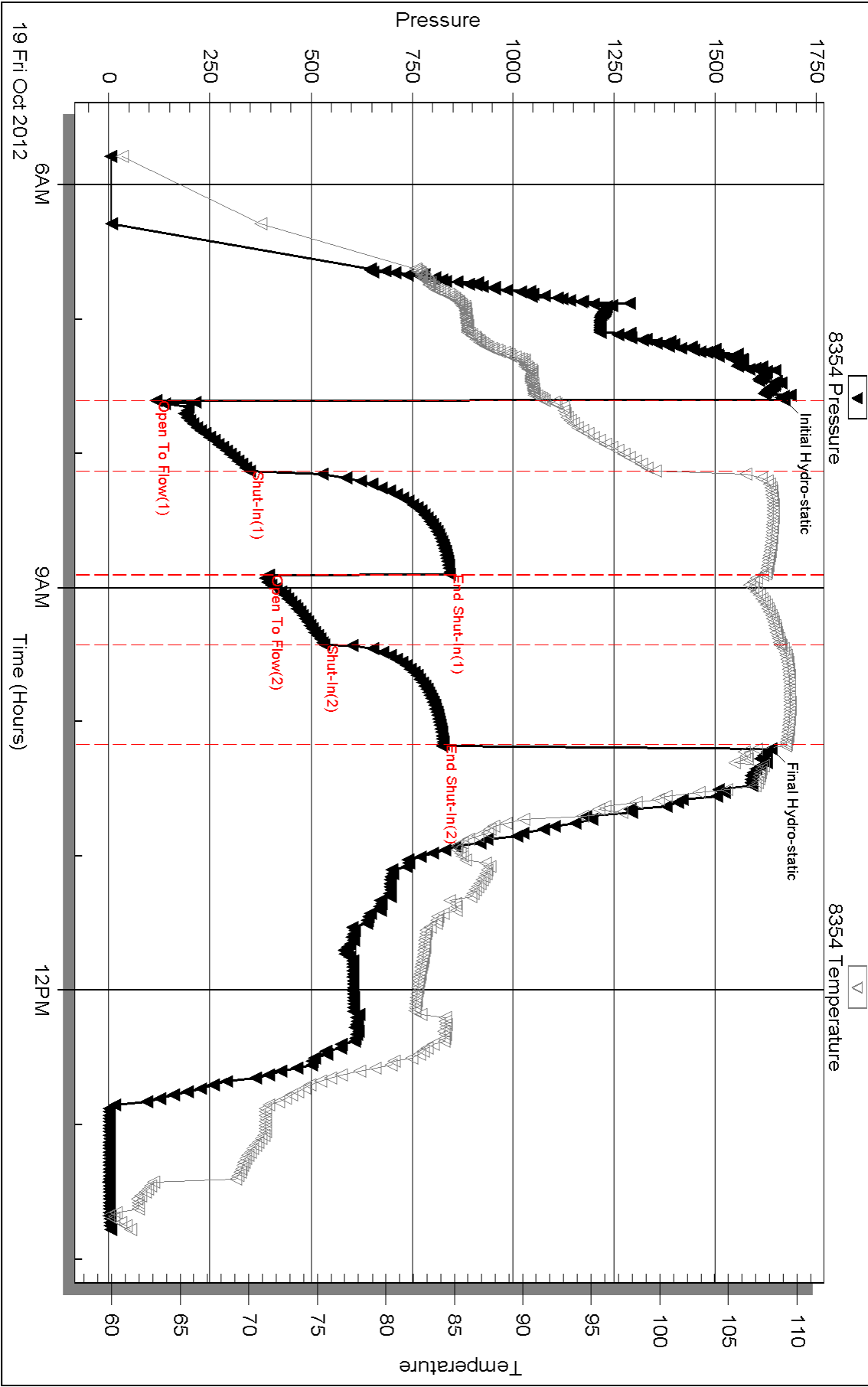
Inside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 5

Pressure vs. Time



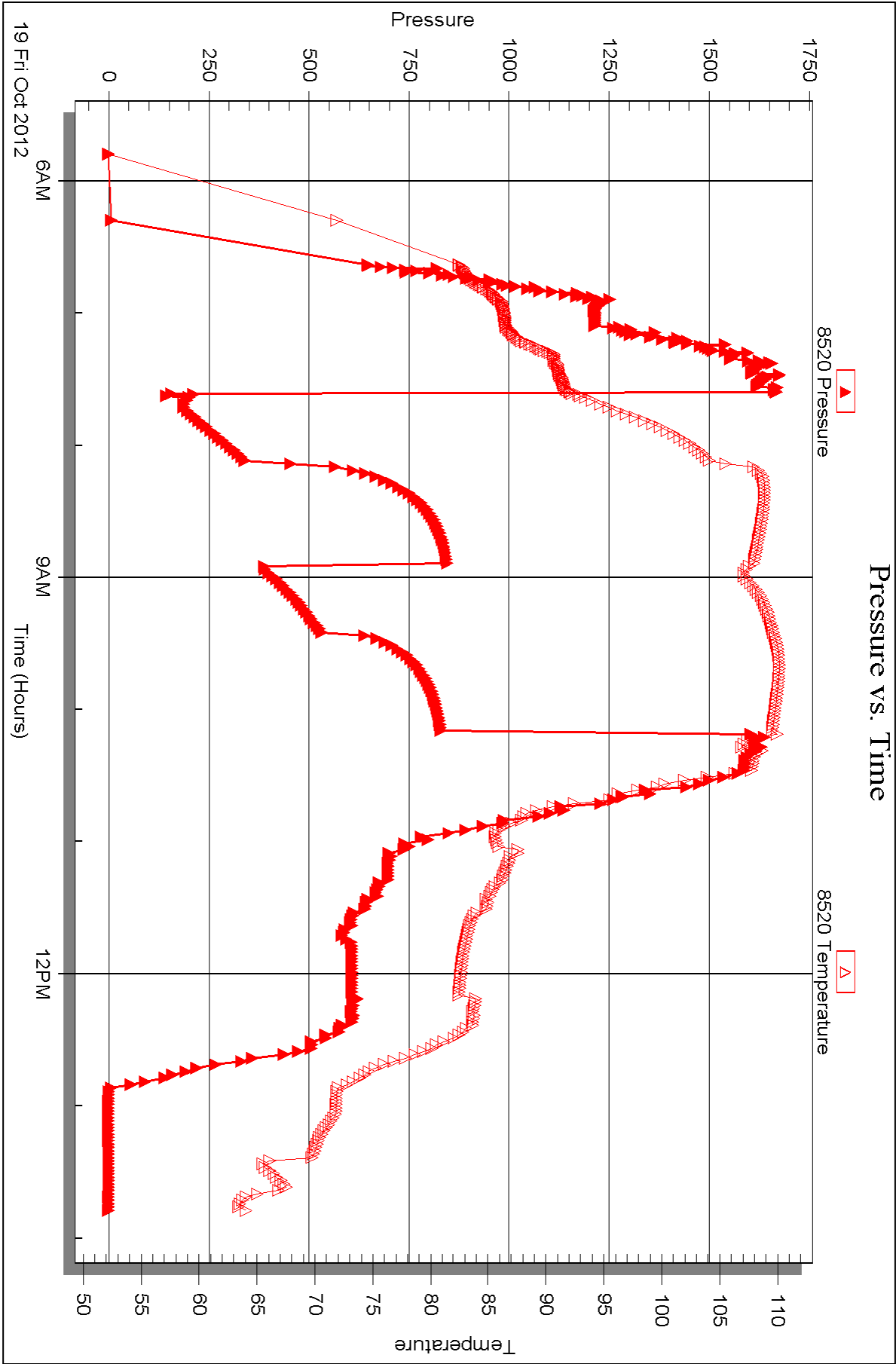
Serial #: 8520

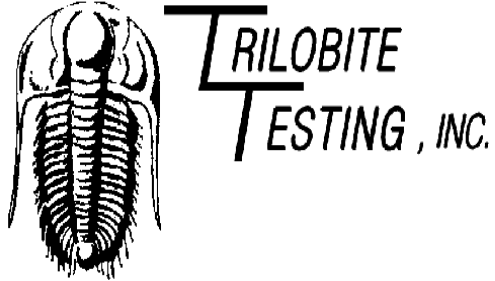
Outside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.19 @ 22:32:30

End Date: 2012.10.20 @ 03:22:00

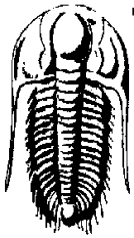
Job Ticket #: 47947 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 10:16:50



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47947

DST#: 6

Test Start: 2012.10.19 @ 22:32:30

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:55:10

Time Test Ended: 03:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3465.00 ft (KB) To 3513.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3513.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: 18.66 psig @ 3501.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.19

End Date:

2012.10.20

Last Calib.: 2012.10.20

Start Time: 22:42:30

End Time:

03:22:00

Time On Btm: 2012.10.19 @ 23:55:00

Time Off Btm: 2012.10.20 @ 02:08:00

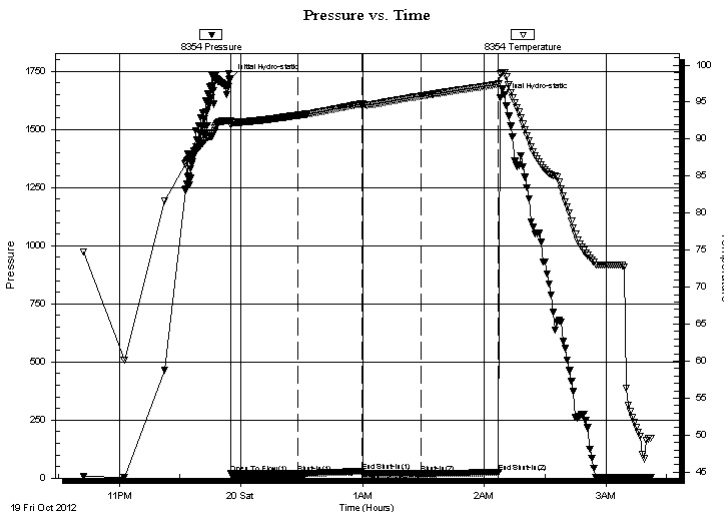
TEST COMMENT: IF-Weak surface blow . Died @ 11 minutes.

ISI-No Return.

FF-No Blow .

FSI-No Return.

PRESSURE SUMMARY



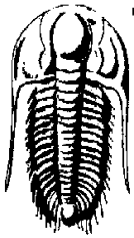
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1718.25	92.49	Initial Hydro-static
1	18.64	91.97	Open To Flow (1)
34	19.24	93.22	Shut-In(1)
65	29.11	94.74	End Shut-In(1)
65	19.15	94.72	Open To Flow (2)
94	18.66	95.82	Shut-In(2)
132	24.76	97.42	End Shut-In(2)
133	1635.32	98.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud	0.01

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47947

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.10.19 @ 22:32:30

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:55:10

Time Test Ended: 03:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3465.00 ft (KB) To 3513.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3513.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: psig @ 3501.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.19

End Date:

2012.10.20

Last Calib.:

2012.10.20

Start Time: 22:42:45

End Time:

03:21:15

Time On Btm:

Time Off Btm:

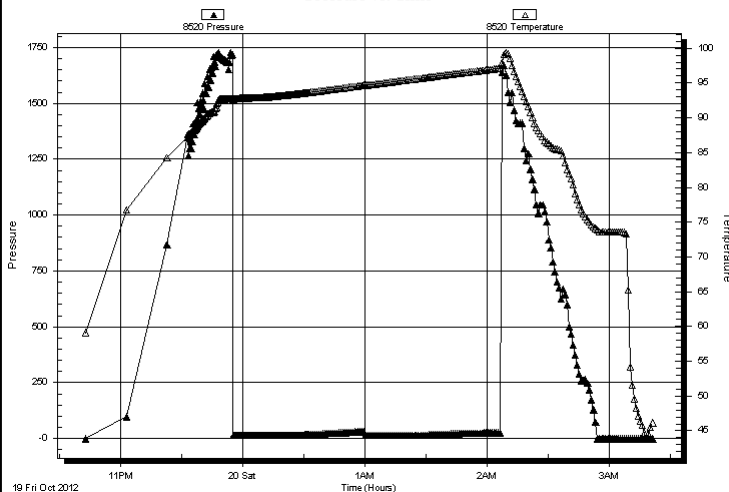
TEST COMMENT: IF-Weak surface blow . Died @ 11 minutes.

ISI-No Return.

FF-No Blow .

FSI-No Return.

Pressure vs. Time



PRESSURE SUMMARY

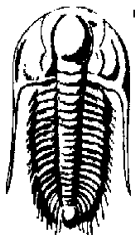
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
-------------	-----------------	--------------	------------

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud	0.01

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47947

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.10.19 @ 22:32:30

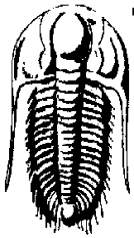
Tool Information

Drill Pipe:	Length:	3419.00 ft	Diameter:	3.80 inches	Volume:	47.96 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	10000.00 lb
					Total Volume:	48.11 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight: Initial	48000.00 lb
Depth to Top Packer:		3465.00 ft					Final	48000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		49.00 ft						
Tool Length:		69.00 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			3446.00	
Shut In Tool	5.00			3451.00	
Hydraulic tool	5.00			3456.00	
Packer	5.00			3461.00	20.00 Bottom Of Top Packer
Packer	4.00			3465.00	
Stubb	1.00			3466.00	
Perforations	2.00			3468.00	
Change Over Sub	1.00			3469.00	
Drill Pipe	31.00			3500.00	
Change Over Sub	1.00			3501.00	
Recorder	0.00	8354	Inside	3501.00	
Recorder	0.00	8520	Outside	3501.00	
Perforations	10.00			3511.00	
Bullnose	3.00			3514.00	49.00 Bottom Packers & Anchor

Total Tool Length: 69.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47947

DST#: 6

ATTN: Ron Nelson

Test Start: 2012.10.19 @ 22:32:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud	0.015

Total Length: 3.00 ft

Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

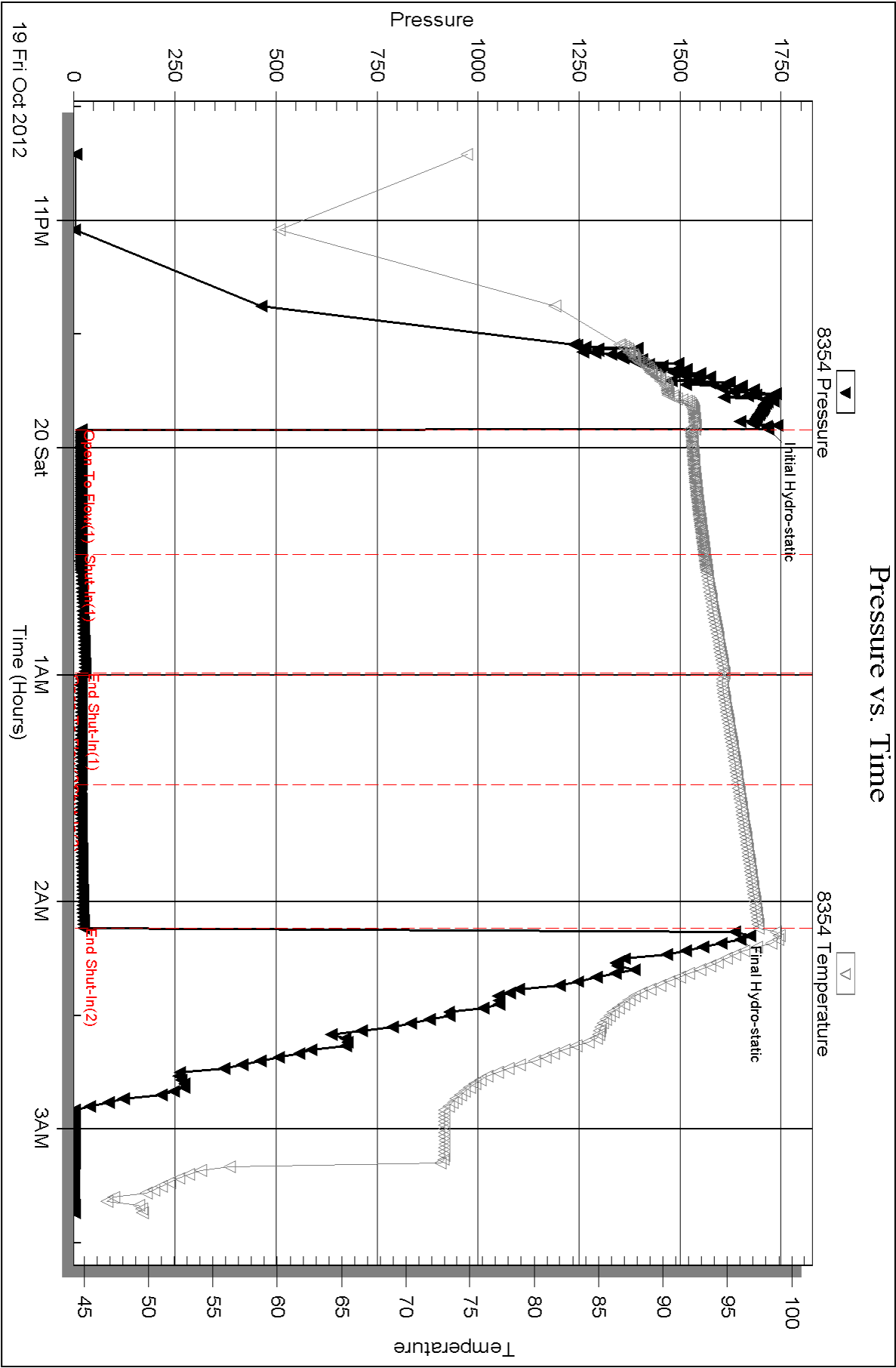
Serial #: 8354

Inside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 6



Serial #: 8520

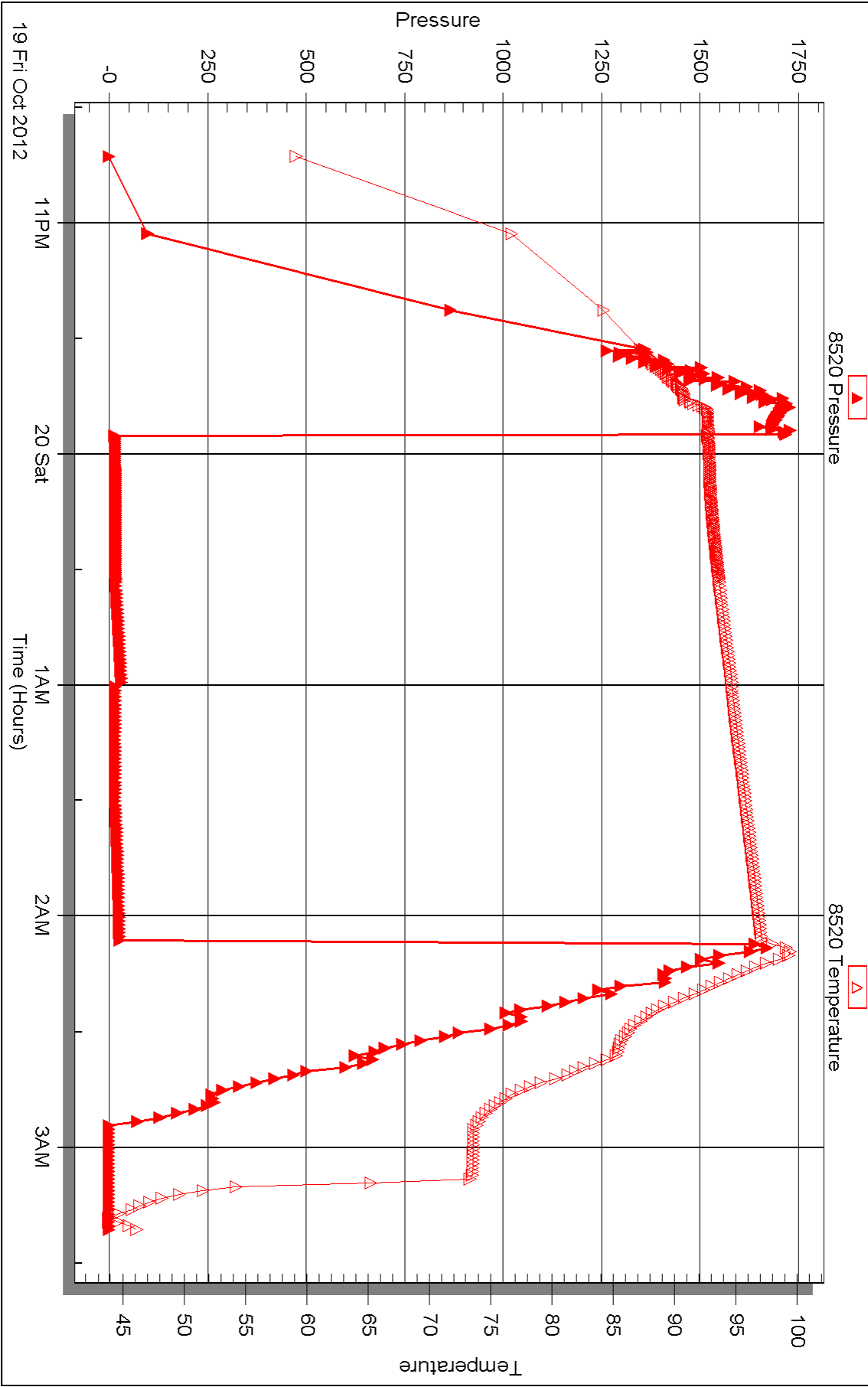
Outside

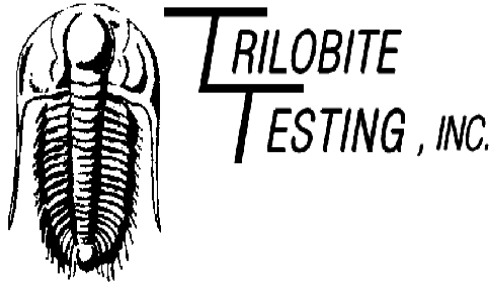
Dow ning Nelson Oil Co

David Urban #1-21

DST Test Number: 6

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

David Urban #1-21

21-16s-17w Rush,KS

Start Date: 2012.10.20 @ 10:24:15

End Date: 2012.10.20 @ 16:17:15

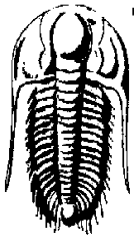
Job Ticket #: 47948 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.23 @ 10:10:52



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47948

DST#: 7

ATTN: Ron Nelson

Test Start: 2012.10.20 @ 10:24:15

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:36:45

Time Test Ended: 16:17:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3519.00 ft (KB) To 3545.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3545.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press@RunDepth: 347.60 psig @ 3522.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.20

End Date:

2012.10.20

Last Calib.:

2012.10.20

Start Time: 10:34:15

End Time:

16:17:15

Time On Btm:

2012.10.20 @ 12:35:45

Time Off Btm:

2012.10.20 @ 14:46:15

TEST COMMENT: IF-Very strong blow . BOB in 10 seconds. GTS @ 1 minute 30 seconds. Gauged Gas.

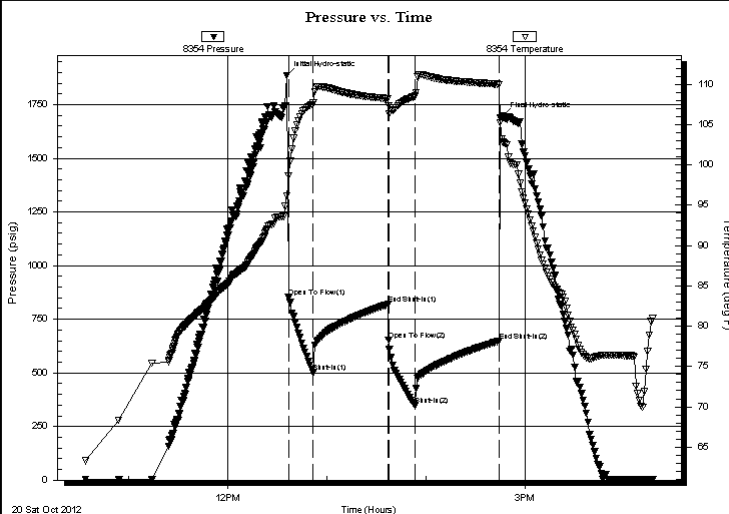
ISI-Weak surface return @ 31 minutes.

FF-Very strong blow . BOB in 5 seconds.

FSI-Weak surface return @ 27 minutes. Died @ 41 minutes.

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1886.89	96.18	Initial Hydro-static
1	851.85	98.63	Open To Flow (1)
16	501.41	107.65	Shut-In(1)
61	818.99	108.19	End Shut-In(1)
62	651.20	107.35	Open To Flow (2)
78	347.60	108.51	Shut-In(2)
128	647.62	109.99	End Shut-In(2)
131	1696.36	102.82	Final Hydro-static

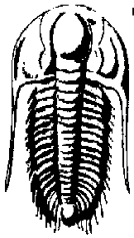


Recovery

Length (ft)	Description	Volume (bbl)
3.00	100%Mud	0.01
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	200.00	3348.90
Last Gas Rate	0.75	125.00	2177.41
Max. Gas Rate	0.75	200.00	3348.90



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47948

DST#: 7

ATTN: Ron Nelson

Test Start: 2012.10.20 @ 10:24:15

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:36:45

Time Test Ended: 16:17:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3519.00 ft (KB) To 3545.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3545.00 ft (KB) (TVD)

1996.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8520 Outside

Press@RunDepth: psig @ 3522.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.20

End Date:

2012.10.20

Last Calib.:

2012.10.20

Start Time: 10:34:30

End Time:

16:17:00

Time On Btm:

Time Off Btm:

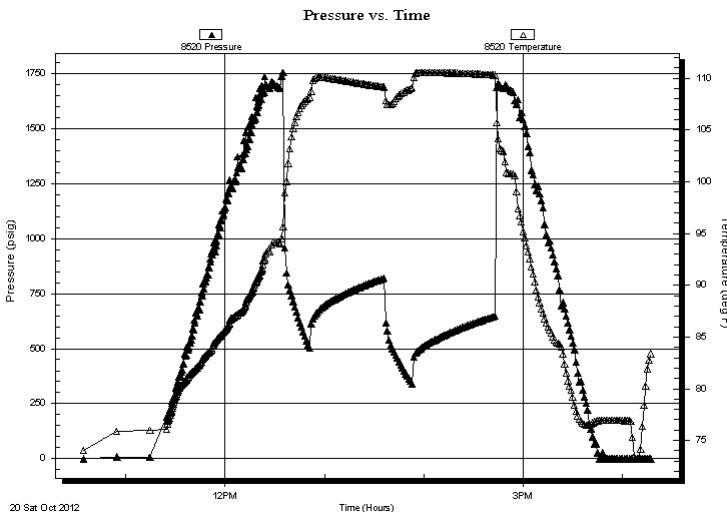
TEST COMMENT: IF-Very strong blow . BOB in 10 seconds. GTS @ 1 minute 30 seconds. Gauged Gas.

ISI-Weak surface return @ 31 minutes.

FF-Very strong blow . BOB in 5 seconds.

FSI-Weak surface return @ 27 minutes. Died @ 41 minutes.

PRESSURE SUMMARY



Time
(Min.)

Pressure
(psig)

Temp
(deg F)

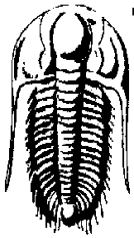
Annotation

Recovery

Length (ft)	Description	Volume (bbl)
3.00	100%Mud	0.01
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	200.00	3348.90
Last Gas Rate	0.75	125.00	2177.41
Max. Gas Rate	0.75	200.00	3348.90



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47948

DST#: 7

ATTN: Ron Nelson

Test Start: 2012.10.20 @ 10:24:15

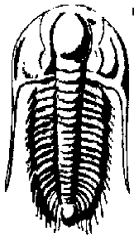
Tool Information

Drill Pipe:	Length:	3480.00 ft	Diameter:	3.80 inches	Volume:	48.82 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	15000.00 lb
					Total Volume:	48.97 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		12.00 ft					String Weight: Initial	45000.00 lb
Depth to Top Packer:		3519.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		26.00 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			3500.00	
Shut In Tool	5.00			3505.00	
Hydraulic tool	5.00			3510.00	
Packer	5.00			3515.00	20.00 Bottom Of Top Packer
Packer	4.00			3519.00	
Stubb	1.00			3520.00	
Perforations	2.00			3522.00	
Recorder	0.00	8354	Inside	3522.00	
Recorder	0.00	8520	Outside	3522.00	
Perforations	20.00			3542.00	
Bullnose	3.00			3545.00	26.00 Bottom Packers & Anchor

Total Tool Length: 46.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

21-16s-17w Rush,KS

PO Box 1019
Hays KS 67601

David Urban #1-21

Job Ticket: 47948

DST#: 7

ATTN: Ron Nelson

Test Start: 2012.10.20 @ 10:24:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	100%Mud	0.015
0.00	GTS	0.000

Total Length: 3.00 ft

Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

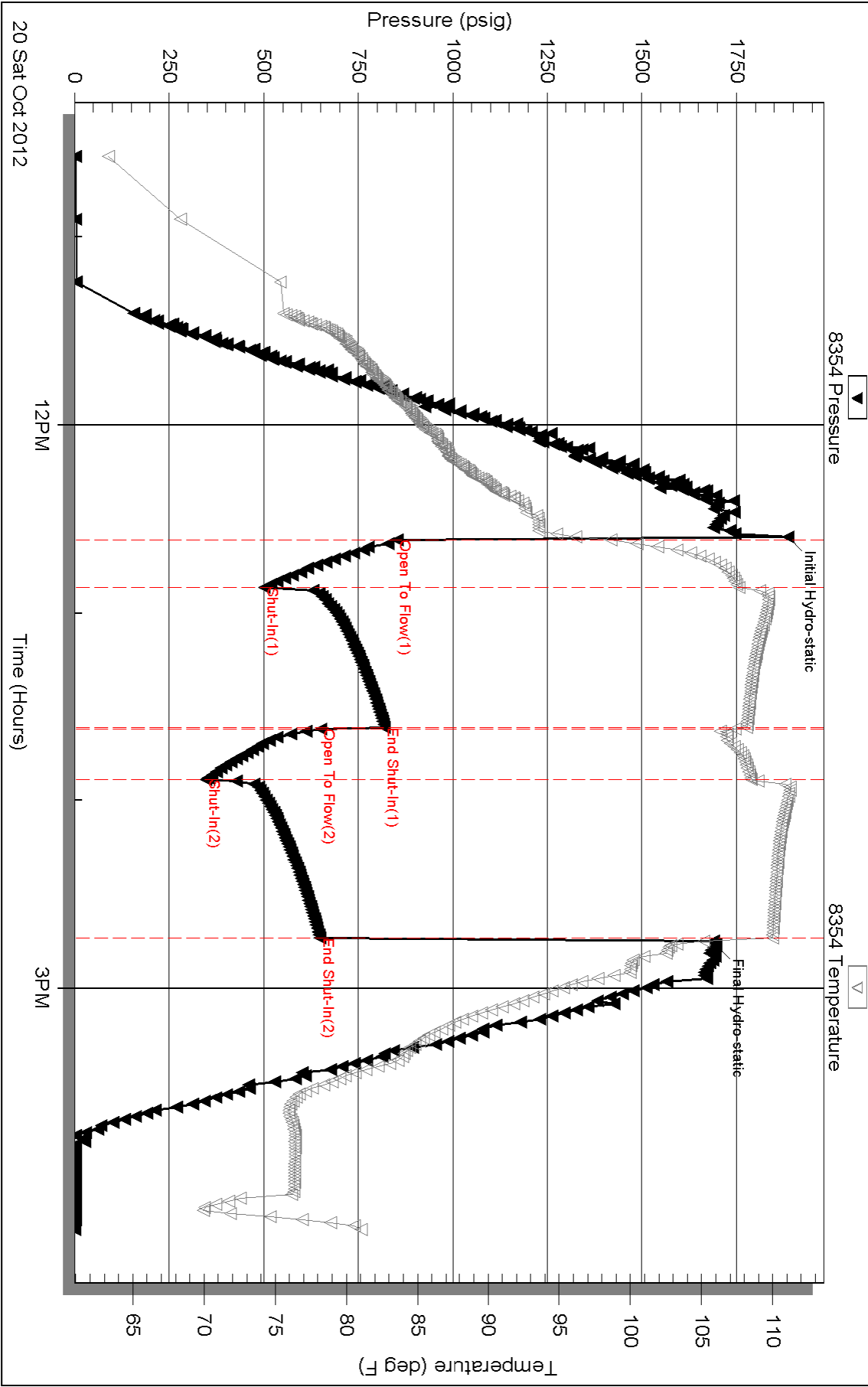
Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 7

Pressure vs. Time



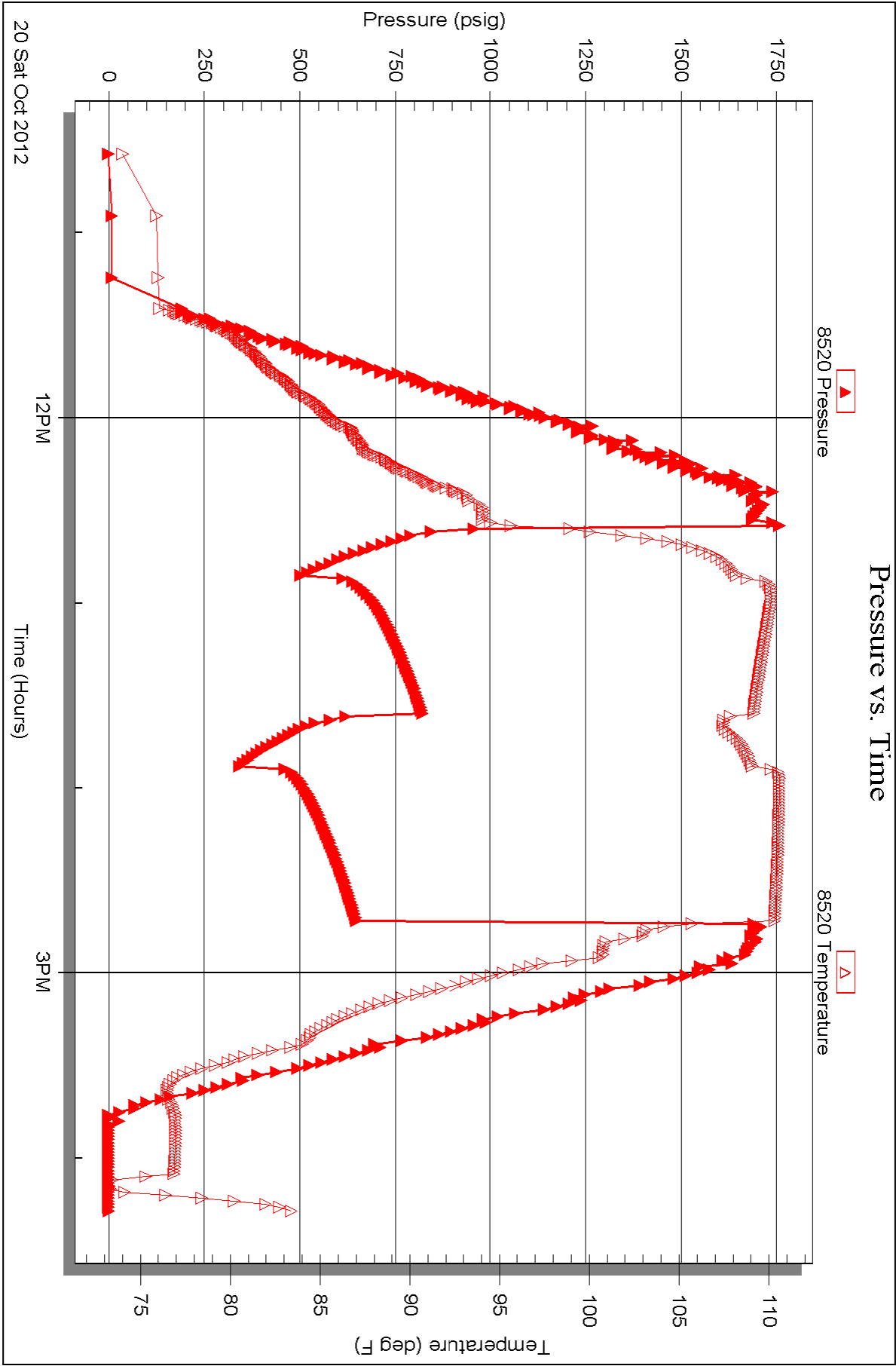
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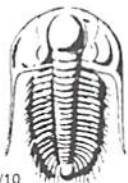
Outside

Dow n ing Nelson Oil Co

David Urban #1-21

DST Test Number: 7





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51012

Well Name & No. David Urban 1-21 Test No. 1 Date 10-16-12
 Company Dawny Nelson Oil Company Elevation 2001 KB 1993 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. _____ Rig Discovery #4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3252-3289 Zone Tested A
 Anchor Length 37' Drill Pipe Run 3231 Mud Wt. 8.8
 Top Packer Depth 3247 Drill Collars Run 31' Vis 52
 Bottom Packer Depth 3252 Wt. Pipe Run _____ WL 8.0
 Total Depth 3289 Chlorides 3,000 ppm System LCM 2.5#

Blow Description IF-B.O.B. in 28 Minutes

ISI- No blow back

FF-B.O.B. in 3 Minutes

FSI- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>75'</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 75' BHT 100° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1569
 (B) First Initial Flow 38
 (C) First Final Flow 43
 (D) Initial Shut-In 161
 (E) Second Initial Flow 34
 (F) Second Final Flow 44
 (G) Final Shut-In 159
 (H) Final Hydrostatic 1538

☒ Test 1150
☐ Jars _____
☐ Safety Joint _____
☐ Circ Sub _____
☐ Hourly Standby _____
☒ Mileage 64 RT 99.20

T-On Location 7:50pm
 T-Started 8:53pm
 T-Open 10:48pm
 T-Pulled 1:48pm
 T-Out 3:21am

Comments _____

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

☐ Sampler _____
☐ Straddle _____
☐ Shale Packer _____
☐ Extra Packer _____
☐ Extra Recorder _____
☐ Day Standby _____
☐ Accessibility _____
 Sub Total 1249.20

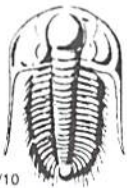
☐ Ruined Shale Packer _____
☐ Ruined Packer _____
☐ Extra Copies _____
 Sub Total 0
 Total 1249.20

MP/DST Disc't _____

Approved By _____

Our Representative _____

Cody



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **51013**

Well Name & No. David Urban 1-21 Test No. 2 Date 10-17-12
 Company Downy Nelson Oil Co Elevation 2001 KB 1993 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Gator Rig Discovery #4
 Location: Sec. 21 Twp. 16s Rge. 17w Co. Rush State KS

Interval Tested 3291-3310 Zone Tested _____
 Anchor Length 19' Drill Pipe Run 3261' Mud Wt. 8.8
 Top Packer Depth 3286 Drill Collars Run 31' Vis 52
 Bottom Packer Depth 3291 Wt. Pipe Run _____ WL 8.0
 Total Depth 3310 Chlorides 3,000 ppm System LCM 2.5

Blow Description IF-B.O.B. in 4 Min
ISI- No blow back.
FF-B.O.B. instantly
FSI- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>58</u>	<u>G50CWM</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>932' to G.I.P.</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 58' BHT 102° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1593
 (B) First Initial Flow 18
 (C) First Final Flow 26
 (D) Initial Shut-In 218
 (E) Second Initial Flow 21
 (F) Second Final Flow 30
 (G) Final Shut-In 209
 (H) Final Hydrostatic 1561

☒ Test 1150
☐ Jars _____
☐ Safety Joint _____
☐ Circ Sub _____
☐ Hourly Standby _____
☒ Mileage 64x2 99.20
☐ Sampler _____
☐ Straddle _____
☐ Shale Packer _____
☐ Extra Packer _____
☐ Extra Recorder _____
☐ Day Standby _____
☐ Accessibility _____
 Sub Total 1249.20

T-On Location 8:55am
 T-Started 9:12am
 T-Open 11:04am
 T-Pulled 1:04pm
 T-Out 2:50pm
 Comments _____

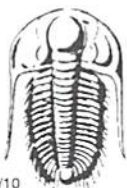
Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

☐ Ruined Shale Packer _____
☐ Ruined Packer _____
☐ Extra Copies _____
 Sub Total 0
 Total 1249.20
 MP/DST Disc't _____

Approved By _____

Our Representative Cody Black

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**TRILOBITE
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **51014**

Well Name & No. David Urban 1-21 Test No. 3 Date 10-17-12
 Company Downing Nelson Oil Company Elevation 2001 KB 1993 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Gator Rig Discovery #4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3310 - 3350 Zone Tested _____
 Anchor Length 40' Drill Pipe Run 3293 Mud Wt. 9.0
 Top Packer Depth 3305 Drill Collars Run 31' Vis 50
 Bottom Packer Depth 3310 Wt. Pipe Run - WL 8.8
 Total Depth 3350 Chlorides 3,000 ppm System LCM 2#

Blow Description ±F-B.O.B. instantly. G.T.S.
ISI- Didnt bleed off
FF- B.O.B. instantly, G.T.S., Gauging Gas
FSI- weak blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>G HOCM</u>	<u>30</u>	<u>40</u>	<u>30</u>	<u>30</u>
<u>93</u>	<u>60</u>	<u>30</u>	<u>70</u>		
		%gas	%oil	%water	%mud
	<u>Gas to Surface</u>	%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec Total 155 BHT 1040 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1628</u>	☒ Test	<u>1150</u>	T-On Location	<u>9:40 pm</u>
(B) First Initial Flow	<u>234</u>	☐ Jars		T-Started	<u>10:15 pm</u>
(C) First Final Flow	<u>264</u>	☐ Safety Joint		T-Open	<u>11:50 pm</u>
(D) Initial Shut-In	<u>676</u>	☐ Circ Sub		T-Pulled	<u>2:00 am</u>
(E) Second Initial Flow	<u>206</u>	☐ Hourly Standby		T-Out	<u>4:07 am</u>
(F) Second Final Flow	<u>179</u>	☒ Mileage	<u>64X2</u> 99.20	Comments	
(G) Final Shut-In	<u>638</u>	☐ Sampler			
(H) Final Hydrostatic	<u>1618</u>	☐ Straddle			

Initial Open	<u>10</u>	☐ Shale Packer		☐ Ruined Shale Packer	
Initial Shut-In	<u>45</u>	☐ Extra Packer		☐ Ruined Packer	
Final Flow	<u>30</u>	☐ Extra Recorder		☐ Extra Copies	
Final Shut-In	<u>45</u>	☐ Day Standby		Sub Total	<u>0</u>
		☐ Accessibility		Total	<u>1249.20</u>
		Sub Total	<u>1249.20</u>	MP/DST Disc't	

Approved By _____ Our Representative Code Phil

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. 47945

Well Name & No. David Urban #1-21 Test No. 4 Date 10-18-12
 Company Dawson-Nelson Oil Co., Inc. Elevation 2001 KB 1996 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Bon Nelson Rig Discovery 4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3347-3383 Zone Tested LKC "F&G"
 Anchor Length 36 Drill Pipe Run 3325 Mud Wt. 8.8
 Top Packer Depth 3342 Drill Collars Run 31.26 Vis 50
 Bottom Packer Depth 3347 Wt. Pipe Run 0 WL 8.8
 Total Depth 3383 Chlorides 5000 ppm System LCM 1 1/2 #

Blow Description FF- Fair building blow, BOB in 10 minutes,
YST- No Return,
FF- Fair building blow, BOB in 8 minutes,
FST- No Return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>GHCWM</u>	<u>20</u>	<u>30</u>	<u>20</u>	<u>30</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

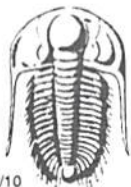
Rec Total 62 BHT 103 Gravity 441' G.I.P. API RW 441' G.I.P. @ 441' G.I.P. °F Chlorides 441' G.I.P. ppm

(A) Initial Hydrostatic <u>1639</u>	☒ Test <u>1150</u>	T-On Location <u>1030</u>
(B) First Initial Flow <u>22</u>	☐ Jars	T-Started <u>1145</u>
(C) First Final Flow <u>33</u>	☐ Safety Joint	T-Open <u>1343</u>
(D) Initial Shut-In <u>627</u>	☐ Circ Sub	T-Pulled <u>1645</u>
(E) Second Initial Flow <u>28</u>	☐ Hourly Standby	T-Out <u>1830</u>
(F) Second Final Flow <u>40</u>	☒ Mileage <u>99.20</u>	Comments <u>BART-1123</u>
(G) Final Shut-In <u>506</u>	☐ Sampler	
(H) Final Hydrostatic <u>1610</u>	☐ Straddle	

Initial Open <u>45</u>	☐ Shale Packer	☐ Ruined Shale Packer
Initial Shut-In <u>45</u>	☐ Extra Packer	☐ Ruined Packer
Final Flow <u>45</u>	☐ Extra Recorder	☐ Extra Copies
Final Shut-In <u>45</u>	☐ Day Standby	Sub Total <u>0</u>
	☐ Accessibility	Total <u>1249.20</u>
	Sub Total <u>1249.20</u>	MP/DST Disc'd

Approved By _____ Our Representative D. Rash

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47946

Well Name & No. David Urban #1-21 Test No. 5 Date 10-19-12
 Company Downing-Nelson Oil Co., Inc. Elevation 2001 KB 1996 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery 4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3380-3465 Zone Tested LKC "H, I, J"
 Anchor Length 85' Drill Pipe Run 3355 Mud Wt. 8.8
 Top Packer Depth 3325 Drill Collars Run 3126 Vis 50
 Bottom Packer Depth 3380 Wt. Pipe Run 0 WL 8.8
 Total Depth 3465 Chlorides 5000 ppm System LCM 1.5

Blow Description IF- Strong building blow. BOB in 1mm w/ 30 sec. GTS
IST- BOB Return @ 45 seconds,
FF- Strong blow. BOB in 10 seconds. GTS. TSTM
FST- BOB Return @ 45 seconds. Never Bleed off,

Rec	Feet of	%gas	%oil	%water	%mud
<u>1426</u>	<u>Gassy oil</u>	<u>40</u>	<u>60</u>		
<u>124</u>	<u>MCO</u>		<u>60</u>		<u>40</u>
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud
		%gas	%oil	%water	%mud

Rec 1829' G.I.P. %gas %oil %water %mud

Rec Total 1550 BHT 109 Gravity 39 API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 1670 ☒ Test 1150 T-On Location 0500
 (B) First Initial Flow 116 ☐ Jars T-Started 0545
 (C) First Final Flow 348 ☐ Safety Joint T-Open 0736
 (D) Initial Shut-In 843 ☒ Circ Sub 50 T-Pulled 1010
 (E) Second Initial Flow 395 ☐ Hourly Standby T-Out 1345
 (F) Second Final Flow 532 ☒ Mileage 99.20 Comments BWT-0537
 (G) Final Shut-In 827 ☐ Sampler
 (H) Final Hydrostatic 1638 ☐ Straddle ☐ Ruined Shale Packer
☐ Shale Packer ☐ Ruined Packer
☐ Extra Packer ☐ Extra Copies

Initial Open 30 Sub Total 0
 Initial Shut-In 45 Total 1299.20
 Final Flow 30 MP/DST Disc't
 Final Shut-In 45
 Sub Total 1299.20

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

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47947

Well Name & No. David Urban #1-21 Test No. 6 Date 10-19-12
 Company Downing Nelson Oil Co., Inc. Elevation 2001 KB 1996 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery 4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3465-3513 Zone Tested LKC "K+L"
 Anchor Length 48' Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 3460 Drill Collars Run 31.26 Vis 48
 Bottom Packer Depth 3465 Wt. Pipe Run 0 WL 9.6
 Total Depth 3513 Chlorides 7000 ppm System LCM 1.5#

Blow Description VF- Weak surface blow. Died @ 11 minutes.
ISI- No Return.
FF- No Blow.
FST- No Return.

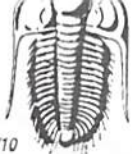
Rec	Feet of	%gas	%oil	%water	%mud
3	Mud			100	

Rec Total 3 BHT 99 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1718</u>	☒ Test <u>1150</u>	T-On Location <u>2200</u>
(B) First Initial Flow <u>19</u>	☐ Jars _____	T-Started <u>2245</u>
(C) First Final Flow <u>19</u>	☐ Safety Joint _____	T-Open <u>2355</u>
(D) Initial Shut-In <u>29</u>	☐ Circ Sub _____	T-Pulled <u>0200</u>
(E) Second Initial Flow <u>19</u>	☐ Hourly Standby _____	T-Out <u>0330</u>
(F) Second Final Flow <u>19</u>	☒ Mileage <u>99.20</u>	Comments <u>BHT-2232</u>
(G) Final Shut-In <u>25</u>	☐ Sampler _____	
(H) Final Hydrostatic <u>1635</u>	☐ Straddle _____	☐ Ruined Shale Packer _____

Initial Open <u>30</u>	☐ Shale Packer _____	☐ Ruined Packer _____
Initial Shut-In <u>30</u>	☐ Extra Packer _____	☐ Extra Copies _____
Final Flow <u>30</u>	☐ Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	☐ Day Standby _____	Total <u>1249.20</u>
	☐ Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1249.20</u>	

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

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47948

Well Name & No. David Urban #1-21 Test No. 7 Date 10-20-12
 Company Downing-Nelson Oil Co., Inc. Elevation 2001 KB 1996 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Ron Nelson Rig Discovery 4
 Location: Sec. 21 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3519-3545 Zone Tested Aubuckle
 Anchor Length 26' Drill Pipe Run 3480 Mud Wt. 9.3
 Top Packer Depth 3514 Drill Collars Run 31.26 Vis 46
 Bottom Packer Depth 3519 Wt. Pipe Run 0 WL 9.6
 Total Depth 3545 Chlorides 7000 ppm System LCM 1.5#

Blow Description IF - Very strong blow. BOB in 10 seconds. GTS @ 1 minute 30 sec.
VSI - Weak surface return @ 31 minutes
FF - Very strong blow. BOB in 5 seconds.
FST - Weak surface return @ 27 minutes. Died @ 41 minutes.

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</u>	
	<u>3500' G.I.P.</u>				

Rec Total 3 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1887</u>	☒ Test <u>1150</u>	T-On Location <u>0945</u>
(B) First Initial Flow <u>852</u>	☐ Jars _____	T-Started <u>1030</u>
(C) First Final Flow <u>501</u>	☐ Safety Joint _____	T-Open <u>1236</u>
(D) Initial Shut-In <u>819</u>	☐ Circ Sub _____	T-Pulled <u>1440</u>
(E) Second Initial Flow <u>651</u>	☐ Hourly Standby _____	T-Out <u>1615</u>
(F) Second Final Flow <u>348</u>	☒ Mileage <u>99.20</u>	Comments <u>BWT-1024</u>
(G) Final Shut-In <u>648</u>	☐ Sampler _____	
(H) Final Hydrostatic <u>1696</u>	☐ Straddle _____	☐ Ruined Shale Packer _____
	☐ Shale Packer _____	☐ Ruined Packer _____

Initial Open <u>15</u>	☐ Extra Packer _____	Extra Copies _____
Initial Shut-In <u>45</u>	☐ Extra Recorder _____	Sub Total <u>0</u>
Final Flow <u>1.5</u>	☐ Day Standby _____	Total <u>1249.20</u>
Final Shut-In <u>45</u>	☐ Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1249.20</u>	

Approved By _____

Our Representative D. Rash

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