



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

Downing 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 @ Run Depth: 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

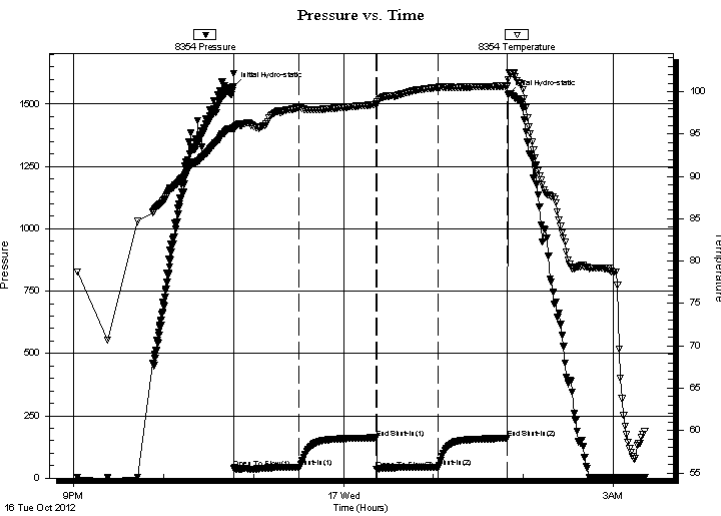
Time Off Btm: 2012.10.17 @ 01:49:30

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 SUMMARY

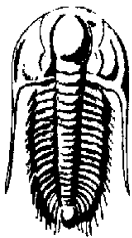
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1569.19	95.68	Initial Hydro-static
1	38.41	95.56	Open To Flow (1)
44	43.00	98.15	Shut-In(1)
95	161.15	98.47	End Shut-In(1)
96	34.89	98.54	Open To Flow (2)
137	44.15	100.52	Shut-In(2)
183	159.57	100.67	End Shut-In(2)
183	1538.28	101.39	Final Hydro-static

Recovery

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

Gas Rates

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



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: 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
 Interval: **3252.00 ft (KB) To 3289.00 ft (KB) (TVD)**
 Total Depth: 3289.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

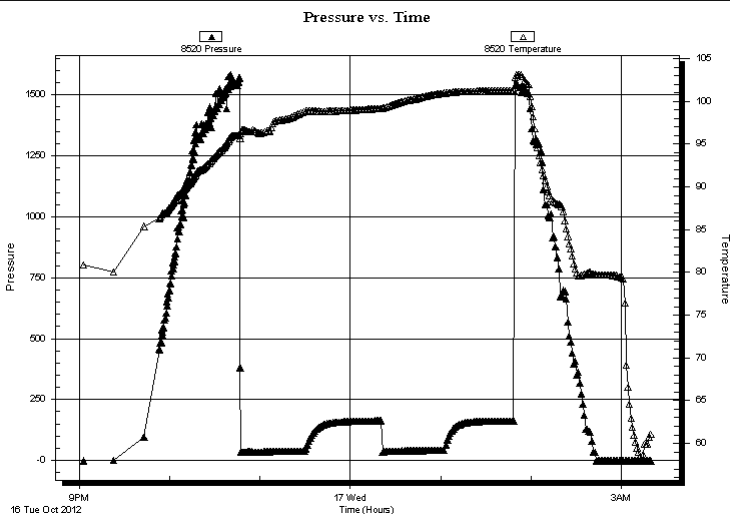
Test Type: Conventional Bottom Hole (Initial)
 Tester: Cody Bloedorn
 Unit No: 38
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8520

Outside

Press @ RunDepth: psig @ 3286.00 ft (KB)
 Start Date: 2012.10.16 End Date: 2012.10.17
 Start Time: 21:03:00 End Time: 03:20:00
 Capacity: 8000.00 psig
 Last Calib.: 2012.10.17
 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 SUMMARY

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

Recovery

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

Gas Rates

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



**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: 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
			<u>Total Volume: 45.47 bbl</u>	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

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.50 inches

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

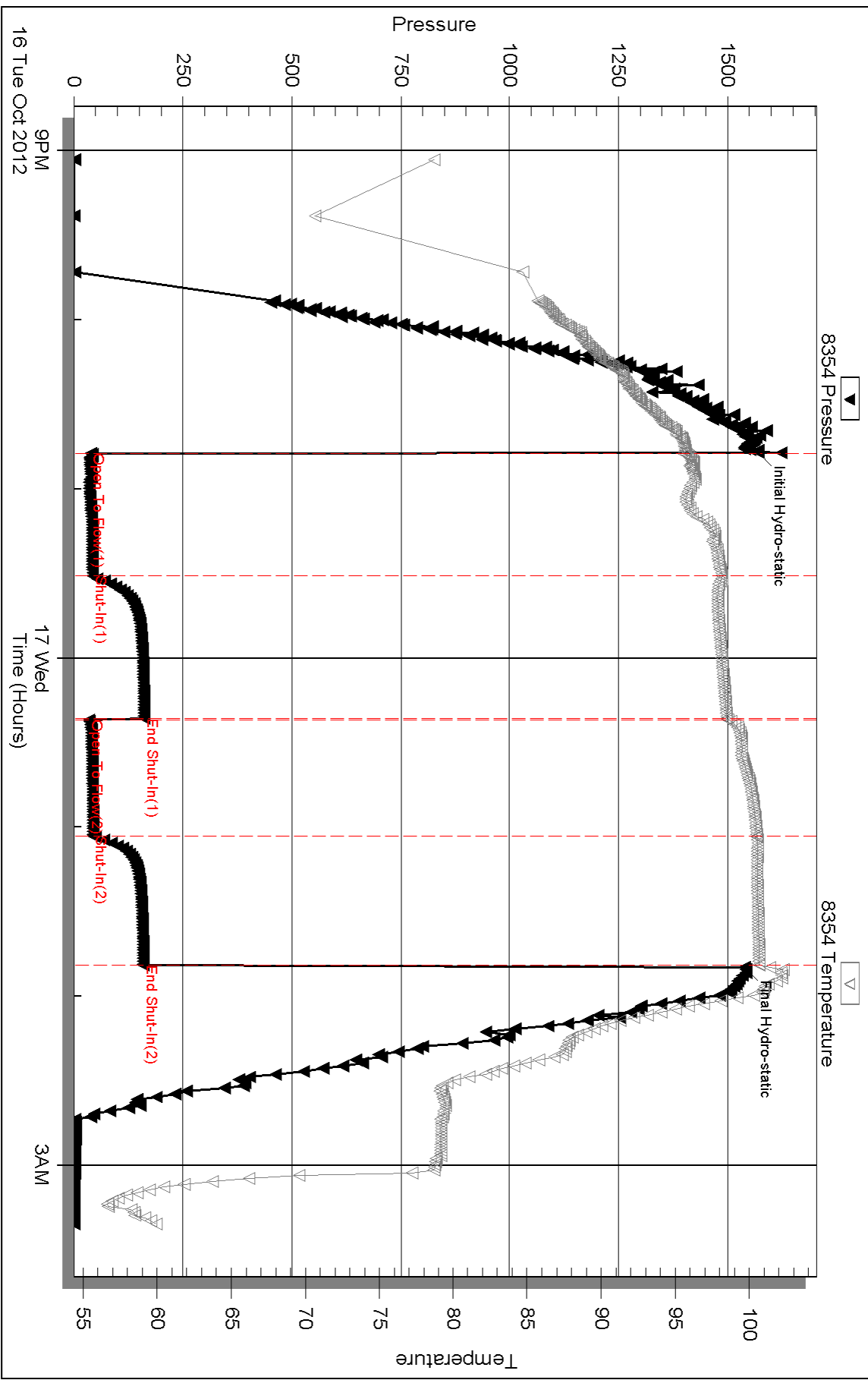
Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 51012

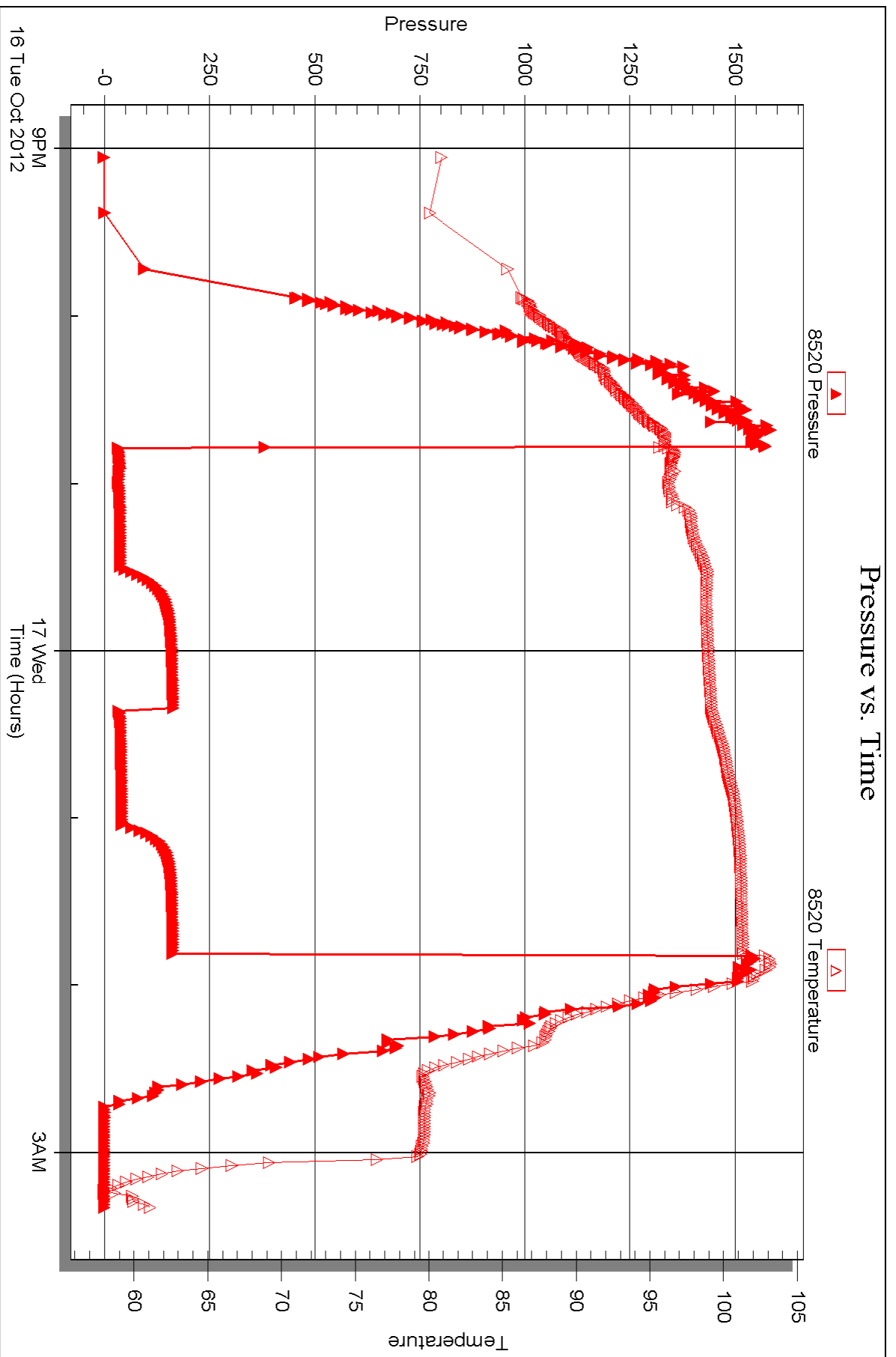
Printed: 2012.10.23 @ 11:37:01

Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 51012

Printed: 2012.10.23 @ 11:37:02



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

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: 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
 Interval: **3291.00 ft (KB) To 3310.00 ft (KB) (TVD)**
 Total Depth: 3310.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 38
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 5.00 ft

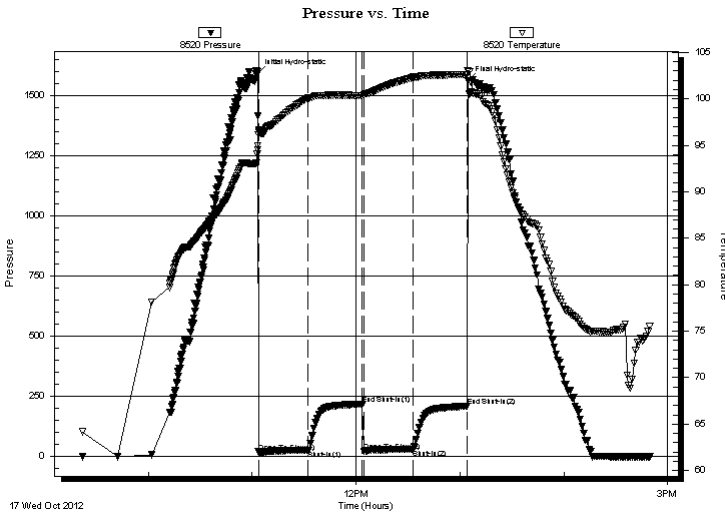
Serial #: 8520

Outside

Press @ Run Depth: 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 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

* Recovery from multiple tests

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: 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
			<u>Total Volume: 45.89 bbl</u>	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
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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

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
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:

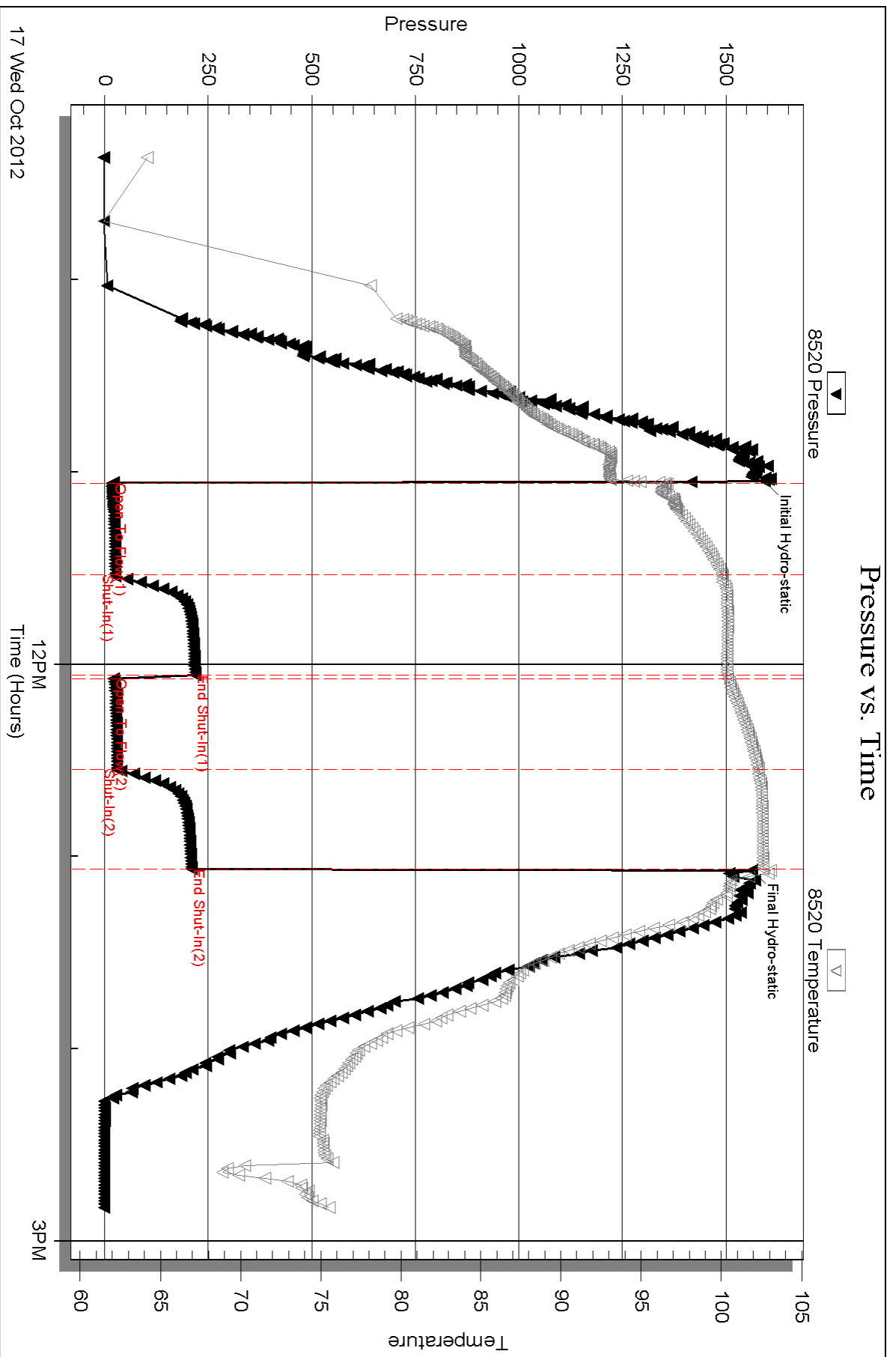
Recovery Comments:

Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 2



17 Wed Oct 2012

12 PM

3 PM

Triobite Testing, Inc

Ref. No: 51013

Printed: 2012.10.23 @ 11:32:52

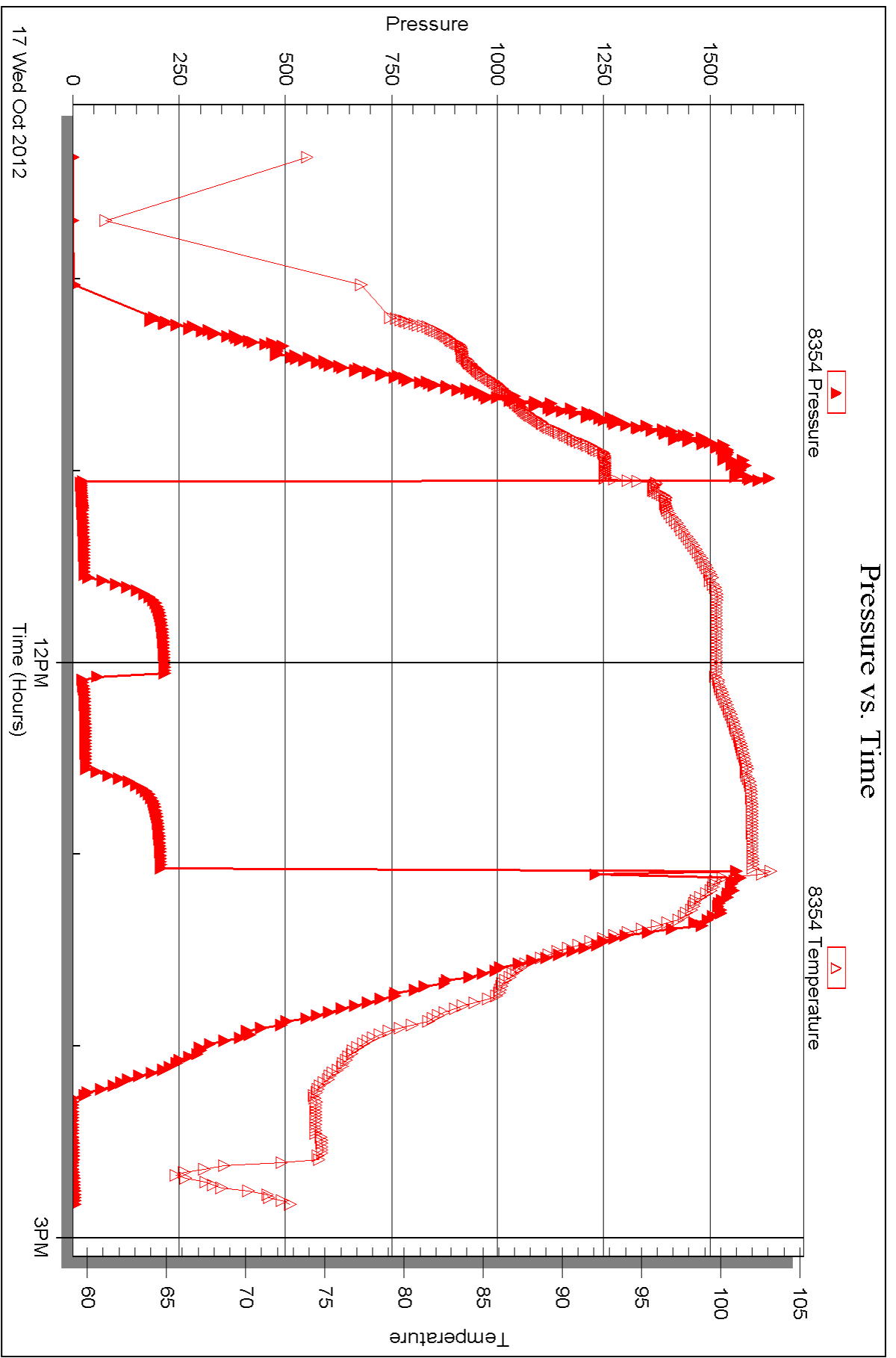
Serial #: 8354

Inside

Downing 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

Downing Nelson Oil Co
21-16s-17w Rush,KS
David Urban #1-21
DST # 3
LKC "C-E"
2012.10.17



**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:

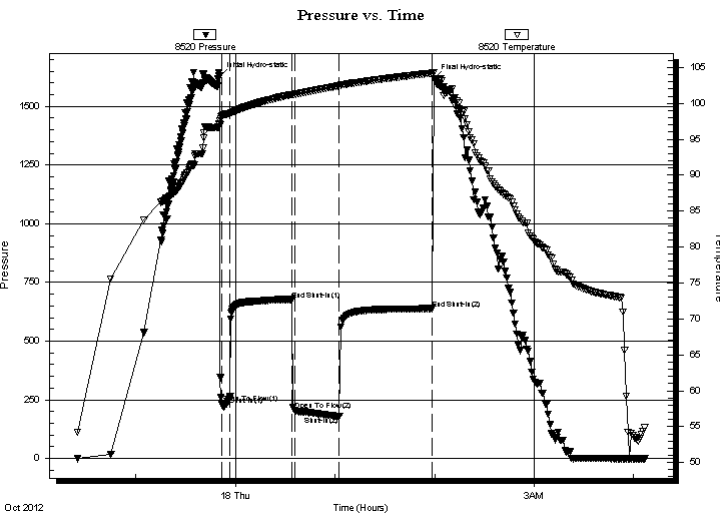
Formation: **LKC "C-E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:51:30
 Time Test Ended: 04:06:30
 Interval: **3310.00 ft (KB) To 3350.00 ft (KB) (TVD)**
 Total Depth: 3350.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 38
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8520

Outside

Press @ Run Depth: 179.42 psig @ 3347.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.10.17 End Date: 2012.10.18 Last Calib.: 2012.10.18
 Start Time: 22:25:00 End Time: 04:06:30 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 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

* Recovery from multiple tests

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



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

Job Ticket: 51014

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.10.17 @ 22:15:00

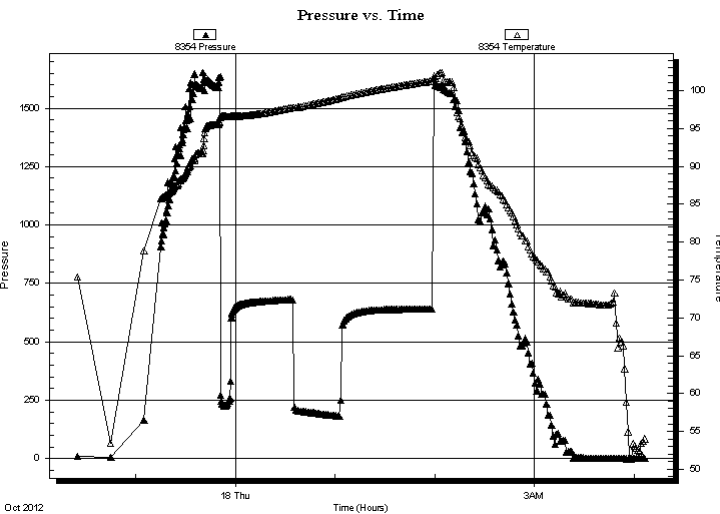
GENERAL INFORMATION:

Formation: **LKC "C-E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:51:30
 Time Test Ended: 04:06:30
 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
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 38
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press @ Run Depth: psig @ 3347.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.10.17 End Date: 2012.10.18 Last Calib.: 2012.10.18
 Start Time: 22:24:50 End Time: 04:06:50 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 SUMMARY

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

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

* Recovery from multiple tests

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



**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

ATTN: Ron Nelson

Job Ticket: 51014

DST#: 3

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

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

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.74 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
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:

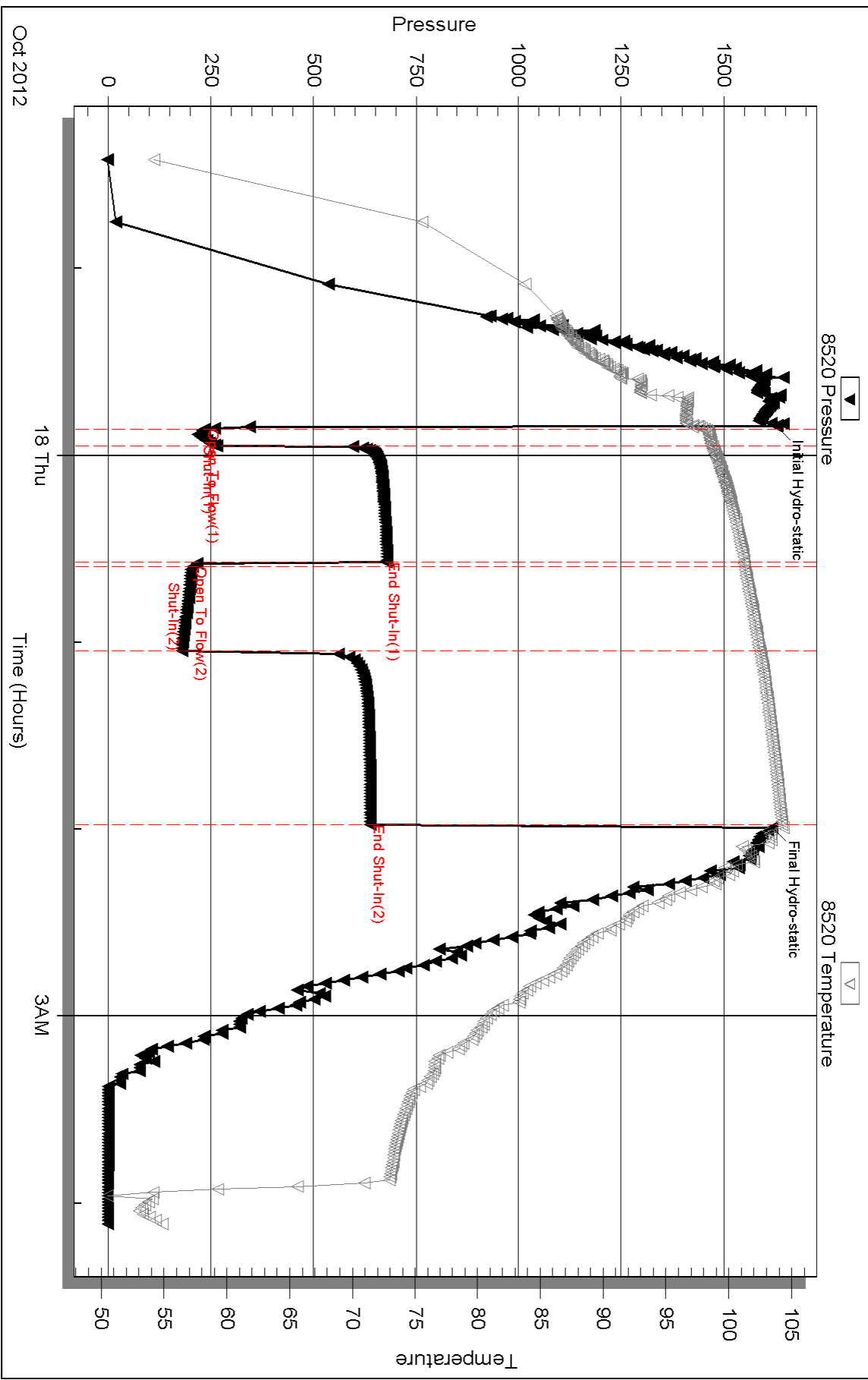
Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 3

Pressure vs. Time



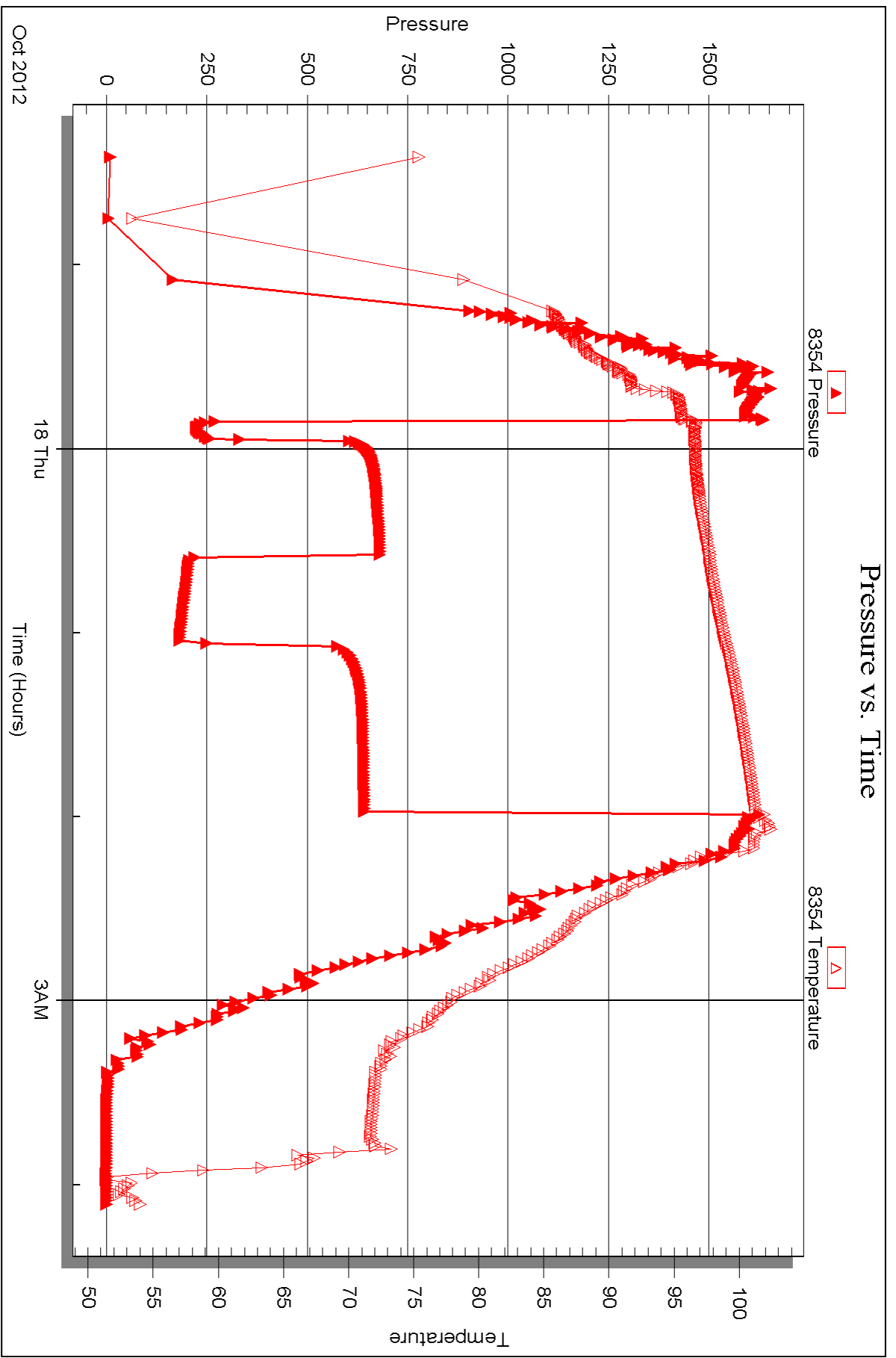
Serial #: 8354

Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 51014

Printed: 2012.10.23 @ 11:31:39



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

Downing Nelson Oil Co
21-16s-17w Rush,KS
David Urban #1-21
DST # 4
LKC "F-G"
2012.10.18



**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

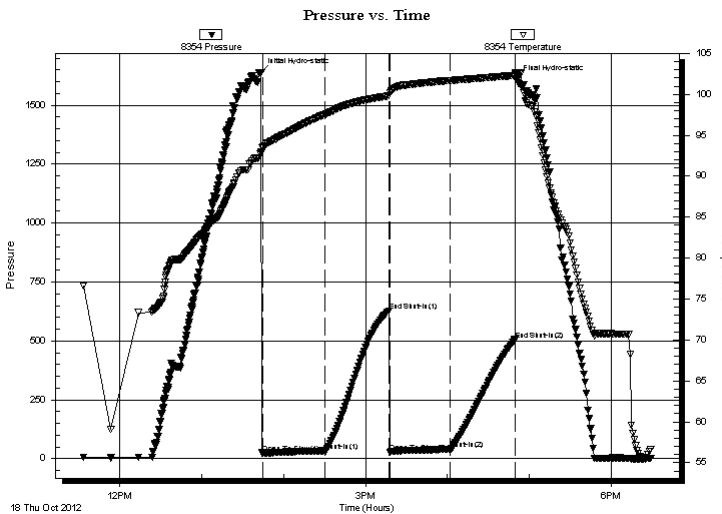
Start Time: 11:33:30 End Time: 18:29:30

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



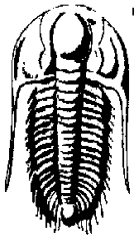
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.21	92.91	Initial Hydro-static
1	21.98	93.45	Open To Flow (1)
47	33.46	97.55	Shut-In(1)
94	626.64	99.81	End Shut-In(1)
95	28.26	100.14	Open To Flow (2)
139	39.63	101.67	Shut-In(2)
186	505.71	102.30	End Shut-In(2)
187	1610.73	102.60	Final Hydro-static

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)



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

Job Ticket: 47945 **DST#: 4**

ATTN: Ron Nelson

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 @ Run Depth: psig @ 3350.00 ft (KB)

Start Date: 2012.10.18

End Date: 2012.10.18

Capacity: 8000.00 psig

Last Calib.: 2012.10.18

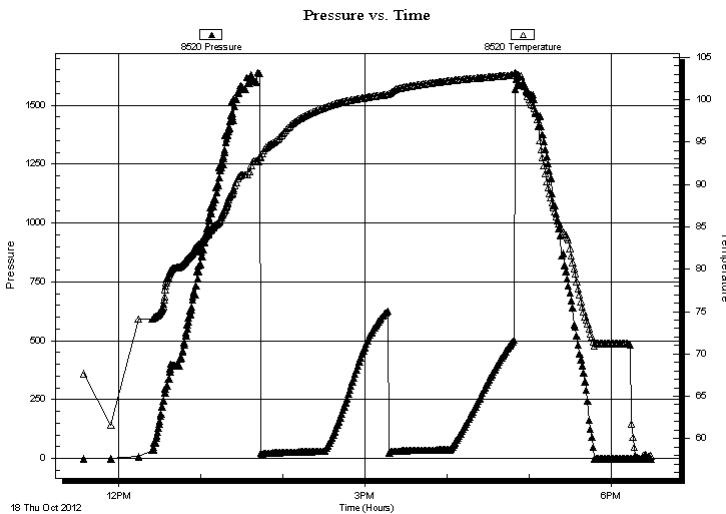
Start Time: 11:34:30

End Time: 18:29:30

Time On Btm:

Time Off Btm:

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



PRESSURE SUMMARY

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

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)



**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: 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
			<u>Total Volume: 46.79 bbl</u>	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

Downing 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

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
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:

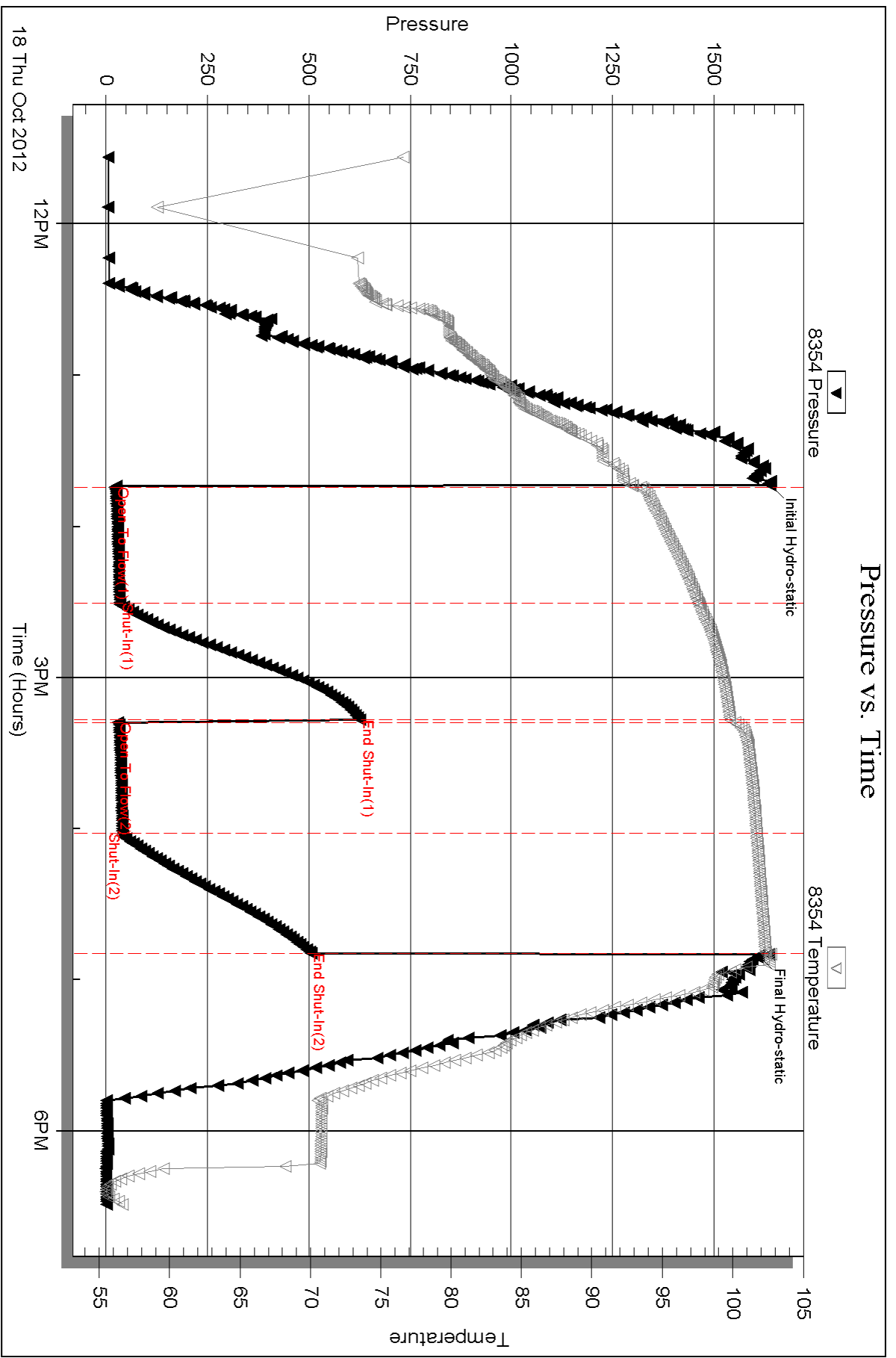
Serial #: 8354

Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 4

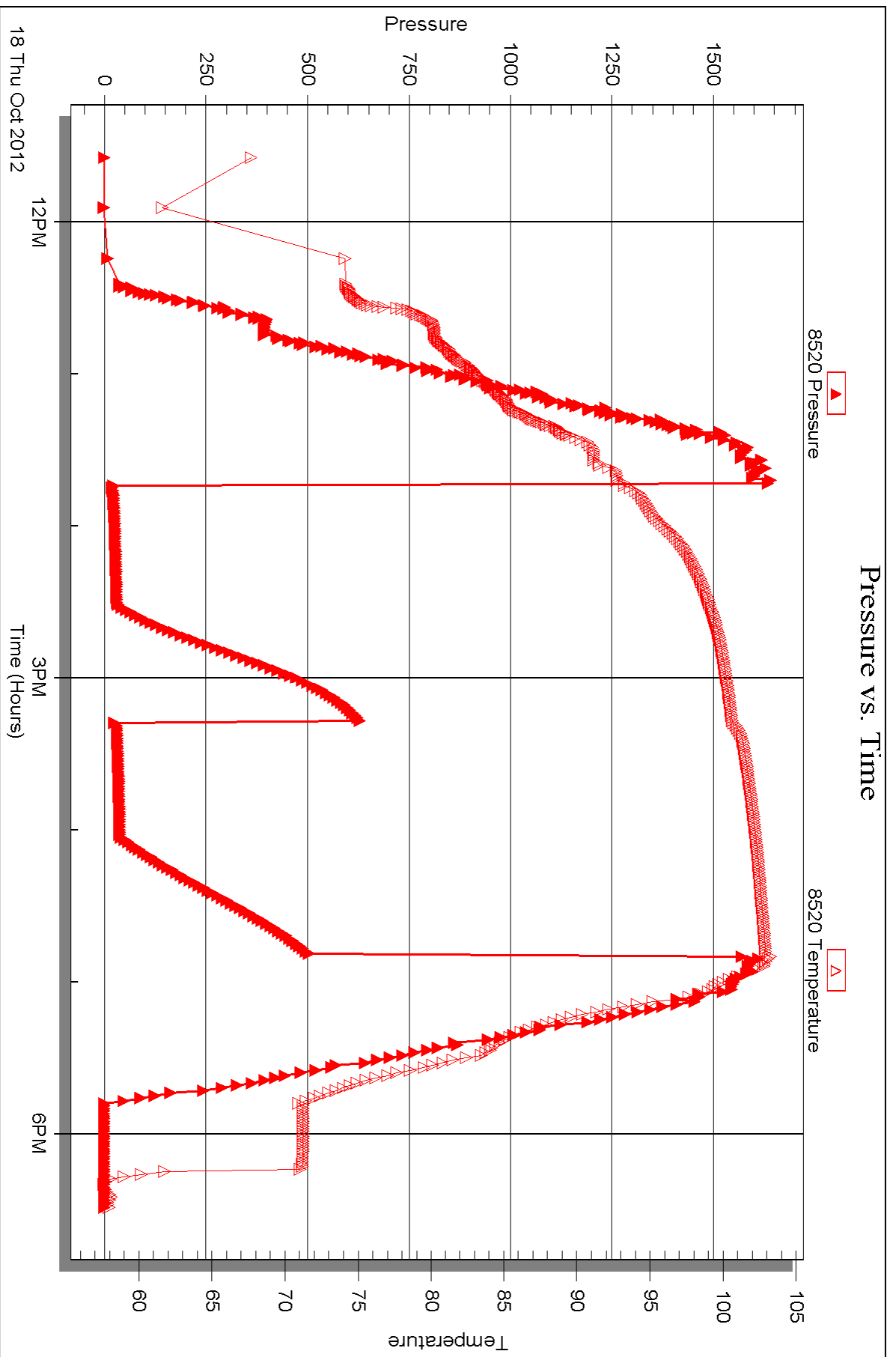


Serial #: 8520

Outside Downing 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

Downing Nelson Oil Co
21-16s-17w Rush,KS
David Urban #1-21
DST # 5
LKC "H-J"
2012.10.19



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:

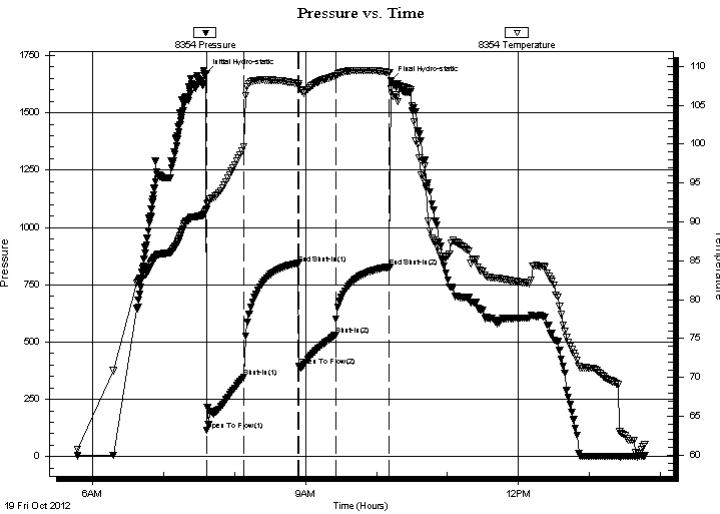
Formation: **LKC "H-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:36:25
 Time Test Ended: 13:47:45
 Interval: **3380.00 ft (KB) To 3465.00 ft (KB) (TVD)**
 Total Depth: 3465.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Rash
 Unit No: 38
 Reference Elevations: 2001.00 ft (KB)
 1996.00 ft (CF)
 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 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)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Co
 PO Box 1019
 Hays KS 67601
 ATTN: Ron Nelson

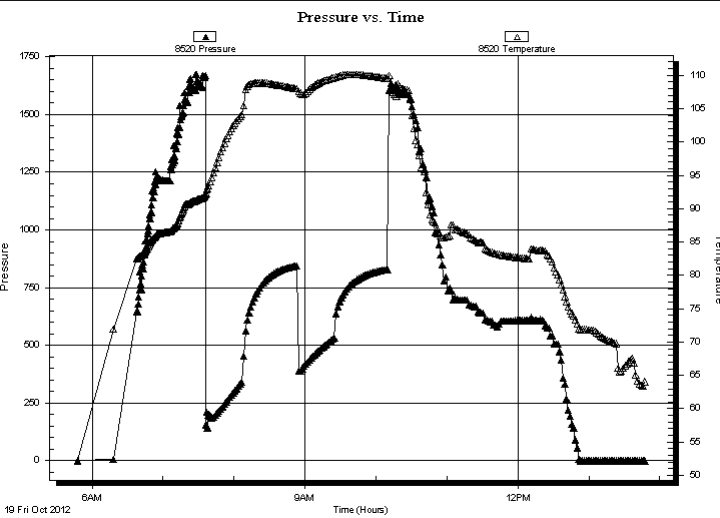
21-16s-17w Rush,KS
David Urban #1-21
 Job Ticket: 47946 **DST#: 5**
 Test Start: 2012.10.19 @ 05:37:15

GENERAL INFORMATION:

Formation: **LKC "H-J"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 07:36:25 Tester: Dustin Rash
 Time Test Ended: 13:47:45 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 @ Run Depth: 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)



**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
			<u>Total Volume: 47.21 bbl</u>	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
------------------	-------------	------------	----------	------------	----------------

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

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

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

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

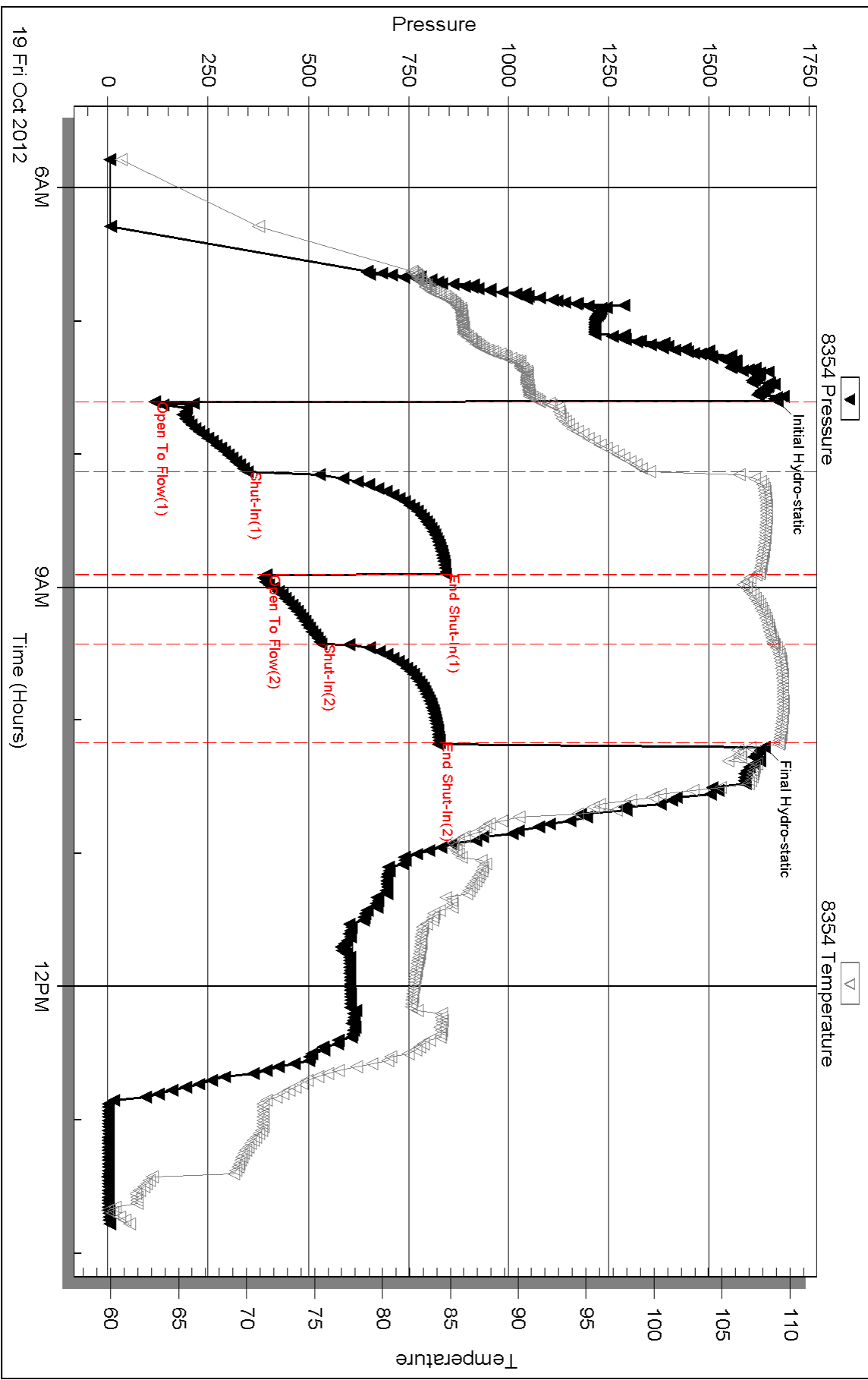
Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 5

Pressure vs. Time

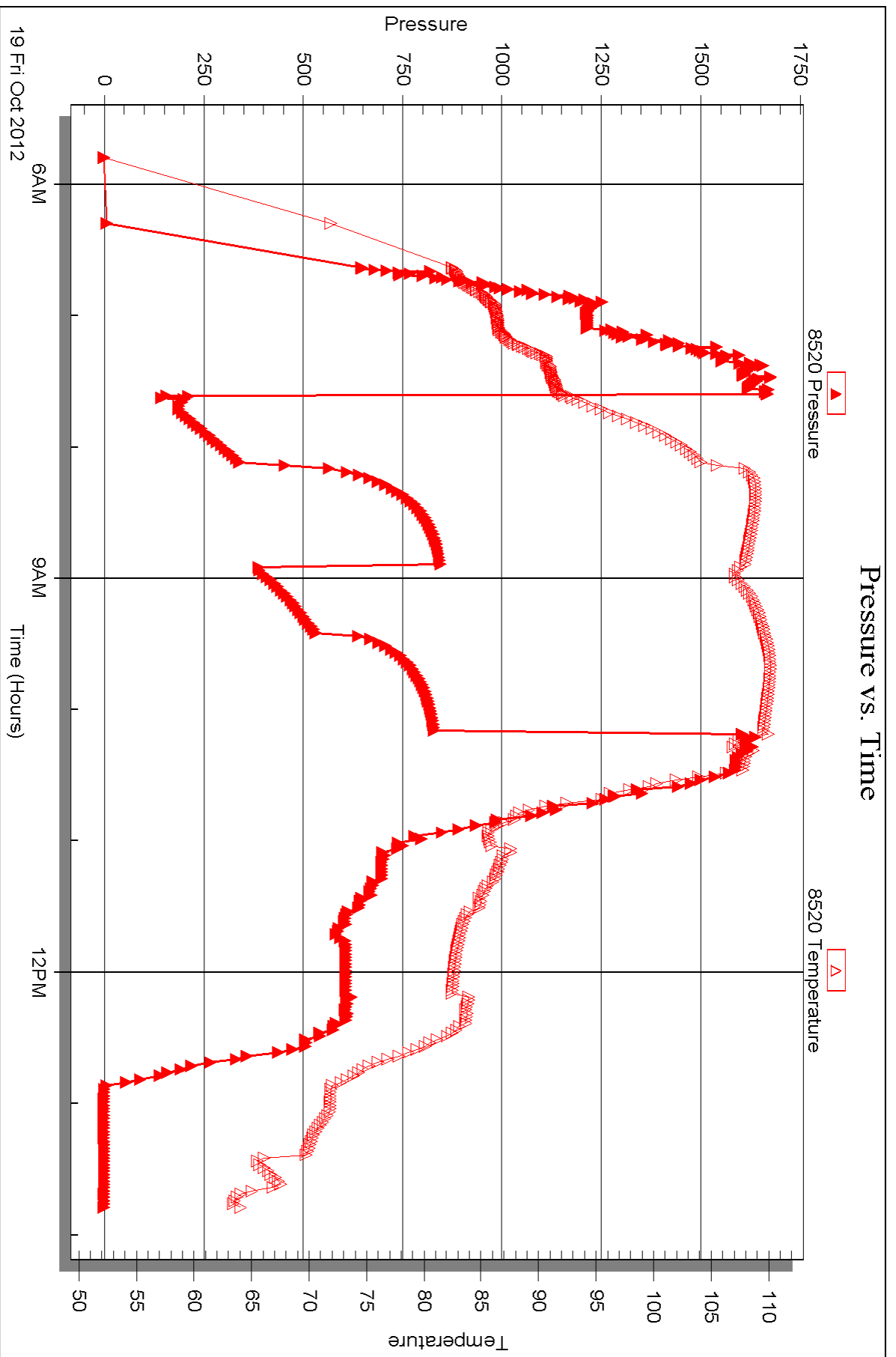


Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 47946

Printed: 2012.10.23 @ 11:29:13



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 @ Run Depth: 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

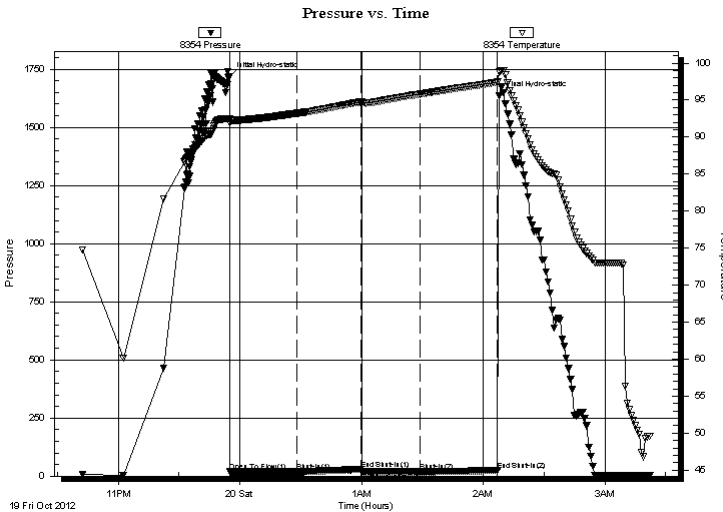
TEST COMMENT: IF-Weak surface blow . Died @ 11 minutes.

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

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)
Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 23:55:10
Tester: Dustin Rash
Time Test Ended: 03:22:00
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

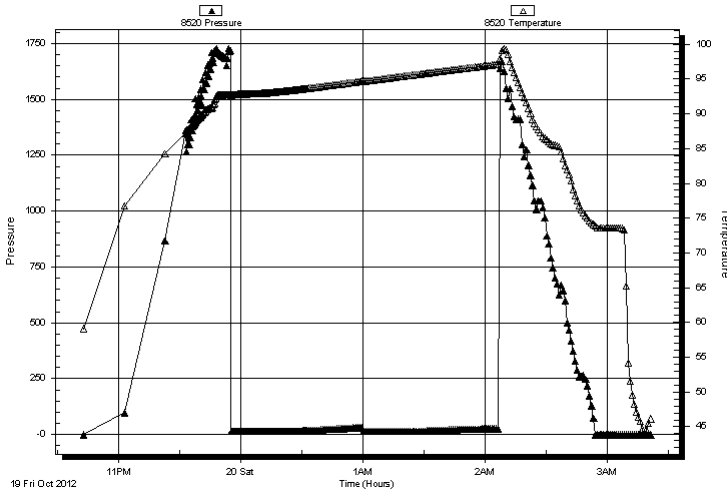
Serial #: 8520

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.
 IS- No Return.
 FF- No Blow .
 FS- 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
			<u>Total Volume: 48.11 bbl</u>	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

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

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

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:

bbbl

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:

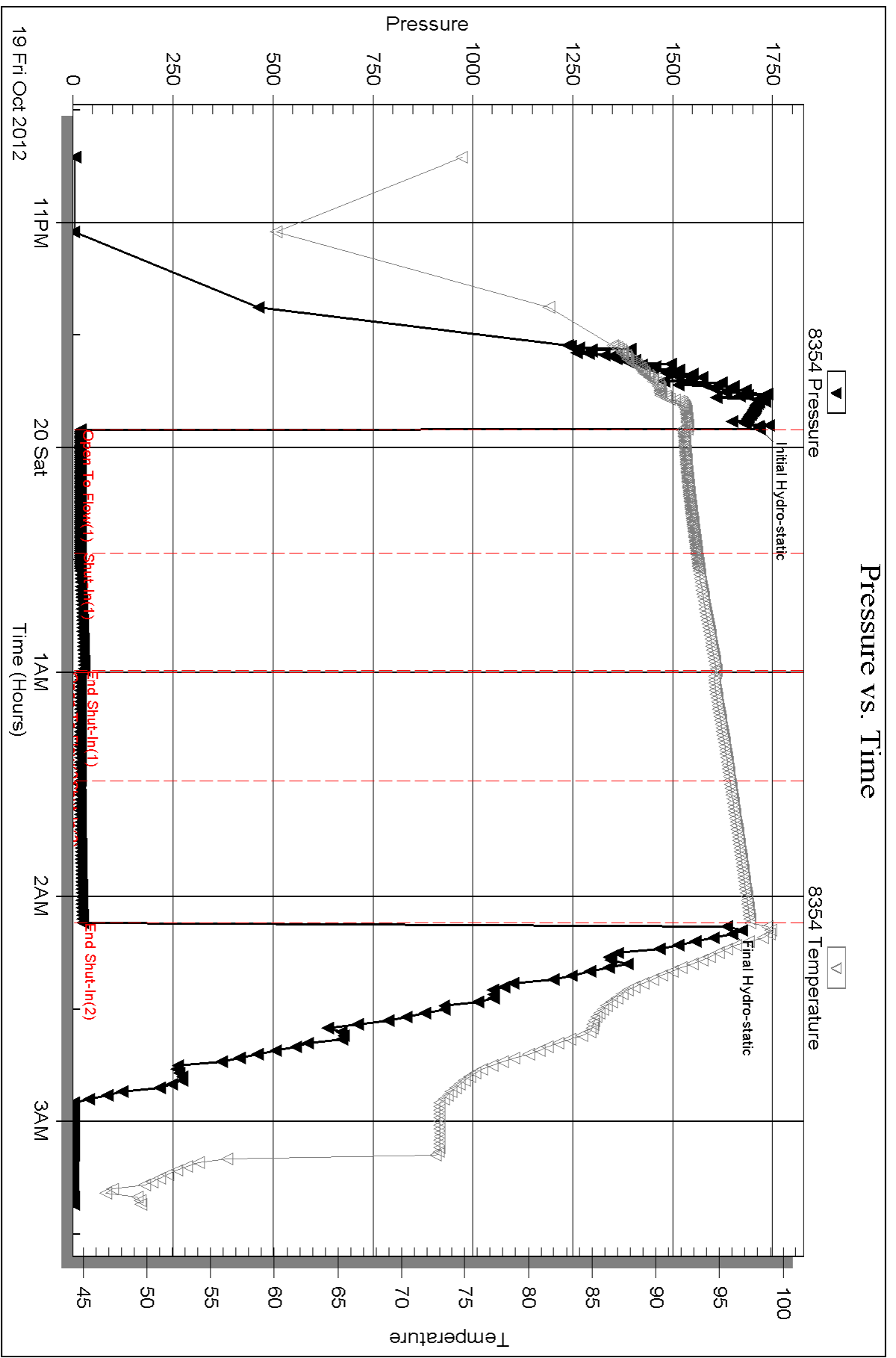
Serial #: 8354

Inside

Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 6

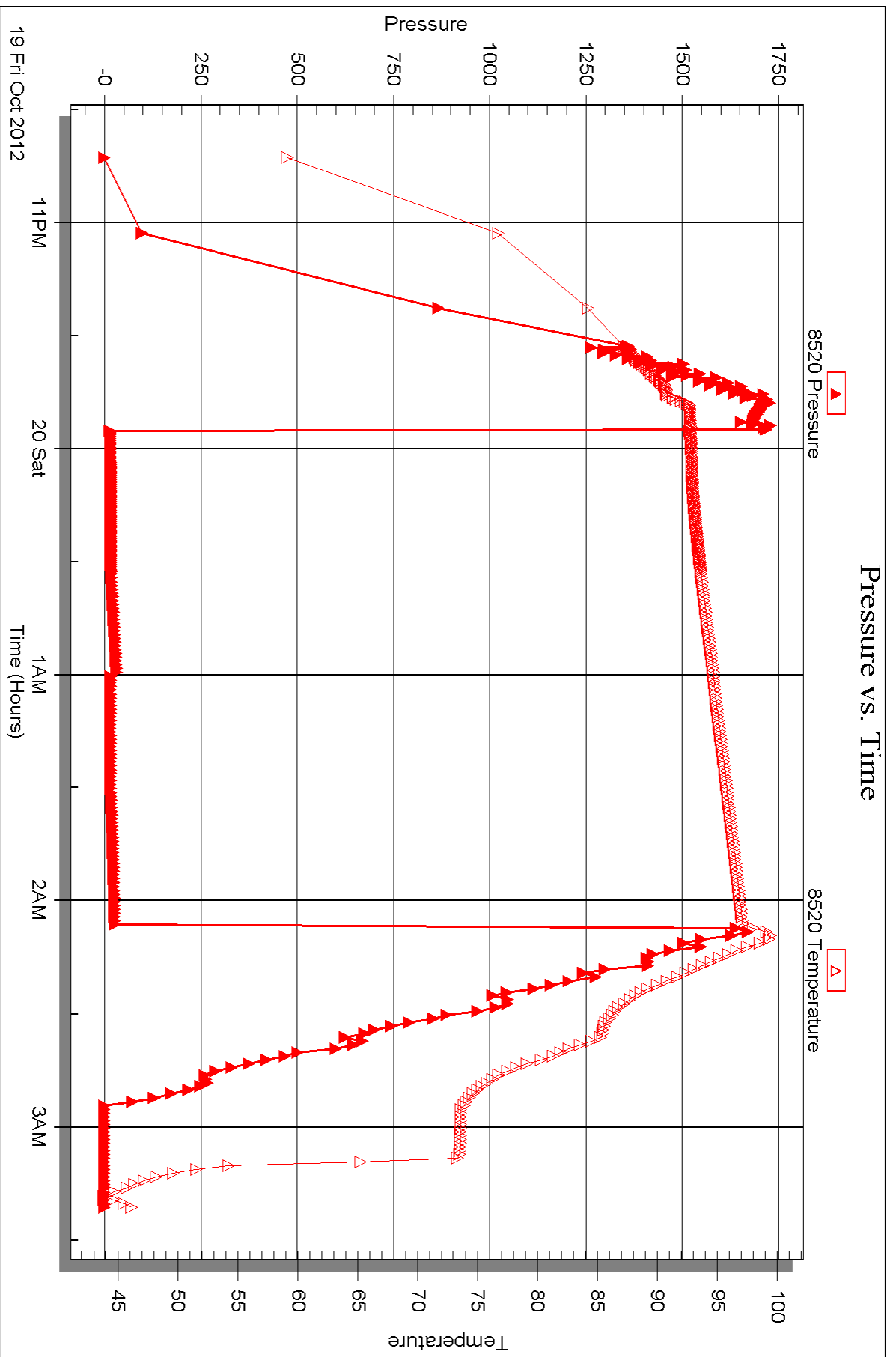


Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 6





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

ATTN: Ron Nelson

Job Ticket: 47948

DST#: 7

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 @ Run Depth: 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

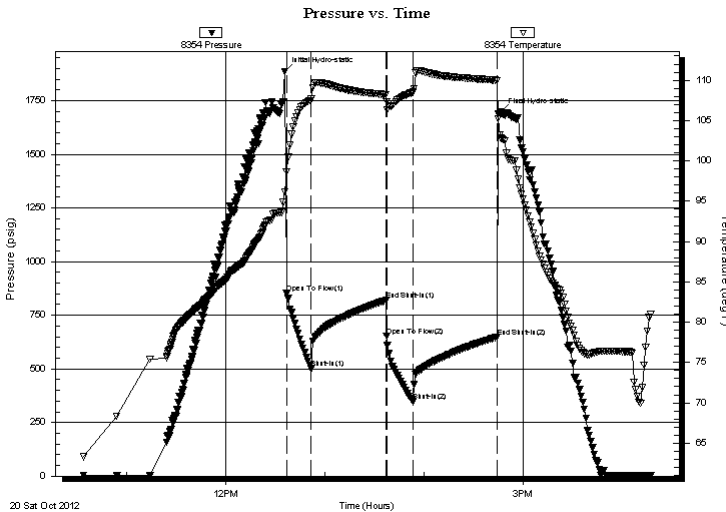
TEST COMMENT: IF-Very strong blow . BOB in 10 seconds. GTS @ 1 minute 30 seconds. Gauged Gas.

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



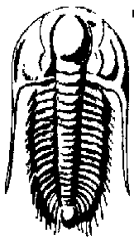
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1886.89	96.18	Initial Hydro-static
1	851.85	98.63	Open To Flow (1)
16	501.41	107.65	Shut-In(1)
61	818.99	108.19	End Shut-In(1)
62	651.20	107.35	Open To Flow (2)
78	347.60	108.51	Shut-In(2)
128	647.62	109.99	End Shut-In(2)
131	1696.36	102.82	Final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

Downing Nelson Oil Co

21-16s-17w Rush, KS

PO Box 1019
Hays KS 67601

David Urban #1-21

ATTN: Ron Nelson

Job Ticket: 47948

DST#: 7

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

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

Total Depth: 3545.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Reference Elevations: 2001.00 ft (KB)

1996.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8520** **Outside**

Press @ Run Depth: psig @ 3522.00 ft (KB)

Start Date: 2012.10.20

End Date: 2012.10.20

Start Time: 10:34:30

End Time: 16:17:00

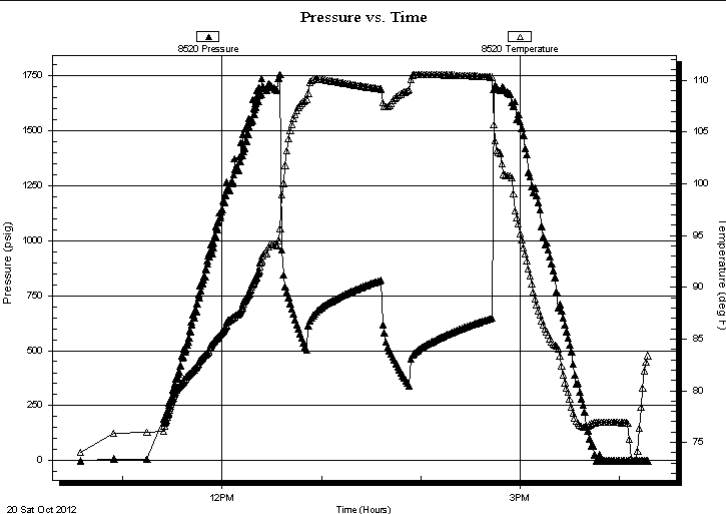
Capacity: 8000.00 psig

Last Calib.: 2012.10.20

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

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: 47948

DST#: 7

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
			<u>Total Volume: 48.97 bbl</u>	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

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

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:

bbbl

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 bbbl
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

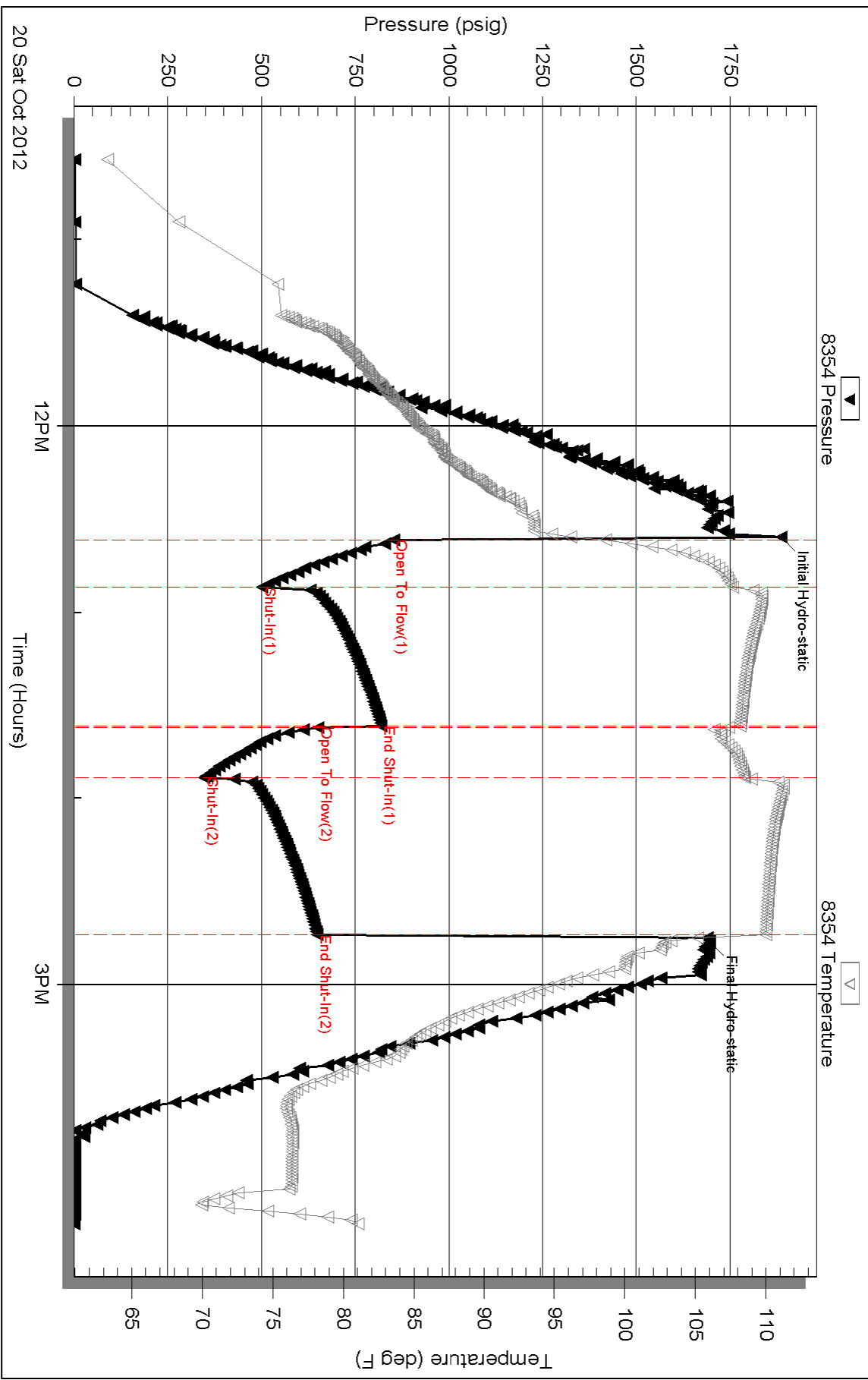
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

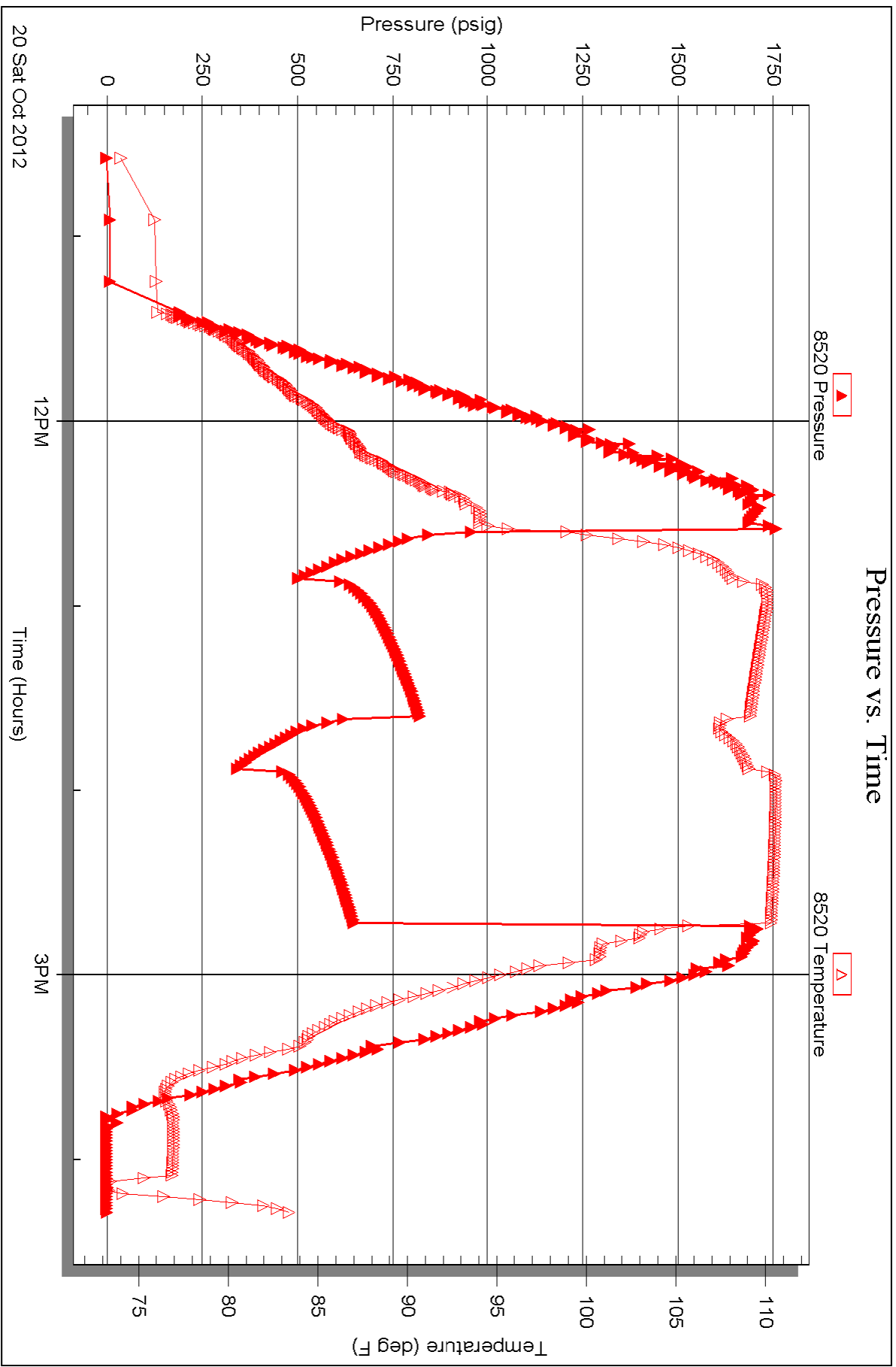


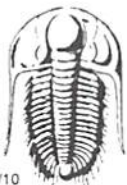
Serial #: 8520

Outside Downing Nelson Oil Co

David Urban #1-21

DST Test Number: 7





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51012

4/10

Well Name & No. David Urban 1-21 Test No. 1 Date 10-16-12
 Company Downy 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

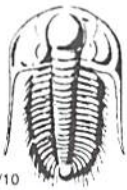
Rec	Feet of	%gas	%oil	%water	%mud
<u>75'</u>	<u>Mud</u>			<u>100</u>	
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 75' BHT 100° Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 1569 Test 1150 T-On Location 7:50pm
 (B) First Initial Flow 38 Jars _____ T-Started 8:53pm
 (C) First Final Flow 43 Safety Joint _____ T-Open 10:48pm
 (D) Initial Shut-In 161 Circ Sub _____ T-Pulled 1:48pm
 (E) Second Initial Flow 34 Hourly Standby _____ T-Out 3:21am
 (F) Second Final Flow 44 Mileage 64 RT 99.20 Comments _____
 (G) Final Shut-In 159 Sampler _____
 (H) Final Hydrostatic 1538 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Day Standby _____
 Accessibility _____
 Sub Total 1249.20
 Total 1249.20
 MP/DST Disc't _____
 Our Representative Cody [Signature]

Approved By _____
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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' oo 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 <u>1593</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>8:55am</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars _____	T-Started <u>9:12am</u>
(C) First Final Flow <u>26</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>11:04am</u>
(D) Initial Shut-In <u>218</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1:04pm</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>2:50pm</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>64x2</u> 99.20	Comments _____
(G) Final Shut-In <u>209</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1561</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

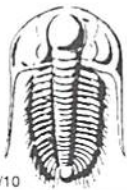
Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Sub Total 1249.20

MP/DST Disc't _____

Approved By _____ Our Representative Cody Blood

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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>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>Gas to Surface</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

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

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

Initial Open 10
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 45

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1249.20

Total 1249.20
 MP/DST Disc't _____

Approved By _____ Our Representative Codey [Signature]

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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 Dawning-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 "F4G"
 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,
FST- No Return,
FF- Fair building blow, BOB in 8 minutes,
FST- No Return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>GHO CWM</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

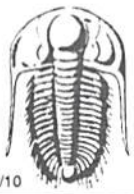
Rec Total 62 BHT 103 Gravity ✓ API RW @ ° F Chlorides ppm

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

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

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, J, K"
 Anchor Length 85' Drill Pipe Run 3355 Mud Wt. 8.8
 Top Packer Depth 3375 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,

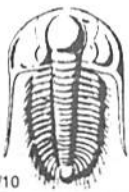
Rec	Feet of	%gas	%oil	%water	%mud
<u>1426</u>	<u>Gassy oil</u>	<u>40</u>	<u>60</u>		
<u>174</u>	<u>MCO</u>		<u>60</u>		<u>40</u>
	<u>1829' G.I.P.</u>				

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 Boyt-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 Extra Recorder Sub Total 0
 Initial Shut-In 45 Day Standby Total 1299.20
 Final Flow 30 Accessibility MP/DST Disc't
 Final Shut-In 45 Sub Total 1299.20

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47947

Well Name & No. David Weber #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.
IST- No Return.
FF- No Blow.
FST- No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 3 BHT 99 Gravity 1150 API RW _____ @ _____ ° F Chlorides _____ ppm

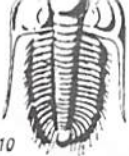
(A) Initial Hydrostatic 1718 Test 1150 T-On Location 2200
 (B) First Initial Flow 19 Jars _____ T-Started 2245
 (C) First Final Flow 19 Safety Joint _____ T-Open 2355
 (D) Initial Shut-In 29 Circ Sub _____ T-Pulled 0200
 (E) Second Initial Flow 19 Hourly Standby _____ T-Out 0330
 (F) Second Final Flow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

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

Sub Total 1249.20 Total 1249.20
 MP/DST Disc't _____

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 Aubuckte
 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 1887 Test 1150 T-On Location 0945
 (B) First Initial Flow 852 Jars _____ T-Started 1030
 (C) First Final Flow 501 Safety Joint _____ T-Open 1236
 (D) Initial Shut-In 819 Circ Sub _____ T-Pulled 1440
 (E) Second Initial Flow 657 Hourly Standby _____ T-Out 1615
 (F) Second Final Flow 348 Mileage 99.20 Comments Best-1024
 (G) Final Shut-In 648 Sampler _____
 (H) Final Hydrostatic 1696 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1249.20
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1249.20

Approved By _____ Our Representative D. Rash

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