KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1103941

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30717
Name: Downing-Nelson Oil Co Inc
Address 1: PO BOX 1019
Address 2:
City: HAYS State: KS Zip: 67601 + __ __ __ __
Contact Person: Ron Nelson
Phone: (785) 621-2610
CONTRACTOR: License # 31548
Name: Discovery Drilling
Wellsite Geologist: Ron Nelson
Purchaser: Coffeyville Resources

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [ ] Gas
- [ ] D&A
- [ ] ENHR
- [ ] SIGW
- [ ] OG
- [ ] GSW
- [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic
- [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening
- [ ] Re-perf.
- [ ] Conv. to ENHR
- [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

11/19/2012	11/26/2012	11/27/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26422-00-00
Spot Description:
NW - SE - NW - SE Sec. 7 Twp. 13 S. R. 18 [ ] East [x] West
1890 Feet from [ ] North / [x] South Line of Section
1920 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW
County: Ellis
Lease Name: MWE Well #: 1-7
Field Name:
Producing Formation: LKC
Elevation: Ground: 2163 Kelly Bushing: 2171
Total Depth: 3889 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 223 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 1460 Feet
If Alternate II completion, cement circulated from: 1460
feet depth to: 0 w/ 170 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 21000 ppm Fluid volume: 320 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. [ ] East [ ] West
County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [ ] **Letter of Confidentiality Received**
  Date:
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** Deanna Garrison **Date:** 02/18/2013

Side Two

[redacted] 1103941

Operator Name: Downing-Nelson Oil Co Inc Lease Name: MWE Well #: 1-7

Sec. 7 Twp. 13 S. R. 18 ☐ East ☑ West County: Ellis

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Micro
Dual Induction
Compensated Denisity Neutrom

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	222.62	Common	150	2% Gel & 3% CC
Production	7.875	5.5	14	2337.89	EA/2	150	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	3629' to 3634'	250 gallons 15% Mud Acid	3629' to 3634'

TUBING RECORD: Size: 2.375 Set At: 3820 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/27/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	49	0	0		

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

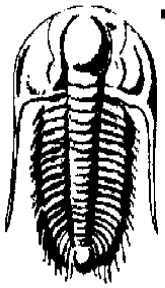
PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	MWE 1-7
Doc ID	1103941

Tops

Name	Top	Datum
Top Anhydrite	1490'	+681
Base Anhydrite	1530'	+641
Topeka	3222'	-1051
Heebner	3459'	-1288
Toronto	3478'	-1307
LKC	3506'	-1335
BKC	3727'	-1556
Reworked Arbuckle	3785'	-1614
Arbuckle	3800'	-1629



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co., Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

MWE #1-7

7-13s-18w Ellis,KS

Start Date: 2012.11.23 @ 16:29:15
End Date: 2012.11.23 @ 23:18:15
Job Ticket #: 48622 DST #: 1

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

Printed: 2012.11.28 @ 09:15:26

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48622 **DST#: 1**

Test Start: 2012.11.23 @ 16:29:15

GENERAL INFORMATION:

Formation: **LKC "C-D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:24:15
Time Test Ended: 23:18:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3515.00 ft (KB) To 3560.00 ft (KB) (TVD)
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

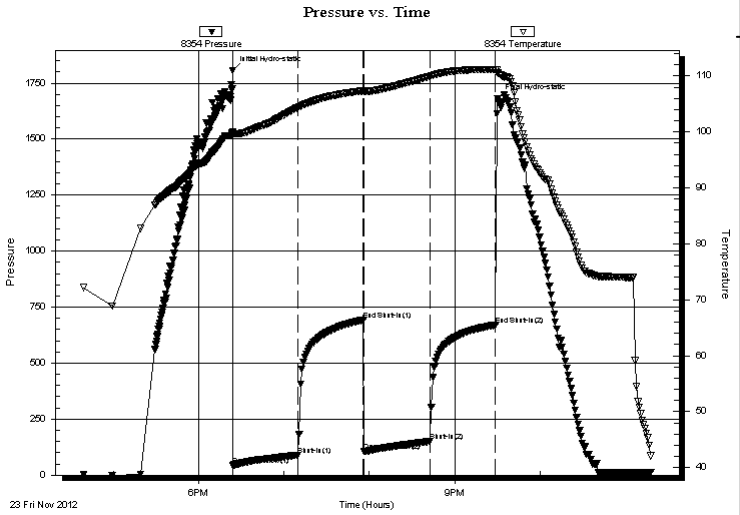
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 151.30 psig @ 3552.00 ft (KB)
Start Date: 2012.11.23 End Date: 2012.11.23
Start Time: 16:39:15 End Time: 23:18:15

Capacity: 8000.00 psig
Last Calib.: 2012.11.23
Time On Btm: 2012.11.23 @ 18:24:05
Time Off Btm: 2012.11.23 @ 21:30:15

TEST COMMENT: IF-Weak building blow . BOB in 36 minutes.
ISI-No Return.
FF-Weak building blow . Built to 11 inches.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1807.22	99.94	Initial Hydro-static
1	44.02	99.36	Open To Flow (1)
46	89.63	104.36	Shut-In(1)
92	692.05	107.35	End Shut-In(1)
93	105.52	107.24	Open To Flow (2)
139	151.30	109.95	Shut-In(2)
185	670.61	111.18	End Shut-In(2)
187	1679.72	110.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
265.00	80%Water/20%Mud	3.44

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48622 **DST#: 1**

Test Start: 2012.11.23 @ 16:29:15

GENERAL INFORMATION:

Formation: **LKC "C-D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:24:15
Time Test Ended: 23:18:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3515.00 ft (KB) To 3560.00 ft (KB) (TVD)
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

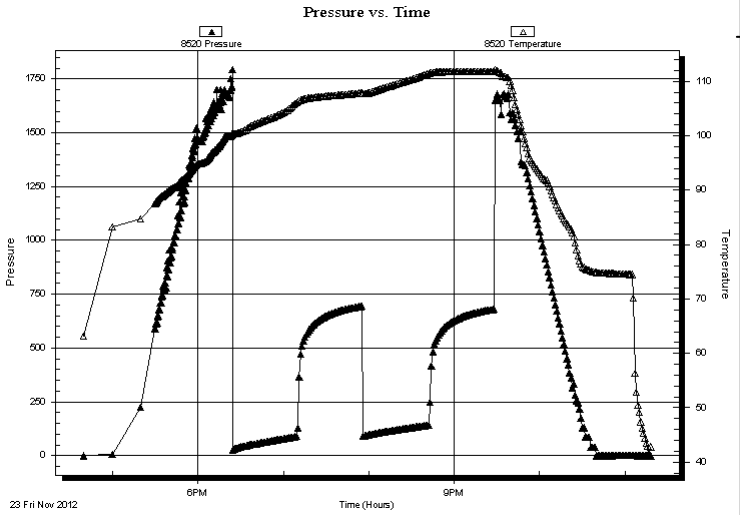
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3552.00 ft (KB)
Start Date: 2012.11.23 End Date: 2012.11.23
Start Time: 16:39:30 End Time: 23:18:00

Capacity: 8000.00 psig
Last Calib.: 2012.11.23
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Weak building blow . BOB in 36 minutes.
ISI-No Return.
FF-Weak building blow . Built to 11 inches.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
265.00	80%Water/20%Mud	3.44

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48622 **DST#: 1**

Test Start: 2012.11.23 @ 16:29:15

Tool Information

Drill Pipe:	Length:	3485.00 ft	Diameter:	3.80 inches	Volume:	48.89 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:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	49.04 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight:	Initial	51000.00 lb
Depth to Top Packer:		3515.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		45.00 ft							
Tool Length:		65.00 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			3496.00		
Shut In Tool	5.00			3501.00		
Hydraulic tool	5.00			3506.00		
Packer	5.00			3511.00	20.00	Bottom Of Top Packer
Packer	4.00			3515.00		
Stubb	1.00			3516.00		
Perforations	3.00			3519.00		
Change Over Sub	1.00			3520.00		
Drill Pipe	31.00			3551.00		
Change Over Sub	1.00			3552.00		
Recorder	0.00	8354	Inside	3552.00		
Recorder	0.00	8520	Outside	3552.00		
Perforations	5.00			3557.00		
Bullnose	3.00			3560.00	45.00	Bottom Packers & Anchor
Total Tool Length:	**65.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48622 **DST#: 1**

Test Start: 2012.11.23 @ 16:29:15

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:	19000 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.95 in³	Gas Cushion Type:			
Resistivity:	0.62 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
265.00	80%Water/20%Mud	3.444

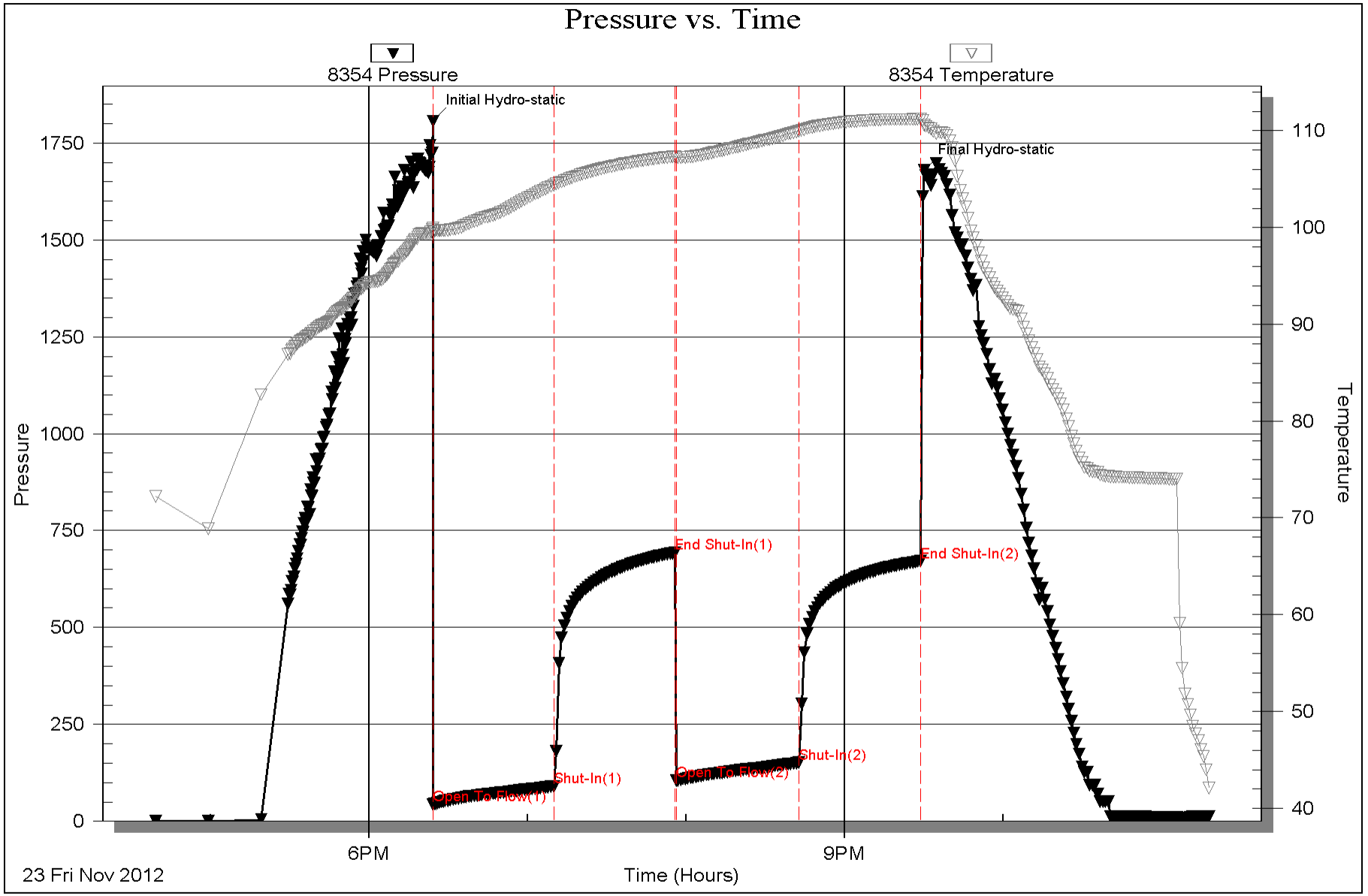
Total Length: 265.00 ft Total Volume: 3.444 bbl

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

Laboratory Name: Laboratory Location:

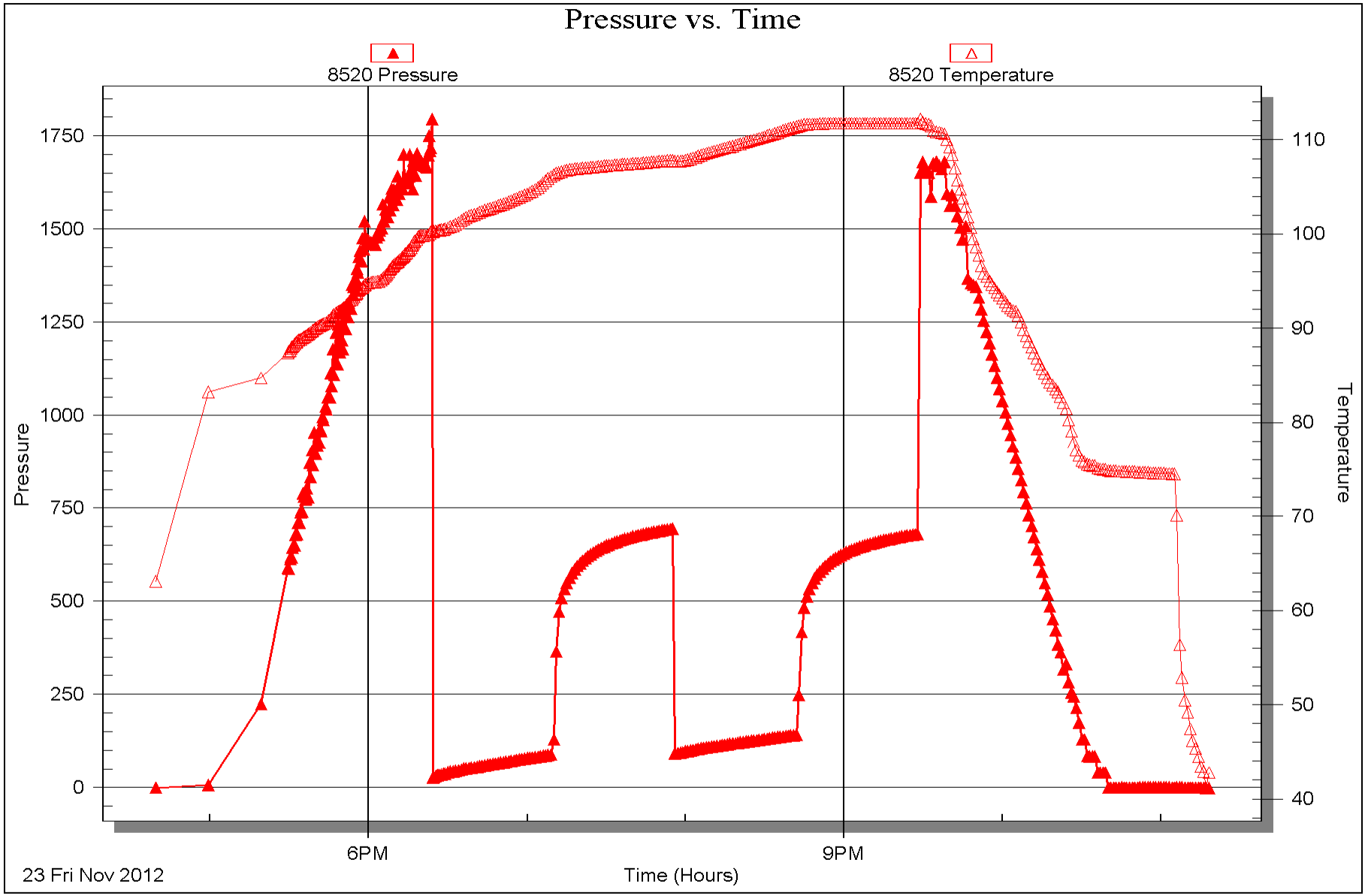
Recovery Comments:

Serial #: 8354 **Inside** Dow ning-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 1

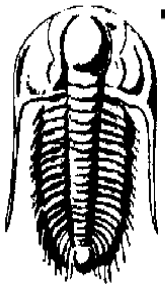


Trilobite Testing, Inc Ref. No: 48622 Printed: 2012.11.28 @ 09:15:30

Serial #: 8520 **Outside** Downing-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48622 Printed: 2012.11.28 @ 09:15:31



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co., Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

MWE #1-7

7-13s-18w Ellis,KS

Start Date: 2012.11.24 @ 06:37:30
End Date: 2012.11.24 @ 12:50:00
Job Ticket #: 48263 DST #: 2

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

Printed: 2012.11.28 @ 09:14:43

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48263 **DST#: 2**

Test Start: 2012.11.24 @ 06:37:30

GENERAL INFORMATION:

Formation: **LKC "E-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:50
Time Test Ended: 12:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3555.00 ft (KB) To 3582.00 ft (KB) (TVD)
Total Depth: 3582.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

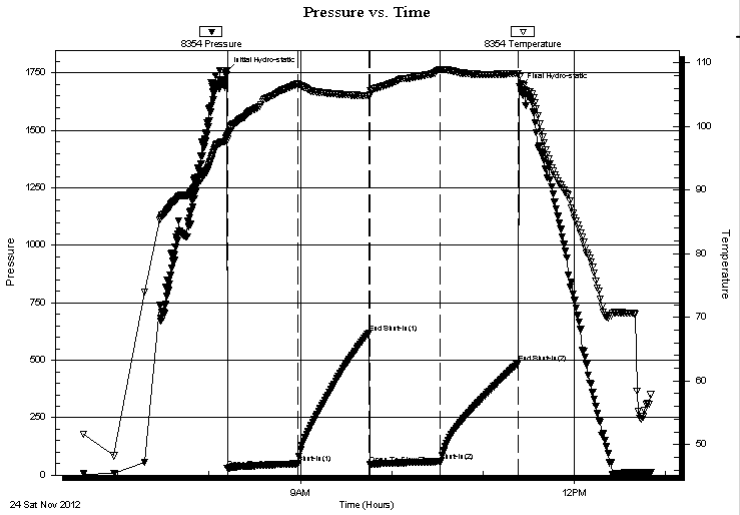
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 59.15 psig @ 3558.00 ft (KB)
Start Date: 2012.11.24 End Date: 2012.11.24
Start Time: 06:37:30 End Time: 12:50:00

Capacity: 8000.00 psig
Last Calib.: 2012.11.24
Time On Btm: 2012.11.24 @ 08:11:40
Time Off Btm: 2012.11.24 @ 11:24:00

TEST COMMENT: IF-Weak building blow . Built to 5 & 1/2 inches.
ISI-No Return.
FF-Weak building blow . Built to 4 inches.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1758.17	98.50	Initial Hydro-static
1	30.27	98.00	Open To Flow (1)
47	49.46	106.67	Shut-In(1)
94	618.73	104.87	End Shut-In(1)
94	46.89	104.96	Open To Flow (2)
140	59.15	108.97	Shut-In(2)
192	487.22	108.33	End Shut-In(2)
193	1688.92	107.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	80%Water/20%Mud	0.99

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48263 **DST#: 2**

Test Start: 2012.11.24 @ 06:37:30

GENERAL INFORMATION:

Formation: **LKC "E-F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:11:50
Time Test Ended: 12:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3555.00 ft (KB) To 3582.00 ft (KB) (TVD)
Total Depth: 3582.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

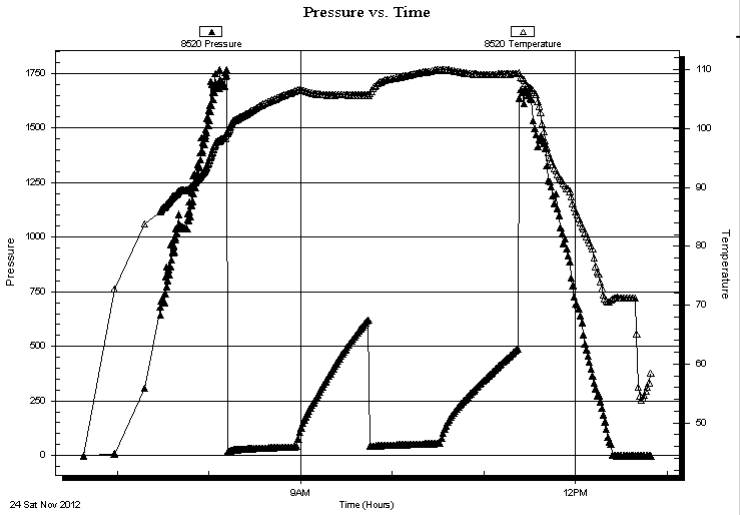
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3558.00 ft (KB)
Start Date: 2012.11.24 End Date: 2012.11.24
Start Time: 06:37:45 End Time: 12:49:45

Capacity: 8000.00 psig
Last Calib.: 2012.11.24
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Weak building blow . Built to 5 & 1/2 inches.
ISI-No Return.
FF-Weak building blow . Built to 4 inches.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	80%Water/20%Mud	0.99

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48263 **DST#: 2**

Test Start: 2012.11.24 @ 06:37:30

Tool Information

Drill Pipe:	Length:	3518.00 ft	Diameter:	3.80 inches	Volume:	49.35 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:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	49.50 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight:	Initial	52000.00 lb
Depth to Top Packer:		3555.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		27.00 ft							
Tool Length:		47.00 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			3536.00		
Shut In Tool	5.00			3541.00		
Hydraulic tool	5.00			3546.00		
Packer	5.00			3551.00	20.00	Bottom Of Top Packer
Packer	4.00			3555.00		
Stubb	1.00			3556.00		
Perforations	2.00			3558.00		
Recorder	0.00	8354	Inside	3558.00		
Recorder	0.00	8520	Outside	3558.00		
Perforations	21.00			3579.00		
Bullnose	3.00			3582.00	27.00	Bottom Packers & Anchor
Total Tool Length:	**47.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48263 **DST#: 2**

Test Start: 2012.11.24 @ 06:37:30

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:	22000 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	0.45 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	inches				

Recovery Information

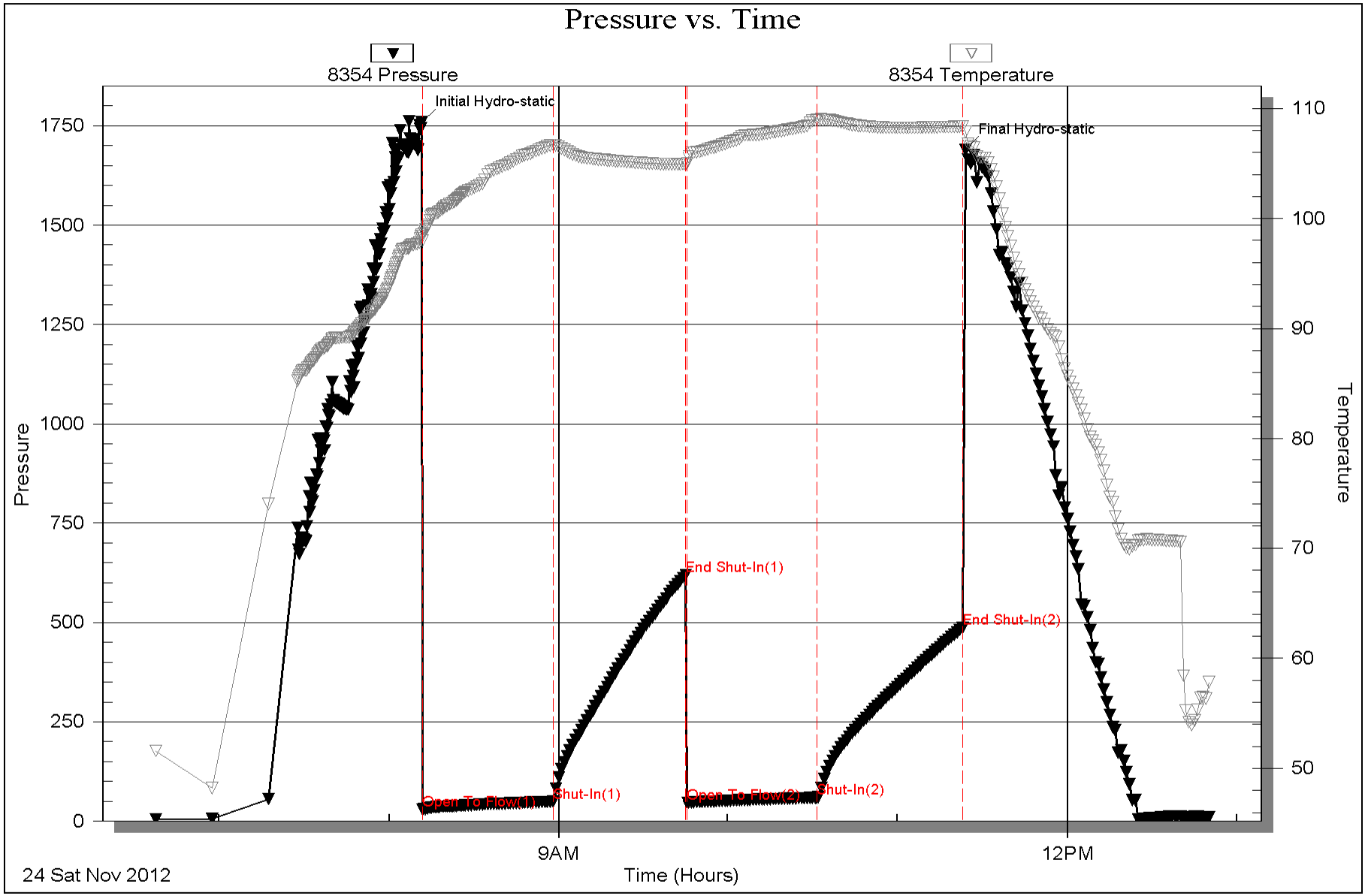
Recovery Table

Length ft	Description	Volume bbl
90.00	80%Water/20%Mud	0.989

Total Length: 90.00 ft Total Volume: 0.989 bbl

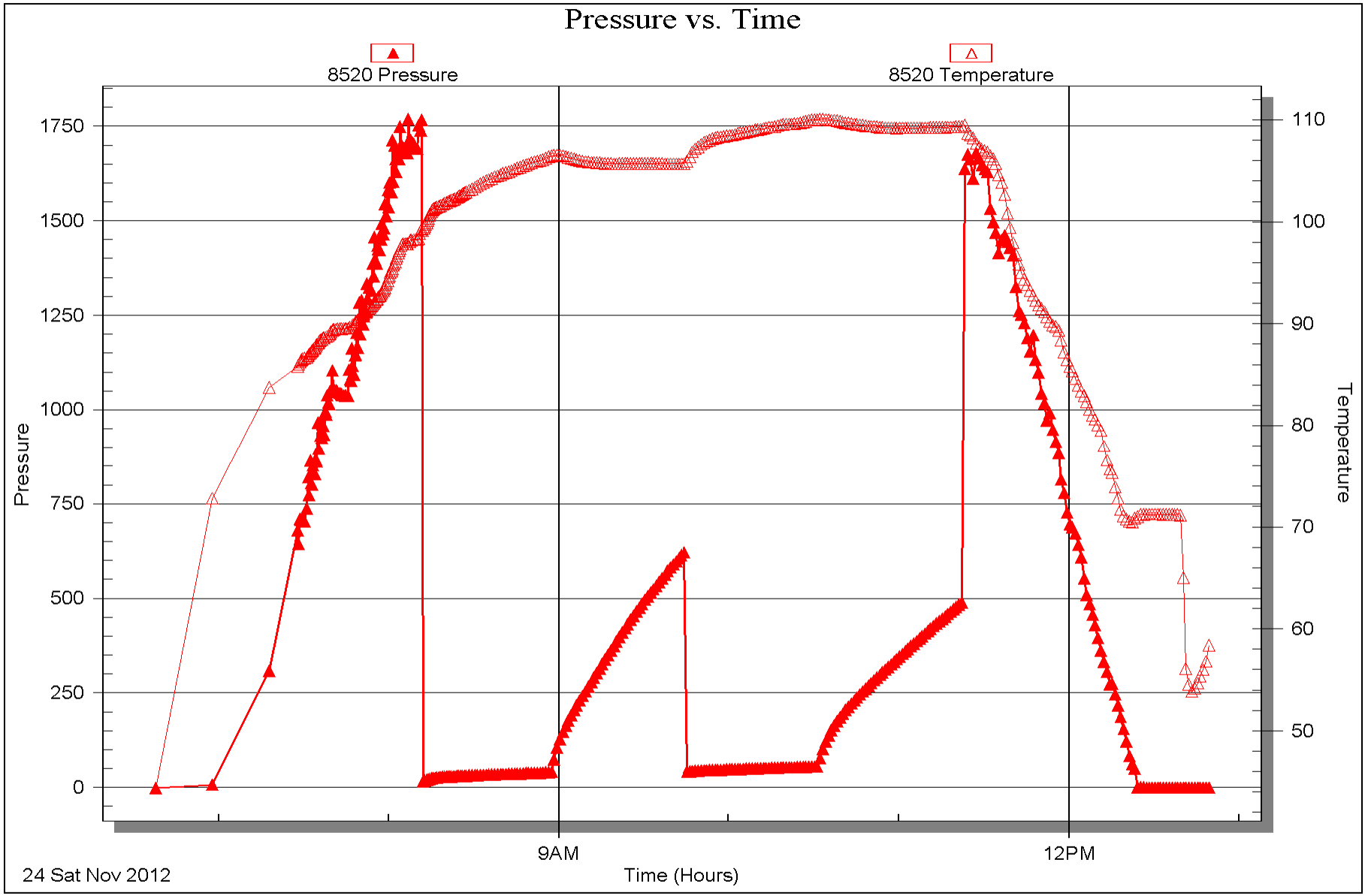
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** Dow ning-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 48263 Printed: 2012.11.28 @ 09:14:47

Serial #: 8520 **Outside** Dow ning-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 2



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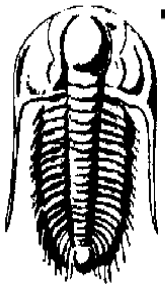


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co., Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

MWE #1-7

7-13s-18w Ellis,KS

Start Date: 2012.11.25 @ 00:54:30
End Date: 2012.11.25 @ 08:46:00
Job Ticket #: 48624 DST #: 3

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

Printed: 2012.11.28 @ 09:13:53

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48624 **DST#: 3**

Test Start: 2012.11.25 @ 00:54:30

GENERAL INFORMATION:

Formation: **LKC "H,I,J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:44:20
Time Test Ended: 08:46:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3606.00 ft (KB) To 3682.00 ft (KB) (TVD)
Total Depth: 3682.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

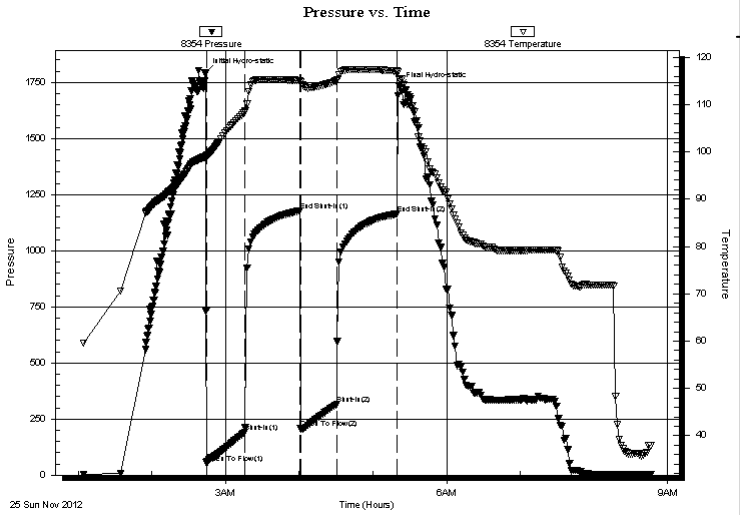
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 316.23 psig @ 3674.00 ft (KB)
Start Date: 2012.11.25 End Date: 2012.11.25
Start Time: 01:04:30 End Time: 08:46:00

Capacity: 8000.00 psig
Last Calib.: 2012.11.25
Time On Btm: 2012.11.25 @ 02:44:00
Time Off Btm: 2012.11.25 @ 05:21:00

TEST COMMENT: IF-Strong building blow . BOB in 1 minute 45 seconds.
ISI-Return @ 15 seconds. BOB in 3 & 1/2 mintues.
FF-Strong building blow . BOB in 2 minutes. GTS @ 27 minutes.
FSI-Return @ 30 seconds. BOB @ 4 minutes.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.25	99.07	Initial Hydro-static
1	54.97	98.60	Open To Flow (1)
32	190.80	108.44	Shut-In(1)
77	1178.84	115.07	End Shut-In(1)
77	206.99	114.75	Open To Flow (2)
107	316.23	115.05	Shut-In(2)
156	1164.91	117.05	End Shut-In(2)
157	1733.45	115.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	25%Gas/50%Oil/25%Mud	1.47
850.00	50%Gas/50%Oil	11.92
0.00	2606' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48624 **DST#: 3**

Test Start: 2012.11.25 @ 00:54:30

GENERAL INFORMATION:

Formation: **LKC "H,I,J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:44:20
Time Test Ended: 08:46:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3606.00 ft (KB) To 3682.00 ft (KB) (TVD)
Total Depth: 3682.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

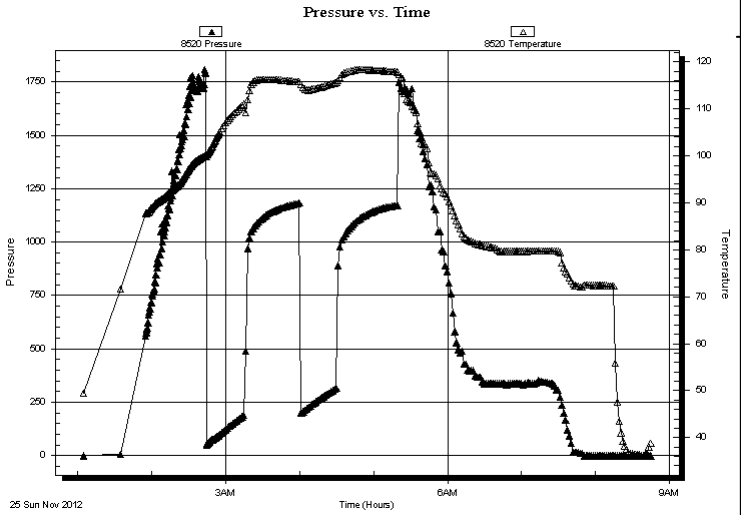
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3674.00 ft (KB)
Start Date: 2012.11.25 End Date: 2012.11.25
Start Time: 01:04:45 End Time: 08:45:45

Capacity: 8000.00 psig
Last Calib.: 2012.11.25
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Strong building blow . BOB in 1 minute 45 seconds.
ISI-Return @ 15 seconds. BOB in 3 & 1/2 mintues.
FF-Strong building blow . BOB in 2 minutes. GTS @ 27 minutes.
FSI-Return @ 30 seconds. BOB @ 4 minutes.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	25%Gas/50%Oil/25%Mud	1.47
850.00	50%Gas/50%Oil	11.92
0.00	2606' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dowining-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48624 **DST#: 3**

Test Start: 2012.11.25 @ 00:54:30

Tool Information

Drill Pipe:	Length:	3580.00 ft	Diameter:	3.80 inches	Volume:	50.22 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:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	50.37 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		24.00 ft					String Weight:	Initial	54000.00 lb
Depth to Top Packer:		3606.00 ft						Final	59000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		76.00 ft							
Tool Length:		96.00 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			3587.00		
Shut In Tool	5.00			3592.00		
Hydraulic tool	5.00			3597.00		
Packer	5.00			3602.00	20.00	Bottom Of Top Packer
Packer	4.00			3606.00		
Stubb	1.00			3607.00		
Perforations	2.00			3609.00		
Change Over Sub	1.00			3610.00		
Drill Pipe	63.00			3673.00		
Change Over Sub	1.00			3674.00		
Recorder	0.00	8354	Inside	3674.00		
Recorder	0.00	8520	Outside	3674.00		
Perforations	5.00			3679.00		
Bullnose	3.00			3682.00	76.00	Bottom Packers & Anchor
Total Tool Length:	**96.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48624 **DST#: 3**

Test Start: 2012.11.25 @ 00:54:30

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	34 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	inches				

Recovery Information

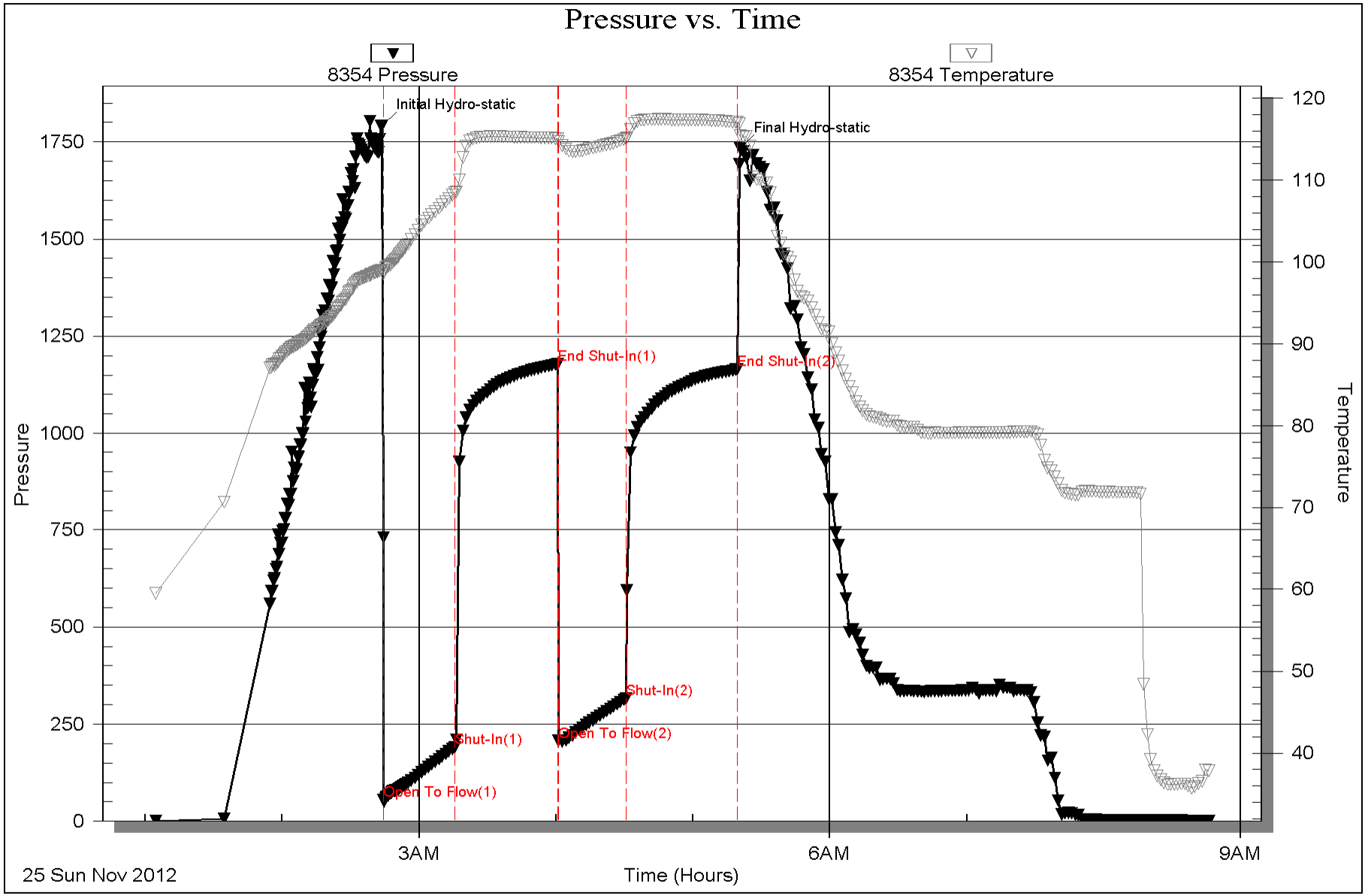
Recovery Table

Length ft	Description	Volume bbl
124.00	25%Gas/50%Oil/25%Mud	1.466
850.00	50%Gas/50%Oil	11.923
0.00	2606' G.I.P.	0.000

Total Length: 974.00 ft Total Volume: 13.389 bbl

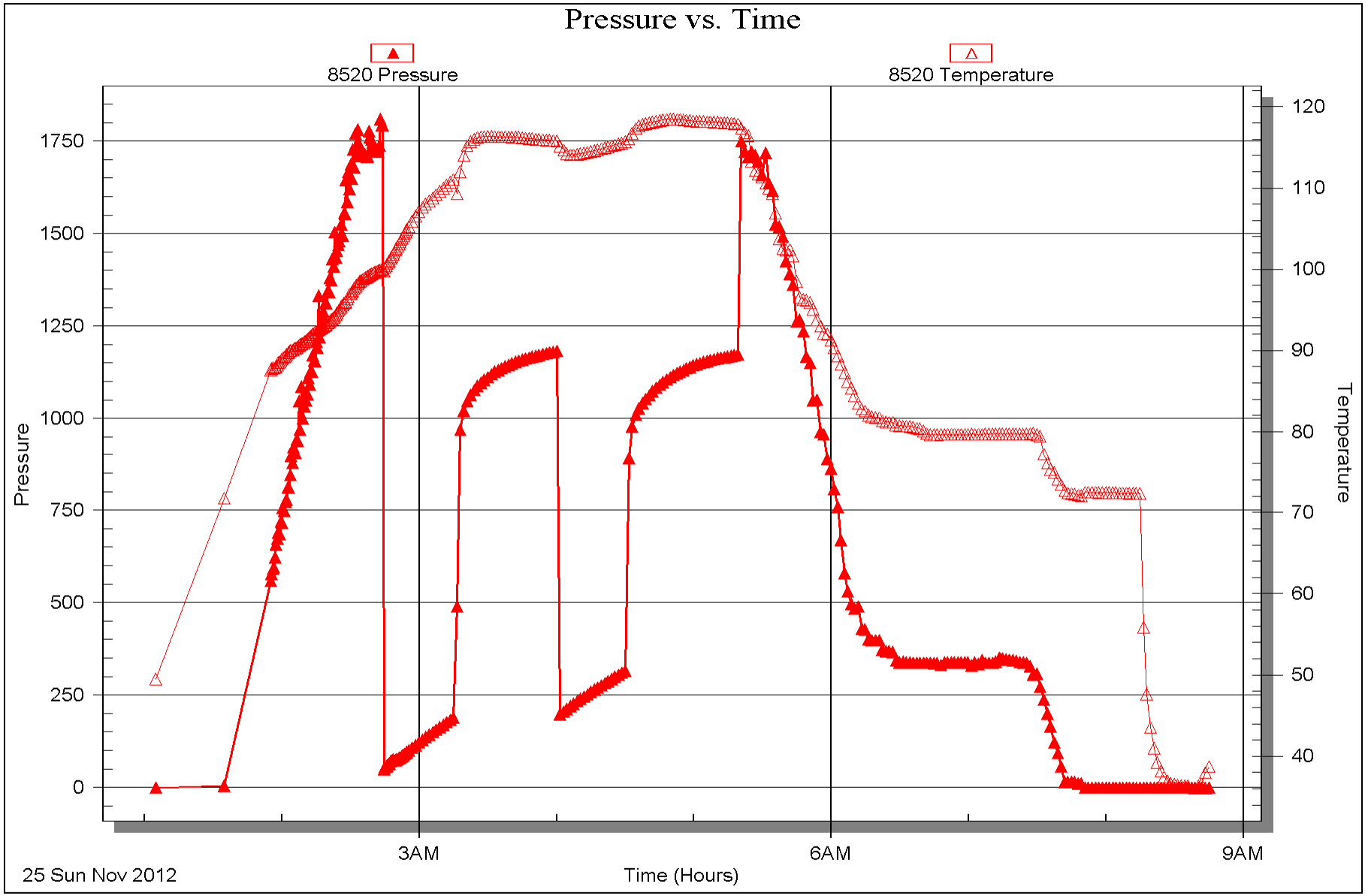
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** Downing-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 48624 Printed: 2012.11.28 @ 09:13:57

Serial #: 8520 **Outside** Downing-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 3



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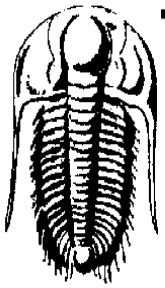


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co., Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

MWE #1-7

7-13s-18w Ellis,KS

Start Date: 2012.11.25 @ 15:43:15
End Date: 2012.11.25 @ 20:27:15
Job Ticket #: 48625 DST #: 4

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

Printed: 2012.11.28 @ 09:13:07

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48625 **DST#: 4**

Test Start: 2012.11.25 @ 15:43:15

GENERAL INFORMATION:

Formation: **LKC "K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:29:35
Time Test Ended: 20:27:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3686.00 ft (KB) To 3710.00 ft (KB) (TVD)
Total Depth: 3710.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

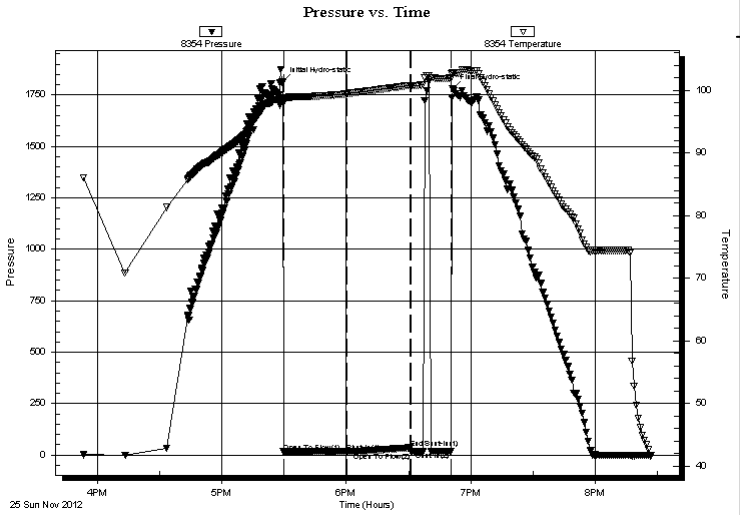
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 15.81 psig @ 3687.00 ft (KB)
Start Date: 2012.11.25 End Date: 2012.11.25
Start Time: 15:53:15 End Time: 20:27:15

Capacity: 8000.00 psig
Last Calib.: 2012.11.25
Time On Btm: 2012.11.25 @ 17:29:25
Time Off Btm: 2012.11.25 @ 18:51:15

TEST COMMENT: IF-Very weak building blow. Built to 1 inch.
ISI-No Return.
FF-No Blow. Flushed Tool. No Blow. Pulled Tool.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1815.68	98.76	Initial Hydro-static
1	15.37	98.01	Open To Flow (1)
31	15.81	99.46	Shut-In(1)
62	35.35	100.79	End Shut-In(1)
62	15.42	100.80	Open To Flow (2)
81	18.33	101.93	Shut-In(2)
82	1779.26	102.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	2%Oil/98%Mud	0.02

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48625 **DST#: 4**

Test Start: 2012.11.25 @ 15:43:15

GENERAL INFORMATION:

Formation: **LKC "K"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:29:35
Time Test Ended: 20:27:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3686.00 ft (KB) To 3710.00 ft (KB) (TVD)
Total Depth: 3710.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

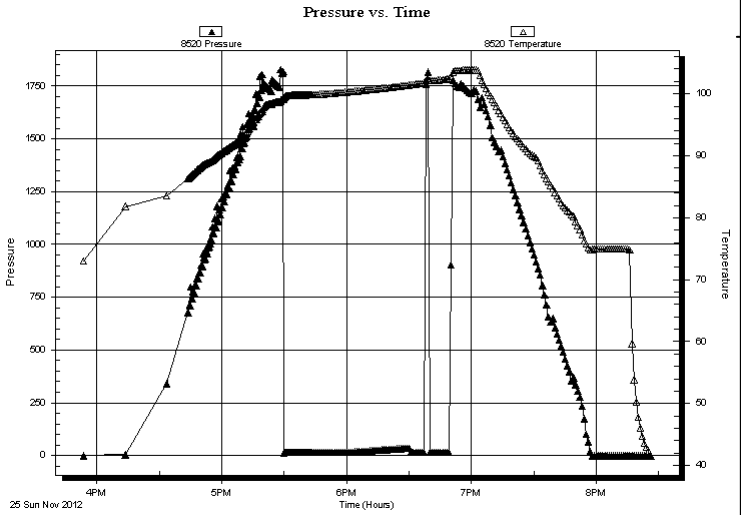
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3687.00 ft (KB)
Start Date: 2012.11.25 End Date: 2012.11.25
Start Time: 15:53:35 End Time: 20:26:35

Capacity: 8000.00 psig
Last Calib.: 2012.11.25
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Very weak building blow. Built to 1 inch.
ISI-No Return.
FF-No Blow. Flushed Tool. No Blow. Pulled Tool.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	2%Oil/98%Mud	0.02

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48625 **DST#: 4**

Test Start: 2012.11.25 @ 15:43:15

Tool Information

Drill Pipe:	Length:	3645.00 ft	Diameter:	3.80 inches	Volume:	51.13 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.70 inches	Volume:	- bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		10000.00 lb
					Total Volume:	- bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		9.00 ft					String Weight:	Initial	54000.00 lb
Depth to Top Packer:		3686.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		24.00 ft							
Tool Length:		44.00 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			3667.00		
Shut In Tool	5.00			3672.00		
Hydraulic tool	5.00			3677.00		
Packer	5.00			3682.00	20.00	Bottom Of Top Packer
Packer	4.00			3686.00		
Stubb	1.00			3687.00		
Recorder	0.00	8354	Inside	3687.00		
Recorder	0.00	8520	Outside	3687.00		
Perforations	20.00			3707.00		
Bullnose	3.00			3710.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**44.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 48625 **DST#: 4**

Test Start: 2012.11.25 @ 15:43:15

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:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	inches				

Recovery Information

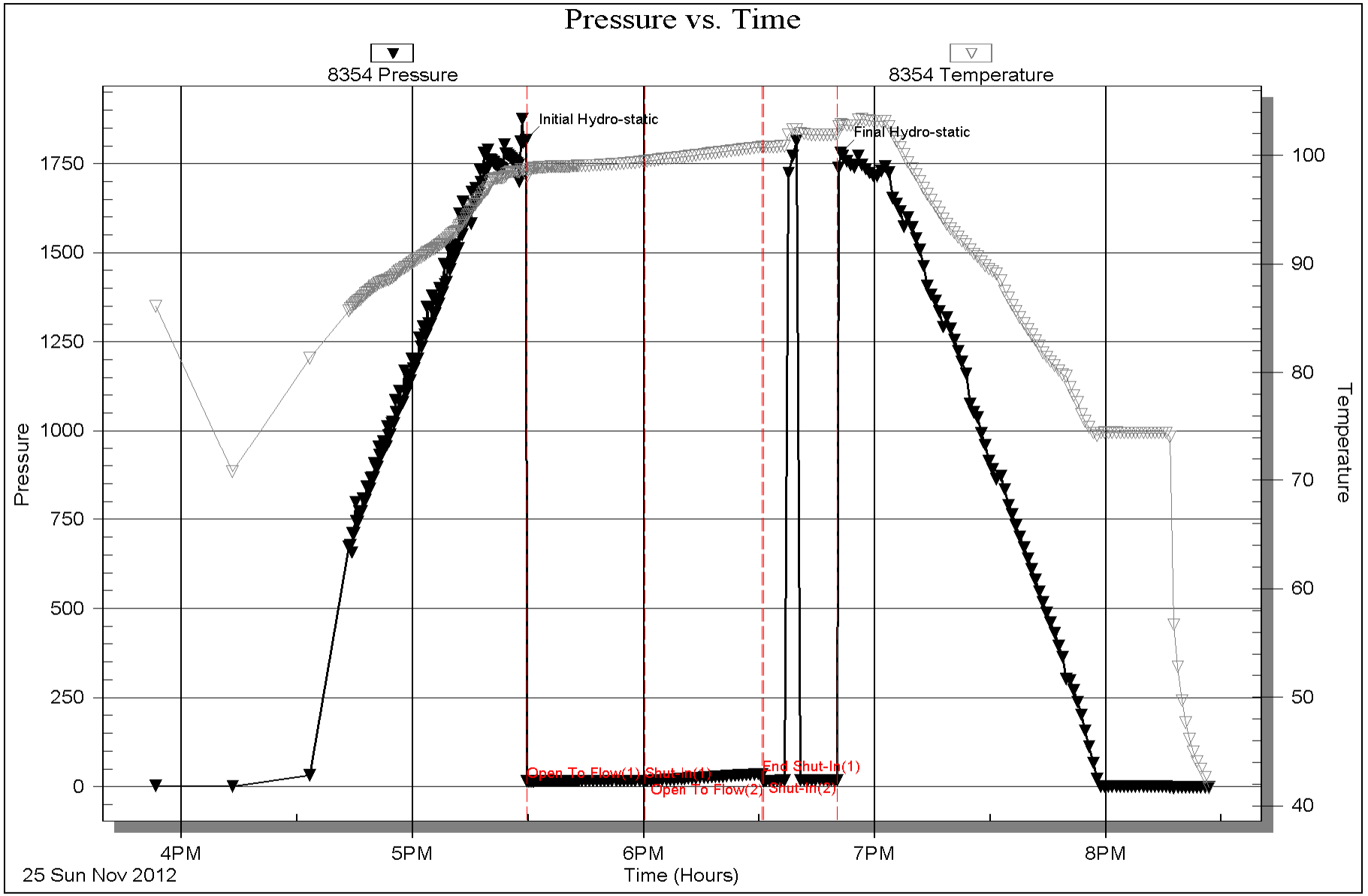
Recovery Table

Length ft	Description	Volume bbl
5.00	2%Oil/98%Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

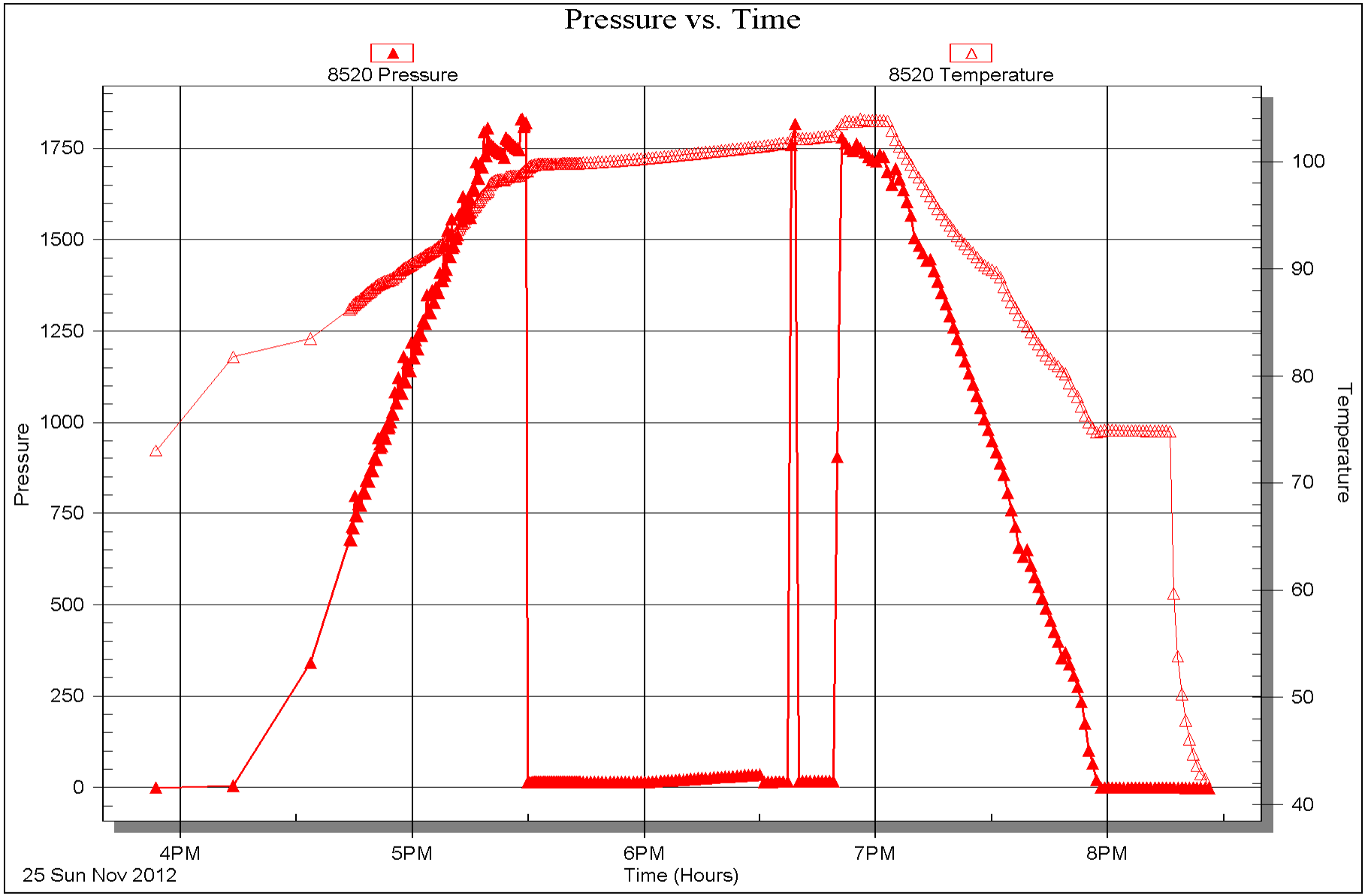
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** Downing-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 48625 Printed: 2012.11.28 @ 09:13:11

Serial #: 8520 **Outside** Downing-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 48625 Printed: 2012.11.28 @ 09:13:11

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co., Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

MWE #1-7

7-13s-18w Ellis,KS

Start Date: 2012.11.26 @ 16:11:15
End Date: 2012.11.26 @ 21:57:15
Job Ticket #: 51651 DST #: 5

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

Printed: 2012.11.28 @ 09:12:15

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 51651 **DST#: 5**

Test Start: 2012.11.26 @ 16:11:15

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:42:45
Time Test Ended: 21:57:15

Test Type: Conventional Straddle (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3768.00 ft (KB) To 3810.00 ft (KB) (TVD)
Total Depth: 3889.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

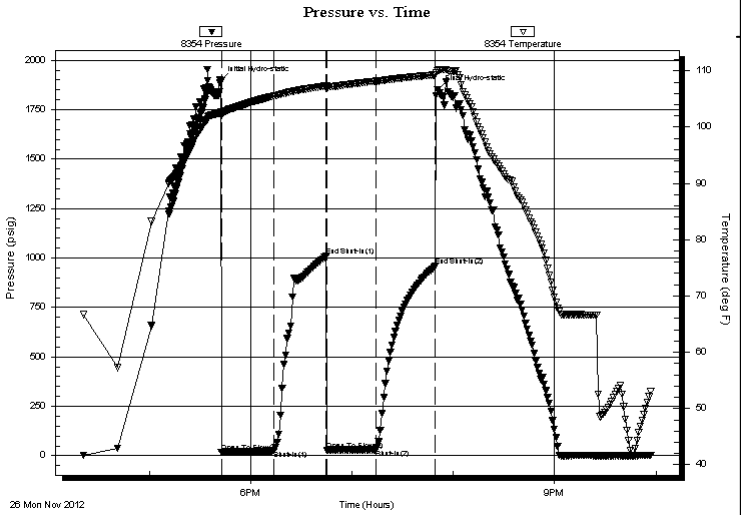
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 30.09 psig @ 3770.00 ft (KB)
Start Date: 2012.11.26 End Date: 2012.11.26
Start Time: 16:21:15 End Time: 21:57:15

Capacity: 8000.00 psig
Last Calib.: 2012.11.26
Time On Btm: 2012.11.26 @ 17:42:35
Time Off Btm: 2012.11.26 @ 19:50:45

TEST COMMENT: IF-Very w eak building blow . Built to 1 inch.
ISI-No Return.
FF-Very w eak building blow . Built to 3/4 inch.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1896.05	102.69	Initial Hydro-static
1	17.19	102.03	Open To Flow (1)
32	25.96	105.53	Shut-In(1)
63	1010.62	107.33	End Shut-In(1)
63	28.86	107.10	Open To Flow (2)
92	30.09	108.16	Shut-In(2)
127	957.40	109.29	End Shut-In(2)
129	1853.18	110.01	Final Hydro-static

Recovery

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

Gas Rates

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Dow ning

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 51651 **DST#: 5**

Test Start: 2012.11.26 @ 16:11:15

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:42:45
Time Test Ended: 21:57:15

Test Type: Conventional Straddle (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3768.00 ft (KB) To 3810.00 ft (KB) (TVD)
Total Depth: 3889.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

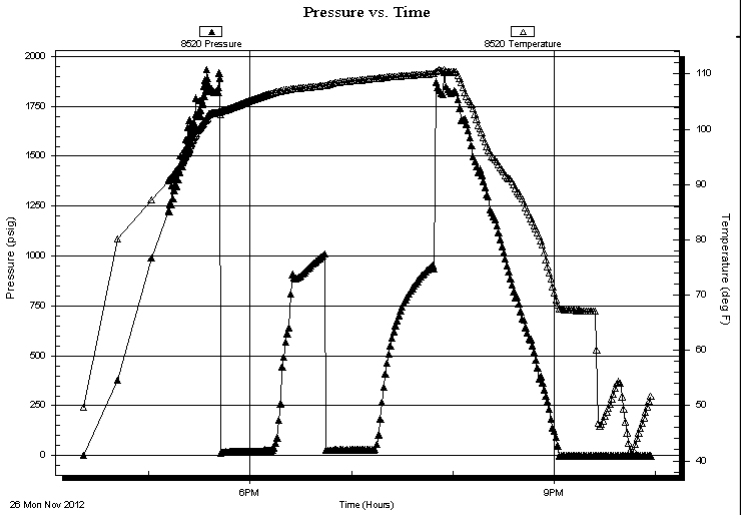
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3770.00 ft (KB)
Start Date: 2012.11.26 End Date: 2012.11.26
Start Time: 16:21:30 End Time: 21:57:00

Capacity: 8000.00 psig
Last Calib.: 2012.11.26
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Very w eak building blow . Built to 1 inch.
ISI-No Return.
FF-Very w eak building blow . Built to 3/4 inch.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

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

Gas Rates

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 51651 **DST#: 5**

Test Start: 2012.11.26 @ 16:11:15

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:42:45
Time Test Ended: 21:57:15

Test Type: Conventional Straddle (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3768.00 ft (KB) To 3810.00 ft (KB) (TVD)
Total Depth: 3889.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

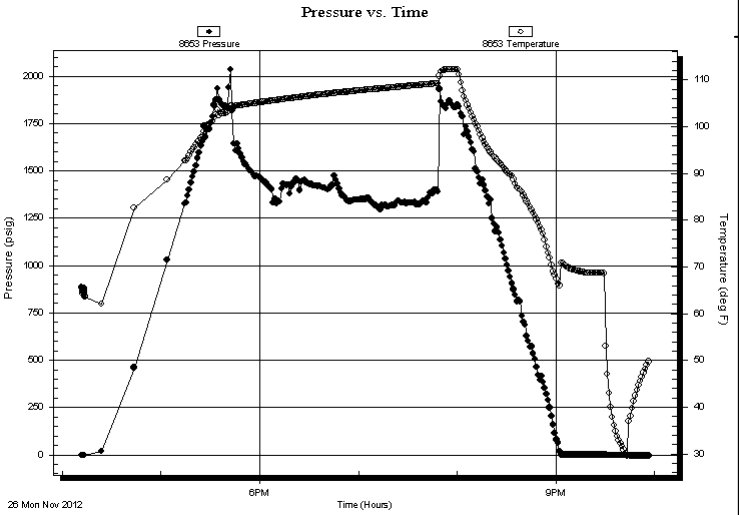
Reference Elevations: 2171.00 ft (KB)
2163.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8653 **Below (Straddle)**

Press@RunDepth: psig @ 3823.00 ft (KB)
Start Date: 2012.11.26 End Date: 2012.11.26
Start Time: 16:11:46 End Time: 21:56:15

Capacity: 8000.00 psig
Last Calib.: 2012.11.26
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Very weak building blow. Built to 1 inch.
ISI-No Return.
FF-Very weak building blow. Built to 3/4 inch.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

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

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 51651 **DST#: 5**

Test Start: 2012.11.26 @ 16:11:15

Tool Information

Drill Pipe:	Length:	3740.00 ft	Diameter:	3.80 inches	Volume:	52.46 bbl	Tool Weight:		3000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		10000.00 lb
					Total Volume:	52.61 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		22.00 ft					String Weight:	Initial	57000.00 lb
Depth to Top Packer:		3768.00 ft						Final	58000.00 lb
Depth to Bottom Packer:		3807.00 ft							
Interval between Packers:		39.00 ft							
Tool Length:		141.00 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			3749.00		
Shut In Tool	5.00			3754.00		
Hydraulic tool	5.00			3759.00		
Packer	5.00			3764.00	20.00	Bottom Of Top Packer
Packer	4.00			3768.00		
Stubb	1.00			3769.00		
Perforations	1.00			3770.00		
Recorder	0.00	8354	Inside	3770.00		
Recorder	0.00	8520	Outside	3770.00		
Change Over Sub	1.00			3771.00		
Drill Pipe	31.00			3802.00		
Change Over Sub	1.00			3803.00		
Perforations	3.00			3806.00		
Blank Off Sub	1.00			3807.00	39.00	Tool Interval
Packer	4.00			3811.00		
Stubb	1.00			3812.00		
Perforations	10.00			3822.00		
Change Over Sub	1.00			3823.00		
Recorder	0.00	8653	Below	3823.00		
Drill Pipe	62.00			3885.00		
Change Over Sub	1.00			3886.00		
Bullnose	3.00			3889.00	82.00	Bottom Packers & Anchor
Total Tool Length:	**141.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

PO Box 1019
Hays, KS 67601

ATTN: Al Downing

7-13s-18w Ellis,KS

MWE #1-7

Job Ticket: 51651 **DST#: 5**

Test Start: 2012.11.26 @ 16:11:15

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:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	inches				

Recovery Information

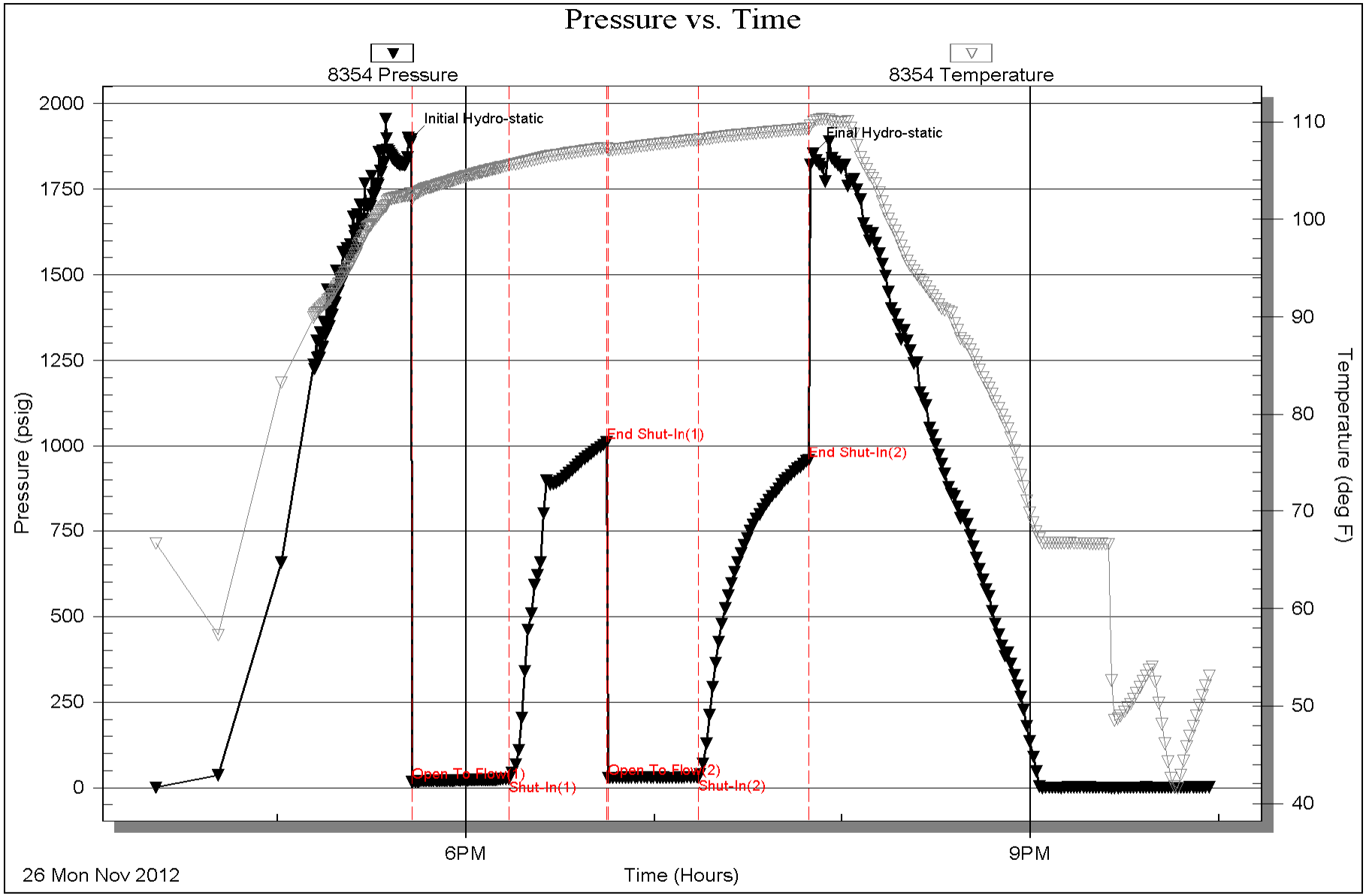
Recovery Table

Length ft	Description	Volume bbl
15.00	100%Mud	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

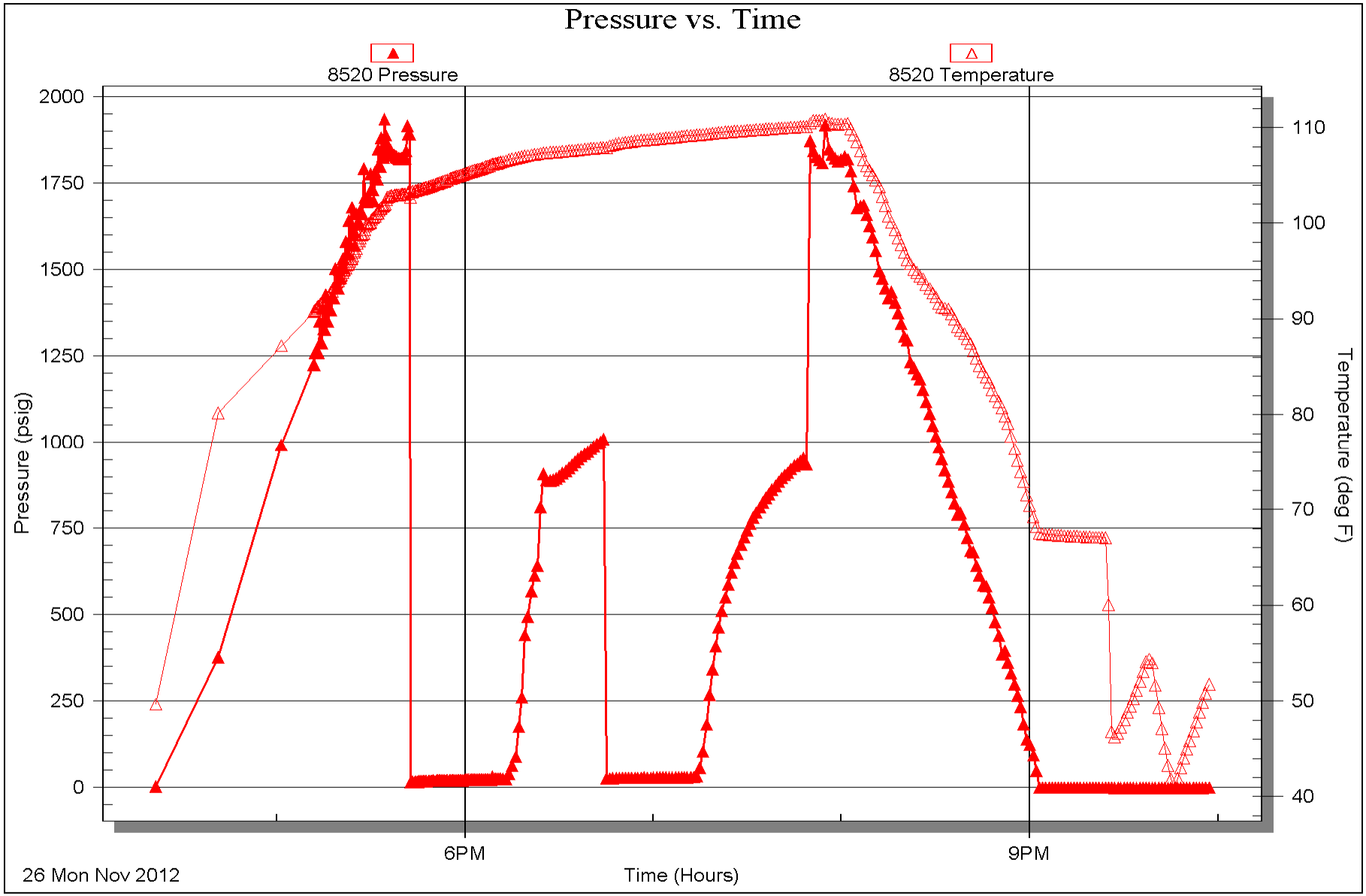
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** Dow ning-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 5



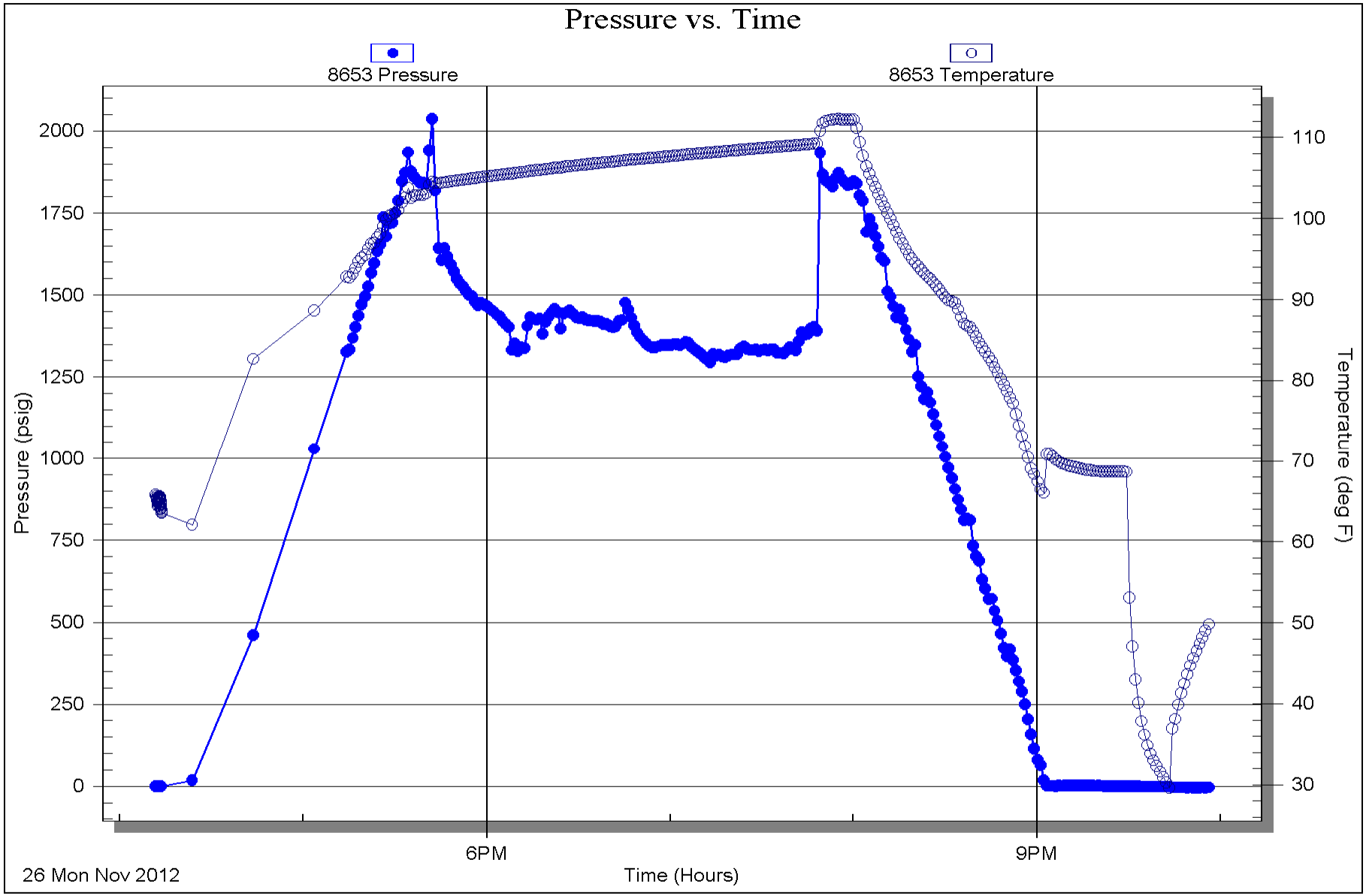
Trilobite Testing, Inc Ref. No: 51651 Printed: 2012.11.28 @ 09:12:20

Serial #: 8520 **Outside** Dow ning-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 51651 Printed: 2012.11.28 @ 09:12:20

Serial #: 8653 Below (Straddle) Rolling-Nelson Oil Co., Inc. MWE#1-7 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 51651 Printed: 2012.11.28 @ 09:12:21

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48622

Well Name & No. MWE #1-7 Test No. 1 Date 11-23-12

Company Downing-Nelson Oil Co., Inc. Elevation 2171 KB 2163 GL

Address P.O. Box 1019 Hays, KS 67601

Co. Rep / Geo. Al Downing Rig Discovery 3

Location: Sec. 7 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3515-3560 Zone Tested LKC "C-D"

Anchor Length 45' Drill Pipe Run 3485 Mud Wt. 8.9

Top Packer Depth 3510 Drill Collars Run 30 Vis 57

Bottom Packer Depth 3515 Wt. Pipe Run -0- WL 8.0

Total Depth 3560 Chlorides 1500 ppm System LCM 2#

Blow Description IF- Weak building blow. BOB in 36 minutes.
ISI- No Return.
FF- Weak building blow. Built to 11 inches.
FSI- No Return.

Rec 265	Feet of Muddy Water	%gas	%oil 80	%water 20	%mud	
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 265 BHT Gravity API RW .618 @ 38 °F Chlorides 19,000 ppm

(A) Initial Hydrostatic 1807	☑ Test 1150	T-On Location 1530
(B) First Initial Flow 44	☐ Jars	T-Started 1645
(C) First Final Flow 90	☐ Safety Joint	T-Open 1824
(D) Initial Shut-In 692	☐ Circ Sub	T-Pulled 2125
(E) Second Initial Flow 106	☐ Hourly Standby	T-Out 2315
(F) Second Final Flow 151	☑ Mileage 5X2 15.50	Comments Batt-1629
(G) Final Shut-In 671	☐ Sampler	
(H) Final Hydrostatic 1680	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 45	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1165.50
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1165.50	

Approved By Our Representative

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48623

Well Name & No. MWE #1-7 Test No. 2 Date 11-24-12

Company Downing-Nelson Oil Co., Inc. Elevation 2171 KB 2163 GL

Address P.O. Box 1019 Hays, KS 67601

Co. Rep / Geo. Al Downing Rig Discovery 3

Location: Sec. 7 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3555-3582 Zone Tested LKC "E-F"

Anchor Length 27' Drill Pipe Run Mud Wt. 8.9

Top Packer Depth 3550 Drill Collars Run 30 Vis 57

Bottom Packer Depth 3555 Wt. Pipe Run 0 WL 8.0

Total Depth 3582 Chlorides 1500 ppm System LCM 2#

Blow Description IF-Weak building blow, Built to 5½ inches.
ISI-No Return.
FF-Weak building blow. Built to 4 inches.
FSI-No Return.

Rec 90	Feet of Muddy Water	%gas	%oil	80 %water	20 %mud
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 90 BHT Gravity API RW .448 @ 52 °F Chlorides 22000 ppm

(A) Initial Hydrostatic 1758	☑ Test 1150	T-On Location 0545
(B) First Initial Flow 30	☐ Jars	T-Started 0645
(C) First Final Flow 49	☐ Safety Joint	T-Open 0814
(D) Initial Shut-In 619	☐ Circ Sub	T-Pulled 1120
(E) Second Initial Flow 47	☐ Hourly Standby	T-Out 1245
(F) Second Final Flow 59	☑ Mileage 5X2 15.50	Comments Batt-0627
(G) Final Shut-In 487	☐ Sampler	
(H) Final Hydrostatic 1689	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 45	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1165.50
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1165.50	

Approved By Our Representative D. Rains

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48624

Well Name & No. MWE #1-7 Test No. 3 Date 11-25-12

Company Downing-Nelson Oil Co., Inc. Elevation 2171 KB 2163 GL

Address P.O. Box 1019 Hays, KS 67601

Co. Rep / Geo. AL Downing Rig Discovery 3

Location: Sec. 7 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3606-3682 Zone Tested LKC "H, I, J"

Anchor Length 76' Drill Pipe Run 3580 Mud Wt. 9.0

Top Packer Depth 3601 Drill Collars Run 80 Vis 53

Bottom Packer Depth 3606 Wt. Pipe Run 0 WL 8.0

Total Depth 3682 Chlorides 2000 ppm System LCM 1.5#

Blow Description IF- Strong building blow, BOB in 1 minute 45 seconds,
ISI- Return @ 15 seconds, BOB in 3½ minutes,
FF- Strong building blow, BOB in 2 minutes, GTS @ 27 minutes,
FSI- Return @ 30 seconds, BOB @ 4 minutes,

Rec 850	Feet of Gassy Oil	50 %gas	50 %oil	%water	%mud
Rec 124	Feet of MCGO	25 %gas	50 %oil	%water	25 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of 2606' G.I.P.	%gas	%oil	%water	%mud

Rec Total 974 BHT 117 Gravity 34 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1792	☑ Test 1150	T-On Location 0015	
(B) First Initial Flow 55	☐ Jars	T-Started 0100	
(C) First Final Flow 191	☐ Safety Joint	T-Open 0244	
(D) Initial Shut-In 1179	☐ Circ Sub	T-Pulled 0520	
(E) Second Initial Flow 207	☐ Hourly Standby	T-Out 0845	
(F) Second Final Flow 316	☑ Mileage 5X2 15.50	Comments Batt- 0054	
(G) Final Shut-In 1165	☐ Sampler		
(H) Final Hydrostatic 1733	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 30	☐ Day Standby	Total 1165.50	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1165.50		

Approved By Our Representative

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48625

Well Name & No. MWE #1-7 Test No. 4 Date 11-25-12

Company Downing-Nelson Oil Co., Inc. Elevation 2171 KB 2163 GL

Address P.O. Box 1019 Hays, KS 67601

Co. Rep / Geo. Al Downing Rig Discovery 3

Location: Sec. 7 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3686-3710 Zone Tested LKC "K"

Anchor Length 24' Drill Pipe Run 3645 Mud Wt. 8.9

Top Packer Depth 3681 Drill Collars Run 30 Vis 50

Bottom Packer Depth 3686 Wt. Pipe Run 0 WL 8.0

Total Depth 3710 Chlorides 5000 ppm System LCM 1.5#

Blow Description IF- Very weak building blow, Built to 1 inch.
ISI- No Return.
FF- No Blow. Flushed Tool, No Blow. Pulled Tool.

Rec 5	Feet of Mud w/ Oil Spots	%gas	2 %oil	%water	98 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 5 BHT 103 Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1816	☑ Test 1150	T-On Location 1515	
(B) First Initial Flow 15	☐ Jars	T-Started 1600	
(C) First Final Flow 16	☐ Safety Joint	T-Open 1729	
(D) Initial Shut-In 35	☐ Circ Sub	T-Pulled 1850	
(E) Second Initial Flow 15	☐ Hourly Standby	T-Out 2030	
(F) Second Final Flow	☑ Mileage 5X2 15.50	Comments Batt-1543	
(G) Final Shut-In	☐ Sampler		
(H) Final Hydrostatic 1779	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0	
Final Flow 10-Pulled	☐ Day Standby	Total 1165.50	
Final Shut-In	☐ Accessibility	MP/DST Disc't	
	Sub Total 1165.50		

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 51651

Well Name & No. MWE #1-7 Test No. 5 Date 11-26-12

Company Downing-Nelson Oil Co., Inc. Elevation 2171 KB 2163 GL

Address P.O. Box 1019 Hays, KS 67601

Co. Rep / Geo. Al Downing Rig Discovery 3

Location: Sec. 7 Twp. 13S Rge. 18W Co. Ellis State KS

Interval Tested 3768-3810 Zone Tested Arbuckle

Anchor Length 42' 79'TP Drill Pipe Run 3740 Mud Wt. 8.9

Top Packer Depth 3763 Drill Collars Run 30 Vis 55

Bottom Packer Depth 3768 Wt. Pipe Run 0 WL 8.0

Total Depth 3889 Chlorides 6000 ppm System LCM 1.5#

Blow Description IF- Very weak building blow. Built to 1 inch.
ISI- No Return.
FF- Very weak building blow. Built to 3/4 inche.
FSI- No Return.

Rec 15	Feet of Mud	%gas	%oil	%water 100	%mud
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 15 BHT ____ Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

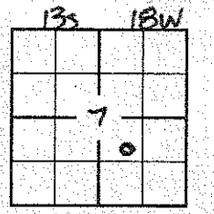
(A) Initial Hydrostatic 1896	☑ Test 1150	T-On Location 1515
(B) First Initial Flow 17	☐ Jars	T-Started 1600
(C) First Final Flow 26	☐ Safety Joint	T-Open 1744
(D) Initial Shut-In 1011	☐ Circ Sub	T-Pulled 1950
(E) Second Initial Flow 29	☐ Hourly Standby	T-Out 2200
(F) Second Final Flow 30	☑ Mileage 5X2 15.50	Comments Bott - 1611
(G) Final Shut-In 957	☐ Sampler	
(H) Final Hydrostatic 1853	☑ Straddle 600	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total 0
Final Flow 30	☐ Day Standby	Total 1765.50
Final Shut-In 30	☐ Accessibility	MP/DST Disc't
	Sub Total 1765.50	

Approved By ____ Our Representative D. Rath

Marc Downing
Consulting Petroleum Geologist
1411 Washington Circle
Hays, Ks 67601
Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co., Inc.
WELL MWE #1-7
FIELD Wildcat
LOCATION 1890' FSL - 1920' FEL
SEC. 7 TWP. 13s RGE. 18w
COUNTY Ellis
STATE Kansas



PRODUCTION

ELEVATION KB 2171
DF
GL 2163
Drilling Measured From: 2171 KB

Samples Saved From 3400 To: TD
Drilling Time From 3150 To: TD
Samples Examined From 3400 To: TD
Geological Supervision From 3150 To Total Depth
Wellsite Geologist Alan Downing
Electrical Surveys Nabors
CDNL/BR - Microlog
Sonic - Dual Induction

OPERATOR DNOE
CONTRACTOR Discovery Drilling Rig #3
COMM: 11-19-12 COMP: 11-27-12

CASING RECORD
SURF: 8 5/8" - 222 PROD: 5 1/2 - 3885'
TOTAL DEPTH DRILLERS: 3889
TOTAL DEPTH LOG: 3890

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
Anhydrite	1487	1490	+681	
Base	1530	1530	+641	
Topeka	3219	3222	-1051	
Heebner	3454	3459	-1288	
Toronto	3474	3478	-1307	
Lansing	3501	3506	-1335	
BKC	3724	3727	-1556	
Reworked Arbuckle	3780	3785	-1614	
Arbuckle	3794	3800	-1629	

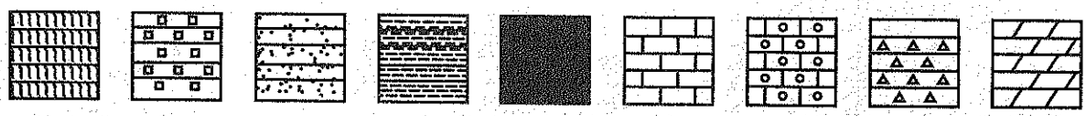
REFERENCE WELL FOR STRUCTURE

DRILL STEM TESTS

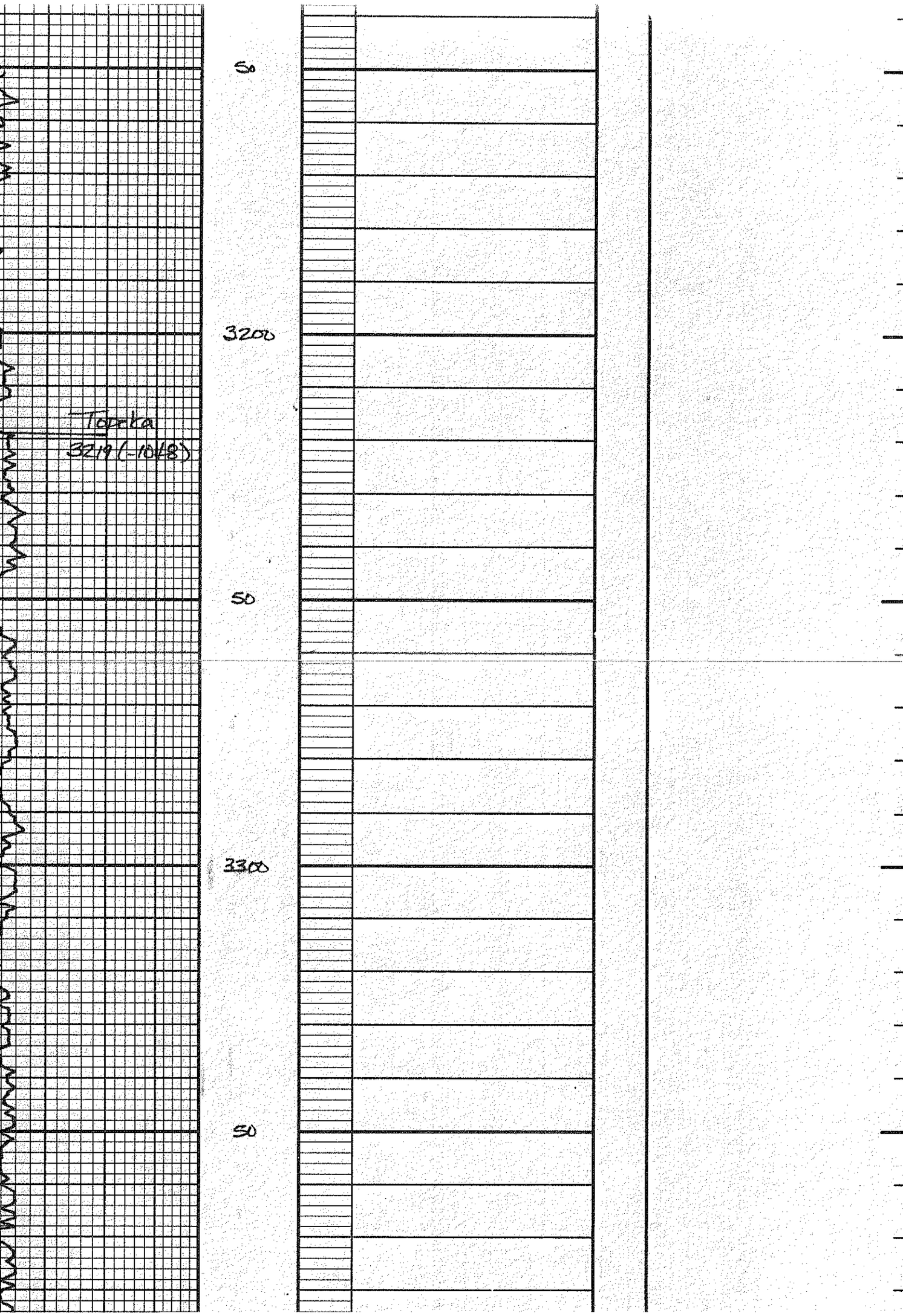
No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHP-FHP	RECOVERY

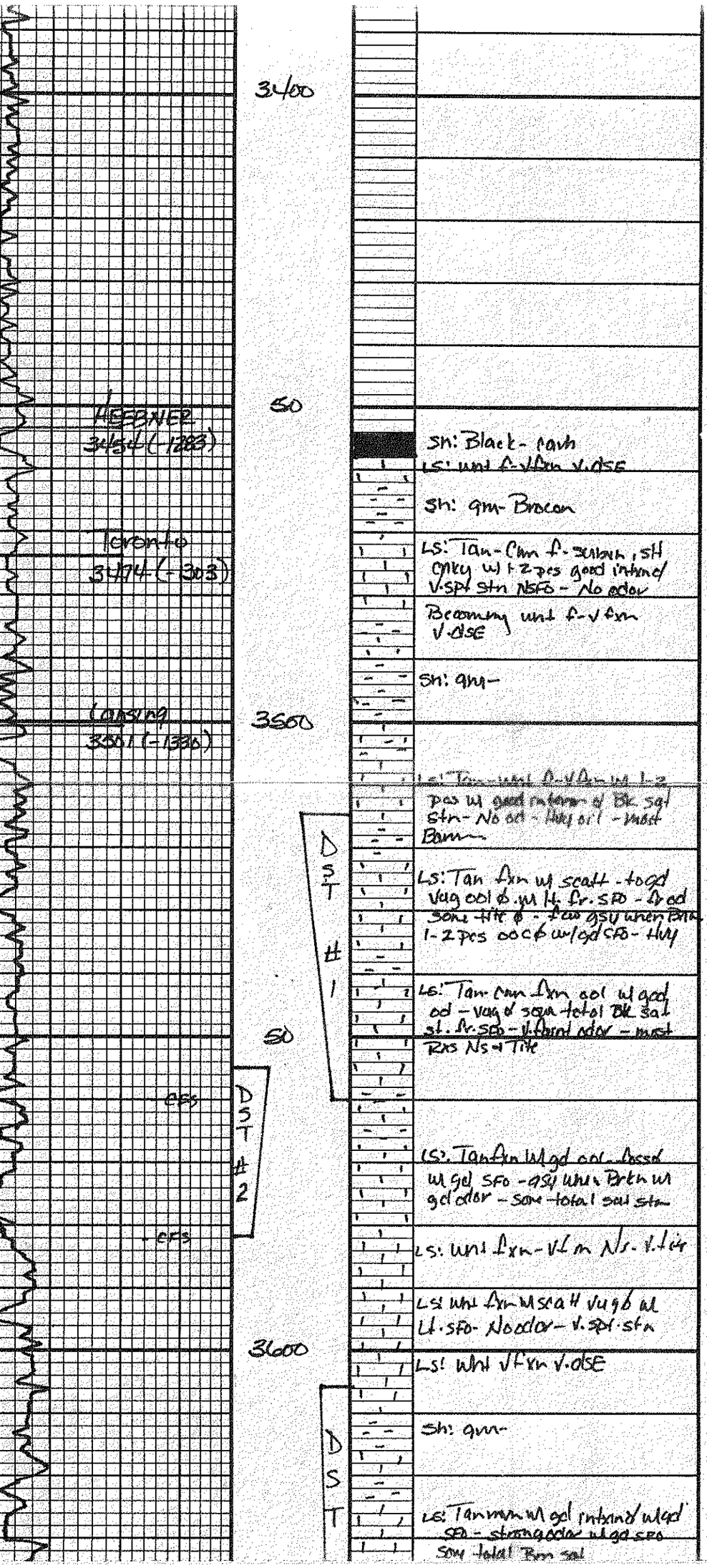
REMARKS AND RECOMMENDATIONS

LEGEND



DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases 5″ 10″ 15″	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	3100				


50
3200
Topeka
3219 (-1048)
50
3300
50



VIS 57 Wt 8.9
WL 8.0 CCM 2#

11-23-12

DST #1

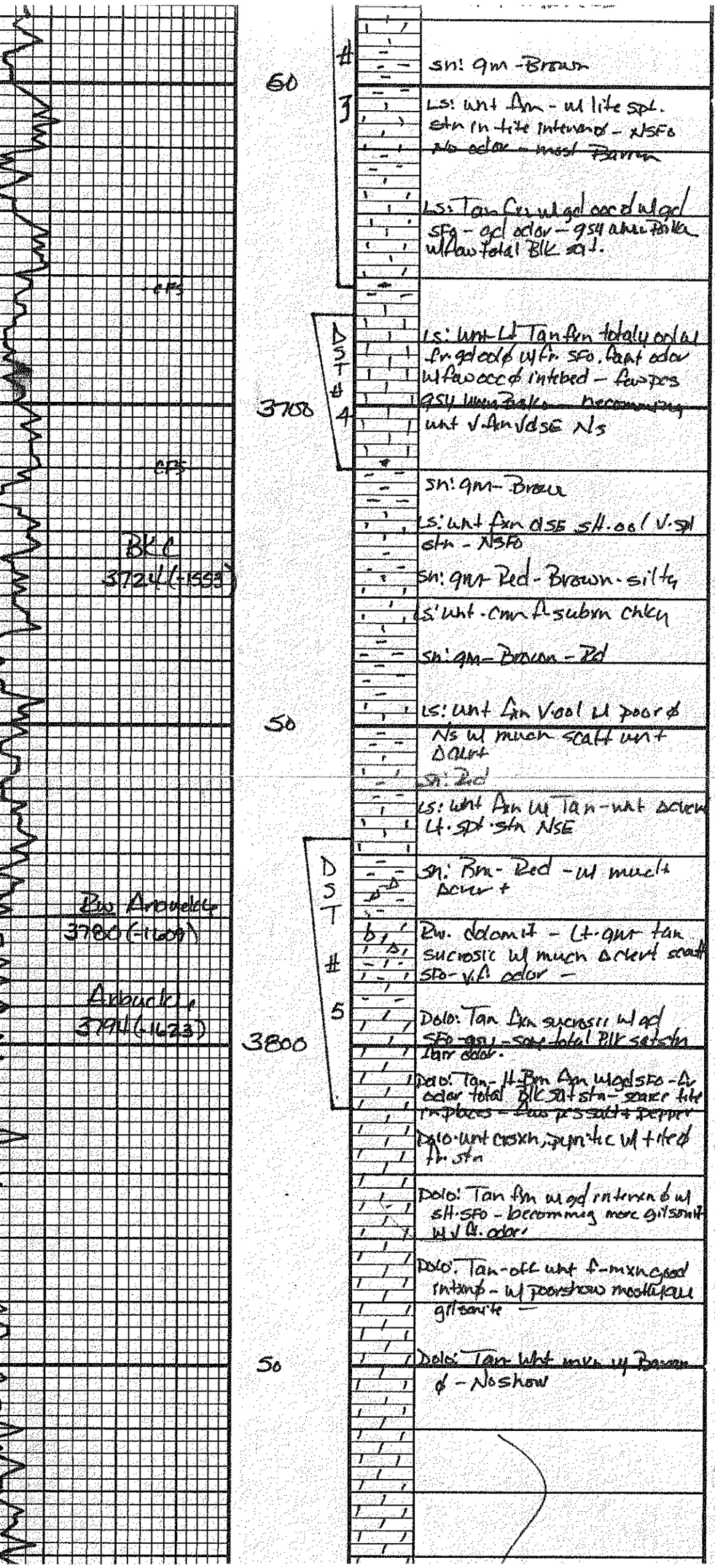
3515-3560
45-45-45-45
Rec: 265' mw (19,000 ppm)
IHP: 1807#
IFP: 44-90#
FFP: 106-151#
SIP: 692-671#
FHP: 1680#

DST #2

3555-3582
45-45-45-45
Rec: 90' muddy water
(22,000 ppm)
IHP: 1758#
IFP: 30-49#
FFP: 47-59#
SIP: 619-487#
FHP: 1689#

DST #3

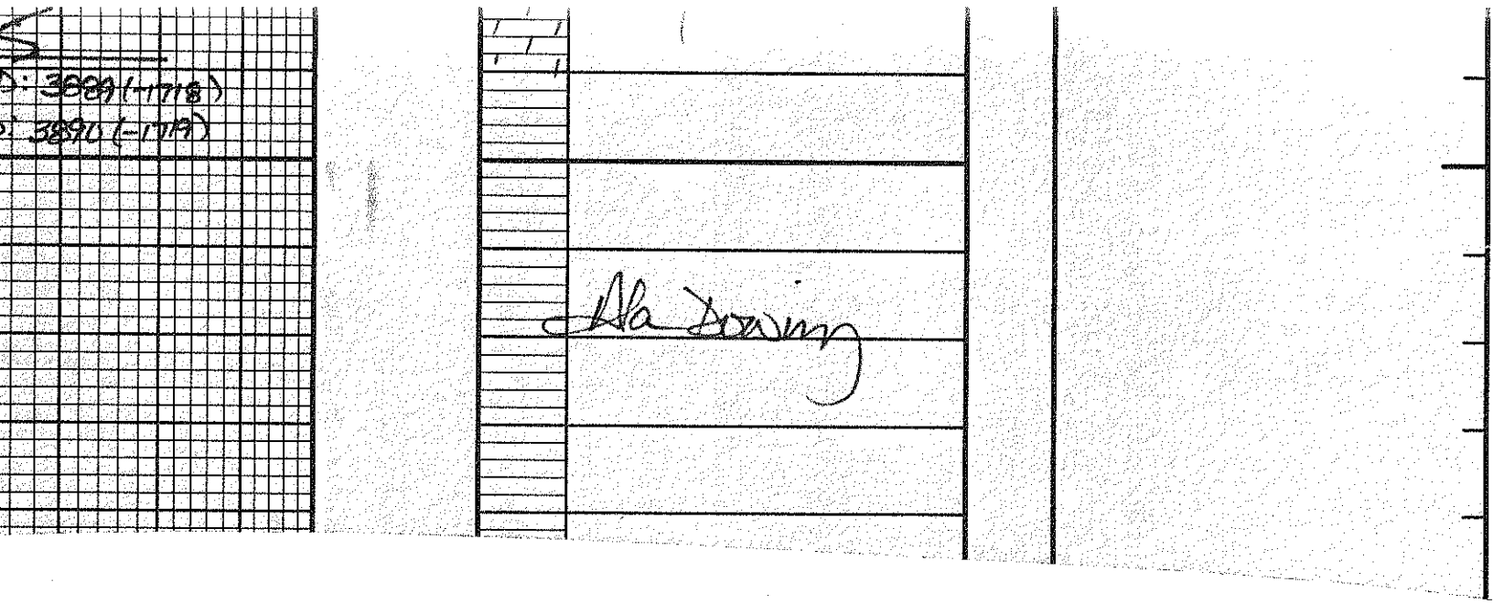
3600-3682
30-45-30-45
BOB 1'45" Initial Flow
BOB 3½" shut-in
BOB 2" gts 27 min F Flow
Rec 4'



Rec: 2600' gcp
124' mcgo (509 bbl)
850' co (3400 mcf)
IHP: 1792#
IFP: 55 - 191#
FFP: 207 - 316#
SIP: 1179 - 1165#
FHP: 1733#

DST #4
3686 - 3710
30-30-10
Rec: 5' mud wl oil spls
IHP: 1816#
IFP: 15-16#
FF: 15#
SIP: 35#
FHP: 1779#

DST #5
30-30-30-30
Rec: 15' mud
IHP: 1896#
IFP: 17-25#
FFP: 28-30#
SIP: 107-109#
FHP: 1853#


3889 (+1718)
3890 (-1719)
No Drawing

ALLIED OIL & GAS SERVICES, LLC 056061

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Russell KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
11-19-12	7	13	16			2:00	8:30

LEASE	WELL #	LOCATION	COUNTY	STATE
MWE	1-7	Hays, KS	Rooks	KS

OLD OR NEW (Circle one) 1-70 & 183 By pass 1.5 North West into

CONTRACTOR Discovery #3

OWNER

TYPE OF JOB Surface

HOLE SIZE 12¼ T.D.

CASING SIZE 8 5/8 DEPTH 222.62'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 13.22 bbl

EQUIPMENT

PUMP TRUCK CEMENTER Tony H. Bobby
409 HELPER Kevin R.

BULK TRUCK
410 DRIVER Damon D.

BULK TRUCK
DRIVER

CEMENT

AMOUNT ORDERED 150sk Class A
3% cc 2% gel

COMMON	150 sks	@ 17.90	$2,685.00
POZMIX		@	
GEL	3 sks	@ 23.40	$70.20
CHLORIDE	5 sks	@ 64.00	$320.00
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	162.00 sks	@ 2.93	$474.66
MILEAGE	29.60 T/M	2.60	$76.96

TOTAL $3,554.15

REMARKS:

- Circulated cmt to Surface.
- Pumped 35.79 bbl cement.
- Displaced 13.22 bbl water brought cement to Surface.
- Shut back up.

SERVICE

DEPTH OF JOB	222.62'		
PUMP TRUCK CHARGE			$1512.25
EXTRA FOOTAGE		@	
MILEAGE	Heavy Duty 4 mi	@ 7.70	$30.80
MANIFOLD	Light 4 miles	@ 4.40	$17.60
		@	
		@	

TOTAL $1,560.65

CHARGE TO: Downing Nelson Co.

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	

TOTAL

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)		193.73	
TOTAL CHARGES		$5,114.88	
DISCOUNT	$1,432.16	IF PAID IN 30 DAYS	
net	3682.66	BS	11-20

before tax

PRINTED NAME Galen Gaschler

SIGNATURE

JOB LOG

SWIFT Services, Inc.

DATE 11-27-12 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Downing & Nelson	#1-7	MWE	2-stage	21974

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0450							on loc w/FE
								RTD 3889' LTD 3888'
								5½" x 14# x 3888' x 20'
								Cent. 4,3,5,7,9,11,58
								Bask 59
								DV 59 @ 1460'
	0610							Start FE
	0835							Break Circ
	~~1005~~							
	~~0925~~	2.5	0					Plug RH 30sks SMD
	0925	5	32/0				200	Start Preflushes 500 gal Mudflush, 20 bbl KCL flush
		5	36				200	Start 150sks EA-2 Cement
	0935							End Cement
								wash PTL / Drop L.D. Plug
	0940	6	0				200	Start Displacement with mud
	0950	6	60				200	
		5	74				250	catch Cement KCL flush
	1000		94				650/300	Land Plug
								Release pressure / Float Held
								Drop opening Plug
	1010						1100	Open DV
	1015	5	0				200	Start 170sks SMD Cement
	1035		94					End Cement
								Drop Closing Plug
	1040	5	0				200	Start Displacement
		4	7				225	Circ. Cement
	1050		35				950/500	Land Plug / Close DV
								Release Pressure
								DV Closed
								Circ 50sks to pit
								Thank you
								Nick, David E., Flint