



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1208988  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- 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
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

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

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1208988

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Barry Urban 1-17
Doc ID	1208988

Tops

Name	Top	Datum
Top Anhydrite	1098'	+876
Base Anhydrite	1140'	+834
Topeka	2981'	-1007
Heebner	3214'	-1240
Toronto	3230'	-1256
LKC	3262'	-1288
BKC	3485'	-1511
Arbuckle	3544'	-1570

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 232

Date <u>5-16-14</u>	Sec. <u>17</u>	Twp. <u>16</u>	Range <u>17</u>	County <u>Rush</u>	State <u>KS</u>	On Location	Finish <u>9:45PM</u>
				Location <u>Libenthal, 4 1/2 E on Ave. D, to 290 Rd, 1N,</u>			

Lease <u>Barry Urban</u>	Well No. <u>1-17</u>	Owner <u>3/4 E, S n 2</u>
Contractor <u>Discovery #3</u>		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job <u>Surface</u>		Charge To <u>Downing-Nelson</u>
Hole Size <u>12 1/4</u>	T.D. <u>1100</u>	
Csg. <u>8 5/8</u>	Depth <u>1100</u>	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	Shoe Joint <u>34.55</u>	Cement Amount Ordered <u>425sx Com 3%cc, 2%gel</u>
Meas Line	Displace <u>67 3/4 bbl</u>	

**EQUIPMENT**

Pumptrk <u>17</u>	No.	Cementer	
		Helper <u>Lonniew.</u>	
Bulktrk <u>13</u>	No.	Driver	
		Driver <u>Ryan</u>	
Bulktrk <u>Ph</u>	No.	Driver	
		Driver <u>Travis</u>	

Common 425  
Poz. Mix  
Gel. 9  
Calcium 15

**JOB SERVICES & REMARKS**

Remarks: Cement did circulate  
Rat Hole  
Mouse Hole  
Centralizers  
Baskets  
DV or Port Collar

Hulls  
Salt  
Flowseal  
Kol-Seal  
Mud CLR 48  
CFL-117 or CD110 CAF 38  
Sand

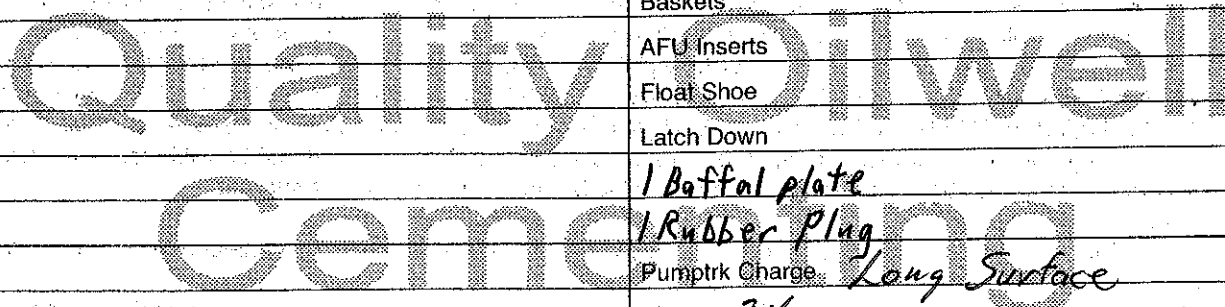
Handling 499 449  
Mileage

**FLOAT EQUIPMENT**

Guide Shoe  
Centralizer 3  
Baskets  
AFU Inserts  
Float Shoe  
Latch Down  
1 Buffal plate  
1 Rubber Plug  
Pumptrk Charge Lang Surface  
Mileage 24

X Signature John Brubaker

Tax  
Discount  
Total Charge



JOB LOG

SWIFT Services, Inc.

DATE 5/23/14 PAGE NO.

CUSTOMER Downing + Nelson WELL NO. 1-17 LEASE Barry Urban JOB TYPE Long String TICKET NO. 26617

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	13:30							On Loc. Rig Layin down D.P.
	14:40							Start in hole with 5 1/2" 14# Csg. Insert Float Shoe 3640' Latch Down Baffle 3621.26' Centralizers #1, #3, #5, #7, #9, #11, #13 Cat. BASKET None
	15:50							Drop Ball
	16:00							Csg. on Bottom 3640' Circulate & Rotate
	16:30							Plug Rathole 30sk Mousehole 20sk
	16:25		12 20					Pump 500gal Mod Flush 20 <sup>SS</sup> KCL Flush
	16:35	6	30					Mix 125sk EA-2 Cont.
	16:52							Wash out Pump & Lines Drop L.D. Plug
	16:55	7						Displace Plug 88.3 <sup>SS</sup>
	17:10		88.3					1500 Plug Down 1500 psi holding Release Press. Float held
								Wash and Rack up travel
	17:45							Job Complete
								Thank You Roger, Blaine, Flint, John J.



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Mark Downing

**Barry Urban #1-17**

**17-16s-17w Rush,KS**

Start Date: 2014.05.19 @ 10:14:01

End Date: 2014.05.19 @ 15:58:01

Job Ticket #: 54210                      DST #: 1

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

Printed: 2014.05.23 @ 09:36:26



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 54210

**DST#: 1**

ATTN: Mark Dow ning

Test Start: 2014.05.19 @ 10:14:01

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:19:31

Time Test Ended: 15:58:01

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

**Interval: 2968.00 ft (KB) To 2992.00 ft (KB) (TVD)**

Reference Elevations: 1974.00 ft (KB)

Total Depth: 2992.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8352 Outside**

Press@RunDepth: 20.24 psig @ 2964.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.19

End Date:

2014.05.19

Last Calib.:

2014.05.19

Start Time: 10:14:06

End Time:

15:58:00

Time On Btm:

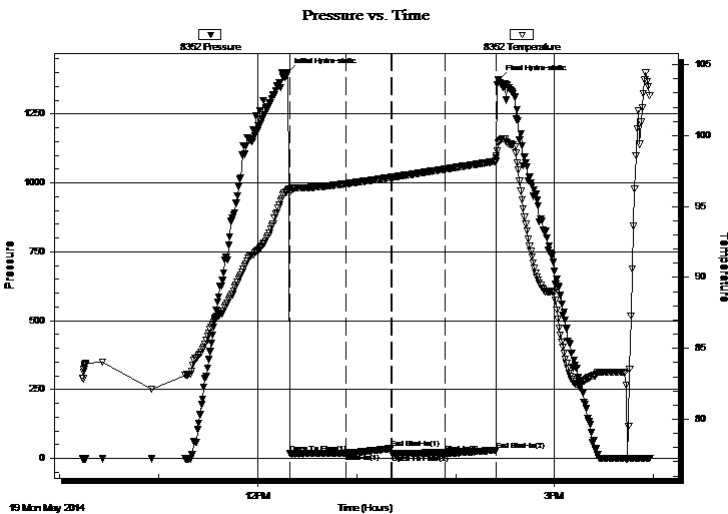
2014.05.19 @ 12:18:31

Time Off Btm:

2014.05.19 @ 14:26:16

TEST COMMENT: IF:Weak blow . 12 - 2 1/4".  
IS:No blow .  
FF:Weak blow . 1/2 - 1 1/2".  
FS:No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1399.03	96.16	Initial Hydro-static
1	18.14	95.98	Open To Flow (1)
36	19.96	96.61	Shut-In(1)
63	36.10	97.06	End Shut-In(1)
63	16.83	97.05	Open To Flow (2)
96	20.24	97.64	Shut-In(2)
126	30.52	98.19	End Shut-In(2)
128	1375.10	99.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w / o specs.	0.10
0.00	45 ft.of GIP	0.00

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 54210

**DST#: 1**

ATTN: Mark Dow ning

Test Start: 2014.05.19 @ 10:14:01

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:19:31

Time Test Ended: 15:58:01

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

Interval: **2968.00 ft (KB) To 2992.00 ft (KB) (TVD)**

Reference Elevations: 1974.00 ft (KB)

Total Depth: 2992.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8370 Inside**

Press@RunDepth: psig @ 2964.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.19 End Date: 2014.05.19

Last Calib.: 2014.05.19

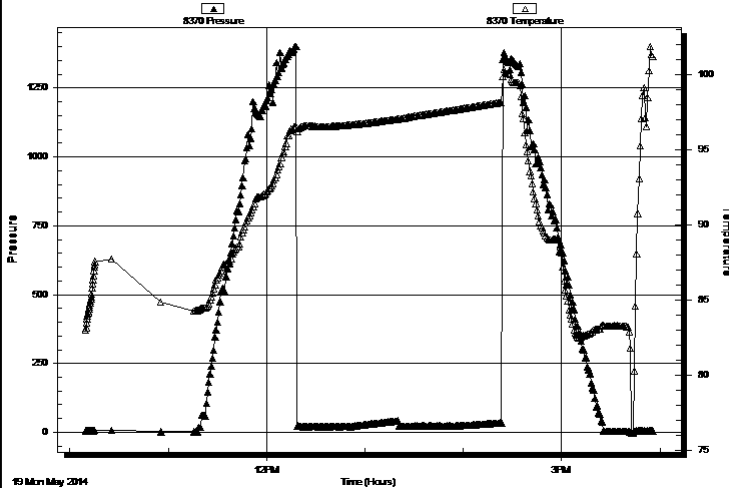
Start Time: 10:09:35 End Time: 15:55:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:Weak blow . 12 - 2 1/4".  
IS:No blow .  
FF:Weak blow . 1/2 - 1 1/2".  
FS:No blow .

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud w / o specs.	0.10
0.00	45 ft.of GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 54210

**DST#: 1**

ATTN: Mark Dow ning

Test Start: 2014.05.19 @ 10:14:01

## Tool Information

Drill Pipe:	Length: 2948.00 ft	Diameter: 3.80 inches	Volume: 41.35 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 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:	59000.00 lb
			<u>Total Volume: 41.50 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	2963.00 ft			Final	47000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	24.00 ft				
Tool Length:	44.00 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			2944.00	
Shut In Tool	5.00			2949.00	
Hydraulic tool	5.00			2954.00	
Packer	4.00			2958.00	20.00 Bottom Of Top Packer
Packer	5.00			2963.00	
Stubb	1.00			2964.00	
Recorder	0.00	8352	Outside	2964.00	
Recorder	0.00	8370	Inside	2964.00	
Perforations	18.00			2982.00	
Bullnose	5.00			2987.00	24.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 54210

**DST#: 1**

ATTN: Mark Dow ning

Test Start: 2014.05.19 @ 10:14:01

### 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:

2500 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	Mud w / o specs.	0.098
0.00	45 ft.of GIP	0.000

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

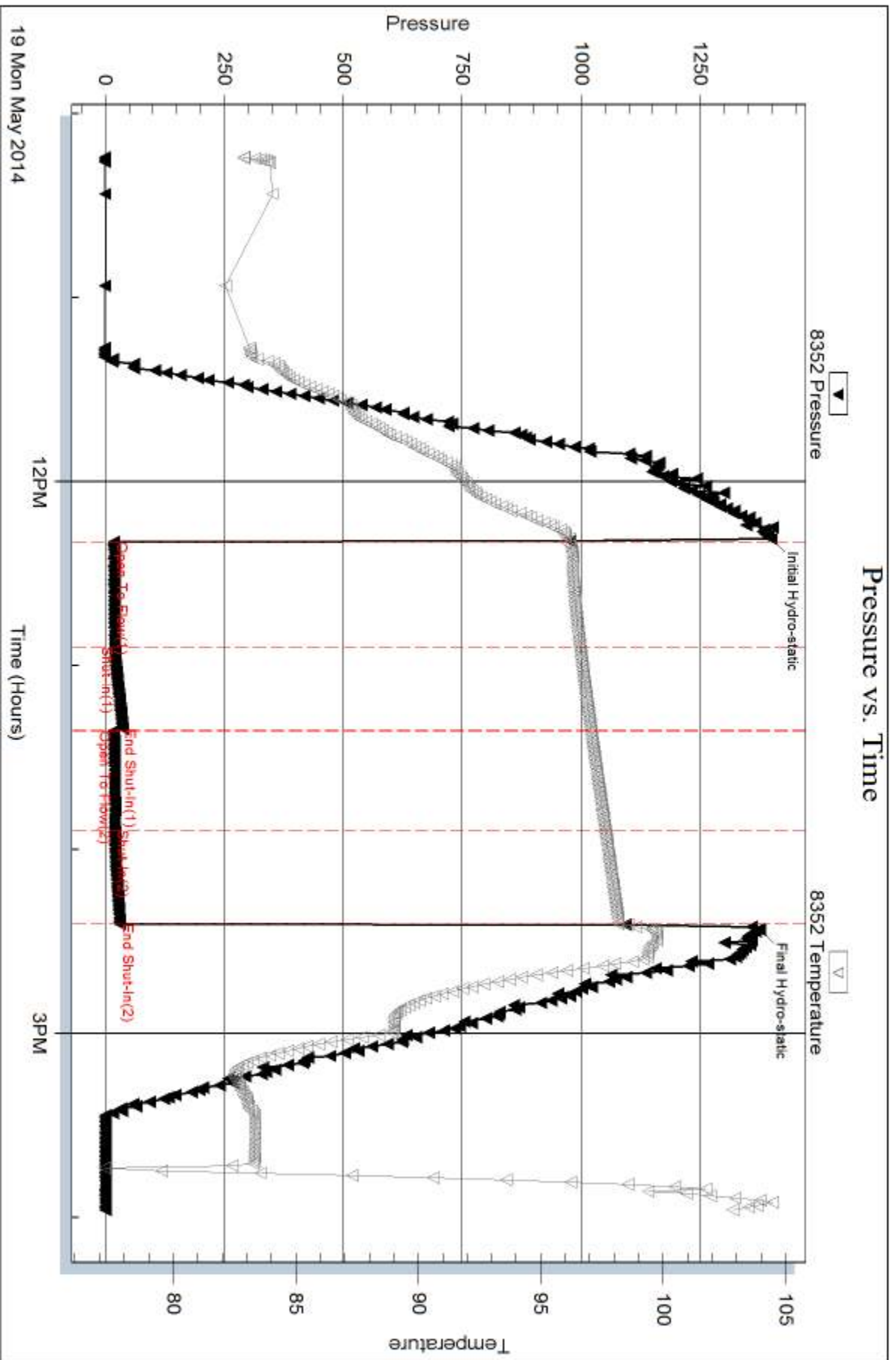
Serial #: 8352

Outside Dow nting-Nelson Oil Co. Inc.

Barry Urban #1-17

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 54210

Printed: 2014.05.23 @ 09:36:27

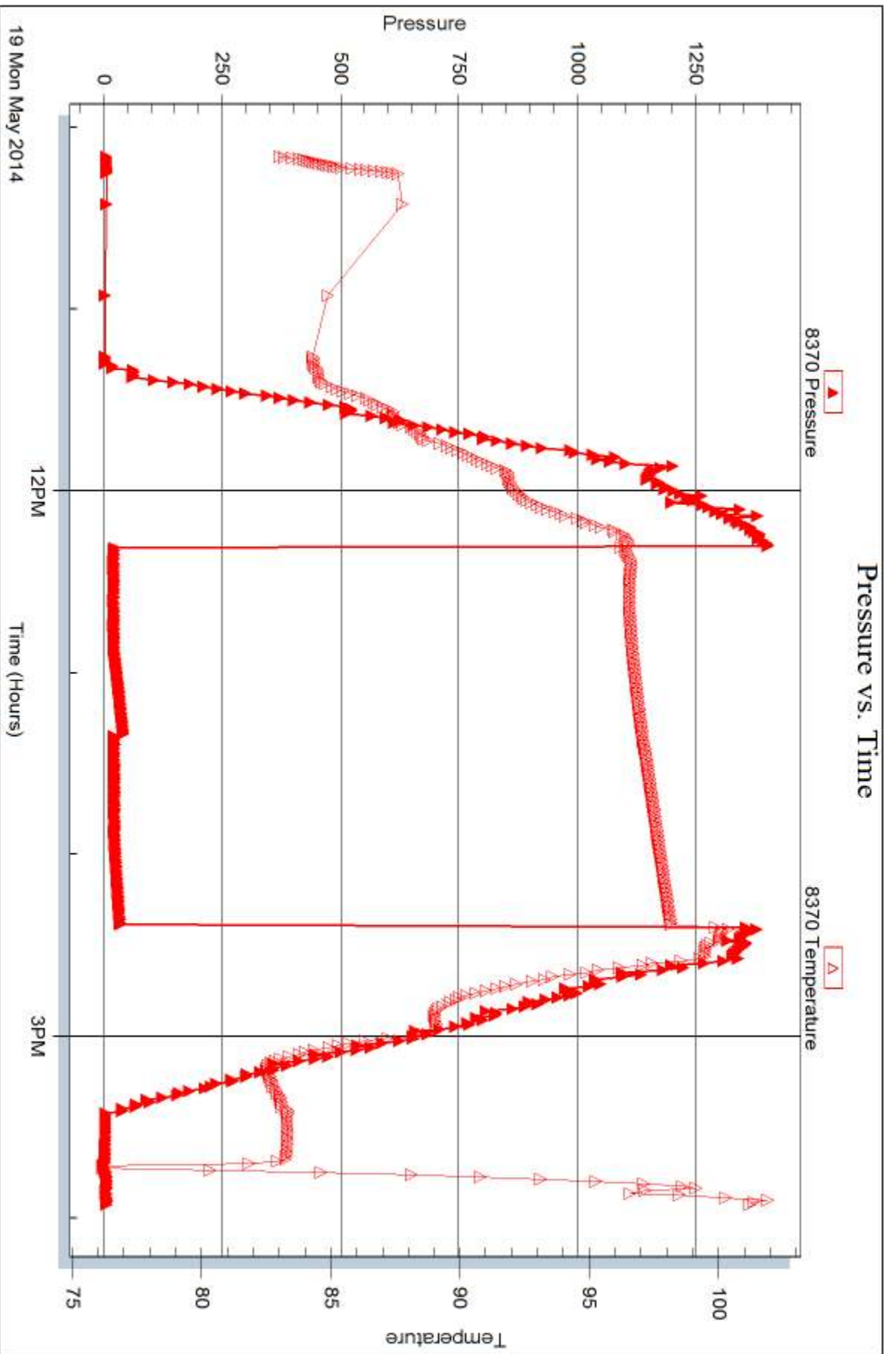
Serial #: 8370

Inside

Dow nng-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 54210

Printed: 2014.05.23 @ 09:36:27



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Mark Downing

**Barry Urban #1-17**

**17-16s-17w Rush,KS**

Start Date: 2014.05.20 @ 11:05:00

End Date: 2014.05.20 @ 17:13:00

Job Ticket #: 55279                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.23 @ 09:36:04

Downing-Nelson Oil Co.Inc.

17-16s-17w Rush,KS

Barry Urban #1-17

DST # 2

Toront - LKC "A"

2014.05.20



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

ATTN: Mark Dow ning

Job Ticket: 55279

**DST#: 2**

Test Start: 2014.05.20 @ 11:05:00

## GENERAL INFORMATION:

Formation: **Toront - LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 12:25:00  
 Time Test Ended: 17:13:00  
 Interval: **3209.00 ft (KB) To 3275.00 ft (KB) (TVD)**  
 Total Depth: 3275.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Bob Hamel  
 Unit No: 76  
 Reference Elevations: 1974.00 ft (KB)  
 1966.00 ft (CF)  
 KB to GR/CF: 8.00 ft

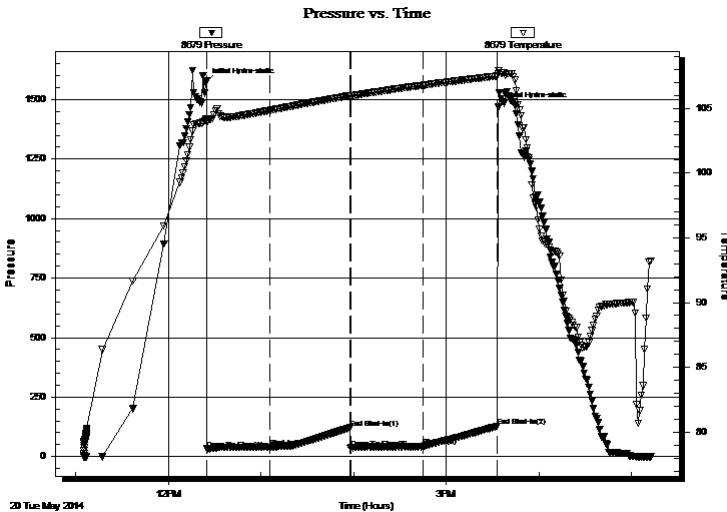
## Serial #: 8679

Inside

Press@RunDepth: 42.73 psig @ 3246.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.20 End Date: 2014.05.20 Last Calib.: 2014.05.20  
 Start Time: 11:05:01 End Time: 17:13:00 Time On Btm: 2014.05.20 @ 12:24:00  
 Time Off Btm: 2014.05.20 @ 15:34:00

TEST COMMENT: I.F. - 45 - Weak blow built to 5 1/4"  
 I.S.I. - 45 - Weak surface blow back died in 15 min  
 F.F. - 45 - Weak blow built to 6 1/2"  
 F.S.I. - 45 - No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1572.52	104.13	Initial Hydro-static
1	32.29	103.94	Open To Flow (1)
42	38.69	104.83	Shut-In(1)
94	120.67	105.97	End Shut-In(1)
94	35.80	105.94	Open To Flow (2)
141	42.73	106.78	Shut-In(2)
189	127.01	107.49	End Shut-In(2)
190	1471.69	107.93	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	O,C,M, 10%O 90%M	0.20

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 55279

**DST#: 2**

ATTN: Mark Dow ning

Test Start: 2014.05.20 @ 11:05:00

## GENERAL INFORMATION:

Formation: **Toront - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:25:00

Time Test Ended: 17:13:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bob Hamel

Unit No: 76

**Interval: 3209.00 ft (KB) To 3275.00 ft (KB) (TVD)**

Reference Elevations: 1974.00 ft (KB)

Total Depth: 3275.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Outside**

Press@RunDepth: psig @ 3246.00 ft (KB)

Start Date: 2014.05.20

End Date:

2014.05.20

Capacity: 8000.00 psig

Last Calib.:

2014.05.20

Start Time: 11:05:01

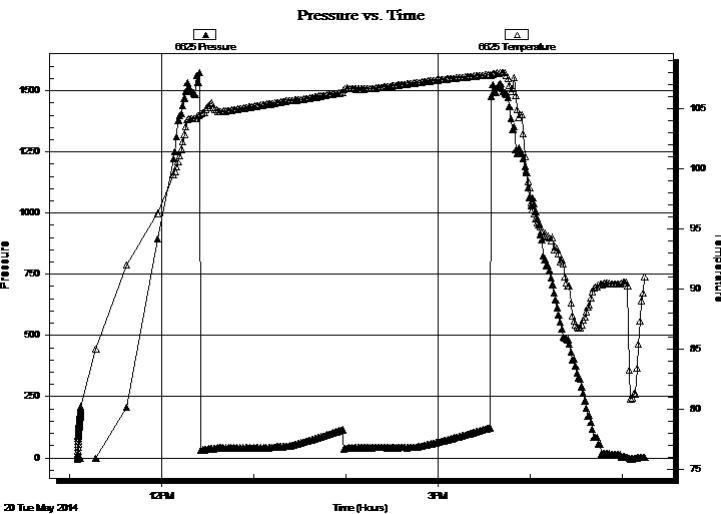
End Time:

17:14:30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** I.F. - 45 - Weak blow built to 5 1/4"  
I.S.I. - 45 - Weak surface blow back died in 15 min  
F.F. - 45 - Weak blow built to 6 1/2"  
F.S.I. - 45 - No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
35.00	O,C,M, 10%O 90%M	0.20

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 55279

**DST#: 2**

ATTN: Mark Dow ning

Test Start: 2014.05.20 @ 11:05:00

## Tool Information

Drill Pipe:	Length: 3170.00 ft	Diameter: 3.80 inches	Volume: 44.47 bbl	Tool Weight:	2400.00 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: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 44.63 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3209.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	66.00 ft				
Tool Length:	86.00 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			3190.00	
Shut In Tool	5.00			3195.00	
Hydraulic tool	5.00			3200.00	
Packer	4.00			3204.00	20.00 Bottom Of Top Packer
Packer	5.00			3209.00	
Stubb	1.00			3210.00	
Perforations	3.00			3213.00	
Change Over Sub	1.00			3214.00	
Drill Pipe	31.00			3245.00	
Change Over Sub	1.00			3246.00	
Recorder	0.00	6625	Outside	3246.00	
Recorder	0.00	8679	Inside	3246.00	
Perforations	25.00			3271.00	
Bullnose	4.00			3275.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 55279

**DST#: 2**

ATTN: Mark Dow ning

Test Start: 2014.05.20 @ 11:05:00

## 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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	O,C,M, 10%O 90%M	0.199

Total Length: 35.00 ft Total Volume: 0.199 bbl

Num Fluid Samples: 0

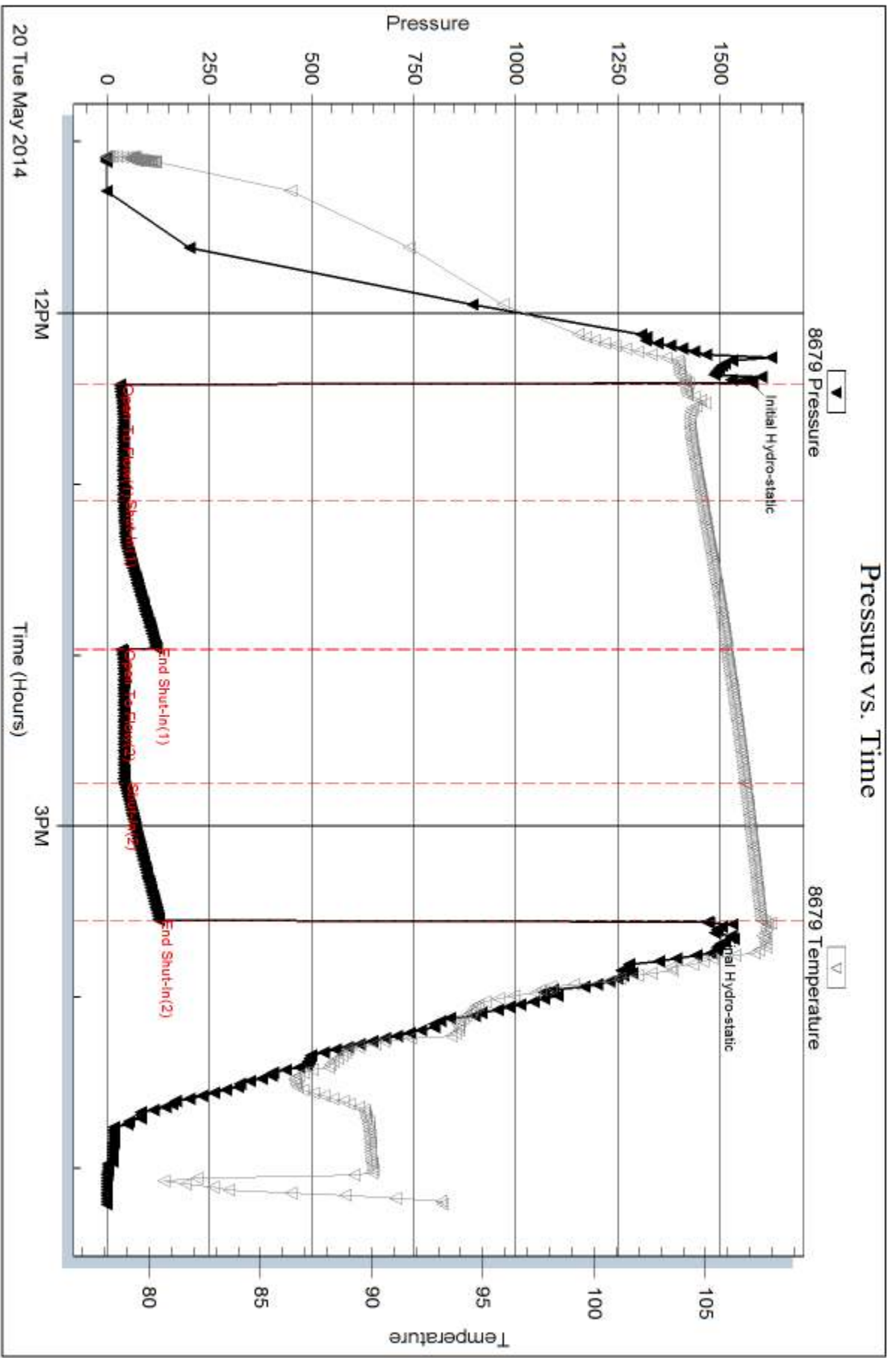
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

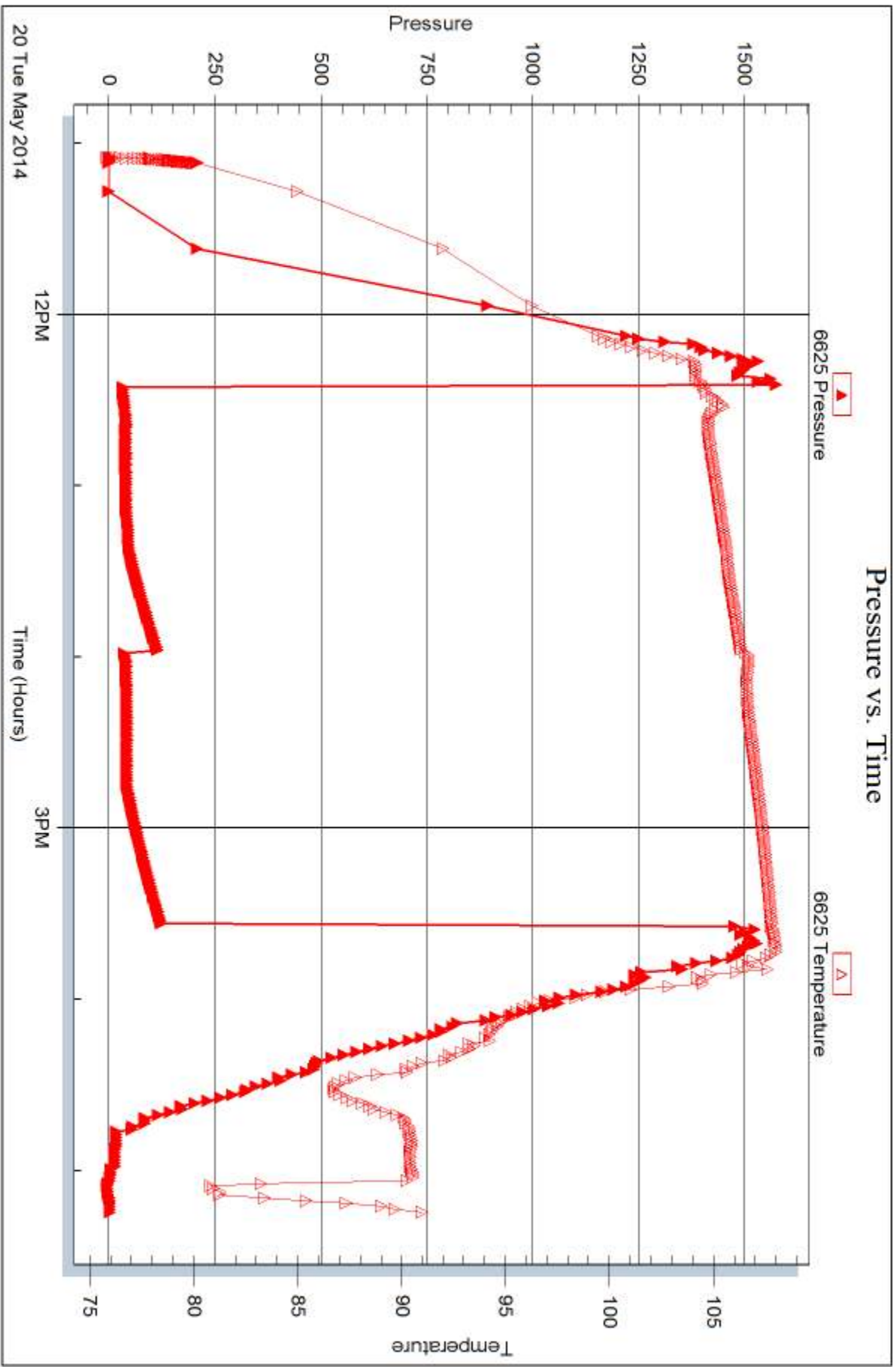


Serial #: 6625

Outside Dow nng-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 2





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Mark Downing

**Barry Urban #1-17**

**17-16s-17w Rush,KS**

Start Date: 2014.05.21 @ 00:13:00

End Date: 2014.05.21 @ 06:03:00

Job Ticket #: 58891                      DST #: 3

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

Printed: 2014.05.23 @ 09:35:43



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58891

**DST#: 3**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 00:13:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:36:30

Time Test Ended: 06:03:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

**Interval: 3292.00 ft (KB) To 3317.00 ft (KB) (TVD)**

Reference Elevations: 1974.00 ft (KB)

Total Depth: 3317.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8679 Outside**

Press@RunDepth: 17.45 psig @ 3293.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.21

End Date:

2014.05.21

Last Calib.:

2014.05.21

Start Time: 00:13:01

End Time:

06:03:00

Time On Btm:

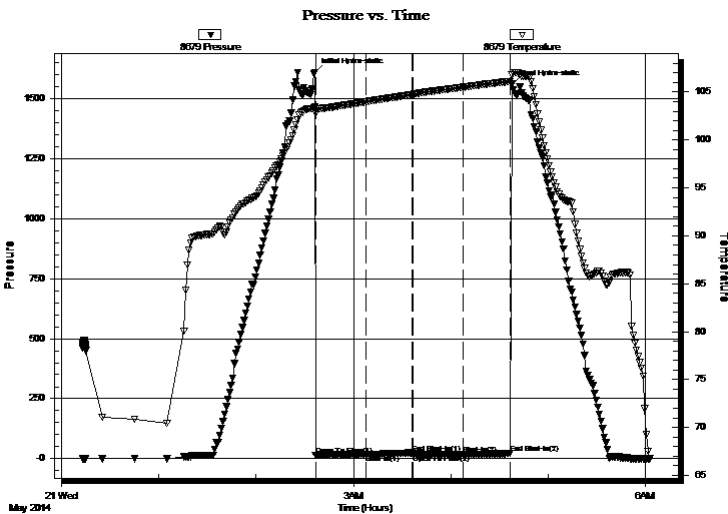
2014.05.21 @ 02:36:00

Time Off Btm:

2014.05.21 @ 04:37:30

TEST COMMENT: 30-IF-Built to 1/4"  
30-ISI-No Return  
30-FF-No Blow  
30-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.35	103.43	Initial Hydro-static
1	14.39	102.79	Open To Flow (1)
32	16.48	103.98	Shut-In(1)
60	24.31	104.73	End Shut-In(1)
61	17.50	104.74	Open To Flow (2)
92	17.45	105.50	Shut-In(2)
121	21.16	106.11	End Shut-In(2)
122	1561.35	106.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	M, 100% m, with oil spots	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58891

**DST#: 3**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 00:13:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:36:30

Time Test Ended: 06:03:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

**Interval: 3292.00 ft (KB) To 3317.00 ft (KB) (TVD)**

Reference Elevations: 1974.00 ft (KB)

Total Depth: 3317.00 ft (KB) (TVD)

1966.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press@RunDepth: psig @ 3293.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.05.21 End Date: 2014.05.21

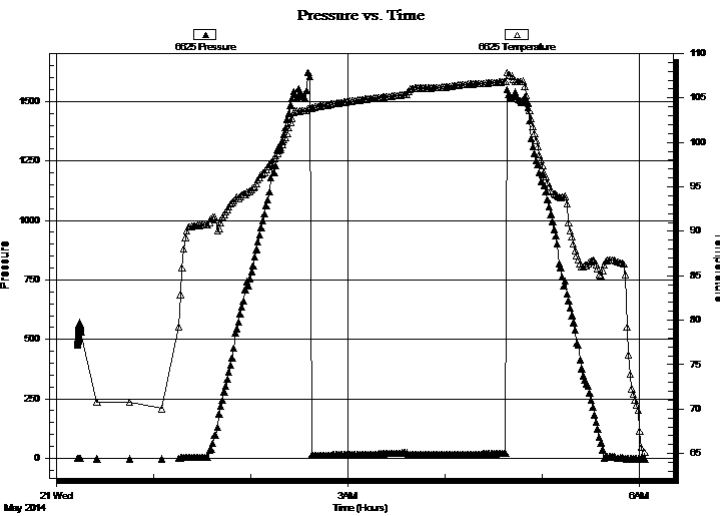
Last Calib.: 2014.05.21

Start Time: 00:13:01 End Time: 06:04:00

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IF-Built to 1/4"  
30-ISI-No Return  
30-FF-No Blow  
30-FSI-No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	M, 100%m, with oil spots	0.01

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58891

**DST#: 3**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 00:13:00

## Tool Information

Drill Pipe:	Length: 3265.00 ft	Diameter: 3.80 inches	Volume: 45.80 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:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 45.95 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3292.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	25.00 ft				
Tool Length:	45.00 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			3273.00	
Shut In Tool	5.00			3278.00	
Hydraulic tool	5.00			3283.00	
Packer	4.00			3287.00	20.00 Bottom Of Top Packer
Packer	5.00			3292.00	
Stubb	1.00			3293.00	
Recorder	0.00	8679	Outside	3293.00	
Recorder	0.00	6625	Inside	3293.00	
Perforations	20.00			3313.00	
Bullnose	4.00			3317.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>45.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58891

**DST#: 3**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 00:13:00

### 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: 49.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
3.00	M, 100% m, with oil spots	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

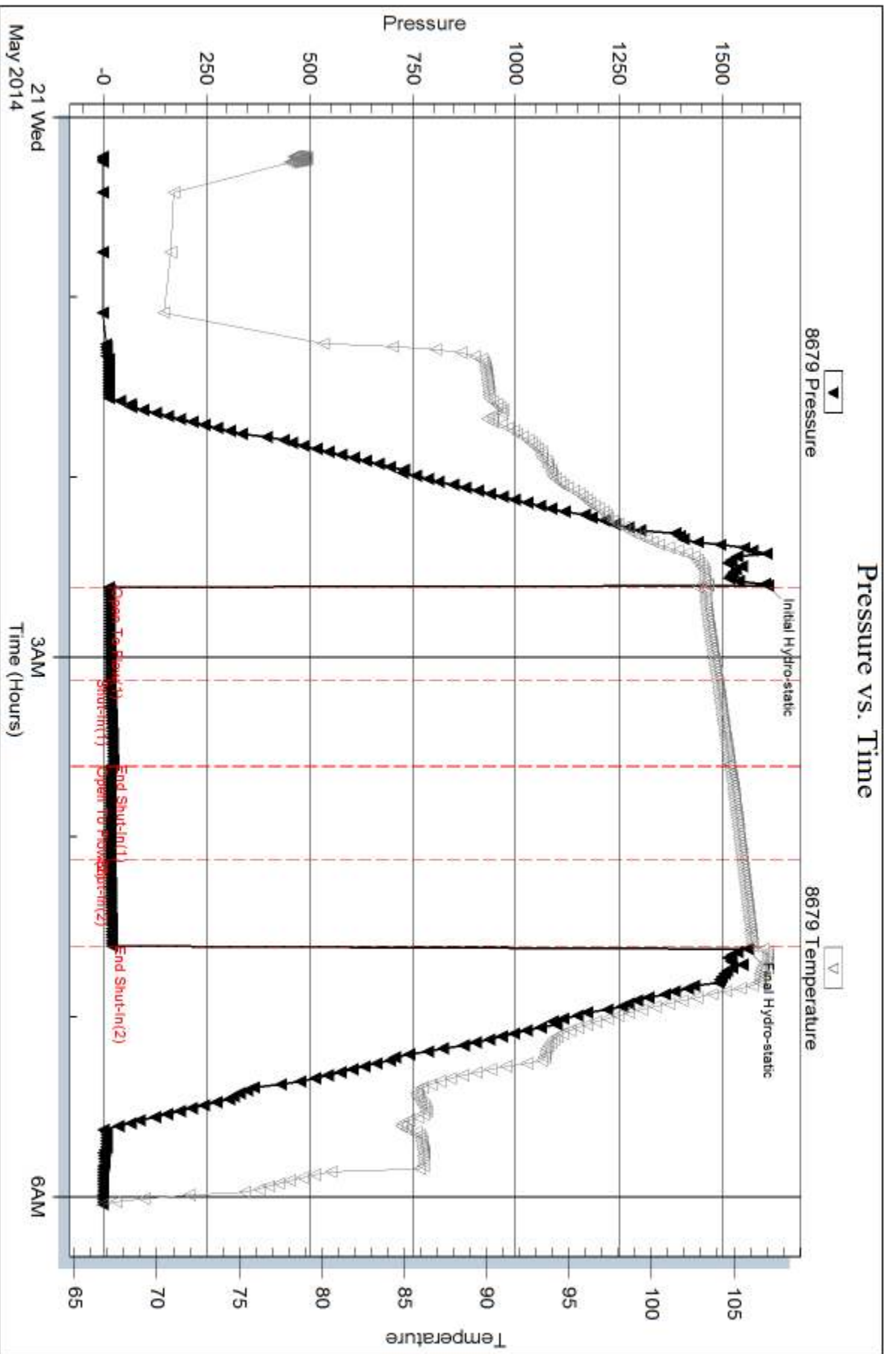


Serial #: 8679

Outside Dow nrg-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 58891

Printed: 2014.05.23 @ 09:35:44

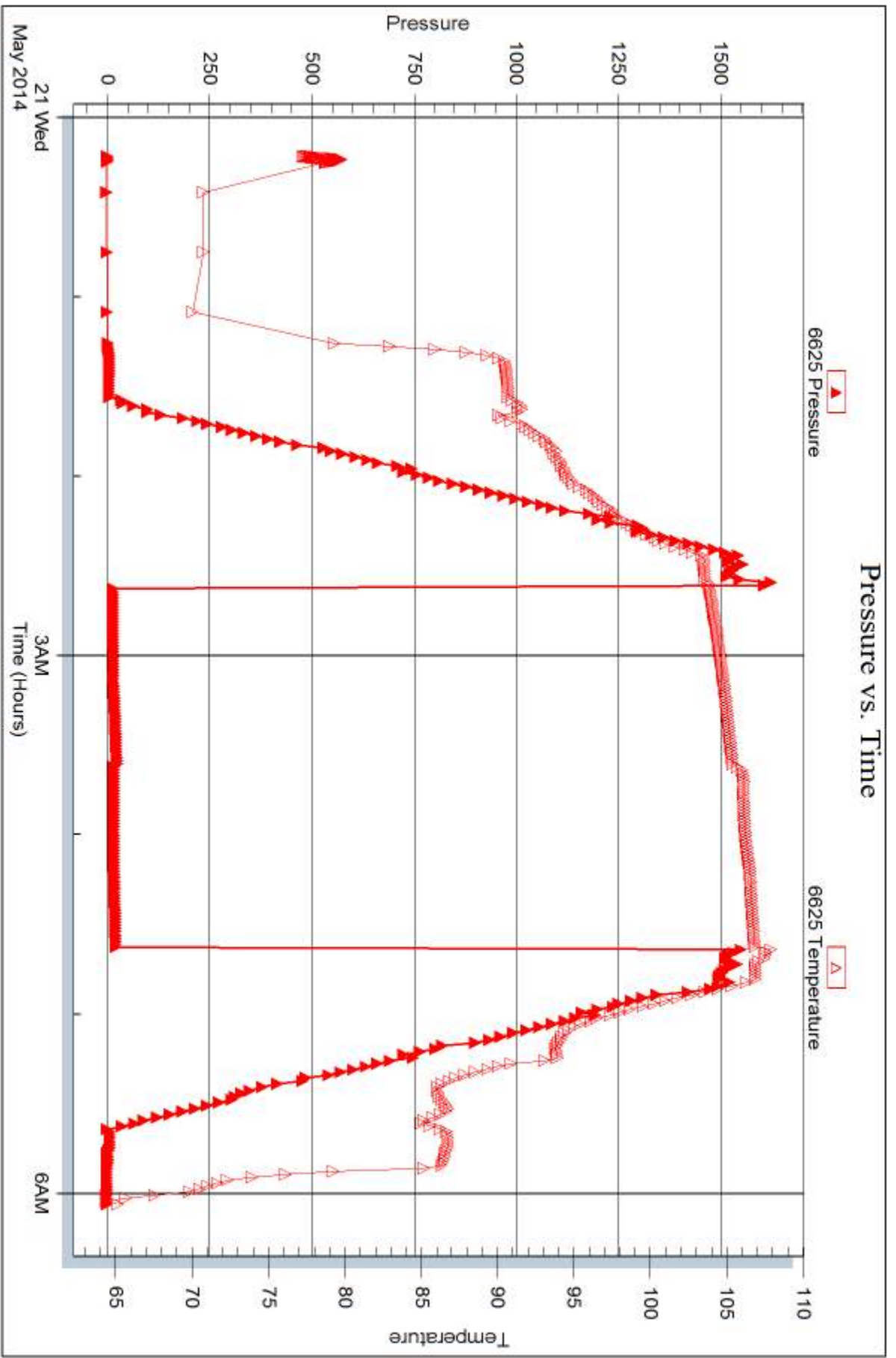
Serial #: 6625

Inside

Dow nrg-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 58891

Printed: 2014.05.23 @ 09:35:44



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Mark Downing

**Barry Urban #1-17**

**17-16s-17w Rush,KS**

Start Date: 2014.05.21 @ 11:48:00

End Date: 2014.05.21 @ 18:41:00

Job Ticket #: 58892                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.23 @ 09:35:00

Downing-Nelson Oil Co.Inc.

17-16s-17w Rush,KS

Barry Urban #1-17

DST # 4

LKC "E"

2014.05.21



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58892

**DST#: 4**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 11:48:00

## GENERAL INFORMATION:

Formation: **LKC "E"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:50:30  
 Time Test Ended: 18:41:00  
 Interval: **3312.00 ft (KB) To 3330.00 ft (KB) (TVD)**  
 Total Depth: 3330.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Phillip  
 Unit No: 67  
 Reference Elevations: 1974.00 ft (KB)  
 1966.00 ft (CF)  
 KB to GR/CF: 8.00 ft

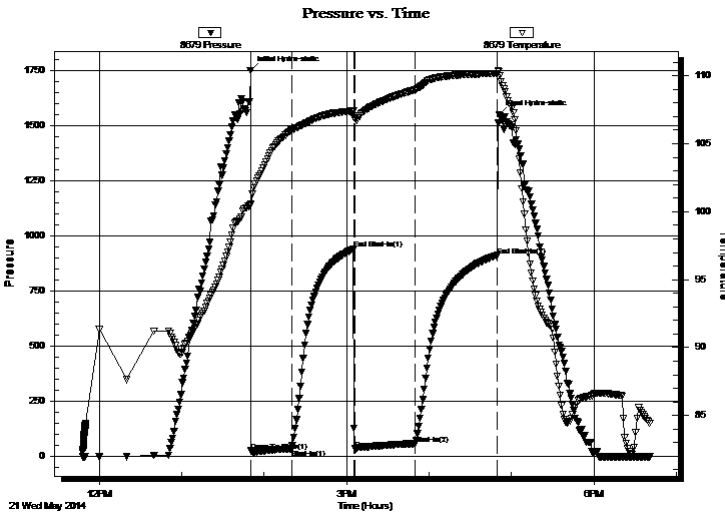
## Serial #: 8679

Outside

Press@RunDepth: 57.83 psig @ 3313.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.21 End Date: 2014.05.21 Last Calib.: 2014.05.21  
 Start Time: 11:48:01 End Time: 18:41:00 Time On Btm: 2014.05.21 @ 13:50:00  
 Time Off Btm: 2014.05.21 @ 16:51:00

TEST COMMENT: 30-IF-BOB in 4 mins  
 45-ISI-No Return  
 45-FF-BOB in 30 secs  
 60-FSI-No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1749.98	100.52	Initial Hydro-static
1	26.34	100.59	Open To Flow (1)
30	35.80	105.99	Shut-In(1)
75	939.81	107.41	End Shut-In(1)
76	35.80	106.87	Open To Flow (2)
120	57.83	108.96	Shut-In(2)
180	911.94	110.17	End Shut-In(2)
181	1550.59	110.34	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	VSGMWCO, 5%g, 5%m, 5%w, 85%o	0.61
63.00	SMWEG, 10%m, 10%w, 40%e, 40%g	0.88
0.00	1890' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58892

**DST#: 4**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 11:48:00

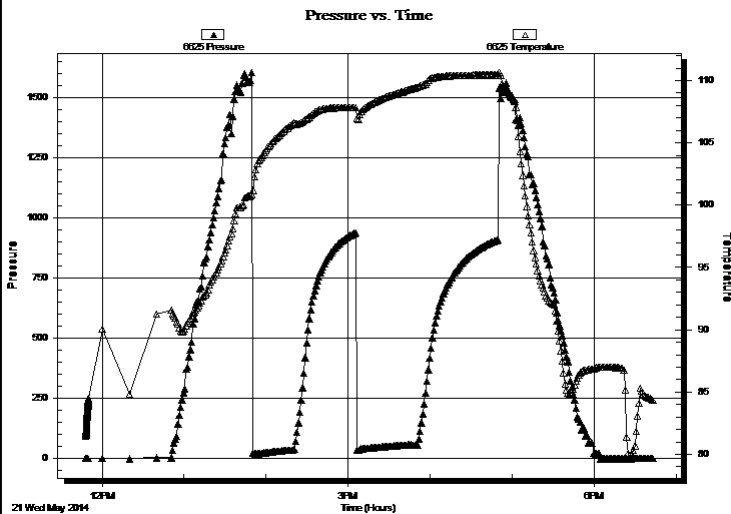
## GENERAL INFORMATION:

Formation: **LKC "E"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:50:30  
Time Test Ended: 18:41:00  
Interval: **3312.00 ft (KB) To 3330.00 ft (KB) (TVD)**  
Total Depth: 3330.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Phillip  
Unit No: 67  
Reference Elevations: 1974.00 ft (KB)  
1966.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 6625** Inside

Press@RunDepth: psig @ 3313.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2014.05.21 End Date: 2014.05.21 Last Calib.: 2014.05.21  
Start Time: 11:48:01 End Time: 18:42:30 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IF-BOB in 4 mins  
45-ISI-No Return  
45-FF-BOB in 30 secs  
60-FSI-No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	VSGMWCO, 5%g, 5%m, 5%w, 85%o	0.61
63.00	SMWEG, 10%m, 10%w, 40%e, 40%g	0.88
0.00	1890' GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58892

**DST#: 4**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 11:48:00

## Tool Information

Drill Pipe:	Length: 3296.00 ft	Diameter: 3.80 inches	Volume: 46.23 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:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 46.38 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	34.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3312.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	18.00 ft				
Tool Length:	38.00 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			3293.00	
Shut In Tool	5.00			3298.00	
Hydraulic tool	5.00			3303.00	
Packer	4.00			3307.00	20.00 Bottom Of Top Packer
Packer	5.00			3312.00	
Stubb	1.00			3313.00	
Recorder	0.00	8679	Outside	3313.00	
Recorder	0.00	6625	Inside	3313.00	
Perforations	13.00			3326.00	
Bullnose	4.00			3330.00	18.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>38.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58892

**DST#: 4**

ATTN: Mark Dow ning

Test Start: 2014.05.21 @ 11:48:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	VSGMWCO, 5%g, 5%m, 5%w , 85%o	0.610
63.00	SMWEG, 10%m, 10%w , 40%e, 40%g	0.884
0.00	1890' GIP	0.000

Total Length: 126.00 ft

Total Volume: 1.494 bbl

Num Fluid Samples: 0

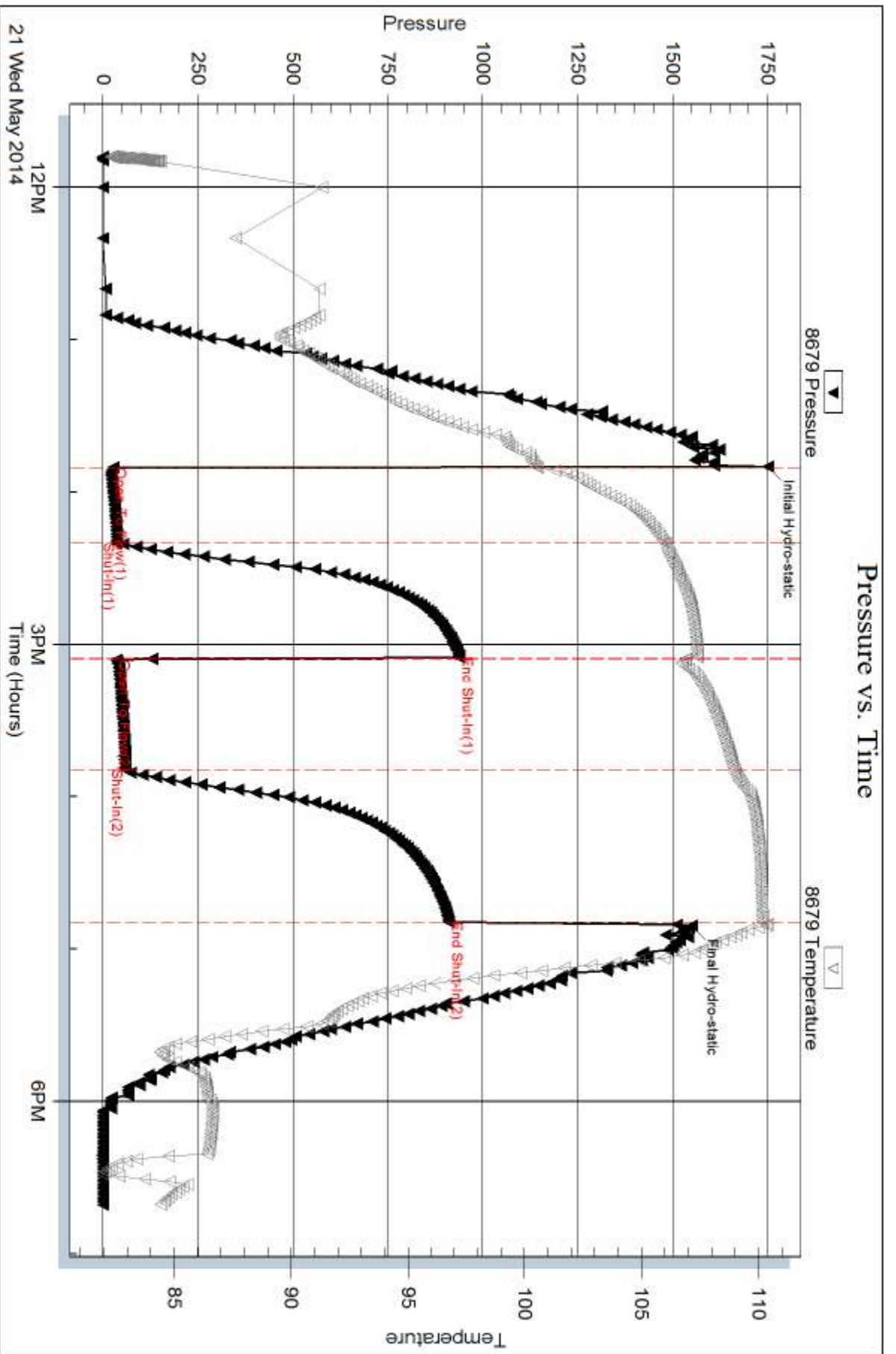
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





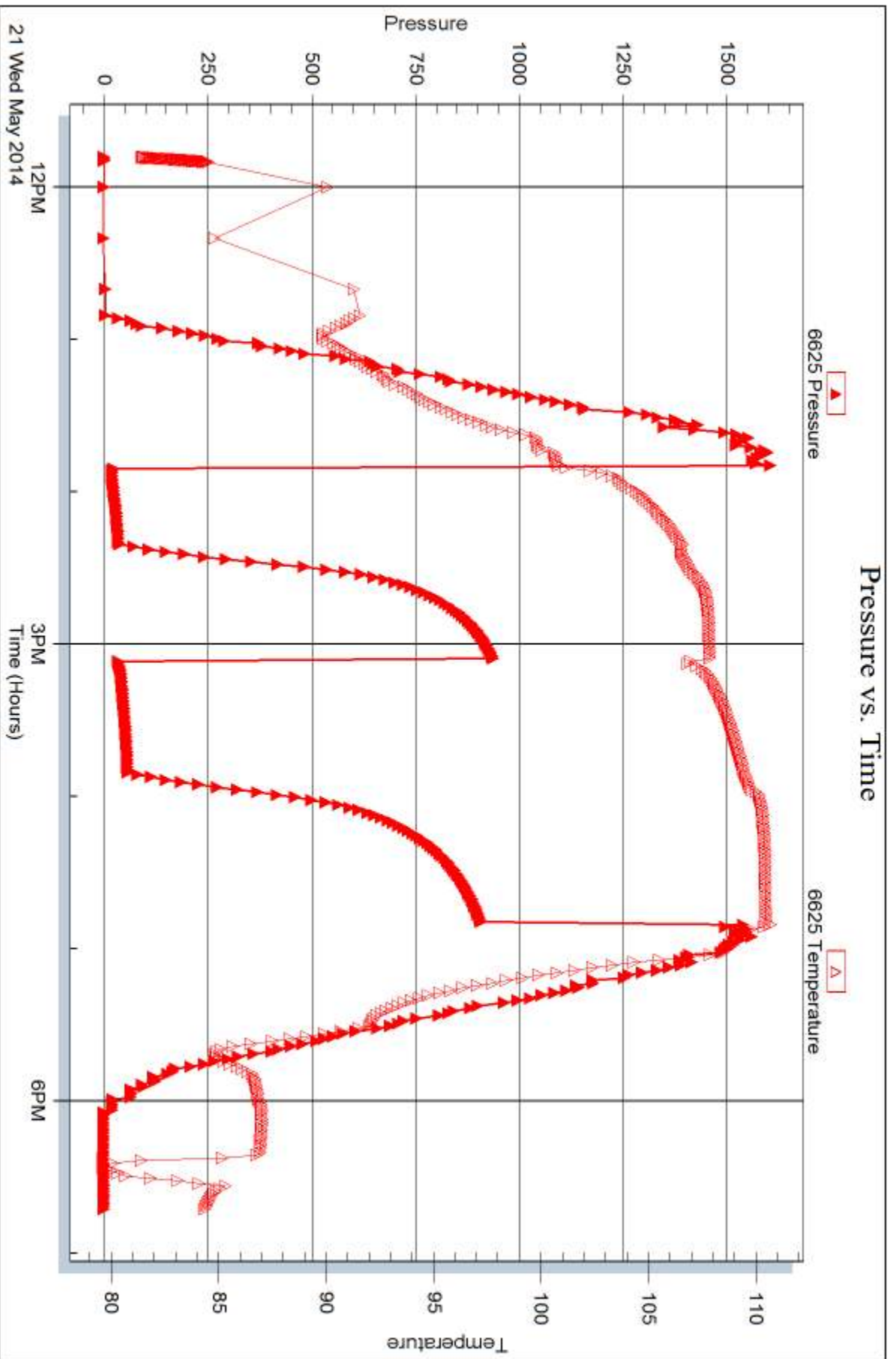
Serial #: 6625

Inside

Dow nrg-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 4



Trilobite Testing, Inc

Ref. No: 58892

Printed: 2014.05.23 @ 09:35:01



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Mark Downing

**Barry Urban #1-17**

**17-16s-17w Rush,KS**

Start Date: 2014.05.22 @ 05:02:00

End Date: 2014.05.22 @ 12:57:00

Job Ticket #: 58893                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.05.23 @ 09:34:46



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58893

**DST#: 5**

ATTN: Mark Dow ning

Test Start: 2014.05.22 @ 05:02:00

## GENERAL INFORMATION:

Formation: **LKC "H-J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:37:30  
 Time Test Ended: 12:57:00  
 Interval: **3376.00 ft (KB) To 3442.00 ft (KB) (TVD)**  
 Total Depth: 3442.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Phillip Gage  
 Unit No: 67  
 Reference Elevations: 1974.00 ft (KB)  
 1966.00 ft (CF)  
 KB to GR/CF: 8.00 ft

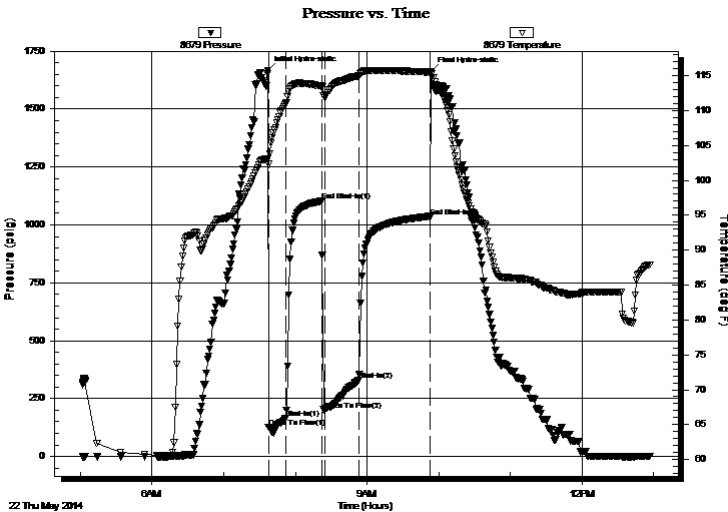
## Serial #: 8679

**Outside**

Press@RunDepth: 328.77 psig @ 3377.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.22 End Date: 2014.05.22 Last Calib.: 2014.05.22  
 Start Time: 05:02:01 End Time: 12:57:00 Time On Btm: 2014.05.22 @ 07:37:00  
 Time Off Btm: 2014.05.22 @ 09:53:30

TEST COMMENT: 15-IF-BOB in 1 min.  
 30-ISI-BOB in 5 mins.  
 30-FF-BOB Instantly  
 60-FSI-BOB in 4 mins.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.95	103.10	Initial Hydro-static
1	127.41	102.31	Open To Flow (1)
15	165.92	110.99	Shut-In(1)
45	1103.31	113.52	End Shut-In(1)
48	198.50	111.88	Open To Flow (2)
76	328.77	114.98	Shut-In(2)
136	1036.42	115.47	End Shut-In(2)
137	1661.00	115.60	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	VSMOCG, 5% m, 40% o, 65% g	0.61
441.00	VSWMGCO, 5% w, 20% m, 25% g, 50% o	6.19
189.00	VSMGCO, 5% m, 10% g, 85% o	2.65
126.00	SMGCO, 10% m, 30% g, 60% o	1.77
31.00	GOCM, 15% g, 15% o, 70% m	0.43
0.00	2509' GIP (Gas to Surface)	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

ATTN: Mark Dow ning

Job Ticket: 58893

**DST#: 5**

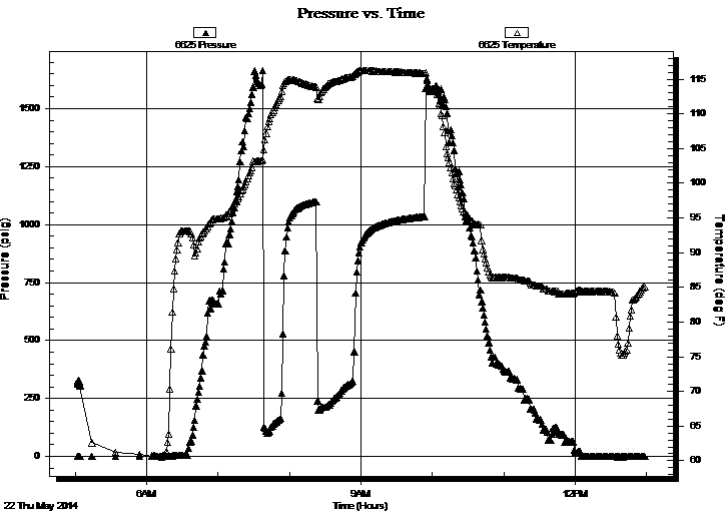
Test Start: 2014.05.22 @ 05:02:00

## GENERAL INFORMATION:

Formation: **LKC "H-J"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 07:37:30  
 Tester: Phillip Gage  
 Time Test Ended: 12:57:00  
 Unit No: 67  
**Interval: 3376.00 ft (KB) To 3442.00 ft (KB) (TVD)**  
 Reference Elevations: 1974.00 ft (KB)  
 Total Depth: 3442.00 ft (KB) (TVD)  
 1966.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 KB to GR/CF: 8.00 ft

**Serial #: 6625** **Inside**  
 Press@RunDepth: psig @ 3377.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.05.22 End Date: 2014.05.22 Last Calib.: 2014.05.22  
 Start Time: 05:02:01 End Time: 12:58:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 15-IF-BOB in 1 min.  
 30-ISI-BOB in 5 mins.  
 30-FF-BOB Instantly  
 60-FSI-BOB in 4 mins.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	VSMOCG, 5%m, 40%o, 65%g	0.61
441.00	VSWMGCO, 5%w, 20%m, 25%g, 50%o	6.19
189.00	VSMGCO, 5%m, 10%g, 85%o	2.65
126.00	SMGCO, 10%m, 30%g, 60%o	1.77
31.00	GOCM, 15%g, 15%o, 70%m	0.43
0.00	2509' GIP (Gas to Surface)	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**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58893

**DST#: 5**

ATTN: Mark Dow ning

Test Start: 2014.05.22 @ 05:02:00

## Tool Information

Drill Pipe:	Length: 3359.00 ft	Diameter: 3.80 inches	Volume: 47.12 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: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 47.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3376.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	66.00 ft			
Tool Length:	86.00 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			3357.00	
Shut In Tool	5.00			3362.00	
Hydraulic tool	5.00			3367.00	
Packer	4.00			3371.00	20.00 Bottom Of Top Packer
Packer	5.00			3376.00	
Stubb	1.00			3377.00	
Recorder	0.00	8679	Outside	3377.00	
Recorder	0.00	6625	Inside	3377.00	
Perforations	28.00			3405.00	
Change Over Sub	1.00			3406.00	
Drill Pipe	31.00			3437.00	
Change Over Sub	1.00			3438.00	
Bullnose	4.00			3442.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 86.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co.Inc.

**17-16s-17w Rush,KS**

PO Box 1019  
Hays KS 67601

**Barry Urban #1-17**

Job Ticket: 58893

**DST#: 5**

ATTN: Mark Dow ning

Test Start: 2014.05.22 @ 05:02:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	VSMOOG, 5%m, 40%o, 65%g	0.610
441.00	VSWMGCO, 5%w, 20%m, 25%g, 50%o	6.186
189.00	VSMGCO, 5%m, 10%g, 85%o	2.651
126.00	SMGCO, 10%m, 30%g, 60%o	1.767
31.00	GOCM, 15%g, 15%o, 70%m	0.435
0.00	2509' GIP (Gas to Surface)	0.000

Total Length: 850.00 ft

Total Volume: 11.649 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

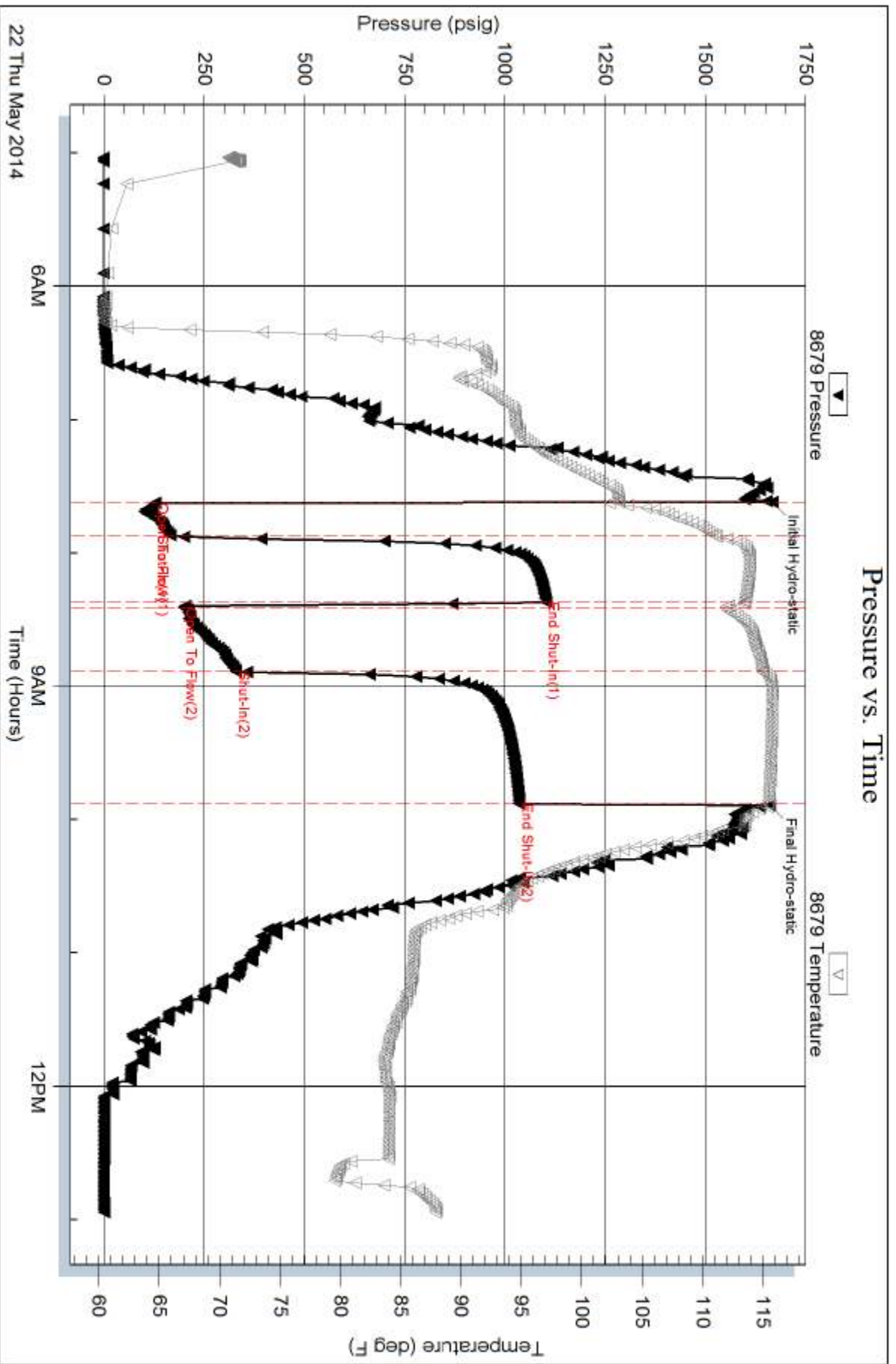
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



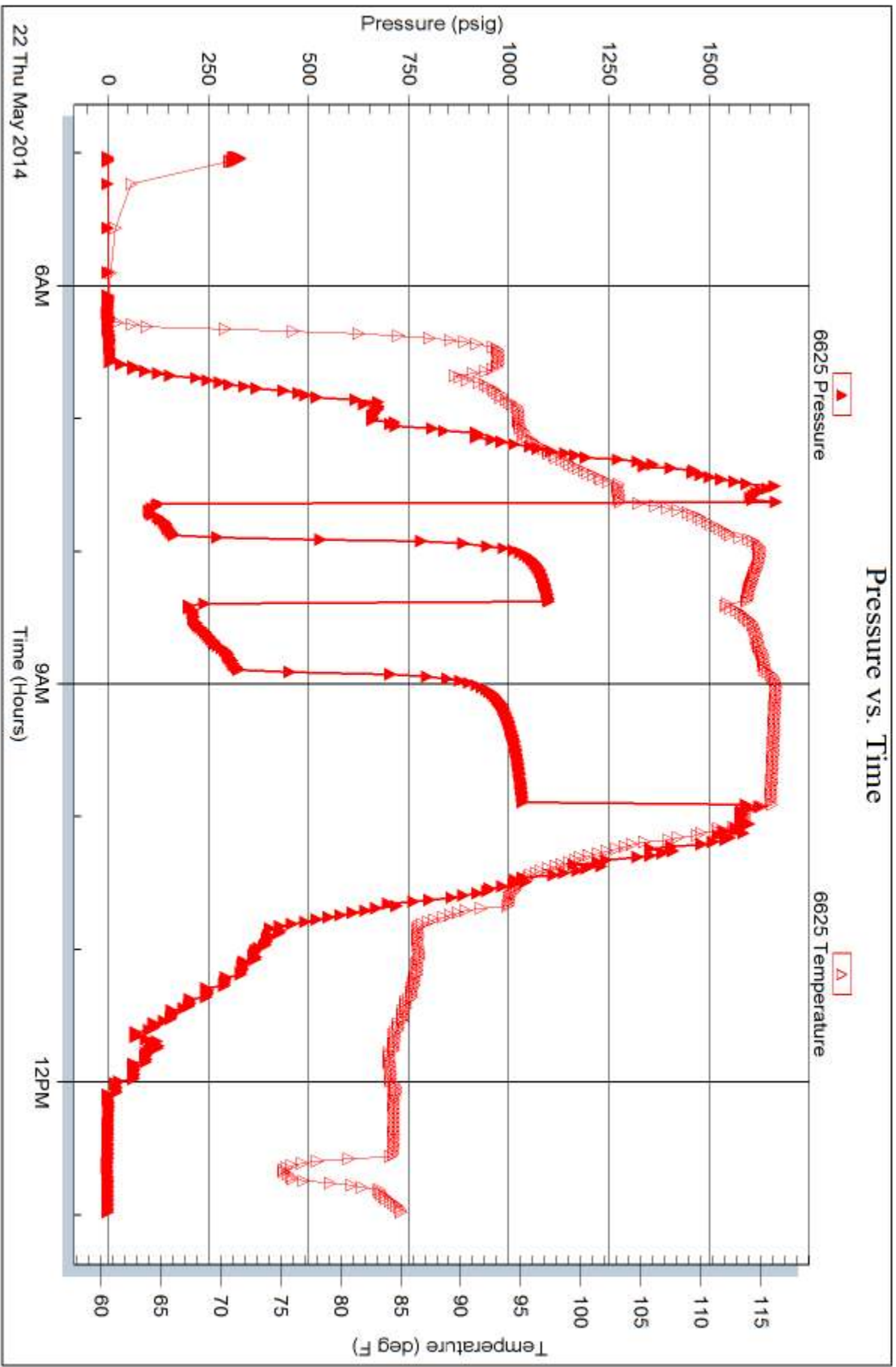
Serial #: 6625

Inside

Dow nrg-Nelson Oil Co, Inc.

Barry Urban #1-17

DST Test Number: 5







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54210

Well Name & No. BARRY URBAN # 1-17 Test No. 1 Date 5-19-14  
 Company Downing-Nelson Oil Co. Inc. Elevation 1974 KB 1966 GL  
 Address P.O. Box 1019, Hays Ks. 67601  
 Co. Rep / Geo. MARK DOWNING Rig DISCOVERY DRILL # 3  
 Location: Sec. 17 Twp. 16 S Rge. 17 W Co. IRUSH State Ks.

Interval Tested 2968 - 2992' Zone Tested TUPEKA  
 Anchor Length 24' Drill Pipe Run 2948' Mud Wt. 8.7  
 Top Packer Depth 2963' Drill Collars Run 30' Vis S3  
 Bottom Packer Depth 2968' Wt. Pipe Run 0 WL 8.0 cc  
 Total Depth 2992' Chlorides 2500 ppm System LCM 2#  
 Blow Description IF: Weak blow. 1/2 - 2 1/4" ISF: No blow.

FF: Weak blow. 1/2 - 1 1/2" FSI: No blow.

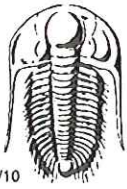
Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Gas in pipe</u>				
<u>20</u>	<u>Mud w/o specs.</u>				

Rec Total 20 Fluid BHT 98° Gravity N/A API RW N.C. @ 2 °F Chlorides 2500 ppm

(A) Initial Hydrostatic 1399  Test 1150 T-On Location 0916  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 1014  
 (C) First Final Flow 20  Safety Joint \_\_\_\_\_ T-Open 1219  
 (D) Initial Shut-In 36  Circ Sub \_\_\_\_\_ T-Pulled 1422  
 (E) Second Initial Flow 17  Hourly Standby \_\_\_\_\_ T-Out 1558  
 (F) Second Final Flow 20  Mileage 180 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 32  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1375  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 30  Day Standby \_\_\_\_\_ Total 1221.30  
 Final Shut-In 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1221.30

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 55279

Well Name & No. Barry Urban # 1-17 Test No. 2 Date 5-20-14  
 Company Downing-Nelson Oil Co. INC. Elevation 1974 KB 1966 GL  
 Address P.O. Box 1019 Hays KS, 67601  
 Co. Rep / Geo. Mark Downing Rig Discovery #3  
 Location: Sec. 17 Twp. 16-S. Rge. 17 W. Co. Rush State KS.

Interval Tested 3209-3275 Zone Tested Toronto - L.K.C. "A"  
 Anchor Length 66' Drill Pipe Run 3170' Mud Wt. 9  
 Top Packer Depth 3204 Drill Collars Run 32- Vis 49  
 Bottom Packer Depth 3209 Wt. Pipe Run --- WL 8.8  
 Total Depth 3275 Chlorides 5,000 ppm System LCM 1

Blow Description I.F. - 45 - 1/2" INT. Blow Built to 4 5/8" in 45 min.  
I.S.I. - 45 - W.S.B.B. Started @ 9 min. Built to 4" died in 15 min.  
F.F. - 45 - 3/4" INT. Blow Built to 6 1/2" in 45 min.  
F.S.I. - 45 - No B.B.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>35</u>	Feet of <u>O,C,M</u>		<u>10</u> %oil		<u>90</u> %mud
Rec _____	Feet of _____		%oil	%water	%mud
Rec _____	Feet of _____		%oil	%water	%mud
Rec _____	Feet of _____		%oil	%water	%mud

Rec Total 35 BHT 108 Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic 1,573  Test 1150 T-On Location 10:25:00  
 (B) First Initial Flow 32  Jars \_\_\_\_\_ T-Started 11:05:00  
 (C) First Final Flow 39  Safety Joint \_\_\_\_\_ T-Open 12:37:00  
 (D) Initial Shut-In 121  Circ Sub \_\_\_\_\_ T-Pulled 15:37:00  
 (E) Second Initial Flow 36  Hourly Standby \_\_\_\_\_ T-Out 17:25:00  
 (F) Second Final Flow 43  Mileage 50 I.R.T. 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 127  Sampler \_\_\_\_\_ Thank-you  
 (H) Final Hydrostatic 1,472  Straddle \_\_\_\_\_  Ruined Shale Packer  
 Shale Packer \_\_\_\_\_  Ruined Packer  
 Extra Packer \_\_\_\_\_  Extra Copies  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1221.30  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1221.30

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58891

4/10

Well Name & No. Barry Urban #1-17 Test No. 3 Date 5-21-14  
 Company Downing-Nelson Oil Co, Inc Elevation 1974 KB 1966 GL  
 Address P.O. Box 1019 Hays, KS 67601  
 Co. Rep / Geo. Mark Downing Rig Discovery Rig 3  
 Location: Sec. 17 Twp. 16s Rge. 17w Co. Rush State KS

Interval Tested 3292-3317 Zone Tested LKC "D"  
 Anchor Length 25' Drill Pipe Run 3265 Mud Wt. 9  
 Top Packer Depth 3287 Drill Collars Run 30 Vis 49  
 Bottom Packer Depth 3292 Wt. Pipe Run 0 WL 8.8  
 Total Depth 3317 Chlorides 5,000 ppm System LCM 1#

Blow Description IT - Built to 1/4"  
ISI No Return  
FF No Blow  
FST No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>3'</u>	<u>M, with oil spots</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

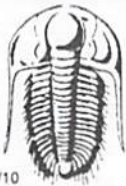
Rec Total 3' BHT 106 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1610  Test 1150 T-On Location 00:08  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 00:13  
 (C) First Final Flow 16  Safety Joint \_\_\_\_\_ T-Open 02:37  
 (D) Initial Shut-In 24  Circ Sub \_\_\_\_\_ T-Pulled 04:37  
 (E) Second Initial Flow 17  Hourly Standby \_\_\_\_\_ T-Out 06:04  
 (F) Second Final Flow 17  Mileage 46 RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 21  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1561  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 30  Day Standby \_\_\_\_\_ Total 1221.30  
 Final Shut-In 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1221.30

Approved By \_\_\_\_\_ Our Representative Paul G. [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58892

4/10

Well Name & No. Barry Urban #1-17 Test No. 4 Date 5-21-14  
 Company Downing - Nelson Oil Co. Inc Elevation 1974 KB 1966 GL  
 Address P.O. Box 1019 Hays, KS 67601  
 Co. Rep / Geo. Mark Downing Rig Discovery Rig 3  
 Location: Sec. 17 Twp. 16S Rge. 17W Co. Rush State KS

Interval Tested 3312 - 3330 Zone Tested LKL "E"  
 Anchor Length 18' Drill Pipe Run 3296 Mud Wt. 9  
 Top Packer Depth 3307 Drill Collars Run 30 Vis 49  
 Bottom Packer Depth 3312 Wt. Pipe Run 0 WL 10.4  
 Total Depth 3330 Chlorides 7000 ppm System LCM 1#

Blow Description IF - BOB in 4 mins  
ISI - No Return  
FF - BOB in 30 secs  
FST - No Return

Rec	Feet of	%gas	%oil	%water	%mud
63'	VSGMWCO	5	85	5	5
63'	SMWEG	40% E	40	10	10
<del>18400</del>	1890 GIP	100			

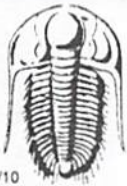
Rec Total 2016 BHT 110 Gravity 32 API RW @ °F Chlorides  ppm

(A) Initial Hydrostatic 1749  Test 1150 T-On Location 11:45  
 (B) First Initial Flow 26  Jars \_\_\_\_\_ T-Started 11:48  
 (C) First Final Flow 35  Safety Joint \_\_\_\_\_ T-Open 13:51  
 (D) Initial Shut-In 939  Circ Sub \_\_\_\_\_ T-Pulled 16:51  
 (E) Second Initial Flow 35  Hourly Standby \_\_\_\_\_ T-Out 18:43  
 (F) Second Final Flow 57  Mileage 46 RT 71.30 Comments \_\_\_\_\_  
 (G) Final Shut-In 911  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1550  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 60  Day Standby \_\_\_\_\_ Total 1221.30  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1221.30

Approved By \_\_\_\_\_ Our Representative Phillip Gog Thank You

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58893

4/10

Well Name & No. Barry Urban #1-17 Test No. 5 Date 5-22-14  
 Company Downing-Nelson Oil Co, Inc Elevation 1974 KB 1966 GL  
 Address P.O. Box 1019 Hays, KS 67601  
 Co. Rep / Geo. Mark Downing Rig Discovery Rig 3  
 Location: Sec. 17 Twp. 16s Rge. 17w Co. Rush State KS

Interval Tested 3376 - 3442 Zone Tested LKL "H-J"  
 Anchor Length 66' Drill Pipe Run 3359 Mud Wt. 9  
 Top Packer Depth 3371 Drill Collars Run 30 Vis 49  
 Bottom Packer Depth 3376 Wt. Pipe Run 0 WL 10.4  
 Total Depth 3442 Chlorides 7,000 ppm System LCM 1#

Blow Description IF BOB in 1 min.  
ISF BOB in 5 min  
FF - BOB instantly  
FSF BOB in 4 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>63'</u>	<u>VSMOCC</u>	<u>65</u>	<u>40</u>	<u>5</u>	<u>5</u>
<u>441'</u>	<u>VSWMGCO</u>	<u>25</u>	<u>50</u>	<u>5</u>	<u>20</u>
<u>189'</u>	<u>VSMGCO</u>	<u>10</u>	<u>85</u>	<u>5</u>	<u>5</u>
<u>126'</u>	<u>SMGCO</u>	<u>30</u>	<u>60</u>	<u>10</u>	<u>10</u>
<u>31</u>	<u>GOCM</u>	<u>15</u>	<u>15</u>	<u>90</u>	<u>90</u>

Rec Total 850 2509 - GTP (Gas to surface) BHT 115 Gravity 37 API RW 100% gas °F Chlorides — ppm

(A) Initial Hydrostatic 1666  Test 1150 T-On Location 05:00  
 (B) First Initial Flow 127  Jars \_\_\_\_\_ T-Started 05:02  
 (C) First Final Flow 165  Safety Joint \_\_\_\_\_ T-Open 07:38  
 (D) Initial Shut-In 1103  Circ Sub \_\_\_\_\_ T-Pulled 09:53  
 (E) Second Initial Flow 198  Hourly Standby \_\_\_\_\_ T-Out 12:59  
 (F) Second Final Flow 328  Mileage 46 RT x 2 Comments Loaded tools  
 (G) Final Shut-In 1036  Sampler 142.60 at 33:45, 5-22-14  
 (H) Final Hydrostatic 1661  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 15  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1292.60  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1292.60

Approved By \_\_\_\_\_ Our Representative Phil Rose Thank You!

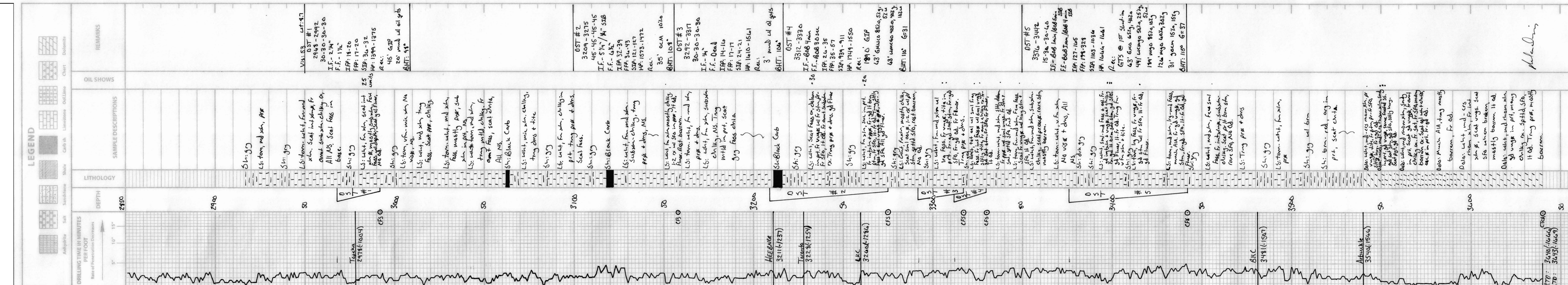
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Marc A. Downing Consulting Petroleum Geologist		Geologic Report Drilling Time and Sample Log			
Operator <b>Downing-Nelson Oil Co., Inc.</b>		Elevation KB 1974 DF 1972 GL 1966		Lease <b>Barry Urban</b> No. 1-17	
API # <b>15-165-22070-0000</b>		Casing Record Surface <b>8 5/8" @ 1099'</b> Production <b>5 1/2" @ 3640'</b>			
Field <b>Reichel</b>		Electrical Surveys CNDL, DIL, MEL			
Location <b>1050' FNL &amp; 1580' FEL</b>		Sec. <b>17</b> Twp. <b>16s</b> Rge. <b>17w</b>			
County <b>Rush</b> State <b>Kansas</b>		Datum			
Formation		Sample tops		Log Tops	
Top Anhydrite	1095	1098	+876	-4	
Base Anhydrite	1139	1140	+834	NA	
Topeka	2978	2981	-1007	-9	
Heebner	3211	3214	-1240	-7	
Toronto	3228	3230	-1256	NA	
LKC	3260	3262	-1288	-6	
BKC	3481	3485	-1511	NA	
Arbuckle	3540	3544	-1570	-10	
Total Depth	3640	3643	-1669		
Reference Well For Structural Comparison <b>DNOCI W/2 SE NW Sec. 17-16s-17w</b>					

Drilling Contractor <b>Discovery Drilling, Rig #3</b>	
Commenced <b>5-15-14</b>	Completed <b>5-23-14</b>
Samples Saved From <b>2900</b>	To <b>RTD</b>
Drilling Time Kept From <b>2850</b>	To <b>RTD</b>
Samples Examined From <b>2900</b>	To <b>RTD</b>
Geological Supervision From <b>2900</b>	To <b>RTD</b>

**Summary and Recommendations**  
Due to structural position, DST recovery, and log evaluation, it was decided to set 5 1/2" production casing for completion.

Respectfully Submitted,  
  
Marc A. Downing



M.A. Downing