KOLAR Document ID: 1325952

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
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: Marc Downing
Purchaser:

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☐ Oil ☐ WSW ☐ SWD
☐ Gas ☑ DH ☐ EOR
☐ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ EOR Permit #:
☐ GSW Permit #:

12/10/2016 Spud Date or Recompletion Date
12/19/2016 Date Reached TD
12/20/2016 Completion Date or Recompletion Date

API No.: 15-171-21188-00-00
Spot Description:
NE - NE - SE - NW Sec. 32 Twp. 18 S. R. 31 ☐ East ☑ West
1390 Feet from ☑ North / ☐ South Line of Section
2620 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Scott
Lease Name: O'BLENESS Well #: 1-32
Field Name: McKean
Producing Formation: None
Elevation: Ground: 2972 Kelly Bushing: 2980
Total Vertical Depth: 4686 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 225 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: 41000 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
☑ **Confidentiality Requested**
Date: 01/30/2017
☑ **Confidential Release Date:** 01/30/2019
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Karen Ritter **Date:** 01/31/2017

Operator Name: Downing-Nelson Oil Co Inc Lease Name: O'BLENESS Well #: 1-32

Sec. 32 Twp. 18 S. R. 31 ☐ East ☑ West County: Scott

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☐ Yes	☐ No

List All E. Logs Run:
Attached

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

Name: Attached Top: Attached Datum: 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	225	Common	160	2% Gel & 3% CC

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	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☑ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection:	Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	O'BLENESS 1-32
Doc ID	1325952

All Electric Logs Run

Sonic
Micro
Dual Induction
Compensated Debsity Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	O'BLENESS 1-32
Doc ID	1325952

Tops

Name	Top	Datum
Top Anhydrite	2248'	+732
Basy Anhydrite	2310'	+670
Heebner	3916'	-936
LKC	3958'	-978
Stark	4235'	-1255
BKC	4312'	-1332
Marmaton	4362'	-1382
Fort Scott	4484'	-1504
Cherokee Shale	4506'	-1526
Johnson Zone	4546'	-1566
Mississippi	4577'	-1597

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	O'BLENESS 1-32
Doc ID	1325952

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	225	Common	160	2% Gel & 3% CC

SWIFT Services, Inc.

CHARGE TO: Downing & Nelson
ADDRESS
CITY, STATE, ZIP CODE

TICKET 29840

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Ness City KS	1-32	O'Bleness	Scott	KS	Grigston	10 DEC 16	
2.	TICKET TYPE ☐ SERVICE ☐ SALES	CONTRACTOR Discovery	RIG NAME/NO. 3	SHIPPED VIA CT	DELIVERED TO location	ORDER NO.	
3.	WELL TYPE Oil	WELL CATEGORY ~~Workover~~ Development	JOB PURPOSE Cmnt surface pipe		WELL PERMIT NO.	WELL LOCATION 32-18-31	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
578		1			MILEAGE TRK 110	50	mi			5 00	250 00
576S		1			Pump Charge					800 00	800 00
325		1			Standard cement	150	sk			12 25	1837 50
279		1			gel	3	sk	2	%	25 00	75 00
278		1			Calcium chloride	7	sk	3	%	40 00	280 00
290		1			D-AIR	2	gal			42 00	84 00
581		1			service charge	150	sk			1 50	225 00
583		1			Drayage	14760	lb	360	TM	0 75	276 75

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X

DATE SIGNED | TIME SIGNED ☐ A.M. ☑ P.M. 1930

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	3828 25
	-382 83
10% Cmt 30%	3445 42
Scott Co TAX 8.5%	174 15
TOTAL	3619 57

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR BGhall | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 10 DEC 16 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Downing & Nelson	1-32	O'Bleness	cement surface pipe	29840

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								150sk standard cement 2%gel 3%cc
								8⅝ x 23# casing 5 joints - 225'
								TD = 226'
	1700							on loc TRK 110
								drilling to 226'
	1810							start 8⅝ x 23# casing in well
	1830							circulate well
	1840	4	37				200	mix STD 2%3% cement 150sk @ 14.7 ppg
		3					200	Displace w/ H2O
								→ cement to surface ←
	1900	3	13				200	Kickout
	1902							shut in 8⅝"
								Release pressure to truck
	1905							wash truck
								rack up

20sk to pit

SWIFT Services, Inc.

DATE 20 Dec 16 | PAGE NO. 1

Doering & Nelson | WELL NO. 1-32 | LEASE O'Bleness | JOB TYPE Plug to Abandon | TICKET NO. 29844

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								290 sk 60/40 pozmix (4% gel) w/ ¼# flocele
								4½ drill pipe + 7⅞ hole
								1st plug 50 sk @ 2370'
								80 @ 1560'
								50 @ 780'
								40 @ 270'
								20 @ 60'
								30sk RH 20sk MH
	0500							on loc + RU 114
								pipe @ 2370'
	0702	4	13				200	mix 60/40 poz 4% 50sk @ 13.1 ppg
		4	26				200	Displace to bottom
	0716							pull to 1560'
	0744	4	13				200	mix 60/40 poz 4% @ 80sk @ 13.1 ppg
		4	12					Displace to bottom
	0757							pull to 780'
	0816	4	13					mix 60/40 poz 4% 50sk @ 13.1 ppg
								Displace to bottom
	0827							pull to 270'
	0844	4	11					mix 60/40 poz 4% 40sk @ 13.1 ppg
	0855	4	2					Displace to bottom
	0859							pull to 60'
								pull RH & MH
	0945							mix 60/40 poz 4% 20sk @ 13.1 ppg
								cement to surface
	1005							Plug RH - MH 30sk - 20sk
								wash truck
								Rack up
	1045							Job complete
								Thanks
								Matt, Blaine & Jesse

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

O'Bleness #1-32

32-18s-31w Scott,KS

Start Date: 2016.12.15 @ 21:51:15
End Date: 2016.12.16 @ 05:18:15
Job Ticket #: 65686 DST #: 1

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

Printed: 2016.12.20 @ 10:07:29

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65686 **DST#: 1**

Test Start: 2016.12.15 @ 21:51:15

GENERAL INFORMATION:

Formation: **LKC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:05:45
Time Test Ended: 05:18:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 81

Interval: 4232.00 ft (KB) To 4269.00 ft (KB) (TVD)
Total Depth: 4269.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

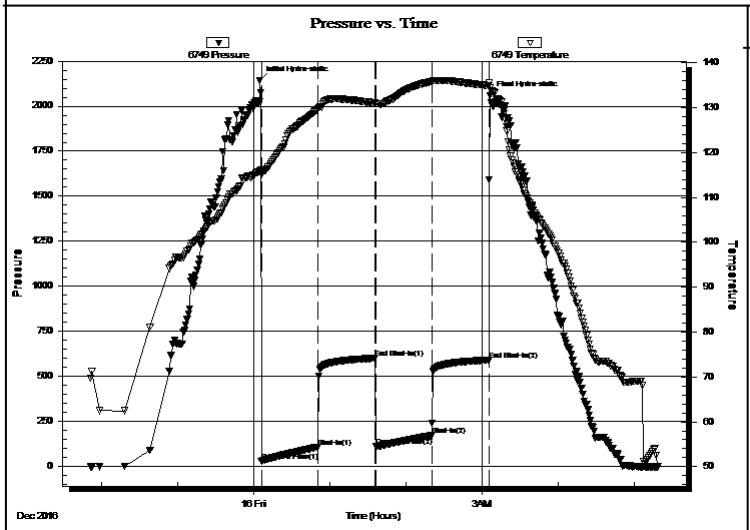
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6749 **Outside**

Press@RunDepth: 171.95 psig @ 4233.00 ft (KB)
Start Date: 2016.12.15 End Date: 2016.12.16
Start Time: 21:51:15 End Time: 05:18:15

Capacity: 8000.00 psig
Last Calib.: 2016.12.16
Time On Btm: 2016.12.16 @ 00:04:45
Time Off Btm: 2016.12.16 @ 03:06:15

TEST COMMENT: IS:BOB in 23 min.
IS:No return blow
FF:Built to 9" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.91	115.84	Initial Hydro-static
1	27.88	115.11	Open To Flow (1)
46	107.45	129.71	Shut-In(1)
91	601.32	131.10	End Shut-In(1)
92	109.70	130.92	Open To Flow (2)
136	171.95	135.81	Shut-In(2)
181	590.98	134.94	End Shut-In(2)
182	2058.21	134.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	ocmw 2%o 24%m 76%w	1.46
124.00	ocw m 2%o 2%w 96%m	1.74
82.00	ocm 3%o 97%m	1.15
10.00	free oil 100%o	0.14

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65686 **DST#: 1**

Test Start: 2016.12.15 @ 21:51:15

GENERAL INFORMATION:

Formation: **LKC K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:05:45
Time Test Ended: 05:18:15

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 81

Interval: 4232.00 ft (KB) To 4269.00 ft (KB) (TVD)
Total Depth: 4269.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

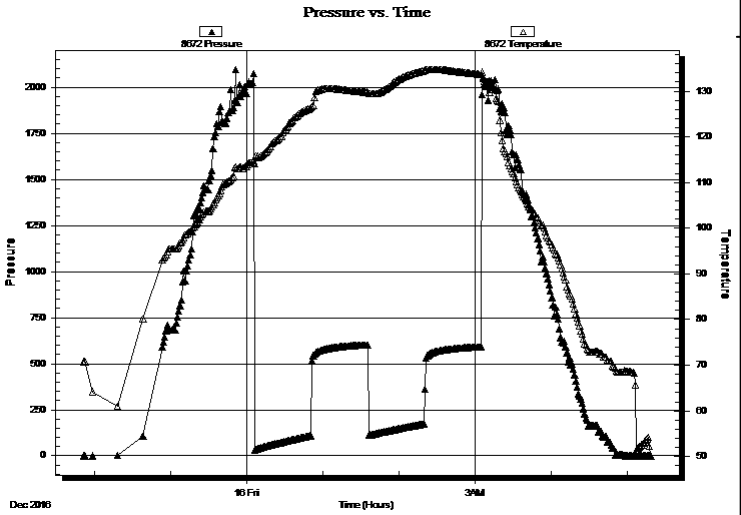
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8672 **Inside**

Press@RunDepth: psig @ 4233.00 ft (KB)
Start Date: 2016.12.15 End Date: 2016.12.16
Start Time: 21:51:15 End Time: 05:18:15

Capacity: 8000.00 psig
Last Calib.: 2016.12.16
Time On Btm:
Time Off Btm:

TEST COMMENT: IS:BOB in 23 min.
IS:No return blow
FF:Built to 9" blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	ocmw 2%o 24%m 76%w	1.46
124.00	ocw m 2%o 2%w 96%m	1.74
82.00	ocm 3%o 97%m	1.15
10.00	free oil 100%o	0.14

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65686 **DST#: 1**

Test Start: 2016.12.15 @ 21:51:15

Tool Information

Drill Pipe:	Length:	4188.00 ft	Diameter:	3.80	inches	Volume:	58.75	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	31.00 ft	Diameter:	2.25	inches	Volume:	0.15	bbl	
						Total Volume:	58.90	bbl	

Drill Pipe Above KB:	15.00 ft
Depth to Top Packer:	4232.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	37.00 ft
Tool Length:	65.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		1500.00 lb
Weight set on Packer:		20000.00 lb
Weight to Pull Loose:		80000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	62000.00 lb
	Final	64000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4205.00		
Shut In Tool	5.00			4210.00		
Hydraulic tool	5.00			4215.00		
Jars	5.00			4220.00		
Safety Joint	3.00			4223.00		
Packer	5.00			4228.00	28.00	Bottom Of Top Packer
Packer	4.00			4232.00		
Stubb	1.00			4233.00		
Recorder	0.00	8672	Inside	4233.00		
Recorder	0.00	6749	Outside	4233.00		
Perforations	31.00			4264.00		
Bullnose	5.00			4269.00	37.00	Bottom Packers & Anchor
Total Tool Length:	**65.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65686 **DST#: 1**

Test Start: 2016.12.15 @ 21:51:15

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:	24000 ppm
Viscosity:	61.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.16 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	ocmw 2%o 24%m 76%w	1.457
124.00	ocw m 2%o 2%w 96%m	1.739
82.00	ocm 3%o 97%m	1.150
10.00	free oil 100%o	0.140

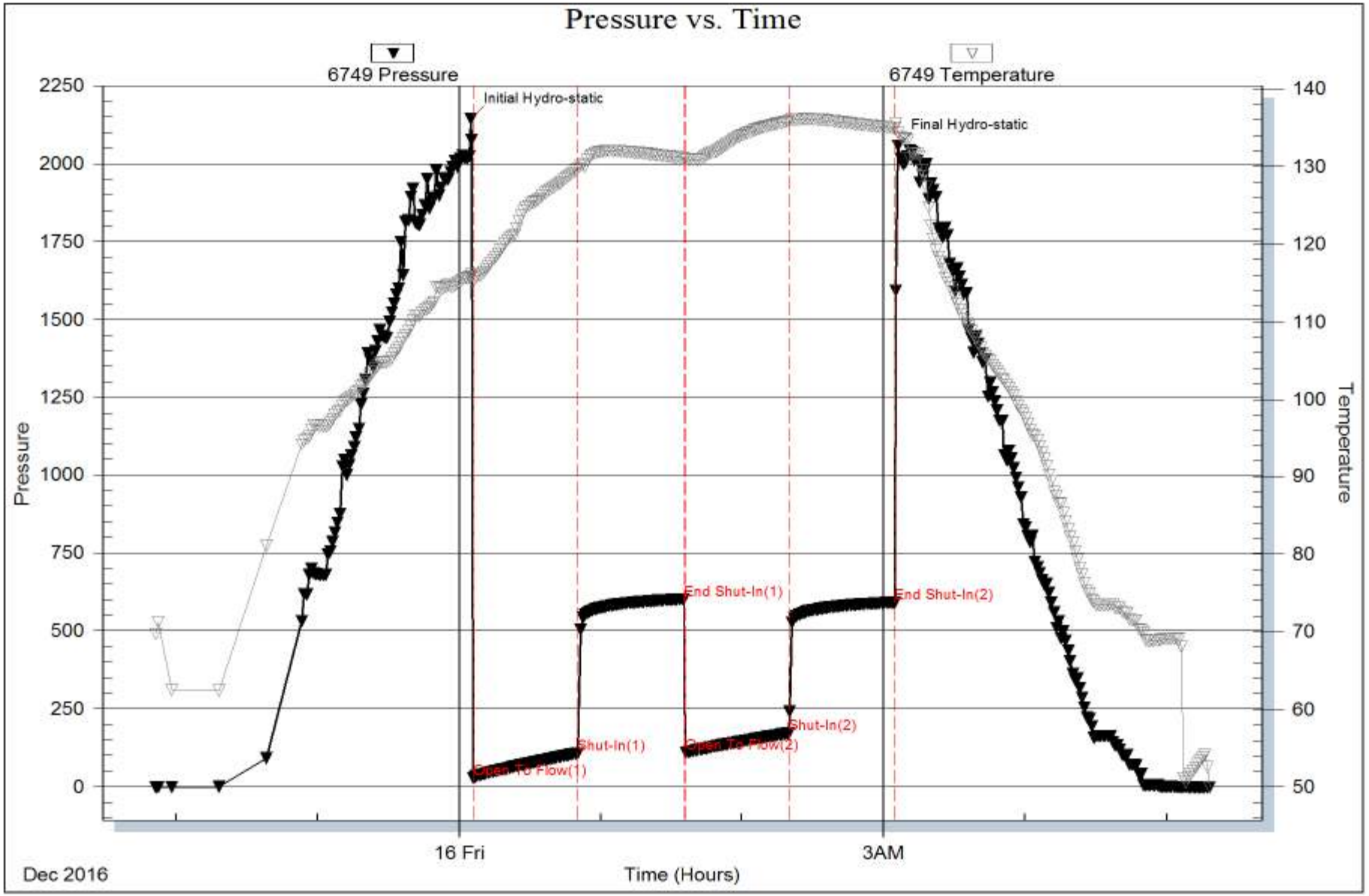
Total Length: 340.00 ft Total Volume: 4.486 bbl

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

Laboratory Name: Laboratory Location:

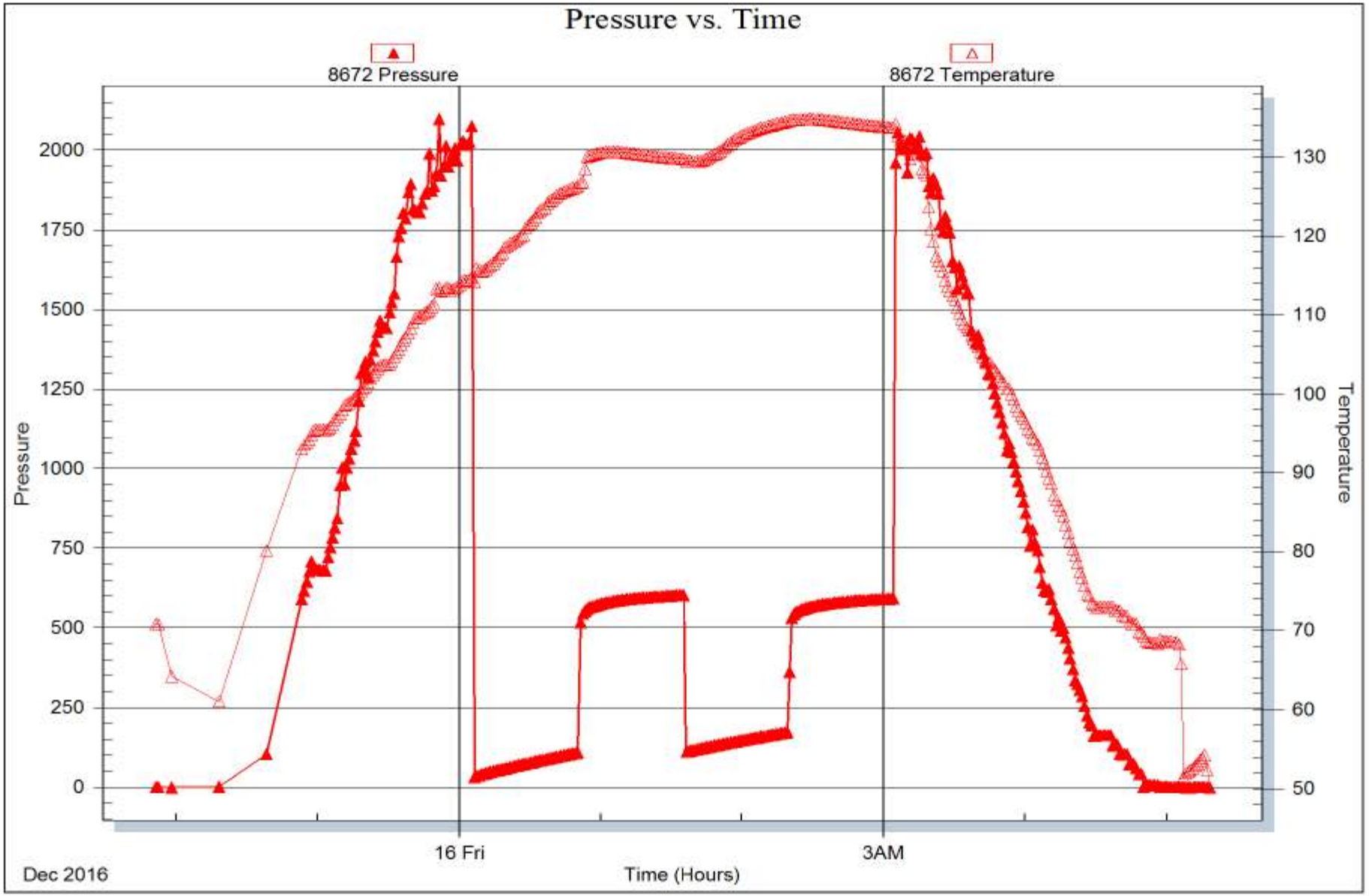
Recovery Comments: RW= .651@29.6=24,000 ppm
API= 29 @30 corrected to 32

Serial #: 6749 **Outside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 65686 Printed: 2016.12.20 @ 10:07:30

Serial #: 8672 **Inside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 65686 Printed: 2016.12.20 @ 10:07:30

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

O'Bleness #1-32

32-18s-31w Scott,KS

Start Date: 2016.12.16 @ 16:49:15
End Date: 2016.12.17 @ 00:46:45
Job Ticket #: 65687 DST #: 2

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

Printed: 2016.12.20 @ 10:07:10

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65687 **DST#: 2**

Test Start: 2016.12.16 @ 16:49:15

GENERAL INFORMATION:

Formation: **LKC L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:59:00
Time Test Ended: 00:46:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 81

Interval: 4272.00 ft (KB) To 4336.00 ft (KB) (TVD)
Total Depth: 4336.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

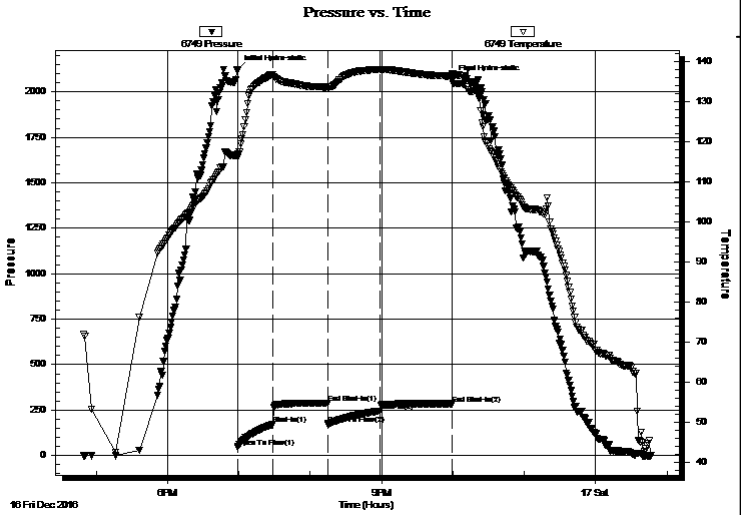
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6749 **Outside**

Press@RunDepth: 244.86 psig @ 4311.00 ft (KB)
Start Date: 2016.12.16 End Date: 2016.12.17
Start Time: 16:49:15 End Time: 00:46:45

Capacity: 8000.00 psig
Last Calib.: 2016.12.17
Time On Btm: 2016.12.16 @ 18:58:45
Time Off Btm: 2016.12.16 @ 21:59:30

TEST COMMENT: IF:BOB in 10 min.
IS:No return blow
FF:BOB in 33 min.
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.34	116.89	Initial Hydro-static
1	43.94	116.17	Open To Flow (1)
30	171.26	136.89	Shut-In(1)
76	286.08	133.69	End Shut-In(1)
76	172.97	133.67	Open To Flow (2)
120	244.86	138.08	Shut-In(2)
181	284.62	136.39	End Shut-In(2)
181	2065.61	136.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	ocmw 2%o 40%m 58%w	1.46
124.00	ocw m 5%o 25%w 70%m	1.74
216.00	w com 5%w 10%o 85%m	3.03
5.00	free oil 100%o	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65687 **DST#: 2**

Test Start: 2016.12.16 @ 16:49:15

GENERAL INFORMATION:

Formation: **LKC L**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:59:00
Time Test Ended: 00:46:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 81

Interval: 4272.00 ft (KB) To 4336.00 ft (KB) (TVD)
Total Depth: 4336.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

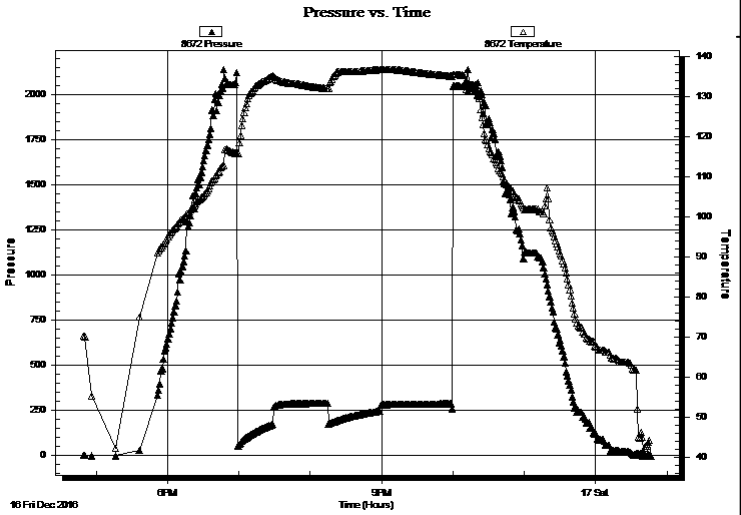
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8672 **Inside**

Press@RunDepth: psig @ 4311.00 ft (KB)
Start Date: 2016.12.16 End Date: 2016.12.17
Start Time: 16:49:15 End Time: 00:46:45

Capacity: 8000.00 psig
Last Calib.: 2016.12.17
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 10 min.
IS:No return blow
FF:BOB in 33 min.
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	ocmw 2%o 40%m 58%w	1.46
124.00	ocw m 5%o 25%w 70%m	1.74
216.00	w com 5%w 10%o 85%m	3.03
5.00	free oil 100%o	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65687 **DST#: 2**

Test Start: 2016.12.16 @ 16:49:15

Tool Information

Drill Pipe:	Length:	4246.00 ft	Diameter:	3.80 inches	Volume:	59.56 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	59.71 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		33.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		4272.00 ft						Final	66000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		64.00 ft							
Tool Length:		92.00 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			4245.00		
Shut In Tool	5.00			4250.00		
Hydraulic tool	5.00			4255.00		
Jars	5.00			4260.00		
Safety Joint	3.00			4263.00		
Packer	5.00			4268.00	28.00	Bottom Of Top Packer
Packer	4.00			4272.00		
Stubb	1.00			4273.00		
Perforations	4.00			4277.00		
Change Over Sub	1.00			4278.00		
Drill Pipe	32.00			4310.00		
Change Over Sub	1.00			4311.00		
Recorder	0.00	8672	Inside	4311.00		
Recorder	0.00	6749	Outside	4311.00		
Perforations	20.00			4331.00		
Bullnose	5.00			4336.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**92.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65687 **DST#: 2**

Test Start: 2016.12.16 @ 16:49:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	31 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	24500 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.36 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	ocmw 2%o 40%m 58%w	1.457
124.00	ocw m 5%o 25%w 70%m	1.739
216.00	w com 5%w 10%o 85%m	3.030
5.00	free oil 100%o	0.070

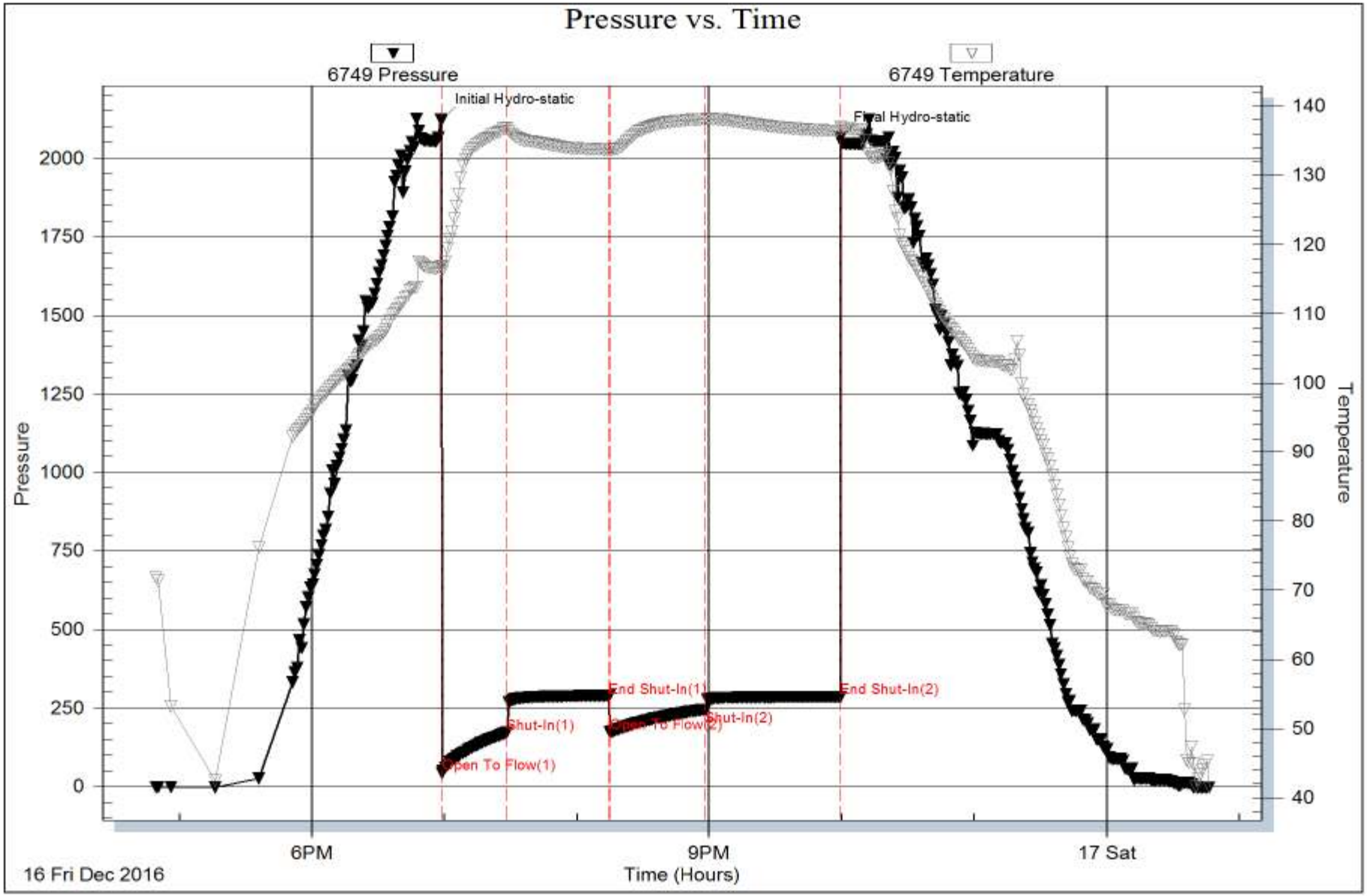
Total Length: 469.00 ft Total Volume: 6.296 bbl

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

Laboratory Name: Laboratory Location:

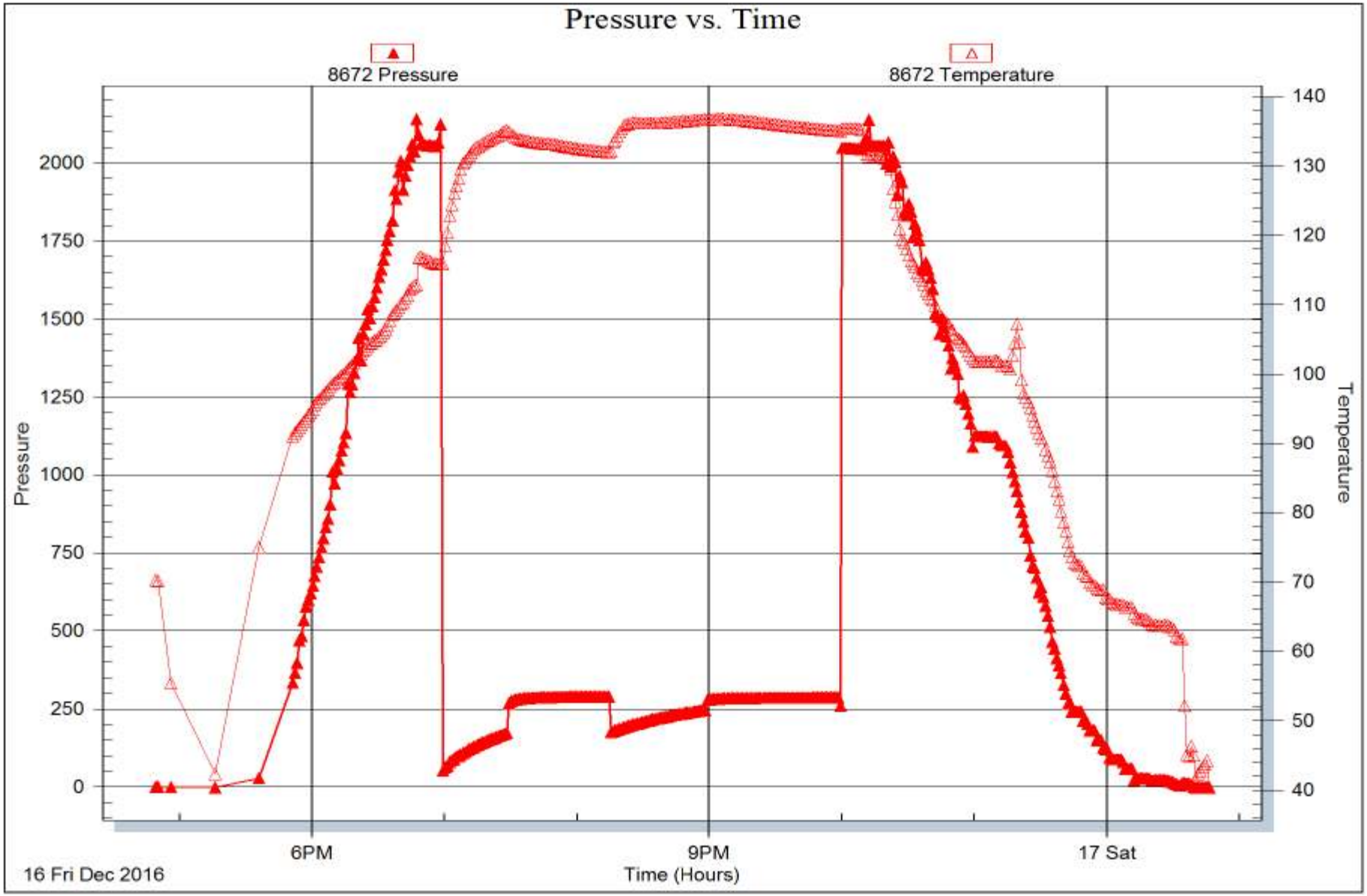
Recovery Comments: RW= .646@32.6=24,500 ppm
API= 40@ 28* corrected to 31 @ 60*

Serial #: 6749 **Outside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65687 Printed: 2016.12.20 @ 10:07:11

Serial #: 8672 **Inside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 65687 Printed: 2016.12.20 @ 10:07:11

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Co**

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

O'Bleness #1-32

32-18s-31w Scott,KS

Start Date: 2016.12.17 @ 15:49:15
End Date: 2016.12.17 @ 23:18:30
Job Ticket #: 65688 DST #: 3

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

Printed: 2016.12.20 @ 10:06:15

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65688 **DST#: 3**

Test Start: 2016.12.17 @ 15:49:15

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:23:30
Time Test Ended: 23:18:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 81

Interval: 4383.00 ft (KB) To 4433.00 ft (KB) (TVD)
Total Depth: 4433.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

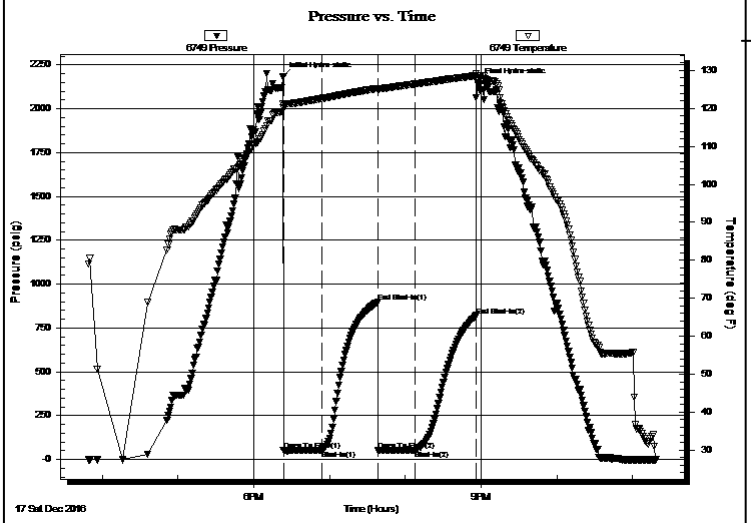
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 6749 **Outside**

Press@RunDepth: 53.83 psig @ 4423.00 ft (KB)
Start Date: 2016.12.17 End Date: 2016.12.17
Start Time: 15:49:15 End Time: 23:18:30

Capacity: 8000.00 psig
Last Calib.: 2016.12.17
Time On Btm: 2016.12.17 @ 18:23:15
Time Off Btm: 2016.12.17 @ 20:57:15

TEST COMMENT: IF:Built to 1/4" blow
IS:No return blow
FF:Built to weak surface blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2184.98	121.11	Initial Hydro-static
1	50.73	120.07	Open To Flow (1)
31	51.56	122.59	Shut-In(1)
76	899.20	125.28	End Shut-In(1)
76	53.23	124.96	Open To Flow (2)
105	53.83	126.46	Shut-In(2)
153	820.73	128.62	End Shut-In(2)
154	2148.63	128.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 2%o 98%m	0.15

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65688 **DST#: 3**

Test Start: 2016.12.17 @ 15:49:15

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:23:30
Time Test Ended: 23:18:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 81

Interval: 4383.00 ft (KB) To 4433.00 ft (KB) (TVD)
Total Depth: 4433.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

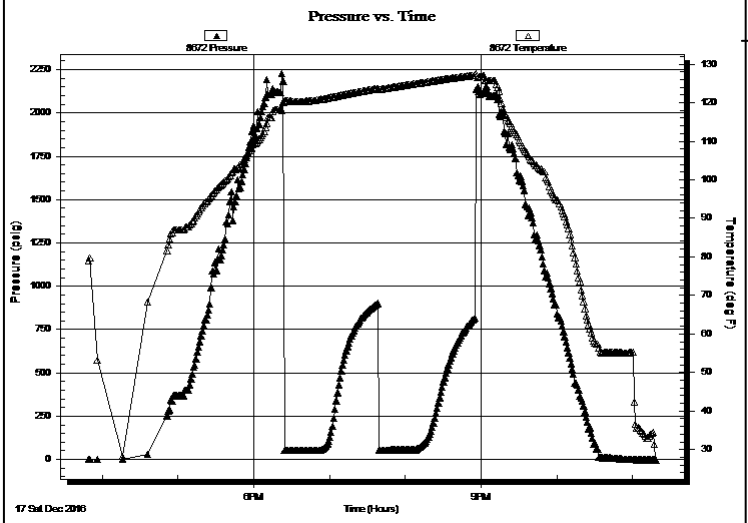
Reference Elevations: 2976.00 ft (KB)
2971.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8672 **Inside**

Press@RunDepth: psig @ 4423.00 ft (KB)
Start Date: 2016.12.17 End Date: 2016.12.17
Start Time: 15:49:15 End Time: 23:18:15

Capacity: 8000.00 psig
Last Calib.: 2016.12.17
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 1/4" blow
IS:No return blow
FF:Built to weak surface blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 2%o 98%m	0.15

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Dow ning

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65688 **DST#: 3**

Test Start: 2016.12.17 @ 15:49:15

Tool Information

Drill Pipe:	Length:	4339.00 ft	Diameter:	3.80 inches	Volume:	60.86 bbl	Tool Weight:		1500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	31.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	61.01 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight:	Initial	64000.00 lb
Depth to Top Packer:		4383.00 ft						Final	64000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		50.00 ft							
Tool Length:		78.00 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			4356.00		
Shut In Tool	5.00			4361.00		
Hydraulic tool	5.00			4366.00		
Jars	5.00			4371.00		
Safety Joint	3.00			4374.00		
Packer	5.00			4379.00	28.00	Bottom Of Top Packer
Packer	4.00			4383.00		
Stubb	1.00			4384.00		
Perforations	5.00			4389.00		
Change Over Sub	1.00			4390.00		
Drill Pipe	32.00			4422.00		
Change Over Sub	1.00			4423.00		
Recorder	0.00	8672	Inside	4423.00		
Recorder	0.00	6749	Outside	4423.00		
Perforations	5.00			4428.00		
Bullnose	5.00			4433.00	50.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

32-18s-31w Scott,KS

O'Bleness #1-32

Job Ticket: 65688 **DST#: 3**

Test Start: 2016.12.17 @ 15:49:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.38 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

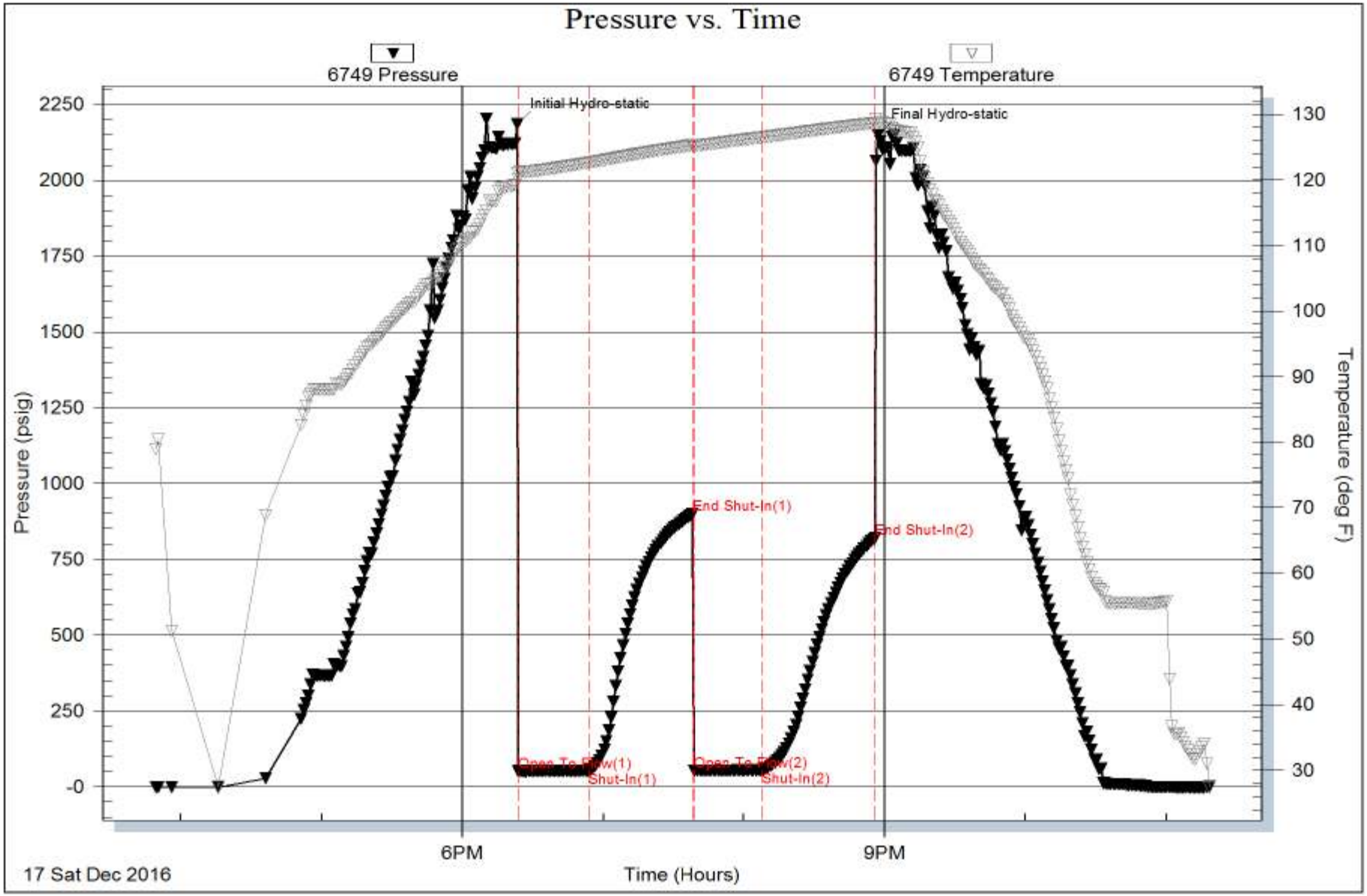
Recovery Table

Length ft	Description	Volume bbl
30.00	ocm 2%o 98%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

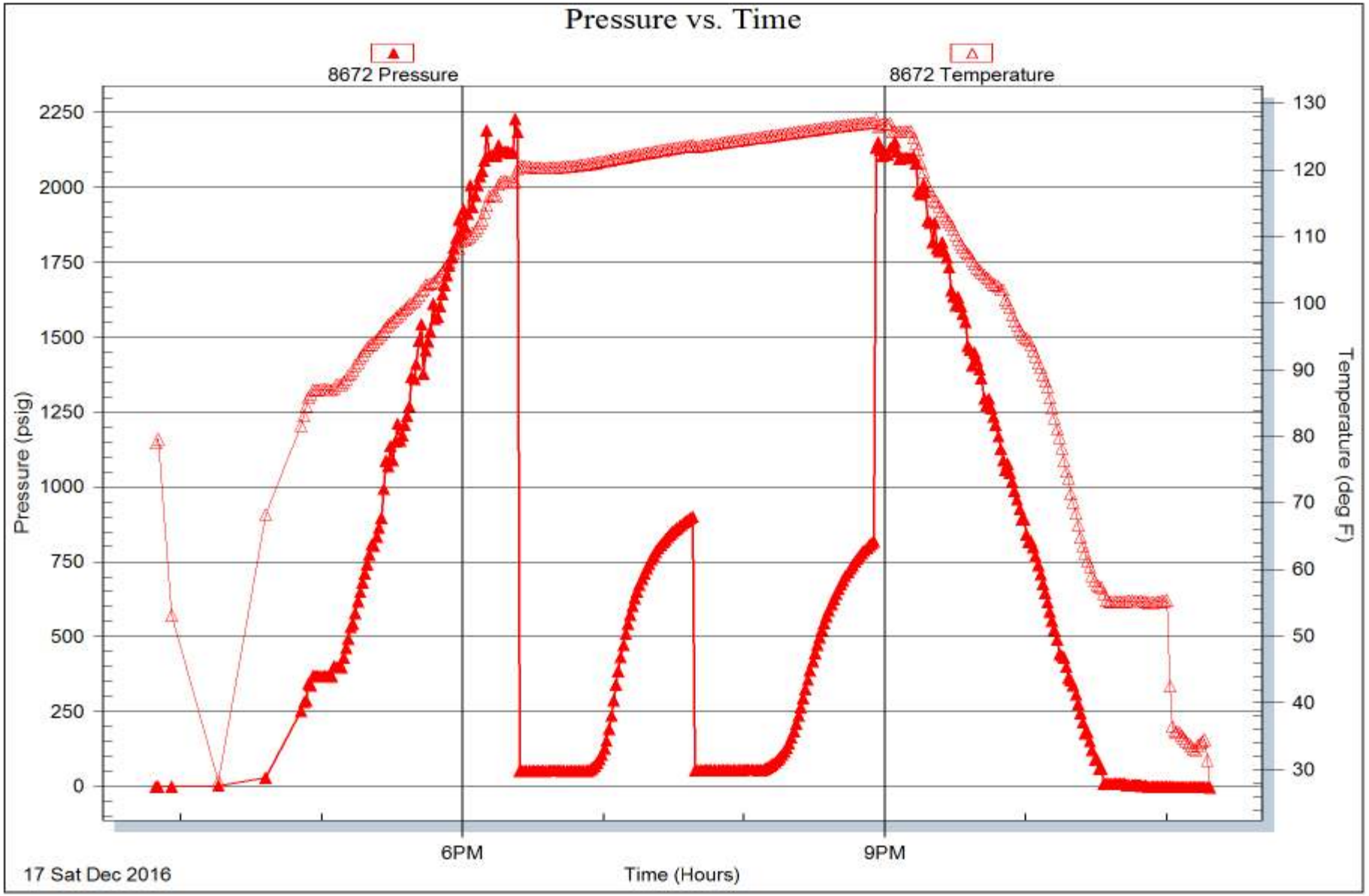
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6749 **Outside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 65688 Printed: 2016.12.20 @ 10:06:15

Serial #: 8672 **Inside** Dow ning Nelson Oil Co O'Bleness #1-32 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 65688 Printed: 2016.12.20 @ 10:06:16

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 65686

Well Name & No. O'Bleness 1-32 Test No. 1 Date 12-15-16

Company Downing Nelson Oil Company Inc Elevation 2976 KB 2971 GL

Address P.O Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Disco 3

Location: Sec. 32 Twp. 18 Rge. 31 Co. Scott State KS

Interval Tested 4232-4269 Zone Tested K

Anchor Length 37 Drill Pipe Run 4188 Mud Wt. 9.1

Top Packer Depth 4227 Drill Collars Run 31 Vis 61

Bottom Packer Depth 4232 Wt. Pipe Run Ø WL 7.2

Total Depth 4269 Chlorides 2000 ppm System LCM 5

Blow Description IF: BOB in 23 Min

IS: No Return Blow

FF: Built to 9" Blow

FS: No Return Blow

Rec	10	Feet of	Free oil	%gas	100	%oil		%water	%mud
Rec	82	Feet of	OCM	%gas	3	%oil		%water	97 %mud
Rec	124	Feet of	OCWM	%gas	2	%oil	2	%water	96 %mud
Rec	124	Feet of	OCMW	%gas	2	%oil	74	%water	24 %mud
Rec		Feet of		%gas		%oil		%water	%mud

Rec Total 340 BHT 135 Gravity 32 API RW .651 @ 29.6 °F Chlorides 24000 ppm

(A) Initial Hydrostatic 2142

(B) First Initial Flow 27

(C) First Final Flow 107

(D) Initial Shut-In 607

(E) Second Initial Flow 109

(F) Second Final Flow 171

(G) Final Shut-In 590

(H) Final Hydrostatic 2058

Initial Open 45

Initial Shut-In 45

Final Flow 45

Final Shut-In 45

- ☑ Test $1150.00/-
- ☑ Jars 250.00/-
- ☑ Safety Joint 75.00/-
- ☑ Circ Sub NC
- ☐ Hourly Standby
- ☑ Mileage 22RT = $16.50/-
- ☐ Sampler
- ☐ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total $1491.50/-

T-On Location 18:45

T-Started 21:51

T-Open 00:06

T-Pulled 03:06

T-Out 05:18

Comments

- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies

Sub Total 0

Total 1491.50

MP/DST Disc't

Approved By

Our Representative Mike Roberts

TRILOBITE TESTING INC.

4/10

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65687

Well Name & No. O'Bleness 1-32 Test No. 2 Date 12-16-16

Company Downing Nelson Oil Company Inc. Elevation 2976 KB 2971 GL

Address P.O. Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Disco 3

Location: Sec. 32 Twp. 18 Rge. 31 Co. SCOTT State KS

Interval Tested 4272-4336 Zone Tested L

Anchor Length 64 Drill Pipe Run 4246 Mud Wt. 9.1

Top Packer Depth 4267 Drill Collars Run 31 Vis 54

Bottom Packer Depth 4272 Wt. Pipe Run ø WL 8.4

Total Depth 4336 Chlorides 2000 ppm System LCM 6

Blow Description IF: BOB in 10 Min
IS: No Return Blow
FF: BOB in 33 Min
FS: No Return Blow

Rec 5	Feet of free Oil	%gas	%oil	%water	%mud
Rec 216	Feet of [redacted]WCOM	%gas 10	%oil 5	%water [redacted]	%mud
Rec 124	Feet of OCWM	%gas 5	%oil 25	%water 70	%mud
Rec 124	Feet of OCMW	%gas 2	%oil [redacted]	%water 40	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 469 BHT 137 Gravity 31 API RW .646 @ 32.4 °F Chlorides 24500 ppm

(A) Initial Hydrostatic 2120	☑ Test $1150.00/-	T-On Location 15:45
(B) First Initial Flow 43	☑ Jars $250.00/-	T-Started 16:49
(C) First Final Flow 171	☑ Safety Joint $75.00/-	T-Open 18:58
(D) Initial Shut-In 286	☑ Circ Sub NC	T-Pulled 21:58
(E) Second Initial Flow 172	☐ Hourly Standby	T-Out 00:46
(F) Second Final Flow 244	☑ Mileage 22RT = $16.50/-	Comments
(G) Final Shut-In 284	☐ Sampler	
(H) Final Hydrostatic 2065	☐ 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 45	☐ Day Standby	Total 1491.50
Final Shut-In 60	☐ Accessibility	MP/DST Disc't
	Sub Total $1491.50/-	

Approved By _____ Our Representative Mike Roberts

TRILOBITE TESTING INC.

4/10

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65688

Well Name & No. O'Bleness 1-32 Test No. 3 Date 12-17-16

Company Downing Nelson Oil Company Inc Elevation 2976 KB 2971 GL

Address P.O. Box 1019 Hays KS 67601

Co. Rep / Geo. Al Downing Rig Disco 3

Location: Sec. 32 Twp. 18 Rge. 31 Co. Scott State KS

Interval Tested 4383-4433 Zone Tested Marmaton

Anchor Length 50 Drill Pipe Run 4339 Mud Wt. 9.2

Top Packer Depth 4378 Drill Collars Run 31 Vis 51

Bottom Packer Depth 4383 Wt. Pipe Run Ø WL 8.4

Total Depth 4433 Chlorides 1500 ppm System LCM 5

Blow Description IF: Built to 1/4" Blow

IS: No Return Blow

FF: Built to Weak Surface Blow

FS: No Return Blow

Rec 30	Feet of OCM	%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 30 BHT 128 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2184	☑ Test $1150.00/-	T-On Location 13:30
(B) First Initial Flow 50	☑ Jars $250.00/-	T-Started 15:49
(C) First Final Flow 51	☑ Safety Joint $75.00/-	T-Open 18:23
(D) Initial Shut-In 899	☑ Circ Sub NC	T-Pulled 20:53
(E) Second Initial Flow 53	☐ Hourly Standby	T-Out 23:18
(F) Second Final Flow 53	☑ Mileage 22RT = $16.50/-	Comments Loaded Tools at 03:00 12-20-16
(G) Final Shut-In 820	☐ Sampler Mileage x2 16.50	
(H) Final Hydrostatic 2148	☐ 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 1508.00
Final Shut-In 45	☐ Accessibility 1508	MP/DST Disc't
	Sub Total $1491.50/-	

Approved By Our Representative Mike Roberts

Marc A. Downing Consulting Petroleum Geologist	Geologic Report Drilling Time and Sample Log

Operator **Downing-Nelson Oil Co., Inc.**

Lease **O'Bleness** No. **1-32**

API # **15-171-21188-0000**

Field **McKean**

Location **1390' FNL & 2620'FWL**

Sec. **32** Twp. **18s** Rge. **31w**

County **Scott** State **Kansas**

Elevation
KB **2990**
DF **2978**
GL **2972**

Casing Record
Surface **8 5/8" @ 223'**
Production **None**

Electrical Surveys
CNDL, DIL, MEL, Sonic

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	NA	2248	+732	-14
Base Anhydrite	NA	2310	+670	-14
Heebner	3914	3916	-936	-23
LKC	3959	3958	-978	-25
Stark	4214	4215	-1235	-16
BKC	4312	4311	-1331	-18
Mormaton	4361	4362	-1382	-16
Fort Scott	4464	4464	-1484	-18
Cherokee Sh.	4506	4506	-1526	-18
Johnson Zone	4546	4546	-1566	-21
Mississippi	4576	4577	-1597	-12
Total Depth	4680	4680	-1700	

Reference Well For Structural Comparison — HMI, Natural Resources, LLC
McKeon Trust 16B — 1320' FSL & 990' FEL — Sec. 32-18s-31w

Drilling Contractor	Discovery Drilling, Rig #3		
Commenced	12-10-16	Completed	12-20-16
Samples Saved From	3900	To	RTD
Drilling Time Kept From	3850	To	RTD
Samples Examined From	3900	To	RTD
Geological Supervision From	3900	To	RTD

Summary and Recommendations

Due to structural position, DST recovery, and log evaluation, it was decided to plug and abandon the well.

Respectfully Submitted,

Marc A. Downing