Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1171739

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 # 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 ☐ 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 #:

9/30/2013	10/07/2013	10/08/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-193-20901-00-00
Spot Description:
NW NE NW SE Sec. 28 Twp. 9 S. R. 31 ☐ East ☑ West
2575 Feet from ☐ North / ☑ South Line of Section
1805 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: Thomas
Lease Name: Bixenman Well #: 1-28
Field Name:
Producing Formation: None
Elevation: Ground: 3044 Kelly Bushing: 3050
Total Vertical Depth: 4710 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 308 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: 12000 ppm Fluid volume: 240 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:
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☐ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** Deanna Garrison **Date:** 12/09/2013

[redacted] 1171739

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Bixenman Well #: 1-28

Sec. 28 Twp. 9 S. R. 31 ☐ East ☑ West County: Thomas

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction
Compensated Density Neutron
Micro

☐ 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 Pipe	12.25	8.625	23	307.90	Common	225	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	-			
	-			

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 *(Amount and Kind of Material Used)*	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

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

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

PRODUCTION INTERVAL:

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

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Bixenman 1-28
Doc ID	1171739

Tops

Name	Top	Datum
Anhydrite	2638	+413
Base	2671	+380
Topeka	3842	-791
Heebner	4052	-1001
Lansing	4091	-1040
BKC	4360	-1309
Pawnee	4481	-1531
Ft. Scott	4551	-1500
Johnson	4630	-1579

ALLIED OIL & GAS SERVICES, LLC 061170

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley KS

DATE 10/8/13	SEC. 28	TWP. 9	RANGE 31	CALLED OUT	ON LOCATION	JOB START 5:30a	JOB FINISH 6:30a
LEASE Brennan	WELL # 1-28	LOCATION Oakley N to Rd H E to 3 No Winto				COUNTY Thomas	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Discovery 1
TYPE OF JOB PTA Rotary
HOLE SIZE T.D.
CASING SIZE 8 5/8 DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER Same

CEMENT
AMOUNT ORDERED 220 60/40 4%gel 1/4# Flo Seal

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan
373-281 HELPER Kevin Ryan
BULK TRUCK
396 DRIVER Juan (TLOS)
BULK TRUCK
DRIVER

COMMON	132	@ 17.90	2362.80
POZMIX	88	@ 9.35	822.80
GEL	8	@ 23.40	187.20
CHLORIDE		@	
ASC		@	
Flo Seal	55lb	@ 2.97	163.35
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	236.22 CF	@ 2.42	585.25
MILEAGE	264 sx/mile 9.87 Juan		884.03
		TOTAL	4502.03

REMARKS:

2660 - 25sk
1800 - 100sks
360 - 40sk
40 - 10sk
RH - 30sk
MH - 15sk

SERVICE

DEPTH OF JOB	2660'		
PUMP TRUCK CHARGE			2483.52
EXTRA FOOTAGE		@	
MILEAGE	15 miles	@ 7.70	115.50
MANIFOLD		@	
CR Vehicle 15 miles		@ 4.40	66.00
		@	
		TOTAL	2665.02

CHARGE TO: Downing-Nelson
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL		

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

PRINTED NAME

SIGNATURE Cliff Mayfield

SALES TAX (If Any)
TOTAL CHARGES 7,172.12
DISCOUNT 1,434.42 IF PAID IN 30 DAYS
5,737.69 Net

ALLIED OIL & GAS SERVICES, LLC 061164

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Ochiltree KS

DATE 9/30/13	SEC. 28	TWP. 9	RANGE 31	CALLED OUT	ON LOCATION	JOB START 2:00pm	JOB FINISH 7:30pm
LEASE Brennan	WELL # 1-28		LOCATION Ochiltree 8N Rd H E&2 3/4			COUNTY Thomas	STATE KS
OLD OR NEW (Circle one)			1/2 N into				

CONTRACTOR Discovery
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 308
CASING SIZE 8 5/8 DEPTH 308
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15'
PERFS.
DISPLACEMENT 18.66

OWNER Same

EQUIPMENT

PUMP TRUCK CEMENTER Alan
423-281 HELPER Kevin
BULK TRUCK
370 DRIVER Chris
BULK TRUCK
DRIVER

REMARKS:

Ran Csg, Circulate, Mix Cement, Displace Cement
Shutin Job Complete
Cement Did Circulate
36bbl To Pit

Thank You
Alan, Kevin, Chris

CHARGE TO: Downing & Nelson
STREET
CITY STATE ZIP

CEMENT

AMOUNT ORDERED 225 Class 3%CC 2%gel

COMMON	225	@ 17.90	4027.50
POZMIX		@	
GEL	4	@ 23.40	93.60
CHLORIDE	8	@ 64.00	512.00
ASC		@	
HANDLING	243.3 CF	@ 2.45	603.38
MILEAGE	Ton/mile 11.014 Tons		429.03
		TOTAL	5666.91

SERVICE

DEPTH OF JOB	308		
PUMP TRUCK CHARGE			1512.25
EXTRA FOOTAGE		@	
MILEAGE	15 Miles	@ 7.70	115.50
MANIFOLD		@	225.00
Light Vehicle	15 miles	@ 4.40	66.00
		@	
		TOTAL	1968.75

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
	TOTAL	

SALES TAX (If Any)
TOTAL CHARGES 7,634.78
DISCOUNT 1,526.95 IF PAID IN 30 DAYS
6,107.82 Net.

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

PRINTED NAME
SIGNATURE

ALLIED OIL & GAS SERVICES, LLC 061139

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley KS

DATE 9/28/13	SEC 29	TWP 9	RANGE 31	CALLED OUT	ON LOCATION 7:00a.m.	JOB START 10:00a.m	JOB FINISH 11:00a.m
LEASE Gerdes/Hibbs unit	WELL # 1-29		LOCATION Oakley 8N to Rd #3E to rd 32 42 N - E into			COUNTY Thomas	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR Discovery Drlg. rig #1
TYPE OF JOB PTA
HOLE SIZE 7 7/8 T.D. 4700'
CASING SIZE DEPTH
TUBING SIZE DEPTH
DRILL PIPE 4 1/2 DEPTH 2635'
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT 3bbl water 30.9 bbl mud

OWNER Same

EQUIPMENT

PUMP TRUCK # 120 CEMENTER Paul Beaver
HELPER Tyler Flipse
BULK TRUCK # 600 DRIVER David Soariano
BULK TRUCK # DRIVER

CEMENT

AMOUNT ORDERED 220 sks 60/40 4% gel

COMMON	132 sks	@ 17.90	2362.80
POZMIX	88 sks	@ 9.35	822.80
GEL	7.6 sks	@ 23.40	177.84
CHLORIDE		@	
ASC		@	
HANDLING	232.67 ft³	@ 2.48	577.02
MILEAGE	9.84 ton s x 10 x	2.60	255.84
		TOTAL	4196.30

REMARKS:

mix 25 sks @ 2635'
Displace with mud
mix 100 sks @ 1740'
Displace with water
mix 40 sks @ 357'
mix 10 sks @ 40' with wooden plug
mix 30 sks in R.H.
mix 15 sks in M.H.

Thank You

SERVICE

DEPTH OF JOB	2635'		
PUMP TRUCK CHARGE			2483.59
EXTRA FOOTAGE		@	
MILEAGE	MI HU 10mi	@ 7.70	77.00
MANIFOLD		@	
	MILU 10mi	@ 4.40	44.00
		@	
		TOTAL	2604.59

CHARGE TO: Downing & Nelson Oil Co LLC
STREET
CITY STATE ZIP

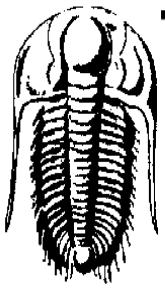
PLUG & FLOAT EQUIPMENT

wooden plug		@	107.64
		@	
		@	
		@	
		@	
		TOTAL	107.64

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

PRINTED NAME
SIGNATURE

SALES TAX (If Any)
TOTAL CHARGES 6,908.53
DISCOUNT 1,381.70 IF PAID IN 30 DAYS
5526.82 Net



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

Bixenman #1-28

28-9s-31w Thomas,KS

Start Date: 2013.10.04 @ 19:18:15
End Date: 2013.10.05 @ 01:19:45
Job Ticket #: 54678 DST #: 1

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

Printed: 2013.10.09 @ 09:14:58

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54678 **DST#: 1**

Test Start: 2013.10.04 @ 19:18:15

GENERAL INFORMATION:

Formation: **I-J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:35:30
Time Test Ended: 01:19:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 4245.00 ft (KB) To 4300.00 ft (KB) (TVD)
Total Depth: 4300.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

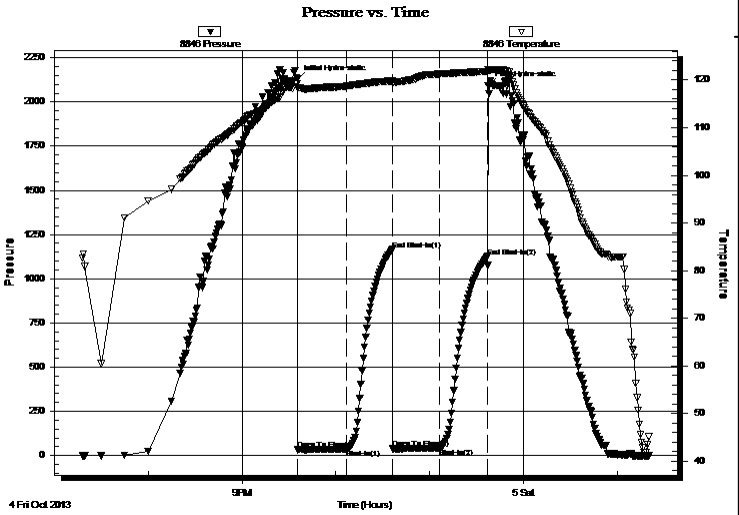
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: 40.95 psig @ 4246.00 ft (KB)
Start Date: 2013.10.04 End Date: 2013.10.05
Start Time: 19:18:15 End Time: 01:19:45

Capacity: 8000.00 psig
Last Calib.: 2013.10.05
Time On Btm: 2013.10.04 @ 21:35:15
Time Off Btm: 2013.10.04 @ 23:37:15

TEST COMMENT: IF:Built to 1/2" blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2129.68	119.19	Initial Hydro-static
1	32.56	118.45	Open To Flow (1)
32	36.36	118.72	Shut-In(1)
61	1165.68	119.82	End Shut-In(1)
61	38.38	119.33	Open To Flow (2)
91	40.95	121.27	Shut-In(2)
122	1126.00	121.78	End Shut-In(2)
122	2094.67	122.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud with oil spots	0.21

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54678 **DST#: 1**

Test Start: 2013.10.04 @ 19:18:15

GENERAL INFORMATION:

Formation: **I-J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:35:30
Time Test Ended: 01:19:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 4245.00 ft (KB) To 4300.00 ft (KB) (TVD)
Total Depth: 4300.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

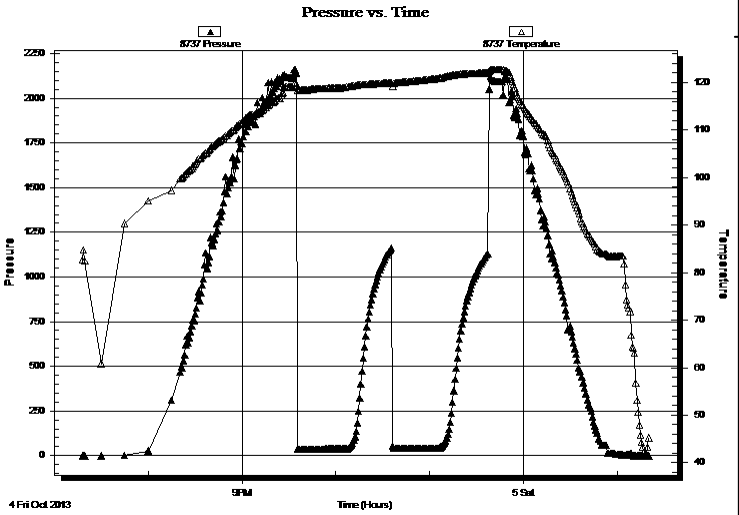
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8737 **Outside**

Press@RunDepth: psig @ 4246.00 ft (KB)
Start Date: 2013.10.04 End Date: 2013.10.05
Start Time: 19:18:15 End Time: 01:19:45

Capacity: 8000.00 psig
Last Calib.: 2013.10.05
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 1/2" blow
IS:No return blow
FF:No blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud with oil spots	0.21

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54678 **DST#: 1**

Test Start: 2013.10.04 @ 19:18:15

Tool Information

Drill Pipe:	Length:	4236.00 ft	Diameter:	3.80 inches	Volume:	59.42 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:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	59.42 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		20.00 ft					String Weight:	Initial	50000.00 lb
Depth to Top Packer:		4245.00 ft						Final	50000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		55.00 ft							
Tool Length:		84.00 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			4217.00		
Shut In Tool	5.00			4222.00		
Hydraulic tool	5.00			4227.00		
Jars	5.00			4232.00		
Safety Joint	3.00			4235.00		
Packer	5.00			4240.00	29.00	Bottom Of Top Packer
Packer	5.00			4245.00		
Stubb	1.00			4246.00		
Recorder	0.00	8846	Inside	4246.00		
Recorder	0.00	8737	Outside	4246.00		
Perforations	1.00			4247.00		
Change Over Sub	1.00			4248.00		
Drill Pipe	32.00			4280.00		
Change Over Sub	1.00			4281.00		
Perforations	14.00			4295.00		
Bullnose	5.00			4300.00	55.00	Bottom Packers & Anchor
Total Tool Length:	**84.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54678 **DST#: 1**

Test Start: 2013.10.04 @ 19:18:15

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:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.16 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	300.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

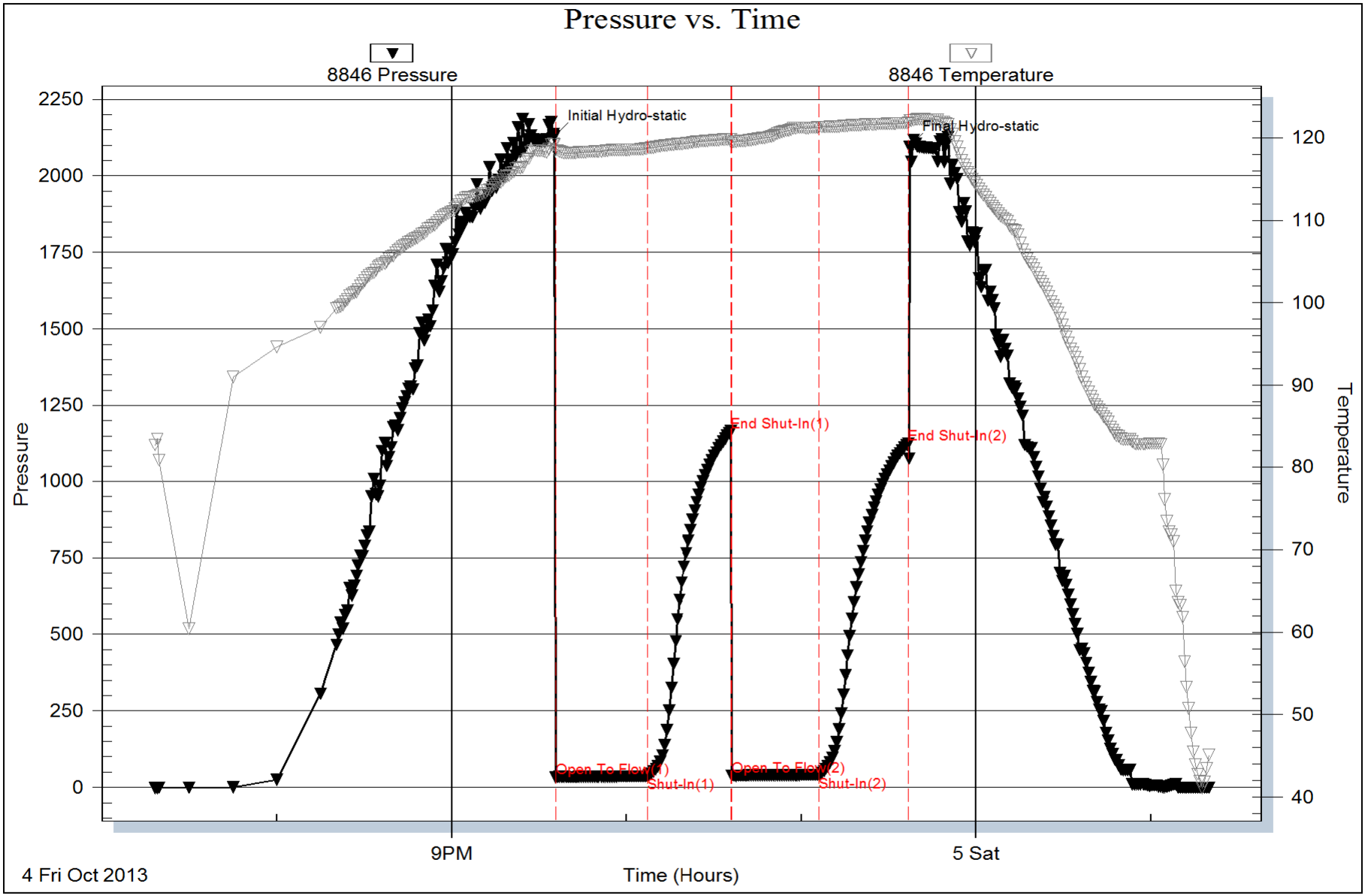
Recovery Table

Length ft	Description	Volume bbl
15.00	mud with oil spots	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

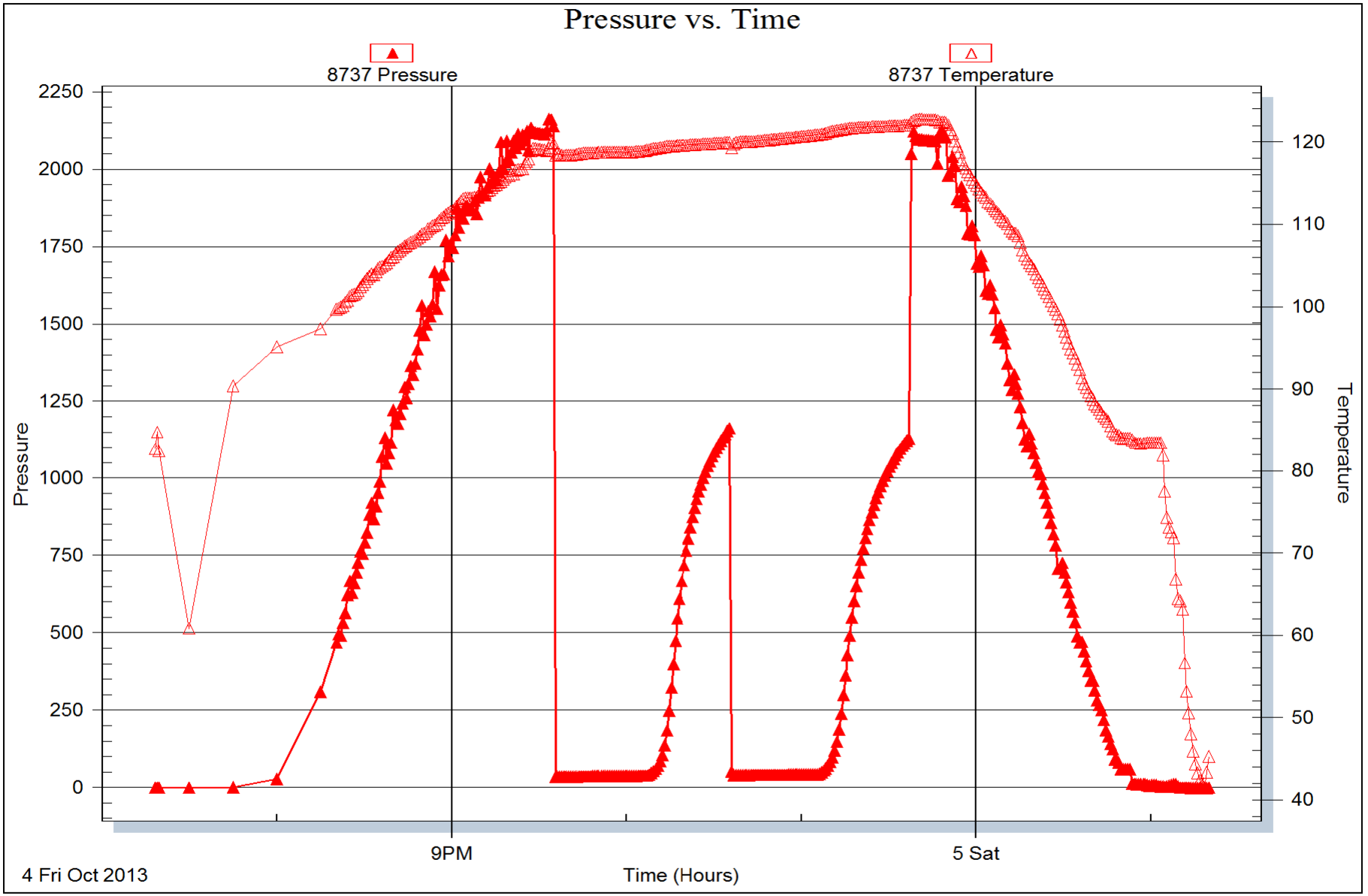
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8846 **Inside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54678 Printed: 2013.10.09 @ 09:15:00

Serial #: 8737 **Outside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 54678 Printed: 2013.10.09 @ 09:15:00

DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

Bixenman #1-28

28-9s-31w Thomas,KS

Start Date: 2013.10.05 @ 00:35:15
End Date: 2013.10.05 @ 07:14:00
Job Ticket #: 54679 DST #: 2

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

Printed: 2013.10.09 @ 09:14:22

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54679 **DST#: 2**

Test Start: 2013.10.05 @ 00:35:15

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:22:30
Time Test Ended: 07:14:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4452.00 ft (KB) To 4500.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

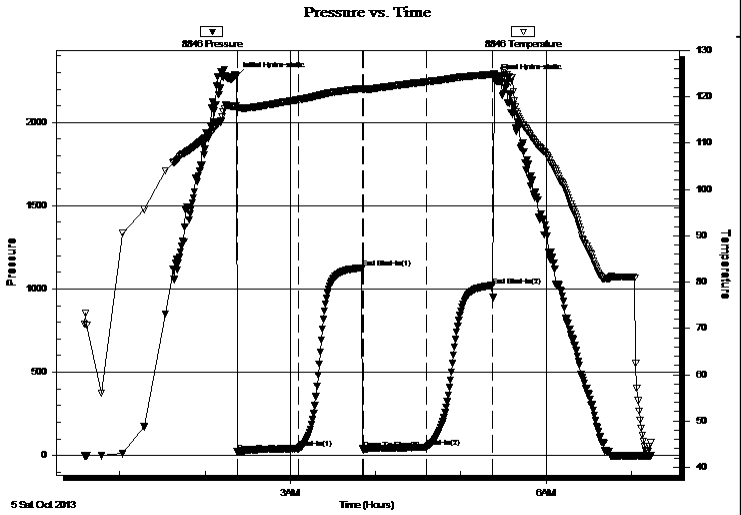
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: 49.39 psig @ 4453.00 ft (KB)
Start Date: 2013.10.05 End Date: 2013.10.05
Start Time: 00:35:15 End Time: 07:14:00

Capacity: 8000.00 psig
Last Calib.: 2013.10.06
Time On Btm: 2013.10.05 @ 02:22:15
Time Off Btm: 2013.10.05 @ 05:23:30

TEST COMMENT: IF:Built to 5" blow
IS:No return blow
FF:Built to 8" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.90	118.09	Initial Hydro-static
1	22.80	117.21	Open To Flow (1)
44	40.64	119.39	Shut-In(1)
89	1127.72	121.82	End Shut-In(1)
89	35.47	121.58	Open To Flow (2)
134	49.39	123.24	Shut-In(2)
180	1019.89	124.84	End Shut-In(2)
182	2261.90	124.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	ocm 10%o 90%m	0.98

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54679 **DST#: 2**

Test Start: 2013.10.05 @ 00:35:15

GENERAL INFORMATION:

Formation: **Pawnee**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:22:30
Time Test Ended: 07:14:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4452.00 ft (KB) To 4500.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

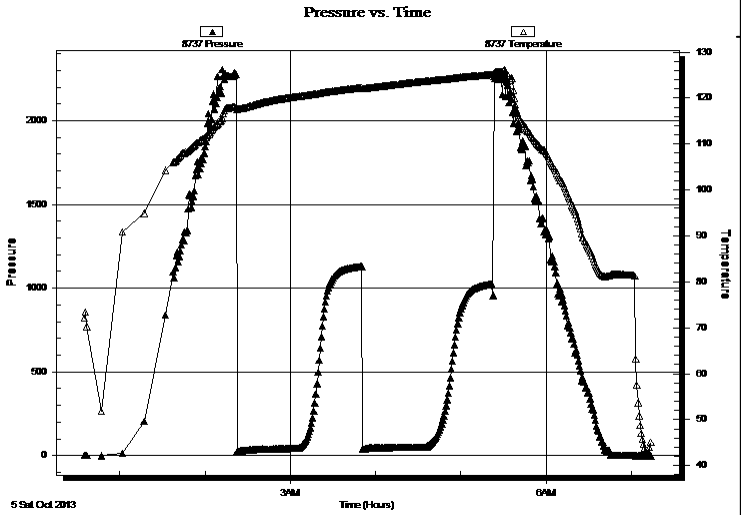
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8737 **Outside**

Press@RunDepth: psig @ 4453.00 ft (KB)
Start Date: 2013.10.05 End Date: 2013.10.05
Start Time: 00:35:15 End Time: 07:14:00

Capacity: 8000.00 psig
Last Calib.: 2013.10.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 5" blow
IS:No return blow
FF:Built to 8" blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	ocm 10%o 90%m	0.98

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54679 **DST#: 2**

Test Start: 2013.10.05 @ 00:35:15

Tool Information

Drill Pipe:	Length:	4455.00 ft	Diameter:	3.80 inches	Volume:	62.49 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	62.49 bbl	

Drill Pipe Above KB:	32.00 ft
Depth to Top Packer:	4452.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	48.00 ft
Tool Length:	77.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	1500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	80000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	50000.00 lb
Final	51000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4424.00		
Shut In Tool	5.00			4429.00		
Hydraulic tool	5.00			4434.00		
Jars	5.00			4439.00		
Safety Joint	3.00			4442.00		
Packer	5.00			4447.00	29.00	Bottom Of Top Packer
Packer	5.00			4452.00		
Stubb	1.00			4453.00		
Recorder	0.00	8846	Inside	4453.00		
Recorder	0.00	8737	Outside	4453.00		
Change Over Sub	1.00			4454.00		
Drill Pipe	32.00			4486.00		
Change Over Sub	1.00			4487.00		
Perforations	8.00			4495.00		
Bullnose	5.00			4500.00	48.00	Bottom Packers & Anchor
Total Tool Length:	**77.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54679 **DST#: 2**

Test Start: 2013.10.05 @ 00:35:15

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:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.96 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

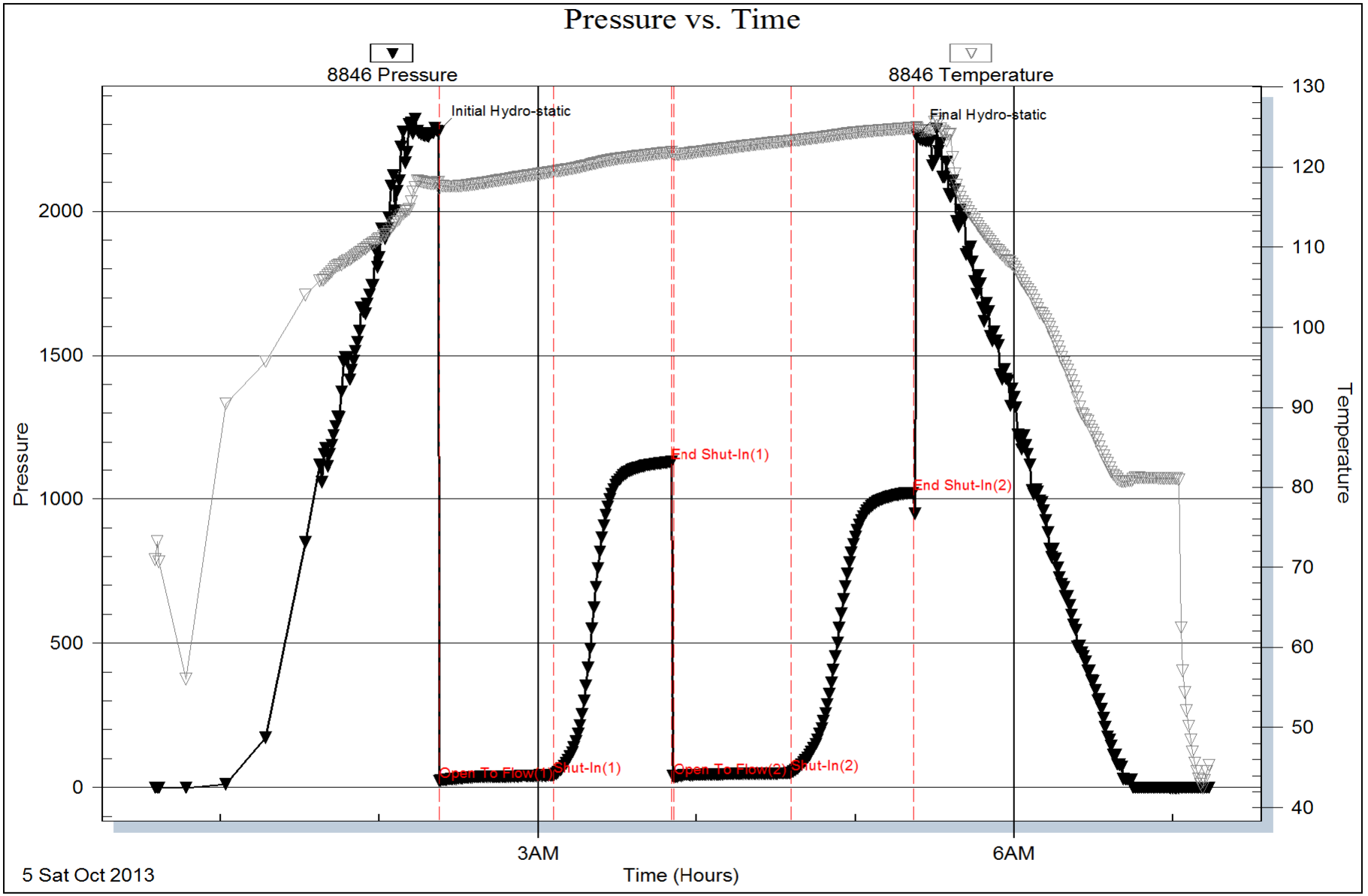
Recovery Table

Length ft	Description	Volume bbl
70.00	ocm 10%o 90%m	0.982

Total Length: 70.00 ft Total Volume: 0.982 bbl

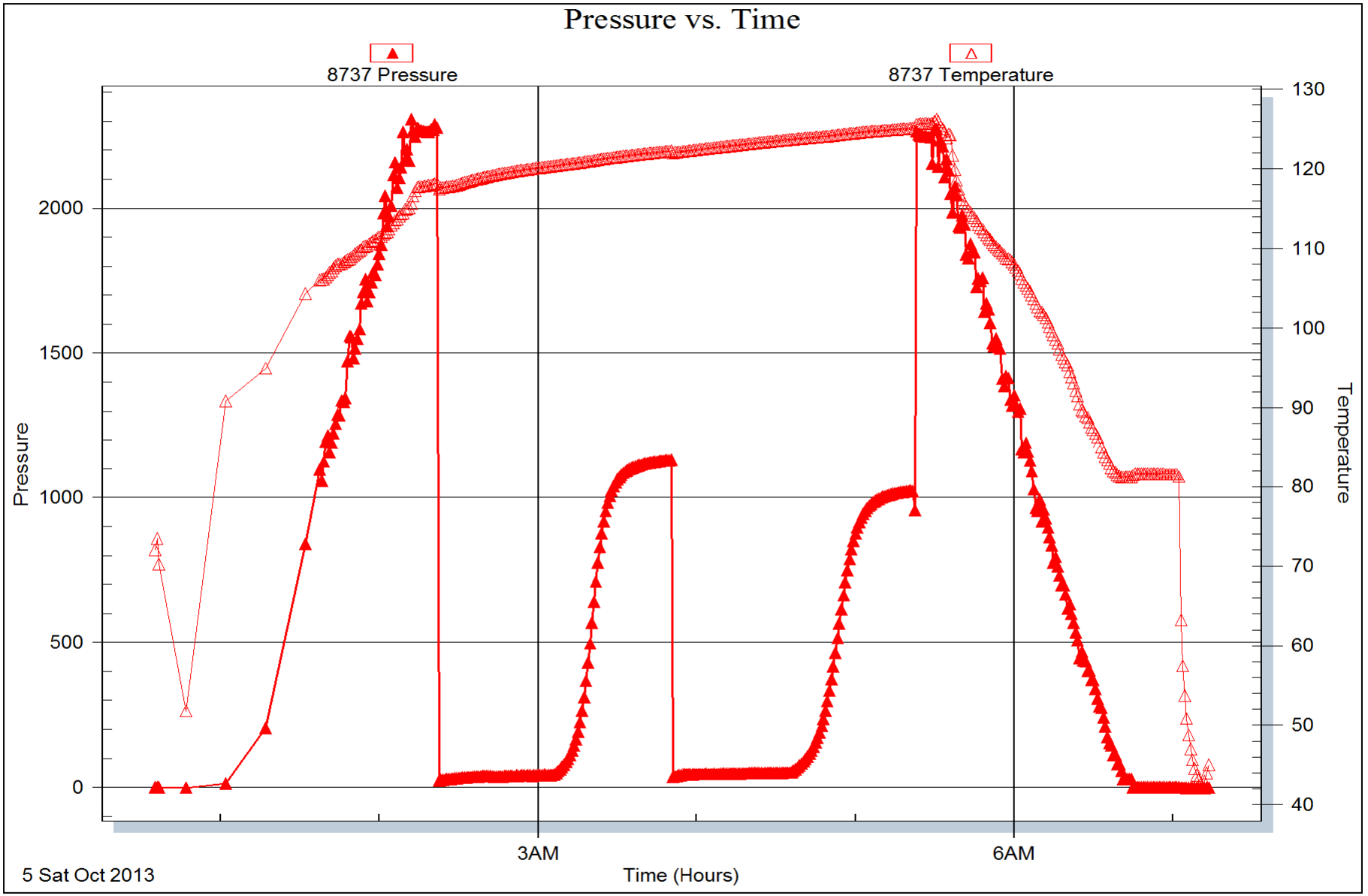
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8846 **Inside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 2

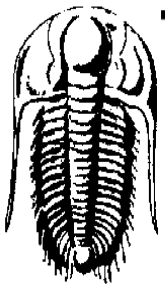


Trilobite Testing, Inc Ref. No: 54679 Printed: 2013.10.09 @ 09:14:24

Serial #: 8737 **Outside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 54679 Printed: 2013.10.09 @ 09:14:24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

Bixenman #1-28

28-9s-31w Thomas,KS

Start Date: 2013.10.06 @ 16:25:15
End Date: 2013.10.06 @ 22:14:15
Job Ticket #: 54680 DST #: 3

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

Printed: 2013.10.09 @ 09:13:53

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54680 **DST#: 3**

Test Start: 2013.10.06 @ 16:25:15

GENERAL INFORMATION:

Formation: **Myrick Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:14:30
Time Test Ended: 22:14:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4496.00 ft (KB) To 4545.00 ft (KB) (TVD)
Total Depth: 4545.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

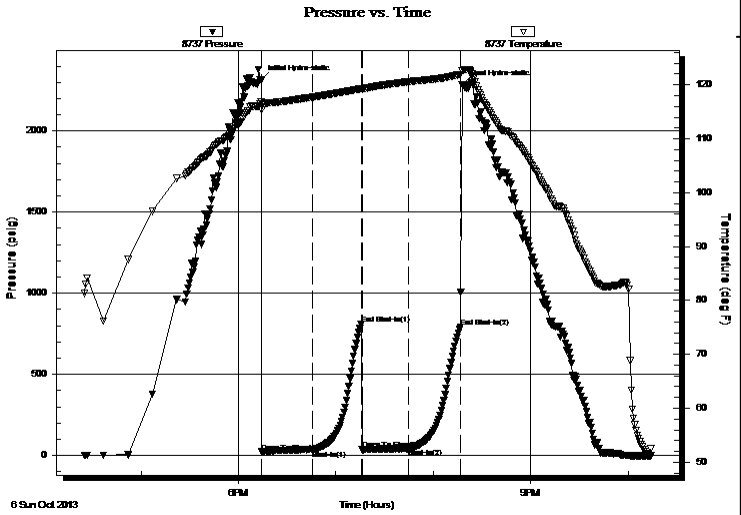
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8737 **Outside**

Press@RunDepth: 42.07 psig @ 4497.00 ft (KB)
Start Date: 2013.10.06 End Date: 2013.10.06
Start Time: 16:25:15 End Time: 22:14:15

Capacity: 8000.00 psig
Last Calib.: 2013.10.06
Time On Btm: 2013.10.06 @ 18:14:15
Time Off Btm: 2013.10.06 @ 20:17:45

TEST COMMENT: IF:Built to 3/4" blow
IS:No retun blow
FF: Built to 1/2" blow
FS:No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2313.65	116.93	Initial Hydro-static
1	23.11	115.37	Open To Flow (1)
32	34.49	117.70	Shut-In(1)
62	810.97	119.25	End Shut-In(1)
62	35.41	119.16	Open To Flow (2)
91	42.07	120.58	Shut-In(2)
123	790.74	121.88	End Shut-In(2)
124	2286.61	122.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	mud with slight trace of oil	0.63

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54680 **DST#: 3**

Test Start: 2013.10.06 @ 16:25:15

GENERAL INFORMATION:

Formation: **Myrick Station**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:14:30
Time Test Ended: 22:14:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65

Interval: 4496.00 ft (KB) To 4545.00 ft (KB) (TVD)
Total Depth: 4545.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

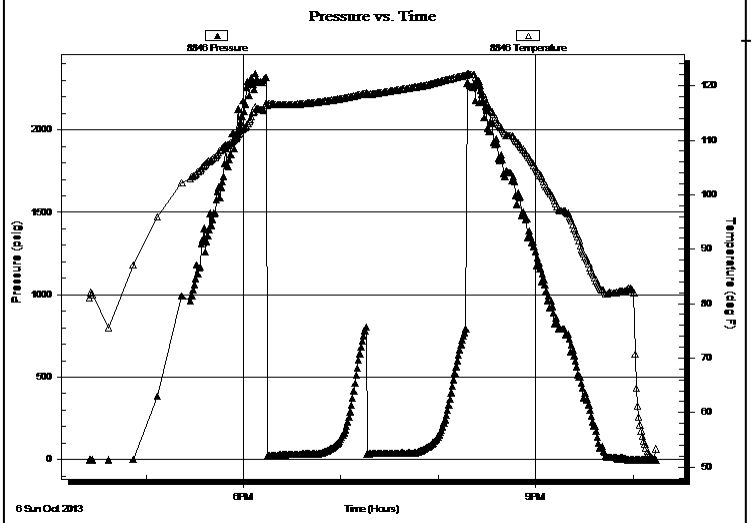
Reference Elevations: 3049.00 ft (KB)
3044.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: psig @ 4497.00 ft (KB)
Start Date: 2013.10.06 End Date: 2013.10.06
Start Time: 16:25:15 End Time: 22:14:15

Capacity: 8000.00 psig
Last Calib.: 2013.10.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:Built to 3/4" blow
IS:No retun blow
FF: Built to 1/2" blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
45.00	mud with slight trace of oil	0.63

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54680 **DST#: 3**

Test Start: 2013.10.06 @ 16:25:15

Tool Information

Drill Pipe:	Length:	4499.00 ft	Diameter:	3.80 inches	Volume:	63.11 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	63.11 bbl	

Drill Pipe Above KB:	32.00 ft
Depth to Top Packer:	4496.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	49.00 ft
Tool Length:	78.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	1500.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	70000.00 lb
Tool Chased	5.00 ft
String Weight: Initial	51000.00 lb
Final	51000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4468.00		
Shut In Tool	5.00			4473.00		
Hydraulic tool	5.00			4478.00		
Jars	5.00			4483.00		
Safety Joint	3.00			4486.00		
Packer	5.00			4491.00	29.00	Bottom Of Top Packer
Packer	5.00			4496.00		
Stubb	1.00			4497.00		
Recorder	0.00	8846	Inside	4497.00		
Recorder	0.00	8737	Outside	4497.00		
Perforations	8.00			4505.00		
Change Over Sub	1.00			4506.00		
Drill Pipe	32.00			4538.00		
Change Over Sub	1.00			4539.00		
Perforations	1.00			4540.00		
Bullnose	5.00			4545.00	49.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Inc.

P.O. Box 1019
Hays KS 67601

ATTN: Marc Downing

28-9s-31w Thomas,KS

Bixenman #1-28

Job Ticket: 54680 **DST#: 3**

Test Start: 2013.10.06 @ 16:25:15

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:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.97 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

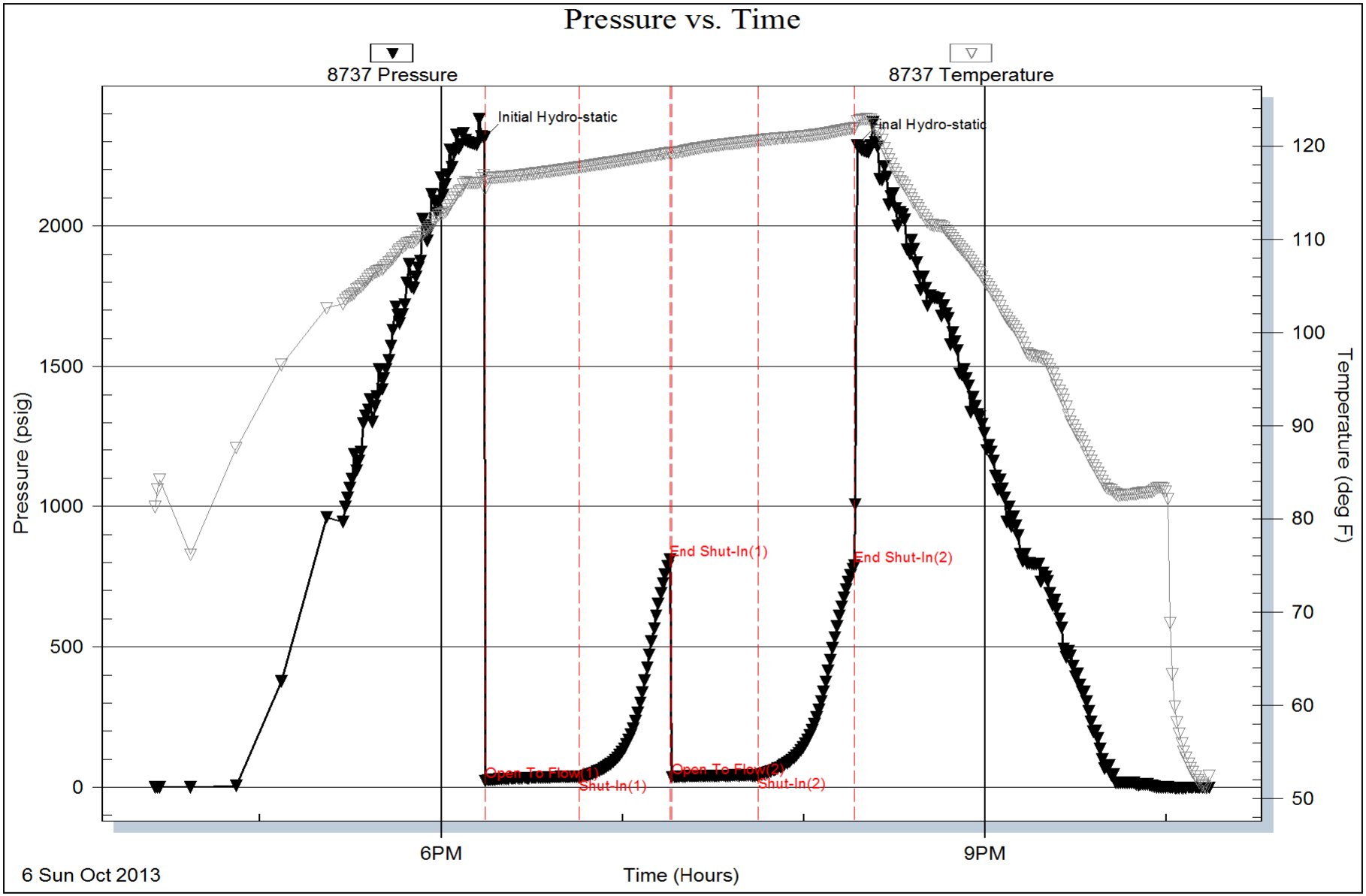
Recovery Table

Length ft	Description	Volume bbl
45.00	mud with slight trace of oil	0.631

Total Length: 45.00 ft Total Volume: 0.631 bbl

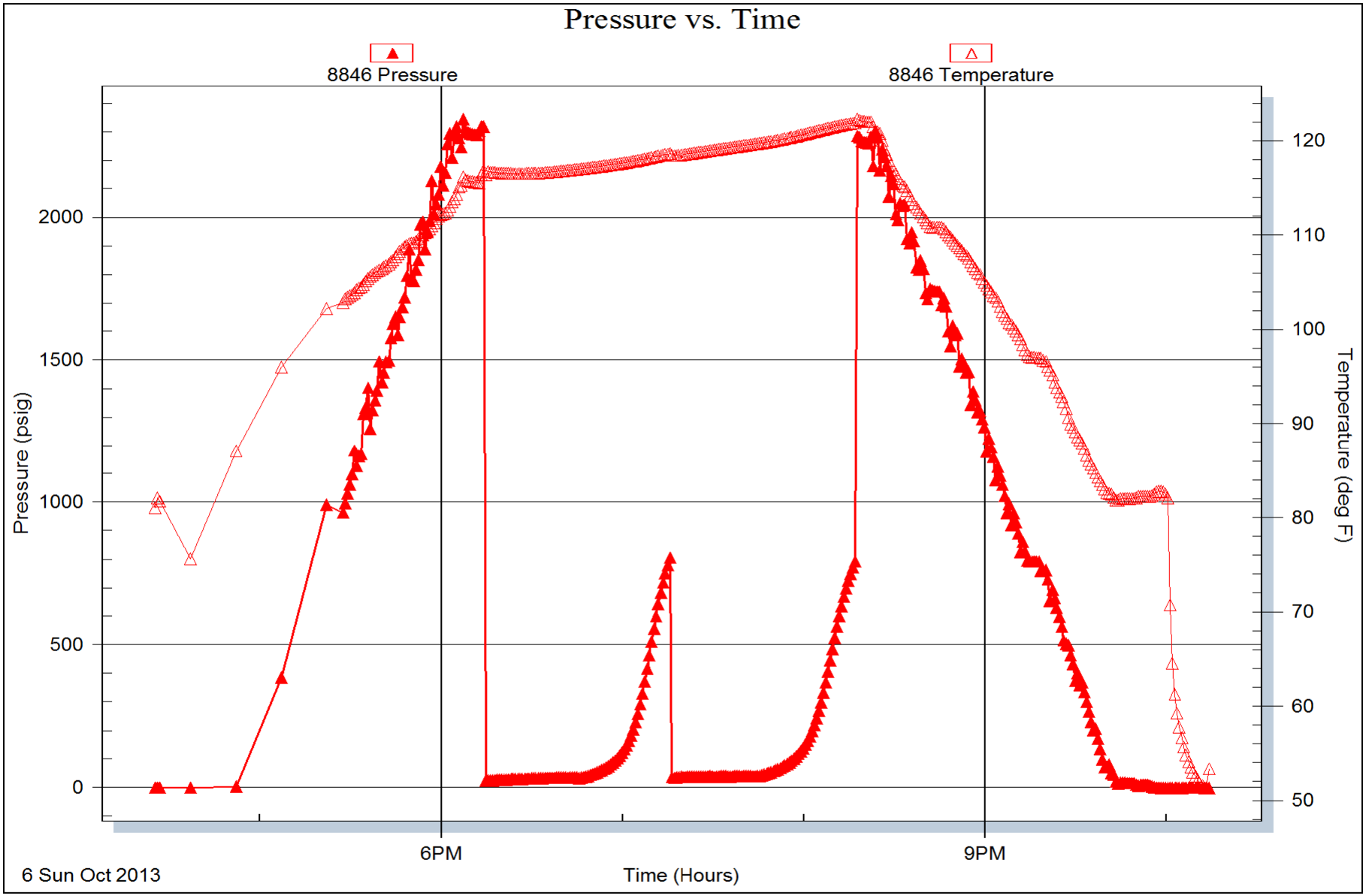
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8737 **Outside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 54680 Printed: 2013.10.09 @ 09:13:55

Serial #: 8846 **Inside** Downing Nelson Oil Inc. Bixenman #1-28 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 54680 Printed: 2013.10.09 @ 09:13:55

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54678

Well Name & No. Bixenman 1-28 Test No. 1 Date 10-4-13

Company Downing Nelson Oil Inc. Elevation 3049 KB 3044 GL

Address P.O. Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Discovery #1

Location: Sec. 28 Twp. 9 Rge. 31 Co. Thomas State KS

Interval Tested 4245-4300 Zone Tested I-J

Anchor Length 55' Drill Pipe Run 4236 Mud Wt. ~~9.2~~ 8.7

Top Packer Depth 4241 Drill Collars Run 0 Vis 55

Bottom Packer Depth 4245 Wt. Pipe Run 0 WL 7.2

Total Depth 4300 Chlorides 300 ppm System LCM 2½#

Blow Description IF: Built to ½" Blow

IS: No Return Blow

FF: No Blow

FS: No Return Blow

Rec 15	Feet of MUD with oil spots	%gas	%oil	%water 100	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 122 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2129	☑ Test 1250	T-On Location 17:40	
(B) First Initial Flow 32	☑ Jars 250	T-Started 19:18	
(C) First Final Flow 36	☑ Safety Joint 75	T-Open 21:35	
(D) Initial Shut-In 1165	☑ Circ Sub NC	T-Pulled 23:35	
(E) Second Initial Flow 38	☐ Hourly Standby	T-Out 01:19	
(F) Second Final Flow 40	☑ Mileage 132RT 102rt 158.10	Comments	
(G) Final Shut-In 1126	☐ Sampler		
(H) Final Hydrostatic 2094	☐ 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 1733.10	
Final Shut-In 30	☐ Accessibility	MP/DST Disc't	
	Sub Total 1733.10		

Approved By _____ Our Representative Mike Robertson

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54679

Well Name & No. Bixenman 1-28 Test No. 2 Date 10-6-13

Company Downing Nelson Oil Inc. Elevation 3049 KB 3044 GL

Address P.O. Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Discovery 1

Location: Sec. 28 Twp. 9 Rge. 31 Co. Thomas State KS

Interval Tested 4457-4500 Zone Tested Pawnee

Anchor Length 48 Drill Pipe Run 4455 Mud Wt. 9.3

Top Packer Depth 4448 Drill Collars Run 61 Vis 56

Bottom Packer Depth 4452 Wt. Pipe Run 0 WL 8.0

Total Depth 4500 Chlorides 1500 ppm System LCM 1/2

Blow Description IF: Built to 5" Blow
IS: No Return Blow
FF: Built to 8" Blow
FS: No Return Blow

Rec 70	Feet of OCM	%gas	10 %oil	%water	90 %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 70 BHT 125 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2274	☑ Test 1250	T-On Location 12:00	
(B) First Initial Flow 22	☑ Jars 250	T-Started 12:35	
(C) First Final Flow 40	☑ Safety Joint 75	T-Open 02:20	
(D) Initial Shut-In 1127	☑ Circ Sub	T-Pulled 05:20	
(E) Second Initial Flow 35	☐ Hourly Standby	T-Out 07:14	
(F) Second Final Flow 49	☑ Mileage 132 RT 158.10	Comments	
(G) Final Shut-In 1019	☐ Sampler		
(H) Final Hydrostatic 2261	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 45	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 45	☐ Day Standby	Total 1733.10	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1733.10		

Approved By _____ Our Representative Mike Robertson

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 54680

Well Name & No. Bixenman 1-28 Test No. 3 Date 10-7-13

Company Downing Nelson Oil Inc. Elevation 3049 KB 3049 GL

Address P.O. Box 1019 Hays KS 67601

Co. Rep / Geo. MARC DOWNING Rig Discovery 1

Location: Sec. 28 Twp. 9 Rge. 31 Co. Thomas State KS

Interval Tested 4496-4545 Zone Tested Myrick Station

Anchor Length 49' Drill Pipe Run 4499 Mud Wt. 9.3

Top Packer Depth 4492 Drill Collars Run 61 Vis 56

Bottom Packer Depth 4496 Wt. Pipe Run 0 WL 8.0

Total Depth 4545 Chlorides 1500 ppm System LCM 1/2

Blow Description IF: Built to 3/4" Blow

IS: No Return Blow

FF: Built to 1/2" Blow

FS: No Return Blow

Rec 45	Feet of MUD with Slight trace of oil	%gas	%oil	%water 50	%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 45 BHT 125 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2135	☑ Test 1250	T-On Location 15:00	
(B) First Initial Flow 23	☑ Jars 250	T-Started 16:25	
(C) First Final Flow 34	☑ Safety Joint 75	T-Open 18:15	
(D) Initial Shut-In 810	☑ Circ Sub NC	T-Pulled 20:15	
(E) Second Initial Flow 35	☐ Hourly Standby	T-Out 22:14	
(F) Second Final Flow 42	☑ Mileage 132 RT 316.20	Comments loaded tools 10/7 16:45	
(G) Final Shut-In 790	☐ Sampler		
(H) Final Hydrostatic 2286	☐ 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 1891.20	
Final Shut-In 30	☐ Accessibility	MP/DST Disc't	
	Sub Total 1891.20		

Approved By _____ Our Representative Mike Robertson