



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1212761
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: _____

1212761

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No 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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____	PRODUCTION INTERVAL: _____ _____
--	--	---

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Seitz-Barhardt C-4
Doc ID	1212761

Tops

Name	Top	Datum
Top Anhydrite	1559'	+637
Base Anhydrite	1604'	+592
Topeka	3215'	-1019
Heebner	3439'	-1243
Toronto	3462'	-1266
LKC	3474'	-1278
BKC	3709'	-1574
Marmaton	3770'	-1574
Arbuckle	3844'	-1648

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. 303

Date	6-20-14	Sec	22	Twp.	B	Range	17	County	Ellis	State	KS	On Location	7:15pm	Finish	8:30am
------	---------	-----	----	------	---	-------	----	--------	-------	-------	----	-------------	--------	--------	--------

Lease	Seitz-Barnhardt C#4	Well No.	4	Owner	Sinto
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Contractor	Discovery 3	Charge To	To Quality Oilwell Cementing, Inc.
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Type Job	Surface	Street	Downing / Nelson
----------	---------	--------	------------------

Hole Size	12 1/4	T.D.	220	City		State	
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Csg.	8 1/8	Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
------	-------	-------	--	--	--	--

Tbg. Size		Depth		Cement Amount Ordered	150 Colm 3% CC
-----------	--	-------	--	-----------------------	----------------

Tool		Depth		Cement Left in Csg.	20ft	Shoe Joint	20ft
------	--	-------	--	---------------------	------	------------	------

Meas Line		Displace	17.3/4	Common	750
-----------	--	----------	--------	--------	-----

EQUIPMENT

Pumptrk	17	No.		Cementer	Matt	Poz. Mix	
---------	----	-----	--	----------	------	----------	--

Bulktrk	1	No.		Helper		Gel.	3
---------	---	-----	--	--------	--	------	---

Bulktrk	pu	No.		Driver	Nick	Calcium	5
---------	----	-----	--	--------	------	---------	---

JOB SERVICES & REMARKS

Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	

*Cement did
Circulate
Frank*

FLOAT EQUIPMENT

Handling	158
Mileage	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	26

X Signature	[Signature]	Tax	
		Discount	
		Total Charge	

JOB LOG

SWIFT Services, Inc.

DATE 6-26-14 PAGE NO.

CUSTOMER Dunning Nelson WELL NO. 64 LEASE Slitz-Bachard JOB TYPE 5 1/2 Two Stage TICKET NO. 26664

CHART NO.	TIME	RATE (BPM)	VOLUME (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2230							on location
								TO 3950 SS 20
								IP 3948 Insert 3928
								OV top 59 1528' 5 1/2 x 14"
								centralizers 1,3,5,7,9,11,58
								Basket 59
	2330							Start Pipe
	0100							Drop Ball circulate Rotate
	0200	5	12		✓		300	Start Mod Flush
		5	20		✓		300	Start KLL Flush
		5	36		✓		200	Start GA-2
	0232							Drop Plug wash out Pump + Lines
	0235	6.5						Start Displacement
		6.5	70		✓			Start KLL
		6.5	95.8		✓		300 1500	land plug Hold
					✓			Release Dry
	0250							Drop opening Plug
			7/4					Plug RH 30 stks, MH 15 stks
	0300							open DV
	0305	5	86		✓			Start SMD 155 stks @ 11.2"/gal
		5	7		✓			25 stks @ 14"/gal
	0320							Drop Closing Plug
	0322	5			✓			Start Displacement
		5	25		✓		400	circulate Cement 20 SKS TO PIT.
	0330	5	37.2		✓		400 1500	land Plug Close DV
								Release Dry
								wash up Rock up
	0415							Job Complete
								Thank You

Josh, Brian, Jerod



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Seitz-Barrhardt #C-4

34-12S-21W Trego,KS

Start Date: 2014.06.25 @ 03:48:09

End Date: 2014.06.25 @ 12:04:39

Job Ticket #: 59429 DST #: 1

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

Printed: 2014.06.27 @ 10:35:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59429

DST#: 1

ATTN: Marc Dow ning

Test Start: 2014.06.25 @ 03:48:09

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:11:09

Time Test Ended: 12:04:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 48

Interval: 3792.00 ft (KB) To 3847.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 3847.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8321 Outside

Press@RunDepth: 44.44 psig @ 3811.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.25 End Date: 2014.06.25

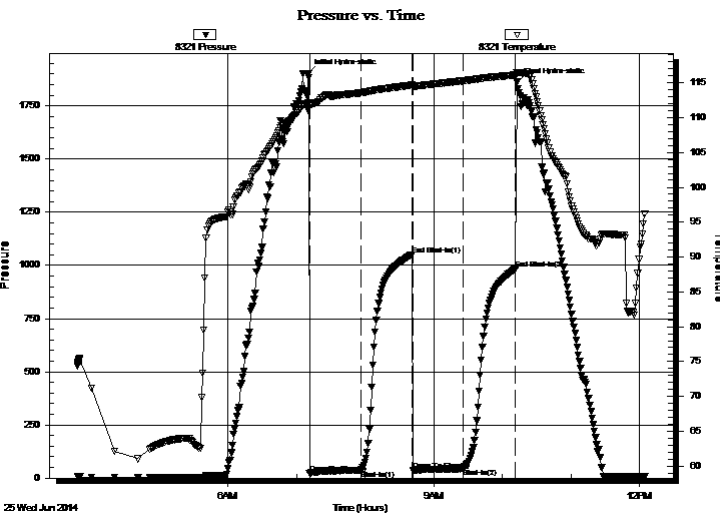
Last Calib.: 2014.06.25

Start Time: 03:48:10 End Time: 12:04:39

Time On Btm: 2014.06.25 @ 07:10:09

Time Off Btm: 2014.06.25 @ 10:12:39

TEST COMMENT: 45- IF- Slow ly built to 3"
45- IS- No blow
45- FF- Slow ly built to 2"
45- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.44	112.07	Initial Hydro-static
1	22.63	111.65	Open To Flow (1)
46	37.18	113.53	Shut-In(1)
91	1049.67	114.64	End Shut-In(1)
92	38.27	114.42	Open To Flow (2)
136	44.44	115.27	Shut-In(2)
182	984.20	116.10	End Shut-In(2)
183	1861.55	116.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	MCO, 40%M 60%O	0.28
25.00	CO	0.34

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.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59429

DST#: 1

ATTN: Marc Dow ning

Test Start: 2014.06.25 @ 03:48:09

Tool Information

Drill Pipe:	Length: 3771.00 ft	Diameter: 3.75 inches	Volume: 51.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3792.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	55.00 ft			
Tool Length:	75.00 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			3773.00	
Shut In Tool	5.00			3778.00	
Hydraulic tool	5.00			3783.00	
Packer	5.00			3788.00	20.00 Bottom Of Top Packer
Packer	4.00			3792.00	
Stubb	1.00			3793.00	
Perforations	18.00			3811.00	
Recorder	0.00	8372	Inside	3811.00	
Recorder	0.00	8321	Outside	3811.00	
Change Over Sub	1.00			3812.00	
Drill Pipe	31.00			3843.00	
Change Over Sub	1.00			3844.00	
Bullnose	3.00			3847.00	55.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59429

DST#: 1

ATTN: Marc Dow ning

Test Start: 2014.06.25 @ 03:48:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	MCO, 40%M 60%O	0.275
25.00	CO	0.342

Total Length: 65.00 ft

Total Volume: 0.617 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

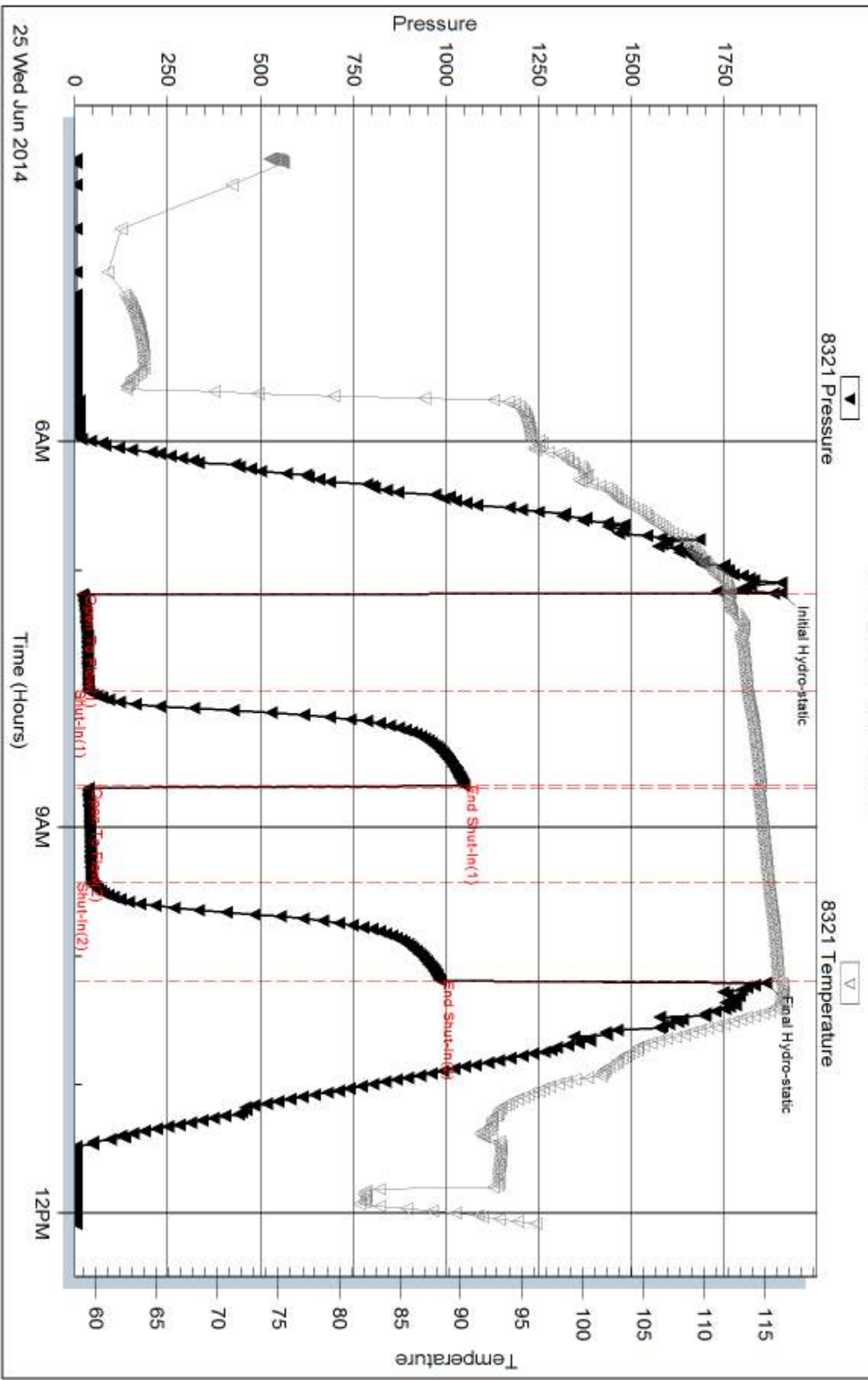
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



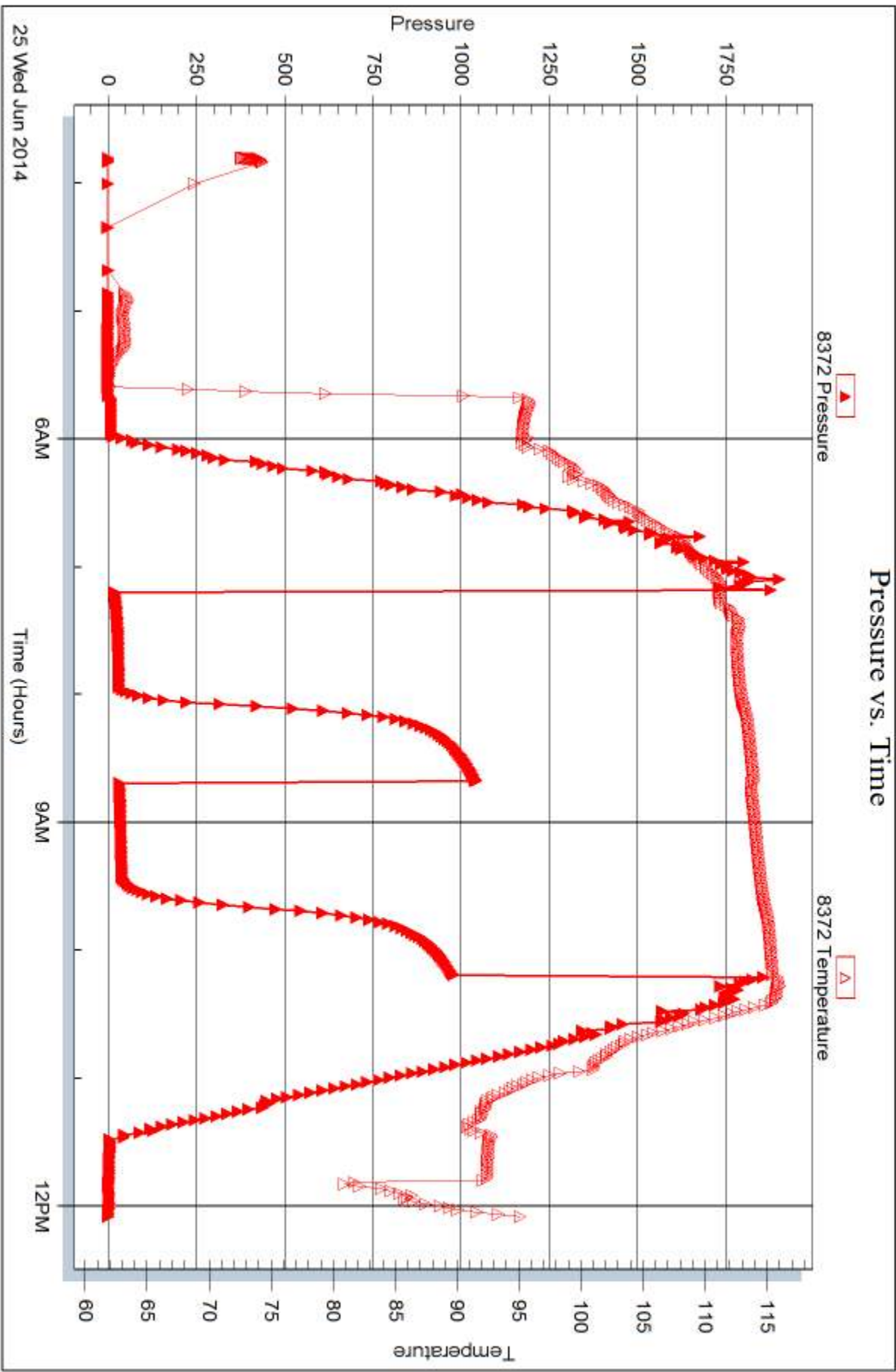
Serial #: 8372

Inside

Dow nrg-Nelson Oil Co. Inc.

Seitz-Barrhardt #C-4

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Seitz-Barrhardt #C-4

34-12S-21W Trego,KS

Start Date: 2014.06.26 @ 01:30:30

End Date: 2014.06.26 @ 08:30:00

Job Ticket #: 59430 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.27 @ 10:34:24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59430

DST#: 2

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 01:30:30

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:29:00

Time Test Ended: 08:30:00

Test Type: Conventional Straddle (Reset)

Tester: Brannan Lonsdale

Unit No: 48

Interval: 3790.00 ft (KB) To 3865.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 3953.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8321

Inside

Press@RunDepth: 160.74 psig @ 3861.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.26

End Date:

2014.06.26

Last Calib.:

2014.06.26

Start Time: 01:30:31

End Time:

08:30:00

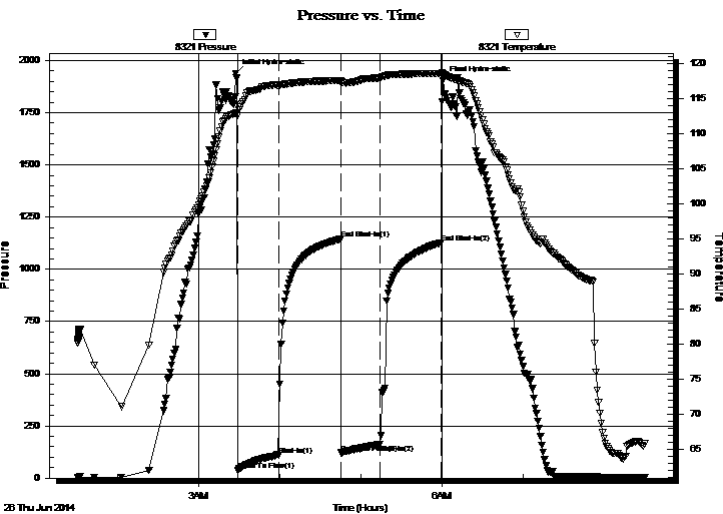
Time On Btm:

2014.06.26 @ 03:27:30

Time Off Btm:

2014.06.26 @ 06:01:00

TEST COMMENT: 30- IF- BOB 12 mins
45- IS- No blow
30- FF- Slow ly built to 9"
45- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.69	112.88	Initial Hydro-static
2	37.79	112.58	Open To Flow (1)
32	110.50	116.84	Shut-In(1)
78	1144.77	117.54	End Shut-In(1)
78	120.55	117.29	Open To Flow (2)
107	160.74	117.98	Shut-In(2)
152	1126.32	118.52	End Shut-In(2)
154	1904.35	118.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
225.00	OCM, 10%O 90%M	2.80
60.00	M	0.82

* 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.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59430

DST#: 2

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 01:30:30

Tool Information

Drill Pipe:	Length: 3771.00 ft	Diameter: 3.75 inches	Volume: 51.51 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	3790.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	3865.00 ft				
Interval betw een Packers:	75.00 ft				
Tool Length:	183.00 ft				
Number of Packers:	3	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3771.00	
Shut In Tool	5.00			3776.00	
Hydraulic tool	5.00			3781.00	
Packer	5.00			3786.00	20.00 Bottom Of Top Packer
Packer	4.00			3790.00	
Stubb	1.00			3791.00	
Change Over Sub	1.00			3792.00	
Drill Pipe	63.00			3855.00	
Change Over Sub	1.00			3856.00	
Perforations	5.00			3861.00	
Recorder	0.00	8321	Inside	3861.00	
Recorder	0.00	8372	Outside	3861.00	
Blank Off Sub	1.00			3862.00	
Blank Spacing	3.00			3865.00	75.00 Tool Interval
Packer	1.00			3866.00	
Stubb	1.00			3867.00	
Perforations	18.00			3885.00	
Change Over Sub	1.00			3886.00	
Recorder	0.00	8647	Below	3886.00	
Blank Spacing	63.00			3949.00	
Change Over Sub	1.00			3950.00	
Bullnose	3.00			3953.00	88.00 Bottom Packers & Anchor

Total Tool Length: 183.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59430

DST#: 2

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 01:30:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
225.00	OCM, 10%O 90%M	2.803
60.00	M	0.820

Total Length: 285.00 ft

Total Volume: 3.623 bbf

Num Fluid Samples: 0

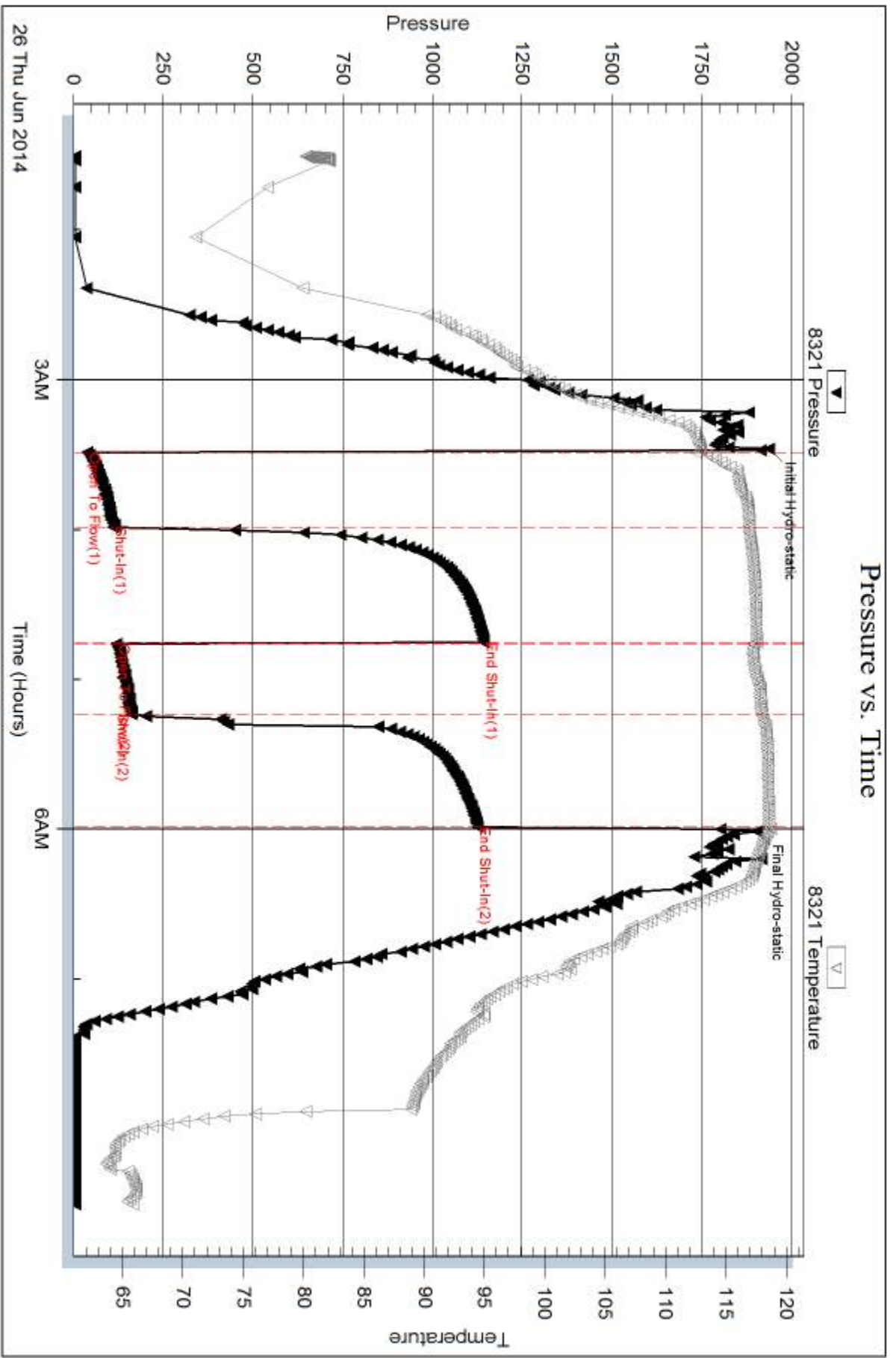
Num Gas Bombs: 0

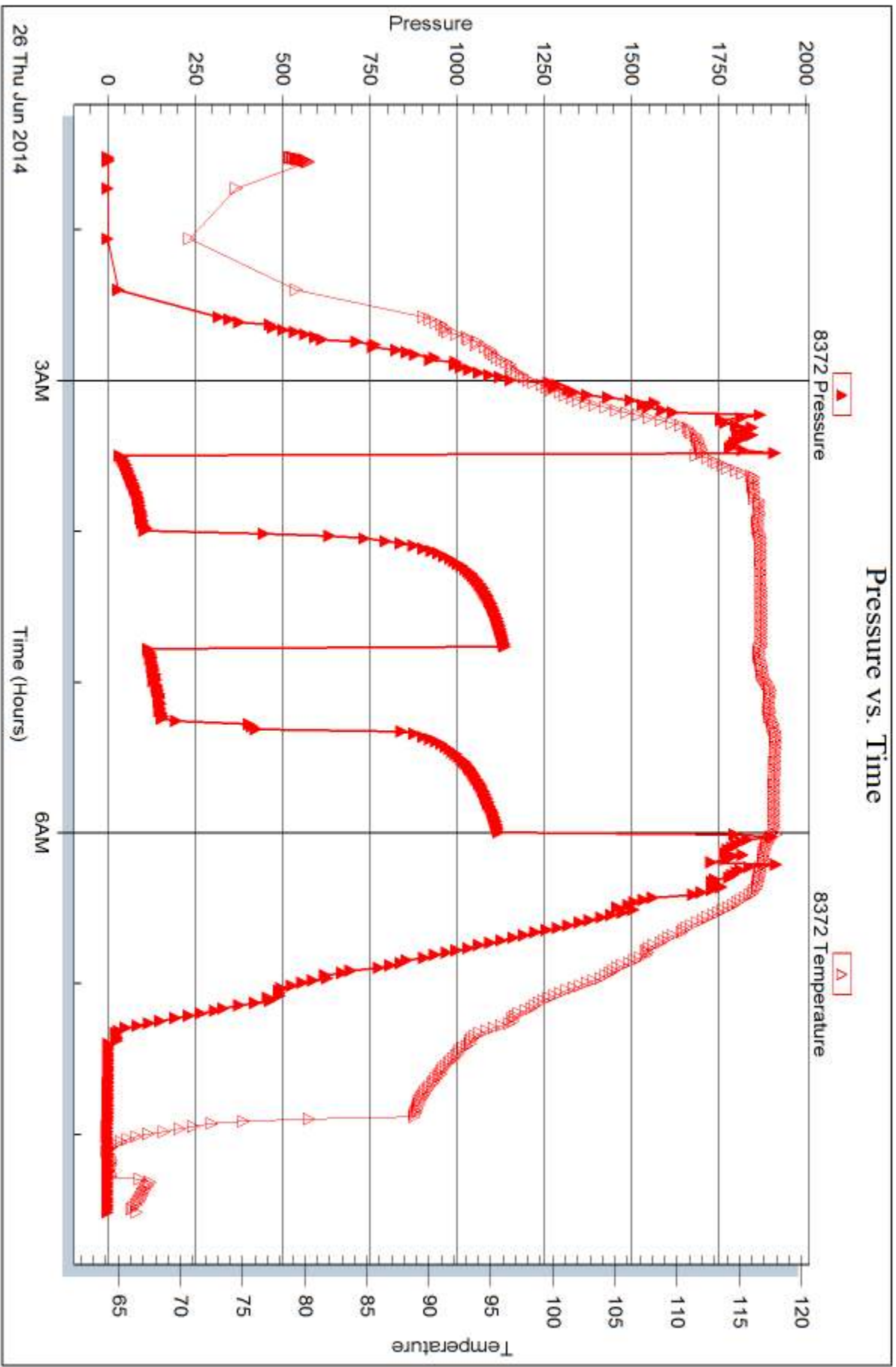
Serial #:

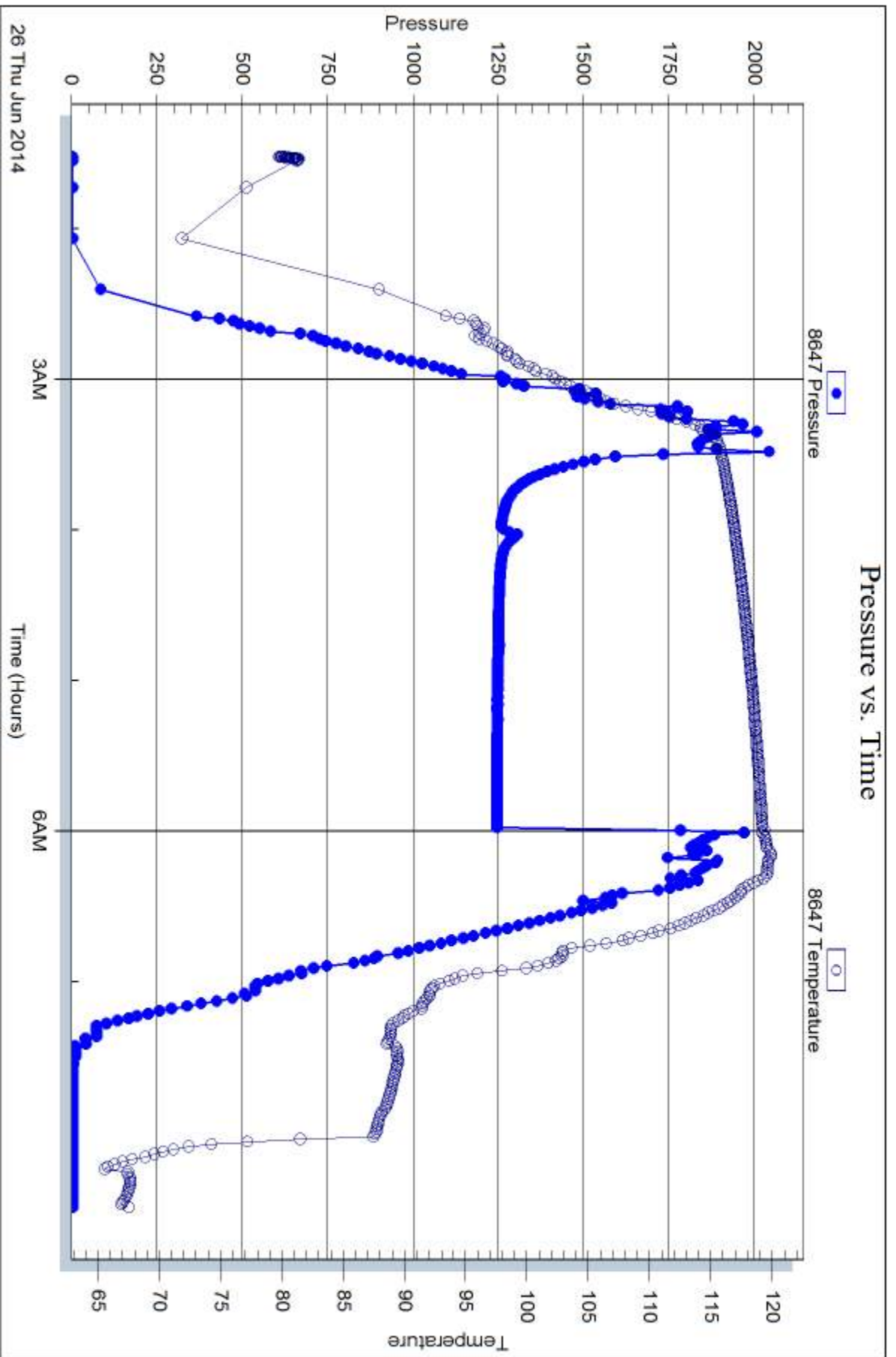
Laboratory Name:

Laboratory Location:

Recovery Comments:









DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Seitz-Barrhardt #C-4

34-12S-21W Trego,KS

Start Date: 2014.06.26 @ 09:05:45

End Date: 2014.06.26 @ 17:03:45

Job Ticket #: 59431 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.27 @ 10:32:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59431

DST#: 3

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 09:05:45

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:14:15

Time Test Ended: 17:03:45

Test Type: Conventional Straddle (Reset)

Tester: Brannan Lonsdale

Unit No: 48

Interval: 3865.00 ft (KB) To 3880.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 3953.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8372 Outside

Press@RunDepth: 365.01 psig @ 3876.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.26

End Date:

2014.06.26

Last Calib.:

2014.06.26

Start Time: 09:05:46

End Time:

17:03:45

Time On Btm:

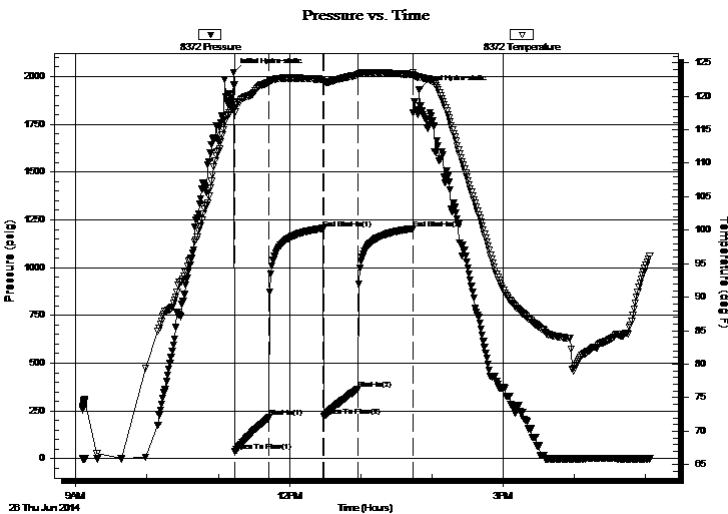
2014.06.26 @ 11:12:45

Time Off Btm:

2014.06.26 @ 13:49:15

TEST COMMENT: 30- IF- BOB 6 mins
45- IS- Very weak surface blow
30- FF- BOB 7 mins
45- FS- Very weak surface blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2021.75	118.18	Initial Hydro-static
2	40.16	117.59	Open To Flow (1)
30	215.16	122.00	Shut-In(1)
76	1205.53	122.50	End Shut-In(1)
77	221.60	122.19	Open To Flow (2)
105	365.01	123.15	Shut-In(2)
151	1204.32	123.23	End Shut-In(2)
157	1932.25	122.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
645.00	SOCMW, 10%O 15%M 75%W	8.54
20.00	CO ₂	0.27

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.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59431

DST#: 3

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 09:05:45

Tool Information

Drill Pipe:	Length: 3835.00 ft	Diameter: 3.75 inches	Volume: 52.39 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 7000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3865.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	3880.00 ft			
Interval betw een Packers:	15.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			3846.00	
Shut In Tool	5.00			3851.00	
Hydraulic tool	5.00			3856.00	
Packer	5.00			3861.00	20.00 Bottom Of Top Packer
Packer	4.00			3865.00	
Stubb	1.00			3866.00	
Perforations	10.00			3876.00	
Recorder	0.00	8321	Inside	3876.00	
Recorder	0.00	8372	Outside	3876.00	
Blank Off Sub	1.00			3877.00	
Blank Spacing	3.00			3880.00	15.00 Tool Interval
Packer	1.00			3881.00	
Stubb	1.00			3882.00	
Perforations	3.00			3885.00	
Change Over Sub	1.00			3886.00	
Recorder	0.00	8647	Below	3886.00	
Blank Spacing	63.00			3949.00	
Change Over Sub	1.00			3950.00	
Bullnose	3.00			3953.00	73.00 Bottom Packers & Anchor

Total Tool Length: 108.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co. Inc.

34-12S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Seitz-Barrhardt #C-4

Job Ticket: 59431

DST#: 3

ATTN: Marc Dow ning

Test Start: 2014.06.26 @ 09:05:45

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:

32000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
645.00	SOCMW, 10%O 15%M 75%W	8.540
20.00	CO ₂	0.273

Total Length: 665.00 ft

Total Volume: 8.813 bbl

Num Fluid Samples: 0

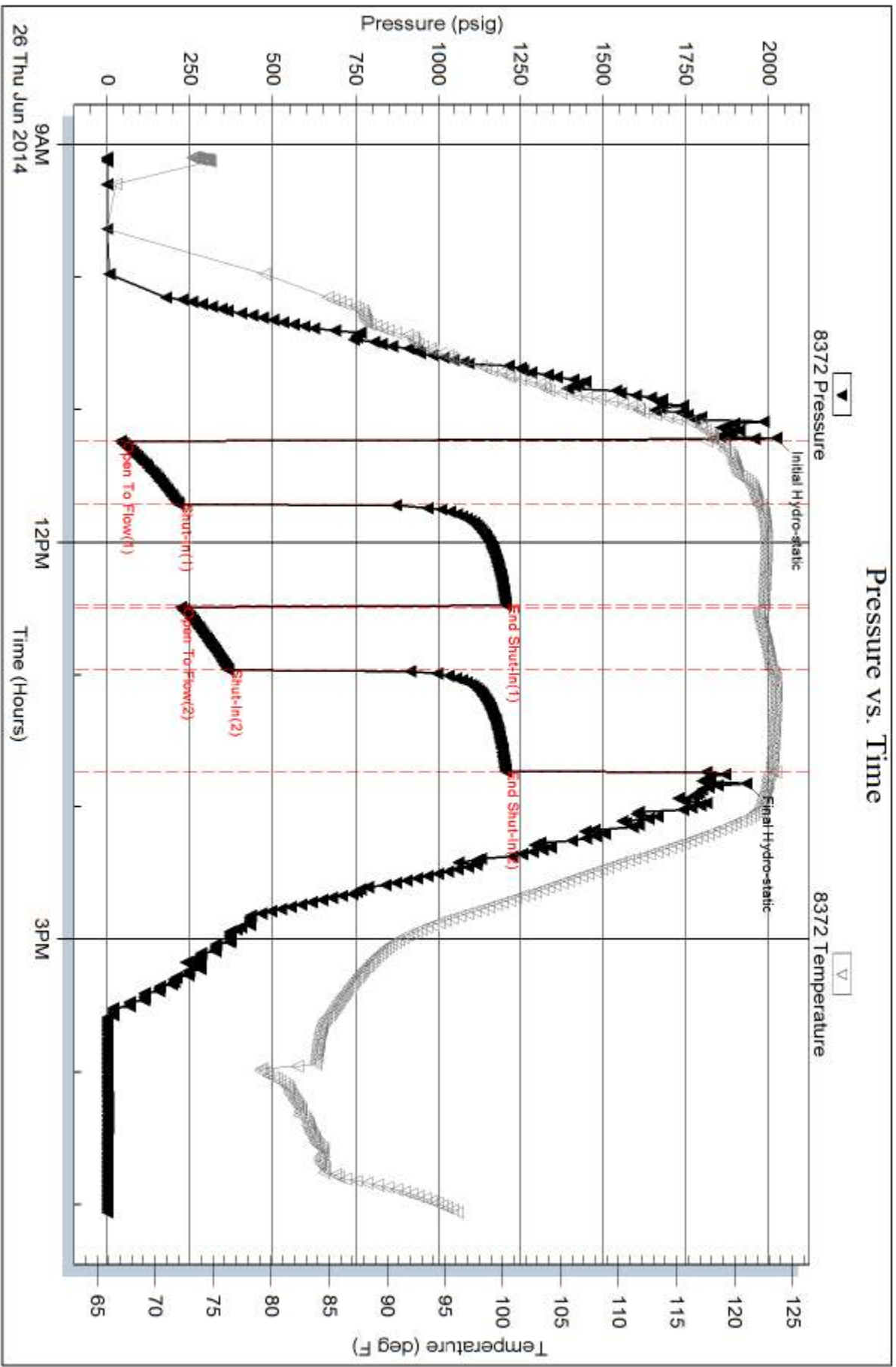
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

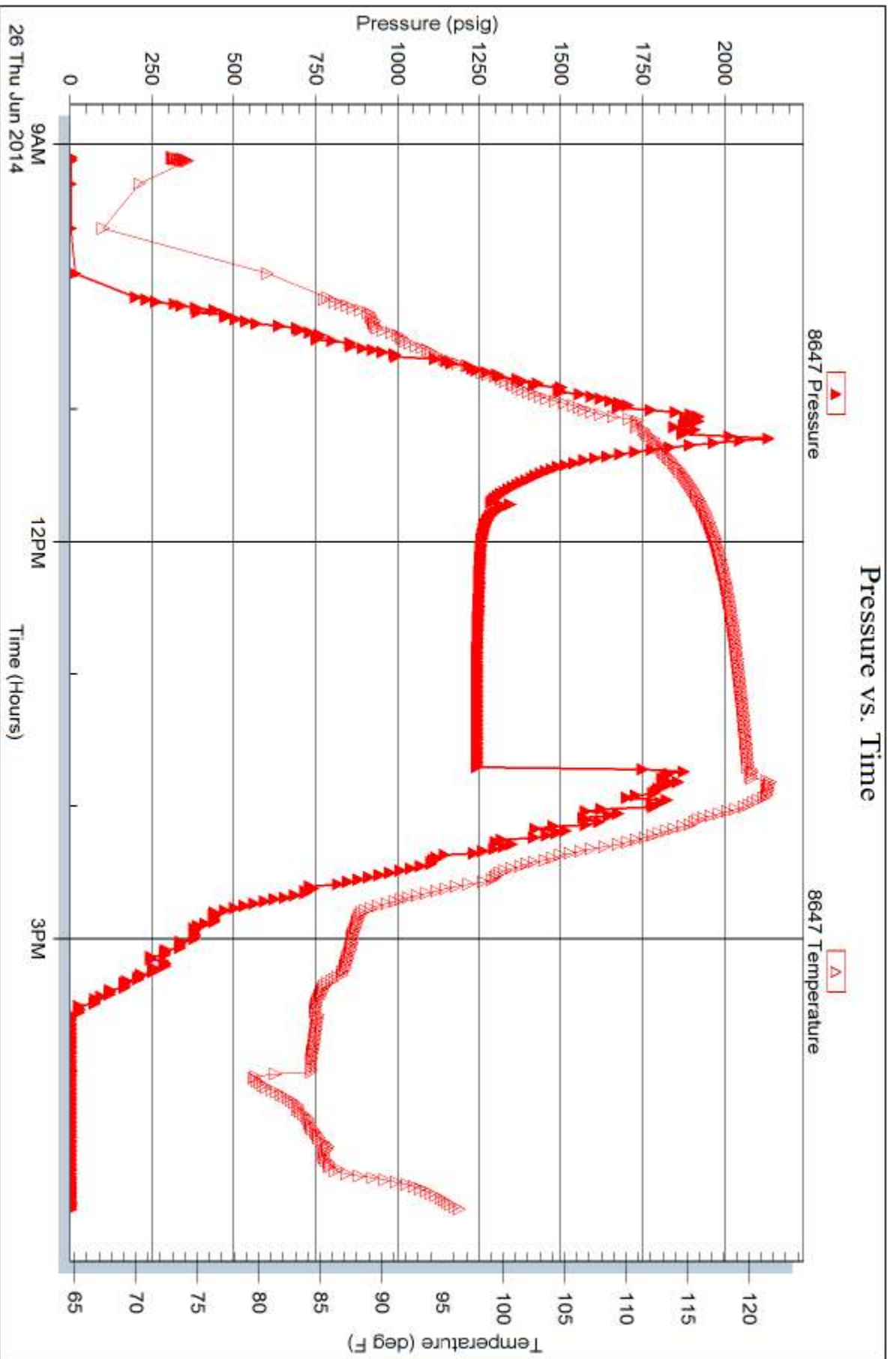


Serial #: 8647

Below (Str-Rath)eng-Nelson Oil Co. Inc.

Seitz-Barrhardt #C-4

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 59431

Printed: 2014.06.27 @ 10:32:15

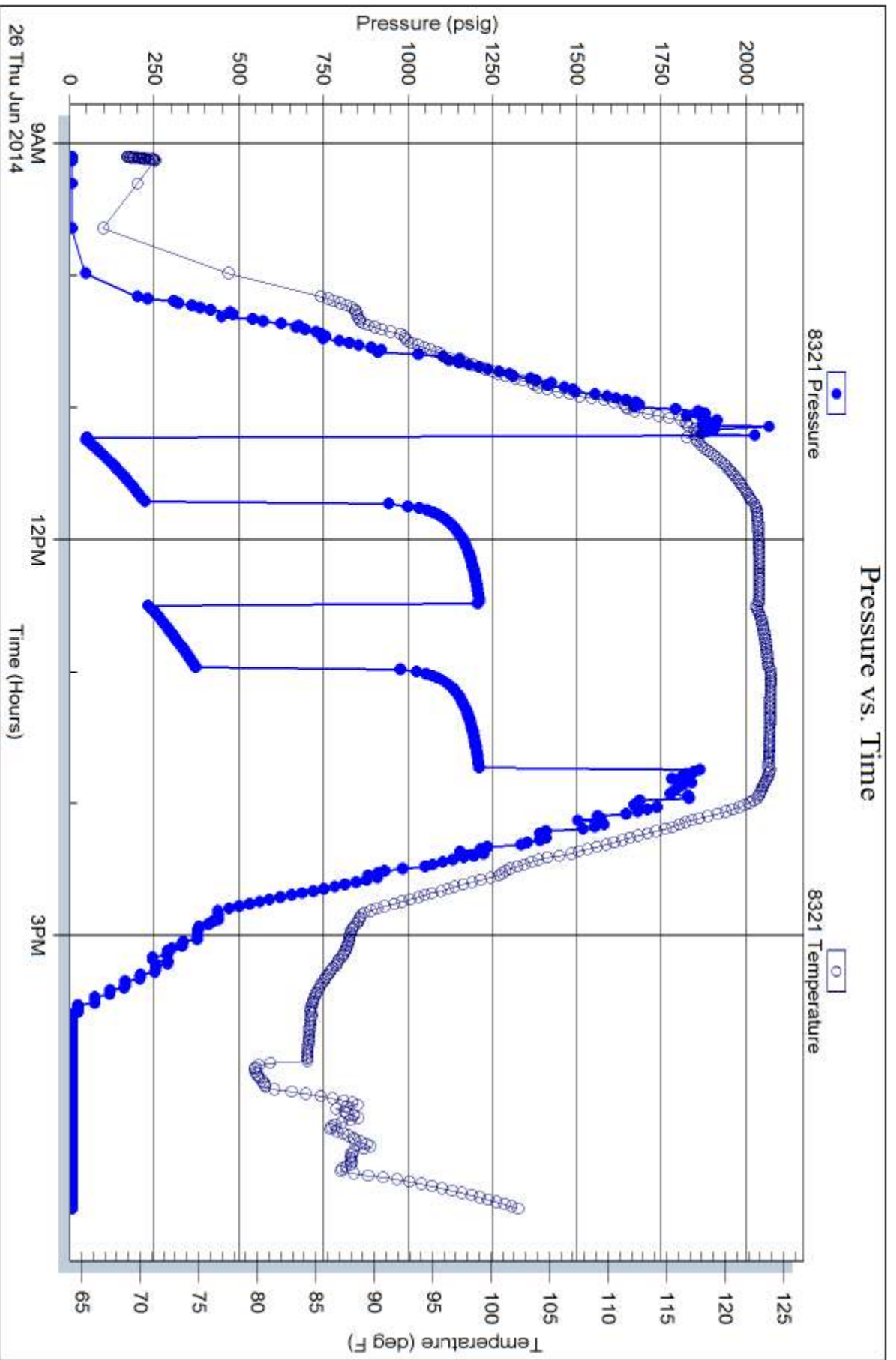
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Inside

Dow nigr-Nelson Oil Co. Inc.

Seitz-Barrhardt #C-4

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 59431

Printed: 2014.06.27 @ 10:32:15



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59429

Well Name & No. Seitz-Barhardt # C-4 Test No. 1 Date 6/25/14
 Company Downing-Nelson Oil Co. Inc. Elevation 2196 KB 2188 GL
 Address 1019 PO Box Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 24 Twp. 12S Rge. 21W Co. Trego State KS

Interval Tested 3792-3847 Zone Tested Arbuckle
 Anchor Length 55' Drill Pipe Run 3771 Mud Wt. 9.1
 Top Packer Depth 3787 Drill Collars Run 31 Vis 53
 Bottom Packer Depth 3792 Wt. Pipe Run — WL 8.0
 Total Depth 3847 Chlorides 5,000 ppm System LCM 2#

Blow Description IF - slowly built to 3"
ISF - No blow
FF - slowly built to 2"
FSF - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>CO</u>				
<u>40</u>	<u>MCO</u>		<u>60</u>		<u>40</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

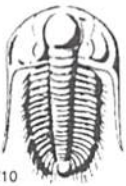
Rec Total 65 BHT 116° Gravity 36 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1903 Test 1150 T-On Location 0250
 (B) First Initial Flow 23 Jars — T-Started 0348
 (C) First Final Flow 37 Safety Joint — T-Open 0711
 (D) Initial Shut-In 1050 Circ Sub — T-Pulled 1011
 (E) Second Initial Flow 38 Hourly Standby — T-Out 1205
 (F) Second Final Flow 44 Mileage 48 RT 74.40 Comments —
 (G) Final Shut-In 984 Sampler —
 (H) Final Hydrostatic 1862 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder —
 Day Standby —
 Accessibility —

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1224.40
 Total 1224.40
 MP/DST Disc't —

Approved By — Our Representative Braman Lonsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59430

4/10

Well Name & No. Sertz-Barhardt # C-4 Test No. 2 Date 6/26/14
 Company Downing-Nelson Oil Co. Inc Elevation 2196 KB 2188 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 34 Twp. 12S Rge. 21W Co. Trego State K5

Interval Tested 3790-3865 Zone Tested Arbuckle
 Anchor Length 25' Tail 88' Drill Pipe Run 3771 Mud Wt. 9.1
 Top Packer Depth 3785-3790 Drill Collars Run 31 Vis 53
 Bottom Packer Depth 3865 Wt. Pipe Run WL 8.0
 Total Depth 3953 Chlorides 3000 ppm System LCM 2[#]
 Blow Description IF-BOB 12 mins
ISI- No blow
FF- Slowly built to 9"
PSI- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>M</u>				
<u>225</u>	<u>OCM</u>		<u>10</u>		<u>90</u>

Rec Total 285 BHT 119° Gravity API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 1939 Test 1150 T-On Location 0115
 (B) First Initial Flow 38 Jars T-Started 0131
 (C) First Final Flow 111 Safety Joint T-Open 0329
 (D) Initial Shut-In 1145 Circ Sub T-Pulled 0559
 (E) Second Initial Flow 121 Hourly Standby T-Out 0830
 (F) Second Final Flow 161 Mileage 48 RT 74.40 Comments
 (G) Final Shut-In 1126 Sampler
 (H) Final Hydrostatic 1904 Straddle 600 Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1824.40
 Accessibility MP/DST Disc't
 Sub Total 1824.40

Approved By Our Representative Brannan Lonsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59431

Well Name & No. Sartz-Barhardt #C-4 Test No. 3 Date 6/26/14
 Company Downing-Nelson Oil Co. Inc. Elevation 2196 KB 2188 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 34 Twp. RS Rge. 21W Co. Trego State KS

Interval Tested 3865-3880 Zone Tested Arbuckle
 Anchor Length 15' Tail 73' Drill Pipe Run 3835 Mud Wt. 9.1
 Top Packer Depth 3860-3865 Drill Collars Run 31 Vis 53
 Bottom Packer Depth 3880 Wt. Pipe Run — WL 8.0
 Total Depth 3953 Chlorides 3000 ppm System LCM 2#

Blow Description IF-BOB 6mins
ISI - Very weak surface blow
FF-BOB 7mins
FST - Very weak surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>CO</u>				
<u>645</u>	<u>SOCMW</u>		<u>10</u>	<u>75</u>	<u>15</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 665 BHT 123° Gravity _____ API RW .16 @ 86 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic 2022 Test 1150 T-On Location 0830
 (B) First Initial Flow 40 Jars _____ T-Started 0906
 (C) First Final Flow 215 Safety Joint _____ T-Open 1113
 (D) Initial Shut-In 1206 Circ Sub _____ T-Pulled 1343
 (E) Second Initial Flow 222 Hourly Standby _____ T-Out 1703
 (F) Second Final Flow 365 Mileage 48 RT 74.40 Comments _____
 (G) Final Shut-In 1204 Sampler _____
 (H) Final Hydrostatic 1932 Straddle 600 Ruined Shale Packer _____

Initial Open 30 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 45 Extra Packer _____ Extra Copies _____
 Final Flow 30 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1824.40
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1824.40

Approved By _____ Our Representative Brannan Lonsdale

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