



**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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

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

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

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

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

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

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

Total 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**

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



1067054

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

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

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

Drill Stem Tests Taken <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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Kohl 1-18
Doc ID	1067054

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Neutron Density

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Kohl 1-18
Doc ID	1067054

Tops

Name	Top	Datum
Tope Anhydrite	1542'	+664
Base Anhydrite	1584'	+622
Topeka	3236'	-1030
Heebner	3465'	-1259
Toronto	3486'	-1280
LKC	3502'	-1296
BKC	3746'	-1540
Marmaton	3798'	-1592
Conglomerate Sand	3872'	-1666
Arbuckle	3889'	-1683



## DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IIR-FIR	RECOVERY

REMARKS AND RECOMMENDATIONS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

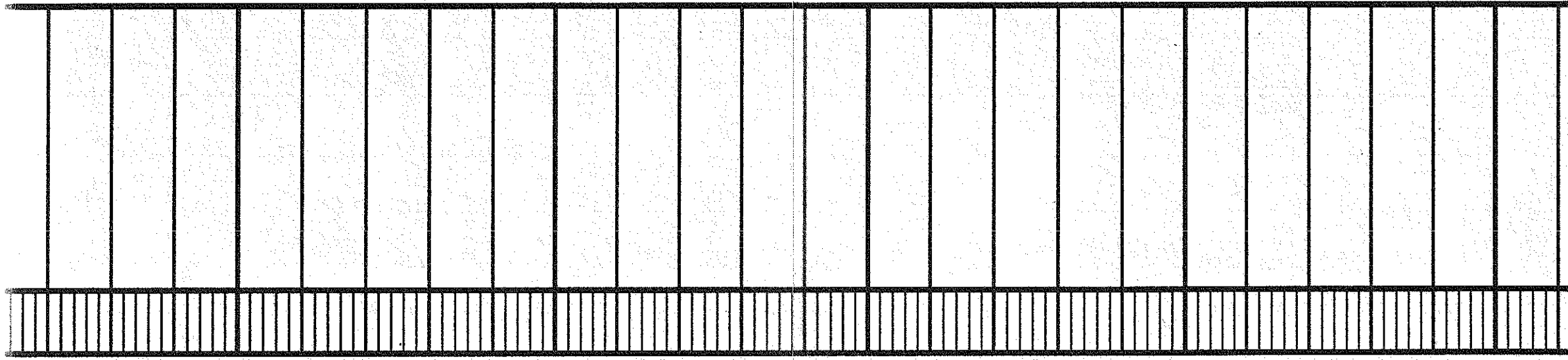
\_\_\_\_\_

\_\_\_\_\_

### LEGEND

- Dolomite
- Chert
- Coal/Lime
- Limestone
- Carb sh
- Shale
- Sandstone
- Salt
- Anhydrite

<p style="text-align: center; margin: 0;"><b>DRILLING TIME IN MINUTES PER FOOT</b> Rate of Penetration Decreases</p>	<p style="text-align: center; margin: 0;">DEPTH</p> <p style="margin: 0;">5" 10" 15" 20" 25"</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%; height: 40px;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td><td style="width: 10%;"> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td style="height: 40px;"> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>																																																																																																																								
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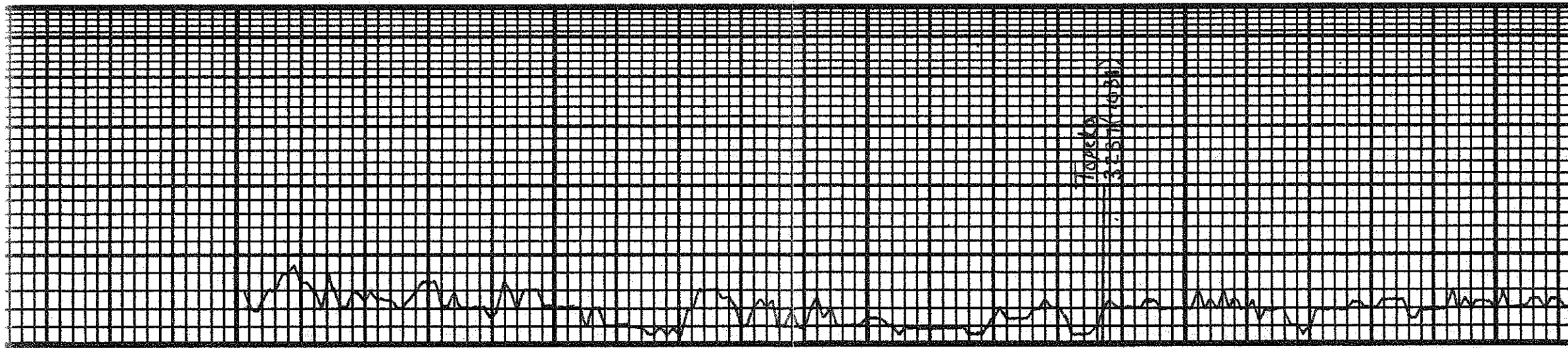
3100

50

3200

50

3300



110000  
3.50/1031

50

3400

50

3500

50

3490 (1263)

3490 (1263)

3500 (1263)

Sh: Black Carb

Sh: grey

LS: Whit-tom, f-mid  
xln subxln - slkly pr  
resid stn in 2-3 ex, NSFO,  
No Od.  
Sh: grey

LS: Whit, total, fr stn,  
settled SFS in pr int ool  
fite. 140d.

LS: Whit, for xln w/ ool  
foss, pr. Seat wht  
Chnta.

Sh: dark grey

LS: Whit-tom, 1-2 ex w/ fr  
vnght, 14 stn. Mostly pr  
w/ sub xln ex, fr Od.  
Sh: dark grey

LS: Whit-tom, ool, fr int ool,  
obsl. imp. fr. fngd br. stn

Vis: 50 Lt: 90

DST #1  
3544.3566  
45:45.45.45

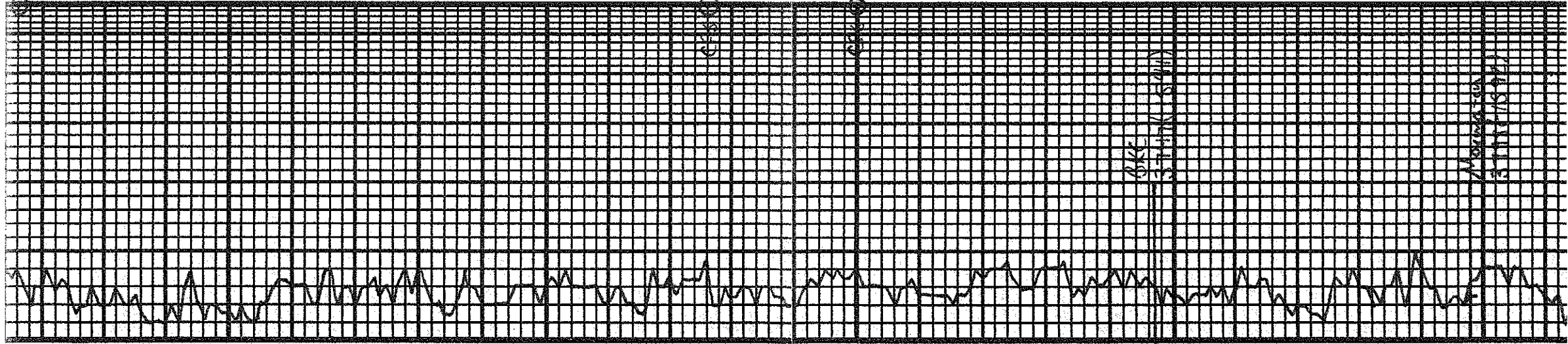
IFF: 19.49  
FFP: 52.73  
SIP: 643.632  
HP: 1673-1651

Rec: 90 L

BHT: 113° C/Lor: 68K

037 #1





Sh: Black Carb Sh: ggy LS: wht, 1-2 ex w/ gd int xln, fass. gd scat w/ sfo, mostly wt xln LS: wnt, mid xln, Int fass, sd int fassy, scat sptd sfo, mostly bawn gd od.	LS: wnt, fawn xln, gd int xln, friable. Mostly all brown, scat sfo in fcs oc w/ dsoth, gd od.	Sh: Black Carb fass. All obs w/ pass.	Sh: ggy LS: wnt - fawn, fawn xln 2-3 ex w/ fr bwn sfo in pr int xln, NSFO, 11-FR od. Rcc mostly sub xln.	Sh: drk ggy LS: tom-bwn, fwn xln, Tst scat blk w/ fr gd int xln, fcs sfo. Scat sus ex in bwn w/ fr sfo. 11-FR od.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: drk ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.	Sh: ggy LS: wnt, fawn xln, wnt, fr int xln, fass. w/ fr sfo. 11-FR od. Rcc sub xln in pr.
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DST # 2 3616-3676 30-30-30-30 I.FP: 21-44 FFP: 5464 SUP: 654-542 HP: 1721-1705 Rec: 70' mud w/ show oil BHT: 109'	Vis: 52- 44.9.1 DST # 3 3805-3835 30-30-30-30 I.FP: 18-19 FFP: 21-23 SUP: 419-89 HP: 1826-1802 Rec:
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# ALLIED CEMENTING CO., LLC. 038348

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Russell

DATE <u>10/24/11</u>	SEC. <u>18</u>	TWP. <u>13</u>	RANGE <u>20</u>	CALLED OUT	ON LOCATION	JOB START <u>8:30 AM</u>	JOB FINISH <u>9:30 AM</u>
LEASE <u>Kohl</u>	WELL # <u>1-15</u>	LOCATION <u>Ellis + Hwy 40 1 mi</u>				COUNTY <u>Ellis</u>	STATE <u>Ks</u>
OLD OR NEW (Circle one)		<u>15 1/4 in Sinter</u>					

CONTRACTOR Discovery Drilling Rig #3 OWNER \_\_\_\_\_

TYPE OF JOB PTA

HOLE SIZE 2 3/8 T.D. 3957' CEMENT

CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_ AMOUNT ORDERED 245 6 3/4 4.8601

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_ 1/4 4.56

DRILL PIPE 4 1/2 DEPTH 3889'

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_ COMMON 147 @ 16.25 2388.75

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_ POZMIX 98 @ 8.50 833.00

CEMENT LEFT IN CSG. \_\_\_\_\_ GEL 8 @ 21.25 170.00

PERFS. \_\_\_\_\_ CHLORIDE \_\_\_\_\_ @ \_\_\_\_\_

DISPLACEMENT \_\_\_\_\_ ASC \_\_\_\_\_ @ \_\_\_\_\_

**EQUIPMENT**

PUMP TRUCK CEMENTER Edgar \_\_\_\_\_

# 403 HELPER Ron \_\_\_\_\_

BULK TRUCK \_\_\_\_\_ @ \_\_\_\_\_

# 473 DRIVER Nick \_\_\_\_\_

BULK TRUCK \_\_\_\_\_ @ \_\_\_\_\_

# \_\_\_\_\_ DRIVER \_\_\_\_\_ @ \_\_\_\_\_

HANDLING 253 @ 2.25 569.25

MILEAGE 147/216/mile 1191.03

TOTAL 5266.73

**REMARKS:**

3889' 25 sks

1556' 25 sks

775' 100 sks

220' 40 sks

40' 10 sks

Rat Hole 30 sks

Mouse Hole 15 sks

**SERVICE**

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_ 1250.00

EXTRA FOOTAGE \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE 41 @ 7.00 287.00

MANIFOLD \_\_\_\_\_ @ \_\_\_\_\_

CU 41 @ 4.00 164.00

TOTAL 1701.00

CHARGE TO: Downing Nelson

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

Arg Hole Arg @ NC

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

To Allied Cementing Co., 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 GALEN GRASCHLER

SIGNATURE Galen Grasher

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 6967.73

DISCOUNT 200 IF PAID IN 30 DAYS

Thanks!

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 5020

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-17-11				Ellis	Kansas		8:15 PM
Lease <i>Rohl</i>	Well No. <i>F-18</i>		Location <i>Ellis W 15 1/2 S 1/2 S 1/2</i>				
Contractor <i>Discanny Drilling Rig 3</i>				Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <i>Surface</i>	Hole Size <i>12 1/4</i>		T.D. <i>222</i>	Charge To <i>Deering Nelson Oil Co</i>			
Csg. <i>8 5/8</i>	Tbg. Size		Depth <i>222</i>	Street			
Tool	Tool		Depth	City State			
Cement Left in Csg. <i>10-15</i>	Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line	Displace <i>13 3/4</i>		Cement Amount Ordered <i>150 Common</i>				
<b>EQUIPMENT</b>				<i>3000 2 1/2 gal</i>			
Pumptrk <i>5</i>	No.	Cementer		Common <i>150</i>			
		Helper	<i>Steve</i>				
Bulktrk <i>14</i>	No.	Driver	<i>Craig</i>	Poz. Mix			
		Driver	<i>Doug</i>	Gel. <i>3</i>			
Bulktrk	No.	Driver		Calcium <i>5</i>			
<b>JOB SERVICES &amp; REMARKS</b>				Hulls			
Remarks:				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
<i>Cement did Circulate</i>				Handling <i>158</i>			
				Mileage			
<b>FLOAT EQUIPMENT</b>							
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge <i>Surface</i>			
				Mileage <i>19</i>			
				Tax			
				Discount			
				Total Charge			
Signature <i>Alan Reader</i>							



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44755

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2011.10.22 @ 12:50:48

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:56:43

Time Test Ended: 19:41:12

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

**Interval: 3544.00 ft (KB) To 3466.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3566.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press @ Run Depth: 73.13 psig @ 3545.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.22 End Date: 2011.10.22

Last Calib.: 2011.10.22

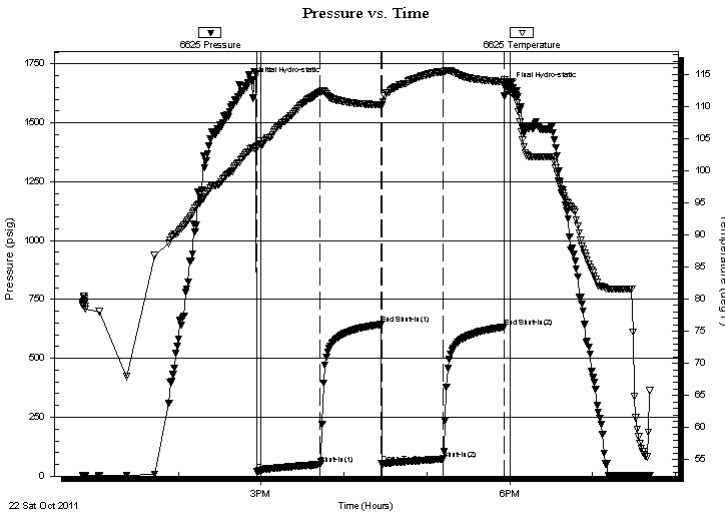
Start Time: 12:50:48 End Time: 19:41:12

Time On Btm: 2011.10.22 @ 14:53:13

Time Off Btm: 2011.10.22 @ 17:59:42

**TEST COMMENT:** 45-IFP-w k bl 1/4" to 2 1/2" bl  
45-ISIP-no bl  
45-FFP-w k bl surface to 1/4" bl  
45-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.08	103.53	Initial Hydro-static
4	18.31	103.47	Open To Flow (1)
50	49.74	112.26	Shut-In(1)
94	643.66	110.27	End Shut-In(1)
94	52.64	110.18	Open To Flow (2)
139	73.13	115.44	Shut-In(2)
183	632.64	113.83	End Shut-In(2)
187	1651.92	112.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Water	0.99

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44755

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2011.10.22 @ 12:50:48

## 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:

68000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbf

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
90.00	Water	0.989

Total Length: 90.00 ft      Total Volume: 0.989 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .11 @ 72F

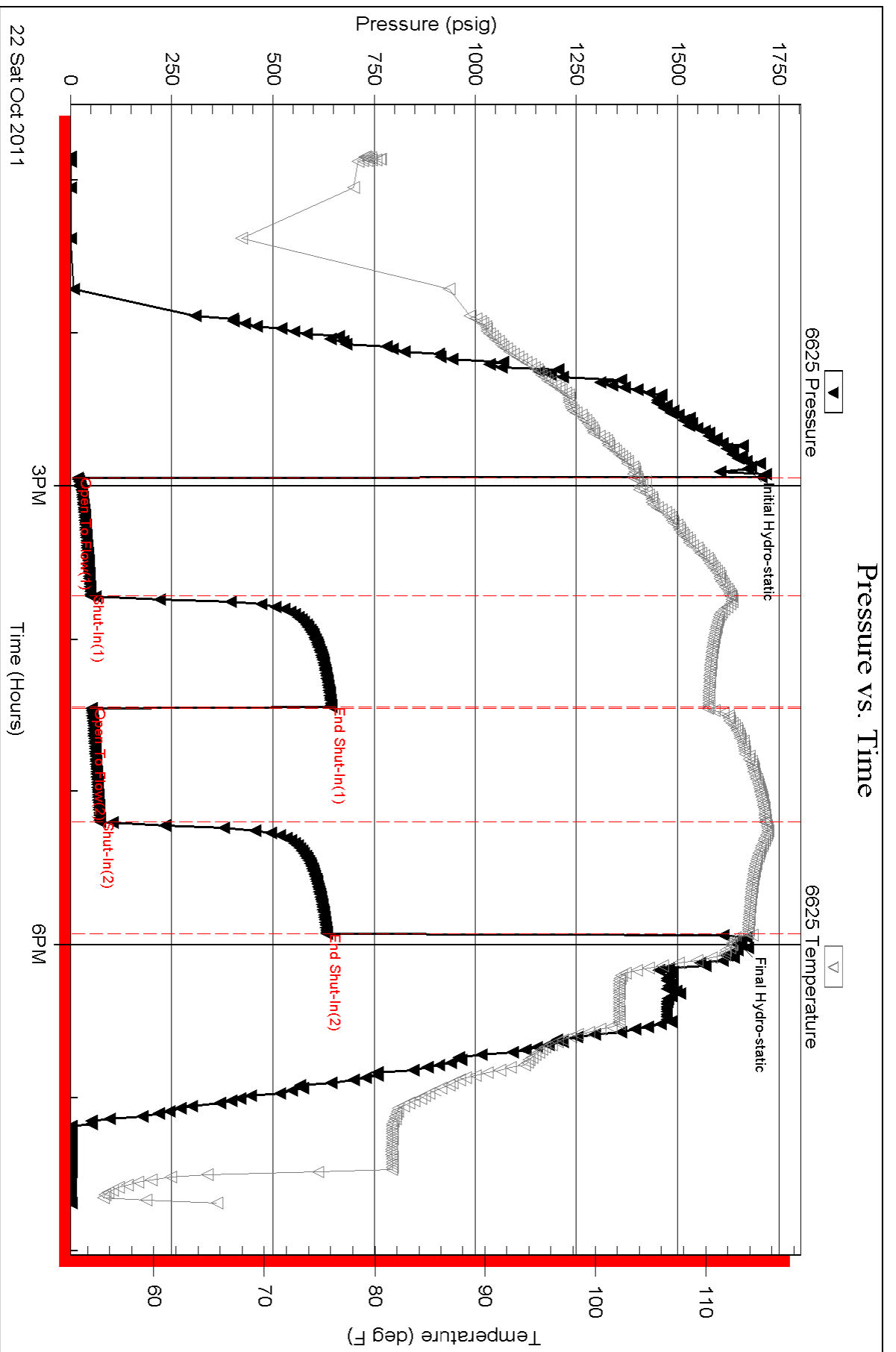
Serial #: 6625

Inside

Dow nung-Nelson Oil Co Inc

Kohls #1-18

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 44755

Printed: 2011.10.23 @ 09:42:24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44756

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2011.10.23 @ 10:50:24

## GENERAL INFORMATION:

Formation: **LKC H-I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:49:49

Time Test Ended: 16:20:18

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

**Interval: 3616.00 ft (KB) To 3676.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3676.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press @ Run Depth: 66.88 psig @ 3622.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.23

End Date:

2011.10.23

Last Calib.: 2011.10.23

Start Time: 10:50:24

End Time:

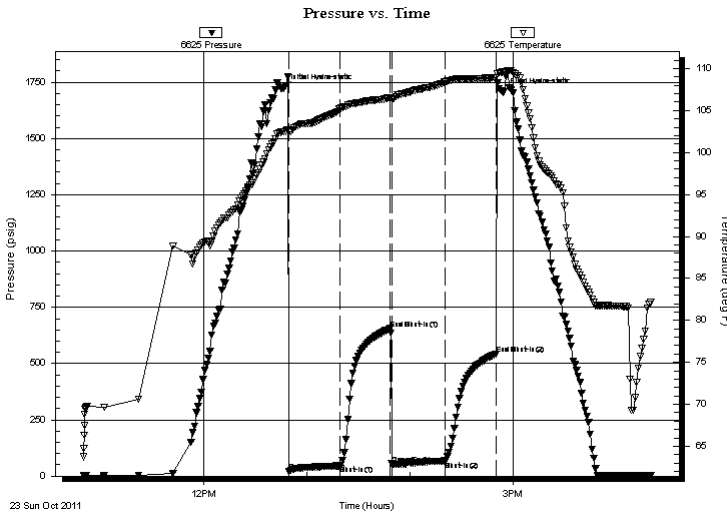
16:20:18

Time On Btm: 2011.10.23 @ 12:46:49

Time Off Btm: 2011.10.23 @ 14:53:49

**TEST COMMENT:** 30-IFP-vy w k surface bl died in 15 min  
30-ISIP-no bl  
30-FFP-no bl , flushed tool, got good surge  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1721.94	102.49	Initial Hydro-static
3	21.98	102.49	Open To Flow (1)
33	46.90	105.22	Shut-In(1)
62	654.92	106.52	End Shut-In(1)
63	54.56	106.38	Open To Flow (2)
94	66.88	108.40	Shut-In(2)
123	542.40	108.90	End Shut-In(2)
127	1705.19	109.58	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Mud w /show of oil	0.71

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE**  
TESTING, INC

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44756

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2011.10.23 @ 10:50:24

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.94 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	Mud w/show of oil	0.709

Total Length: 70.00 ft      Total Volume: 0.709 bbl

Num Fluid Samples: 0

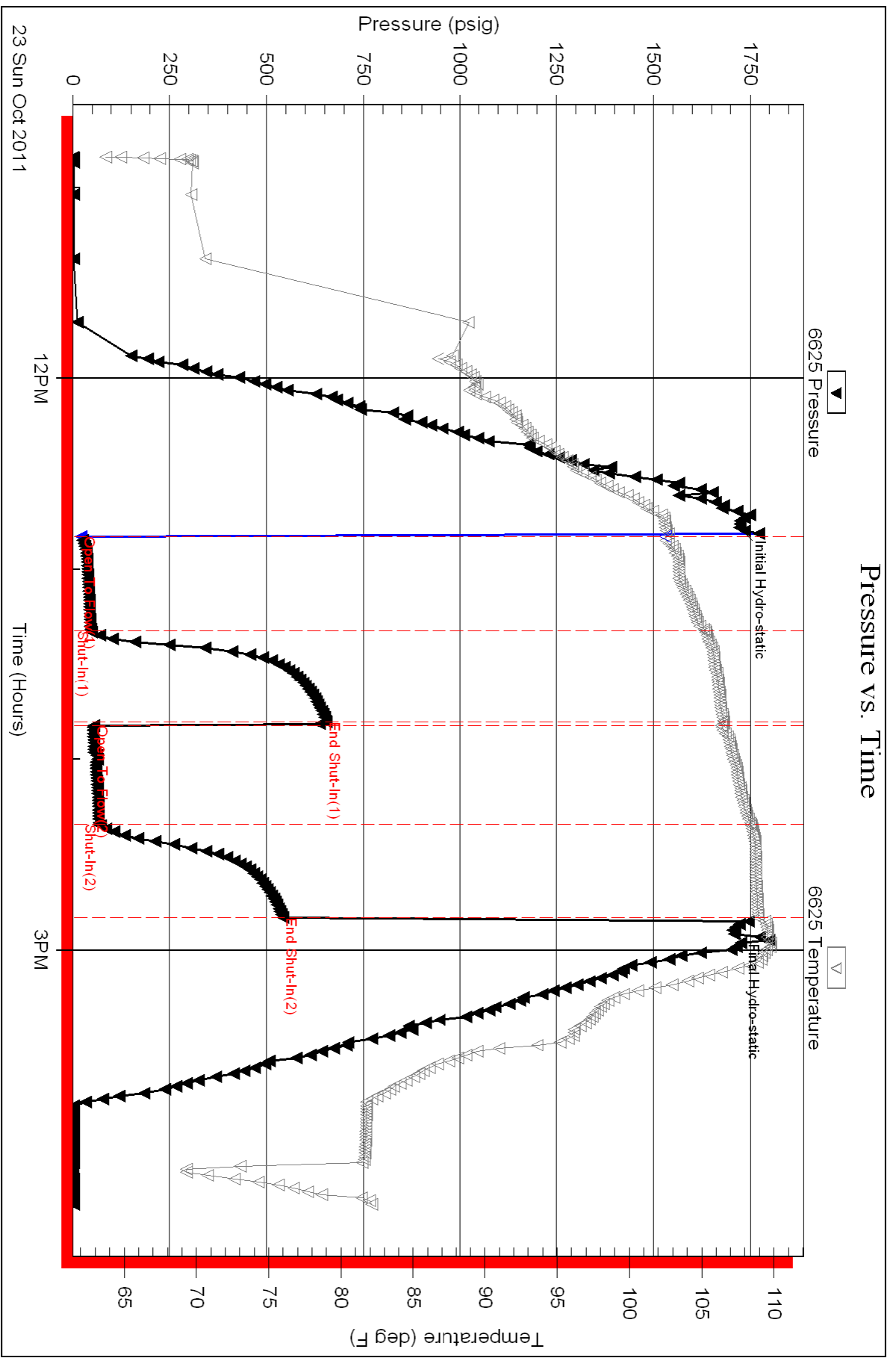
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 4757

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2011.10.24 @ 07:05:38

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:15:33

Time Test Ended: 13:03:32

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

**Interval: 3805.00 ft (KB) To 3835.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3835.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press @ Run Depth: 23.75 psig @ 3811.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.24

End Date:

2011.10.24

Last Calib.: 2011.10.24

Start Time: 07:05:38

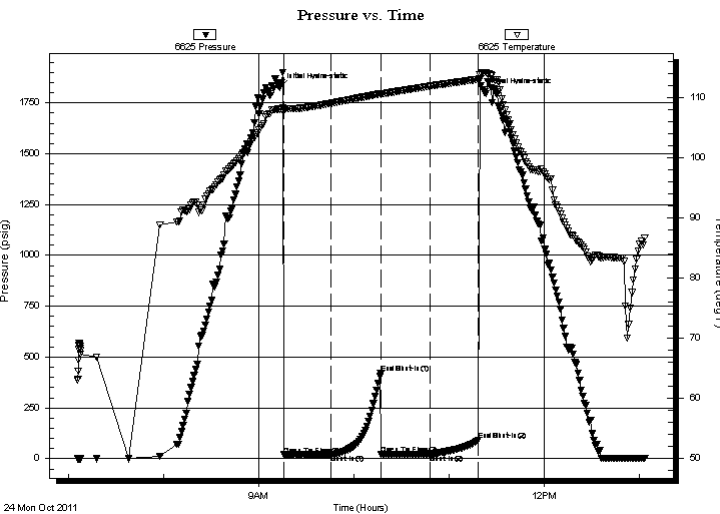
End Time:

13:03:32

Time On Btm: 2011.10.24 @ 09:13:03

Time Off Btm: 2011.10.24 @ 11:22:02

**TEST COMMENT:** 30-IFP-surface bl thru-out  
30-ISIP-no bl  
30-FFP-surface bl thru-out  
30-FSIP-no bl



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1826.67	108.01	Initial Hydro-static
3	18.73	108.00	Open To Flow (1)
32	19.68	108.99	Shut-In(1)
64	419.24	110.62	End Shut-In(1)
64	21.17	110.52	Open To Flow (2)
95	23.75	111.85	Shut-In(2)
125	89.52	112.97	End Shut-In(2)
129	1802.86	114.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 10%O90%M	0.02

\* Recovery from multiple tests

## Gas Rates

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



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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 4757

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2011.10.24 @ 07:05:38

## 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: 52.00 sec/qt

Cushion Volume: bbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 3900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 10%O90%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

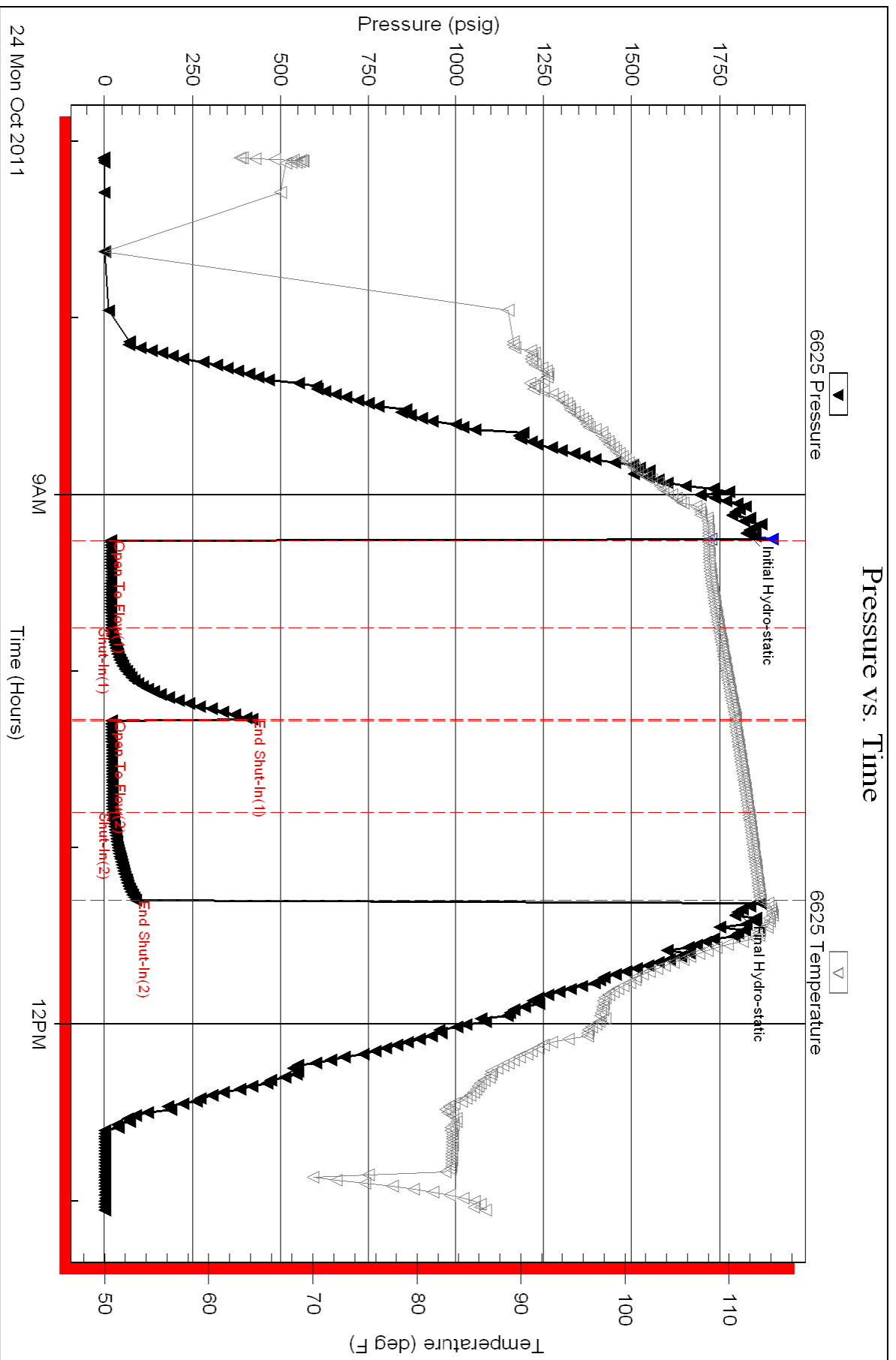
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44758

**DST#: 4**

ATTN: Ron Nelson

Test Start: 2011.10.24 @ 21:10:07

## GENERAL INFORMATION:

Formation: **Congl Sd**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:50:32

Time Test Ended: 03:23:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

**Interval: 3830.00 ft (KB) To 3875.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3875.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press @ Run Depth: 60.18 psig @ 3839.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.24

End Date:

2011.10.25

Last Calib.: 2011.10.25

Start Time: 21:10:07

End Time:

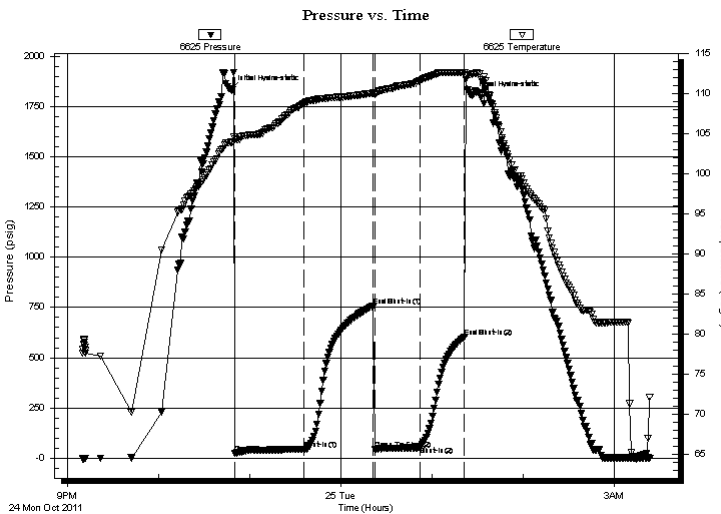
03:23:31

Time On Btm: 2011.10.24 @ 22:47:32

Time Off Btm: 2011.10.25 @ 01:26:31

**TEST COMMENT:** 45-IFP-w k bl , 1/2"to 2 1/4"bl  
45-ISIP-no bl  
30-FFP-w k bl ,surface to 1/2"bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1832.72	103.94	Initial Hydro-static
3	23.33	104.33	Open To Flow (1)
48	44.41	108.79	Shut-In(1)
94	758.96	110.11	End Shut-In(1)
95	45.65	109.91	Open To Flow (2)
125	60.18	111.70	Shut-In(2)
154	603.75	112.64	End Shut-In(2)
159	1804.21	112.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	MO 40%M60%O	0.57
30.00	CO	0.42

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Downing-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44758

**DST#: 4**

ATTN: Ron Nelson

Test Start: 2011.10.24 @ 21:10:07

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.92 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3900.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	MO 40%M60%O	0.568
30.00	CO	0.421

Total Length: 90.00 ft      Total Volume: 0.989 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

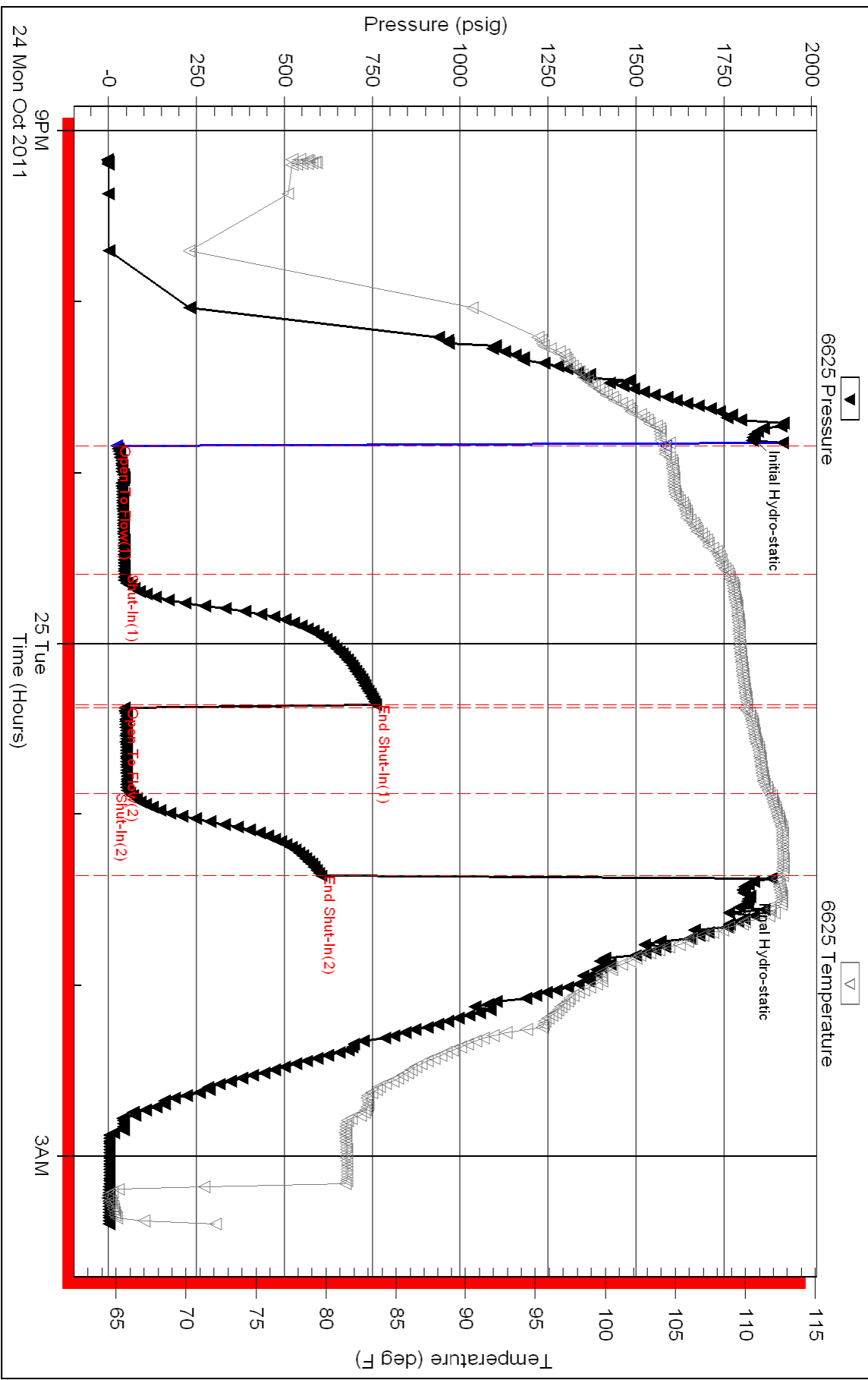
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44759

**DST#: 5**

ATTN: Ron Nelson

Test Start: 2011.10.25 @ 19:20:24

## GENERAL INFORMATION:

Formation: **Congl Sd - Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:00:19

Time Test Ended: 00:47:48

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 42

**Interval: 3827.00 ft (KB) To 3894.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3957.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6625 Inside**

Press @ Run Depth: 238.72 psig @ 3835.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.25

End Date:

2011.10.26

Last Calib.:

2011.10.26

Start Time: 19:20:24

End Time:

00:47:48

Time On Btm:

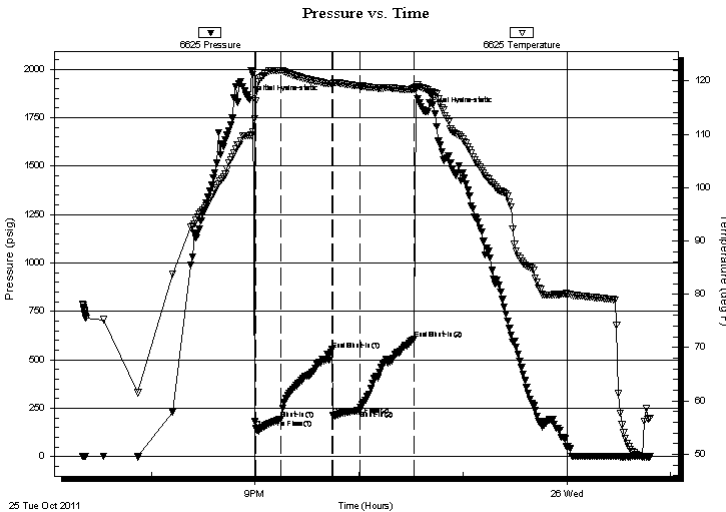
2011.10.25 @ 20:56:49

Time Off Btm:

2011.10.25 @ 22:38:19

**TEST COMMENT:** 15-IFP-strg bl in 1 min  
30-ISIP-no bl  
15-FFP-w k to a gd bl 1/2" to 8" bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1842.09	109.71	Initial Hydro-static
4	145.44	116.18	Open To Flow (1)
18	193.71	121.89	Shut-In(1)
48	552.43	119.50	End Shut-In(1)
48	212.84	119.40	Open To Flow (2)
64	238.72	119.06	Shut-In(2)
95	607.61	118.62	End Shut-In(2)
102	1782.14	118.51	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
375.00	Water	4.99
140.00	SOCMW 2%O25%M73%W	1.96
20.00	CO	0.28

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44759

**DST#: 5**

ATTN: Ron Nelson

Test Start: 2011.10.25 @ 19:20:24

**GENERAL INFORMATION:**

Formation: **Congl Sd - Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:00:19

Time Test Ended: 00:47:48

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 42

**Interval: 3827.00 ft (KB) To 3894.00 ft (KB) (TVD)**

Reference Elevations: 2206.00 ft (KB)

Total Depth: 3957.00 ft (KB) (TVD)

2198.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8374 Below (Straddle)**

Press @ Run Depth: psig @ 3901.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.10.25 End Date: 2011.10.26

Last Calib.: 2011.10.26

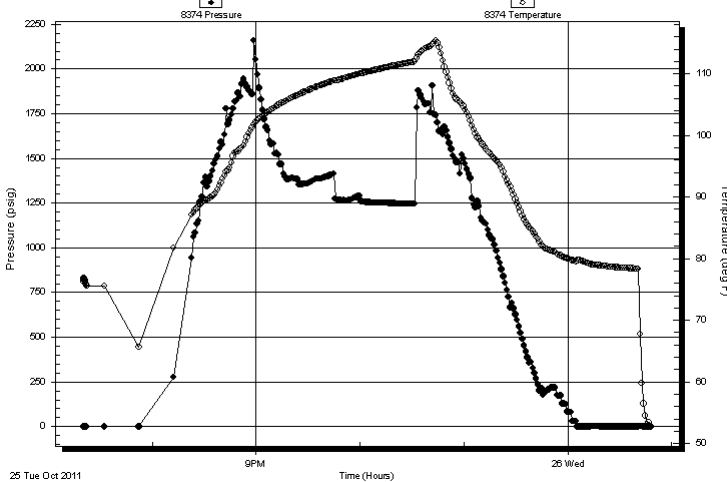
Start Time: 19:20:21 End Time: 00:48:15

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 15-IFP-strg bl in 1 min  
30-ISIP-no bl  
15-FFP-w k to a gd bl 1/2" to 8" bl  
30-FSIP-no bl

Pressure vs. Time



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
375.00	Water	4.99
140.00	SOCMW 2%O25%M73%W	1.96
20.00	CO	0.28

**Gas Rates**

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

**18-13s-20w Ellis**

P O Box 1019  
Hays Ks 67601

**Kohls #1-18**

Job Ticket: 44759

**DST#: 5**

ATTN: Ron Nelson

Test Start: 2011.10.25 @ 19:20:24

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

26000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.55 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
375.00	Water	4.987
140.00	SOCMW 2%O25%M73%W	1.964
20.00	CO	0.281

Total Length: 535.00 ft      Total Volume: 7.232 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .26@70F

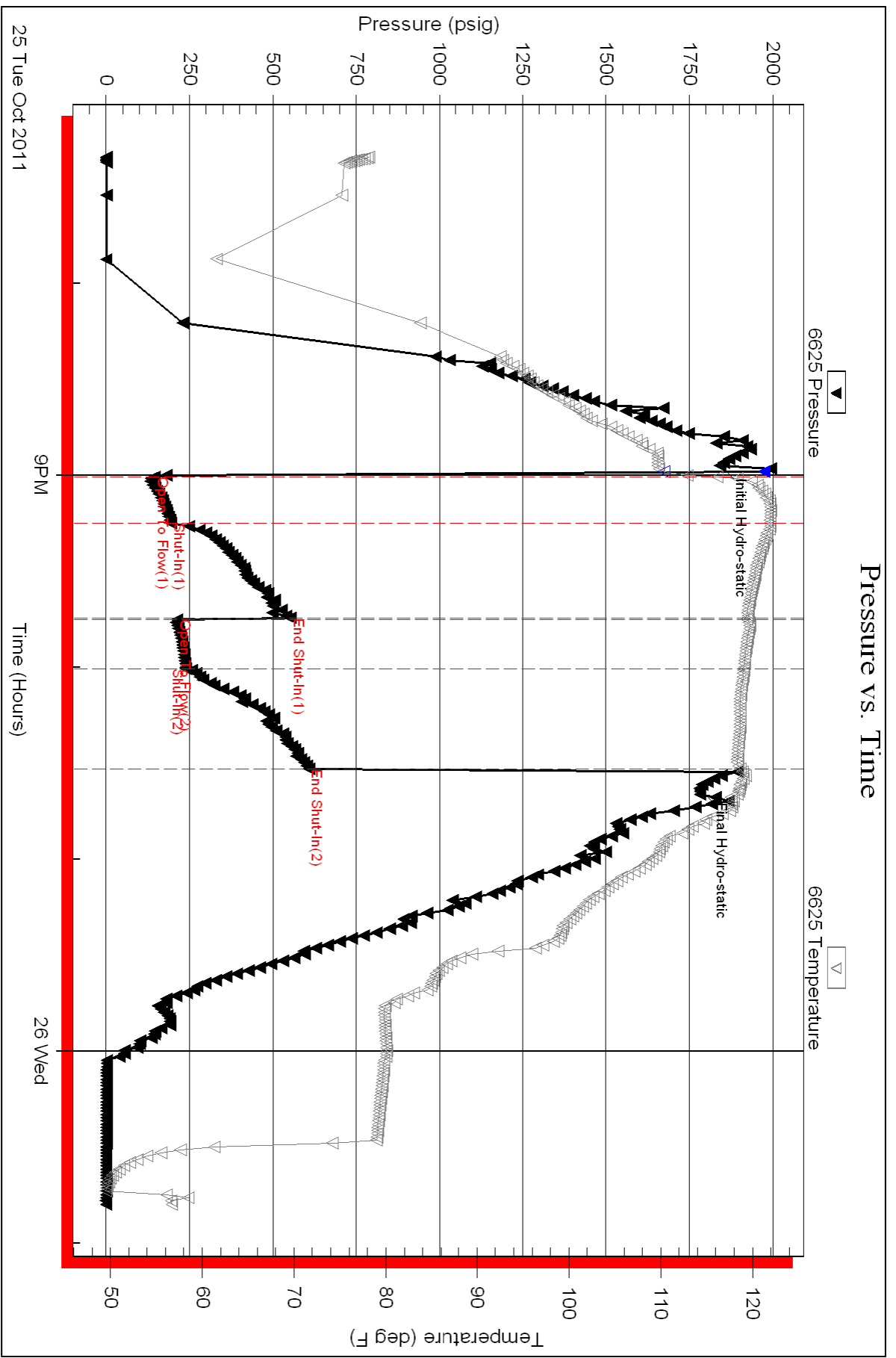
Serial #: 6625

Inside

Dow nung-Nelson Oil Co Inc

Kohls #1-18

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 44759

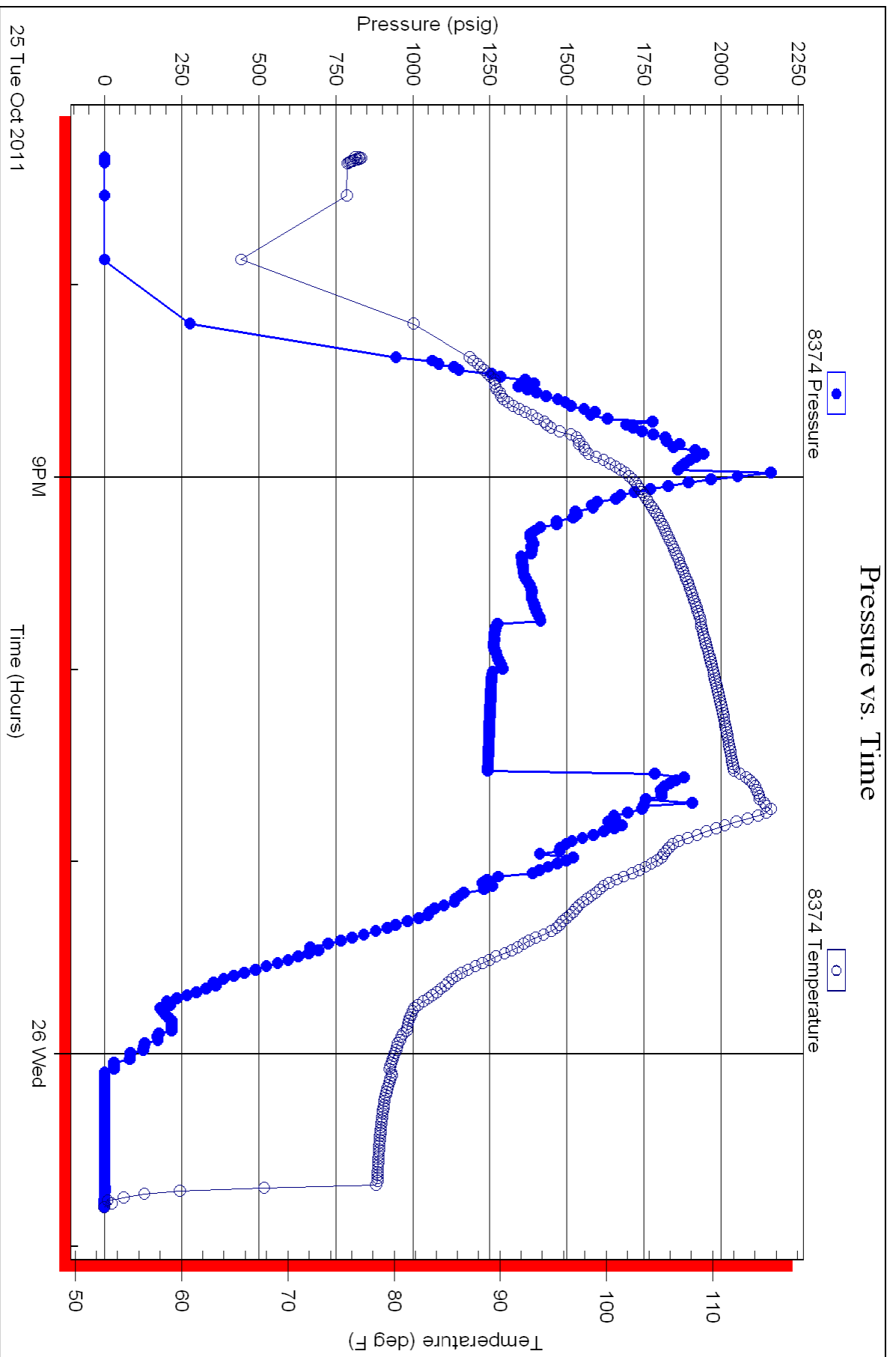
Printed: 2011.10.26 @ 08:18:40

Serial #: 8374

Below (Stratton) Jng-Nelson Oil Co Inc

Kohls #1-18

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 44759

Printed: 2011.10.26 @ 08:18:41