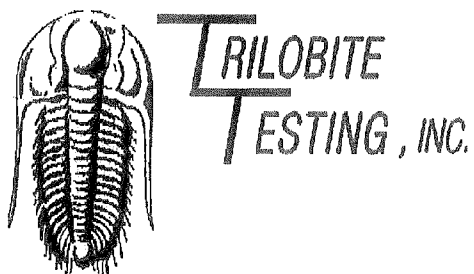


15-195-22666

30-13s-2lw

And



DRILL STEM TEST REPORT

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

PO Box 372
Hays, KS 67601

ATTN: Marc Downing

30-13-21Trego KS

Frank 1-30

Start Date: 2011.01.26 @ 01:15:24

End Date: 2011.01.26 @ 07:24:54

Job Ticket #: 41420

DST #: 1

RECEIVED
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KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing-Nelson Oil Co., Inc.

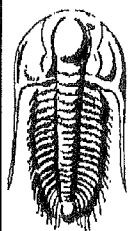
Frank 1-30

30-13-21Trego KS

DST # 1

Cherokee Sand

2011.01.26



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Dow-ning-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41420

DST#: 1

ATTN: Marc Dow-ning

Test Start: 2011.01.26 @ 01:15:24

GENERAL INFORMATION:

Formation: Cherokee Sand

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:27:54

Time Test Ended: 07:24:54

Test Type: Conventional Bottom Hole

Tester: Brian Fairbank

Unit No: 41

Interval: 4084.00 ft (KB) To 4127.00 ft (KB) (TVD)

Total Depth: 4127.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2351.00 ft (KB)

2344.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8372 Inside

Press@RunDepth: 21.74 psig @ 4087.00 ft (KB)

Start Date: 2011.01.26

End Date:

2011.01.26

Start Time: 01:15:25

End Time:

07:24:54

Capacity: 8000.00 psig

Last Calib.: 2011.01.26

Time On Btm: 2011.01.26 @ 03:27:24

Time Off Btm: 2011.01.26 @ 05:31:24

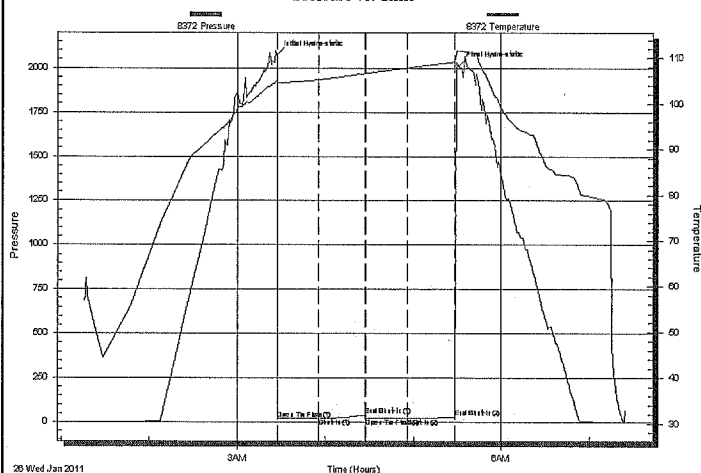
TEST COMMENT: IFP - weak blow throughout 1/2" - 1"

ISI - no blow back

FFP - no blow

FSI - no blow back

Pressure vs. Time



PRESSURE SUMMARY

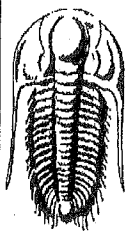
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2075.19	105.19	Initial Hydro-static
1	19.62	104.35	Open To Flow (1)
29	22.49	105.24	Shut-In(1)
60	39.22	106.64	End Shut-In(1)
60	22.46	106.65	Open To Flow (2)
89	21.74	107.85	Shut-In(2)
121	29.31	109.20	End Shut-In(2)
124	2012.91	111.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%	0.05

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41420

DST#: 1

ATTN: Marc Dow ning

Test Start: 2011.01.26 @ 01:15:24

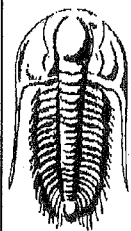
Tool Information

Drill Pipe:	Length: 4049.00 ft	Diameter: 3.80 inches	Volume: 56.80 bbl	Tool Weight: 2500.00 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: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 60000.00 lb
		Total Volume: 56.96 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	4084.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4069.00	
Hydraulic tool	5.00			4074.00	
Packer	5.00			4079.00	20.00 Bottom Of Top Packer
Packer	5.00			4084.00	
Stubb	1.00			4085.00	
Perforations	1.00			4086.00	
Change Over Sub	1.00			4087.00	
Recorder	0.00	8372	Inside	4087.00	
Recorder	0.00	8365	Outside	4087.00	
Blank Spacing	31.00			4118.00	
Change Over Sub	1.00			4119.00	
Perforations	5.00			4124.00	
Bullnose	3.00			4127.00	43.00 Bottom Packers & Anchor

Total Tool Length: 63.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41420

DST#: 1

ATTN: Marc Dow ning

Test Start: 2011.01.26 @ 01:15:24

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: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

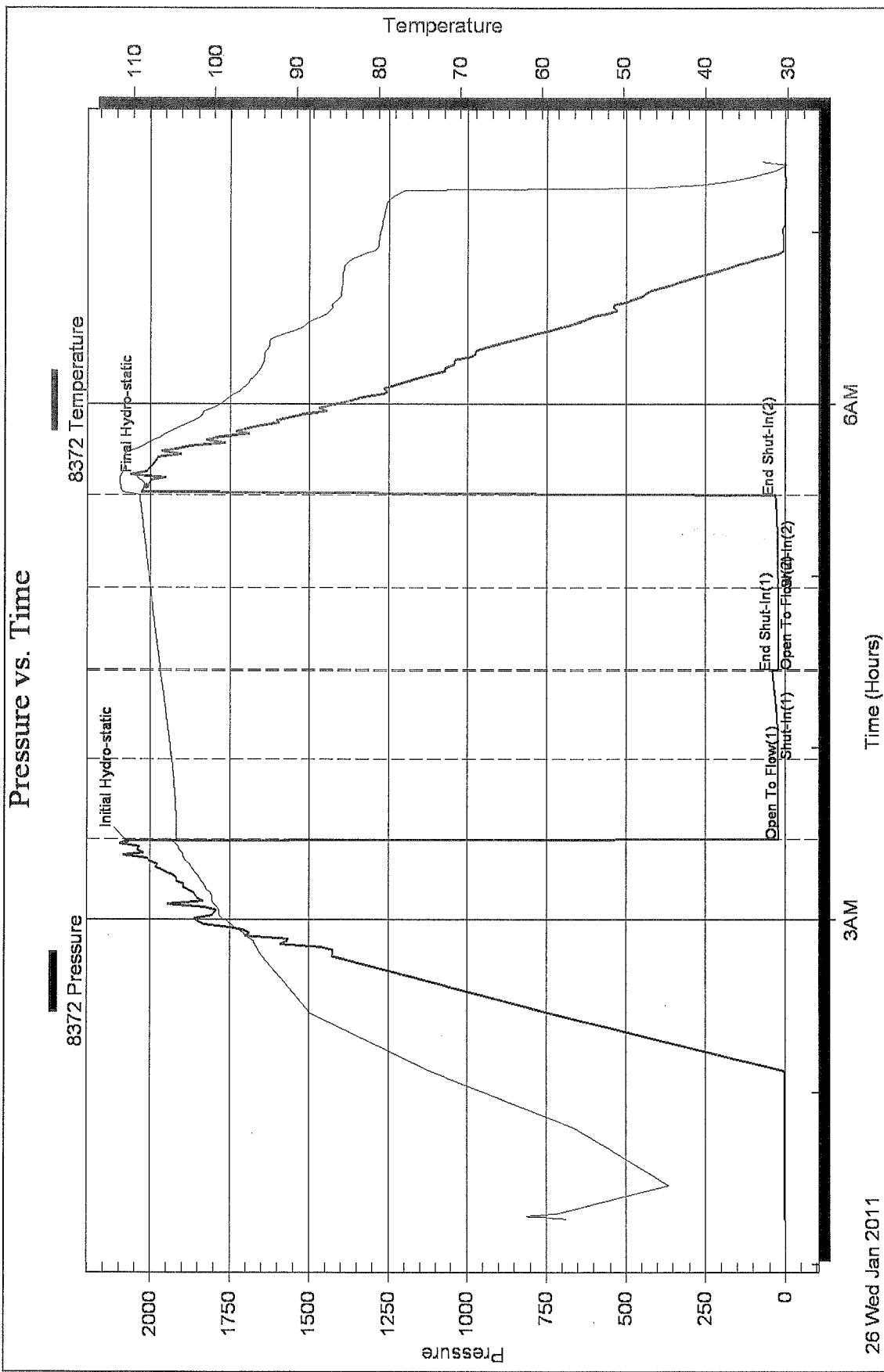
Serial #:

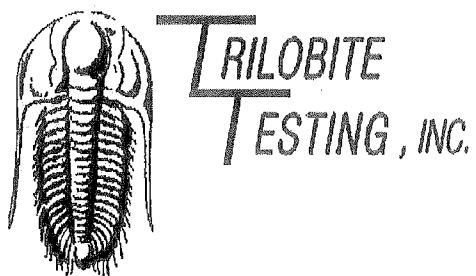
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

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

PO Box 372
Hays, KS 67601

ATTN: Marc Downing

30-13-21Trego KS

Frank 1-30

Start Date: 2011.01.26 @ 23:21:24

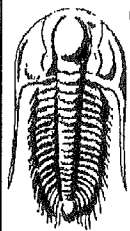
End Date: 2011.01.27 @ 05:10:53

Job Ticket #: 41421 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dowling-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41421

DST#: 2

ATTN: Marc Dowling

Test Start: 2011.01.26 @ 23:21:24

GENERAL INFORMATION:

Formation: Cherokee Sand

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:08:23

Time Test Ended: 05:10:53

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: 4087.00 ft (KB) To 4136.00 ft (KB) (TVD)

Total Depth: 4247.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition:

Reference Elevations: 2351.00 ft (KB)

2344.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8372

Inside

Press@RunDepth: 77.00 psig @ 4126.00 ft (KB)

Start Date: 2011.01.26

End Date:

2011.01.27

Capacity: 8000.00 psig

Last Calib.: 2011.01.27

Start Time: 23:21:24

End Time:

05:10:53

Time On Btm: 2011.01.27 @ 01:07:23

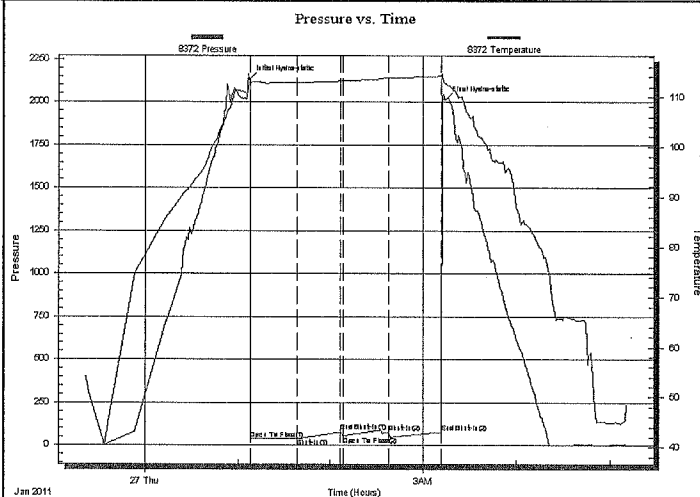
Time Off Btm: 2011.01.27 @ 03:13:53

TEST COMMENT: IFP - weak blow throughout 1/2" - 1"

ISI - no blow back

FFP - no blow

FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2131.71	112.80	Initial Hydro-static
1	37.62	112.65	Open To Flow (1)
31	39.77	112.88	Shut-In(1)
60	78.27	113.19	End Shut-In(1)
61	53.04	113.20	Open To Flow (2)
91	77.00	113.76	Shut-In(2)
124	76.69	114.16	End Shut-In(2)
127	2013.85	112.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%	0.05

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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Downing-Nelson Oil Co., Inc.

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41421

DST#: 2

ATTN: Marc Downing

Test Start: 2011.01.26 @ 23:21:24

Formation: Cherokee Sand

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:08:23

Time Test Ended: 05:10:53

Test Type: Conventional Straddle

Tester: Brian Fairbank

Unit No: 41

Interval: 4087.00 ft (KB) To 4136.00 ft (KB) (TVD)

Reference Elevations: 2351.00 ft (KB)

Total Depth: 4247.00 ft (KB) (TVD)

2344.00 ft (CF)

Hole Diameter: 7.88 inchesHole Condition:

KB to GR/CF: 7.00 ft

Serial #: 8647 Below (Straddle)

Press@RunDepth: psig @ 4148.00 ft (KB)

Start Date: 2011.01.26

End Date:

2011.01.27

Capacity: 8000.00 psia

2011.01.27

Start Time: 23:21:38

End Time:

05:10:37

Time On Btm:

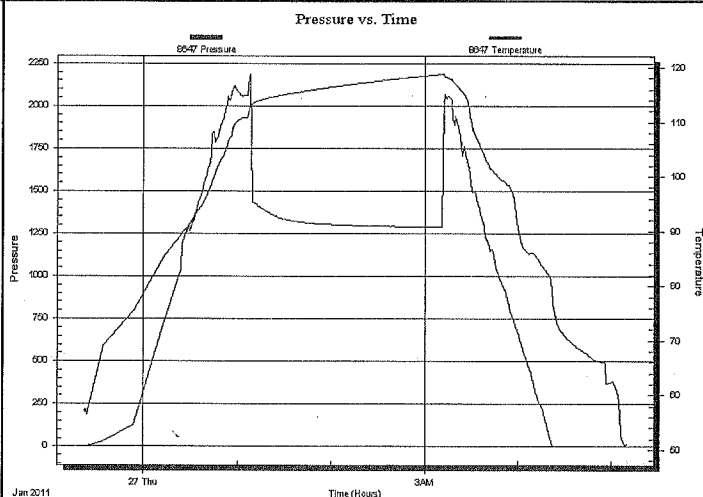
Time Off Btm:

TEST COMMENT: IFP - weak blow throughout 1/2" - 1"

ISI - no blow back

FFP - no blow

FSI - no blow back



PRESSURE SUMMARY

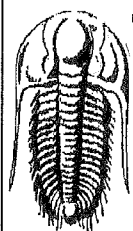
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%	0.05

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41421

DST#: 2

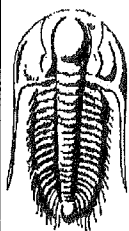
ATTN: Marc Dow ning

Test Start: 2011.01.26 @ 23:21:24

Tool Information

Drill Pipe:	Length: 4059.00 ft	Diameter: 3.80 inches	Volume: 56.94 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 62000.00 lb
			Total Volume: 57.10 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4087.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	4136.00 ft			
Interval between Packers:	49.00 ft			
Tool Length:	180.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4077.00	
Hydraulic tool	5.00			4082.00	
Packer	5.00			4087.00	15.00 Bottom Of Top Packer
Stubb	1.00			4088.00	
Perforations	5.00			4093.00	
Change Over Sub	1.00			4094.00	
Blank Spacing	31.00			4125.00	
Change Over Sub	1.00			4126.00	
Recorder	0.00	8372	Inside	4126.00	
Recorder	0.00	8365	Outside	4126.00	
Perforations	5.00			4131.00	
Blank Off Sub	1.00			4132.00	
Blank Spacing	4.00			4136.00	
Packer	5.00			4141.00	49.00 Tool Interval
Packer	5.00			4146.00	
Stubb	1.00			4147.00	
Perforations	1.00			4148.00	
Recorder	0.00	8647	Below	4148.00	
Change Over Sub	1.00			4149.00	
Blank Spacing	94.00			4243.00	
Change Over Sub	1.00			4244.00	
Perforations	5.00			4249.00	
Bullnose	3.00			4252.00	116.00 Bottom Packers & Anchor
Total Tool Length:	180.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co., Inc.

Frank 1-30

PO Box 372
Hays, KS 67601

30-13-21Trego KS

Job Ticket: 41421

DST#: 2

ATTN: Marc Dow ning

Test Start: 2011.01.26 @ 23:21:24

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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

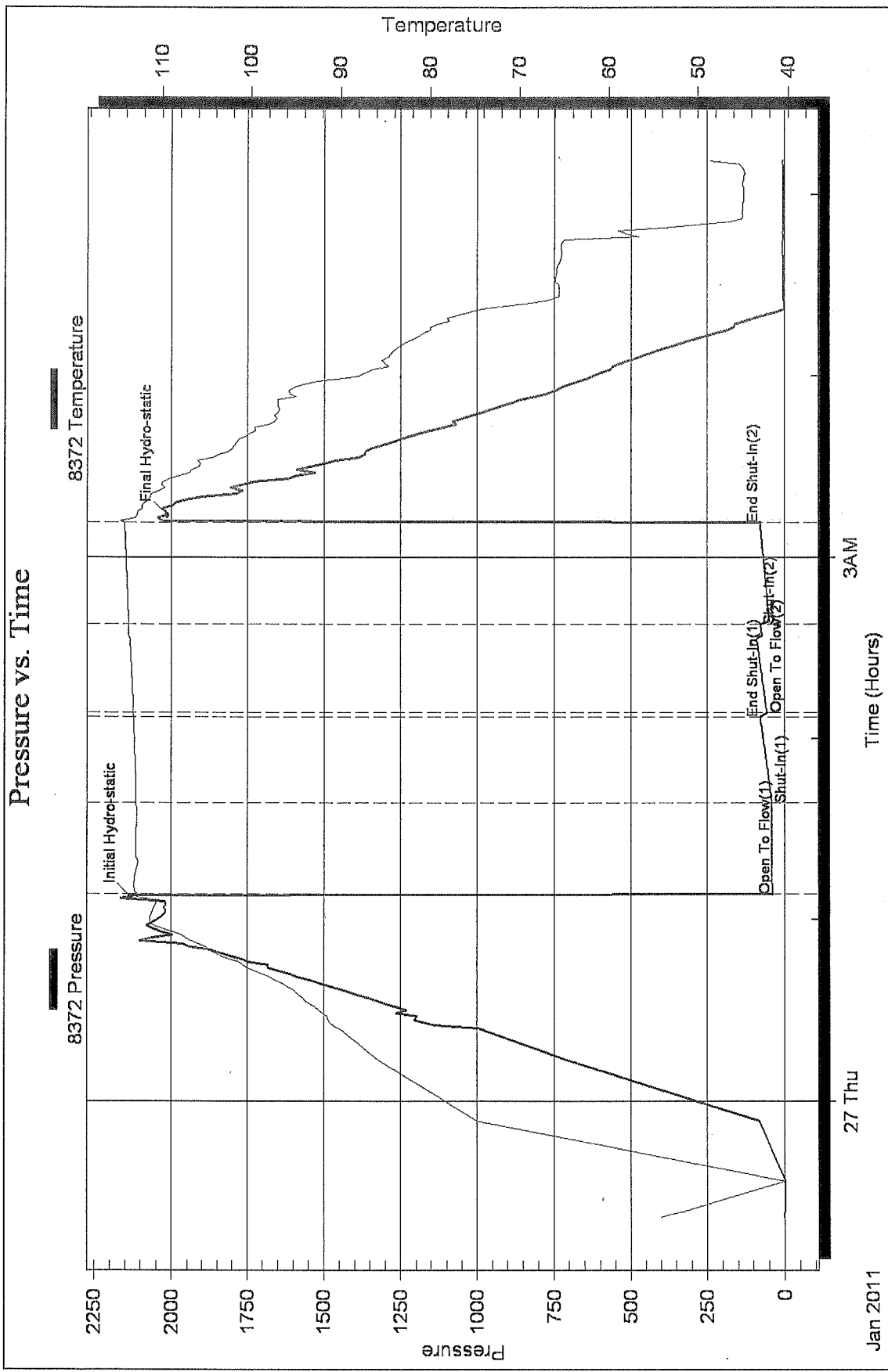
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



Serial #: 8647

Below (Straddle)ing-Nelson Oil Co., Inc.

30-13-21Trego KS

DST Test Number: 2

