



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Verna Herl #2-12

12-14s-19w Ellis,KS

Start Date: 2011.12.12 @ 07:05:36

End Date: 2011.12.12 @ 14:10:21

Job Ticket #: 44703 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.12.19 @ 11:07:56



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44703

DST#: 1

ATTN: Marc Downing

Test Start: 2011.12.12 @ 07:05:36

GENERAL INFORMATION:

Formation: **Plattsmouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:25:36

Time Test Ended: 14:10:21

Test Type: Conventional Bottom Hole (Initial)

Tester: Jason McLemore

Unit No: 54

Interval: 3360.00 ft (KB) To 3394.00 ft (KB) (TVD)

Reference Elevations: 2164.00 ft (KB)

Total Depth: 3394.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673 Inside

Press @ Run Depth: 30.78 psig @ 3363.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.12 End Date: 2011.12.12

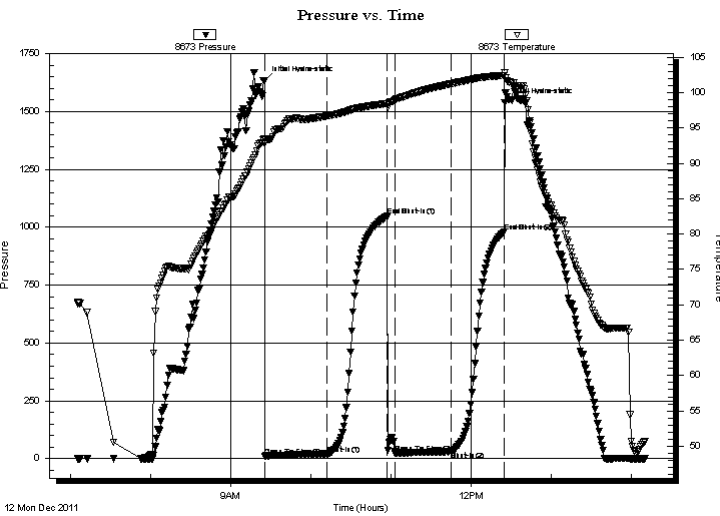
Last Calib.: 2011.12.12

Start Time: 07:05:38 End Time: 14:10:21

Time On Btm: 2011.12.12 @ 09:25:21

Time Off Btm: 2011.12.12 @ 12:25:06

TEST COMMENT: IFP-Weak Blow, Built to 4"
ISI-Dead
FFP-Weak Blow, Built to 3"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1633.54	93.49	Initial Hydro-static
1	11.66	92.78	Open To Flow (1)
47	20.85	96.68	Shut-In(1)
92	1047.95	98.46	End Shut-In(1)
98	22.10	99.05	Open To Flow (2)
140	30.78	101.23	Shut-In(2)
180	981.09	102.43	End Shut-In(2)
180	1539.23	102.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	OCMW-10%O-50%W-40%M	0.56
0.00	60' Gas In Pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company

12-14s-19w Ellis,KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44703

DST#: 1

ATTN: Marc Downing

Test Start: 2011.12.12 @ 07:05:36

Tool Information

Drill Pipe:	Length: 3359.00 ft	Diameter: 3.80 inches	Volume: 47.12 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 47.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3360.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	55.00 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			3340.00	
Shut In Tool	5.00			3345.00	
Hydraulic tool	5.00			3350.00	
Packer	5.00			3355.00	21.00 Bottom Of Top Packer
Packer	5.00			3360.00	
Stubb	1.00			3361.00	
Perforations	2.00			3363.00	
Recorder	0.00	8673	Inside	3363.00	
Recorder	0.00	8736	Outside	3363.00	
Perforations	28.00			3391.00	
Bullnose	3.00			3394.00	34.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44703

DST#: 1

ATTN: Marc Downing

Test Start: 2011.12.12 @ 07:05:36

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
40.00	OCCMW-10%O-50%W-40%M	0.561
0.00	60' Gas In Pipe	0.000

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

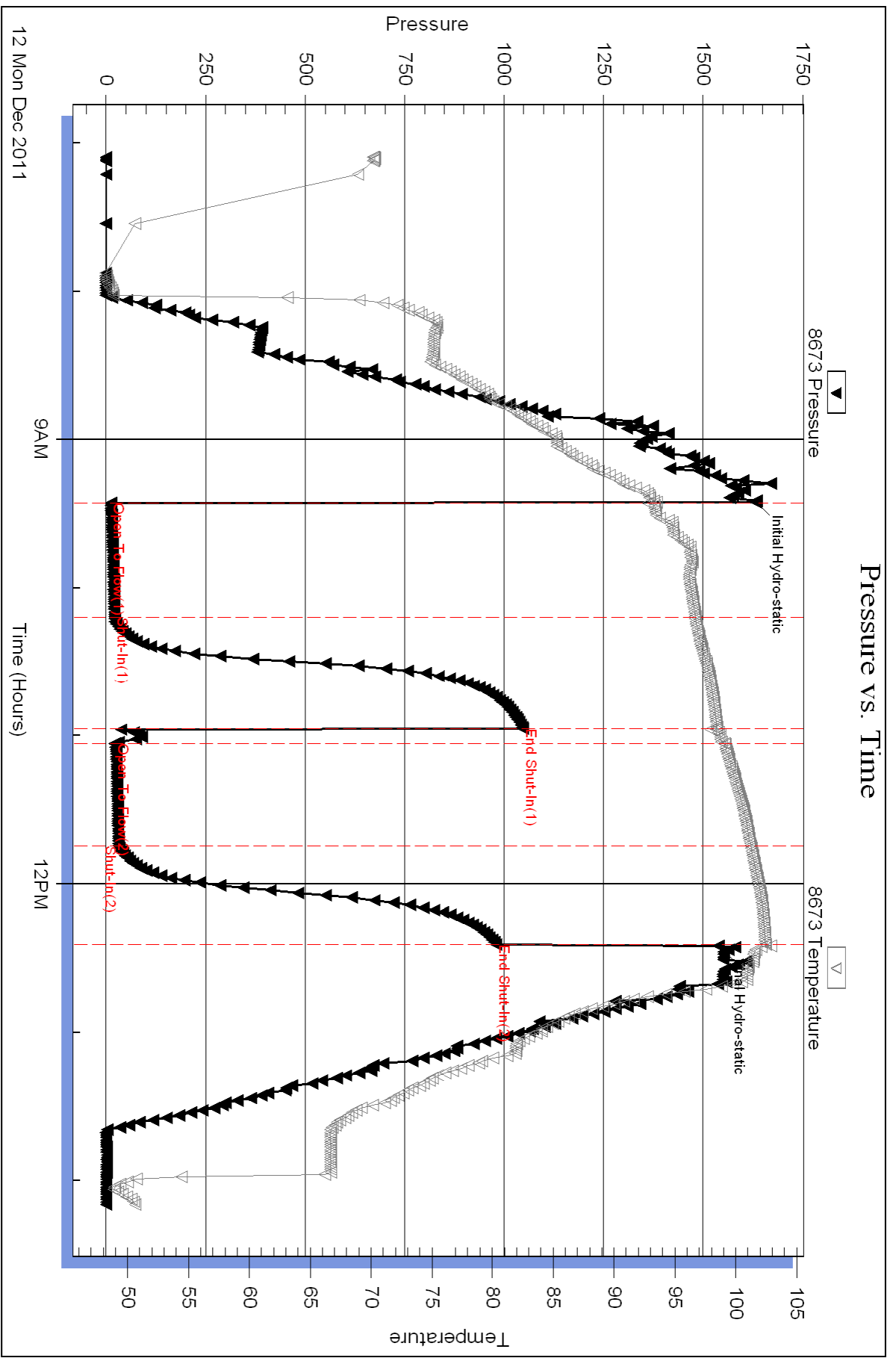
Serial #: 8673

Inside

Downing Nelson Oil Company

Verna Heri #2-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 44703

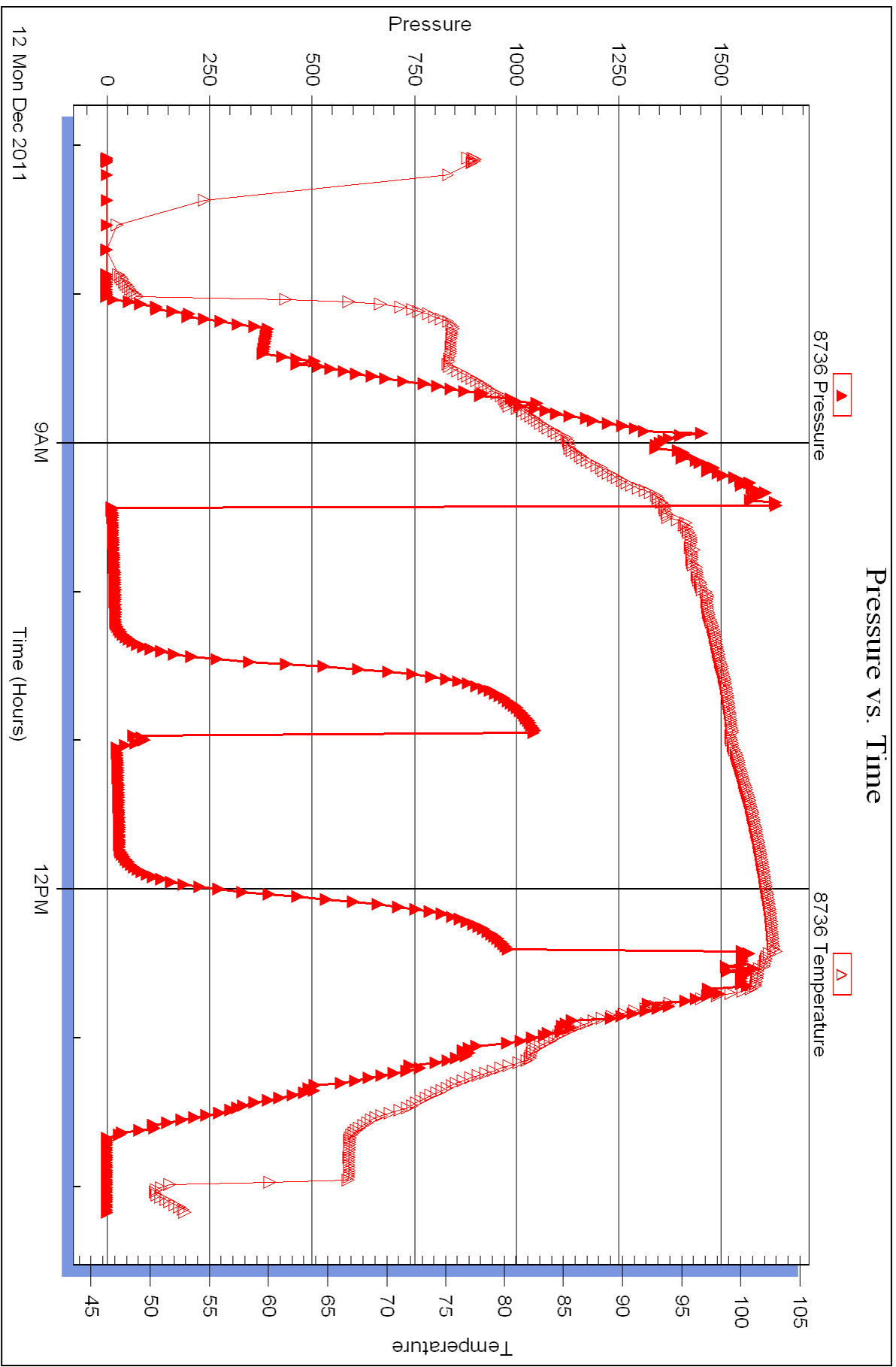
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Serial #: 8736

Outside Dow nling Nelson Oil Company

Verna Herl #2-12

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Verna Herl #2-12

12-14s-19w Ellis,KS

Start Date: 2011.12.13 @ 02:44:17

End Date: 2011.12.13 @ 10:01:02

Job Ticket #: 44704 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.12.19 @ 11:07:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44704

DST#: 2

ATTN: Marc Downing

Test Start: 2011.12.13 @ 02:44:17

GENERAL INFORMATION:

Formation: **D-E**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 05:00:02
 Tester: Jason McLemore
 Time Test Ended: 10:01:02
 Unit No: 54
 Interval: **3483.00 ft (KB) To 3521.00 ft (KB) (TVD)**
 Reference Elevations: 2164.00 ft (KB)
 Total Depth: 3521.00 ft (KB) (TVD)
 2156.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 8.00 ft

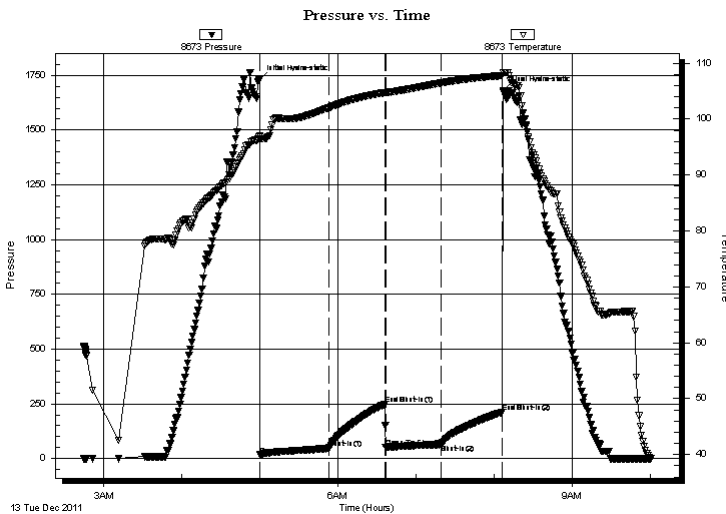
Serial #: 8673

Inside

Press @ Run Depth: 63.97 psig @ 3488.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.12.13 End Date: 2011.12.13 Last Calib.: 2011.12.13
 Start Time: 02:44:19 End Time: 10:01:02 Time On Btm: 2011.12.13 @ 04:59:47
 Time Off Btm: 2011.12.13 @ 08:07:02

TEST COMMENT: IFP-Good Blow, BOB in 19 Min.
 ISI-Dead
 FFP-Fair Blow, Built to 6"
 FSI Dead for 30 min surface blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1732.43	96.95	Initial Hydro-static
1	17.08	96.36	Open To Flow (1)
53	46.32	102.01	Shut-In(1)
97	248.46	104.75	End Shut-In(1)
97	51.92	104.70	Open To Flow (2)
140	63.97	106.46	Shut-In(2)
187	211.61	107.78	End Shut-In(2)
188	1681.02	108.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
115.00	SOCMW-5%O-65%W-30%M	1.61
0.00	130' Gas In Pipe	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44704

DST#: 2

ATTN: Marc Downing

Test Start: 2011.12.13 @ 02:44:17

Tool Information

Drill Pipe:	Length: 3484.00 ft	Diameter: 3.80 inches	Volume: 48.87 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 48.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3483.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3463.00	
Shut In Tool	5.00			3468.00	
Hydraulic tool	5.00			3473.00	
Packer	5.00			3478.00	21.00 Bottom Of Top Packer
Packer	5.00			3483.00	
Stubb	1.00			3484.00	
Perforations	4.00			3488.00	
Recorder	0.00	8673	Inside	3488.00	
Recorder	0.00	8736	Outside	3488.00	
Perforations	30.00			3518.00	
Bullnose	3.00			3521.00	38.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44704

DST#: 2

ATTN: Marc Downing

Test Start: 2011.12.13 @ 02:44:17

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:

46000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 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 bbl
115.00	SOCMW-5%O-65%W-30%M	1.613
0.00	130' Gas In Pipe	0.000

Total Length: 115.00 ft

Total Volume: 1.613 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

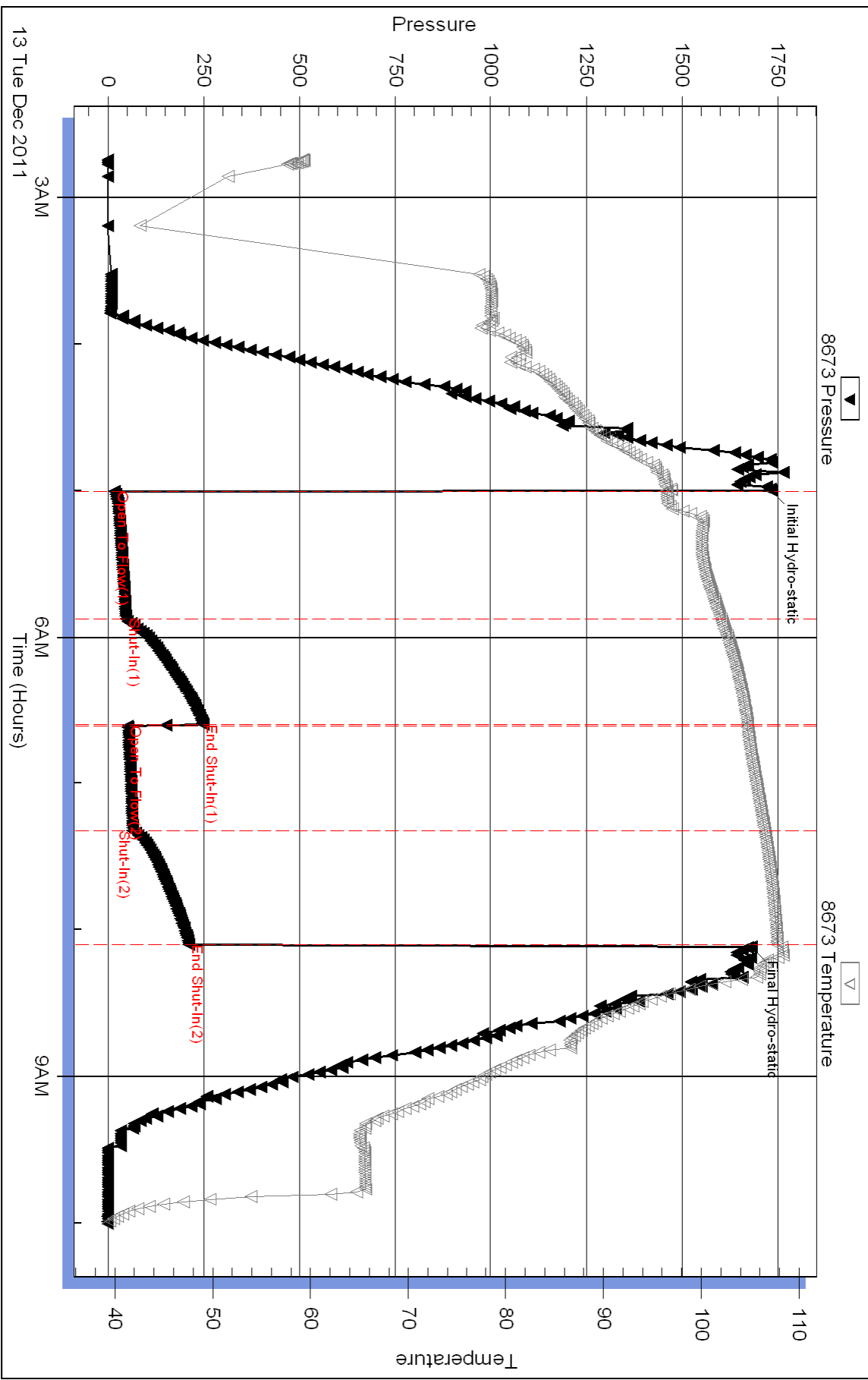
Inside

Downing Nelson Oil Company

Verna Herl #2-12

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44704

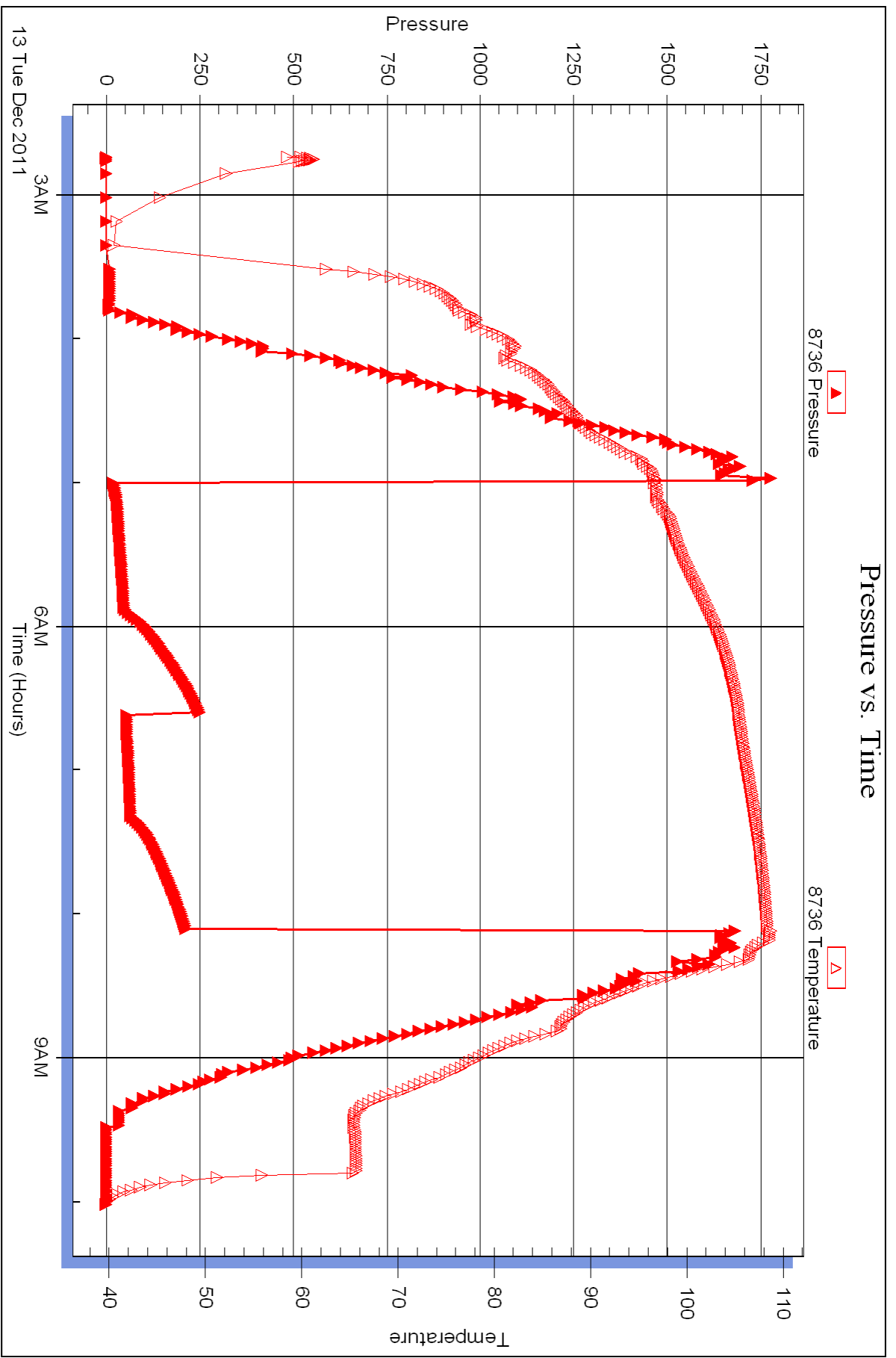
Printed: 2011.12.19 @ 11:07:19

Serial #: 8736

Outside Dow nung Nelson Oil Company

Verna Herl #2-12

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Verna Herl #2-12

12-14s-19w Ellis,KS

Start Date: 2011.12.13 @ 21:58:46

End Date: 2011.12.14 @ 05:24:31

Job Ticket #: 44705 DST #: 3

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

Printed: 2011.12.19 @ 11:06:37



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44705

DST#: 3

ATTN: Marc Downing

Test Start: 2011.12.13 @ 21:58:46

GENERAL INFORMATION:

Formation: **H-I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:53:31

Time Test Ended: 05:24:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 3557.00 ft (KB) To 3633.00 ft (KB) (TVD)

Reference Elevations: 2164.00 ft (KB)

Total Depth: 3633.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673 Inside

Press @ Run Depth: 95.13 psig @ 3600.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.13

End Date:

2011.12.14

Last Calib.: 2011.12.14

Start Time: 21:58:48

End Time:

05:24:31

Time On Btm: 2011.12.13 @ 23:53:16

Time Off Btm: 2011.12.14 @ 02:54:31

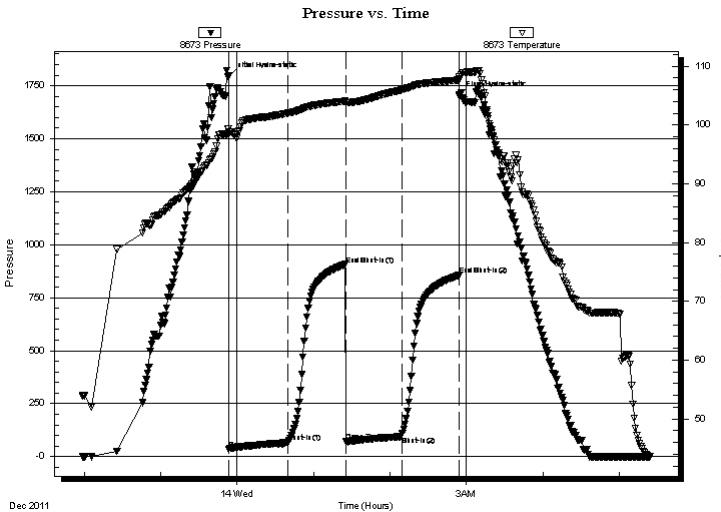
TEST COMMENT: IFP-Good Blow, BOB in 8Min.

ISI-Blow back Built to 1/2"

FFP-Strong, BOB in 2 Min.

FSI-Surface Bow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.38	99.41	Initial Hydro-static
1	33.51	98.34	Open To Flow (1)
47	66.35	101.99	Shut-In(1)
92	907.01	104.05	End Shut-In(1)
93	71.99	103.81	Open To Flow (2)
136	95.13	105.94	Shut-In(2)
181	855.29	107.67	End Shut-In(2)
182	1702.42	108.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
145.00	Gassy Muddy Oil-55%G-30%O-15%M	2.03
0.00	840' Gas In Pipe	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44705

DST#: 3

ATTN: Marc Downing

Test Start: 2011.12.13 @ 21:58:46

Tool Information

Drill Pipe:	Length: 3548.00 ft	Diameter: 3.80 inches	Volume: 49.77 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 49.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3557.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	76.00 ft			
Tool Length:	97.00 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			3537.00	
Shut In Tool	5.00			3542.00	
Hydraulic tool	5.00			3547.00	
Packer	5.00			3552.00	21.00 Bottom Of Top Packer
Packer	5.00			3557.00	
Stubb	1.00			3558.00	
Perforations	8.00			3566.00	
Change Over Sub	1.00			3567.00	
Blank Spacing	32.00			3599.00	
Change Over Sub	1.00			3600.00	
Recorder	0.00	8673	Inside	3600.00	
Recorder	0.00	8736	Outside	3600.00	
Perforations	30.00			3630.00	
Bullnose	3.00			3633.00	76.00 Bottom Packers & Anchor

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44705

DST#: 3

ATTN: Marc Downing

Test Start: 2011.12.13 @ 21:58:46

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
145.00	Gassy Muddy Oil-55%G-30%O-15%M	2.034
0.00	840' Gas In Pipe	0.000

Total Length: 145.00 ft

Total Volume: 2.034 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

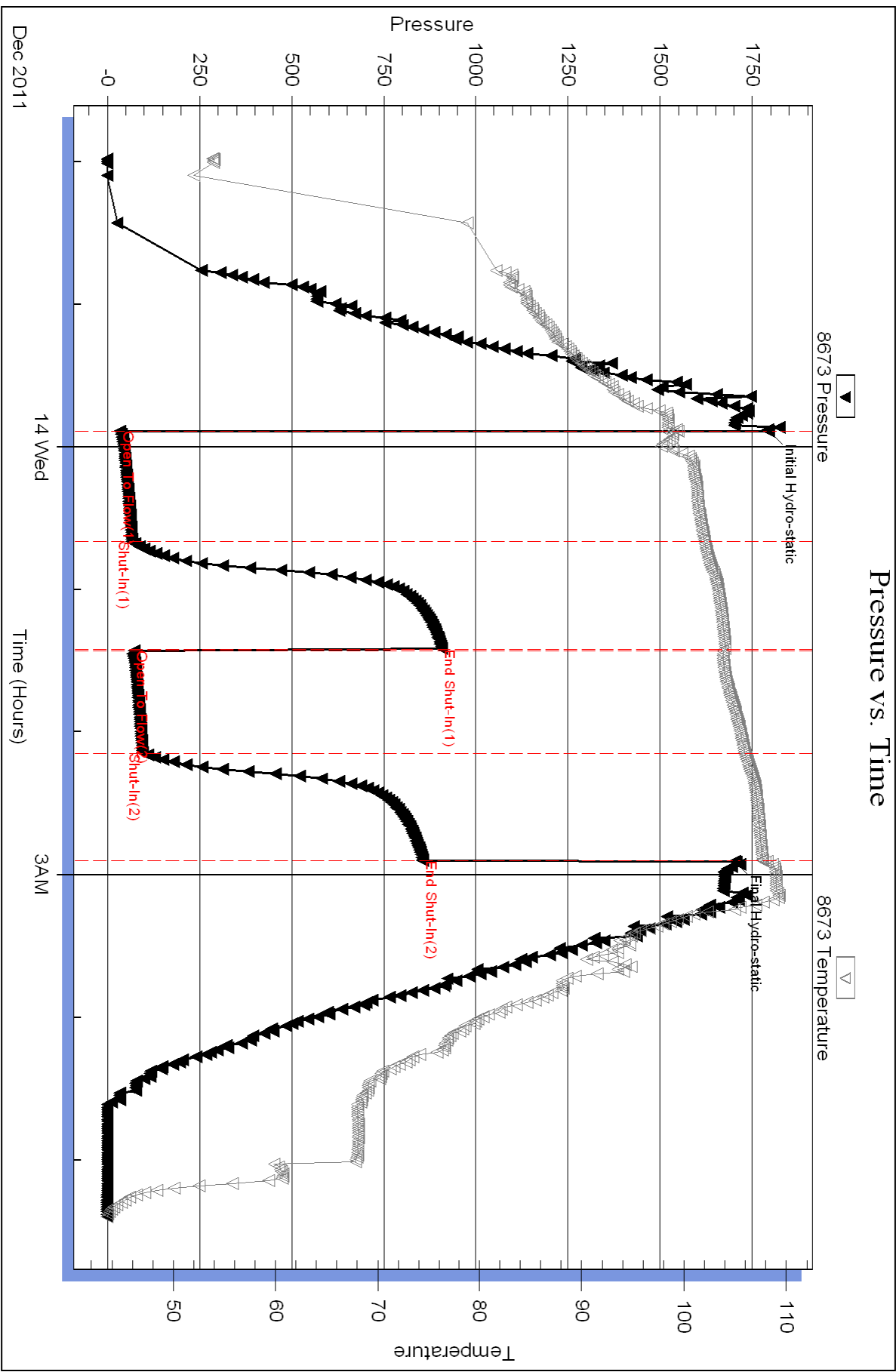
Serial #: 8673

Inside

Downing Nelson Oil Company

Verna Heri #2-12

DST Test Number: 3

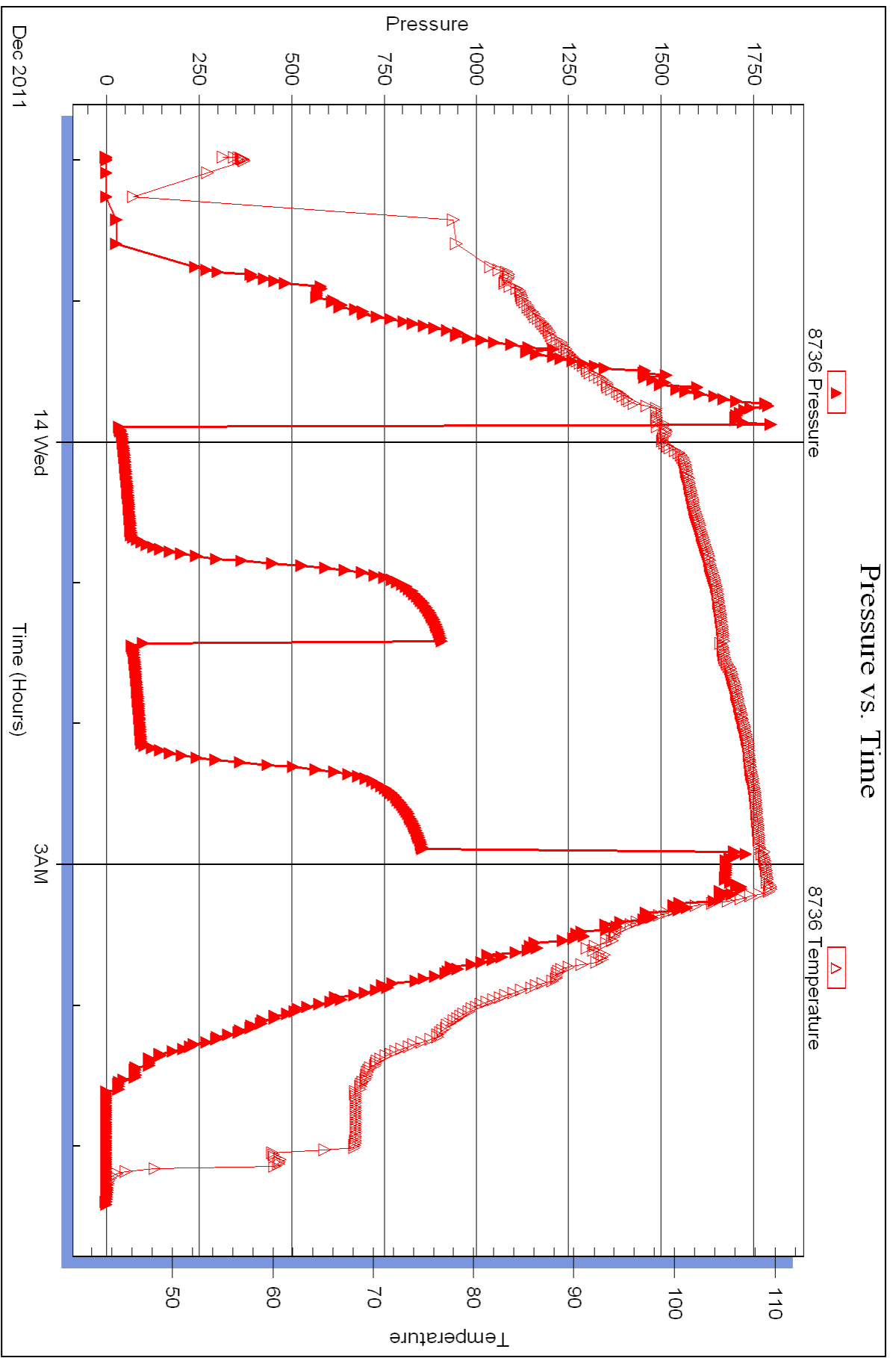


Serial #: 8736

Outside Dow nung Nelson Oil Company

Verna Herl #2-12

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 44705

Printed: 2011.12.19 @ 11:06:40



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Verna Herl #2-12

12-14s-19w Ellis,KS

Start Date: 2011.12.15 @ 02:55:23

End Date: 2011.12.15 @ 10:47:38

Job Ticket #: 44706 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.12.19 @ 11:05:59

Downing Nelson Oil Company

12-14s-19w Ellis,KS

Verna Herl #2-12

DST # 4

Arbuckle

2011.12.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44706

DST#: 4

ATTN: Marc Downing

Test Start: 2011.12.15 @ 02:55:23

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:54:23

Time Test Ended: 10:47:38

Test Type: Conventional Straddle (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 3780.00 ft (KB) To 3796.00 ft (KB) (TVD)

Reference Elevations: 2164.00 ft (KB)

Total Depth: 3851.00 ft (KB) (TVD)

2156.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673 Inside

Press @ Run Depth: 15.98 psig @ 3782.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.15

End Date:

2011.12.15

Last Calib.:

2011.12.19

Start Time: 02:55:25

End Time:

10:47:38

Time On Btm:

2011.12.15 @ 05:53:53

Time Off Btm:

2011.12.15 @ 08:26:53

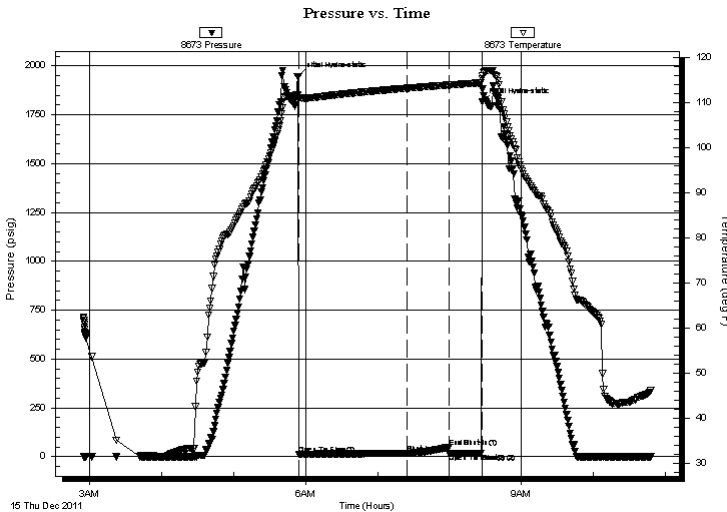
TEST COMMENT: IFP-Weak Blow, Built to 1-1/4"

ISI-Dead

FFP-Dead

FSI-Dead

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.66	111.67	Initial Hydro-static
1	12.89	110.84	Open To Flow (1)
91	15.98	113.15	Shut-In(1)
126	48.82	113.86	End Shut-In(1)
126	16.85	113.85	Open To Flow (2)
153	16.56	114.33	Shut-In(2)
153	1814.76	115.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Free Oil	0.07
5.00	HOCM-40%O-60%M	0.07
0.00	60' Gas In Pipe	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44706

DST#: 4

ATTN: Marc Downing

Test Start: 2011.12.15 @ 02:55:23

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.80 inches	Volume: 52.88 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 52.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3780.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	3796.00 ft			
Interval between Packers:	16.00 ft			
Tool Length:	90.00 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			3760.00	
Shut In Tool	5.00			3765.00	
Hydraulic tool	5.00			3770.00	
Packer	5.00			3775.00	21.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Stubb	1.00			3781.00	
Perforations	1.00			3782.00	
Recorder	0.00	8673	Inside	3782.00	
Recorder	0.00	6755	Outside	3782.00	
Perforations	10.00			3792.00	
Blank Off Sub	1.00			3793.00	
Blank Spacing	3.00			3796.00	16.00 Tool Interval
Packer	0.00			3796.00	
Perforations	15.00			3811.00	
Change Over Sub	1.00			3812.00	
Recorder	0.00	8736	Below	3812.00	
Blank Spacing	31.00			3843.00	
Change Over Sub	1.00			3844.00	
Perforations	2.00			3846.00	
Bullnose	3.00			3849.00	53.00 Bottom Packers & Anchor

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company

12-14s-19w Ellis, KS

PO Box 1019
Hays, KS 67601

Verna Herl #2-12

Job Ticket: 44706

DST#: 4

ATTN: Marc Downing

Test Start: 2011.12.15 @ 02:55:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Free Oil	0.070
5.00	HOCM-40%O-60%M	0.070
0.00	60' Gas In Pipe	0.000

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

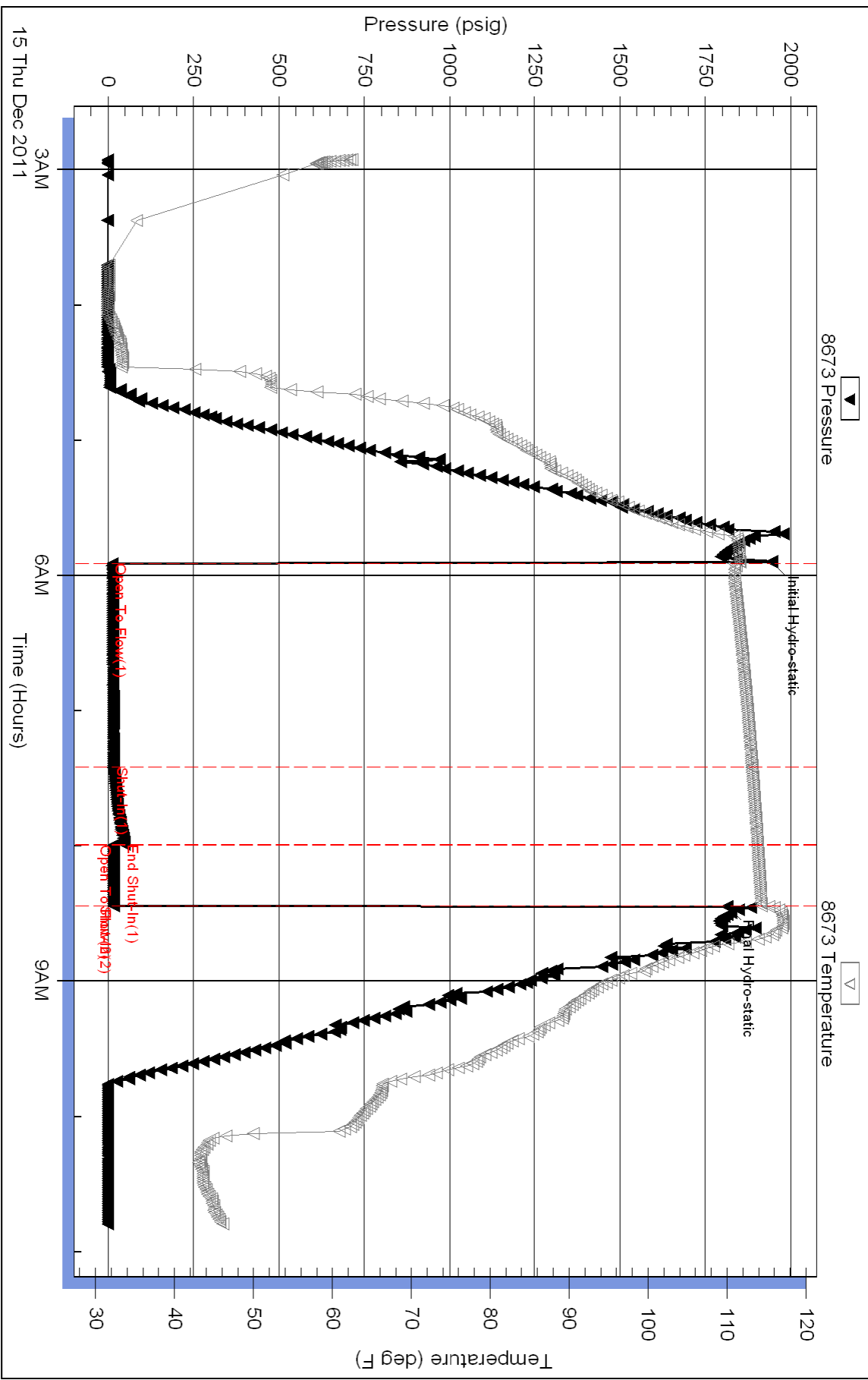
Inside

Downing Nelson Oil Company

Verna Herl #2-12

DST Test Number: 4

Pressure vs. Time

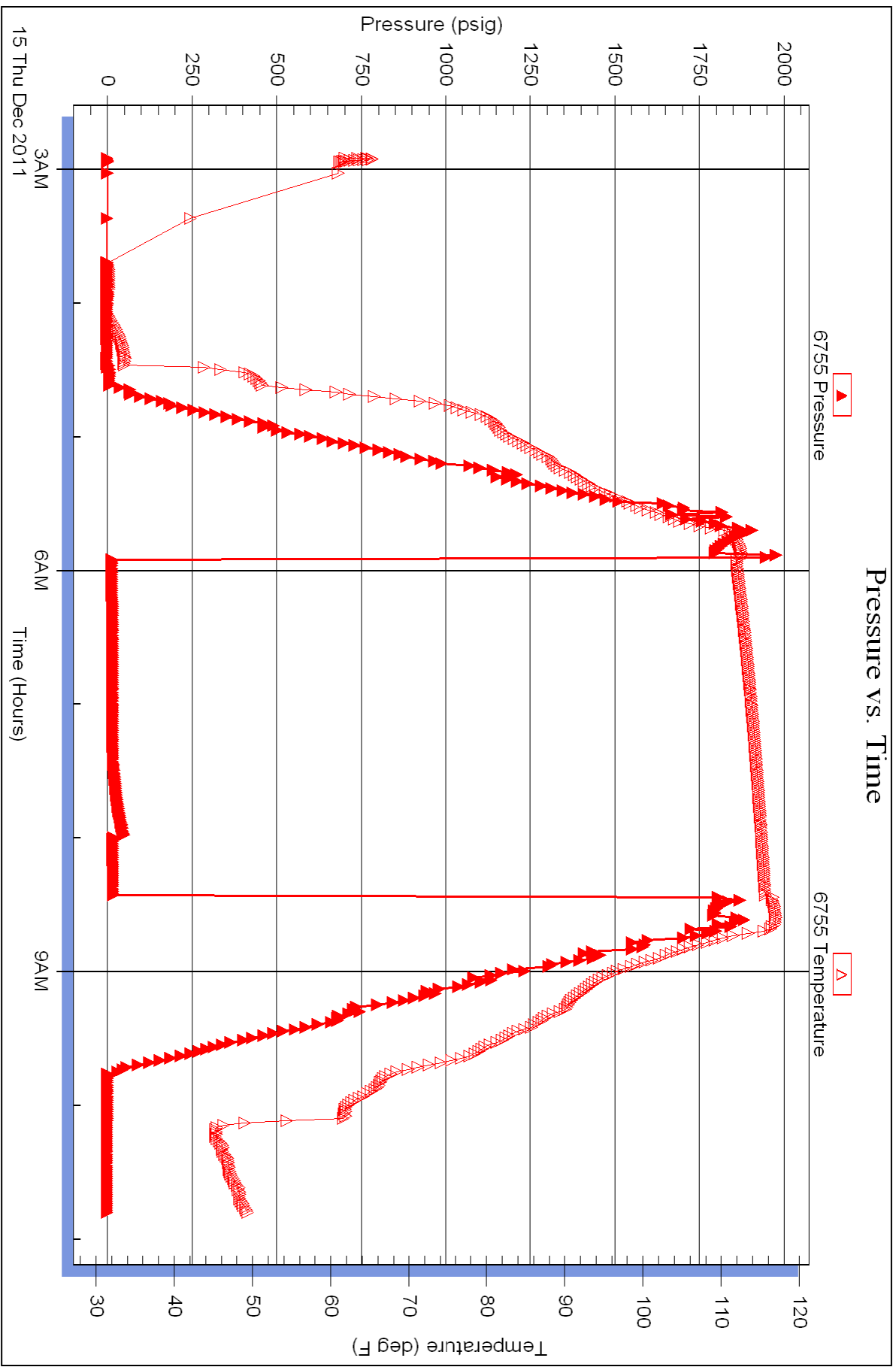


Serial #: 6755

Outside Dow nling Nelson Oil Company

Verna Herl #2-12

DST Test Number: 4

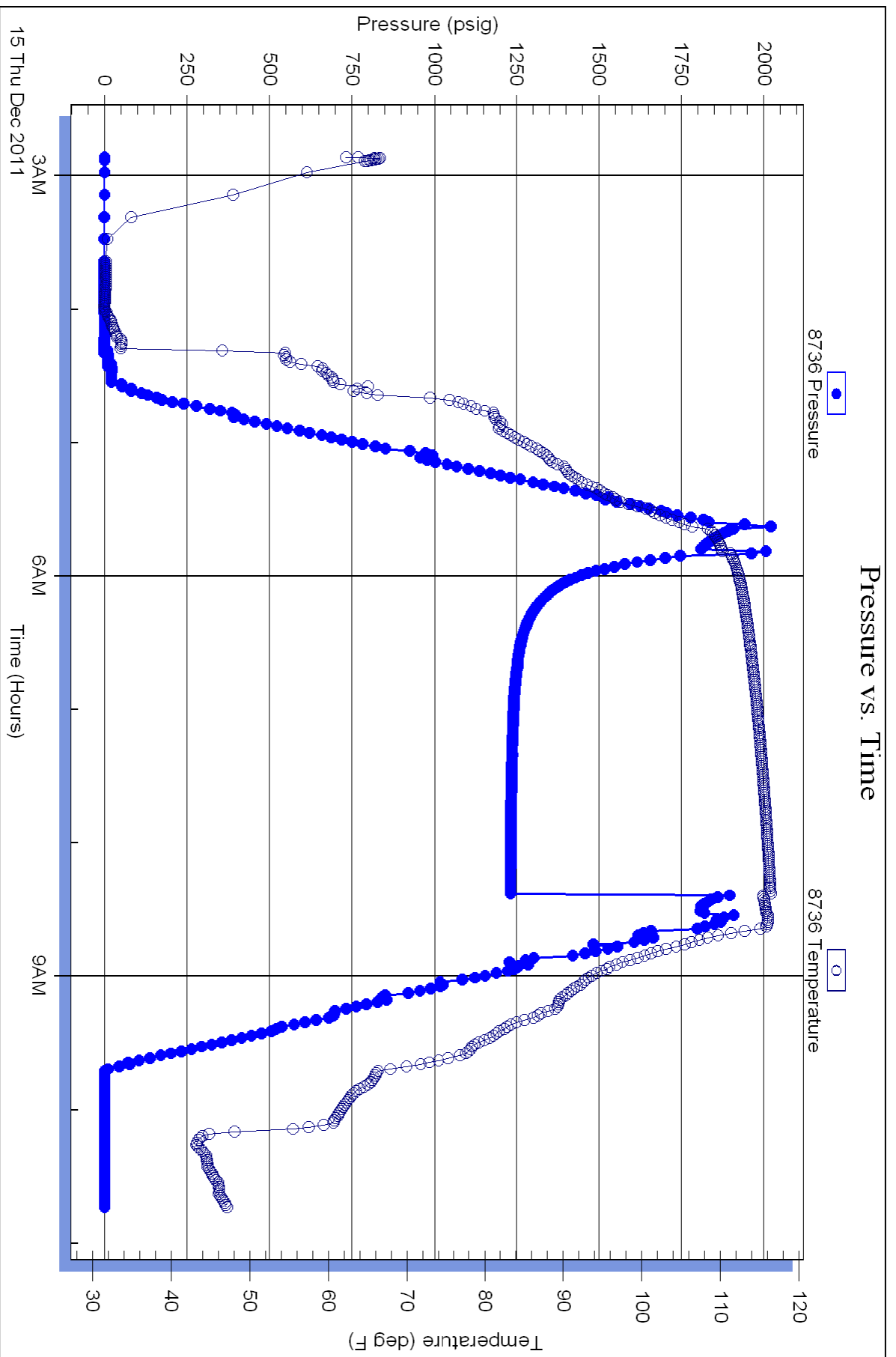


Serial #: 8736

Below (Stratton) Nelson Oil Company

Verna Herl #2-12

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 44706

Printed: 2011.12.19 @ 11:06:03



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

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DEC 16 2011
BY: _____

Test Ticket

NO. 44703

Well Name & No. Verna Herl #2-12 Test No. 1 Date 12-12-11
 Company Downing Nelson Oil Company Elevation 2164 KB 2154 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 12 Twp. 14s Rge. 19w Co. Ellis State KS

Interval Tested 3360-3394 Zone Tested Plattsmouth
 Anchor Length 34' Drill Pipe Run 3359 Mud Wt. 8.5
 Top Packer Depth 3355 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3360 Wt. Pipe Run 0 WL 8.0
 Total Depth 3394 Chlorides 2,000 ppm System LCM 2 1/2 #

Blow Description IFP - Weak Blow, Built to 4"
ISI - Dead
FFP - Weak Blow, Built to 3"
FSI - Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>OCMU</u>	<u>10</u>	<u>50</u>	<u>40</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>60' GIP</u>	%gas	%oil	%water	%mud

Rec Total 40 BHT Gravity API RW 272 @ 45 °F Chlorides 48,000 ppm
 (A) Initial Hydrostatic 1634 Test 1125' T-On Location 4:55
 (B) First Initial Flow 12 Jars T-Started 7:03
 (C) First Final Flow 21 Safety Joint T-Open 9:20
 (D) Initial Shut-In 1048 Circ Sub T-Pulled 12:20
 (E) Second Initial Flow 22 Hourly Standby 1/2 hr 50' T-Out 14:10
 (F) Second Final Flow 31 Mileage 12 rt 116.80 Comments _____
 (G) Final Shut-In 981 Sampler _____
 (H) Final Hydrostatic 1539 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____
 Initial Open 45 Extra Recorder _____
 Initial Shut-In 45 Day Standby _____
 Final Flow 45 Accessibility _____
 Final Shut-In 45 Sub Total 1191.80 MP/DST Disc't _____
 Sub Total 1191.80

Approved By _____

Our Representative Jaron Mc Loman *Thank you!*

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



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P.O. Box 1733 • Hays, Kansas 67601

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DEC 16 2011
BY: _____

Test Ticket

NO. 44704

Well Name & No. Vesna Herl #2-12 Test No. 2 Date 12-13-11
 Company Downing Nelson Oil Company Elevation 2164 KB 2156 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 12 Twp. 14s Rge. 19W Co. Ellis State KS

Interval Tested 3483-3521 Zone Tested D-E
 Anchor Length 38 Drill Pipe Run 3484 Mud Wt. 9.0
 Top Packer Depth 3478 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 3483 Wt. Pipe Run 0 WL 8.0
 Total Depth 3521 Chlorides 3,000 ppm System LCM 2th
 Blow Description I/F - Good Blow, BOB in 19 min.
ISI - Dead
I/F - Fair Blow, Built to 6"
F-SI - Dead For 30 min, Surface Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>115</u>	<u>SOCMW</u>	<u>5</u>	<u>65</u>	<u>30</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>130' GIP</u>	%gas	%oil	%water	%mud

Rec Total 115 BHT _____ Gravity _____ API RW 290 @ 40 ° F Chlorides 46,000 ppm
 (A) Initial Hydrostatic 1732 Test 1125 T-On Location 2:30
 (B) First Initial Flow 17 Jars _____ T-Started 2:42
 (C) First Final Flow 46 Safety Joint _____ T-Open 5:00
 (D) Initial Shut-In 248 Circ Sub _____ T-Pulled 8:00
 (E) Second Initial Flow 52 Hourly Standby _____ T-Out 10:05
 (F) Second Final Flow 64 Mileage 12 RT 16.80 Comments _____
 (G) Final Shut-In 212 Sampler _____
 (H) Final Hydrostatic 1681 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1141.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1141.80

Approved By _____ Our Representative Jason Mc Lamore

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Handwritten signature/initials



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DEC 16 2011
BY: _____

Test Ticket

NO. 44705

Well Name & No. Verna Herl #2-12 Test No. 3 Date 12-14-11
 Company Downing Nelson Oil Company Elevation 2164 KB 2156 GL
 Address PO Box 1019, Hays, KS, 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 12 Twp. 14s Rge. 19w Co. Ellis State KS

Interval Tested 3557-3633 Zone Tested H-I-J
 Anchor Length 76 Drill Pipe Run 3548 Mud Wt. 9.1
 Top Packer Depth 3552 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 3557 Wt. Pipe Run 0 WL 8.0
 Total Depth 3633 Chlorides 5500 ppm System LCM 2 #
 Blow Description IFP- Good Blow, BOB in 8 min.
ISI- Blowback Built to 1/2"
FFP- Good Blow, BOB in 2 min.
FSI- Surface Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>GMO</u>	<u>55</u>	<u>30</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	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 145 BHT 107° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1795 Test 1125' T-On Location 21:32
 (B) First Initial Flow 34 Jars _____ T-Started 21:56
 (C) First Final Flow 66 Safety Joint _____ T-Open 23:48
 (D) Initial Shut-In 907 Circ Sub _____ T-Pulled 2:48
 (E) Second Initial Flow 72 Hourly Standby _____ T-Out 5:25
 (F) Second Final Flow 95 Mileage 12.25 116.80 Comments _____
 (G) Final Shut-In 855 Sampler _____
 (H) Final Hydrostatic 1702 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1141.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1141.80

Approved By _____

Our Representative Jason McLenon

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Test Ticket

NO. 44706

Well Name & No. Verna Herl #2-12 Test No. 4 Date 12-15-11
 Company Downing Nelson Oil Company Elevation 2164 KB 2156 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 12 Twp. 14s Rge. 19w Co. Ellis State KS

Interval Tested 3780-3796 Zone Tested Arbuckle
 Anchor Length 16' Drill Pipe Run 3770 Mud Wt. 9.0
 Top Packer Depth 3775 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 3780 straddle @ 3796 Wt. Pipe Run 0 WL 8.8
 Total Depth 3851 Chlorides 8500 ppm System LCM 1 1/2 #
 Blow Description IFP - Weak Blow, Built to 1 1/4
ISI - Dead
FFP - Dead
FSI - Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Free Oil</u>				
<u>5</u>	<u>HOCM</u>		<u>40</u>		<u>60</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1946 Test 1125 T-On Location 2:30
 (B) First Initial Flow 13 Jars _____ T-Started 2:51
 (C) First Final Flow 16 Safety Joint _____ T-Open 5:48
 (D) Initial Shut-In 49 Circ Sub _____ T-Pulled 8:18
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 10:45
 (F) Second Final Flow 17 Mileage 12 RT 16.80 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1815 Straddle LOOS Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1741.80
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1741.80

Approved By _____

Our Representative Jason McDemmon

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Thank You