



DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.07 @ 22:08:00

End Date: 2014.02.08 @ 05:30:00

Job Ticket #: 50424 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.12 @ 11:21:41

Downing-Nelson Oil Co Inc
30 14s 18w Ellis,KS
Virginia #1-30
DST # 1
LKC " C "
2014.02.07



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50424

DST#: 1

ATTN: Al Dow ning

Test Start: 2014.02.07 @ 22:08:00

GENERAL INFORMATION:

Formation: **LKC " C "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:02:30

Time Test Ended: 05:30:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3370.00 ft (KB) To 3400.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 541.25 psig @ 3372.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.07

End Date:

2014.02.08

Last Calib.:

2014.02.08

Start Time:

22:08:02

End Time:

05:30:15

Time On Btm:

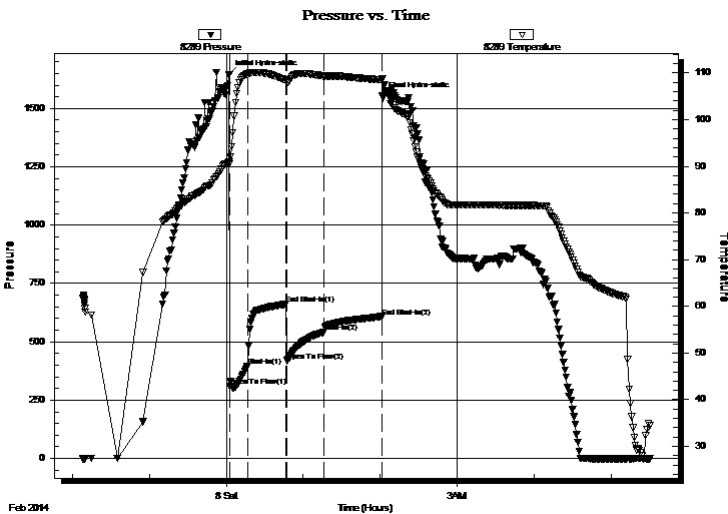
2014.02.08 @ 00:02:15

Time Off Btm:

2014.02.08 @ 02:01:45

TEST COMMENT: 15-IFP- BOB in 20 sec.
30-ISIP- BOB in 1min. 10sec.
30-FFP- BOB 15sec. Gas to Surface 8min.
45-FSIP- BOB in 1min. 15sec.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1644.21	90.99	Initial Hydro-static
1	310.63	90.60	Open To Flow (1)
15	395.00	109.79	Shut-In(1)
44	660.61	108.49	End Shut-In(1)
45	418.57	108.30	Open To Flow (2)
74	541.25	109.32	Shut-In(2)
120	607.77	108.48	End Shut-In(2)
120	1552.32	108.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1850.00	CO 100%	25.66

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50424

DST#: 1

ATTN: Al Dow ning

Test Start: 2014.02.07 @ 22:08:00

GENERAL INFORMATION:

Formation: **LKC " C "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:02:30

Time Test Ended: 05:30:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3370.00 ft (KB) To 3400.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8789 Inside

Press@RunDepth: psig @ 3372.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.07 End Date: 2014.02.08

Last Calib.: 2014.02.08

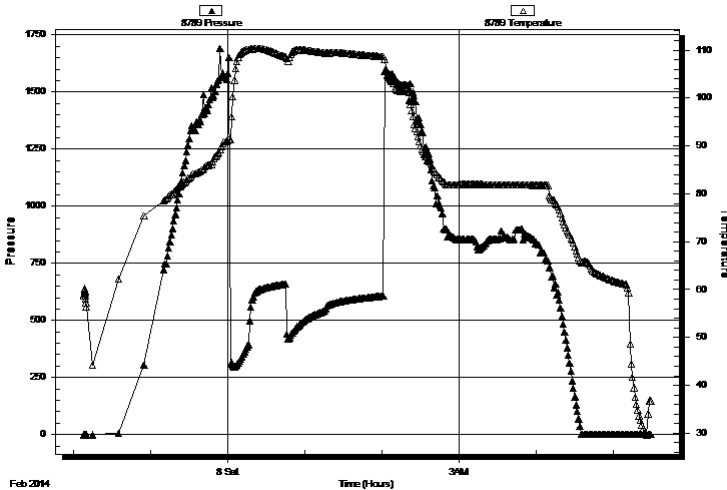
Start Time: 22:08:02 End Time: 05:30:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 15-IFP- BOB in 20 sec.
30-ISIP- BOB in 1min. 10sec.
30-FFP- BOB 15sec. Gas to Surface 8min.
45-FSIP- BOB in 1min. 15sec.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1850.00	CO 100%	25.66

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

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50424

DST#: 1

ATTN: Al Dow ning

Test Start: 2014.02.07 @ 22:08:00

Tool Information

Drill Pipe:	Length: 3324.00 ft	Diameter: 3.80 inches	Volume: 46.63 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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:	57000.00 lb
			<u>Total Volume: 46.79 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3370.00 ft			Final	55000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	30.00 ft				
Tool Length:	51.00 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			3350.00	
Shut In Tool	5.00			3355.00	
Hydraulic tool	5.00			3360.00	
Packer	5.00			3365.00	21.00 Bottom Of Top Packer
Packer	5.00			3370.00	
Stubb	1.00			3371.00	
Perforations	1.00			3372.00	
Recorder	0.00	8789	Inside	3372.00	
Recorder	0.00	8289	Outside	3372.00	
Perforations	25.00			3397.00	
Bullnose	3.00			3400.00	30.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50424

DST#: 1

ATTN: Al Dow ning

Test Start: 2014.02.07 @ 22:08:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.67 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1850.00	CO 100%	25.659

Total Length: 1850.00 ft Total Volume: 25.659 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

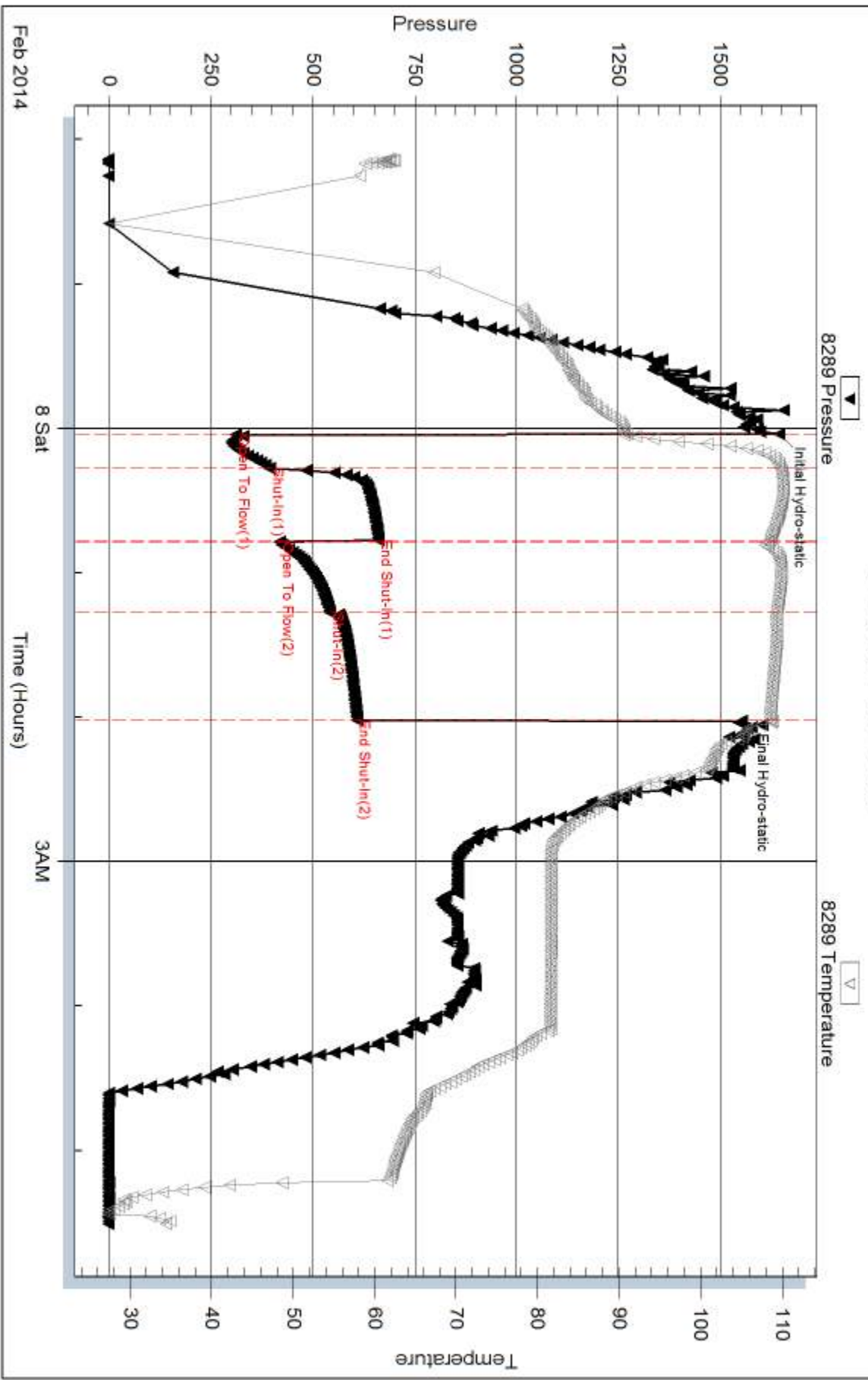
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gas to Surface 8 min. into Second Open

Pressure vs. Time



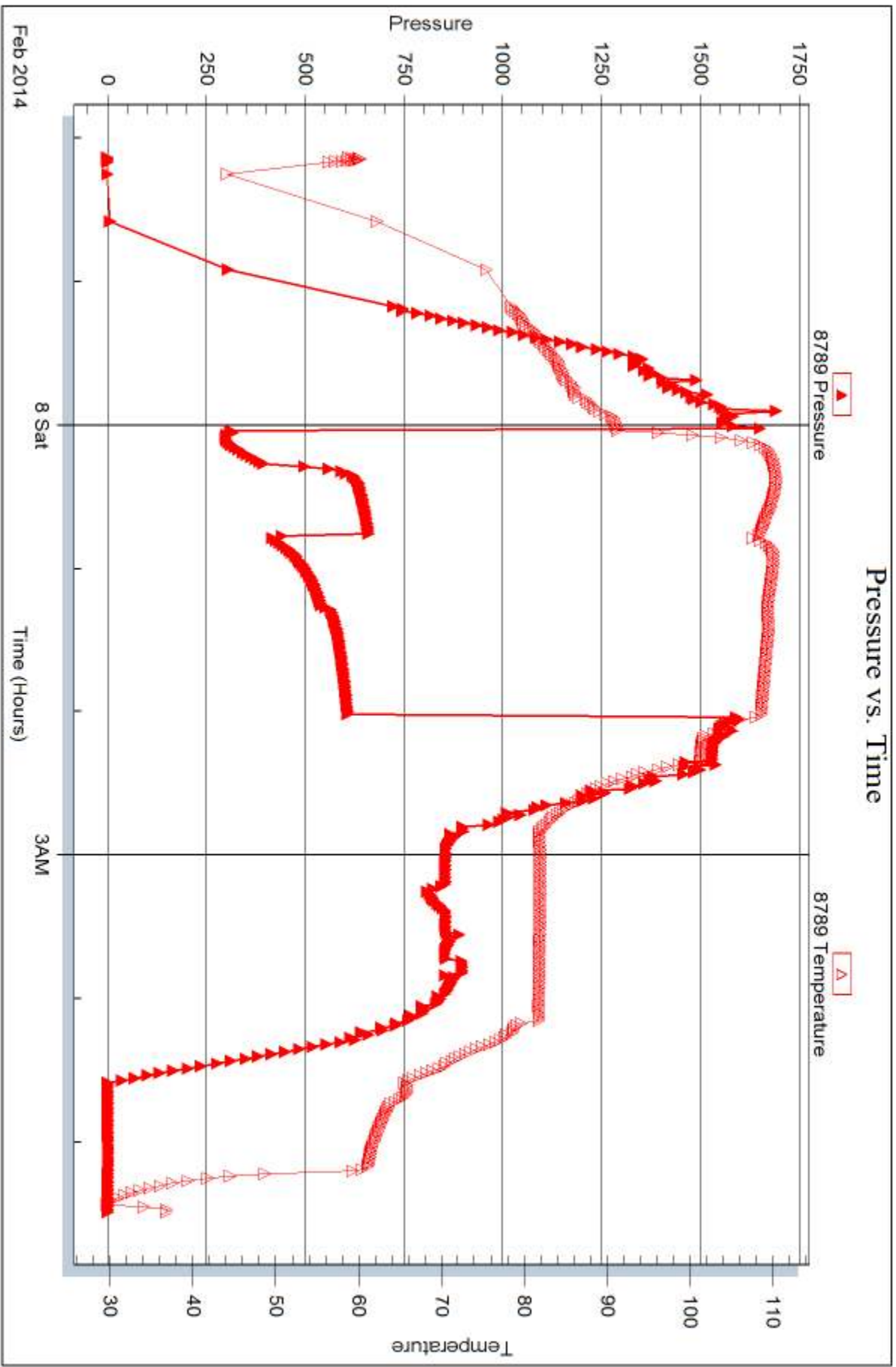
Serial #: 8789

Inside

Dow nng-Nelson Oil Co Inc

Virginia #1-30

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 50424

Printed: 2014.02.12 @ 11:21:43



DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.08 @ 11:20:00

End Date: 2014.02.08 @ 17:36:00

Job Ticket #: 50425 DST #: 2

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

Printed: 2014.02.12 @ 11:21:15

Downing-Nelson Oil Co Inc
30 14s 18w Ellis,KS
Virginia #1-30
DST # 2
LKC " D "
2014.02.08



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50425

DST#: 2

ATTN: Al Dow ning

Test Start: 2014.02.08 @ 11:20:00

GENERAL INFORMATION:

Formation: **LKC " D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:29:00

Time Test Ended: 17:36:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3397.00 ft (KB) To 3420.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 69.12 psig @ 3399.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.08

End Date:

2014.02.08

Last Calib.:

2014.02.08

Start Time: 11:20:02

End Time:

17:35:45

Time On Btm:

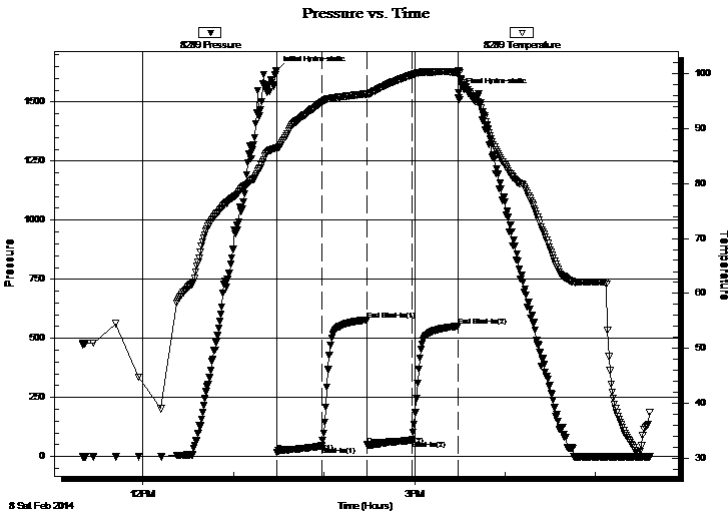
2014.02.08 @ 13:28:30

Time Off Btm:

2014.02.08 @ 15:29:15

TEST COMMENT: 30-IFP- BOB in 7 min.
30-ISIP- Surface Blow Building to 2 1/2" in 20 min.
30-FFP- BOB in 8 min.
30-FSIP- Surface Blow Building to 4". in 22 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1633.75	86.58	Initial Hydro-static
1	18.18	86.31	Open To Flow (1)
30	45.03	94.70	Shut-In(1)
60	578.46	96.31	End Shut-In(1)
61	49.30	96.14	Open To Flow (2)
90	69.12	99.74	Shut-In(2)
121	551.75	100.16	End Shut-In(2)
121	1539.02	100.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	GWMCO 25%g 10%w 30%m 35%o	0.62
65.00	GOWCM 10%g 25%o 30%w 35%m	0.91
0.00	508 GIP	0.00

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

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50425

DST#: 2

ATTN: Al Dow ning

Test Start: 2014.02.08 @ 11:20:00

Tool Information

Drill Pipe:	Length: 3358.00 ft	Diameter: 3.80 inches	Volume: 47.10 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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:	57000.00 lb
			<u>Total Volume: 47.26 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3397.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	23.00 ft				
Tool Length:	44.00 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			3377.00	
Shut In Tool	5.00			3382.00	
Hydraulic tool	5.00			3387.00	
Packer	5.00			3392.00	21.00 Bottom Of Top Packer
Packer	5.00			3397.00	
Stubb	1.00			3398.00	
Perforations	1.00			3399.00	
Recorder	0.00	8789	Inside	3399.00	
Recorder	0.00	8289	Outside	3399.00	
Perforations	18.00			3417.00	
Bullnose	3.00			3420.00	23.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 50425

DST#: 2

ATTN: Al Dow ning

Test Start: 2014.02.08 @ 11:20:00

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:

95000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.91 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.25 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
65.00	GWMCO 25%g 10%w 30%m 35%o	0.620
65.00	GOWCM 10%g 25%o 30%w 35%m	0.912
0.00	508 GIP	0.000

Total Length: 130.00 ft

Total Volume: 1.532 bbl

Num Fluid Samples: 0

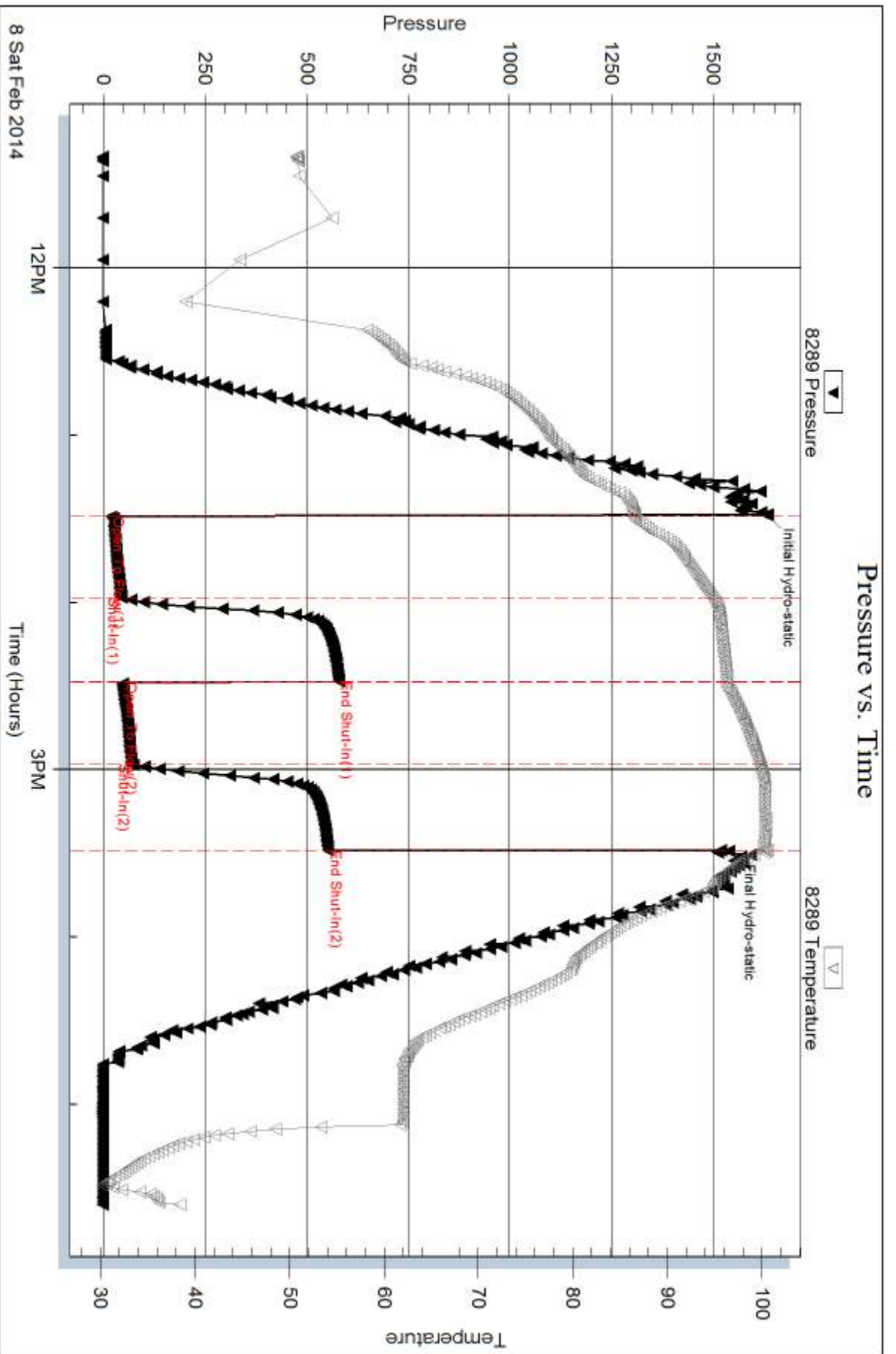
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .202 @ 32



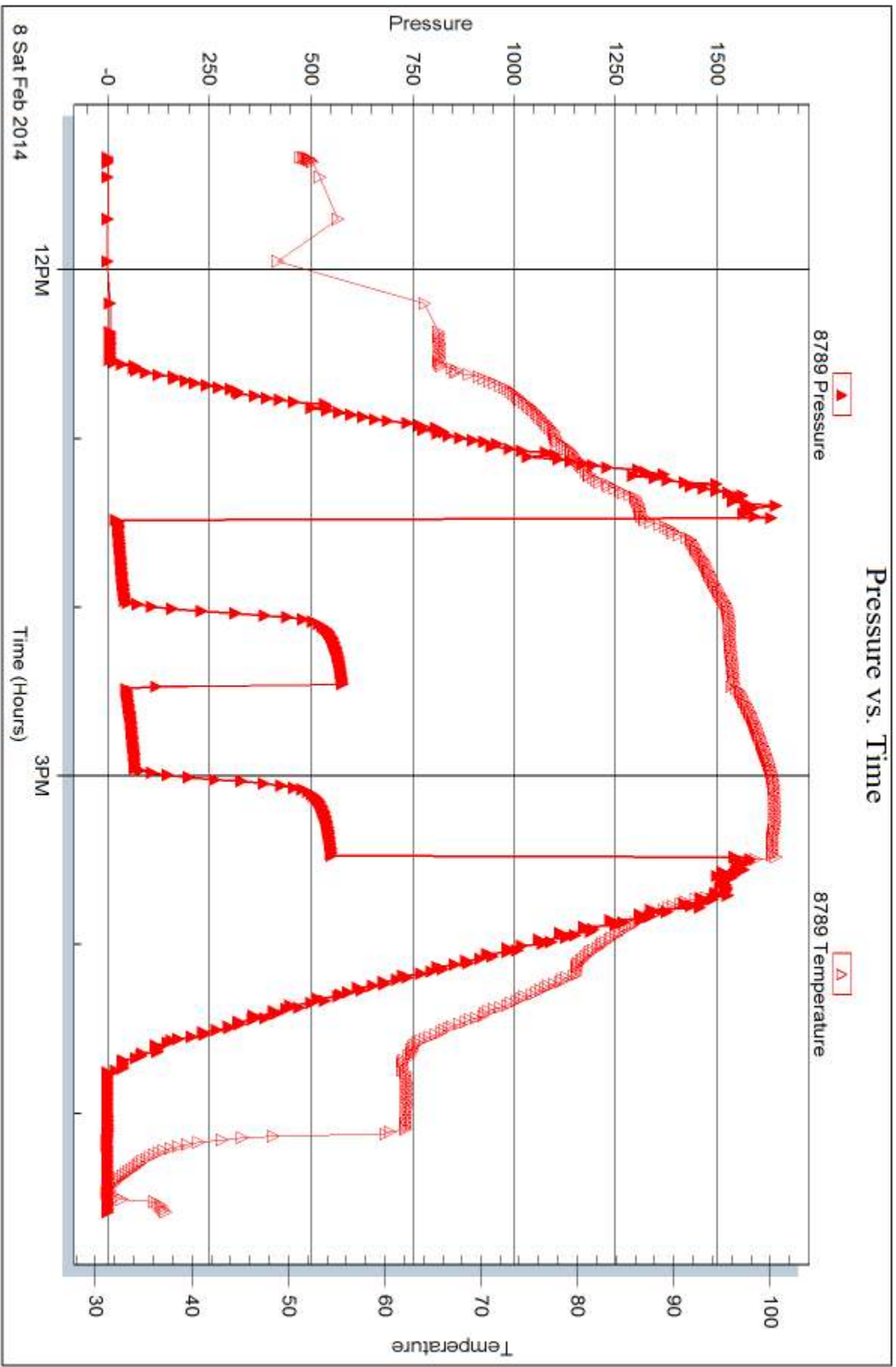
Serial #: 8789

Inside

Dow nng-Nelson Oil Co Inc

Virginia #1-30

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 50425

Printed: 2014.02.12 @ 11:21:18



DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.09 @ 04:00:00

End Date: 2014.02.09 @ 10:38:00

Job Ticket #: 56001 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.12 @ 10:35:12



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56001

DST#: 3

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 04:00:00

GENERAL INFORMATION:

Formation: **LKC " H & I "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:11:30

Time Test Ended: 10:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3477.00 ft (KB) To 3531.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3531.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 114.91 psig @ 3479.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.09

End Date:

2014.02.09

Last Calib.:

2014.02.09

Start Time:

04:00:02

End Time:

10:38:00

Time On Btm:

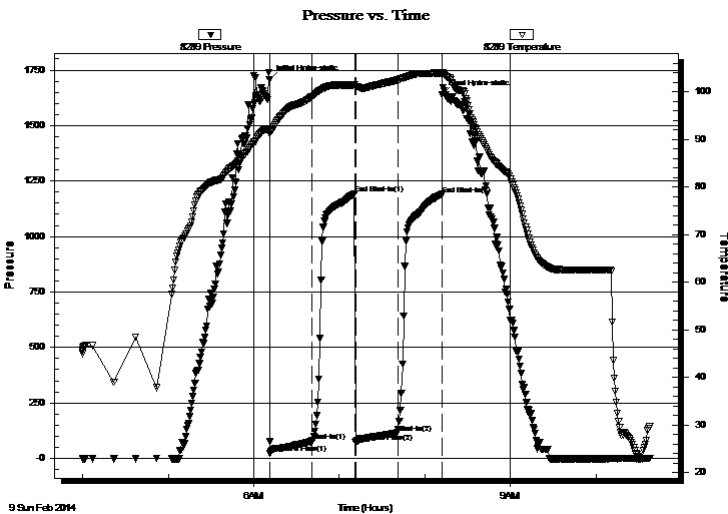
2014.02.09 @ 06:11:00

Time Off Btm:

2014.02.09 @ 08:12:00

TEST COMMENT: 30-IFP- BOB in 6 1/2 min.
30-ISIP- 1/4" Blow Back
30-FFP- BOB in 2 min.
30-FSIP- Surface Blow Building to 3 1/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1708.22	92.15	Initial Hydro-static
1	24.31	91.57	Open To Flow (1)
30	76.25	98.98	Shut-In(1)
60	1192.79	101.42	End Shut-In(1)
61	72.59	100.92	Open To Flow (2)
90	114.91	102.43	Shut-In(2)
121	1190.44	103.90	End Shut-In(2)
121	1639.94	104.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
245.00	GOCM 20%g 25%o 55%m	3.15
0.00	698 GIP	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

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56001

DST#: 3

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 04:00:00

Tool Information

Drill Pipe:	Length: 3452.00 ft	Diameter: 3.80 inches	Volume: 48.42 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 57000.00 lb
			<u>Total Volume: 48.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3477.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	54.00 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			3457.00	
Shut In Tool	5.00			3462.00	
Hydraulic tool	5.00			3467.00	
Packer	5.00			3472.00	21.00 Bottom Of Top Packer
Packer	5.00			3477.00	
Stubb	1.00			3478.00	
Perforations	1.00			3479.00	
Recorder	0.00	8789	Inside	3479.00	
Recorder	0.00	8289	Outside	3479.00	
Perforations	15.00			3494.00	
Change Over Sub	1.00			3495.00	
Blank Spacing	32.00			3527.00	
Change Over Sub	1.00			3528.00	
Bullnose	3.00			3531.00	54.00 Bottom Packers & Anchor

Total Tool Length: 75.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56001

DST#: 3

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 04:00:00

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: 7.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.25 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
245.00	GOCM 20%g 25%o 55%m	3.145
0.00	698 GIP	0.000

Total Length: 245.00 ft Total Volume: 3.145 bbl

Num Fluid Samples: 0

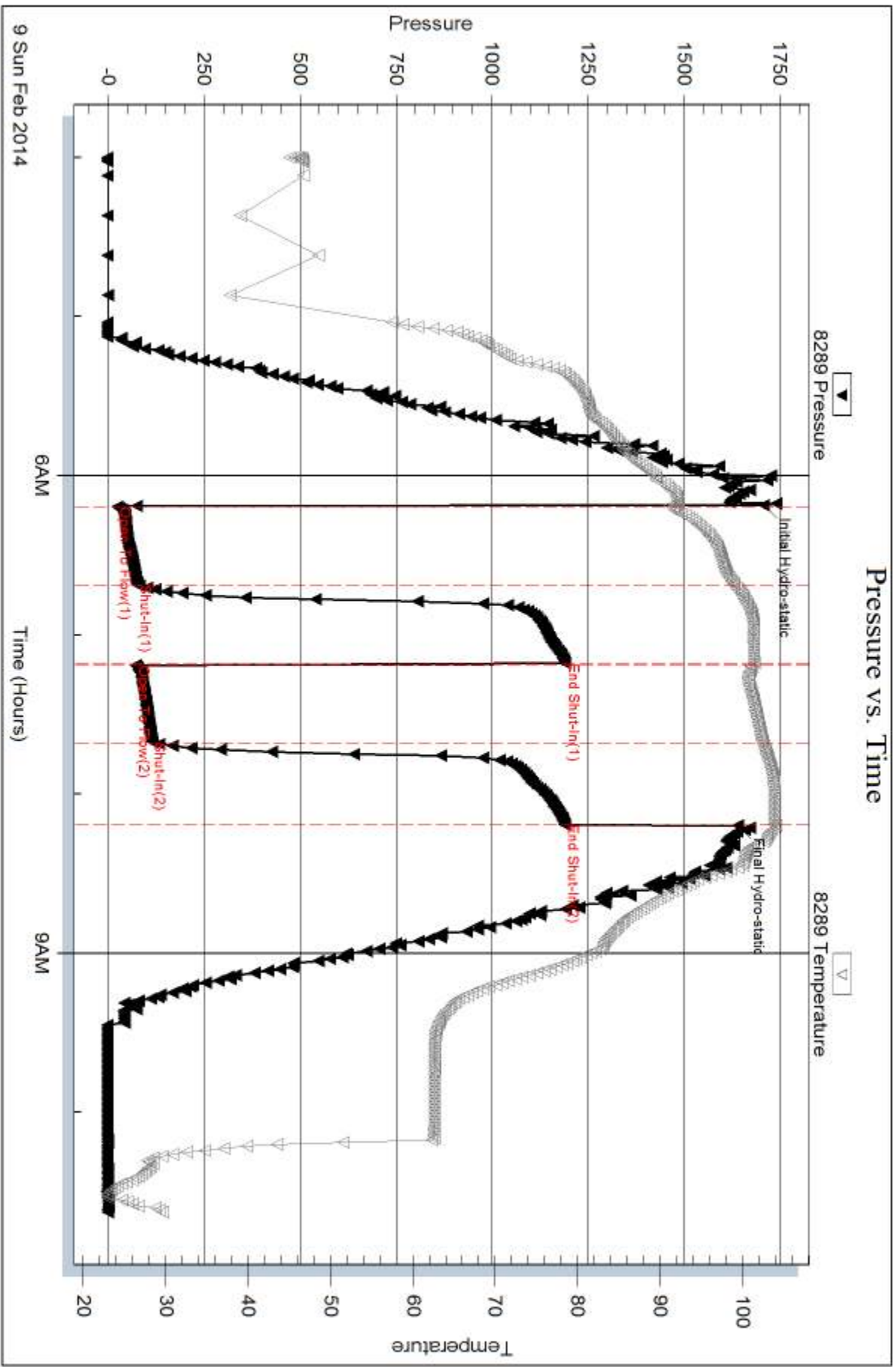
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



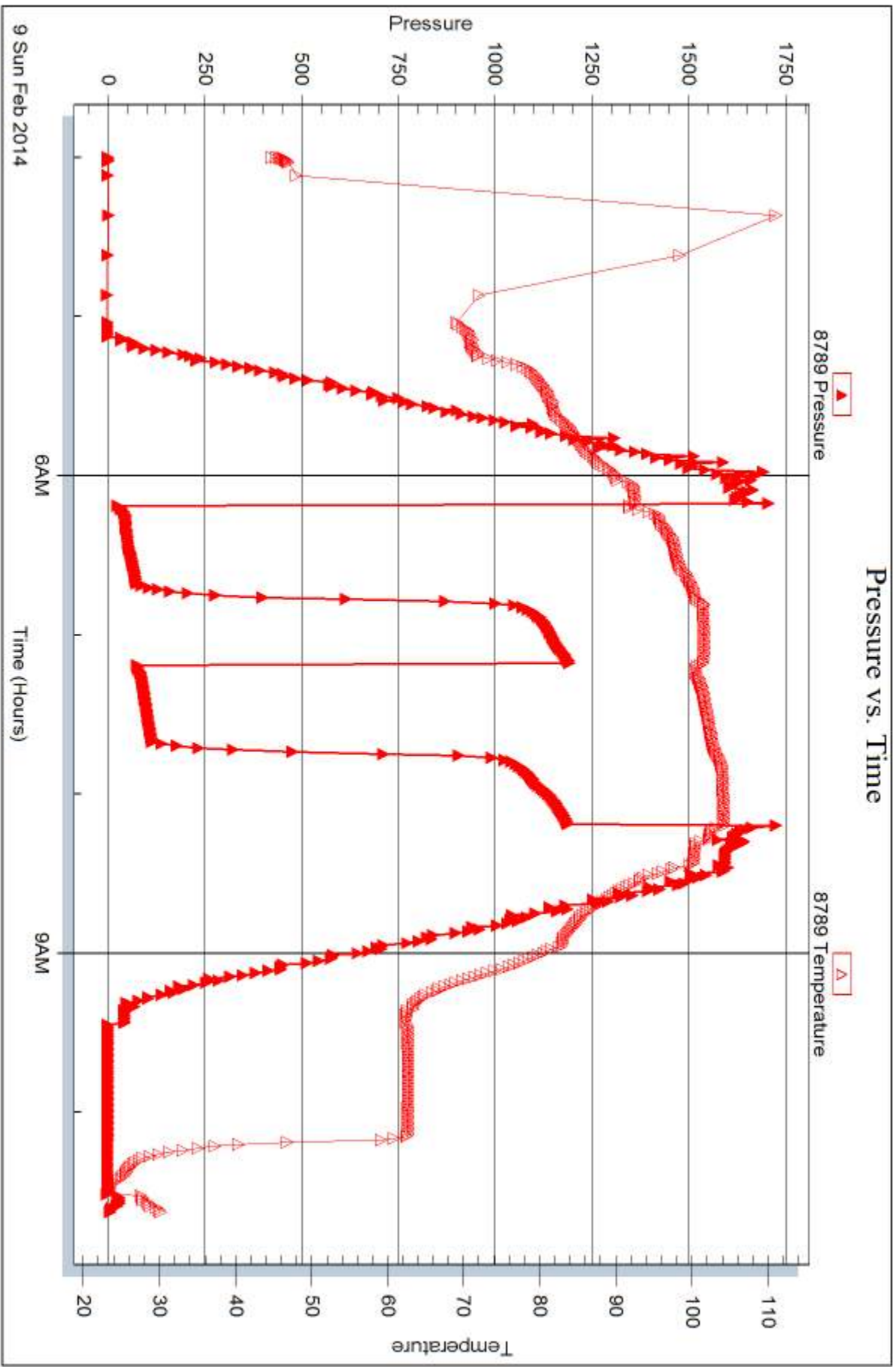
Serial #: 8789

Inside

Dow nrg-Nelson Oil Co Inc

Virginia #1-30

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 56001

Printed: 2014.02.12 @ 10:35:15



DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.09 @ 16:25:00

End Date: 2014.02.09 @ 23:40:00

Job Ticket #: 56002 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.12 @ 10:33:52

Downing-Nelson Oil Co Inc
30 14s 18w Ellis,KS
Virginia #1-30
DST # 4
LKC " J "
2014.02.09



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56002

DST#: 4

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 16:25:00

GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:28:15

Time Test Ended: 23:40:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3526.00 ft (KB) To 3549.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3549.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 50.85 psig @ 3528.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.09 End Date: 2014.02.09

Last Calib.: 2014.02.09

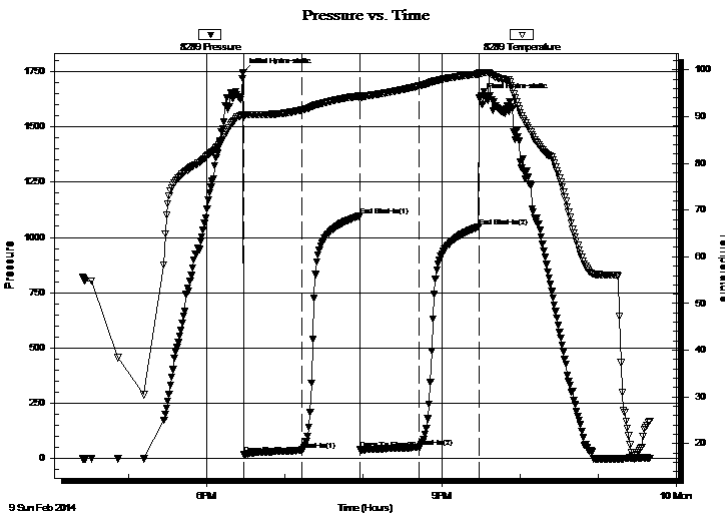
Start Time: 16:25:02 End Time: 23:40:00

Time On Btm: 2014.02.09 @ 18:28:00

Time Off Btm: 2014.02.09 @ 21:29:00

TEST COMMENT: 45-IFP- Surface Blow Building to 6 1/2"
45-ISIP- Surface Blow
45-FFP- Surface Blow Building to 5"
45-FSIP- Weak Surface Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1746.33	90.49	Initial Hydro-static
1	18.22	89.89	Open To Flow (1)
45	36.90	91.41	Shut-In(1)
90	1098.16	94.44	End Shut-In(1)
90	41.02	93.86	Open To Flow (2)
135	50.85	96.58	Shut-In(2)
181	1049.02	99.12	End Shut-In(2)
181	1633.47	99.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	OSMCW 1%o 40%m 59%w	0.83

* 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

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56002

DST#: 4

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 16:25:00

Tool Information

Drill Pipe:	Length: 3484.00 ft	Diameter: 3.80 inches	Volume: 48.87 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 57000.00 lb
			<u>Total Volume: 49.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3526.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	23.00 ft			
Tool Length:	44.00 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			3506.00	
Shut In Tool	5.00			3511.00	
Hydraulic tool	5.00			3516.00	
Packer	5.00			3521.00	21.00 Bottom Of Top Packer
Packer	5.00			3526.00	
Stubb	1.00			3527.00	
Perforations	1.00			3528.00	
Recorder	0.00	8789	Inside	3528.00	
Recorder	0.00	8289	Outside	3528.00	
Perforations	18.00			3546.00	
Bullnose	3.00			3549.00	23.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56002

DST#: 4

ATTN: Al Dow ning

Test Start: 2014.02.09 @ 16:25:00

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:

80000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.25 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
80.00	OSMCW 1%o 40%m 59%w	0.831

Total Length: 80.00 ft Total Volume: 0.831 bbf

Num Fluid Samples: 0

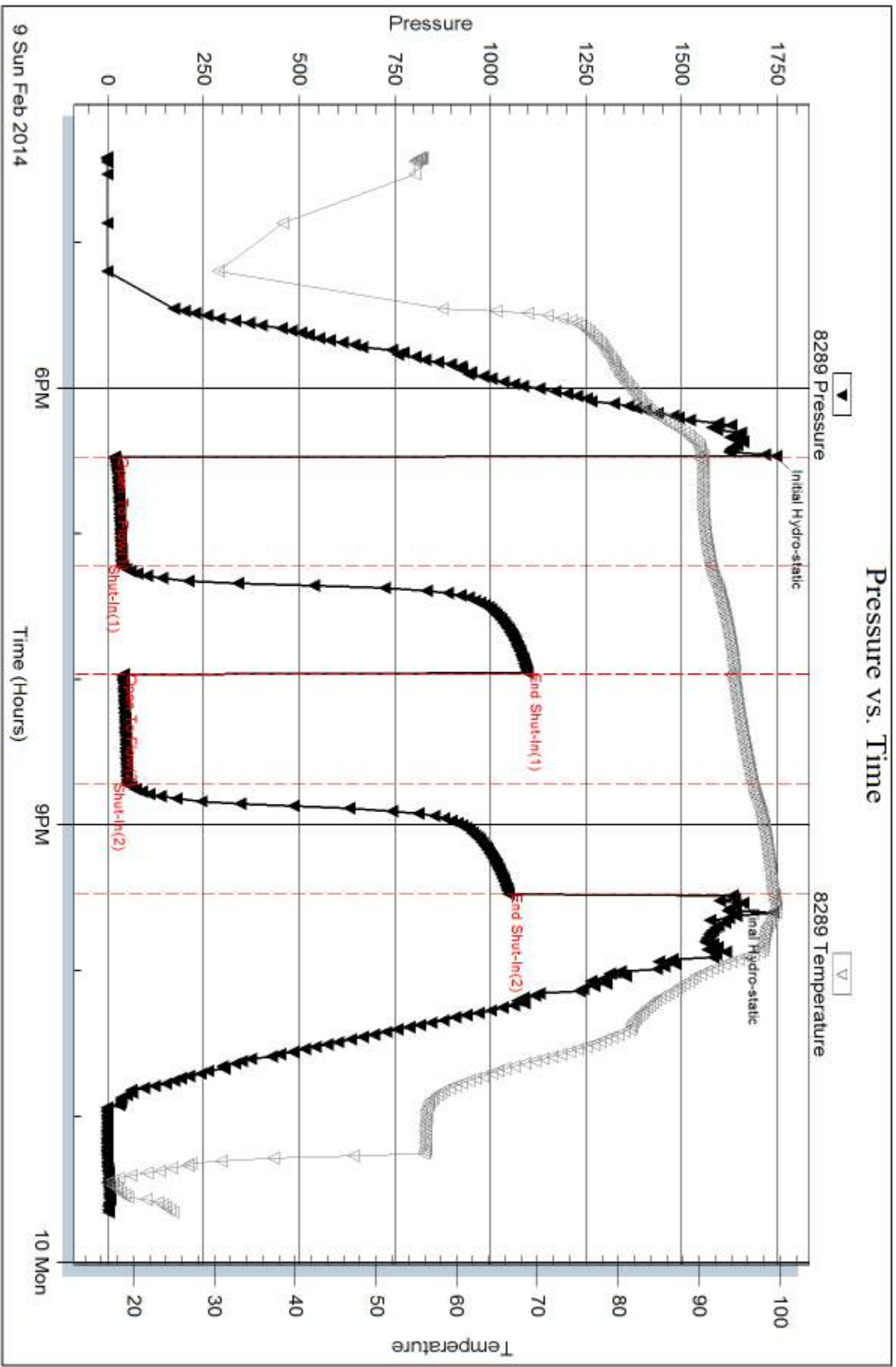
Num Gas Bombs: 0

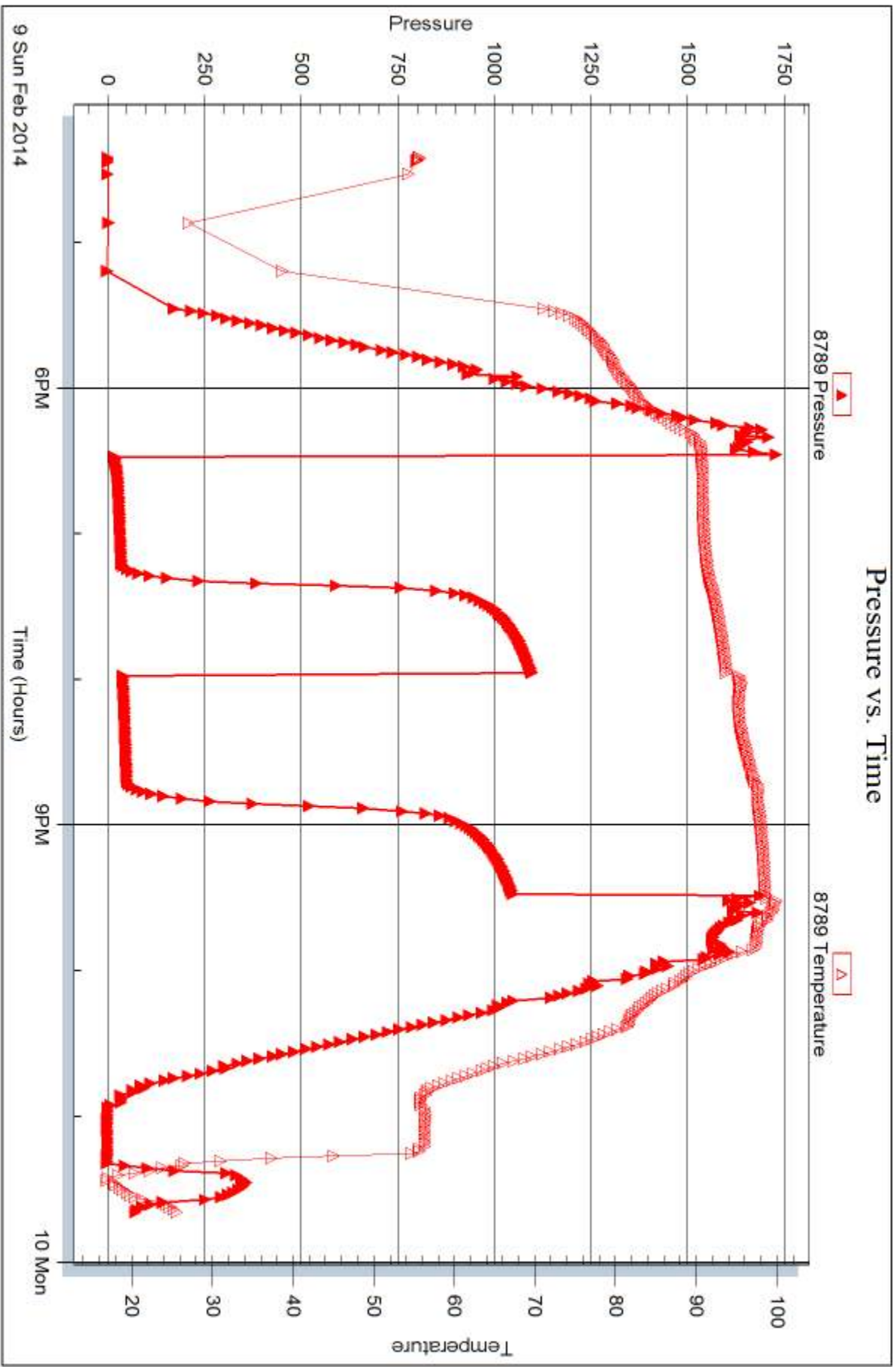
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .400 @ 15







DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.10 @ 06:14:00

End Date: 2014.02.10 @ 12:53:00

Job Ticket #: 56003 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.12 @ 10:33:23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56003

DST#: 5

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 06:14:00

GENERAL INFORMATION:

Formation: **LKC " K "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:35:30

Time Test Ended: 12:53:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3547.00 ft (KB) To 3575.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3575.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 128.38 psig @ 3554.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.10 End Date: 2014.02.10

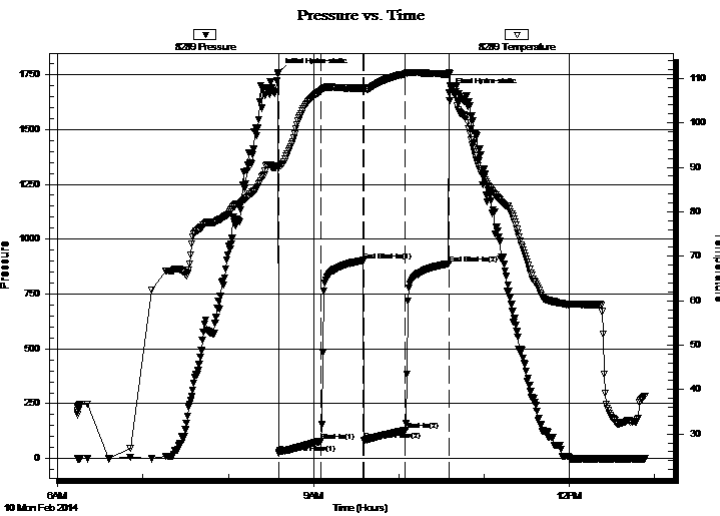
Last Calib.: 2014.02.10

Start Time: 06:14:02 End Time: 12:53:15

Time On Btm: 2014.02.10 @ 08:35:15

Time Off Btm: 2014.02.10 @ 10:35:30

TEST COMMENT: 30-IFP- BOB in 4 min.
30-ISIP- Surface Blow Building to 4 1/2"
30-FFP- BOB in 6 min.
30-FSIP- BOB in 18 min. Gas to Surface 25 min. into Shut in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1760.28	90.39	Initial Hydro-static
1	25.36	89.90	Open To Flow (1)
30	78.98	107.20	Shut-In(1)
60	902.88	107.81	End Shut-In(1)
61	81.82	107.58	Open To Flow (2)
90	128.38	111.01	Shut-In(2)
120	888.73	110.91	End Shut-In(2)
121	1669.54	111.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
95.00	GOMCW 5%g 5%o 10%m 80%w	1.04
143.00	GMWCO 10%g 10%m 10%w 70%o	2.01
30.00	CO 100%	0.42
0.00	GTS	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

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56003

DST#: 5

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 06:14:00

Tool Information

Drill Pipe:	Length: 3517.00 ft	Diameter: 3.80 inches	Volume: 49.33 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 57000.00 lb
			<u>Total Volume: 49.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3547.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	28.00 ft			
Tool Length:	49.00 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			3527.00	
Shut In Tool	5.00			3532.00	
Hydraulic tool	5.00			3537.00	
Packer	5.00			3542.00	21.00 Bottom Of Top Packer
Packer	5.00			3547.00	
Stubb	1.00			3548.00	
Perforations	6.00			3554.00	
Recorder	0.00	8789	Inside	3554.00	
Recorder	0.00	8289	Outside	3554.00	
Perforations	18.00			3572.00	
Bullnose	3.00			3575.00	28.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56003

DST#: 5

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 06:14:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

90000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.25 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
95.00	GOMCW 5%g 5%o 10%m 80%w	1.041
143.00	GMWCO 10%g 10%m 10%w 70%o	2.006
30.00	CO 100%	0.421
0.00	GTS	0.000

Total Length: 268.00 ft

Total Volume: 3.468 bbl

Num Fluid Samples: 0

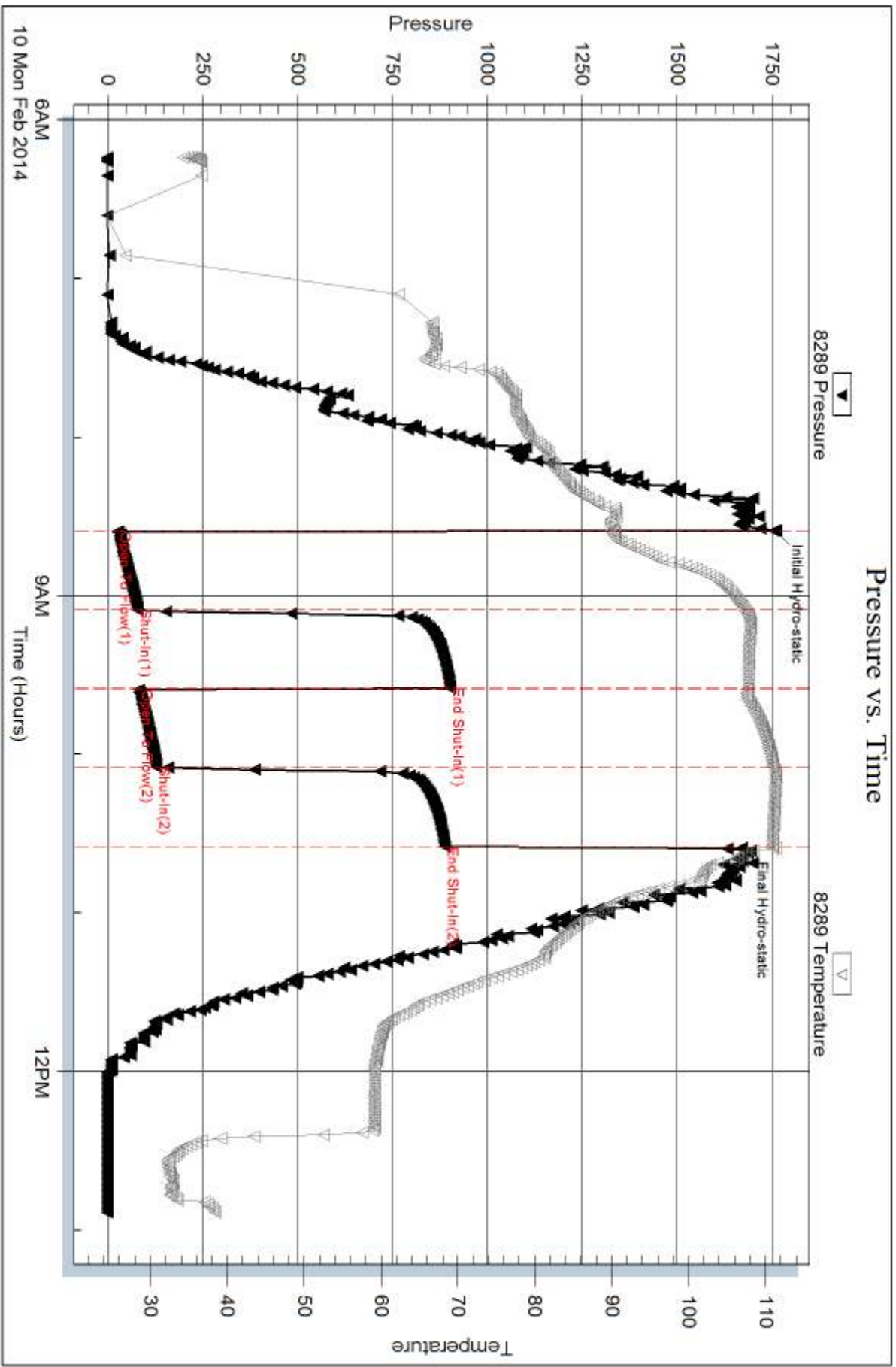
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .248 @ 25



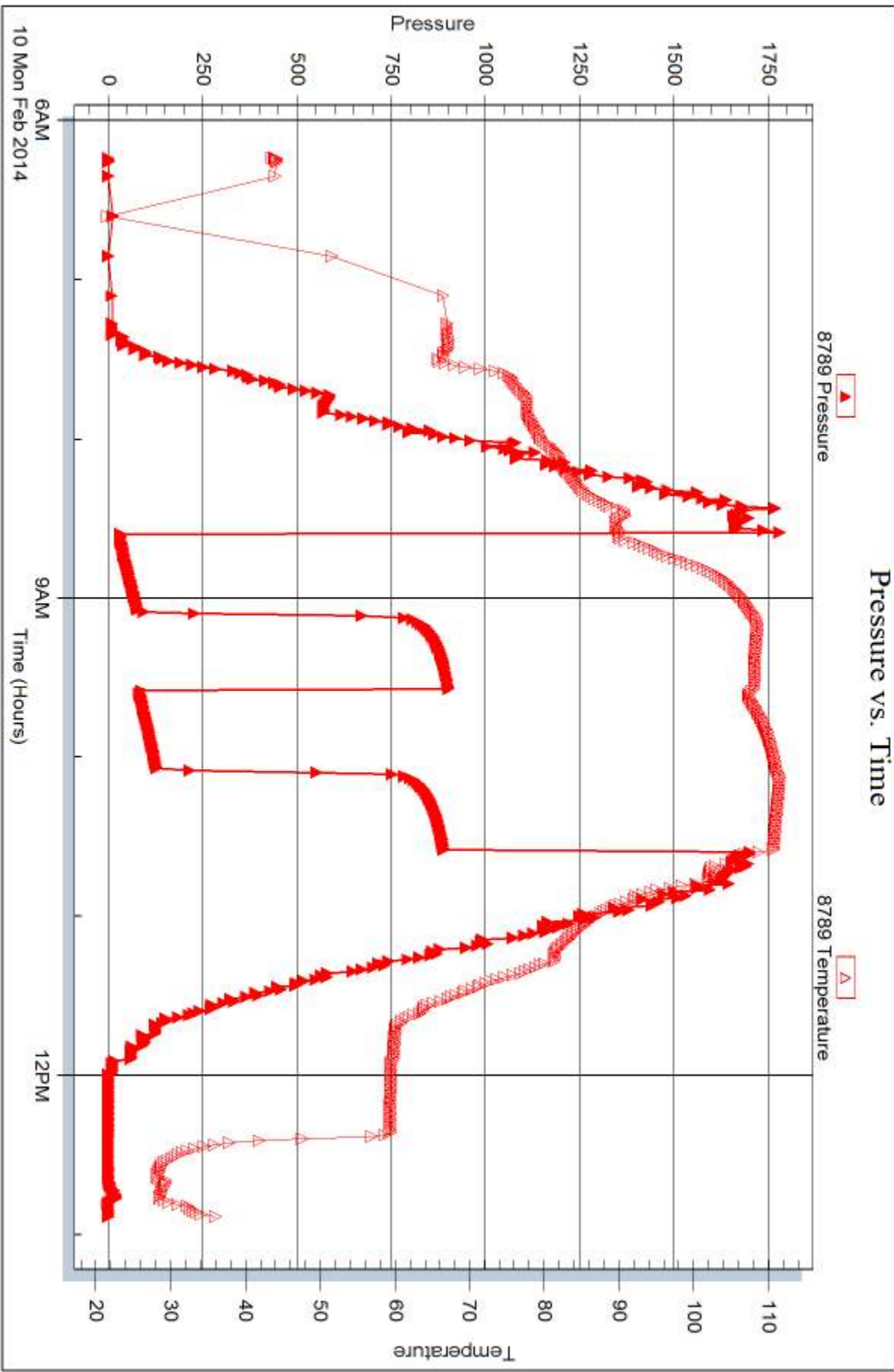
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Inside

Dow nng-Nelson Oil Co Inc

Virginia #1-30

DST Test Number: 5



Tribble Testing, Inc

Ref. No: 56003

Printed: 2014.02.12 @ 10:33:25



DRILL STEM TEST REPORT

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

P.O Box 1019
Hays KS 67601

ATTN: Al Downing

Virginia #1-30

30 14s 18w Ellis,KS

Start Date: 2014.02.10 @ 23:58:00

End Date: 2014.02.11 @ 07:37:00

Job Ticket #: 56004 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.02.12 @ 10:32:31



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56004

DST#: 6

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 23:58:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:00:00

Time Test Ended: 07:37:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3643.00 ft (KB) To 3682.00 ft (KB) (TVD)

Reference Elevations: 2061.00 ft (KB)

Total Depth: 3682.00 ft (KB) (TVD)

2054.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8289 Outside

Press@RunDepth: 402.56 psig @ 3646.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.10

End Date:

2014.02.11

Last Calib.:

2014.02.11

Start Time: 23:58:02

End Time:

07:37:00

Time On Btm:

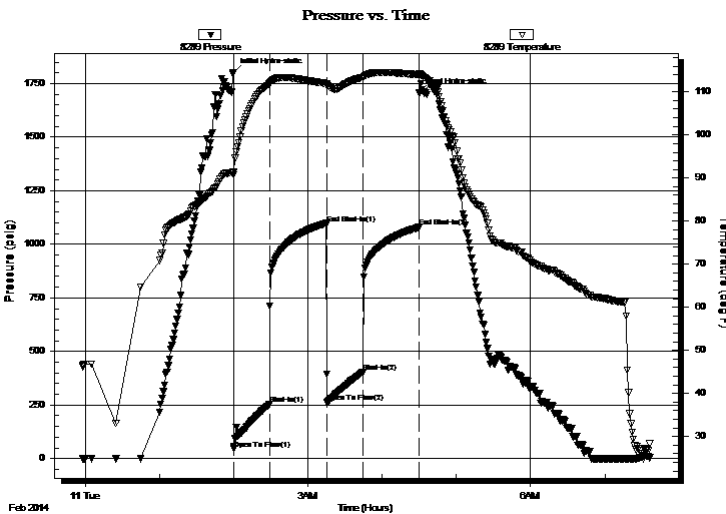
2014.02.11 @ 01:59:45

Time Off Btm:

2014.02.11 @ 04:30:15

TEST COMMENT: 30-IFP- BOB in 2 1/2 min.
45-ISIP- Surface Blow Building to 6 1/2"
30-FFP- BOB in 2 1/2 min. Gas to Surface at end FFP
45-FSIP- Surface Blow Building to 2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1802.25	91.44	Initial Hydro-static
1	45.39	90.85	Open To Flow (1)
30	253.74	111.85	Shut-In(1)
76	1097.56	111.94	End Shut-In(1)
76	264.31	111.66	Open To Flow (2)
105	402.56	113.43	Shut-In(2)
150	1079.55	113.95	End Shut-In(2)
151	1705.96	114.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	GMCO 5% m 20% g 75% o	2.37
840.00	CO 100%	11.78
0.00	GTS	0.00

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

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56004

DST#: 6

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 23:58:00

Tool Information

Drill Pipe:	Length: 3611.00 ft	Diameter: 3.80 inches	Volume: 50.65 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 57000.00 lb
			<u>Total Volume: 50.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3643.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	39.00 ft			
Tool Length:	60.00 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			3623.00	
Shut In Tool	5.00			3628.00	
Hydraulic tool	5.00			3633.00	
Packer	5.00			3638.00	21.00 Bottom Of Top Packer
Packer	5.00			3643.00	
Stubb	1.00			3644.00	
Perforations	1.00			3645.00	
Change Over Sub	1.00			3646.00	
Recorder	0.00	8789	Inside	3646.00	
Recorder	0.00	8289	Outside	3646.00	
Blank Spacing	32.00			3678.00	
Change Over Sub	1.00			3679.00	
Bullnose	3.00			3682.00	39.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

30 14s 18w Ellis,KS

P.O Box 1019
Hays KS 67601

Virginia #1-30

Job Ticket: 56004

DST#: 6

ATTN: Al Dow ning

Test Start: 2014.02.10 @ 23:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.50 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
190.00	GMCO 5%m 20%g 75%o	2.374
840.00	CO 100%	11.783
0.00	GTS	0.000

Total Length: 1030.00 ft Total Volume: 14.157 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

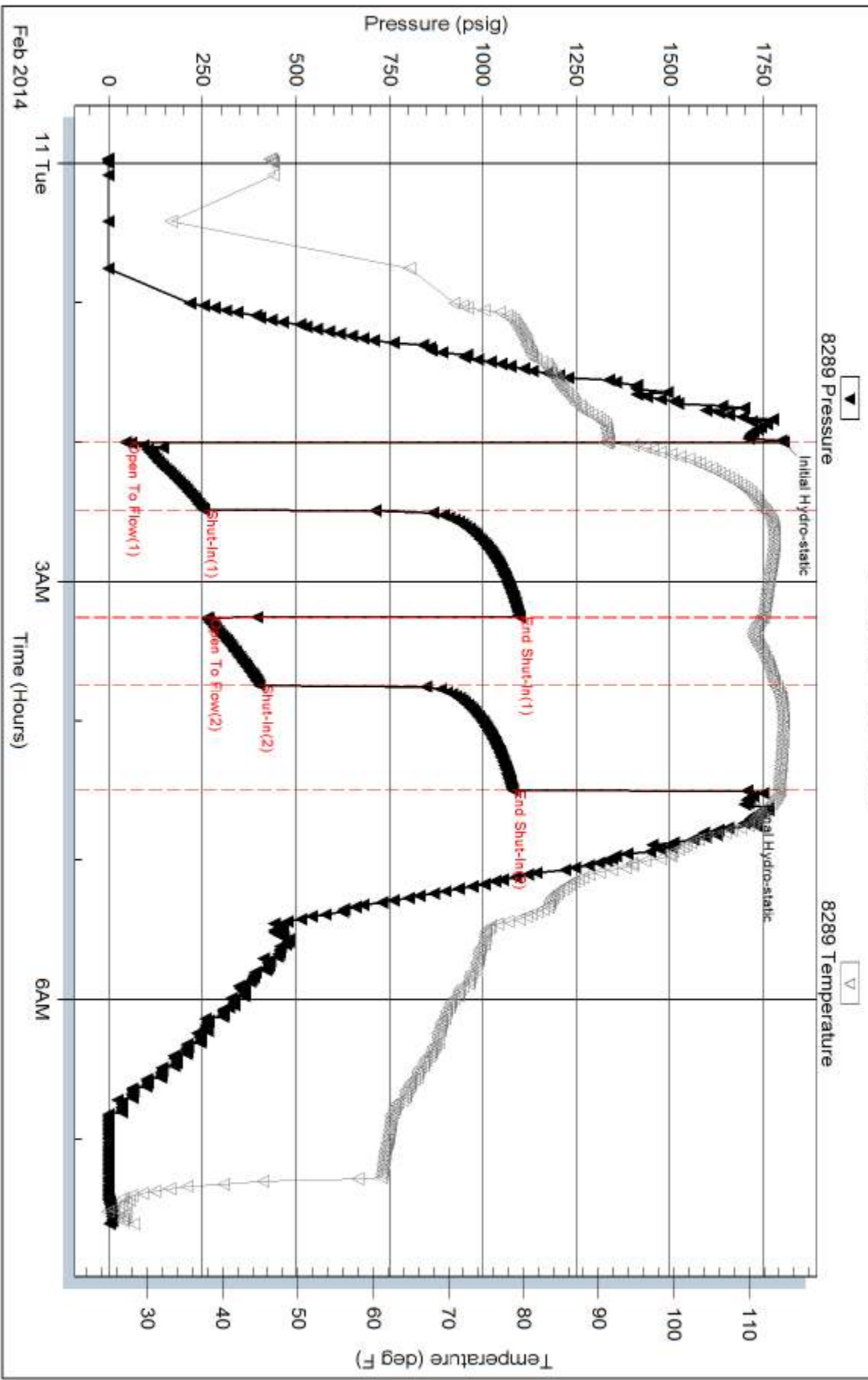
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



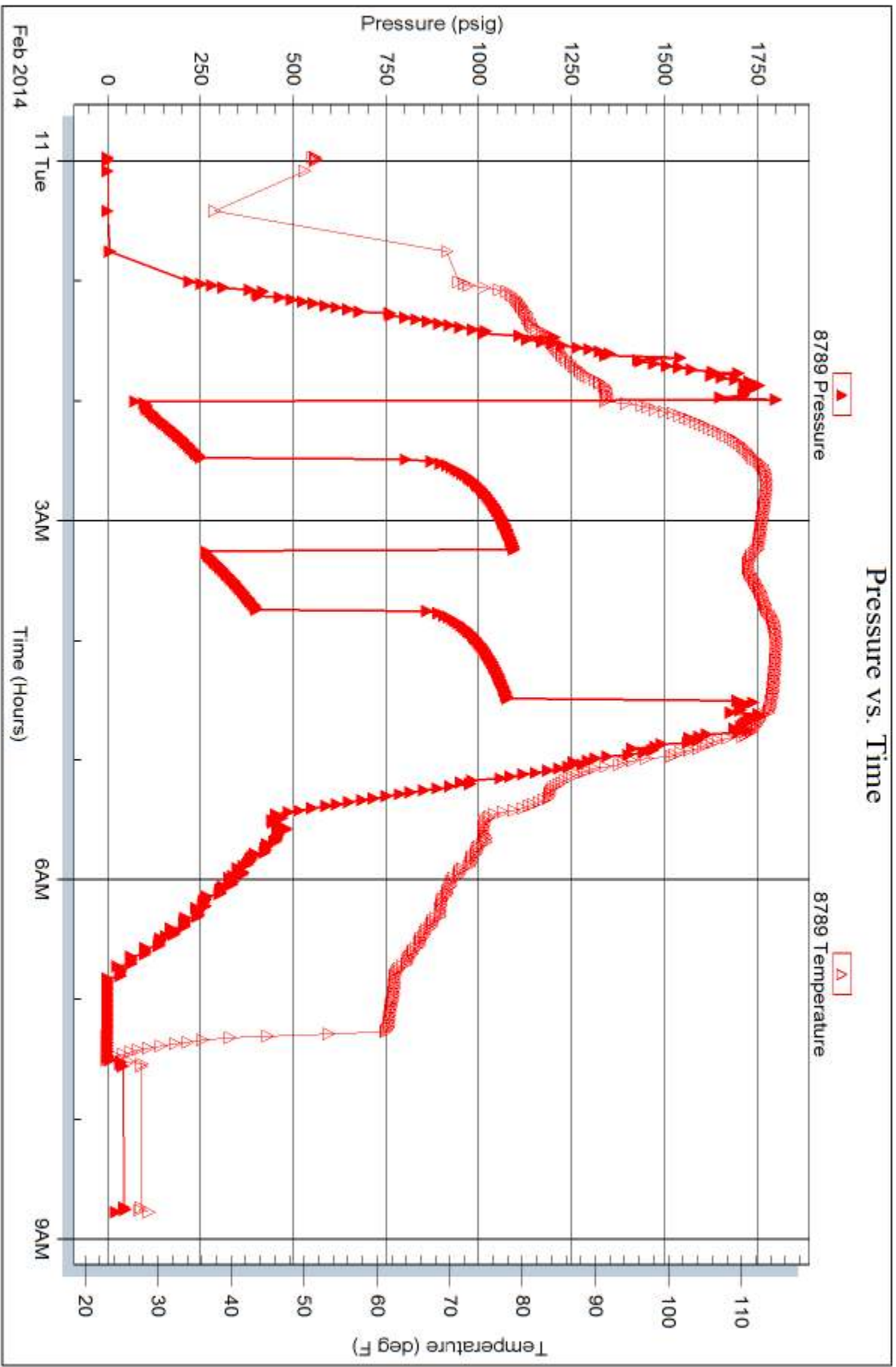
Serial #: 8789

Inside

Dow nng-Nelson Oil Co Inc

Virginia #1-30

DST Test Number: 6



Tribble Testing, Inc

Ref. No: 56004

Printed: 2014.02.12 @ 10:32:33



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50424

Well Name & No. Virginia # 1-30 Test No. 1 Date 2-3-14
 Company Downing-Nelson Oil Co Inc Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #3
 Location: Sec. 30 Twp. 14 Rge. 18^w Co. Ellis State KS

Interval Tested 3370-3400 Zone Tested LRC "C"
 Anchor Length 30 Drill Pipe Run 3324 Mud Wt. 8.8
 Top Packer Depth 3365 Drill Collars Run 32 Vis 46
 Bottom Packer Depth 3370 Wt. Pipe Run Ø WL 8.8
 Total Depth 3400 Chlorides 3000 ppm System LCM 1.5

Blow Description FFP-BOB in 20sec,
ISIP-BOB in 1min 10sec,
FFP-BOB in 15sec, DAS to SURFACE 8min,
FSIP-BOB in 1min 15sec,

Rec	Feet of	%gas	%oil	%water	%mud
<u>1850</u>	<u>CO</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>DAS to SURFACE</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1850 BHT 108 Gravity 40 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1644</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>21:20</u>
(B) First Initial Flow	<u>310</u>	<input type="checkbox"/> Jars		T-Started	<u>22:08</u>
(C) First Final Flow	<u>395</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>00:02</u>
(D) Initial Shut-In	<u>660</u>	<input checked="" type="checkbox"/> Circ Sub	<u>50</u>	T-Pulled	<u>02:02</u>
(E) Second Initial Flow	<u>418</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>05:30</u>
(F) Second Final Flow	<u>541</u>	<input checked="" type="checkbox"/> Mileage	<u>21 RT 32.55</u>	Comments	
(G) Final Shut-In	<u>607</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1552</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
Initial Open	<u>15</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>30</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>45</u>	<input type="checkbox"/> Day Standby		Total	<u>1232.55</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1232.55</u>		

Approved By _____ Our Representative [Signature]
 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50425

4/10

Well Name & No. Virginia # 1-30 Test No. 2 Date 2-8-14
 Company Downing-Nelson Oil Co. Inc. Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Al Downing Rig Discovery # 3
 Location: Sec. 30 Twp. 14^s Rge. 18^w Co. Ellis State KS

Interval Tested 3397-3420 Zone Tested LKC "D"
 Anchor Length 23 Drill Pipe Run 3358 Mud Wt. 8.6
 Top Packer Depth 3392 Drill Collars Run 32 Vis 51
 Bottom Packer Depth 3397 Wt. Pipe Run 0 WL 8.0
 Total Depth 3420 Chlorides 6000 ppm System LCM 125

Blow Description IFP-BOB in 7min.
ISIP-Surface Blow Building to 2 1/2" in 20min.
FFP-BOB in 8min.
F5IP-Surface Blow Building to 4" in 22min.

Rec <u>65</u>	Feet of <u>AWMCO</u>	<u>25</u> %gas	<u>35</u> %oil	<u>10</u> %water	<u>30</u> %mud
Rec <u>65</u>	Feet of <u>20WCM</u>	<u>10</u> %gas	<u>25</u> %oil	<u>30</u> %water	<u>35</u> %mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of <u>508 QIP</u>	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

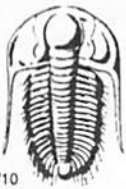
Rec Total 130 BHT 100 Gravity _____ API RW 202 @ 32 °F Chlorides 95000 ppm

(A) Initial Hydrostatic <u>1633</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>10:58</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars _____	T-Started <u>11:20</u>
(C) First Final Flow <u>45</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>13:29</u>
(D) Initial Shut-In <u>578</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>15:29</u>
(E) Second Initial Flow <u>49</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>17:36</u>
(F) Second Final Flow <u>69</u>	<input checked="" type="checkbox"/> Mileage <u>21 RT</u> 32.55	Comments _____
(G) Final Shut-In <u>551</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1539</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1182.55</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1182.55</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56001

Well Name & No. Virginia # 1-30 Test No. 3 Date 2-9-14
 Company Downing-Nelson Oil Co. Inc. Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Al Downing Rig Discovery #3
 Location: Sec. 30 Twp. 14th Rge. 18^W Co. Ellis State KS

Interval Tested 3477-3531 Zone Tested LKC "H&I"
 Anchor Length 54 Drill Pipe Run 3452 Mud Wt. 8.6
 Top Packer Depth 3472 Drill Collars Run 32 Vis 51
 Bottom Packer Depth 3477 Wt. Pipe Run ⊗ WL 8.0
 Total Depth 3531 Chlorides 6000 ppm System LCM .25

Blow Description IFP- BOB in 6 1/2 min.
ISIP- 1/4 Blow Back
FFP- BOB in 2 min.
FSIP- Surface Blow Building to 3 1/4 in.

Rec	Feet of	%gas	%oil	%water	%mud
<u>245</u>	<u>20 cm</u>	<u>20</u>	<u>25</u>	<u>55</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>698 DIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 245 BHT 104 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1708</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>03:30</u>
(B) First Initial Flow <u>24</u>	<input type="checkbox"/> Jars _____	T-Started <u>04:00</u>
(C) First Final Flow <u>76</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>06:11</u>
(D) Initial Shut-In <u>1192</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>08:11</u>
(E) Second Initial Flow <u>72</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>10:38</u>
(F) Second Final Flow <u>114</u>	<input checked="" type="checkbox"/> Mileage <u>32.55</u>	Comments _____
(G) Final Shut-In <u>1190</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1639</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

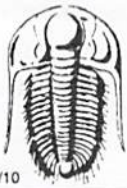
Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Sub Total 1182.55
 Total 1182.55
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56002

Well Name & No. Virginia # 1-30 Test No. 4 Date 2-9-14
 Company Downing-Nelson Oil Co. Inc. Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS, 67601
 Co. Rep / Geo. Al Downing Rig Discovery #3
 Location: Sec. 30 Twp. 14^s Rge. 18^w Co. Ellis State KS

Interval Tested 3526 - 3549 Zone Tested LKC "J"
 Anchor Length 23 Drill Pipe Run 3484 Mud Wt. 9.1
 Top Packer Depth 3521 Drill Collars Run 32 Vis 56
 Bottom Packer Depth 3526 Wt. Pipe Run 0 WL 8.8
 Total Depth 3549 Chlorides 7000 ppm System LCM .25

Blow Description IFP - Surface Blow Building to 6 1/2 in
ISIP - Surface Blow
FFP - Surface Blow Building to 5 in.
FSIP - Near Surface Blow

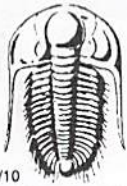
Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>OSMCW</u>	<u>1</u>	<u>59</u>	<u>40</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 80 BHT 99 Gravity _____ API RW .400 @ 15° F Chlorides 80000 ppm
 (A) Initial Hydrostatic 1746 Test 1150 T-On Location 15:48
 (B) First Initial Flow 18 Jars _____ T-Started 16:25
 (C) First Final Flow 36 Safety Joint _____ T-Open 18:28
 (D) Initial Shut-In 1098 Circ Sub _____ T-Pulled 21:28
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 23:40
 (F) Second Final Flow 50 Mileage _____ Comments _____
 (G) Final Shut-In 1049 Sampler _____
 (H) Final Hydrostatic 1633 Straddle 32.55 Ruined Shale Packer _____

Initial Open 45 Shale Packer _____ Ruined Packer _____
 Initial Shut-In 45 Extra Packer _____ Extra Copies _____
 Final Flow 45 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1182.55
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1182.55

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56003

Well Name & No. Virginia # 1-30 Test No. 5 Date 2-10-14
 Company Downing-Nelson Oil Co INC. Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Al Downing Rig Discovery #3
 Location: Sec. 30 Twp. 14^s Rge. 18^w Co. Ellis State KS

Interval Tested 3547-3575 Zone Tested LKC "K"
 Anchor Length 28 Drill Pipe Run 3517 Mud Wt. 9.1
 Top Packer Depth 3542 Drill Collars Run 32 Vis 56
 Bottom Packer Depth 3547 Wt. Pipe Run 0 WL 8.8
 Total Depth 3575 Chlorides 7000 ppm System LCM 1.25

Blow Description IFP - BOB in 4min.
ISIP - Surface Blow Building to 4 1/2 in.

Rec	Feet of	%gas	%oil	%water	%mud
<u>95</u>	<u>20 MCW</u>	<u>5</u>	<u>5</u>	<u>80</u>	<u>10</u>
<u>143</u>	<u>2 MWCO</u>	<u>10</u>	<u>70</u>	<u>10</u>	<u>10</u>
<u>30</u>	<u>CO</u>		<u>100</u>		
	<u>As to Surface</u>				

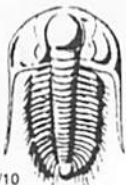
Rec Total 268 BHT 111 Gravity 32 API RW .248 @ 25 °F Chlorides 90,000 ppm

(A) Initial Hydrostatic <u>1760</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>06:14</u>
(B) First Initial Flow <u>25</u>	<input type="checkbox"/> Jars	T-Started <u>06:14</u>
(C) First Final Flow <u>78</u>	<input type="checkbox"/> Safety Joint	T-Open <u>08:35</u>
(D) Initial Shut-In <u>902</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>10:35</u>
(E) Second Initial Flow <u>81</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>12:53</u>
(F) Second Final Flow <u>128</u>	<input checked="" type="checkbox"/> Mileage <u>32.55</u>	Comments
(G) Final Shut-In <u>888</u>	_____	
(H) Final Hydrostatic <u>1669</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30 Shale Packer Ruined Packer
 Initial Shut-In 30 Extra Packer Extra Copies
 Final Flow 30 Extra Recorder Sub Total 0
 Final Shut-In 30 Day Standby Total 1182.55
 Accessibility MP/DST Disc't
 Sub Total 1182.55

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56004

Well Name & No. Virginia #1-30 Test No. 6 Date 2-10-14
 Company Downing-Nelson Oil Co. Inc Elevation 2061 KB 2054 GL
 Address P.O. Box 1019 Hays KS 67601
 Co. Rep / Geo. Al Downing Rig Discovery #3
 Location: Sec. 30 Twp. #7S Rge. 18W Co. Ellis State KS

Interval Tested 3643-3682 Zone Tested Arbuckle
 Anchor Length 39 Drill Pipe Run 3611 Mud Wt. 9.1
 Top Packer Depth 3638 Drill Collars Run 32 Vis 54
 Bottom Packer Depth 3643 Wt. Pipe Run 0 WL 8.8
 Total Depth 3682 Chlorides 7000 ppm System LCM 0.50

Blow Description IFP - BOB in 2 1/2 min
ISIP - Surface Blow Building to 6 1/2 in
FFP - BOB in 2 1/2 min. Gas to Surface at End of Flow
FSIP - Surface Blow Building to 2 in.

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>AMCO</u>	<u>20</u>	<u>75</u>	<u>5</u>	
<u>840</u>	<u>CO</u>		<u>100</u>		
	<u>Gas to Surface</u>				

Rec Total 1030 BHT 114 Gravity 32 API RW @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>1802</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>23:18</u>
(B) First Initial Flow	<u>45</u>	<input type="checkbox"/> Jars		T-Started	<u>23:58</u>
(C) First Final Flow	<u>253</u>	<input type="checkbox"/> Safety Joint		T-Open	<u>02:00</u>
(D) Initial Shut-In	<u>1097</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>04:30</u>
(E) Second Initial Flow	<u>264</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>07:37</u>
(F) Second Final Flow	<u>402</u>	<input checked="" type="checkbox"/> Mileage	<u>32.55</u>	Comments	
(G) Final Shut-In	<u>1079</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1705</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 45

Sub Total 1182.55

Approved By _____ Our Representative [Signature]

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