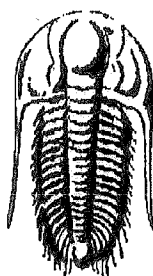


15-195-22648

10-13s-22w

IND



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO.**

PO Box 372
Hays, KS 67601

ATTN: Marc Downing

10-13s-22w Trego KS

Linda #1-10

Start Date: 2010.03.20 @ 08:50:32

End Date: 2010.03.20 @ 15:00:02

Job Ticket #: 37224 DST #: 1

RECEIVED

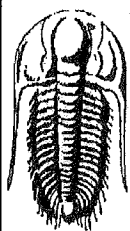
APR 21 2010

KCC WICHITA

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37224

DST#: 1

ATTN: Marc Dow ning

Test Start: 2010.03.20 @ 08:50:32

GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:29:32

Time Test Ended: 15:00:02

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3696.00 ft (KB) To 3742.00 ft (KB) (TVD)**

Total Depth: 3742.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2311.00 ft (KB)

2303.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6668

Inside

Press@RunDepth: 34.26 psig @ 3703.00 ft (KB)

Start Date: 2010.03.20

End Date:

2010.03.20

Capacity: 8000.00 psig

Last Calib.: 2010.03.20

Start Time: 08:50:33

End Time:

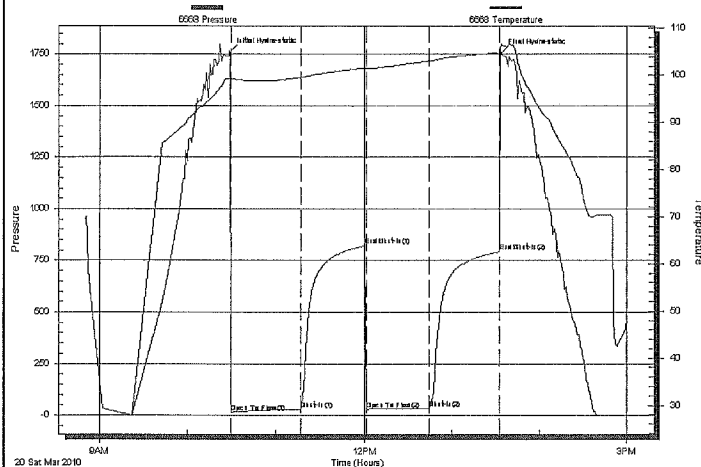
15:00:02

Time On Btm: 2010.03.20 @ 10:29:02

Time Off Btm: 2010.03.20 @ 13:33:32

TEST COMMENT: IFP-Weak surface blow built to 2"
ISI-no blow back
FFP-Weak surface blow built to 1.5"
FSI-no blow back

Pressure vs. Time



PRESSURE SUMMARY

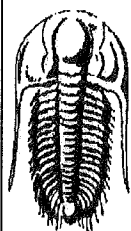
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1760.28	99.45	Initial Hydro-static
1	15.01	98.96	Open To Flow (1)
48	29.87	99.57	Shut-In(1)
91	823.01	101.58	End Shut-In(1)
92	30.23	101.45	Open To Flow (2)
135	34.26	103.07	Shut-In(2)
184	794.20	104.85	End Shut-In(2)
185	1757.28	106.54	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w/ scum of oil	0.36

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37224

DST#: 1

ATTN: Marc Dow ning

Test Start: 2010.03.20 @ 08:50:32

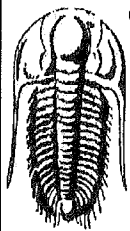
Tool Information

Drill Pipe:	Length: 3678.00 ft	Diameter: 3.82 inches	Volume: 52.14 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			Total Volume: 52.29 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3696.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	67.00 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			3676.00	
Shut In Tool	5.00			3681.00	
Hydraulic tool	5.00			3686.00	
Packer	5.00			3691.00	21.00 Bottom Of Top Packer
Packer	5.00			3696.00	
Stubb	1.00			3697.00	
Perforations	5.00			3702.00	
Change Over Sub	1.00			3703.00	
Recorder	0.00	6668	Inside	3703.00	
Recorder	0.00	6669	Inside	3703.00	
Blank Spacing	30.00			3733.00	
Change Over Sub	1.00			3734.00	
Perforations	5.00			3739.00	
Bullnose	3.00			3742.00	46.00 Bottom Packers & Anchor

Total Tool Length: 67.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37224

DST#: 1

ATTN: Marc Dow ning

Test Start: 2010.03.20 @ 08:50:32

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:

bbl

Water Loss: 7.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud w / scum of oil	0.360

Total Length: 45.00 ft

Total Volume: 0.360 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

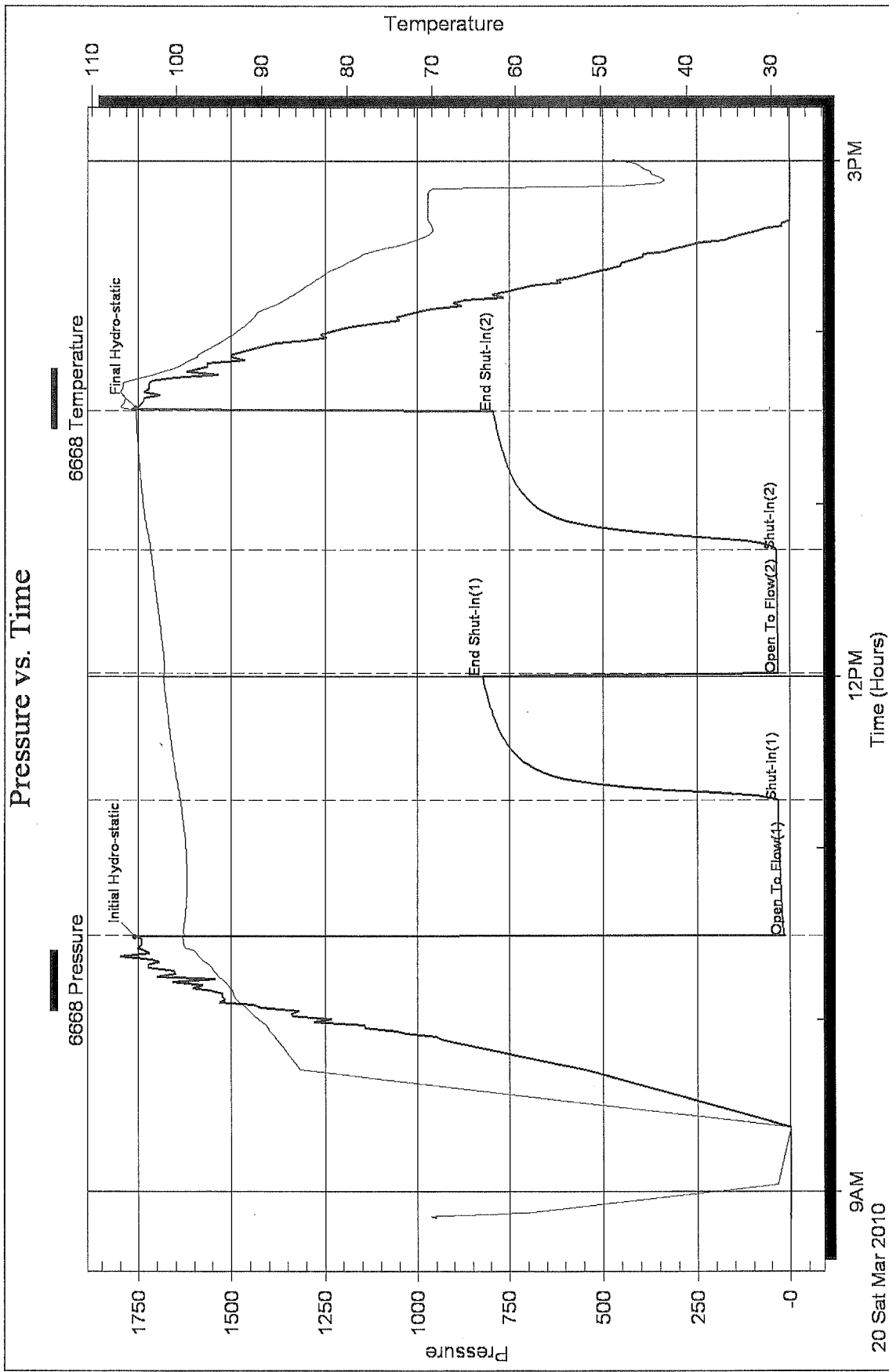
Serial #:

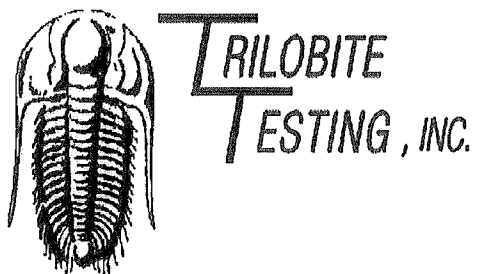
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO.**

PO Box 372
Hays, KS 67601

ATTN: Marc Downing

10-13s-22w Trego KS

Linda #1-10

Start Date: 2010.03.20 @ 20:42:40

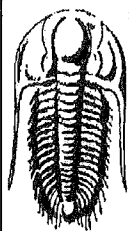
End Date: 2010.03.21 @ 02:22:10

Job Ticket #: 37225 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

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37225

DST#: 2

ATTN: Marc Dow ning

Test Start: 2010.03.20 @ 20:42:40

GENERAL INFORMATION:

Formation: **LKC"E'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:55:10

Time Test Ended: 02:22:10

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3736.00 ft (KB) To 3758.00 ft (KB) (TVD)**

Reference Elevations: 2311.00 ft (KB)

Total Depth: 3758.00 ft (KB) (TVD)

2303.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6669

Outside

Press@RunDepth: 38.68 psig @ 3742.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.03.20

End Date: 2010.03.21

Last Calib.: 2010.03.21

Start Time: 20:42:41

End Time: 02:22:10

Time On Btm: 2010.03.20 @ 21:54:40

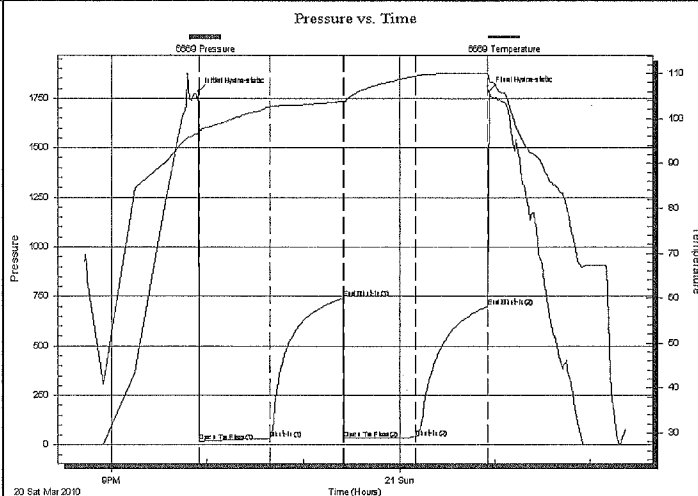
Time Off Btm: 2010.03.21 @ 00:56:10

TEST COMMENT: IFP-Weak surface blow built to 2.5"

ISI-no blow back

FFP-Weak surface blow built to 1.5"

FSI-no blow back



PRESSURE SUMMARY

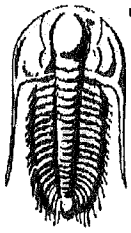
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1784.77	97.17	Initial Hydro-static
1	15.15	97.08	Open To Flow (1)
45	31.79	102.70	Shut-In(1)
90	739.89	103.78	End Shut-In(1)
91	33.43	103.61	Open To Flow (2)
135	38.68	109.46	Shut-In(2)
181	700.14	110.07	End Shut-In(2)
182	1787.51	108.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	WM w/scum of oil	0.43

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.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37225

DST#: 2

ATTN: Marc Dow ning

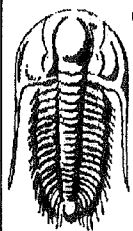
Test Start: 2010.03.20 @ 20:42:40

Tool Information

Drill Pipe:	Length: 3700.00 ft	Diameter: 3.82 inches	Volume: 52.45 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume:	52.60 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3736.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3709.00	
Shut In Tool	5.00			3714.00	
Hydraulic tool	5.00			3719.00	
Jars	5.00			3724.00	
Safety Joint	2.00			3726.00	
Packer	5.00			3731.00	28.00 Bottom Of Top Packer
Packer	5.00			3736.00	
Stubb	1.00			3737.00	
Perforations	5.00			3742.00	
Recorder	0.00	6668	Inside	3742.00	
Recorder	0.00	6669	Outside	3742.00	
Perforations	13.00			3755.00	
Bullnose	3.00			3758.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37225

DST#: 2

ATTN: Marc Dow ning

Test Start: 2010.03.20 @ 20:42:40

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:

24500 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	VMW/scum of oil	0.431

Total Length: 50.00 ft

Total Volume: 0.431 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

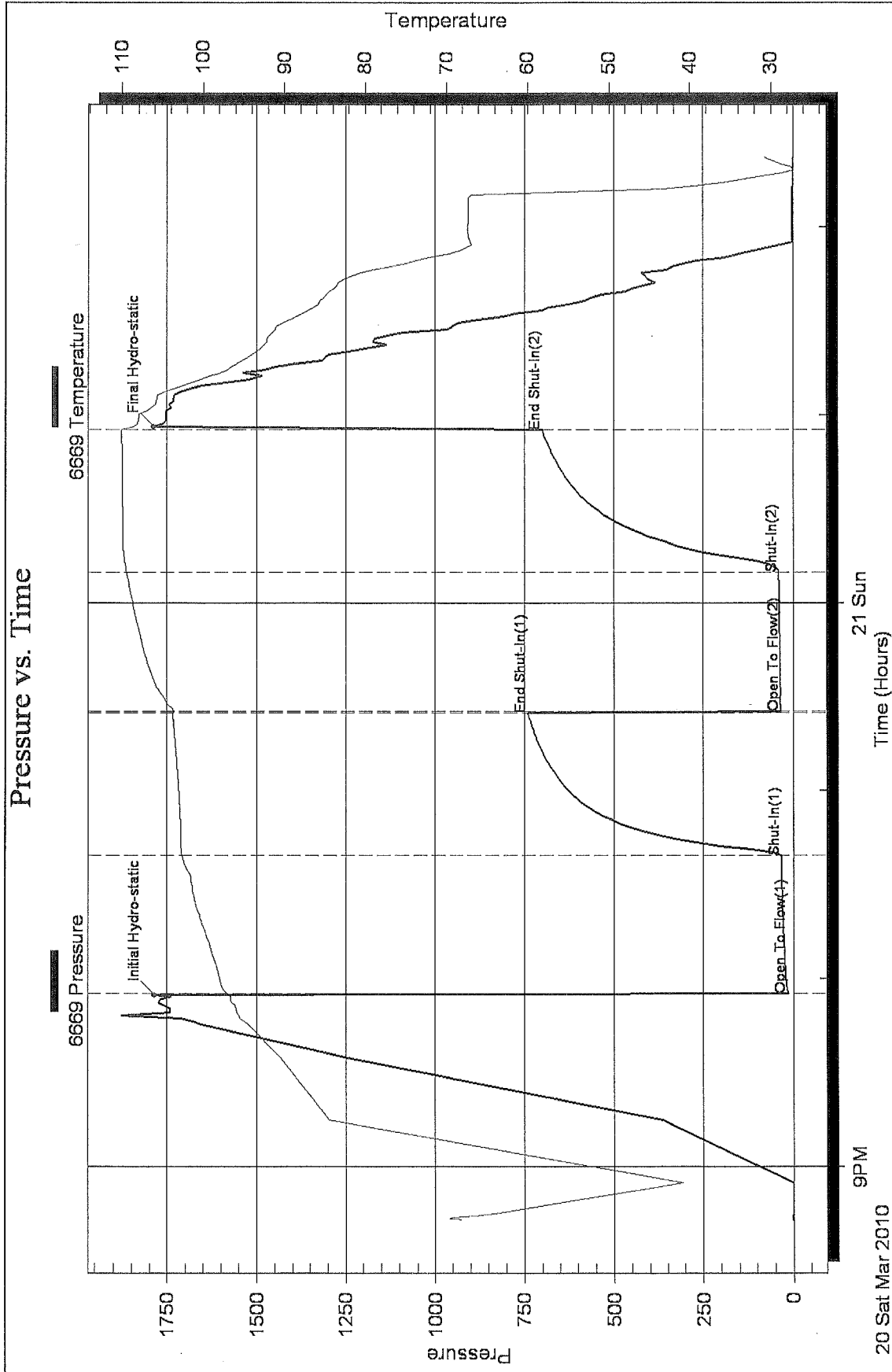
Recovery Comments: RW .34 @ 56F = 245000 ppm chlorides

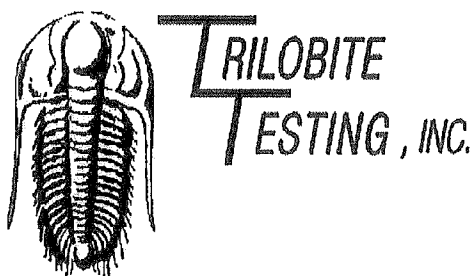
Serial #: 6669

Outside Dowling-Nelson Oil CO.

10-13s-22w Trego KS

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO.**

PO Box 372
Hays, KS 67601

ATTN: Marc Downing

10-13s-22w Trego KS

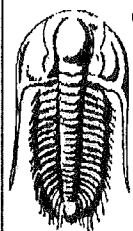
Linda #1-10

Start Date: 2010.03.21 @ 13:50:06

End Date: 2010.03.21 @ 18:27:15

Job Ticket #: 37251 DST #: 3

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37251

DST#: 3

ATTN: Marc Dow ning

Test Start: 2010.03.21 @ 13:50:06

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:15:46

Time Test Ended: 18:27:15

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: **3795.00 ft (KB) To 3870.00 ft (KB) (TVD)**

Reference Elevations: 2311.00 ft (KB)

Total Depth: 3870.00 ft (KB) (TVD)

2303.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6668

Inside

Press@RunDepth: 14.39 psig @ 3799.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.03.21

End Date: 2010.03.21

Last Calib.: 2010.03.21

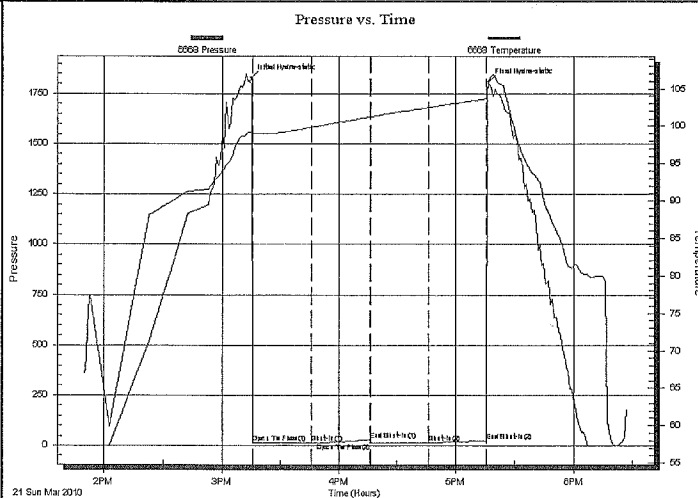
Start Time: 13:50:07

End Time: 18:27:16

Time On Btm: 2010.03.21 @ 15:14:46

Time Off Btm: 2010.03.21 @ 17:16:46

TEST COMMENT: IFP-Weak 1/2" blow throughout
ISI-no blow back
FFP-Weak surface blow throughout
FSI-no blow back



PRESSURE SUMMARY

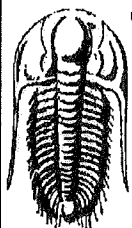
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1827.20	99.21	Initial Hydro-static
1	12.77	98.72	Open To Flow (1)
32	13.83	99.83	Shut-In(1)
62	30.53	101.21	End Shut-In(1)
62	13.47	101.22	Open To Flow (2)
92	14.39	102.47	Shut-In(2)
121	25.62	103.63	End Shut-In(2)
123	1807.45	105.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

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.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37251

DST#: 3

ATTN: Marc Dow ning

Test Start: 2010.03.21 @ 13:50:06

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.82 inches	Volume: 53.44 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 53.59 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3795.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	96.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

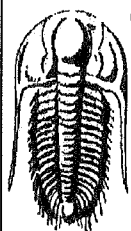
Tool Comments:

Tool Description

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

Change Over Sub	1.00			3775.00	
Shut In Tool	5.00			3780.00	
Hydraulic tool	5.00			3785.00	
Packer	5.00			3790.00	21.00 Bottom Of Top Packer
Packer	5.00			3795.00	
Stubb	1.00			3796.00	
Perforations	2.00			3798.00	
Change Over Sub	1.00			3799.00	
Recorder	0.00	6668	Inside	3799.00	
Recorder	0.00	6669	Inside	3799.00	
Blank Spacing	62.00			3861.00	
Change Over Sub	1.00			3862.00	
Perforations	5.00			3867.00	
Bullnose	3.00			3870.00	75.00 Bottom Packers & Anchor

Total Tool Length: 96.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil CO.

Linda #1-10

PO Box 372
Hays, KS 67601

10-13s-22w Trego KS

Job Ticket: 37251

DST#: 3

ATTN: Marc Downing

Test Start: 2010.03.21 @ 13:50:06

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.99 in³

Resistivity: ohm.m

Salinity: 3400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	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

