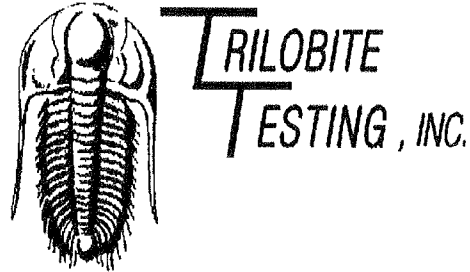


15-051-25929

33-15s-19w

IND



DRILL STEM TEST REPORT

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

PO Box 372
Hays, KS. 67601

ATTN: Marc Downing

33 15s 19w Ellis KS

Dinkel-Zimmerman Unit #1-33

Start Date: 2009.11.22 @ 22:01:23

End Date: 2009.11.23 @ 04:41:53

Job Ticket #: 36715 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION

DEC 21 2009

CONSERVATION DIVISION
WICHITA, KS

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing-Nelson Oil Co., Inc.

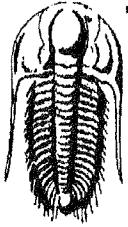
Dinkel-Zimmerman Unit #1-33

33 15s 19w Ellis KS

DST # 1

LKC-"A-D"

2009.11.22



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36715

DST#: 1

ATTN: Marc Dow ning

Test Start: 2009.11.22 @ 22:01:23

GENERAL INFORMATION:

Formation: **LKC-"A-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:44:23

Time Test Ended: 04:41:53

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3321.00 ft (KB) To 3390.00 ft (KB) (TVD)

Total Depth: 3390.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2049.00 ft (KB)

2041.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6755 Inside

Press@RunDepth: 461.35 psig @ 3357.00 ft (KB)

Start Date: 2009.11.22

End Date:

2009.11.23

Capacity: 8000.00 psig

Last Calib.: 2009.11.23

Start Time: 22:01:25

End Time:

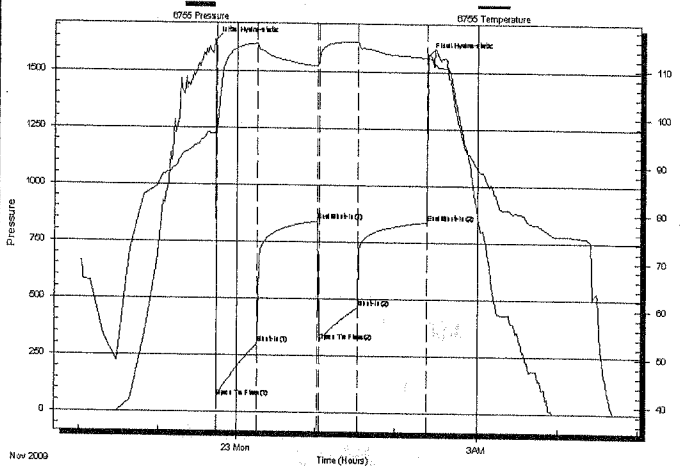
04:41:53

Time On Btm: 2009.11.22 @ 23:43:23

Time Off Btm: 2009.11.23 @ 02:23:53

TEST COMMENT: IFP-Strong, BOB in 3 Mn.
ISI-Dead
FFP-Strong, BOB in 5 Mn.
FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

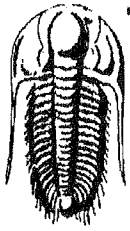
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.92	96.68	Initial Hydro-static
1	61.24	96.42	Open To Flow (1)
33	299.25	115.27	Shut-In(1)
79	841.02	110.67	End Shut-In(1)
80	312.26	111.85	Open To Flow (2)
109	461.35	115.76	Shut-In(2)
160	838.91	112.48	End Shut-In(2)
161	1572.81	112.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbt)
850.00	Muddy Water-90%W-10%M	11.64

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36715

DST#: 1

ATTN: Marc Downing

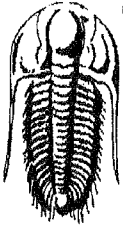
Test Start: 2009.11.22 @ 22:01:23

Tool Information

Drill Pipe:	Length: 3297.00 ft	Diameter: 3.80 inches	Volume: 46.25 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume:	46.40 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3321.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	90.00 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			3301.00	
Shut In Tool	5.00			3306.00	
Hydraulic tool	5.00			3311.00	
Packer	5.00			3316.00	21.00 Bottom Of Top Packer
Packer	5.00			3321.00	
Stubb	1.00			3322.00	
Perforations	2.00			3324.00	
Change Over Sub	1.00			3325.00	
Blank Spacing	31.00			3356.00	
Change Over Sub	1.00			3357.00	
Recorder	0.00	6755	Inside	3357.00	
Recorder	0.00	8360	Outside	3357.00	
Perforations	30.00			3387.00	
Bullnose	3.00			3390.00	69.00 Bottom Packers & Anchor
Total Tool Length:	90.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36715

DST#: 1

ATTN: Marc Downing

Test Start: 2009.11.22 @ 22:01:23

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:

28000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.87 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
850.00	Muddy Water-90%W-10%M	11.641

Total Length: 850.00 ft Total Volume: 11.641 bbl

Num Fluid Samples: 0

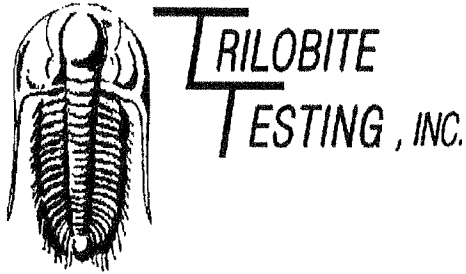
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .540 @ 29F = 28000 chlorides



DRILL STEM TEST REPORT

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

PO Box 372
Hays,KS. 67601

ATTN: Marc Downing

33 15s 19w Ellis KS

Dinkel-Zimmerman Unit #1-33

Start Date: 2009.11.24 @ 02:41:08

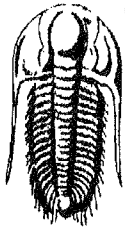
End Date: 2009.11.24 @ 10:23:08

Job Ticket #: 36716 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., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

ATTN: Marc Dow ning

Job Ticket: 36716

DST#: 2

Test Start: 2009.11.24 @ 02:41:08

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:51:38

Time Test Ended: 10:23:08

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3633.00 ft (KB) To 3658.00 ft (KB) (TVD)

Total Depth: 3658.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2049.00 ft (KB)

2041.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6755

Inside

Press@RunDepth: 490.69 psig @ 3635.00 ft (KB)

Start Date: 2009.11.24

End Date:

2009.11.24

Start Time: 02:41:10

End Time:

10:23:08

Capacity:

8000.00 psig

Last Calib.:

2009.11.24

Time On Btm:

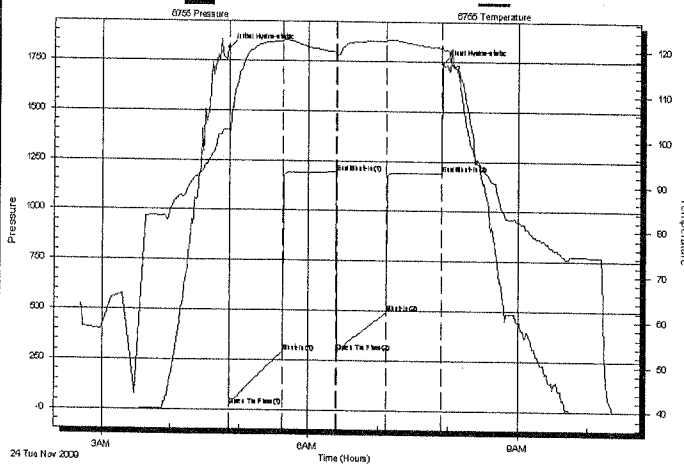
2009.11.24 @ 04:51:08

Time Off Btm:

2009.11.24 @ 07:54:38

TEST COMMENT: IFP-Strong, BOB in 7 Min.
ISI-Dead
FFP-Strong, BOB in 8 Min.
FSI-Dead

Pressure vs. Time



PRESSURE SUMMARY

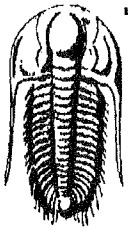
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1811.85	102.37	Initial Hydro-static
1	19.32	101.58	Open To Flow (1)
47	289.04	121.96	Shut-In(1)
93	1192.35	119.65	End Shut-In(1)
93	293.76	119.20	Open To Flow (2)
136	490.69	122.14	Shut-In(2)
183	1192.14	120.72	End Shut-In(2)
184	1738.61	120.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
850.00	Muddy Water-90%W-10%M	11.64

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36716

DST#: 2

ATTN: Marc Downing

Test Start: 2009.11.24 @ 02:41:08

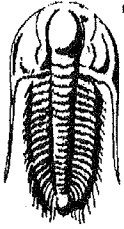
Tool Information

Drill Pipe:	Length: 3611.00 ft	Diameter: 3.80 inches	Volume: 50.65 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume: 50.80 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3633.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	46.00 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			3613.00	
Shut In Tool	5.00			3618.00	
Hydraulic tool	5.00			3623.00	
Packer	5.00			3628.00	21.00 Bottom Of Top Packer
Packer	5.00			3633.00	
Stubb	1.00			3634.00	
Perforations	1.00			3635.00	
Recorder	0.00	6755	Inside	3635.00	
Recorder	0.00	8360	Outside	3635.00	
Perforations	20.00			3655.00	
Bullnose	3.00			3658.00	25.00 Bottom Packers & Anchor

Total Tool Length: 46.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36716

DST#: 2

ATTN: Marc Downing

Test Start: 2009.11.24 @ 02:41:08

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:	26000 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
850.00	Muddy Water-90%W-10%M	11.641

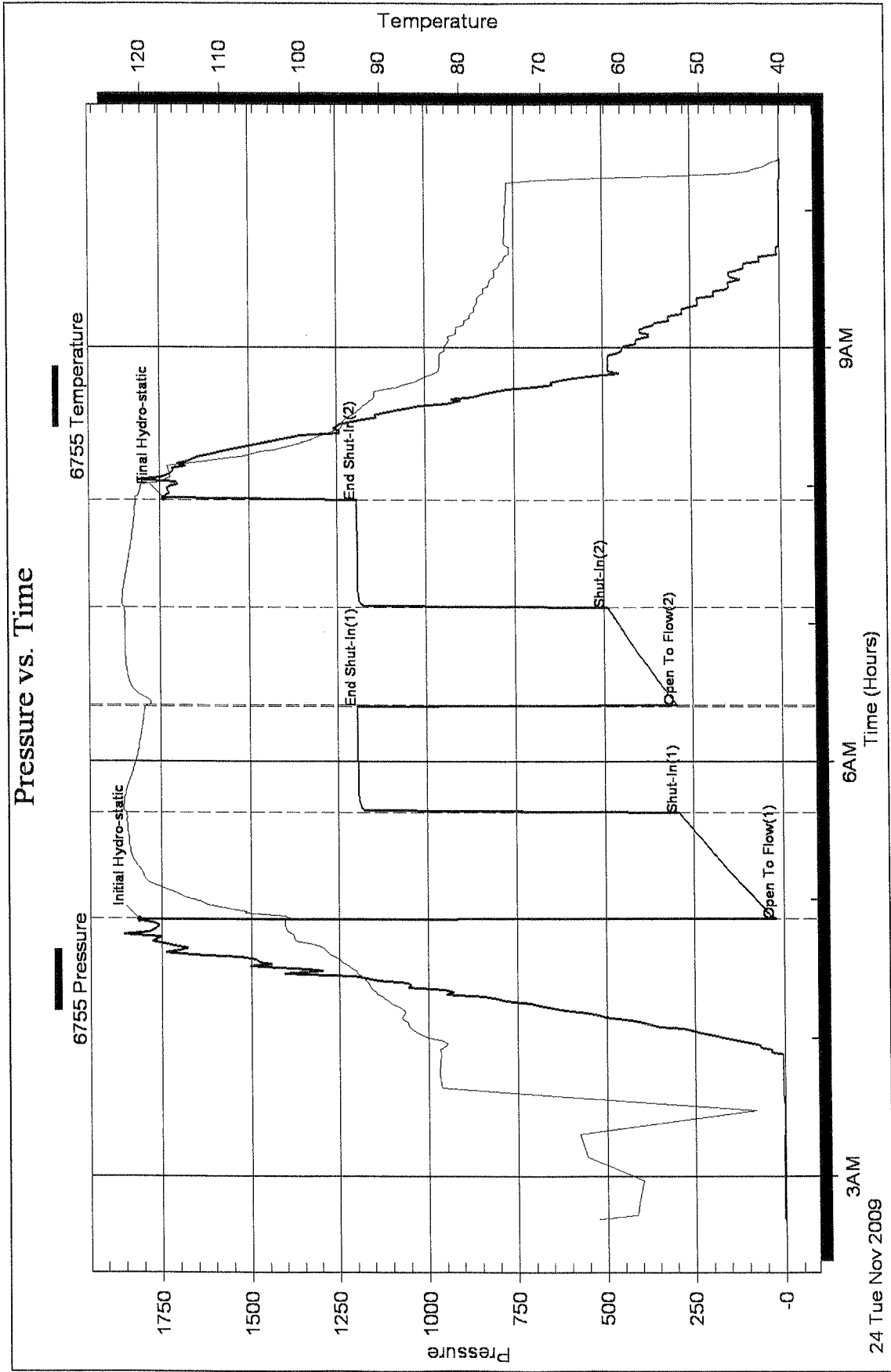
Total Length: 850.00 ft Total Volume: 11.641 bbl

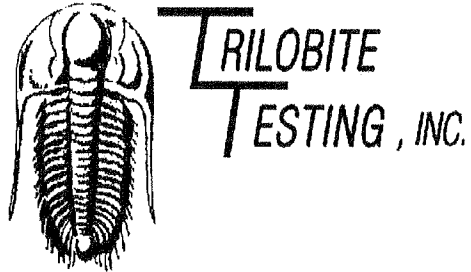
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Rw .455 @ 42F = 26000 chlorides

Pressure vs. Time





DRILL STEM TEST REPORT

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

PO Box 372
Hays, KS. 67601

ATTN: Marc Downing

33 15s 19w Ellis KS

Dinkel-Zimmerman Unit #1-33

Start Date: 2009.11.24 @ 22:52:36

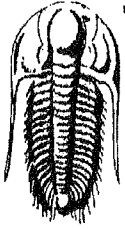
End Date: 2009.11.25 @ 03:57:06

Job Ticket #: 36717 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

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36717

DST#: 3

ATTN: Marc Downing

Test Start: 2009.11.24 @ 22:52:36

GENERAL INFORMATION:

Formation:

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:43:06

Time Test Ended: 03:57:06

Test Type: Conventional Straddle

Tester: Brett Dickinson

Unit No: 32

Interval: 3486.00 ft (KB) To 3505.00 ft (KB) (TVD)

Total Depth: 3701.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2049.00 ft (KB)

2041.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8360

Outside

Press@RunDepth: 45.09 psig @ 3486.00 ft (KB)

Start Date: 2009.11.24

End Date:

2009.11.25

Capacity: 8000.00 psig

Last Calib.: 2009.11.25

Start Time: 22:52:38

End Time:

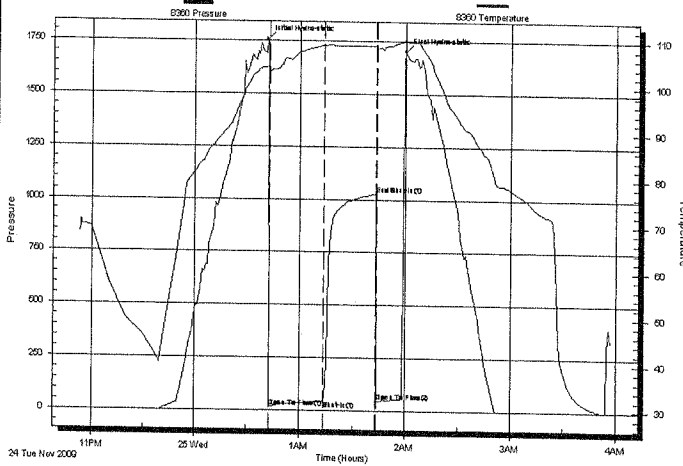
03:57:06

Time On Btm: 2009.11.25 @ 00:41:36

Time Off Btm: 2009.11.25 @ 01:59:36

TEST COMMENT: IF-weak surface blow died in 4.5min
IS-no blow
FF-no blow flush tool

Pressure vs. Time



PRESSURE SUMMARY

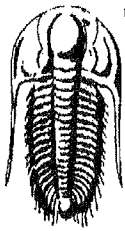
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1753.57	104.28	Initial Hydro-static
2	14.34	103.12	Open To Flow (1)
32	45.09	109.02	Shut-In (1)
62	1025.86	108.90	End Shut-In (1)
62	48.03	108.44	Open To Flow (2)
78	1698.72	110.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	Muddy Water	0.77

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co., Inc.

Dinkel-Zimmerman Unit #1-33

PO Box 372
Hays, KS. 67601

33 15s 19w Ellis KS

Job Ticket: 36717

DST#: 3

ATTN: Marc Downing

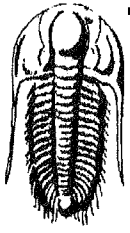
Test Start: 2009.11.24 @ 22:52:36

Tool Information

Drill Pipe:	Length: 3458.00 ft	Diameter: 3.80 inches	Volume: 48.51 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 68000.00 lb
		Total Volume: 48.66 bbl		Tool Chased ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3486.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	3505.00 ft			
Interval between Packers:	19.00 ft			
Tool Length:	239.00 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			3466.00	
Shut In Tool	5.00			3471.00	
Hydraulic tool	5.00			3476.00	
Packer	5.00			3481.00	21.00 Bottom Of Top Packer
Packer	5.00			3486.00	
Recorder	0.00	8360	Outside	3486.00	
Perforations	14.00			3500.00	
Blank Spacing	4.00			3504.00	
Blank Off Sub	1.00			3505.00	19.00 Tool Interval
Packer	5.00			3510.00	
Perforations	1.00			3511.00	
Recorder	0.00	6755	Inside	3511.00	
Change Over Sub	1.00			3512.00	
Blank Spacing	188.00			3700.00	
Change Over Sub	1.00			3701.00	
Bullnose	3.00			3704.00	199.00 Bottom Packers & Anchor
Total Tool Length:	239.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.
PO Box 372
Hays, KS. 67601
ATTN: Marc Downing

Dinkel-Zimmerman Unit #1-33
33 15s 19w Ellis KS
Job Ticket: 36717 DST#: 3
Test Start: 2009.11.24 @ 22:52:36

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
75.00	Muddy Water	0.770

Total Length: 75.00 ft Total Volume: 0.770 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

