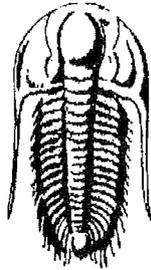


9-14s-21w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Downing & Nelson**

PO Box 372
Hays, Ks. 67601

ORIGINAL

ATTN: Al Downing

9-14s-21w-Trego

Erwin Kroeger #1-9

Start Date: 2005.05.28 @ 20:02:18

End Date: 2005.05.29 @ 02:58:03

Job Ticket #: 21072 DST #: 1

15-195-22287-00-00

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Downing & Nelson

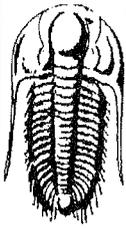
Erwin Kroeger #1-9

9-14s-21w-Trego

DST # 1

KC-"C-D-E"

2005.05.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Downing & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

ATTN: Al Downing

Job Ticket: 21072

DST#: 1

Test Start: 2005.05.28 @ 20:02:18

GENERAL INFORMATION:

Formation: **KC-"C-D-E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:59:18
 Time Test Ended: 02:58:03
 Interval: **3640.00 ft (KB) To 3700.00 ft (KB) (TVD)**
 Total Depth: 3700.00 ft (KB) (TVD)
 Hole Diameter: 7.80 inches Hole Condition: Good

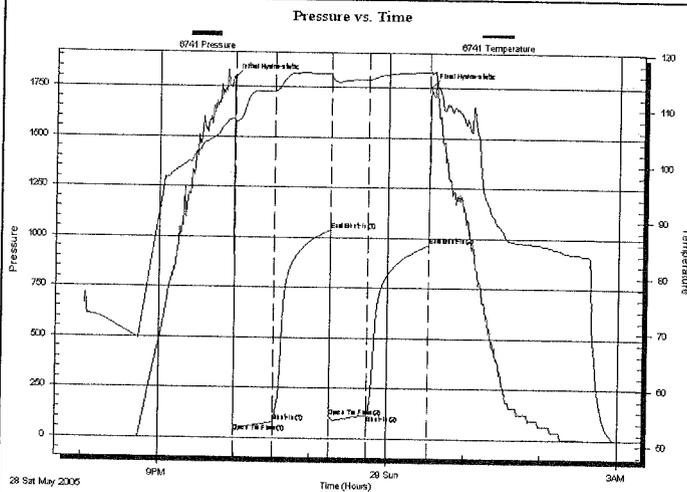
Test Type: Conventional Bottom Hole
 Tester: Jason Mclemore
 Unit No: 32
 Reference Elevations: 2283.00 ft (KB)
 2275.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6741

Inside

Press@RunDepth: 117.25 psig @ 3642.00 ft (KB)
 Start Date: 2005.05.28 End Date: 2005.05.29
 Start Time: 20:02:20 End Time: 02:58:03
 Capacity: 7000.00 psig
 Last Calib.: 2005.05.29
 Time On Btm: 2005.05.28 @ 21:59:03
 Time Off Btm: 2005.05.29 @ 00:32:48

TEST COMMENT: IFF-Strong Blow, BOB in 7-1/2 Min
 ISI-Blow back Built to 1-1/2"
 FFF-Strong Blow, BOB in 7 Min.
 FSI-



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1794.25	108.22	Initial Hydro-static
1	27.84	107.84	Open To Flow (1)
33	80.90	113.24	Shut-In(1)
76	1037.94	116.34	End Shut-In(1)
77	112.09	116.07	Open To Flow (2)
106	117.25	115.45	Shut-In(2)
153	965.34	116.76	End Shut-In(2)
154	1752.83	116.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
305.00	Heavy Oil	4.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

Job Ticket: 21072

DST#: 1

ATTN: Al Dow ning

Test Start: 2005.05.28 @ 20:02:18

Tool Information

Drill Pipe:	Length: 3610.00 ft	Diameter: 3.80 inches	Volume: 50.64 bbl	Tool Weight: 2600.00 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: 50000.00 lb
			<u>Total Volume: 50.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3640.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3620.00	
Shut In Tool	5.00			3625.00	
Hydraulic tool	5.00			3630.00	
Packer	5.00			3635.00	21.00 Bottom Of Top Packer
Packer	5.00			3640.00	
Stubb	1.00			3641.00	
Perforations	1.00			3642.00	
Recorder	0.00	6741	Inside	3642.00	
Change Over Sub	1.00			3643.00	
Blank Spacing	31.00			3674.00	
Change Over Sub	1.00			3675.00	
Perforations	22.00			3697.00	
Recorder	0.00	13221	Outside	3697.00	
Bullnose	3.00			3700.00	60.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

Job Ticket: 21072

DST#: 1

ATTN: Al Dow ning

Test Start: 2005.05.28 @ 20:02:18

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 8.78 in³

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
305.00	Heavy Oil	4.005

Total Length: 305.00 ft Total Volume: 4.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6741

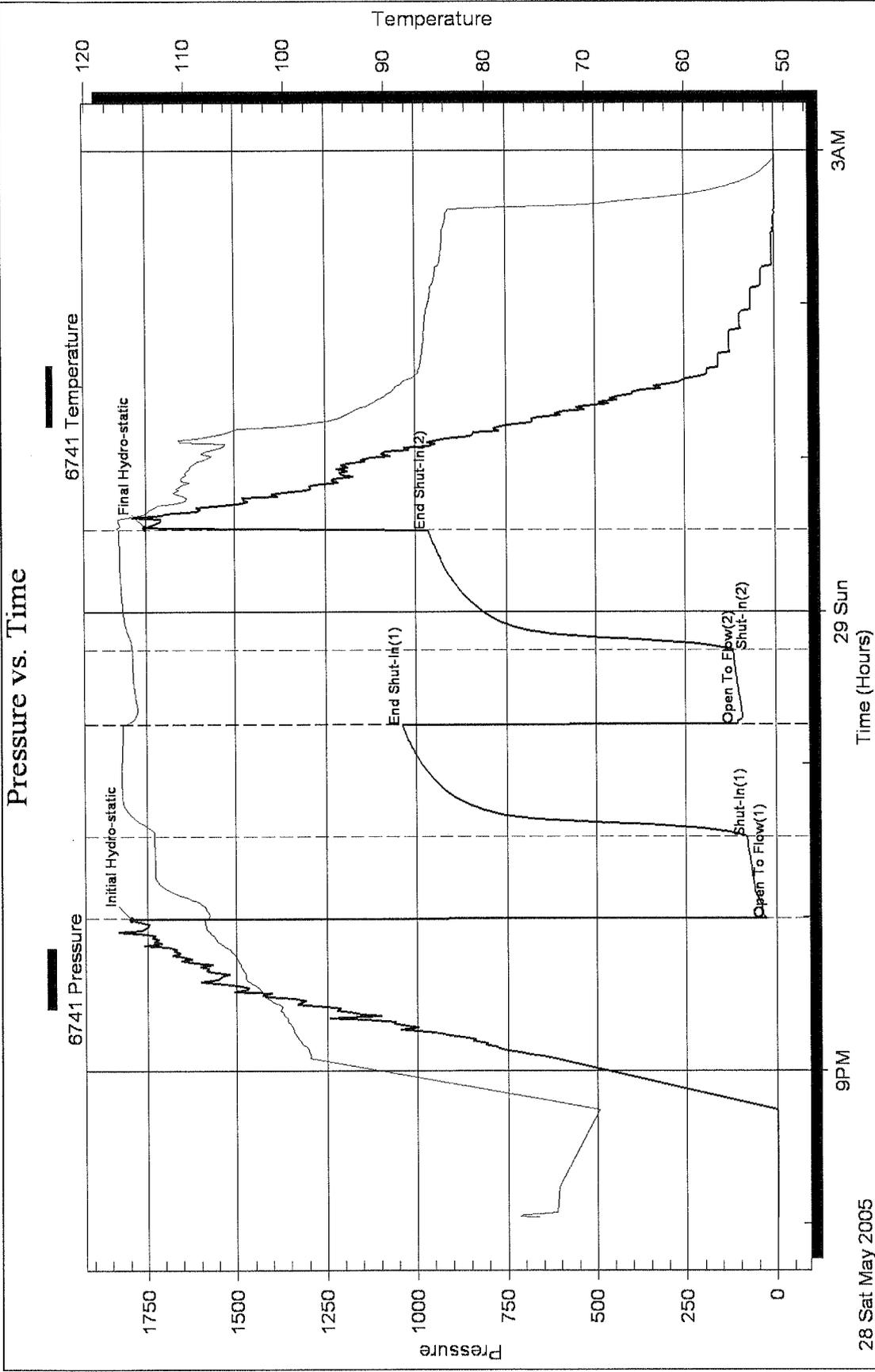
Inside

Dowling & Nelson

9-14s-21w - Trego

DST Test Number: 1

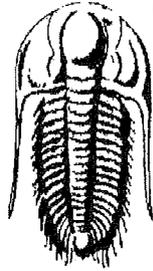
Pressure vs. Time



Triobite Testing, Inc

Ref. No: 21072

Printed: 2005.06.02 @ 12:30:20 Page 5



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Downing & Nelson**

PO Box 372
Hays, Ks. 67601

ATTN: Al Downing

9-14s-21w-Trego

Erwin Kroeger #1-9

Start Date: 2005.05.29 @ 14:52:10

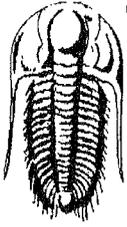
End Date: 2005.05.29 @ 21:04:40

Job Ticket #: 21073 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

Job Ticket: 21073 **DST#: 2**

ATTN: Al Dow ning

Test Start: 2005.05.29 @ 14:52:10

GENERAL INFORMATION:

Formation: **"H-I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:25:25

Time Test Ended: 21:04:40

Test Type: Conventional Bottom Hole

Tester: Jason Mclemore

Unit No: 32

Interval: 3740.00 ft (KB) To 3800.00 ft (KB) (TVD)

Total Depth: 3800.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2283.00 ft (KB)

2275.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6741

Inside

Press@RunDepth: 105.17 psig @ 3742.00 ft (KB)

Start Date: 2005.05.29

End Date:

2005.05.29

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 14:52:12

End Time:

21:04:40

Time On Btm: 2005.05.29 @ 16:25:10

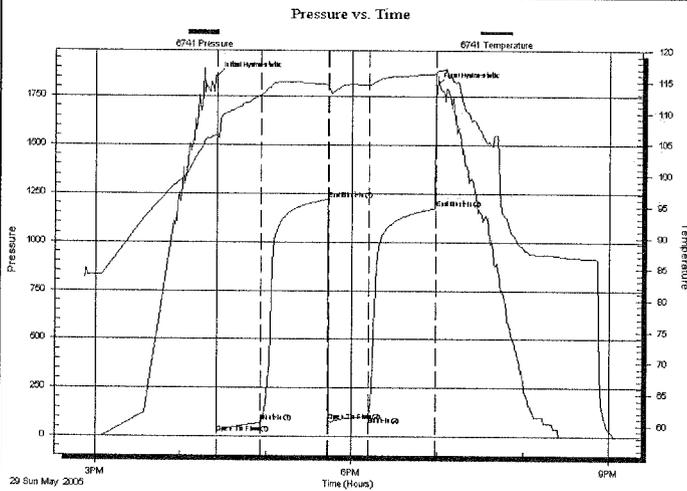
Time Off Btm: 2005.05.29 @ 18:58:40

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

ISI-2-1/4" Blow back

FFP-Strong Blow ,BOB in 31/2 Min

FSI-Blow back Built to 6"



PRESSURE SUMMARY

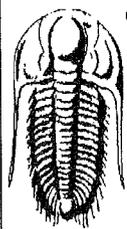
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1853.81	106.49	Initial Hydro-static
1	16.31	106.12	Open To Flow (1)
32	71.63	112.86	Shut-In(1)
78	1220.26	114.59	End Shut-In(1)
79	80.22	114.25	Open To Flow (2)
107	105.17	114.55	Shut-In(2)
154	1173.73	116.29	End Shut-In(2)
154	1806.81	116.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	HOCM-30%G-45%O-25%M	3.09

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

Job Ticket: 21073

DST#: 2

ATTN: Al Downing

Test Start: 2005.05.29 @ 14:52:10

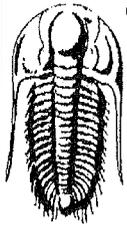
Tool Information

Drill Pipe:	Length: 3704.00 ft	Diameter: 3.80 inches	Volume: 51.96 bbl	Tool Weight: 2600.00 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: 55000.00 lb
			<u>Total Volume: 52.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3740.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 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			3720.00	
Shut In Tool	5.00			3725.00	
Hydraulic tool	5.00			3730.00	
Packer	5.00			3735.00	21.00 Bottom Of Top Packer
Packer	5.00			3740.00	
Stubb	1.00			3741.00	
Perforations	1.00			3742.00	
Recorder	0.00	6741	Inside	3742.00	
Change Over Sub	1.00			3743.00	
Blank Spacing	31.00			3774.00	
Change Over Sub	1.00			3775.00	
Perforations	22.00			3797.00	
Recorder	0.00	13221	Outside	3797.00	
Bullnose	3.00			3800.00	60.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing & Nelson

Erwin Kroeger #1-9

PO Box 372
Hays, Ks. 67601

9-14s-21w-Trego

Job Ticket: 21073

DST#: 2

ATTN: Al Downing

Test Start: 2005.05.29 @ 14:52:10

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
240.00	HOCM-30%G-45%O-25%M	3.093

Total Length: 240.00 ft Total Volume: 3.093 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

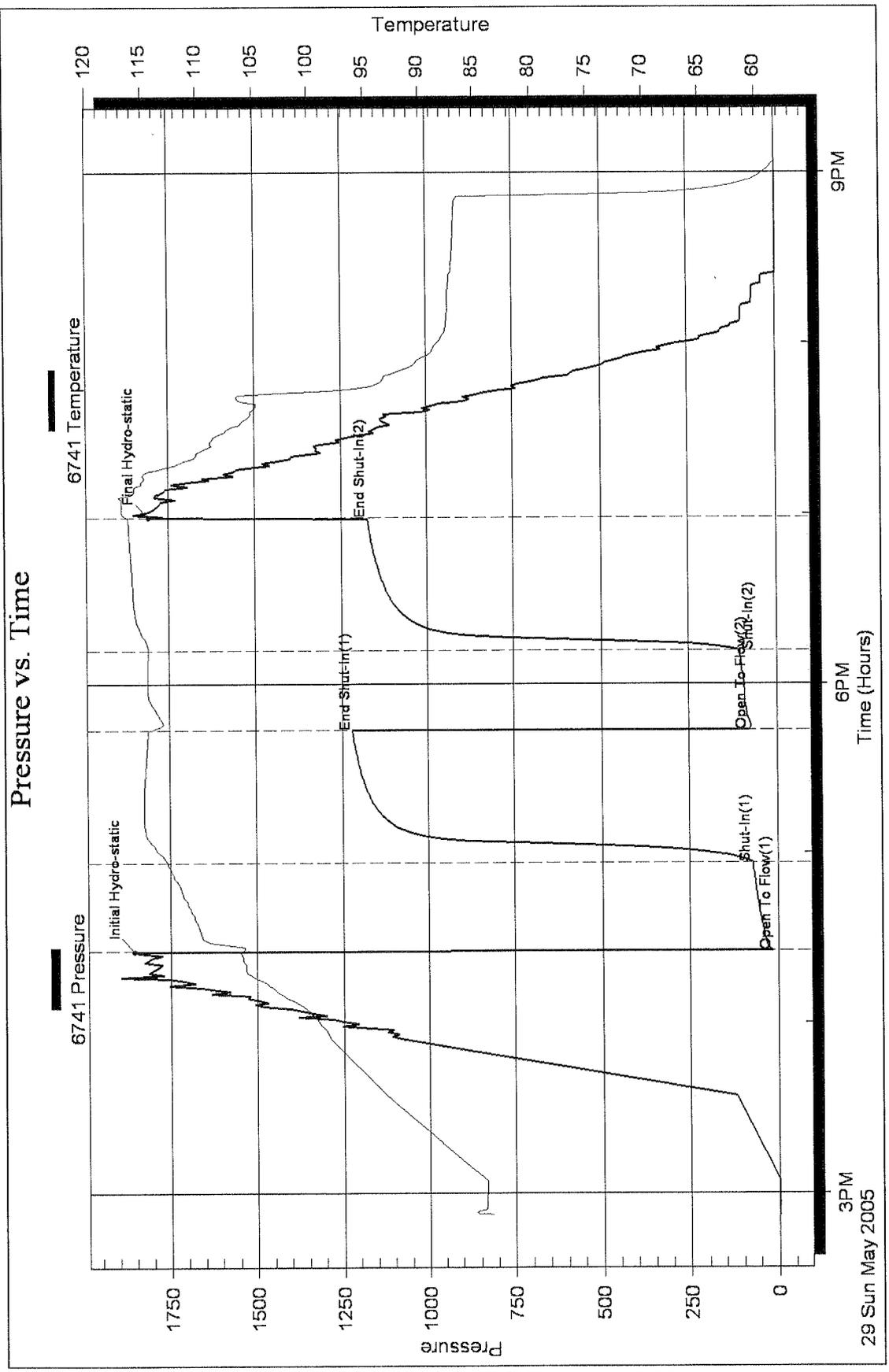
Serial #: 6741

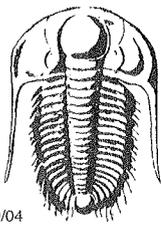
Inside

Dowling & Nelson

9-14s-21w-Trego

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 21072

Test Ticket

Well Name & No. Erwin Kroeger #1-9 Test No. 1 Date 5-28-05
 Company Downing & Nelson Zone Tested KC - "CDE"
 Address P.O. Box 372, Hays, KS, 67601 Elevation 2283 KB 2275 GL
 Co. Rep / Geo. Al Downing Cont. Discovery #2 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 9 Twp. 14s Rge. 21w Co. Trego State Ks
 No. of Copies Res Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3640 - 3700 Initial Str Wt./Lbs. 48,000 Unseated Str Wt./Lbs. _____
 Anchor Length 60' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. _____
 Top Packer Depth 3635 Tool Weight 2600
 Bottom Packer Depth 3630 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 3700 Wt. Pipe Run 0 Drill Collar Run 30
 Mud Wt. 8.8 LCM 1/4" Vis. 46 WL 8.8 Drill Pipe Size 4 1/2 XH Ft. Run 3610
 Blow Description IFP - Strong Blow, BOB in 7 1/2 min.
ISI - Blowback Built to 1 1/2"
FFP - BOB in 7 min.
FSI - Blowback Built to 1 1/4"

Recovery - Total Feet 305 GIP 535 Ft. in DC _____ Ft. in DP _____
 Rec. 305 Feet of Heavy Oil %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 _____
 BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 4,500 ppm System

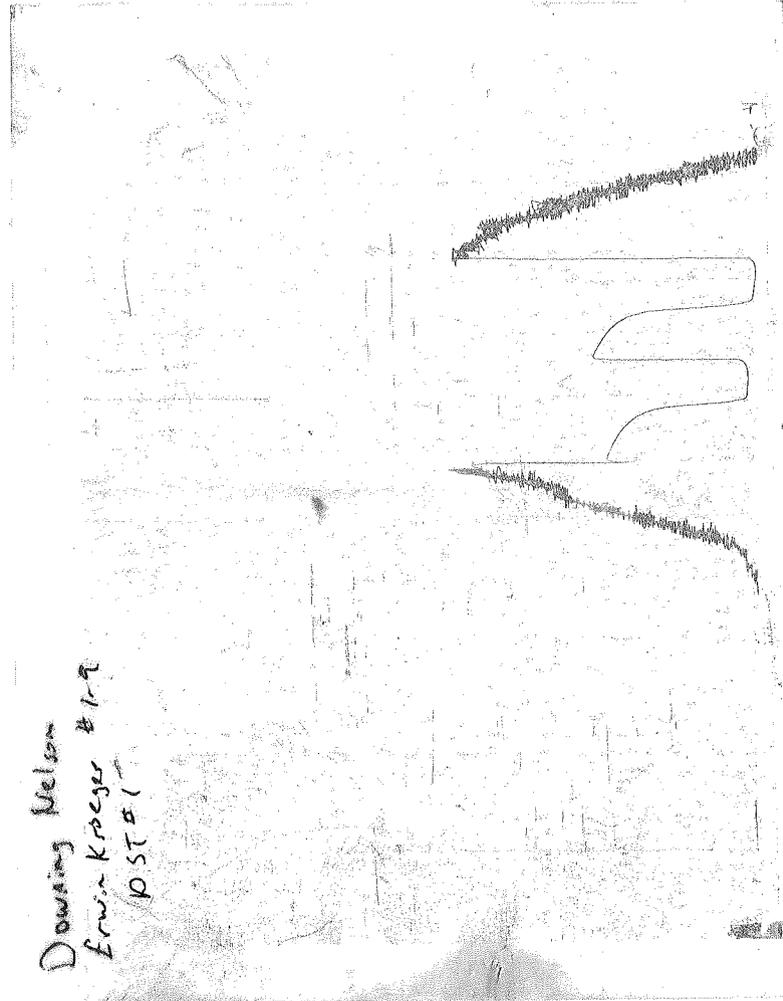
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		1794 PSI	6741	✓ 950
(B) First Initial Flow Pressure		28 PSI	(depth) 3643	Jars _____
(C) First Final Flow Pressure		81 PSI	Recorder No. 13221	Safety Jt. _____
(D) Initial Shut-In Pressure		1038 PSI	(depth) 3697	Circ Sub _____
(E) Second Initial Flow Pressure		112 PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure		117 PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure		965 PSI	Initial Opening 30	Ext. Packer _____
(Q) Final Hydrostatic Mud		1753 PSI	Initial Shut-In 45	Shale Packer _____
			Final Flow 30	Ruined Packer _____
			Final Shut-In 45	Mileage <u>44</u> <u>44</u>
			T-On Location 18:40	Sub Total: <u>994</u>
			T-Started 20:02	Std. By _____
			T-Open 22:01	Other _____
			T-Pulled 00:31	Total: _____
			T-Out 3:00	

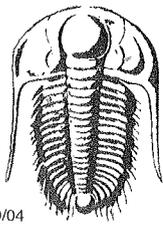
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____
 Our Representative J. Matmon Hank Year

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 21073

Test Ticket

Well Name & No. Erwin Kroeger #1-9 Test No. 2 Date 5-29-05
 Company Downing & Nelson Zone Tested H-I
 Address P.O. Box 372, Hays, Ks, 67601 Elevation 2283 KB 2275 GL
 Co. Rep / Geo. Al Downing Cont. Discovery #2 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 9 Twp. 14s Rge. 21w Co. Trego State Ks
 No. of Copies Reg Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3740 - 3800 Initial Str Wt./Lbs. 49,000 Unseated Str Wt./Lbs. 52,000
 Anchor Length 60' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 55,000
 Top Packer Depth 3735 Tool Weight 2600
 Bottom Packer Depth 3740 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓
 Total Depth 3800 Wt. Pipe Run 0 Drill Collar Run 30
 Mud Wt. 9.1 LCM 1/8 Vis. 51 WL 8.4 Drill Pipe Size 4 1/2 XH Ft. Run 3704

Blow Description IFP - Good Blow, BOB in 8 min.
ISI - Blowback Built to 2 1/4"
FFP - Strong Blow, BOB in 3 1/2 Min
FSI - Blowback Built to 6"

Recovery - Total Feet 240 GIP 660 Ft. in DC _____ Ft. in DP _____
 Rec. 240 Feet of HOCM 30 %gas 45 %oil _____ %water 25 %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 _____
 BHT _____ °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery _____ Chlorides 6,000 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>1854</u>	PSI	<u>6741</u>	✓ <u>950</u>
(B) First Initial Flow Pressure	<u>16</u>	PSI	(depth) <u>3743</u>	Jars _____
(C) First Final Flow Pressure	<u>72</u>	PSI	Recorder No. <u>13221</u>	Safety Jt. _____
(D) Initial Shut-In Pressure	<u>1220</u>	PSI	(depth) <u>3797</u>	Circ Sub _____
(E) Second Initial Flow Pressure	<u>80</u>	PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	<u>105</u>	PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure	<u>1174</u>	PSI	Initial Opening <u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>1807</u>	PSI	Initial Shut-In <u>45</u>	Shale Packer _____
			Final Flow <u>30</u>	Ruined Packer _____
			Final Shut-In <u>45</u>	Mileage <u>44</u>
			T-On Location <u>14:05</u>	Sub Total: <u>994</u>
			T-Started <u>14:52</u>	Std. By _____
			T-Open <u>16:25</u>	Other _____
			T-Pulled <u>18:55</u>	Total: _____
			T-Out <u>21:05</u>	

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.

Approved By _____
 Our Representative A. Mc Lemasa *Thank you*

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.

Downing Nelson #1A
Erwin Kroger #2
DST #2

