

V3667

REPORT NUMBER CAL-01-2-8

**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
FRONTAL BARRIER 40% OFFSET IMPACT TEST**

**CHRYSLER CORPORATION
1998 DODGE NEON
4-DOOR SEDAN**

NHTSA NUMBER RW0314

VERIDIAN TEST NUMBER 8413-64

VERIDIAN ENGINEERING
TRANSPORTATION SCIENCES CENTER
P O BOX 400
BUFFALO, NEW YORK 14225



May 31, 2001

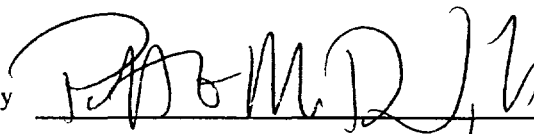
FINAL REPORT

PREPARED FOR

U S DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Research and Development
Crashworthiness Research Division
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400 Seventh Street, SW, Room No 6226
Washington, DC 20590

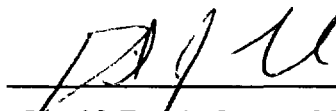
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Prepared by



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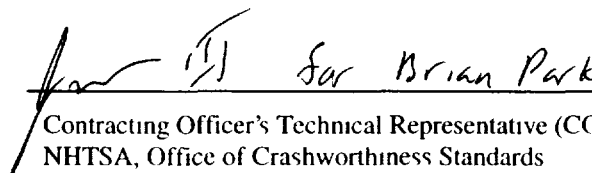


David J. Travale, Program Manager
Transportation Science Center

Approval Date

June 19, 2001

FINAL REPORT ACCEPTANCE BY OCS

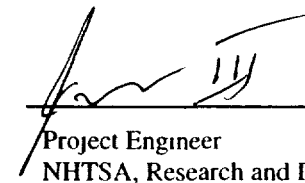


Sar Brian Park

Contracting Officer's Technical Representative (COTR),
NHTSA, Office of Crashworthiness Standards

2/20/02

Date of Report Acceptance



Project Engineer
NHTSA, Research and Development

2/20/02

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TECHNICAL REPORT STANDARD TITLE PAGE

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12 <i>Sponsoring Agency Name and Address</i> U S DEPARTMENT OF TRANSPORTATION National Highway Traffic Safety Administration Research and Development Crashworthiness Research Division Mail Code NRD-11 400 Seventh Street, SW, Room No 6226 Washington, DC 20590				13 <i>Type of Report and Period Covered</i> Final Report May - June 2001	
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15 <i>Supplementary Notes</i>					
16 <i>Abstract</i> This test is to evaluate the use of the Thor Advanced Lower Extremity (Thor-FLx) in the frontal 40% offset deformable barrier test A frontal 40% offset barrier impact test of a 1998 Dodge Neon 4-Door Sedan was performed at Veridian Engineering crash test facility in Buffalo, New York, on May 31, 2001 The impact velocity was 60 35 kph and the temperature at the barrier face was 21 7°C The maximum post-test vehicle crush was 661 mm The test vehicle was equipped with 3-point restraint systems, knee bolsters, and airbags at both the driver and right outboard passenger seating positions With respect to FMVSS 208 "Occupant Crash Protection - Injury Criteria" both the driver and passenger appeared to comply with head, chest, and femur requirements					
ATD Position	HIC	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (288)	967 1	45 4	28 1	3152 2	1509 5
Passenger (421)	391 5	43 2	20 8	2467 1	700 8
17 <i>Key Words</i> Frontal 40% Offset Barrier Impact test Thor-FLx/HIIIR				18 <i>Distribution Statement</i> <u>Copies of this report are available from</u> NHTSA Technical Reference Division National Highway Traffic Safety Admin 400 Seventh St , SW, Room 5108 Washington, DC 20590	
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TABLE OF CONTENTS

<u>Section</u>		<u>Page No</u>
1	PURPOSE AND SUMMARY OF TEST	1-1
2	OCCUPANT AND VEHICLE INFORMATION	2-1
<u>Data Sheet</u>	<u>Description</u>	
1	CRASH TEST SUMMARY	2-1
2	GENERAL TEST AND VEHICLE PARAMETER DATA	2-2
3	POST IMPACT DATA	2-4
4	TEST VEHICLE INFORMATION	2-5
5	DUMMY POSITIONING IN VEHICLE	2-7
6	SEAT BELT POSITIONING DATA	2-9
7	VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY	2-10
8	DUMMY INJURY CRITERIA VALUES	2-12
9	SEAT BELT PERFORMANCE DATA	2-16
10	SUMMARY OF FMVSS 212 DATA	2-17
11	WINDSHIELD ZONE INTRUSION FMVSS 219 DATA	2-18
12	FMVSS 301 FUEL SYSTEM INTEGRITY DATA	2-19
13	FMVSS 310 ROLLOVER DATA	2-20
14	TEST VEHICLE MEASUREMENTS	2-21
15	HIGH SPEED CAMERA LOCATIONS	2-28
16	VEHICLE REFERENCE PHOTO TARGET LOCATIONS	2-29
17	POST TEST AIR BAG DATA	2-33
18	ACCIDENT INVESTIGATION DIVISION DATA	2-34
19	OFFSET BARRIER AND VEHICLE ORIENTATION	2-35
20	OFFSET BARRIER DEFORMATION	2-36
APPENDIX A	PHOTOGRAPHS	A-1
APPENDIX B	VEHICLE AND DUMMY RESPONSE DATA	B-1
APPENDIX C	PART 572 BAE DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION TESTS	C-1
APPENDIX D	DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION	D-1

SECTION 1

PURPOSE AND SUMMARY OF TEST RW0314

PURPOSE

This 60 35 kph frontal 40% offset barrier impact test is part of the Test Procedure Development Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-96-D-02010. The purpose of this test was to evaluate the performance of Thor-Lx 5th percentile adult female- Hybrid III retrofit (Thor-FLx/HIIIr) version lower legs and obtain vehicle crashworthiness and occupant and restraint system performance data.

The frontal 40% offset barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Indicant Test procedure.

SUMMARY

A deformable honeycomb barrier was impacted by a 1998 Dodge Neon 4-Door Sedan at 40% overlap at a velocity of 60 35 kph. The test was performed at Veridian Engineering on May 31, 2001. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by 1 real-time camera and 16 high-speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572O, 5th percentile female anthropomorphic test devices (ATDs), were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure. The ATDs were then placed in similar position of a previous Neon test at request of the COTR.

Both ATDs were fully instrumented with head, chest, and pelvis triaxial accelerometers, chest displacement potentiometers, upper neck transducers, right/left femur load cells, knee sliders and Thor-FLx/HIIIr lower leg instrumentation. The driver (position 1) ATD (Serial No. 288) was used in three tests prior to this test where it did not exceed FMVSS 208 injury criteria. The right-front passenger (position 2) ATD (Serial No. 421) was used in two tests prior to this test where it did not exceed FMVSS 208 injury criteria. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 161 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, and dummy response data traces.

The driver's HIC was 967.1. The maximum chest deceleration over 3 milliseconds was 45.4 g's and maximum chest deflection was 28.1 mm. Compressive femur loads were 3152.2 Newtons on the left and 1509.5 Newtons on the right.

The right front passenger's HIC was 391.5. Maximum chest deceleration over 3 milliseconds was 43.2 g's and maximum chest deflection was 20.8 mm. Compressive femur loads were 2467.1 Newtons on the left and 700.8 Newtons on the right.

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO 1 CRASH TEST SUMMARY

Vehicle NHTSA No	RW0314	Test Mode	60 kph Offset Frontal Barrier	
Test Date	May 31, 2001	Time	12 00	Temperature
			16 1	°C
Vehicle Make/Model/Body Style	1998 Dodge Neon 4-Door Sedan			
Vehicle Test Weight	1313 0	kg		
Vehicle/Barrier Impact Angle	0	°		
Impact Velocity	60 35	kph		
Maximum Static Crush	661	mm		
Actual Vehicle Offset	41 46	%		

DUMMIES

DRIVER

PASSENGER

Type

5720

5720

Restraint System

Seatbelt, Airbag, Knee Bolster

Seatbelt, Airbag, Knee Bolster

Lower Leg

Thor-FLx/HIIIr

Thor-FLx/HIIIr

Number of Data Channels

161

Number of Cameras

1

Real Time

16

High Speed

DOOR OPENING DATA

Closed/Inoperable

- Left Front

Closed/Operable

- Right Front

Front Seat(s) Data

DRIVER

PASSENGER

Seat Track Failure (mm of shift)

25

0

Seat Back Failure

None

None

VISIBLE DUMMY CONTACT POINTS

DRIVER

PASSENGER

Head

Face to top center of the airbag,
Back to the center headrest

Face to the right of center of
the airbag

Abdomen

-

-

Chest

Airbag

Airbag

Knees

Knee Bolster

Knee Bolster

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION

Year/Make/Model/Body Style 1998 Dodge Neon 4-Door Sedan
NHTSA No RW0314, VIN 1B3ES47C8WD642041, Color White
Engine Data 4 cylinders, - CID, 2.0 Liters, - cc
Placement - Longitudinal or In-Line, X Transverse or Lateral
Transmission Data 4 speeds, - Manual, X Automatic, X Overdrive
Final Drive - Rear Wheel Drive, X Front Wheel Drive, - Four Wheel Drive
Major Options X A/C, X Pwr Strg, X Pwr Brakes
- Pwr Windows, - Pwr Door Locks, - Tilt Wheel
Date Received 9/7/00 Odometer Reading 73459 km
Selling Dealer -
& Address -

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL

Vehicle Manufactured by Chrysler Corporation
Date of Manufacture 3/98
GVWR 1590 kg, GAWR 885 kg FRONT, 729 kg REAR

DATA FROM TIRE PLACARD

Tire Pressure with Maximum Capacity Vehicle Load 220 kpa FRONT
220 kpa REAR
Recommended Tire Size P185/65R14
* Recommended Cold Tire Pressure 220 kpa FRONT, 220 kpa REAR
Size of Tires on Test Vehicle P185/65R14, Manufacturer Goodyear
Vehicle Capacity Data
Type of Front Seats - Bench, X Bucket, - Split Bench
Number of Occupants 2 Front, 3 Rear, 5 Total
Vehicle Capacity Weight (VCW) = 392.0 kg
No. of Occupants x 68 kg = 340.2 kg
Rated Cargo/Luggage Weight (RCLW) = 51.8 kg

*Tire pressure used for test

DATA SHEET NO 2 GENERAL TEST AND VEHICLE PARAMETER DATA (cont)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with maximum fluids)= UDW

Right Front	=	<u>375 0</u>	kg	Right Rear	=	<u>202 0</u>	kg
Left Front	=	<u>377 5</u>	kg	Left Rear	=	<u>209 0</u>	kg
TOTAL FRONT	=	<u>752 5</u>	kg	TOTAL REAR	=	<u>411 0</u>	kg
TOTAL DELIVERED WEIGHT =		<u>1163 5</u>	kg				
% of Total Front of Vehicle Weight =		<u>64 7</u>	%	% of Total Rear Weight =		<u>35 3</u>	%

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT

Total Delivered Weight (UDW)	=	<u>1163 5</u>	kg
Rated Cargo/Luggage Weight (RCLW)	=	<u>51 8</u>	kg
Weight of 2 p 572 Dummies @ 49 each	=	<u>98 0</u>	kg
TARGET TEST WEIGHT	=	<u>1313 3</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 52 KG OF CARGO WEIGHT

Right Front	=	<u>392 0</u>	kg	Right Rear	=	<u>260</u>	kg
Left Front	=	<u>398 0</u>	kg	Left Rear	=	<u>263 0</u>	kg
TOTAL FRONT	=	<u>790 0</u>	kg	TOTAL REAR	=	<u>523 0</u>	kg
TOTAL TEST WEIGHT =		<u>1313 0</u>	kg				
% of Total Front Weight =		<u>60 2</u>	%	% of Total Rear Weight =		<u>39 8</u>	%
Weight of Ballast Secured in Vehicle Trunk Area =		<u>0</u>	kg				
Vehicle Components Removed for Weight Reduction		<u>Tail lights, muffler, rear interior trim</u>					

VEHICLE ATTITUDE (all dimension in millimeters)

AS DELIVERED	RF	<u>648</u>	LF	<u>642</u>	RR	<u>667</u>	LR	<u>667</u>
FULLY LOADED	RF	<u>636</u>	LF	<u>633</u>	RR	<u>640</u>	LR	<u>644</u>
AS TESTED	RF	<u>642</u>	LF	<u>639</u>	RR	<u>647</u>	LR	<u>646</u>
Vehicle's Wheel Base		<u>2635</u> mm						
Location of Vehicle's C G		<u>1049 6</u> mm rearward of front wheel center						

FUEL SYSTEM DATA

Fuel System Capacity From Owner's Manual	=	<u>47 32</u>	liters
Usable Capacity Figure Furnished by COTR	=	<u>47 32</u>	liters
Test Volume Range (92 to 94% of Usable Capacity)	=	<u>43 5</u>	to <u>44 5</u> liters
ACTUAL TEST VOLUME	=	<u>43 5</u>	liters (with entire fuel system filled)
Test Fluid Type	<u>Stoddard Solution</u> ,	Spec Grav	= <u>0 764</u>
Kinematic Viscosity	=	<u>0 96</u>	centistokes, Color = <u>Orange</u>
Type of Fuel Pump	Electric- <u>X</u> ,	Mechanical-	<u>-</u>
Does Electric Pump operate with ignition switch "ON" & engine "OFF"		Yes- <u>X</u>	No- <u>-</u>
Details of Fuel System <u>filler - right side rear of axle, lines - right body stiffener, tank - centered above rear axle</u>			

—

TYPE OF TEST

BARRIER IMPACT VELOCITY (Speed traps within 5 feet of impact plane)

VEHICLE STATIC CRUSH (mm) (For frontal and rear impacts only)

—

VEHICLE OFFSET DATA (mm)

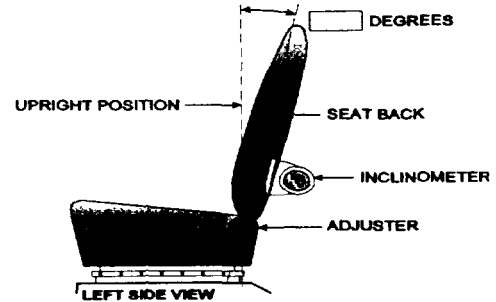
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DATA SHEET NO 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION

Model Year 1998 Vehicle Model Dodge Neon Body Style 4-Door Sedan

- 1 Nominal Design Riding Position for adjustable driver and passenger seat backs Please describe how to position the inclinometer to measure the seat back angle Include description of the location of the adjustment latch detent, if applicable



FRONT SEAT ASSEMBLY

Seat back angle for driver's seat 12

Measurement instructions Reclined one detent rearward

Seat back angle for passenger's seat 12

Measurement instructions Reclined one detent rearward

- 2 Seat Fore and Aft Positioning

Positioning of the driver's seat Full forward

Positioning of the passenger's seat Full forward

- 3 Fuel Tank Capacity Data

3 1 A "Usable Capacity" of the standard equipment fuel tank is 47.32 liters

B "Usable Capacity" of the optional equipment fuel tank is N/A liters

C "Usable Capacity" of the vehicle(s) used for certification testing to requirements of FMVSS 301 = N/A liters

3 2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 43.5 liters

3 3 Is vehicle equipped with electric fuel pump? Yes- X, No- -

If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel

With ignition in the "ON" position

DATA SHEET NO 4 TEST VEHICLE INFORMATION (cont.)

4 STEERING COLUMN ADJUSTMENTS

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center?

Operational Instructions

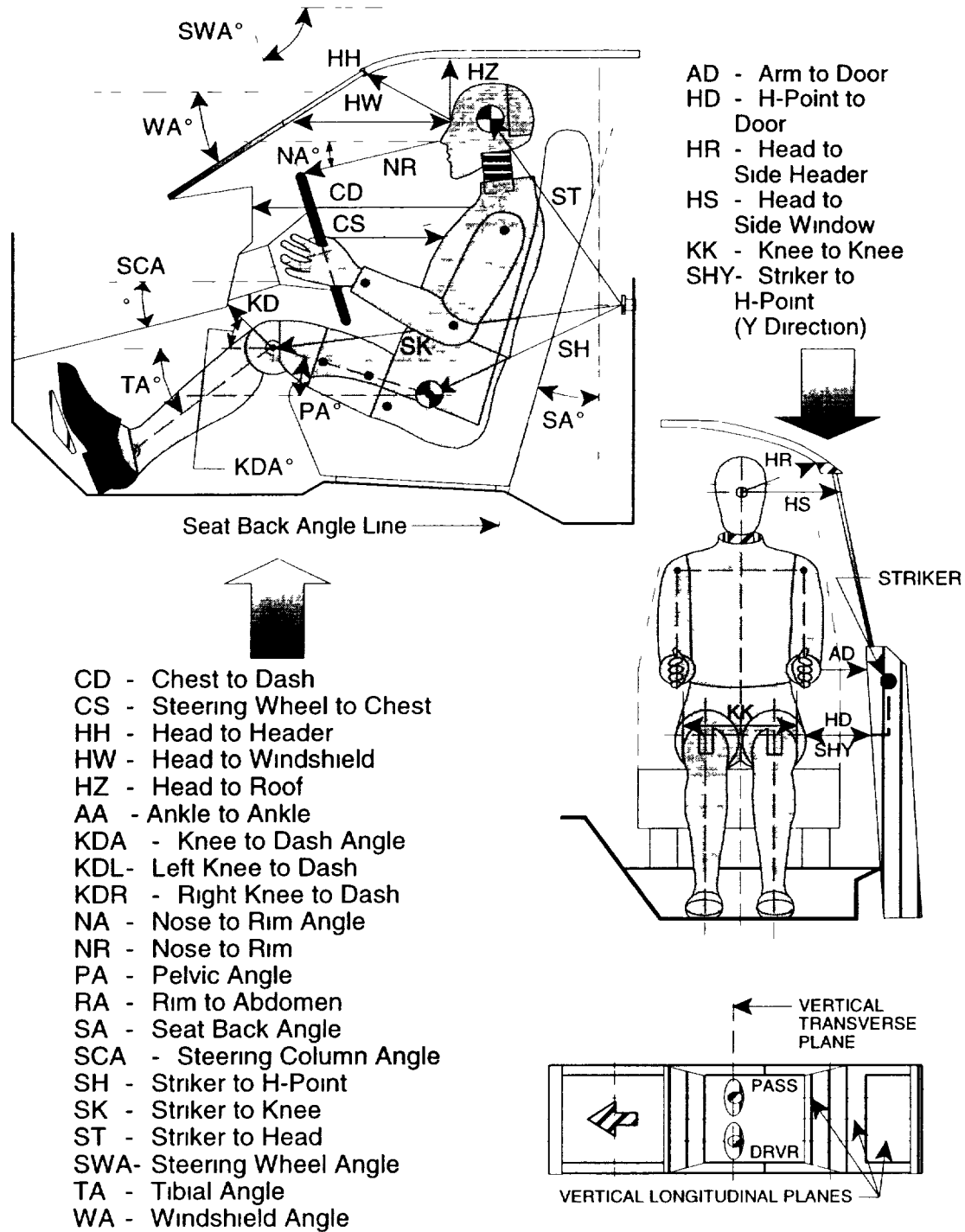
Not adjustable

5 SEAT BELT UPPER ANCHORAGE

Nominal design riding position

Lowermost

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS



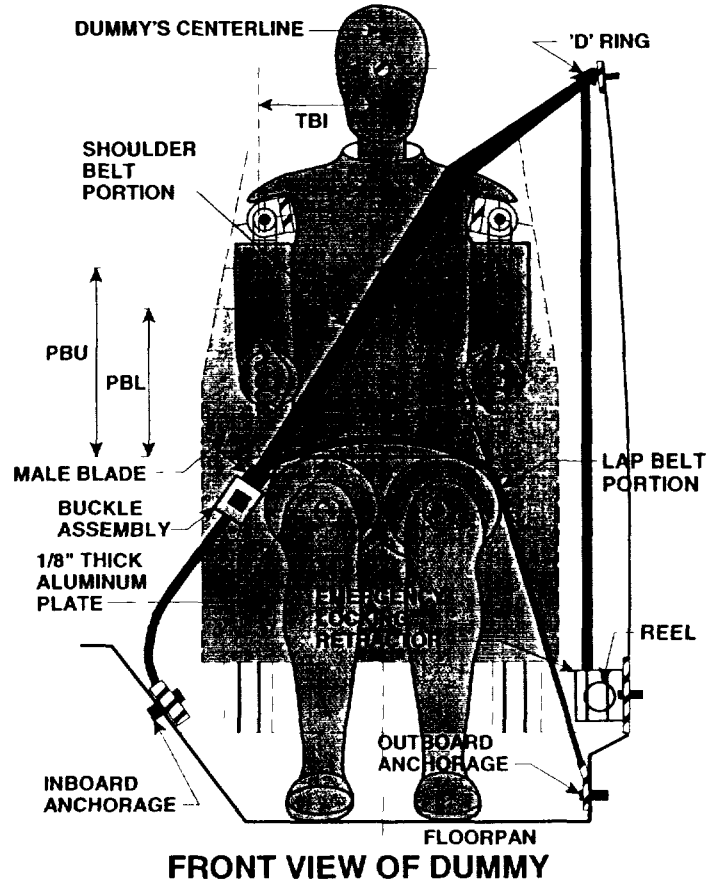
DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

	DRIVER (Serial #288)			PASS (Serial # 421)		
WA ^o	24 5 deg			N/A		
SWA ^o	67 deg			N/A		
SCA ^o	23 deg			N/A		
SA ^o	12 deg			12 deg		
HZ	260			245		
HH	282			250		
HW	655			600		
HR	262			260		
NR	228	Angle	2 deg	N/A		
CD	432			370		
CS	200			N/A		
RA	76			N/A		
KDL	106	Angle (KDA)	45 deg	94		
KDR	101			98	Angle (KDA)	50 deg
PA ^o	26 deg			20 deg		
TA ^o	43 8 deg			47 2 deg		
KK	232			198		
AA	252			240		
ST	500	Angle	25 deg	500	Angle	28 deg
SK	662	Angle	93 deg	610	Angle	90 deg
SH	355	Angle	110 deg	320	Angle	124 deg
SHY	255			270		
HS	332			334		
HD	155			165		
AD	62			90		

Dimensions in millimeters

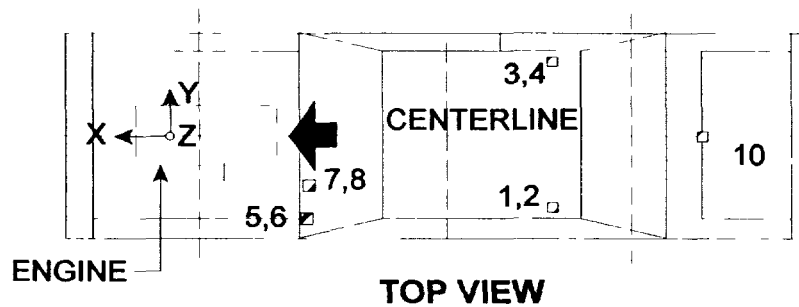
DATA SHEET NO 6 SEAT BELT POSITIONING DATA

SEAT BELT POSITIONING DATA

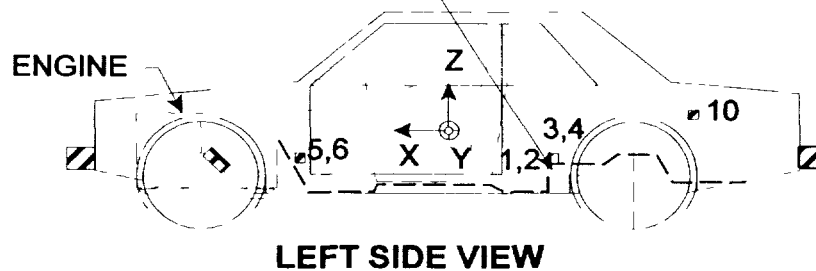


	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum plate to upper edge	267	250
PBL-- Top surface of alum plate to belt lower edge	188	180
<u>LAP BELT TENSION</u>	10 N	10 N
<u>SHOULDER BELT TENSION</u>	Retractor	Retractor

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



REAR SEAT CUSHION
ASSY. FRONT ATTACHMENT
BRACKET SUPPORT



Note Vehicle accelerometer location and data summary shown in DATA SHEET NO 7

DATA SHEET NO 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY (cont)

Accelerometer	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)
Left Rear Seat Crossmember	1561	-297	-447
Right Rear Seat Crossmember	1609	391	-388
Driver Left Side Toe Pan	3154	-339	-318
Driver Right Side Toe Pan	3130	-163	-293

X-Direction is referenced from vehicle rear bumper (positive forward)

Y-Direction is referenced from vehicle centerline (positive to right)

Z-Direction is referenced from ground plane (positive down)

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Pos	msec	Neg	msec
1	Rear Seat X-Member @ Left Side X	2 8	156 4	-28 9	77 6
2	Rear Seat X-Member @ Left Side Y	20 8	106 8	11 3	67 1
3	Rear Seat X-Member @ Right Side X	*	*	*	*
4	Rear Seat X-Member @ Right Side Y	16 7	89 6	-6 6	114 1
5	Driver Toe Pan @ Left Side X	13 0	69 4	-62 2	41 3
6	Driver Toe Pan @ Left Side Z	30 2	68 4	-18 0	88 9
7	Driver Toe Pan @ Right Side X	33 6	45 1	-78 5	70 2
8	Driver Toe Pan @ Right Side Z	18 8	45 4	-12 3	111 8

* Wire cut at 73 ms

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style

1998 Dodge Neon 4-Door Sedan

NHTSA Test No

RW0314

Test Date

May 31, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	29 8	59 9	-17 5	63 5	35 5	56 7	-23 2	78 3
Head 9 Array X Arm Z	g	35 9	98 9	-23 7	135 8	44 7	72 1	-42 8	57 4
Head 9 Array Y Arm X	g	13 3	98 3	-73 7	64 1	5 7	167 1	-122 9	56 6
Head 9 Array Y Arm Z	g	17 5	60 0	-25 1	135 6	35 3	72 3	-19 6	57 6
Head 9 Array Z Arm X	g	*	*	*	*	10 2	146 8	-111 2	56 5
Head 9 Array Z Arm Y	g	13 0	102 3	-8 2	63 6	19 6	87 5	-23 8	77 1
Head X	g	22 2	98 9	-72 9	64 3	8 3	136 1	-126 5	56 6
Head Y	g	***	***	***	***	16 3	102 3	-16 5	56 7
Head Z	g	14 2	61 6	-23 9	136 7	27 9	72 4	-22 7	56 9
Head Resultant	g	82 5	64 3	0 0	-100 0	126 8	56 6	0 0	10 3
Redundant Head X	g	22 1	98 9	-72 6	64 3	8 8	136 2	-125 1	56 6
Redundant Head Y	g	14 8	59 9	-11 4	61 6	16 9	102 3	-16 1	56 7
Redundant Head Z	g	12 9	61 6	-23 2	135 8	28 3	72 4	-20 6	56 9
Redundant Head Resultant	g	73 8	64 3	0 0	-56 5	125 6	56 6	0 0	10 3
Upper Neck Fx	N	207 7	65 8	-160 0	100 1	615 6	92 6	-120 2	59 6
Upper Neck Fy	N	132 5	193 4	-148 4	136 5	280 4	174 0	-79 3	244 4
Upper Neck Fz	N	2080 7	69 3	-842 9	136 6	1278 5	79 1	-134 5	137 1
Upper Neck F Resultant	N	2082 6	69 3	0 4	-92 3	1303 5	79 1	0 9	6 1
Upper Neck Mx	N-m	8 7	186 9	-9 4	76 5	17 8	165 0	-14 6	90 3
Upper Neck My	N-m	18 0	150 5	-19 1	95 0	37 0	93 0	-17 1	158 0
Upper Neck Mz	N-m	**	**	**	**	7 3	183 7	-16 1	123 3
Upper Neck M Resultant	N-m	57 6	167 3	0 0	-95 1	39 4	92 8	0 0	-64 2
Chest X	g	10 0	136 5	-47 4	66 5	2 9	158 6	-41 7	76 0
Chest Y	g	16 1	90 3	-3 3	78 4	13 3	74 7	-3 1	145 0
Chest Z	g	7 8	89 9	-22 7	140 9	12 7	61 0	-11 2	133 1
Chest Resultant	g	47 8	66 4	0 0	-100 0	44 0	75 4	0 0	-100 0

* Transducer Failed

** Spikes in Data Not accurate

*** Data is Questionable

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES (cont)

Vehicle Year/Make/Model/Body Style 1998 Dodge Neon 4-Door Sedan

NHTSA Test No RW0314 Test Date May 31, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Redundant Chest X	g	9 8	136 5	-47 6	66 5	3 0	158 6	-41 9	76 0
Redundant Chest Y	g	15 3	90 3	-4 0	78 4	13 2	79 7	-3 1	145 0
Redundant Chest Z	g	7 2	89 8	-22 6	140 7	12 8	61 0	-11 0	133 1
Redundant Chest Resultant	g	47 9	66 4	0 0	-100 0	44 3	75 5	0 0	-100 0
Chest Displacement	mm	0 1	26 2	-28 1	69 2	0 0	29 3	-20 8	103 3
Pelvic X	g	7 4	168 1	-41 4	92 1	2 6	152 8	-40 1	71 4
Pelvic Y	g	8 6	80 1	-3 4	66 6	12 7	70 2	-6 2	142 6
Pelvic Z	g	4 6	252 1	-17 6	134 4	2 8	256 1	-14 8	114 2
Pelvic Resultant	g	42 3	67 2	0 0	-57 0	42 4	71 4	0 0	7 2
Left Femur Fx	N	623 1	112 2	-51 3	67 7	192 7	111 8	-77 0	165 1
Left Femur Fy	N	352 5	98 1	-44 0	262 5	165 1	104 0	-53 7	60 9
Left Femur Fz	N	254 2	48 8	-3152 2	92 7	485 9	59 7	-2467 1	92 3
Left Femur Force Resultant	N	3170 7	92 7	0 2	-20 9	2469 7	92 3	0 1	-27 7
Left Femur Mx	N-m	6 4	147 5	-73 3	84 0	49 3	103 7	-22 2	63 4
Left Femur My	N-m	92 7	97 9	-30 2	64 7	75 7	92 9	-9 9	167 9
Left Femur Mz	N-m	29 2	221 3	-14 7	139 1	12 9	211 7	-7 9	452 9
Left Femur Moment Res.	N-m	110 4	82 8	0 1	-100 0	86 1	99 3	0 0	-100 0
Right Femur Fx	N	328 5	77 7	-182 2	56 1	319 0	109 6	-134 7	138 9
Right Femur Fy	N	280 5	94 9	-100 2	53 0	141 2	105 8	-123 4	84 6
Right Femur Fz	N	453 9	52 8	-1509 5	89 9	498 2	76 1	-700 8	106 6
Right Femur Force Resultant	N	1533 1	89 9	0 1	-33 2	764 7	106 6	0 2	-10 7
Right Femur Mx	N-m	21 2	108 9	-115 4	74 6	9 0	238 3	-39 5	67 6
Right Femur My	N-m	48 7	89 0	-19 5	75 2	43 9	110 0	-26 5	67 3
Right Femur Mz	N-m	22 0	64 3	-25 4	76 2	15 3	239 9	12 8	464 3
Right Femur Moment Res.	N-m	118 3	74 6	0 0	-100 0	57 6	100 9	0 0	-82 3

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style

1998 Dodge Neon 4-Door Sedan

NHTSA Test No

RW0314

Test Date

May 31, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Knee Shear Dx	mm	0 5	64 0	-3 5	80 0	0 6	66 0	-0 5	120 0
Right Knee Shear Dx	mm	0 5	70 0	-1 3	81 0	0 7	82 0	-0 4	119 0
Left Upper Tibia Fx	N	411 9	59 5	-640 9	78 3	264 5	65 0	-52 3	119 4
Left Upper Tibia Fz	N	40 9	25 3	-2425 6	61 4	13 2	259 6	-742 4	65 9
Left Upper Tibia Mx	N-m	29 8	114 5	-29 3	75 8	21 1	102 3	-20 0	66 4
Left Upper Tibia My	N-m	43 7	78 1	62 2	60 8	9 3	119 4	-37 8	65 5
Left Lower Tibia Fx	N	11 3	32 3	-1188 9	84 9	64 1	119 1	-298 5	65 3
Left Lower Tibia Fy	N	479 1	79 8	-74 5	180 8	89 1	85 4	-107 7	102 1
Left Lower Tibia Fz	N	27 2	20 8	-4086 6	94 1	17 0	233 6	-908 1	69 8
Left Lower Tibia FR	N	4252 8	82 4	0 2	-44 0	951 5	69 9	0 0	-54 4
Left Lower Tibia Mx	N-m	35 4	110 2	-16 2	59 9	22 6	101 9	-23 3	68 5
Left Lower Tibia My	N-m	52 8	77 9	-63 9	59 3	6 2	119 3	-36 1	65 1
Right Upper Tibia Fx	N	255 8	68 4	-295 0	78 6	212 4	57 5	-22 8	160 6
Right Upper Tibia Fz	N	160 9	56 0	-2137 9	76 7	48 4	145 1	-931 3	111 8
Right Upper Tibia Mx	N-m	12 6	225 6	-84 9	71 4	11 8	240 2	-31 8	71 8
Right Upper Tibia My	N-m	24 9	113 9	-47 2	68 5	6 7	118 7	-31 9	74 9
Right Lower Tibia Fx	N	724 4	74 2	-43 8	225 6	35 7	114 5	-247 8	57 6
Right Lower Tibia Fy	N	13 0	39 4	-802 8	68 7	139 7	69 5	-110 3	105 9
Right Lower Tibia Fz	N	3 4	-56 7	-3790 6	74 3	103 7	158 3	-1184 6	106 5
Right Lower Tibia FR	N	3906 5	74 3	0 1	-39 9	1189 2	106 5	0 1	-72 6
Right Lower Tibia Mx	N-m	5 9	125 0	-67 9	70 9	4 6	242 4	-28 3	73 0
Right Lower Tibia My	N-m	13 8	114 2	-58 5	68 4	2 0	119 6	-31 7	57 2

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES (cont)

Vehicle Year/Make/Model/Body Style 1998 Dodge Neon 4-Door Sedan
 NHTSA Test No RW0314 Test Date May 31, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Tibia Ax	g	4 4	68 5	-86 6	59 4	5 9	119 1	-33 0	64 9
Left Tibia Ay	g	27 6	84 5	-12 2	104 5	18 5	74 3	-17 9	101 7
Right Tibia Ax	g	7 0	114 2	-79 5	68 4	3 9	114 6	-36 9	57 5
Right Tibia Ay	g	62 4	70 6	-11 9	96 2	16 9	66 9	-3 3	120 3
Left Ankle Rotation X	Deg	14 4	143 6	-4 4	-100 2	0 4	263 8	-10 2	89 8
Left Ankle Rotation Y	Deg	34 7	124 4	-1 1	-100 0	-14 1	106 3	-34 1	499 9
Left Ankle Rotation Z	Deg	8 1	114 0	0 8	417 8	-20 9	108 1	-28 4	499 9
Right Ankle Rotation X	Deg	-7 1	-88 6	-34 7	117 8	18 6	145 9	-2 7	75 0
Right Ankle Rotation Y	Deg	28 0	125 4	-5 7	44 6	-7 3	95 6	-22 6	44 5
Right Ankle Rotation Z	Deg	7 5	110 9	-0 1	467 6	30 9	351 1	26 8	283 1
Left Foot Ax	g	52 6	75 4	-108 3	60 7	7 5	126 1	-31 3	89 4
Left Foot Ay	g	37 4	43 8	-22 5	112 7	19 8	495 3	-48 5	149 7
Left Foot Az	g	73 3	65 7	-149 5	58 3	3 4	69 8	-17 2	84 6
Left Foot A Resultant	g	174 1	58 3	0 0	-5 7	59 3	67 8	0 0	-100 0
Right Foot Ax	g	18 3	80 6	-62 3	65 9	4 4	66 0	-52 0	54 7
Right Foot Ay	g	76 2	66 9	-11 8	126 2	13 8	76 3	-65 7	115 8
Right Foot Az	g	37 2	74 2	-94 5	66 9	13 3	52 7	-17 2	56 2
Right Foot A Resultant	g	125 9	66 9	0 0	-83 1	67 4	115 8	0 0	-100 0

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES (cont)

Vehicle Year/Make/Model/Body Style 1998 Dodge Neon 4-Door Sedan

NHTSA Test No RW0314 Test Date May 31, 2001

HEAD INJURY CRITERIA (HIC)				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	967.1***	58.7	93.4	60.0
Position #2 - Passenger	391.5	67.7	103.7	41.2

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

*** Head Y is Questionable

CLIP SUMMARY*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	45.4	64.9	67.9	432.5
Position #2 - Passenger	43.2	73.9	76.9	329.3

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO 8 DUMMY INJURY CRITERIA VALUES (cont)
REDUNDANT DATA

Vehicle Year/Make/Model/Body Style 1998 Dodge Neon 4-Door Sedan
 NHTSA Test No RW0314 Test Date May 31, 2001

HEAD INJURY CRITERIA (HIC) REDUNDANT				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	525.5	59.2	91.2	48.5
Position #2 - Passenger	380.2	67.6	103.6	40.7

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY* REDUNDANT				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	45.3	64.9	67.9	427.7
Position #2 - Passenger	43.6	73.8	76.8	336.0

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO 9 SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA

Belt length from trim panel exit
to bolt hole anchor point for
continuous webbing systems

Driver

Passenger

1981

1995

Shoulder belt length as measured
on Part 572 Dummy

840

840

Lap belt length as measured
on Part 572 Dummy

746

760

Dimensions in millimeters

DATA SHEET NO 10 SUMMARY OF FMVSS 212 DATA

FMVSS NO 212 - "WINDSHIELD MOUNTING" DATA

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC

Windshield is bonded in place and covered with a 17 mm molding

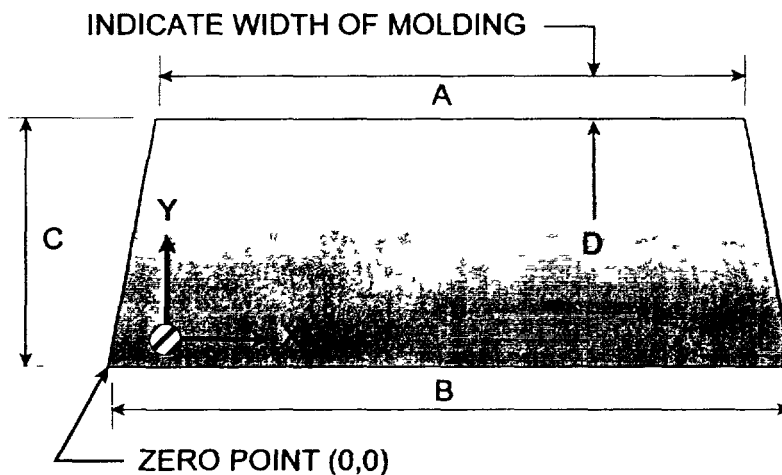
FMVSS 212 REQUIREMENTS

The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of the windshield for vehicles equipped with automatic restraint systems for front occupants,

FMVSS 212 TEST DATA

	WINDSHIELD PERIPHERY		% OF RETENTION
	PRE-TEST (mm)	POST-TEST(mm)	
RIGHT SIDE	2027 5	2027 5	100
LEFT SIDE	2027 5	2027 5	100
TOTAL	4055	4055	100

AREA OF RETENTION FAILURE None



DIMENSIONS (mm)	
A	1075
B	1570
C	705
D	17

FRONT VIEW OF WINDSHIELD

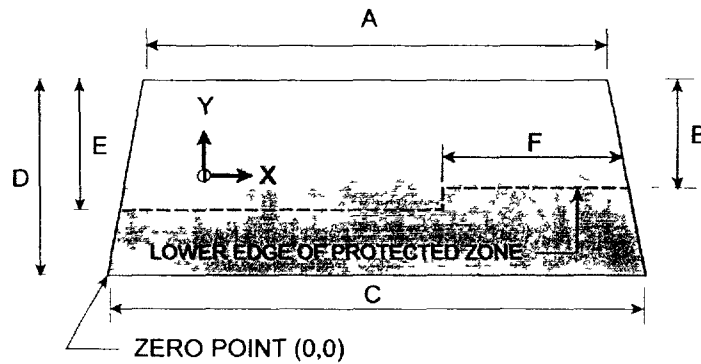
FAILURE DETAILS None

DATA SHEET NO 11 FMVSS NO 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA

PROTECTED ZONE LOWER EDGE REQUIREMENT

The lower edge of the protected zone is determined by placing a 165 mm diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points, extend the locus line horizontally to the edges of the windshield, then draw a line on the inner surface of the windshield below and 13 mm distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection of this line onto the outer surface of the windshield.

FMVSS 219 TEST DATA



DIMENSIONS (mm)	
A	1075
B	485
C	1570
D	705
E	514
F	570

FRONT VIEW OF WINDSHIELD

DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 6 mm None

(Show location of penetration on the above sketch)

	COORDINATES	
	X	Y
1	-	-
2	-	-
3	-	-
4	-	-

DATA SHEET NO 12 FMVSS NO 301-75 "FUEL SYSTEM INTEGRITY" POST IMPACT TEST DATA

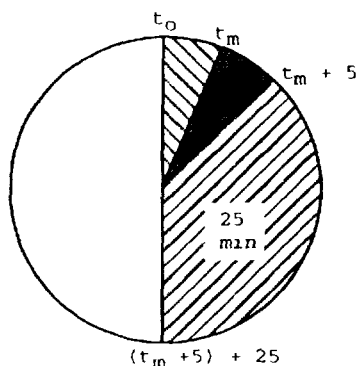
NHTSA TEST No RW0314 TEST DATE May 31, 2001
VEHICLE MAKE/MODEL 1998 Dodge Neon

The test vehicle was filled from 92% to 94% of the manufacture's "usable" capacity The electric fuel pump was operating if it will operate without engine operation Two Part 572 anthropomorphic test devices were located at each of the front designated seating positions

=====

TEST VEHICLE IMPACT TYPE X Offset Frontal (60 kph)
- Oblique (48 kph) with _____ deg barrier face first
 contacting _____
 (driver/passenger) side
- Rear Moving Barrier (48 kph)
- Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT



- 1 From impact until vehicle motion ceases
- 2 For 5 minute period after vehicle motion ceases
- 3 For next 25 minutes

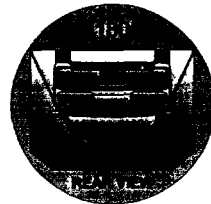
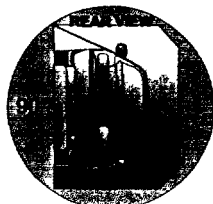
ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min

SOLVENT SPILLAGE DETAILS None

DATA SHEET 13 ROLLOVER DATA

Vehicle 1998 Dodge Neon

NHTSA No RW0314



I DETERMINATION OF SOLVENT COLLECTION TIME PERIOD

Rollover Stage	Rotation Time (spec 1 - 3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	12	seconds	5	minutes	6	minutes	12	seconds	7	minutes
90° - 180°	1	minutes	06	seconds	5	minutes	6	minutes	6	seconds	7	minutes
180° - 270°	1	minutes	01	seconds	5	minutes	6	minutes	1	seconds	7	minutes
270° - 360°	1	minutes	12	seconds	5	minutes	6	minutes	12	seconds	7	minutes

II FMVSS 301 REQUIREMENTS (Maximum allowable solvent spillage)

First 5 minutes from onset of rotation	6th min	7th min	8th min (if required)
142 g	28 g	28 g	28 g

III ACTUAL TEST VEHICLE SOLVENT SPILLAGE

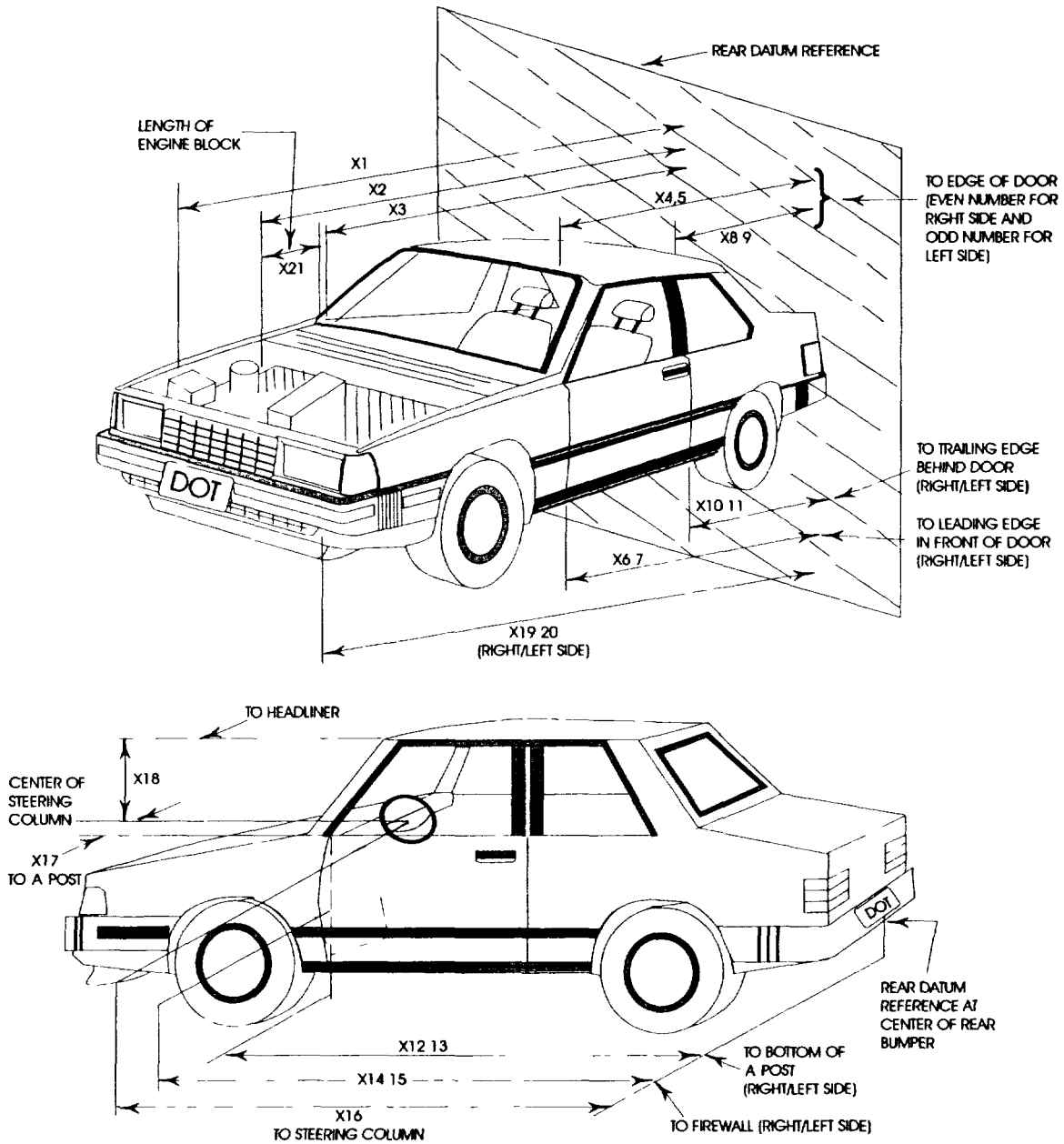
Rollover Stage	First 5 minutes from onset of rotation (g)	6th min (g)	7th min (g)	8th min (if required) (g)
0° - 90°	0	0	0	N/A
90° - 180°	0	0	0	N/A
180° - 270°	0	0	0	N/A
270° - 360°	0	0	0	N/A

Note Record spillage for whole minute intervals only as determined above

IV SOLVENT SPILLAGE LOCATION(S)

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180° - 270°	None
270° - 360°	None

DATA SHEET NO 14 TEST VEHICLE MEASUREMENTS



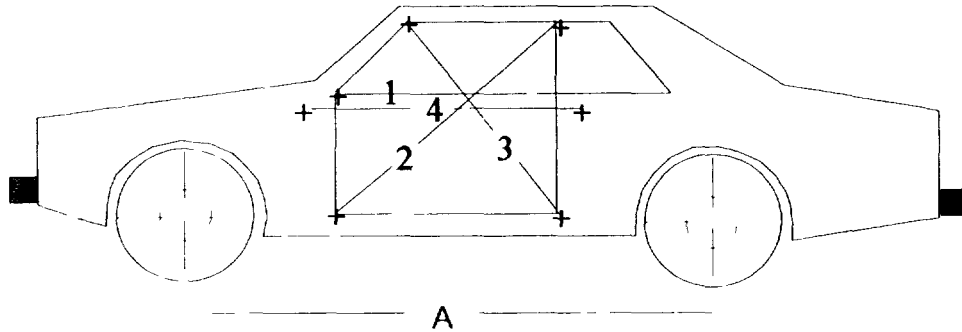
DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont)

No		Pre Test	Post Test	Differences
X1	Total Length of Vehicle at Centerline	4360	3928	432
X2	Rear Surface of Vehicle to Front of Engine	3948	3788	160
X3	Rear Surface of Vehicle to Firewall	3462	3353	109
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	2970	2963	7
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	2964	2888	76
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3019	3026	-7
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3022	2948	74
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	1957	1972	15
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	1956	1924	32
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	1961	1962	1
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	1960	1891	69
X12	Rear Surface of Vehicle to Bottom of A Post of Right Side	3009	3009	0
X13	Rear Surface of Vehicle to Bottom of A Post of Left Side	3030	2869	161
X14	Rear Surface of Vehicle to Firewall Right Side	3339	3312	27
X15	Rear Surface of Vehicle to Firewall Left Side	3341	3198	143
X16	Rear Surface of Vehicle to Steering Column	2539	2425	114
X17	Center of Steering Column to A Post	308	337	29
X18	Center of Steering Column to Headliner	410	490	80
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4287	4191	96
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4290	3677	613
X21	Length of Engine Block	465	465	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	2700	2692	8
CD	Rear Surface of Vehicle to Center of Dash Panel	2724	2642	82
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2701	2579	122

All Dimensions in mm

All measurements taken forward from a lateral plane located at the rearmost point of the vehicle

DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
DOOR OPENING WIDTH

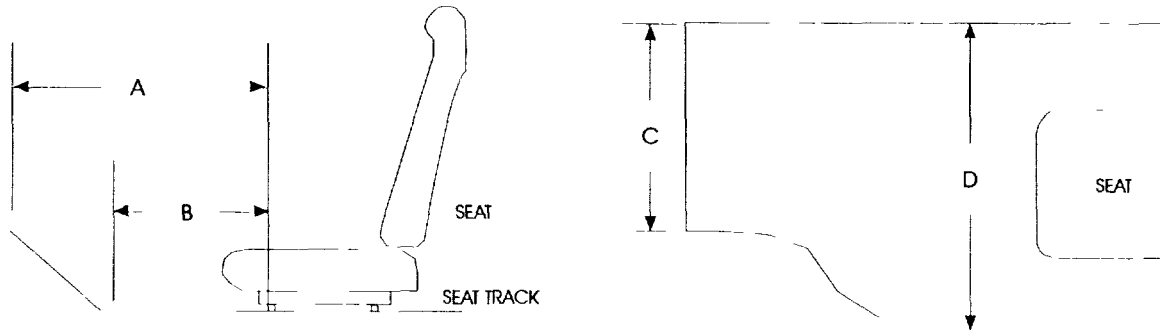


UNITS (mm)	LEFT				RIGHT		
MEASUREMENT	1	2	3	4*	1	2	3
BEFORE TEST	967	1392	934	1037	979	1377	943
AFTER TEST	878	1337	1038	955	979	1382	955
DIFFERENCE	89	55	-104	82	0	-5	-12

* Insurance Institute for Highway Safety (IIHS) measurement for driver's side only

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	2635	2635
AFTER TEST	2390	2715
DIFFERENCE	245	-80

DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
STATIC FOOTWELL DEFORMATION



DRIVER

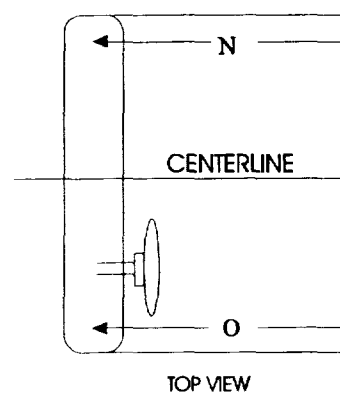
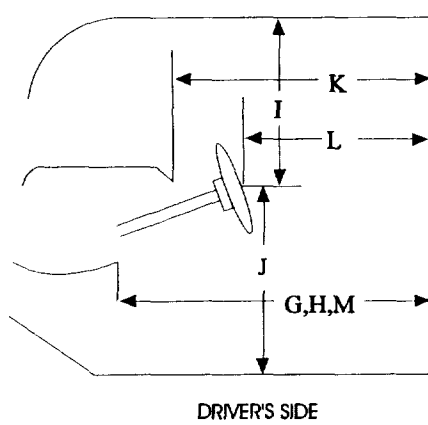
Measurement	Pre-Test	Post-Test	Difference
A	737	599	138
B	560	570	-10
C	467	416	51
D	493	469	24

PASSENGER

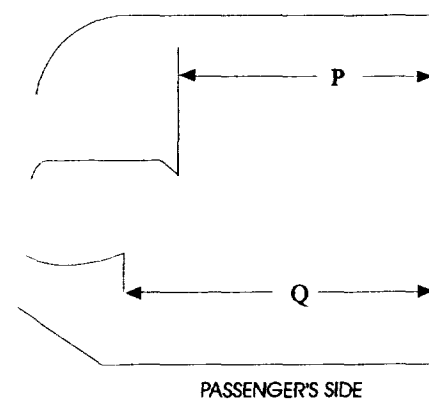
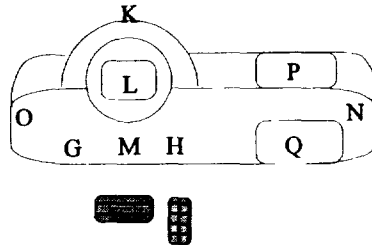
Measurement	Pre-Test	Post-Test	Difference
A	797	782	15
B	601	591	10
C	414	461	-47
D	481	472	9

Units = mm

DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont)
VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION



MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE

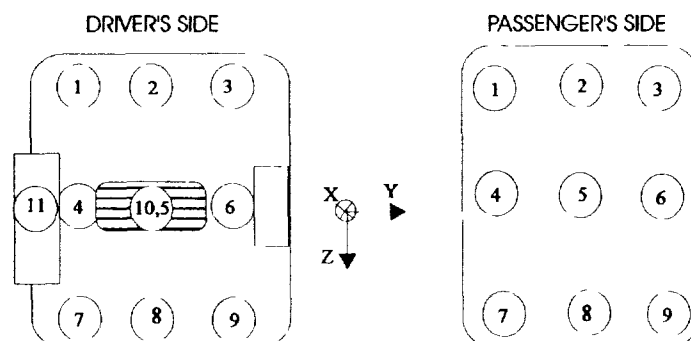


Measurement	Pre-Test	Post-Test	Difference
G*	1707	1663	44
H*	1684	1614	70
I	410	490	-80
J	604	659	-55
K	1708	1568	140
L	1482	1375	107
M	1683	1622	61
N	1657	1650	7
O	1644	1528	116
P = K (PASS)	1715	1682	33
Q = M (PASS)	1750	1726	24

* IIHS measurement locations, 15 cm left and right of steering wheel center 45 cm from floor

Units = mm

DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont.)
TOE PAN INTRUSION



Driver Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Y Deformation (mm)			Z Deformation (mm)		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
1	3239	3041	-198	-485	-528	-43	-374	-403	-29
2	3230	3041	-189	336	-382	-46	-355	382	-27
3	3205	3072	-133	170	-260	-90	-332	-371	-39
4*	3154	2964	-190	-485	-517	32	-290	-314	-24
5*^	3157	2988	-169	-346	-390	-44	-290	-288	2
6*	3100	3015	85	-157	-305	-148	-246	163	83
7	3041	3003	-38	-496	-553	-57	-215	-206	9
8	3053	3013	-40	-341	-419	-78	-216	-181	35
9	3016	2982	-34	-190	251	-61	-201	-173	28
10	3064	2900	-164	345	-409	-64	-422	-475	-53
11*	3132	2979	-153	-578	-642	64	-399	-442	-43

Passenger Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Y Deformation (mm)			Z Deformation (mm)		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
1	3262	3223	-39	201	211	10	-414	-410	4
2	3262	3239	-23	357	312	-45	-408	-426	-18
3	3225	3204	-21	491	465	-26	-444	-440	4
4	3163	3120	-43	213	169	-44	-294	-310	-16
5	3178	3166	-12	358	320	-38	-298	-290	8
6	3164	3169	5	508	448	60	-312	-316	-4
7	3053	3020	-33	207	161	-46	-208	-188	20
8	3065	3048	-17	357	315	-42	-211	-193	18
9	3064	3064	0	516	495	-21	-211	-194	17

Reference (SAE) X = Rear Bumper (pos forward), Y = Vehicle Centerline (pos right), Z = Ground (pos down)

* IIHS measurement locations

*^ IIHS measurement located directly behind 10 (brake pedal center) on the vehicle floorpan in same vertical plane

DATA SHEET NO 14 VEHICLE MEASUREMENTS (cont.)
INSURANCE INSTITUTE MEASUREMENT LOCATION AND FLOOR PAN DEFORMATION DATA

IIHS Measurement Location Data

Meas Loc*	X Measurement (mm)			Y Measurement (mm)			Z Measurement (mm)		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
1	2539	2425	-114	-351	-332	19	-832	-827	5
2	2764	2713	-51	-513	-201	312	-664	-637	27
3	2741	2665	-76	-198	-465	-267	-657	-676	-19
4	3064	2900	-164	-345	-409	-64	-422	-475	-53
5	3154	2964	-190	-485	-517	-32	-290	-314	-24
6	3157	2988	-169	-346	-390	-44	-290	-288	2
7	3100	3015	-85	-157	-305	-148	-246	-163	83
8	3132	2979	-153	-578	-642	-64	-399	-442	-43
17	3004	2891	-113	-733	-783	-50	-867	-862	5
18	1968	1939	-29	-760	-774	-14	-825	-798	27

Floor Pan Deformation Measurement Data

Meas Loc**	X Measurement (mm)			Y Measurement (mm)			Z Measurement (mm)		
	Pre	Post	Δ	Pre	Post	Δ	Pre	Post	Δ
1	3010	2952	-58	-511	-545	-34	-228	-282	-54
2	3013	2961	-52	-363	-419	-56	-227	-256	-29
3	3002	2948	-54	-210	-257	-47	-220	-258	-38
4	2911	2876	-35	-515	-555	-40	-227	-223	4
5	2902	2880	-22	-362	-402	-40	-226	-198	28
6	2897	2876	-21	-211	-269	-58	-219	-194	25
7	2807	2791	-16	-501	-557	-56	-226	-200	26
8	2804	2788	-16	-350	-399	-49	-227	-184	43
9	2805	2762	-43	-197	-268	-71	-229	-183	46

Reference (SAE) X = Rear Bumper (pos forward), Y = Vehicle Centerline (pos right), Z = Ground (pos down)

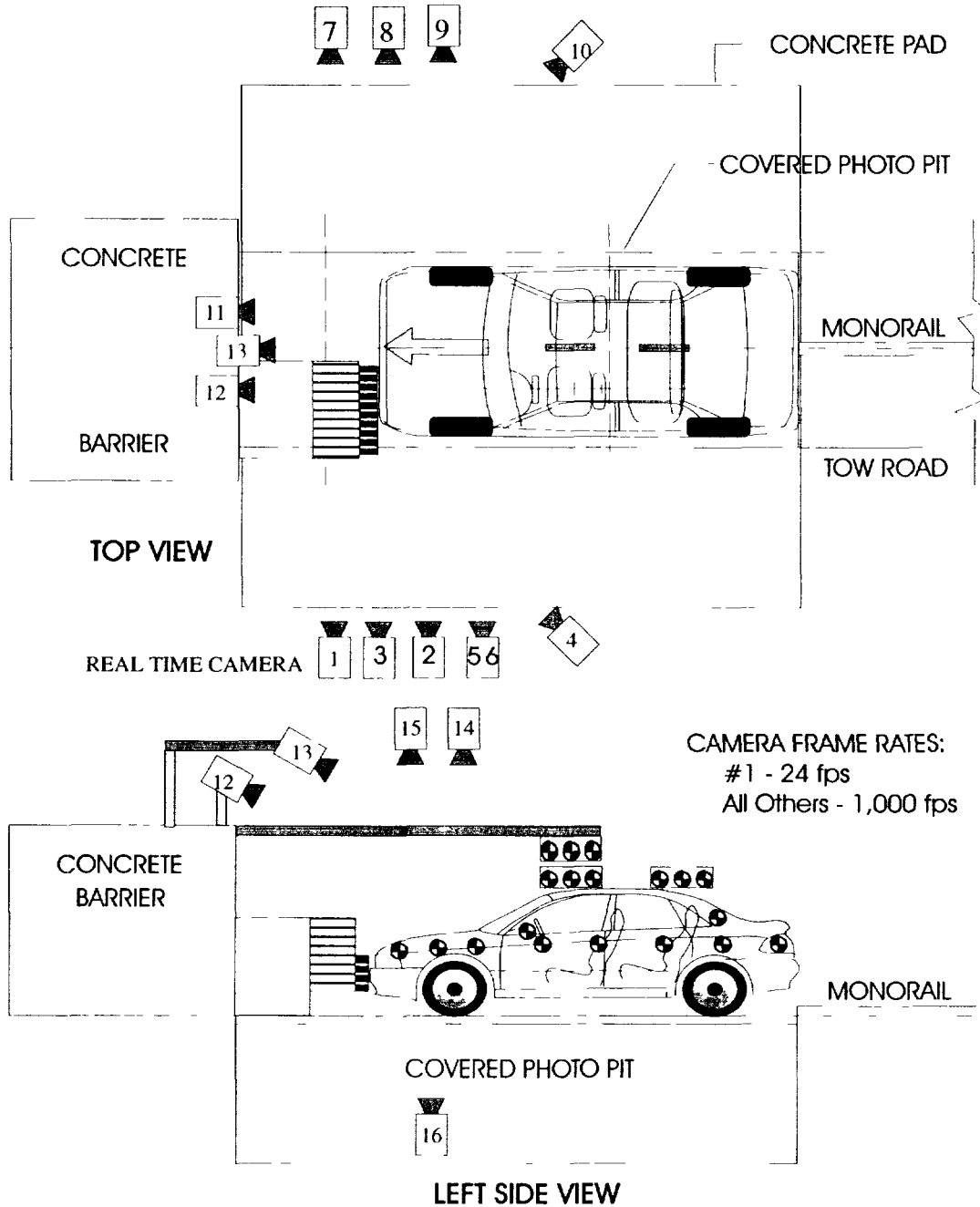
Measurement Location Descriptions*

- 1 Steering Column - Geometric center of the steering wheel on airbag door
- 2 Lower Instrument Panel Left - Taken 45 cm above floorpan and 15 cm to the left of the steering wheel center
- 3 Lower Instrument Panel Right - Taken 45 cm above floorpan and 15 cm to the right of the steering wheel center
- 4 Brake Pedal - Geometric center of the brake pedal
- 5 Toepan Left - Taken 15 cm to the left of the brake pedal center on the same vertical plane on the vehicle toepan
- 6 Toepan Center - Taken directly behind the brake pedal center on the same vertical plane on the vehicle toepan
- 7 Toepan Right - Taken 15 cm to the right of the brake pedal center on the same vertical plane on the vehicle toepan
- 8 Left Footrest - Taken 25 cm to the left of the brake pedal center on the same vertical plane on the vehicle toepan
- 17 A-pillar - Taken on the vehicle exterior at the same vertical coordinate as the base on the left front window
- 18 B-pillar - Taken on the vehicle exterior at the same vertical coordinate as the lower A-pillar mark

** There is an equal spaced 3 x 3 floor pan matrix. Position 1 is floor pan left side forwardmost position, Position 9 is located on the right side rearmost position of the 3 x 3 grid

DATA SHEET NO 15 HIGH-SPEED CAMERA LOCATIONS

NOTE Camera information shown in DATA SHEET NO 15



DATA SHEET NO 15 HIGH-SPEED CAMERA LOCATIONS (cont)

NHTSA Test No RW0314 Vehicle 1998 Dodge Neon 4-Door Sedan

CAMERA NO	VIEW	CAMERA POSITIONS (mm)*			ANGLE (deg)**	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Camera	-				-	-	24
2	Overall Left Side	6646	1495	1110	4	6246	13	1015
3	Left Side View	8580	1455	1053	-3	8180	25	1005
4	Driver and Interior View	7620	2643	1962	10	-	35	1050
5	Steering Column (Bottom)	7620	1784	1177	5	7220	25	1005
6	Steering Column (Top)	7620	1784	1777	10	7220	25	1005
7	Overall Right Side View	7196	1350	1089	-3	6207	12.5	1005
8	Right Side View	9704	930	1085	2	9304	25	1000
9	Right Passenger View	8434	1115	1316	4	8034	35	1005
10	Passenger and Interior View	7969	2230	1967	10		35	1000
11	Passenger Front View	442	1300	1039	29	-	13	1005
12	Driver Front View	440	-1291	1043	29		13	1000
13	Windshield View	0	1910	3374	44		13	1000
14	Overhead Overall View	0	156	4880	90	-	12.5	1000
15	Overhead Close Up View	0	323	4880	90	-	25	1005
16	Pit View of Engine	0	1220	3048	90		13	1000

*X = film plane to monorail centerline

Y = film plane to impact location

Z = film plane to ground

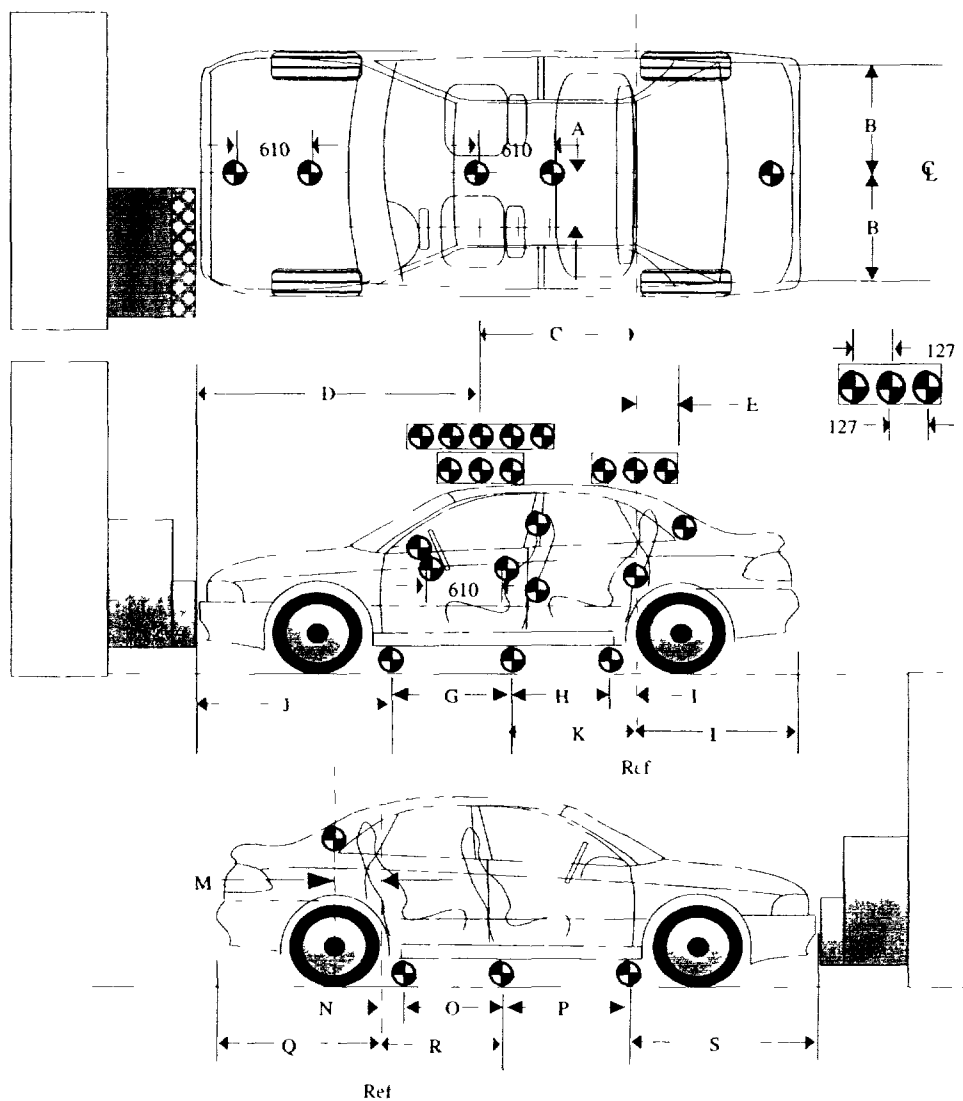
** = referenced to horizontal plane

N T indicates No Timing

DATA SHEET NO 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

(Dimensions in millimeters)

A	324
B	636
C	913
D	2134
E	390
F	1423
G	956
H	877
I	105
J	1264
K	982
L	1156
M	384
N	136
O	917
P	910
Q	1127
R	1053
S	1225



DATA SHEET NO 18 POST TEST AIR BAG DATA

NHTSA No RW0314, Test Date May 31, 2001, Technician Patrick MacDiarmid

Vehicle Model Year/Make/Model 1998 Dodge Neon

A No of vent holes 2 -Driver 1 -Passenger

B Size of vent holes (mm²) 314 16 -Driver 3318 3 -Passenger

C Total vent area (mm²) 628 32 -Driver 3318 3 -Passenger

D Deflated air bag length and width dimensions or, if round, diameter (mm)

Driver 500 -Height, 610 -Width, 420 -Depth

Passenger 620 -Height, 445 -Width, 600 -Depth

E Is the air bag tethered?

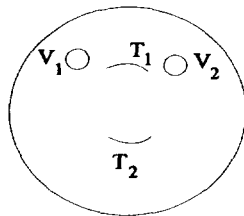
Driver X -Yes, - -No, If yes, record length of tether- 250

Passenger X -Yes, - -No, If yes, record length of tether- 320

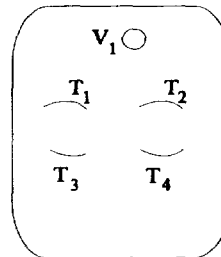
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered Also describe how the tethers are attached to the bag and the steering wheel

(Note Not to scale, V_n = Vent hole_n, T_n = Tether_n)

Driver



Passenger



F Record part numbers and manufacturer name of the air bag and gas generator

Driver Air bag X 1301056B

Generator -

Passenger Air bag WC46069 L1O511 P/N 2000707M

Generator TCOPT0838J1322 PORN822A2AC 04664208

DATA SHEET NO 18 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style Dodge Neon 4-Door Sedan

NHTSA Test No RW0314 VIN 1B3ES47C8WD642041

Model Year 1998 Build Date 3/98 Test Date May 31, 2001

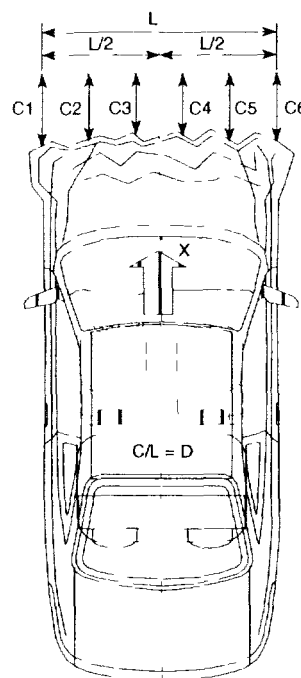
Vehicle Size Category Compact Test Weight 1313.0 kg

Vehicle Wheelbase 2635 mm, Front Overhang 859 mm, Overall Width 1715 mm

Collision Deformation Classification (CDC) Code 12FDEW4

Crush Depth Dimensions,

	PRE	POST	DIFF	
C1 =	4220	3559	-661.0	mm
C2 =	4318	3734	-584.0	mm
C3 =	4351	3878	-473.0	mm
C4 =	4347	4018	-329.0	mm
C5 =	4317	4146	-171.0	mm
C6 =	4221	4221	0.0	mm



Midpoint of Damage $D = \frac{\text{Vehicle Centerline}}{\text{(Longitudinal)}}$

Length of Damaged Region

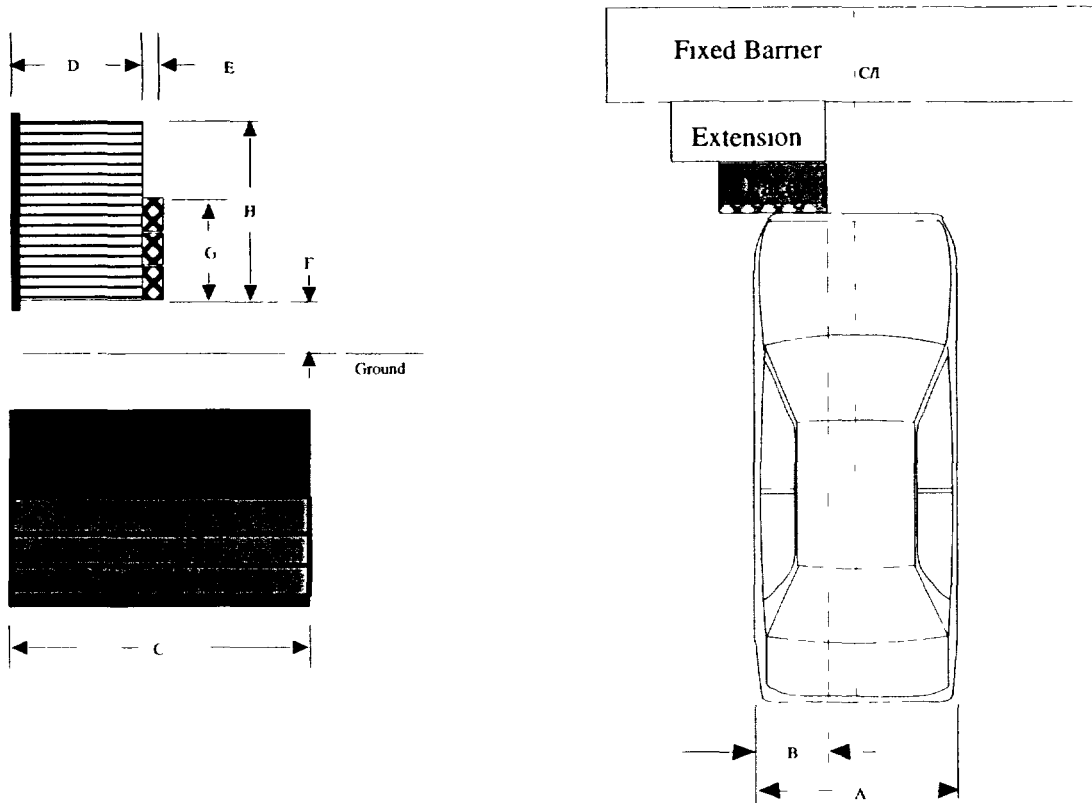
L1= 1250 mm

L2= 625.0 mm

L3= 416.7 mm

DATA SHEET NO 19 OFFSET BARRIER AND VEHICLE ORIENTATION

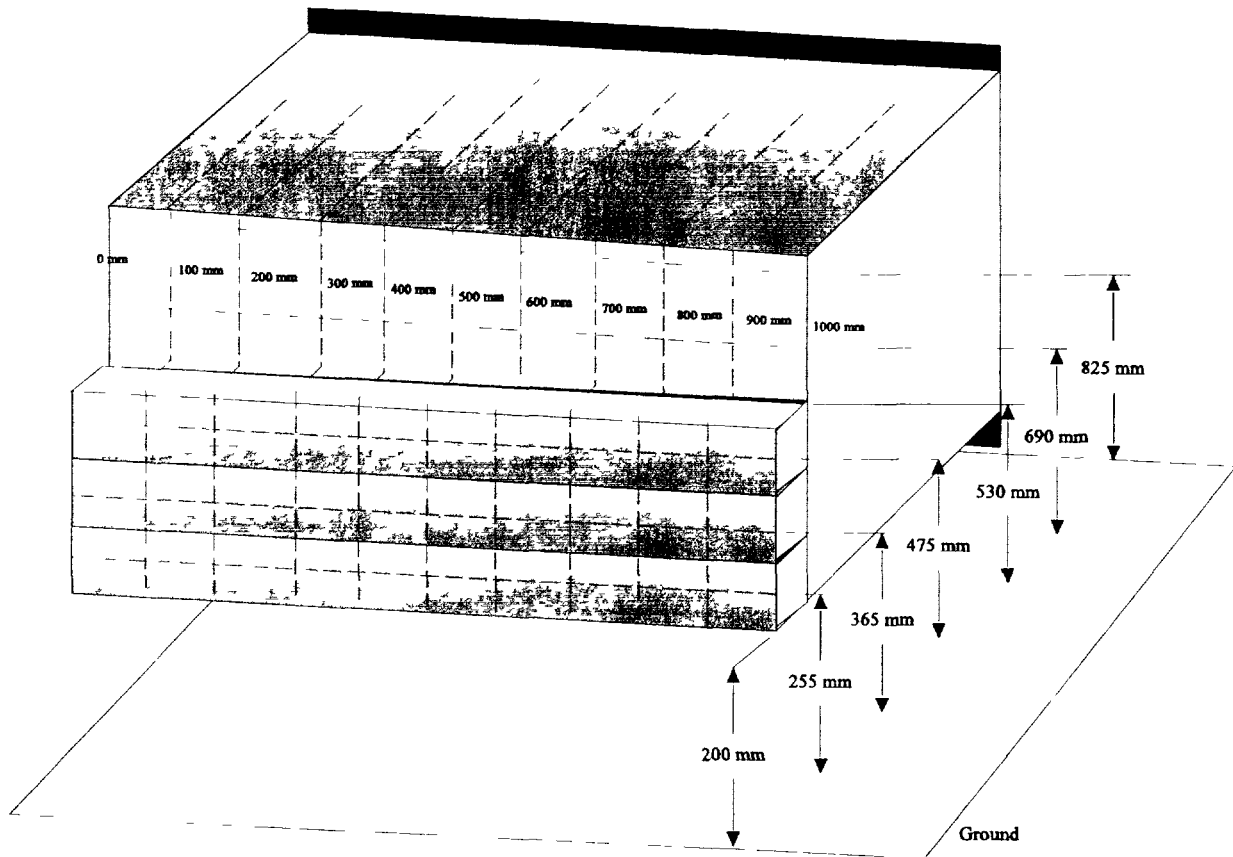
NHTSA Test No RW0314 Vehicle 1998 Dodge Neon 4-Door Sedan
 Barrier Manufacturer and Serial Number Plascore, Inc 06A0600-1C 199C0300



A	Total Vehicle Width	<u> 1715 </u>	mm
B	40% Overlap Distance	<u> 686.0 </u>	mm
C	Deformable Face Width	<u> 1000 </u>	mm
D	Single Stage Honeycomb Depth	<u> 450 </u>	mm
E	Bumper Element Depth	<u> 90 </u>	mm
F	Lower Edge Height From Ground	<u> 200 </u>	mm
G*	Bumper Element Height	<u> 330 </u>	mm
H	Deformable Barrier Honeycomb Height	<u> 650 </u>	mm

* The bumper element consists of three 110 mm height blocks of 1 723 MPa honeycomb

Offset Barrier Measurement Locations



DATA SHEET NO 20 OFFSET BARRIER DEFORMATION (continued)

EXTERIOR STATIC CRUSH FOR BARRIER FACE
(Grid as looking at barrier from front)

Vehicle 1998 Dodge Neon

NHTSA No RW0314

NOTE All dimensions are in millimeters with a tolerance of ± 3 mm

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)						DISTANCE LEFT OF CENTER (mm)				
			500	400	300	200	100		100	200	300	400	500
LEVEL 6 TOP STACK	825	PRE	546	546	546	546	546		546	546	546	546	546
		POST	524	529	536	542	561		710	690	716	754	813
		CRUSH	22	17	-10	4	15		164	144	170	208	267
LEVEL 5 MID STACK	687	PRE	546	546	546	546	546		546	546	546	546	546
		POST	522	536	548	574	820		740	727	788	839	903
		CRUSH	24	10	2	28	274		194	181	242	293	357
LEVEL 4 TOP BUMPER	530	PRE	546	546	546	546	546		546	546	546	546	546
		POST	545	538	554	607	678		791	840	893	914	946
		CRUSH	1	8	8	61	132		245	294	347	368	400
LEVEL 3 BUMPER TOP	475	PRE	456	456	456	456	456		456	456	456	456	456
		POST	424	465	499	578	622		749	792	845	897	955
		CRUSH	-32	9	43	122	166		293	336	389	441	499
LEVEL 2 BUMPER MID	365	PRE	456	456	456	456	456		456	456	456	456	456
		POST	391	459	517	603	663		767	819	867	908	957
		CRUSH	65	3	61	147	207		311	363	411	452	501
LEVEL 1 BUMPER LOW	255	PRE	456	456	456	456	456		456	456	456	456	456
		POST	405	465	523	591	641		768	811	851	890	923
		CRUSH	-51	9	67	135	185		312	355	395	434	467

*Heights measured above ground level

APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
A-1	PRE-TEST FRONT VIEW	A-3
A-2	POST-TEST FRONT VIEW	A-4
A-3	PRE-TEST LEFT SIDE VIEW	A-5
A-4	POST-TEST LEFT SIDE VIEW	A-6
A-5	PRE-TEST RIGHT SIDE VIEW	A-7
A-6	POST-TEST RIGHT SIDE VIEW	A-8
A-7	PRE-TEST RIGHT FRONT THREE-QUARTER VIEW	A-9
A-8	POST-TEST RIGHT FRONT THREE-QUARTER VIEW	A-10
A-9	PRE-TEST LEFT REAR THREE-QUARTER VIEW	A-11
A-10	POST-TEST LEFT REAR THREE-QUARTER VIEW	A-12
A-11	PRE-TEST WINDSHIELD VIEW	A-13
A-12	POST-TEST WINDSHIELD VIEW	A-14
A-13	PRE-TEST ENGINE COMPARTMENT VIEW	A-15
A-14	FUEL CAP VIEW	A-16
A-15	PRE-TEST FRONT UNDERBODY VIEW	A-17
A-16	POST-TEST FRONT UNDERBODY VIEW	A-18
A-17	PRE-TEST FRONT SIDE UNDERBODY VIEW	A-19
A-18	POST-TEST FRONT SIDE UNDERBODY VIEW	A-20
A-19	PRE-TEST REAR UNDERBODY VIEW	A-21
A-20	POST-TEST REAR UNDERBODY VIEW	A-22
A-21	PRE-TEST DRIVER POSITION VIEW	A-23
A-22	POST-TEST DRIVER POSITION VIEW	A-24
A-23	PRE-TEST PASSENGER POSITION VIEW	A-25
A-24	POST-TEST PASSENGER POSITION VIEW	A-26
A-25	PRE-TEST DRIVER AND INTERIOR VIEW	A-27
A-26	POST-TEST DRIVER AND INTERIOR VIEW	A-28
A-27	PRE-TEST PASSENGER AND INTERIOR VIEW	A-29
A-28	POST-TEST PASSENGER AND INTERIOR VIEW	A-30
A-29	PRE-TEST DRIVER HEAD LOCATION	A-31
A-30	POST-TEST DRIVER HEAD LOCATION	A-32
A-31	PRE-TEST PASSENGER HEAD LOCATION	A-33
A-32	POST-TEST PASSENGER HEAD LOCATION	A-34
A-33	PRE-TEST DRIVER FLOOR PAN VIEW	A-35
A-34	POST-TEST DRIVER FLOOR PAN VIEW	A-36
A-35	PRE-TEST PASSENGER FLOOR PAN VIEW	A-37
A-36	POST-TEST PASSENGER FLOOR PAN VIEW	A-38
A-37	PRE-TEST BARRIER FRONT VIEW	A-39
A-38	POST-TEST BARRIER FRONT VIEW	A-40
A-39	PRE-TEST BARRIER LEFT SIDE VIEW	A-41
A-40	POST-TEST BARRIER LEFT SIDE VIEW	A-42
A-41	PRE-TEST BARRIER RIGHT SIDE VIEW	A-43
A-42	POST-TEST BARRIER RIGHT SIDE VIEW	A-44
A-43	PRE-TEST BARRIER TOP VIEW	A-45
A-44	POST-TEST BARRIER TOP VIEW	A-46
A-45	POST-TEST OVERHEAD VIEW	A-47
A-46	ROLLOVER VIEW	A-48
A-47	IMPACT VIEW	A-49



Figure A-2 POST-TEST FRONT VIEW



Figure A-3 PRE-TEST LEFT SIDE VIEW

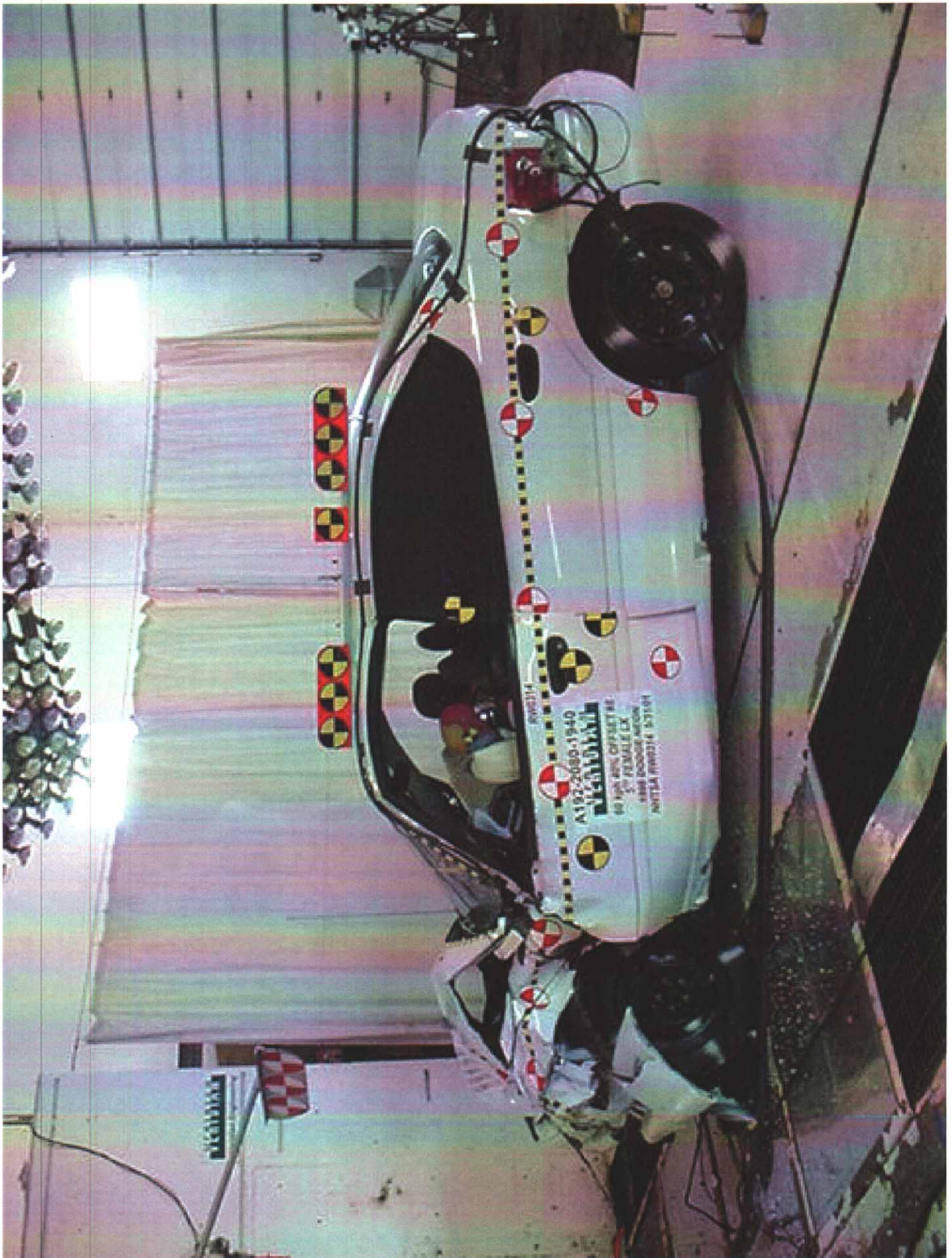


Figure A-4 POST-TEST LEFT SIDE VIEW

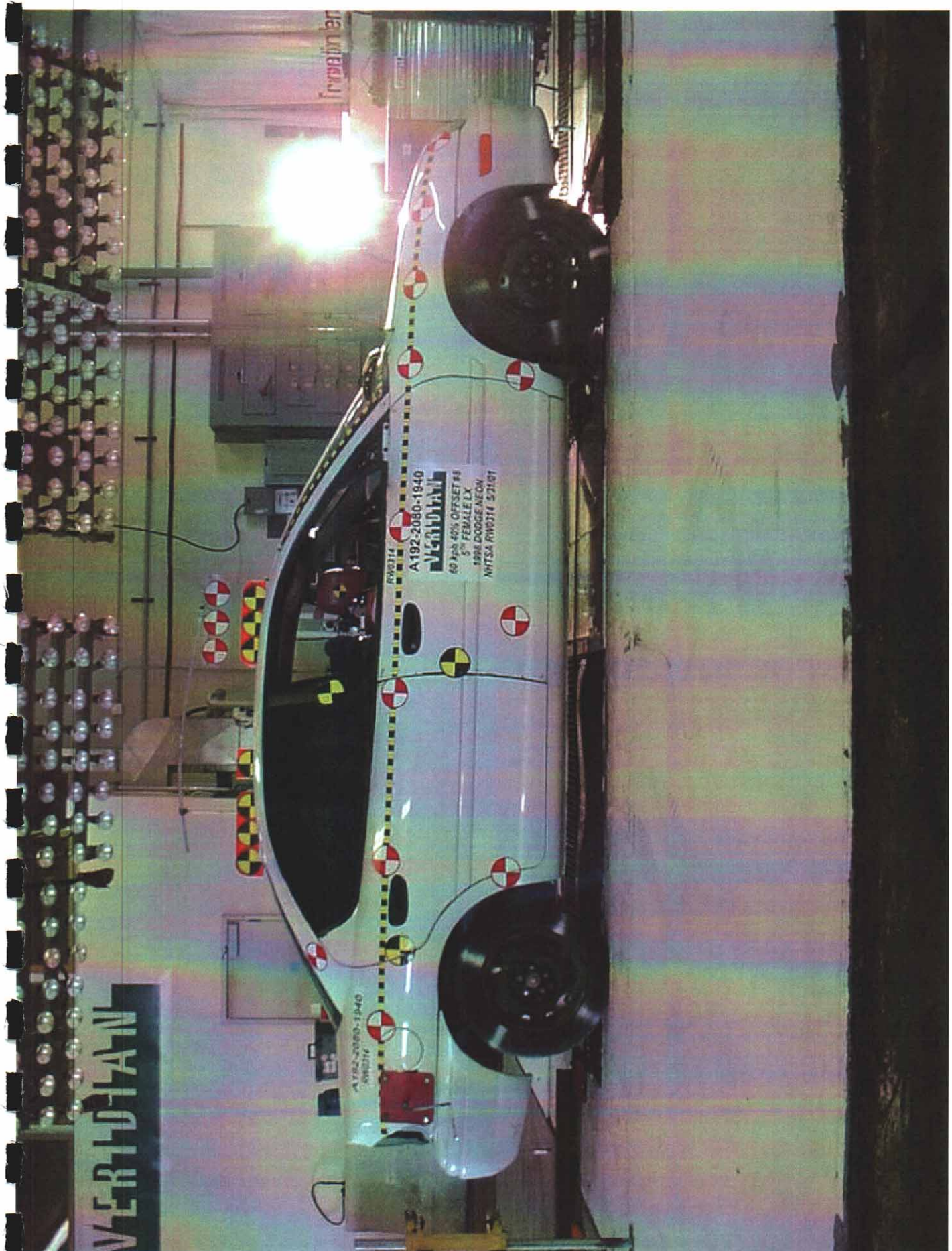


Figure A-5 PRE-TEST RIGHT SIDE VIEW

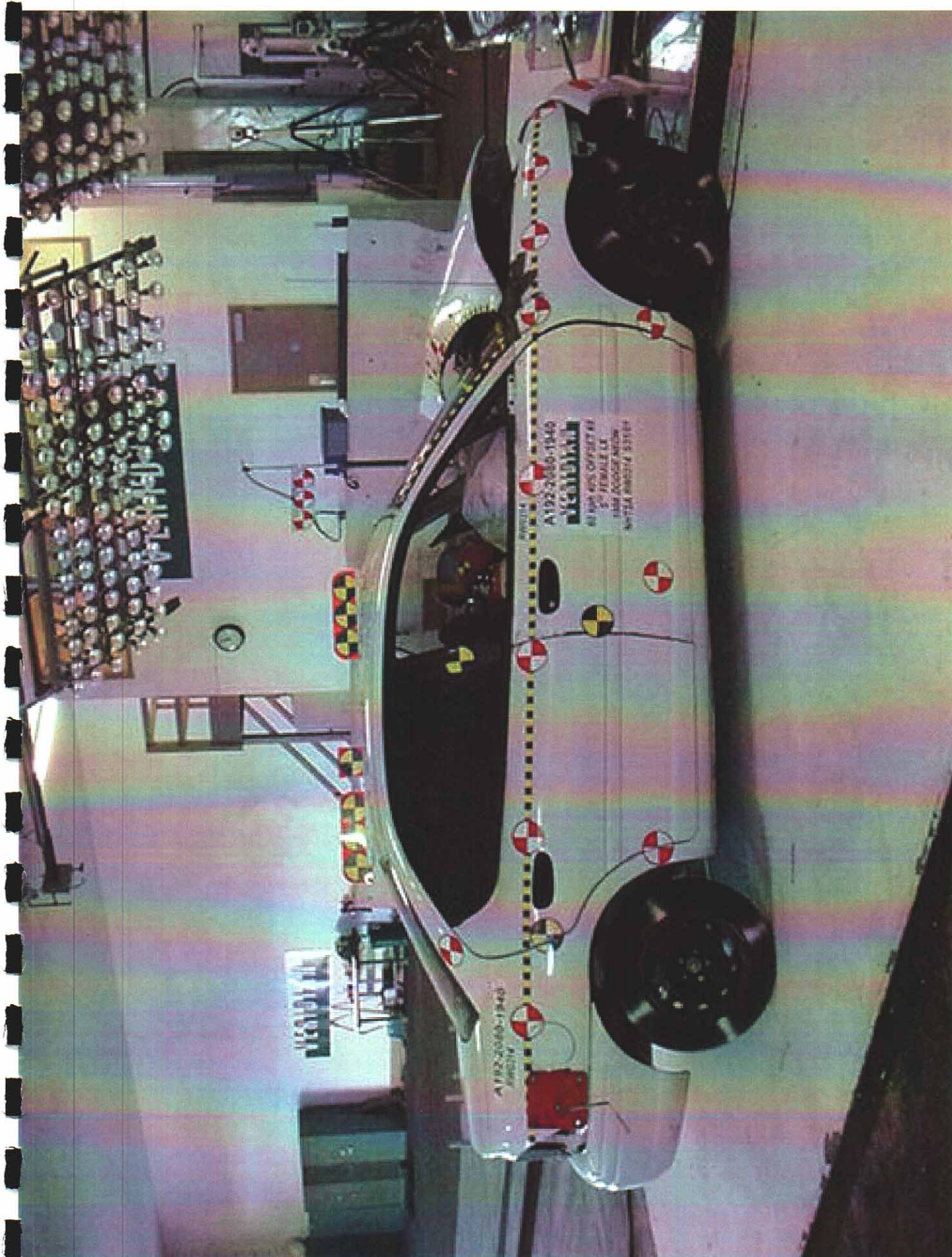


Figure A-6 POST-TEST RIGHT SIDE VIEW



Figure A-7 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-8 POST-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-9 PRE-TEST LEFT REAR THREE-QUARTER VIEW

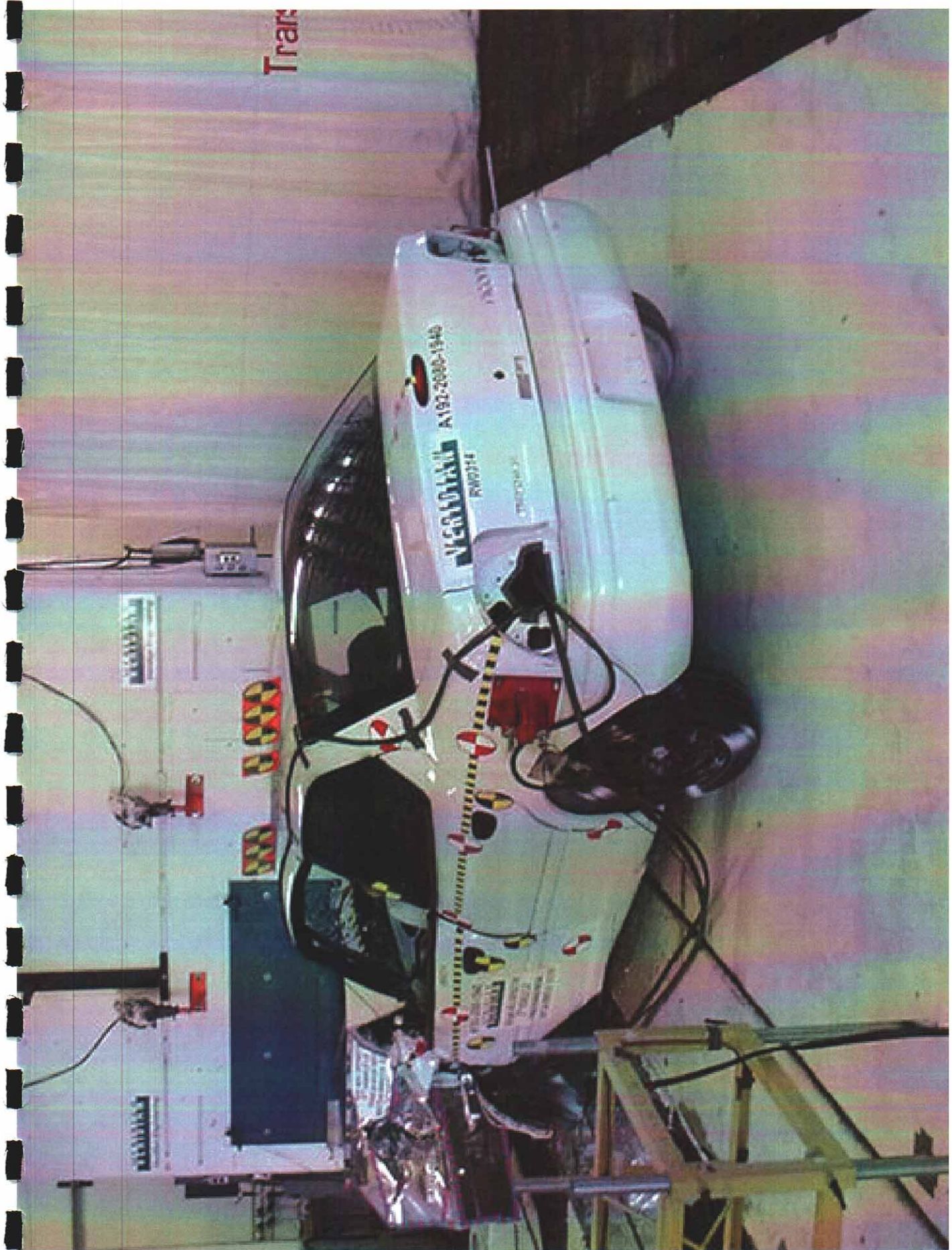


Figure A-10 POST-TEST LEFT REAR THREE-QUARTER VIEW

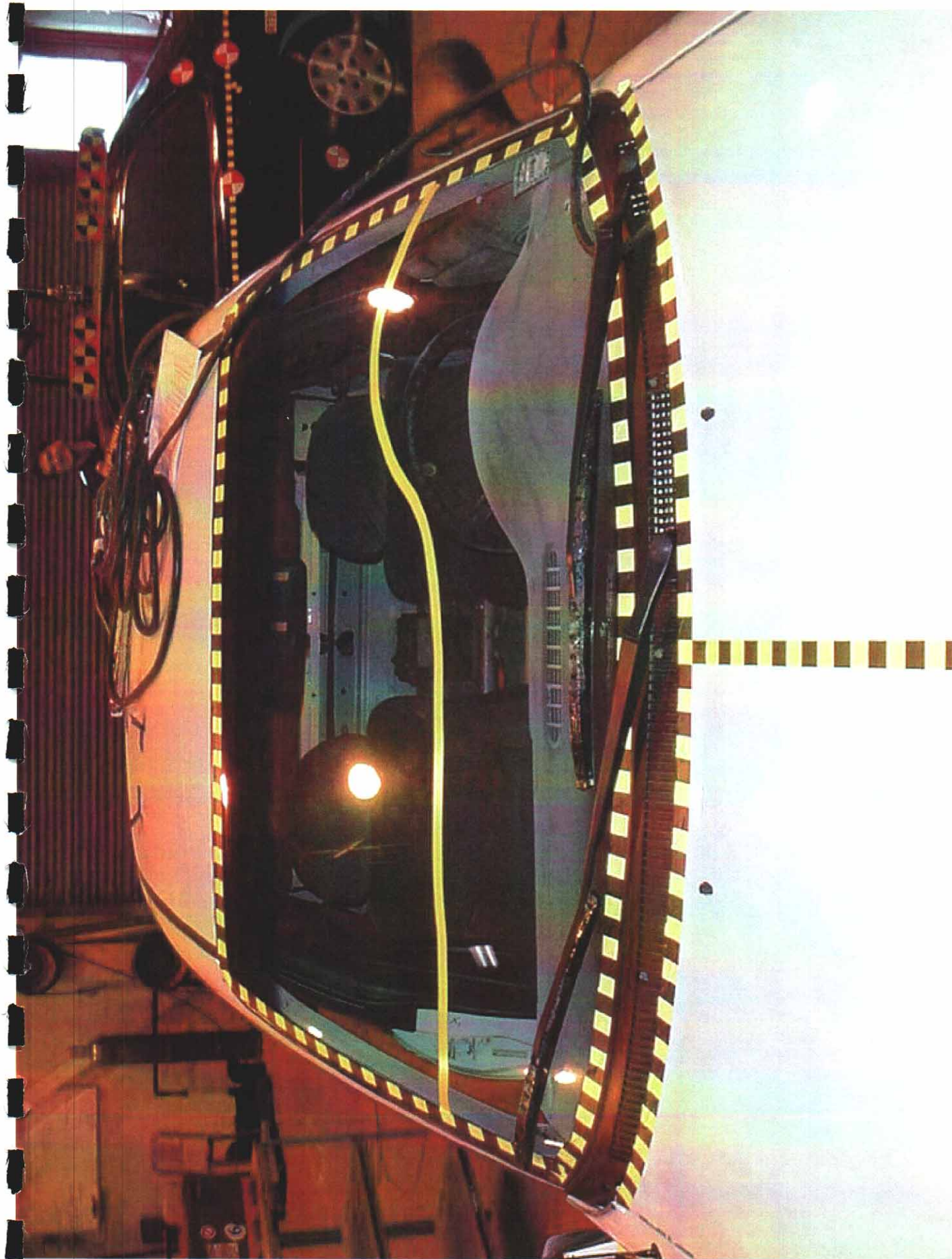


Figure A-11 PRE-TEST WINDSHIELD VIEW



Figure A-12 POST-TEST WINDSHIELD VIEW

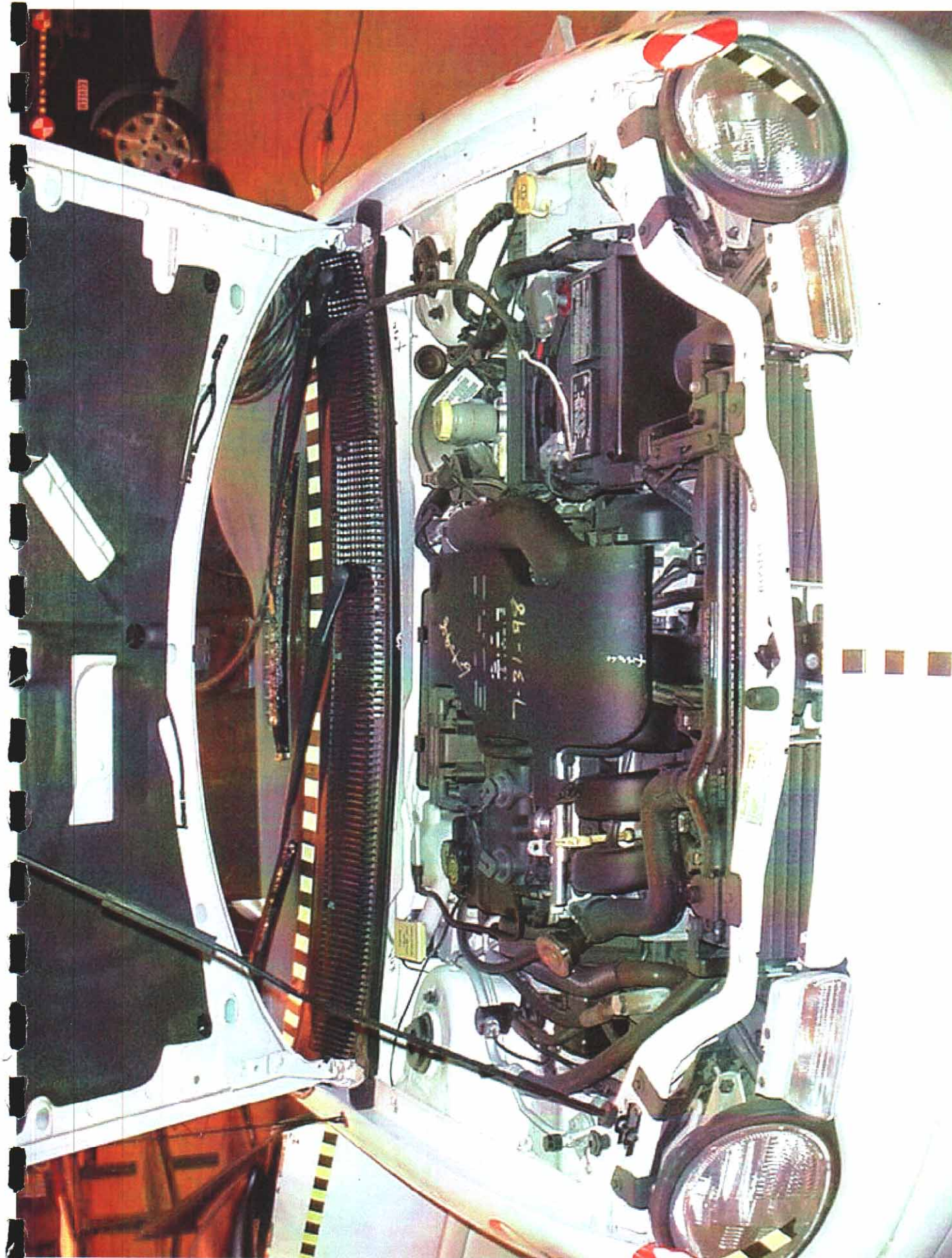


Figure A-13 PRE-TEST ENGINE COMPARTMENT VIEW

A192-2080-1940

RW0314



Figure A-14 FUEL CAP VIEW



Figure A-15 PRE-TEST FRONT UNDERBODY VIEW



Figure A-16 POST-TEST FRONT UNDERBODY VIEW

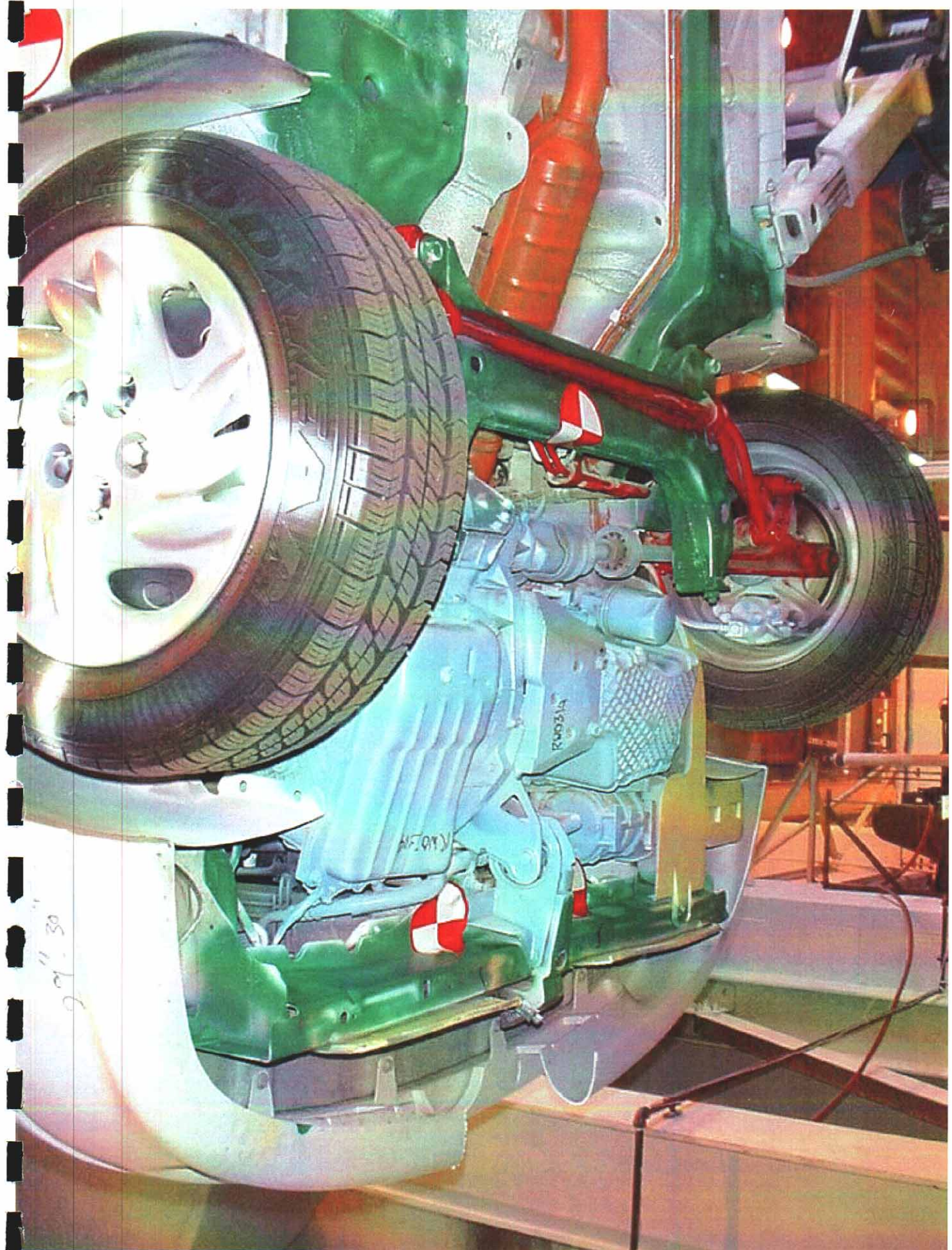


Figure A-17 PRE-TEST FRONT SIDE UNDERBODY VIEW

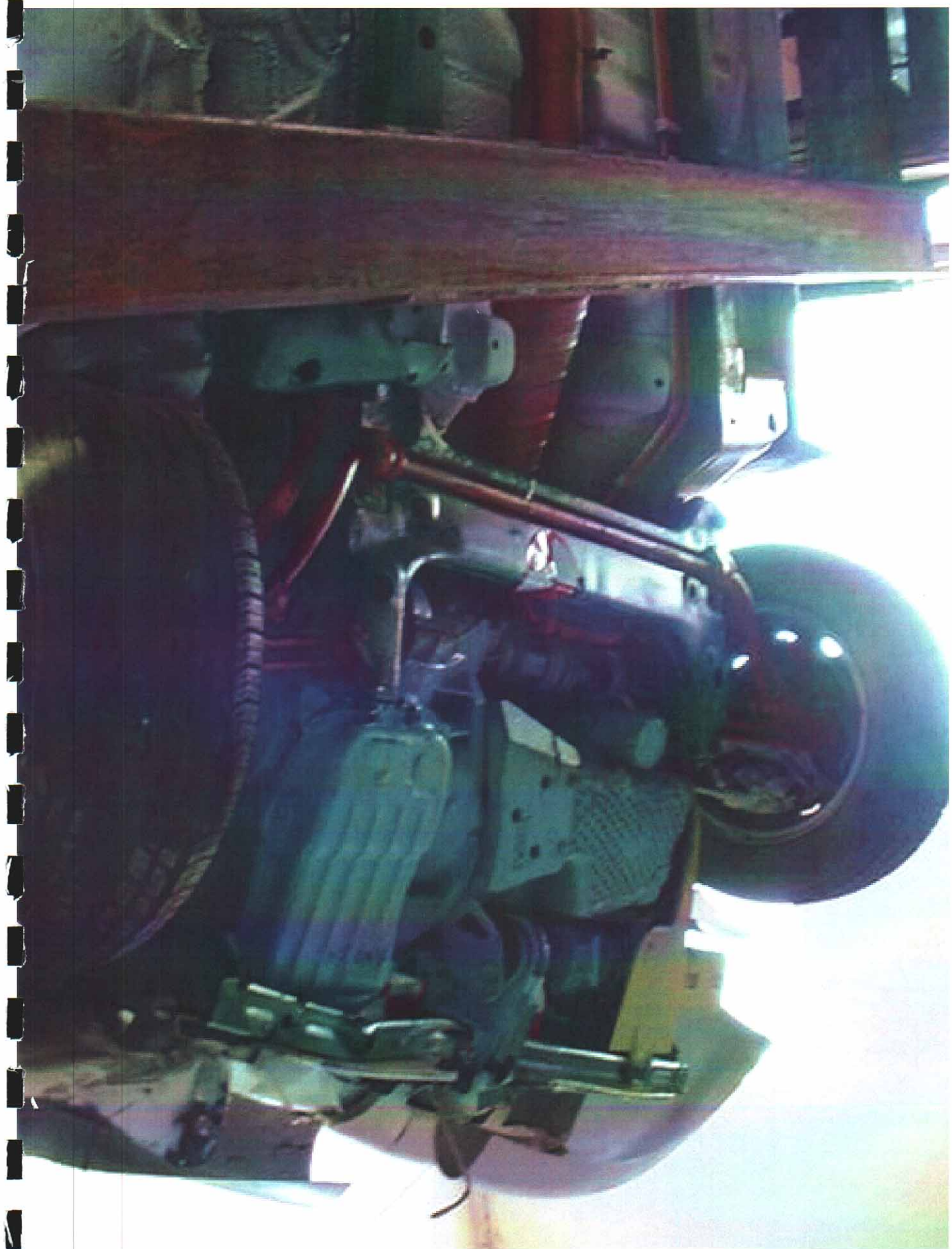


Figure A-18 POST-TEST FRONT SIDE UNDERBODY VIEW

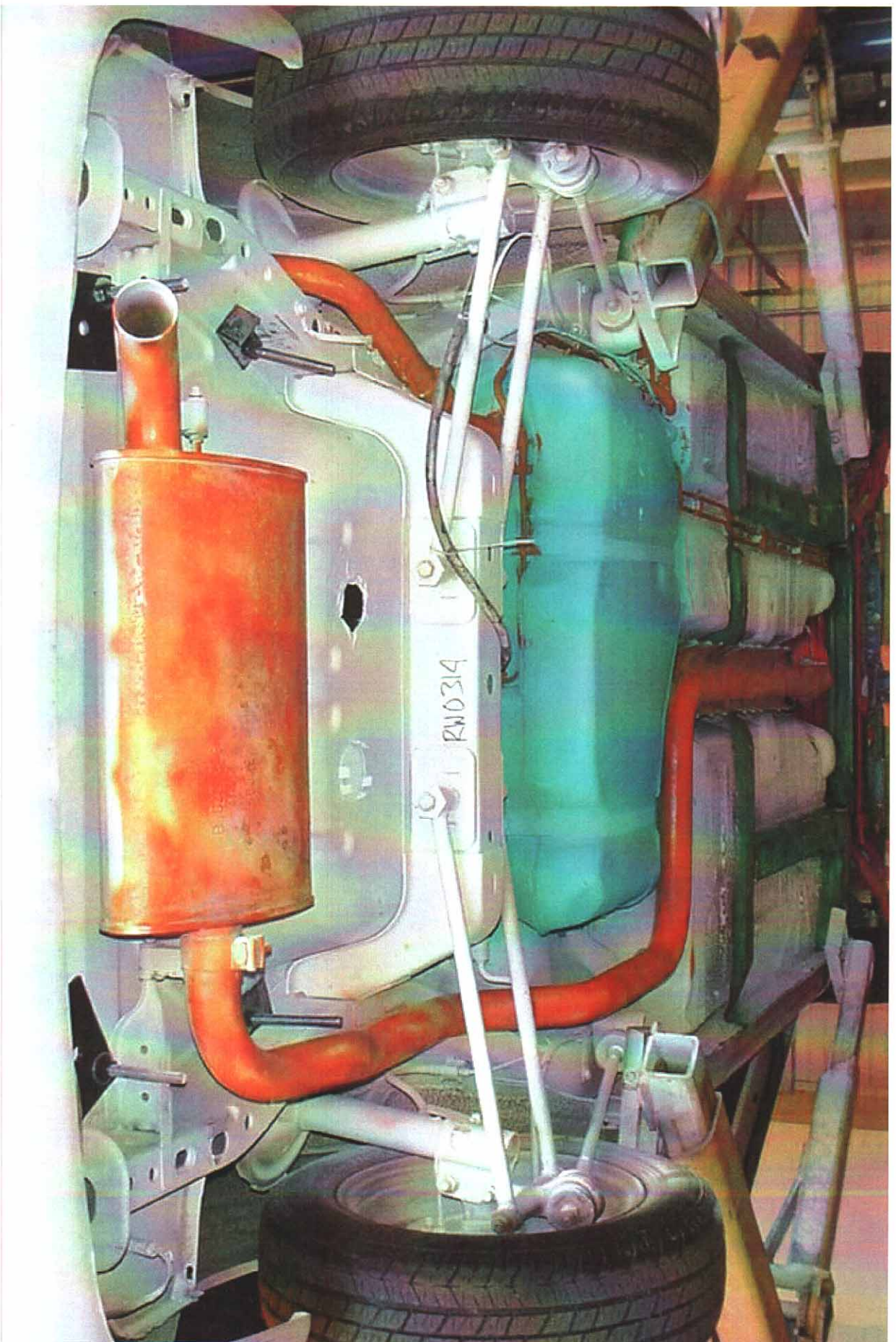


Figure A-19 PRE-TEST REAR UNDERBODY VIEW

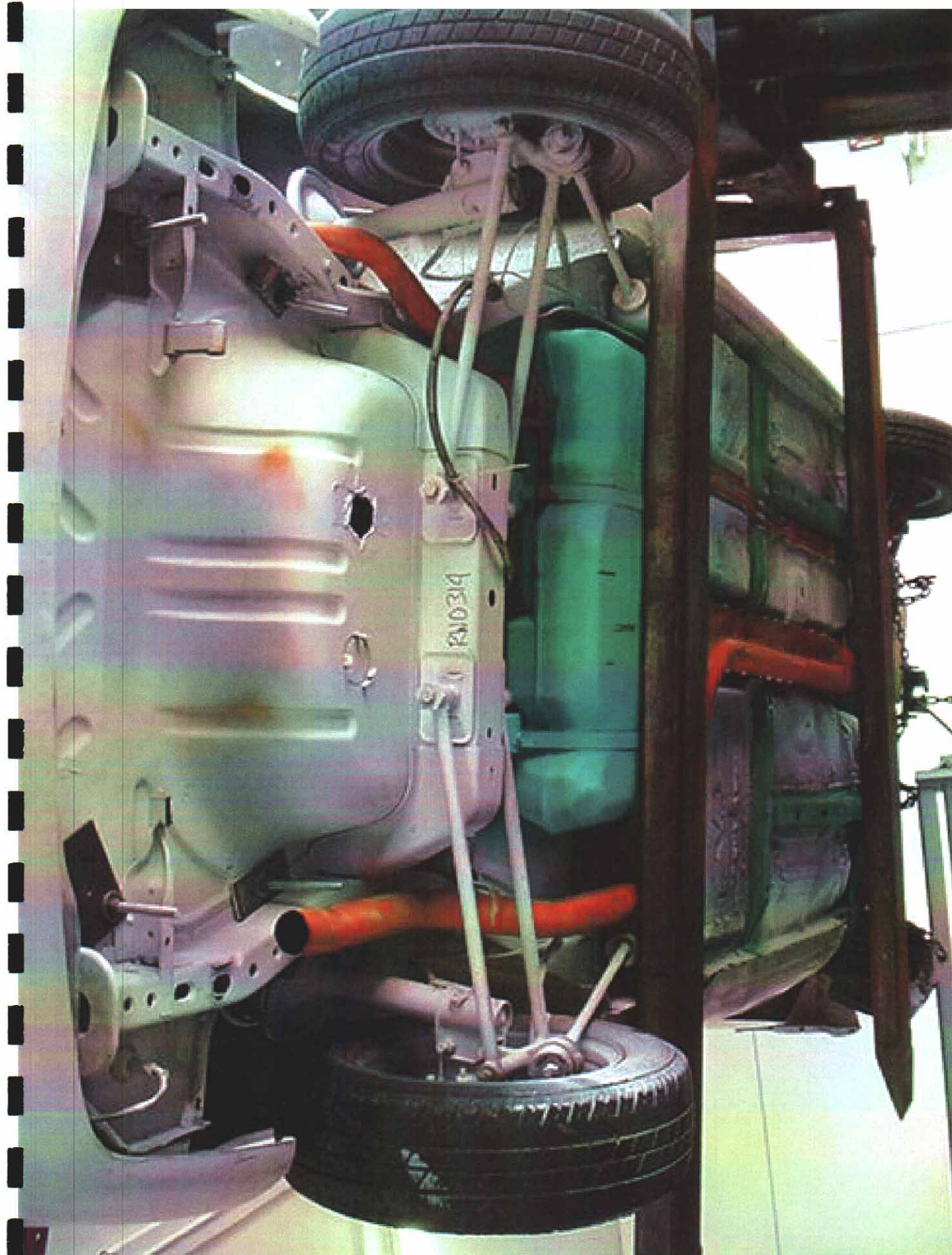


Figure A-20 POST-TEST REAR UNDERBODY VIEW

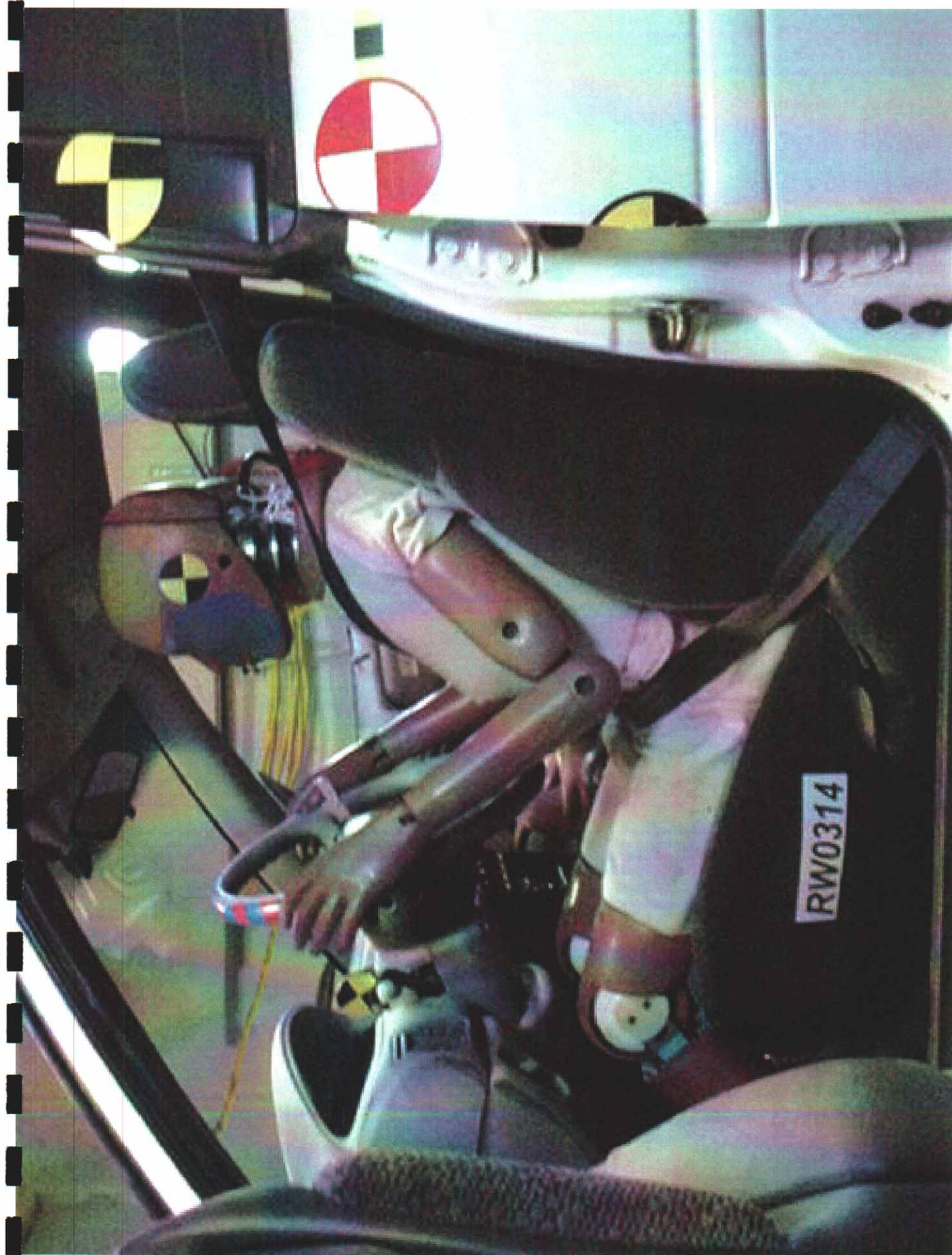


Figure A-21 PRE-TEST DRIVER POSITION VIEW



Figure A-22 POST-TEST DRIVER POSITION VIEW



Figure A-23 PRE-TEST PASSENGER POSITION VIEW



Figure A-24 POST-TEST PASSENGER POSITION VIEW

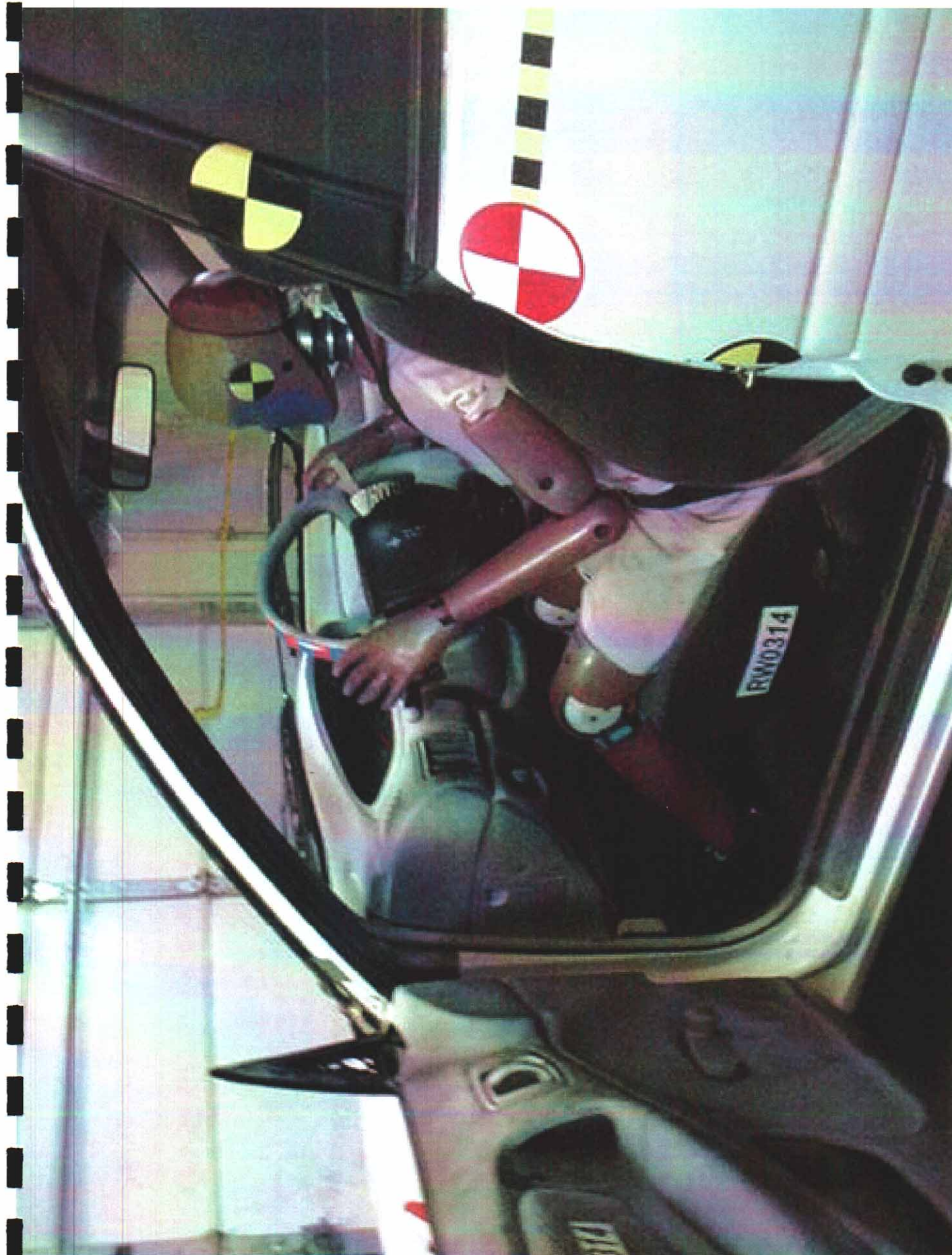


Figure A-25 PRE-TEST DRIVER AND INTERIOR VIEW



Figure A-26 POST-TEST DRIVER AND INTERIOR VIEW

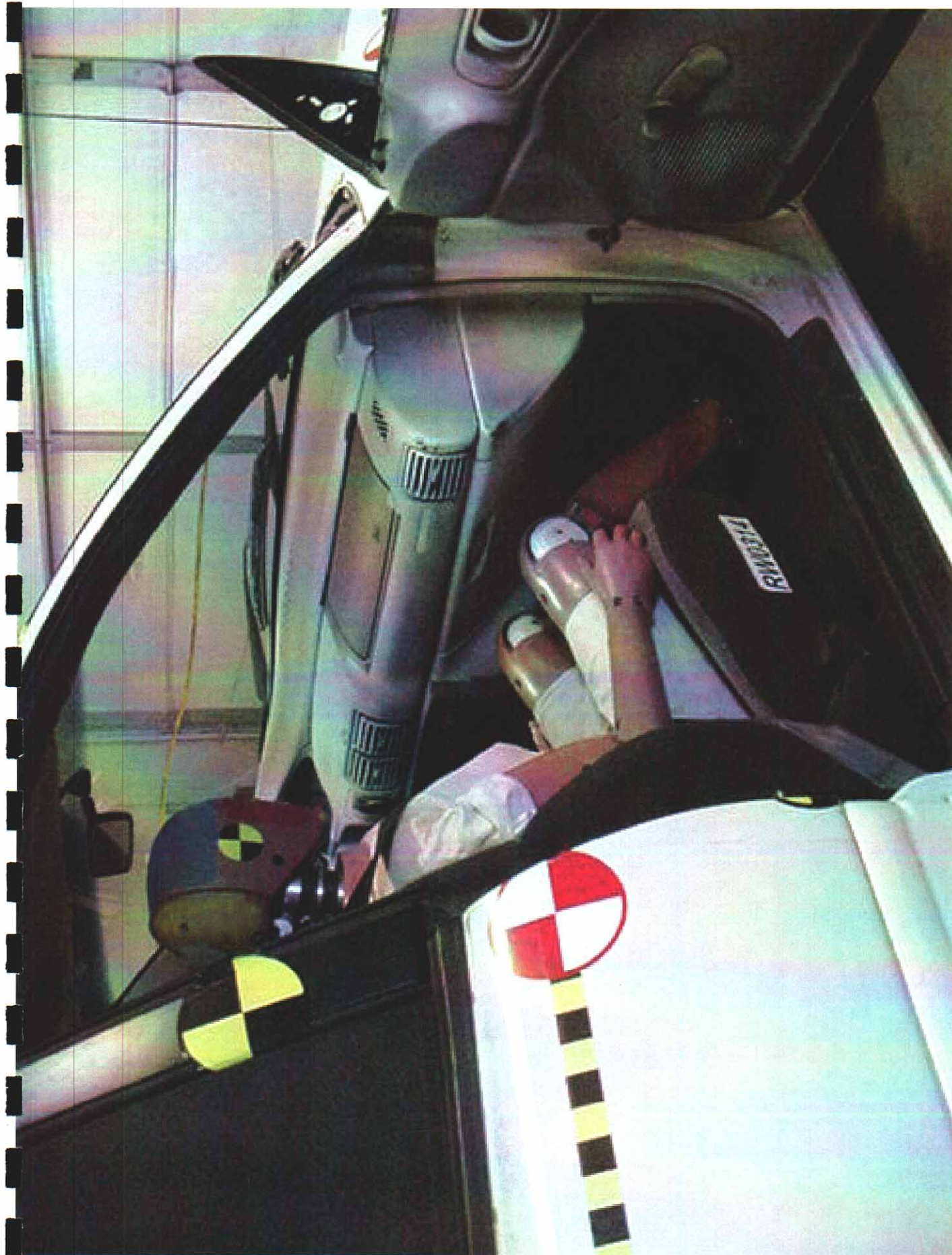


Figure A-27 PRE-TEST PASSENGER AND INTERIOR VIEW

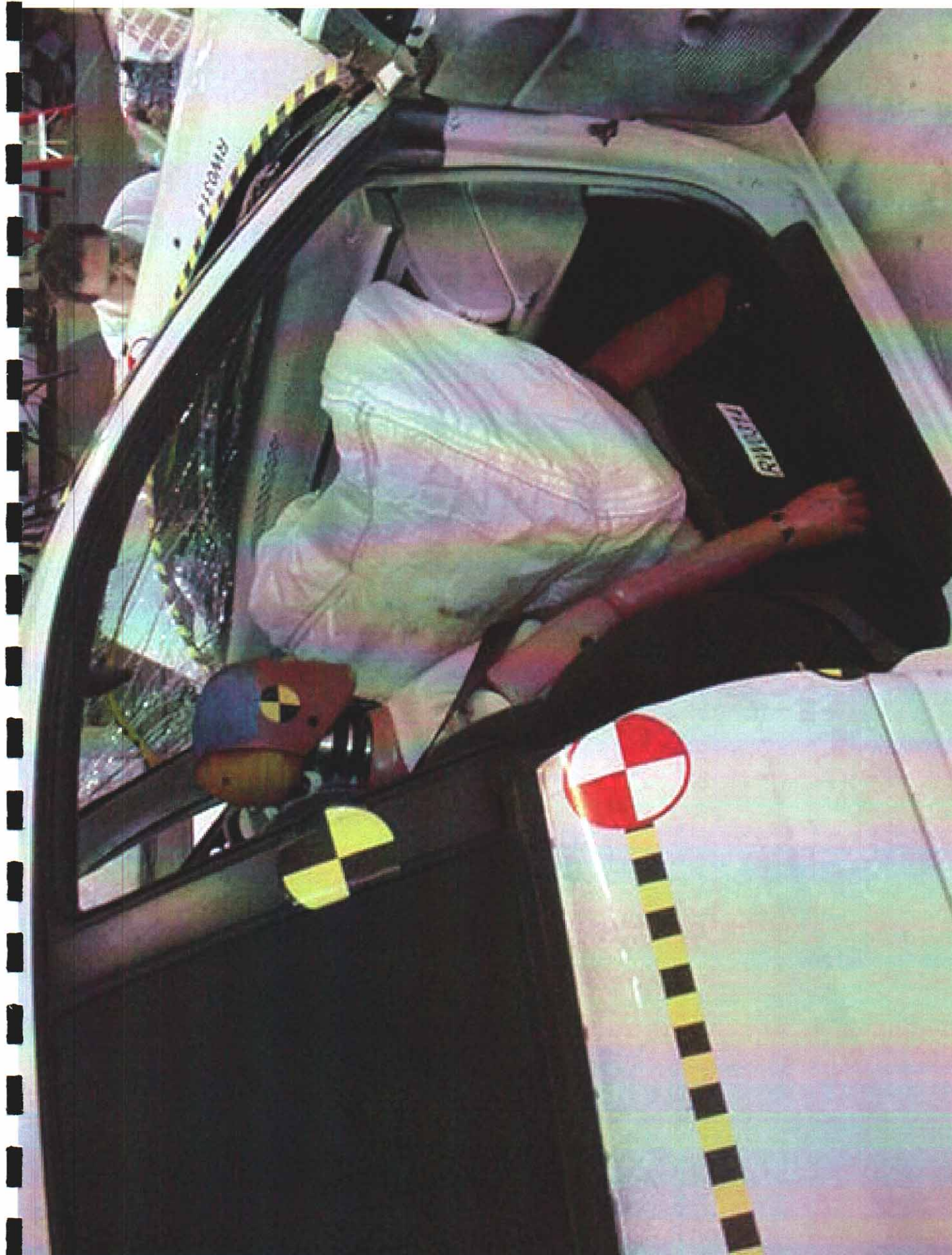


Figure A-28 POST-TEST PASSENGER AND INTERIOR VIEW

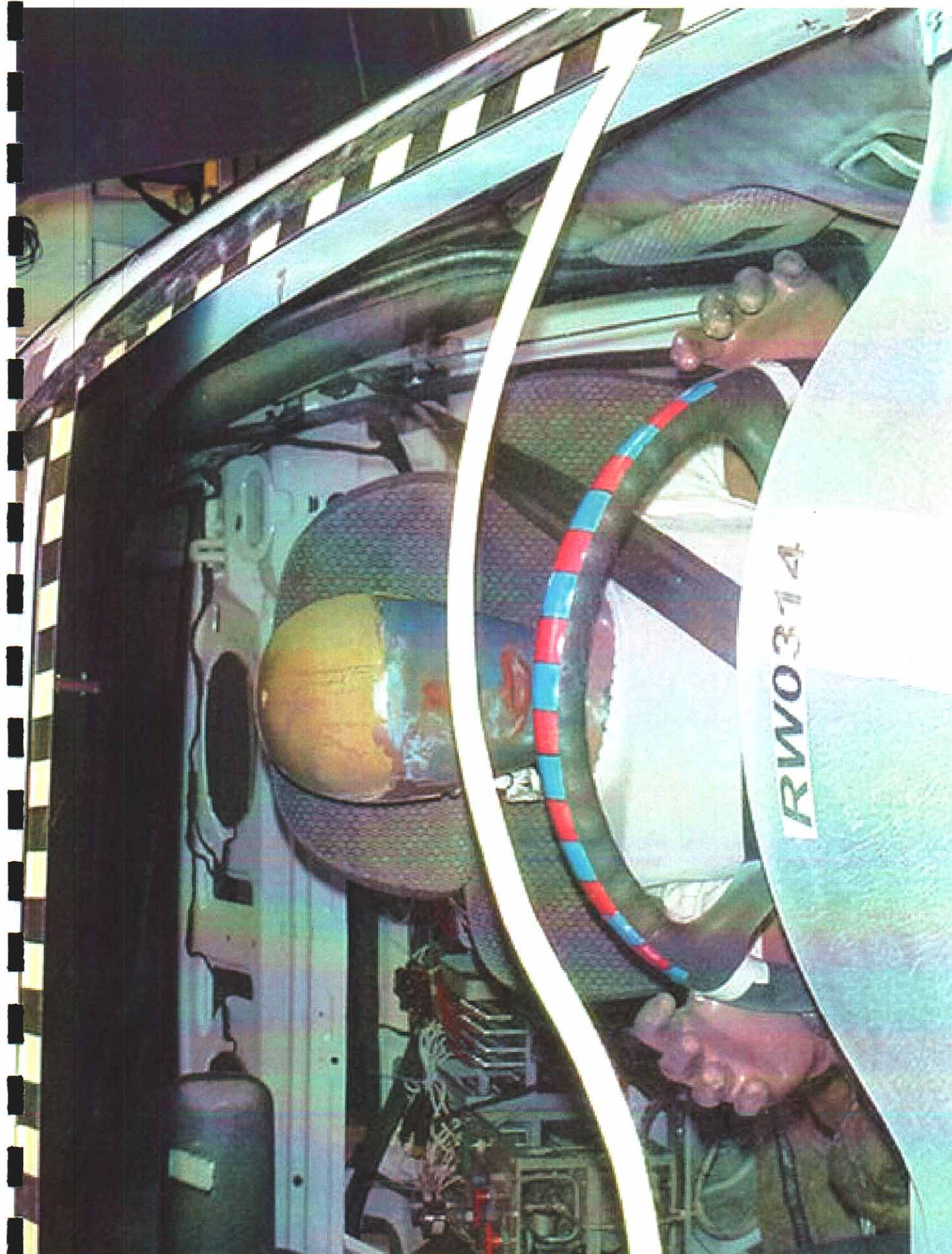


Figure A-29 PRE-TEST DRIVER HEAD LOCATION

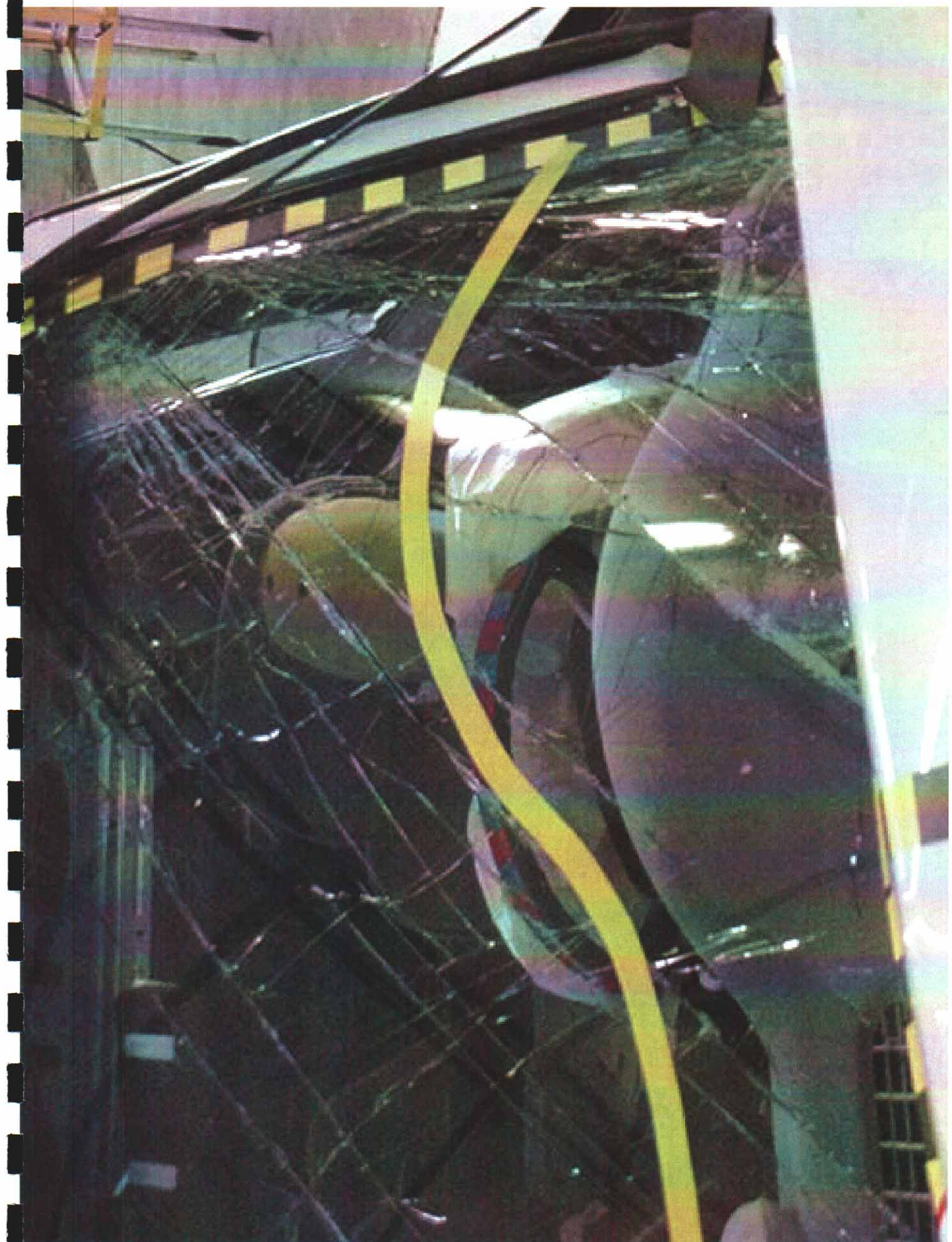


Figure A-30 POST-TEST DRIVER HEAD LOCATION

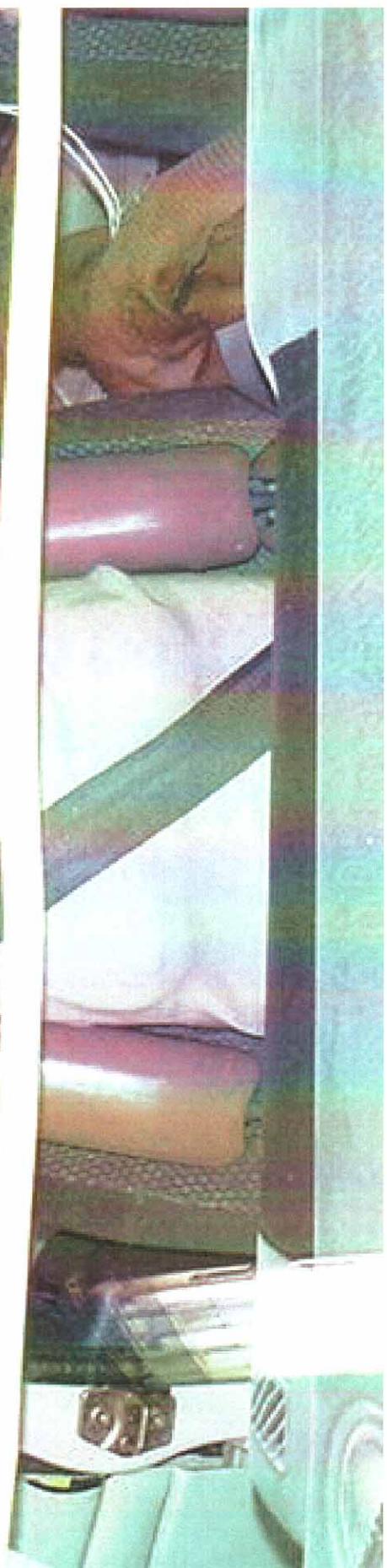
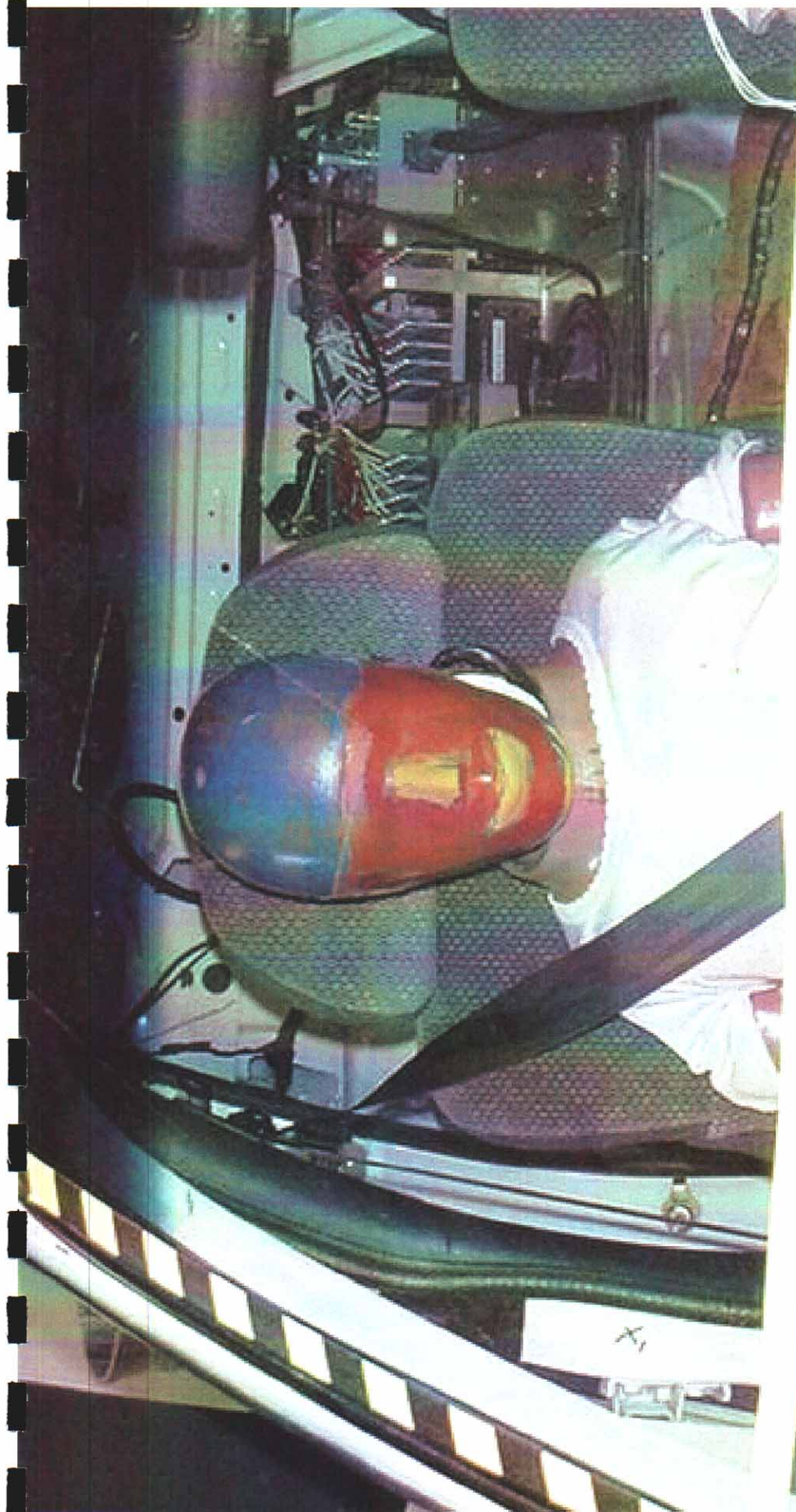


Figure A-31 PRE-TEST PASSENGER HEAD LOCATION

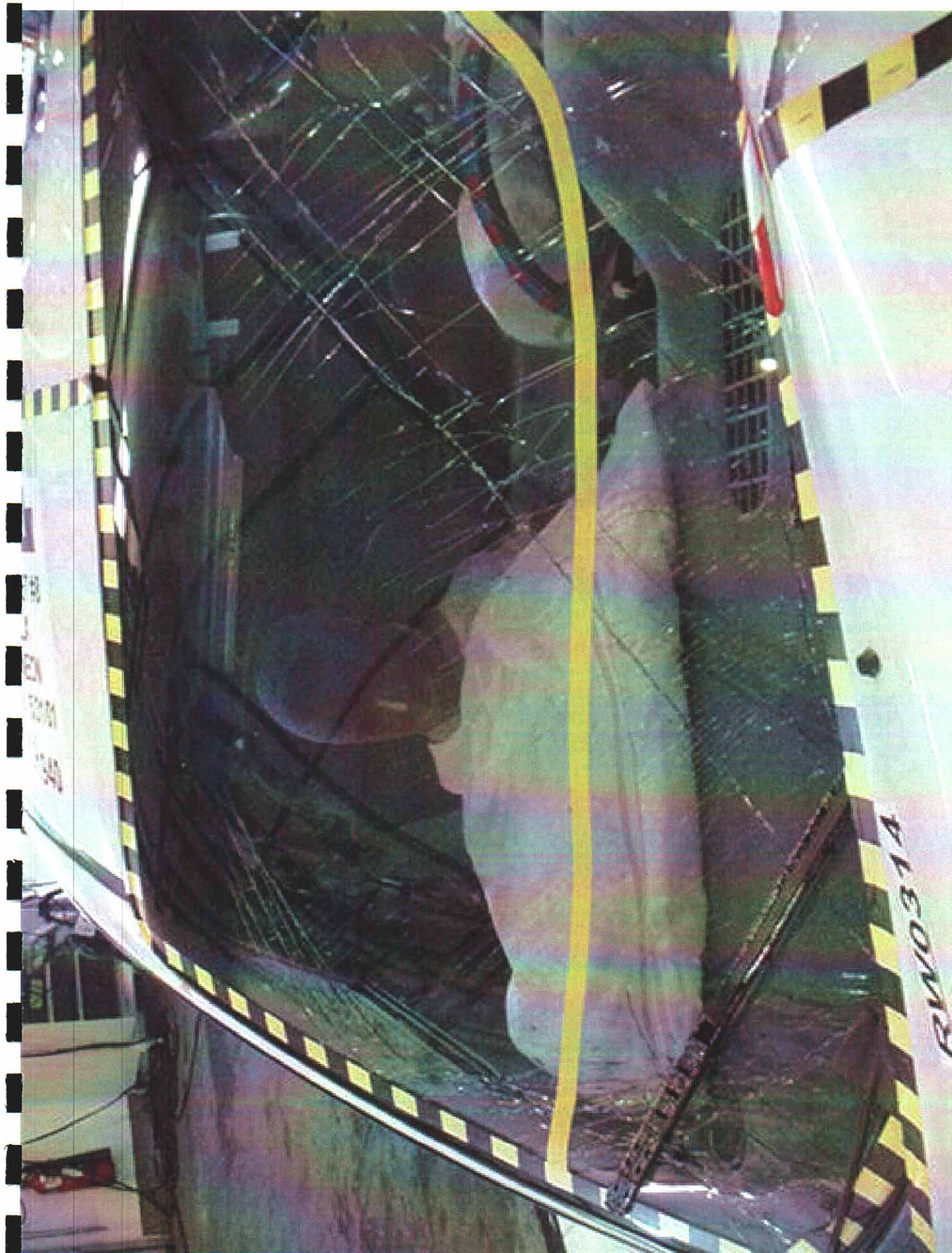


Figure A-32 POST-TEST PASSENGER HEAD LOCATION

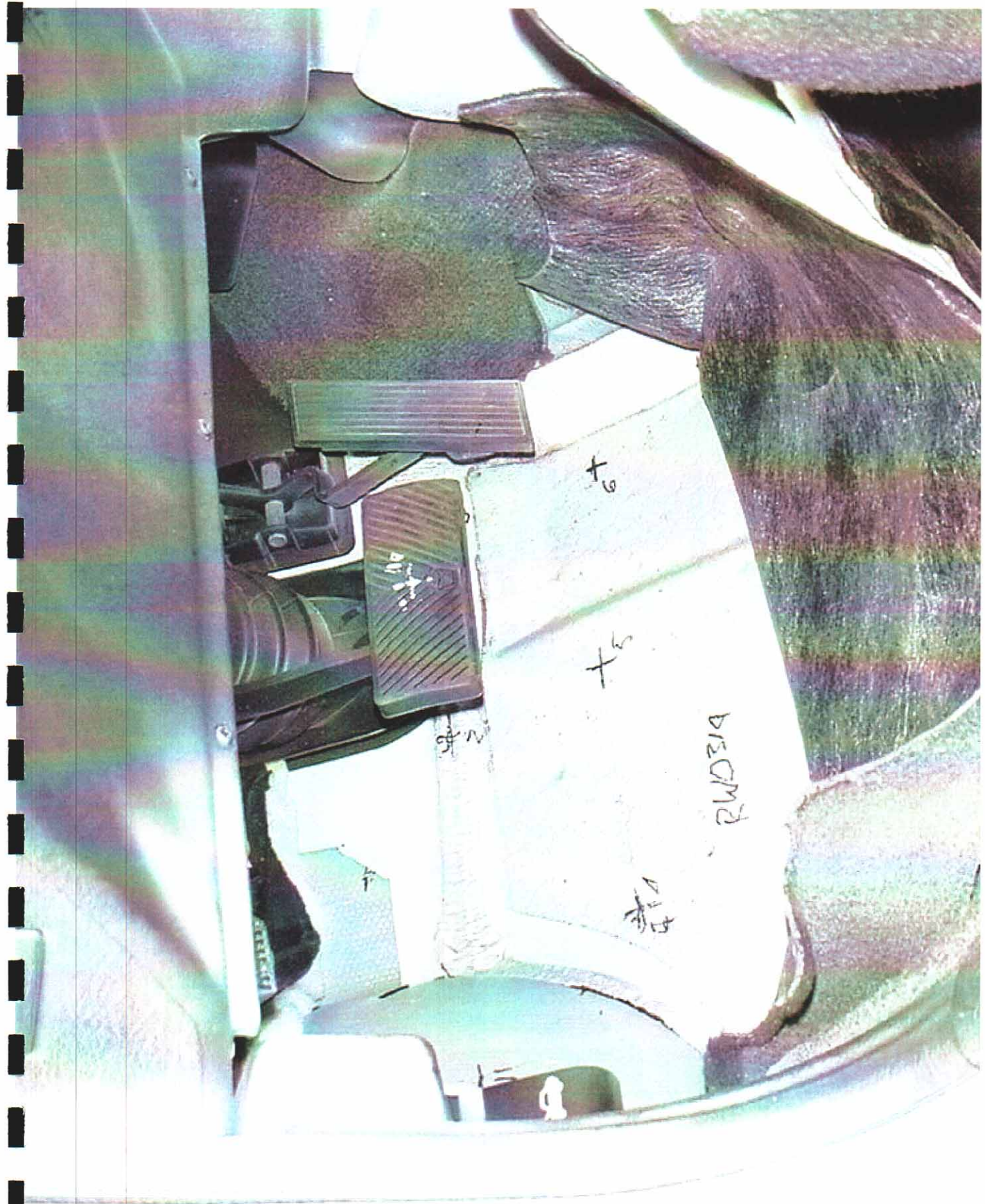


Figure A-33 PRE-TEST DRIVER FLOOR PAN VIEW



Figure A-34 POST-TEST DRIVER FLOOR PAN VIEW

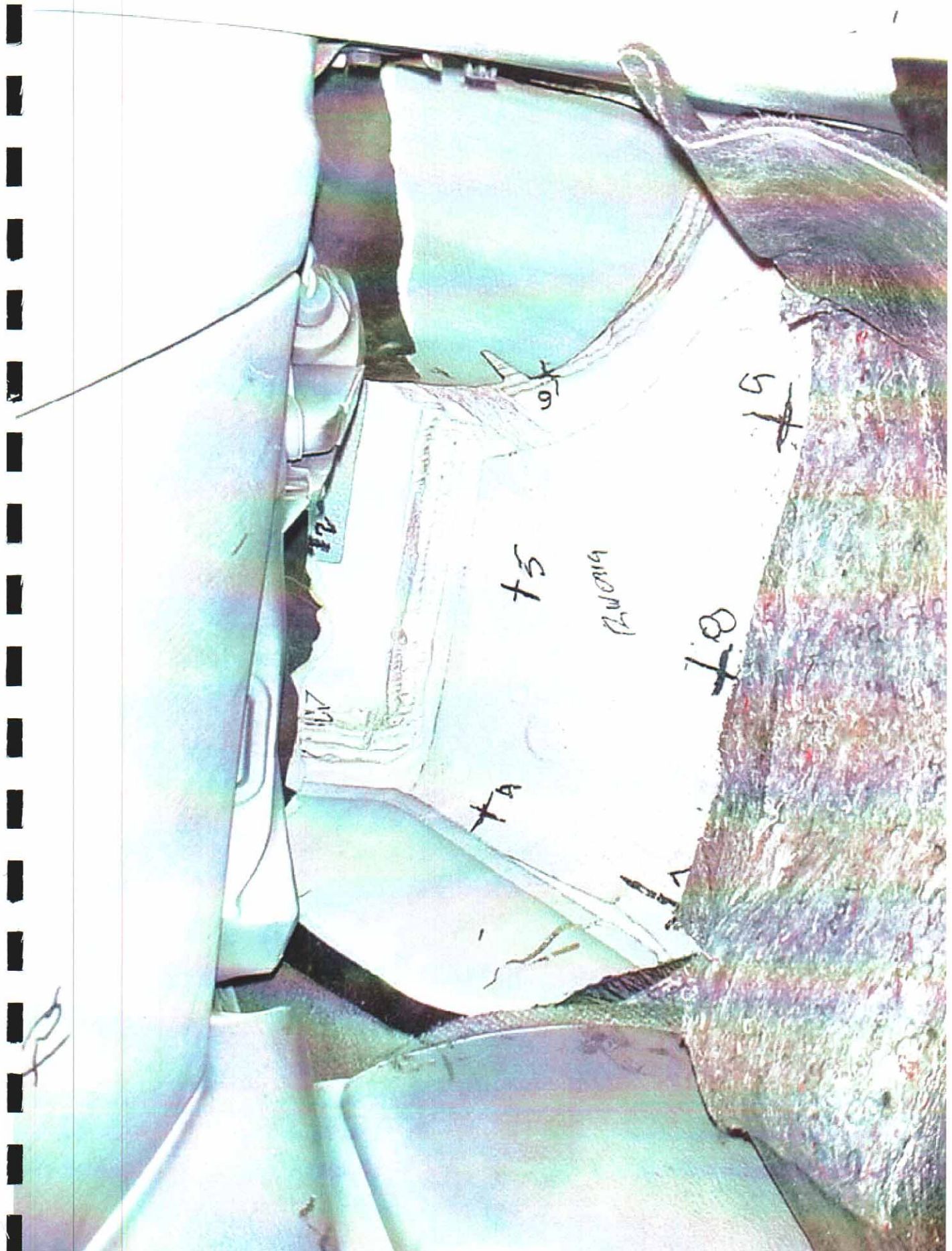


Figure A-35 PRE-TEST PASSENGER FLOOR PAN VIEW

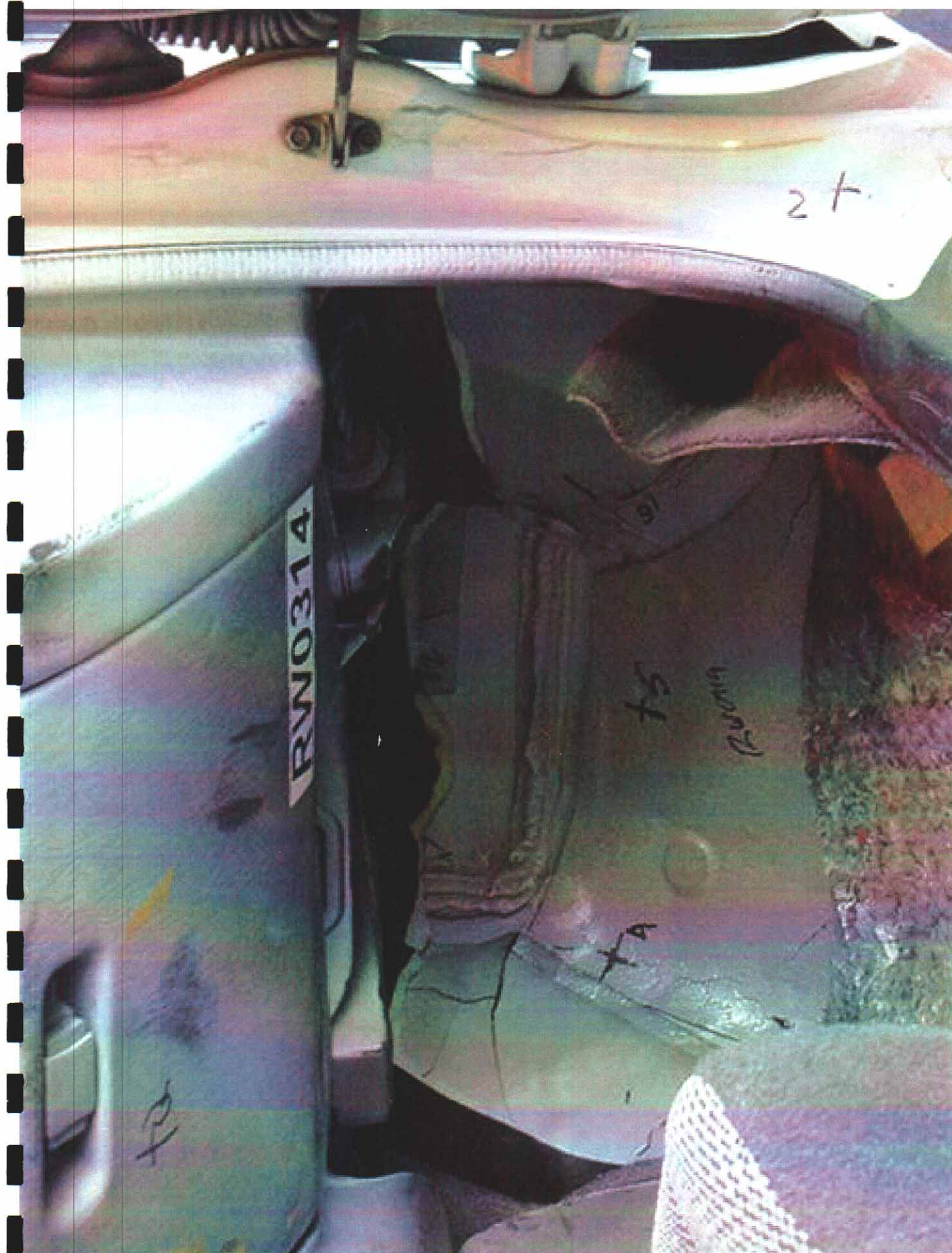


Figure A-36 POST-TEST PASSENGER FLOOR PAN VIEW



Figure A-37 PRE-TEST BARRIER FRONT VIEW



Figure A-38 POST-TEST BARRIER FRONT VIEW

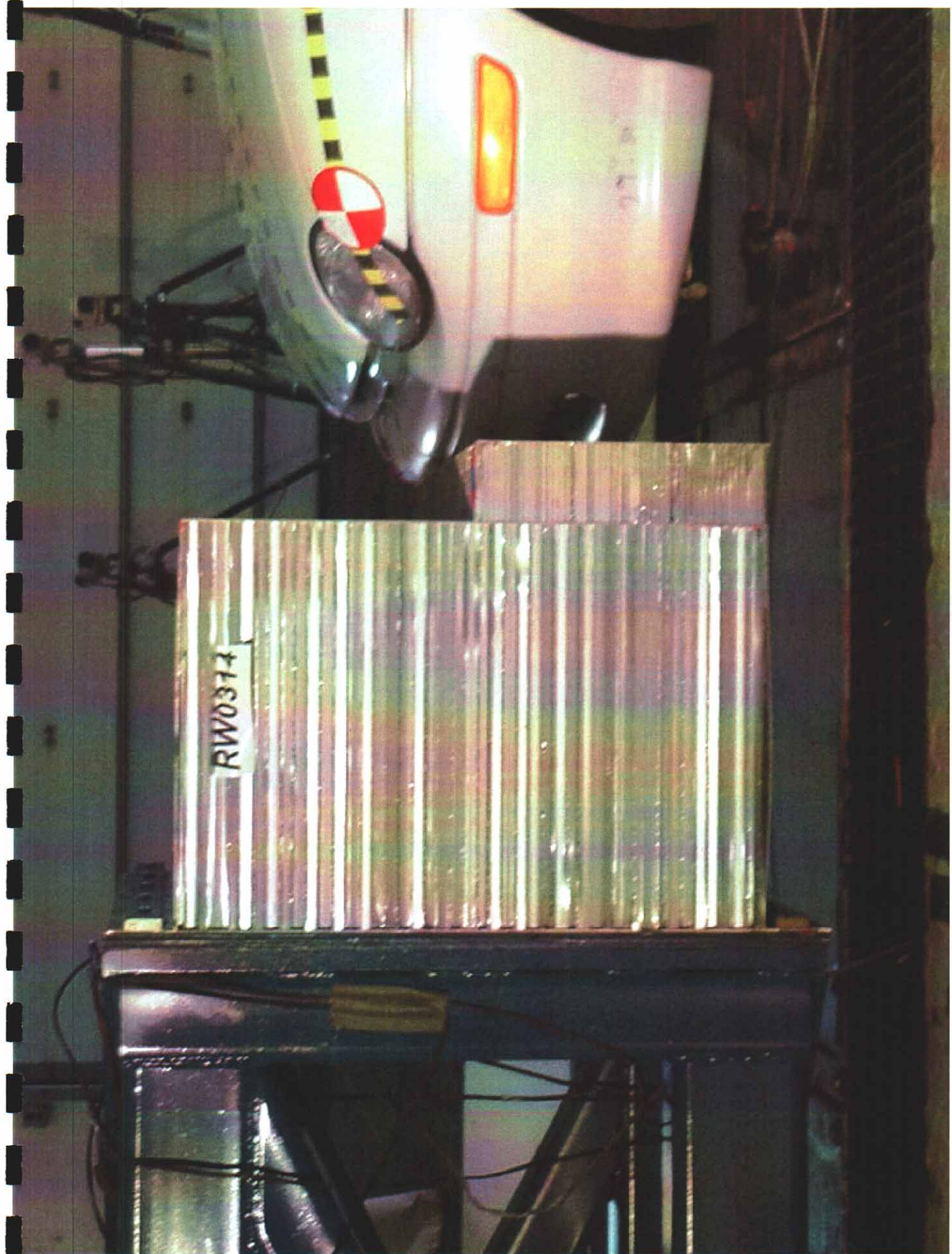


Figure A-39 PRE-TEST BARRIER LEFT SIDE VIEW

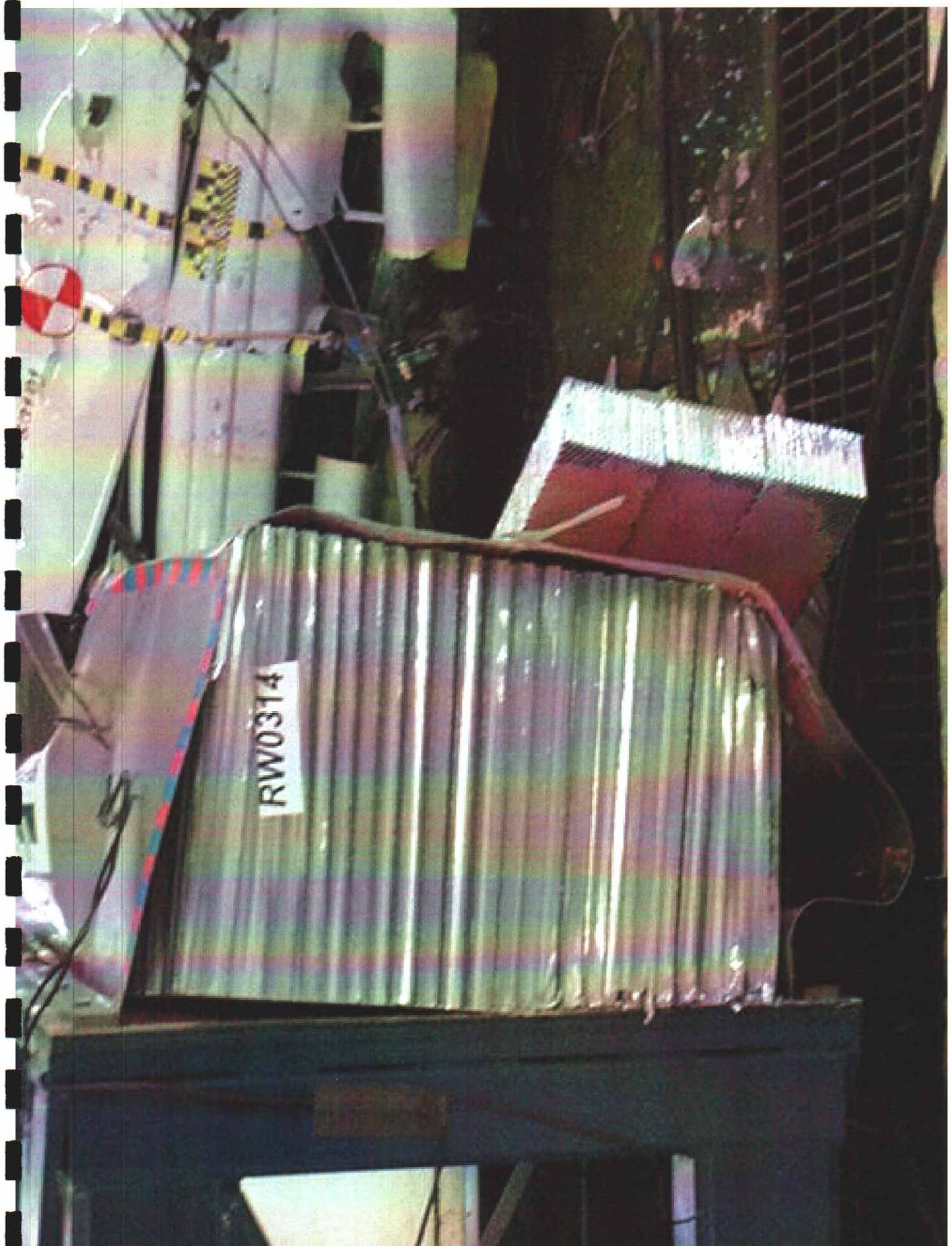


Figure A-40 POST-TEST BARRIER LEFTSIDE VIEW

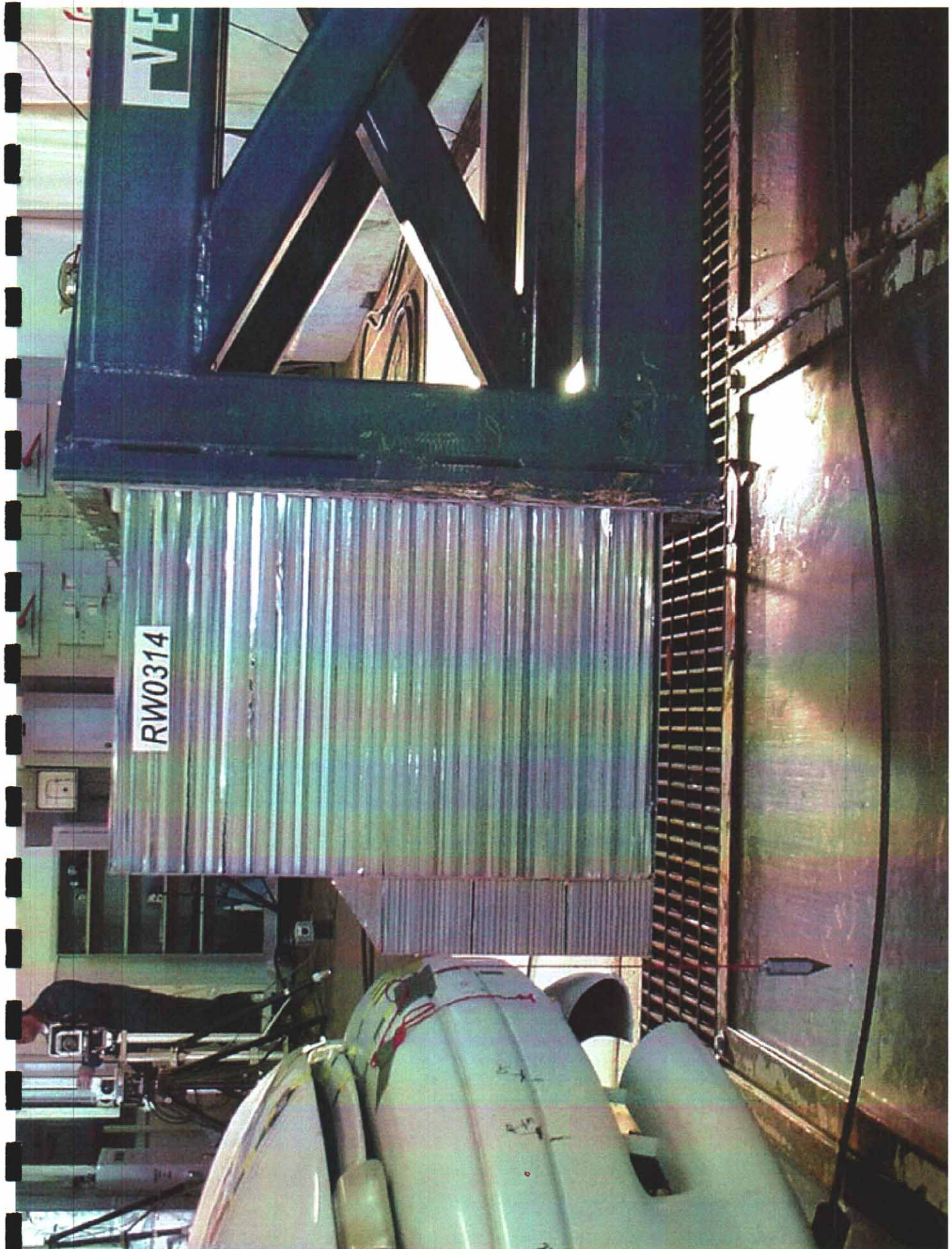


Figure A-41 PRE-TEST BARRIER RIGHT SIDE VIEW

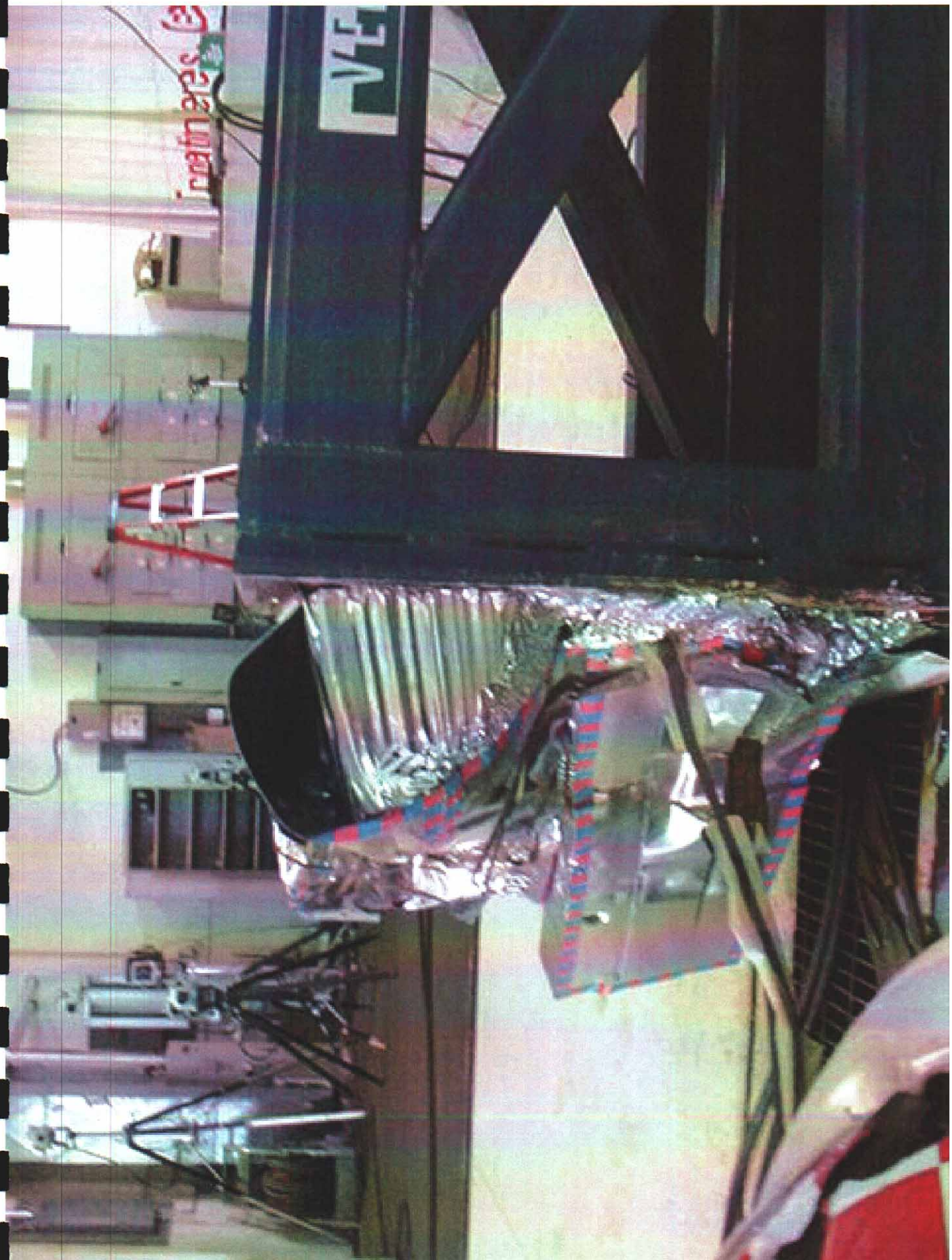


Figure A-42 POST-TEST BARRIER RIGHT SIDE VIEW

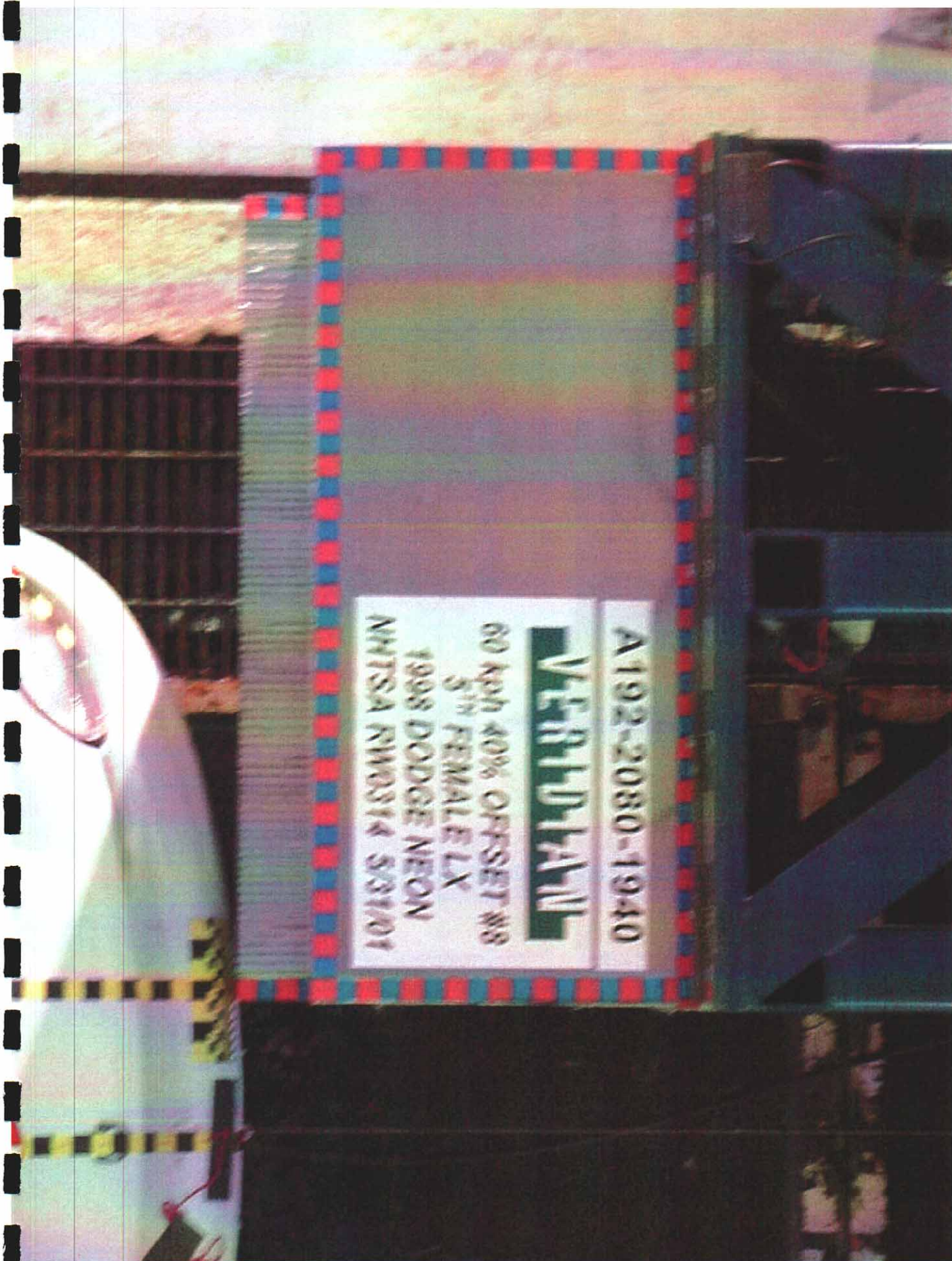
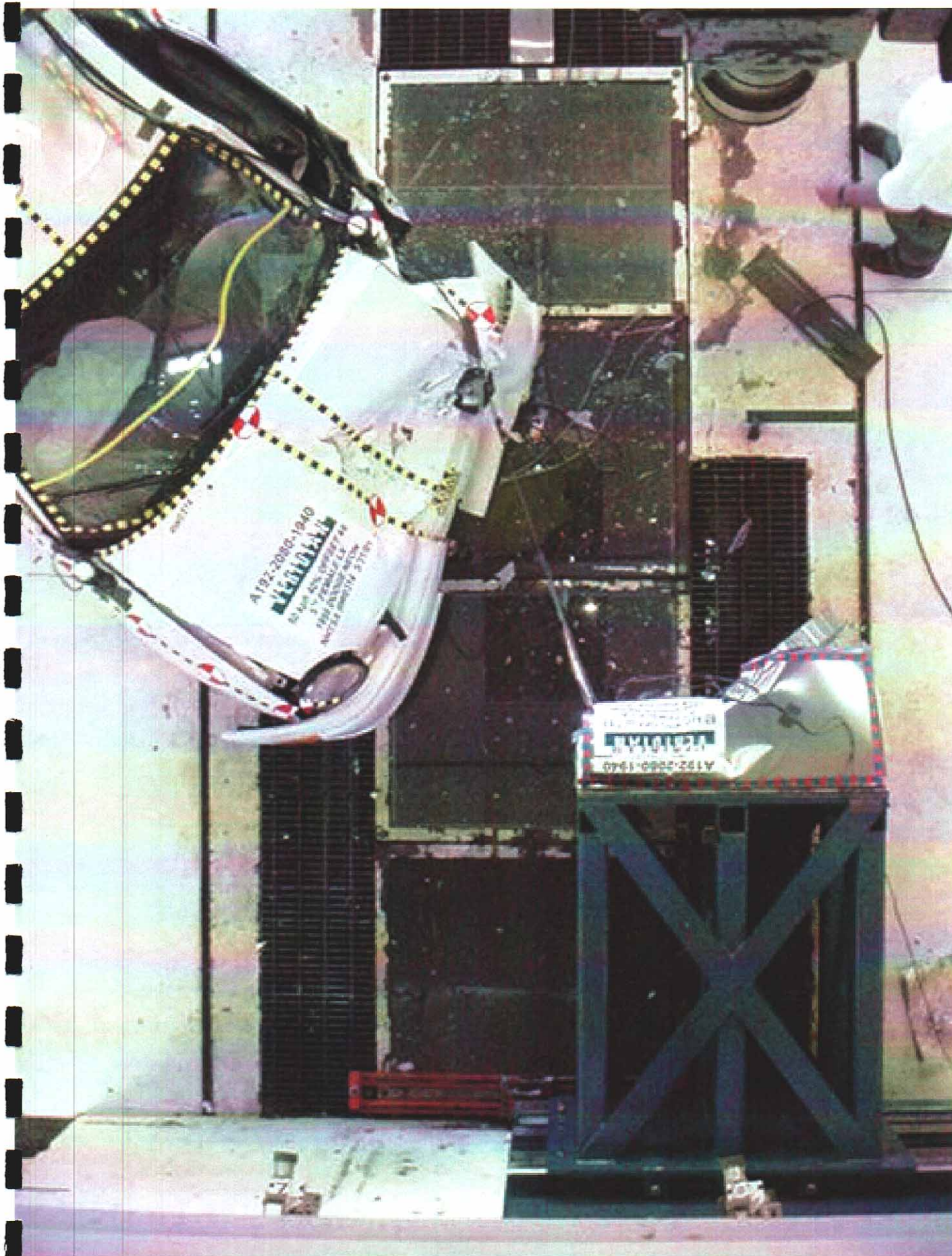


Figure A-43 PRE-TEST BARRIER TOP VIEW



Figure A-44 POST-TESTBARRIER TOP VIEW



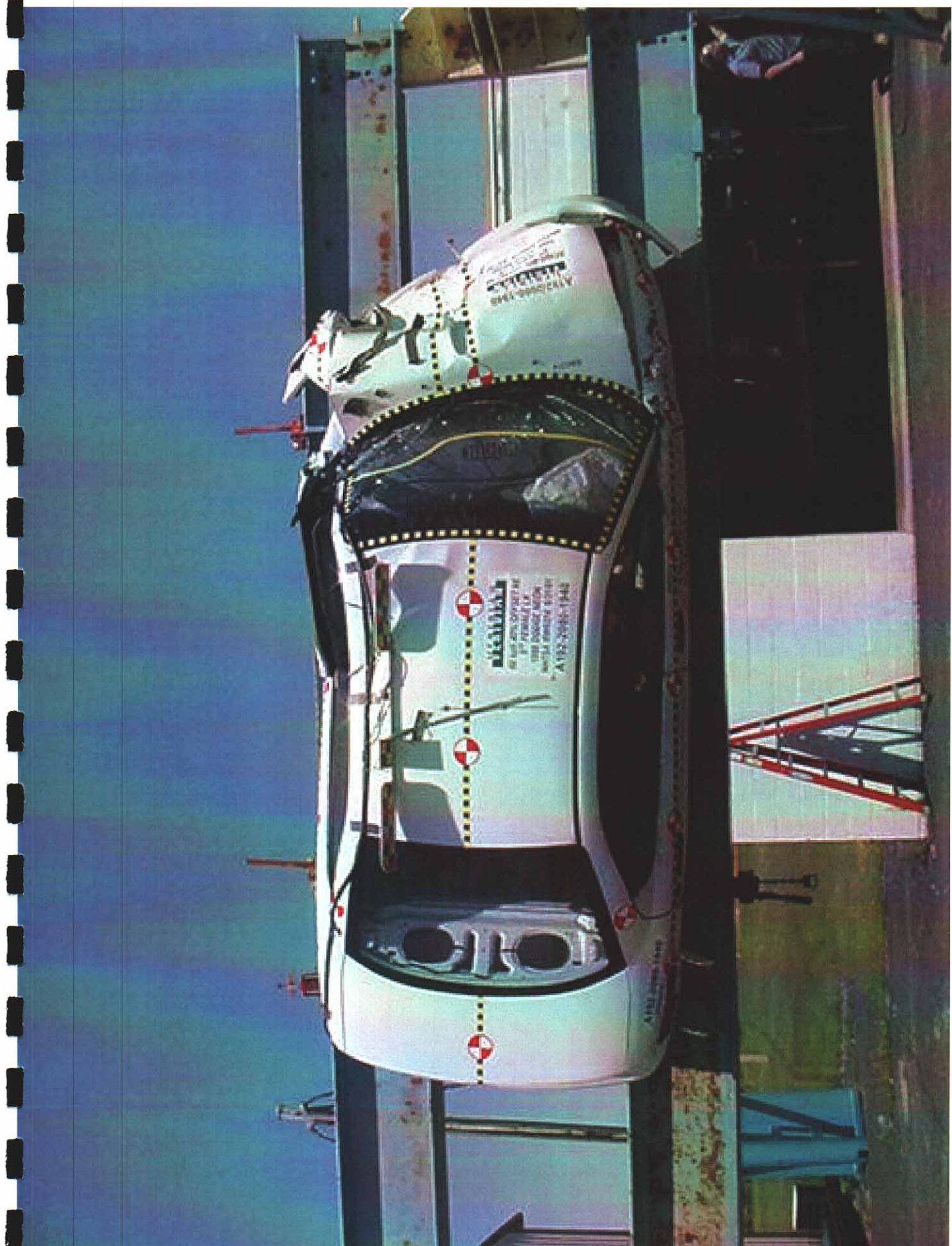


Figure A-46 ROLLOVER VIEW



Figure A-47 IMPACT VIEW

APPENDIX B

DUMMY, VEHICLE AND LOAD CELL BARRIER RESPONSE DATA

**Hybrid III Dummy Sign Conventions
Load Cells and Special Transducers**

Transducer	SAE Sign Convention (positive unless noted)
Upper Neck Load Cell	Fx Head rearward, Chest Forward Fy Head leftward, Chest rightward Fz Head Upward, Chest Downward Mx Left ear toward left shoulder My Chin toward sternum (flexion) Mz Chin toward left shoulder (look left)
Chest Displacement Potentiometer	Compression is negative
Pelvic Load Cell (Lower Lumbar)	Fx Chest rearward Fy Chest left Fz Spine in tension
Femur Load Cell (right and left leg)	Fx Knee Upward, Upper Femur Downward Fy Knee Rightward, Upper Femur Leftward Fz Knee Forward, Pelvis Rearward Mx Knee Leftward, Hold Upper Femur in Place My Knee Upward, Hold Upper Femur in Place Mz Tibia Leftward, Hold Pelvis in Place
Upper Tibia Load Cell (right and left leg)	Fx Ankle Forward, Knee Rearward Fy Ankle Rightward, Knee Leftward Fz Tibia Downward, Femur Upward Mx Ankle Leftward, Hold Knee in Place My Ankle Forward, Bottom of Knee Clevis Rearward
Lower Tibia Load Cell (right and left leg)	Fx Ankle Forward, Knee Rearward Fy Ankle Rightward, Knee Leftward Fz Tibia Downward, Femur Upward Mx Ankle Leftward, Hold Knee in Place My Ankle Forward, Bottom of Knee Clevis Rearward
Knee Shear Displacement	X Hold Femur Move Tibia Forward
Tibia Mid-Shaft Accelerometer	X Forward Y To the Right
Foot Rotations (left foot)	X Eversion Y Dorsi Flexion Z Internal Rotation
Foot Rotations (right foot)	X Inversion Y Dorsi Flexion Z External Rotation
Foot Accelerometer (right and left foot)	X Forward Y To the Right Z Down

DATA CHANNEL FILTER CLASS SUMMARY

NHTSA TEST NO RW0314

DATA TYPE	SAE FILTER CLASS (Hz)
Dummy Head Accelerations	1000
Dummy Neck Forces	1000
Dummy Neck Moments	600
Dummy Chest Accelerations	180
Dummy Chest Displacements	60
Dummy Femur Forces	600
Dummy Femur Moments	600
Dummy Knee Displacement	180
Dummy Tibia Accelerations	600
Dummy Tibia Forces	600
Dummy Tibia Moments	600
Dummy Ankle Rotations	180
Dummy Foot Accelerations	600
Dummy Belt Displacements	180
Dummy Belt Loads	60
Vehicle Accelerations	60
Vehicle Velocity Integrations	180
Vehicle Displacement Integrations	180
Load Cell Barrier Forces	60

PLOT	PLOT NAME [UNITS, CHANNEL FILTER CLASS]	PAGE
1	P1 Head 9 Array X Arm Az [g, CFC_1000]	B-8
2	P1 Head 9 Array X Arm Ay [g, CFC_1000]	B-9
3	P1 Head 9 Array Y Arm Ax [g, CFC_1000]	B-10
4	P1 Head 9 Array Y Arm Az [g, CFC_1000]	B-11
5	P1 Head 9 Array Z Arm Ax [g, CFC_1000]	B-12
6	P1 Head 9 Array Z Arm Ay [g, CFC_1000]	B-13
7	P1 Head CG Ax [g, CFC_1000]	B-14
8	P1 Head CG Ay [g, CFC_1000]	B-15
9	P1 Head CG Az [g, CFC_1000]	B-16
10	P1 Head CG A Resultant [g, CFC_1000]	B-17
11	P1 Head CG Red Ax [g, CFC_1000]	B-18
12	P1 Head CG Red Ay [g, CFC_1000]	B-19
13	P1 Head CG Red Az [g, CFC_1000]	B-20
14	P1 Head CG Red A Resultant [g, CFC_1000]	B-21
15	P1 Upper Neck Fx [N, CFC_1000]	B-22
16	P1 Upper Neck Fy [N, CFC_1000]	B-23
17	P1 Upper Neck Fz [N, CFC_1000]	B-24
18	P1 Upper Neck F Resultant [N, CFC_1000]	B-25
19	P1 Upper Neck Mx [Nm, CFC_600]	B-26
20	P1 Upper Neck My [Nm, CFC_600]	B-27
21	P1 Upper Neck Mz [Nm, CFC_600]	B-28
22	P1 Upper Neck M Resultant [Nm, CFC_600]	B-29
23	P1 Chest Ax [g, CFC_180]	B-30
24	P1 Chest Ay [g, CFC_180]	B-31
25	P1 Chest Az [g, CFC_180]	B-32
26	P1 Chest A Resultant [g, CFC_180]	B-33
27	P1 Chest Red Ax [g, CFC_180]	B-34
28	P1 Chest Red Ay [g, CFC_180]	B-35
29	P1 Chest Red Az [g, CFC_180]	B-36
30	P1 Chest Red A Resultant [g, CFC_180]	B-37
31	P1 Chest Displacement [mm, CFC_600]	B-38
32	P1 Pelvic Ax [g, CFC_1000]	B-39
33	P1 Pelvic Ay [g, CFC_1000]	B-40
34	P1 Pelvic Az [g, CFC_1000]	B-41
35	P1 Pelvic A Resultant [g, CFC_1000]	B-42
36	P1 Left Femur Fx [N, CFC_600]	B-43
37	P1 Left Femur Fy [N, CFC_600]	B-44
38	P1 Left Femur Fz [N, CFC_600]	B-45
39	P1 Left Femur F Resultant [N, CFC_600]	B-46
40	P1 Left Femur Mx [Nm, CFC_600]	B-47
41	P1 Left Femur My [Nm, CFC_600]	B-48
42	P1 Left Femur Mz [Nm, CFC_600]	B-49
43	P1 Left Femur M Resultant [Nm, CFC_600]	B-50
44	P1 Right Femur Fx [N, CFC_600]	B-51
45	P1 Right Femur Fy [N, CFC_600]	B-52
46	P1 Right Femur Fz [N, CFC_600]	B-53
47	P1 Right Femur F Resultant [N, CFC_600]	B-54
48	P1 Right Femur Mx [Nm, CFC_600]	B-55
49	P1 Right Femur My [Nm, CFC_600]	B-56
50	P1 Right Femur Mz [Nm, CFC_600]	B-57
51	P1 Right Femur M Resultant [Nm, CFC_600]	B-58
52	P1 Left Knee Shear Dx [mm, CFC_180]	B-59

53	P1 Right Knee Shear Dx [mm, CFC_180]	B-60
54	P1 Left Upper Tibia Fx [N, CFC_600]	B-61
55	P1 Left Upper Tibia Fz [N, CFC_600]	B-62
56	P1 Left Upper Tibia Mx [Nm, CFC_600]	B-63
57	P1 Left Upper Tibia My [Nm, CFC_600]	B-64
58	P1 Left Lower Tibia Fx [N, CFC_600]	B-65
59	P1 Left Lower Tibia Fy [N, CFC_600]	B-66
60	P1 Left Lower Tibia Fz [N, CFC_600]	B-67
61	P1 Left Lower Tibia F Resultant [N, CFC_600]	B-68
62	P1 Left Lower Tibia Mx [Nm, CFC_600]	B-69
63	P1 Left Lower Tibia My [Nm, CFC_600]	B-70
64	P1 Right Upper Tibia Fx [N, CFC_600]	B-71
65	P1 Right Upper Tibia Fz [N, CFC_600]	B-72
66	P1 Right Upper Tibia Mx [Nm, CFC_600]	B-73
67	P1 Right Upper Tibia My [Nm, CFC_600]	B-74
68	P1 Right Lower Tibia Fx [N, CFC_600]	B-75
69	P1 Right Lower Tibia Fy [N, CFC_600]	B-76
70	P1 Right Lower Tibia Fz [N, CFC_600]	B-77
71	P1 Right Lower Tibia F Resultant [N, CFC_600]	B-78
72	P1 Right Lower Tibia Mx [Nm, CFC_600]	B-79
73	P1 Right Lower Tibia My [Nm, CFC_600]	B-80
74	P1 Left Tibia Ax [g, CFC_600]	B-81
75	P1 Left Tibia Ay [g, CFC_600]	B-82
76	P1 Right Tibia Ax [g, CFC_600]	B-83
77	P1 Right Tibia Ay [g, CFC_600]	B-84
78	P1 Left Ankle Rotation x [Deg, CFC_180]	B-85
79	P1 Left Ankle Rotation y [Deg, CFC_180]	B-86
80	P1 Left ankle Rotation z [Deg, CFC_180]	B-87
81	P1 Right Ankle Rotation x [Deg, CFC_180]	B-88
82	P1 Right Ankle Rotation y [Deg, CFC_180]	B-89
83	P1 Right Ankle Rotation z [Deg, CFC_180]	B-90
84	P1 Left Foot Ax [g, CFC_600]	B-91
85	P1 Left Foot Ay [g, CFC_600]	B-92
86	P1 Left Foot Az [g, CFC_600]	B-93
87	P1 Left Foot A Resultant [g, CFC_600]	B-94
88	P1 Right Foot Ax [g, CFC_600]	B-95
89	P1 Right Foot Ay [g, CFC_600]	B-96
90	P1 Right foot Az [g, CFC_600]	B-97
91	P1 Right Foot A Resultant [g, CFC_600]	B-98
92	P2 Head 9 Array X Arm Az [g, CFC_1000]	B-99
93	P2 Head 9 Array X Arm Ay [g, CFC_1000]	B-100
94	P2 Head 9 Array Y Arm Ax [g, CFC_1000]	B-101
95	P2 Head 9 Array Y Arm Az [g, CFC_1000]	B-102
96	P2 Head 9 Array Z Arm Ax [g, CFC_1000]	B-103
97	P2 Head 9 Array Z Arm Ay [g, CFC_1000]	B-104
98	P2 Head CG Ax [g, CFC_1000]	B-105
99	P2 Head CG Ay [g, CFC_1000]	B-106
100	P2 Head CG Az [g, CFC_1000]	B-107
101	P2 Head CG A Resultant [g, CFC_1000]	B-108
102	P2 Head CG Red Ax [g, CFC_1000]	B-109
103	P2 Head CG Red Ay [g, CFC_1000]	B-110
104	P2 Head CG Red Az [g, CFC_1000]	B-111
105	P2 Head CG Red A Resultant [g, CFC_1000]	B-112
106	P2 Upper Neck Fx [N, CFC_1000]	B-113

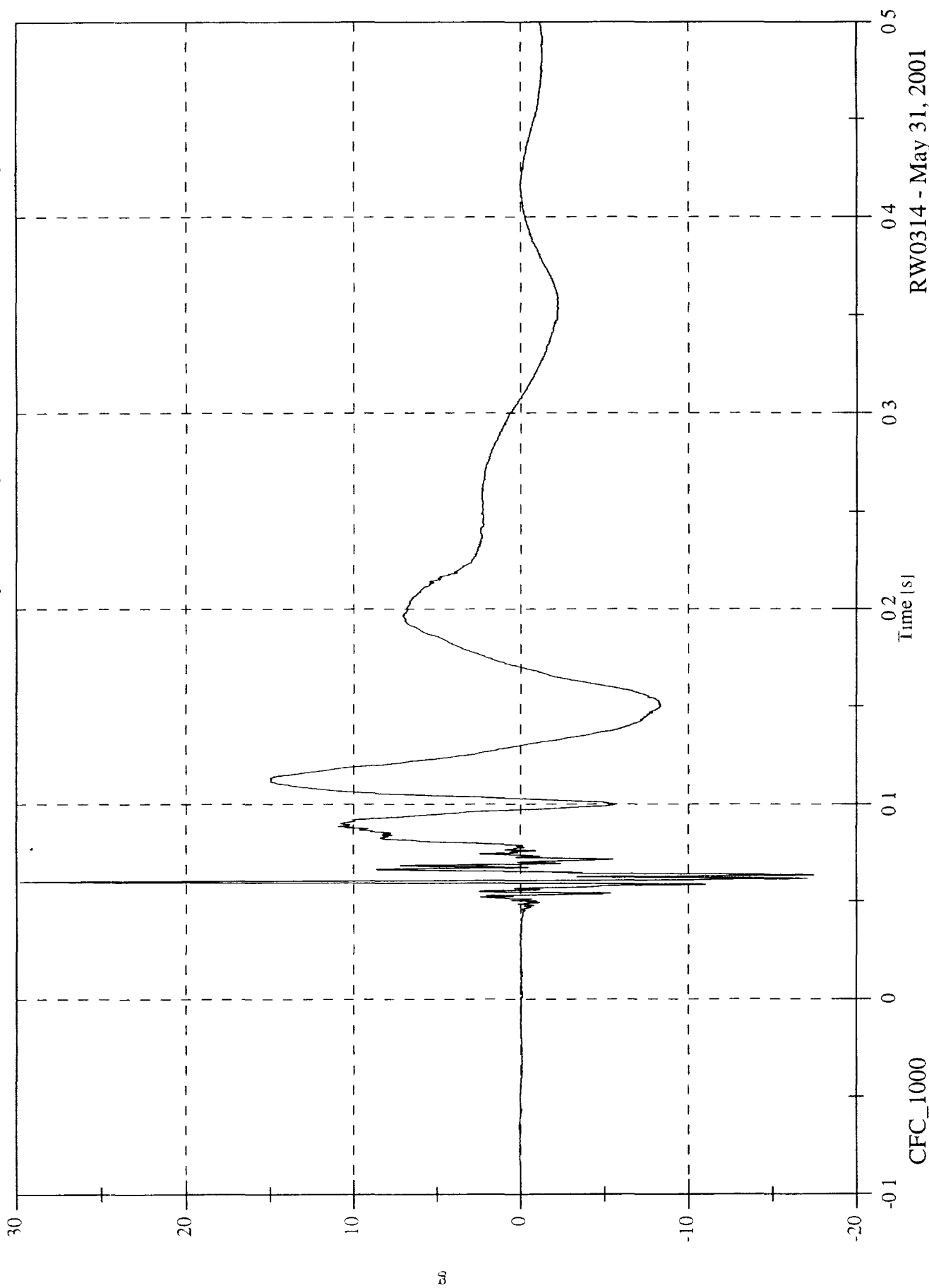
107	P2 Upper Neck Fy [N, CFC_1000]	B-114
108	P2 Upper Neck Fz [N, CFC_1000]	B-115
109	P2 Upper Neck F Resultant [N, CFC_1000]	B-116
110	P2 Upper Neck Mx [Nm, CFC_600]	B-117
111	P2 Upper Neck My [Nm, CFC_600]	B-118
112	P2 Upper Neck Mz [Nm, CFC_600]	B-119
113	P2 Upper Neck M Resultant [Nm, CFC_600]	B-120
114	P2 Chest Ax [g, CFC_180]	B-121
115	P2 Chest Ay [g, CFC_180]	B-122
116	P2 Chest Az [g, CFC_180]	B-123
117	P2 Chest A Resultant [g, CFC_180]	B-124
118	P2 Chest Red Ax [g, CFC_180]	B-125
119	P2 Chest Red Ay [g, CFC_180]	B-126
120	P2 Chest Red Az [g, CFC_180]	B-127
121	P2 Chest Red A Resultant [g, CFC_180]	B-128
122	P2 Chest Displacement [mm, CFC_600]	B-129
123	P2 Pelvic Ax [g, CFC_1000]	B-130
124	P2 Pelvic Ay [g, CFC_1000]	B-131
125	P2 Pelvic Az [g, CFC_1000]	B-132
126	P2 Pelvic A Resultant [g, CFC_1000]	B-133
127	P2 Left Femur Fx [N, CFC_600]	B-134
128	P2 Left Femur Fy [N, CFC_600]	B-135
129	P2 Left Femur Fz [N, CFC_600]	B-136
130	P2 Left Femur F Resultant [N, CFC_600]	B-137
131	P2 Left Femur Mx [Nm, CFC_600]	B-138
132	P2 Left Femur My [Nm, CFC_600]	B-139
133	P2 Left Femur Mz [Nm, CFC_600]	B-140
134	P2 Left Femur M Resultant [Nm, CFC_600]	B-141
135	P2 Right Femur Fx [N, CFC_600]	B-142
136	P2 Right Femur Fy [N, CFC_600]	B-143
137	P2 Right Femur Fz [N, CFC_600]	B-144
138	P2 Right Femur F Resultant [N, CFC_600]	B-145
139	P2 Right Femur Mx [Nm, CFC_600]	B-146
140	P2 Right Femur My [Nm, CFC_600]	B-147
141	P2 Right Femur Mz [Nm, CFC_600]	B-148
142	P2 Right Femur M Resultant [Nm, CFC_600]	B-149
143	P2 Left Knee Shear Dx [mm, CFC_180]	B-150
144	P2 Right Knee Shear Dx [mm, CFC_180]	B-151
145	P2 Left Upper Tibia Fx [N, CFC_600]	B-152
146	P2 Left Upper Tibia Fz [N, CFC_600]	B-153
147	P2 Left Upper Tibia Mx [Nm, CFC_600]	B-154
148	P2 Left Upper Tibia My [Nm, CFC_600]	B-155
149	P2 Left Lower Tibia Fx [N, CFC_600]	B-156
150	P2 Left Lower Tibia Fy [N, CFC_600]	B-157
151	P2 Left Lower Tibia Fz [N, CFC_600]	B-158
152	P2 Left Lower Tibia F Resultant [N, CFC_600]	B-159
153	P2 Left Lower Tibia Mx [Nm, CFC_600]	B-160
154	P2 Left Lower Tibia My [Nm, CFC_600]	B-161
155	P2 Right Upper Tibia Fx [N, CFC_600]	B-162
156	P2 Right Upper Tibia Fz [N, CFC_600]	B-163
157	P2 Right Upper Tibia Mx [Nm, CFC_600]	B-164
158	P2 Right Upper Tibia My [Nm, CFC_600]	B-165
159	P2 Right Lower Tibia Fx [N, CFC_600]	B-166
160	P2 Right Lower Tibia Fy [N, CFC_600]	B-167

161	P2 Right Lower Tibia Fz [N, CFC_600]	B-168
162	P2 Right Lower Tibia F Resultant [N, CFC_600]	B-169
163	P2 Right Lower Tibia Mx [Nm, CFC_600]	B-170
164	P2 Right Lower Tibia My [Nm, CFC_600]	B-171
165	P2 Left Tibia Ax [g, CFC_600]	B-172
166	P2 Left Tibia Ay [g, CFC_600]	B-173
167	P2 Right Tibia Ax [g, CFC_600]	B-174
168	P2 Right Tibia Ay [g, CFC_600]	B-175
169	P2 Left Ankle Rotation x [Deg, CFC_180]	B-176
170	P2 Left Ankle Rotation y [Deg, CFC_180]	B-177
171	P2 Left ankle Rotation z [Deg, CFC_180]	B-178
172	P2 Right Ankle Rotation x [Deg, CFC_180]	B-179
173	P2 Right Ankle Rotation y [Deg, CFC_180]	B-180
174	P2 Right Ankle Rotation z [Deg, CFC_180]	B-181
175	P2 Left Foot Ax [g, CFC_600]	B-182
176	P2 Left Foot Ay [g, CFC_600]	B-183
177	P2 Left Foot Az [g, CFC_600]	B-184
178	P2 Left Foot A Resultant [g, CFC_600]	B-185
179	P2 Right Foot Ax [g, CFC_600]	B-186
180	P2 Right Foot Ay [g, CFC_600]	B-187
181	P2 Right foot Az [g, CFC_600]	B-188
182	P2 Right Foot A Resultant [g, CFC_600]	B-189
183	Acc 1 Rear XMBR Left X [g, CFC_60]	B-190
184	Acc 1 Rear XMBR Left X Velocity [kph, CFC_180]	B-191
185	Acc 1 Rear XMBR Left X Displacement [mm, CFC_180]	B-192
186	Acc 2 Rear XMBR Left Y [g, CFC_60]	B-193
187	Acc 2 Rear XMBR Left Y Velocity [kph, CFC_180]	B-194
188	Acc 2 Rear XMBR Left Y Displacement [mm, CFC_180]	B-195
189	Acc 3 Rear XMBR Right X [g, CFC_60]	B-196
190	Acc 3 Rear XMBR Right X Velocity [kph, CFC_180]	B-197
191	Acc 3 Rear XMBR Right X Displacement [mm, CFC_180]	B-198
192	Acc 4 Rear XMBR Right Y [g, CFC_60]	B-199
193	Acc 4 Rear XMBR Right Y Velocity [kph, CFC_180]	B-200
194	Acc 4 Rear XMBR Right Y Displacement [mm, CFC_180]	B-201
195	Acc 5 P1 Toepan Left X [g, CFC_60]	B-202
196	Acc 5 P1 Toepan Left X Velocity [kph, CFC_180]	B-203
197	Acc 5 P1 Toepan Left X Displacement [mm, CFC_180]	B-204
198	Acc 6 P1 Toepan Left Z [g, CFC_60]	B-205
199	Acc 6 P1 Toepan Left Z Velocity [kph, CFC_180]	B-206
200	Acc 6 P1 Toepan Left Z Displacement [mm, CFC_180]	B-207
201	Acc 7 P1 Toepan Right X [g, CFC_60]	B-208
202	Acc 7 P1 Toepan Right X Velocity [kph, CFC_180]	B-209
203	Acc 7 P1 Toepan Right X Displacement [mm, CFC_180]	B-210
204	Acc 8 P1 Toepan Right Z [g, CFC_60]	B-211
205	Acc 8 P1 Toepan Right Z Velocity [kph, CFC_180]	B-212

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head 9 Array X Arm Ay

Max: 29.8 [g] at 0.060 [s]
Min: -17.5 [g] at 0.064 [s]

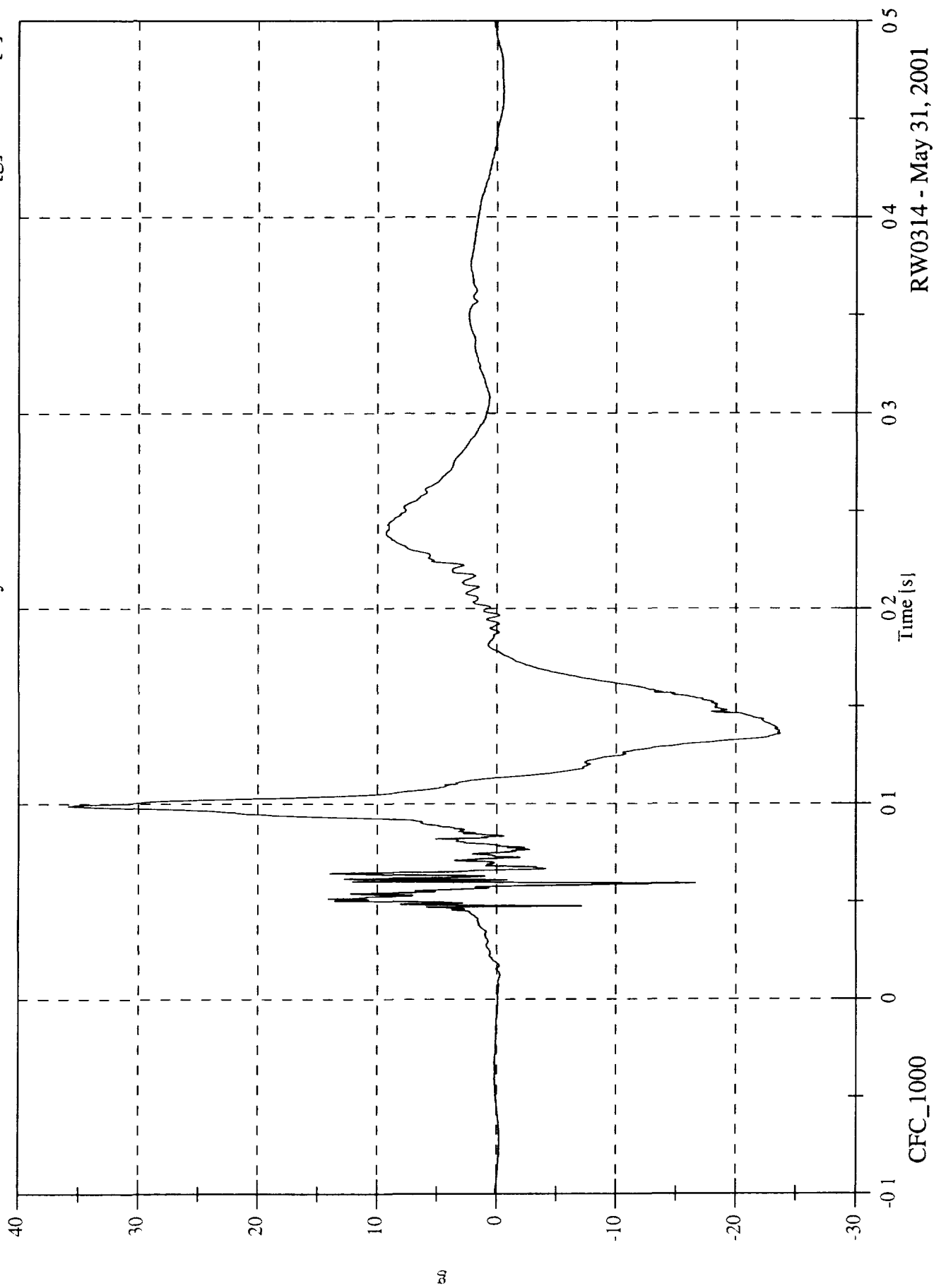


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head 9 Array X Arm Az

Max: 35.9 [g] at 0.099 [s]
Min: -23.7 [g] at 0.136 [s]

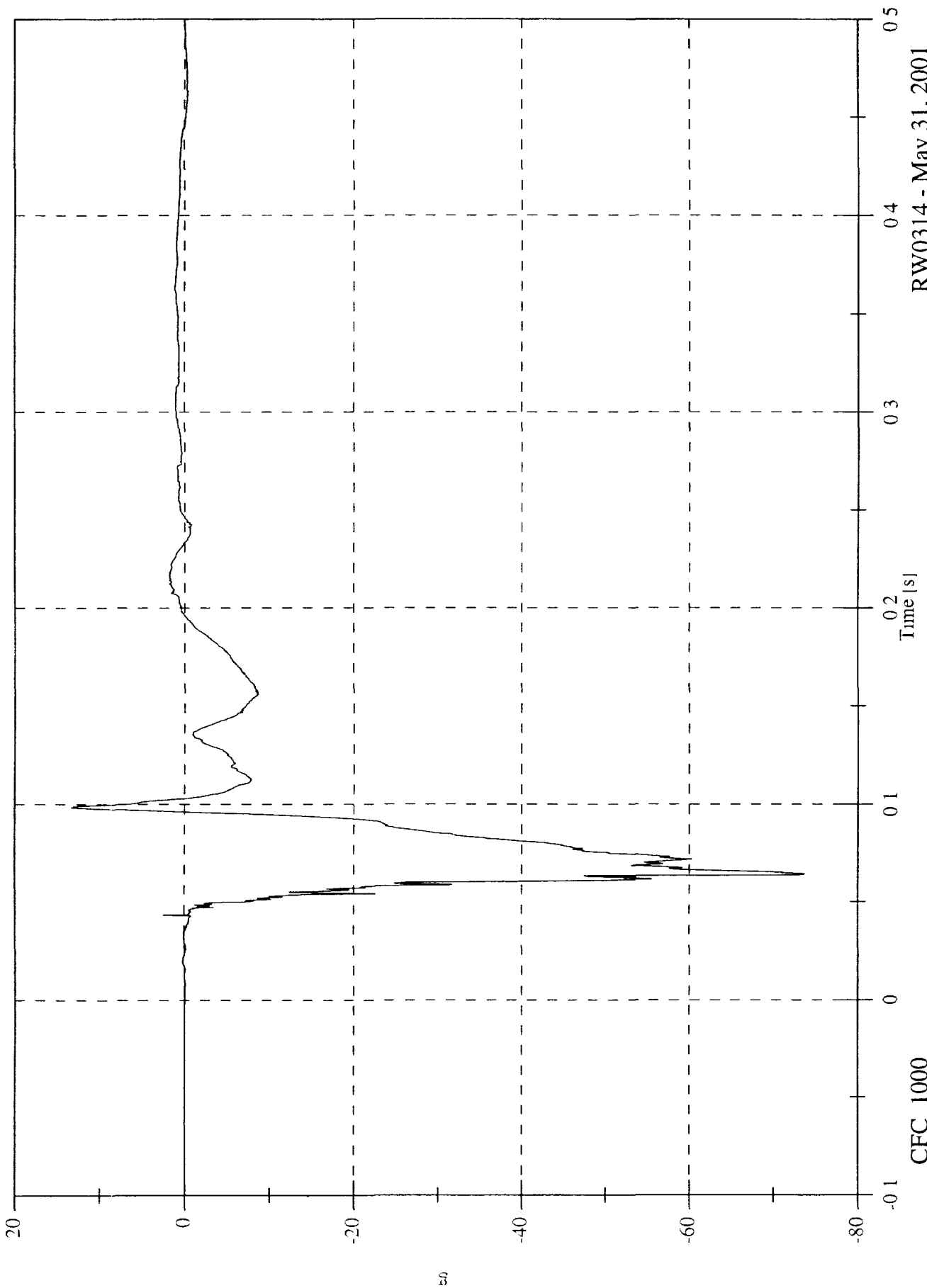


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 13.3 [g] at 0.098 [s]
 Min: -73.7 [g] at 0.064 [s]

P1 Head 9 Array Y Arm Ax

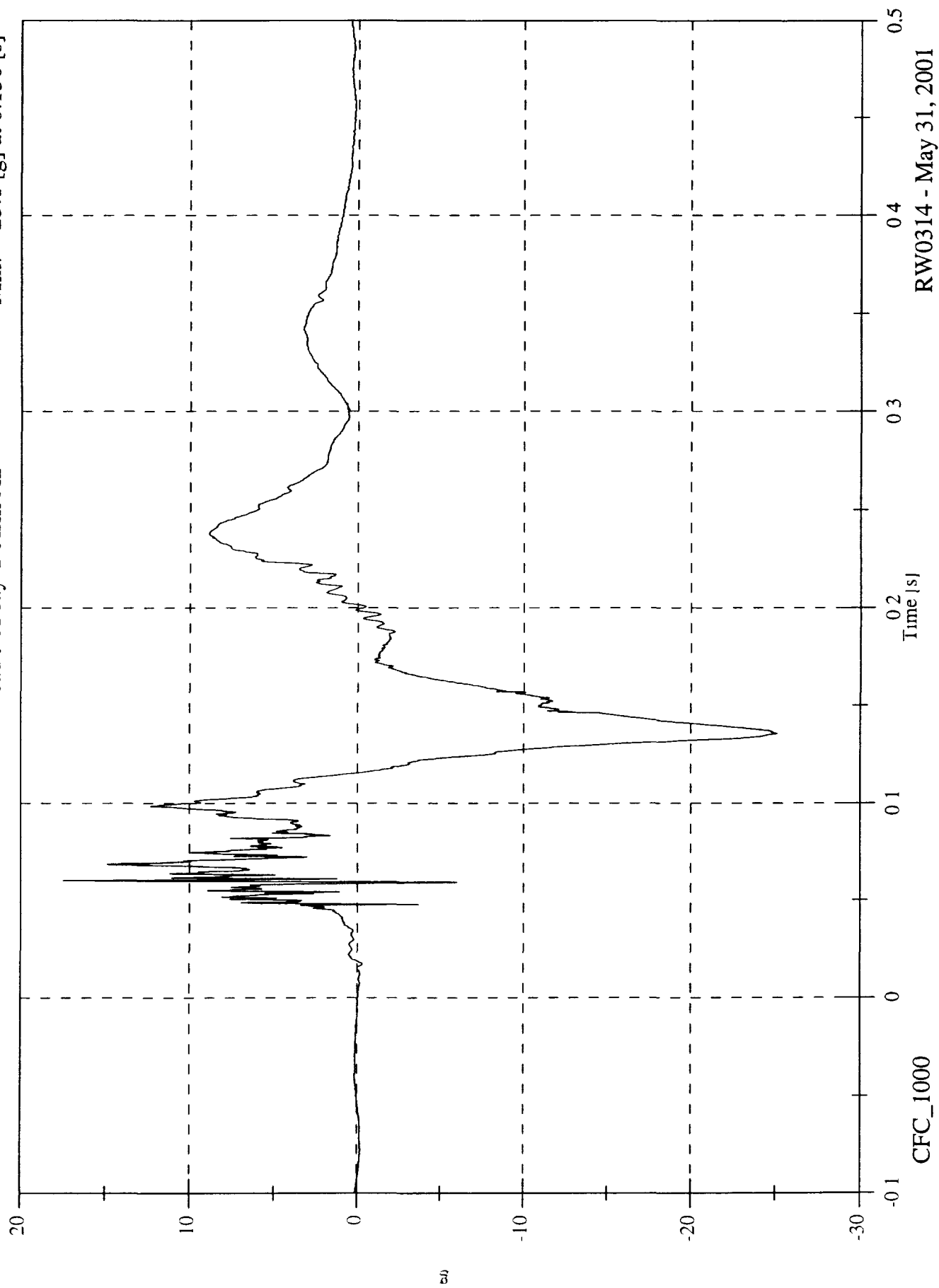


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 17.5 [g] at 0.060 [s]
Min: -25.1 [g] at 0.136 [s]

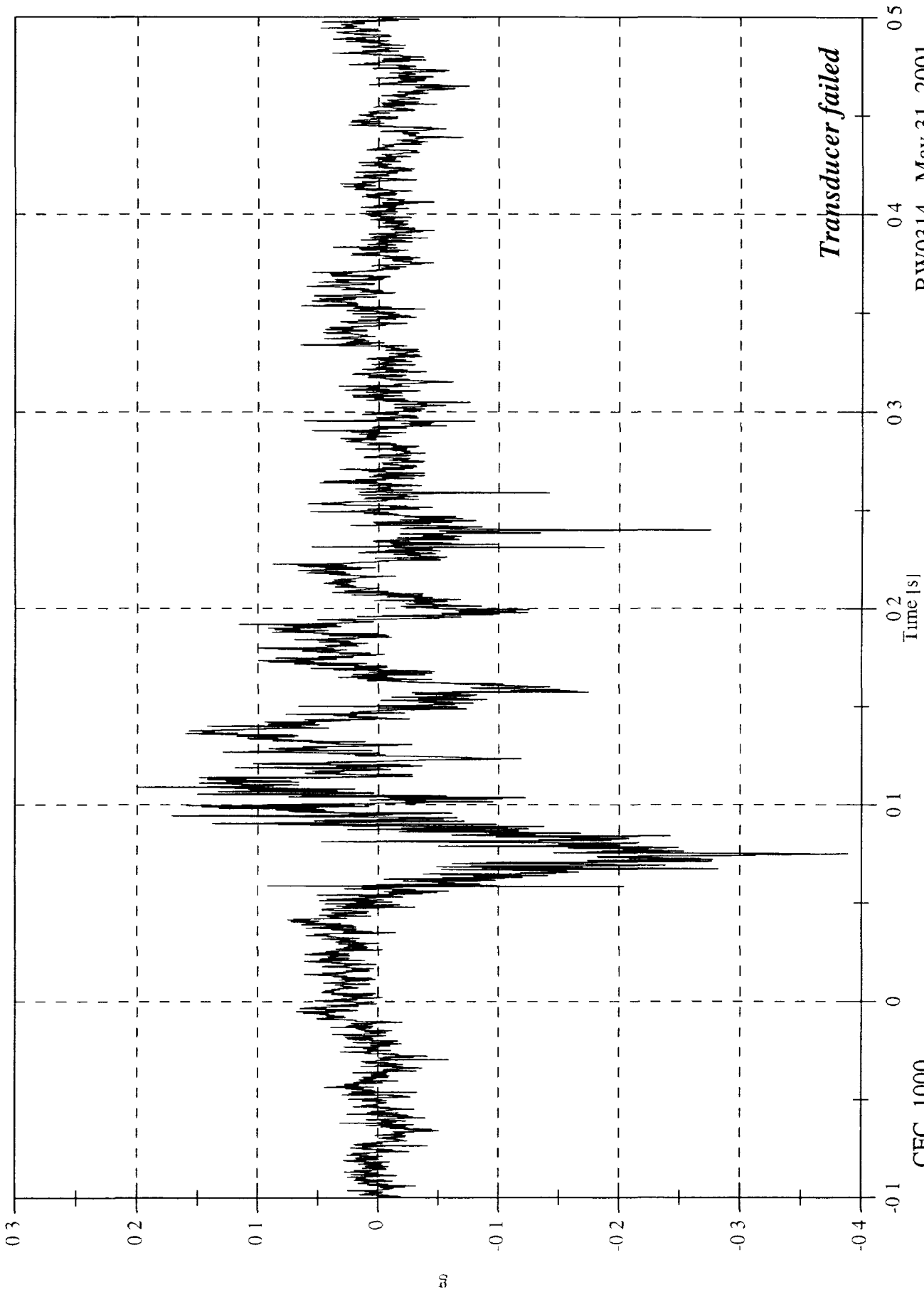
P1 Head 9 Array Y Arm Az



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 0.2 [g] at 0.109 [s]
 Min. -0.4 [g] at 0.075 [s]

P1 Head 9 Array Z Arm Ax

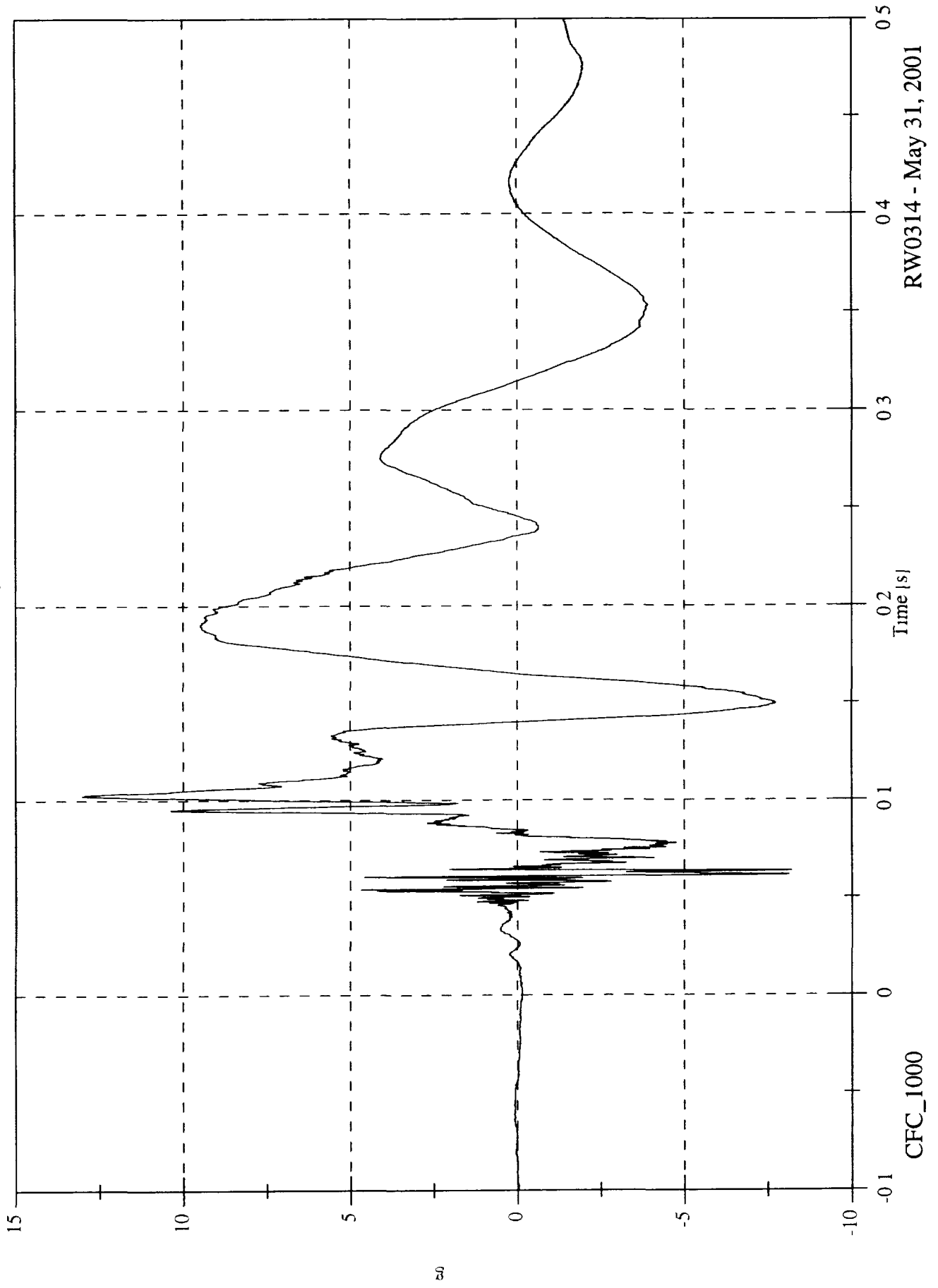


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head 9 Array Z Arm Ay

Max: 13.0 [g] at 0.102 [s]
Min: -8.2 [g] at 0.064 [s]

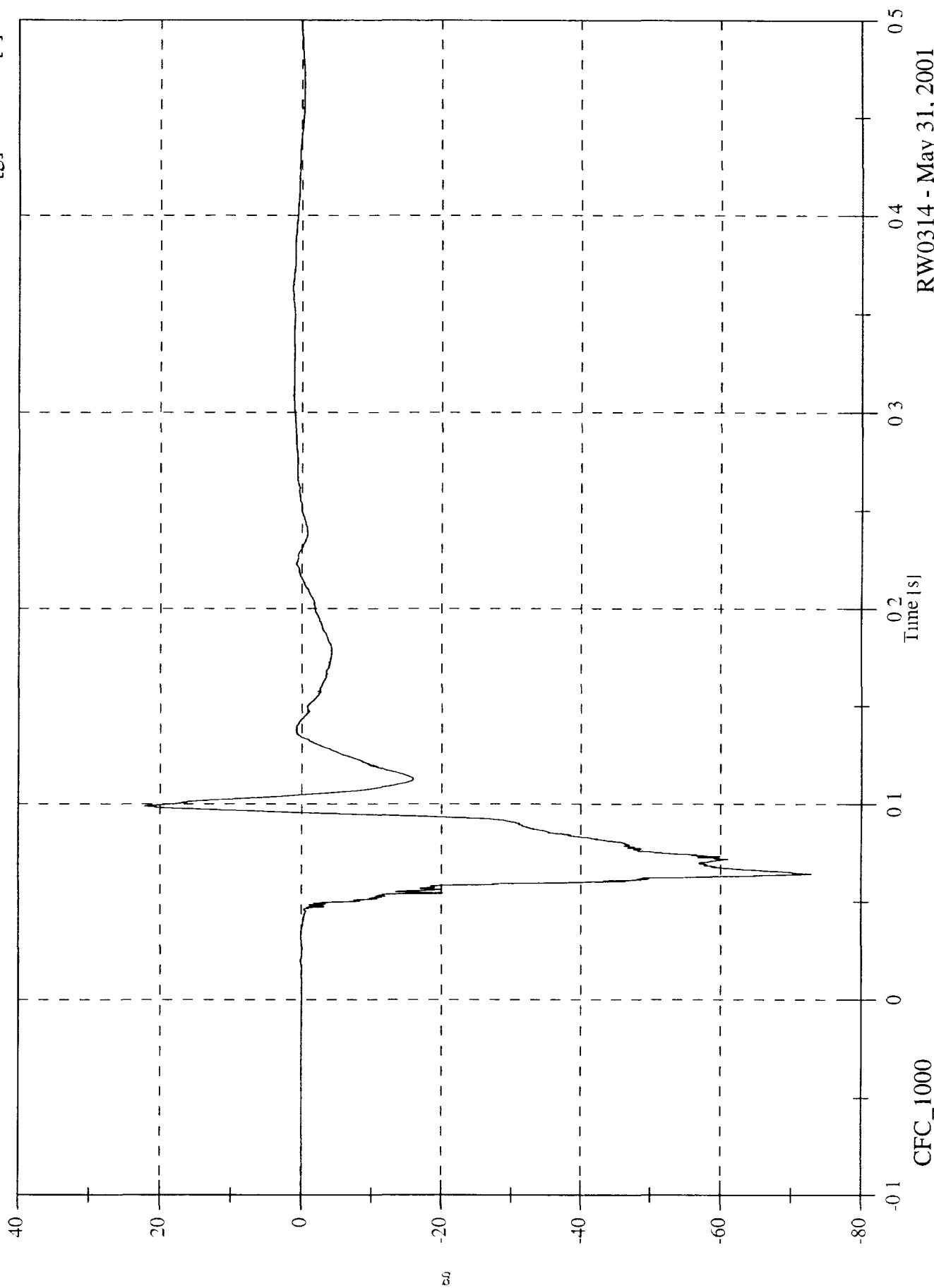


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 22.2 [g] at 0.099 [s]
Min: -72.9 [g] at 0.064 [s]

P1 Head Ax

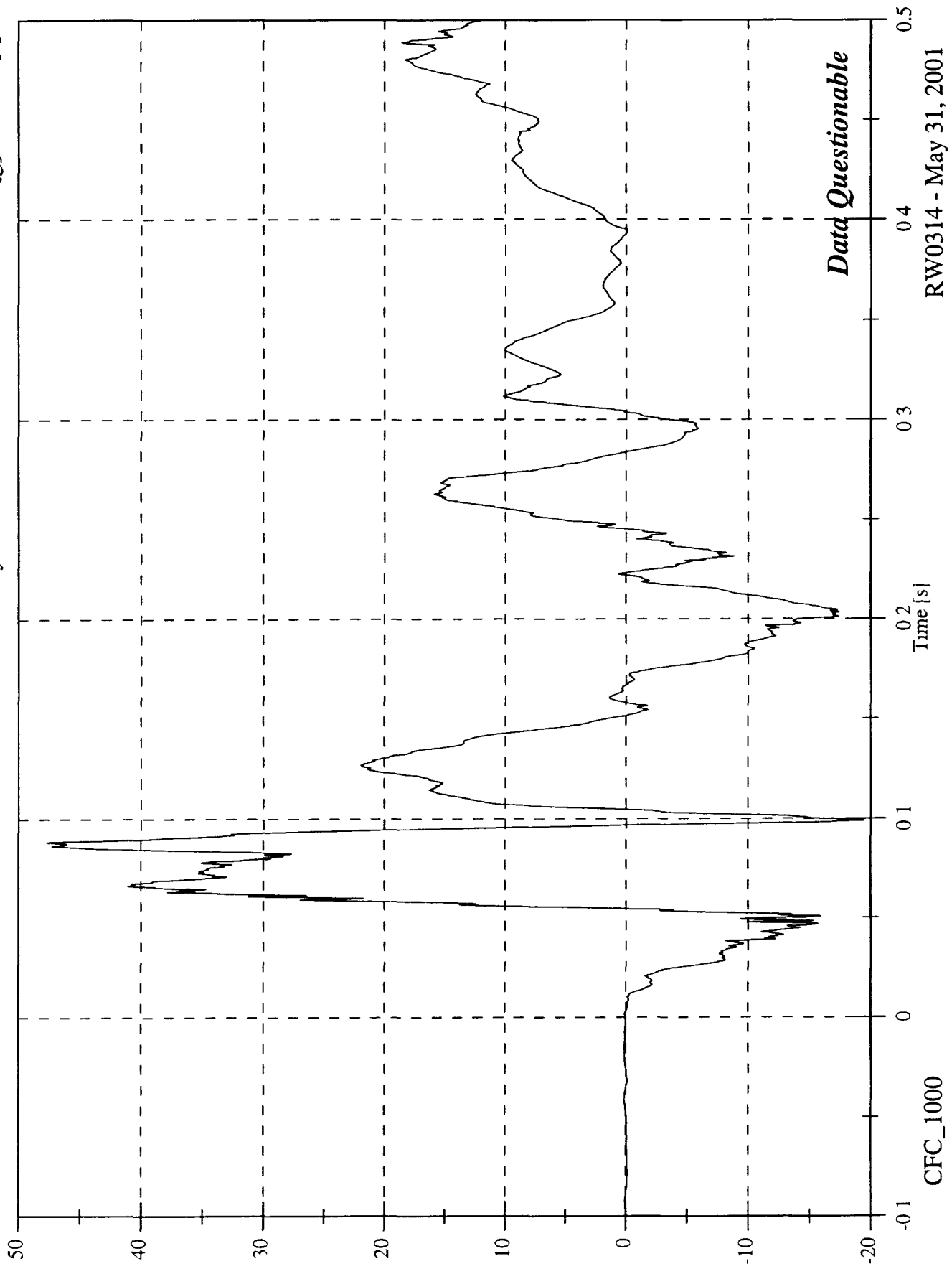


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 47.7 [g] at 0.089 [s]
Min: -19.5 [g] at 0.099 [s]

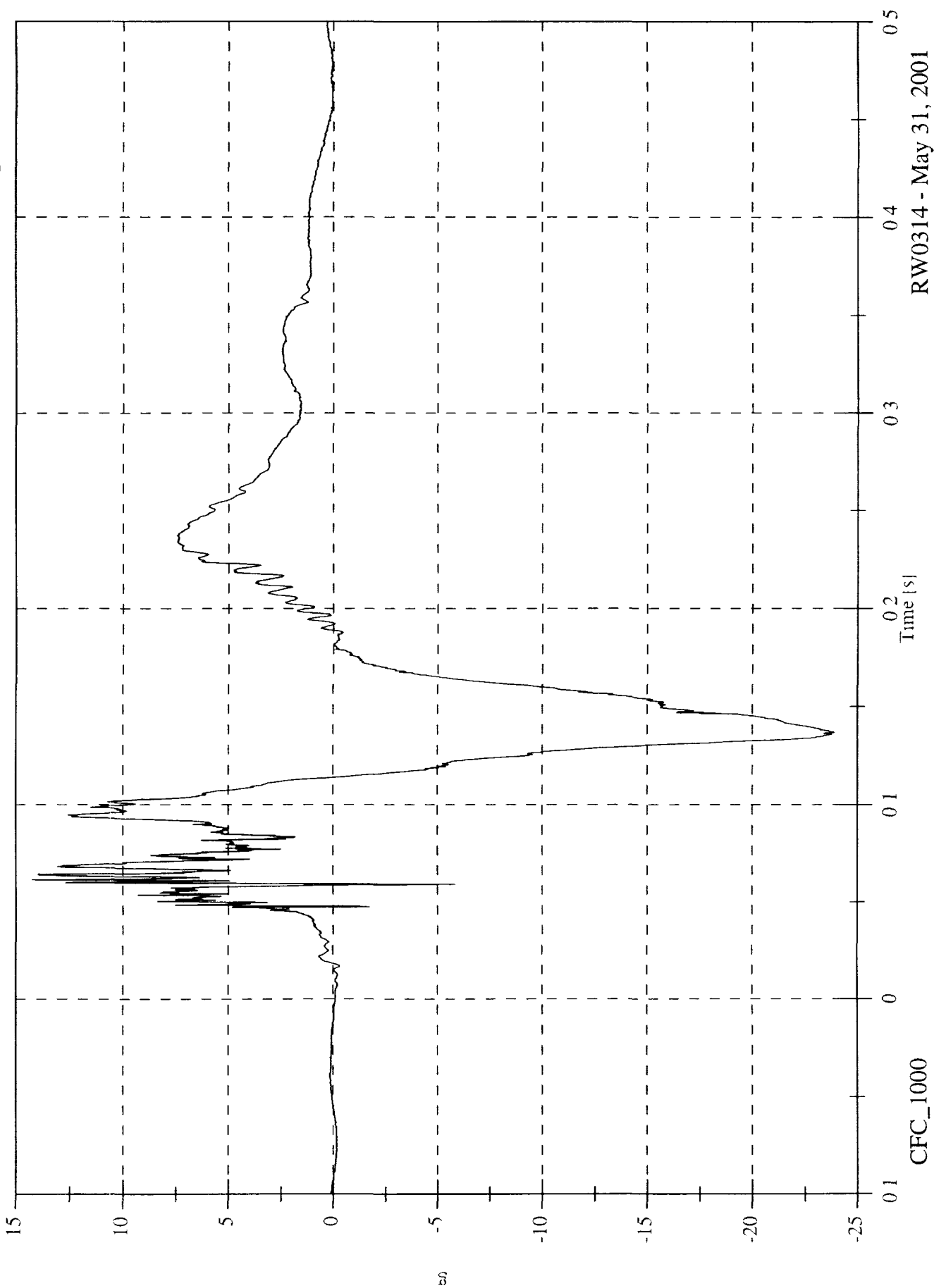
P1 Head Ay



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 14.2 [g] at 0.062 [s]
 Min: -23.9 [g] at 0.137 [s]

P1 Head Az

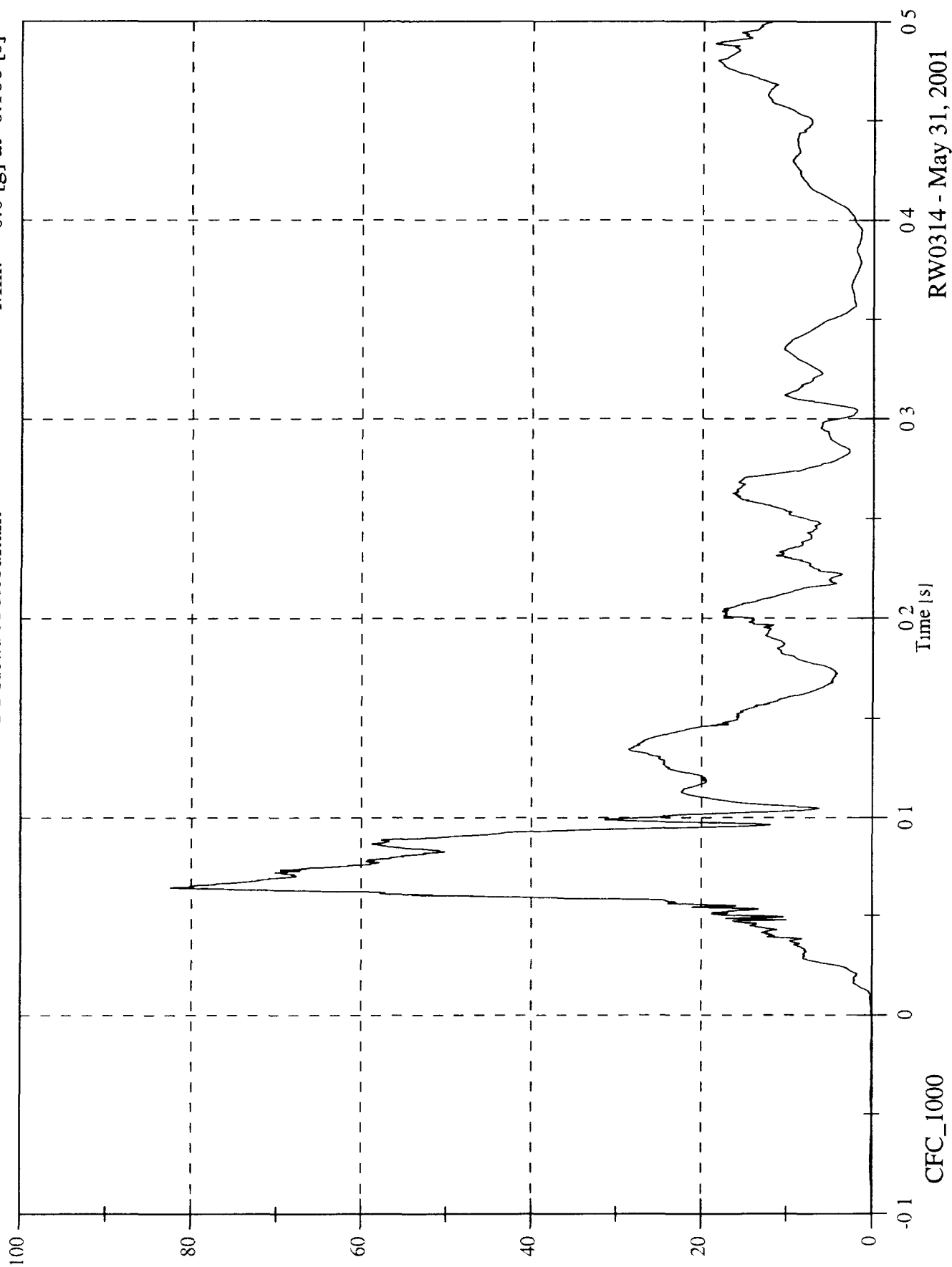


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head A Resultant

Max: 82.5 [g] at 0.064 [s]
Min: 0.0 [g] at -0.100 [s]

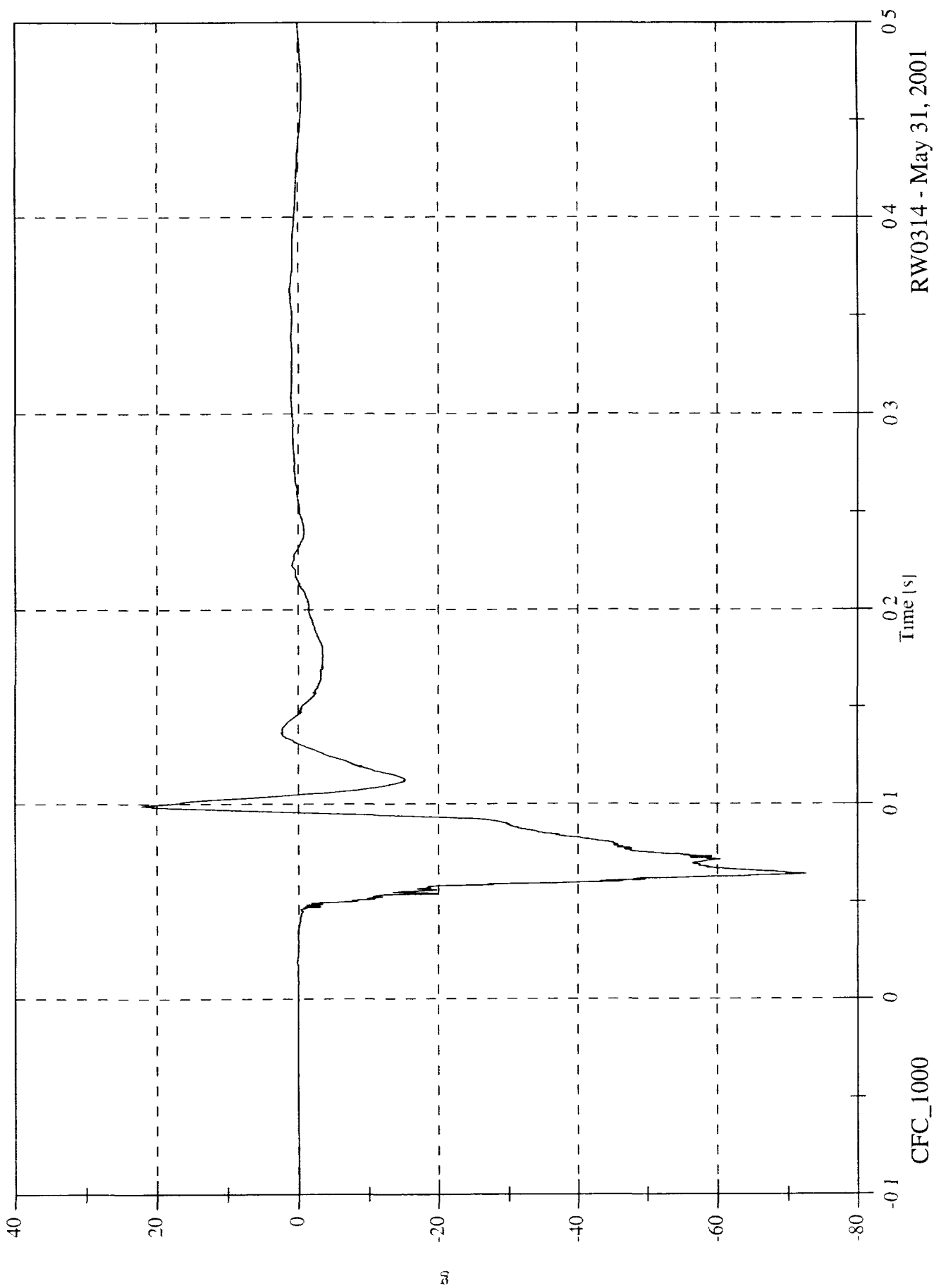


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 22.1 [g] at 0.099 [s]
Min: -72.6 [g] at 0.064 [s]

P1 Head Red Ax



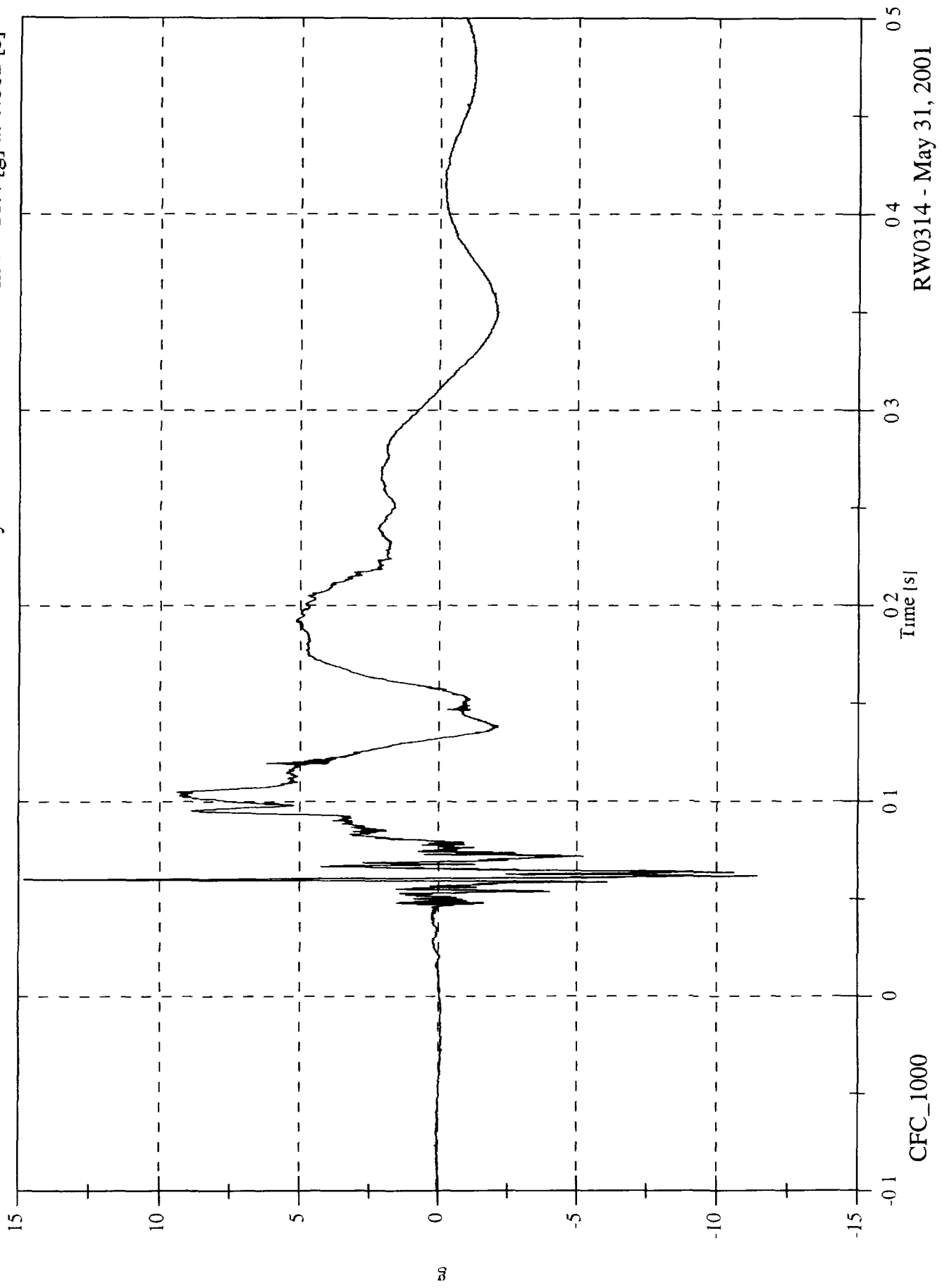
CFC_1000

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head Red Ay

Max: 14.8 [g] at 0.060 [s]
Min: -11.4 [g] at 0.062 [s]

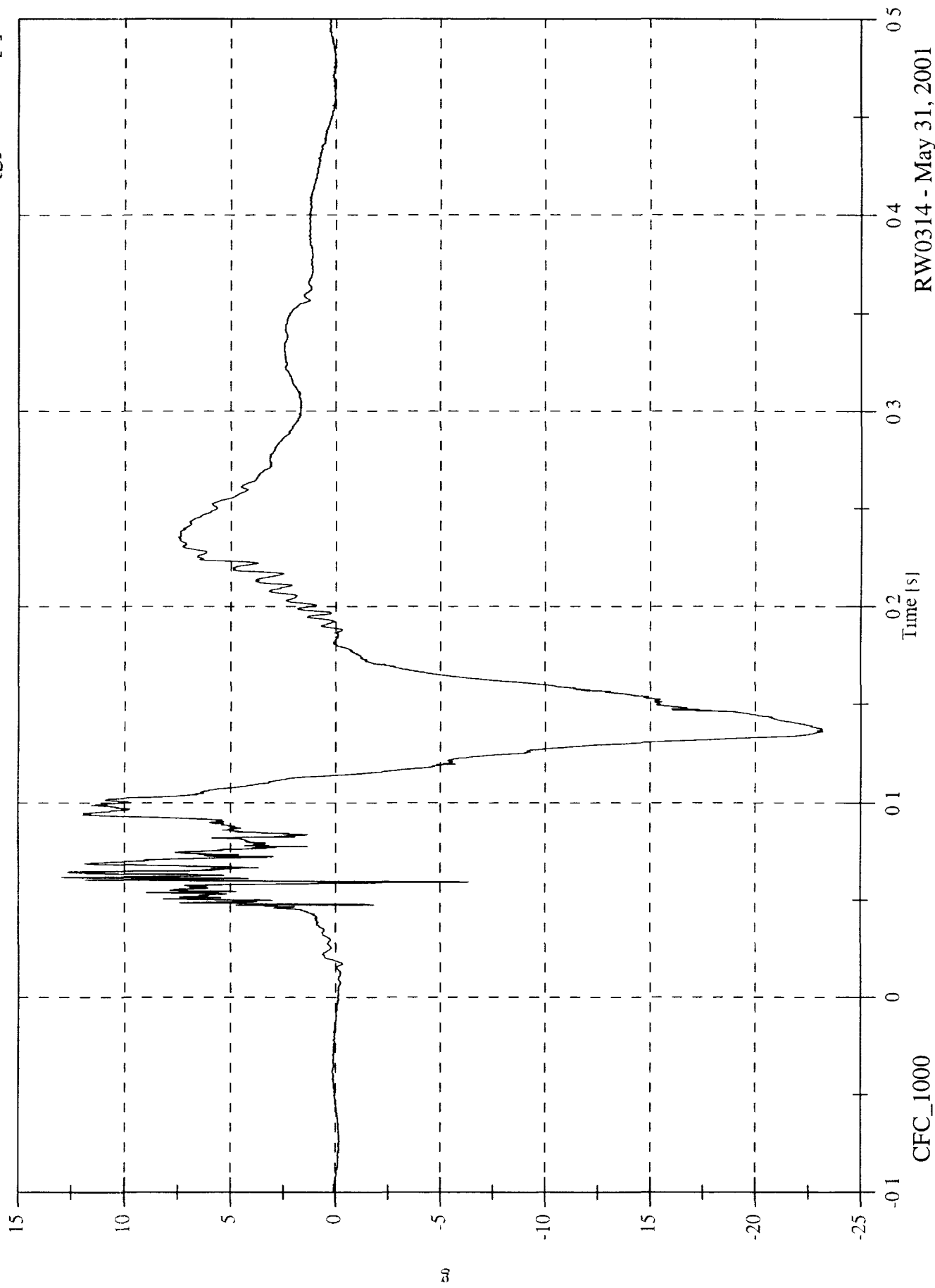


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 12.9 [g] at 0.062 [s]
Min: -23.2 [g] at 0.136 [s]

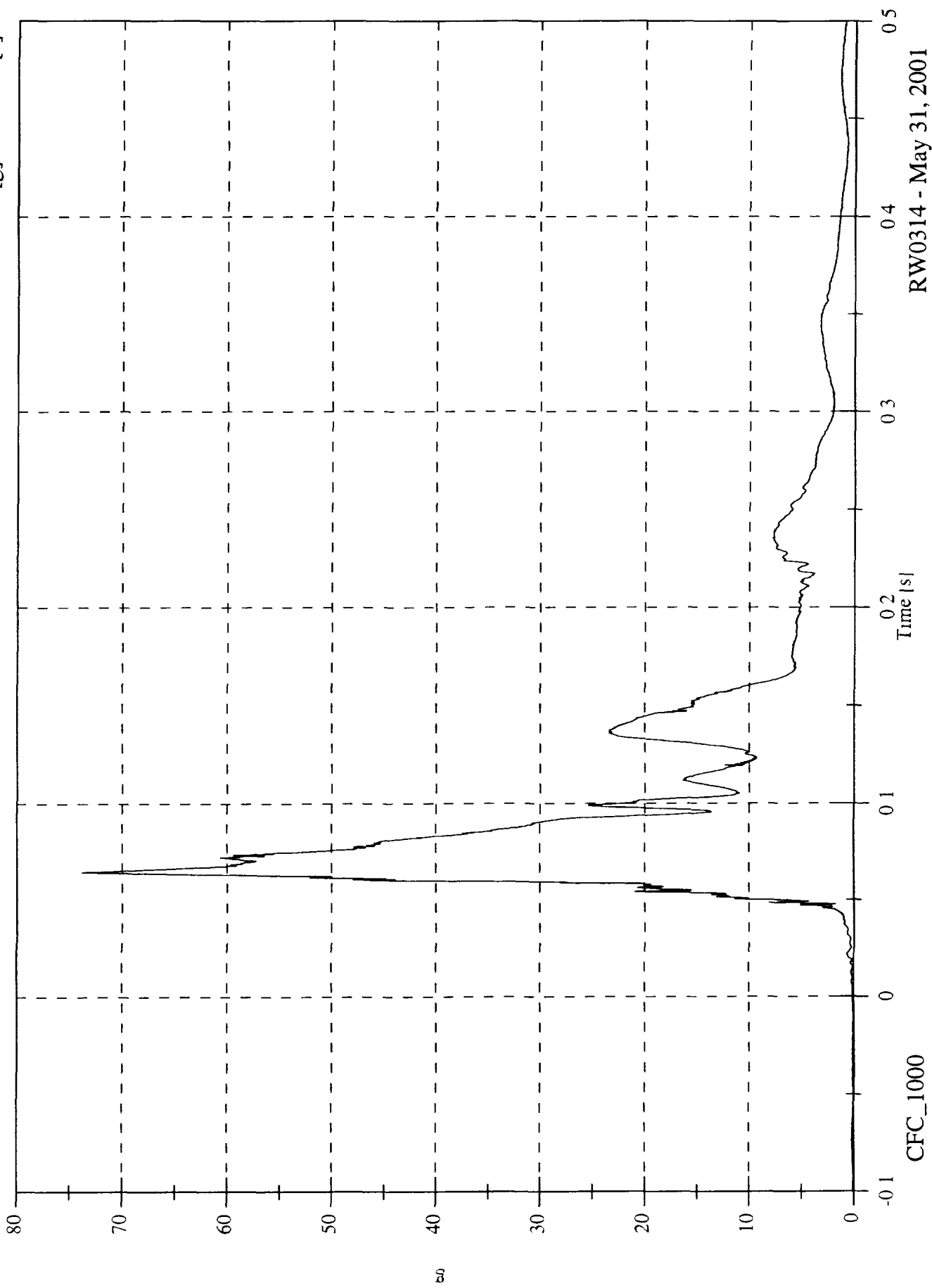
P1 Head Red Az



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Head Red A Resultant

Max: 73.8 [g] at 0.064 [s]
Min: 0.0 [g] at -0.057 [s]

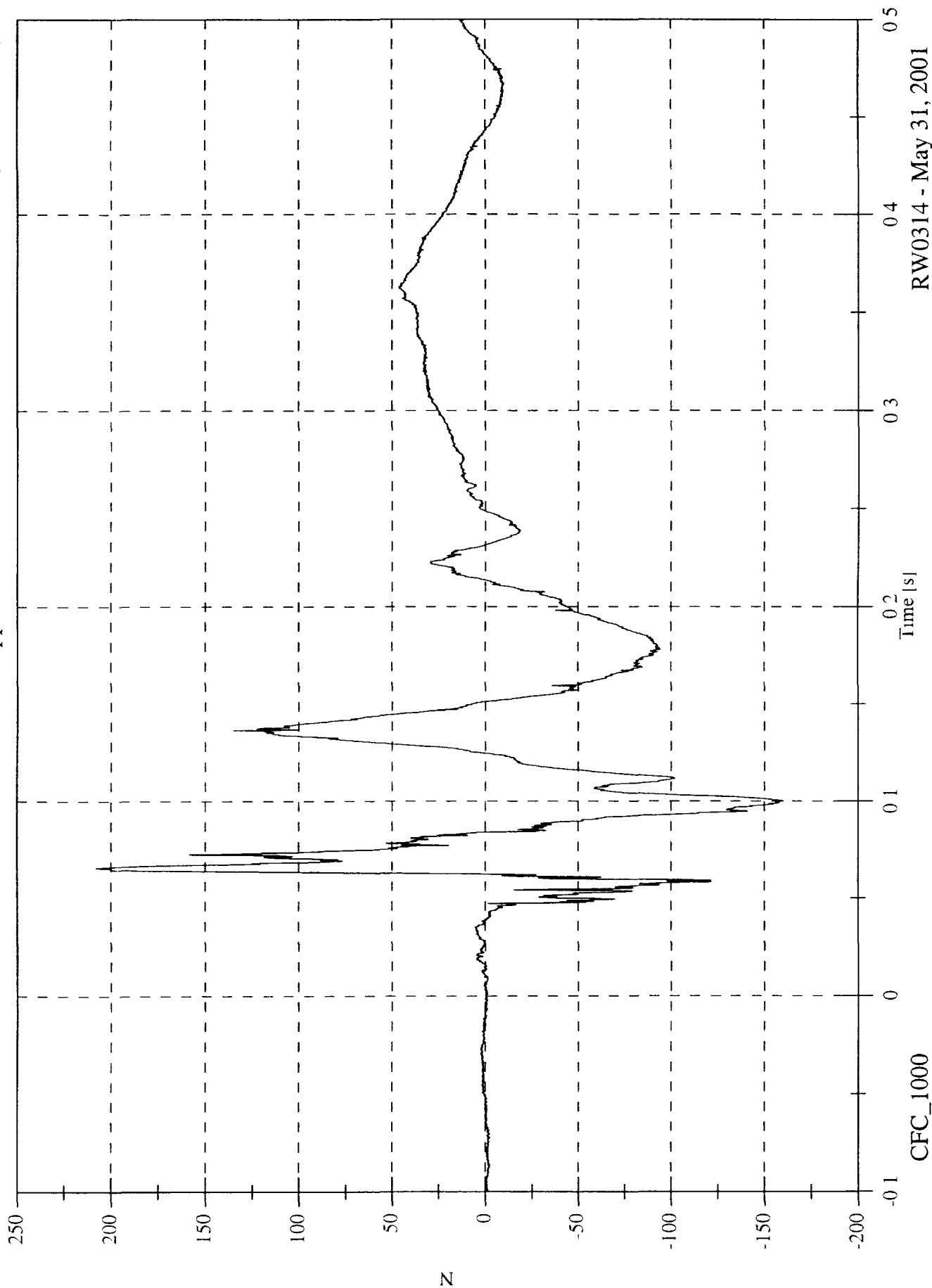


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 207.7 [N] at 0.066 [s]
Min: -160.0 [N] at 0.100 [s]

P1 Upper Neck Fx



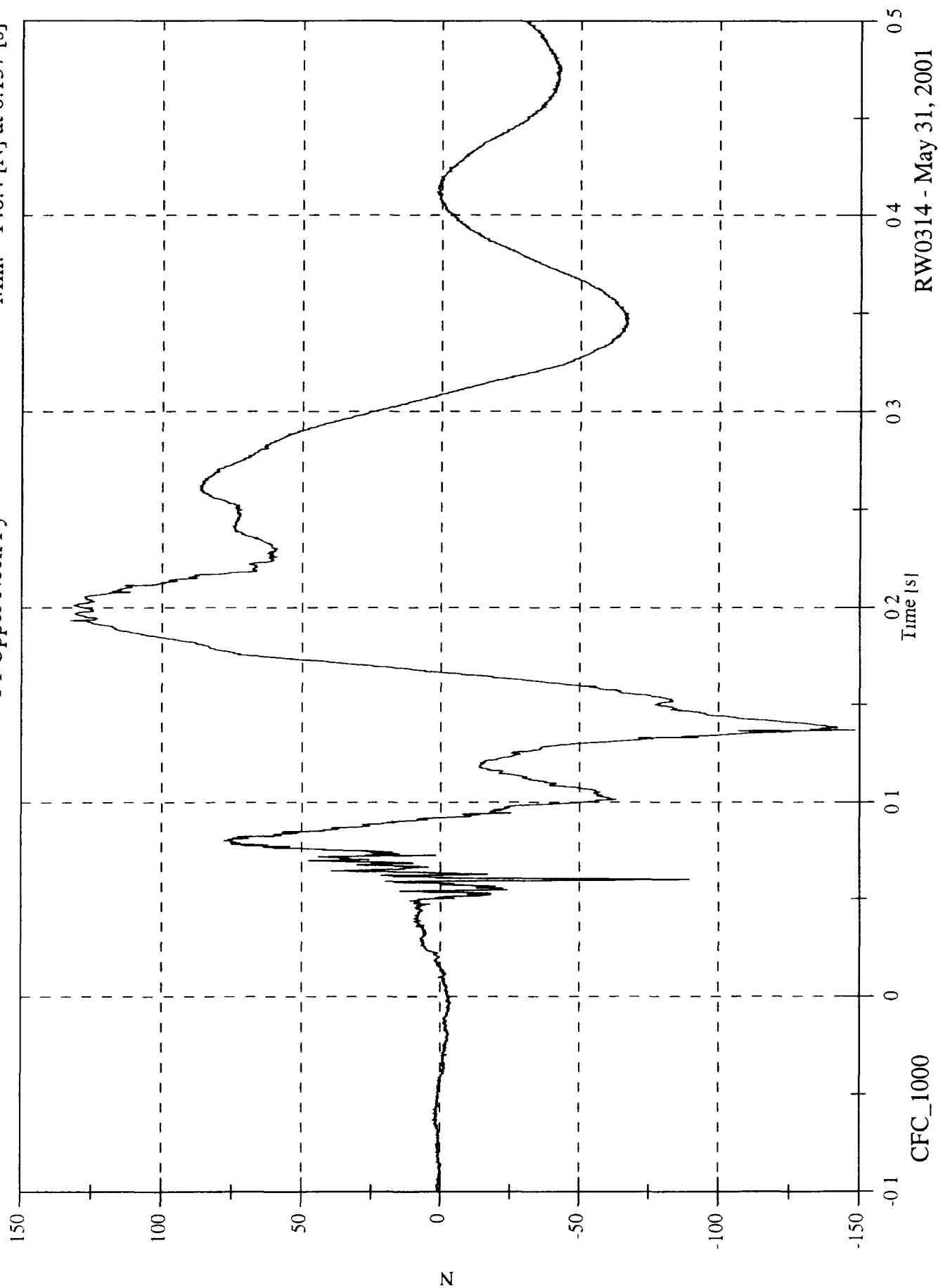
CFC_1000

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 132.5 [N] at 0.193 [s]
Min: -148.4 [N] at 0.137 [s]

P1 Upper Neck Fy

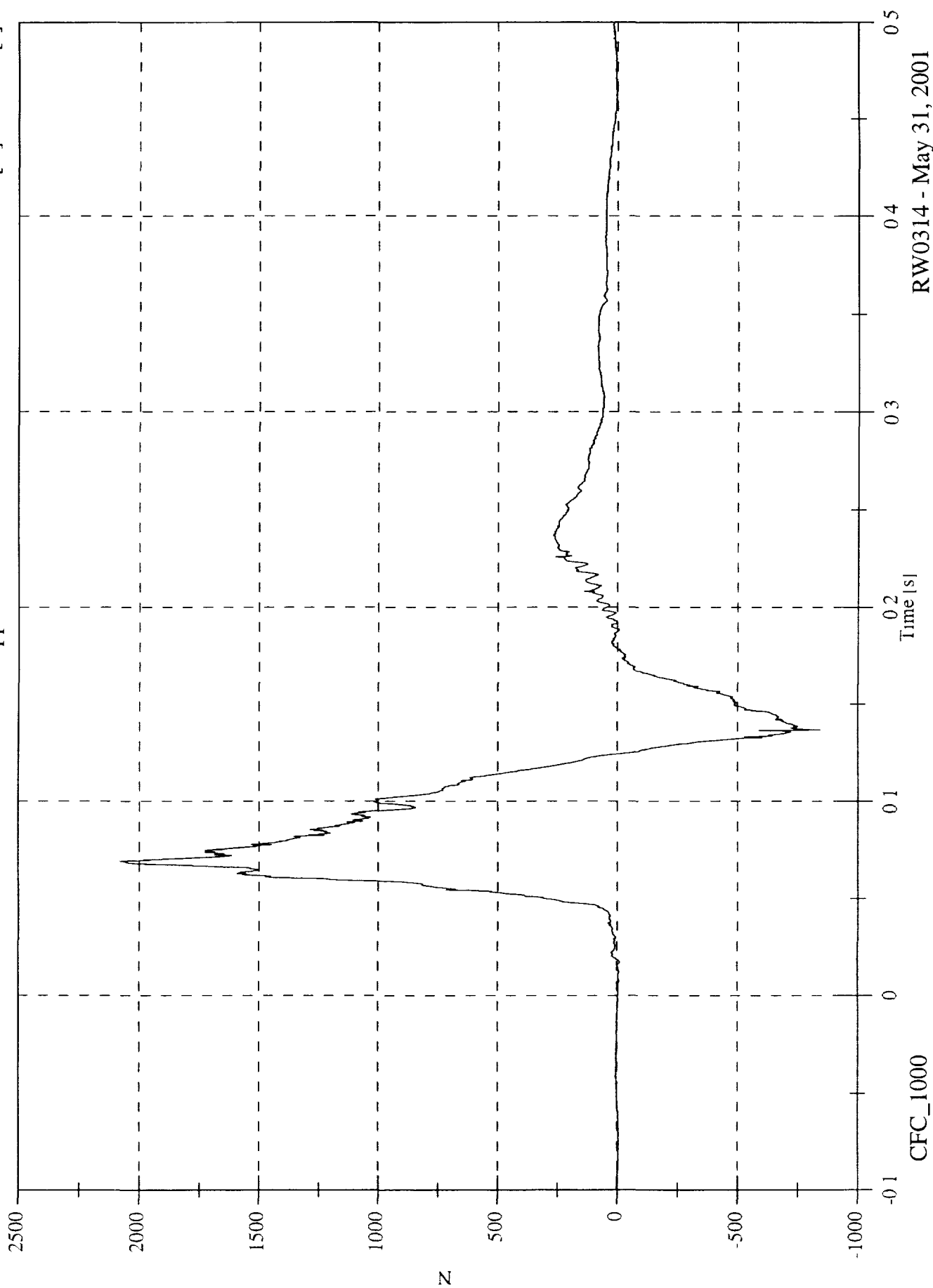


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 2080.7 [N] at 0.069 [s]
Min: -842.9 [N] at 0.137 [s]

P1 Upper Neck Fz



CFC_1000

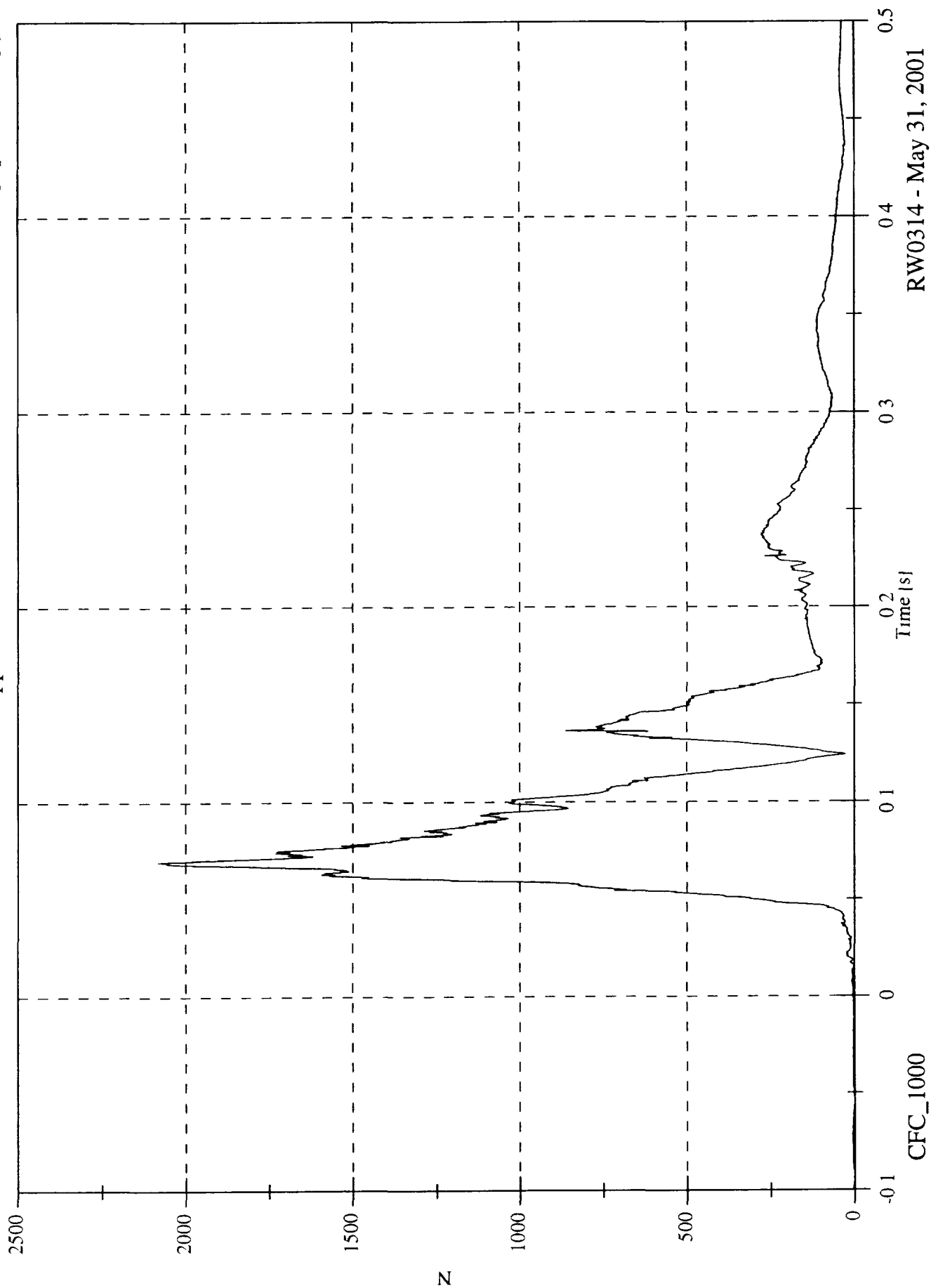
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 2082.6 [N] at 0.069 [s]
Min: 0.4 [N] at -0.092 [s]

P1 Upper Neck F Resultant

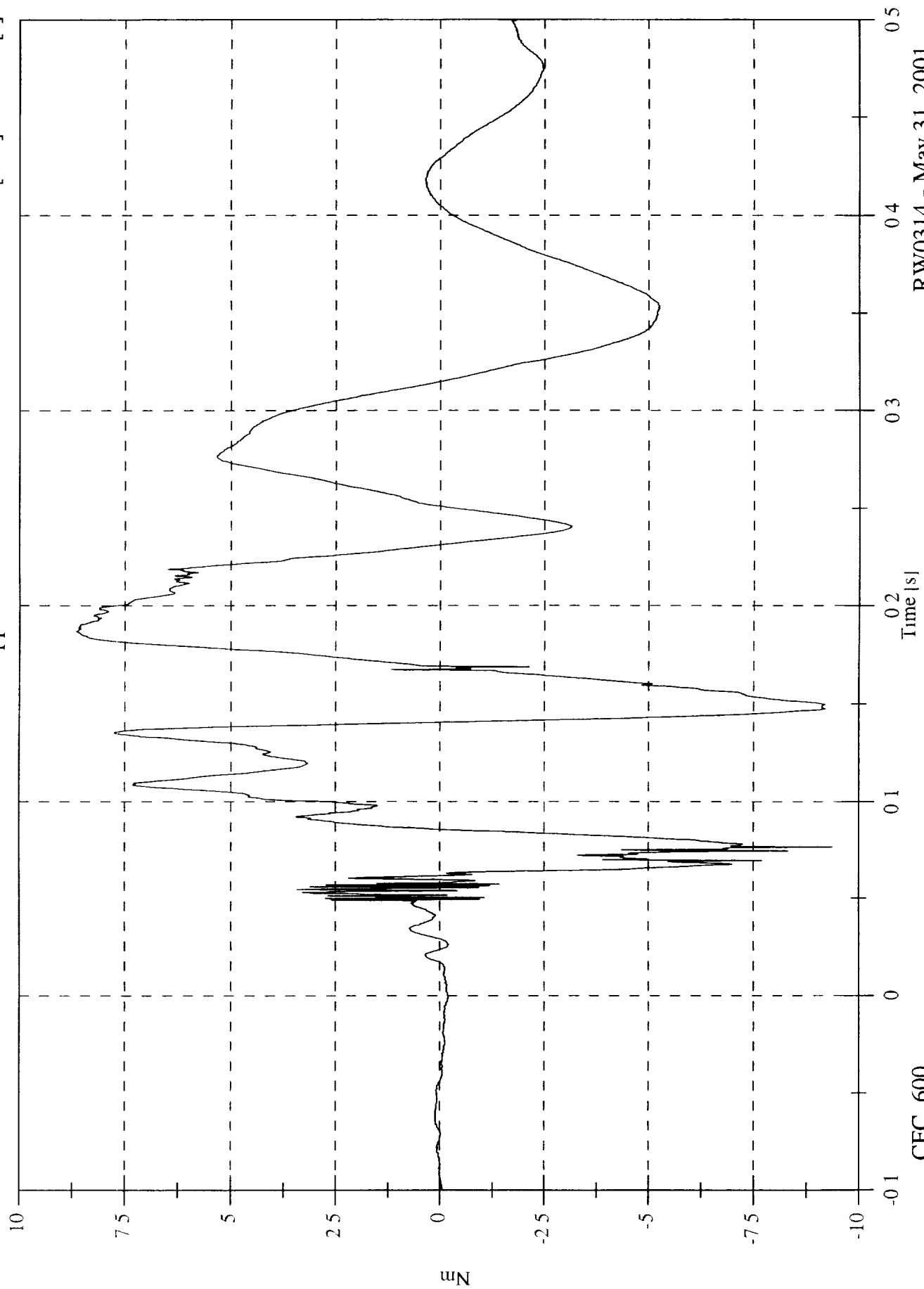


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 8.7 [Nm] at 0.187 [s]
 Min: -9.4 [Nm] at 0.077 [s]

P1 Upper Neck Mx



CFC_600

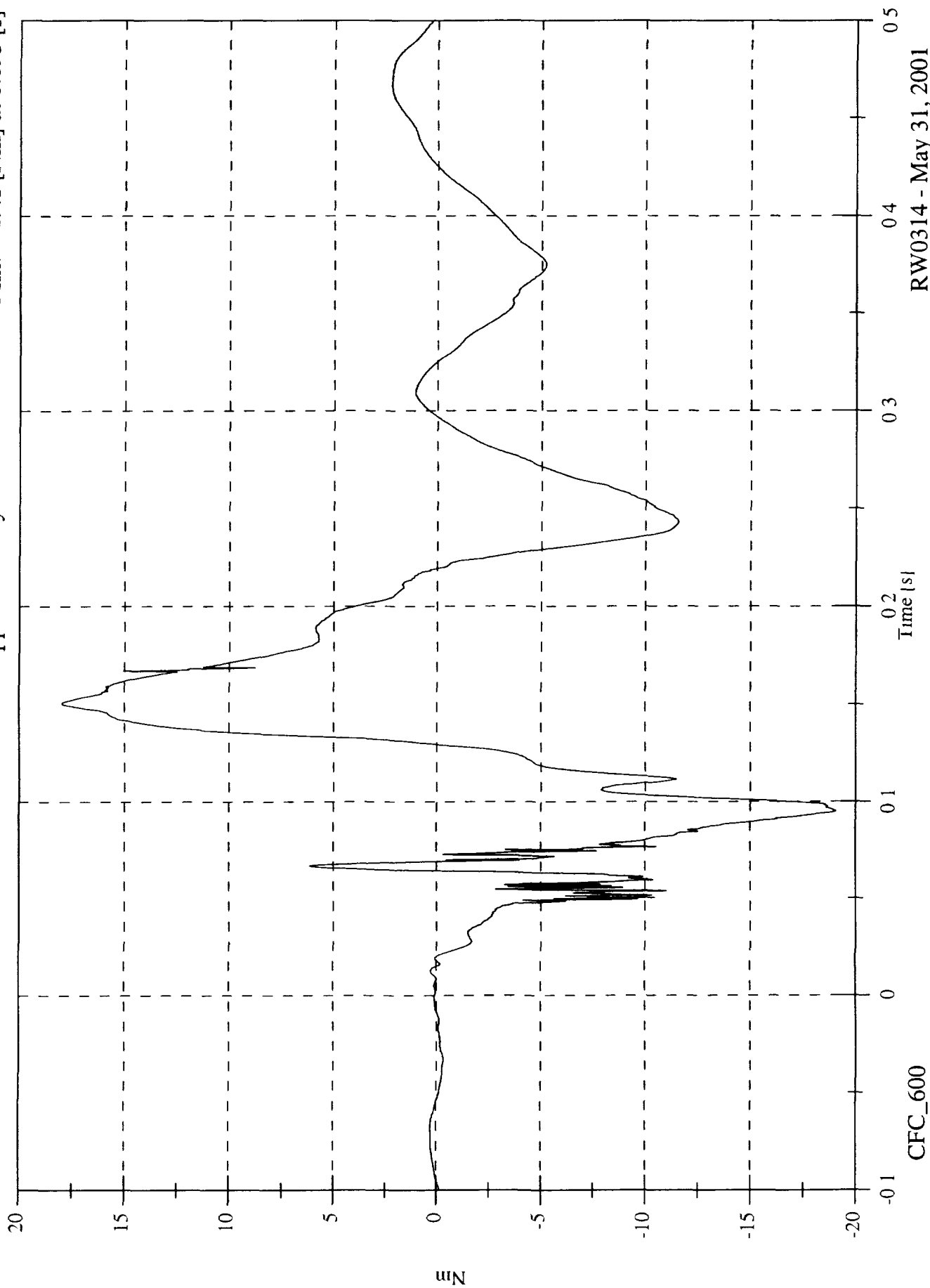
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 18.0 [Nm] at 0.150 [s]
Min: -19.1 [Nm] at 0.095 [s]

P1 Upper Neck My

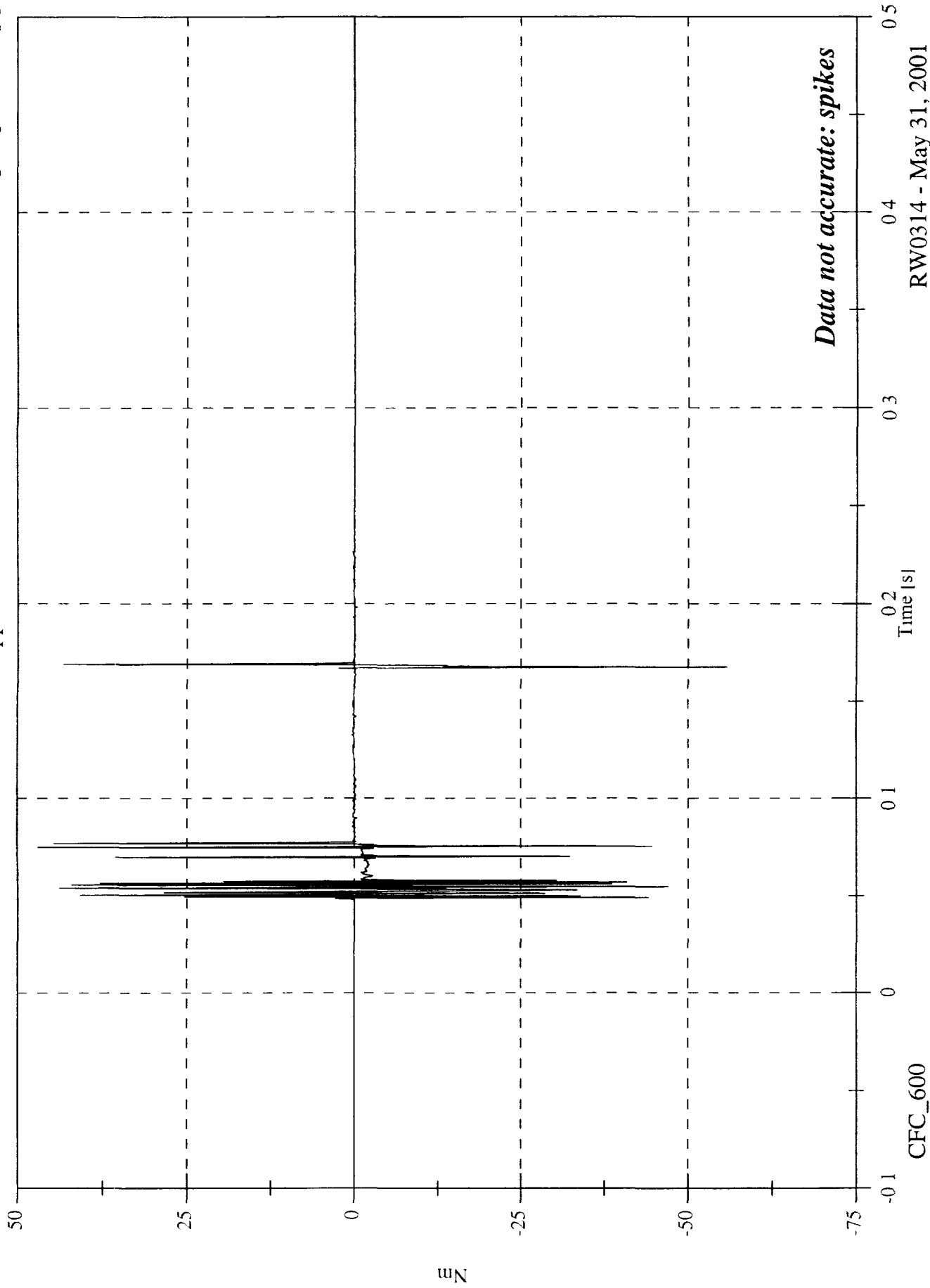


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 46.9 [Nm] at 0.075 [s]
 Min: -55.8 [Nm] at 0.167 [s]

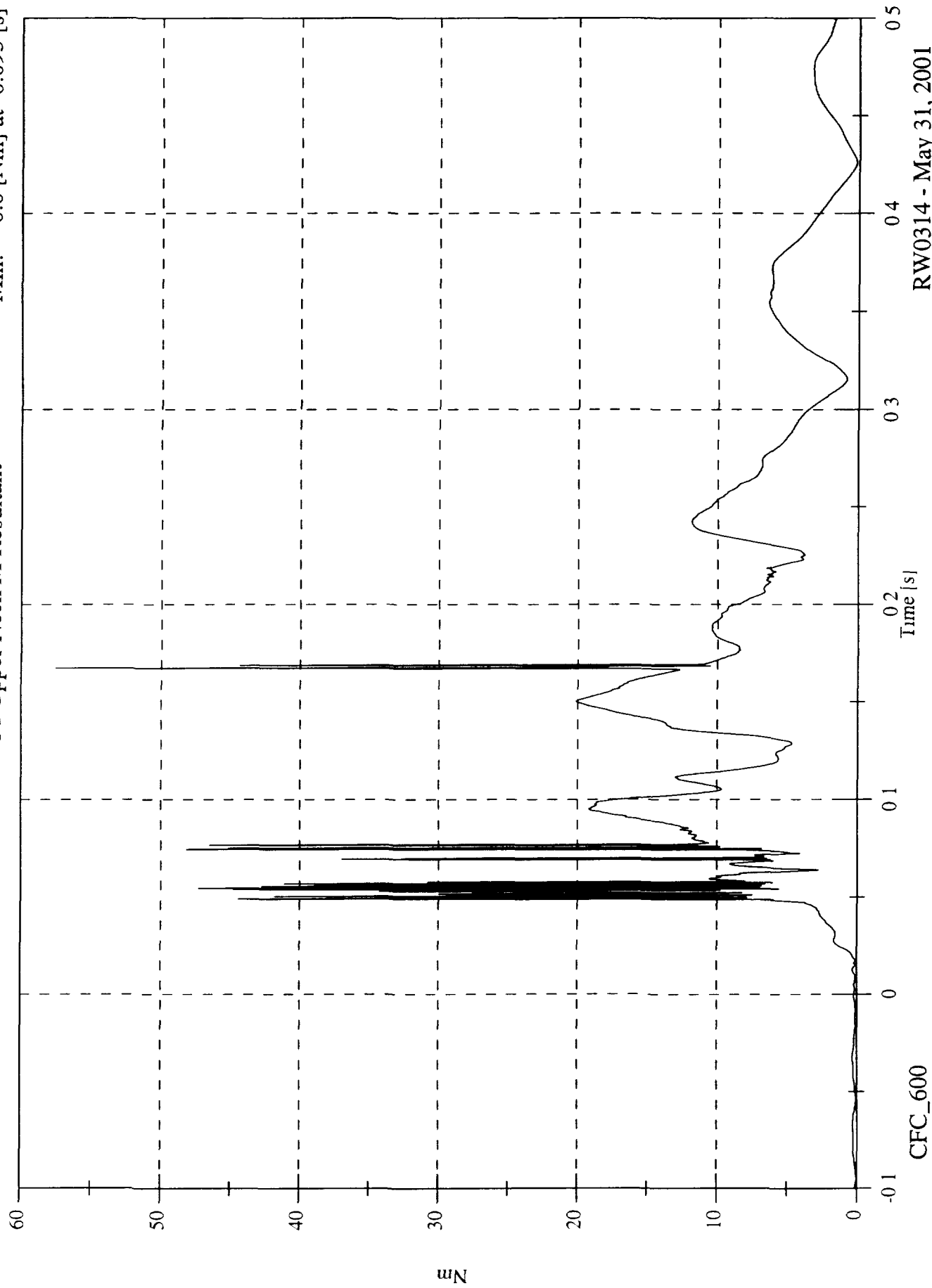
P1 Upper Neck Mz



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Upper Neck M Resultant

Max: 57.6 [Nm] at 0.167 [s]
Min: 0.0 [Nm] at -0.095 [s]

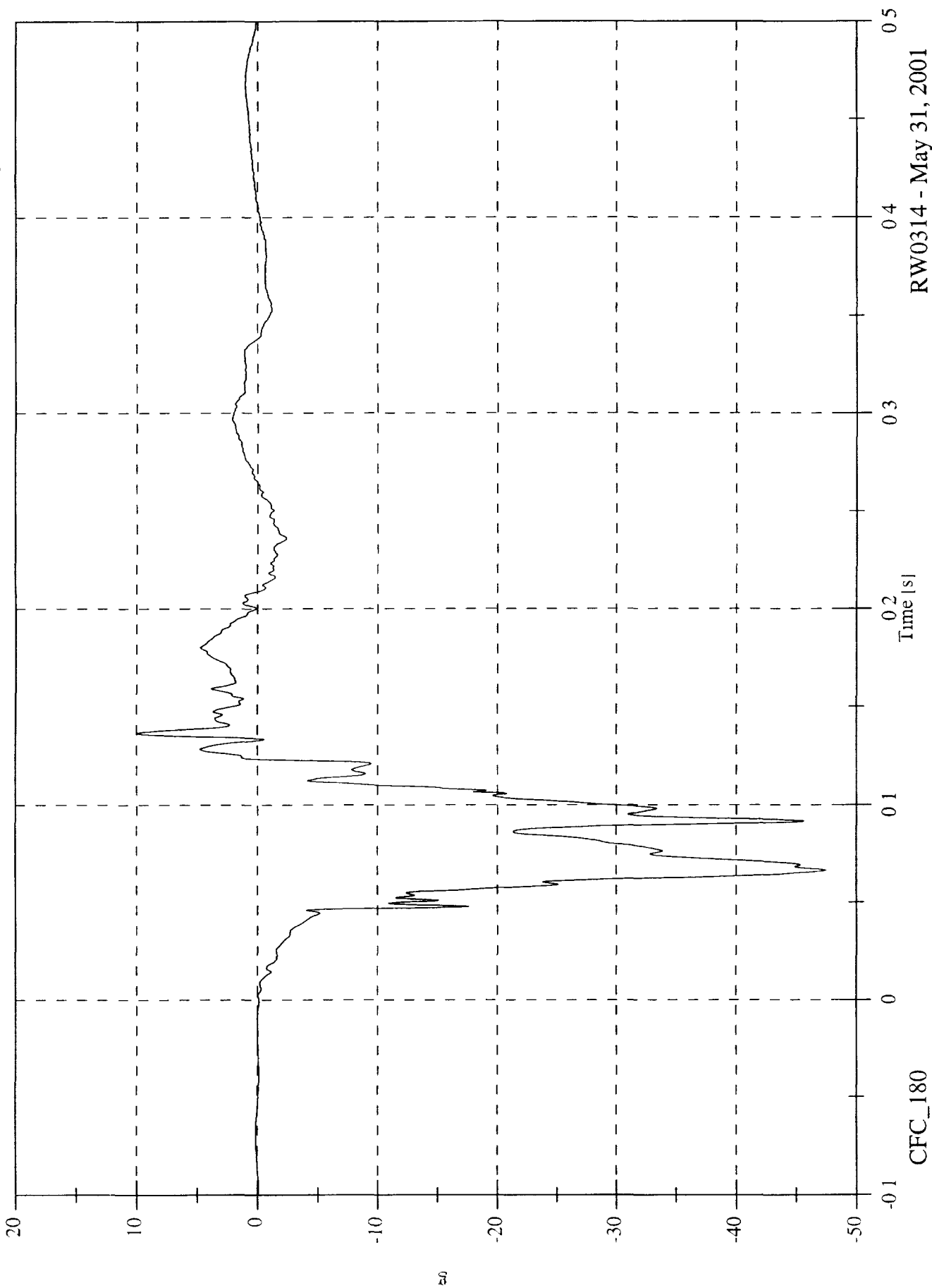


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 10.0 [g] at 0.137 [s]
Min. -47.4 [g] at 0.066 [s]

P1 Chest Ax

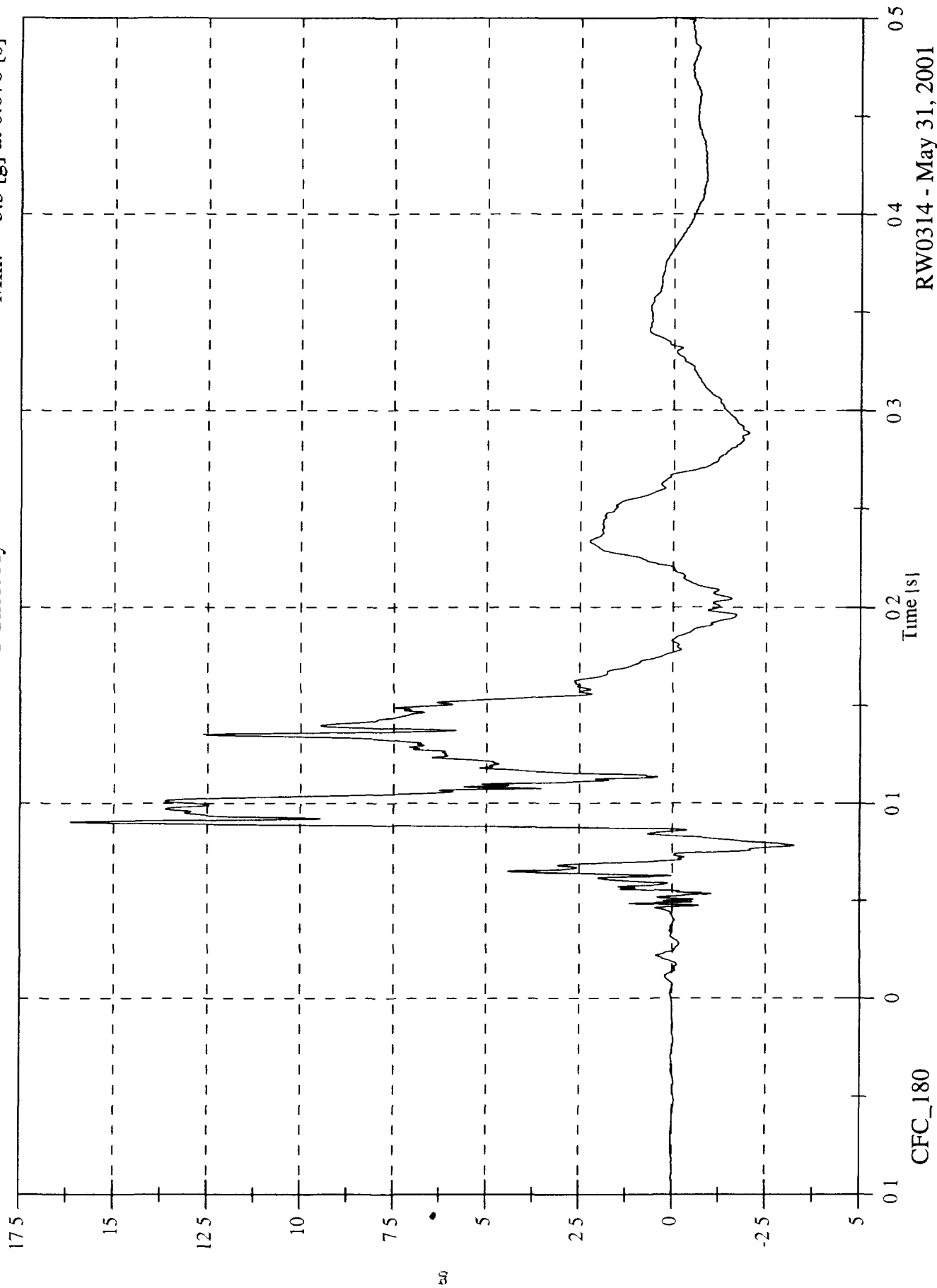


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Chest Ay

Max: 16.1 [g] at 0.090 [s]
Min: -3.3 [g] at 0.078 [s]

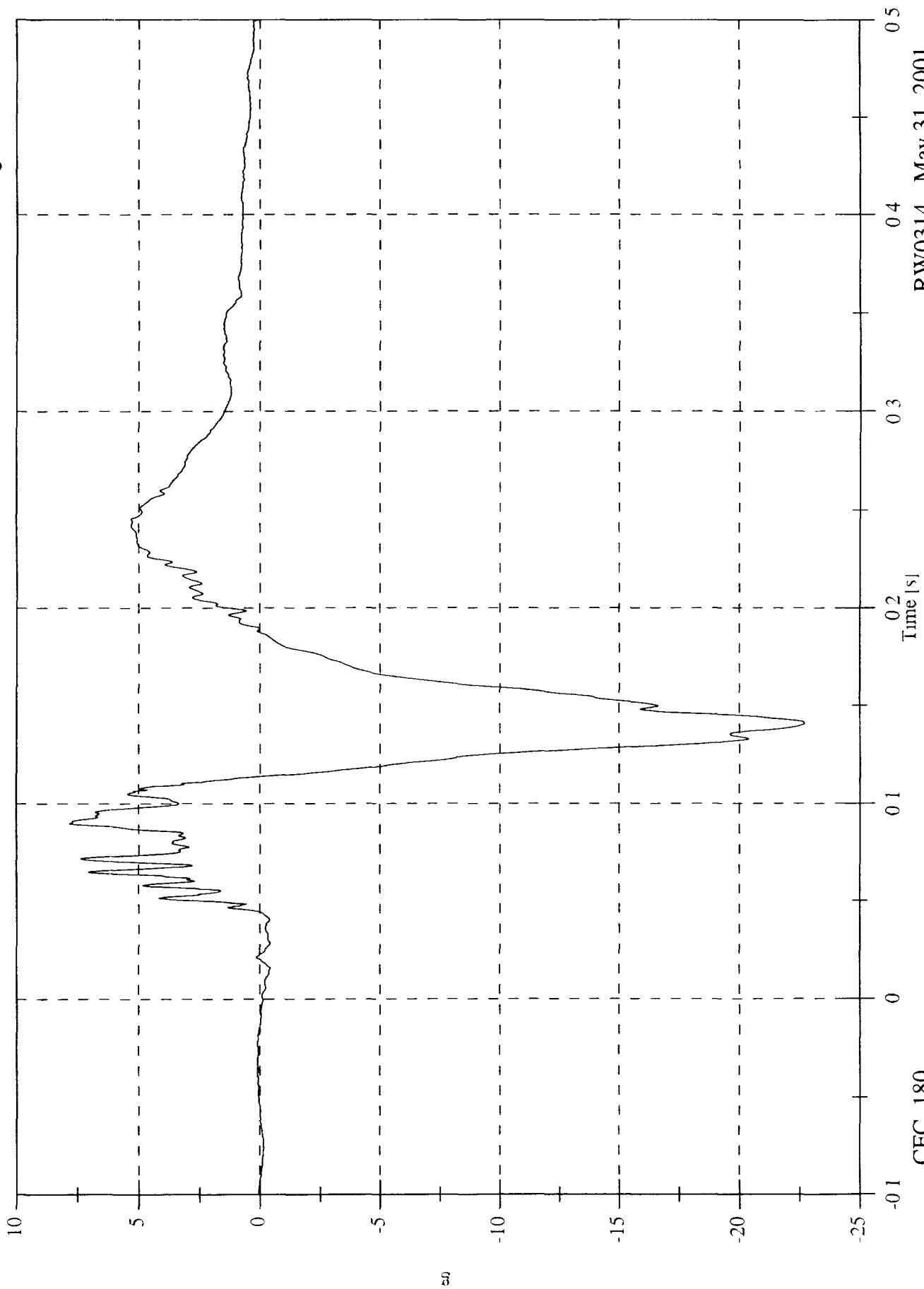


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 7.8 [g] at 0.090 [s]
 Min: -22.7 [g] at 0.141 [s]

P1 Chest Az



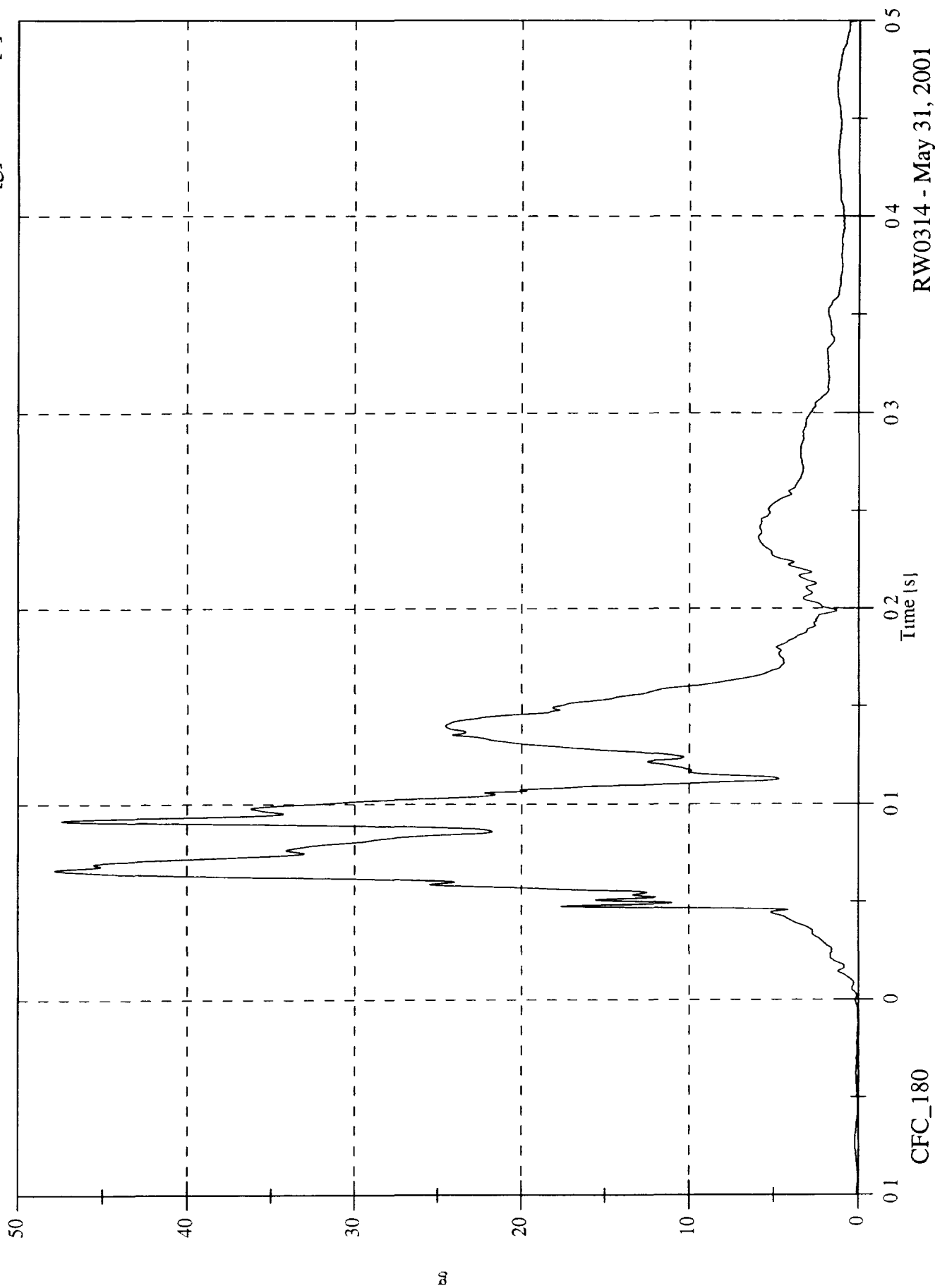
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 47.8 [g] at 0.066 [s]
Min: 0.0 [g] at -0.100 [s]

P1 Chest A Resultant



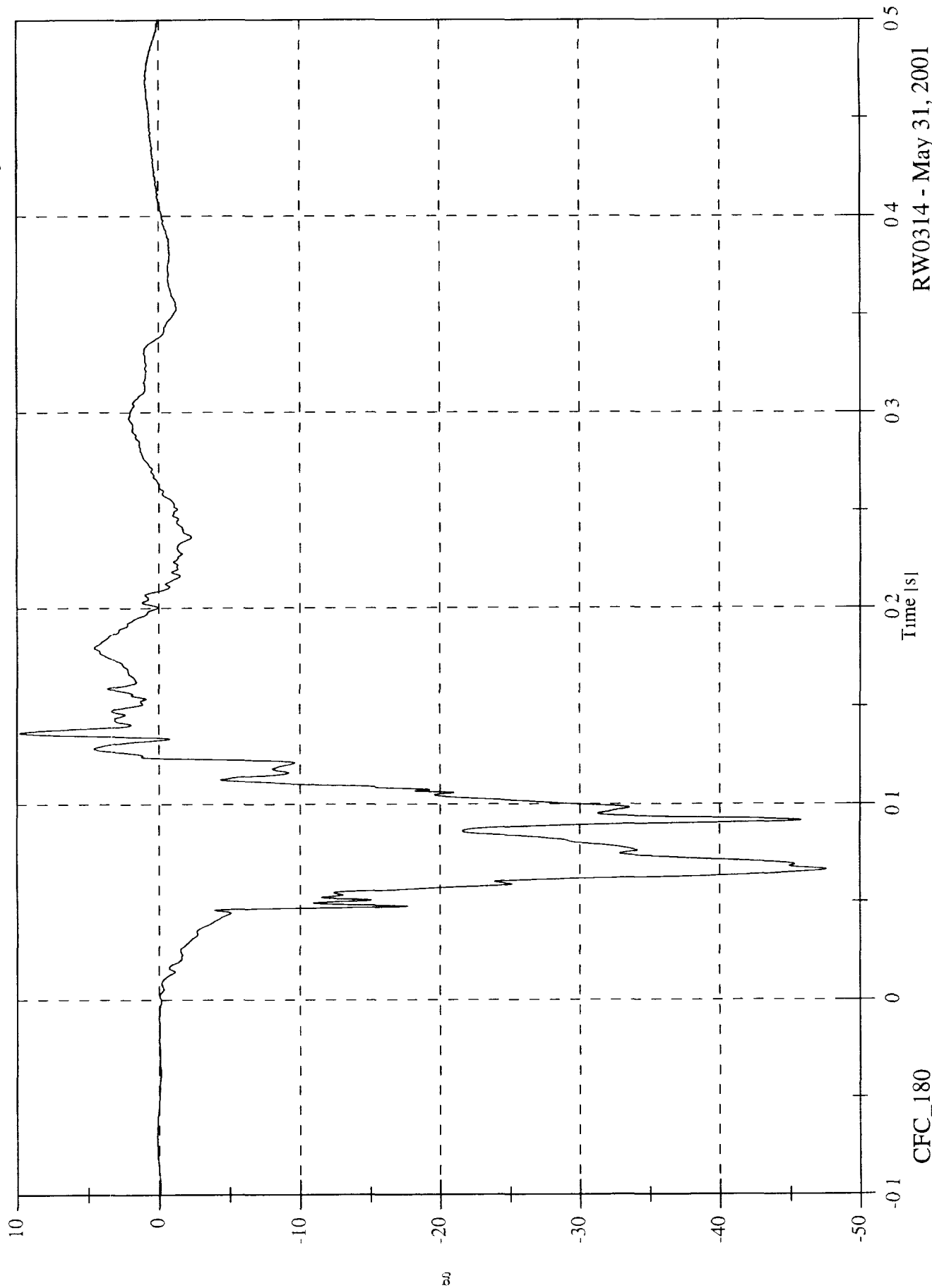
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 9.8 [g] at 0.137 [s]
 Min: -47.6 [g] at 0.066 [s]

P1 Chest Red Ax



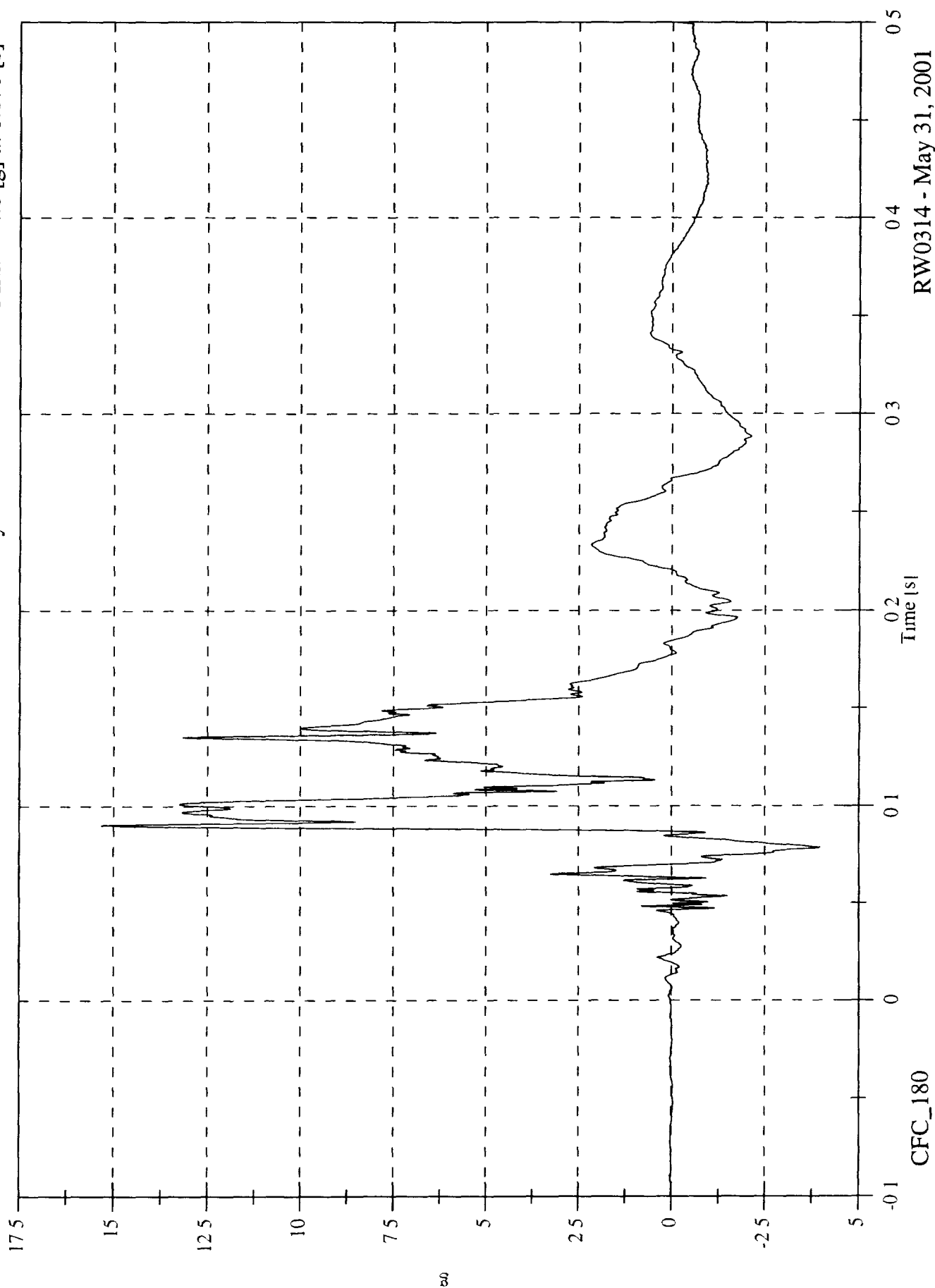
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Chest Red Ay

Max: 15.3 [g] at 0.090 [s]
Min: -4.0 [g] at 0.078 [s]



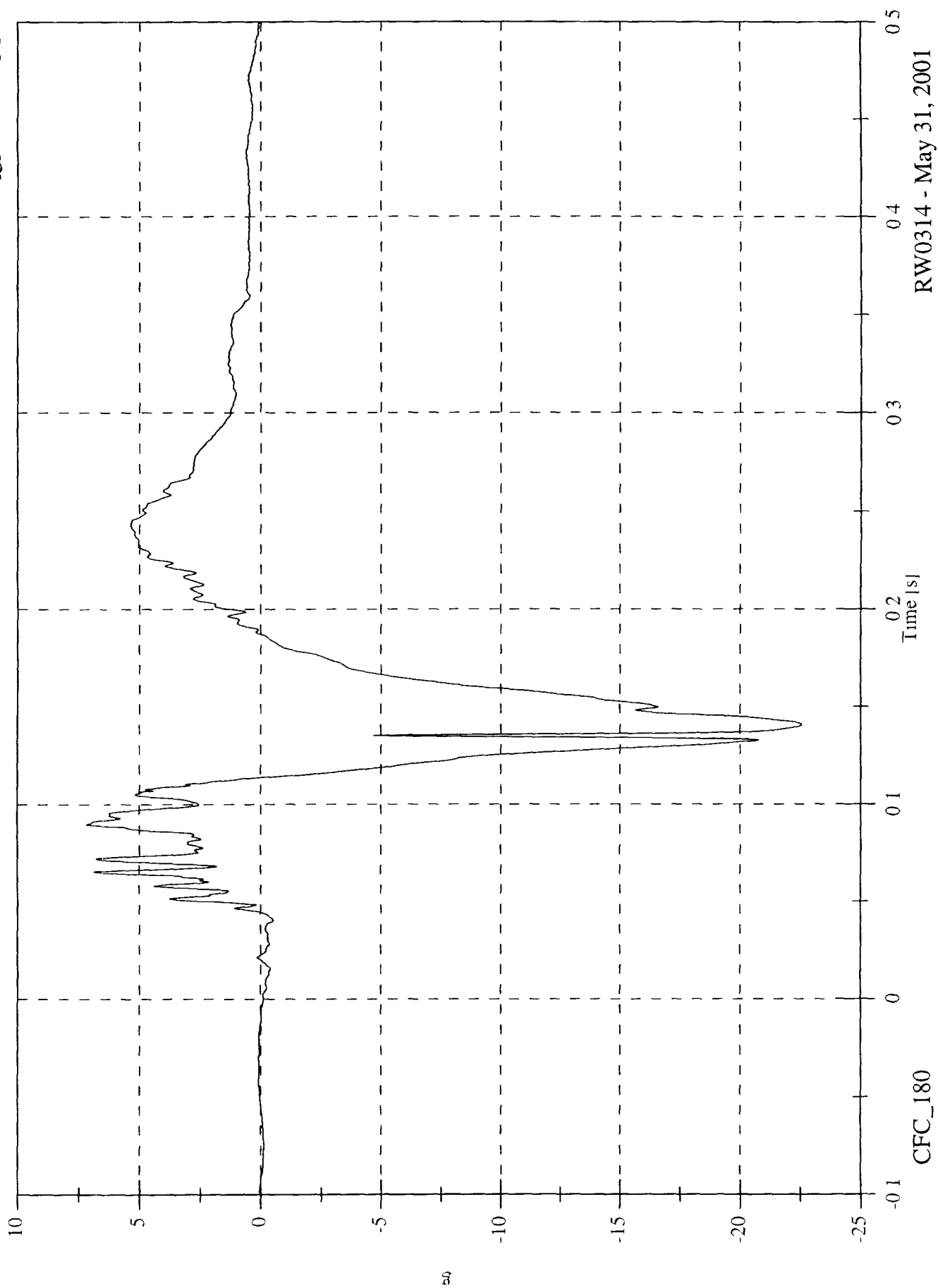
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 7.2 [g] at 0.090 [s]
Min: -22.6 [g] at 0.141 [s]

P1 Chest Red Az

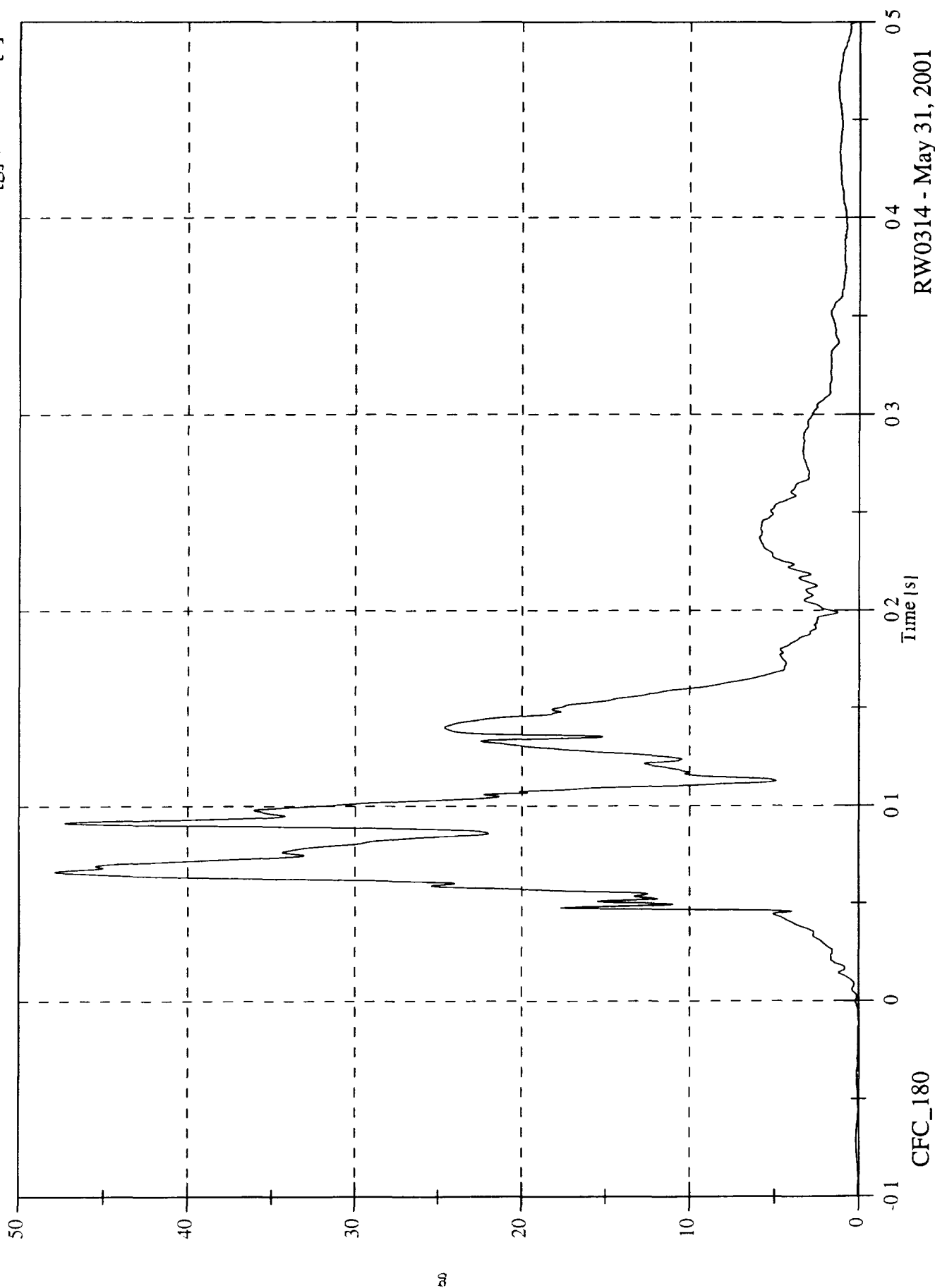


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Chest Red A Resultant

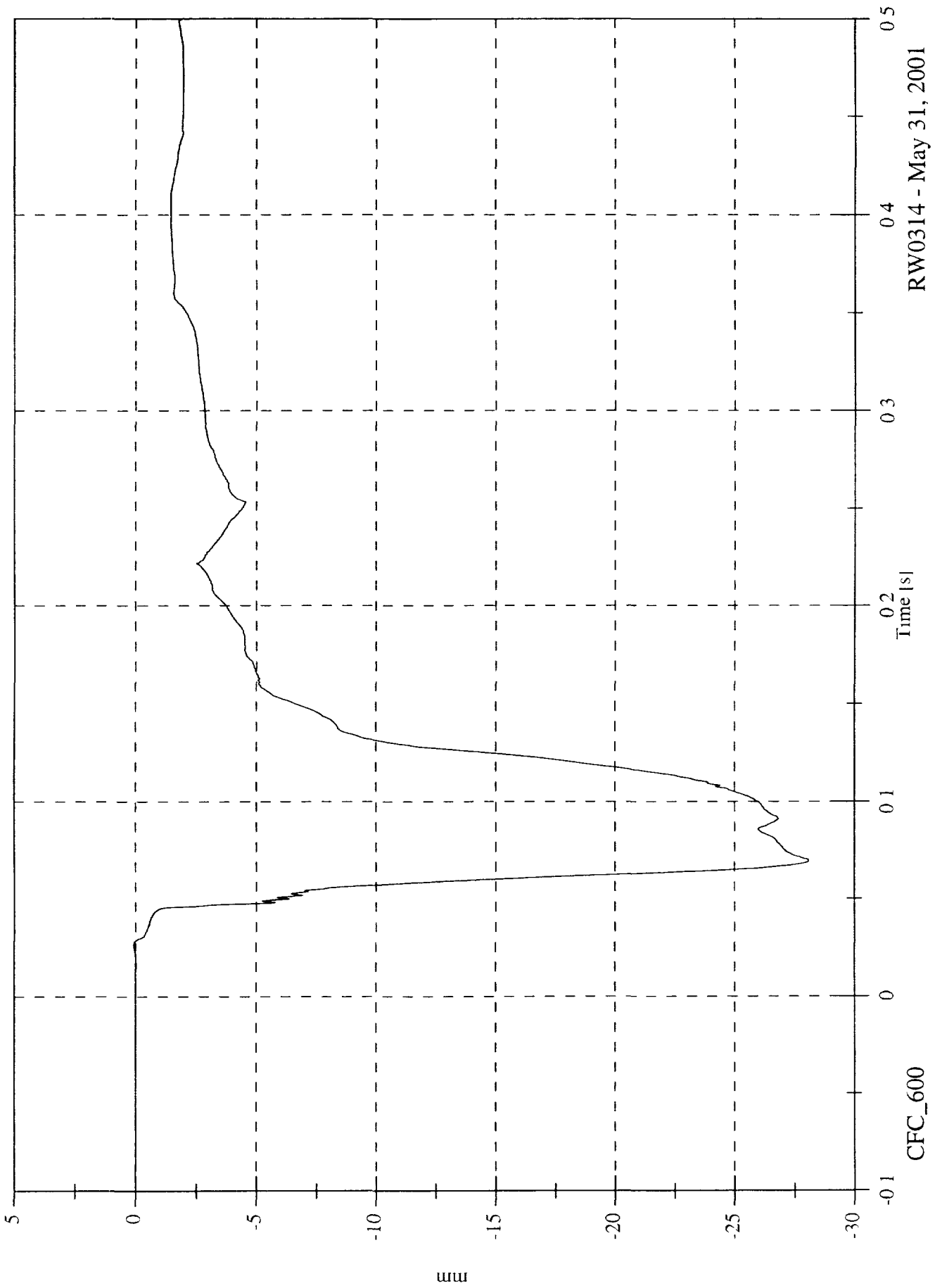
Max: 47.9 [g] at 0.066 [s]
Min: 0.0 [g] at -0.100 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 0.1 [mm] at 0.026 [s]
Min: -28.1 [mm] at 0.069 [s]

P1 Chest Displacement

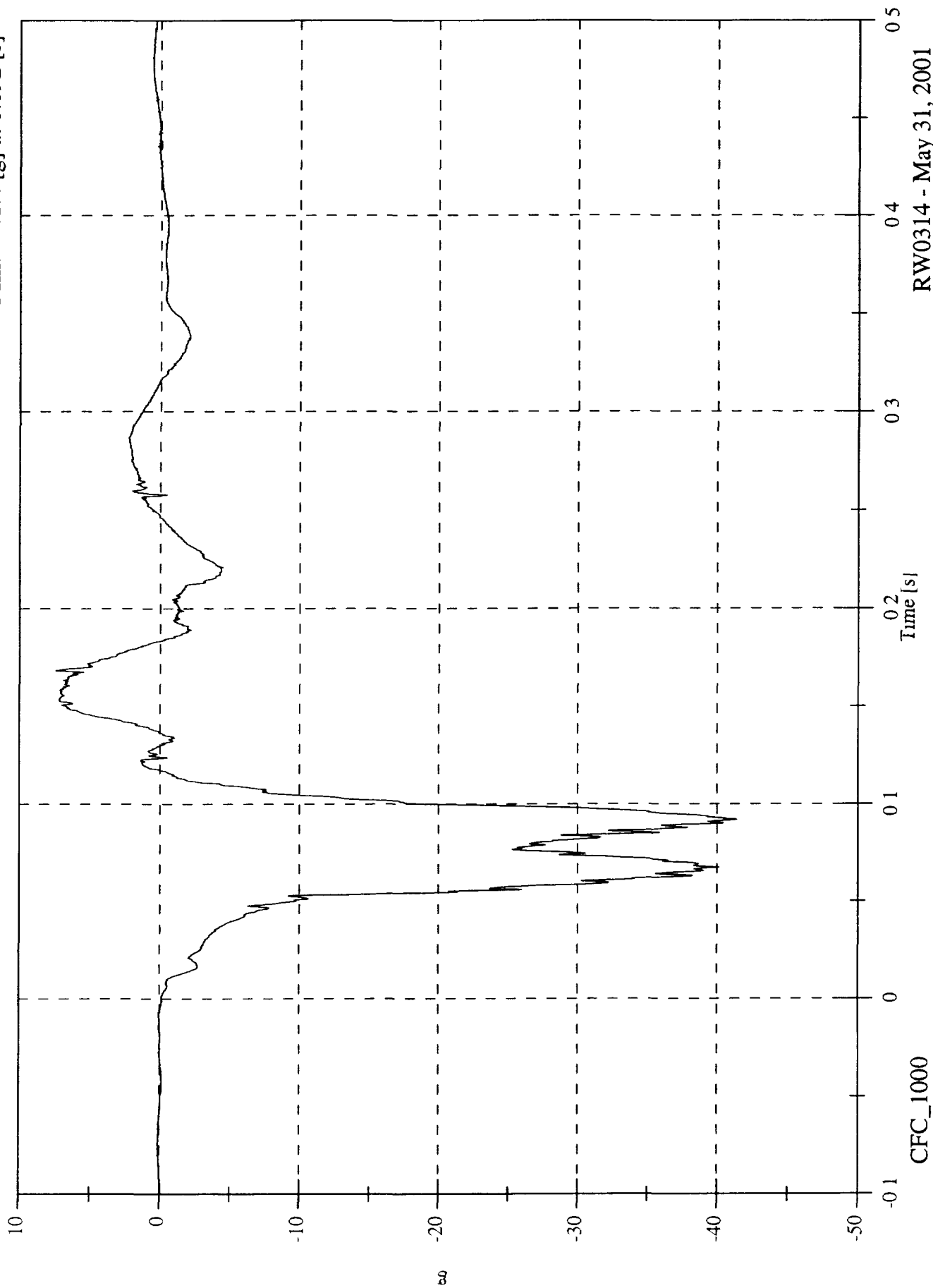


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Pelvic Ax

Max: 7.4 [g] at 0.168 [s]
Min: -41.4 [g] at 0.092 [s]

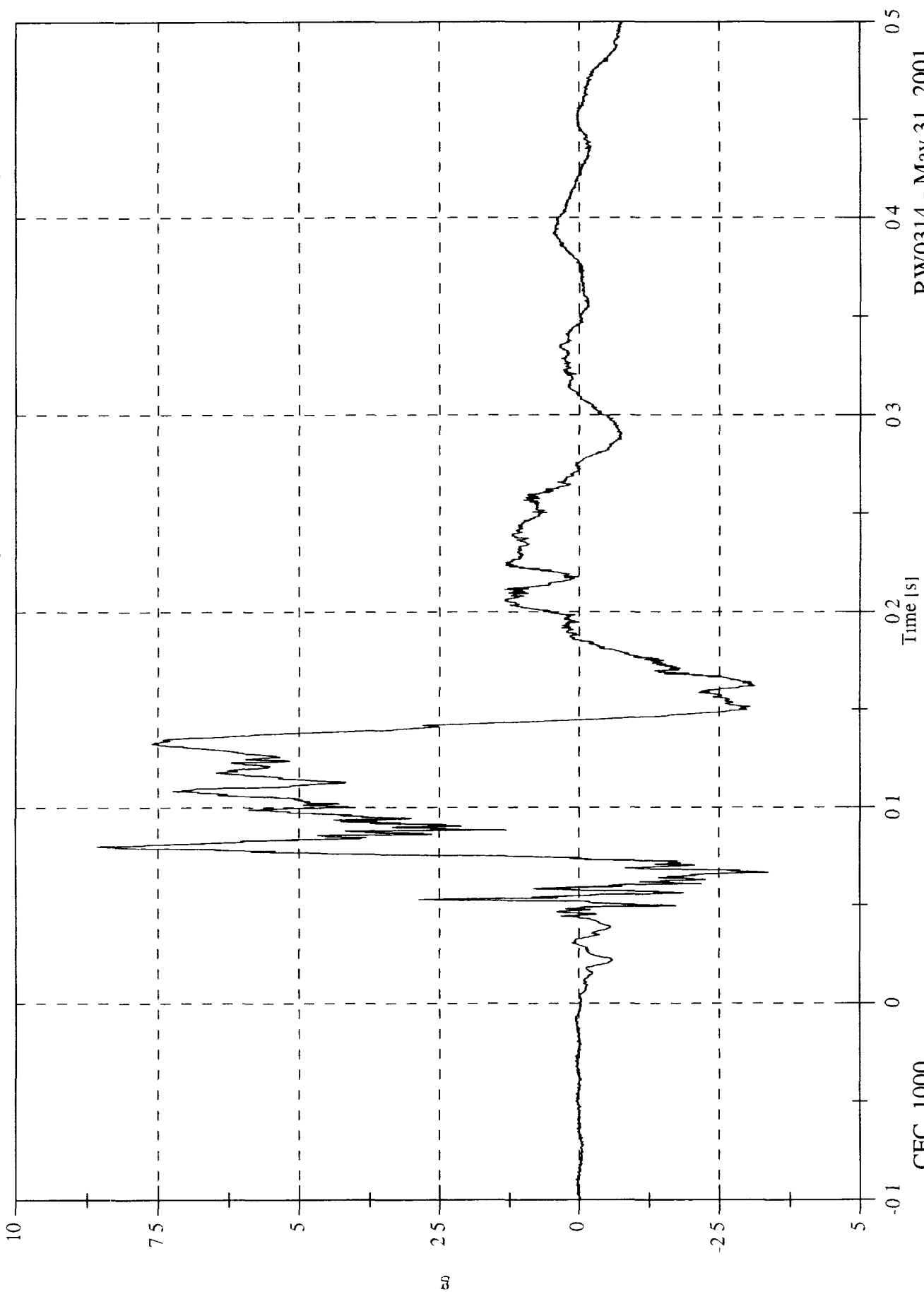


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 8.6 [g] at 0.080 [s]
Min: -3.4 [g] at 0.067 [s]

P1 Pelvic Ay

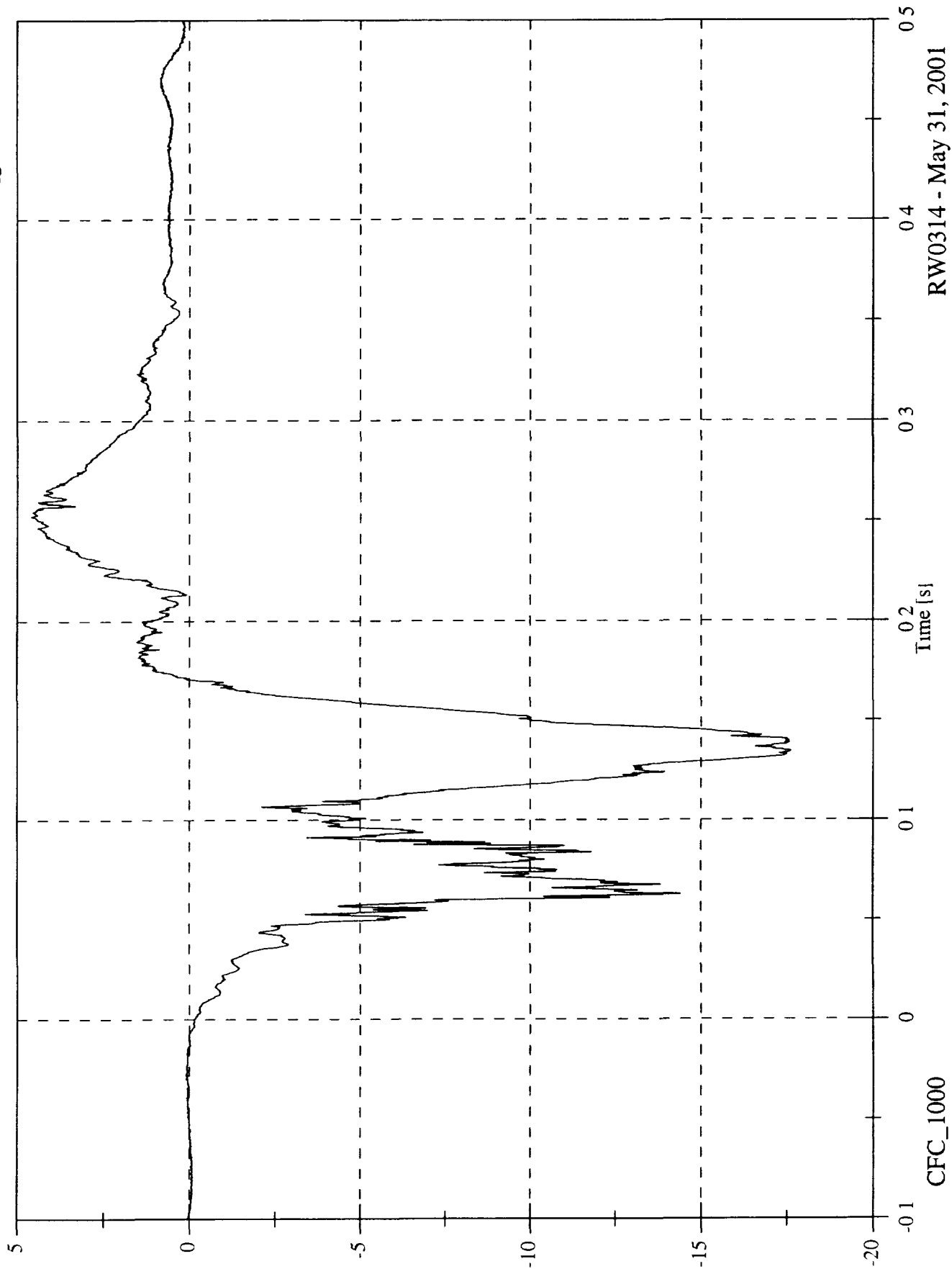


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4.6 [g] at 0.252 [s]
Min: -17.6 [g] at 0.134 [s]

P1 Pelvic Az

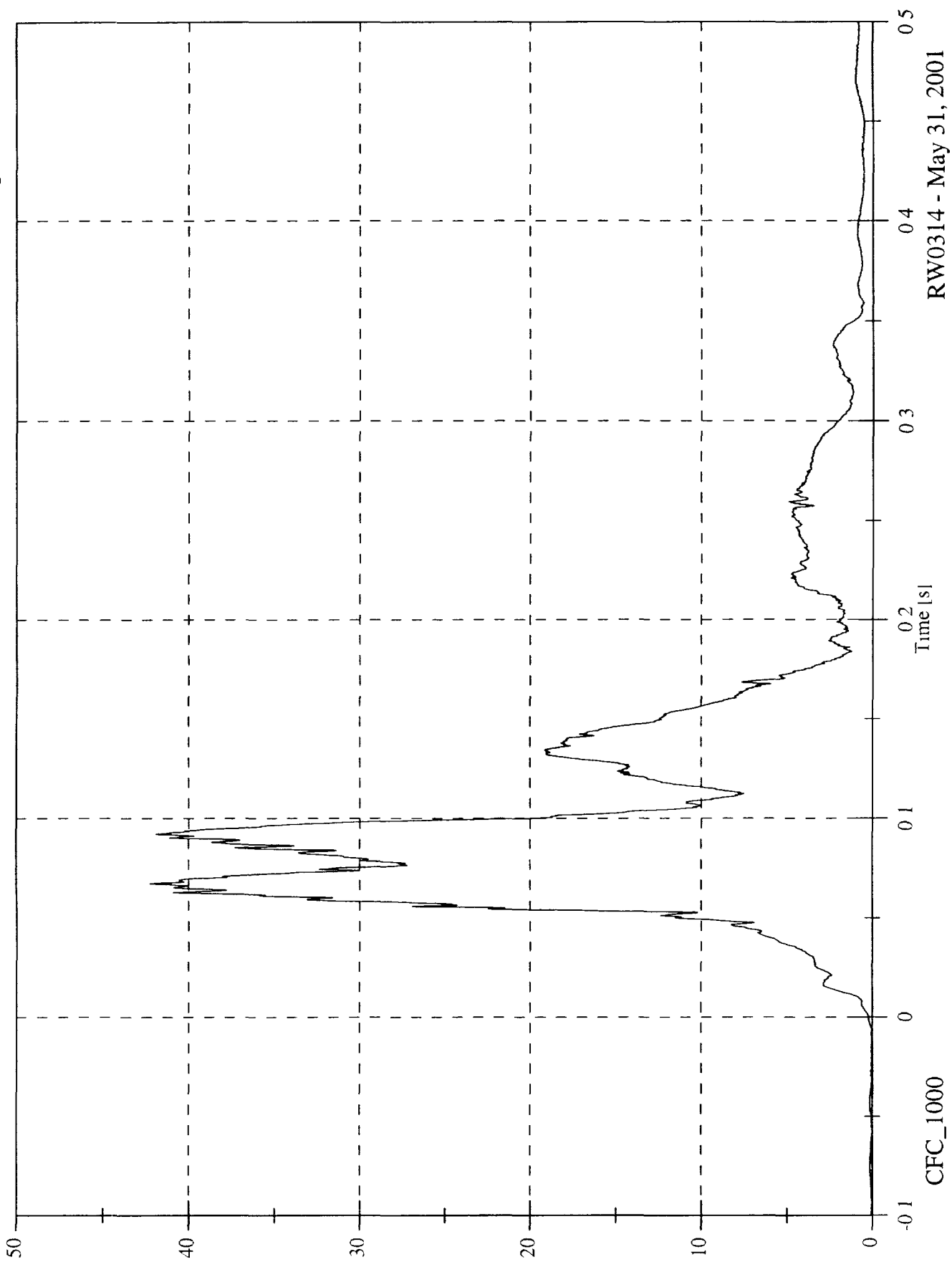


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Pelvic A Resultant

Max: 42.3 [g] at 0.067 [s]
Min: 0.0 [g] at -0.057 [s]

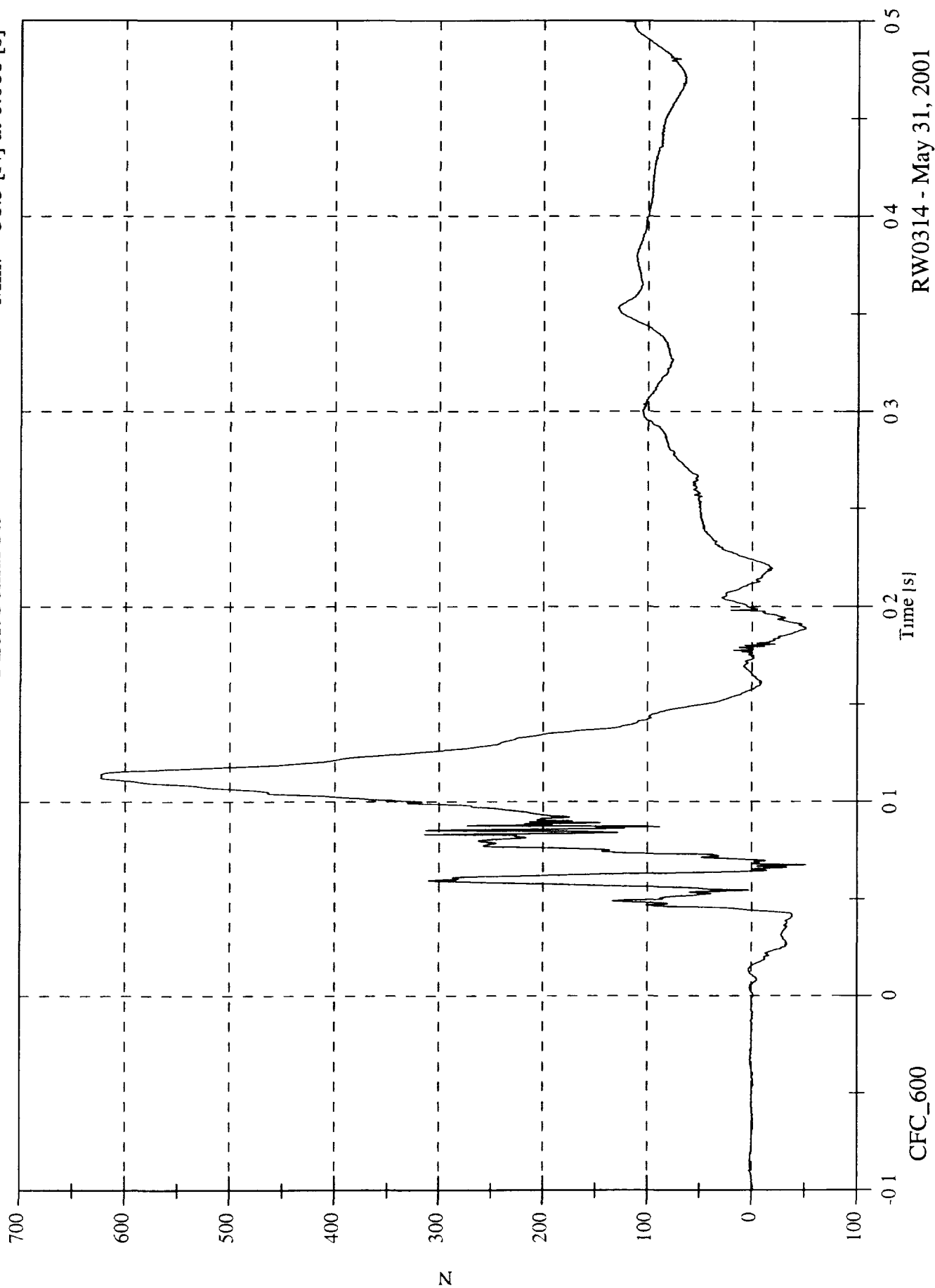


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 623.1 [N] at 0.112 [s]
Min: -51.3 [N] at 0.068 [s]

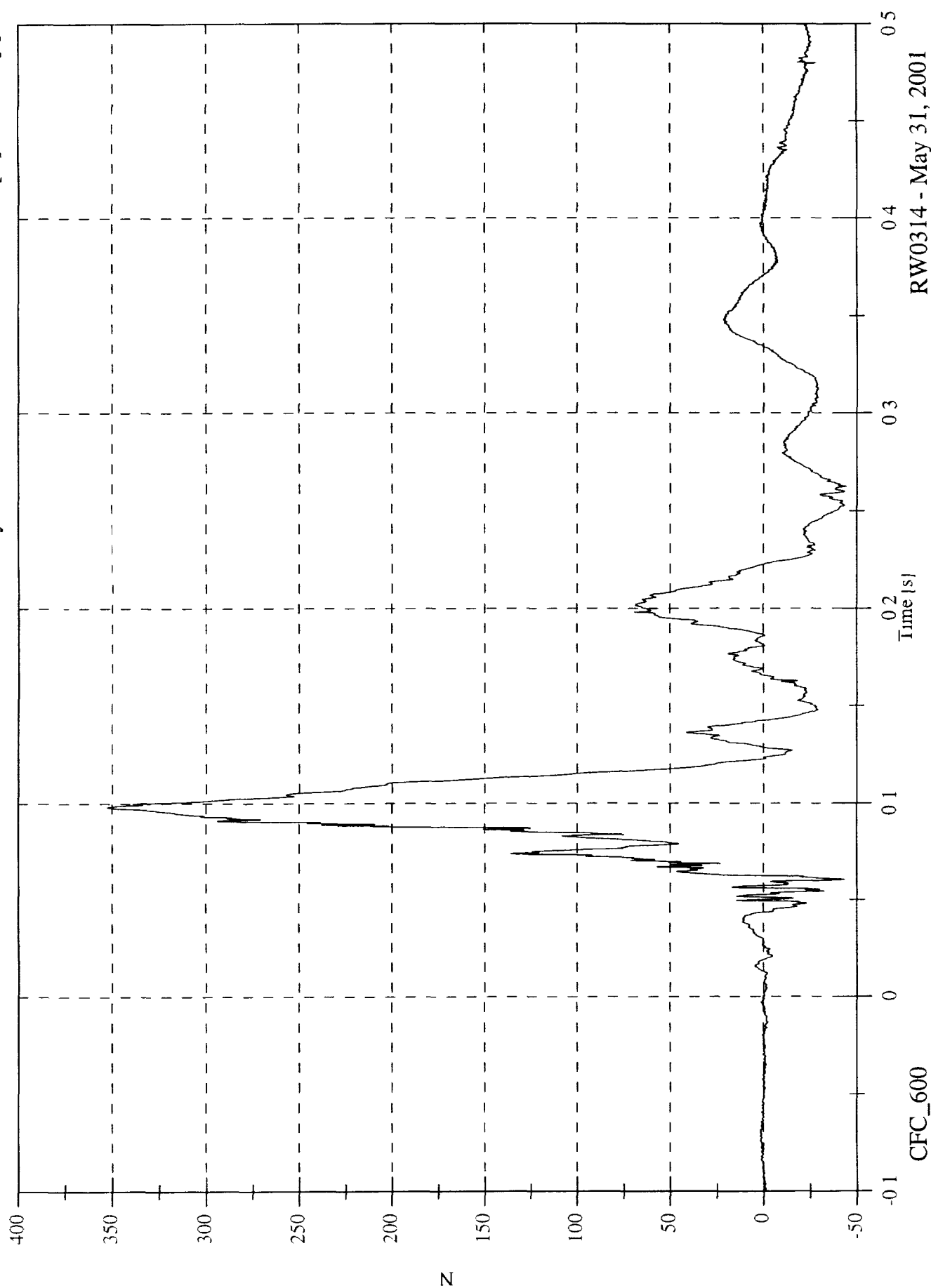
P1 Left Femur Fx



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 352.5 [N] at 0.098 [s]
Min: -44.0 [N] at 0.262 [s]

P1 Left Femur Fy



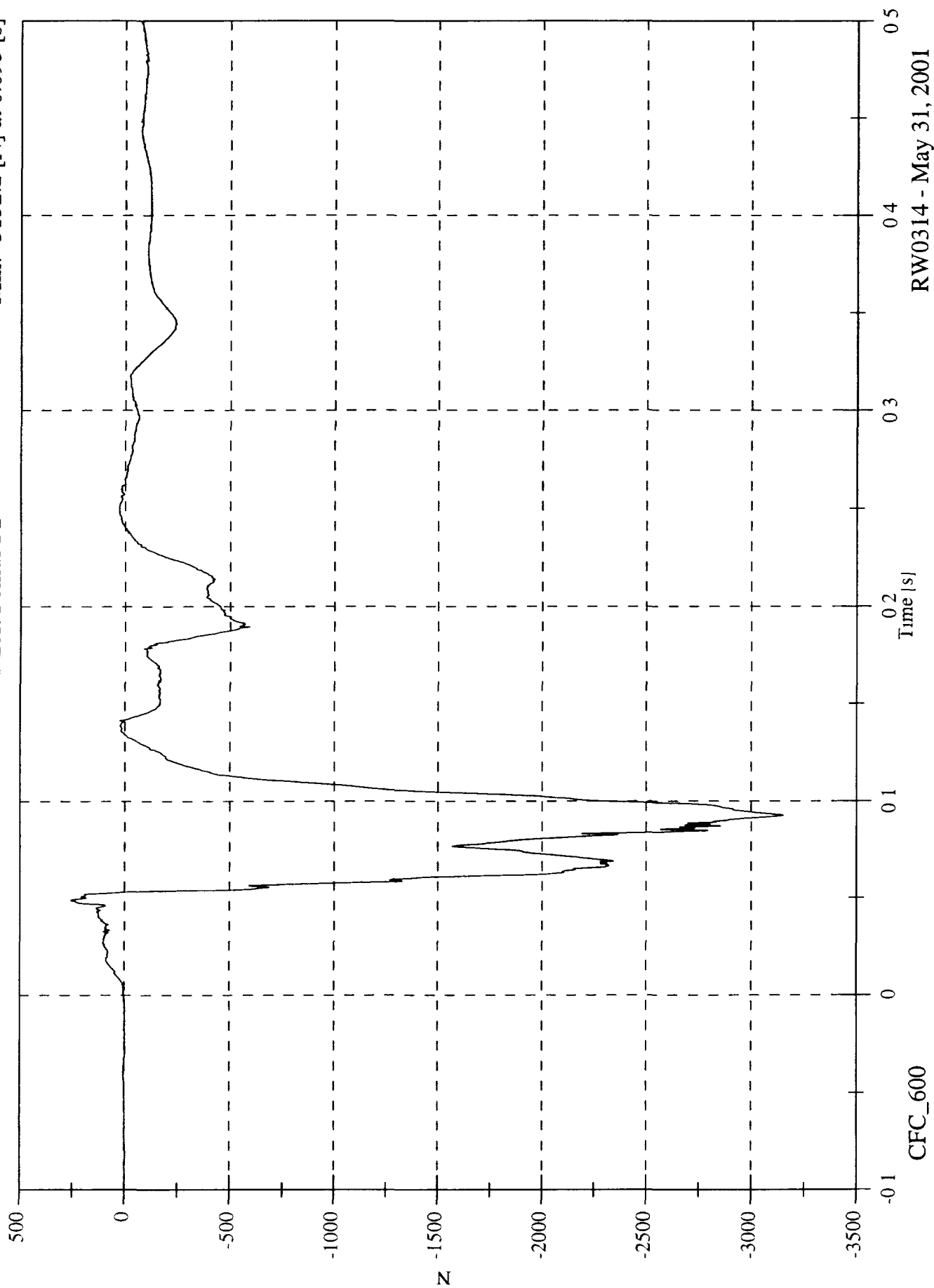
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 254.2 [N] at 0.049 [s]
Min: -3152.2 [N] at 0.093 [s]

P1 Left Femur Fz

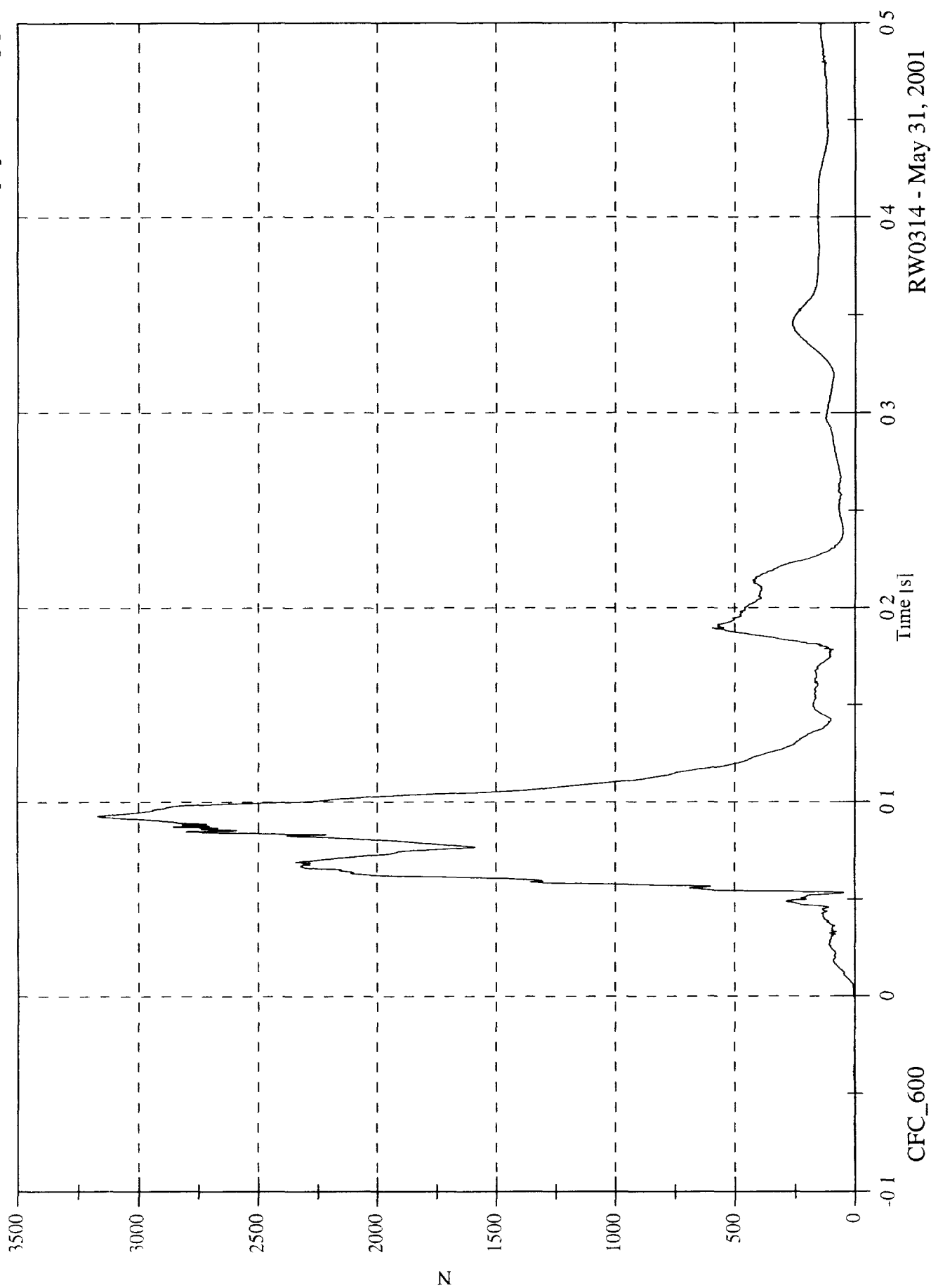


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 3170.7 [N] at 0.093 [s]
Min: 0.2 [N] at -0.021 [s]

P1 Left Femur F Resultant

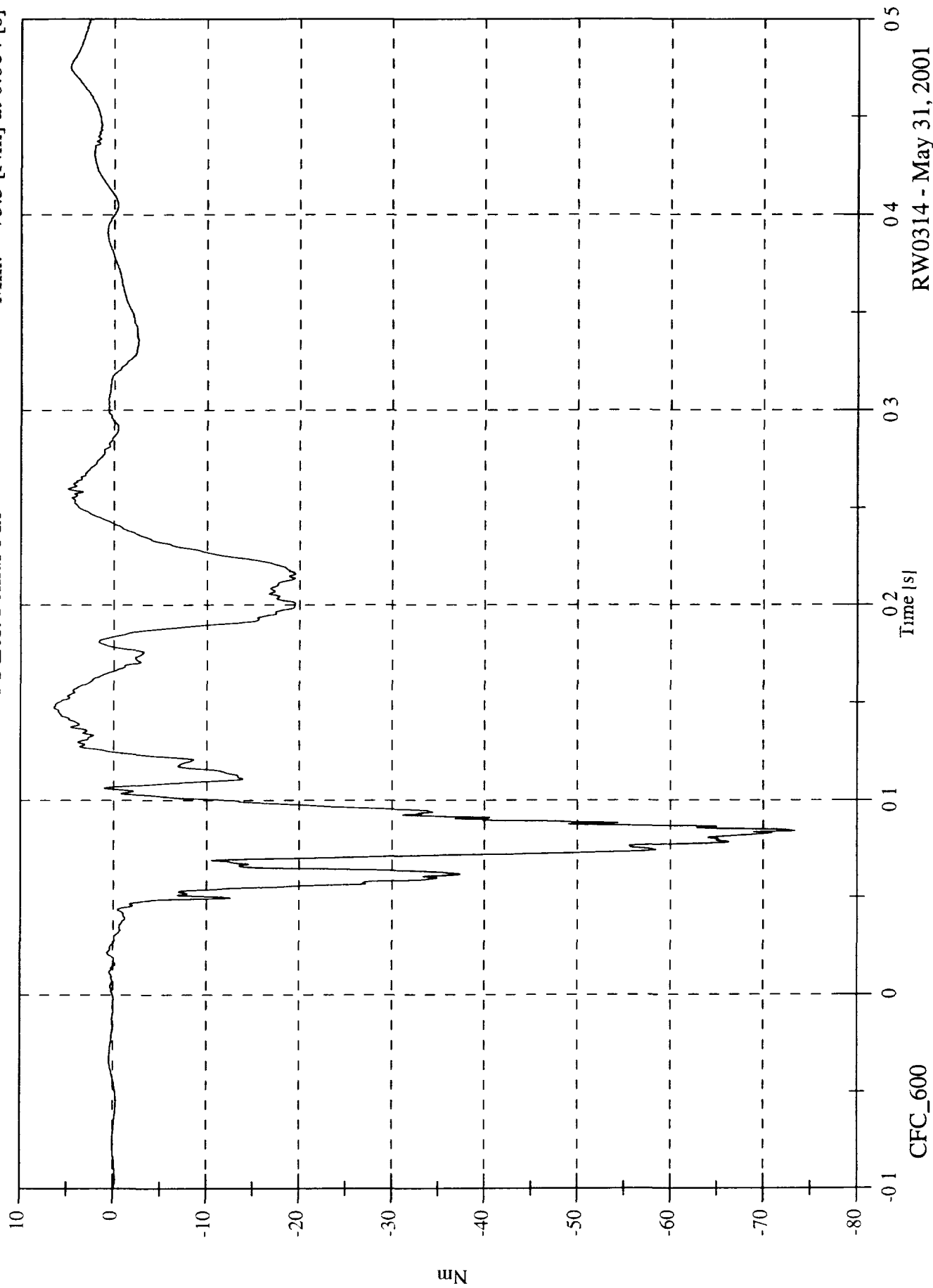


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 6.4 [Nm] at 0.148 [s]
Min: -73.3 [Nm] at 0.084 [s]

P1 Left Femur Mx



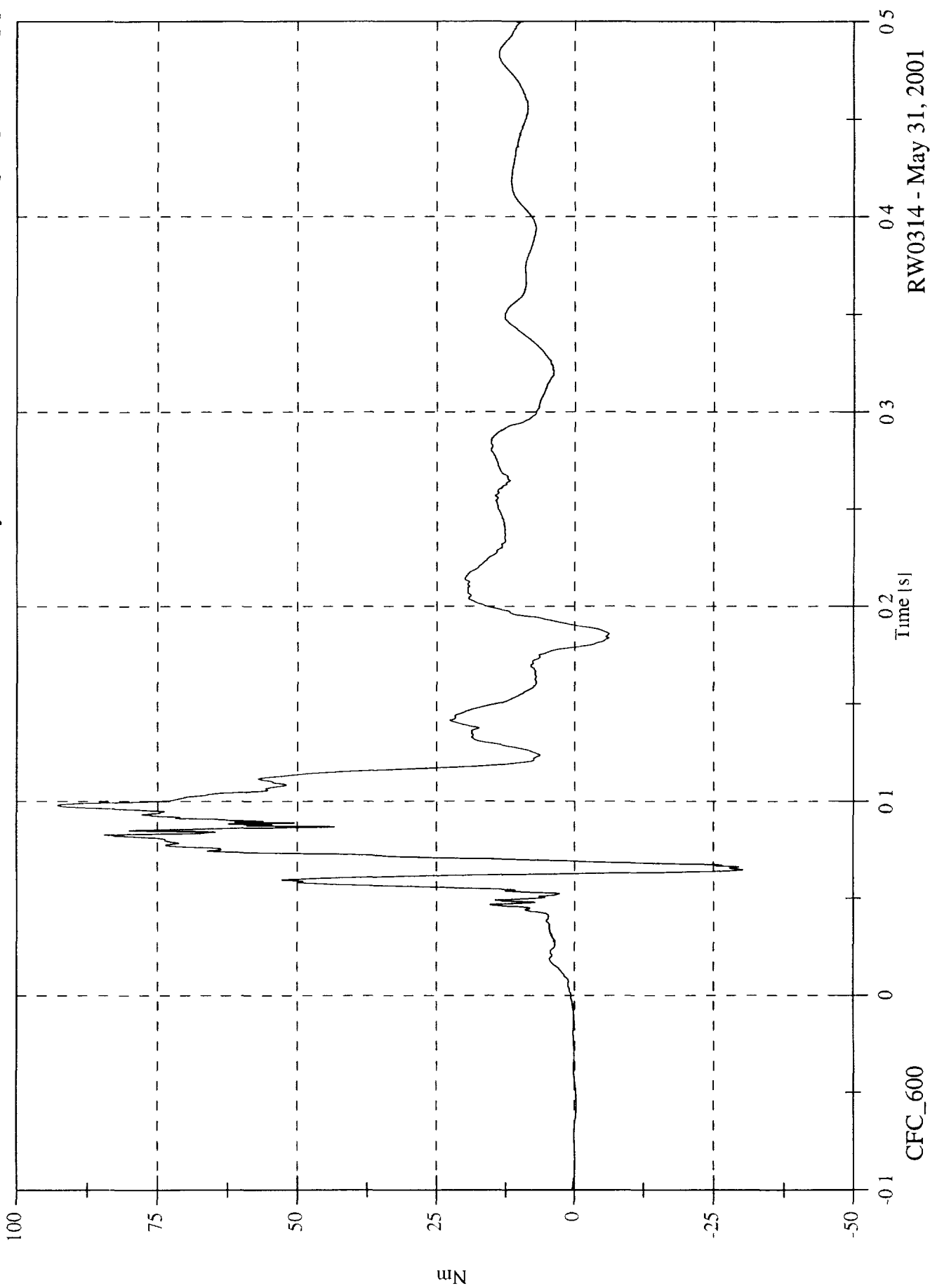
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 92.7 [Nm] at 0.098 [s]
Min. -30.2 [Nm] at 0.065 [s]

P1 Left Femur My

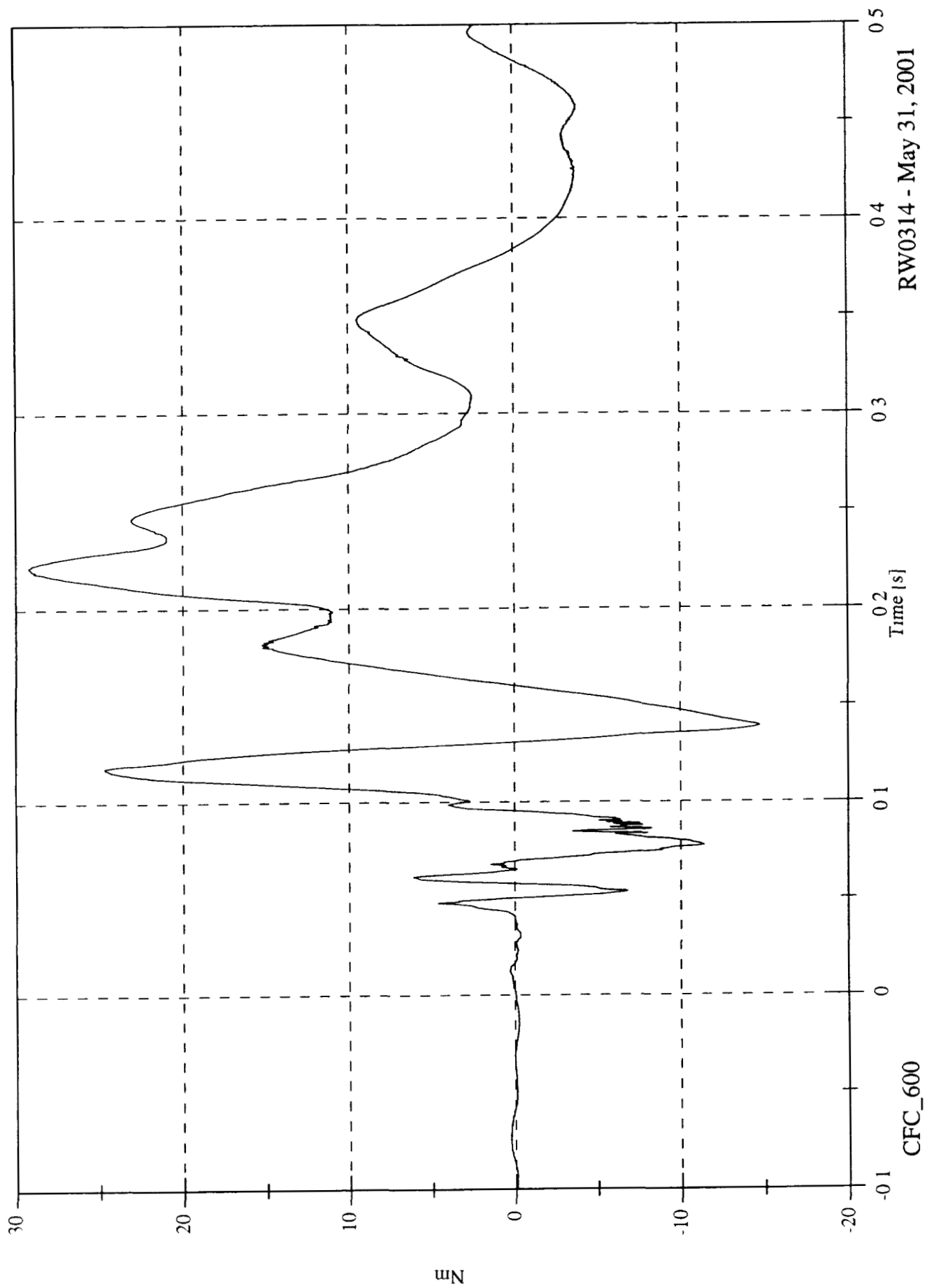


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 29.2 [Nm] at 0.221 [s]
Min: -14.7 [Nm] at 0.139 [s]

P1 Left Femur Mz

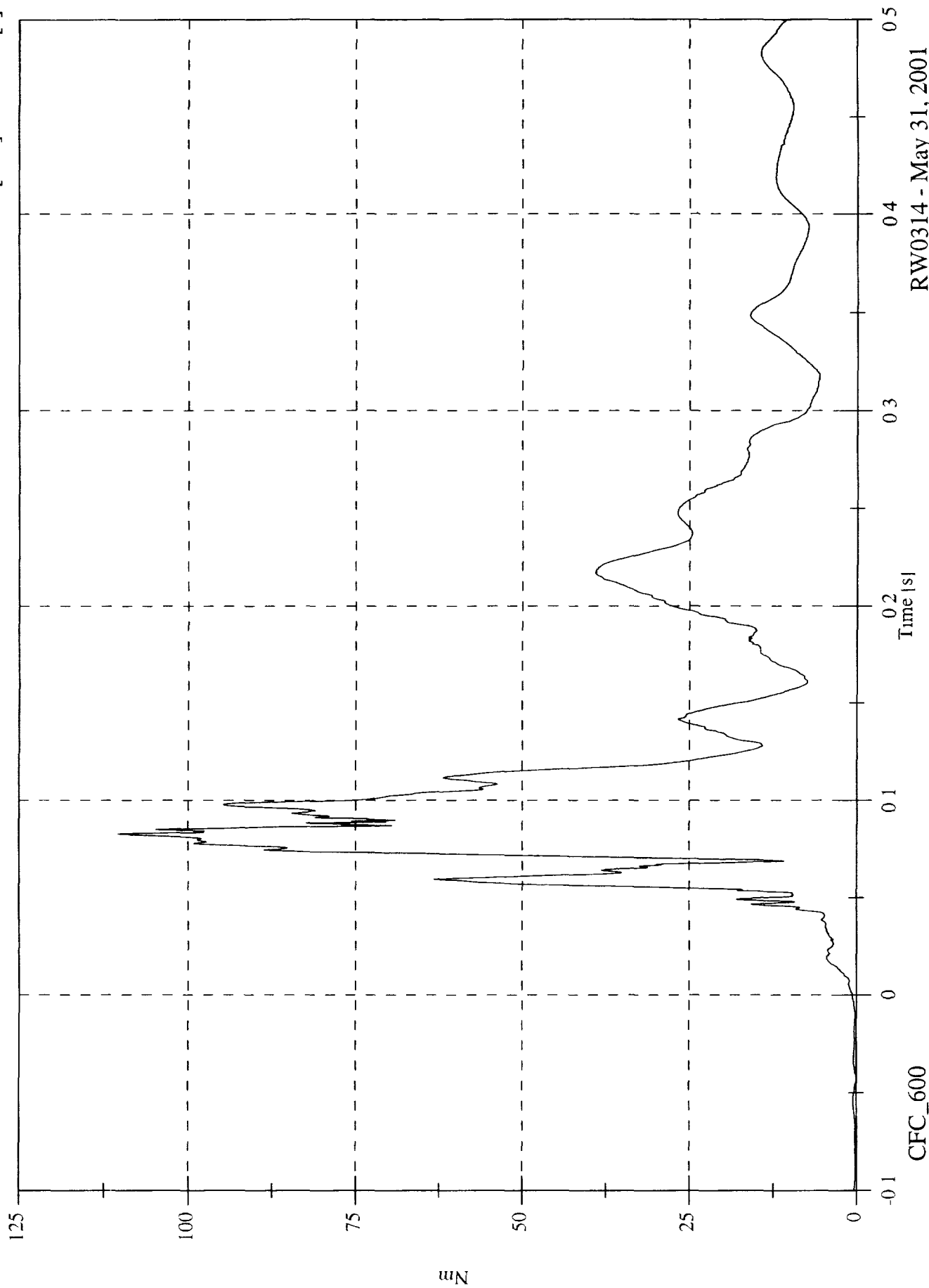


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Left Femur M Resultant

Max: 110.4 [Nm] at 0.083 [s]
Min: 0.1 [Nm] at -0.100 [s]

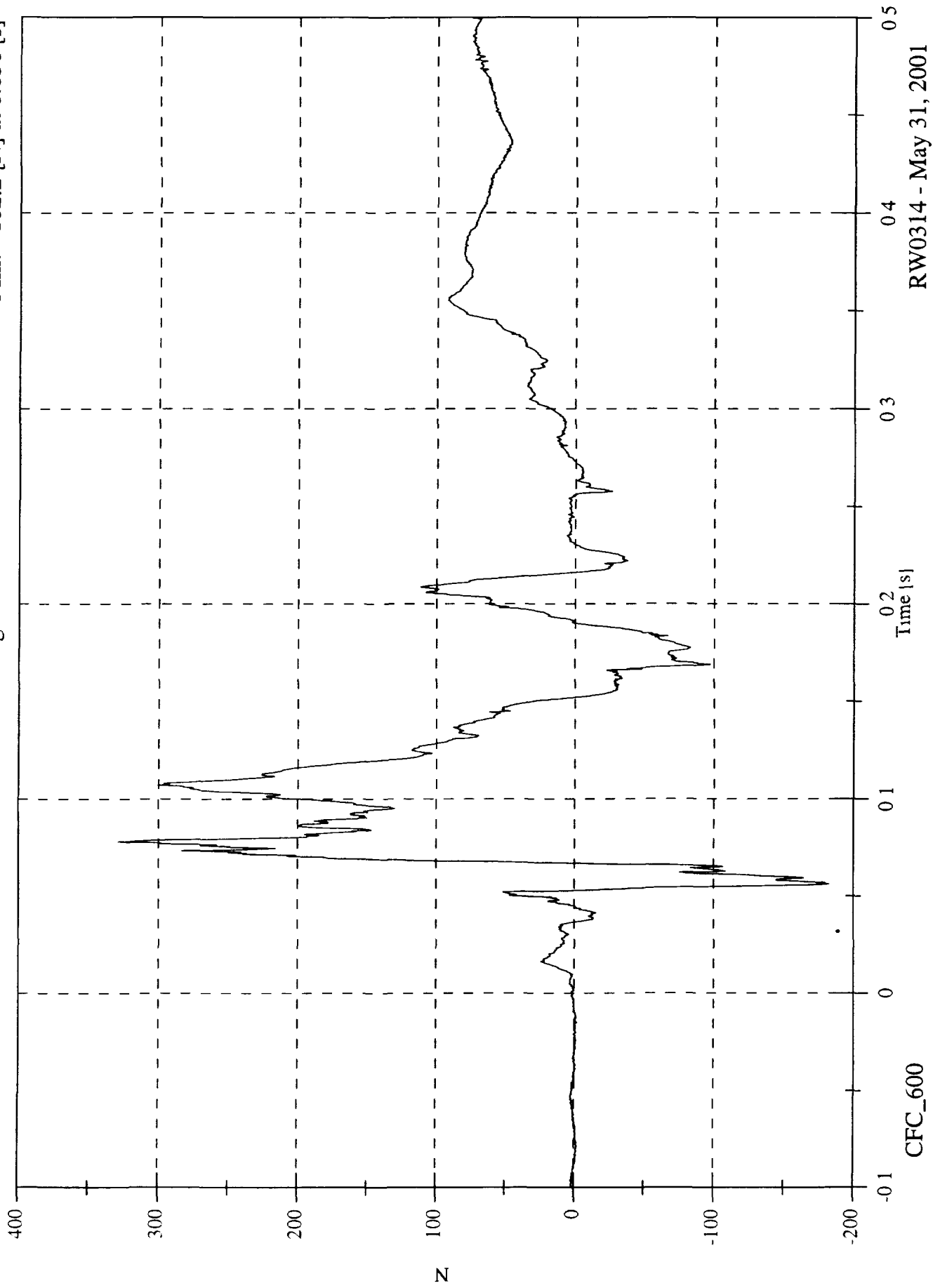


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Femur Fx

Max: 328.5 [N] at 0.078 [s]
Min: -182.2 [N] at 0.056 [s]

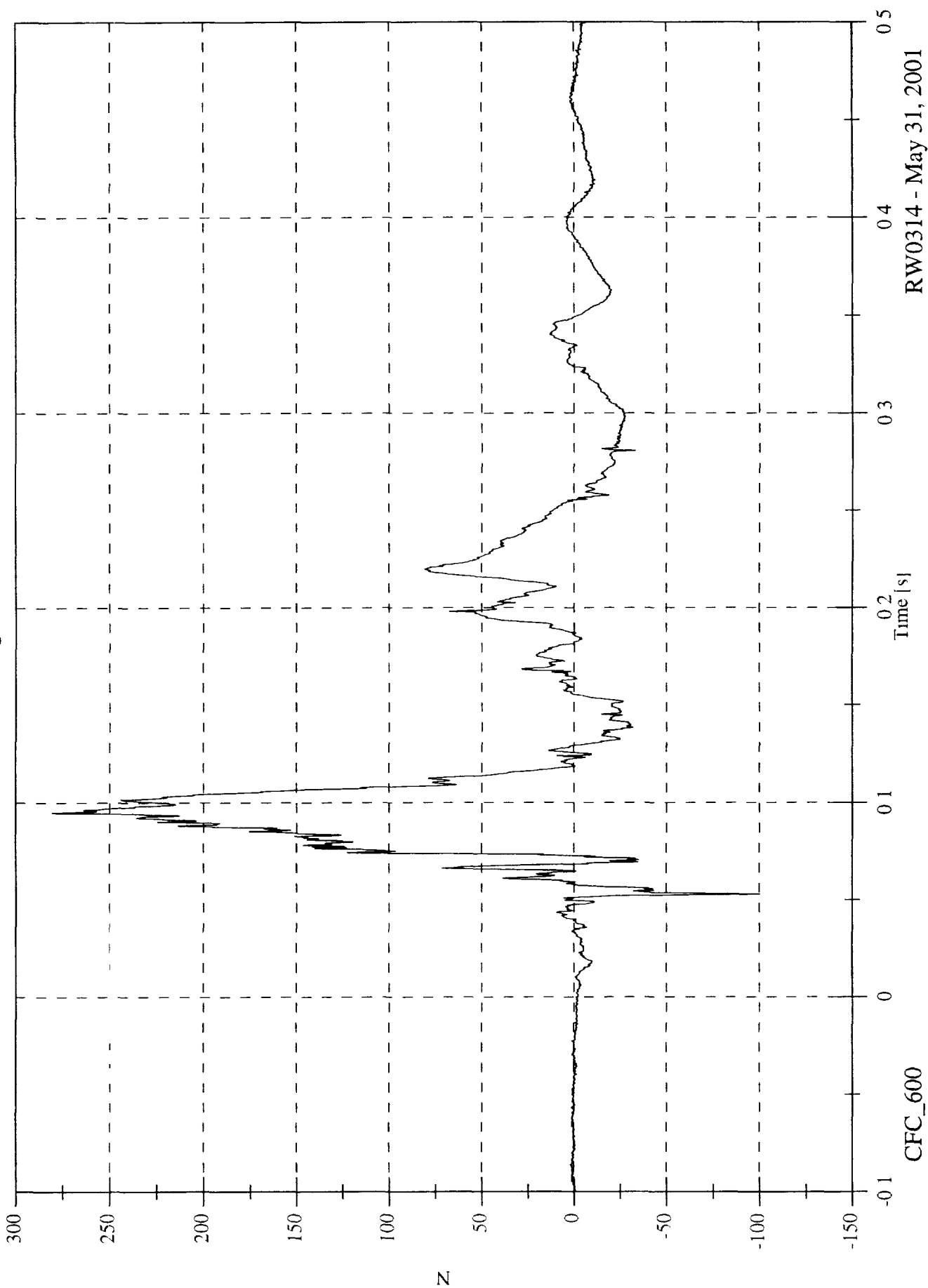


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 280.5 [N] at 0.095 [s]
Min: -100.2 [N] at 0.053 [s]

P1 Right Femur Fy

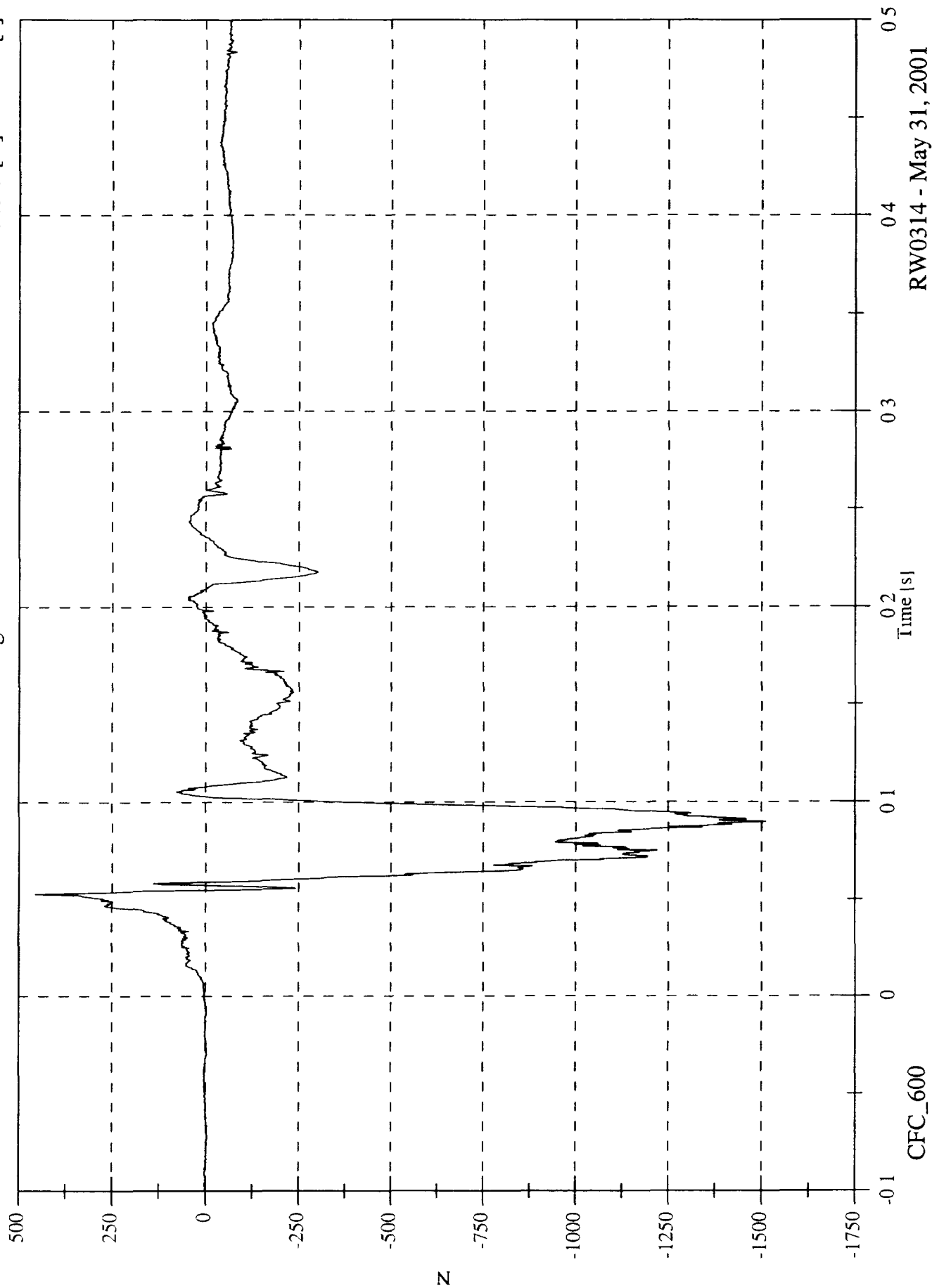


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 453.9 [N] at 0.053 [s]
Min: -1509.5 [N] at 0.090 [s]

P1 Right Femur Fz



CFC_600

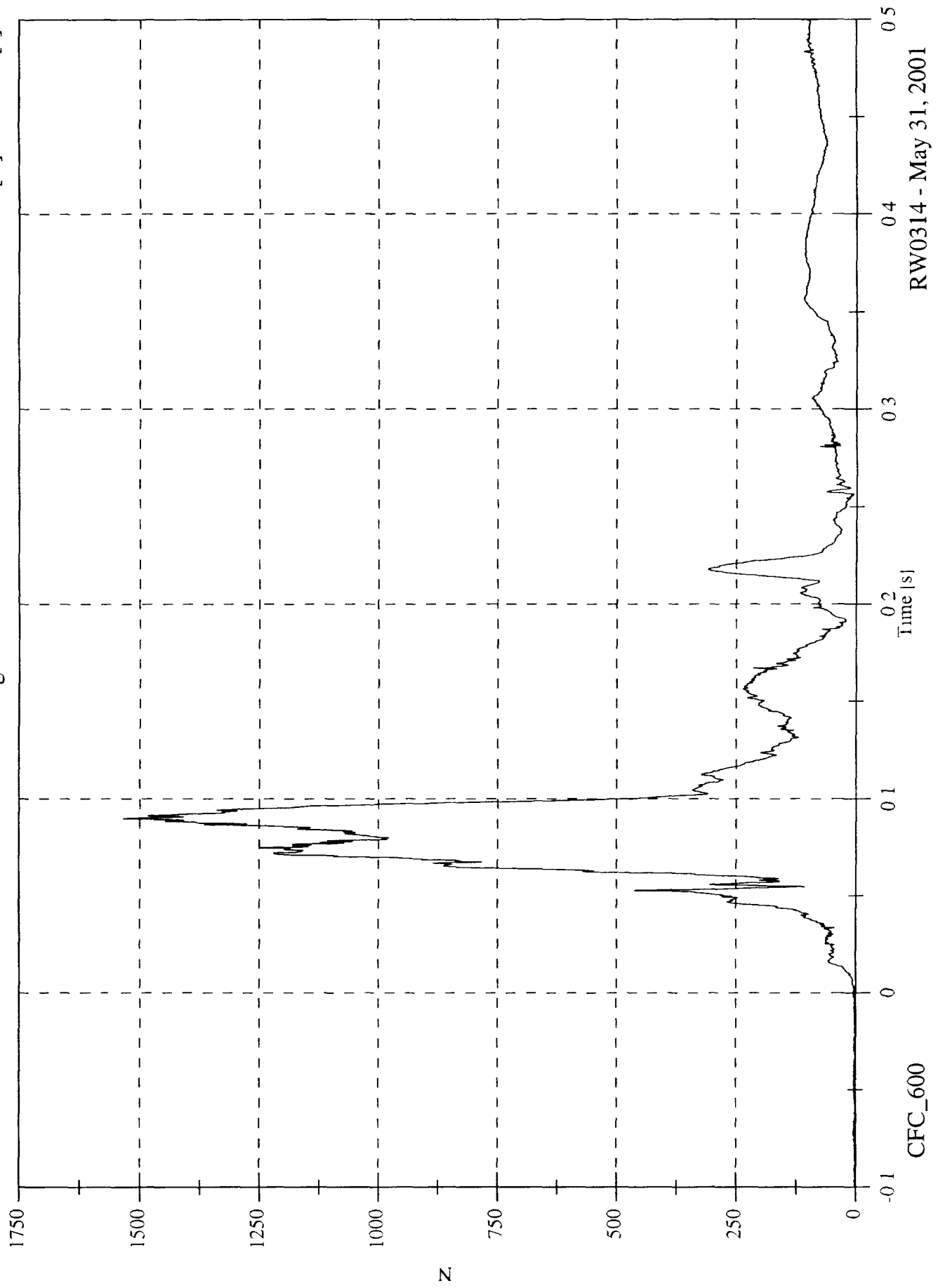
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 1533.1 [N] at 0.090 [s]
Min. 0.1 [N] at -0.033 [s]

P1 Right Femur F Resultant

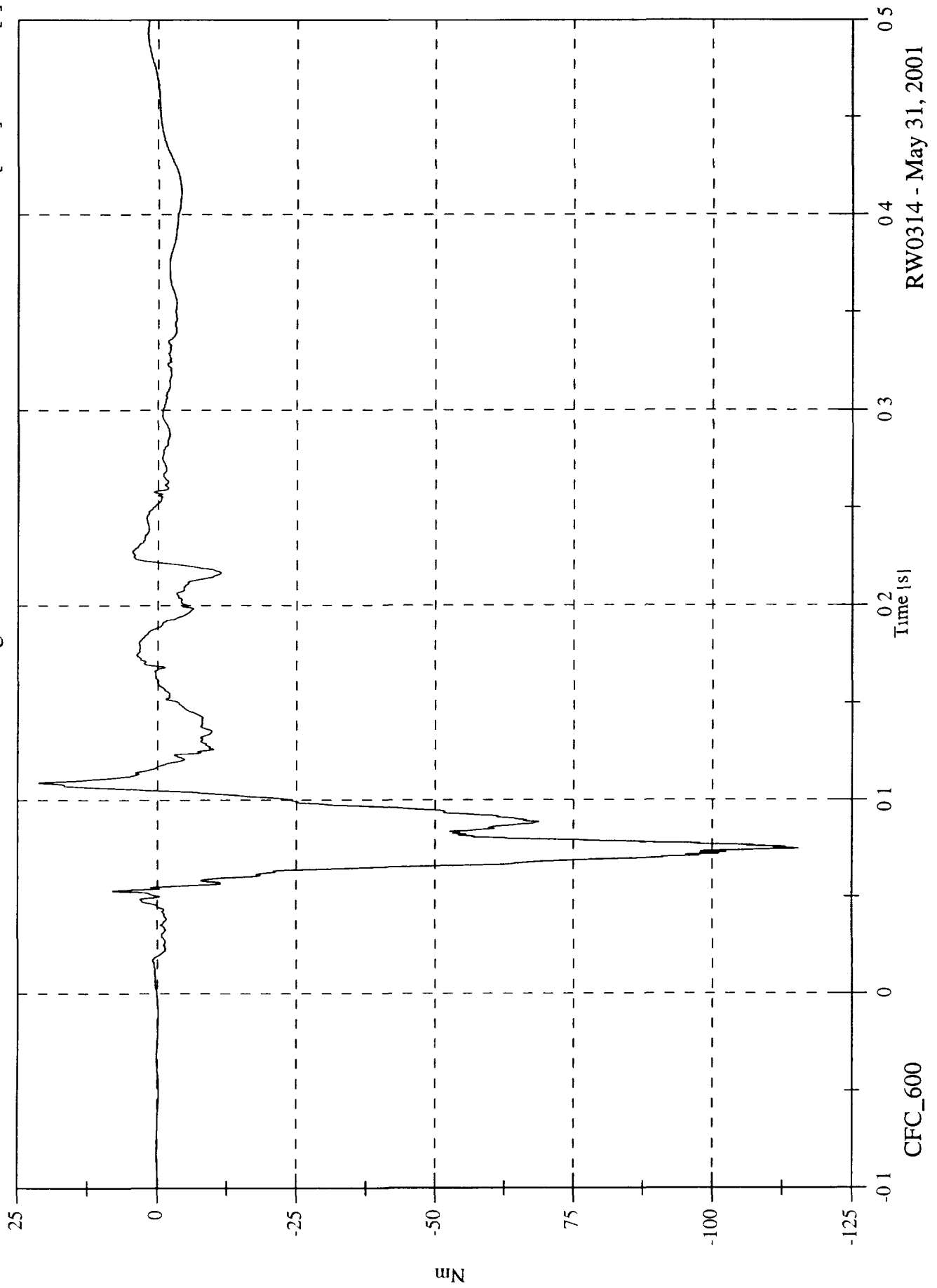


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 21.2 [Nm] at 0.109 [s]
Min: -115.4 [Nm] at 0.075 [s]

P1 Right Femur Mx

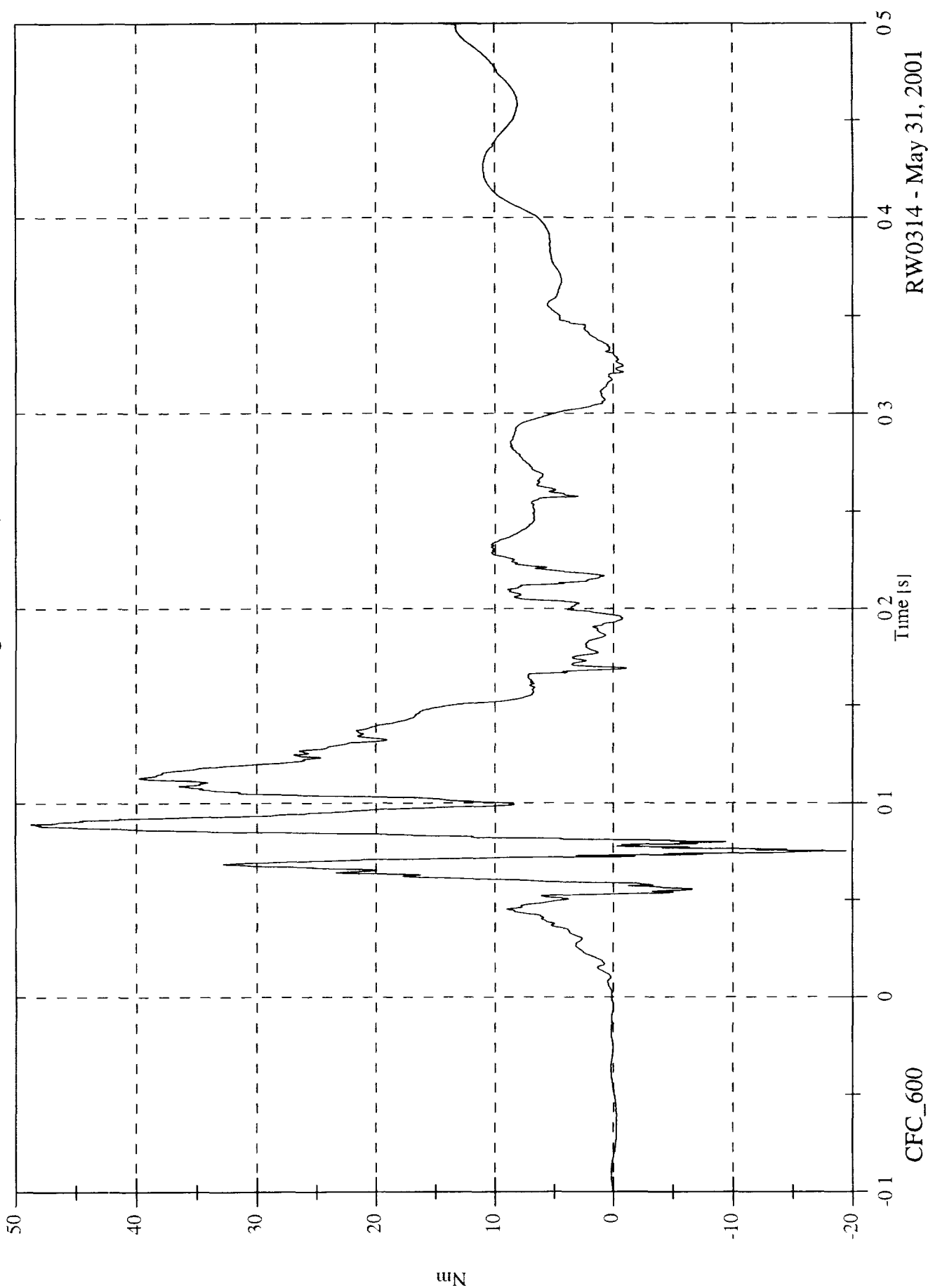


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 48.7 [Nm] at 0.089 [s]
Min: -19.5 [Nm] at 0.075 [s]

P1 Right Femur My

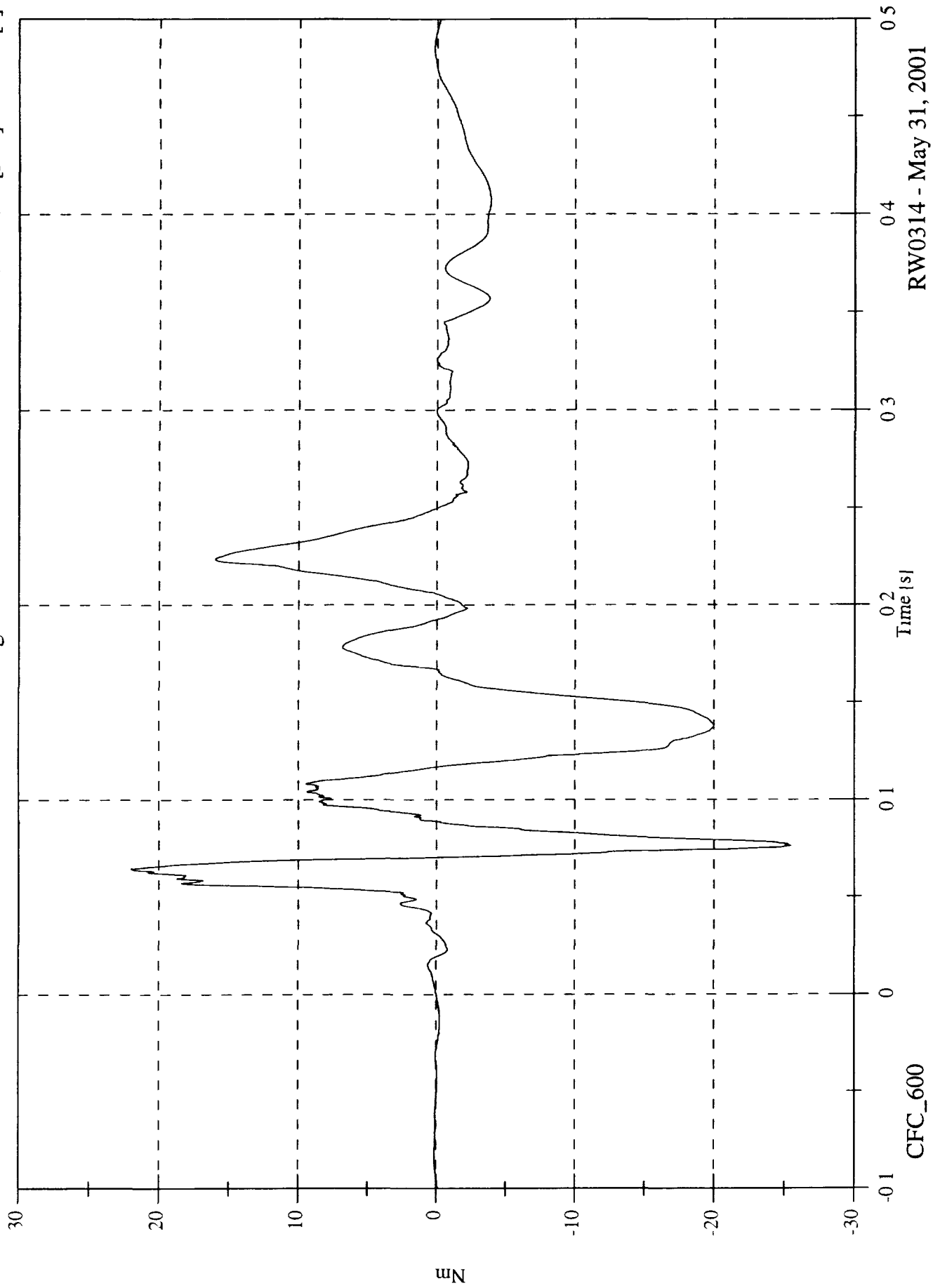


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 22.0 [Nm] at 0.064 [s]
Min: -25.4 [Nm] at 0.076 [s]

P1 Right Femur Mz



CFC_600

Time [s]

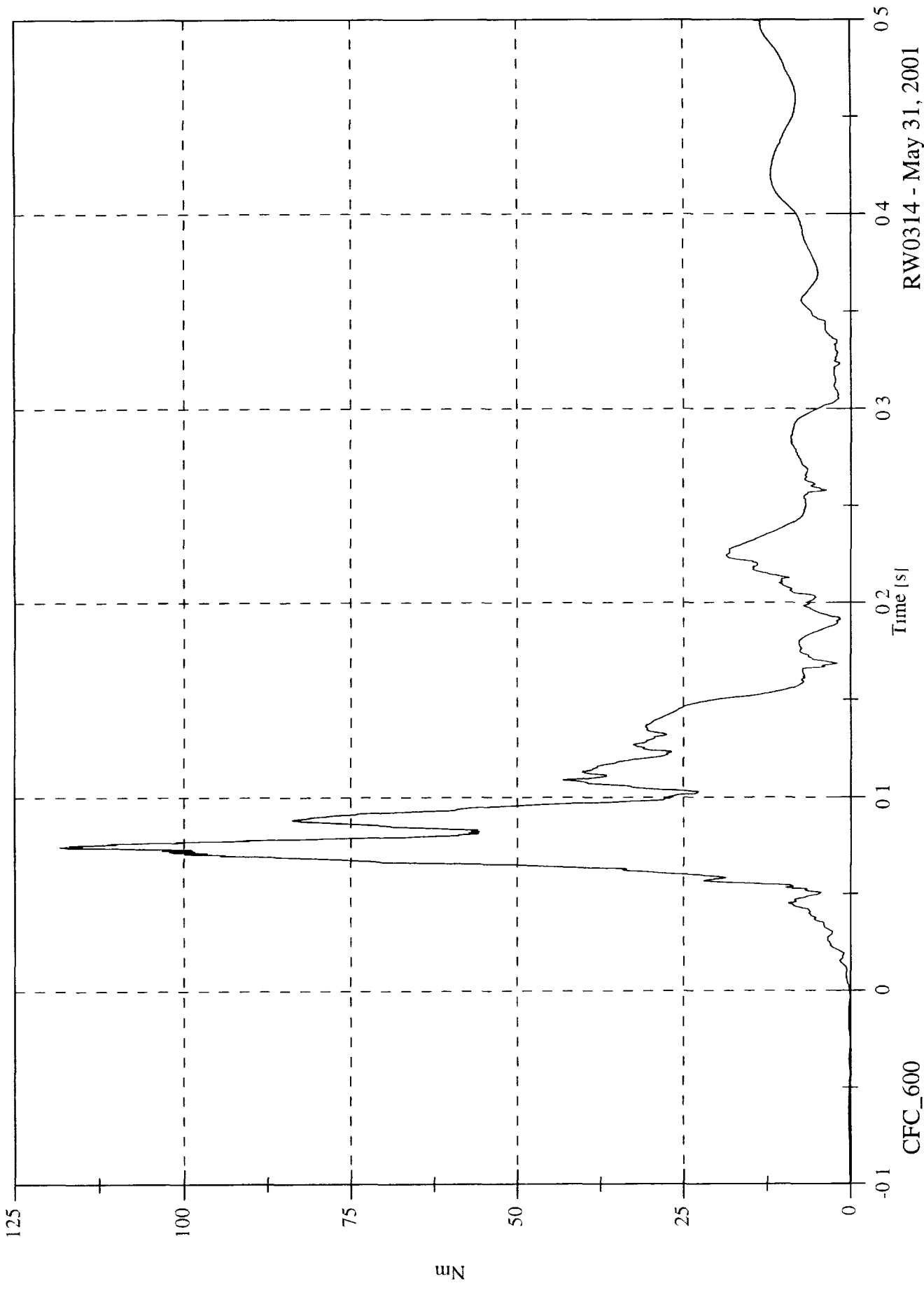
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 118.3 [Nm] at 0.075 [s]

Min: 0.0 [Nm] at -0.100 [s]

P1 Right Femur M Resultant



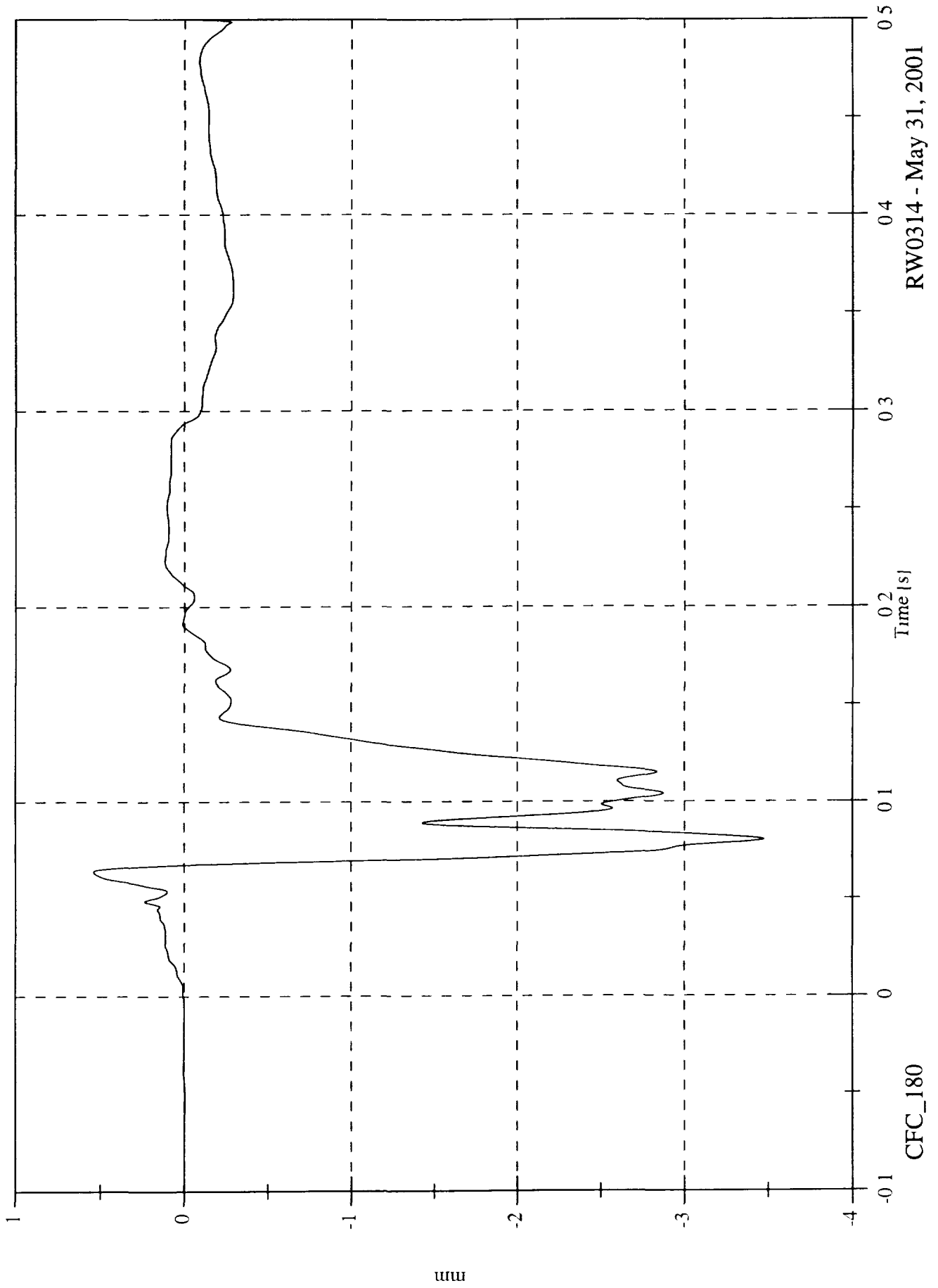
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 0.5 [mm] at 0.064 [s]
Min: -3.5 [mm] at 0.080 [s]

P1 Left Knee Shear Dx



CFC_180

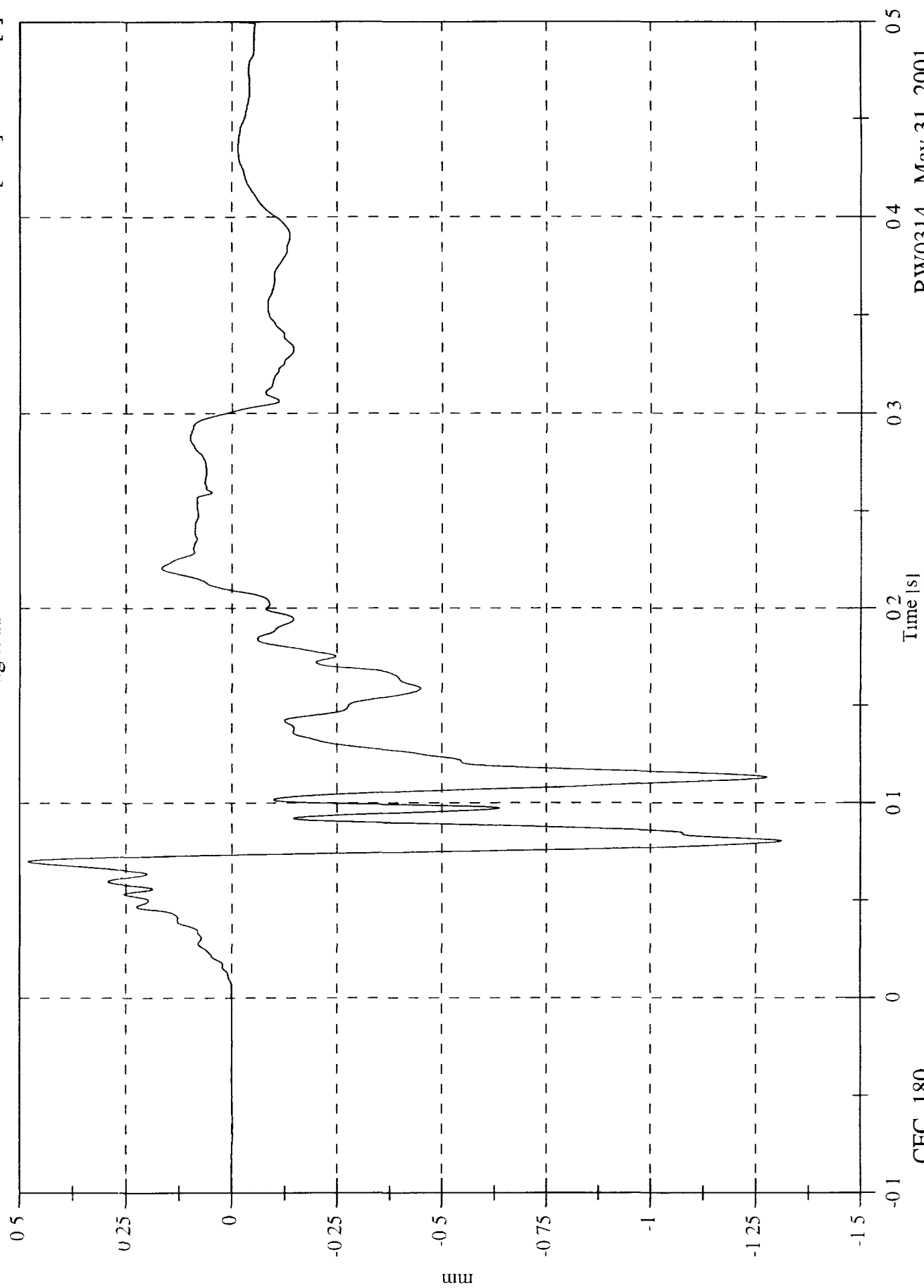
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 0.5 [mm] at 0.070 [s]
Min: -1.3 [mm] at 0.081 [s]

P1 Right Knee Shear Dx



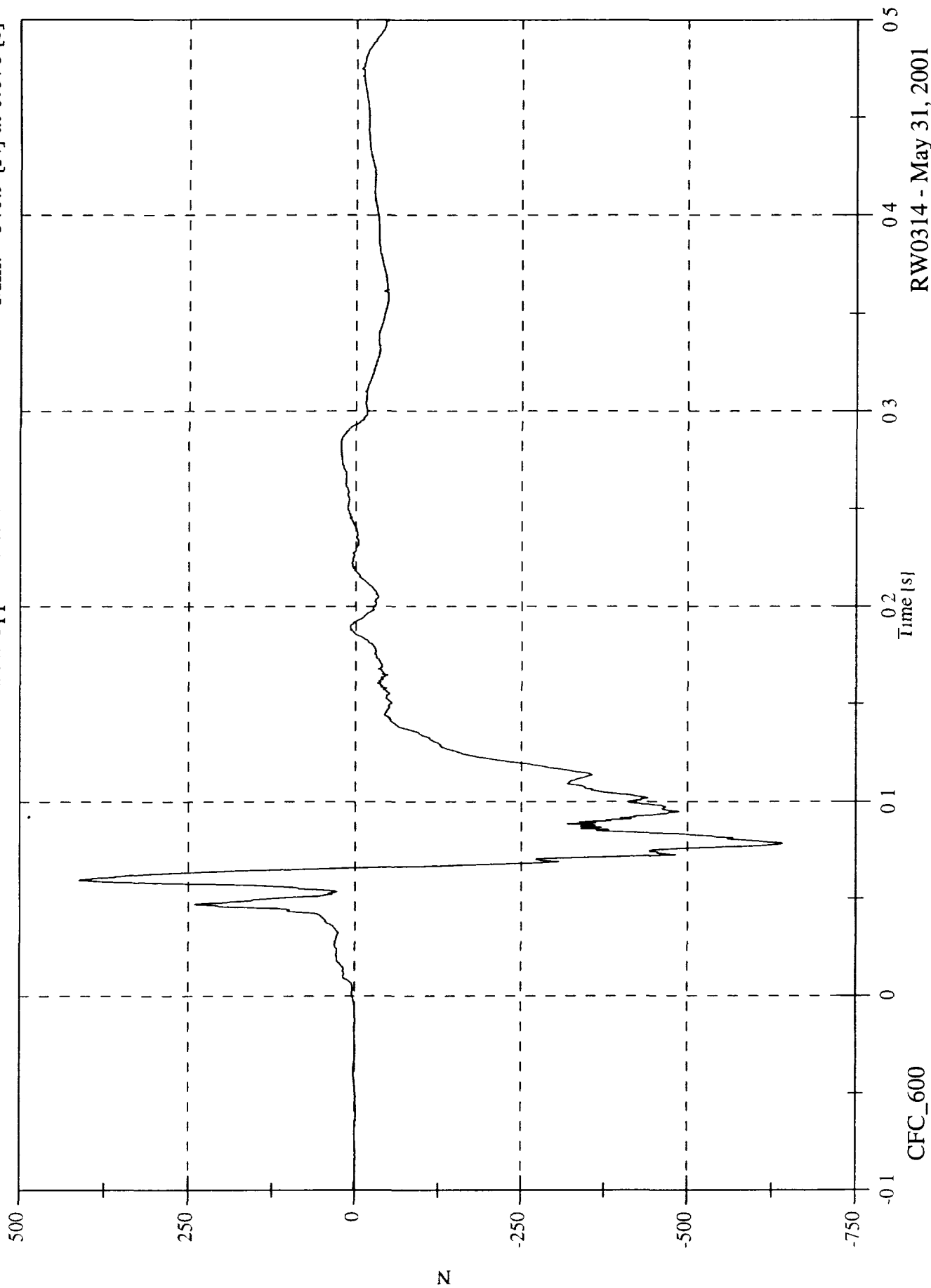
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Left Upper Tibia Fx

Max: 411.9 [N] at 0.060 [s]
Min: -640.9 [N] at 0.078 [s]

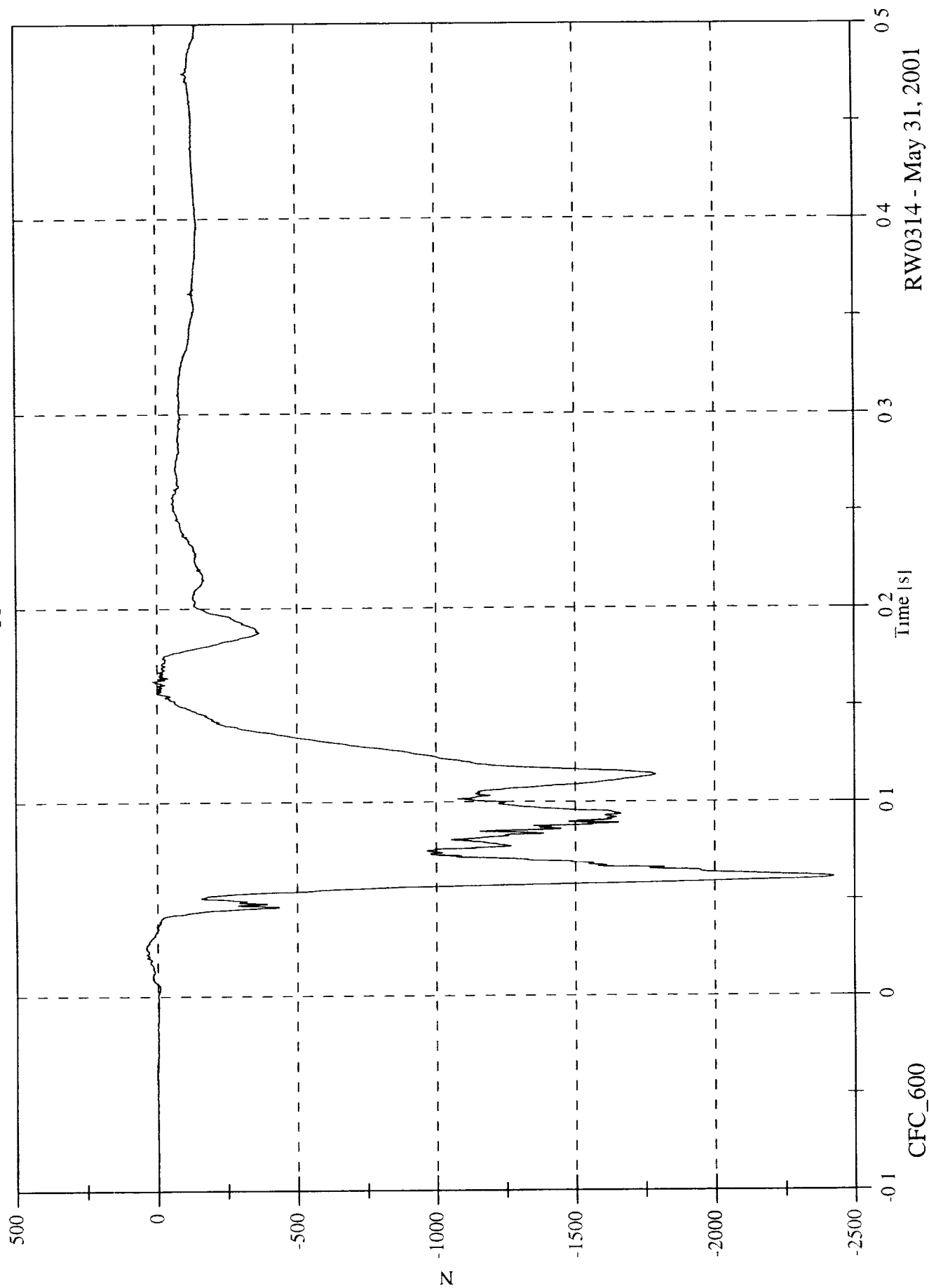


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 40.9 [N] at 0.025 [s]
Min: -2425.6 [N] at 0.061 [s]

P1 Left Upper Tibia Fz

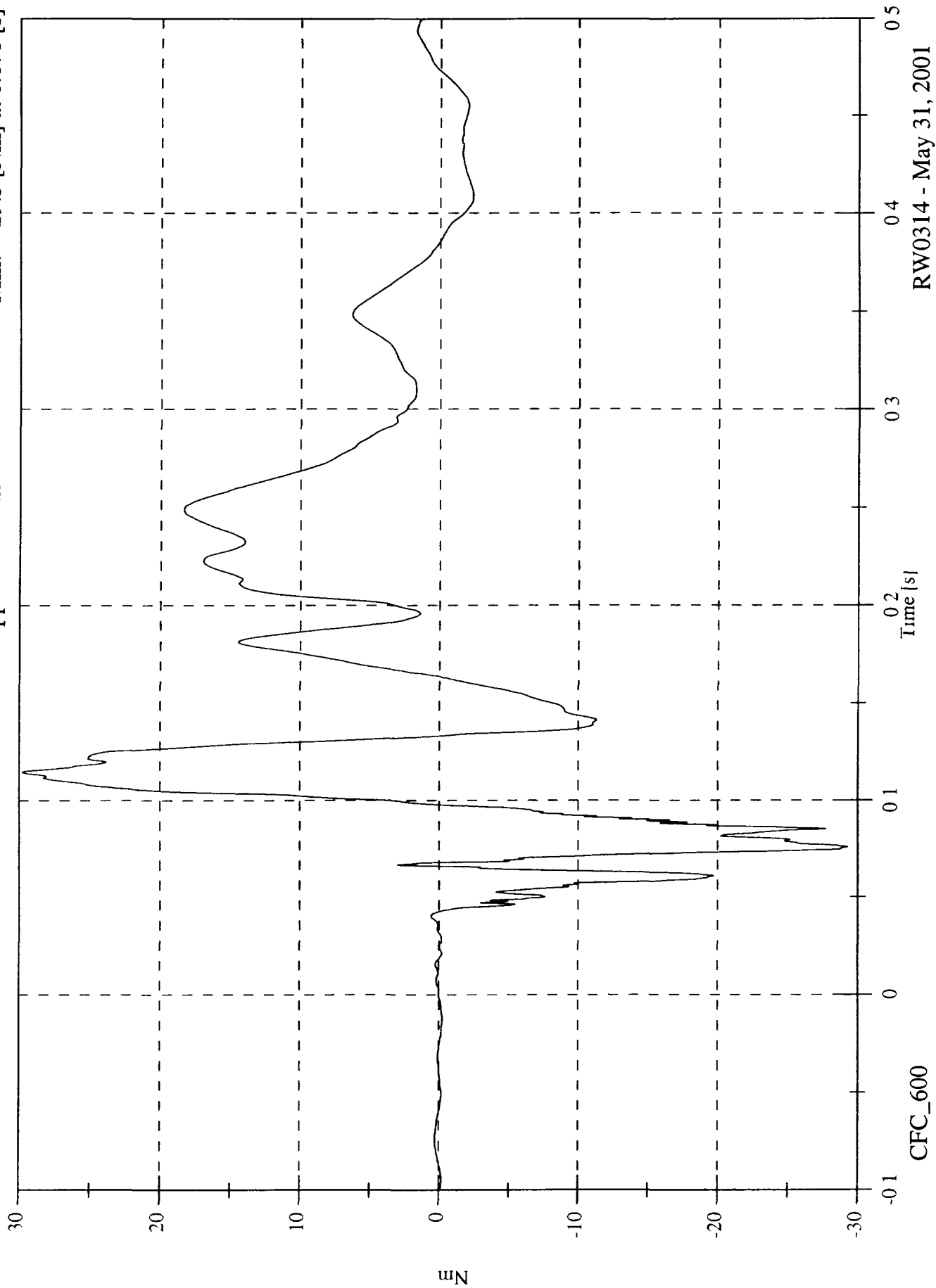


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 29.8 [Nm] at 0.114 [s]
Min: -29.3 [Nm] at 0.076 [s]

P1 Left Upper Tibia Mx



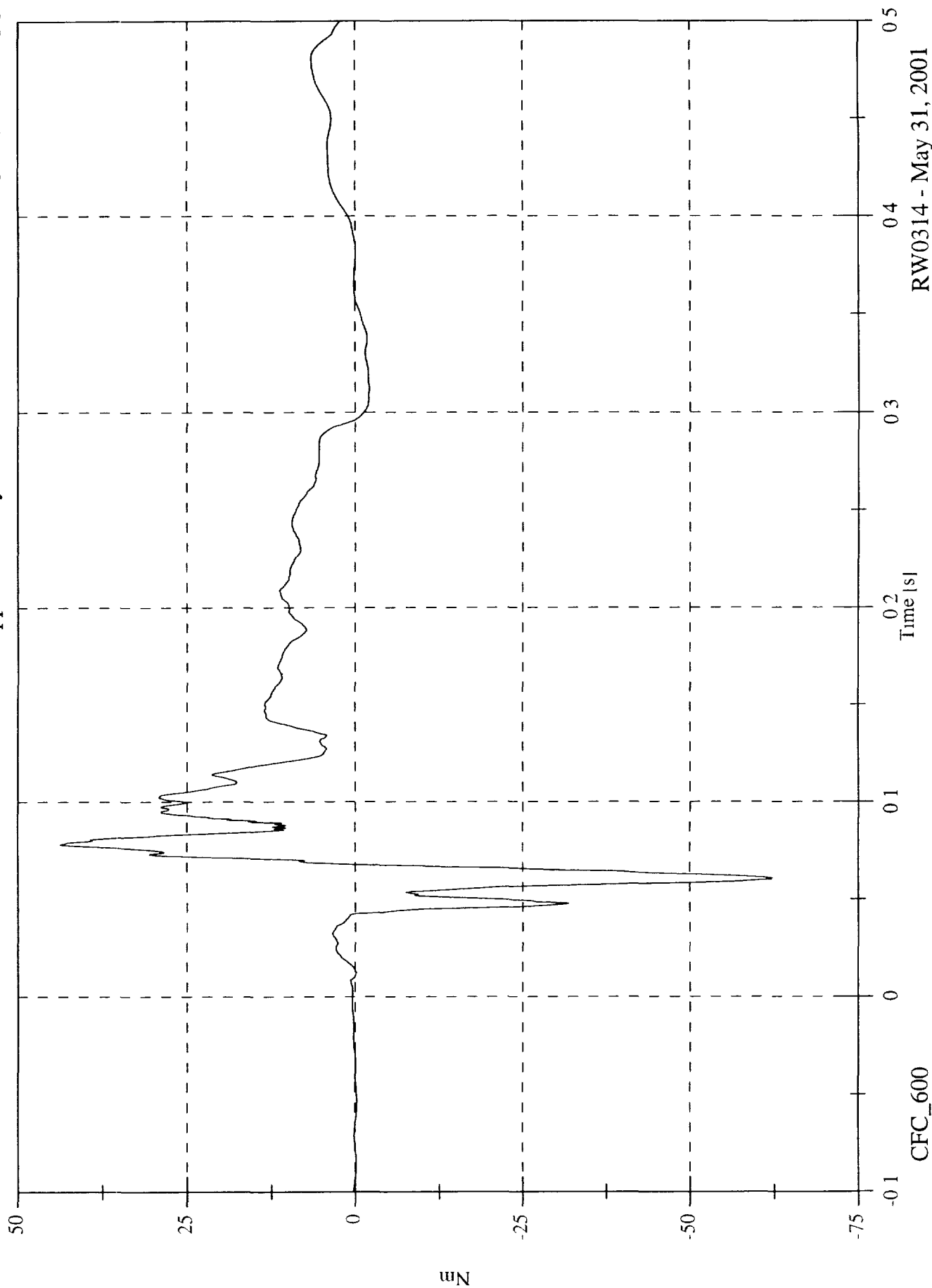
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 43.7 [Nm] at 0.078 [s]

P1 Left Upper Tibia My

Min: -62.2 [Nm] at 0.061 [s]

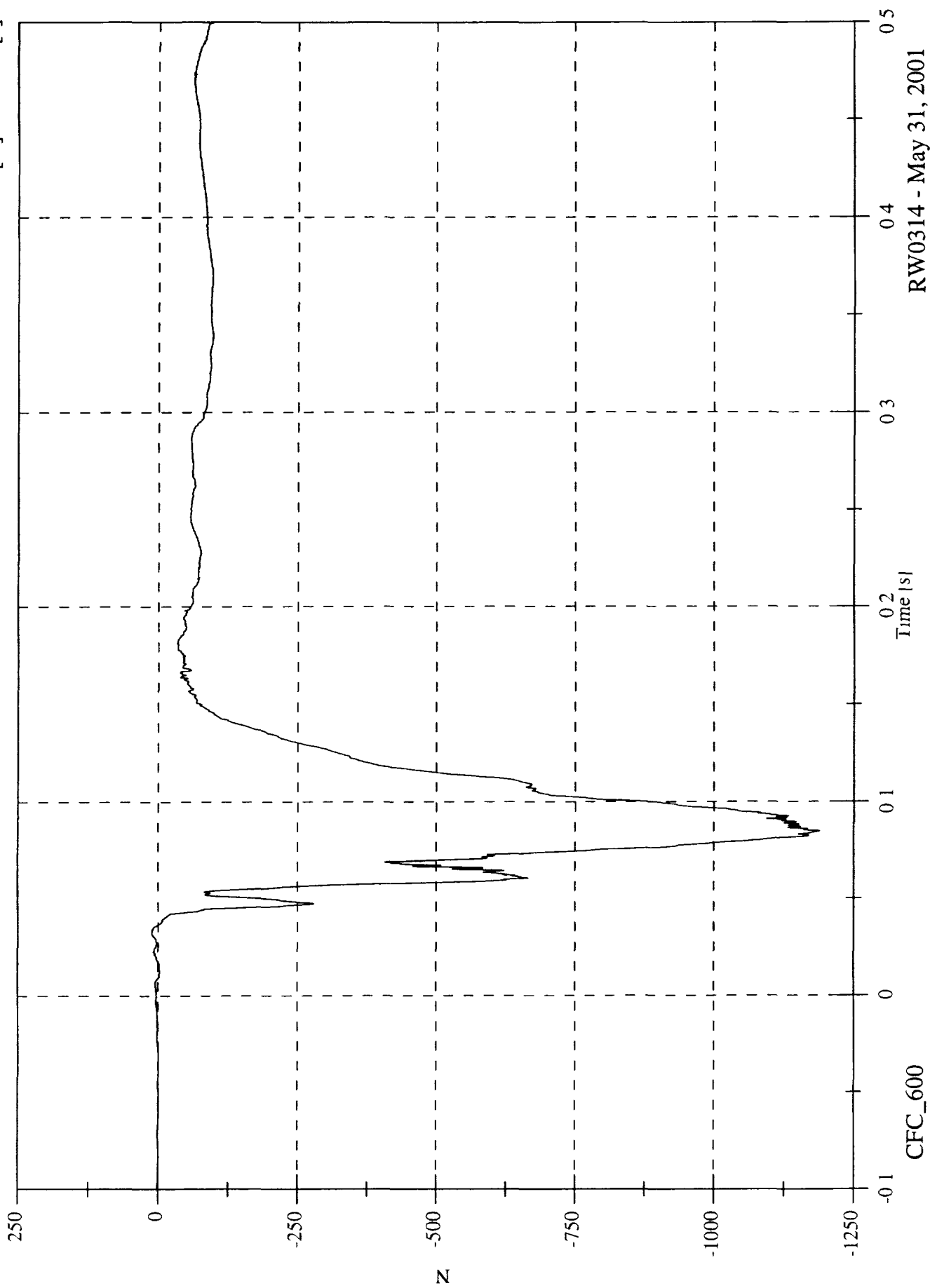


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Left Lower Tibia Fx

Max: 11.3 [N] at 0.032 [s]
Min: -1188.9 [N] at 0.085 [s]

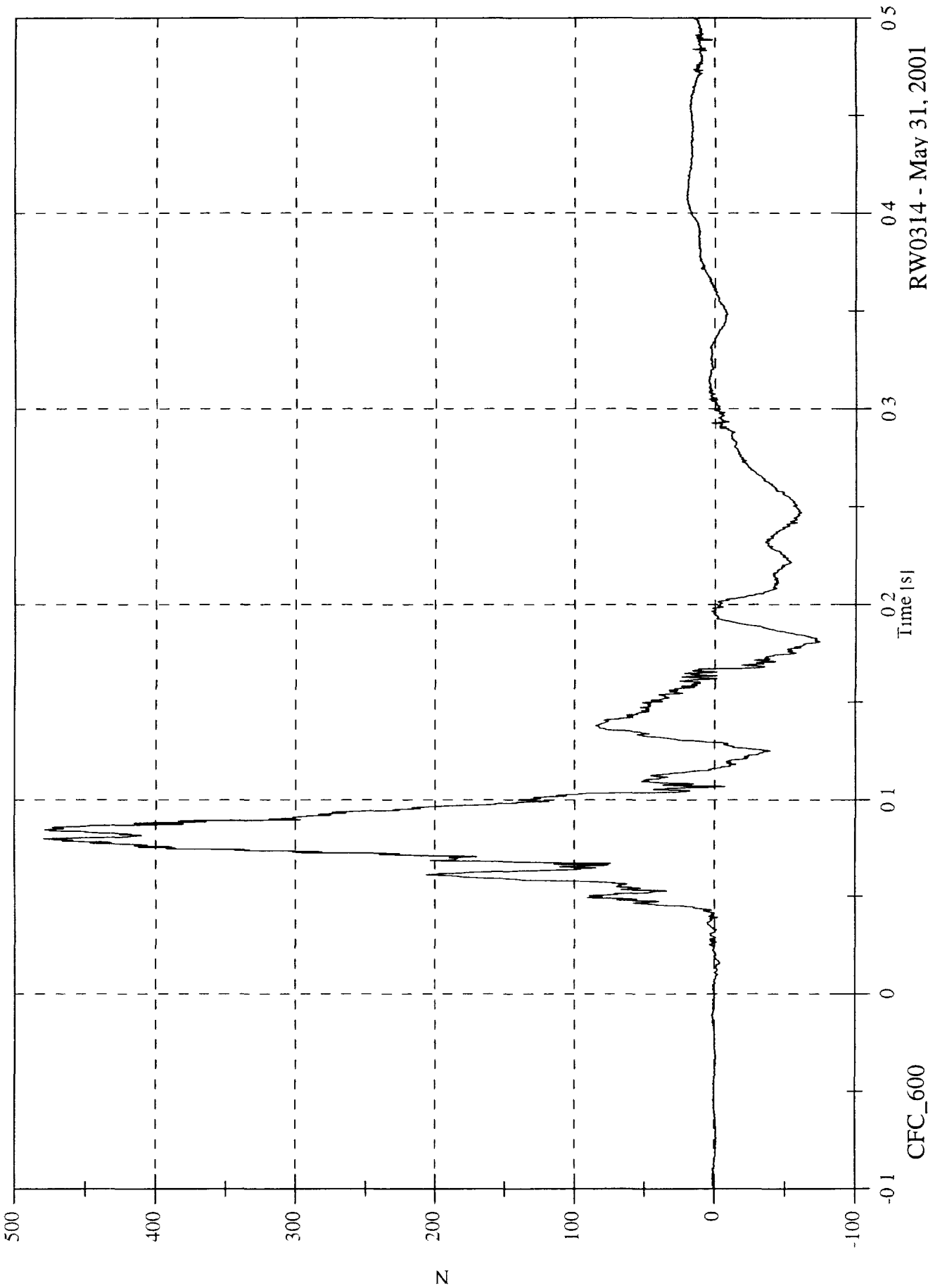


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 479.1 [N] at 0.080 [s]
Min: -74.5 [N] at 0.181 [s]

P1 Left Lower Tibia Fy



CFC_600

Time [s]

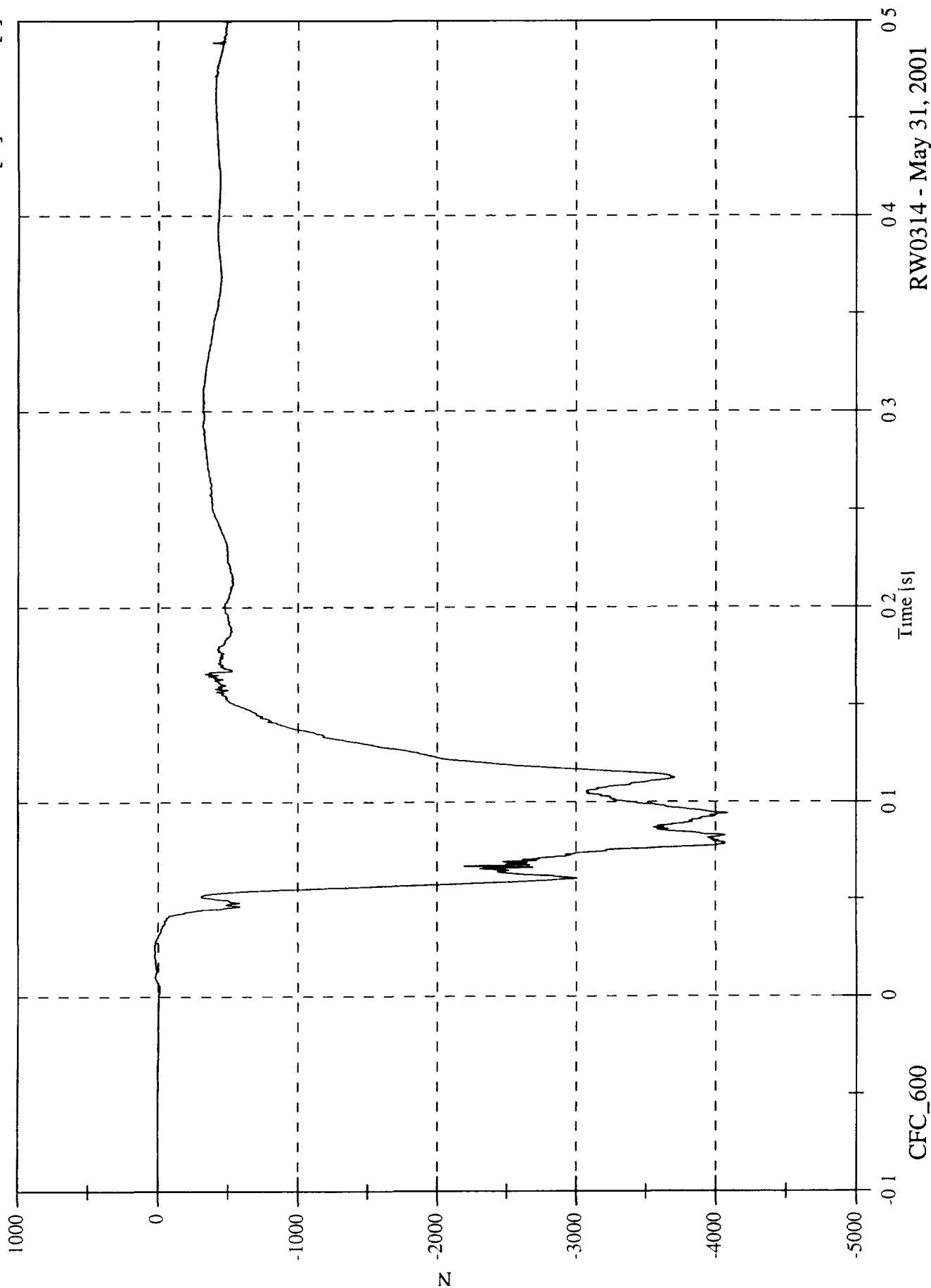
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 27.2 [N] at 0.021 [s]

Min: -4086.6 [N] at 0.094 [s]

P1 Left Lower Tibia Fz



CFC_600

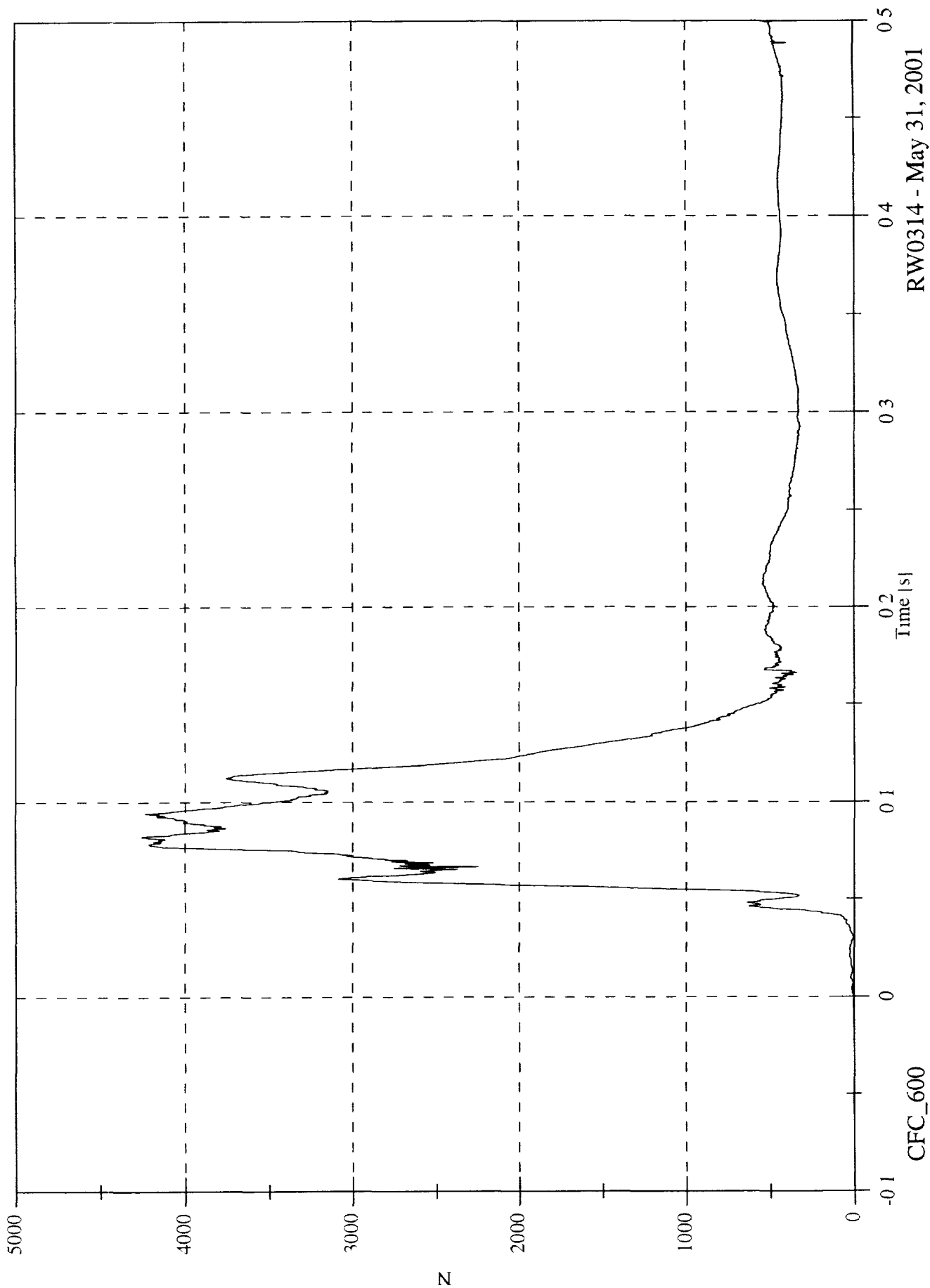
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4252.8 [N] at 0.082 [s]
Min 0.2 [N] at -0.044 [s]

P1 Left Lower Tibia F Resultant

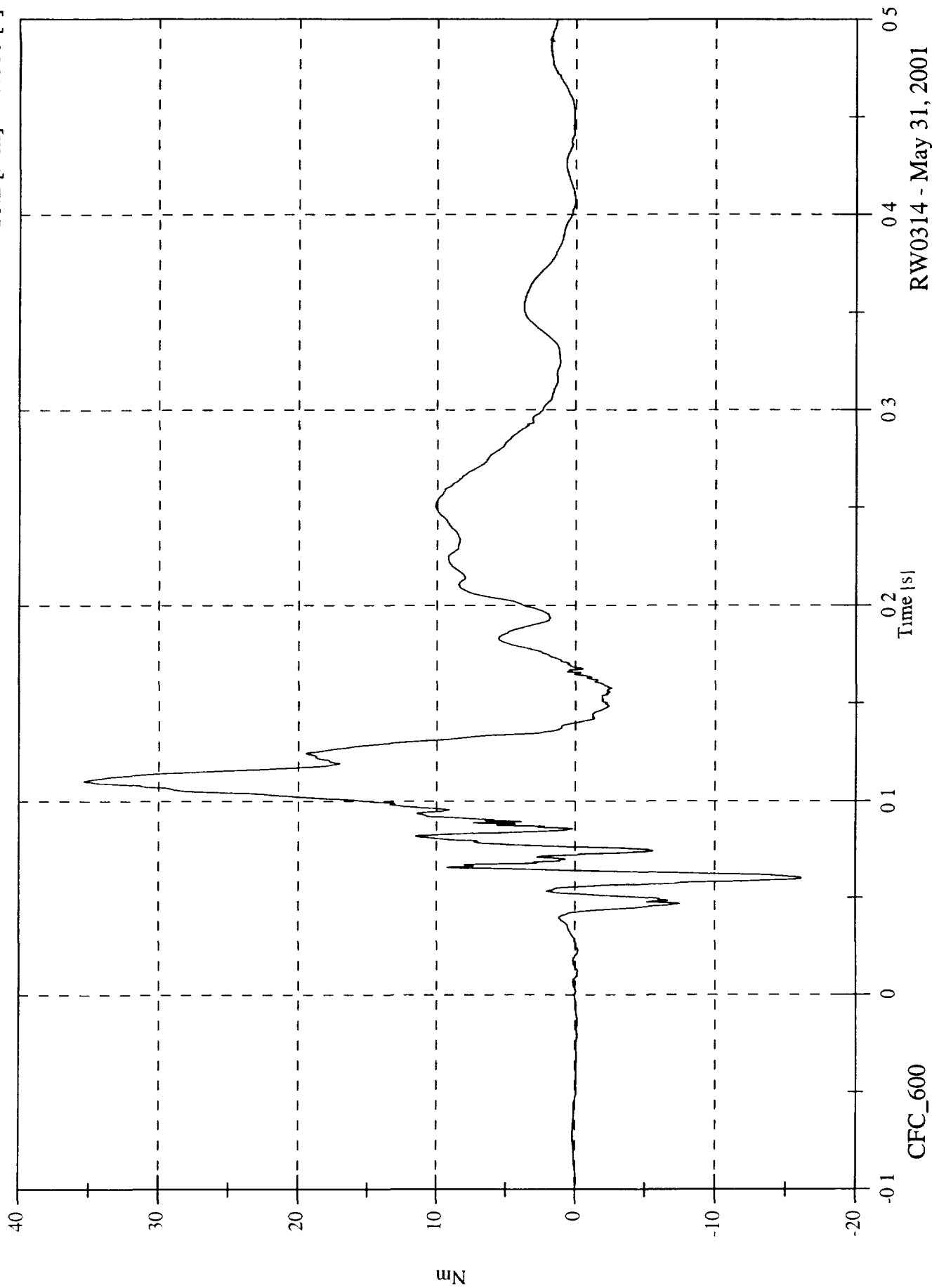


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Left Lower Tibia Mx

Max: 35.4 [Nm] at 0.110 [s]
Min: -16.2 [Nm] at 0.060 [s]



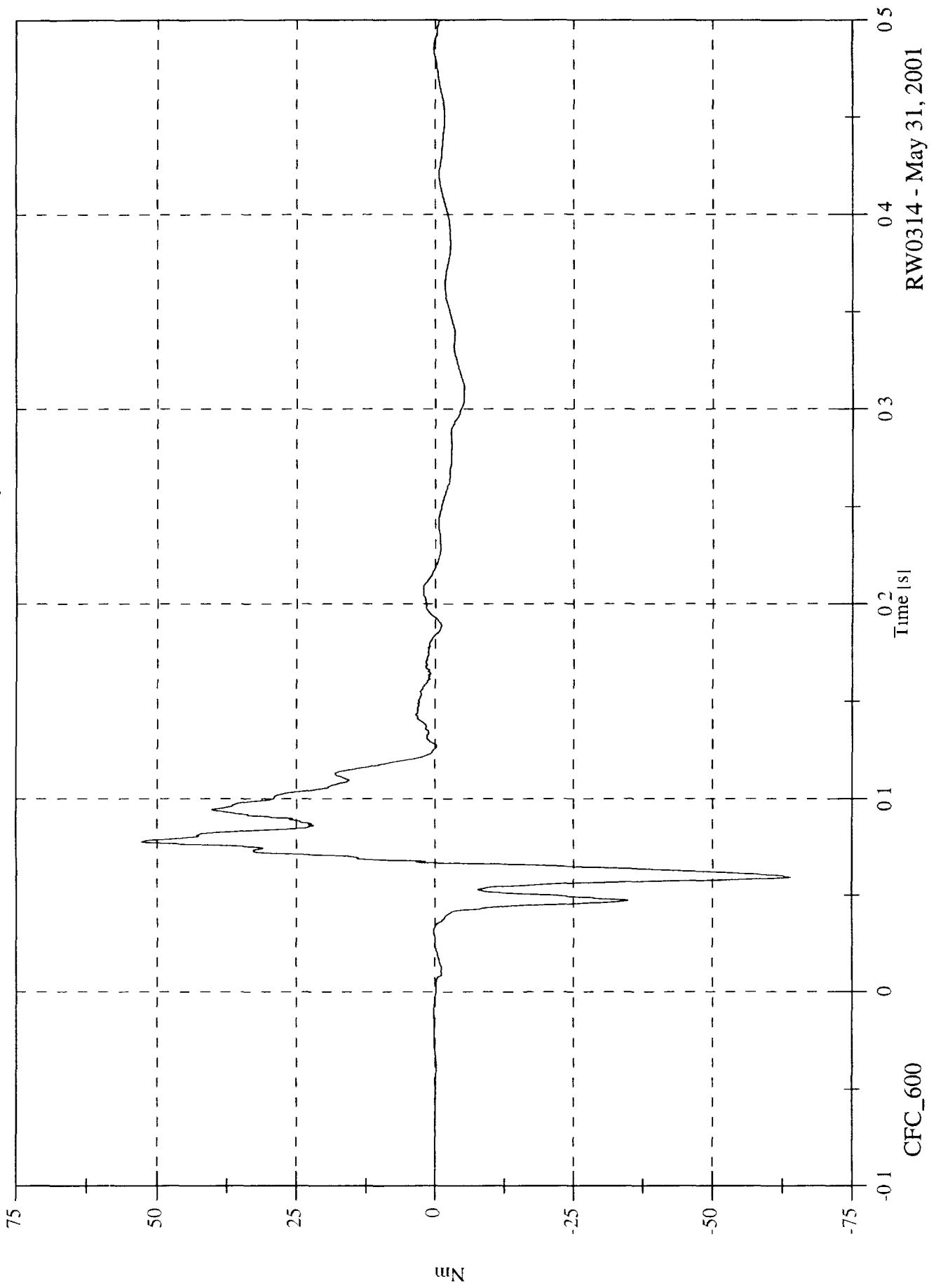
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 52.8 [Nm] at 0.078 [s]
Min: -63.9 [Nm] at 0.059 [s]

P1 Left Lower Tibia My

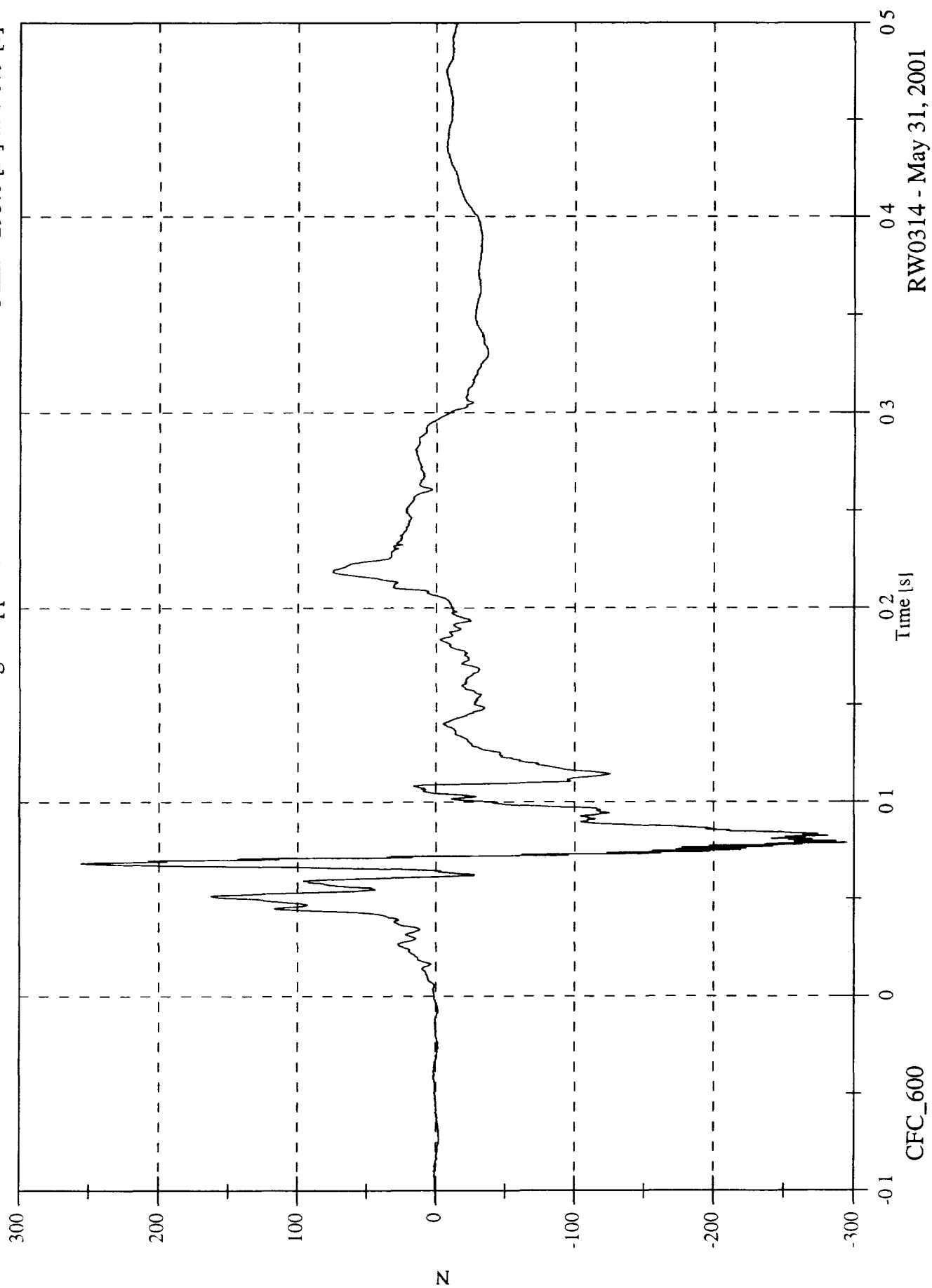


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 255.8 [N] at 0.068 [s]
Min: -295.0 [N] at 0.079 [s]

P1 Right Upper Tibia Fx

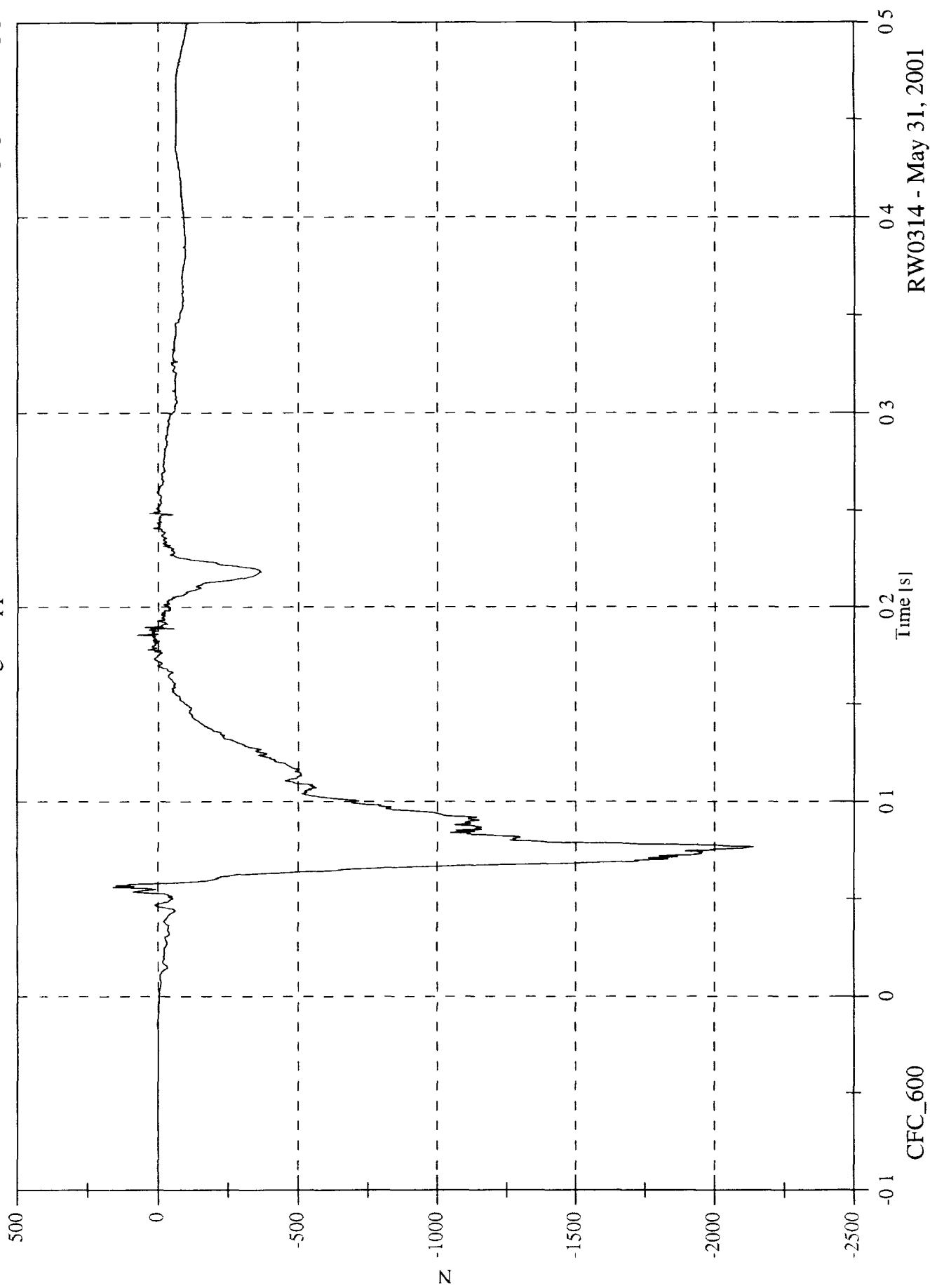


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 160.9 [N] at 0 056 [s]
Min: -2137.9 [N] at 0 077 [s]

P1 Right Upper Tibia Fz

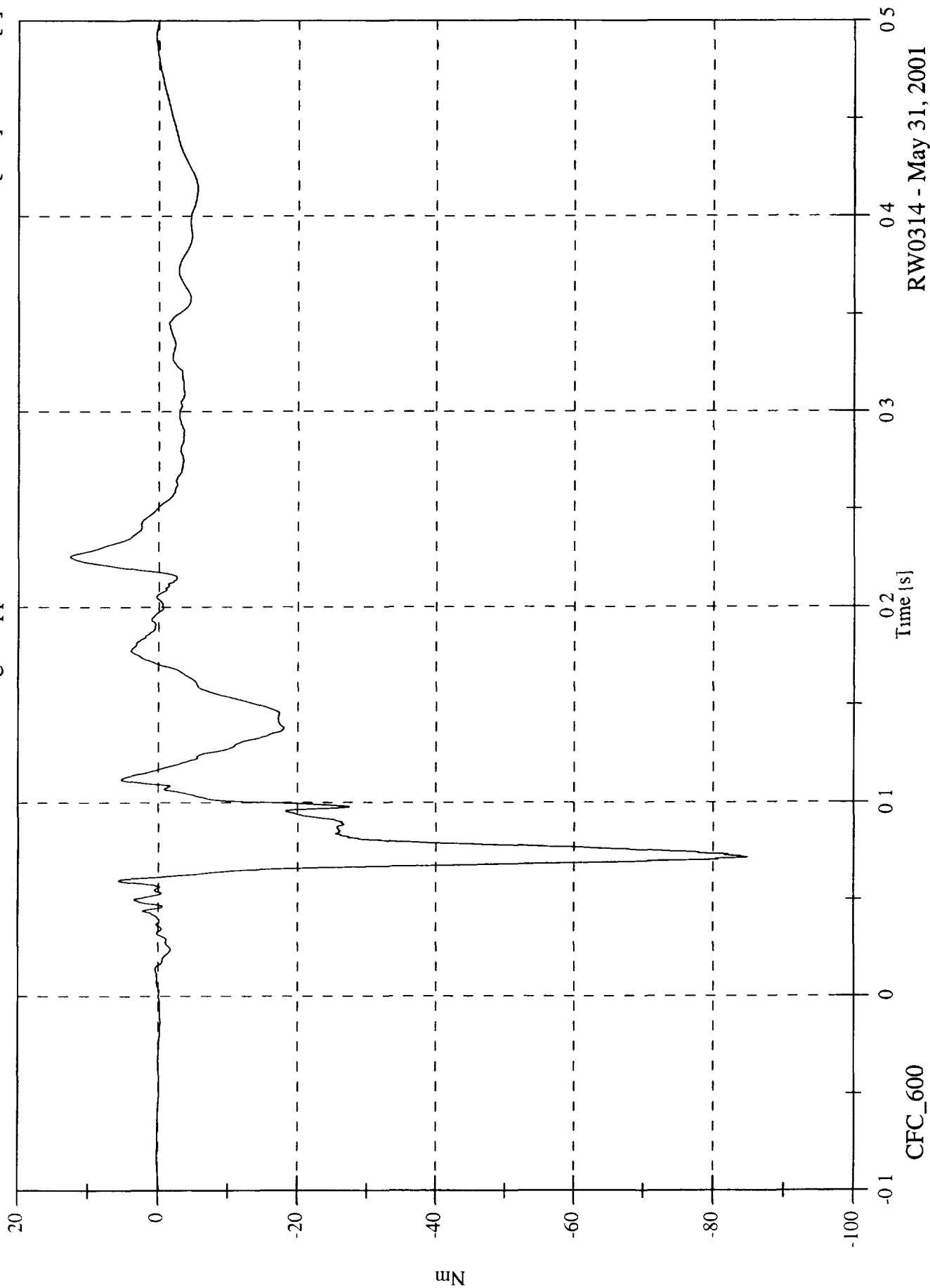


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Upper Tibia Mx

Max: 12.6 [Nm] at 0.226 [s]
Min: -84.9 [Nm] at 0.071 [s]

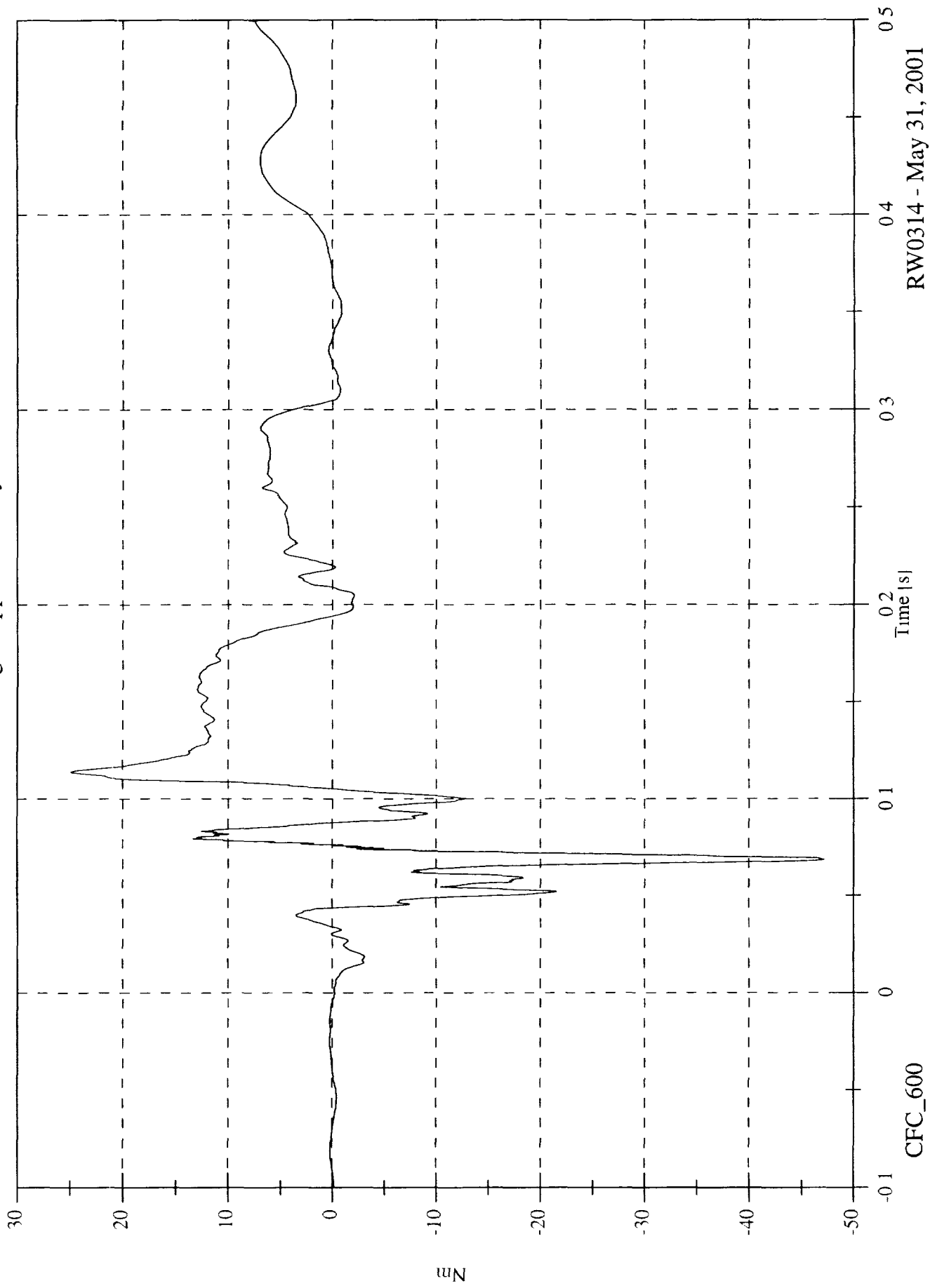


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Upper Tibia My

Max: 24.9 [Nm] at 0.114 [s]
Min: -47.2 [Nm] at 0.068 [s]

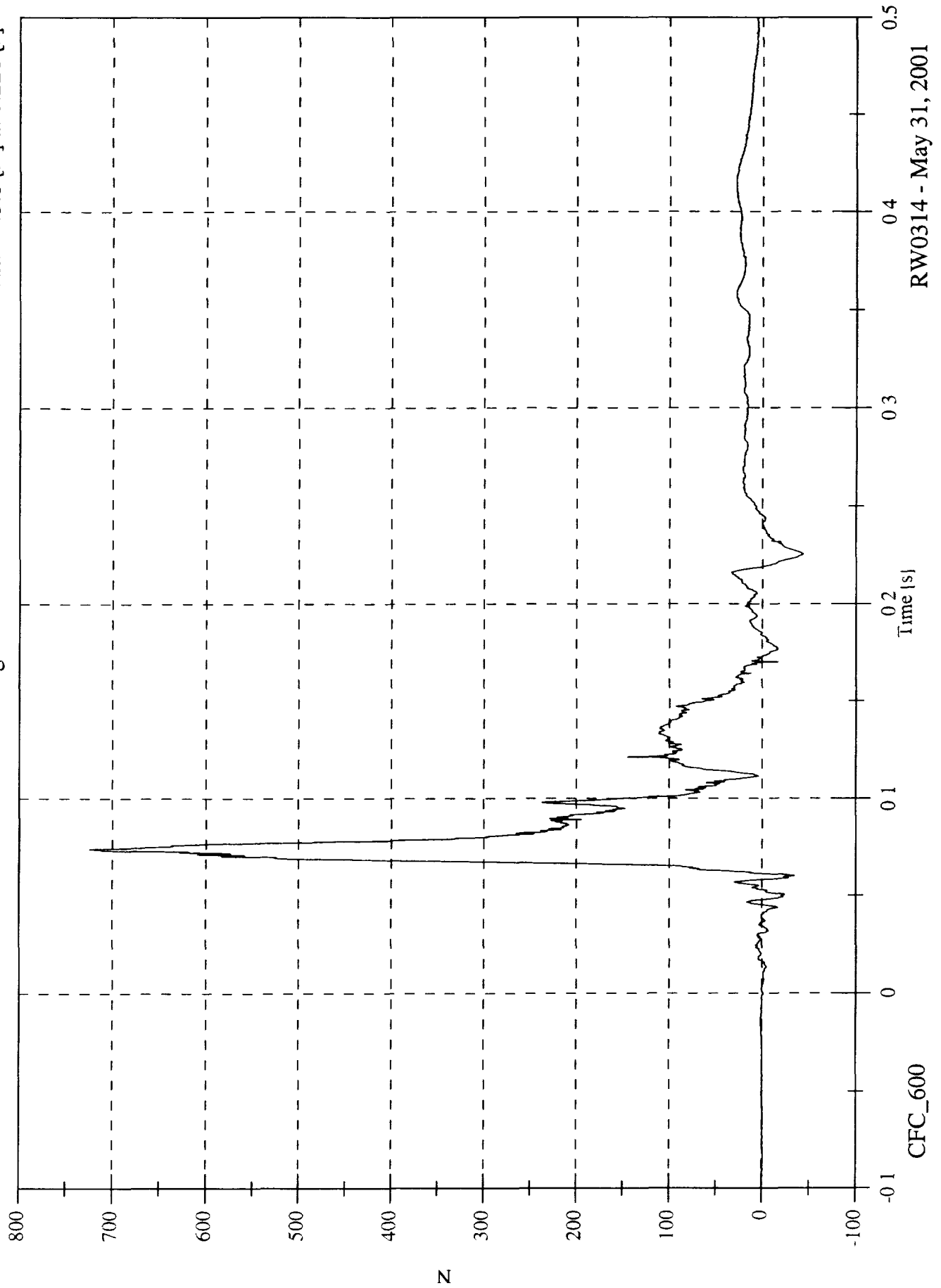


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 724.4 [N] at 0.074 [s]
Min: -43.8 [N] at 0.226 [s]

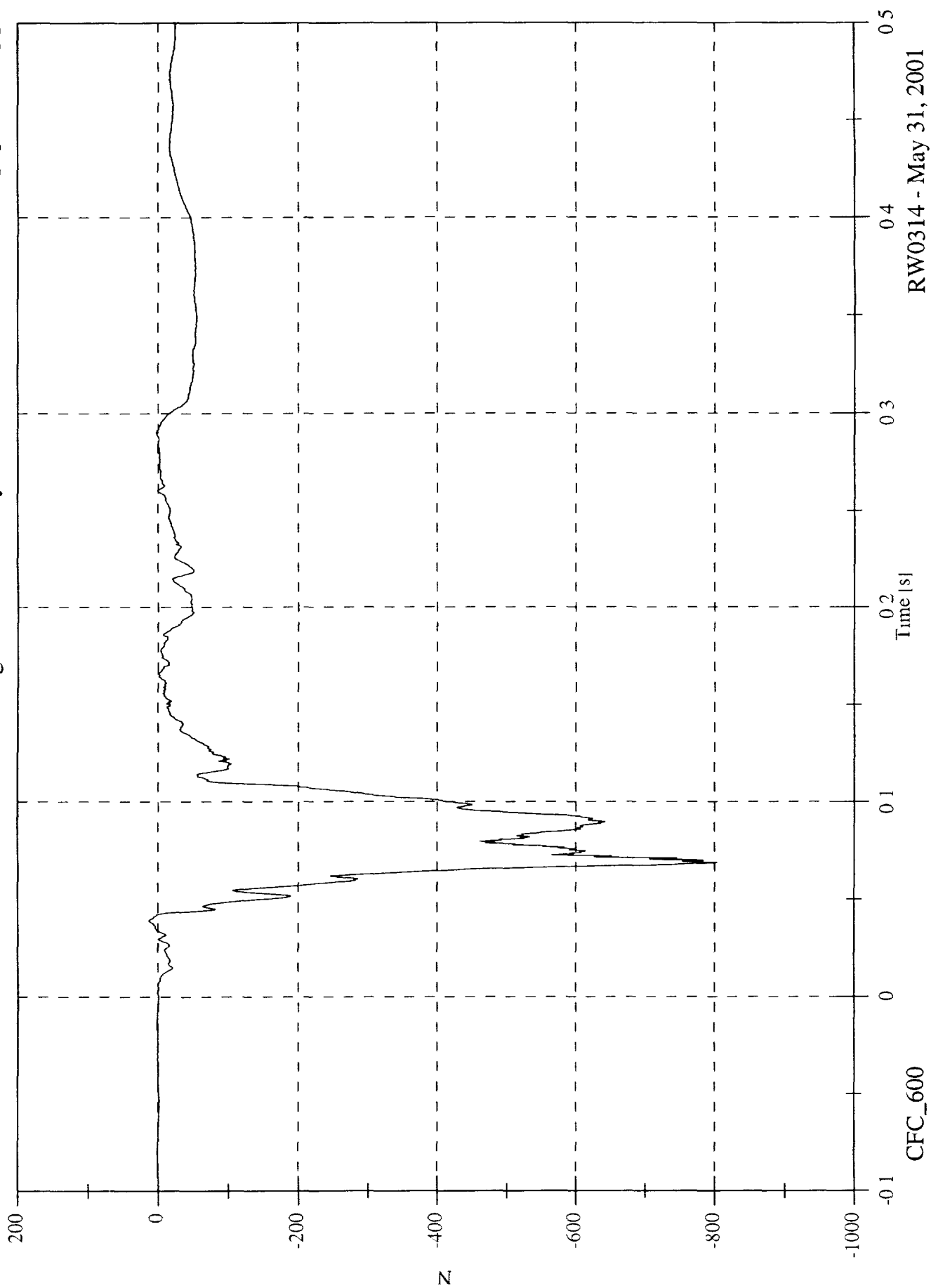
P1 Right Lower Tibia Fx



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 13.0 [N] at 0.039 [s]
Min: -802.8 [N] at 0.069 [s]

P1 Right Lower Tibia Fy



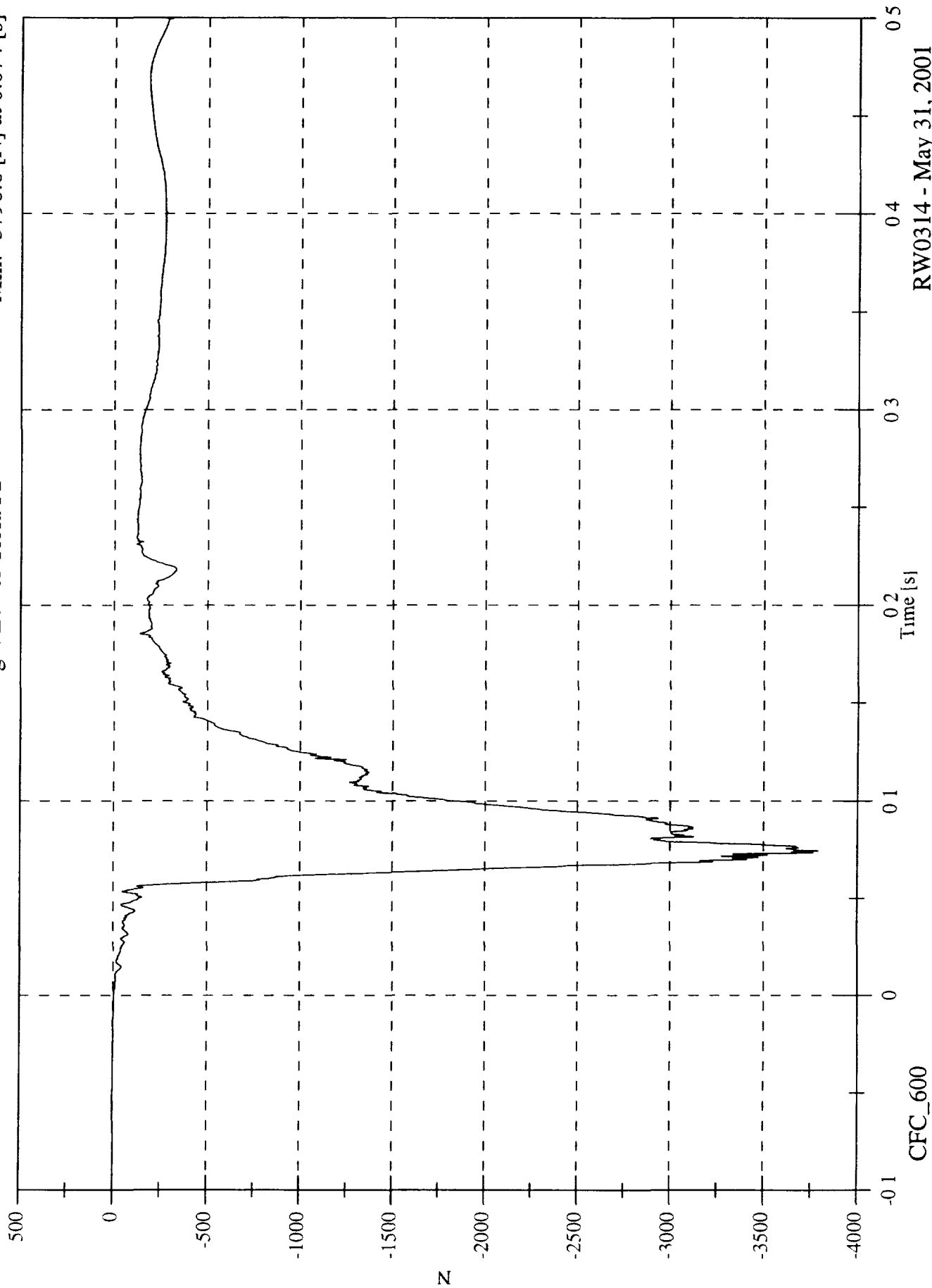
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 3.4 [N] at -0.057 [s]
Min: -3790.6 [N] at 0.074 [s]

P1 Right Lower Tibia Fz

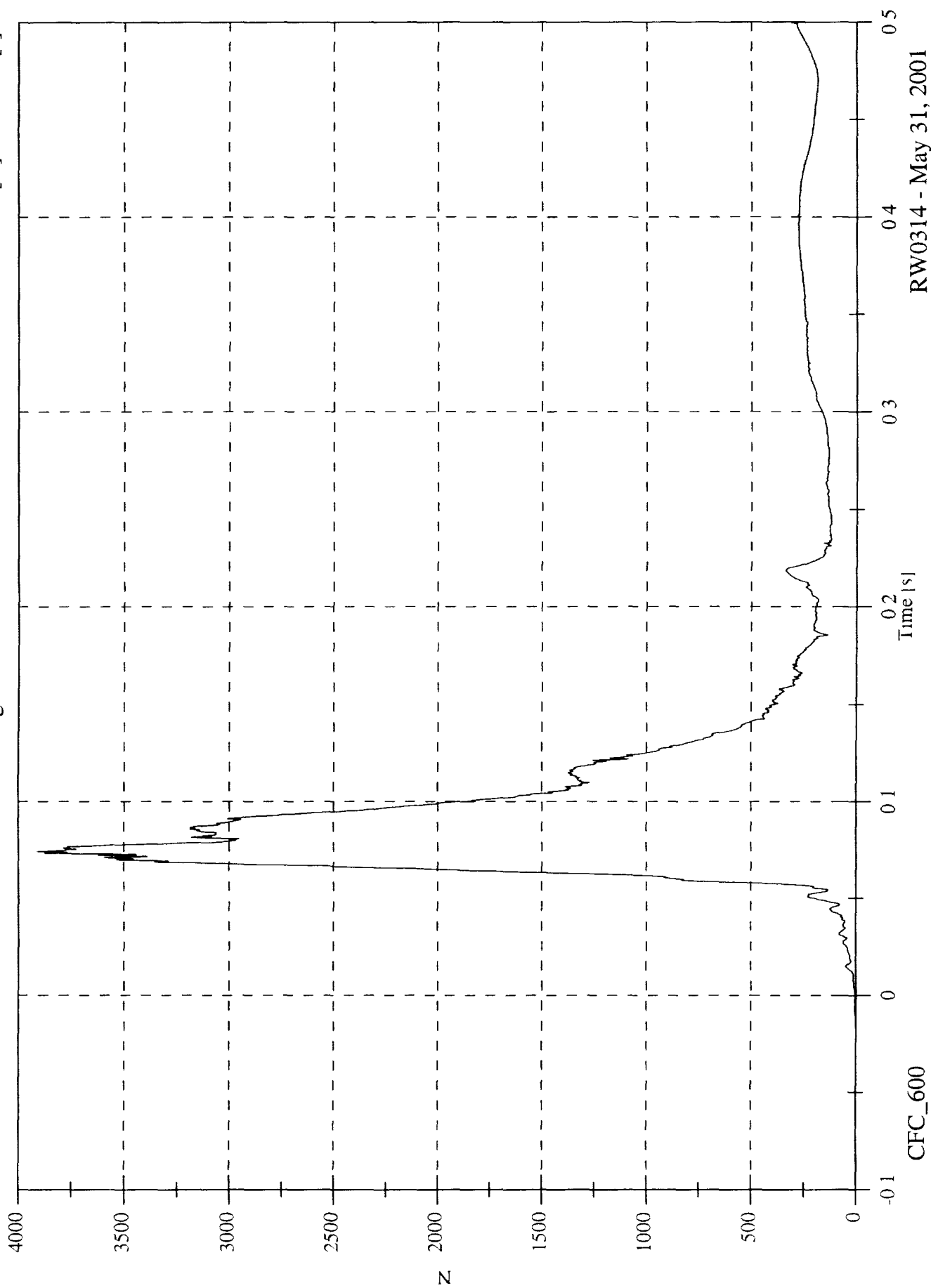


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Lower Tibia F Resultant

Max: 3906.5 [N] at 0.074 [s]
Min: 0.1 [N] at -0.040 [s]

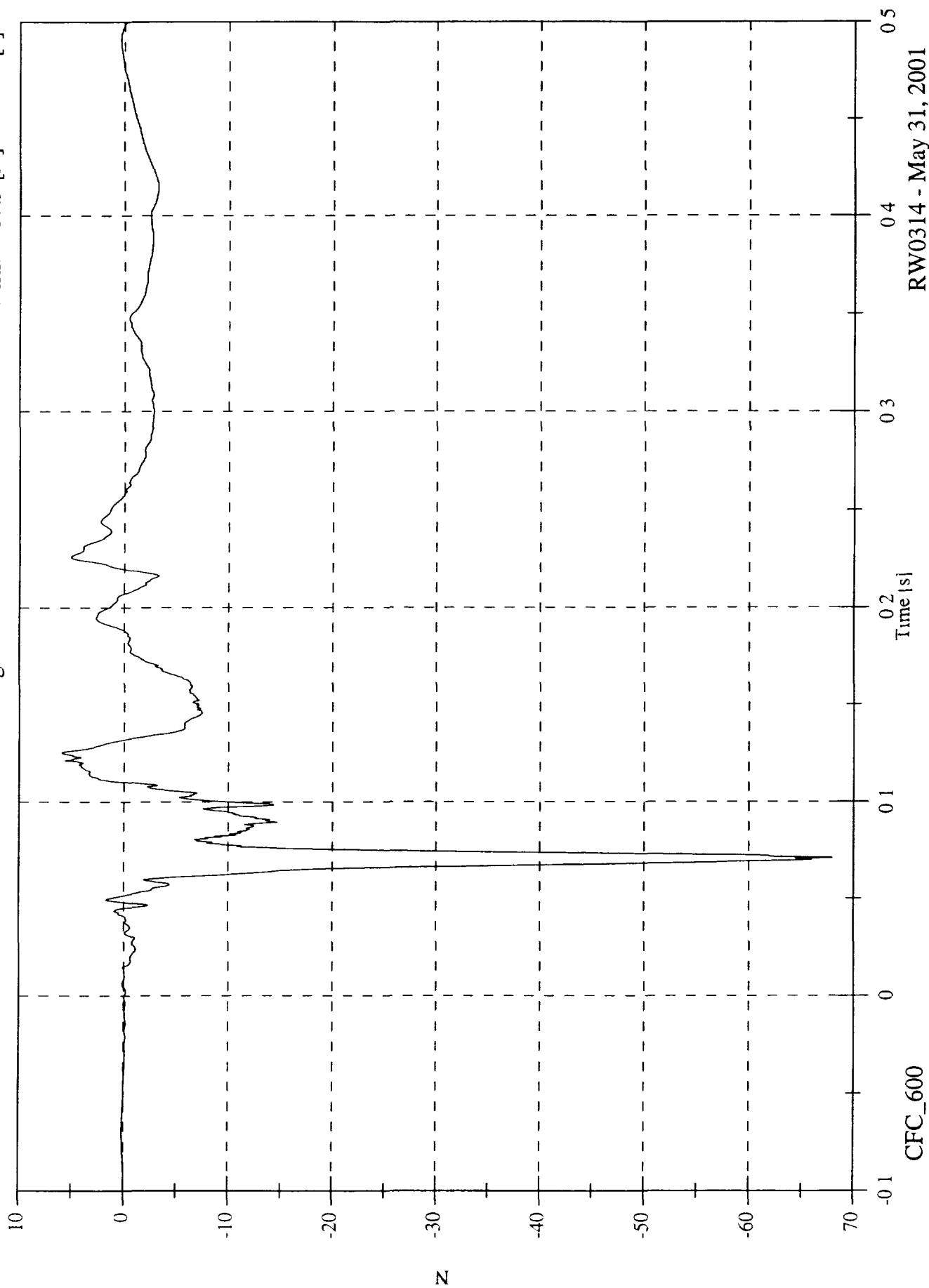


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 5.9 [N] at 0.125 [s]
Min: -67.9 [N] at 0.071 [s]

P1 Right Lower Tibia Mx

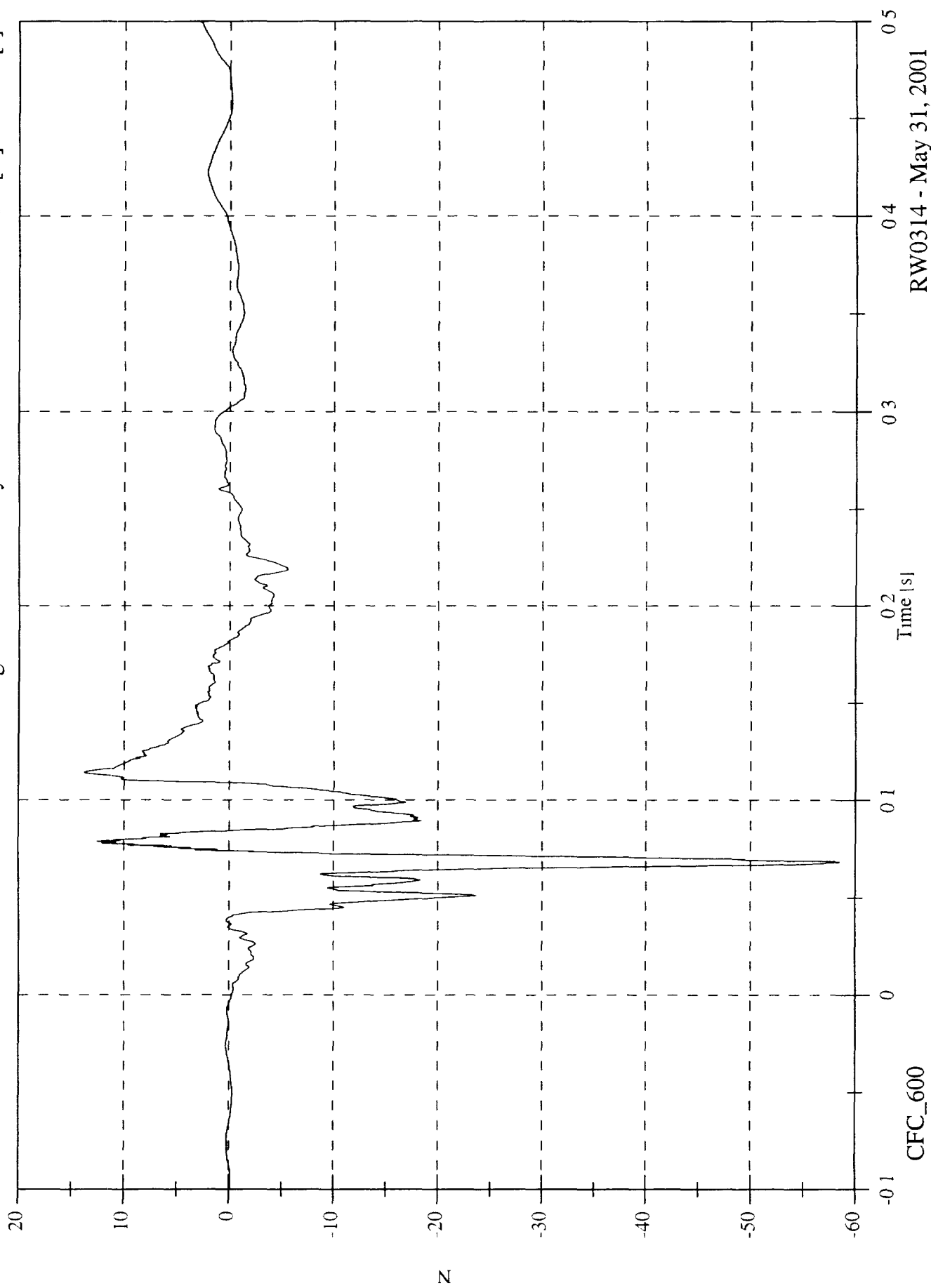


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Lower Tibia My

Max: 13.8 [N] at 0.114 [s]
Min: -58.5 [N] at 0.068 [s]

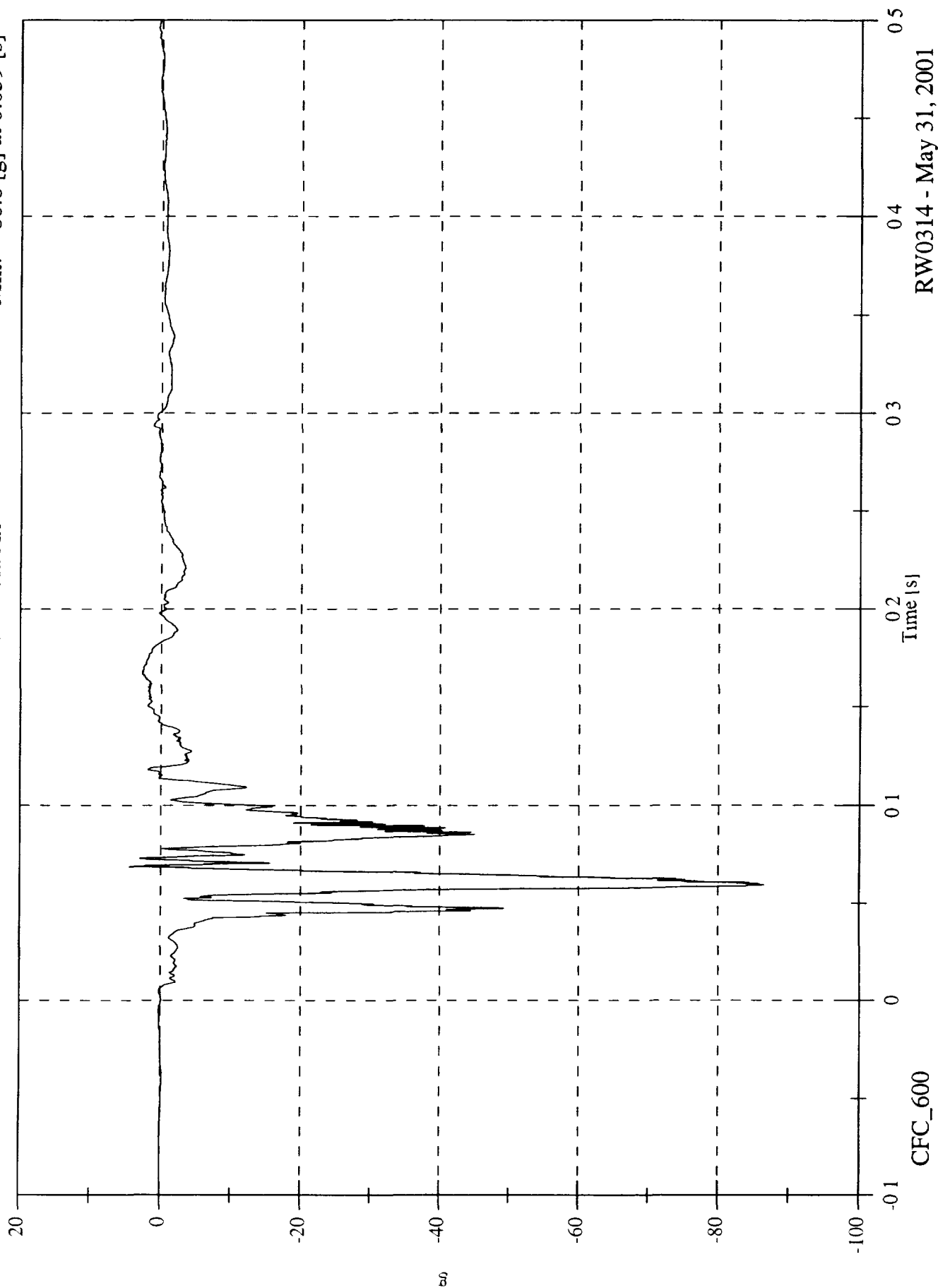


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4.4 [g] at 0.068 [s]
Min: -86.6 [g] at 0.059 [s]

P1 Left Tibia Ax

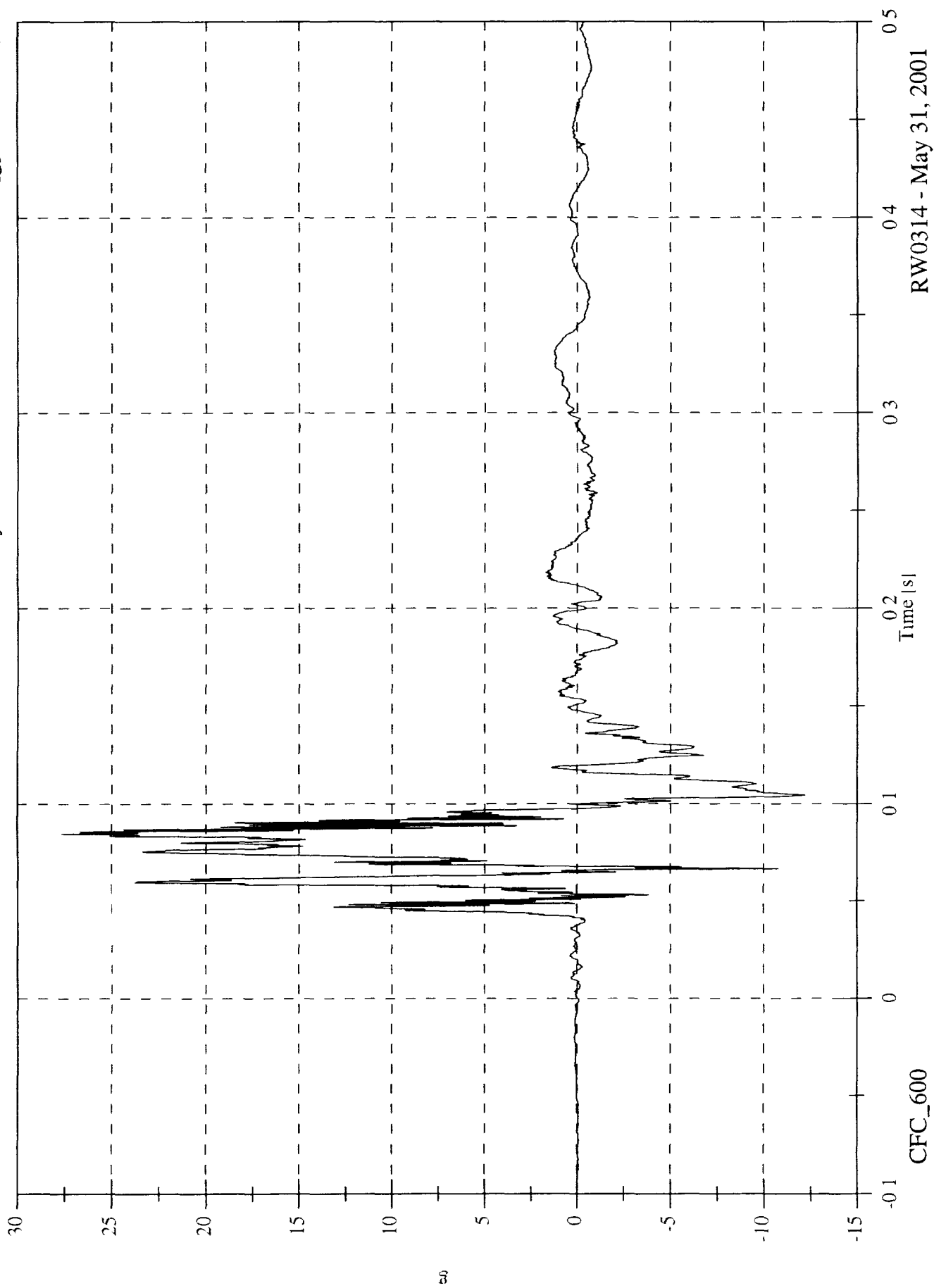


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 27.6 [g] at 0.085 [s]
 Min: -12.2 [g] at 0.105 [s]

P1 Left Tibia Ay

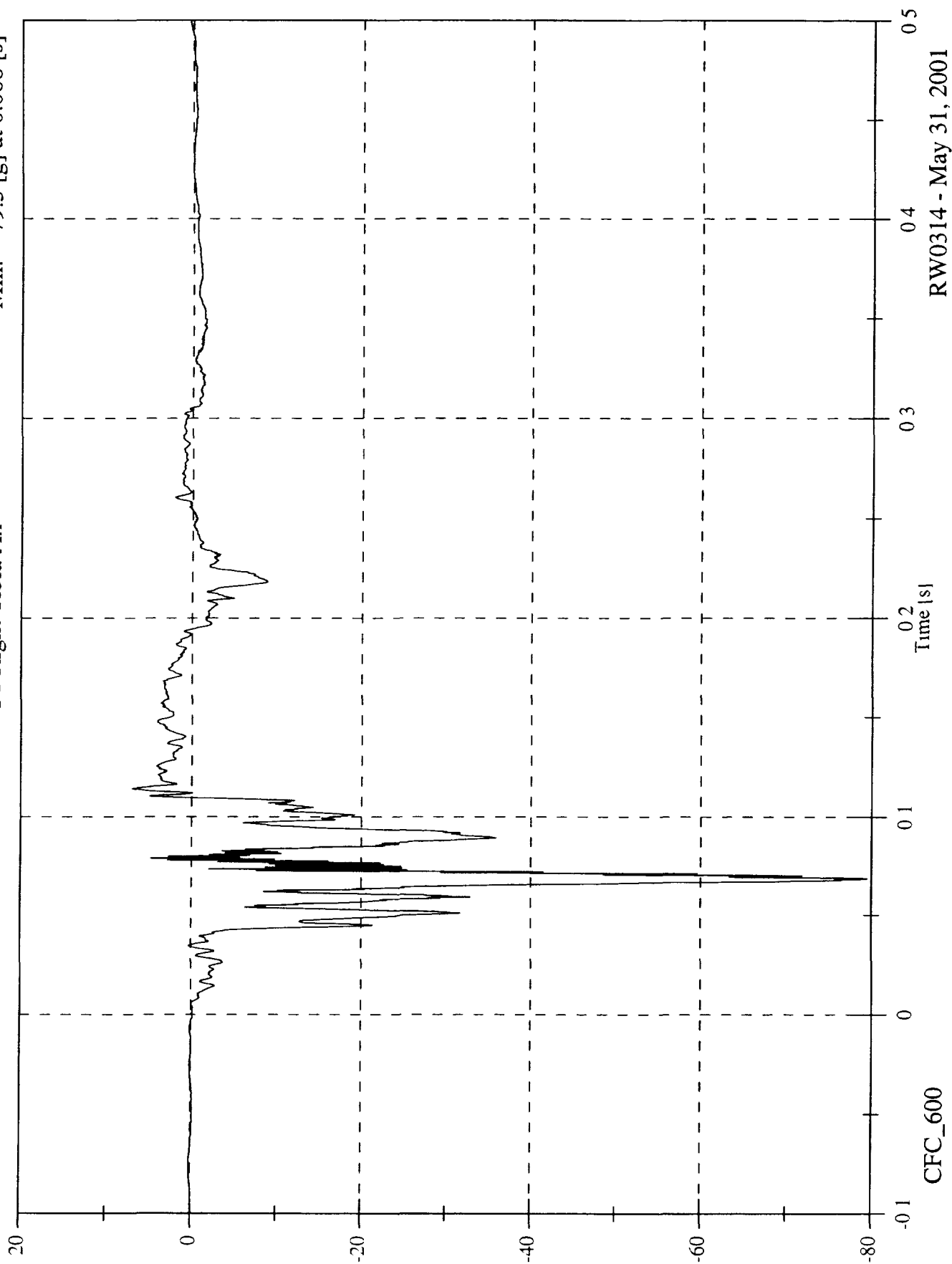


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 7.0 [g] at 0.114 [s]
Min: -79.5 [g] at 0.068 [s]

P1 Right Tibia Ax



CFC_600

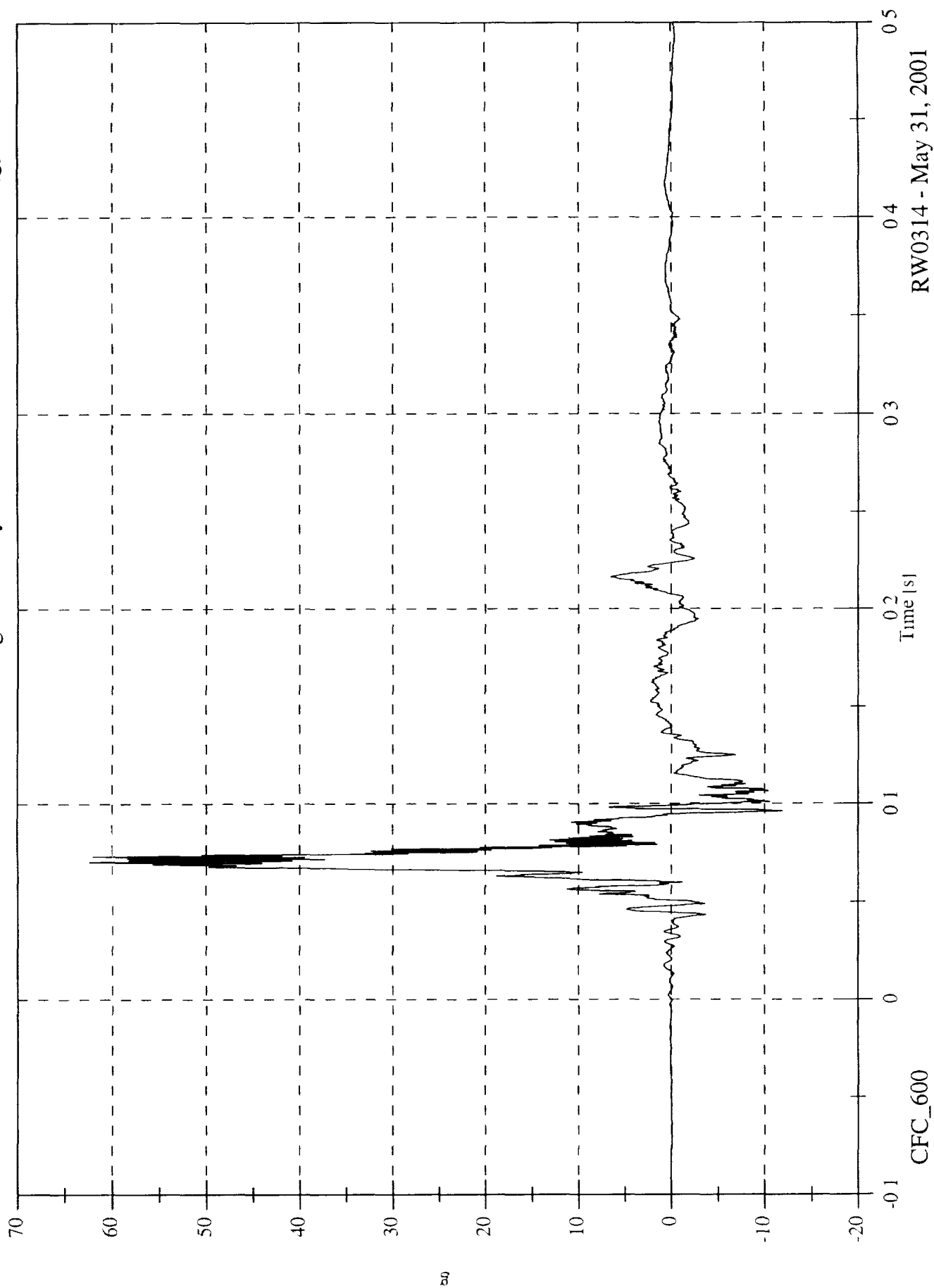
Time [s]

RW0314 - May 31, 2001

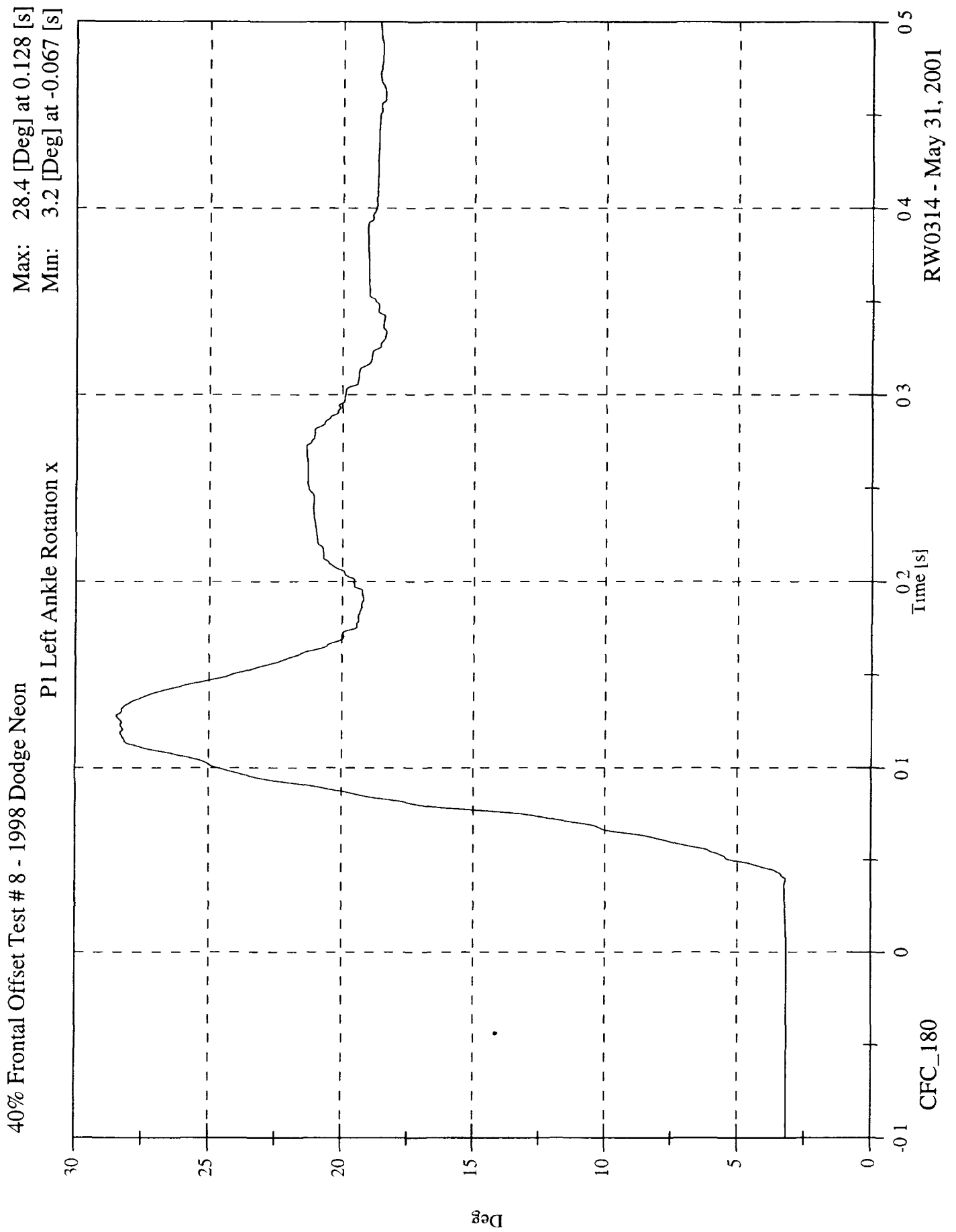
40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 62.4 [g] at 0.071 [s]
 Min: -11.9 [g] at 0.096 [s]

P1 Right Tibia Ay

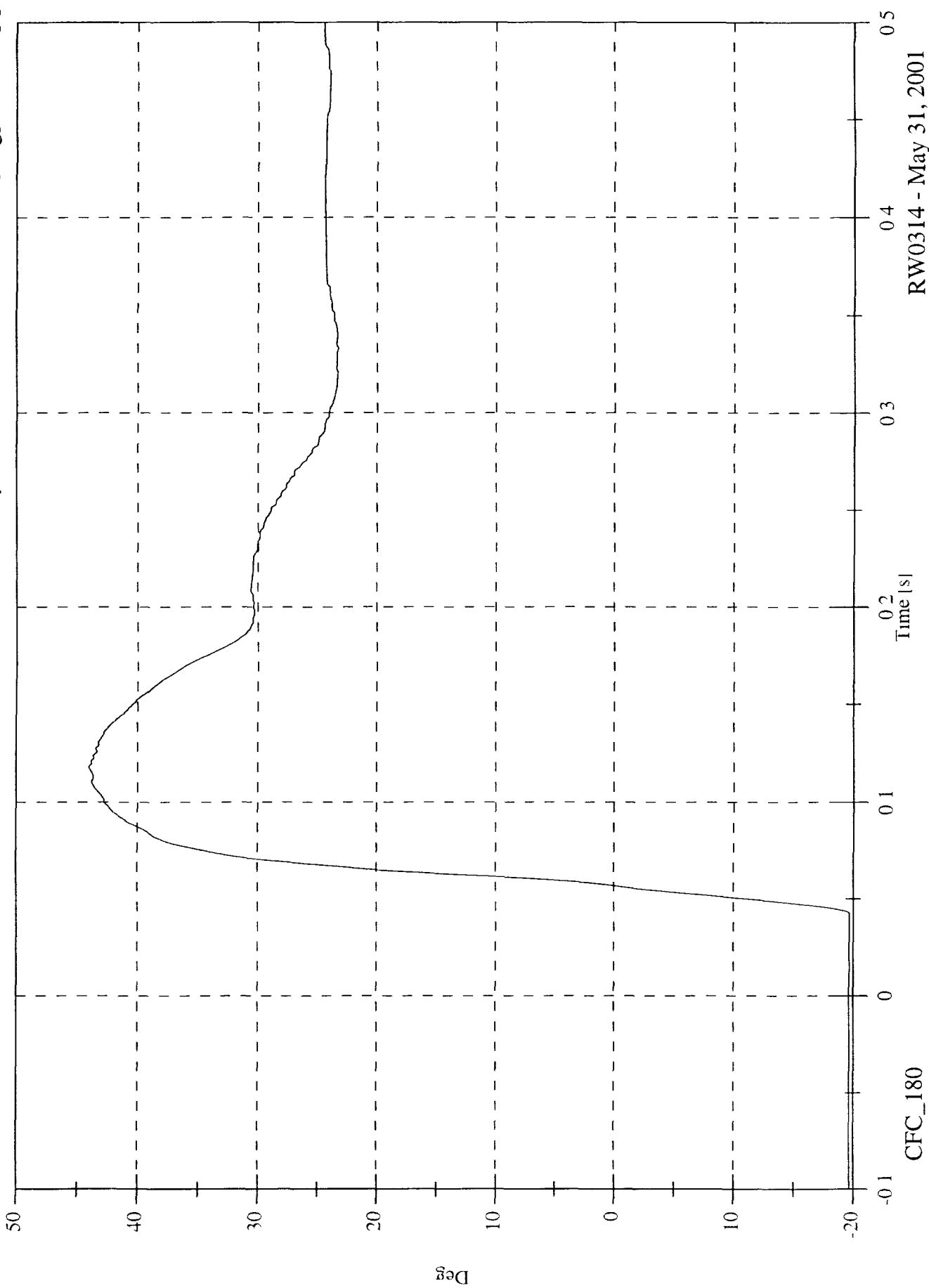


RW0314 - May 31, 2001



40% Frontal Offset Test # 8 - 1998 Dodge Neon
P1 Left Ankle Rotation y

Max: 44.0 [Deg] at 0.118 [s]
Min: -19.7 [Deg] at 0.015 [s]

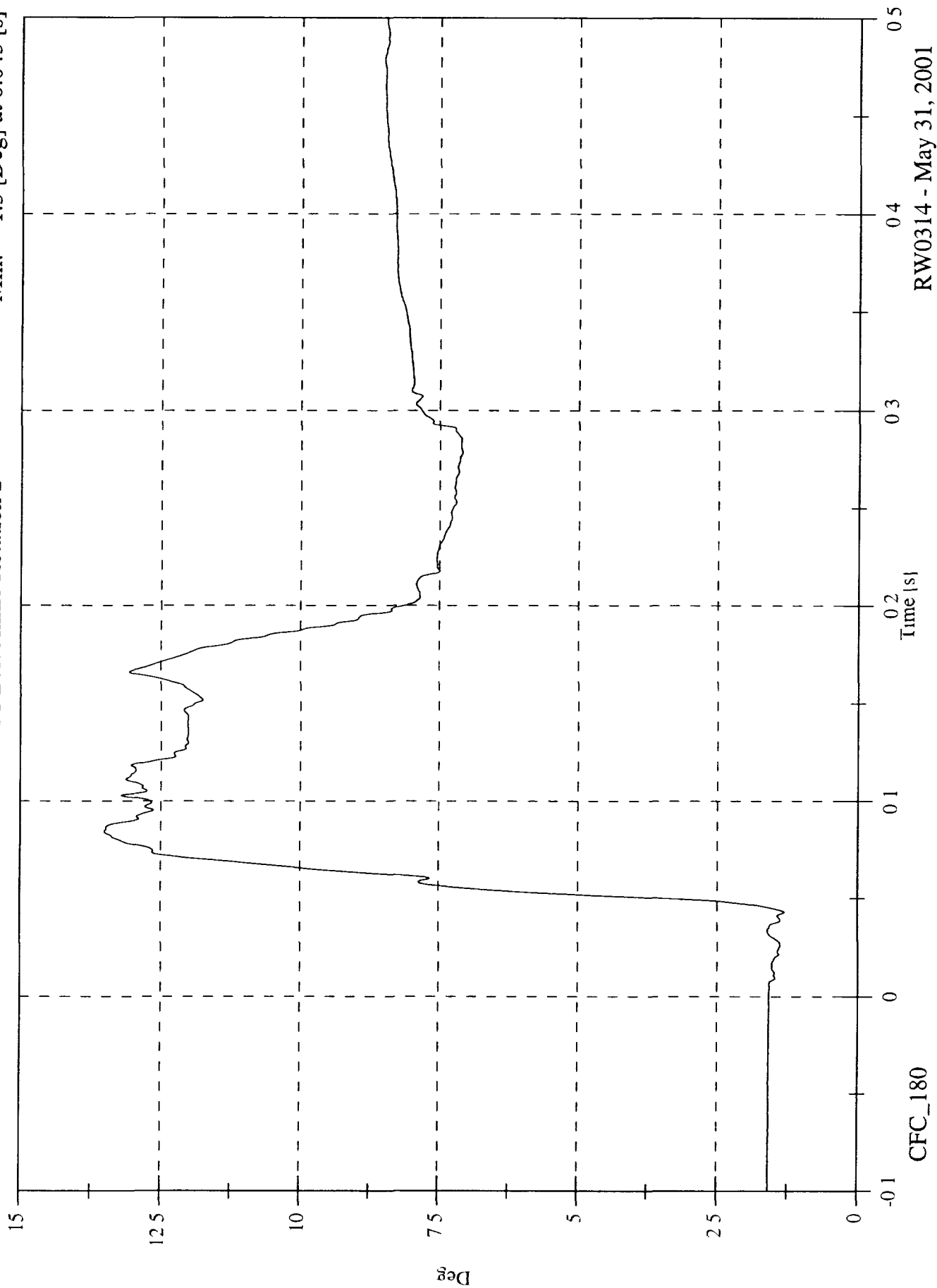


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 13.5 [Deg] at 0.084 [s]
Min: 1.3 [Deg] at 0.043 [s]

P1 Left Ankle Rotation z



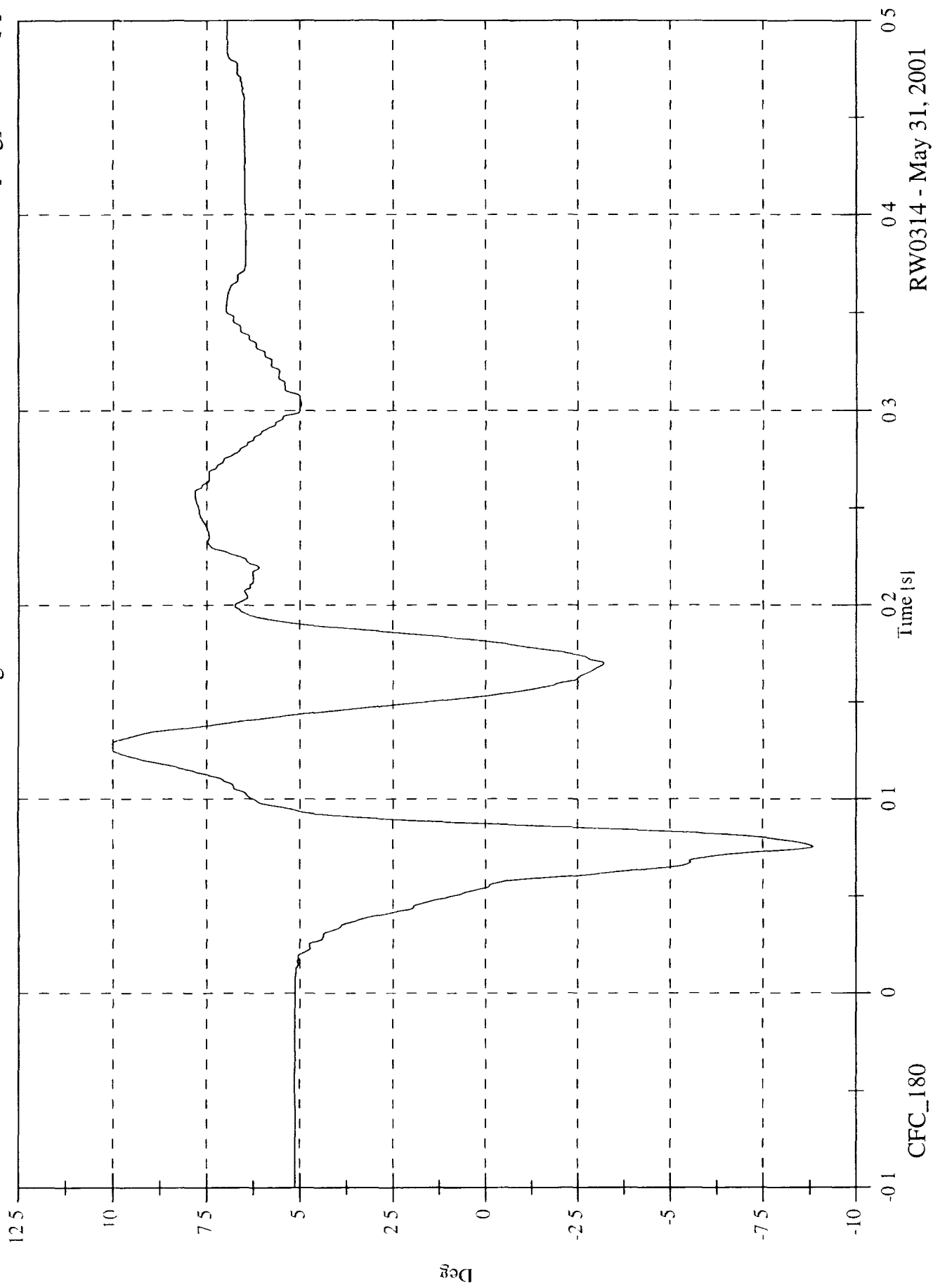
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 10.0 [Deg] at 0.128 [s]
Min: -8.8 [Deg] at 0.075 [s]

P1 Right Ankle Rotation x

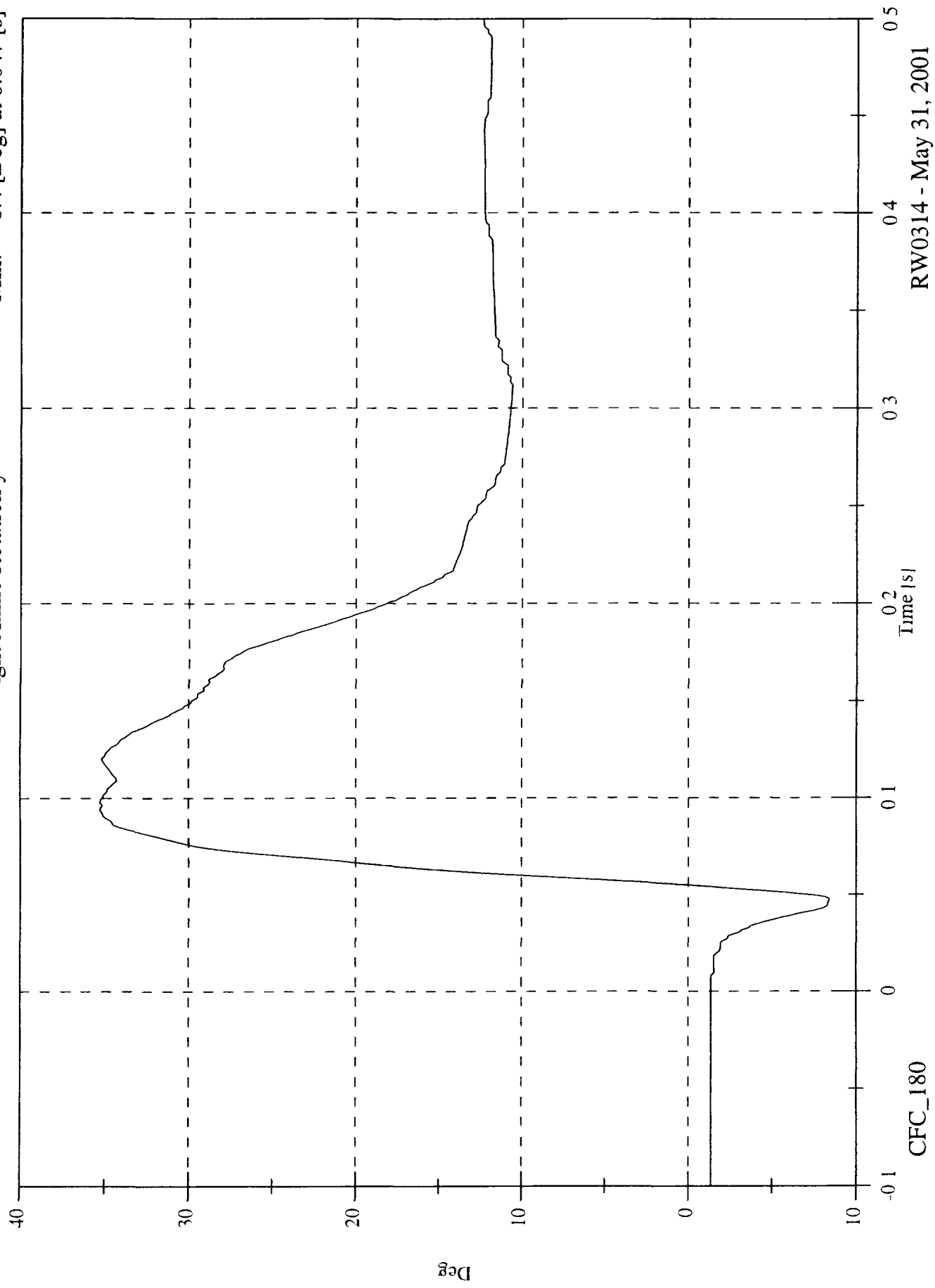


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Ankle Rotation y

Max: 35.3 [Deg] at 0.094 [s]
Min: -8.4 [Deg] at 0.047 [s]

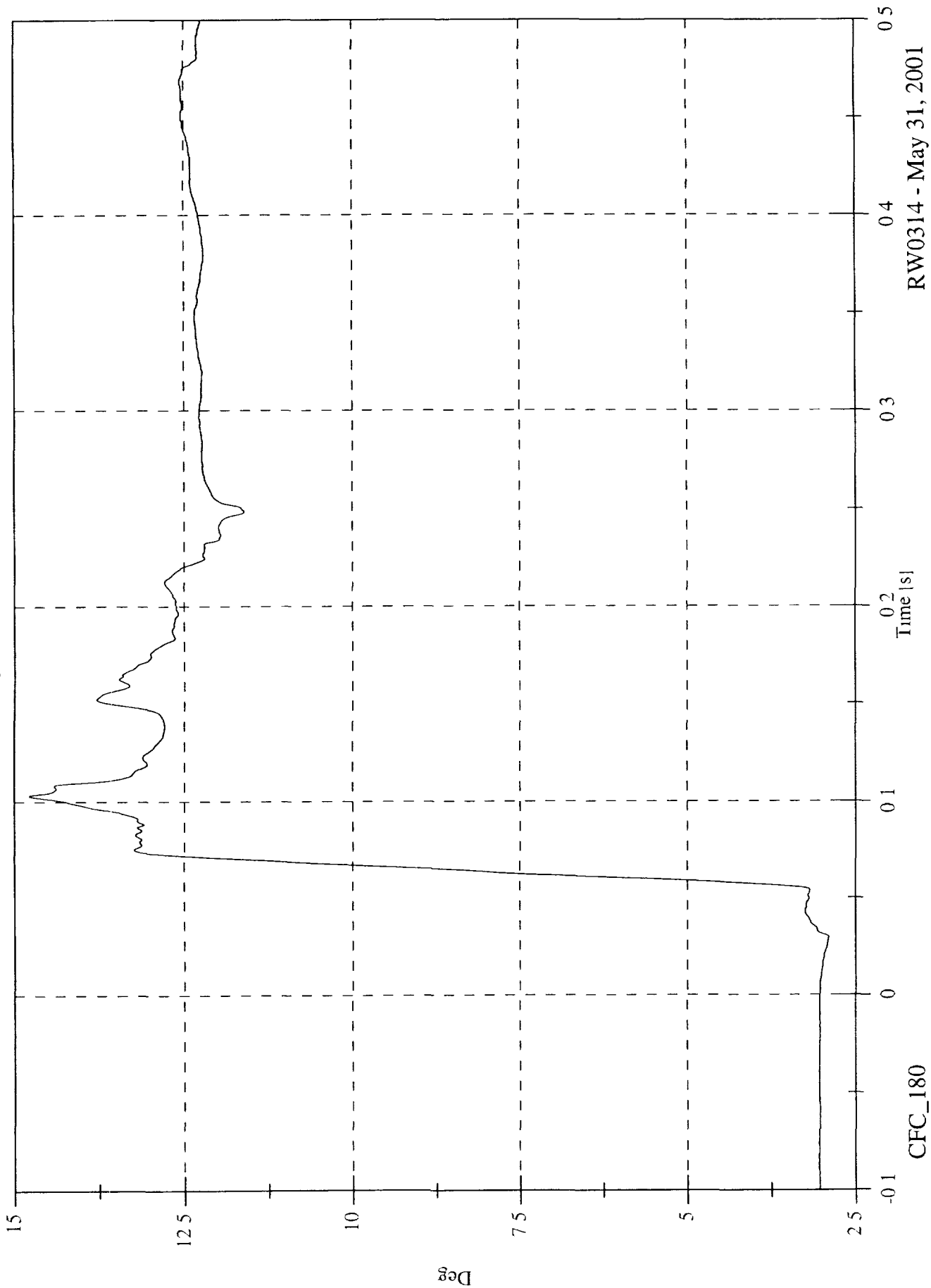


CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon
P1 Right Ankle Rotation z

Max. 14.8 [Deg] at 0.103 [s]
Min. 2.9 [Deg] at 0.029 [s]



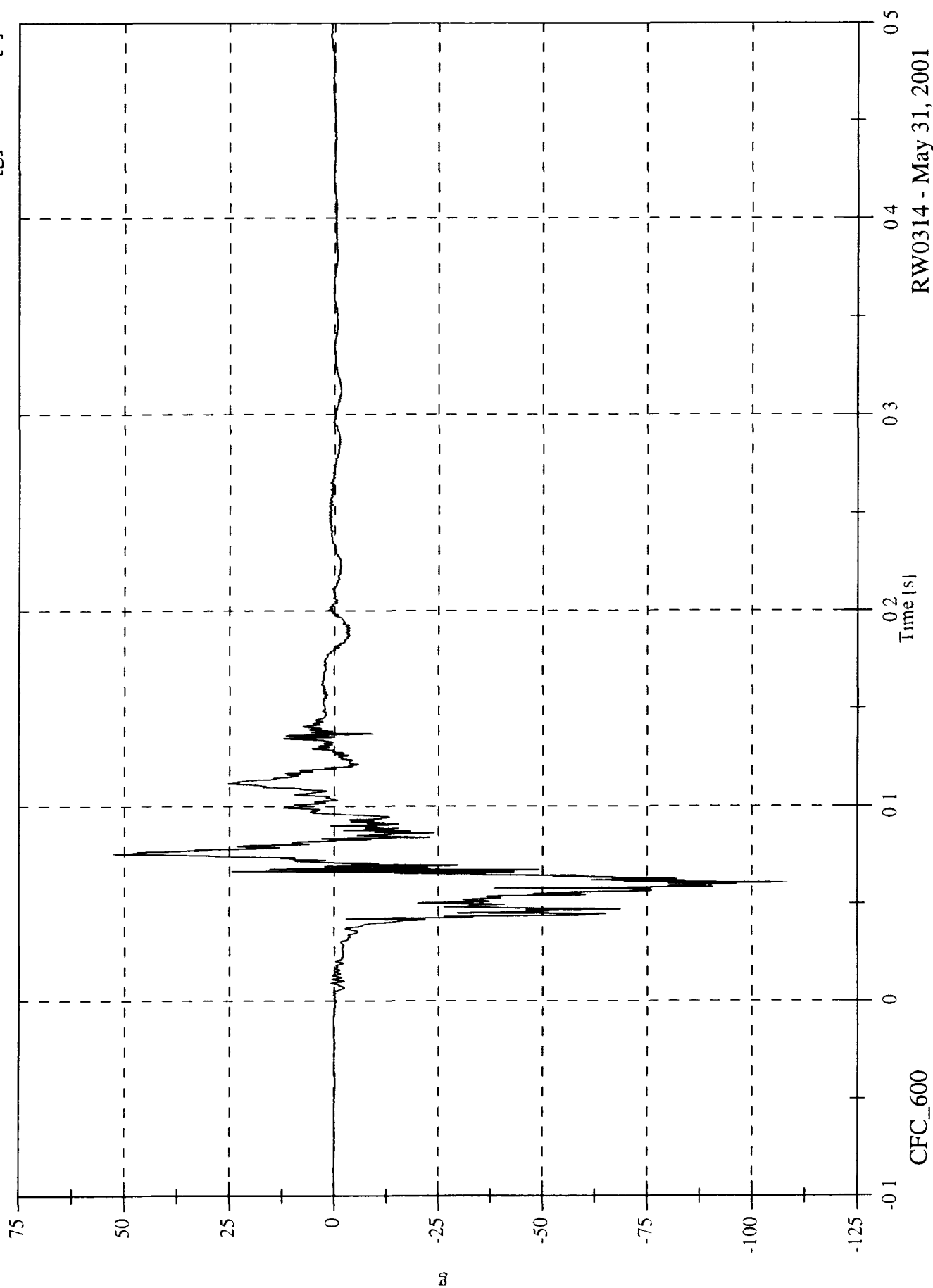
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Left Foot Ax

Max: 52.6 [g] at 0.075 [s]
Min: -108.3 [g] at 0.061 [s]

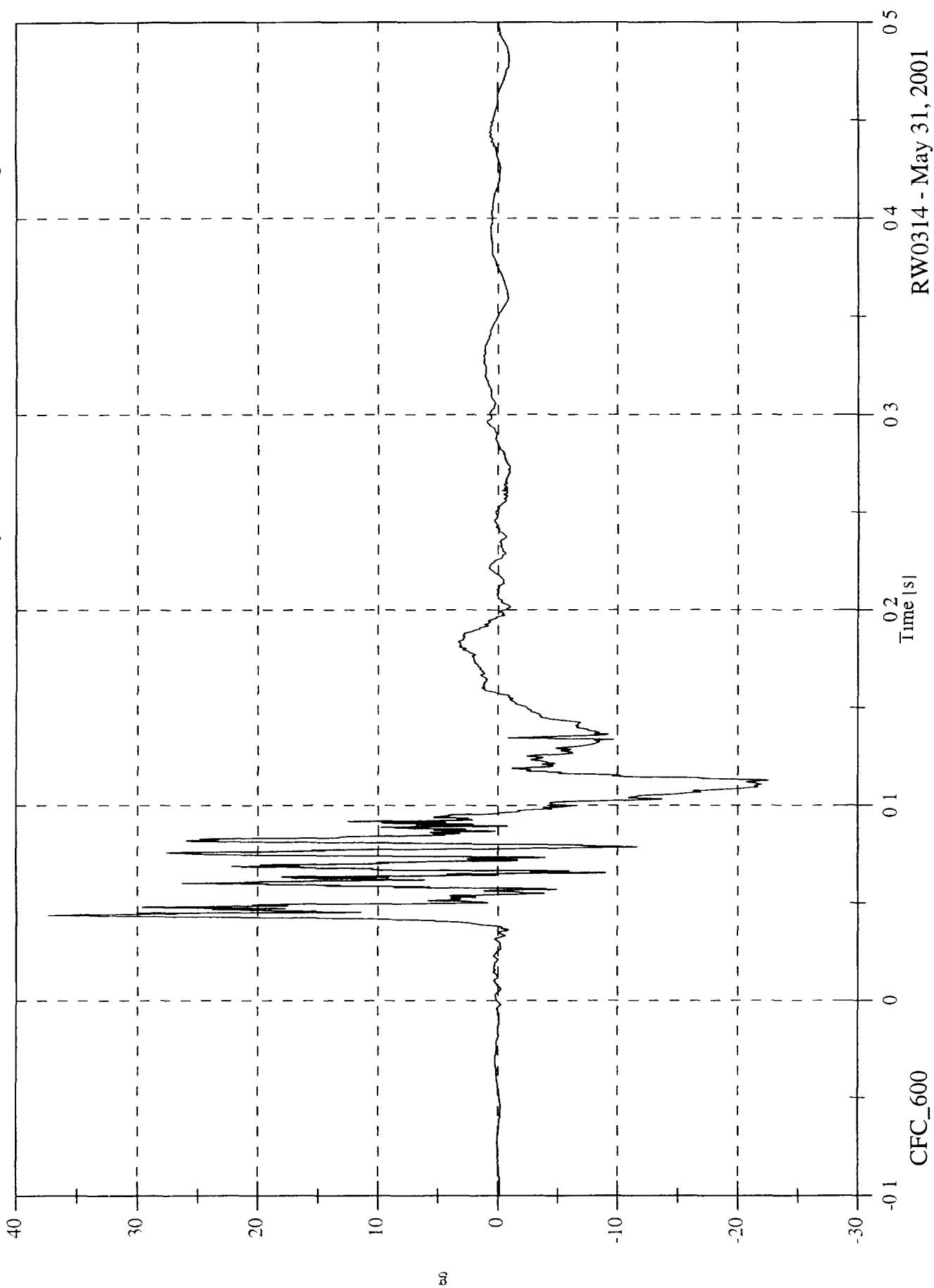


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 37.4 [g] at 0.044 [s]
 Min: -22.5 [g] at 0.113 [s]

P1 Left Foot Ay

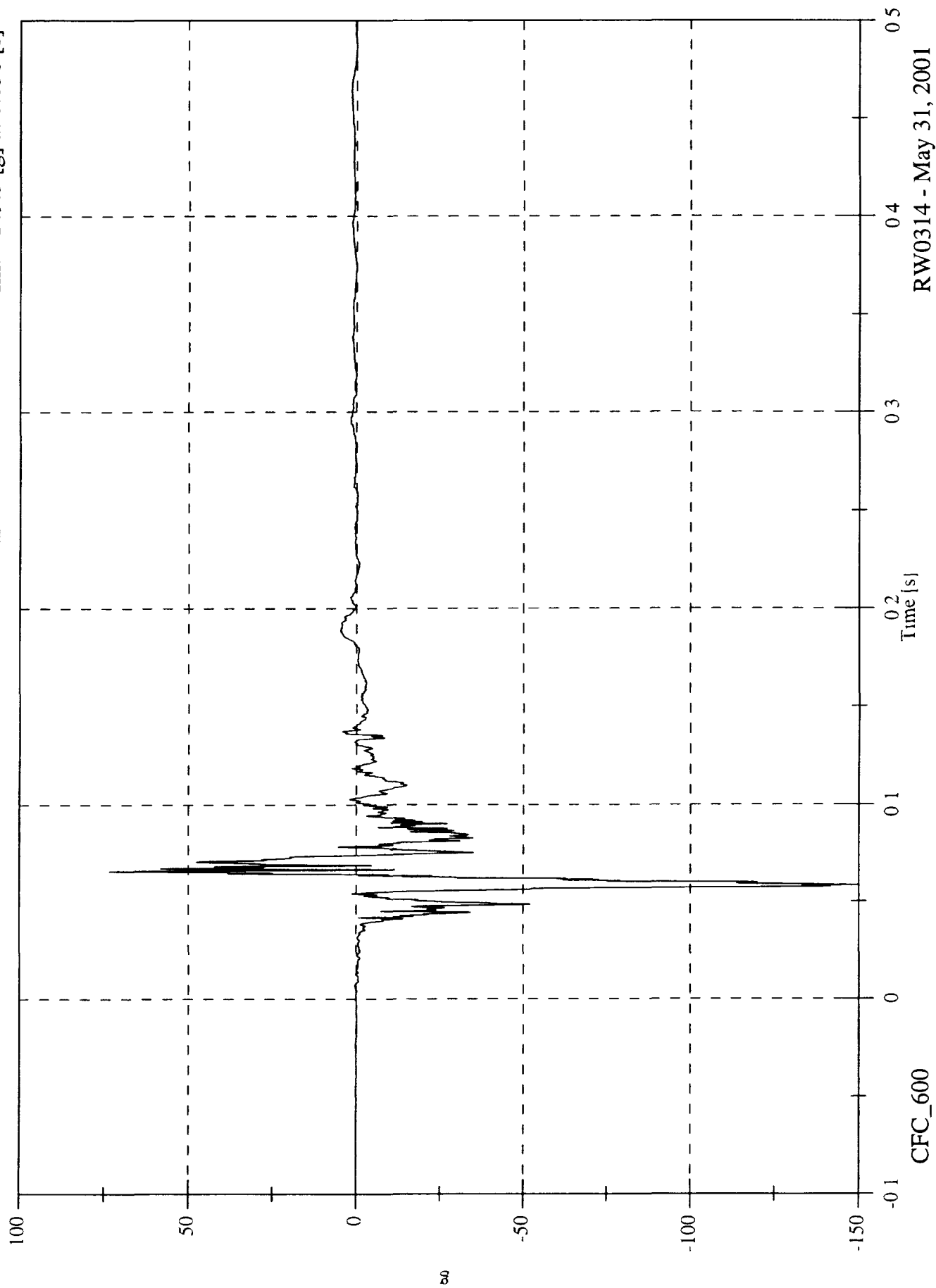


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 73.3 [g] at 0.066 [s]
Min: -149.5 [g] at 0.058 [s]

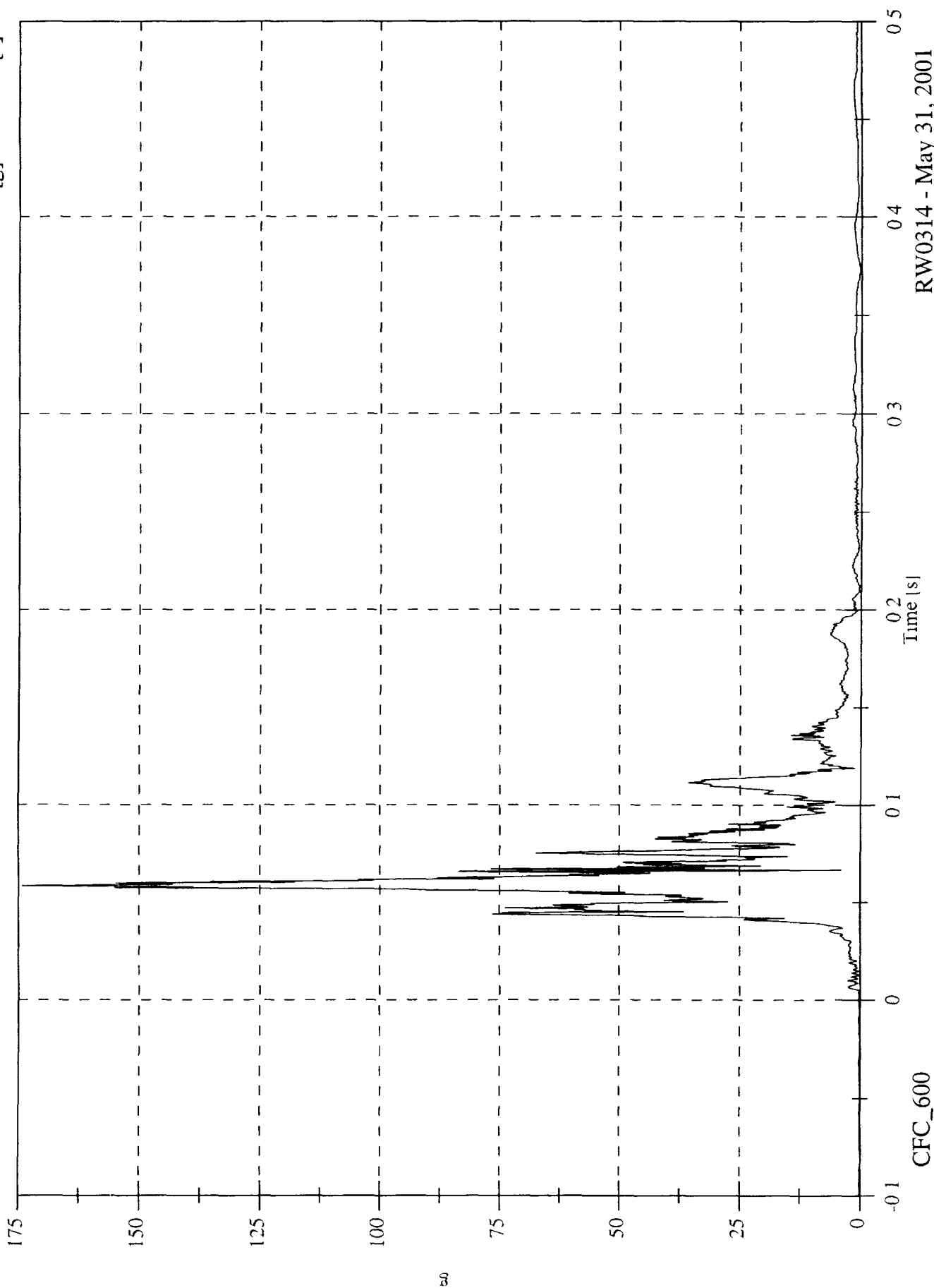
P1 Left Foot Az



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 174.1 [g] at 0.058 [s]
Min: 0.0 [g] at -0.006 [s]

P1 Left Foot A Resultant

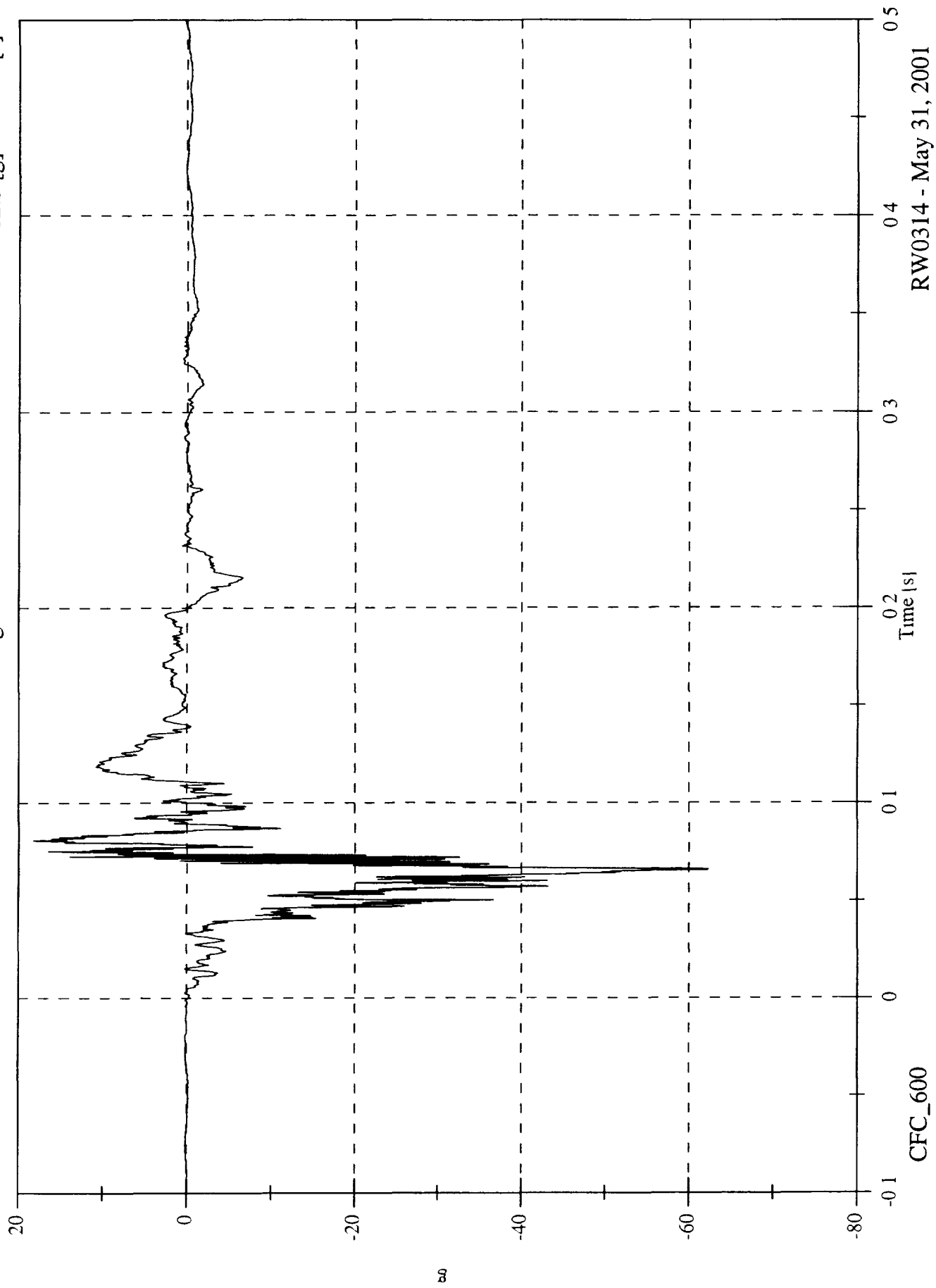


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P1 Right Foot Ax

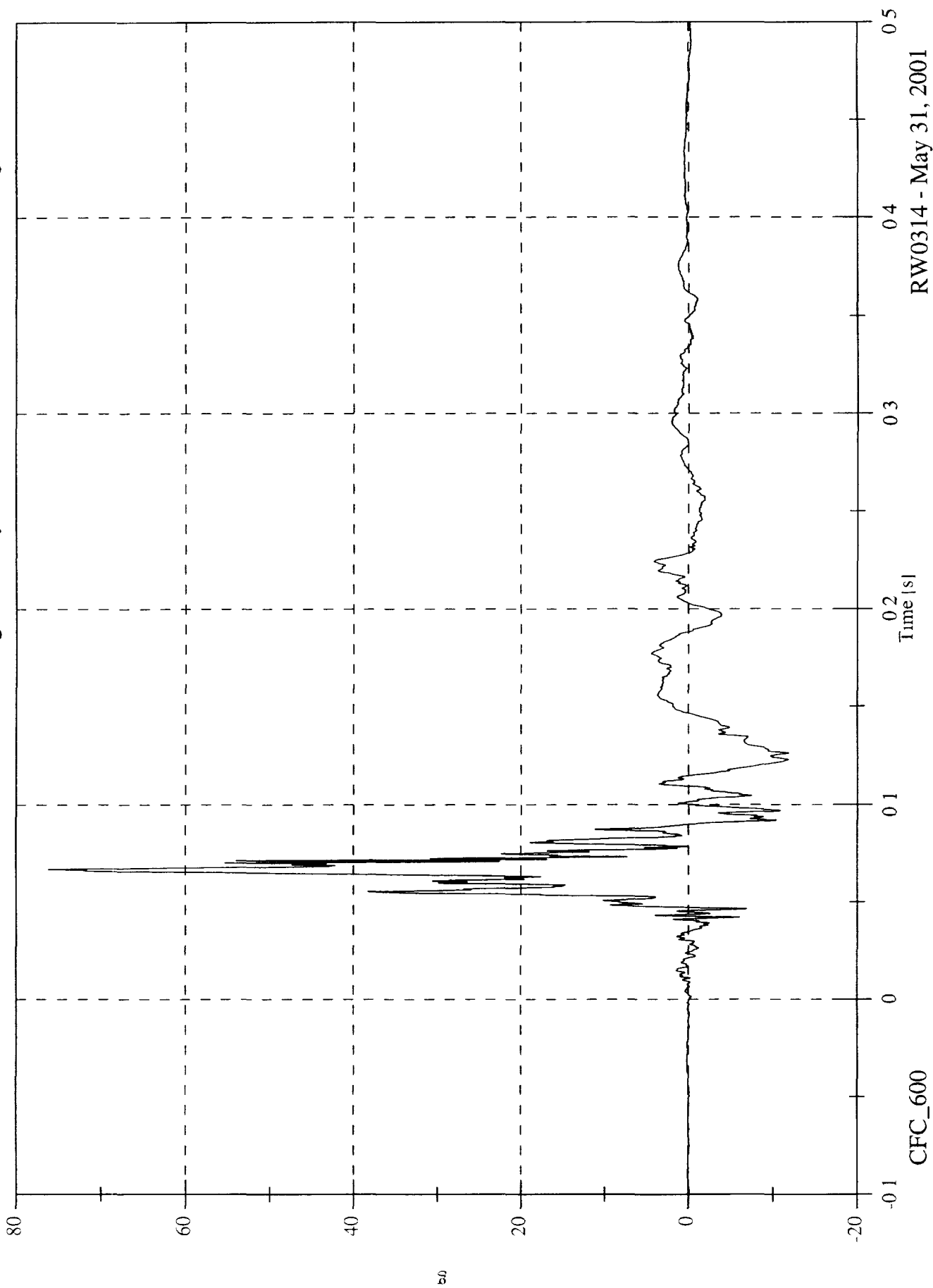
Max: 18.3 [g] at 0.081 [s]
Min: -62.3 [g] at 0.066 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 76.2 [g] at 0.067 [s]
 Min: -11.8 [g] at 0.126 [s]

P1 Right Foot Ay

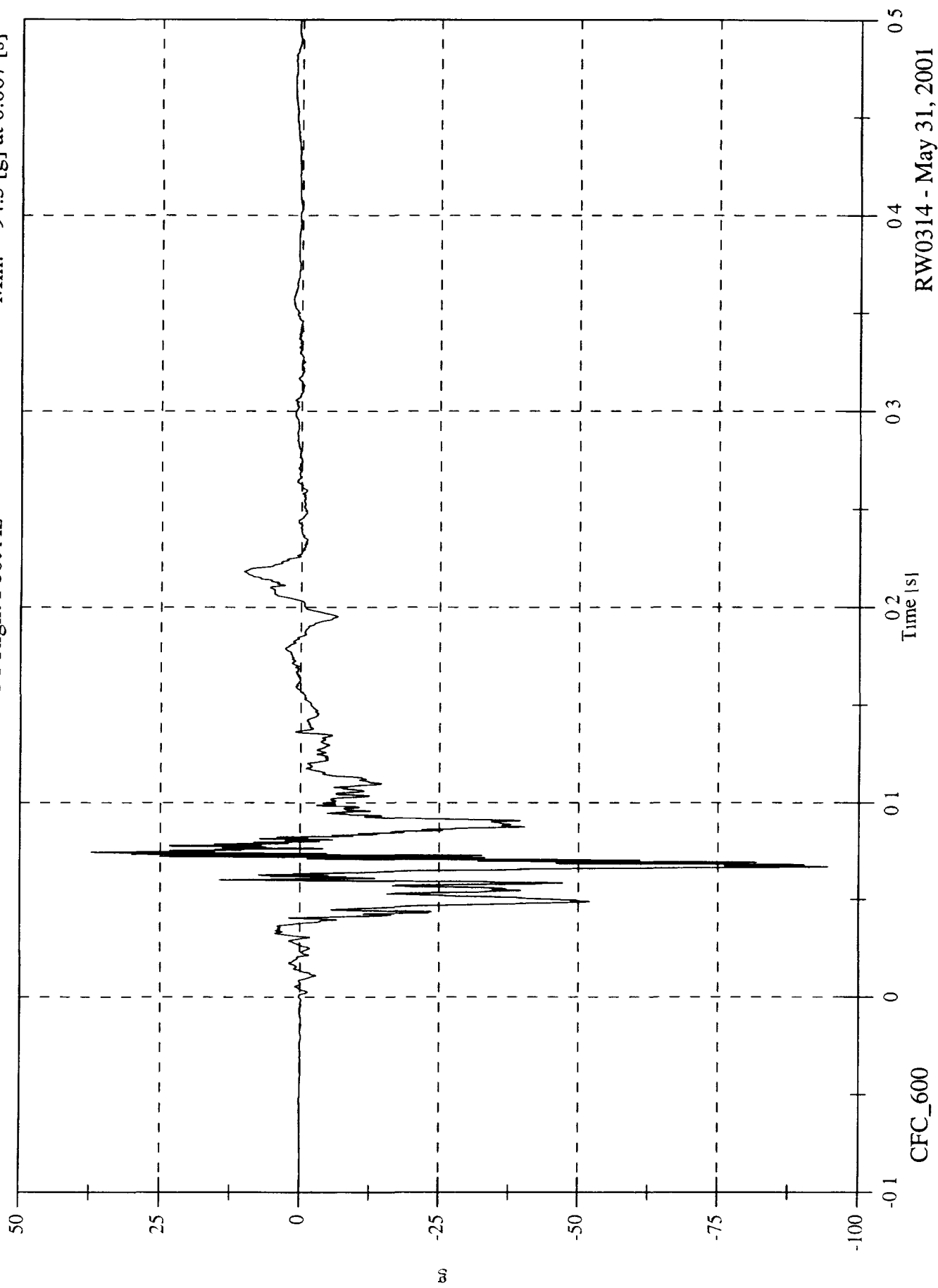


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 37.2 [g] at 0.074 [s]
Min: -94.5 [g] at 0.067 [s]

P1 Right Foot Az



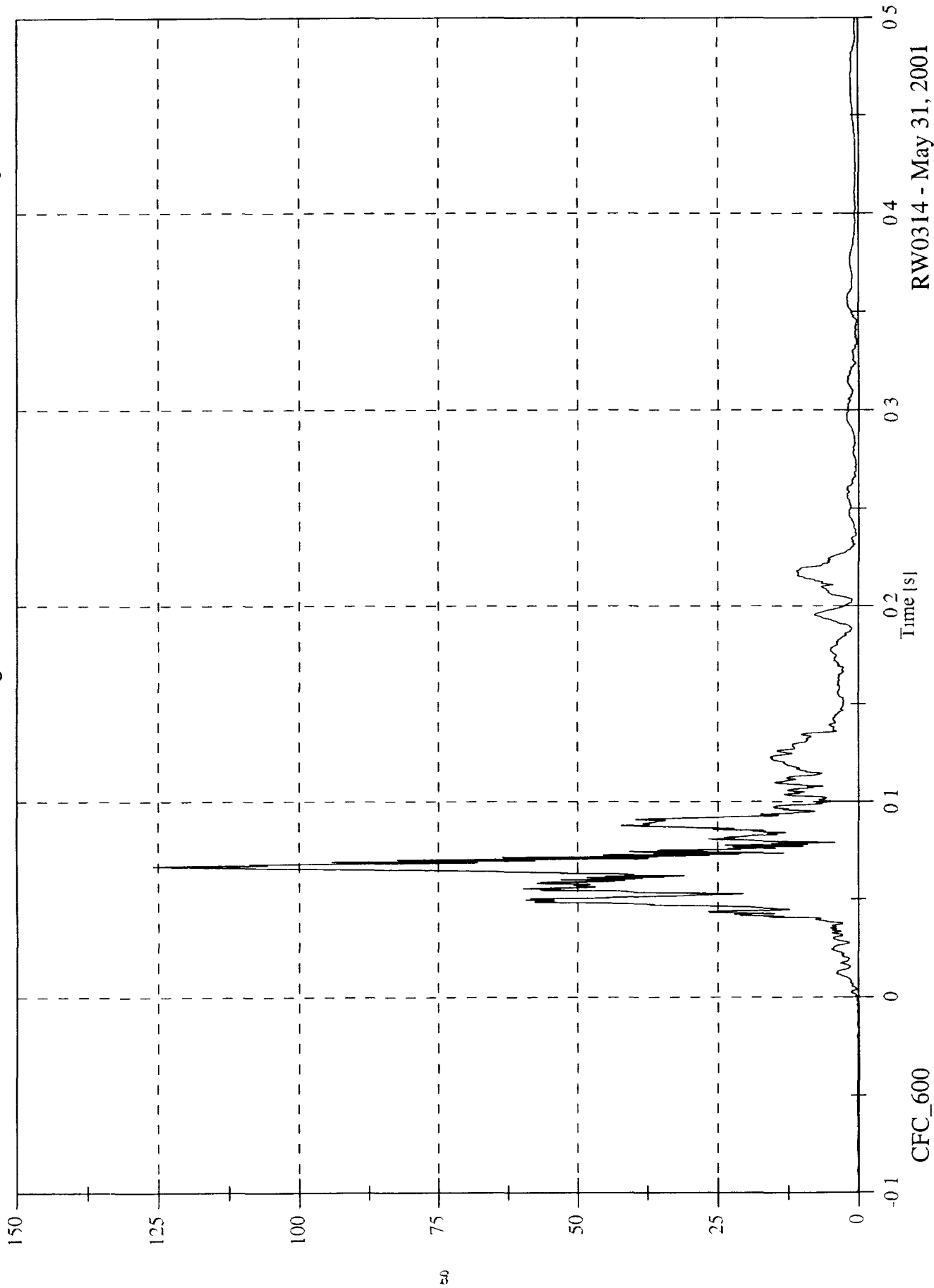
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 125.9 [g] at 0.067 [s]
Min: 0.0 [g] at -0.083 [s]

P1 Right Foot A Resultant

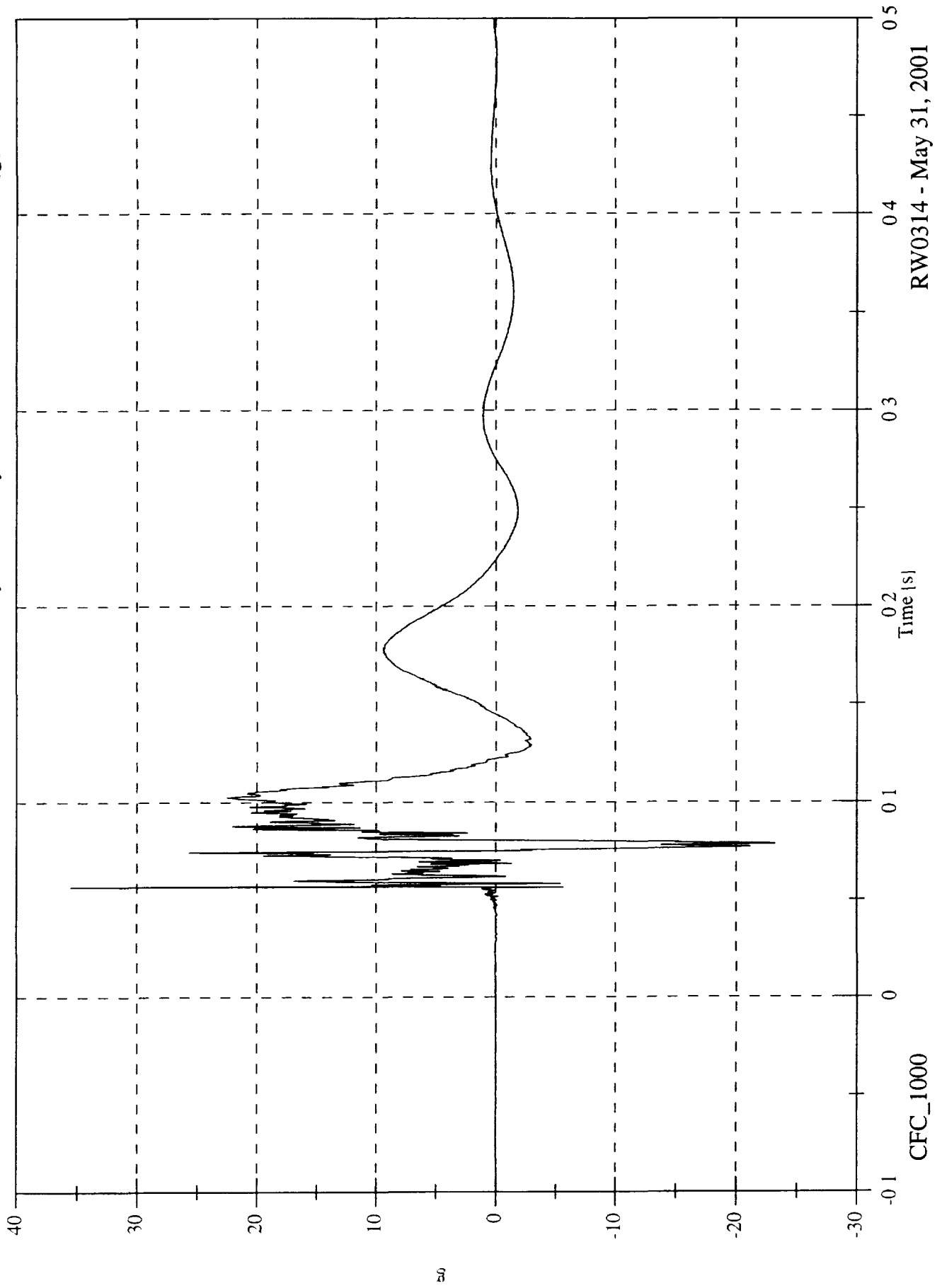


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head 9 Array X Arm Ay

Max: 35.5 [g] at 0.057 [s]
Min: -23.2 [g] at 0.078 [s]

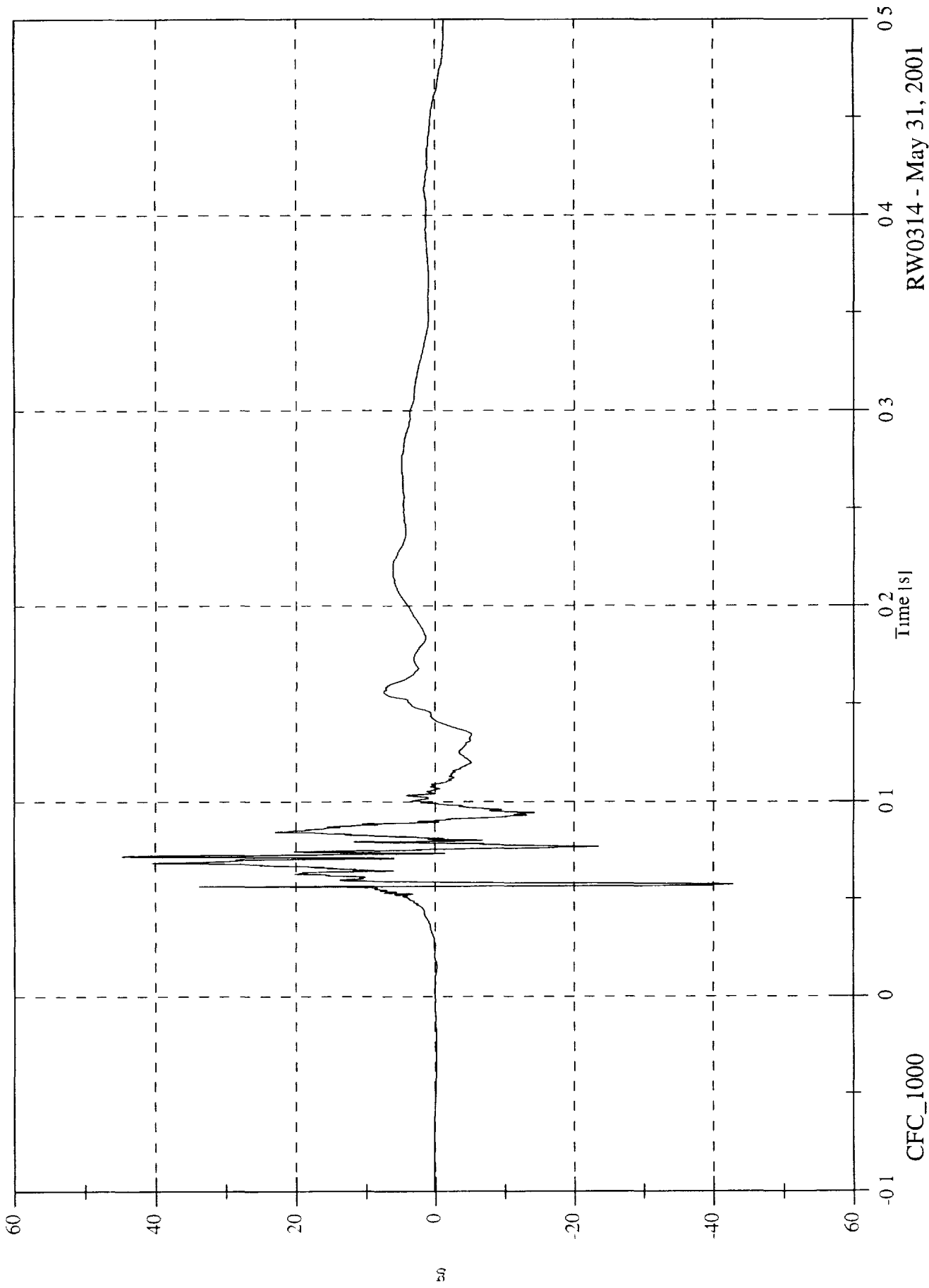


40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head 9 Array X Arm Az

Max: 44.7 [g] at 0.072 [s]

Min: -42.8 [g] at 0.057 [s]



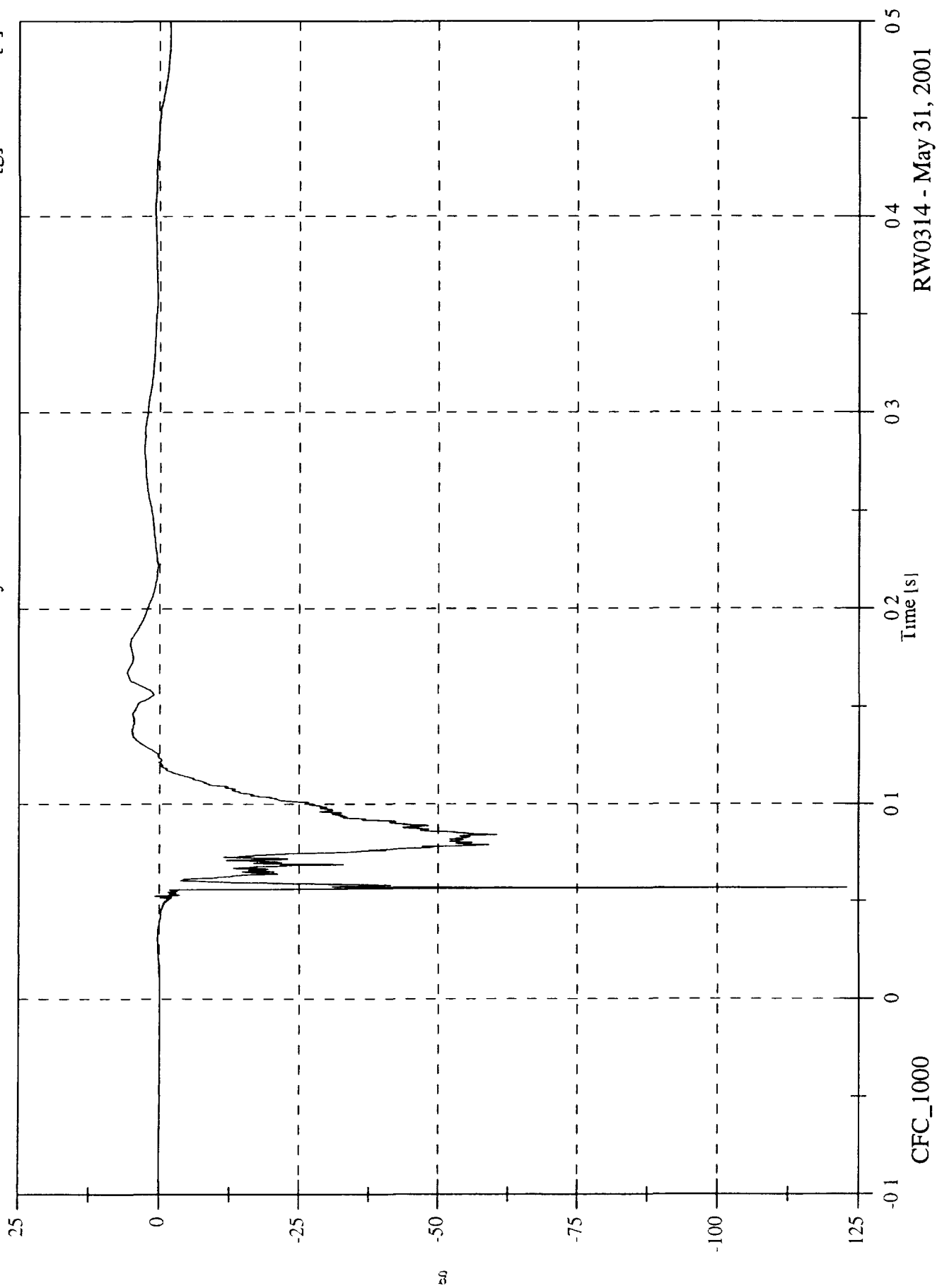
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head 9 Array Y Arm Ax

Max: 5.7 [g] at 0.167 [s]

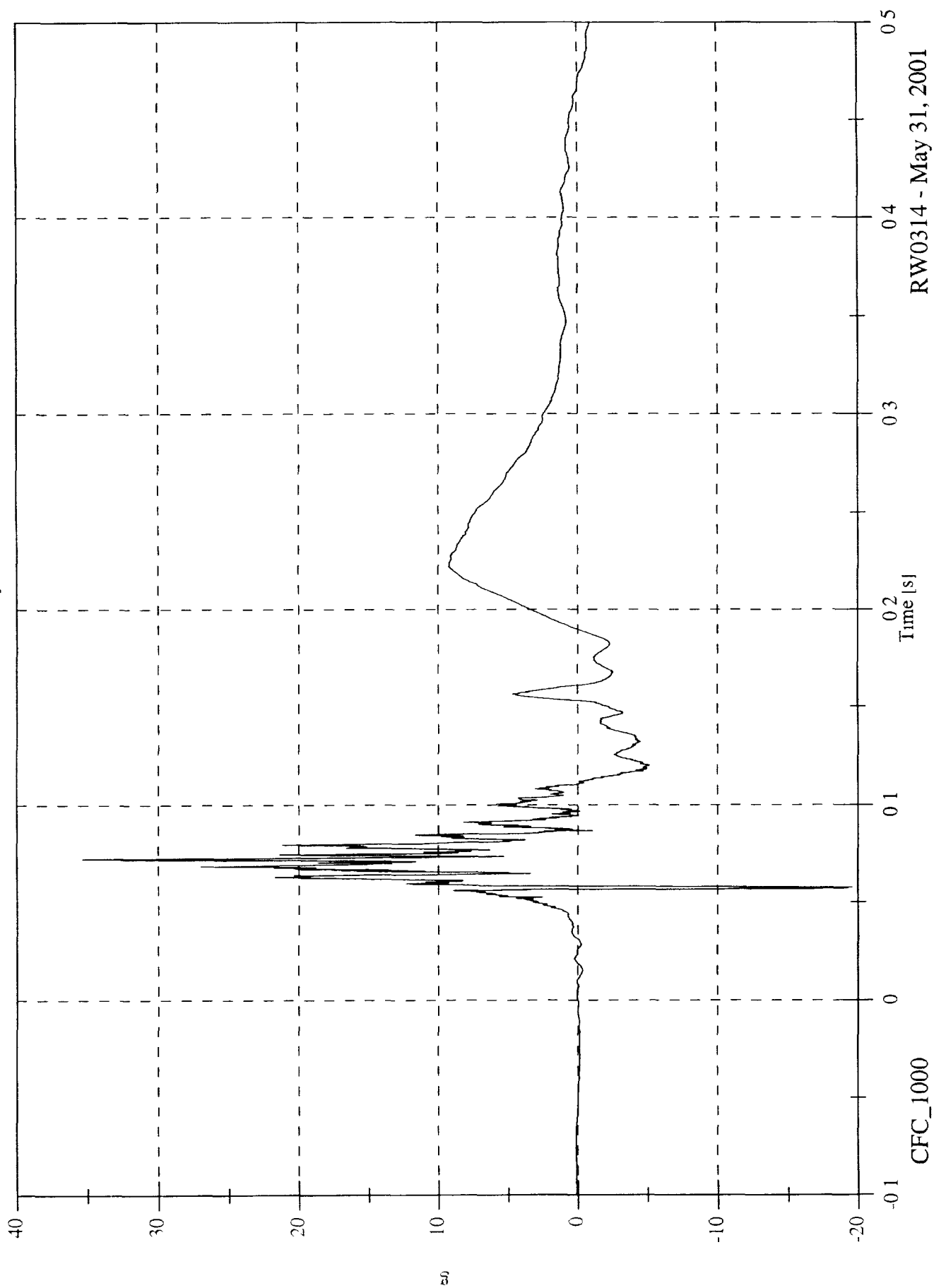
Min: -122.9 [g] at 0.057 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head 9 Array Y Arm Az

Max: 35.3 [g] at 0.072 [s]
Min: -19.6 [g] at 0.058 [s]



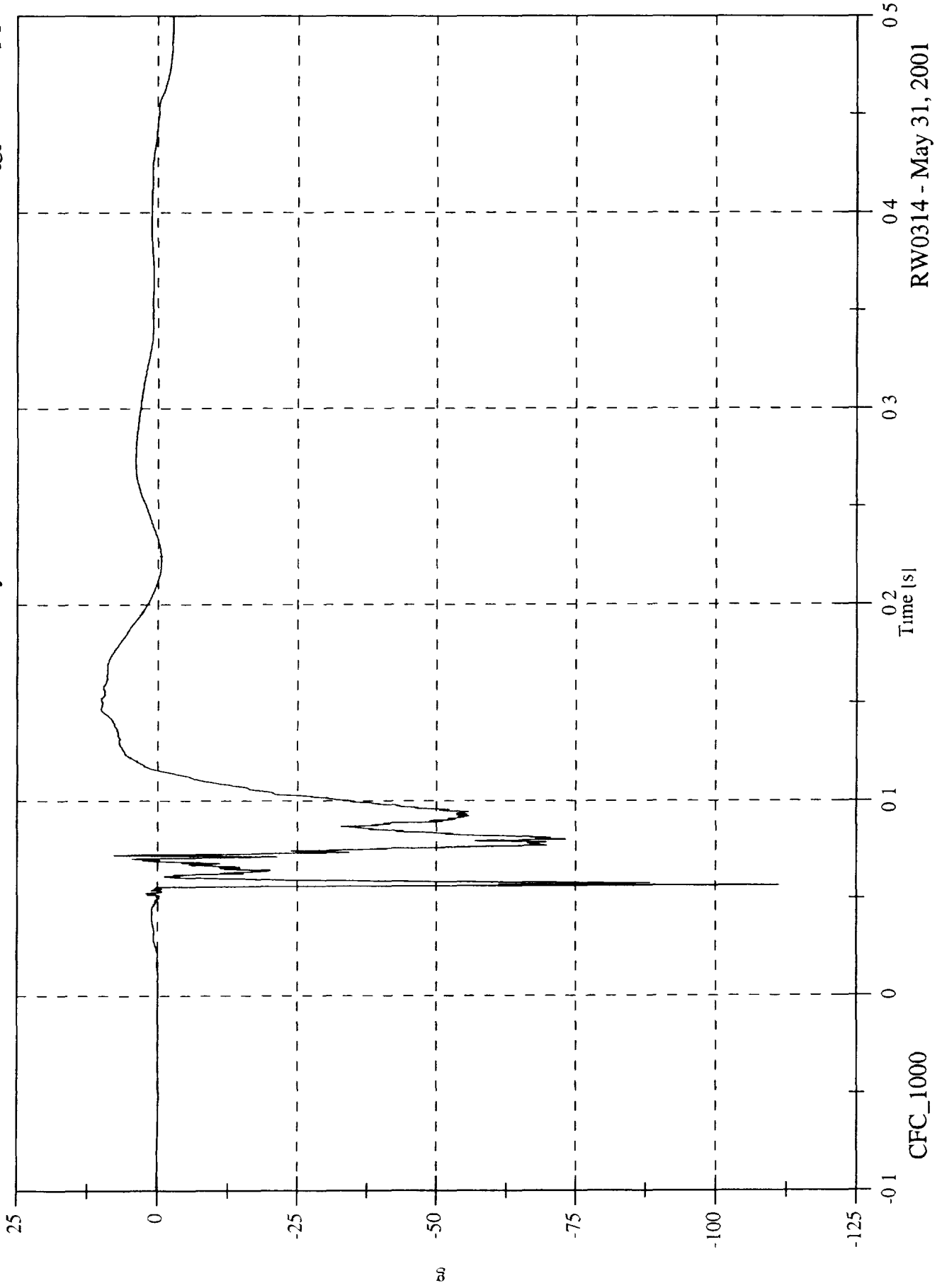
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 10.2 [g] at 0.147 [s]

Min: -111.2 [g] at 0.057 [s]

P2 Head 9 Array Z Arm Ax



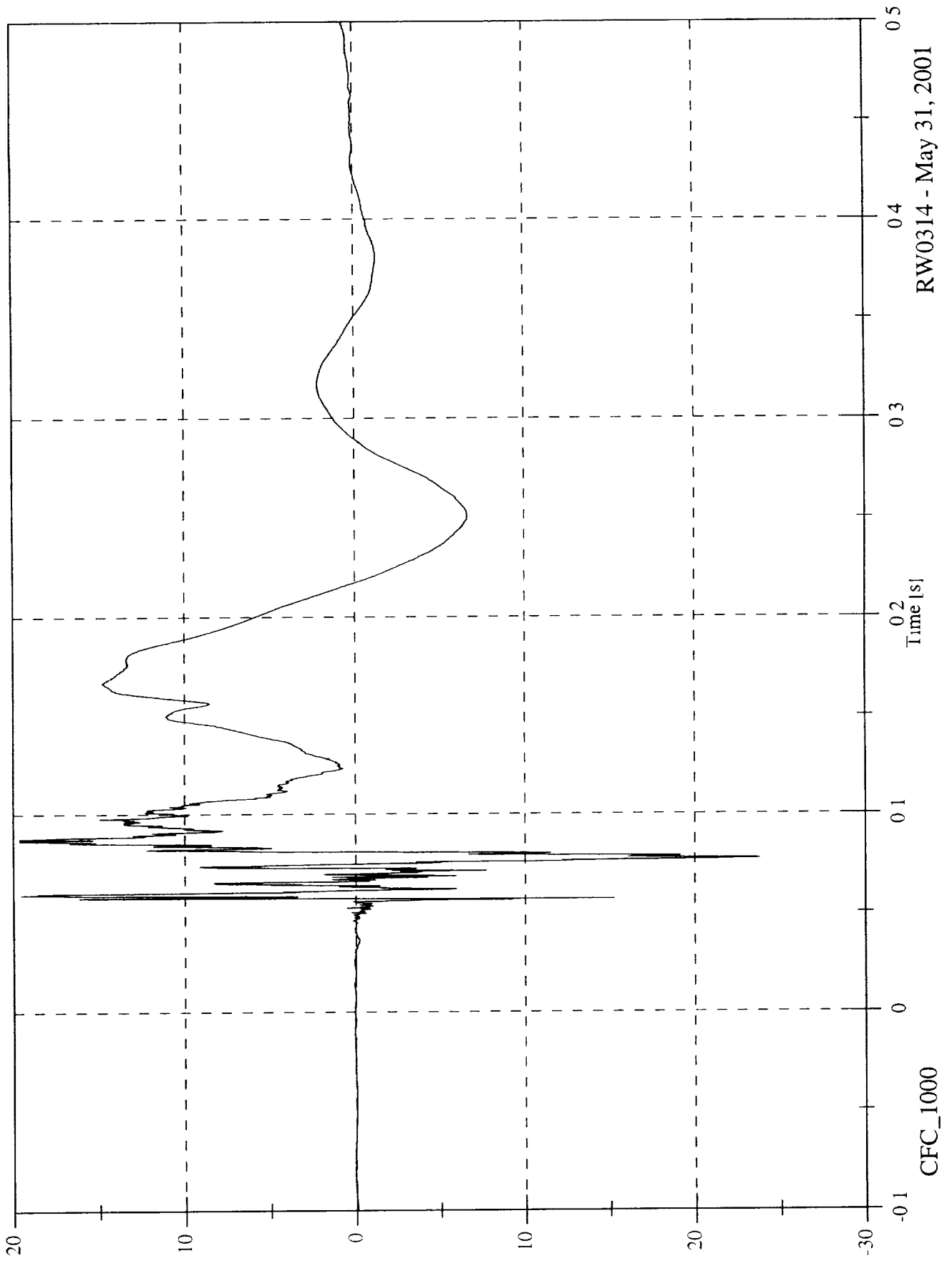
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 19.6 [g] at 0.088 [s]

Min: -23.8 [g] at 0.077 [s]

P2 Head 9 Array Z Arm Ay

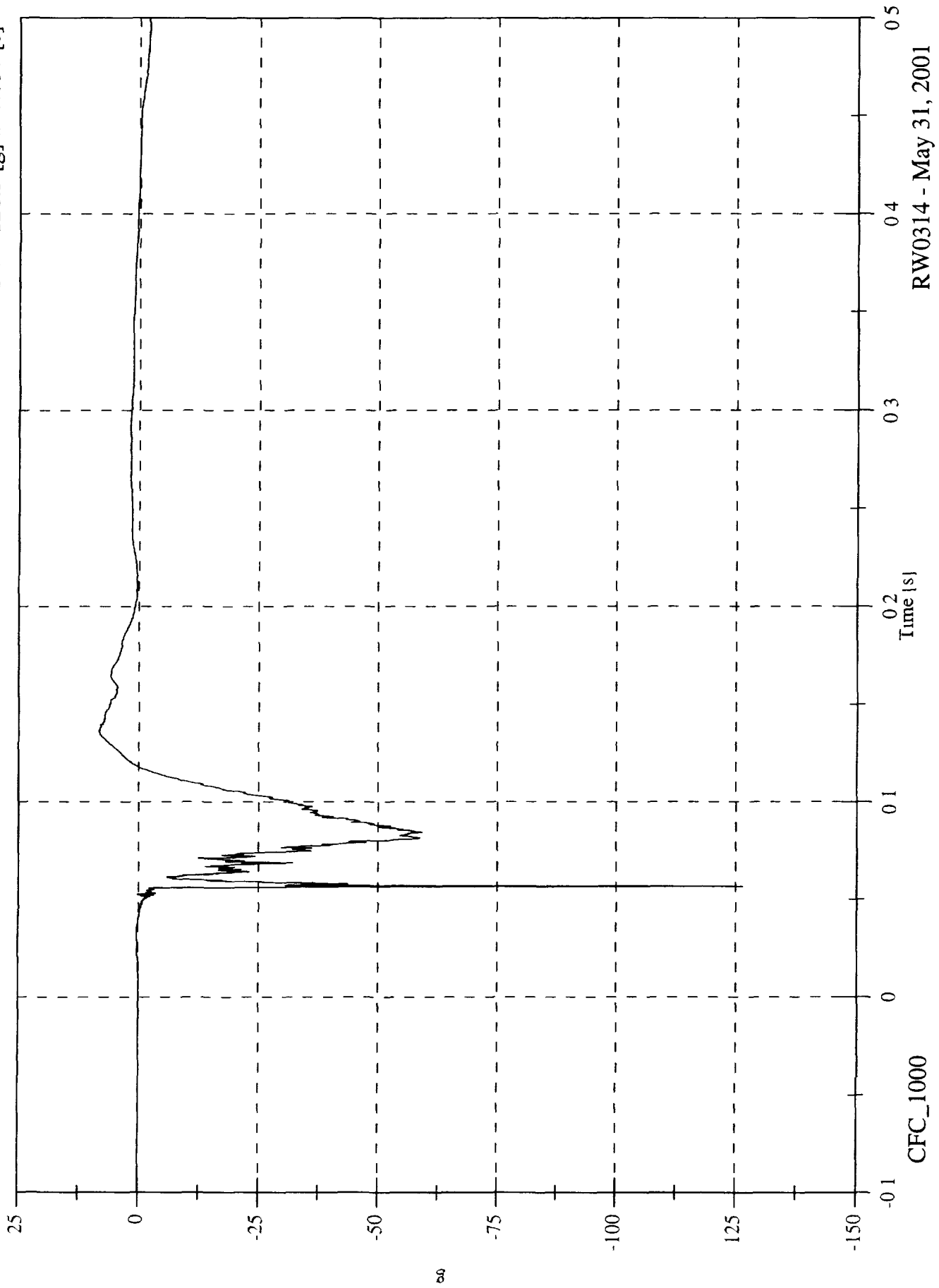


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head Ax

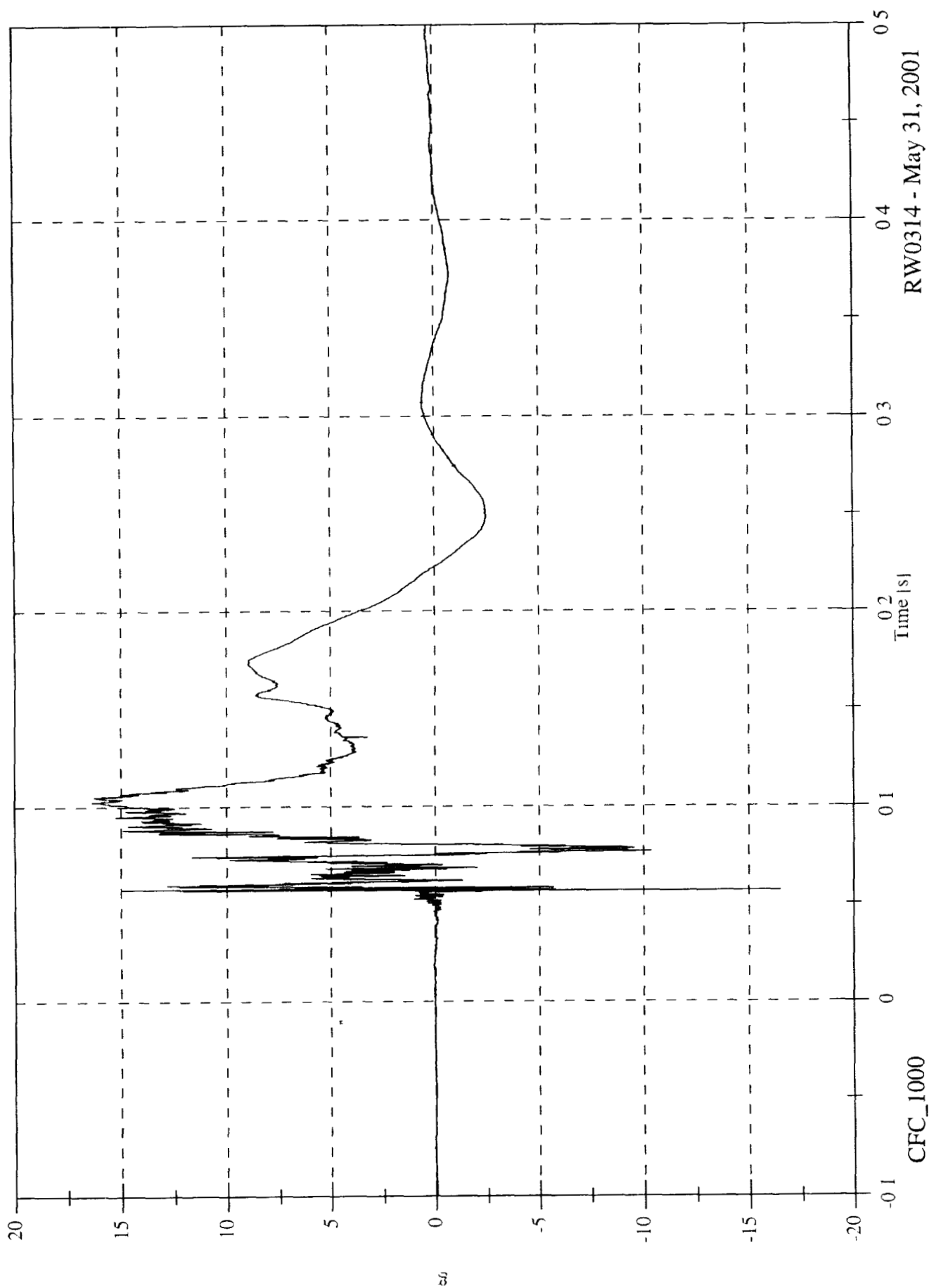
Max: 8.3 [g] at 0.136 [s]
Min: -126.5 [g] at 0.057 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head Ay

Max: 16.3 [g] at 0.102 [s]
Min: -16.5 [g] at 0.057 [s]

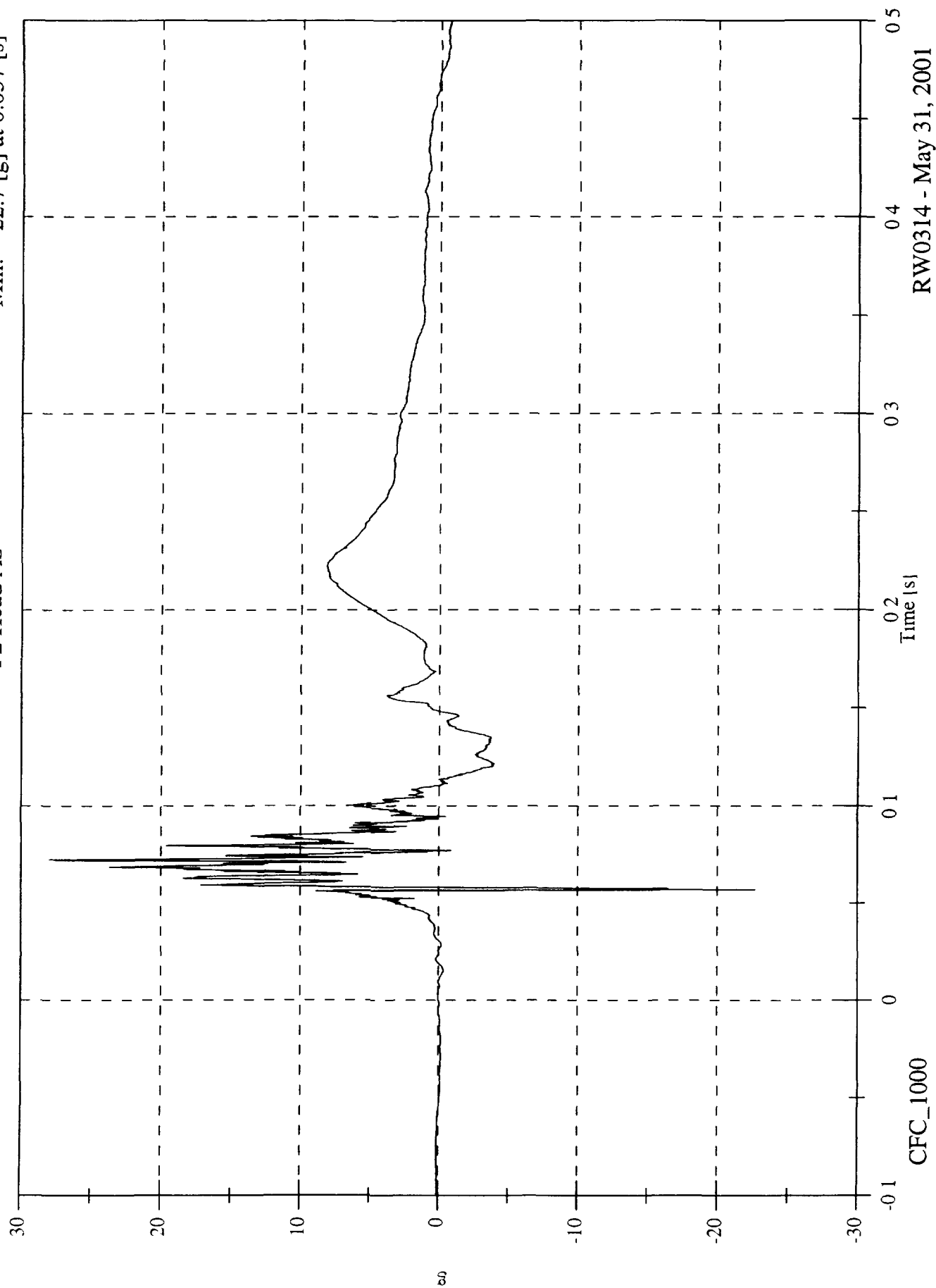


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 27.9 [g] at 0.072 [s]
Min: -22.7 [g] at 0.057 [s]

P2 Head Az

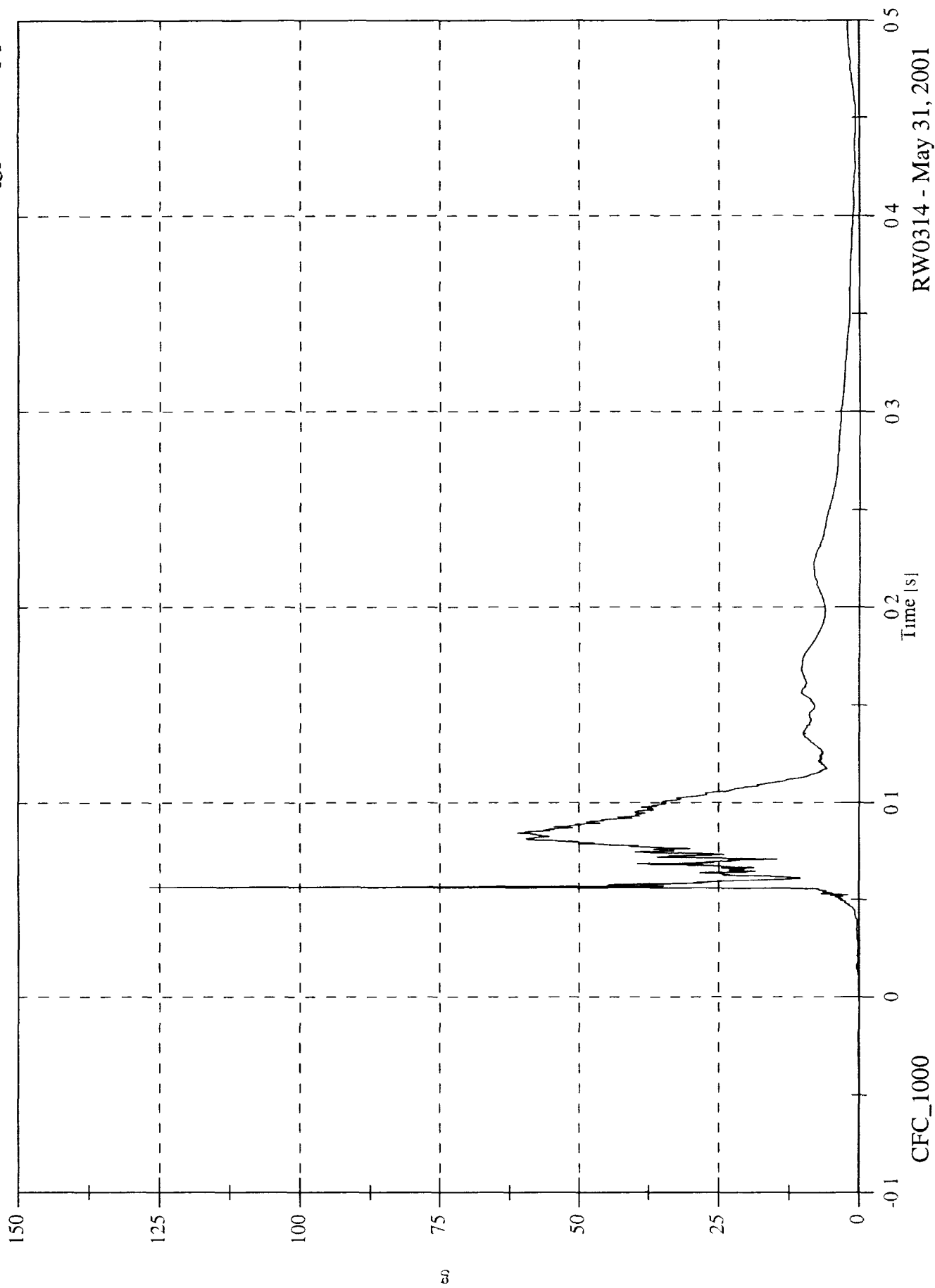


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 126.8 [g] at 0.057 [s]
Min: 0.0 [g] at 0.010 [s]

P2 Head A Resultant



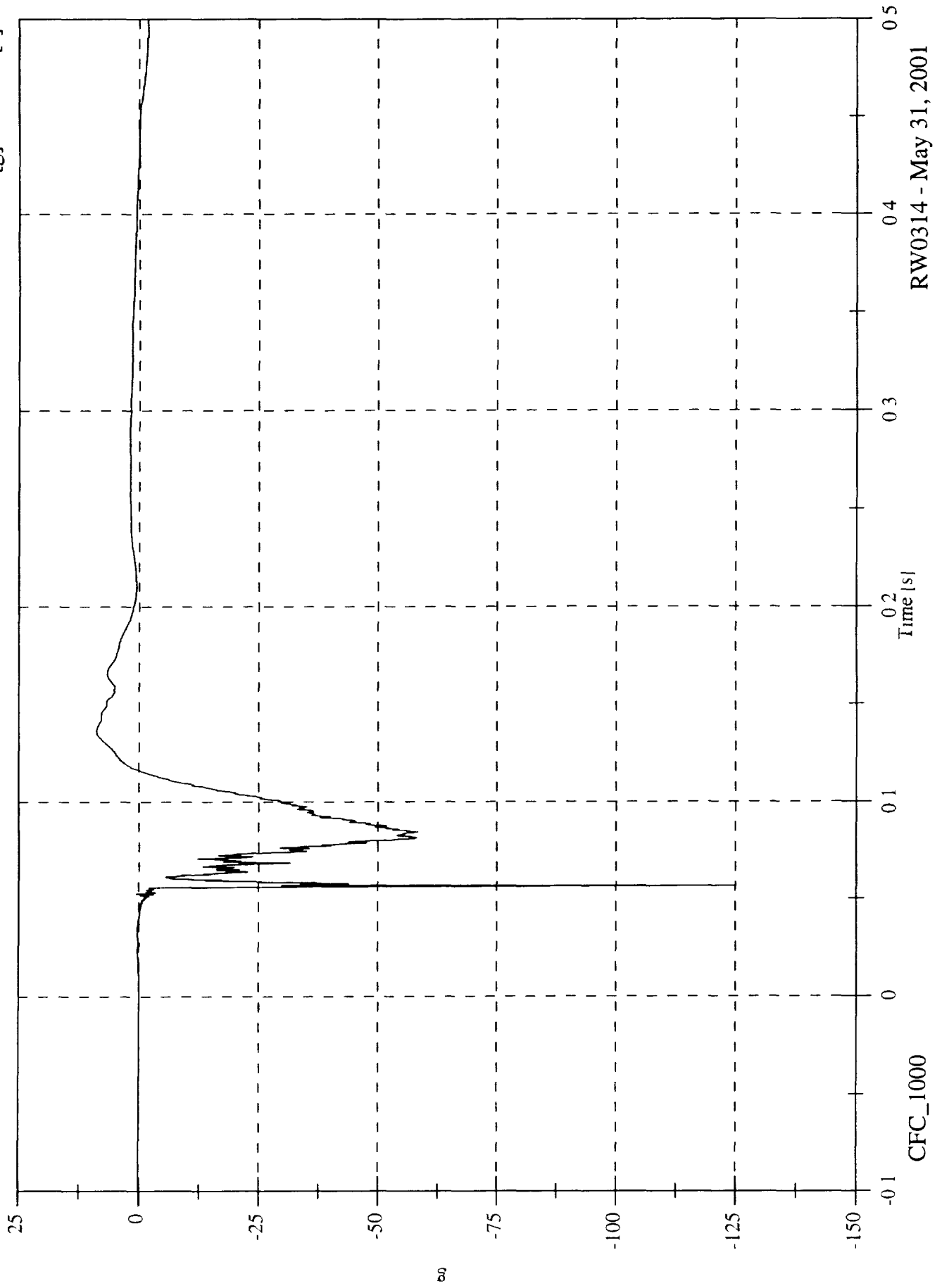
CFC_1000

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 8.8 [g] at 0.136 [s]
Min: -125.1 [g] at 0.057 [s]

P2 Head Red Ax



CFC_1000

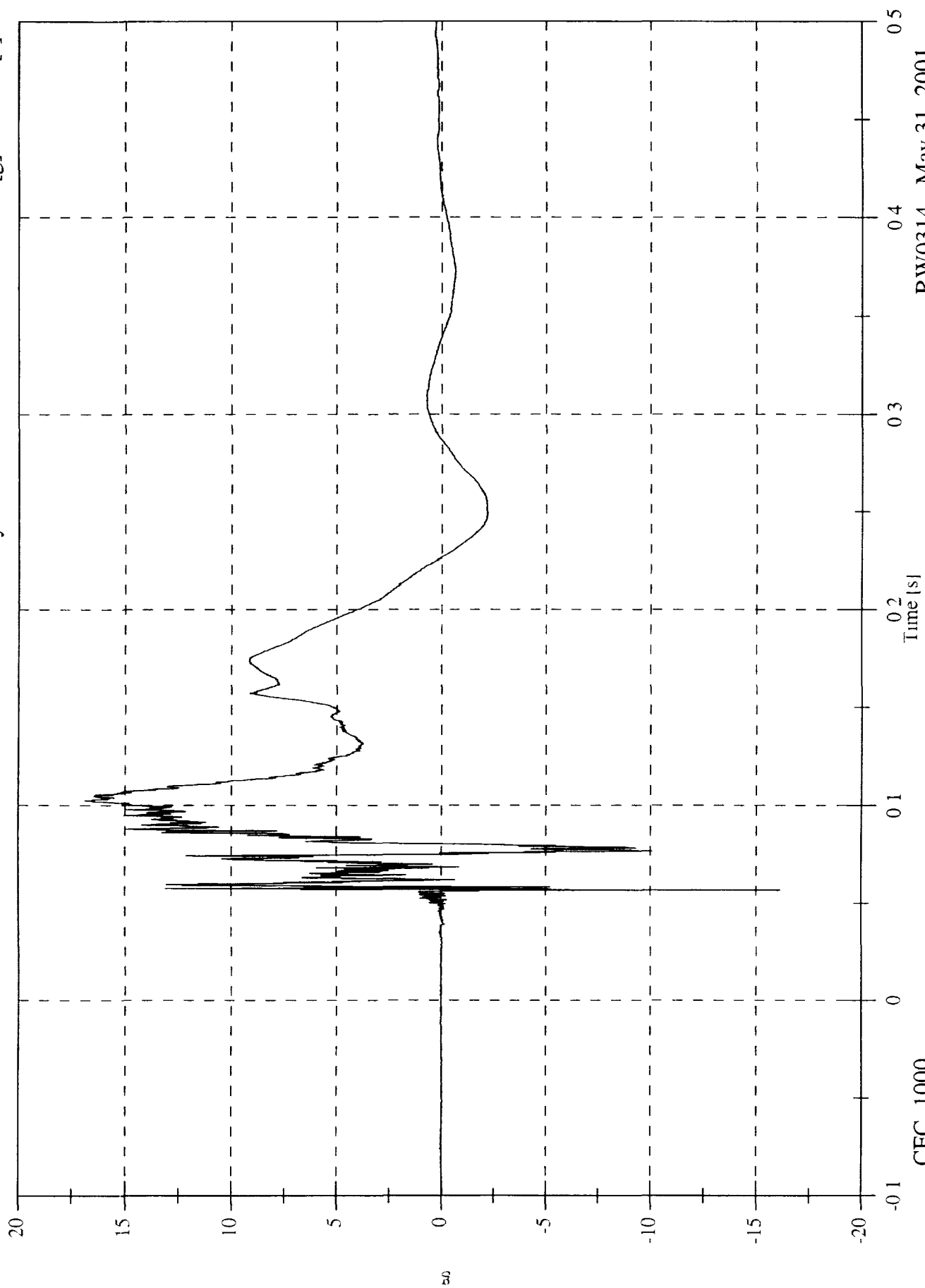
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 16.9 [g] at 0.102 [s]
 Min. -16.1 [g] at 0.057 [s]

P2 Head Red Ay

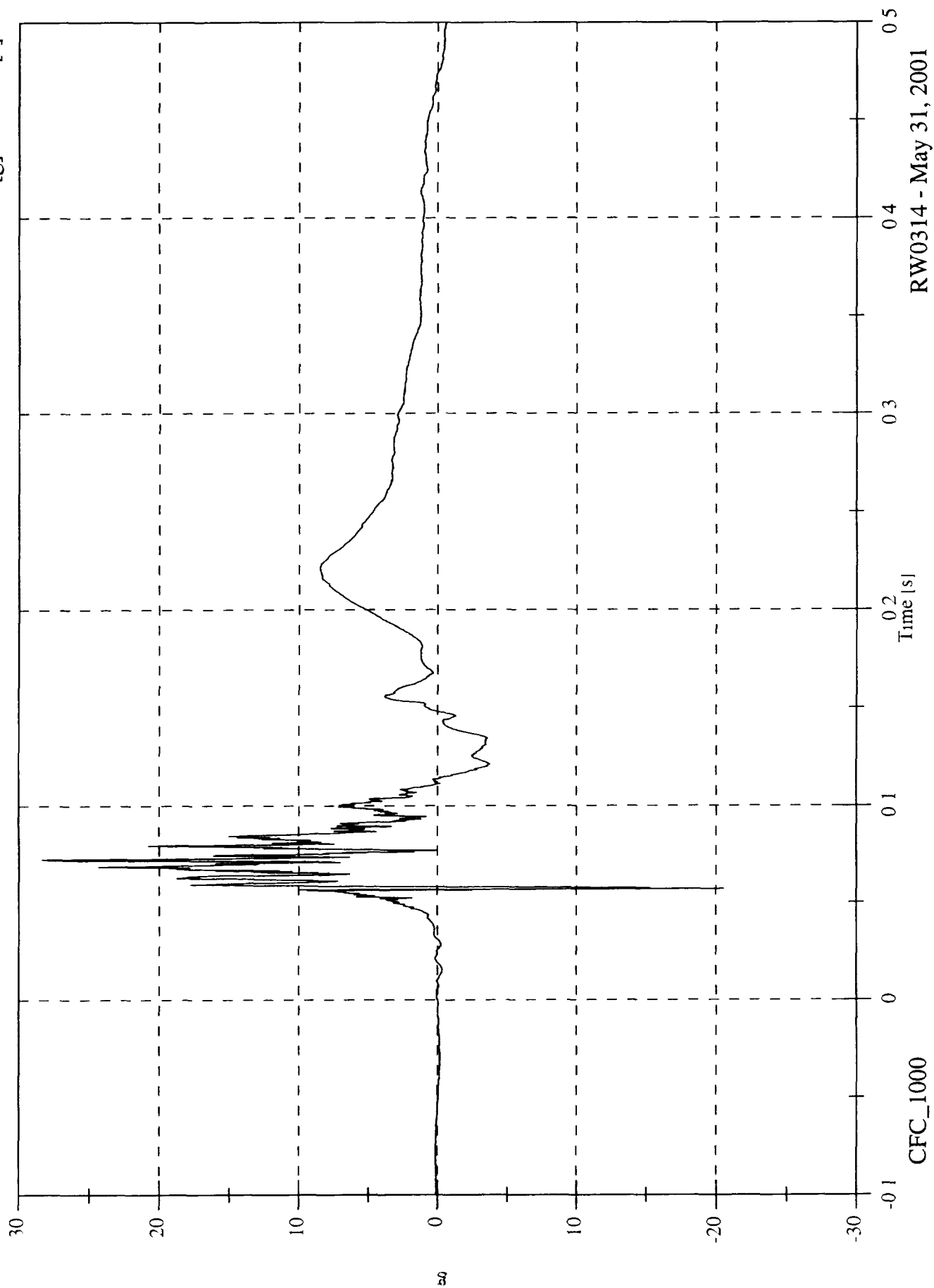


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 28.3 [g] at 0.072 [s]
Min: -20.6 [g] at 0.057 [s]

P2 Head Red Az



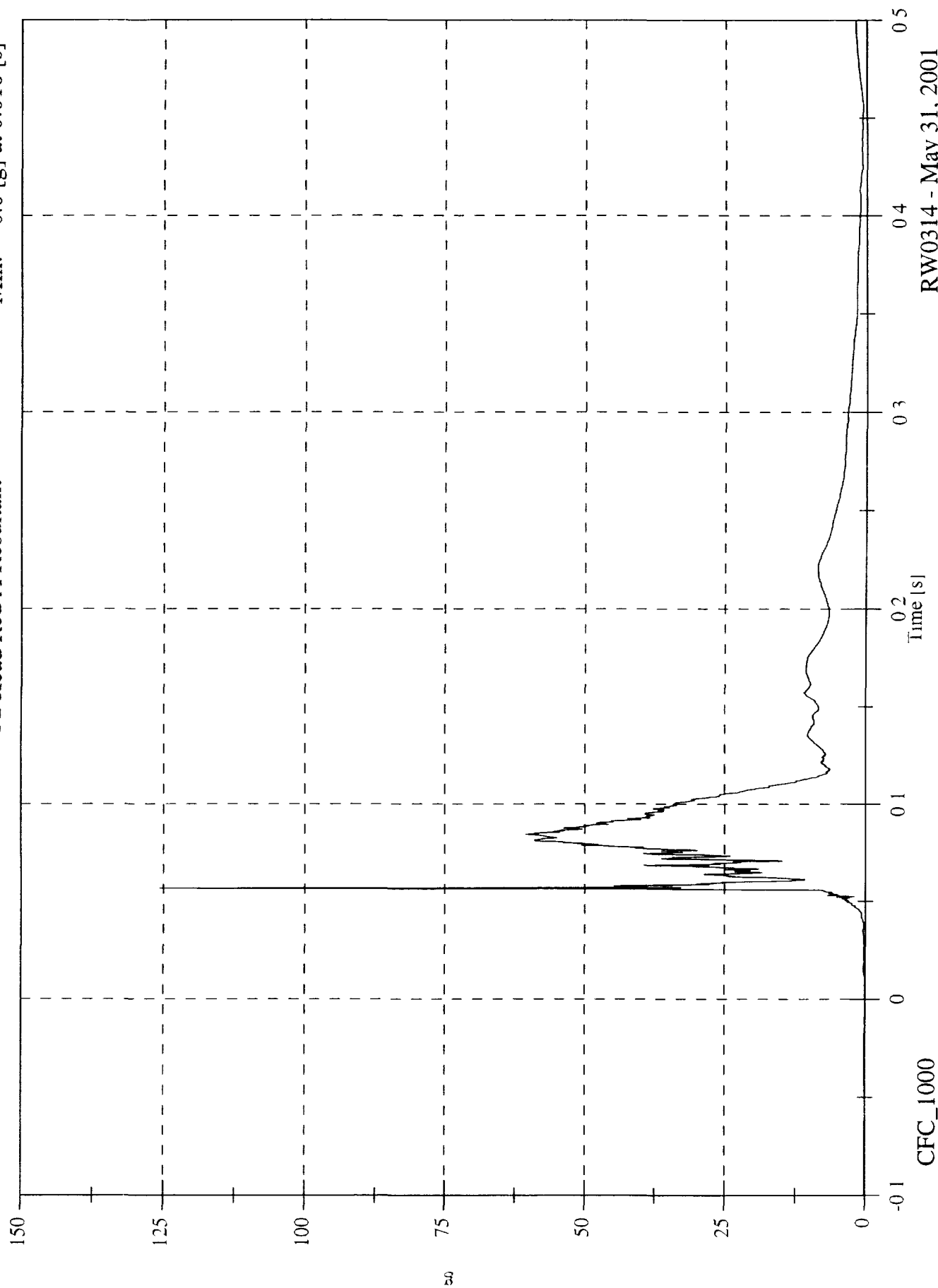
CFC_1000

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Head Red A Resultant

Max: 125.6 [g] at 0.057 [s]
Min: 0.0 [g] at 0.010 [s]

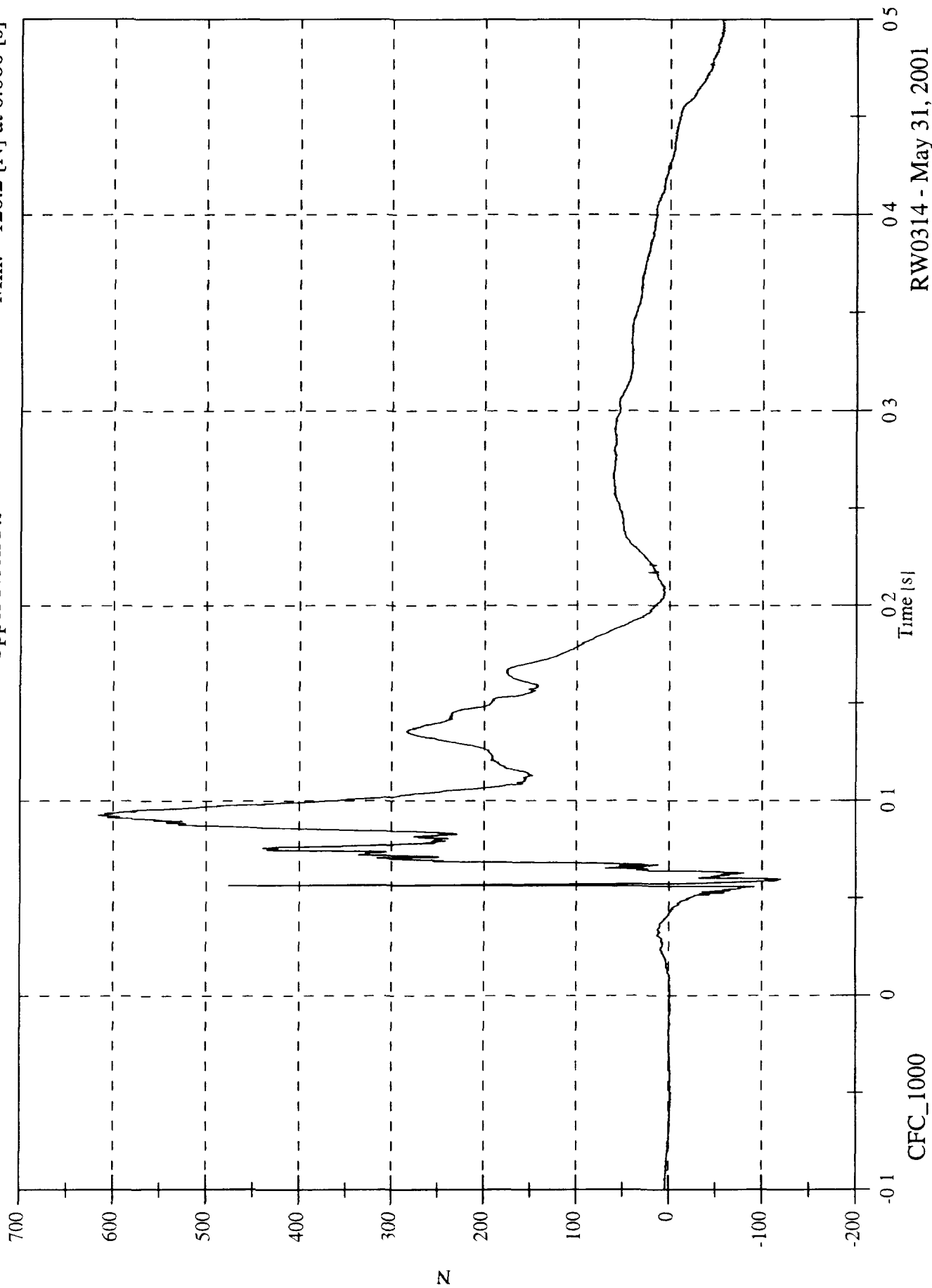


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 615.6 [N] at 0.093 [s]
Min: -120.2 [N] at 0.060 [s]

P2 Upper Neck Fx

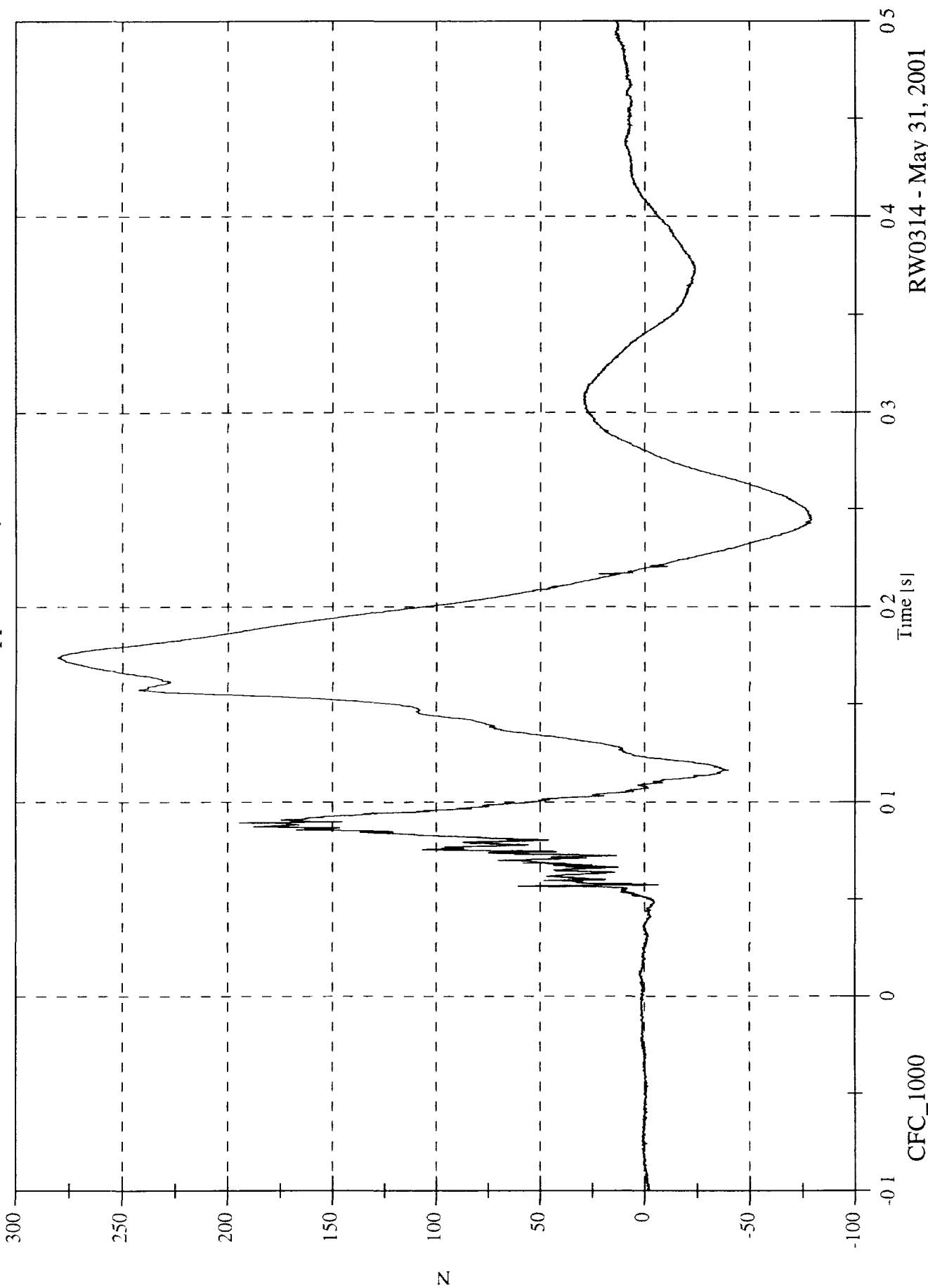


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 280.4 [N] at 0.174 [s]
 Min: -79.3 [N] at 0.244 [s]

P2 Upper Neck Fy

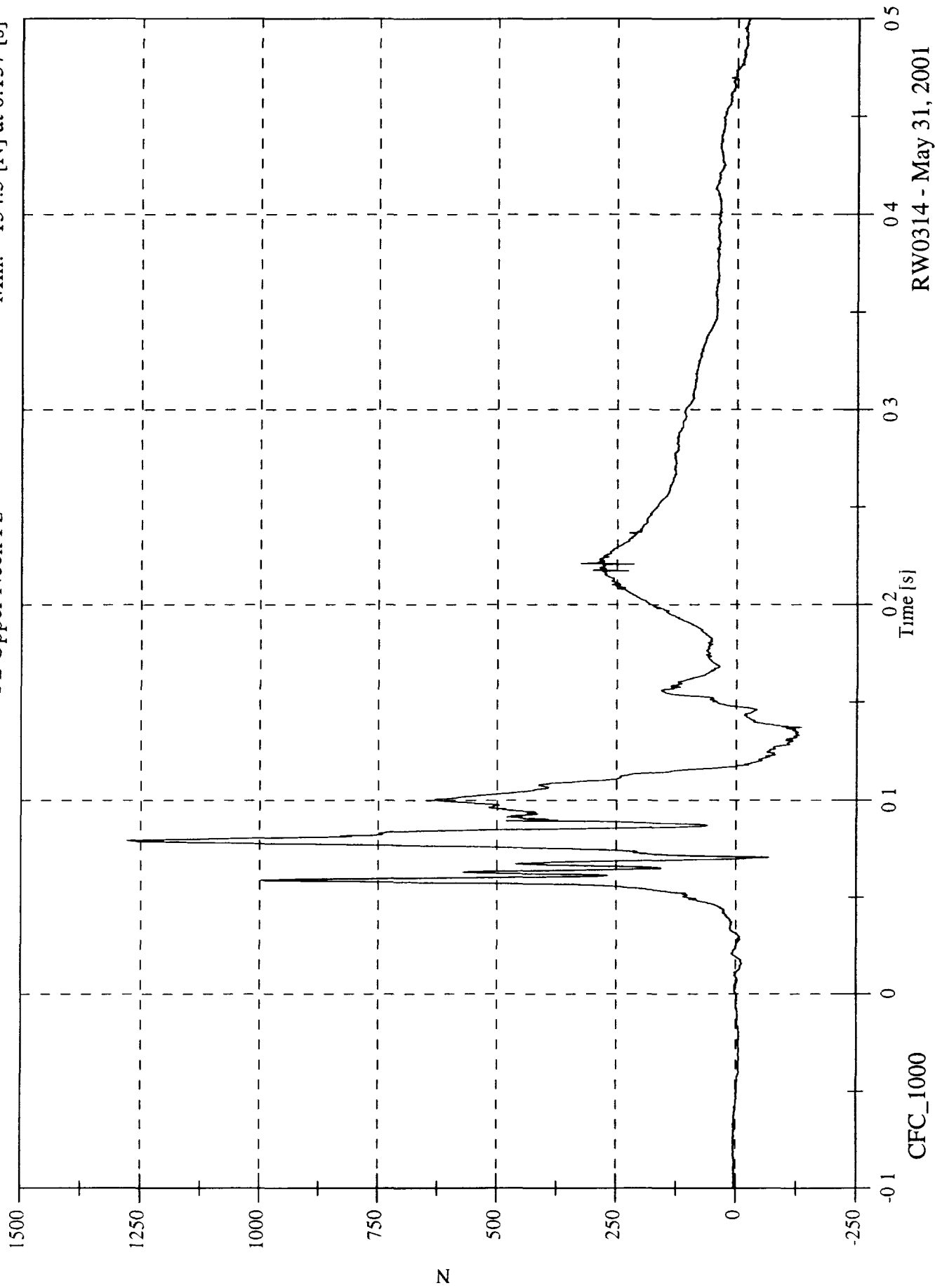


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Upper Neck Fz

Max: 1278.5 [N] at 0.079 [s]
Min: -134.5 [N] at 0.137 [s]

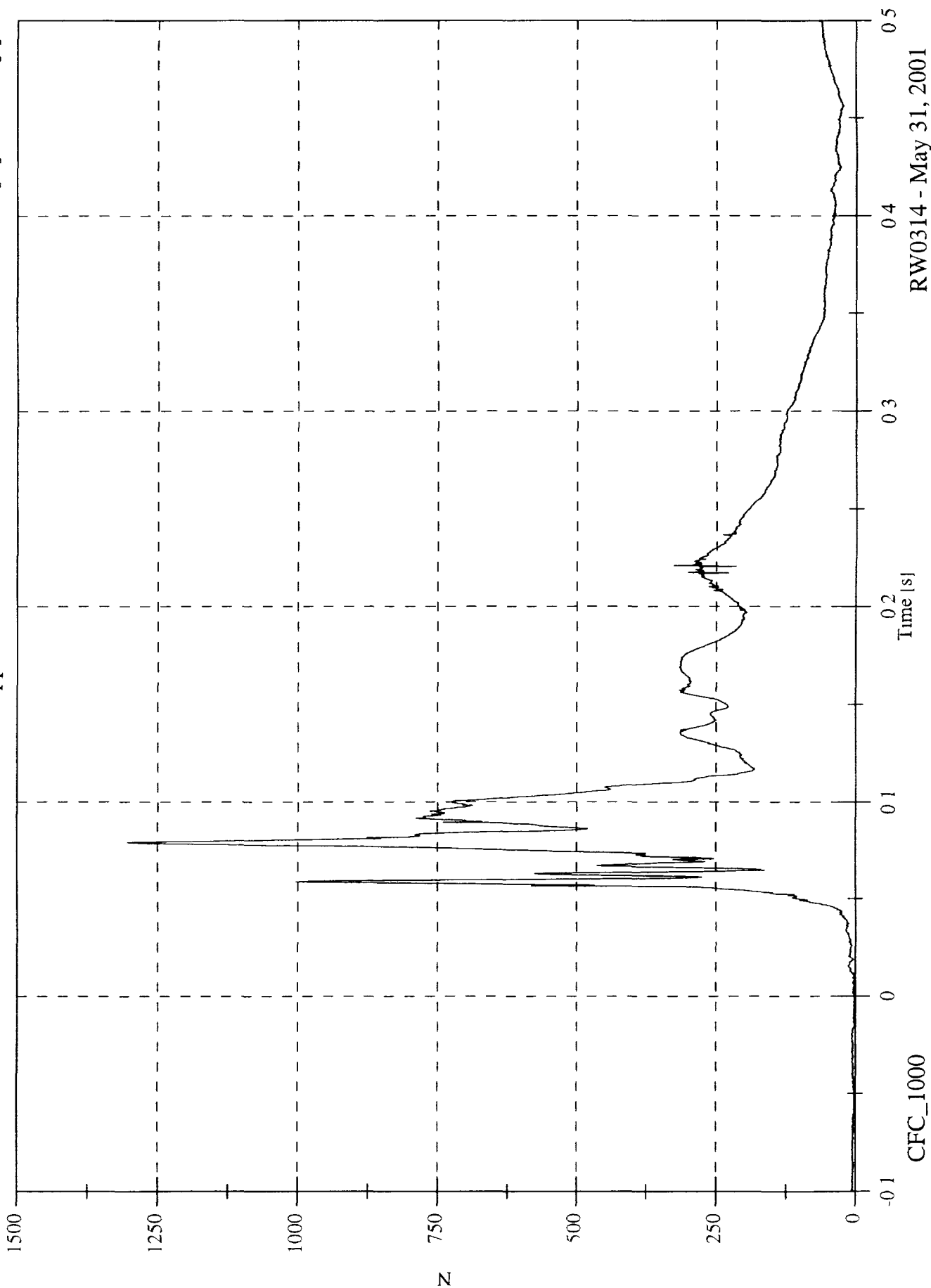


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Upper Neck F Resultant

Max: 1303.5 [N] at 0.079 [s]
Min: 0.9 [N] at 0.006 [s]



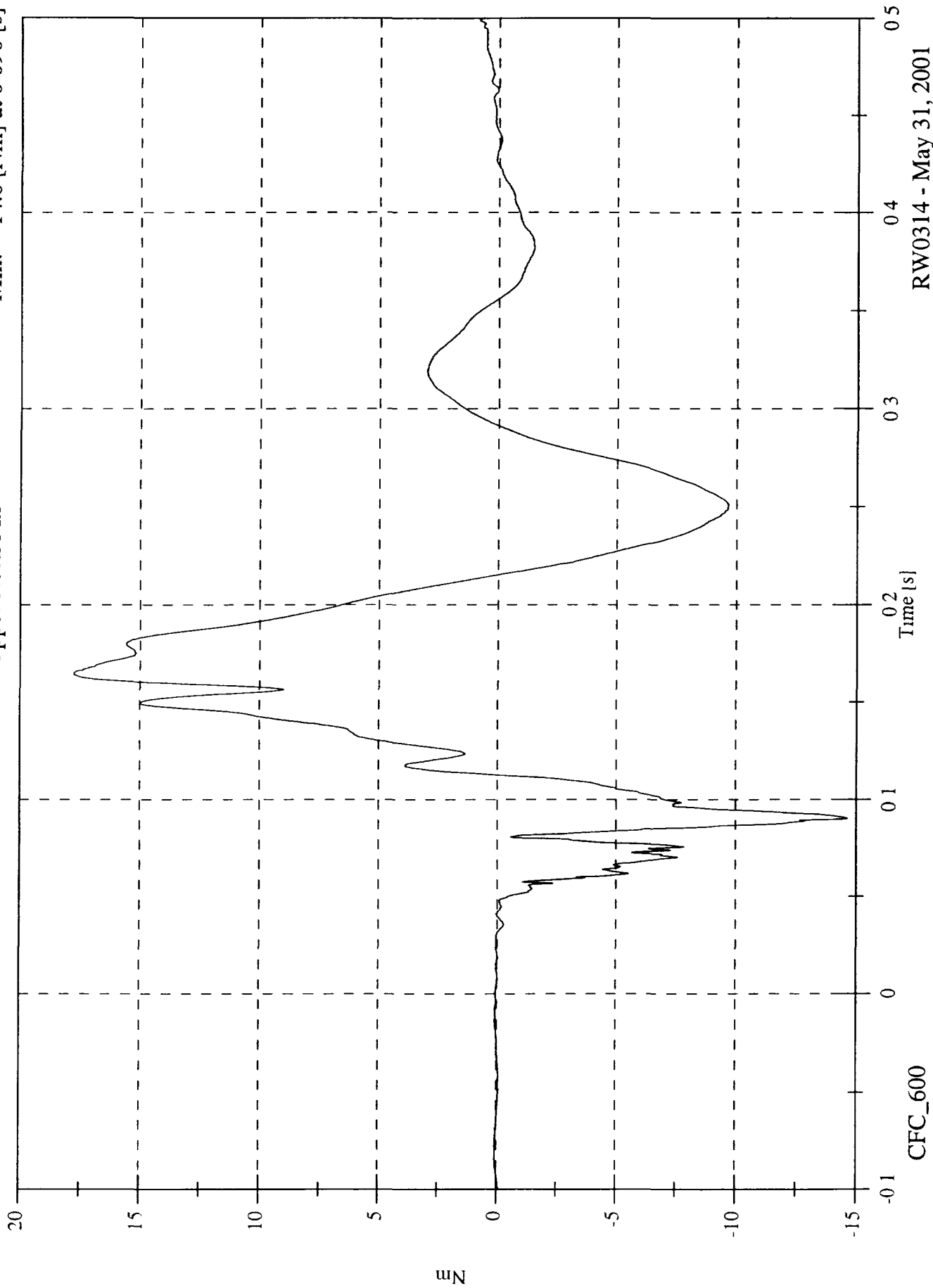
CFC_1000

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 17.8 [Nm] at 0.165 [s]
Min: -14.6 [Nm] at 0.090 [s]

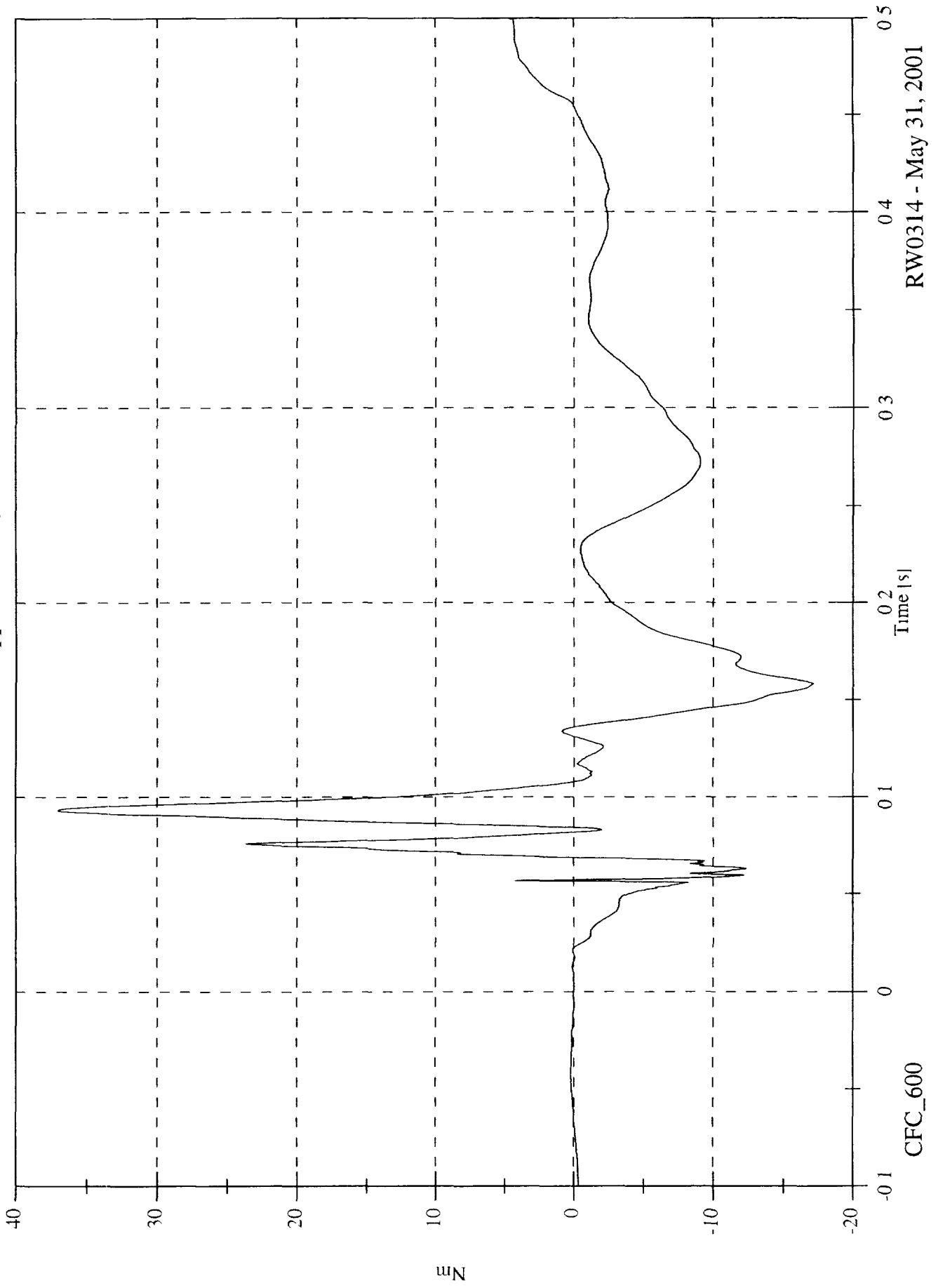
P2 Upper Neck Mx



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Upper Neck My

Max: 37.0 [Nm] at 0.093 [s]
Min: -17.1 [Nm] at 0.158 [s]

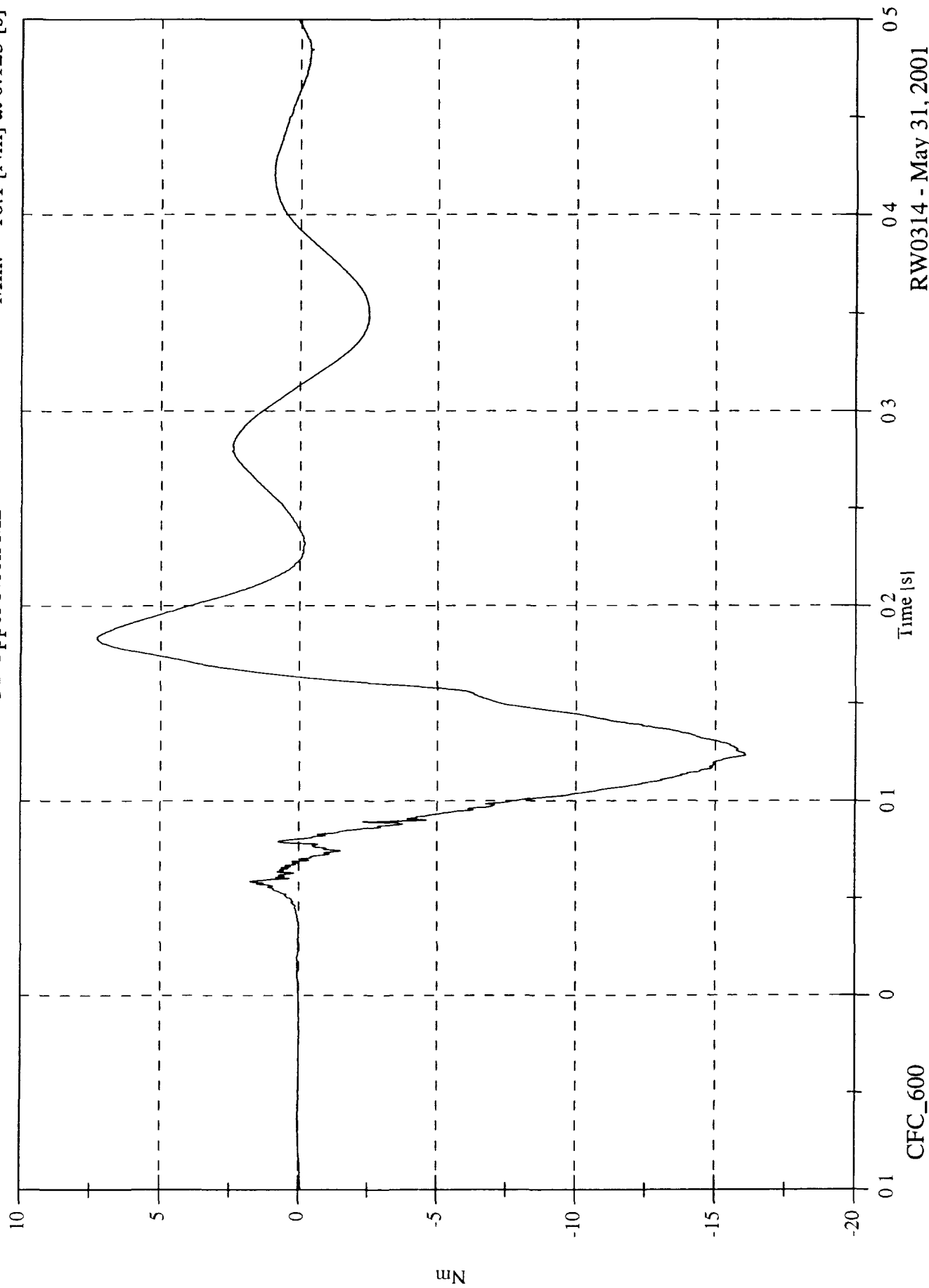


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 7.3 [Nm] at 0.184 [s]
Min: -16.1 [Nm] at 0.123 [s]

P2 Upper Neck Mz



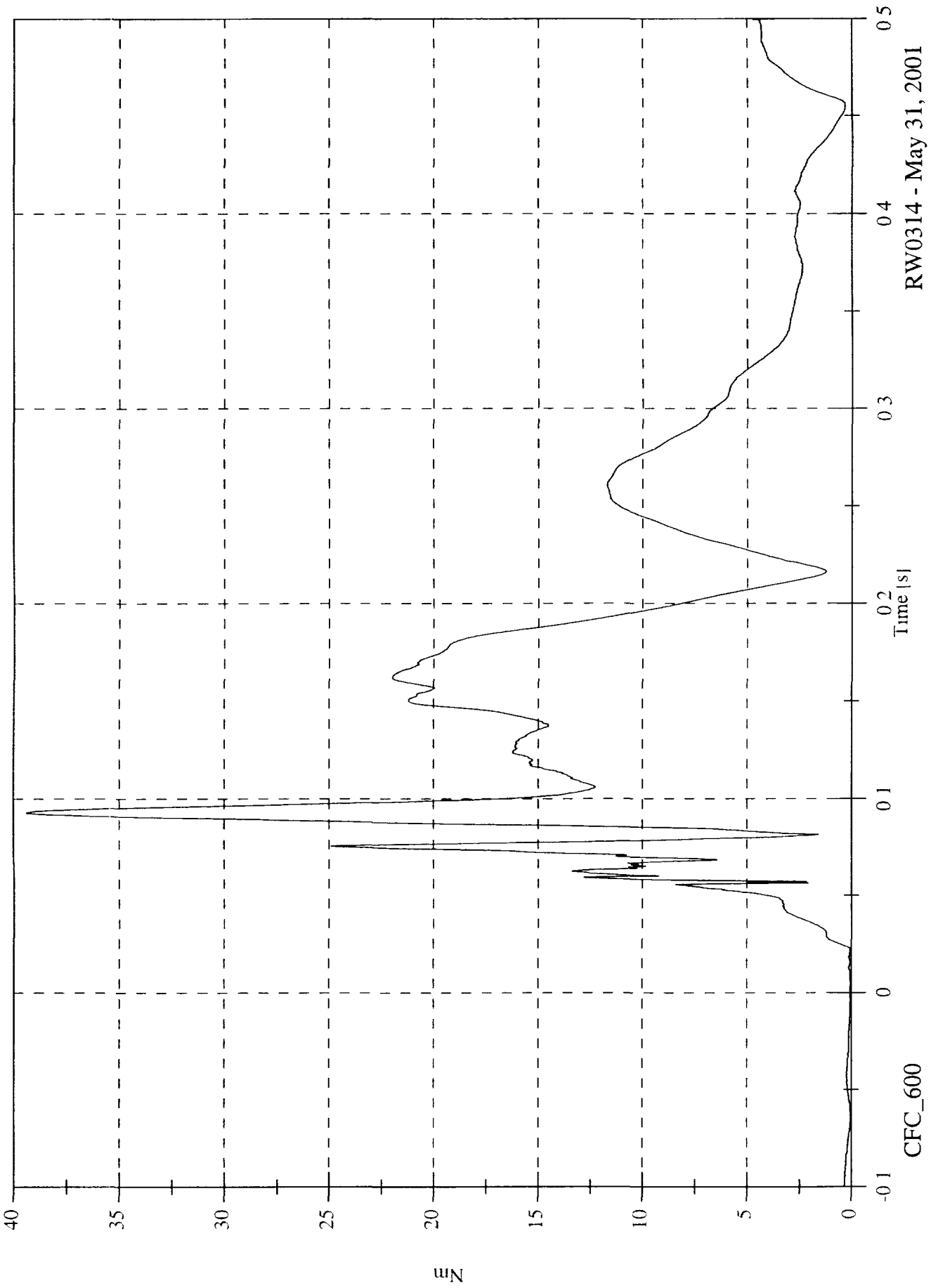
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 39.4 [Nm] at 0.093 [s]
Min: 0.0 [Nm] at -0.064 [s]

P2 Upper Neck M Resultant

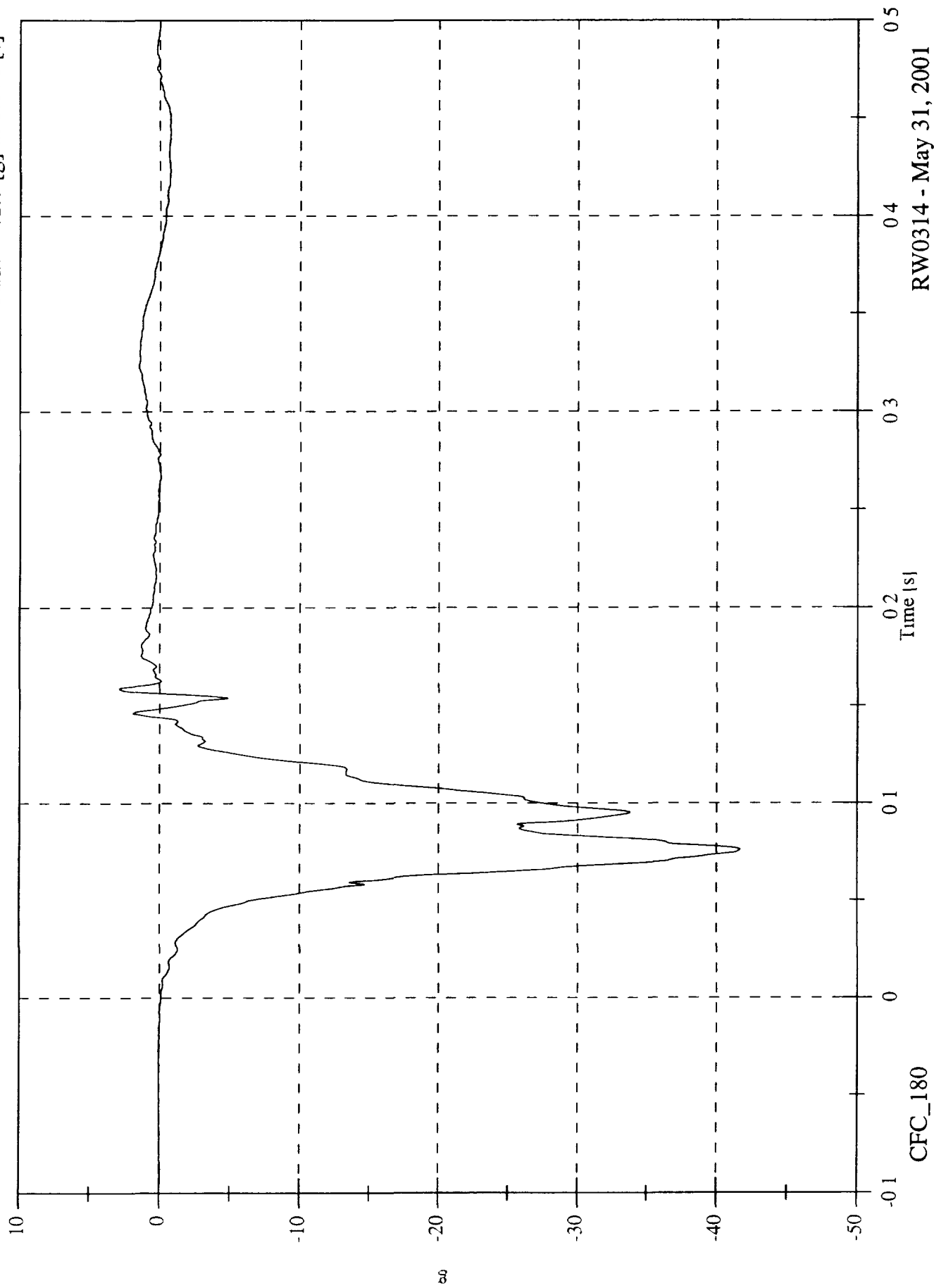


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Chest Ax

Max: 2.9 [g] at 0.159 [s]
Min: -41.7 [g] at 0.076 [s]



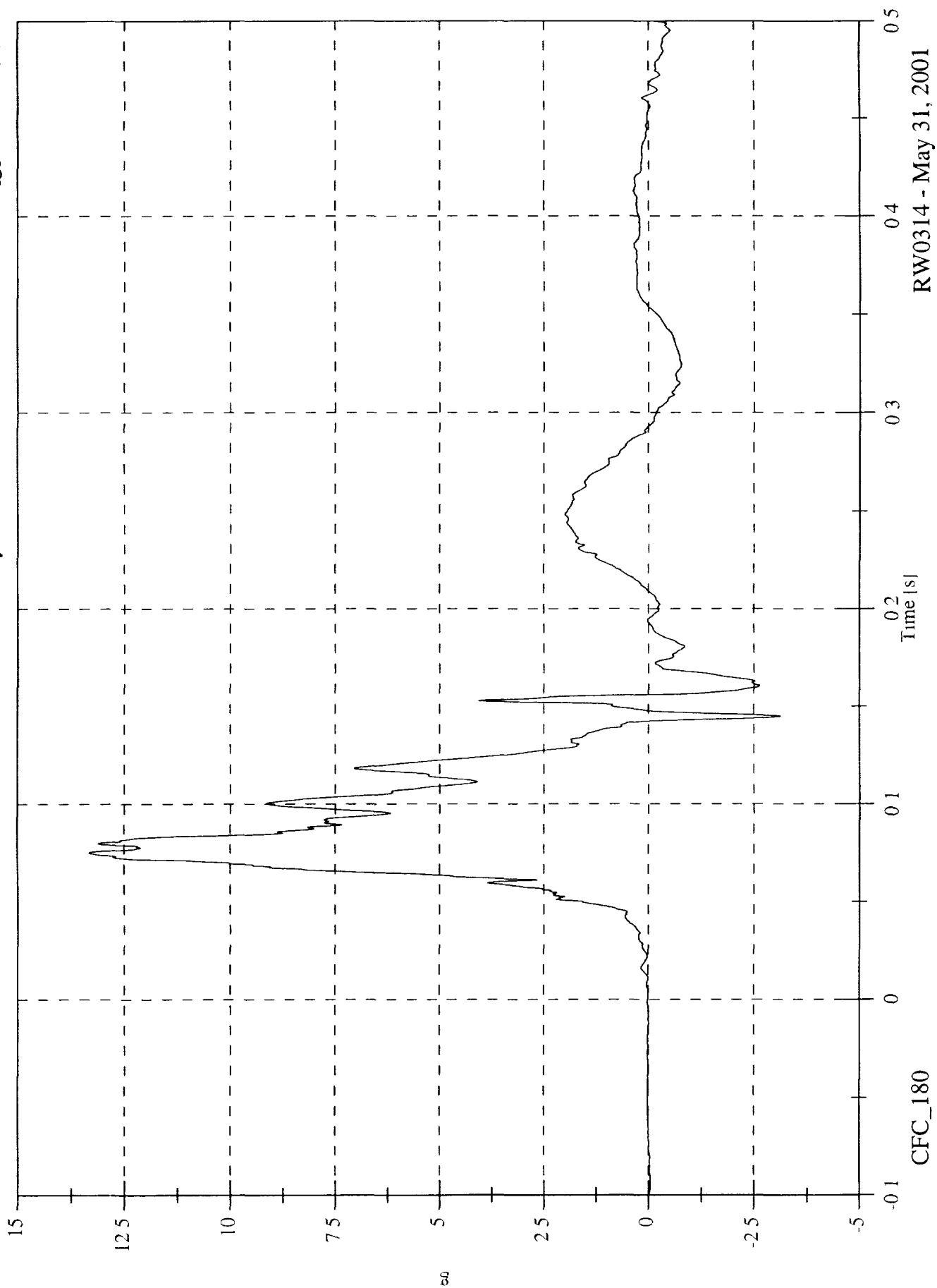
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 13.3 [g] at 0.075 [s]
Min: -3.1 [g] at 0.145 [s]

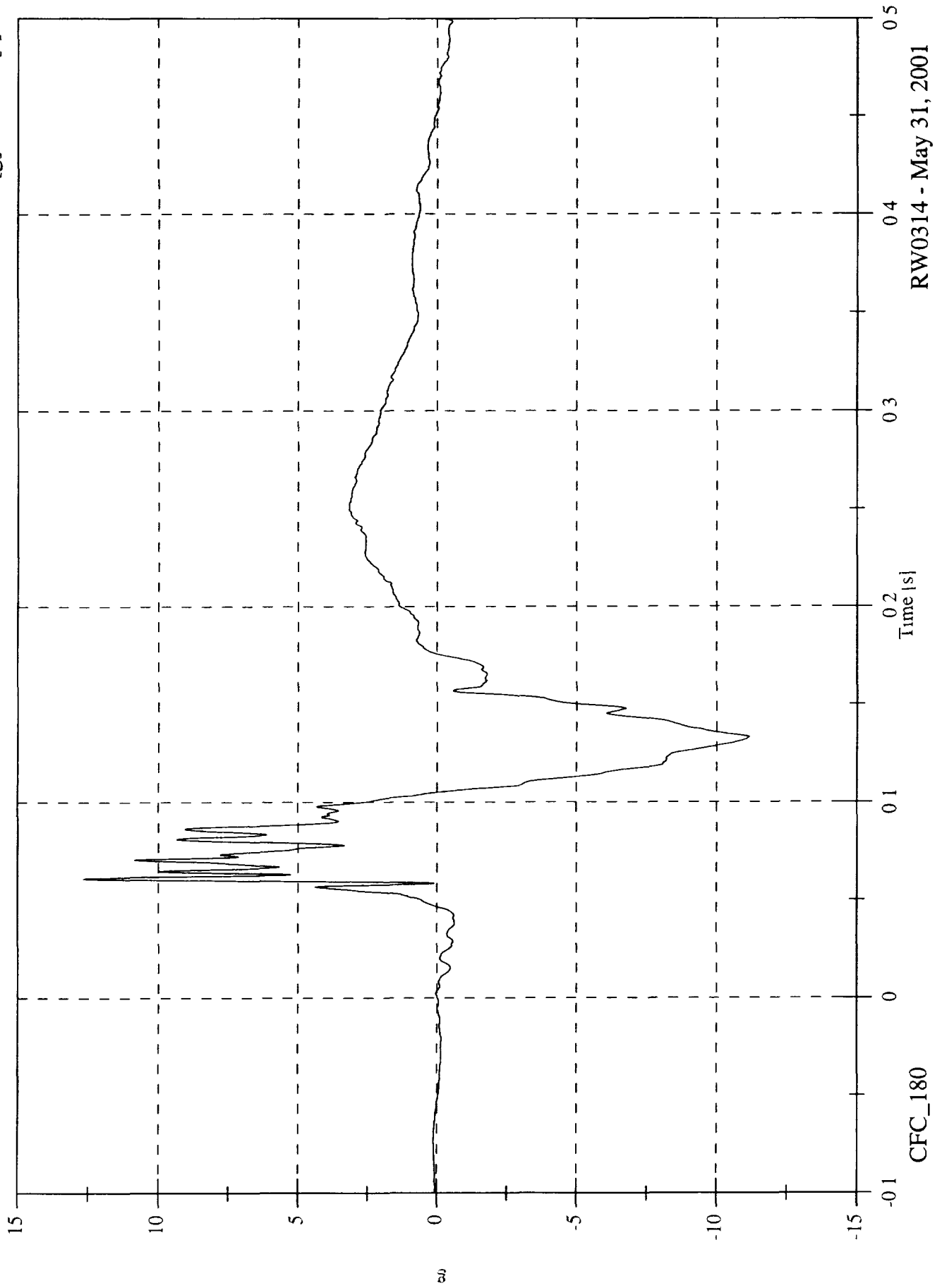
P2 Chest Ay



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 12.7 [g] at 0.061 [s]
Min: -11.2 [g] at 0.133 [s]

P2 Chest Az

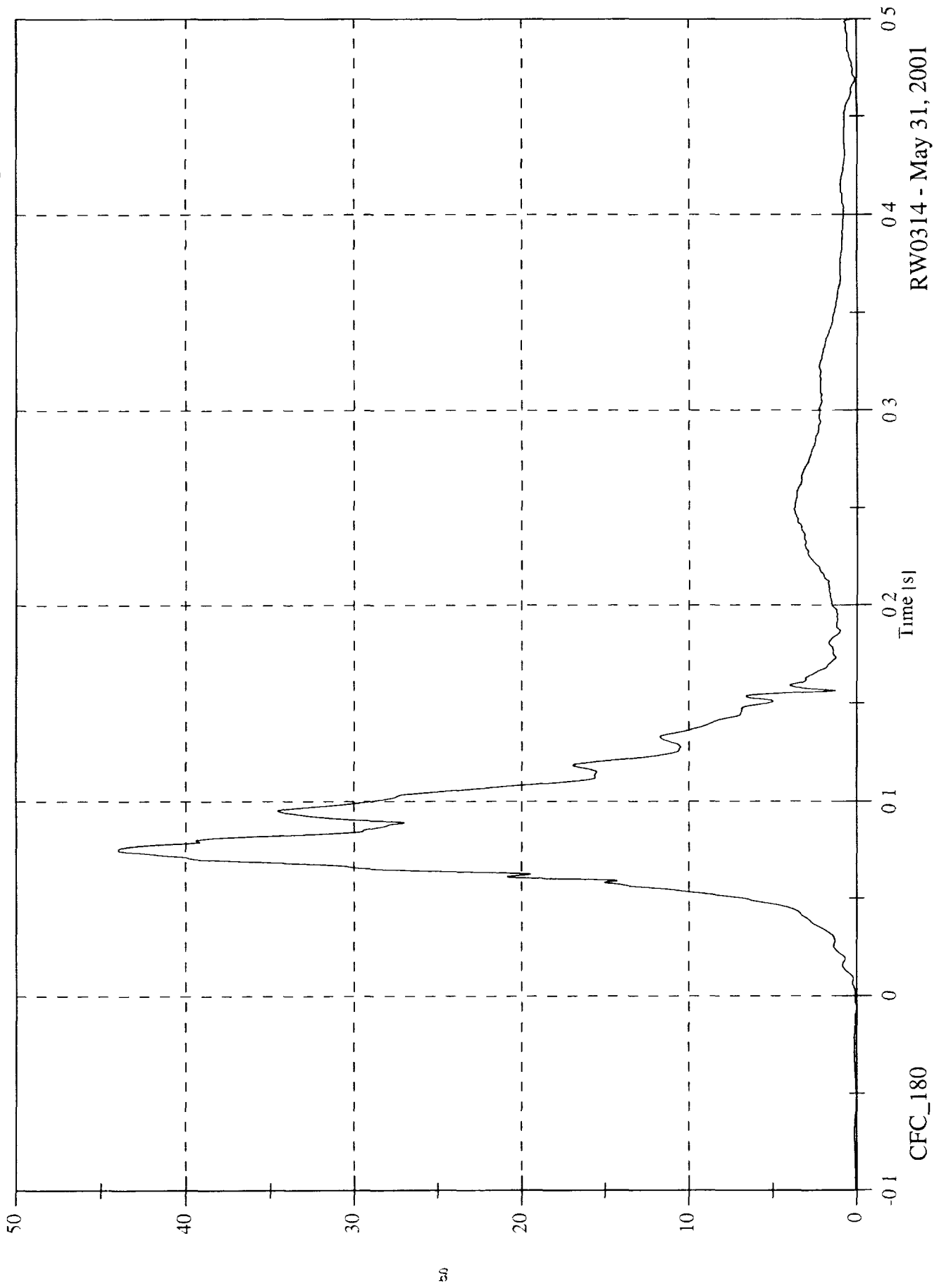


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 44.0 [g] at 0.075 [s]
Min: 0.0 [g] at -0.100 [s]

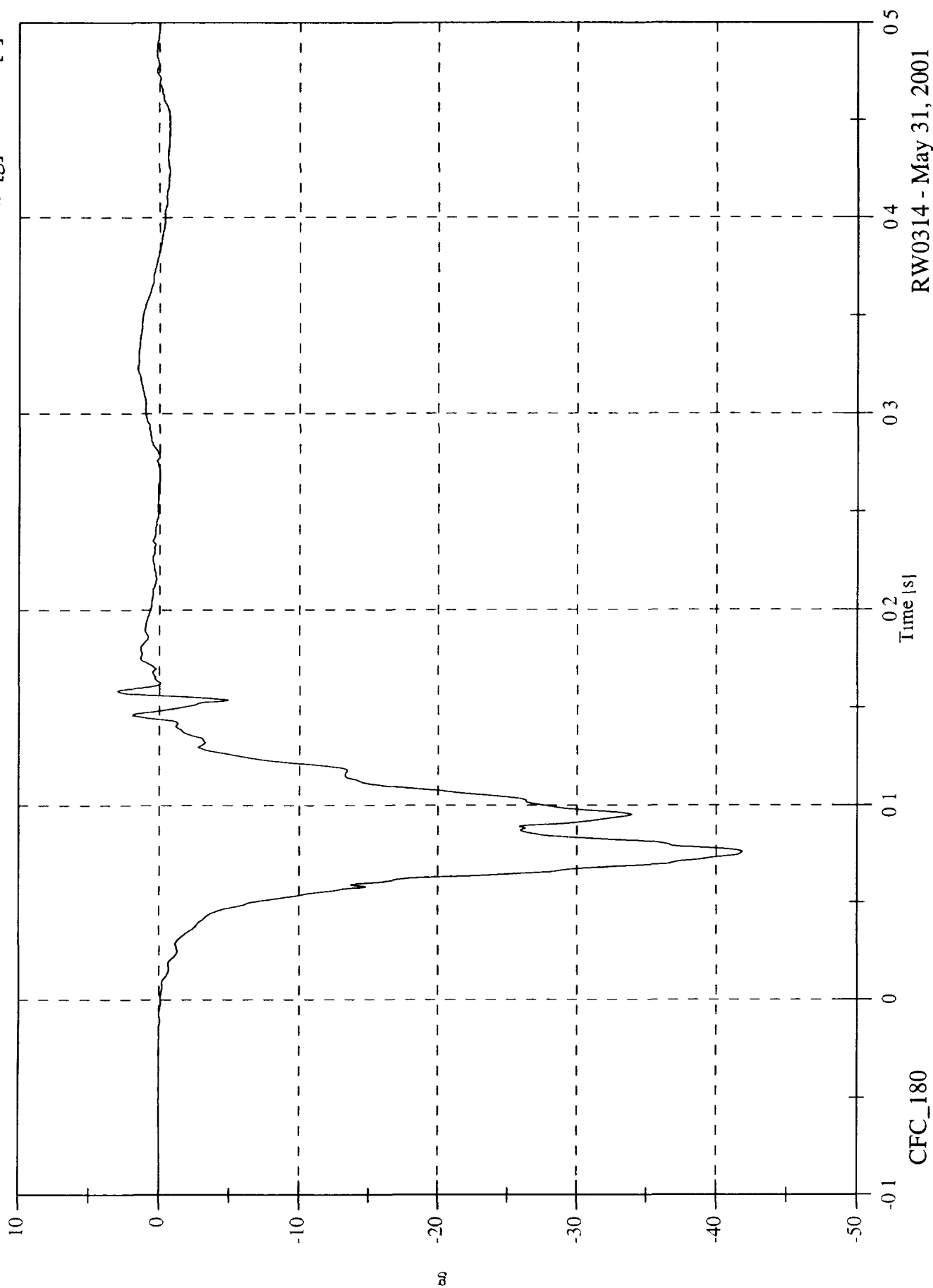
P2 Chest A Resultant



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Chest Red Ax

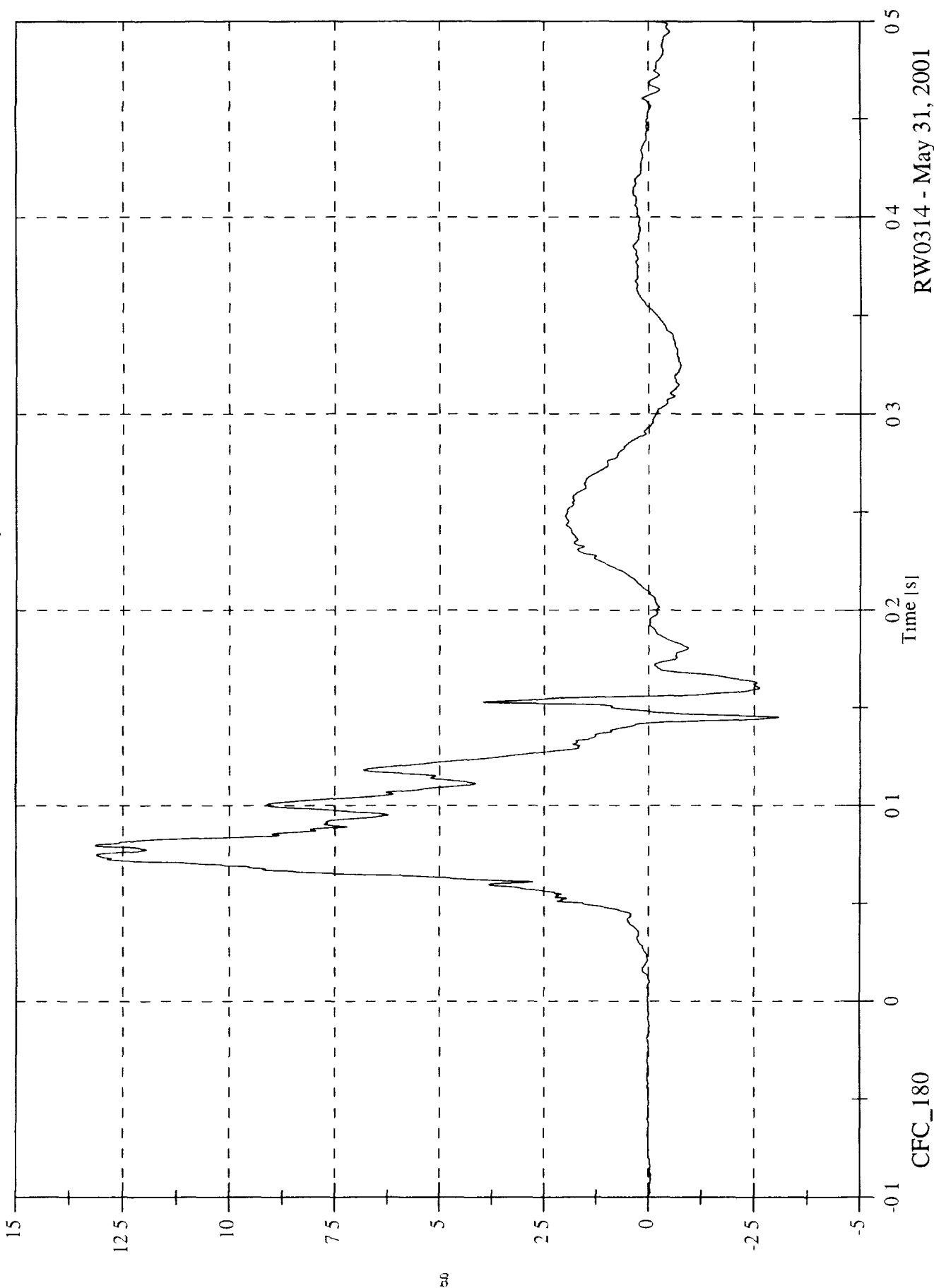
Max: 3.0 [g] at 0.159 [s]
Min: -41.9 [g] at 0.076 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 13.2 [g] at 0.080 [s]
Min: -3.1 [g] at 0.145 [s]

P2 Chest Red Ay

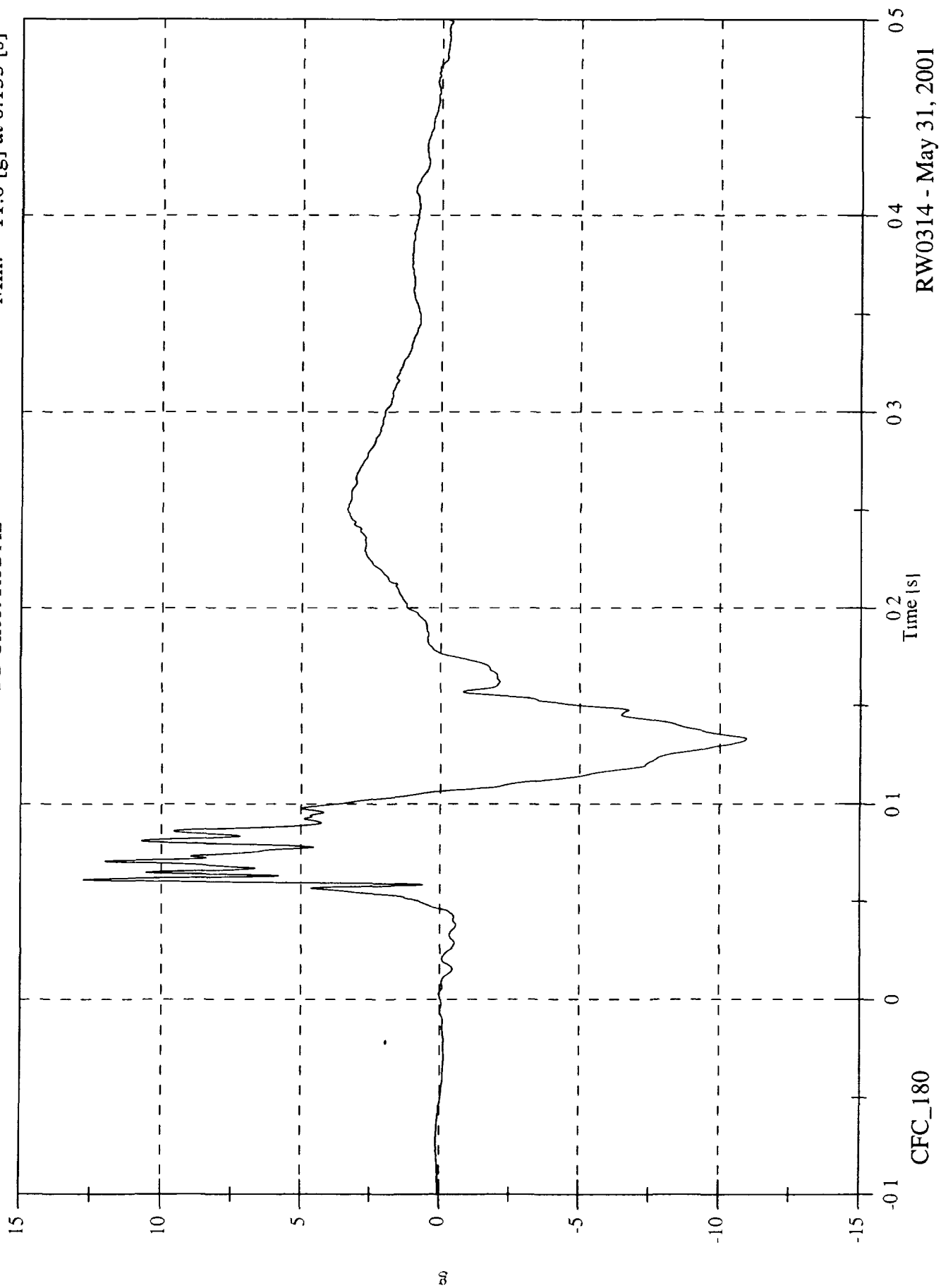


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 12.8 [g] at 0.061 [s]
Min: -11.0 [g] at 0.133 [s]

P2 Chest Red Az

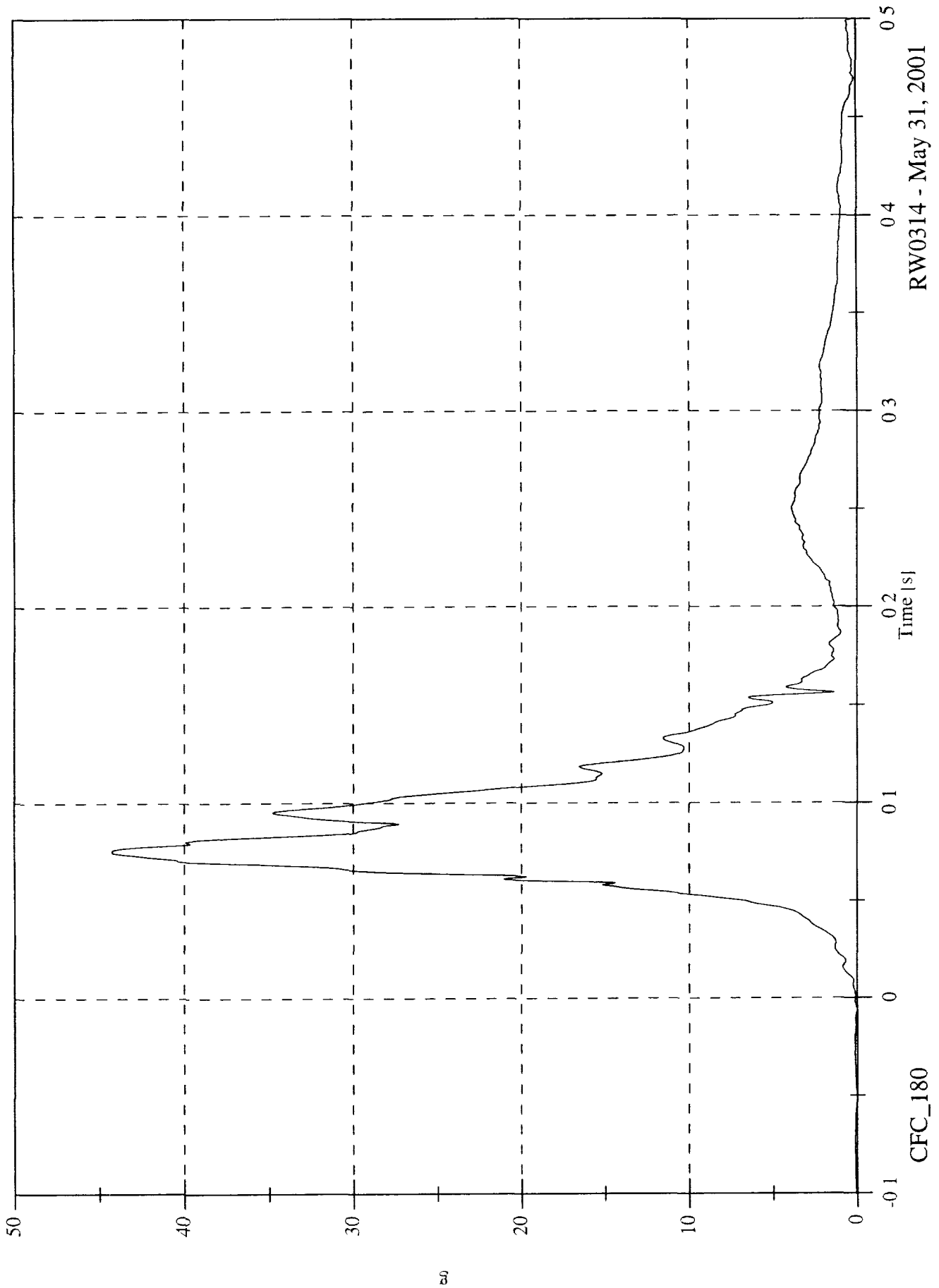


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 44.3 [g] at 0.075 [s]
Min: 0.0 [g] at -0.100 [s]

P2 Chest Red A Resultant

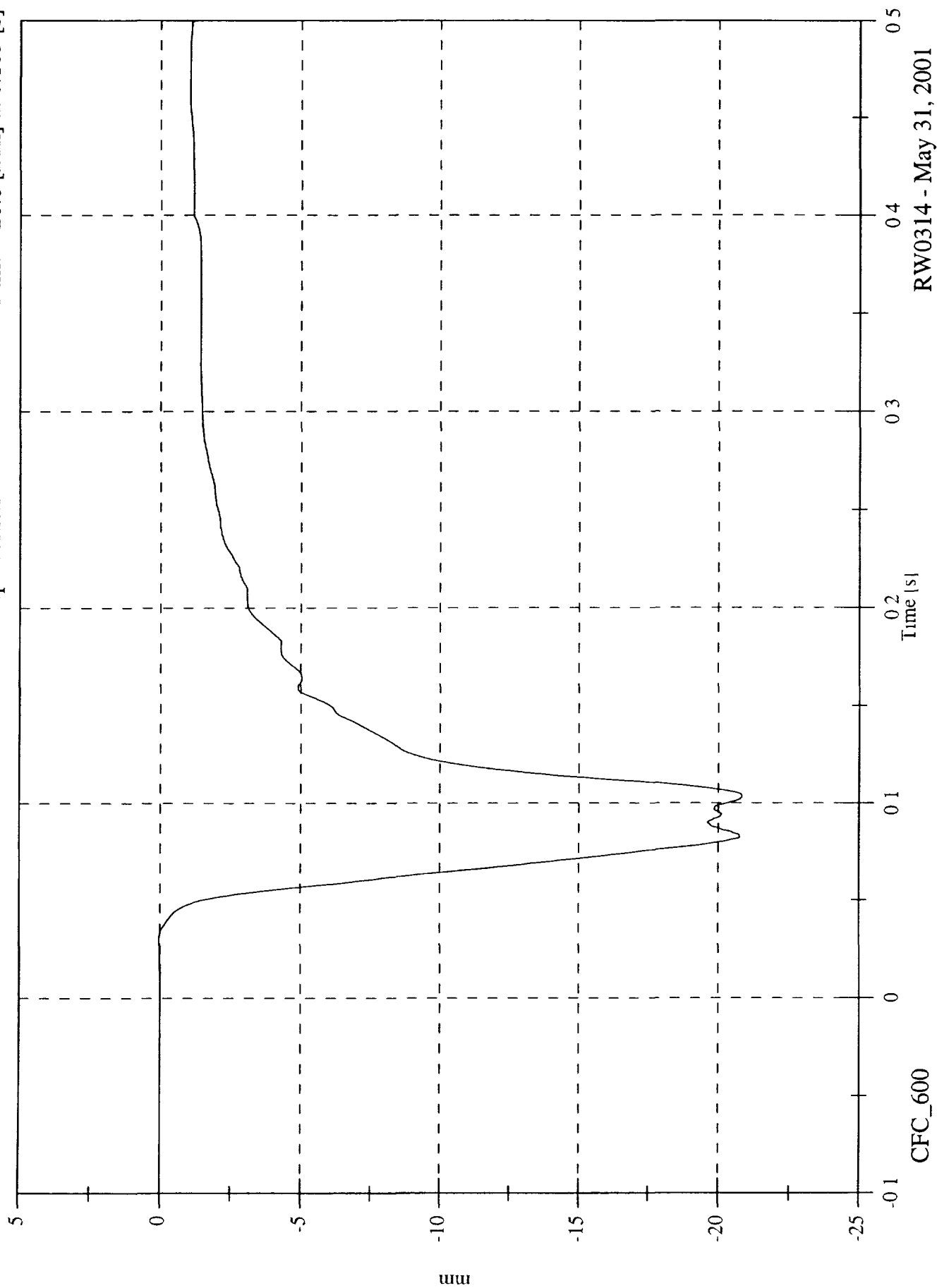


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 0.0 [mm] at 0.029 [s]
Min: -20.8 [mm] at 0.103 [s]

P2 Chest Displacement



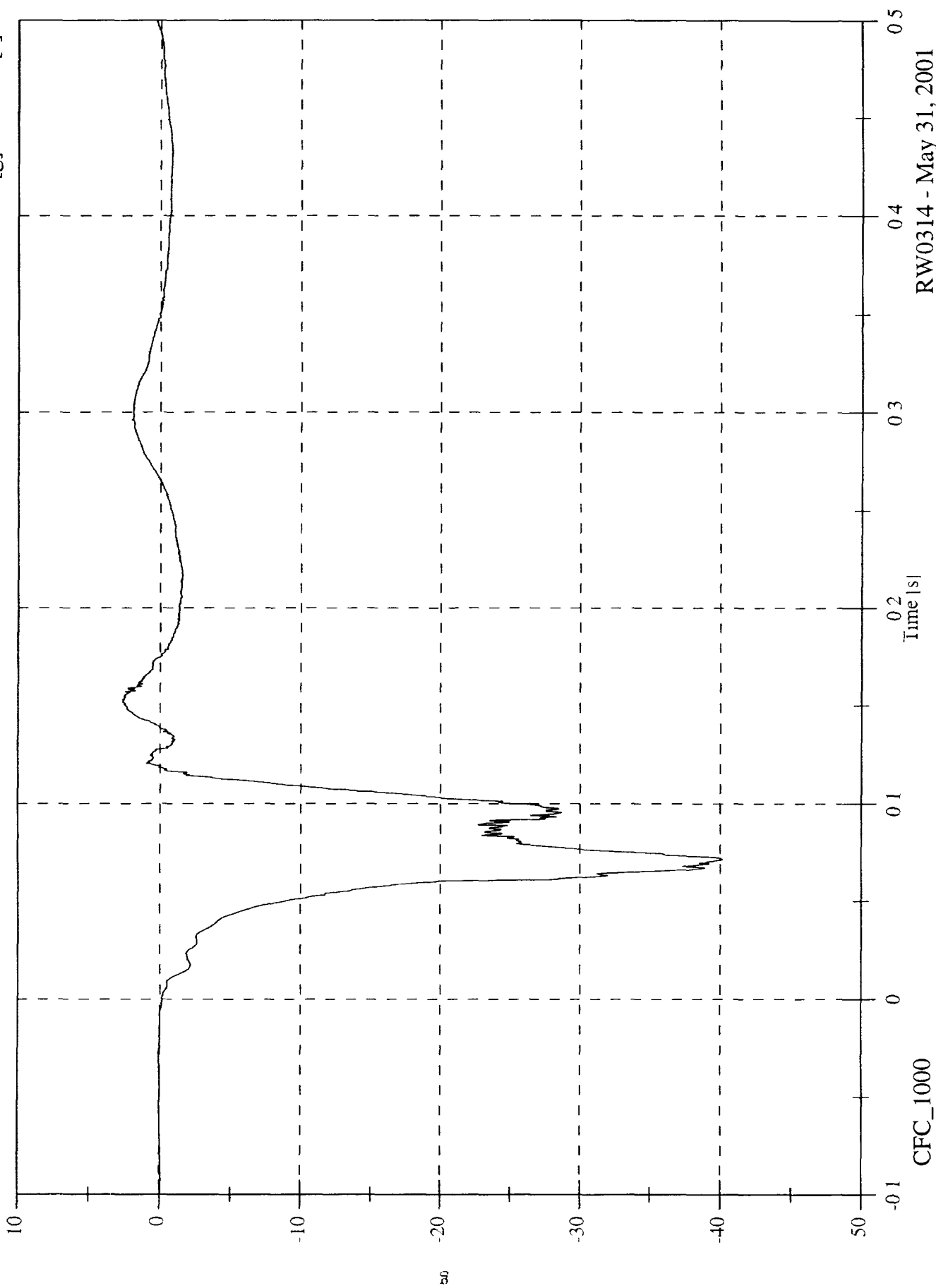
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 2.6 [g] at 0.153 [s]
Min: -40.1 [g] at 0.071 [s]

P2 Pelvic Ax

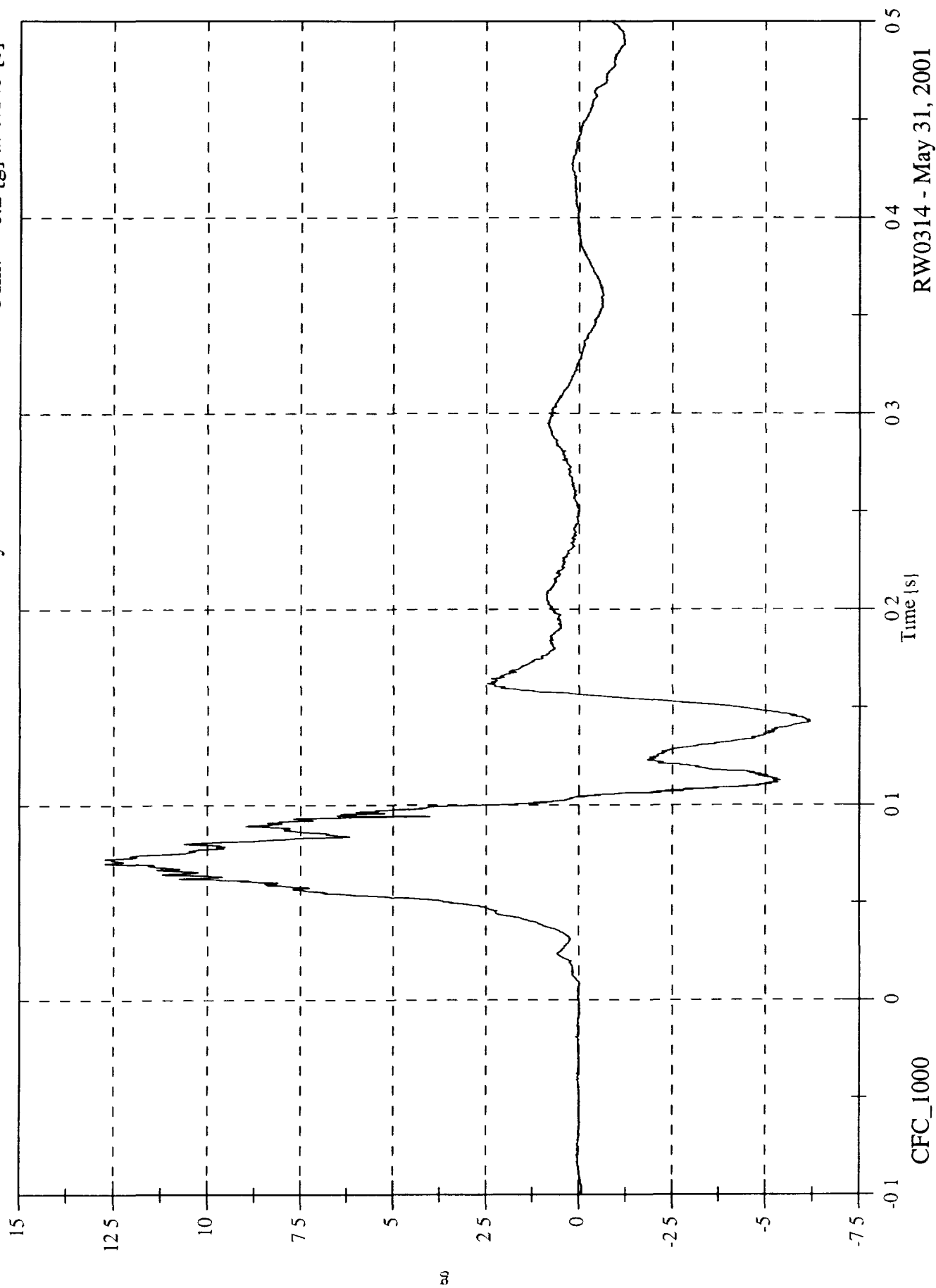


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Pelvic Ay

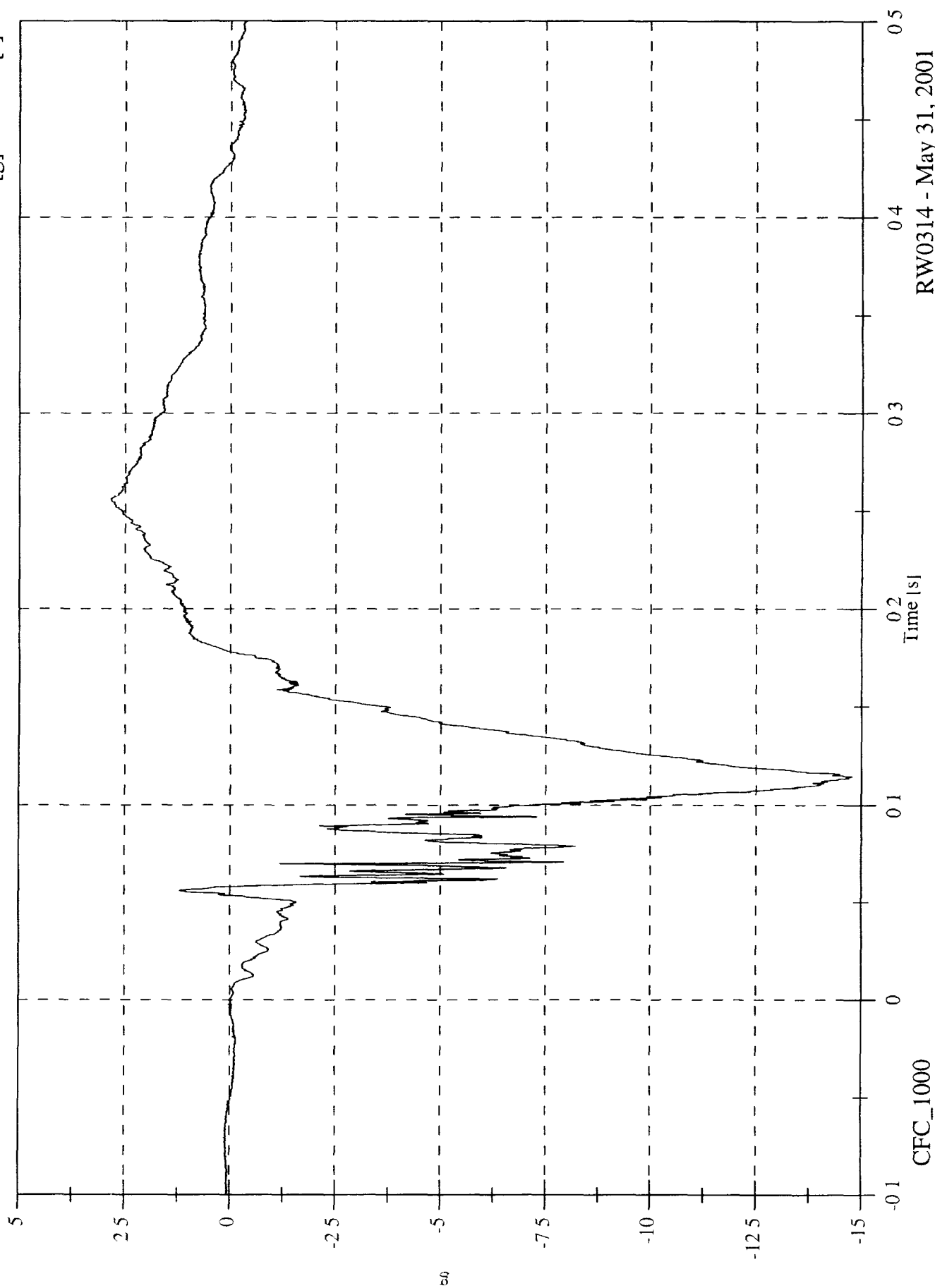
Max: 12.7 [g] at 0.070 [s]
Min: -6.2 [g] at 0.143 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 2.8 [g] at 0.256 [s]
Min: -14.8 [g] at 0.114 [s]

P2 Pelvic Az



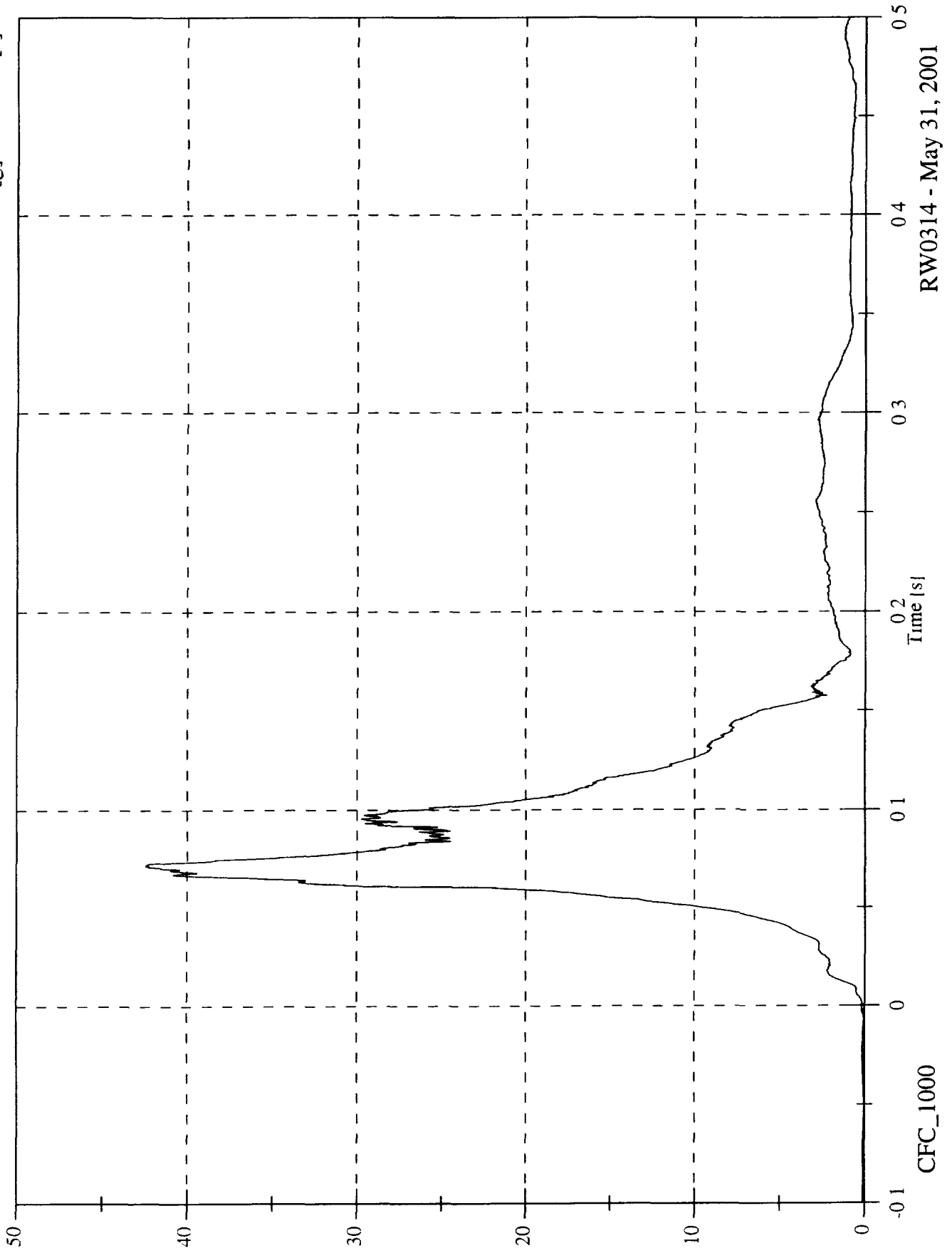
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Pelvic A Resultant

Max: 42.4 [g] at 0.071 [s]

Min: 0.0 [g] at -0.007 [s]



CFC_1000

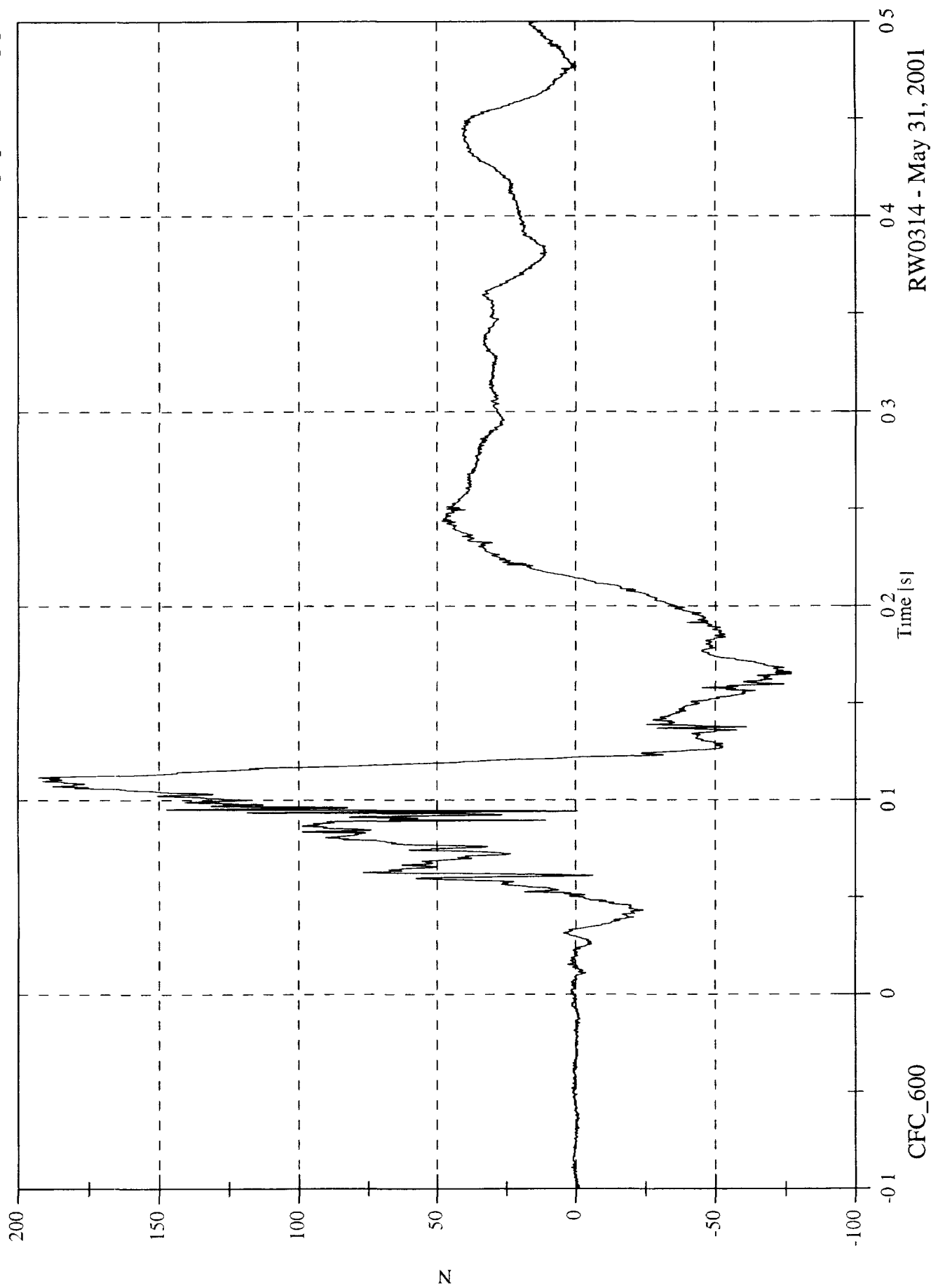
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 192.7 [N] at 0.112 [s]
 Min: -77.0 [N] at 0.165 [s]

P2 Left Femur Fx

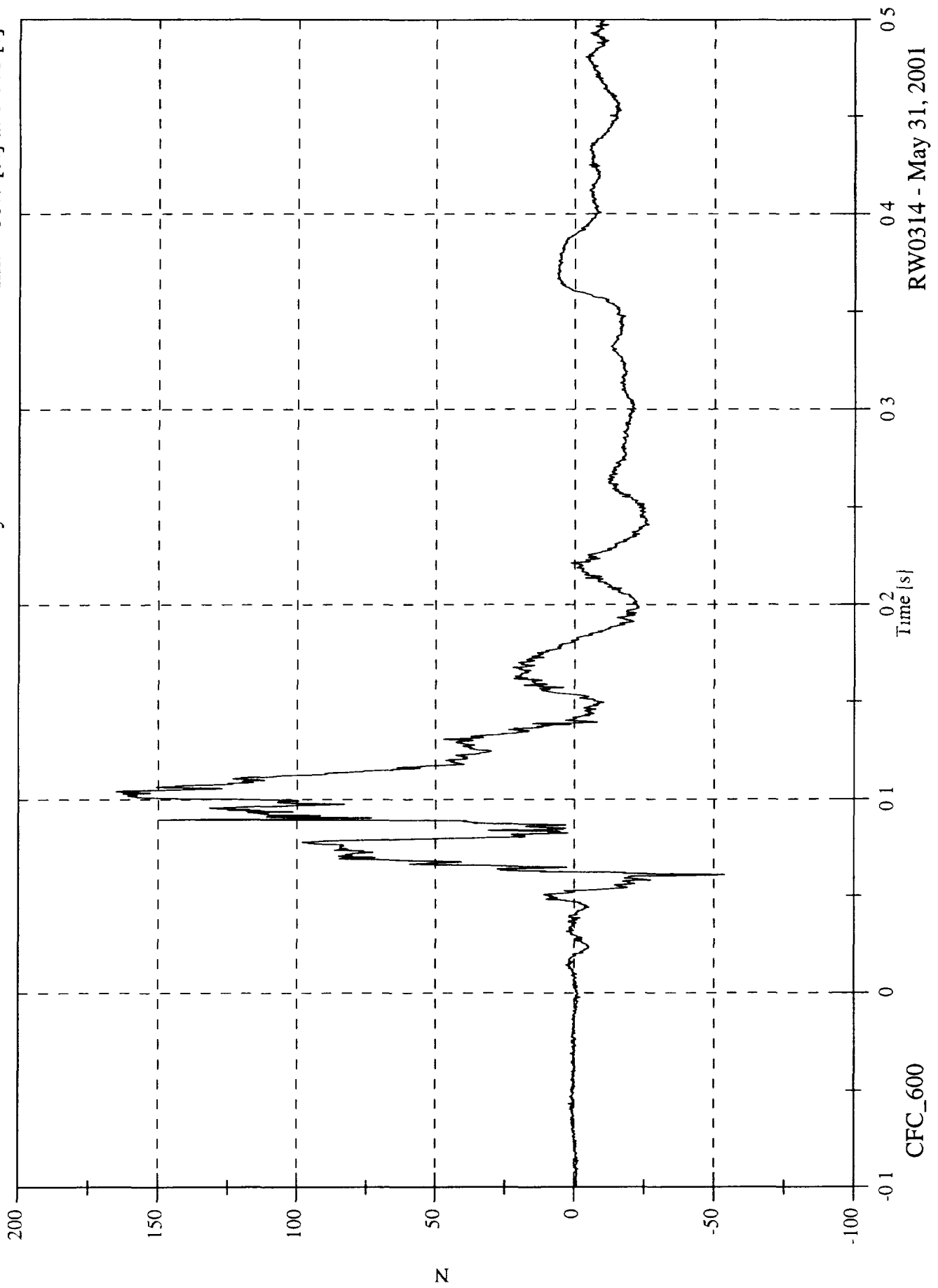


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 165.1 [N] at 0.104 [s]
Min: -53.7 [N] at 0.061 [s]

P2 Left Femur Fy

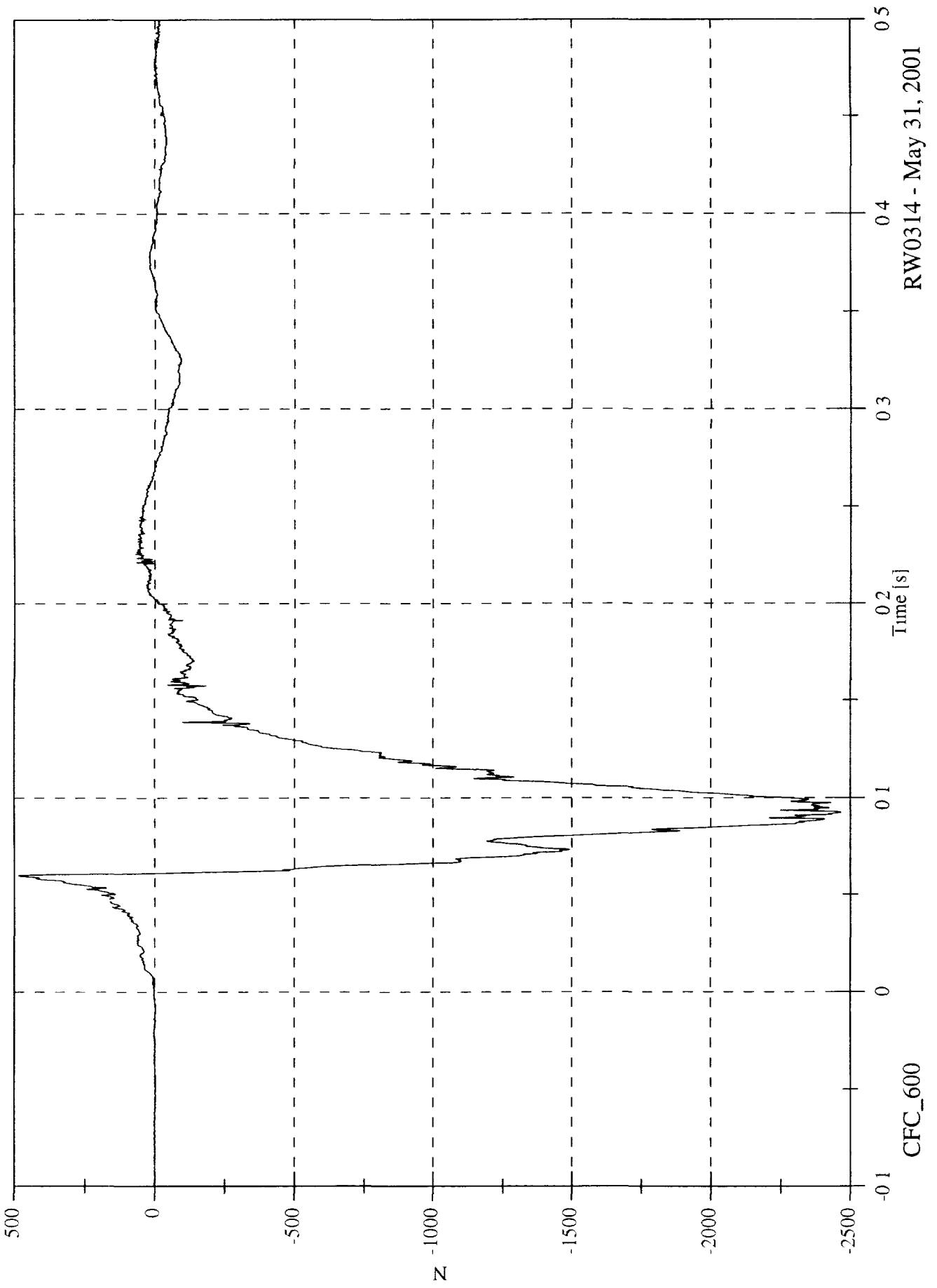


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

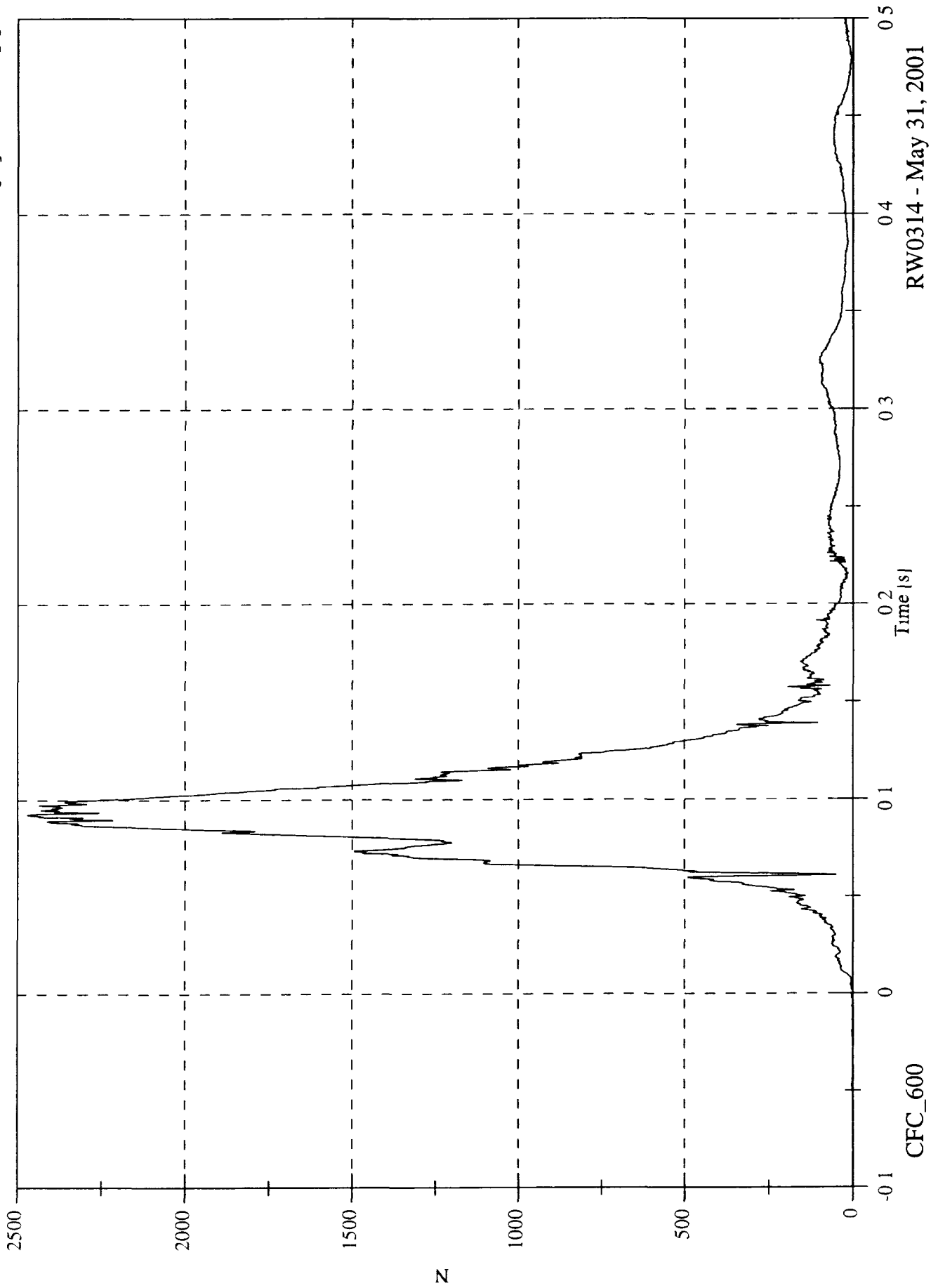
Max: 485.9 [N] at 0.060 [s]
Min: -2467.1 [N] at 0.092 [s]

P2 Left Femur Fz



RW0314 - May 31, 2001

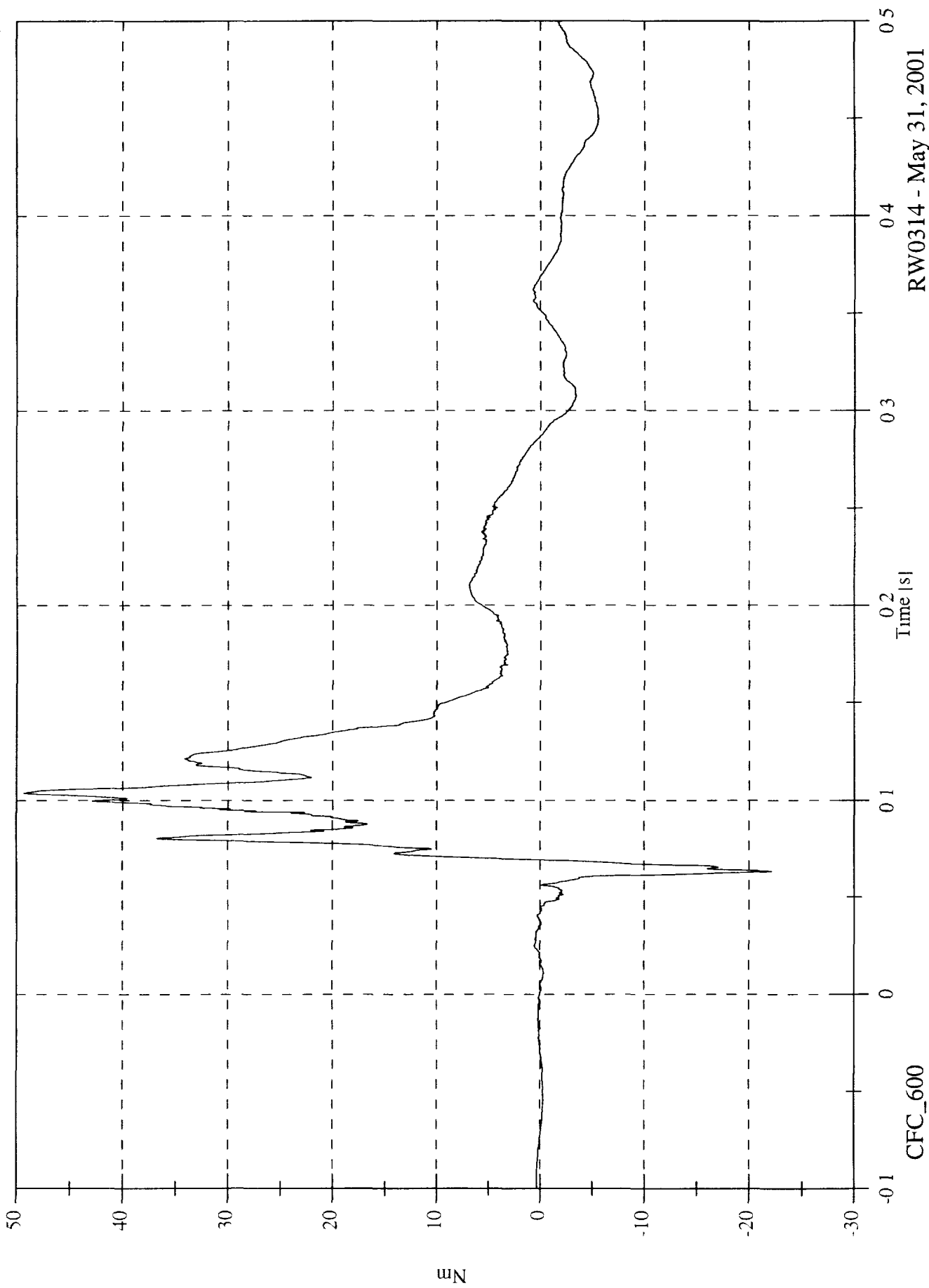
40% Frontal Offset Test # 8 - 1998 Dodge Neon
P2 Left Femur F Resultant
Max: 2469.7 [N] at 0.092 [s]
Min: 0.1 [N] at -0.028 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 49.3 [Nm] at 0.104 [s]
Min. -22.2 [Nm] at 0.063 [s]

P2 Left Femur Mx

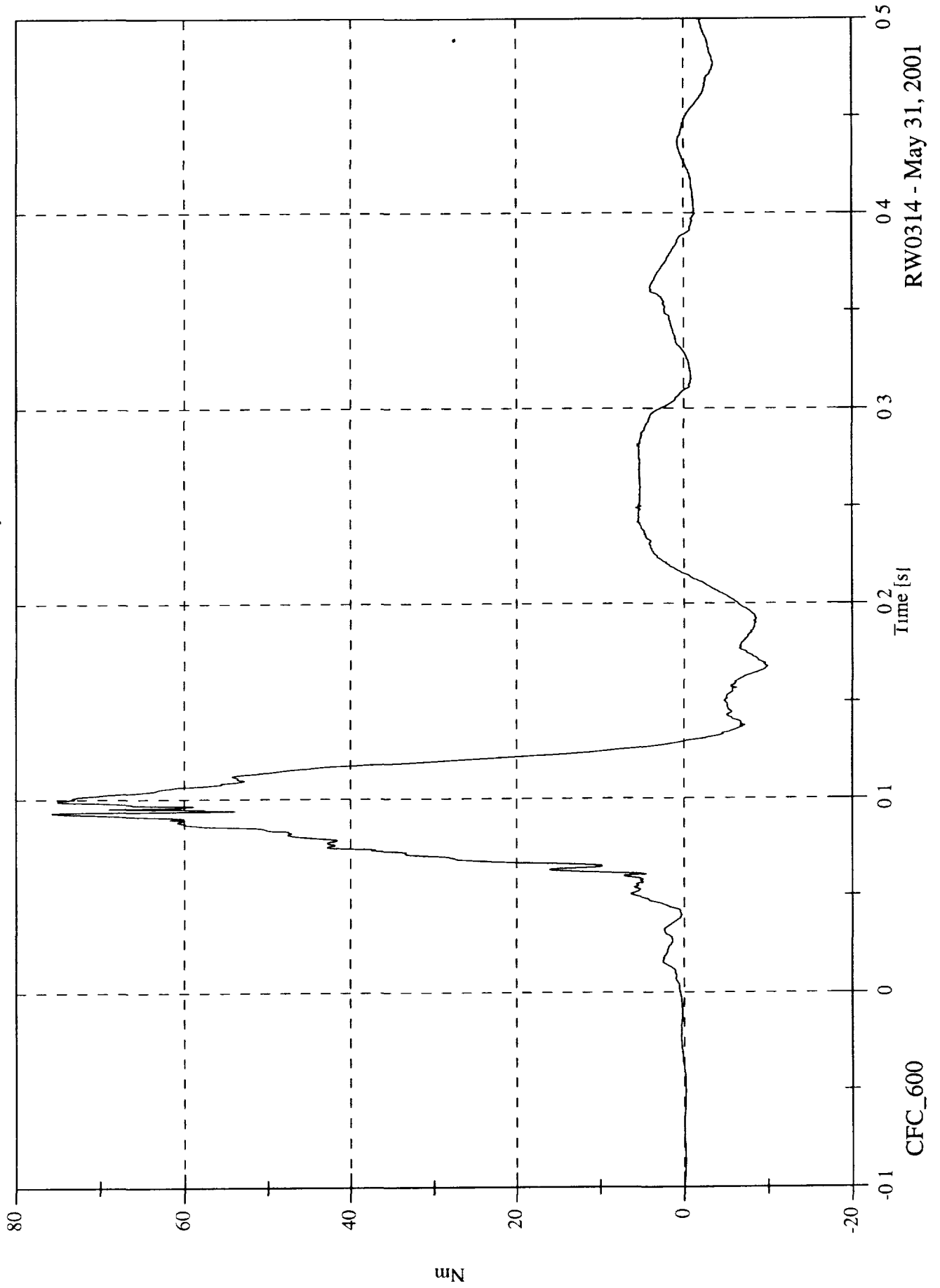


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 75.7 [Nm] at 0.093 [s]
Min: -9.9 [Nm] at 0.168 [s]

P2 Left Femur My

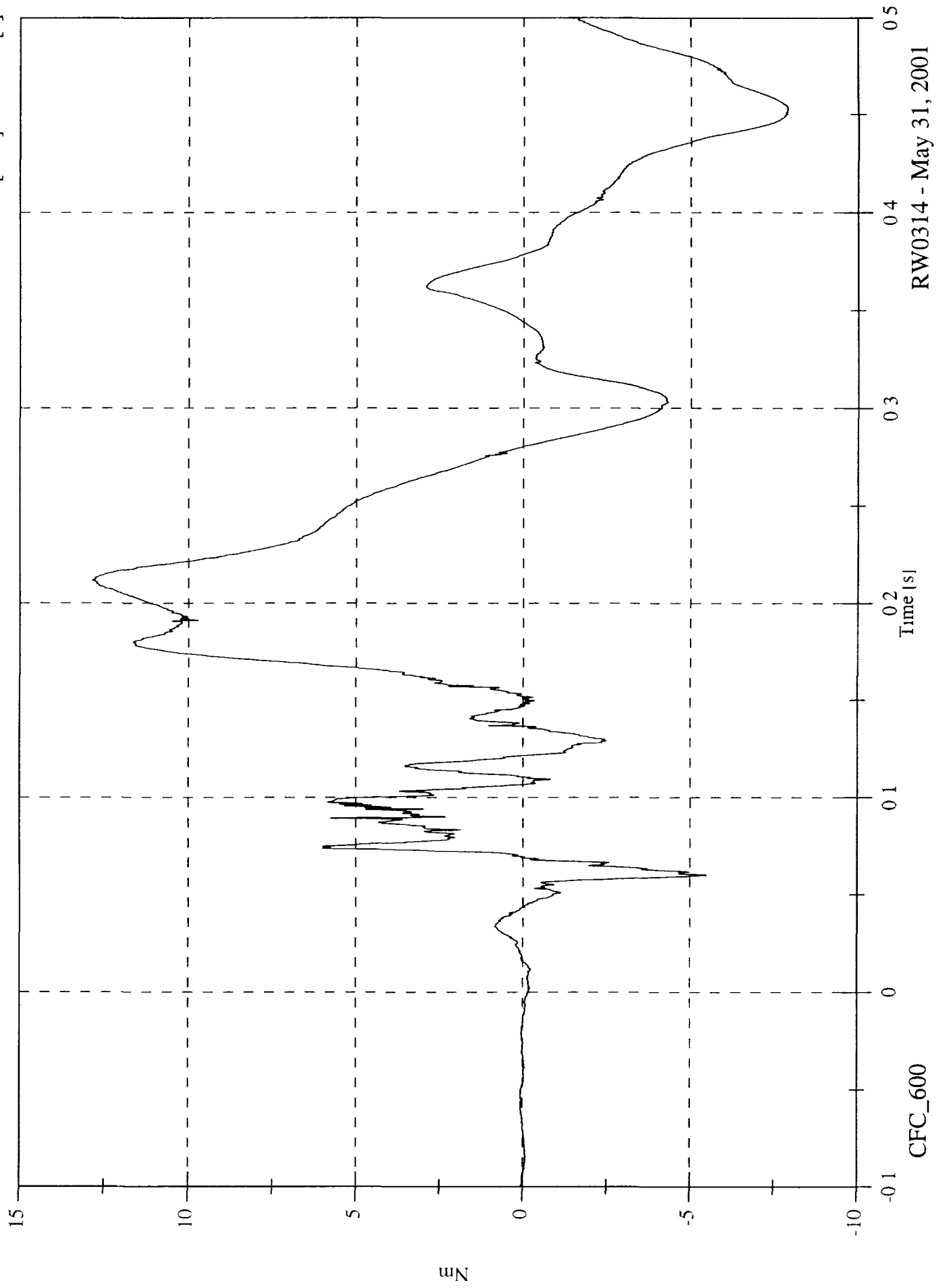


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 12.9 [Nm] at 0.212 [s]
Min. -7.9 [Nm] at 0.453 [s]

P2 Left Femur Mz



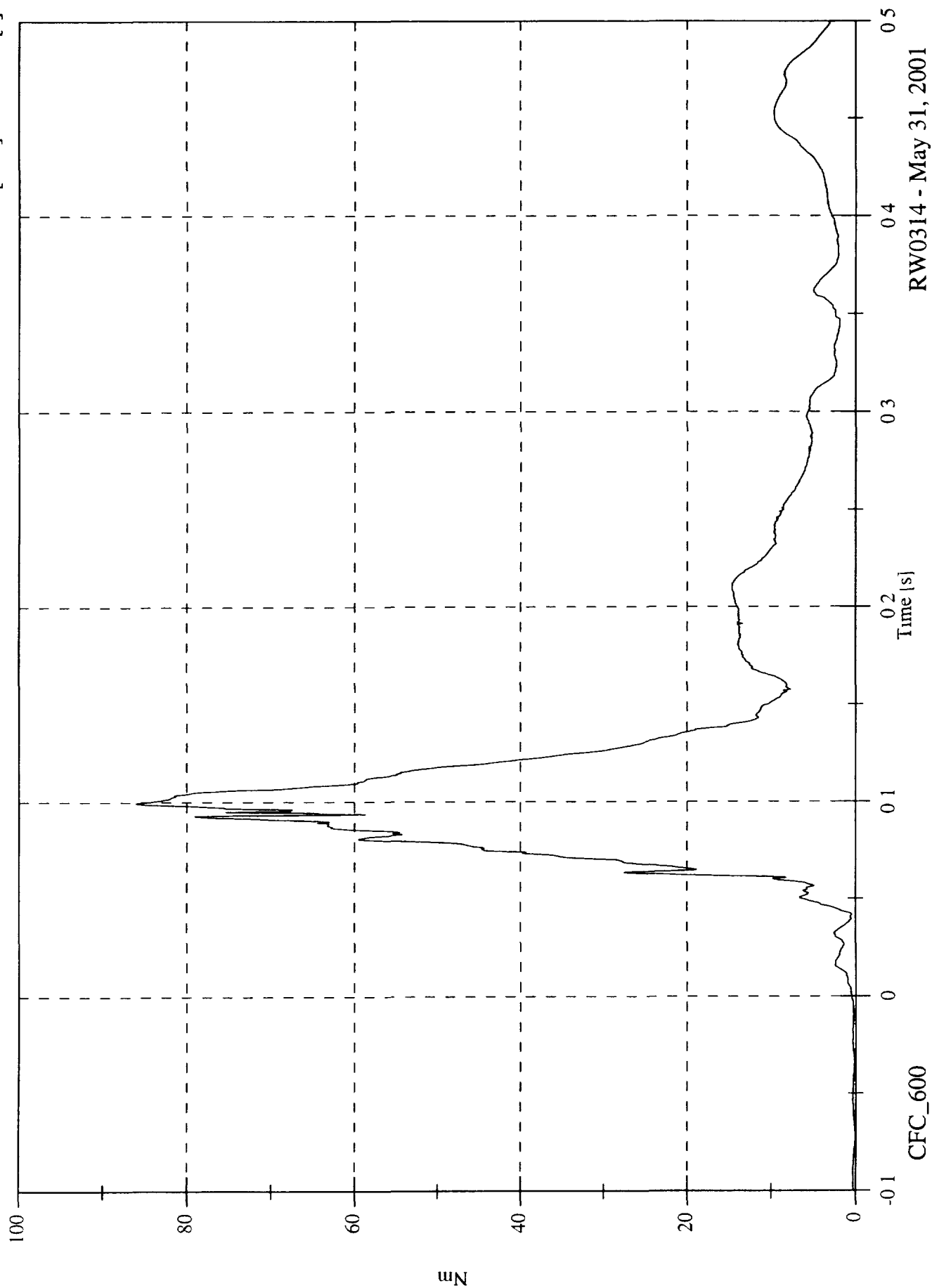
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Femur M Resultant

Max: 86.1 [Nm] at 0.099 [s]

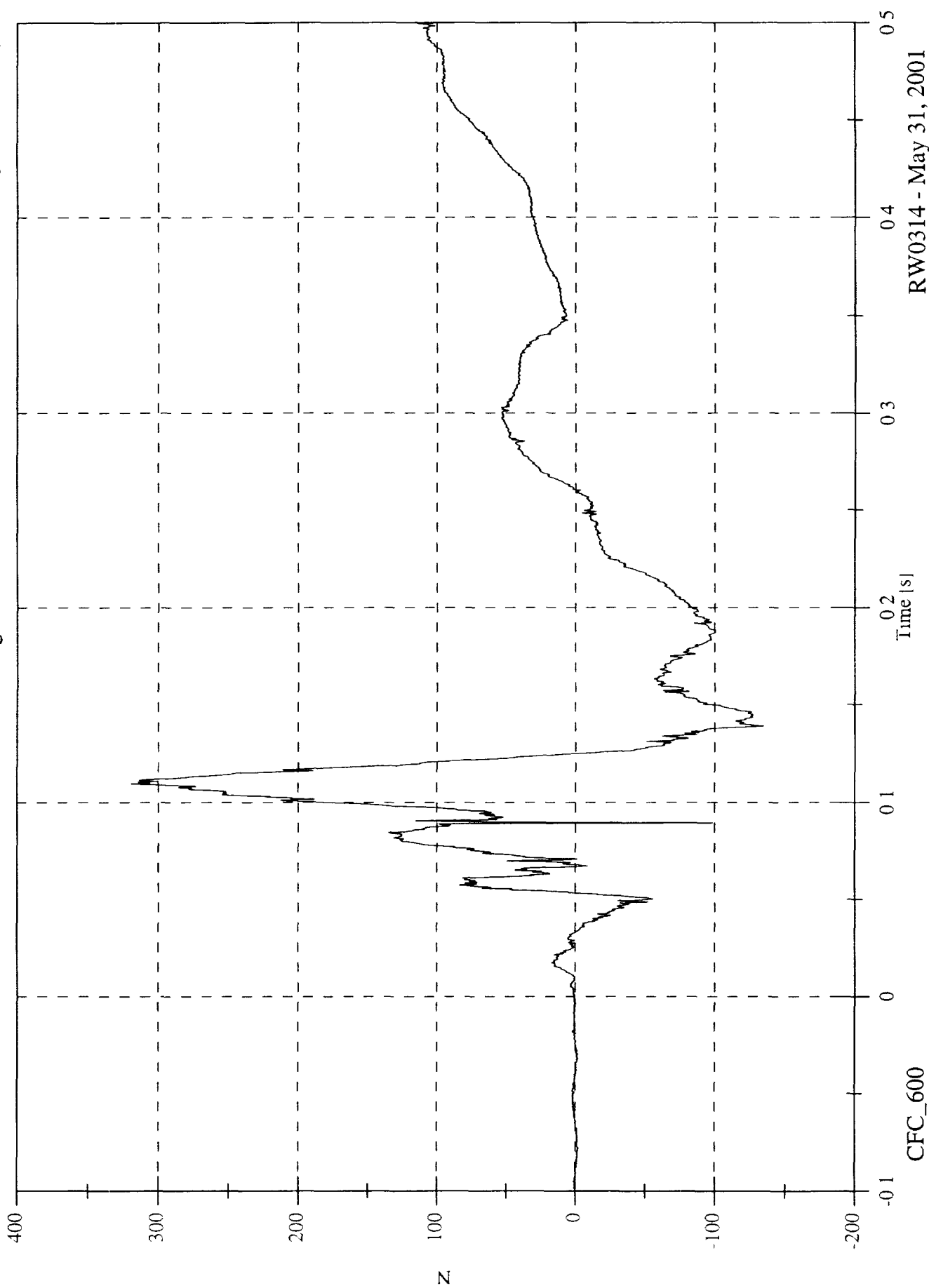
Min: 0.0 [Nm] at -0.100 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 319.0 [N] at 0.110 [s]
Min: -134.7 [N] at 0.139 [s]

P2 Right Femur Fx

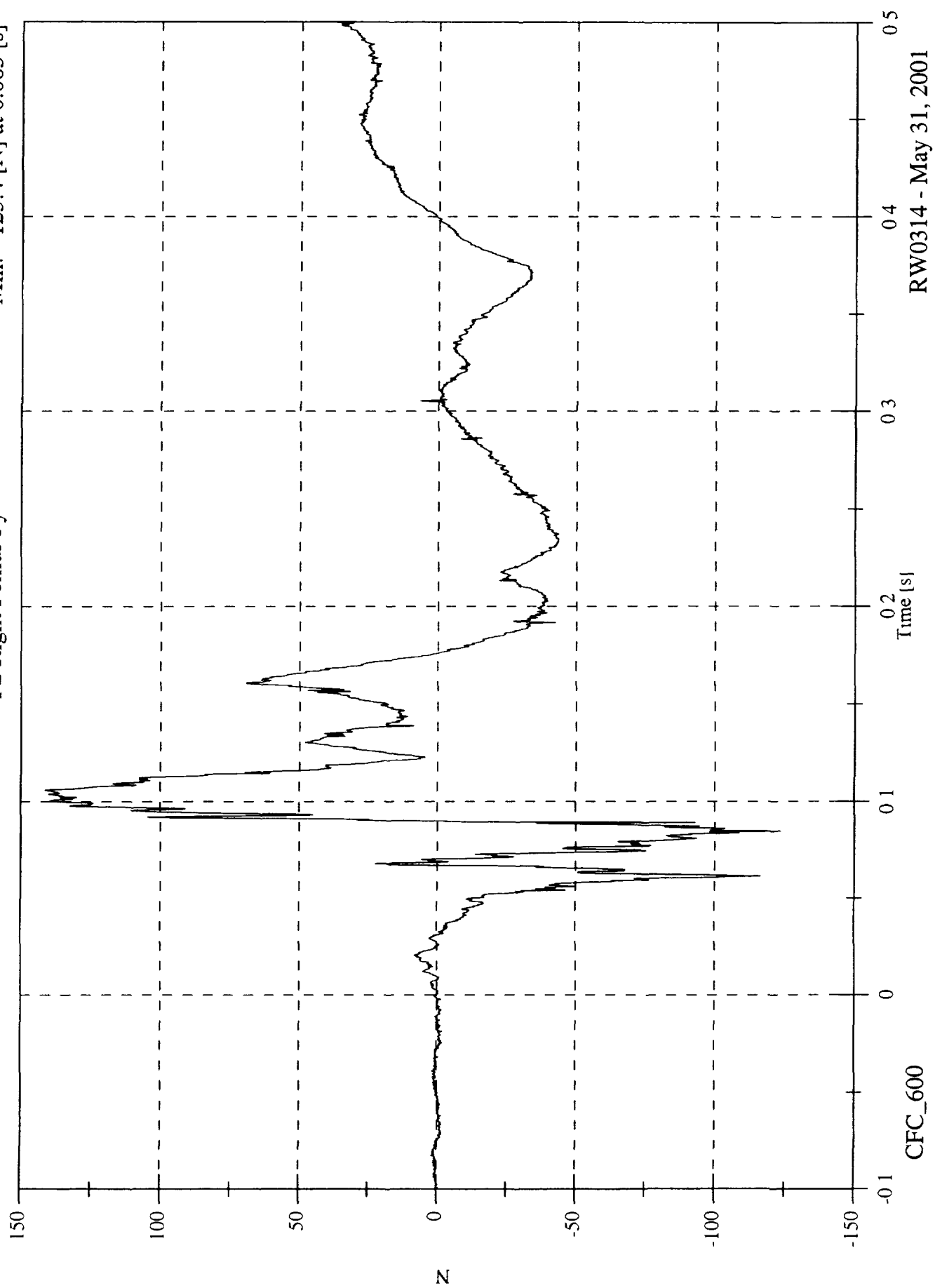


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 141.2 [N] at 0.106 [s]
Min: -123.4 [N] at 0.085 [s]

P2 Right Femur Fy

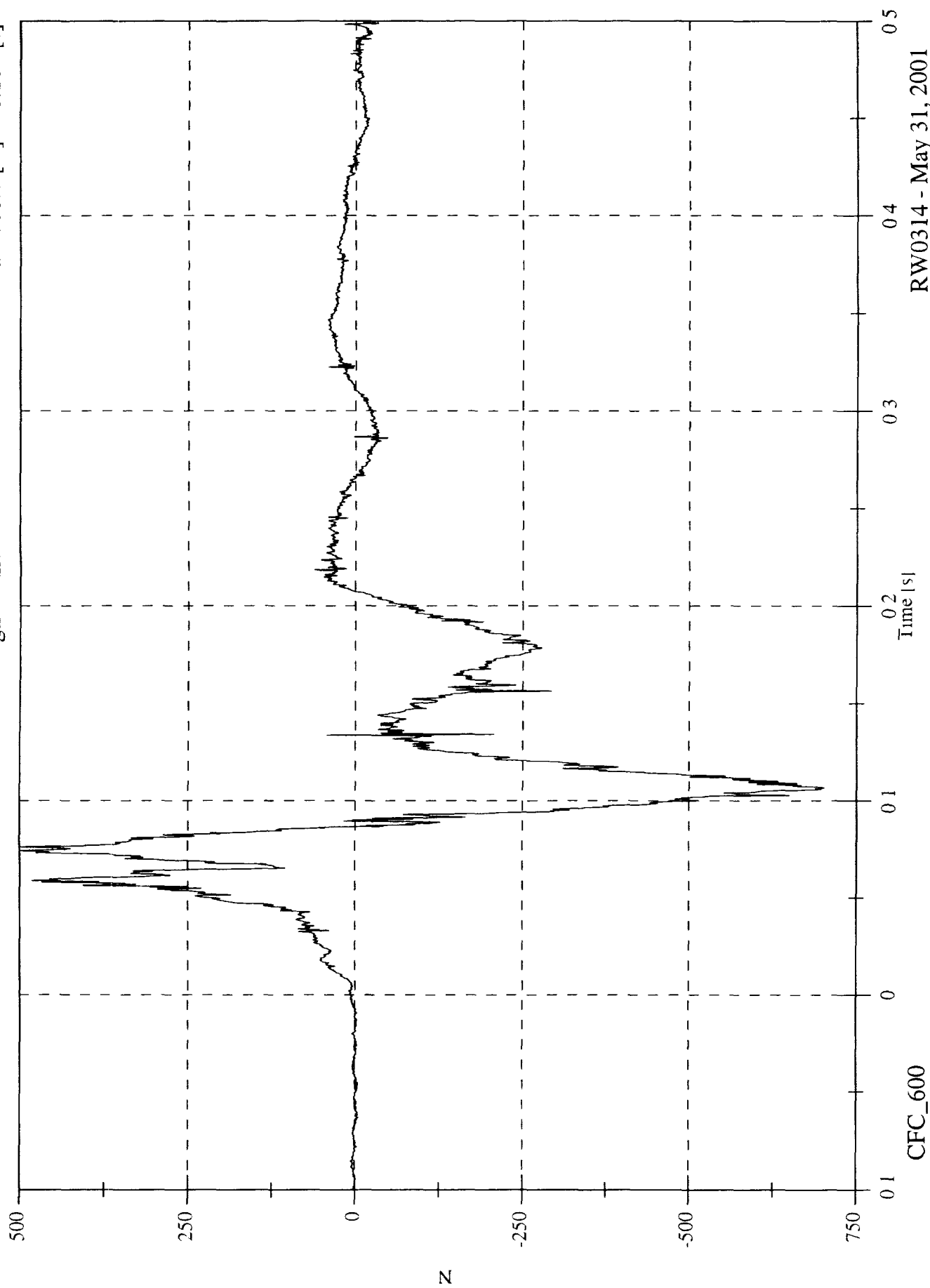


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 498.2 [N] at 0.076 [s]
Min: -700.8 [N] at 0.107 [s]

P2 Right Femur Fz

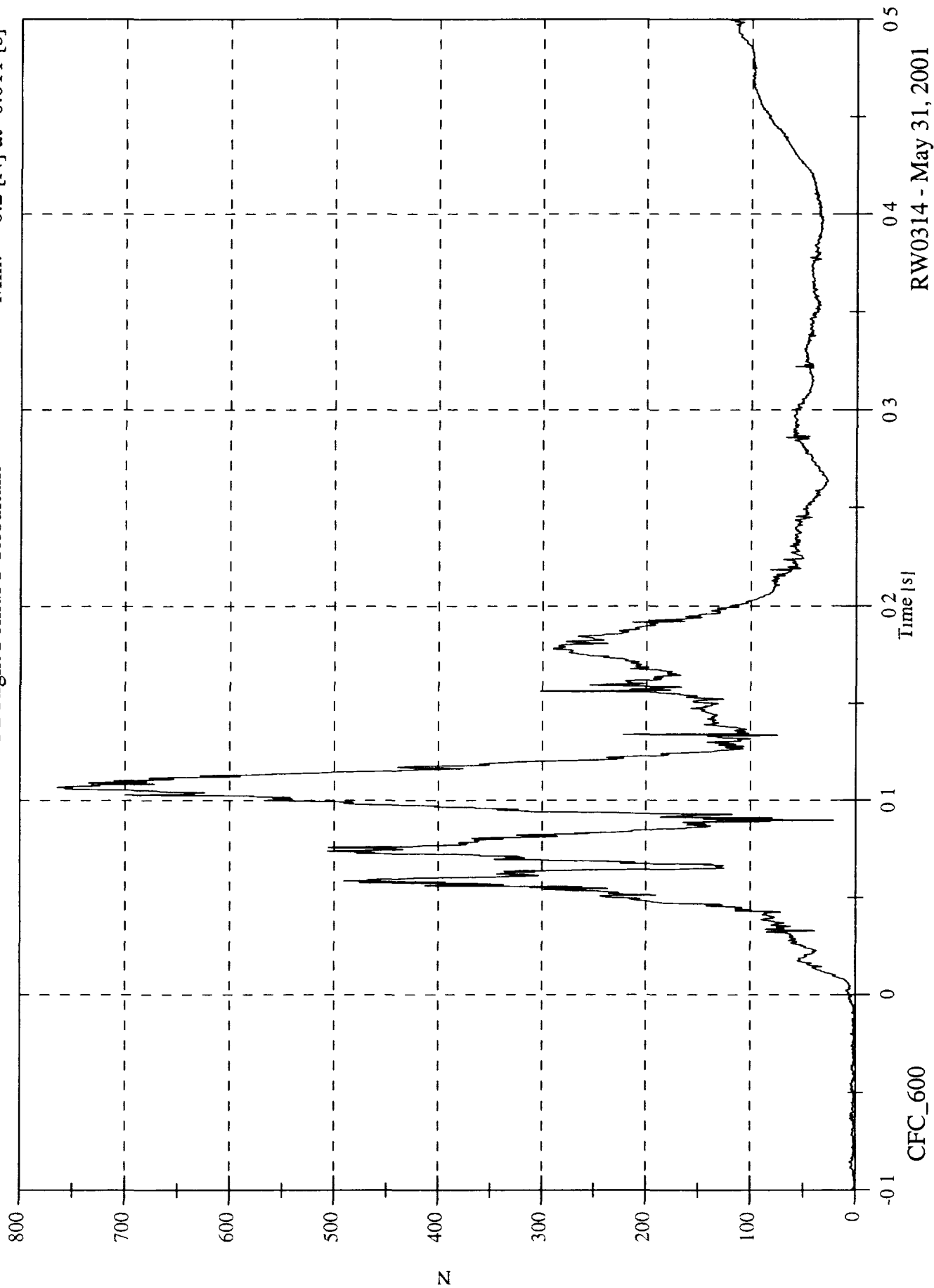


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Femur F Resultant

Max: 764.7 [N] at 0.107 [s]
Min: 0.2 [N] at -0.011 [s]

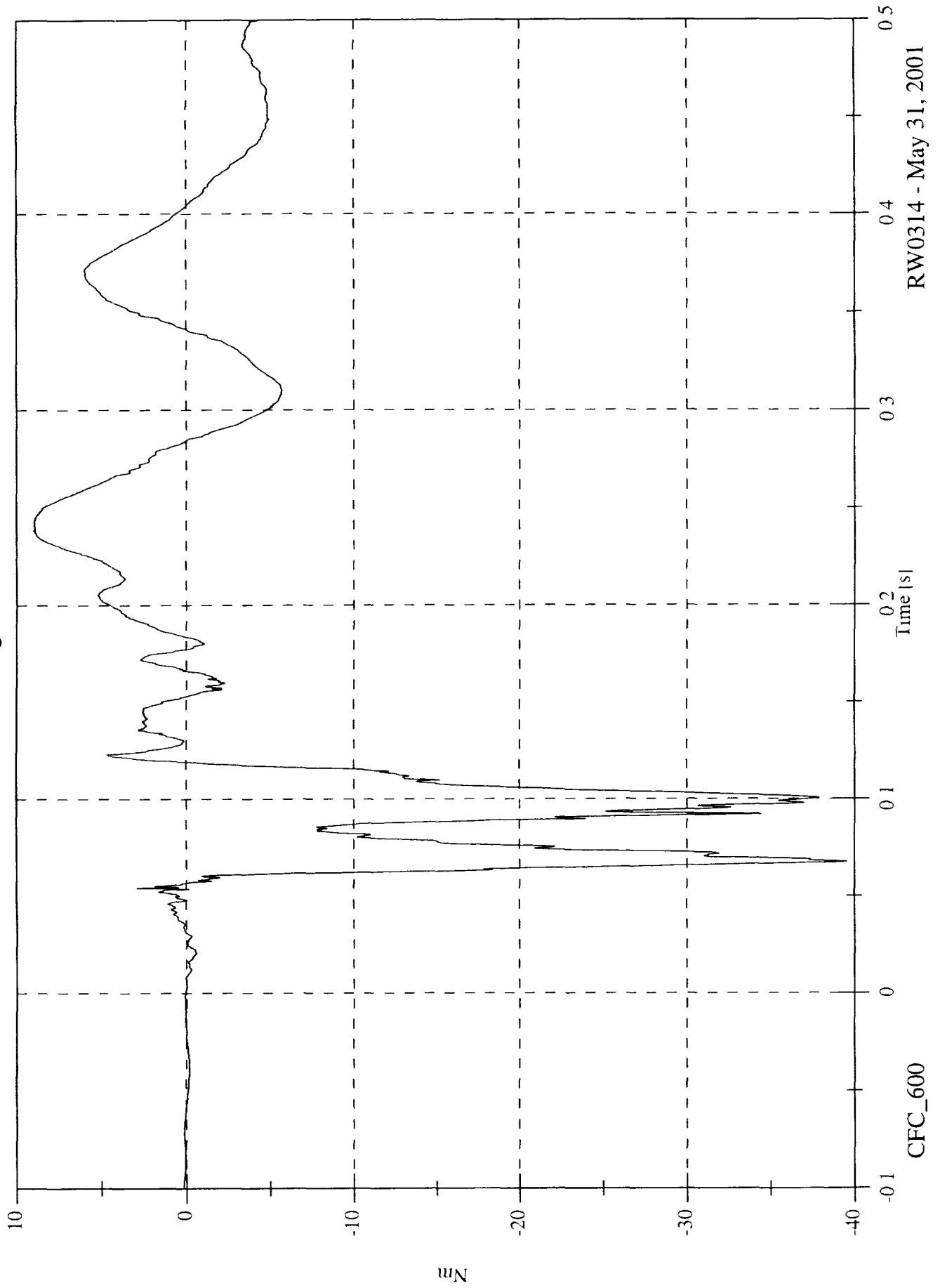


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 9.0 [Nm] at 0.238 [s]
Min: -39.5 [Nm] at 0.068 [s]

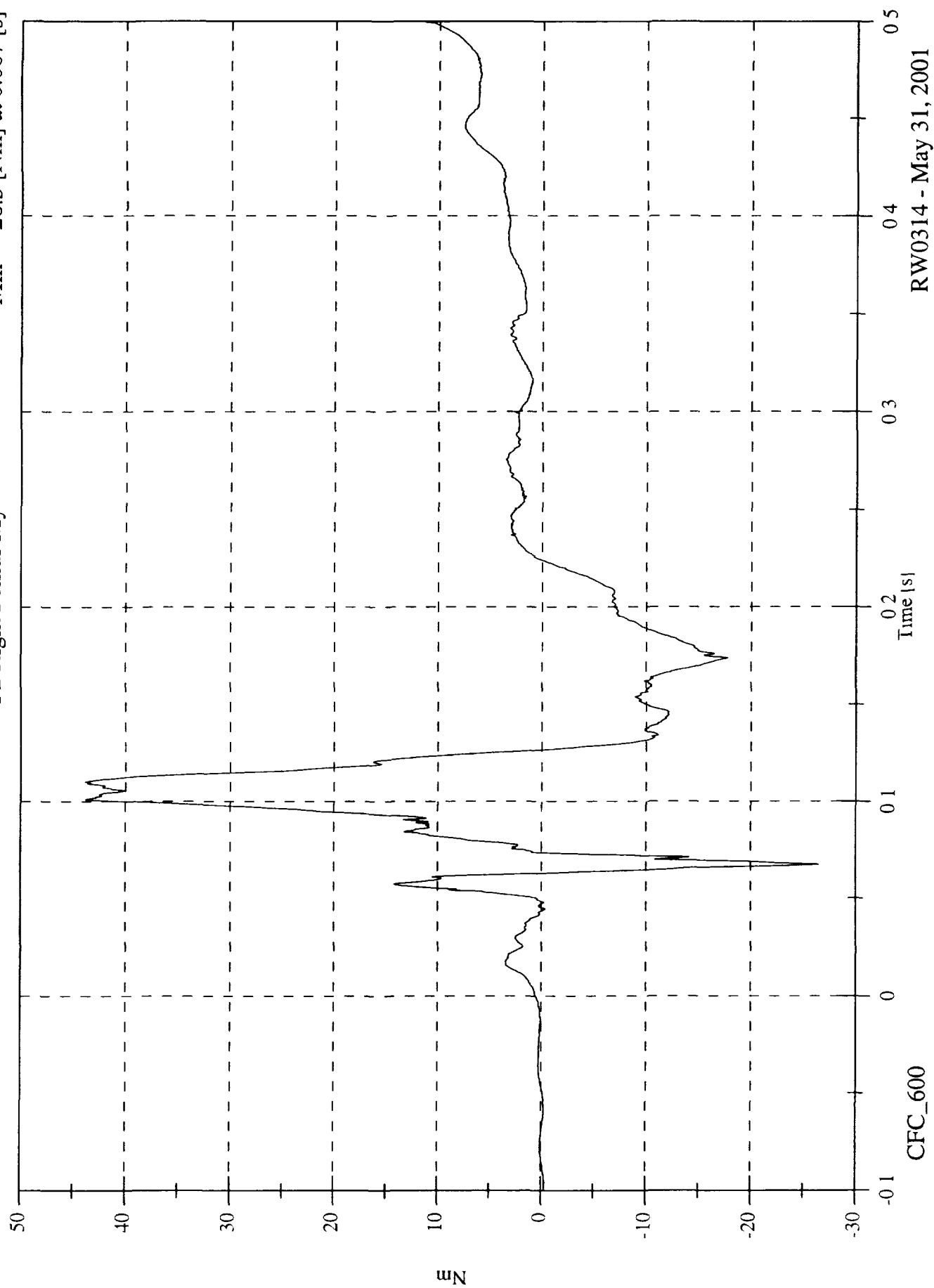
P2 Right Femur Mx



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 43.9 [Nm] at 0.110 [s]
Min: -26.5 [Nm] at 0.067 [s]

P2 Right Femur My



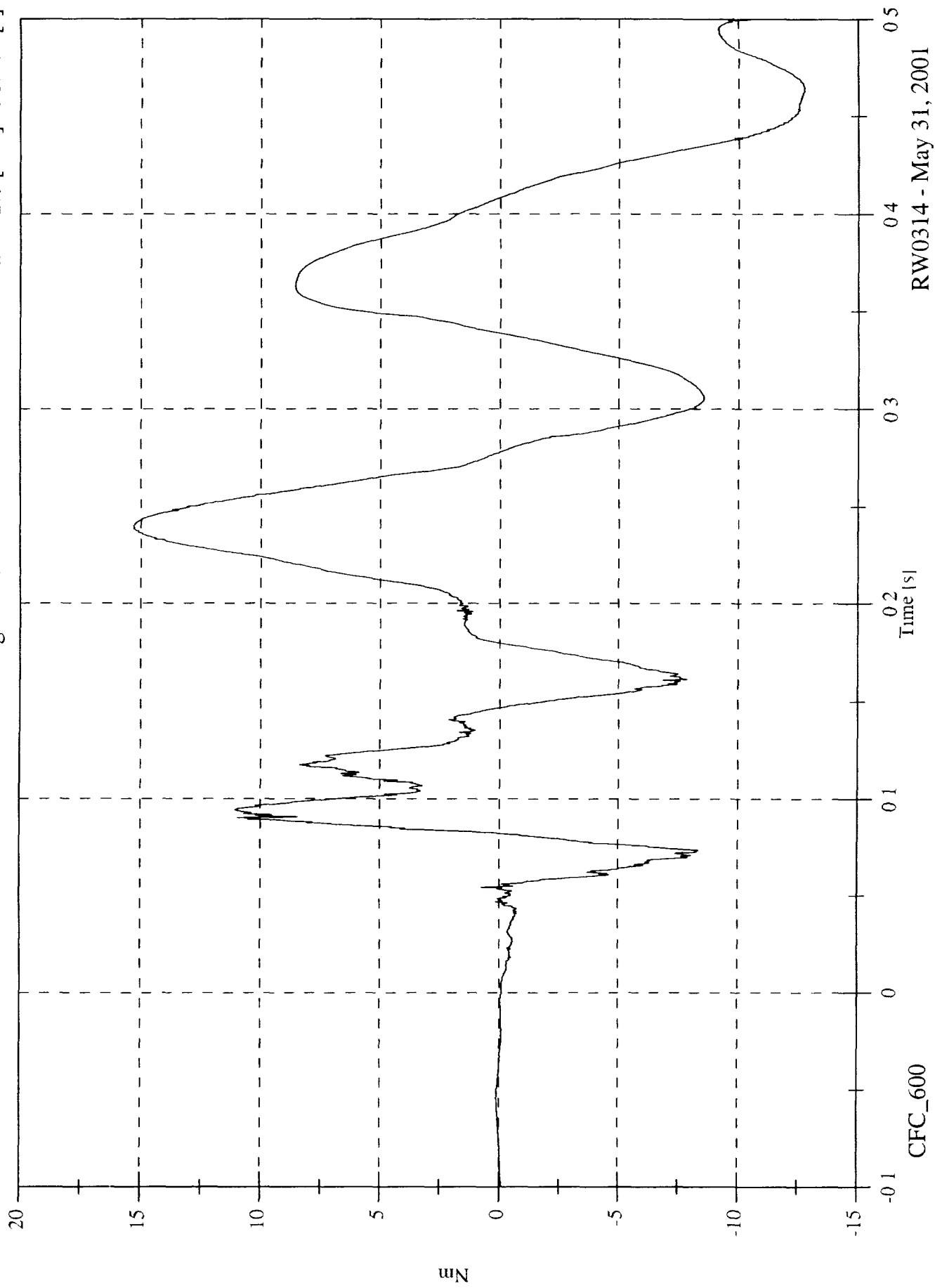
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 15.3 [Nm] at 0.240 [s]
Min: -12.8 [Nm] at 0.464 [s]

P2 Right Femur Mz

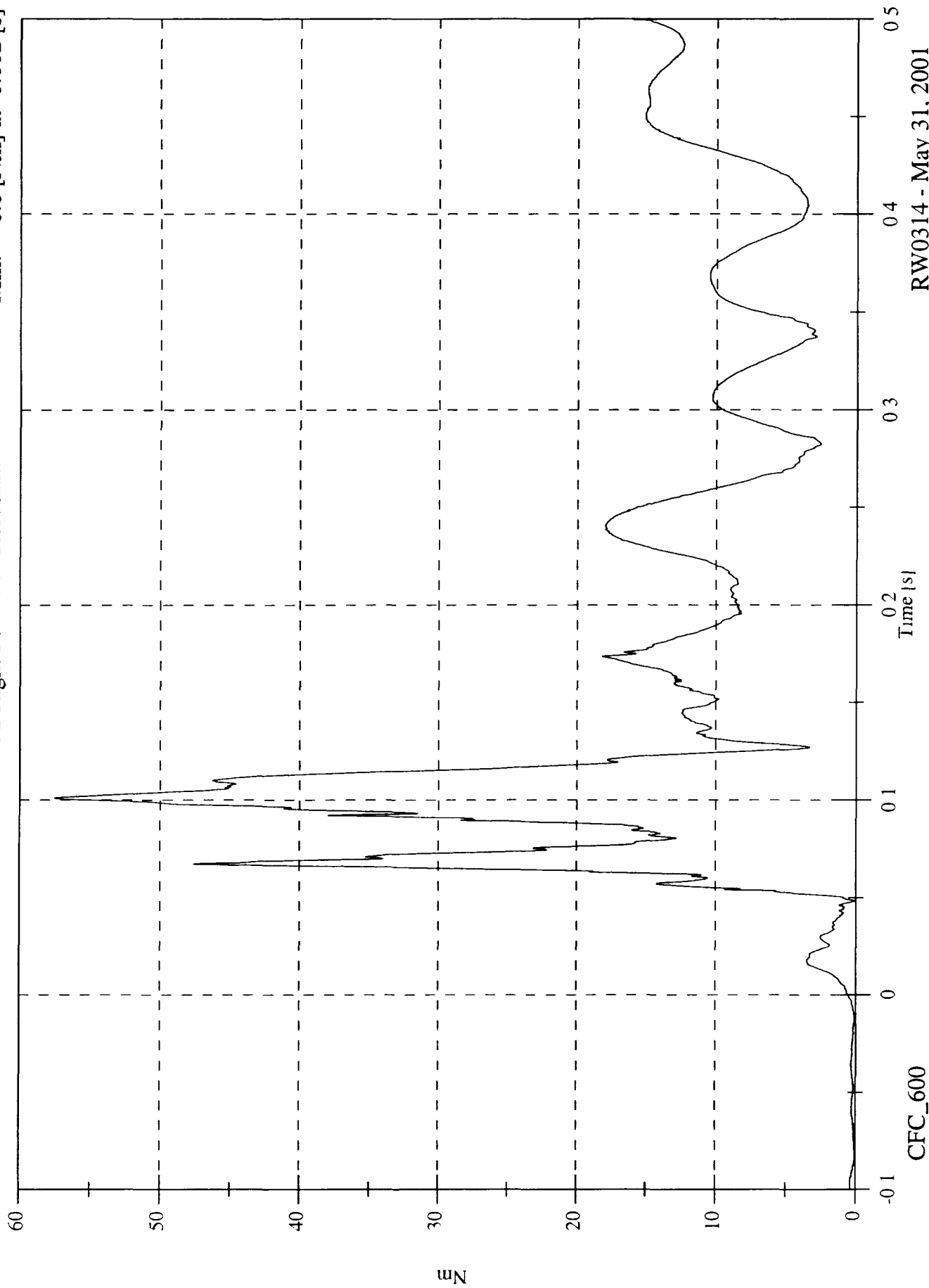


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Femur M Resultant

Max: 57.6 [Nm] at 0.101 [s]
Min: 0.0 [Nm] at -0.082 [s]



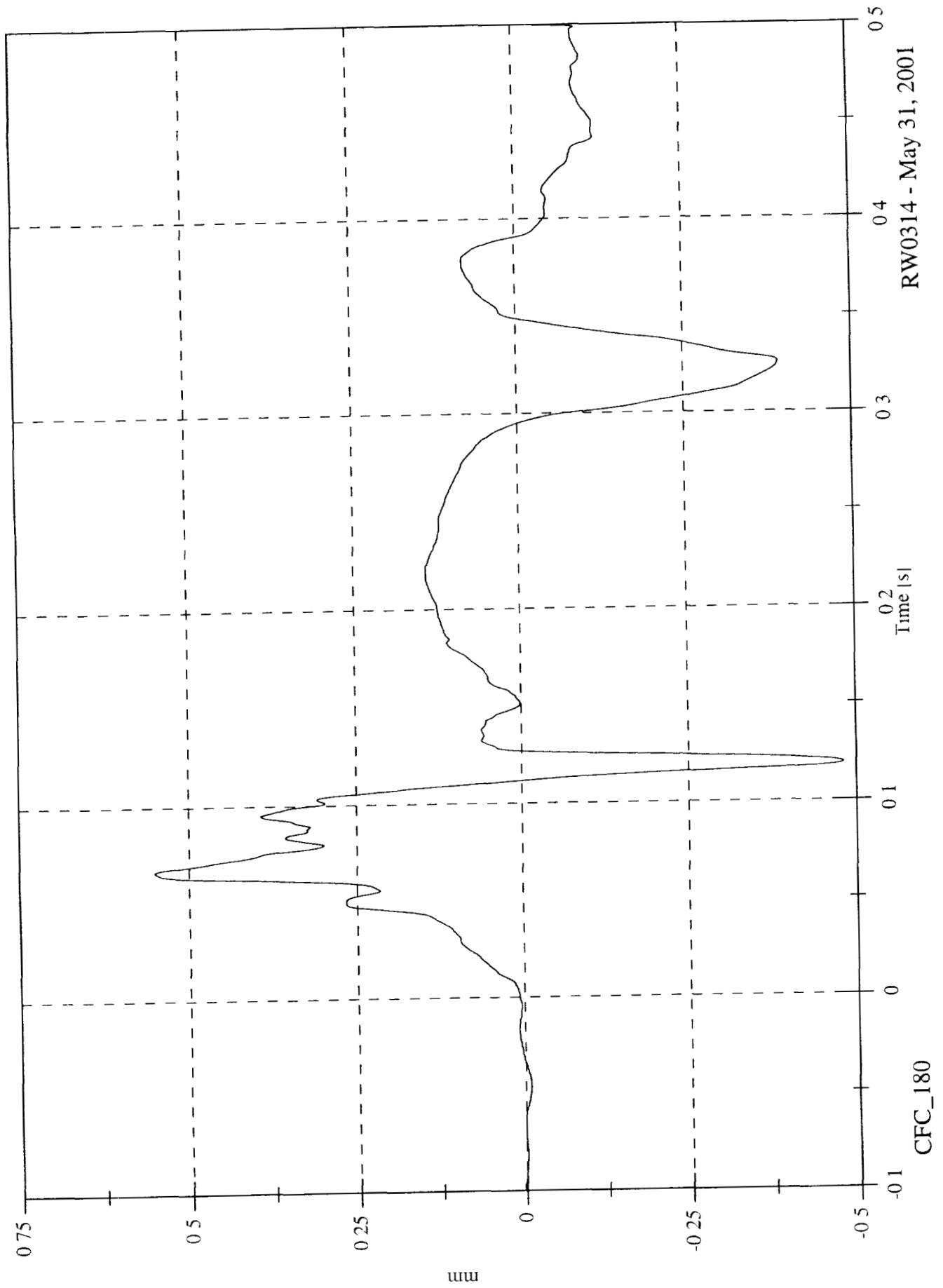
CFC_600

RW0314 - May 31, 2001

Max: 0.6 [mm] at 0.066 [s]
Min: -0.5 [mm] at 0.120 [s]

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Knee Shear Dx



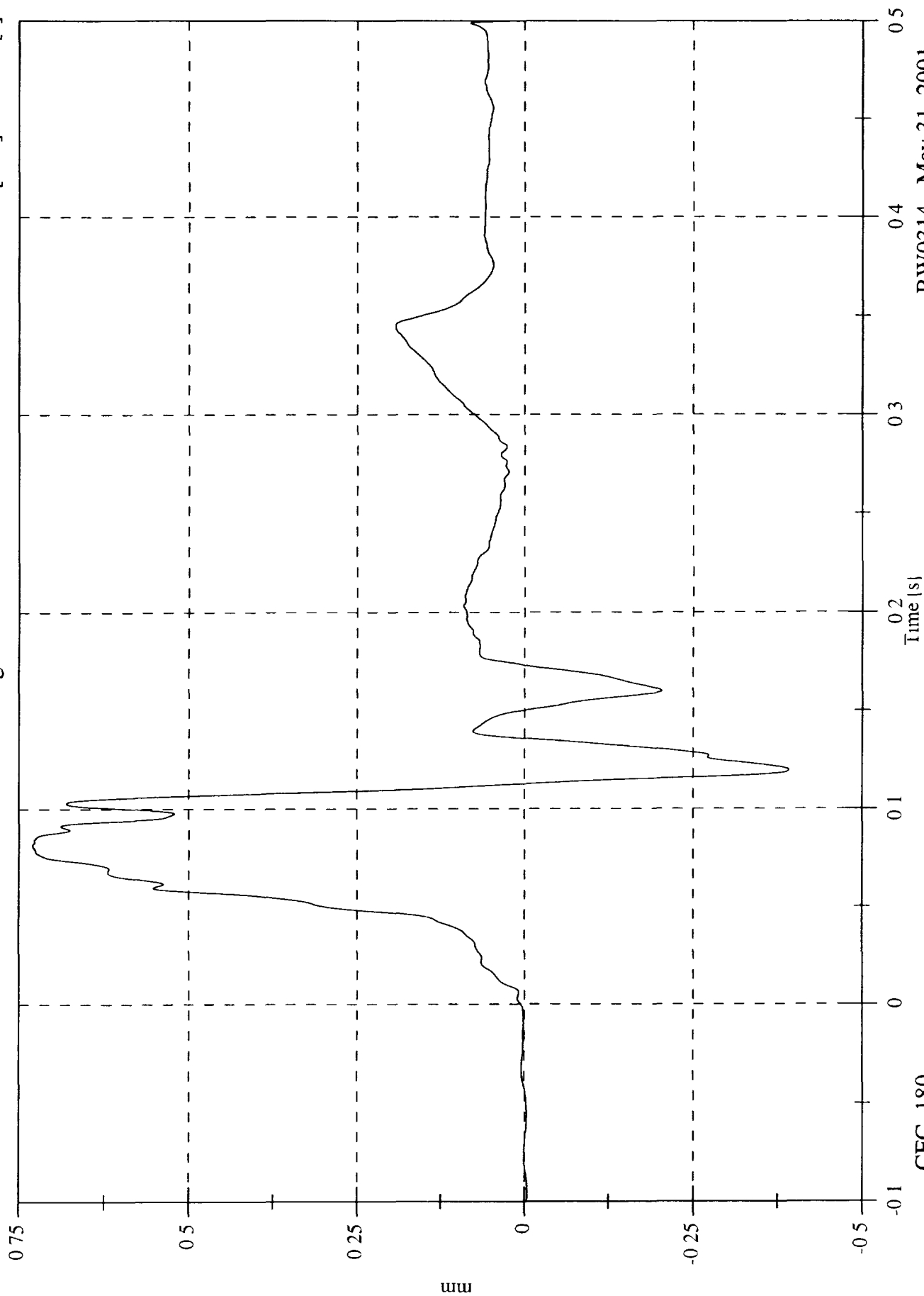
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Knee Shear Dx

Max: 0.7 [mm] at 0.082 [s]

Min: -0.4 [mm] at 0.119 [s]

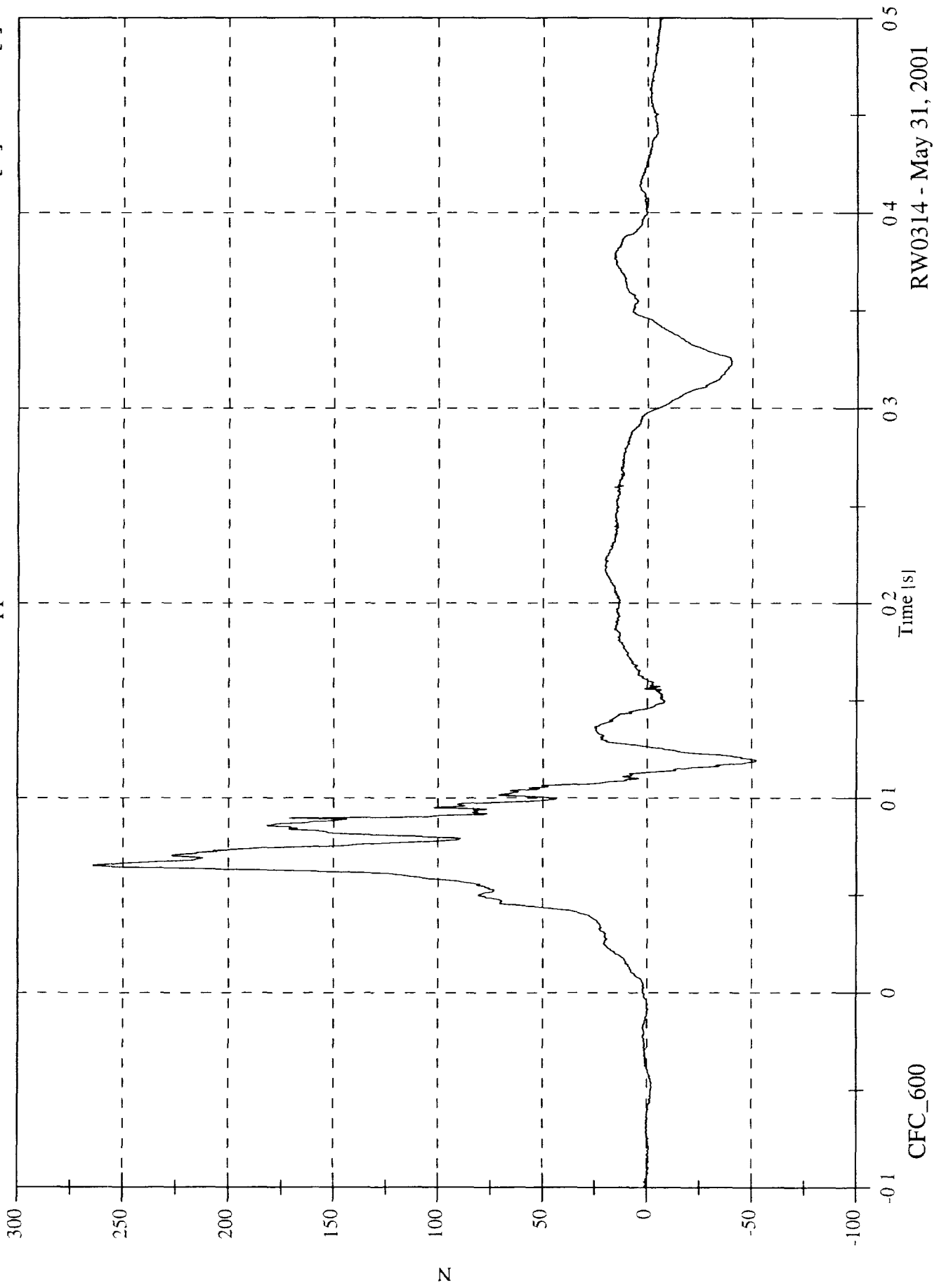


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 264.5 [N] at 0.065 [s]
Min: -52.3 [N] at 0.119 [s]

P2 Left Upper Tibia Fx

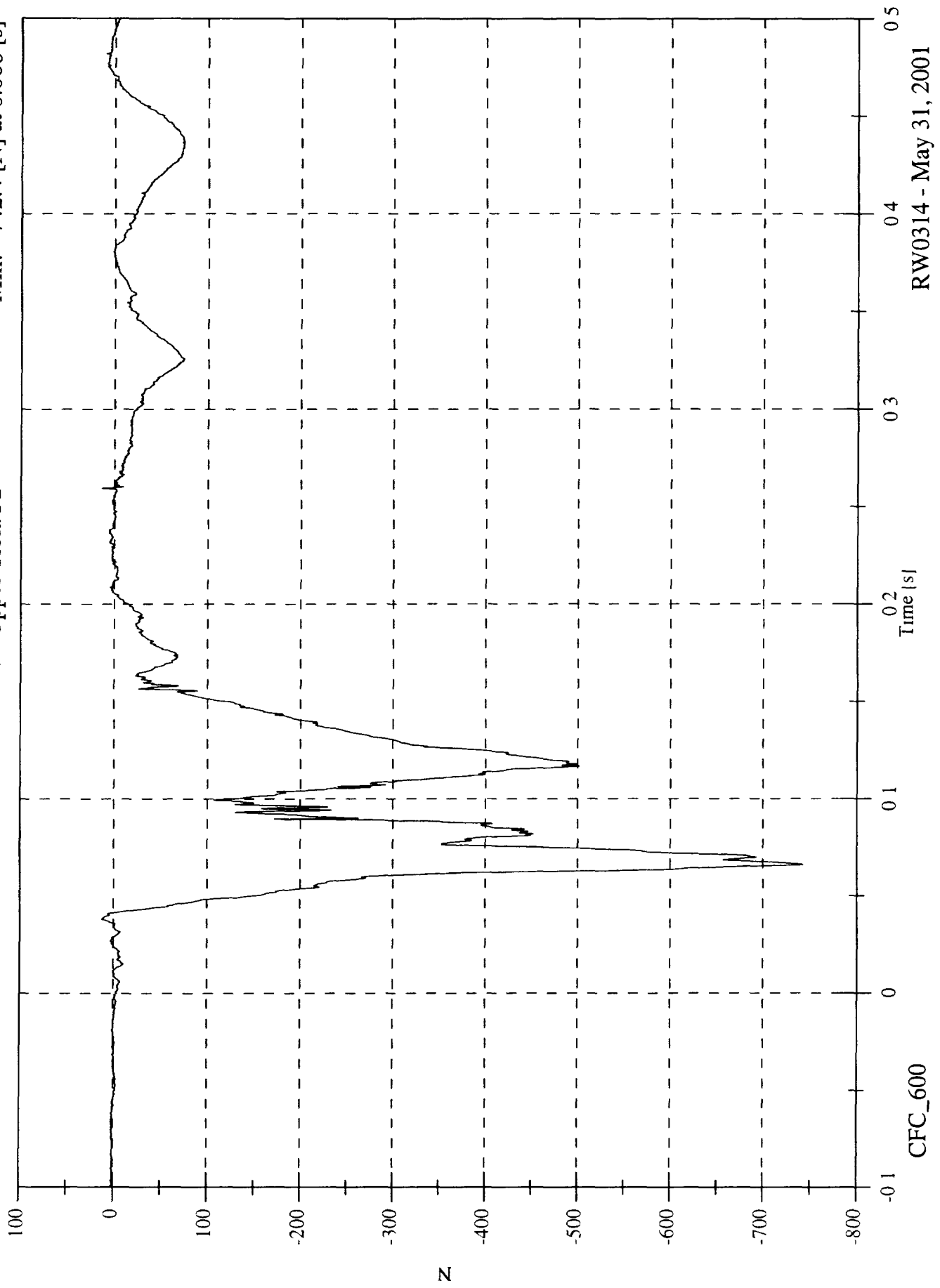


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Upper Tibia Fz

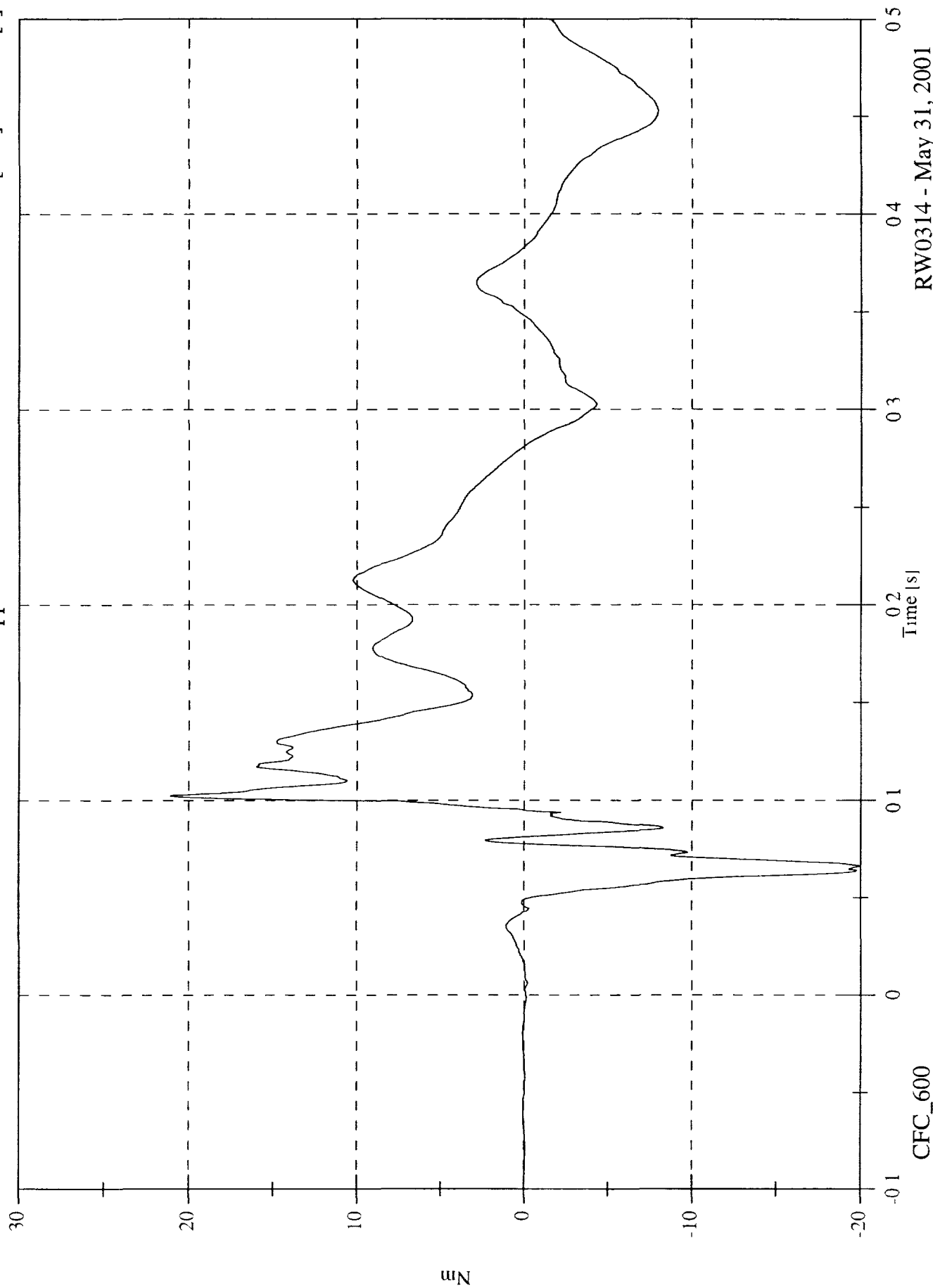
Max: 13.2 [N] at 0.260 [s]
Min: -742.4 [N] at 0.066 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 21.1 [Nm] at 0.102 [s]
Min. -20.0 [Nm] at 0.066 [s]

P2 Left Upper Tibia Mx

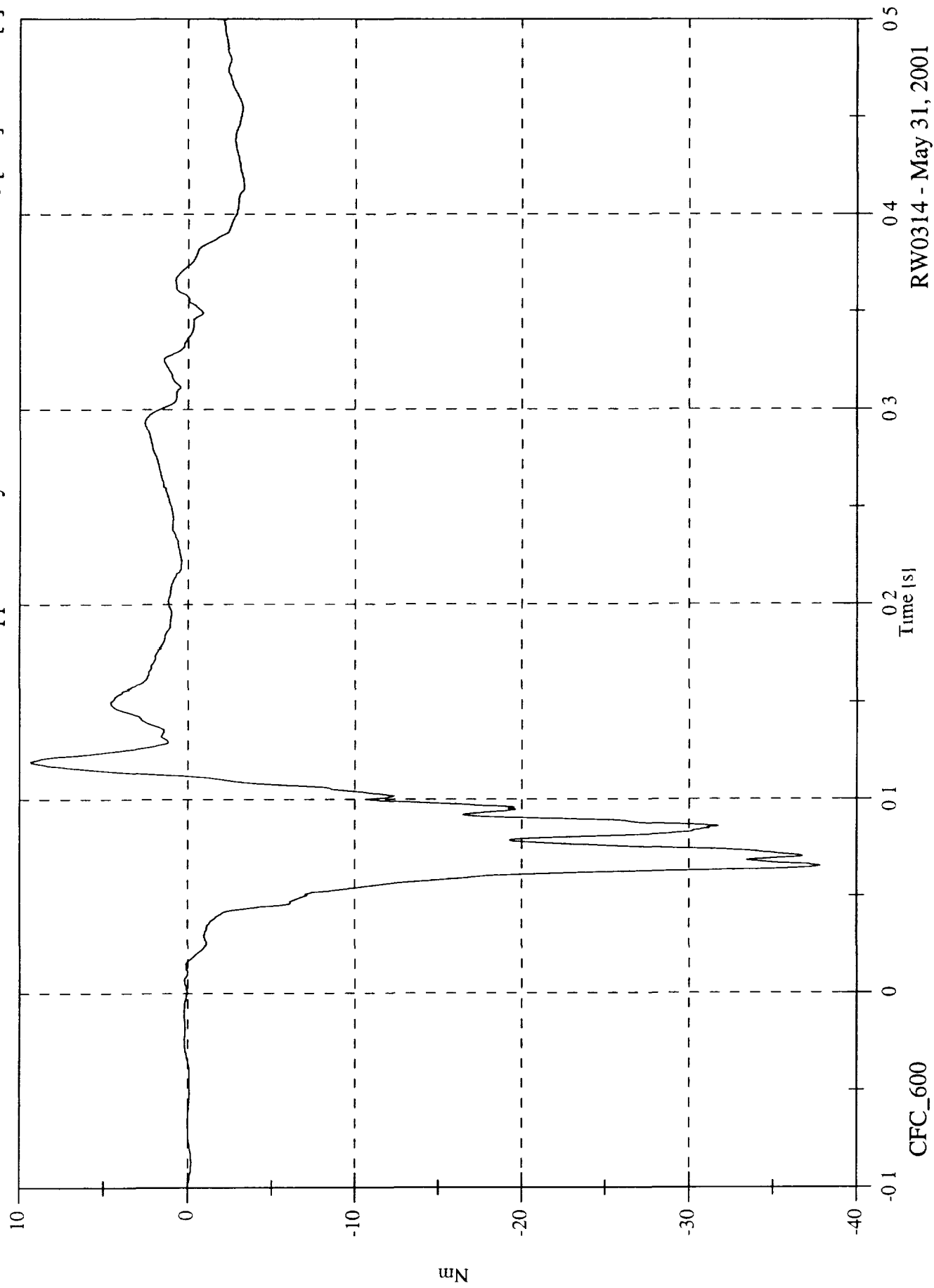


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Upper Tibia My

Max: 9.3 [Nm] at 0.119 [s]
Min: -37.8 [Nm] at 0.065 [s]

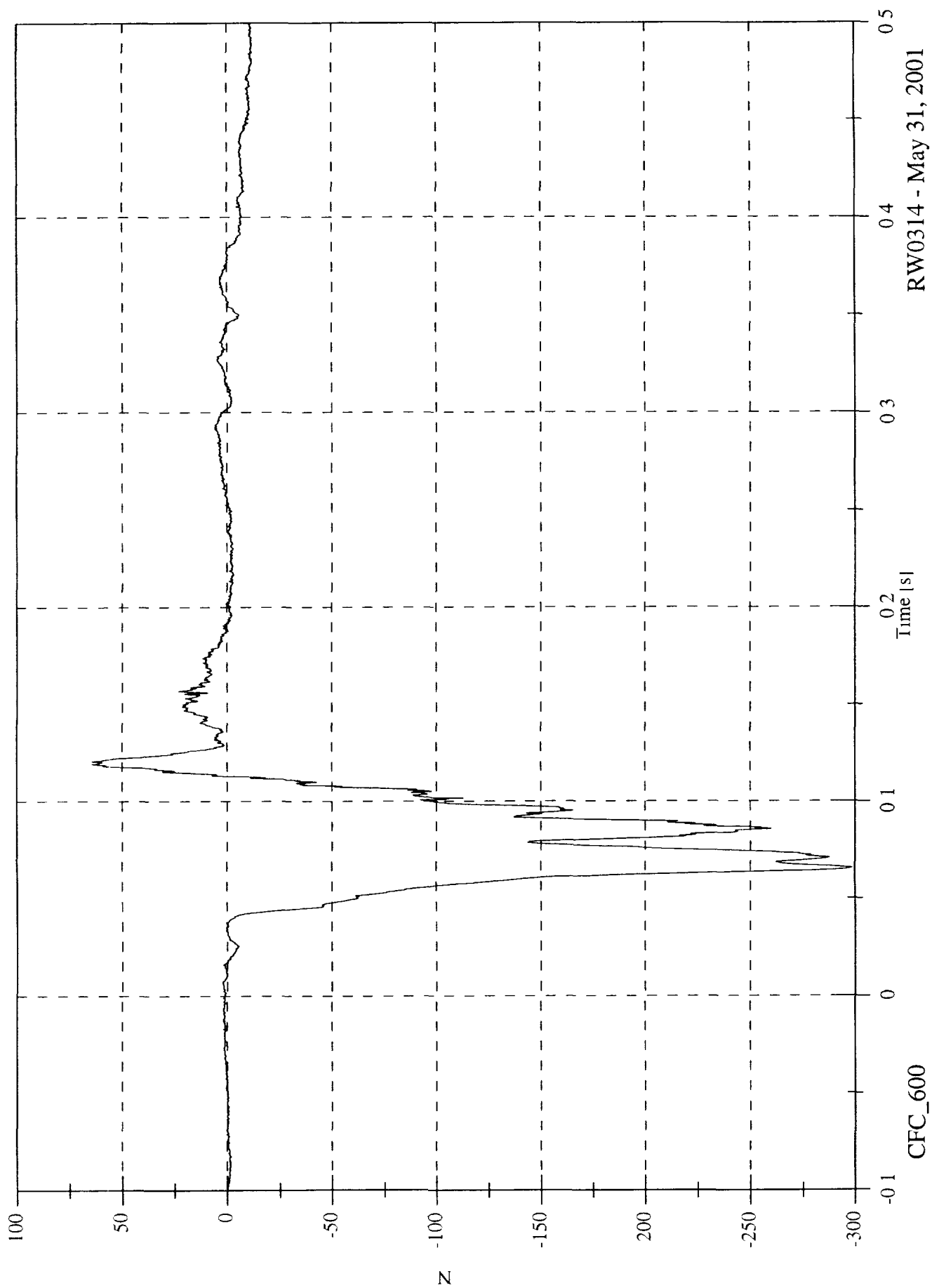


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 64.1 [N] at 0.119 [s]
Min: -298.5 [N] at 0.065 [s]

P2 Left Lower Tibia Fx

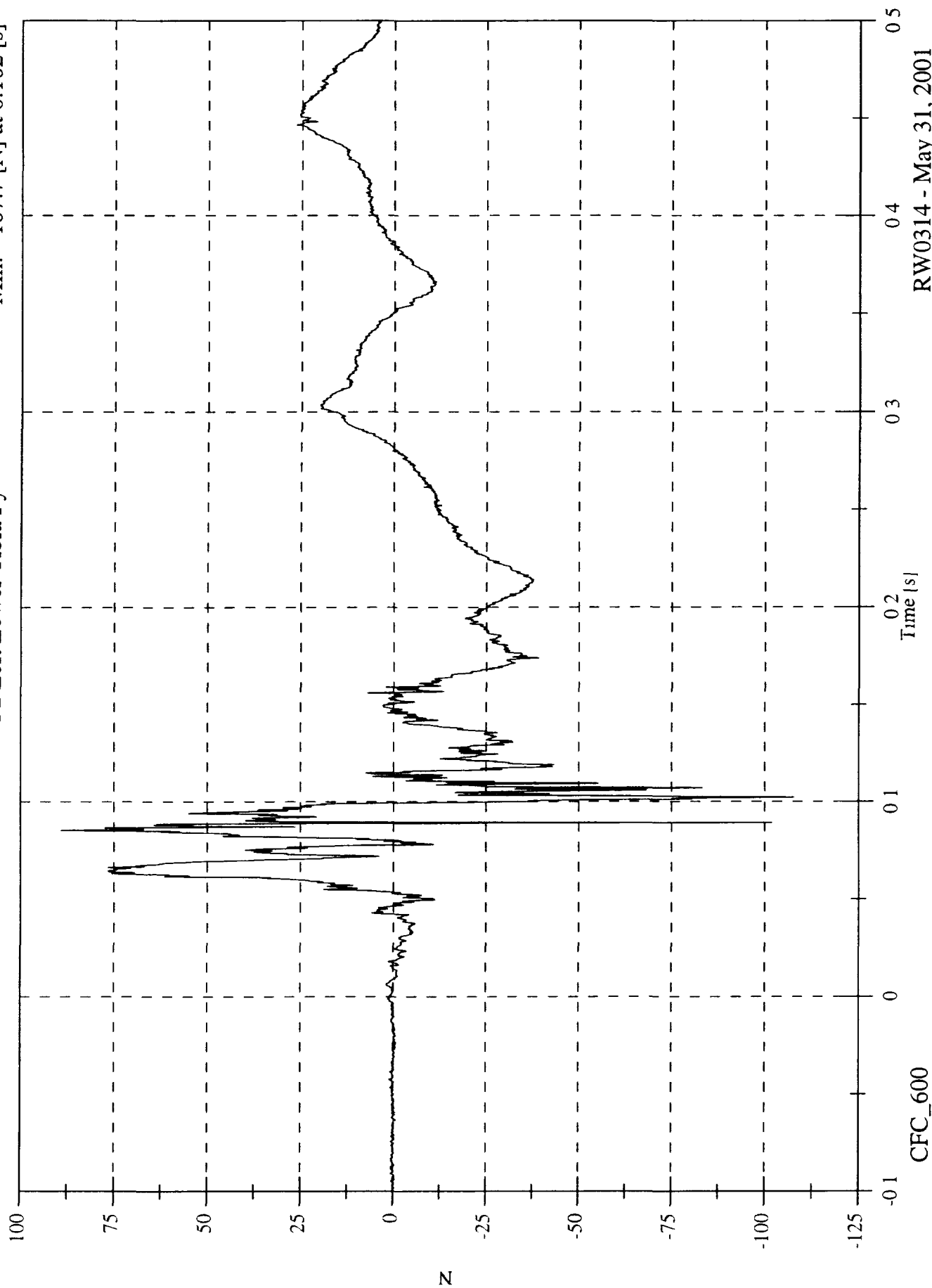


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Lower Tibia Fy

Max: 89.1 [N] at 0.085 [s]
Min: -107.7 [N] at 0.102 [s]

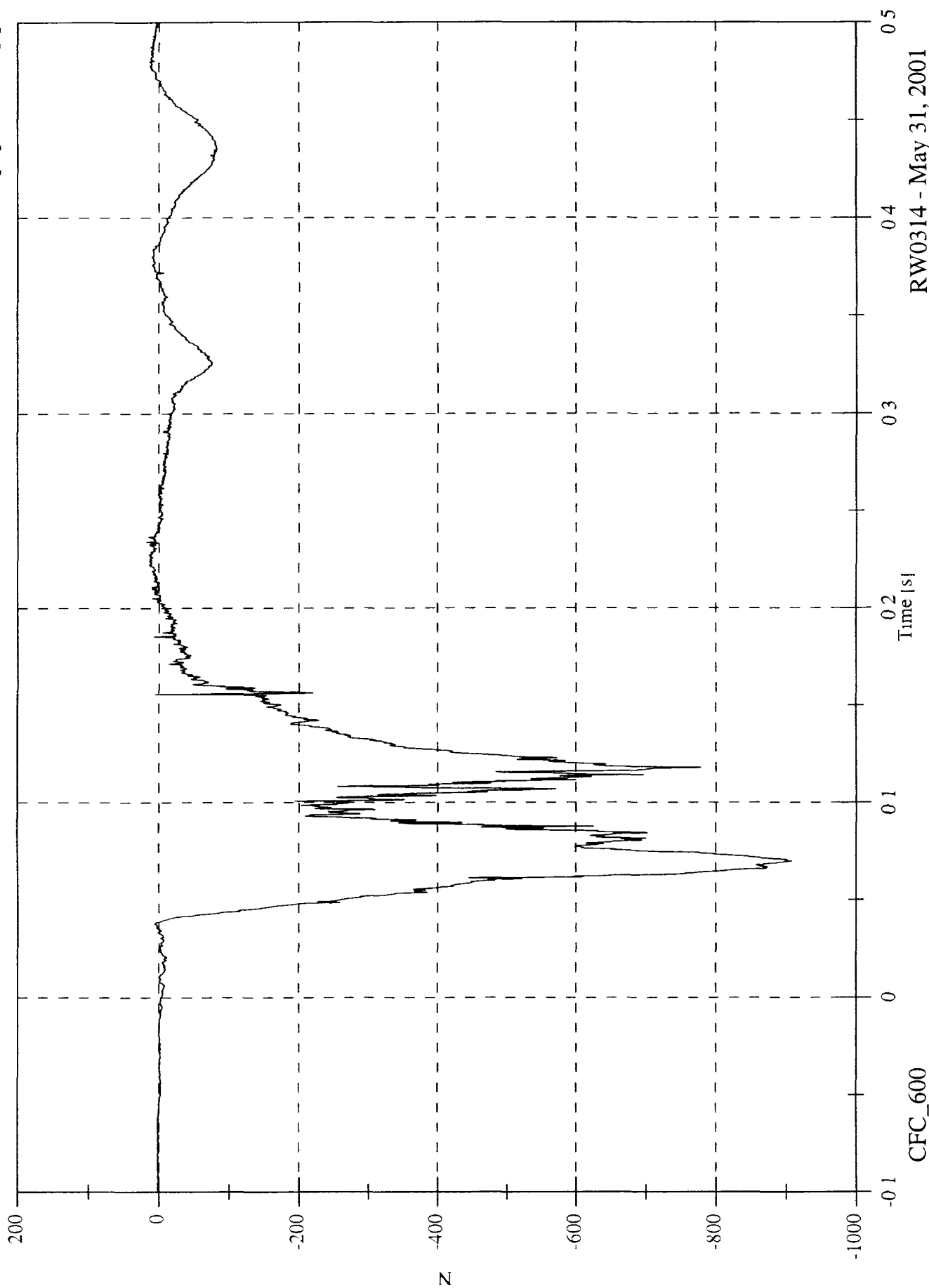


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 17.0 [N] at 0.234 [s]
Min: -908.1 [N] at 0.070 [s]

P2 Left Lower Tibia Fz



CFC_600

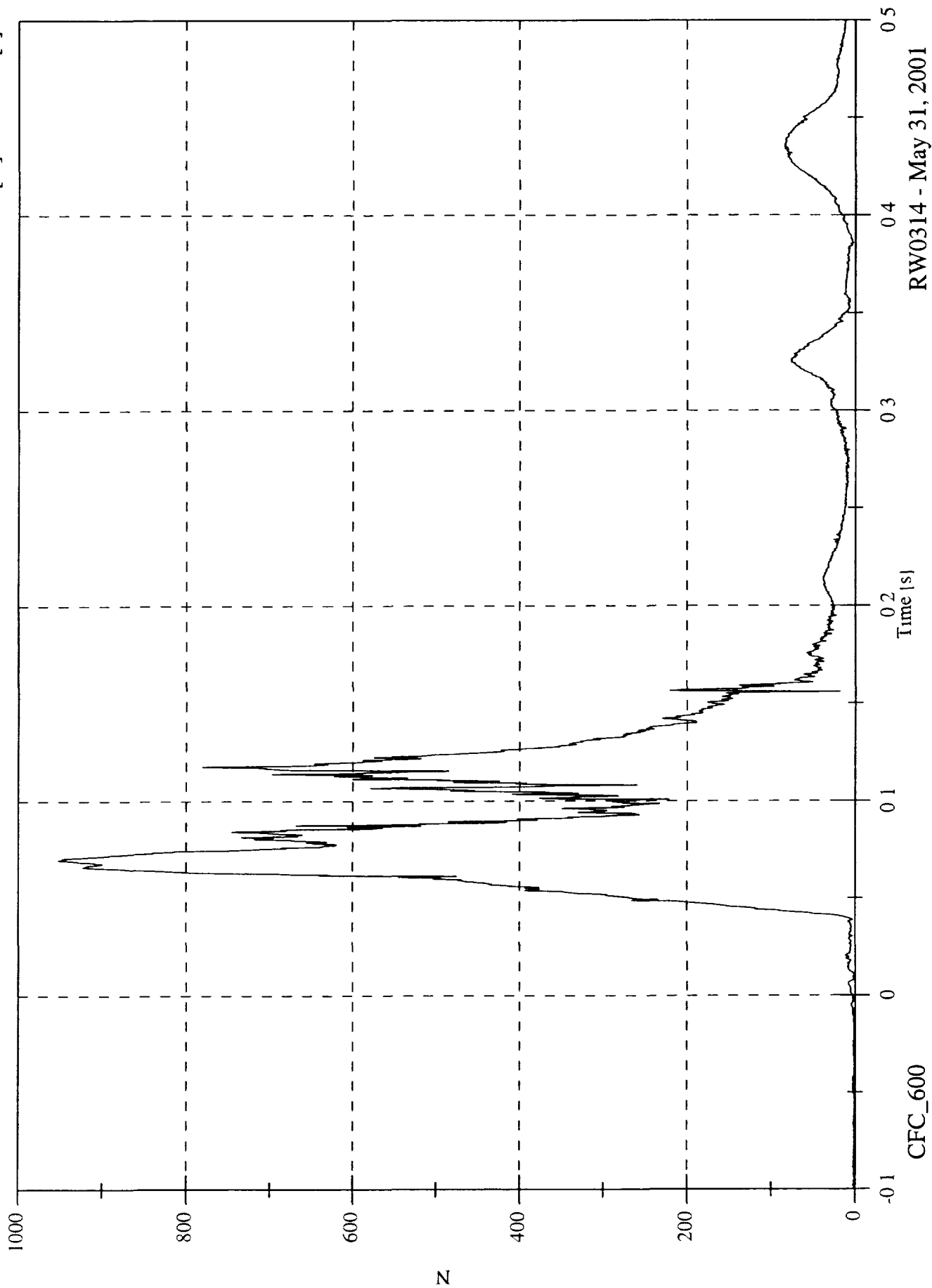
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Lower Tibia F Resultant

Max: 951.5 [N] at 0.070 [s]
Min: 0.0 [N] at -0.054 [s]

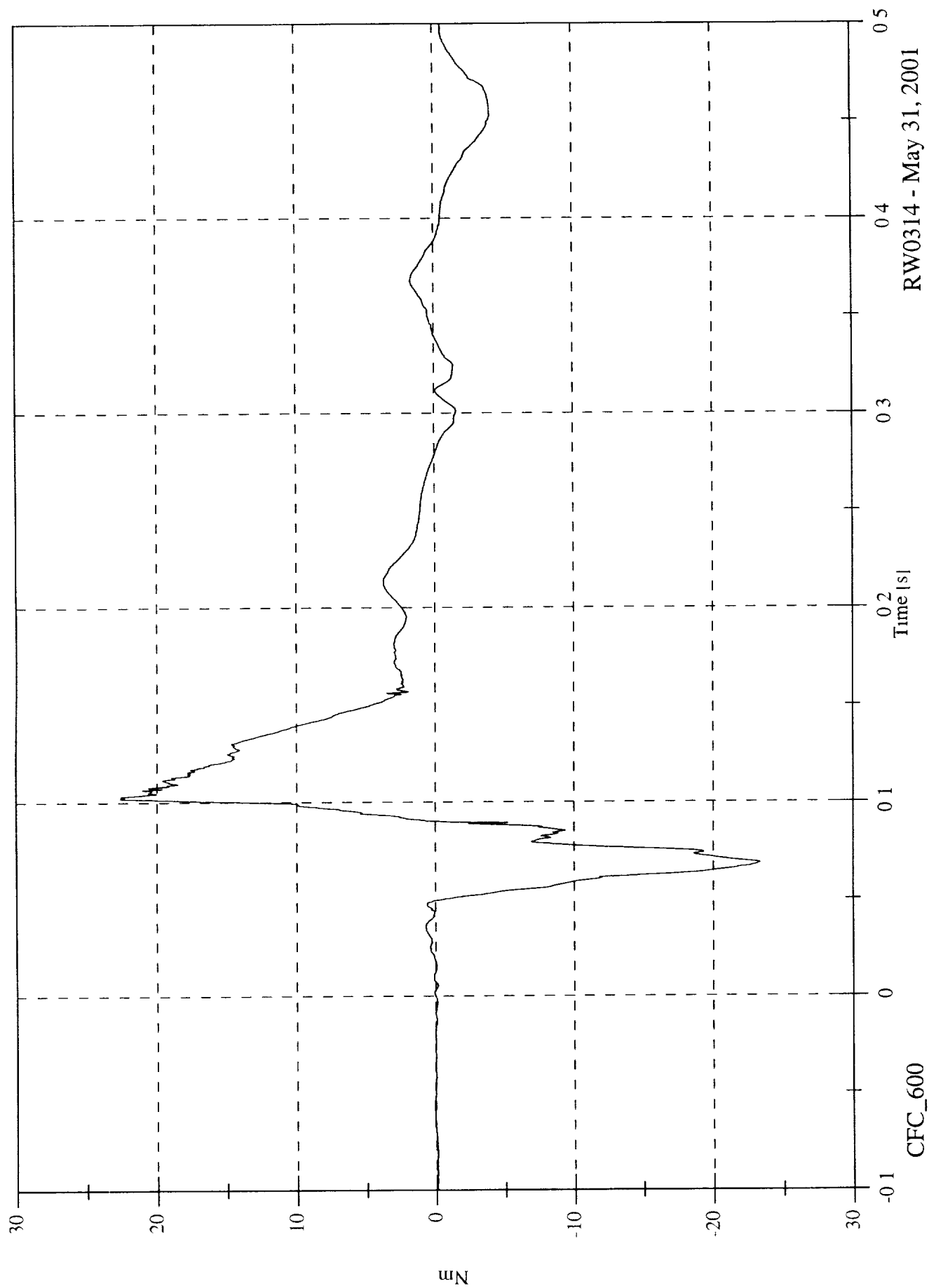


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Lower Tibia Mx

Max: 22.6 [Nm] at 0.102 [s]
Min: -23.3 [Nm] at 0.069 [s]

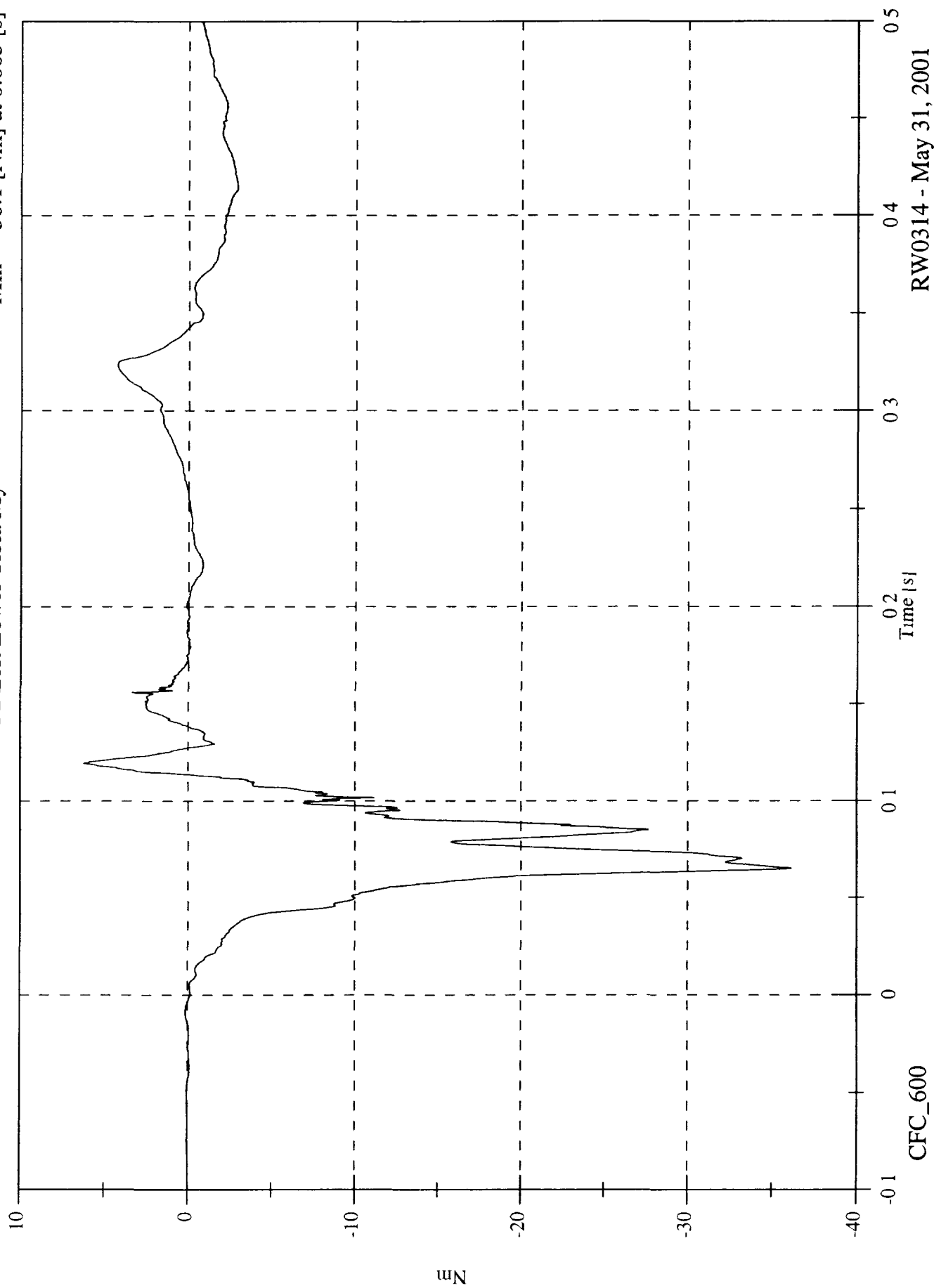


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Lower Tibia My

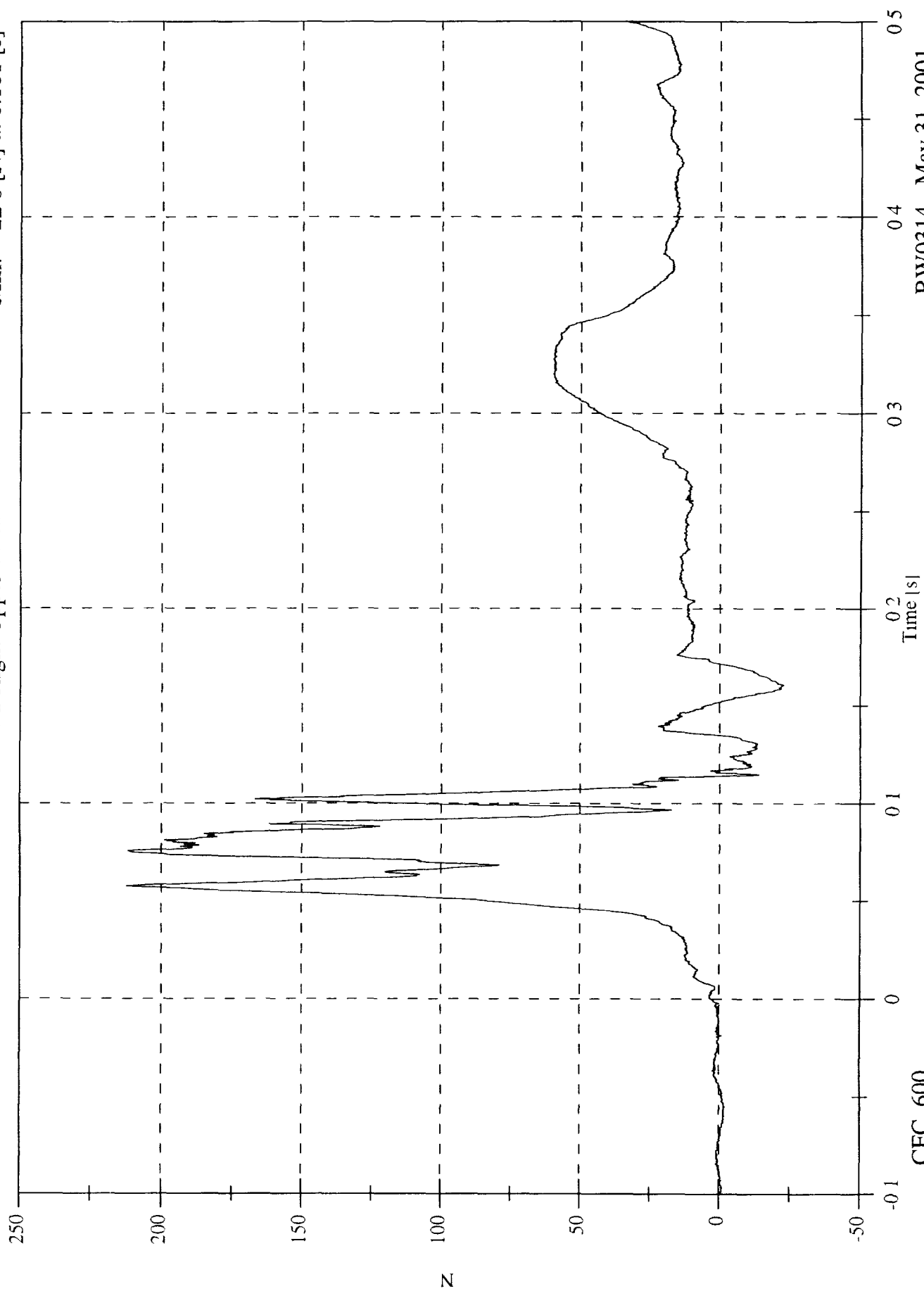
Max: 6.2 [Nm] at 0.119 [s]
Min: -36.1 [Nm] at 0.065 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 212.4 [N] at 0.058 [s]
 Min: -22.8 [N] at 0.161 [s]

P2 Right Upper Tibia Fx



CFC_600

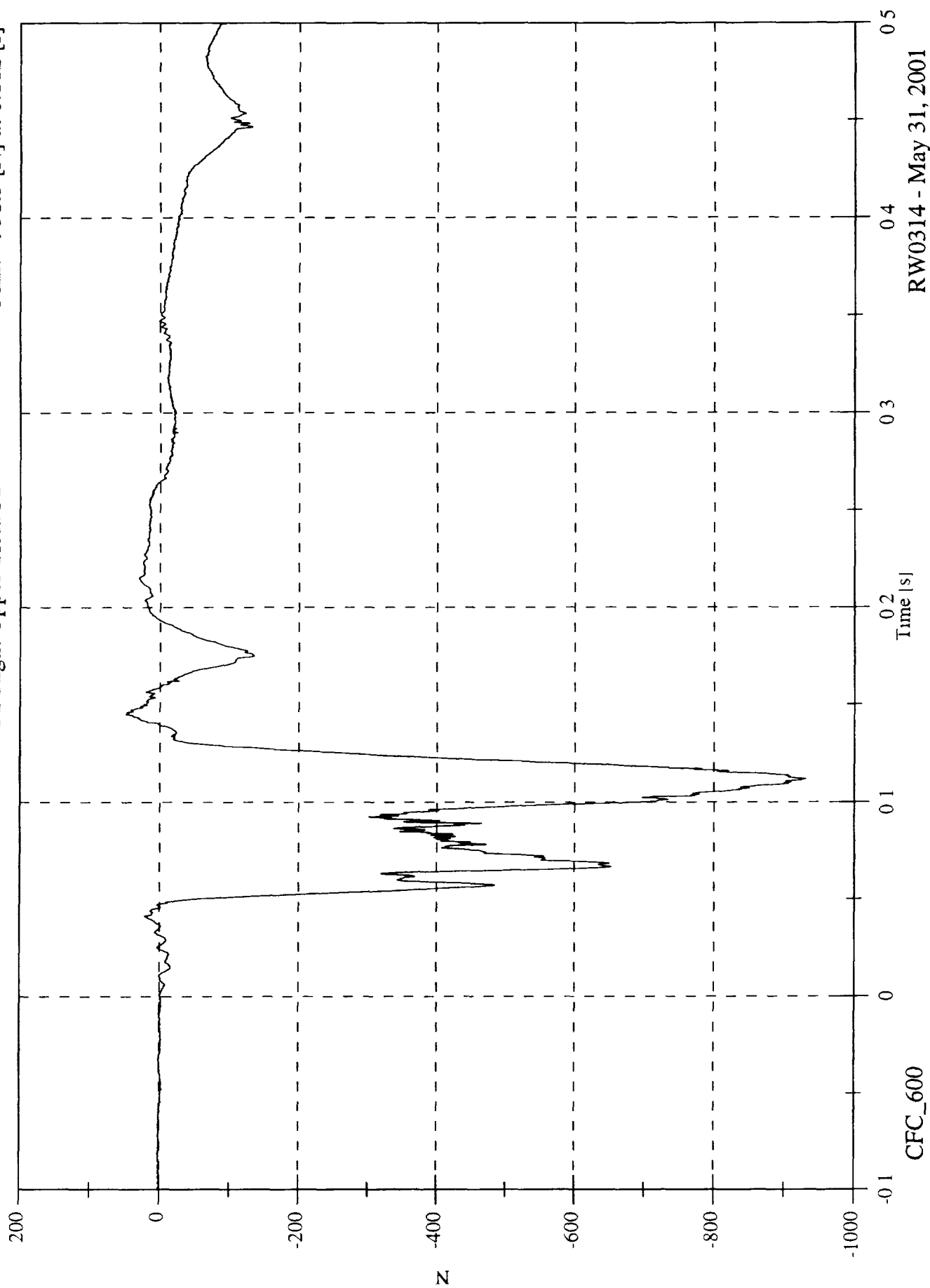
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 48.4 [N] at 0.145 [s]

Min: -931.3 [N] at 0.112 [s]

P2 Right Upper Tibia Fz



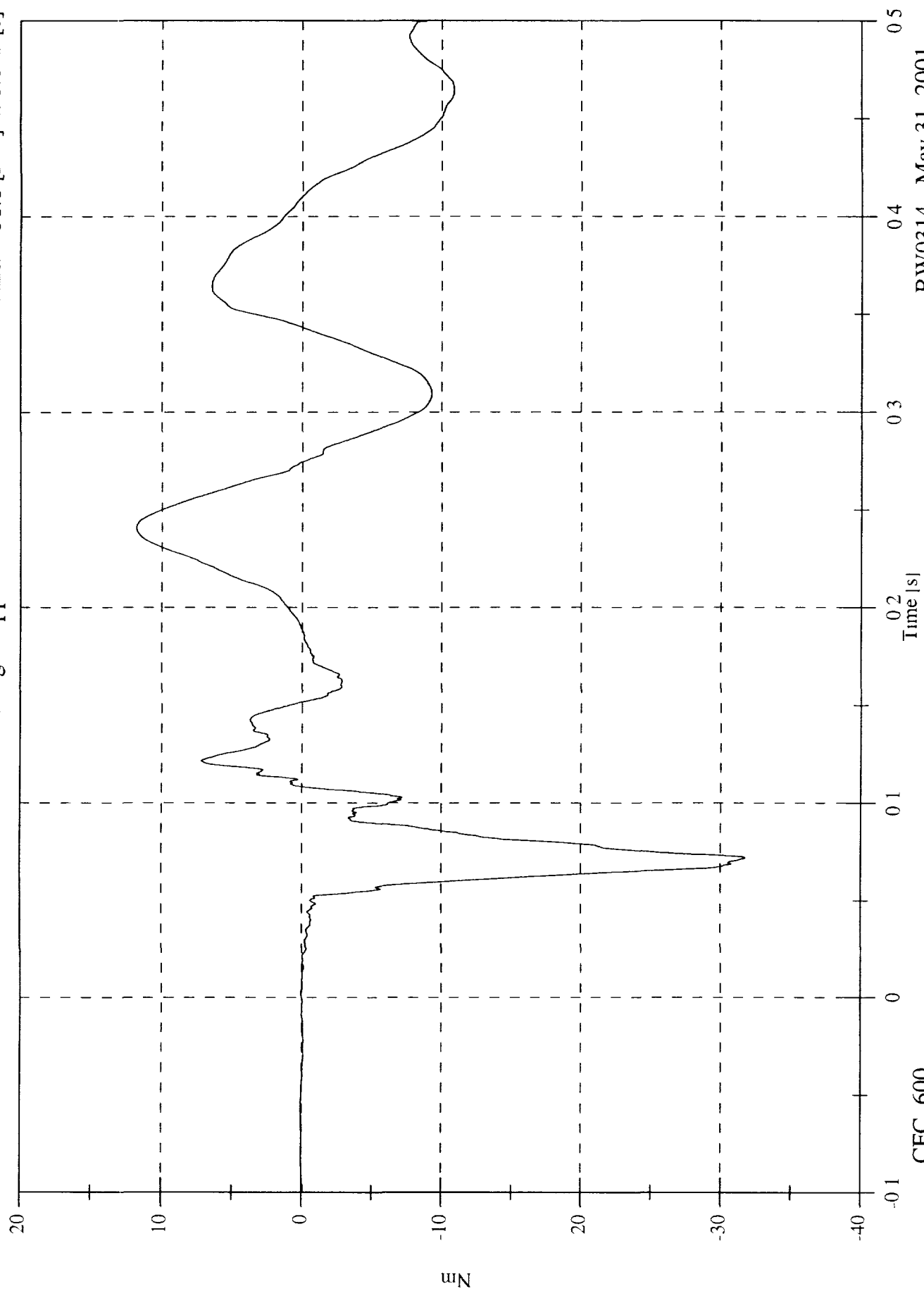
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 11.8 [Nm] at 0.240 [s]

Min: -31.8 [Nm] at 0.072 [s]

P2 Right Upper Tibia Mx



CFC_600

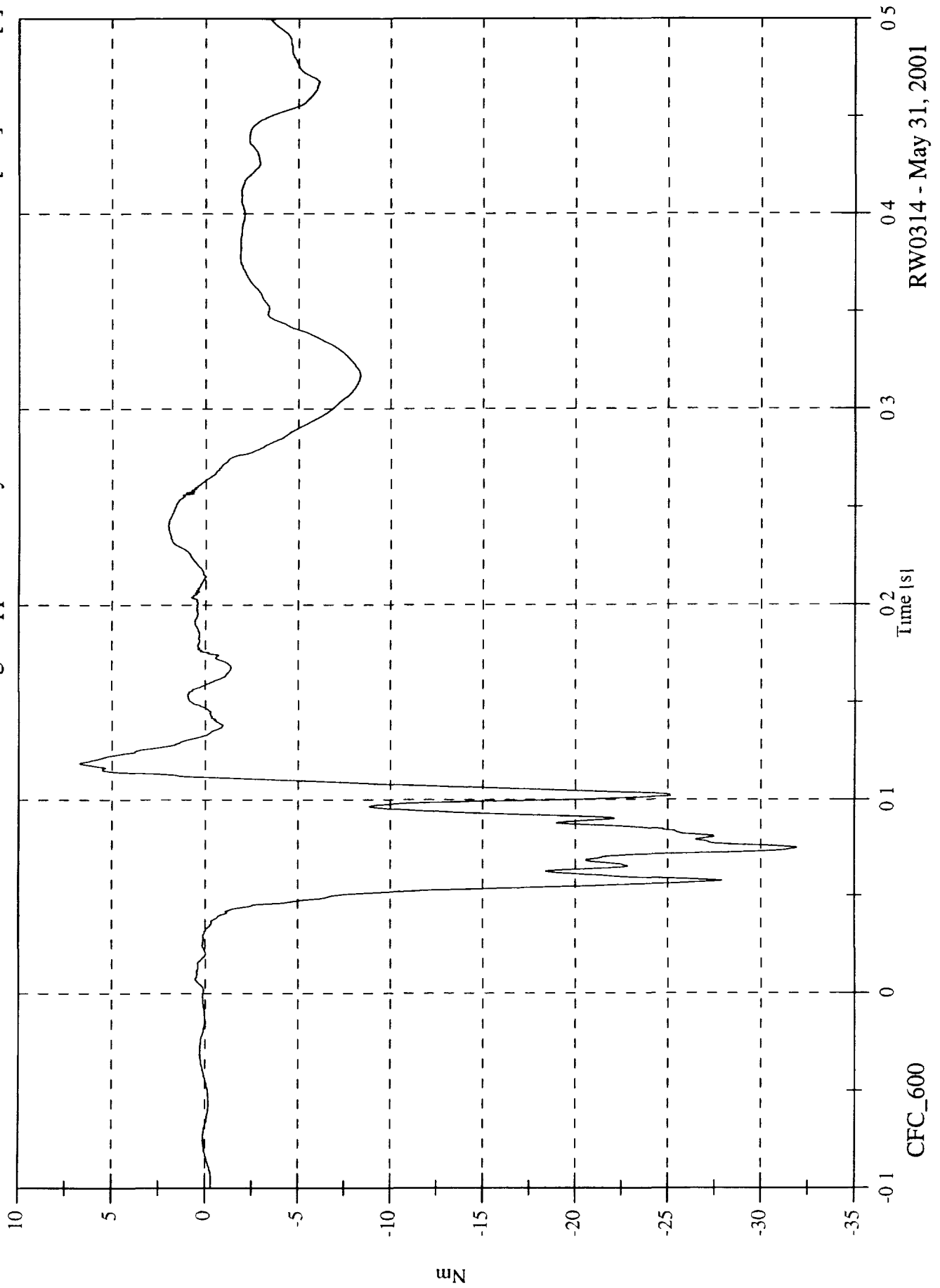
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Upper Tibia My

Max: 6.7 [Nm] at 0.119 [s]

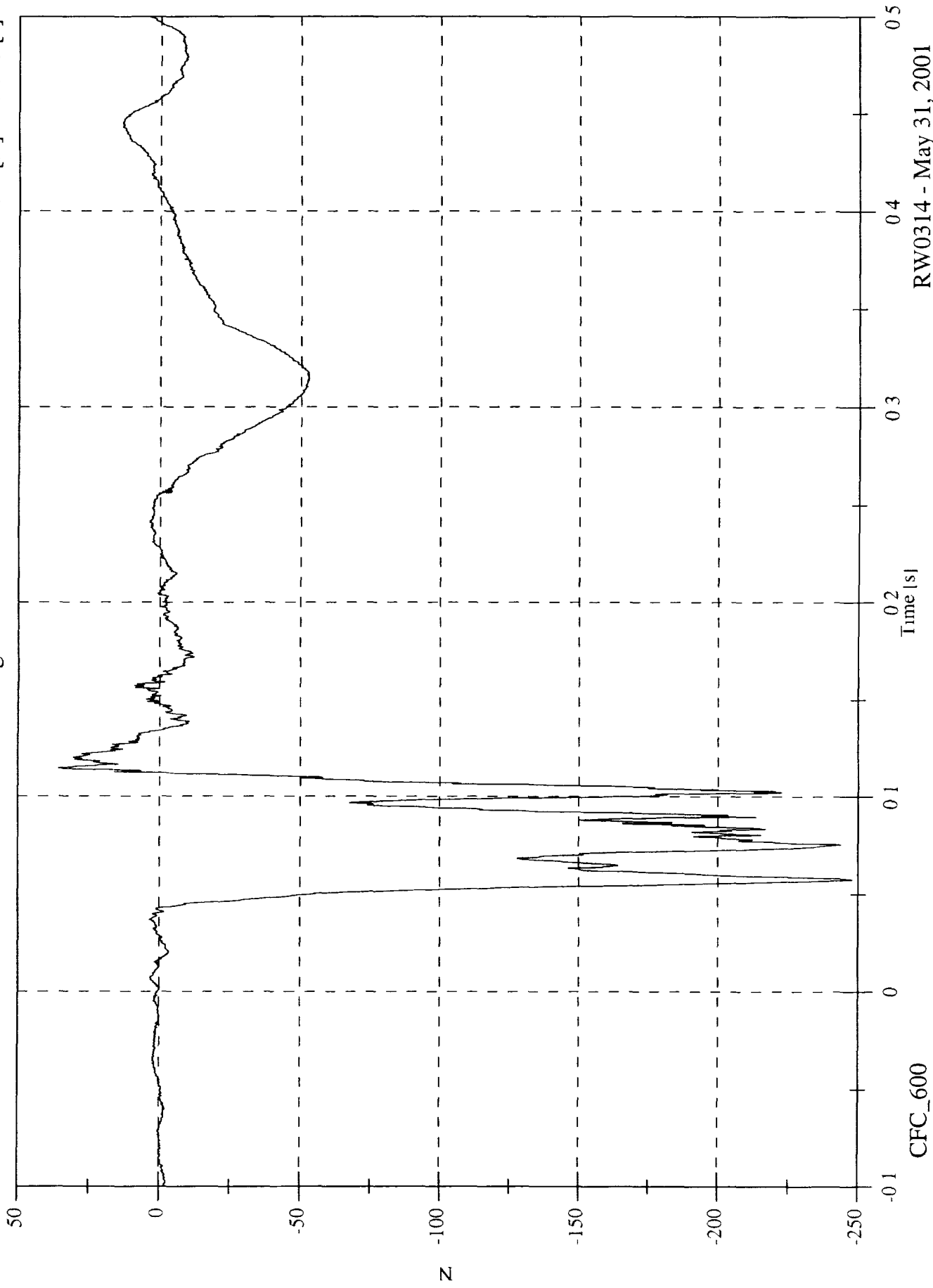
Min: -31.9 [Nm] at 0.075 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 35.7 [N] at 0.114 [s]
Min: -247.8 [N] at 0.058 [s]

P2 Right Lower Tibia Fx

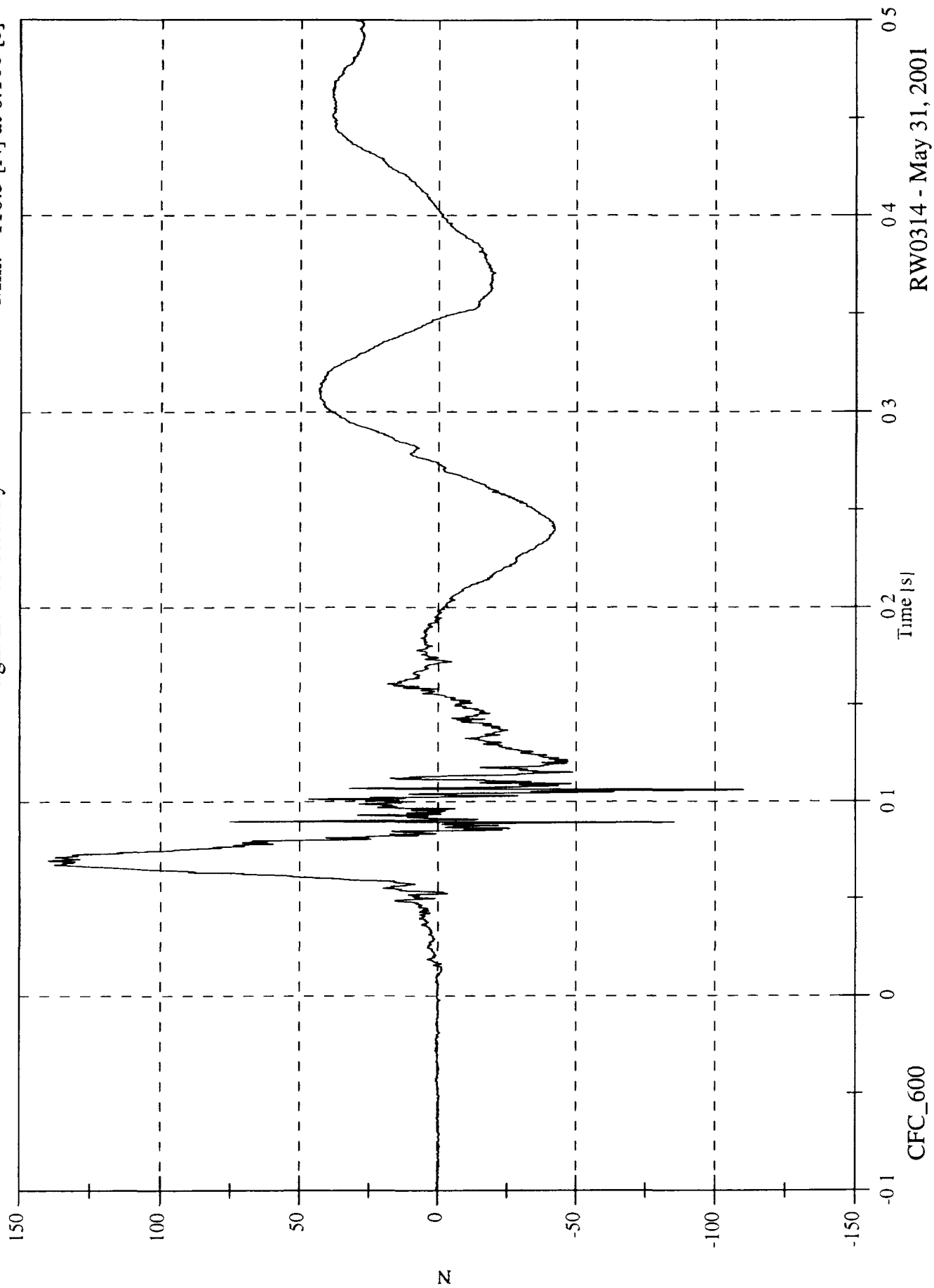


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 139.7 [N] at 0.070 [s]
Min: -110.3 [N] at 0.106 [s]

P2 Right Lower Tibia Fy

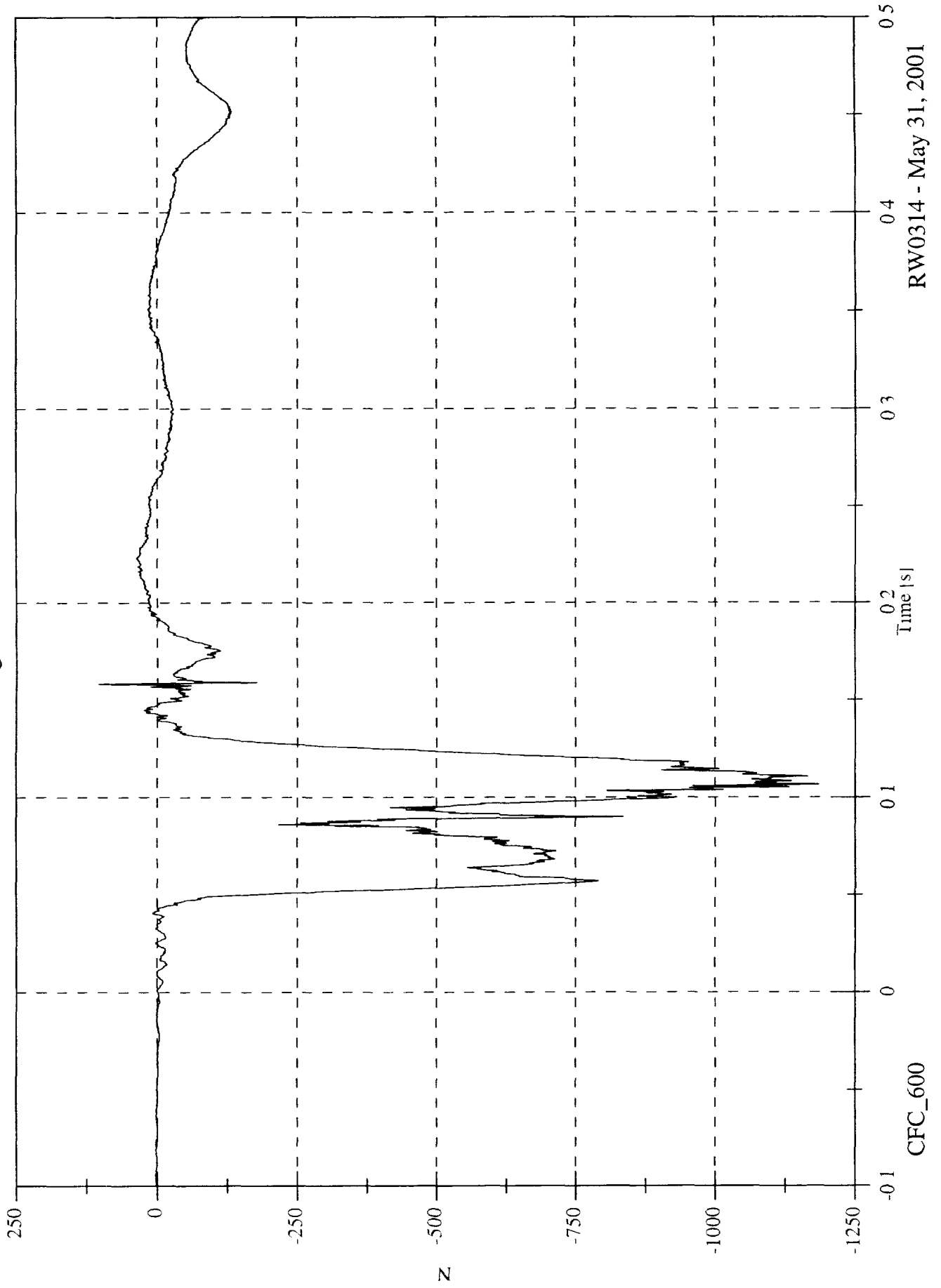


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 103.7 [N] at 0.158 [s]
Min: -1184.6 [N] at 0.106 [s]

P2 Right Lower Tibia Fz

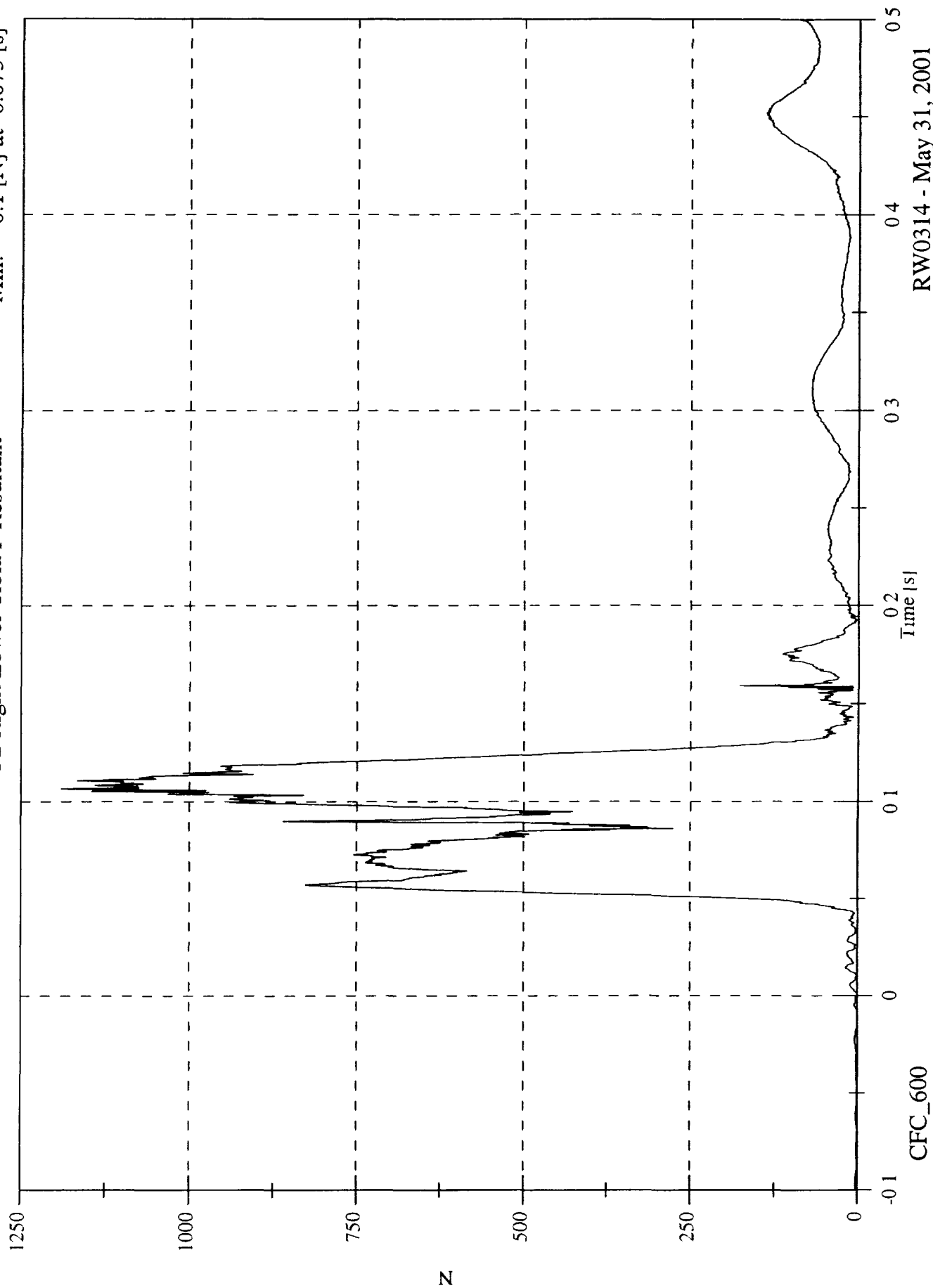


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 1189.2 [N] at 0.106 [s]
Min: 0.1 [N] at -0.073 [s]

P2 Right Lower Tibia F Resultant

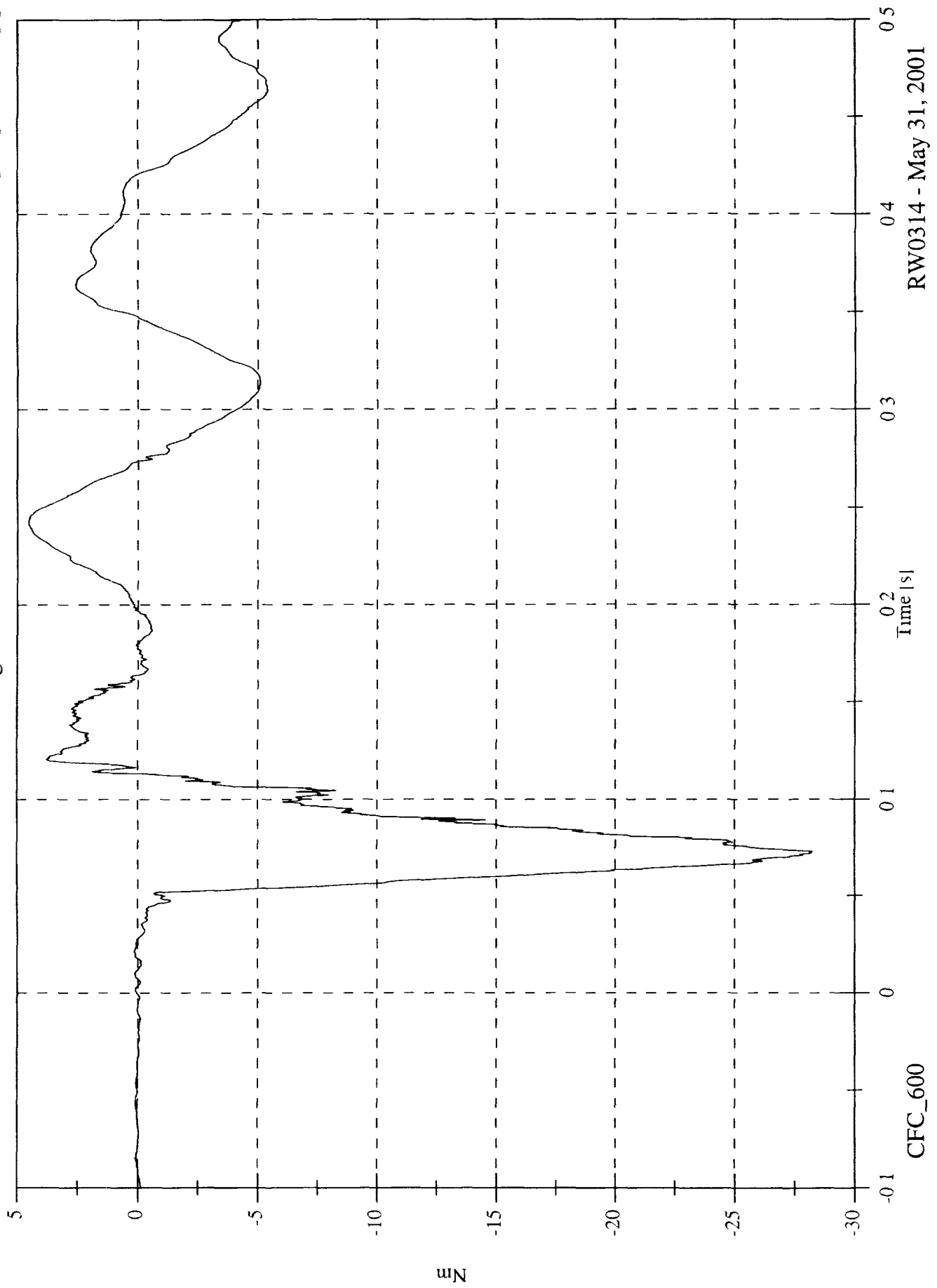


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4.6 [Nm] at 0.242 [s]
Min: -28.3 [Nm] at 0.073 [s]

P2 Right Lower Tibia Mx



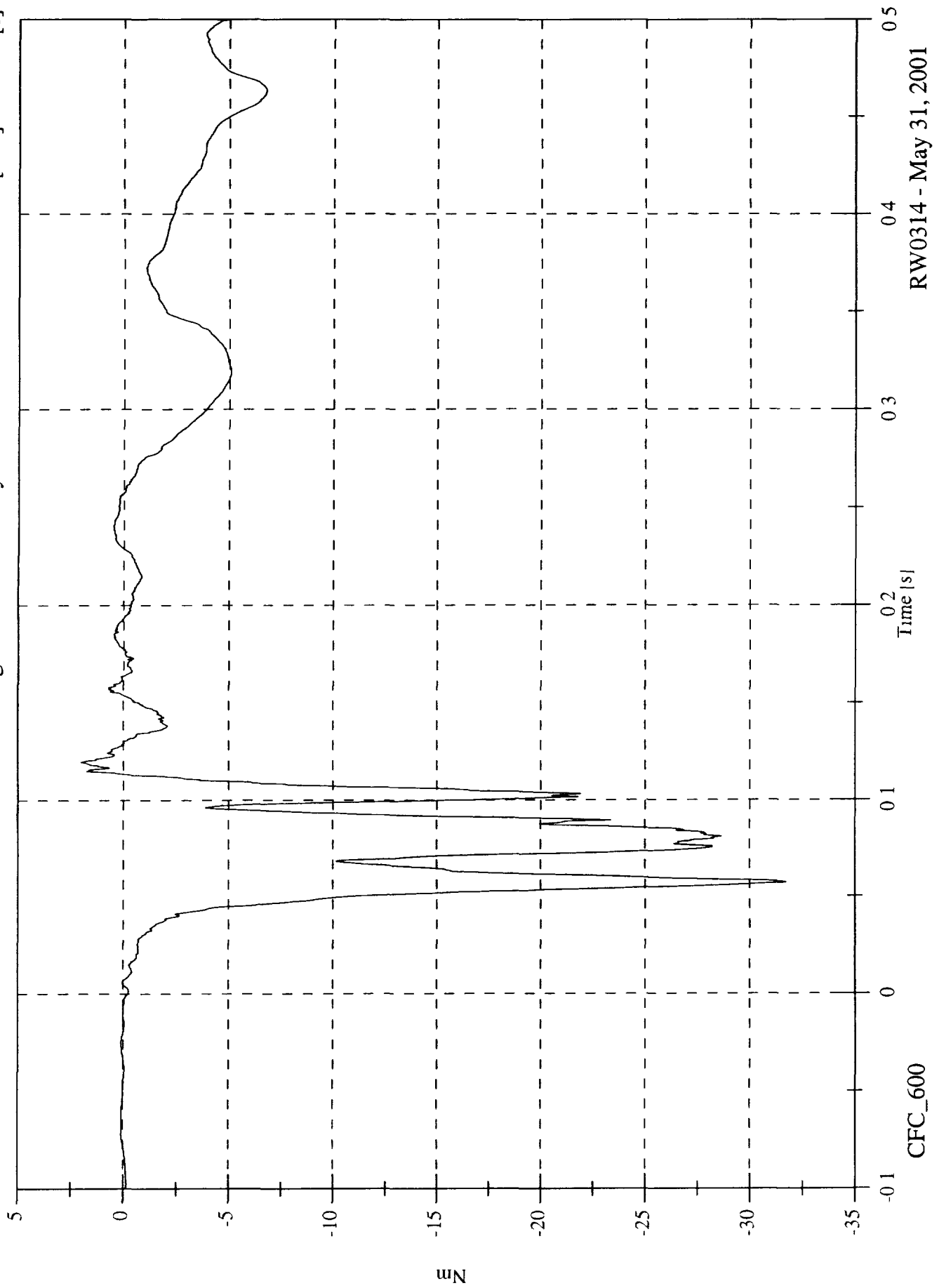
CFC_600

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Lower Tibia My

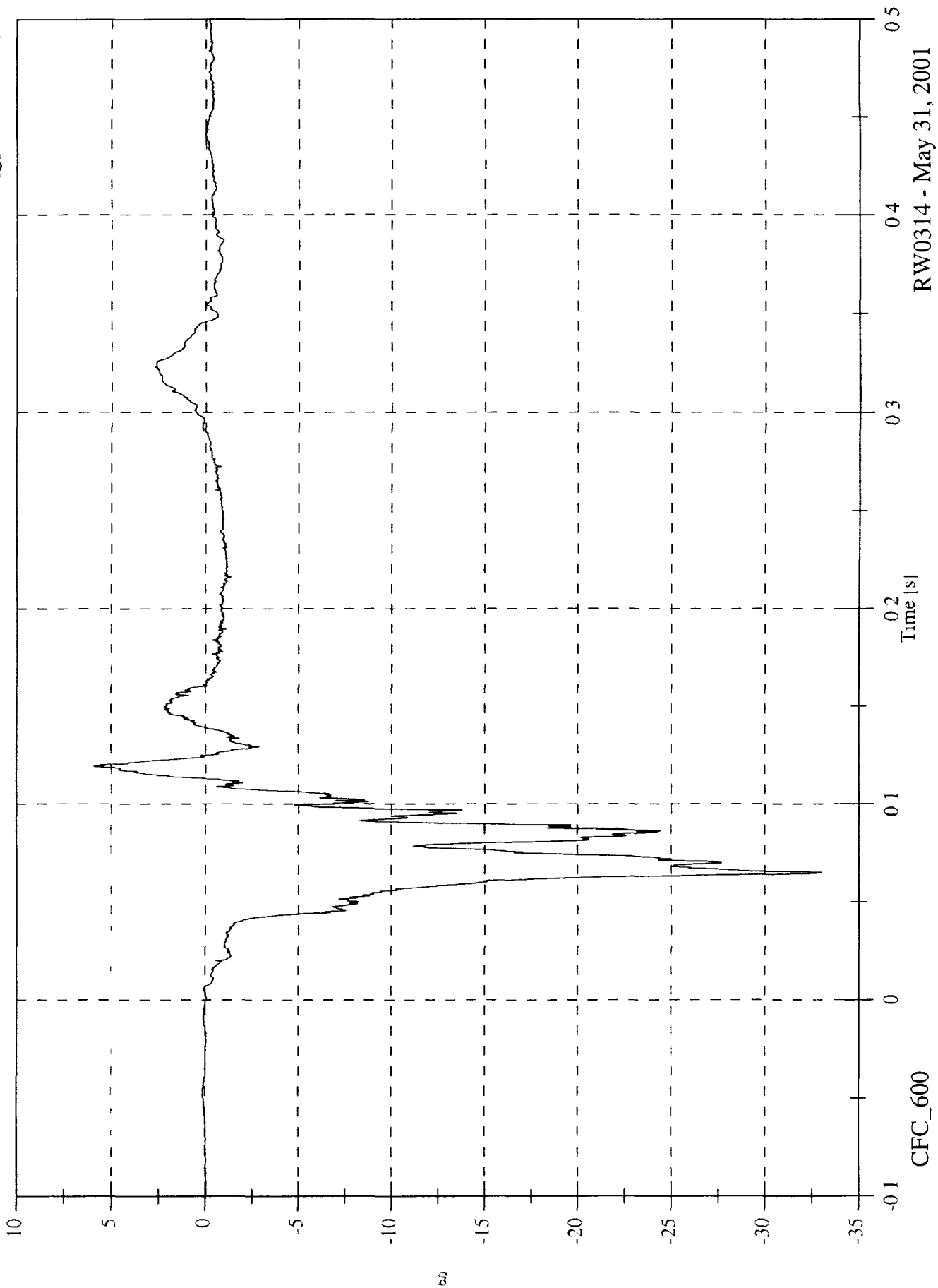
Max: 2.0 [Nm] at 0.120 [s]
Min: -31.7 [Nm] at 0.057 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 5.9 [g] at 0.119 [s]
 Min: -33.0 [g] at 0.065 [s]

P2 Left Tibia Ax

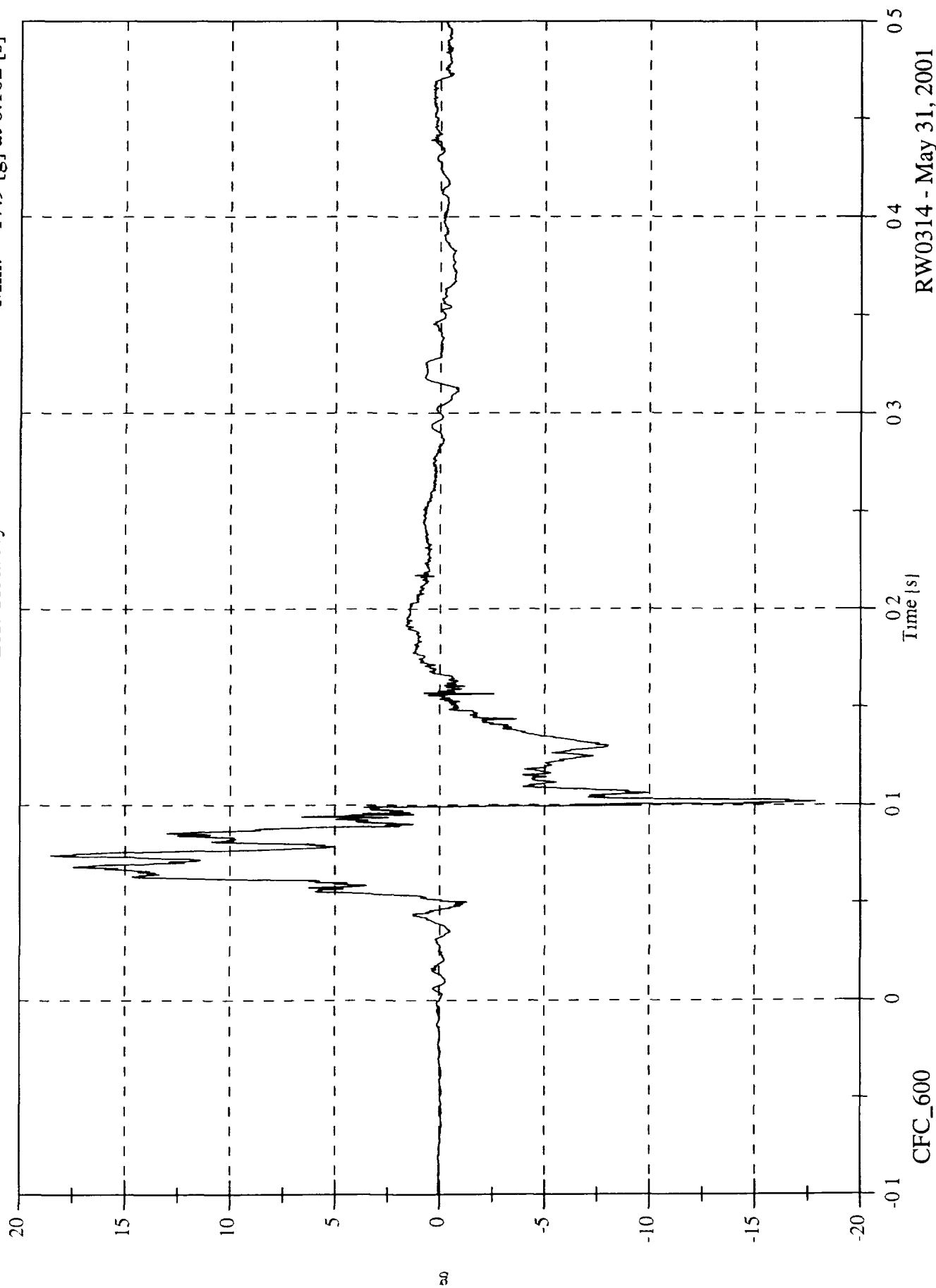


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 18.5 [g] at 0.074 [s]
Min: -17.9 [g] at 0.102 [s]

P2 Left Tibia Ay



CFC_600

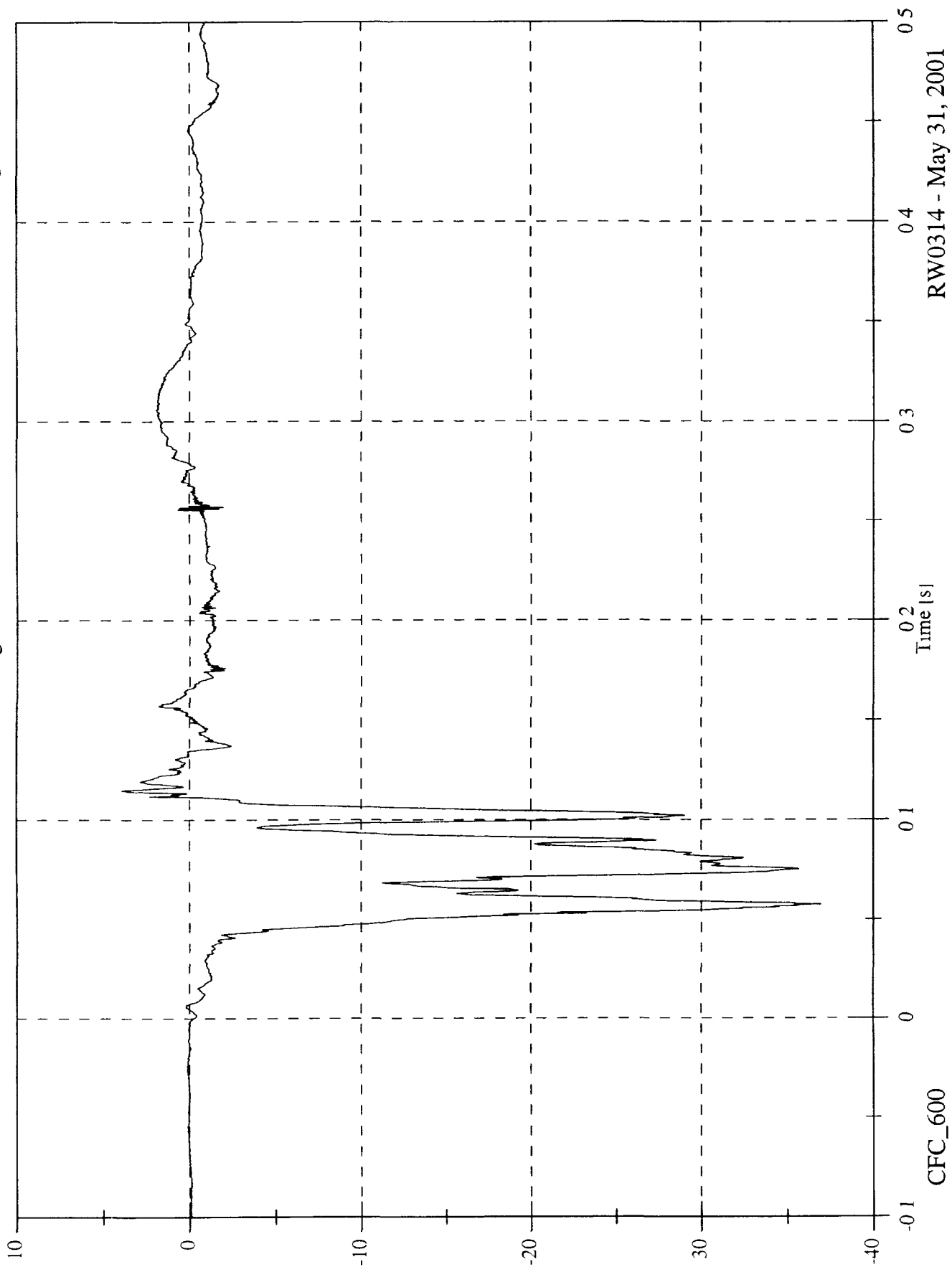
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 3.9 [g] at 0.115 [s]
Min' -36.9 [g] at 0.057 [s]

P2 Right Tibia Ax

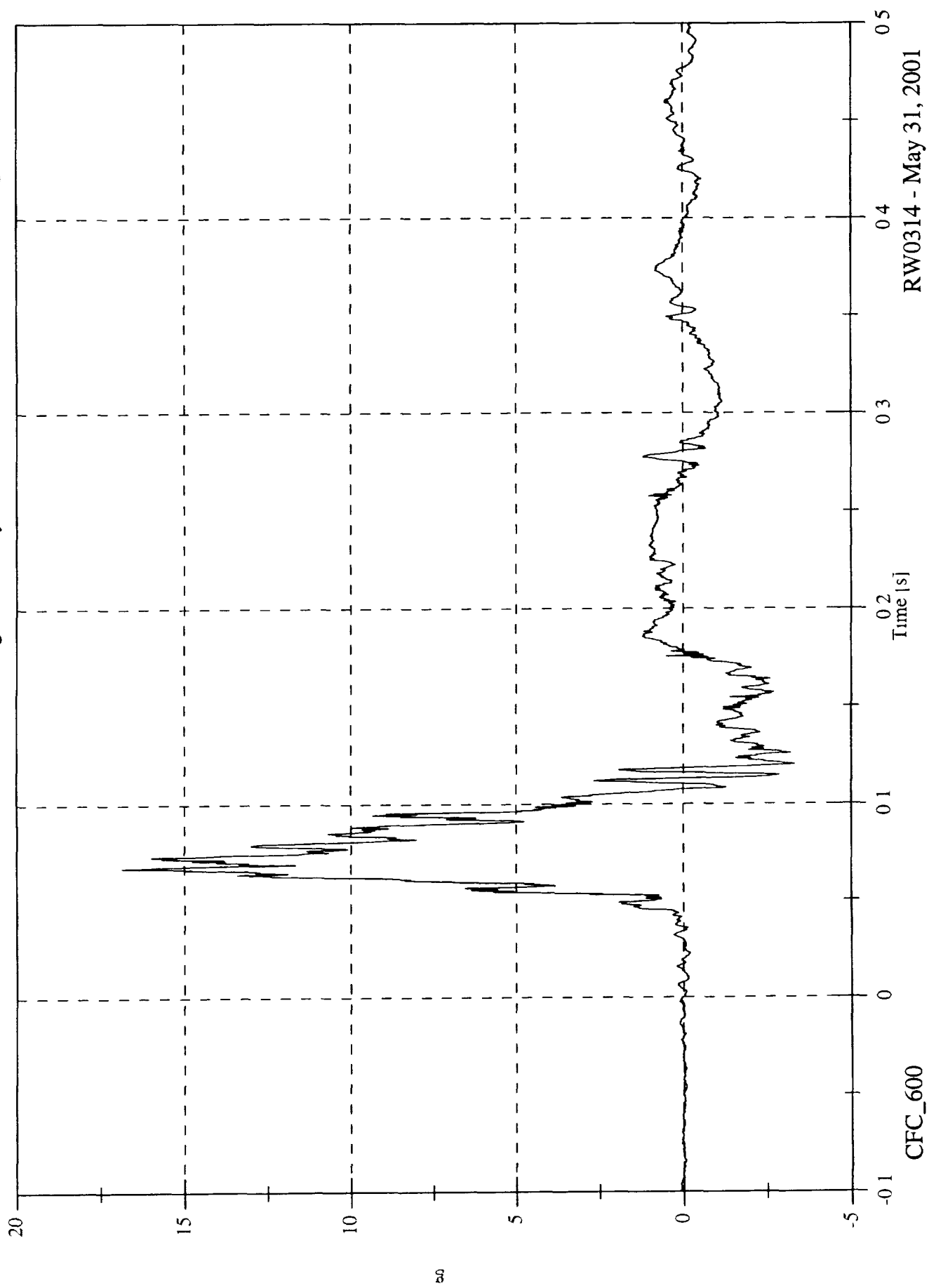


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 16.9 [g] at 0.067 [s]
Min: -3.3 [g] at 0.120 [s]

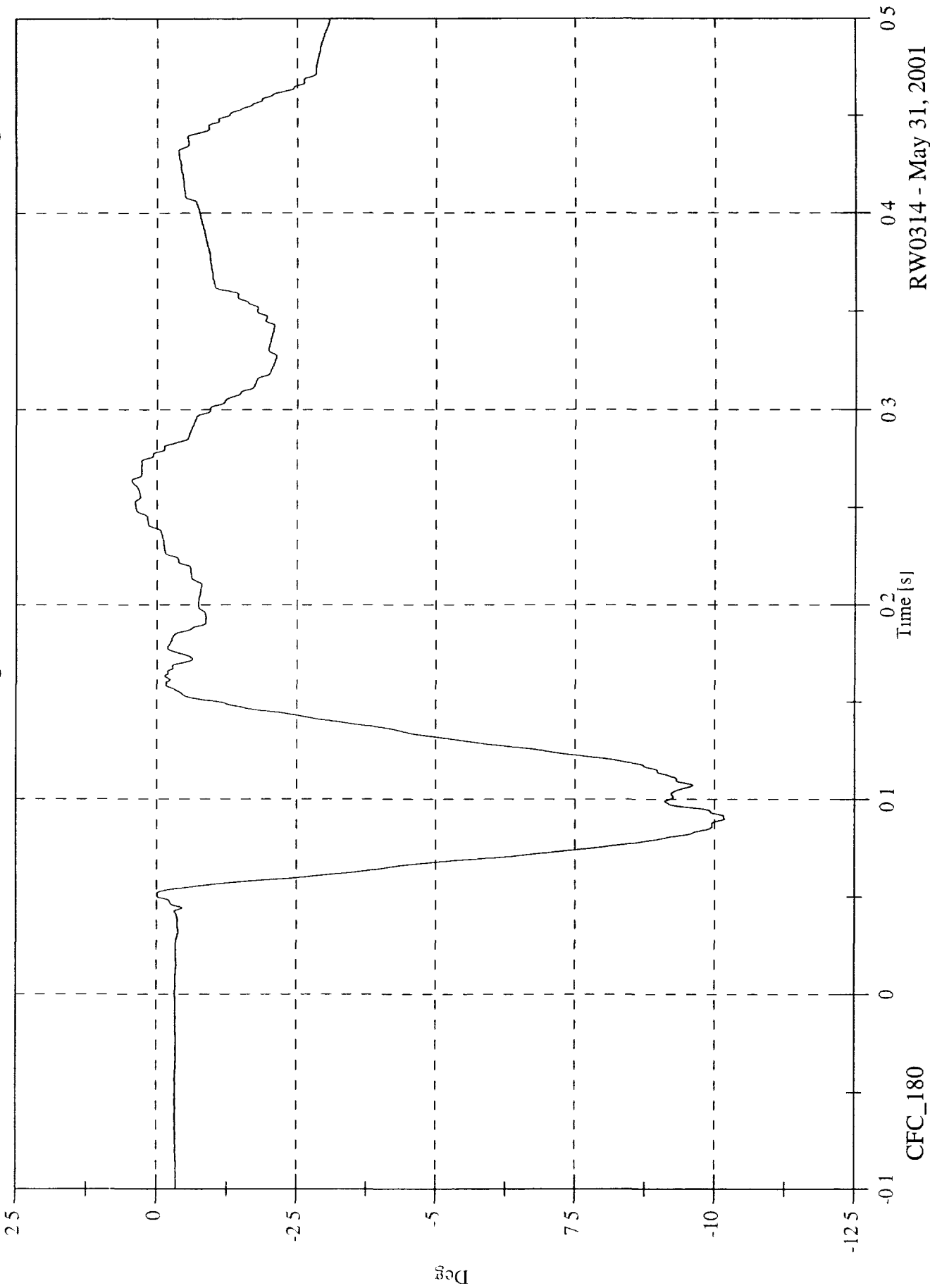
P2 Right Tibia Ay



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max. 0.4 [Deg] at 0.264 [s]
Min. -10.2 [Deg] at 0.090 [s]

P2 Right Ankle Rotation x



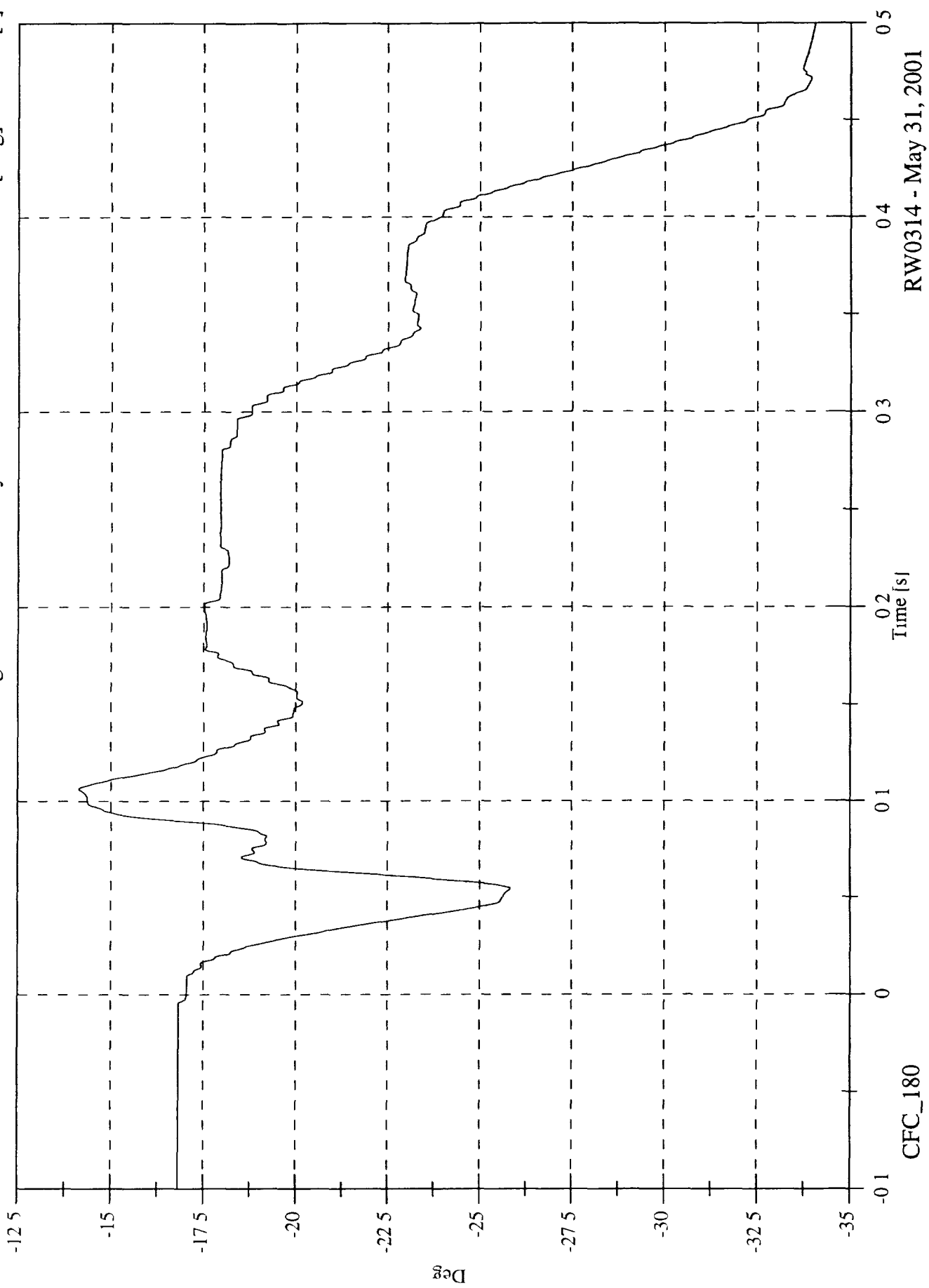
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: -14.1 [Deg] at 0.106 [s]
Min: -34.1 [Deg] at 0.500 [s]

P2 Right Ankle Rotation y

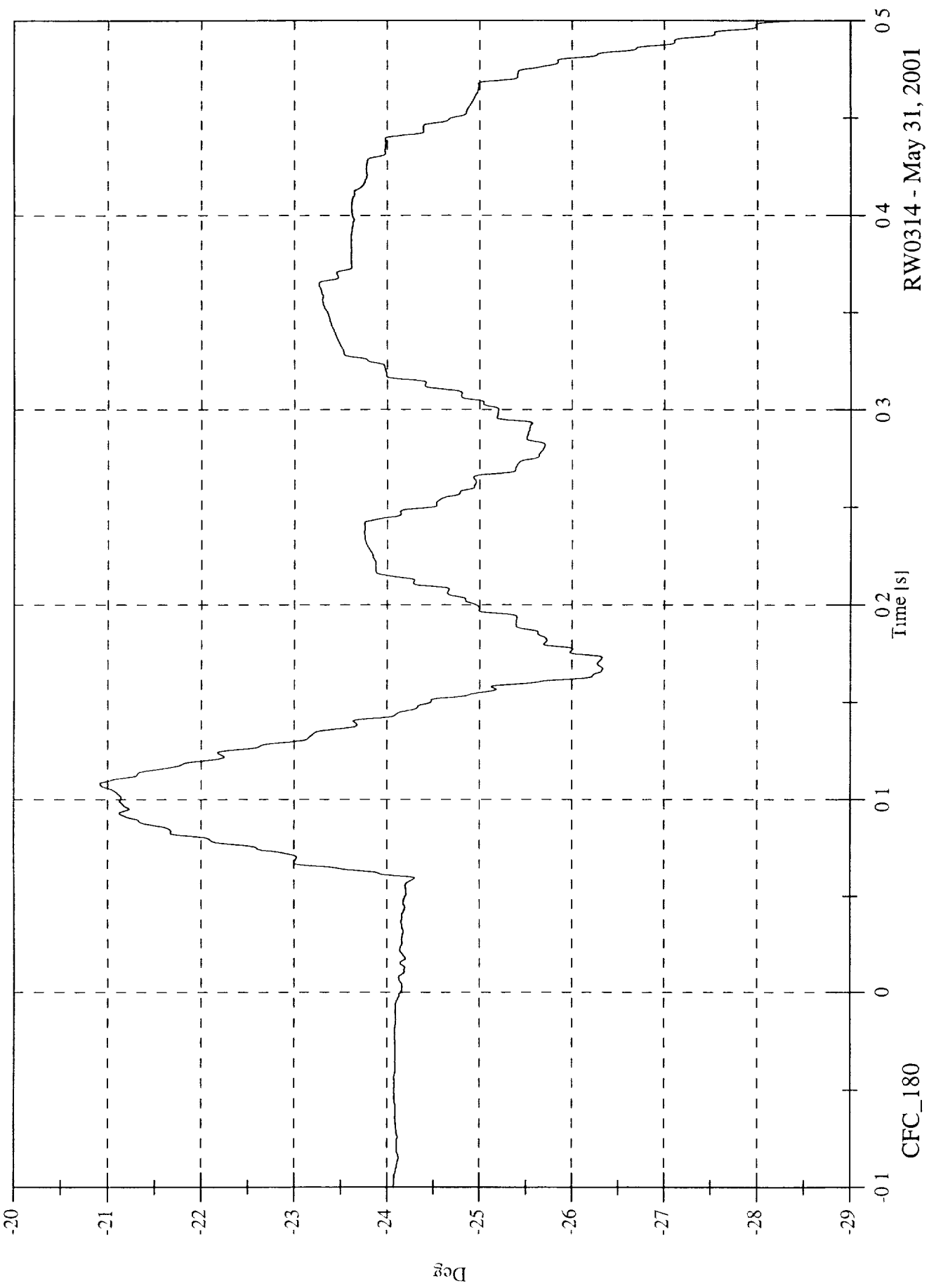


CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon
P2 Right Ankle Rotation z

Max -20.9 [Deg] at 0.108 [s]
Min. -28.4 [Deg] at 0.500 [s]

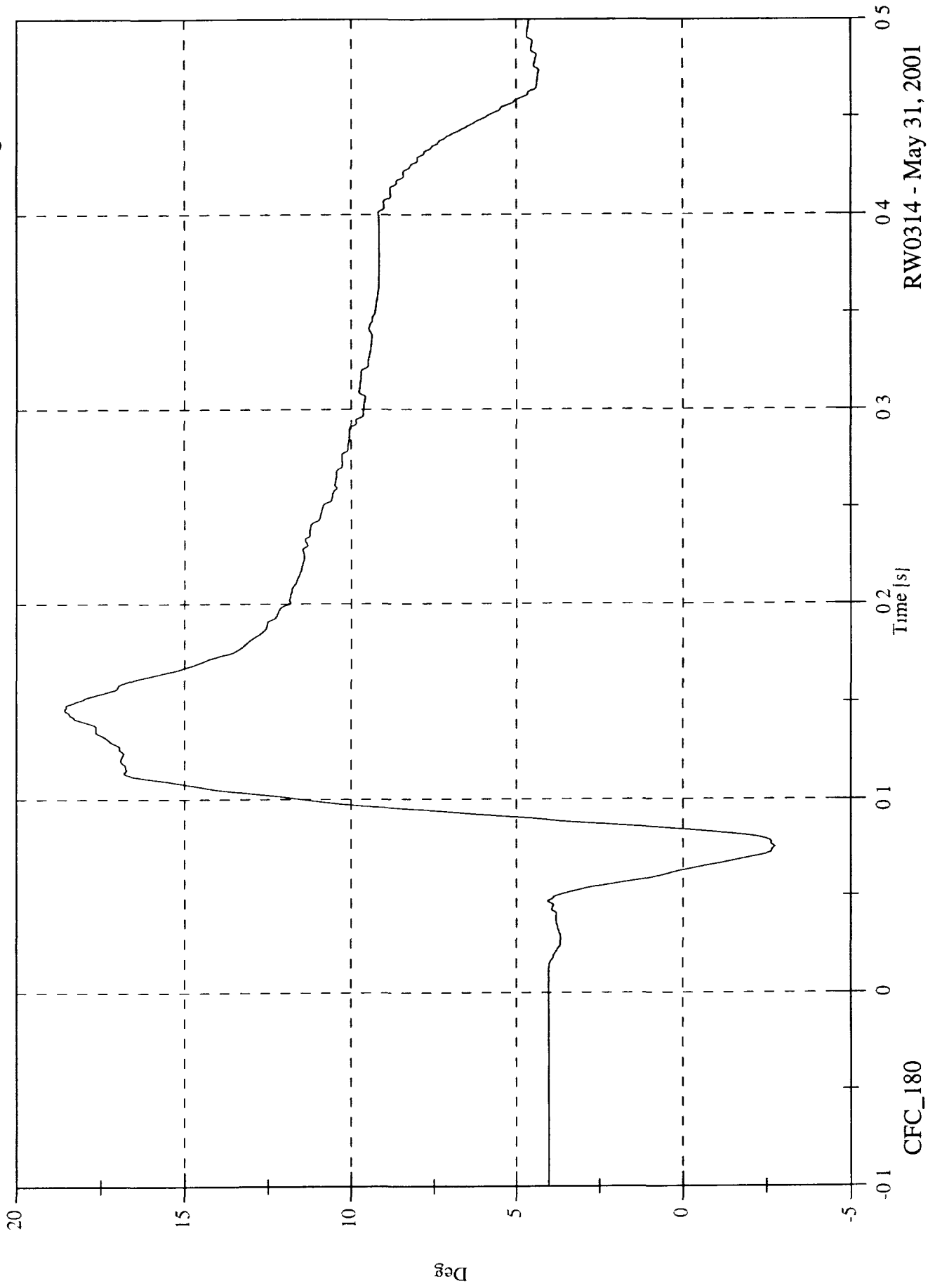


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 18.6 [Deg] at 0.146 [s]
Min: -2.7 [Deg] at 0.075 [s]

P2 Left Ankle Rotation x



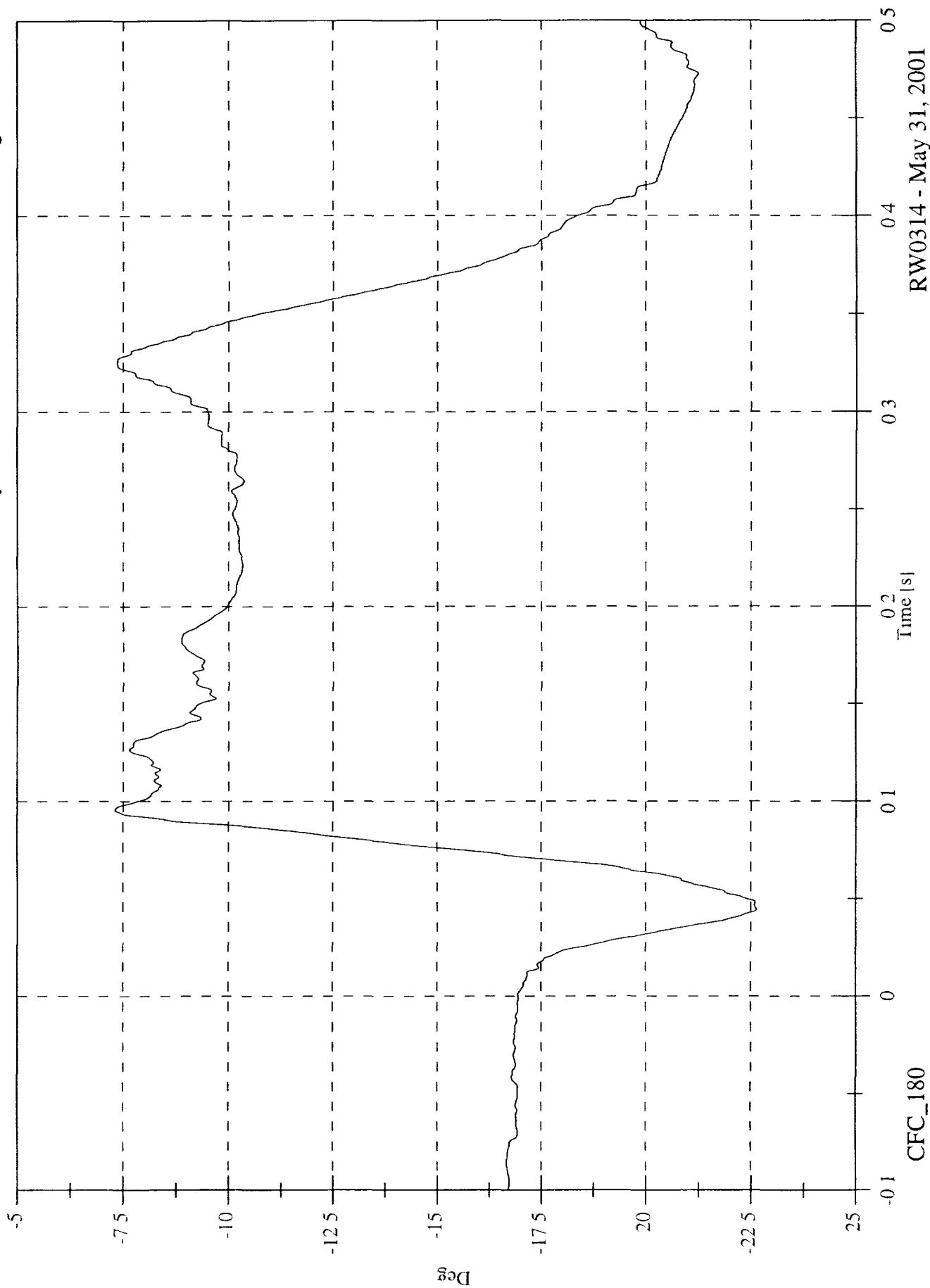
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: -7.3 [Deg] at 0.096 [s]
Min: -22.6 [Deg] at 0.044 [s]

P2 Left Ankle Rotation y



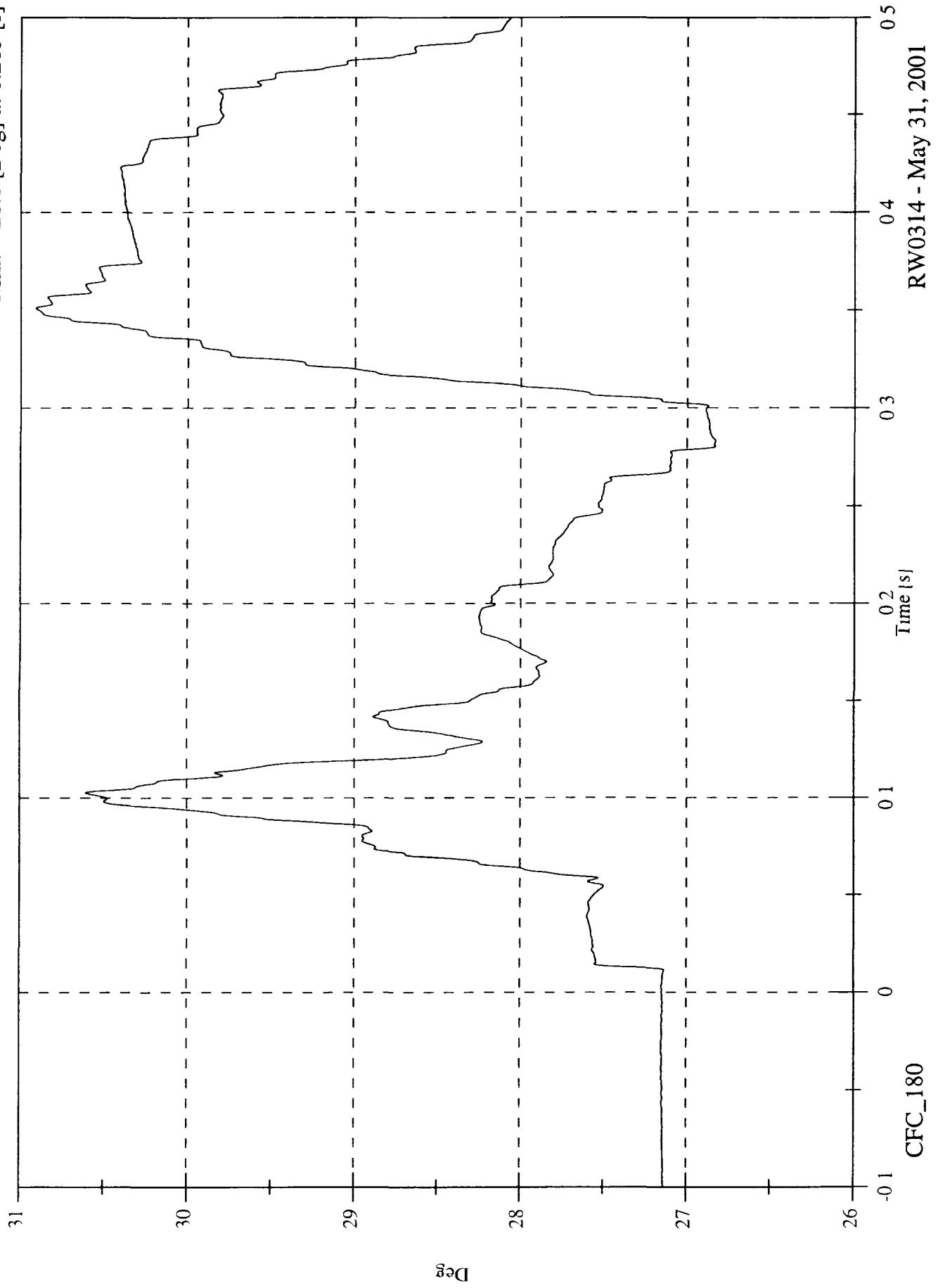
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 30.9 [Deg] at 0.351 [s]
Min: 26.8 [Deg] at 0.283 [s]

P2 Left ankle Rotation z



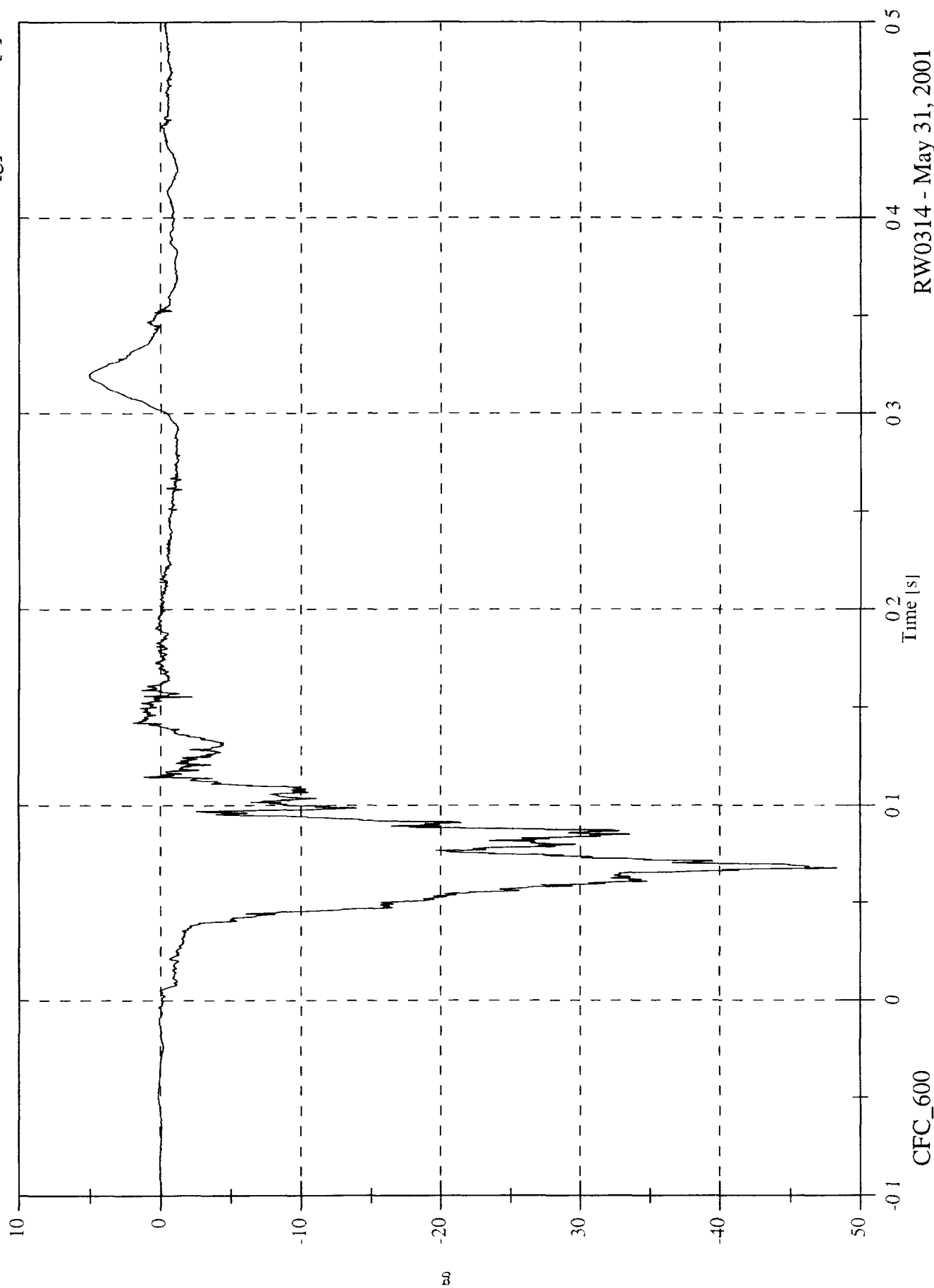
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 5.0 [g] at 0.319 [s]
Min: -48.4 [g] at 0.068 [s]

P2 Left Foot Ax



CFC_600

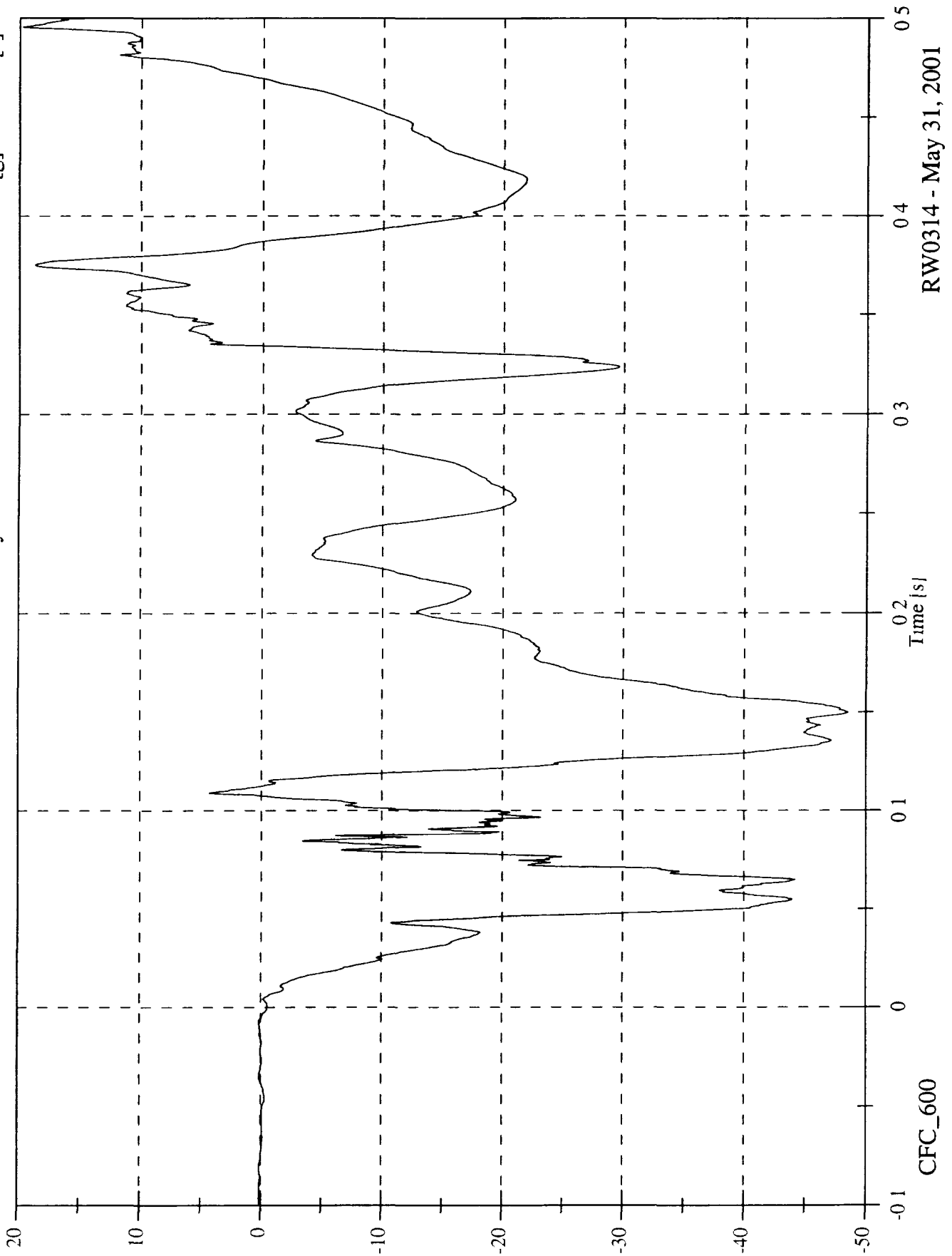
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Foot Ay

Max: 19.8 [g] at 0.495 [s]
Min: -48.5 [g] at 0.150 [s]

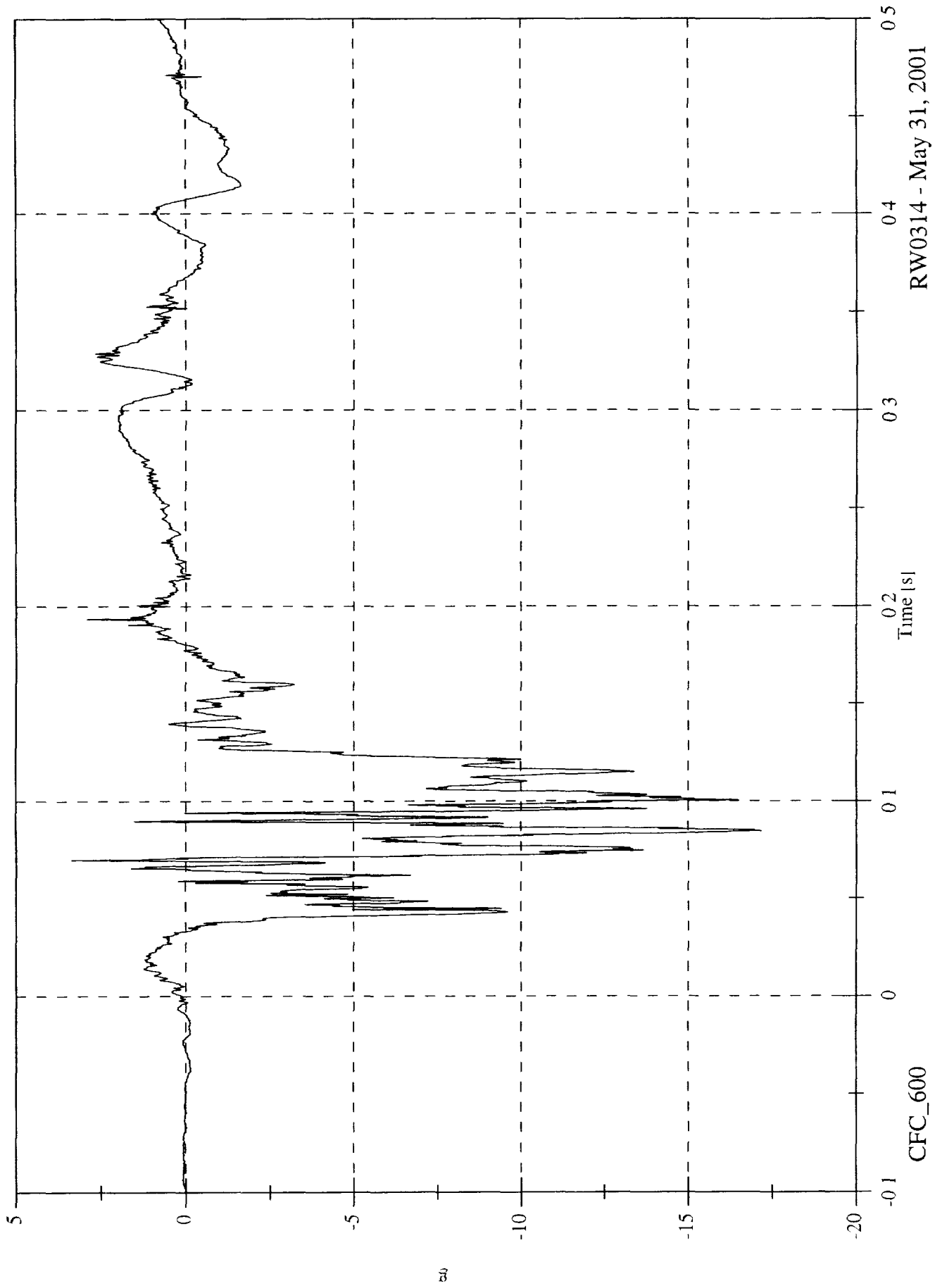


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 3.4 [g] at 0.070 [s]
Min: -17.2 [g] at 0.085 [s]

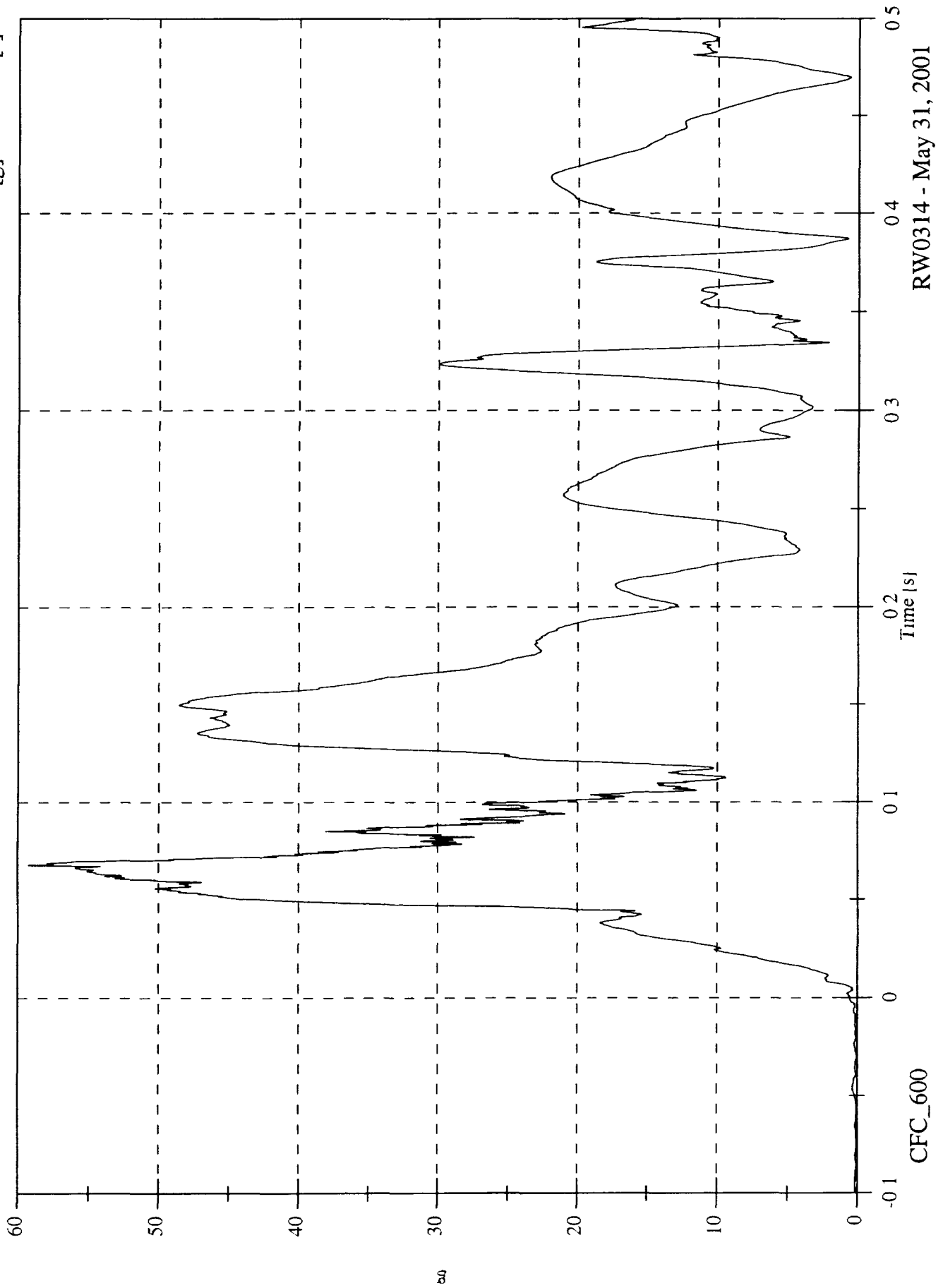
P2 Left Foot Az



40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Left Foot A Resultant

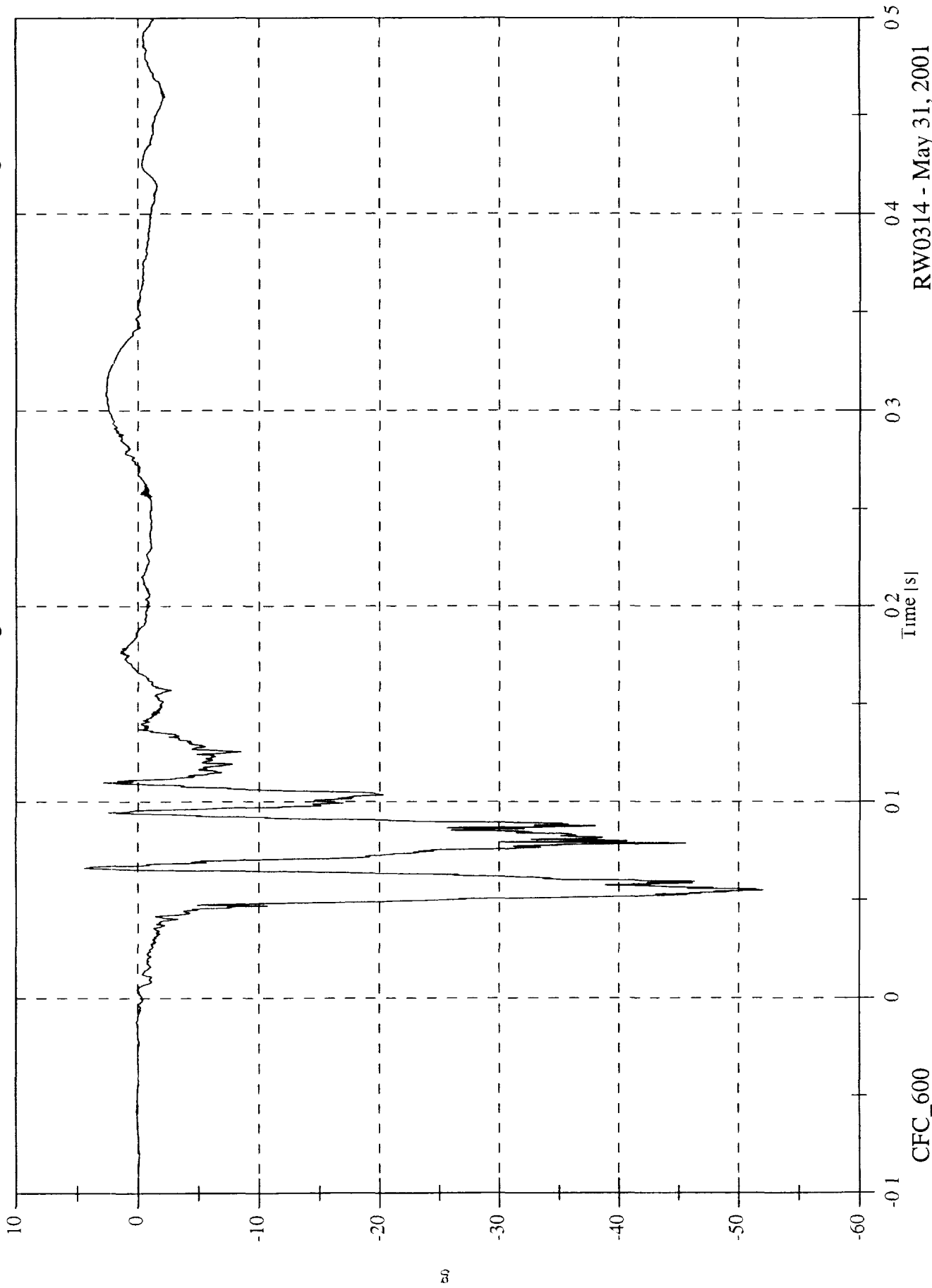
Max: 59.3 [g] at 0.068 [s]
Min: 0.0 [g] at -0.100 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4.4 [g] at 0.066 [s]
 Min: -52.0 [g] at 0.055 [s]

P2 Right Foot Ax

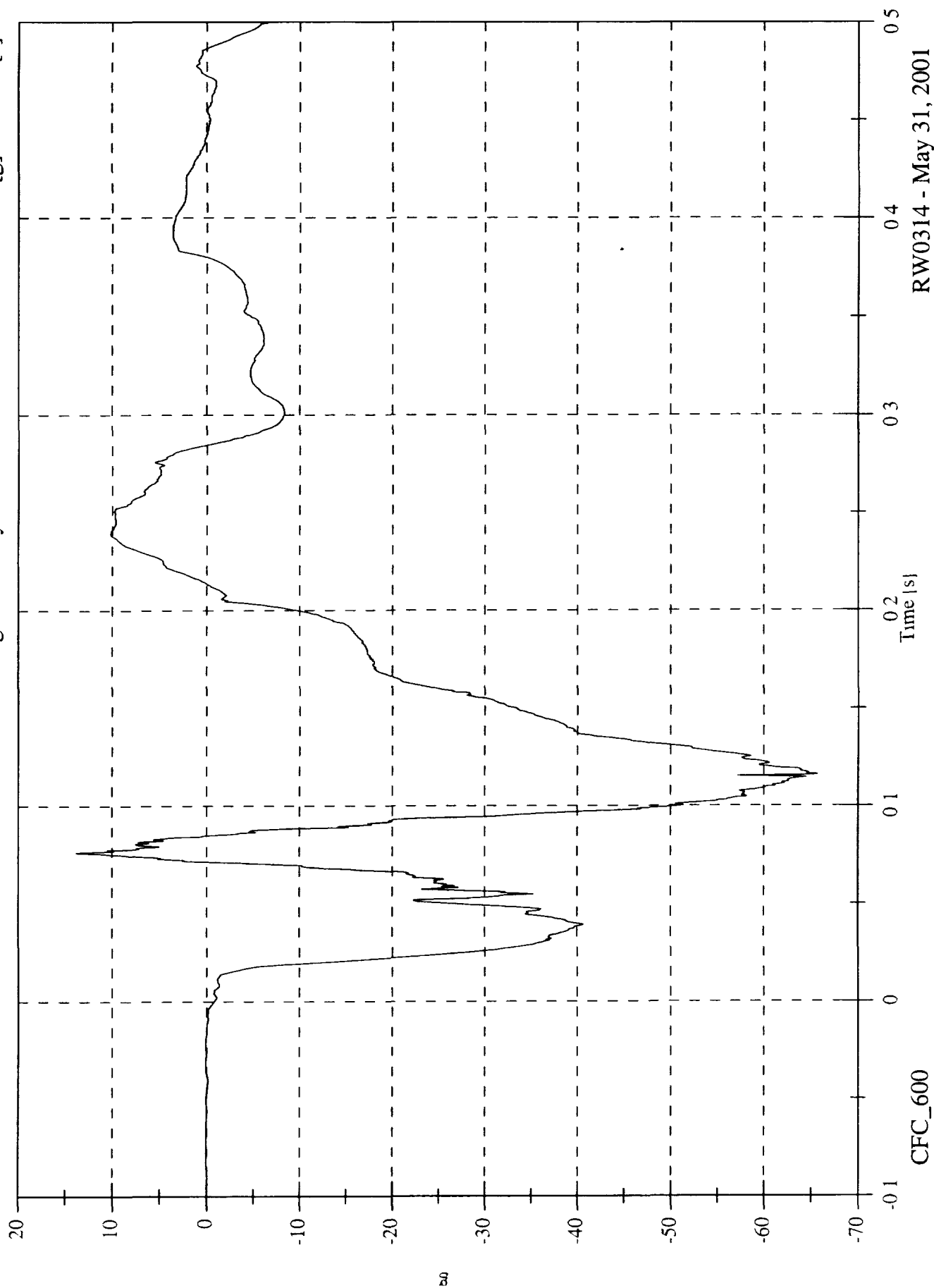


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Foot Ay

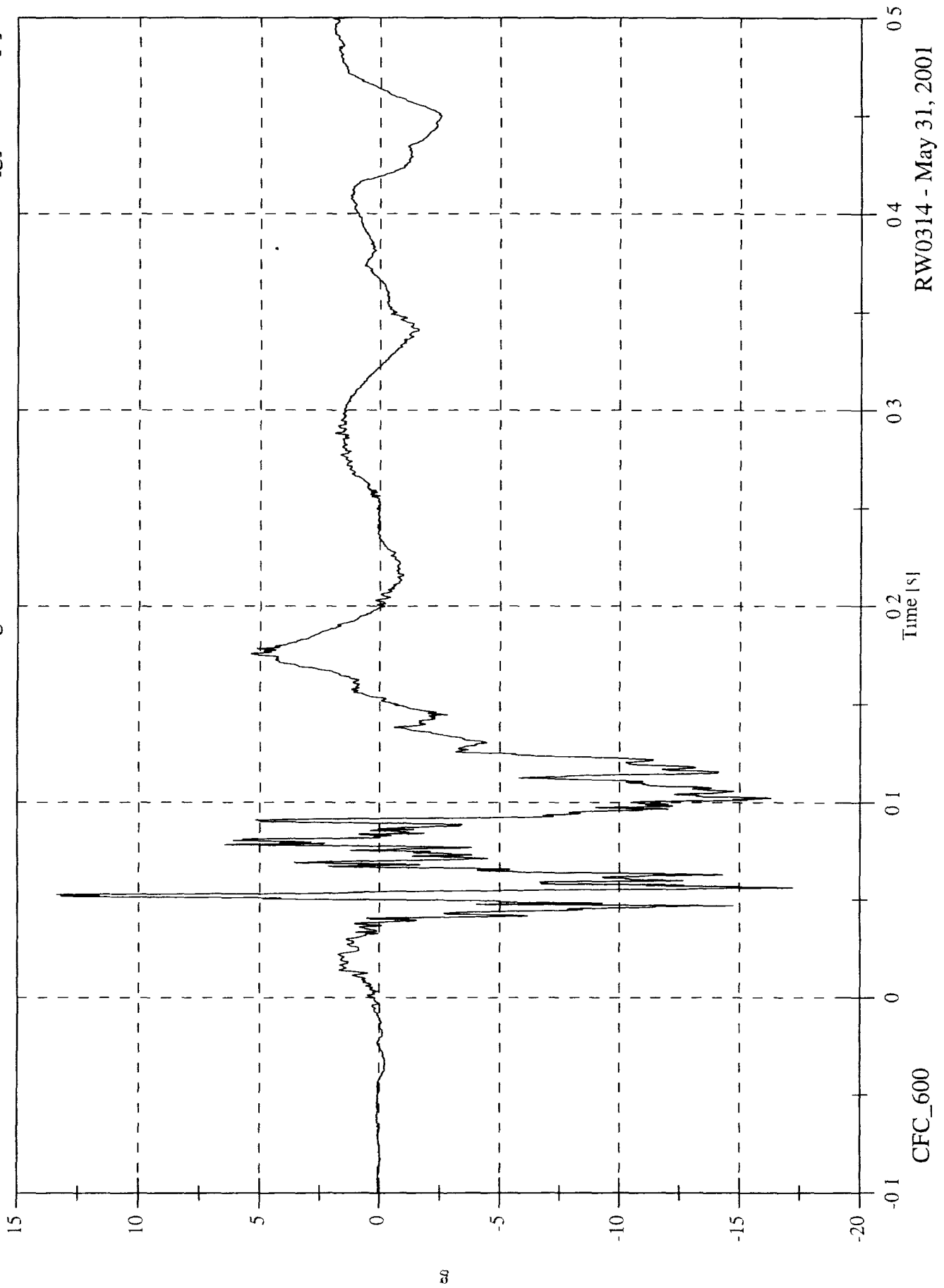
Max: 13.8 [g] at 0.076 [s]
Min: -65.7 [g] at 0.116 [s]



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 13.3 [g] at 0.053 [s]
Min: -17.2 [g] at 0.056 [s]

P2 Right Foot Az

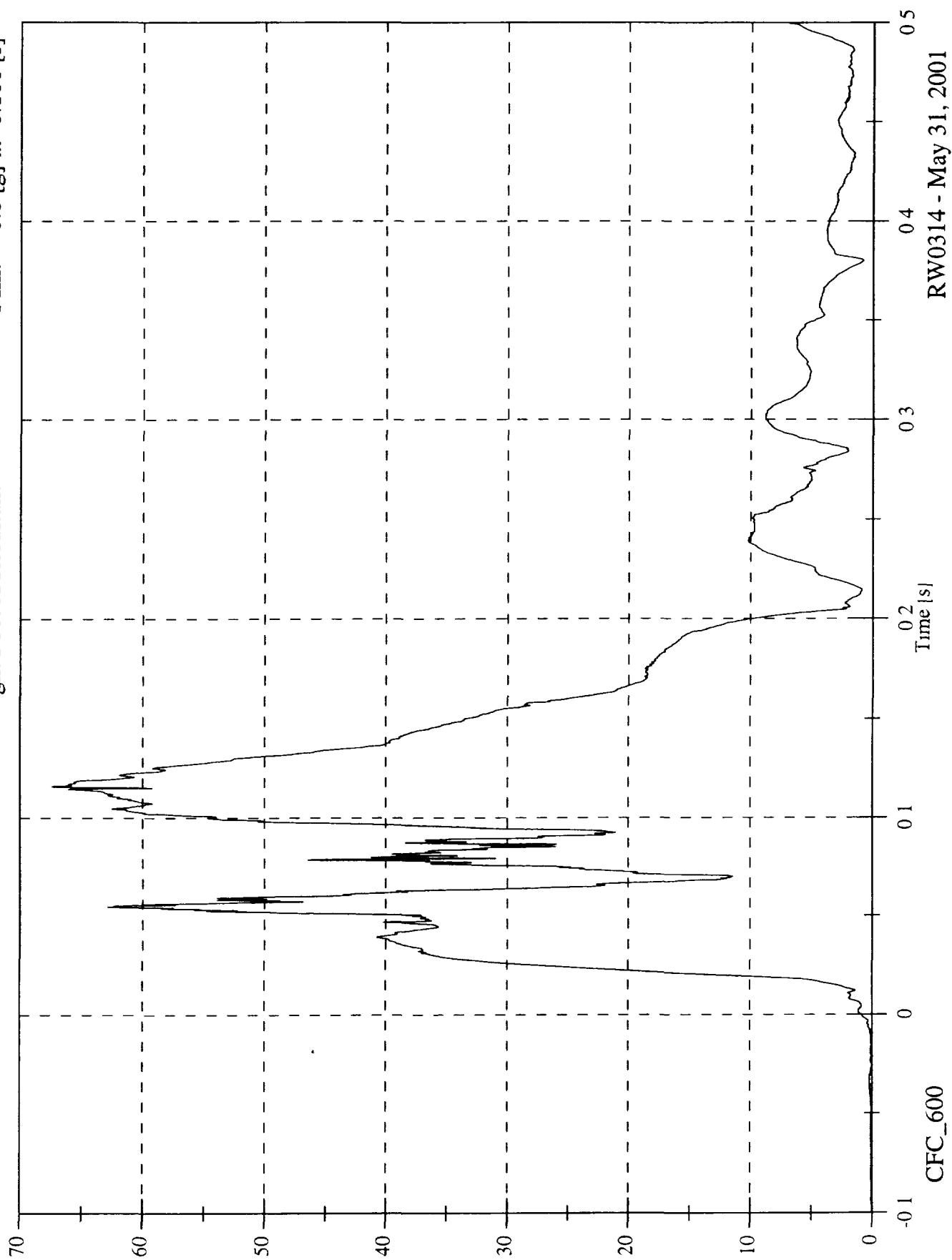


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

P2 Right Foot A Resultant

Max: 67.4 [g] at 0.116 [s]
Min: 0.0 [g] at -0.100 [s]

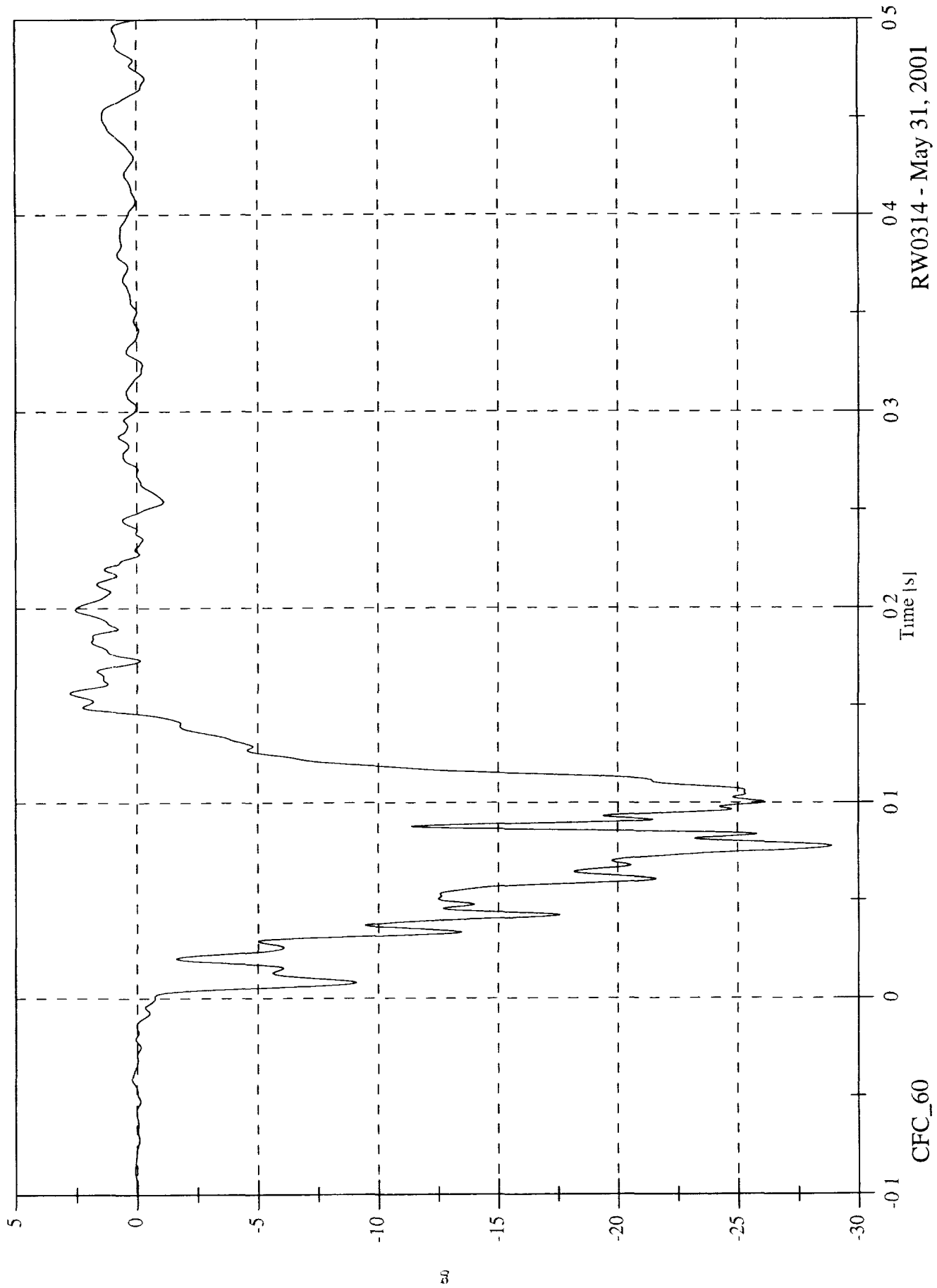


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 2.8 [g] at 0.156 [s]
Min: -28.9 [g] at 0.078 [s]

Acc 1 Rear XMBR Left X



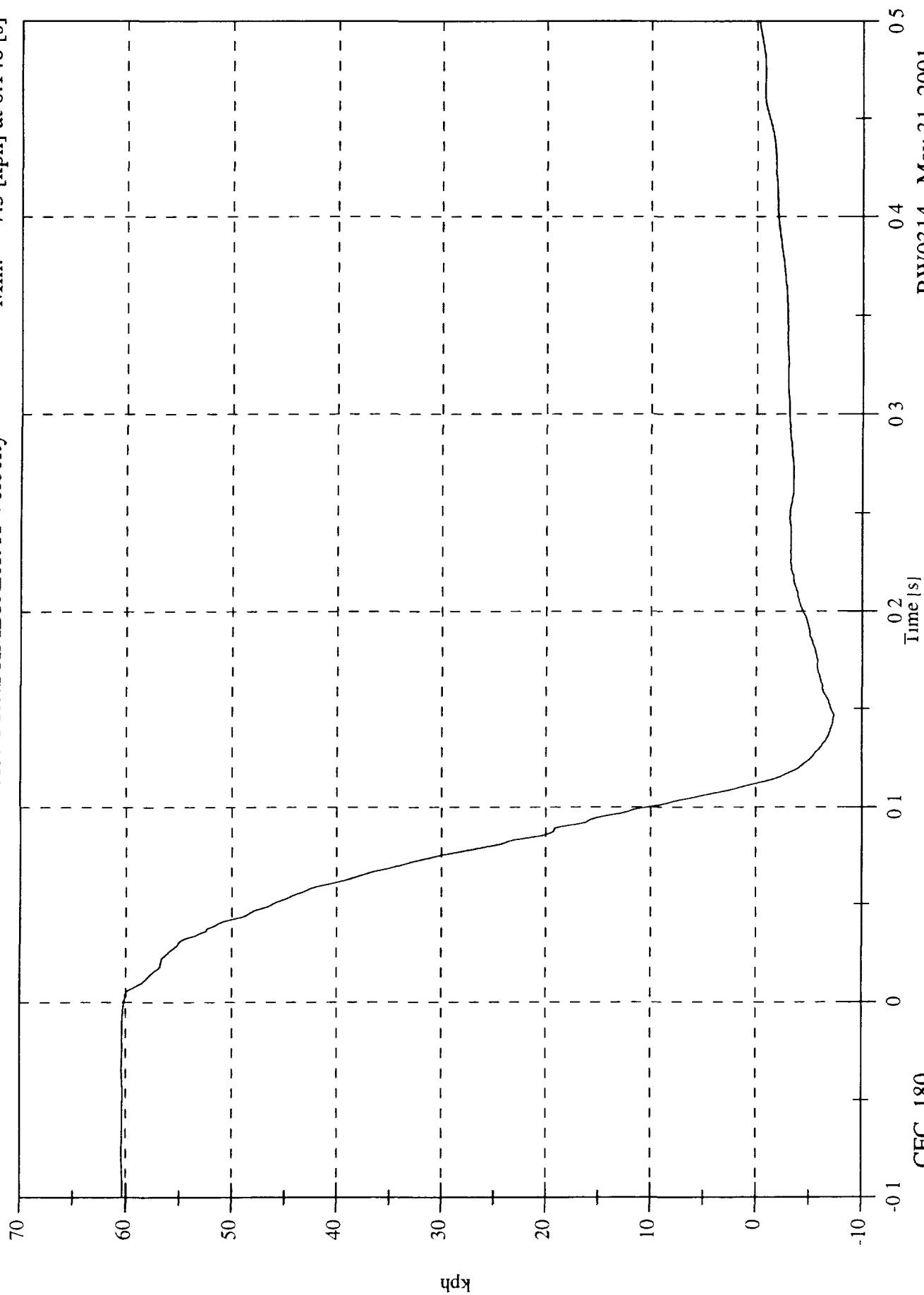
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 60.4 [kph] at -0.077 [s]

Min: -7.3 [kph] at 0.146 [s]

Acc 1 Rear XMBR Left X Velocity



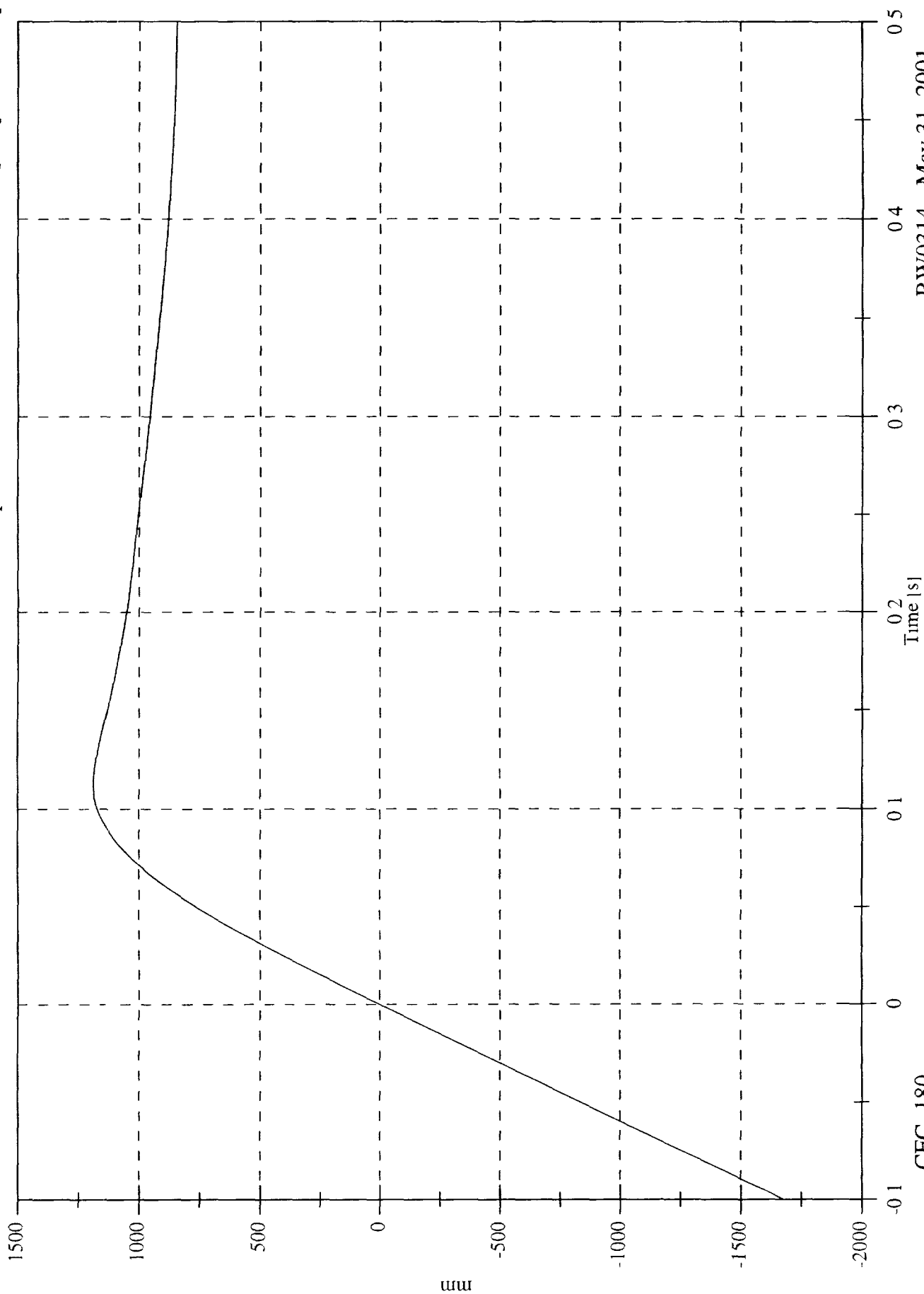
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 1188.0 [mm] at 0.112 [s]
 Min: -1676.5 [mm] at -0.100 [s]

Acc 1 Rear XMBR Left X Displacement



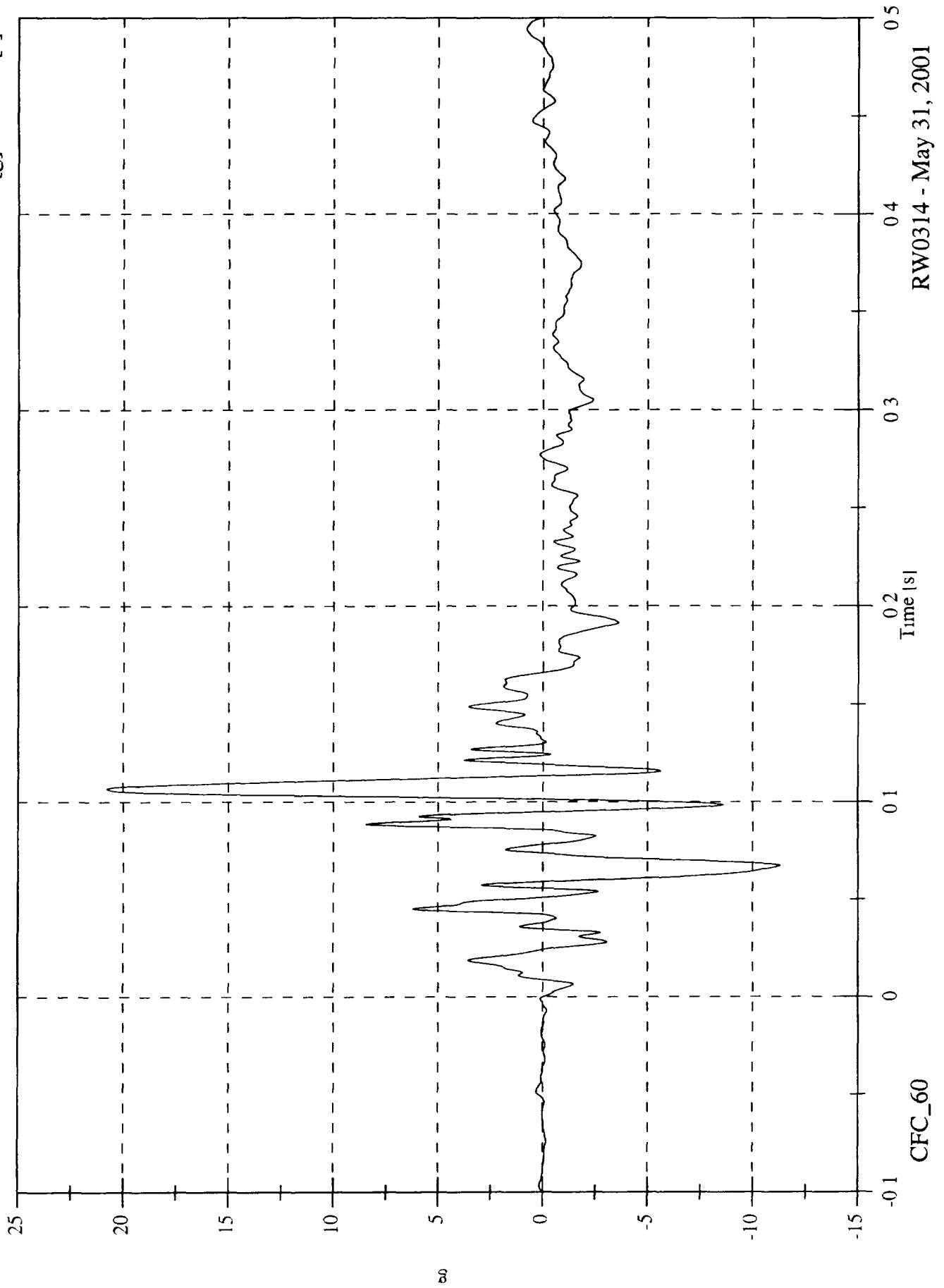
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 20.8 [g] at 0.107 [s]
Min: -11.3 [g] at 0.067 [s]

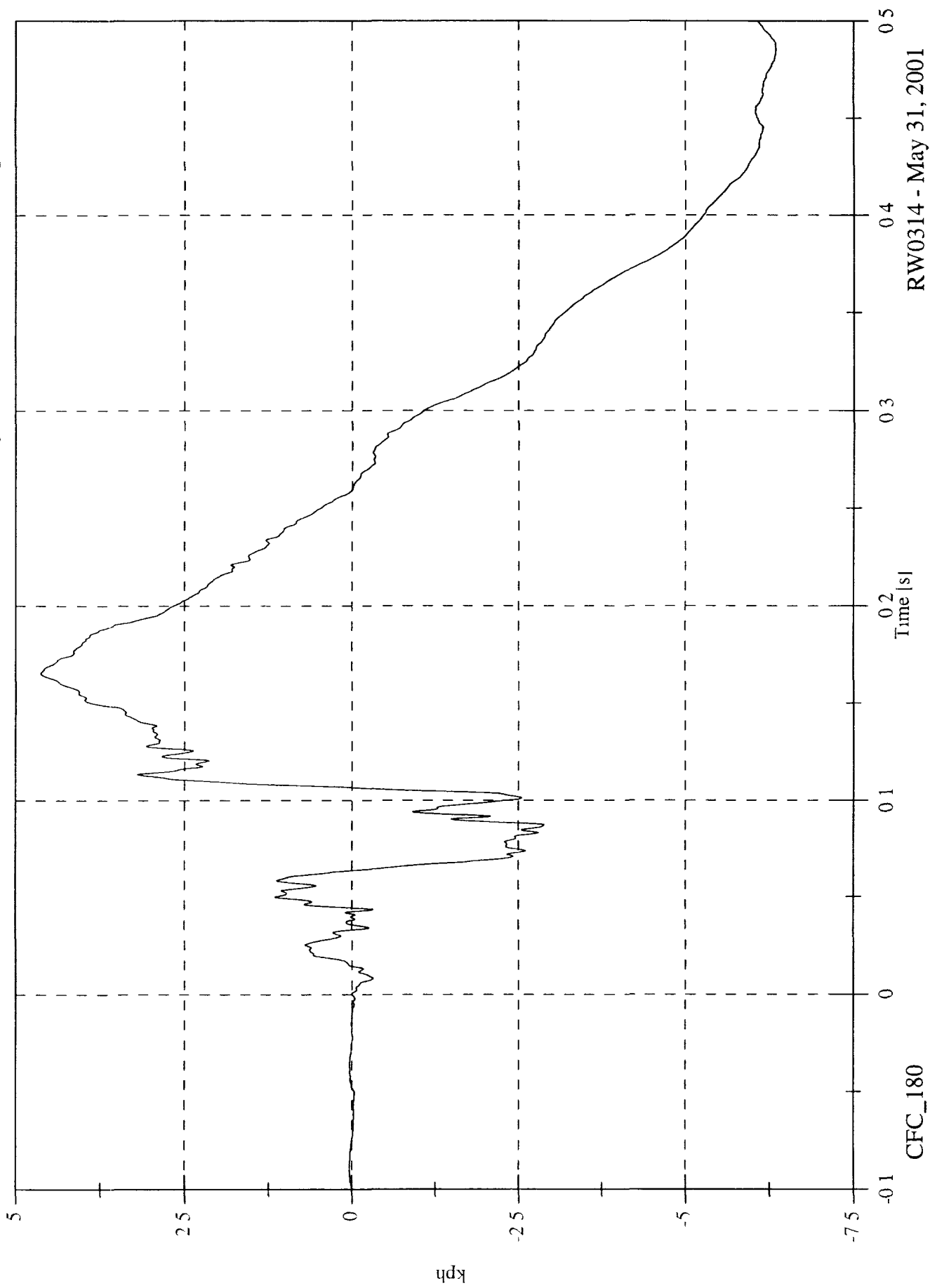
Acc 2 Rear XMBR Left Y



40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 4.6 [kph] at 0.166 [s]
Min -6.4 [kph] at 0.485 [s]

Acc 2 Rear XMBR Left Y Velocity

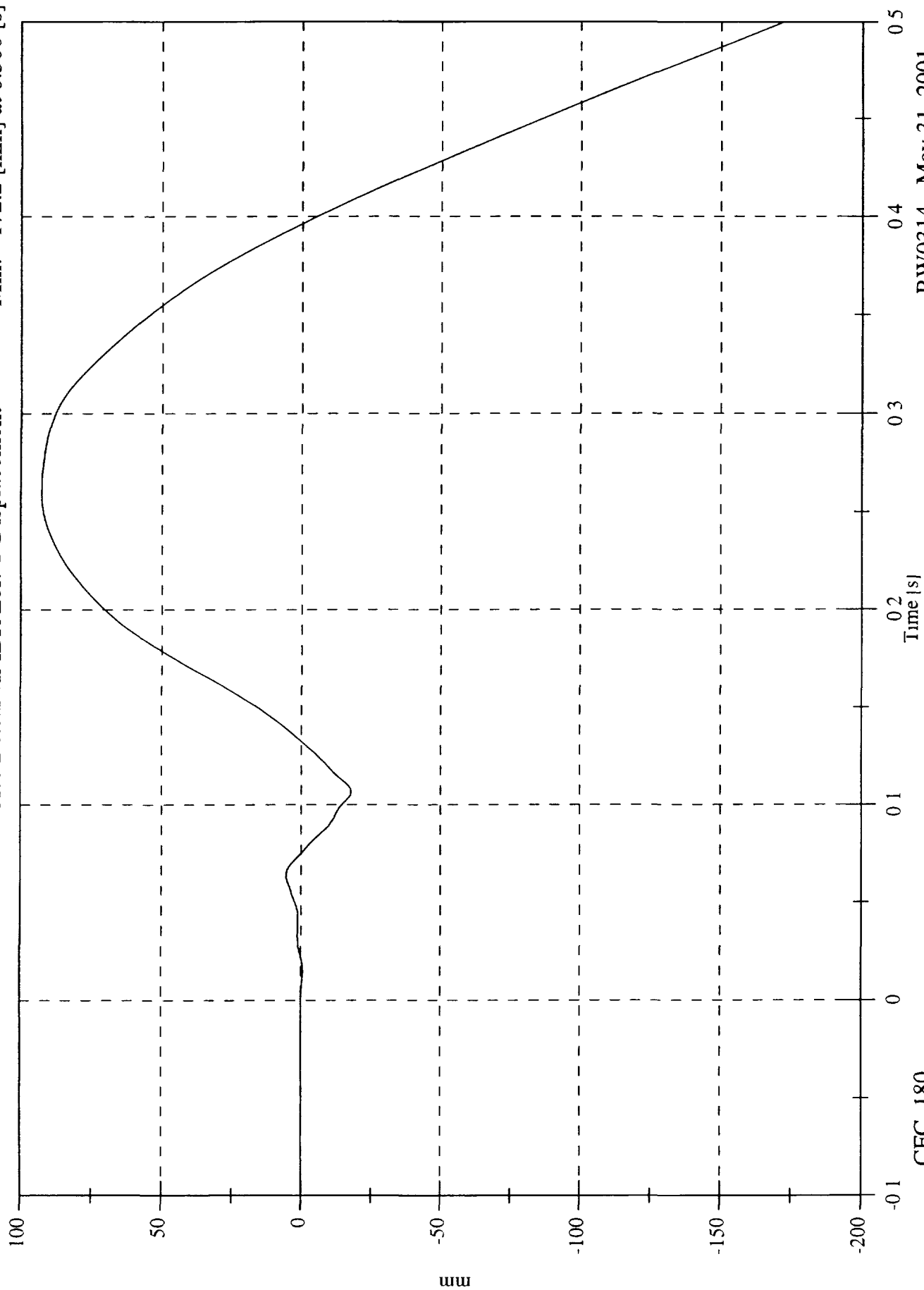


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 92.6 [mm] at 0.259 [s]
Min: -172.2 [mm] at 0.500 [s]

Acc 2 Rear XMBR Left Y Displacement



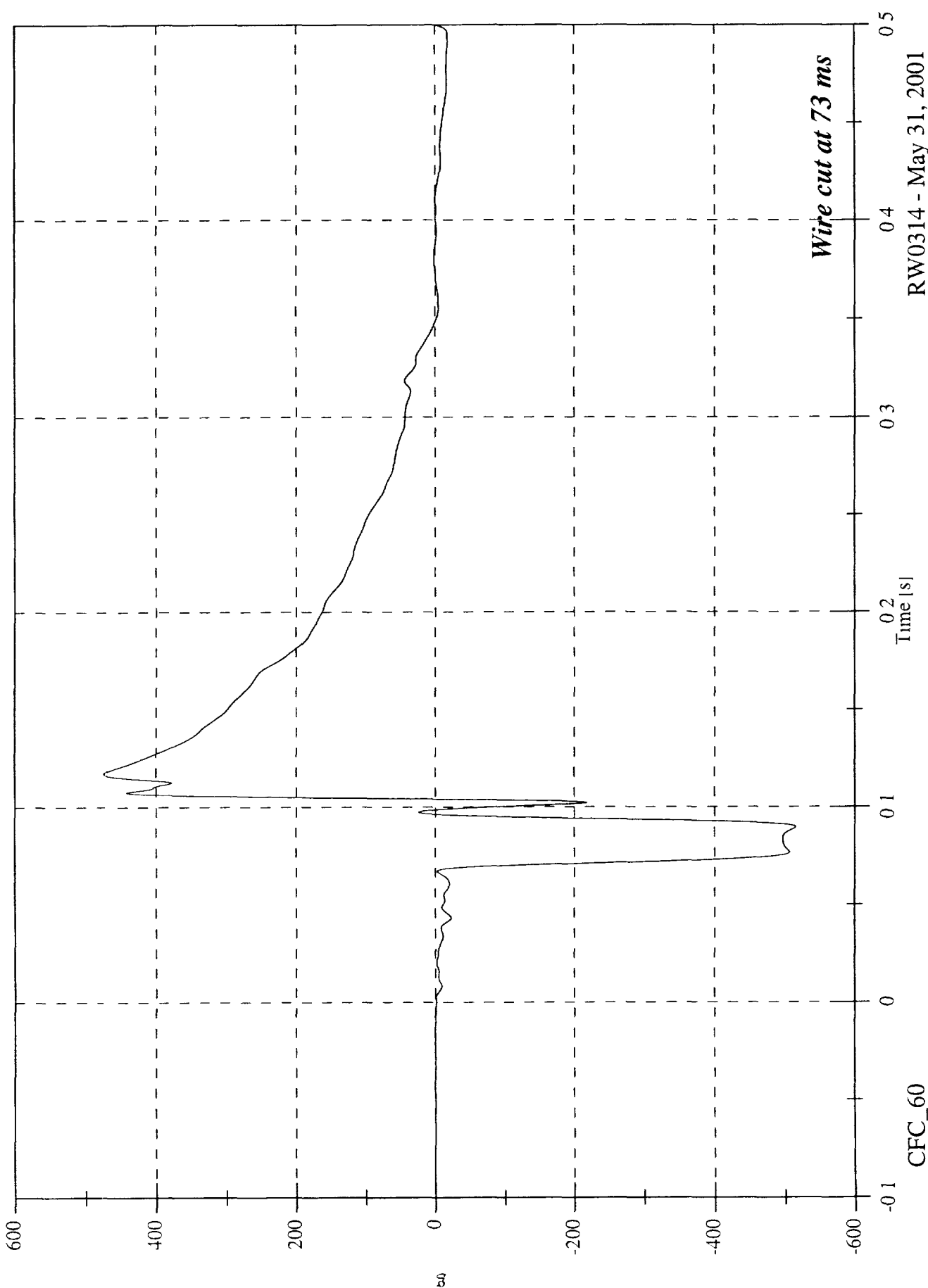
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 3 Rear XMBR Right X

Max. 474.0 [g] at 0.117 [s]
Min: -515.9 [g] at 0.090 [s]

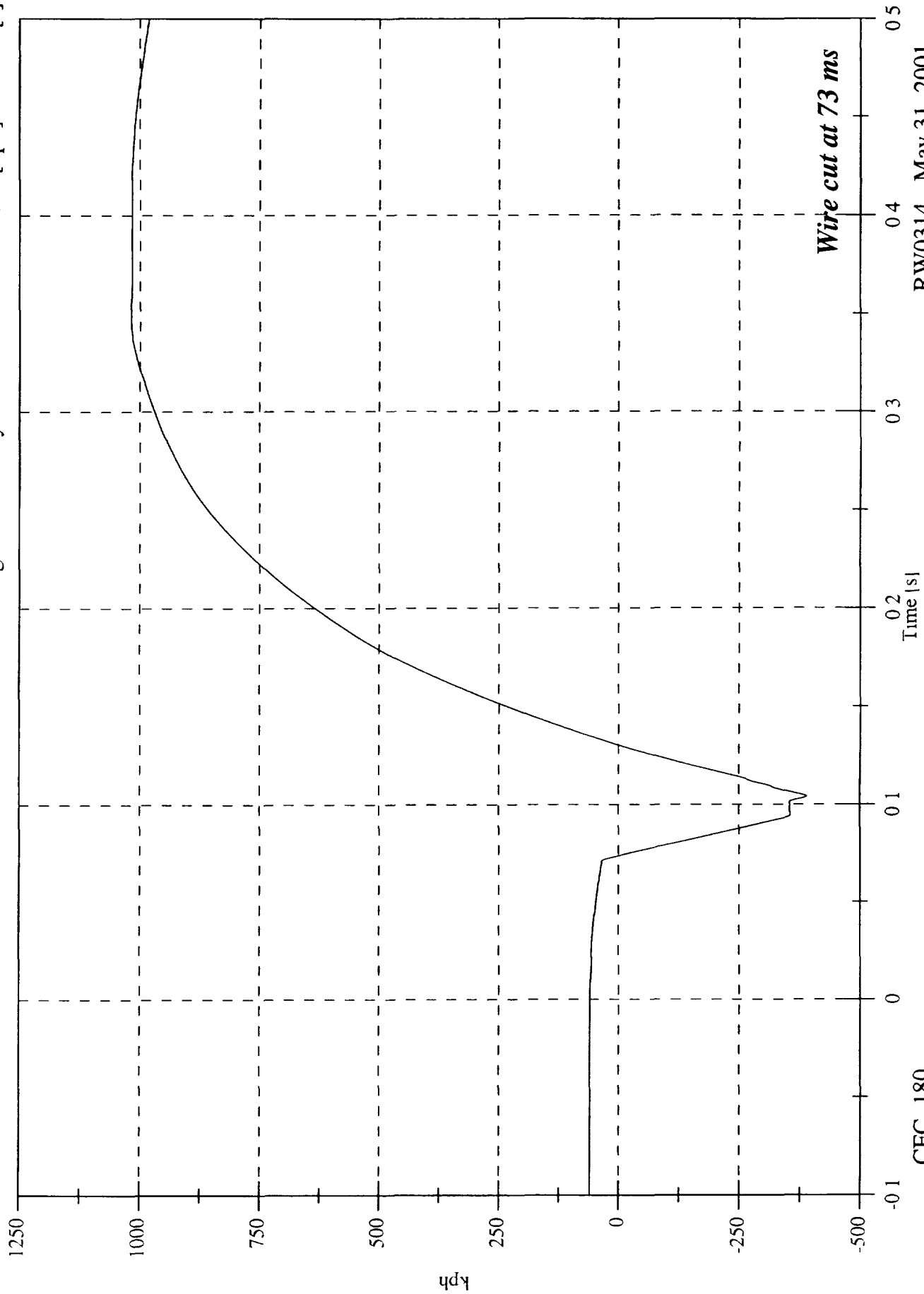


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 3 Rear XMBR Right X Velocity

Max: 1018.6 [kph] at 0.349 [s]
Min: -389.7 [kph] at 0.104 [s]



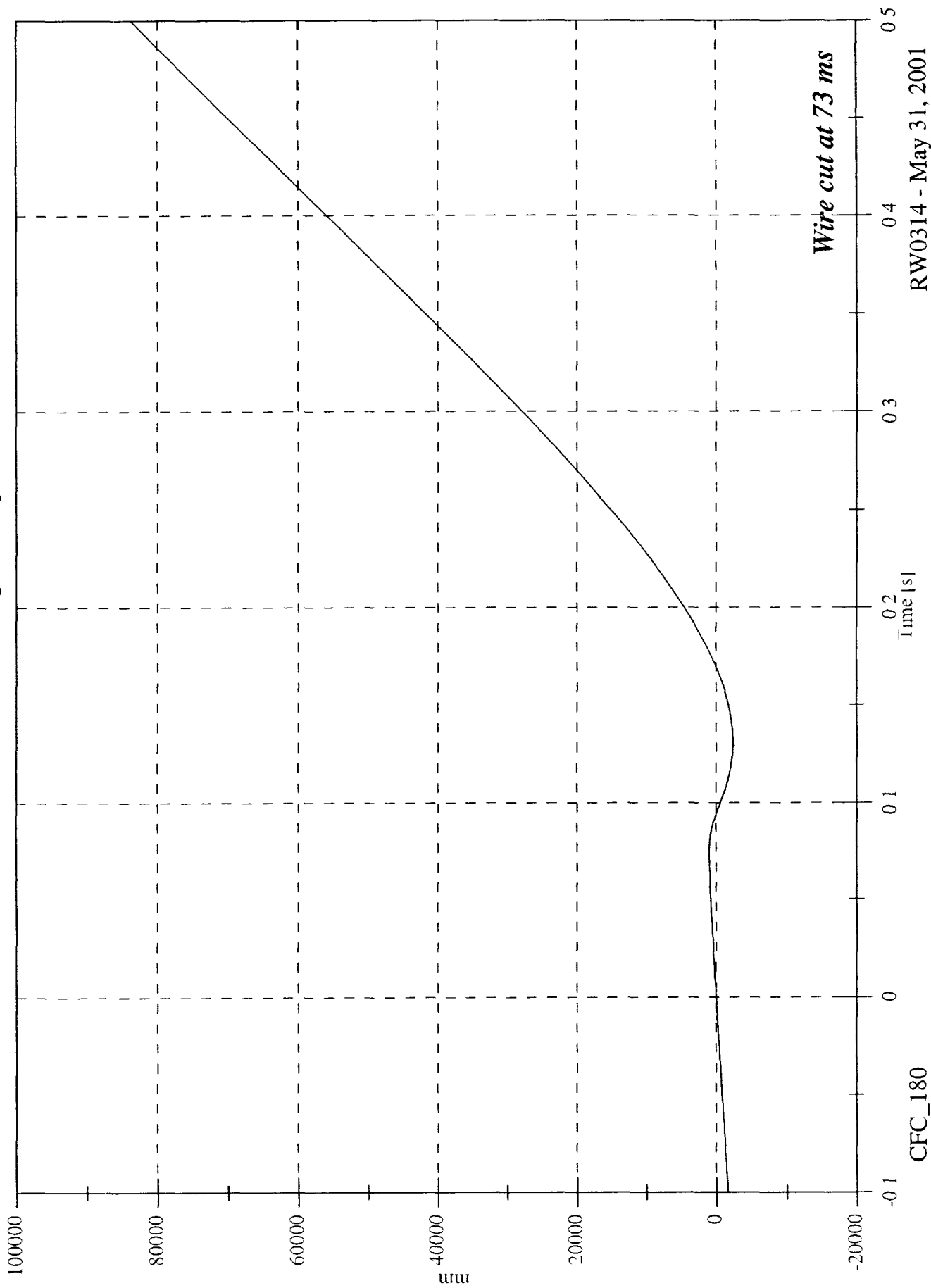
CFC_180

Wire cut at 73 ms

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon
 Acc 3 Rear XMBR Right X Displacement

Max. 83817.4 [mm] at 0.500 [s]
 Min. -2413.5 [mm] at 0.130 [s]



Wire cut at 73 ms

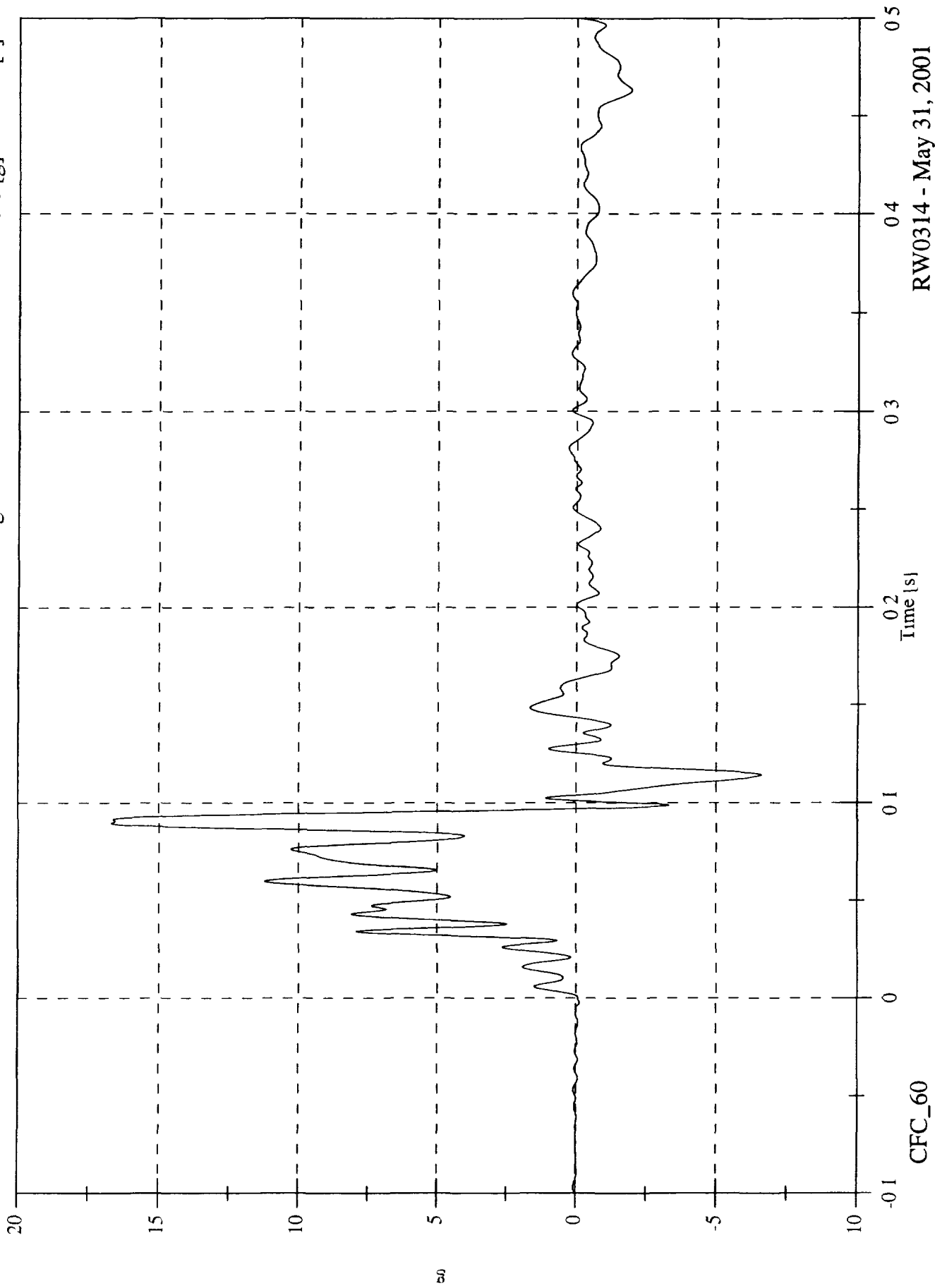
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 4 Rear XMBR Right Y

Max: 16.7 [g] at 0.090 [s]

Min: -6.6 [g] at 0.114 [s]

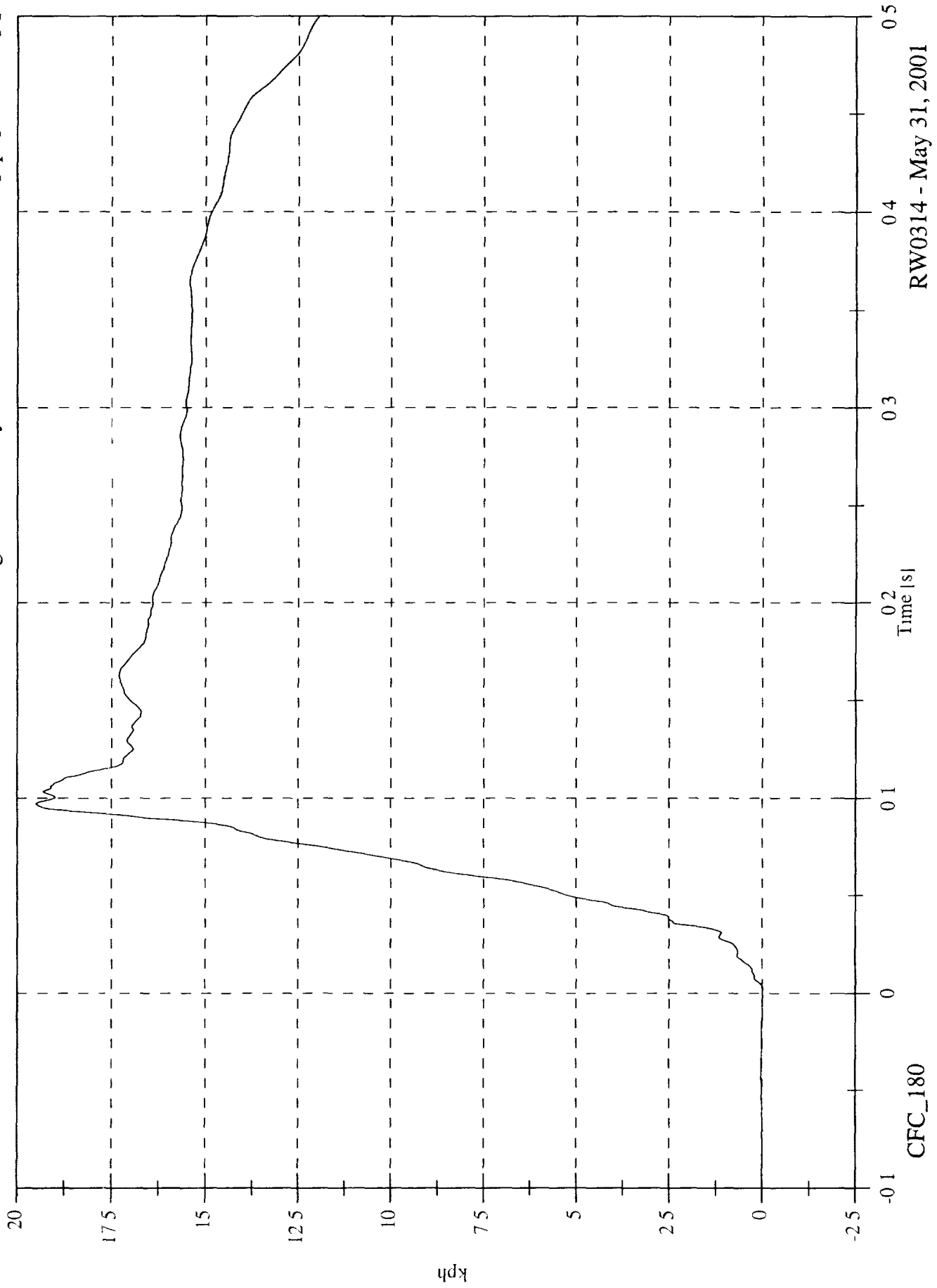


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 4 Rear XMBR Right Y Velocity

Max: 19.5 [kph] at 0.097 [s]
Min: -0.0 [kph] at 0.002 [s]



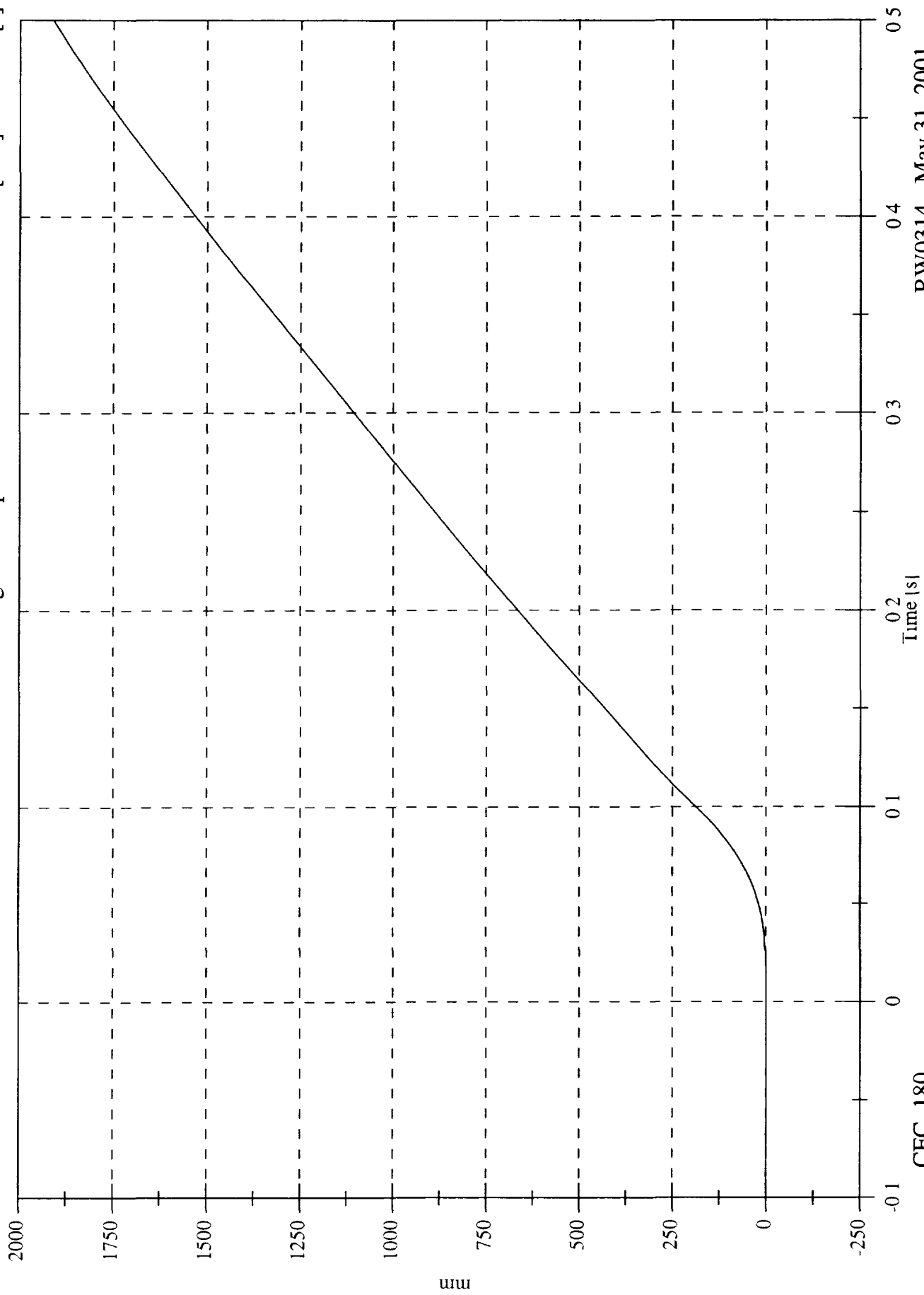
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon
Acc 4 Rear XMBR Right Y Displacement

Max: 1910.6 [mm] at 0.500 [s]

Min: -0.3 [mm] at -0.100 [s]



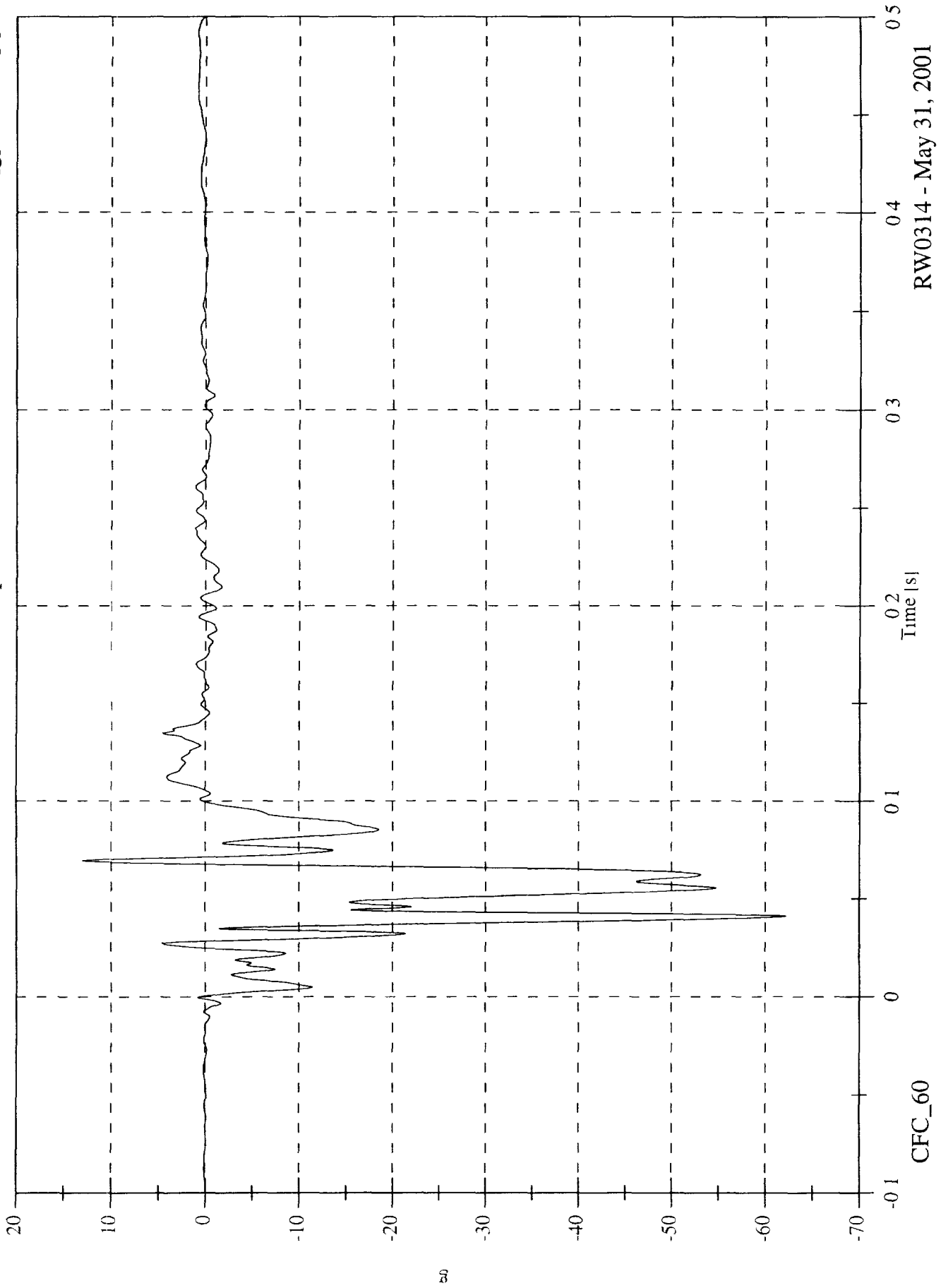
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 5 P1 Toepan Left X

Max: 13.0 [g] at 0.069 [s]
Min: -62.2 [g] at 0.041 [s]

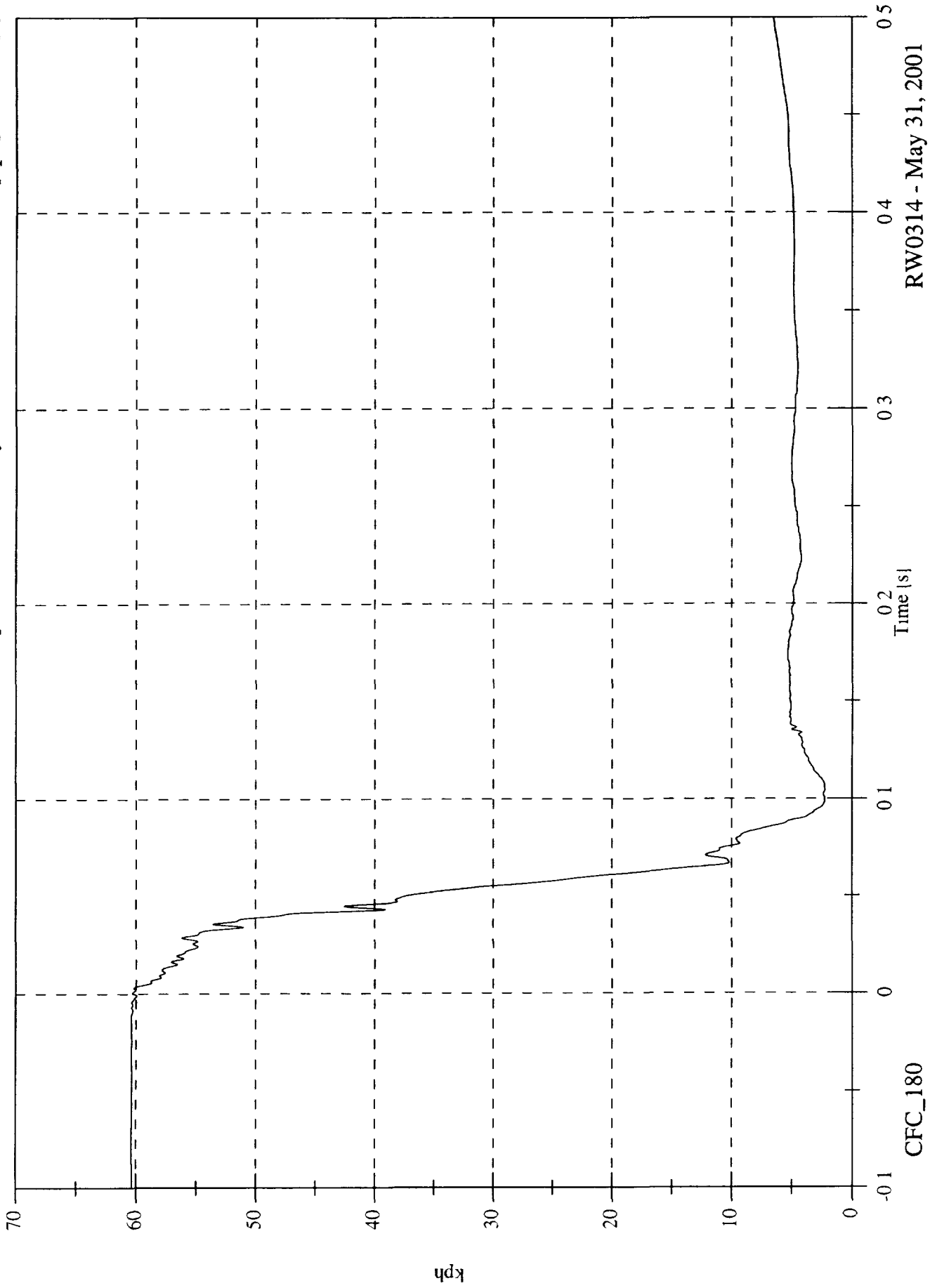


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 5 P1 Toe pan Left X Velocity

Max: 60.4 [kph] at -0.032 [s]
Min: 2.2 [kph] at 0.104 [s]

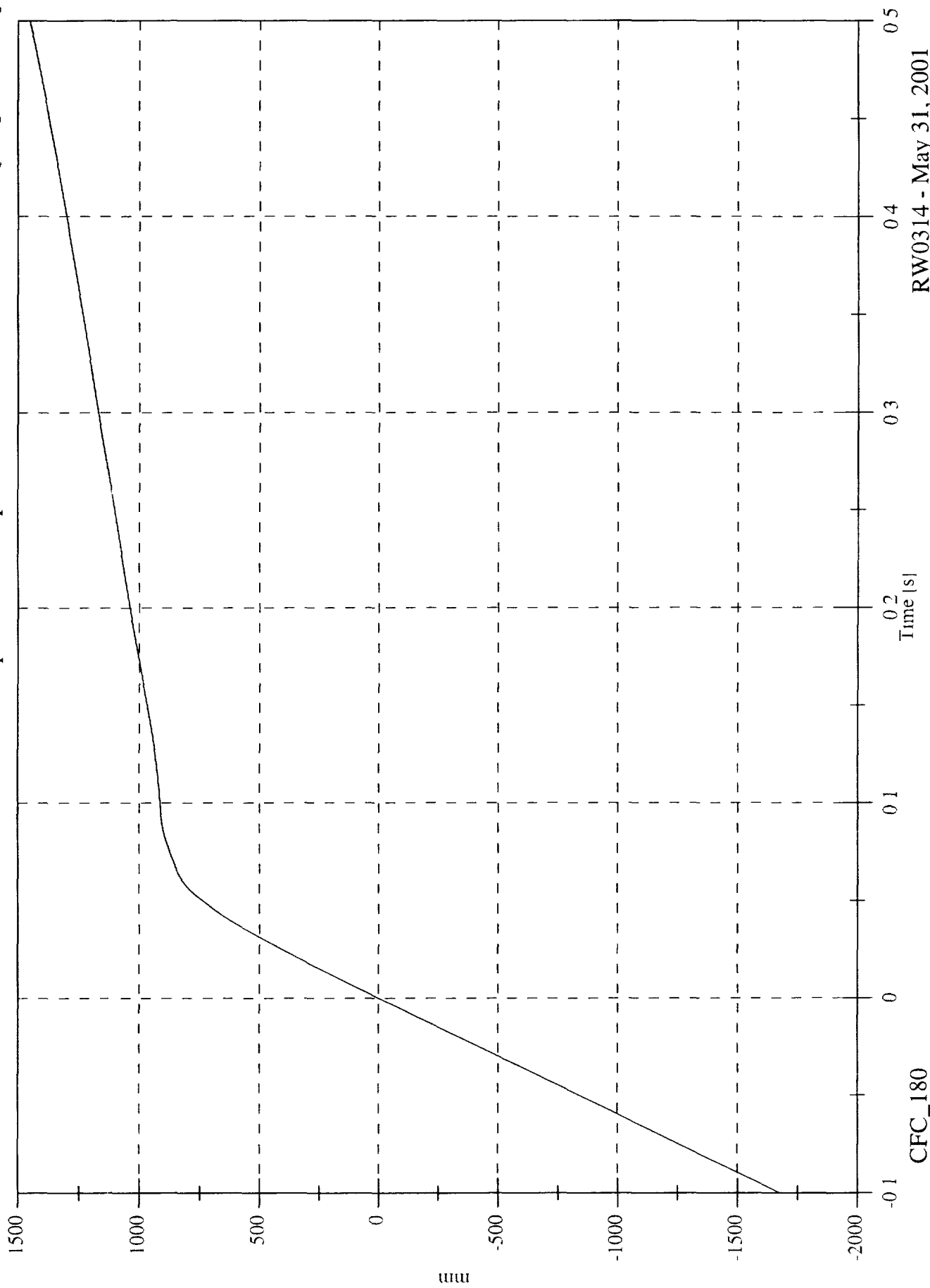


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 1452.2 [mm] at 0.500 [s]
Min: -1676.4 [mm] at -0.100 [s]

Acc 5 P1 Toe pan Left X Displacement



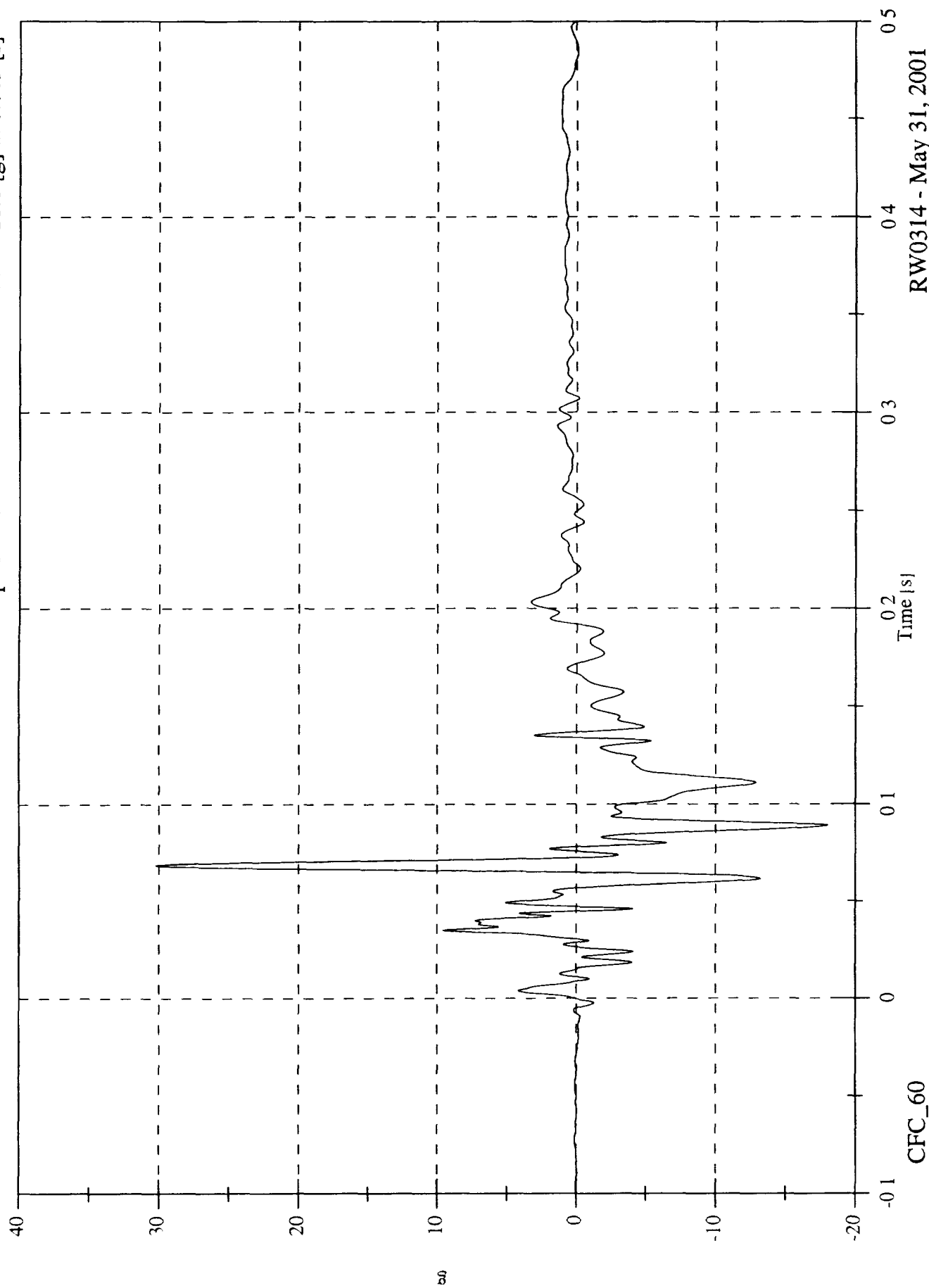
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 6 P1 Toe pan Left Z

Max: 30.2 [g] at 0.068 [s]

Min: -18.0 [g] at 0.089 [s]

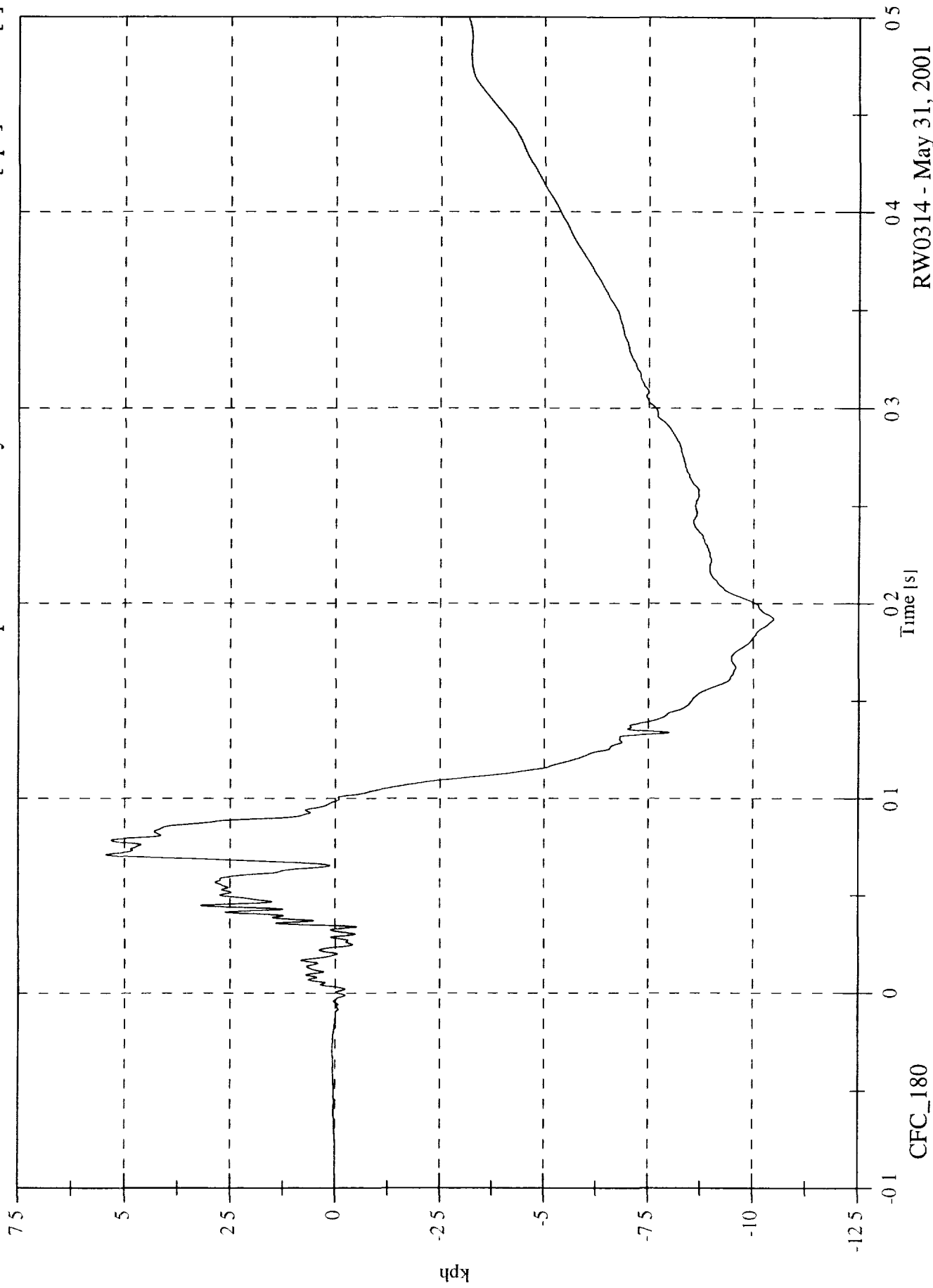


40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 5.4 [kph] at 0.071 [s]

Min: -10.5 [kph] at 0.192 [s]

Acc 6 P1 Toe Pan Left Z Velocity

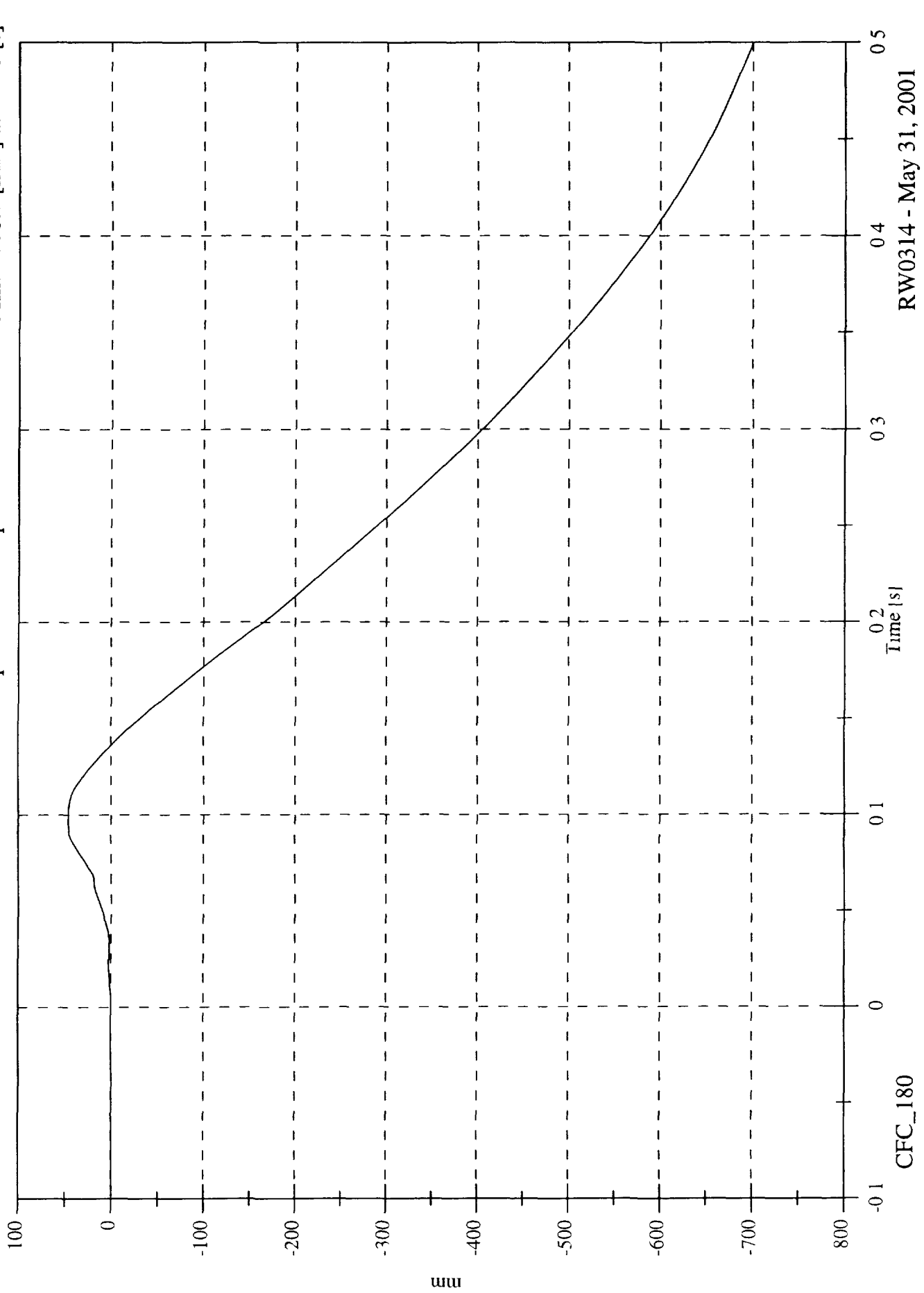


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 6 P1 Toe pan Left Z Displacement

Max: 46.0 [mm] at 0.099 [s]
Min: -700.7 [mm] at 0.500 [s]



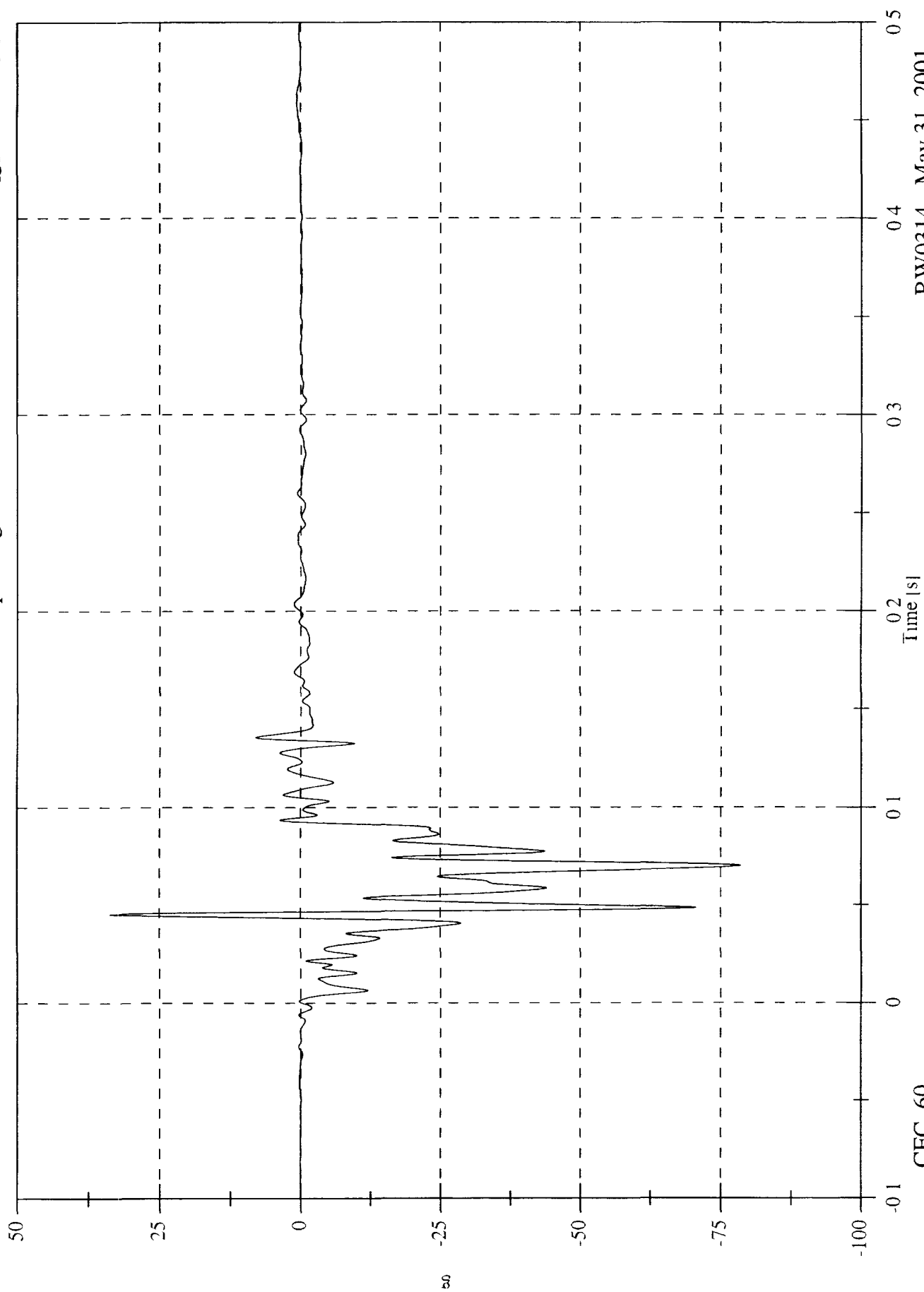
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 33.6 [g] at 0.045 [s]

Acc 7 P1 Toe pan Right X

Min: -78.5 [g] at 0.070 [s]



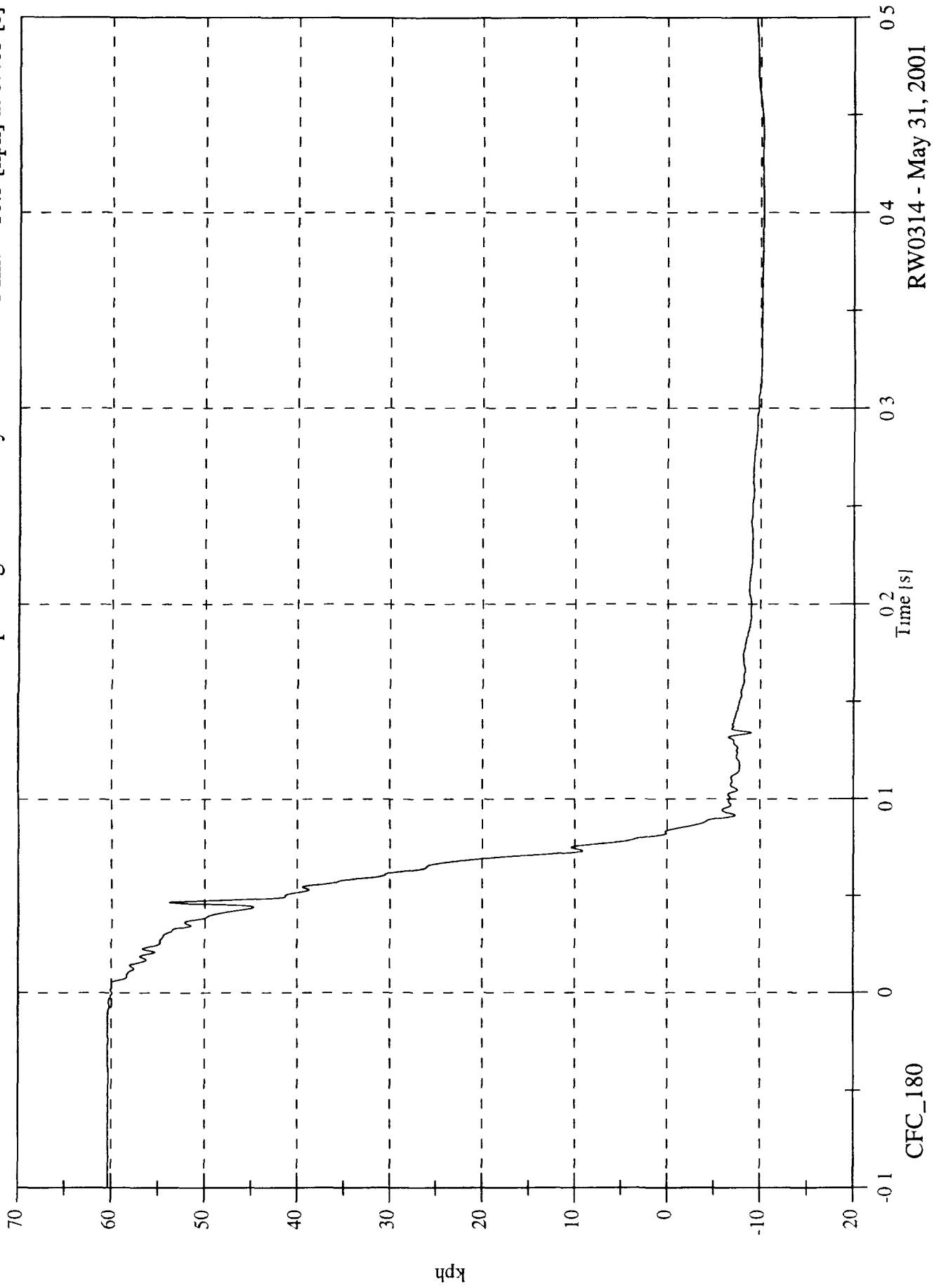
RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 7 Pl Toe pan Right X Velocity

Max: 60.4 [kph] at -0.021 [s]

Min: -10.3 [kph] at 0.405 [s]



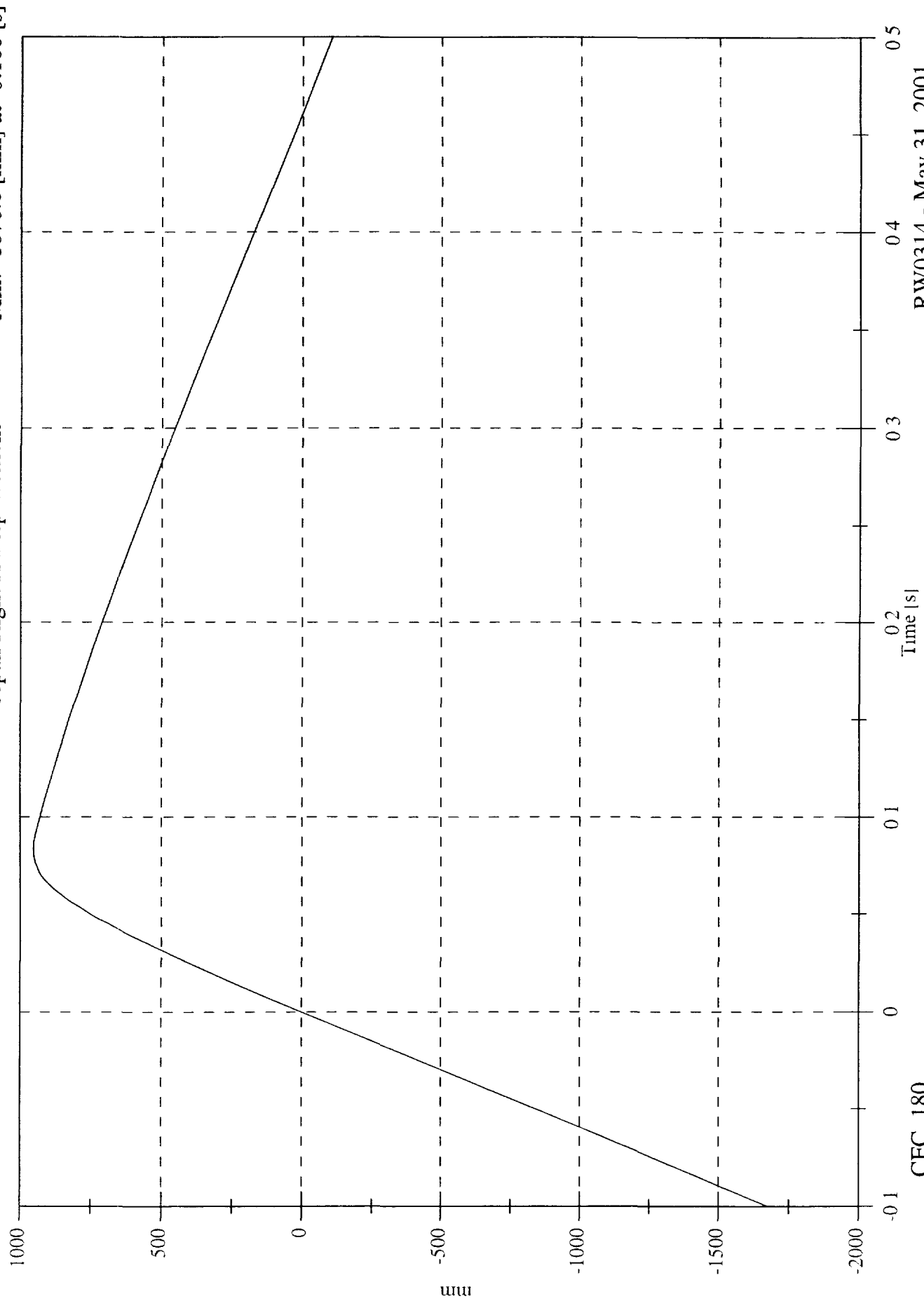
CFC_180

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 952.3 [mm] at 0.084 [s]
Min: -1676.6 [mm] at -0.100 [s]

Acc 7 P1 Toe pan Right X Displacement



CFC_180

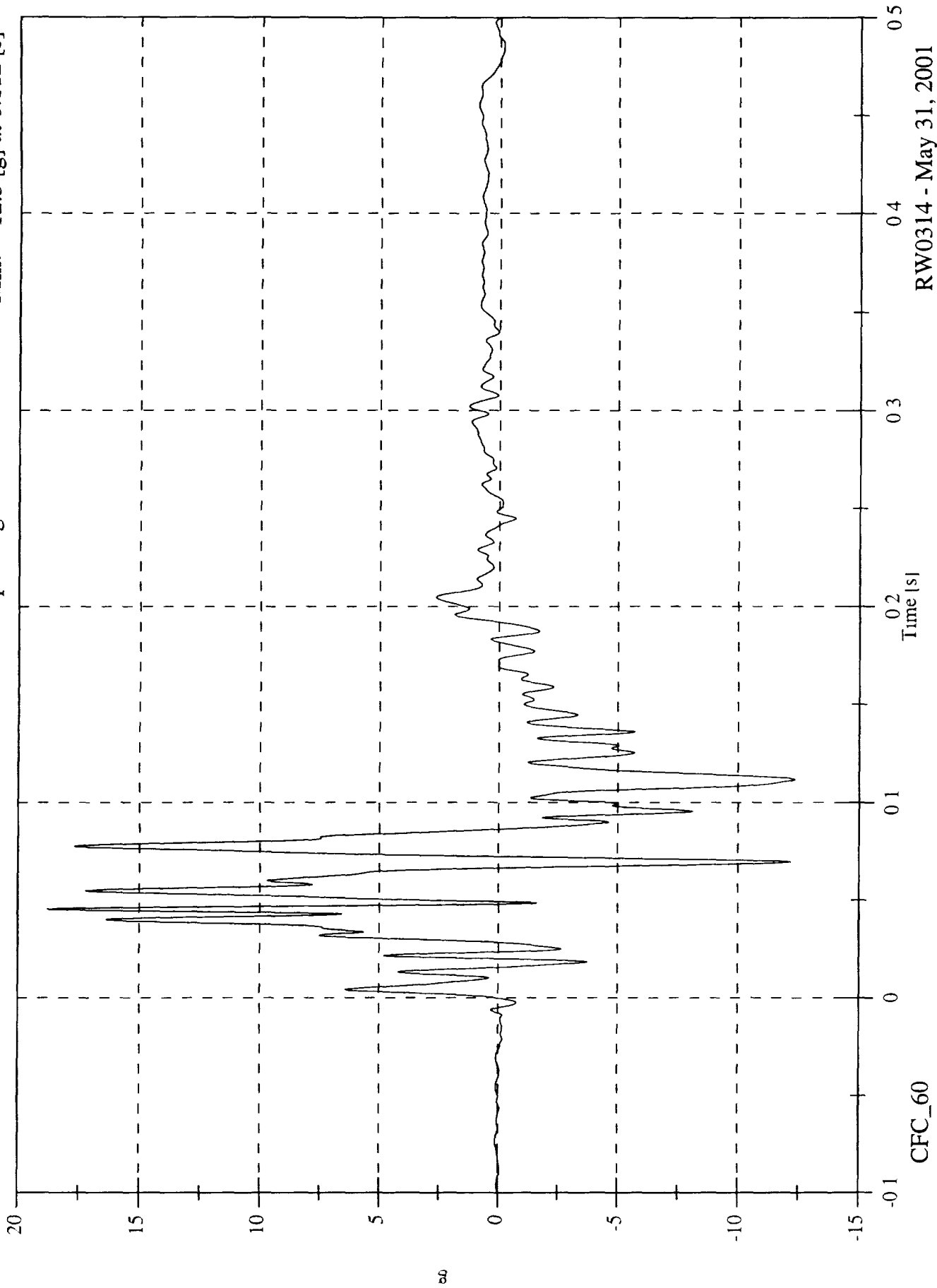
Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Acc 8 P1 Toepan Right Z

Max: 18.8 [g] at 0.045 [s]
Min: -12.3 [g] at 0.112 [s]

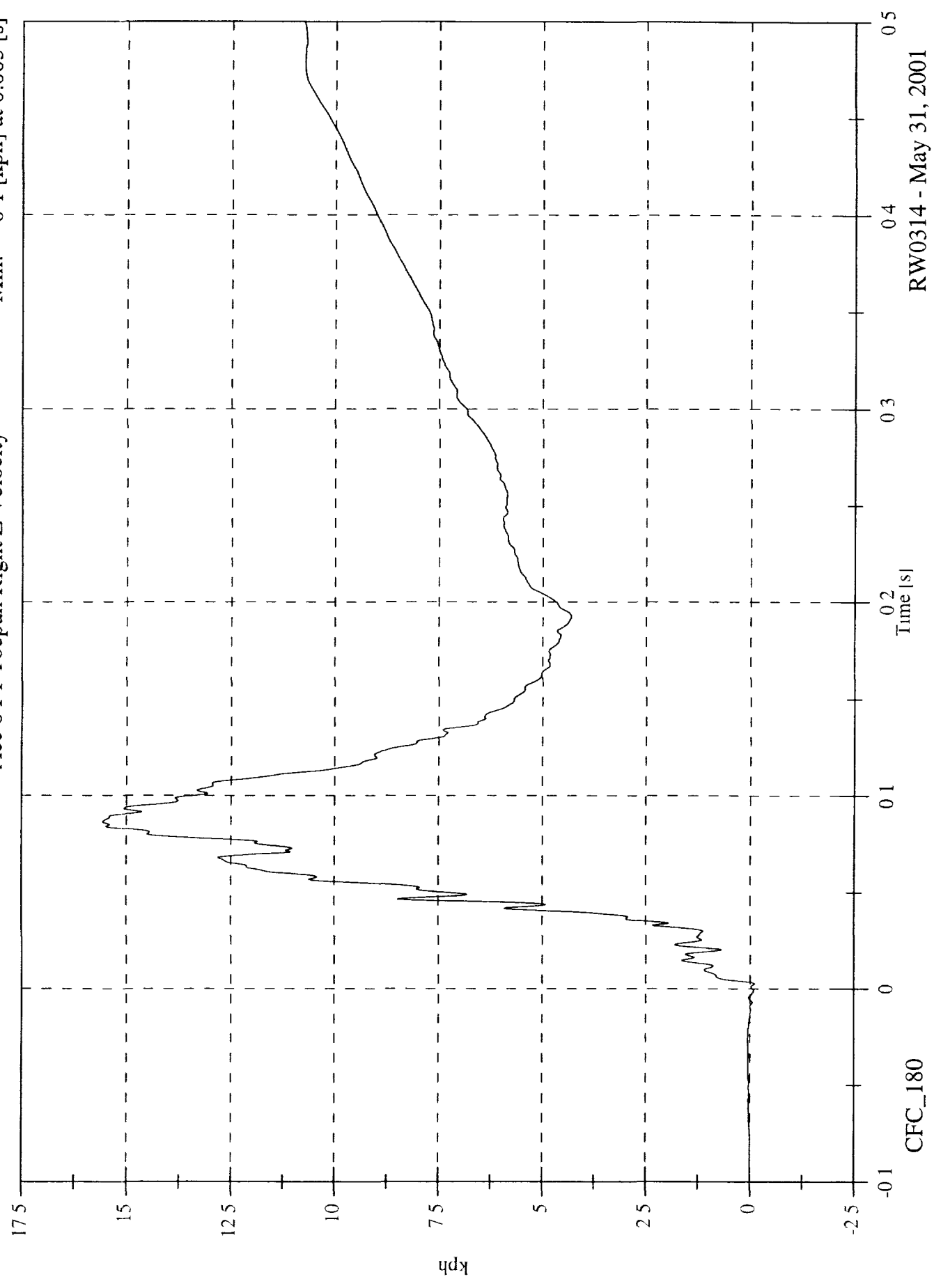


RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon

Max: 15.6 [kph] at 0.086 [s]
Min: -0.1 [kph] at 0.003 [s]

Acc 8 P1 Toe pan Right Z Velocity



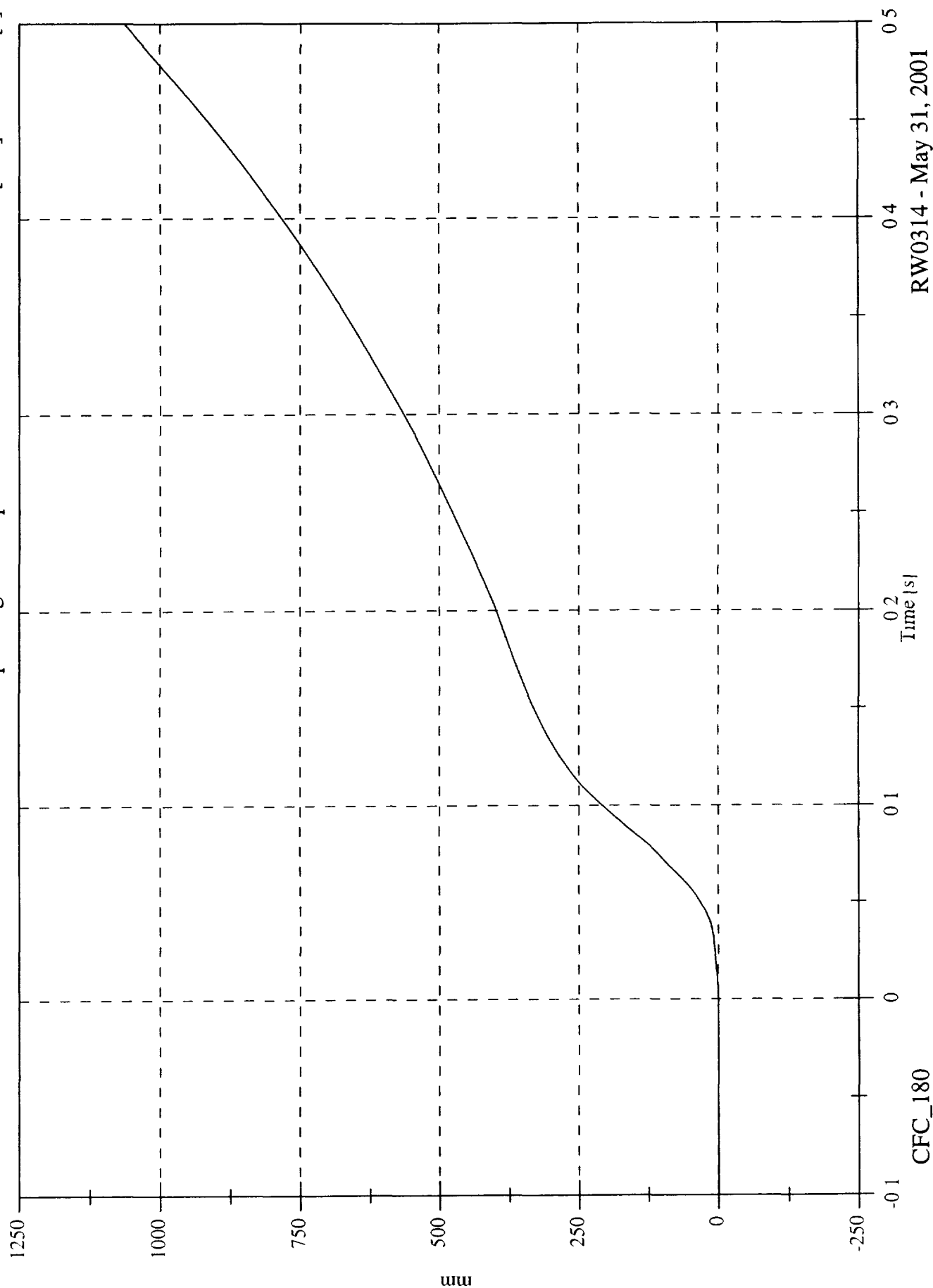
CFC_180

Time [s]

RW0314 - May 31, 2001

40% Frontal Offset Test # 8 - 1998 Dodge Neon
Acc 8 P1 Toe pan Right Z Displacement

Max: 1062.5 [mm] at 0.500 [s]
Min: -0.6 [mm] at -0.099 [s]



RW0314 - May 31, 2001

APPENDIX C

PART 572B/E DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 50th percentile male anthropomorphic test devices utilized for this crash test. The results indicate that the dummies meet all of the performance requirements of the six standard tests as specified in 49 CFR Part 572, Federal Register, Volume 42, No. 25, dated February 7, 1977.

The tests were conducted at the Dummy Certification Test Facility of Veridian Engineering. A summary of the test results, and Part 572 specifications are included in this Appendix.

Dummy serial numbers and certification dates are

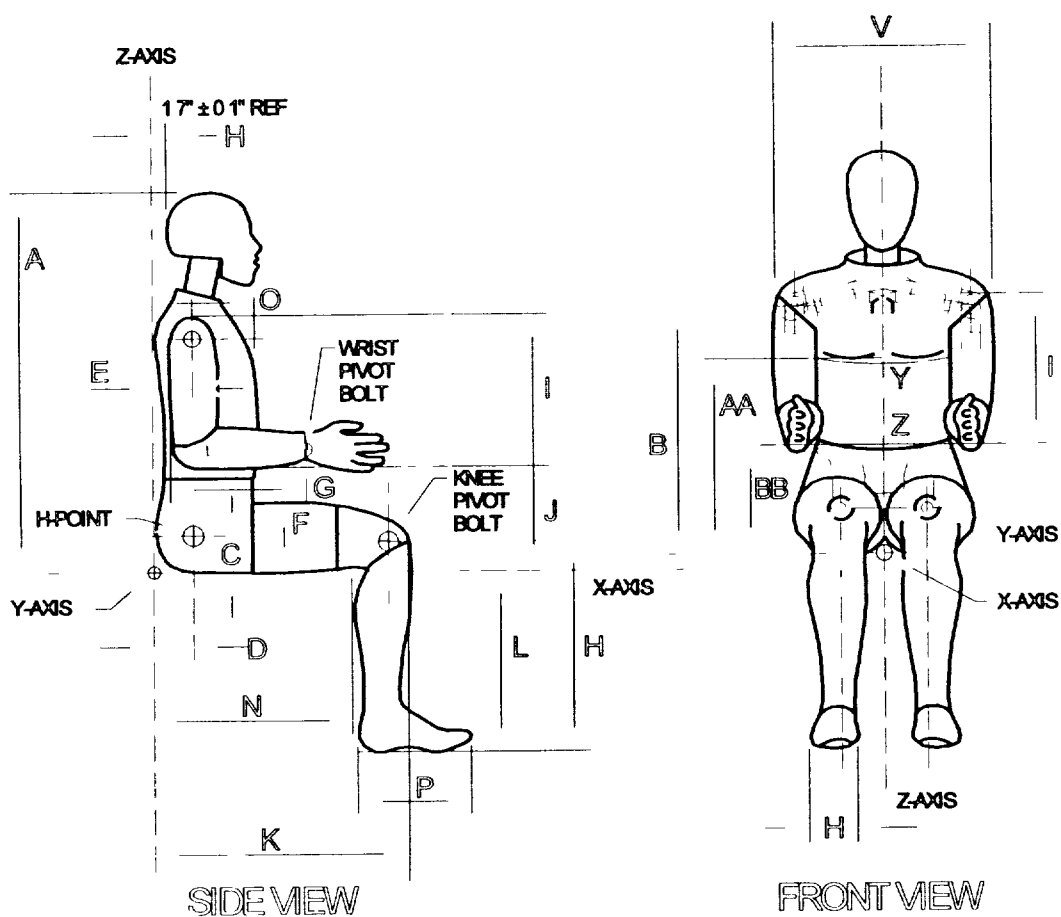
<u>Position No./Location</u>	<u>Serial No.</u>	<u>Completion Date</u>
#1/Driver	288	May 8, 2001
#2/Right Front Passenger	421	May 8, 2001

Electronic Test Equipment

The complement of signal conditioning, recording and display equipment, in conjunction with dummy certification testing, can be found in New Car Assessment and Standards Inducant Testing Final Report No. 6525-V-1.

DUMMY CONFIGURATION DIMENSIONS

EXTERNAL DIMENSIONS SPECIFICATIONS



NOTE: Figure is referenced to the erect seated position. The curved lumbar does not allow the Hybrid III to be positioned in a perfect erect attitude.
(REF S572.31(A)(6))

PART 5720
HEAD DROP TEST

Dummy Serial Number 288
Sequential Test Number 1
Date May 2, 2001
Workfile 288101 hdp

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	72
Relative Humidity	10% - 70%	32
Peak Resultant Acceleration	250-300 G's	257.57
Peak Lateral Acceleration	15 G's Max	2.75
Is Acceleration Curve Unimodal?	YES	YES

Remarks

Laboratory Technician B. Swiecicki

**PART 5720
NECK FLEXION TEST**

Dummy Serial Number 288
 Sequential Test Number 1
 Date May 3, 2001
 Workfile Ac0100a raw

6 Axis Neck Transducer

TEST PARAMETER		RECOMMENDATION	TEST RESULTS
Temperature		69-72 Deg F	70
Relative Humidity		10% - 70%	32
Impact Velocity		22.6 - 23.4 Ft/s	23.00
Pendulum Deceleration	10 ms	6.9 - 8.2 ft/s	7.99
	20 ms	13.1 - 16.4 ft/s	13.94
	30 ms	19.0 - 23.0 ft/s	19.03
D Plane Rotation	Max	77 - 91 Deg	88.08
Moment About Occipital Condyle	Max	51.0 - 61.0 Ft Lbs	57.88
Occipital Moment - Curve Decay Time to 7.38 ft-lbf		80 - 100 ms	87.04

Remarks

Laboratory Technician B. Swiecicki

PART 5720
NECK EXTENSION TEST

Dummy Serial Number	288	
Sequential Test Number	1	
Date	May 3, 2001	6 Axis Neck Transducer
Workfile	Ab0104a raw	

TEST PARAMETER		SPECIFICATION	TEST RESULT
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	32.0
Impact Velocity		19.50 - 20.30 Ft/s	19.58
Pendulum Deceleration	10 ms	4.9 - 6.2 ft/s	5.62
	20 ms	10.2 - 12.8 ft/s	11.39
	30 ms	15.1 - 18.4 ft/s	16.43
D Plane Rotation	Max	99 - 113 Deg	112.14
Moment About Occipital Condyle	Max	-50.2 - -38.4 Ft-Lbs	-41.19
Occipital Moment - Curve Decay Time to -7.38 ft lbf		94 - 114 ms	104.52

Remarks

Laboratory Technician B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number 288
Sequential Test Number 1
Date May 8, 2001
Workfile D10002a raw

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	70.0
Relative Humidity	10% - 70%	32.0
Pendulum Velocity	21.6 - 22.4 Ft/s	22.0
Maximum Deflection	1.90 - 2.20 in	2.12
Maximum Resistive Force	876 - 989 Lbs	924.20
Internal Hysteresis	69 - 85 %	75.57

Remarks

Laboratory Technician B. Swiecicki

PART 5720
HEAD DROP TEST

Dummy Serial Number 421
Sequential Test Number 1
Date May 2, 2001
Workfile 421101 hdp

TEST PARAMETER	SPECIFICATIONS	TEST RESULTS
Temperature	66-78 Deg F	72
Relative Humidity	10% - 70%	31
Peak Resultant Acceleration	250-300 G's	276.57
Peak Lateral Acceleration	15 G's Max	5.65
Is Acceleration Curve Unimodal?	YES	YES

Remarks

Laboratory Technician B. Swiecicki

PART 5720
NECK FLEXION TEST

Dummy Serial Number	421	
Sequential Test Number	1	
Date	May 3, 2001	6 Axis Neck Transducer
Workfile	Ad0100a raw	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	71 0
Relative Humidity		10% - 70%	32 0
Impact Velocity		22 6 - 23 4 Ft/s	23 32
Pendulum Deceleration	10 ms	6 9 - 8 2 ft/s	7 98
	20 ms	13 1 - 16 4 ft/s	14 17
	30 ms	19 0 - 23 0 ft/s	19 28
D Plane Rotation	Max	77 - 91 Deg	77 86
Moment About Occipital Condyle	Max	51 0 - 61 0 Ft-Lbs	59 55
Occipital Moment - Curve Decay Time to 7 38 ft lbf		80 - 100 ms	82 60

Remarks

Laboratory Technician B Swiecicki

PART 5720
NECK EXTENSION TEST

Dummy Serial Number	421	
Sequential Test Number	1	
Date	May 3, 2001	6 Axis Neck Transducer
Workfile	Ac0100a raw	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	71.0
Relative Humidity		10% - 70%	32.0
Impact Velocity		19.50 - 20.30 Ft/s	19.67
Pendulum Deceleration	10 ms	4.9 - 6.2 ft/s	5.29
	20 ms	10.2 - 12.8 ft/s	10.95
	30 ms	15.1 - 18.4 ft/s	16.12
D Plane Rotation	Max	99 - 113 Deg	109.47
Moment About Occipital Condyle	Max	-50.2 - -38.4 Ft Lbs	-41.50
Occipital Moment - Curve Decay Time to -7.38 ft lbf		94 - 114 ms	100.20

Remarks

Laboratory Technician B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number 421
Sequential Test Number 1
Date May 7, 2001
Workfile D10001a raw

TEST PARAMETER	SPECIFICATION	TEST RESULT
Temperature	69-72 Deg F	72 0
Relative Humidity	10% - 70%	32 0
Pendulum Velocity	21 6 - 22 4 Ft/s	22 0
Maximum Deflection	1 90 - 2 20 in	1 97
Maximum Resistive Force	876 - 989 Lbs	881 44
Internal Hysteresis	69 - 85 %	72 18

Remarks

Laboratory Technician B Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 288)		Manufacturer	Serial #	Calibration	
				Last	Next
Head X Arm	Y	ENTRAN	AC-98H10-F01	12-Apr-01	12-Oct-01
	Z	ENTRAN	AC-99102 F08	12-Apr-01	12-Oct-01
Head Y Arm	X	ENTRAN	AC-99102-F10	11-Apr-01	11-Oct-01
	Z	ENDEVCO	AC-P15341	11-Apr-01	11-Oct-01
Head Z Arm	X	ENTRAN	AC-99102-F13	12-Apr-01	12-Oct-01
	Y	ENTRAN	AC-99108-F27	11-Apr-01	11-Oct-01
Head	X	ENTRAN	AC-99H12-F12	12-Apr-01	12-Oct-01
	Y	ENTRAN	AC-00L13-F13	18-Jan-01	18-Jul-01
	Z	ENTRAN	AC-99108-F25	12-Apr-01	12-Oct-01
Head	X (R)	ENTRAN	AC-99D15 N08	12-Apr-01	12-Oct-01
	Y (R)	ENTRAN	AC-00L20-A12	18-Jan-01	18-Jul-01
	Z (R)	ENTRAN	AC-00L13 F72	02-Mar-01	02-Sep 01
Neck Load Cell	X	DENTON	LC-851Fx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-851Fy	28-Dec-00	28-Jun-01
	Z	DENTON	LC-851Fz	28-Dec-00	28-Jun-01
Neck Moment	X	DENTON	LC 851Mx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-851My	28-Dec-00	28-Jun-01
	Z	DENTON	LC-851Mz	28-Dec-00	28-Jun-01
Chest	X	ENTRAN	AC-99H12-F18	17-Apr-01	17-Oct-01
	Y	ENTRAN	AC-99H12-F29	17-Apr-01	17-Oct-01
	Z	ENTRAN	AC-98H13 F15	17-Apr-01	17-Oct-01
Chest	X (R)	ENTRAN	AC-99H12-F14	17-Apr-01	17-Oct-01
	Y (R)	ENTRAN	AC-99H12 F23	17-Apr-01	17-Oct-01
	Z (R)	ENTRAN	AC-99H12-F11	17-Apr-01	17-Oct-01
Chest Deflection Gauge		SERVO	DS-288	04-May-01	04-Nov-01
Pelvic	X	ENDEVCO	AC-P16225	17-Apr-01	17-Oct-01
	Y	ENDEVCO	AC-P16171	17-Apr-01	17-Oct-01
	Z	ENDEVCO	AC-P16945	17-Apr-01	17 Oct-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 288)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load	X	DENTON	LC-257Fx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-257Fy	28-Dec-00	28-Jun-01
	Z	DENTON	LC-257Fz	28-Dec-00	28-Jun-01
L Femur Moment	X	DENTON	LC-257Mx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-257My	28-Dec-00	28-Jun-01
	Z	DENTON	LC-257Mz	28-Dec-00	28-Jun-01
Right Femur Load	X	DENTON	LC-259Fx	29-Dec-00	29-Jun-01
	Y	DENTON	LC-259Fy	29-Dec-00	29-Jun-01
	Z	DENTON	LC-259Fz	29-Dec-00	29-Jun-01
R Femur Moment	X	DENTON	LC-259Mx	29-Dec-00	29-Jun-01
	Y	DENTON	LC-259My	29-Dec-00	29-Jun-01
	Z	DENTON	LC-259Mz	29-Dec-00	29-Jun-01
Left Knee Shear Dx		ASTC	FLX-102-LTKN	04-Apr-01	04-Oct-01
Right Knee Shear Dx		ASTC	FLX-101-RTKN	04-Apr-01	04-Oct-01
Left Upper Tibia	Fx	Denton	FLX-102-UTLFX	08-Nov-00	08-May-01
	Fz	Denton	FLX-102-UTLFZ	08-Nov-00	08-May-01
	Mx	Denton	FLX-102-UTLMX	08-Nov-00	08-May-01
	My	Denton	FLX-102-UTLMY	08-Nov-00	08-May-01
Left Lower Tibia	Fx	Denton	FLX-102-LTLFX	15-Nov-00	15-May-01
	Fy	Denton	FLX-102-LTLFY	15-Nov-00	15-May-01
	Fz	Denton	FLX-102-LTLFZ	15-Nov-00	15-May-01
	Mx	Denton	FLX-102-LTLMX	15-Nov-00	15-May-01
	My	Denton	FLX-102-LTLMY	15-Nov-00	15-May-01
Right Upper Tibia	Fx	Denton	FLX-101-UTRFX	08-Nov-00	08-May-01
	Fz	Denton	FLX-101-UTRFZ	08-Nov-00	08-May-01
	Mx	Denton	FLX-101-UTRMX	08-Nov-00	08-May-01
	My	Denton	FLX-101-UTRMY	08-Nov-00	08-May-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 288)		Manufacturer	Serial #	Calibration	
				Last	Next
Right Lower Tibia	Fx	Denton	FLX-101-LTRFX	09-Nov-00	09-May-01
	Fy	Denton	FLX-101-LTRFY	09-Nov-00	09-May-01
	Fz	Denton	FLX-101-LTRFZ	09-Nov-00	09-May-01
	Mx	Denton	FLX-101-LTRMX	09-Nov-00	09-May-01
	My	Denton	FLX-101-LTRMY	09-Nov-00	09-May-01
Left Tibia	X	ENTRAN	AC-00L20-A13	18-Jan-01	18-Jul-01
	Y	ENTRAN	AC-00L20-A08	18-Jan-01	18-Jul-01
Right Tibia	X	ENTRAN	AC-00L13-F14	18-Jan-01	18-Jul-01
	Y	ENTRAN	AC-00L20-A07	18-Jan-01	18-Jul-01
Left Ankle	Rx	Contelec	FLX-102-AXLRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-102-AYLRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX 102-AZLRP	26-Sep-00	26-Mar-01
Right Ankle	Rx	Contelec	FLX-101-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-101-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-101-AZRRP	26-Sep-00	26-Mar-01
Left Foot	Ax	ENTRAN	AC-00L13-F32	06-Feb-01	06-Aug-01
	Ay	ENTRAN	AC 00L13-F16	18-Jan-01	18-Jul-01
	Az	ENTRAN	AC-00L13-F06	18-Jan-01	18-Jul-01
Right Foot	Ax	ENTRAN	AC-00L20-A14	18-Jan-01	18-Jul-01
	Ay	ENTRAN	AC-00L20-A15	18-Jan-01	18-Jul-01
	Az	ENTRAN	AC 00L13-F10	18-Jan-01	18-Jul-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Head X Arm	Y	ENTRAN	AC-99102-F15	12-Apr-01	12-Oct-01
	Z	ENTRAN	AC-99108-F29	11-Apr-01	11-Oct-01
Head Y Arm	X	ENTRAN	AC-99102 F12	12-Apr-01	12 Oct-01
	Z	ENTRAN	AC-99102-F06	12-Apr-01	12-Oct-01
Head Z Arm	X	ENTRAN	AC-99H30-Z03	11-Apr-01	11-Oct-01
	Y	ENTRAN	AC-99108-F28	12-Apr-01	12-Oct-01
Head	X	ENTRAN	AC-99G18-F18	12 Apr-01	12-Oct-01
	Y	ENTRAN	AC-99H30-Z05	12-Apr-01	12 Oct-01
	Z	ENTRAN	AC-99102-F09	12-Apr-01	12-Oct-01
Head	X (R)	ENTRAN	AC 00L13 F03	12-Apr-01	12-Oct-01
	Y (R)	ENTRAN	AC-99H30-Z08	12-Apr-01	12-Oct-01
	Z (R)	ENTRAN	AC-99H30-Z04	12-Apr-01	12 Oct-01
Neck Load Cell	X	DENTON	LC-852FX	01-Mar-01	01-Sep-01
	Y	DENTON	LC-852FY	01-Mar-01	01-Sep-01
	Z	DENTON	LC-852FZ	01-Mar-01	01-Sep-01
Neck Moment	X	DENTON	LC-852MX	01-Mar-01	01-Sep-01
	Y	DENTON	LC-852MY	01-Mar-01	01 Sep-01
	Z	DENTON	LC-852MZ	01-Mar-01	01-Sep-01
Chest	X	ENTRAN	AC-98H14-K02	12-Apr-01	12 Oct-01
	Y	ENDEVCO	AC P15321	11-Apr-01	11 Oct-01
	Z	ENDEVCO	AC-P17743	11-Apr-01	11-Oct-01
Chest	X (R)	ENTRAN	AC-99H30-Z07	12-Apr-01	12-Oct-01
	Y (R)	ENDEVCO	AC-P15334	11-Apr-01	11-Oct-01
	Z (R)	ENTRAN	AC-99G29-Q13	12-Apr-01	12-Oct-01
Chest Deflection Gauge		SERVO	DS-421	04-May 01	04-Nov-01
Pelvic	X	ENTRAN	AC-99108-F26	12-Apr-01	12 Oct-01
	Y	ENTRAN	AC-99H30-Z02	12-Apr-01	12 Oct-01
	Z	ENTRAN	AC-99108 F30	12-Apr 01	12-Oct-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load	X	DENTON	LC-260Fx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-260Fy	28-Dec-00	28-Jun-01
	Z	DENTON	LC-260Fz	28-Dec-00	28-Jun-01
L Femur Moment	X	DENTON	LC-260Mx	28-Dec-00	28 Jun-01
	Y	DENTON	LC-260My	28-Dec-00	28-Jun-01
	Z	DENTON	LC-260Mz	28 Dec-00	28-Jun-01
Right Femur Load	X	DENTON	LC 261Fx	28-Dec-00	28-Jun-01
	Y	DENTON	LC-261Fy	28-Dec 00	28-Jun-01
	Z	DENTON	LC-261Fz	28 Dec-00	28 Jun 01
R Femur Moment	X	DENTON	LC-261Mx	28-Dec-00	28-Jun-01
	Y	DENTON	LC 261My	28 Dec-00	28-Jun-01
	Z	DENTON	LC-261Mz	28-Dec 00	28-Jun-01
Left Knee Shear Dx		ASTC	FLX-104-LTKN	25-Apr 01	25-Oct-01
Right Knee Shear Dx		ASTC	FLX-103-RTKN	26-Apr 01	26-Oct-01
Left Upper Tibia	Fx	Denton	FLX-103-UTLFX	29-Nov 00	29-May-01
	Fz	Denton	FLX-103-UTLFZ	29-Nov-00	29-May-01
	Mx	Denton	FLX-103-UTLMX'	29-Nov 00	29-May-01
	My	Denton	FLX-103-UTLMY	29-Nov-00	29-May-01
Left Lower Tibia	Fx	Denton	FLX-103-LTLFX	09-Nov 00	09-May-01
	Fy	Denton	FLX-103-LTLFY	09-Nov-00	09-May-01
	Fz	Denton	FLX-103-LTLFZ	09-Nov-00	09-May-01
	Mx	Denton	FLX-103-LTLMX	09-Nov-00	09-May-01
	My	Denton	FLX-103-LTLMY	09-Nov 00	09-May-01
Right Upper Tibia	Fx	Denton	FLX-104-UTRFX	08-Nov-00	08-May-01
	Fz	Denton	FLX-104-UTRFZ	08-Nov-00	08-May-01
	Mx	Denton	FLX-104-UTRMX	08-Nov-00	08-May-01
	My	Denton	FLX-104-UTRMY	08-Nov-00	08-May-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Right Lower Tibia	Fx	Denton	FLX-104-LTRFX	09-Nov-00	09-May-01
	Fy	Denton	FLX-104-LTRFY	09-Nov-00	09-May-01
	Fz	Denton	FLX-104-LTRFZ	09-Nov-00	09-May-01
	Mx	Denton	FLX-104-LTRMX	09-Nov-00	09-May-01
	My	Denton	FLX-104-LTRMY	09-Nov-00	09-May-01
Left Tibia	X	ENDEVCO	AC-AGAC4	17-Apr-01	17 Oct-01
	Y	ENDEVCO	AC-J20064	17-Apr-01	17-Oct-01
Right Tibia	X	ENDEVCO	AC-P15319	17-Apr-01	17-Oct-01
	Y	ENDEVCO	AC-P17833	17-Apr-01	17 Oct-01
Left Ankle	Rx	Contelec	FLX-103-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-103-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-103-AZRRP	26-Sep-00	26-Mar-01
Right Ankle	Rx	Contelec	FLX-104-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-104-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-104-AZRRP	26-Sep-00	26-Mar-01
Left Foot	Ax	ENDEVCO	AC-J18059	17-Apr-01	17-Oct-01
	Ay	ENDEVCO	AC-J23804	17-Apr-01	17-Oct-01
	Az	ENDEVCO	AC-BF65J	17-Apr-01	17-Oct-01
Right Foot	Ax	ENDEVCO	AC-P17365	17-Apr-01	17-Oct-01
	Ay	ENDEVCO	AC-AJ4Y5	17-Apr-01	17-Oct-01
	Az	ENDEVCO	AC-P15975	17-Apr-01	17-Oct-01

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS
(6 Month Calibration Minimum)

	Manufacturer	Serial #	Calibration	
			Last	Next
Left Seat Rear Crossmember X	ICS	AC-D40	18-Apr-01	18-Oct-01
Left Seat Rear Crossmember Y	ICS	AC-Y18	25-Feb-01	25-Aug-01
Right Seat Rear Crossmember X	ICS	AC-H20	15-Feb-01	15-Aug-01
Right Rear Seat Crossmember Y	ICS	AC-X86	15-Feb-01	15-Aug-01
Driver Left Side Toepan X	ENDEVCO	AC-P16583	06-Dec-00	06-Jun-01
Driver Left Side Toepan Z	ENDEVCO	AC-P19343	21-Feb-01	21-Aug 01
Driver Right Side Toepan X	ENDEVCO	AC-B10481	23 Feb-01	23-Aug-01
Driver Right Side Toepan Z	ENDEVCO	AC-A14433	15-Feb-01	15-Aug-01