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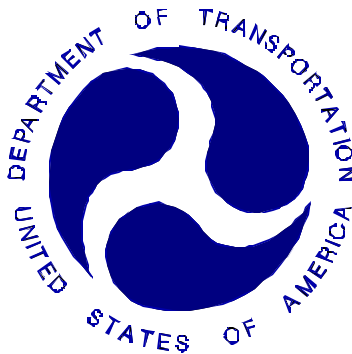
**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
FRONTAL BARRIER 40% OFFSET IMPACT TEST**

DAIMLERCHRYSLER
2003 DODGE RAM 1500QUAD CAB
PICKUP

NHTSA NUMBER: R30320

GENERAL DYNAMICS TEST NUMBER: 8710-OFST-06

GENERAL DYNAMICS
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225



November 17, 2003

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Applied Research
Office of Vehicle Safety Research
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Date of Report Acceptance

Project Engineer
NHTSA, Applied Research

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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-Lx) in the frontal 40% offset deformable barrier test. A frontal 40% offset barrier impact test of a 2003 Dodge Ram 1500Quad Cab Pickup was performed at the General Dynamics crash test facility in Buffalo, New York, on November 17, 2003. The impact velocity was 56.49 kph and the temperature at the barrier face was 20°C. The maximum post-test vehicle crush was 721 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, neck, chest, and femur requirements.					
ATD Position	HIC (15 ms)	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (324FLX108/104)	160.3	28.9	23.4	-1792.1	-1339.2
Passenger (505FLX103/107)	60.9	26.1	20.1	-2775.4	-452.7
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 Applied Research Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, DC 20590	
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SECTION 1

PURPOSE AND SUMMARY OF TEST

PURPOSE

This 56.49 kph frontal 40% offset barrier impact test is part of the Test Procedure Development Program sponsored by the National Highway Traffic Safety Administration (NHTSA). 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 mounted to a load cell barrier consisting of 30 load cells was impacted by a 2003 Dodge Ram 1500Quad Cab Pickup at 40% overlap at a velocity of 56.49 kph. The test was performed at General Dynamics on November 17, 2003. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

One real-time camera and 16 high-speed cameras documented the offset frontal barrier impact event. 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 FMVSS 208-12 Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with 9 axis array head, head, and chest triaxial accelerometers, chest displacement potentiometers, upper neck transducers, lower neck transducers, right/left femur load cells, knee sliders and Thor-Lx/HIIIr lower leg instrumentation. The driver (position 1) ATD (Serial No. 324FLX108/104) and the right-front passenger (position 2) ATD (Serial No. 505FLX103/107) were used in two tests previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 206 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

The occupant injury data is summarized below.

		Driver	Passenger	Limits
HIC15		160.3	60.9	700
HIC36		227.4	130.0	1000
Upper Neck Force (N)	Tension	772.8 N	547.5 N	2620 N
	Compression	-398.9 N	-57.6 N	-2520 N
Neck Injury (Nij)	Ntf	0.19	0.28	1.0
	Nte	0.26	0.22	1.0
	Ncf	0.30	0.11	1.0
	Nce	0.03	0.01	1.0
Clip (g) 3 ms		28.9 g	26.1 g	60 g
Chest Displacement (mm)		23.4 mm	20.1 mm	52 mm
Femur Force (N)	Left	-1792.1 N	-2775.4 N	-6510 N
	Right	-1339.2 N	-452.7 N	-6510 N
RTI Upper	Left	0.59352	0.92858	0.91
	Right	0.17882	0.53856	0.91
RTI Lower	Left	0.24207	0.46395	0.91
	Right	0.22243	0.15815	0.91
Upper Tibia Force (N)	Left	-384.6 N	-501.6 N	-4000 N
	Right	-572.1 N	-91.5 N	-4000 N
Lower Tibia Force (N)	Left	-352.3 N	-582.0 N	-3750 N
	Right	-692.3 N	-203.2 N	-3750 N
Dorsiflexion (deg)	Left	-0.9	9.4	35 deg
	Right	3.3	-12.0	35 deg
Plantarflexion (deg)	Left	-26.1	-27.0	-
	Right	-12.5	-26.0	-
Inversion (deg)	Left	-9.2	*	-35 deg
	Right	15.4	*	35 deg
Eversion (deg)	Left	3.6	*	35 deg
	Right	0.4	*	-35 deg
Internal Rotation (deg)	Left	15.0	13.9	-
	Right	-15.3	-13.0	-
External Rotation (deg)	Left	-3.9	-7.2	-
	Right	3.0	2.2	-

* Data is Invalid

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No.:	R30320	Test Mode:	56 kph Offset Frontal Barrier
Test Date:	November 17, 2003	Time:	15:01
		Temperature:	20 °C
Vehicle Make/Model/Body Style:	2003 Dodge Ram 1500Quad Cab Pickup		
Vehicle Test Weight:	2516.0	kg	
Vehicle/Barrier Impact Angle:	0	°	
Impact Velocity:	56.49	kph	
Maximum Static Crush:	605	mm	
Actual Vehicle Offset:	40.9	%	

DUMMIES:

DRIVER

PASSENGER

Type:

5720

5720

Restraint System:

Three point safety belt, airbag,
knee bolster, head restraint.

Three point safety belt, airbag,
knee bolster, head restraint.

Lower Leg:

Thor-Flx/HIIIr

Thor-Flx/HIIIr

Number of Data Channels: 206

Number of Cameras: 1 Real Time

16

High Speed

DOOR OPENING DATA:

Closed, latched and operable with tools

- Left Front

Closed, latched and operable without tools

- Left Rear

Closed, latched and operable without tools

- Right Front

Closed, latched and operable without tools

- Right Rear

N/A

- Hatch/Other

Front Seat(s) Data:

DRIVER

PASSENGER

Seat Track Failure:(mm of shift)

0

0

Seat Back Failure:

None

None

VISIBLE DUMMY CONTACT POINTS:

DRIVER

PASSENGER

Head:

The face to the steering wheel,
the back of the head to the head
restraint;

The back of the head to the
head restraint;

Abdomen:

Lower Steering Wheel Rim

-

Chest:

Steering Wheel Rim

-

Knees:

Knee Bolster

Knee Bolster

Tibias:

Knee Bolster

Knee Bolster

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA No. : R30320 ; VIN: 1D7HA18N83S243561 ; Color: Black

Engine Data: 8 cylinders; - CID; 4.7 Liters; - cc

Placement: X Longitudinal or In-Line; - Transverse or Lateral

Transmission Data: 5 speeds; - Manual; X Automatic; X Overdrive

Final Drive: X Rear Wheel Drive; - Front Wheel Drive; - Four Wheel Drive

Safety Belt Features – Driver - Pretensioner (N/A); - Load Limiter; X Adj. Anchorage

Safety Belt Features - Passenger - Pretensioner (N/A); - Load Limiter; X Adj. Anchorage

Major Options: X A/C; X Pwr.Strg.; X Pwr. Brakes

X Pwr. Windows; X Pwr. Door Locks; X Tilt Wheel

Date Received: 9/12/2003 ; Odometer Reading 246 km

Selling Dealer: The Piehler Motor Car Company, Inc.

& Address: 709 West Union Newark, NY 14513

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by: DaimlerChrysler

Date of Manufacture 01-03

GVWR: 3107 kg; GAWR: 1656 kg FRONT; 1770 kg REAR

DATA FROM TIRE PLACARD:

Recommended Tire Size: P245/70R17

* Recommended Cold Tire Pressure: 241 kpa FRONT; 241 kpa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P245/70R17 108S ; Manufacturer: Michelin

Tire Pressure with Maximum Capacity Vehicle Load: Front: 241 kPa; Rear: 241 kPa

Treadwear: 420 ; Traction: A ; Temperature: A

VEHICLE CAPACITY DATA:

Type of Front Seats: - Bench; - Bucket; X Split Bench

Number of Occupants: 3 Front; 3 Rear; 6 Total

Vehicle Capacity Weight (VCW) = 730.5 kg

No. of Occupants x 68.04 kg = 408.24 kg

Rated Cargo/Luggage Weight (RCLW) = 322.26 kg (136.1 kg maximum)

*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>625.0</u>	kg	Right Rear =	<u>503.5</u>	kg
Left Front =	<u>655.0</u>	kg	Left Rear =	<u>503.0</u>	kg
TOTAL FRONT =	<u>1280.0</u>	kg	TOTAL REAR =	<u>1006.5</u>	kg
TOTAL DELIVERED WEIGHT =	<u>2286.5</u>	kg			
% of Total Front of Vehicle Weight =	<u>56.0%</u>		% of Total Rear Weight =	<u>44.0%</u>	%

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Delivered Weight (UDW) =	<u>2286.5</u>	kg
Rated Cargo/Luggage Weight (RCLW) =	<u>136.1</u>	kg
Weight of 2 p.572 Dummies @ 49 each =	<u>98</u>	kg
TARGET TEST WEIGHT =	<u>2520.6</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 131.5 KG OF CARGO WEIGHT:

Right Front =	<u>650.0</u>	kg	Right Rear =	<u>592.0</u>	kg
Left Front =	<u>684.0</u>	kg	Left Rear =	<u>590.0</u>	kg
TOTAL FRONT =	<u>1334</u>	kg	TOTAL REAR =	<u>1182</u>	kg
TOTAL TEST WEIGHT =	<u>2516</u>	kg			
% of Total Front Weight =	<u>53.0%</u>	%	% of Total Rear Weight =	<u>47.0%</u>	%
Weight of Ballast Secured in Vehicle Trunk Area =	<u>35</u>	kg			
Vehicle Components Removed for Weight Reduction:				<u>None</u>	

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED:	RF	<u>882</u>	LF	<u>880</u>	RR	<u>977</u>	LR	<u>976</u>
FULLY LOADED:	RF	<u>860</u>	LF	<u>861</u>	RR	<u>948</u>	LR	<u>948</u>
AS TESTED:	RF	<u>865</u>	LF	<u>864</u>	RR	<u>952</u>	LR	<u>950</u>
Vehicle's Wheel Base:		<u>3565</u>	mm					
Location of Vehicle's C.G.:		<u>1674.81</u>	mm rearward of front wheel center.					

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual =	<u>98.4</u>	liters
Usable Capacity Figure Furnished by COTR =	<u>98.4</u>	liters
Test Volume Range (92 to 94% of Usable Capacity) =	<u>90.53</u>	to <u>92.5</u> liters
ACTUAL TEST VOLUME=	<u>91.22</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: Tank – left side ahead of axle, Filler neck, left side ahead of rear axle; Lines – left side inside of rear axle.		

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test: Offset Frontal Barrier Impact Angle: 0°
Test Date: November 17, 2003 Time: 15:01 Temperature: 20 °C
Vehicle NHTSA No.: R30320
Required Impact Velocity Range: 54.5 to 57.5 kph

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

Trap No. 1 = 56.49 kph; Trap No. 2 = 56.49 kph
Distance from vehicle to barrier: (1) entering trap = 813 mm
(2) exiting trap = 305 mm

VEHICLE STATIC CRUSH: (mm)

Vehicle Length:

Pre-Test	Left = <u>5685</u>	; C/L = <u>5785</u>	; Right = <u>5685</u>
Post-Test	Left = <u>5095</u>	; C/L = <u>5219</u>	; Right = <u>5808</u>
Crush	Left = <u>590</u>	; C/L = <u>566</u>	; Right = <u>-123</u>
AVERAGE	= <u>344.3</u>	mm	

VEHICLE OFFSET DATA: (mm)

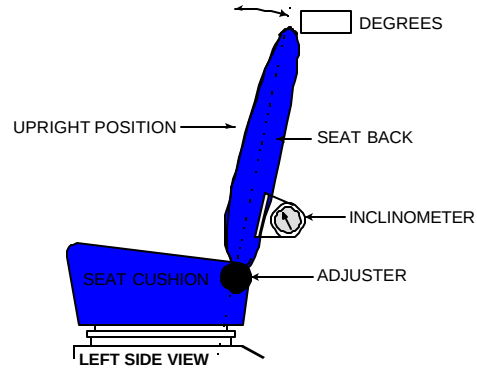
Vehicle Width = 2084 mm
Desired Vehicle Offset = 833.6 mm
Actual Vehicle Offset = 852.6 mm (from film analysis)
Offset Difference = 19 mm
Actual Percent Offset = 40.9 %

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year: 2003 Vehicle Model: Dodge Ram 1500Quad Cab Body Style: Pickup

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: _____

Measurement instructions: Set for dummy head level and pelvic angle $20^{\circ} \pm 2.5^{\circ}$

Seat back angle for passenger's seat: _____

Measurement instructions: Same as the driver's seat

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 98.4 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) = 91.22 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.

When the ignition switch is turned to the "ON" position or while the engine is running.

DATA SHEET NO. 4 TEST VEHICLE INFORMATION (cont.)

4. STEERING COLUMN ADJUSTMENTS:

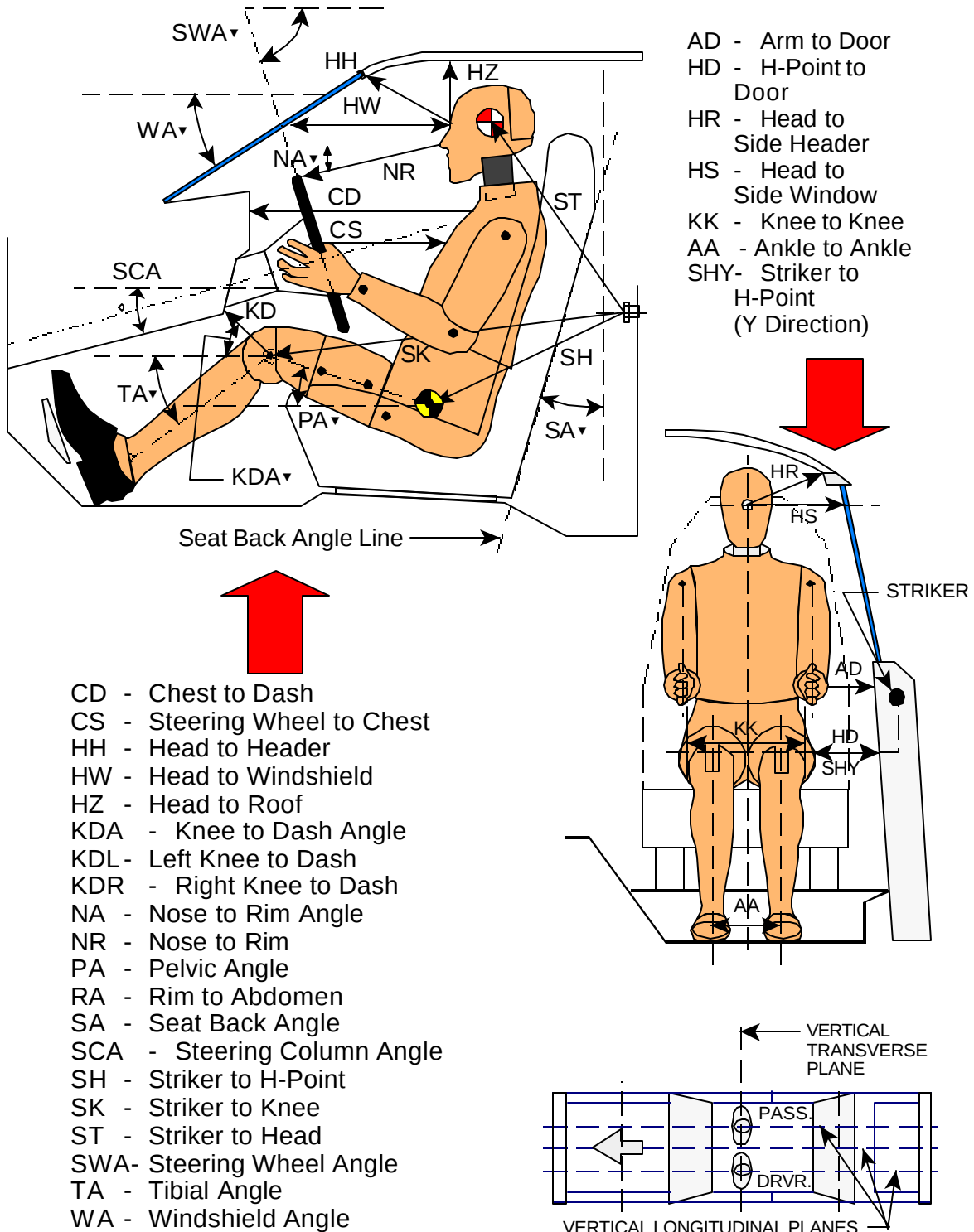
Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine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

Operational Instructions: Mid-tilt and telescope

5. SEAT BELT UPPER ANCHORAGE

Nominal design riding position: Not given

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS

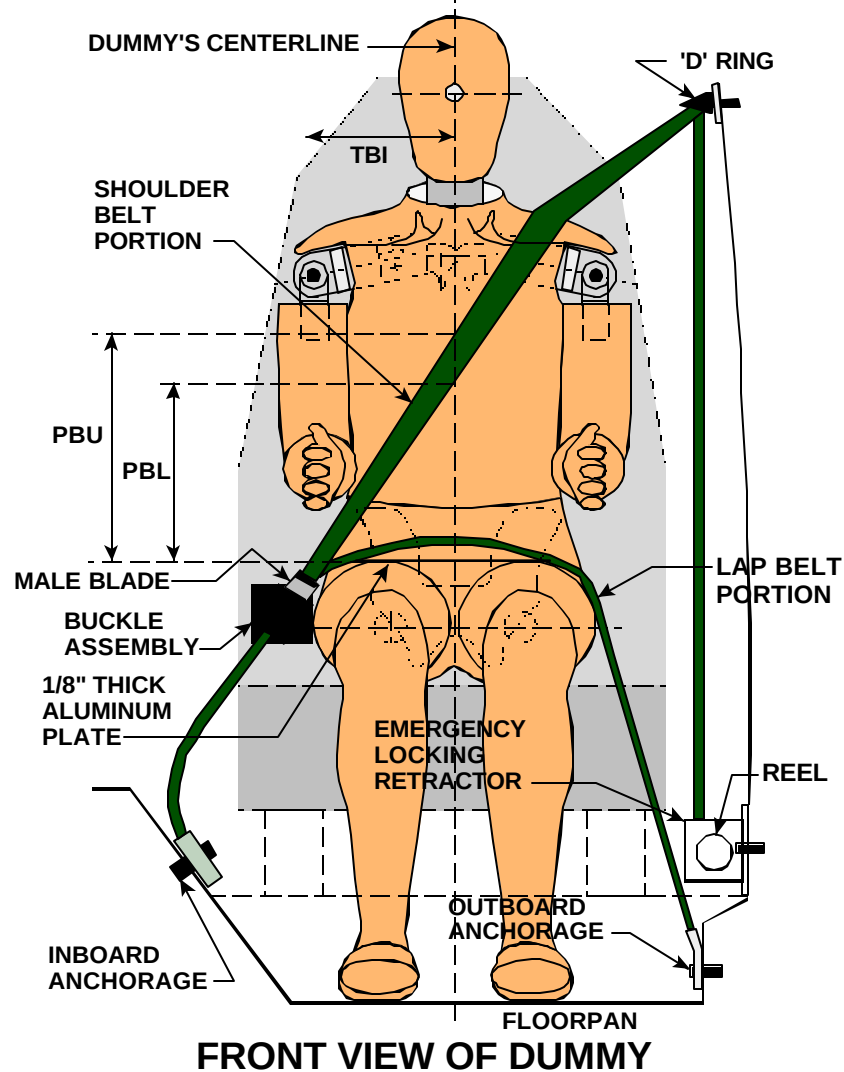


DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

	DRIVER (Serial #324FLX108/104)			PASS. (Serial #505FLX103/107)		
WA ⁰	31.7 deg.			N/A		
SWA ⁰	64.5 deg.			N/A		
SCA ⁰	25.5 deg.			N/A		
SA ⁰	9.8 deg.			10.1 deg.		
HZ	260			260		
HH	350			355		
HW	723			710		
HR	267			264		
NR	272	Angle	-8 deg.	N/A		
CD	445			443		
CS	239			N/A		
RA	104			N/A		
KDL	118	Angle (KDA)	34 deg.	103		
KDR	119			114	Angle (KDA)	37 deg.
PA ⁰	17.7 deg.			17.8 deg.		
TA ⁰	69.3 deg.			68.8 deg.		
KK	239			171		
AA	249			184		
ST	630	Angle	23.0 deg.	618	Angle	23.5 deg.
SK	685	Angle	94.0 deg.	687	Angle	92.5 deg.
SH	344	Angle	92.5 deg.	356	Angle	92.0 deg.
SHY	267			270		
HS	400			403		
HD	200			192		
AD	169			190		

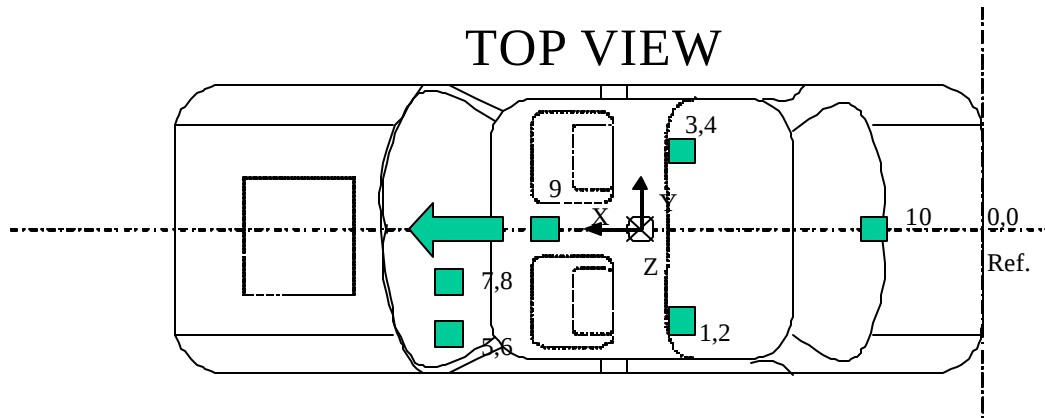
Dimensions in millimeters

SEAT BELT POSITIONING DATA



	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	268	264
PBL-- Top surface of alum. plate to belt lower edge	186	180
<u>LAP BELT TENSION</u>	10 N	10 N
<u>SHOULDER BELT TENSION</u>	Retractor	Retractor

DATA SHEET NO. 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY



Accelerometer	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)
Left Rear Seat Crossmember	2785	-675	-542
Right Rear Seat Crossmember	2769	677	-555
Driver Left Side Toepan	4345	-699	-609
Driver Right Side Toepan	4337	-382	-575
Vehicle CG	3990	79	-758
Trunk	1294	66	-845

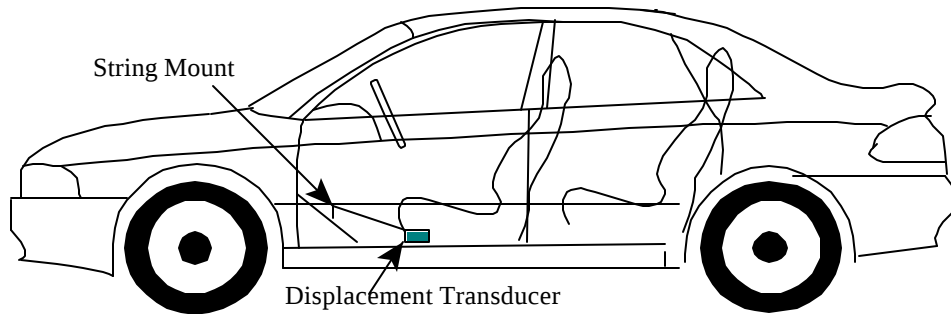
X-Direction is referenced from vehicle rear bumper (positive forward)

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	0.4	-6.0	-27.3	50.8
2	Rear Seat X-Member @ Left Side Y	7.0	82.6	-2.5	118.2
3	Rear Seat X-Member @ Right Side X	2.2	203.4	-22.4	139.9
4	Rear Seat X-Member @ Right Side Y	7.6	81.9	-3.8	70.3
5	Driver Toe Pan @ Left Side X	6.8	145.6	-24.6	87.9
6	Driver Toe Pan @ Left Side Z	18.4	56.3	-1.6	20.5
7	Driver Toe Pan @ Right Side X	12.8	71.9	-11.2	87.2
8	Driver Toe Pan @ Right Side Z	19.3	92.2	-8.6	88.7
9	Vehicle CG X	16.3	187.9	-41.6	151.5
9	Vehicle CG Y	21.2	154.8	-10.4	130.4
9	Vehicle CG Z	24.8	111.7	-34.0	130.0
9	Vehicle CG R	48.2	155.1	0.0	-54.5
10	Trunk Z	9.0	73.8	-8.6	79.7

SIDE VIEW



Driver Toe Pan Displacement

P1 Toe Pan Spoolout**	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)	Vertical Angle* (Deg)
Pre-Test	N/A	N/A	N/A	N/A
Post-Test	N/A	N/A	N/A	N/A
Difference	N/A	N/A	N/A	N/A

** Measurements taken from string pot mounting base.

*Referenced from horizontal (0 degrees)

SENSOR NAME	MAXIMUM VALUE (mm)			
	Pos.	msec.	Neg.	msec.
P1 Toe Pan Movement	*	*	*	*

* Data is Questionable

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	10.6	97.0	-8.0	105.3	4.3	121.2	-1.4	205.9
Head 9 Array X Arm Z	g	23.4	95.8	-1.0	379.8	21.3	81.7	-3.4	191.9
Head 9 Array Y Arm X	g	5.4	324.5	-43.2	105.4	2.8	409.1	-18.3	130.6
Head 9 Array Y Arm Z	g	31.0	104.2	-0.5	30.0	22.9	152.1	-1.5	-97.6
Head 9 Array Z Arm X	g	8.3	321.2	-63.6	96.9	3.2	332.1	-23.8	125.5
Head 9 Array Z Arm Y	g	14.5	97.0	-13.3	105.4	8.1	127.8	-4.5	196.8
Head X	g	5.4	331.9	-45.1	96.8	2.8	407.1	-17.1	129.8
Head Y	g	7.1	119.3	-4.4	109.4	5.1	121.7	-1.7	191.9
Head Z	g	26.2	104.2	-0.4	29.7	24.3	139.6	-2.4	191.7
Head Resultant	g	50.7	96.8	0.0	-66.9	28.6	134.2	0.0	-88.4
Redundant Head X	g	5.5	333.0	-44.3	96.9	2.9	405.5	-17.8	130.8
Redundant Head Y	g	7.1	119.3	-4.5	109.4	5.0	121.8	-1.9	190.0
Redundant Head Z	g	26.7	104.2	-0.4	29.9	23.5	139.6	-2.3	192.0
Redundant Head Resultant	g	50.1	96.8	0.0	-65.6	28.4	134.3	0.0	-36.9
Upper Neck Fx	N	57.9	308.3	-679.6	109.1	61.8	390.3	-525.3	129.6
Upper Neck Fy	N	67.7	236.0	-118.4	110.7	169.1	122.7	-65.9	191.2
Upper Neck Fz	N	772.8	99.6	-398.9	136.8	547.5	139.7	-57.6	191.9
Upper Neck F Resultant	N	961.9	99.6	0.2	-66.4	740.4	135.4	0.5	13.0
Upper Neck Mx	N-m	3.9	253.8	-20.3	120.1	11.5	128.7	-6.4	196.0
Upper Neck My	N-m	28.3	136.3	-13.8	71.0	16.1	124.4	-14.2	79.5
Upper Neck Mz	N-m	2.5	191.3	-3.0	101.7	3.7	177.7	-2.6	218.5
Upper Neck M Resultant	N-m	29.3	136.0	0.0	-52.1	18.2	127.7	0.0	11.9

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

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Lower Neck Fx	N	134.4	53.8	-964.5	104.0	103.7	302.6	-917.8	139.2
Lower Neck Fy	N	330.3	120.1	-14.7	30.5	106.0	249.9	-202.0	168.5
Lower Neck Fz	N	1060.0	75.8	-167.4	125.4	967.8	82.0	-155.0	191.7
Lower Neck F Resultant	N	1202.3	103.8	0.3	-65.0	1064.9	139.7	0.5	-75.2
Lower Neck Mx	N-m	14.3	247.0	-21.3	111.6	30.1	121.8	-13.3	188.8
Lower Neck My	N-m	113.3	109.9	-30.2	292.1	109.2	132.0	-29.7	302.4
Lower Neck Mz	N-m	-	-	-	-	7.3	251.9	-23.8	136.4
Lower Neck M Resultant	N-m	-	-	-	-	112.8	132.0	0.0	22.7
Chest X	g	3.1	367.1	-29.0	73.6	3.0	279.1	-26.0	79.4
Chest Y	g	3.9	175.5	-2.6	119.8	4.9	170.0	-3.1	282.4
Chest Z	g	6.0	74.7	-3.3	91.0	12.5	138.6	-6.6	181.2
Chest Resultant	g	29.6	73.6	0.0	-66.0	26.6	79.4	0.0	-86.5
Redundant Chest X	g	3.1	366.9	-28.5	73.6	3.1	279.0	-25.7	79.1
Redundant Chest Y	g	4.0	175.5	-2.6	121.1	4.8	171.8	-3.2	282.4
Redundant Chest Z	g	5.6	74.7	-3.5	91.0	12.4	138.3	-6.7	179.9
Redundant Chest Resultant	g	29.0	73.7	0.0	-60.4	26.3	79.1	0.0	-88.3
Chest Displacement	mm	0.0	-0.7	-23.4	106.1	0.0	1.4	-20.1	142.6
Left Femur Fz	N	176.0	389.9	-1792.1	132.9	230.2	60.1	-2775.4	70.6
Right Femur Fz	N	229.5	62.1	-1339.2	72.9	468.1	67.7	-452.7	118.8

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

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Knee Shear Dx	mm	0.1	79.9	-4.0	149.5	0.4	78.1	-5.6	134.7
Right Knee Shear Dx	mm	0.8	75.7	-0.6	218.6	0.5	80.5	-2.3	145.5
Left Upper Tibia Fx	N	193.3	94.1	-175.5	118.7	159.2	389.7	-1081.8	133.3
Left Upper Tibia Fz	N	423.1	95.4	-384.6	145.8	381.2	125.9	-501.6	71.5
Left Upper Tibia Mx	N-m	24.9	154.2	-31.8	106.2	7.0	235.8	-25.7	116.1
Left Upper Tibia My	N-m	77.0	112.3	-9.9	69.9	132.5	133.0	-19.5	70.5
Left Lower Tibia Fx	N	384.5	112.8	-99.4	70.3	945.9	133.3	-201.9	67.0
Left Lower Tibia Fy	N	84.8	105.1	-124.4	154.2	127.9	78.7	-27.4	237.6
Left Lower Tibia Fz	N	297.0	104.7	-352.3	144.6	417.7	128.1	-582.0	70.9
Left Lower Tibia FR	N	466.7	113.8	0.1	-89.0	993.1	133.3	0.5	13.6
Left Lower Tibia Mx	N-m	8.3	220.6	-15.8	110.3	4.5	146.0	-12.3	127.0
Left Lower Tibia My	N-m	28.3	120.3	-9.3	70.3	61.8	133.5	-16.0	71.3
Right Upper Tibia Fx	N	257.1	79.9	-43.3	223.1	259.3	141.4	-320.1	113.7
Right Upper Tibia Fz	N	383.7	76.1	-572.1	135.4	406.1	95.1	-91.5	117.9
Right Upper Tibia Mx	N-m	14.4	248.2	-12.9	139.2	23.7	145.0	-26.6	116.2
Right Upper Tibia My	N-m	8.1	202.0	-18.3	80.3	67.3	113.2	-8.5	392.1
Right Lower Tibia Fx	N	40.0	201.7	-240.3	79.9	321.4	108.1	-99.1	74.9
Right Lower Tibia Fy	N	89.7	139.8	-50.9	247.9	165.5	116.8	-94.0	140.6
Right Lower Tibia Fz	N	136.6	67.1	-692.3	135.5	239.0	95.1	-203.2	107.7
Right Lower Tibia FR	N	703.6	135.4	0.2	-30.4	370.5	108.0	0.1	-63.0
Right Lower Tibia Mx	N-m	9.6	111.9	-10.3	138.9	5.2	72.3	-12.0	114.2
Right Lower Tibia My	N-m	3.7	201.9	-29.9	79.8	16.7	107.4	-8.6	75.3

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

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Tibia Ax	g	5.7	167.6	-33.8	102.7	7.0	168.2	-58.2	131.9
Left Tibia Ay	g	13.5	150.1	-14.4	107.4	10.1	132.5	-7.6	102.7
Right Tibia Ax	g	2.8	215.8	-46.7	79.9	8.3	170.4	-37.4	109.3
Right Tibia Ay	g	13.6	138.2	-6.2	112.3	13.4	143.3	-14.7	106.8
Left Ankle Rotation X	Deg	3.6	224.5	-9.2	152.7	§	§	§	§
Left Ankle Rotation Y	Deg	-0.9	161.1	-26.1	91.4	9.4	82.6	-27.0	417.0
Left Ankle Rotation Z	Deg	15.0	191.4	-3.9	365.1	13.9	242.0	-7.2	127.7
Right Ankle Rotation X	Deg	15.4	208.3	0.4	85.6	¢	¢	¢	¢
Right Ankle Rotation Y	Deg	3.3	216.4	-12.5	67.2	-12.0	245.7	-26.0	112.2
Right Ankle Rotation Z	Deg	3.0	243.2	-15.3	102.2	2.2	45.0	-13.0	135.1
Left Foot Ax	g	6.1	142.2	-46.6	105.9	10.5	164.7	-120.2	134.3
Left Foot Ay	g	19.4	144.2	-15.8	108.8	29.0	134.6	-20.6	143.2
Left Foot Az	g	20.3	129.3	-21.2	142.4	25.5	134.8	-38.7	127.5
Left Foot A Resultant	g	49.3	105.9	0.0	-86.1	123.3	134.3	0.0	-24.5
Right Foot Ax	g	9.0	70.9	-55.4	77.8	4.3	214.8	-60.3	112.1
Right Foot Ay	g	23.5	84.2	-21.5	79.2	17.8	140.9	-19.5	104.3
Right Foot Az	g	8.6	251.2	-30.5	92.8	26.5	107.8	-19.0	83.0
Right Foot A Resultant	g	63.7	79.2	0.0	-80.9	66.6	107.6	0.0	-60.5
Lap Belt Load	N	1846.3	73.5	-15.2	345.9	2330.3	76.7	-2.4	-55.6
Shoulder Belt Load	N	4160.8	76.1	-19.9	353.5	3981.1	137.8	-22.3	351.0

§ - Data is invalid after 207 ms.

¢- Data is invalid

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

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

	HEAD INJURY CRITERIA (HIC)							
	HIC15				HIC36			
		t ₁	t ₂	Average Acceleration		t ₁	t ₂	Average Acceleration
	HIC	(msec)	(msec)	t ₁ to t ₂	HIC	(msec)	(msec)	t ₁ to t ₂
Position #1 - Driver	160.3	96.3	111.3	40.9 g	227.4	88.2	124.2	33.1 g
Position #2 - Passenger	60.9	126.3	141.3	27.8 g	130.0	111.2	147.2	26.5 g

** HIC is as defined in FMVSS 208.

		CLIP SUMMARY*			
		CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver		28.9 g	72.1	75.1	153.6
Position #2 - Passenger		26.1 g	77.7	80.7	152.9

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

Position 1 Neck Injury Summary (HIII 5th Female)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.19	99.6	771.6 N	-570.8 N	1.5 N-m
Nte	0.26	75.3	666.6 N	-344.6 N	7.1 N-m
Ncf	0.30	136.7	-398.6 N	-86.6 N	29.8 N-m
Nce	0.03	359.1	-0.5 N	2.7 N	-2.1 N-m

Peak Tension (CFC1000) 772.8 N

Peak Compression (CFC1000) 398.8 N

Position 2 Neck Injury Summary (HIII 5th Female)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.28	139.3	545.5 N	-443.9 N	22.9 N-m
Nte	0.22	79.4	388.1 N	-314.2 N	-8.6 N-m
Ncf	0.11	192.1	-57.3 N	-209.0 N	15.5 N-m
Nce	0.01	32.5	-0.1 N	7.1 N	-0.9 N-m

Peak Tension (CFC1000) 547.5 N

Peak Compression (CFC1000) -57.6 N

Critical Values

Nij Intercepts				Peak Limits	
Tension (CVt)	4287 N	Extension (mCVe)	155 N-m	Tension	2620 N
Compression (CVc)	3880 N	Flexion (mCVf)	67 N-m	Compression	2520 N

Condyle Offset 0.01778

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

Vehicle Year/Make/Model/Body Style: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 Test Date: November 17, 2003

HEAD INJURY CRITERIA (HIC) (REDUNDANT)								
HIC15					HIC36			
	HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂	HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	153.9	96.3	111.3	40.2 g	220.0	88.5	124.5	32.7 g
Position #2 - Passenger	59.2	125.4	140.4	27.4 g	125.5	111.3	147.3	26.1 g

** HIC is as defined in FMVSS 208.

CLIP SUMMARY (REDUNDANT)*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	28.4 g	72.0	75.0	146.7
Position #2 - Passenger	25.8 g	77.6	80.6	148.5

* 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:

	<u>Driver</u>	<u>Passenger</u>
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	<u>2017</u>	<u>2027</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>867</u>	<u>882</u>
Lap belt length as measured on Part 572 Dummy.	<u>930</u>	<u>925</u>

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 22 mm molding.

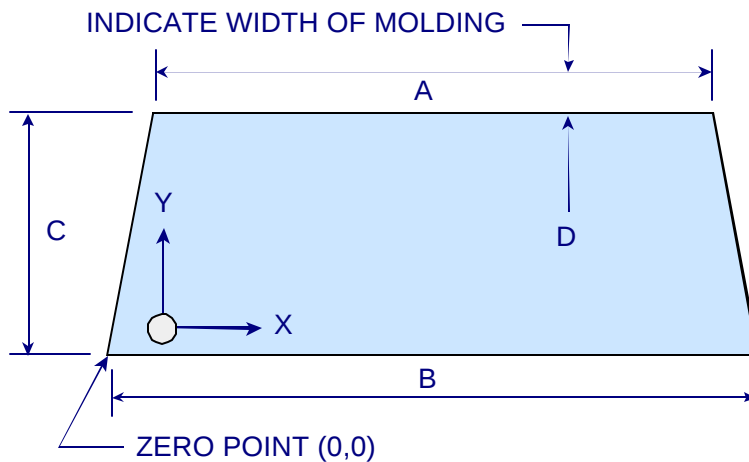
FMVSS 212 REQUIREMENTS:

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			
	PRE-TEST (mm)	POST-TEST (mm)	% OF RETENTION
RIGHT SIDE	2350	2350	100.0%
LEFT SIDE	2350	2350	100.0%
TOTAL	4700	4700	100.0%

AREA OF RETENTION FAILURE: None



DIMENSIONS (mm)	
A	1400
B	1730
C	785
D	22

FRONT VIEW OF WINDSHIELD

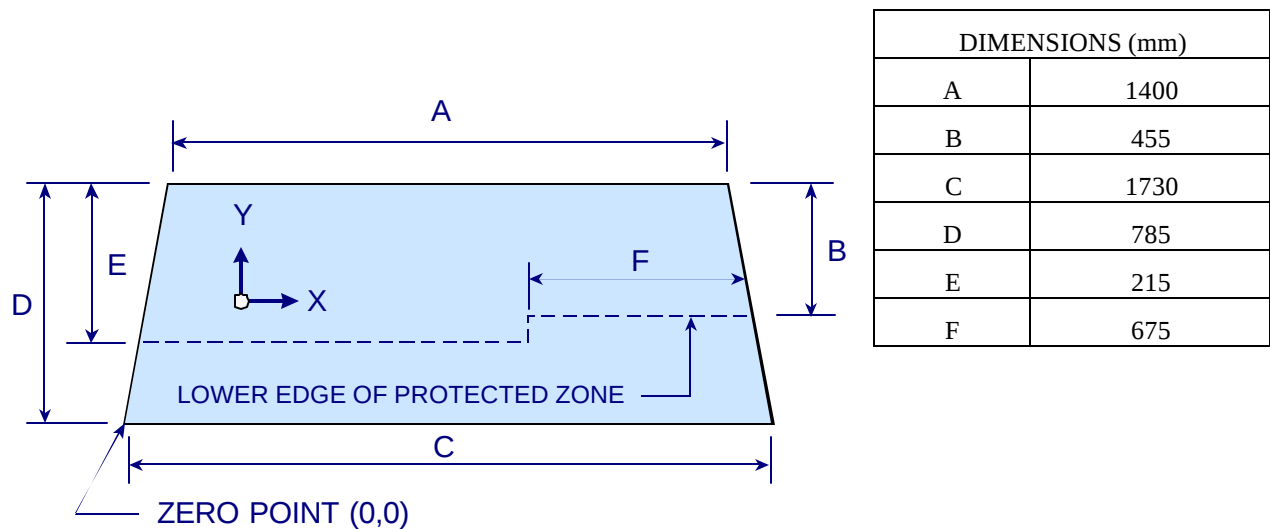
FAILURE DETAILS: None

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:



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

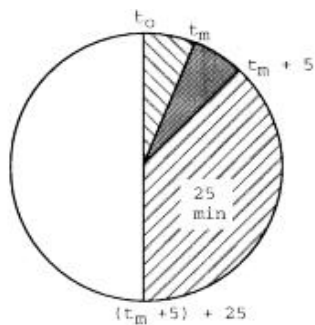
<u>NHTSA TEST No.:</u>	R30320	<u>TEST DATE:</u>	November 17, 2003
<u>VEHICLE MAKE/MODEL:</u>	2003 Dodge Ram 1500Quad Cab Pickup		

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:		
<u>X</u>	Offset Frontal (56 kph)	
	Oblique (48 kph) with _____ deg. barrier face first	
	contacting _____	
<u>-</u>	(driver/passenger) side	
<u>-</u>	Rear Moving Barrier (48 kph)	
<u>-</u>	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

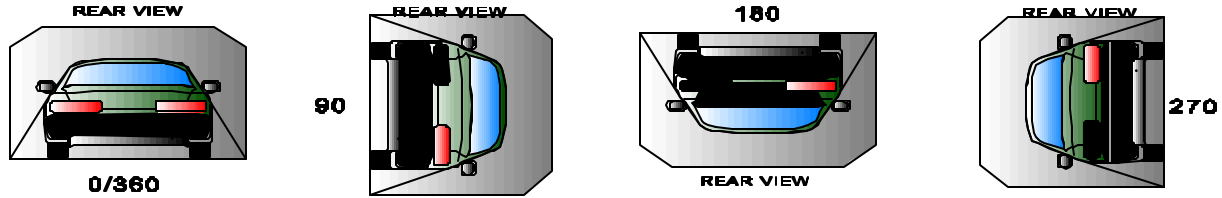
ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min.

SOLVENT SPILLAGE DETAILS: None

DATA SHEET NO. 13 - ROLLOVER DATA

Vehicle: 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA No.: R30320



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	
	N/A	minutes	N/A	seconds	N/A	minutes	N/A	minutes	N/A	seconds	N/A	minutes
0° - 90°	N/A	minutes	N/A	seconds	N/A	minutes	N/A	minutes	N/A	seconds	N/A	minutes
90° - 180°	N/A	minutes	N/A	seconds	N/A	minutes	N/A	minutes	N/A	seconds	N/A	minutes
180°-270°	N/A	minutes	N/A	seconds	N/A	minutes	N/A	minutes	N/A	seconds	N/A	minutes
270°-360°	N/A	minutes	N/A	seconds	N/A	minutes	N/A	minutes	N/A	seconds	N/A	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:

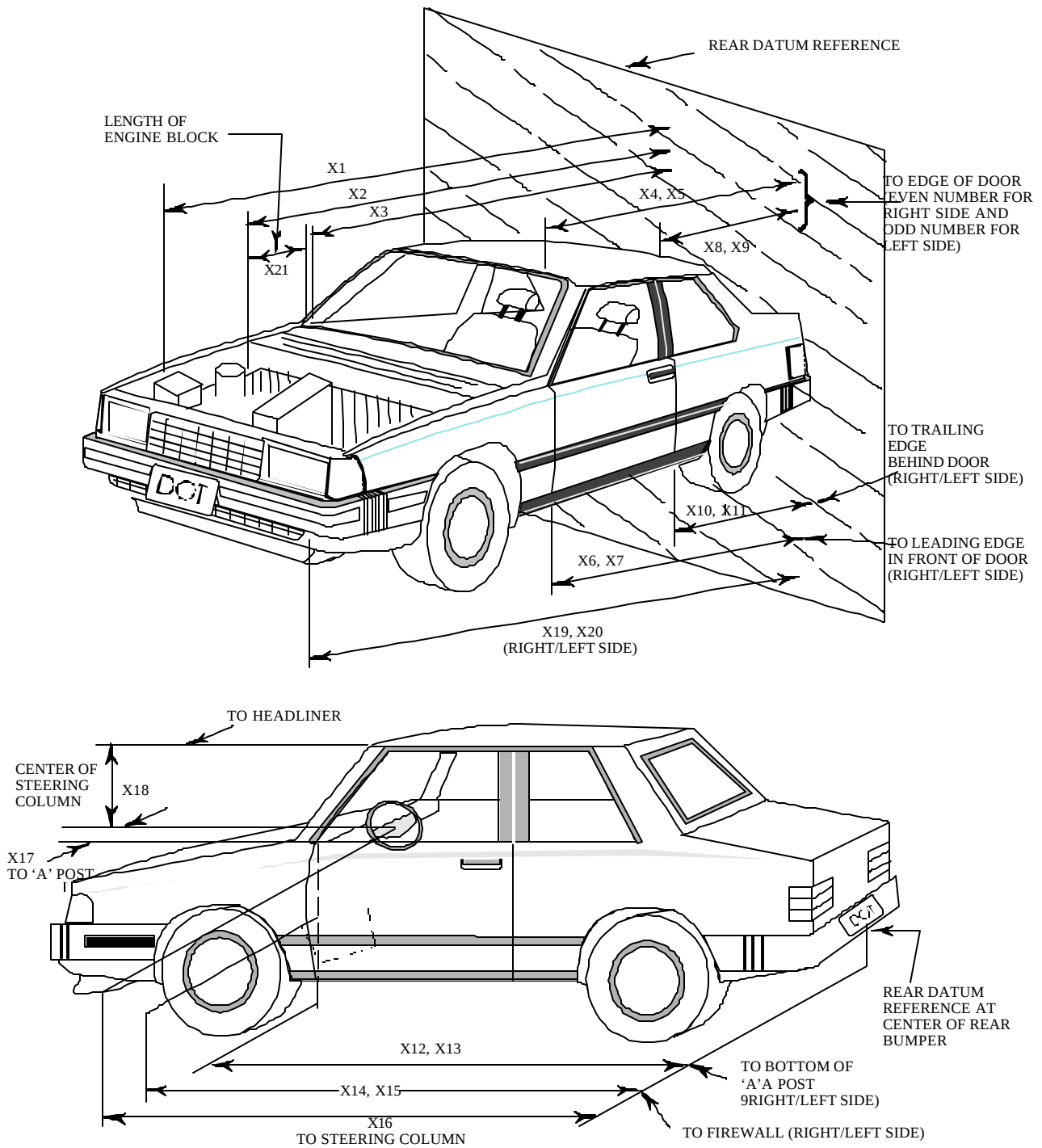
Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	N/A	N/A	N/A	N/A
90° - 180°	N/A	N/A	N/A	N/A
180°-270°	N/A	N/A	N/A	N/A
270°-360°	N/A	N/A	N/A	N/A

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	N/A
90° - 180°	N/A
180°-270°	N/A
270°-360°	N/A

DATA SHEET NO. 14 TEST VEHICLE MEASUREMENTS



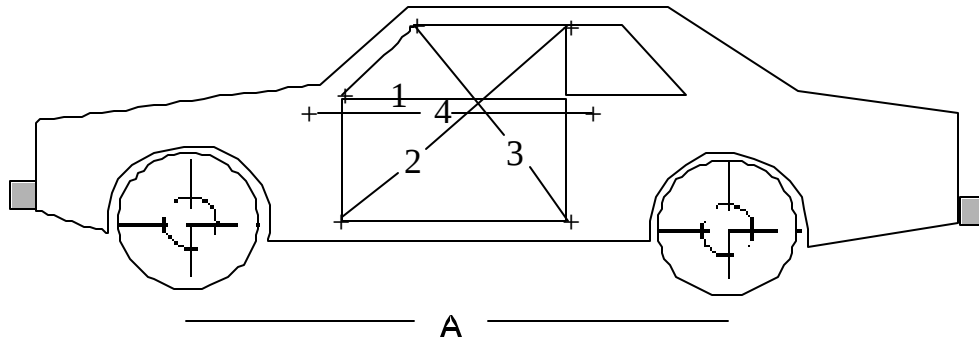
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

No.		Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	5785	5219	566
X2	Rear Surface of Vehicle to Front of Engine	5010	4942	68
X3	Rear Surface of Vehicle to Firewall	4701	4694	7
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	4296	4298	-2
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	4301	4290	11
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	4178	4186	-8
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	4189	4171	18
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	3100	3104	-4
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	3113	3096	17
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	3090	3088	2
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	3094	3072	22
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	4279	4281	-2
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	4281	4261	20
X14	Rear Surface of Vehicle to Firewall, Right Side	4640	4648	-8
X15	Rear Surface of Vehicle to Firewall, Left Side	4634	4601	33
X16	Rear Surface of Vehicle to Steering Column	3754	3747	7
X17	Center of Steering Column to "A" Post	269	280	-11
X18	Center of Steering Column to Headliner	479	498	-19
X19	Rear Surface of Vehicle to Right Side of Front Bumper	5685	5808	-123
X20	Rear Surface of Vehicle to Left Side of Front Bumper	5685	5095	590
X21	Length of Engine Block	465	465	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3933	3960	-27
CD	Rear Surface of Vehicle to Center of Dash Panel	3999	4003	-4
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3953	3938	15

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

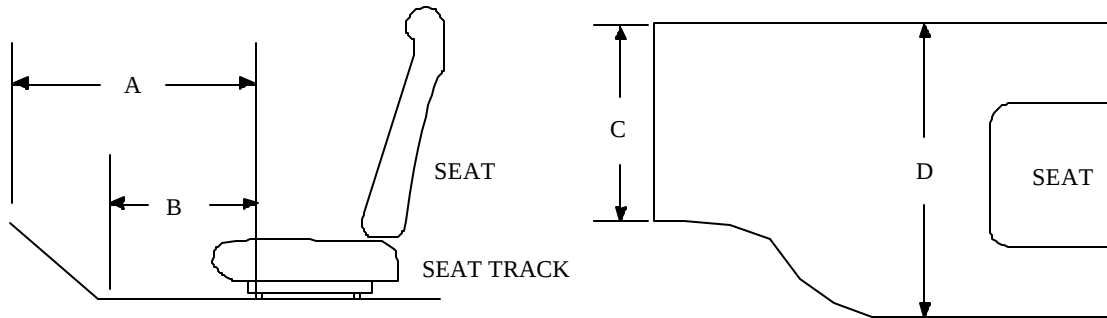


UNITS (mm)	LEFT				RIGHT		
MEASUREMENT	1	2	3	4*	1	2	3
BEFORE TEST	964	1559	1234	1065	987	1568	1244
AFTER TEST	970	1570	1238	1075	1014	1579	1245
DIFFERENCE	-6	-11	-4	-10	-27	-11	-1

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

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	3565	3565
AFTER TEST	3319	3673
DIFFERENCE	246	-108

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



DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	800	801	-1
B	401	428	-27
C	480	496	-16
D	448	457	-9

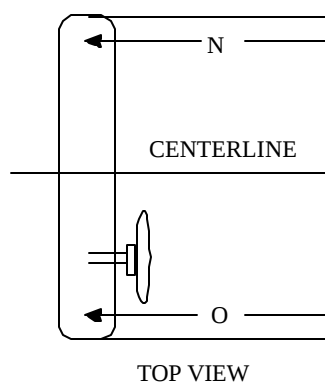
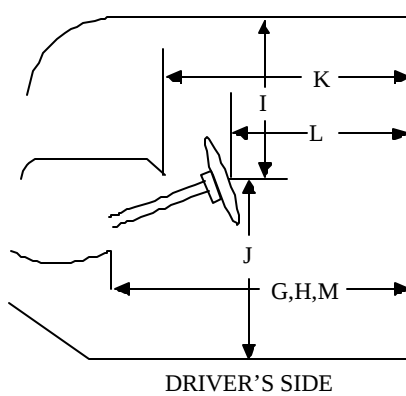
PASSENGER

Measurement	Pre-Test	Post-Test	Difference
A	725	721	4
B	322	300	22
C	418	433	-15
D	461	441	20

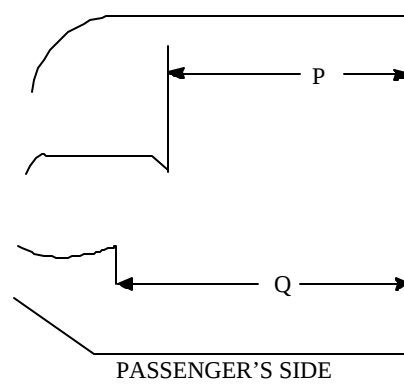
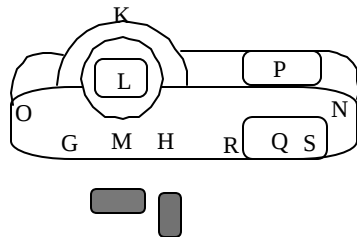
Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION



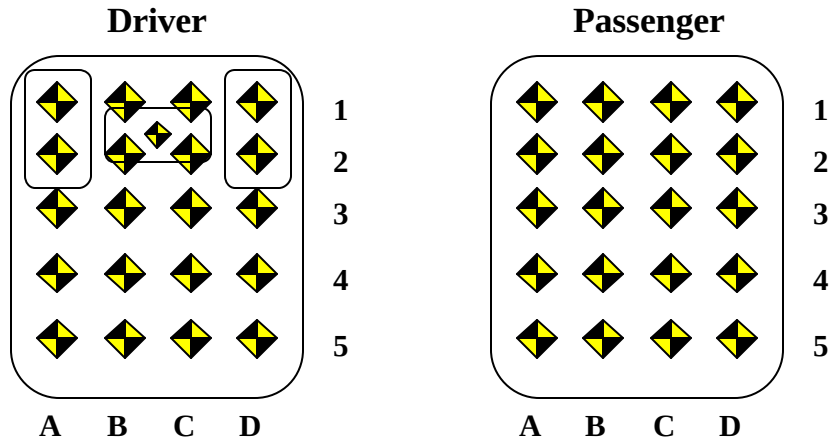
MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE



Measurement	Pre-Test	Post-Test	Difference
G	1653	1636	17
H	1652	1611	41
I	479	498	-19
J	701	698	3
K	1591	1574	17
L	1394	1379	15
M	1590	1571	19
N	1577	1569	8
O	1592	1570	22
P = K (PASS.)	1573	1569	4
Q = M (PASS.)	1632	1590	42
R	3973	3988	-15
S	3985	4001	-16

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
DRIVER SIDE INTRUSION MEASUREMENTS

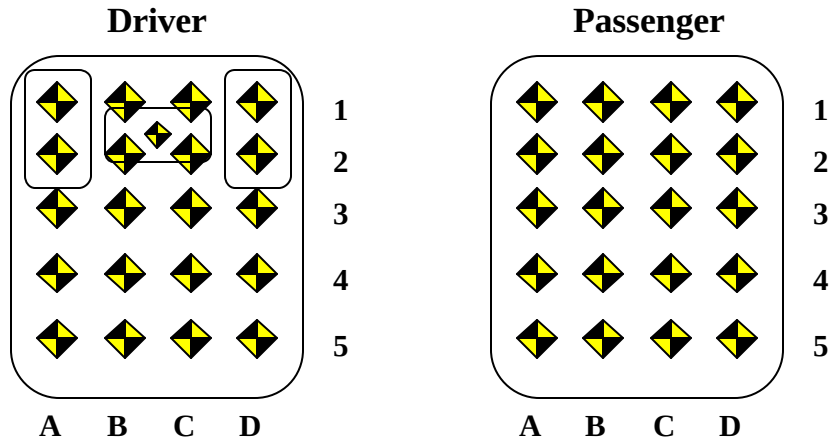


Driver Side Intrusion Measurements

Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	4354	-748	-657	4289	-715	-669	65	-33	12
B1	4440	-594	-660	4417	-578	-667	23	-16	7
C1	4468	-441	-649	4462	-462	-639	6	21	-10
D1	4479	-390	-668	4310	-279	-634	169	-111	-34
A2	4312	-746	-578	4260	-708	-595	52	-38	17
B2	4313	-591	-577	4276	-568	-579	37	-23	2
C2	4306	-433	-578	4308	-452	-595	-2	19	17
D2	4238	-241	-561	4307	-310	-589	-69	69	28
A3	4133	-702	-502	4170	-703	-481	-37	1	-21
B3	4149	-581	-507	4166	-568	-482	-17	-13	-25
C3	4135	-435	-512	4171	-421	-494	-36	-14	-18
D3	4158	-293	-521	4178	-283	-502	-20	-10	-19
A4	4061	-720	-491	4093	-690	-441	-32	-30	-50
B4	4064	-572	-502	4084	-542	-464	-20	-30	-38
C4	4068	-432	-500	4089	-401	-476	-21	-31	-24
D4	4070	-298	-510	4082	-251	-497	-12	-47	-13
A5	3980	-723	-486	4011	-680	-435	-31	-43	-51
B5	3987	-589	-500	3991	-544	-440	-4	-45	-60
C5	3993	-439	-509	4011	-394	-474	-18	-45	-35
D5	3993	-303	-506	4002	-257	-490	-9	-46	-16
BP	4200	-477	-742	4191	-461	-728	9	-16	-14
G	4013	-604	-972	4003	-606	-969	10	2	-3
H	4012	-308	-977	3979	-281	-968	33	-27	-9
L	3754	-475	-1238	3747	-476	-1212	7	1	-26
AB	3668	-645	-582	3661	-647	-568	7	2	-14

BP=Brake Pedal, G=Left side of bolster, H=Right side of bolster, L=Steering wheel center;
AB = Front outboard seat anchor bolt

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
PASSENGER SIDE INTRUSION MEASUREMENTS



Passenger Side Intrusion Measurements

Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	-	-	-	-	-	-	-	-	-
B1	-	-	-	-	-	-	-	-	-
C1	4404	525	-661	4404	531	-676	0	-6	15
D1	4343	698	-646	4337	679	-676	6	19	30
A2	-	-	-	-	-	-	-	-	-
B2	-	-	-	-	-	-	-	-	-
C2	4260	491	-599	4275	529	-603	-15	-38	4
D2	4272	656	-601	4281	677	-603	-9	-21	2
A3	-	-	-	-	-	-	-	-	-
B3	4151	425	-552	4138	399	-554	13	26	2
C3	4161	561	-529	4152	536	-527	9	25	-2
D3	4169	708	-531	4155	679	-526	14	29	-5
A4	-	-	-	-	-	-	-	-	-
B4	4080	420	-519	4064	398	-512	16	22	-7
C4	4084	551	-526	4070	534	-517	14	17	-9
D4	4080	708	-512	4073	682	-513	7	26	1
A5	3984	287	-531	3995	244	-560	-11	43	29
B5	3960	398	-517	3978	404	-508	-18	-6	-9
C5	4001	558	-519	3984	538	-515	17	20	-4
D5	4000	704	-517	3986	686	-512	14	18	-5
R	3973	296	-982	3988	330	-989	-15	-34	7
S	3985	621	-989	4001	637	-986	-16	-16	-3
AB	3679	649	-597	3683	643	-590	-4	6	-7

R=Left side of bolster, S=Right side of bolster;
AB = Front outboard seat anchor bolt

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
TEST VEHICLE FRONTAL PROFILE DATA

		PRE-TEST PROFILE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X	5457.8	5692.1	5762.3	5763.5	5691.9	5457.3
	Y	-925.2	-561.8	-217.2	217.8	561.1	926.9
	Z	-420.9	-422.1	-419.1	-421.1	-419.3	-420.5
Top of Front Bumper	X	5521.6	5719.9	5771.9	5774.3	5723.0	5523.1
	Y	-913.9	-562.4	-210.4	209.1	565.6	912.4
	Z	-650.3	-646.5	-645.6	-641.7	-644.9	-650.1
Center of Grille	X	5390.8	5630.7	5696.2	5700.2	5633.2	5393.7
	Y	-908.6	-563.0	-201.9	205.2	563.4	908.2
	Z	-922.7	-926.9	-917.4	-916.6	-920.4	-899.4
Front of Hood	X	5365.6	5577.4	5620.1	5618.1	5575.8	5364.3
	Y	-913.3	-561.7	-205.1	203.6	561.7	913.8
	Z	-972.0	-1119.8	-1151.4	-1148.8	-1110.2	-974.5

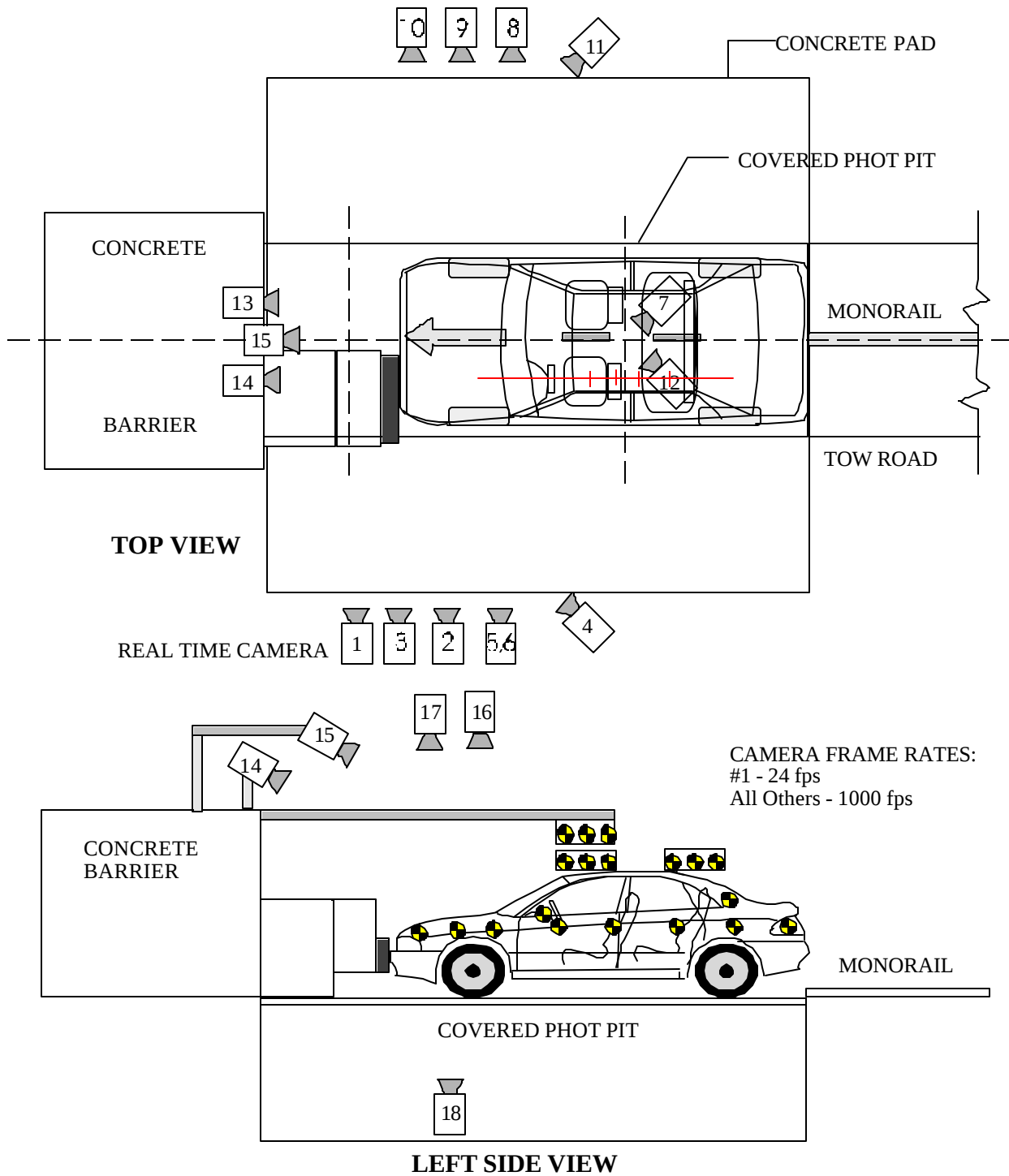
		POST-TEST PROFILE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X			5064.9	5387.7	5706.8	5996.5
	Y			-75.6	33.3	187.2	514.9
	Z			-405.4	-455.8	-487.8	-526.8
Top of Front Bumper	X	4933.1	5114.9	5051.4	5382.0	5706.1	6009.8
	Y	-761.0	-420.4	-72.3	27.6	157.4	425.9
	Z	-642.3	-591.2	-593.4	-631.0	-706.1	-791.6
Center of Grille	X	5029.5		5106.6	5410.4	5696.7	5445.5
	Y	-856.5		-112.8	49.6	269.5	797.1
	Z	-869.2		-968.8	-961.6	-956.7	-916.2
Front of Hood	X	5107.2	5130.9		5354.8	5502.2	5414.3
	Y	-842.0	-440.9		67.1	383.6	813.1
	Z	-894.7	-1124.8		-1216.5	-1227.7	-972.5

		CHANGE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X			697.5	375.7	-15.0	-539.2
	Y			-141.6	184.5	373.9	411.9
	Z			-13.7	34.7	68.6	106.3
Top of Front Bumper	X	588.5	605.0	720.5	392.3	16.9	-486.7
	Y	-152.9	-142.0	-138.1	181.5	408.1	486.5
	Z	-7.9		-52.1	-10.6	61.2	141.5
Center of Grille	X	361.3		589.6	289.8	-63.6	-51.9
	Y	-52.1		-89.1	155.6	293.9	111.1
	Z	-53.4	-926.9	51.5	45.0	36.3	16.8
Front of Hood	X	258.3	446.4		263.3	73.5	-50.0
	Y	-71.3	-120.9		136.5	178.1	100.7
	Z	-77.2	5.1		67.7	117.6	-2.0

All dimensions are in mm.

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.: R30320 Vehicle: 2003 Dodge Ram 1500Quad Cab Pickup

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	9464	850	1095	-5	9053	28	1000
3	Left Side View	9144	635	1100	-2	8733	25	1005
4	Driver and Interior View	7360	2371	2008	-10	-	24-70	1000
5	Steering Column (Bottom)	8799	528	1177	-2	8388	28-70	1000
6	Steering Column (Top)	8799	528	1803	-6	8388	25	1005
7	Interior Driver View	-	-	-	-	-	-	-
8	Overall Right Side View	8573	1523	1103	-4	8967	12.5	1015
9	Right Side View	9906	893	1053	0	10300	25	1005
10	Right Passenger View	9457	1344	1324	-1	9851	35	1020
11	Passenger and Interior View	9144	2263	1983	-9	-	50	1000
12	Interior Passenger View	-	-	-	-	-	-	-
13	Passenger Front View	610	-1720	2042	-20	-	13	1005
14	Driver Front View	610	-1720	3374	-33	-	25	1015
15	Windshield View	0	-1720	3374	-37	-	13	1055
16	Overhead Overall View	0	0	4880	-90	-	12.5	1010
17	Overhead Close-Up View	0	0	4880	-90	-	25	1005
18	Pit View of Engine	0	615	-3048	90	-	13	1000

*X = film plane to monorail centerline

** = referenced to horizontal plane

Y = film plane to impact location

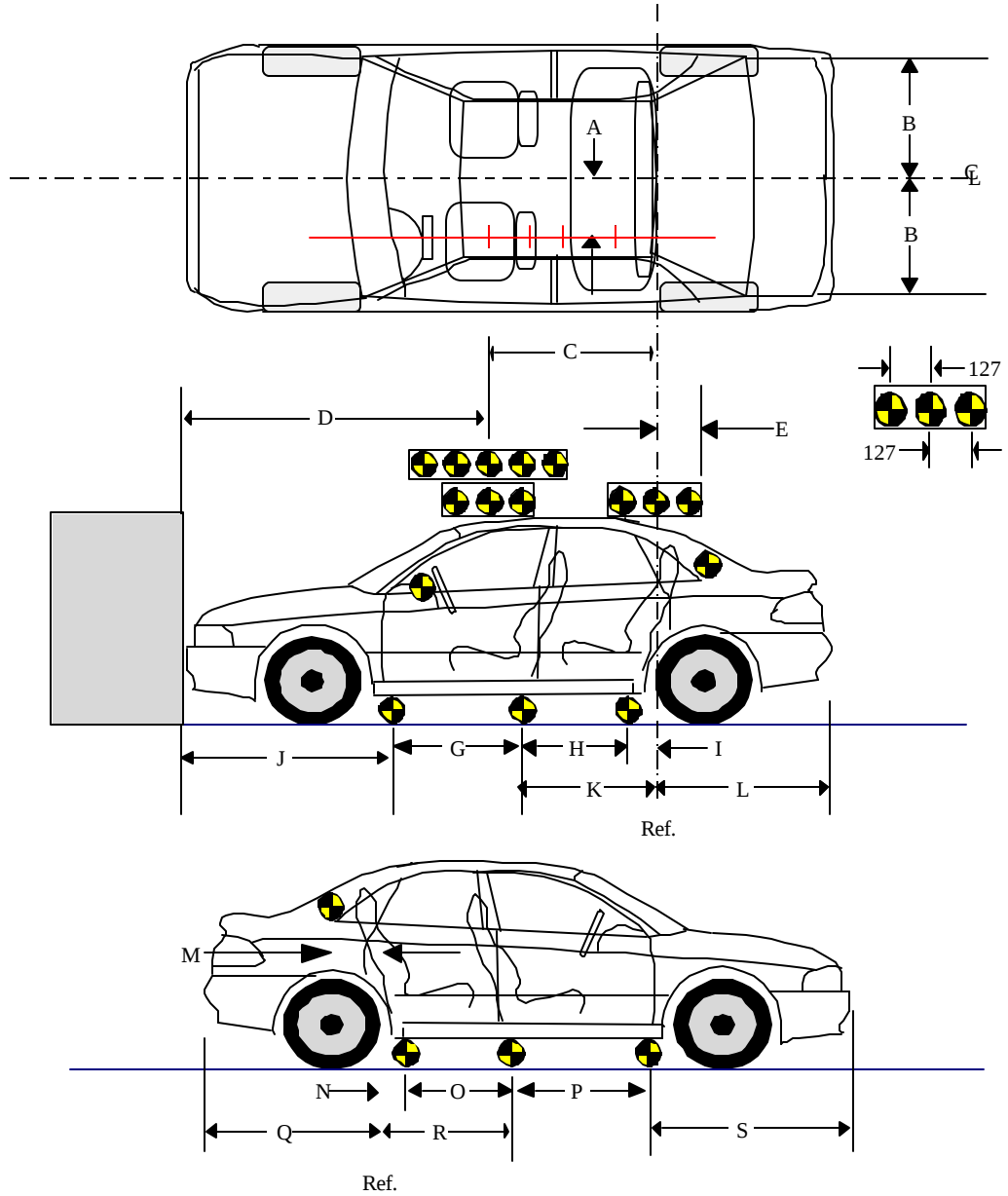
N.T. indicates No Timing

Z = film plane to ground

DATA SHEET NO. 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

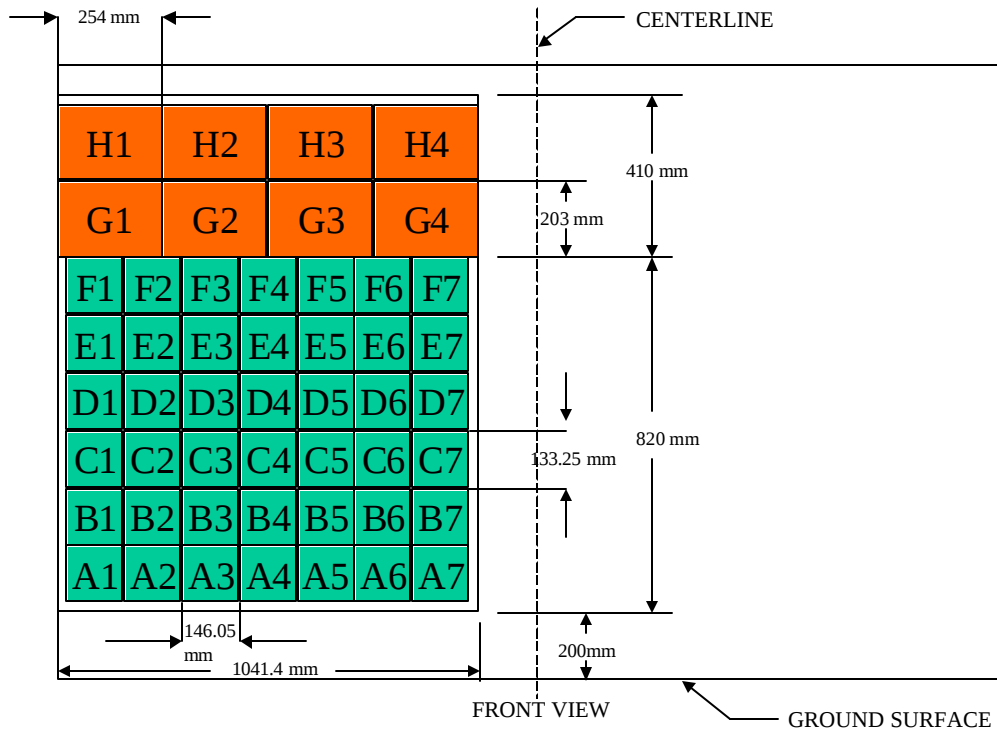
(Dimensions in millimeters)

A	470
B	805
C	1223
D	2322
E	1031
F	1702
G	1232
H	1246
I	158
J	1550
K	1404
L	1599
M	973
N	177
O	1233
P	1223
Q	1592
R	1410
S	1560



DATA SHEET NO. 17 LOAD CELL LOCATIONS RELATIVE TO FIXED BARRIER AND
DEFORMABLE BARRIER FACE

50 Load Cells



	Bottom Array	Top Array
Load cell width	146 mm	254 mm
Load cell height	133 mm	203 mm
Vertical gap between load cells	6 mm	6 mm
Horizontal gap between load cells	6 mm	6 mm
Vertical filler block width	55 mm	55 mm

The following data is presented in Appendix B:

- (1)X Direction Data from load cells A1 through F7
- (2)X Direction Data from load cells G1 through H4

DATA SHEET NO. 18 POST TEST AIR BAG DATA****

NHTSA No.: R30320; Test Date: November 17, 2003; Technician: P. MacDiarmid

Vehicle Model Year/Make/Model: 2003 Dodge Ram 1500Quad Cab Pickup

- A. No. of vent holes: N/A -Driver N/A -Passenger
- B. Size of vent holes: (mm²) N/A -Driver N/A -Passenger
- C. Total vent area: (mm²) N/A -Driver N/A -Passenger
- D. Deflated air bag length and width dimensions or, if round, diameter. (mm)
- Driver: N/A -Height; N/A -Width; N/A -Depth
- Passenger: N/A -Height; N/A -Width; N/A -Depth
- E. Is the air bag tethered?
- Driver: N/A -Yes; N/A -No; If yes, record length of tether- N/A
- Passenger: N/A -Yes; N/A -No; If yes, record length of tether- N/A

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).

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

Driver: Air bag: N/A

Generator: N/A

Passenger: Air bag: N/A

Generator: N/A

****Airbags did not deploy

DATA SHEET NO. 19 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH OFFSET FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Dodge Ram 1500Quad Cab Pickup

NHTSA Test No.: R30320 VIN: 1D7HA18N83S243561

Model Year: 2003 Build Date: 01-03 Test Date: November 17, 2003

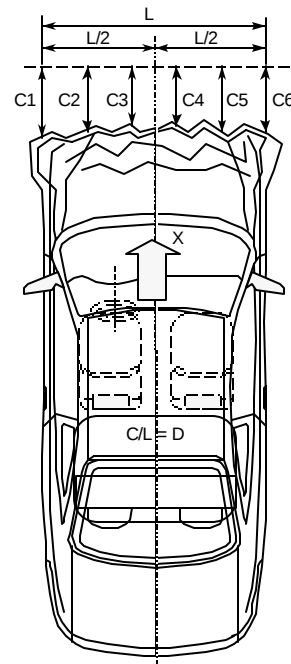
Vehicle Size Category: Pickup Test Weight: 2516.0 kg

Vehicle Wheelbase: 3565 mm; Front Overhang: 999 mm; Overall Width: 2084 mm

Collision Deformation Classification (CDC) Code: 12FDEW 4

Crush Depth Dimensions

	PRE	POST	DIFF	
C1 =	5522	4933	589	mm
C2 =	5720	5115	605	mm
C3 =	5772	5051	721	mm
C4 =	5774	5382	392	mm
C5 =	5723	5706	17	mm
C6 =	5523	6010	-487	mm



Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region:

L1=	<u>1826</u>	mm
L2=	<u>913</u>	mm
L5=	<u>365.2</u>	mm

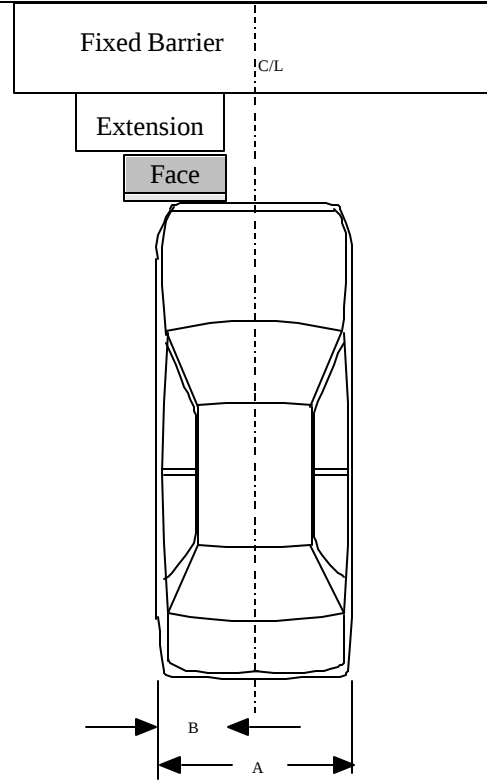
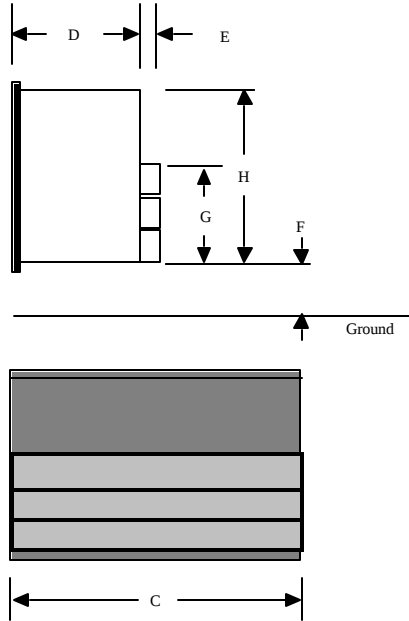
DATA SHEET NO. 20 OFFSET BARRIER AND VEHICLE ORIENTATION

NHTSA Test No.: R30320

Vehicle: 2003 Dodge Ram 1500Quad Cab Pickup

Barrier Manufacturer and Serial Number:

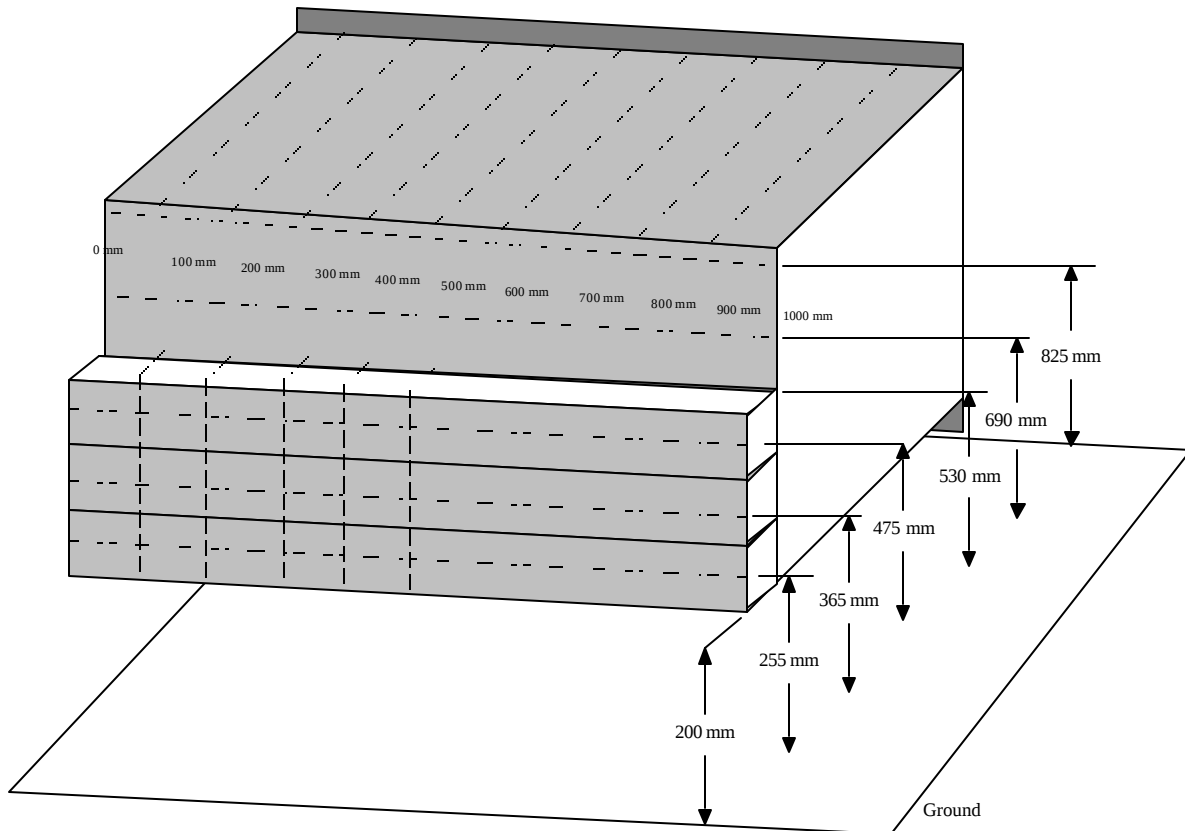
Cellbond DE121



A	Total Vehicle Width	2084	mm
B	40% Overlap Distance	833.6	mm
C	Deformable Face Width	1000	mm
D	Single Stage Honeycomb Depth	450	mm
E	Bumper Element Depth	90	mm
F	Lower Edge Height From Ground	200	mm
G*	Bumper Element Height	330	mm
H	Deformable Barrier Honeycomb Height	650	mm

* The bumper element consists of three 110 mm height blocks of 1.723 MPa honeycomb

Offset Barrier Measurement Locations



DATA SHEET NO. 21 OFFSET BARRIER DEFORMATION (continued)

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

Vehicle: _ 2003 Dodge Ram 1500Quad Cab Pickup

NHTSA No. R30320

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

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)					0	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	546
		POST	615	630	666	704	768	818	866	873	901	924	941
		CRUSH	69	84	120	158	222	272	320	327	355	378	395
LEVEL 5 MID STACK	687	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	549	571	618	701	776	831	873	923	960	967	969
		CRUSH	3	25	72	155	230	285	327	377	414	421	423
LEVEL 4 TOP BUMPER	530	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	545	586	627	687	747	814	876	928	968	972	953
		CRUSH	-1	40	81	141	201	268	330	382	422	426	407
LEVEL 3 BUMPER TOP	475	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	565	654	599	627	671	751	823	890	951	945	938
		CRUSH	109	198	143	171	215	295	367	434	495	489	482
LEVEL 2 BUMPER MID	365	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	528	558	581	581	631	697	765	823	875	922	932
		CRUSH	72	102	125	125	175	241	309	367	419	466	476
LEVEL 1 BUMPER LOW	255	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
		CRUSH	544	544	544	544	544	544	544	544	544	544	544

LEVEL	HEIGHT AT CL (mm)*	MAX CRUSH
LEVEL 6 TOP STACK	825	395
LEVEL 5 MID STACK	687	423
LEVEL 4 TOP BUMPER	530	426
LEVEL 3 BUMPER TOP	475	495
LEVEL 2 BUMPER MID	365	476
LEVEL 1 BUMPER LOW	255	544

APPENDIX A
PHOTOGRAPHS



Figure A-1 PRE-TEST FRONT VIEW



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

PHOTOGRAPH IS NOT AVAILABLE

Figure A-12 POST-TEST WINDSHIELD VIEW



Figure A-13 PRE-TEST ENGINE COMPARTMENT VIEW



Figure A-14 FUEL CAP VIEW



Figure A-15 PRE-TEST FRONT UNDERBODY VIEW

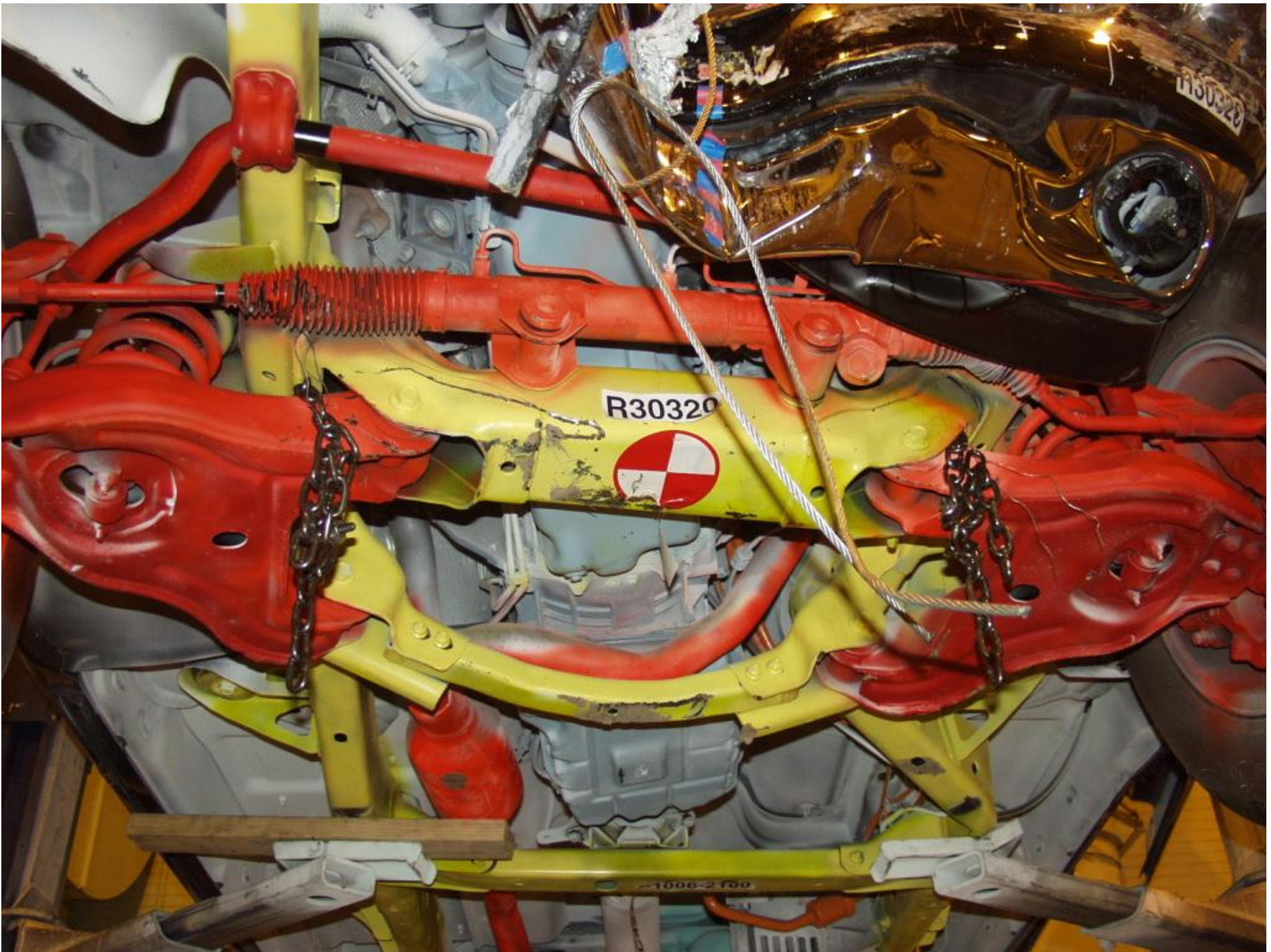


Figure A-16 POST-TEST FRONT UNDERBODY VIEW



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

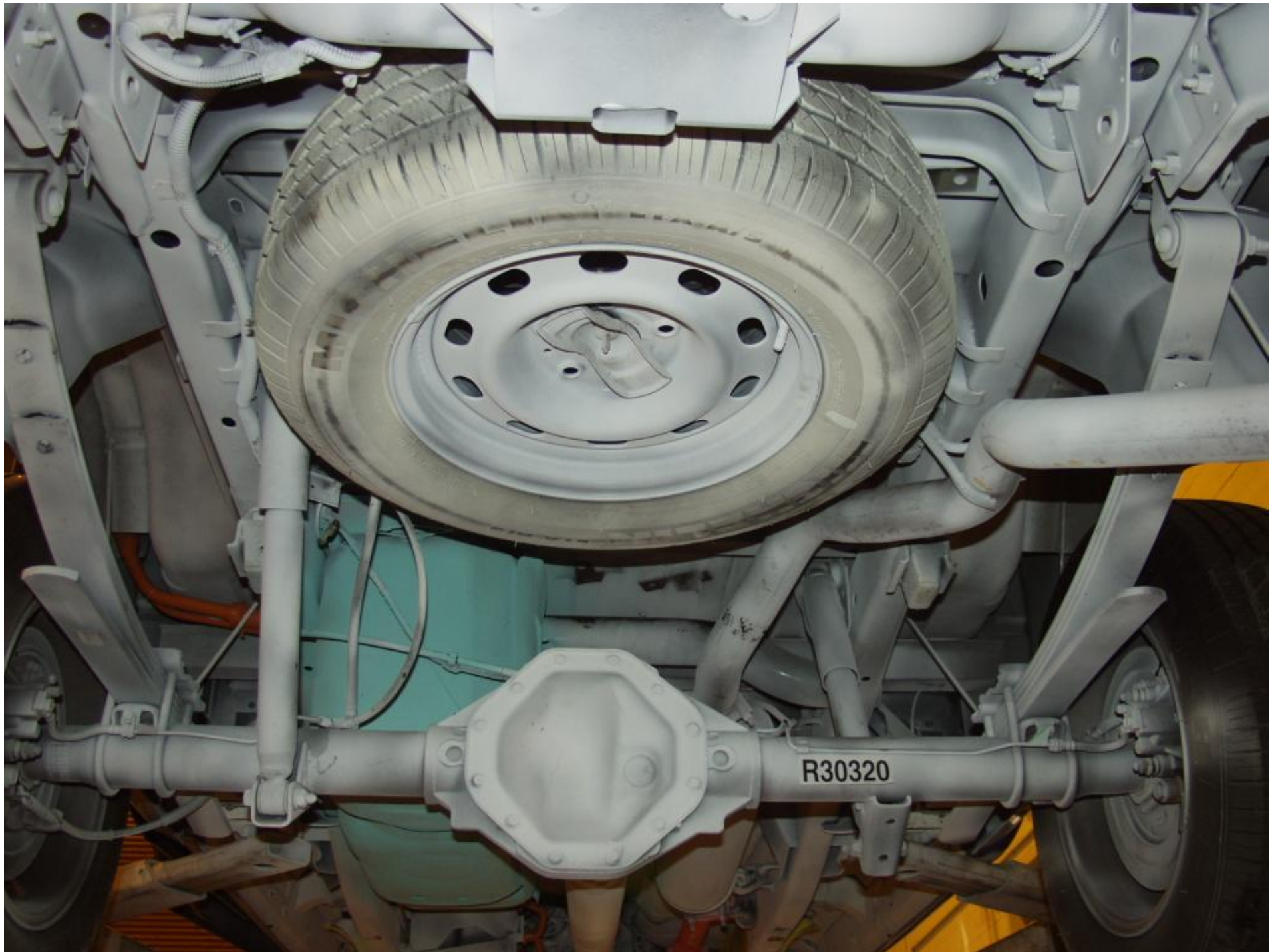


Figure A-20 POST-TEST REAR UNDERBODY VIEW



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

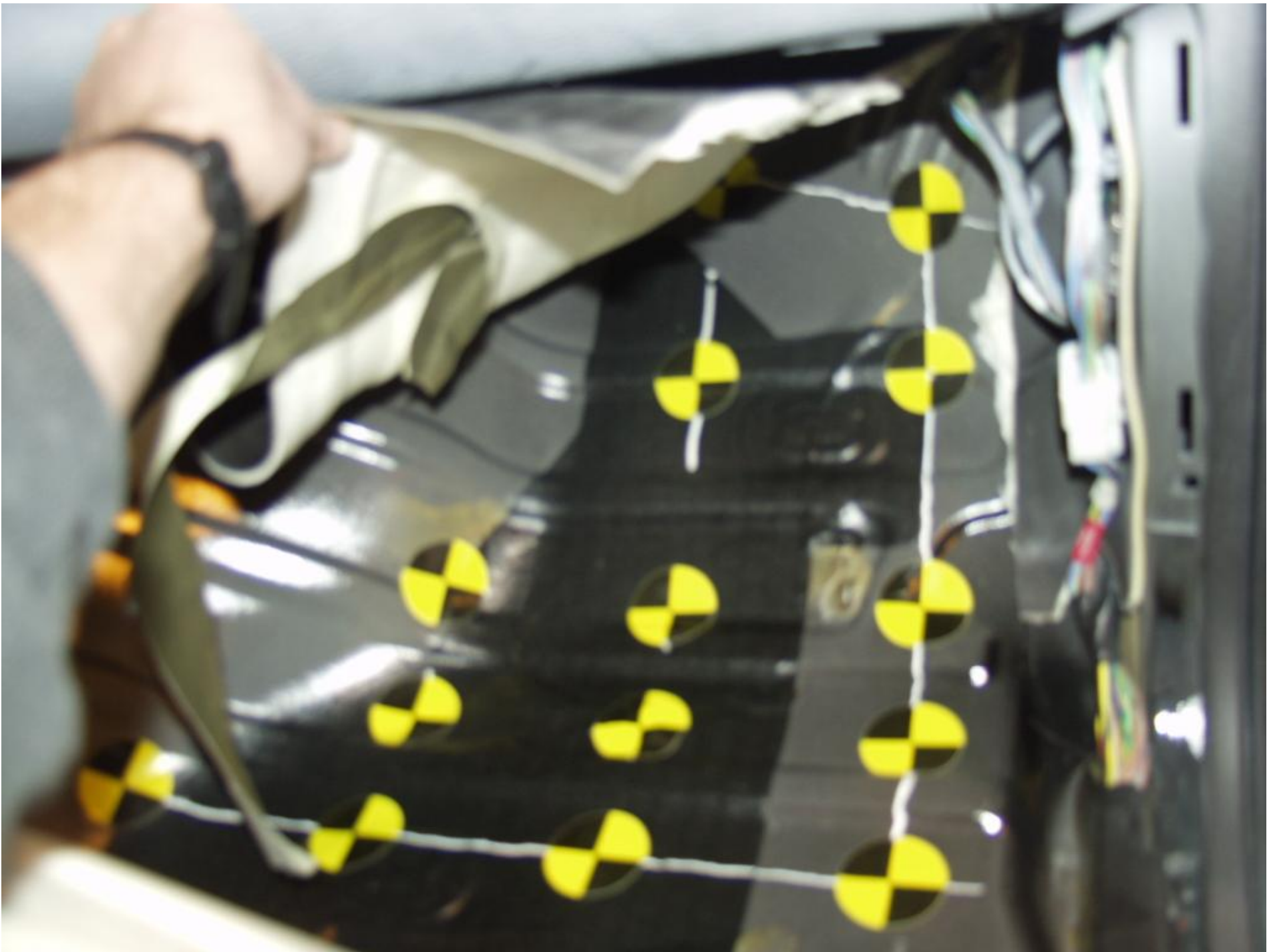


Figure A-35 PRE-TEST PASSENGER FLOOR PAN VIEW

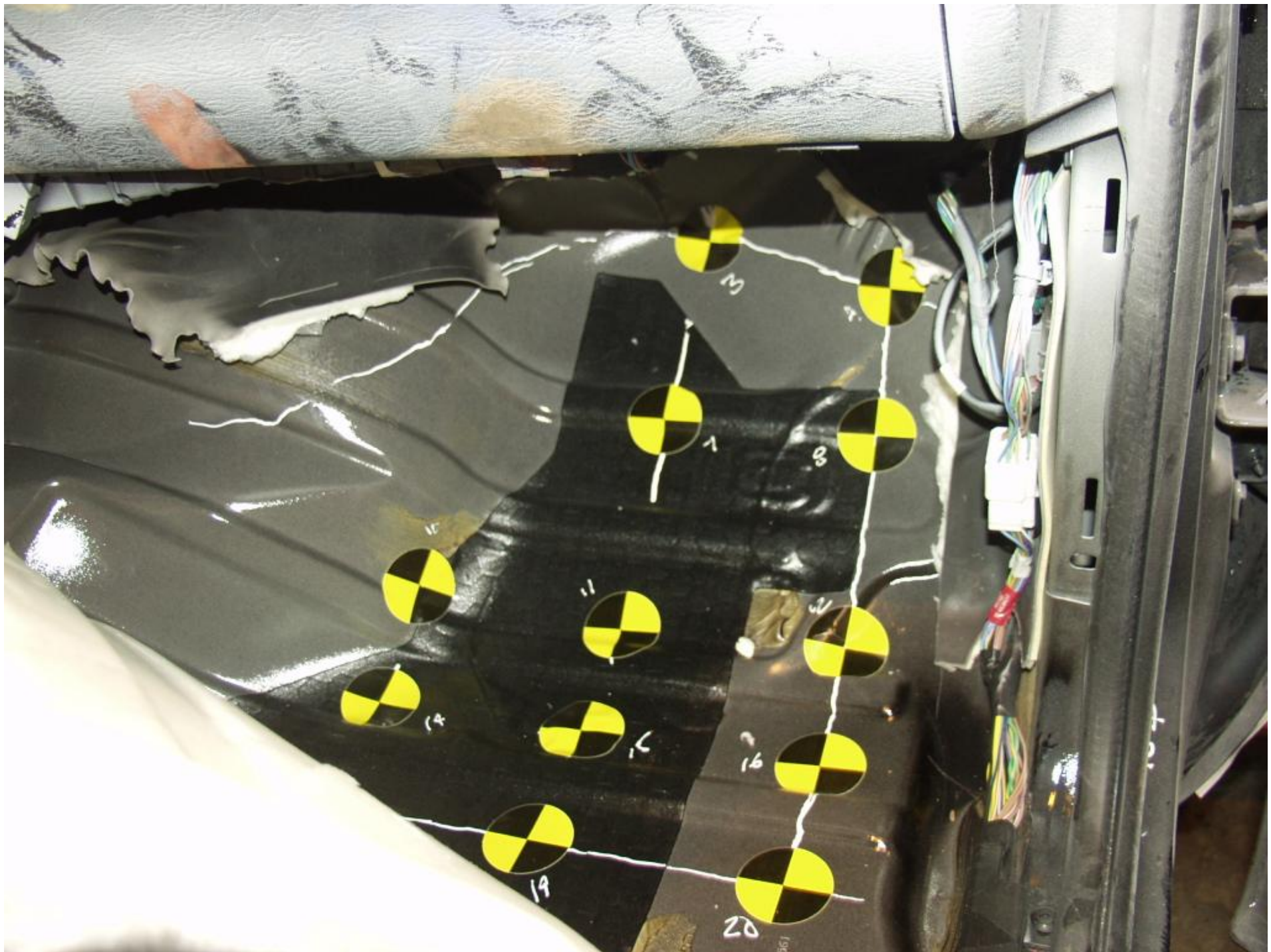


Figure A-36 POST-TEST PASSENGER FLOOR PAN VIEW



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

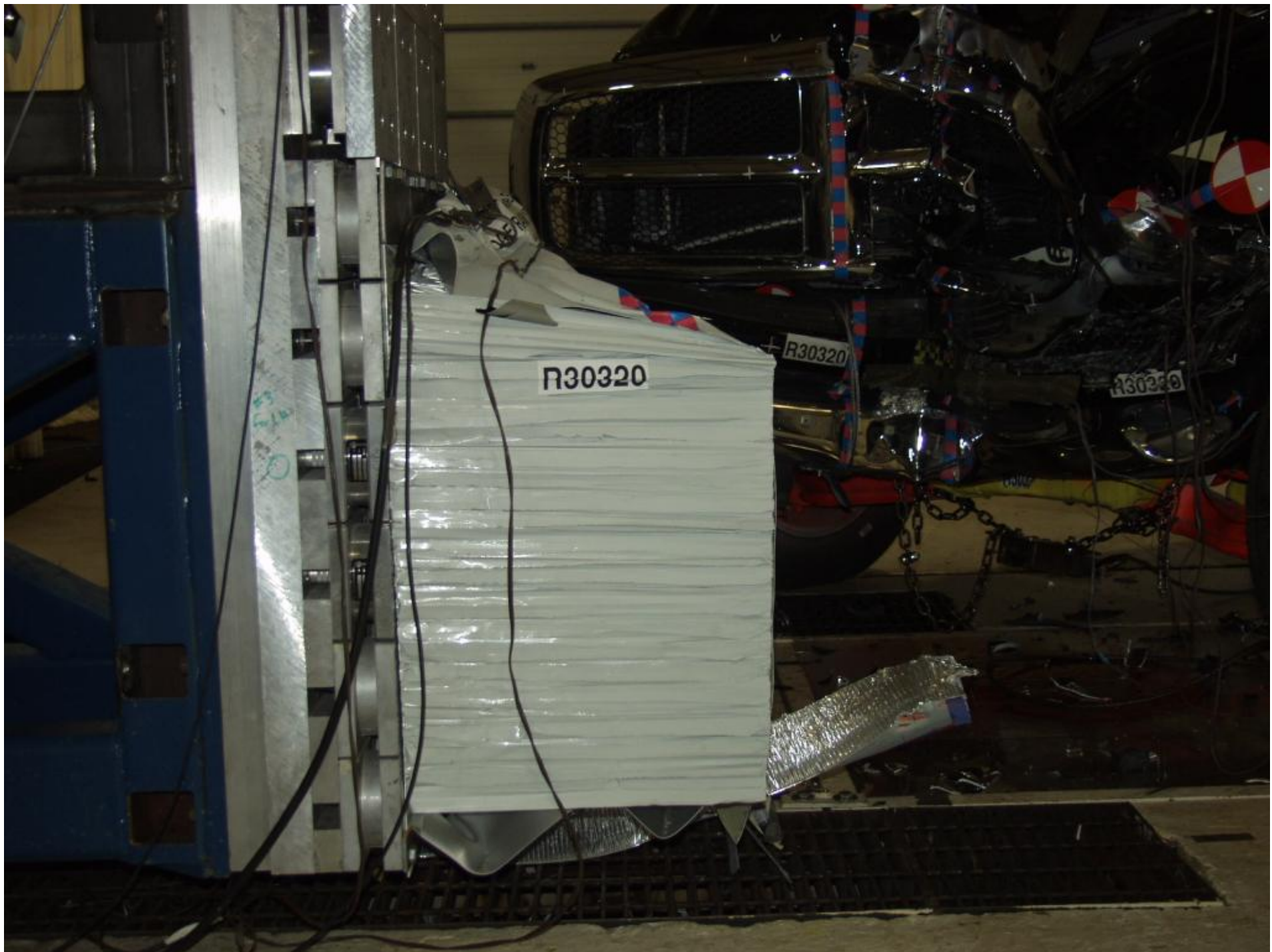


Figure A-40 POST-TEST BARRIER LEFTSIDE VIEW



Figure A-41 PRE-TEST BARRIER RIGHT SIDE VIEW



Figure A-42 POST-TEST BARRIER RIGHT SIDE VIEW

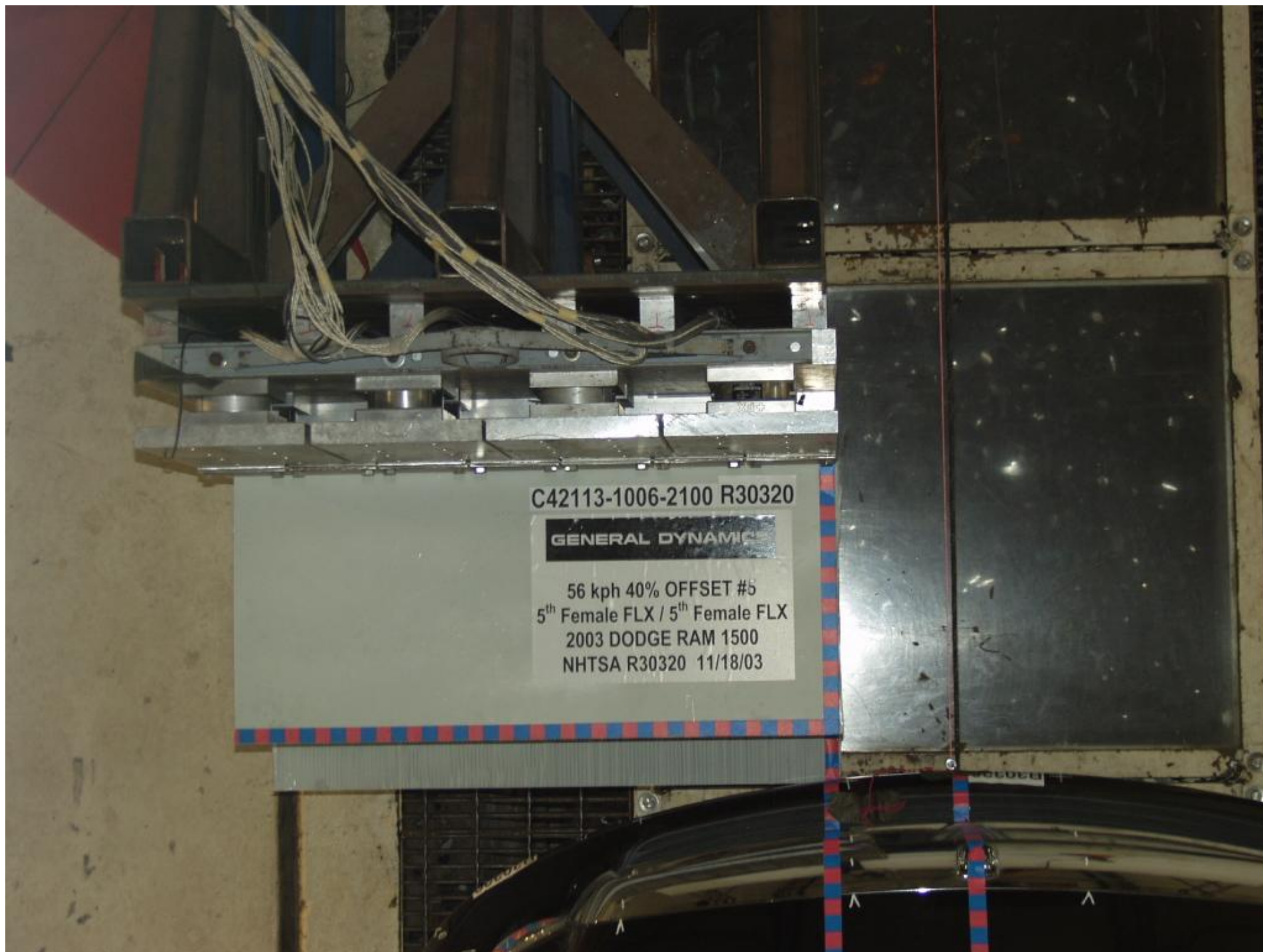


Figure A-43 PRE-TEST BARRIER TOP VIEW



Figure A-44 POST-TEST BARRIER TOP VIEW



Figure A-45 POST-TEST OVERHEADVIEW

PHOTOGRAPH IS NOT AVAILABLE

Figure A-46 ROLLOVER VIEW



Figure A-47 IMPACT VIEW

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Figure A-48 PRE-TEST DRIVER LOWER LEG VIEW



Figure A-49 POST-TEST DRIVER LOWER LEG VIEW

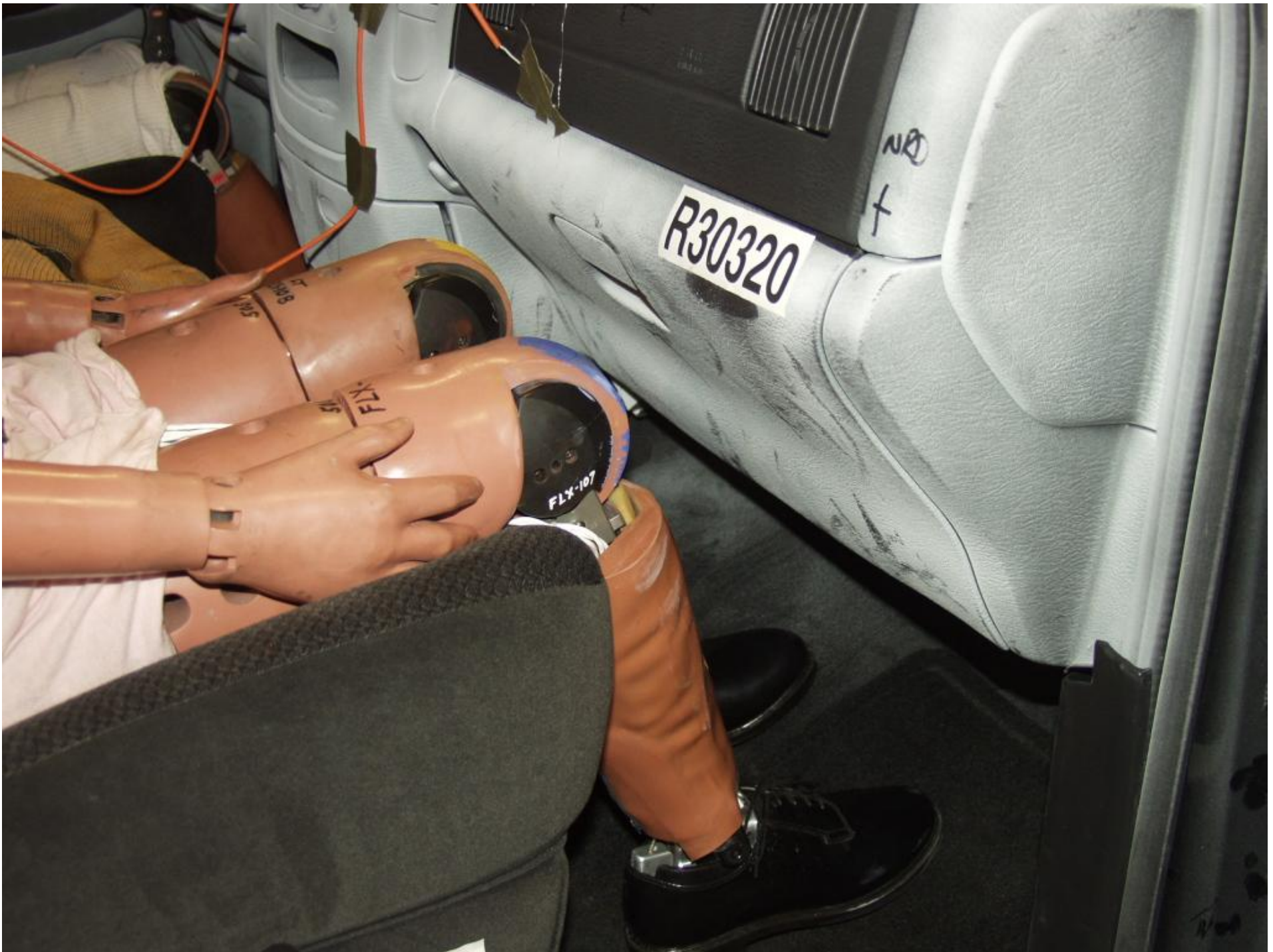


Figure A-50 PRE-TEST PASSENGER LOWER LEG VIEW

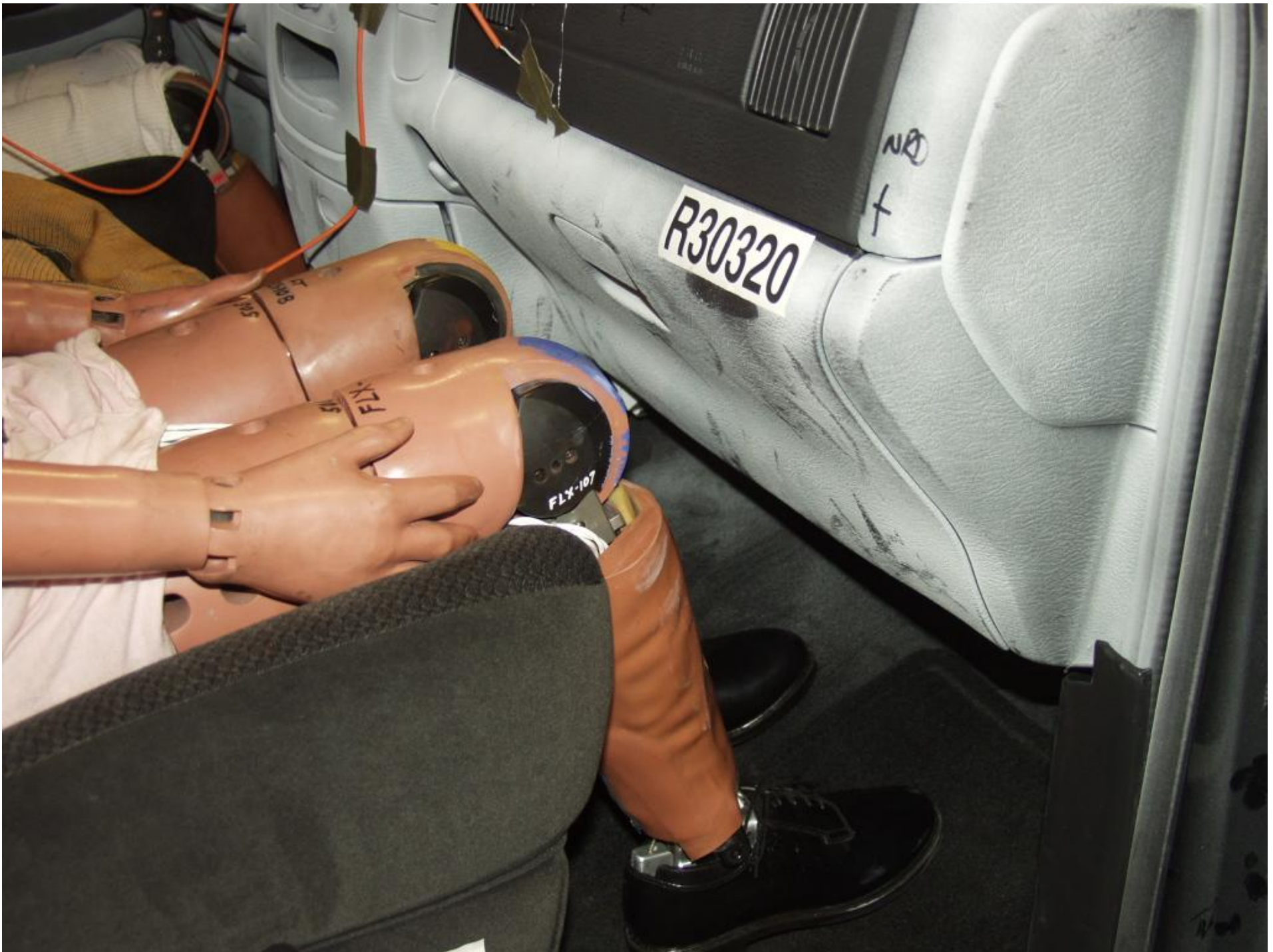


Figure A-51 POST-TEST PASSENGER LOWER LEG VIEW



Figure A-52 PRE-TEST DRIVER FEET VIEW



Figure A-53 POST-TEST DRIVER FEET VIEW



Figure A-54 PRE-TEST PASSENGER FEET VIEW



Figure A-55 POST-TEST PASSENGER FEET VIEW



Figure A-56 PRE-TEST DRIVER ABDOMEN VIEW



Figure A-57 PRE-TEST DRIVER ABDOMEN VIEW



Figure A-58 POST-TEST STEERING WHEEL VIEW



Figure A-59 PRE-TEST LEFT FRONT WHEEL WELL VIEW



Figure A-60 POST-TEST LEFT FRONT WHEEL WELL VIEW



Figure A-61 PRE-TEST LEFT FRONT (SHOTGUN) VIEW



Figure A-62 POST-TEST LEFT FRONT (SHOTGUN) VIEW



Figure A-63 POST-TEST LEFT SIDE A-PILLAR VIEW



Figure A-64 POST-TEST LEFT SIDE WHEEL TO A-PILLAR VIEW



Figure A-65 POST-TEST LEFT SIDE WHEEL/TIRE DEFORMATION



Figure A-66 PRE-TEST FRONT SUBFRAME VIEW

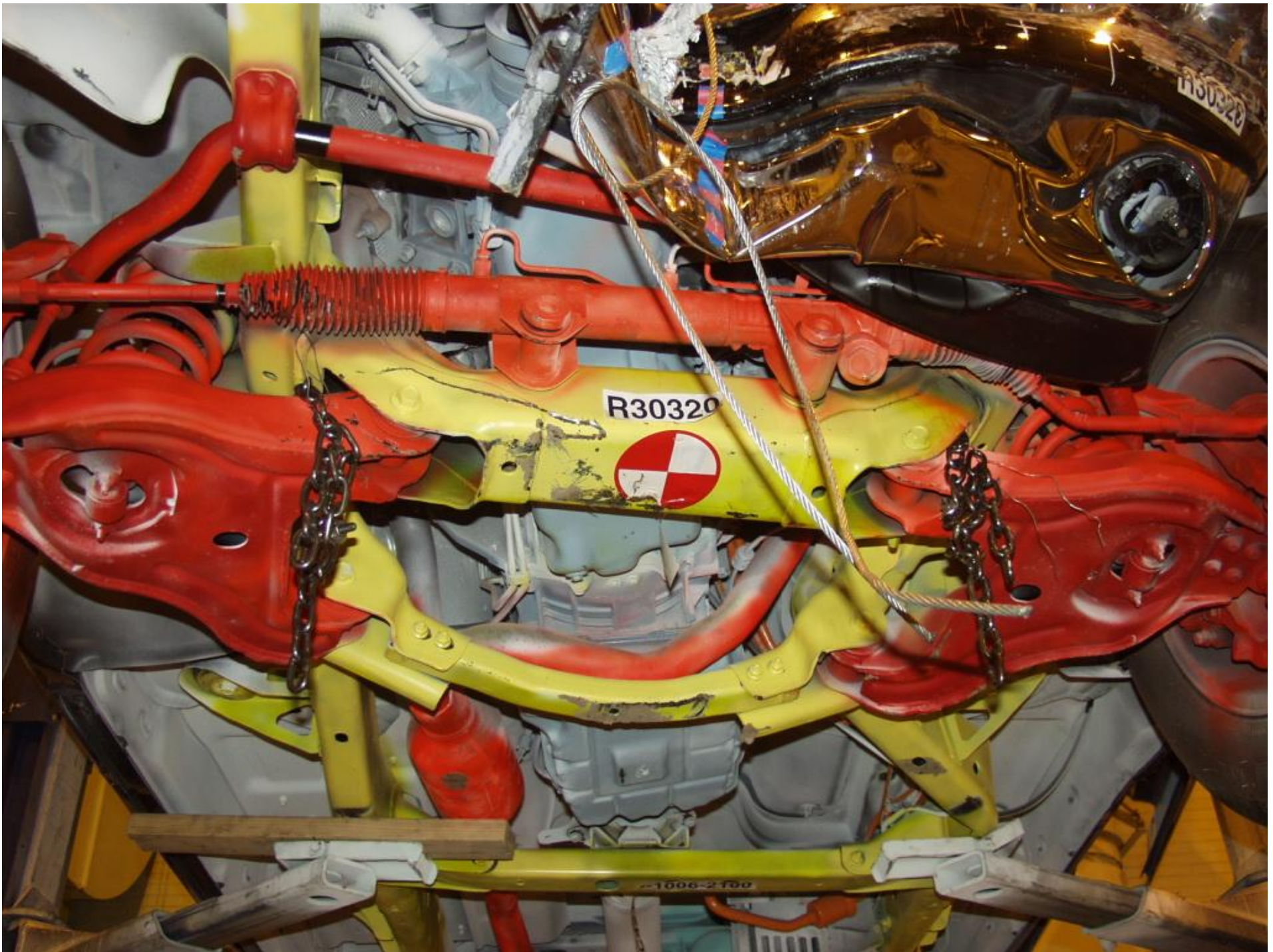


Figure A-67 POST-TEST FRONT SUBFRAME VIEW

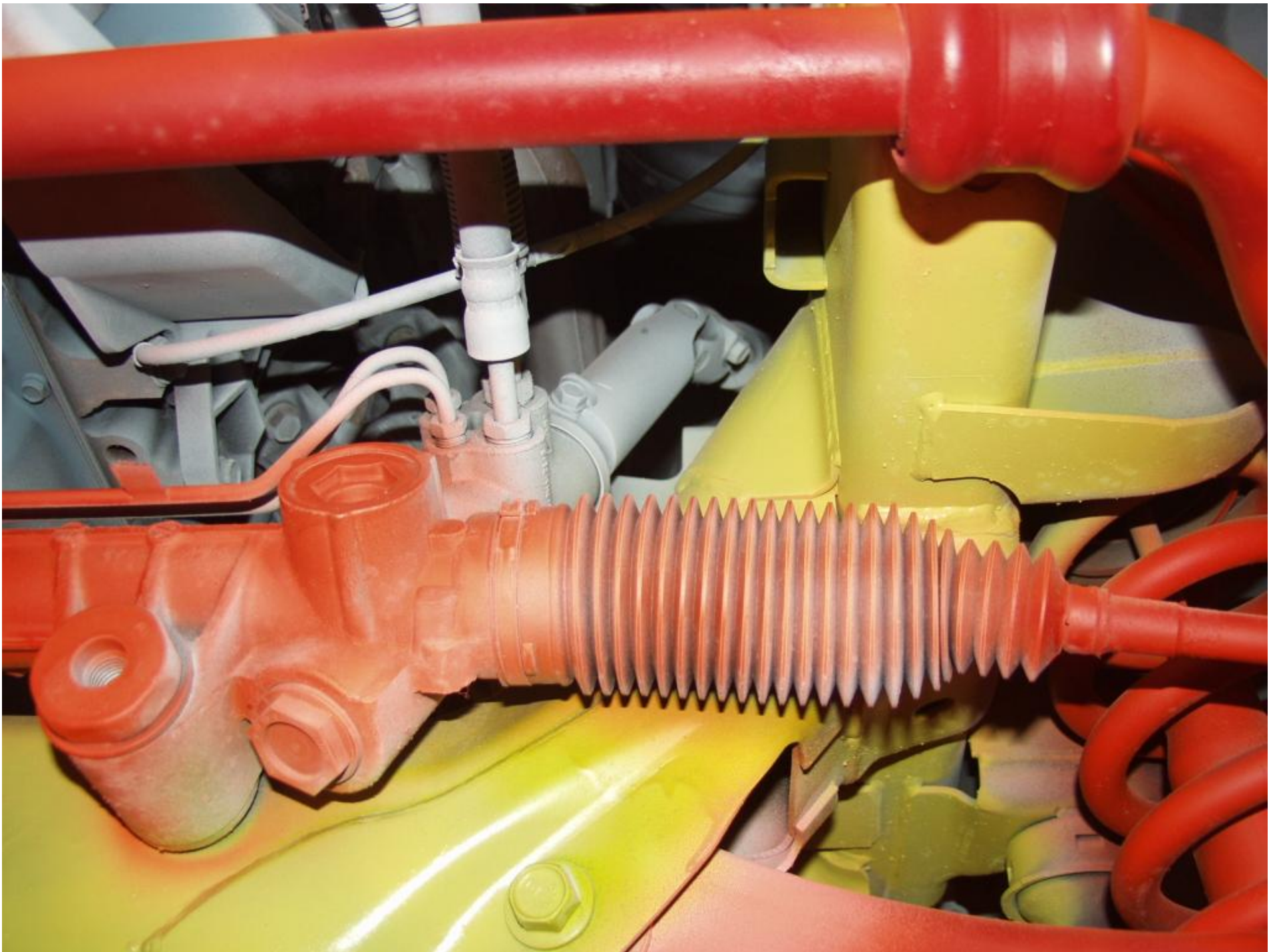


Figure A-68 PRE-TEST STEERING RACK/SWAY BAR VIEW

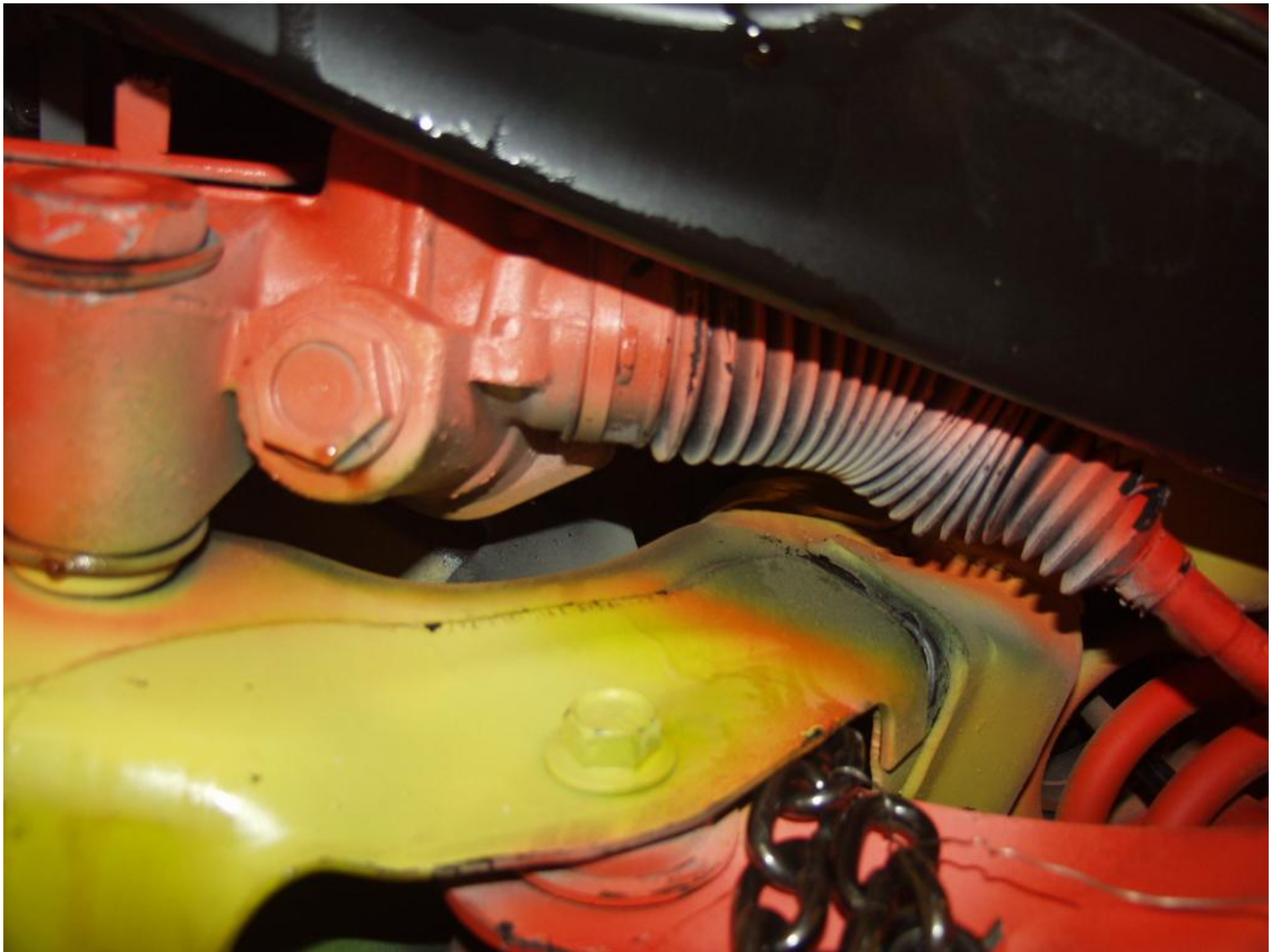


Figure A-69 POST-TEST STEERING RACK/SWAY BAR VIEW

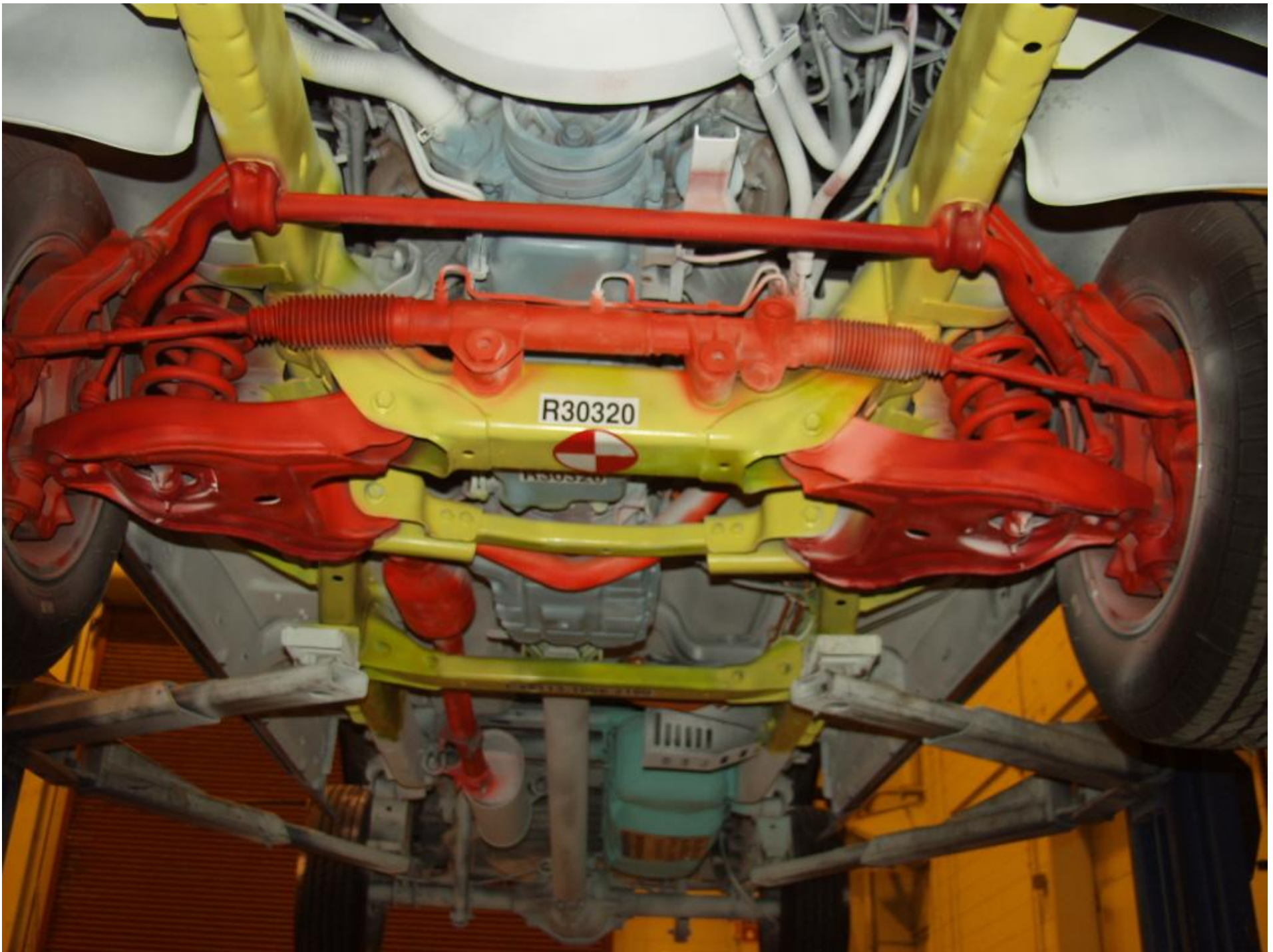


Figure A-70 PRE-TEST UNDERBODY OVERALL VIEW

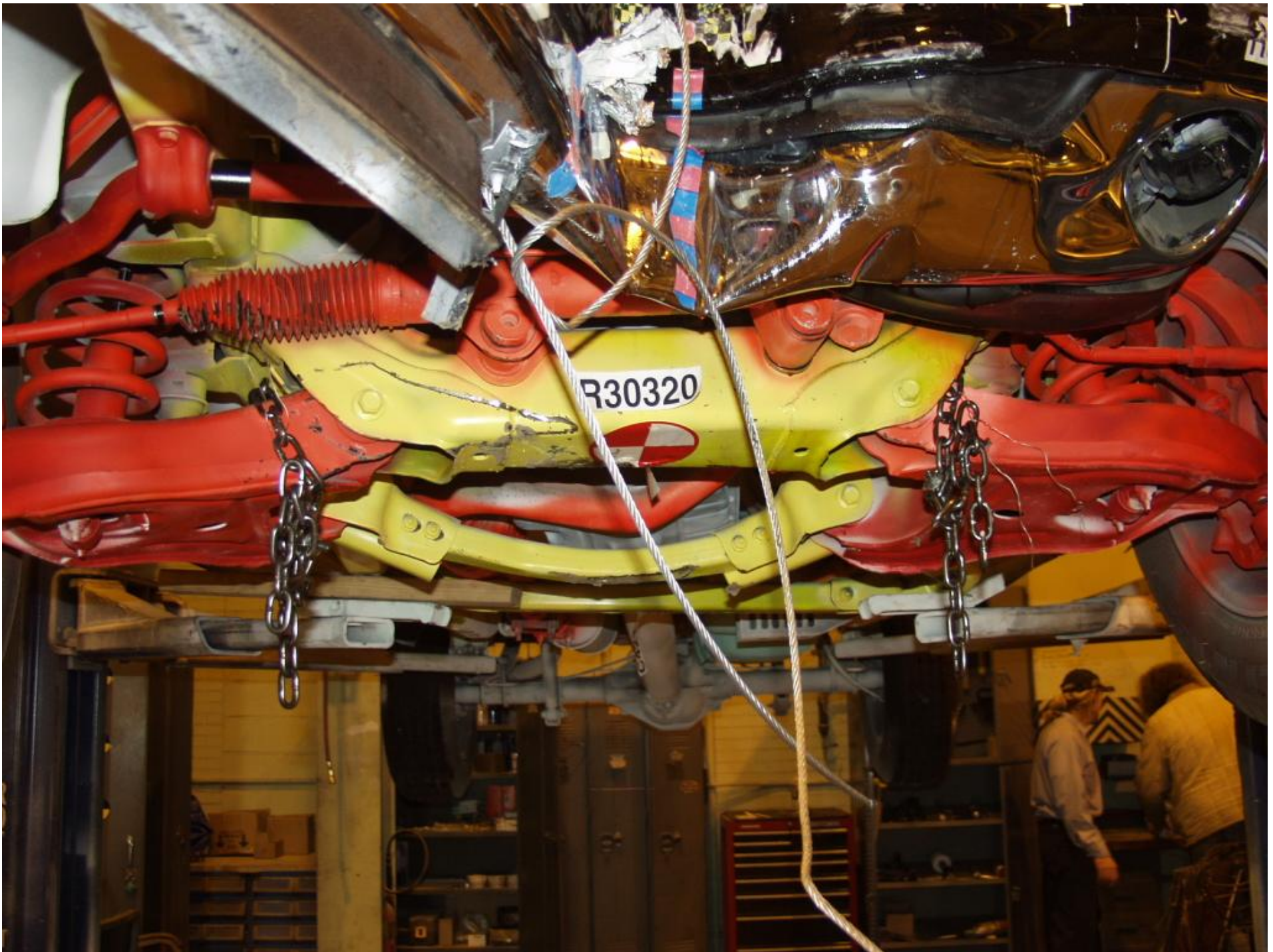


Figure A-71 POST-TEST UNDERBODY OVERALL VIEW

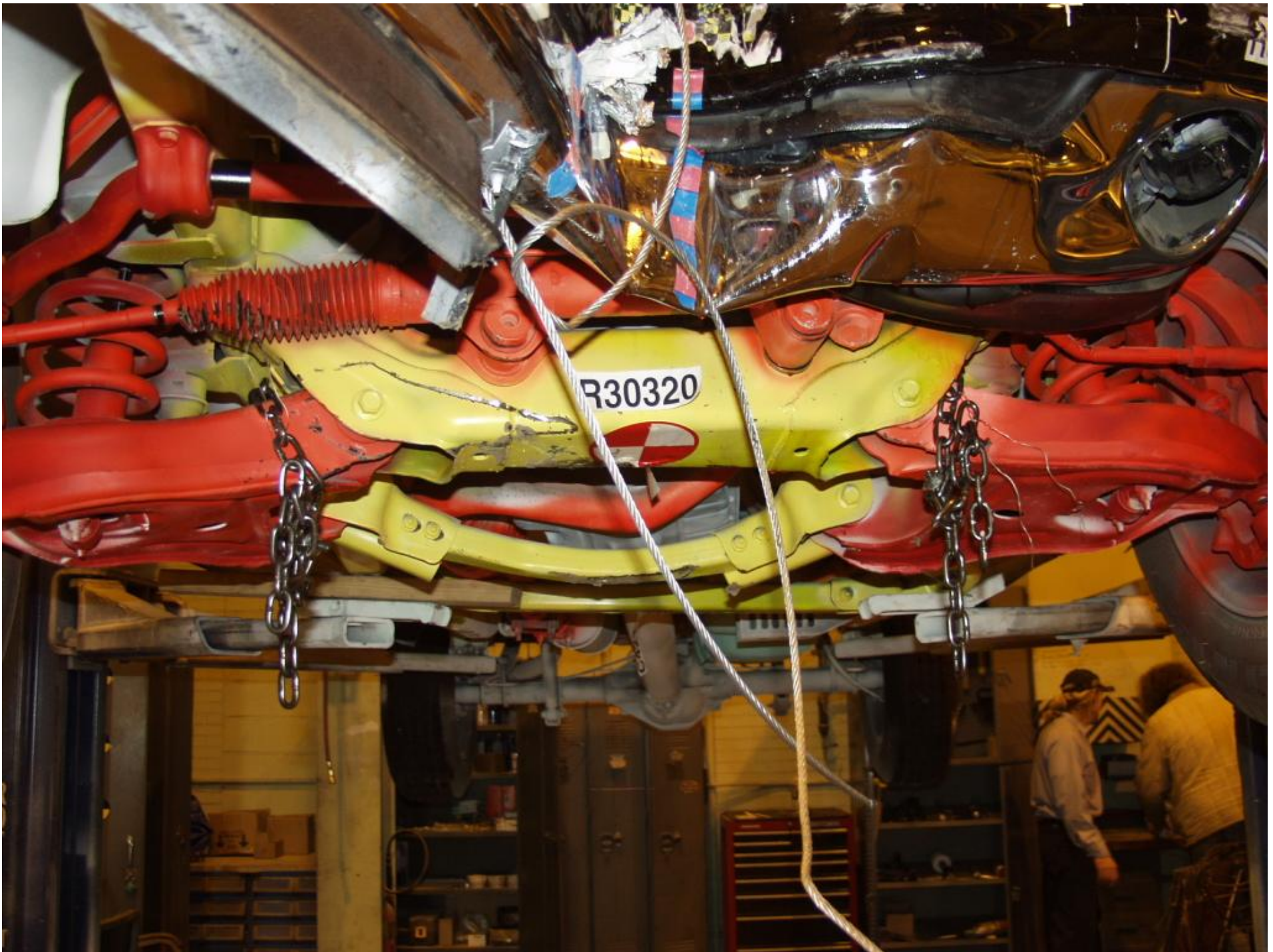


Figure A-72 POST-TEST BUMPER TO RAIL ATTACHMENT

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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. R30320

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	600
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

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4	V1P1 Head 9 Array Y Arm Az [g, CFC_1000]	B-13
5	V1P1 Head 9 Array Z Arm Ax [g, CFC_1000]	B-14
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9	V1P1 Head z [g, CFC_1000]	B-18
10	V1P1 Head Resultant [g, CFC_1000]	B-19
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12	V1P1 Head Red y [g, CFC_1000]	B-21
13	V1P1 Head Red z [g, CFC_1000]	B-22
14	V1P1 Head Red Resultant [g, CFC_1000]	B-23
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16	V1P1 Upper Neck Fy [N, CFC_1000]	B-25
17	V1P1 Upper Neck Fz [N, CFC_1000]	B-26
18	V1P1 Upper Neck F Resultant [N, CFC_1000]	B-27
19	V1P1 Upper Neck Mx [N-m, CFC_600]	B-28
20	V1P1 Upper Neck My [N-m, CFC_600]	B-29
21	V1P1 Upper Neck Mz [N-m, CFC_600]	B-30
22	V1P1 Upper Neck M Resultant [N-m, CFC_600]	B-31
23	V1P1 Lower Neck Fx [N, CFC_1000]	B-32
24	V1P1 Lower Neck Fy [N, CFC_1000]	B-33
25	V1P1 Lower Neck Fz [N, CFC_1000]	B-34
26	V1P1 Lower Neck F Resultant [N, CFC_1000]	B-35
27	V1P1 Lower Neck Mx [N-m, CFC_600]	B-36
28	V1P1 Lower Neck My [N-m, CFC_600]	B-37
29	V1P1 Chest x [g, CFC_180]	B-38
30	V1P1 Chest y [g, CFC_180]	B-39
31	V1P1 Chest z [g, CFC_180]	B-40
32	V1P1 Chest Resultant [g, CFC_180]	B-41
33	V1P1 Chest Red x [g, CFC_180]	B-42
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38	V1P1 Left Femur [N, CFC_600]	B-47
39	V1P1 Right Femur [N, CFC_600]	B-48
40	V1P1 Left Knee Deflection [mm, CFC_180]	B-49
41	V1P1 Right Knee Deflection [mm, CFC_180]	B-50
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44	V1P1 Left Upper Tibia Mx [N-m, CFC_600]	B-53
45	V1P1 Left Upper Tibia My [N-m, CFC_600]	B-54
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51	V1P1 Left Lower Tibia My [N-m, CFC_600]	B-60
52	V1P1 Right Upper Tibia Fx [N, CFC_600]	B-61
53	V1P1 Right Upper Tibia Fz [N, CFC_600]	B-62
54	V1P1 Right Upper Tibia Mx [N-m, CFC_600]	B-63
55	V1P1 Right Upper Tibia My [N-m, CFC_600]	B-64
56	V1P1 Right Lower Tibia Fx [N, CFC_600]	B-65
57	V1P1 Right Lower Tibia Fy [N, CFC_600]	B-66
58	V1P1 Right Lower Tibia Fz [N, CFC_600]	B-67
59	V1P1 Right Lower Tibia F Resultant [N, CFC_600]	B-68
60	V1P1 Right Lower Tibia Mx [N-m, CFC_600]	B-69
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62	V1P1 Left Tibia x [g, CFC_600]	B-71
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65	V1P1 Right Tibia y [g, CFC_600]	B-74
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67	V1P1 Left Ankle Rotation y [deg, CFC_180]	B-76
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69	V1P1 Right Ankle Rotation x [deg, CFC_180]	B-78
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74	V1P1 Left Foot z [g, CFC_600]	B-83
75	V1P1 Left Foot Resultant [g, CFC_600]	B-84
76	V1P1 Right Foot x [g, CFC_600]	B-85
77	V1P1 Right Foot y [g, CFC_600]	B-86
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81	V1 P1 Shoulder Belt Load [N, CFC_60]	B-90
82	V1 P1 Toe Pan Deflection [mm, CFC_1000]	B-91
83	V1 P1 Air Bag T/E	B-92
84	V1P2 Head 9 Array X Arm Ay [g, CFC_1000]	B-93
85	V1P2 Head 9 Array X Arm Az [g, CFC_1000]	B-94
86	V1P2 Head 9 Array Y Arm Ax [g, CFC_1000]	B-95
87	V1P2 Head 9 Array Y Arm Az [g, CFC_1000]	B-96
88	V1P2 Head 9 Array Z Arm Ax [g, CFC_1000]	B-97
89	V1P2 Head 9 Array Z Arm Ay [g, CFC_1000]	B-98
90	V1P2 Head x [g, CFC_1000]	B-99
91	V1P2 Head y [g, CFC_1000]	B-100
92	V1P2 Head z [g, CFC_1000]	B-101
93	V1P2 Head Resultant [g, CFC_1000]	B-102

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96	V1P2 Head Red z [g, CFC_1000]	B-105
97	V1P2 Head Red Resultant [g, CFC_1000]	B-106
98	V1P2 Upper Neck Fx [N, CFC_1000]	B-107
99	V1P2 Upper Neck Fy [N, CFC_1000]	B-108
100	V1P2 Upper Neck Fz [N, CFC_1000]	B-109
101	V1P2 Upper Neck F Resultant [N, CFC_1000]	B-110
102	V1P2 Upper Neck Mx [N-m, CFC_600]	B-111
103	V1P2 Upper Neck My [N-m, CFC_600]	B-112
104	V1P2 Upper Neck Mz [N-m, CFC_600]	B-113
105	V1P2 Upper Neck M Resultant [N-m, CFC_600]	B-114
106	V1P2 Lower Neck Fx [N, CFC_1000]	B-115
107	V1P2 Lower Neck Fy [N, CFC_1000]	B-116
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109	V1P2 Lower Neck F Resultant [N, CFC_1000]	B-118
110	V1P2 Lower Neck Mx [N-m, CFC_600]	B-119
111	V1P2 Lower Neck My [N-m, CFC_600]	B-120
112	V1P2 Lower Neck Mz [N-m, CFC_600]	B-121
113	V1P2 Lower Neck M Resultant [N-m, CFC_600]	B-122
114	V1P2 Chest x [g, CFC_180]	B-123
115	V1P2 Chest y [g, CFC_180]	B-124
116	V1P2 Chest z [g, CFC_180]	B-125
117	V1P2 Chest Resultant [g, CFC_180]	B-126
118	V1P2 Chest Red x [g, CFC_180]	B-127
119	V1P2 Chest Red y [g, CFC_180]	B-128
120	V1P2 Chest Red z [g, CFC_180]	B-129
121	V1P2 Chest Red Resultant [g, CFC_180]	B-130
122	V1P2 Chest Displacement [mm, CFC_600]	B-131
123	V1P2 Left Femur [N, CFC_600]	B-132
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134	V1P2 Left Lower Tibia F Resultant [N, CFC_600]	B-143
135	V1P2 Left Lower Tibia Mx [N-m, CFC_600]	B-144
136	V1P2 Left Lower Tibia My [N-m, CFC_600]	B-145
137	V1P2 Right Upper Tibia Fx [N, CFC_600]	B-146
138	V1P2 Right Upper Tibia Fz [N, CFC_600]	B-147
139	V1P2 Right Upper Tibia Mx [N-m, CFC_600]	B-148
140	V1P2 Right Upper Tibia My [N-m, CFC_600]	B-149

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142	V1P2 Right Lower Tibia Fy [N, CFC_600]	B-151
143	V1P2 Right Lower Tibia Fz [N, CFC_600]	B-152
144	V1P2 Right Lower Tibia F Resultant [N, CFC_600]	B-153
145	V1P2 Right Lower Tibia Mx [N-m, CFC_600]	B-154
146	V1P2 Right Lower Tibia My [N-m, CFC_600]	B-155
147	V1P2 Left Tibia x [g, CFC_600]	B-156
148	V1P2 Left Tibia y [g, CFC_600]	B-157
149	V1P2 Right Tibia x [g, CFC_600]	B-158
150	V1P2 Right Tibia y [g, CFC_600]	B-159
151	V1P2 Left Ankle Rotation x [deg, CFC_180]	B-160
152	V1P2 Left Ankle Rotation y [deg, CFC_180]	B-161
153	V1P2 Left Ankle Rotation z [deg, CFC_180]	B-162
154	V1P2 Right Ankle Rotation x [deg, CFC_180]	B-163
155	V1P2 Right Ankle Rotation y [deg, CFC_180]	B-164
156	V1P2 Right Ankle Rotation z [deg, CFC_180]	B-165
157	V1P2 Left Foot x [g, CFC_600]	B-166
158	V1P2 Left Foot y [g, CFC_600]	B-167
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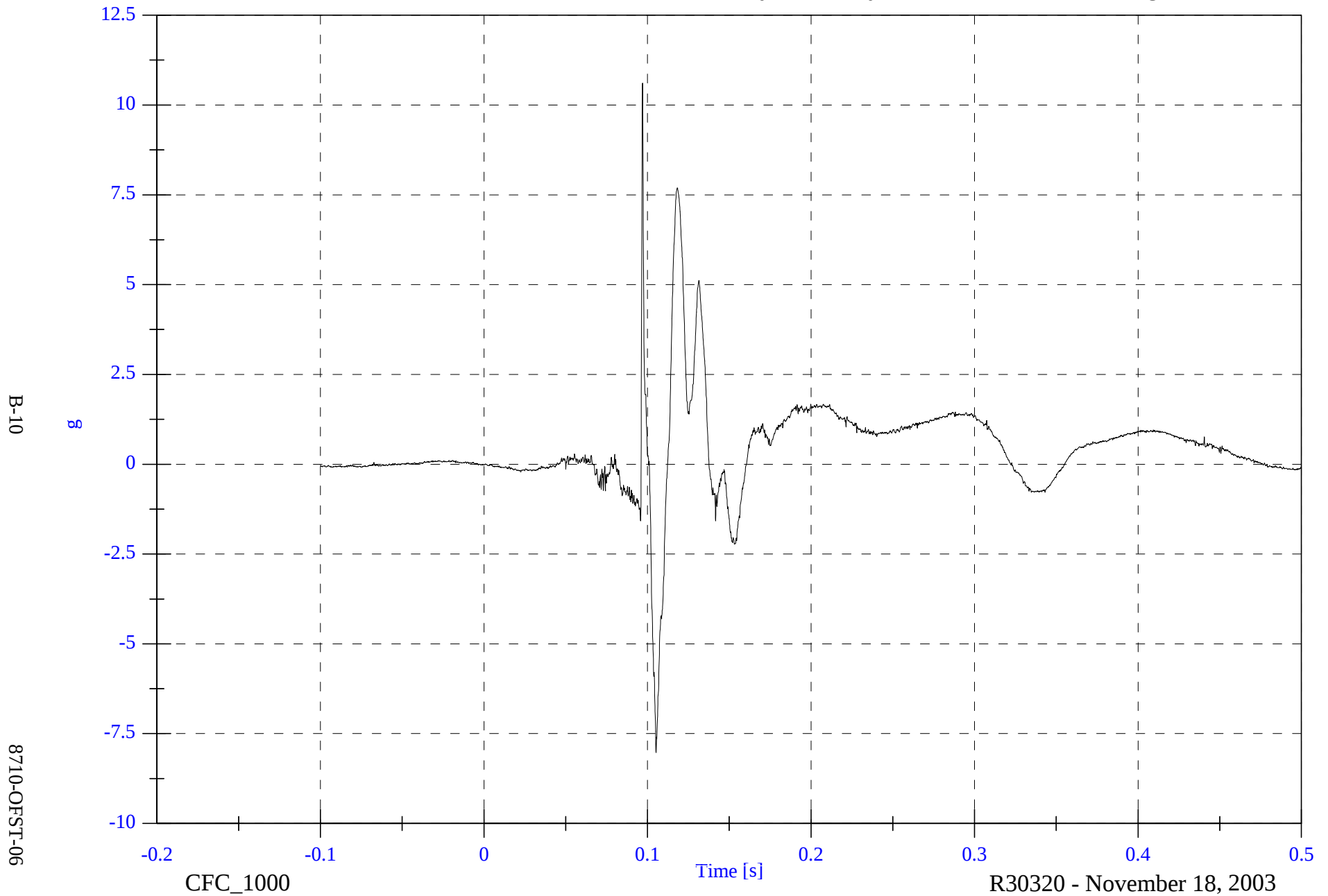
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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head 9 Array X Arm Ay

Max: 10.6 [g] at 0.097 [s]

Min: -8.0 [g] at 0.105 [s]

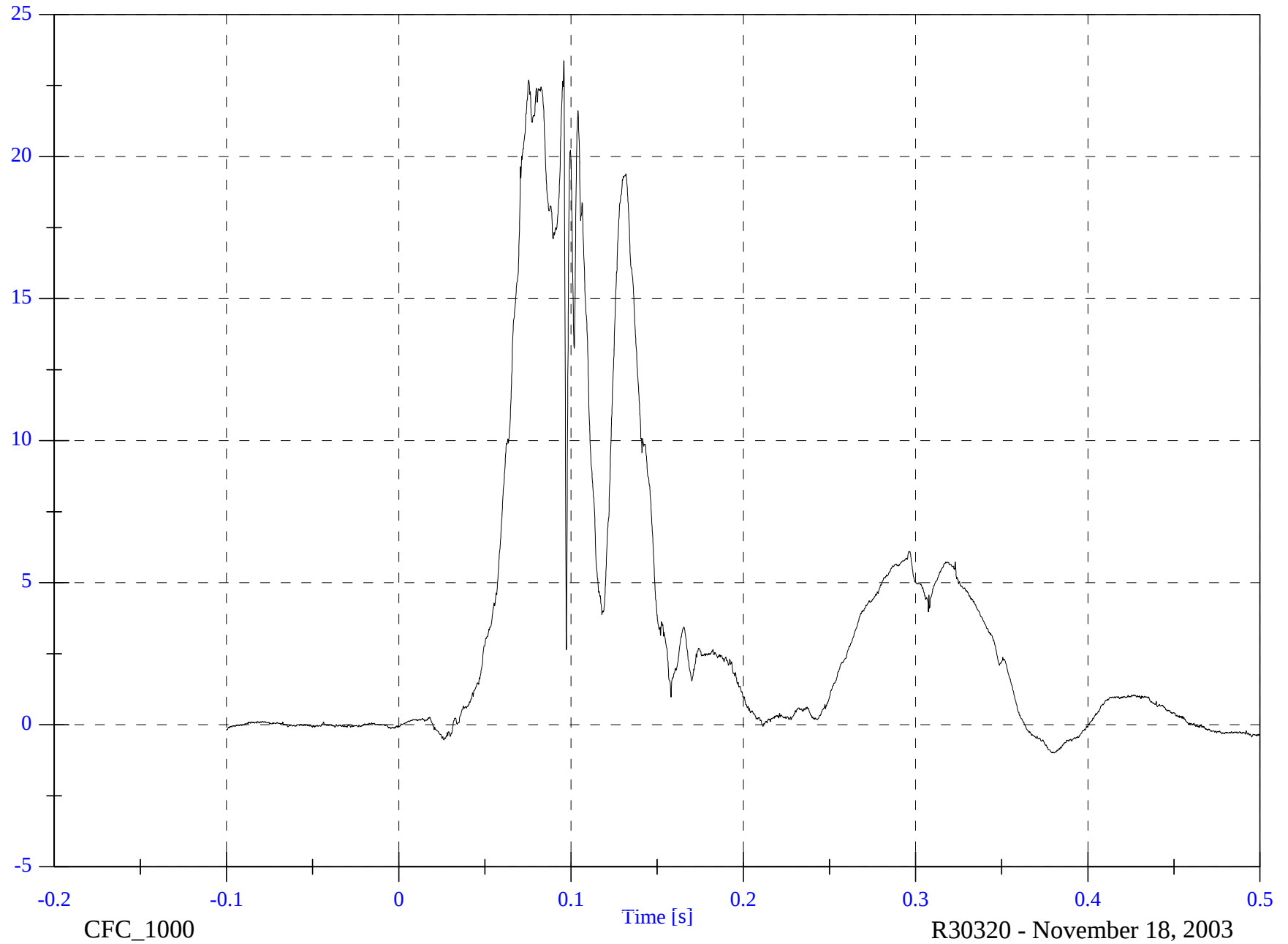


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head 9 Array X Arm Az

Max: 23.4 [g] at 0.096 [s]

Min: -1.0 [g] at 0.380 [s]



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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

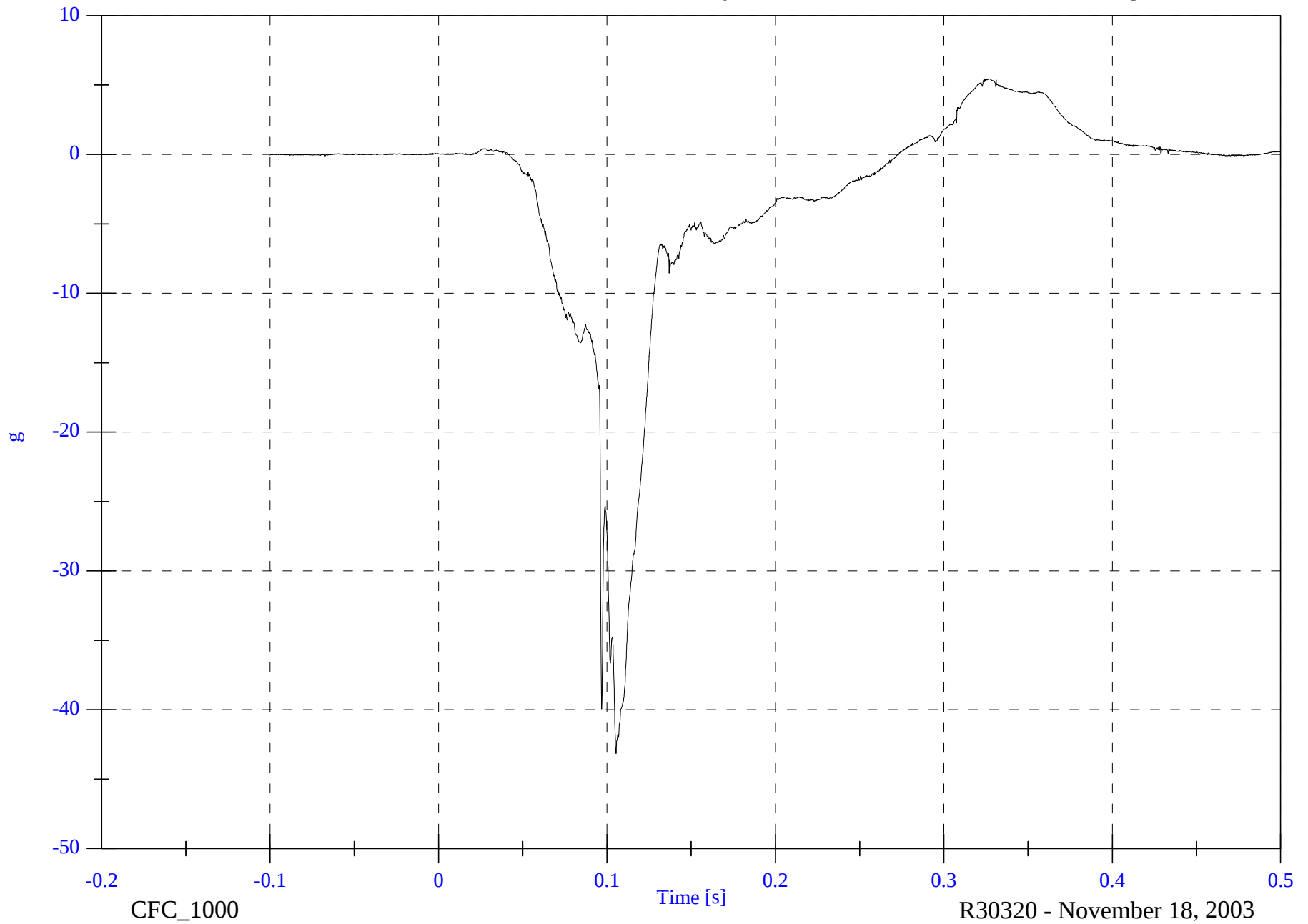
V1P1 Head 9 Array Y Arm Ax

Max: 5.4 [g] at 0.325 [s]

Min: -43.2 [g] at 0.105 [s]

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8710-OFST-06



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

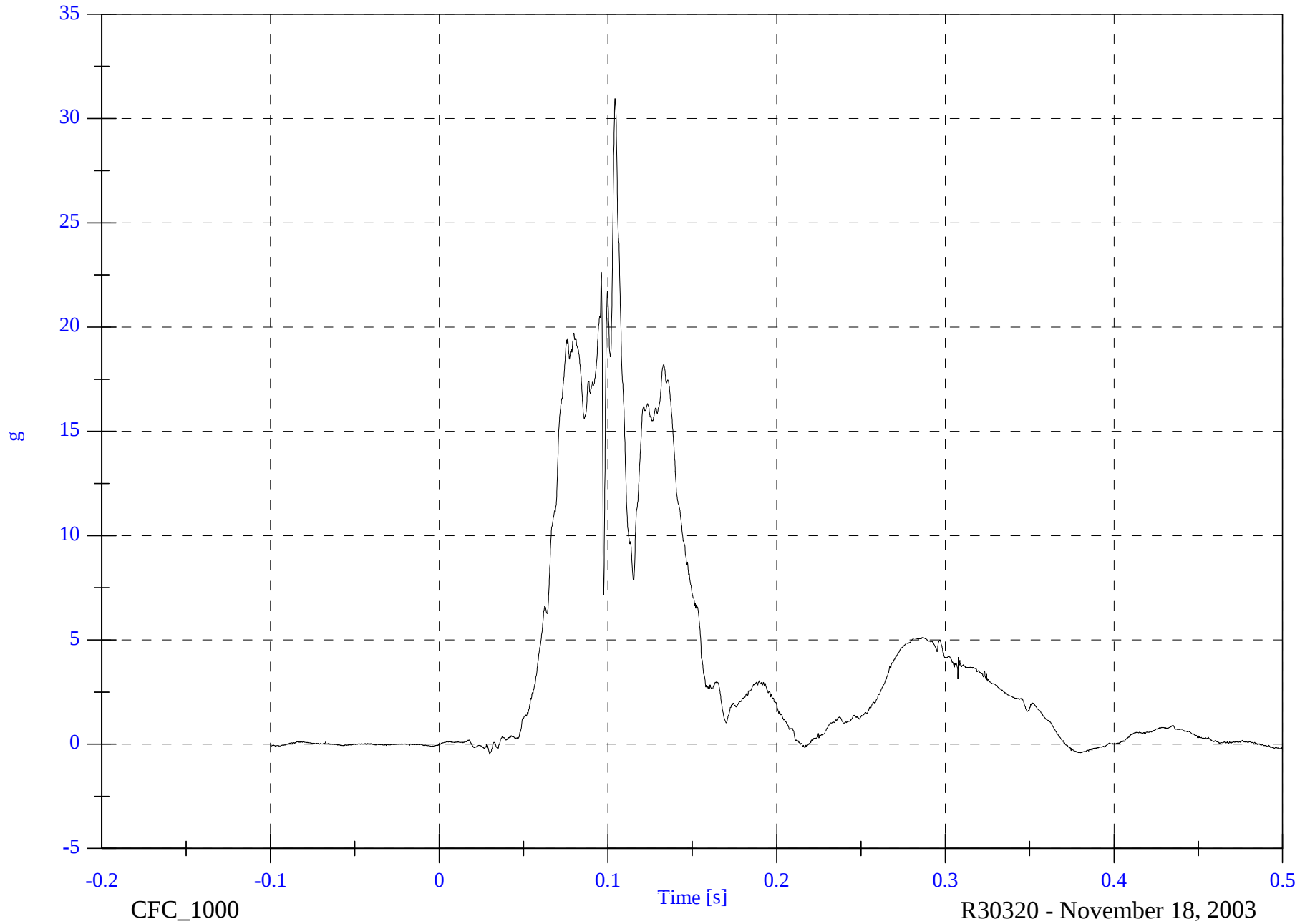
V1P1 Head 9 Array Y Arm Az

Max: 31.0 [g] at 0.104 [s]

Min: -0.5 [g] at 0.030 [s]

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8710-OFST-06

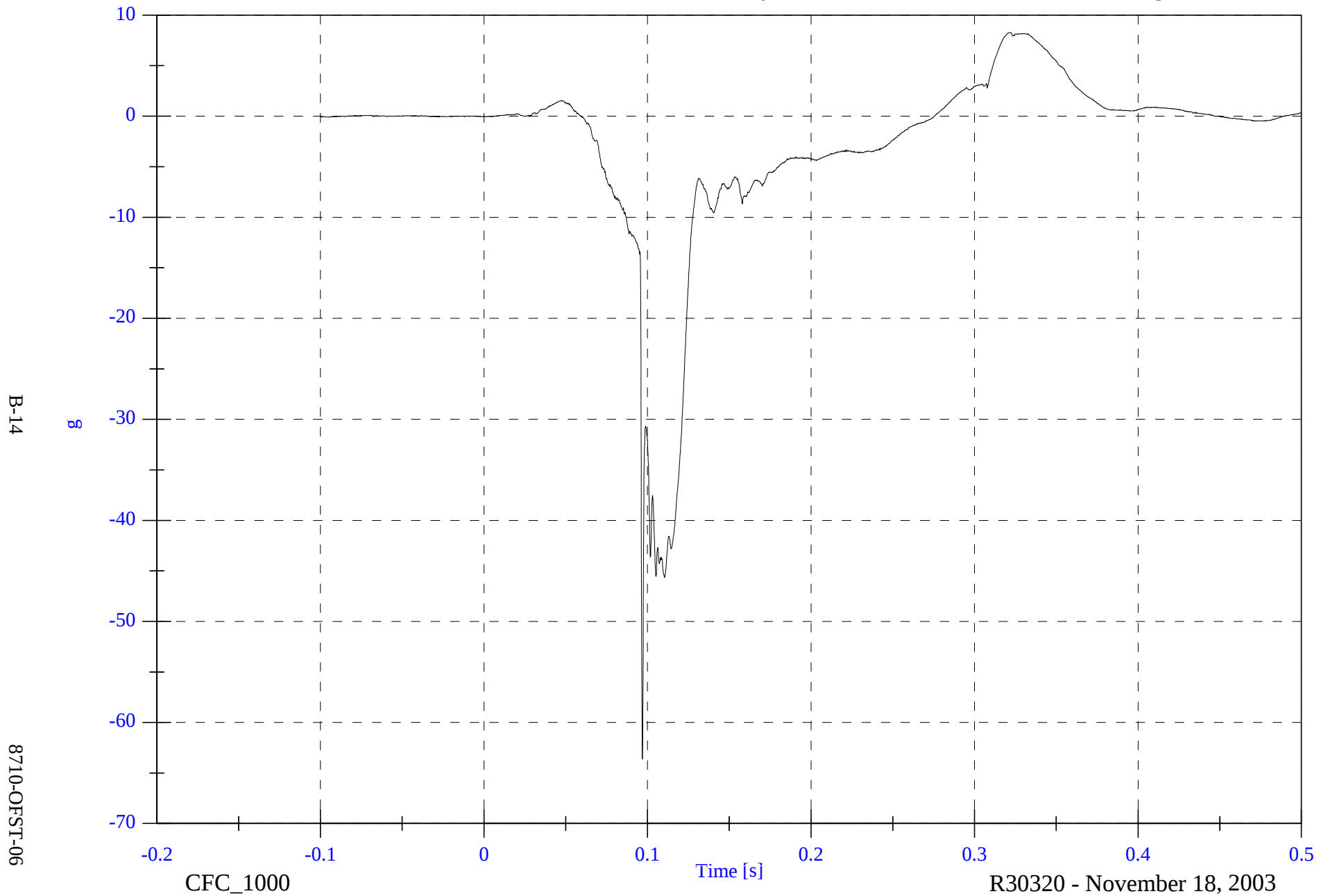


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head 9 Array Z Arm Ax

Max: 8.3 [g] at 0.321 [s]

Min: -63.6 [g] at 0.097 [s]

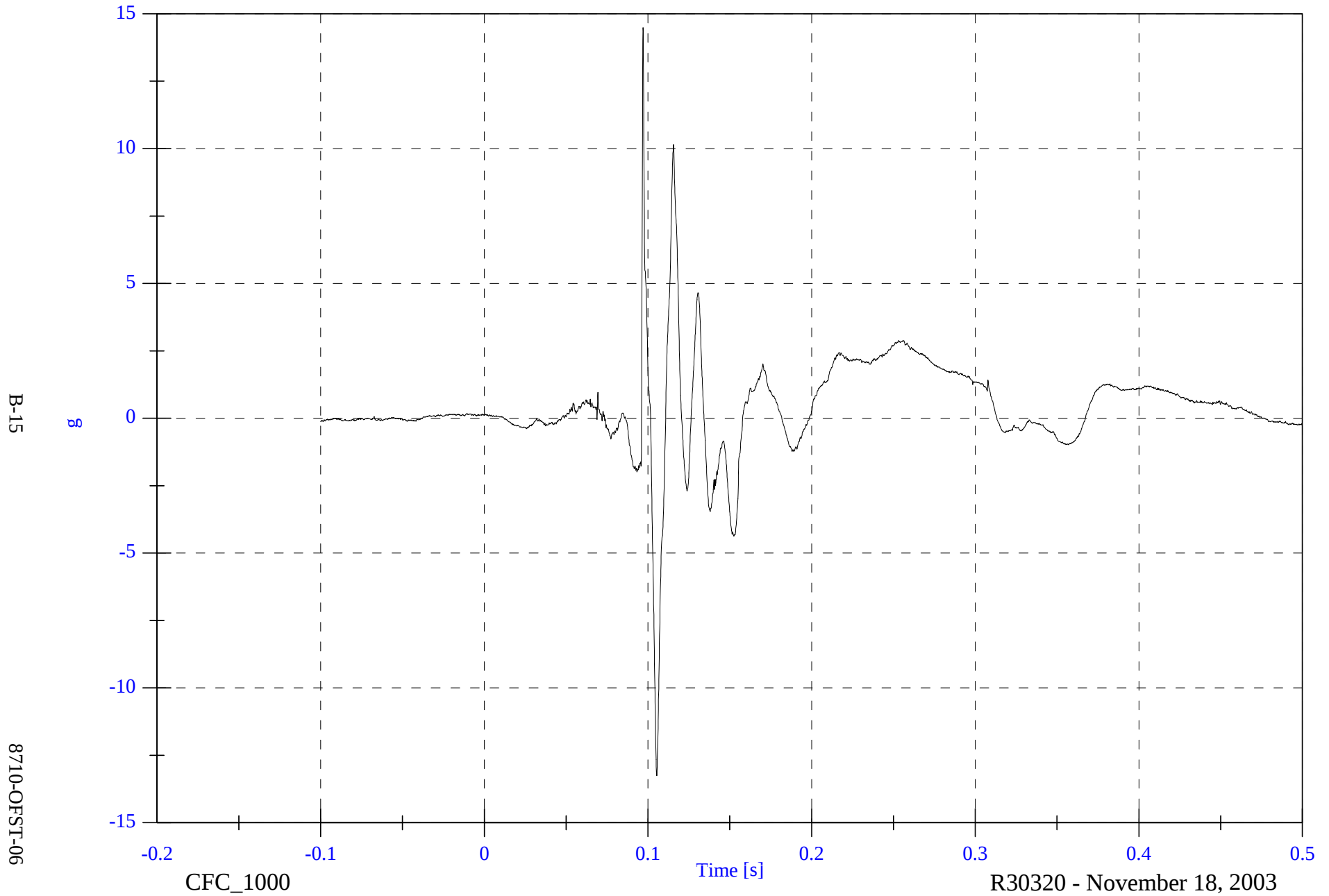


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head 9 Array Z Arm Ay

Max: 14.5 [g] at 0.097 [s]

Min: -13.3 [g] at 0.105 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

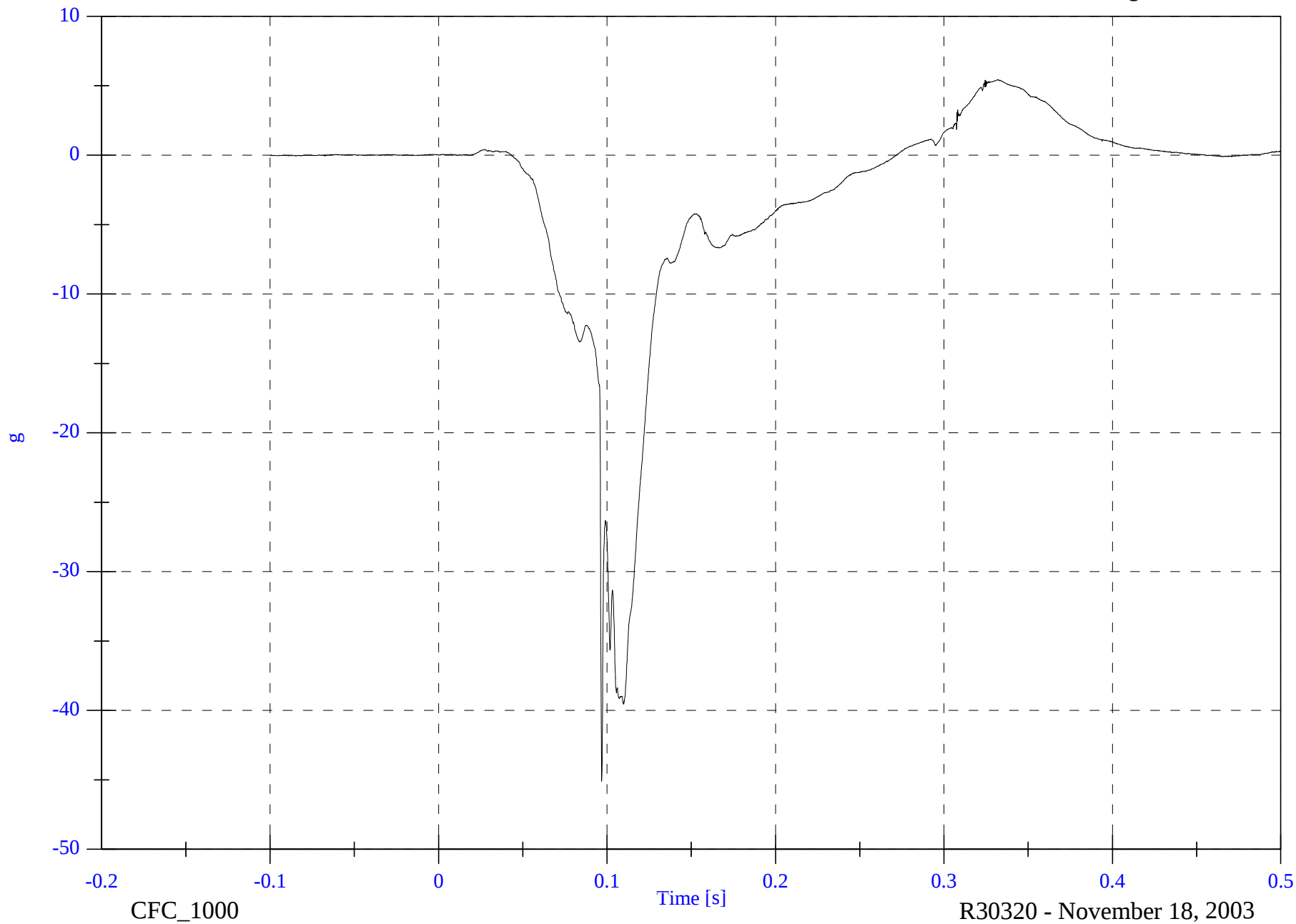
V1P1 Head x

Max: 5.4 [g] at 0.332 [s]

Min: -45.1 [g] at 0.097 [s]

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8710-OFST-06

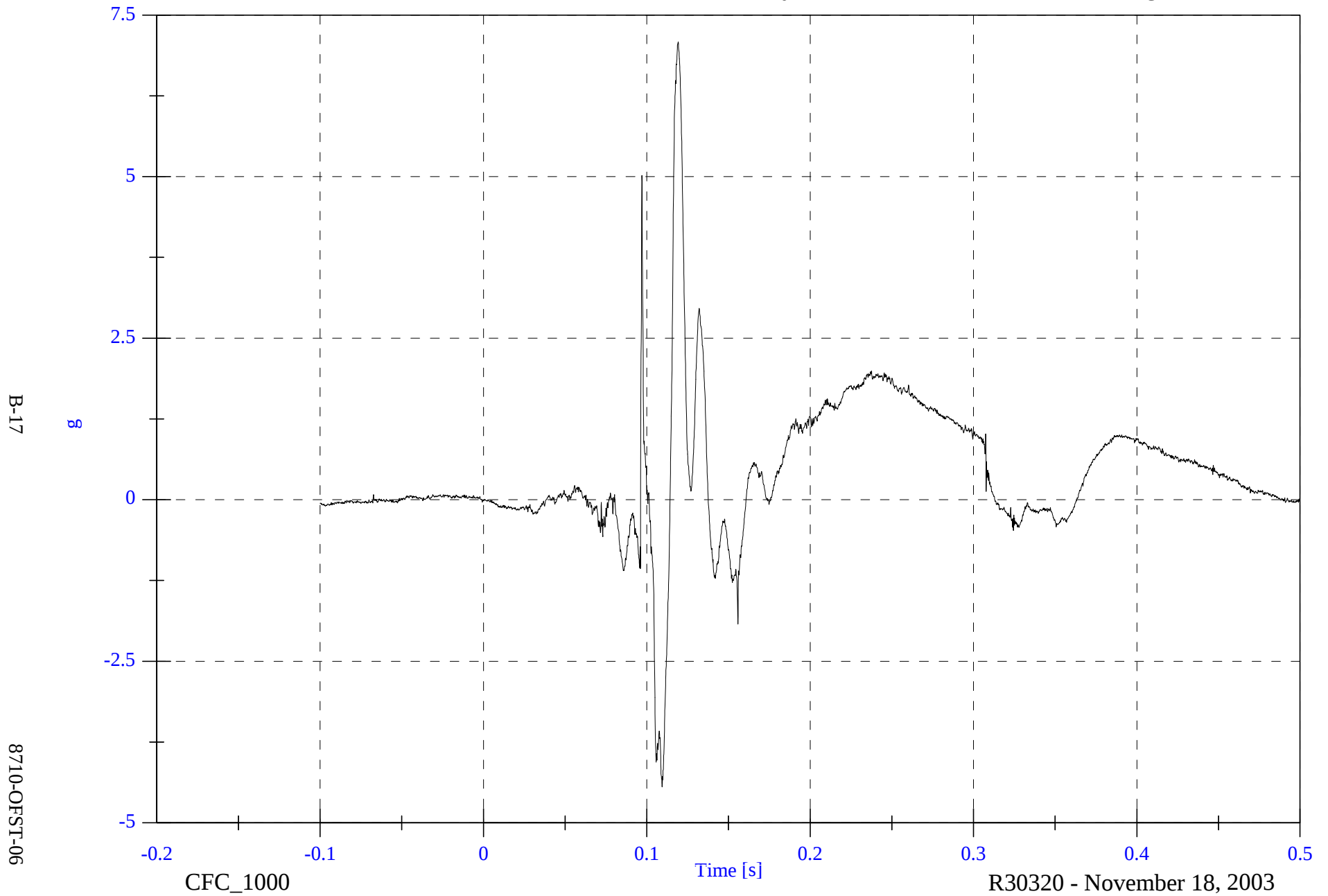


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 7.1 [g] at 0.119 [s]

Min: -4.4 [g] at 0.109 [s]

V1P1 Head y

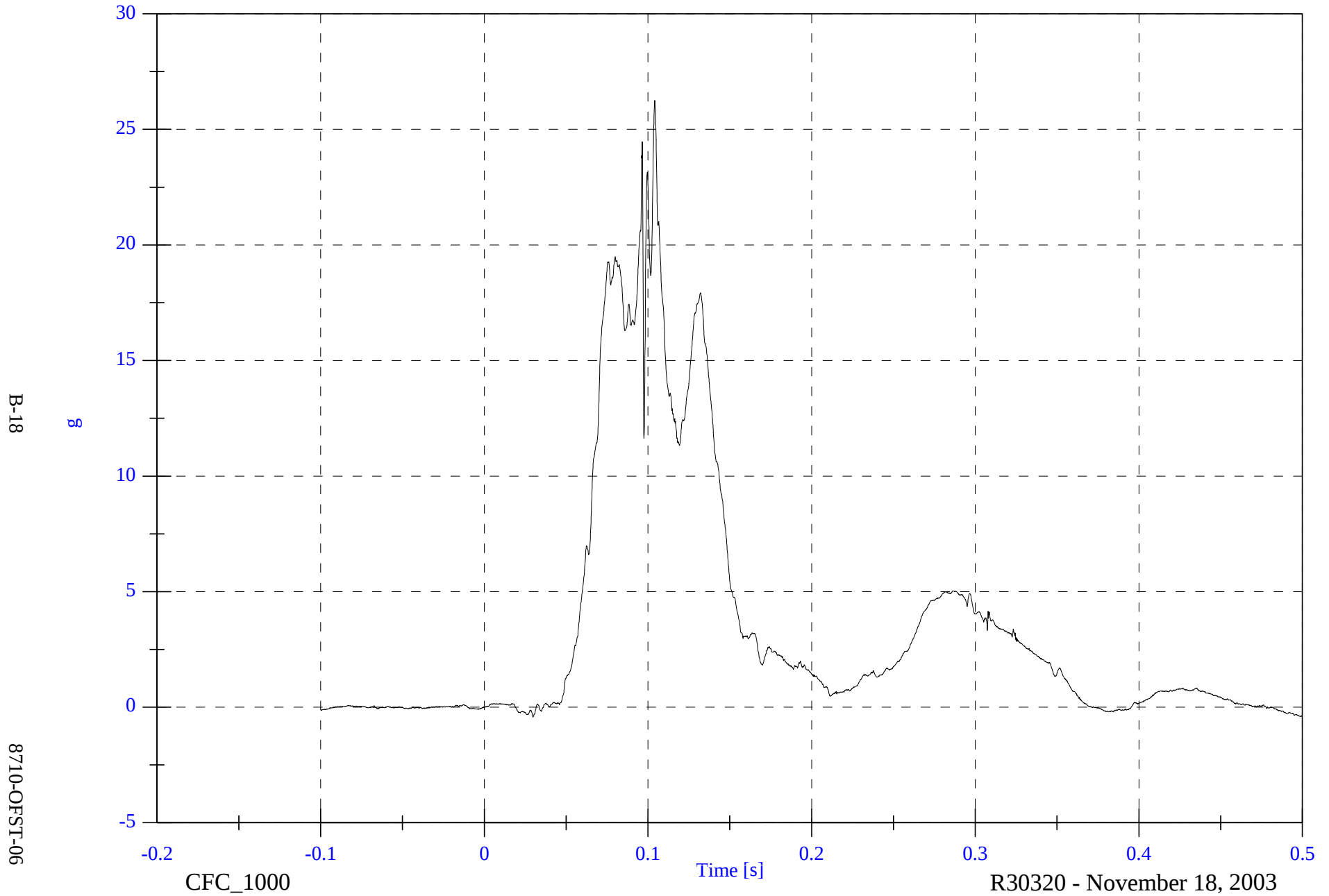


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head z

Max: 26.2 [g] at 0.104 [s]

Min: -0.4 [g] at 0.030 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

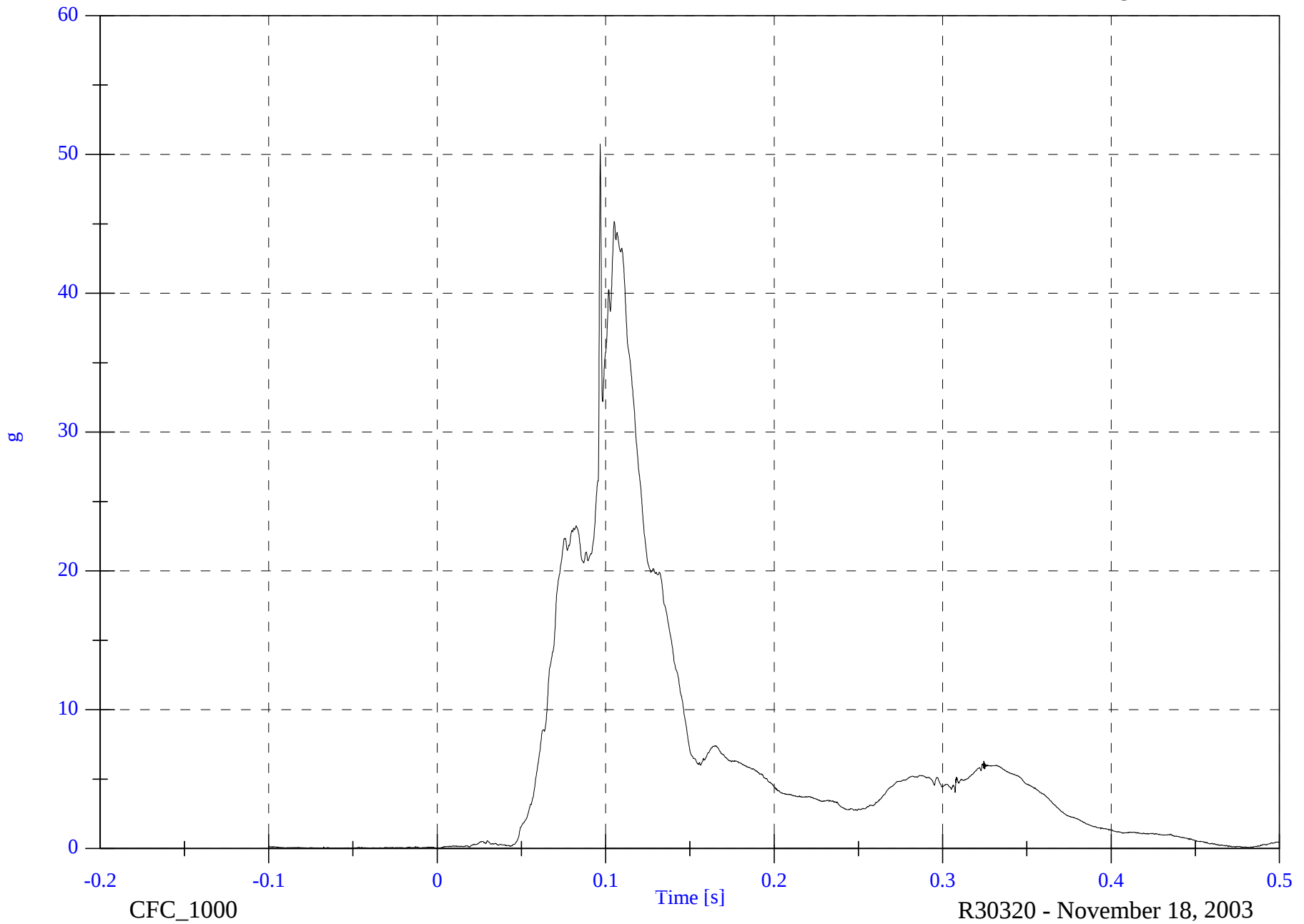
V1P1 Head Resultant

Max: 50.7 [g] at 0.097 [s]

Min: 0.0 [g] at -0.067 [s]

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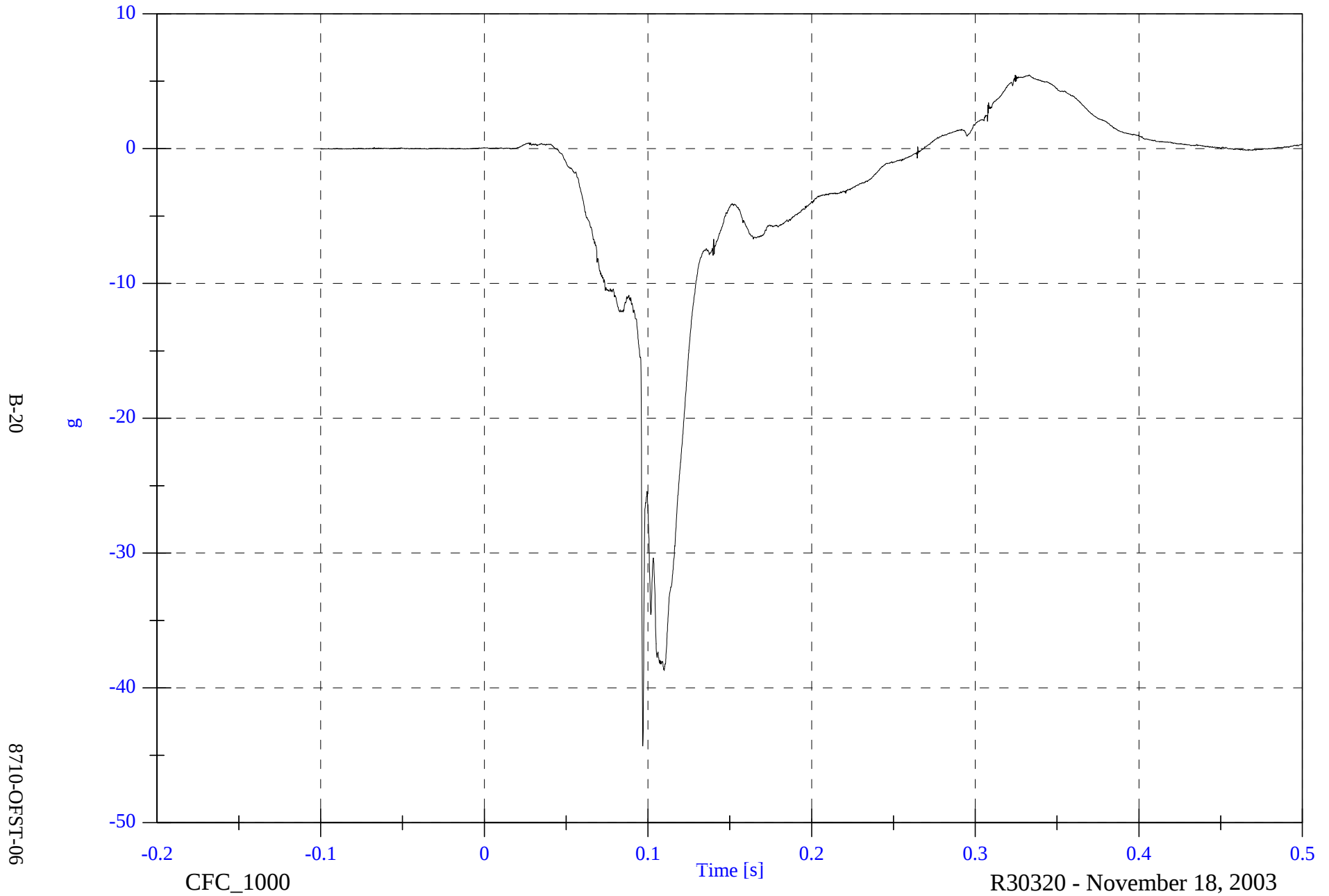


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head Red x

Max: 5.5 [g] at 0.333 [s]

Min: -44.3 [g] at 0.097 [s]

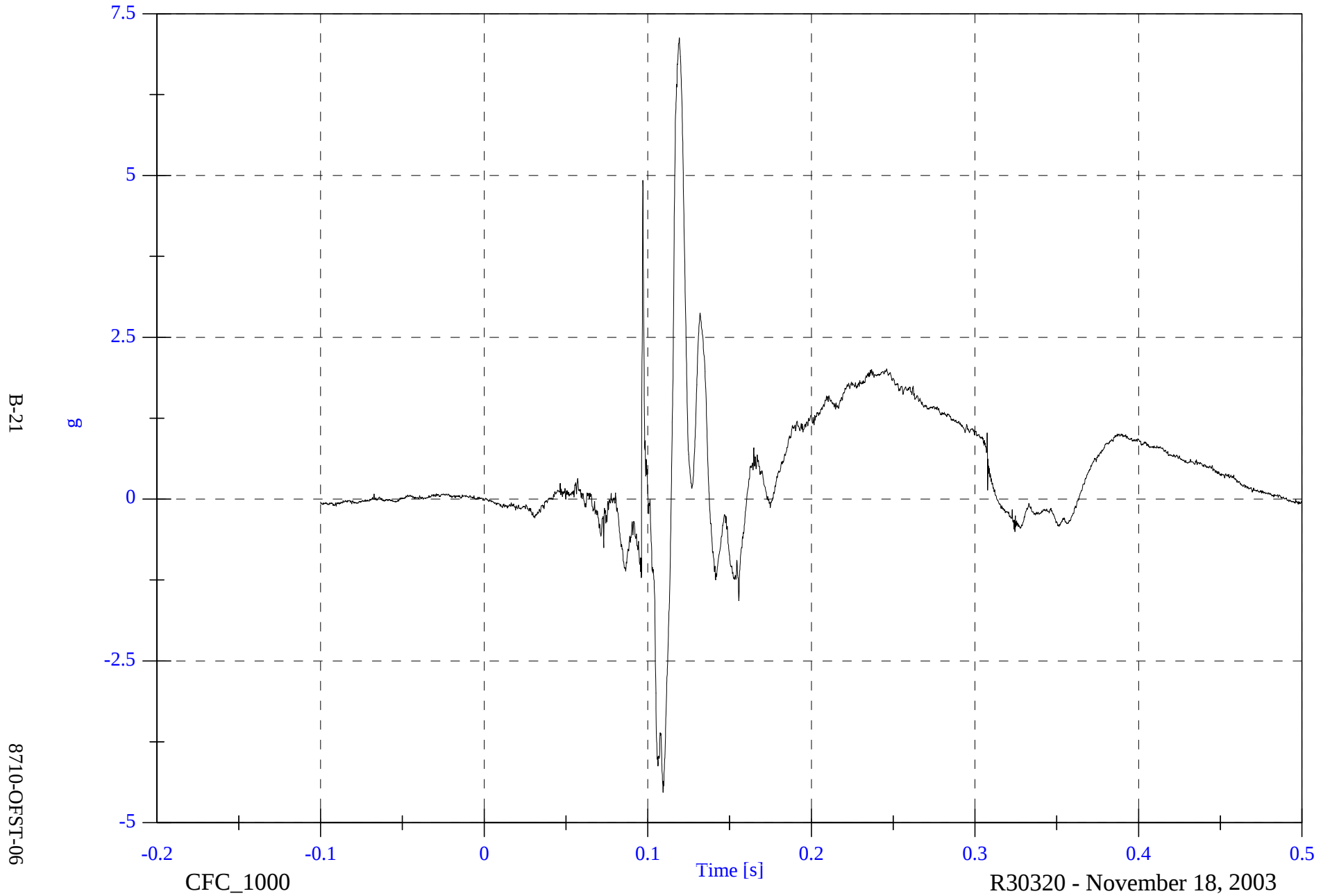


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head Red y

Max: 7.1 [g] at 0.119 [s]

Min: -4.5 [g] at 0.109 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

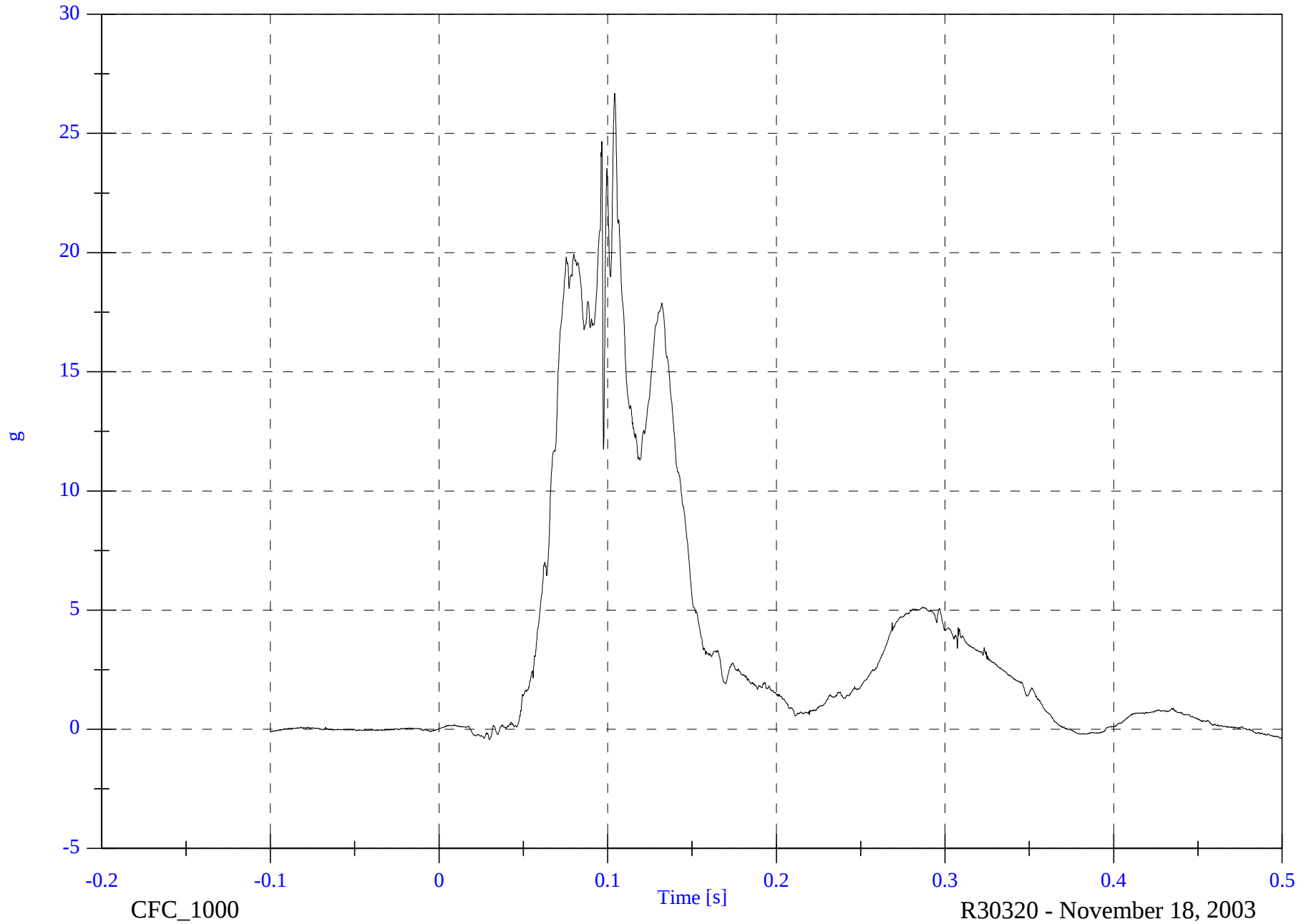
V1P1 Head Red z

Max: 26.7 [g] at 0.104 [s]

Min: -0.4 [g] at 0.030 [s]

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8710-OFST-06

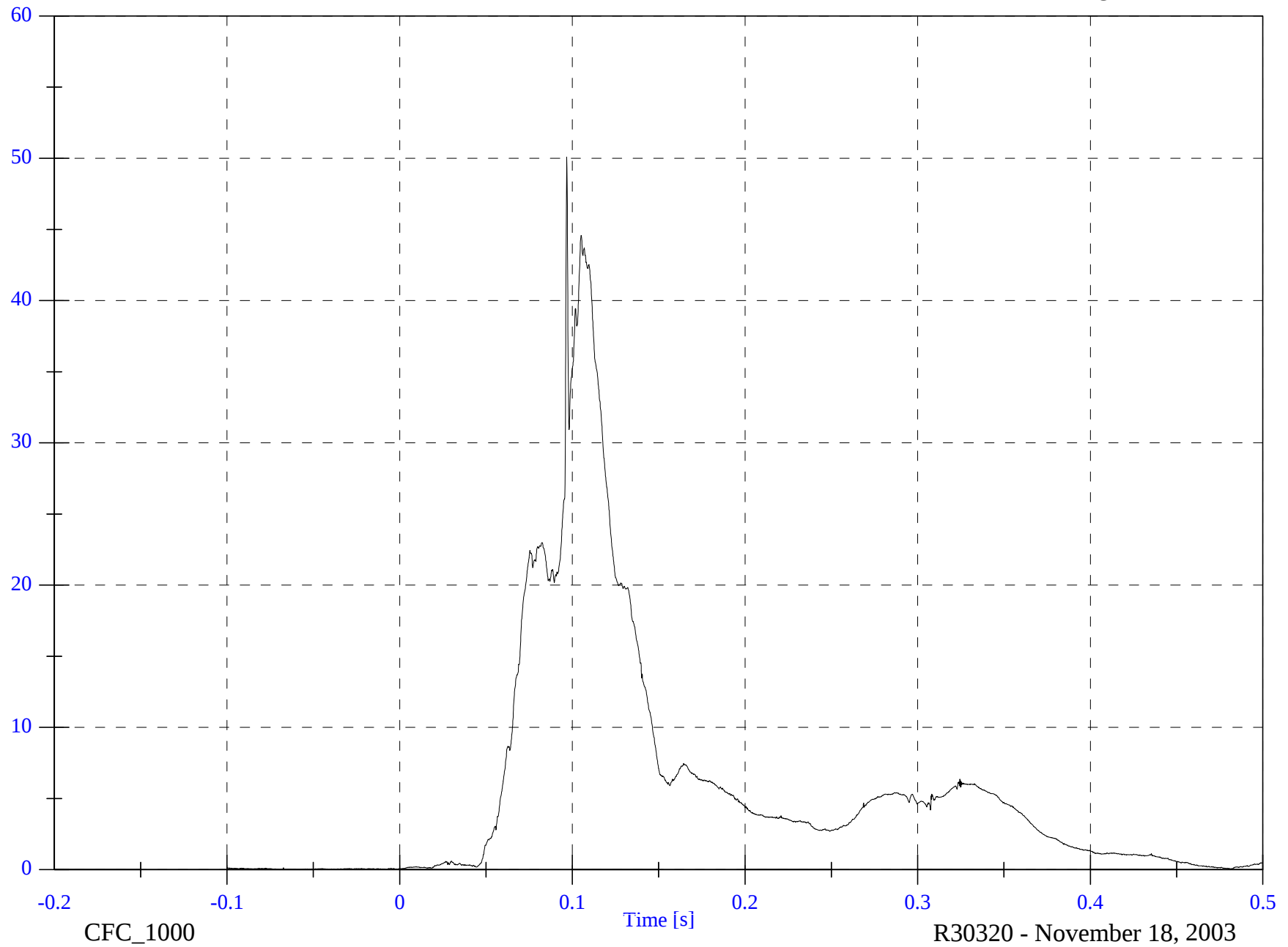


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Head Red Resultant

Max: 50.1 [g] at 0.097 [s]

Min: 0.0 [g] at -0.066 [s]



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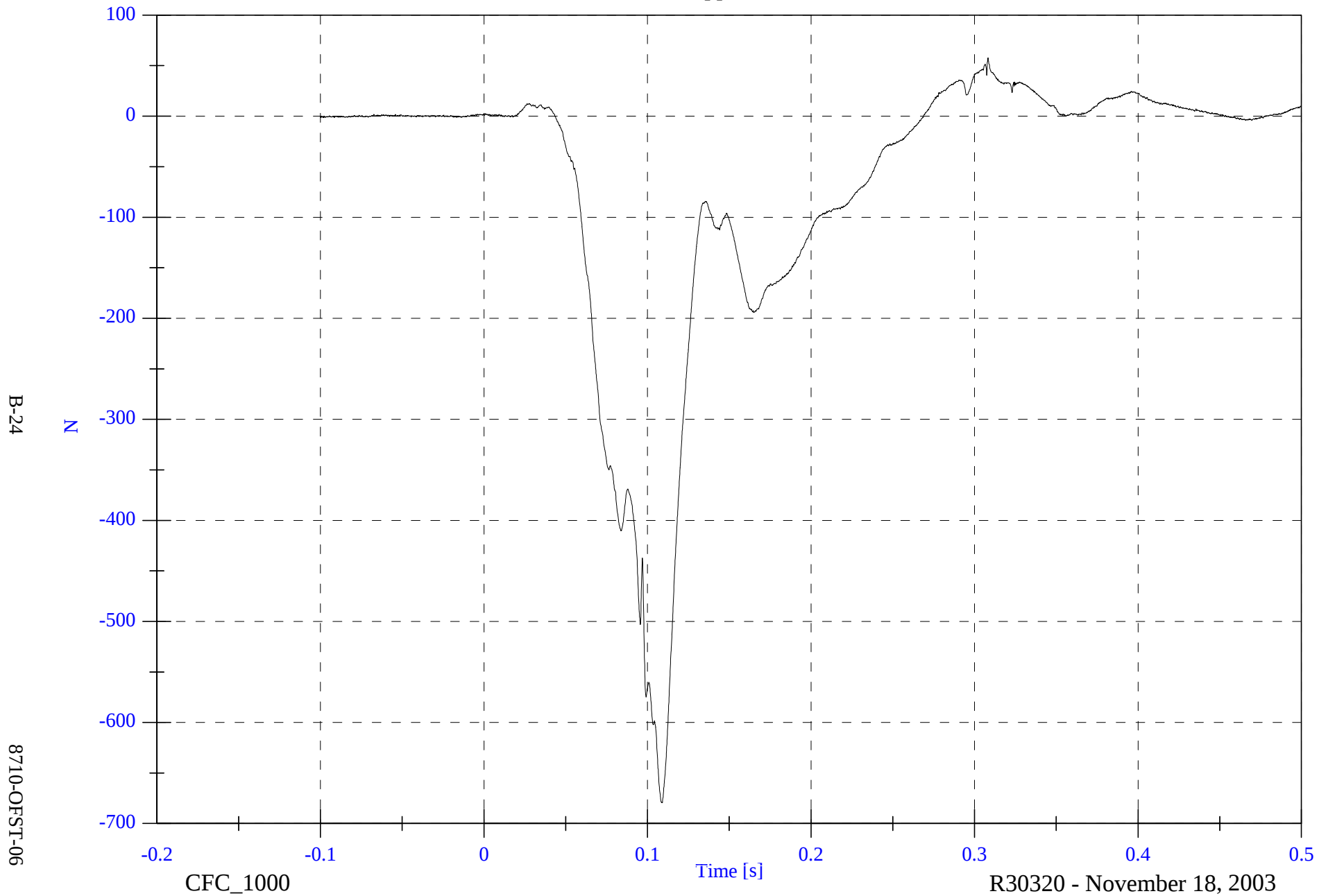
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck Fx

Max: 57.9 [N] at 0.308 [s]

Min: -679.6 [N] at 0.109 [s]

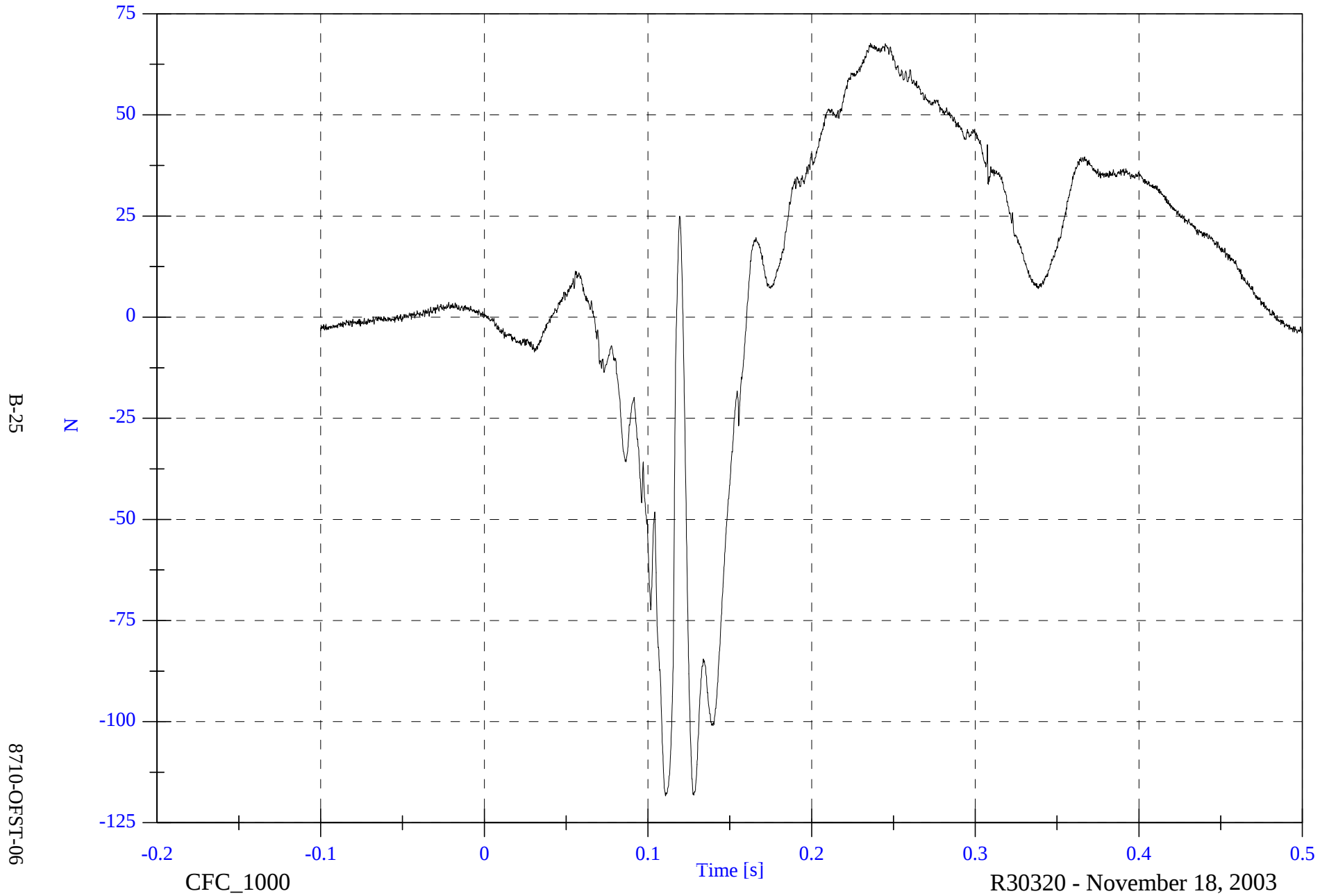


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck Fy

Max: 67.7 [N] at 0.236 [s]

Min: -118.4 [N] at 0.111 [s]

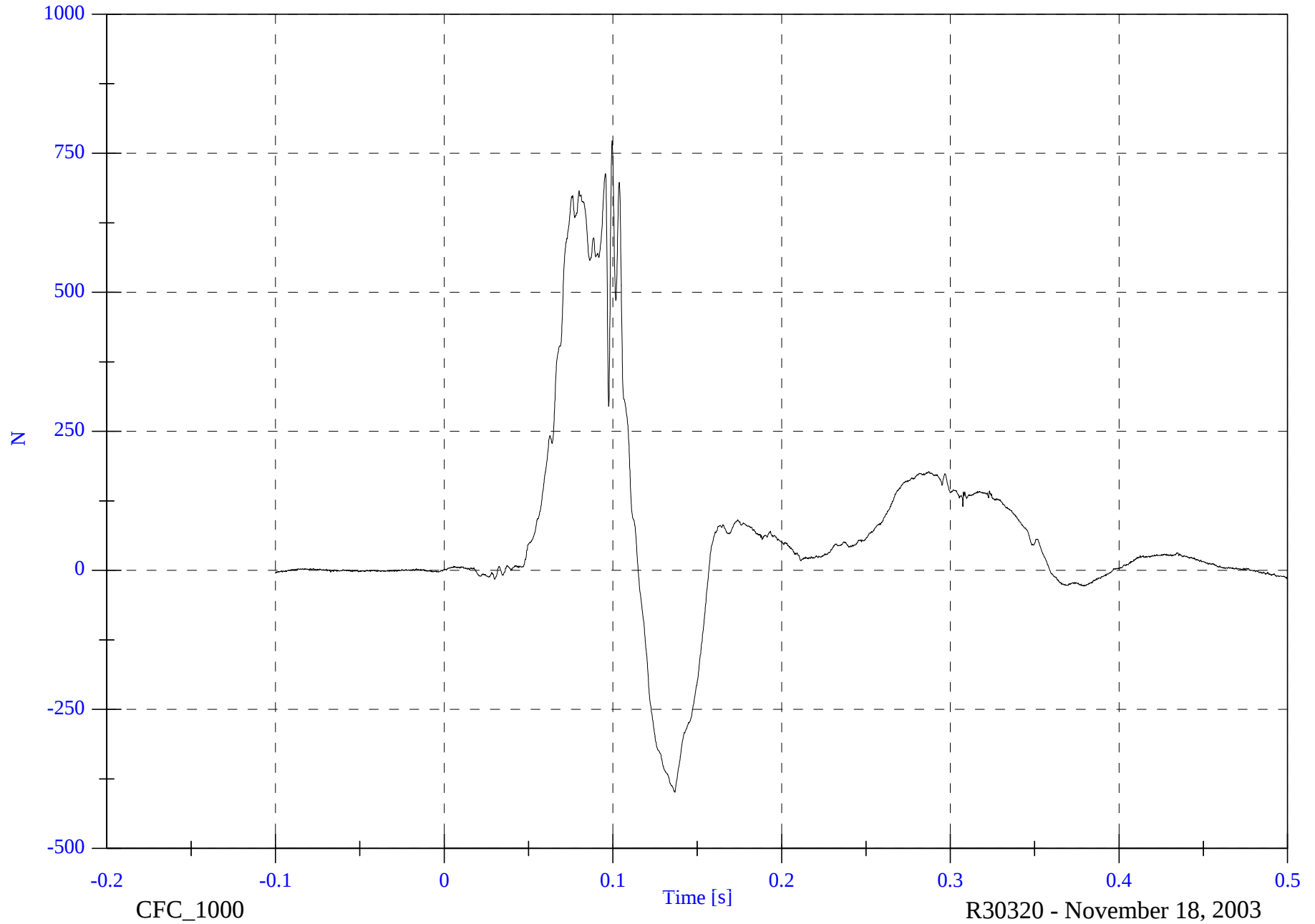


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck Fz

Max: 772.8 [N] at 0.100 [s]

Min: -398.9 [N] at 0.137 [s]



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8710-OFST-06

CFC_1000

R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

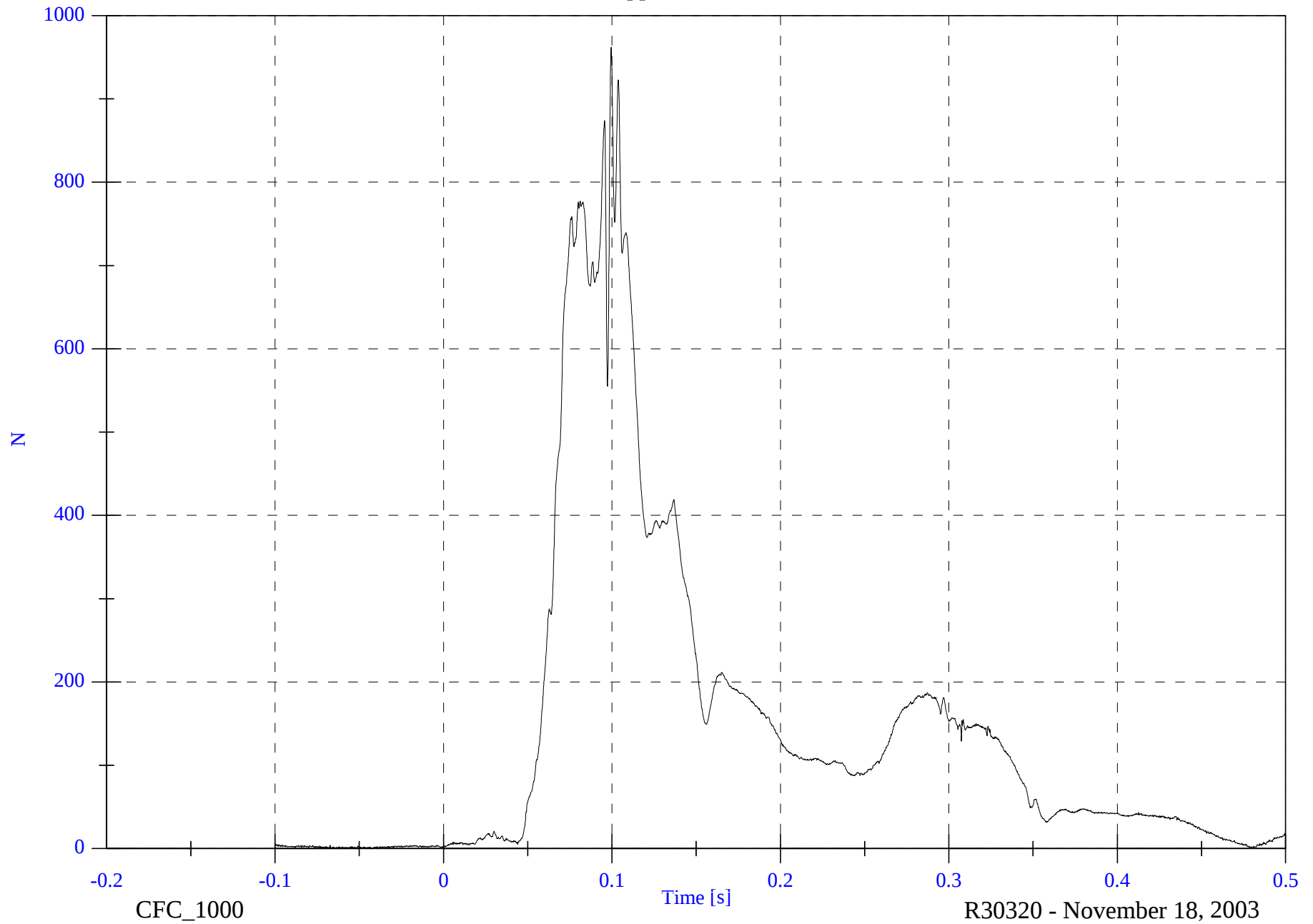
V1P1 Upper Neck F Resultant

Max: 961.9 [N] at 0.100 [s]

Min: 0.2 [N] at -0.066 [s]

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8710-OFST-06

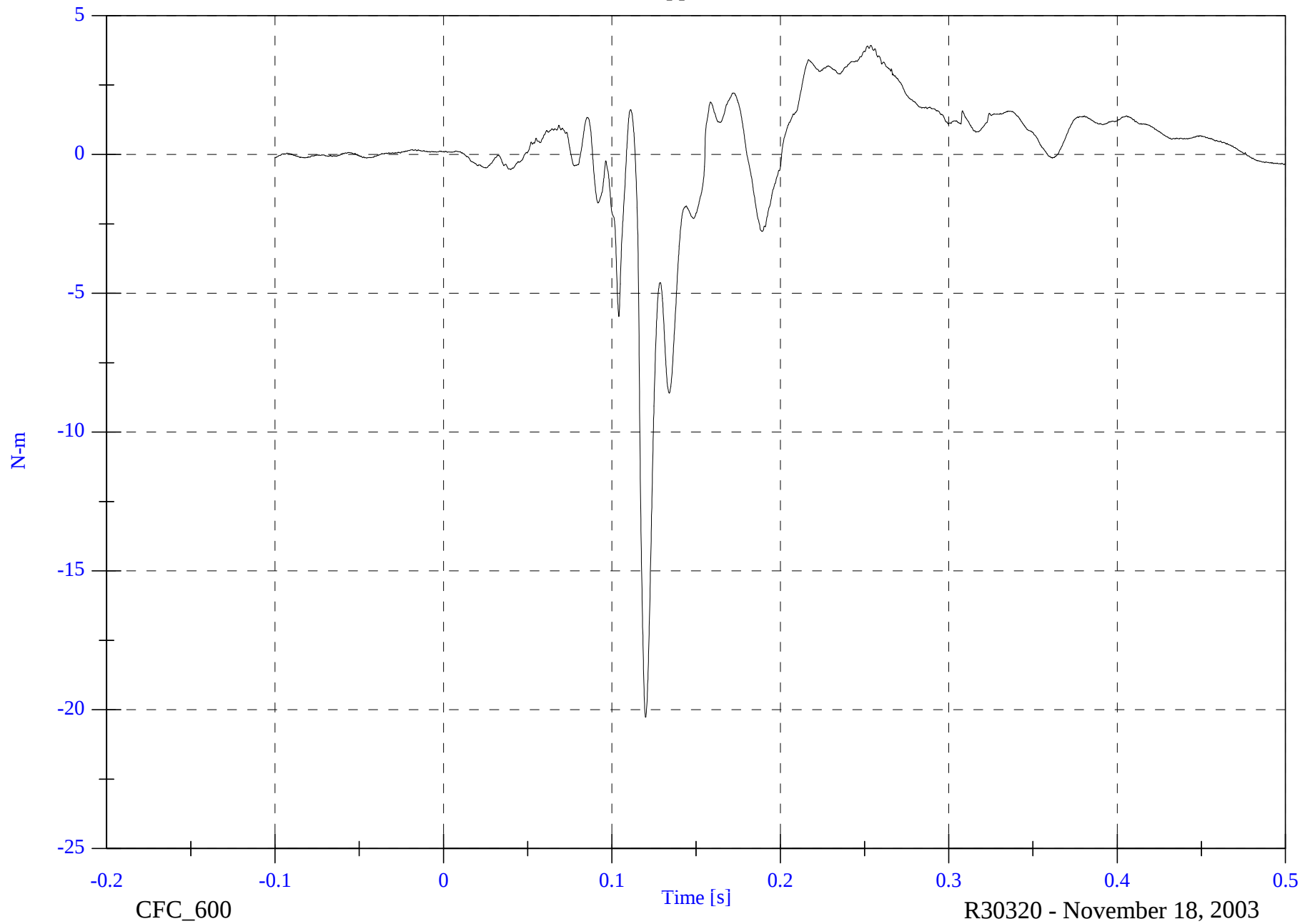


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck Mx

Max: 3.9 [N-m] at 0.254 [s]

Min: -20.3 [N-m] at 0.120 [s]



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8710-OFST-06

CFC_600

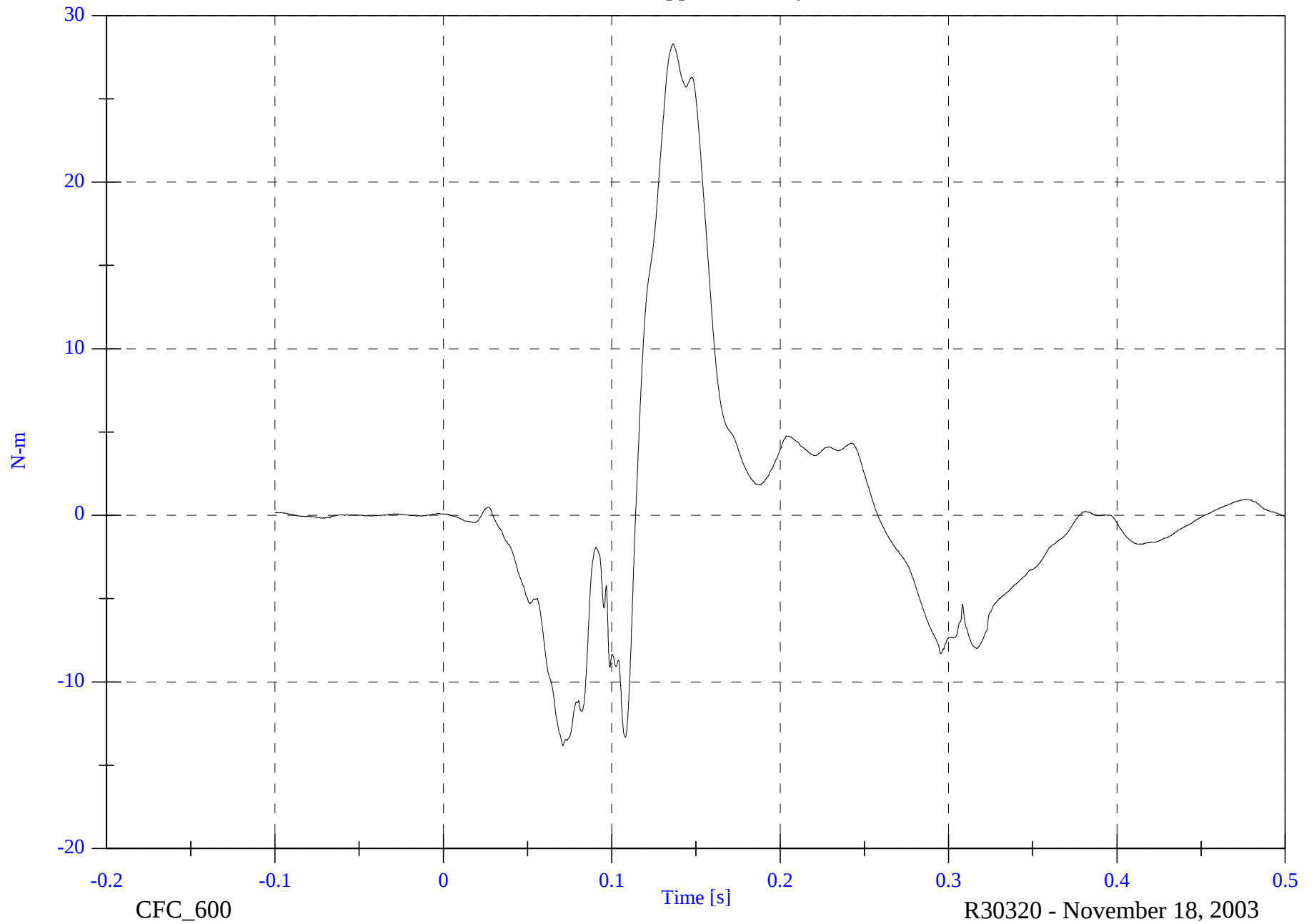
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck My

Max: 28.3 [N-m] at 0.136 [s]

Min: -13.8 [N-m] at 0.071 [s]



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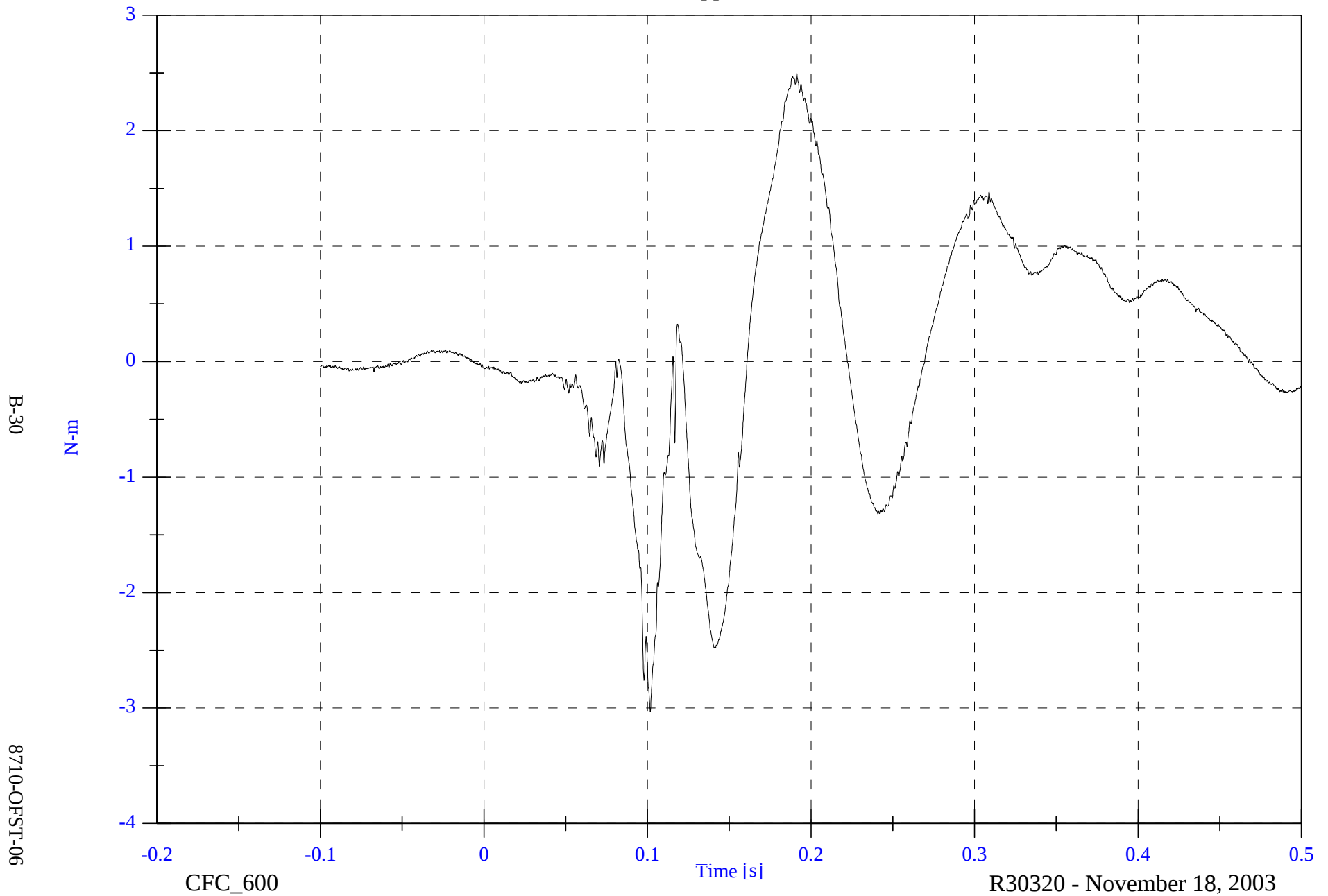
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck Mz

Max: 2.5 [N-m] at 0.191 [s]

Min: -3.0 [N-m] at 0.102 [s]

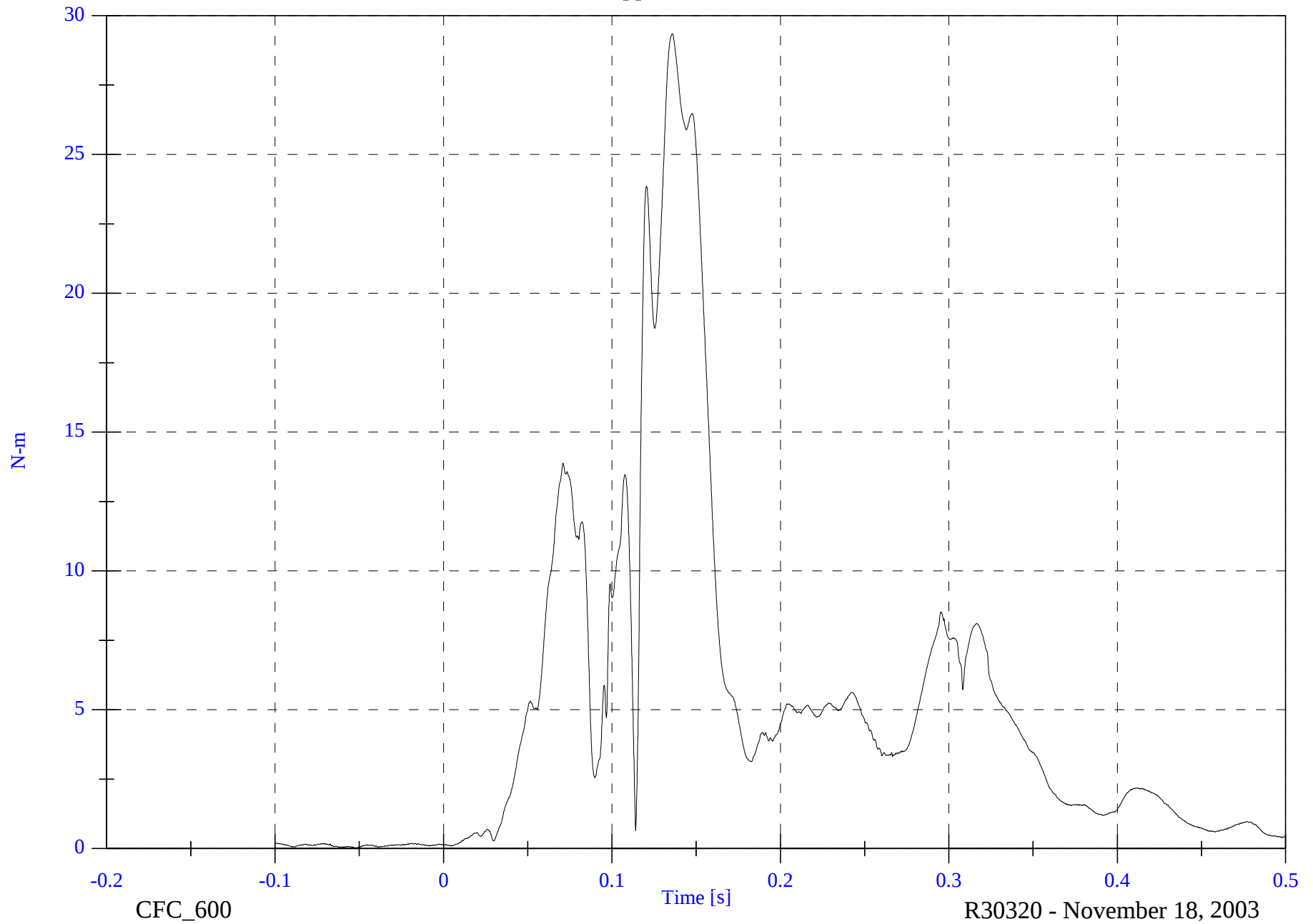


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Upper Neck M Resultant

Max: 29.3 [N-m] at 0.136 [s]

Min: 0.0 [N-m] at -0.052 [s]

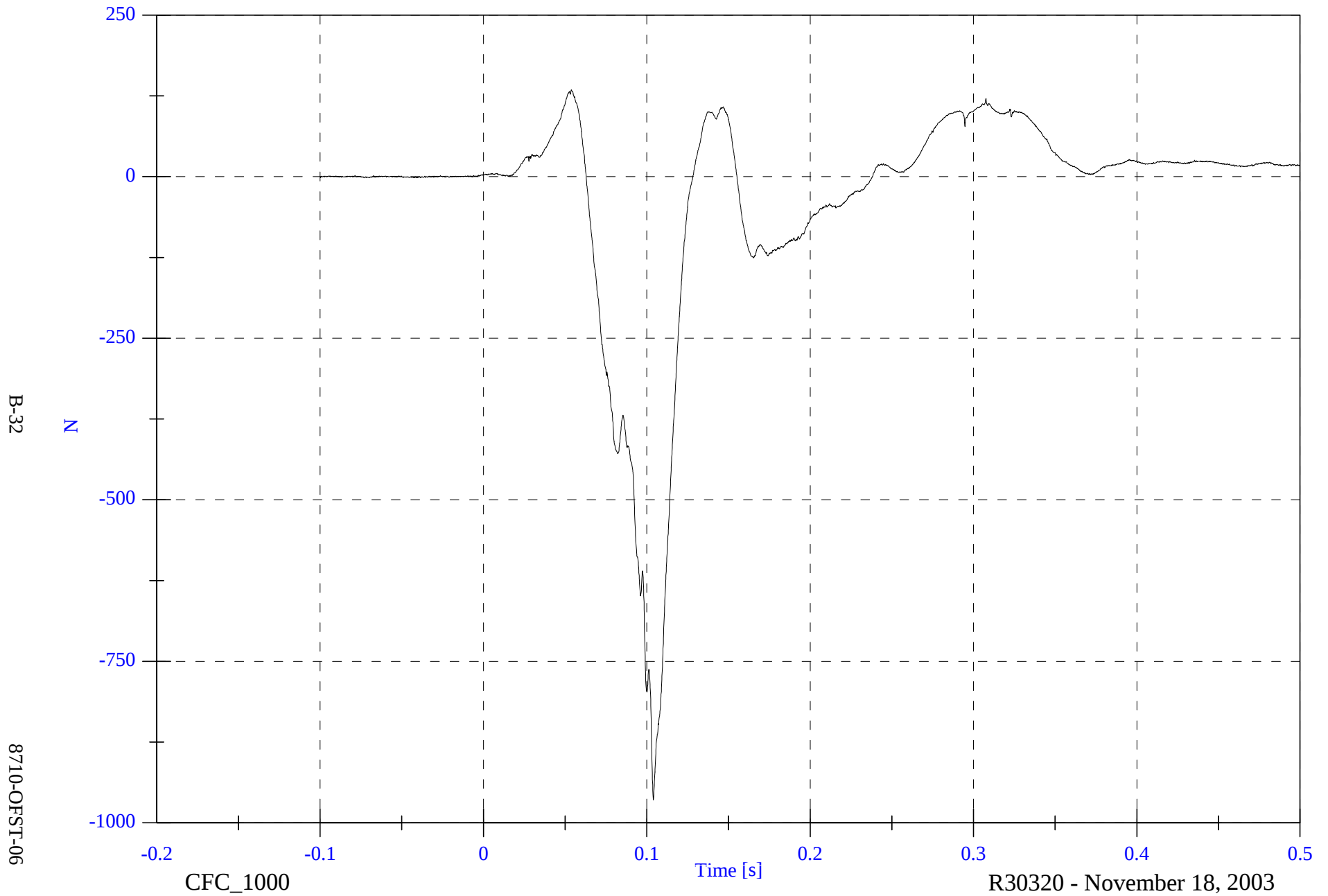


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck Fx

Max: 134.4 [N] at 0.054 [s]

Min: -964.5 [N] at 0.104 [s]

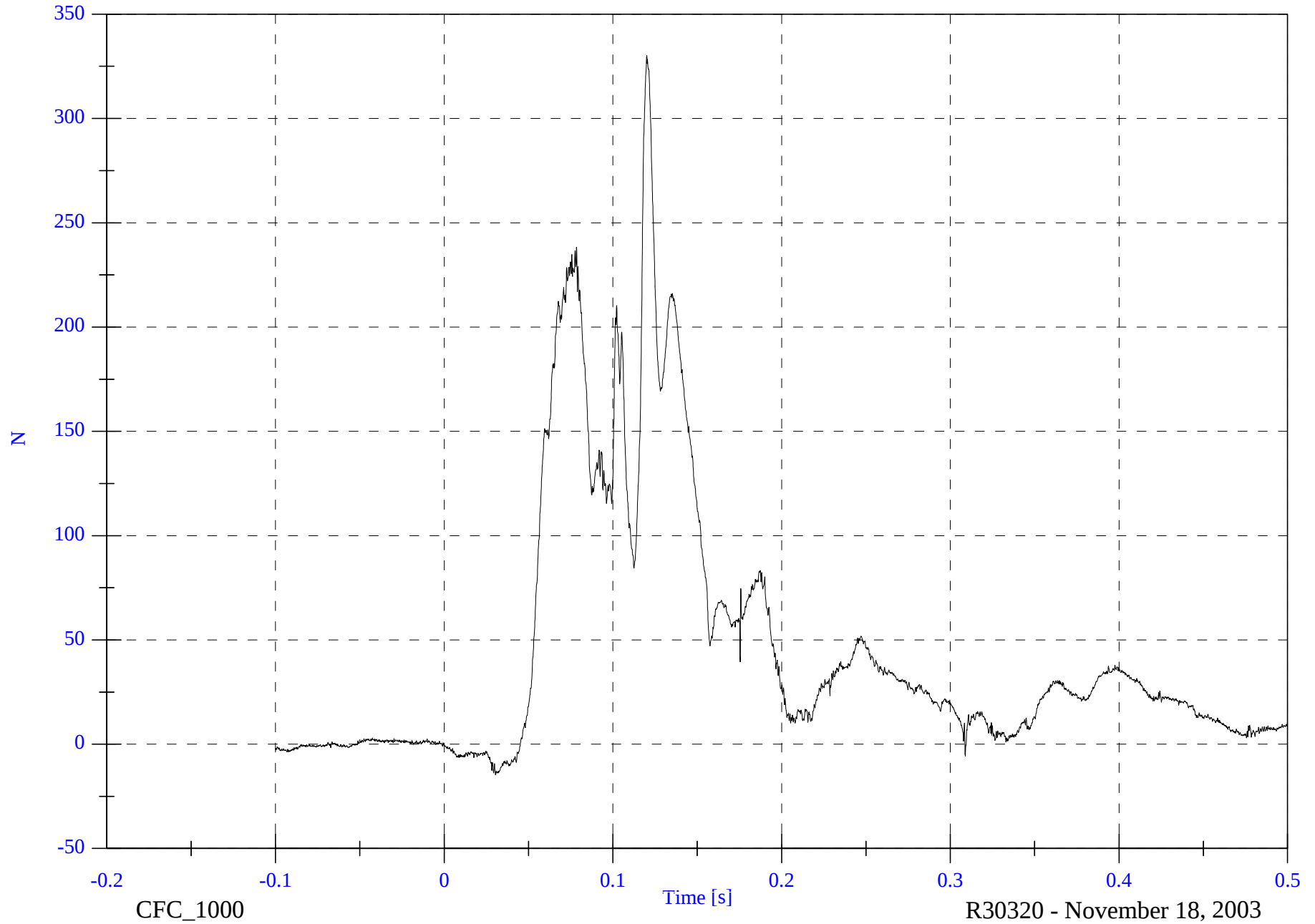


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck Fy

Max: 330.3 [N] at 0.120 [s]

Min: -14.7 [N] at 0.030 [s]



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8710-OFST-06

CFC_1000

R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck Fz

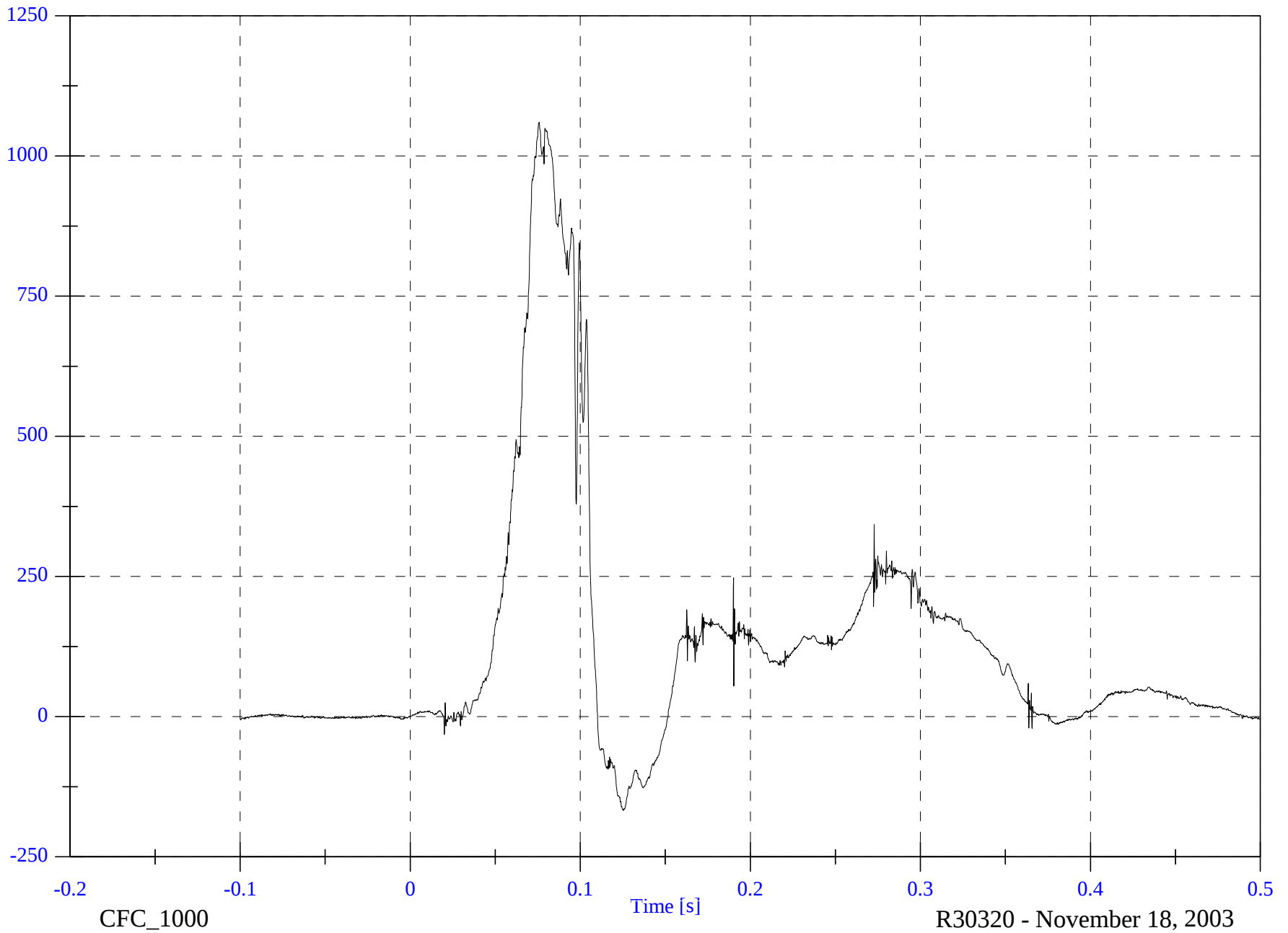
Max: 1060.0 [N] at 0.076 [s]

Min: -167.4 [N] at 0.125 [s]

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N

8710-OFST-06

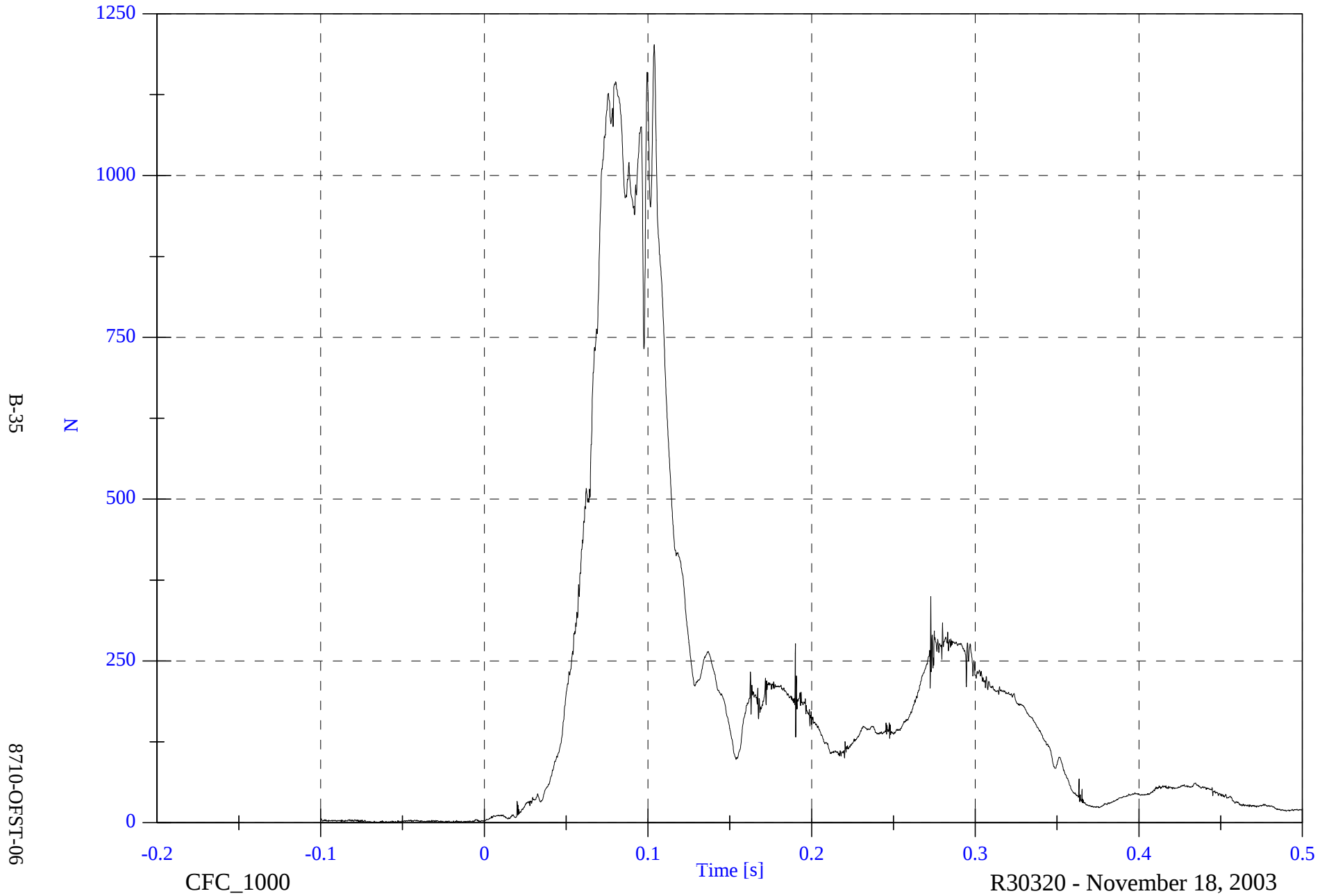


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck F Resultant

Max: 1202.3 [N] at 0.104 [s]

Min: 0.3 [N] at -0.065 [s]

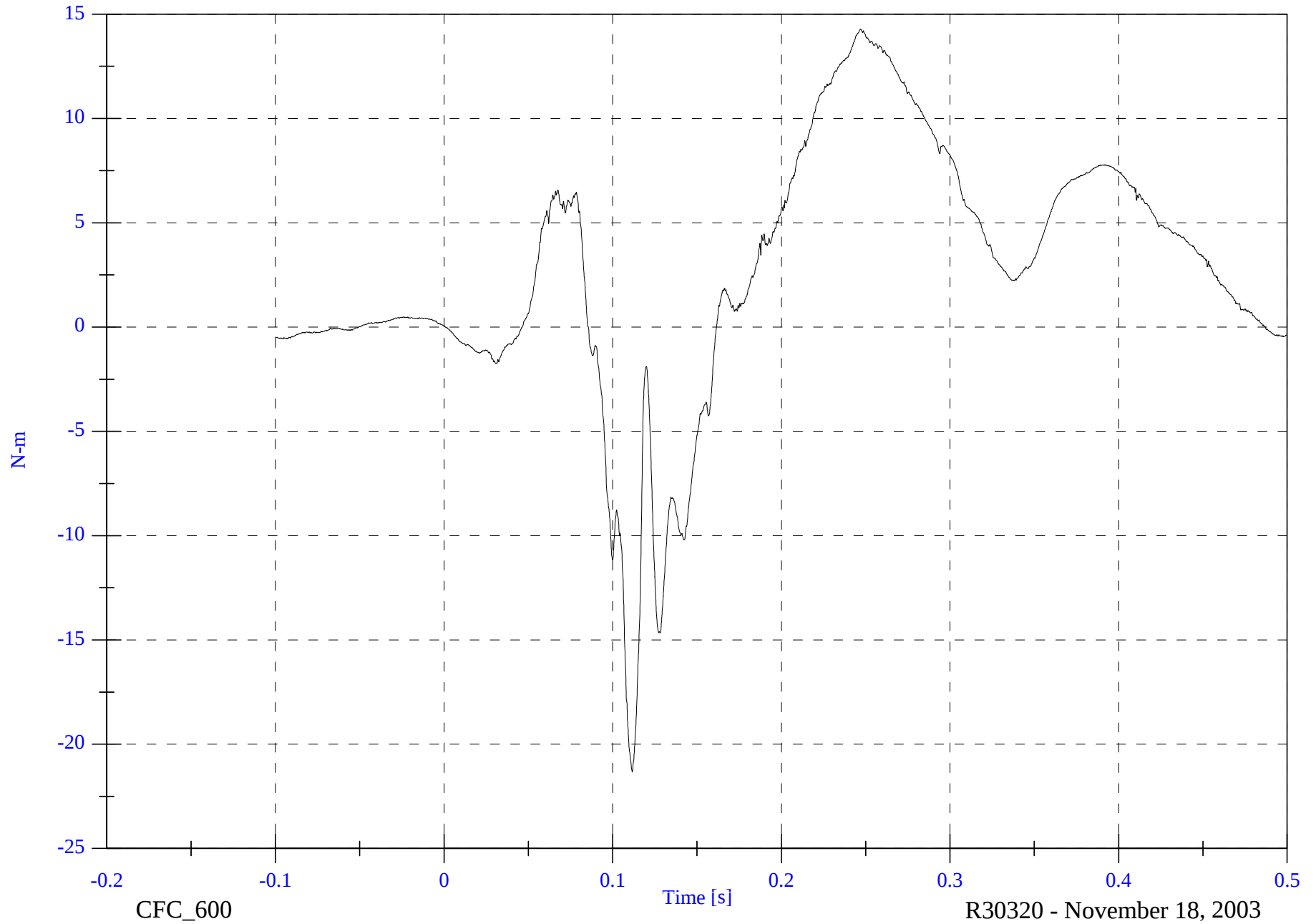


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck Mx

Max: 14.3 [N-m] at 0.247 [s]

Min: -21.3 [N-m] at 0.112 [s]



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8710-OFST-06

CFC_600

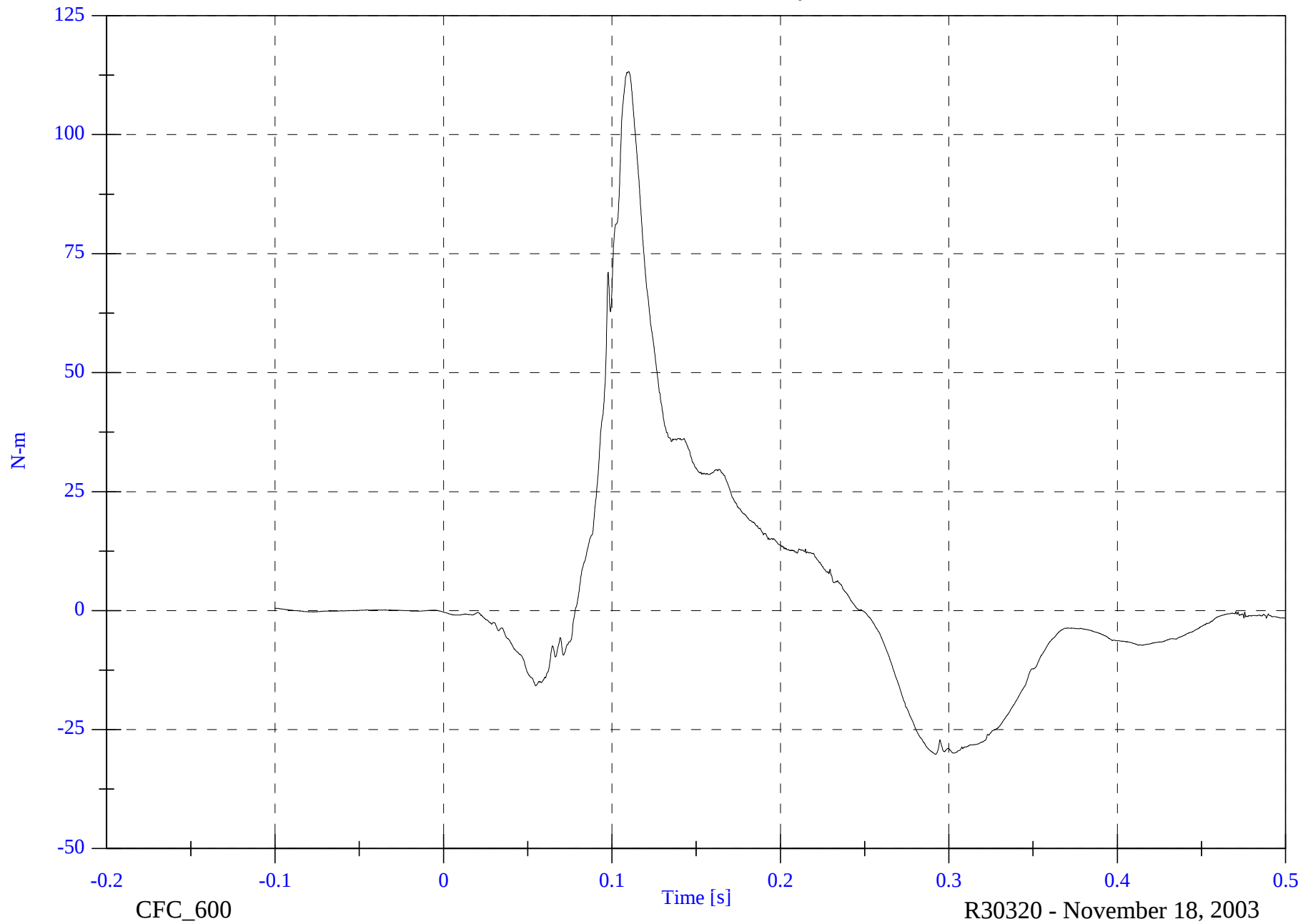
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Lower Neck My

Max: 113.3 [N-m] at 0.110 [s]

Min: -30.2 [N-m] at 0.292 [s]



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8710-OFST-06

CFC_600

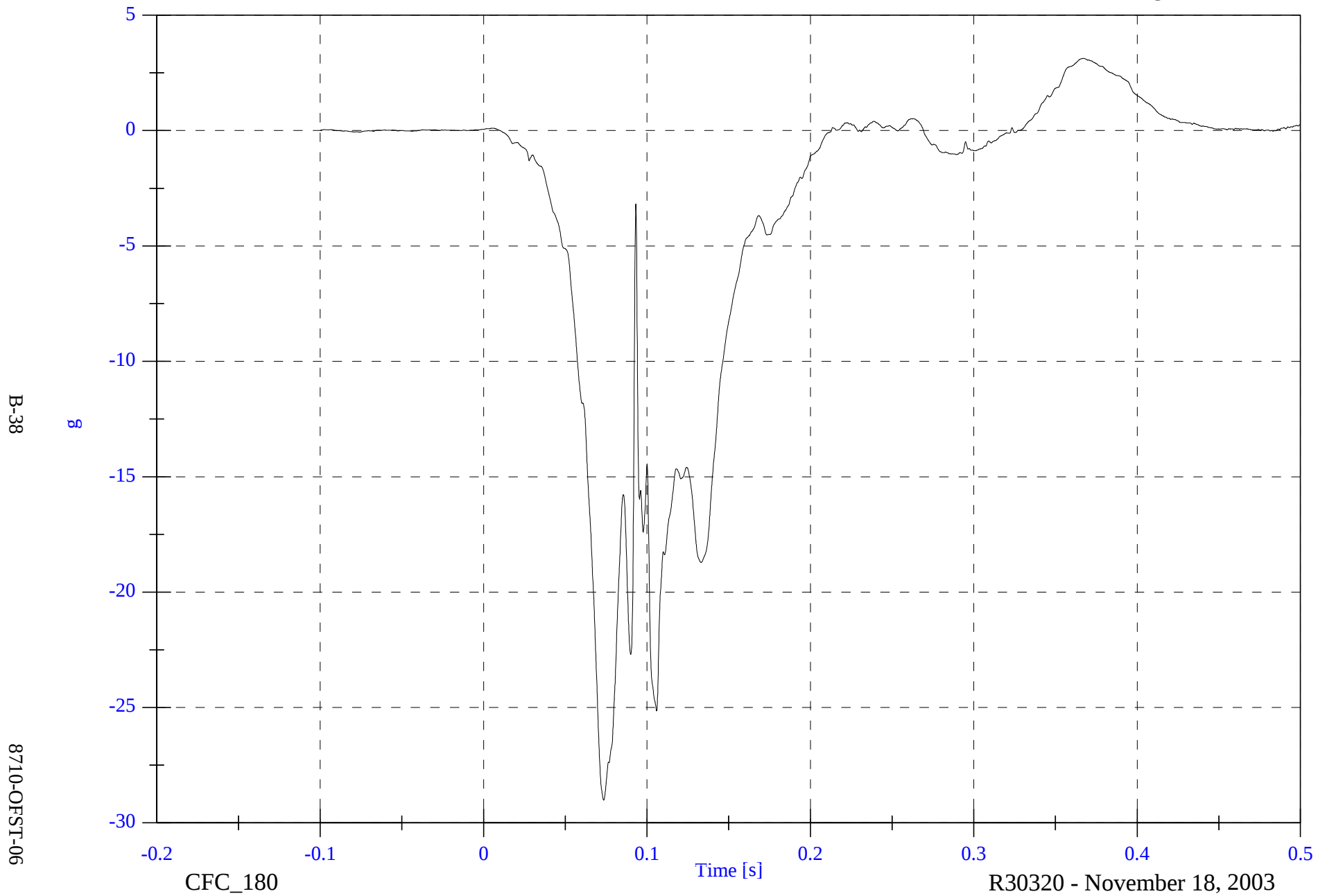
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest x

Max: 3.1 [g] at 0.367 [s]

Min: -29.0 [g] at 0.074 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 3.9 [g] at 0.175 [s]

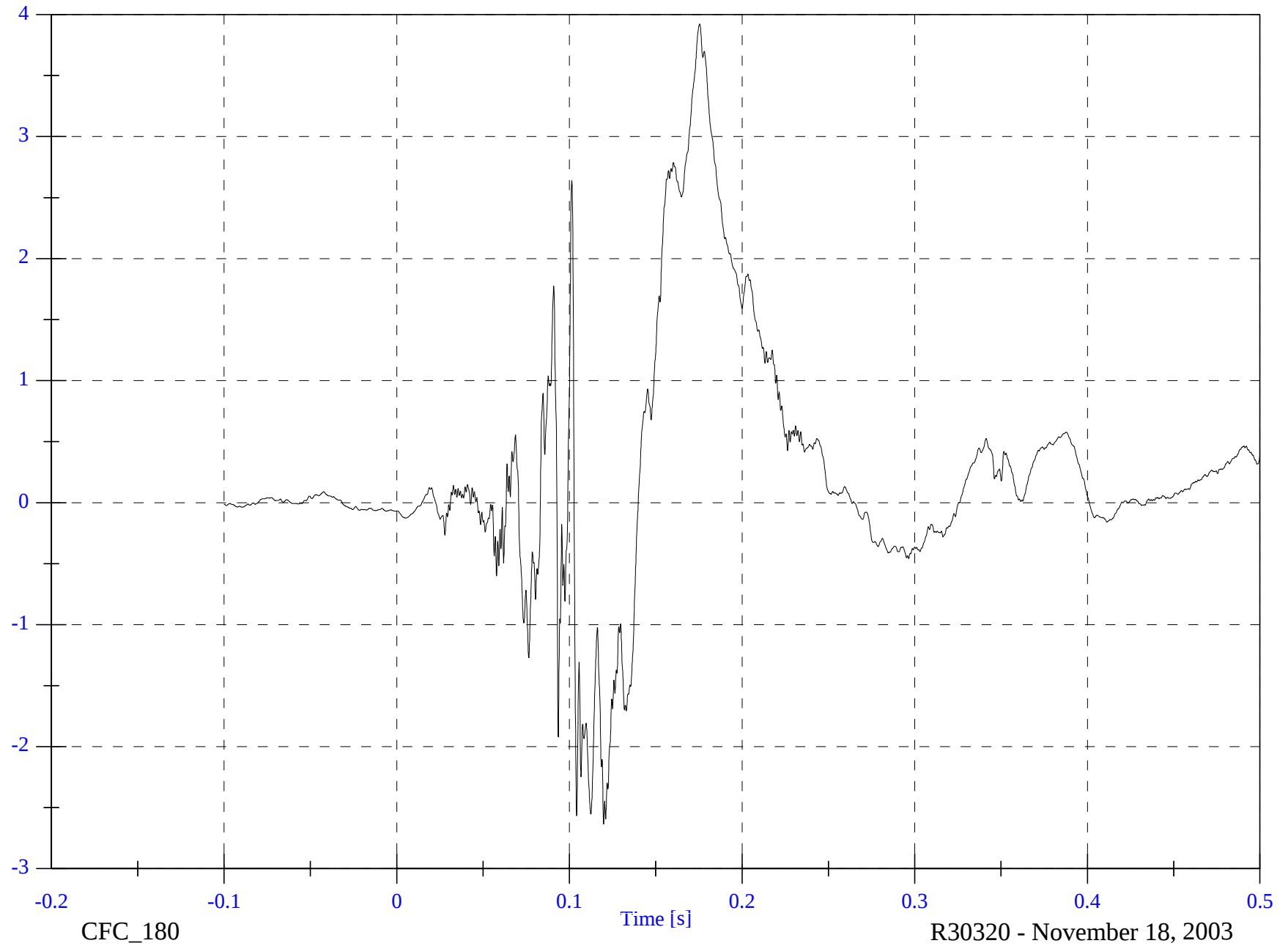
Min: -2.6 [g] at 0.120 [s]

V1P1 Chest y

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g

8710-OFST-06

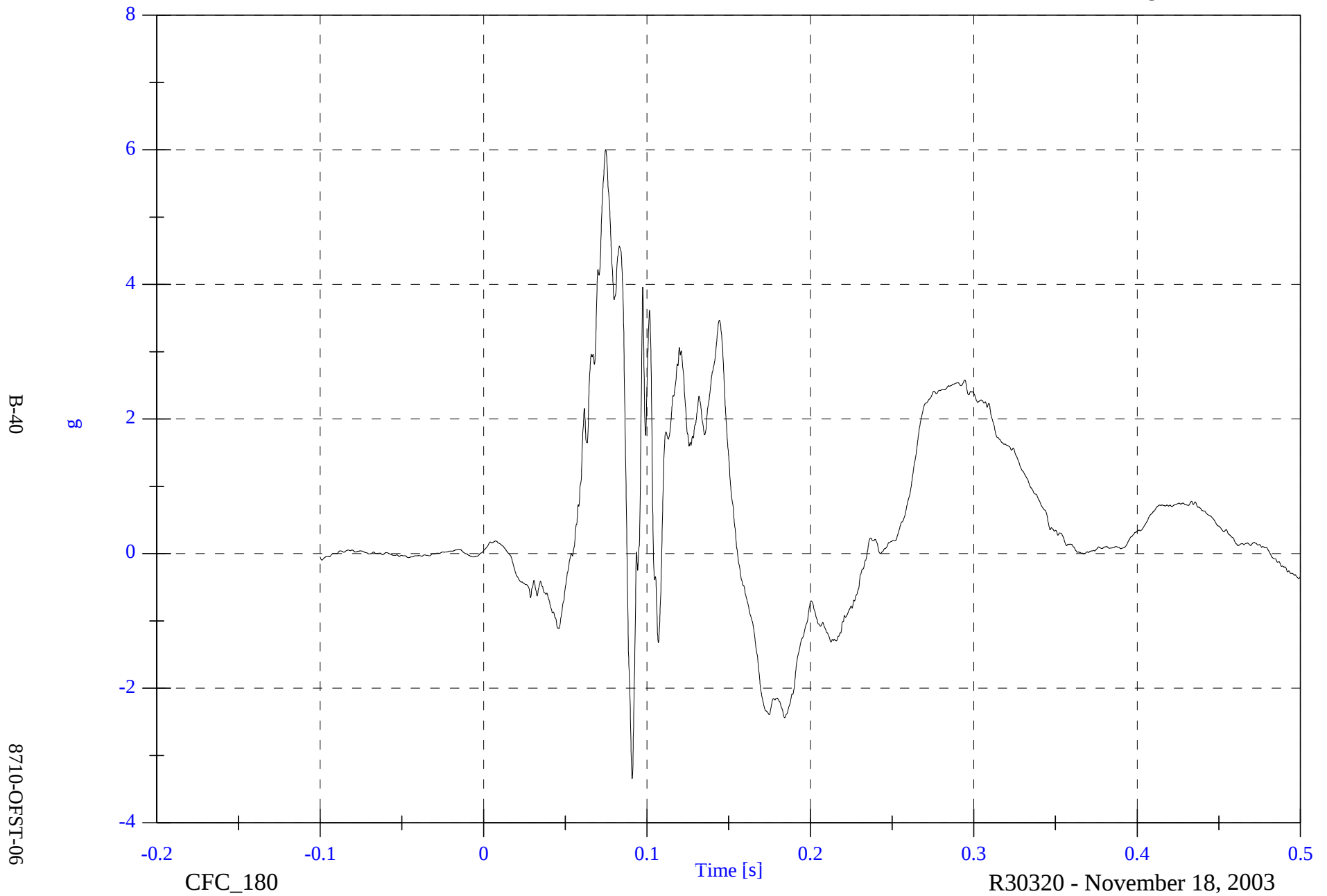


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest z

Max: 6.0 [g] at 0.075 [s]

Min: -3.3 [g] at 0.091 [s]

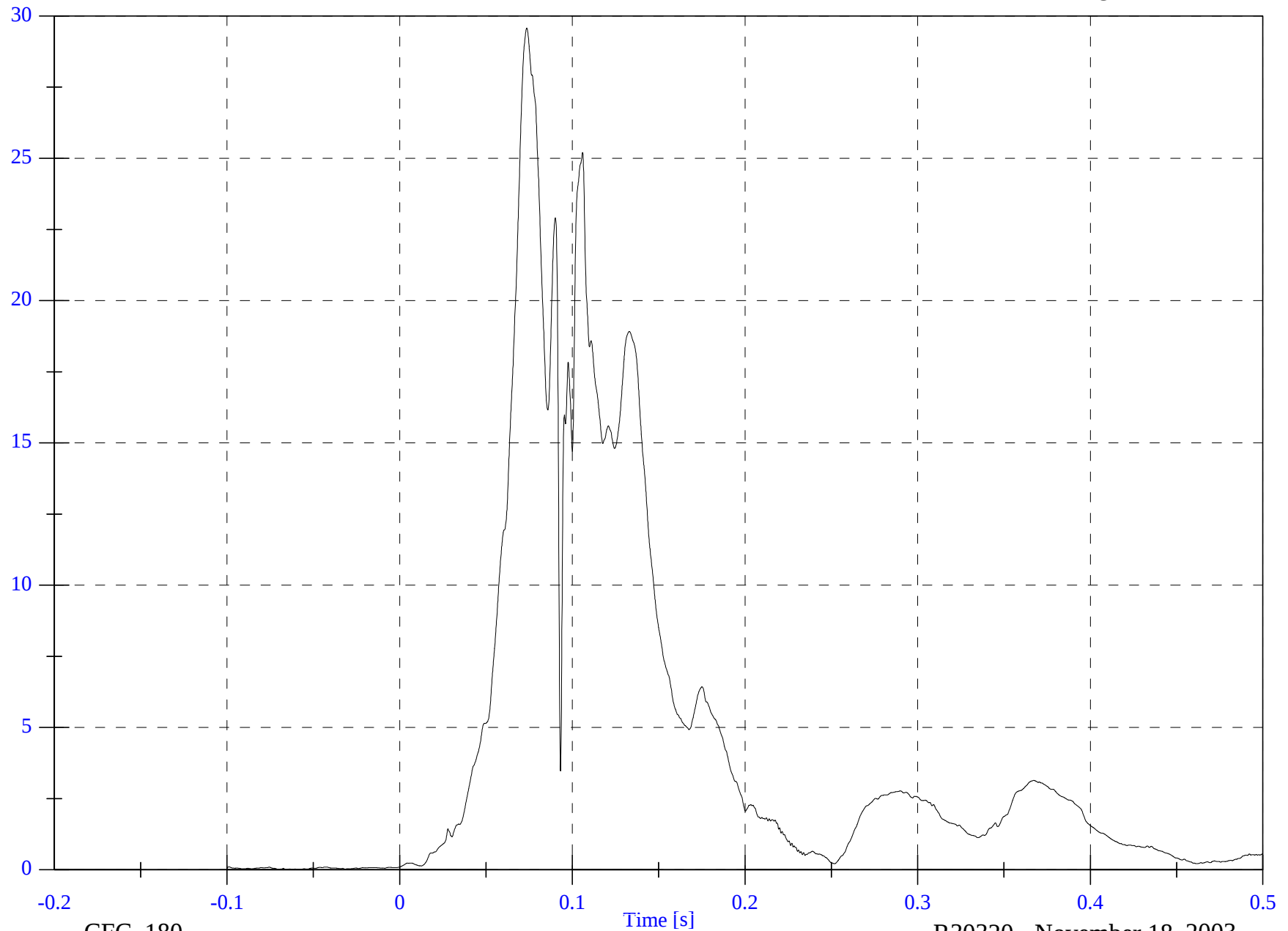


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest Resultant

Max: 29.6 [g] at 0.074 [s]

Min: 0.0 [g] at -0.066 [s]



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8710-OFST-06

CFC_180

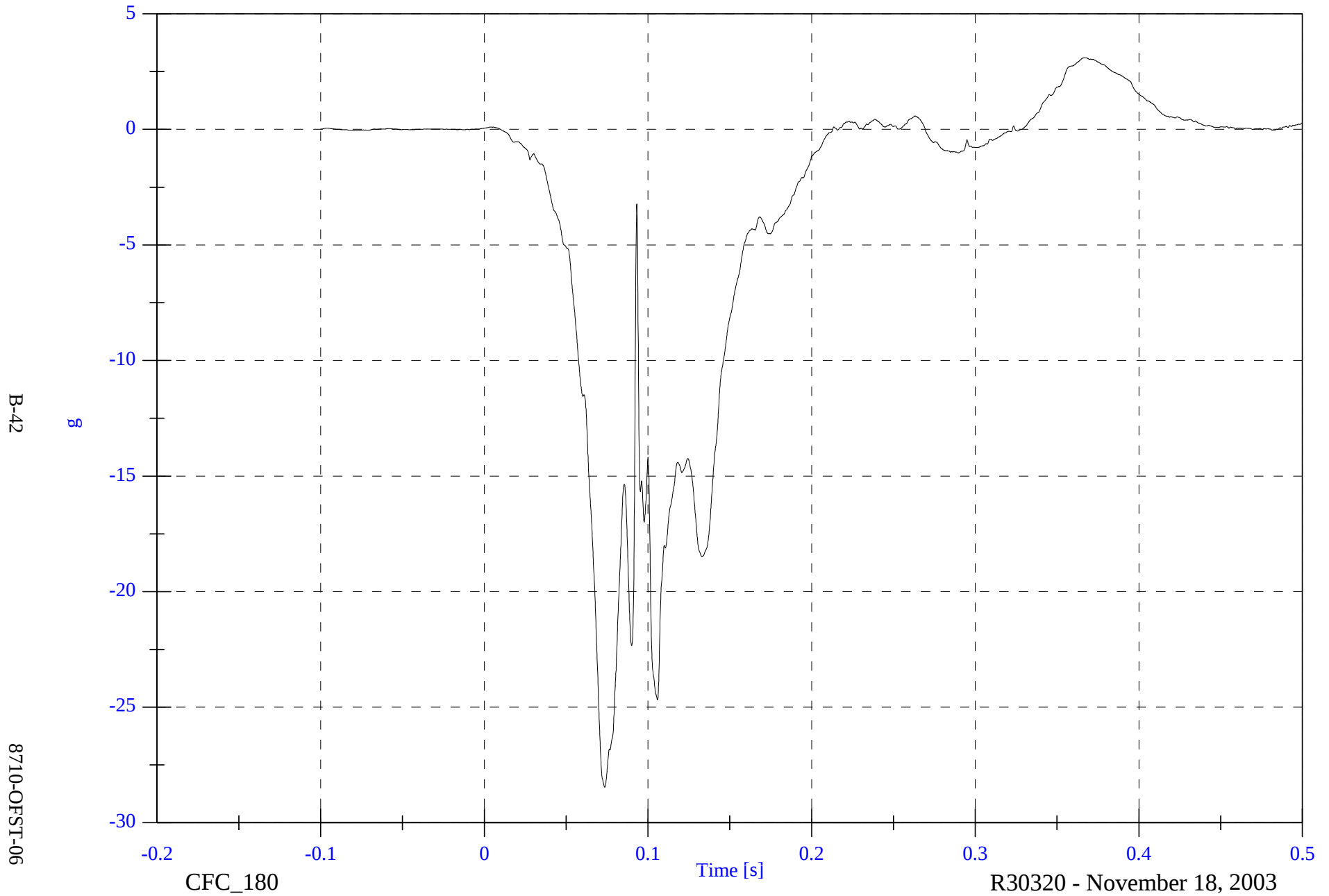
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest Red x

Max: 3.1 [g] at 0.367 [s]

Min: -28.5 [g] at 0.074 [s]

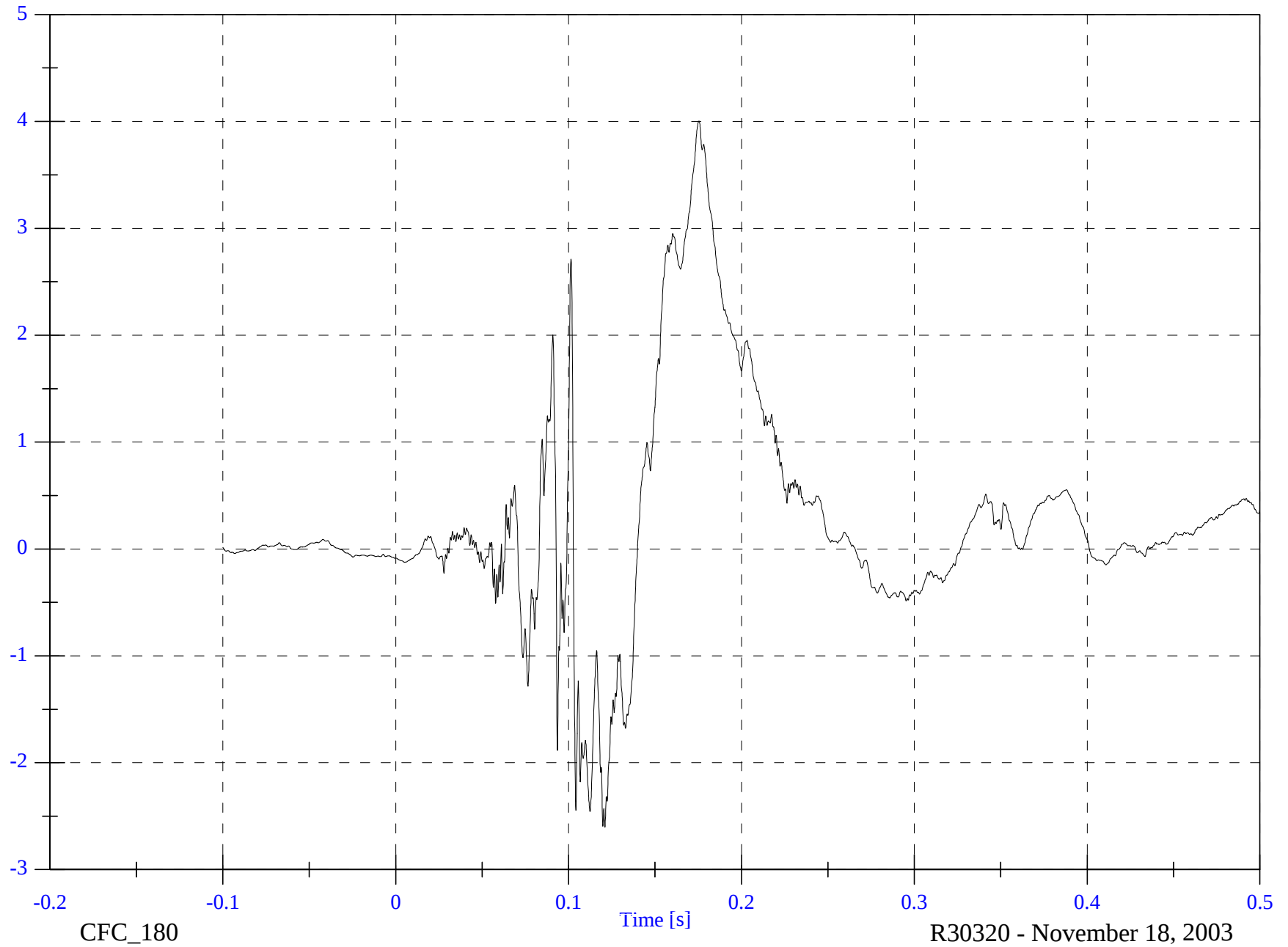


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest Red y

Max: 4.0 [g] at 0.175 [s]

Min: -2.6 [g] at 0.121 [s]



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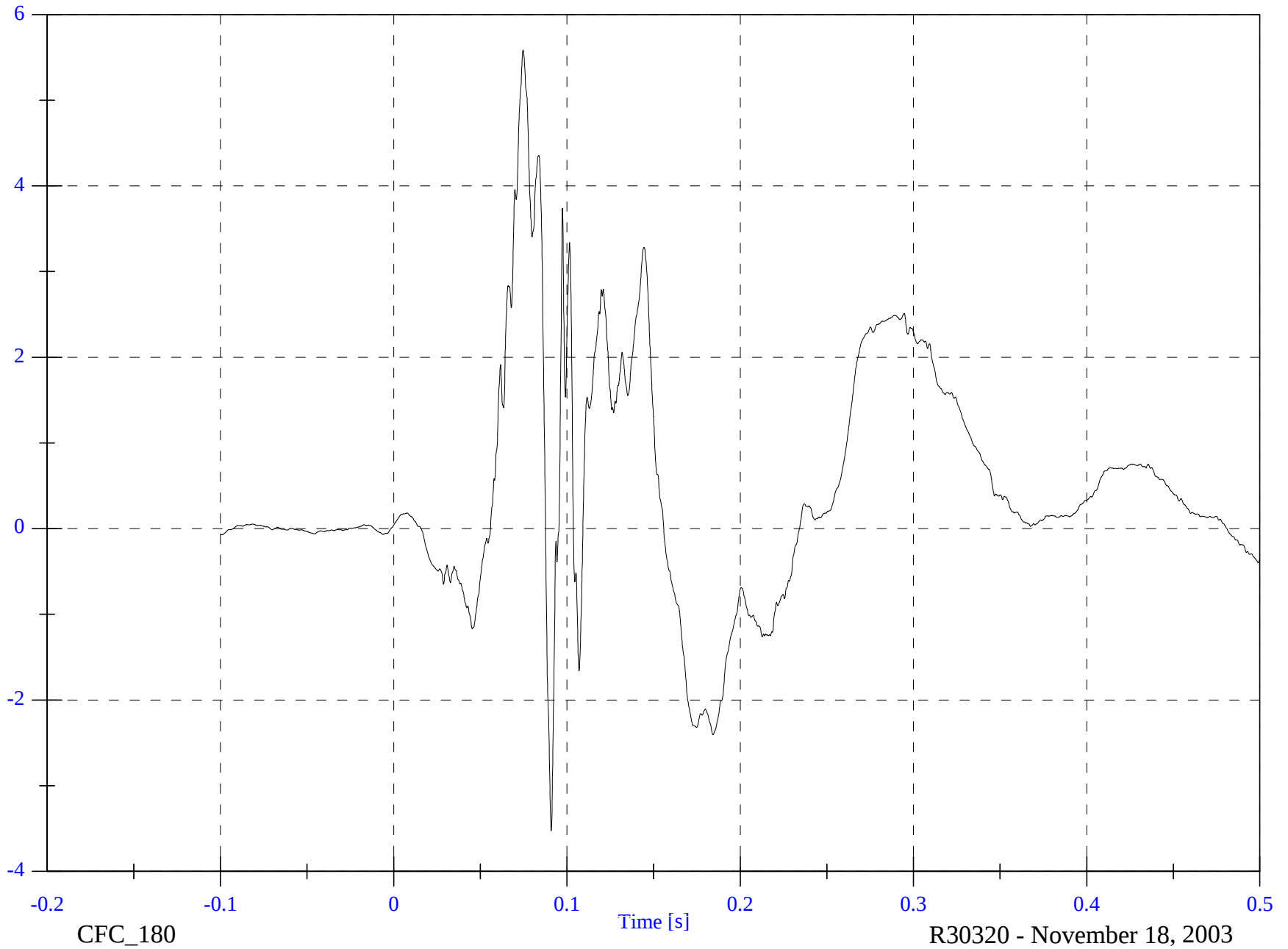
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Chest Red z

Max: 5.6 [g] at 0.075 [s]

Min: -3.5 [g] at 0.091 [s]



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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

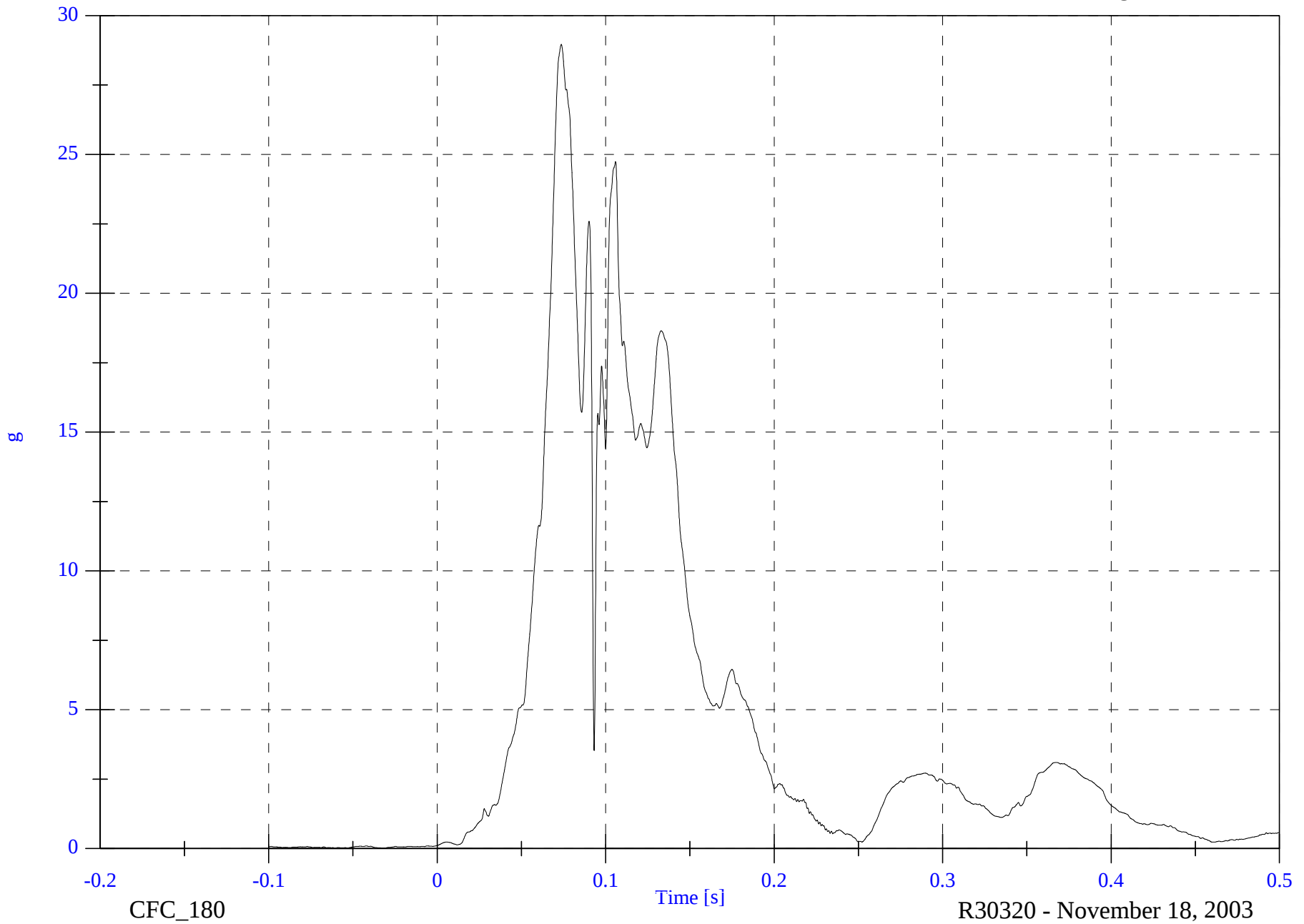
V1P1 Chest Red Resultant

Max: 29.0 [g] at 0.074 [s]

Min: 0.0 [g] at -0.060 [s]

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8710-OFST-06



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

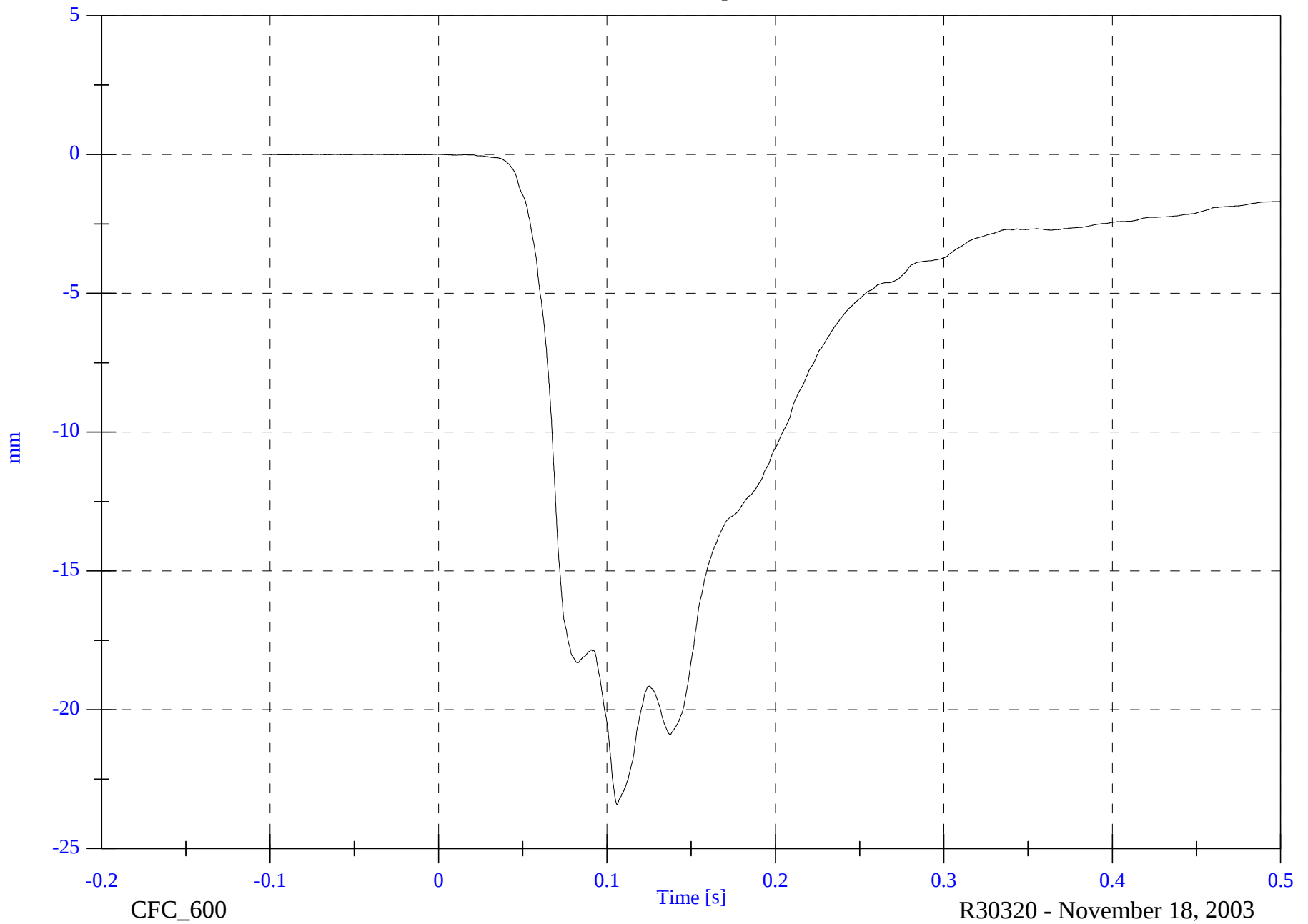
V1P1 Chest Displacement

Max: 0.0 [mm] at -0.001 [s]

Min: -23.4 [mm] at 0.106 [s]

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8710-OFST-06



CFC_600

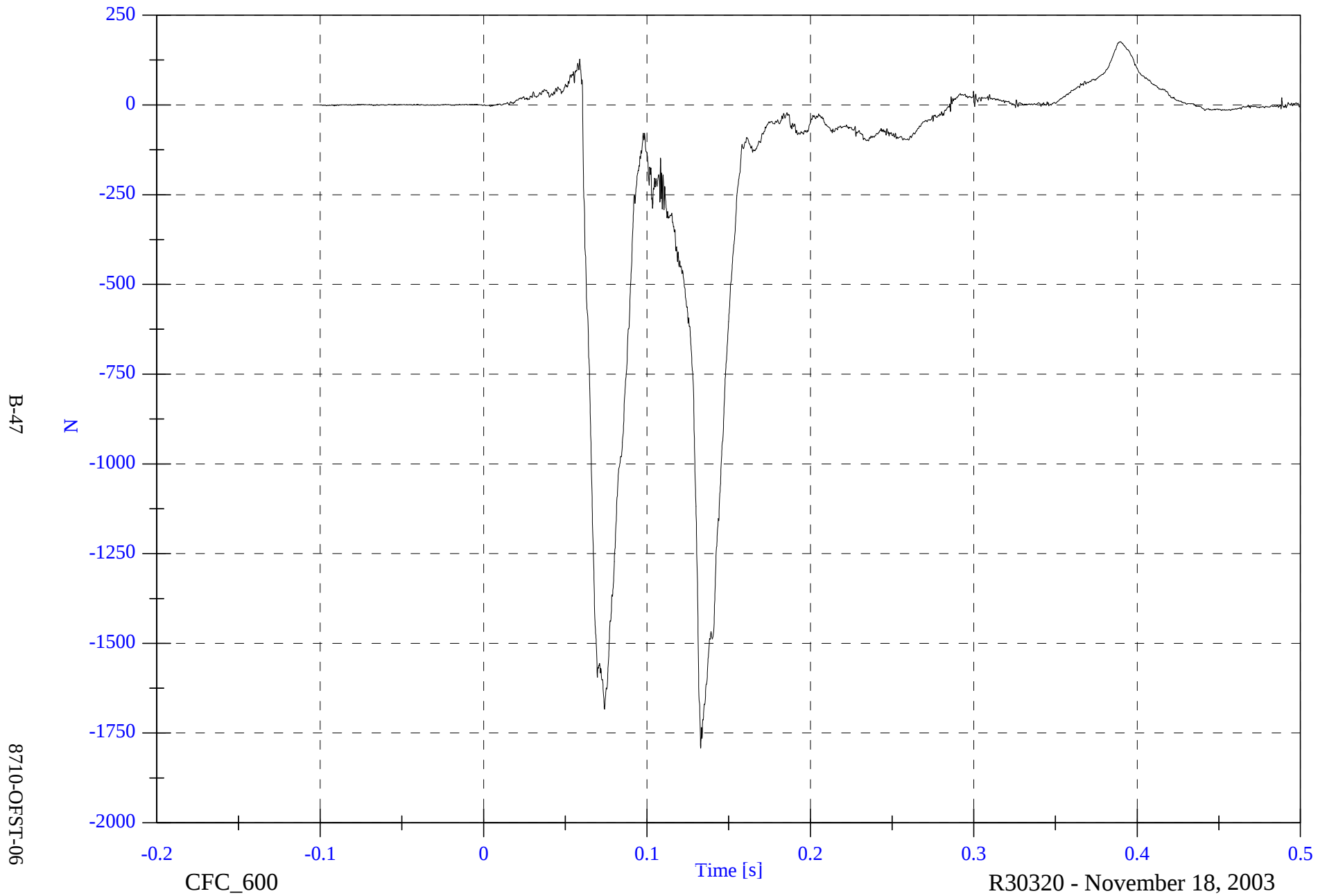
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Femur

Max: 176.0 [N] at 0.390 [s]

Min: -1792.1 [N] at 0.133 [s]

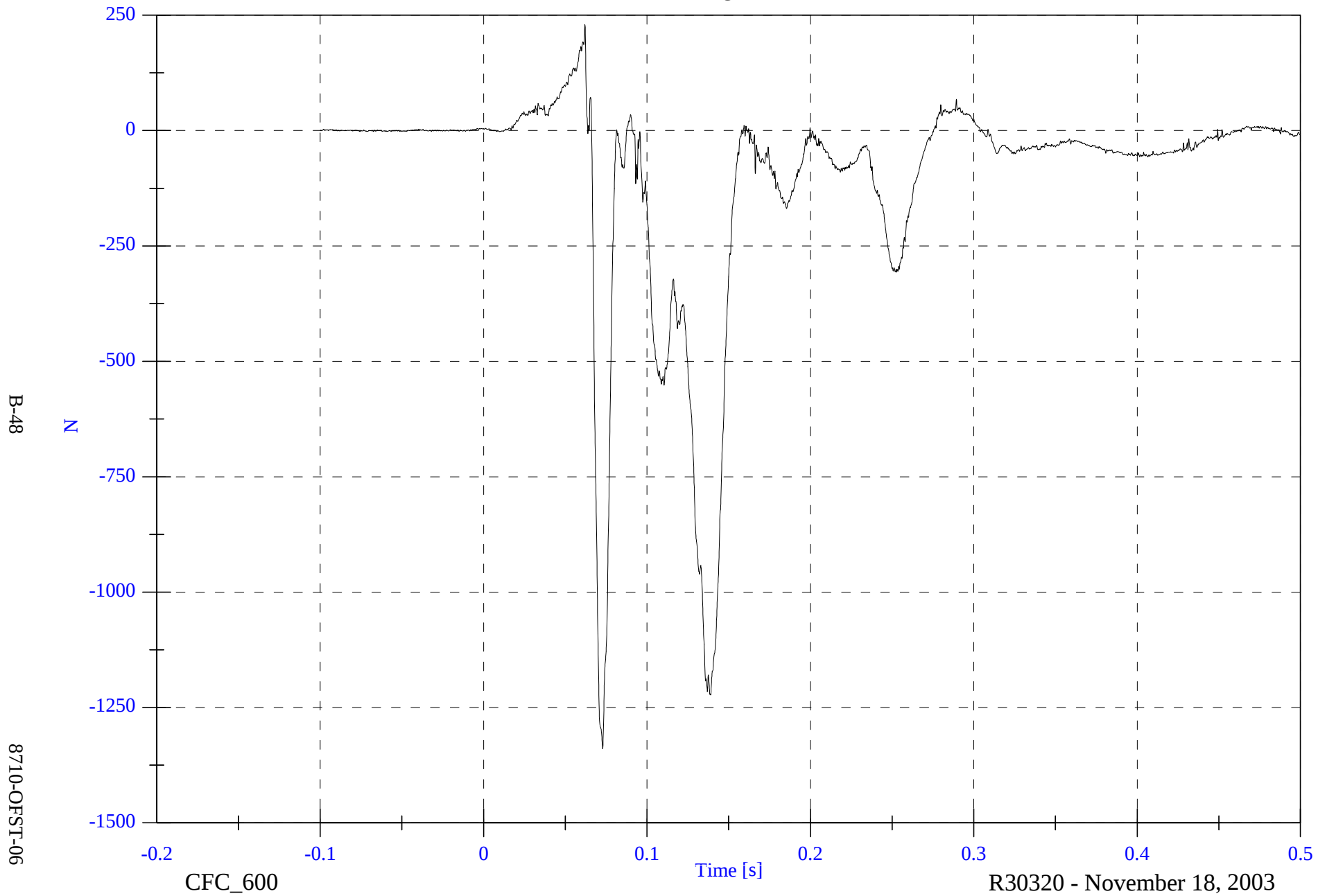


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Femur

Max: 229.5 [N] at 0.062 [s]

Min: -1339.2 [N] at 0.073 [s]

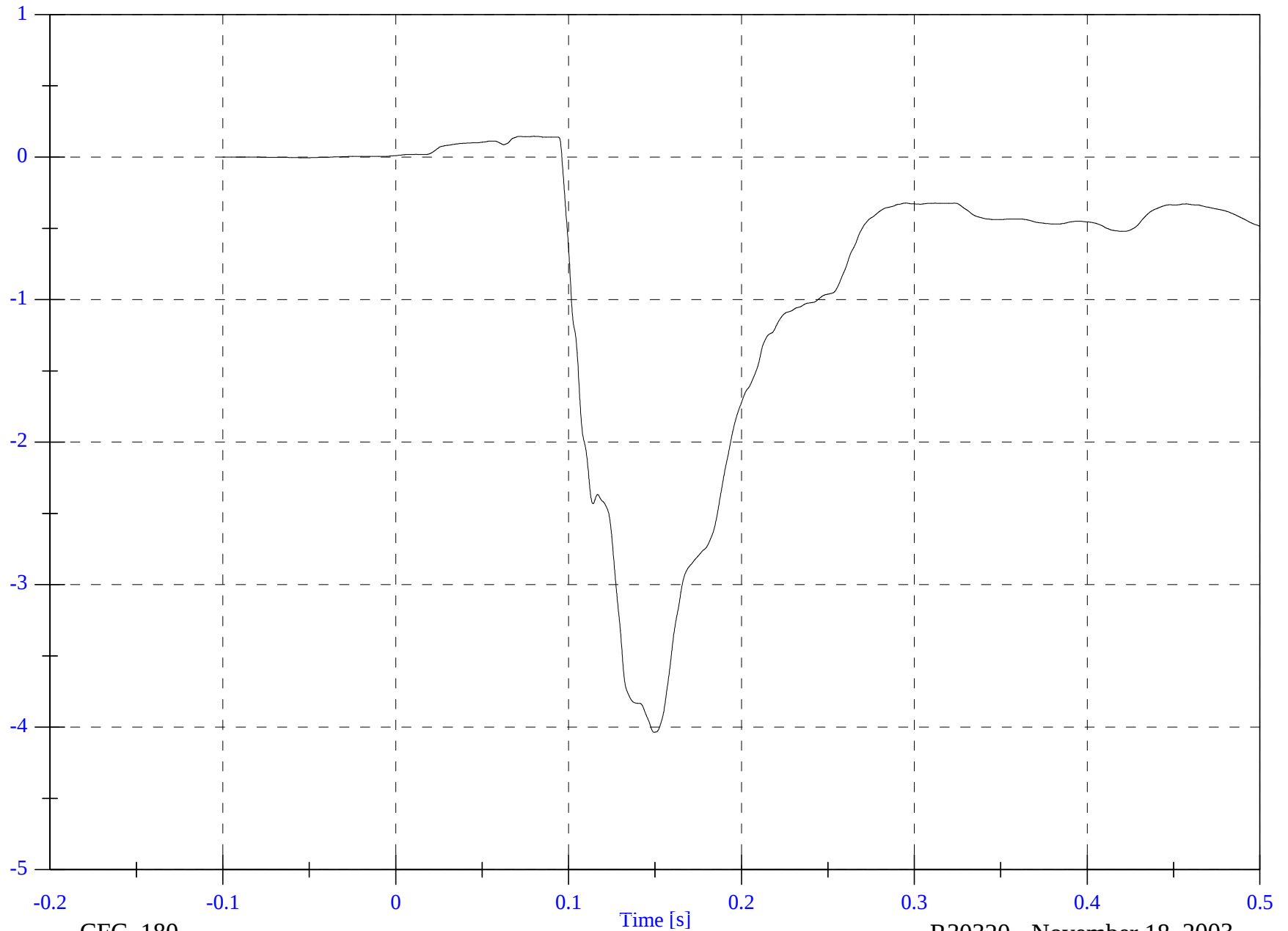


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Knee Deflection

Max: 0.1 [mm] at 0.080 [s]

Min: -4.0 [mm] at 0.149 [s]



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8710-OFST-06

CFC_180

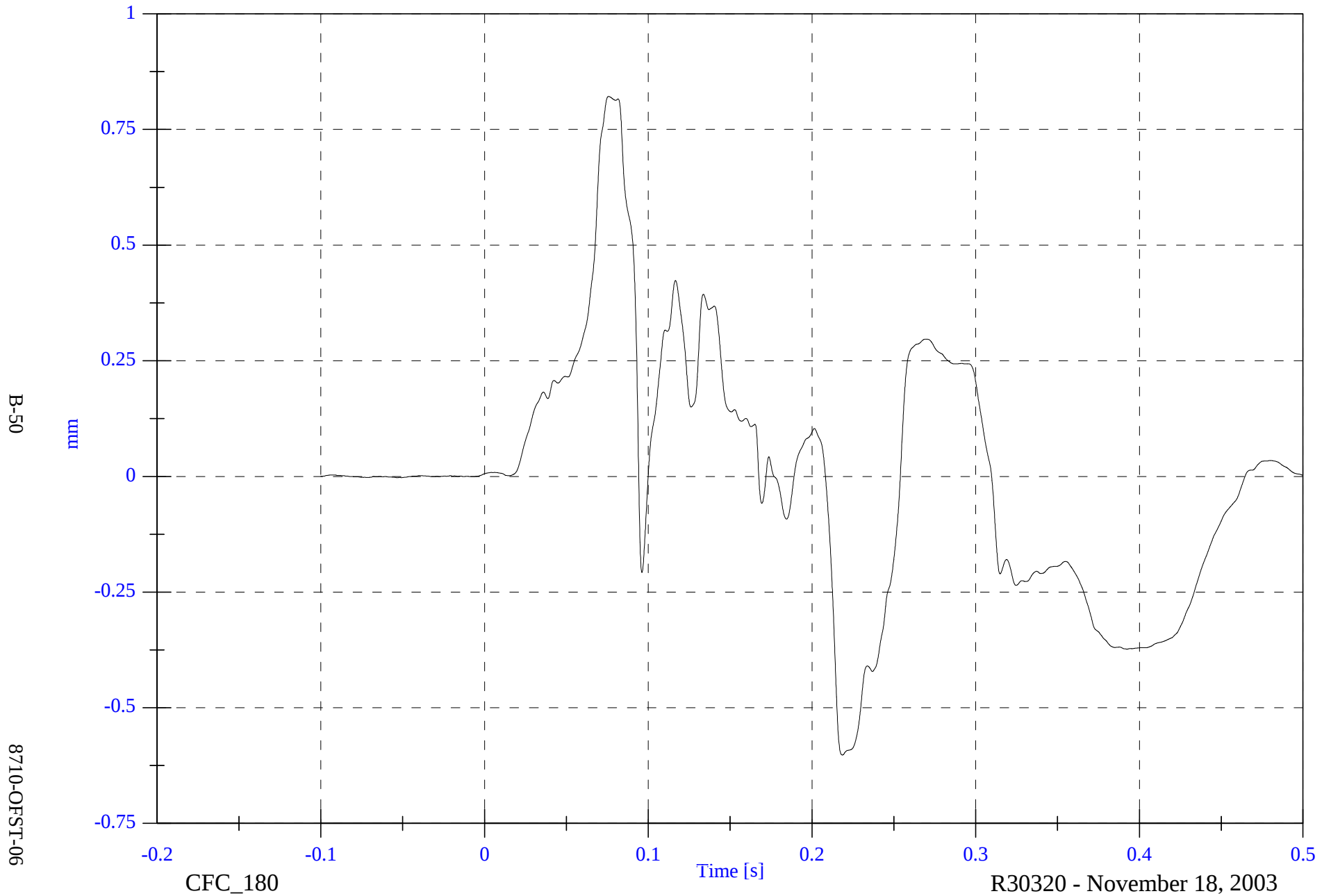
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Knee Deflection

Max: 0.8 [mm] at 0.076 [s]

Min: -0.6 [mm] at 0.219 [s]

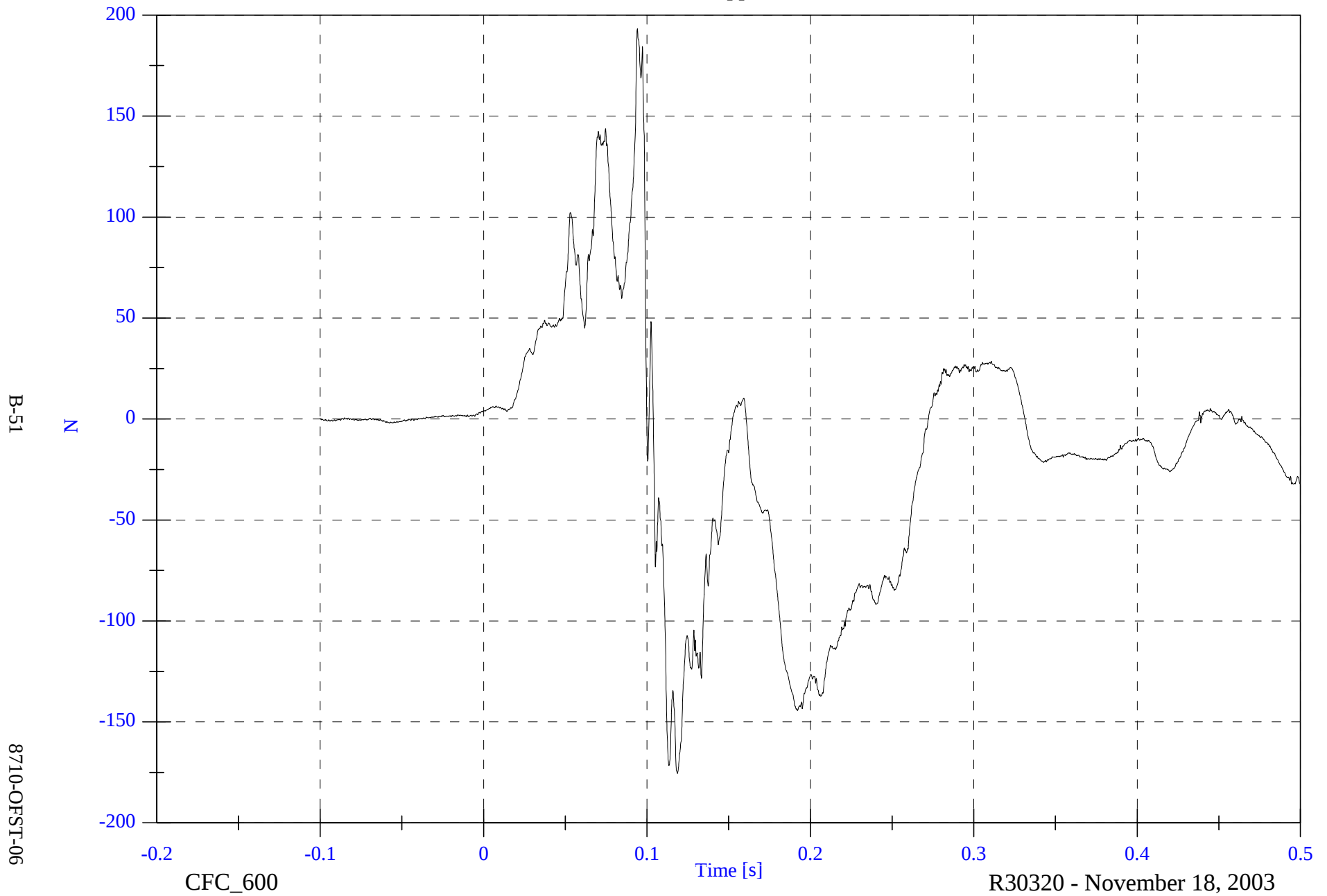


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Upper Tibia Fx

Max: 193.3 [N] at 0.094 [s]

Min: -175.5 [N] at 0.119 [s]

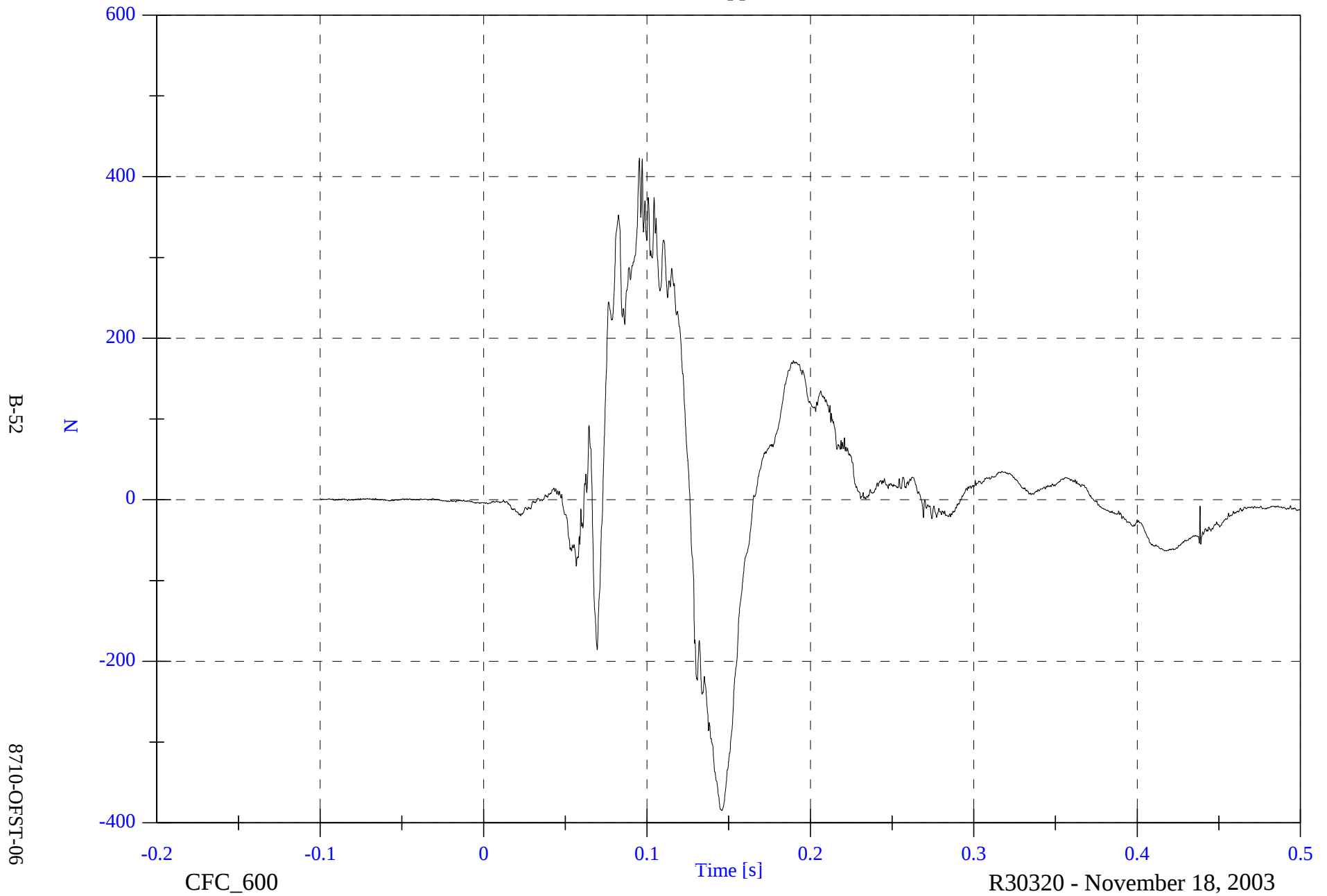


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Upper Tibia Fz

Max: 423.1 [N] at 0.095 [s]

Min: -384.6 [N] at 0.146 [s]

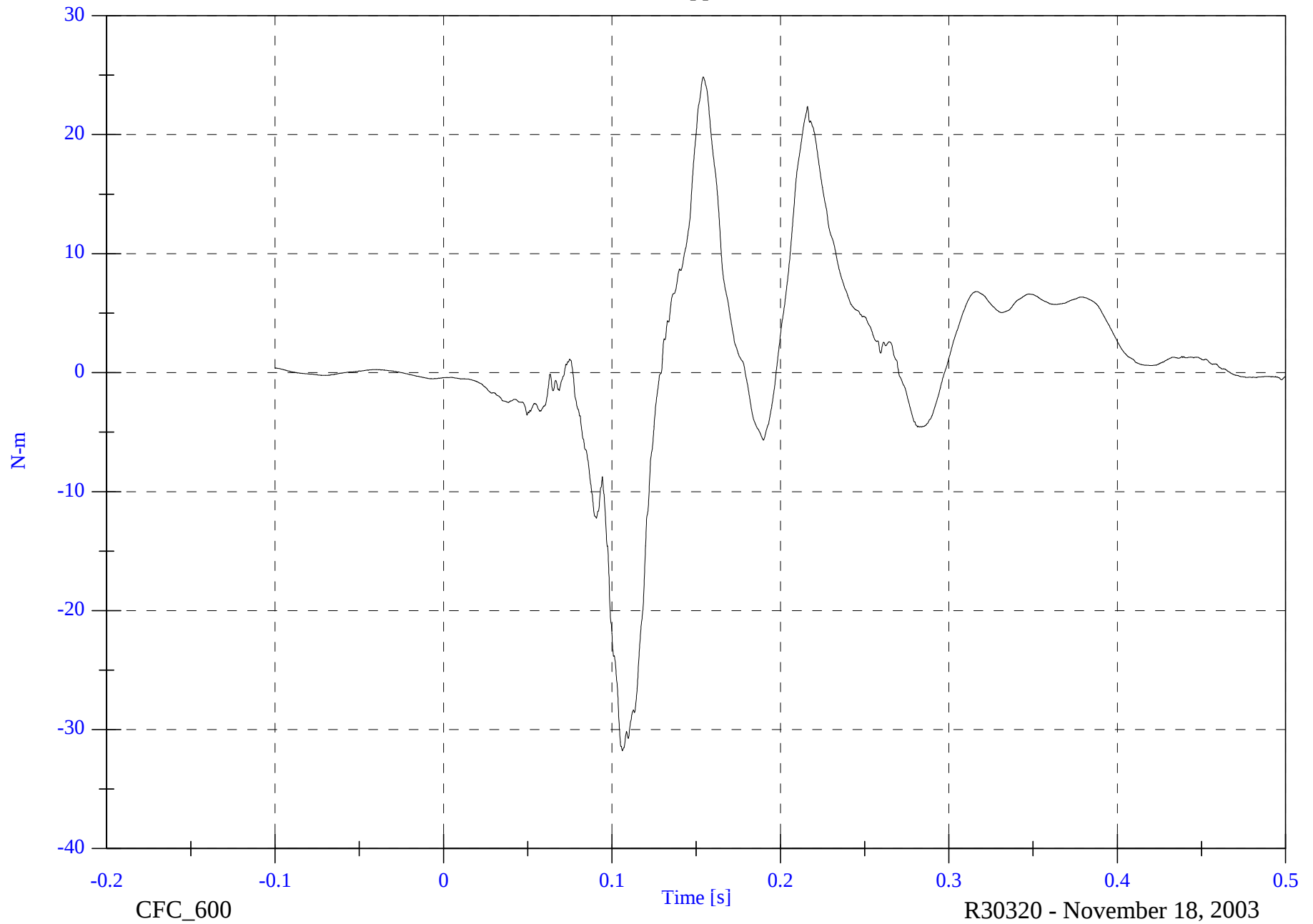


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Upper Tibia Mx

Max: 24.9 [N-m] at 0.154 [s]

Min: -31.8 [N-m] at 0.106 [s]



B-53

8710-OFST-06

CFC_600

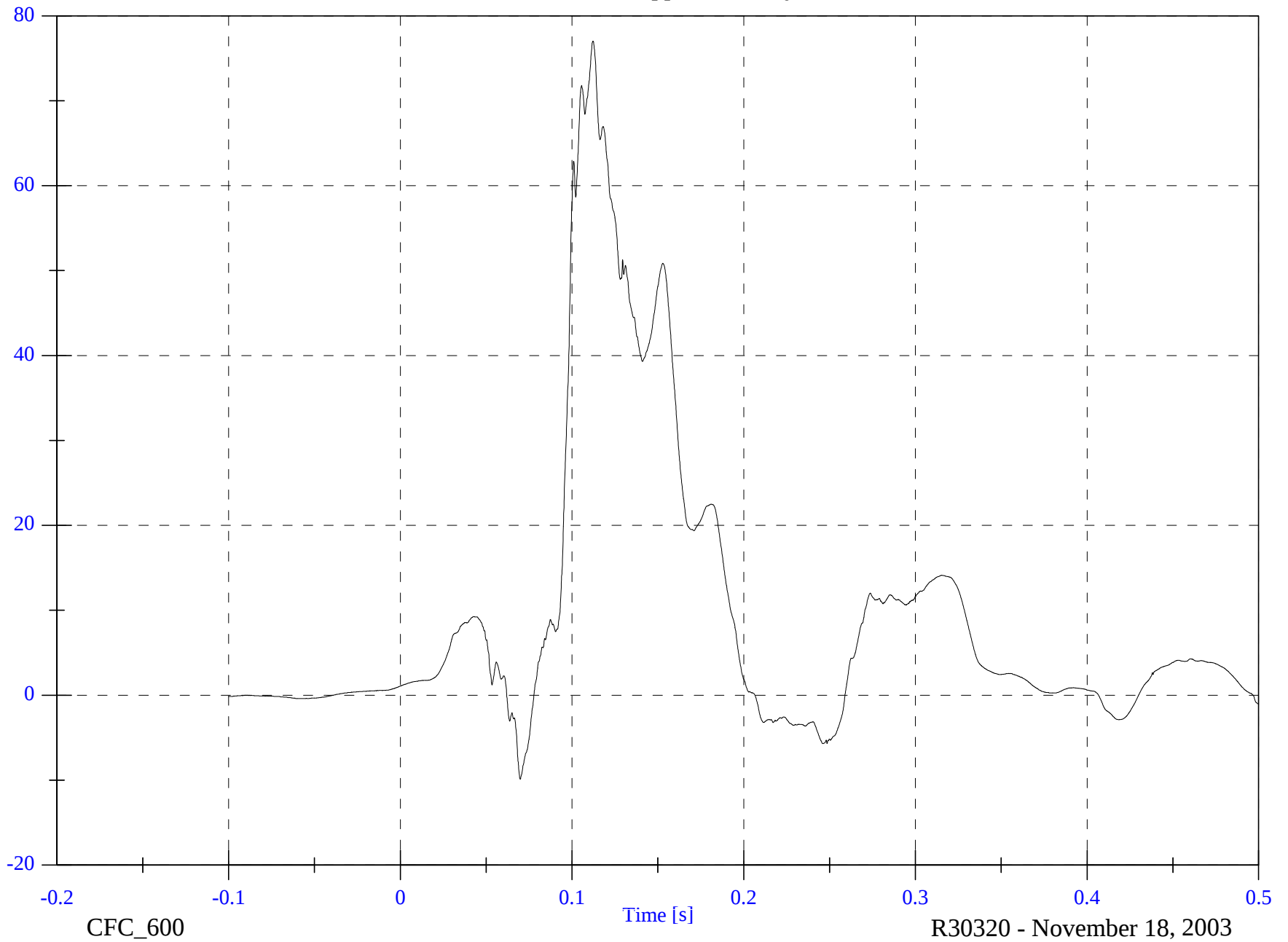
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Upper Tibia My

Max: 77.0 [N-m] at 0.112 [s]

Min: -9.9 [N-m] at 0.070 [s]



B-54

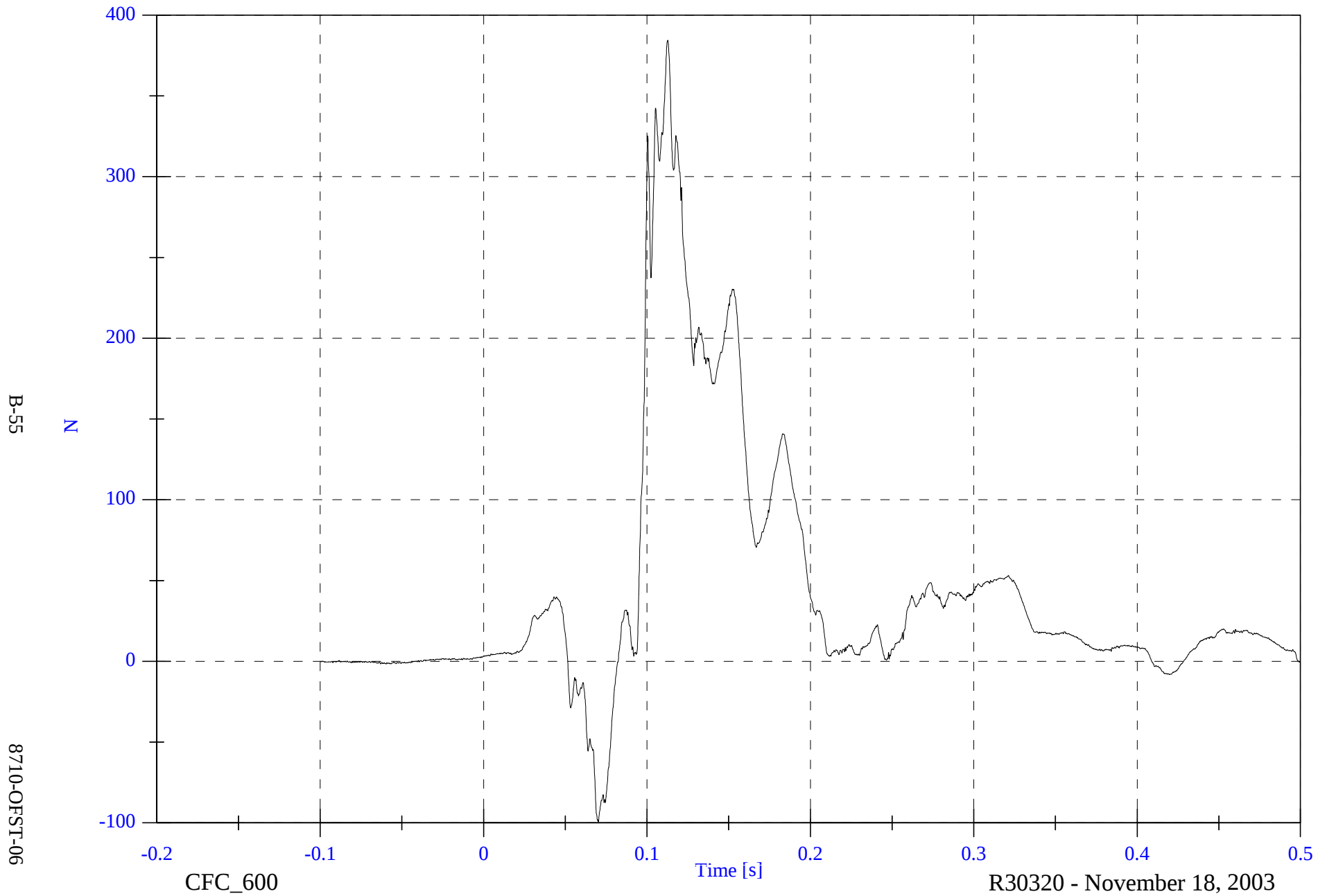
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia Fx

Max: 384.5 [N] at 0.113 [s]

Min: -99.4 [N] at 0.070 [s]

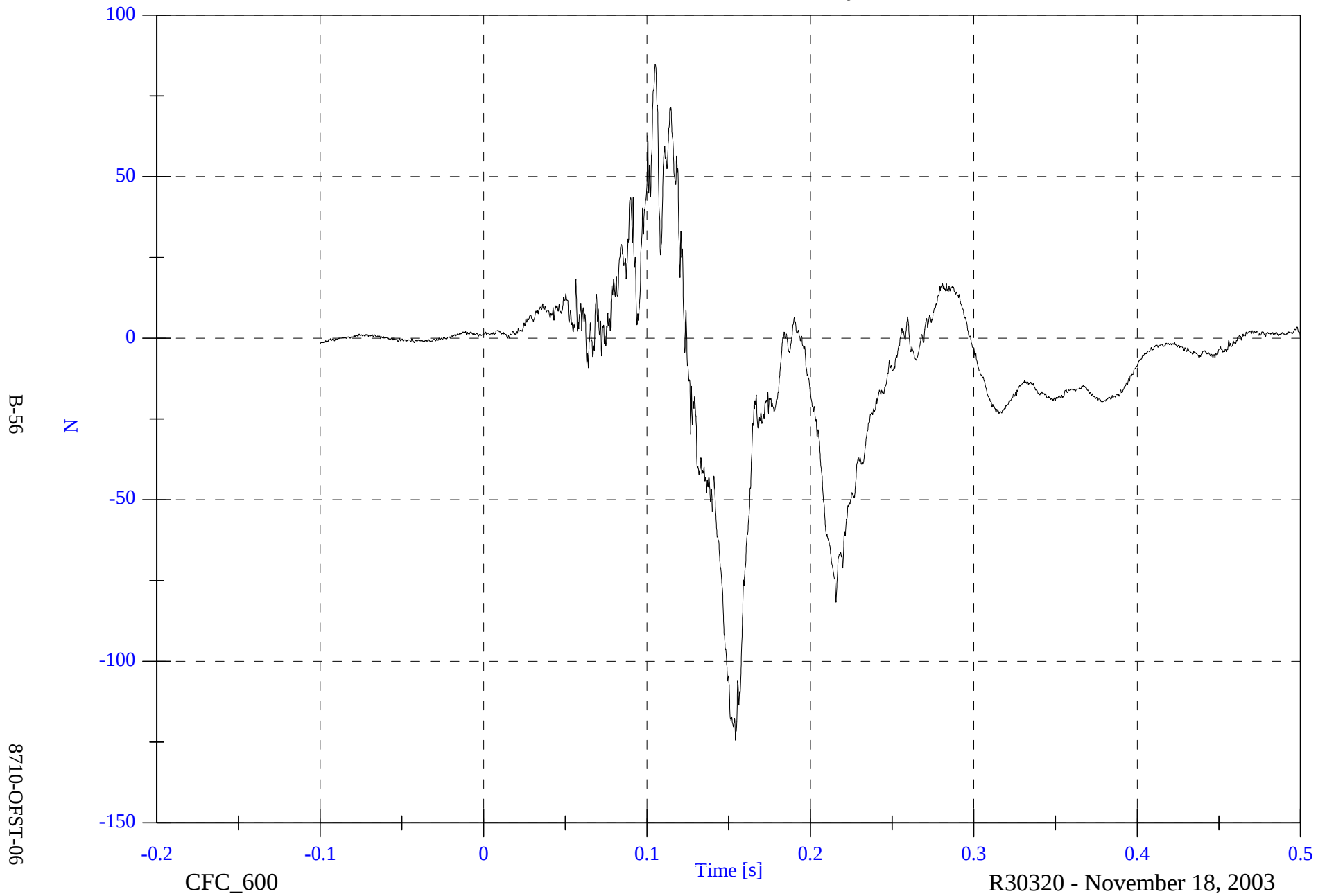


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia Fy

Max: 84.8 [N] at 0.105 [s]

Min: -124.4 [N] at 0.154 [s]

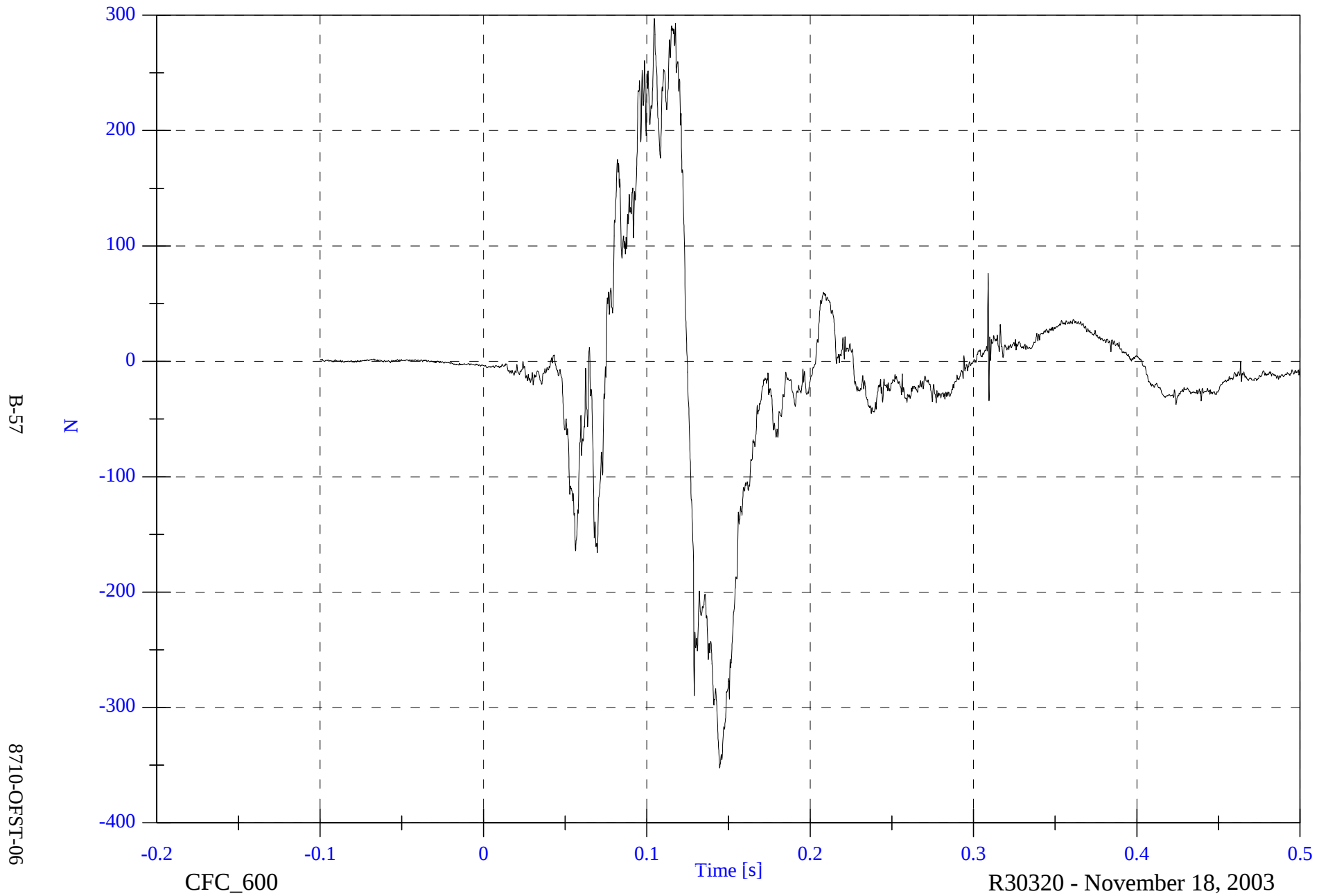


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia Fz

Max: 297.0 [N] at 0.105 [s]

Min: -352.3 [N] at 0.145 [s]

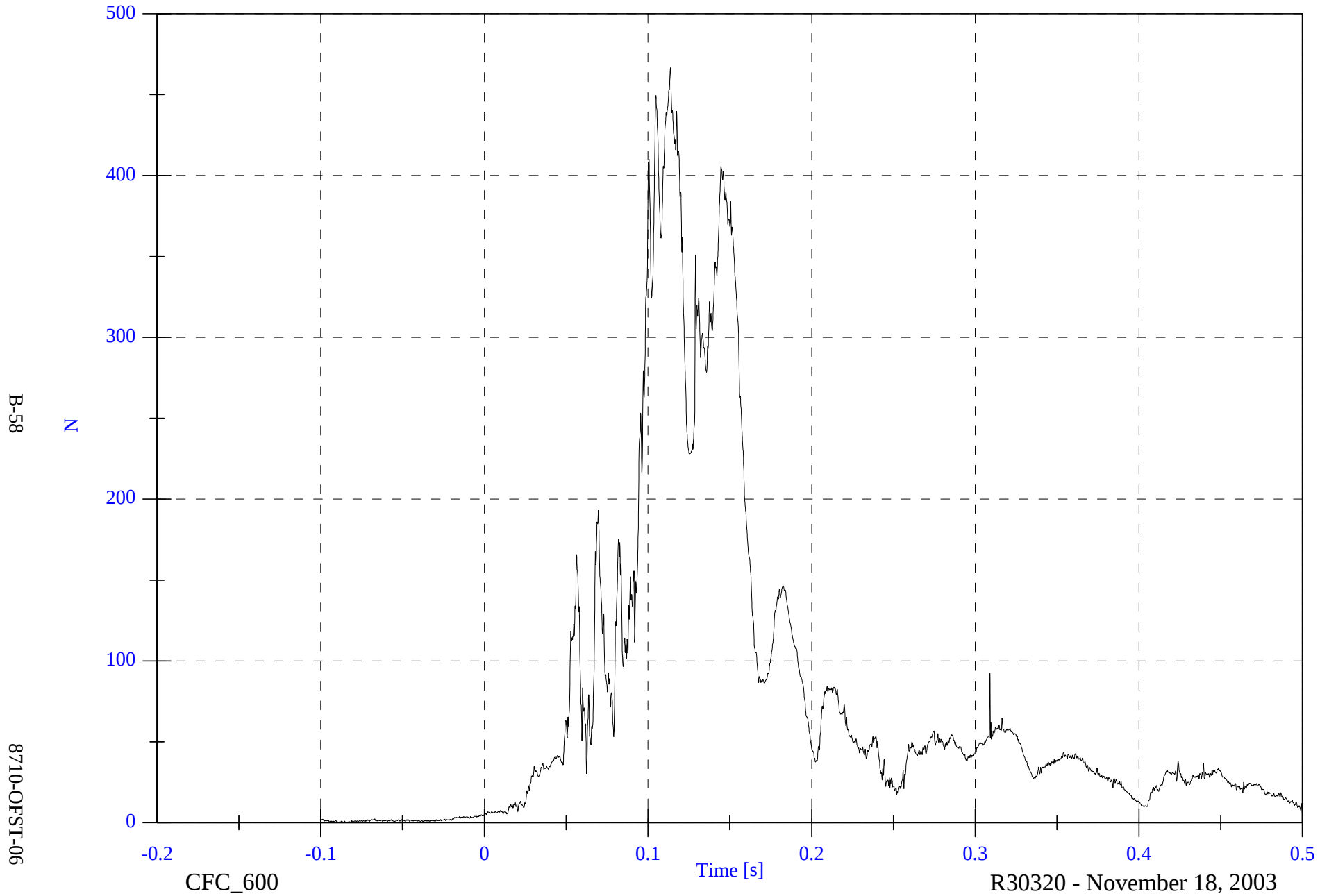


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia F Resultant

Max: 466.7 [N] at 0.114 [s]

Min: 0.1 [N] at -0.089 [s]

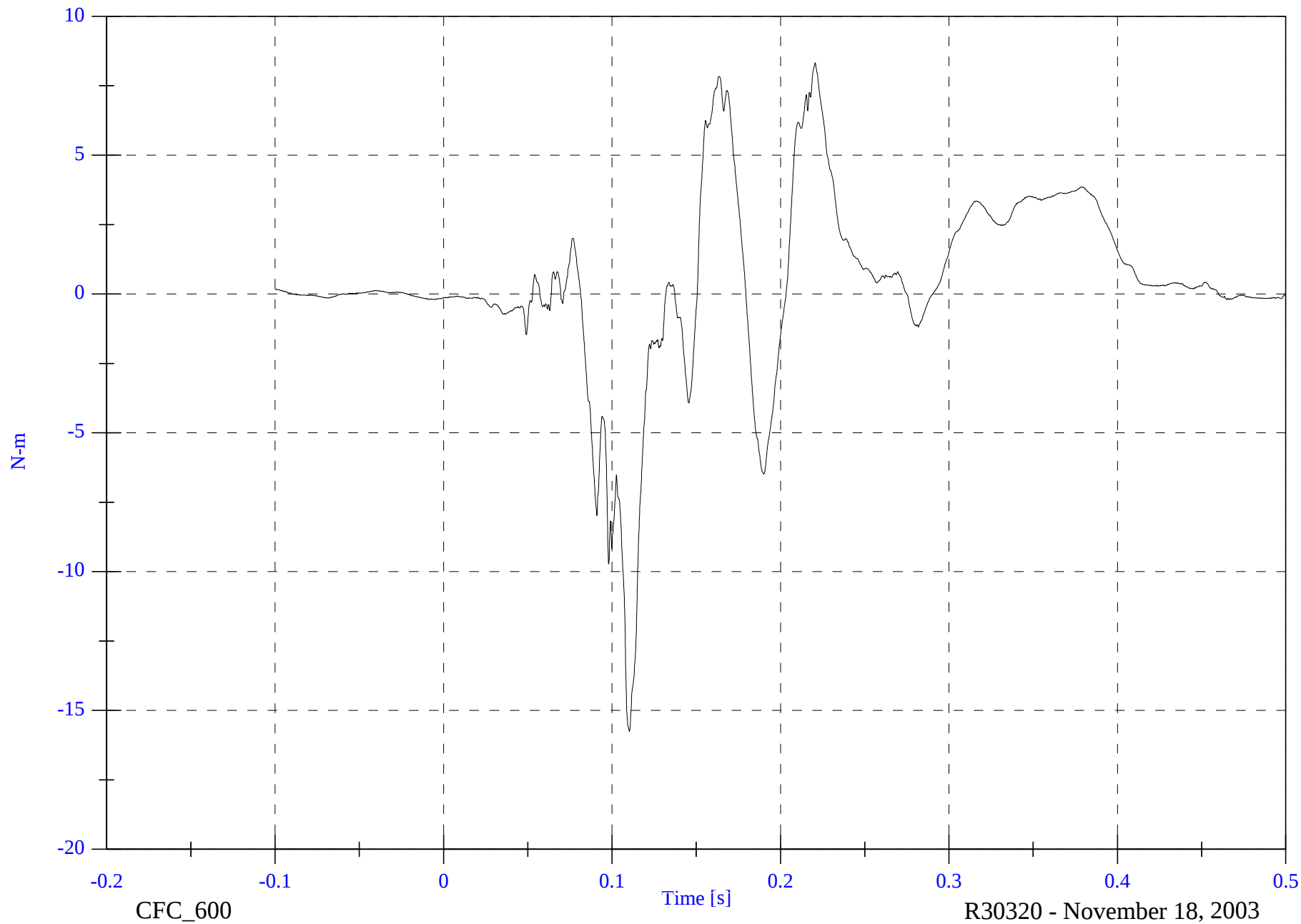


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia Mx

Max: 8.3 [N-m] at 0.221 [s]

Min: -15.8 [N-m] at 0.110 [s]



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8710-OFST-06

CFC_600

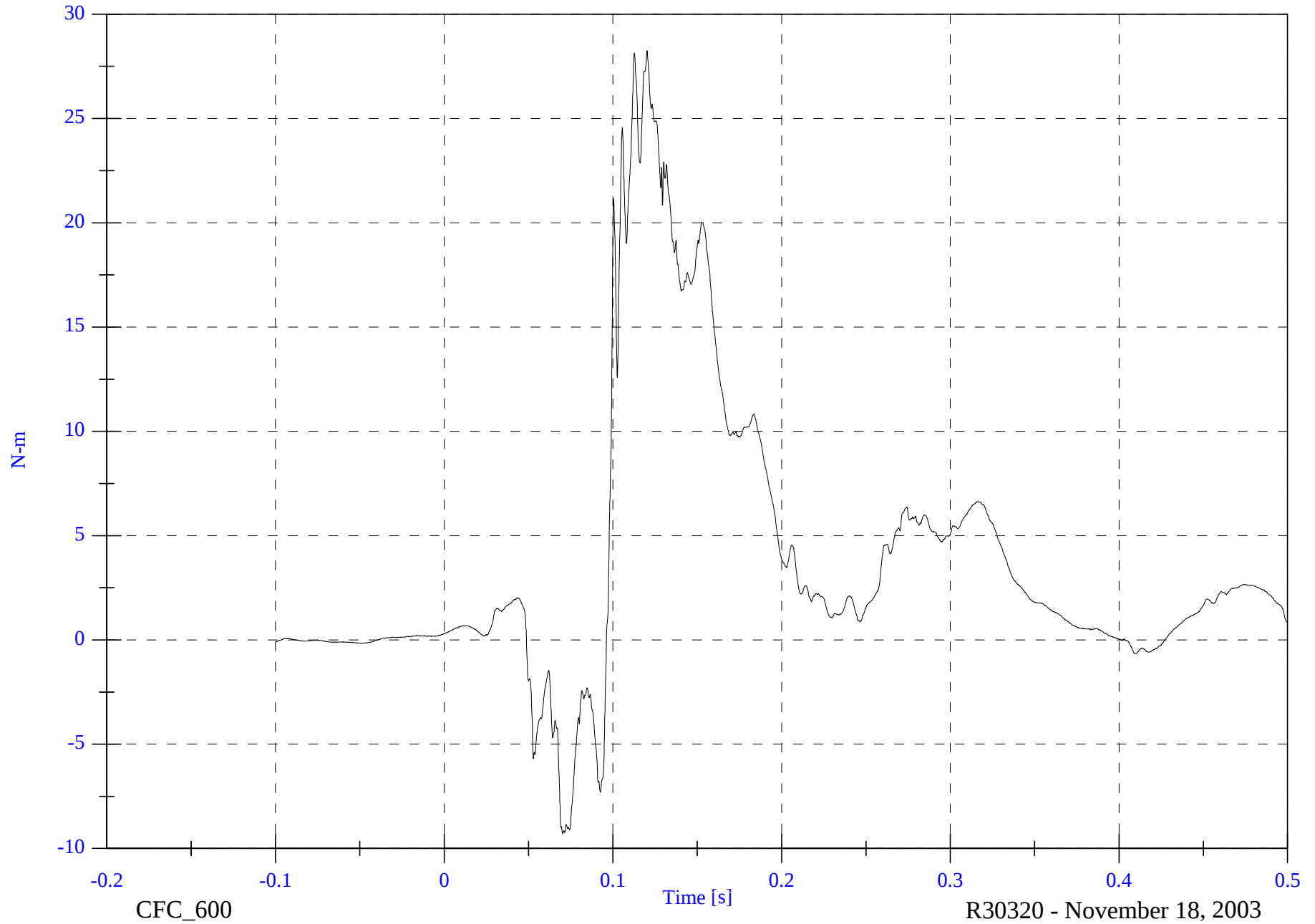
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Lower Tibia My

Max: 28.3 [N-m] at 0.120 [s]

Min: -9.3 [N-m] at 0.070 [s]



B-60

8710-OFST-06

CFC_600

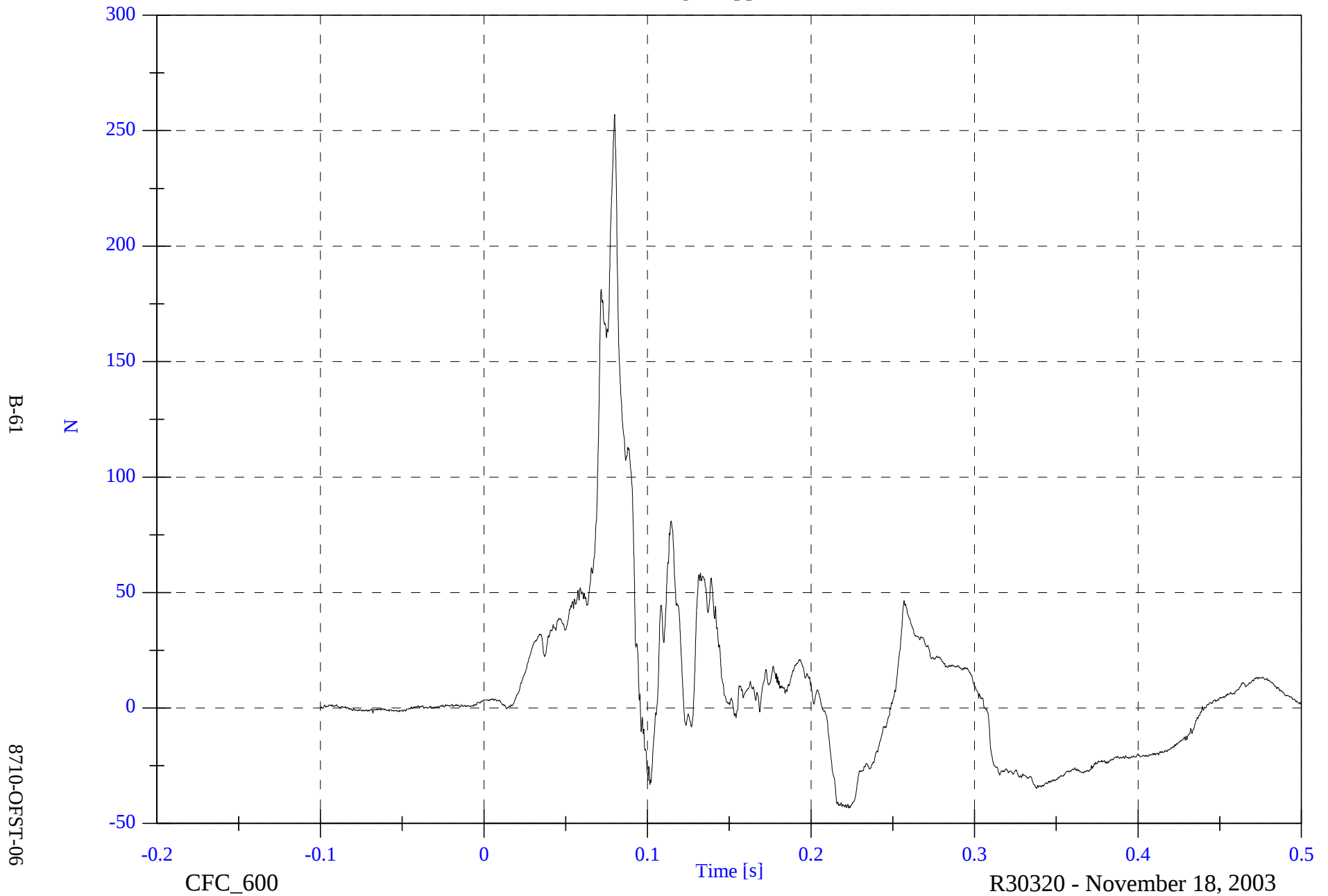
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Upper Tibia Fx

Max: 257.1 [N] at 0.080 [s]

Min: -43.3 [N] at 0.223 [s]

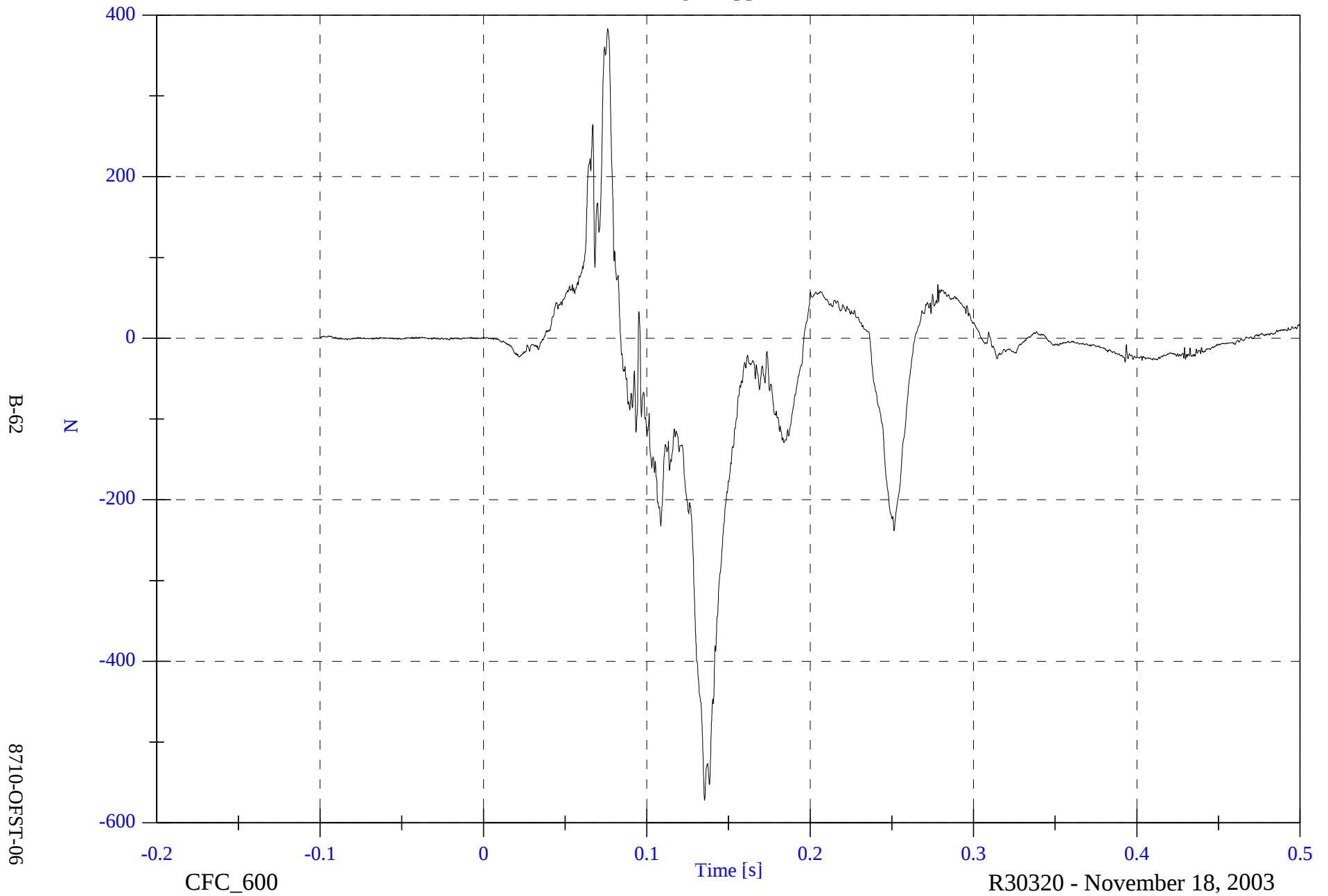


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Upper Tibia Fz

Max: 383.7 [N] at 0.076 [s]

Min: -572.1 [N] at 0.135 [s]

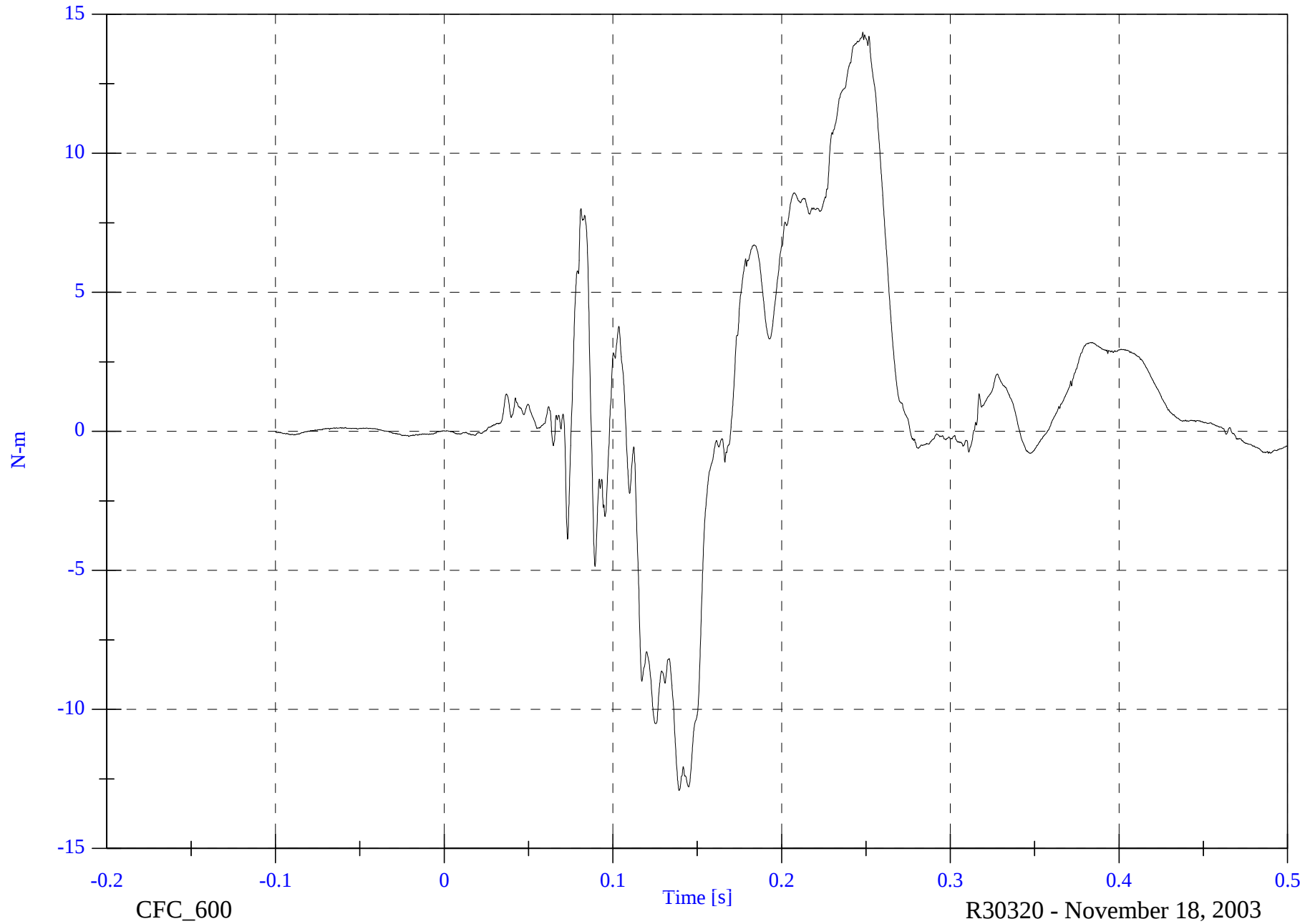


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Upper Tibia Mx

Max: 14.4 [N-m] at 0.248 [s]

Min: -12.9 [N-m] at 0.139 [s]

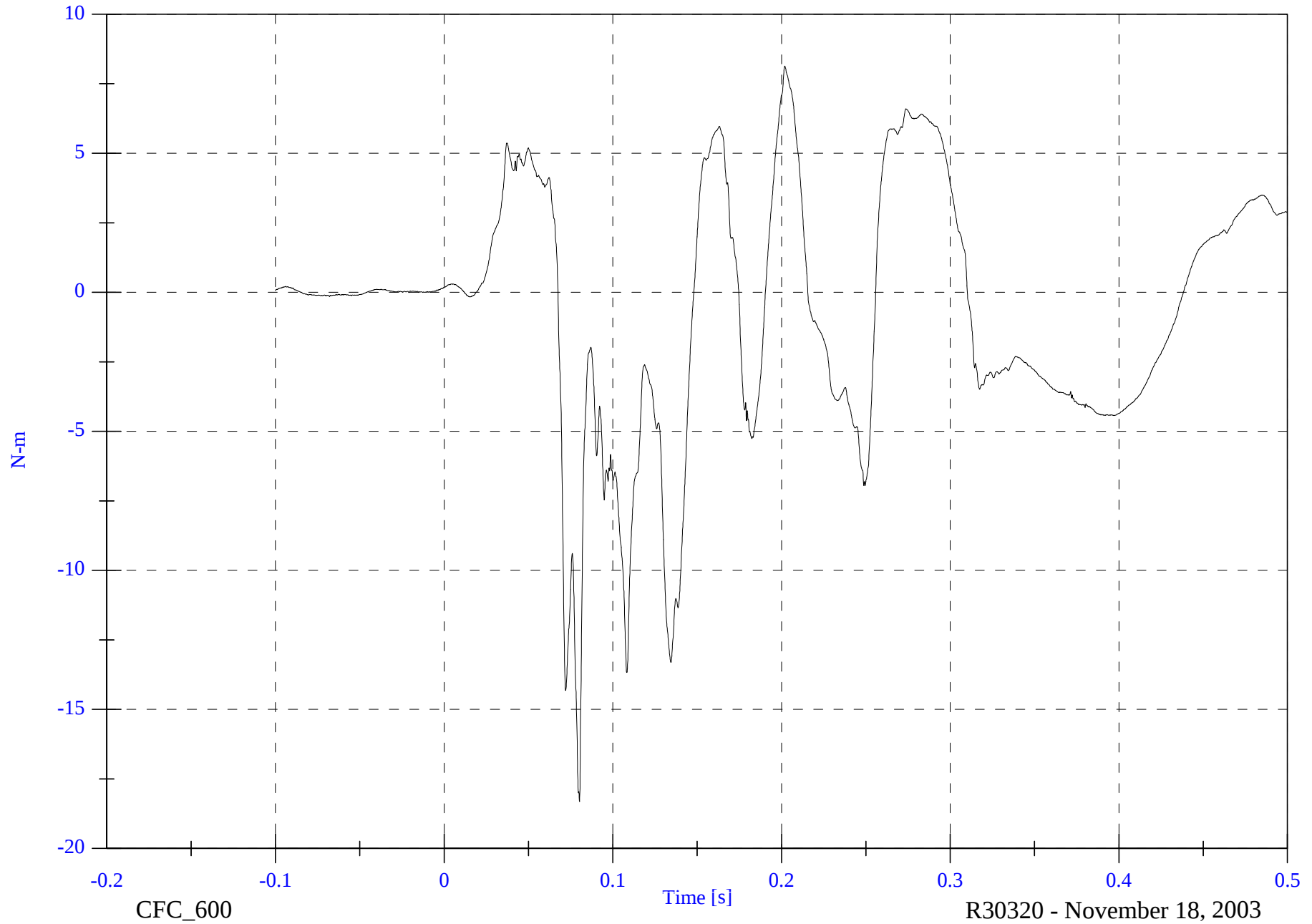


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Upper Tibia My

Max: 8.1 [N-m] at 0.202 [s]

Min: -18.3 [N-m] at 0.080 [s]



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8710-OFST-06

CFC_600

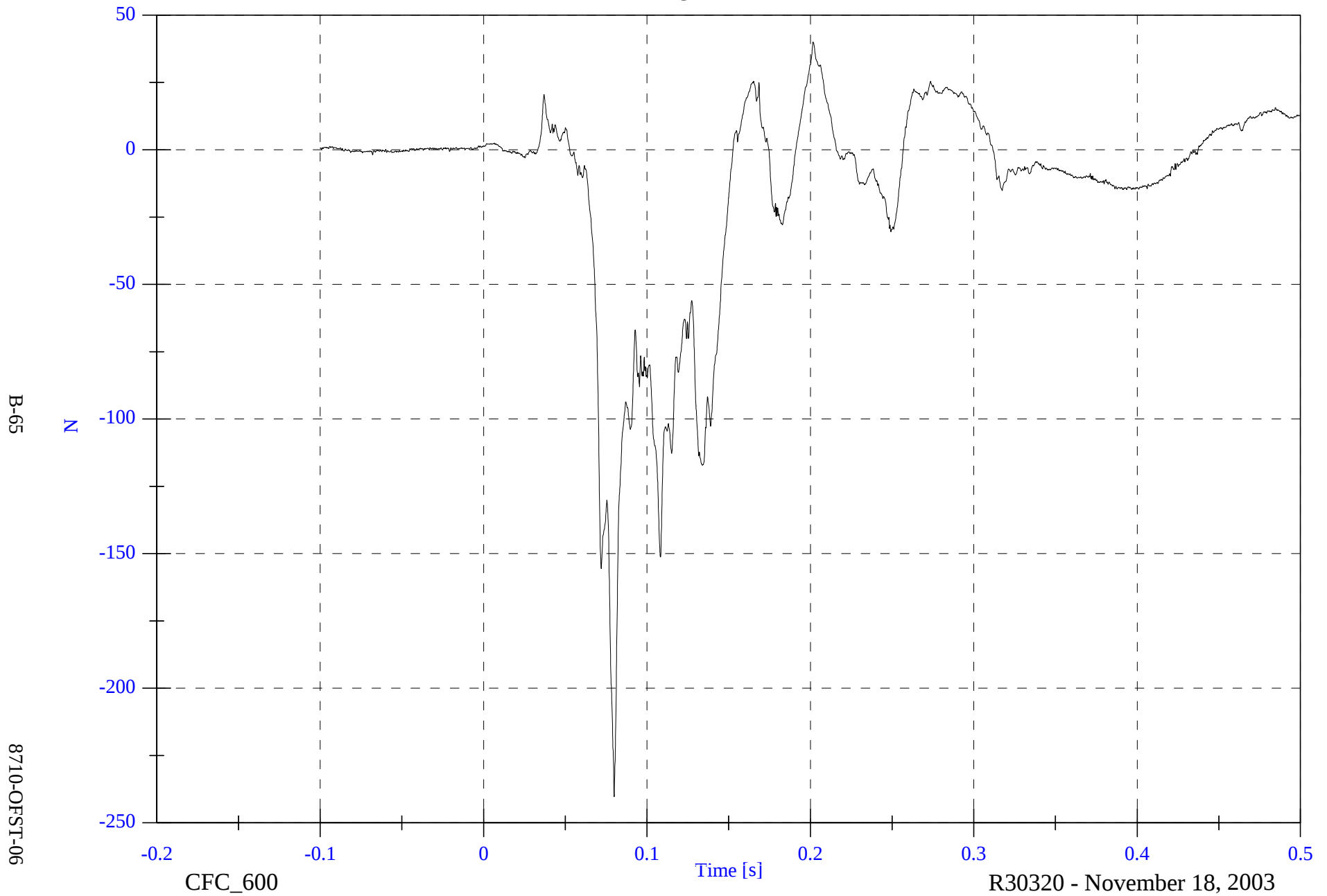
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Lower Tibia Fx

Max: 40.0 [N] at 0.202 [s]

Min: -240.3 [N] at 0.080 [s]

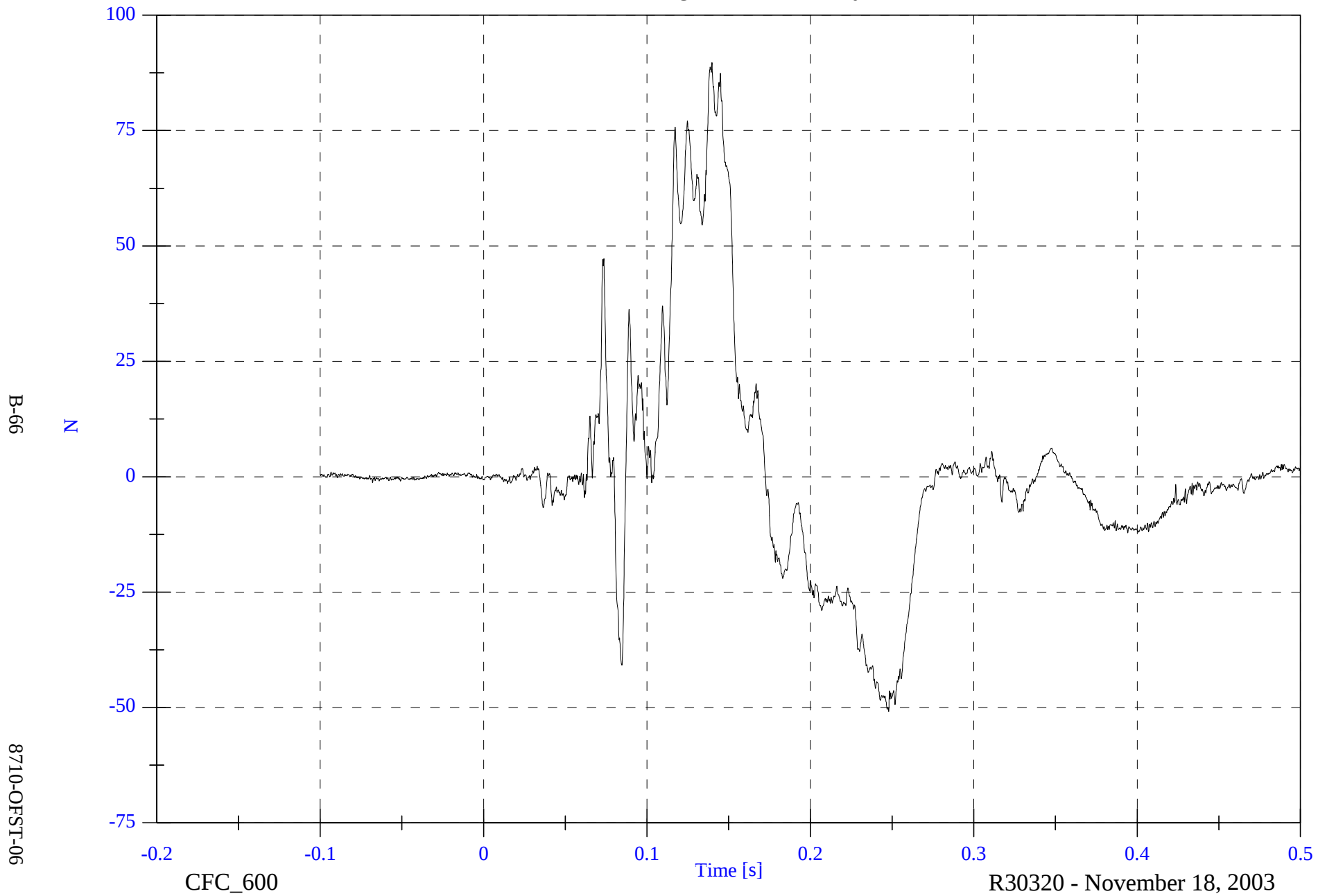


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Lower Tibia Fy

Max: 89.7 [N] at 0.140 [s]

Min: -50.9 [N] at 0.248 [s]

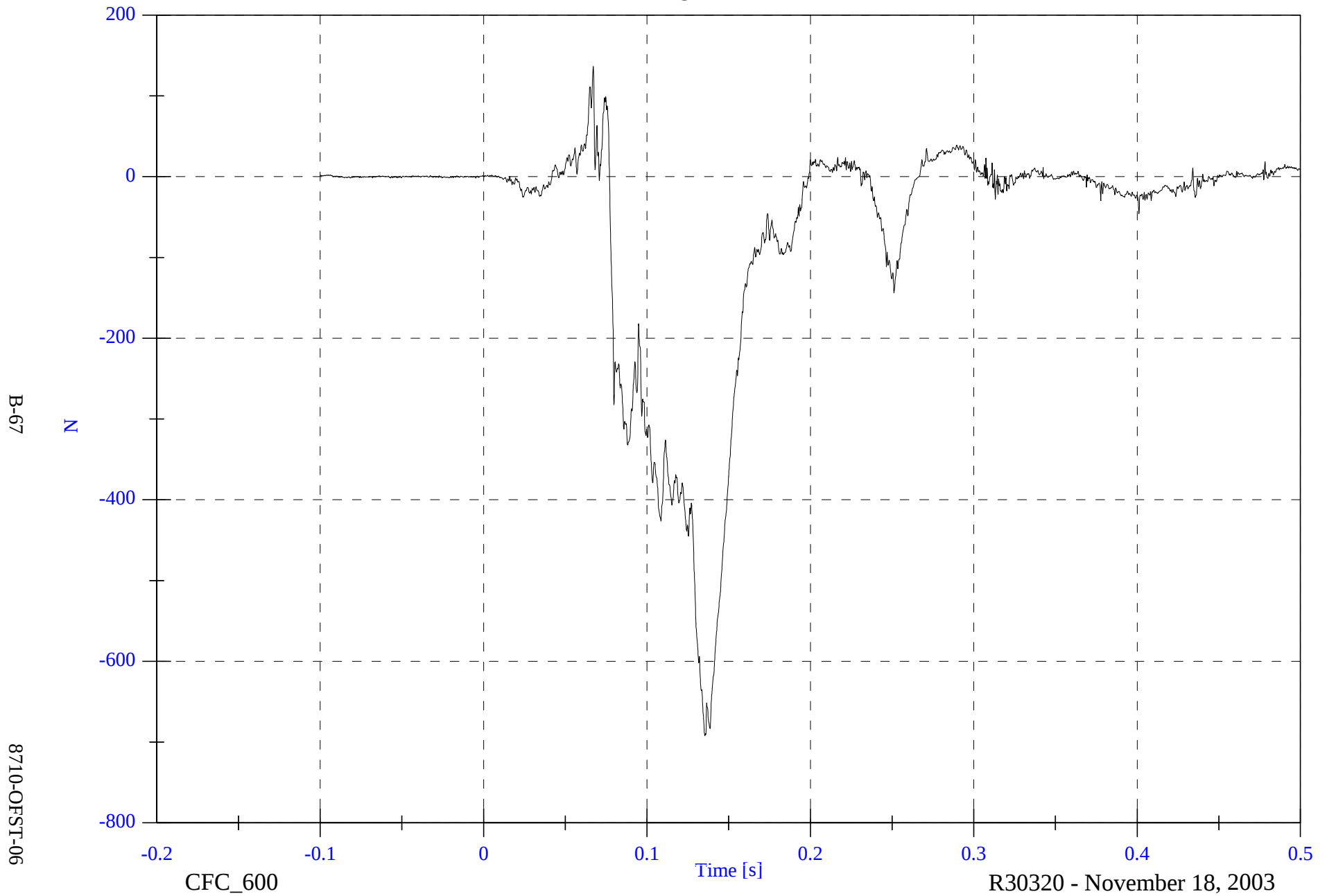


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Lower Tibia Fz

Max: 136.6 [N] at 0.067 [s]

Min: -692.3 [N] at 0.135 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

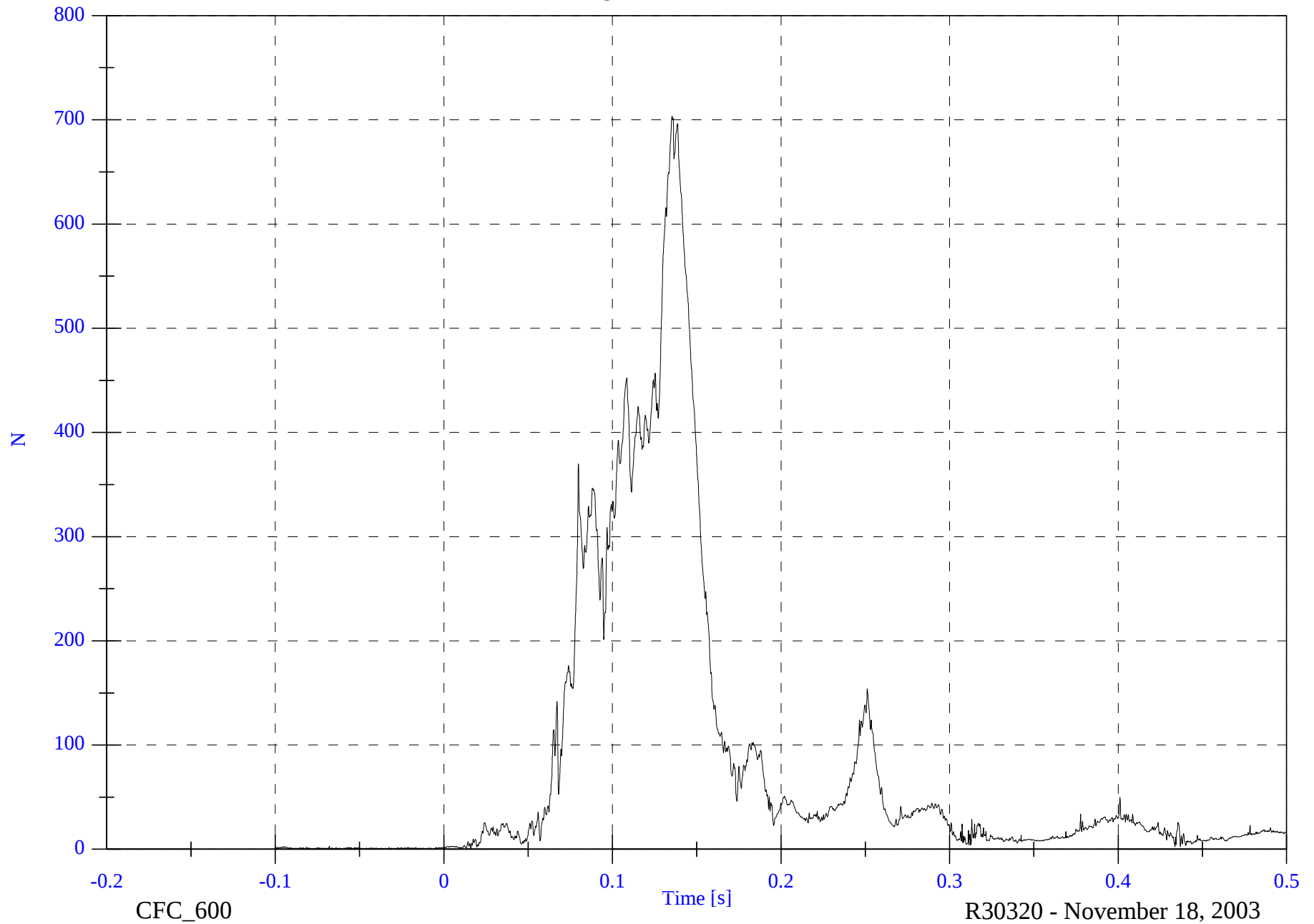
V1P1 Right Lower Tibia F Resultant

Max: 703.6 [N] at 0.135 [s]

Min: 0.2 [N] at -0.030 [s]

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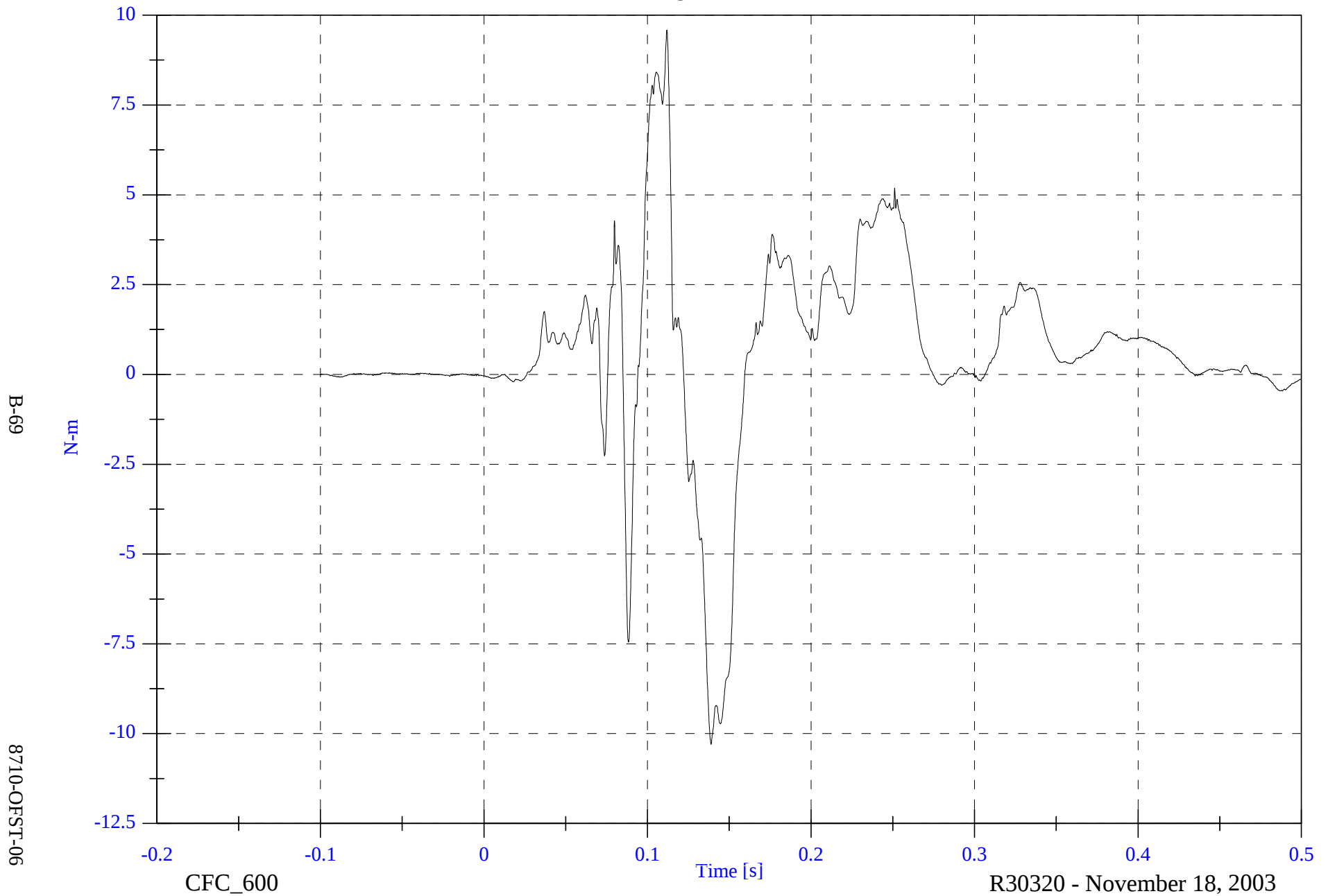


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Lower Tibia Mx

Max: 9.6 [N-m] at 0.112 [s]

Min: -10.3 [N-m] at 0.139 [s]

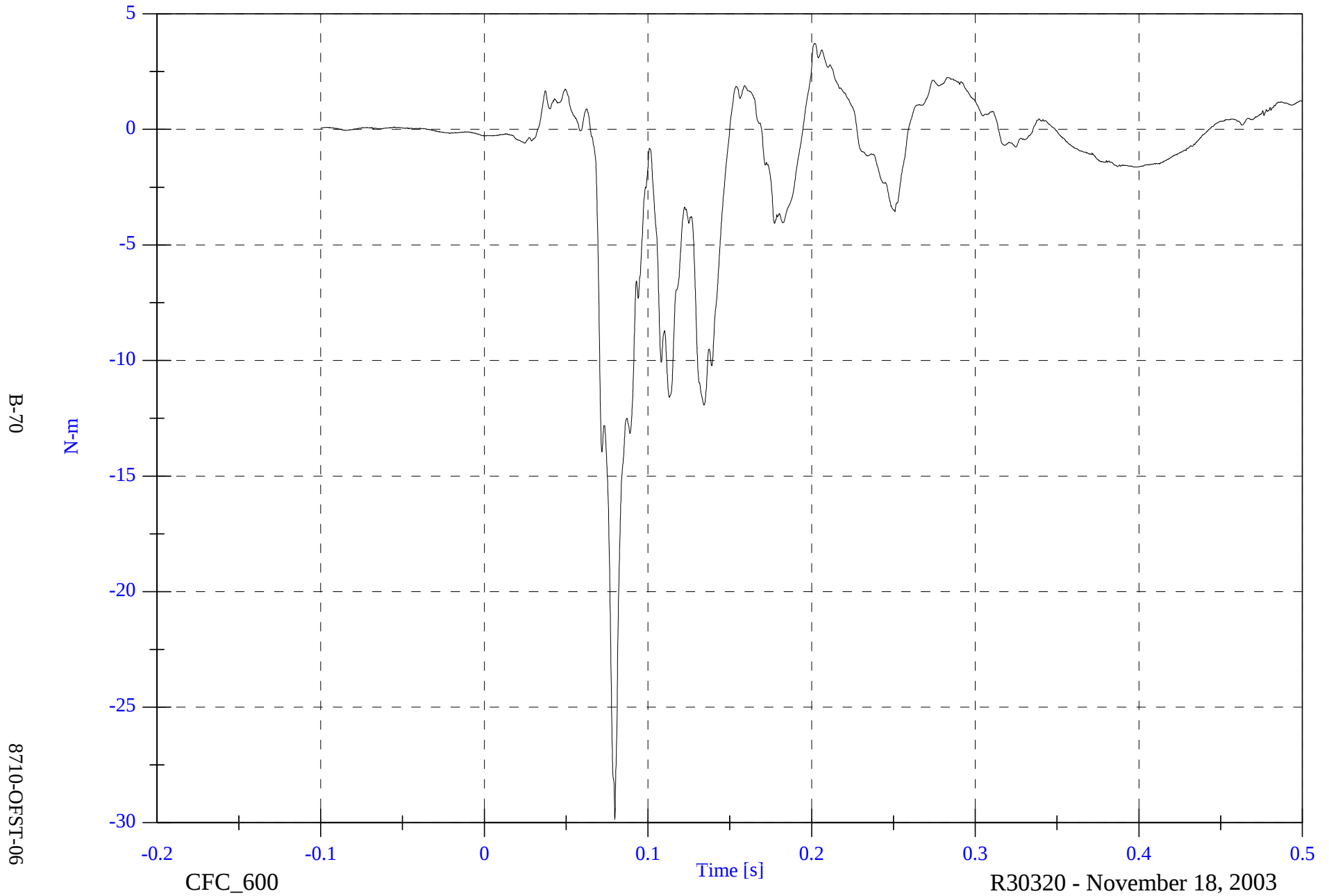


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Lower Tibia My

Max: 3.7 [N-m] at 0.202 [s]

Min: -29.9 [N-m] at 0.080 [s]

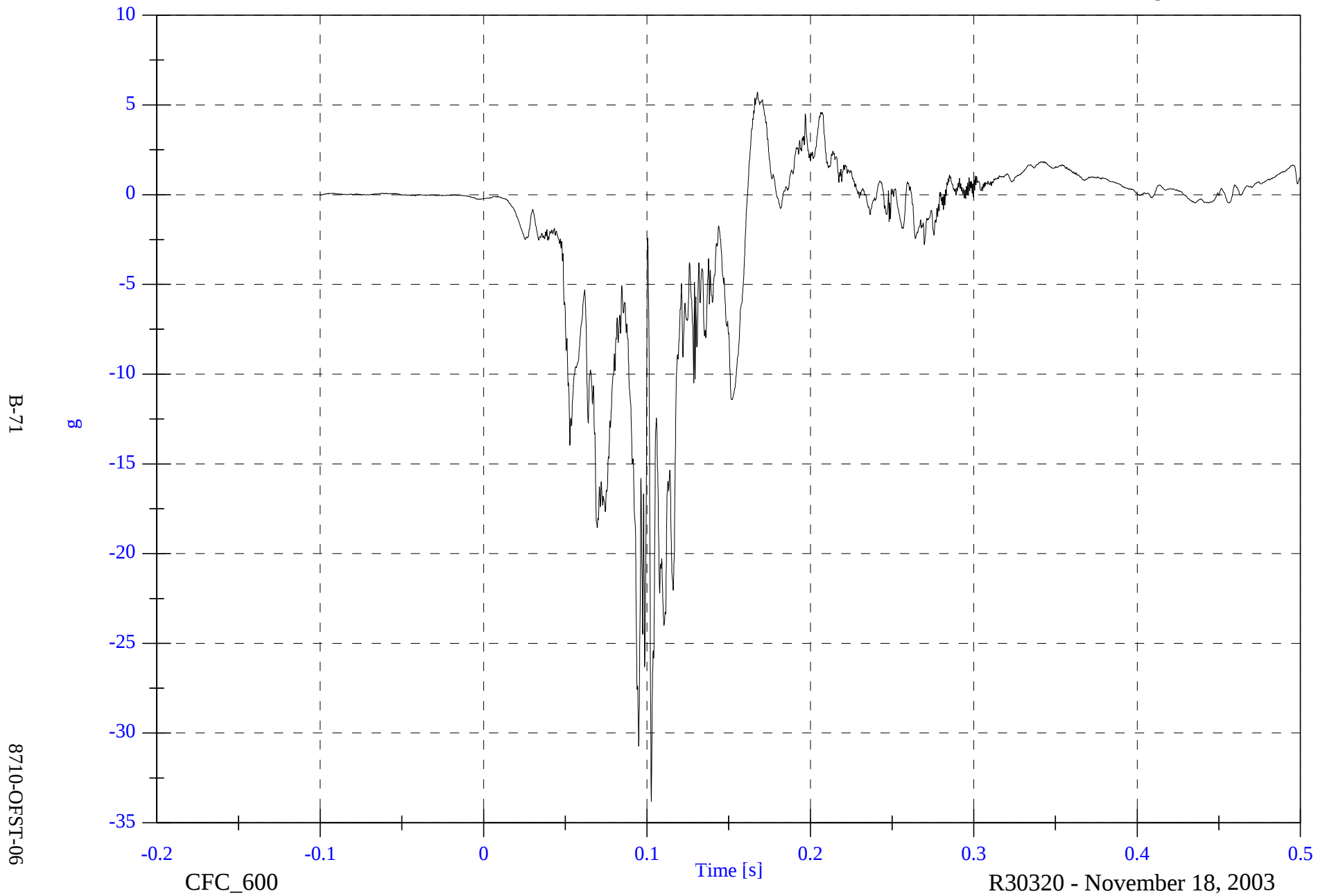


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Tibia x

Max: 5.7 [g] at 0.168 [s]

Min: -33.8 [g] at 0.103 [s]

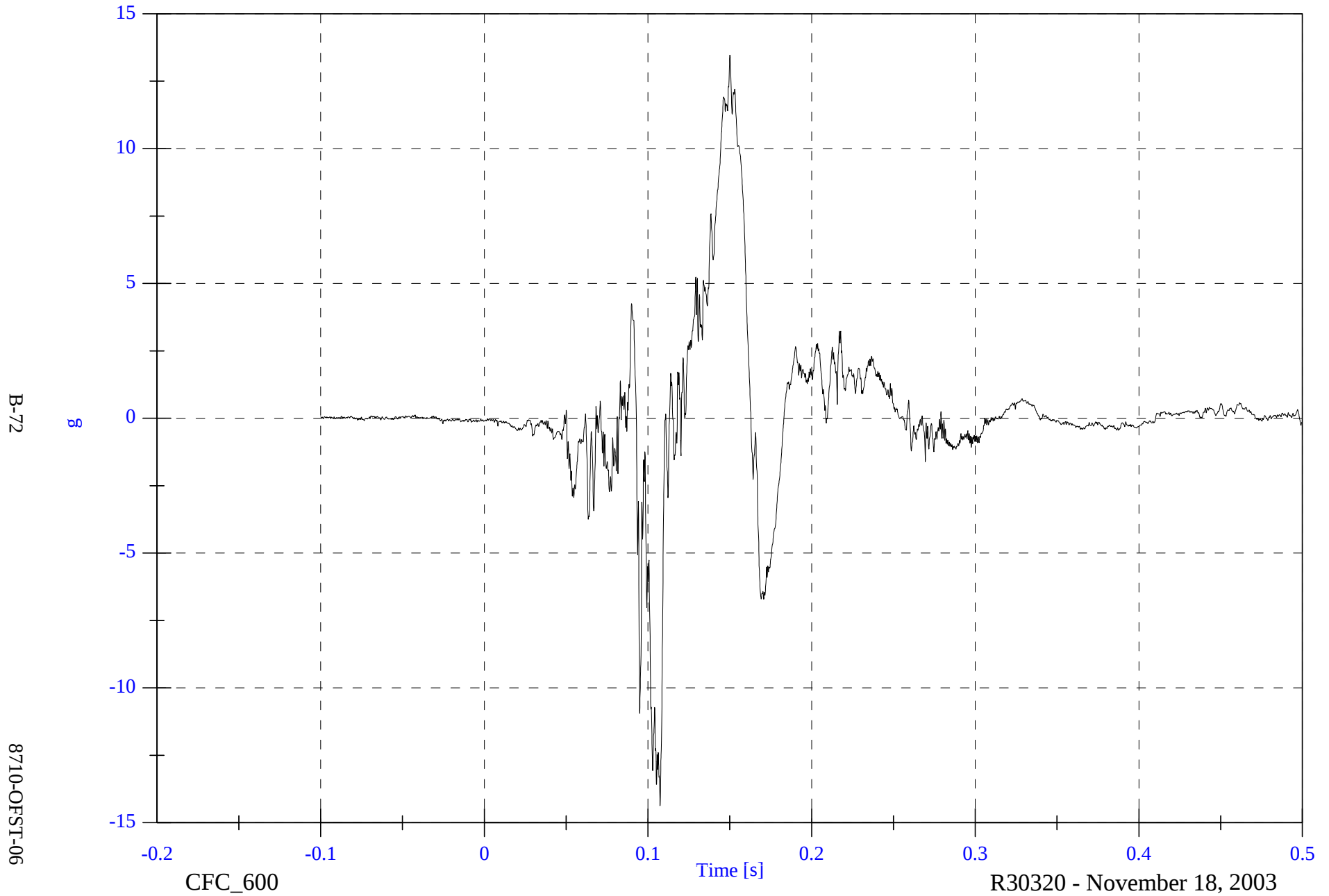


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 13.5 [g] at 0.150 [s]

V1P1 Left Tibia y

Min: -14.4 [g] at 0.107 [s]

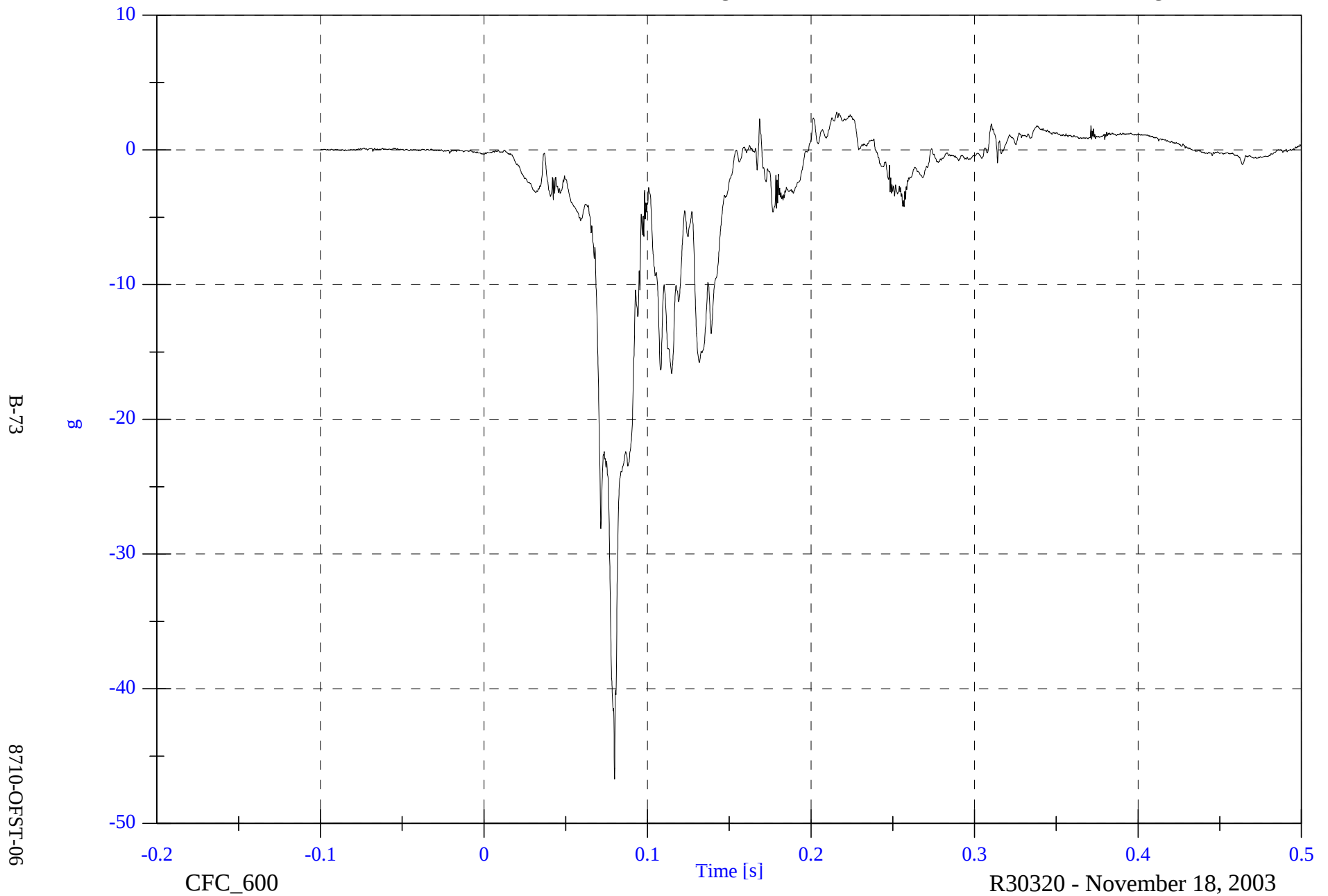


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Tibia x

Max: 2.8 [g] at 0.216 [s]

Min: -46.7 [g] at 0.080 [s]

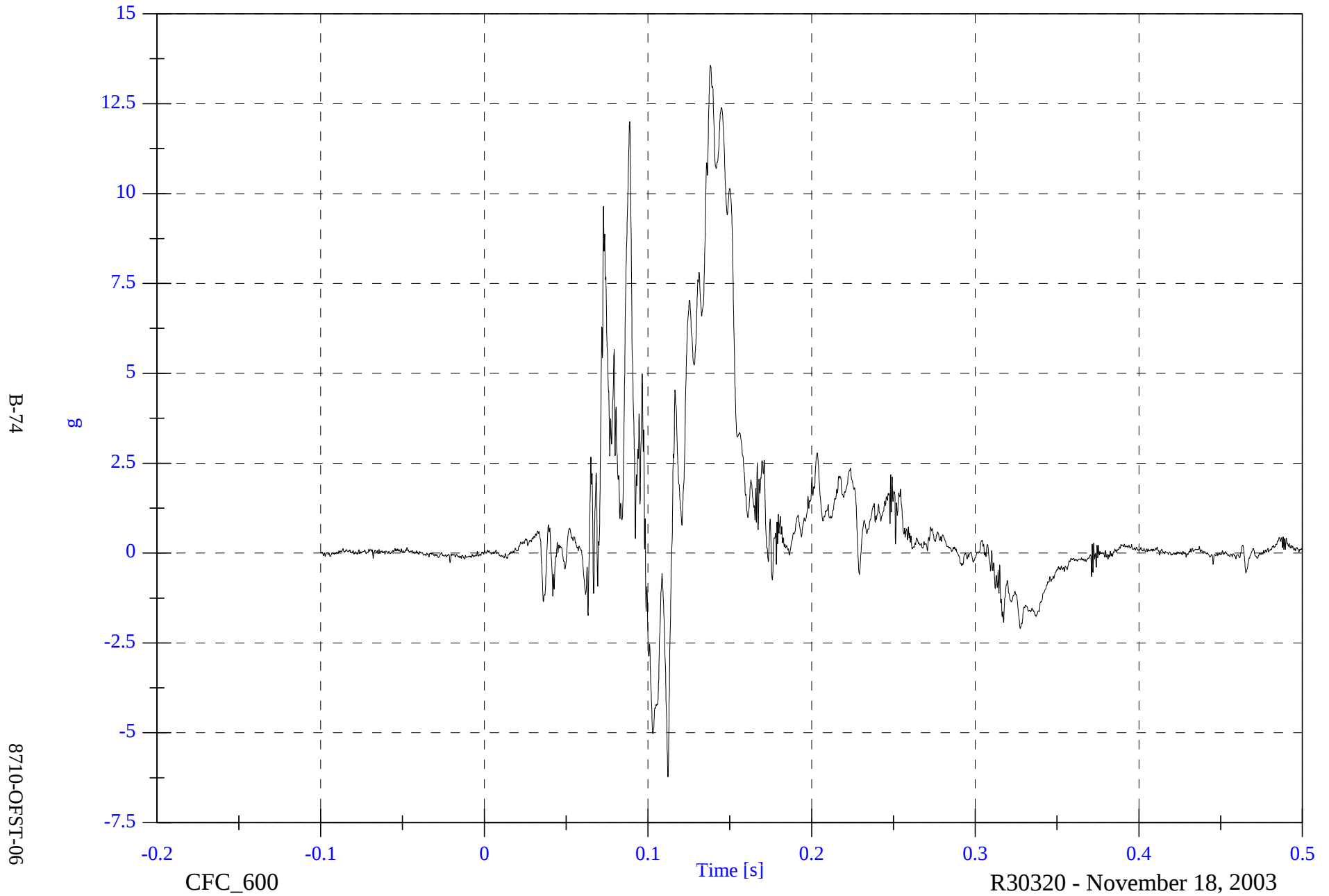


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 13.6 [g] at 0.138 [s]

Min: -6.2 [g] at 0.112 [s]

V1P1 Right Tibia y

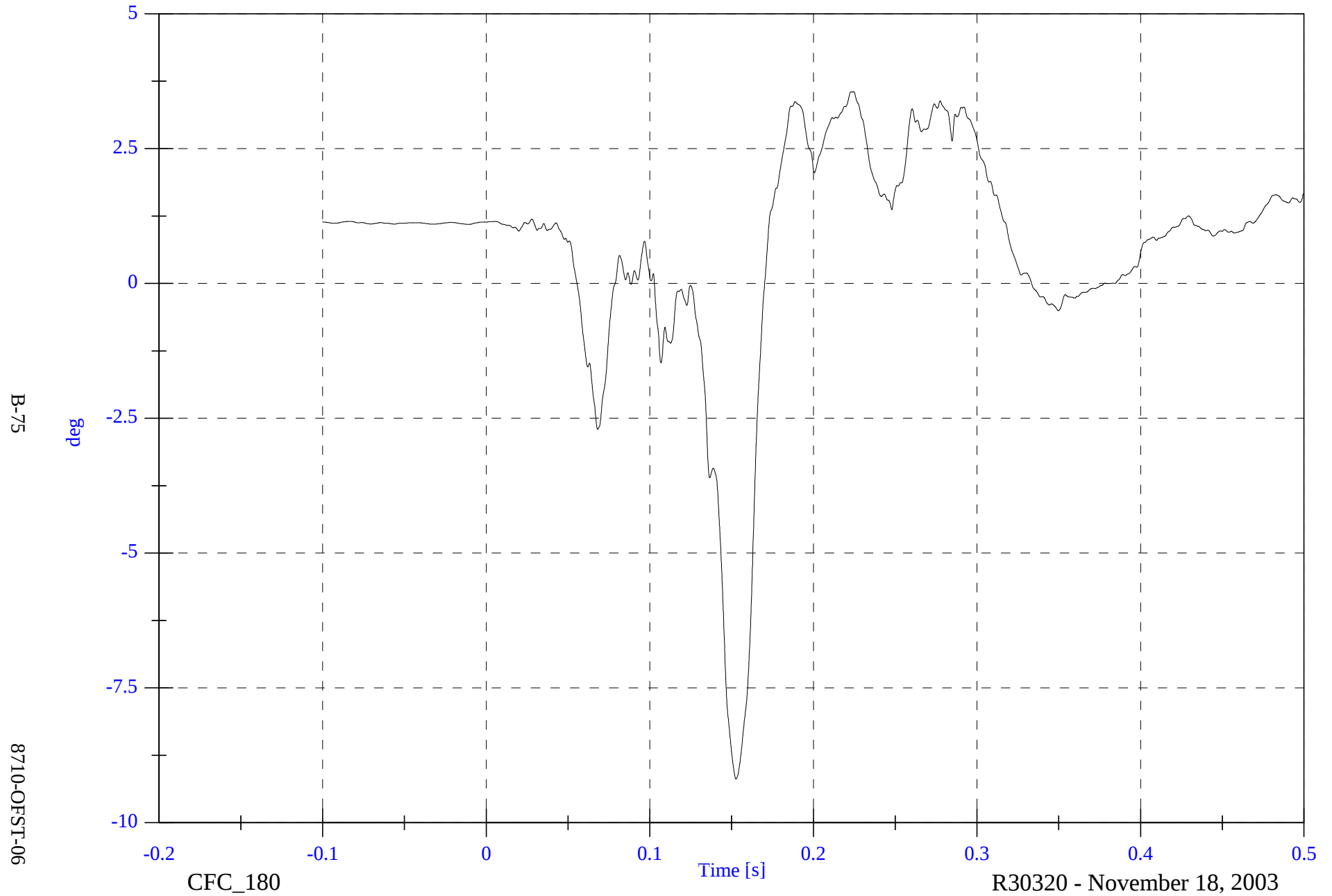


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Ankle Rotation x

Max: 3.6 [deg] at 0.224 [s]

Min: -9.2 [deg] at 0.153 [s]

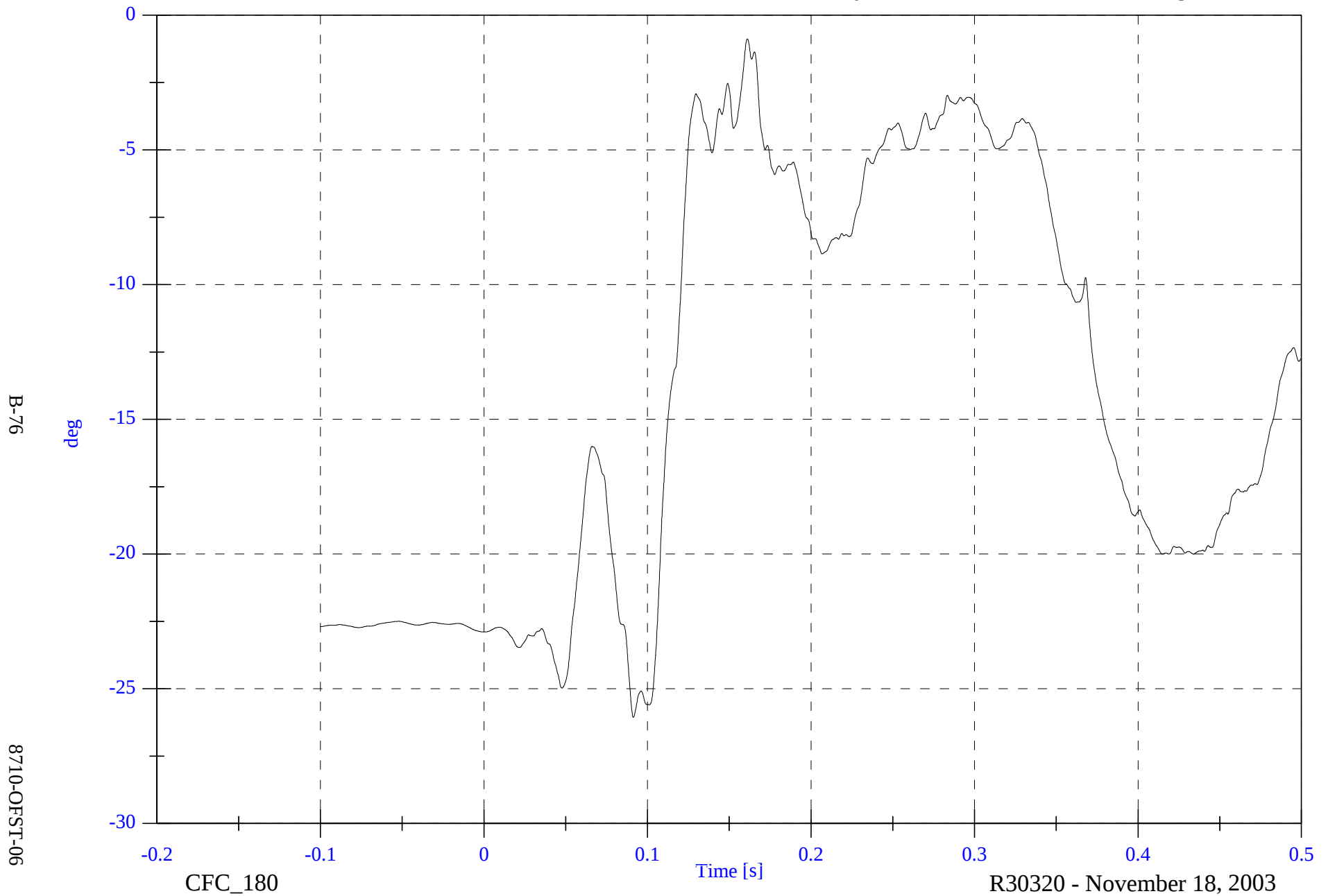


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Ankle Rotation y

Max: -0.9 [deg] at 0.161 [s]

Min: -26.1 [deg] at 0.091 [s]

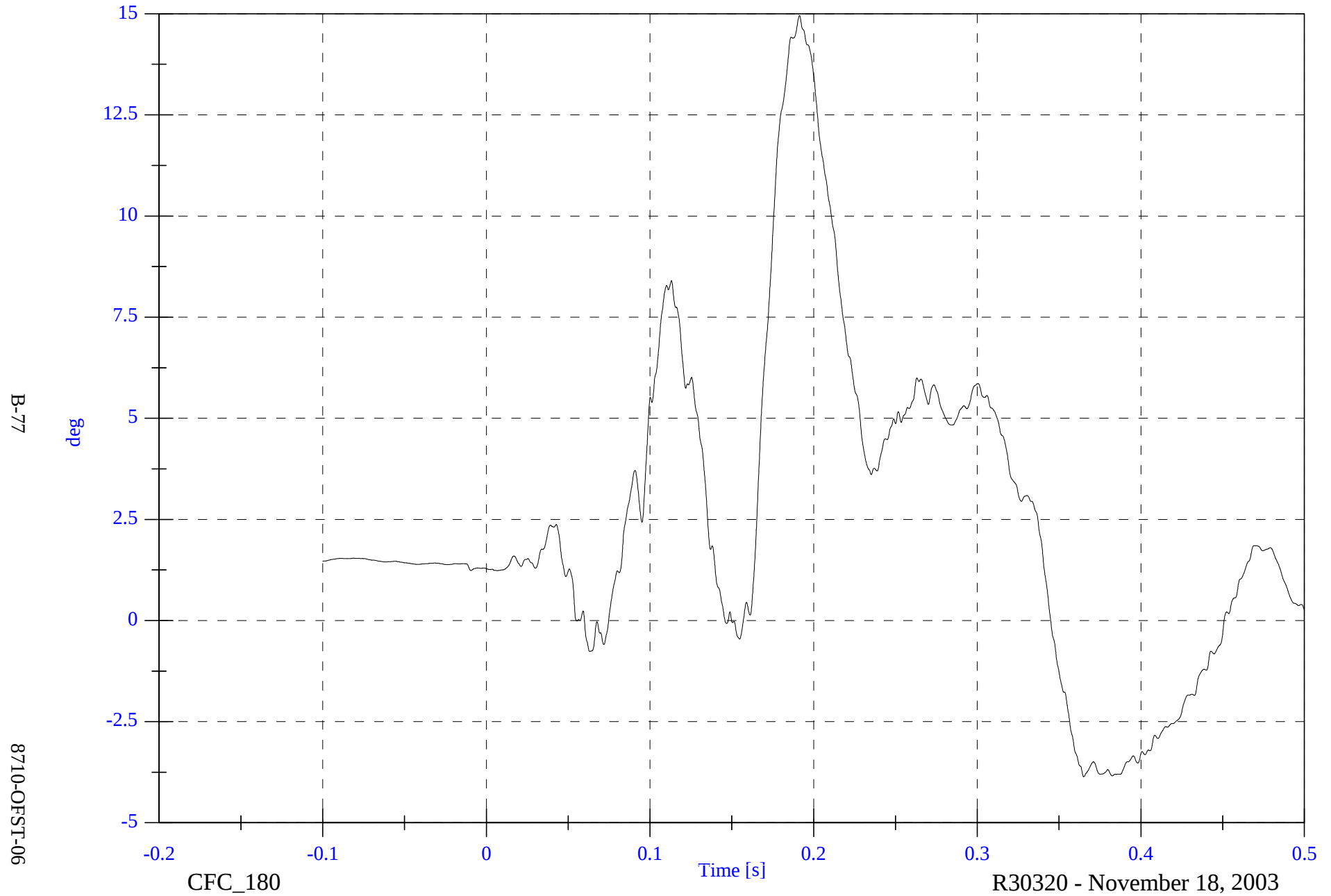


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Ankle Rotation z

Max: 15.0 [deg] at 0.191 [s]

Min: -3.9 [deg] at 0.365 [s]

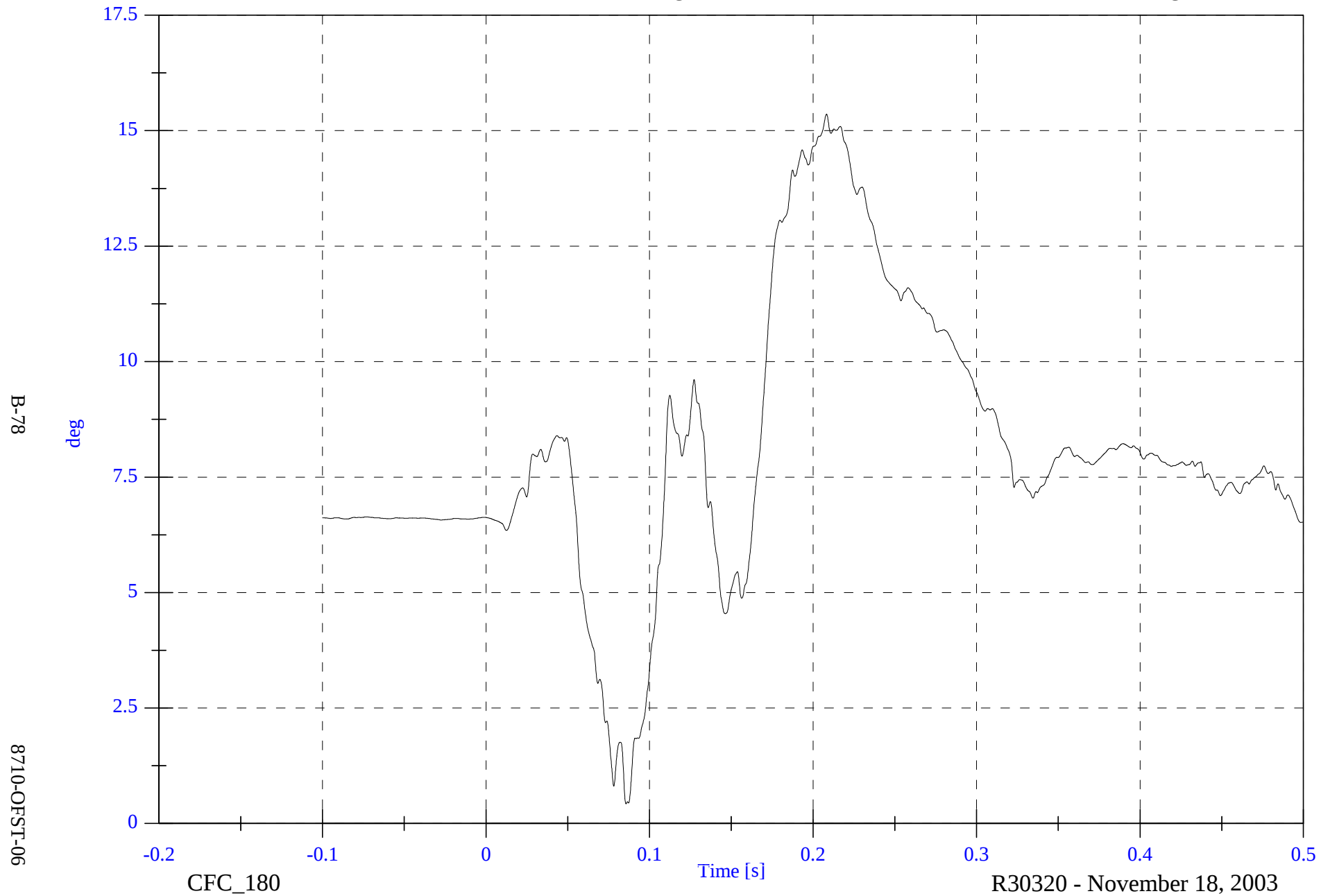


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Ankle Rotation x

Max: 15.4 [deg] at 0.208 [s]

Min: 0.4 [deg] at 0.086 [s]

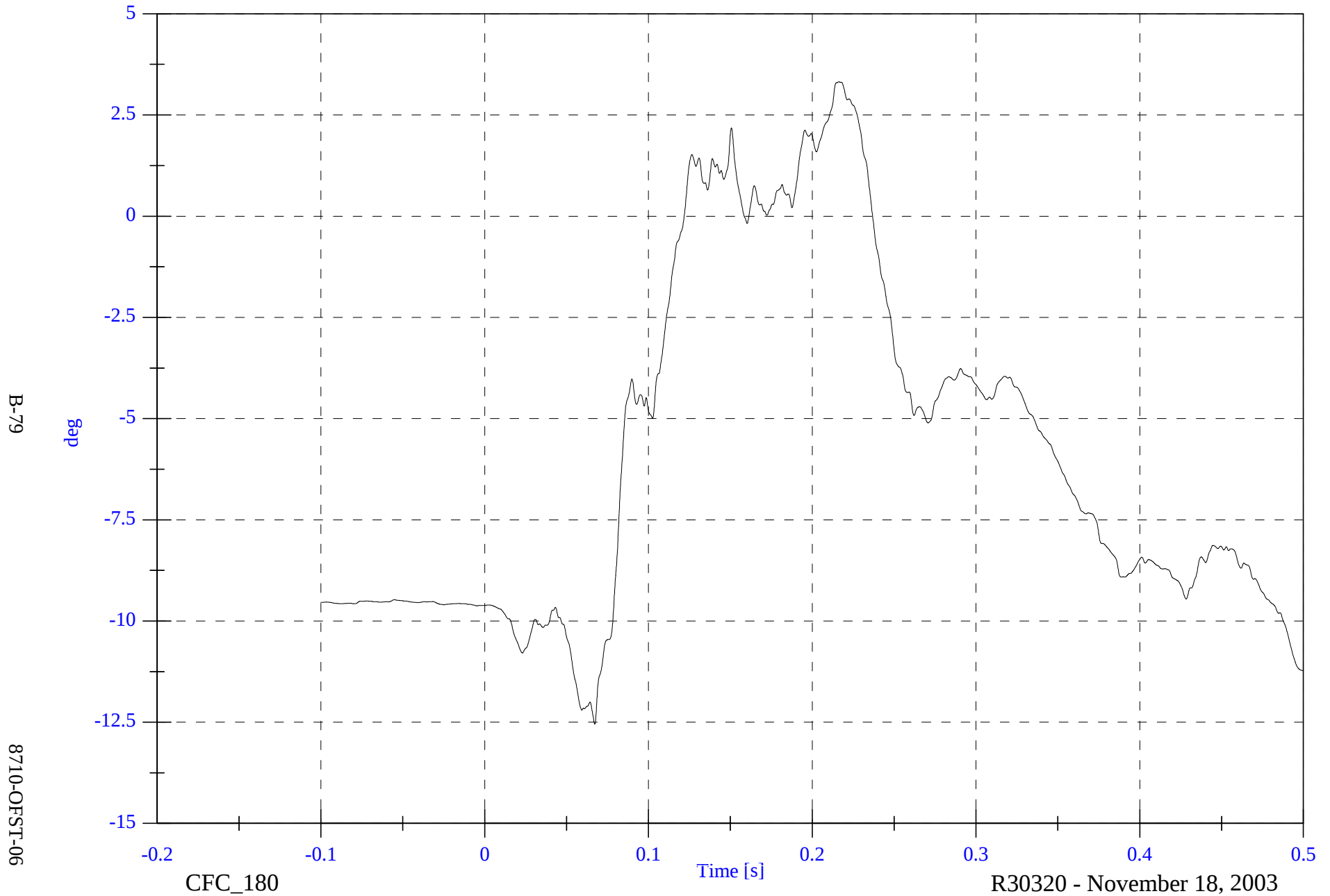


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Ankle Rotation y

Max: 3.3 [deg] at 0.216 [s]

Min: -12.5 [deg] at 0.067 [s]

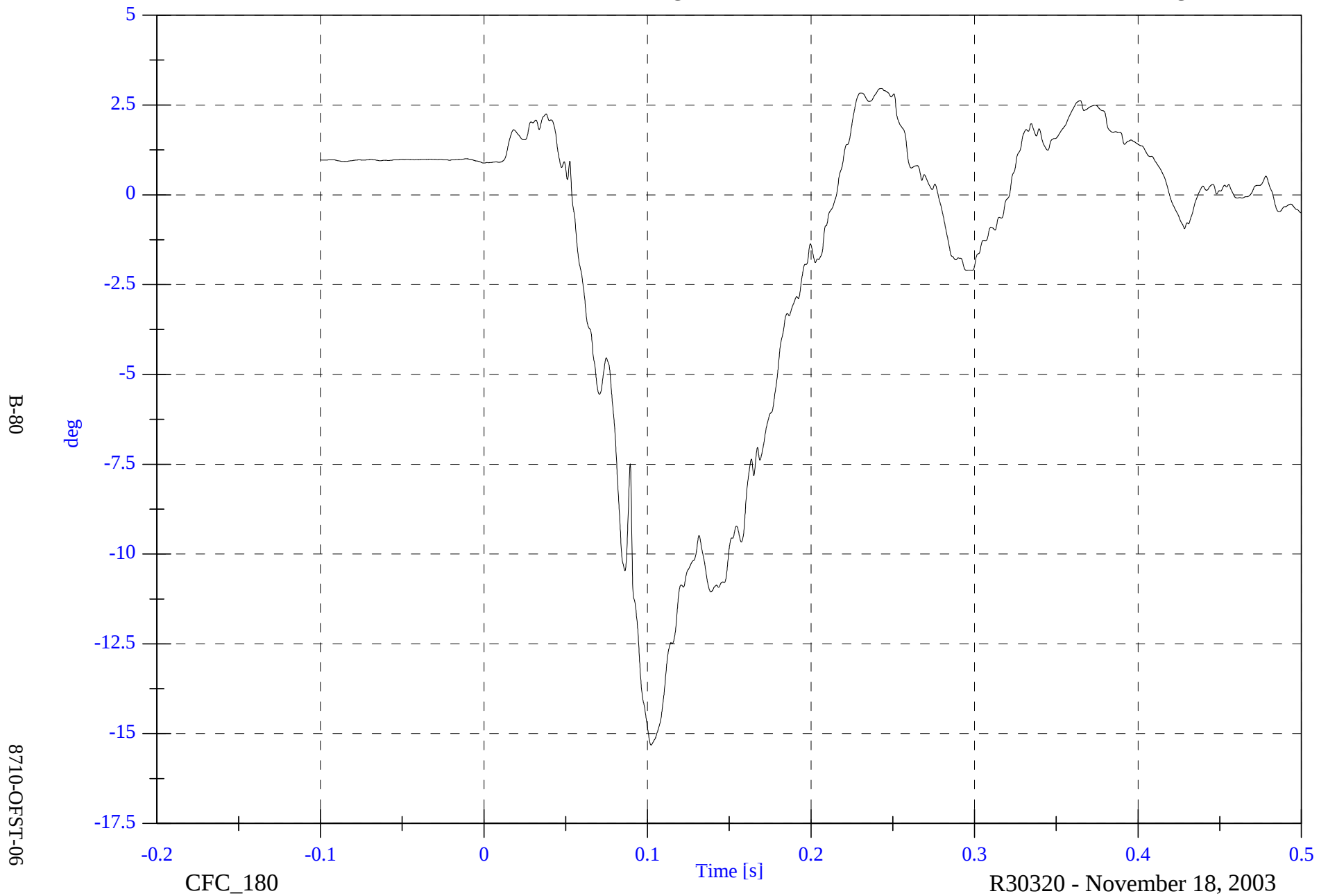


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Ankle Rotation z

Max: 3.0 [deg] at 0.243 [s]

Min: -15.3 [deg] at 0.102 [s]

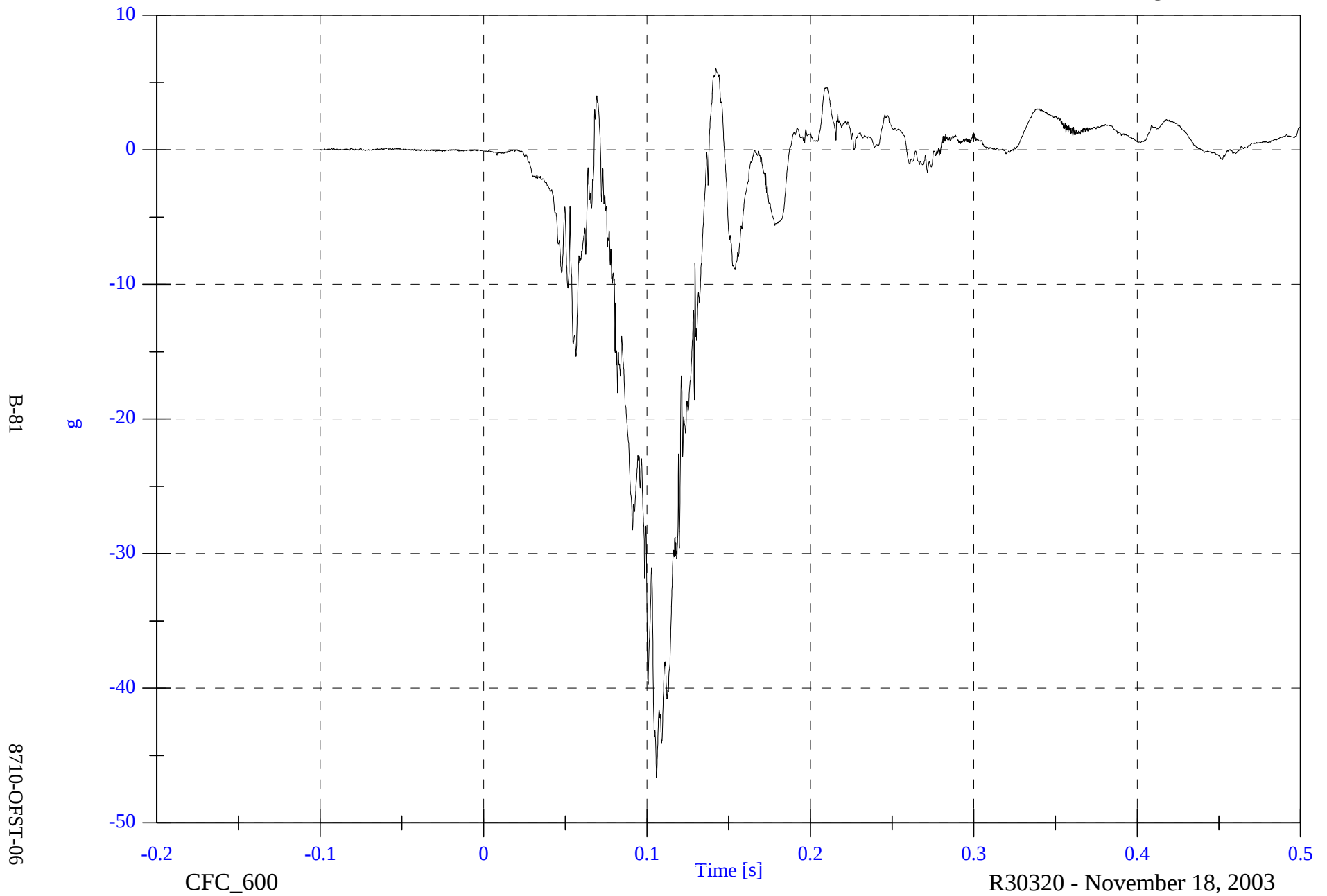


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 6.1 [g] at 0.142 [s]

Min: -46.6 [g] at 0.106 [s]

V1P1 Left Foot x



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

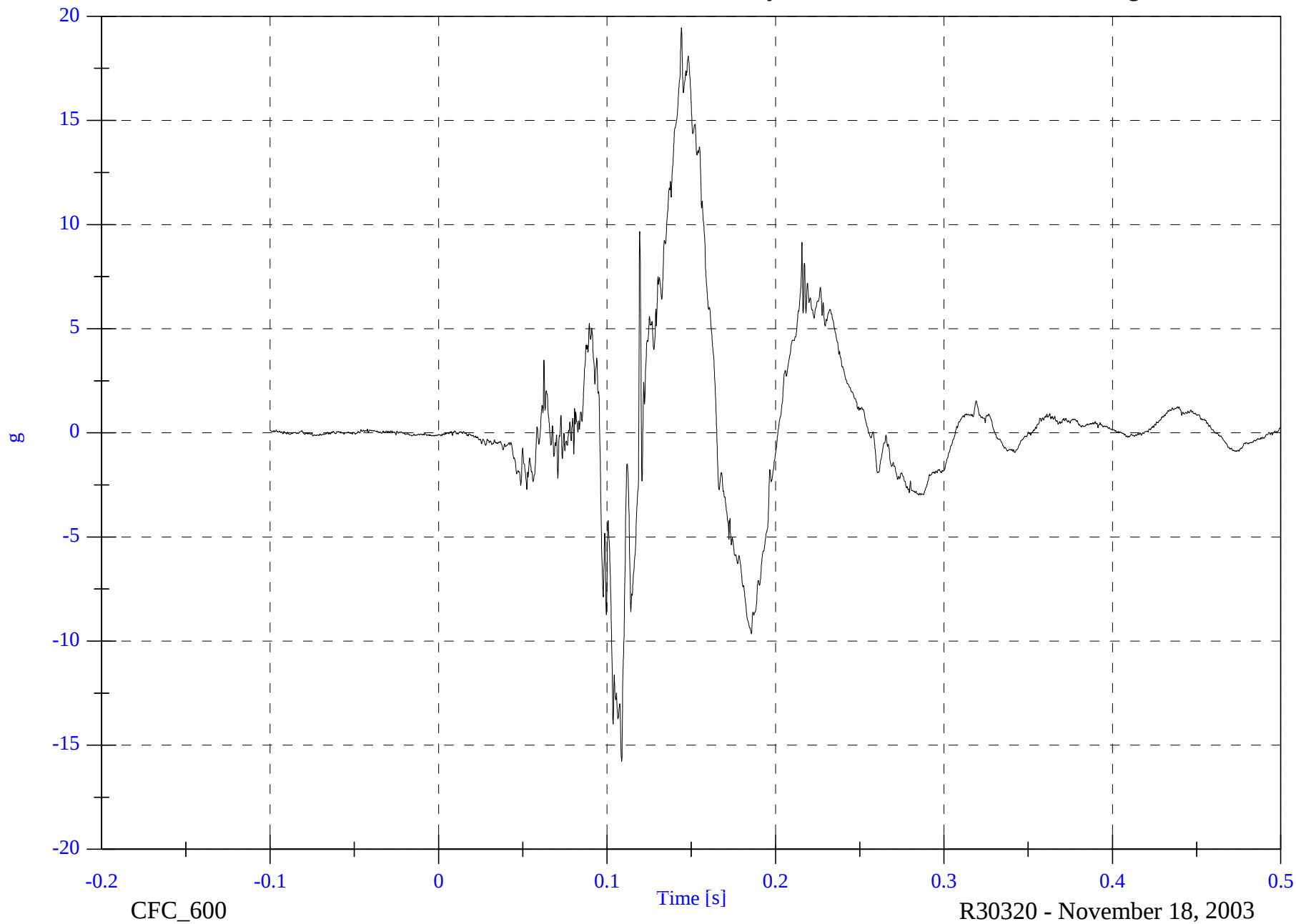
V1P1 Left Foot y

Max: 19.4 [g] at 0.144 [s]

Min: -15.8 [g] at 0.109 [s]

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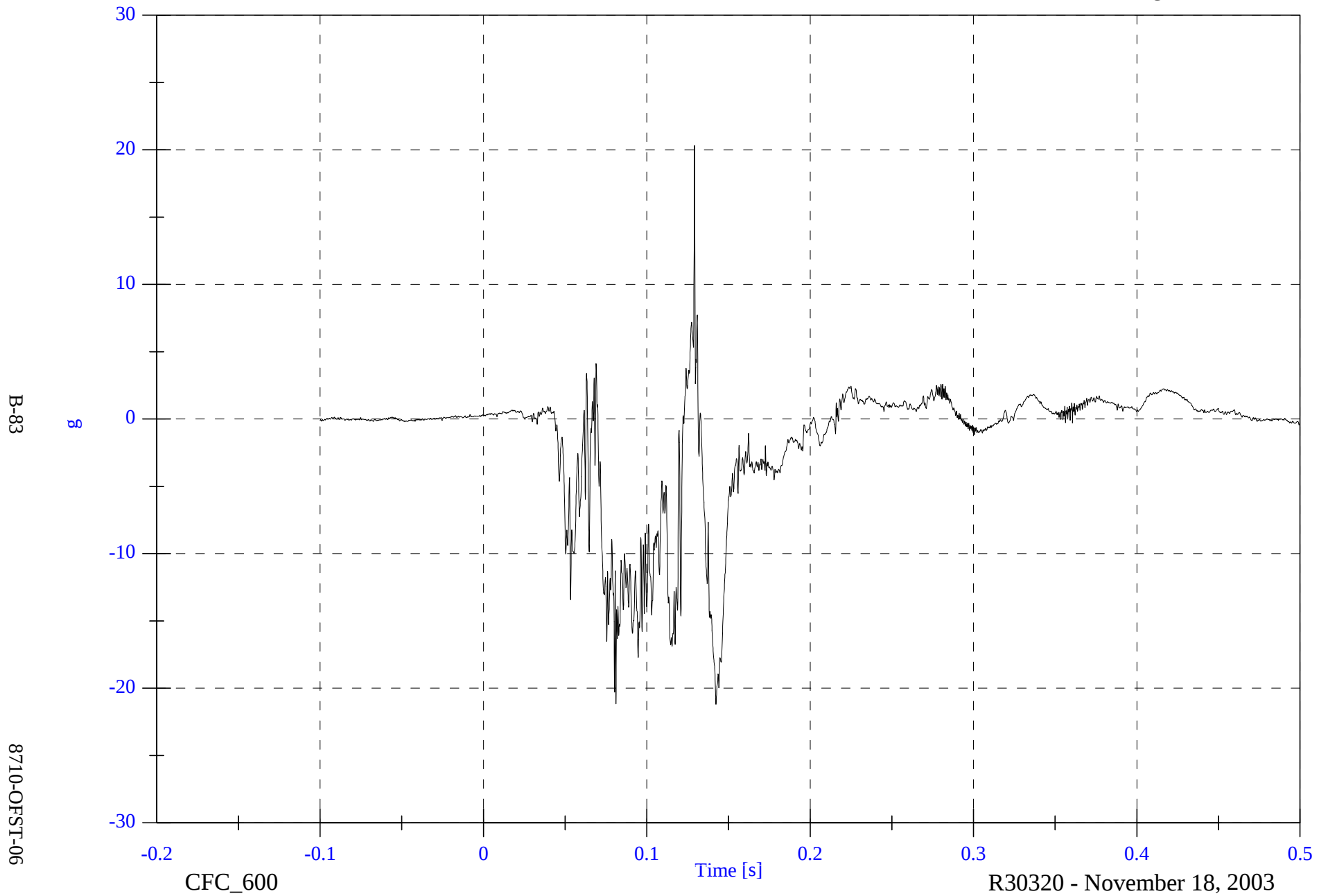


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Foot z

Max: 20.3 [g] at 0.129 [s]

Min: -21.2 [g] at 0.142 [s]

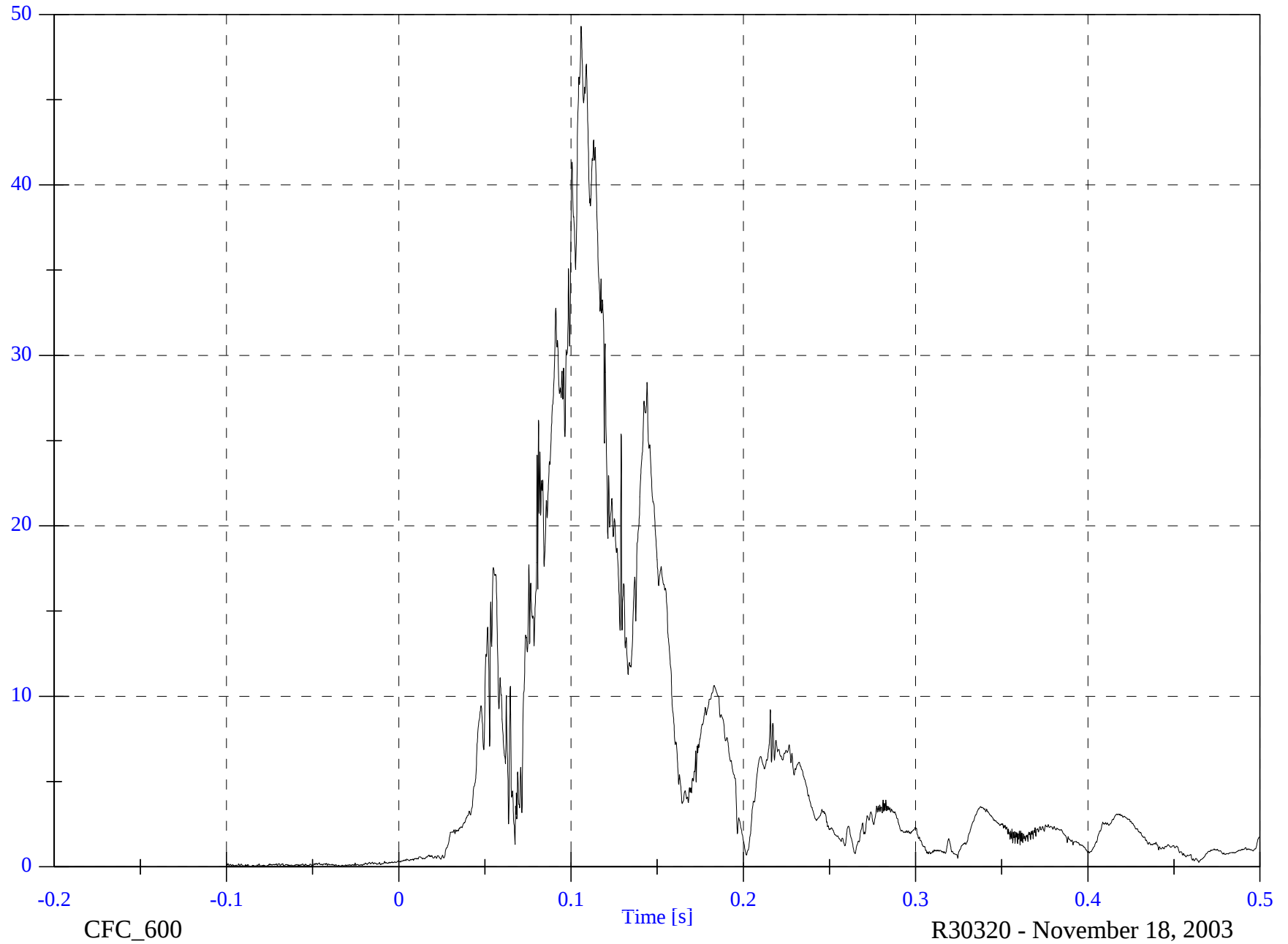


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Left Foot Resultant

Max: 49.3 [g] at 0.106 [s]

Min: 0.0 [g] at -0.086 [s]

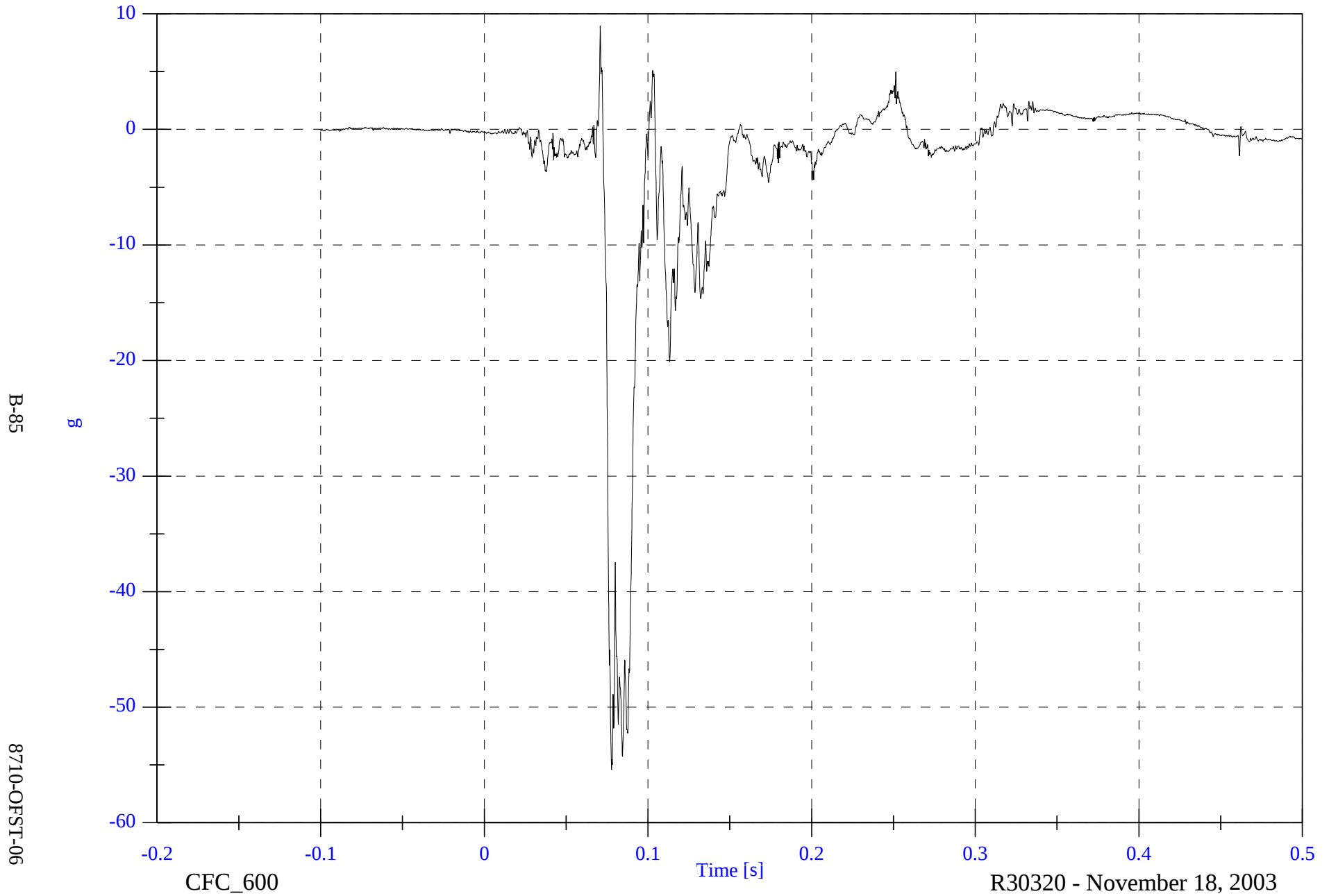


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Foot x

Max: 9.0 [g] at 0.071 [s]

Min: -55.4 [g] at 0.078 [s]

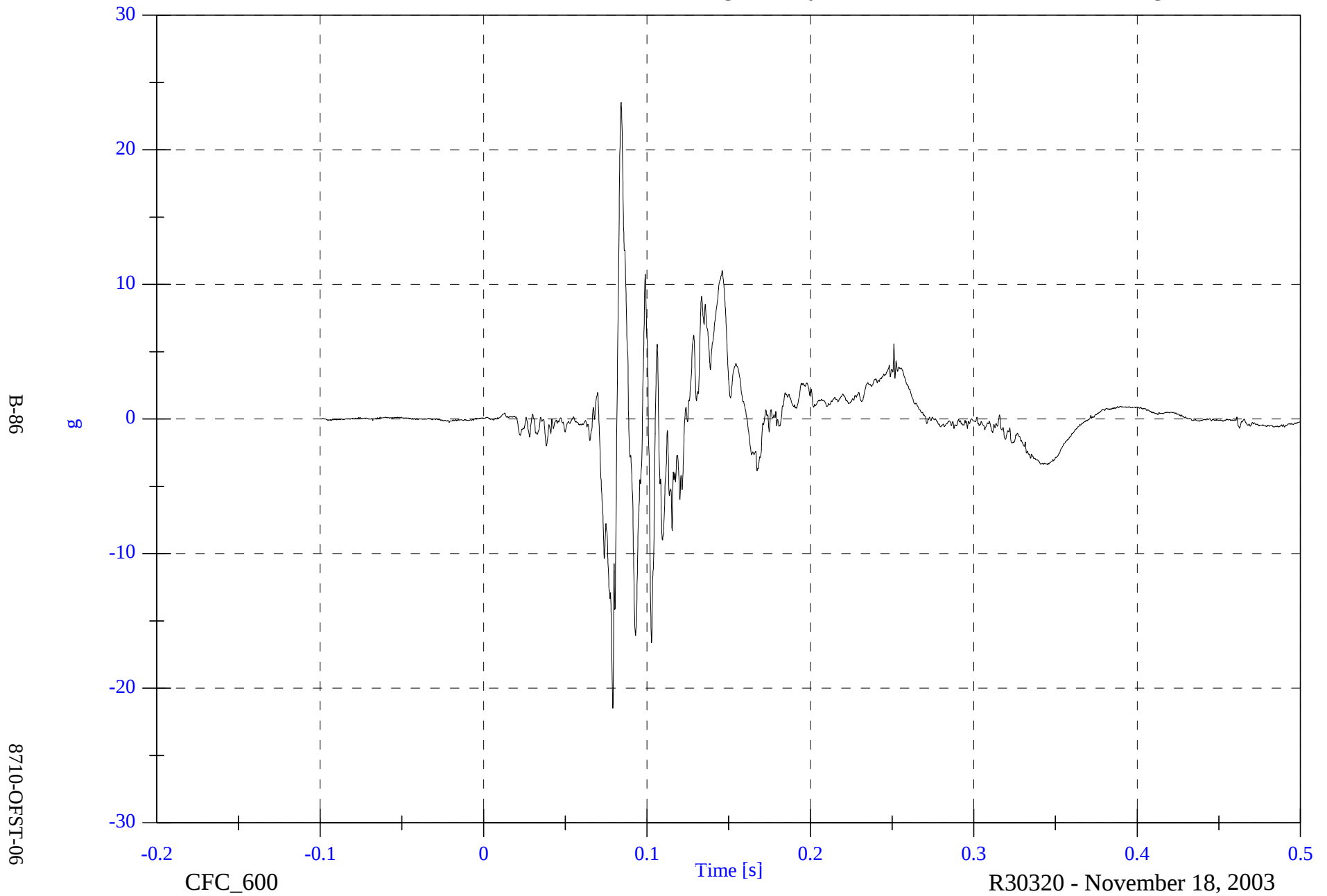


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Foot y

Max: 23.5 [g] at 0.084 [s]

Min: -21.5 [g] at 0.079 [s]

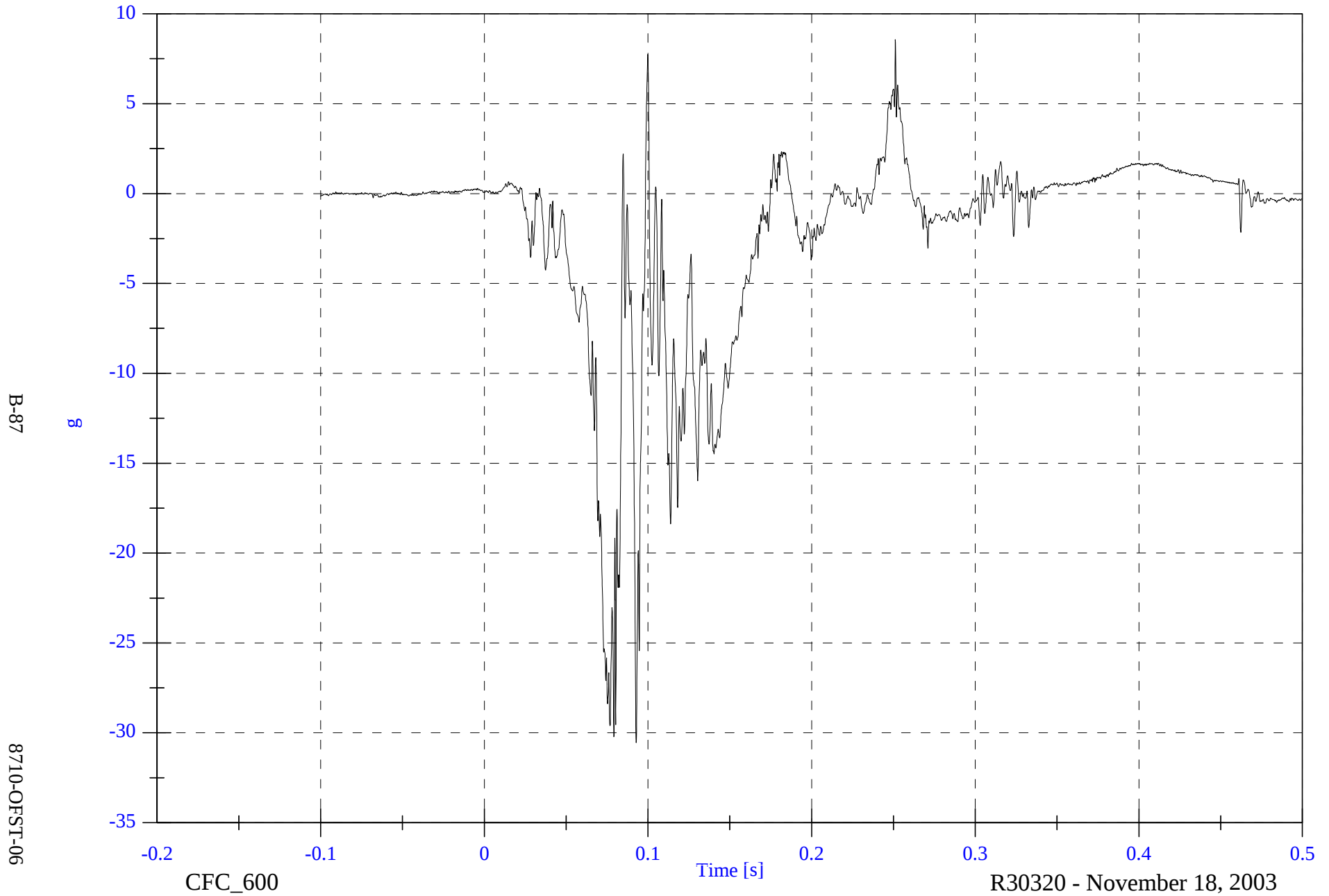


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P1 Right Foot z

Max: 8.6 [g] at 0.251 [s]

Min: -30.5 [g] at 0.093 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

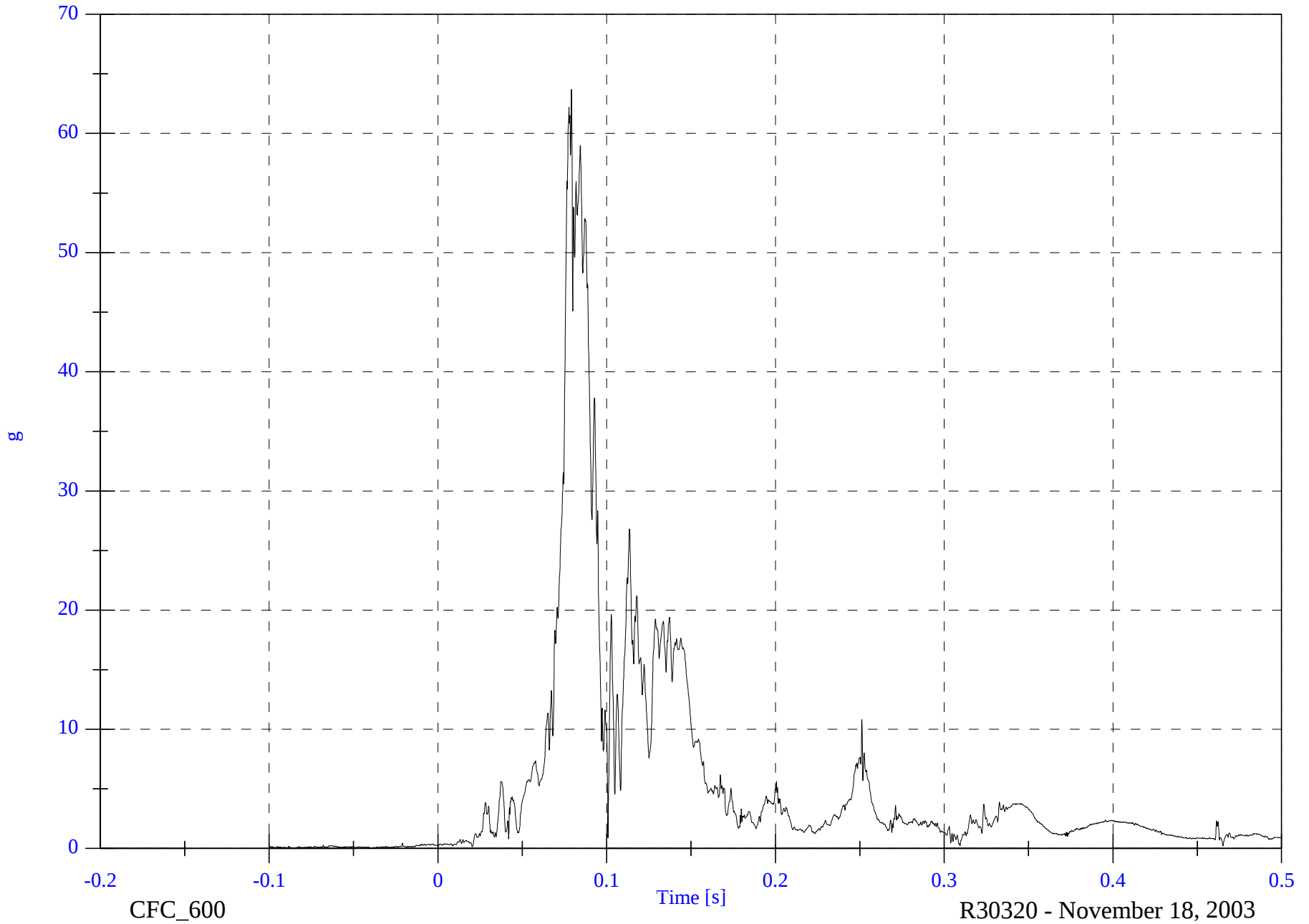
V1P1 Right Foot Resultant

Max: 63.7 [g] at 0.079 [s]

Min: 0.0 [g] at -0.081 [s]

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8710-OFST-06

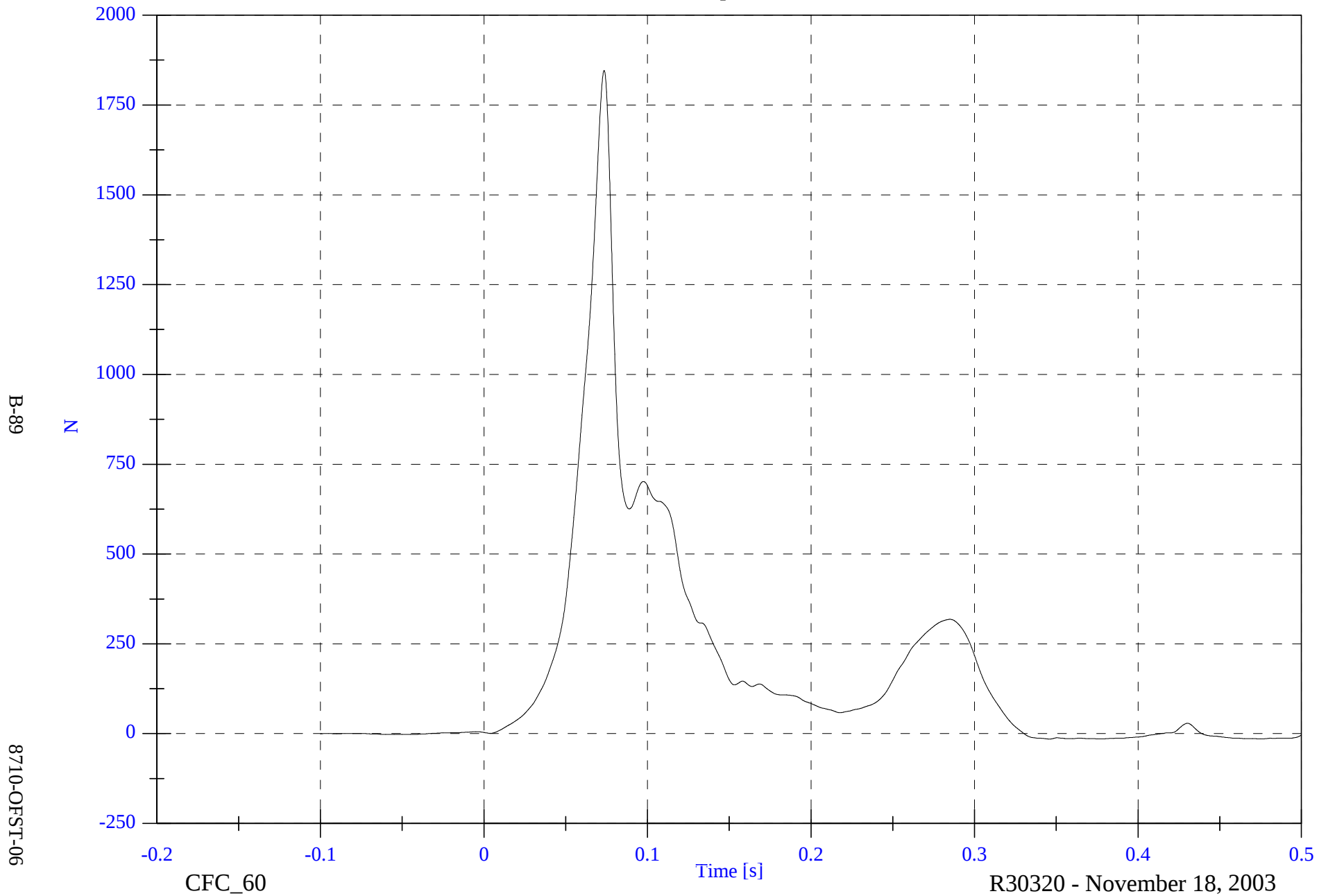


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Lap Belt Load

Max: 1846.3 [N] at 0.073 [s]

Min: -15.2 [N] at 0.346 [s]

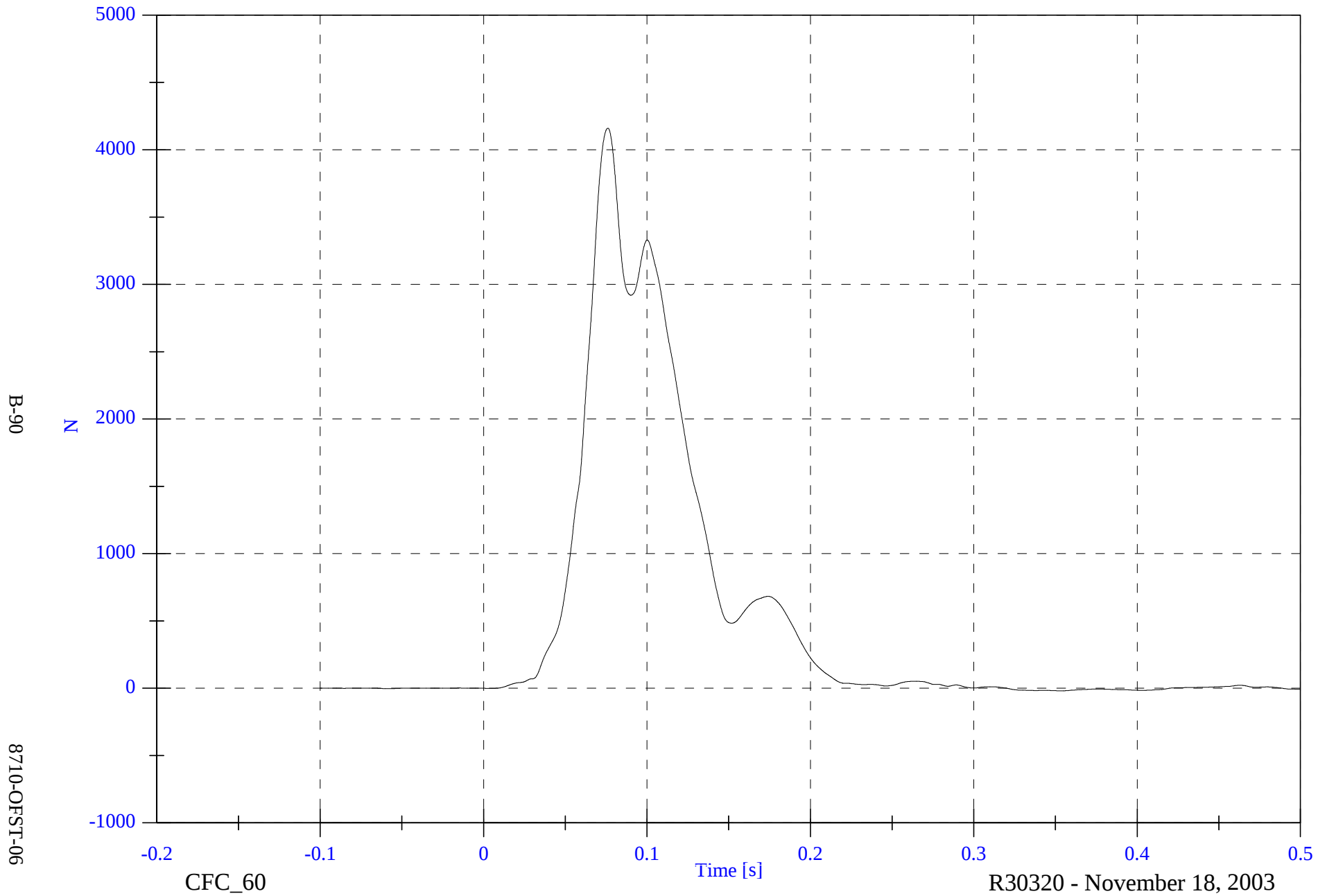


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Shoulder Belt Load

Max: 4160.8 [N] at 0.076 [s]

Min: -19.9 [N] at 0.354 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

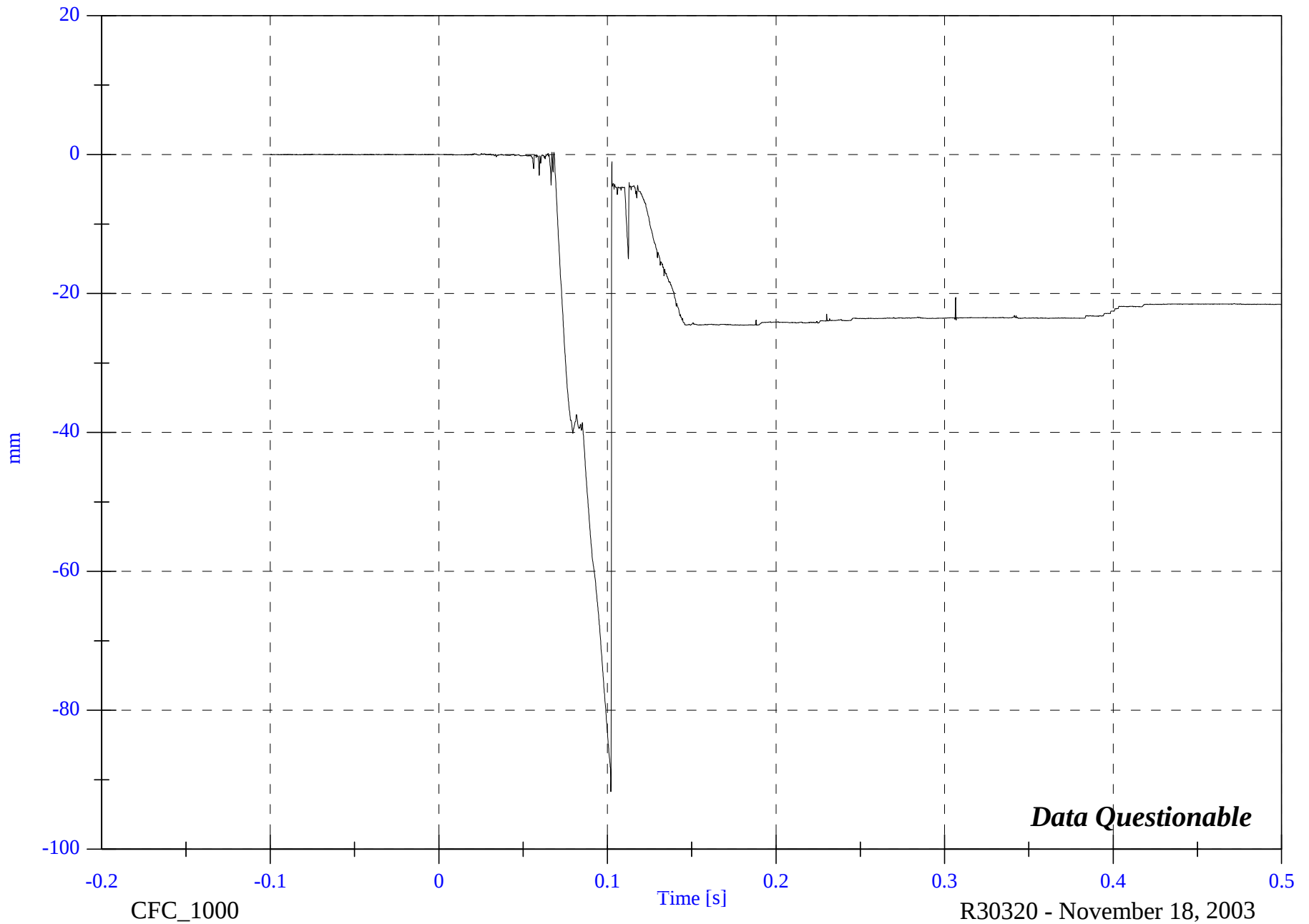
V1 P1 Toe Pan Deflection

Max: 0.3 [mm] at 0.067 [s]

Min: -91.7 [mm] at 0.102 [s]

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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

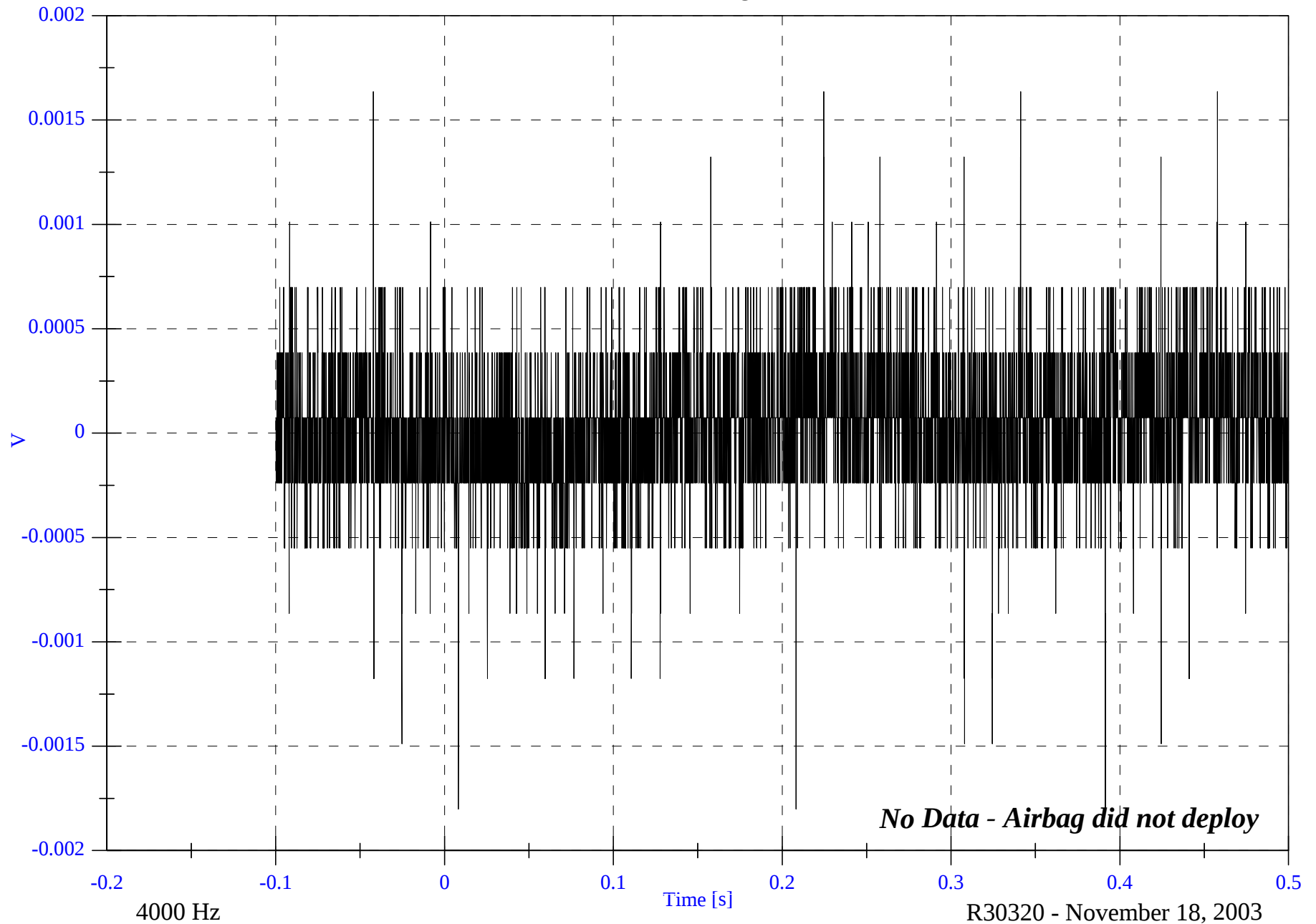
V1 P1 Air Bag T/E

Max: 0.0 [V] at -0.042 [s]

Min: -0.0 [V] at 0.008 [s]

B-92

8710-OFST-06

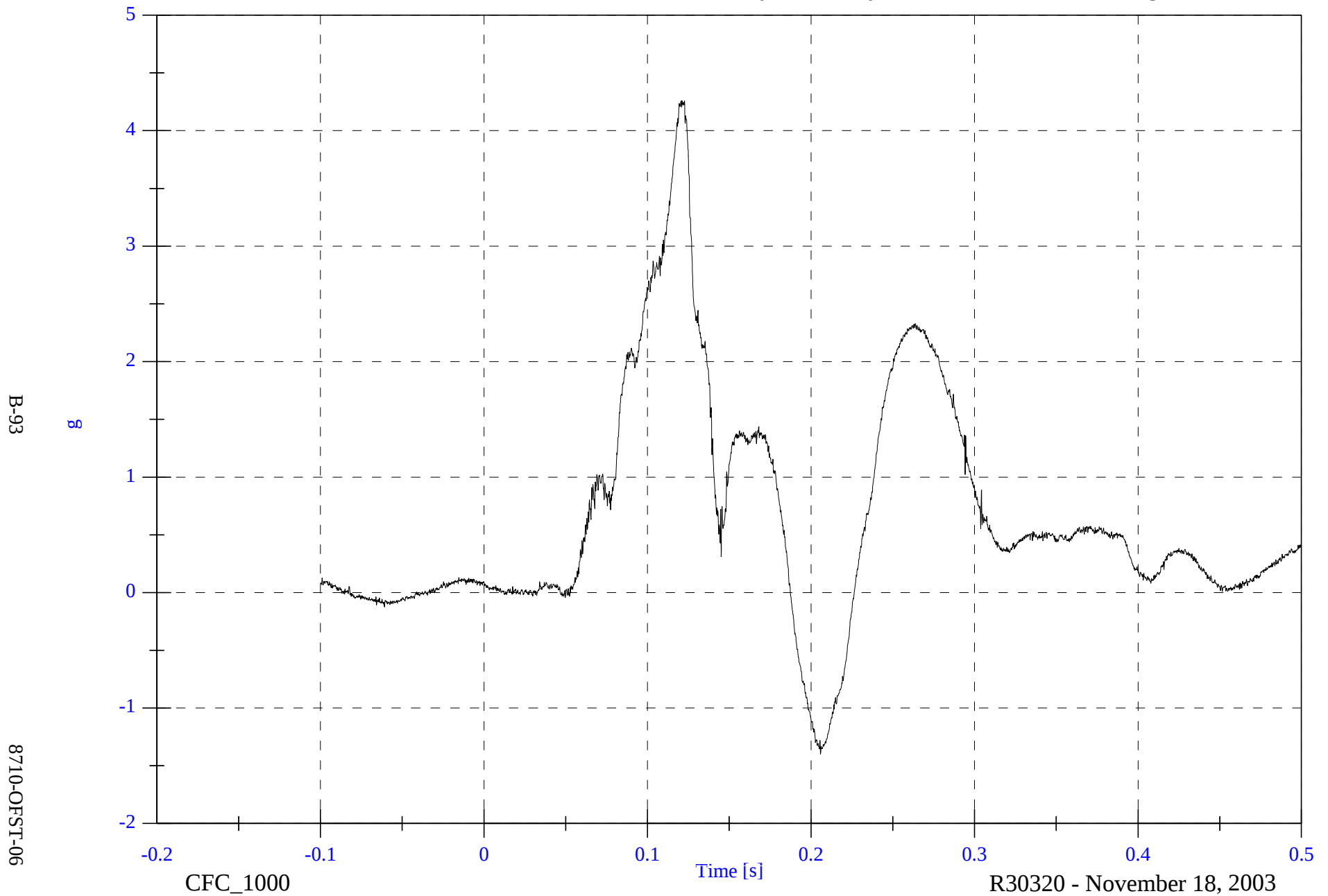


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head 9 Array X Arm Ay

Max: 4.3 [g] at 0.121 [s]

Min: -1.4 [g] at 0.206 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

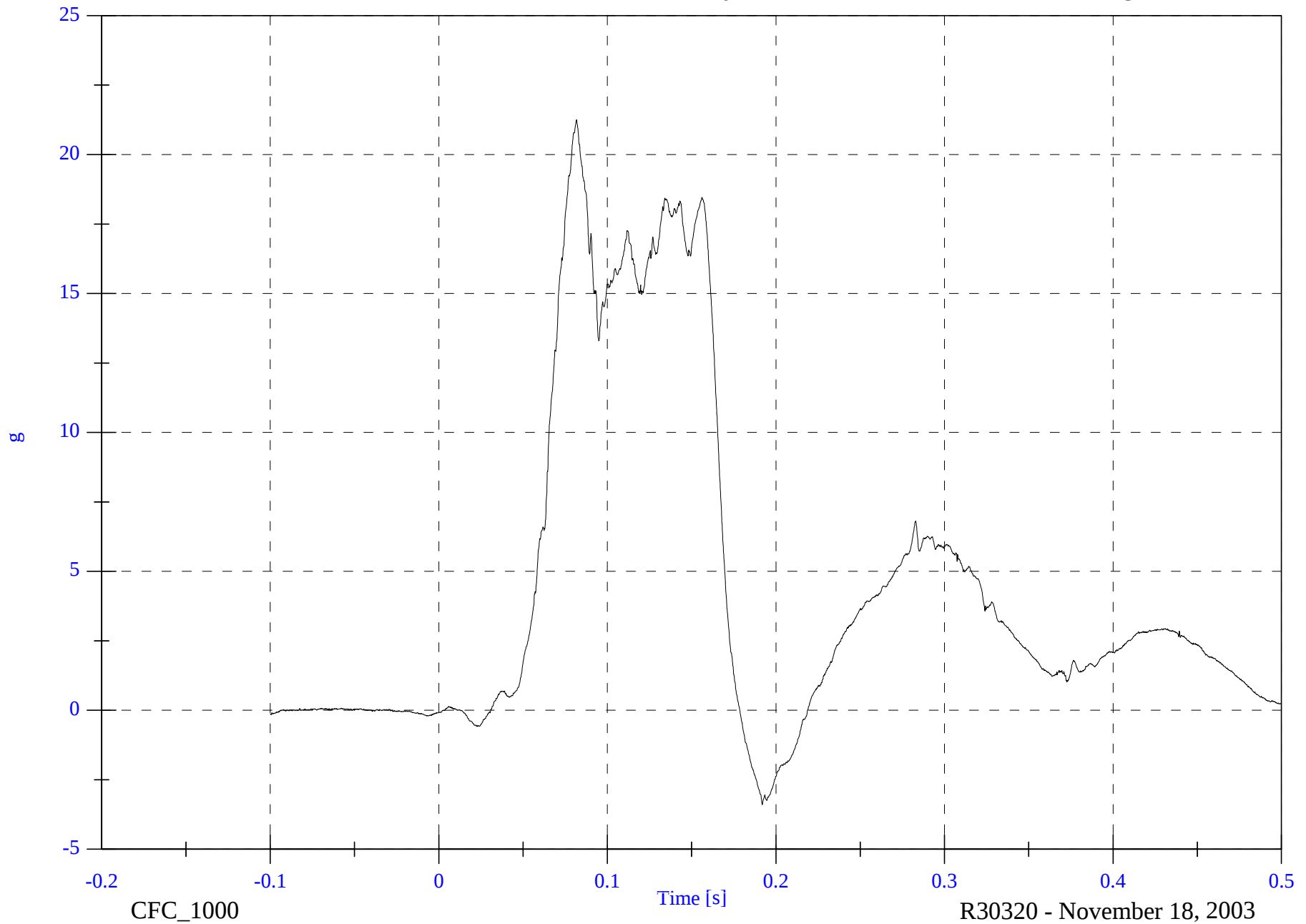
V1P2 Head 9 Array X Arm Az

Max: 21.3 [g] at 0.082 [s]

Min: -3.4 [g] at 0.192 [s]

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8710-OFST-06

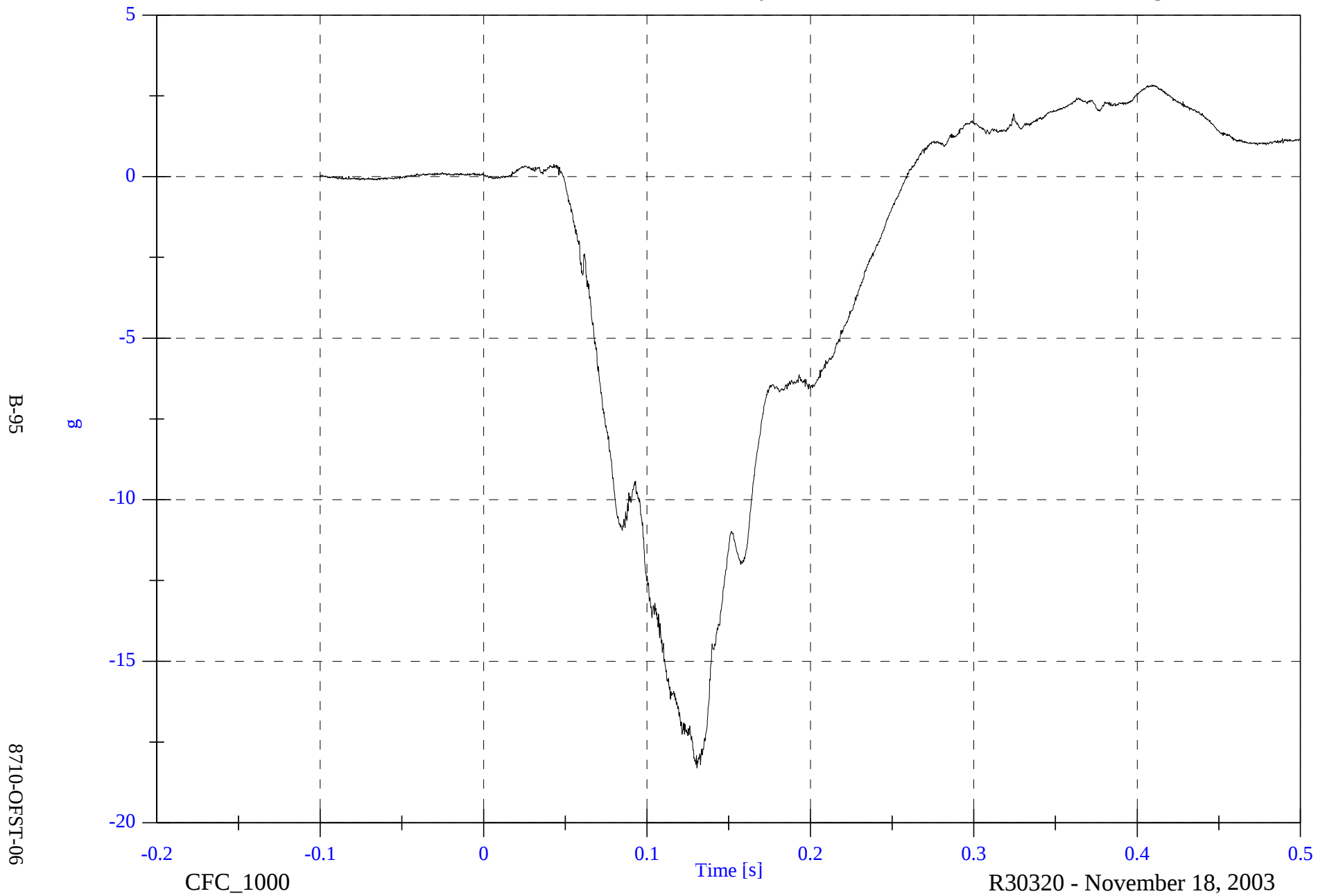


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head 9 Array Y Arm Ax

Max: 2.8 [g] at 0.409 [s]

Min: -18.3 [g] at 0.131 [s]

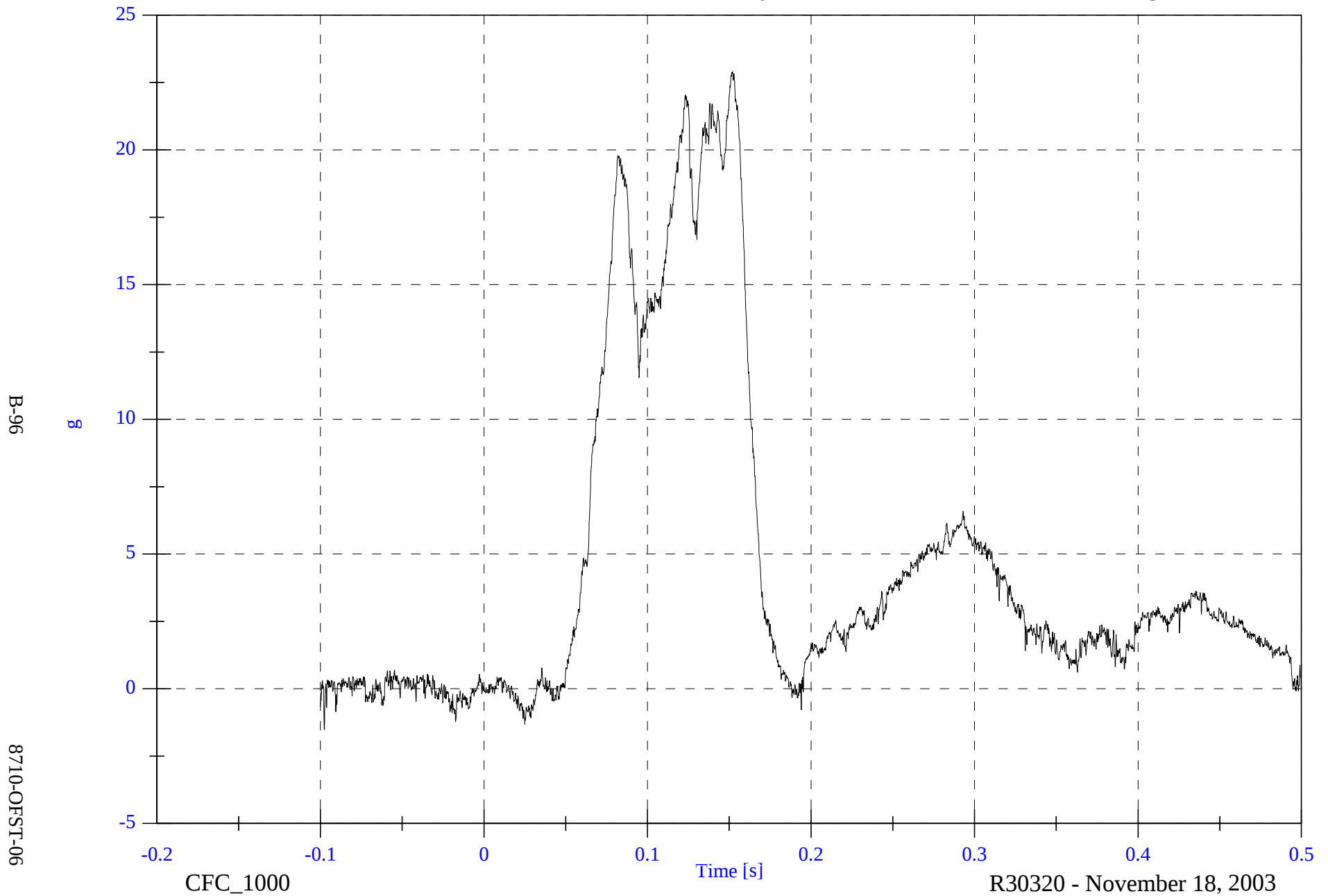


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head 9 Array Y Arm Az

Max: 22.9 [g] at 0.152 [s]

Min: -1.5 [g] at -0.098 [s]

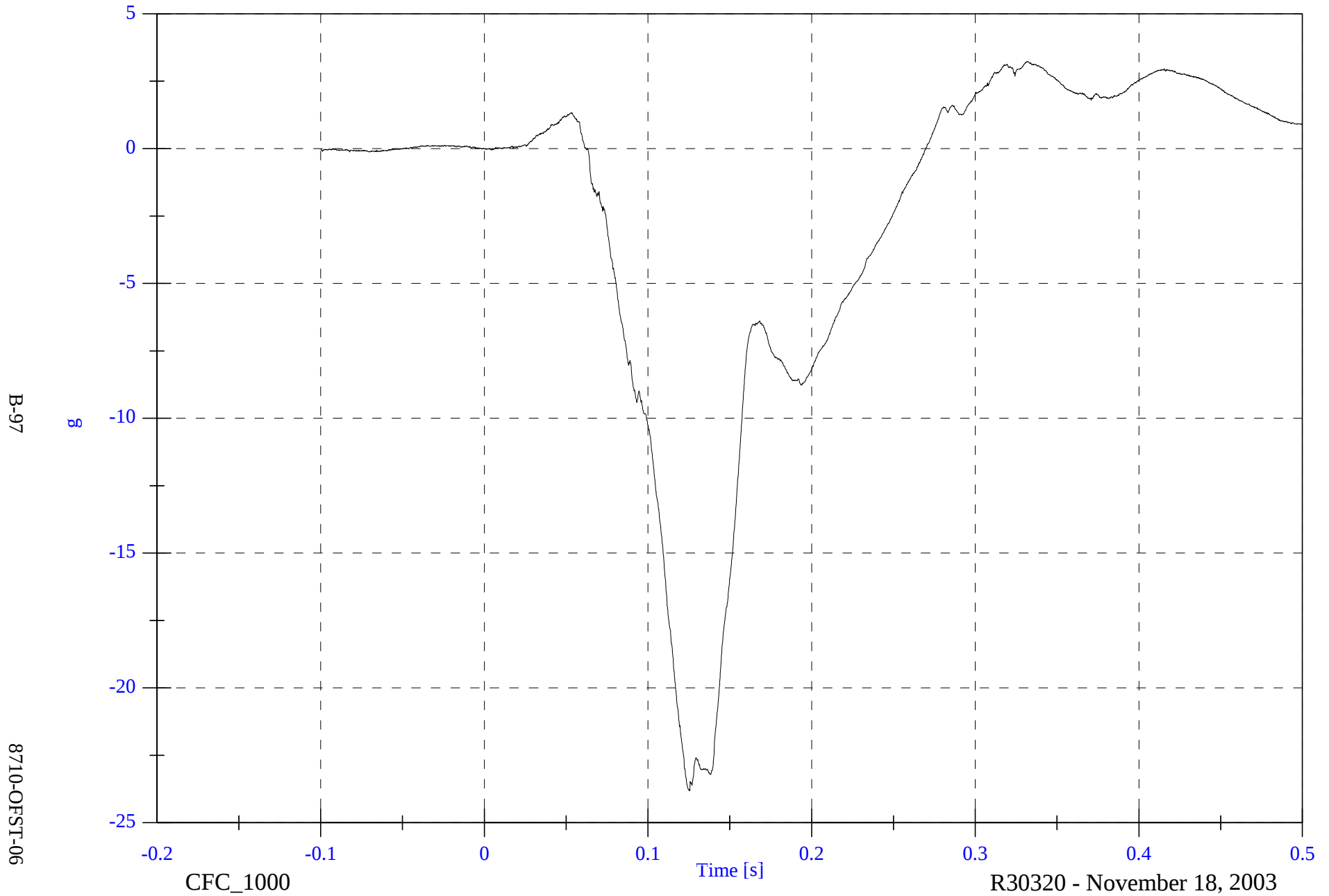


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head 9 Array Z Arm Ax

Max: 3.2 [g] at 0.332 [s]

Min: -23.8 [g] at 0.125 [s]

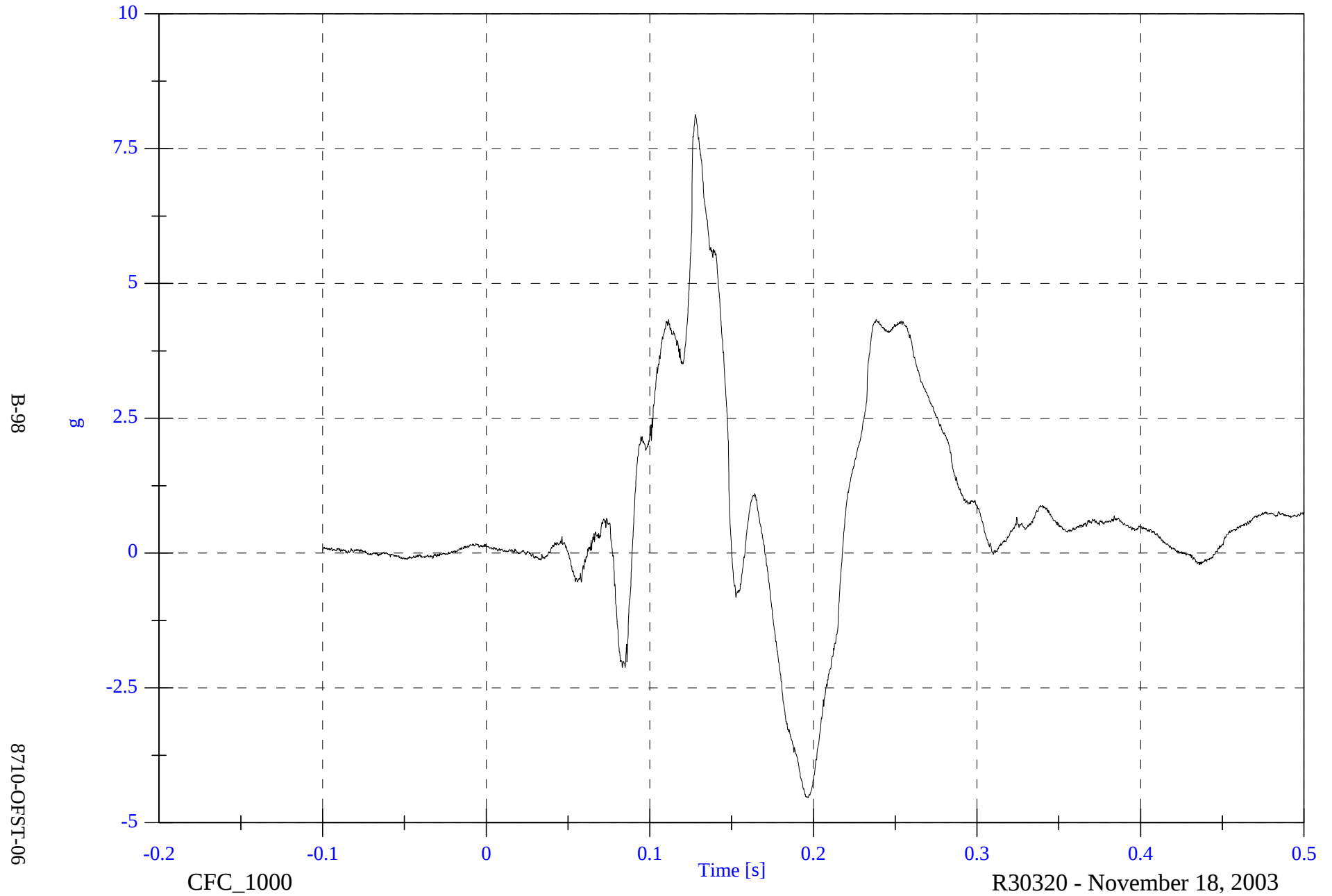


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head 9 Array Z Arm Ay

Max: 8.1 [g] at 0.128 [s]

Min: -4.5 [g] at 0.197 [s]

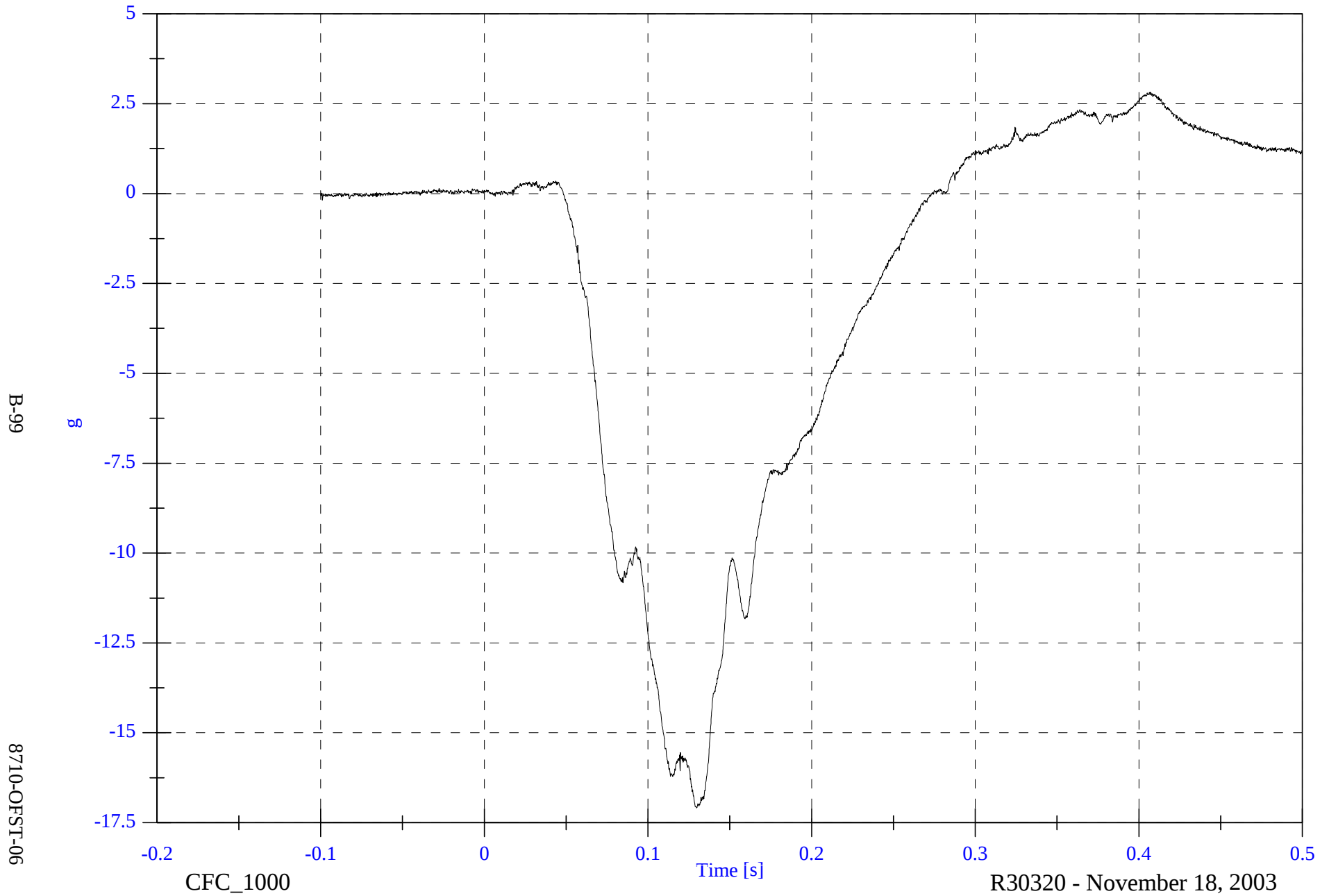


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head x

Max: 2.8 [g] at 0.407 [s]

Min: -17.1 [g] at 0.130 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head y

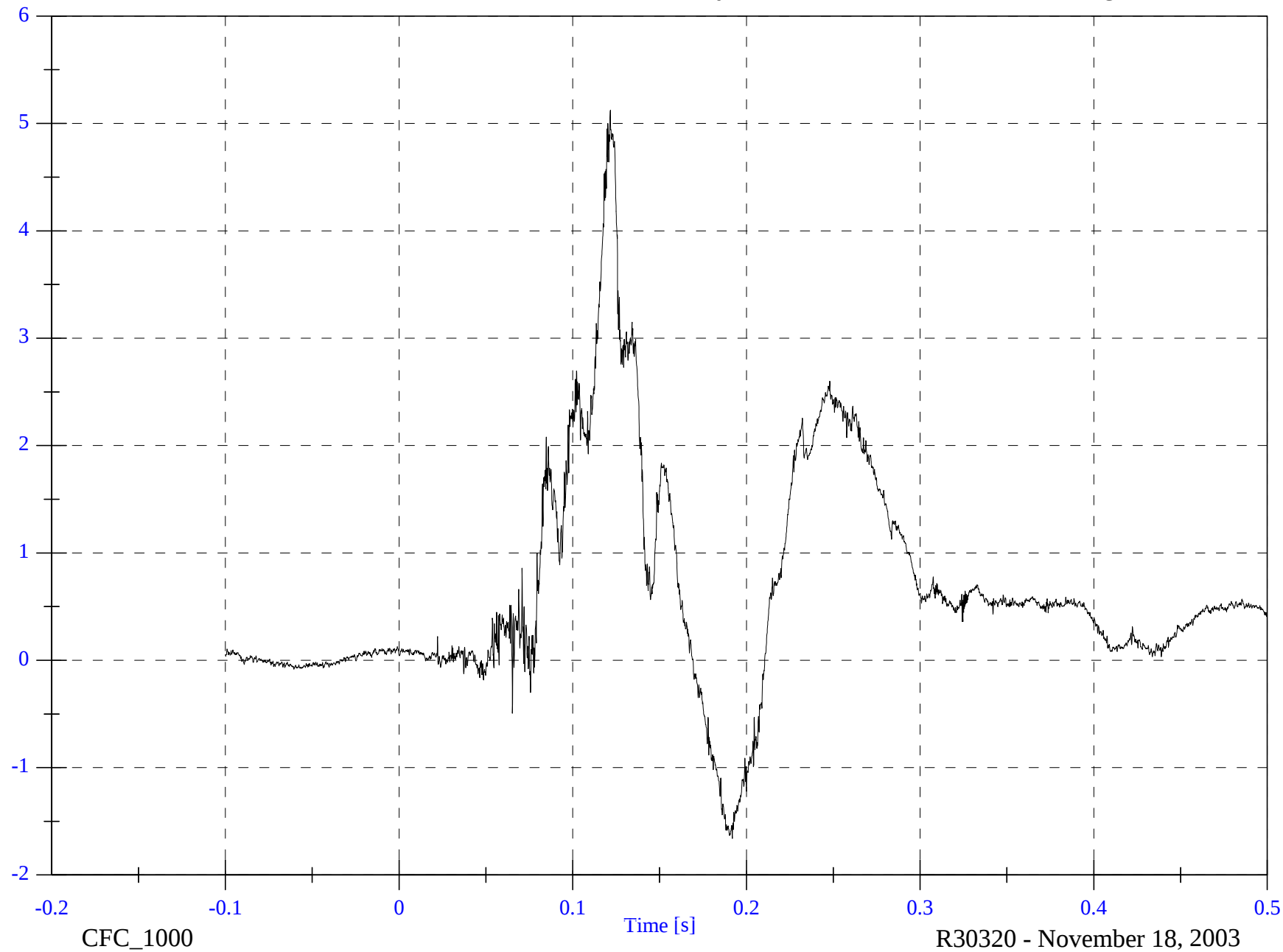
Max: 5.1 [g] at 0.122 [s]

Min: -1.7 [g] at 0.192 [s]

B-100

8710-OFST-06

g

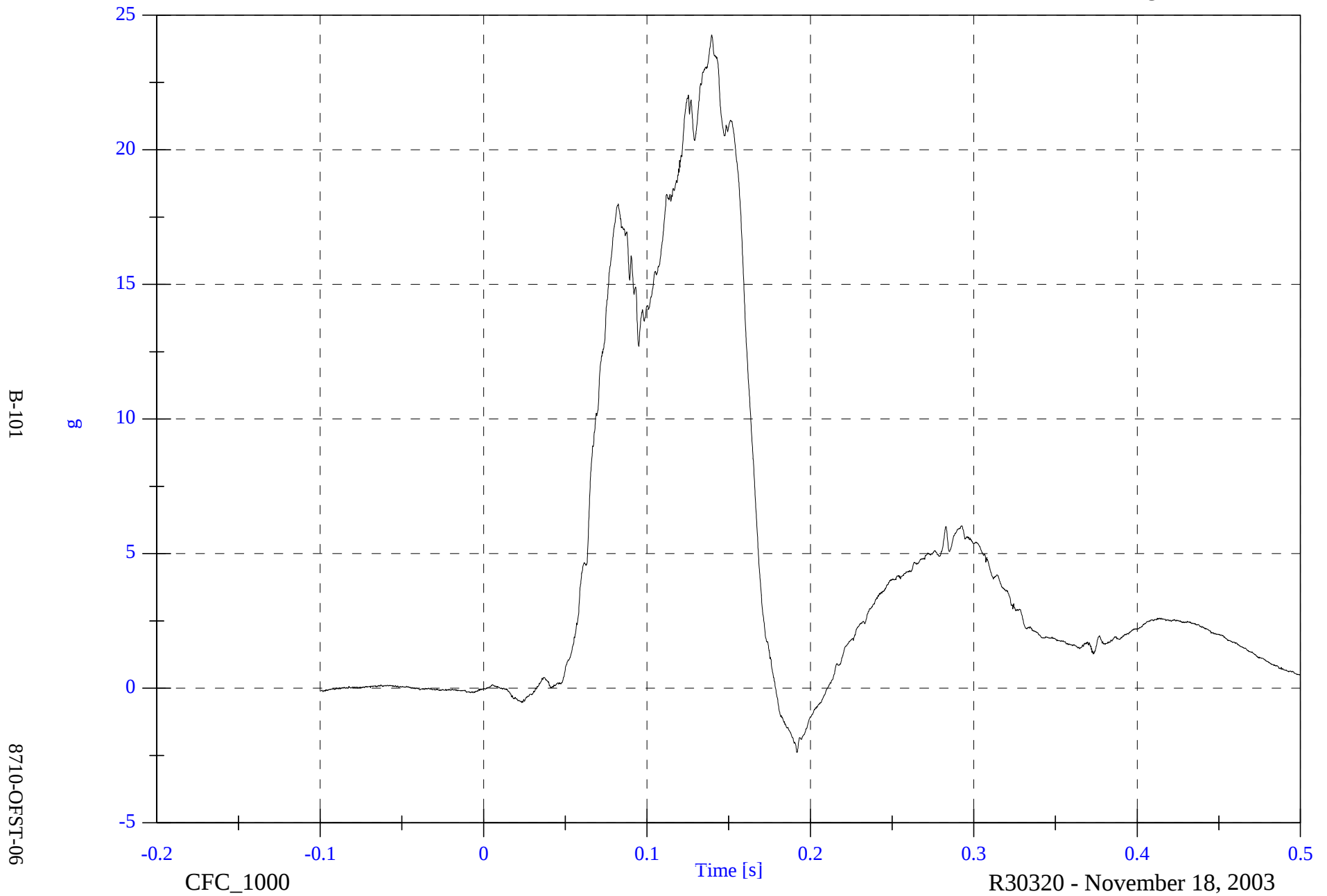


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 24.3 [g] at 0.140 [s]

Min: -2.4 [g] at 0.192 [s]

V1P2 Head z



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

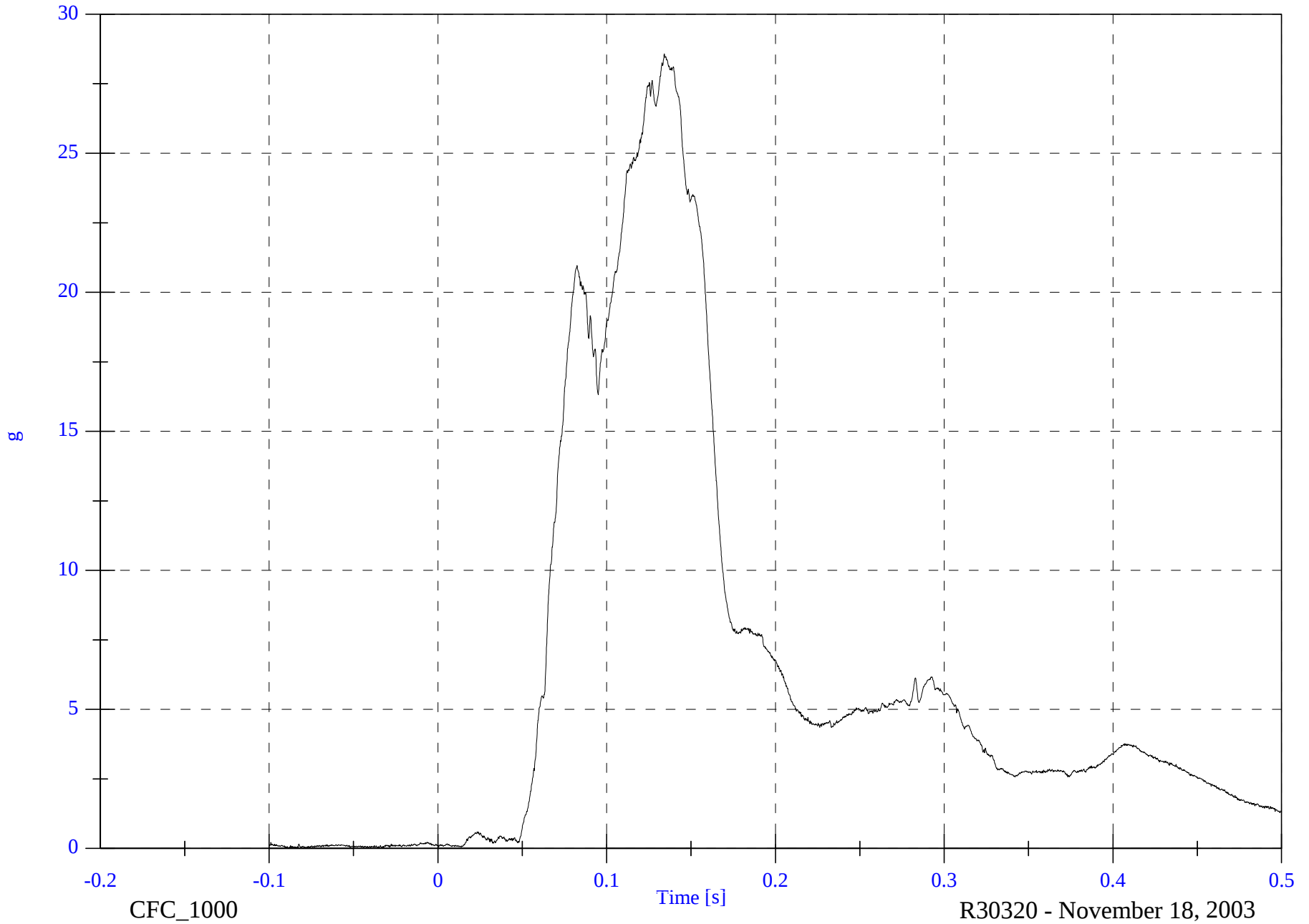
V1P2 Head Resultant

Max: 28.6 [g] at 0.134 [s]

Min: 0.0 [g] at -0.088 [s]

B-102

8710-OFST-06

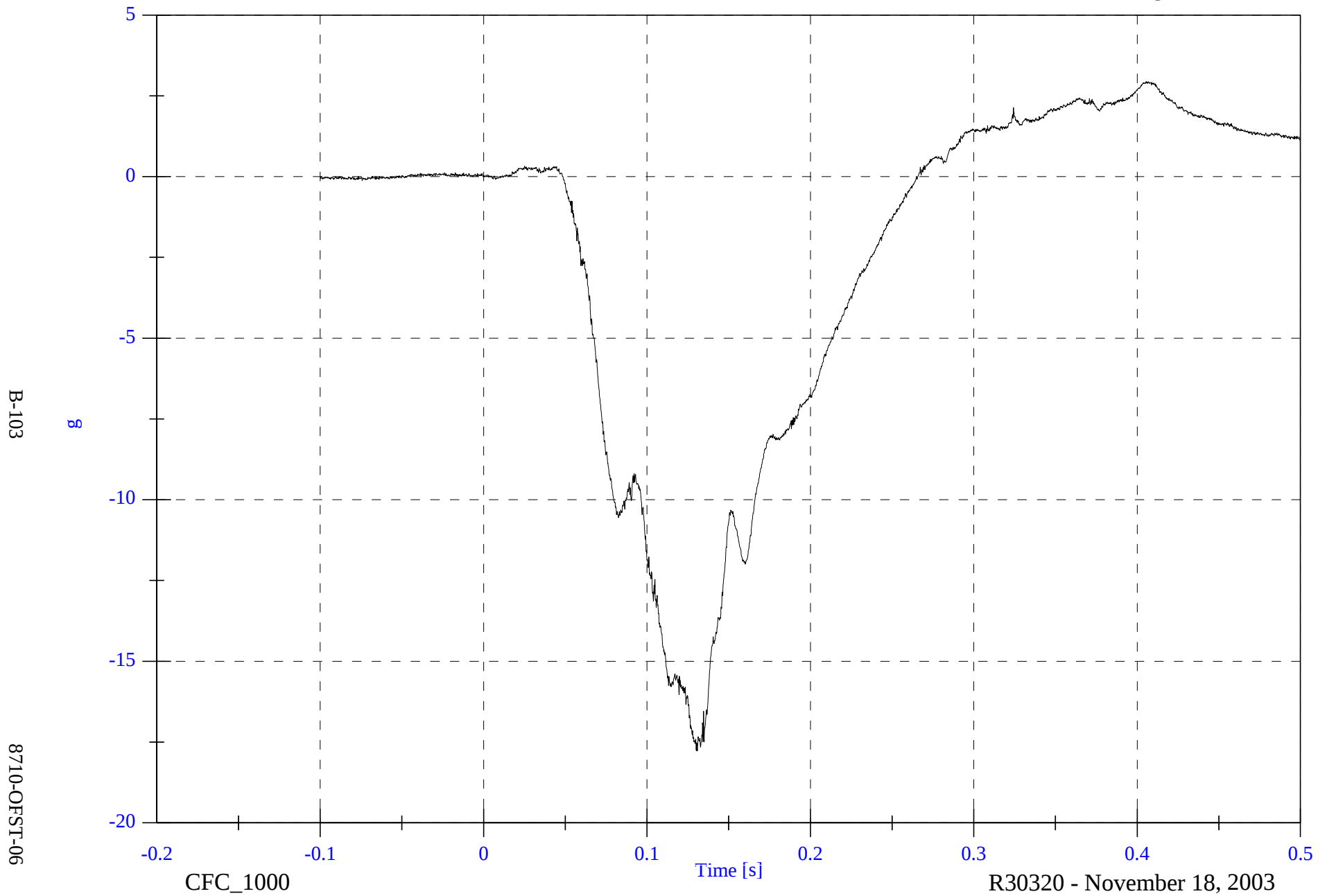


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head Red x

Max: 2.9 [g] at 0.405 [s]

Min: -17.8 [g] at 0.131 [s]

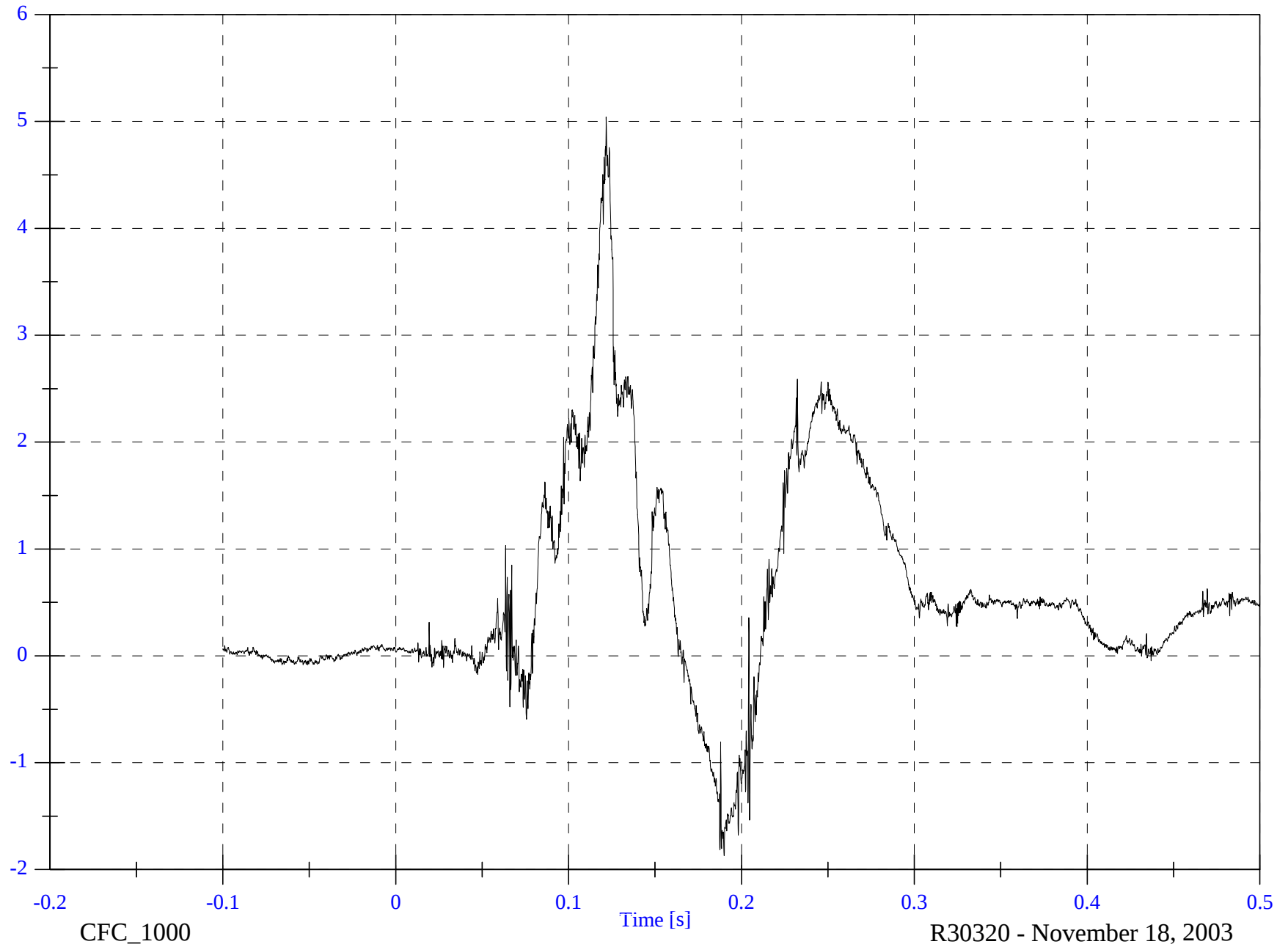


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Head Red y

Max: 5.0 [g] at 0.122 [s]

Min: -1.9 [g] at 0.190 [s]



B-104

8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

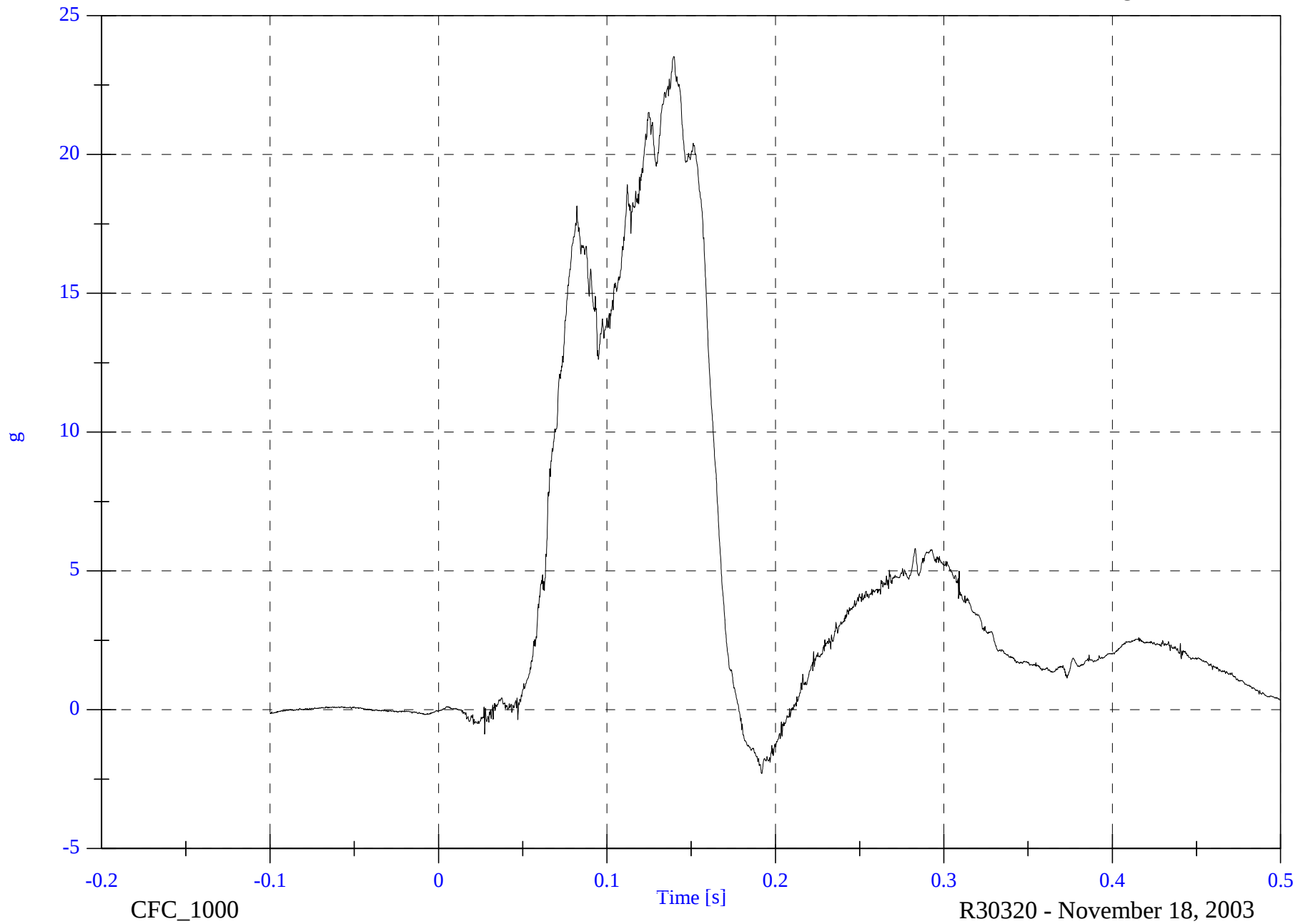
V1P2 Head Red z

Max: 23.5 [g] at 0.140 [s]

Min: -2.3 [g] at 0.192 [s]

B-105

8710-OFST-06



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

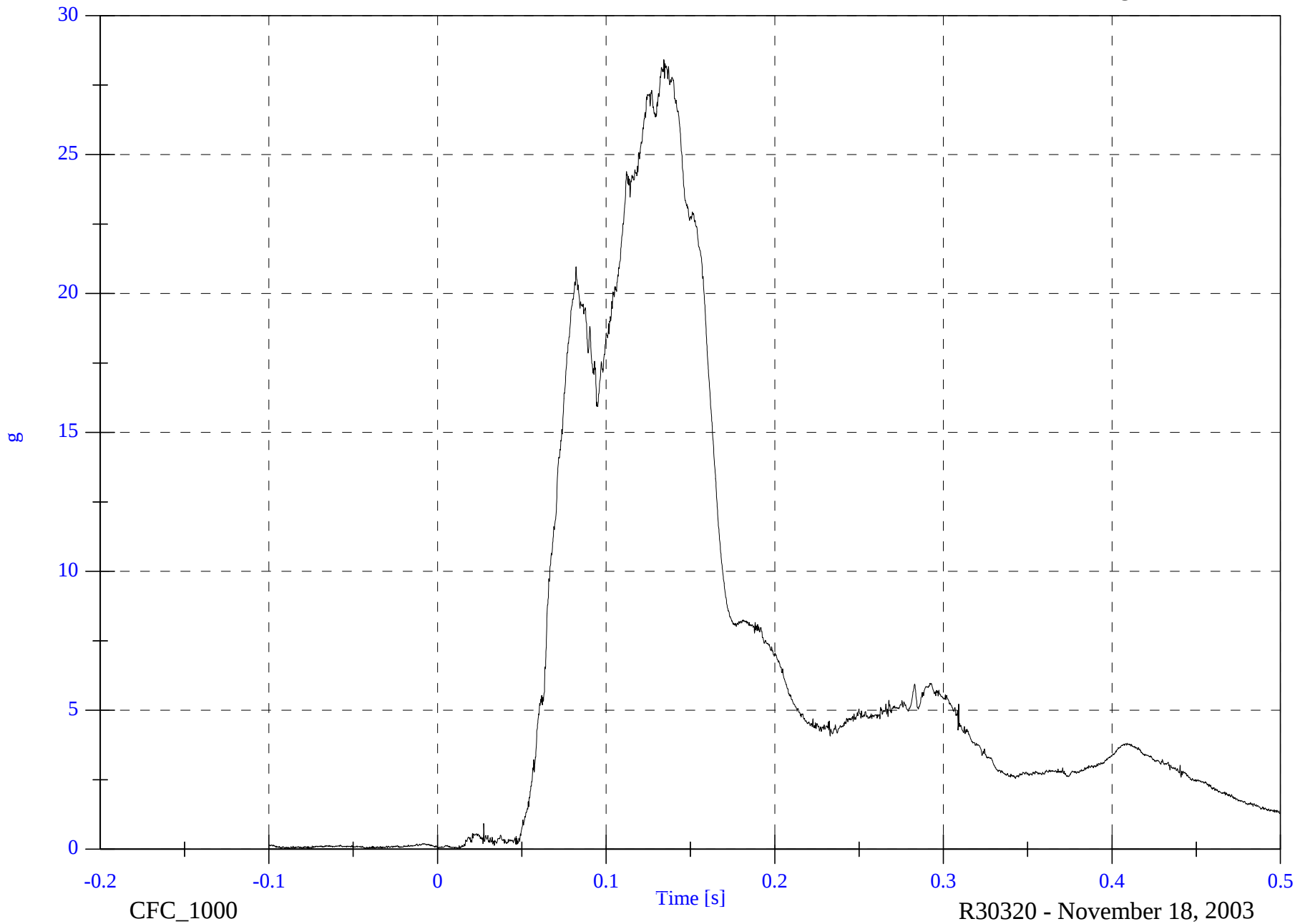
V1P2 Head Red Resultant

Max: 28.4 [g] at 0.134 [s]

Min: 0.0 [g] at -0.037 [s]

B-106

8710-OFST-06

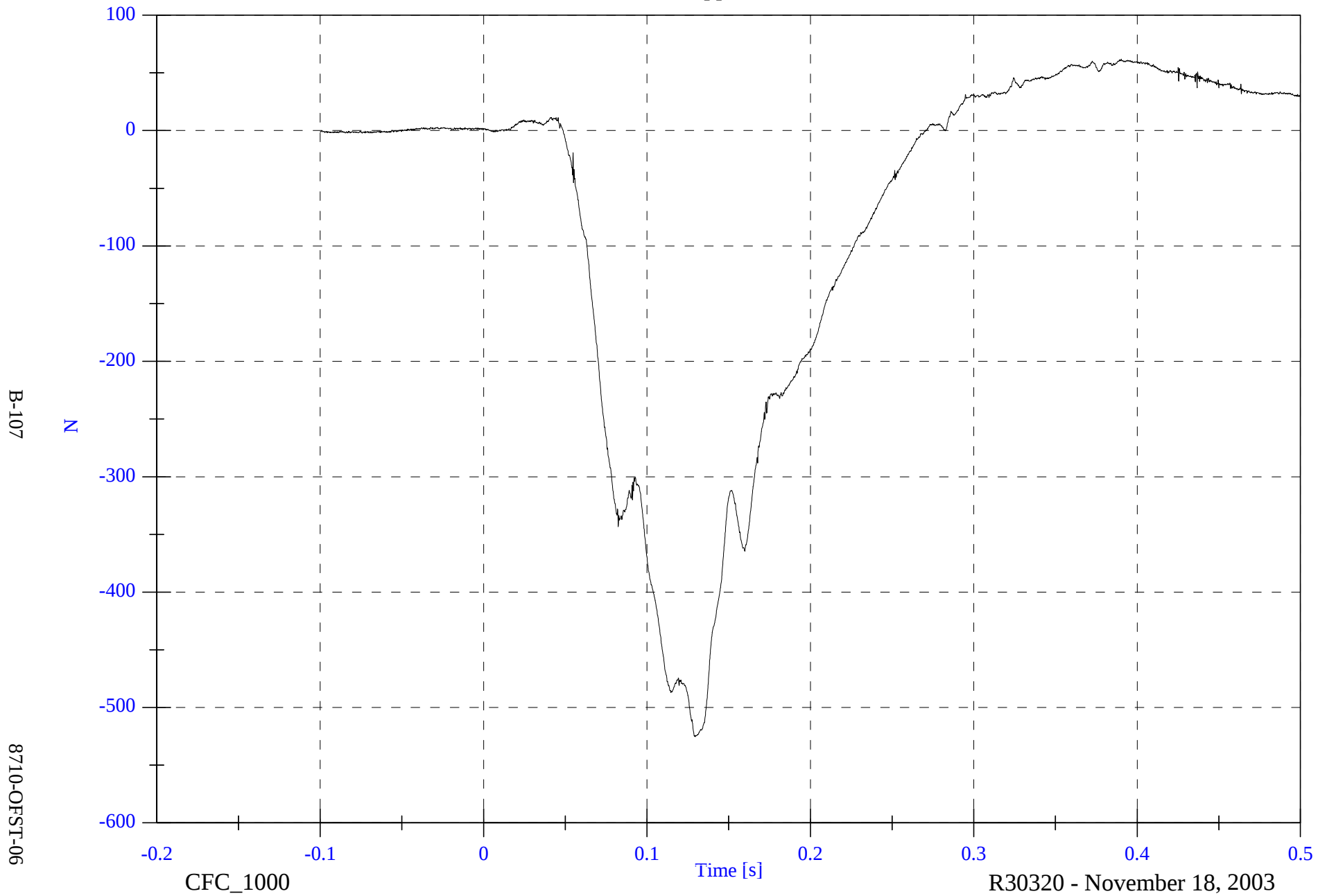


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck Fx

Max: 61.8 [N] at 0.390 [s]

Min: -525.3 [N] at 0.130 [s]

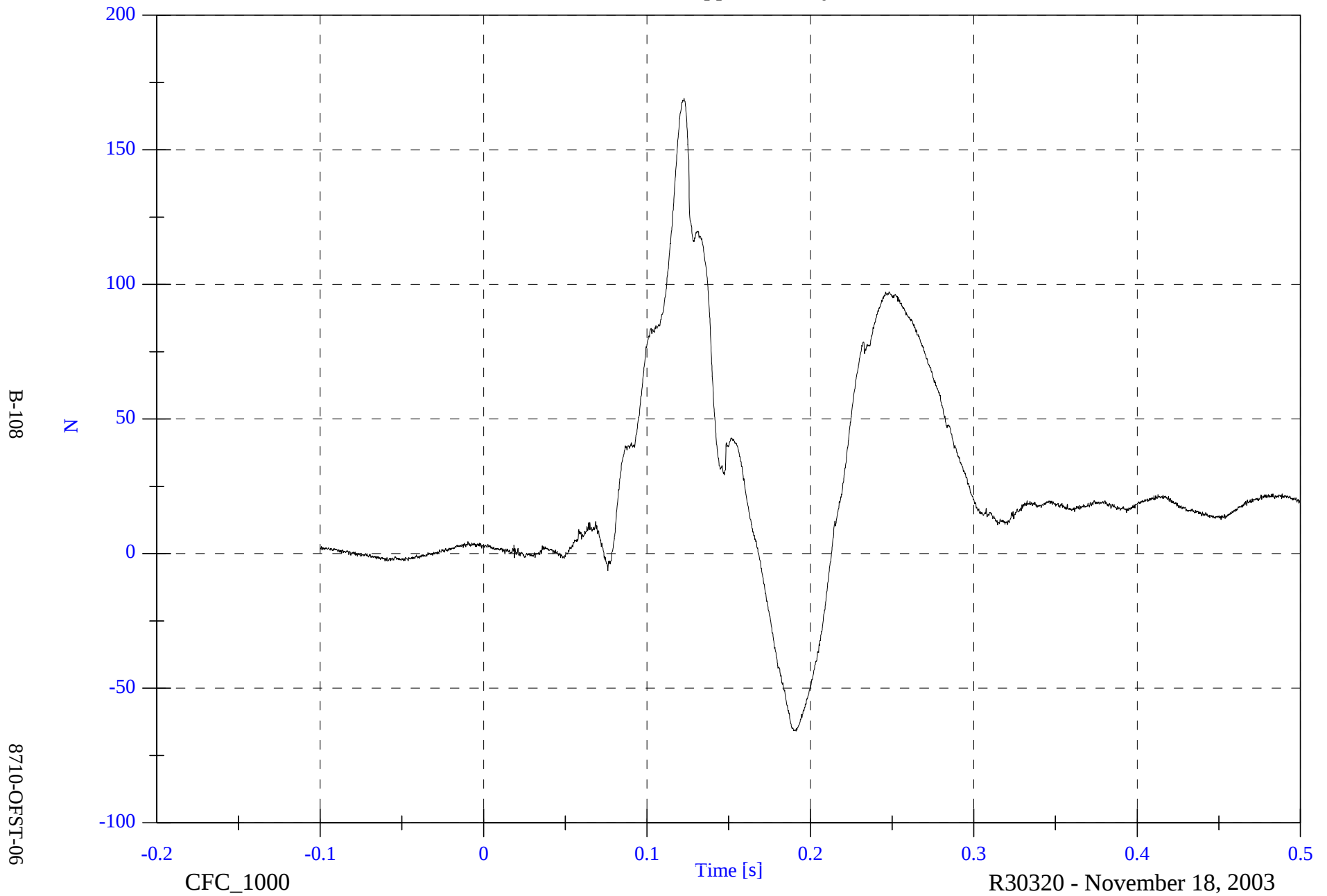


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck Fy

Max: 169.1 [N] at 0.123 [s]

Min: -65.9 [N] at 0.191 [s]

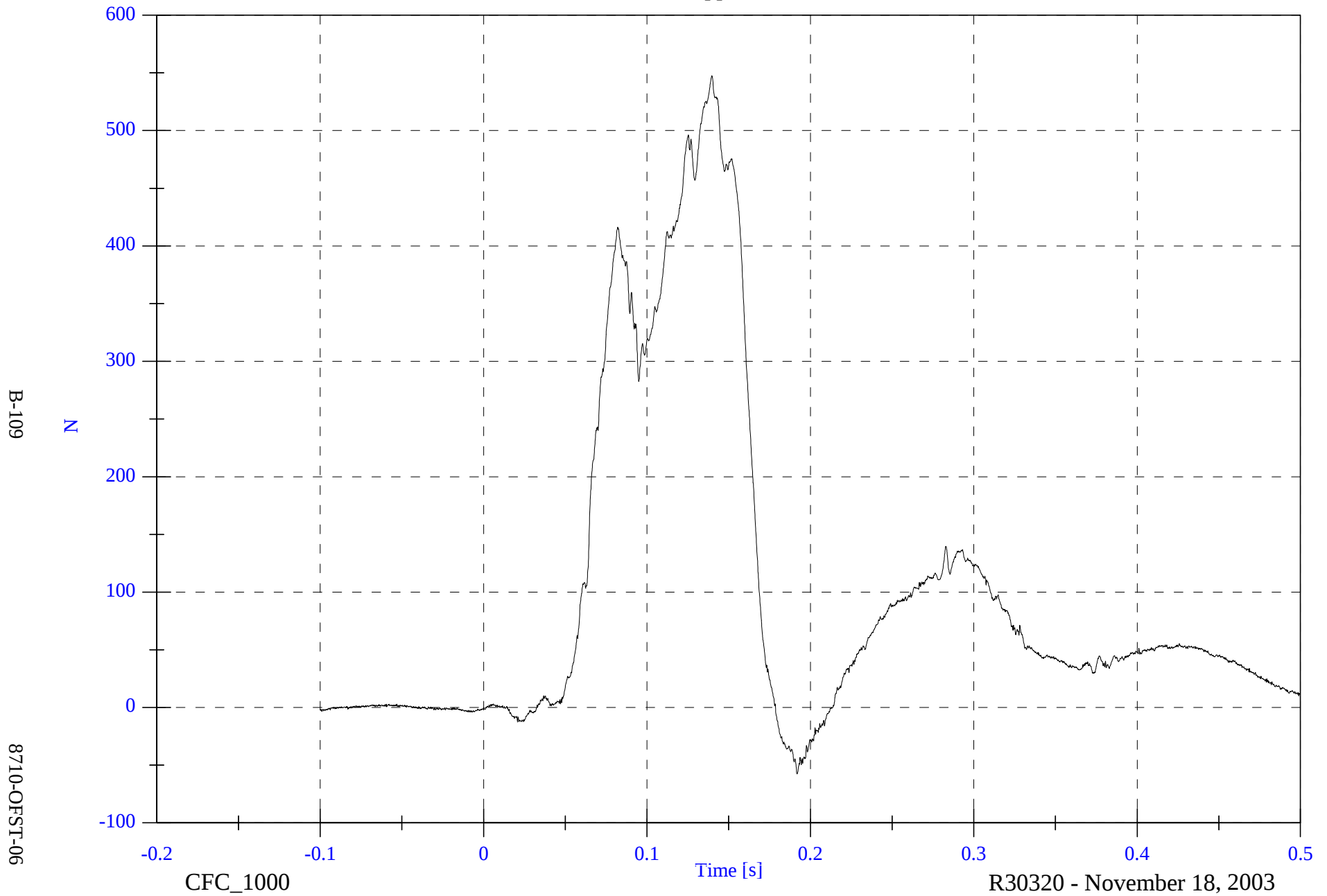


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck Fz

Max: 547.5 [N] at 0.140 [s]

Min: -57.6 [N] at 0.192 [s]

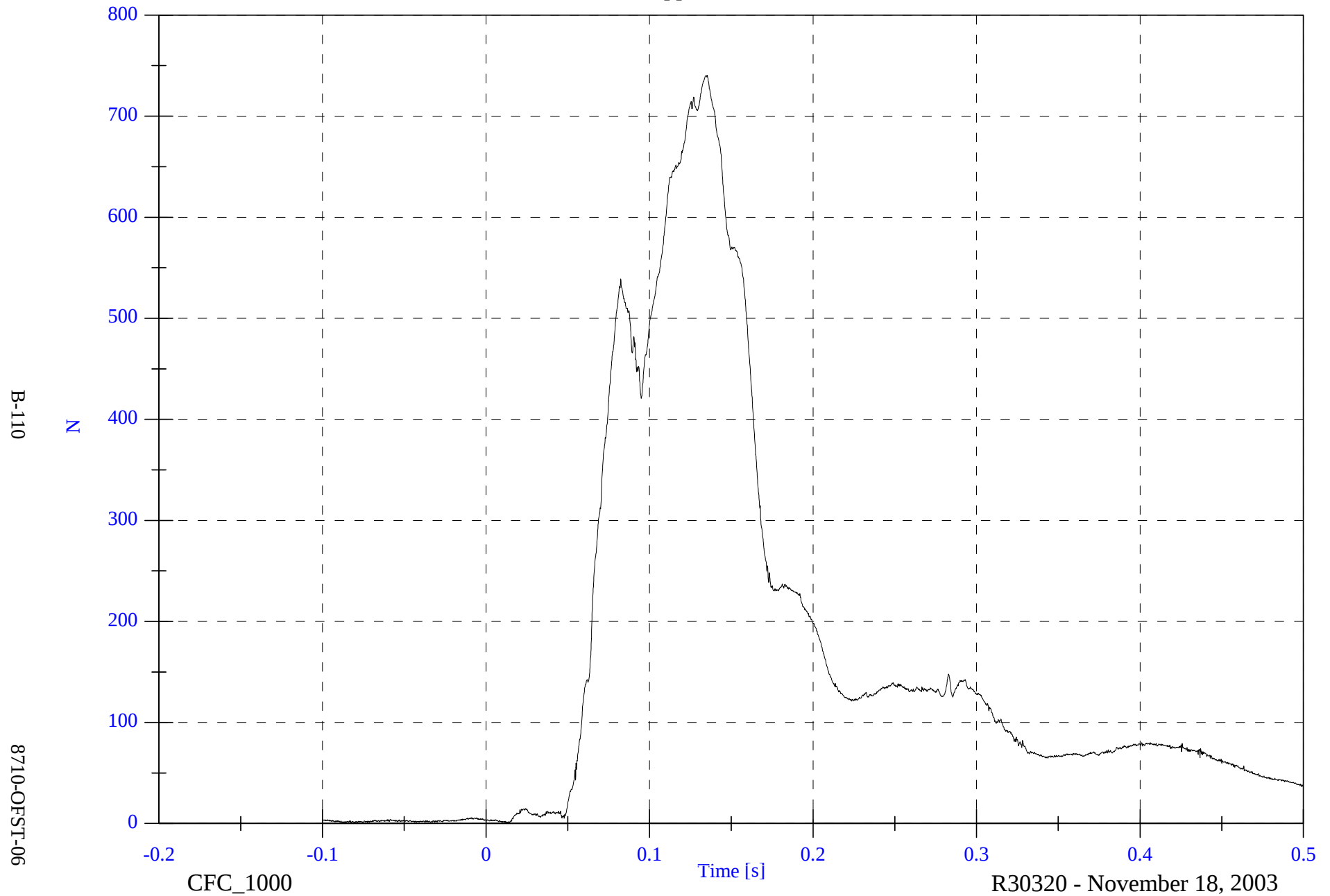


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck F Resultant

Max: 740.4 [N] at 0.135 [s]

Min: 0.5 [N] at 0.013 [s]

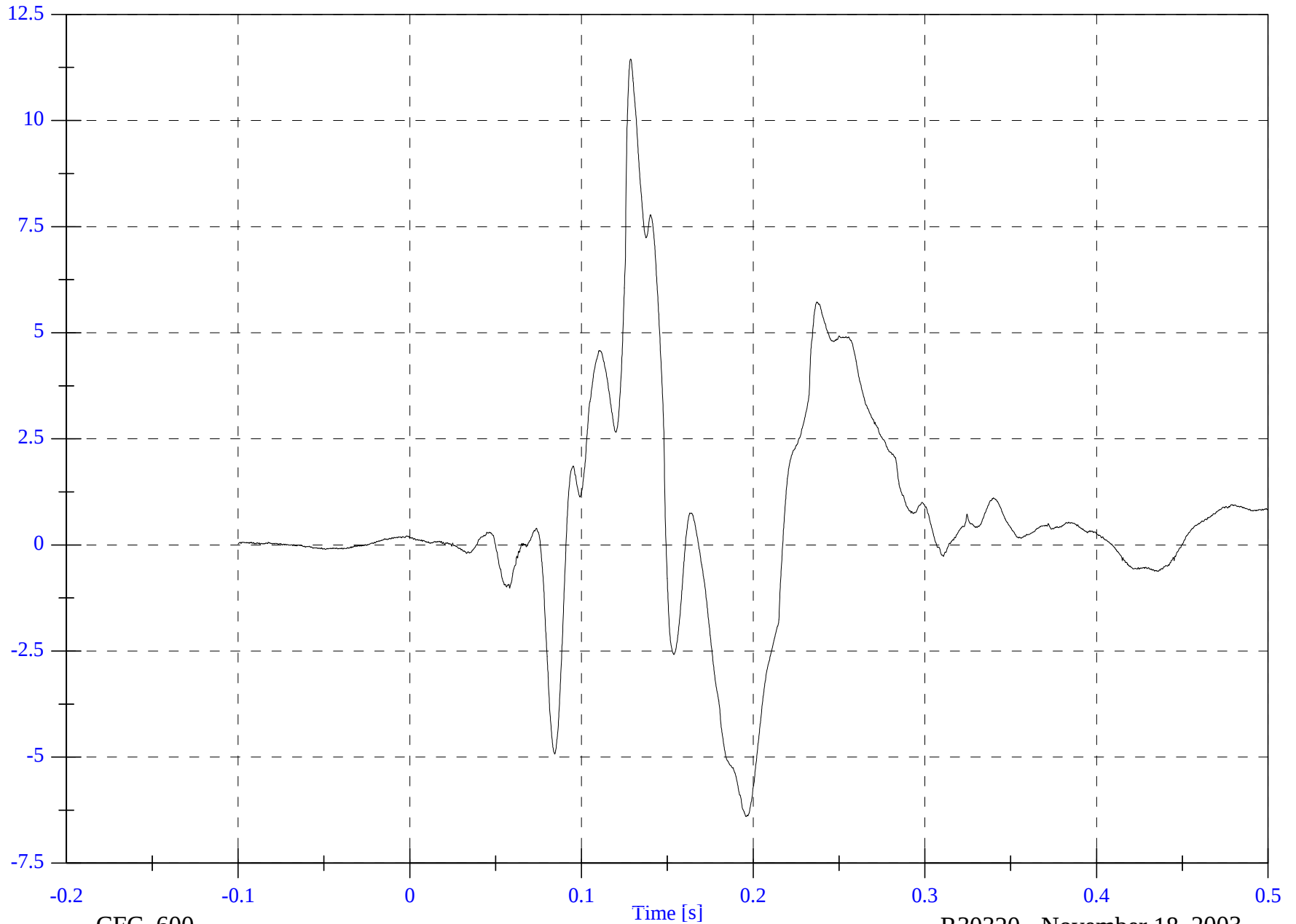


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck Mx

Max: 11.5 [N-m] at 0.129 [s]

Min: -6.4 [N-m] at 0.196 [s]



B-111

8710-OFST-06

CFC_600

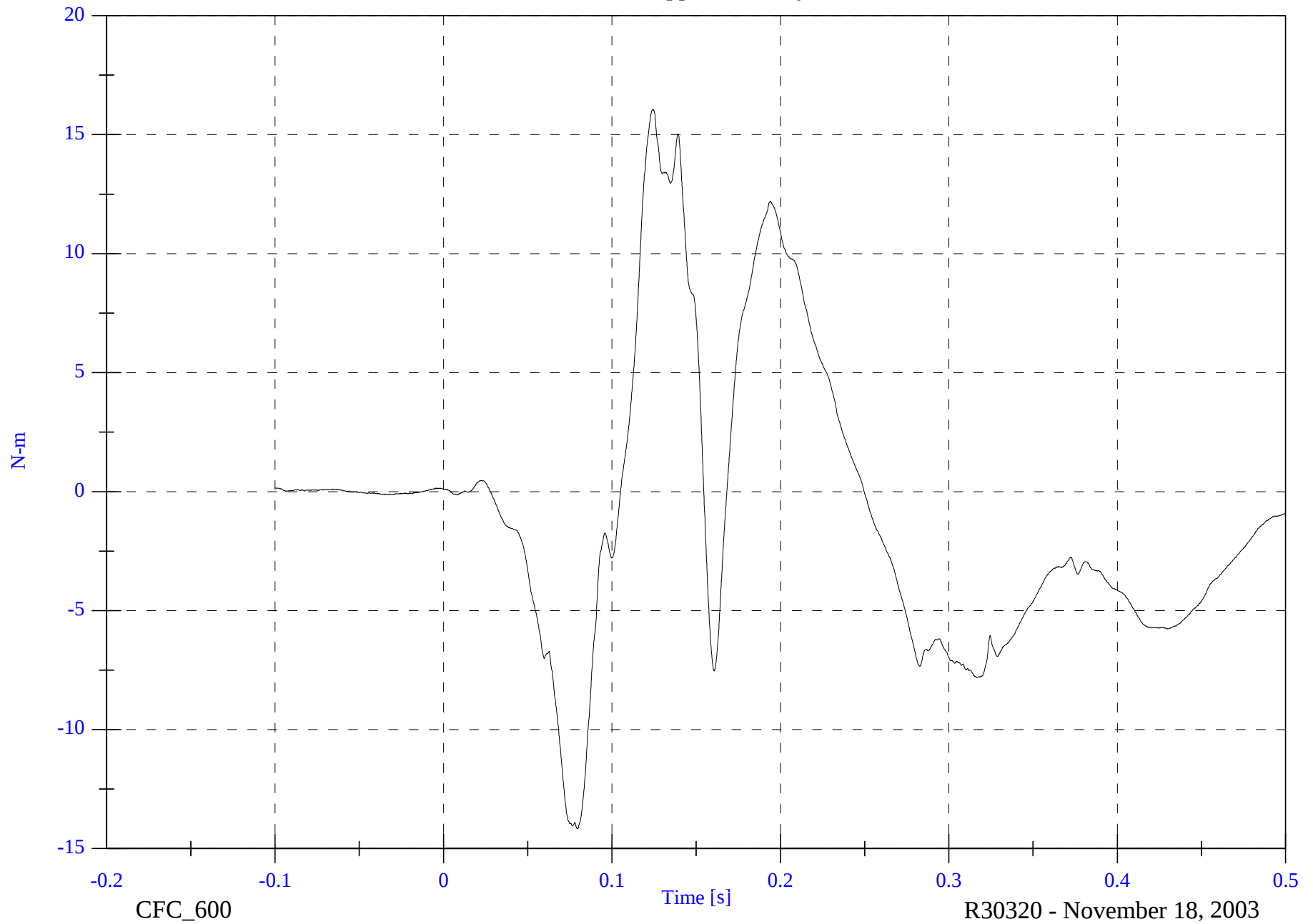
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck My

Max: 16.1 [N-m] at 0.124 [s]

Min: -14.2 [N-m] at 0.079 [s]



B-112

8710-OFST-06

CFC_600

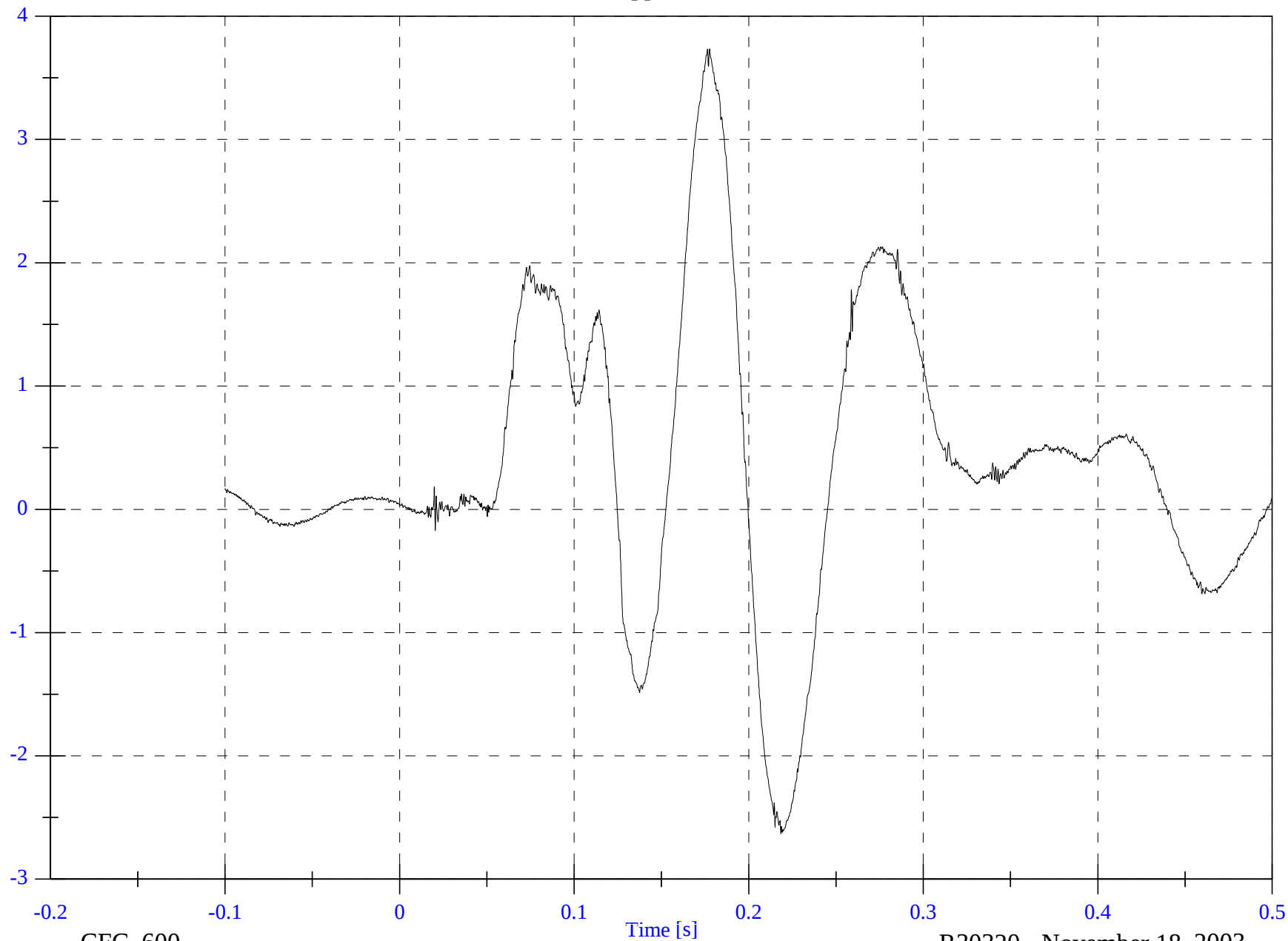
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck Mz

Max: 3.7 [N-m] at 0.178 [s]

Min: -2.6 [N-m] at 0.218 [s]



B-113

8710-OFST-06

CFC_600

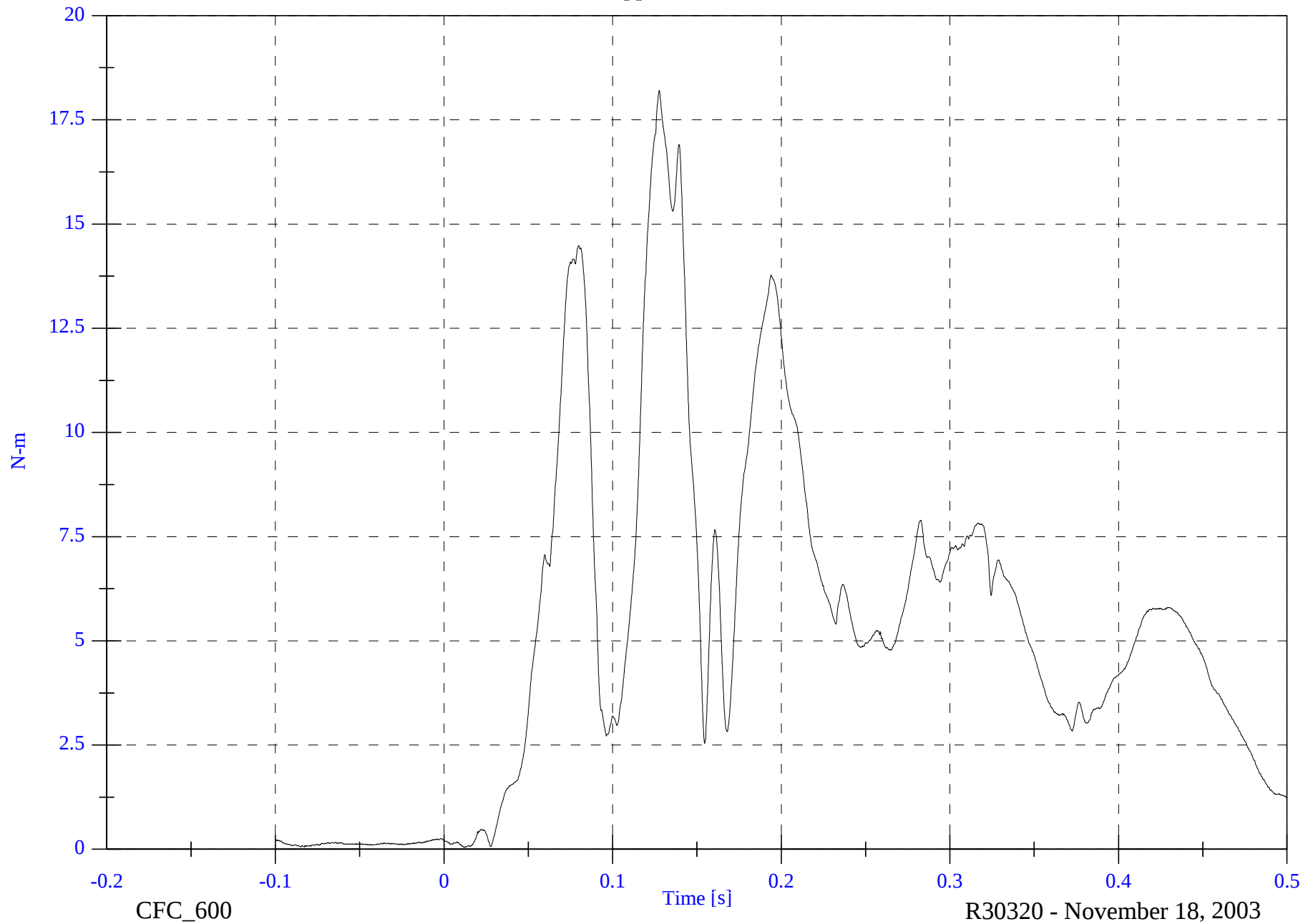
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Upper Neck M Resultant

Max: 18.2 [N-m] at 0.128 [s]

Min: 0.0 [N-m] at 0.012 [s]



B-114

8710-OFST-06

CFC_600

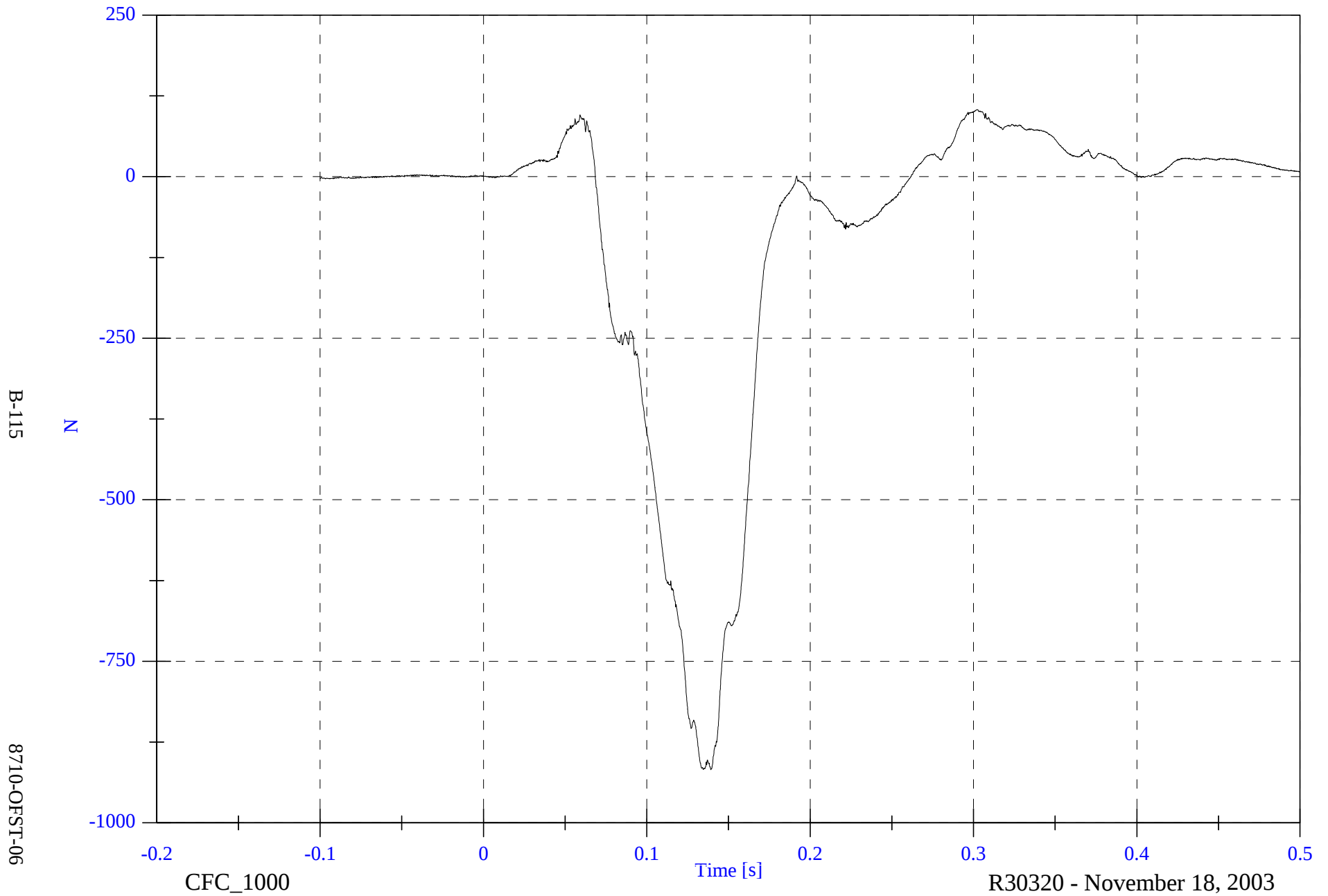
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck Fx

Max: 103.7 [N] at 0.303 [s]

Min: -917.8 [N] at 0.139 [s]

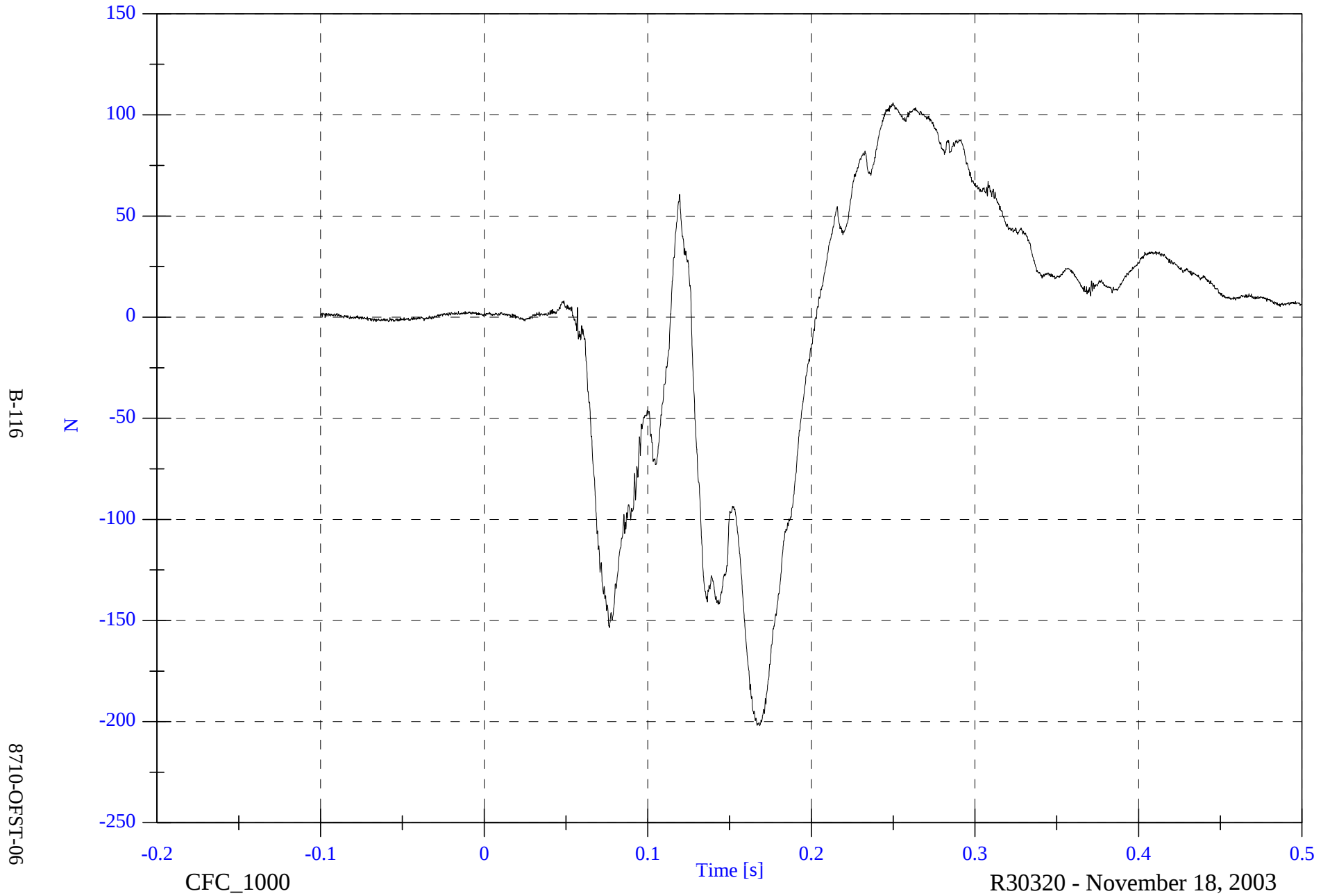


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck Fy

Max: 106.0 [N] at 0.250 [s]

Min: -202.0 [N] at 0.168 [s]

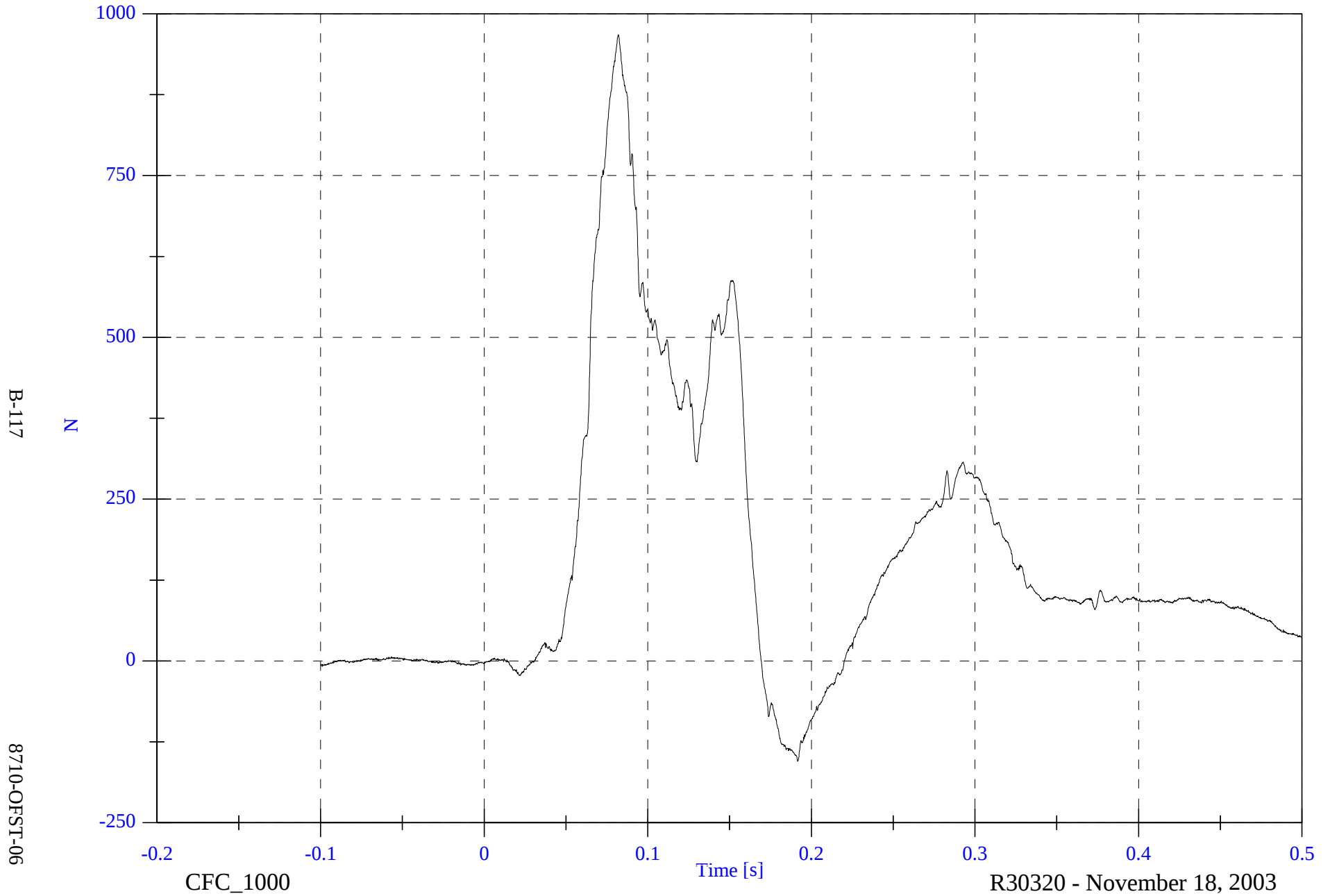


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck Fz

Max: 967.8 [N] at 0.082 [s]

Min: -155.0 [N] at 0.192 [s]

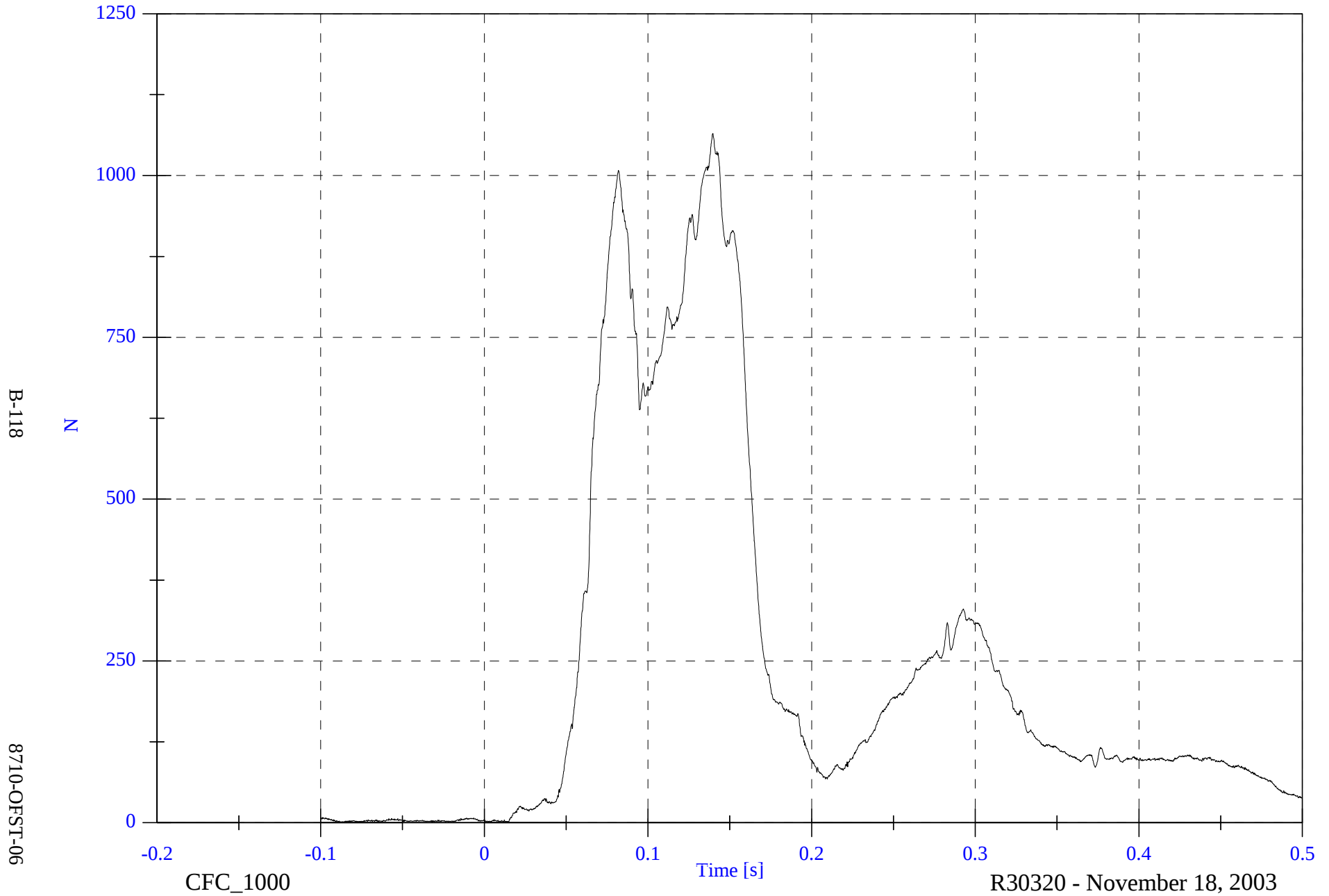


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck F Resultant

Max: 1064.9 [N] at 0.140 [s]

Min: 0.5 [N] at -0.075 [s]

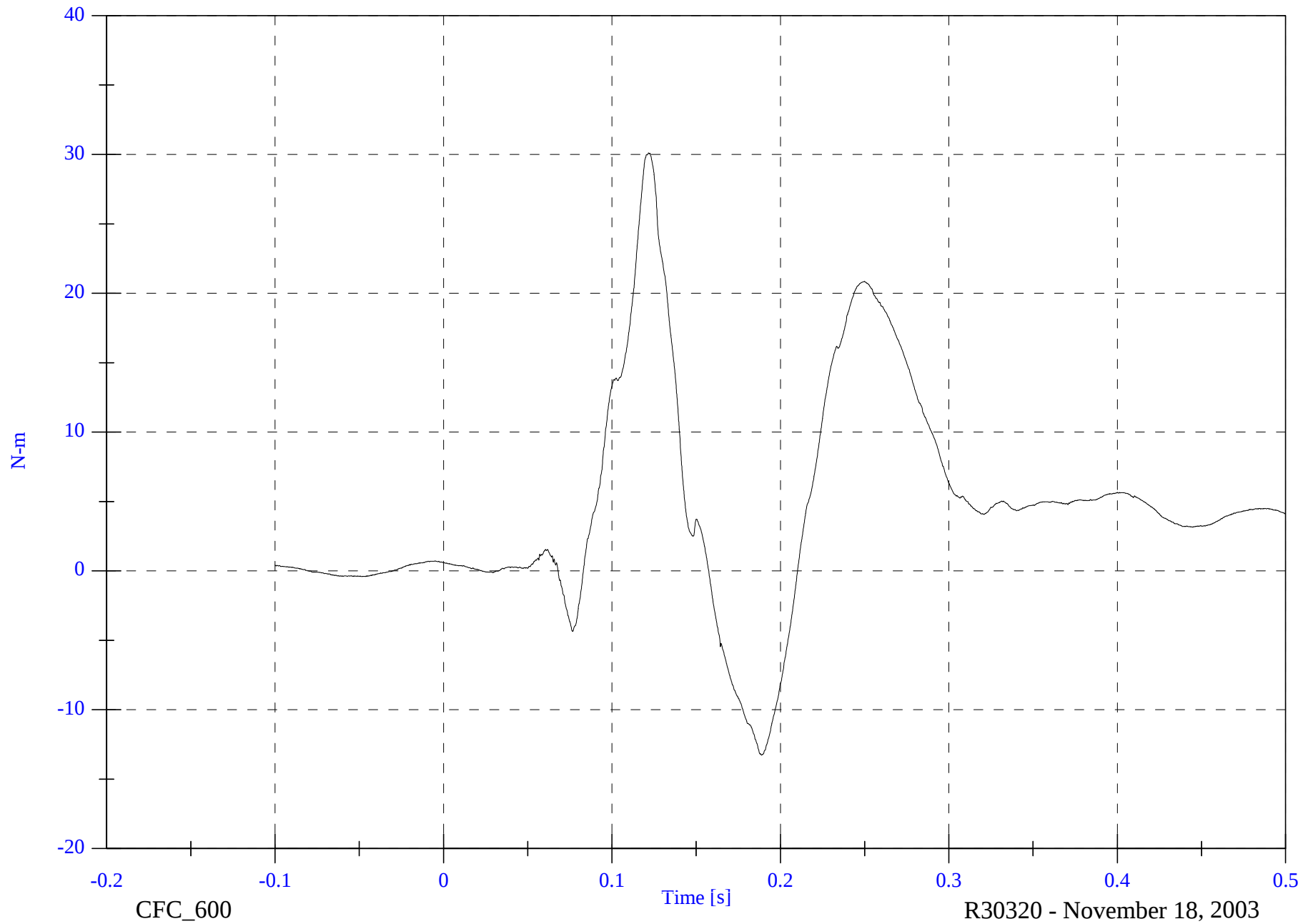


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck Mx

Max: 30.1 [N-m] at 0.122 [s]

Min: -13.3 [N-m] at 0.189 [s]



B-119

8710-OFST-06

CFC_600

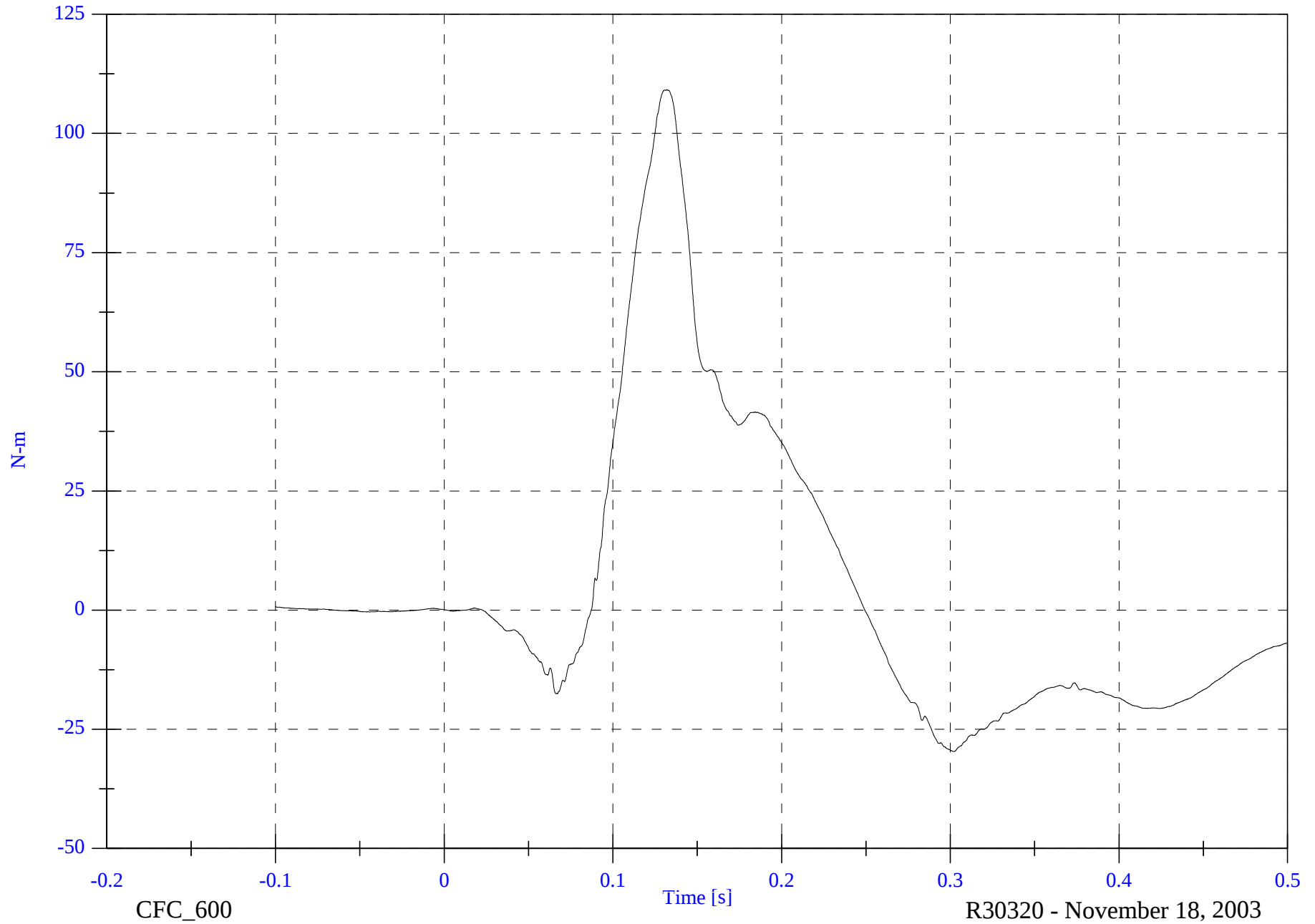
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck My

Max: 109.2 [N-m] at 0.132 [s]

Min: -29.7 [N-m] at 0.302 [s]



B-120

8710-OFST-06

CFC_600

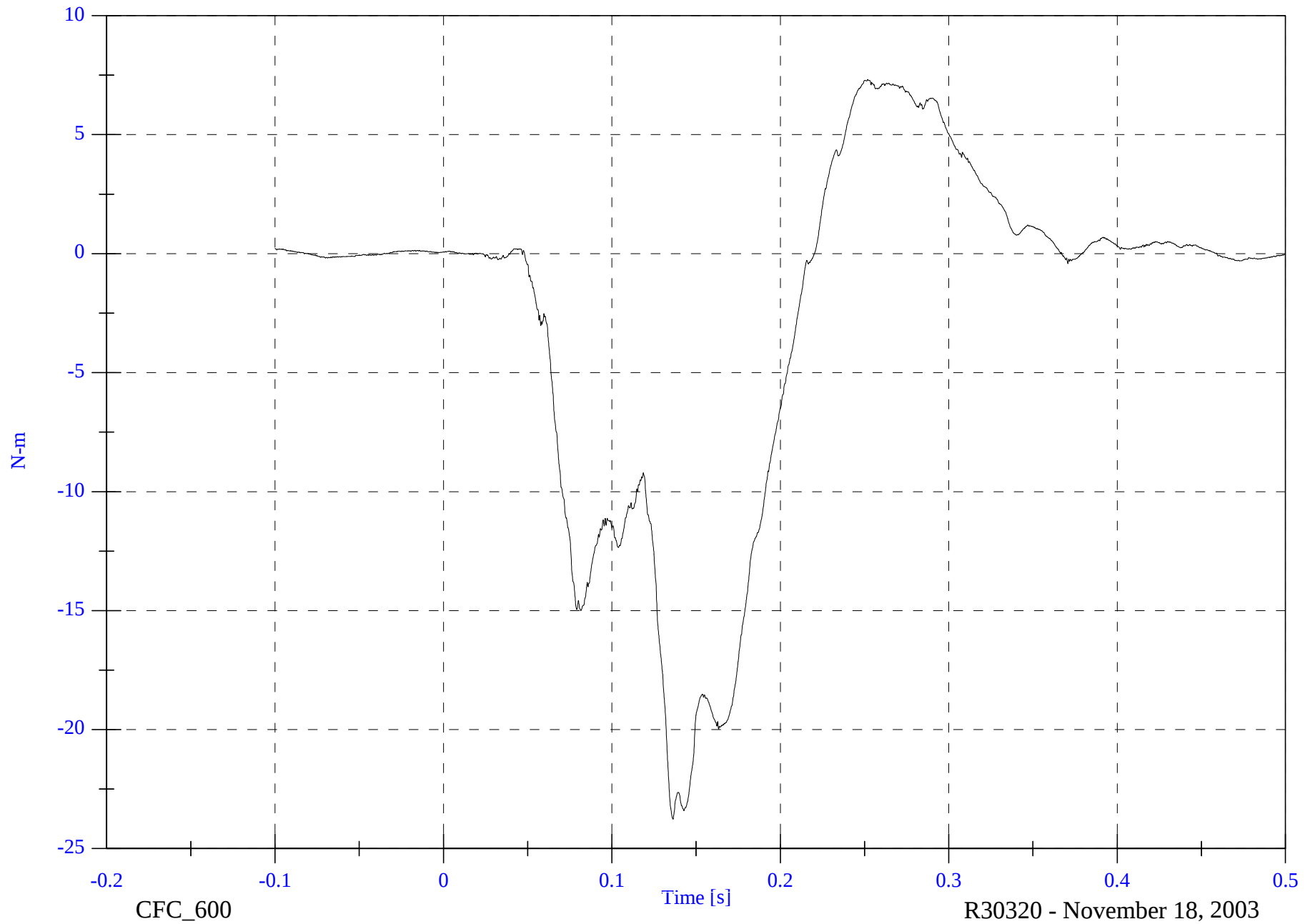
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck Mz

Max: 7.3 [N-m] at 0.252 [s]

Min: -23.8 [N-m] at 0.136 [s]



B-121

8710-OFST-06

CFC_600

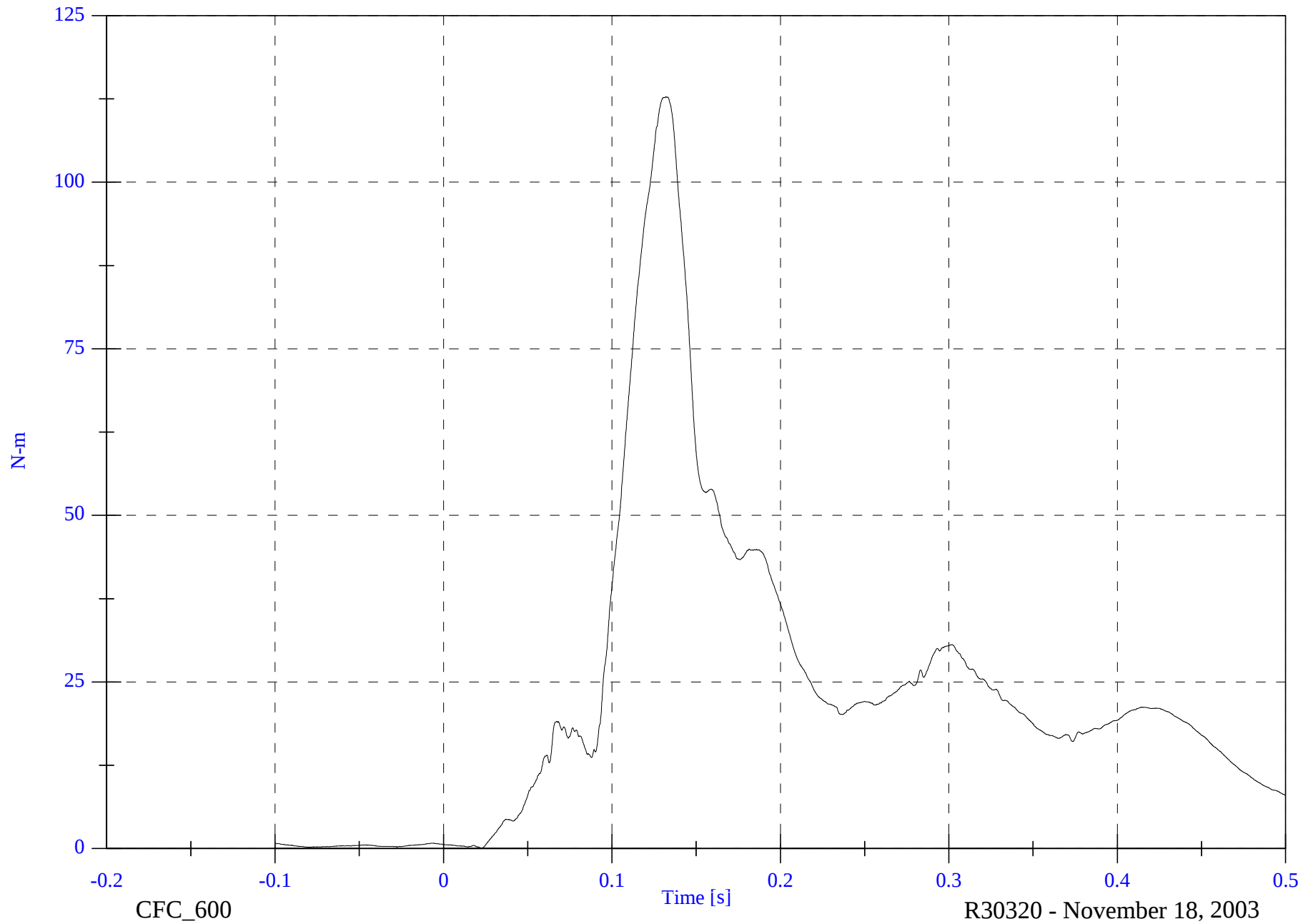
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Lower Neck M Resultant

Max: 112.8 [N-m] at 0.132 [s]

Min: 0.0 [N-m] at 0.023 [s]



B-122

8710-OFST-06

CFC_600

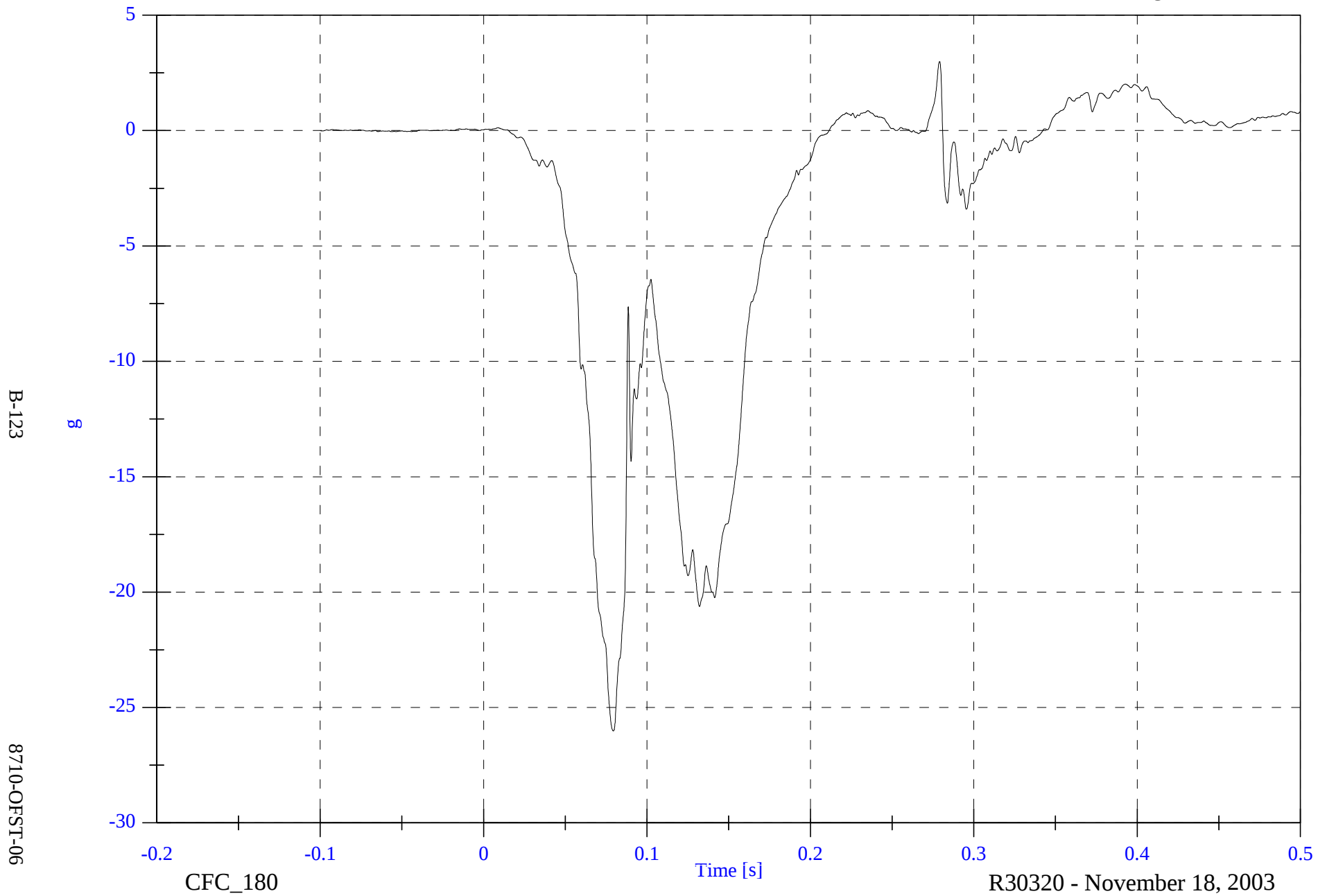
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest x

Max: 3.0 [g] at 0.279 [s]

Min: -26.0 [g] at 0.079 [s]

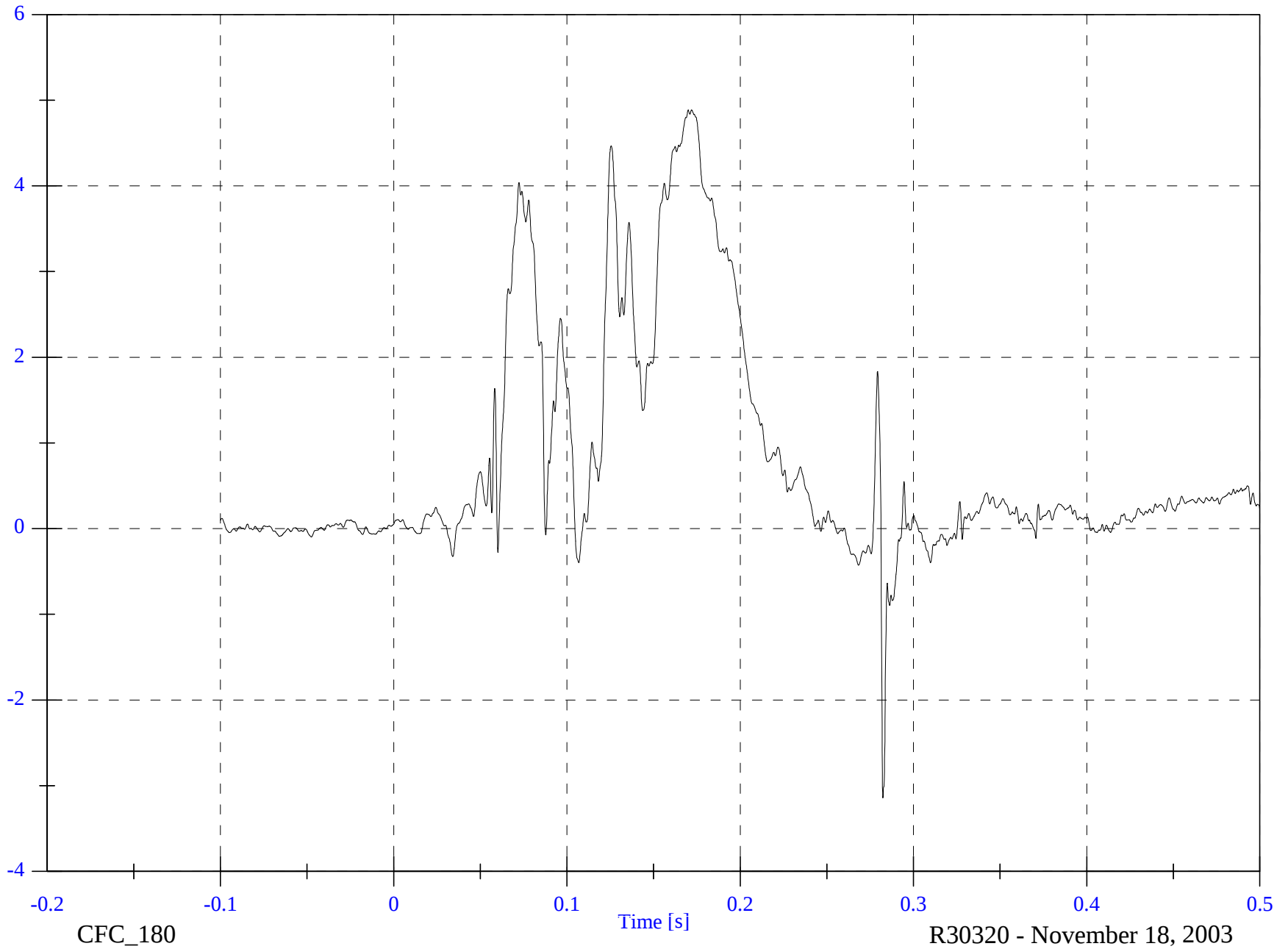


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest y

Max: 4.9 [g] at 0.170 [s]

Min: -3.1 [g] at 0.282 [s]



B-124

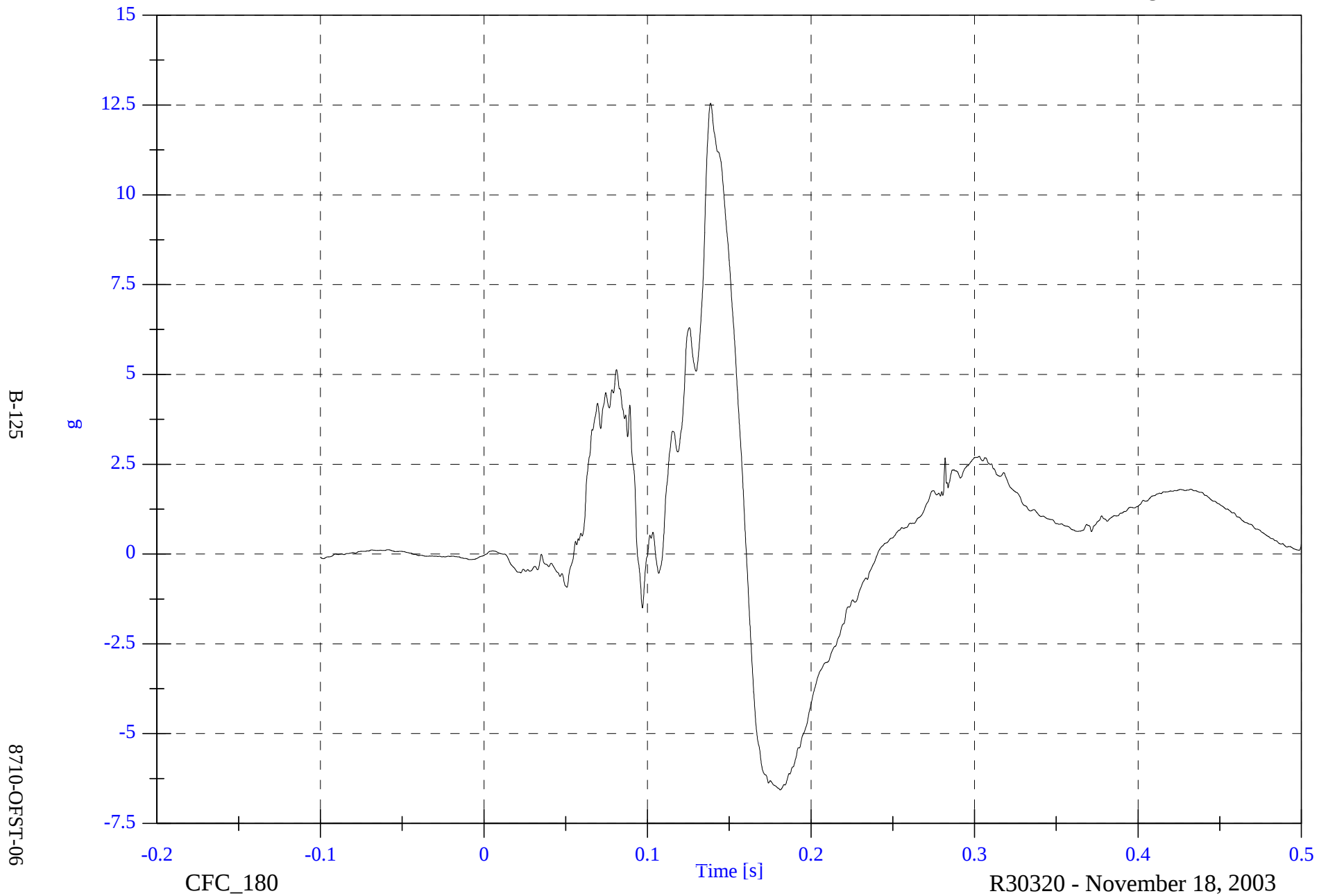
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest z

Max: 12.5 [g] at 0.139 [s]

Min: -6.6 [g] at 0.181 [s]

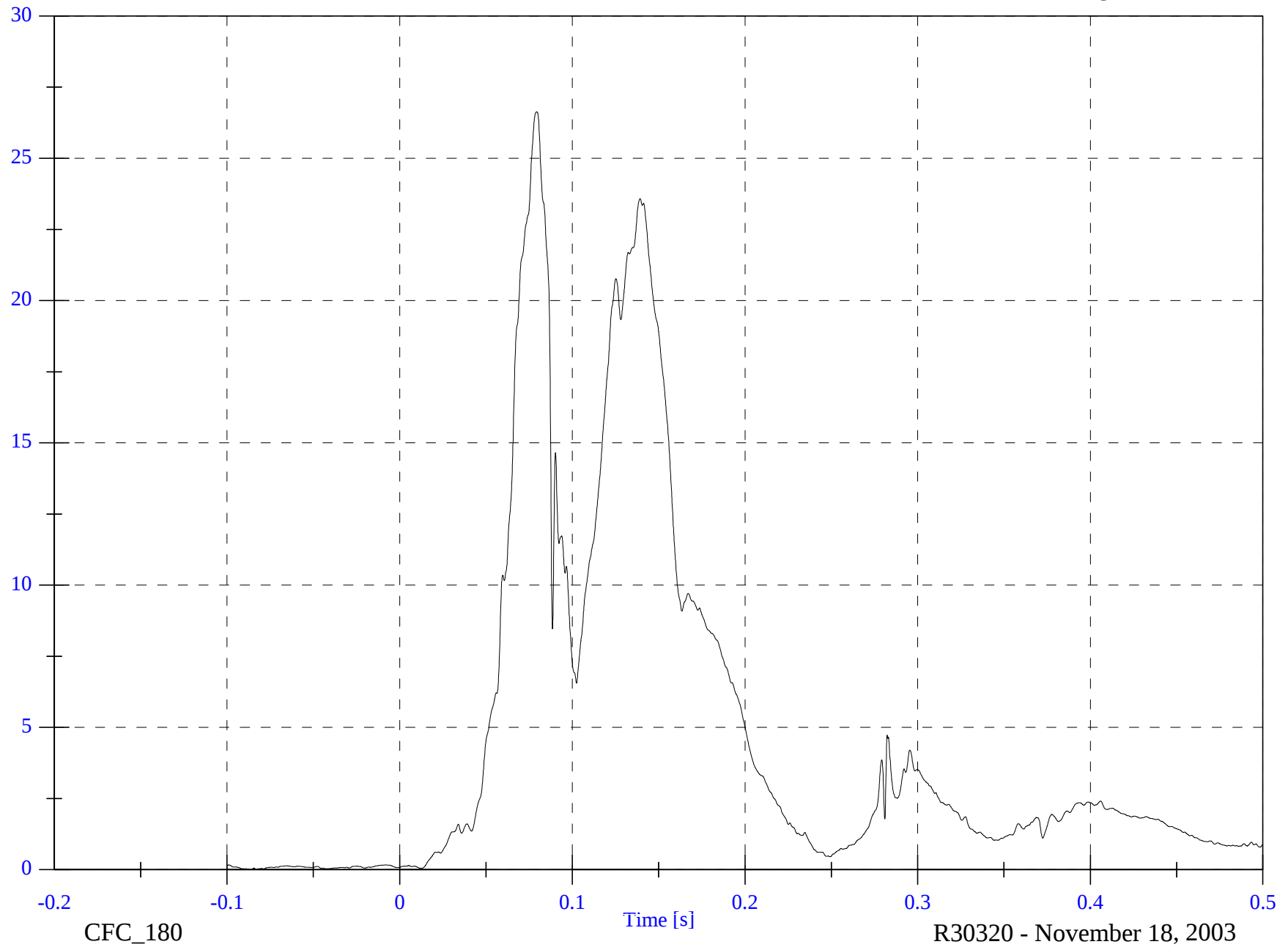


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest Resultant

Max: 26.6 [g] at 0.079 [s]

Min: 0.0 [g] at -0.087 [s]



B-126

8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

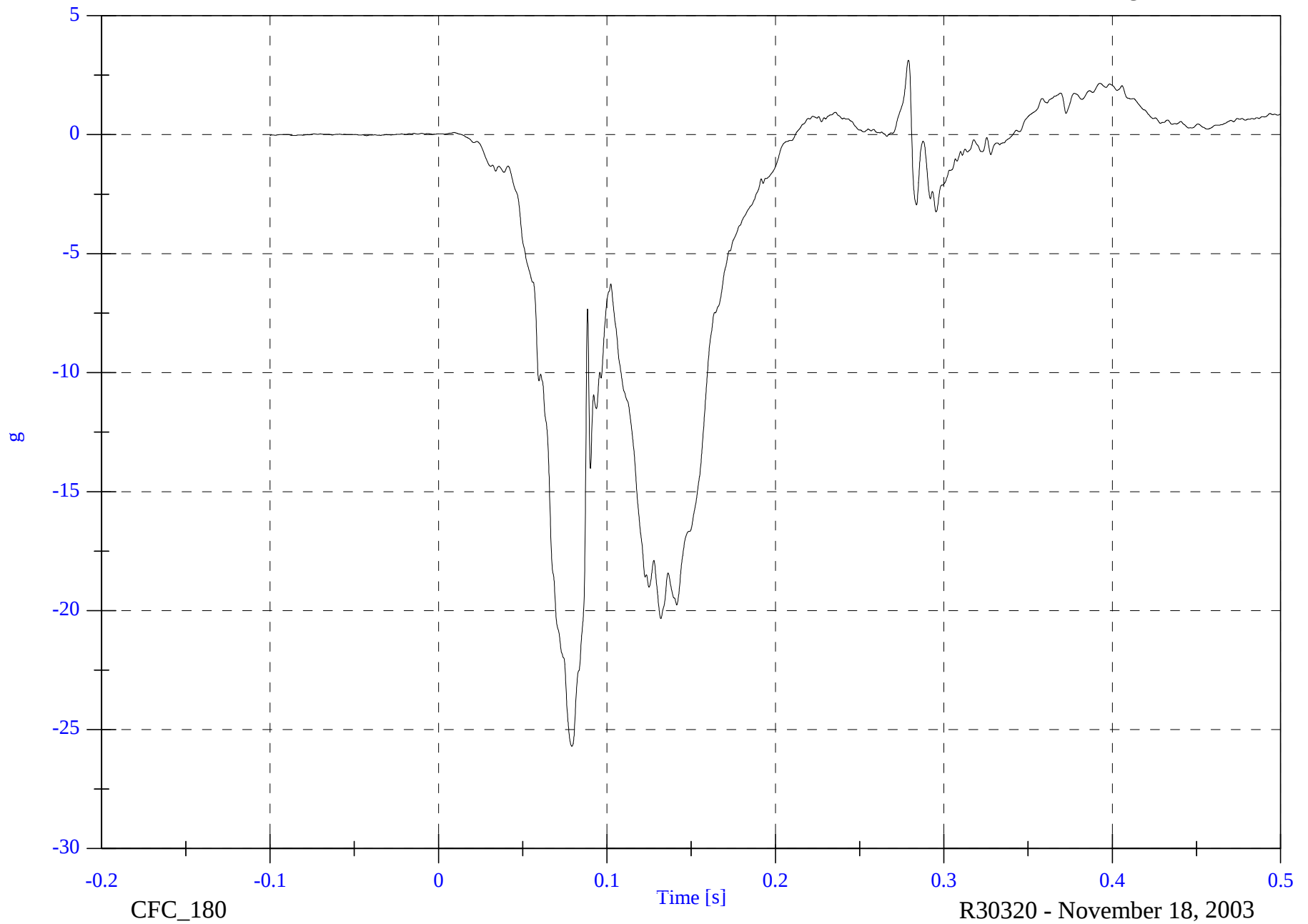
V1P2 Chest Red x

Max: 3.1 [g] at 0.279 [s]

Min: -25.7 [g] at 0.079 [s]

B-127

8710-OFST-06

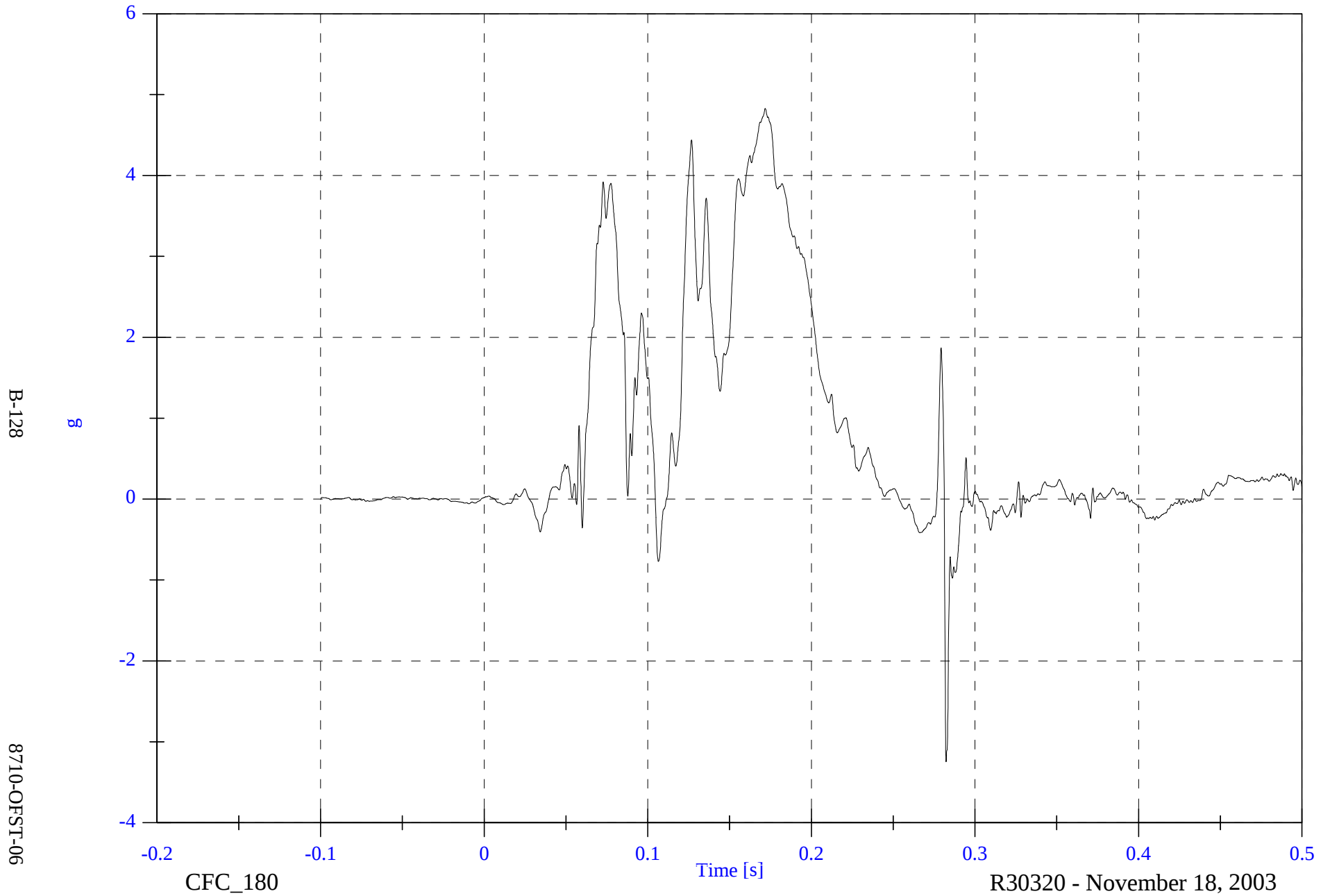


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest Red y

Max: 4.8 [g] at 0.172 [s]

Min: -3.2 [g] at 0.282 [s]

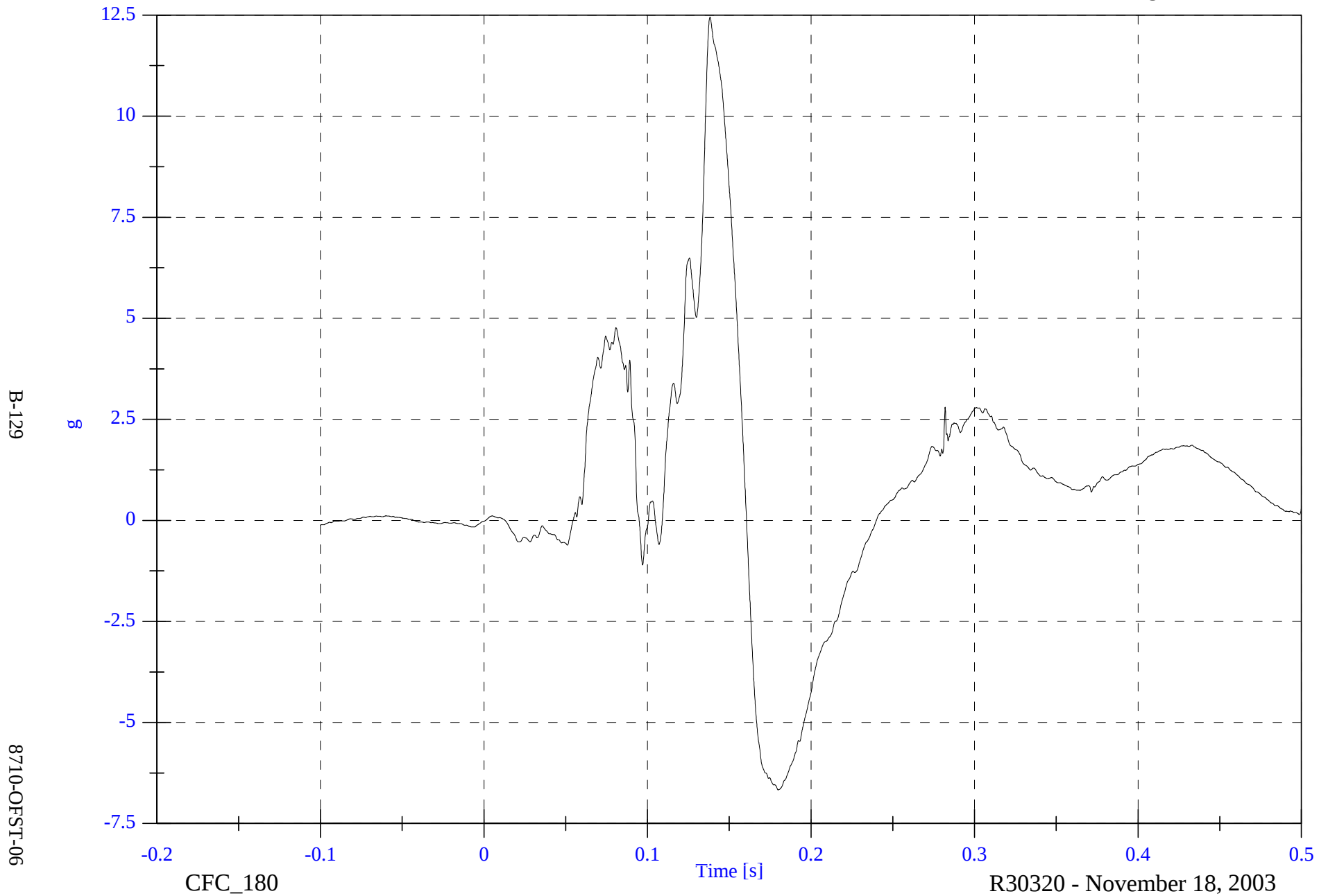


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Chest Red z

Max: 12.4 [g] at 0.138 [s]

Min: -6.7 [g] at 0.180 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

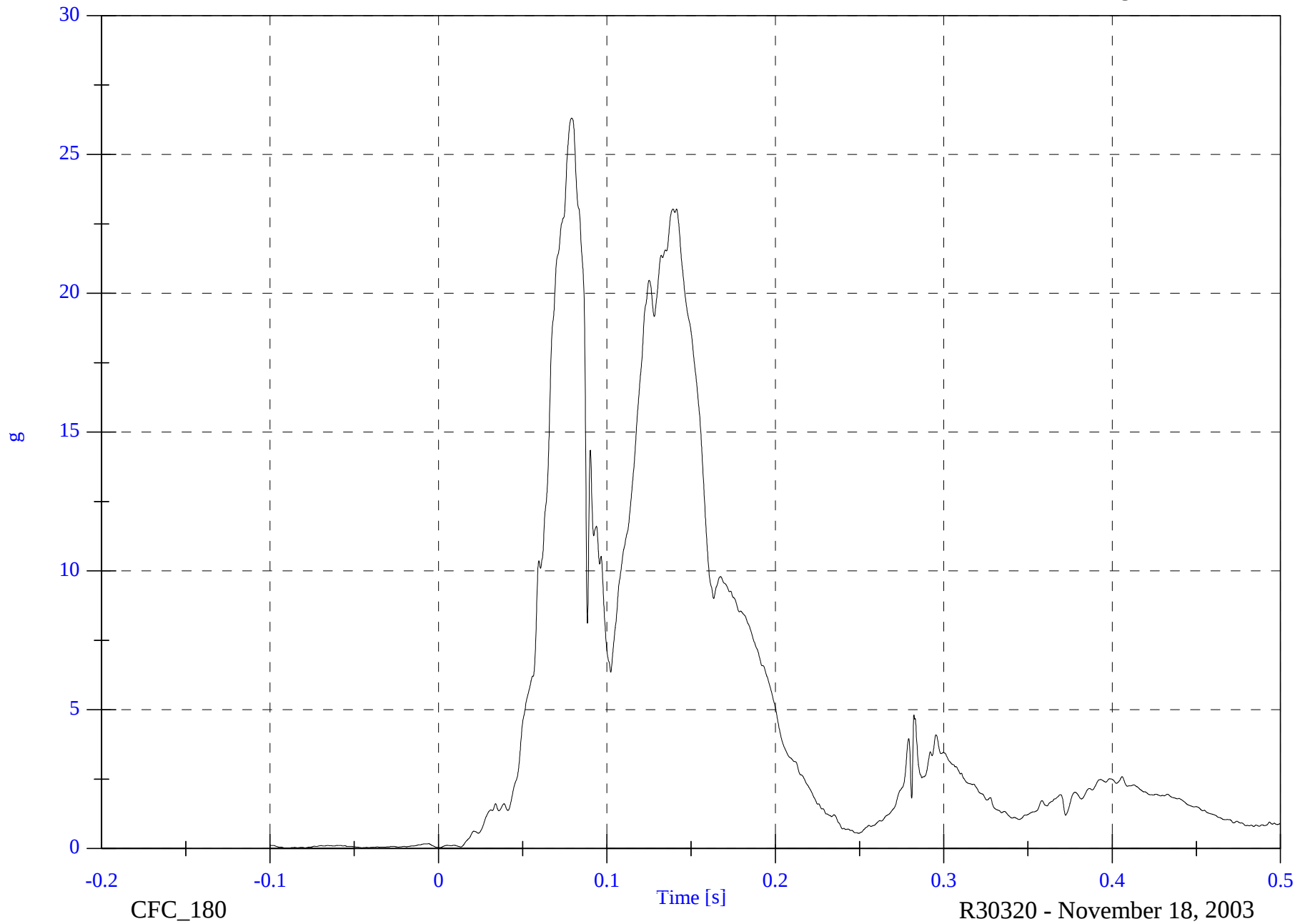
V1P2 Chest Red Resultant

Max: 26.3 [g] at 0.079 [s]

Min: 0.0 [g] at -0.088 [s]

B-130

8710-OFST-06



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

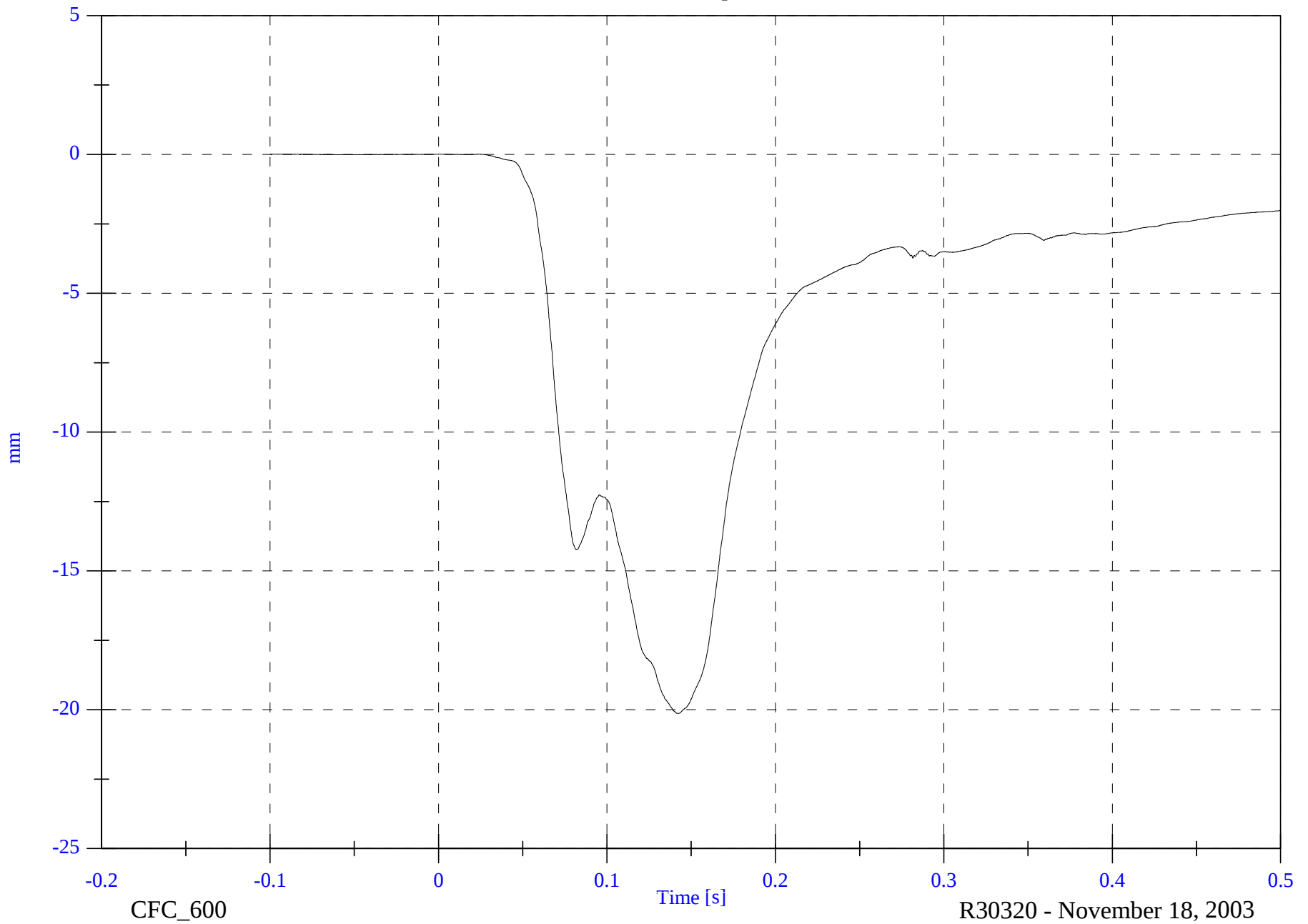
V1P2 Chest Displacement

Max: 0.0 [mm] at 0.001 [s]

Min: -20.1 [mm] at 0.143 [s]

B-131

8710-OFST-06

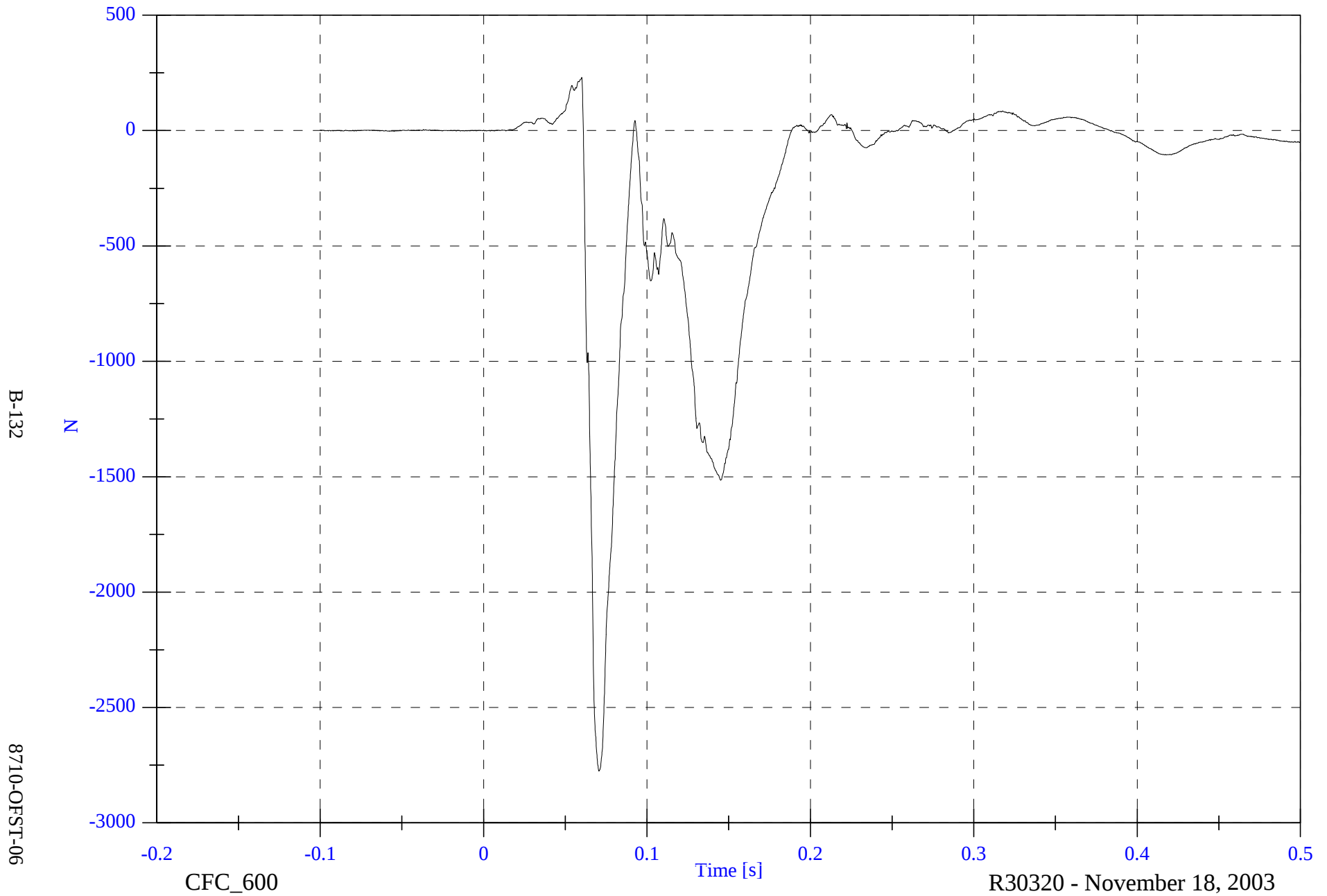


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Femur

Max: 230.2 [N] at 0.060 [s]

Min: -2775.4 [N] at 0.071 [s]

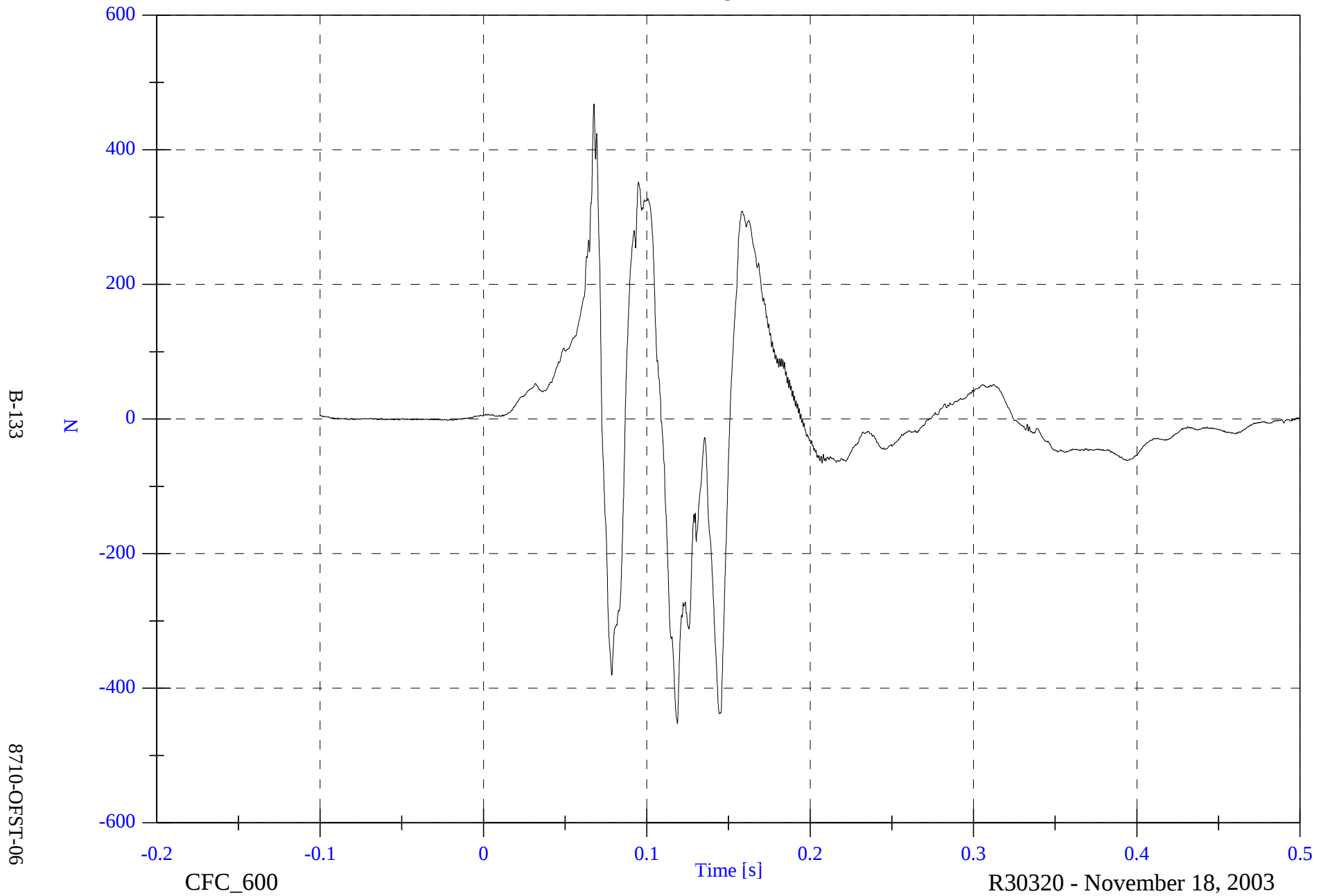


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Femur

Max: 468.1 [N] at 0.068 [s]

Min: -452.7 [N] at 0.119 [s]

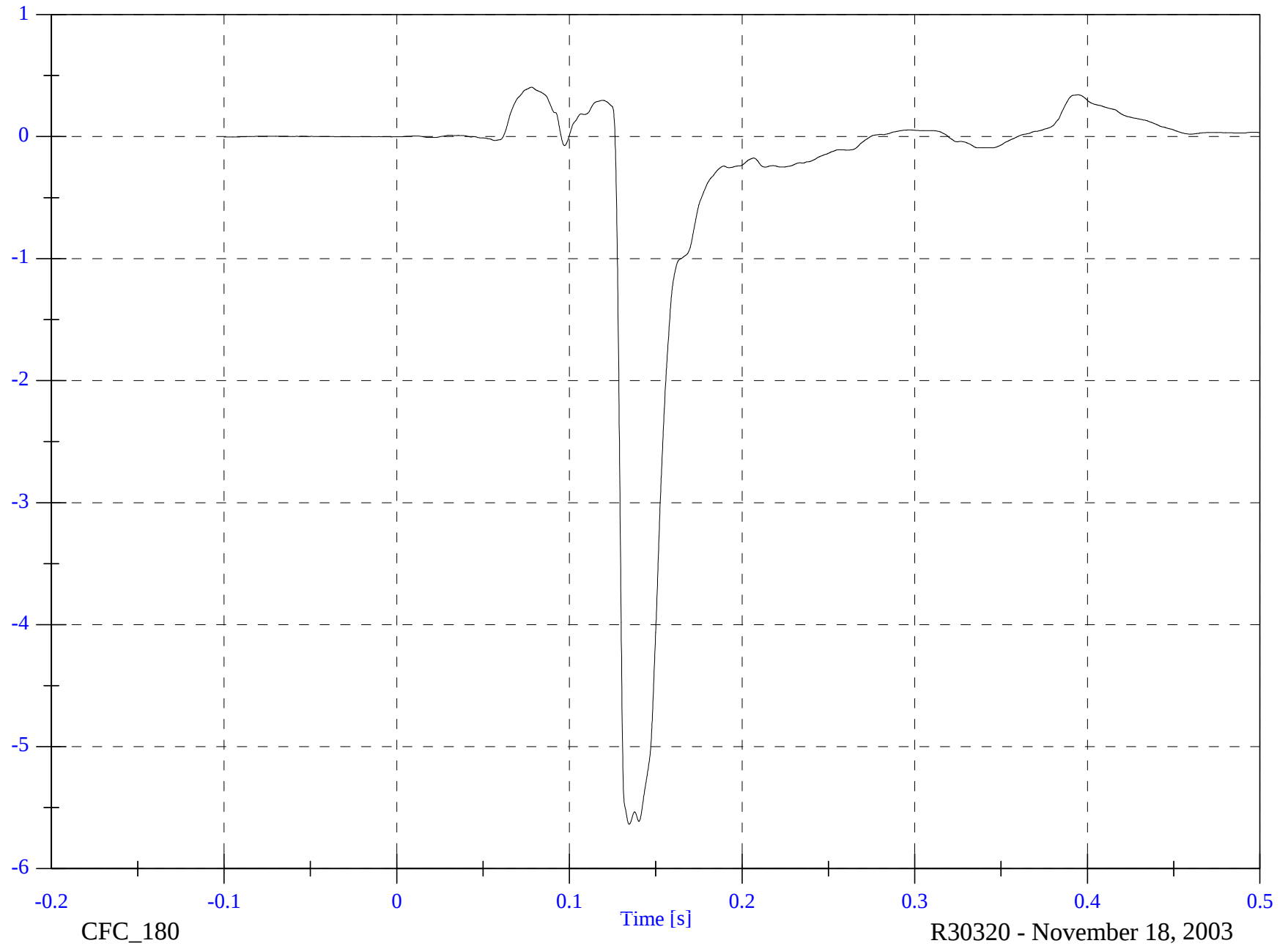


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Knee Deflection

Max: 0.4 [mm] at 0.078 [s]

Min: -5.6 [mm] at 0.135 [s]



B-134

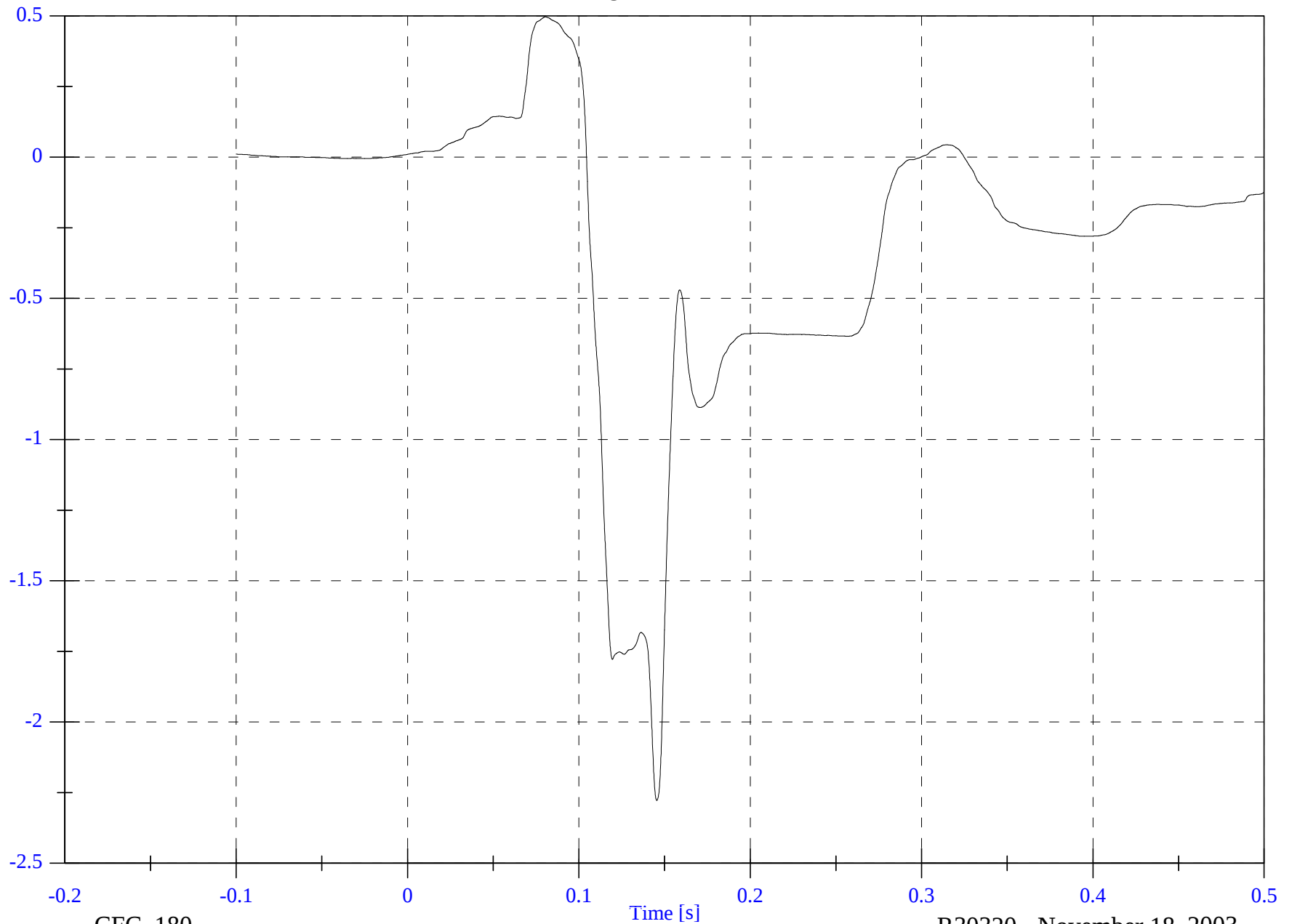
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Knee Deflection

Max: 0.5 [mm] at 0.081 [s]

Min: -2.3 [mm] at 0.145 [s]



B-135

8710-OFST-06

CFC_180

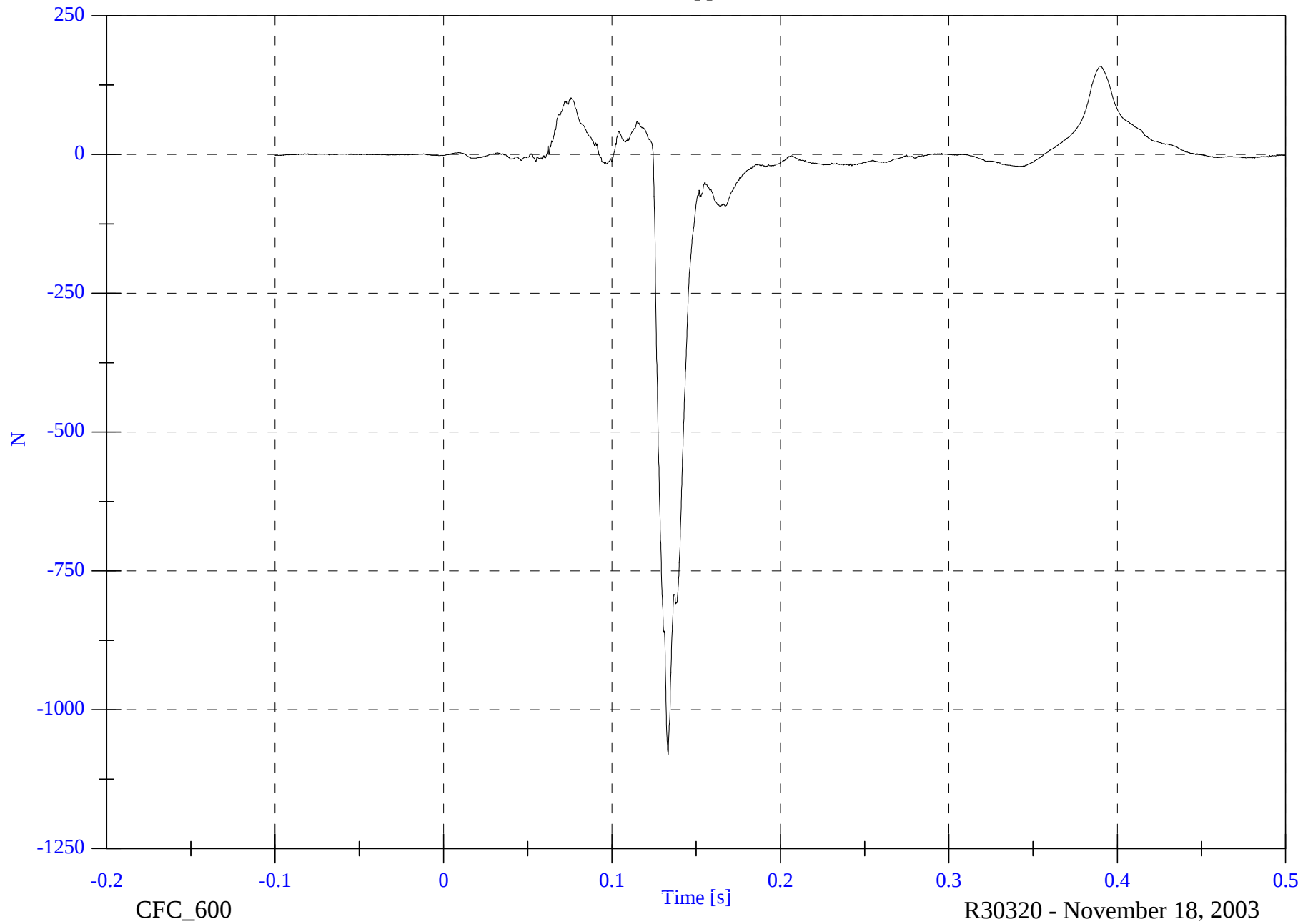
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Upper Tibia Fx

Max: 159.2 [N] at 0.390 [s]

Min: -1081.8 [N] at 0.133 [s]



B-136

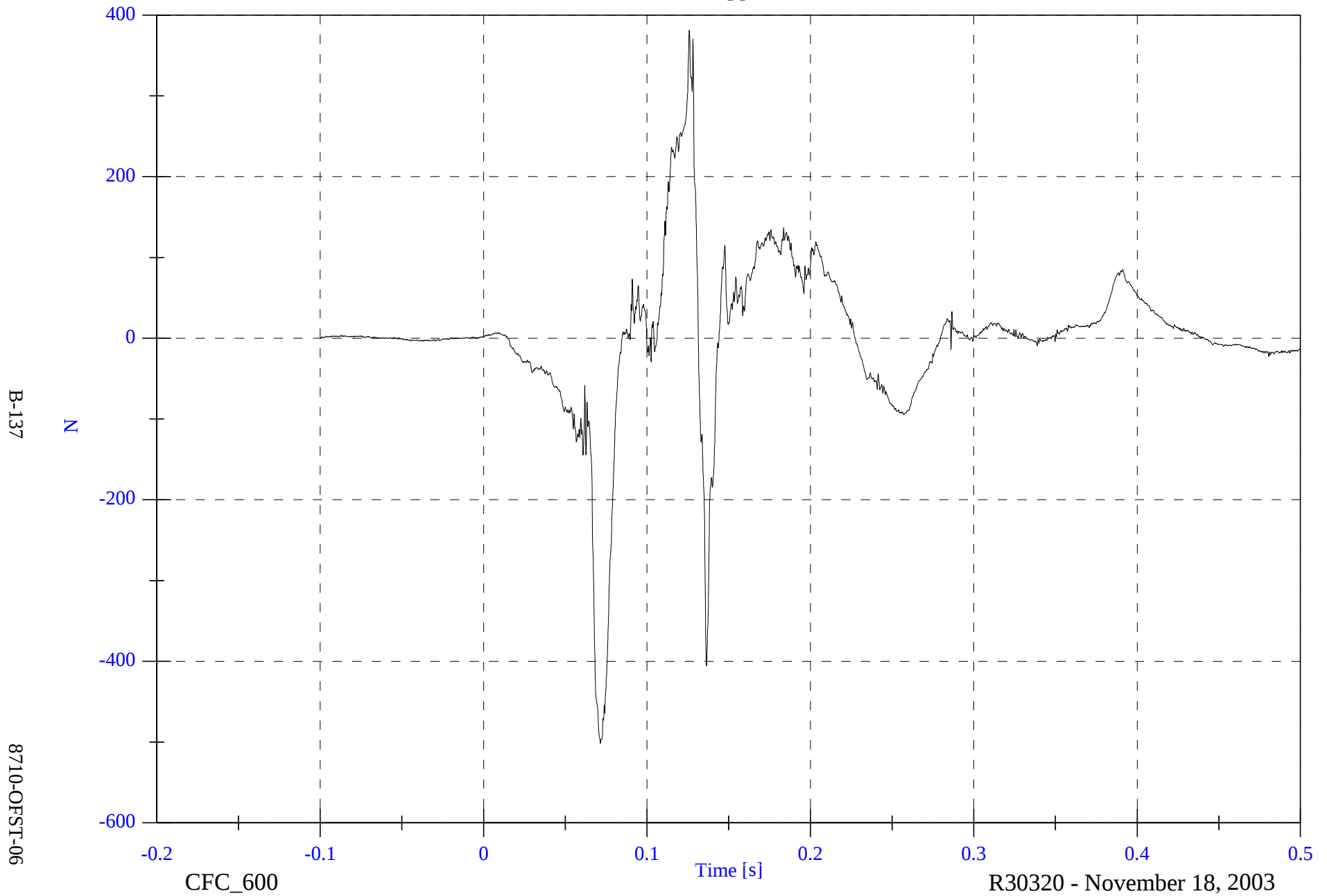
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 381.2 [N] at 0.126 [s]

V1P2 Left Upper Tibia Fz

Min: -501.6 [N] at 0.072 [s]

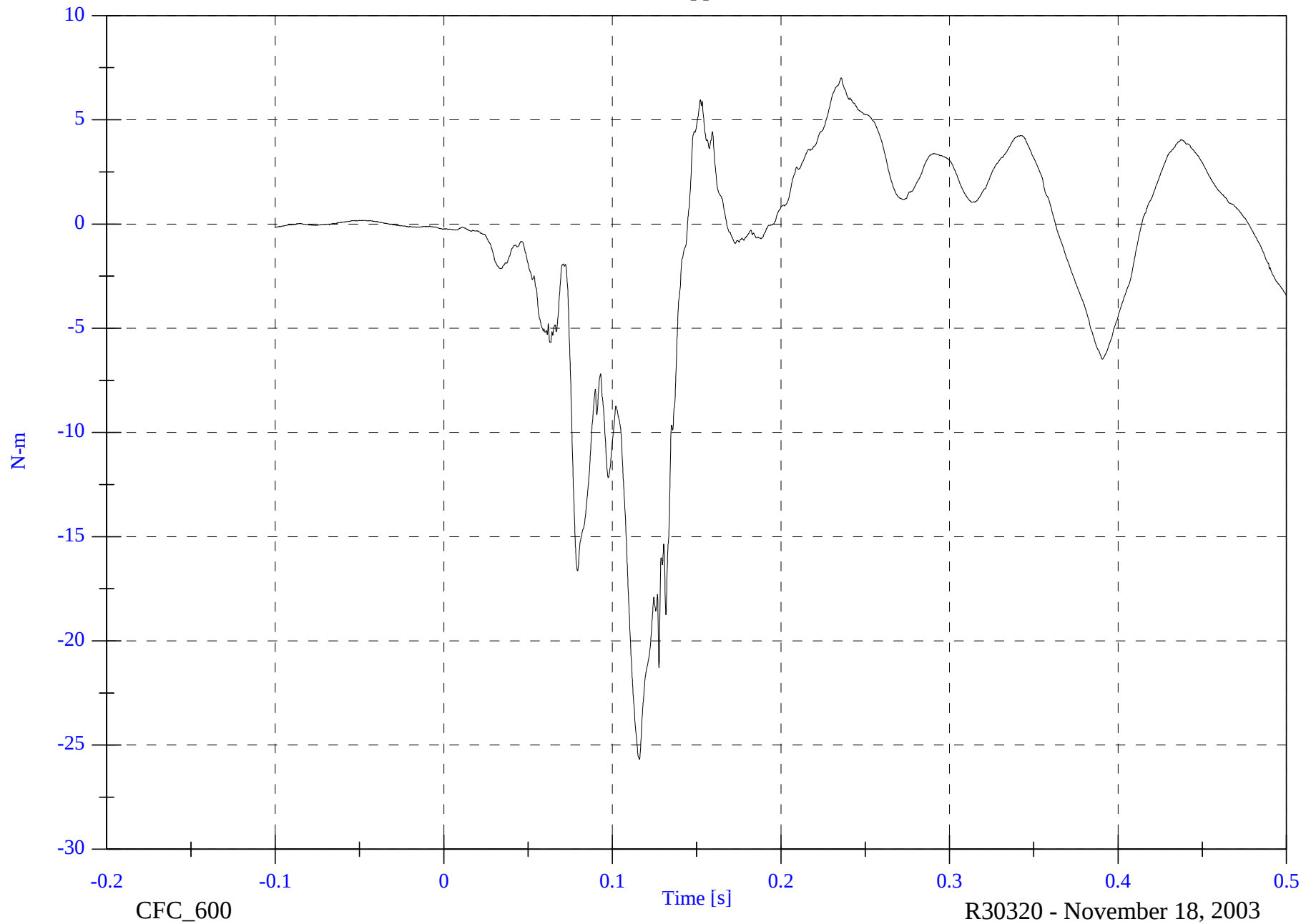


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Upper Tibia Mx

Max: 7.0 [N-m] at 0.236 [s]

Min: -25.7 [N-m] at 0.116 [s]



B-138

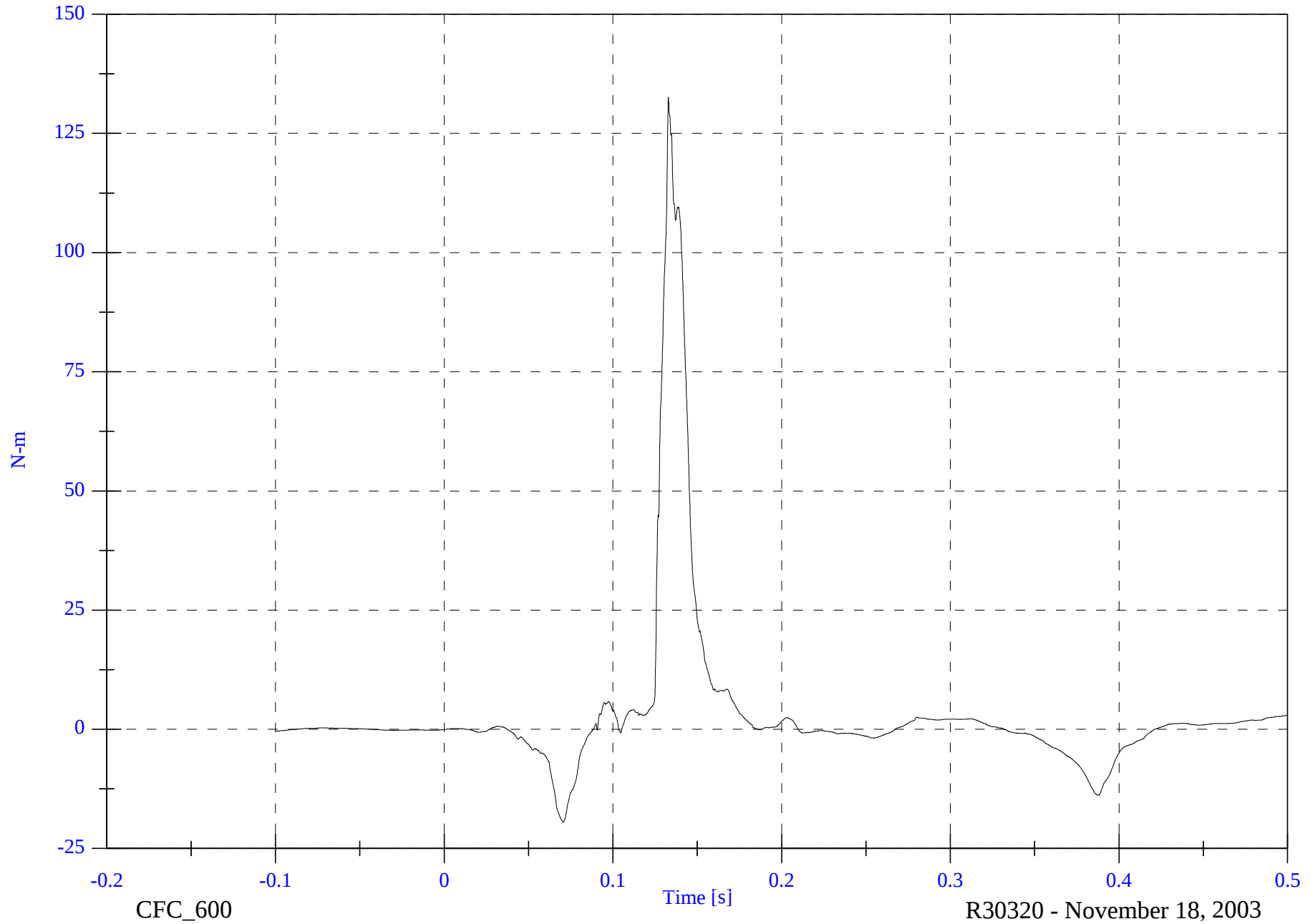
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Upper Tibia My

Max: 132.5 [N-m] at 0.133 [s]

Min: -19.5 [N-m] at 0.070 [s]

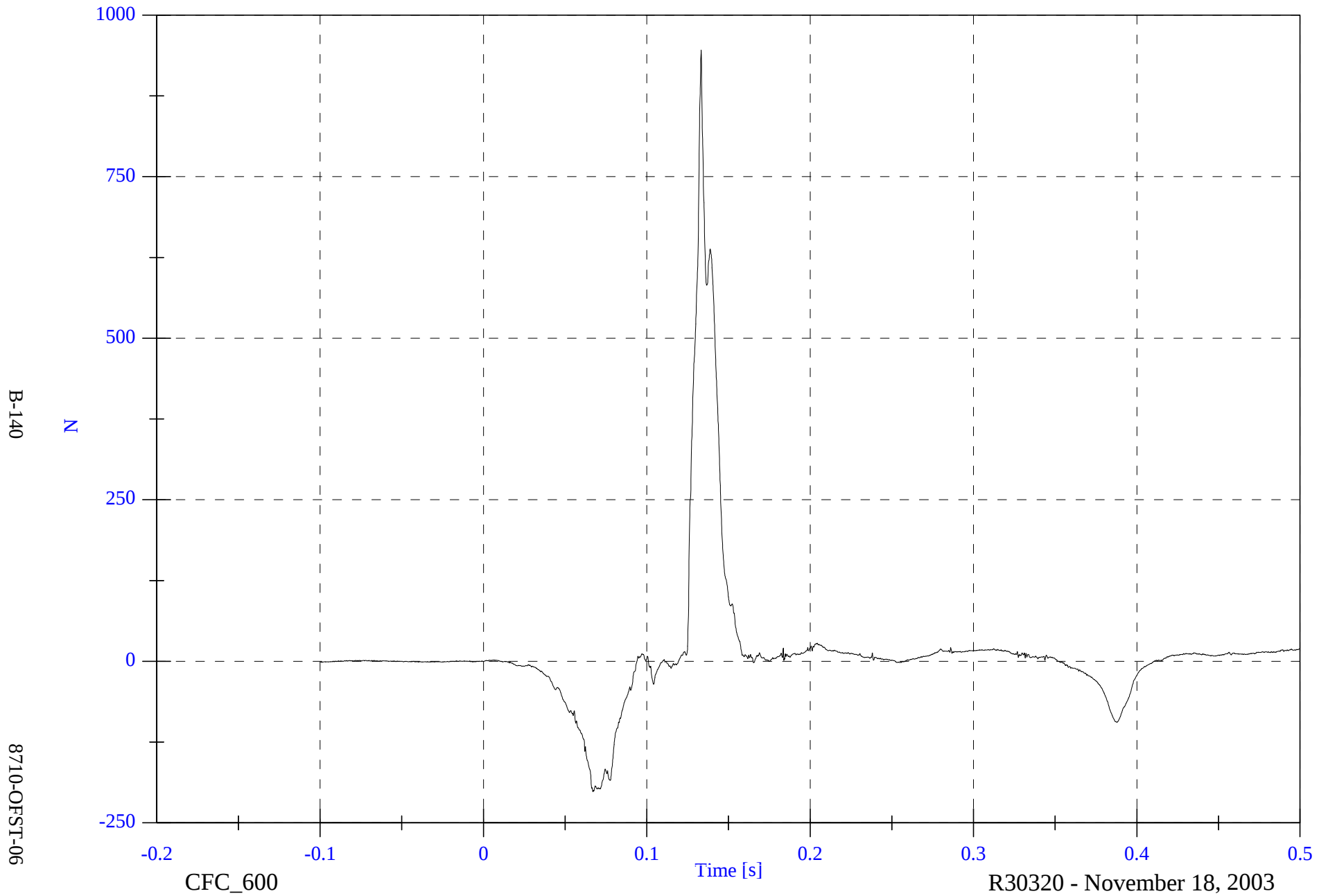


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia Fx

Max: 945.9 [N] at 0.133 [s]

Min: -201.9 [N] at 0.067 [s]

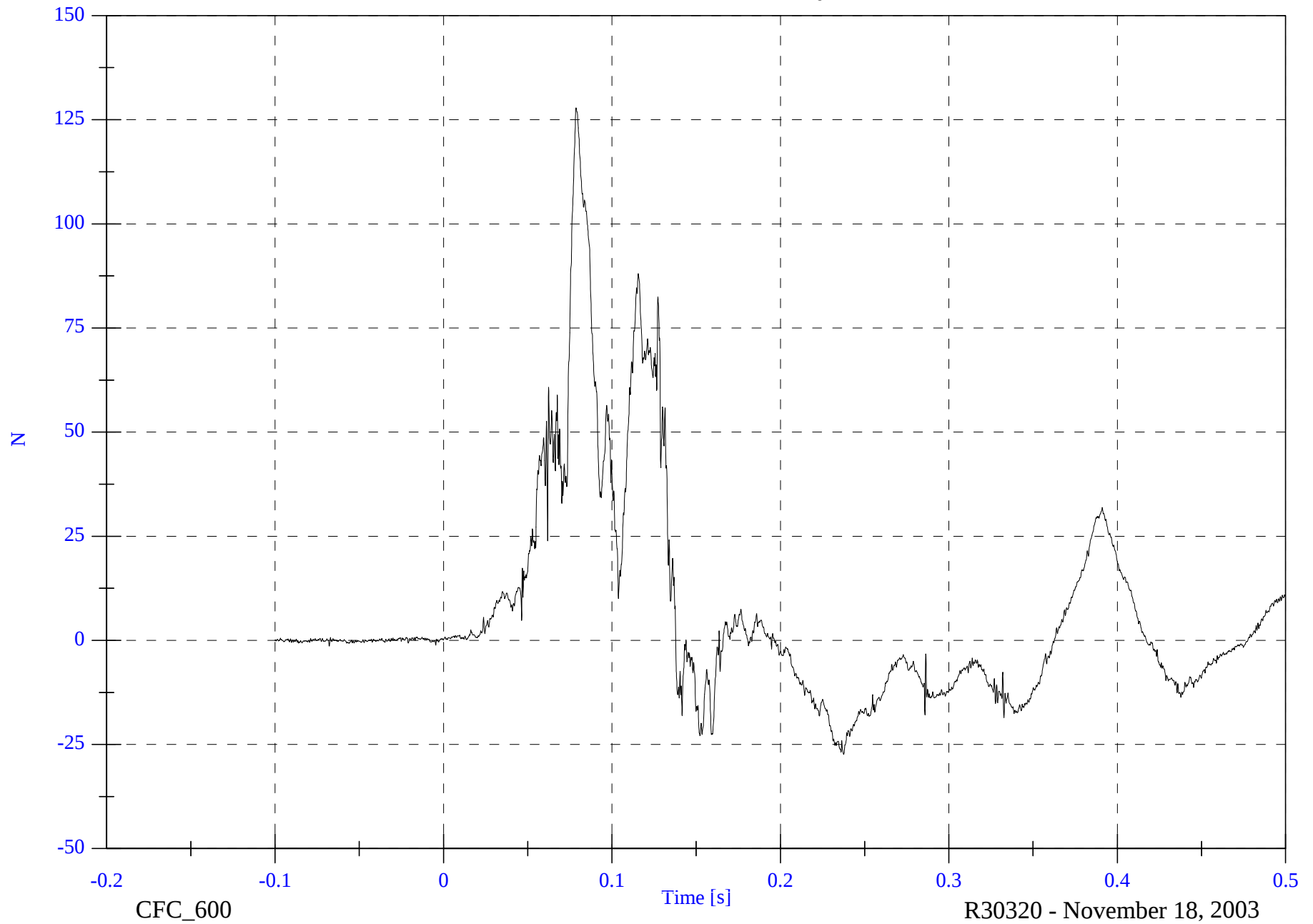


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia Fy

Max: 127.9 [N] at 0.079 [s]

Min: -27.4 [N] at 0.238 [s]



B-141

8710-OFST-06

CFC_600

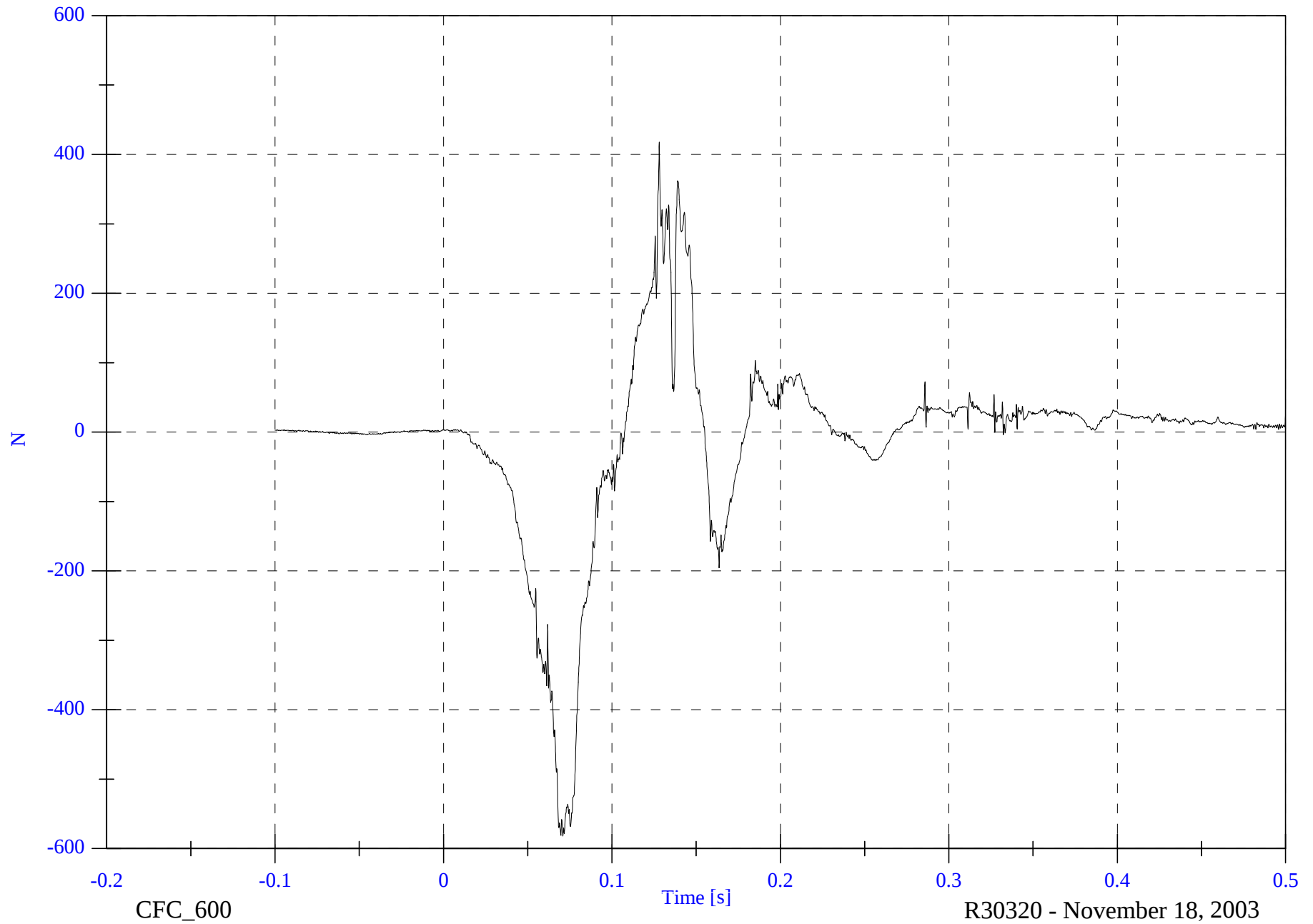
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia Fz

Max: 417.7 [N] at 0.128 [s]

Min: -582.0 [N] at 0.071 [s]



B-142

8710-OFST-06

CFC_600

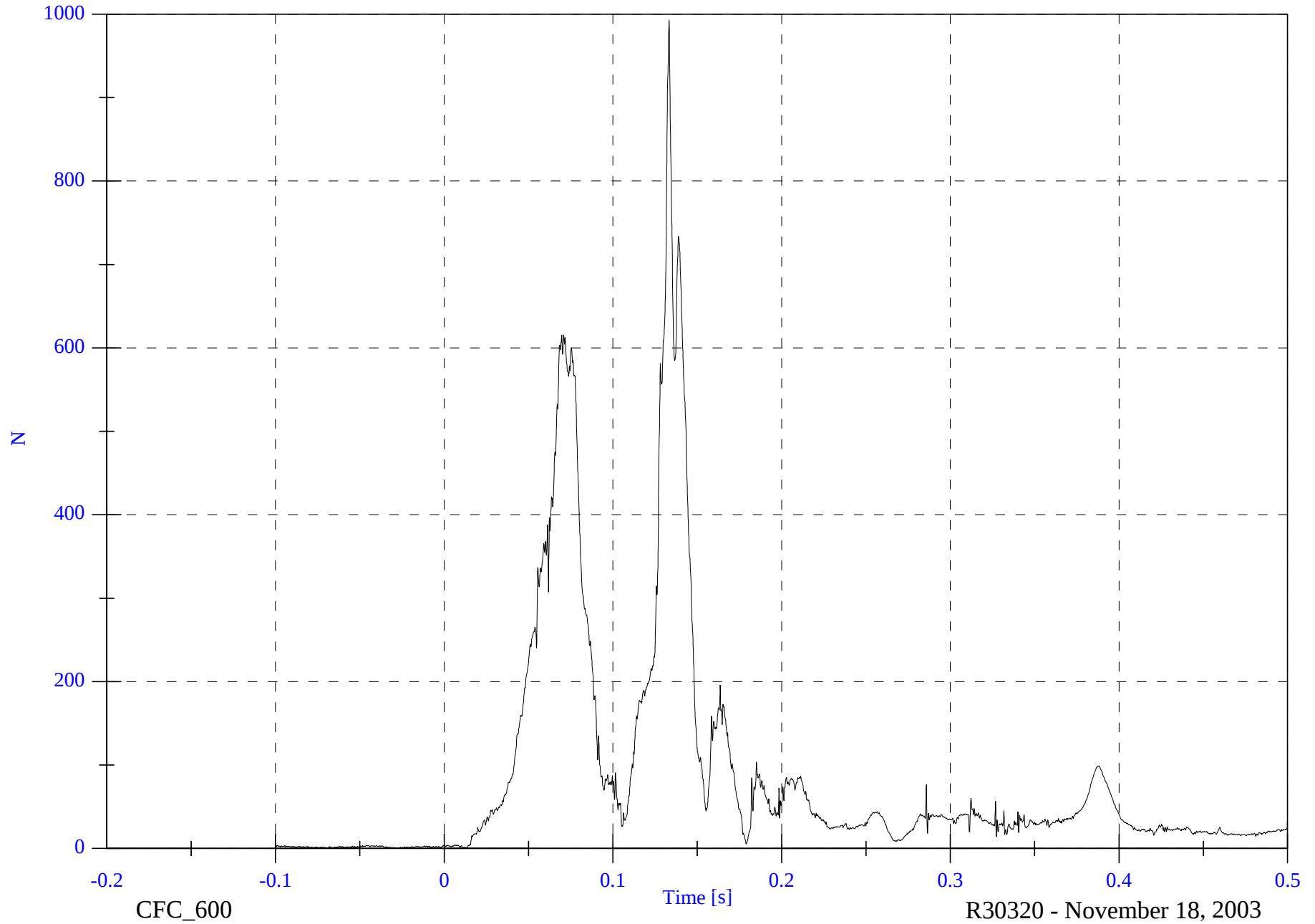
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia F Resultant

Max: 993.1 [N] at 0.133 [s]

Min: 0.5 [N] at 0.014 [s]



B-143

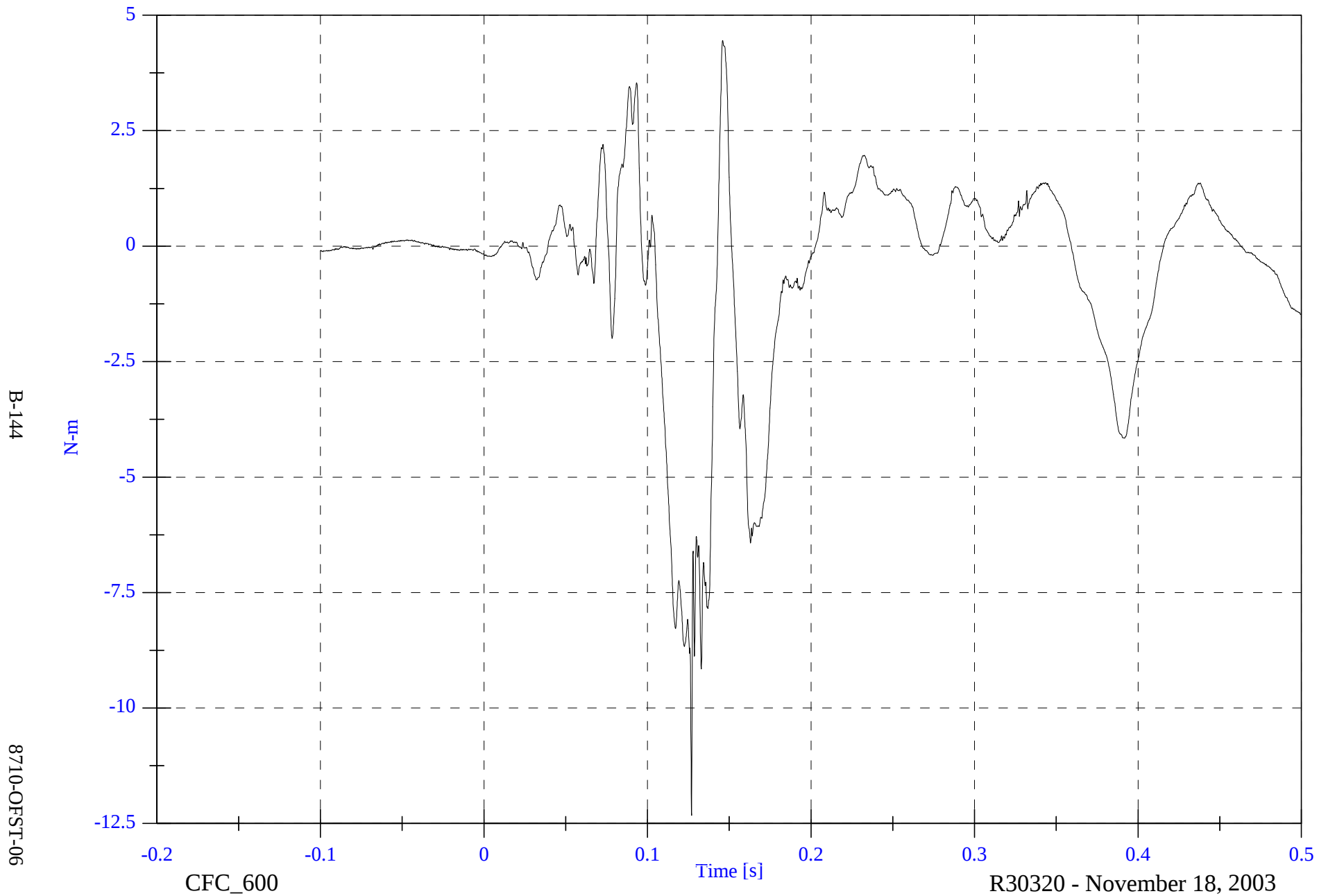
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia Mx

Max: 4.5 [N-m] at 0.146 [s]

Min: -12.3 [N-m] at 0.127 [s]

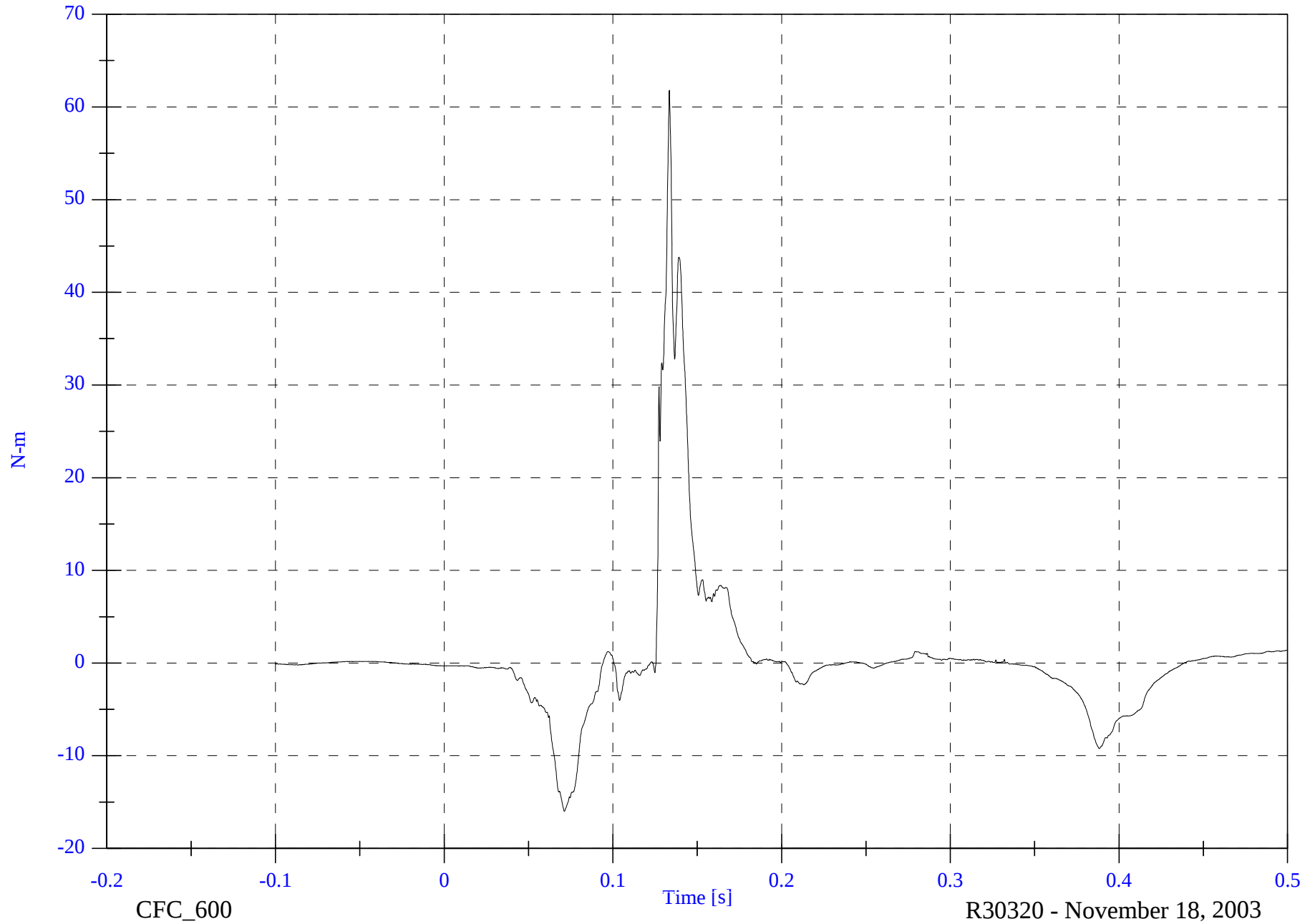


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Lower Tibia My

Max: 61.8 [N-m] at 0.133 [s]

Min: -16.0 [N-m] at 0.071 [s]



B-145

8710-OFST-06

CFC_600

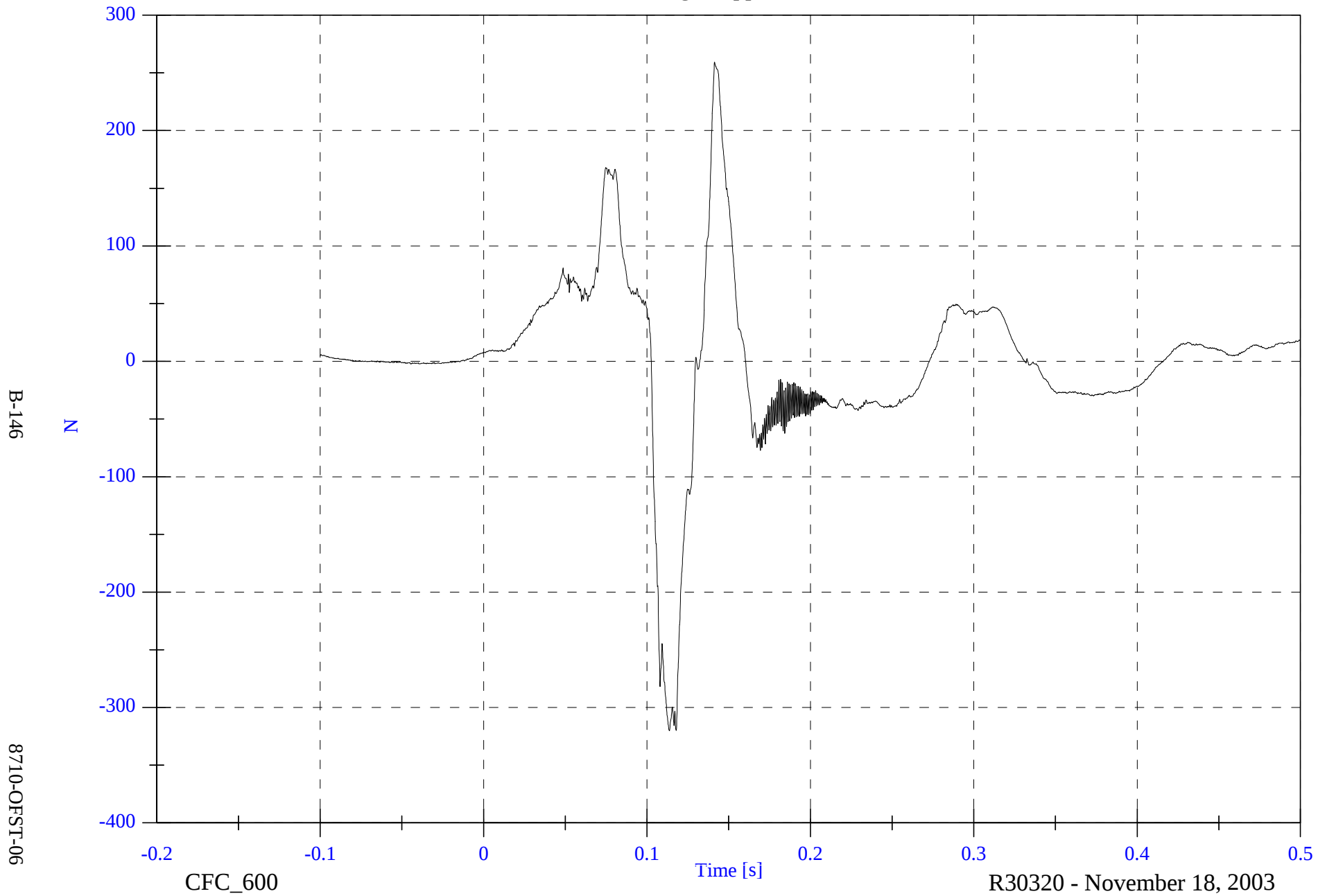
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Upper Tibia Fx

Max: 259.3 [N] at 0.141 [s]

Min: -320.1 [N] at 0.114 [s]

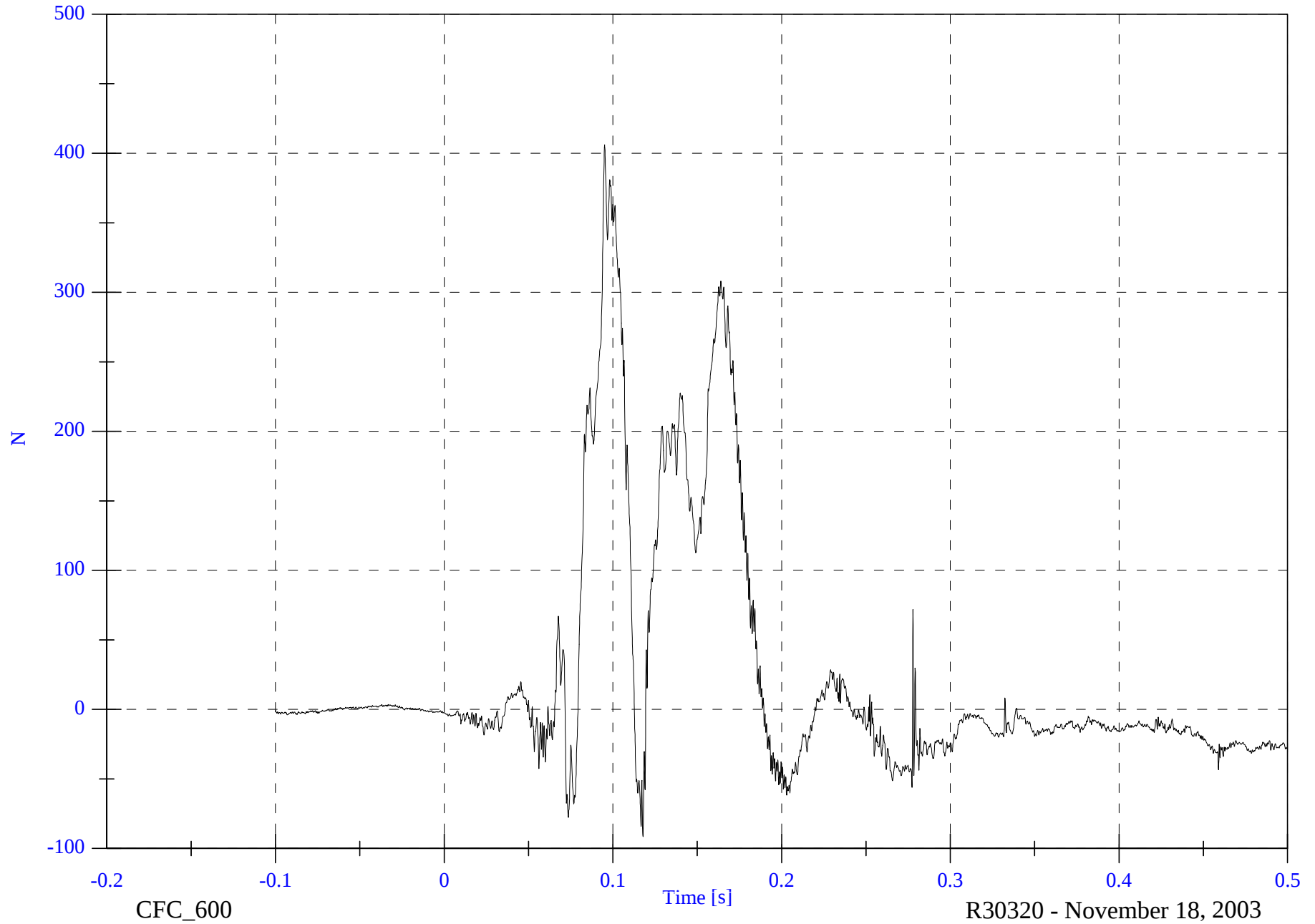


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Upper Tibia Fz

Max: 406.1 [N] at 0.095 [s]

Min: -91.5 [N] at 0.118 [s]



B-147

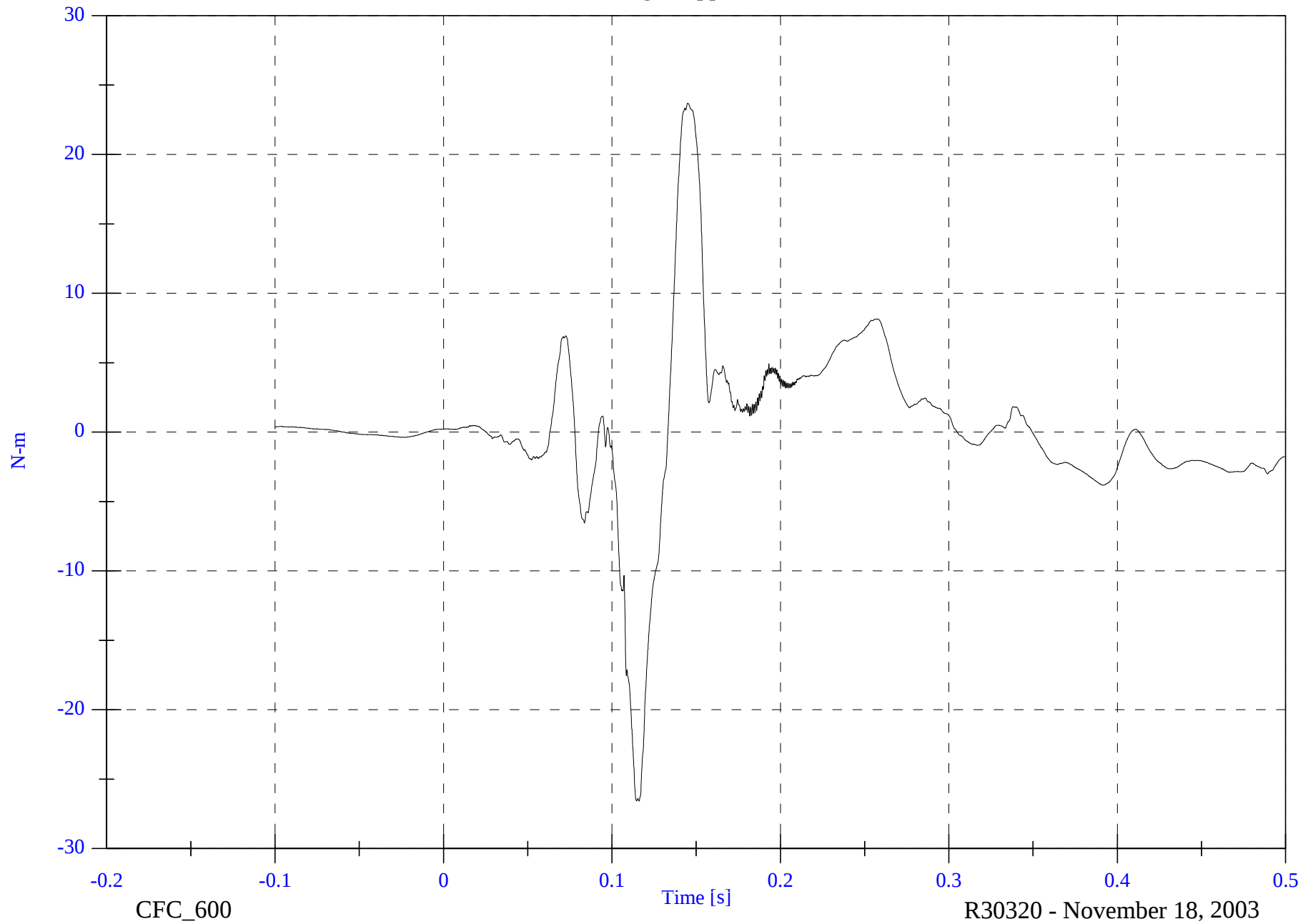
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Upper Tibia Mx

Max: 23.7 [N-m] at 0.145 [s]

Min: -26.6 [N-m] at 0.116 [s]



B-148

8710-OFST-06

CFC_600

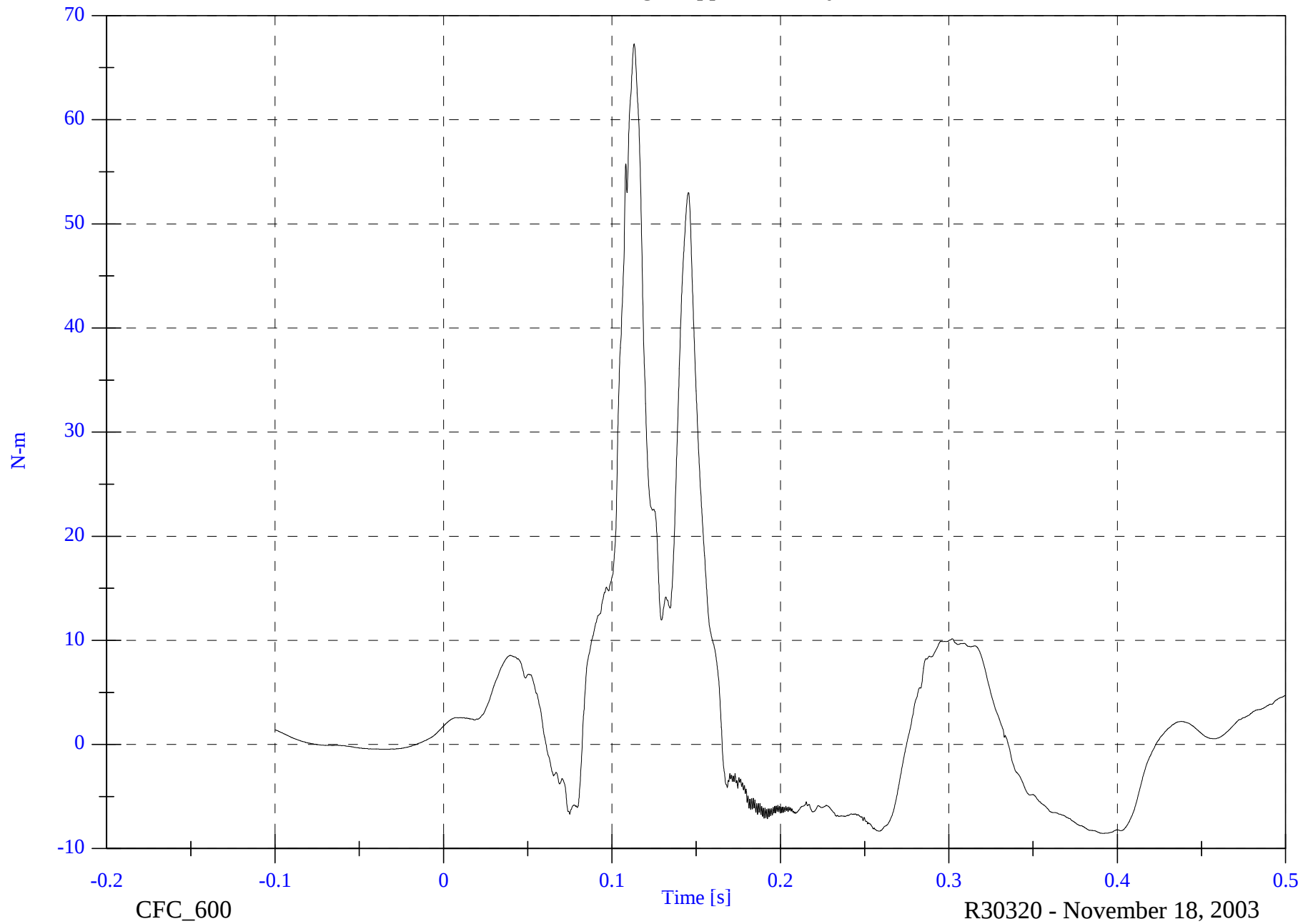
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Upper Tibia My

Max: 67.3 [N-m] at 0.113 [s]

Min: -8.5 [N-m] at 0.392 [s]

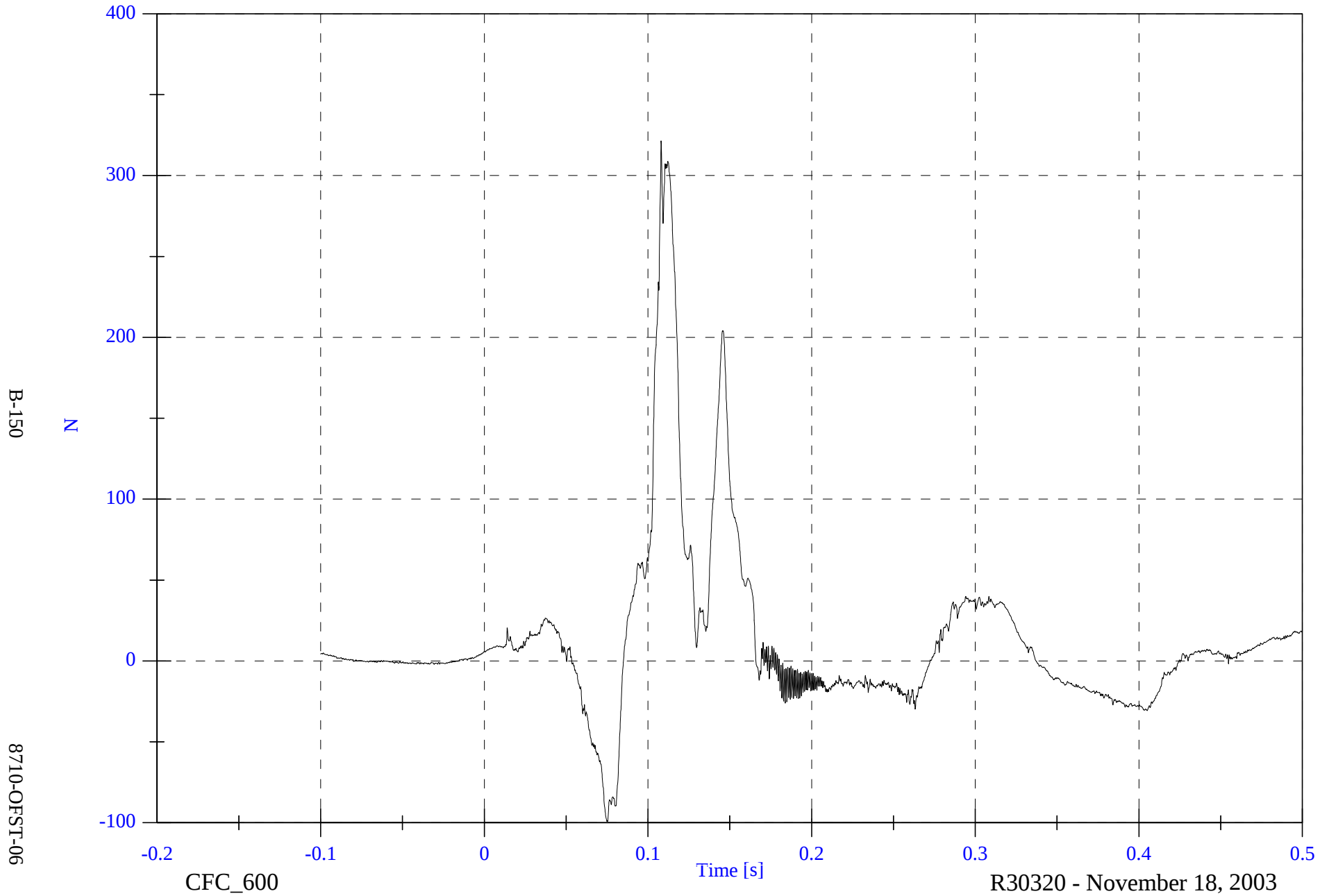


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia Fx

Max: 321.4 [N] at 0.108 [s]

Min: -99.1 [N] at 0.075 [s]

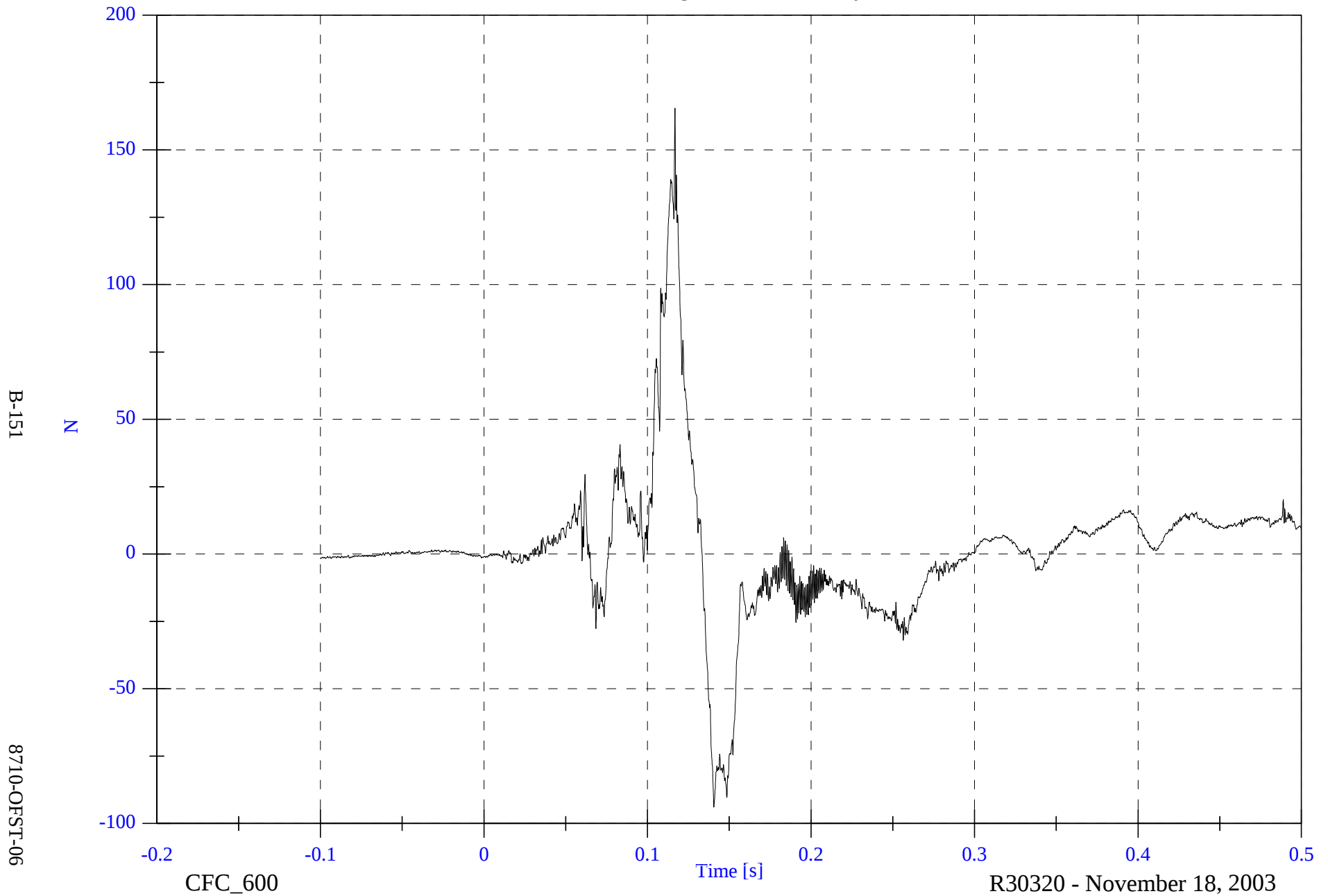


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia Fy

Max: 165.5 [N] at 0.117 [s]

Min: -94.0 [N] at 0.141 [s]

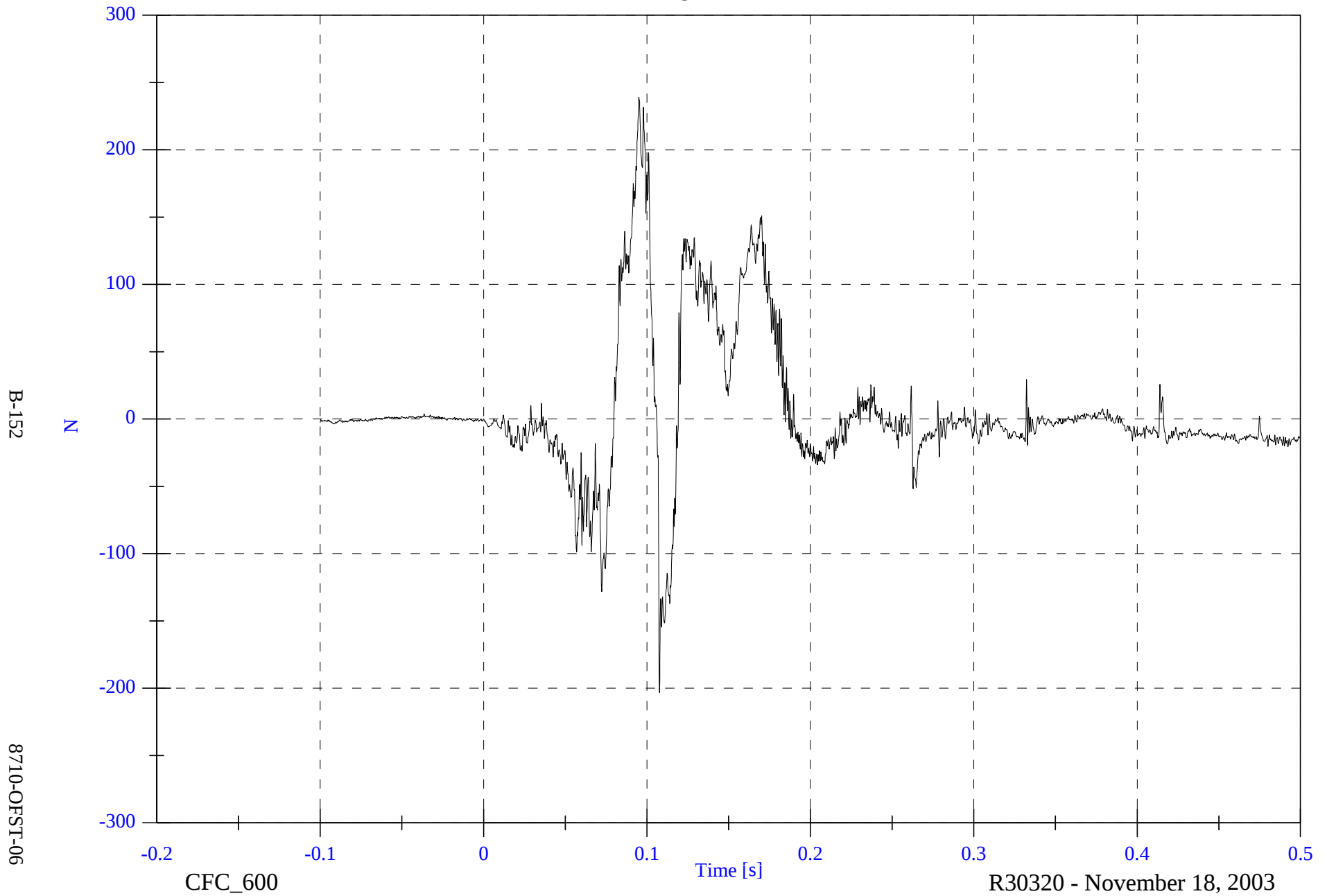


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia Fz

Max: 239.0 [N] at 0.095 [s]

Min: -203.2 [N] at 0.108 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia F Resultant

Max: 370.5 [N] at 0.108 [s]

Min: 0.1 [N] at -0.063 [s]

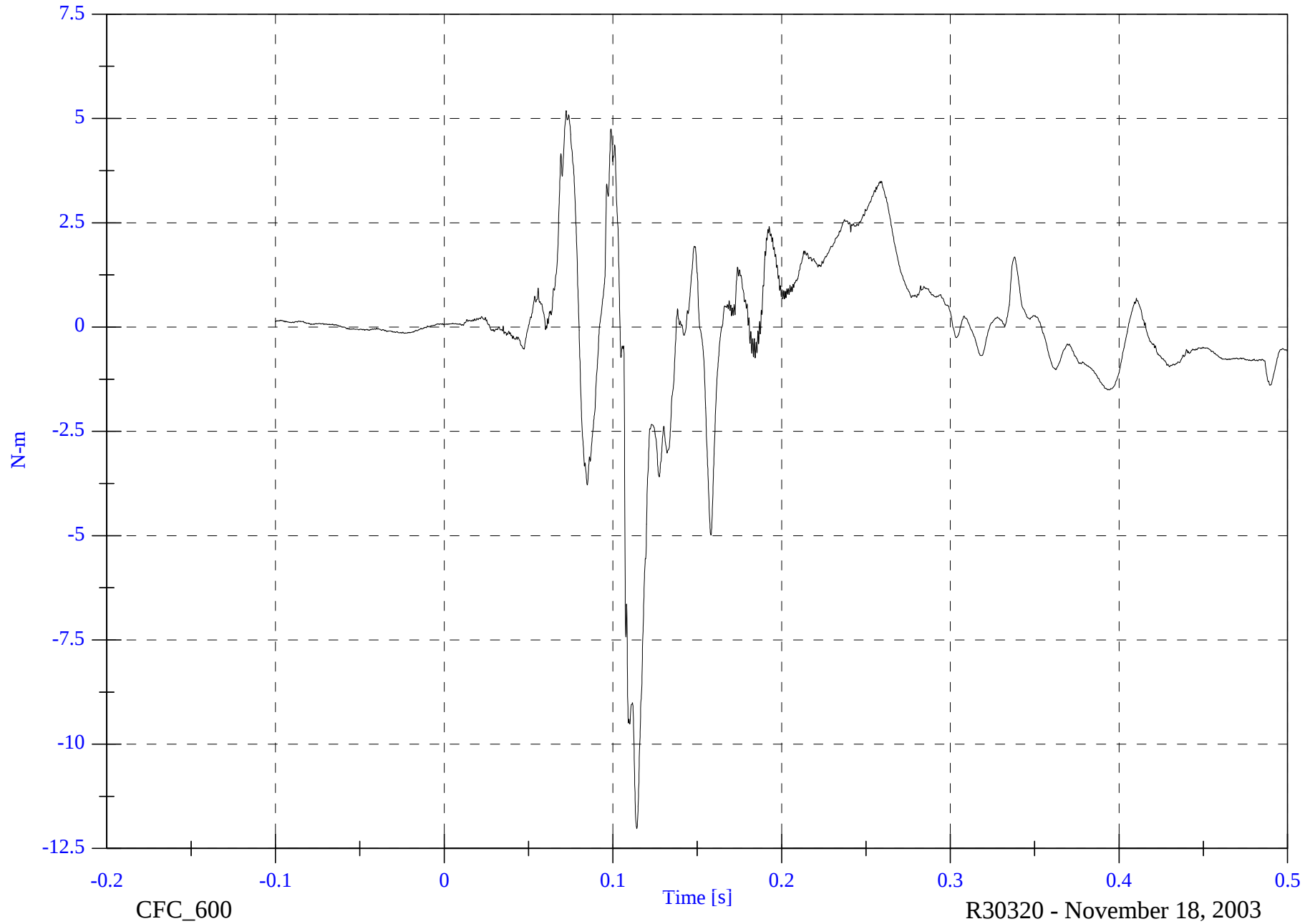


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia Mx

Max: 5.2 [N-m] at 0.072 [s]

Min: -12.0 [N-m] at 0.114 [s]

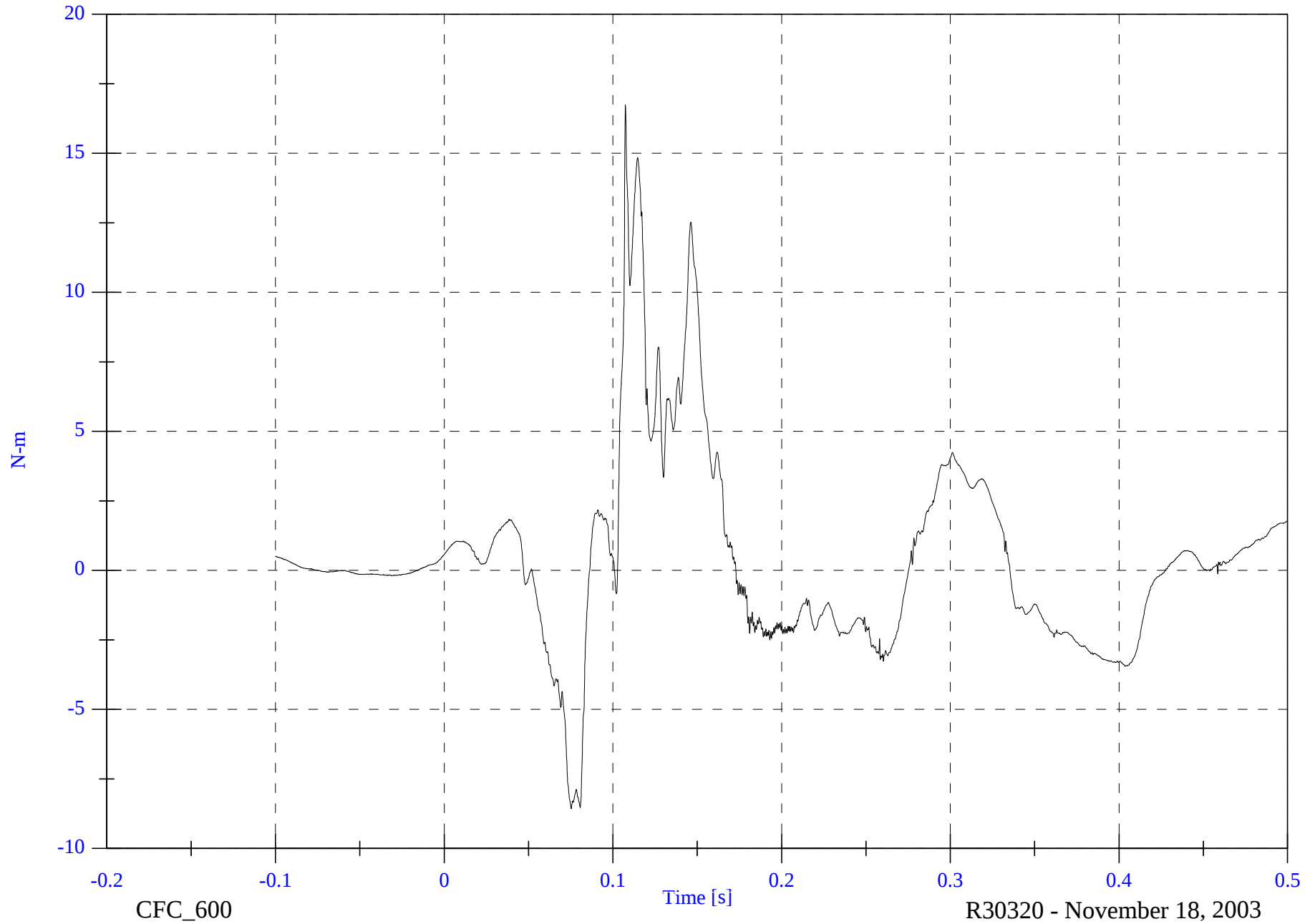


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Lower Tibia My

Max: 16.7 [N-m] at 0.107 [s]

Min: -8.6 [N-m] at 0.075 [s]



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CFC_600

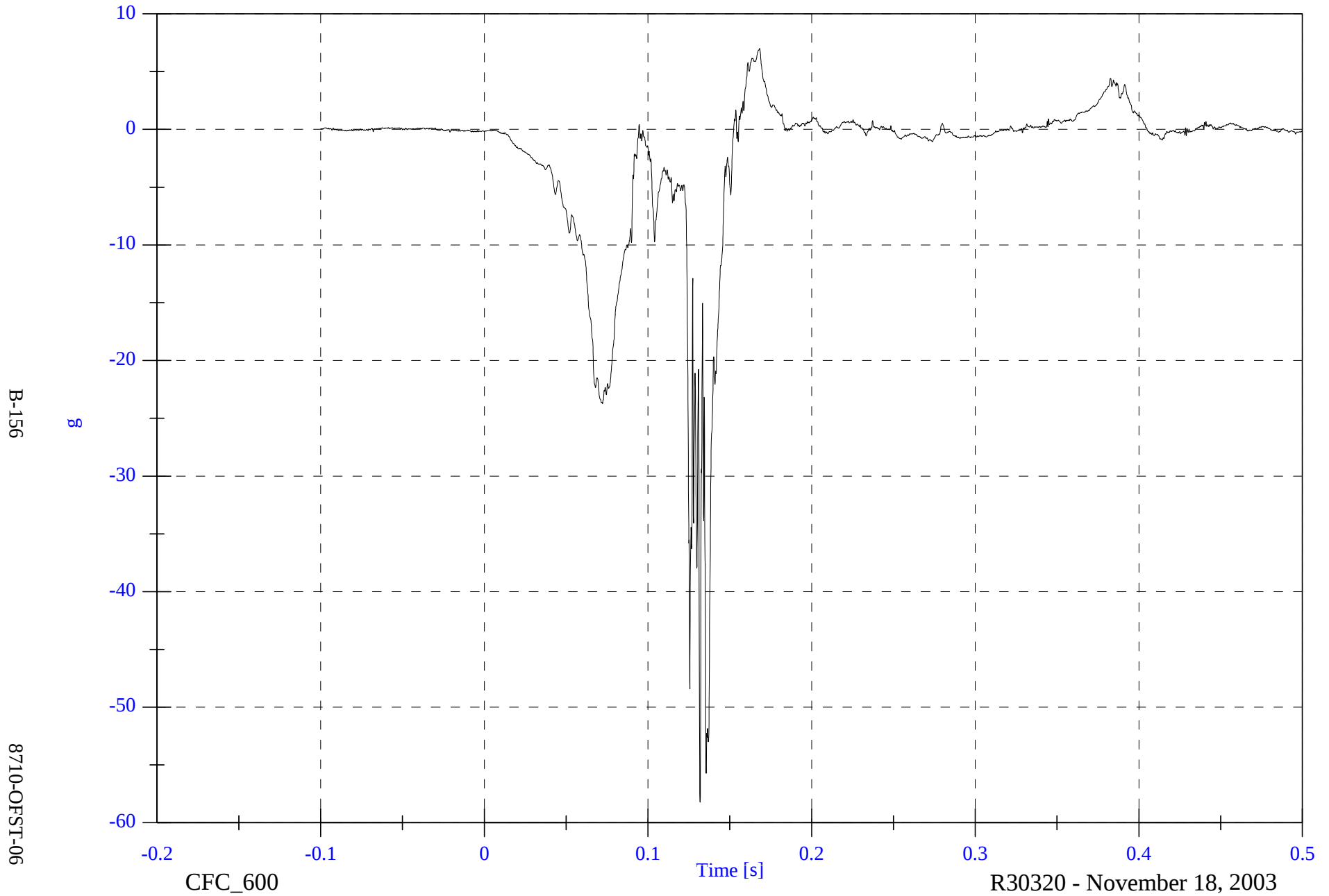
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Tibia x

Max: 7.0 [g] at 0.168 [s]

Min: -58.2 [g] at 0.132 [s]

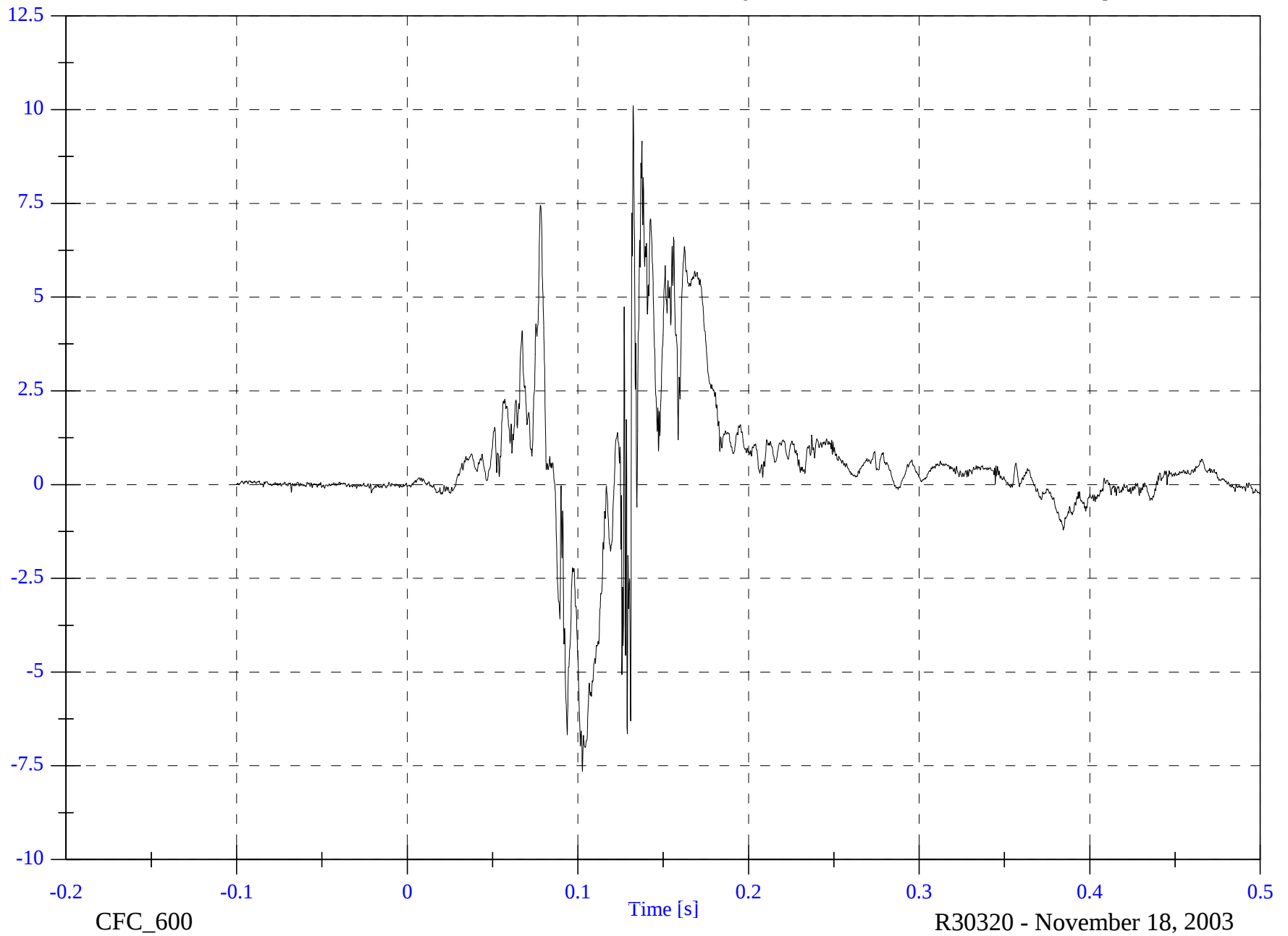


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 10.1 [g] at 0.133 [s]

V1P2 Left Tibia y

Min: -7.6 [g] at 0.103 [s]



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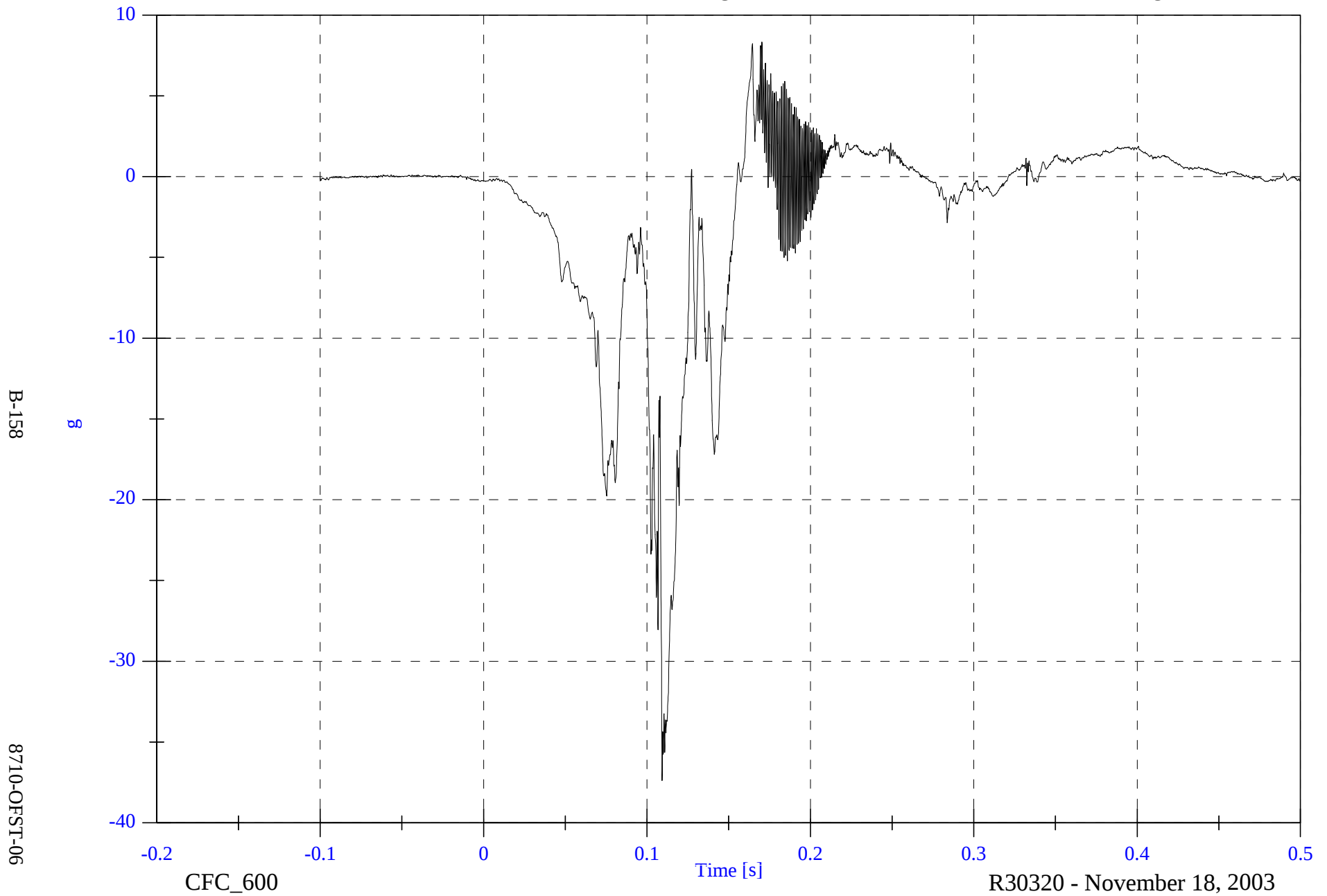
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 8.3 [g] at 0.170 [s]

Min: -37.4 [g] at 0.109 [s]

V1P2 Right Tibia x

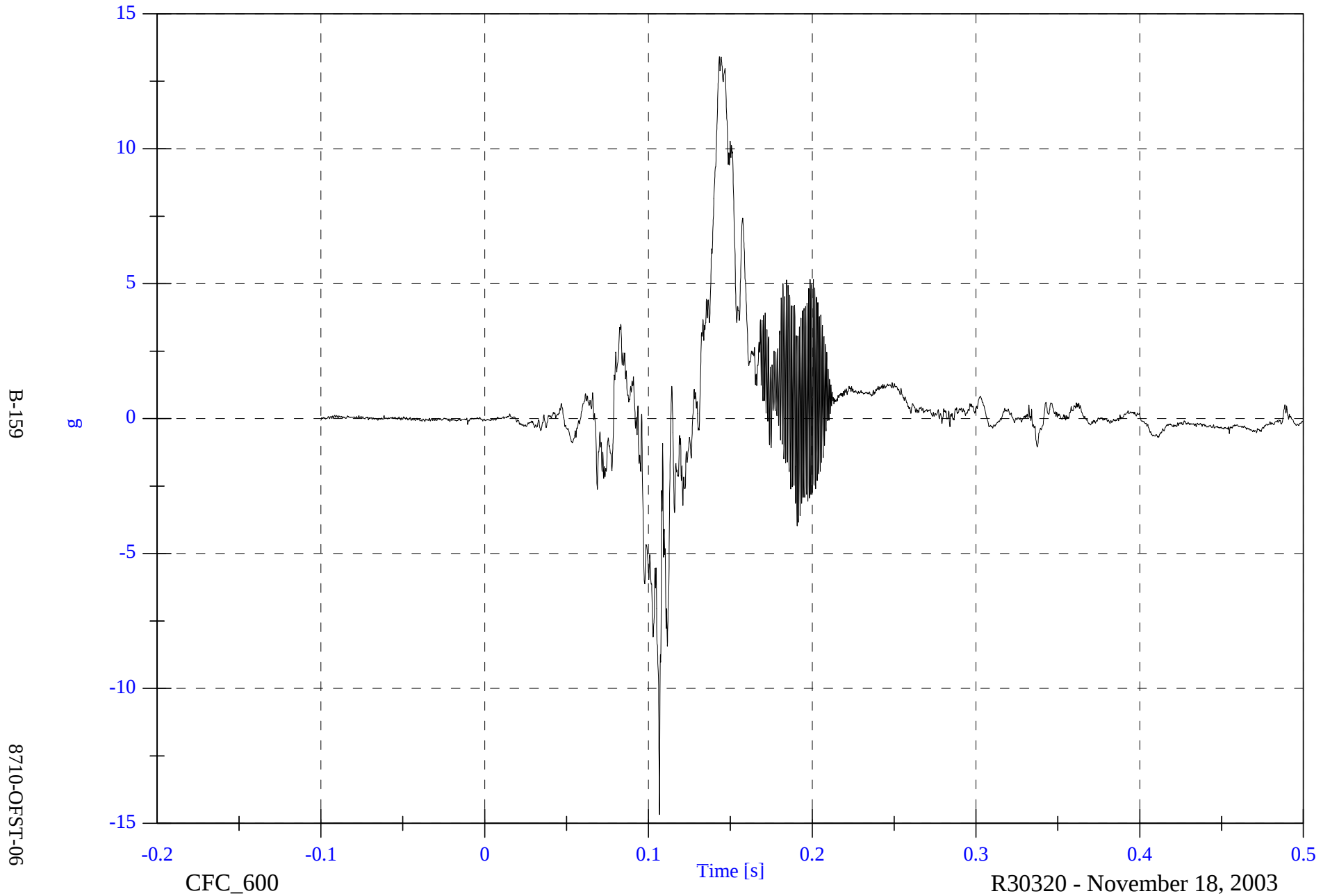


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 13.4 [g] at 0.143 [s]

Min: -14.7 [g] at 0.107 [s]

V1P2 Right Tibia y

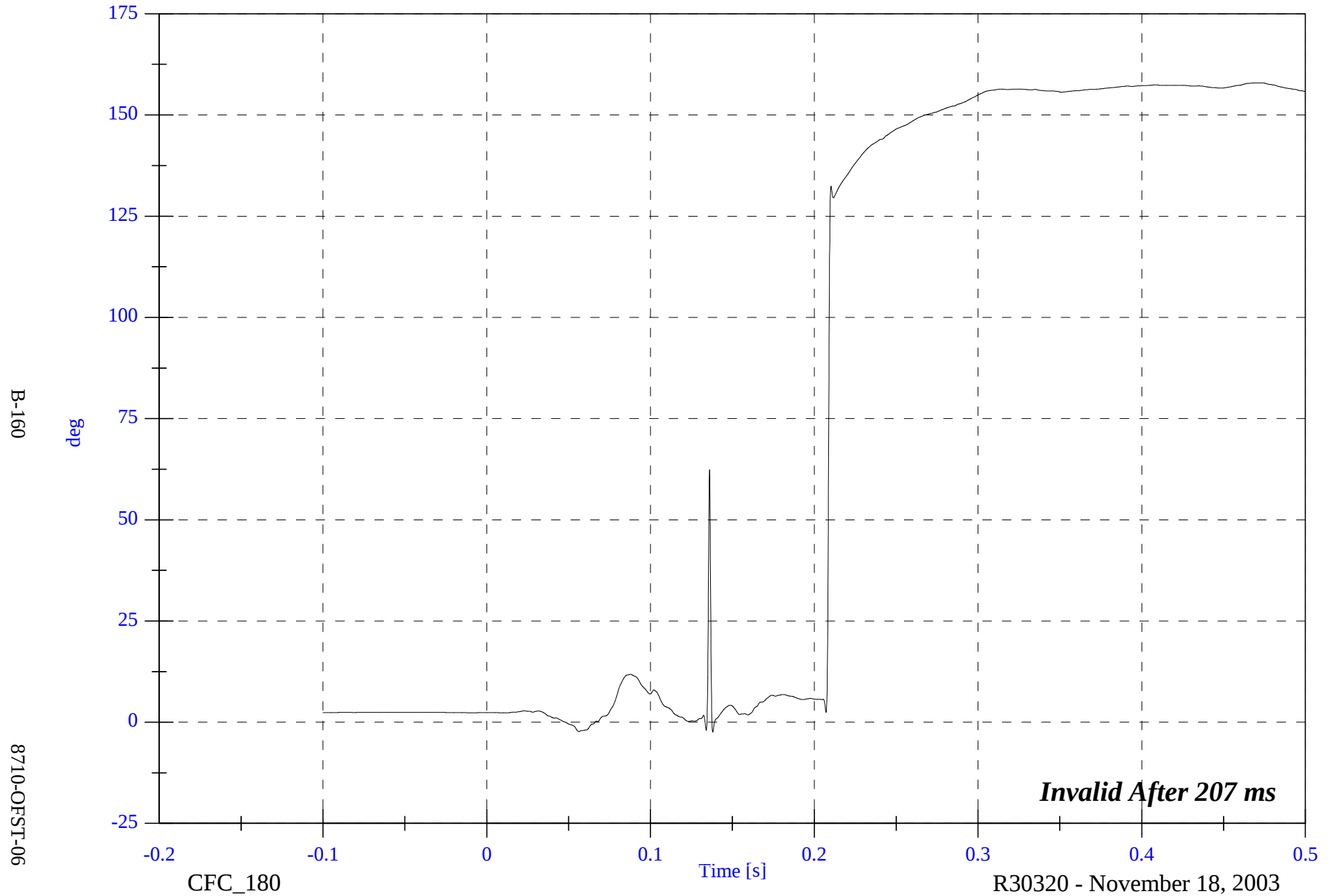


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Ankle Rotation x

Max: 157.9 [deg] at 0.473 [s]

Min: -2.5 [deg] at 0.138 [s]

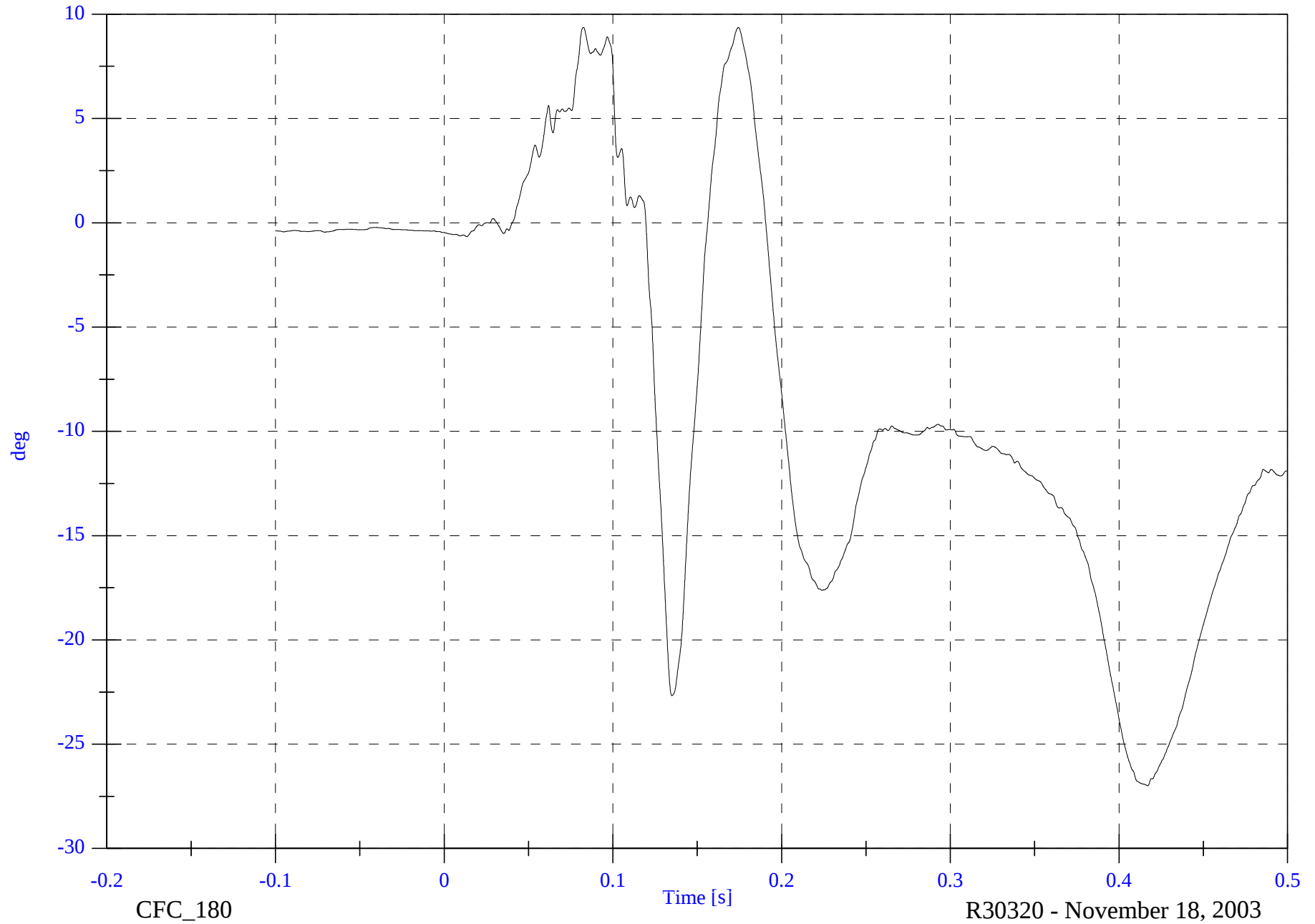


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Ankle Rotation y

Max: 9.4 [deg] at 0.083 [s]

Min: -27.0 [deg] at 0.417 [s]



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CFC_180

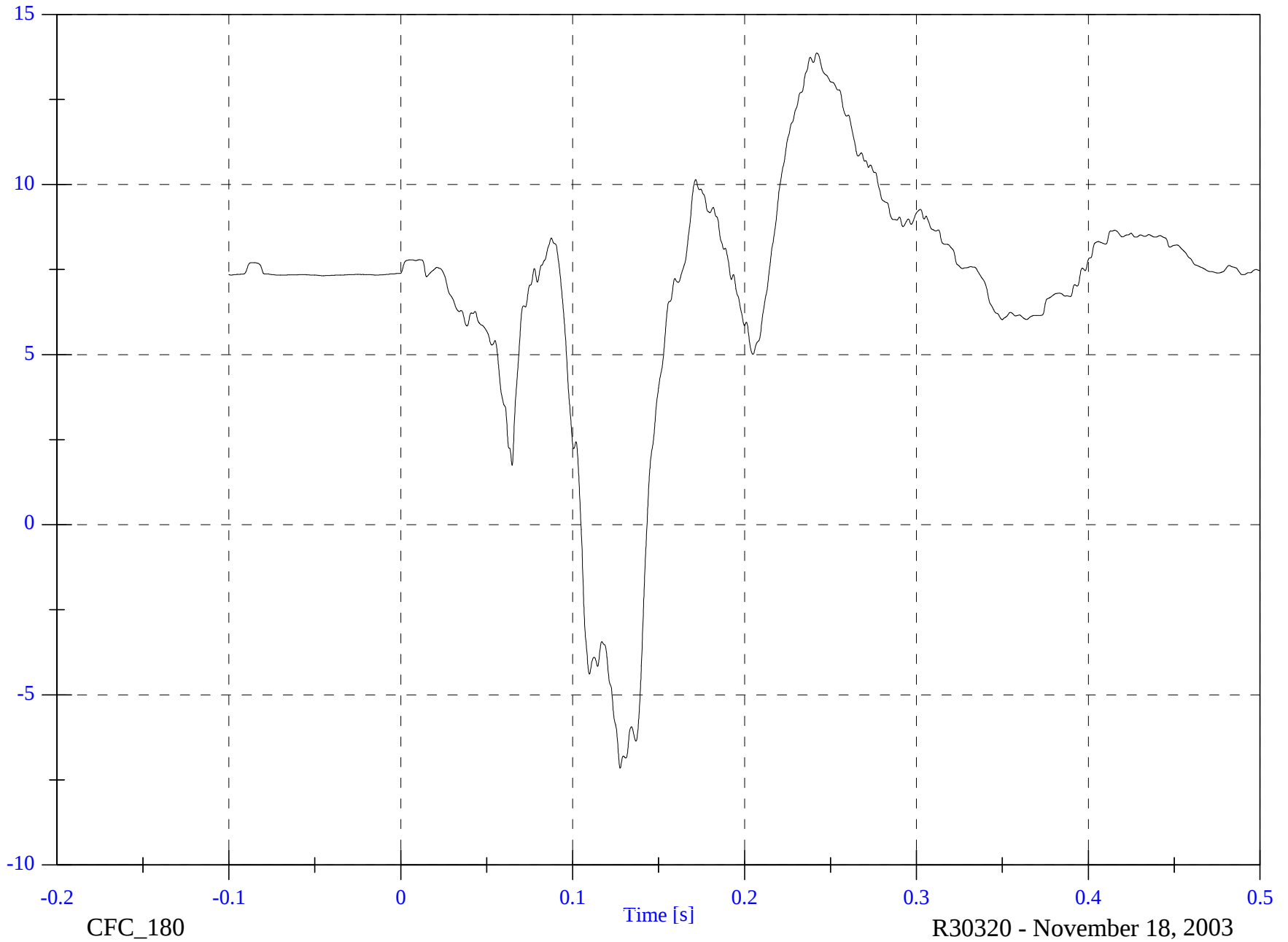
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Ankle Rotation z

Max: 13.9 [deg] at 0.242 [s]

Min: -7.2 [deg] at 0.128 [s]



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8710-OFST-06

CFC_180

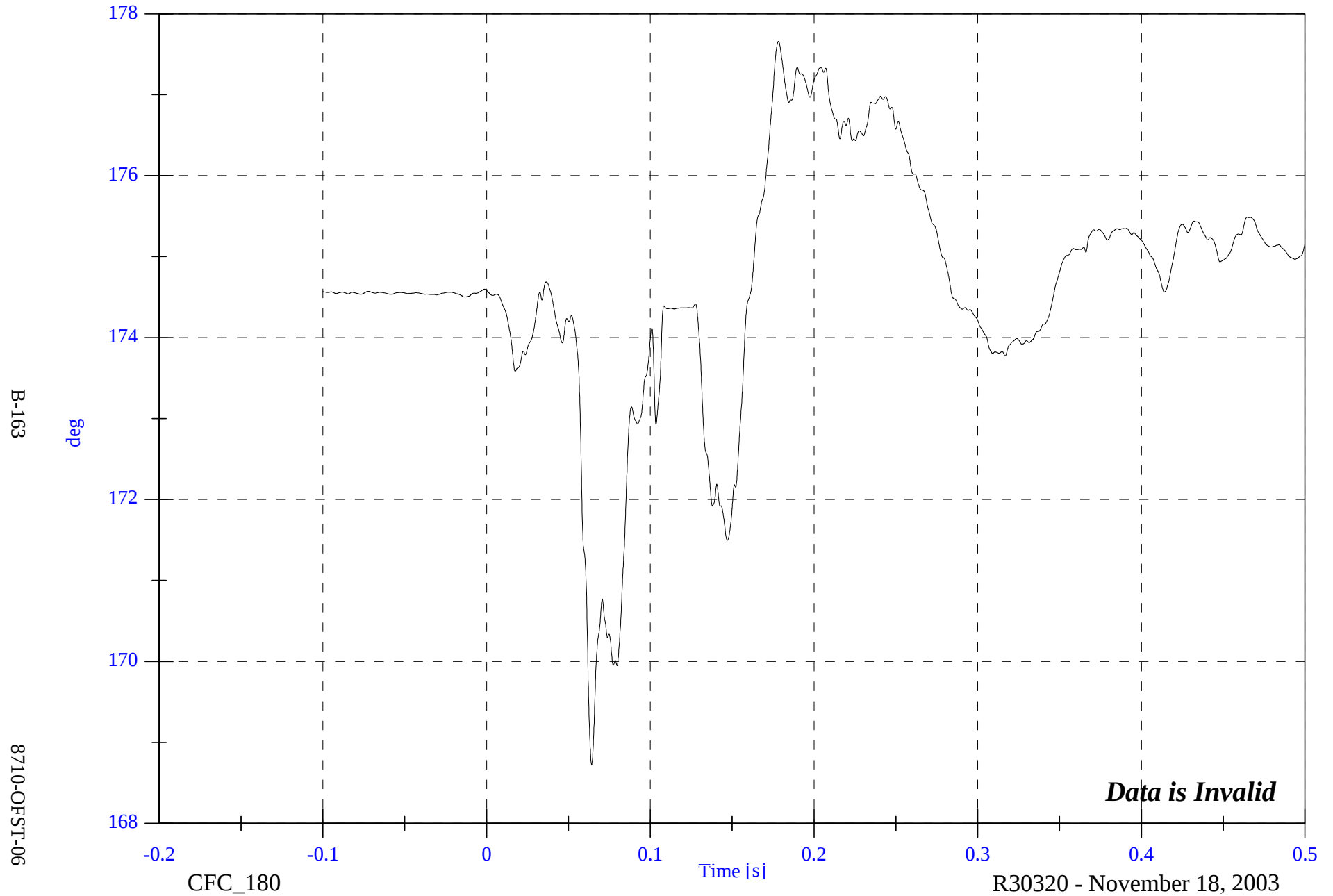
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Ankle Rotation x

Max: 177.7 [deg] at 0.178 [s]

Min: 168.7 [deg] at 0.064 [s]

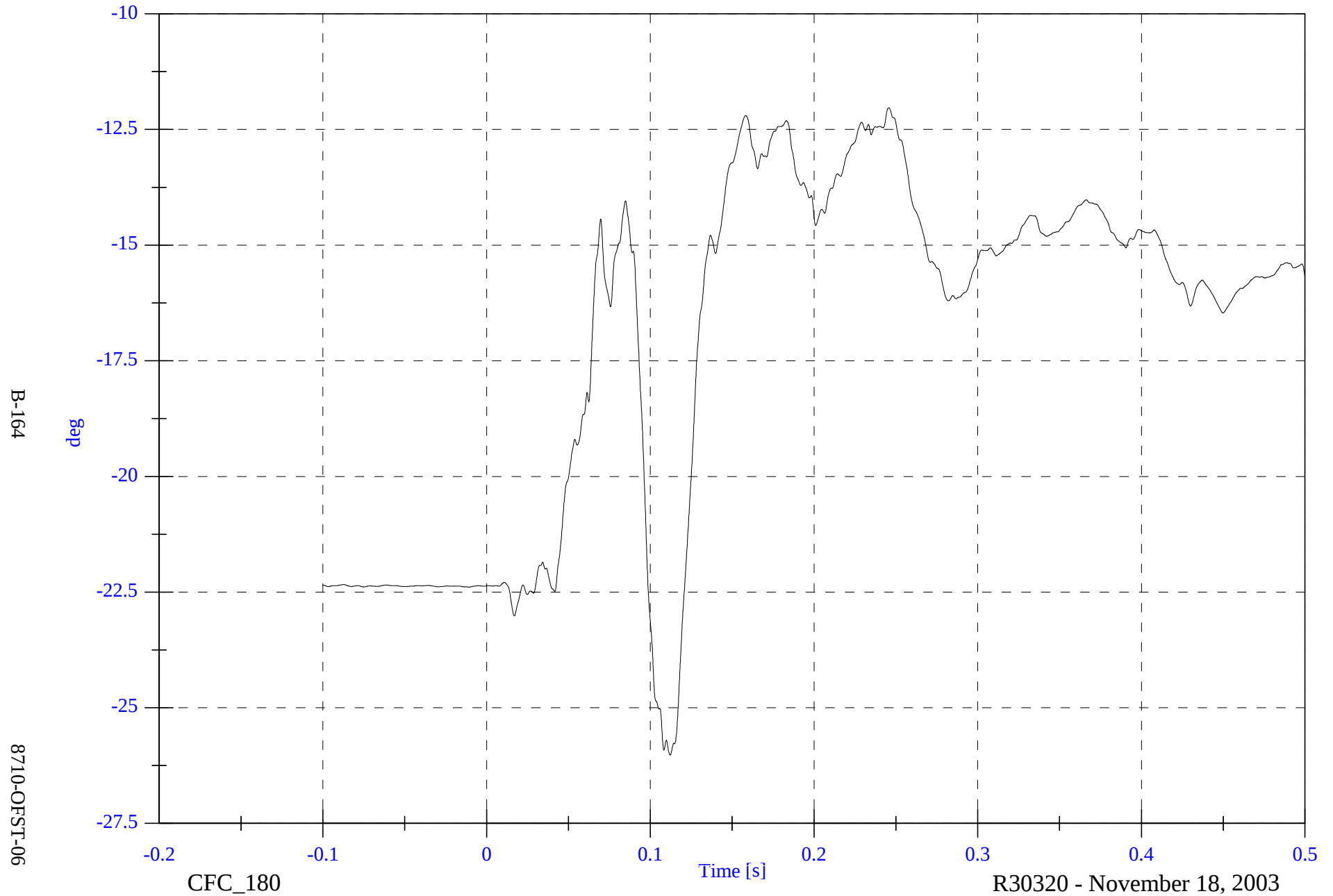


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Ankle Rotation y

Max: -12.0 [deg] at 0.246 [s]

Min: -26.0 [deg] at 0.112 [s]

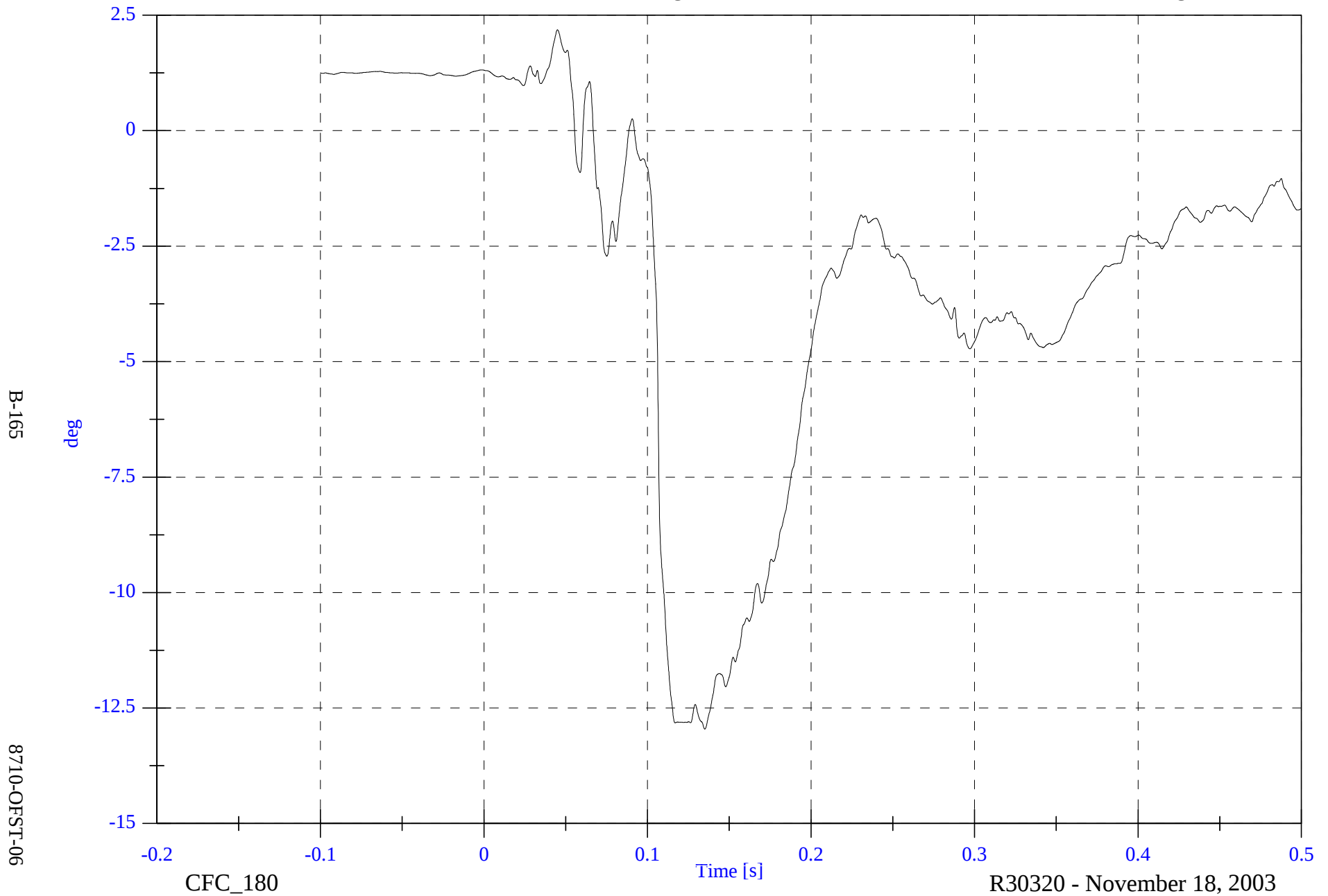


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Ankle Rotation z

Max: 2.2 [deg] at 0.045 [s]

Min: -13.0 [deg] at 0.135 [s]

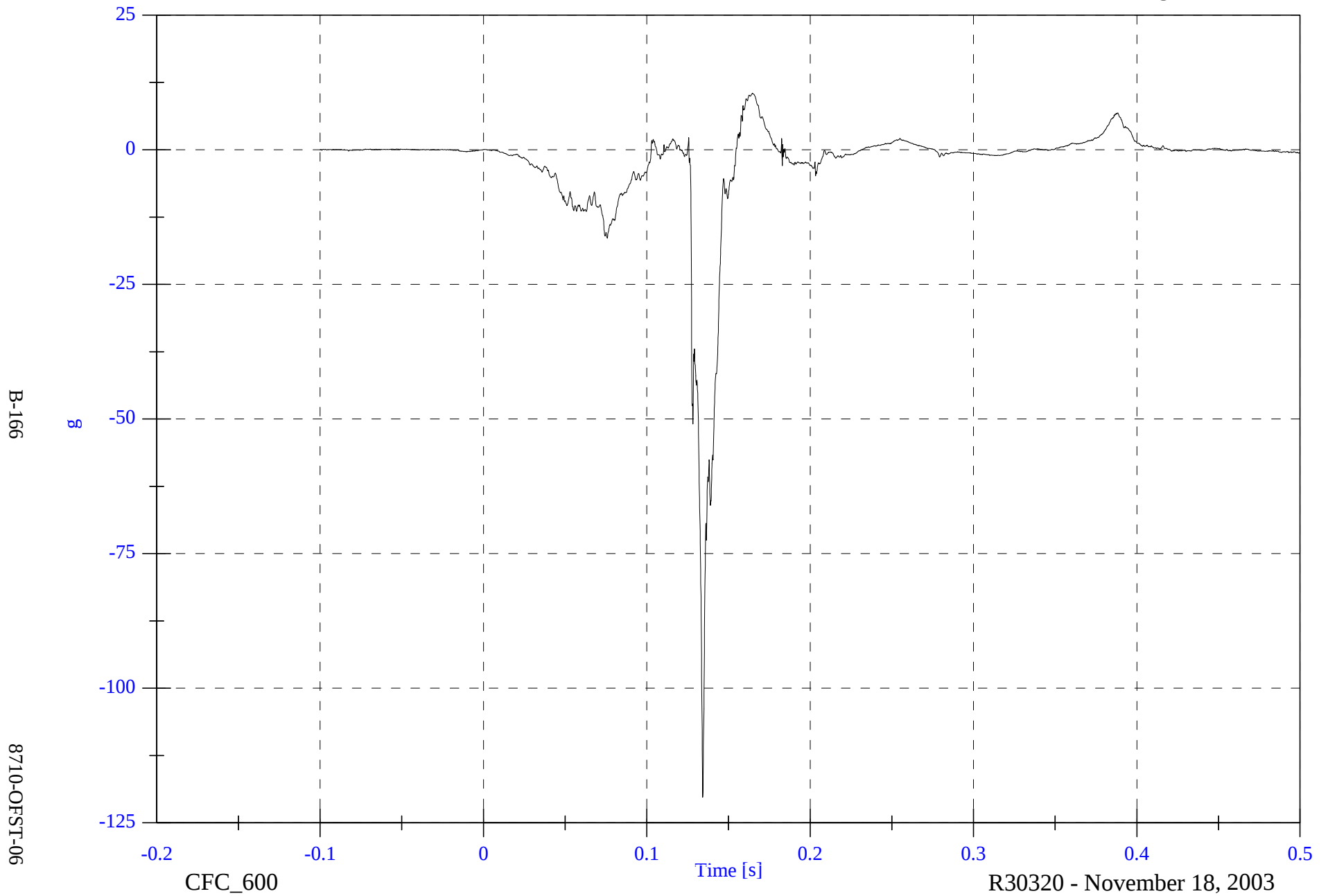


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Foot x

Max: 10.5 [g] at 0.165 [s]

Min: -120.2 [g] at 0.134 [s]

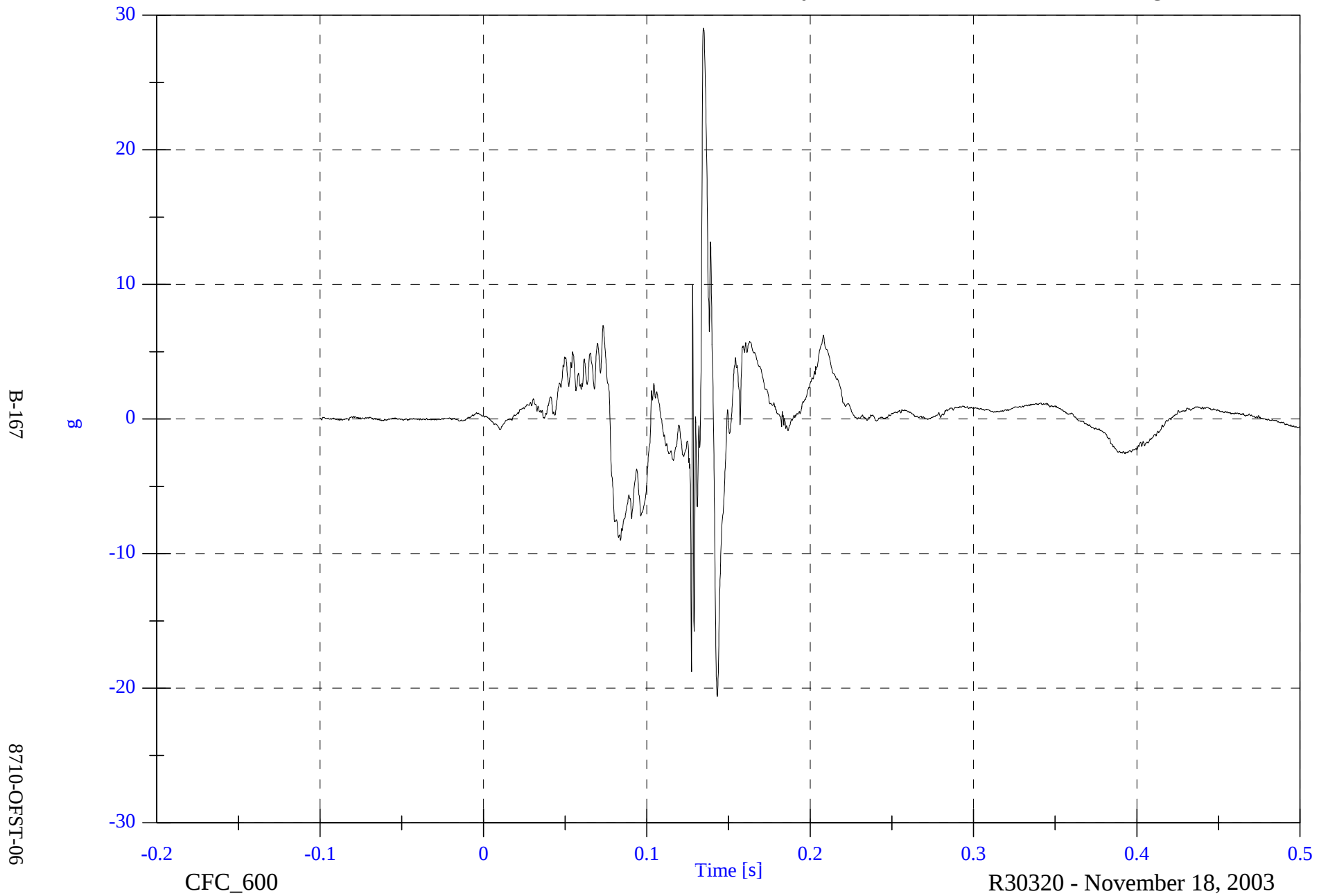


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 29.0 [g] at 0.135 [s]

Min: -20.6 [g] at 0.143 [s]

V1P2 Left Foot y

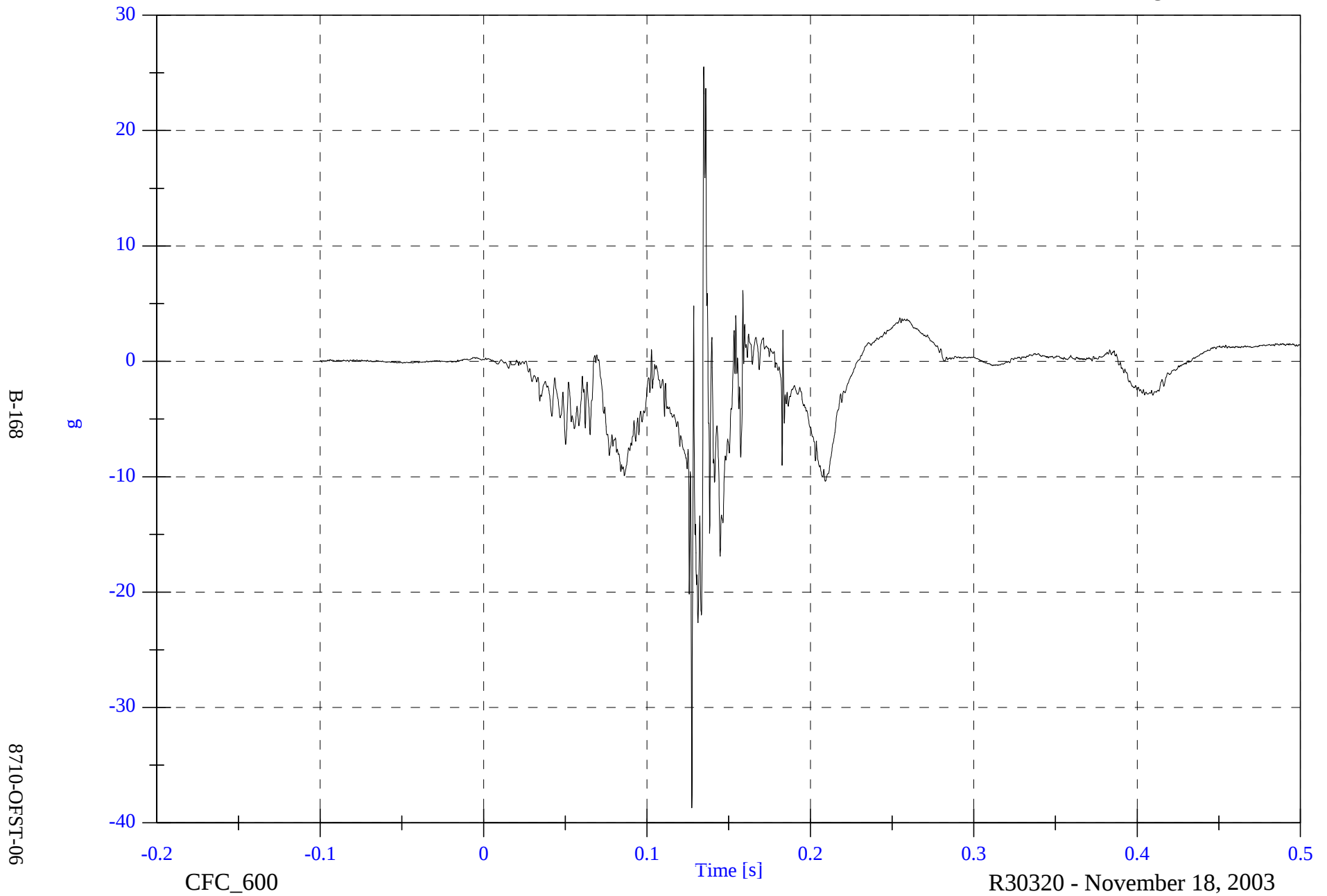


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Foot z

Max: 25.5 [g] at 0.135 [s]

Min: -38.7 [g] at 0.128 [s]

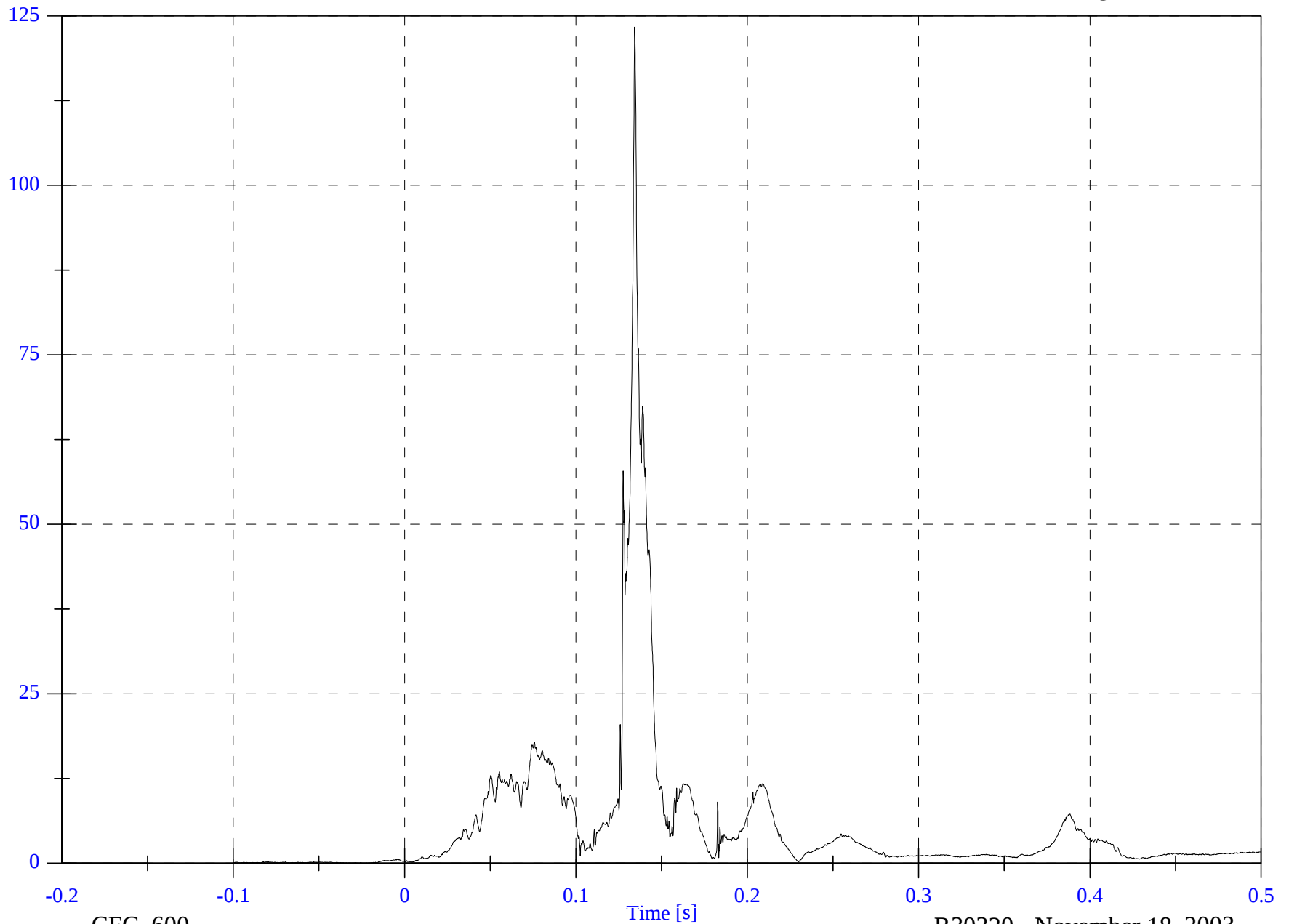


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Left Foot Resultant

Max: 123.3 [g] at 0.134 [s]

Min: 0.0 [g] at -0.025 [s]



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CFC_600

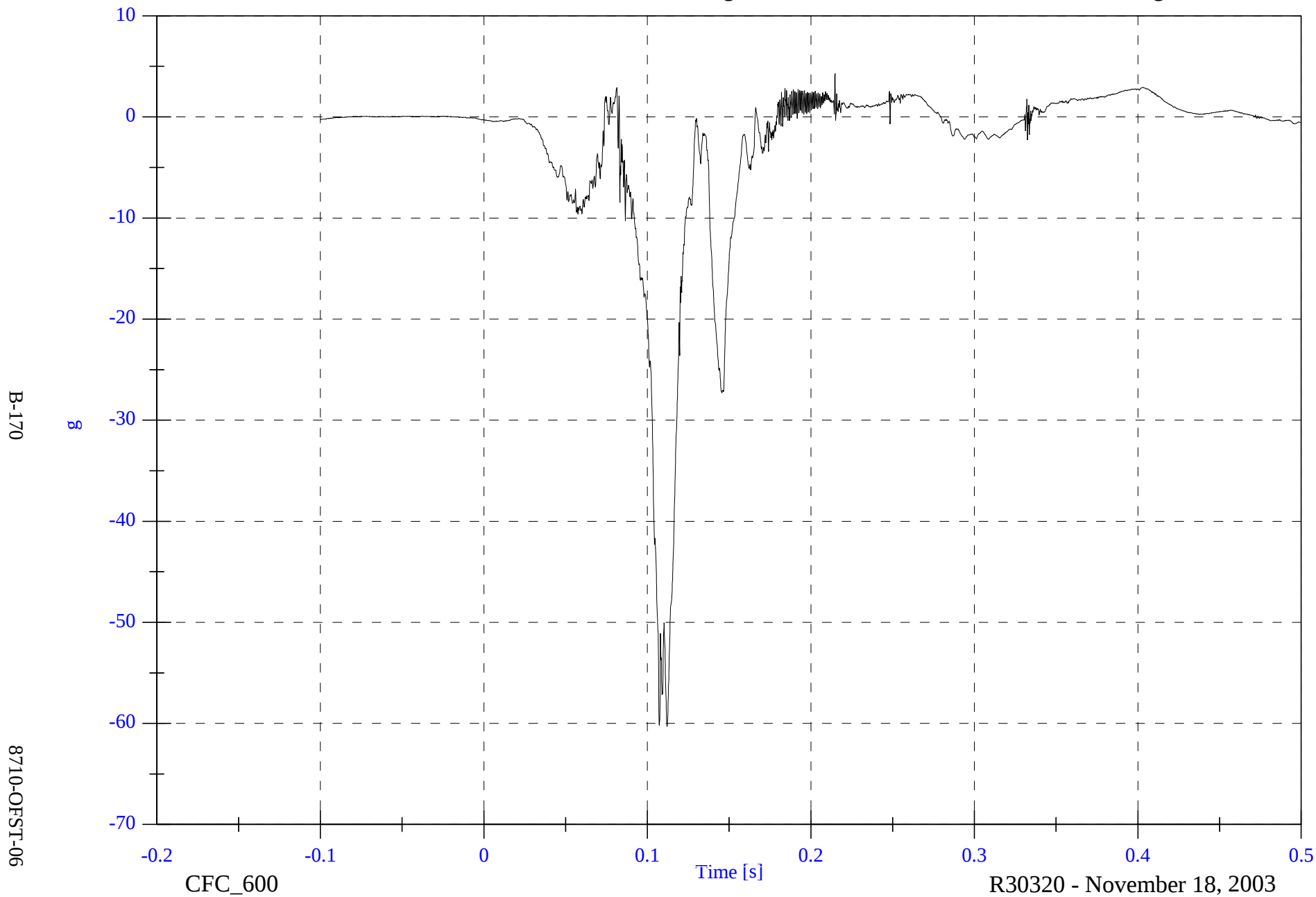
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Foot x

Max: 4.3 [g] at 0.215 [s]

Min: -60.3 [g] at 0.112 [s]

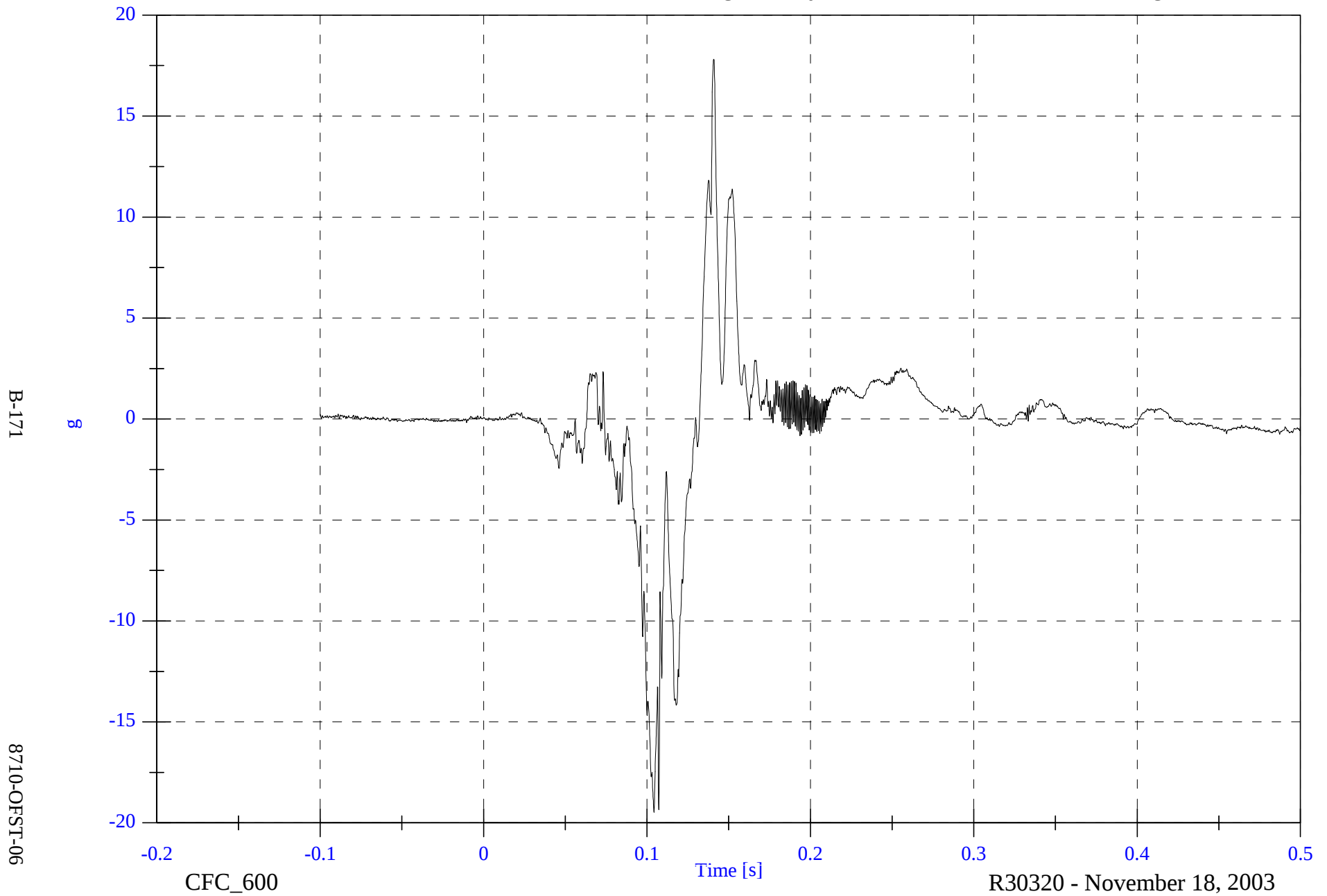


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Foot y

Max: 17.8 [g] at 0.141 [s]

Min: -19.5 [g] at 0.104 [s]

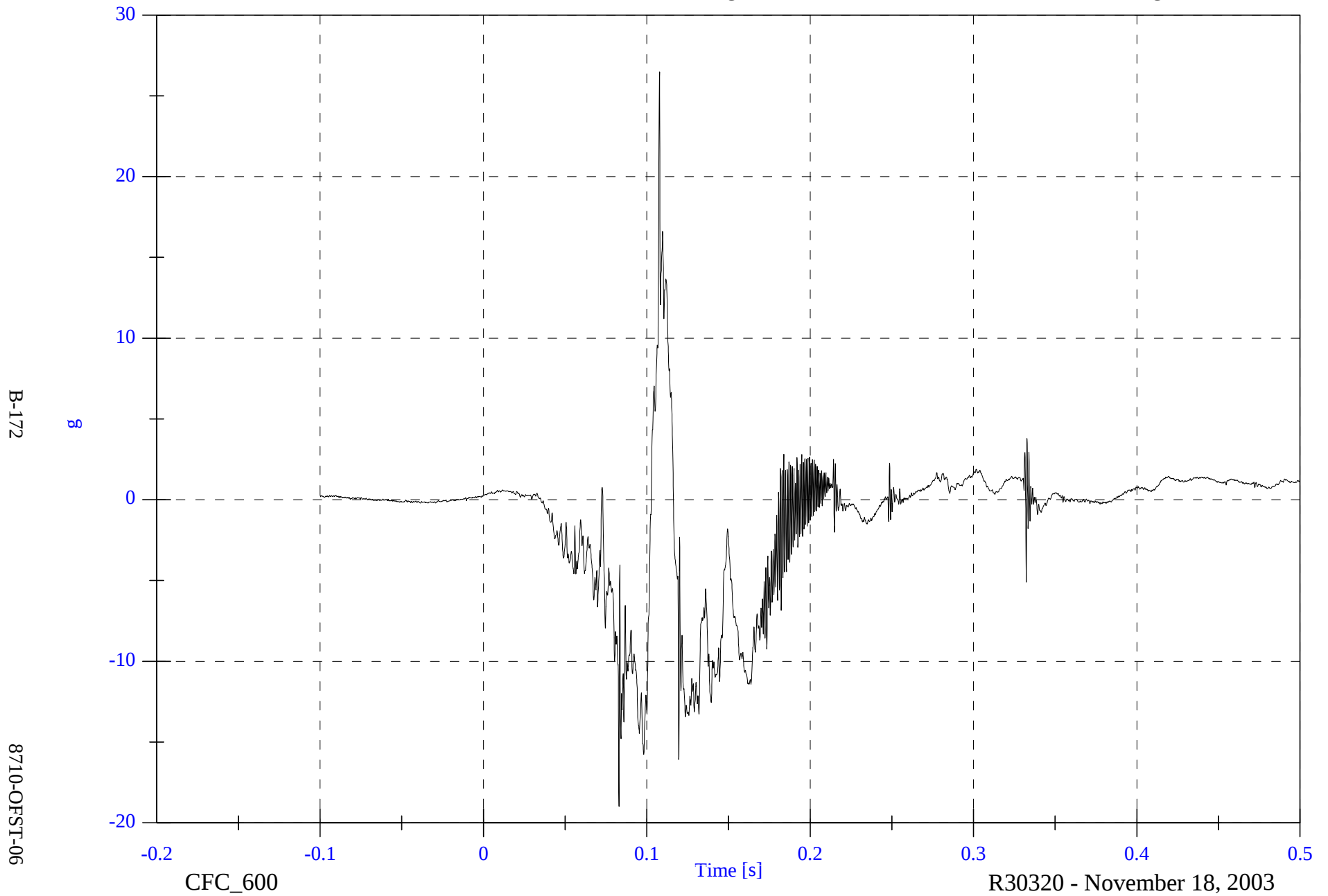


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Footz

Max: 26.5 [g] at 0.108 [s]

Min: -19.0 [g] at 0.083 [s]

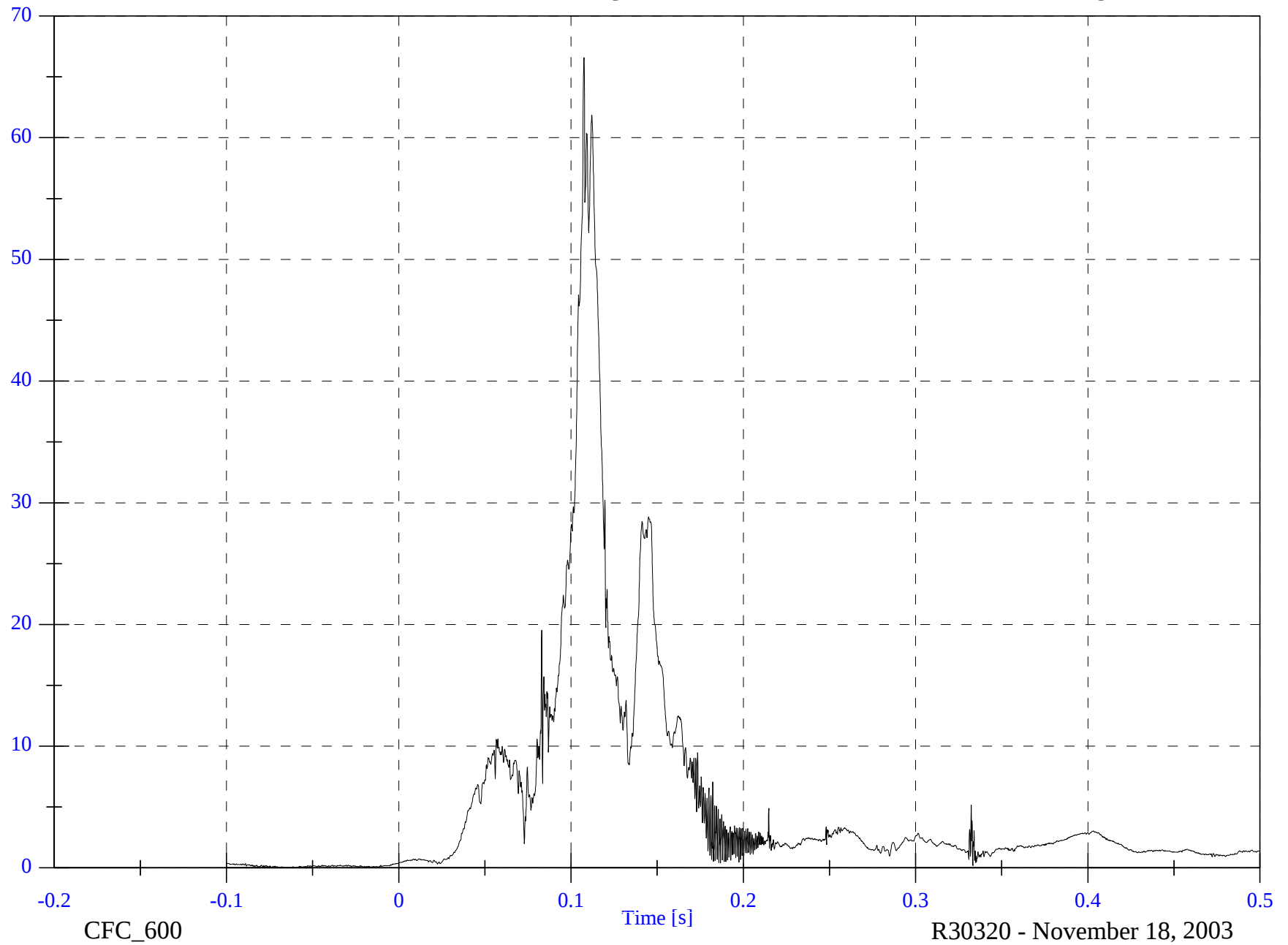


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1P2 Right Foot Resultant

Max: 66.6 [g] at 0.108 [s]

Min: 0.0 [g] at -0.060 [s]



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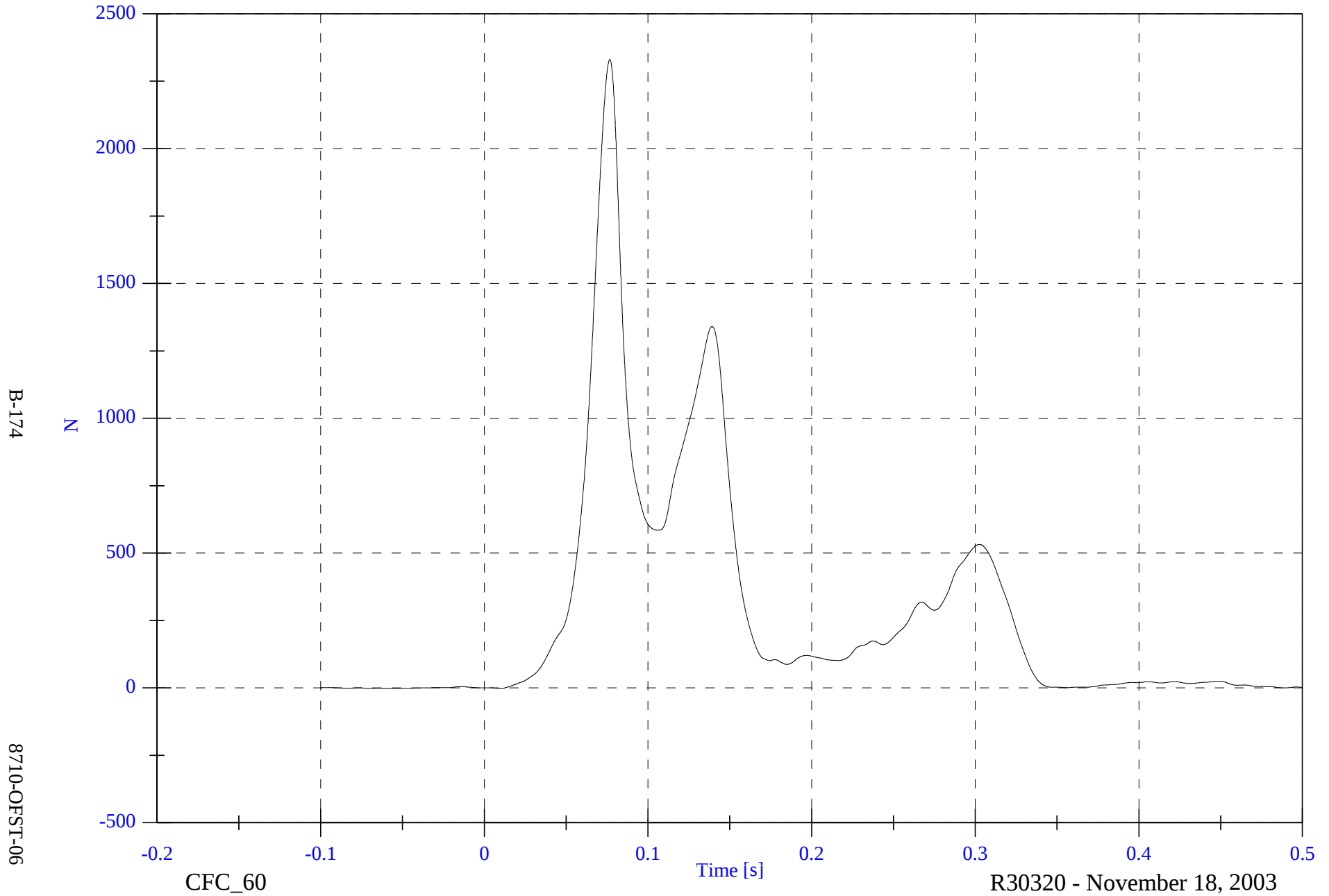
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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P2 Lap Belt Load

Max: 2330.3 [N] at 0.077 [s]

Min: -2.4 [N] at -0.056 [s]

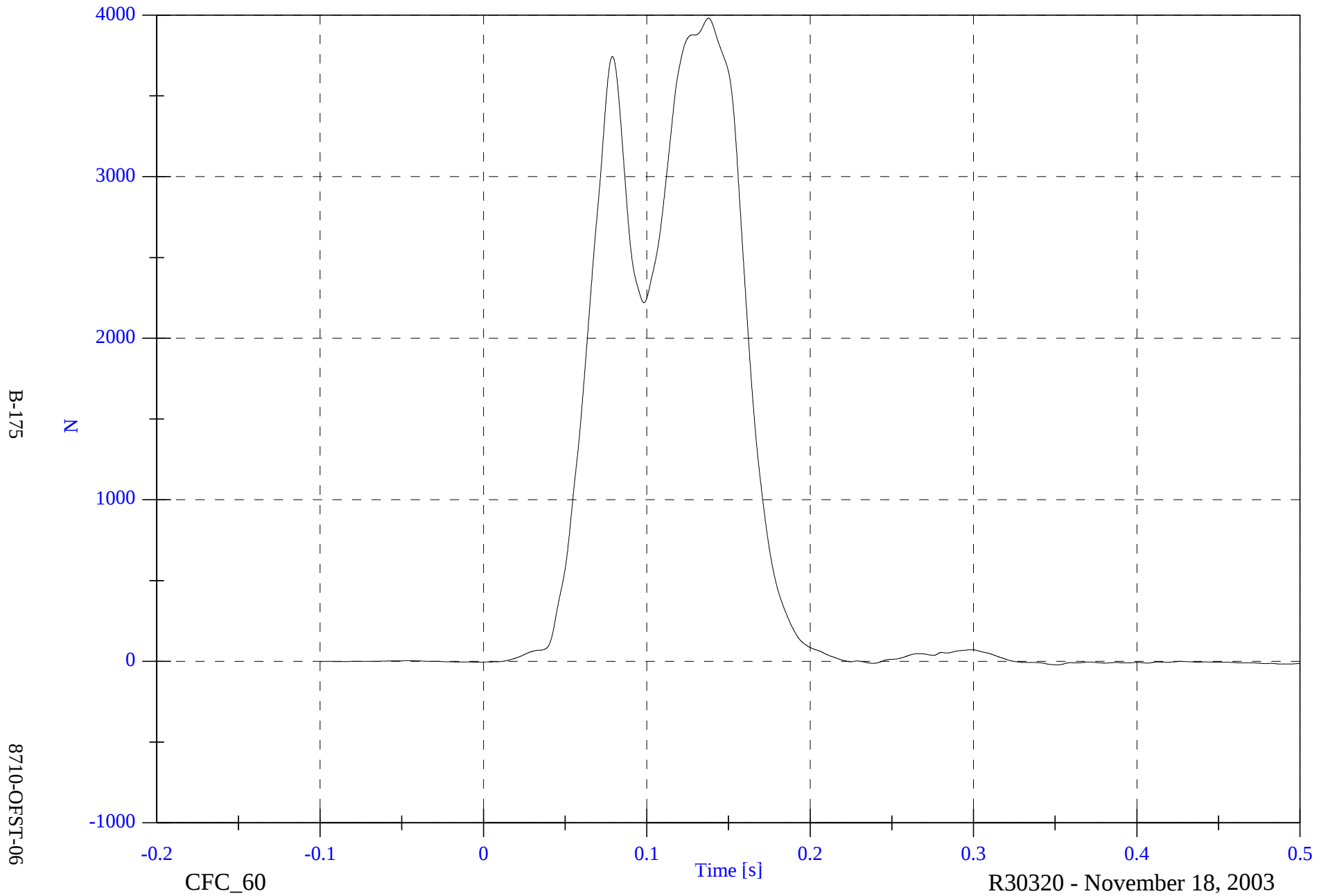


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 3981.1 [N] at 0.138 [s]

V1 P2 Shoulder Belt Load

Min: -22.3 [N] at 0.351 [s]

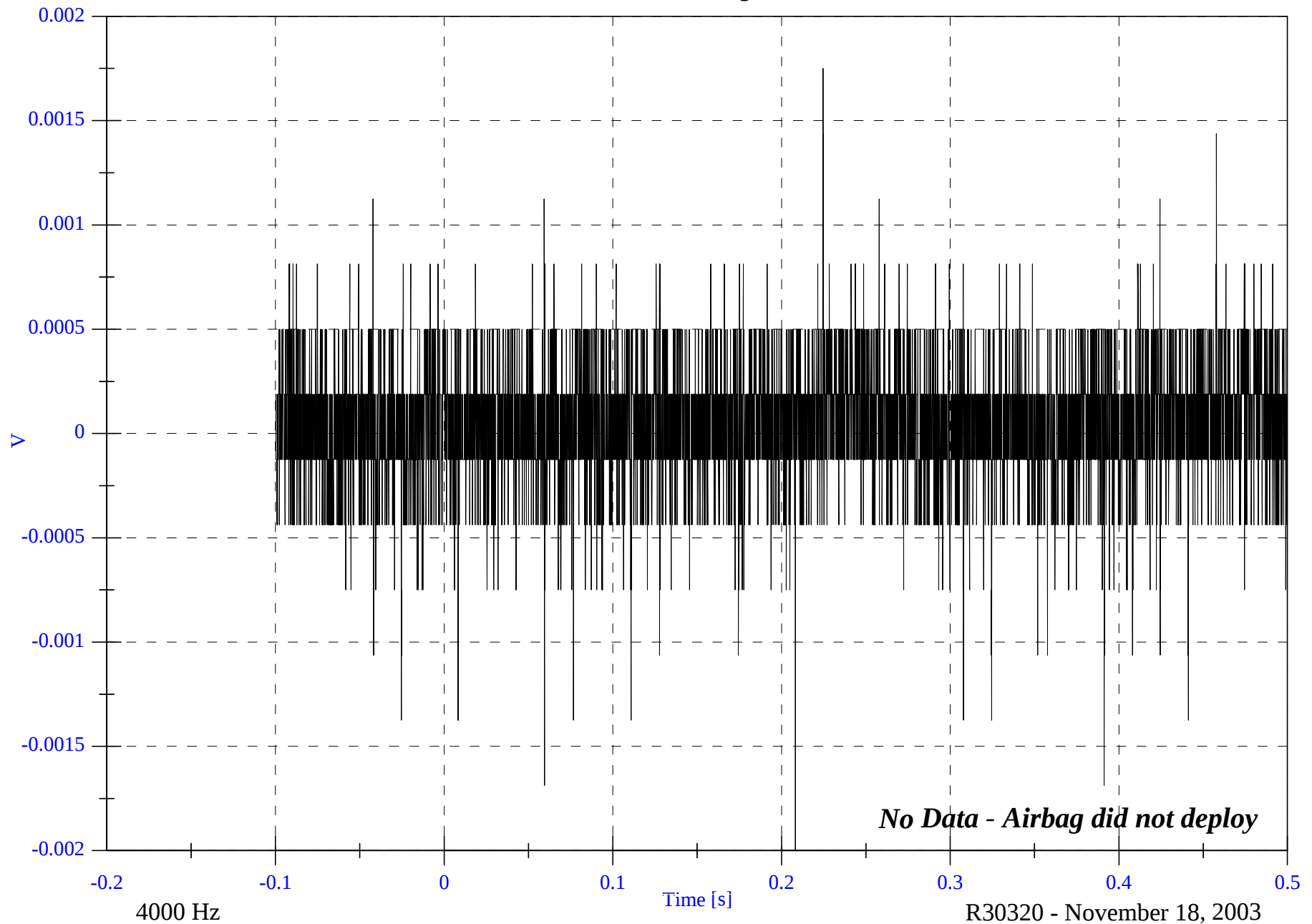


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P2 Air Bag T/E

Max: 0.0 [V] at 0.225 [s]

Min: -0.0 [V] at 0.208 [s]

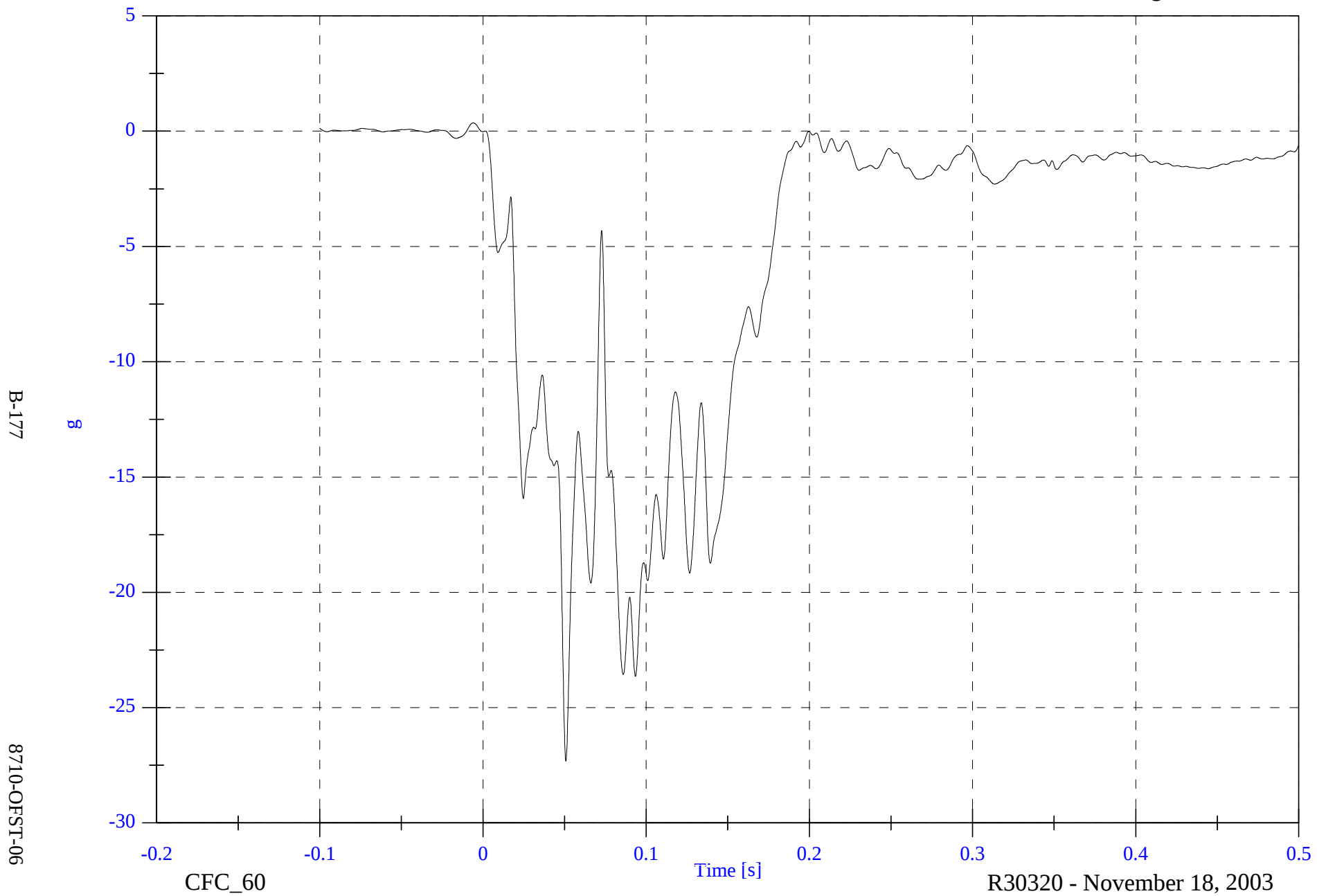


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember x

Max: 0.4 [g] at -0.006 [s]

Min: -27.3 [g] at 0.051 [s]

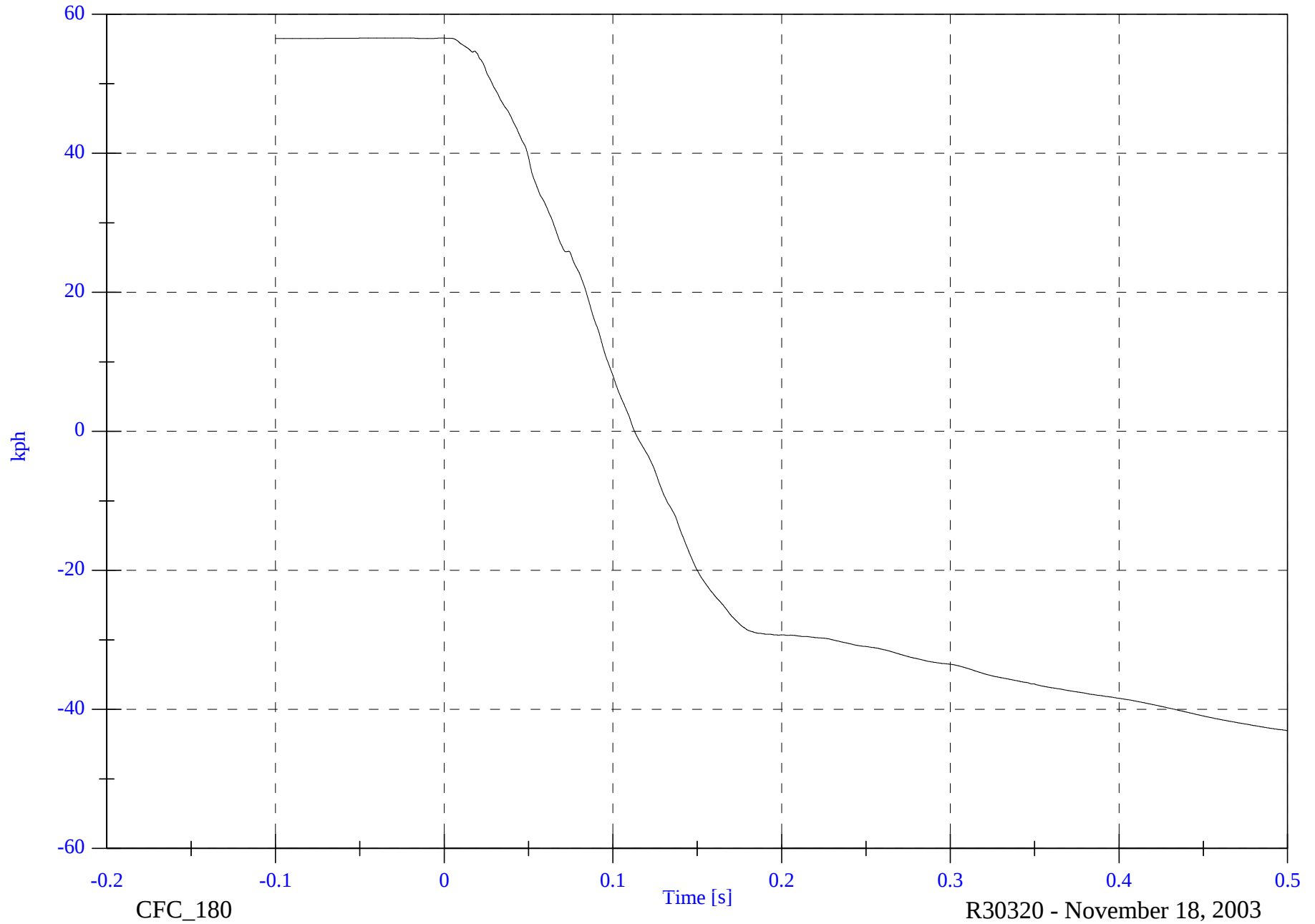


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember x Velocity

Max: 56.6 [kph] at -0.022 [s]

Min: -43.0 [kph] at 0.500 [s]



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8710-OFST-06

CFC_180

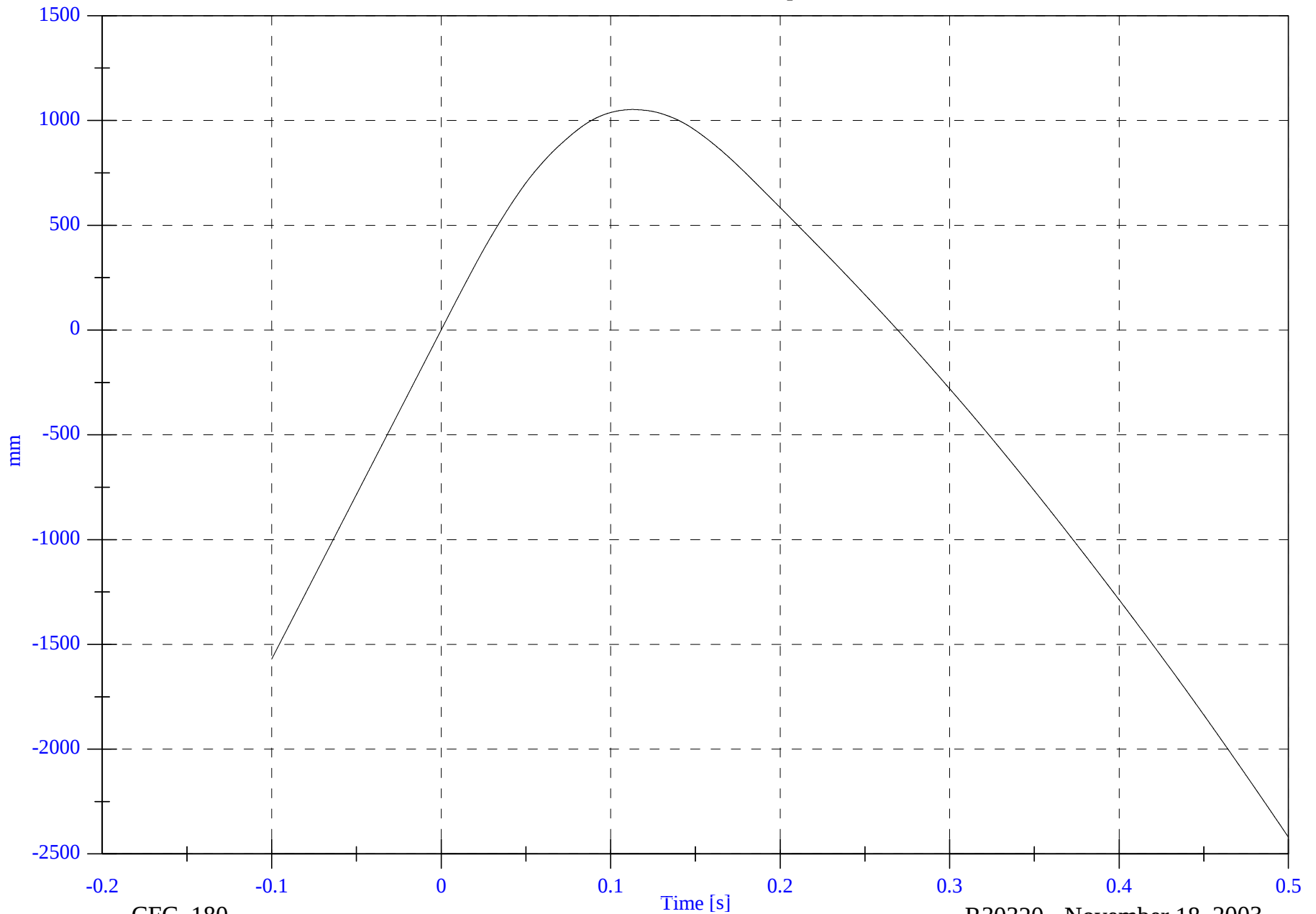
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember x Displacement

Max: 1052.2 [mm] at 0.113 [s]

Min: -2419.7 [mm] at 0.500 [s]



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8710-OFST-06

CFC_180

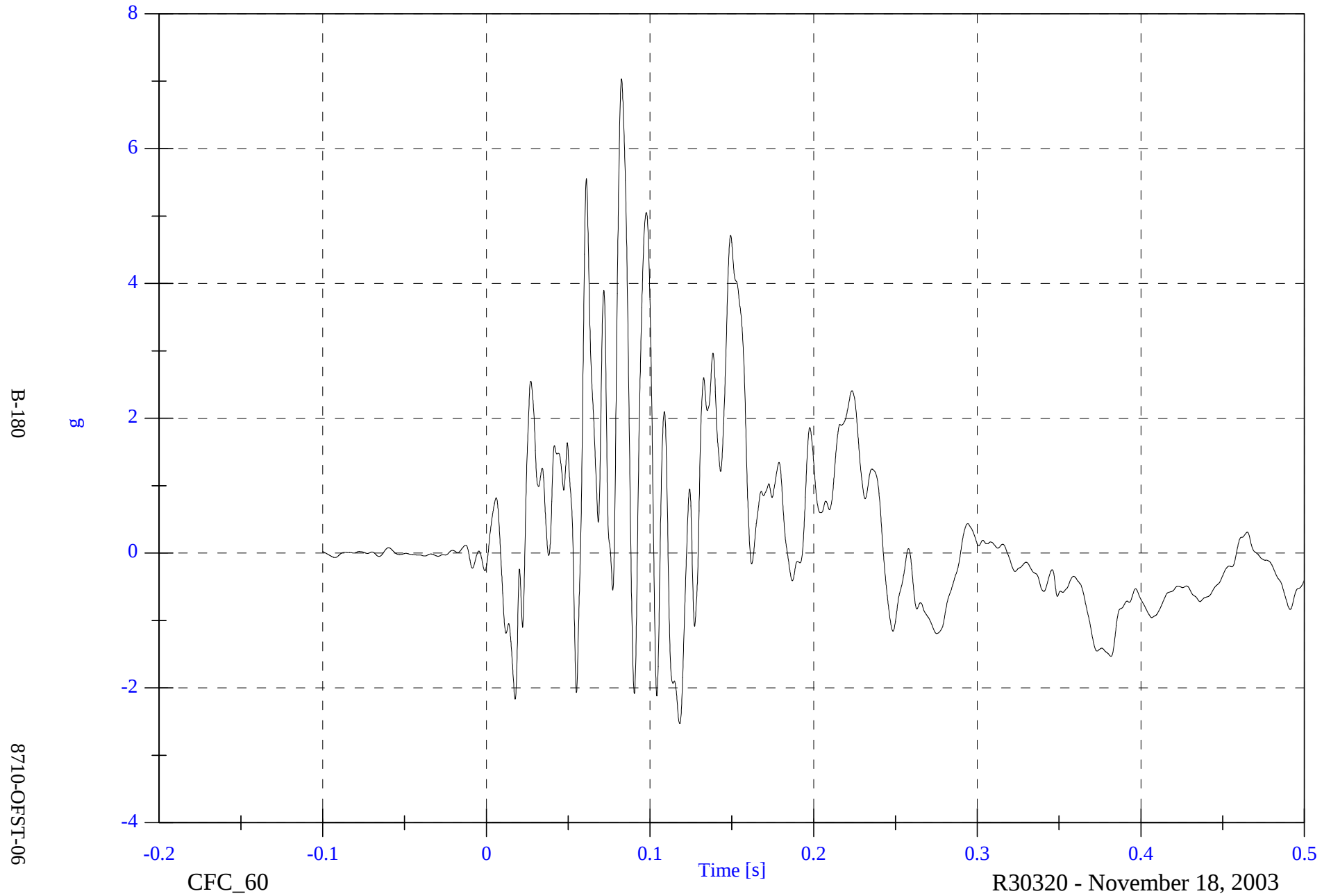
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember y

Max: 7.0 [g] at 0.083 [s]

Min: -2.5 [g] at 0.118 [s]

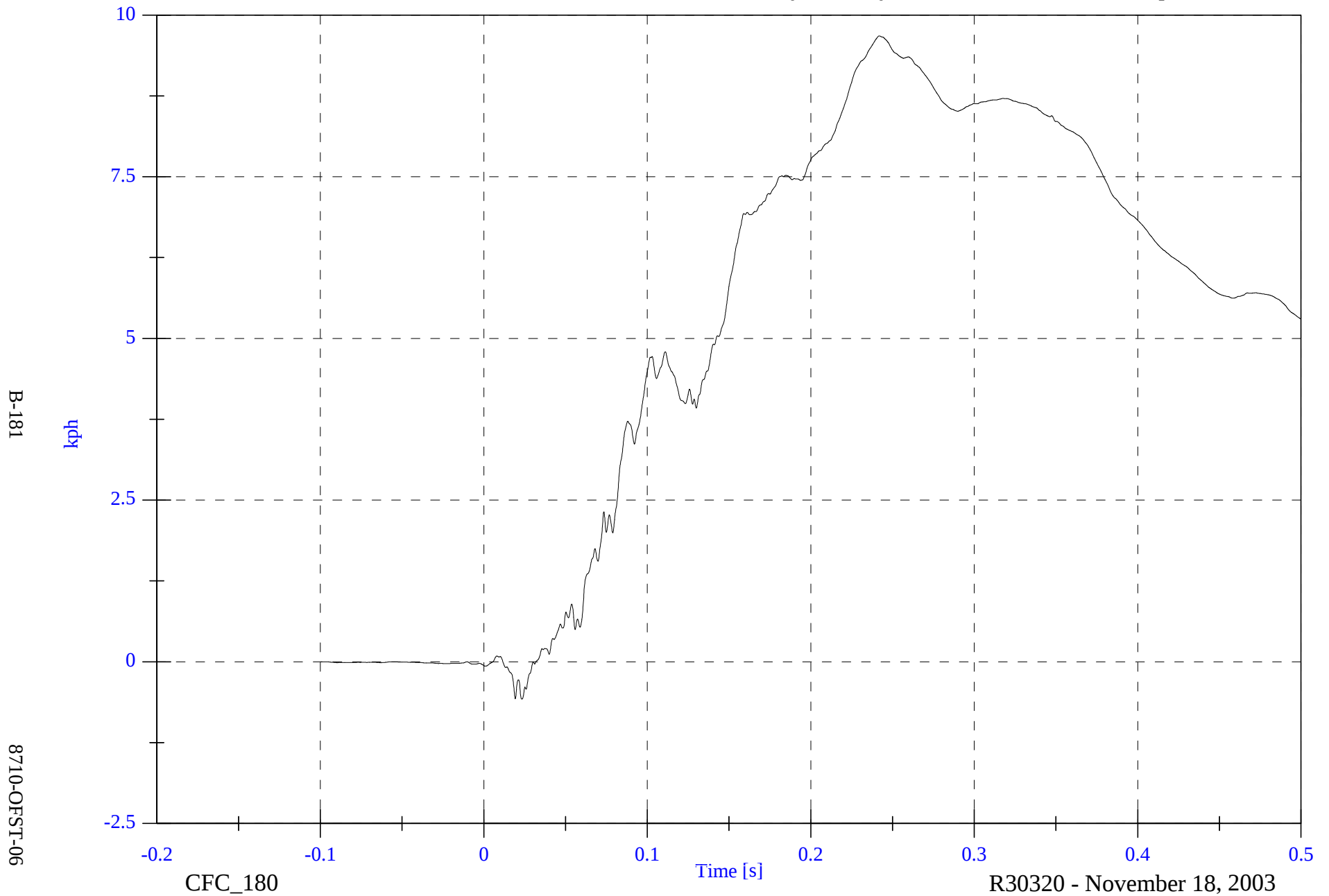


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember y Velocity

Max: 9.7 [kph] at 0.242 [s]

Min: -0.6 [kph] at 0.023 [s]

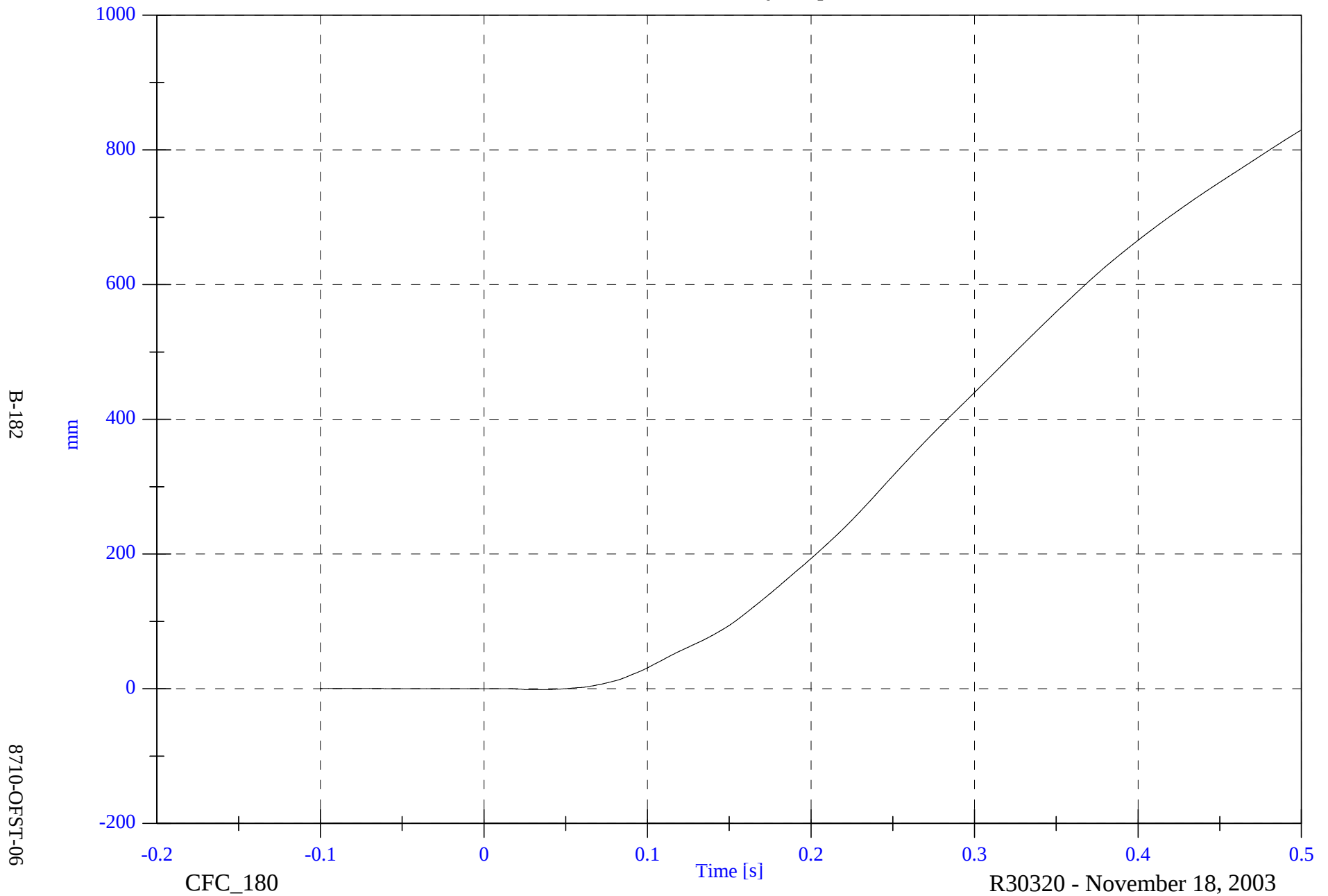


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 LR Seat Xmember y Displacement

Max: 829.6 [mm] at 0.500 [s]

Min: -1.4 [mm] at 0.032 [s]

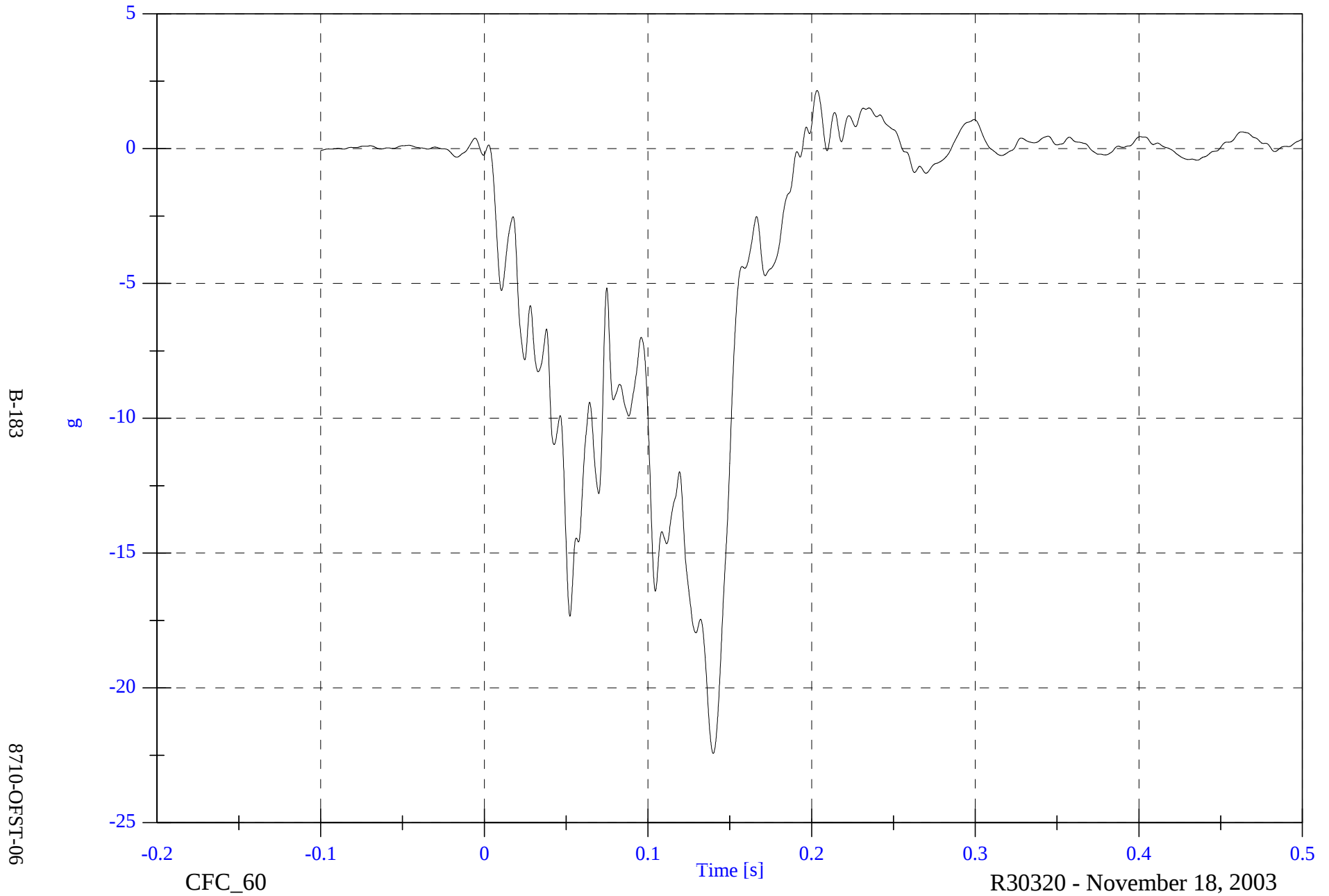


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember x

Max: 2.2 [g] at 0.203 [s]

Min: -22.4 [g] at 0.140 [s]

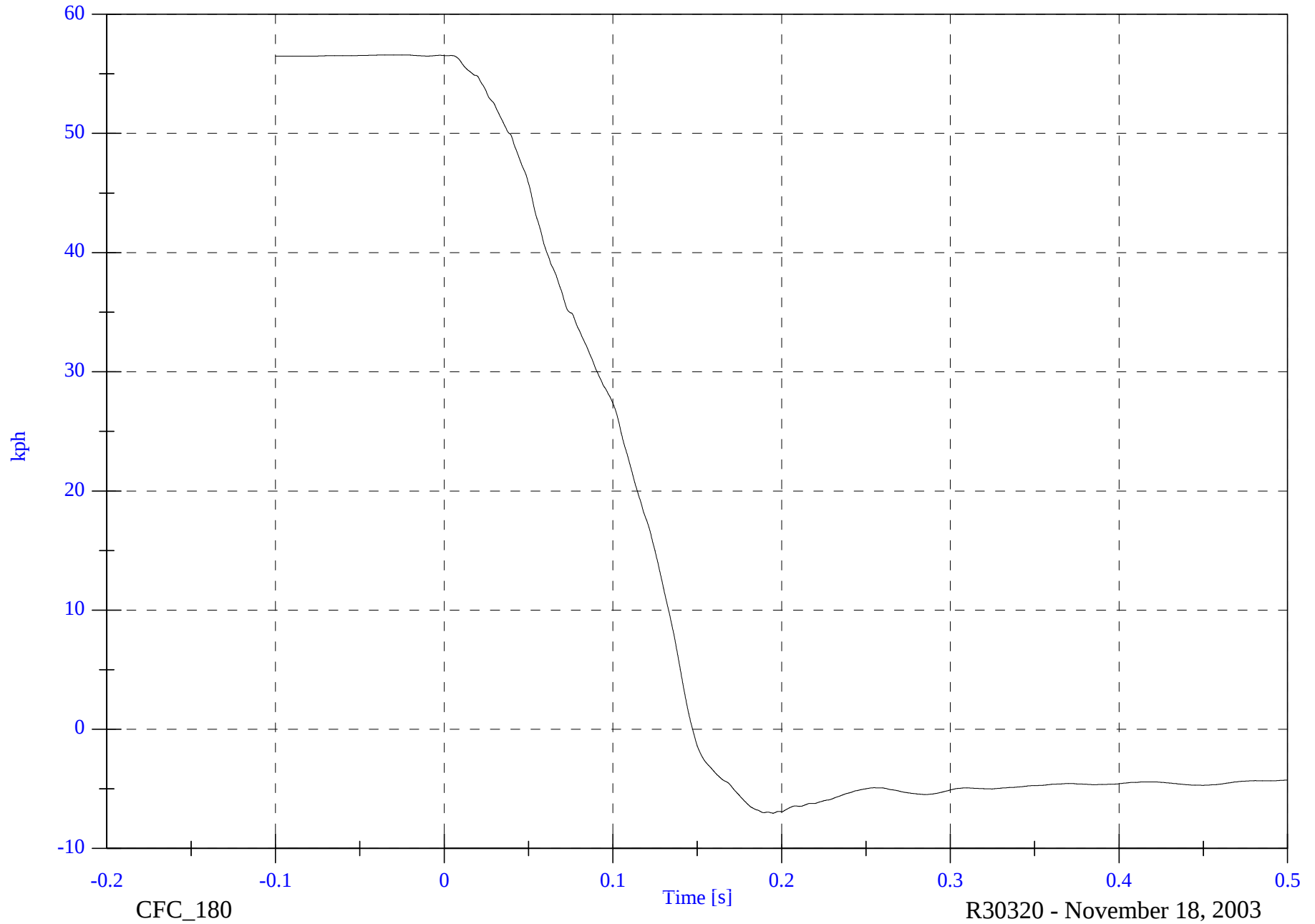


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember x Velocity

Max: 56.6 [kph] at -0.026 [s]

Min: -7.0 [kph] at 0.195 [s]



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8710-OFST-06

CFC_180

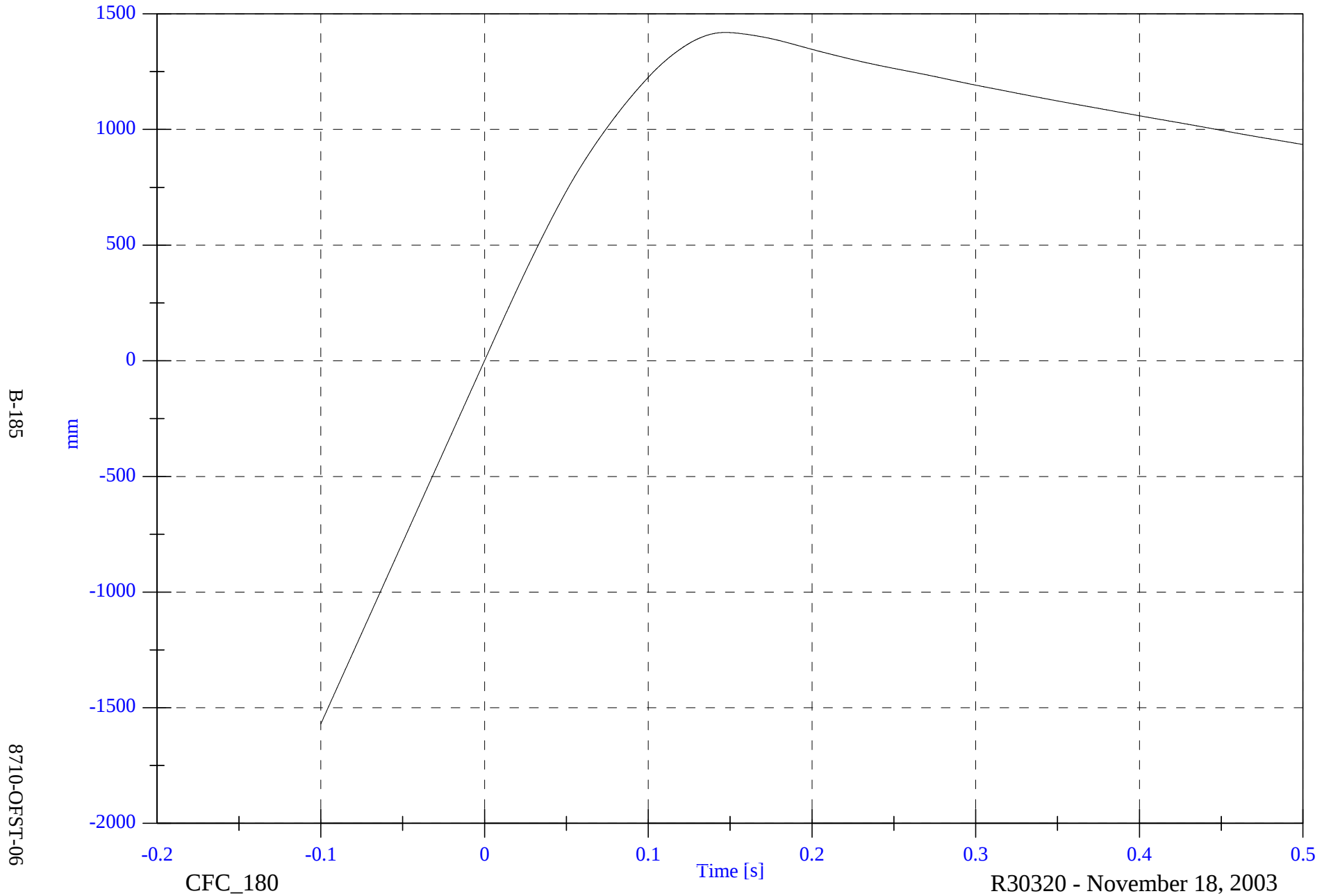
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember x Displacement

Max: 1419.2 [mm] at 0.147 [s]

Min: -1570.1 [mm] at -0.100 [s]

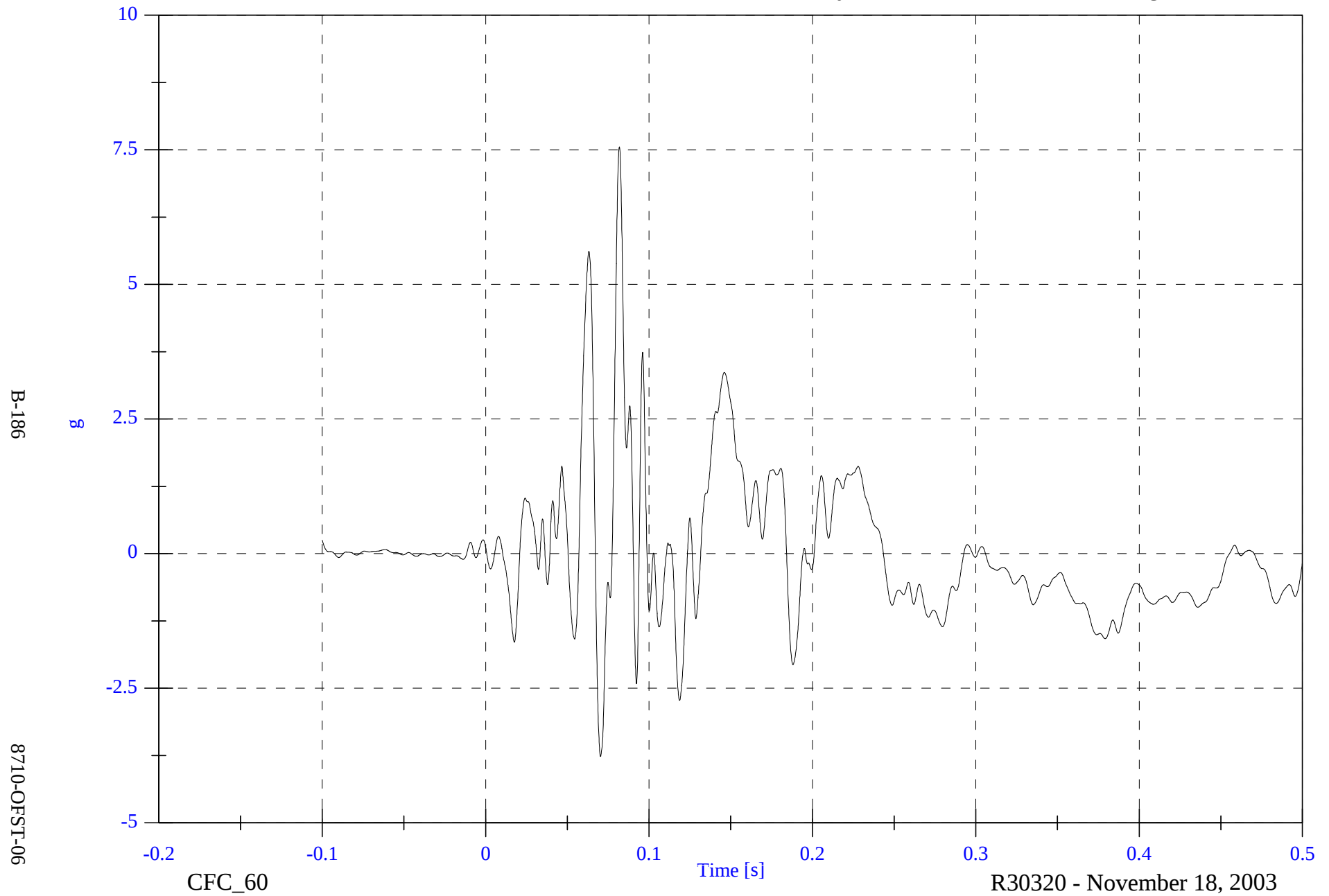


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember y

Max: 7.6 [g] at 0.082 [s]

Min: -3.8 [g] at 0.070 [s]

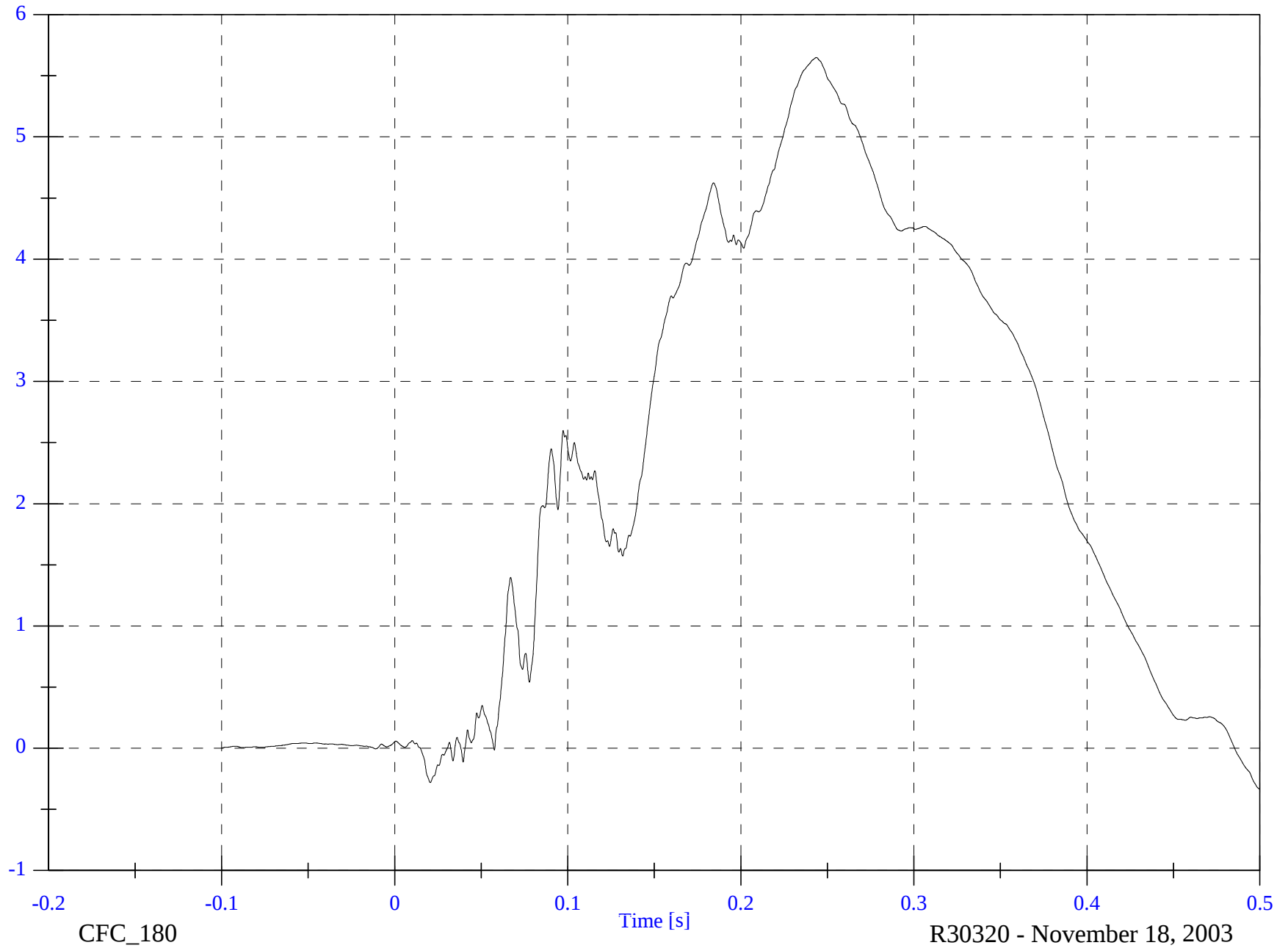


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember y Velocity

Max: 5.6 [kph] at 0.244 [s]

Min: -0.3 [kph] at 0.500 [s]



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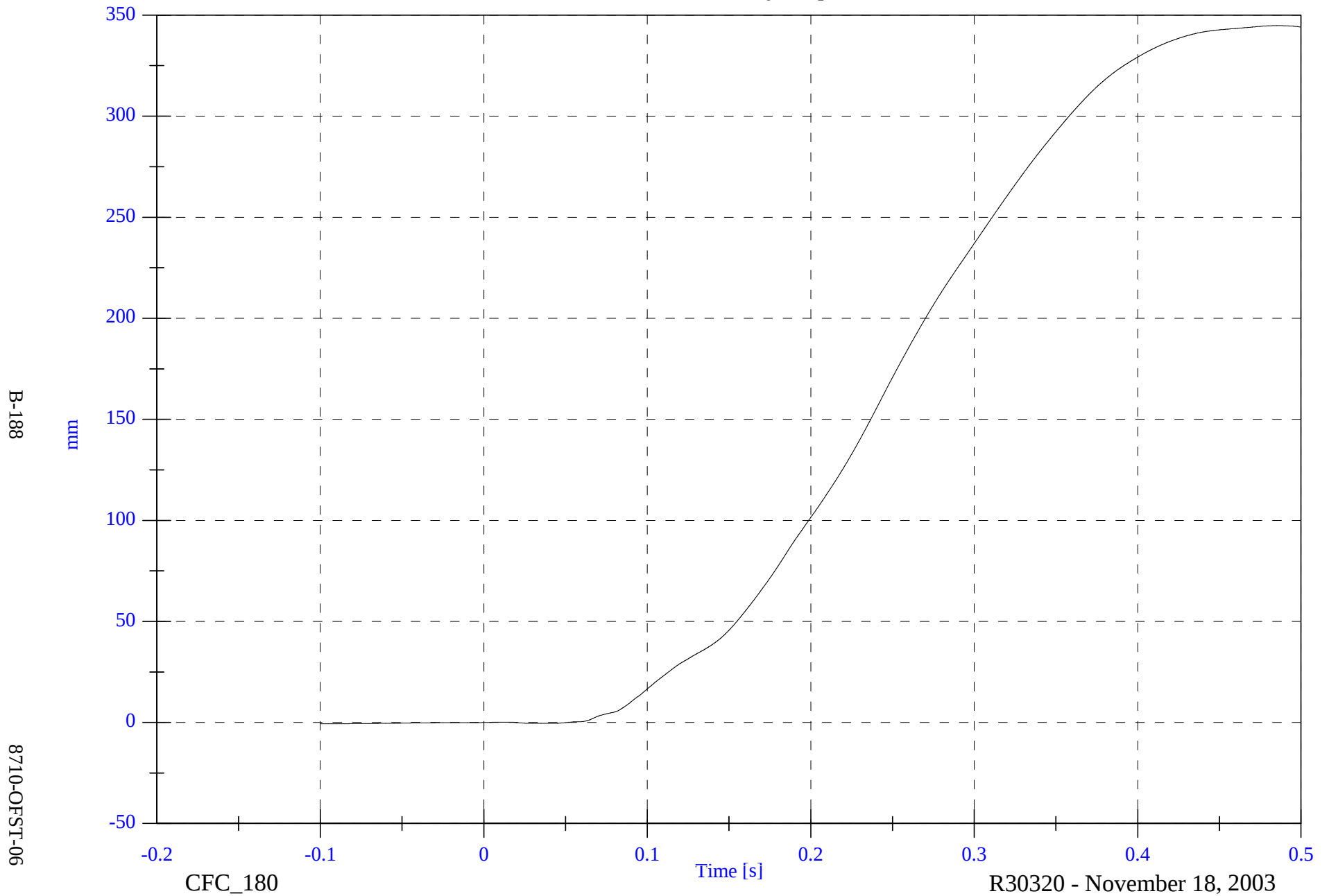
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 RR Seat Xmember y Displacement

Max: 344.9 [mm] at 0.485 [s]

Min: -0.6 [mm] at -0.100 [s]

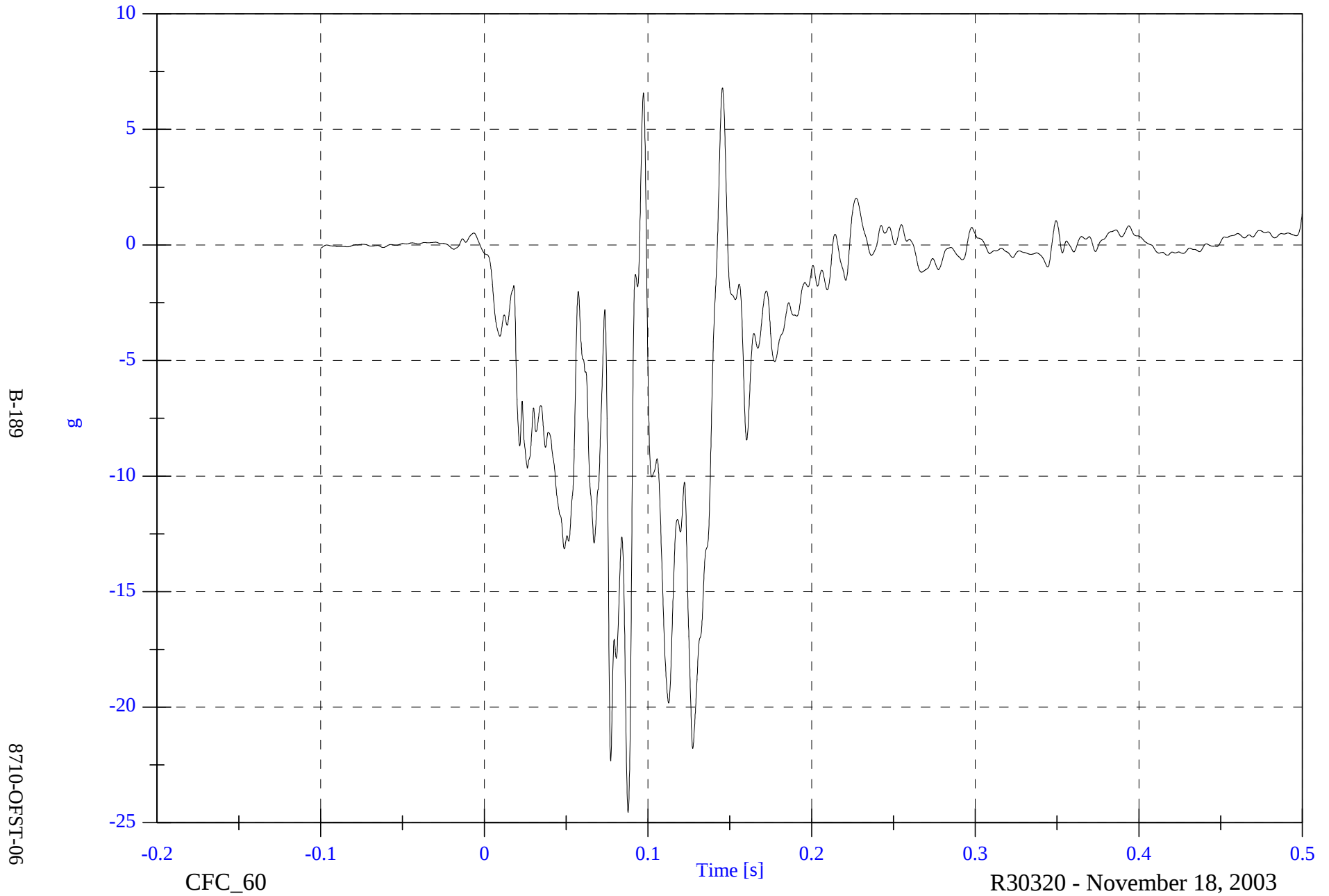


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan x

Max: 6.8 [g] at 0.146 [s]

Min: -24.6 [g] at 0.088 [s]

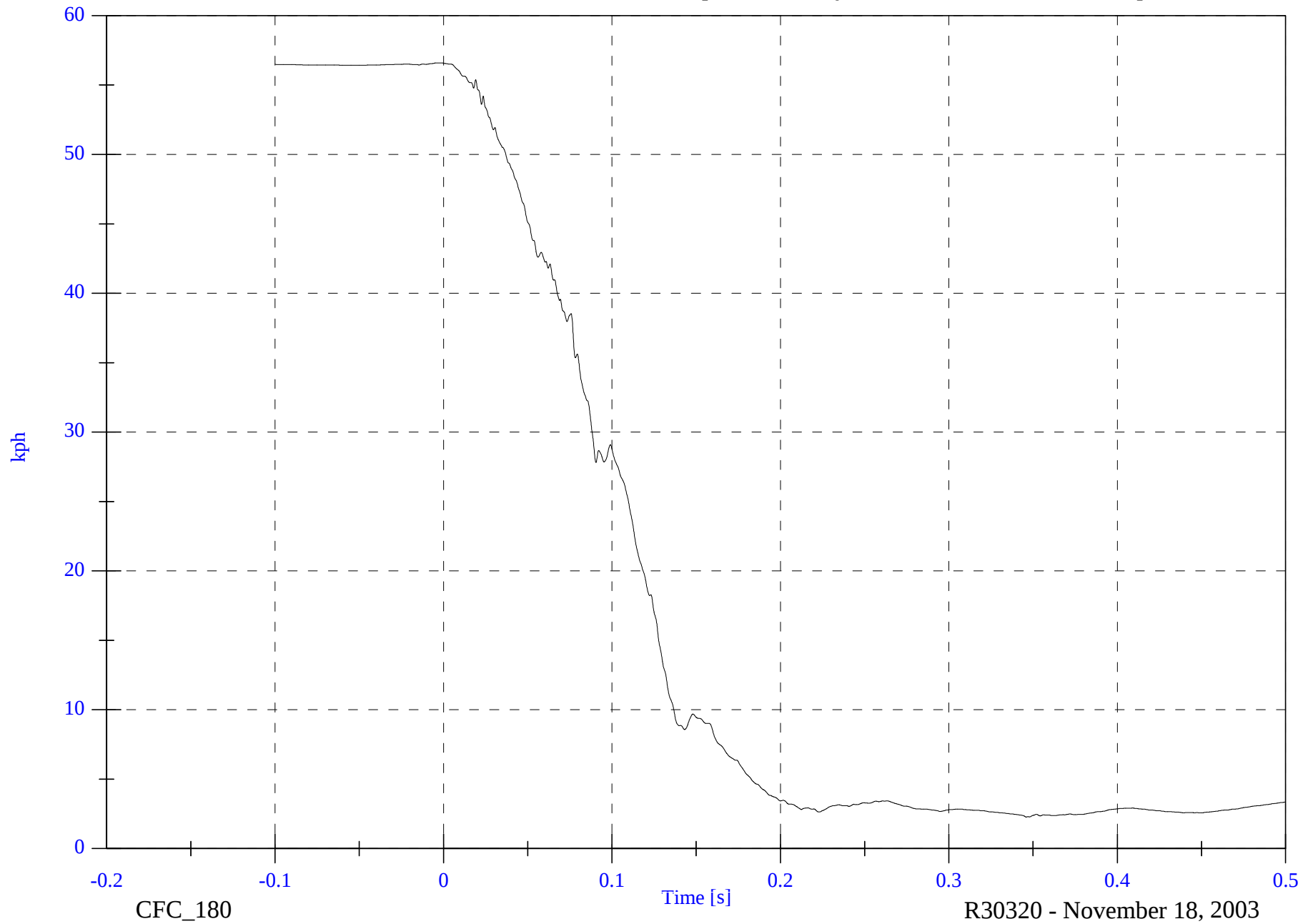


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan x Velocity

Max: 56.6 [kph] at -0.003 [s]

Min: 2.3 [kph] at 0.346 [s]



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CFC_180

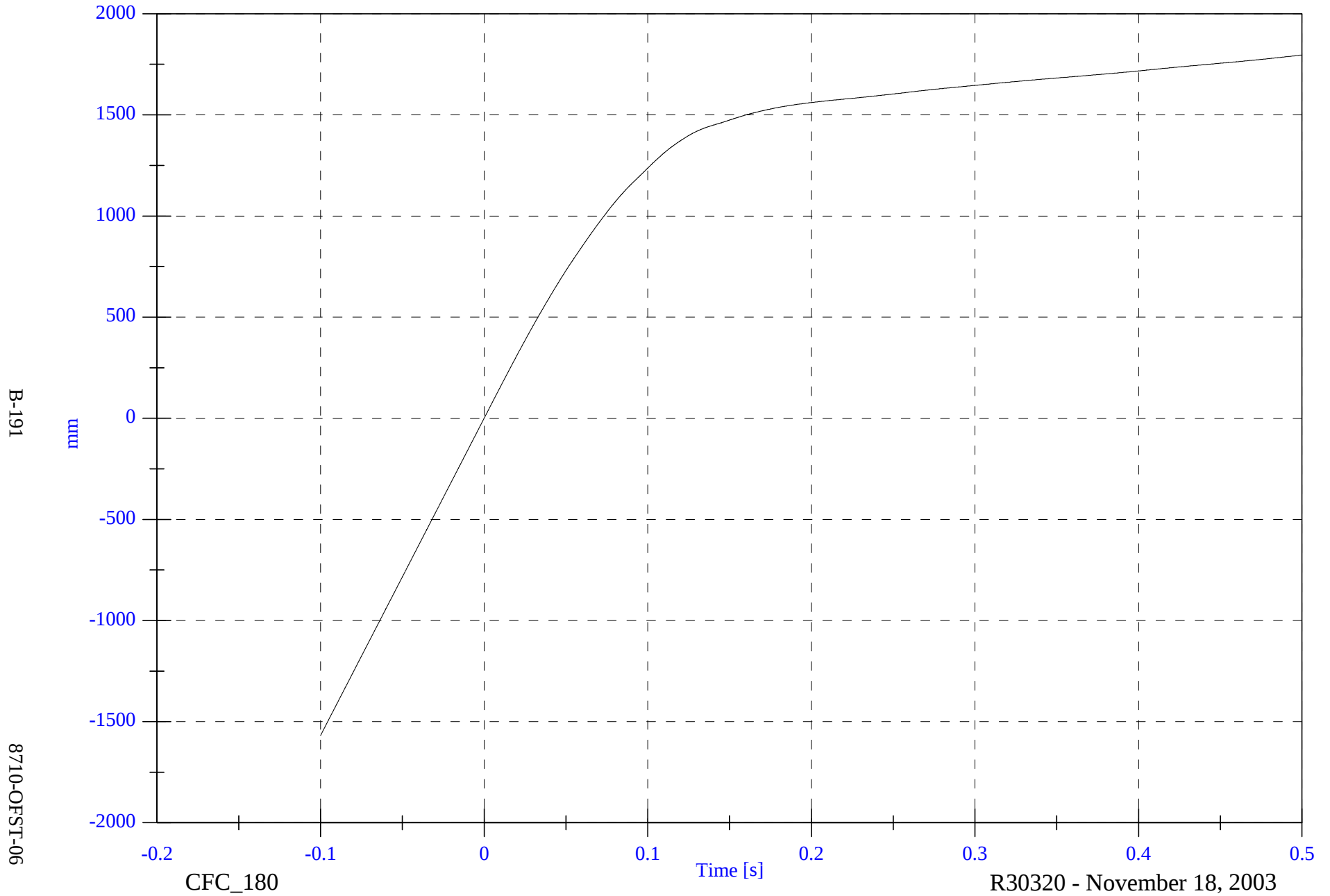
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan x Displacement

Max: 1796.2 [mm] at 0.500 [s]

Min: -1568.6 [mm] at -0.100 [s]

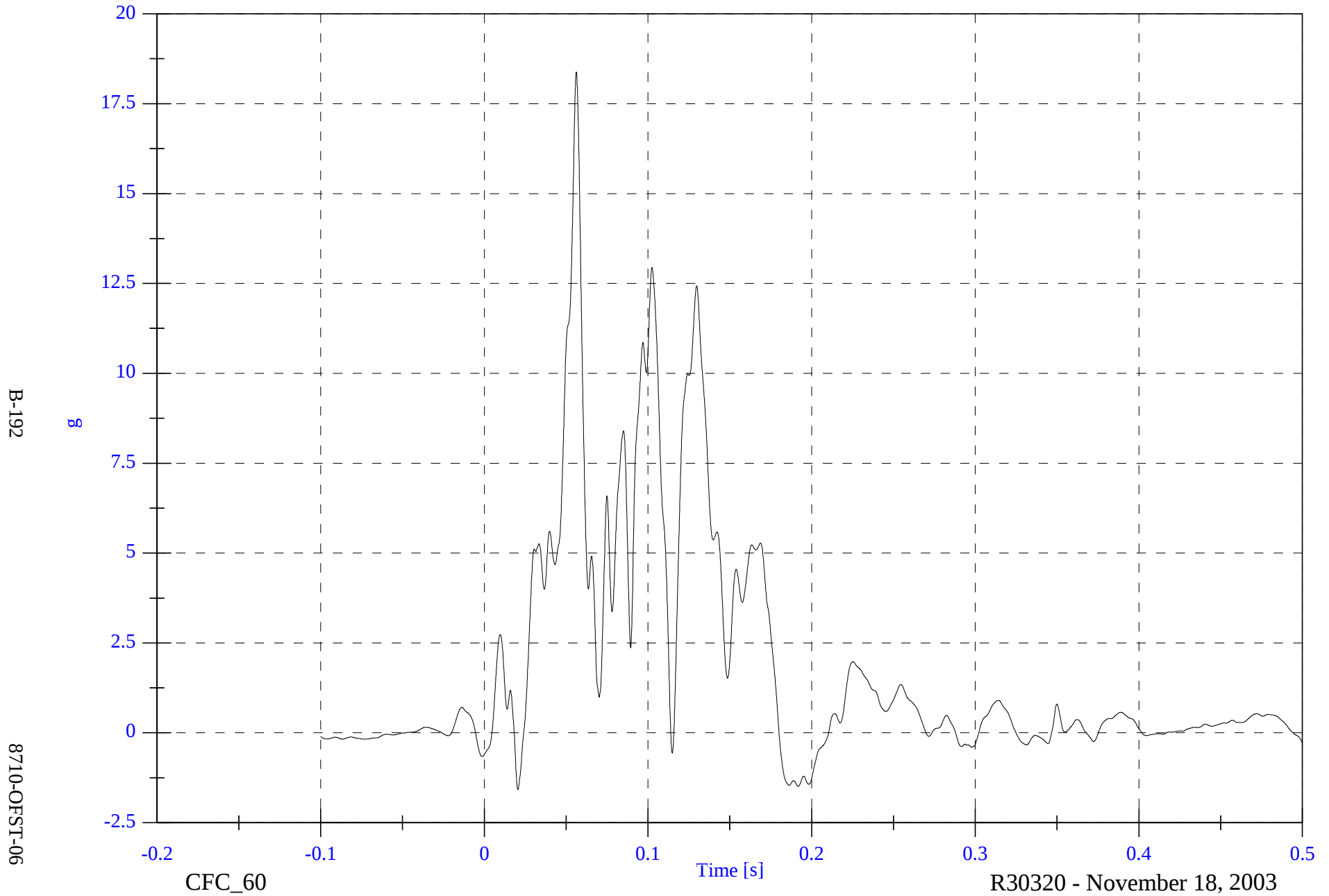


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan z

Max: 18.4 [g] at 0.056 [s]

Min: -1.6 [g] at 0.020 [s]

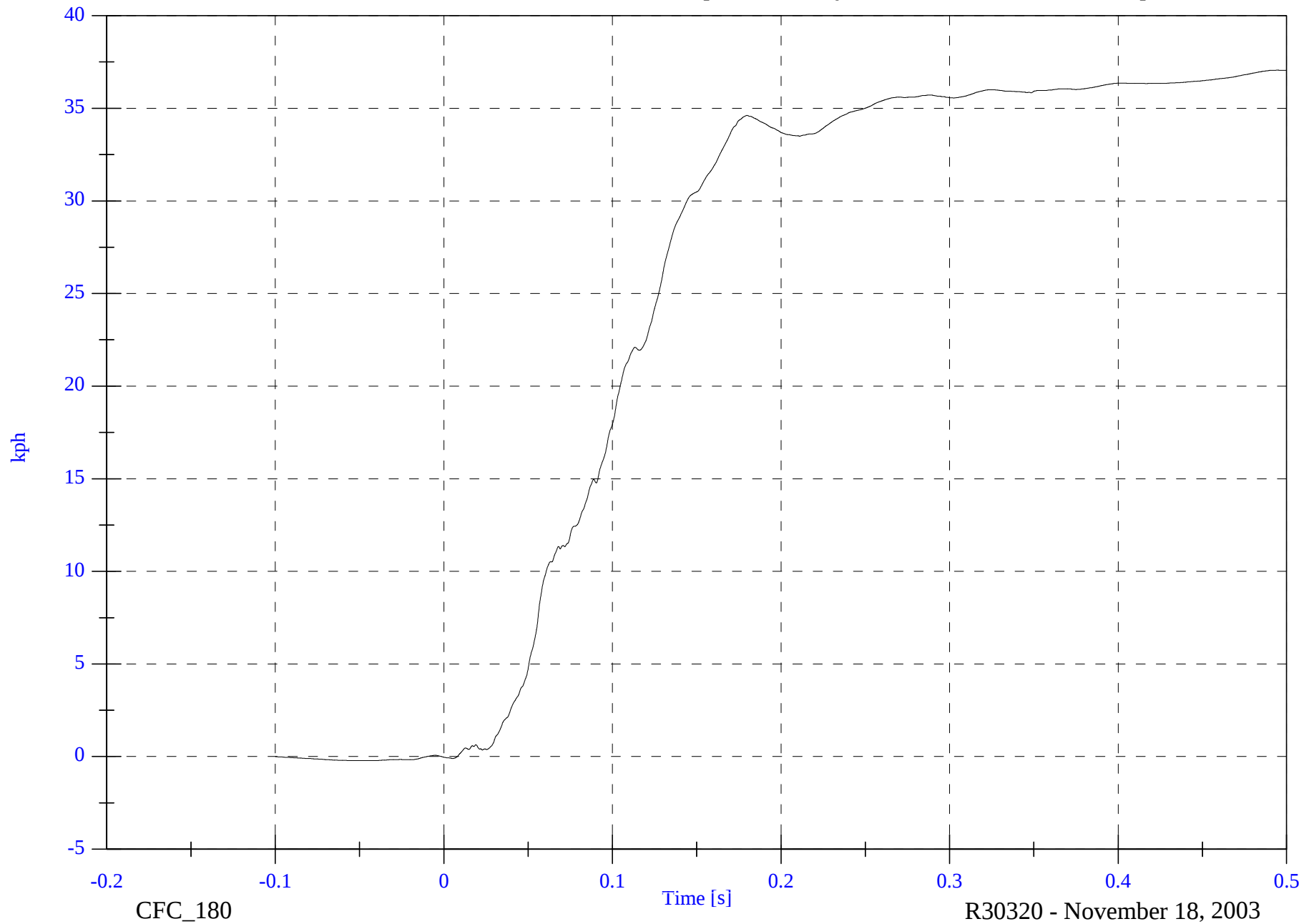


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan z Velocity

Max: 37.1 [kph] at 0.495 [s]

Min: -0.2 [kph] at -0.048 [s]



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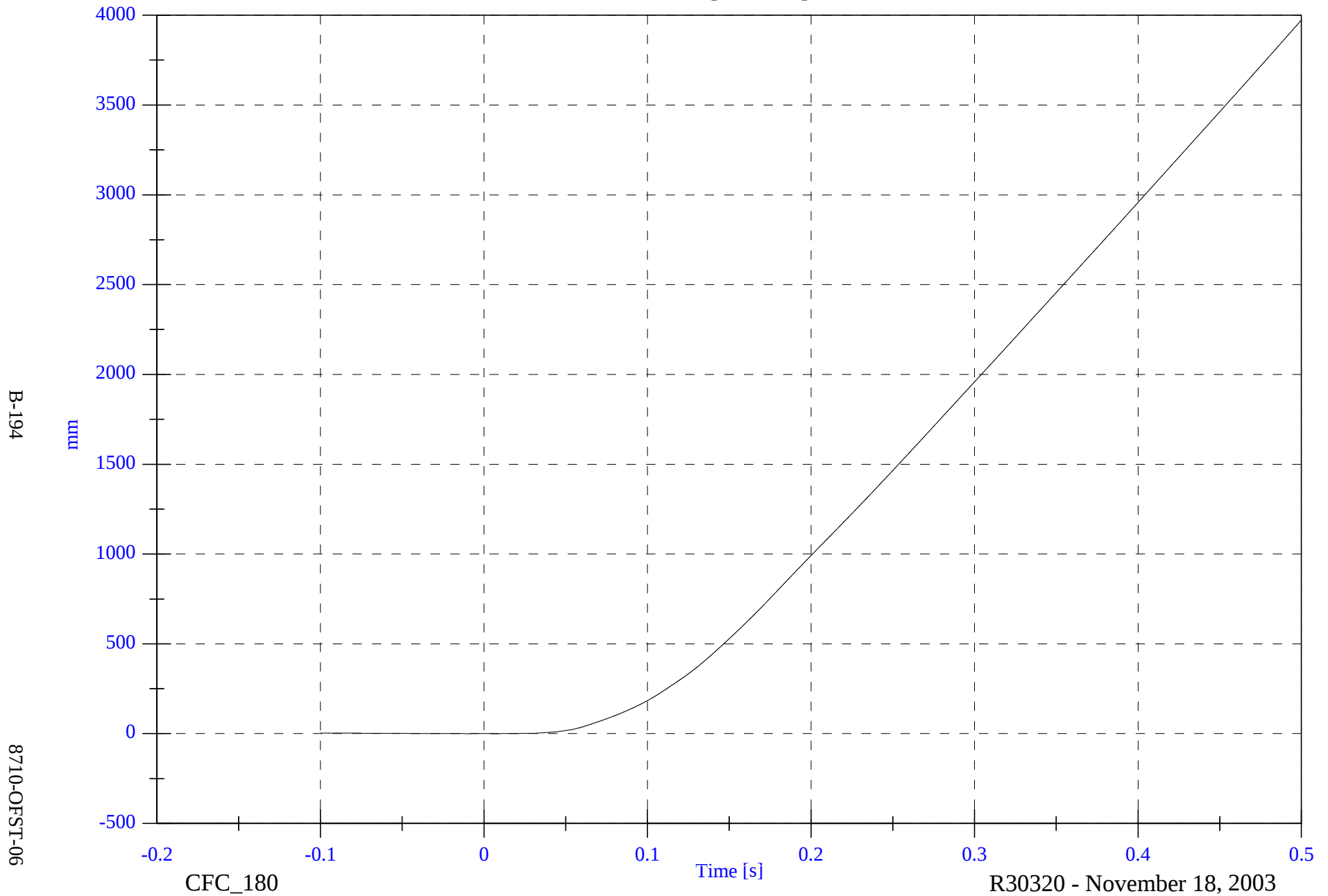
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Left Toepan z Displacement

Max: 3972.3 [mm] at 0.500 [s]

Min: -0.1 [mm] at 0.008 [s]

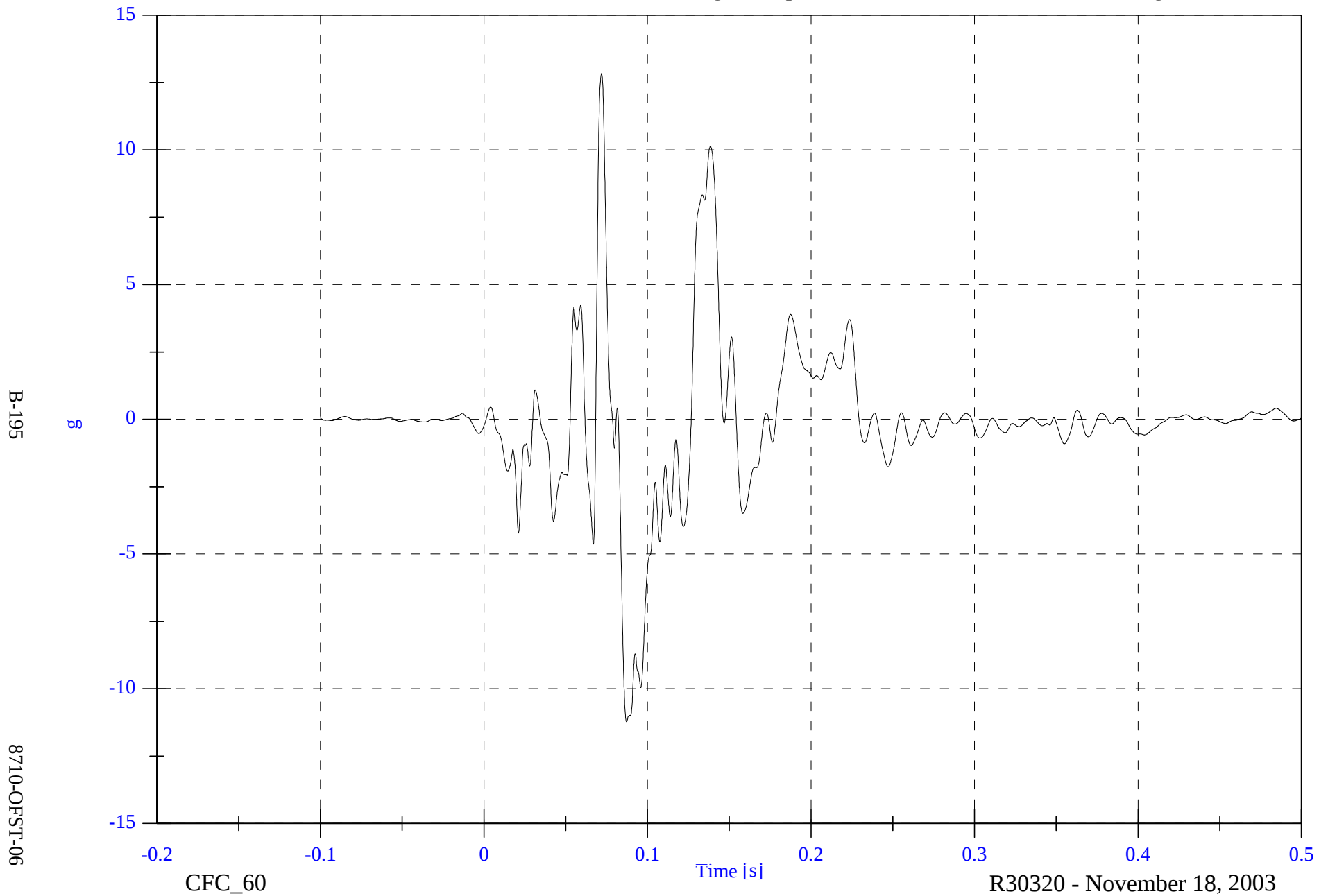


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Right Toepan x

Max: 12.8 [g] at 0.072 [s]

Min: -11.2 [g] at 0.087 [s]

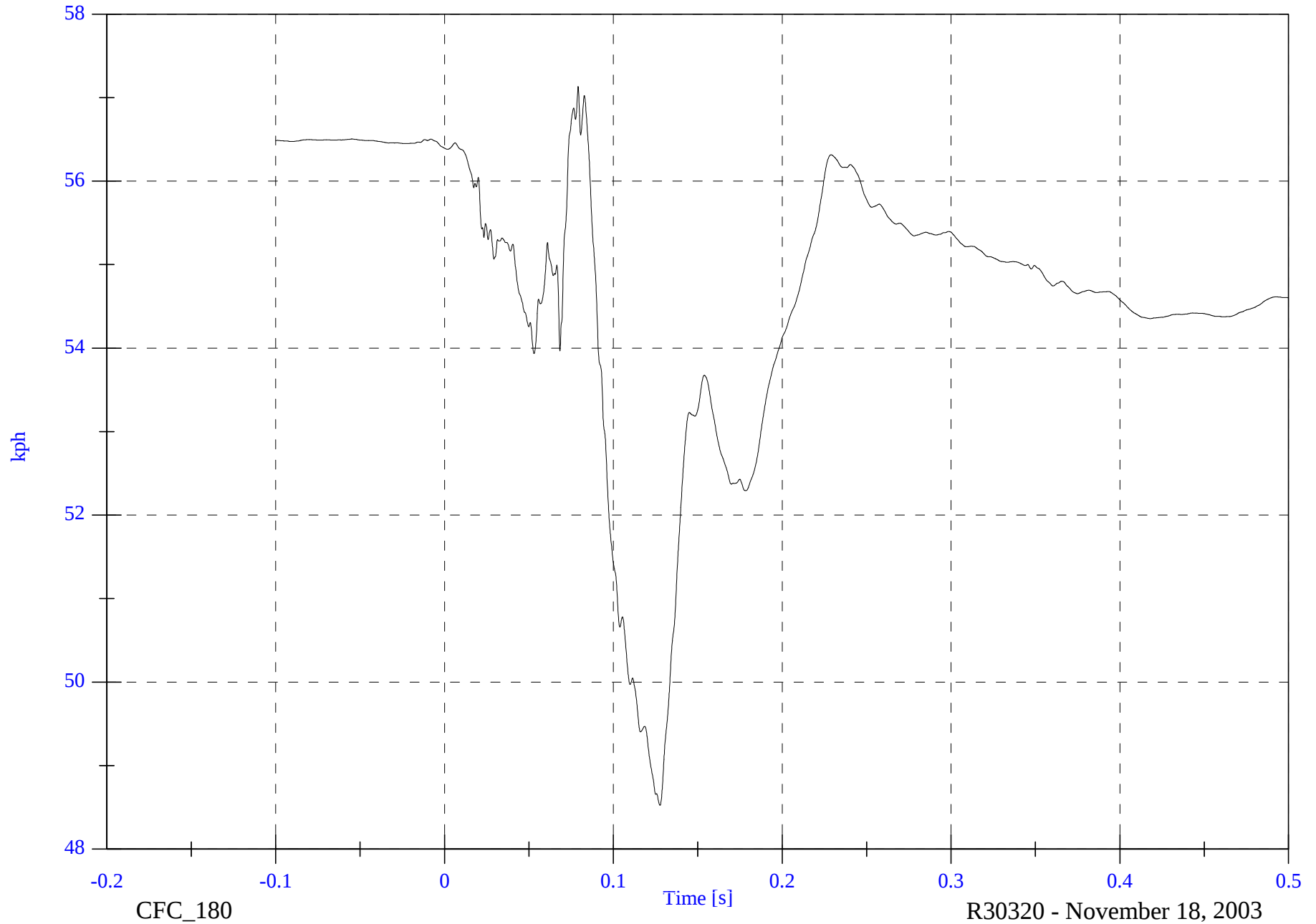


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Right Toe Pan x Velocity

Max: 57.1 [kph] at 0.079 [s]

Min: 48.5 [kph] at 0.128 [s]



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8710-OFST-06

CFC_180

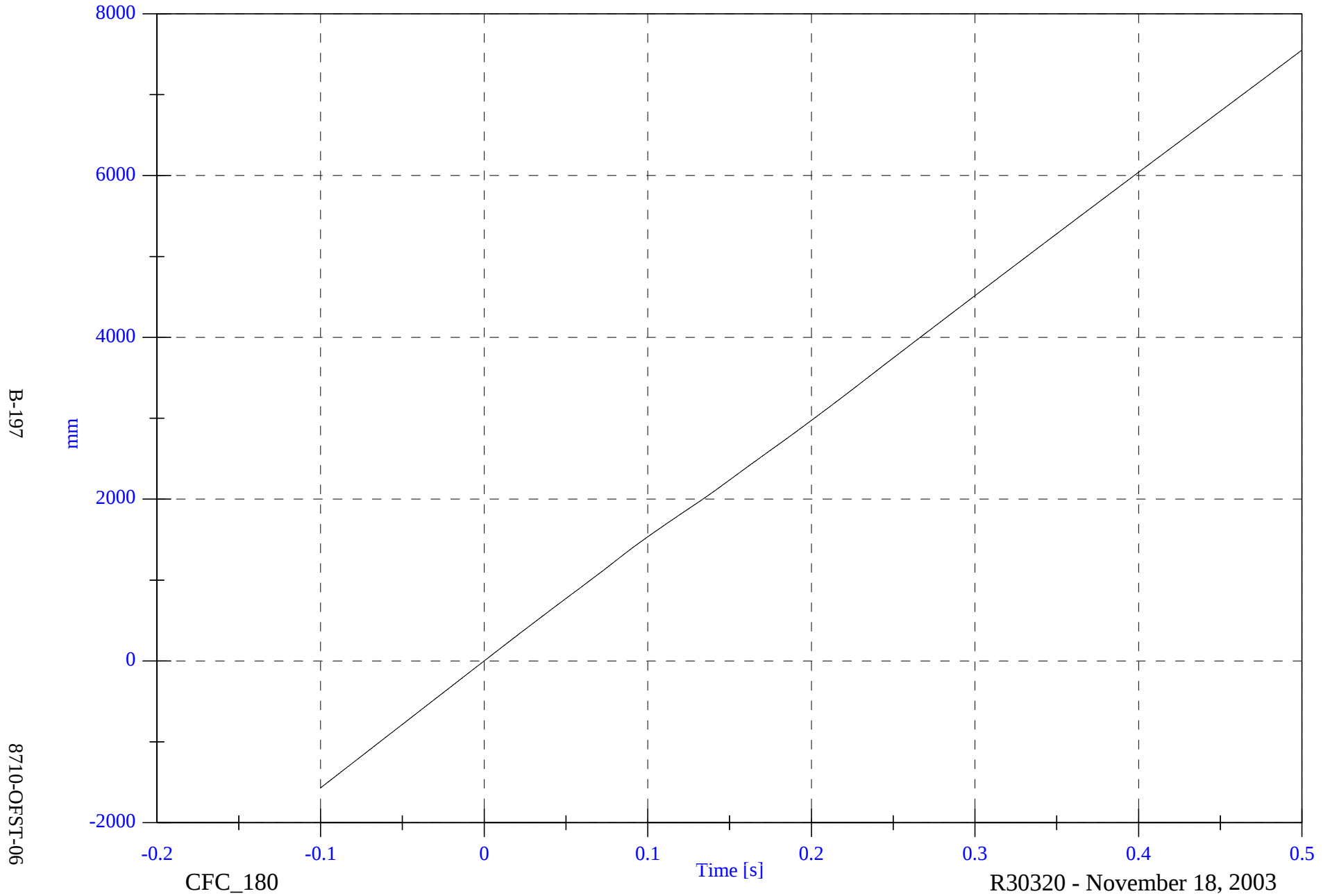
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

Max: 7551.2 [mm] at 0.500 [s]

V1 P1 Right Toepan x Displacement

Min: -1568.9 [mm] at -0.100 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

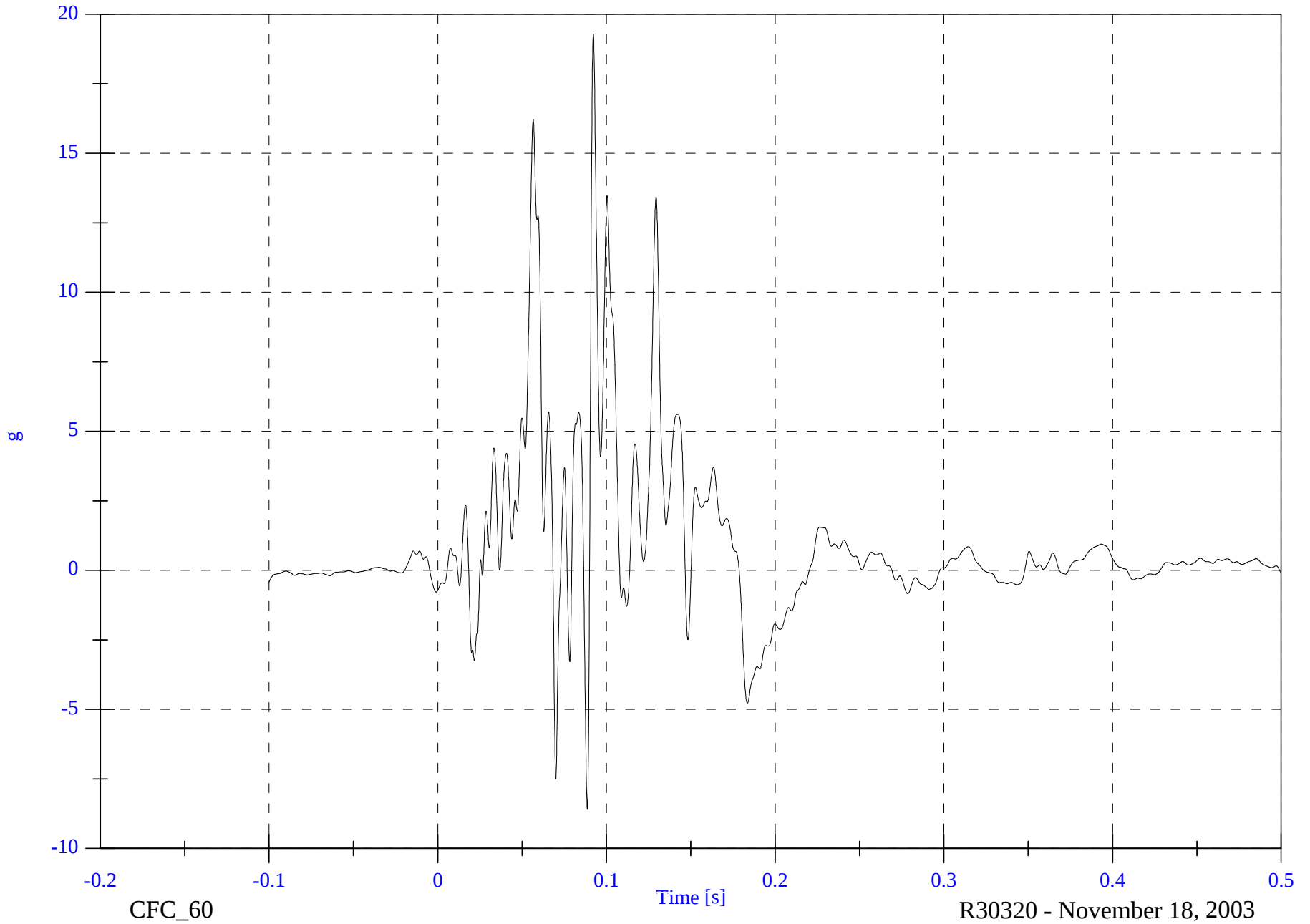
V1 P1 Right Toepan z

Max: 19.3 [g] at 0.092 [s]

Min: -8.6 [g] at 0.089 [s]

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8710-OFST-06

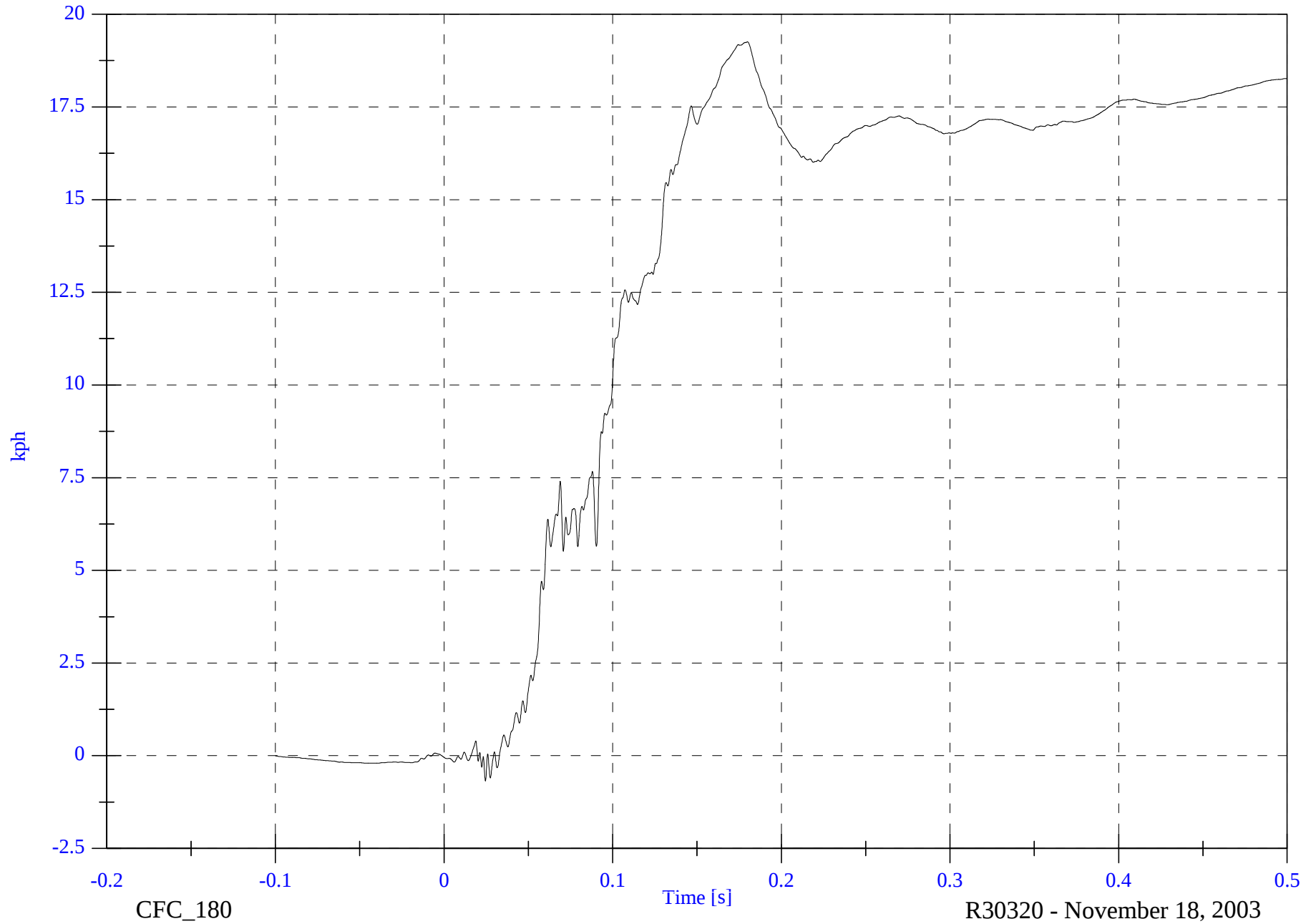


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Right Toepan z Velocity

Max: 19.3 [kph] at 0.180 [s]

Min: -0.7 [kph] at 0.025 [s]



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8710-OFST-06

CFC_180

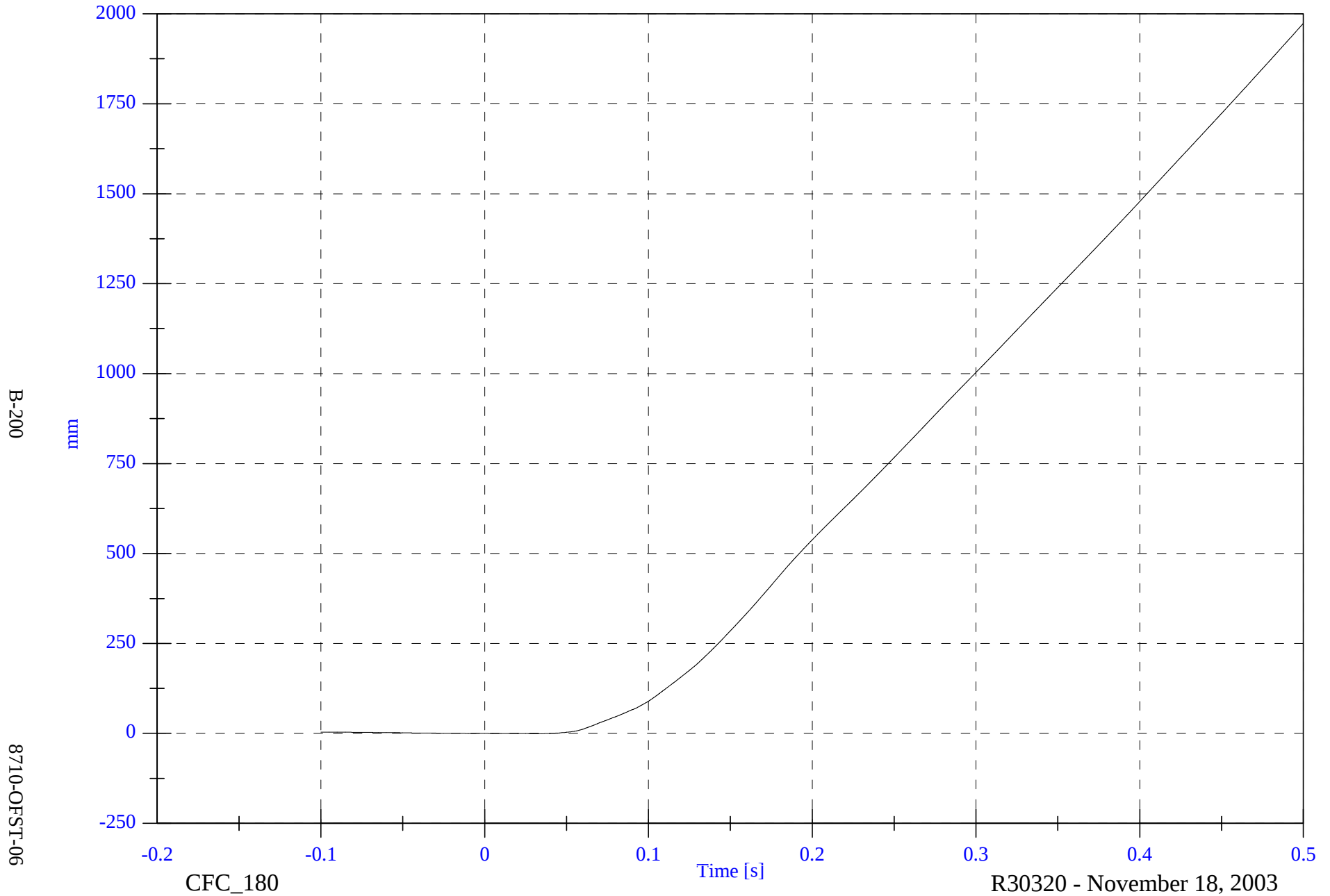
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 P1 Right Toepan z Displacement

Max: 1973.2 [mm] at 0.500 [s]

Min: -0.8 [mm] at 0.033 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

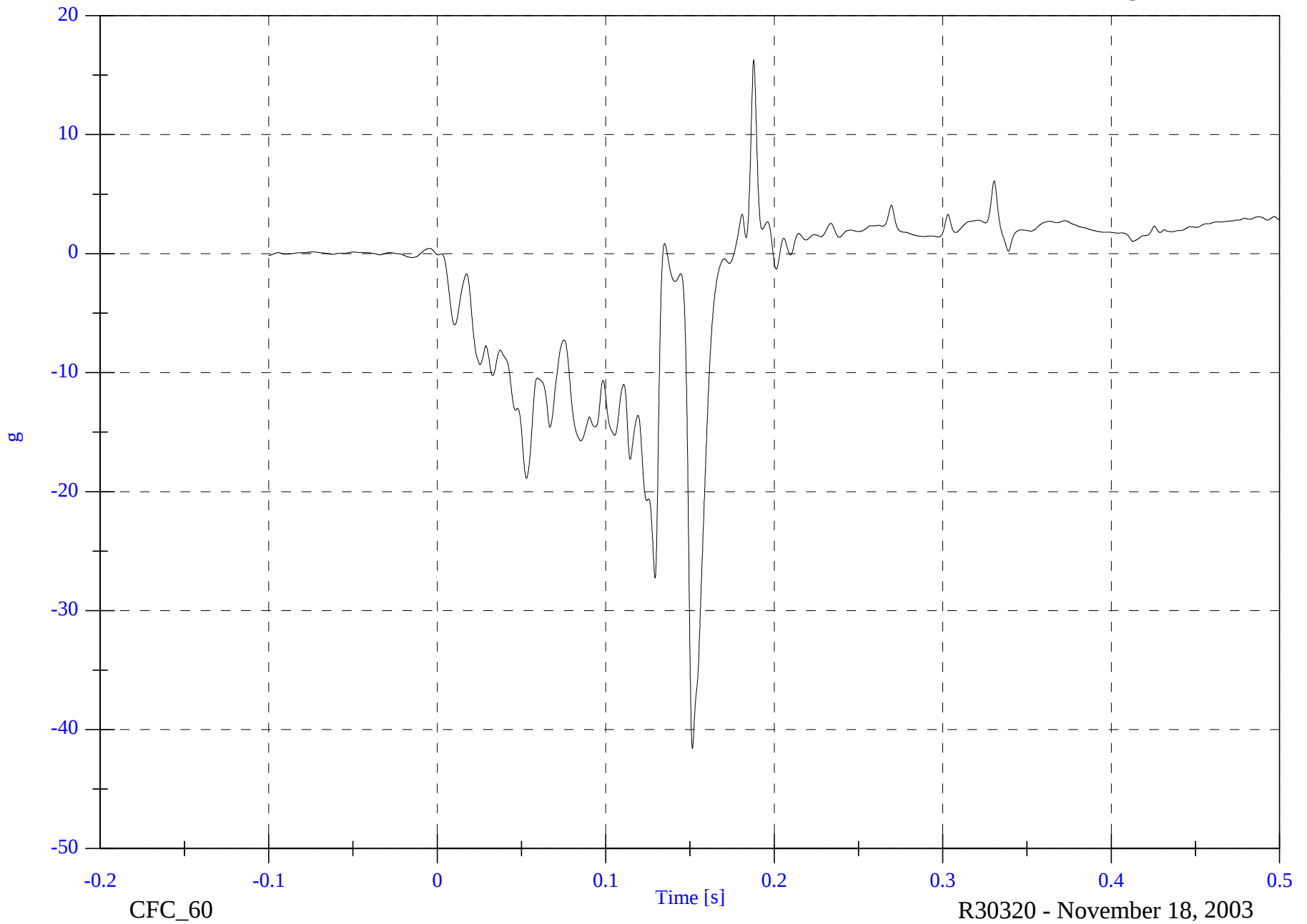
V1 CG x

Max: 16.3 [g] at 0.188 [s]

Min: -41.6 [g] at 0.152 [s]

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8710-OFST-06

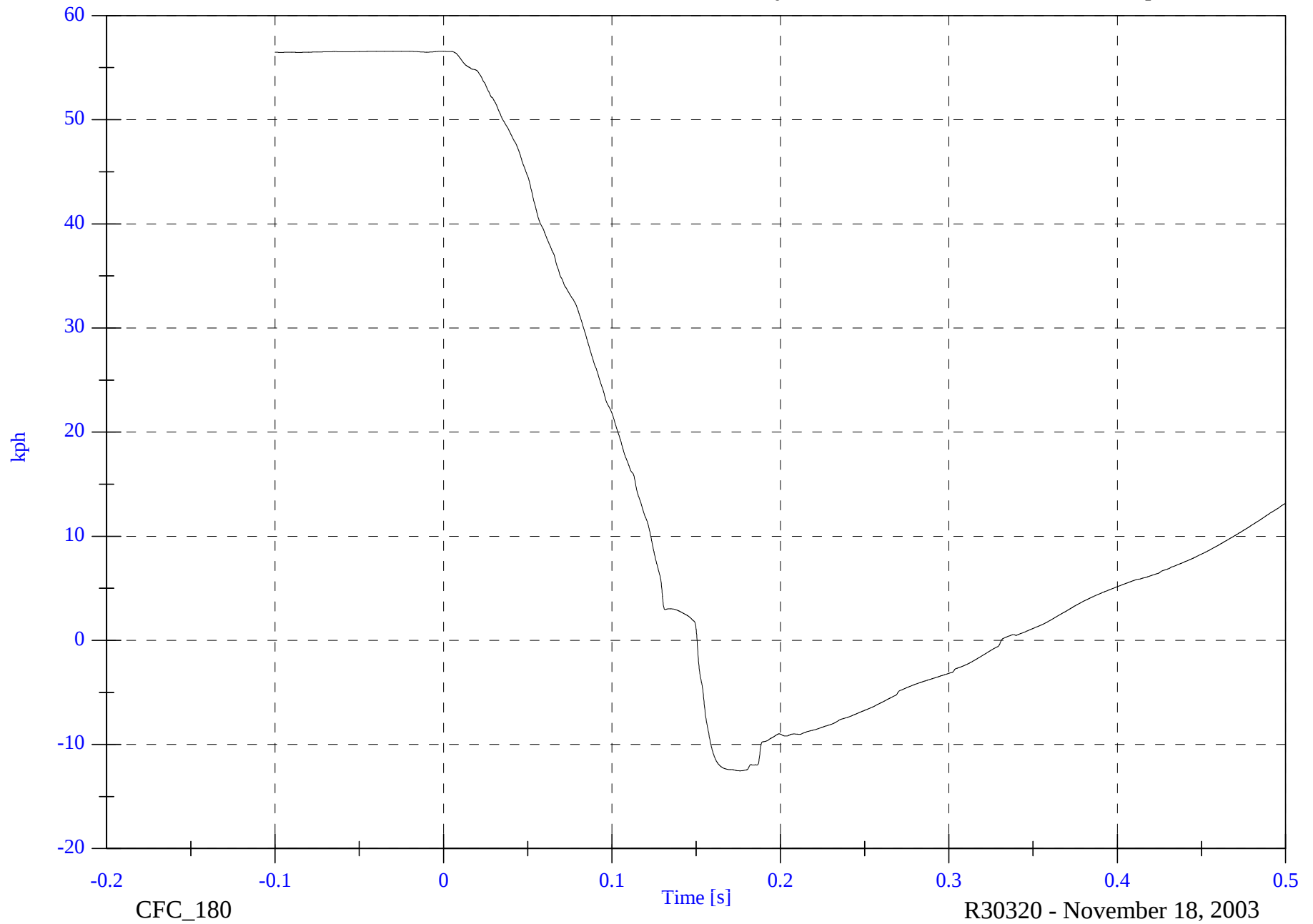


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG x Velocity

Max: 56.6 [kph] at -0.001 [s]

Min: -12.5 [kph] at 0.176 [s]



B-202

8710-OFST-06

CFC_180

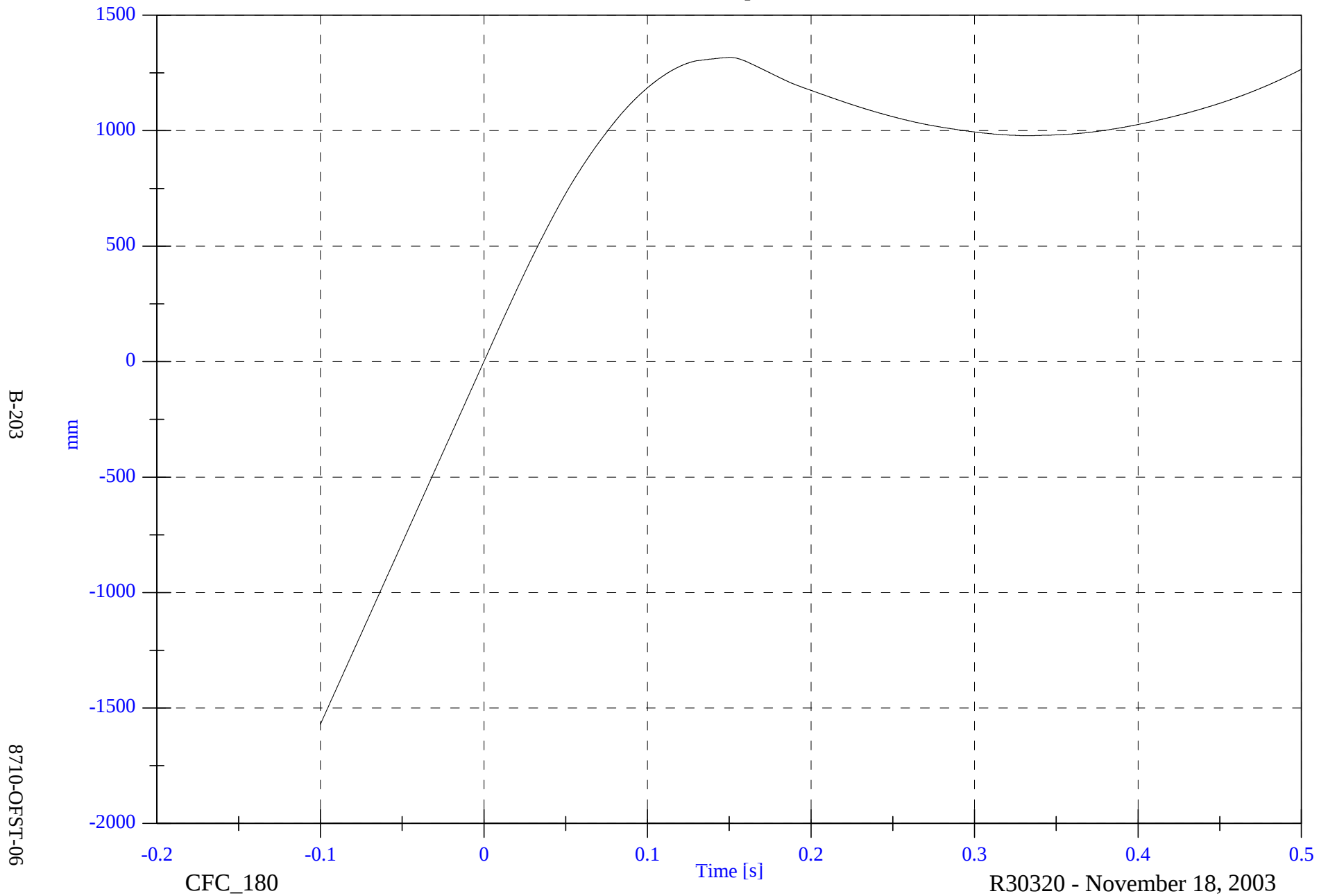
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG x Displacement

Max: 1317.2 [mm] at 0.151 [s]

Min: -1570.3 [mm] at -0.100 [s]

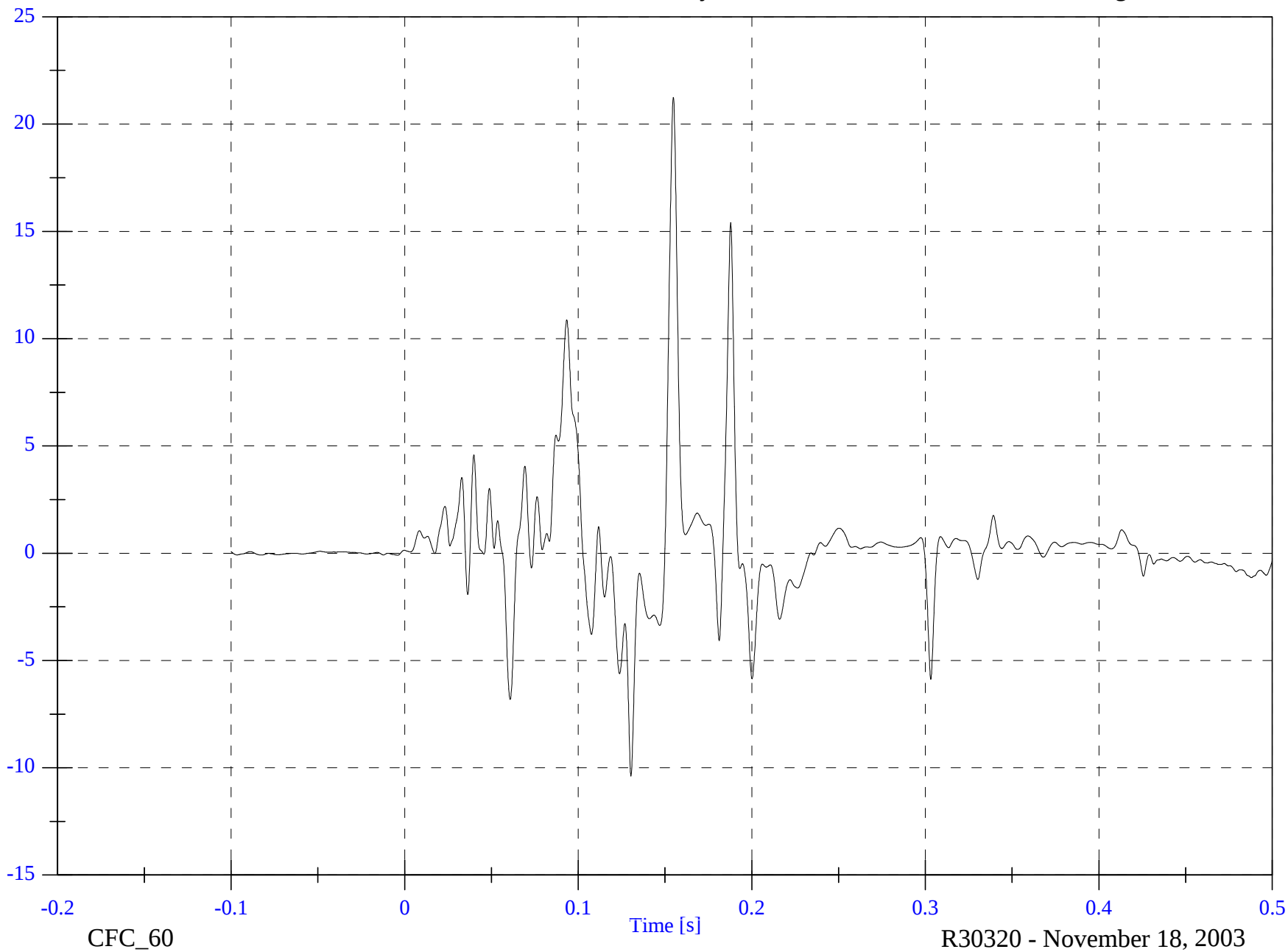


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG y

Max: 21.2 [g] at 0.155 [s]

Min: -10.4 [g] at 0.130 [s]



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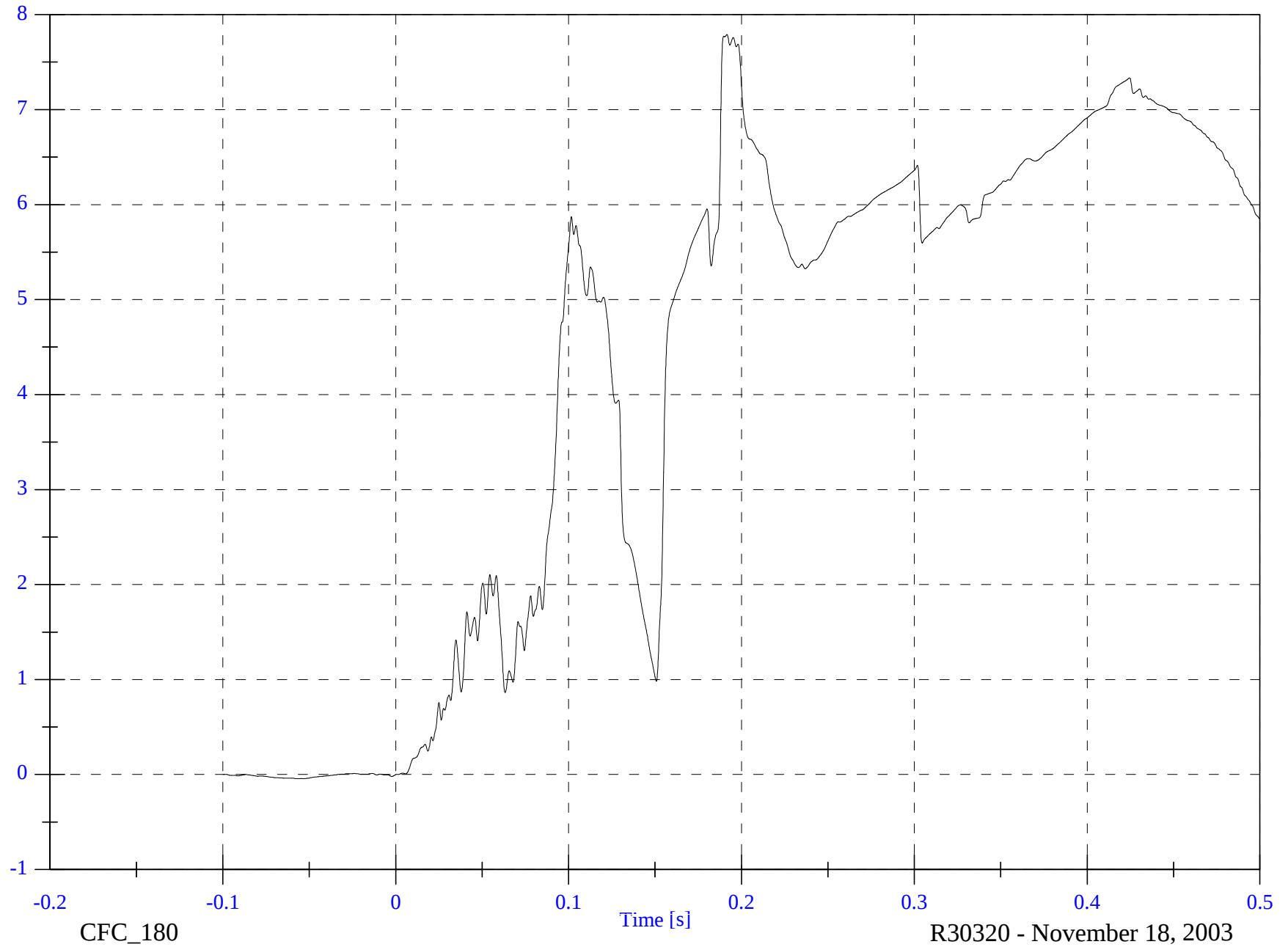
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG y Velocity

Max: 7.8 [kph] at 0.192 [s]

Min: -0.0 [kph] at -0.056 [s]



B-205

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2004 Offset Barrier Test 6 2003 Dodge Ram 1500

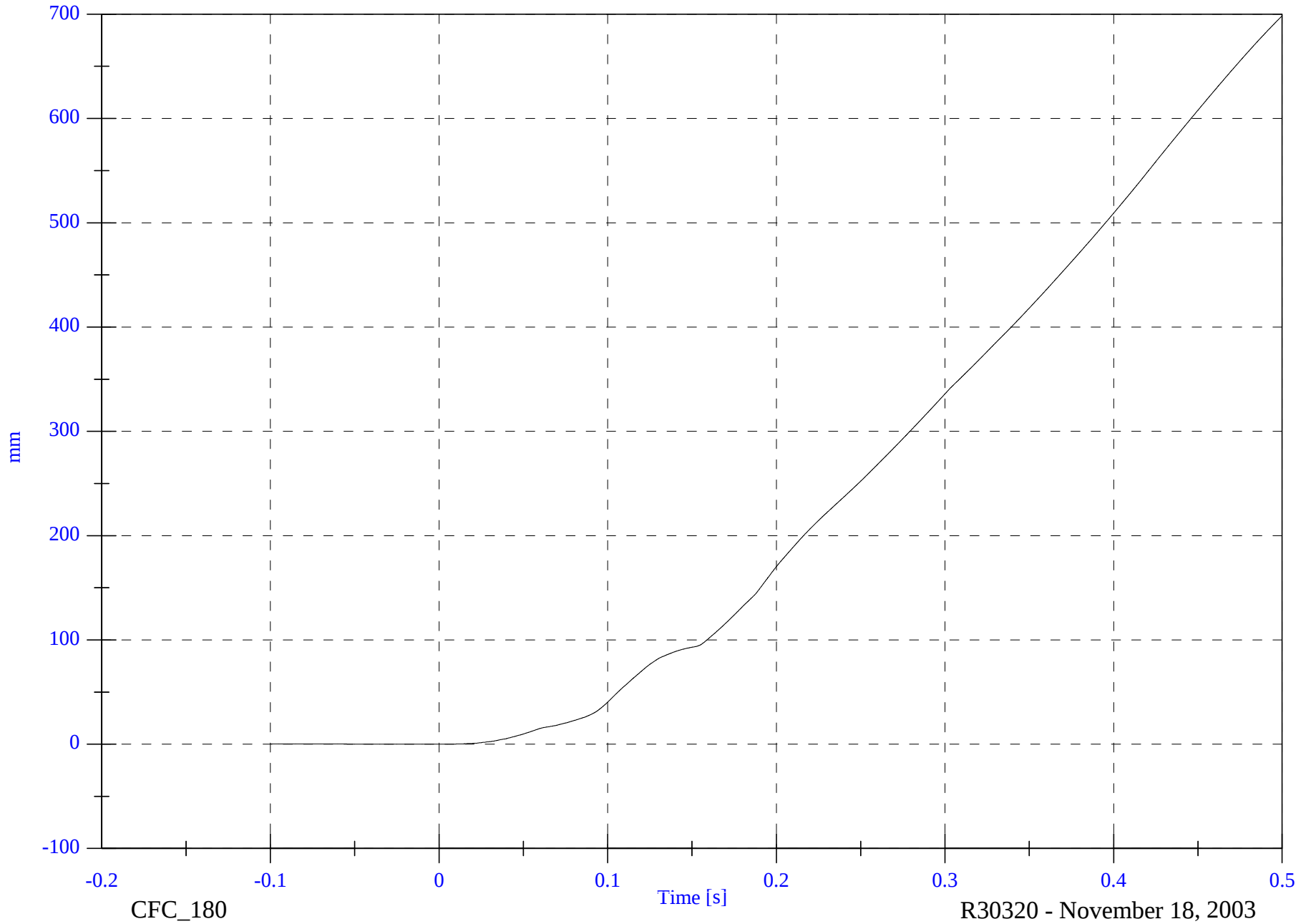
V1 CG y Displacement

Max: 698.4 [mm] at 0.500 [s]

Min: -0.0 [mm] at -0.034 [s]

B-206

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CFC_180

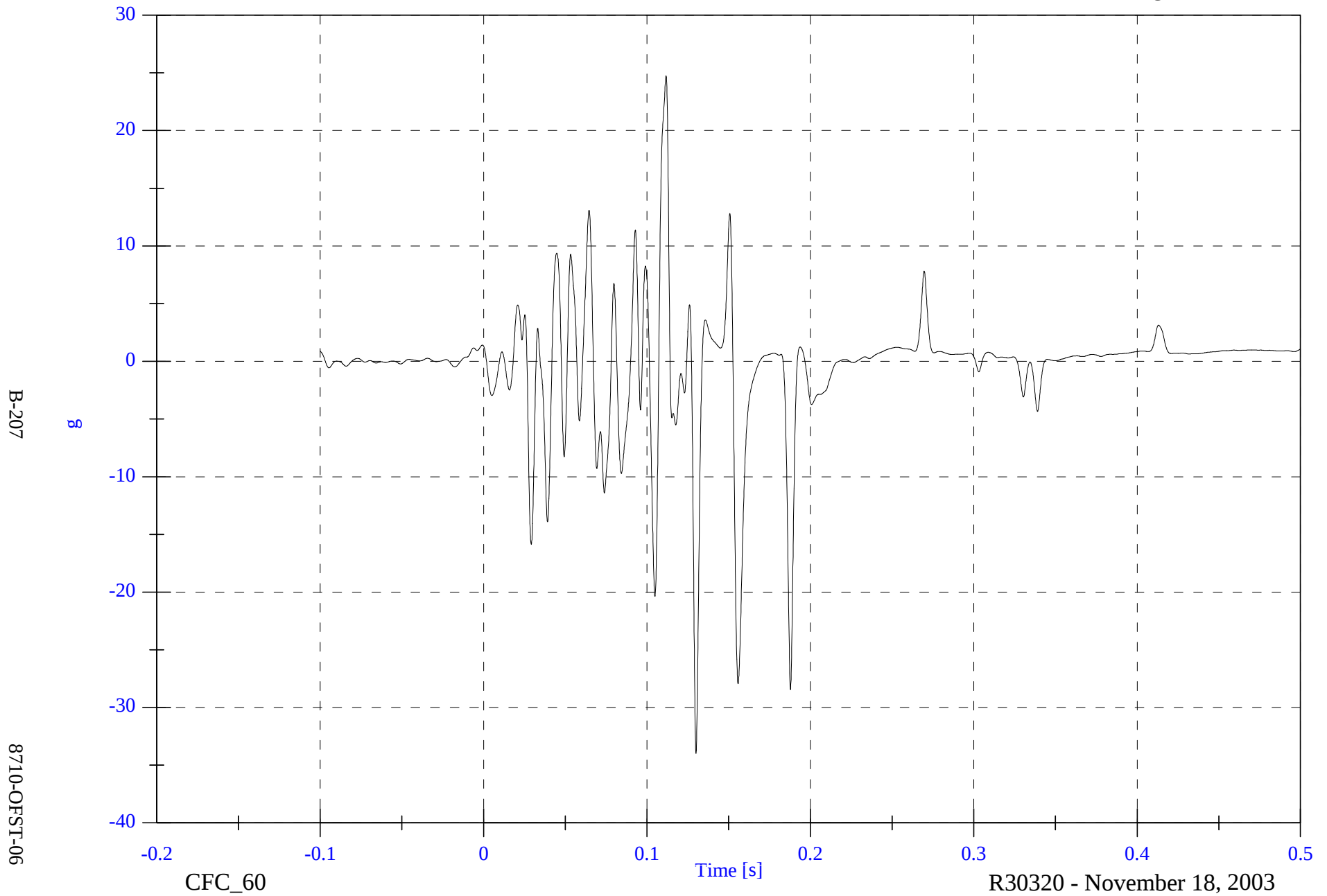
R30320 - November 18, 2003

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG z

Max: 24.8 [g] at 0.112 [s]

Min: -34.0 [g] at 0.130 [s]

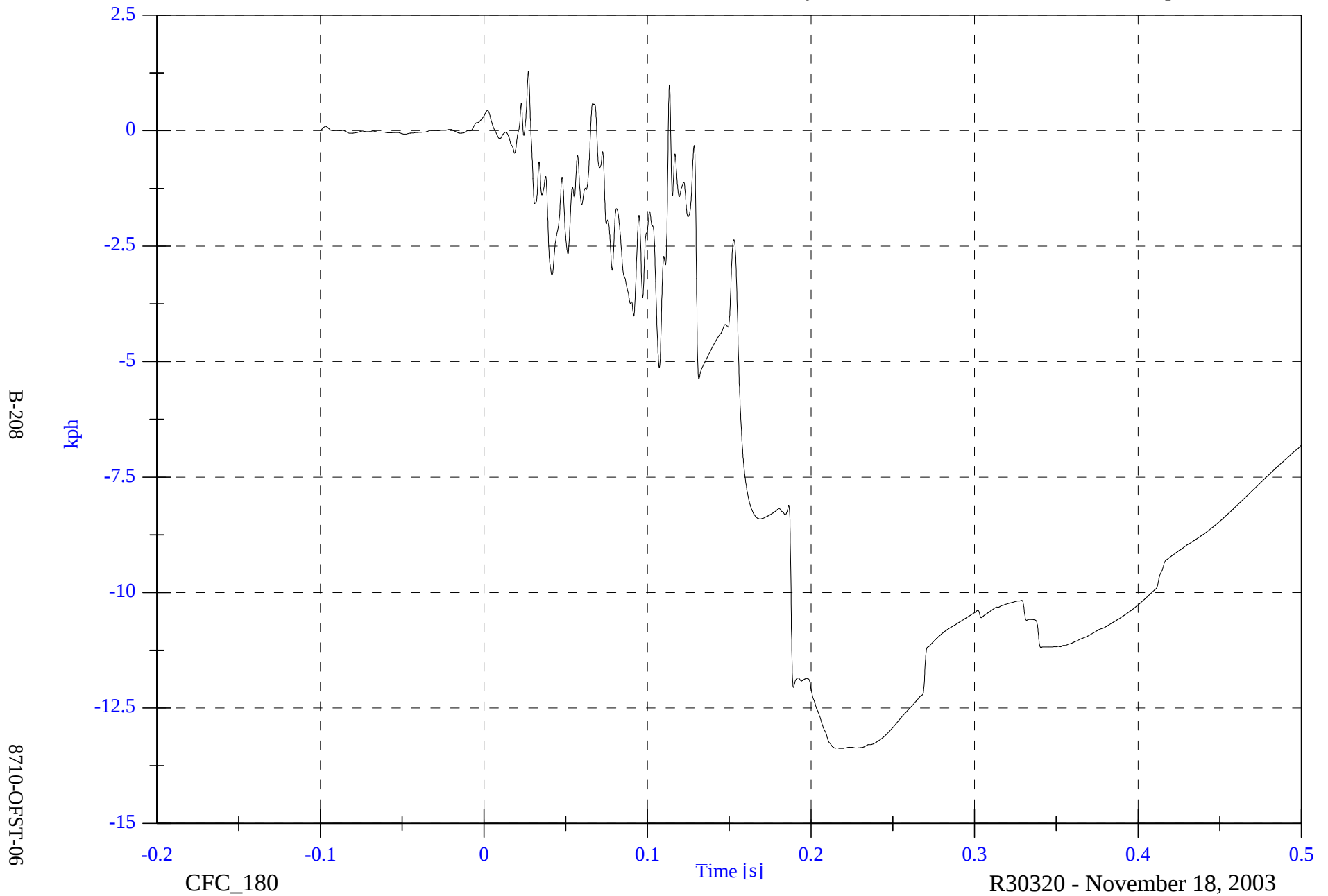


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG z Velocity

Max: 1.3 [kph] at 0.027 [s]

Min: -13.4 [kph] at 0.219 [s]



2004 Offset Barrier Test 6 2003 Dodge Ram 1500

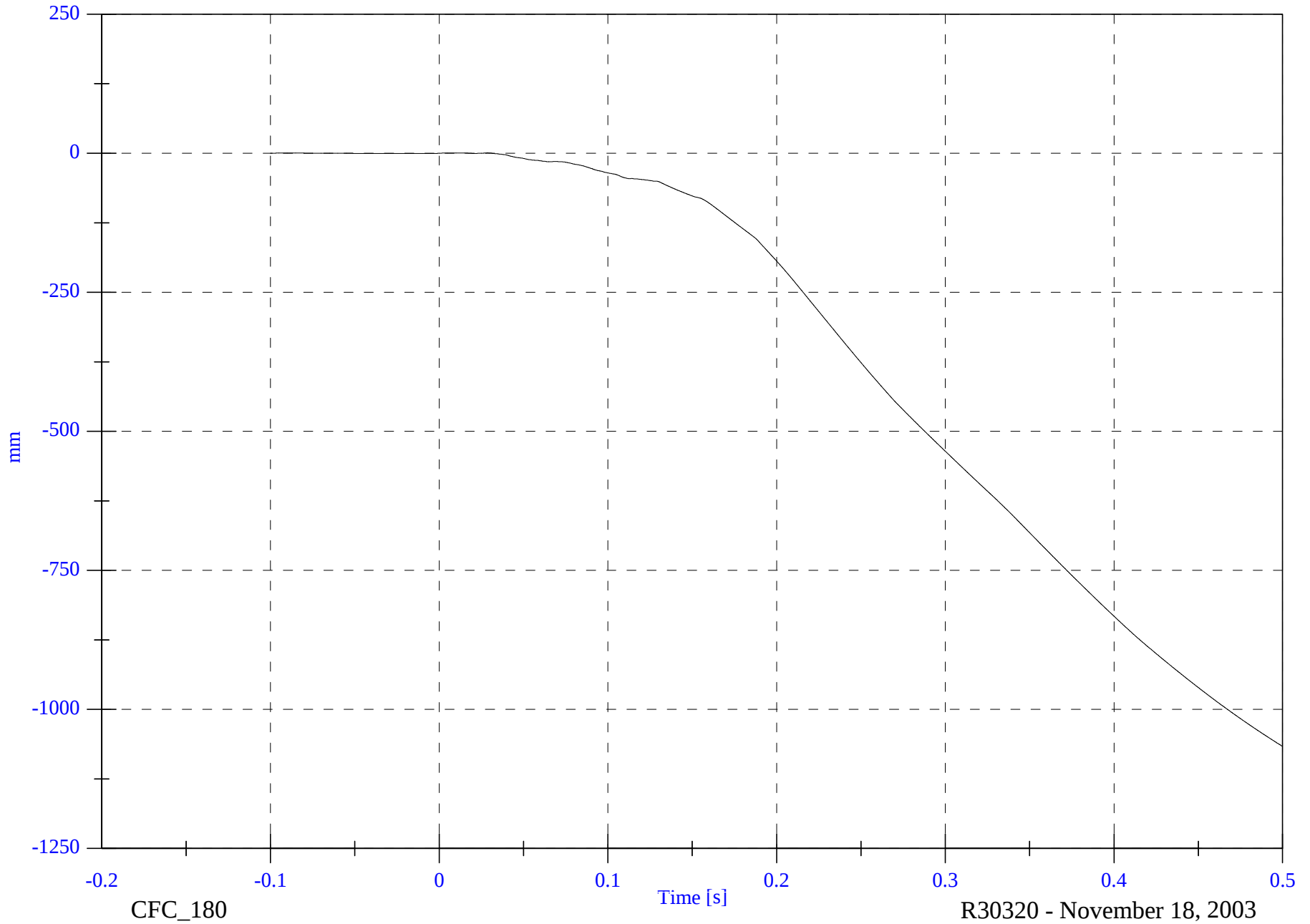
V1 CG z Displacement

Max: 0.7 [mm] at 0.029 [s]

Min: -1066.4 [mm] at 0.500 [s]

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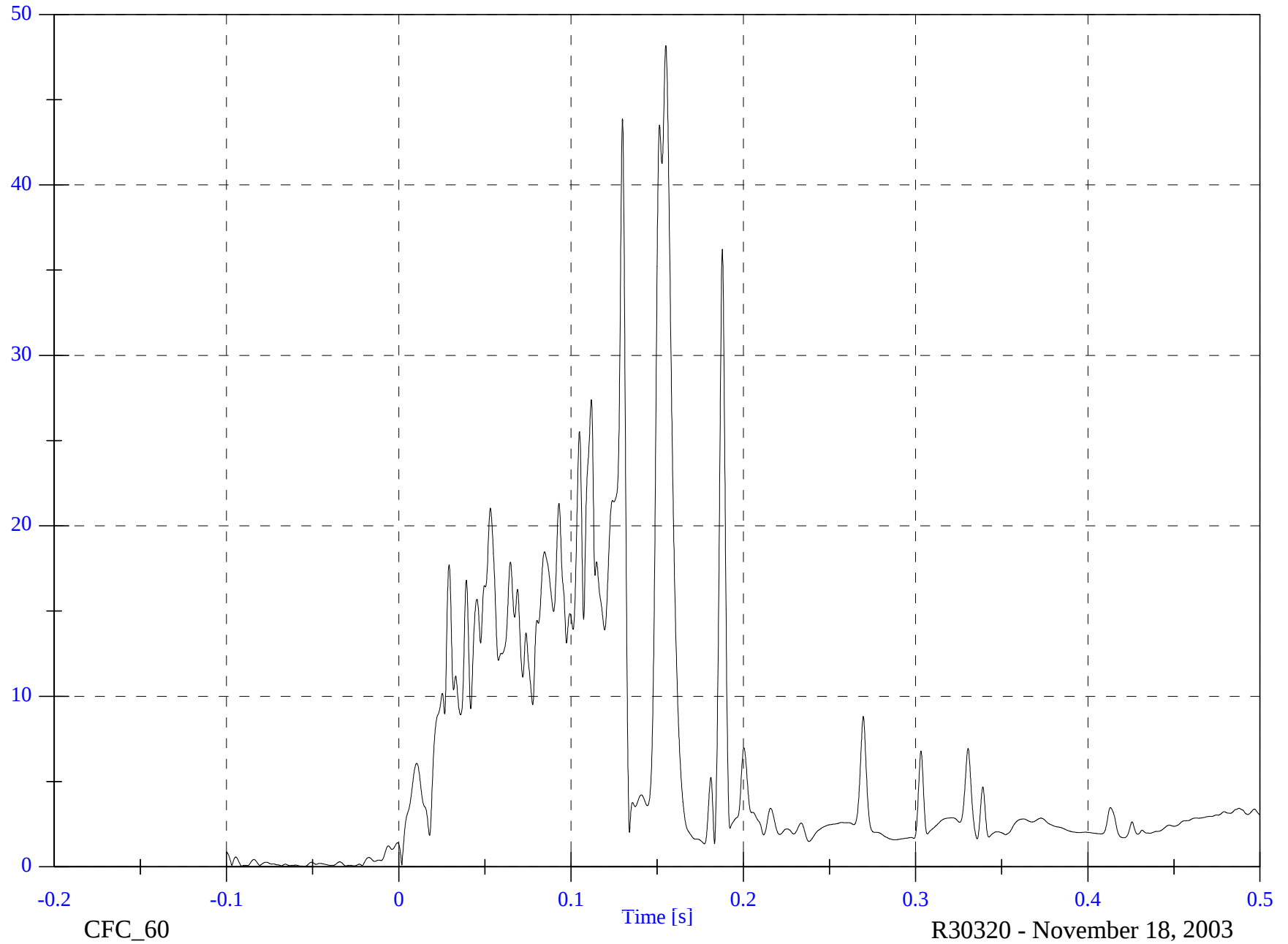


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 CG Resultant

Max: 48.2 [g] at 0.155 [s]

Min: 0.0 [g] at -0.055 [s]



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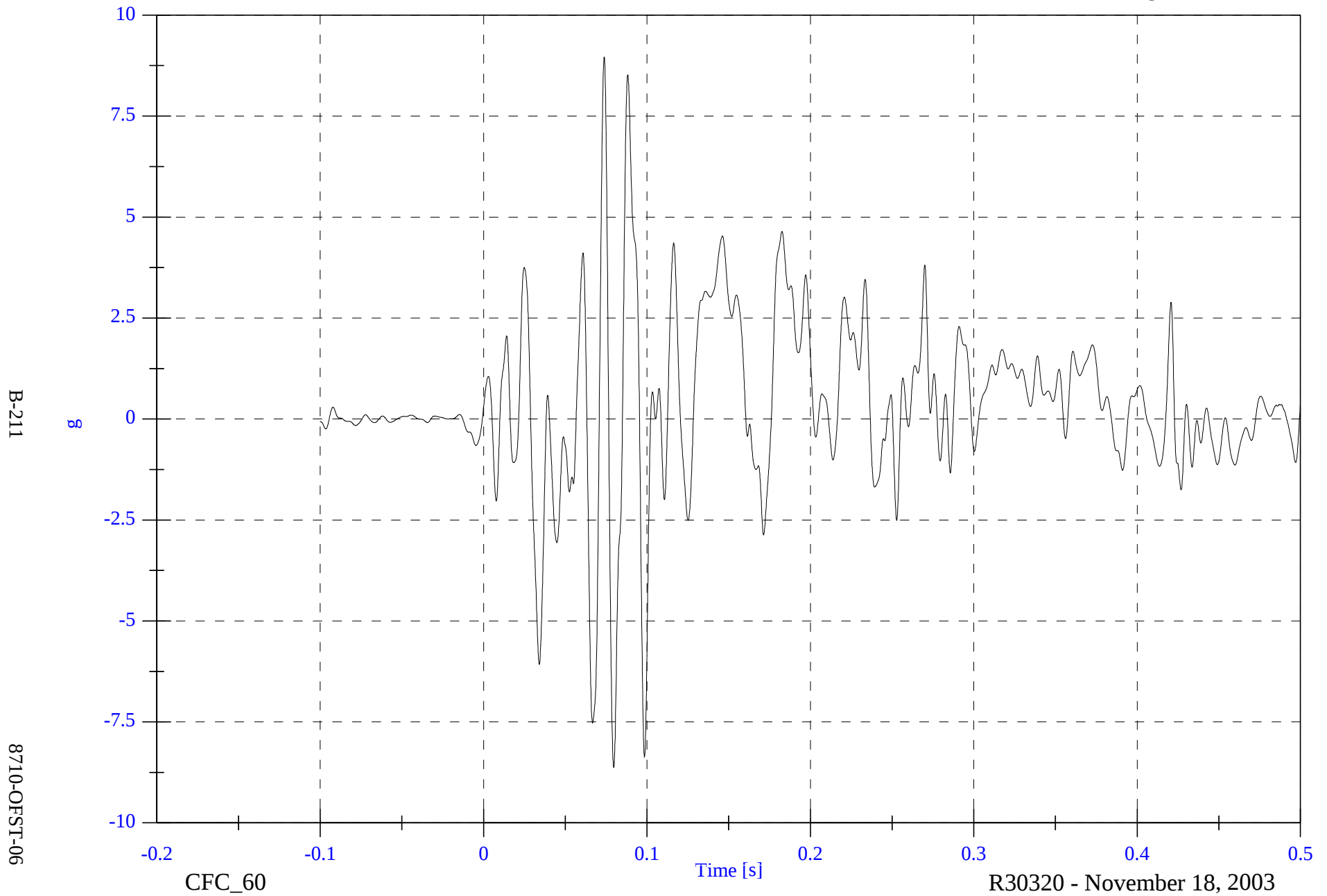
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 Rear Deck z

Max: 9.0 [g] at 0.074 [s]

Min: -8.6 [g] at 0.080 [s]

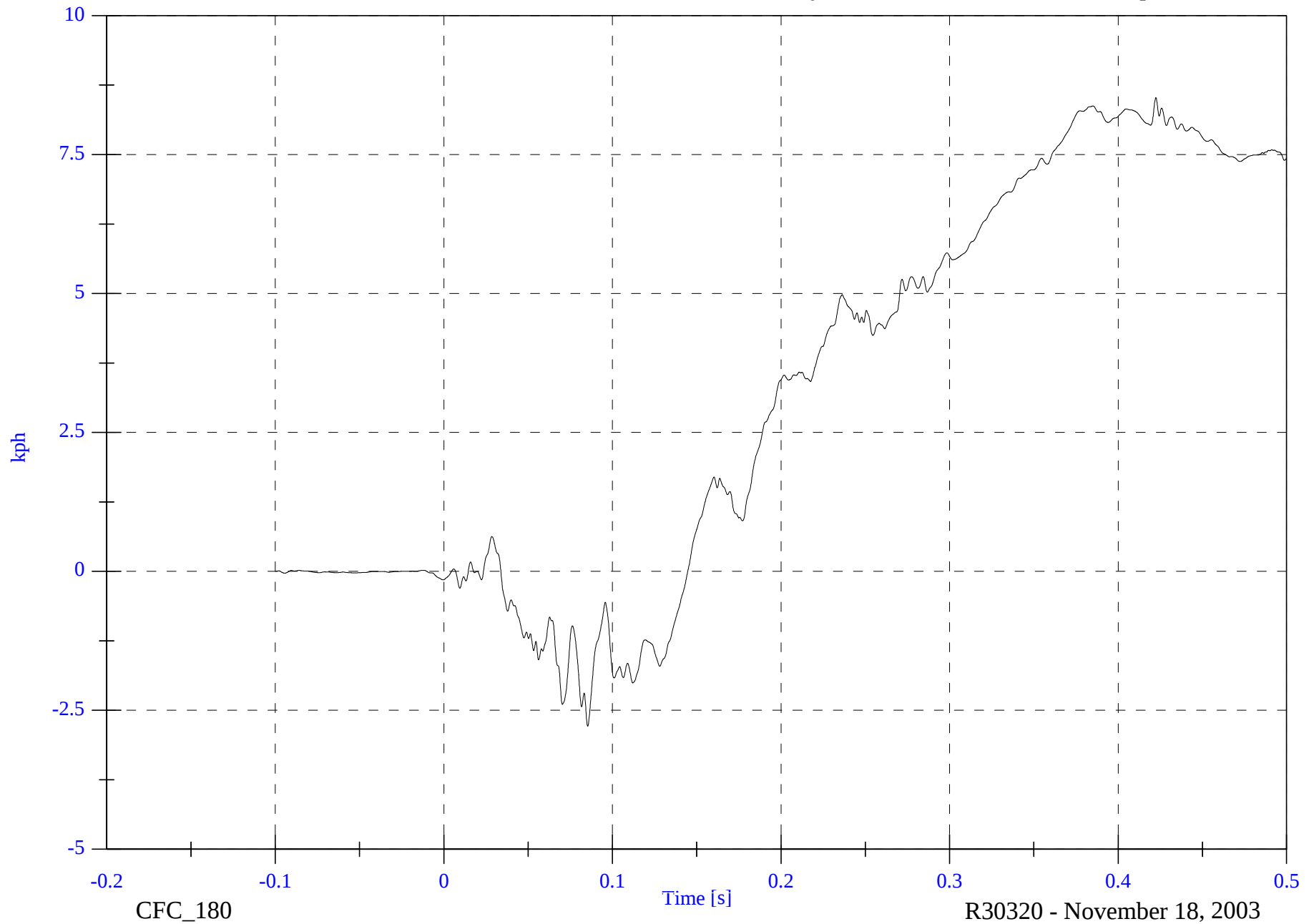


2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 Rear Deck z Velocity

Max: 8.5 [kph] at 0.422 [s]

Min: -2.8 [kph] at 0.085 [s]



B-212

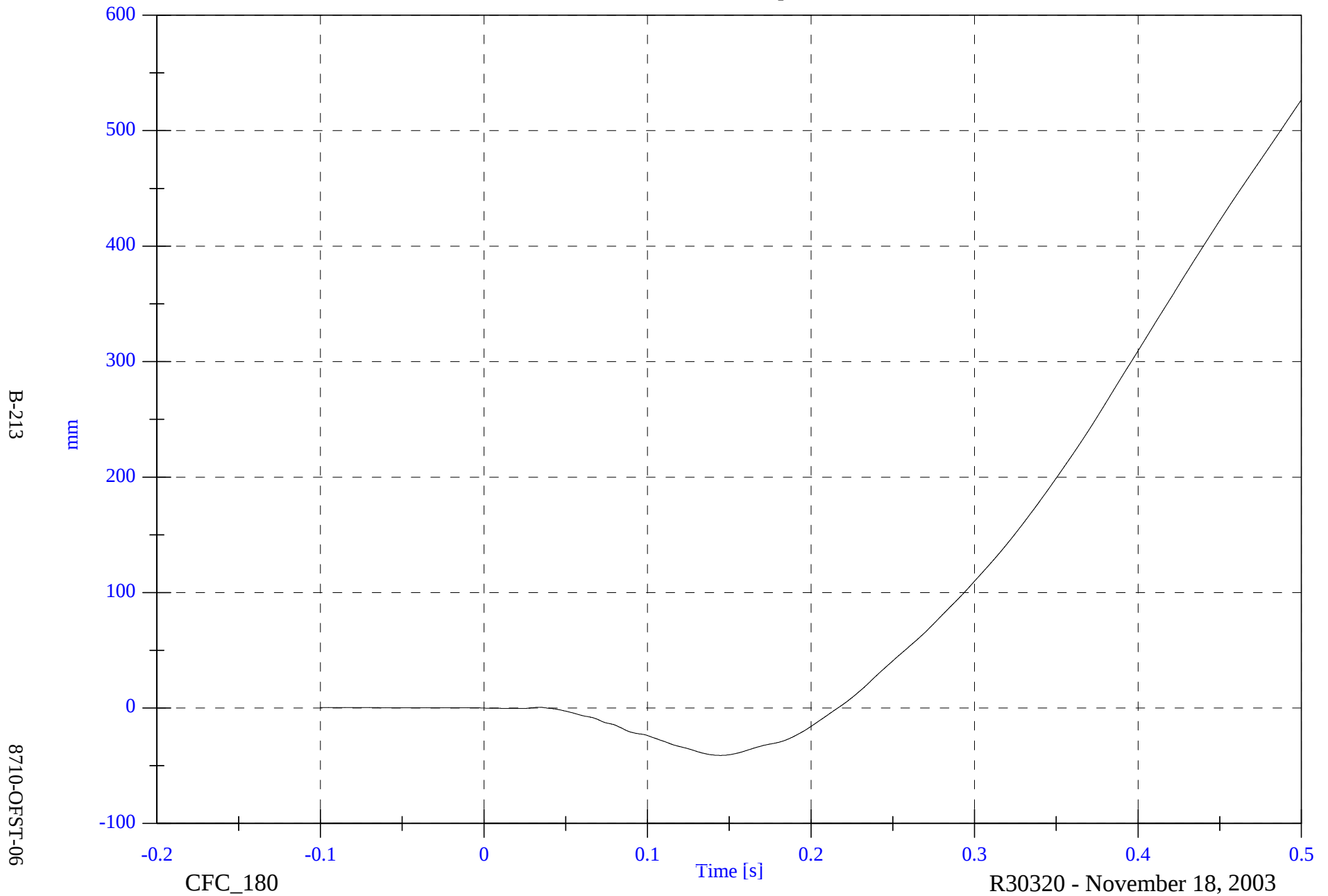
8710-OFST-06

2004 Offset Barrier Test 6 2003 Dodge Ram 1500

V1 Rear Deck z Displacement

Max: 526.6 [mm] at 0.500 [s]

Min: -41.1 [mm] at 0.145 [s]

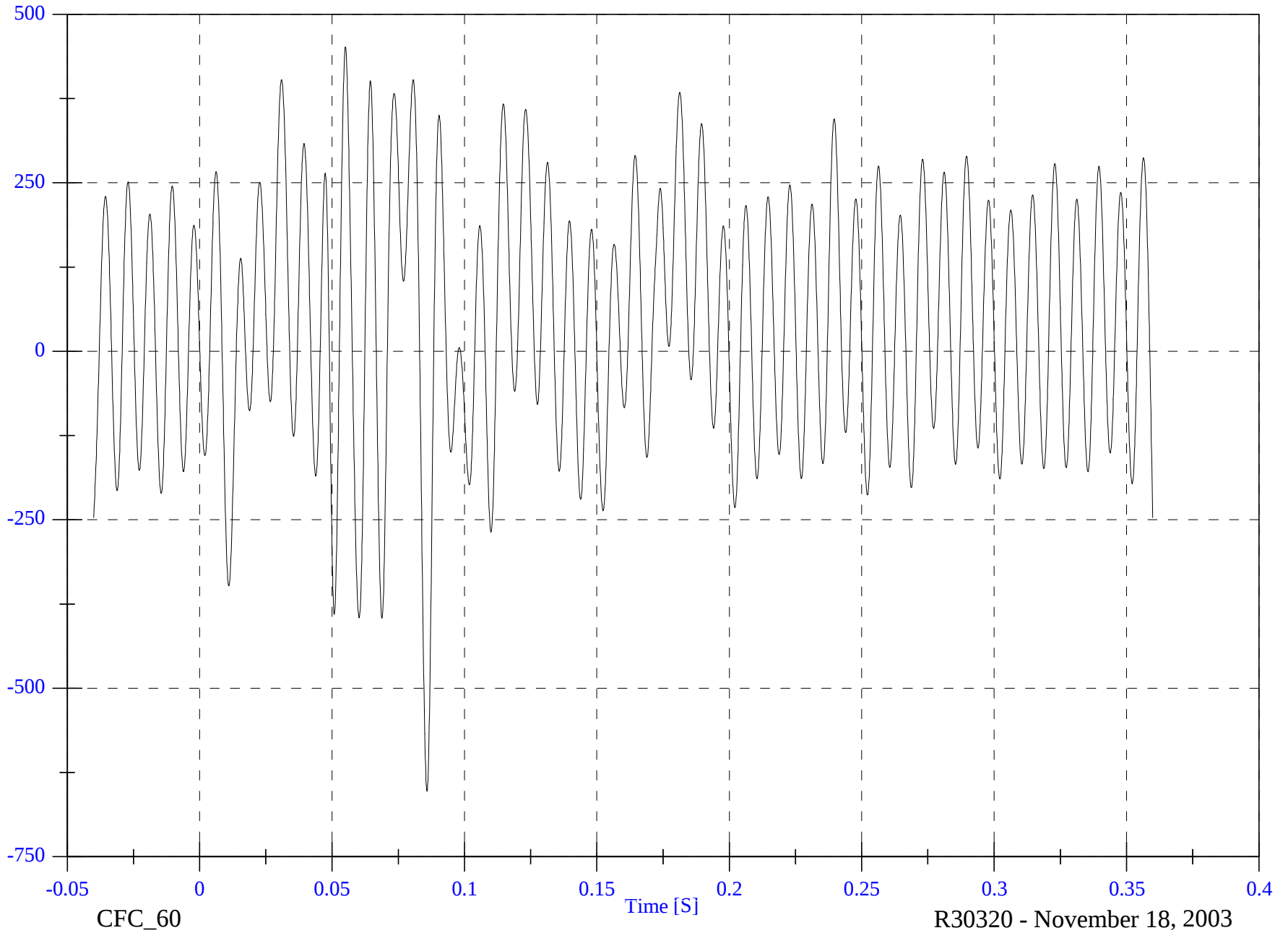


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell H1 FX

Max: 451.5 [N] at 0.055 [S]

Min: -652.5 [N] at 0.086 [S]



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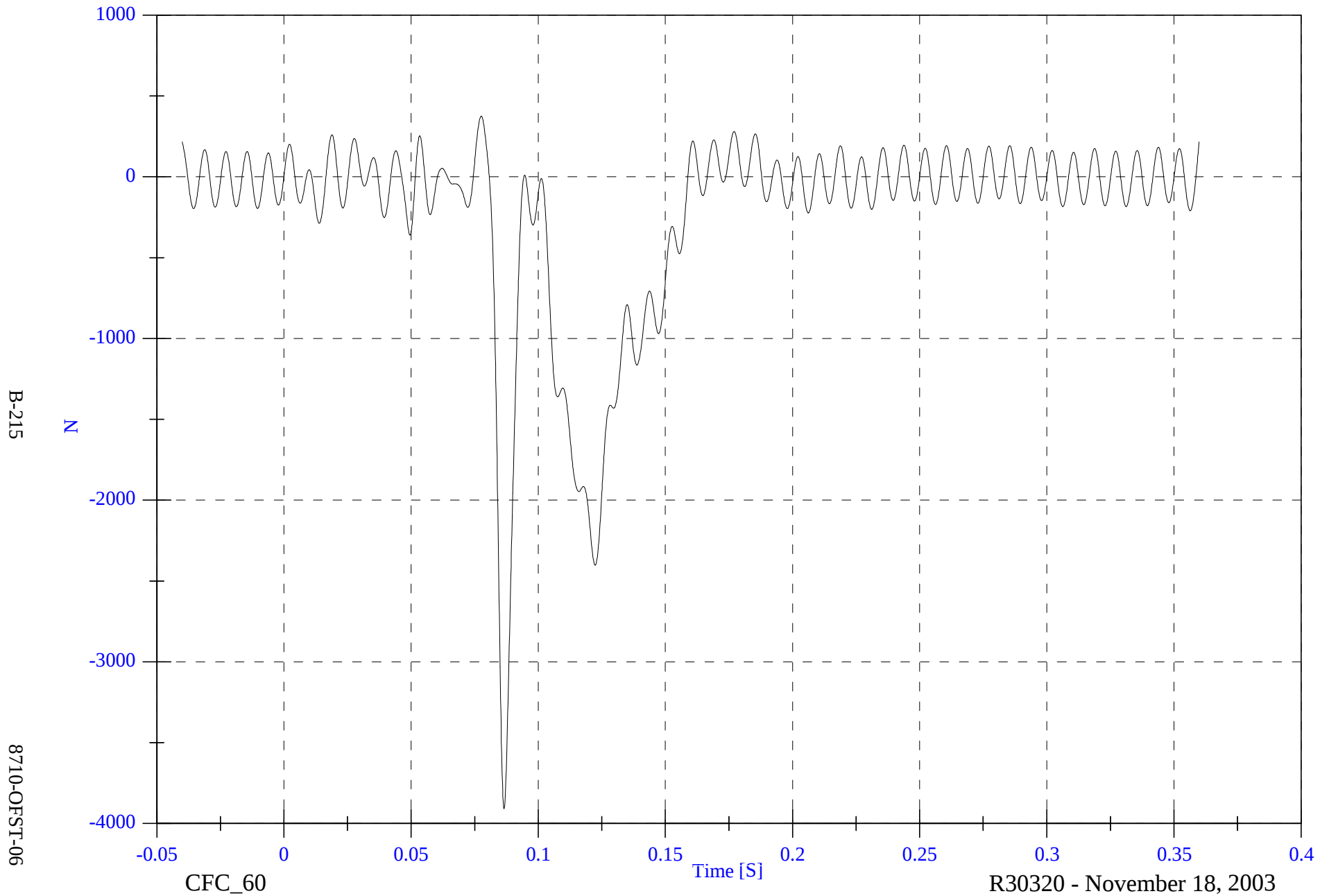
8710-OFT-06

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell H2 FX

Max: 375.7 [N] at 0.078 [S]

Min: -3909.2 [N] at 0.086 [S]

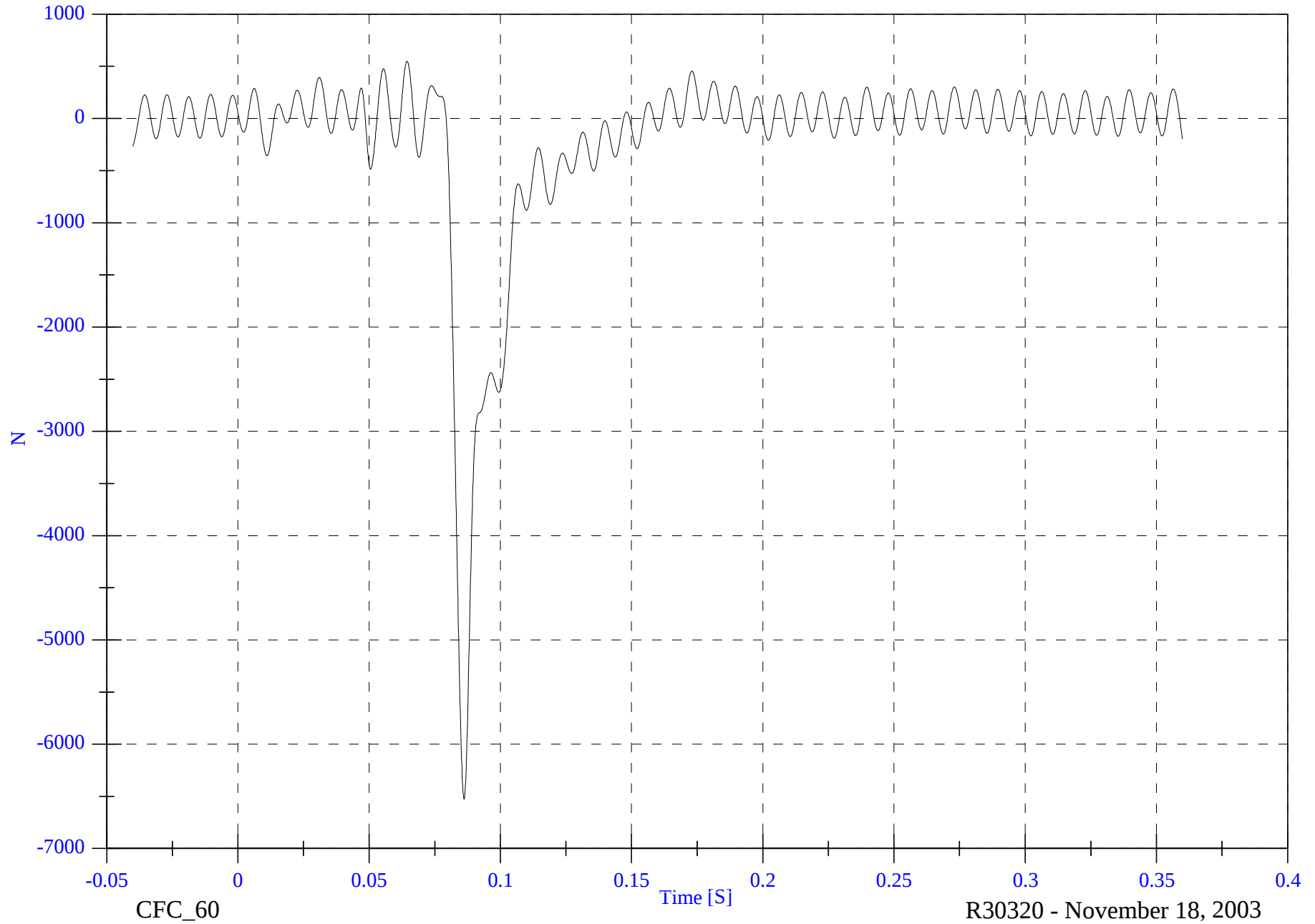


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell H3 FX

Max: 549.7 [N] at 0.064 [S]

Min: -6526.3 [N] at 0.086 [S]

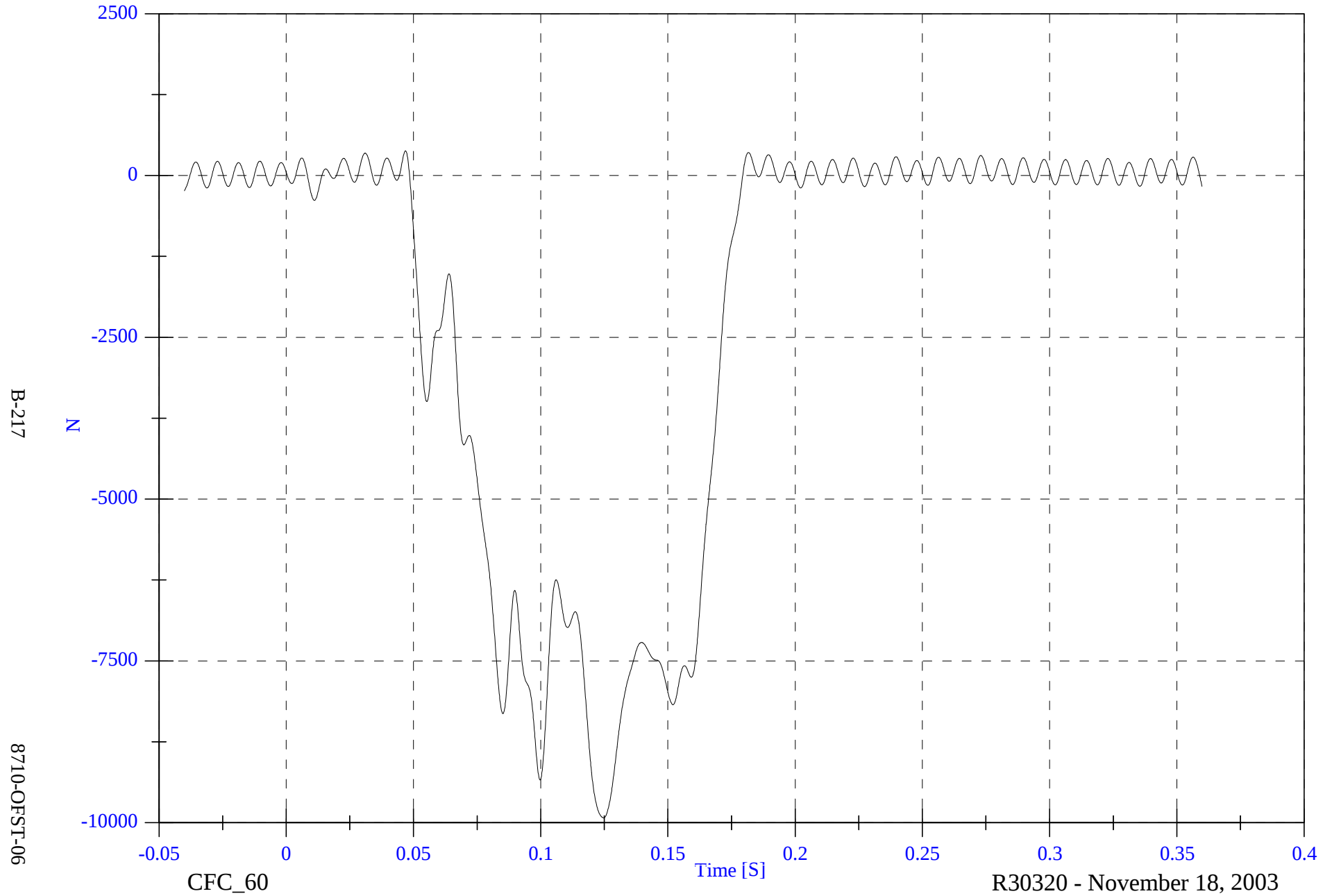


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell H4 FX

Max: 382.0 [N] at 0.047 [S]

Min: -9924.9 [N] at 0.125 [S]

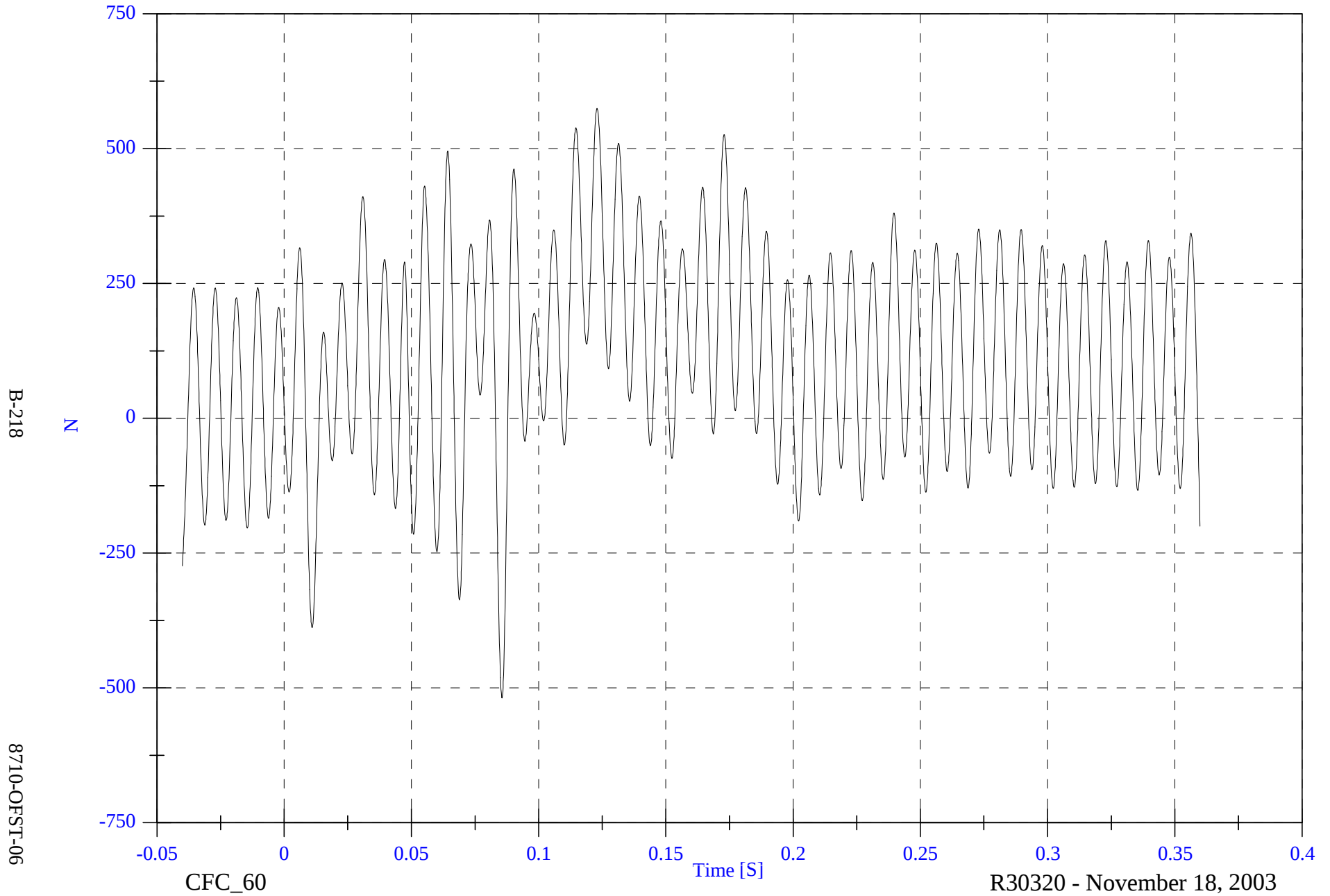


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell G1 FX

Max: 574.4 [N] at 0.123 [S]

Min: -518.8 [N] at 0.086 [S]

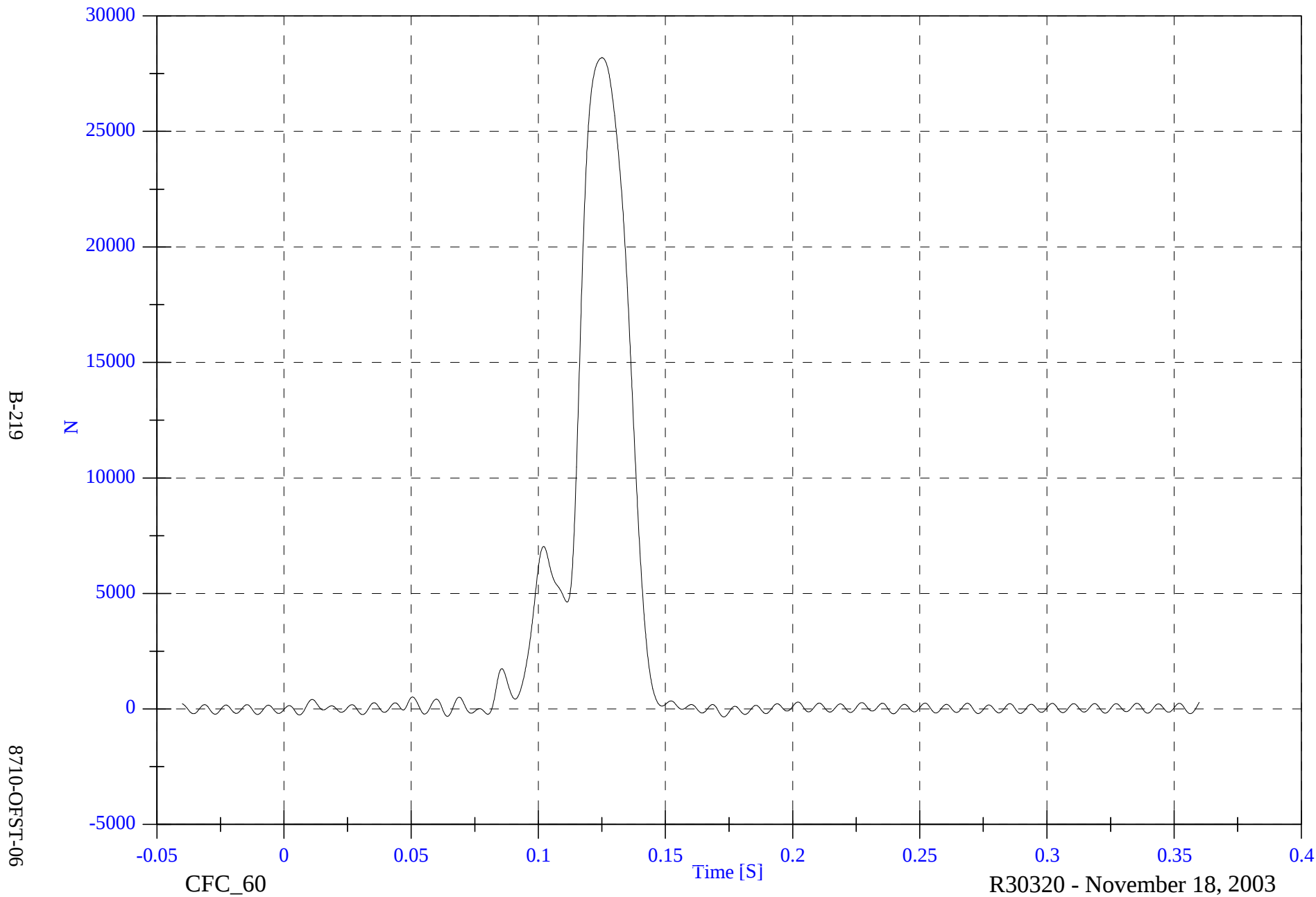


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell G2 FX

Max: 28187.1 [N] at 0.125 [S]

Min: -342.8 [N] at 0.173 [S]

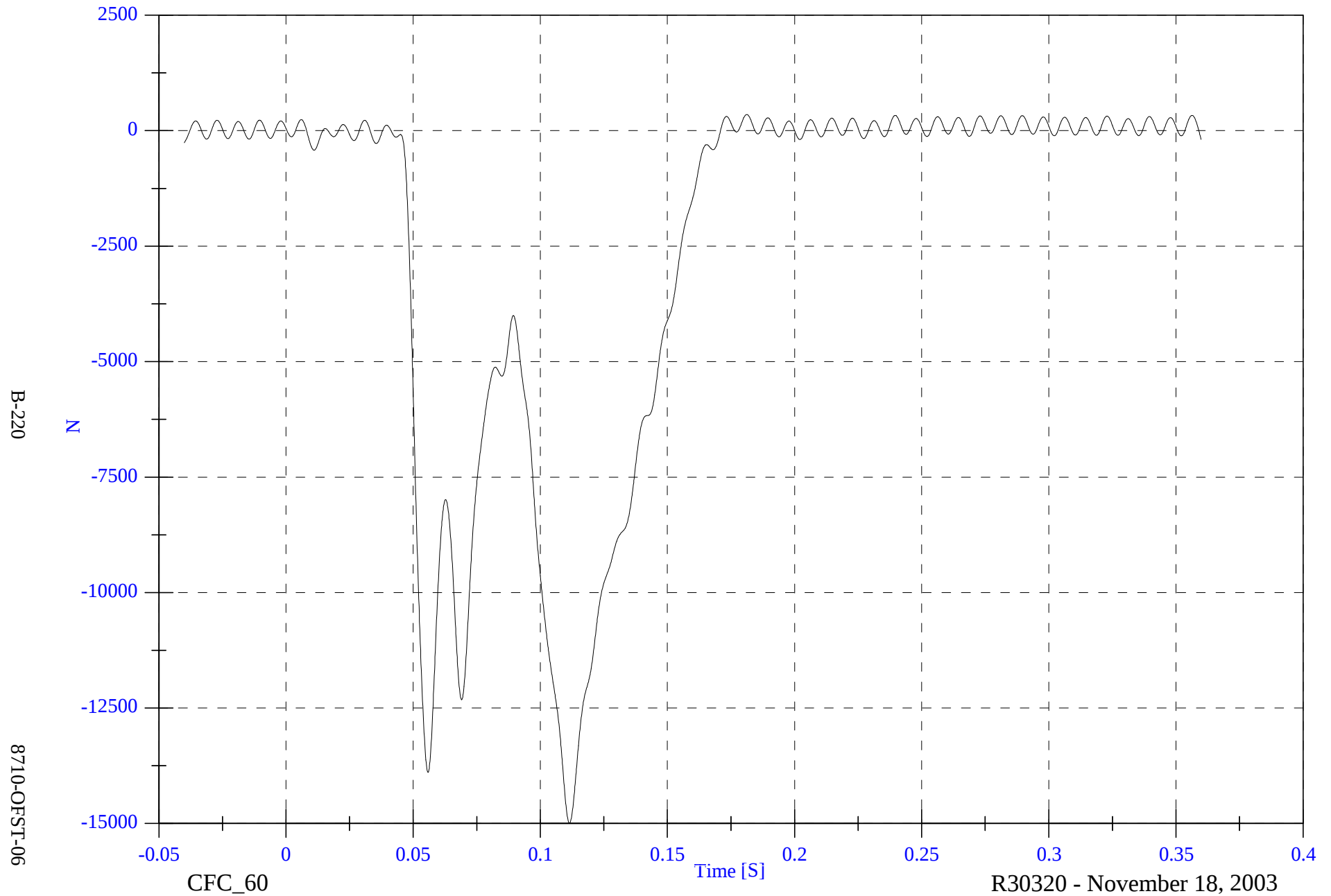


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell G3 FX

Max: 348.9 [N] at 0.181 [S]

Min: -14995.4 [N] at 0.111 [S]

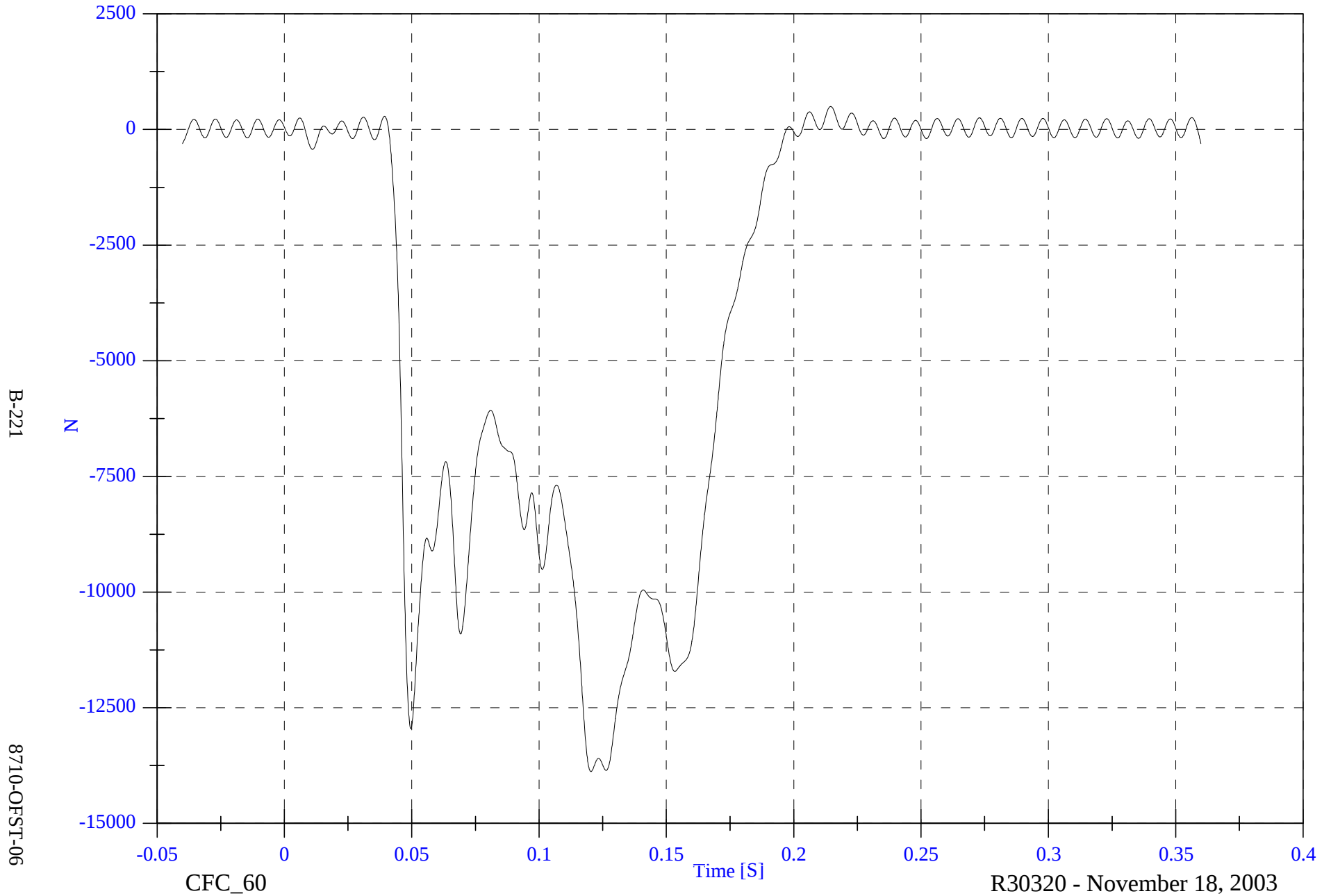


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell G4 FX

Max: 496.9 [N] at 0.214 [S]

Min: -13880.4 [N] at 0.120 [S]

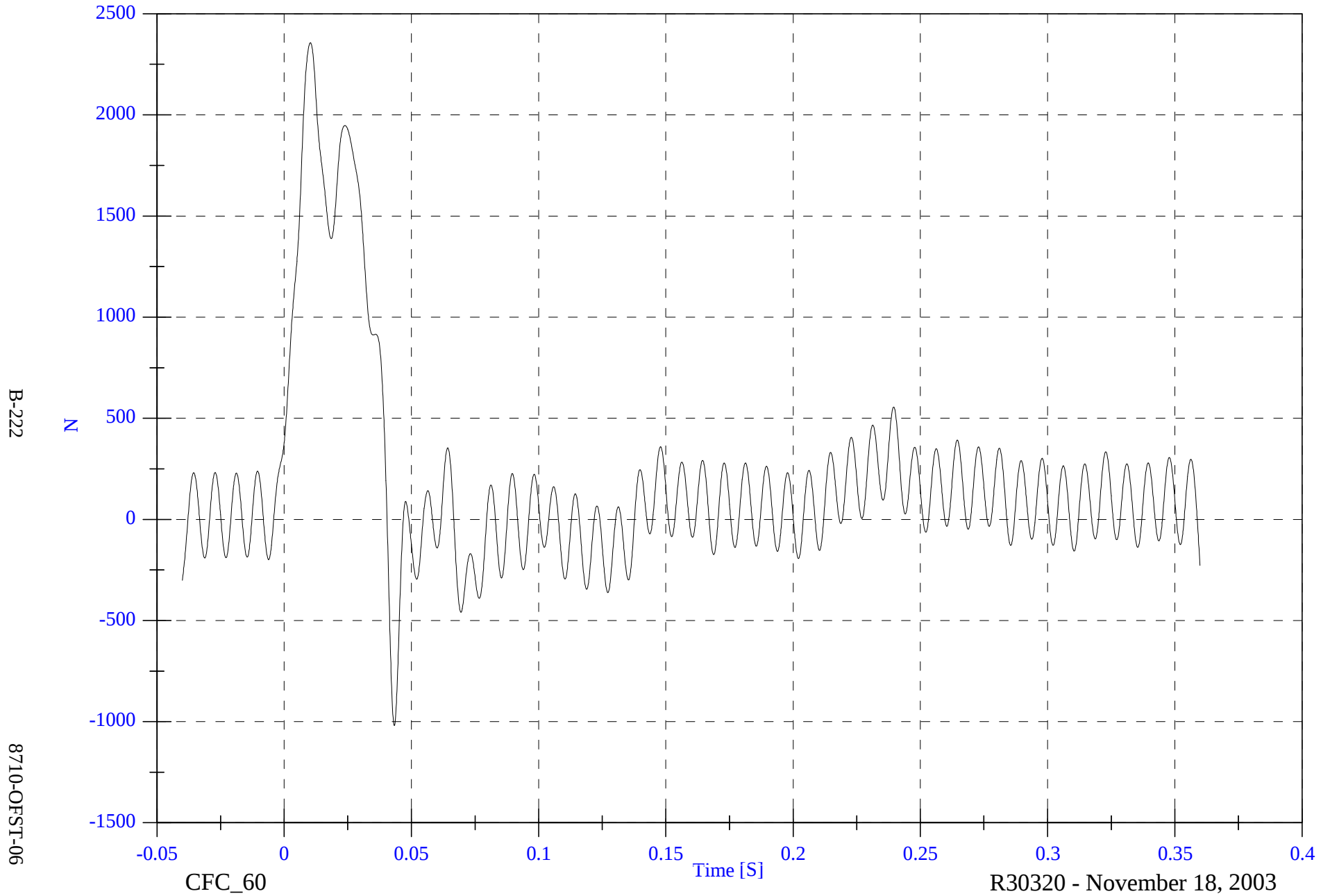


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F1 FX

Max: 2356.8 [N] at 0.010 [S]

Min: -1018.9 [N] at 0.043 [S]

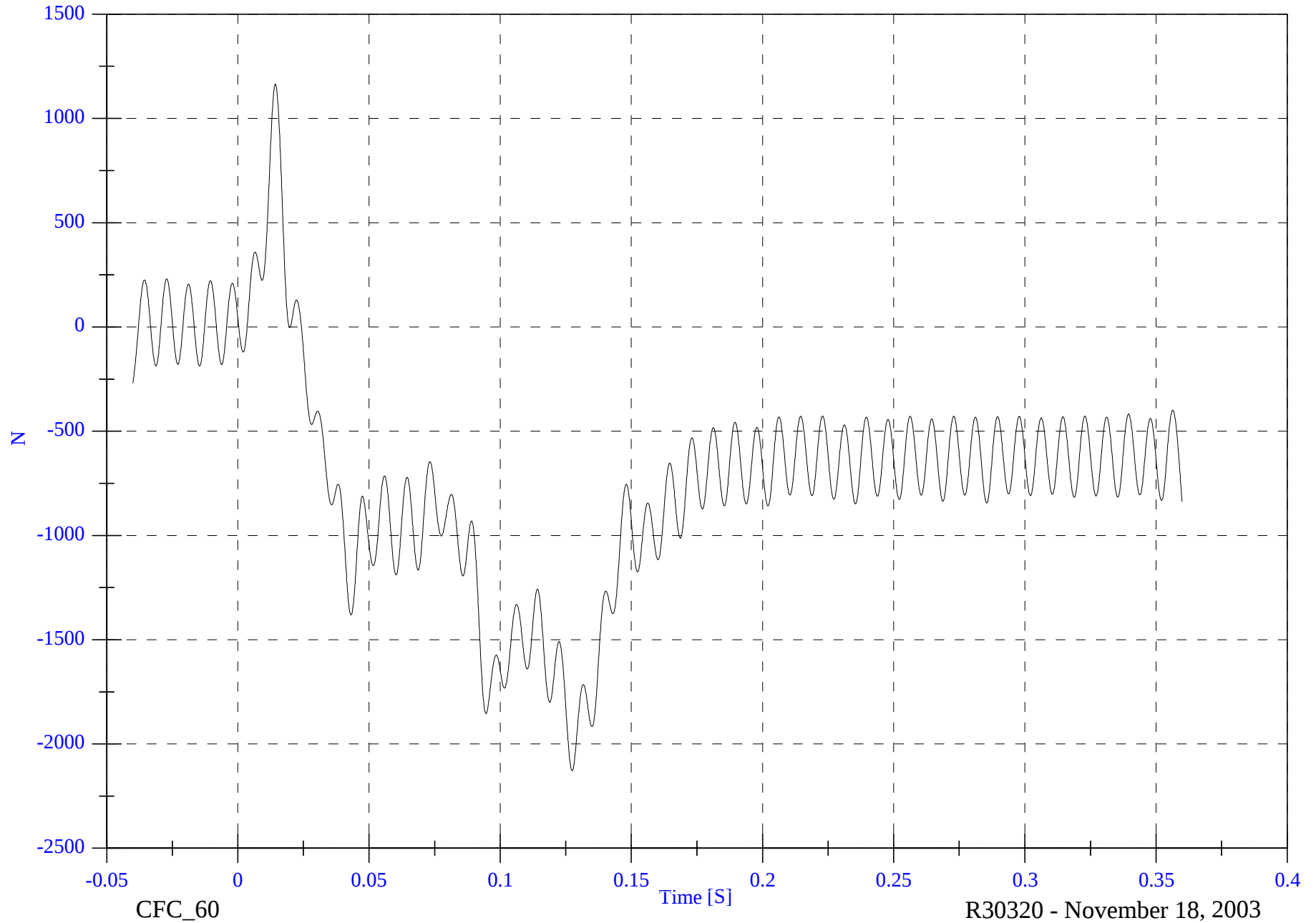


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F2 FX

Max: 1164.7 [N] at 0.014 [S]

Min: -2128.2 [N] at 0.127 [S]

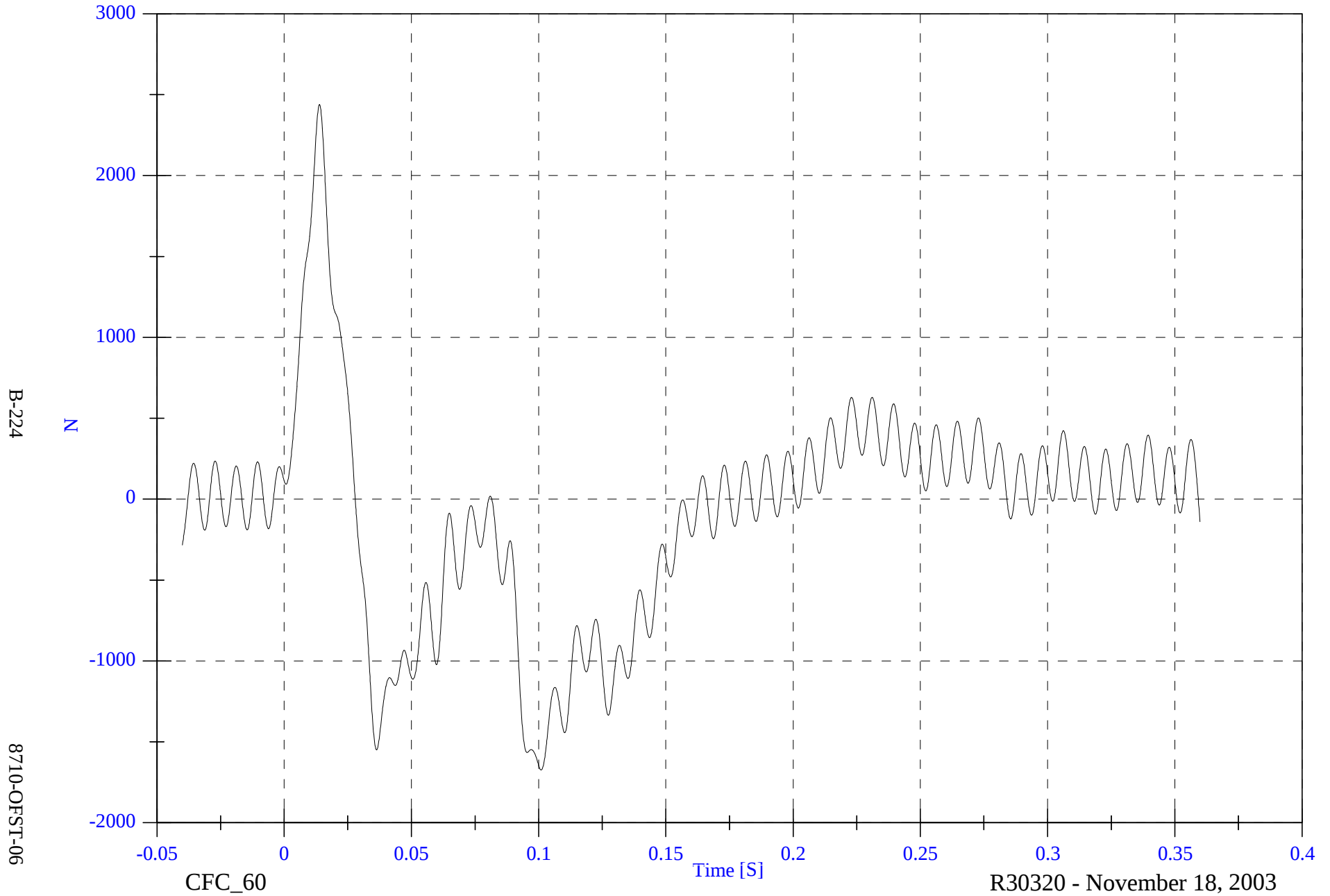


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F3 FX

Max: 2439.3 [N] at 0.014 [S]

Min: -1673.6 [N] at 0.101 [S]

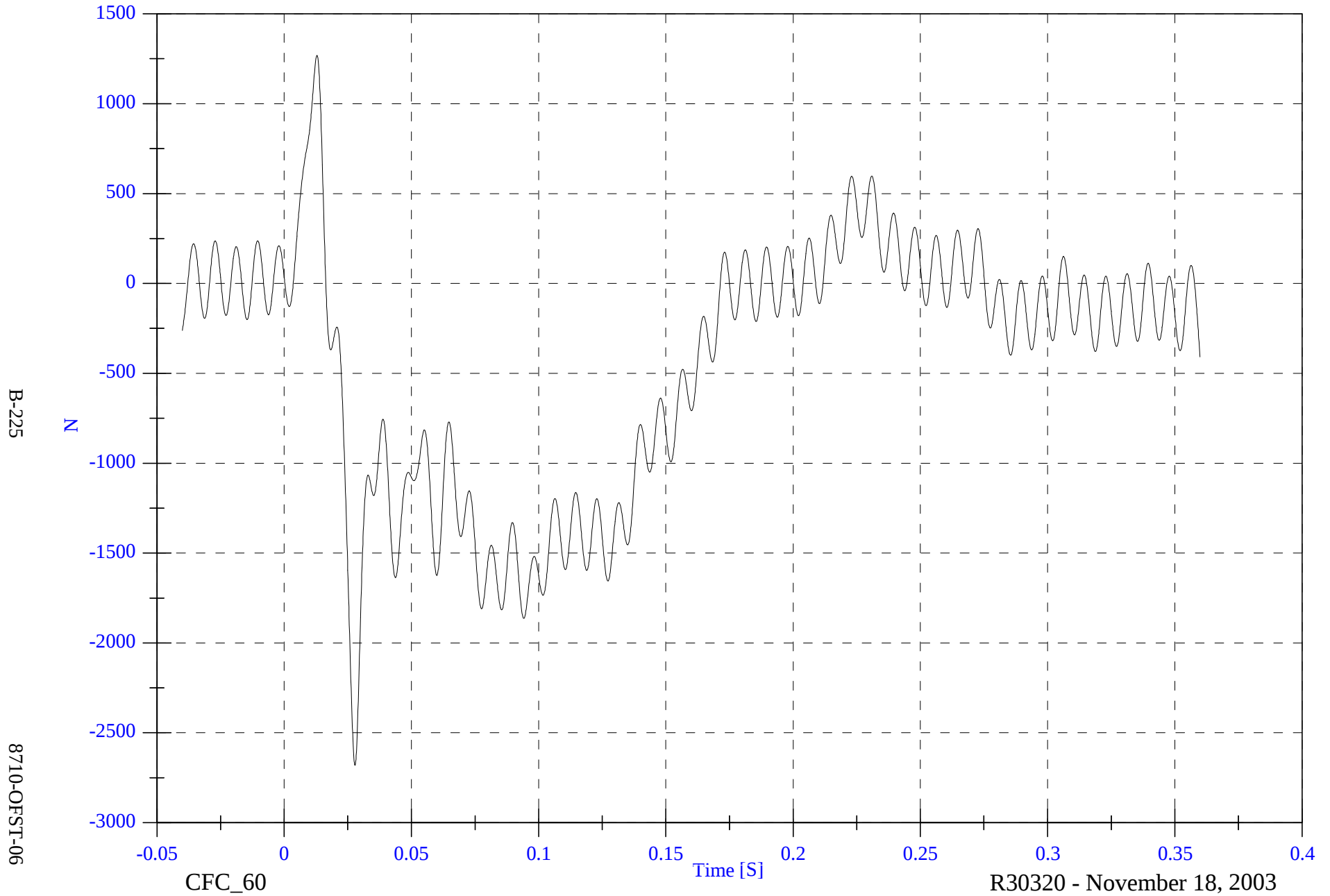


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F4 FX

Max: 1268.8 [N] at 0.013 [S]

Min: -2680.4 [N] at 0.028 [S]

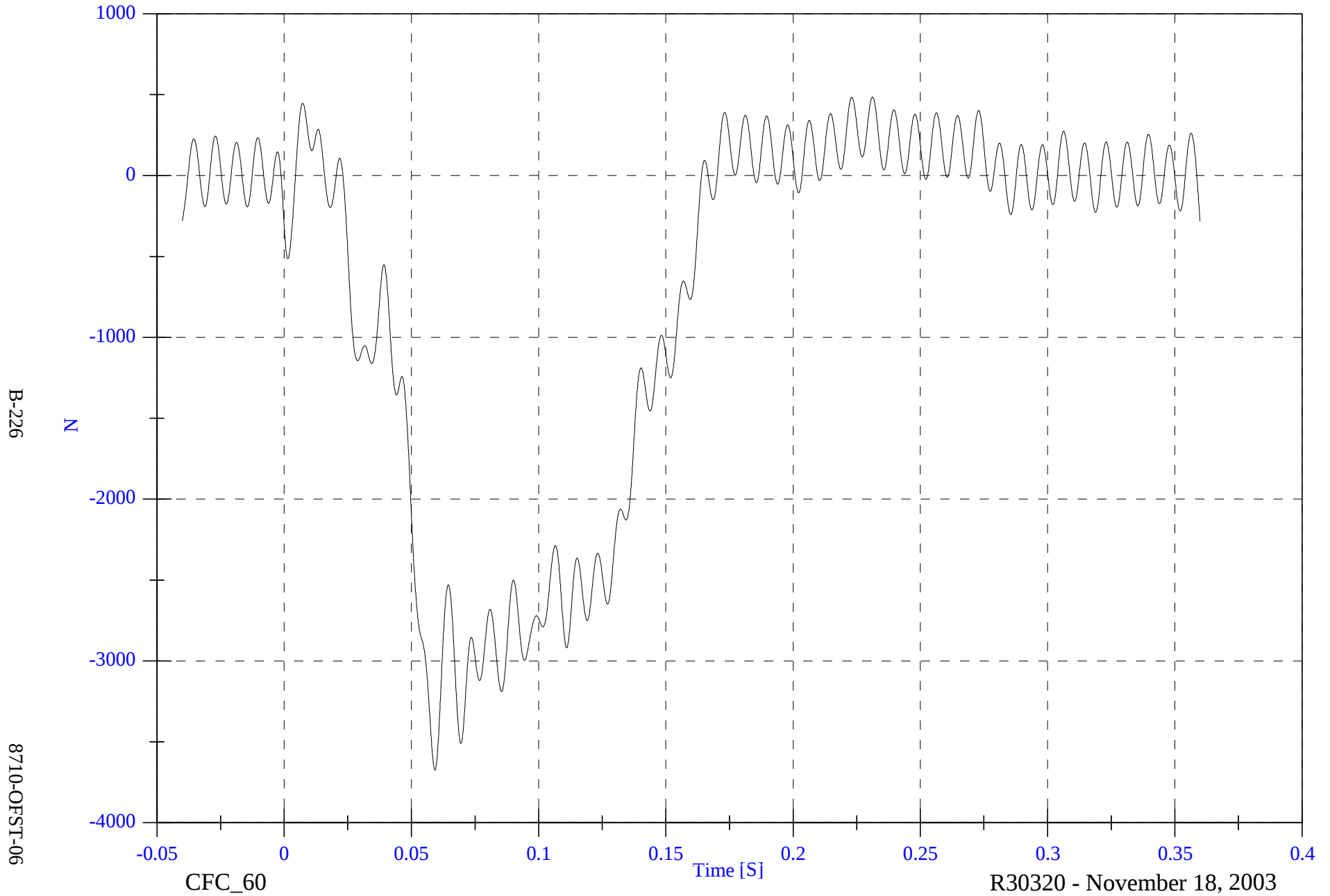


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F5 FX

Max: 486.0 [N] at 0.231 [S]

Min: -3673.8 [N] at 0.059 [S]

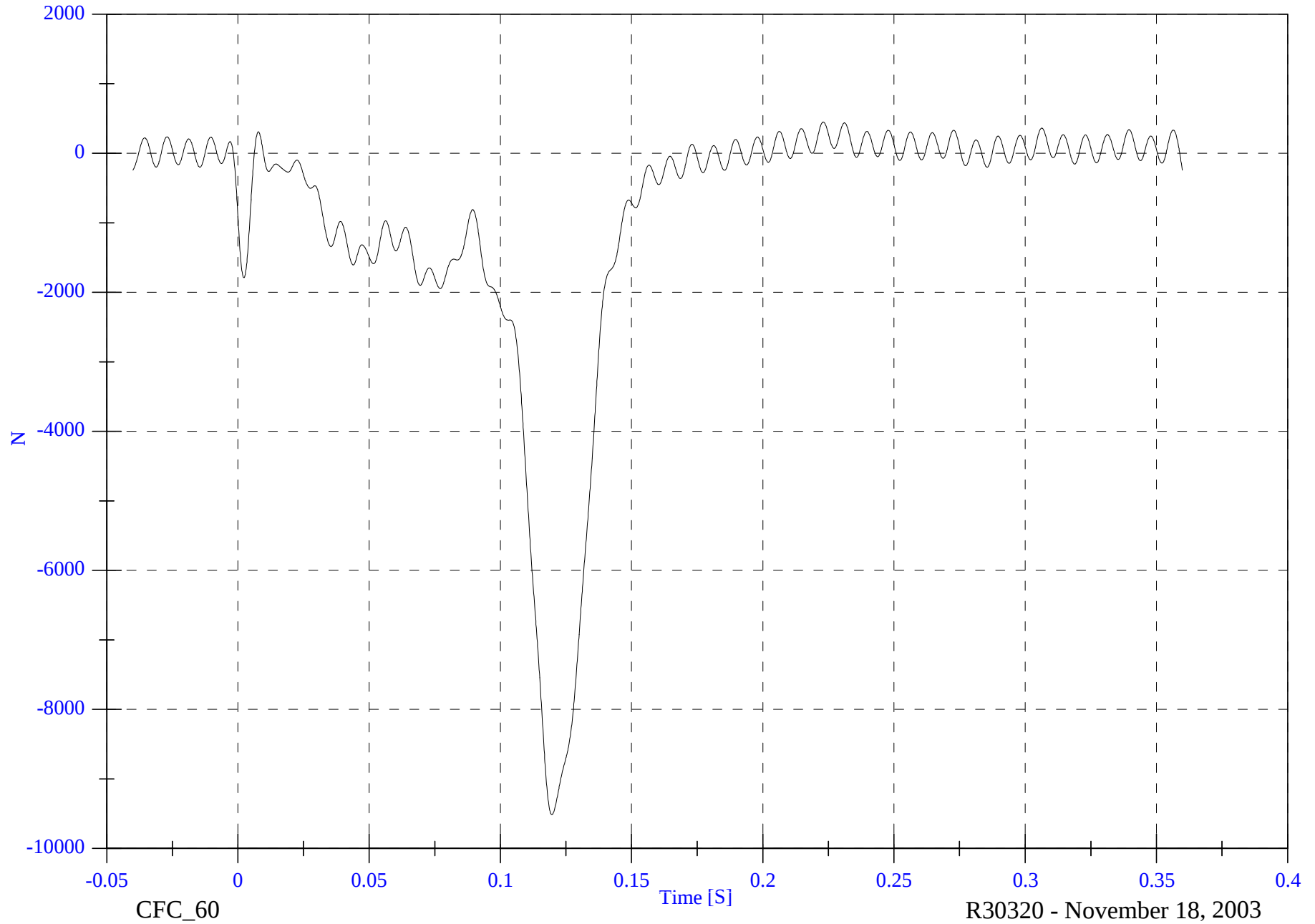


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F6 FX

Max: 448.8 [N] at 0.223 [S]

Min: -9514.2 [N] at 0.120 [S]



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CFC_60

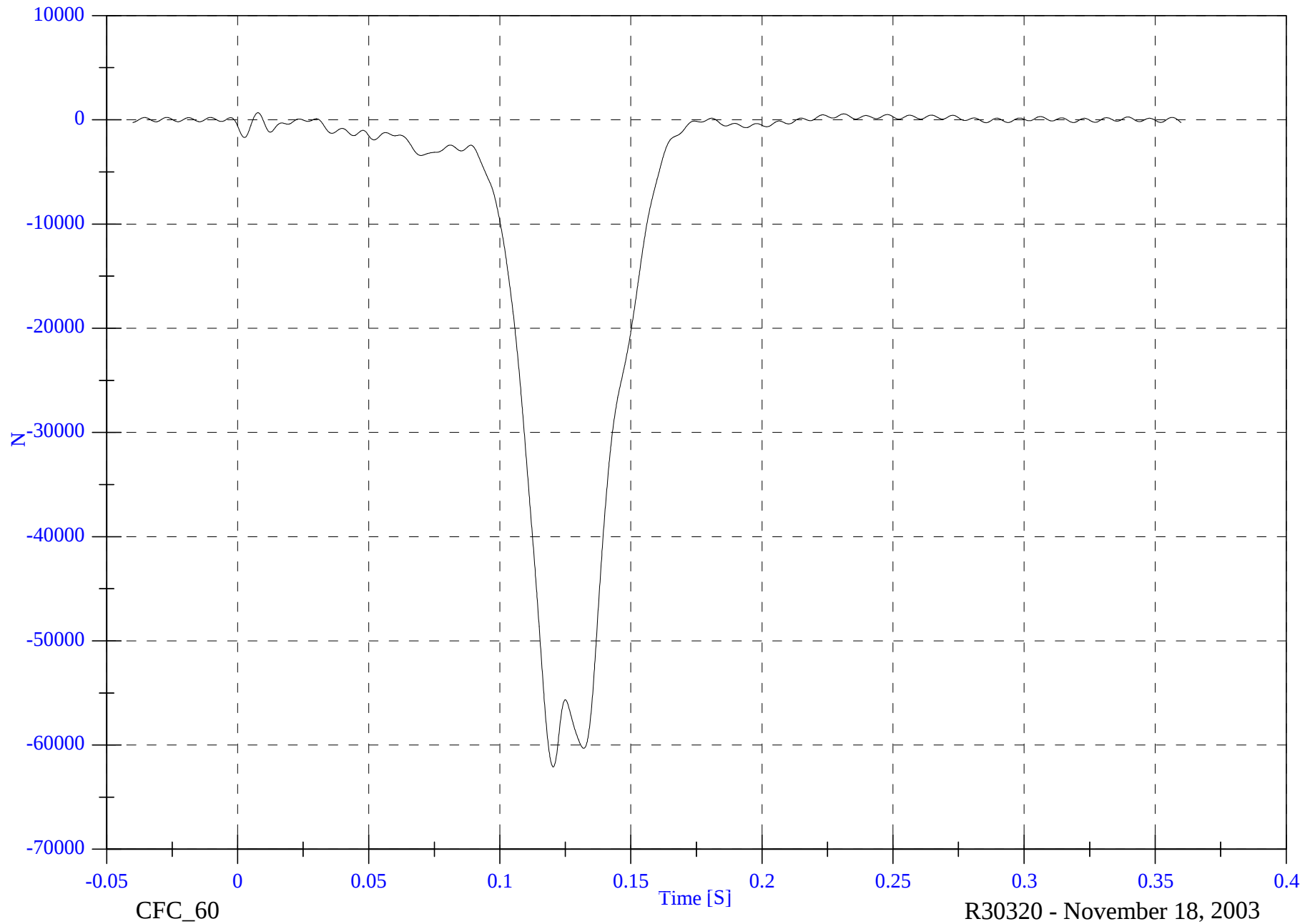
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell F7 FX

Max: 678.1 [N] at 0.008 [S]

Min: -62100.3 [N] at 0.120 [S]



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8710-OFS-06

CFC_60

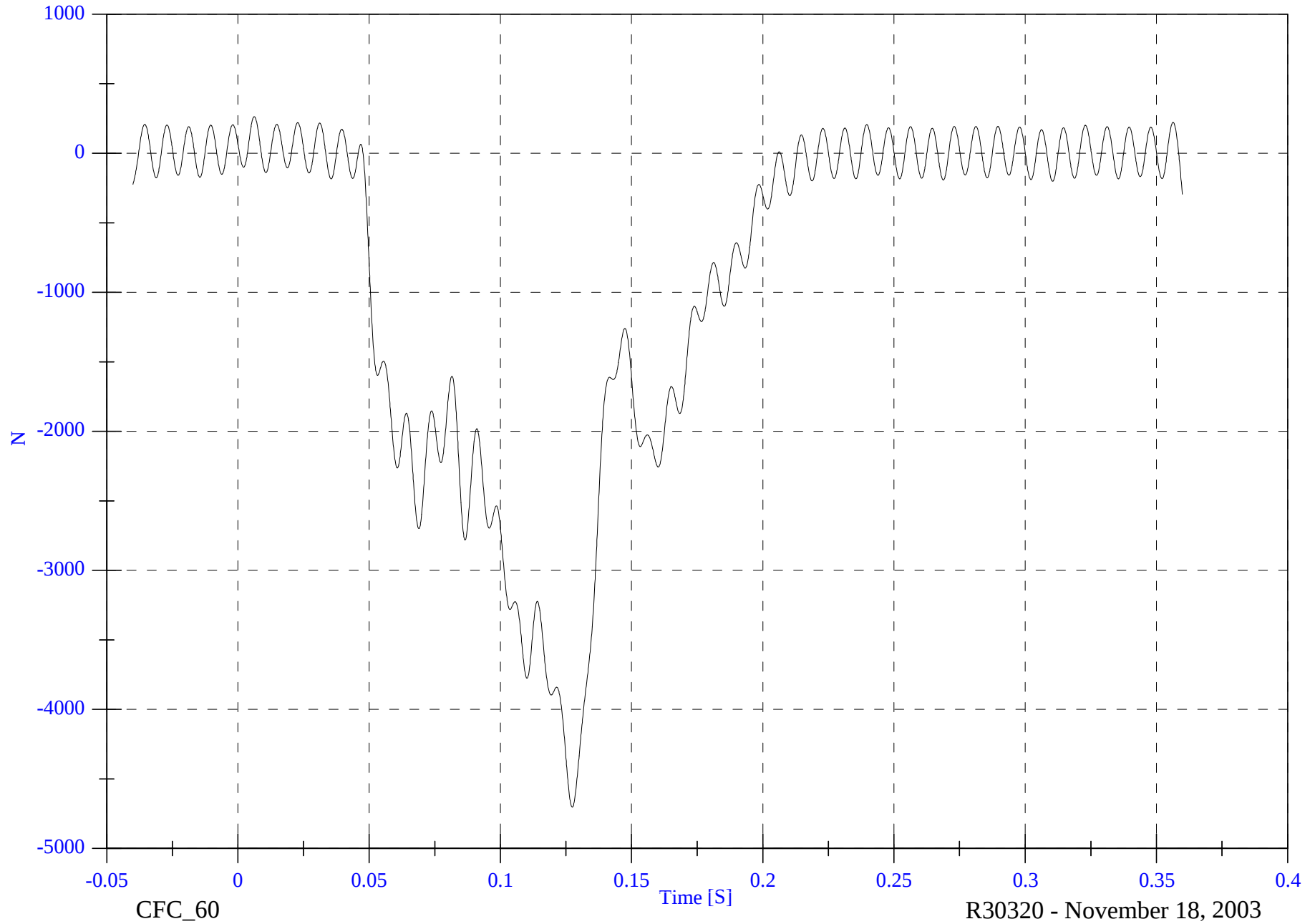
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E1 FX

Max: 263.0 [N] at 0.006 [S]

Min: -4703.5 [N] at 0.127 [S]

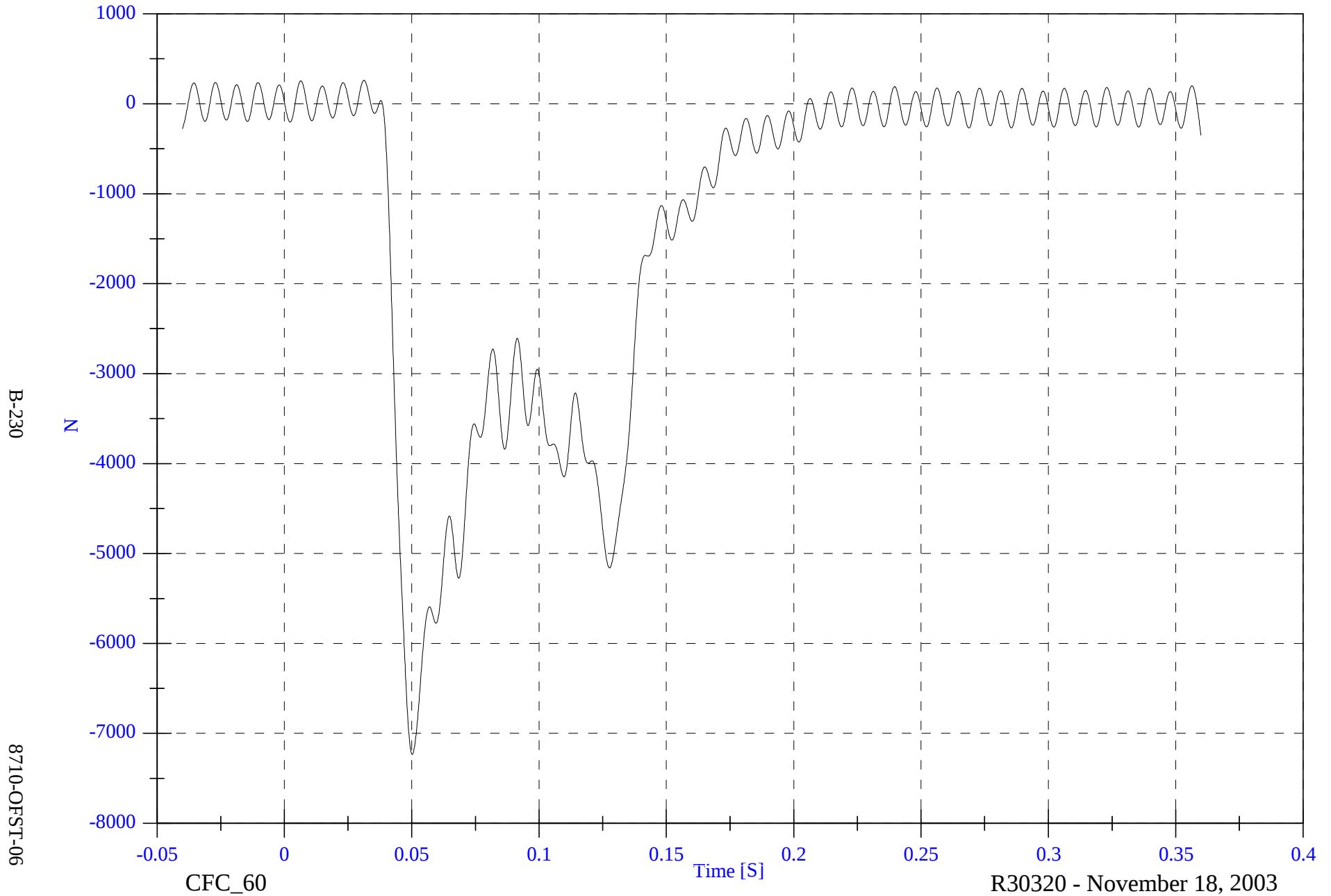


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E2 FX

Max: 260.1 [N] at 0.031 [S]

Min: -7232.3 [N] at 0.050 [S]

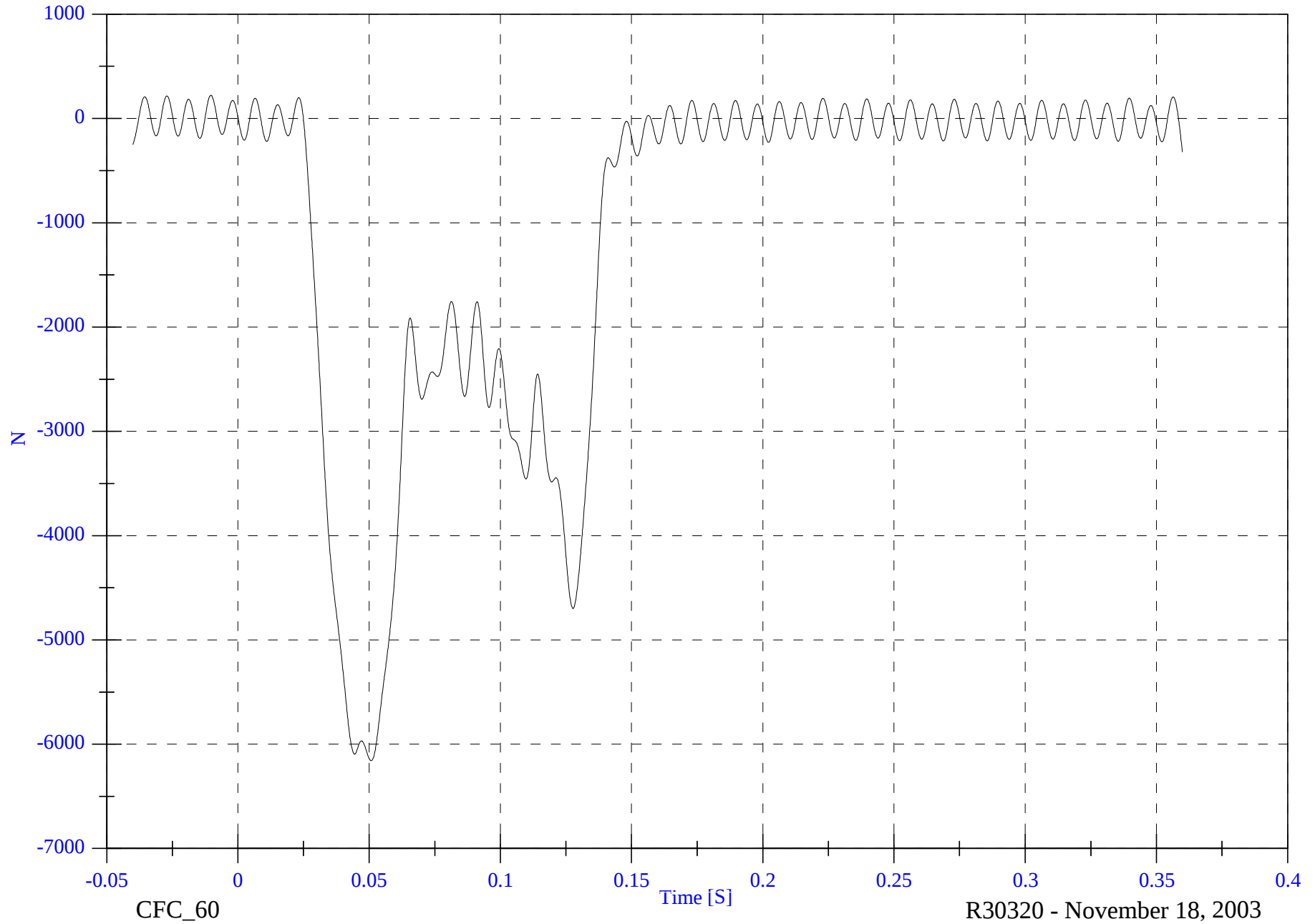


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E3 FX

Max: 222.2 [N] at -0.010 [S]

Min: -6158.1 [N] at 0.051 [S]

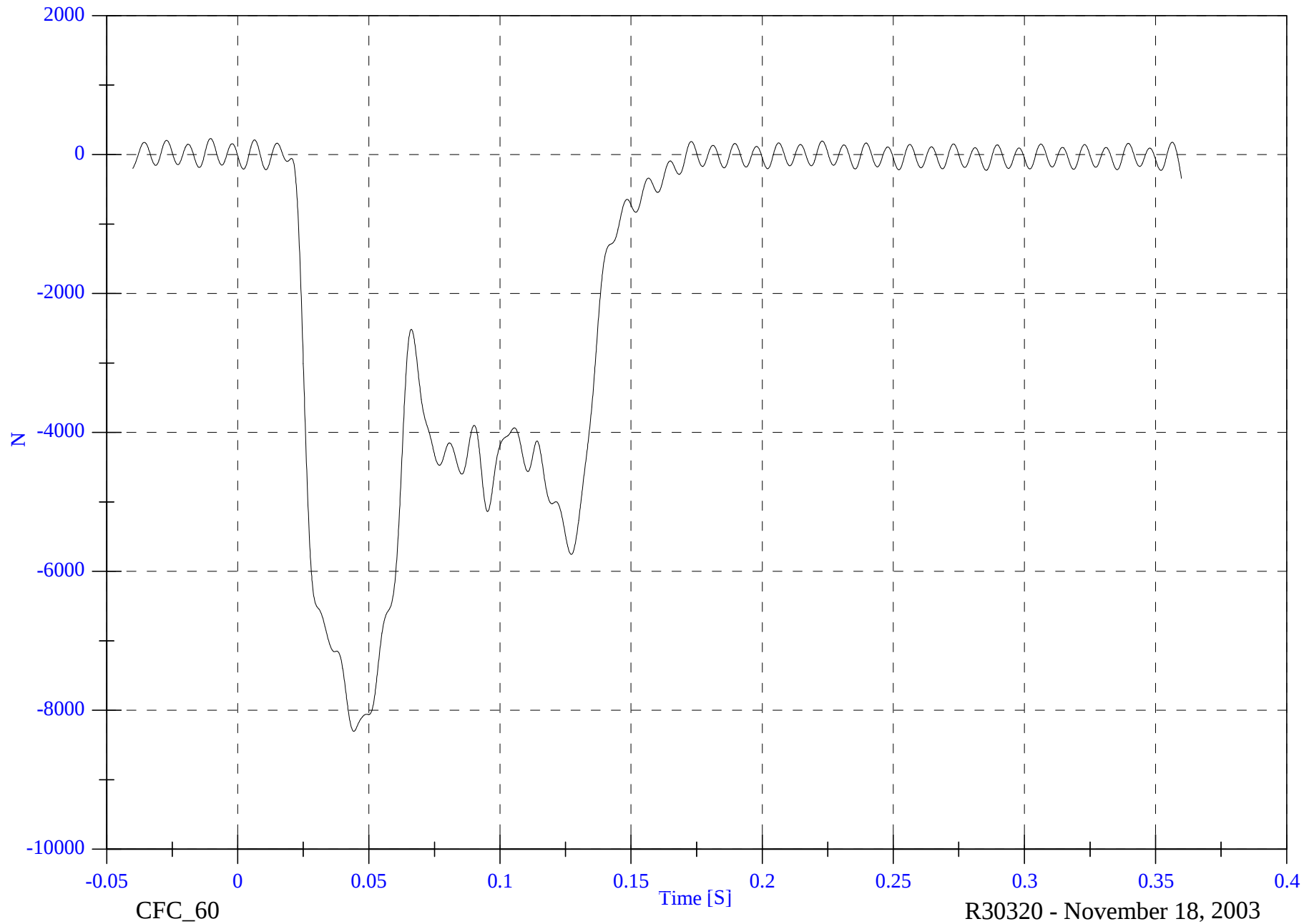


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E4 FX

Max: 230.3 [N] at -0.010 [S]

Min: -8302.7 [N] at 0.044 [S]

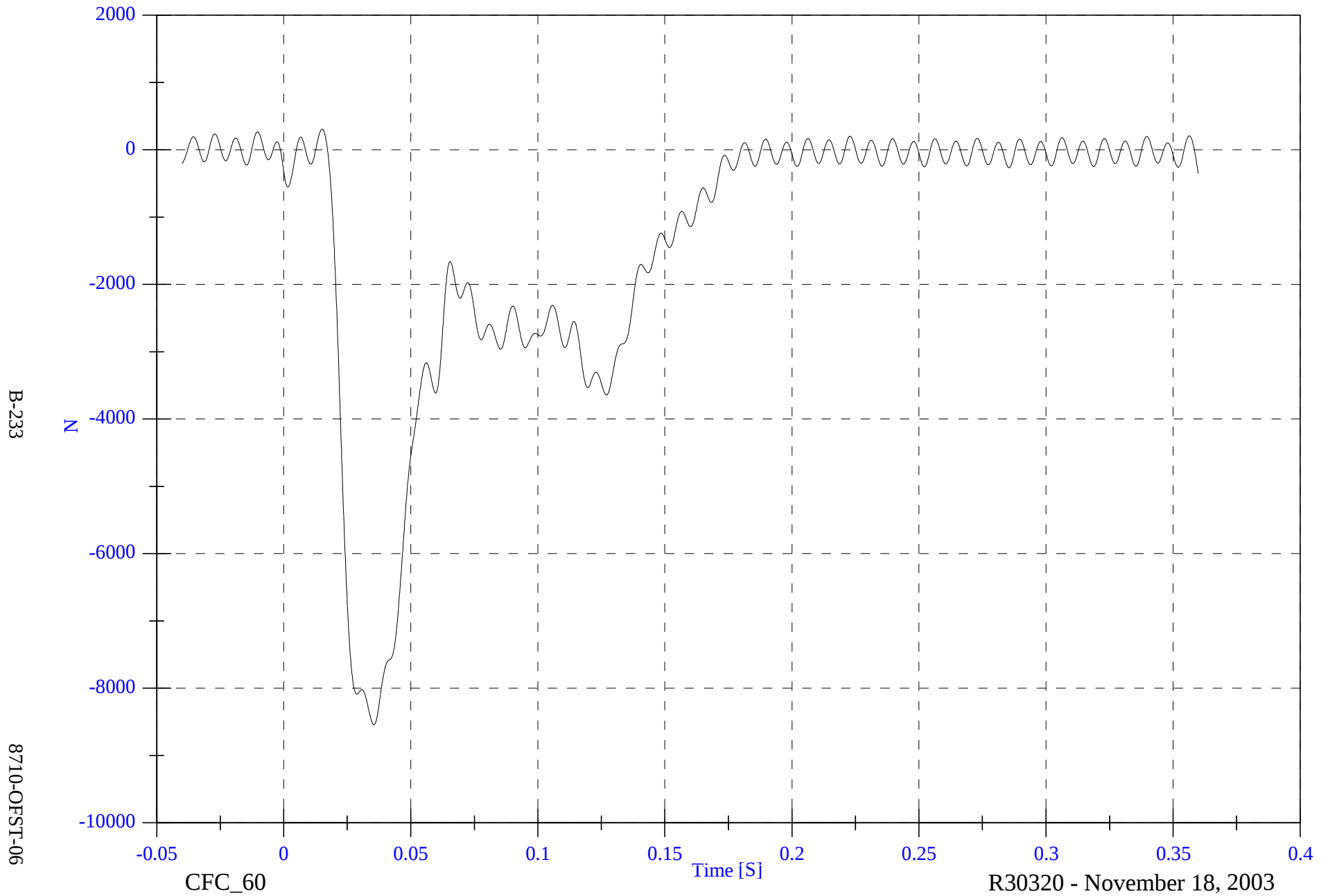


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E5 FX

Max: 306.8 [N] at 0.015 [S]

Min: -8543.0 [N] at 0.035 [S]

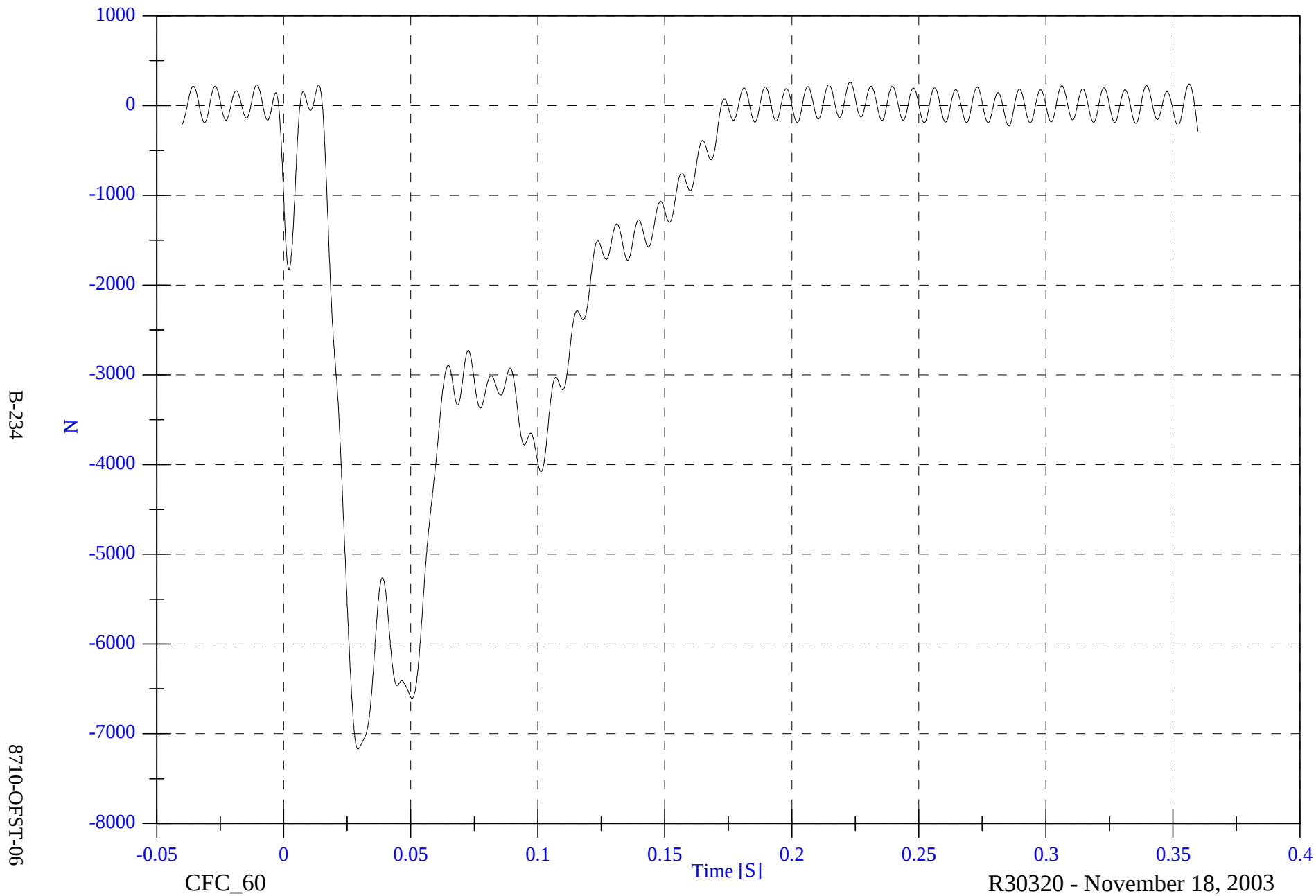


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E6 FX

Max: 260.8 [N] at 0.223 [S]

Min: -7170.4 [N] at 0.029 [S]

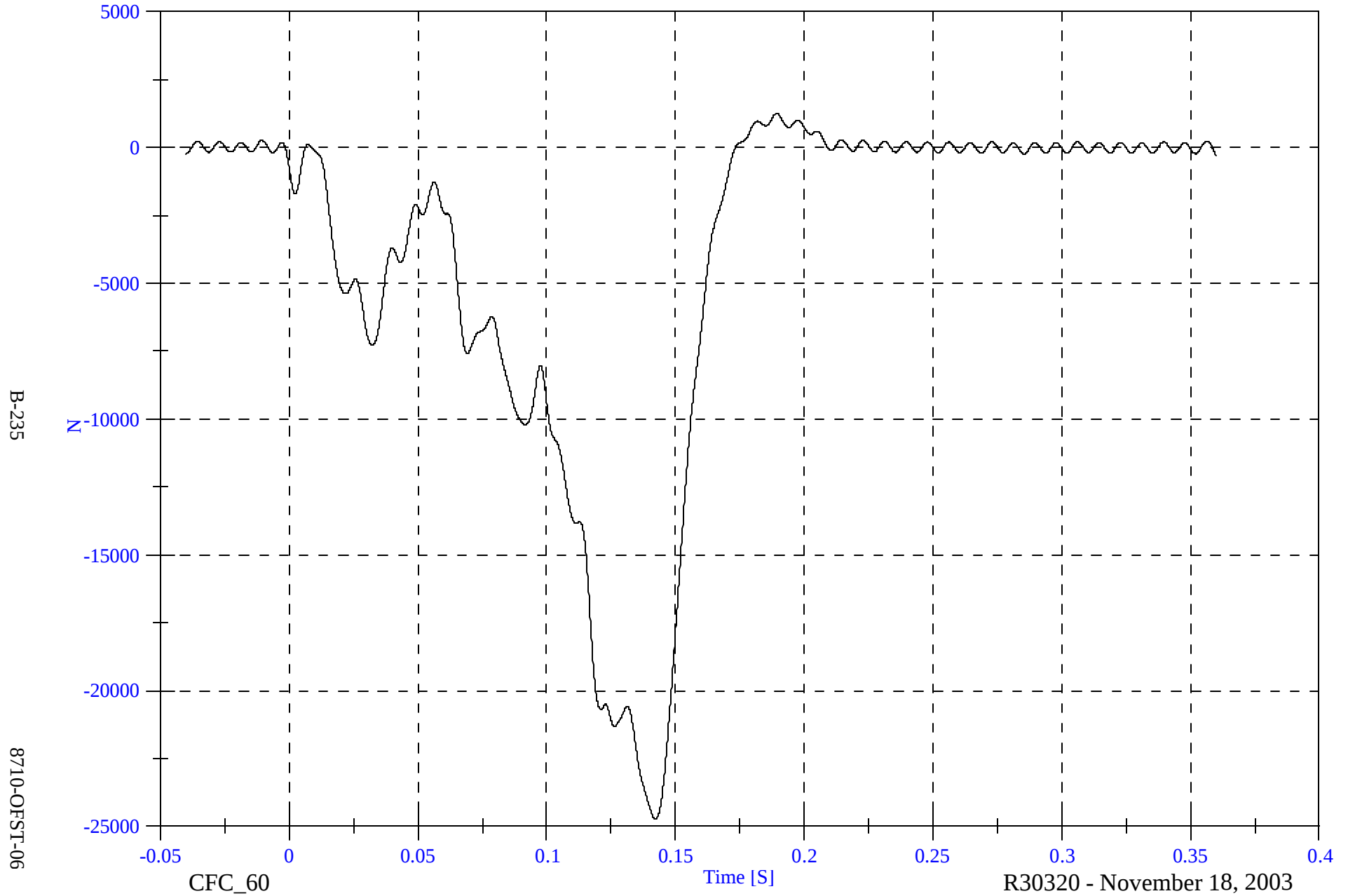


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell E7 FX

Max: 1240.2 [N] at 0.189 [S]

Min: -24722.5 [N] at 0.142 [S]

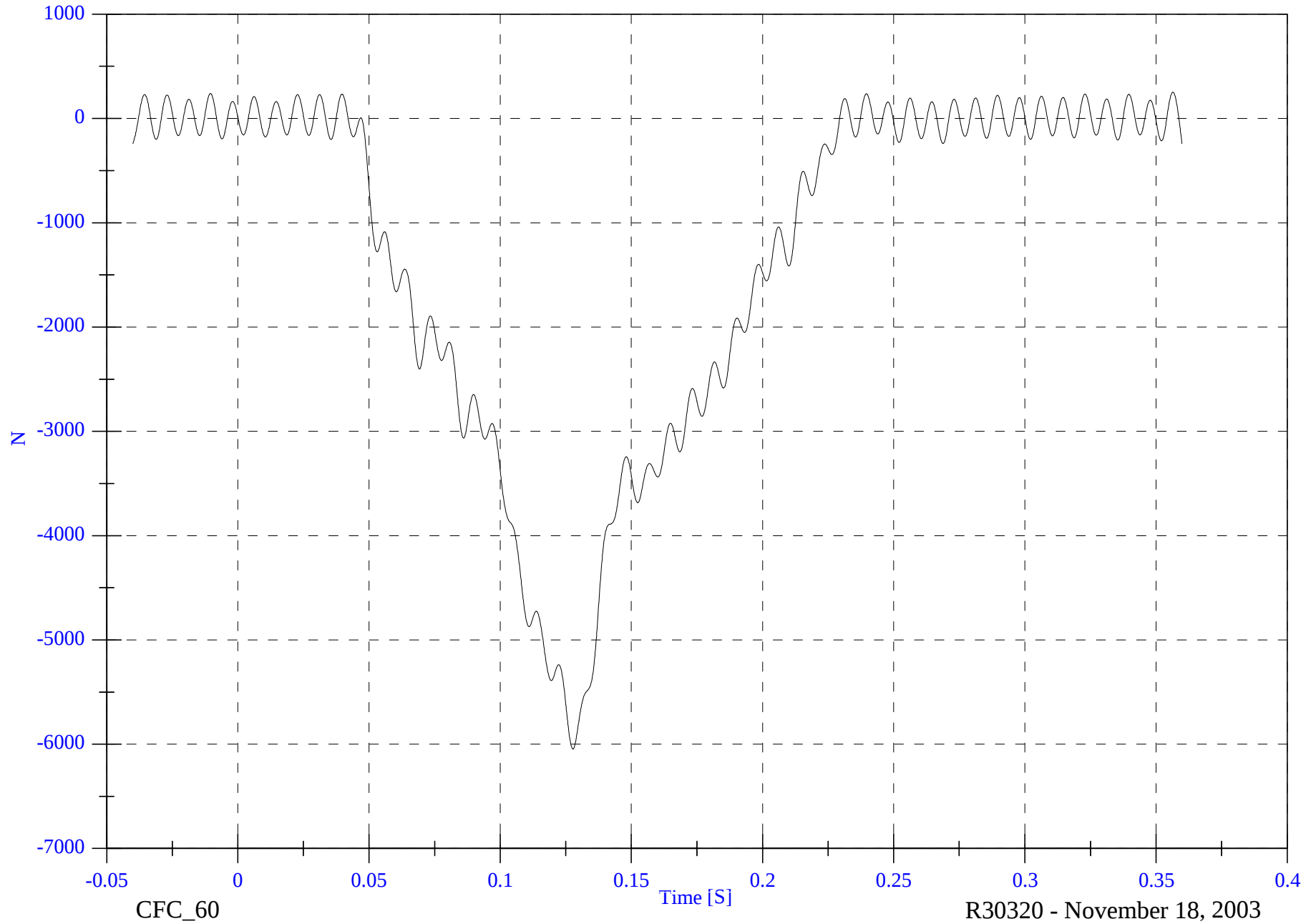


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D1 FX

Max: 252.3 [N] at 0.356 [S]

Min: -6046.8 [N] at 0.128 [S]



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CFC_60

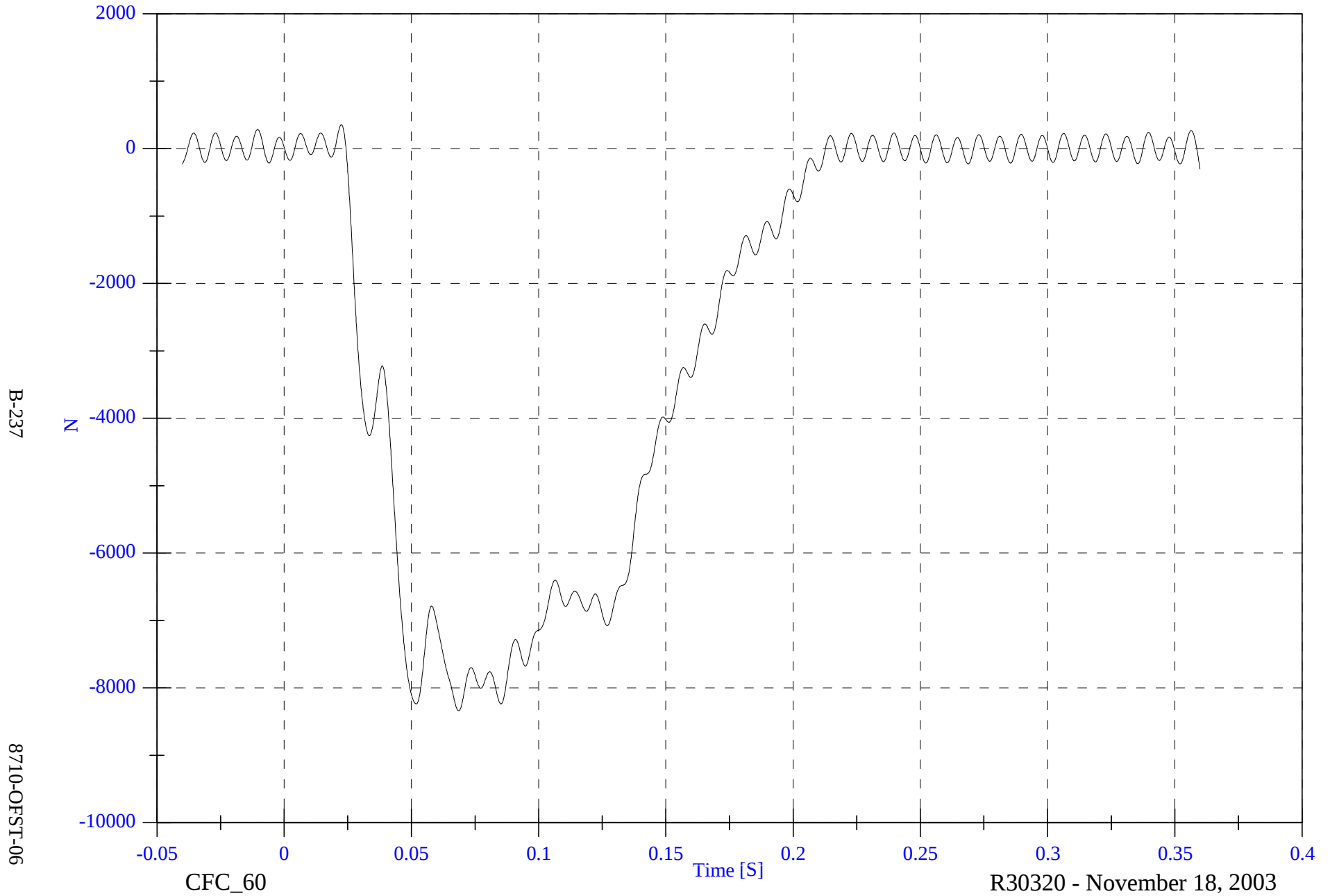
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D2 FX

Max: 354.0 [N] at 0.022 [S]

Min: -8339.9 [N] at 0.069 [S]

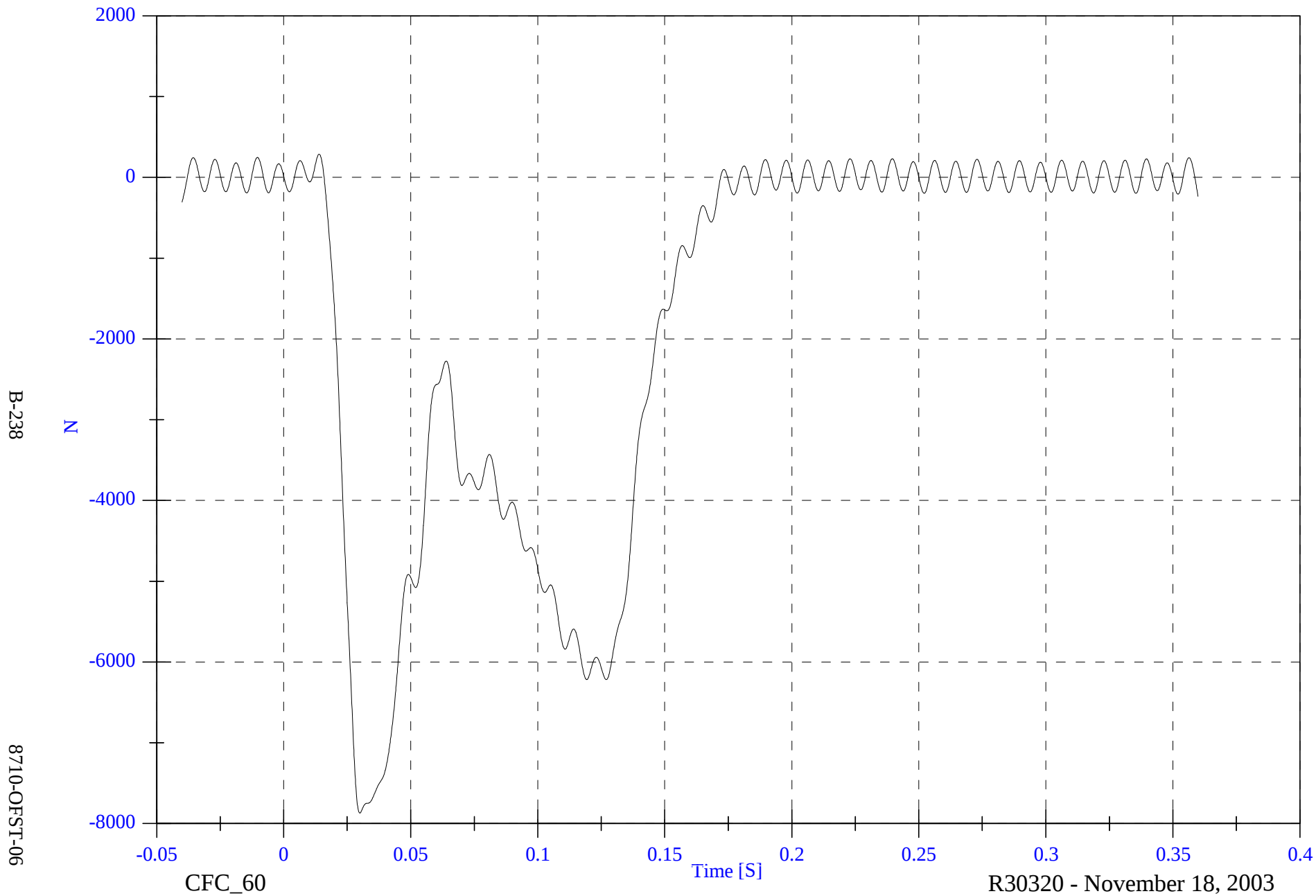


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D3 FX

Max: 287.3 [N] at 0.014 [S]

Min: -7870.3 [N] at 0.030 [S]

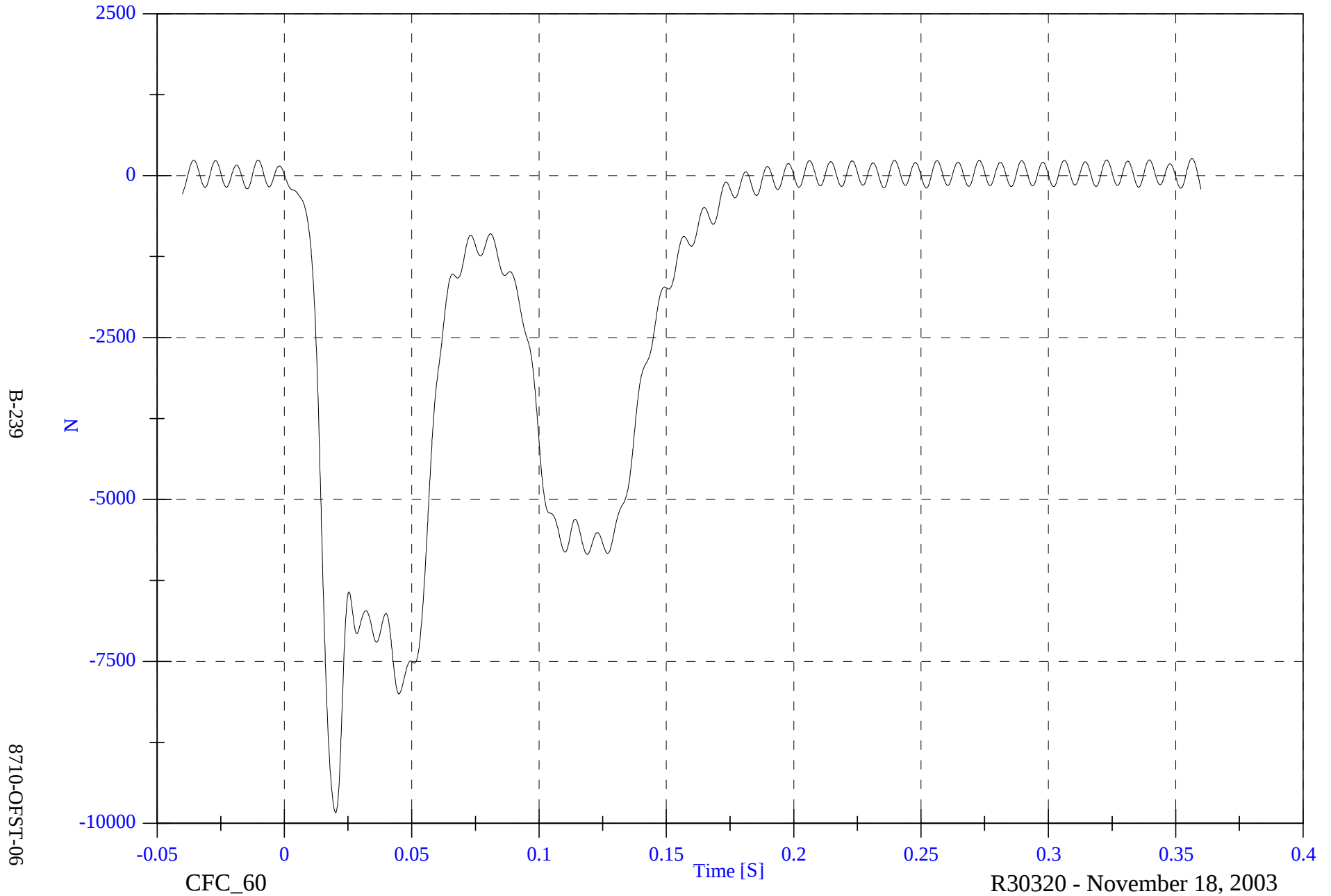


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D4 FX

Max: 264.5 [N] at 0.356 [S]

Min: -9835.6 [N] at 0.020 [S]

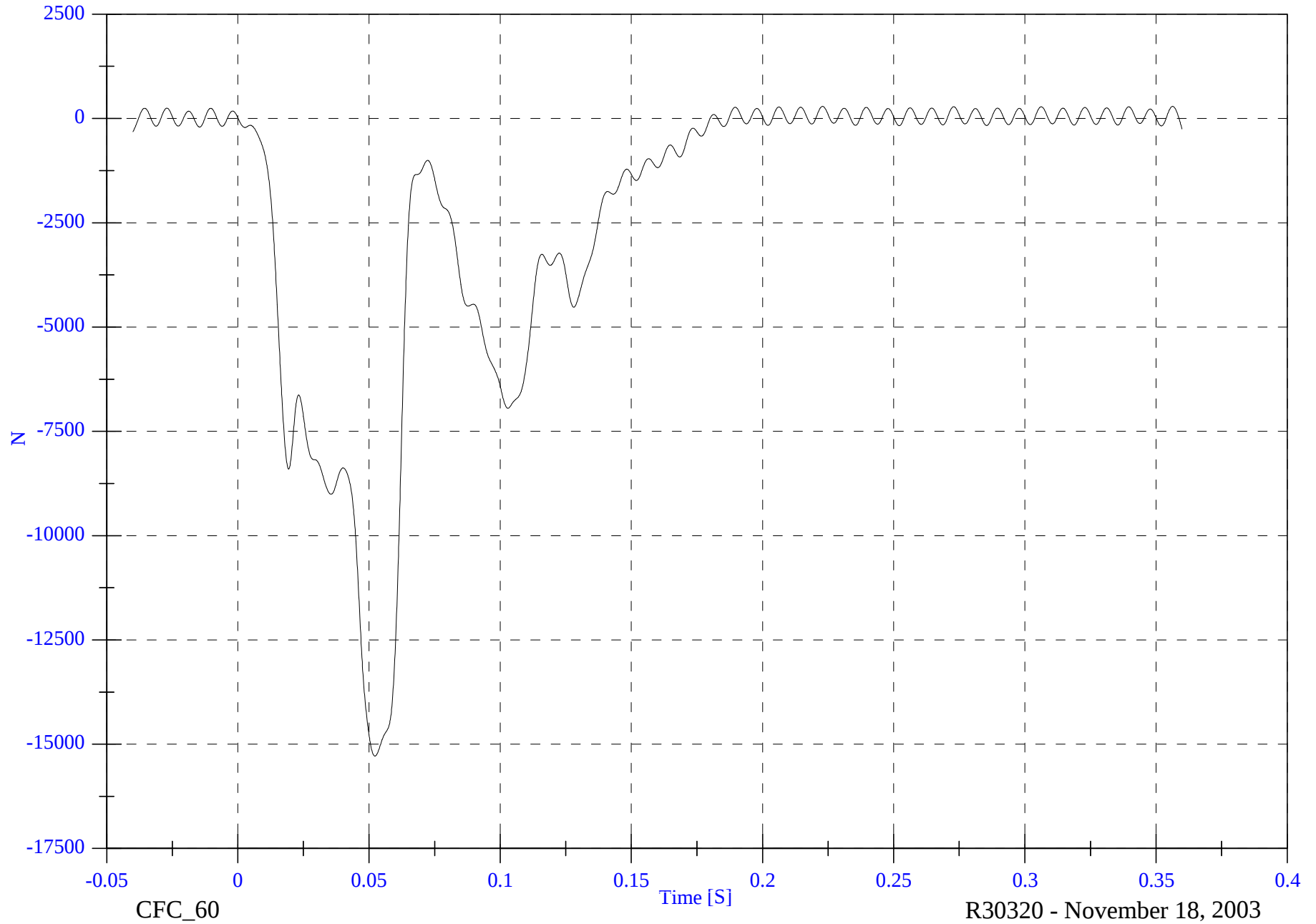


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D5 FX

Max: 290.2 [N] at 0.356 [S]

Min: -15285.5 [N] at 0.052 [S]



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CFC_60

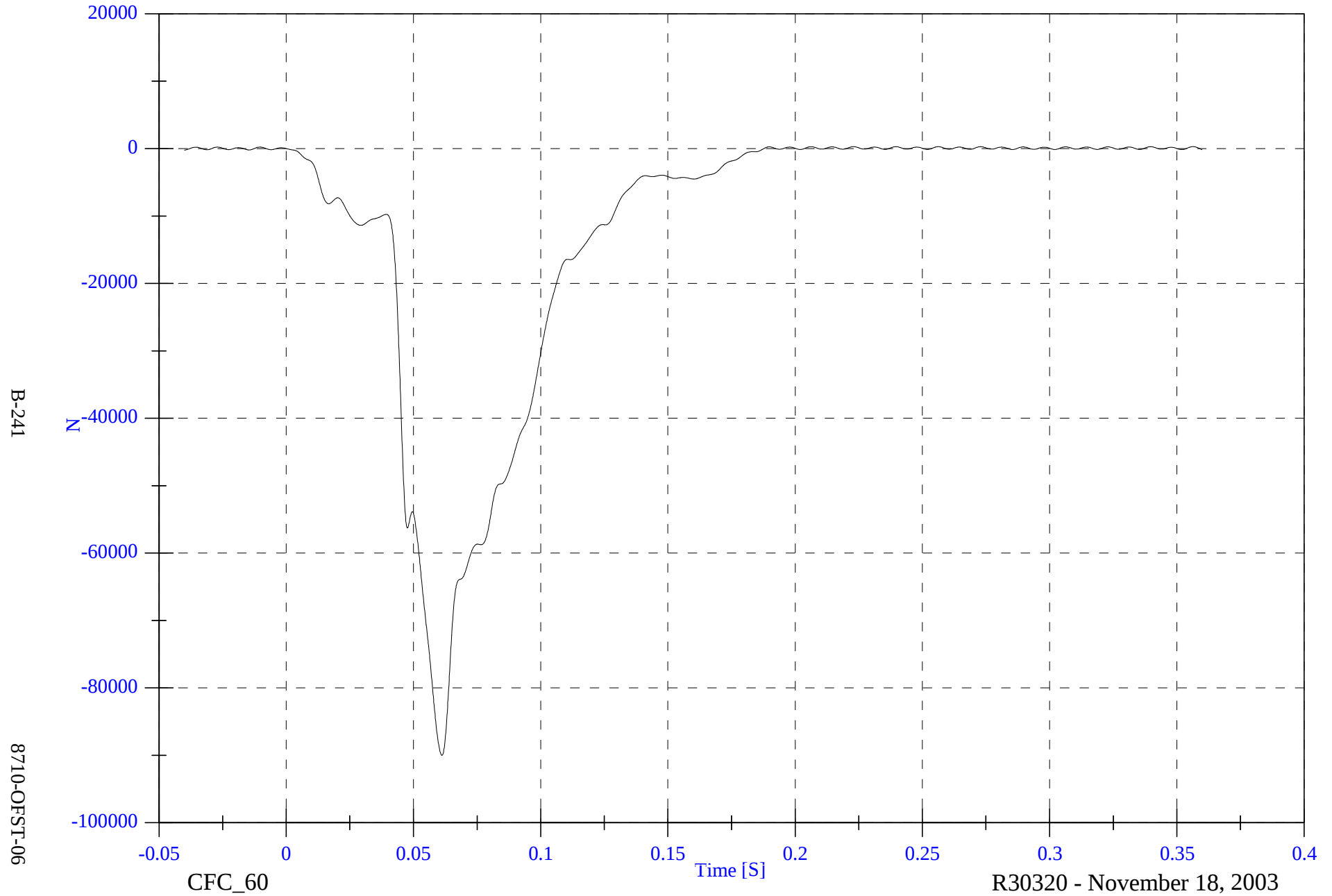
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D6 FX

Max: 294.9 [N] at 0.356 [S]

Min: -90008.6 [N] at 0.061 [S]

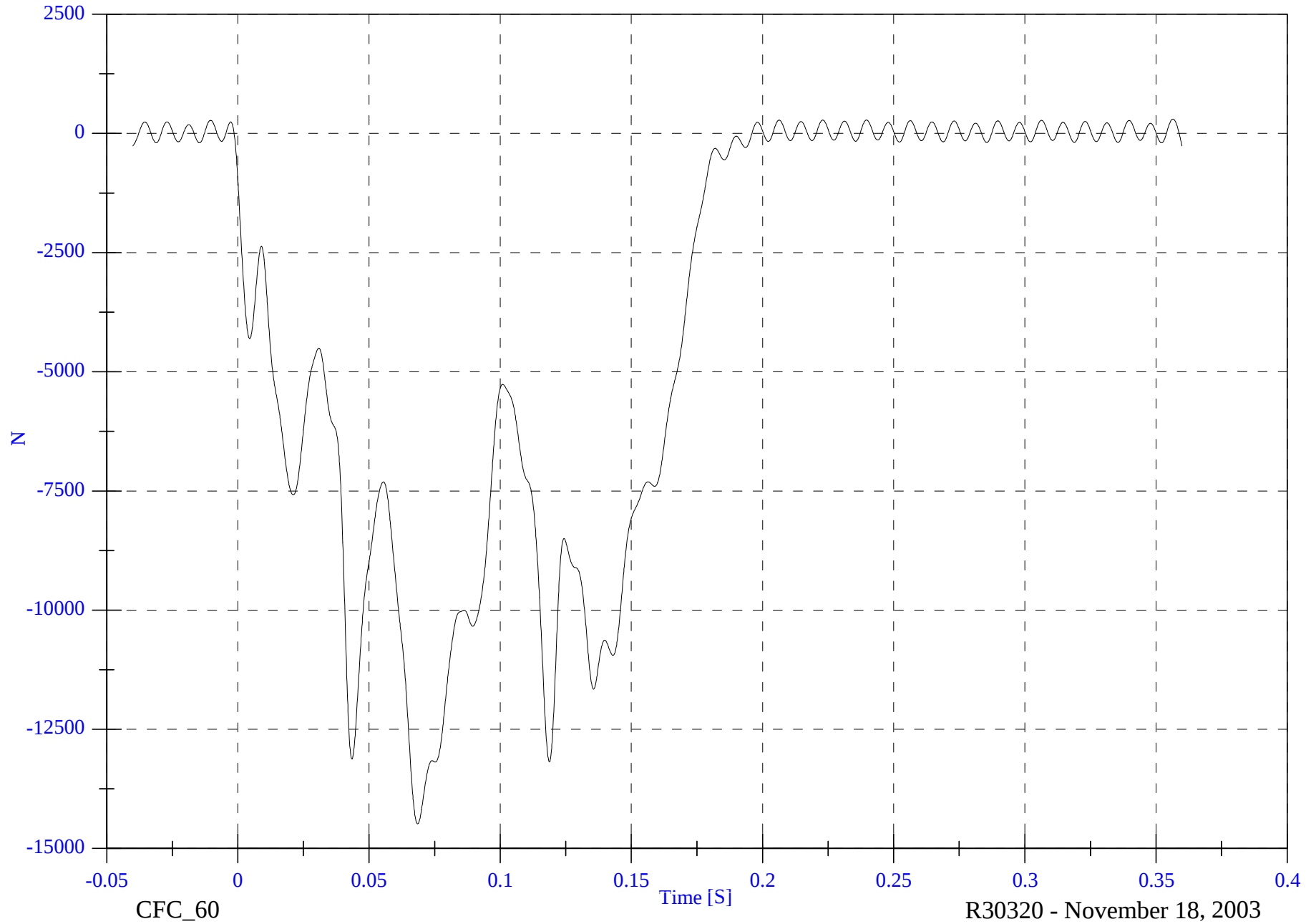


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell D7 FX

Max: 300.9 [N] at 0.356 [S]

Min: -14486.3 [N] at 0.068 [S]



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CFC_60

Time [S]

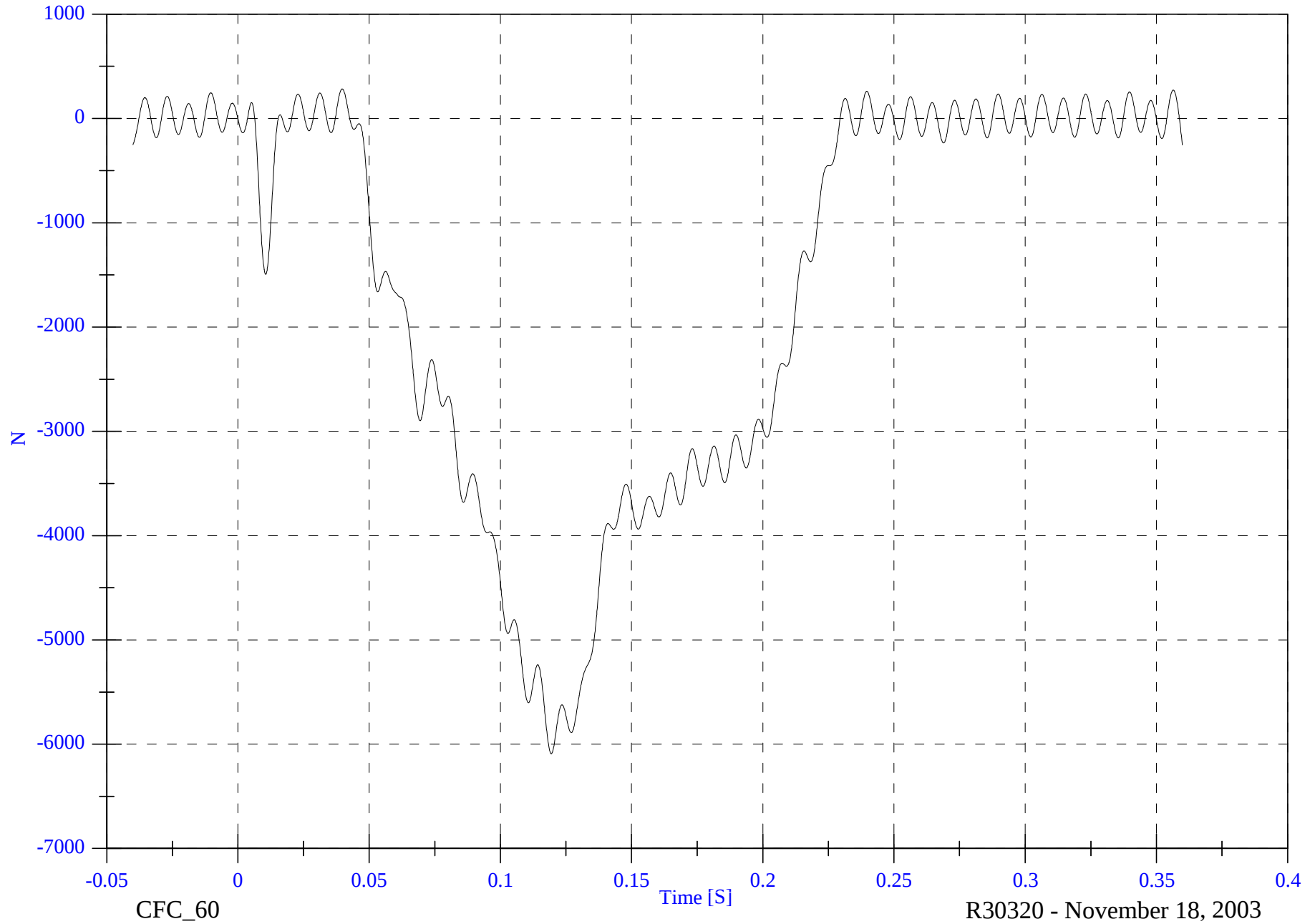
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C1 FX

Max: 284.0 [N] at 0.040 [S]

Min: -6092.1 [N] at 0.119 [S]

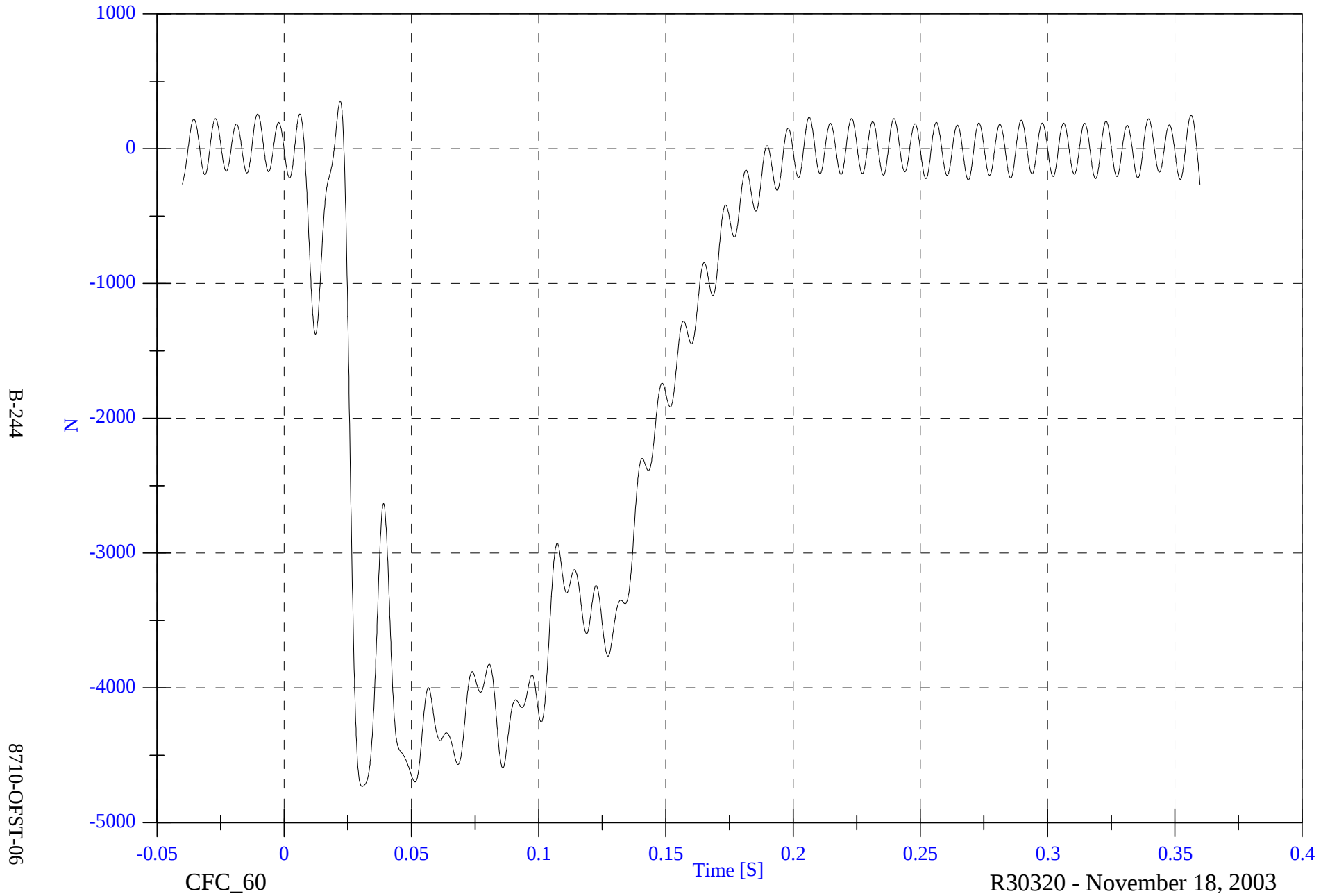


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C2 FX

Max: 354.0 [N] at 0.022 [S]

Min: -4730.1 [N] at 0.031 [S]

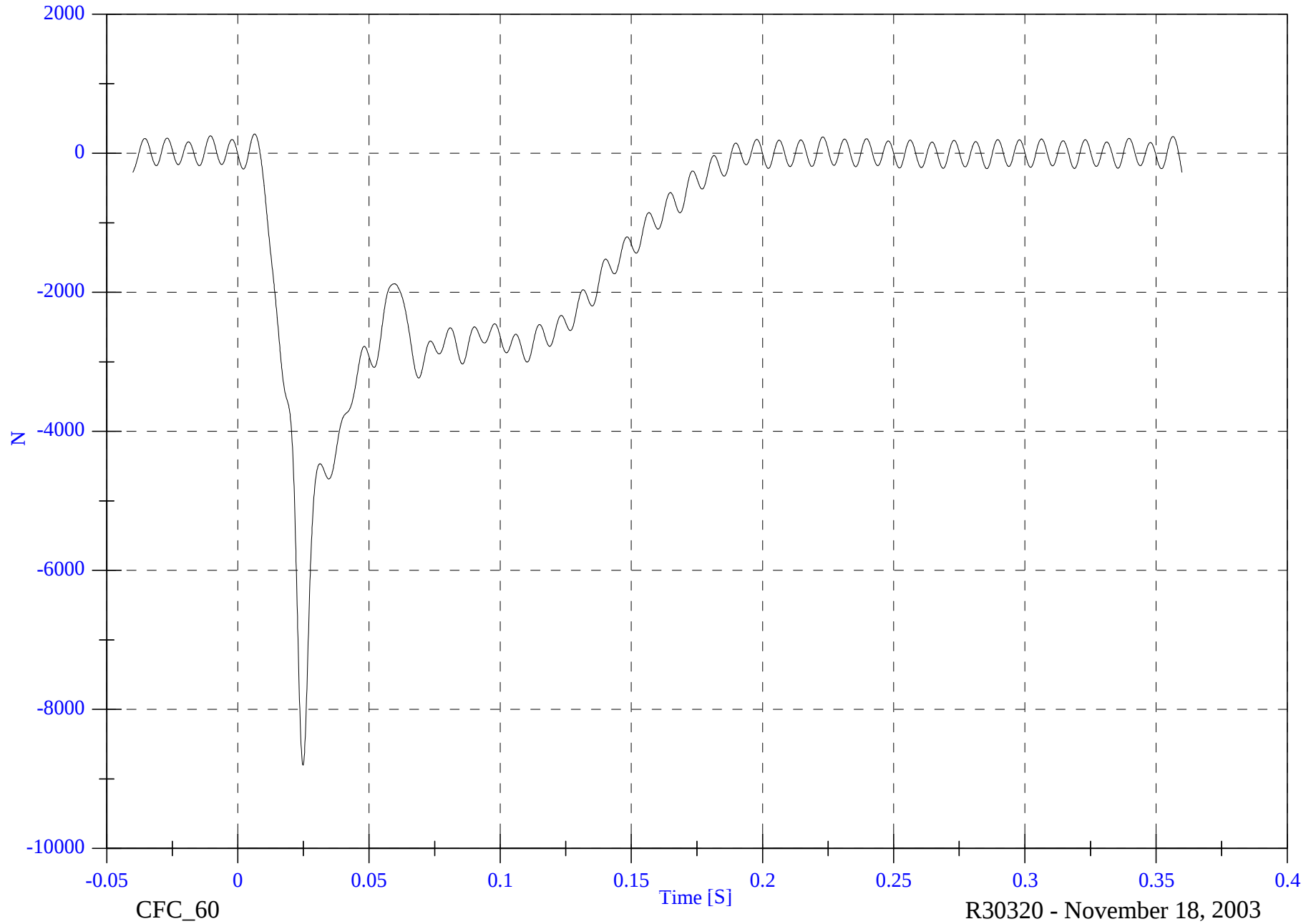


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C3 FX

Max: 277.7 [N] at 0.006 [S]

Min: -8802.2 [N] at 0.025 [S]



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CFC_60

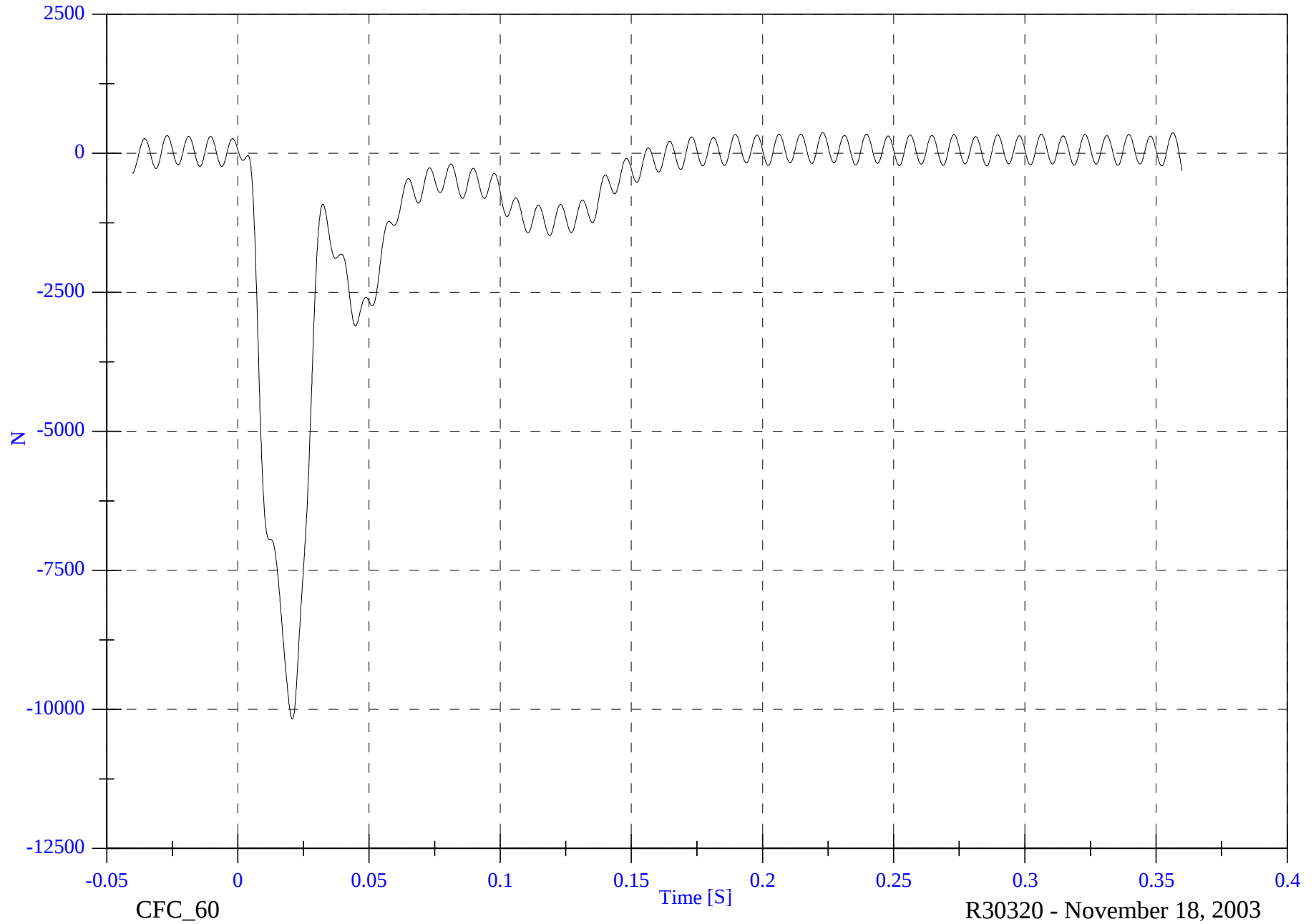
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C4 FX

Max: 372.0 [N] at 0.223 [S]

Min: -10170.7 [N] at 0.021 [S]



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8710-OFS-06

CFC_60

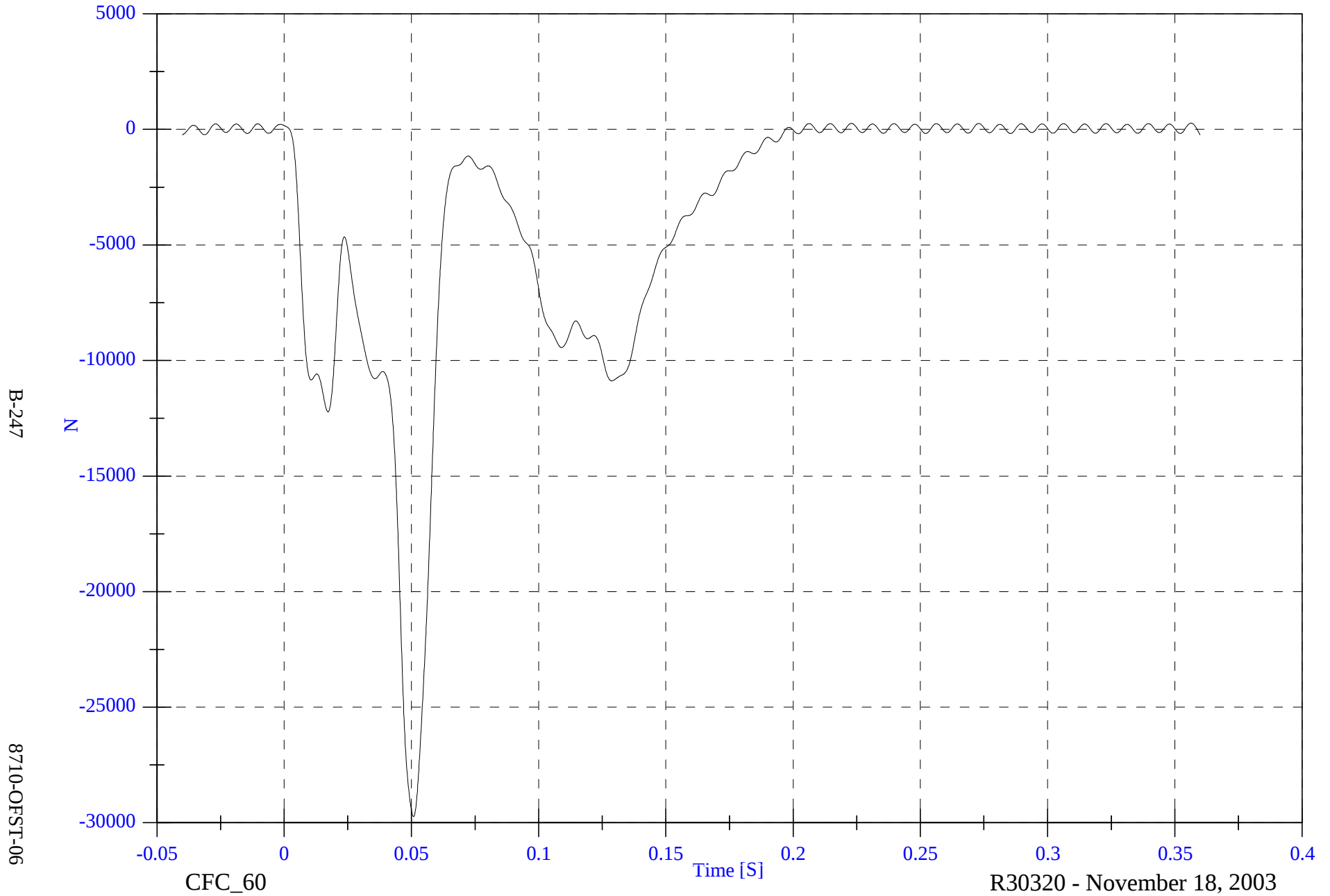
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C5 FX

Max: 269.6 [N] at 0.356 [S]

Min: -29737.2 [N] at 0.051 [S]

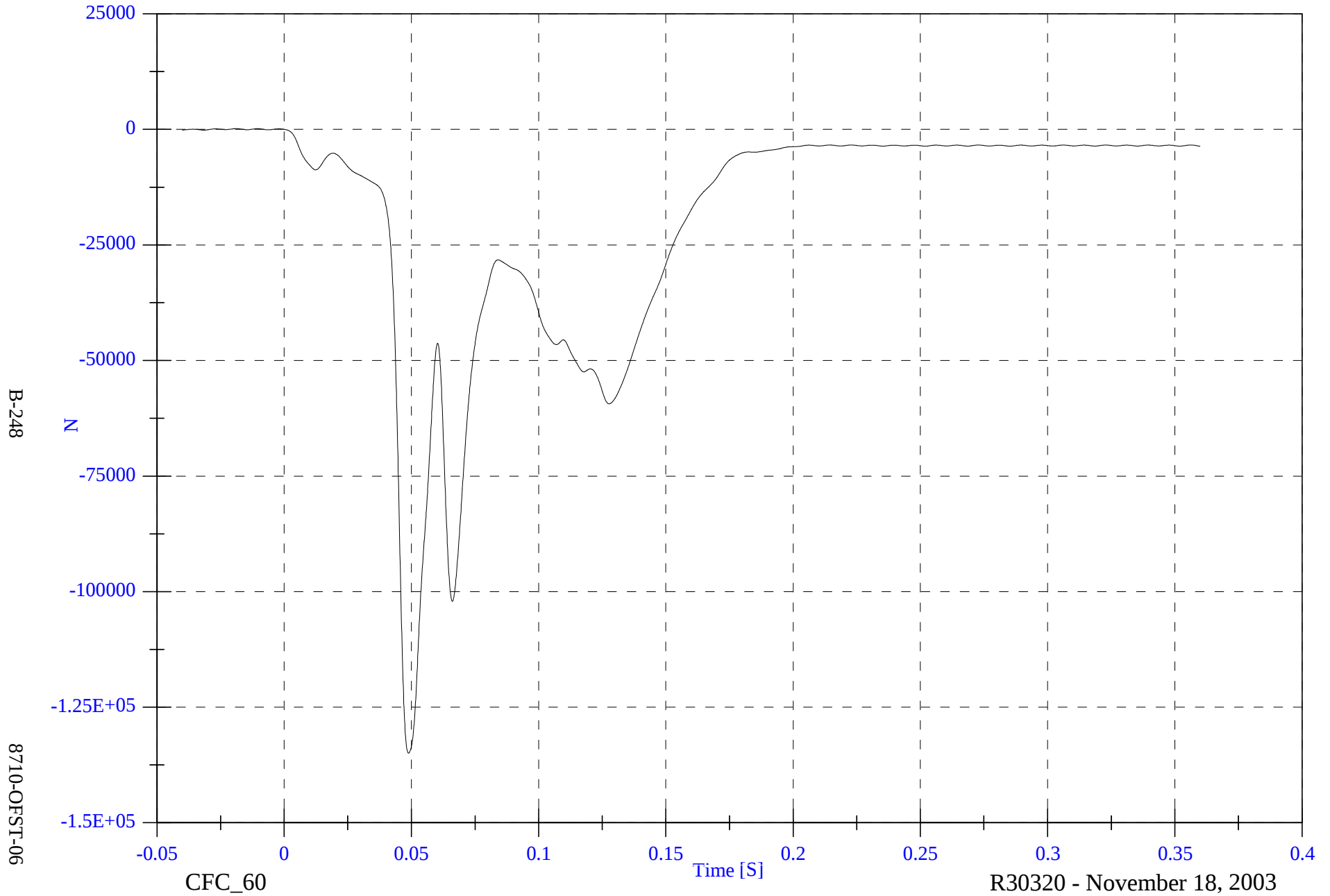


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C6 FX

Max: 149.2 [N] at -0.019 [S]

Min: -134948.3 [N] at 0.049 [S]

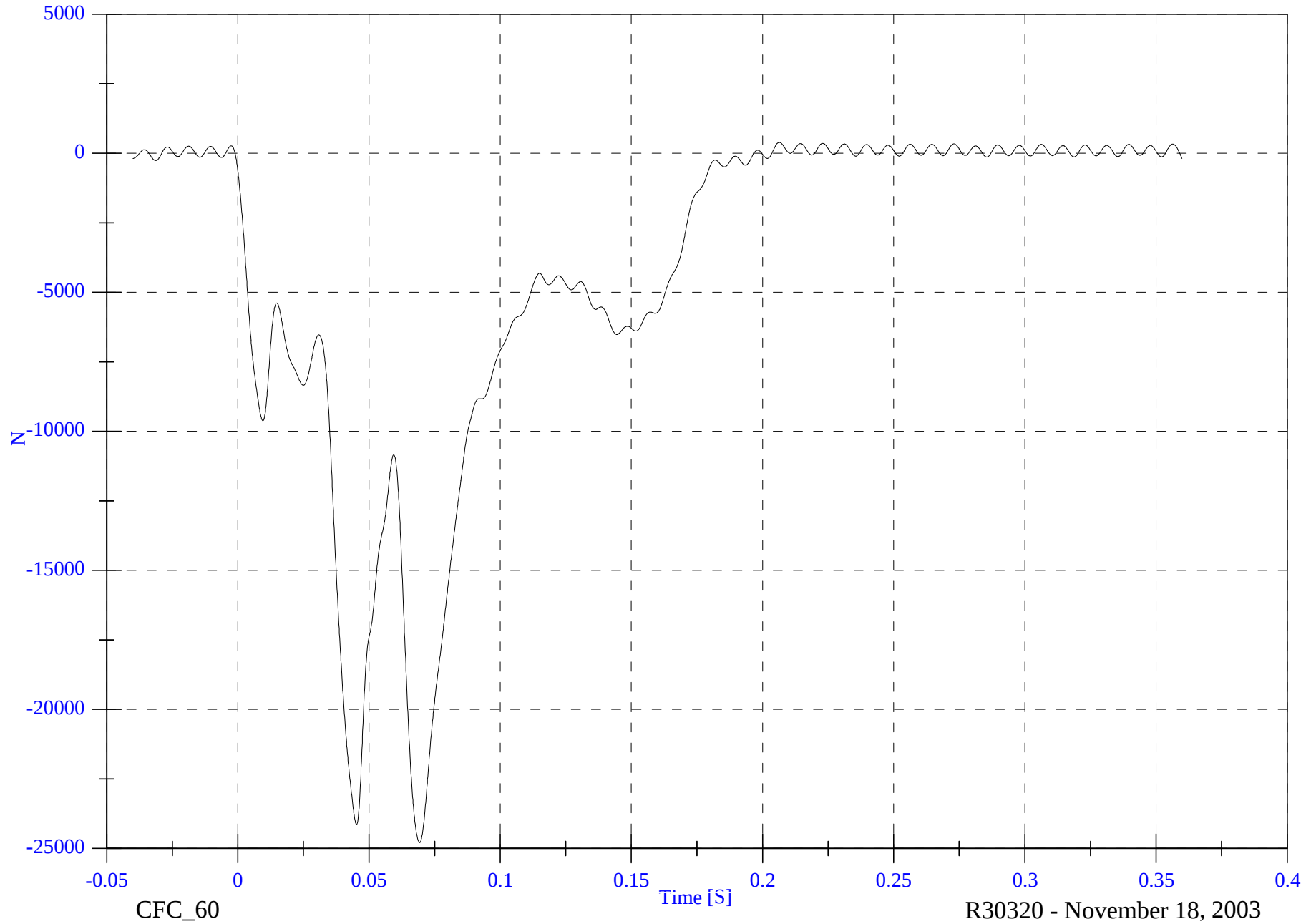


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell C7 FX

Max: 389.8 [N] at 0.206 [S]

Min: -24788.2 [N] at 0.069 [S]



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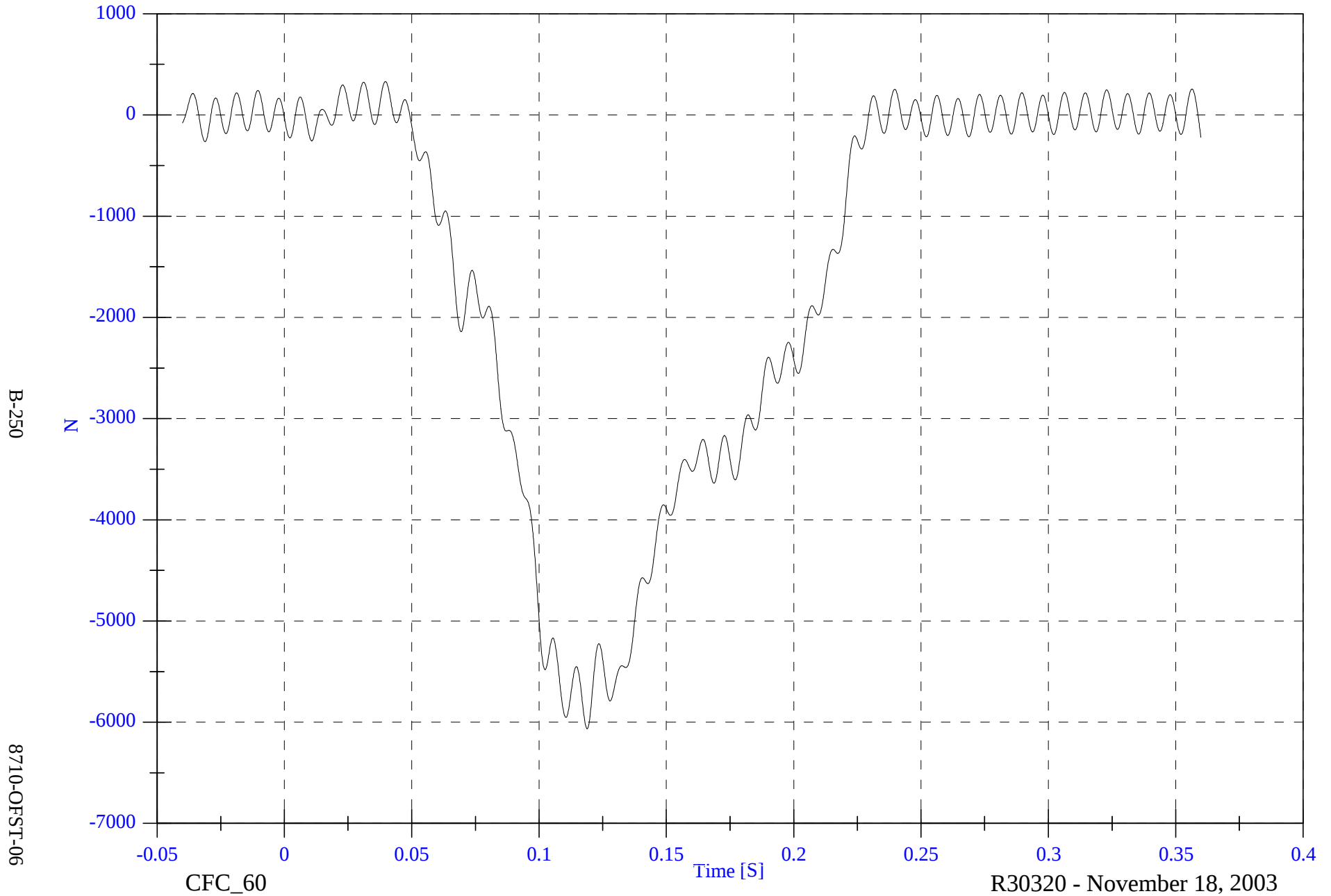
8710-OFT-06

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B1 FX

Max: 331.0 [N] at 0.040 [S]

Min: -6065.4 [N] at 0.119 [S]

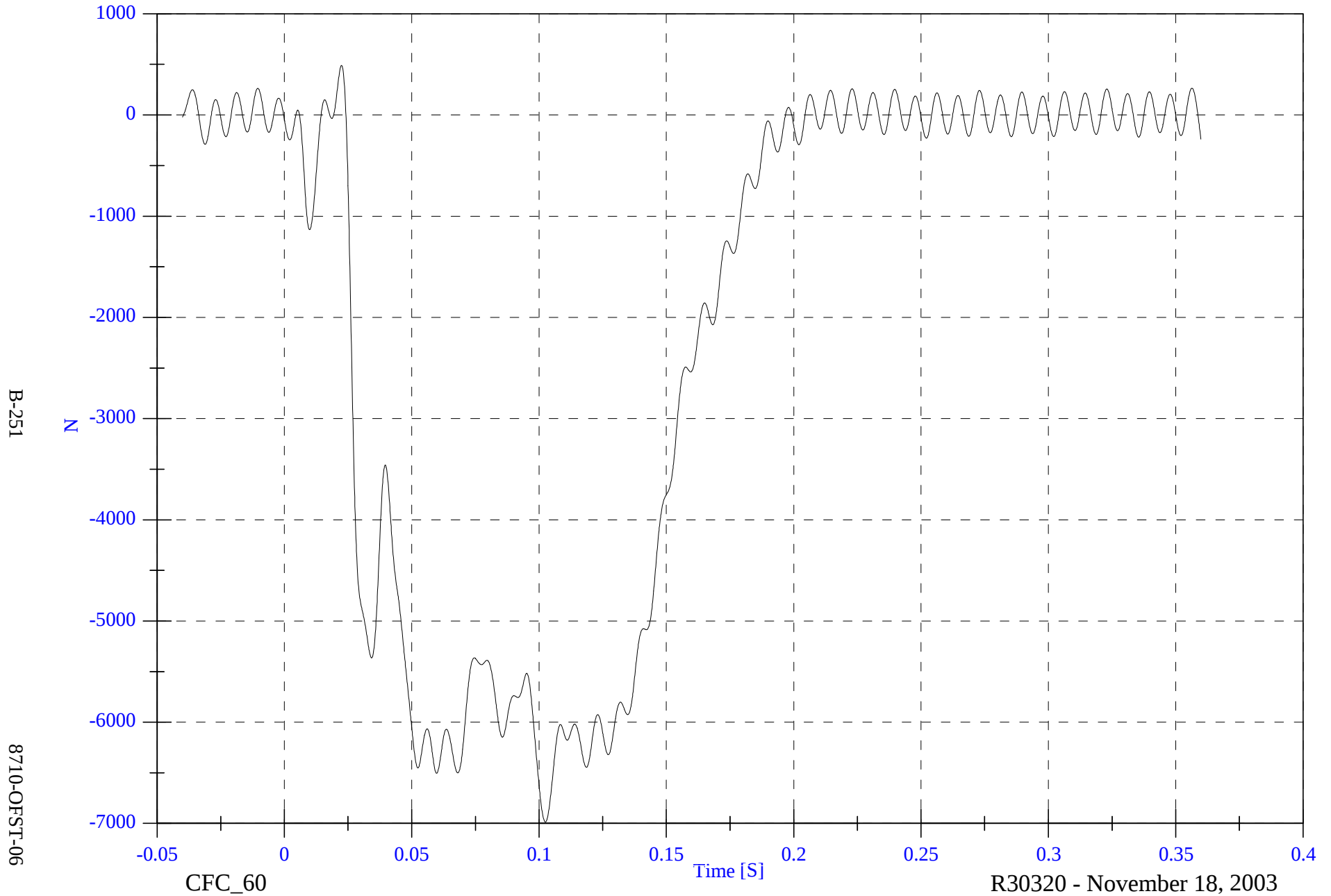


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B2 FX

Max: 489.9 [N] at 0.022 [S]

Min: -6986.3 [N] at 0.102 [S]

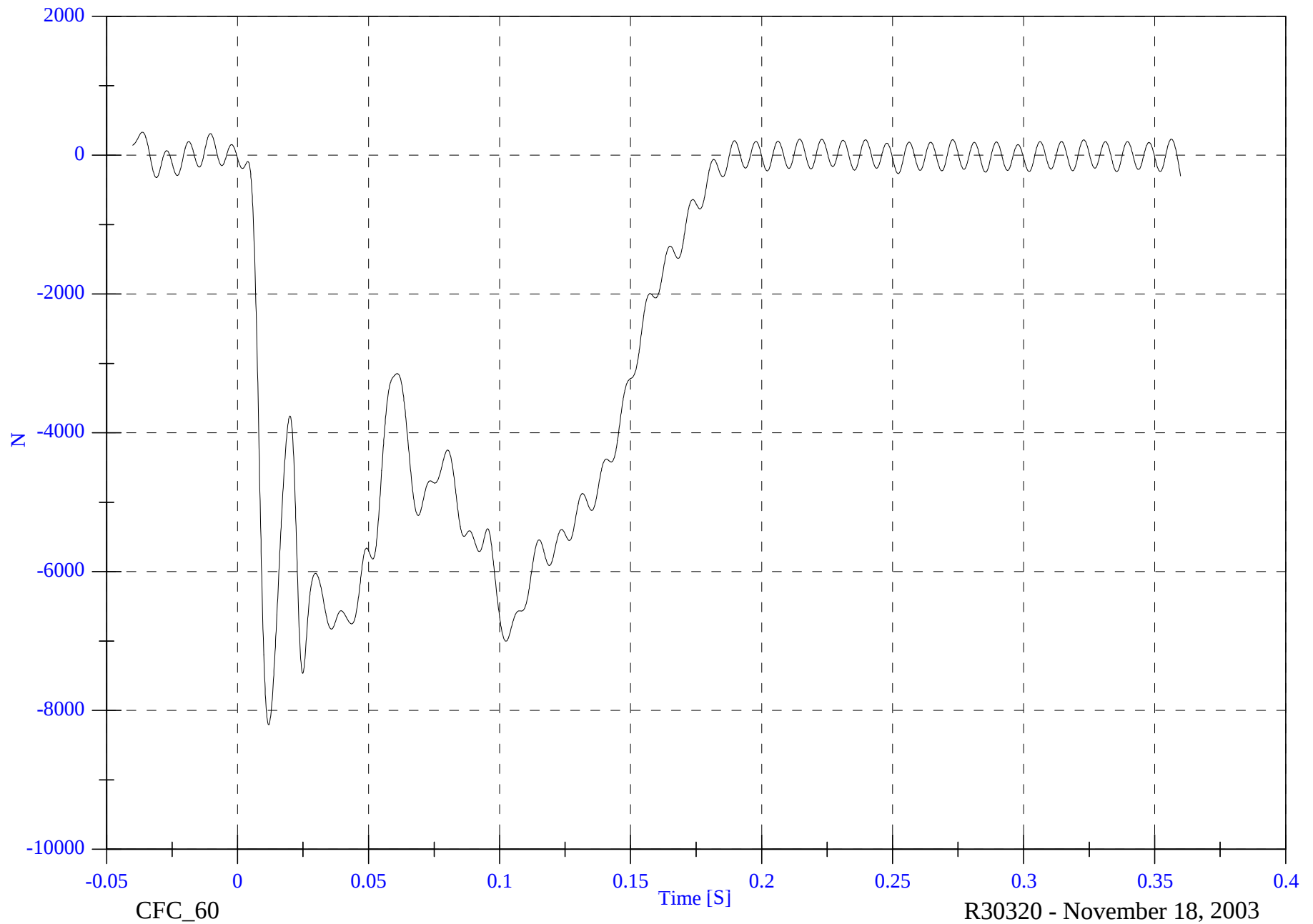


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B3 FX

Max: 331.4 [N] at -0.036 [S]

Min: -8205.3 [N] at 0.012 [S]

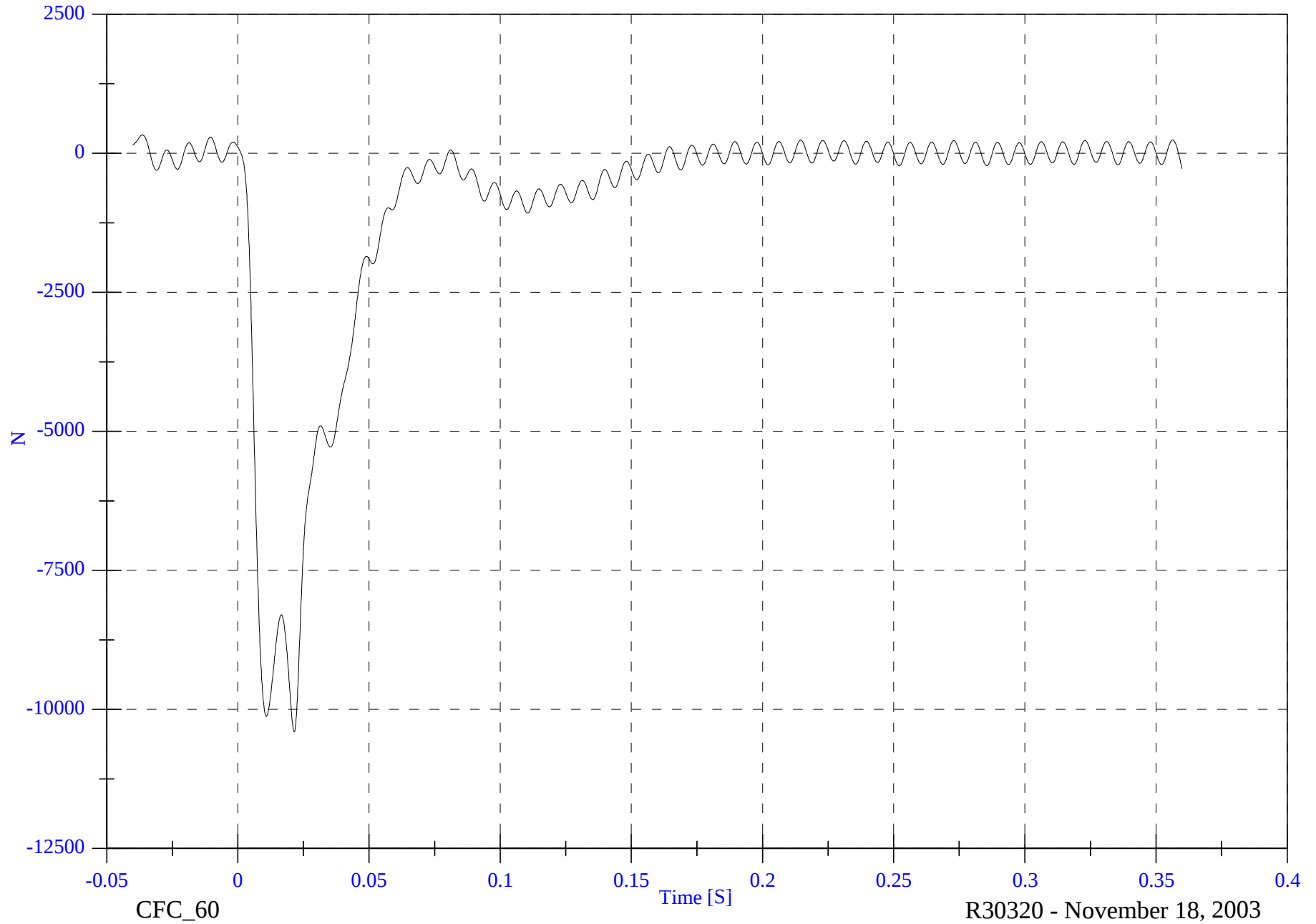


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B4 FX

Max: 329.4 [N] at -0.036 [S]

Min: -10405.9 [N] at 0.021 [S]

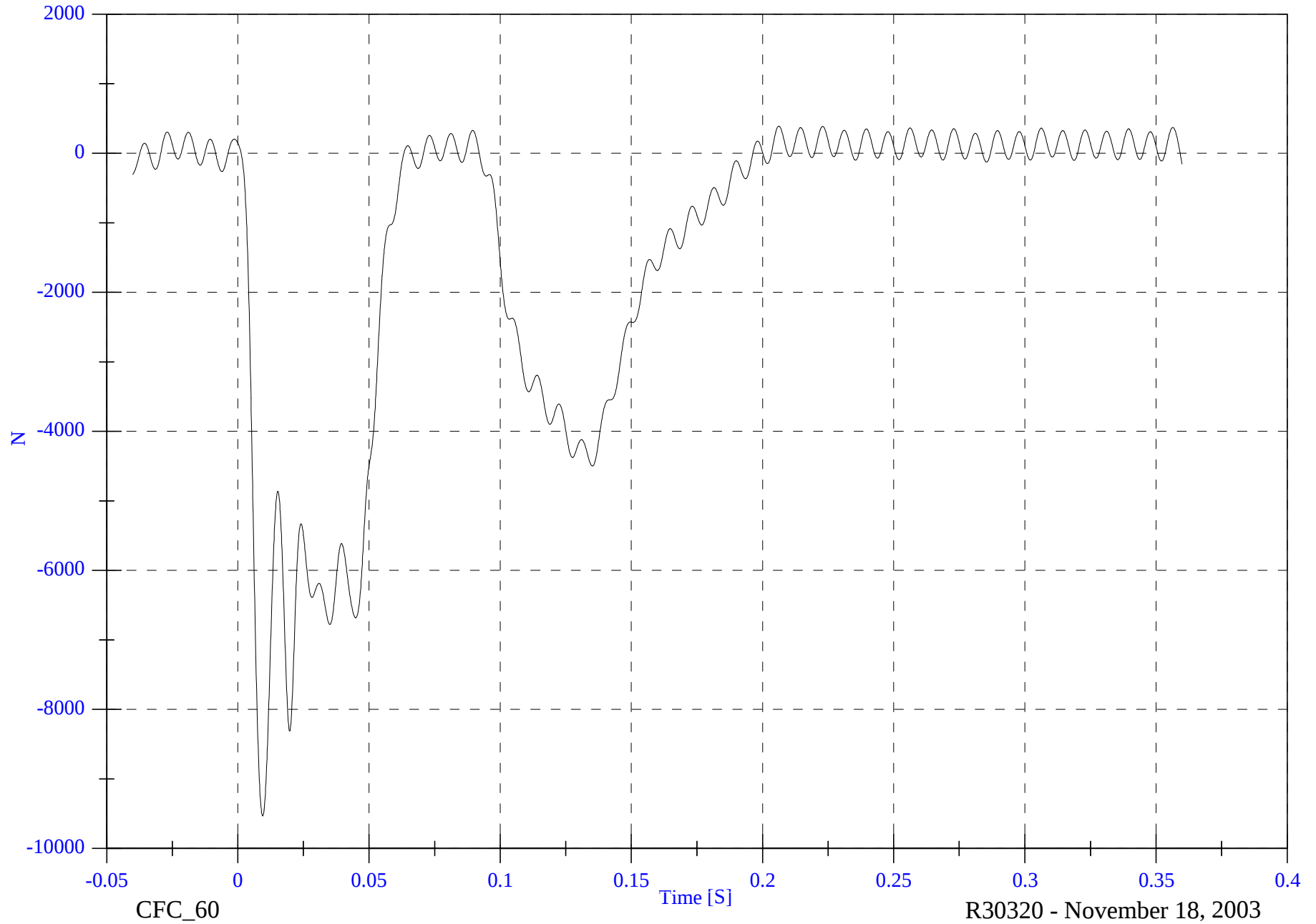


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B5 FX

Max: 389.6 [N] at 0.206 [S]

Min: -9532.2 [N] at 0.009 [S]



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8710-OFT-06

CFC_60

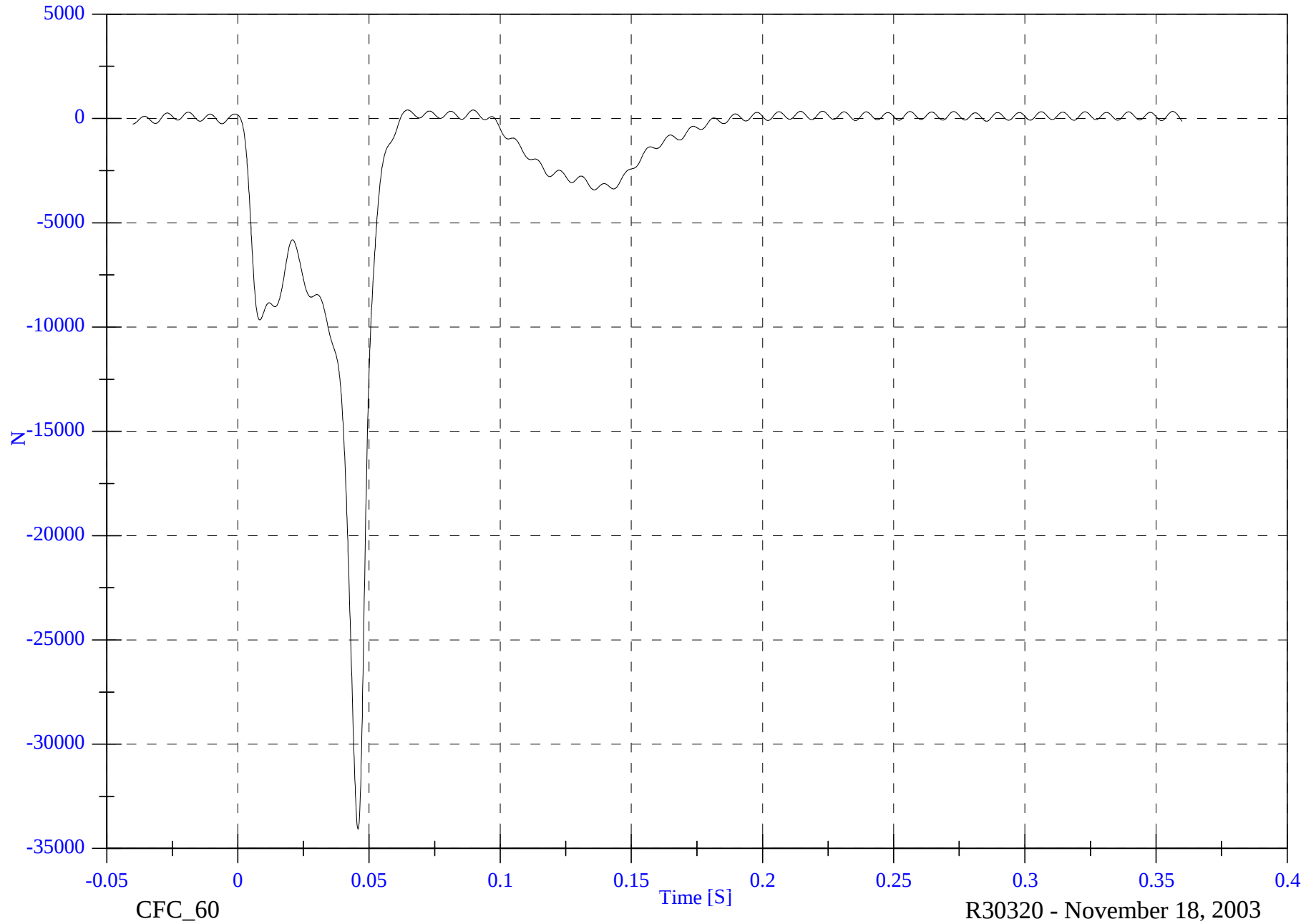
R30320 - November 18, 2003

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B6 FX

Max: 407.2 [N] at 0.065 [S]

Min: -34075.6 [N] at 0.046 [S]

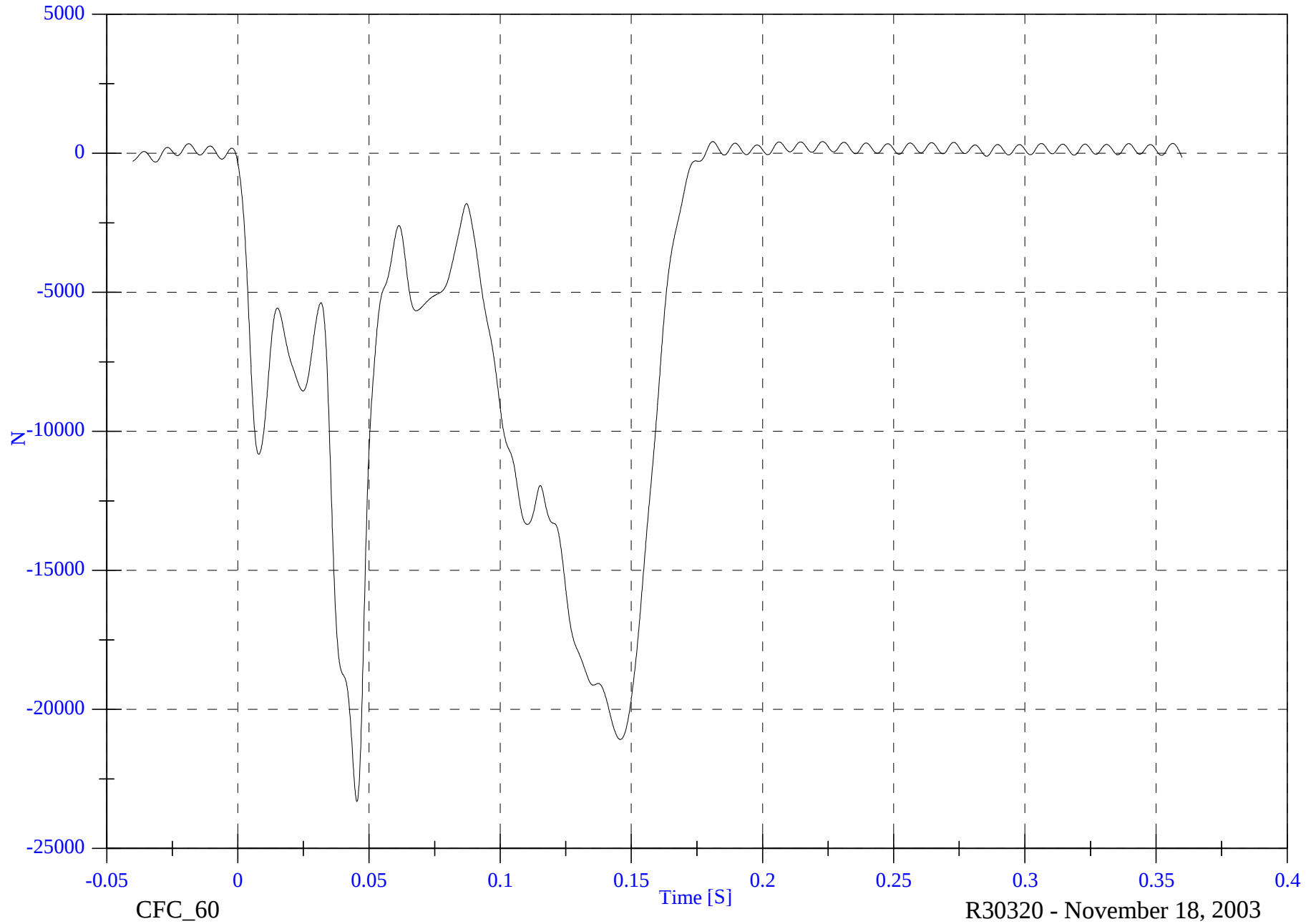


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell B7 FX

Max: 420.3 [N] at 0.223 [S]

Min: -23311.9 [N] at 0.045 [S]



B-256

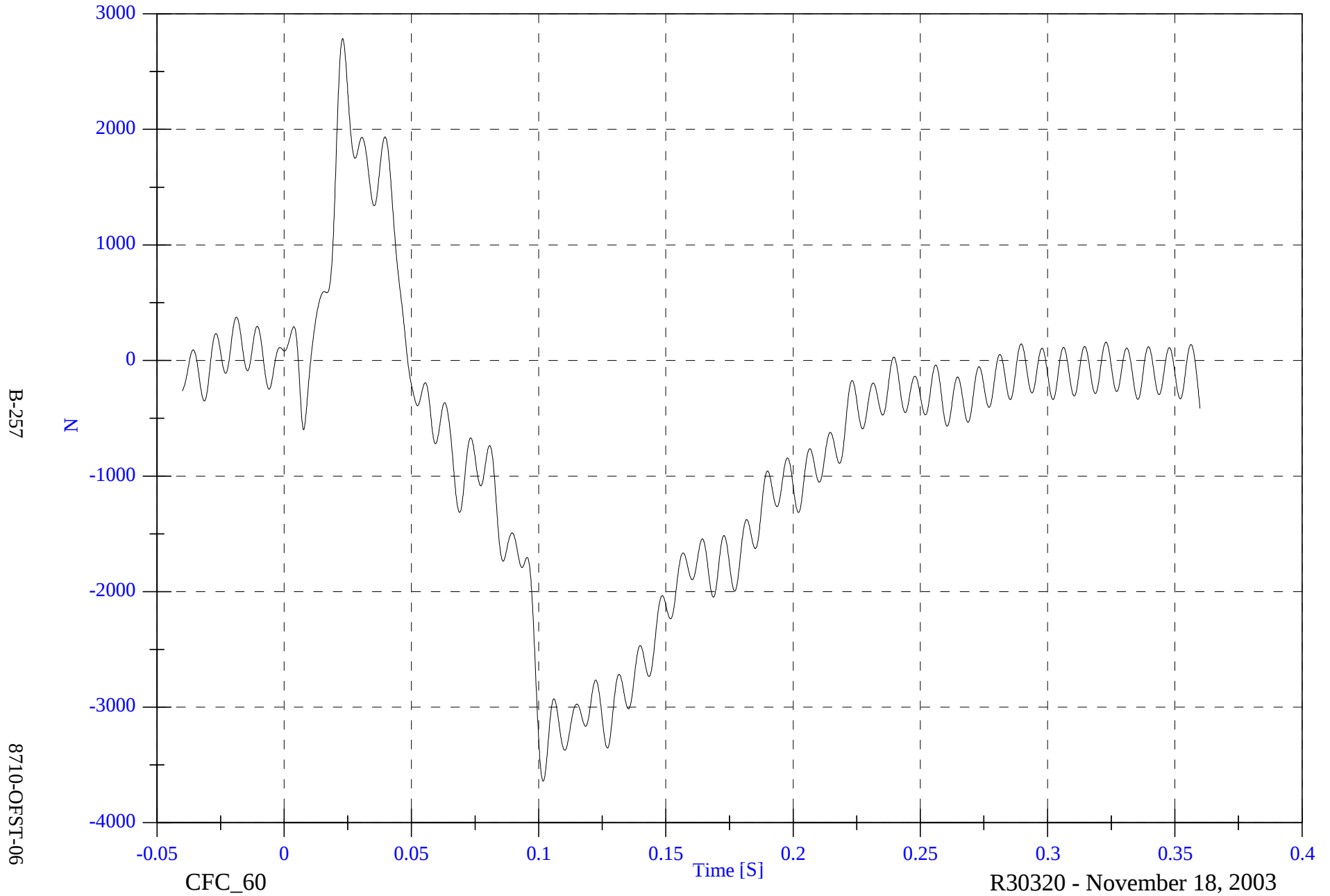
8710-OFT-06

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A1 FX

Max: 2785.6 [N] at 0.023 [S]

Min: -3639.8 [N] at 0.102 [S]

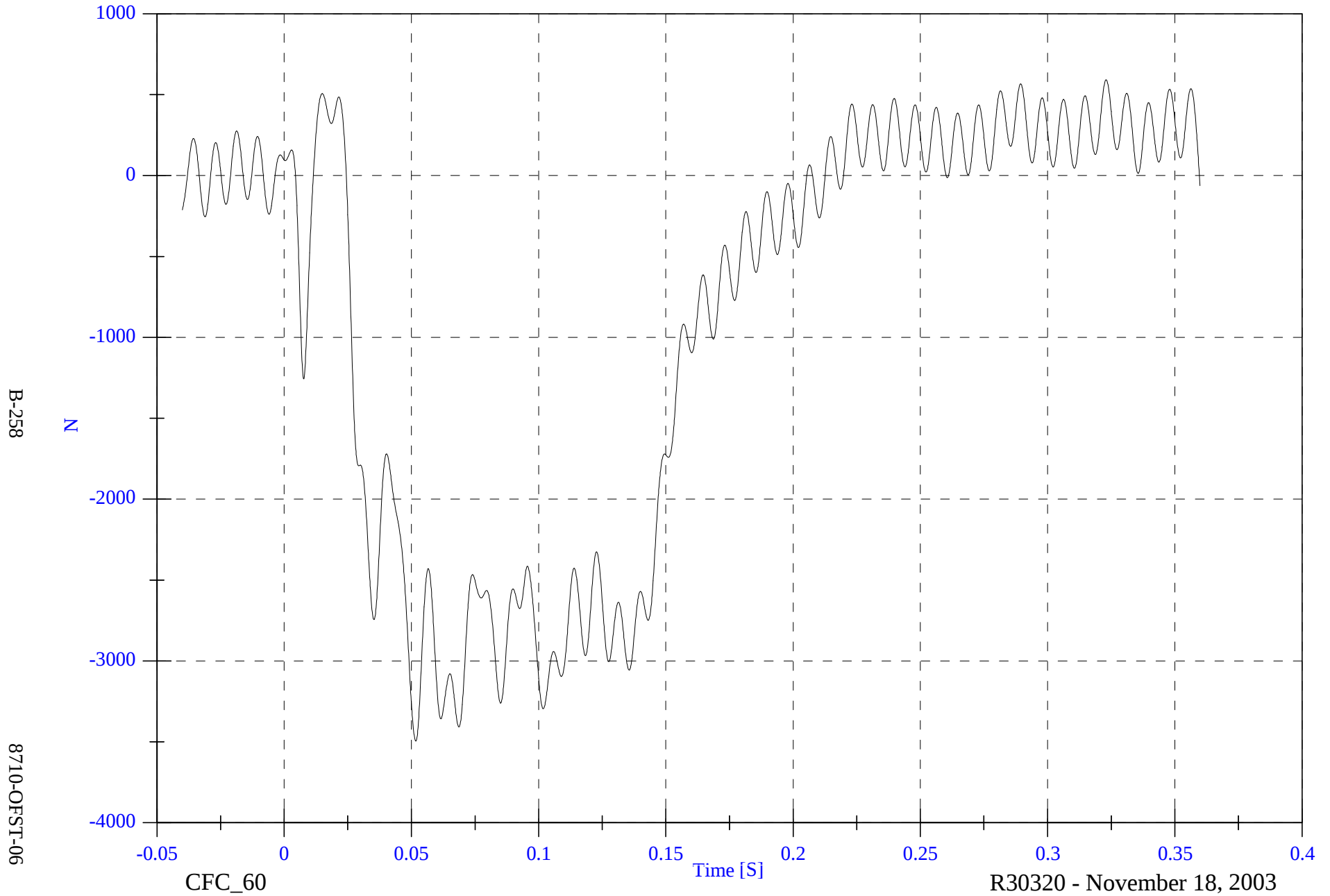


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A2 FX

Max: 592.3 [N] at 0.323 [S]

Min: -3494.9 [N] at 0.052 [S]

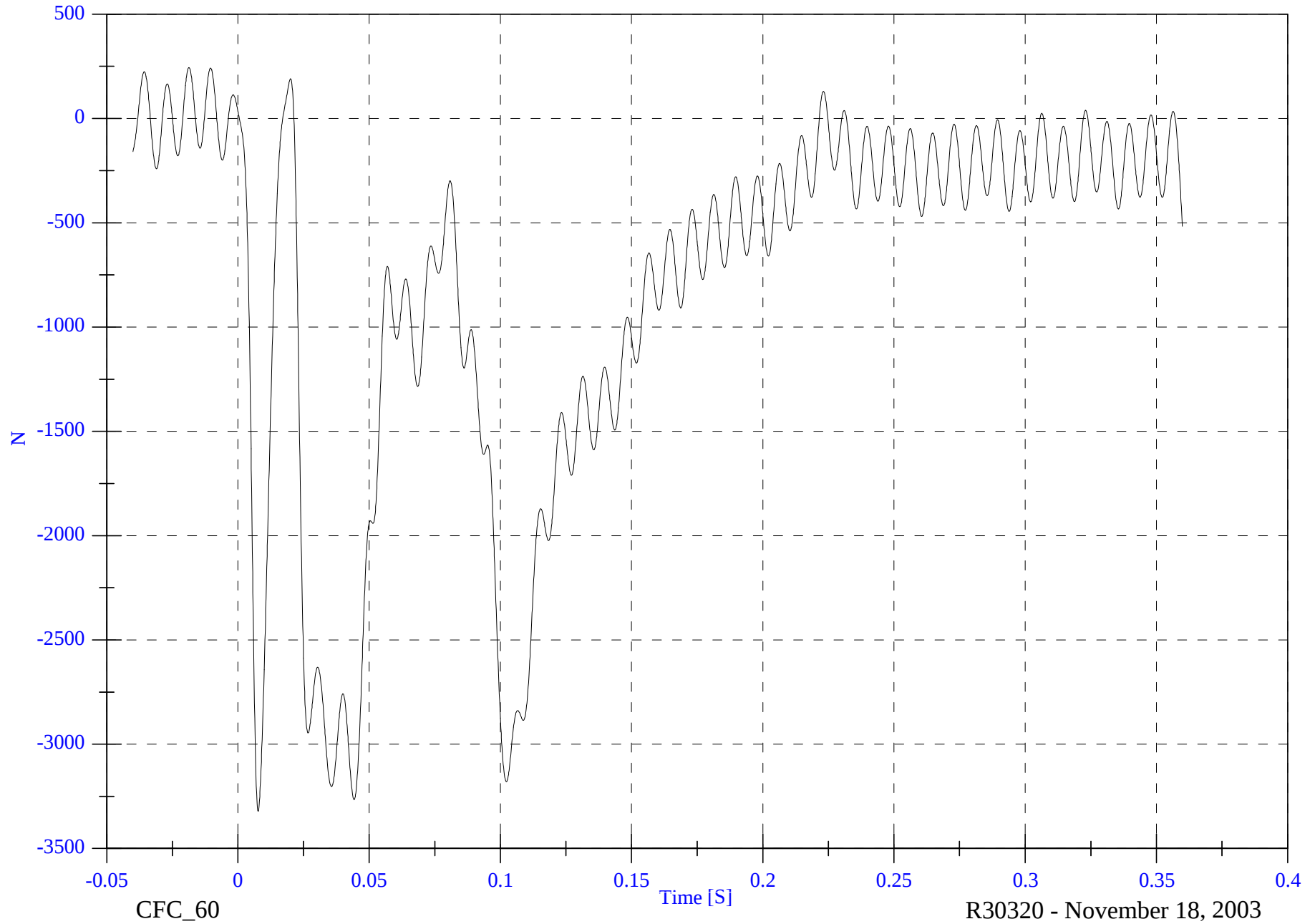


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A3 FX

Max: 244.5 [N] at -0.019 [S]

Min: -3321.5 [N] at 0.008 [S]



B-259

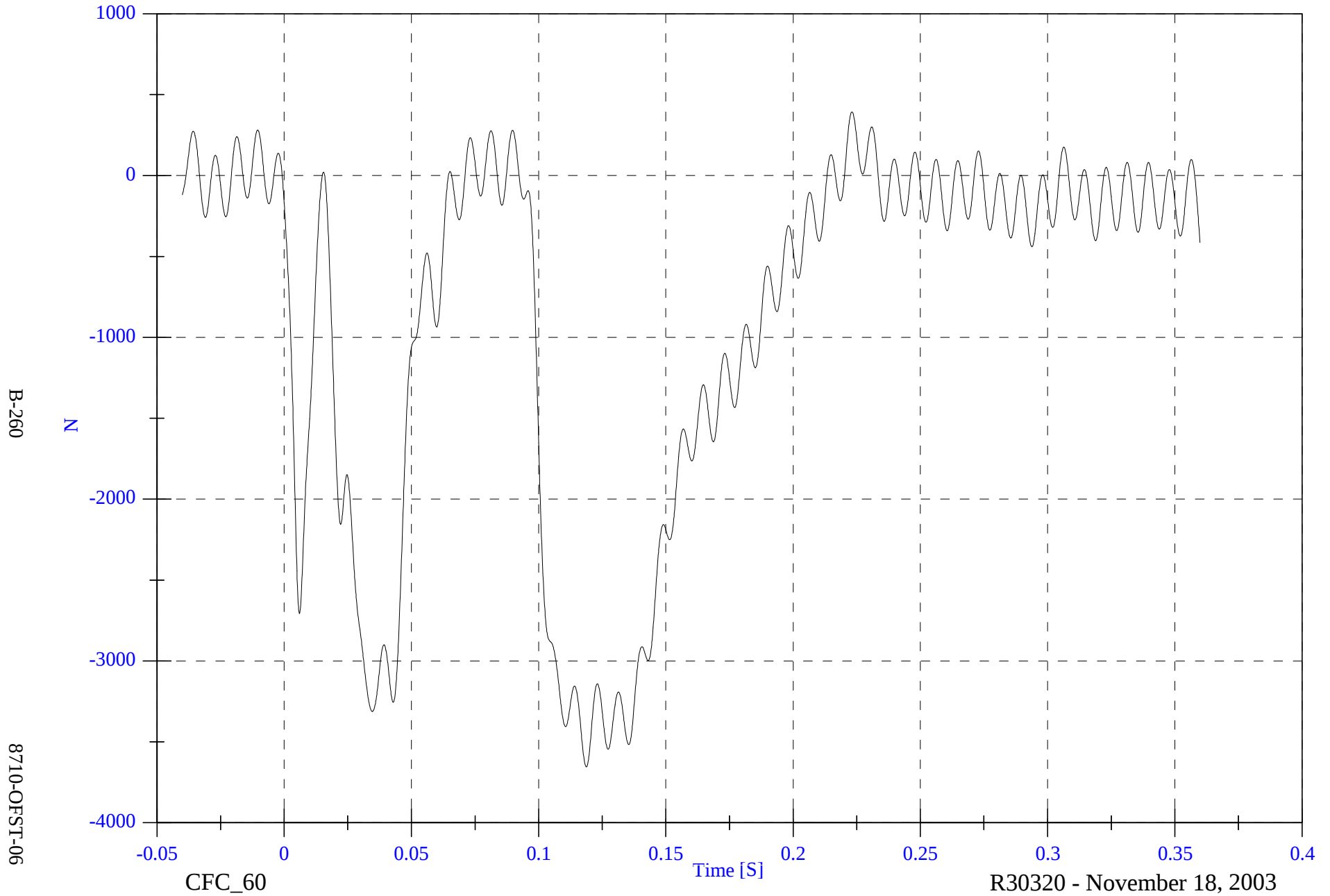
8710-OFT-06

2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A4 FX

Max: 394.2 [N] at 0.223 [S]

Min: -3654.9 [N] at 0.119 [S]

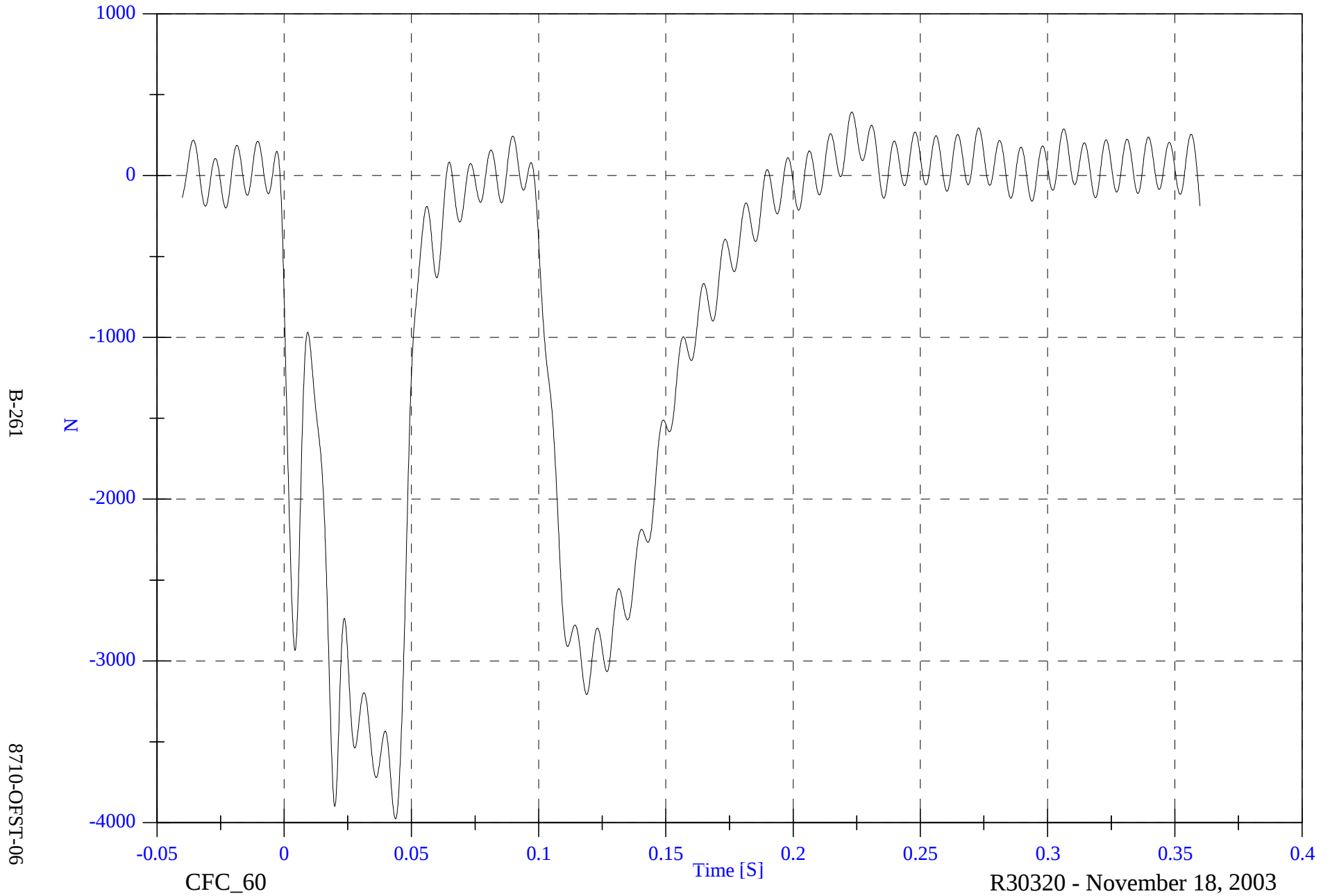


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A5 FX

Max: 392.6 [N] at 0.223 [S]

Min: -3976.3 [N] at 0.044 [S]

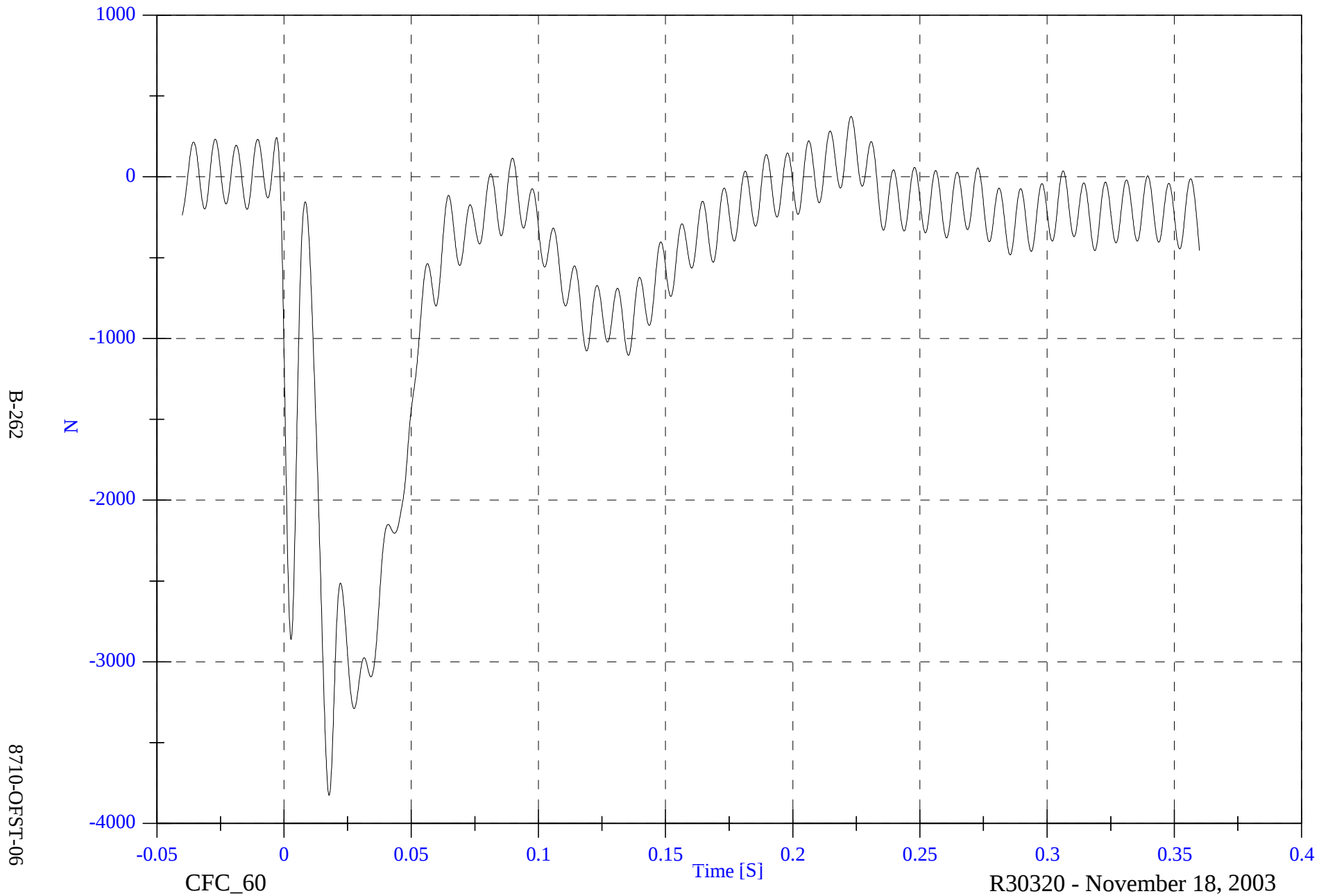


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A6 FX

Max: 373.7 [N] at 0.223 [S]

Min: -3826.9 [N] at 0.018 [S]

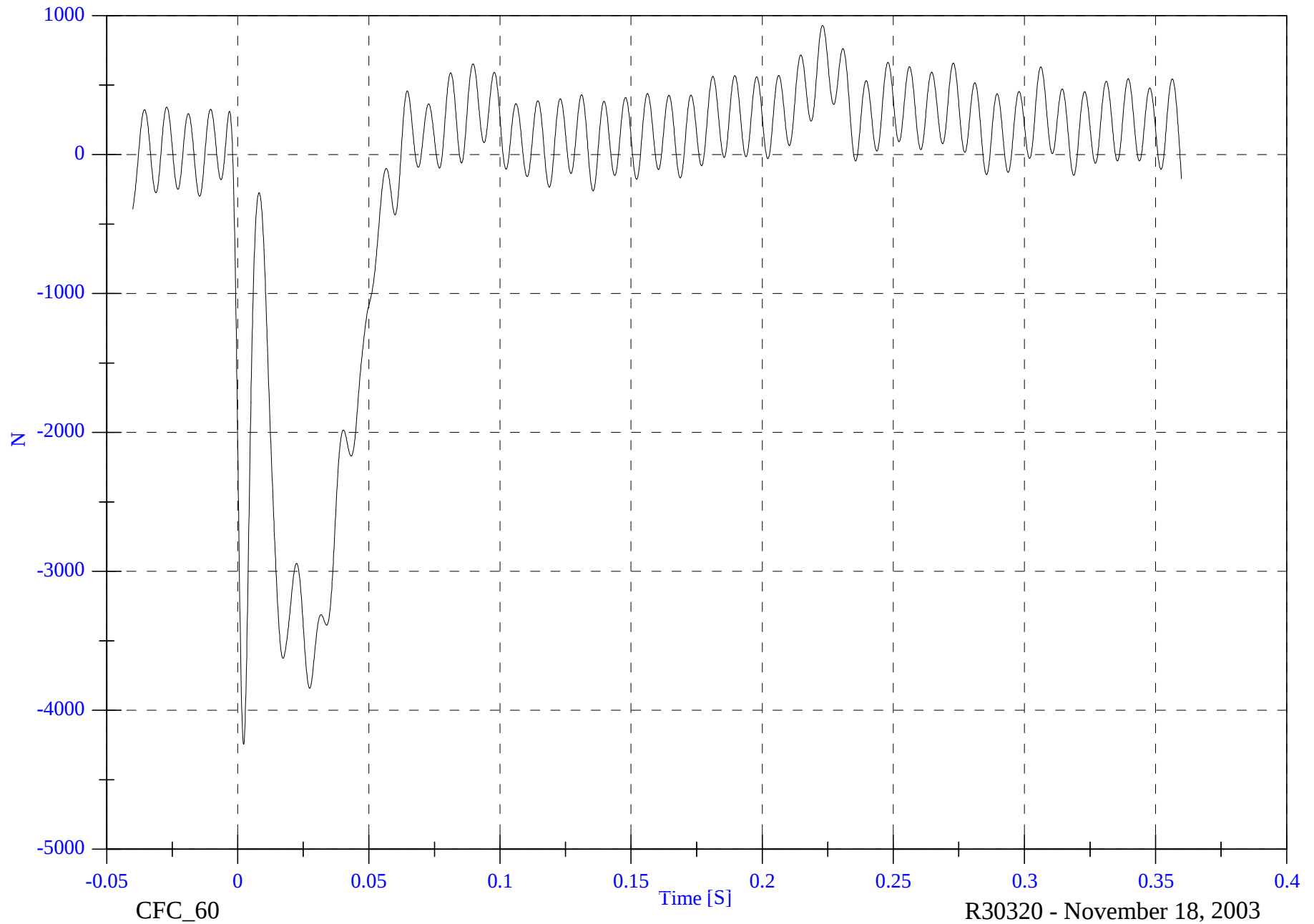


2004 Offset Barrier Test #6 - 2003 Dodge Ram 1500

Barrier Load Cell A7 FX

Max: 930.0 [N] at 0.223 [S]

Min: -4245.0 [N] at 0.002 [S]



APPENDIX C

PART 5720 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 5th percentile female 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.

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:

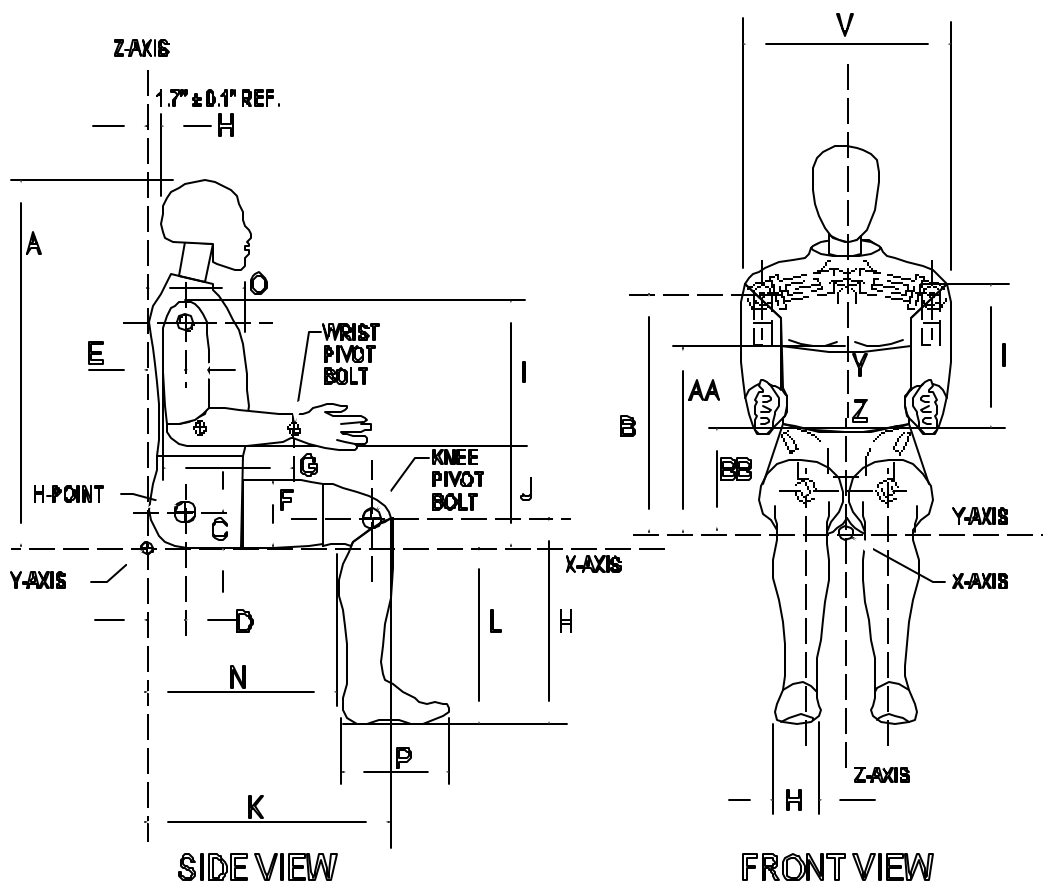
<u>Position No./Location</u>	<u>Serial No.</u>	<u>Completion Date</u> <u>Pre-Test</u>	<u>Completion Date</u> <u>Post-Test</u>
#1/Driver	324FLX108/104	October 10, 2003	December 10, 2003
#2/Right Front Passenger	505FLX103/107	October 10, 2003	December 10, 2003

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))

PRE-TEST CERTIFICATIONS

PART 572O
HEAD DROP TEST

Dummy Serial Number 324FLX108/104

Sequential Test Number 324-01

Date 10/08/03

Workfile 324H 10-08-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21
Relative Humidity	10% - 70%	25
Peak Resultant Acceleration	250-300 G's	258.89
Peak Lateral Acceleration	15 G's Max	8.70
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>324FLX108/104</u>	
Sequential Test Number	<u>324-01</u>	
Date	<u>10/09/03</u>	6 Axis Neck Transducer
Workfile	<u>324NF 10-09-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		5.95 – 6.19 m/s	7.10
Integrated	10 ms	1.5 – 1.9 m/s	1.87
Pendulum	20 ms	3.1 - 3.9 m/s	3.79
Velocity	30 ms	4.6 – 5.6 m/s	5.47
Peak D-Plane Rotation		77 – 91 Deg	79.50
Peak Moment During Rotation Interval		69 – 83 Nm	77.06
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	89.30

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	<u>324FLX108/104</u>	
Sequential Test Number	<u>324-01</u>	
Date	<u>10/08/03</u>	6 Axis Neck Transducer
Workfile	<u>324NE 10-08-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	29
Impact Velocity		5.95 – 6.19 m/s	6.13
Integrated	10 ms	2.1 – 2.5 m/s	2.13
Pendulum	20 ms	4.0 – 5.0 m/s	4.30
Velocity	30 ms	5.8 – 7.0 m/s	6.13
Peak D-Plane Rotation		99 – 114 Deg	106.43
Peak Moment During Rotation Interval		-53 - -65 Nm	-64.43
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	101.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number 324FLX108/104

Sequential Test Number 324-01

Date 10/09/03

Workfile 324TH 10-09-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21
Relative Humidity	10% - 70%	33
Pendulum Velocity	6.59 – 6.83 m/s	6.69
Maximum Deflection	50 – 58 mm	55.6
Maximum Resistive Force	3900 – 4400 N	3938.86
Internal Hysteresis	69 - 85 %	72.28
Peak Force During 18 to 50 mm Deflection	= 105%	100.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
KNEE IMPACT TEST

Dummy Serial Number	<u>324FLX108/104</u>
Sequential Test Number	<u>324-01</u>
Date	<u>10/10/03</u>
Workfile	<u>324FM 10-10-03</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3769.1
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3713.2

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
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PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 324FLX108/104
Sequential Test Number 1
Date 10-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	785
Shoulder Pivot Height	B	431.8 – 457.2 mm	434
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	75
Thigh Clearance	F	119.4 – 134.6 mm	125
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	250
Skull Cap to Backline	H	40.7 – 45.7 mm	45.5
Shoulder - Elbow Length	I	276.8 – 297.2 mm	288
Elbow Rest Height	J	182.8 – 203.2 mm	192
Buttock Knee Length	K	520.7 – 546.1 mm	540
Popliteal Height	L	355.6 – 376 mm	368
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	431
Chest Depth	O	175.3 – 190.5 mm	186
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	470
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	311
Shoulder Breadth	V	350.5 – 365.7 mm	359
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	539
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	868
Waist Circumference	Z	759.5 – 789.9 mm	777
Location for Chest Circumference	AA	299.7 – 309.9 mm	345
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572O
HEAD DROP TEST

Dummy Serial Number 505FLX103/107

Sequential Test Number 505-01

Date 10/08/03

Workfile 505H 10-08-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21
Relative Humidity	10% - 70%	25
Peak Resultant Acceleration	250-300 G's	252.77
Peak Lateral Acceleration	15 G's Max	12.93
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>505FLX103/107</u>	
Sequential Test Number	<u>505-01</u>	
Date	<u>10/09/03</u>	6 Axis Neck Transducer
Workfile	<u>505NF 10-09-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		5.95 – 6.19 m/s	7.04
Integrated	10 ms	1.5 – 1.9 m/s	1.87
Pendulum	20 ms	3.1 - 3.9 m/s	3.76
Velocity	30 ms	4.6 – 5.6 m/s	5.44
Peak D-Plane Rotation		77 – 91 Deg	77.54
Peak Moment During Rotation Interval		69 – 83 Nm	81.07
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	85.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	505FLX103/107	
Sequential Test Number	505-01	
Date	10/09/03	6 Axis Neck Transducer
Workfile	505NE 10-09-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		5.95 – 6.19 m/s	6.12
Integrated	10 ms	2.1 – 2.5 m/s	2.22
Pendulum	20 ms	4.0 – 5.0 m/s	4.52
Velocity	30 ms	5.8 – 7.0 m/s	6.18
Peak D-Plane Rotation		99 – 114 Deg	99.23
Peak Moment During Rotation Interval		-53 - -65 Nm	-53.25
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	94.40

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number 505FLX103/107

Sequential Test Number 505-01

Date 10/09/03

Workfile 505TH 10-09-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21
Relative Humidity	10% - 70%	33
Pendulum Velocity	6.59 – 6.83 m/s	6.69
Maximum Deflection	50 – 58 mm	53.9
Maximum Resistive Force	3900 – 4400 N	4116.3
Internal Hysteresis	69 - 85 %	74.69
Peak Force During 18 to 50 mm Deflection	= 105%	100

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
KNEE IMPACT TEST

Dummy Serial Number 505FLX103/107

Sequential Test Number 505-01

Date 10/10/03

Workfile 505FM 10-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3661.9
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3546.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 505FLX103/107
Sequential Test Number 1
Date 10-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	789
Shoulder Pivot Height	B	431.8 – 457.2 mm	441
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	76
Thigh Clearance	F	119.4 – 134.6 mm	129
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	249
Skull Cap to Backline	H	40.7 – 45.7 mm	44
Shoulder - Elbow Length	I	276.8 – 297.2 mm	289
Elbow Rest Height	J	182.8 – 203.2 mm	191
Buttock Knee Length	K	520.7 – 546.1 mm	539
Popliteal Height	L	355.6 – 376 mm	370
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	430
Chest Depth	O	175.3 – 190.5 mm	184
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	472
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	309
Shoulder Breadth	V	350.5 – 365.7 mm	360
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	540
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	865
Waist Circumference	Z	759.5 – 789.9 mm	780
Location for Chest Circumference	AA	299.7 – 309.9 mm	345.4
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

POST-TEST CERTIFICATIONS

PART 572O
HEAD DROP TEST

Dummy Serial Number 324FLX108/104

Sequential Test Number 1

Date 12-02-03

Workfile 324H 12-02-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.00
Peak Resultant Acceleration	250-300 G's	252.84
Peak Lateral Acceleration	15 G's Max	2.47
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>324FLX108/104</u>	
Sequential Test Number	<u>1</u>	
Date	<u>12-05-03</u>	6 Axis Neck Transducer
Workfile	<u>325NF1 12-05-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.0
Impact Velocity		5.95 – 6.19 m/s	7.06
Integrated	10 ms	1.5 – 1.9 m/s	1.86
Pendulum	20 ms	3.1 - 3.9 m/s	3.76
Velocity	30 ms	4.6 – 5.6 m/s	5.44
Peak D-Plane Rotation		77 – 91 Deg	81.17
Peak Moment During Rotation Interval		69 – 83 Nm	72.69
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	82.90

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	<u>324FLX108/104</u>	
Sequential Test Number	<u>3</u>	
Date	<u>12-05-2003</u>	6 Axis Neck Transducer
Workfile	<u>324NE3 12-05-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.00
Impact Velocity		5.95 – 6.19 m/s	6.07
Integrated	10 ms	2.1 – 2.5 m/s	2.13
Pendulum	20 ms	4.0 – 5.0 m/s	4.33
Velocity	30 ms	5.8 – 7.0 m/s	6.15
Peak D-Plane Rotation		99 – 114 Deg	104.96
Peak Moment During Rotation Interval		-53 - -65 Nm	-54.55
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	103.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number 324FLX108/104

Sequential Test Number 1

Date 12-08-2003

Workfile 324T 12-08-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.1
Relative Humidity	10% - 70%	26.0
Pendulum Velocity	6.59 – 6.83 m/s	6.72
Maximum Deflection	50 – 58 mm	54
Maximum Resistive Force	3900 – 4400 N	4024.88
Internal Hysteresis	69 - 85 %	74.74
Peak Force During 18 to 50 mm Deflection	= 105%	100

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
KNEE IMPACT TEST

Dummy Serial Number 324FLX108/104

Sequential Test Number 1

Date 12-10-2003

Workfile 324LF 12-10-03/324RF 12-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3558.42
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3598.67

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 324FLX108/104
Sequential Test Number 1
Date 12-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	789
Shoulder Pivot Height	B	431.8 – 457.2 mm	441
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	76
Thigh Clearance	F	119.4 – 134.6 mm	129
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	249
Skull Cap to Backline	H	40.7 – 45.7 mm	44
Shoulder - Elbow Length	I	276.8 – 297.2 mm	289
Elbow Rest Height	J	182.8 – 203.2 mm	191
Buttock Knee Length	K	520.7 – 546.1 mm	539
Popliteal Height	L	355.6 – 376 mm	370
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	430
Chest Depth	O	175.3 – 190.5 mm	184
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	472
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	309
Shoulder Breadth	V	350.5 – 365.7 mm	360
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	540
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	865
Waist Circumference	Z	759.5 – 789.9 mm	780
Location for Chest Circumference	AA	299.7 – 309.9 mm	345.4
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572O
HEAD DROP TEST

Dummy Serial Number 505FLX103/107

Sequential Test Number 1

Date 12-02-2003

Workfile 505H 12-02-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Peak Resultant Acceleration	250-300 G's	284.58
Peak Lateral Acceleration	15 G's Max	2.12
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	505FLX103/107	
Sequential Test Number	1	
Date	12-05-2003	6 Axis Neck Transducer
Workfile	505NF 12-05-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.00
Impact Velocity		5.95 – 6.19 m/s	6.18
Integrated	10 ms	1.5 – 1.9 m/s	1.83
Pendulum	20 ms	3.1 - 3.9 m/s	3.75
Velocity	30 ms	4.6 – 5.6 m/s	5.36
Peak D-Plane Rotation		77 – 91 Deg	80.80
Peak Moment During Rotation Interval		69 – 83 Nm	70.67
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	84.20

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
NECK EXTENSION TEST

Dummy Serial Number	505FLX103/107	
Sequential Test Number	1	
Date	12-05-2003	6 Axis Neck Transducer
Workfile	505NE 12-05-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	37.0
Impact Velocity		5.95 – 6.19 m/s	6.03
Integrated	10 ms	2.1 – 2.5 m/s	2.14
Pendulum	20 ms	4.0 – 5.0 m/s	4.27
Velocity	30 ms	5.8 – 7.0 m/s	6.13
Peak D-Plane Rotation		99 – 114 Deg	103.95
Peak Moment During Rotation Interval		-53 - -65 Nm	-54.43
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	102.40

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number	<u>505FLX103/107</u>
Sequential Test Number	<u>1</u>
Date	<u>12-10-2003</u>
Workfile	<u>505T 12-10-03</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Pendulum Velocity	6.59 – 6.83 m/s	6.71
Maximum Deflection	50 – 58 mm	52
Maximum Resistive Force	3900 – 4400 N	4633
Internal Hysteresis	69 - 85 %	75.93
Peak Force During 18 to 50 mm Deflection	= 105%	100.0

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
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PART 5720
KNEE IMPACT TEST

Dummy Serial Number 505FLX103/107

Sequential Test Number 1

Date 12-10-2003

Workfile 505LF 12-10-03/505RF 12-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3550
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3657.15

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 505FLX103/107
Sequential Test Number 1
Date 12-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	785
Shoulder Pivot Height	B	431.8 – 457.2 mm	434
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	75
Thigh Clearance	F	119.4 – 134.6 mm	125
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	250
Skull Cap to Backline	H	40.7 – 45.7 mm	45.5
Shoulder - Elbow Length	I	276.8 – 297.2 mm	288
Elbow Rest Height	J	182.8 – 203.2 mm	192
Buttock Knee Length	K	520.7 – 546.1 mm	540
Popliteal Height	L	355.6 – 376 mm	368
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	431
Chest Depth	O	175.3 – 190.5 mm	186
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	470
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	311
Shoulder Breadth	V	350.5 – 365.7 mm	359
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	539
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	868
Waist Circumference	Z	759.5 – 789.9 mm	777
Location for Chest Circumference	AA	299.7 – 309.9 mm	345
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 324EI X108/104)		Manufacturer	Serial #	Calibration
Head X Arm	Y	ENDEVCO	AC-J21985	10-Sep-03
	Z	ENDEVCO	AC-J27464	10-Sep-03
Head Y Arm	X	ENDEVCO	AC-J23944	10-Sep-03
	Z	ENDEVCO	AC-J14232	10-Sep-03
Head Z Arm	X	ENDEVCO	AC-J23759	10-Sep-03
	Y	ENDEVCO	AC-AAKD0	10-Sep-03
Head CG	X	ENDEVCO	AC-J18733	10-Sep-03
	Y	ENDEVCO	AC-J19338	10-Sep-03
	Z	ENDEVCO	AC-ACB45	10-Sep-03
Head CG	X (R)	ENDEVCO	AC-J23805	10-Sep-03
	Y (R)	ENDEVCO	AC-J14667	10-Sep-03
	Z (R)	ENDEVCO	AC-ACC82	10-Sep-03
Upper Neck Load Cell	X	DENTON	LC-280Fx	10-Sep-03
	Y	DENTON	LC-280Fy	10-Sep-03
	Z	DENTON	LC-280Fz	10-Sep-03
Upper Neck Moment	X	DENTON	LC-280Mx	10-Sep-03
	Y	DENTON	LC-280My	10-Sep-03
	Z	DENTON	LC-280Mz	10-Sep-03
Lower Neck Load Cell	X	DENTON	LC-086Fx	10-Sep-03
	Y	DENTON	LC-086Fy	10-Sep-03
	Z	DENTON	LC-086Fz	10-Sep-03
Lower Neck Moment	X	DENTON	LC-086Mx	10-Sep-03
	Y	DENTON	LC-086My	10-Sep-03

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 224FL X108/104)		Manufacturer	Serial #	Calibration
Chest	X	ENTRAN	AC-02I02I10-N12	10-Sep-03
	Y	ENTRAN	AC-02I02I10-N14	10-Sep-03
	Z	ENTRAN	AC-02I02I10-N24	10-Sep-03
Chest	X (R)	ENDEVCO	AC-J27525	10-Sep-03
	Y (R)	ENDEVCO	AC-J18742	10-Sep-03
	Z (R)	ENDEVCO	AC-ACCT5	10-Sep-03
Chest Deflection Gauge	Dx	SERVO	DS-324	12-Sep-03
Left Femur Load	Z	DENTON	LC-258	28-Apr-03
Right Femur Load	Z	DENTON	LC-721	10-Sep-03
Left Knee Shear Dx		SpaceAge Control	DS-5092	22-Oct-03
Right Knee Shear Dx		SpaceAge Control	DS-14949	22-Oct-03
Left Upper Tibia	Fx	DENTON	LC-082Fx[4825]	22-Aug-03
	Fz	DENTON	LC-082Fz[4825]	22-Aug-03
	Mx	DENTON	LC-082Mx[4825]	22-Aug-03
	My	DENTON	LC-082My[4825]	22-Aug-03
Left Lower Tibia	Fx	DENTON	LC-082Fx[4826]	21-Aug-03
	Fy	DENTON	LC-082Fy[4826]	21-Aug-03
	Fz	DENTON	LC-082Fz[4826]	21-Aug-03
	Mx	DENTON	LC-082Mx[4826]	21-Aug-03
	My	DENTON	LC-082My[4826]	21-Aug-03
Right Upper Tibia	Fx	DENTON	LC-079Fx[4825]	22-Aug-03
	Fz	DENTON	LC-079Fz[4825]]	22-Aug-03
	Mx	DENTON	LC-079Mx[4825]	22-Aug-03
	My	DENTON	LC-079My[4825]	22-Aug-03

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 224FLX108/104)		Manufacturer	Serial #	Calibration
Right Lower Tibia	Fx	DENTON	LC-077Fx	21-Aug-03
	Fy	DENTON	LC-077Fy	21-Aug-03
	Fz	DENTON	LC-077Fz	21-Aug-03
	Mx	DENTON	LC-077Mx	21-Aug-03
	My	DENTON	LC-077My	21-Aug-03
Left Tibia	X	ENTRAN	AC-03F03F09-N22	22-Jul-03
	Y	ENTRAN	AC-03F03F17-N32	21-Jul-03
Right Tibia	X	ENTRAN	AC-03F03F09-N03	22-Jul-03
	Y	ENTRAN	AC-03F03F09-N04	22-Jul-03
Left Ankle	Rx	Contelec	FLX -108X	22-Oct-03
	Ry	Contelec	FLX -108Y	22-Oct-03
	Rz	Contelec	FLX -108Z	22-Oct-03
Right Ankle	Rx	Contelec	FLX -104X	17-Oct-03
	Ry	Contelec	FLX -104Y	17-Oct-03
	Rz	Contelec	FLX -104Z	17-Oct-03
Left Foot	Ax	ENTRAN	AC-03E03E20-N10	22-Jul-03
	Ay	ENTRAN	AC-03E03E20-N12	22-Jul-03
	Az	ENTRAN	AC-03E03E20-N14	21-Jul-03
Right Foot	Ax	ENTRAN	AC-03E03E21-M08	21-Jul-03
	Ay	ENTRAN	AC-03E03E20-N01	22-Jul-03
	Az	ENTRAN	AC-03E03E20-N03	21-Jul-03
Lap Belt Force		LEBOW	LC-706	08-Oct-03
Shoulder Belt Force		LEBOW	LC-711	08-Oct-03
Toepan Spoolout	Dx	PATRIOT	DS-M11	02-Sep-03

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505EI X103/107)		Manufacturer	Serial #	Calibration
Head X Arm	Y	ENTRAN	AC-02I02I10-N20	12-Sep-03
	Z	ENTRAN	AC-02I02I05-F05	12-Sep-03
Head Y Arm	X	ENDEVCO	AC-P23804	18-Sep-03
	Z	ENTRAN	AC-02I02I05-F02	12-Sep-03
Head Z Arm	X	ENTRAN	AC-02I02I05-F18	12-Sep-03
	Y	ENTRAN	AC-02I02I05-F15	12-Sep-03
Head CG	X	ENTRAN	AC-02I02I10-N18	12-Sep-03
	Y	ENDEVCO	AC-AAKA1	11-Sep-03
	Z	ENTRAN	AC-02I02I05-F13	12-Sep-03
Head CG	X (R)	ENDEVCO	AC-P23957	14-Nov-03
	Y (R)	ENDEVCO	AC-J23772	12-Sep-03
	Z (R)	ENDEVCO	AC-ALAB9	12-Sep-03
Upper Neck Load Cell	X	ENDEVCO	LC-287Fx	28-Apr-03
	Y	DENTON	LC-287Fy	28-Apr-03
	Z	DENTON	LC-287Fz	28-Apr-03
Upper Neck Moment	X	DENTON	LC-287Mx	28-Apr-03
	Y	DENTON	LC-287My	28-Apr-03
	Z	DENTON	LC-287Mz	28-Apr-03
Lower Neck Load Cell	X	DENTON	lc-099Fx	13-Feb-03
	Y	DENTON	LC-099Fy	13-Feb-03
	Z	DENTON	LC-099Fz	13-Feb-03
Lower Neck Moment	X	DENTON	LC-099Mx	13-Feb-03
	Y	DENTON	LC-099My	18-Feb-03
	Z	DENTON	LC-099Mz	13-Feb-03

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505FL X102/107)		Manufacturer	Serial #	Calibration
Chest	X	ENTRAN	AC-02I02I16-A20	12-Sep-03
	Y	ENDEVCO	AC-AGT82	11-Sep-03
	Z	ENDEVCO	AC-AGN47	11-Sep-03
Chest	X (R)	ENTRAN	AC-02I02I10-N28	12-Sep-03
	Y (R)	ENDEVCO	AC-J14688	11-Sep-03
	Z (R)	ENDEVCO	AC-J19501	12-Sep-03
Chest Deflection Gauge	Dx	SERVO	DS-505	17-Sep-03
Left Femur Load	Z	DENTON	LC-633	10-Sep-03
Right Femur Load	Z	DENTON	LC-257	28-Apr-03
Left Knee Shear Dx		SpaceAge Control	DS-15021	21-Oct-03
Right Knee Shear Dx		SpaceAge Control	DS-5482	28-Oct-03
Left Upper Tibia	Fx	DENTON	LC-076Fx[4825]	21-Aug-03
	Fz	DENTON	LC-076Fz[4825]	21-Aug-03
	Mx	DENTON	LC-076Mx[4825]]	21-Aug-03
	My	DENTON	LC-076My[4825]	21-Aug-03
Left Lower Tibia	Fx	DENTON	LC-076Fx[4826]	21-Aug-03
	Fy	DENTON	LC-076Fy[4826]	21-Aug-03
	Fz	DENTON	LC-076Fz[4826]	21-Aug-03
	Mx	DENTON	LC-076Mx[4826]	21-Aug-03
	My	DENTON	LC-076My[4826]	21-Aug-03
Right Upper Tibia	Fx	DENTON	LC-080Fx	22-Aug-03
	Fz	DENTON	LC-080Fz	22-Aug-03
	Mx	DENTON	LC-080Mx	22-Aug-03
	My	DENTON	LC-080My	22-Aug-03

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505FLX102/107)		Manufacturer	Serial #	Calibration
Right Lower Tibia	Fx	DENTON	LC-078Fx	21-Aug-03
	Fy	DENTON	LC-078Fy	21-Aug-03
	Fz	DENTON	LC-078Fz	21-Aug-03
	Mx	DENTON	LC-078Mx	21-Aug-03
	My	DENTON	LC-078My	21-Aug-03
Left Tibia	X	ENTRAN	AC-03E03E18-F22	21-Jul-03
	Y	ENTRAN	AC-03E03E21-M06	21-Jul-03
Right Tibia	X	ENTRAN	AC-03E03E20-N00	22-Jul-03
	Y	ENTRAN	AC-03F03E29-N00	21-Jul-03
Left Ankle	Rx	Contelec	FLX-103X	17-Oct-03
	Ry	Contelec	FLX-103Y	17-Oct-03
	Rz	Contelec	FLX-103Z	17-Oct-03
Right Ankle	Rx	Contelec	FLX-107X	22-Oct-03
	Ry	Contelec	FLX-107Y	22-Oct-03
	Rz	Contelec	FLX-107Z	22-Oct-03
Left Foot	Ax	ENTRAN	AC-03E03E20-N06	22-Jul-03
	Ay	ENTRAN	AC-03E03E18-F02	21-Jul-03
	Az	ENTRAN	AC-03E03E18-F10	21-Jul-03
Right Foot	Ax	ENDEVCO	AC-P23873	25-Jun-03
	Ay	ENTRAN	AC-03F03F09-N06	22-Jul-03
	Az	ENTRAN	AC-03E03E20-N07	21-Jul-03
Lap Belt Force		LEBOW	LC-707	08-Oct-03
Shoulder Belt Force		LEBOW	LC-712	08-Oct-03

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS

(6 Month Calibration Minimum)

	Manufacturer	Serial #	Calibration
Left Seat Rear Crossmember X	ENDEVCO	AC-P18578	10-Sep-03
Left Seat Rear Crossmember Y	ENDEVCO	AC-P19227	10-Sep-03
Right Seat Rear Crossmember X	ENDEVCO	AC-P21392	10-Sep-03
Right Rear Seat Crossmember Y	ENDEVCO	AC-P19253	10-Sep-03
Driver Left Side Toepan X	ENDEVCO	AC-BB14	25-Jun-03
Driver Left Side Toepan Z	ENDEVCO	AC-J33843	25-Jun-03
Driver Right Side Toepan X	ENDEVCO	AC-J32787	24-Sep-03
Driver Right Side Toepan Z	ENDEVCO	AC-J33071	24-Sep-03
Vehicle CG X	ENDEVCO	AC-P15747	24-Sep-03
Vehicle CG Y	ENDEVCO	AC-P16585	24-Sep-03
Vehicle CG Z	ENDEVCO	AC-P14438	24-Sep-03
Trunk Z	ICS	AC-8084-020	23-May-03