

REPORT NUMBER KAR22003-01

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**GENERAL MOTORS CORPORATION
2002 CHEVROLET TRAILBLAZER LS
4WD SUV**

NHTSA NUMBER: M20106

**Prepared By:
KARCO ENGINEERING
9270 HOLLY ROAD
ADELANTO, CALIFORNIA 92301**



NOVEMBER 26, 2001

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY PERFORMANCE STANDARDS
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NPS-10
400 SEVENTH STREET, SW, ROOM 5313
WASHINGTON, D.C. 20590**

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-99-D-02041.

This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared by: _____
Mr. James E. Gorth, Project Engineer
KARCO Engineering

Date: November 26, 2001

Reviewed by: _____
Mr. Jerry L. Kratzke, Director of Operations
KARCO Engineering

Date: November 26, 2001

Approved by: _____
Mr. Frank D. Richardson, Program Manager
KARCO Engineering

Date: November 26, 2001

FINAL REPORT ACCEPTED BY:

Manager, Side Impact NCAP

Date of Acceptance

Technical Report Documentation Page

1. Report No. KAR22003-01	2. Government Accession No.	3. Recipients Catalog No.																			
4. Title and Subtitle Final Report of New Car Assessment Program Testing Side Impact Testing of a 2002 Chevrolet Trailblazer LS 4WD SUV NHTSA NO. M20106		5. Report Date November 26, 2001																			
		6. Performing Organization Code KAR																			
7. Author(s) Mr. James E Gorth, Project Engineer, Karco Mr. Frank Richardson, Project Manager, Karco		8. Performing Organization Report No. KAR22003-01																			
9. Performing Organization Name and Address KARCO Engineering 9270 Holly Road Adelanto, CA 92301		10. Work Unit No.																			
		11. Contract or Grant No. DTNH22-99-D-02041																			
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Safety Performance Standards Office of Crashworthiness Standards Mail Code: NPS-10 400 Seventh Street, SW, Room 5313 Washington, D.C. 20590		13. Type of Report and Period Covered Final Test Report Option Year 1																			
		14. Sponsoring Agency Code DOT/NHTSA/NRM/OCS																			
15. Supplementary Notes																					
16. Abstract A 55/28 km/h 90 deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2002 Chevrolet Trailblazer LS 4WD SUV in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering laboratories in Adelanto, California, on November 14, 2001. The impact velocity of the Moving Deformable Barrier was 61.73 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 16.6 deg. C. The target vehicle's maximum post test static crush was 285 mm located at level 3. The test vehicle's occupant performance is as follows: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 30%;">Driver SID</th> <th style="width: 35%;">Passenger SID</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">36.5</td> <td style="text-align: center;">35.2</td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">43.2</td> <td style="text-align: center;">31.9</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">30.2</td> <td style="text-align: center;">25.1</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">37</td> <td style="text-align: center;">30</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">49</td> <td style="text-align: center;">30</td> </tr> </tbody> </table>				Measurement Description	Driver SID	Passenger SID	Left Upper Rib (LUR) G's	36.5	35.2	Left Lower Rib (LLR) G's	43.2	31.9	Lower Spine (T ₁₂) G's	30.2	25.1	Thoracic Trauma Index (TTI) G's	37	30	Pelvis (PEV) G's	49	30
Measurement Description	Driver SID	Passenger SID																			
Left Upper Rib (LUR) G's	36.5	35.2																			
Left Lower Rib (LLR) G's	43.2	31.9																			
Lower Spine (T ₁₂) G's	30.2	25.1																			
Thoracic Trauma Index (TTI) G's	37	30																			
Pelvis (PEV) G's	49	30																			
17. Key Words New Car Assessment Program (NCAP) Side Impact Moving Deformable Barrier (MDB) Side Impact Dummy (SID)		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Admin. NHTSA Technical Reference Division 400 Seventh St., SW, Room 5108 Washington, DC 20590																			
19. Security Classification(of this report) UNCLASSIFIED	20. Security Classification(of this page) UNCLASSIFIED	21. No. of Pages 279	22. Price																		

Form DOT F1700.7 (8-72)

TABLE OF CONTENTS

<u>Section</u>		<u>Page</u>
1	Purpose and Test Procedure	1
2	Summary of Side Impact Test	2
3	Side Impact Dummy (SID) and Vehicle Test Data	3
4	Occupant and Vehicle Information	11

<u>Data Sheet No.</u>		<u>Page</u>
1	General Test and Vehicle Parameter Data	4
2	Test Vehicle Summary of Results	8
3	Moving Deformable Barrier (MDB) Summary of Results	9
4	Post Test Observations	10
5	SID Injury Criteria and Sensor Data	12
6	Vehicle Pre-Test and Post-Test Measurements	13
7	SID Longitudinal Clearance Dimensions	14
8	SID Lateral Clearance Dimensions	15
9	Vehicle Side Measurements	16
10	Vehicle Exterior Crush Profiles	17
11	Vehicle Damage Profile Distances	19
12	Deformable Barrier Honeycomb Face Static Crush	20
13	Vehicle Accelerometer Locations and Data Summary	21
14	MDB Accelerometer Location and Data Summary	23
15	High Speed Camera Locations and Data	24
16	FMVSS 301 Fuel System Integrity Post Impact Data	25
17	FMVSS 301 Static Rollover Data Sheet	26

<u>Appendix</u>		
A	Photographs	A
B	SID, Vehicle, and MDB Response Data	B
C	SID Configuration and Performance Verification Data	C
D	Test Equipment List and Calibration Information	D

SECTION 1

PURPOSE and TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2002 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-99-D-02041. The purpose of this test is to generate comparative side impact data on a 2002 Chevrolet Trailblazer LS 4WD SUV manufactured by General Motors Corporation.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated July 1997 and the corresponding KARCO Engineering Test Procedure KTP-214D, dated November 18, 1998. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2002 Chevrolet Trailblazer LS 4WD SUV was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 61.73 km/h. The specified impact velocity range is from 61.1 to 62.7 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 2348 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering in Adelanto, California, on November 14, 2001.

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver)		Left Rear (Passenger)	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	Not Deployed	None	Not Applicable
Side Torso Airbag	Yes	Not Deployed	Yes	Not Deployed
Head Curtain Airbag	None	Not Applicable	None	Not Applicable

One (1) real-time motion picture camera and ten (10) high-speed motion picture cameras were used to document the impact event. The pre-test and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID can be found in Appendix A. Two 50th percentile adult male Side Impact Dummy's (SID's) were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID is instrumented with contact switches on the pelvis and thorax, and eleven accelerometers in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y, and Z axes)

The test vehicle was instrumented with twenty-five (25) structural accelerometers and the MDB was instrumented with five (5) accelerometers and a one (1) contact switch on the right bumper to compare left side to right side bumper impact timing. All data channels were recorded with a fully self contained on-board Test Data Acquisition System (TDAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The test vehicle sustained a maximum static crush of 285 mm at level 3, 1650mm rearward of the left vertical impact point. The driver SID, Serial No. 275 and the passenger SID, Serial No. 274 were calibrated just prior to this test. The SID injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	37	30
Peak Pelvic G's (PEV)	G's	49	30

Tests summaries and post-test observations are presented in Section 3. The vehicle, camera, and occupant measurements are presented in Section 4. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID's, vehicle, and MDB response data traces. Appendix C contains the SID's Configuration and performance verification data. Appendix D contains the test equipment information.

SECTION 3
SIDE IMPACT DUMMY (SID) AND VEHICLE TEST DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(t_f - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

TEST VEHICLE INFORMATION

Make	Chevrolet
Model	Trailblazer LS
Body Style	4WD SUV
NHTSA No.	M20106
VIN	1GNDT13S422213446
Color	Light Brown
Delivery Date	11/6/2001
Odometer Reading (mile)	126
Dealer	Crest Chevrolet
Transmission	4 Speed Automatic
Final Drive	4WD
Type/Number of Cylinders	V-6
Engine Displacement (L)	4.2
Engine Placement	Longitudinal

TEST VEHICLE OPTIONS

Driver Front Airbag	Yes
Driver Side Torso Airbag	Yes
Driver Side Head Airbag	No
Rear Pass. Airbag	No
Rear Pass. Torso Airbag	Yes
Rear Pass. Head Airbag	No
Power Brakes	Yes
Power Steering	Yes
Disc Brakes, Front	Yes
Disc Brakes, Rear	Yes
Anti-lock Brakes	Yes
Tilt Steering Wheel	Yes
Power Windows	Yes
Power Seats	No

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation	GVWR (kg)	2608
Date of Manufacture	July-01	GAWR Front (kg)	1338
		GAWR Rear (kg)	1451

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	225	225
Cold Pressure (kPa)	225	225
Recommend Tire Size	P245/70R16	P245/70R16
Tire Size on Vehicle	P245/70R16	P245/70R16
Tire Manufacturer	B. F. Goodrich	B. F. Goodrich

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Split Bench	None	
Number of Occupants	2	3	2	7
Capacity Wt. (VCW) (kg)				549
Cargo Weight (RCLW) (kg)				136

DATA SHEET NO. 1...(CONTINUED)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

TEST VEHICLE WEIGHTS

	Units	As Delivered (UWV)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	567	473		604	611	
Right	kg	560	459		562	571	
Ratio	%	54.7	45.3		49.7	50.3	
Totals	kg	1127	932	2059	1166	1182	2348

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UWV)	kg	2059
Weight of 2 P572F Side Impact Dummies	kg	161
Rated Cargo/Luggage Weight (RCLW)	kg	136
Calculated Vehicle Target Weight (TVTW)	kg	2356

*Actual As Tested Weight (ATW) will be TVTW -5/-10 kg

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	832	831	888	884	1298
As Tested	mm	819	828	838	844	1443
Fully Loaded	mm	821	831	834	840	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2867
Total Vehicle Length at Left Side	mm	3574
Total Vehicle Length at Centerline	mm	4879
Total Vehicle Length at Right Side	mm	3575
Weight of Ballast In Cargo Area	kg	85
Amount of Stoddard Solvent in Fuel Tank	Liters	65.6

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel base	mm	2867
Target Impact Point Aft of Front Axle	mm	494
Actual Impact Point Aft of Front Axle	mm	503

DATA SHEET NO. 1...(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

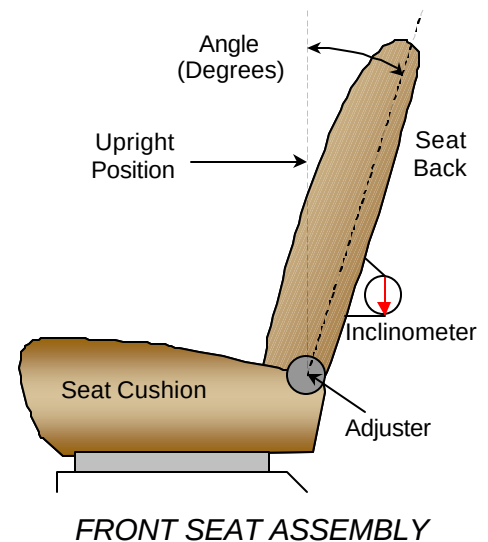
Test Date: 11/14/01

NOMINAL DESIGN RIDING POSITION

The driver's seat back is positioned to the manufacturer's designated angle. The procedure for positioning the seat is as follows: A slit is cut into fabric of the seat at the outboard edge, approximately 10-13 inches above the pivot point to expose the frame of the seat. An inclinometer is firmly placed against the flat portion of the frame surface and the seat back is adjusted to the manufacturers designated angle.

Driver seat back angle: 18.5° with a seated dummy

Rear seat back angle: 20.5° fixed



SEAT FORE/AFT POSITIONS

The driver's seat is adjustable. The fore/aft position is set to the middle.

Driver seat fore/aft total travel: 23 seat detents

Rear seat fore/aft total travel: Seat is fixed

Driver seat fore/aft position: Placed in the 12th detent

Rear seat fore/aft position: Seat is fixed

SEAT BELT UPPER ANCHORAGE

Driver seat is equipped with an integrated seat belt assembly and is not adjustable. Rear passenger seat is equipped with a fixed seat belt anchor and is not adjustable.

DATA SHEET NO. 1...(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

FUEL TANK CAPACITY DATA

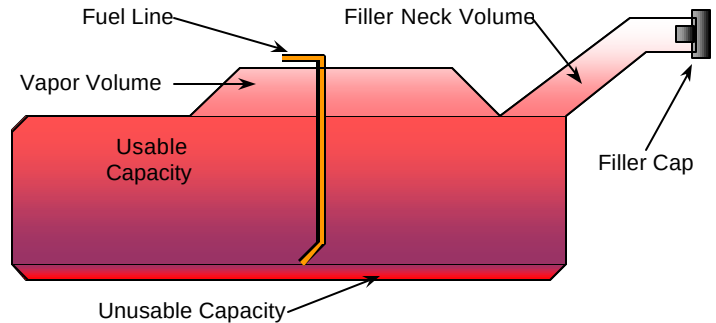
The "Usable Capacity" of the standard equipment fuel tank is: 70.6 liters

The "Usable Capacity" of any optional equipment fuel tank is: N/A liters

92-94% of "Usable Capacity" for certification to FMVSS 301 requirement: 64.9 to 66.3 liters

Actual amount of Stoddard solvent added to vehicle for certification test: 65.6 liters

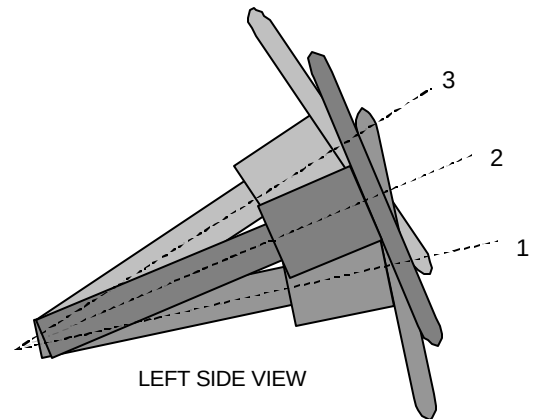
The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

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 motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed onto the plate and the angle is measured. The tested vehicle has its steering column set at position 2 as indicated in the drawing at right and the angle below.



STEERING COLUMN ASSEMBLY

Lowermost, position 1: 11°

Geometric center, position 2: 23.5°

Uppermost, position 3: 36°

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	567	473		604	611	
Right	kg	560	459		562	571	
Weight Ratio	%	54.7	45.3		49.7	50.3	
Totals	kg	1127	932	2059	1166	1182	2348

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	154	361
Level 2	Occupant H-Point	mm	268	786
Level 3	Mid Door	mm	285	753
Level 4	Window Sill	mm	244	1074
Level 5	Window Top	mm	27	1649
N/A	Maximum Penetration	mm	285	

INSTRUMENTATION

Driver SID Accelerometers	11
Passenger SID Accelerometers	11
Vehicle Structure Accelerometers	25
MDB Accelerometers	5
Total	52

16mm MOVIE COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	2
Real Time, Panning	1
Total	11

DATA SHEET NO. 3
MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

MDB SPECIFICATIONS (mm)

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel base of Framework Carriage	2590
C.G. Location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	61.73
Trap No. 2 Velocity (Redn.)	km/h	61.1 to 62.7	61.77
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Right	250
B	Top of Bumper	533	800	Right	183
C	Mid Level	686	800	Right	253
D	Top of Stack	813	800	Right	275

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	2

DATA SHEET NO. 4
POST TEST OBSERVATIONS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID	Rear Seat SID
Dummy Type / Serial No.	P572F, SID / No. 275	P572F, SID / No. 274
Head Contact	Headrest	C-Pillar
Upper Torso Contact	Panel	Panel
Lower Torso Contact	Panel	Panel
Left Knee Contact	Knee Bolster	Panel/Knee
Right Knee Contact	Knee	Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Remained closed inoperable	Remained closed inoperable
Right Side Door Opening	Remained closed operable	Remained closed operable
Seat Movement	0	0
Seat Back Failure	0	0

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	Pillars pushed inward with no apparent failure
Sill Separation	No Apparent Visible Failure
Windshield Damage	Glazing Cracks on Struck Side Only
Window Damage	Both Left Side Windows Broke.
Other Notable Effects	No significant items to note.

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	Not Deployed	None	Not Applicable
Side Torso Airbag	Yes	Not Deployed	Yes	Not Deployed
Head Curtain Airbag	None	Not Applicable	None	Not Applicable
Seat Belt Pretensioner	None	Not Applicable	None	Not Applicable
Seat Belt Load Limiter	None	Not Applicable	None	Not Applicable

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	9(Right)
Vertical Offset	mm	+/- 20	7(Below)

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5
SID INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

THORAX AND PELVIS PEAK ACCELERATIONS, PRIMARY (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	36.5	50.6	-3.6	104.4	35.2	69.4	-2.8	142.5
Lower Rib (LLR)	Y	G's	43.2	50.0	-2.9	120.0	31.9	66.3	-1.1	153.8
Lower Spine (T ₁₂)	Y	G's	30.2	36.9	-4.9	73.1	25.1	67.5	-1.3	153.1
Pelvis (PEV)	Y	G's	48.8	40.6	-8.3	64.4	29.9	50.0	-6.0	81.9

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, PRIMARY (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	43.214	30.193	37	49	35.208	25.119	30	30

THORAX AND PELVIS PEAK ACCELERATIONS, REDUNDANT (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	36.1	50.6	-3.8	105.0	35.4	69.4	-3.4	141.9
Lower Rib (LLR)	Y	G's	43.2	50.0	-2.8	120.0	31.6	66.3	-0.8	155.0
Lower Spine (T ₁₂)	Y	G's	30.0	36.9	-4.6	73.1	25.9	67.5	-1.0	153.1
Pelvis (PEV)	Y	G's	48.2	40.6	-8.0	64.4	30.4	50.0	-6.0	82.5

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, REDUNDANT (FIR 100 Filtered)

Location	Driver				Passenger			
	LLR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	43.221	29.971	37	48	35.436	25.933	31	30

HEAD CG PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	5.4	34.0	-12.9	97.3	14.3	69.4	-12.8	85.0
Head CG	Y	G's	18.1	99.7	-4.9	40.9	69.6	64.7	-12.0	88.5
Head CG	Z	G's	28.5	80.2	-5.9	34.9	19.7	62.8	-17.4	71.9
Head CG Resultant	N/A	G's	30.3	78.4			71.8	64.7		

HEAD INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	90.7	70.6	106.5	23.0	209.4	62.1	69.9	58.8

Positive Acceleration Polarities: Longitudinal (X) = Forward
 (Conforms to SAE J211) Lateral (Y) = Right
 Vertical (Z) = Down

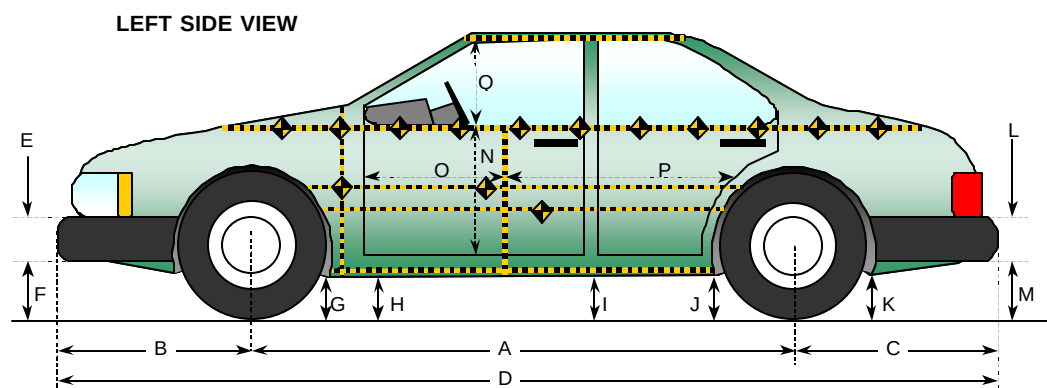
DATA SHEET NO. 6
VEHICLE PRE-TEST AND POST TEST MEASUREMENTS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



All Measurements in mm

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2867	2864	3
B	Front Axle To FSOV	903	896	7
C	Rear Axle to RSOV	1106	1110	-4
D	Total Length at Centerline	4879	4871	8
E	Front Bumper Thickness	345	345	0
F	Front Bumper Bottom to Ground	295	315	-20
G	Sill Height at Front Wheel Well	248	285	-37
H	Sill Height at Front Door Leading Edge	282	296	-14
I	Sill Height at "B" Pillar	302	320	-18
J1	Sill Height at Rear Wheel Well	303	345	-42
J2	Pinch Weld Height at Rear Wheel Well	260	307	-47
K	Sill Height aft of Rear Wheel Well	332	37	295
L	Rear Bumper Thickness	27	273	-246
M	Rear Bumper Bottom to Ground	437	476	-39
N	Sill Height to Window Bottom Sill	777	681	96
O	Front Door Leading Edge to Impact CL	763	742	21
P	Rear Door Trailing Edge to Impact CL	1433	1335	98
Q	Front Window Opening	484	464	20
R	Right Side Length	3575	3590	-15
S	Left Side Length	3574	3533	41
T	Vehicle Width at "B" Post	1832	1632	200

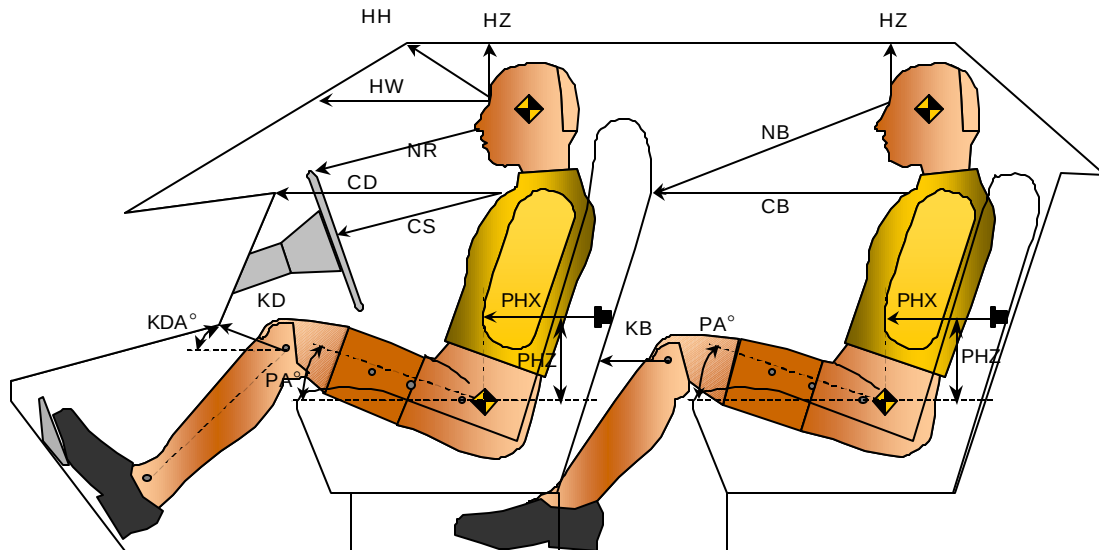
DATA SHEET NO. 7
SID LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	450	14		
HW		Head to Windshield	635			
HZ	HZ	Head to Roof	215	90	205	90
NR	NB	Nose to Rim/Nose to Seatback	430	19	615	1
CD	CB	Chest to Dash or Seatback	590	2	603	6
CS		Chest to Steering Wheel	325	13		
KDL	KBL	Left Knee to Dash or Seatback	187	36	260	3
KDR	KBR	Right Knee to Dash or Seatback	187		250	
PA	PA	Pelvic Angle		20.5		22
PHX	PHX	H-Point to Striker (X-Axis)	291		218	
PHZ	PHZ	H-Point to Striker (Z-Axis)	24		185	
PHY	PHY	Striker to H Point (Y-Axis)	165		295	

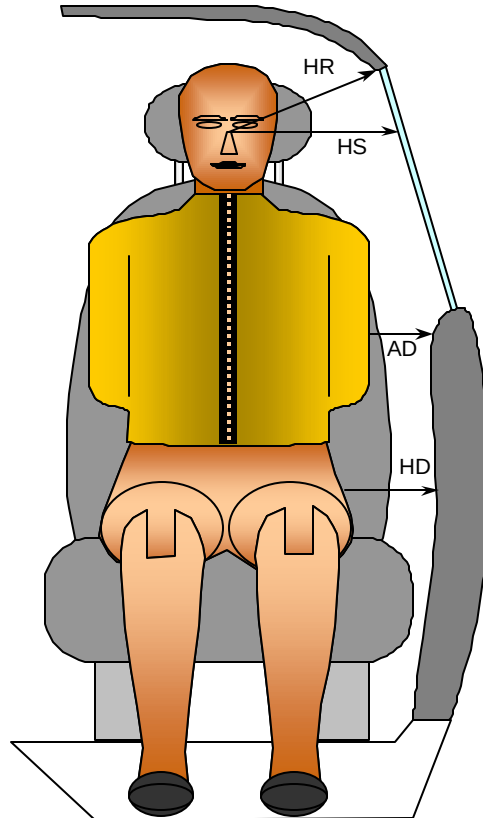
DATA SHEET NO. 8
SID LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No. M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



FRONT VIEW OF DUMMY

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	275	270
HS	Head to Side Window	mm	345	345
AD	Arm to Door	mm	141	122
HD	H-Point to Door	mm	160	222

DATA SHEET NO. 9

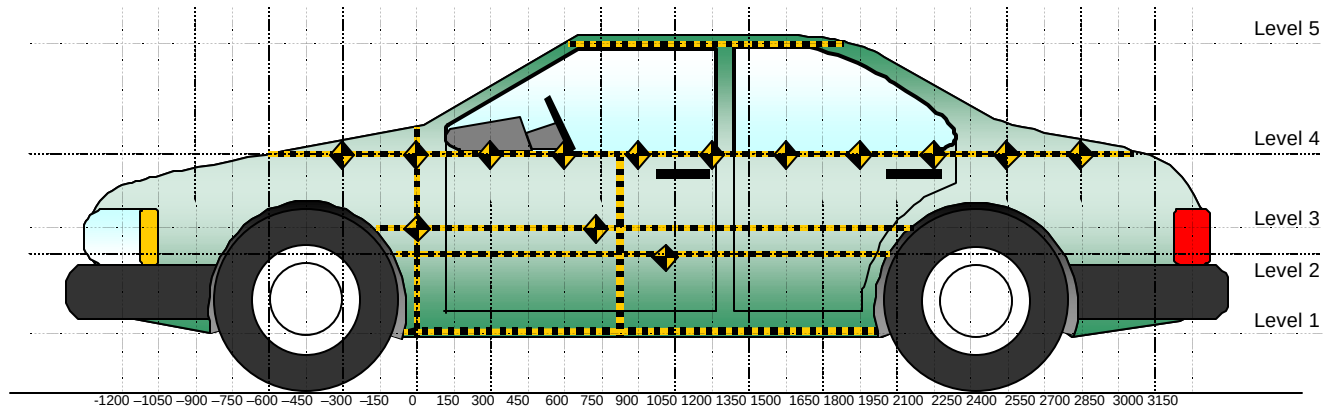
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.

Measurements taken 900mm right of impact reference.

All measurements below in mm.

Level	Measurement Description	Height Above Ground
5	Window Top	1649
4	Window Sill	1074
3	Mid Door	753
2	Occupant H-Point	786
1	Sill Top	361

DATA SHEET NO. 10 - VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

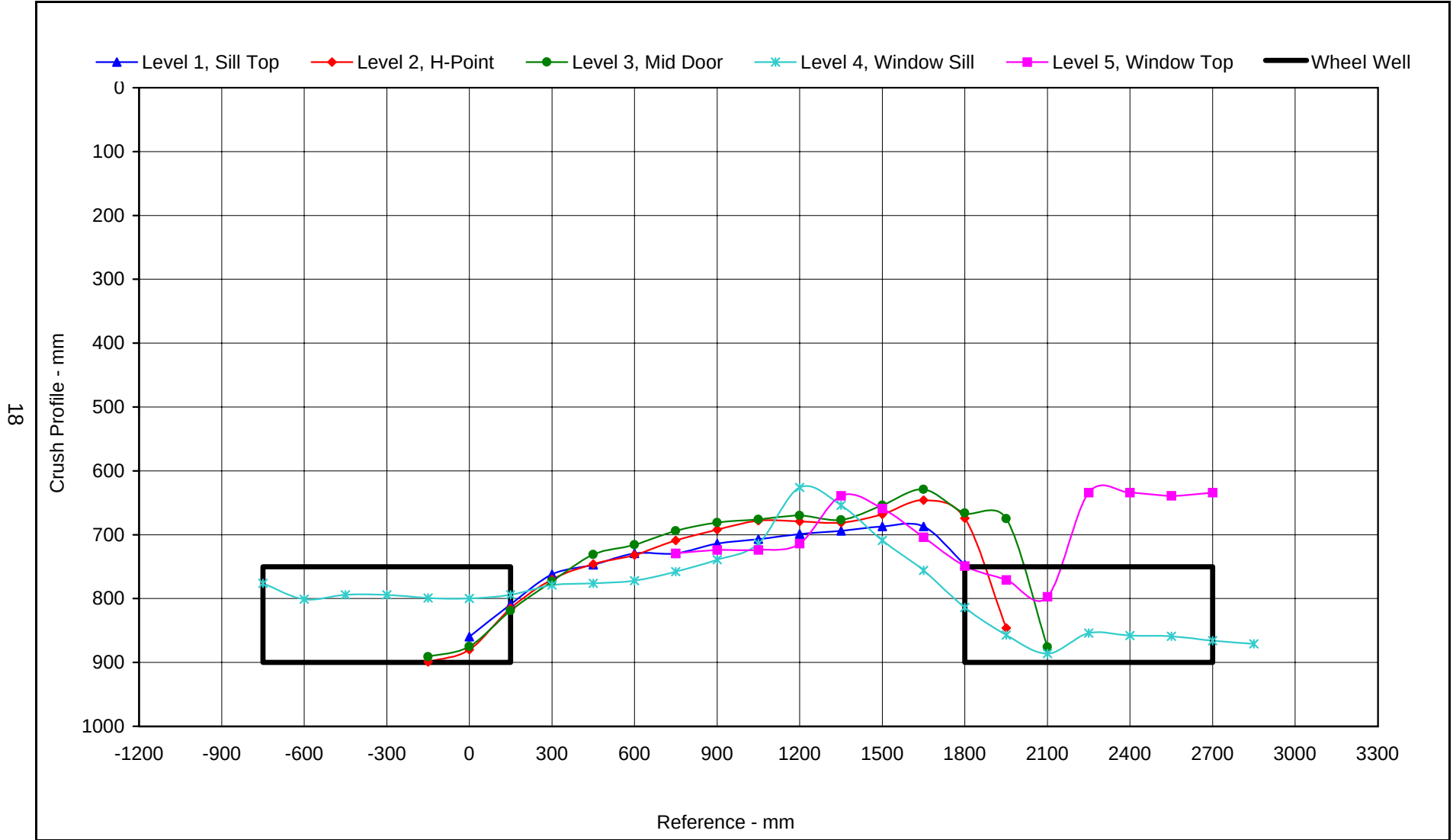
Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 2001-11-14

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750				765					776					-11	
-600				799					801					-2	
-450				819					794					25	
-300				829					794					35	
-150		947	944	836			899	891	799			48	53	37	
0	884	926	923	847		860	880	875	800		24	46	48	47	
150	830	916	914	847		809	815	819	794		21	101	95	53	
300	827	917	915	854		762	770	773	779		65	147	142	75	
450	827	919	916	856		747	746	731	776		80	173	185	80	
600	828	919	916	856		729	732	716	772		99	187	200	84	
750	831	919	917	863	636	729	709	694	758	729	102	210	223	105	-93
900	830	919	917	866	649	714	692	681	739	724	116	227	236	127	-75
1050	829	918	917	869	656	707	678	676	714	724	122	240	241	155	-68
1200	831	918	916	870	661	699	679	670	626	714	132	239	246	244	-53
1350	829	915	914	871	665	694	681	677	654	639	135	234	237	217	26
1500	830	916	914	875	659	687	668	654	709	659	143	248	260	166	0
1650	841	914	914	877	657	687	646	629	756	704	154	268	285	121	-47
1800	880	919	921	879	661	747	674	666	814	749	133	245	255	65	-88
1950		938	938	881	661		846	675	857	771		92	263	24	-110
2100			948	886	659			876	886	797			72	0	-138
2250				890	661				854	634				36	27
2400				889	661				858	634				31	27
2550				914	662				859	639				55	23
2700				921	659				866	634				55	25
2850				919					871					48	
3000															

Pre-Test and Post-Test dimensions are actual distance from centerline of test vehicle.

DATA SHEET NO. 10...(continued)



Maximum Crush, Level 1: 154 mm at 1650 mm
 Maximum Crush, Level 2: 268 mm at 1650 mm
 Maximum Crush, Level 3: 285 mm at 1650 mm
 Maximum Crush, Level 4: 244 mm at 1200 mm
 Maximum Crush, Level 5: 27 mm at 2250 mm

Test Program: 55/28 km/h 90° Side Impact NCAP No.: M20106
 Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV
 Test Date: 11-14-01



DATA SHEET NO. 11

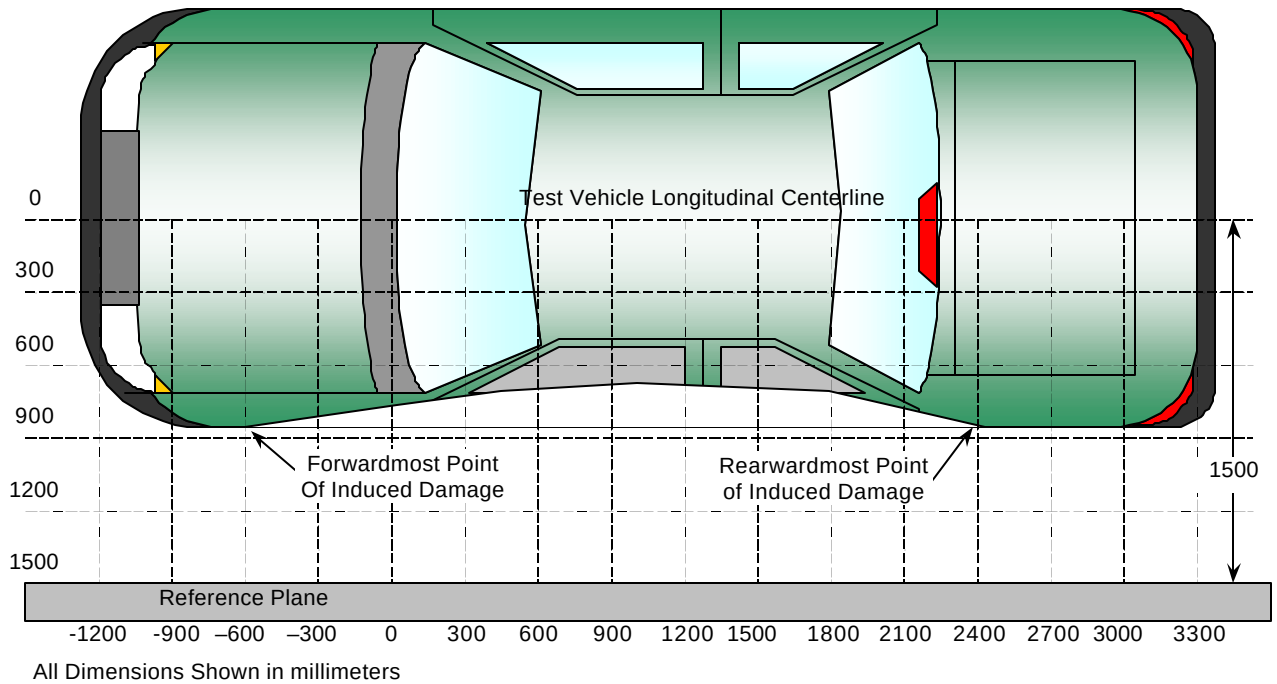
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



TOP VIEW

Damage Profile Distances

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	-750	4	765	776	-11
2	-150	3	944	891	53
3	600	3	916	716	200
4	1350	3	914	677	237
5	2100	3	948	876	72
6	2850	4	919	871	48

Pre-Test and Post-Test measurements are distance from vehicle centerline.

DATA SHEET NO. 12

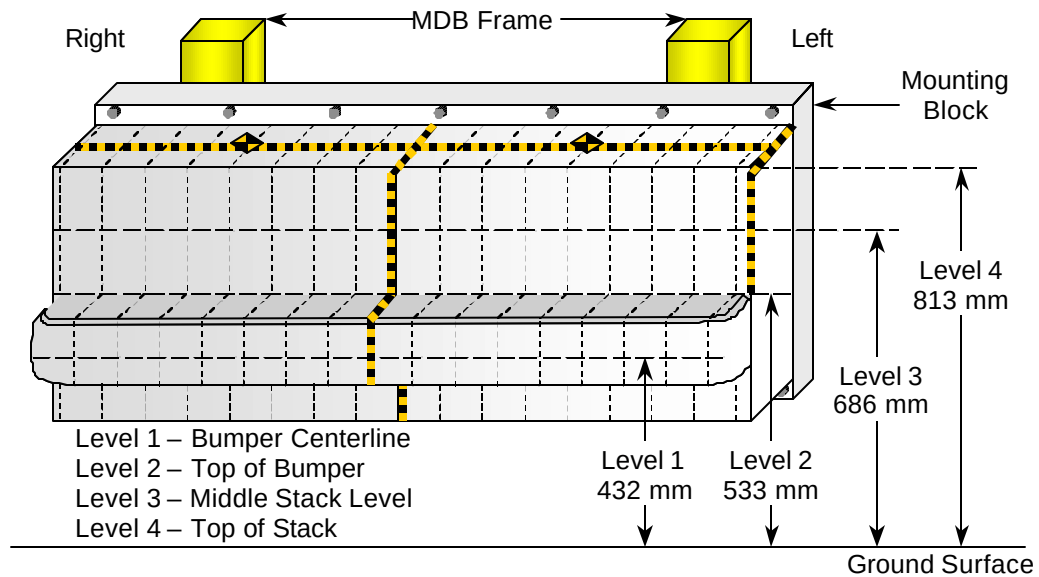
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



DEFORMABLE BARRIER STATIC CRUSH

Stack	Distance Right of Center								C _L	Distance Left of Center							
Level	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
1	238	220	213	212	214	218	221	221	221	222	223	224	229	227	228	232	250
2	159	156	156	151	141	141	146	150	151	153	157	158	161	163	165	169	183
3	101	96	103	113	135	129	103	88	81	80	87	96	109	131	156	193	253
4	111	95	96	106	134	118	94	79	75	78	88	104	122	139	179	221	275

All Dimensions in mm

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

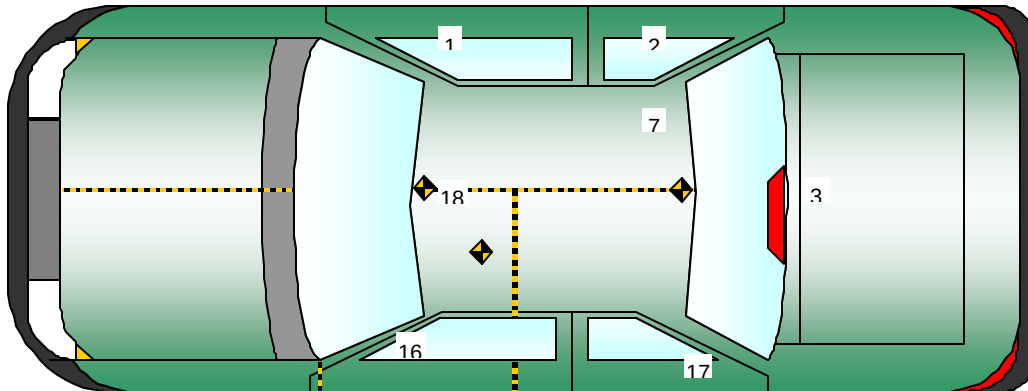
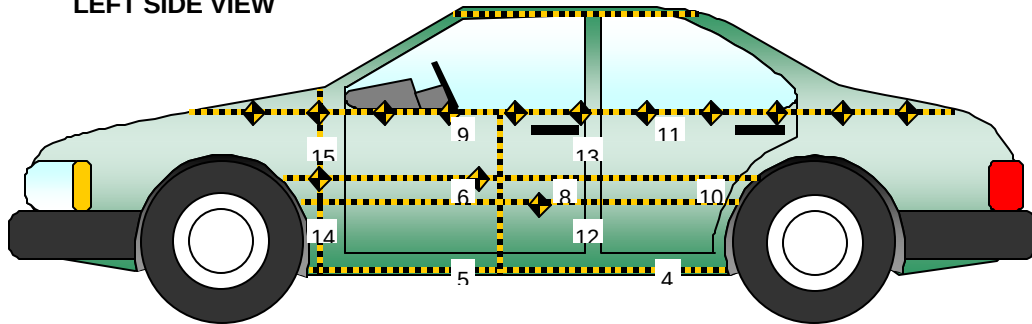
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	Right Sill at Front Seat	2525	720	440	X	4.6	30.0	-8.7	20.4
					Y	27.3	13.4	-2.6	72.8
					Z	5.2	35.6	-8.7	18.1
					RES	28.1	13.4		
2	Right Sill at Rear Seat	1815	720	460	X	4.2	30.0	-9.1	19.9
					Y	35.3	7.7	-2.5	148.2
					Z	6.0	39.6	-7.4	17.2
					RES	35.6	7.7		
3	Rear Floorpan Above Axle	1100	310	800	X	9.0	6.6	-11.9	27.7
					Y	22.7	7.6	-1.7	146.1
					Z	10.1	16.0	-6.3	9.0
					RES	23.9	7.2		
4	Left Sill at Rear Door	1845	-770	280	Y	146.1	6.3	-173.7	16.8
5	Left Sill at Front Door	2505	-770	275	Y	205.3	6.0	-250.3	14.9
6	Front Door Centerline	2755	-745	870	Y	140.5	10.3	-100.2	25.7
7	Rear Occupant Compartment	2105	380	480	Y	29.7	7.1	-2.0	73.3
8	Front Door Mid-Rear	2315	-745	730	Y	98.2	11.0	-57.3	20.7
9	Front Door Upper Centerline	2660	-745	990	Y	146.4	14.6	-68.7	35.0
10	Rear Door Mid-Rear	1525	-695	790	Y	125.0	15.6	-68.1	28.3
11	Rear Door Upper Centerline	1755	-695	1030	Y	138.1	20.3	-142.1	31.6
12	B-Post Lower	2155	-745	690	Y	145.7	6.0	-66.2	19.5
13	B-Post Middle	2155	-745	910	Y	170.1	10.0	-63.5	33.3
14	A-Post Lower	3525	-850	540	Y	93.2	5.8	-25.6	12.7
15	A-Post Middle	3525	-850	780	Y	89.9	6.7	-24.2	11.8
16	Front Seat Track	2765	-580	480	Y	66.9	9.4	-30.2	34.7
17	Rear Seat Structure				Y				
18	Vehicle CG	2065	-40	610	X	7.1	11.9	-18.0	6.9
					Y	39.4	14.7	-3.6	21.3
					Z	24.9	23.7	-49.5	6.2
					RES	64.3	6.3		

**

** Not installed

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

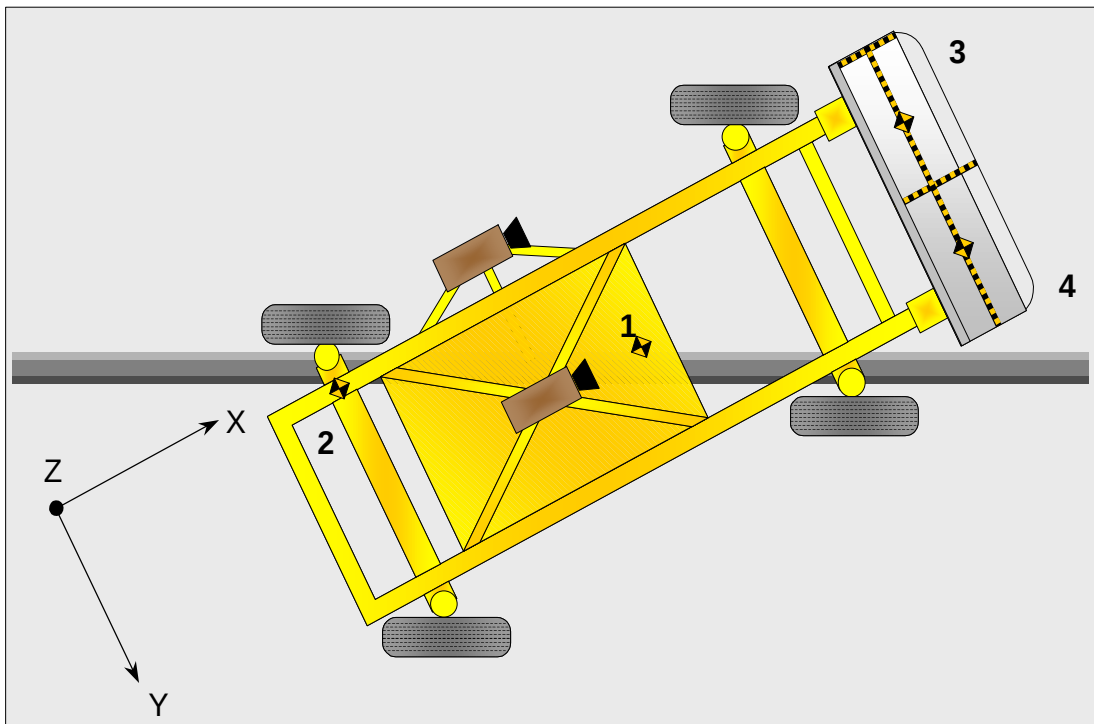
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	2.3	143.9	-19.2	42.3
					Y	4.0	136.6	-7.5	39.8
					Z	14.4	124.7	-16.2	132.1
					RES	20.2	42.1		
2	MDB Rear	-2642	-593	608	X	3.1	94.3	-22.6	34.4
					Y	3.1	94.5	-6.5	21.2

Reference Points X - MDB Front Axle Y - MDB Centerline Z - Ground Plane

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S	100.0	0.0	50.0	0.0
4	MDB Right Bumper	% F.S.	100.9	15.4	50.5	0.7



DATA SHEET NO. 15

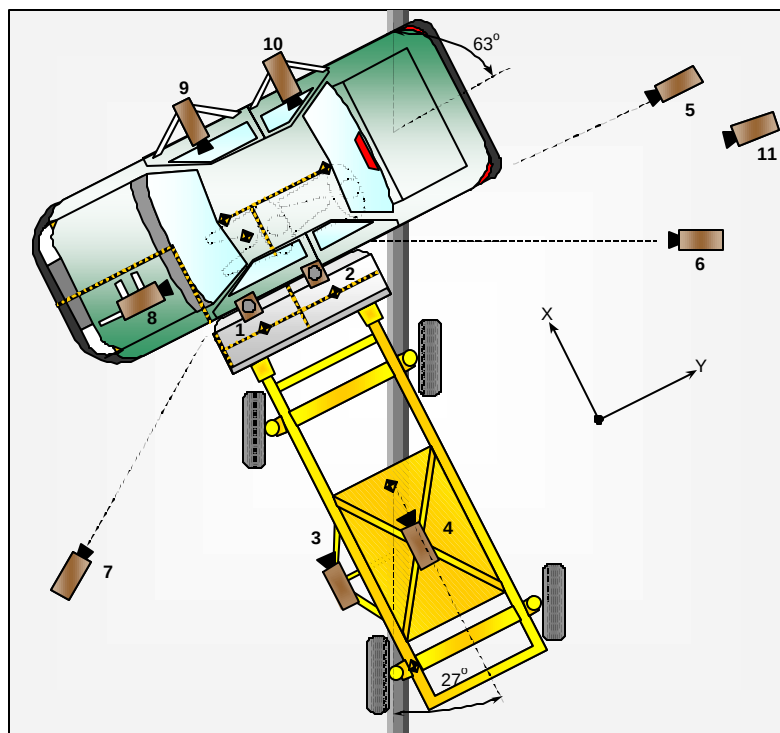
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fr./sec.)
		X	Y	Z			
1	Overhead Overall	-1220	-2630	560	-90	10	FAILED
2	Overhead Close-up	-610	-1000	5790	-90	19	980
3	MDB Onboard, Impact Point Close-Up	-2130	0	1140	-7	13	810
4	MDB Onboard, Centerline of Impact	-3050	-1650	1830	-11	13	910
5	Right Side, Ground Level, Overall	0	-18260	1680	0	24	1040
6	Right Side, Ground Level, Close-up	-8110	-21000	1700	-3	80	990
7	Left Side, Ground Level, Close-up	-1830	4670	1620	-8	13	FAILED
8	Vehicle Onboard Front SID, Front	450	40	1340	-14	19	1010
9	Vehicle Onboard Front SID, Side	1820	-860	980	-5	10	1030
10	Vehicle Onboard Rear SID, Side	1930	-1720	1040	-6	10	910
11	Real Time Coverage	N/A	N/A	N/A	N/A	N/A	24

DATA SHEET NO. 16

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

Test Date: 11/14/01

Test Time: 12:00 PM

Temperature at Time of Impact: 16.6 °C

Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

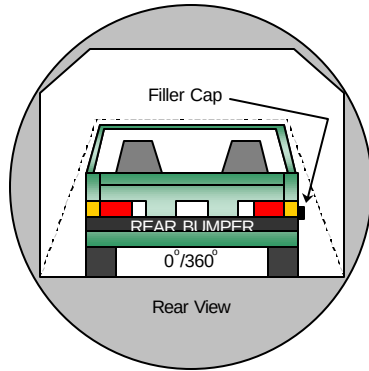
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

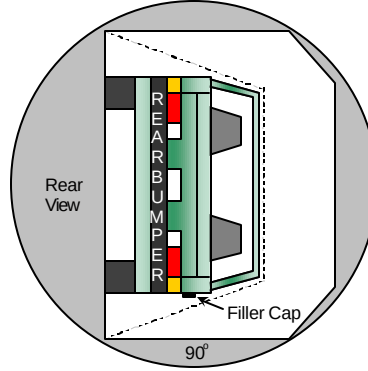
NHTSA No.: M20106

Test Program: 55/28 km/h 90° Side Impact NCAP

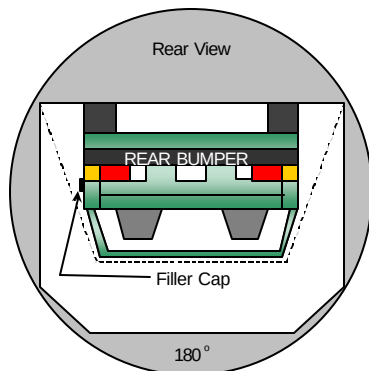
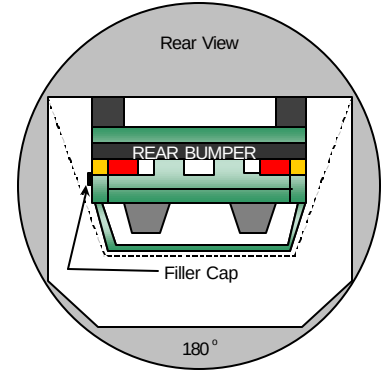
Test Date: 11/14/01



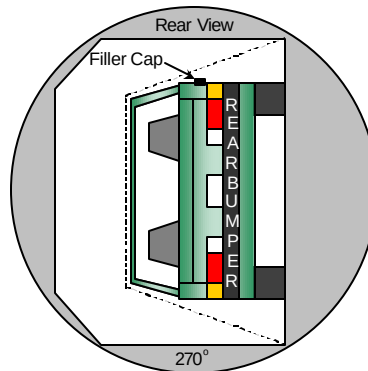
0° TO 90°



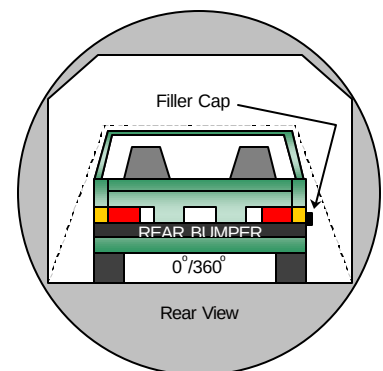
90° TO 180°



180° TO 270°



270° TO 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations.

No solvent leakage occurred during static rollover testing.

Rollover Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	85	300	0.0
90° TO 180°	80	300	0.0
180° TO 270°	78	300	0.0
270° TO 360°	78	300	0.0

APPENDIX A
PHOTOGRAPHS

LIST OF PHOTOGRAPHS

Figure		Page
A-1	Left Front as Received	A-1
A-2	Right Rear as Received	A-2
A-3	Vehicle's Certification Label	A-3
A-4	Vehicle's Tire Placard	A-4
A-5	Pre-test Front View	A-5
A-6	Post-test Front View	A-6
A-7	Pre-test Rear View	A-7
A-8	Post-test Rear View	A-8
A-9	Pre-test Left Side View (Struck Side)	A-9
A-10	Post-test Left Side View (Struck Side)	A-10
A-11	Pre-test Overall Overhead View (At Impact Position)	A-11
A-12	Pre-test Overall Overhead View	A-12
A-13	Post-test Overall Overhead View	A-13
A-14	Pre-test MDB Left Side View (At Impact Position)	A-14
A-15	Pre-test MDB Right Side View (At Impact Position)	A-15
A-16	Pre-test Impact Point Target Close-up	A-16
A-17	Post-test Impact Point Target Close-up	A-17
A-18	Pre-test Left Front Door Closed	A-18
A-19	Post-test Left Front Door Closes	A-19
A-20	Pre-test Left Rear Door Closed	A-20
A-21	Post-test Left Rear Door Closed	A-21
A-22	Pre-test Driver Dummy Left Side (Door Open)	A-22
A-23	Pre-test Driver Dummy Left Side	A-23
A-24	Post-test Driver Dummy Left Side	A-24
A-25	Pre-test Driver Dummy Clearance	A-25
A-26	Post-test Driver Dummy Clearance	A-26
A-27	Pre-test Driver Dummy (Inside View)	A-27
A-28	Post-test Driver Dummy (Inside View)	A-28
A-29	Pre-test Driver Door (Inside View)	A-29
A-30	Post-test Driver Dummy Contact Points (Inside View)	A-30
A-31	Pre-test Passenger Dummy Left Side (Door Open)	A-31
A-32	Pre-test Passenger Dummy Left Side View	A-32
A-33	Post-test Passenger Dummy Left Side View	A-33

LIST OF PHOTOGRAPHS, ...(Continued)

Figure		Page
A-34	Pre-test Passenger Dummy Clearance	A-34
A-35	Post-test Passenger Dummy Clearance	A-35
A-36	Pre-test Passenger Dummy (Inside View)	A-36
A-37	Post-test Passenger Dummy (Inside View)	A-37
A-38	Pre-test Passenger Door (Inside View)	A-38
A-39	Post-test Passenger Dummy Contact Points (Inside View)	A-39
A-40	Pre-test Front View of Deformable Barrier	A-40
A-41	Post-test Front View of Deformable Barrier	A-41
A-42	Pre-test Top View of Deformable Barrier	A-42
A-43	Post-test Top View of Deformable Barrier	A-43
A-44	Pre-test Right Side View of Deformable Barrier	A-44
A-45	Post-test Right Side View of Deformable Barrier	A-45
A-46	Pre-test Left Side View of Deformable Barrier	A-46
A-47	Post-test Left Side View of Deformable Barrier	A-47
A-48	Vehicle On Rollover Top View	A-48
A-49	Vehicle During Impact	A-49
A-50	Post-test Driver Side Airbag	A-50



Figure A-1: Left Front, as Received



Figure A-2: Right Rear, as Received



MFD BY GENERAL MOTORS CORP

07/01

GVWR
2608KG(5750LB)

GAWR FRT
1338KG(2950LB)

GAWR RR
1452KG(3200LB)

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR
VEHICLE SAFETY AND THEFT PREVENTION STANDARDS IN EFFECT ON
THE DATE OF MANUFACTURE SHOWN ABOVE.

1GNDT13S422213446 TYPE: M.P.V.

MODEL: T15506 PAYLOAD = 517KG(1140LB)

TPMJ	TIRE SIZE	SPEED RTG	RIM	COLD TIRE PRESSURE
FRT	P245/70R16	S	16X7J	220KPA(32PSI)
RR	P245/70R16	S	16X7J	220KPA(32PSI)

SEE OWNER'S MANUAL  FOR MORE INFORMATION.

Figure A-3: Vehicle Certification Label

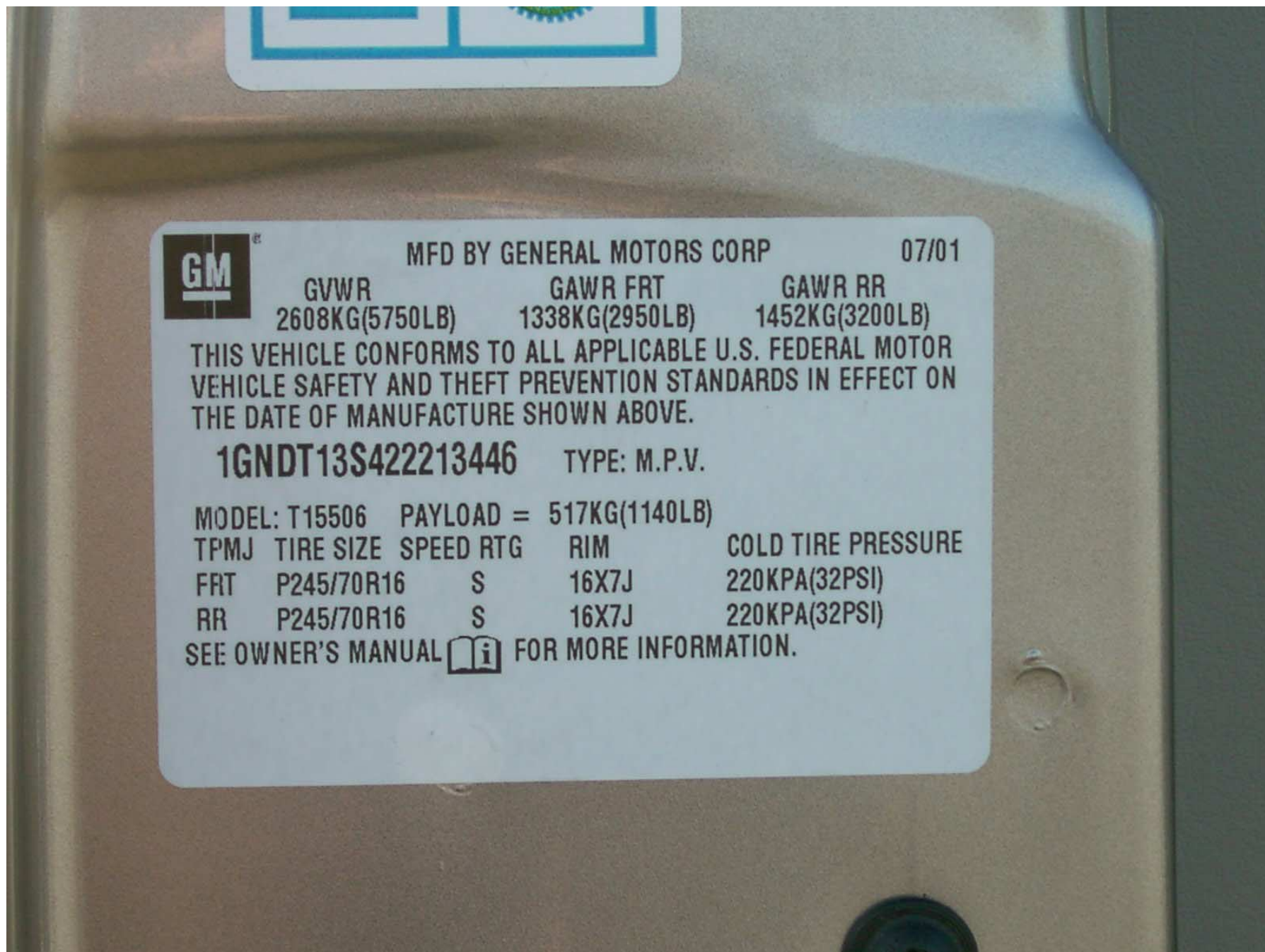


Figure A-4: Vehicle Tire Label



Figure A-5: Front View, Pre-Test



Figure A-6: Front View, Post-Test



Figure A-7: Rear View, Pre-Test



Figure A-8: Rear View, Post-Test



Figure A-9: Left (Impacted) Side View, Pre-Test



Figure A-10: Left (Impacted) Side View, Post-Test



Figure A-11: Overhead Close-up View at Impact Position, Pre-Test



Figure A-12: Overhead Overall View, Pre-Test



Figure A-13: Overhead Overall View, Post-Test



Figure A-14: MDB Left Side View at Impact Position, Pre-Test



Figure A-15: MDB Right Side View at Impact Position, Pre-Test



Figure A-16: Impact Point Target Close-up, Pre-Test



Figure A-17: Impact Point Target Close-up, Post-Test

**Photograph Not
Available**

Figure A-18: Left Front Door Closed, Pre-Test



Figure A-19: Left Front Door Closed, Post-Test

**Photograph Not
Available**

Figure A-20: Left Rear Door Closed, Pre-Test



Figure A-21: Left Rear Door Closed, Post-Test



Figure A-22: Driver Dummy Left Side with Door Open, Pre-Test



Figure A-23: Driver Dummy Left Side, Pre-test



Figure A-24: Driver Dummy Left Side, Post-Test



Figure A-25: Driver Dummy Clearance, Pre-Test



Figure A-26: Driver Dummy Clearance, Post-Test



Figure A-27: Driver Dummy Inside View, Pre-Test



Figure A-28: Driver Dummy Inside View, Post-Test



Figure A-29: Driver Door Inside View, Pre-Test



Figure A-30: Driver Dummy Contact Points Inside View, Post-Test



Figure A-31: Passenger Dummy Left Side with Door Open, Pre-Test



Figure A-32: Passenger Dummy Left Side, Pre-Test



Figure A-33: Passenger Dummy Left Side, Post-Test



Figure A-34: Passenger Dummy Clearance, Pre-Test



Figure A-35: Passenger Dummy Clearance, Post-Test



Figure A-36: Passenger Dummy Inside View, Pre-Test



Figure A-37: Passenger Dummy Inside View, Post-Test



Figure A-38: Passenger Door Inside View, Pre-Test



Figure A-39: Passenger Dummy Contact Points Inside View, Post-Test



Figure A-40: Front View of Deformable Barrier, Pre-Test



Figure A-41: Front View of Deformable Barrier, Post-Test



Figure A-42: Top View of Deformable Barrier, Pre-Test



Figure A-43: Top View of Deformable Barrier, Post-Test



Figure A-44: Right Side View of Deformable Barrier, Pre-Test



Figure A-45: Right Side View of Deformable Barrier, Post-Test



Figure A-46: Left Side View of Deformable Barrier, Pre-Test

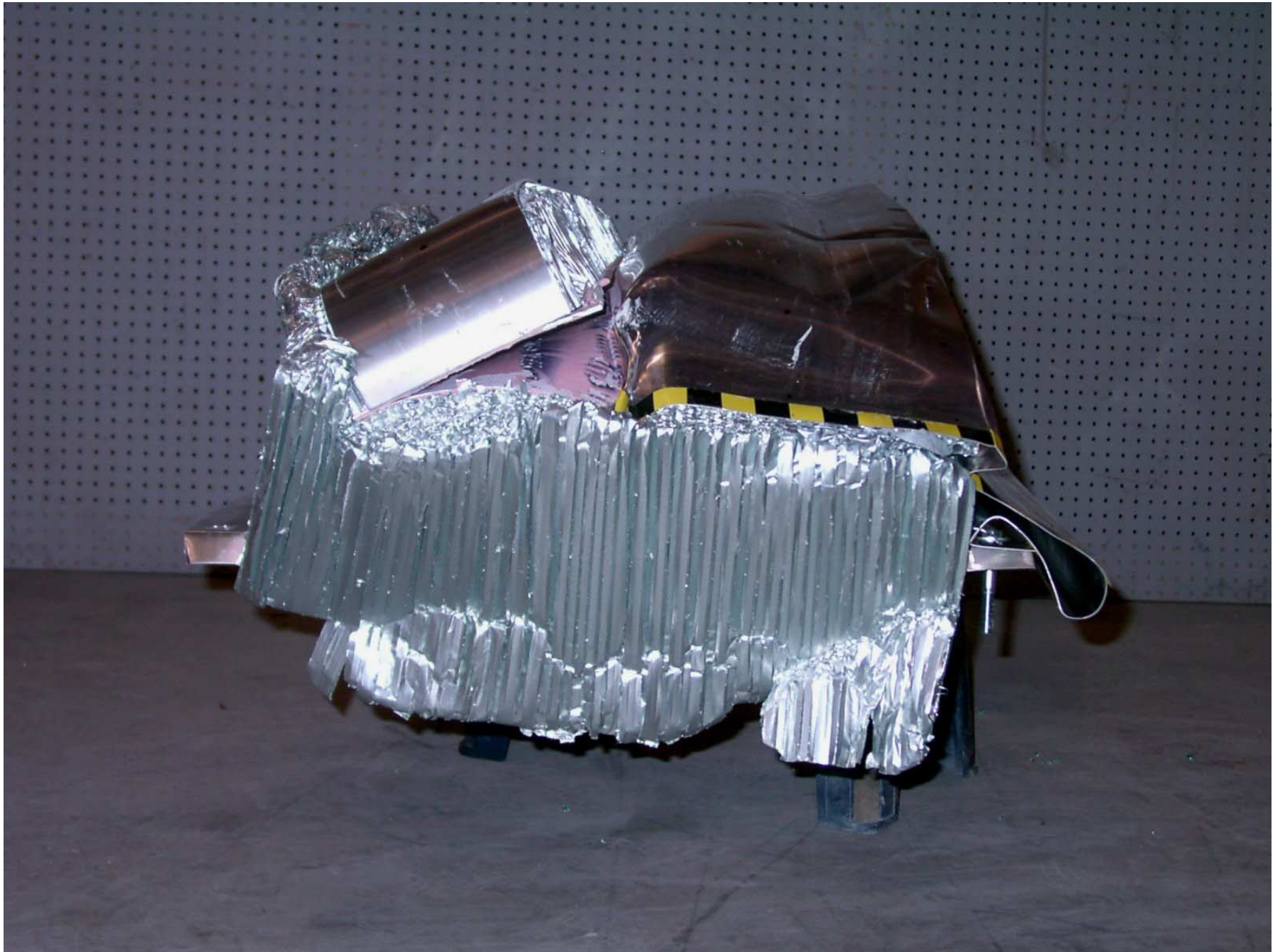


Figure A-47: Left Side View of Deformable Barrier, Post-Test



Figure A-48: Vehicle on Rollover Device, Top View

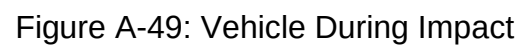




Figure A-50: Post-test Driver Side Airbag

APPENDIX B
SID, VEHICLE, AND MDB RESPONSE DATA

LIST OF DATA PLOTS, DRIVER SID

Data Plot		Page
B-1	Driver Head CG X	B-1
B-2	Driver Head CG X Velocity	B-2
B-3	Driver Head CG Y	B-3
B-4	Driver Head CG Y Velocity	B-4
B-5	Driver Head CG Z	B-5
B-6	Driver Head CG Z Velocity	B-6
B-7	Driver Head CG Resultant	B-7
B-8	Driver Upper Rib Primary Y	B-8
B-9	Driver Upper Rib Primary Y Velocity	B-9
B-10	Driver Lower Rib Primary Y	B-10
B-11	Driver Lower Rib Primary Y Velocity	B-11
B-12	Driver Lower Spine Primary Y	B-12
B-13	Driver Lower Spine Primary Y Velocity	B-13
B-14	Driver Pelvis Primary Y	B-14
B-15	Driver Pelvis Primary Y Velocity	B-15
B-16	Driver Upper Rib Redundant Y	B-16
B-17	Driver Upper Rib Redundant Y Velocity	B-17
B-18	Driver Lower Rib Redundant Y	B-18
B-19	Driver Lower Rib Redundant Y Velocity	B-19
B-20	Driver Lower Spine Redundant Y	B-20
B-21	Driver Lower Spine Redundant Y Velocity	B-21
B-22	Driver Pelvis Redundant Y	B-22
B-23	Driver Pelvis Redundant Y Velocity	B-23
B-24	Driver Thorax Contact	B-24
B-25	Driver Pelvis Contact	B-25

LIST OF DATA PLOTS, PASSENGER SID

Data Plot		Page
B-26	Passenger Head CG X	B-26
B-27	Passenger Head CG X Velocity	B-27
B-28	Passenger Head CG Y	B-28
B-29	Passenger Head CG Y Velocity	B-29
B-30	Passenger Head CG Z	B-30
B-31	Passenger Head CG Z Velocity	B-31
B-32	Passenger Head CG Resultant	B-32
B-33	Passenger Upper Rib Primary Y	B-33
B-34	Passenger Upper Rib Primary Y Velocity	B-34
B-35	Passenger Lower Rib Primary Y	B-35
B-36	Passenger Lower Rib Primary Y Velocity	B-36
B-37	Passenger Lower Spine Primary Y	B-37
B-38	Passenger Lower Spine Primary Y Velocity	B-38
B-39	Passenger Pelvis Primary Y	B-39
B-40	Passenger Pelvis Primary Y Velocity	B-40
B-41	Passenger Upper Rib Redundant Y	B-41
B-42	Passenger Upper Rib Redundant Y Velocity	B-42
B-43	Passenger Lower Rib Redundant Y	B-43
B-44	Passenger Lower Rib Redundant Y Velocity	B-44
B-45	Passenger Lower Spine Redundant Y	B-45
B-46	Passenger Lower Spine Redundant Y Velocity	B-46
B-47	Passenger Pelvis Redundant Y	B-47
B-48	Passenger Pelvis Redundant Y Velocity	B-48
B-49	Passenger Thorax Contact	B-49
B-50	Passenger Pelvis Contact	B-50

LIST OF DATA PLOTS, VEHICLE

Data Plot		Page
B-51	Right Sill at Front Seat X	B-51
B-52	Right Sill at Front Seat X Velocity	B-52
B-53	Right Sill at Front Seat Y	B-53
B-54	Right Sill at Front Seat Y Velocity	B-54
B-55	Right Sill at Front Seat Z	B-55
B-56	Right Sill at Front Seat Z Velocity	B-56
B-57	Right Sill at Front Seat Resultant	B-57
B-58	Right Sill at Rear Seat X	B-58
B-59	Right Sill at Rear Seat X Velocity	B-59
B-60	Right Sill at Rear Seat Y	B-60
B-61	Right Sill at Rear Seat Y Velocity	B-61
B-62	Right Sill at Rear Seat Z	B-62
B-63	Right Sill at Rear Seat Z Velocity	B-63
B-64	Right Sill at Rear Seat Resultant	B-64
B-65	Rear Floor Pan Above Axle X	B-65
B-66	Rear Floor Pan Above Axle X	B-66
B-67	Rear Floor Pan Above Axle Y	B-67
B-68	Rear Floor Pan Above Axle Y Velocity	B-68
B-69	Rear Floor Above Axle Z	B-69
B-70	Rear Floor Pan Above Axle Z Velocity	B-70
B-71	Rear Floor Above Axle Resultant	B-71
B-72	Left Sill at Rear Door Y	B-72
B-73	Left Sill at Rear Door Y Velocity	B-73
B-74	Left Sill at Front Door Y	B-74
B-75	Left Sill at Front Door Y Velocity	B-75
B-76	Left Front Door Centerline Y	B-76
B-77	Left Front Door Centerline Y Velocity	B-77
B-78	Right Rear Occupant Compartment Y	B-78
B-79	Right Rear Occupant Compartment Y Velocity	B-79

LIST OF DATA PLOTS, VEHICLE...(CONTINUED)

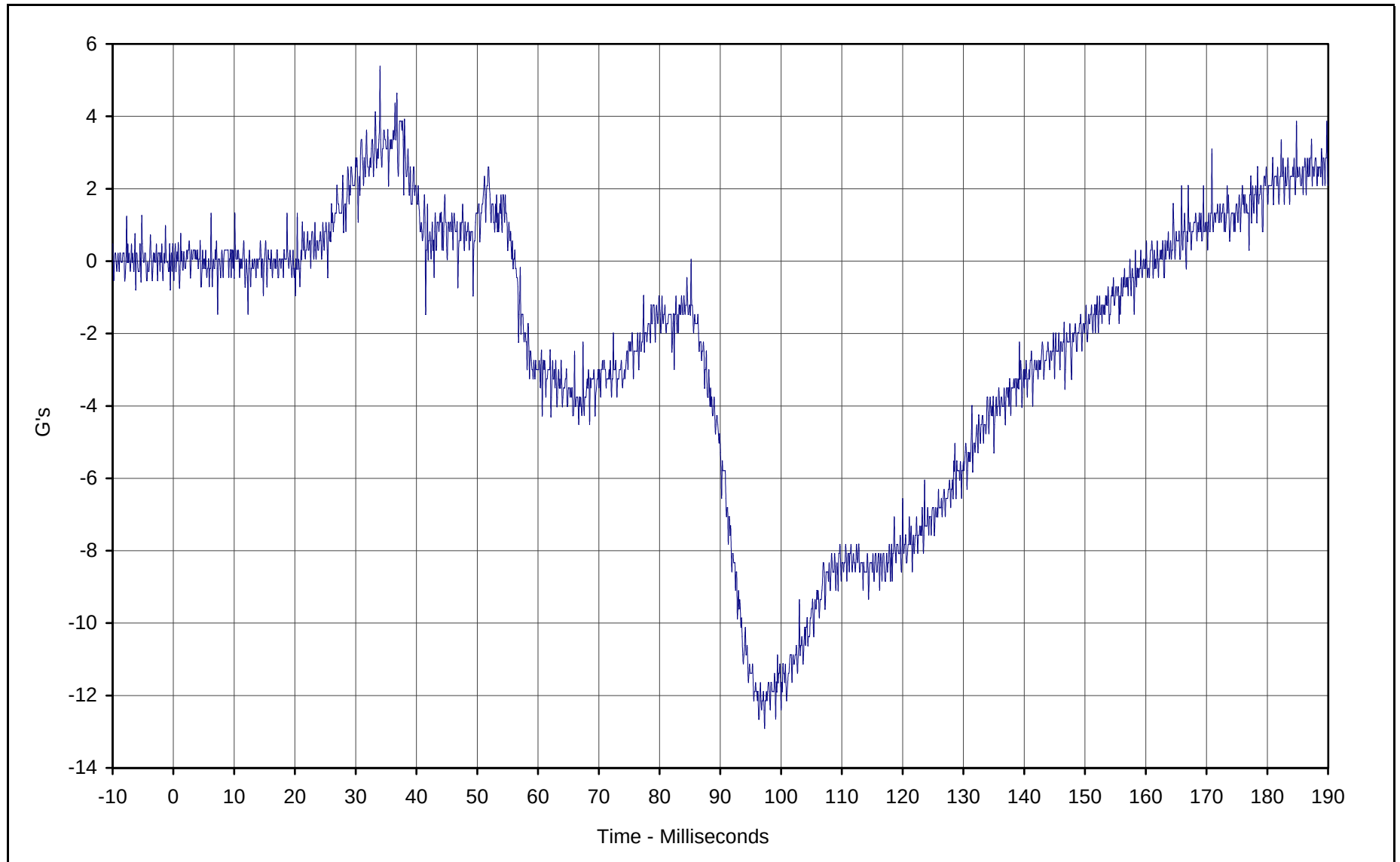
Data Plot		Page
B-80	Left Front Door Mid Rear Y	B-80
B-81	Left Front Door Mid Rear Y Velocity	B-81
B-82	Left Front Door Upper Centerline Y	B-82
B-83	Left Front Door Upper Centerline Y Velocity	B-83
B-84	Left Rear Door Mid Rear Y	B-84
B-85	Left Rear Door Mid Rear Y Velocity	B-85
B-86	Left Rear Door Upper Centerline Y	B-86
B-87	Left Rear Door Upper Centerline Y Velocity	B-87
B-88	Left B-Post Lower Y	B-88
B-89	Left B-Post Lower Y Velocity	B-89
B-90	Left B-Post Middle Y	B-90
B-91	Left B-Post Middle Y Velocity	B-91
B-92	Left A-Post Lower Y	B-92
B-93	Left A-Post Lower Y Velocity	B-93
B-94	Left A-Post Middle Y	B-94
B-95	Left A-Post Middle Y Velocity	B-95
B-96	Left Front Seat Track Y	B-96
B-97	Left Front Seat Track Y Velocity	B-97
B-98	Left Rear Seat Structure Y	B-98
B-99	Left Rear Seat Structure Y Velocity	B-99
B-100	Vehicle CG X	B-100
B-101	Vehicle CG X Velocity	B-101
B-102	Vehicle CG Y	B-102
B-103	Vehicle CG Y Velocity	B-103
B-104	Vehicle CG Z	B-104
B-105	Vehicle CG Z Velocity	B-105
B-106	Vehicle CG Resultant	B-106

LIST OF DATA PLOTS, MDB

<u>Data Plot</u>	<u>Page</u>
B-107 Moving Deformable Barrier CG X	B-107
B-108 Moving Deformable Barrier CG X Velocity	B-108
B-109 Moving Deformable Barrier CG Y	B-109
B-110 Moving Deformable Barrier CG Y Velocity	B-110
B-111 Moving Deformable Barrier CG Z	B-111
B-112 Moving Deformable Barrier CG Z Velocity	B-112
B-113 Moving Deformable Barrier CG Resultant	B-113
B-114 Moving Deformable Barrier Rear X	B-114
B-115 Moving Deformable Barrier Rear X Velocity	B-115
B-116 Moving Deformable Barrier Rear Y	B-116
B-117 Moving Deformable Barrier Rear Y Velocity	B-117
B-118 Moving Deformable Barrier Right Bumper Contact Time	B-118

LIST OF DATA PLOTS, FIR FILTER DATA

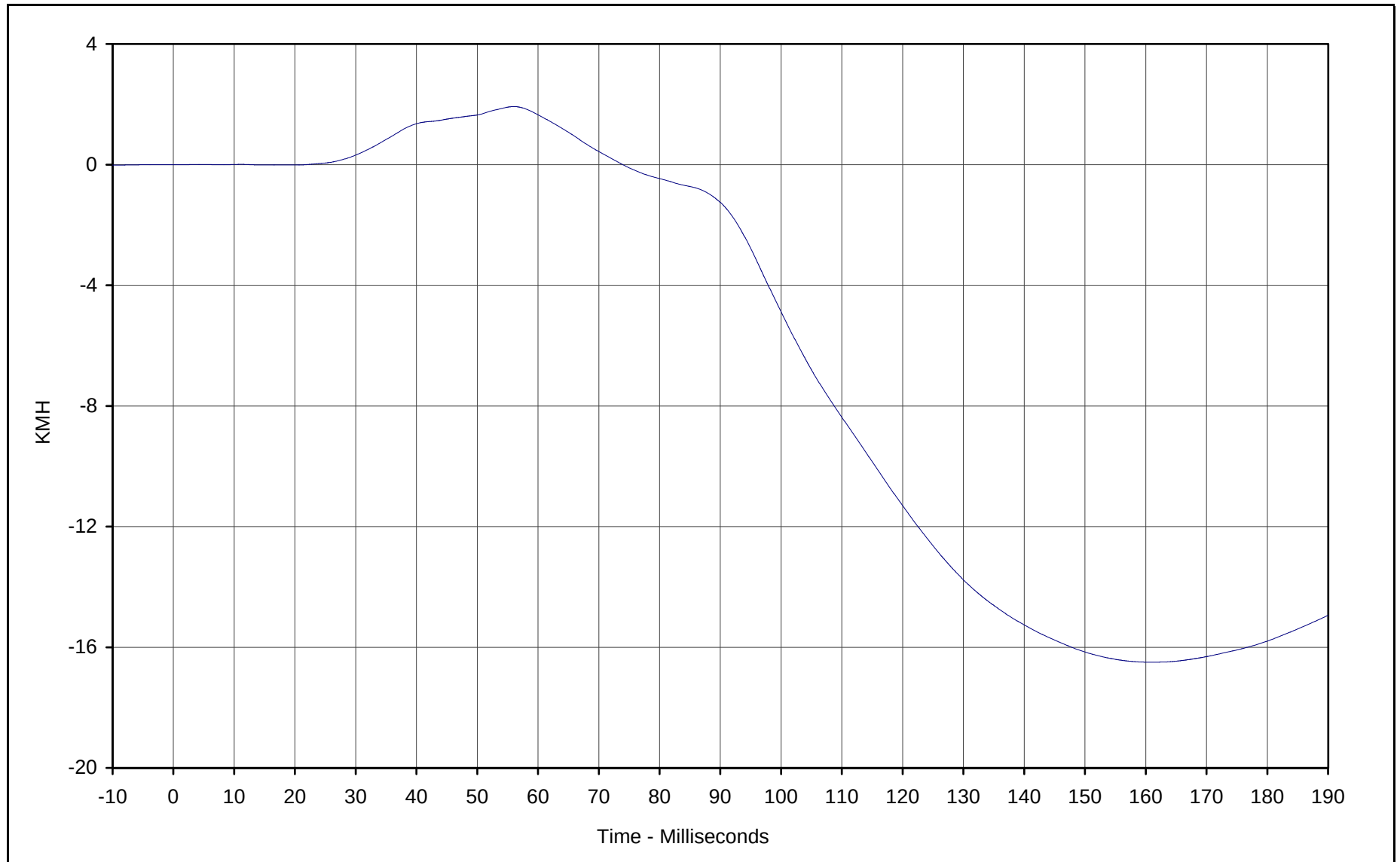
<u>Data Plot</u>	<u>Page</u>
B-119 Driver Upper Rib Primary Y	B-119
B-120 Driver Lower Rib Primary Y	B-120
B-121 Driver Lower Spine Primary Y	B-121
B-122 Driver Pelvis Primary Y	B-122
B-123 Driver Upper Rib Redundant Y	B-123
B-124 Driver Lower Rib Redundant Y	B-124
B-125 Driver Lower Spine Redundant Y	B-125
B-126 Driver Pelvis Redundant Y	B-126
B-127 Passenger Upper Rib Primary Y	B-127
B-128 Passenger Lower Rib Primary Y	B-128
B-129 Passenger Lower Spine Primary Y	B-129
B-130 Passenger Pelvis Primary Y	B-130
B-131 Passenger Upper Rib Redundant Y	B-131
B-132 Passenger Lower Rib Redundant Y	B-132
B-133 Passenger Lower Spine Redundant Y	B-133
B-134 Passenger Pelvis Redundant Y	B-134



Curve Description: Driver Head CG X
Maximum Value: 5.4 at 34.0 Milliseconds
Minimum Value: -12.9 at 97.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-001

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

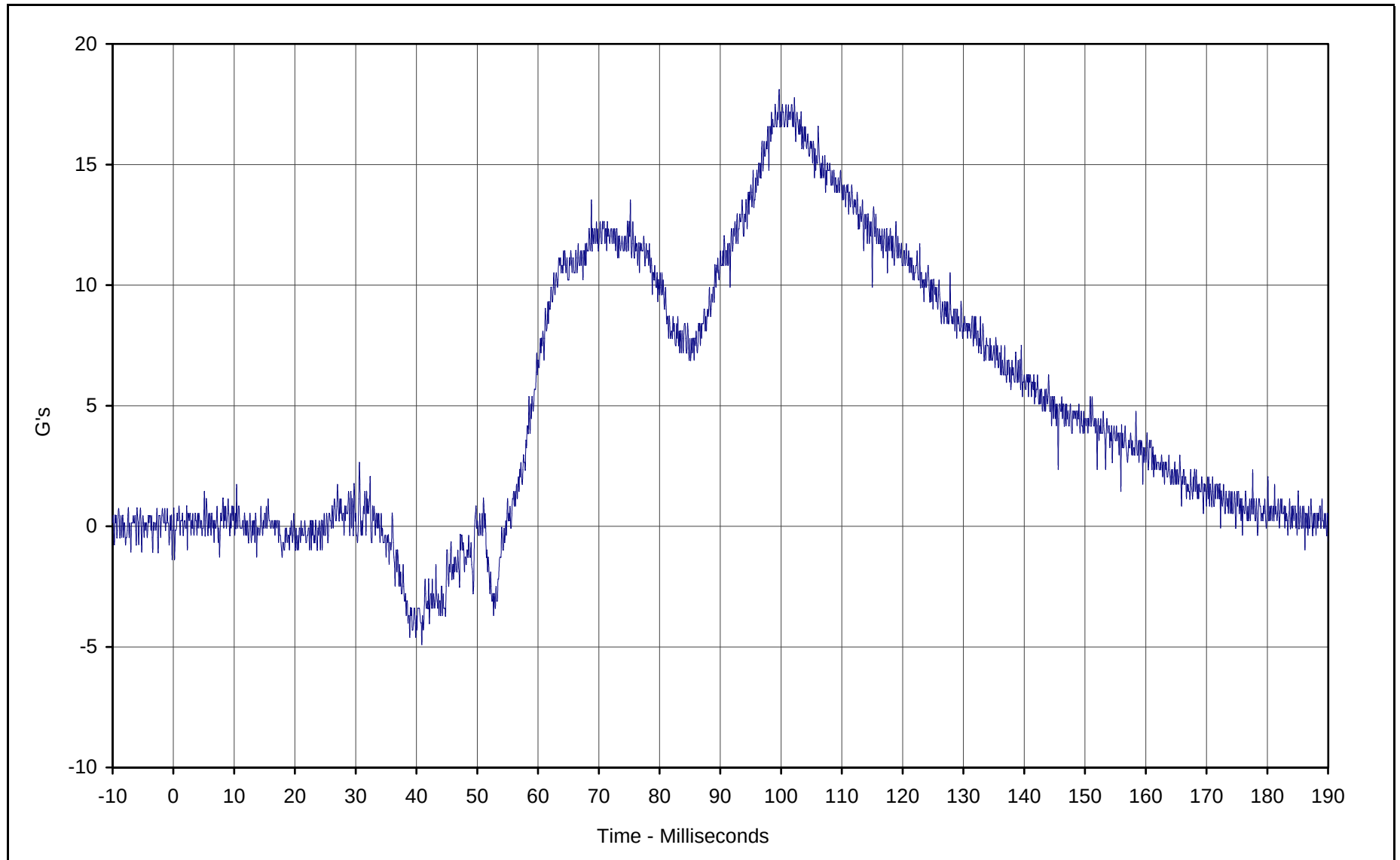




Curve Description: Driver Head CG X Velocity
Maximum Value: 1.9 at 56.0 Milliseconds
Minimum Value: -16.5 at 160.7 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-001

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

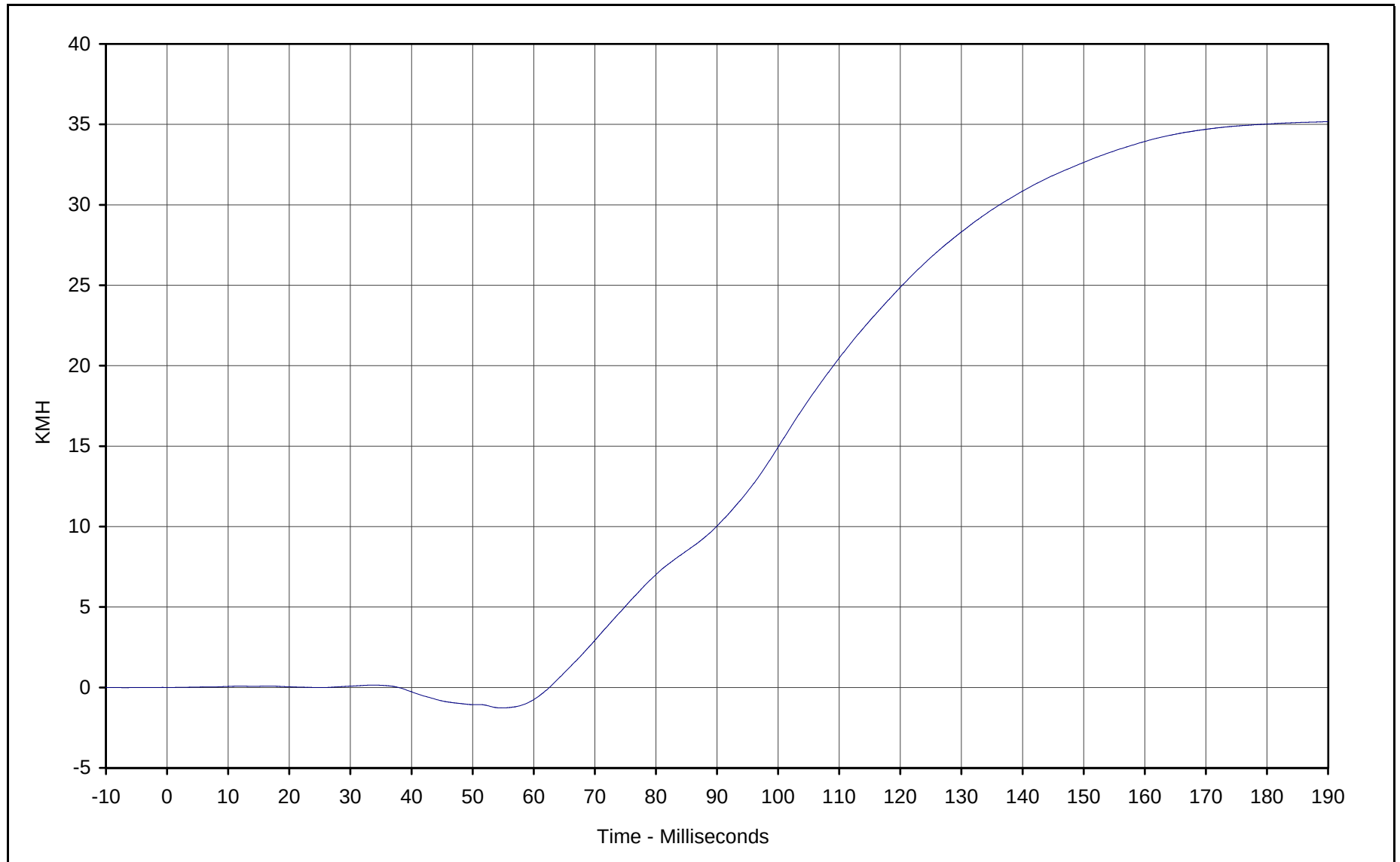




Curve Description: Driver Head CG Y
Maximum Value: 18.1 at 99.7 Milliseconds
Minimum Value: -4.9 at 40.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-002

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

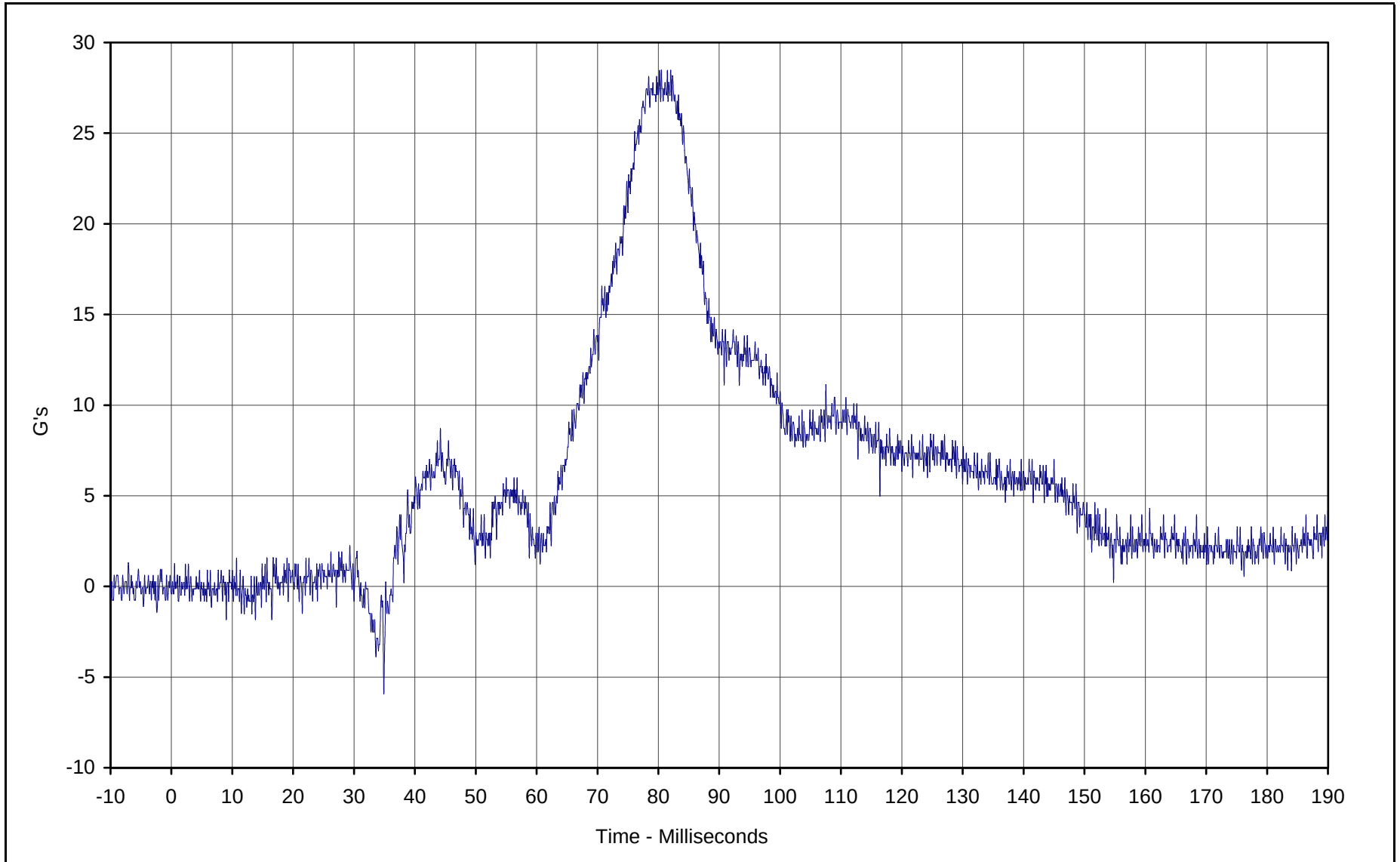




Curve Description: Driver Head CG Y Velocity
Maximum Value: 35.2 at 189.9 Milliseconds
Minimum Value: -1.3 at 54.8 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-002

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

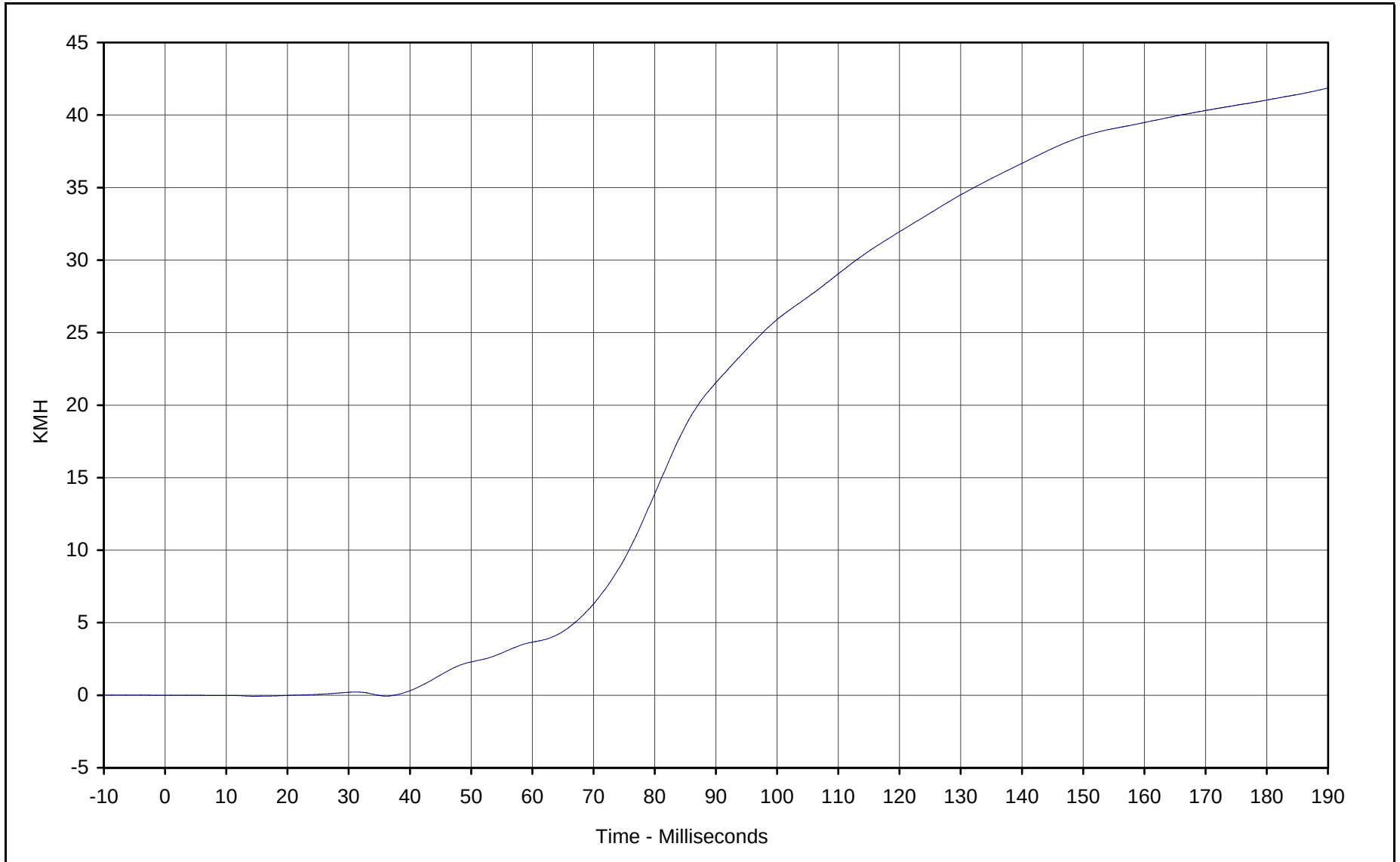




Curve Description: Driver Head CG Z
Maximum Value: 28.5 at 80.2 Milliseconds
Minimum Value: -5.9 at 34.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-003

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

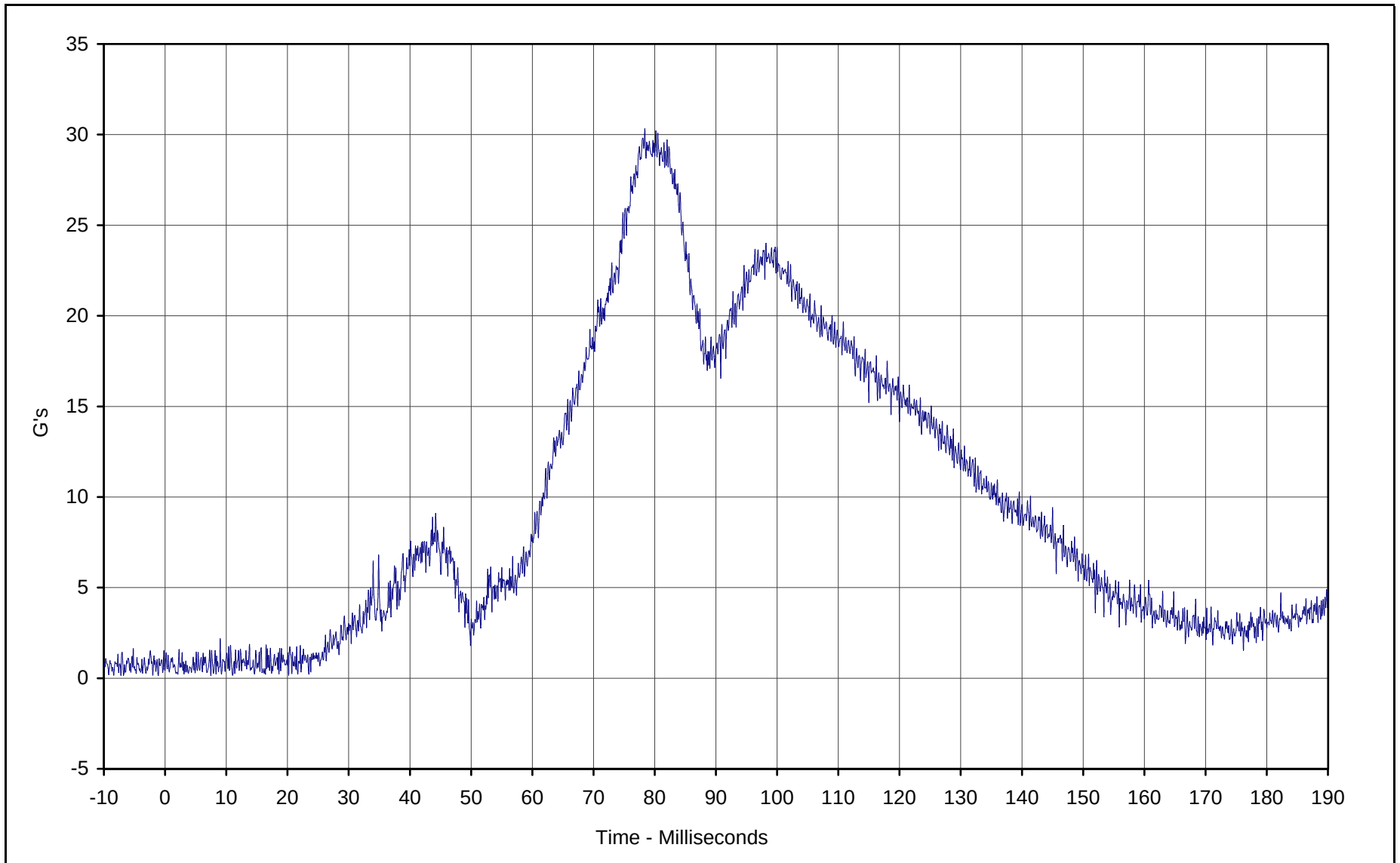




Curve Description: Driver Head CG Z Velocity
Maximum Value: 41.9 at 189.9 Milliseconds
Minimum Value: -0.1 at 14.6 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-003

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

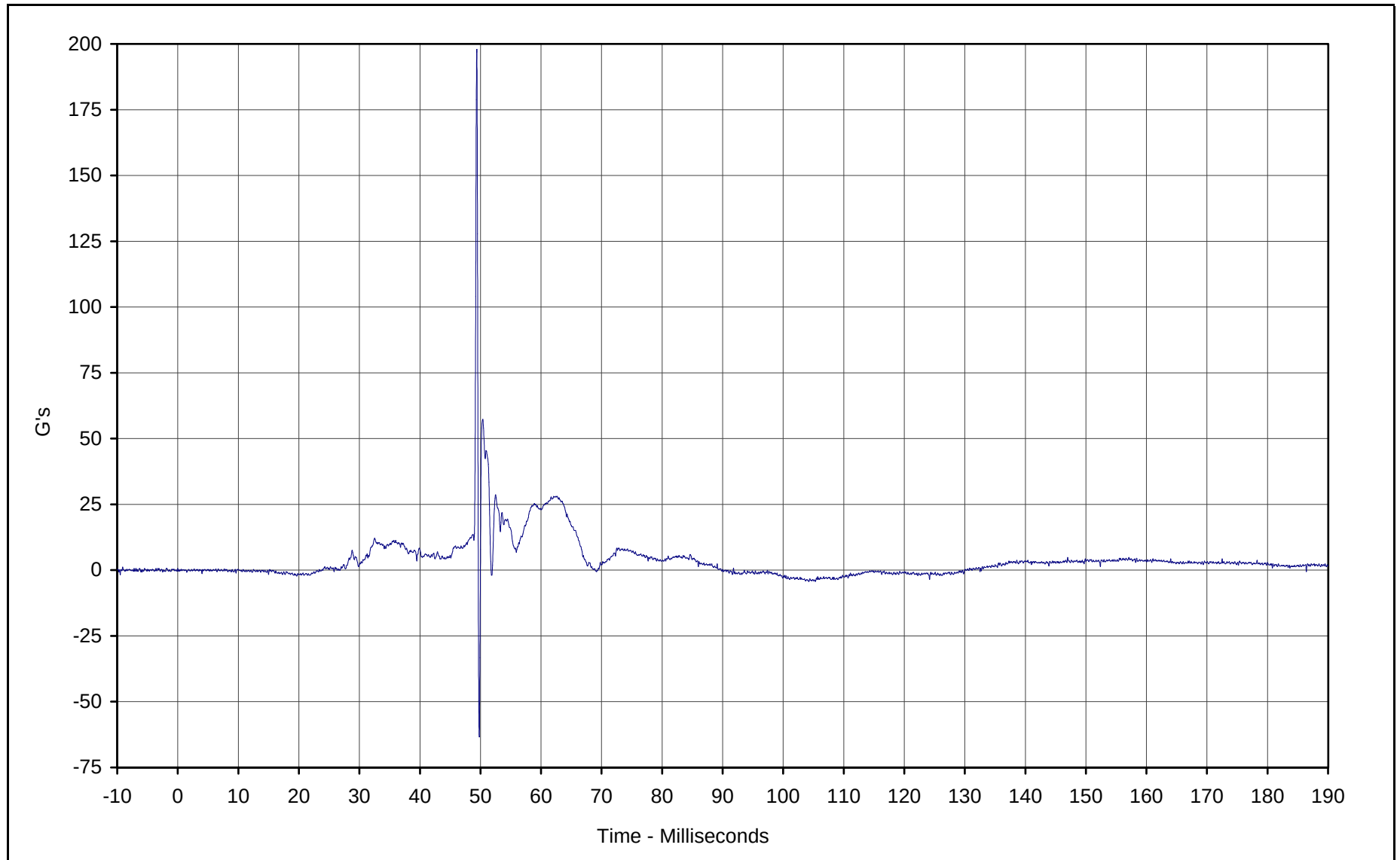




Curve Description: Driver Head CG Resultant
Maximum Value: 30.3 at 78.4 Milliseconds
Minimum Value: 0.2 at 7.5 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: RES-001

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

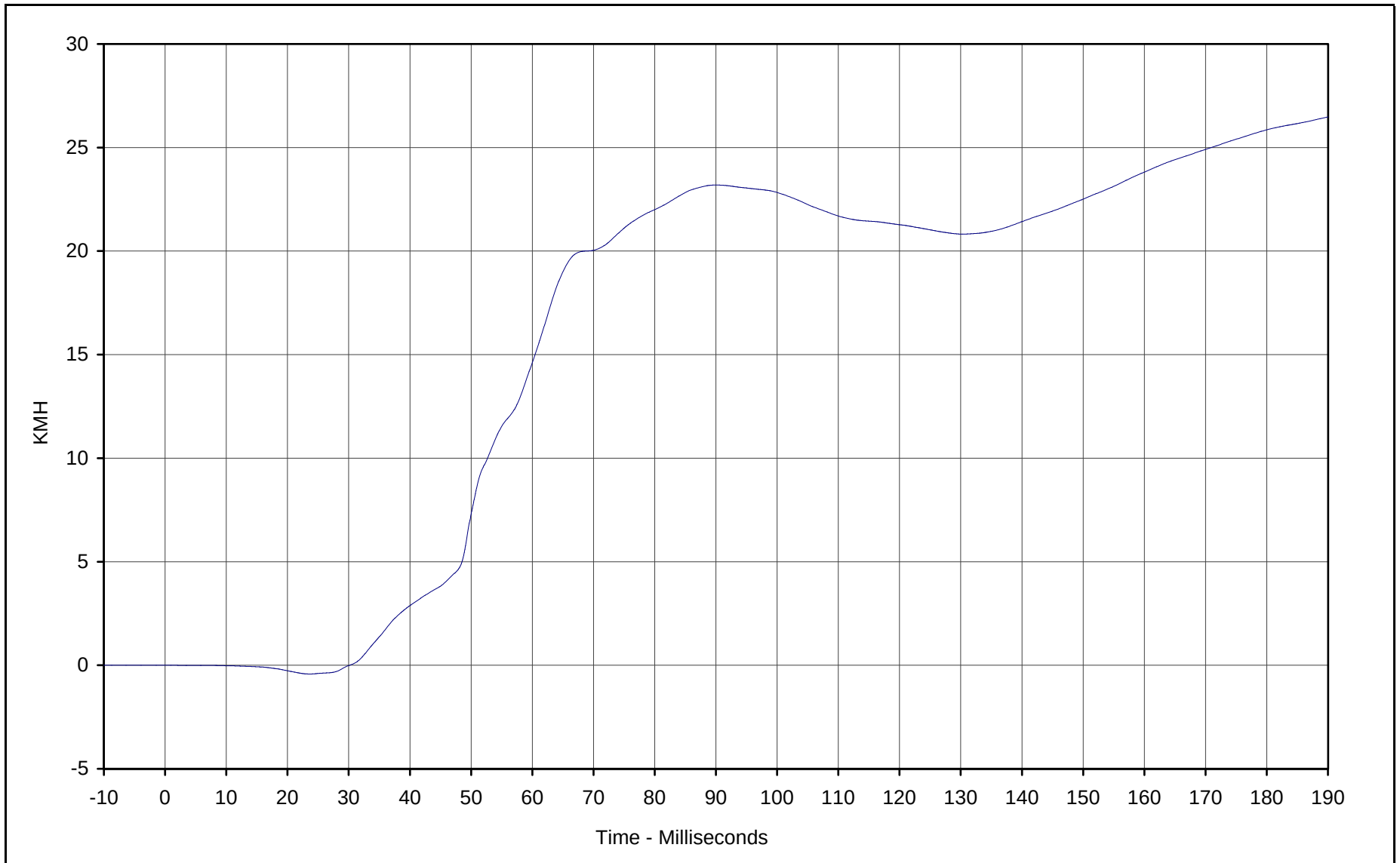




Curve Description: Driver Upper Rib Primary Y
Maximum Value: 196.9 at 49.4 Milliseconds
Minimum Value: -63.2 at 49.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-004

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Upper Rib Primary Y Velocity

Maximum Value: 26.5 at 189.9 Milliseconds

Minimum Value: -0.4 at 23.6 Milliseconds

SAE Filter Class: 180

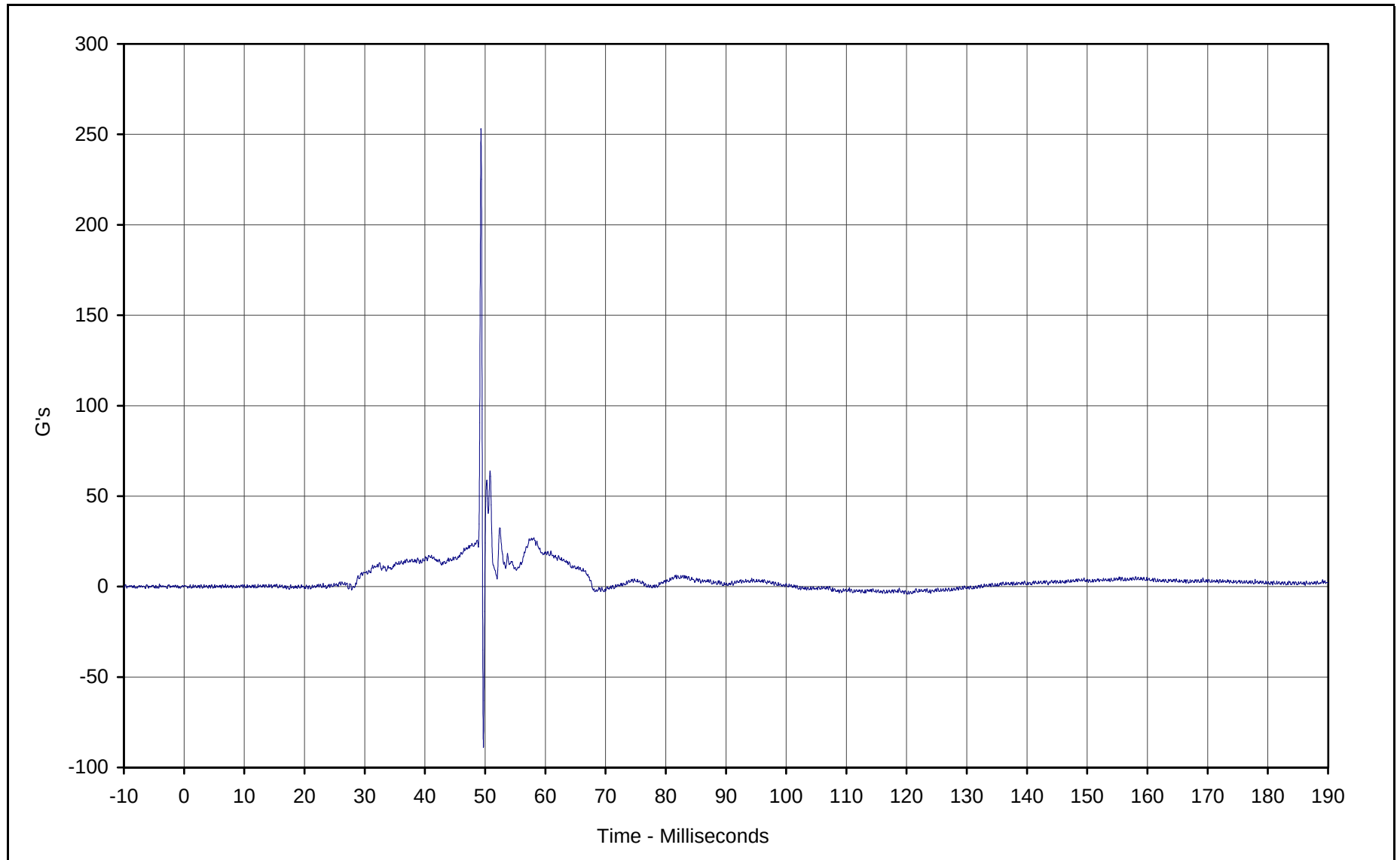
Date of Test: 11/14/01

Curve Number: IN1-004

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

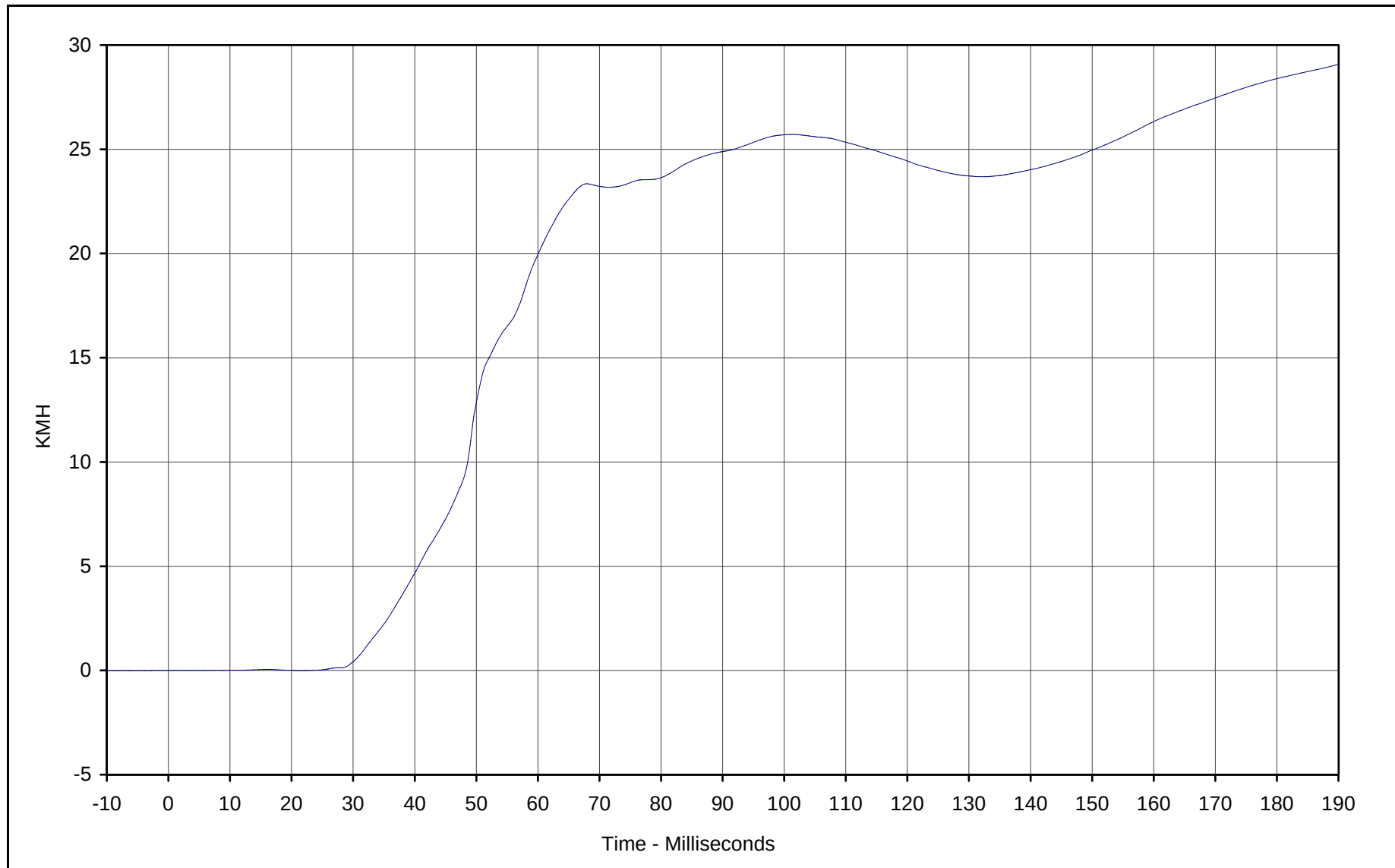




Curve Description: Driver Lower Rib Primary Y
Maximum Value: 252.6 at 49.3 Milliseconds
Minimum Value: -88.3 at 49.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-005

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Lower Rib Primary Y Velocity

Maximum Value: 29.1 at 189.9 Milliseconds

Minimum Value: 0.0 at 21.7 Milliseconds

SAE Filter Class: 180

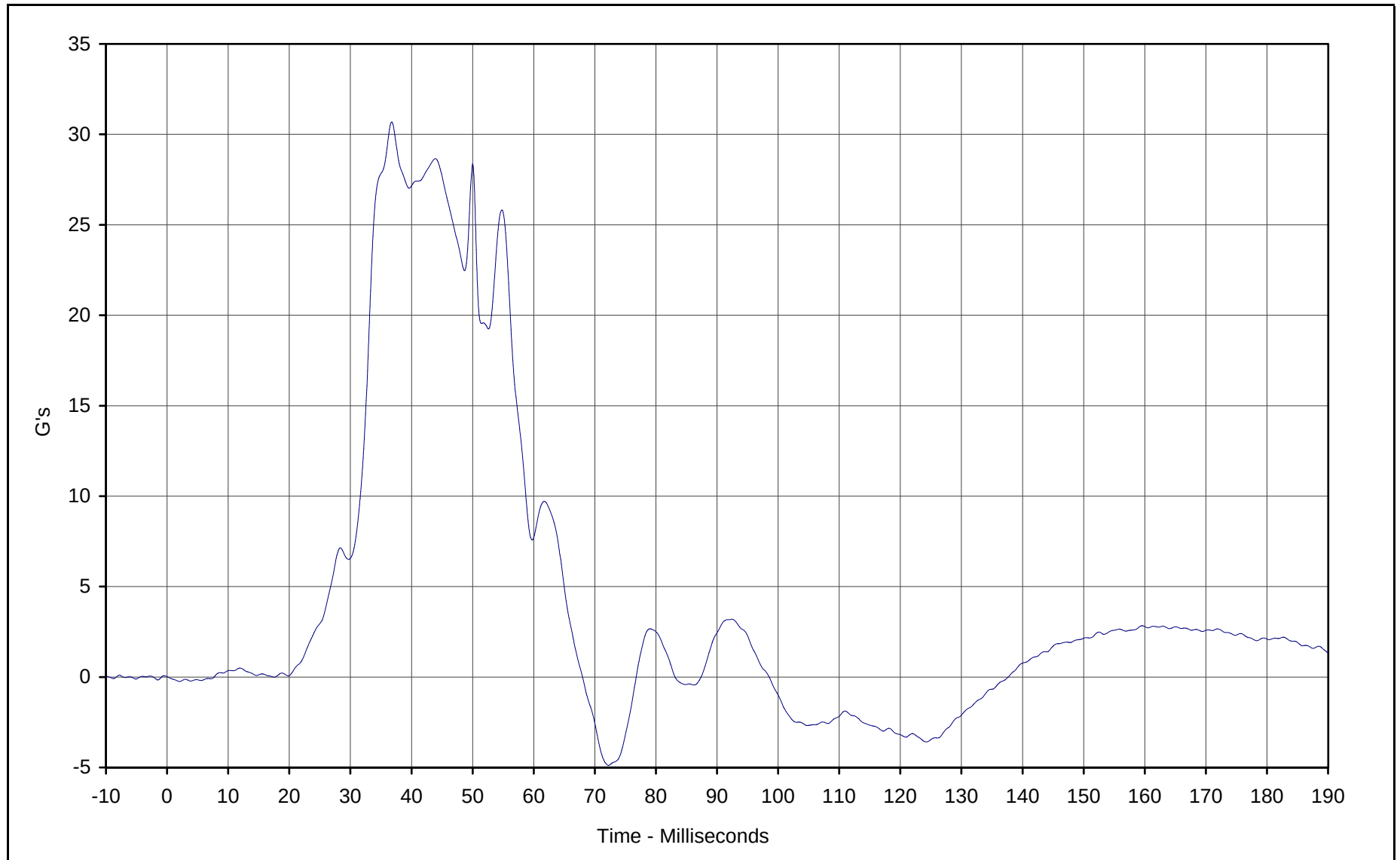
Date of Test: 11/14/01

Curve Number: IN1-005

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

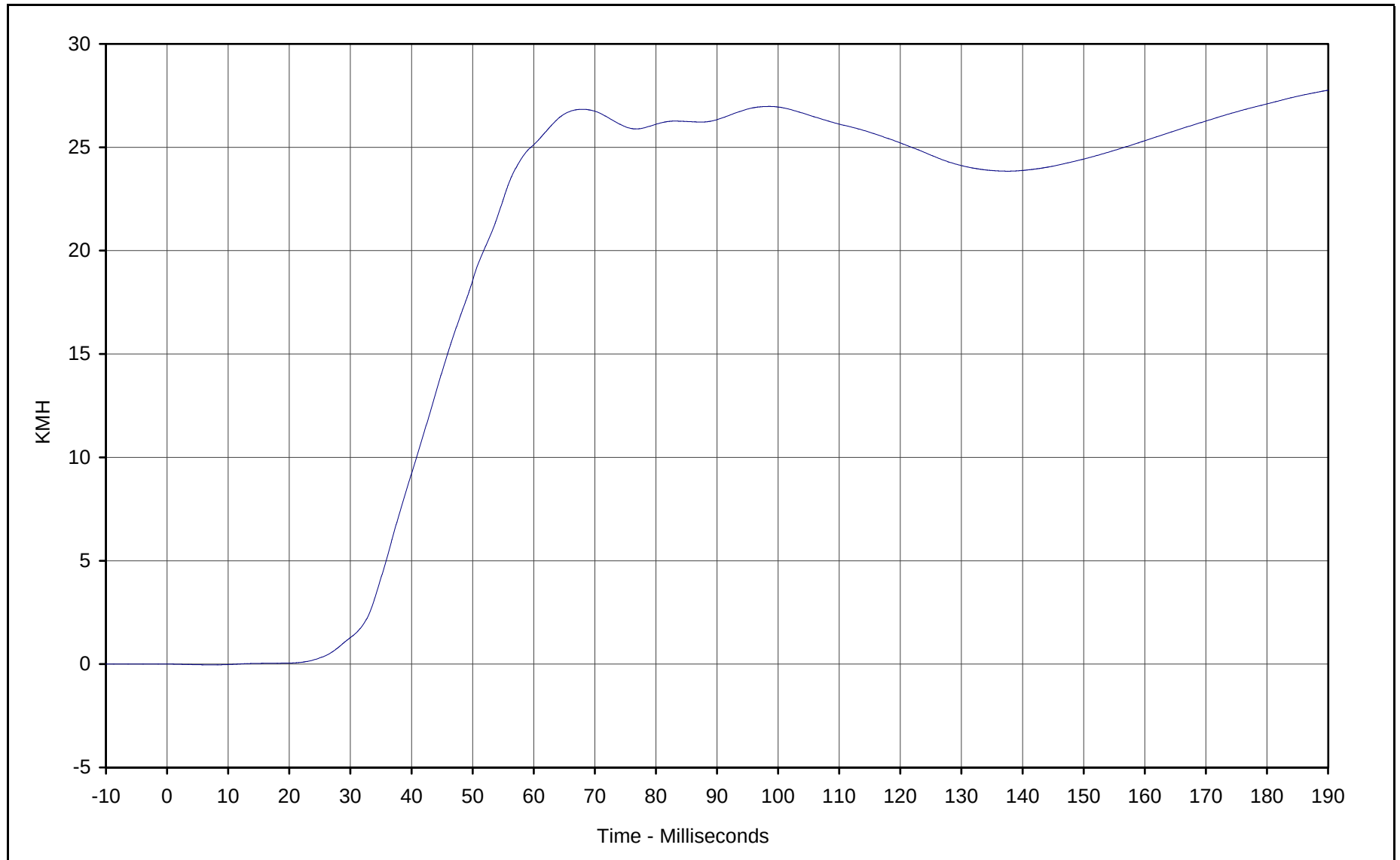




Curve Description: Driver Lower Spine Primary Y
Maximum Value: 30.7 at 36.8 Milliseconds
Minimum Value: -4.9 at 72.2 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: FIL-006

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Lower Spine Primary Y Velocity

Maximum Value: 27.8 at 189.9 Milliseconds

Minimum Value: 0.0 at 7.7 Milliseconds

SAE Filter Class: 180

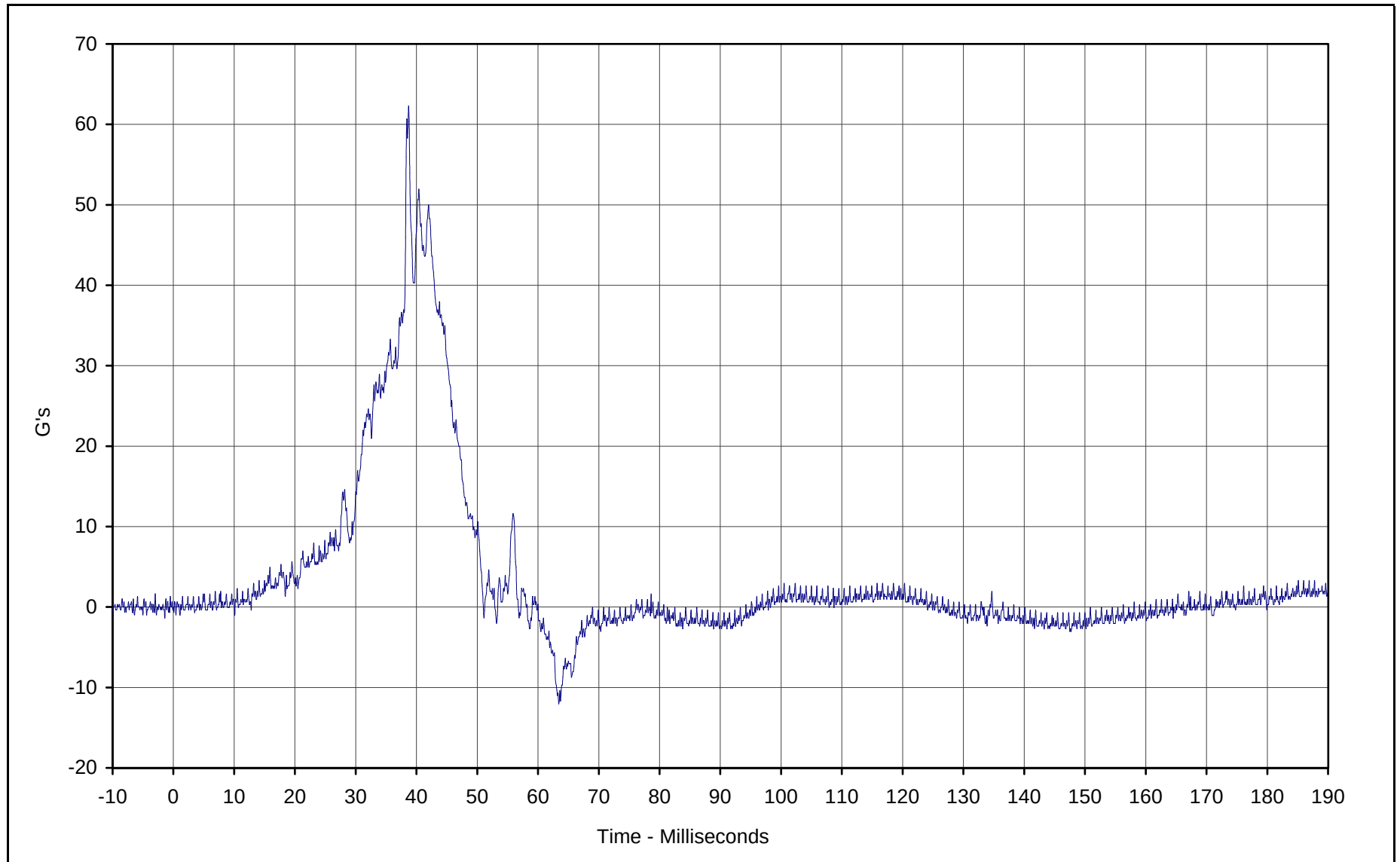
Date of Test: 11/14/01

Curve Number: IN1-006

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

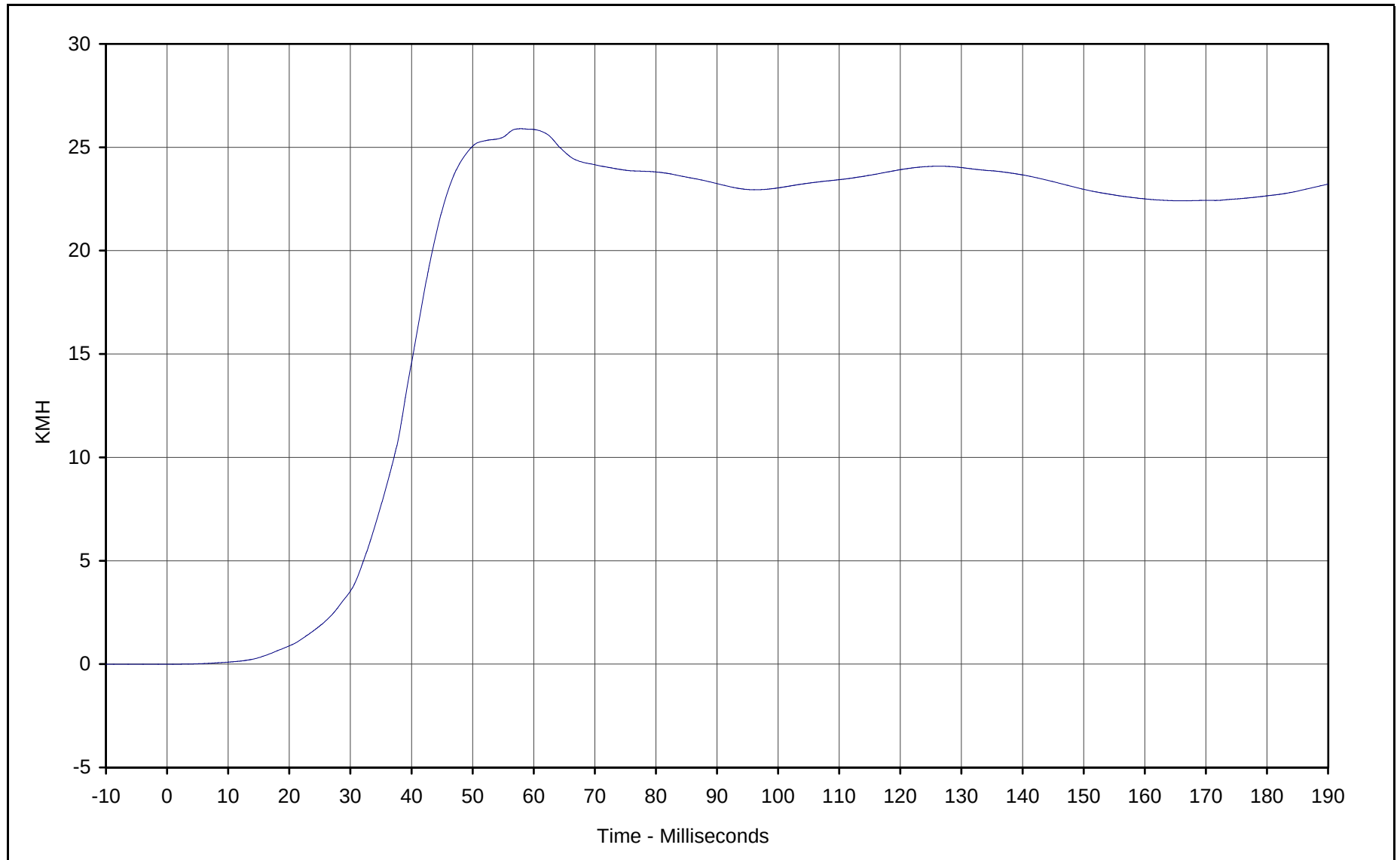




Curve Description: Driver Pelvis Primary Y
Maximum Value: 62.3 at 38.7 Milliseconds
Minimum Value: -12.0 at 63.4 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-007

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

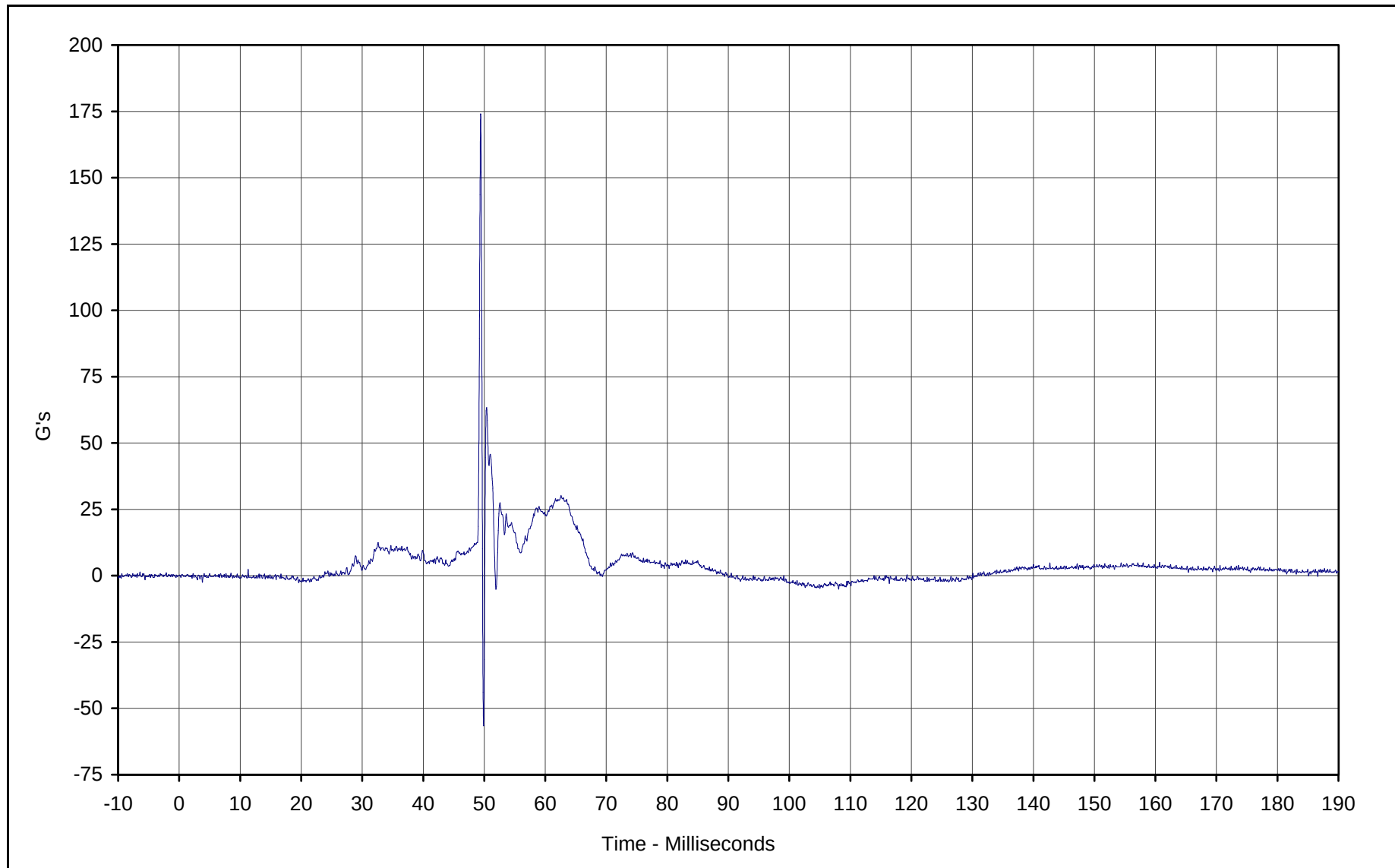




Curve Description: Driver Pelvis Primary Y Velocity
Maximum Value: 25.9 at 57.9 Milliseconds
Minimum Value: 0.0 at 1.4 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-007

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

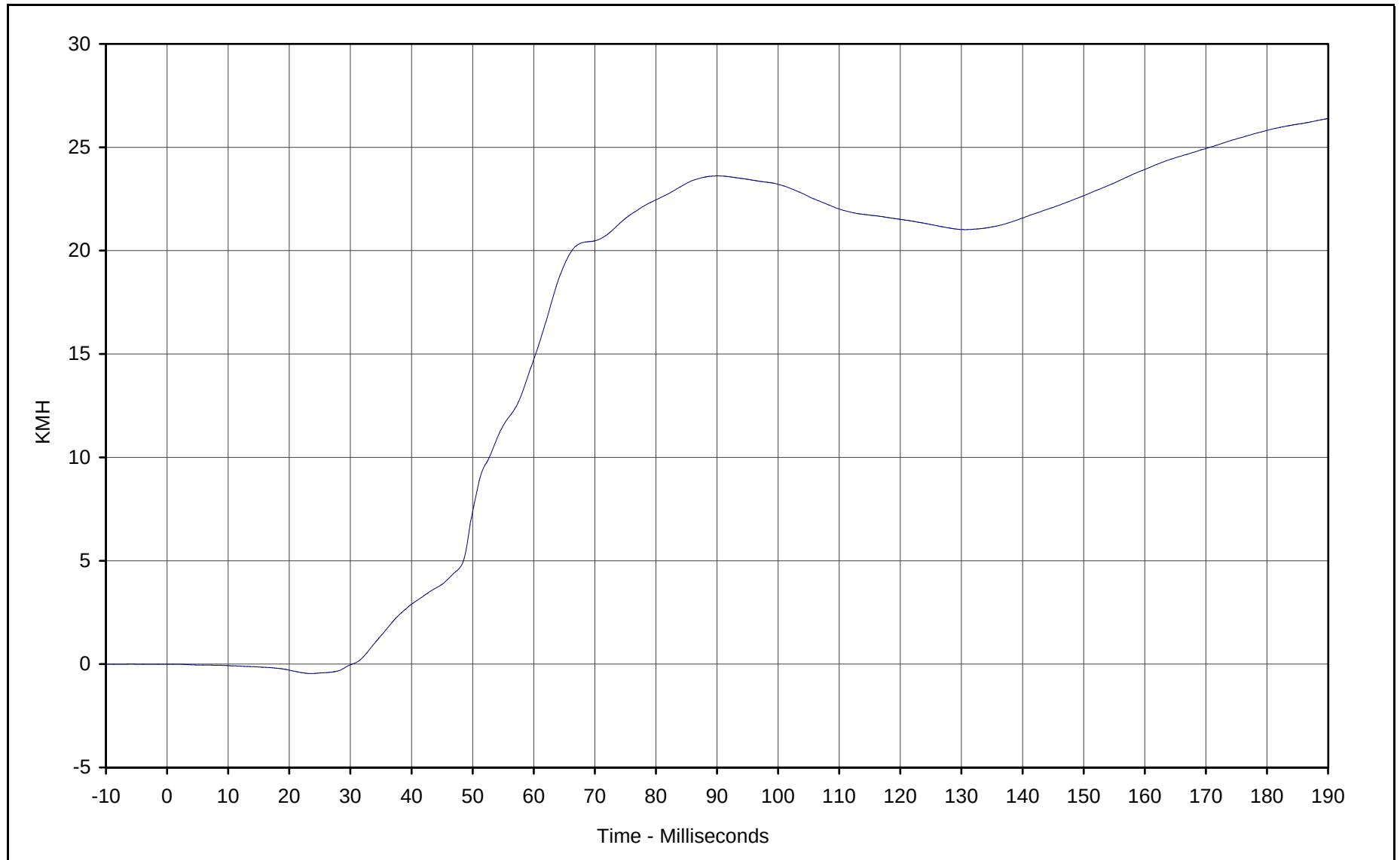




Curve Description: Driver Upper Rib Redundant Y
Maximum Value: 174.0 at 49.4 Milliseconds
Minimum Value: -56.5 at 49.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-008

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Upper Rib Redundant Y Velocity

Maximum Value: 26.4 at 189.9 Milliseconds

Minimum Value: -0.5 at 23.6 Milliseconds

SAE Filter Class: 180

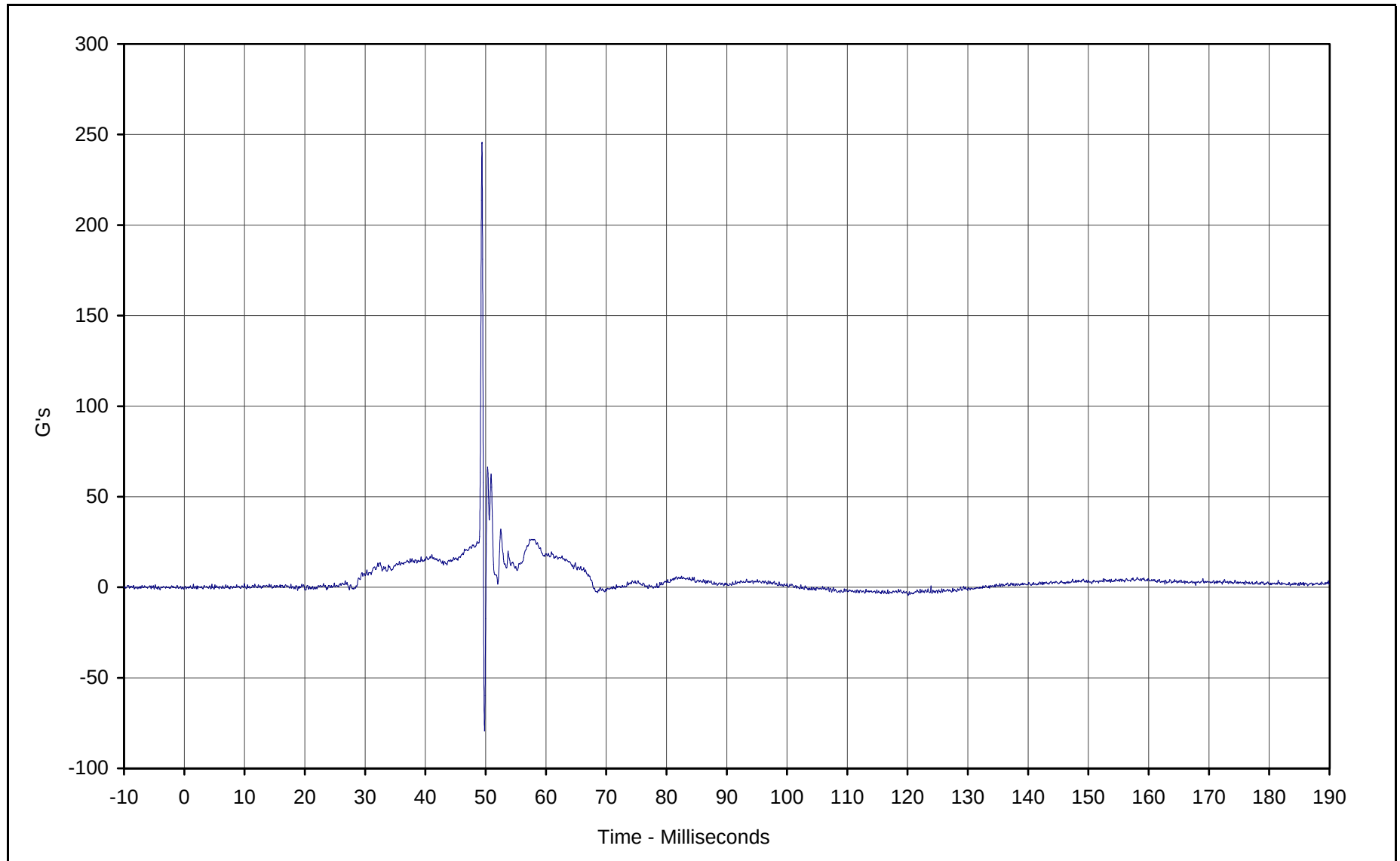
Date of Test: 11/14/01

Curve Number: IN1-008

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

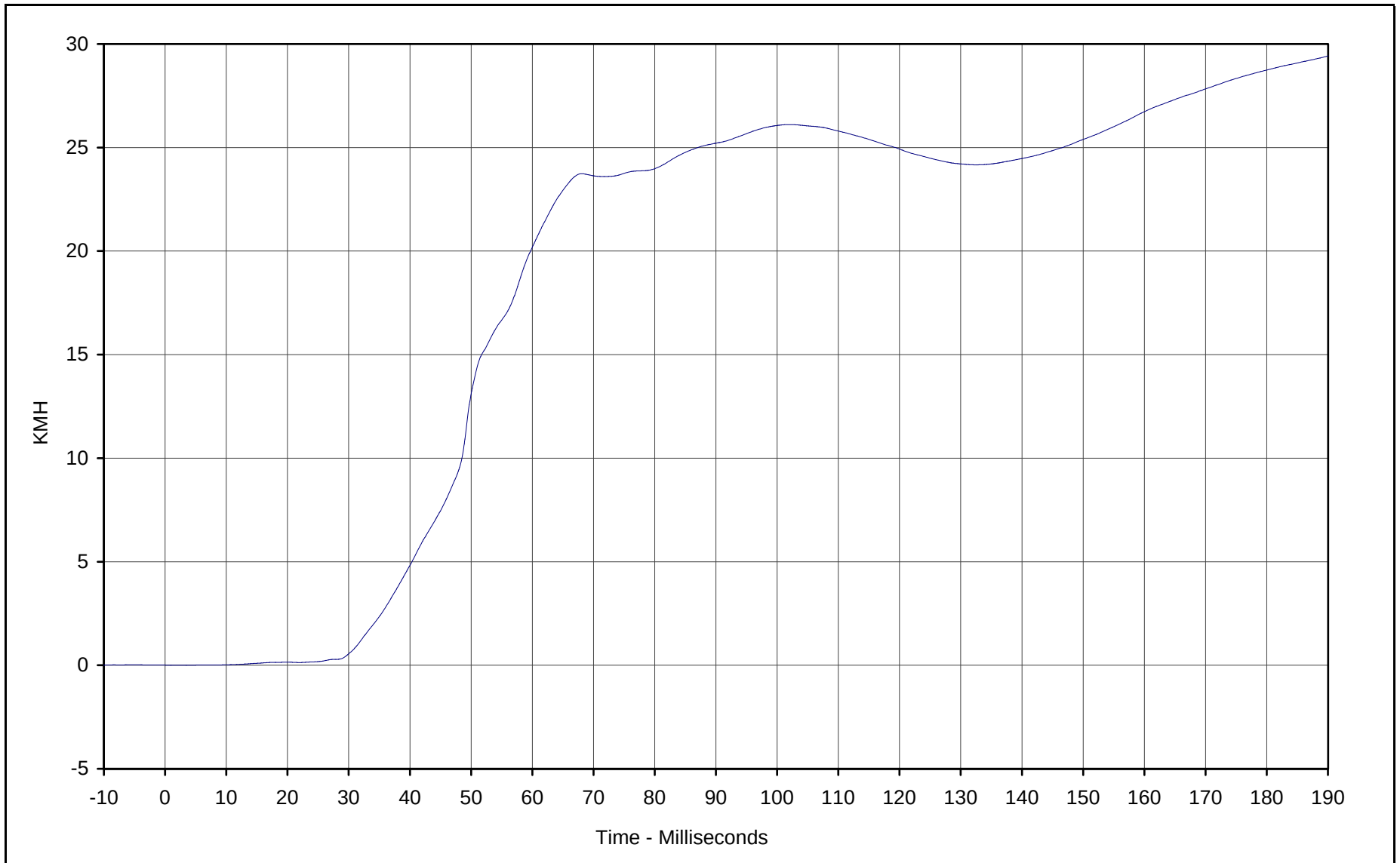




Curve Description: Driver Lower Rib Redundant Y
Maximum Value: 245.1 at 49.4 Milliseconds
Minimum Value: -79.2 at 49.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-009

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Lower Rib Redundant Y Velocity

Maximum Value: 29.4 at 189.9 Milliseconds

Minimum Value: 0.0 at 1.5 Milliseconds

SAE Filter Class: 180

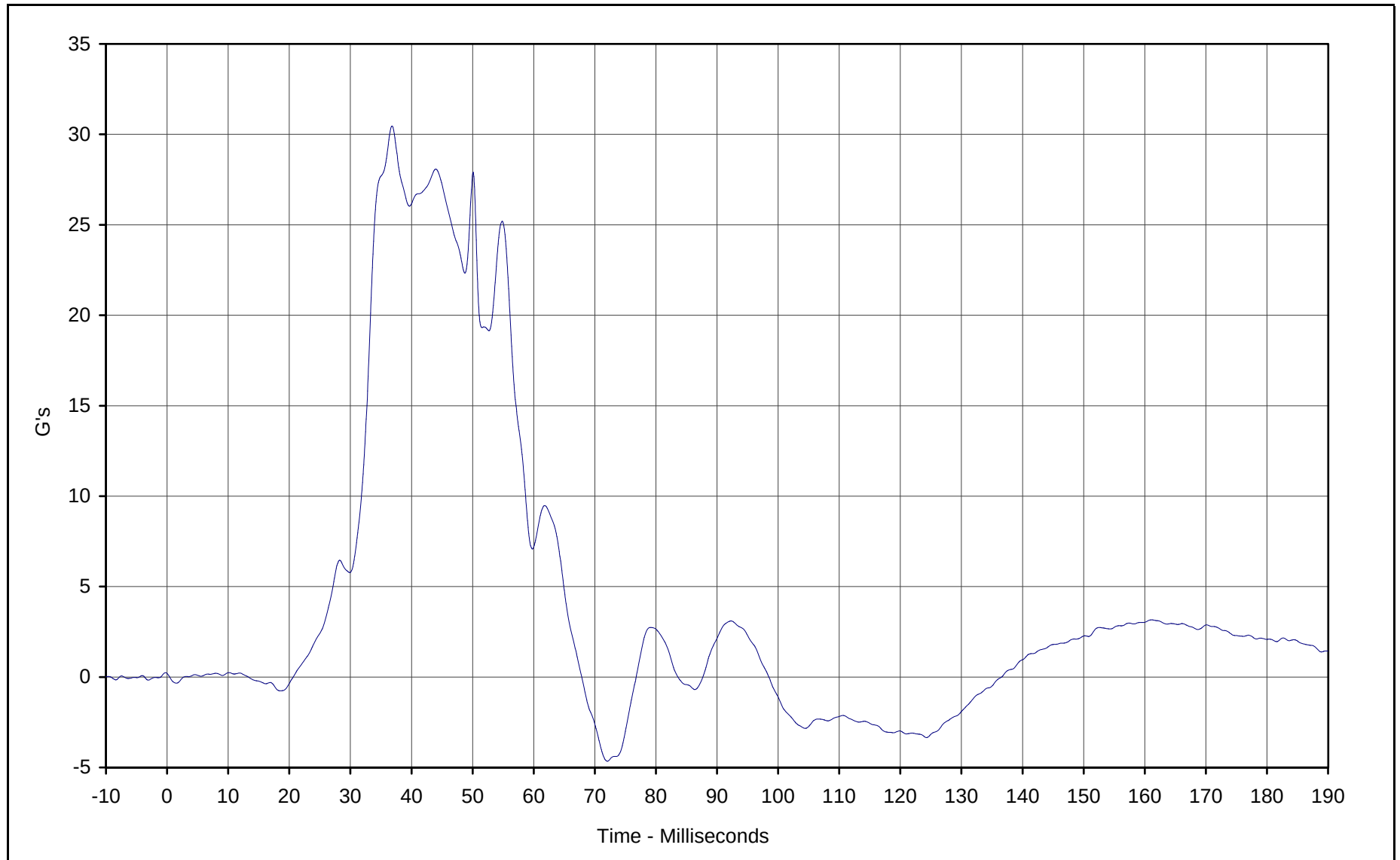
Date of Test: 11/14/01

Curve Number: IN1-009

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

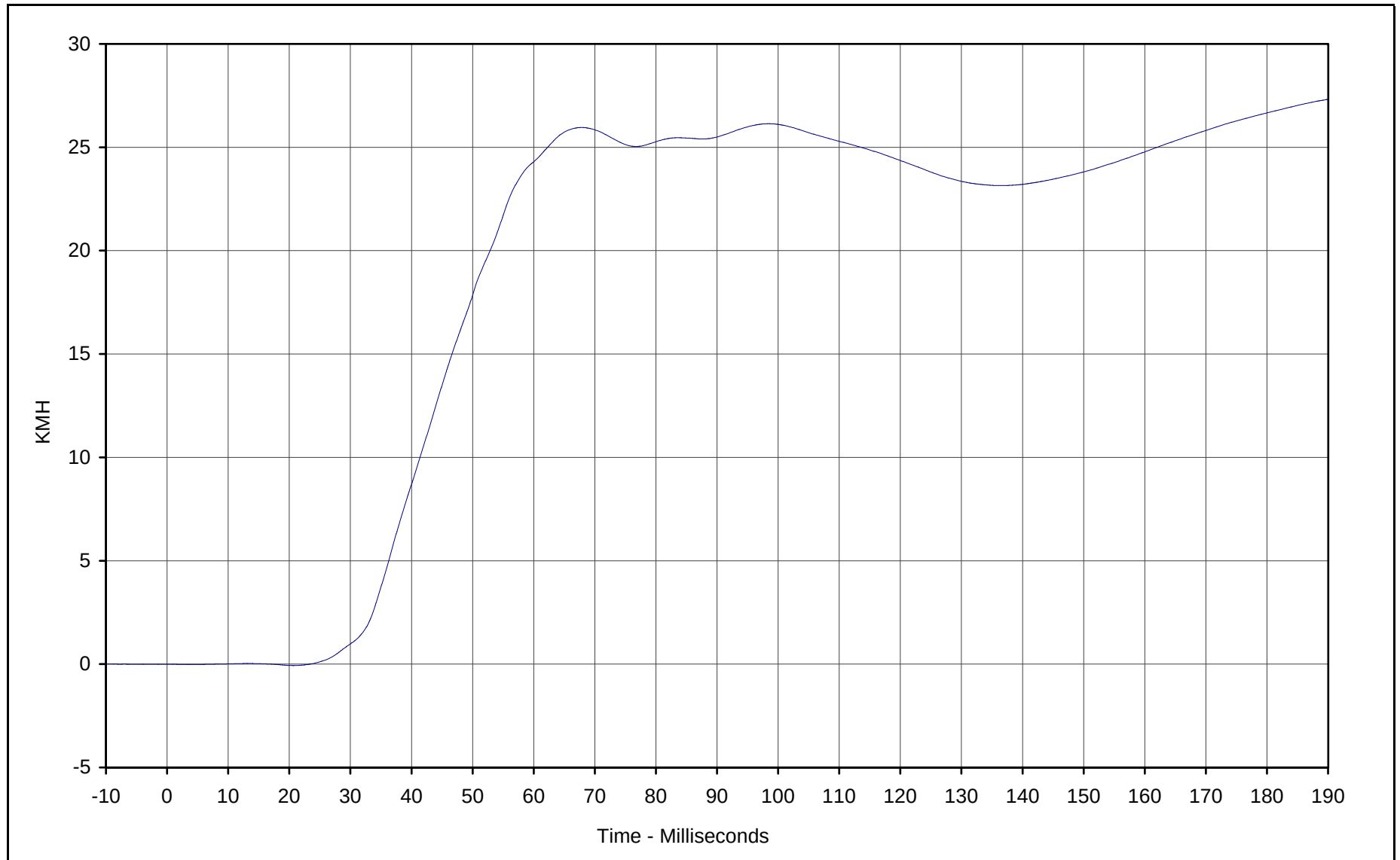




Curve Description: Driver Lower Spine Redundant Y
Maximum Value: 30.5 at 36.8 Milliseconds
Minimum Value: -4.7 at 72.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: FIL-010

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Lower Spine Redundant Y Velocity

Maximum Value: 27.3 at 189.9 Milliseconds

Minimum Value: -0.1 at 20.6 Milliseconds

SAE Filter Class: 180

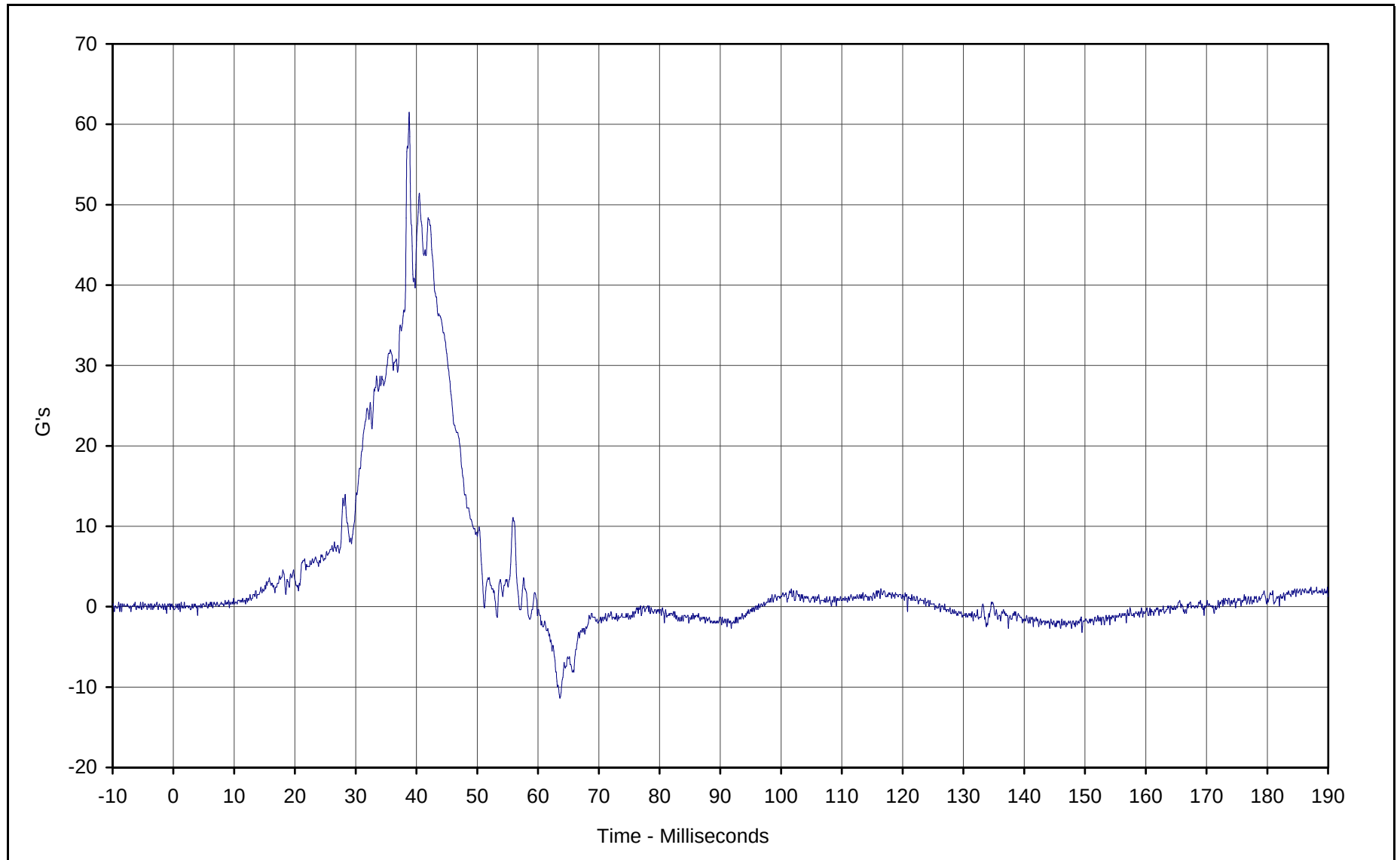
Date of Test: 11/14/01

Curve Number: IN1-0010

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

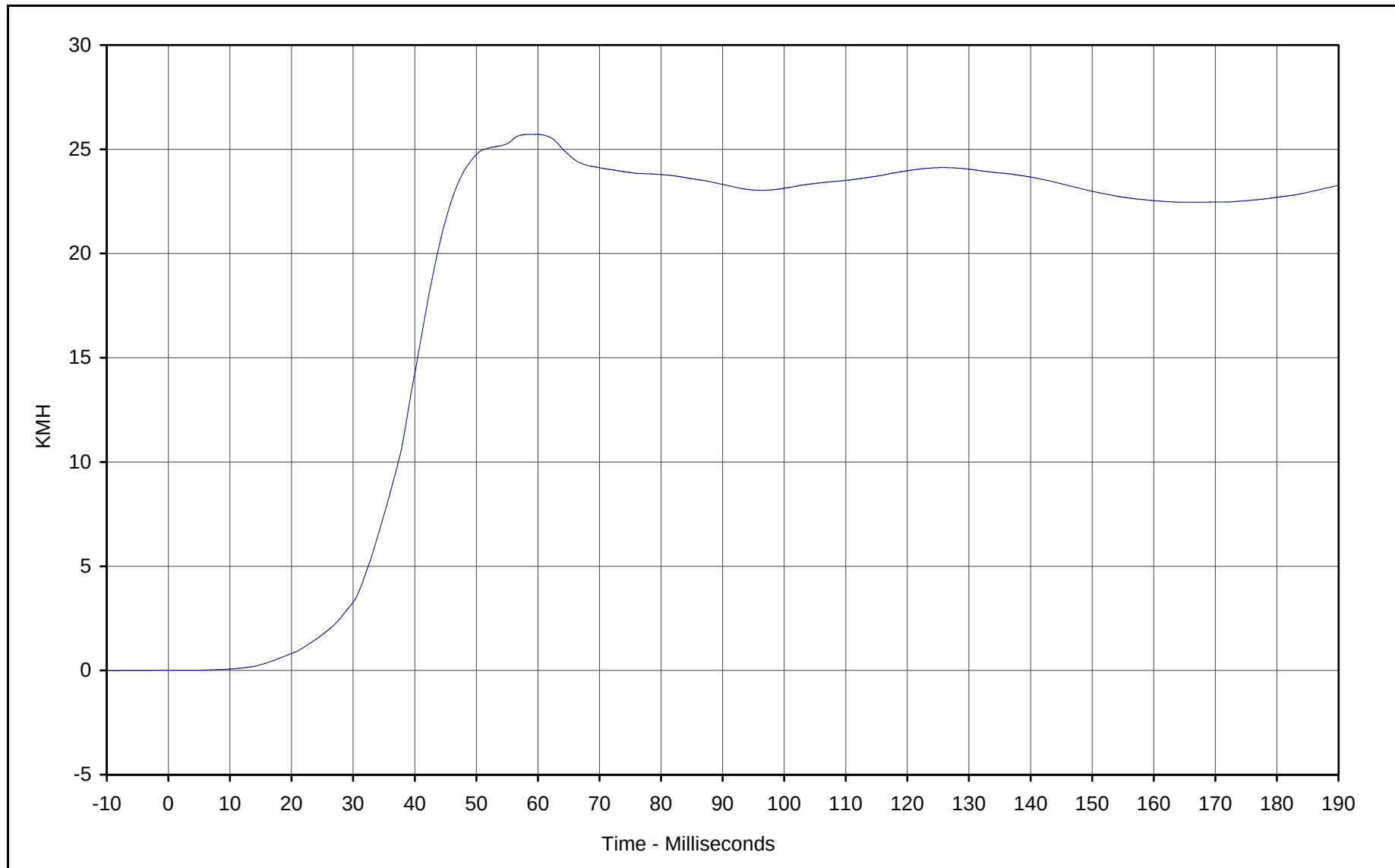




Curve Description: Driver Pelvis Redundant Y
Maximum Value: 61.5 at 38.8 Milliseconds
Minimum Value: -11.4 at 63.6 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-011

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Pelvis Redundant Y Velocity

Maximum Value: 25.7 at 59.8 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

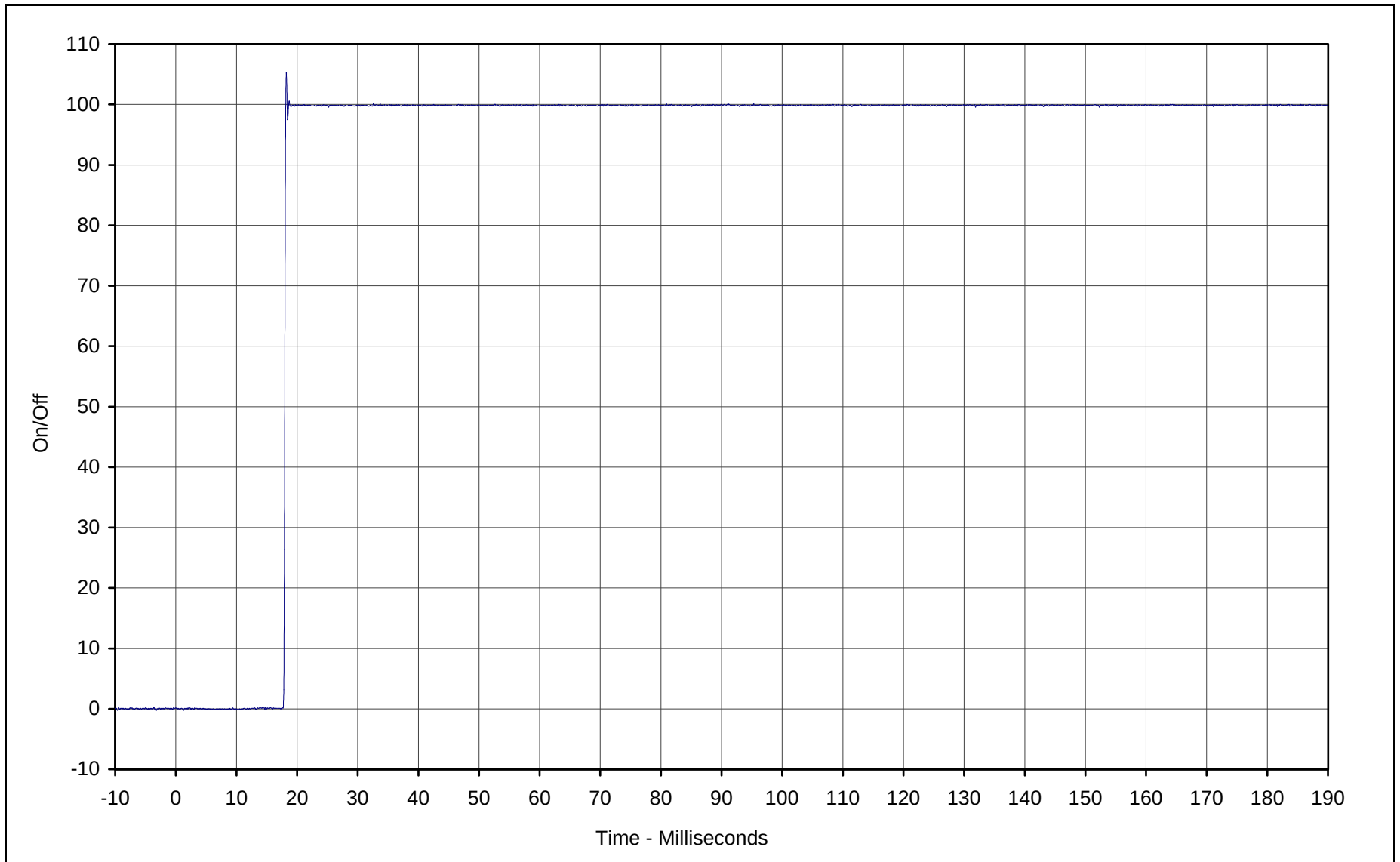
Date of Test: 11/14/01

Curve Number: IN1-011

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

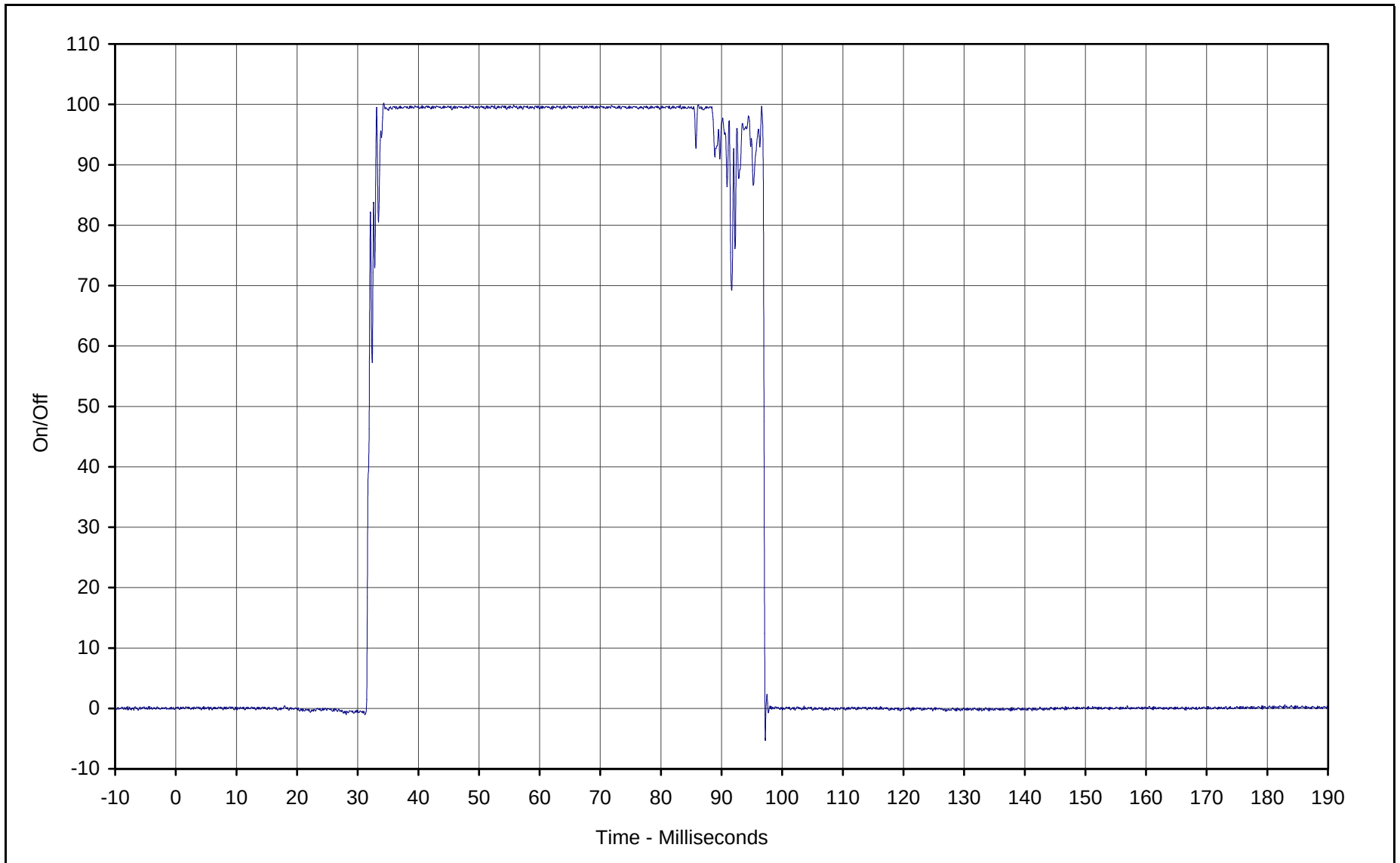




Curve Description: Driver Thorax Contact
Maximum Value: 105.2 at 18.2 Milliseconds
Crossing Point: 50% at 18.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-012

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

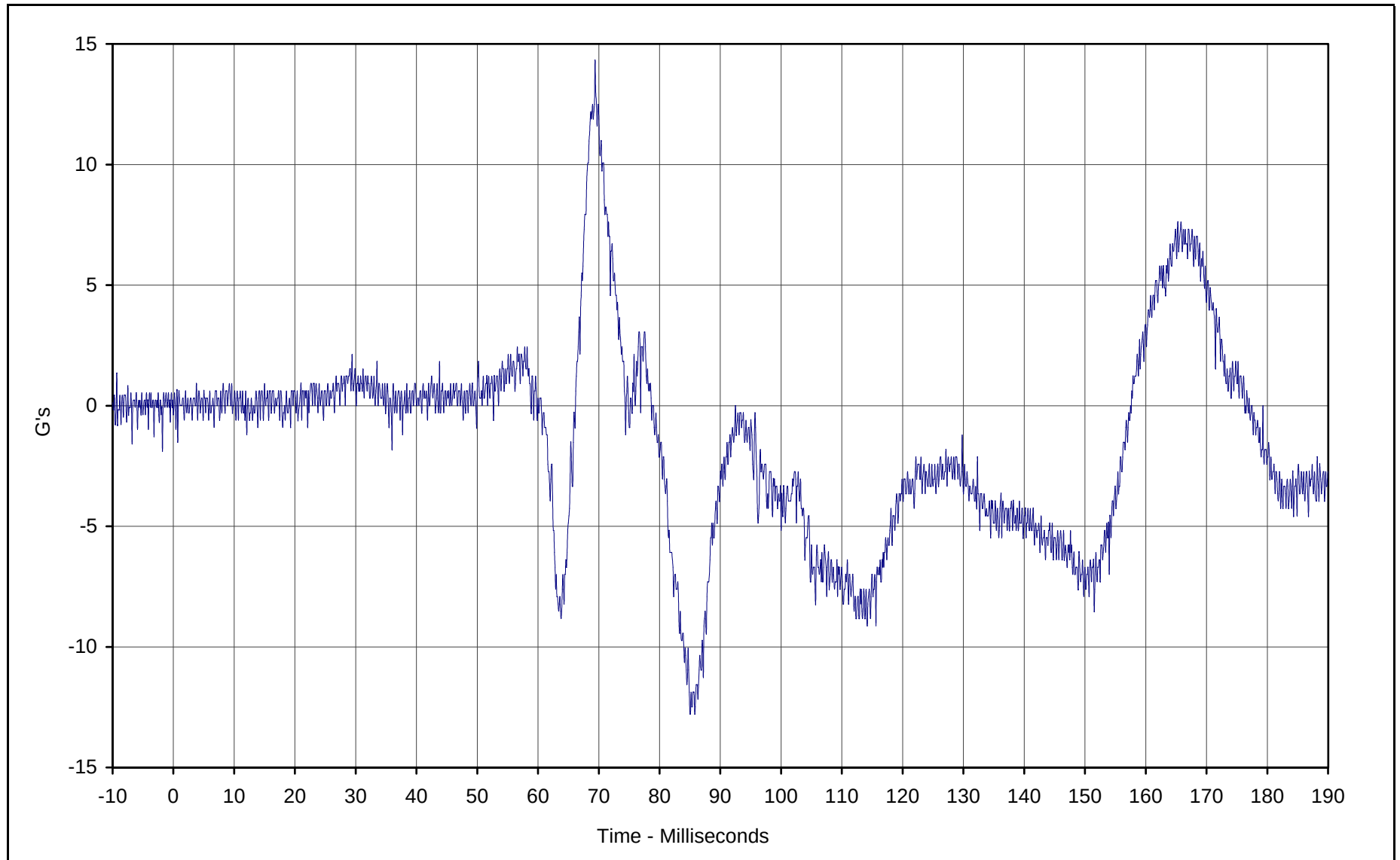




Curve Description: Driver Pelvis Contact
Maximum Value: 100.2 at 34.3 Milliseconds
Crossing Point: 50% at 32.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-013

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

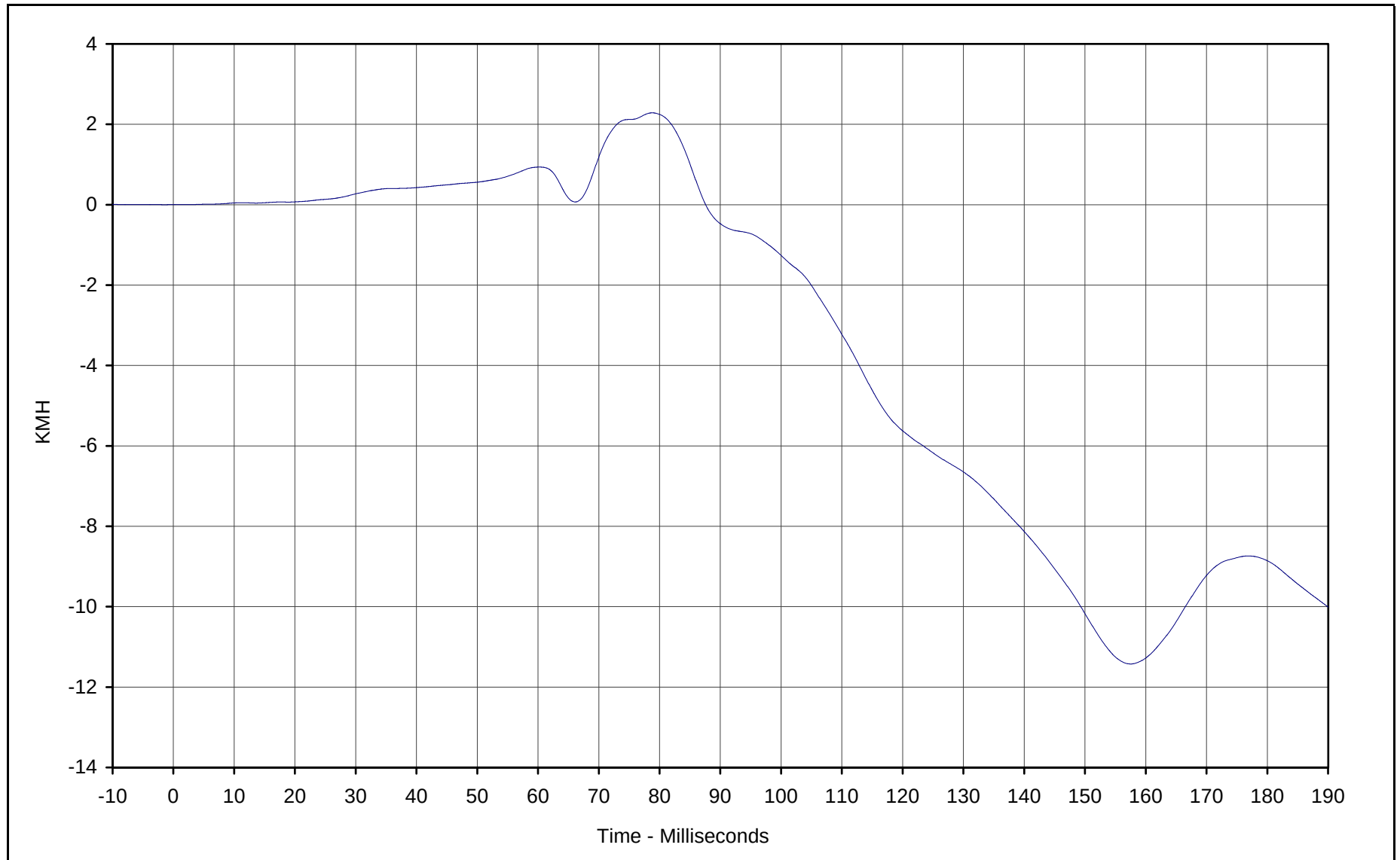




Curve Description: Pass. Head CG X
Maximum Value: 14.3 at 69.4 Milliseconds
Minimum Value: -12.8 at 85.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-014

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

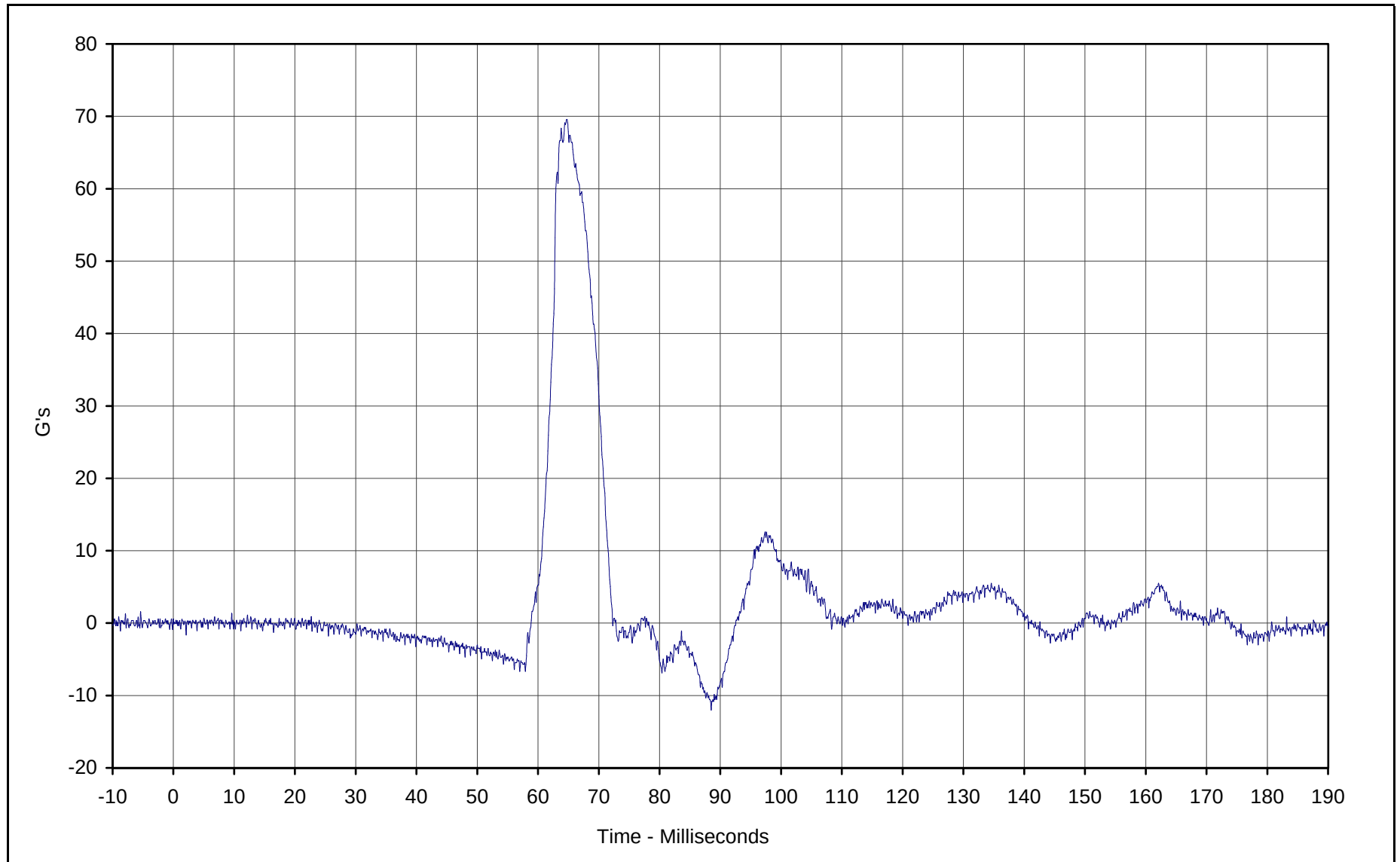




Curve Description: Pass. Head CG X Velocity
Maximum Value: 2.3 at 78.8 Milliseconds
Minimum Value: -11.4 at 157.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-014

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

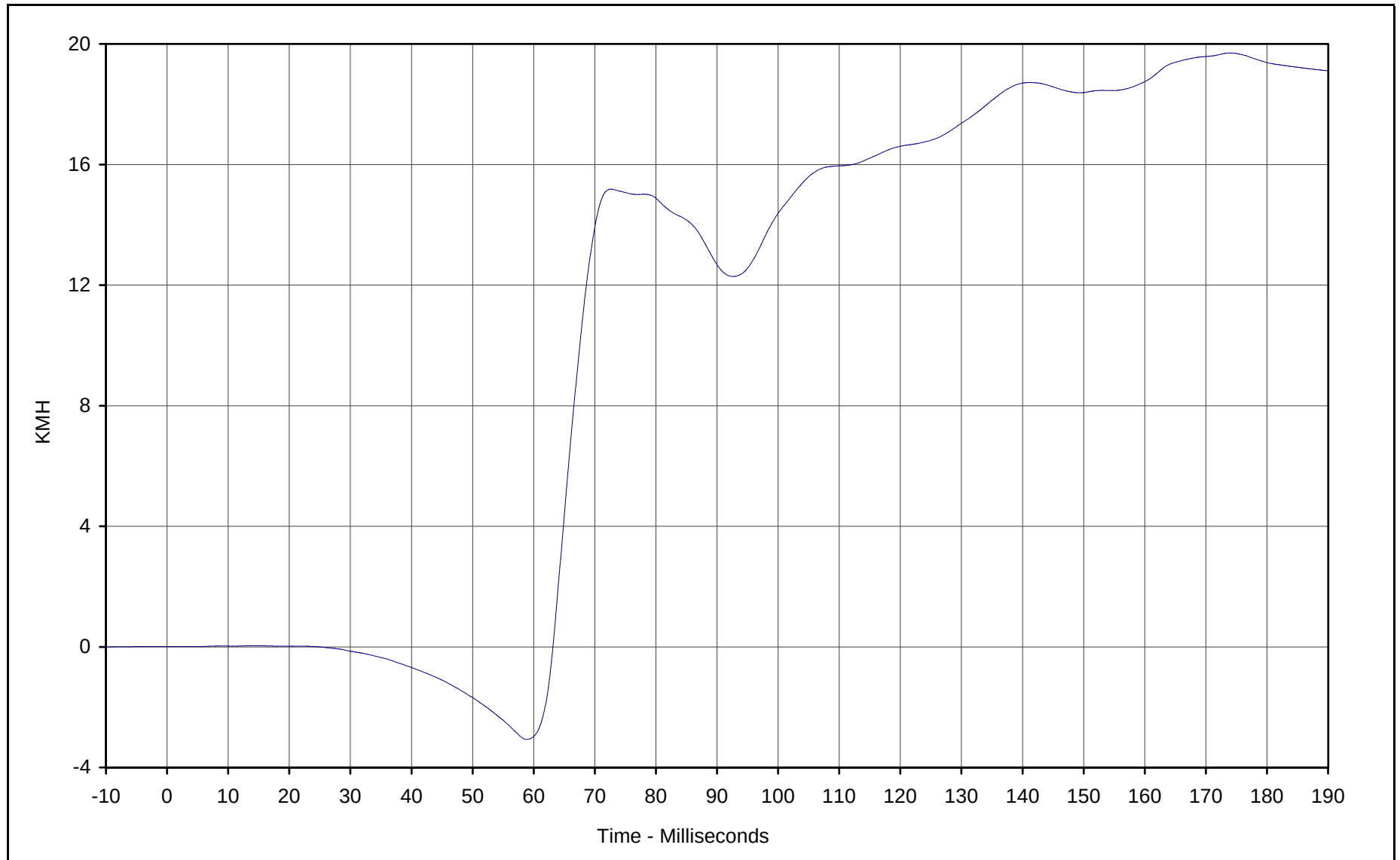




Curve Description: Pass. Head CG Y
Maximum Value: 69.6 at 64.7 Milliseconds
Minimum Value: -12.0 at 88.5 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-015

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

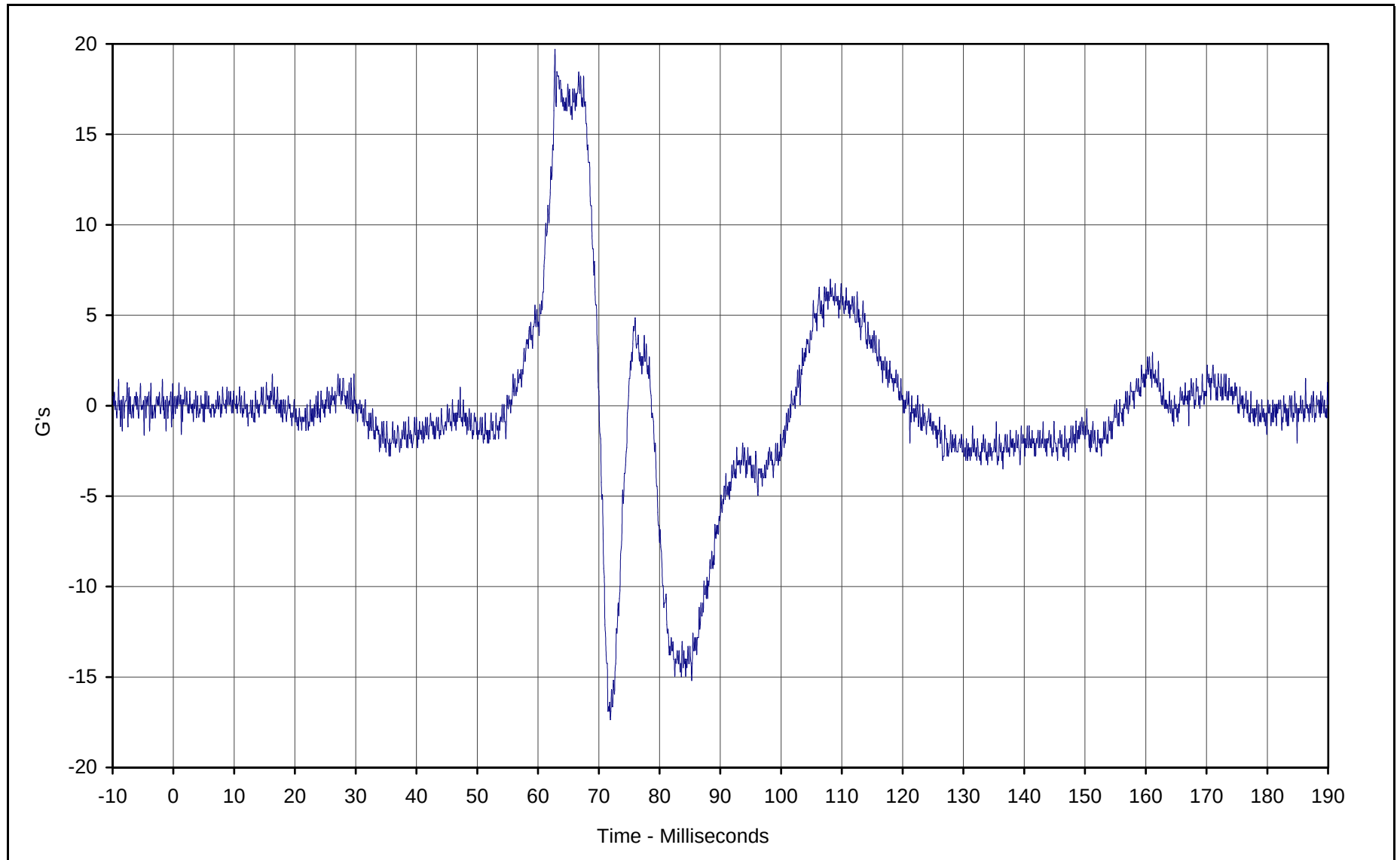




Curve Description: Pass. Head CG Y Velocity
Maximum Value: 19.7 at 173.9 Milliseconds
Minimum Value: -3.1 at 58.9 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-015

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

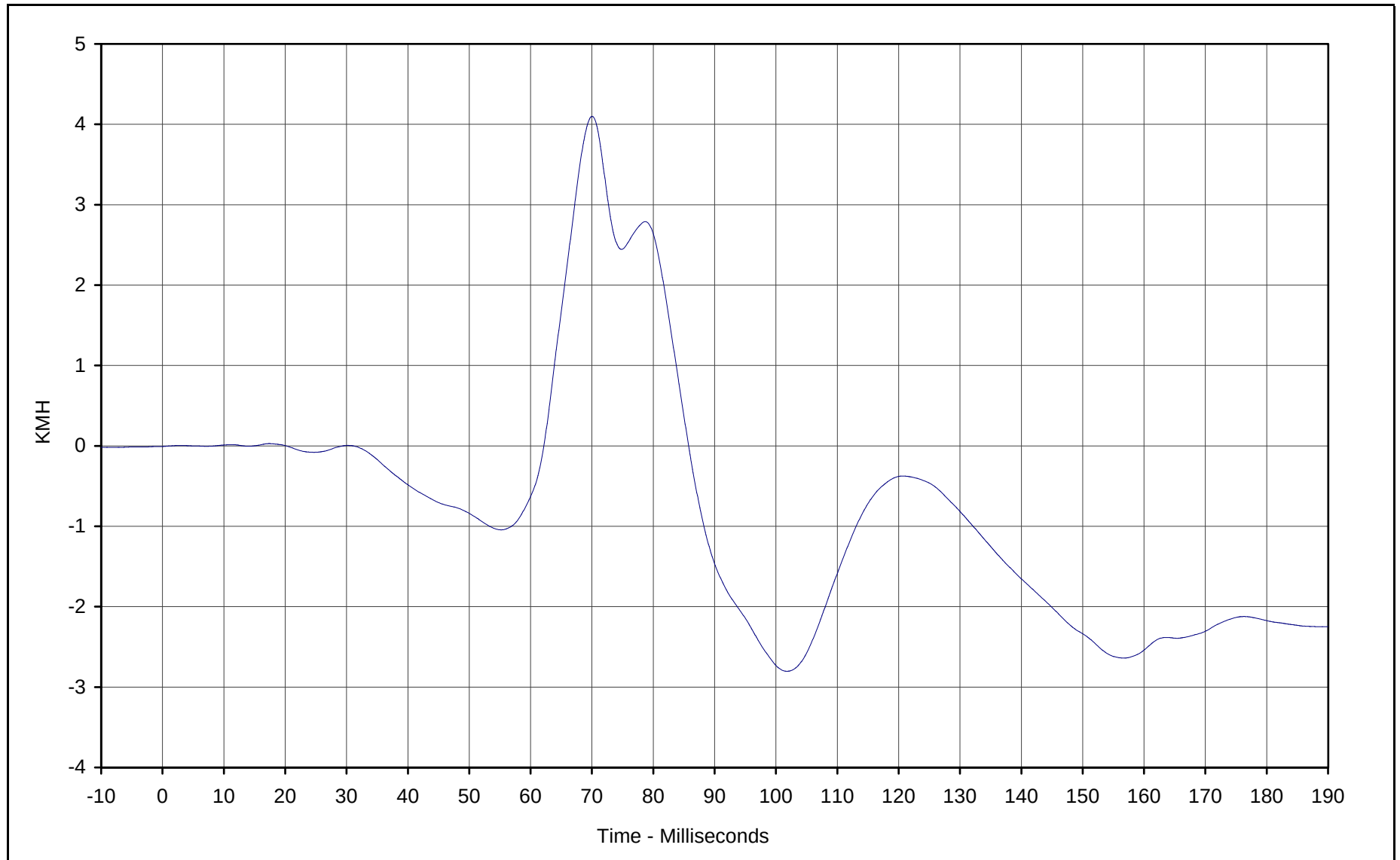




Curve Description: Pass. Head CG Z
Maximum Value: 19.7 at 62.8 Milliseconds
Minimum Value: -17.4 at 71.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-016

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

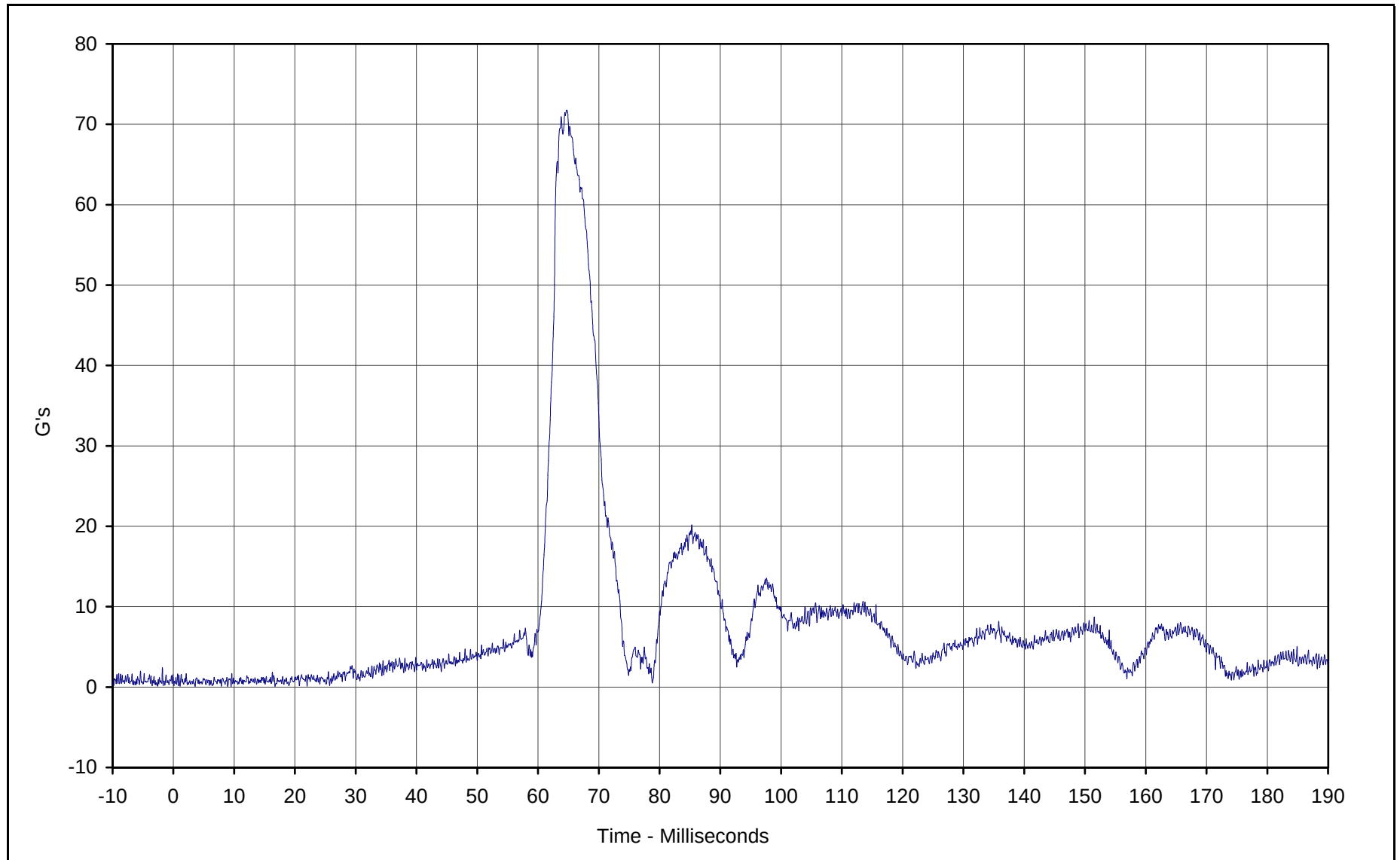




Curve Description: Pass. Head CG Z Velocity
Maximum Value: 4.1 at 70.0 Milliseconds
Minimum Value: -2.8 at 101.8 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-016

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

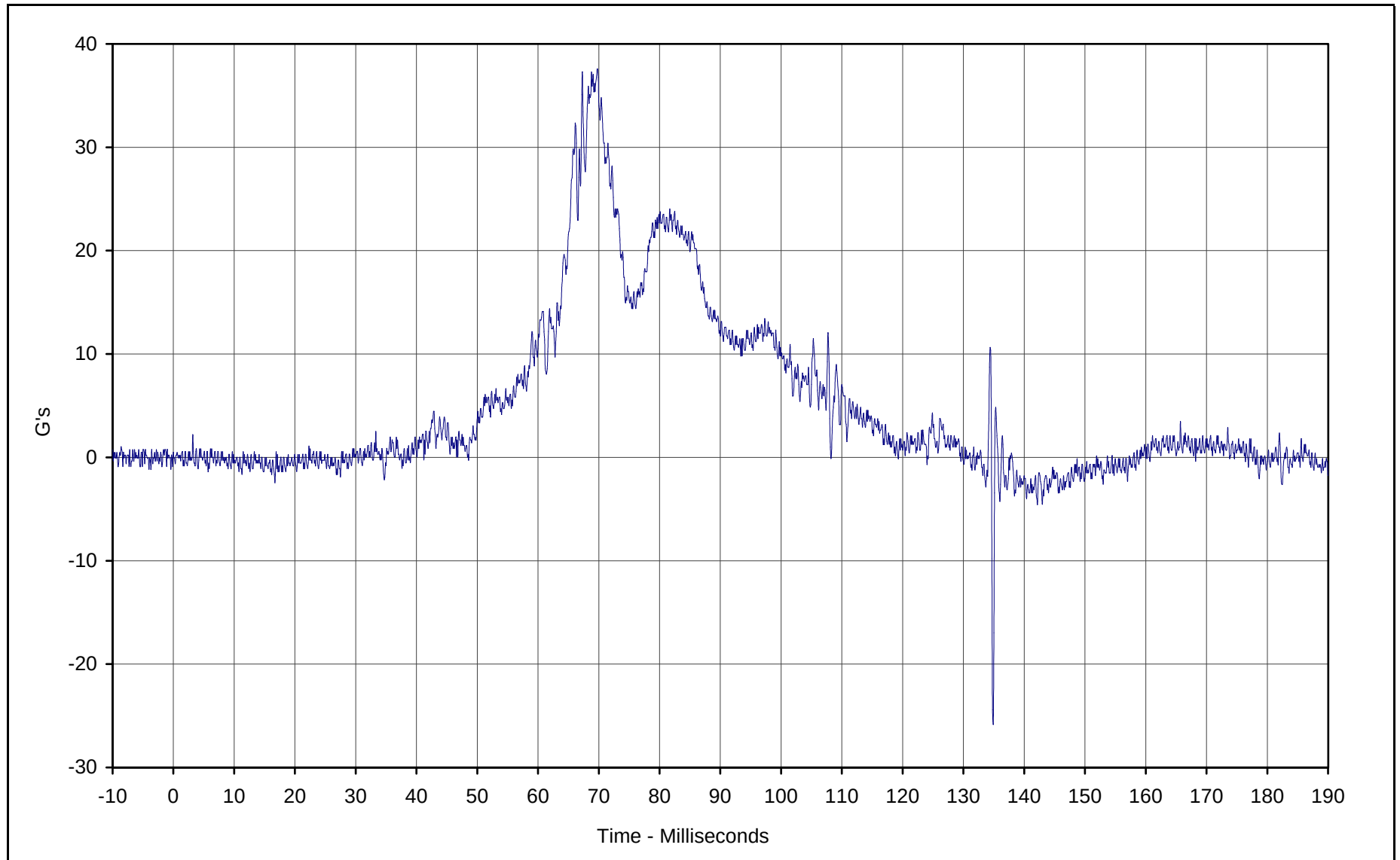




Curve Description: Pass. Head CG Resultant
Maximum Value: 71.8 at 64.7 Milliseconds
Minimum Value: 0.1 at 3.6 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: RES-014

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

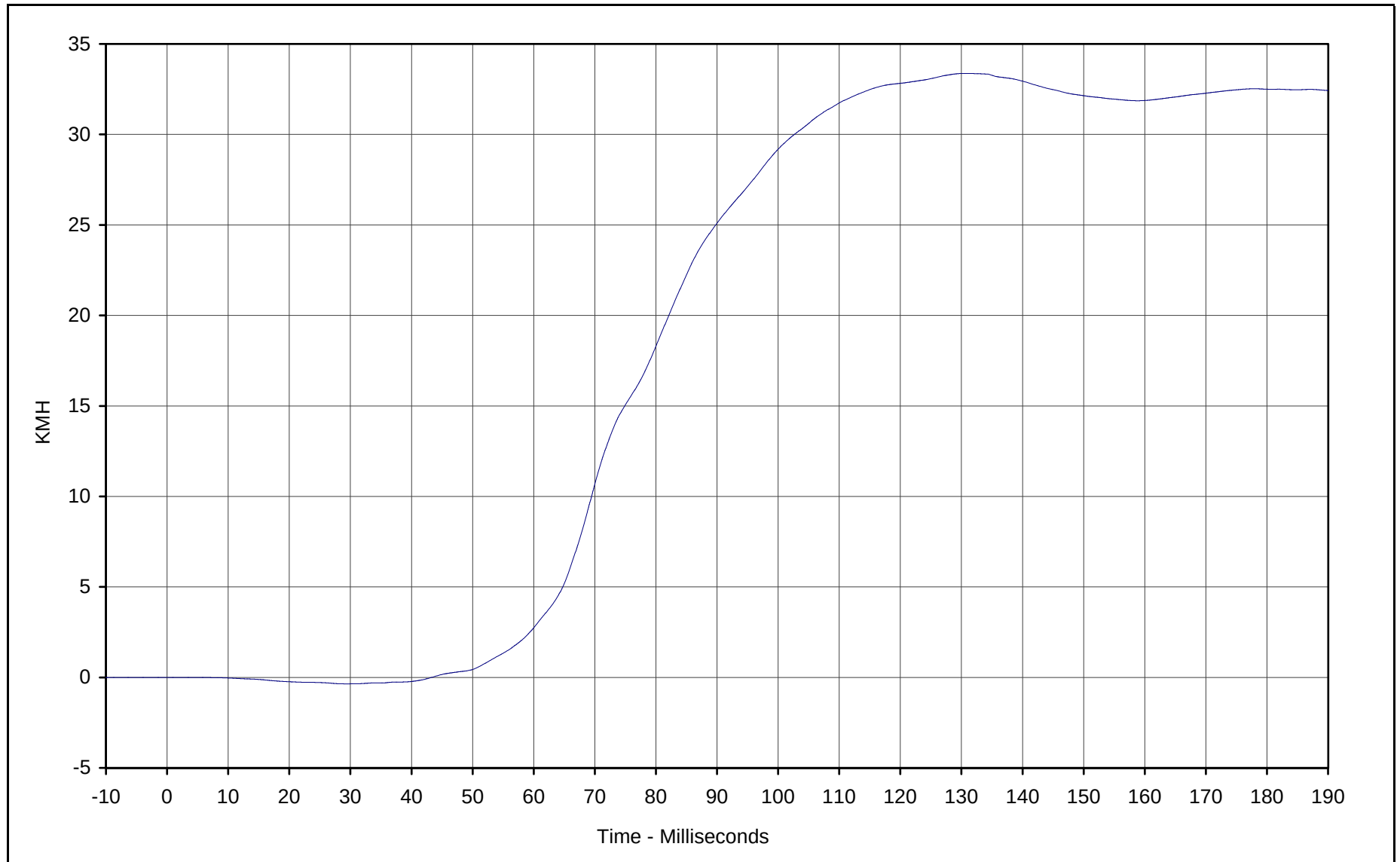




Curve Description: Pass. Upper Rib Primary Y
Maximum Value: 37.6 at 69.7 Milliseconds
Minimum Value: -25.8 at 134.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-017

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Upper Rib Primary Y Velocity

Maximum Value: 33.4 at 130.7 Milliseconds

Minimum Value: -0.4 at 29.4 Milliseconds

SAE Filter Class: 180

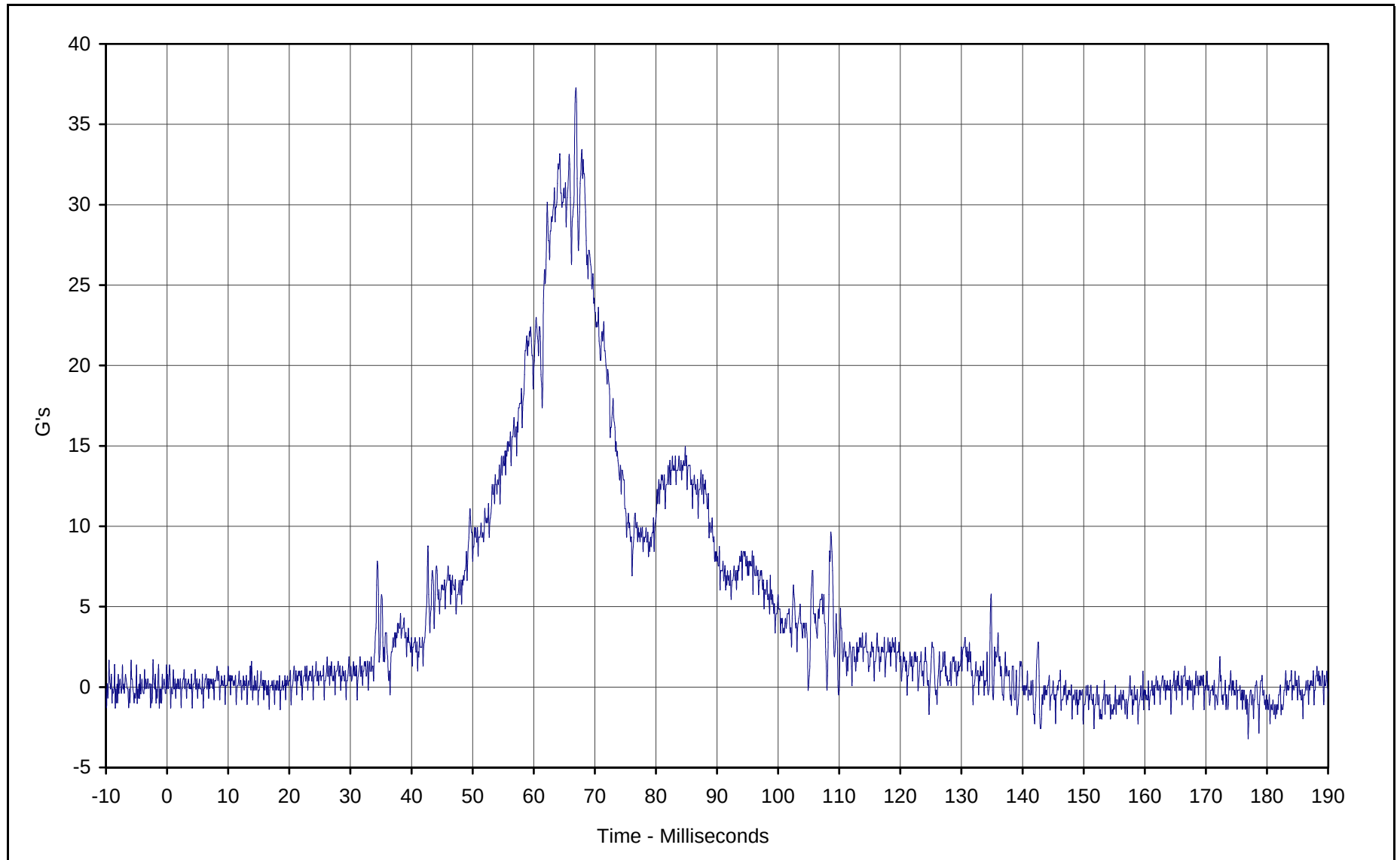
Date of Test: 11/14/01

Curve Number: IN1-017

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

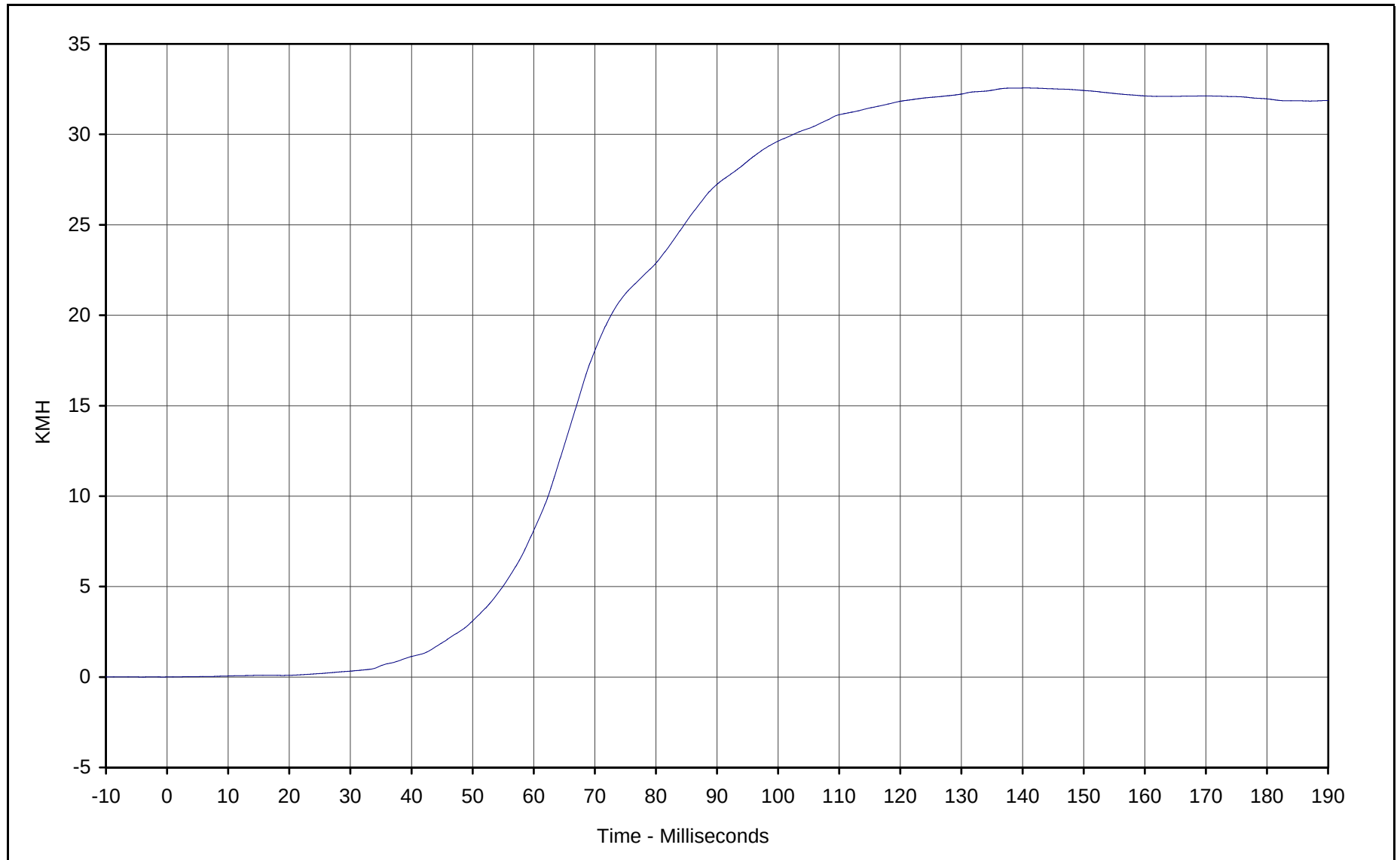




Curve Description: Pass. Lower Rib Primary Y
Maximum Value: 37.3 at 66.9 Milliseconds
Minimum Value: -3.2 at 176.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-018

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Lower Rib Primary Y Velocity

Maximum Value: 32.6 at 140.6 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

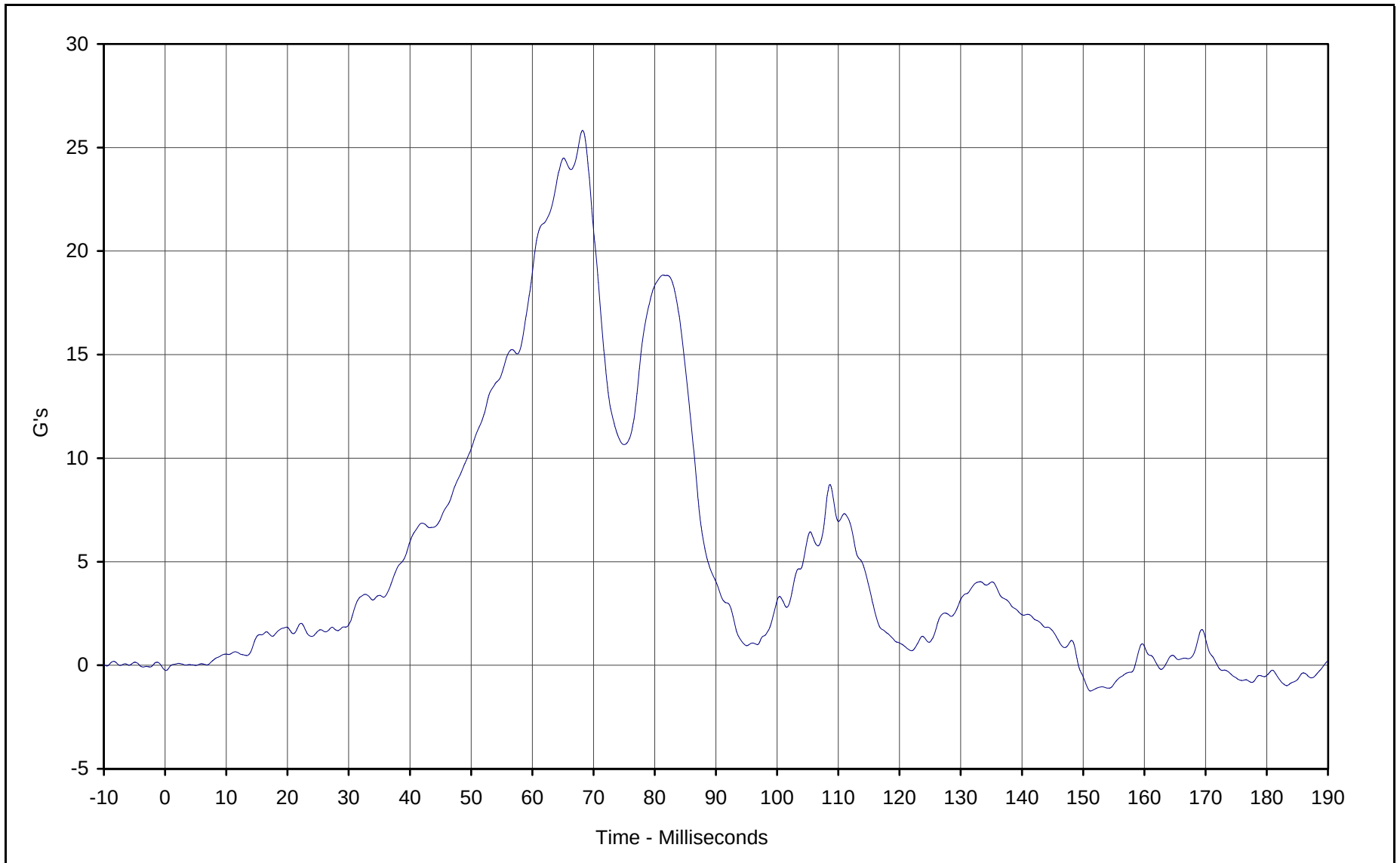
Date of Test: 11/14/01

Curve Number: IN1-018

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

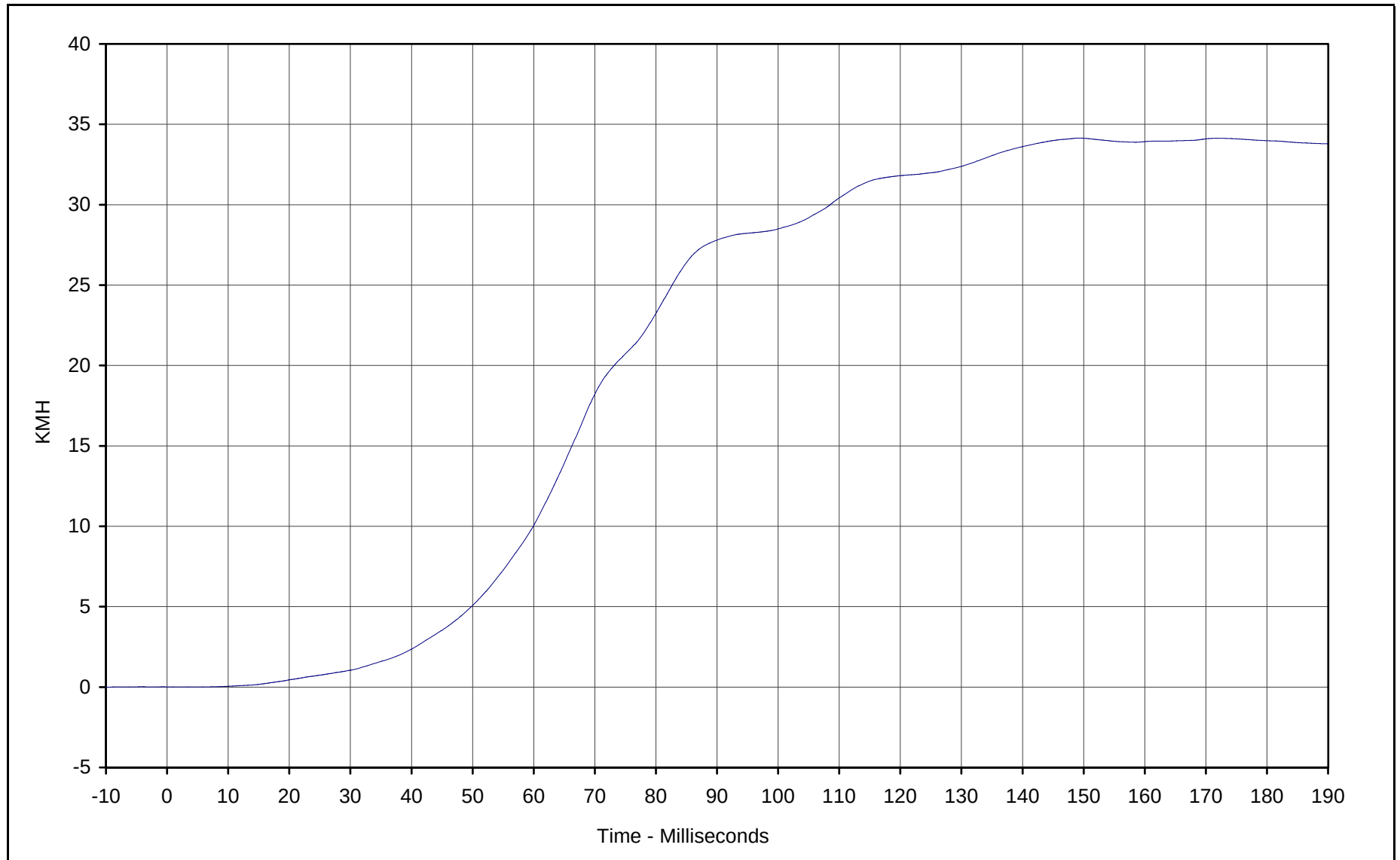




Curve Description: Pass. Lower Spine Primary Y
Maximum Value: 25.8 at 68.2 Milliseconds
Minimum Value: -1.2 at 151.2 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: FIL-019

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Lower Spine Primary Y Velocity

Maximum Value: 34.1 at 149.2 Milliseconds

Minimum Value: 0.0 at 1.0 Milliseconds

SAE Filter Class: 180

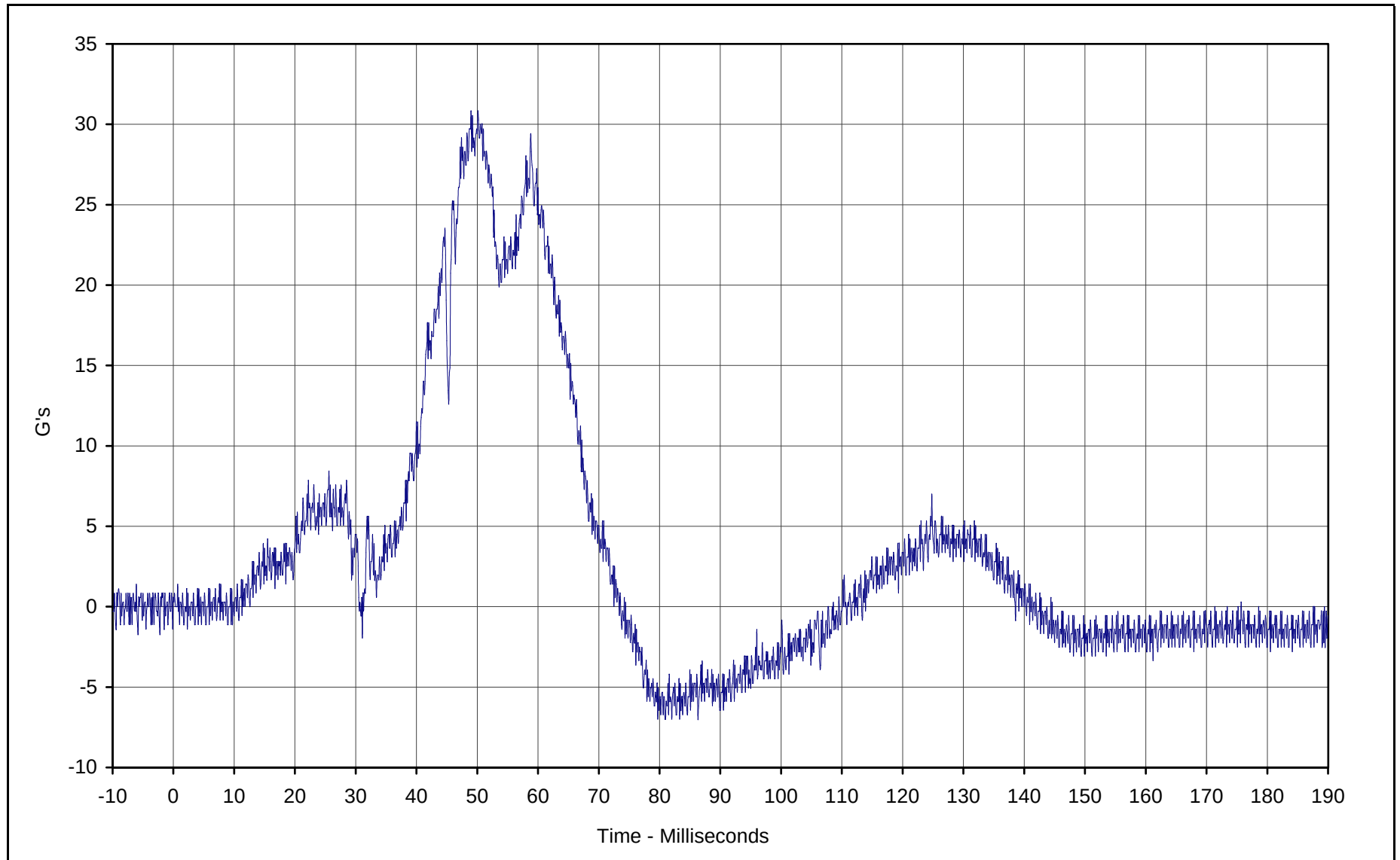
Date of Test: 11/14/01

Curve Number: IN1-019

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

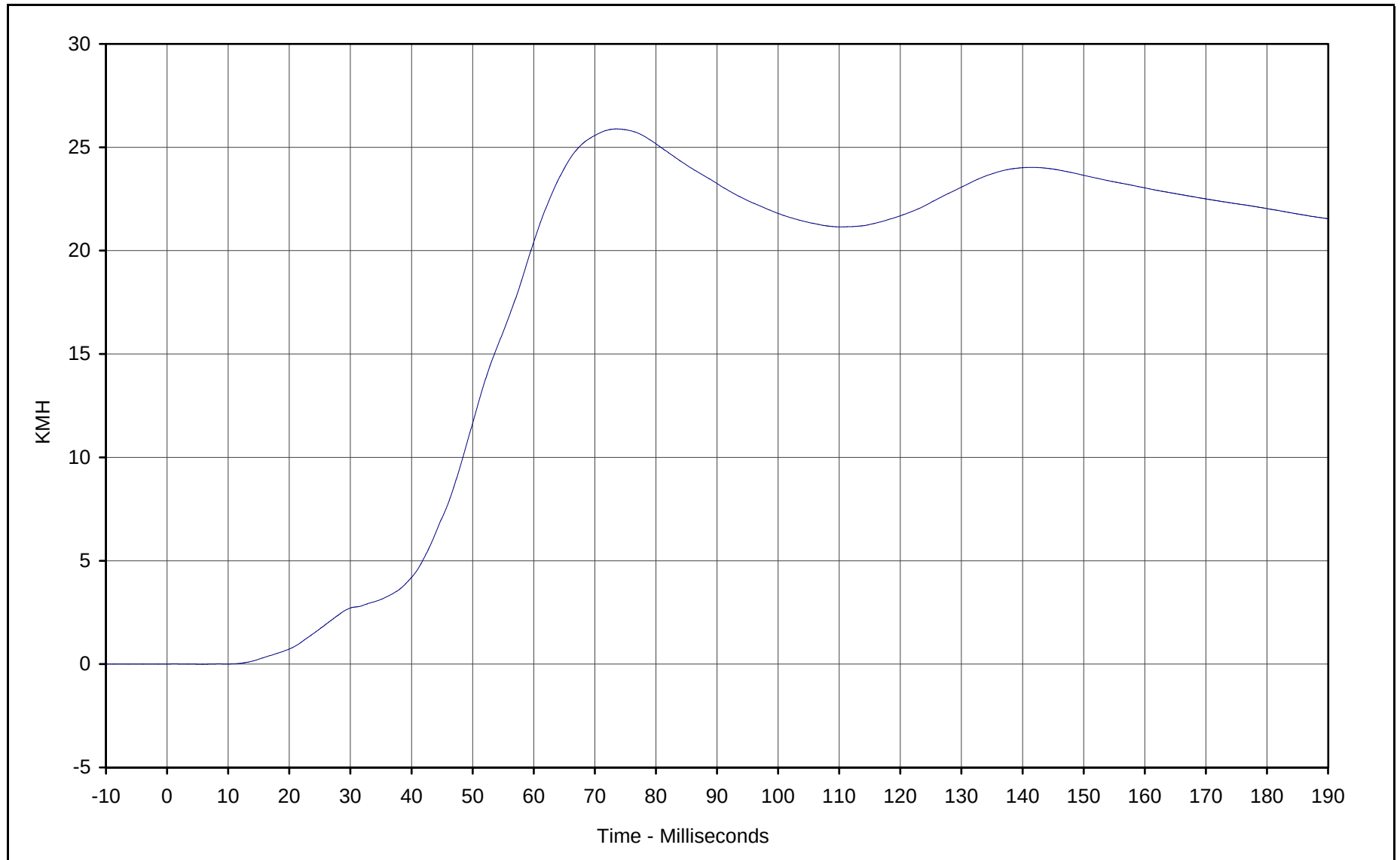




Curve Description: Pass. Pelvis Primary Y
Maximum Value: 30.8 at 49.0 Milliseconds
Minimum Value: -7.0 at 79.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-020

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

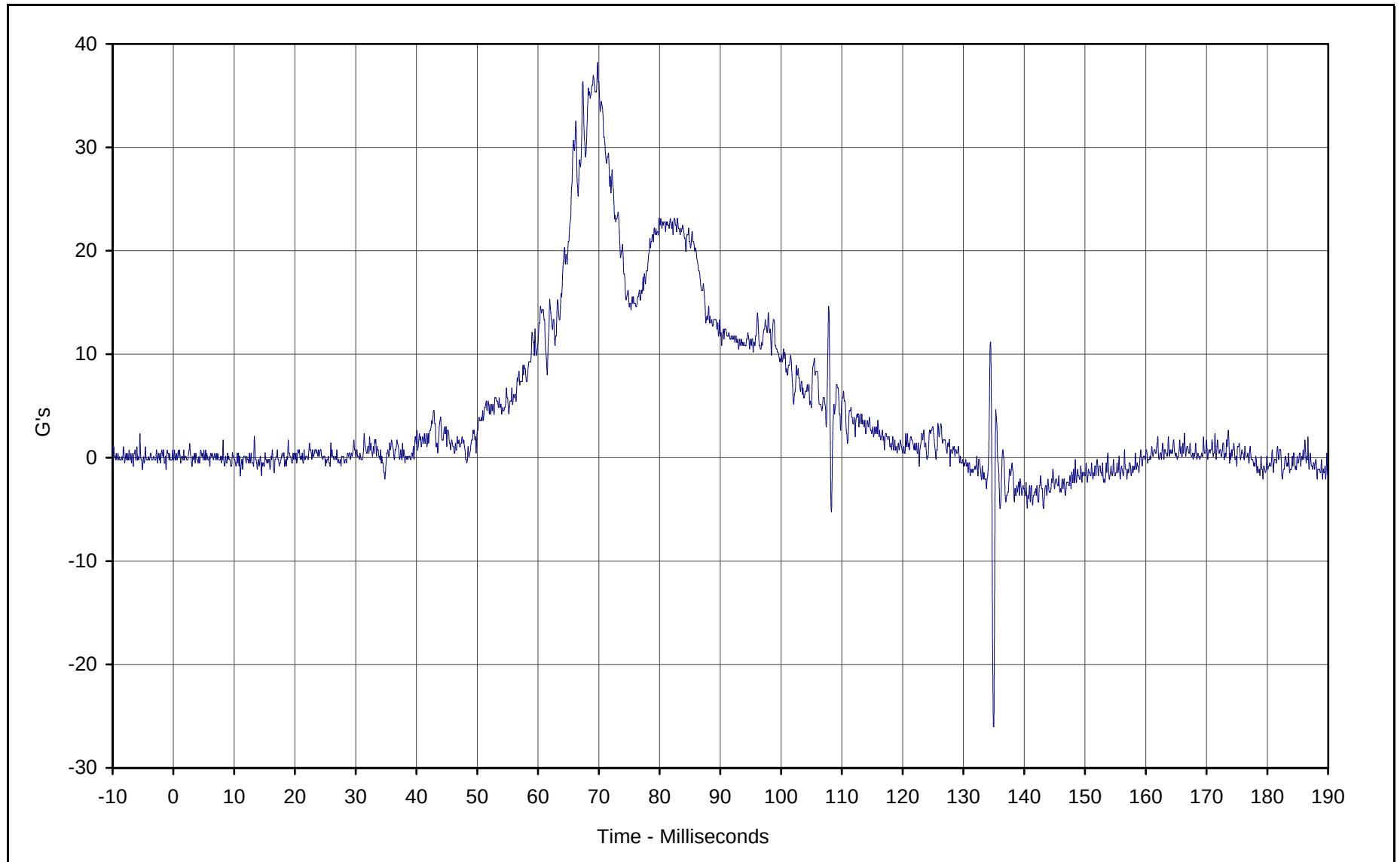




Curve Description: Pass. Pelvis Primary Y Velocity
Maximum Value: 25.9 at 73.5 Milliseconds
Minimum Value: 0.0 at 5.9 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-020

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

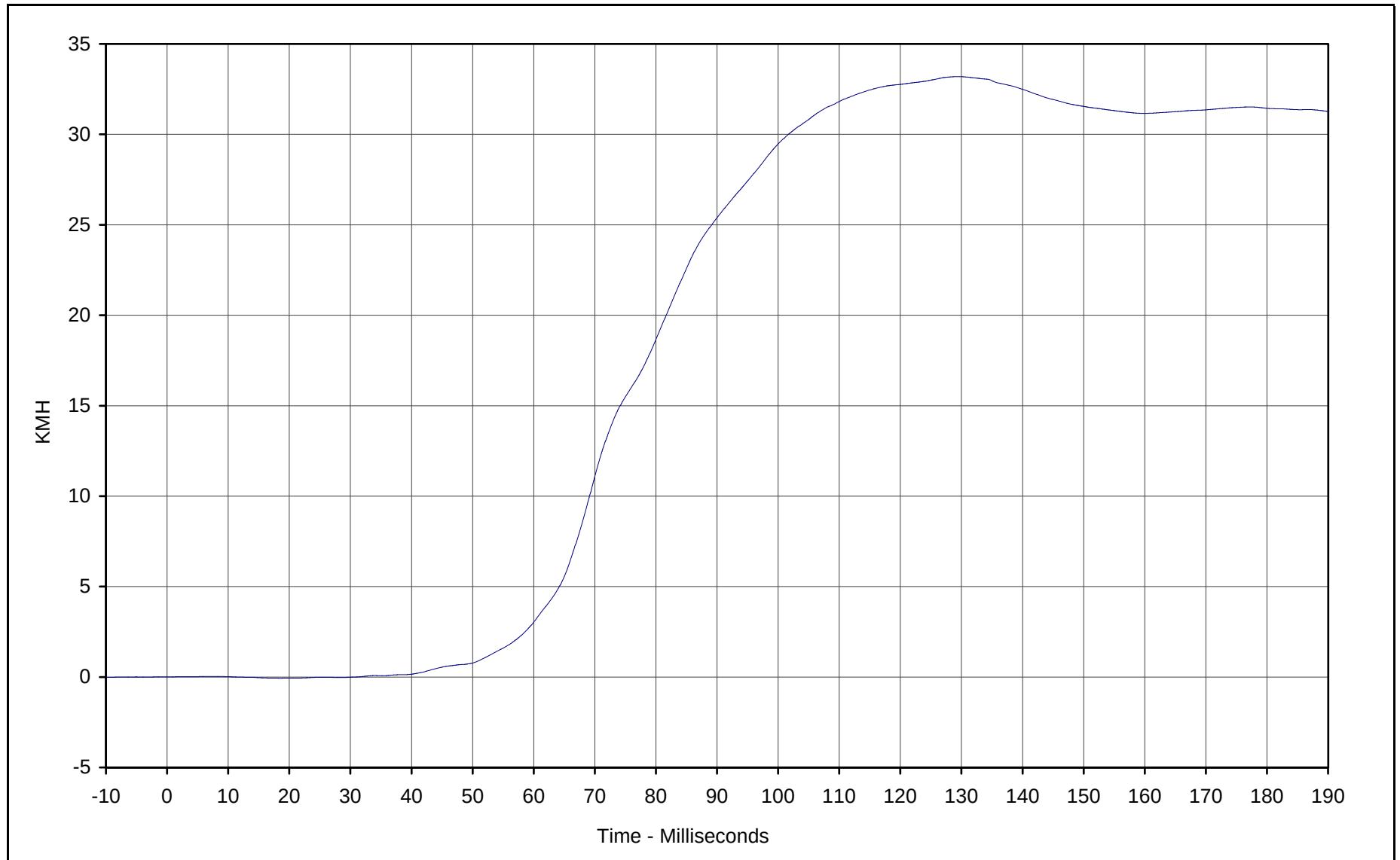




Curve Description: Pass. Upper Rib Redundant Y
Maximum Value: 38.2 at 69.8 Milliseconds
Minimum Value: -26.0 at 134.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-021

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Upper Rib Redundant Y Velocity

Maximum Value: 33.2 at 129.5 Milliseconds

Minimum Value: -0.1 at 18.5 Milliseconds

SAE Filter Class: 180

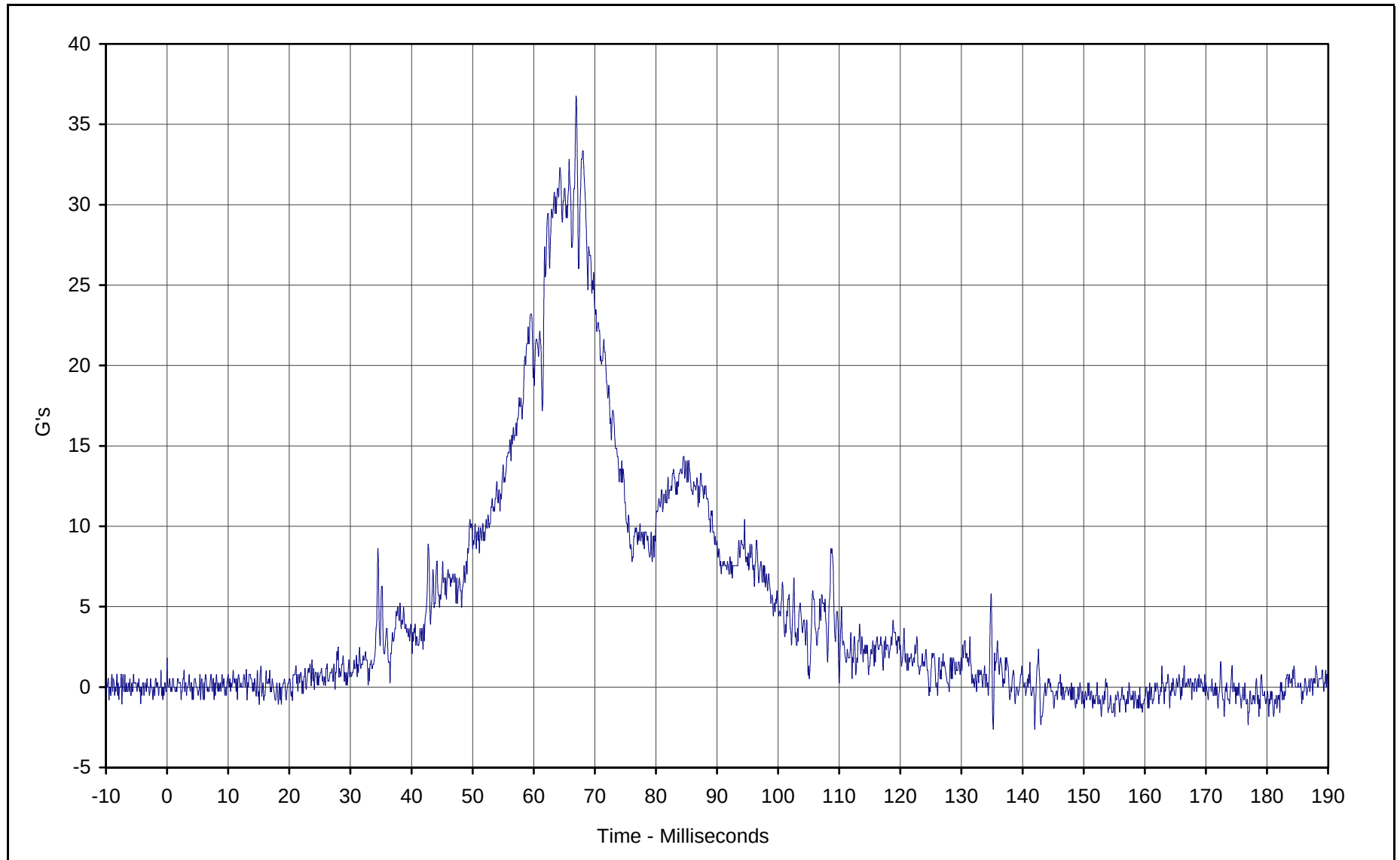
Date of Test: 11/14/01

Curve Number: IN1-021

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

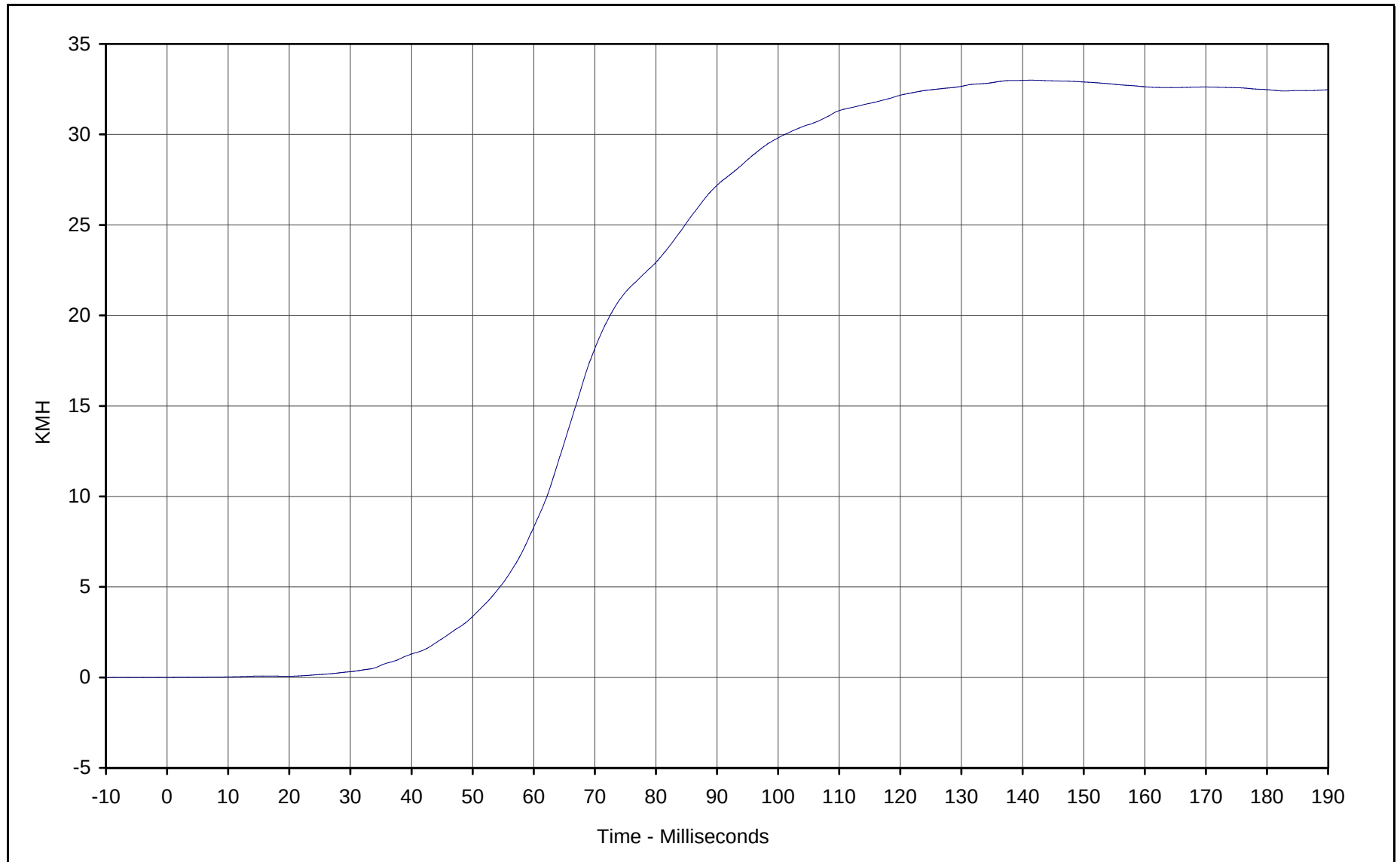




Curve Description: Pass. Lower Rib Redundant Y
Maximum Value: 36.7 at 66.9 Milliseconds
Minimum Value: -2.6 at 135.2 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-022

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Lower Rib Redundant Y Velocity

Maximum Value: 33.0 at 141.4 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

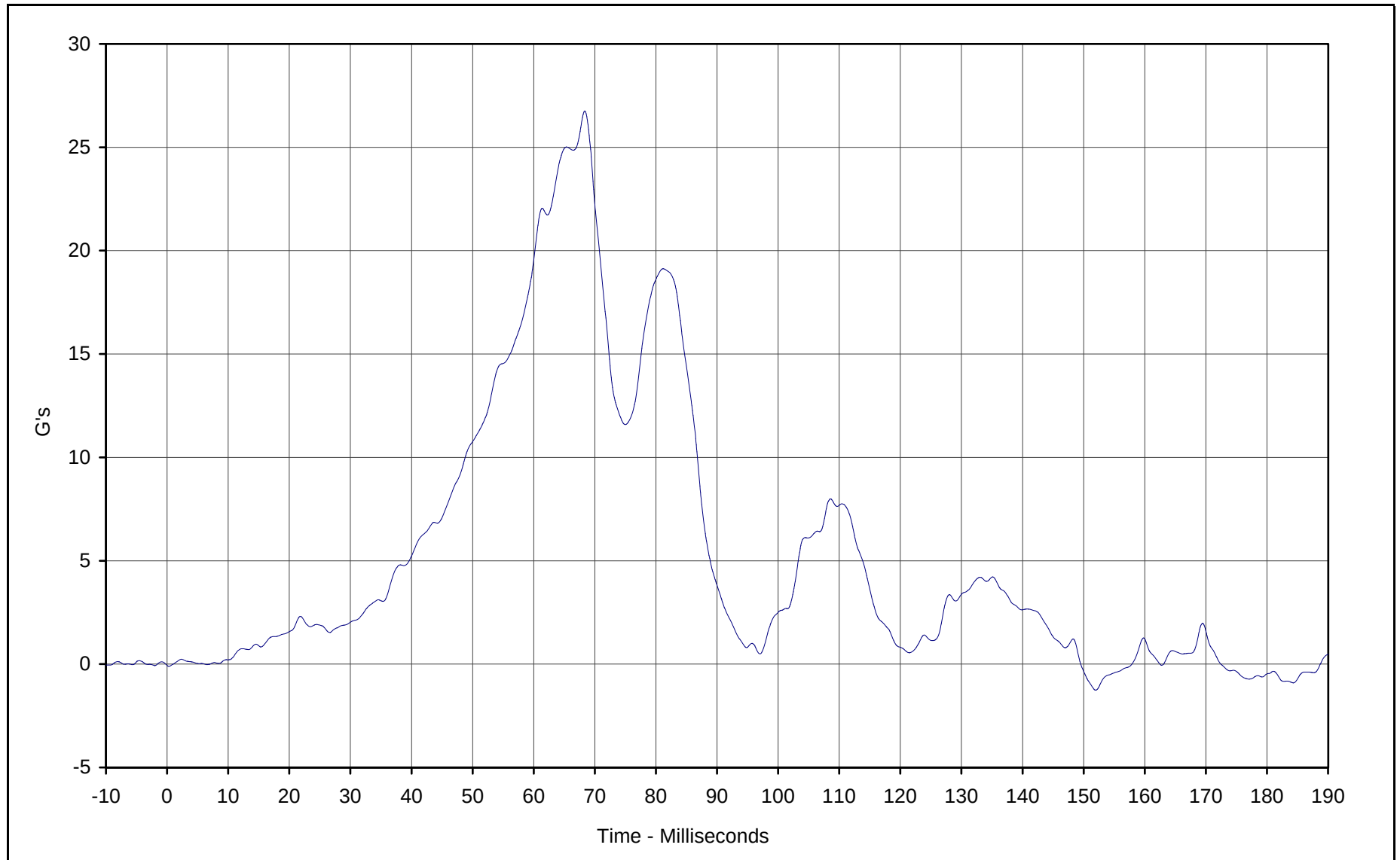
Date of Test: 11/14/01

Curve Number: IN1-022

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

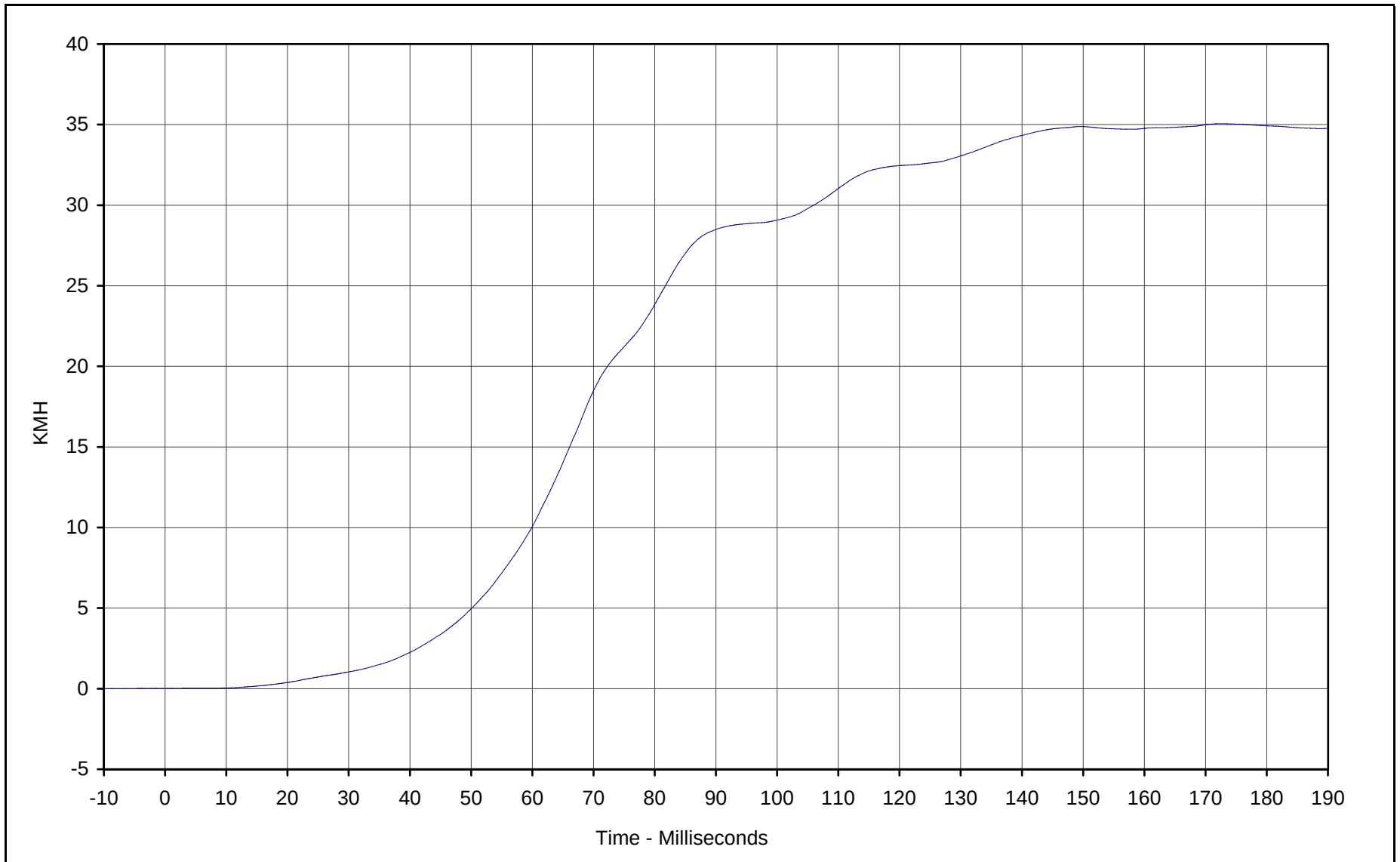




Curve Description: Pass. Lower Spine Redundant Y
Maximum Value: 26.8 at 68.4 Milliseconds
Minimum Value: -1.3 at 152.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: FIL-023

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Lower Spine Redundant Y Velocity

Maximum Value: 35.1 at 172.4 Milliseconds

Minimum Value: 0.0 at 1.0 Milliseconds

SAE Filter Class: 180

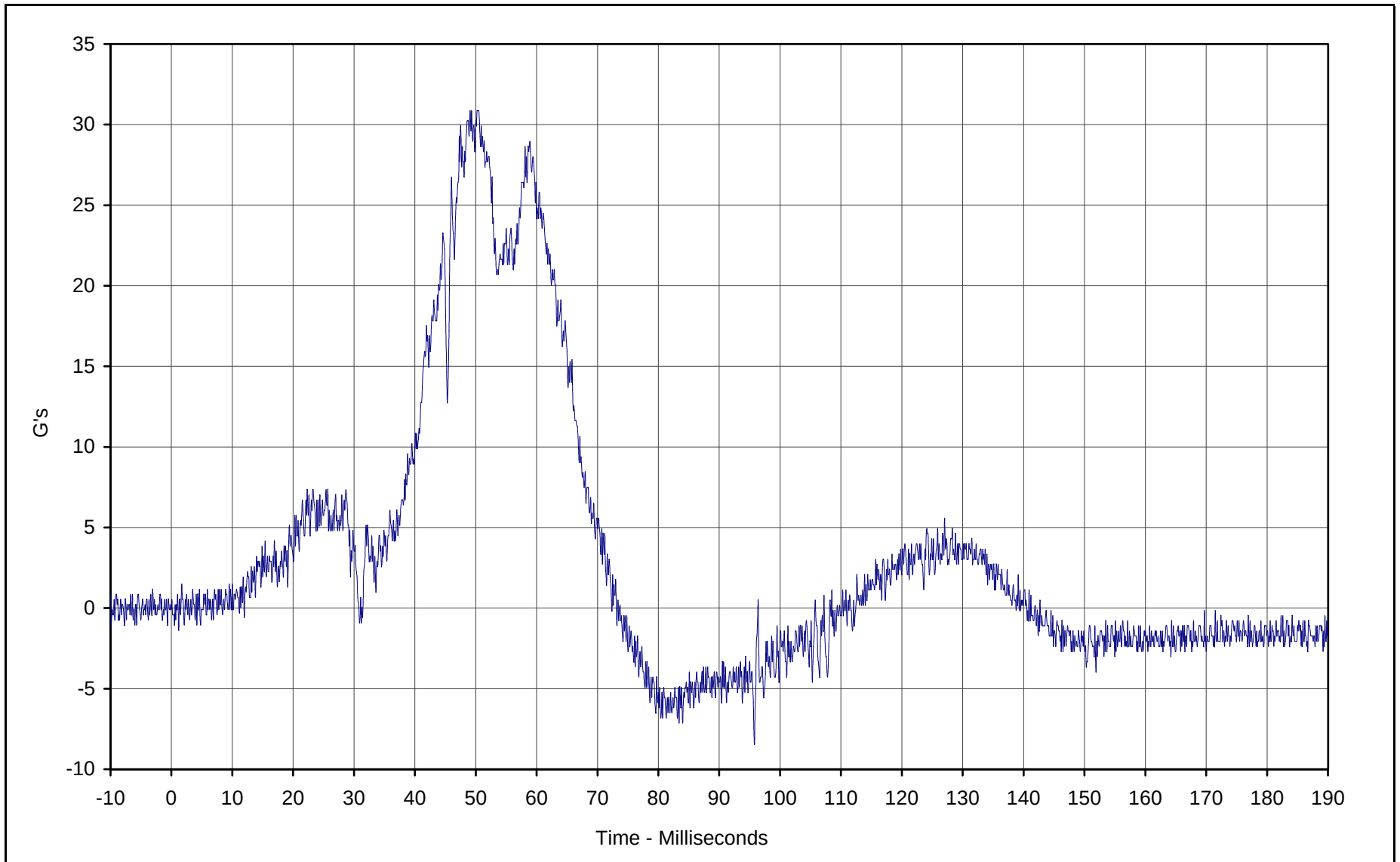
Date of Test: 11/14/01

Curve Number: IN1-023

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

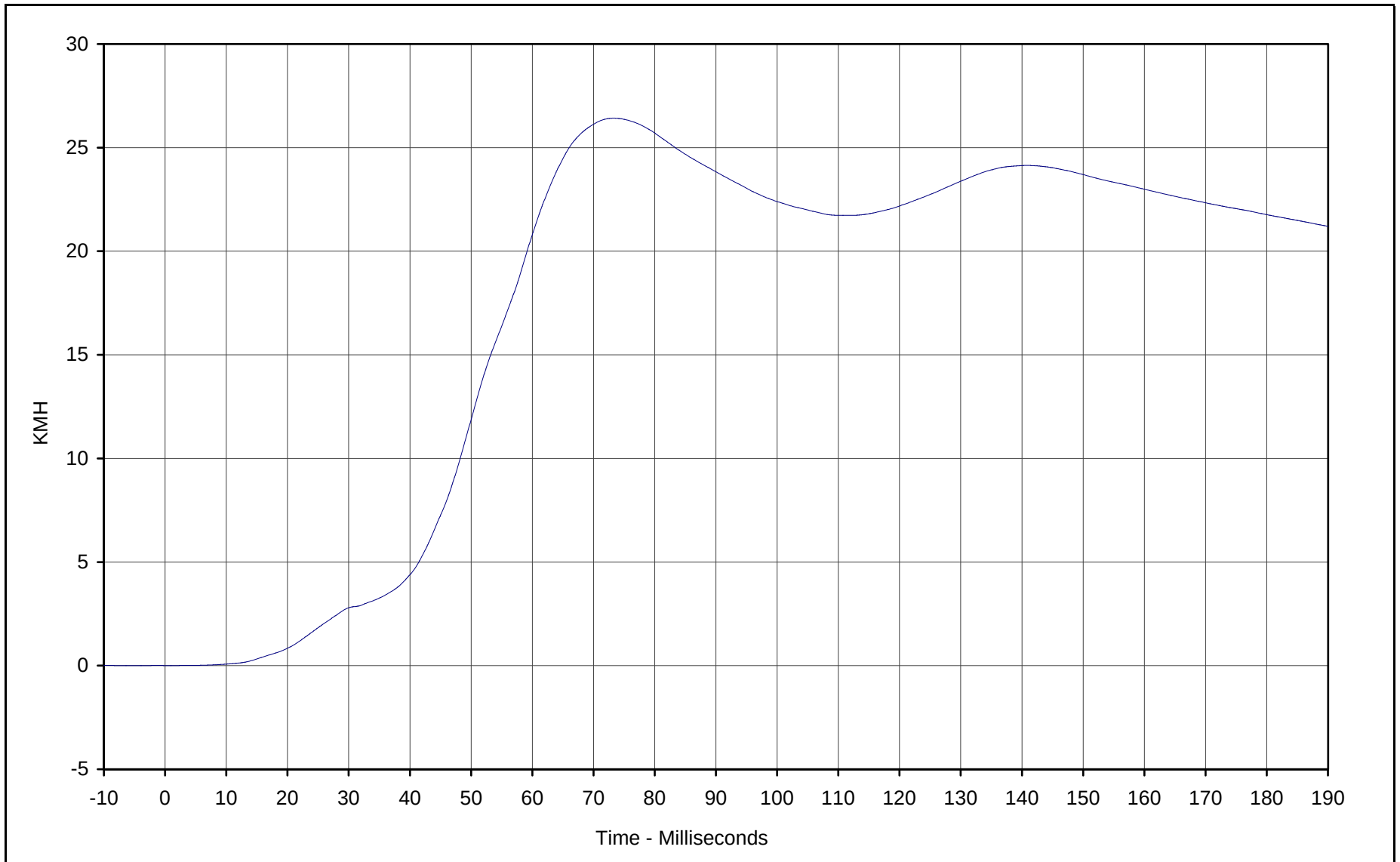




Curve Description: Pass. Pelvis Redundant Y
Maximum Value: 30.9 at 49.1 Milliseconds
Minimum Value: -8.4 at 95.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-024

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

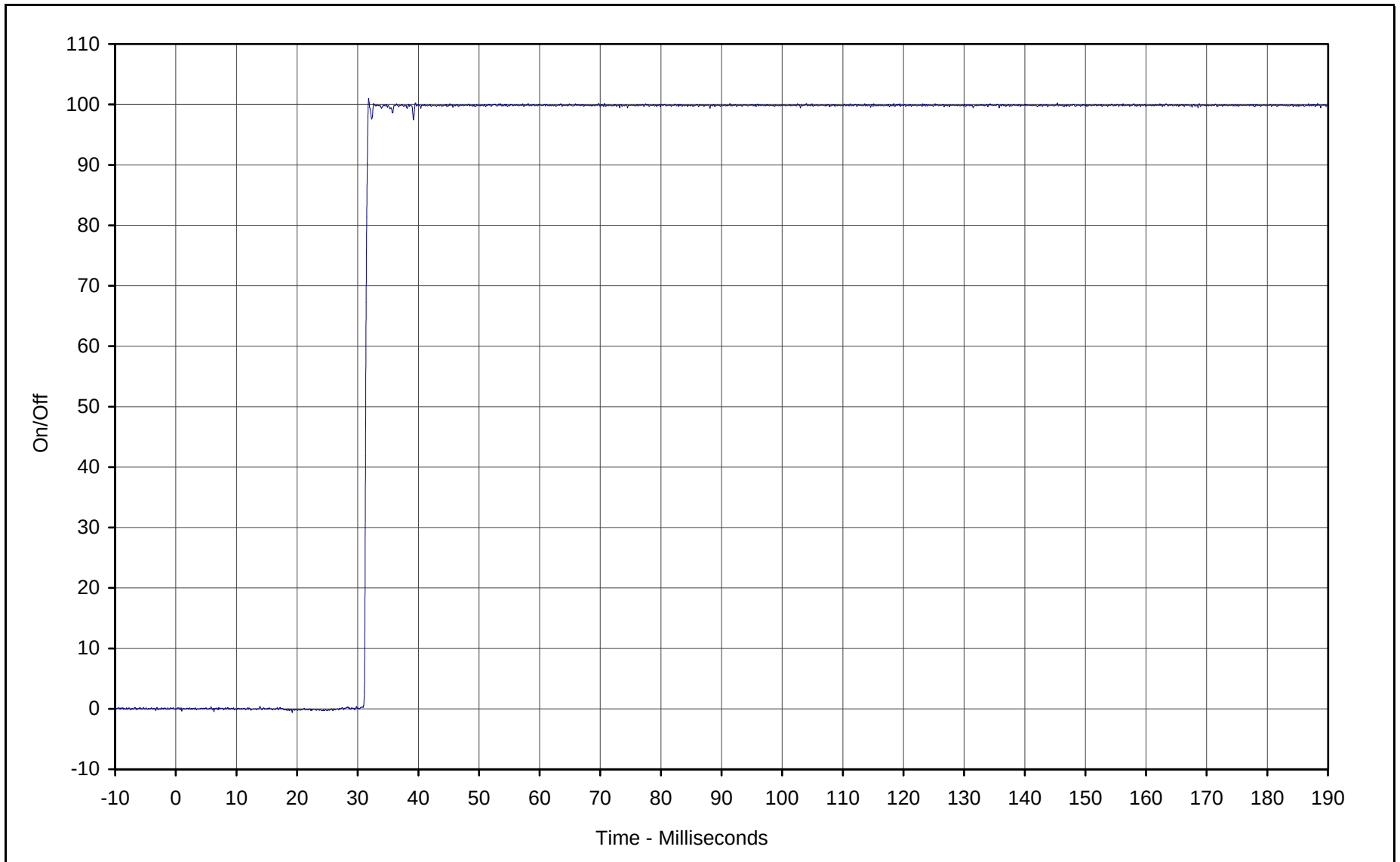




Curve Description: Pass. Pelvis Redundant Y Velocity
Maximum Value: 26.4 at 73.3 Milliseconds
Minimum Value: 0.0 at 1.1 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-024

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

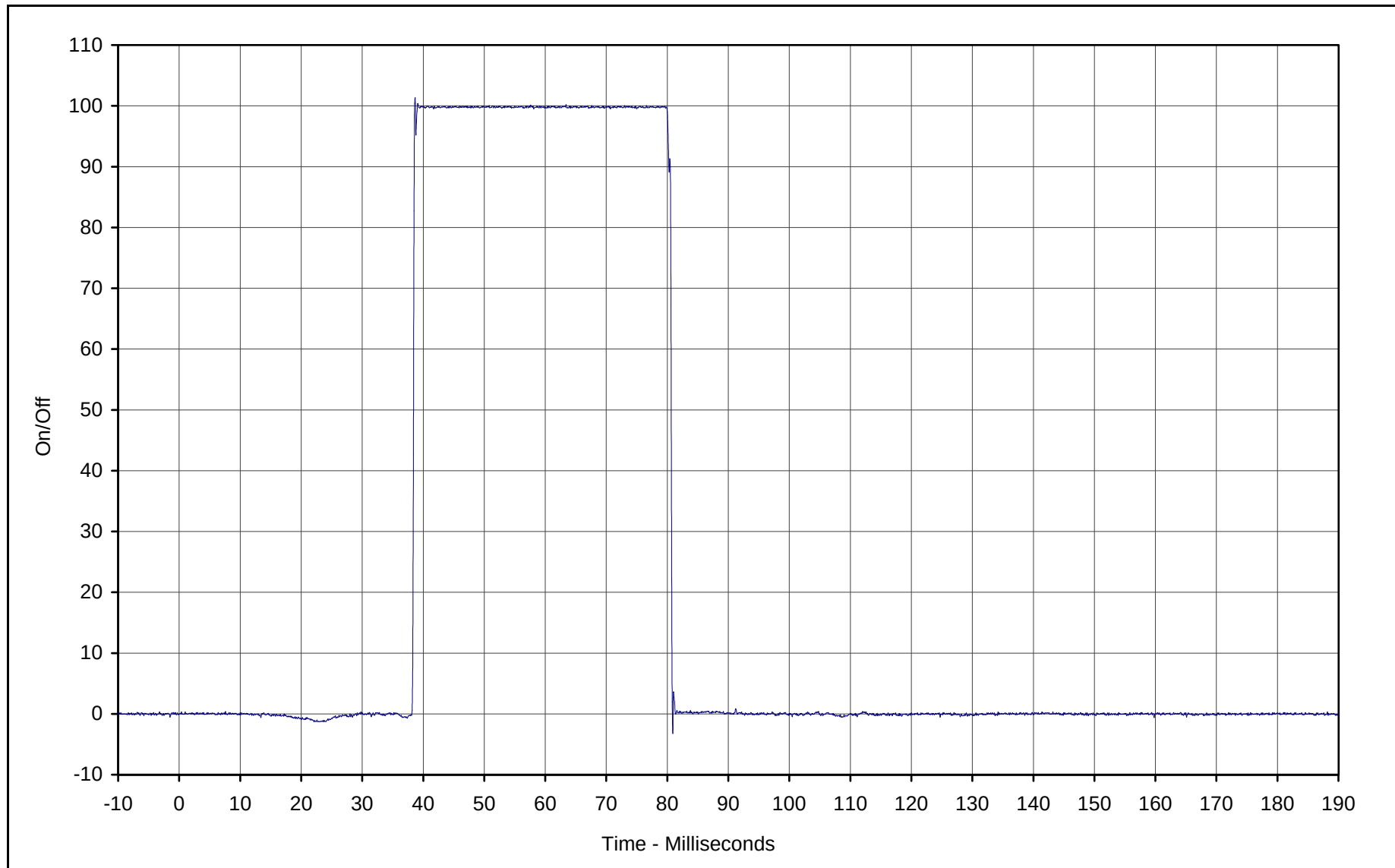




Curve Description: Pass. Thorax Contact
Maximum Value: 100.9 at 31.8 Milliseconds
Crossing Point: 50% at 31.4 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-025

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

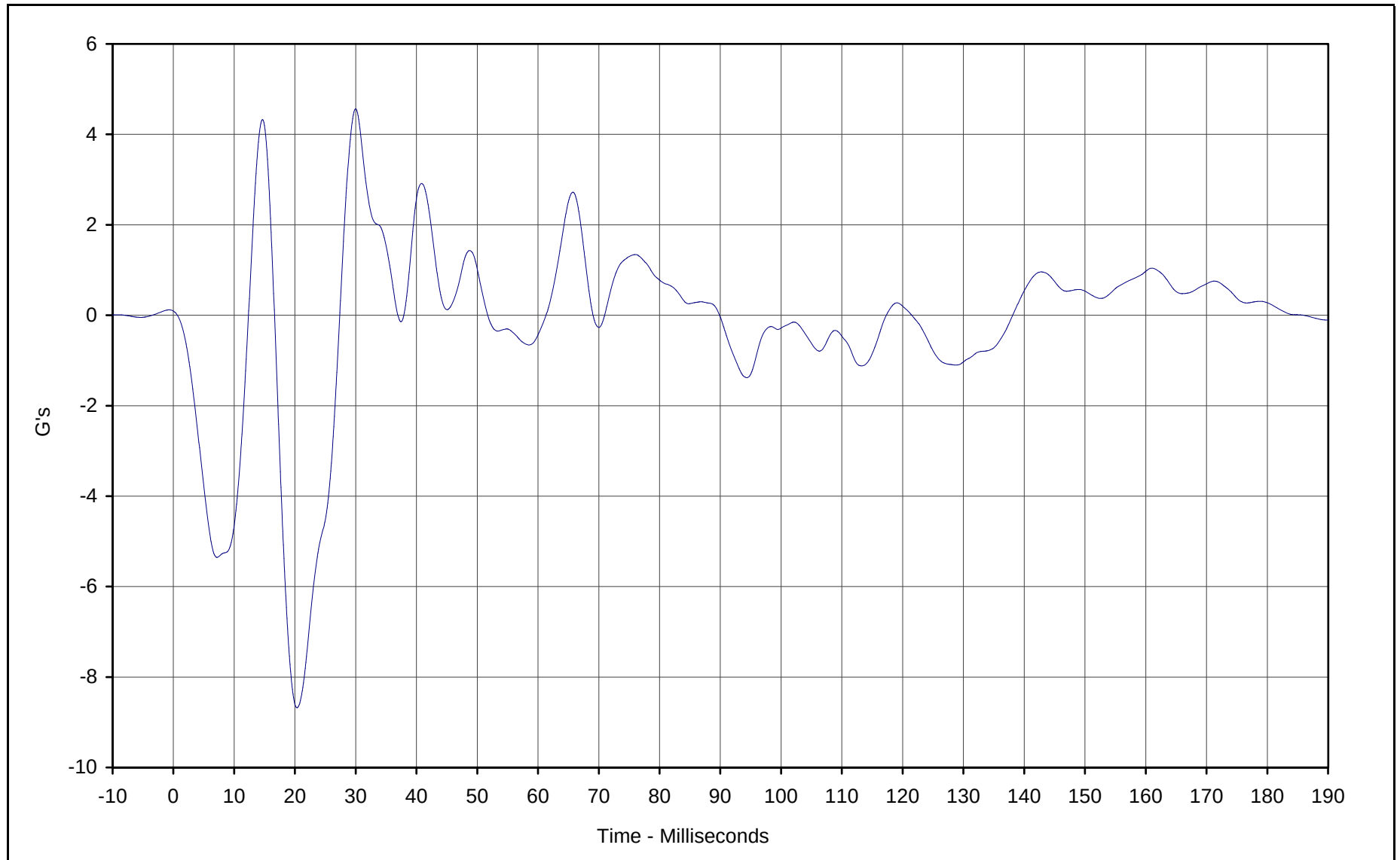




Curve Description: Pass. Pelvis Contact
Maximum Value: 101.3 at 38.7 Milliseconds
Crossing Point: 50% at 38.5 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-026

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

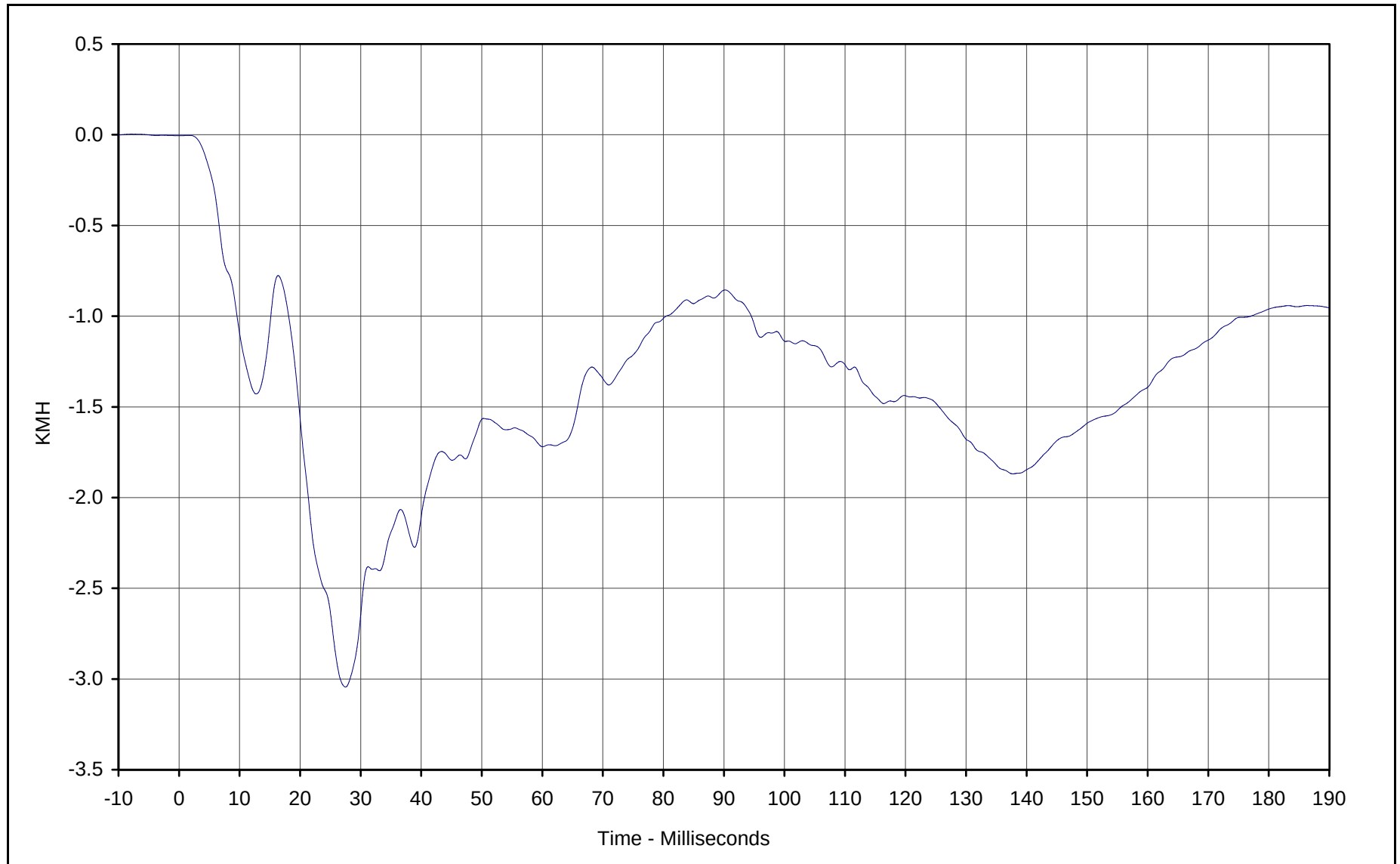




Curve Description: Right Sill at Front Seat X
Maximum Value: 4.6 at 30.0 Milliseconds
Minimum Value: -8.7 at 20.4 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-027

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

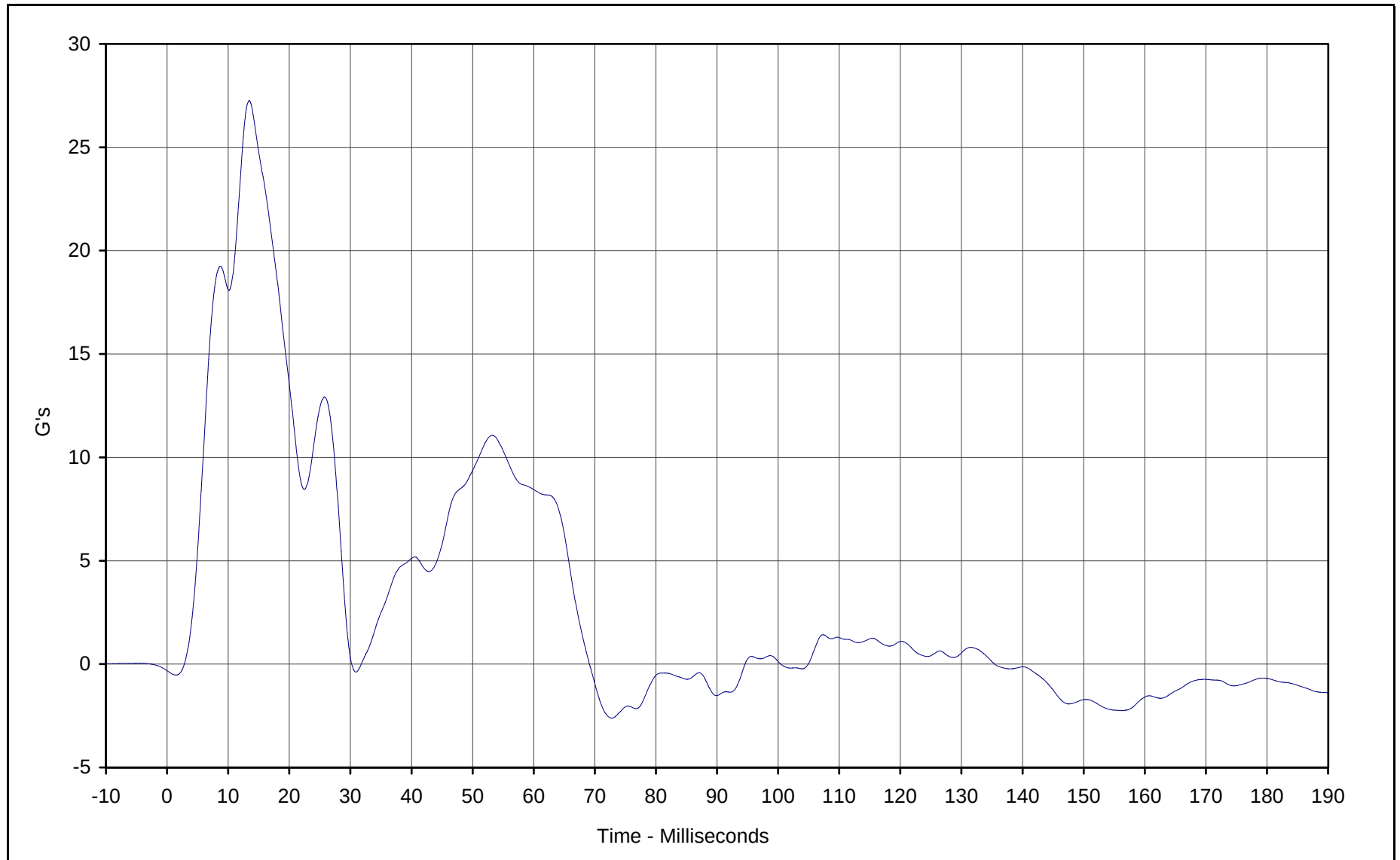




Curve Description: Right Sill at Front Seat X Velocity
Maximum Value: 0.0 at 1.8 Milliseconds
Minimum Value: -3.0 at 27.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-027

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

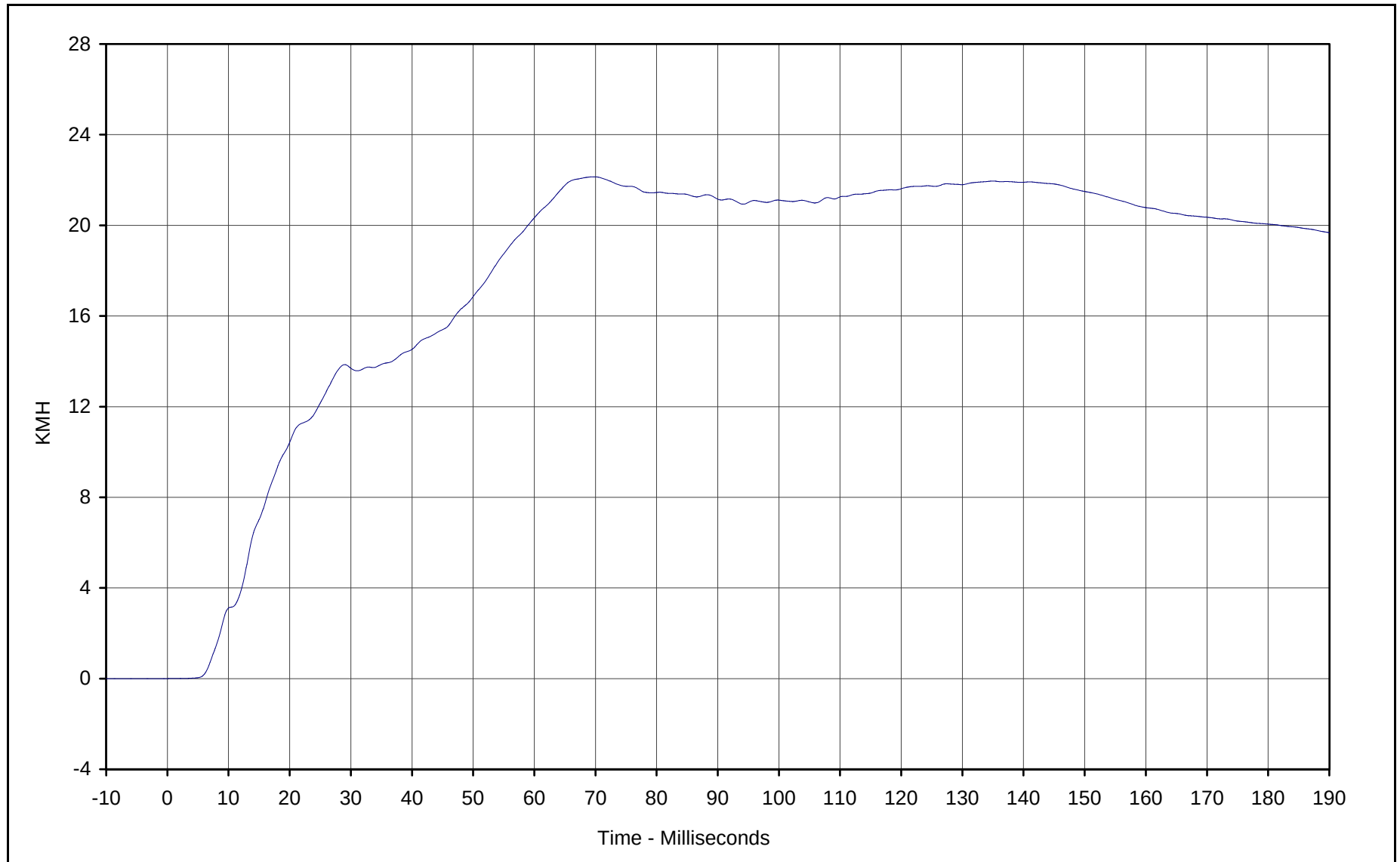




Curve Description: Right Sill at Front Seat Y
Maximum Value: 27.3 at 13.4 Milliseconds
Minimum Value: -2.6 at 72.8 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-028

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

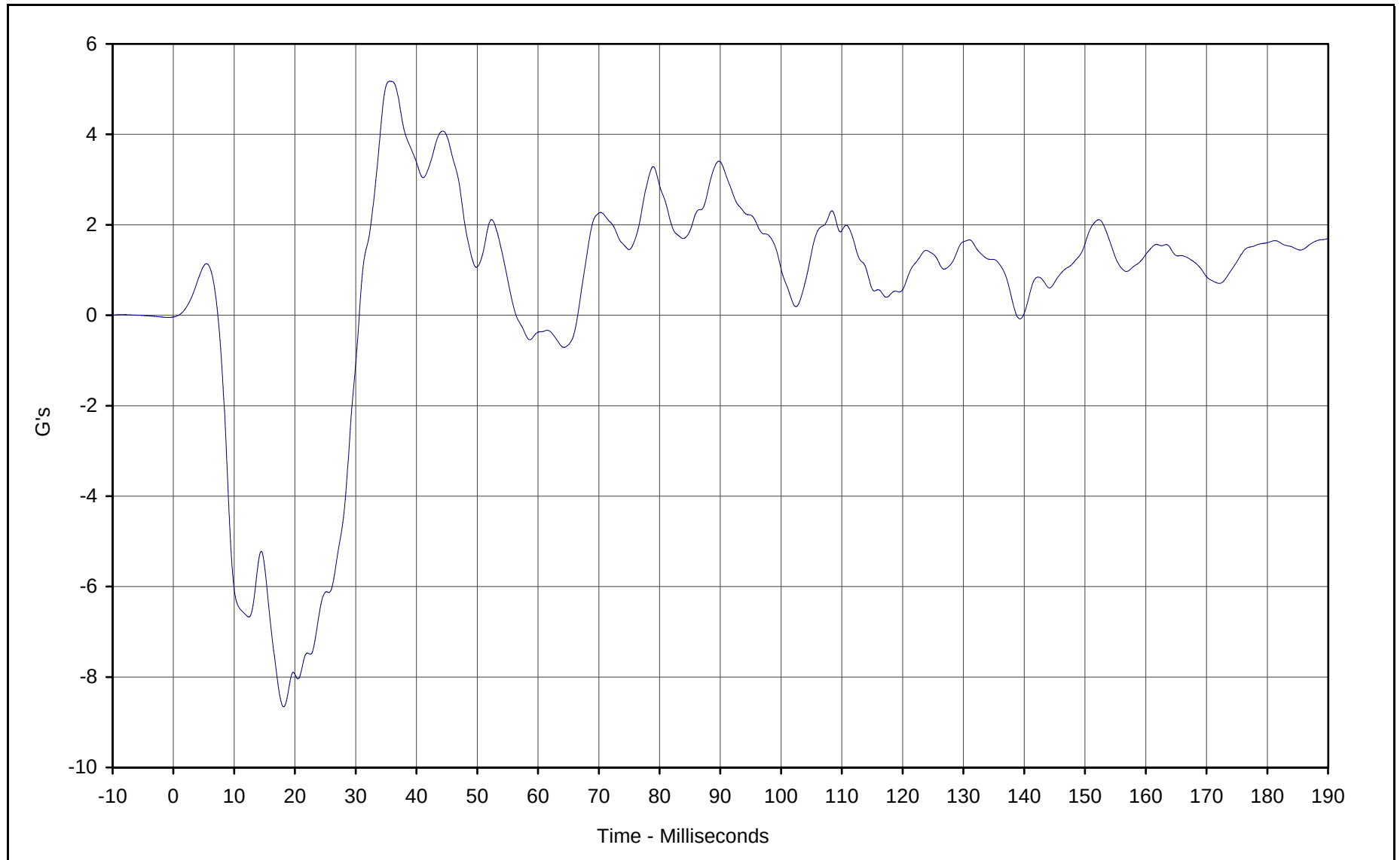




Curve Description: Right Sill at Front Seat Y Velocity
Maximum Value: 22.1 at 69.8 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-028

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

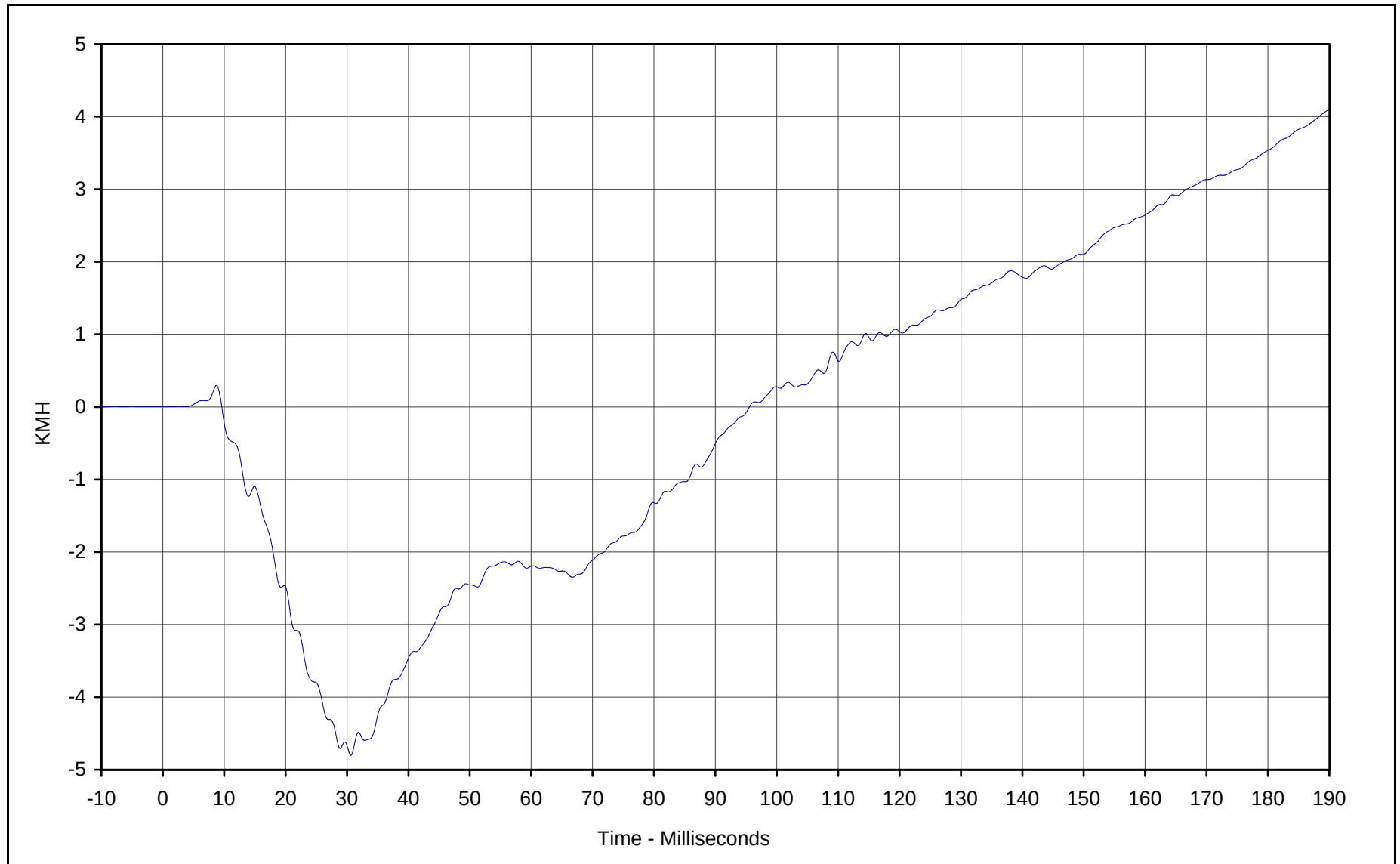




Curve Description: Right Sill at Front Seat Z
Maximum Value: 5.2 at 35.6 Milliseconds
Minimum Value: -8.7 at 18.1 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-029

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

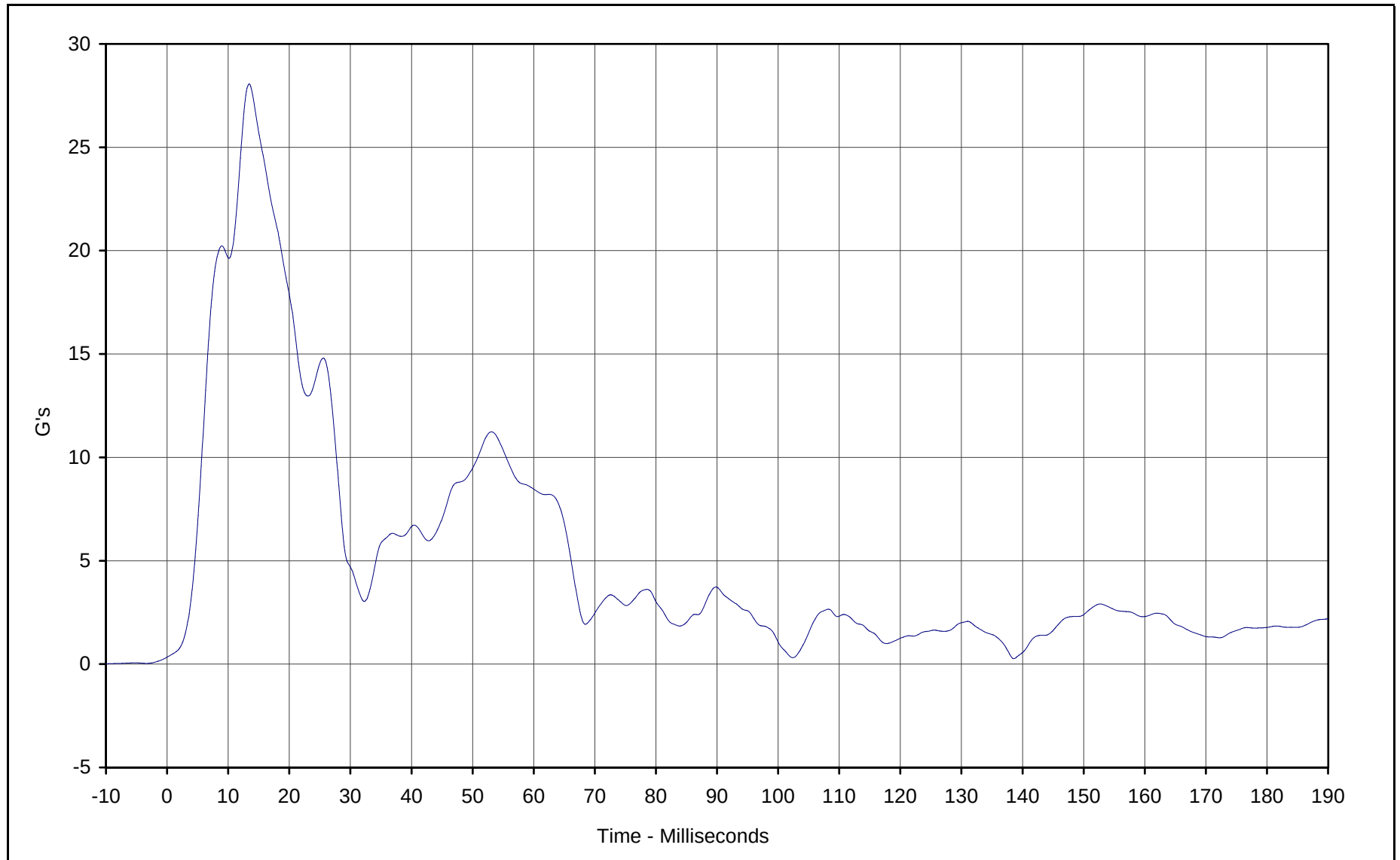




Curve Description: Right Sill at Front Seat Z Velocity
Maximum Value: 4.1 at 189.9 Milliseconds
Minimum Value: -4.8 at 30.6 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-029

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

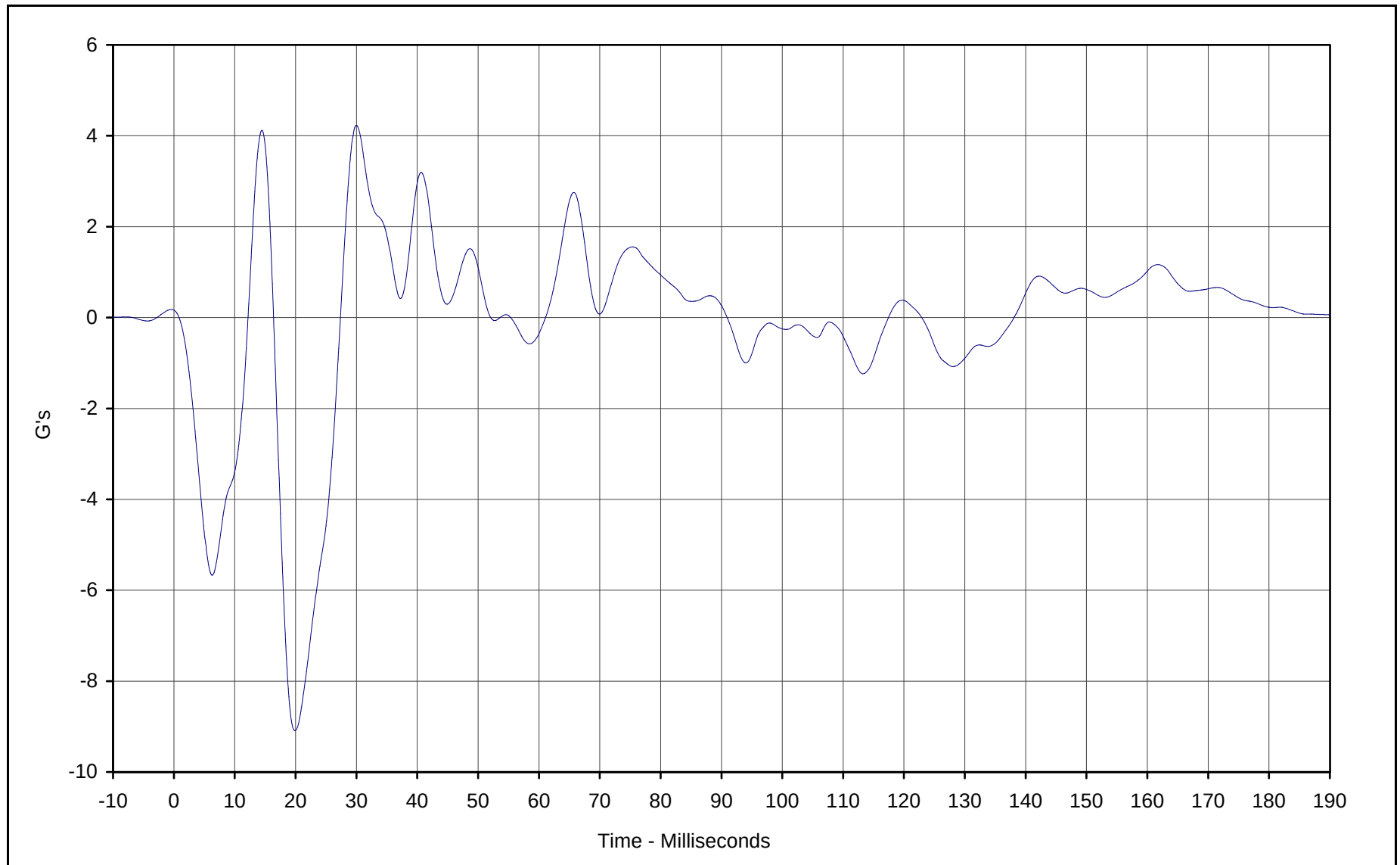




Curve Description: Right Sill at Front Seat Resultant
Maximum Value: 28.1 at 13.4 Milliseconds
Minimum Value: 0.3 at 138.6 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: RES-027

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

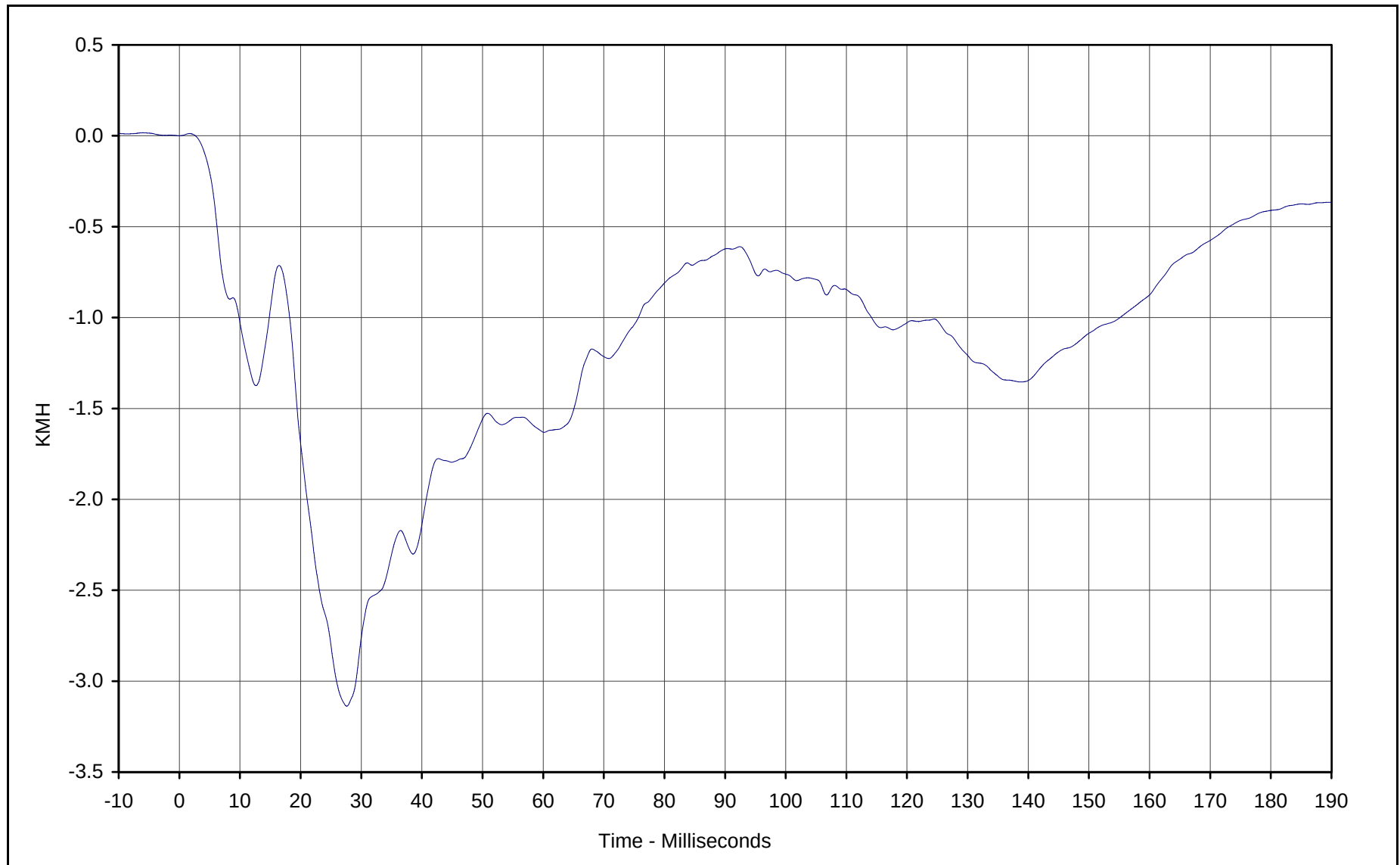




Curve Description: Right Sill at Rear Seat X
Maximum Value: 4.2 at 30.0 Milliseconds
Minimum Value: -9.1 at 19.9 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-030

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV



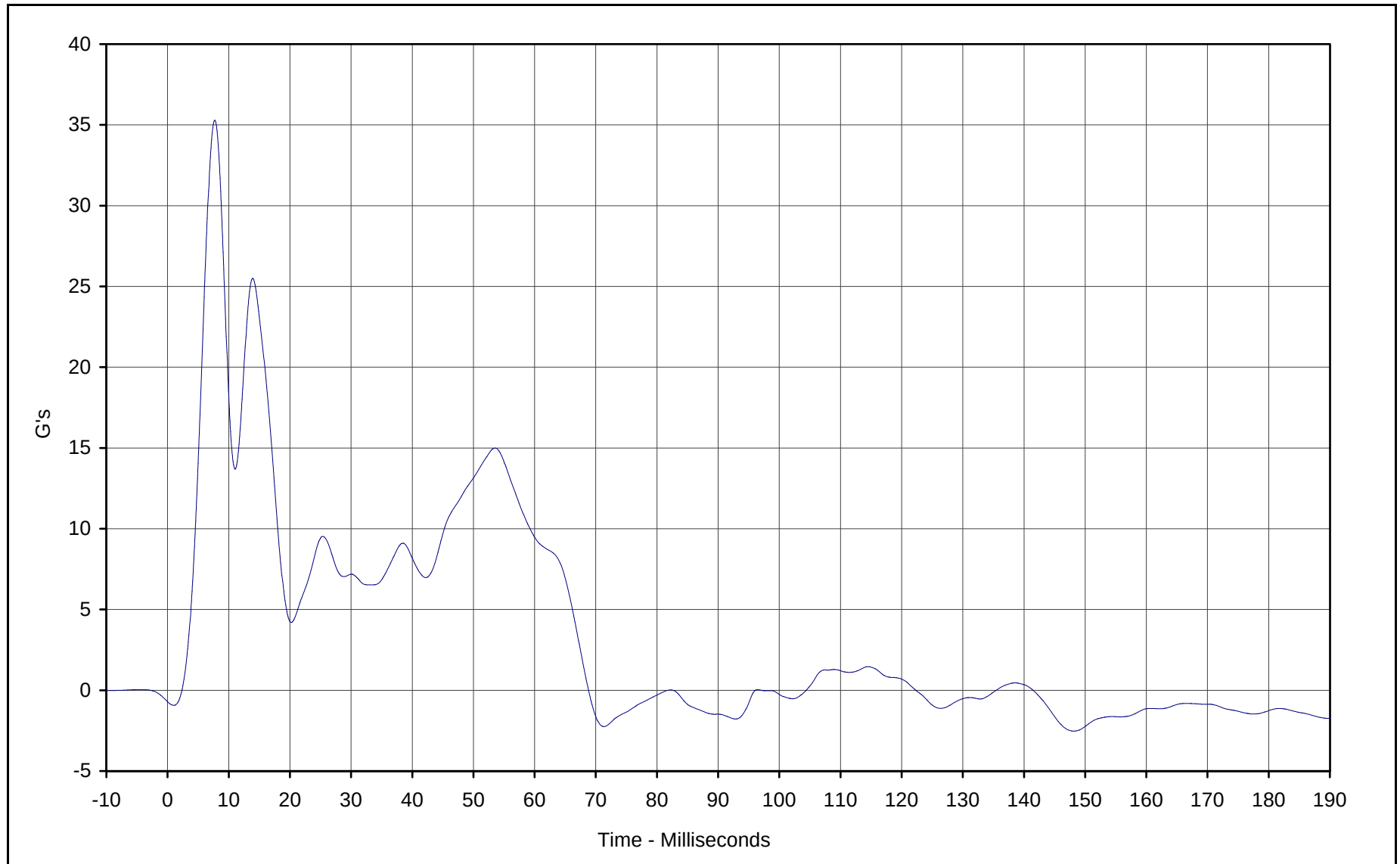


Curve Description: Right Sill at Rear Seat X Velocity
Maximum Value: 0.0 at 1.7 Milliseconds
Minimum Value: -3.1 at 27.6 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-030

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV



B-60

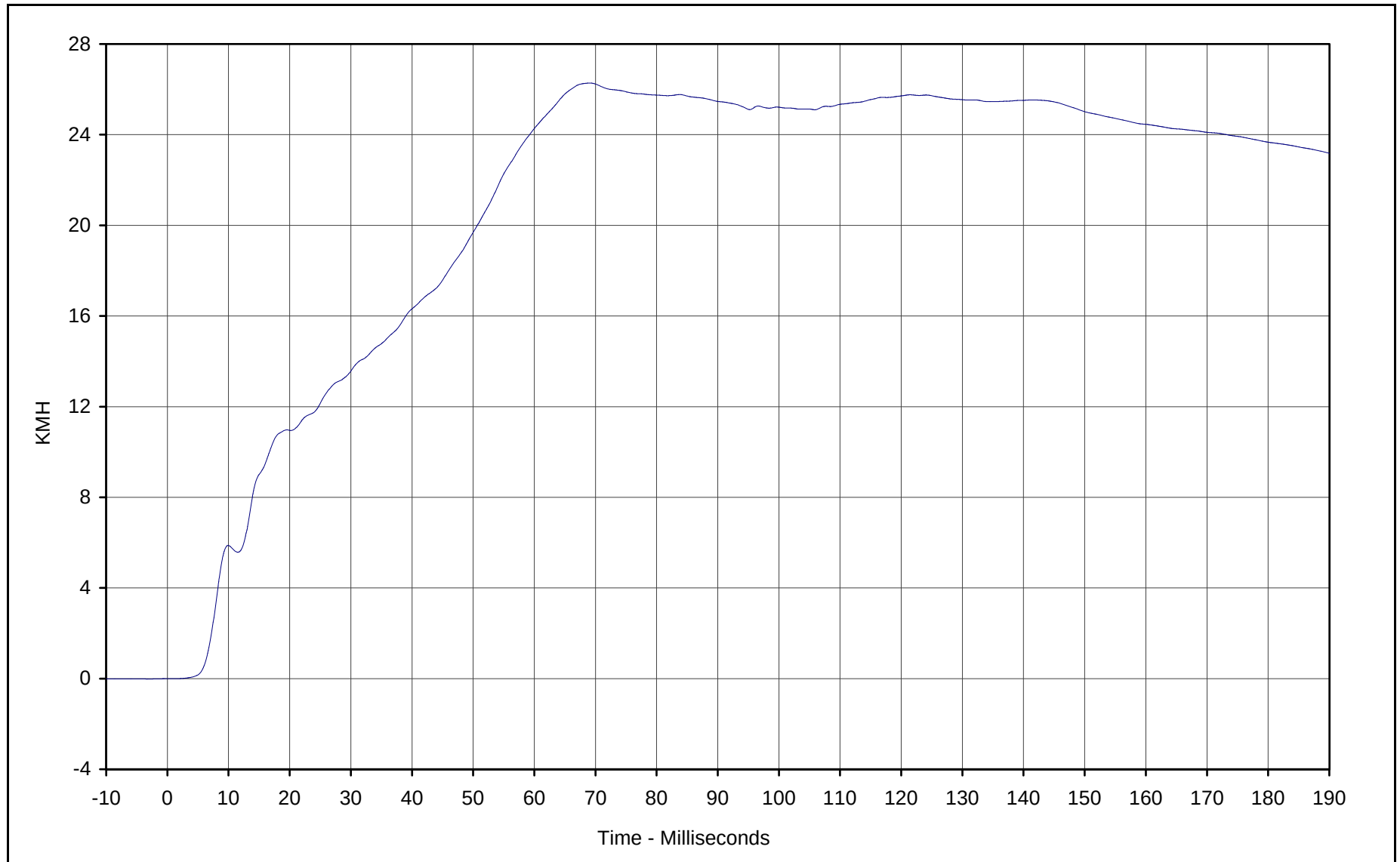


Curve Description: Right Sill at Rear Seat Y
Maximum Value: 35.3 at 7.7 Milliseconds
Minimum Value: -2.5 at 148.2 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-031

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV



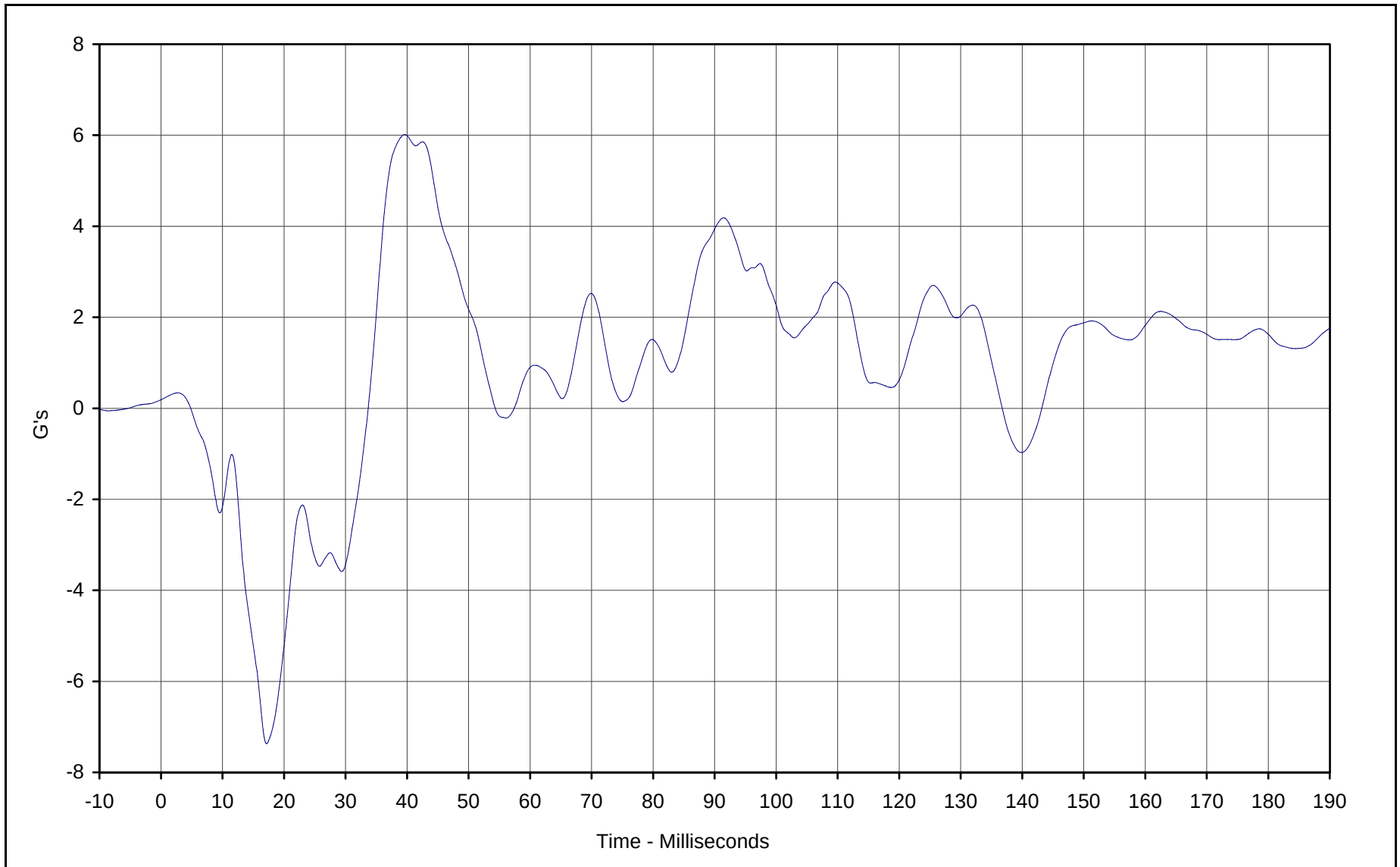
KAR22003-01



Curve Description: Right Sill at Rear Seat Y Velocity
Maximum Value: 26.3 at 69.1 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-031

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

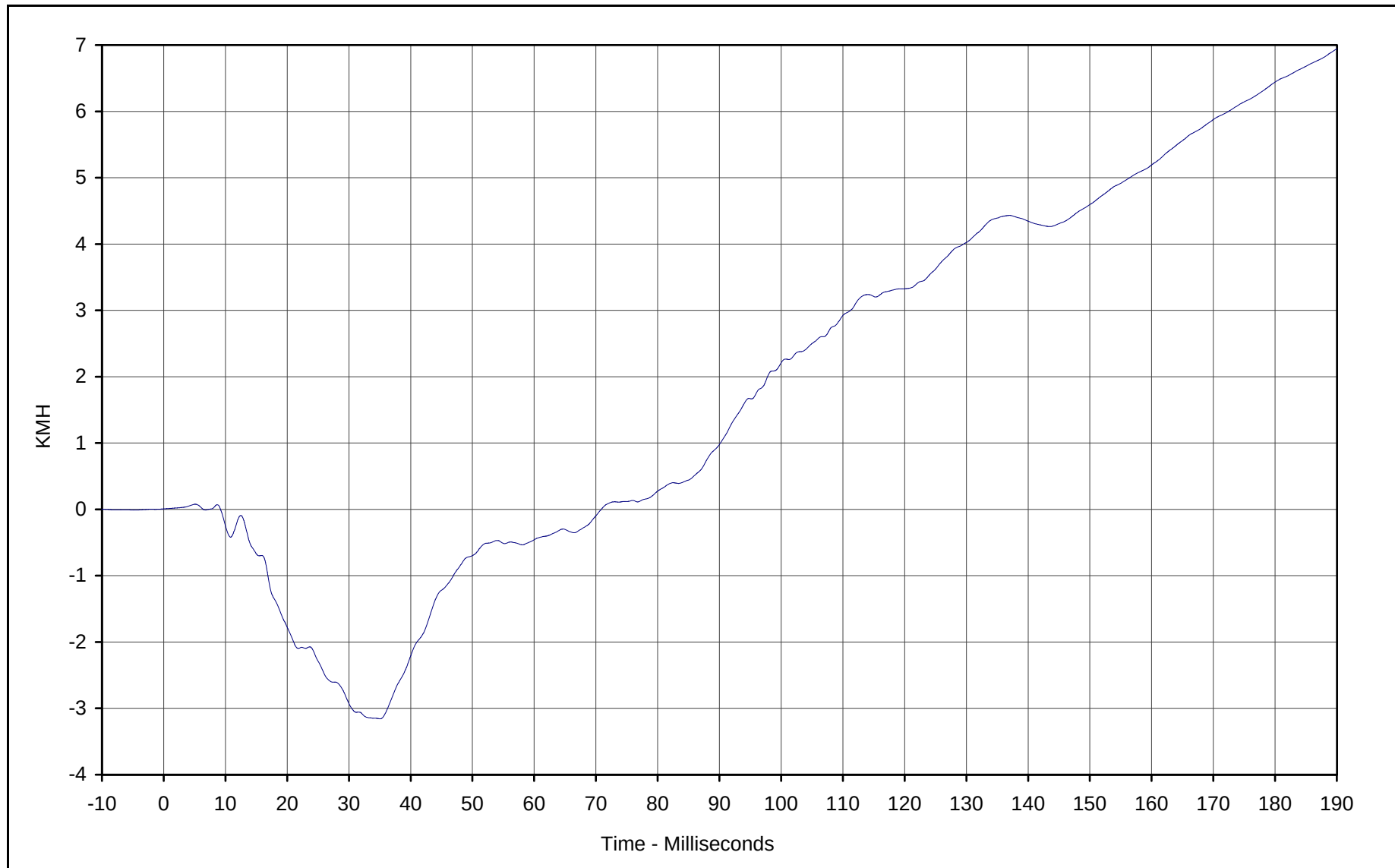




Curve Description: Right Sill at Rear Seat Z
Maximum Value: 6.0 at 39.6 Milliseconds
Minimum Value: -7.4 at 17.2 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-032

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

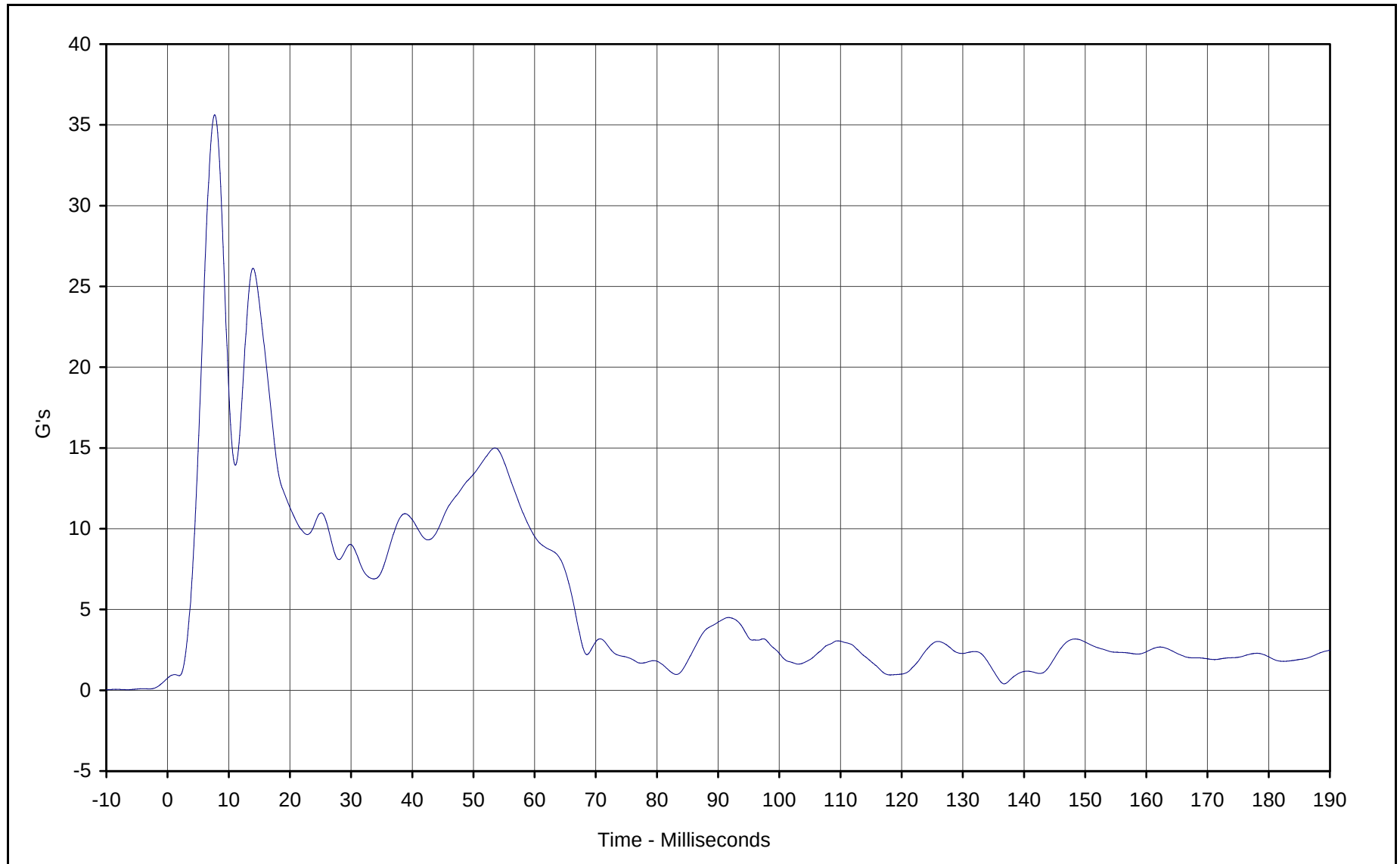




Curve Description: Right Sill at Rear Seat Z Velocity
Maximum Value: 6.9 at 189.9 Milliseconds
Minimum Value: -3.2 at 35.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-032

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

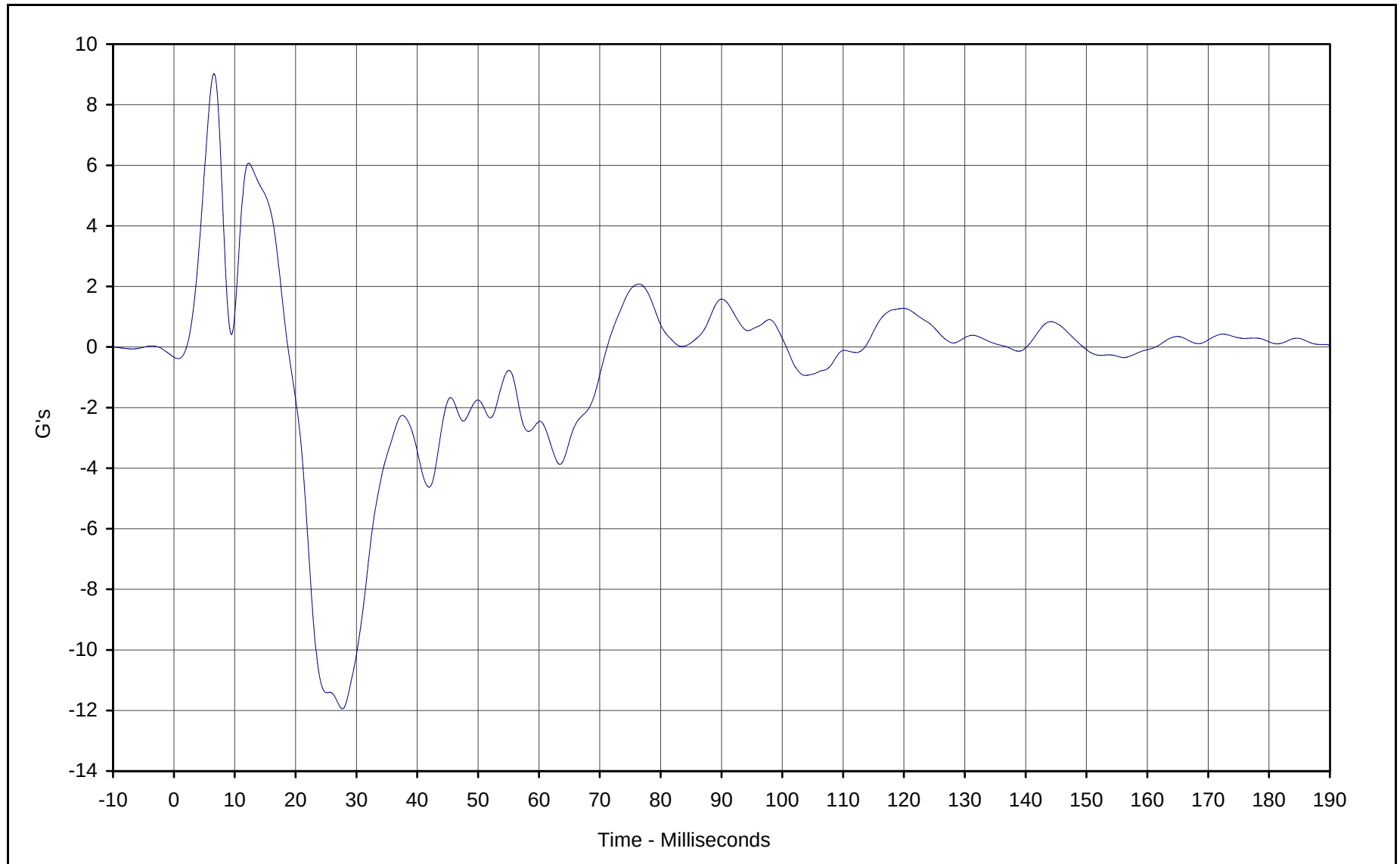




Curve Description: Right Sill at Rear Seat Resultant
Maximum Value: 35.6 at 7.7 Milliseconds
Minimum Value: 0.4 at 136.8 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: RES-030

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

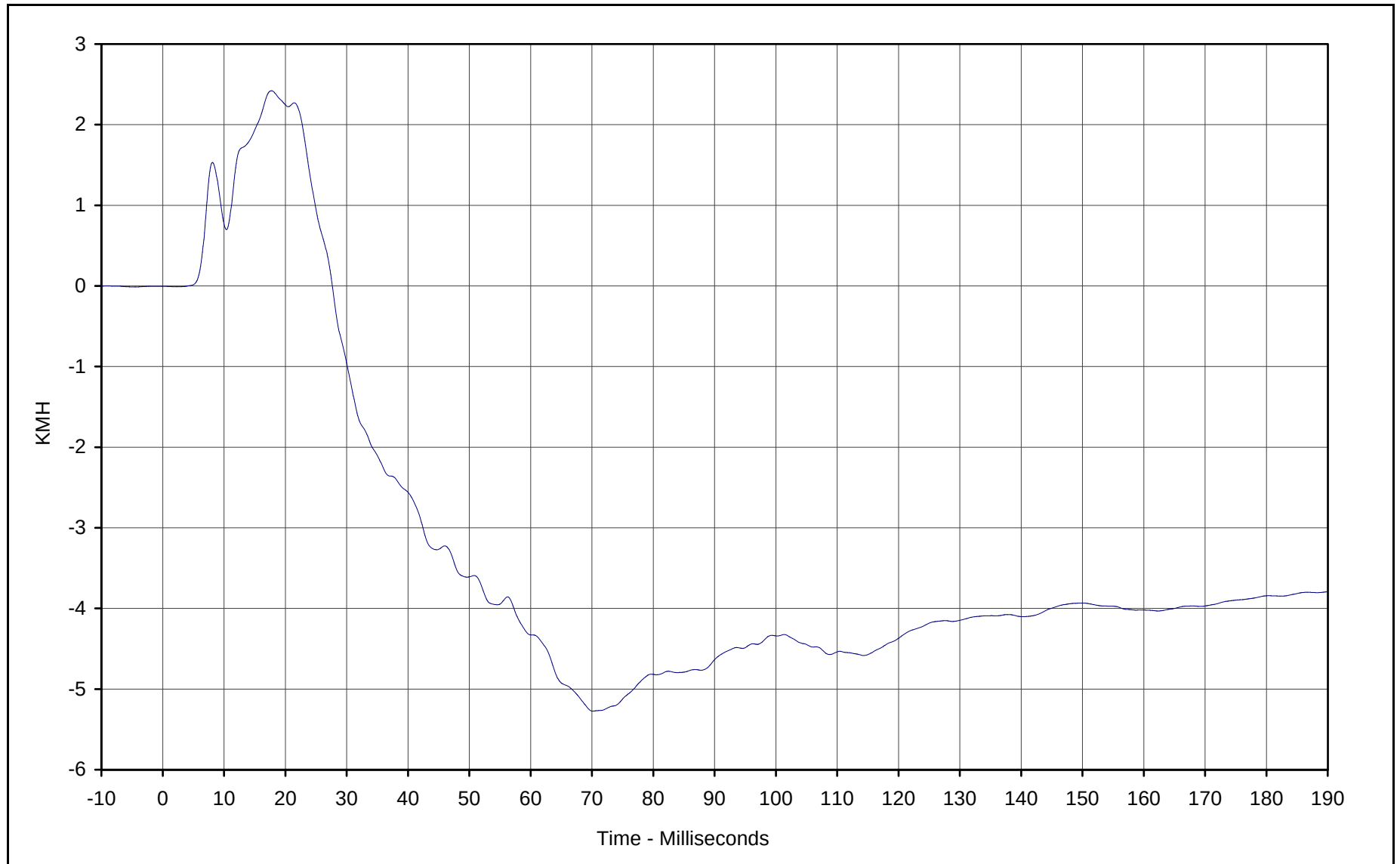




Curve Description: Rear Floor Above Axle X
Maximum Value: 9.0 at 6.6 Milliseconds
Minimum Value: -11.9 at 27.7 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-033

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

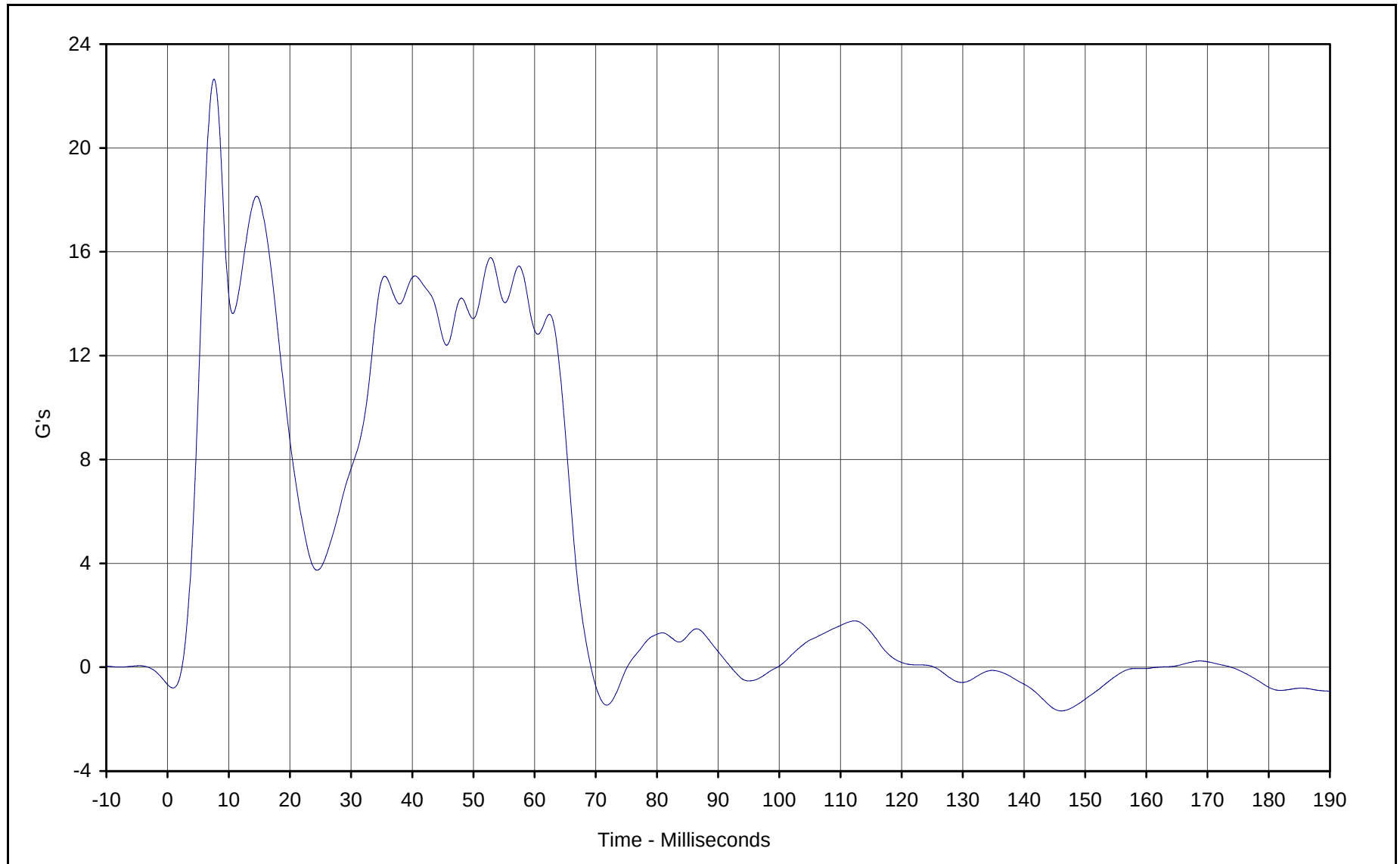




Curve Description: Rear Floor Above Axle X Velocity
Maximum Value: 2.4 at 17.7 Milliseconds
Minimum Value: -5.3 at 70.2 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-033

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

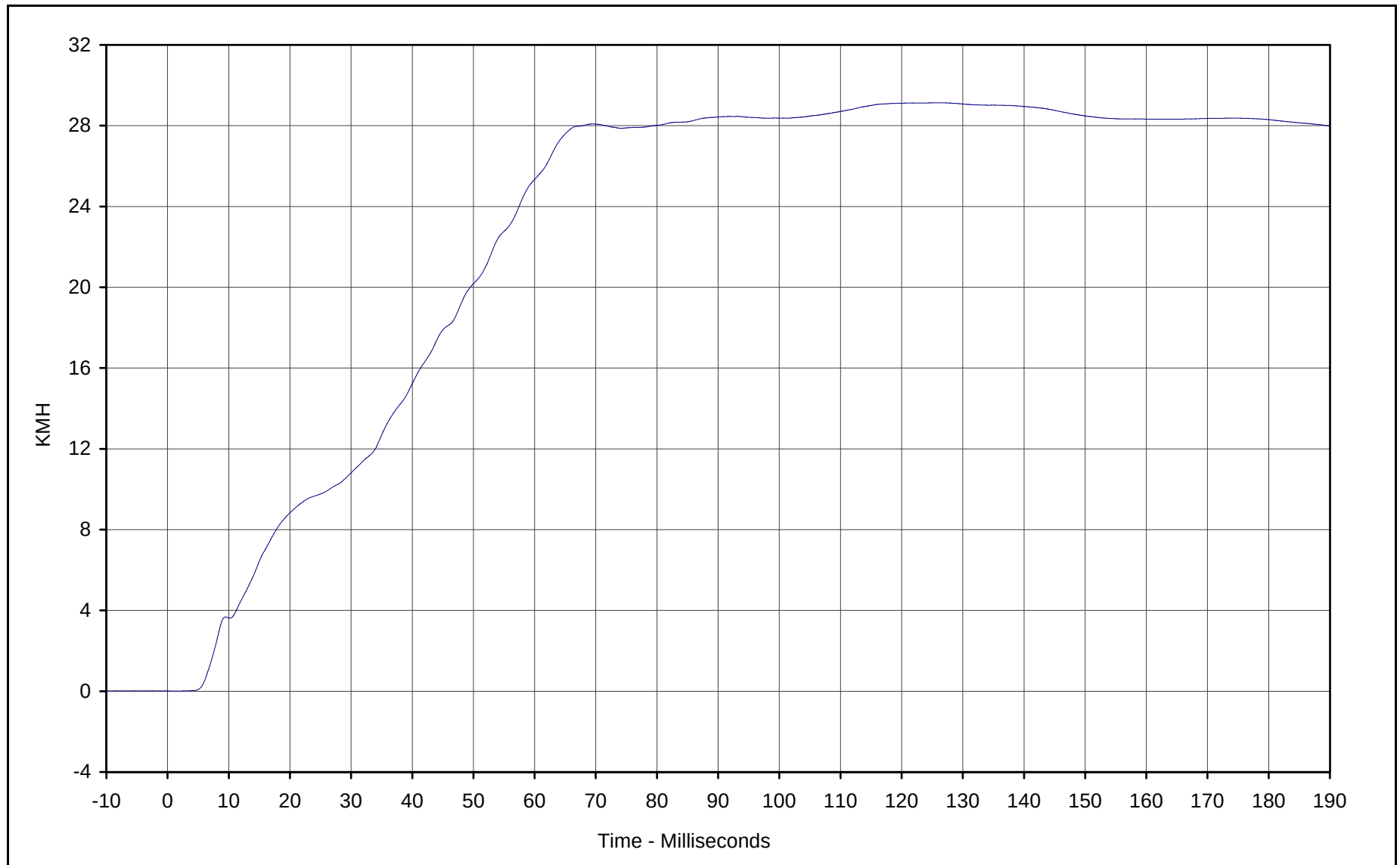




Curve Description: Rear Floor Above Axle Y
Maximum Value: 22.7 at 7.6 Milliseconds
Minimum Value: -1.7 at 71.1 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-034

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

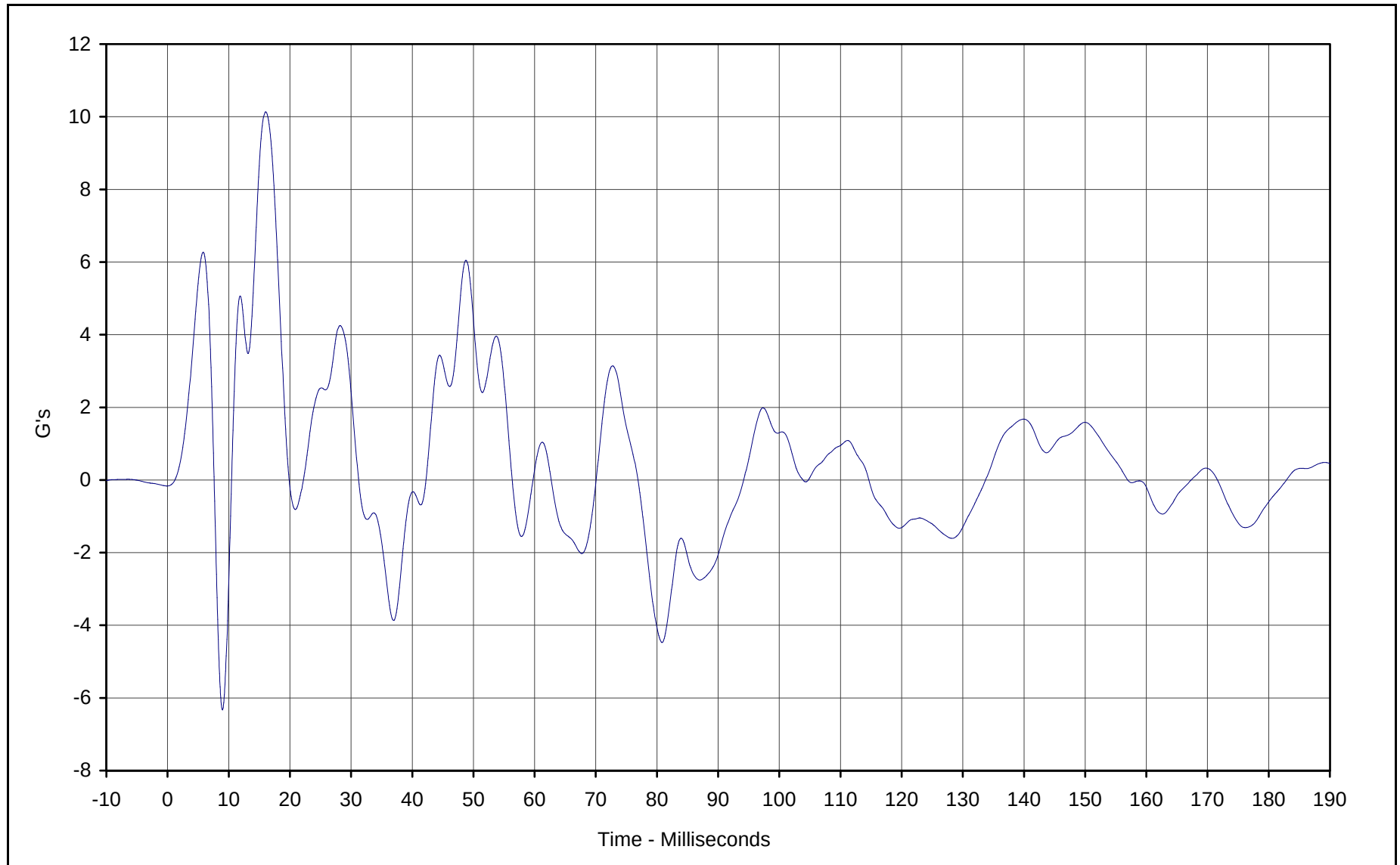




Curve Description: Rear Floor Above Axle Y Velocity
Maximum Value: 29.1 at 125.9 Milliseconds
Minimum Value: 0.0 at 1.1 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-034

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

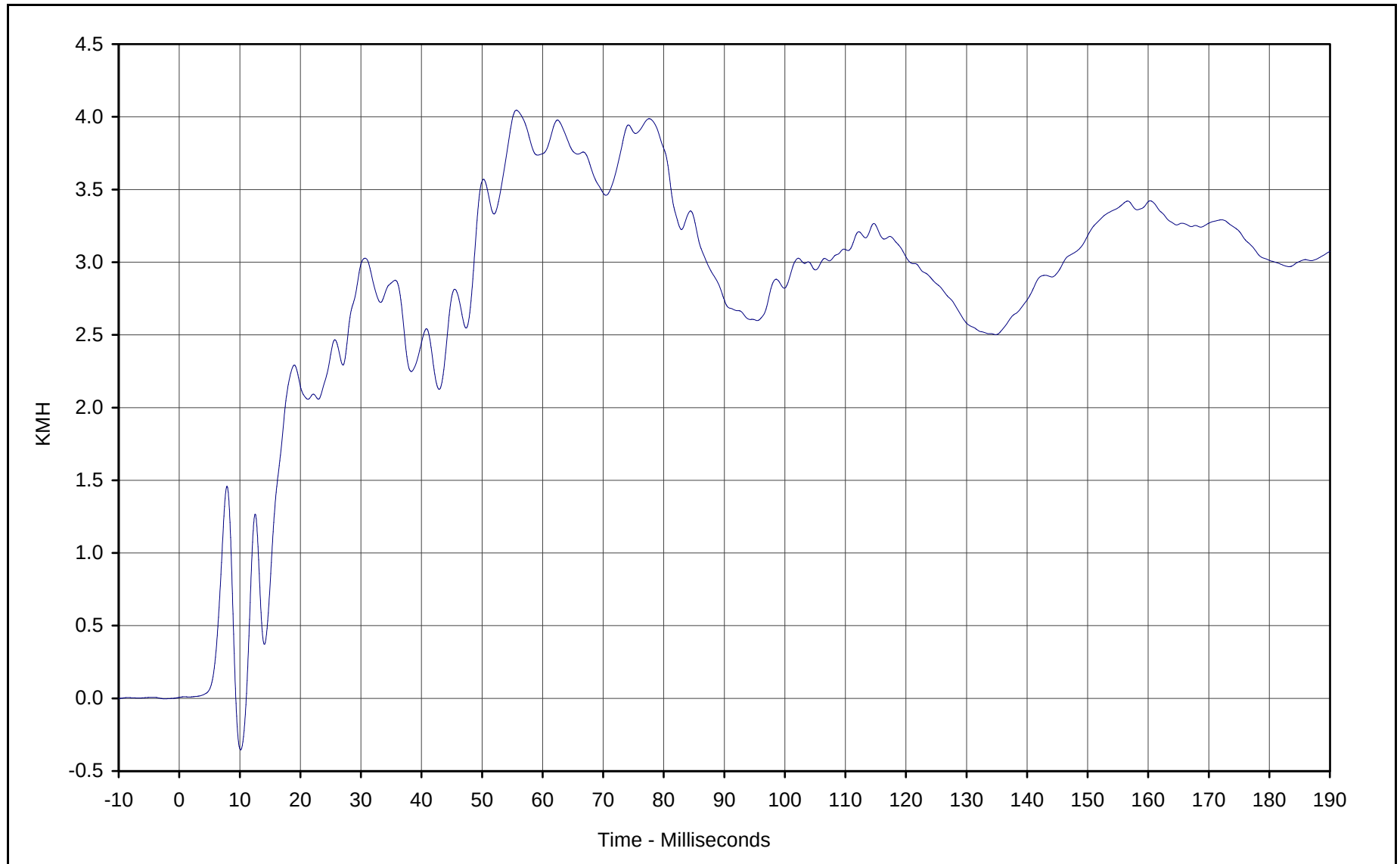




Curve Description: Rear Floor Above Axle Z
Maximum Value: 10.1 at 16 Milliseconds
Minimum Value: -6.3 at 9.0 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-035

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

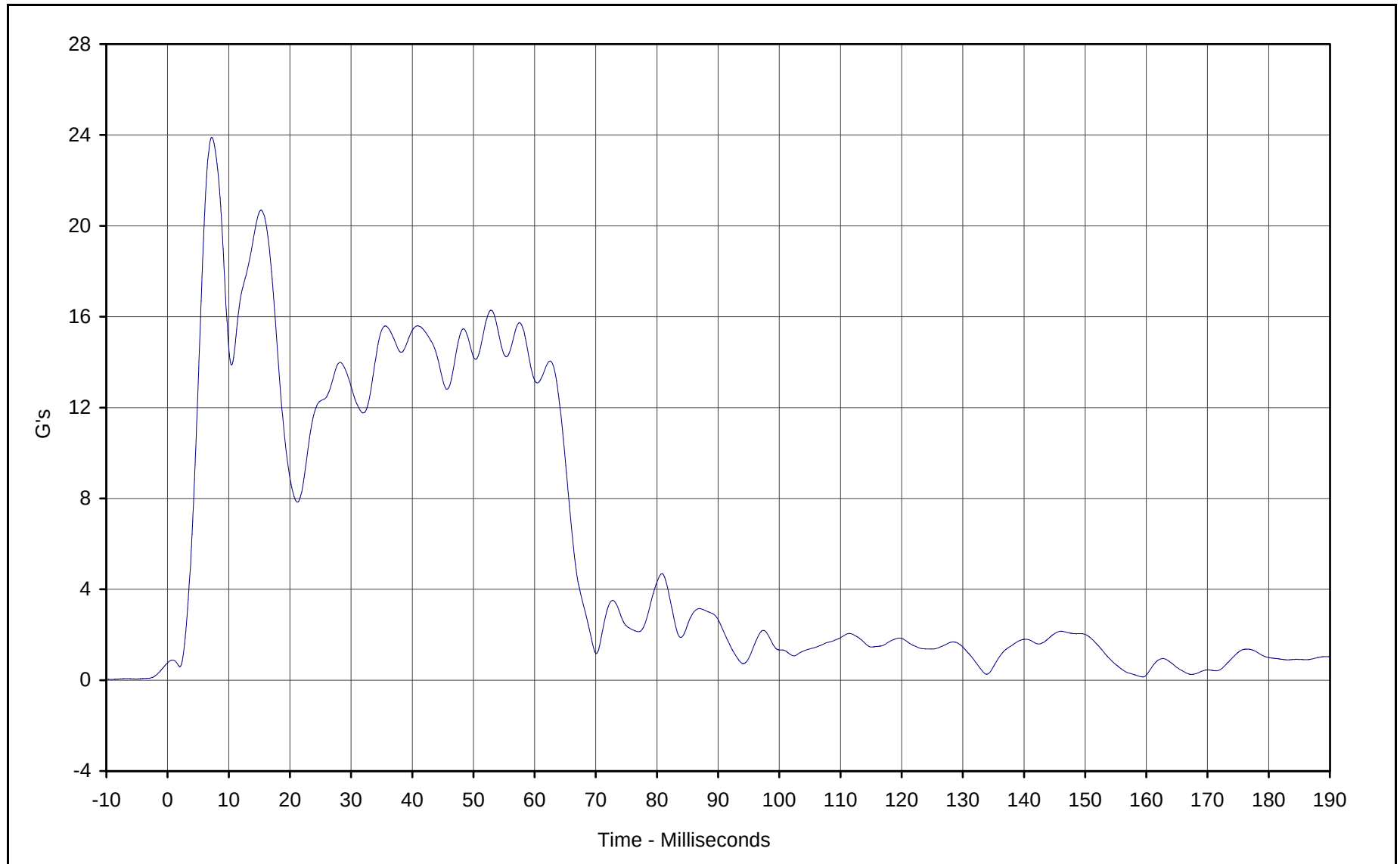




Curve Description: Rear Floor Above Axle Z Velocity
Maximum Value: 4.0 at 55.7 Milliseconds
Minimum Value: -0.4 at 10.1 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-035

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

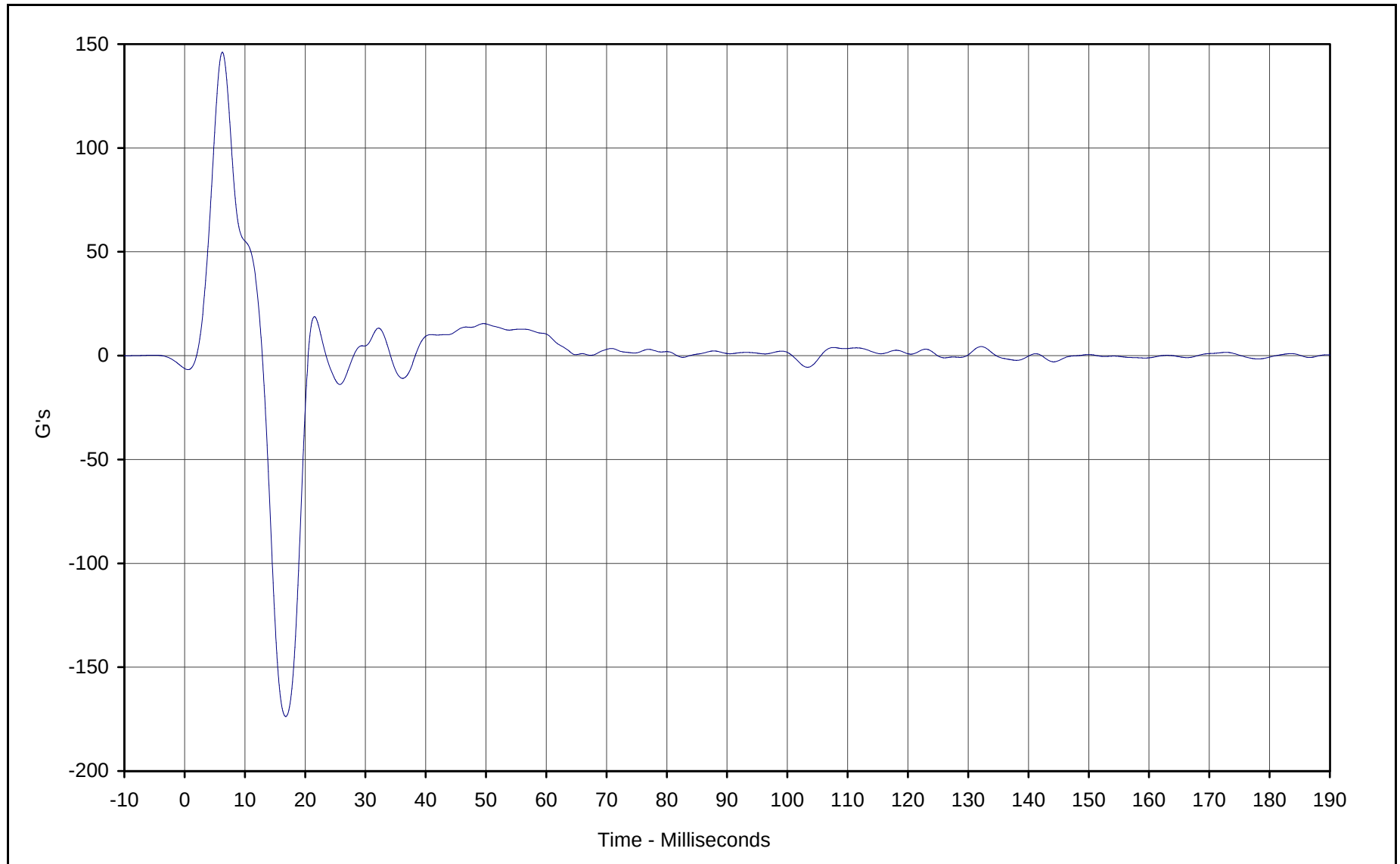




Curve Description: Rear Floor Above Axle Resultant
Maximum Value: 23.9 at 7.2 Milliseconds
Minimum Value: 0.1 at 159.4 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: RES-033

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

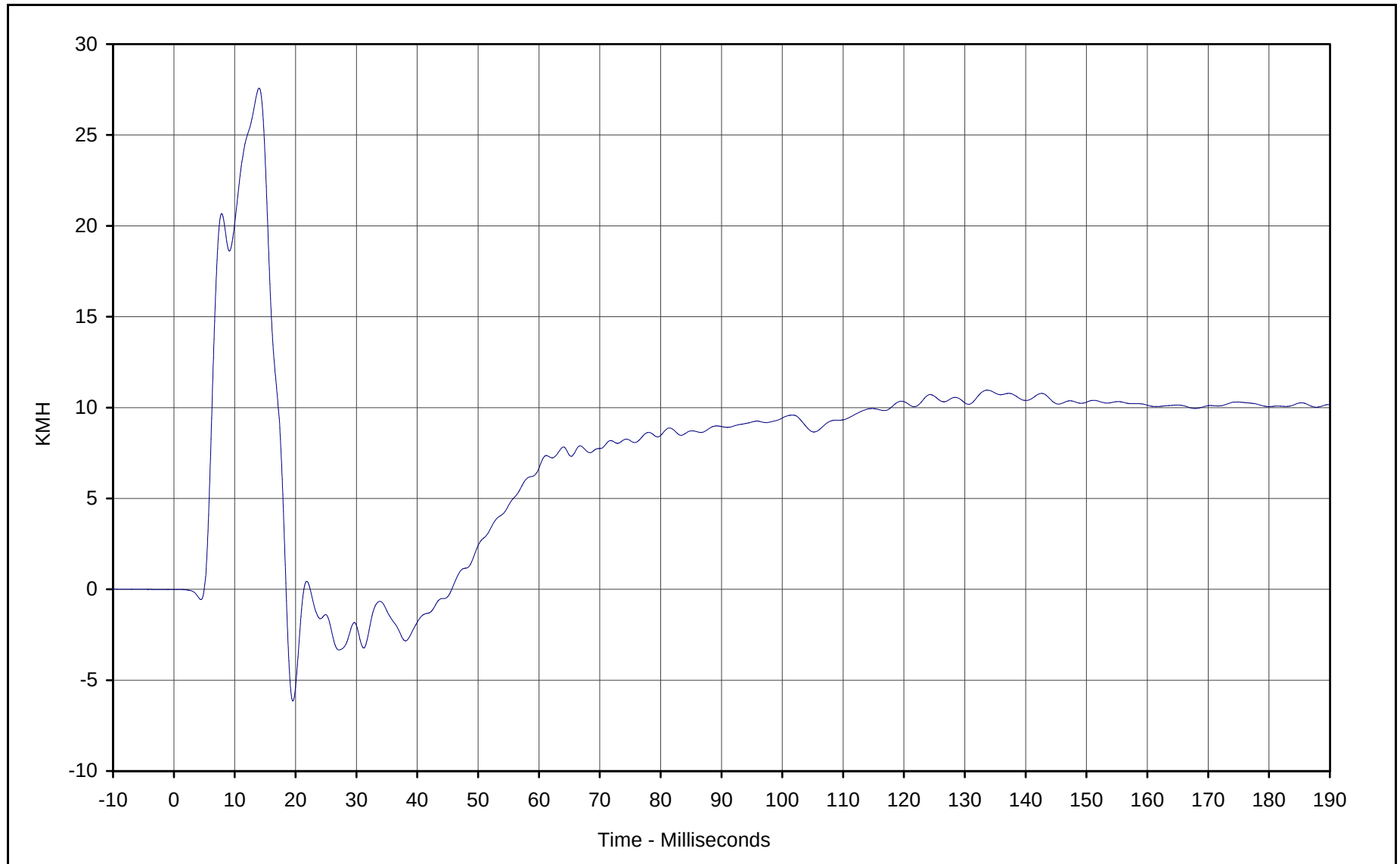




Curve Description: Left Sill at Rear Door Y
Maximum Value: 146.1 at 6.3 Milliseconds
Minimum Value: -173.7 at 16.8 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-036

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

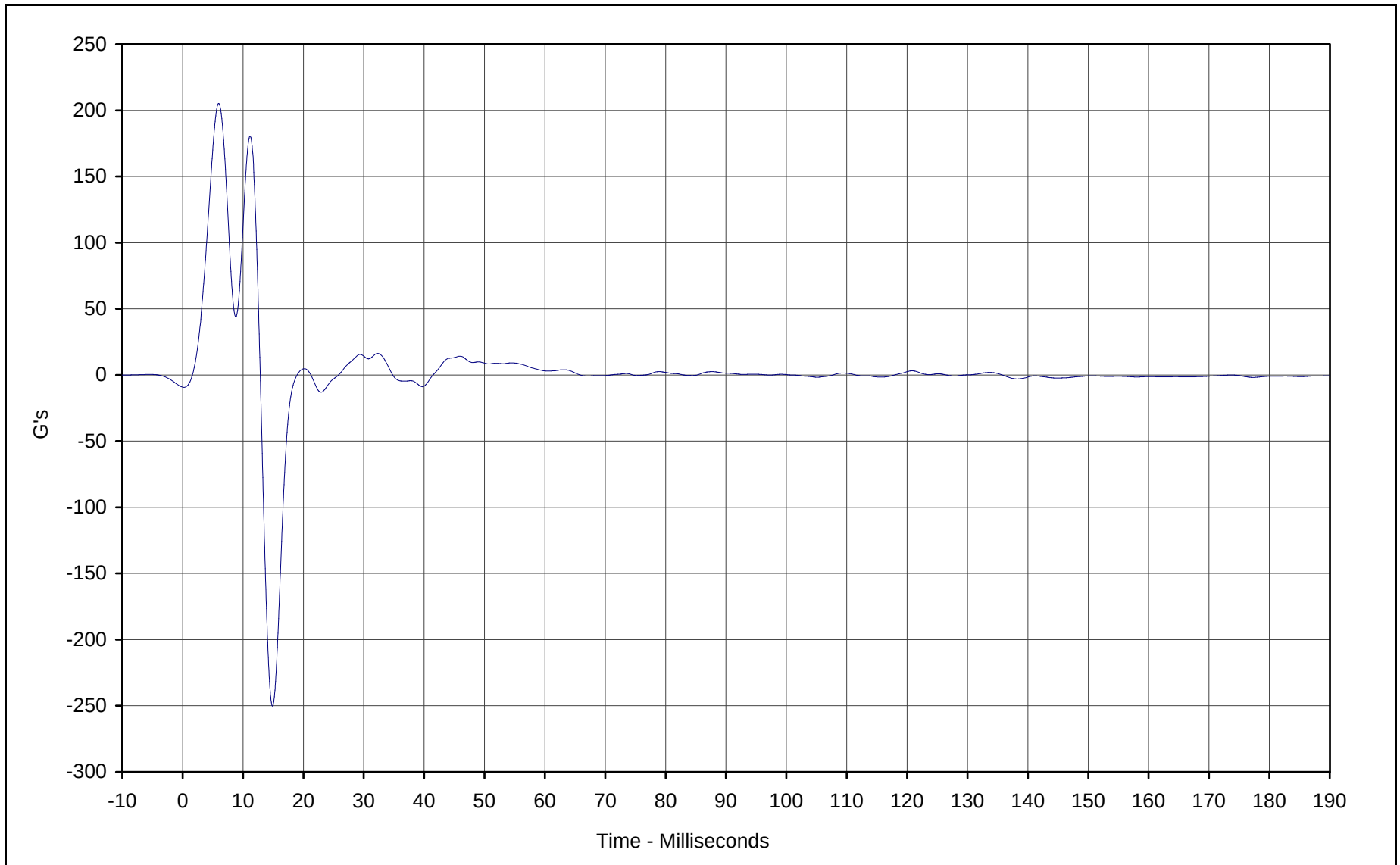




Curve Description: Left Sill at Rear Door Y Velocity
Maximum Value: 27.6 at 14.0 Milliseconds
Minimum Value: -6.2 at 19.6 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-036

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

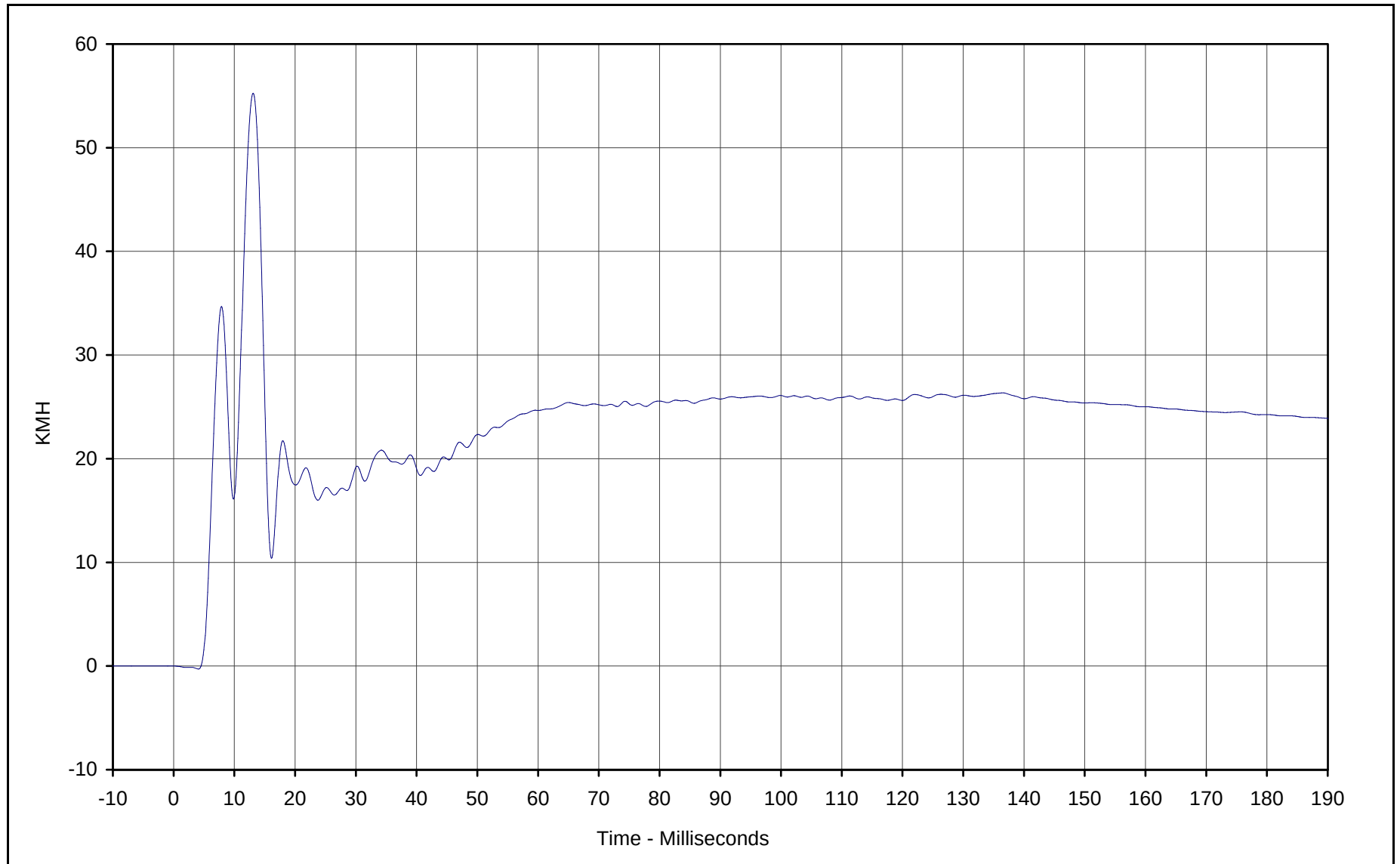




Curve Description: Left Sill at Front Door Y
Maximum Value: 205.3 at 6.0 Milliseconds
Minimum Value: -250.3 at 14.9 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-037

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

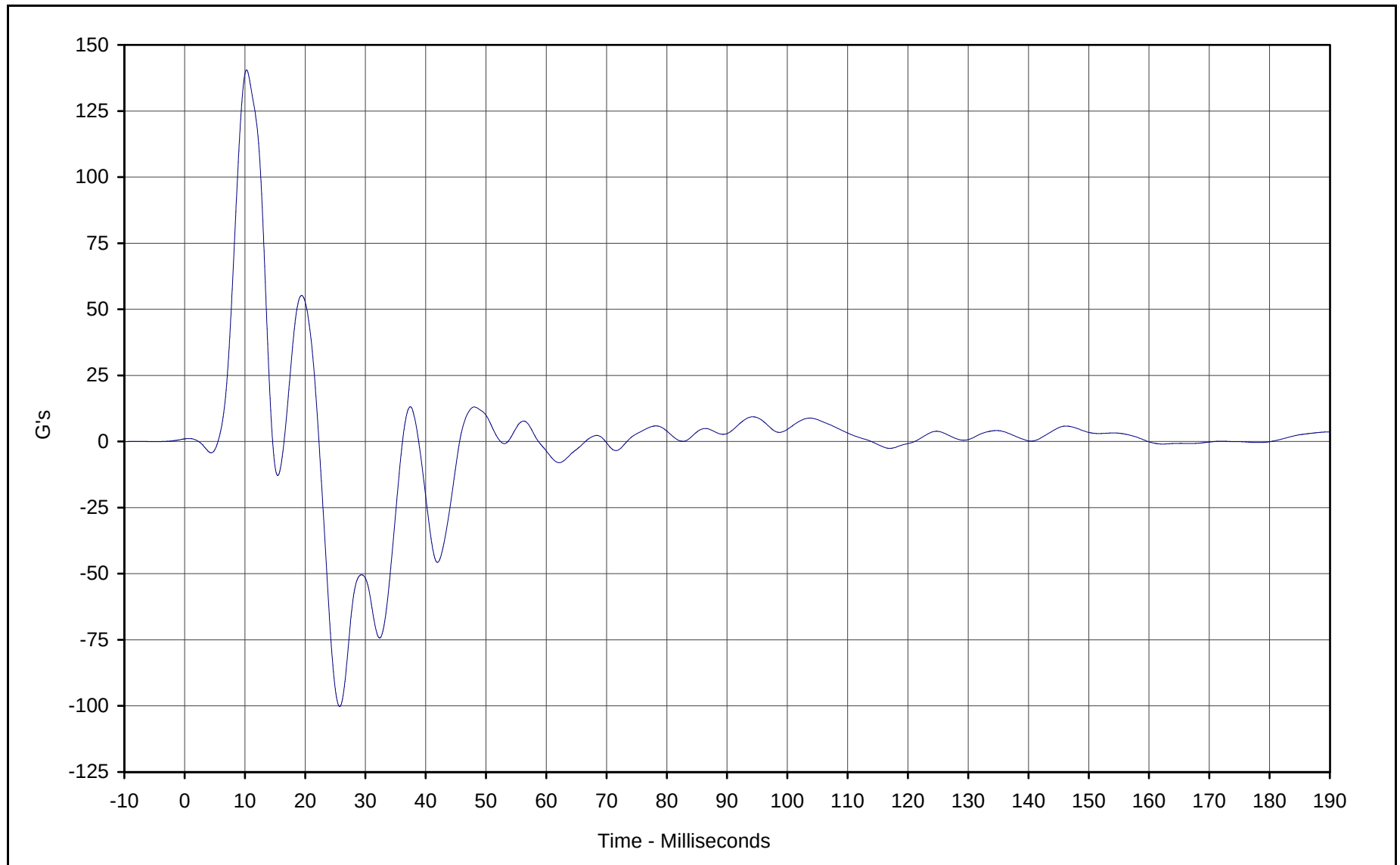




Curve Description: Left Sill at Front Door Y Velocity
Maximum Value: 55.3 at 13.1 Milliseconds
Minimum Value: -0.3 at 4.1 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-037

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

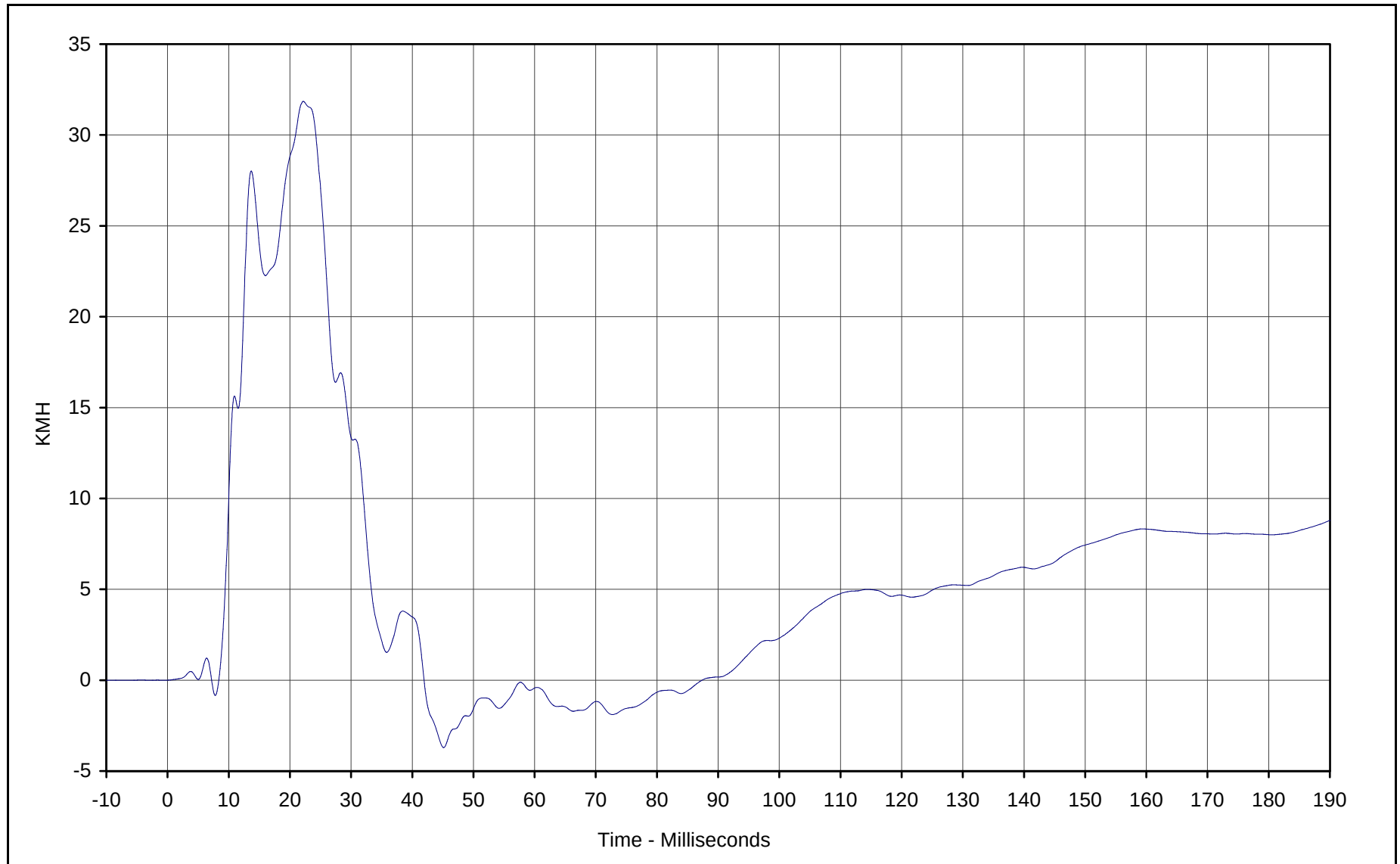




Curve Description: Left Front Door Centerline Y
Maximum Value: 140.5 at 10.3 Milliseconds
Minimum Value: -100.2 at 25.7 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-038

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

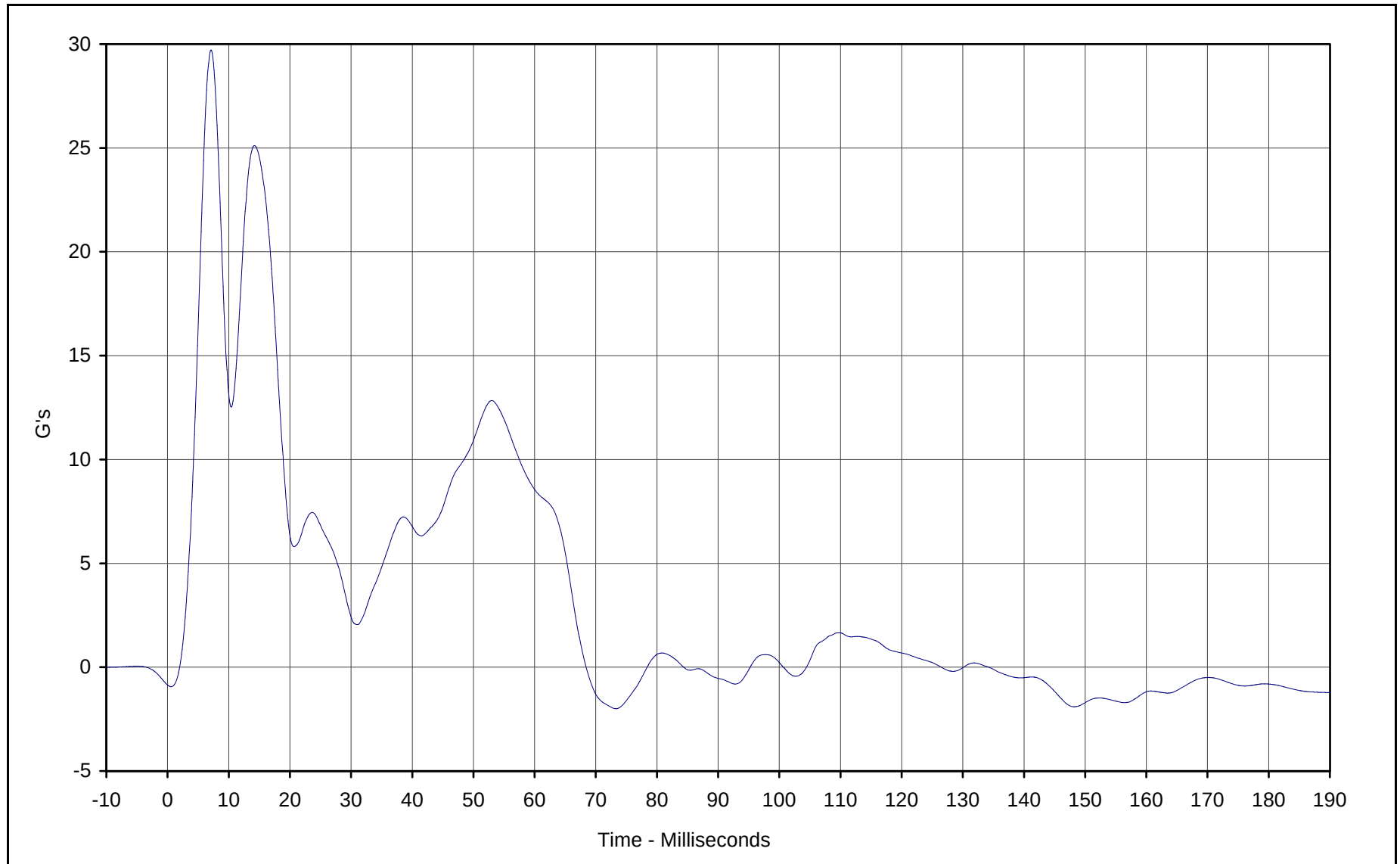




Curve Description: Left Front Door CL Y Velocity
Maximum Value: 31.8 at 22.2 Milliseconds
Minimum Value: -3.7 at 45.1 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-038

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

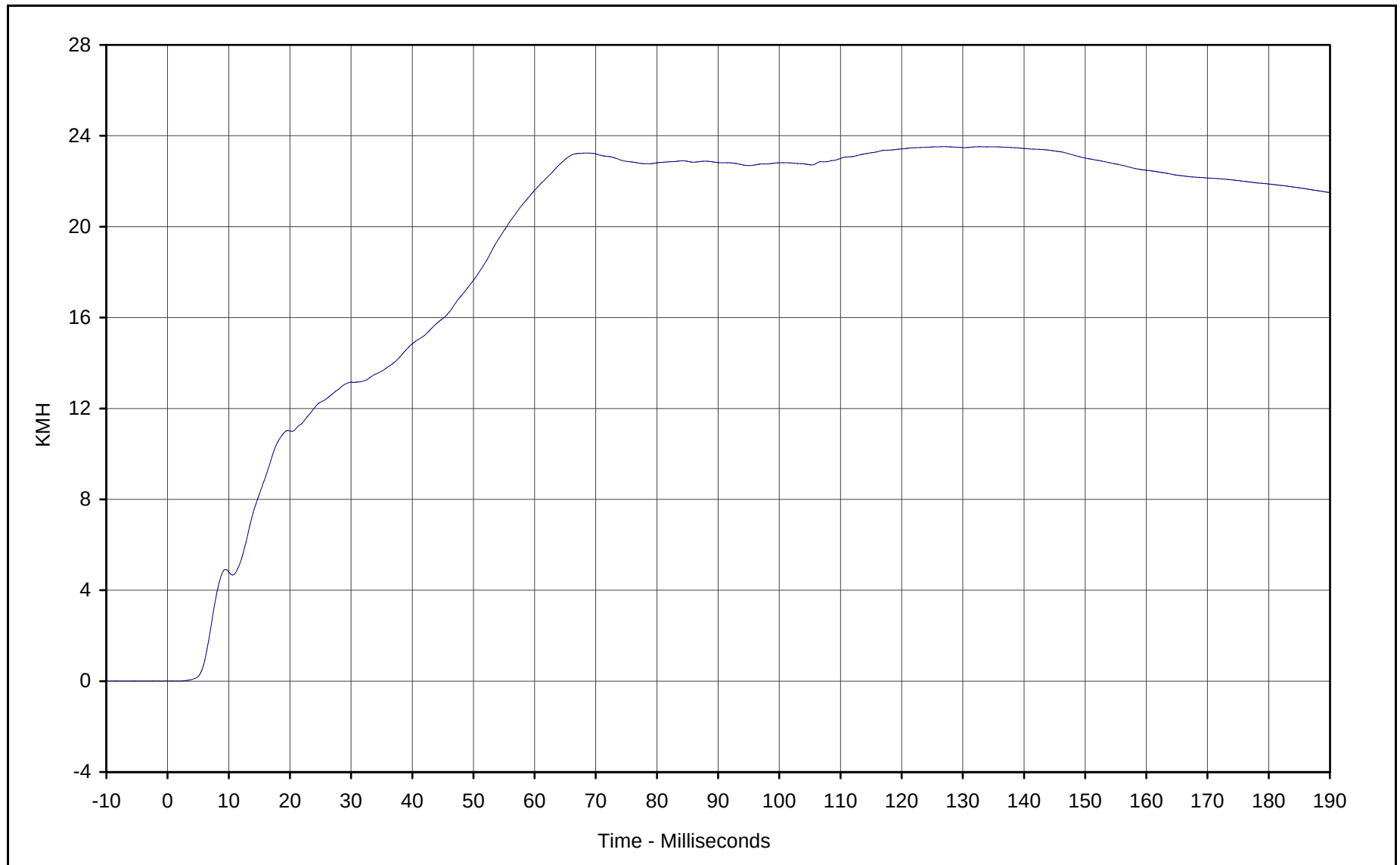




Curve Description: Right Rear Occ. Compartment Y
Maximum Value: 29.7 at 7.1 Milliseconds
Minimum Value: -2.0 at 73.3 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-039

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

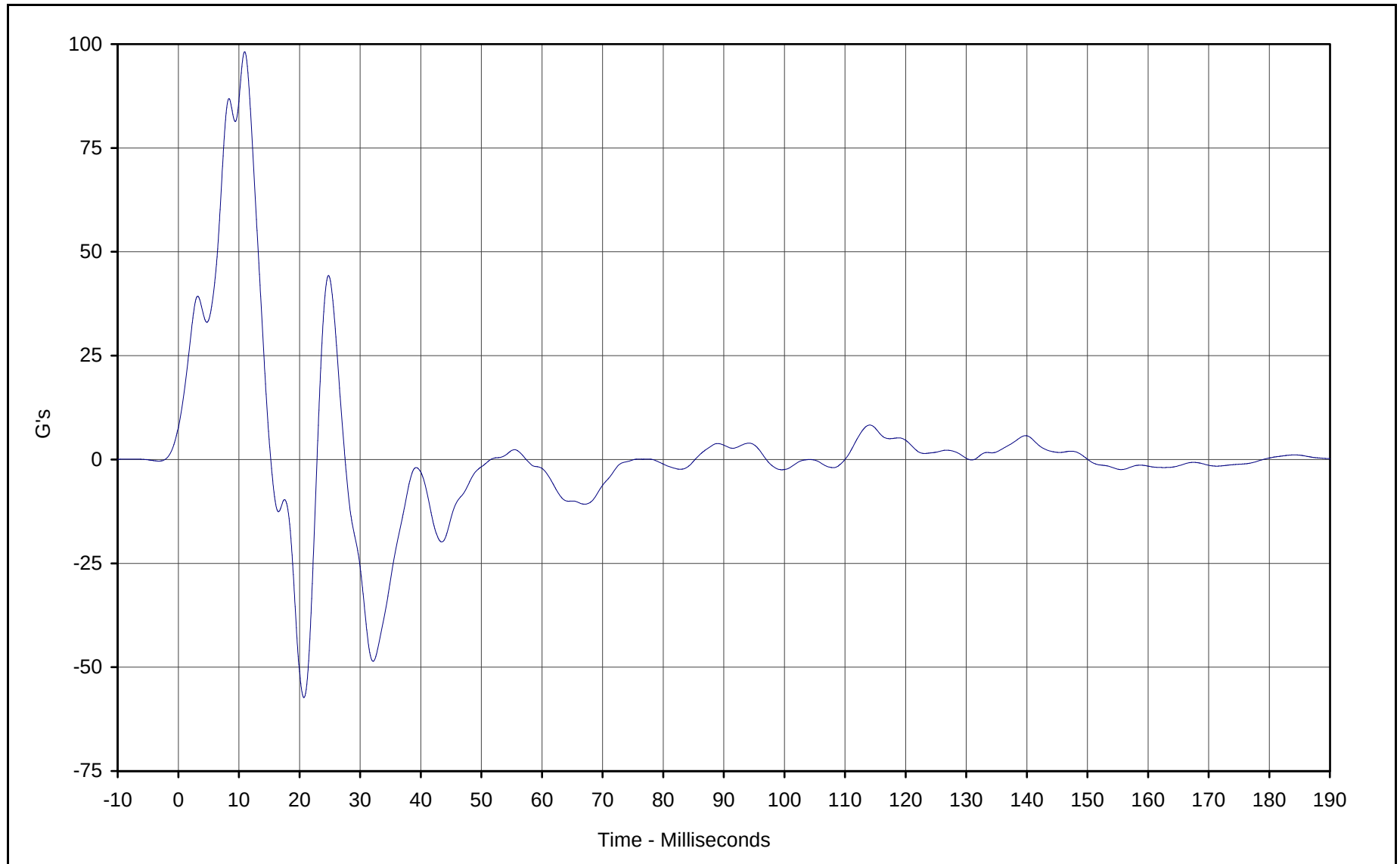




Curve Description: Rear Occ. Comp. Y Velocity
Maximum Value: 23.5 at 126.9 Milliseconds
Minimum Value: 0.0 at 1.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-039

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

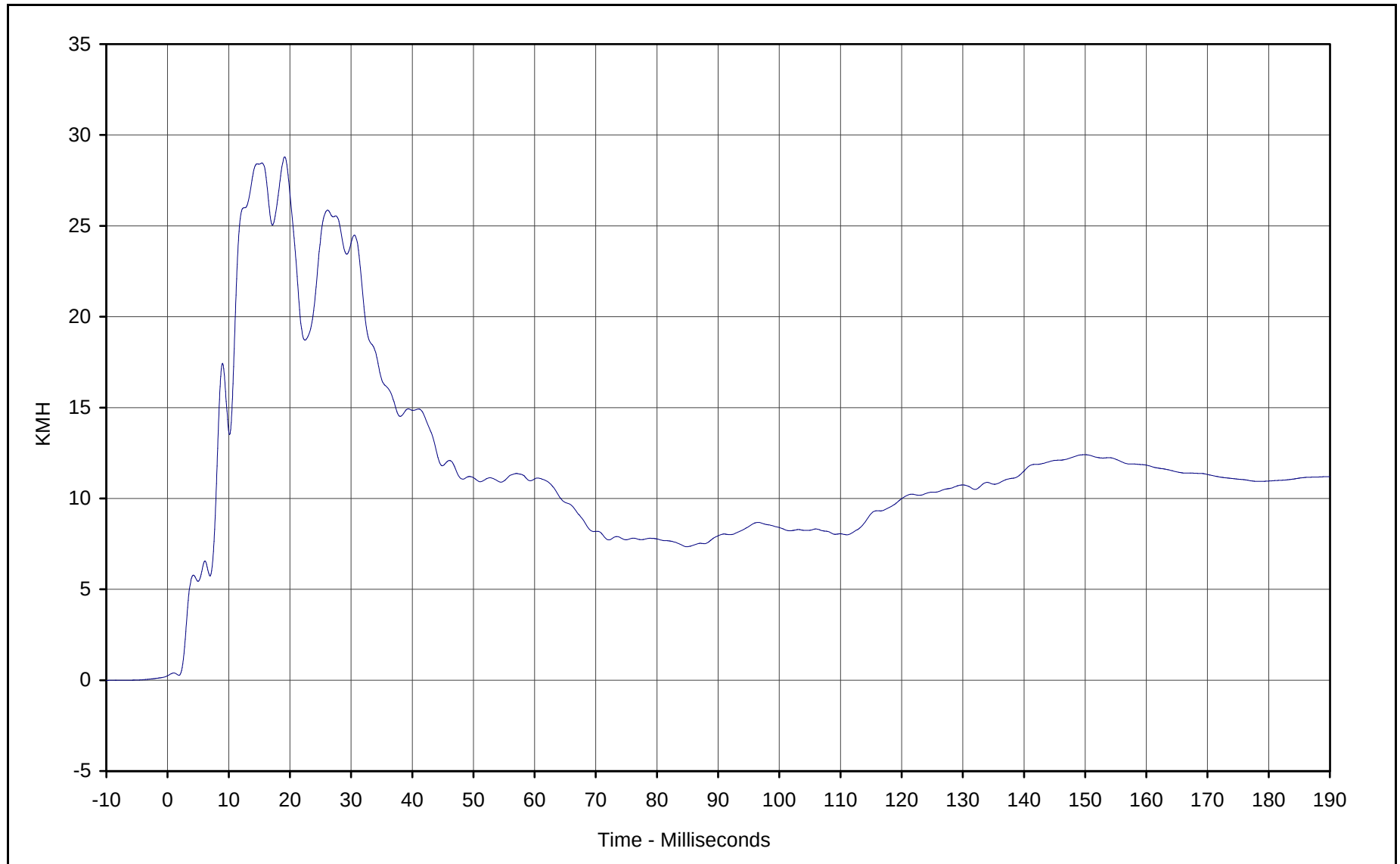




Curve Description: Left Front Door Mid Rear Y
Maximum Value: 98.2 at 11.0 Milliseconds
Minimum Value: -57.3 at 20.7 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-040

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

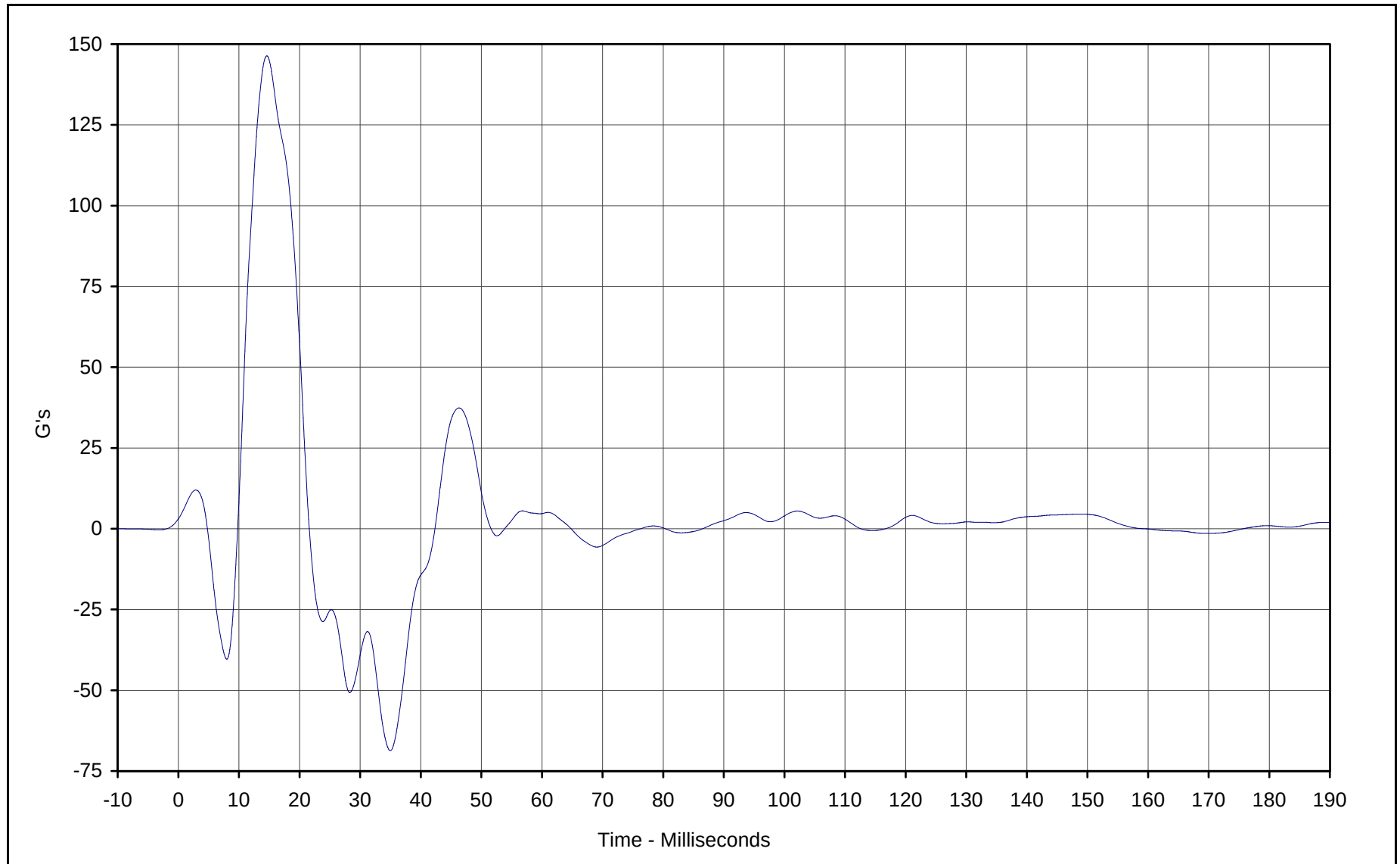




Curve Description: Left Front Door Mid Rear Y Velocity
Maximum Value: 28.8 at 19.1 Milliseconds
Minimum Value: 0.2 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-040

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

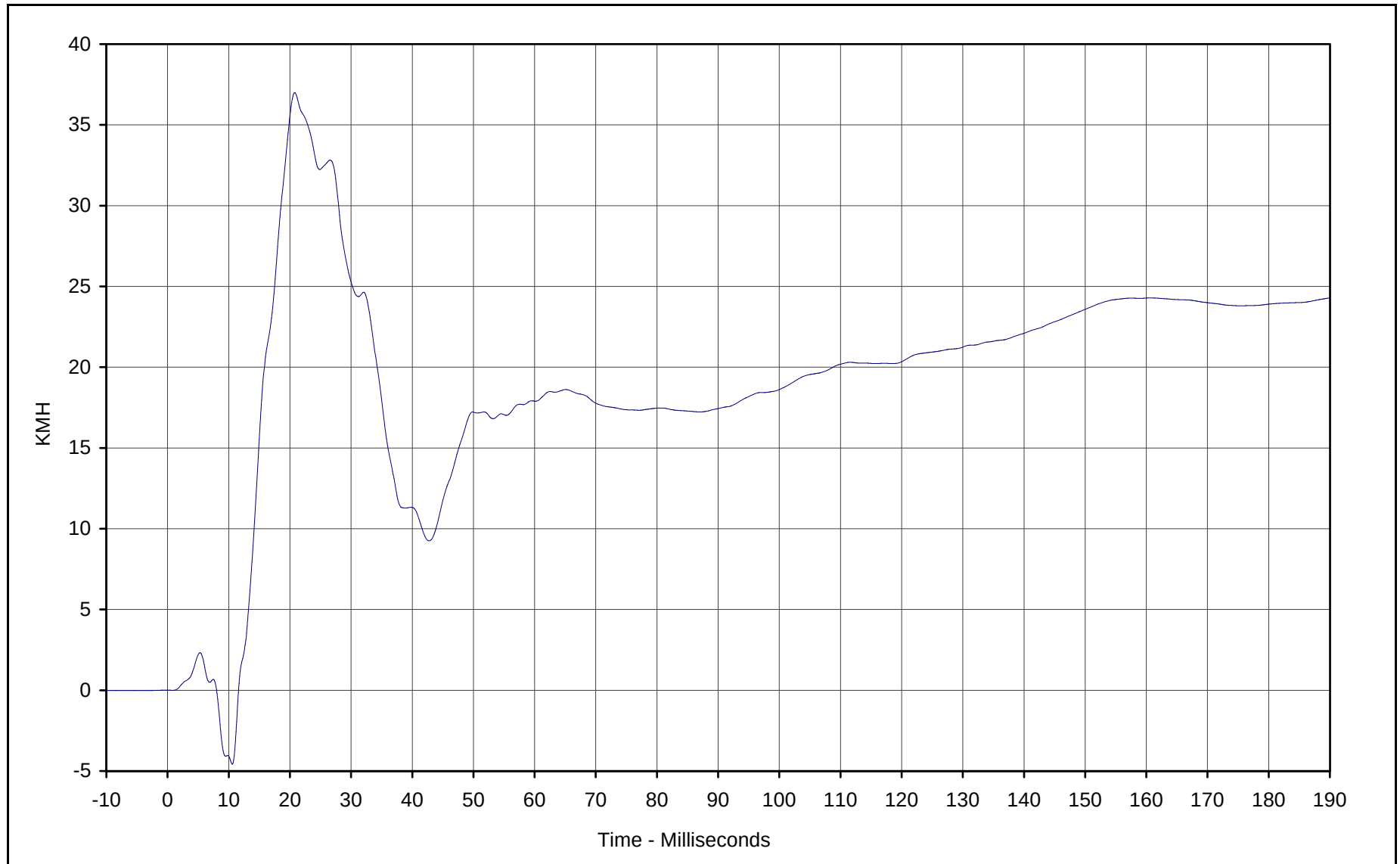




Curve Description: Left Front Door Upper CL Y
Maximum Value: 146.4 at 14.6 Milliseconds
Minimum Value: -68.7 at 35.0 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-041

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Left Front Door Upper CL Y Velocity

Maximum Value: 37.0 at 20.8 Milliseconds

Minimum Value: -4.6 at 10.6 Milliseconds

SAE Filter Class: 180

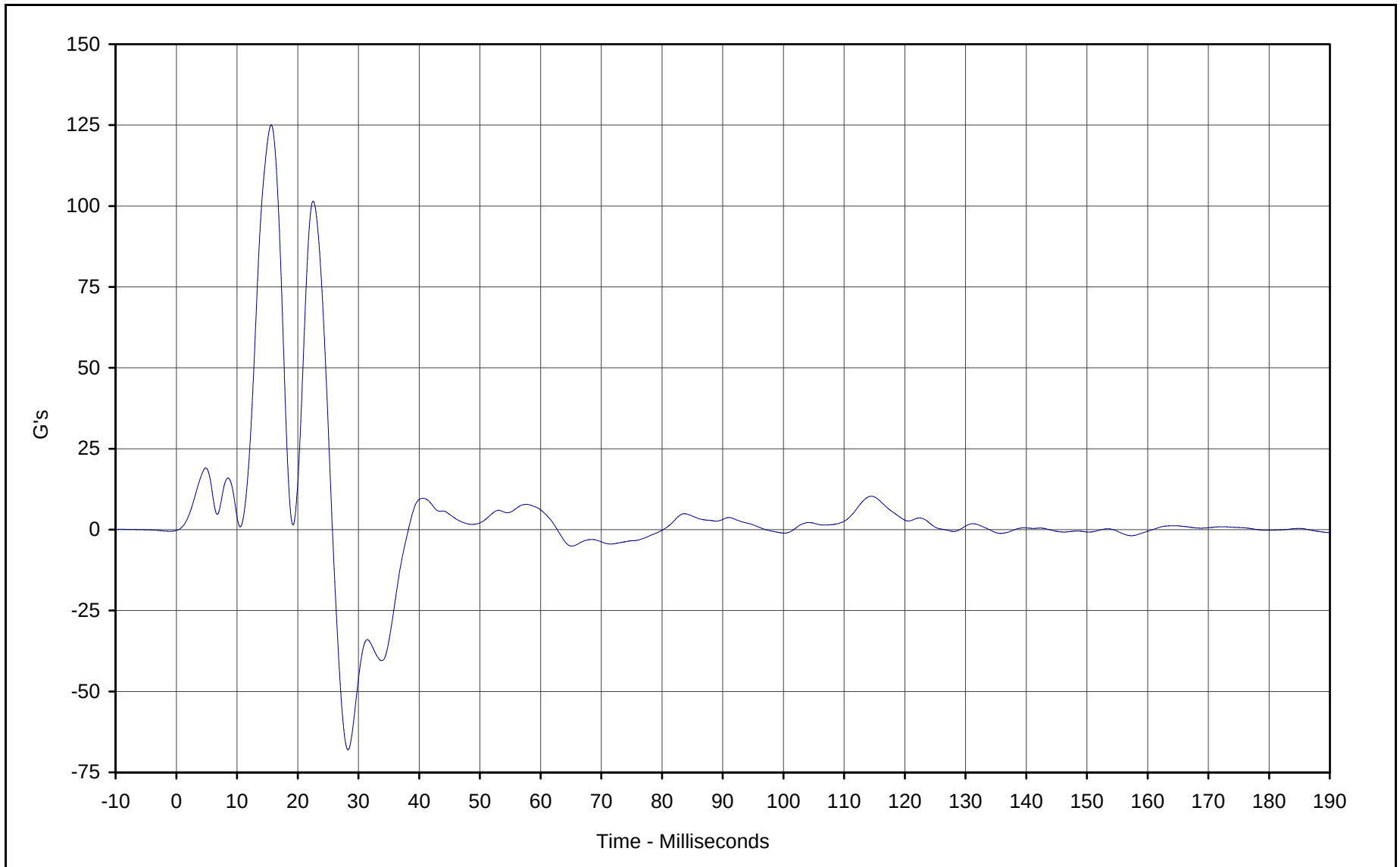
Date of Test: 11/14/01

Curve Number: IN1-041

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

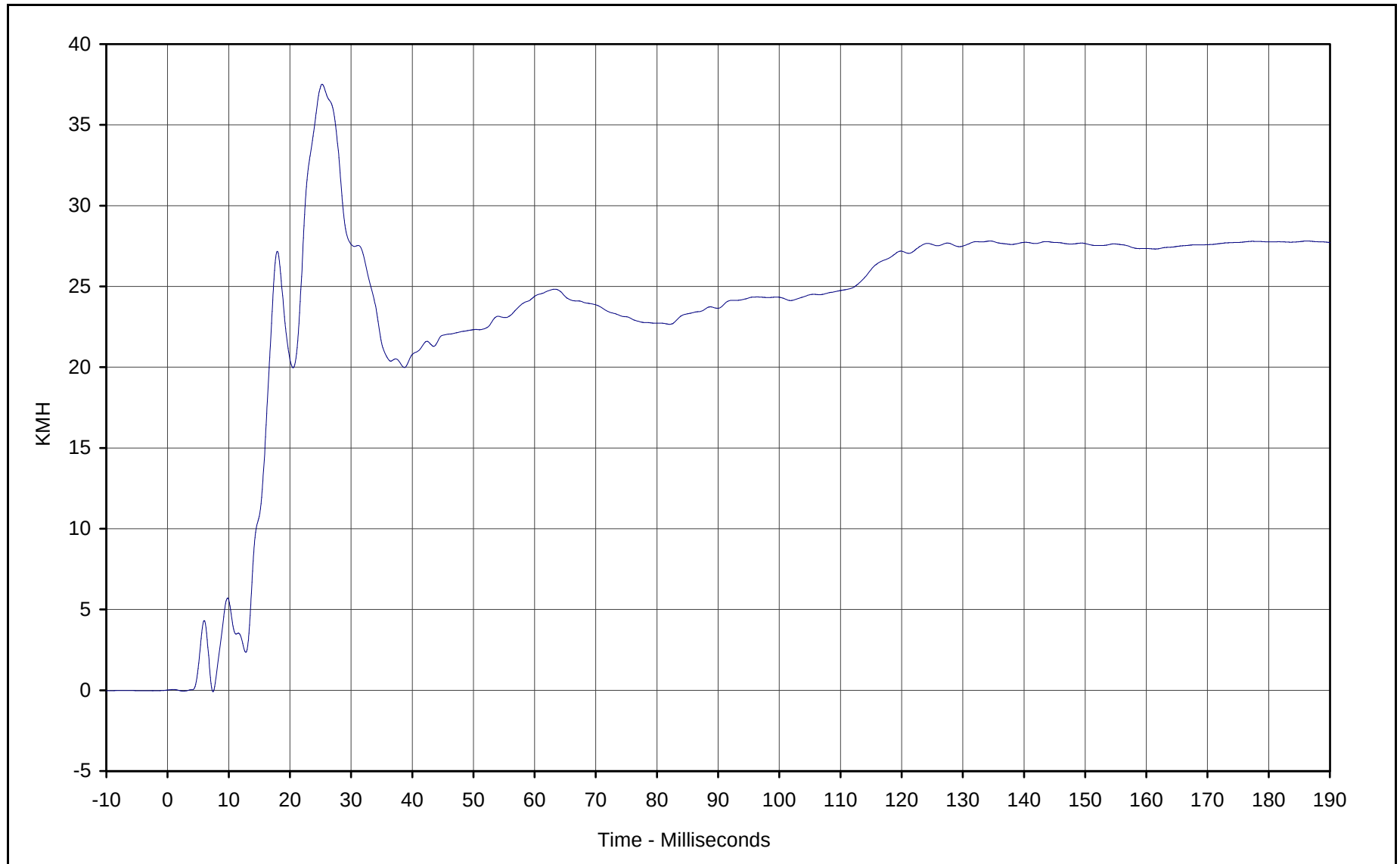




Curve Description: Left Rear Door Mid Rear Y
Maximum Value: 125.0 at 15.6 Milliseconds
Minimum Value: -68.1 at 28.3 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-042

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

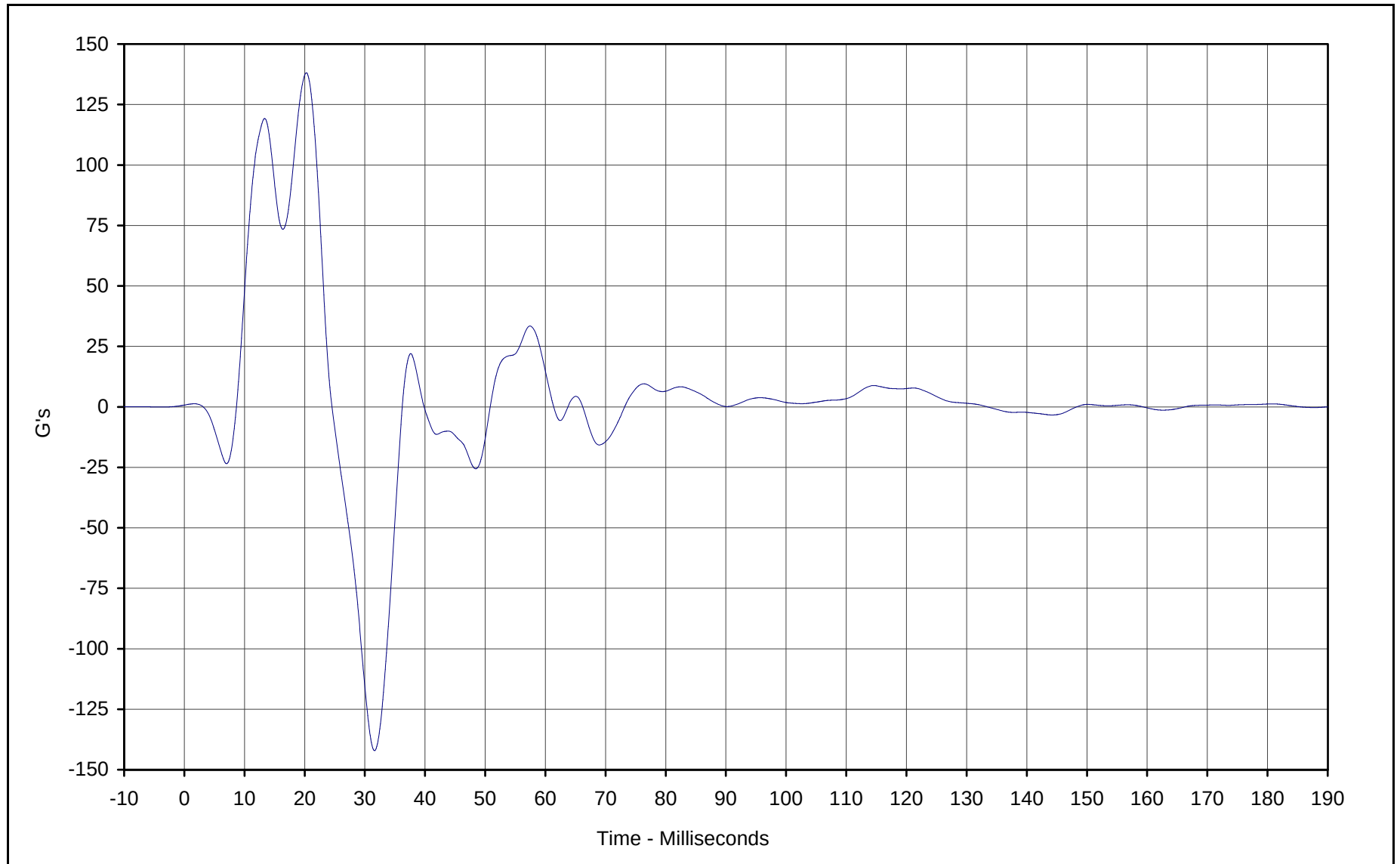




Curve Description: Left Rear Door Mid Rear Y Velocity
Maximum Value: 37.5 at 25.3 Milliseconds
Minimum Value: -0.1 at 7.4 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-042

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

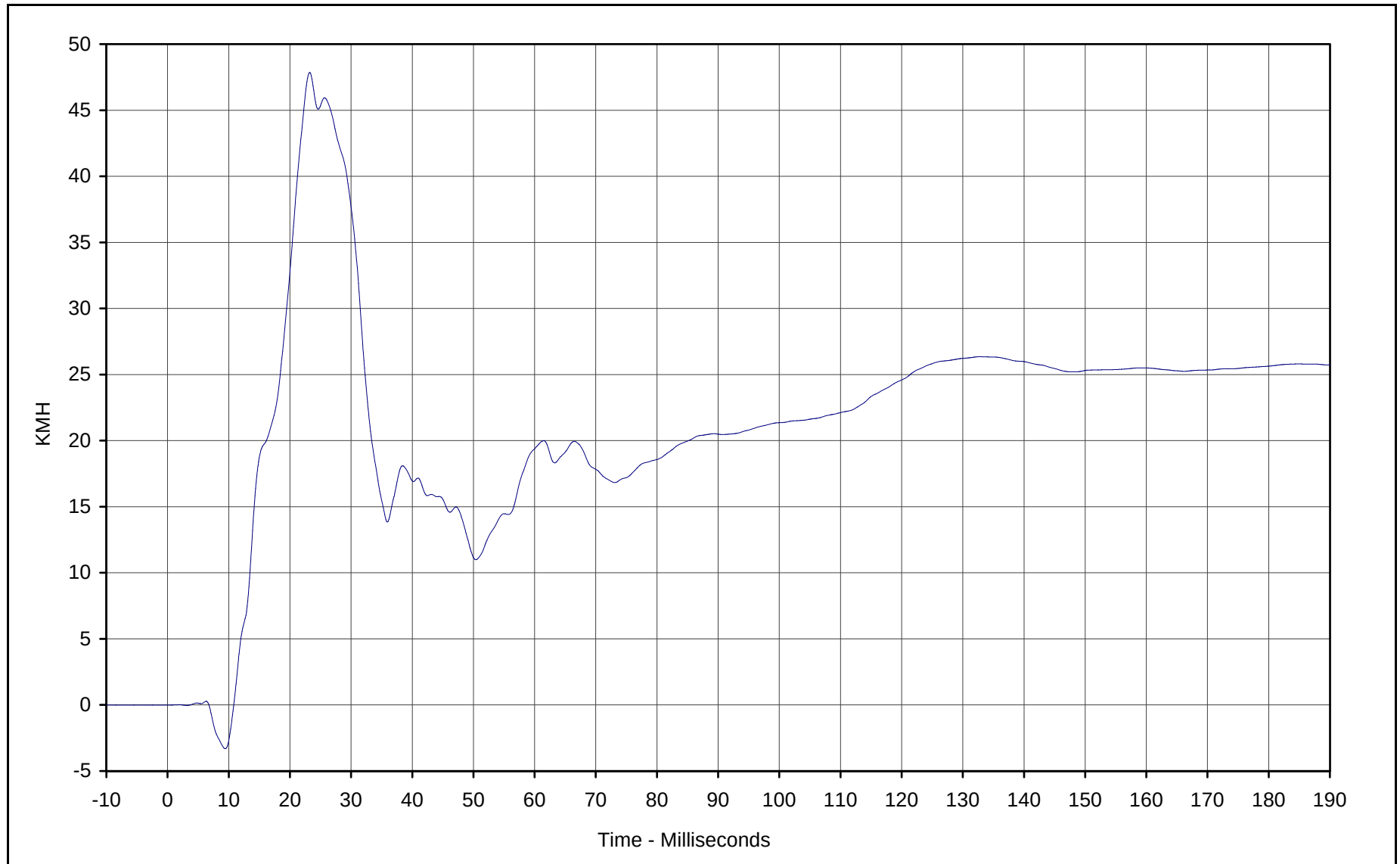




Curve Description: Left Rear Door Upper CL Y
Maximum Value: 138.1 at 20.3 Milliseconds
Minimum Value: -142.1 at 31.6 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-043

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

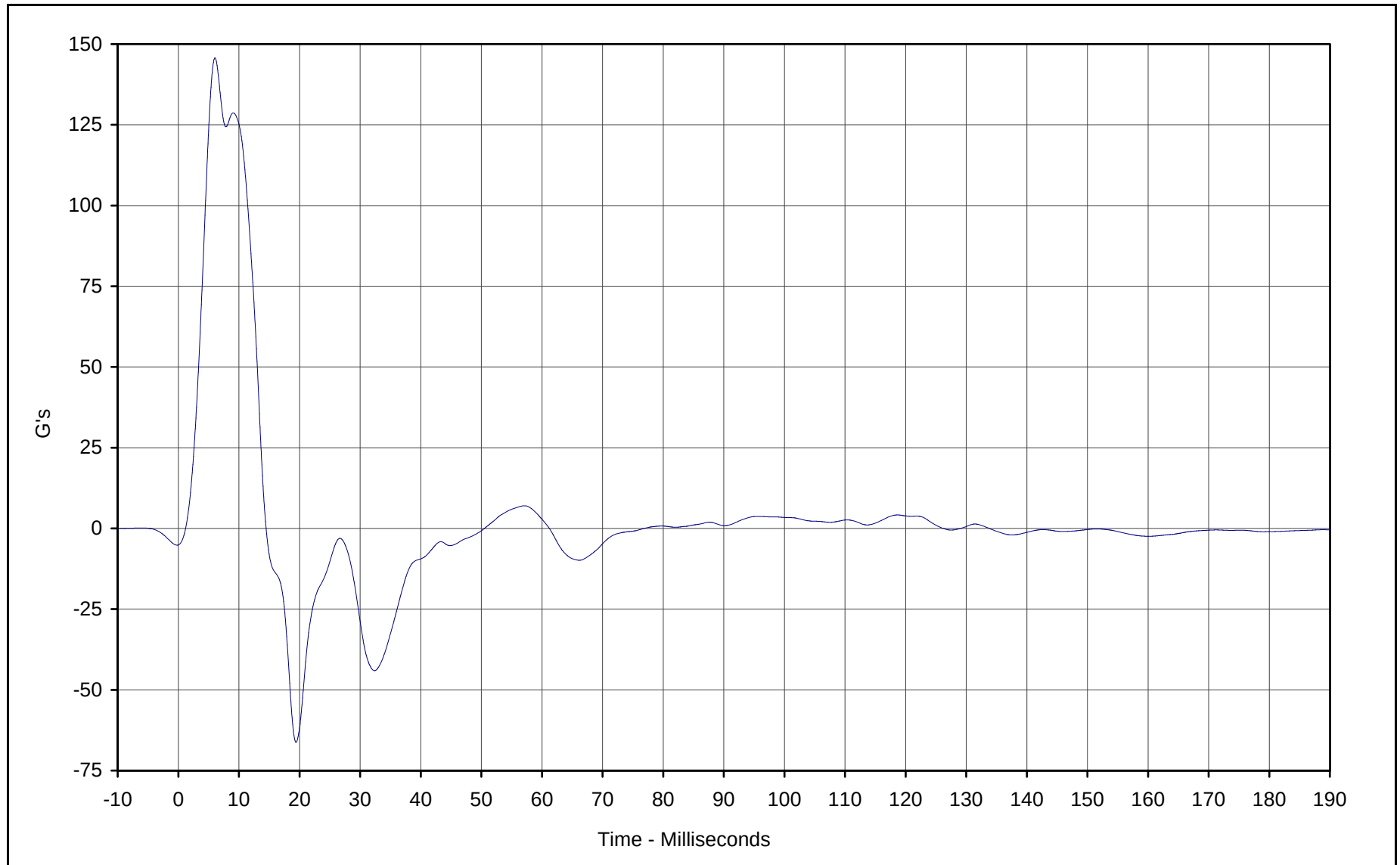




Curve Description: Left Rear Door Upper CL Y Velocity
Maximum Value: 47.9 at 23.2 Milliseconds
Minimum Value: -3.3 at 9.4 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-043

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Left B-Post Lower Y

Maximum Value: 145.7 at 6.0 Milliseconds

Minimum Value: -66.2 at 19.5 Milliseconds

SAE Filter Class: 60

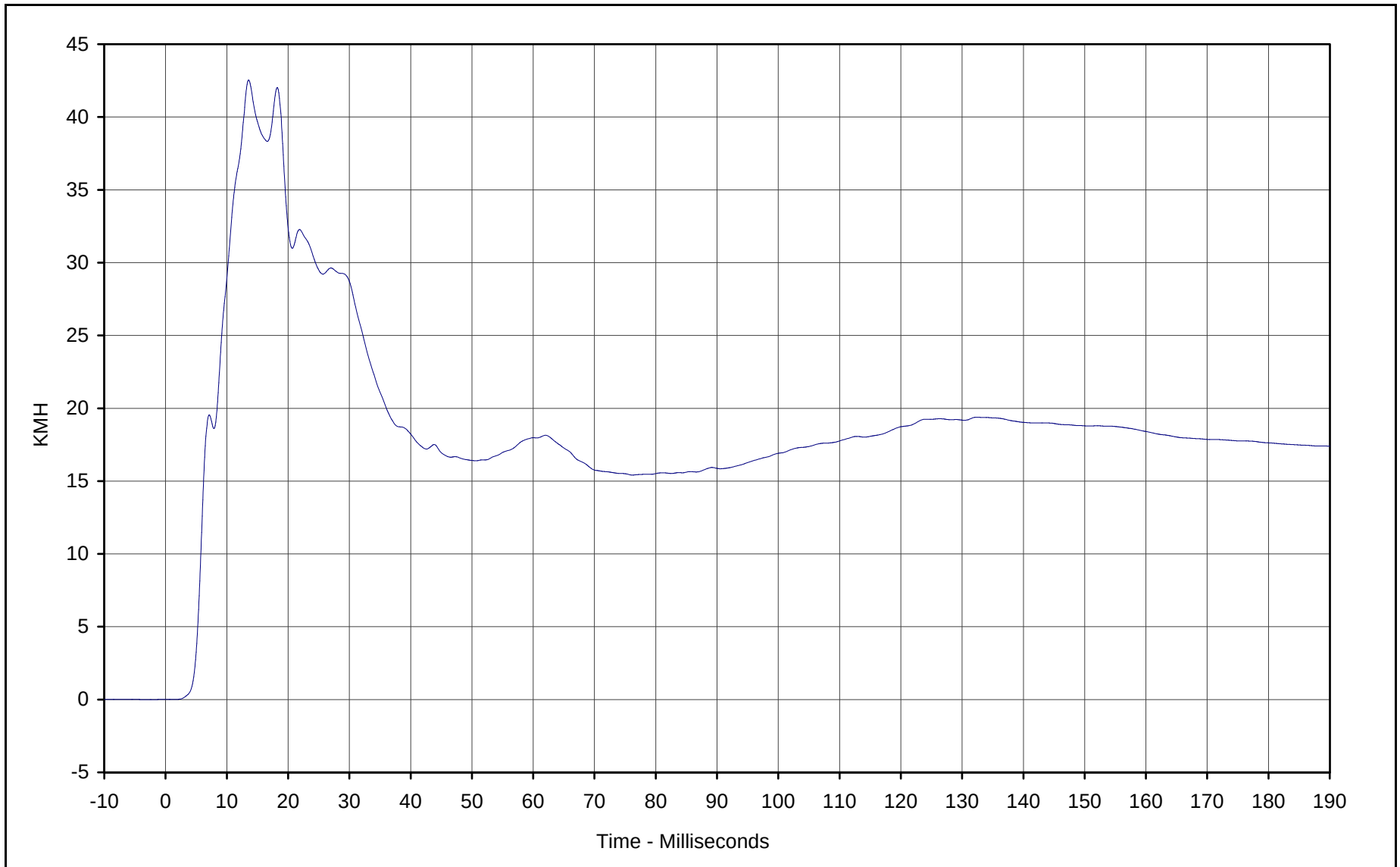
Date of Test: 11/14/01

Curve Number: FIL-044

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

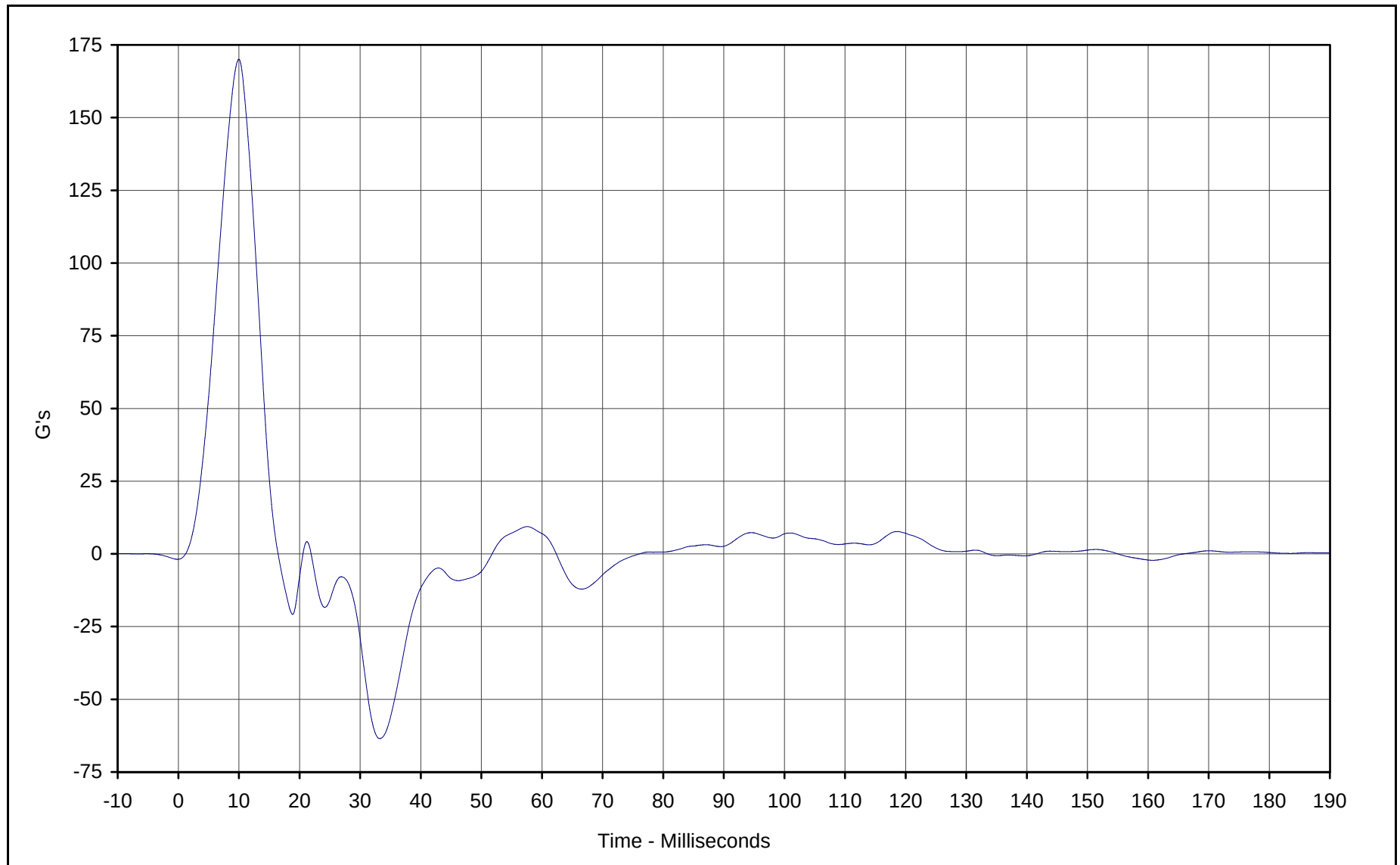




Curve Description: Left B-Post Lower Y Velocity
Maximum Value: 42.5 at 13.6 Milliseconds
Minimum Value: 0.0 at 1.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-044

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

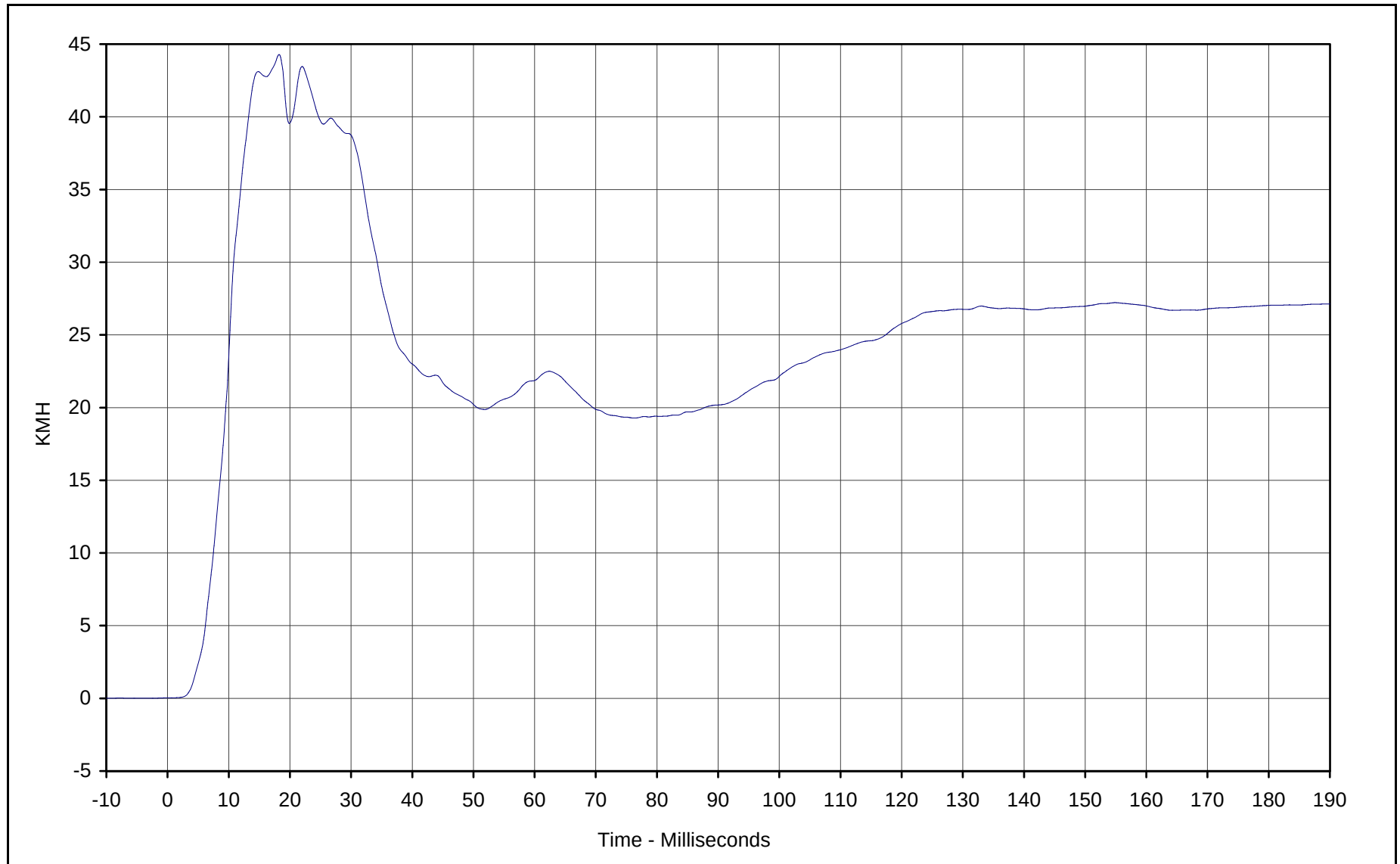




Curve Description: Left B-Post Middle Y
Maximum Value: 170.1 at 10.0 Milliseconds
Minimum Value: -63.5 at 33.3 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-045

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

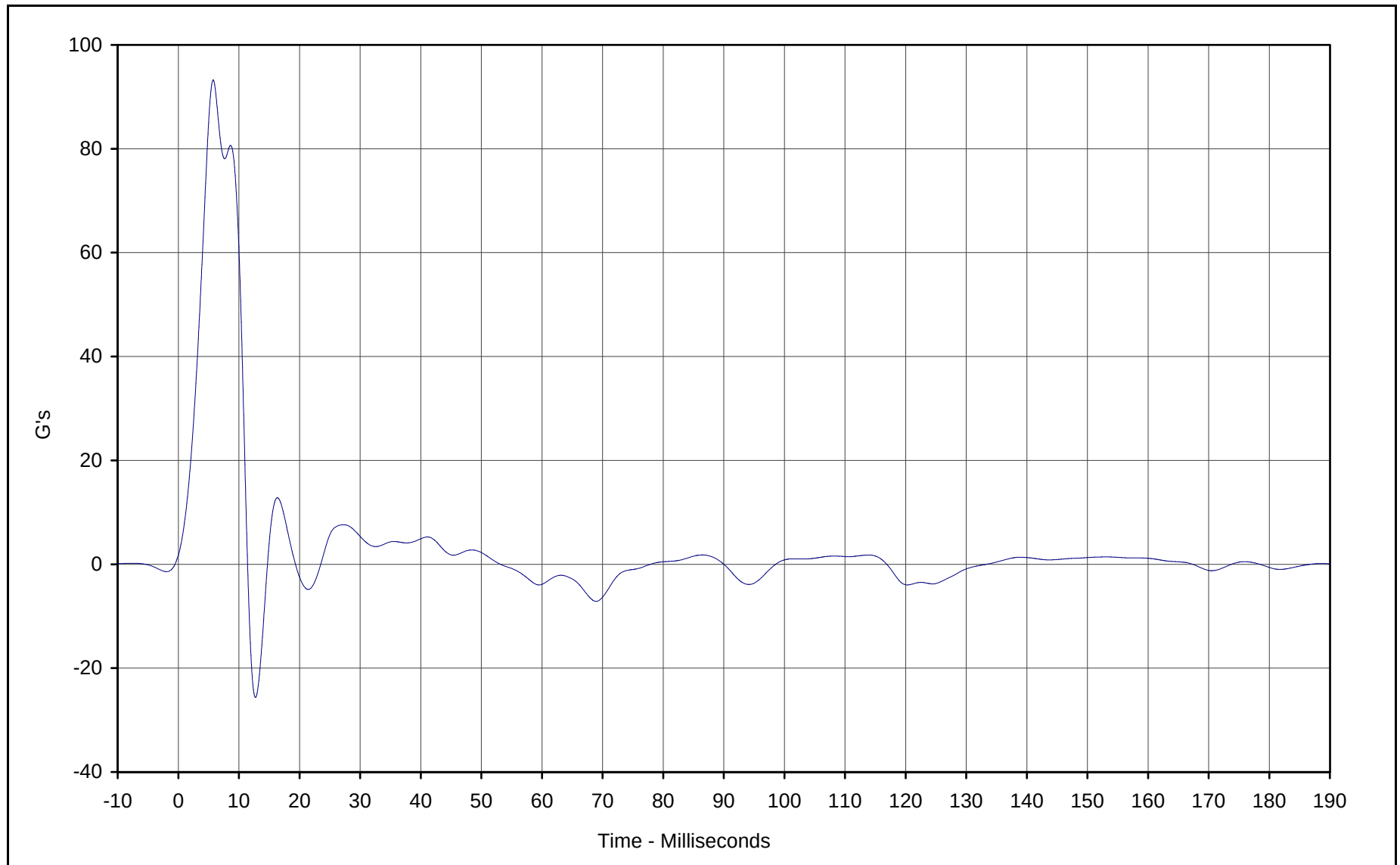




Curve Description: Left B-Post Middle Y Velocity
Maximum Value: 44.3 at 18.3 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-045

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

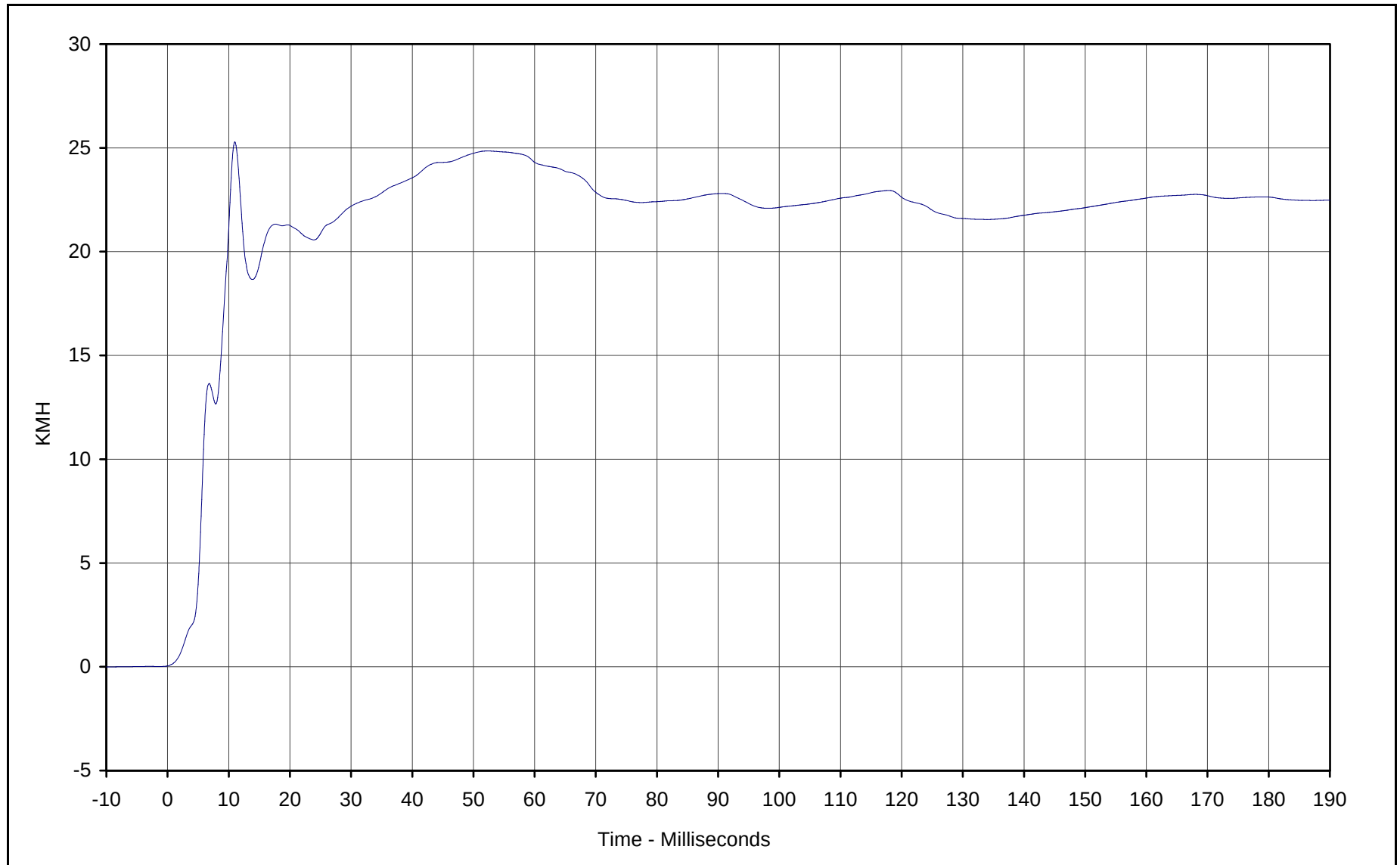




Curve Description: Left A-Post Lower Y
Maximum Value: 93.2 at 5.8 Milliseconds
Minimum Value: -25.6 at 12.7 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-046

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

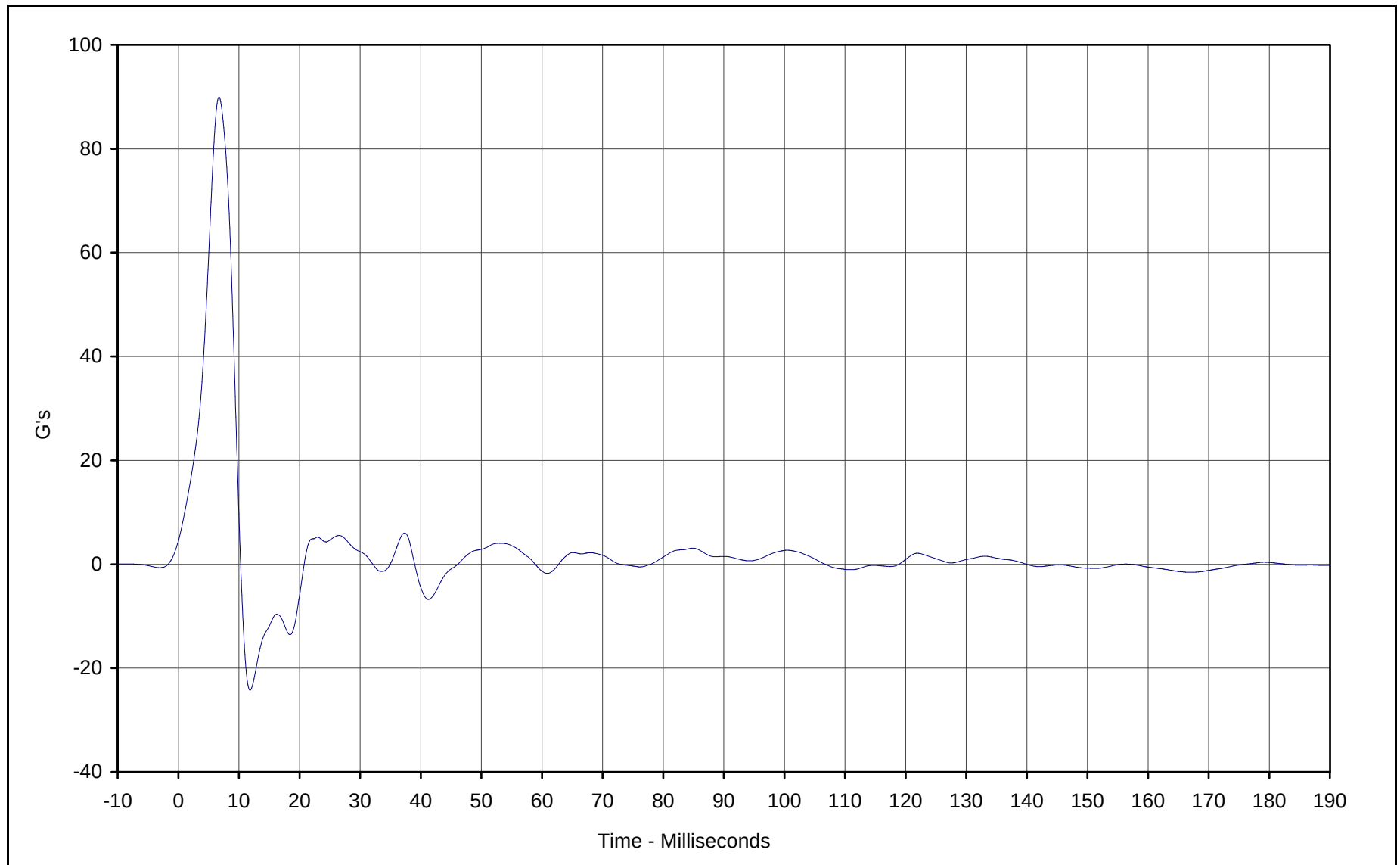




Curve Description: Left A-Post Lower Y Velocity
Maximum Value: 25.3 at 11.0 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-046

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

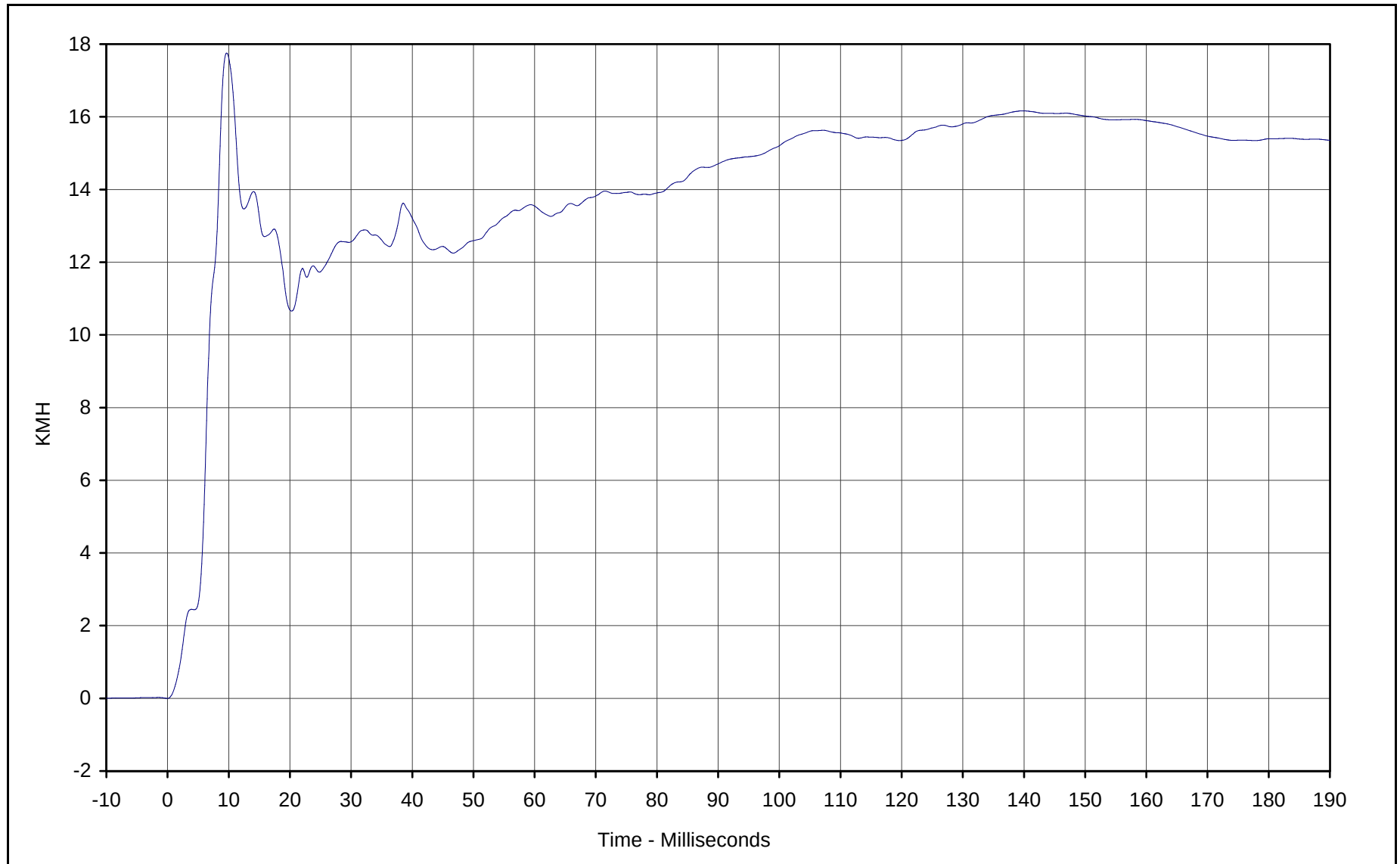




Curve Description: Left A-Post Middle Y
Maximum Value: 89.9 at 6.7 Milliseconds
Minimum Value: -24.2 at 11.8 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-047

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

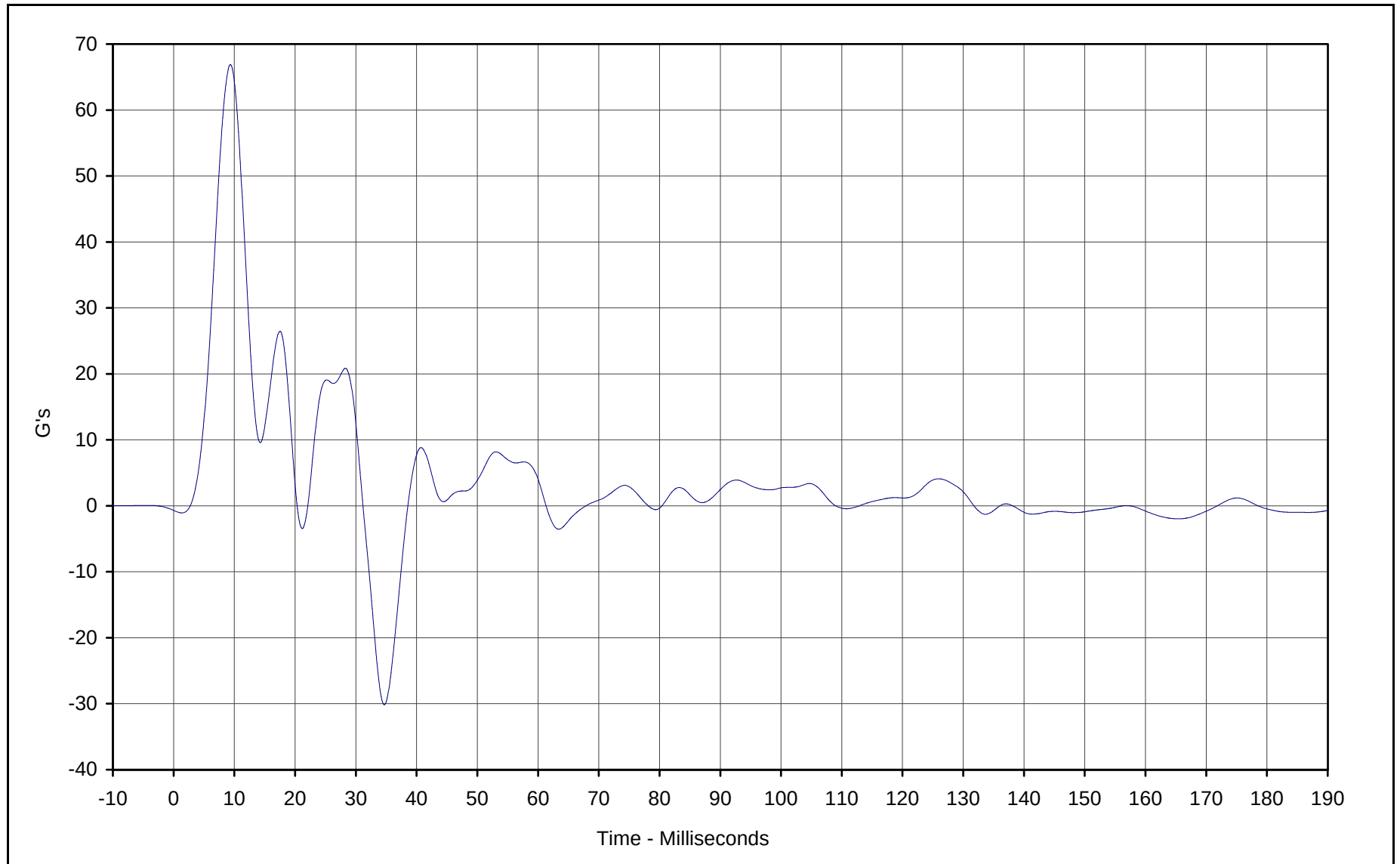




Curve Description: Left A-Post Middle Y Velocity
Maximum Value: 17.8 at 9.7 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-047

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

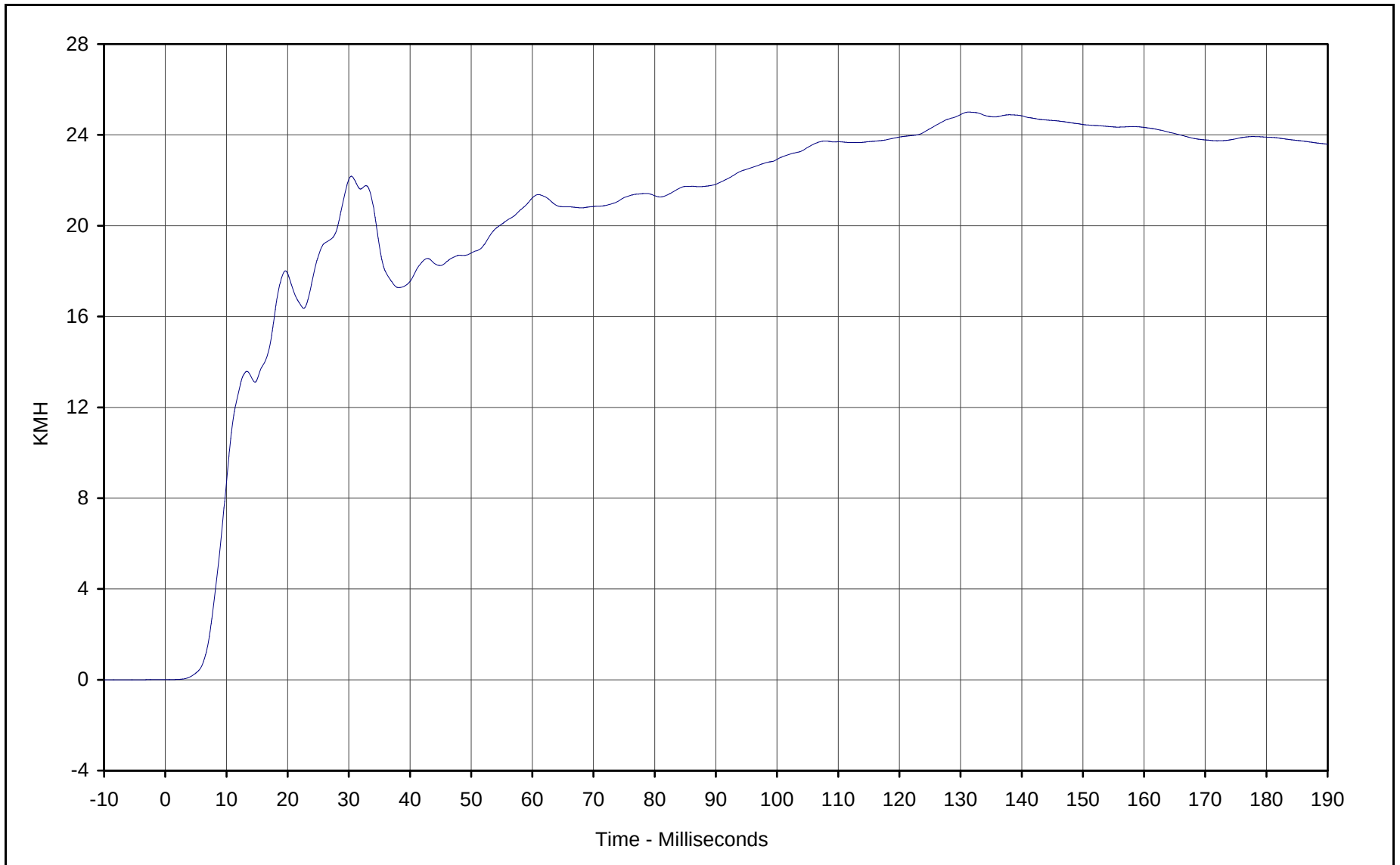




Curve Description: Left Front Seat Track Y
Maximum Value: 66.9 at 9.4 Milliseconds
Minimum Value: -30.2 at 34.7 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-048

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

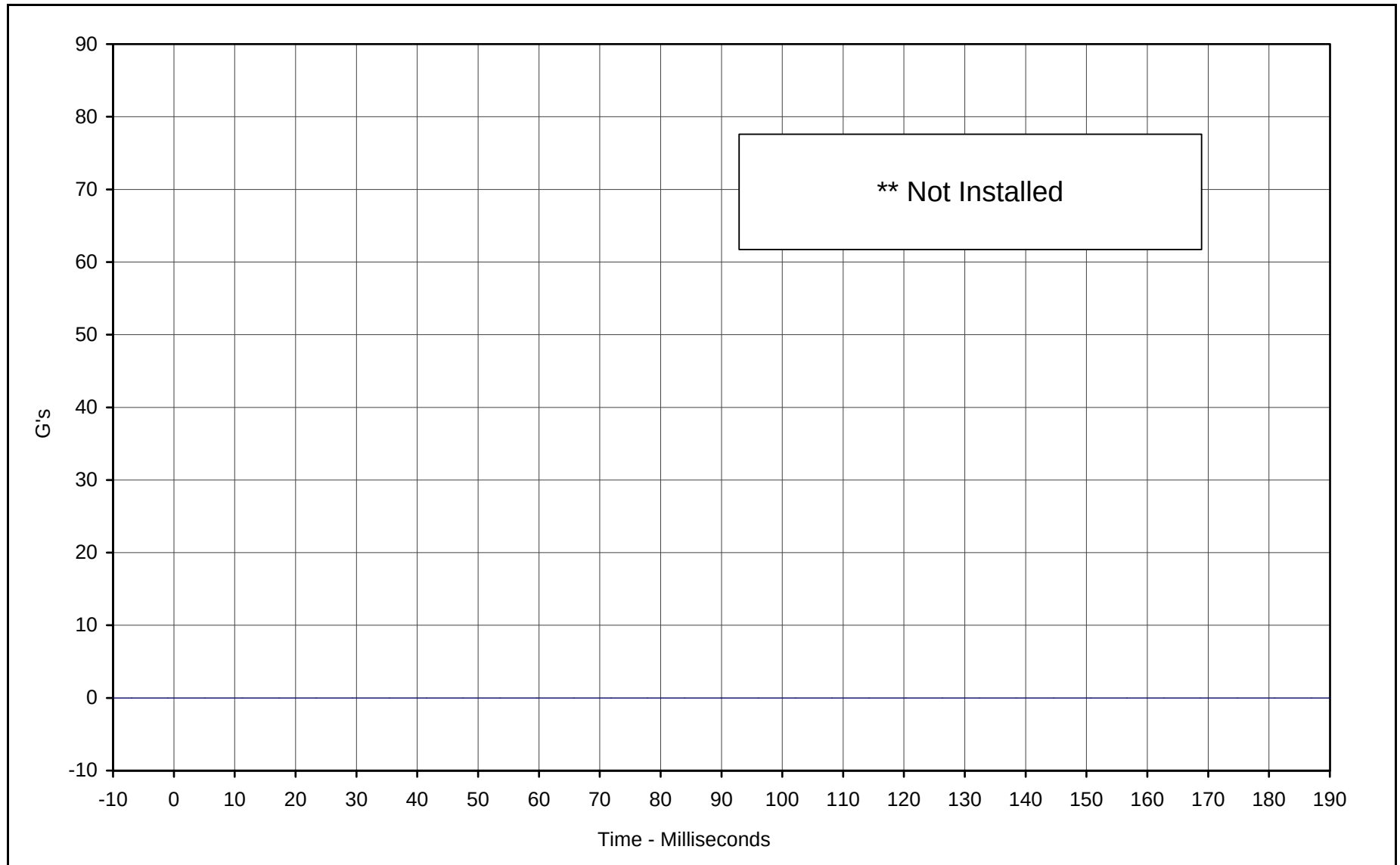




Curve Description: Front Seat Track Y Velocity
Maximum Value: 25.0 at 131.3 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-048

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Rear Seat Structure **

Maximum Value: 0.0 at 0.0 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 60

Date of Test: 11/14/01

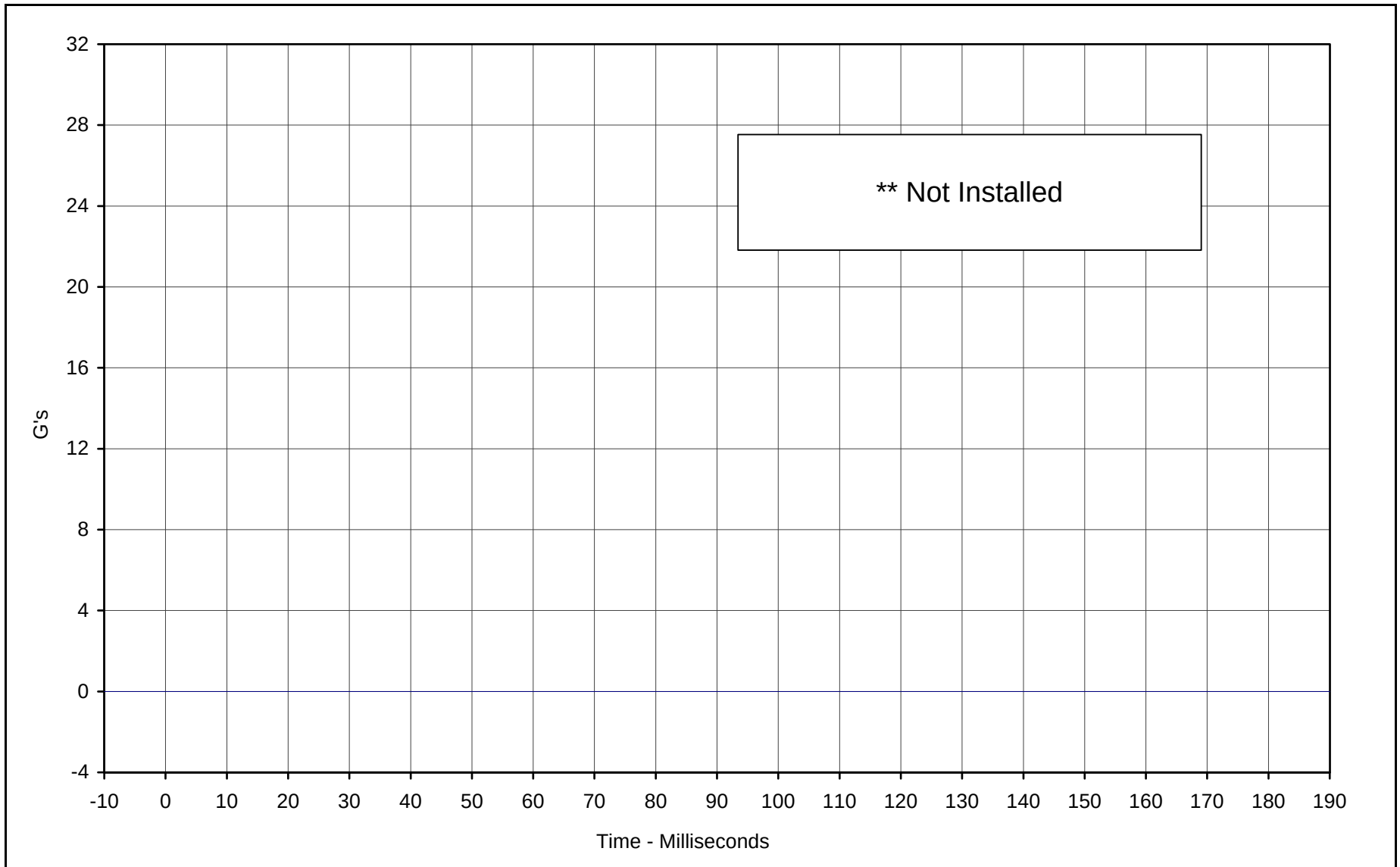
Curve Number: FIL-049

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

** Not Installed





Curve Description: Rear Seat Structure Y Velocity **

Maximum Value: 0.0 at 0.0 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

Date of Test: 11/14/01

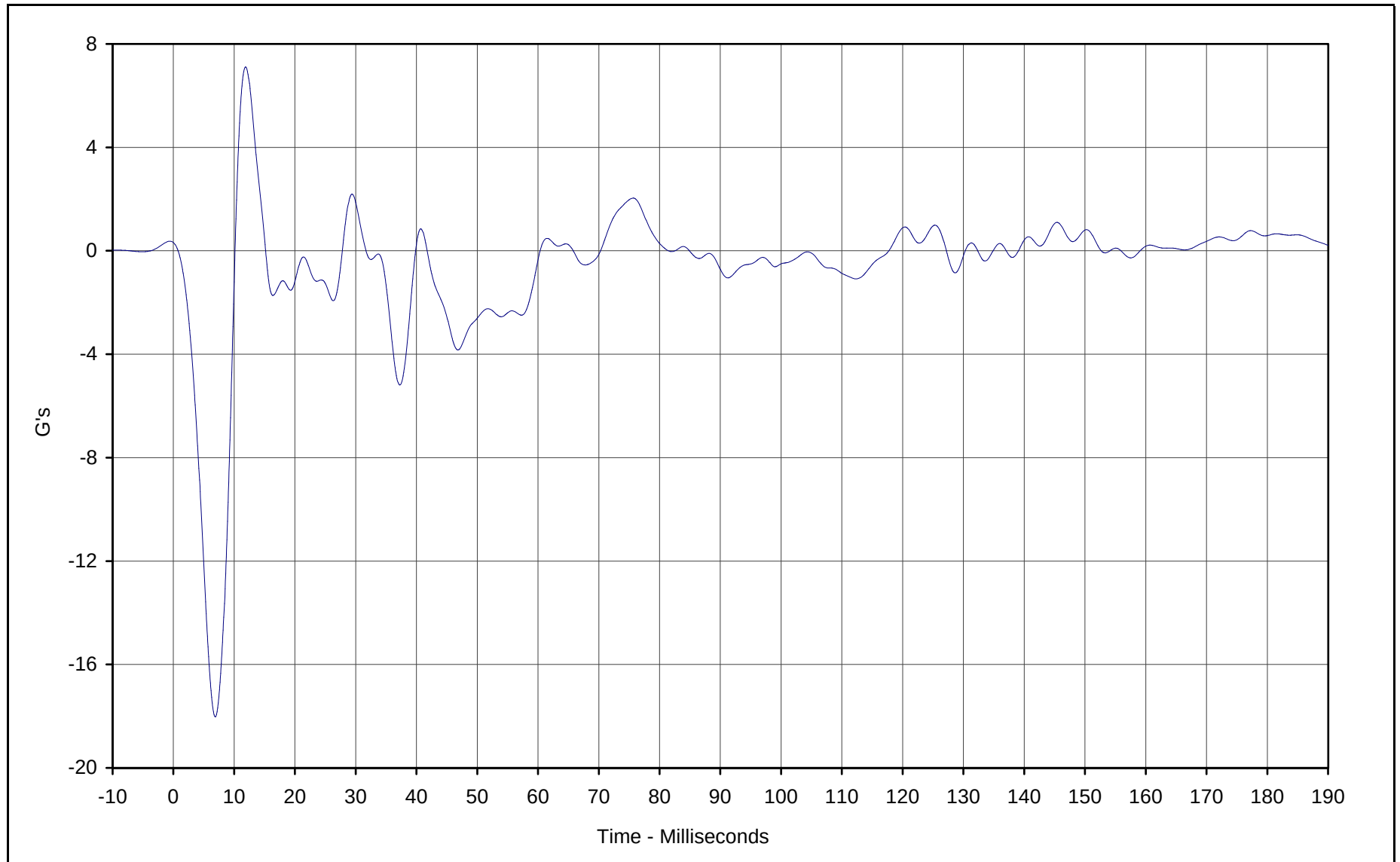
Curve Number: IN1-049

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

** Not Installed

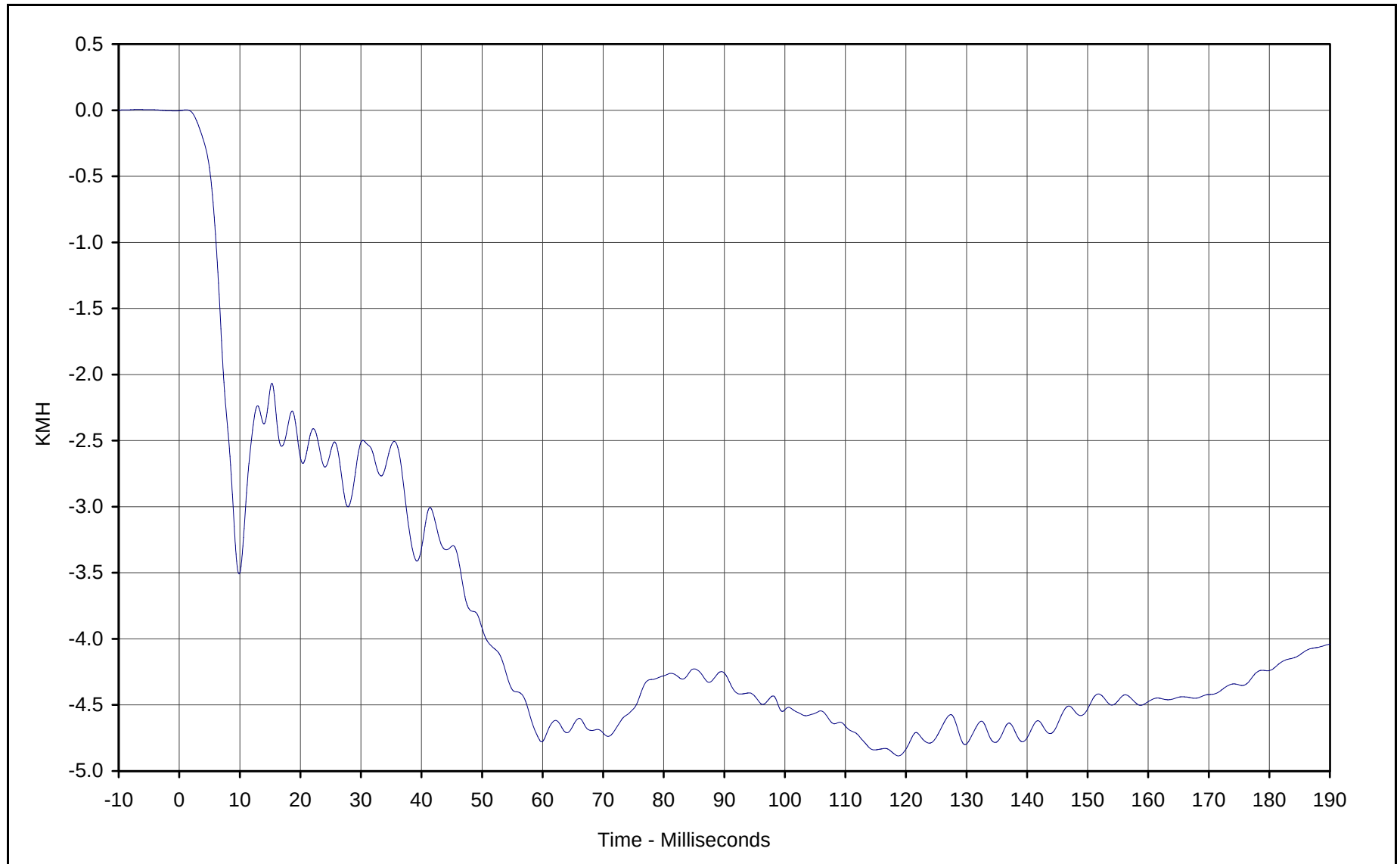




Curve Description: Vehicle CG X
Maximum Value: 7.1 at 11.9 Milliseconds
Minimum Value: -18.0 at 6.9 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-050

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

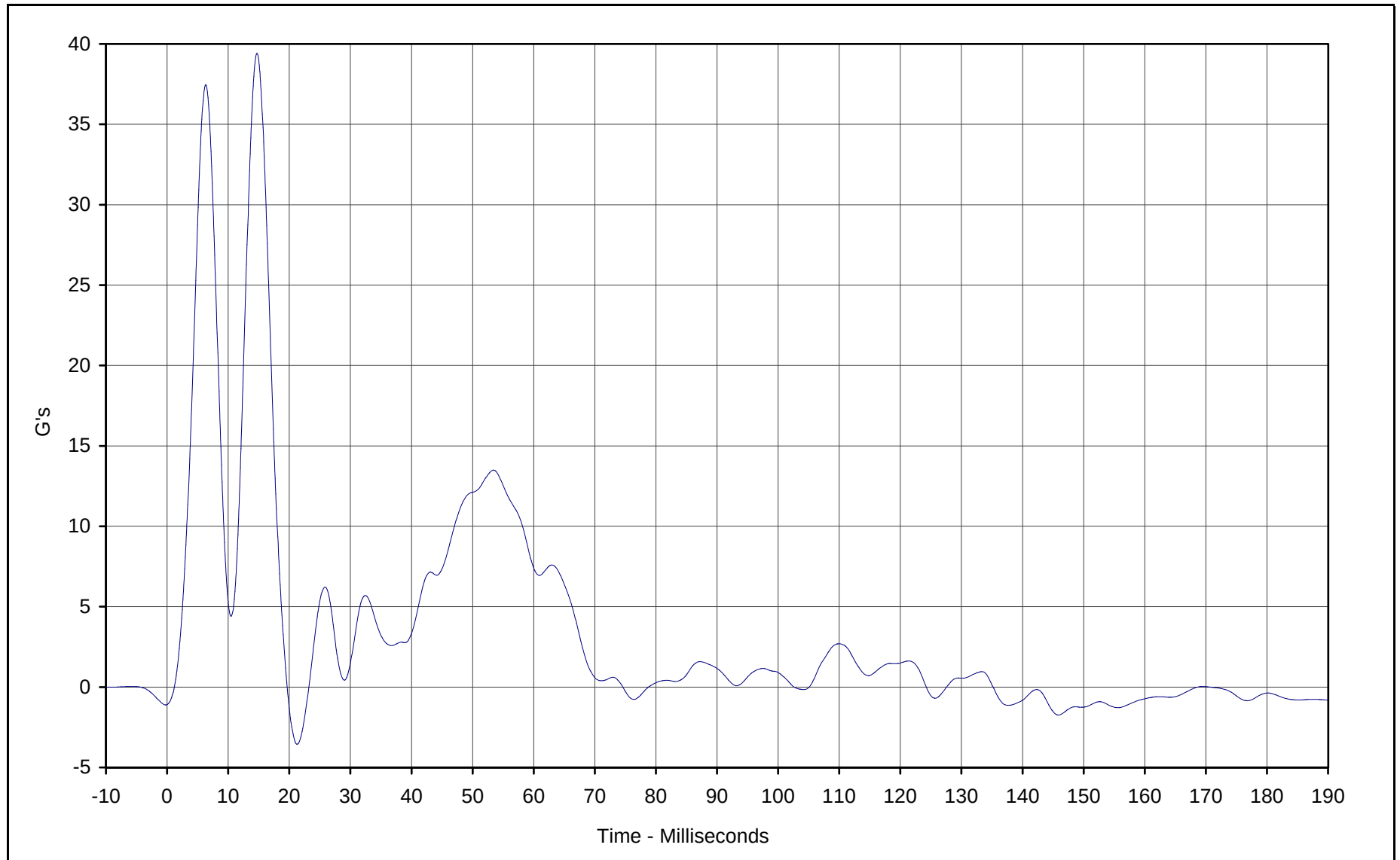




Curve Description: Vehicle CG X Velocity
Maximum Value: 0.0 at 1.2 Milliseconds
Minimum Value: -4.9 at 118.8 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-050

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

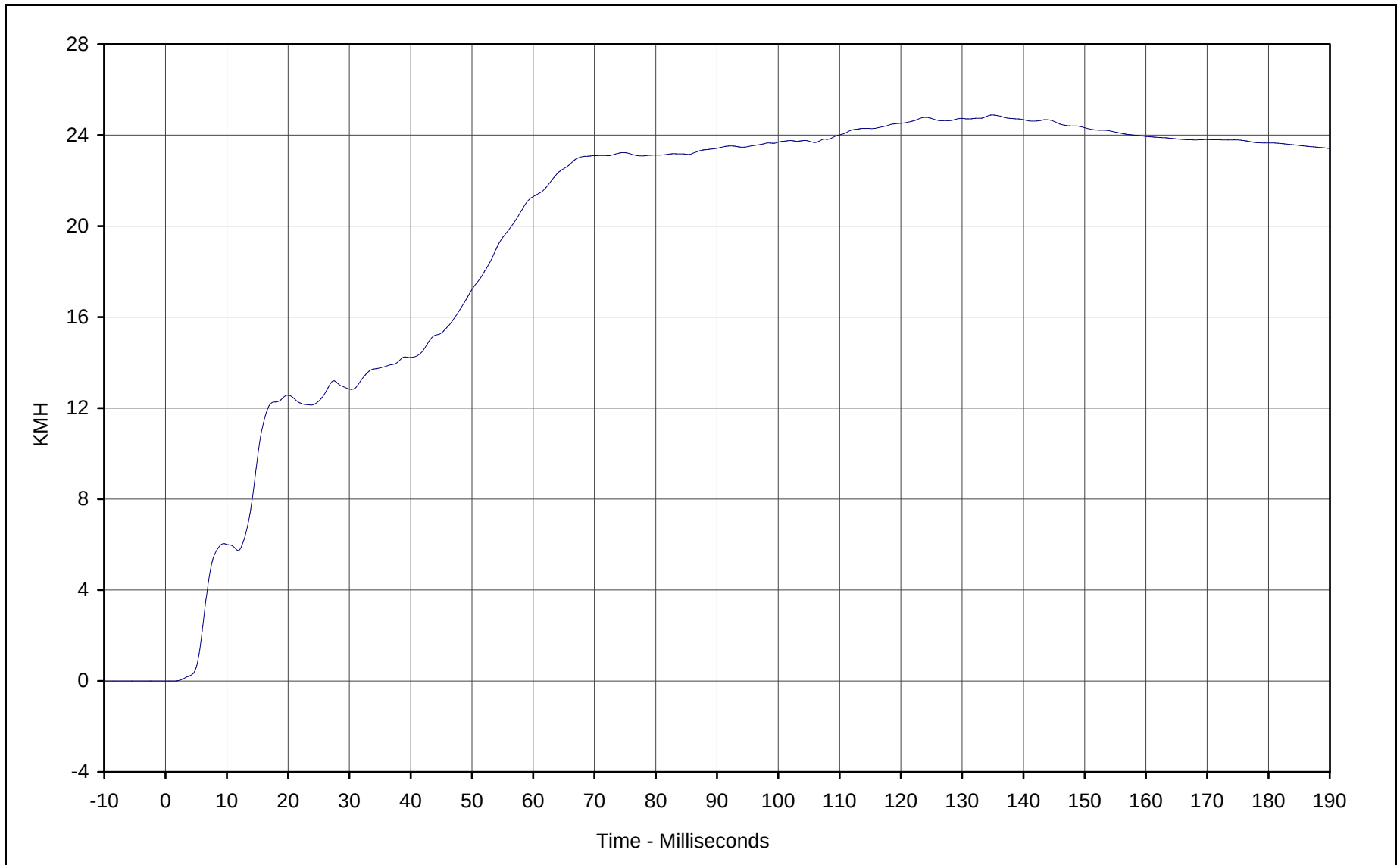




Curve Description: Vehicle CG Y
Maximum Value: 39.4 at 14.7 Milliseconds
Minimum Value: -3.6 at 21.3 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-051

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

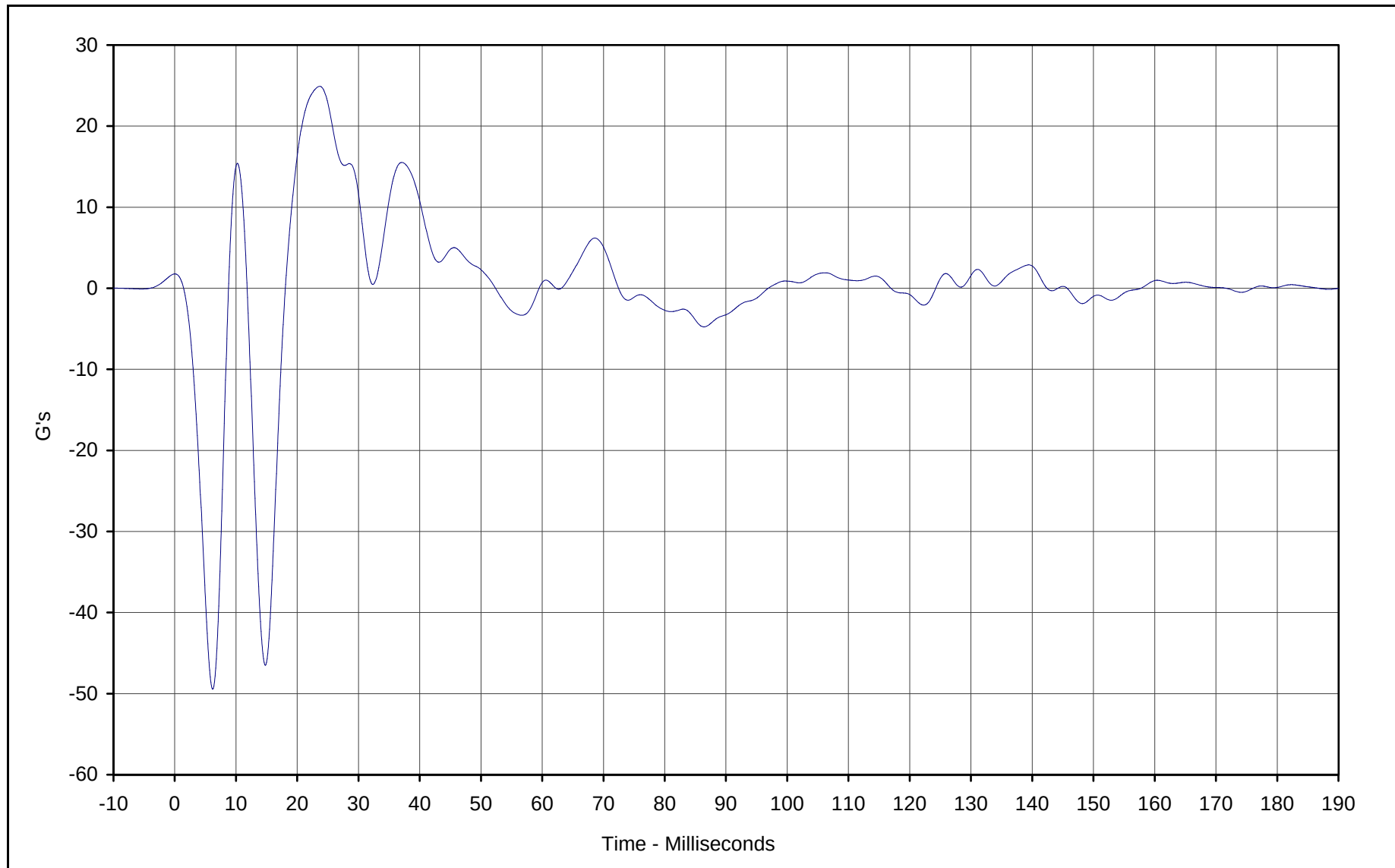




Curve Description: Vehicle CG Y Velocity
Maximum Value: 24.9 at 134.9 Milliseconds
Minimum Value: 0.0 at 1.2 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-051

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

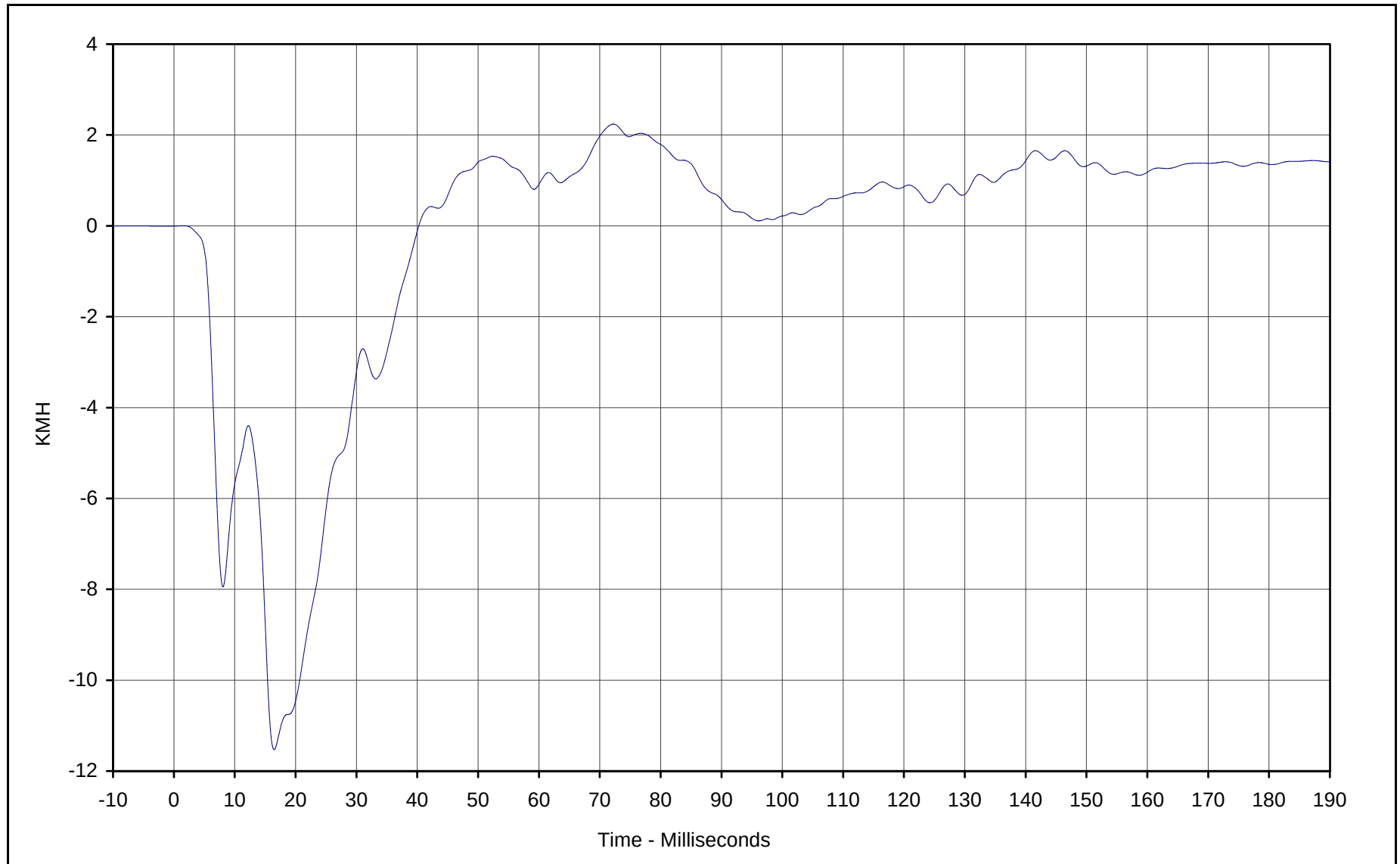




Curve Description: Vehicle CG Z
Maximum Value: 24.9 at 23.7 Milliseconds
Minimum Value: -49.5 at 6.2 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-052

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

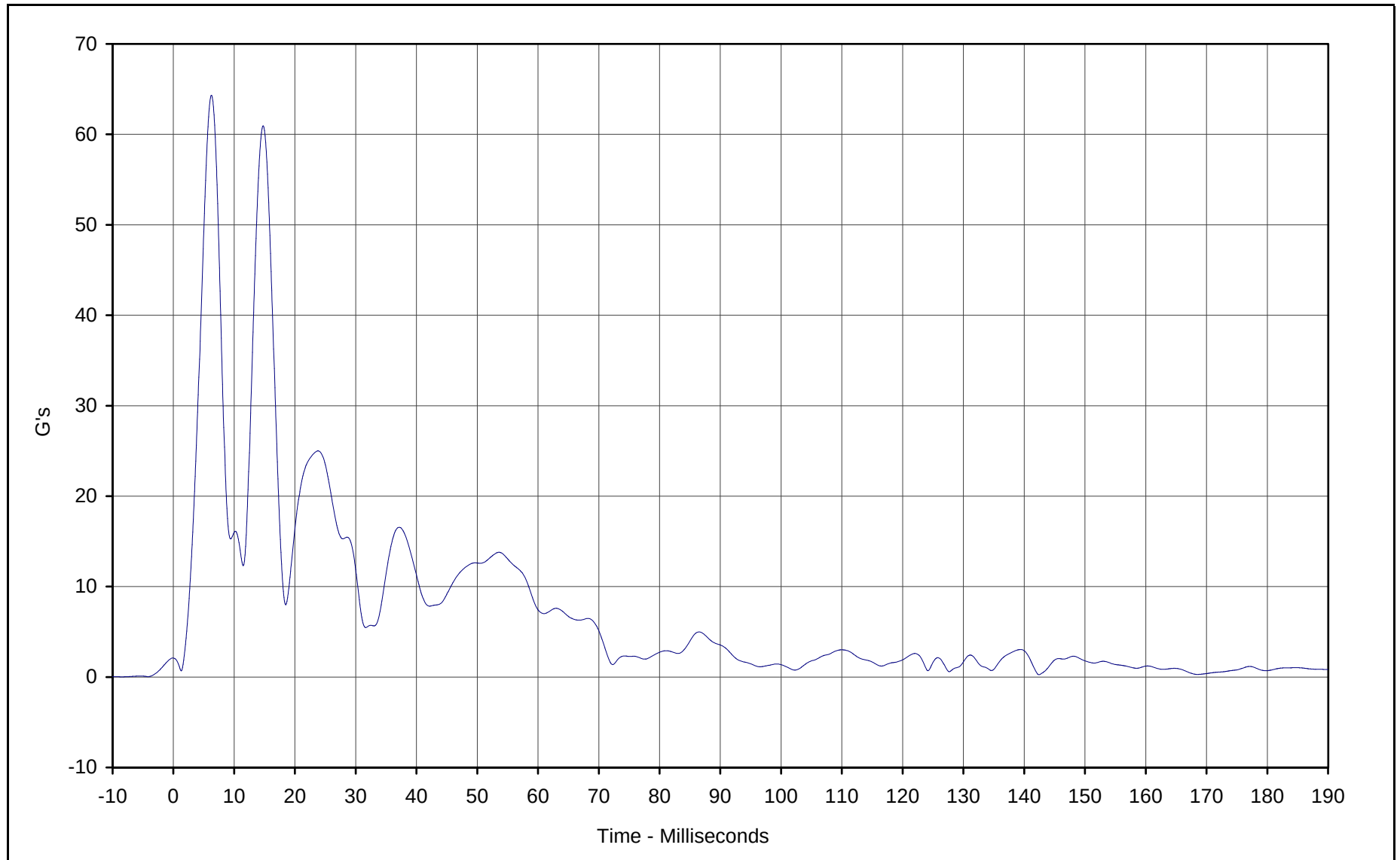




Curve Description: Vehicle CG Z Velocity
Maximum Value: 2.2 at 72.2 Milliseconds
Minimum Value: -11.5 at 16.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-052

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

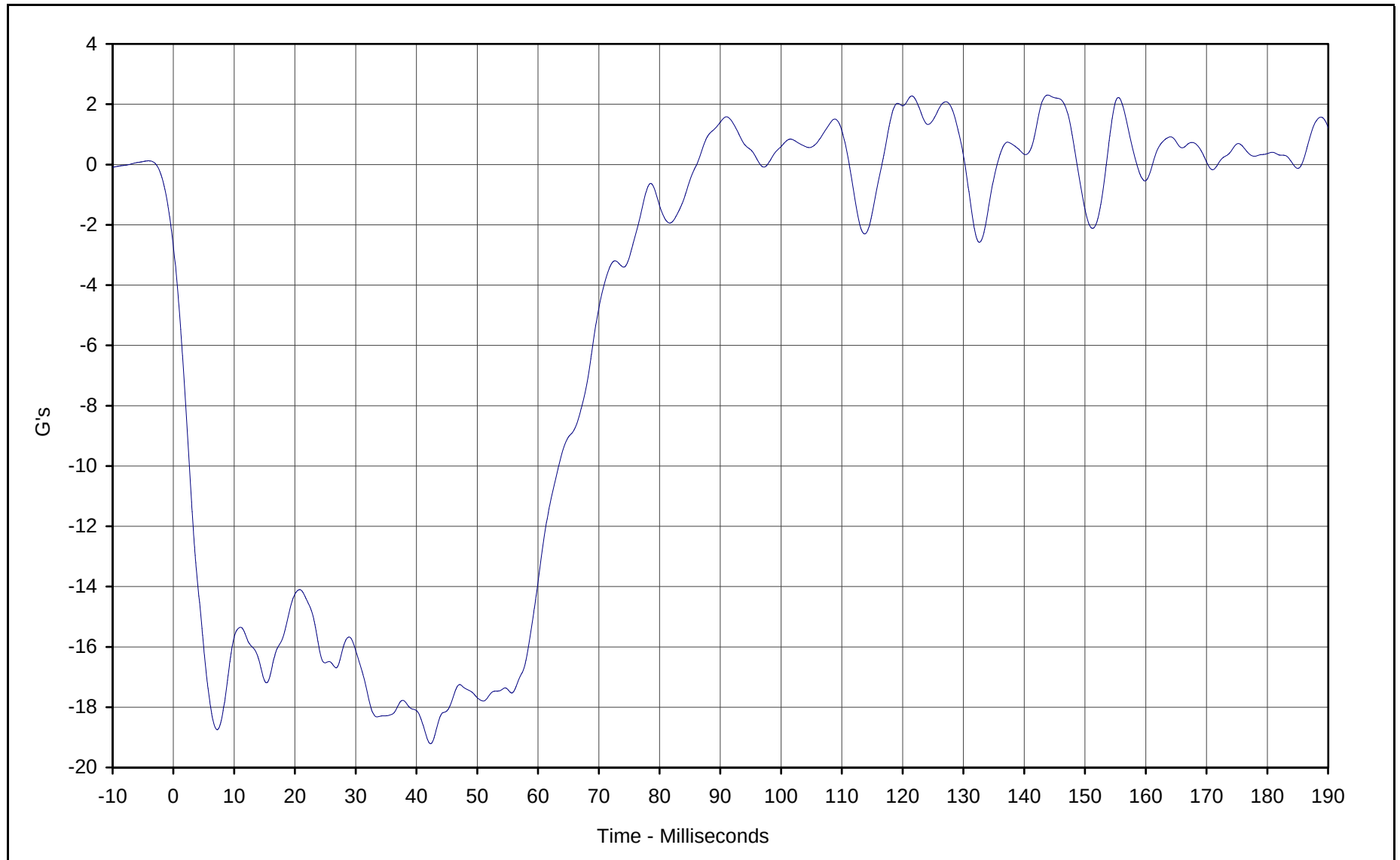




Curve Description: Vehicle CG Resultant
Maximum Value: 64.3 at 6.3 Milliseconds
Minimum Value: 0.2 at 142.4 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: RES-050

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

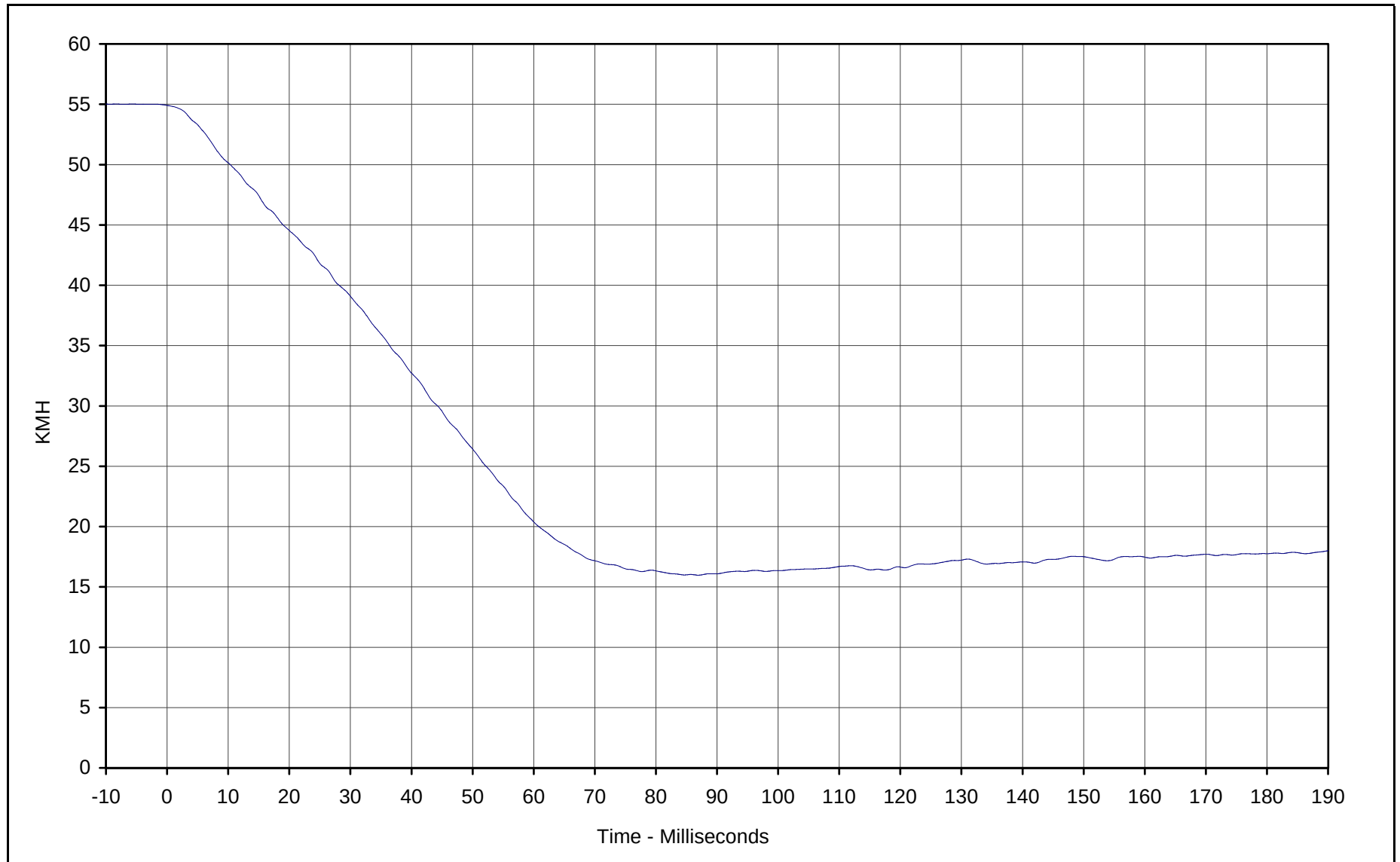




Curve Description: MDB CG X
Maximum Value: 2.3 at 143.9 Milliseconds
Minimum Value: -19.2 at 42.3 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-053

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

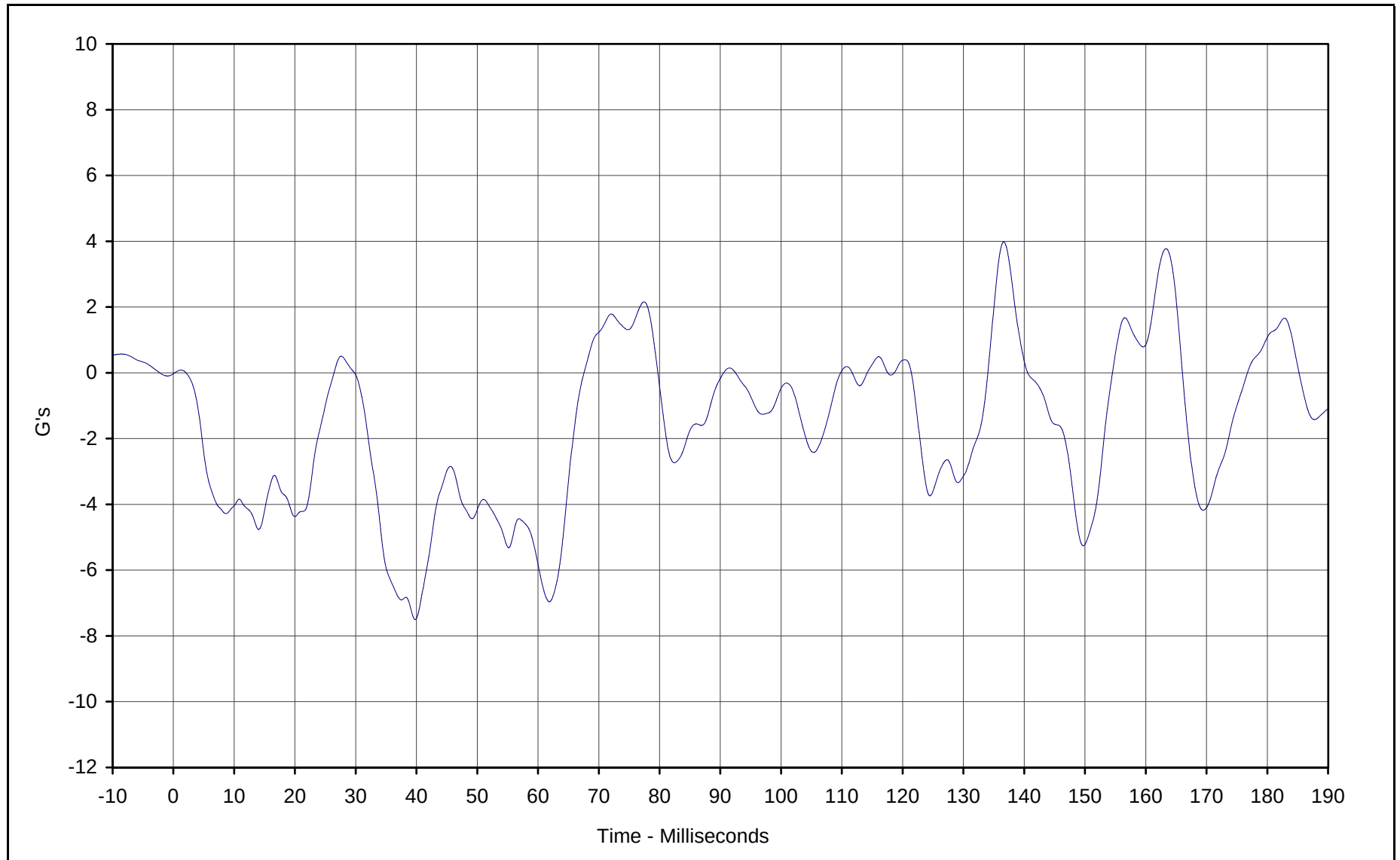




Curve Description: MDB CG X Velocity
Maximum Value: 54.9 at 0.0 Milliseconds
Minimum Value: 16.0 at 86.9 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-053

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

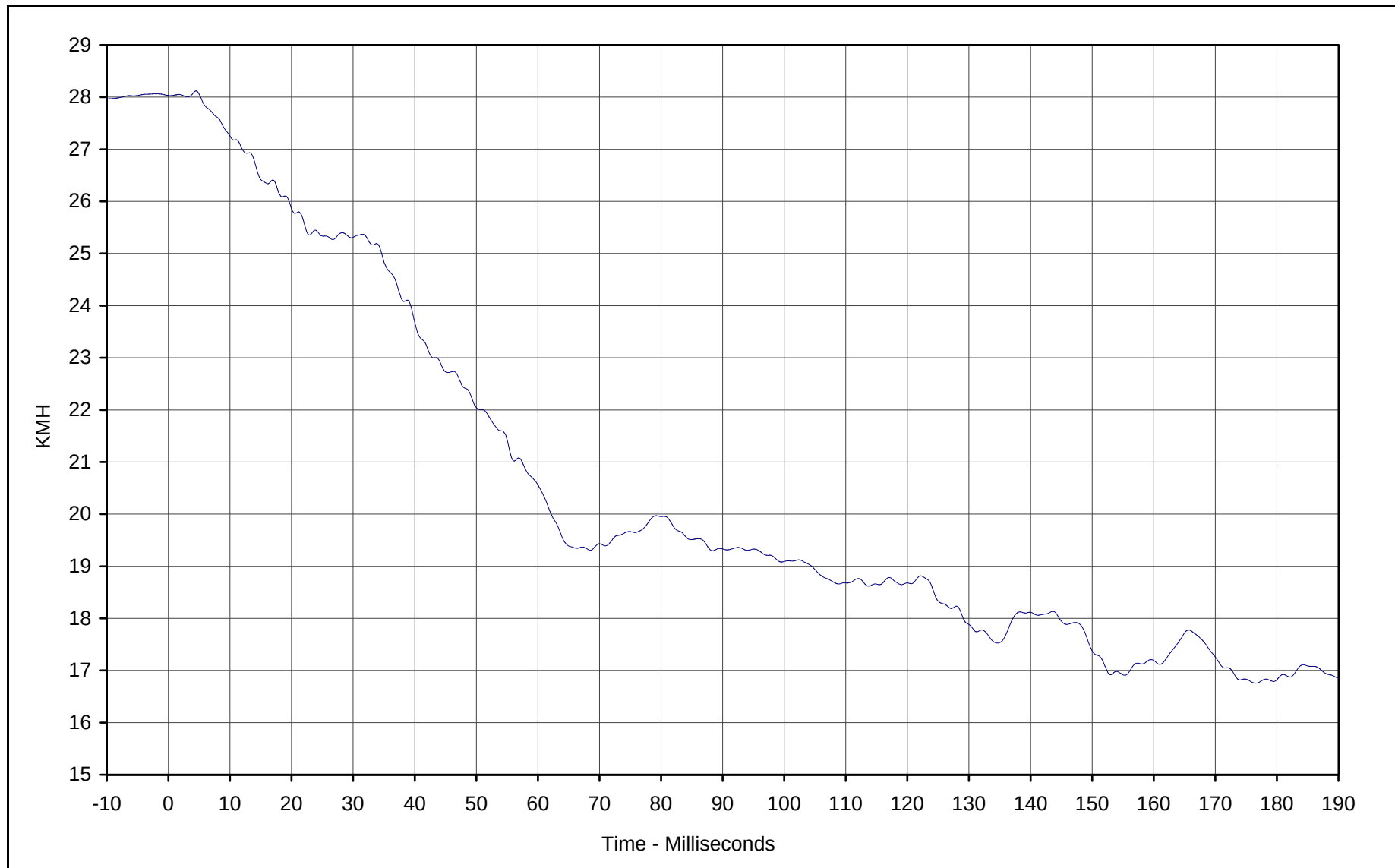




Curve Description: MDB CG Y
Maximum Value: 4.0 at 136.6 Milliseconds
Minimum Value: -7.5 at 39.8 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-054

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

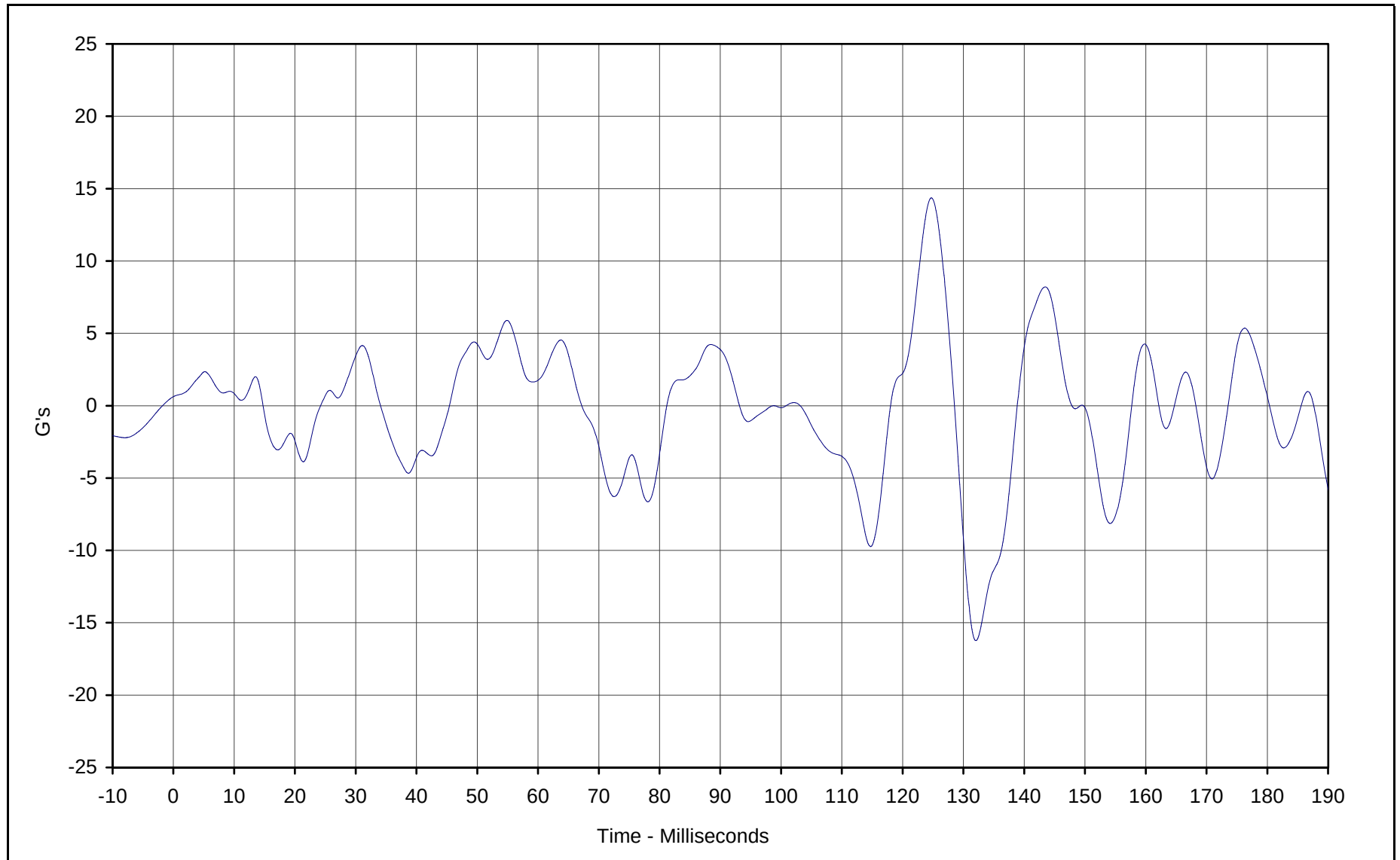




Curve Description: MDB CG Y Velocity
Maximum Value: 28.1 at 4.5 Milliseconds
Minimum Value: 16.8 at 176.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-054

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

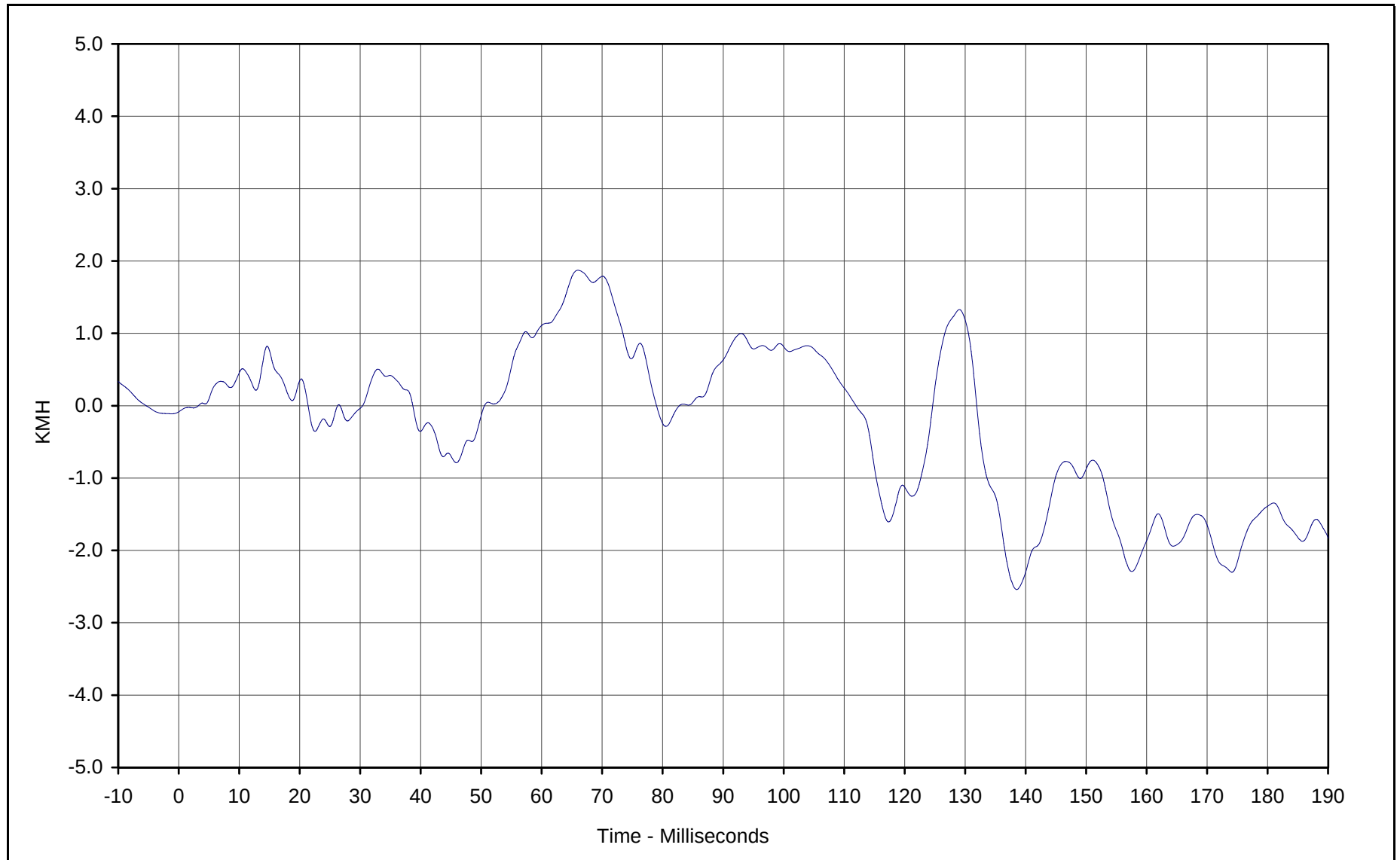




Curve Description: MDB CG Z
Maximum Value: 14.4 at 124.7 Milliseconds
Minimum Value: -16.2 at 132.1 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-055

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

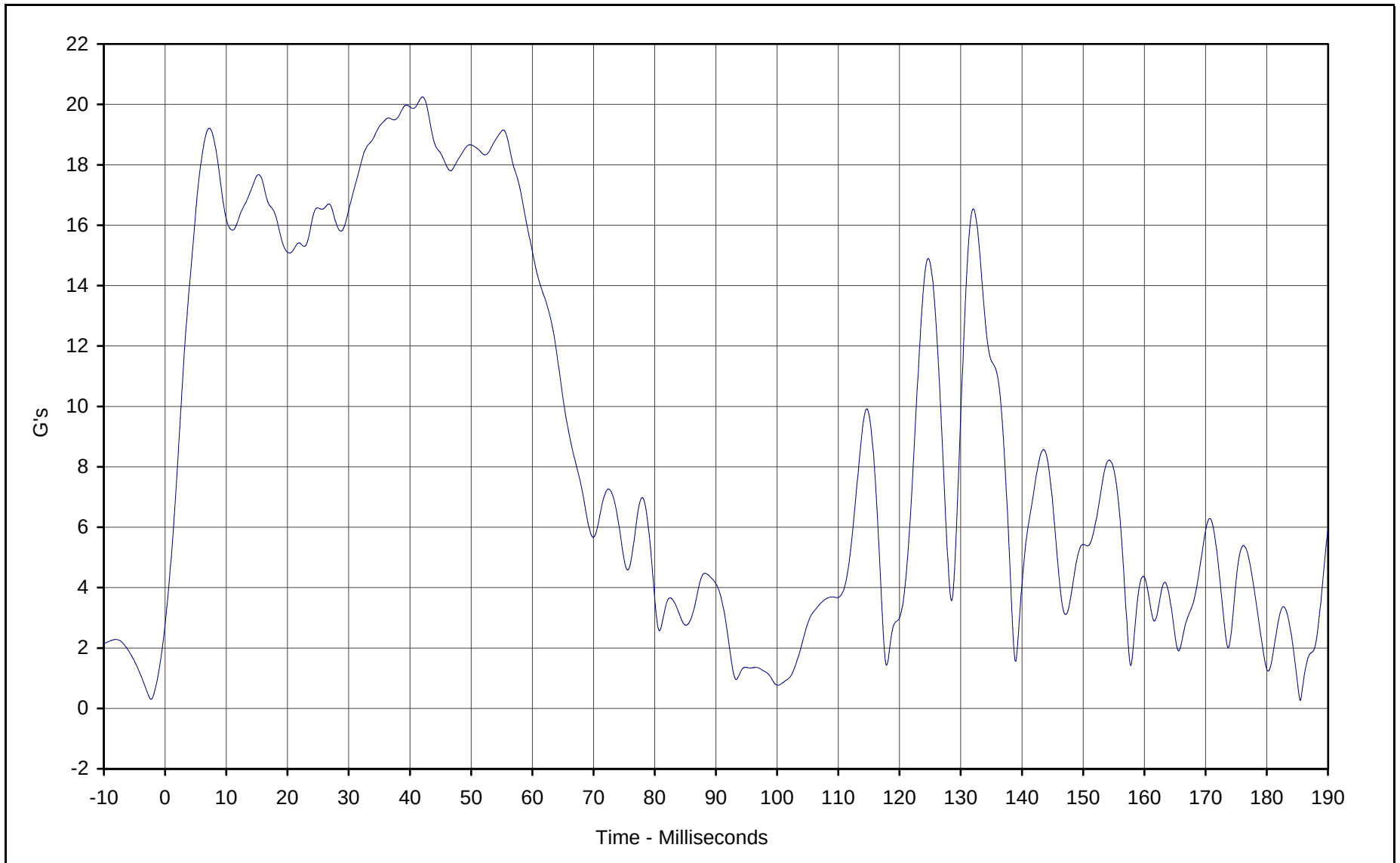




Curve Description: MDB CG Z Velocity
Maximum Value: 1.9 at 66.0 Milliseconds
Minimum Value: -2.5 at 138.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-055

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

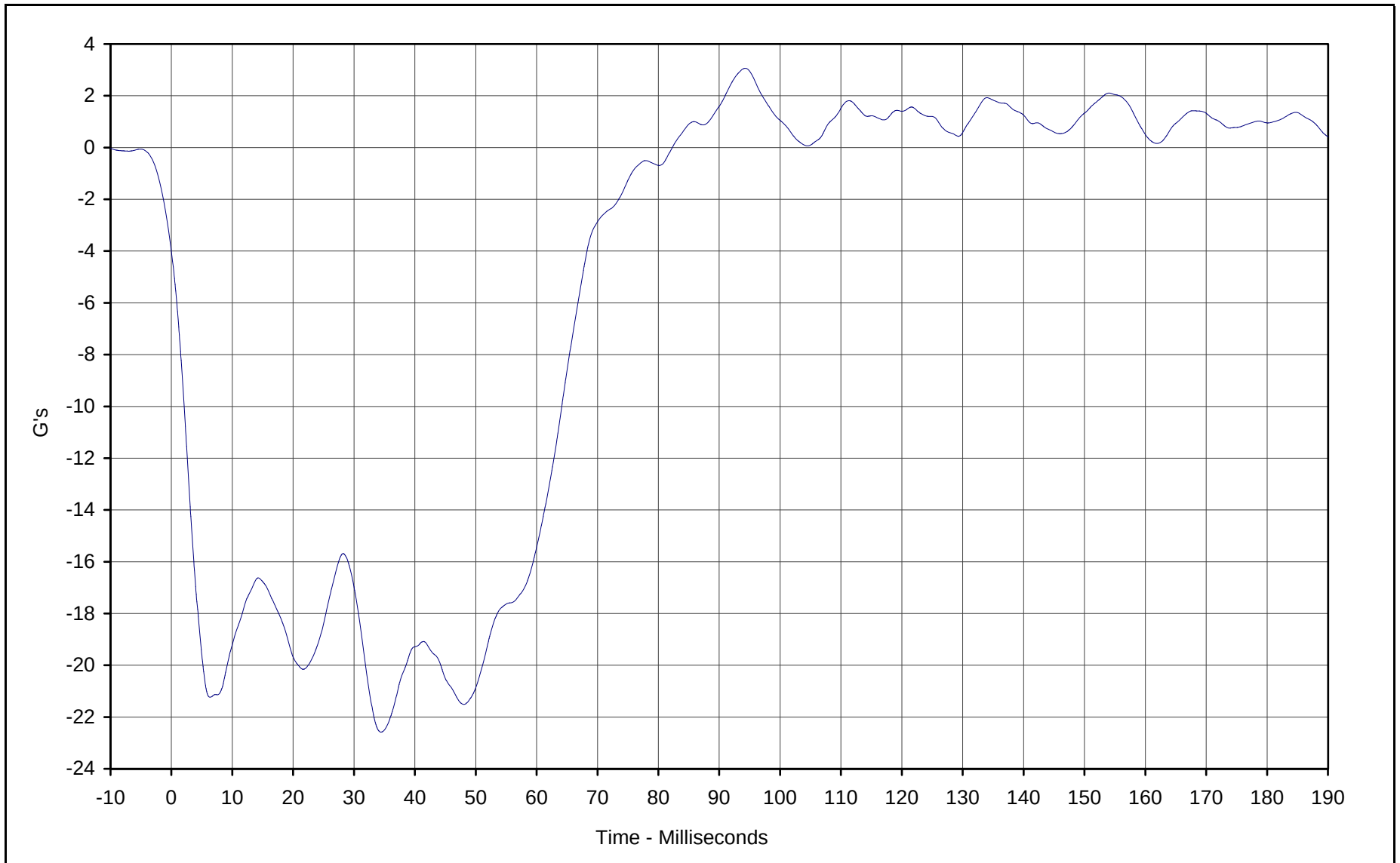




Curve Description: CG Resultant
Maximum Value: 20.2 at 42.1 Milliseconds
Minimum Value: 0.3 at 185.5 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: RES-053

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

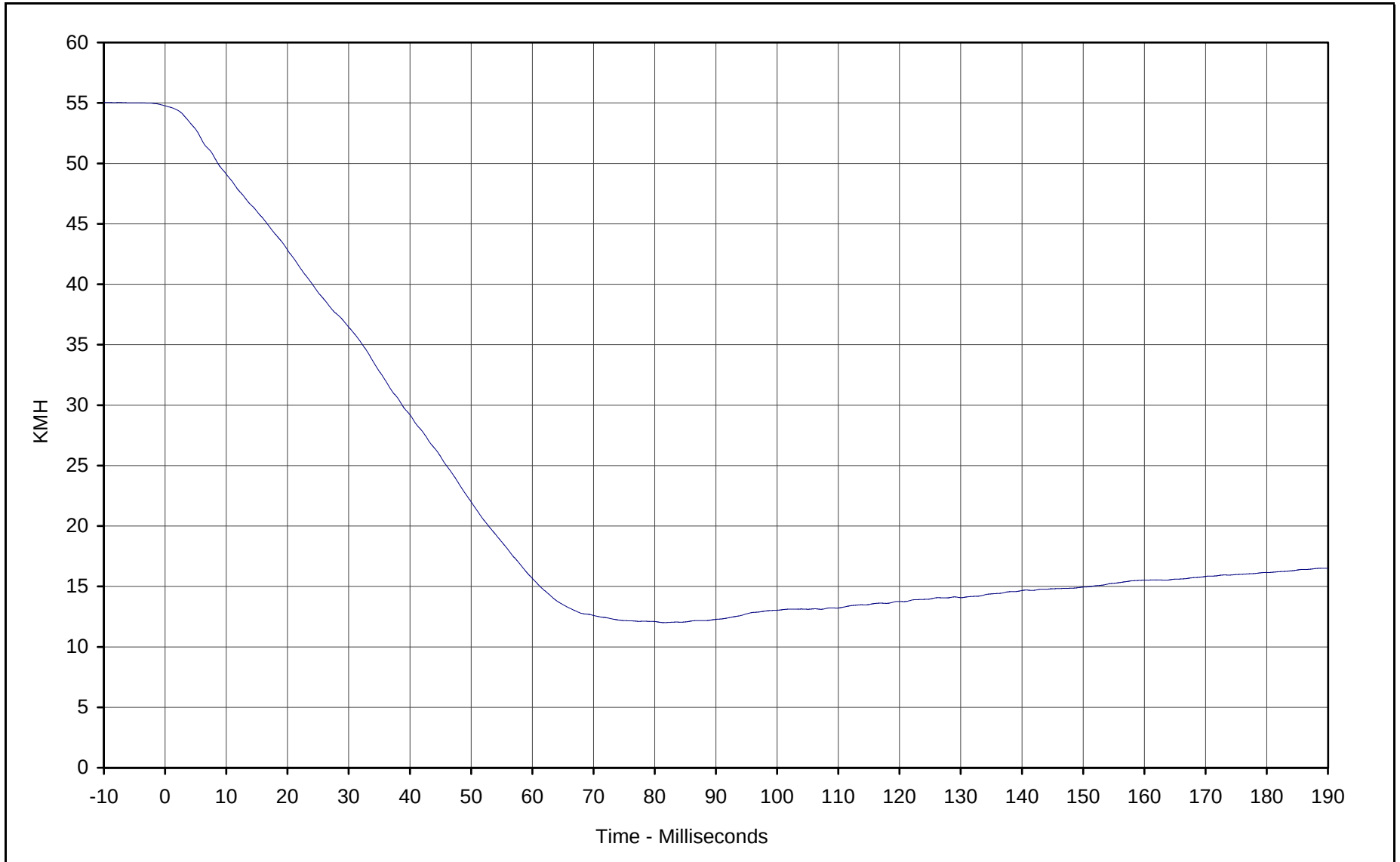




Curve Description: MDB Rear X
Maximum Value: 3.1 at 94.3 Milliseconds
Minimum Value: -22.6 at 34.4 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-056

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

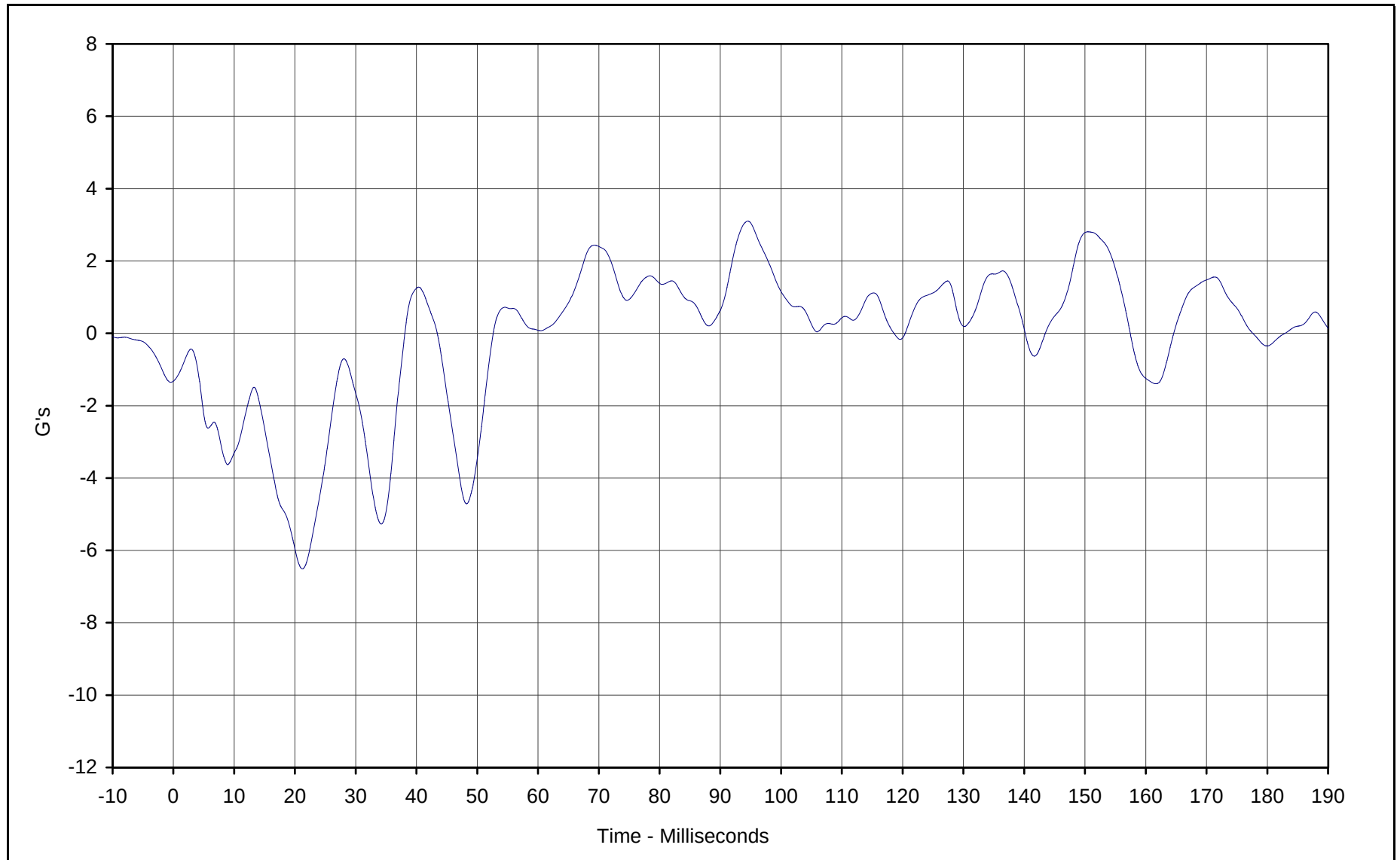




Curve Description: MDB Rear X Velocity
Maximum Value: 54.8 at 0.0 Milliseconds
Minimum Value: 12.0 at 81.5 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-056

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

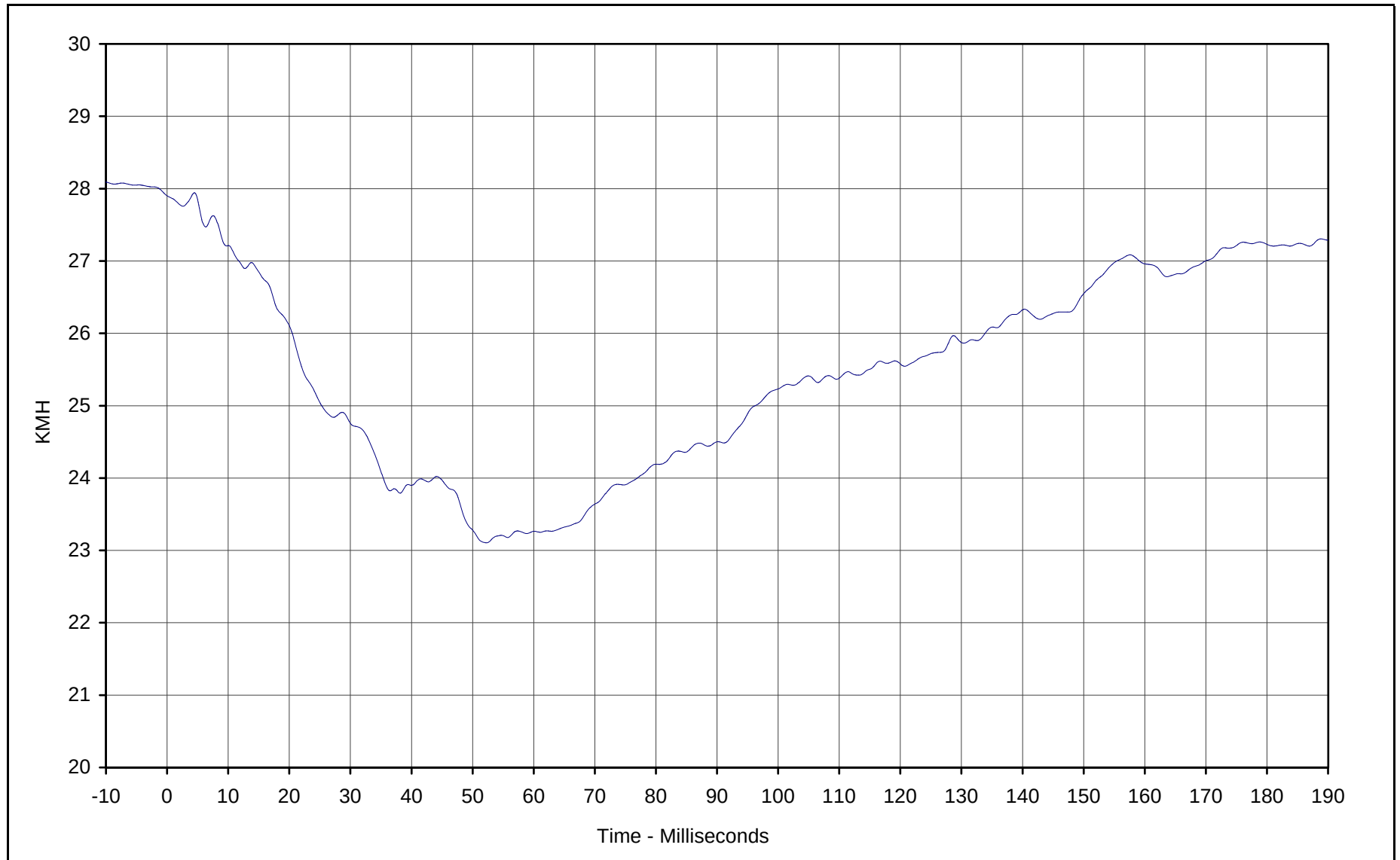




Curve Description: MDB Rear Y
Maximum Value: 3.1 at 94.5 Milliseconds
Minimum Value: -6.5 at 21.2 Milliseconds
SAE Filter Class: 60
Date of Test: 11/14/01
Curve Number: FIL-057

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

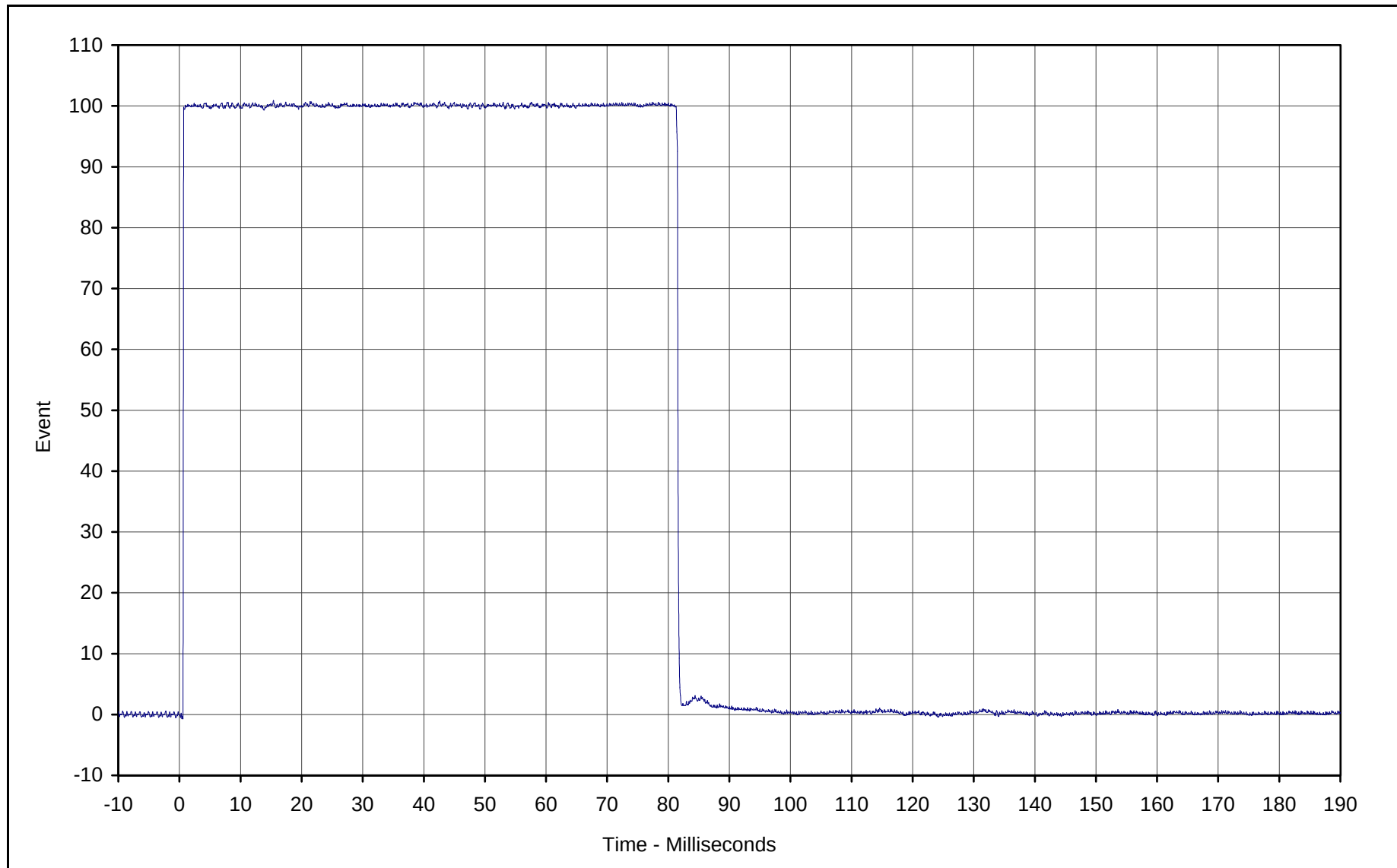




Curve Description: MDB Rear Y Velocity
Maximum Value: 27.9 at 4.5 Milliseconds
Minimum Value: 23.1 at 52.3 Milliseconds
SAE Filter Class: 180
Date of Test: 11/14/01
Curve Number: IN1-057

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

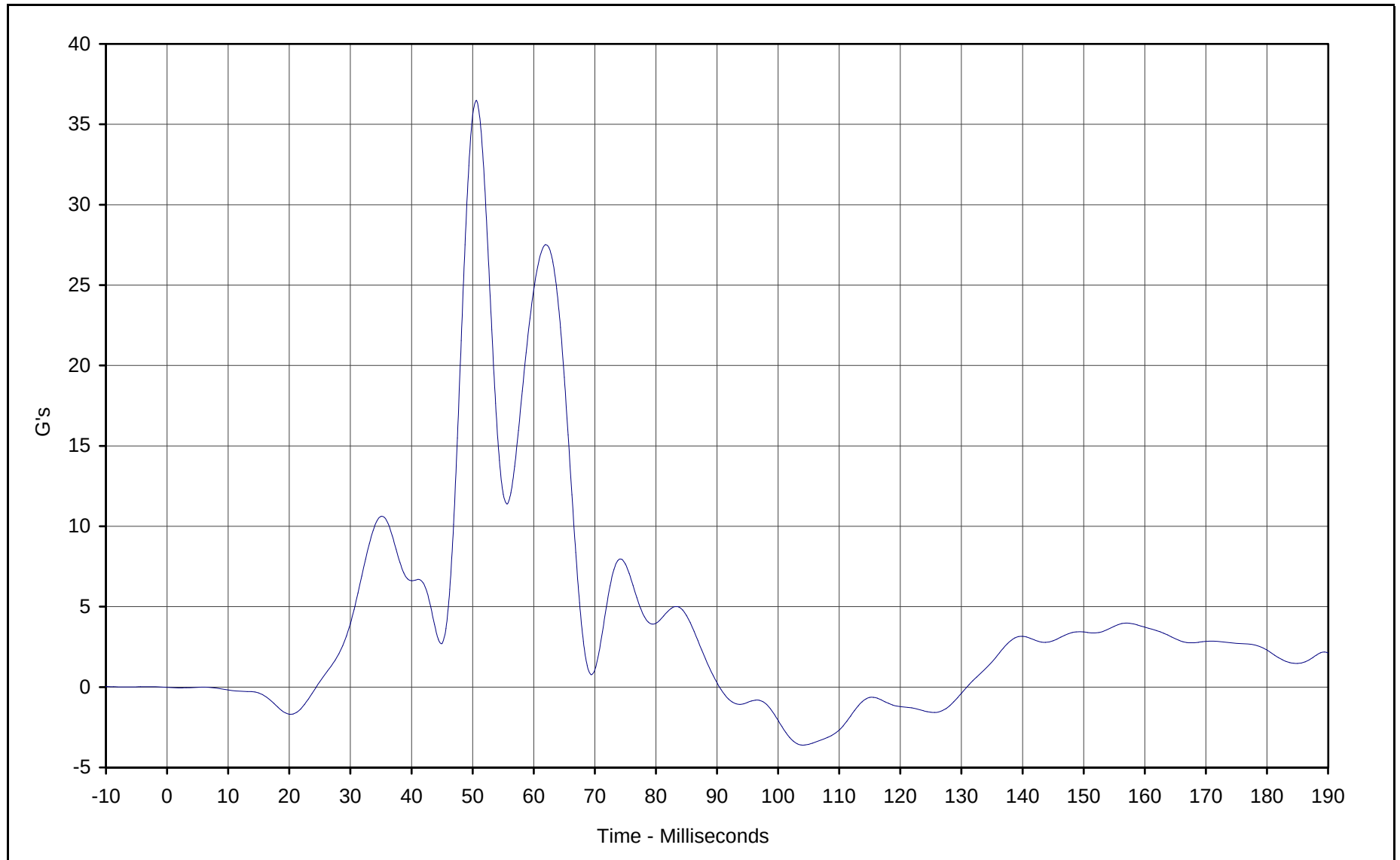




Curve Description: MDB Right Bumper Contact
Maximum Value: 100.9 at 15.4 Milliseconds
Crossing Point: 50% at 0.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/14/01
Curve Number: FIL-058

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

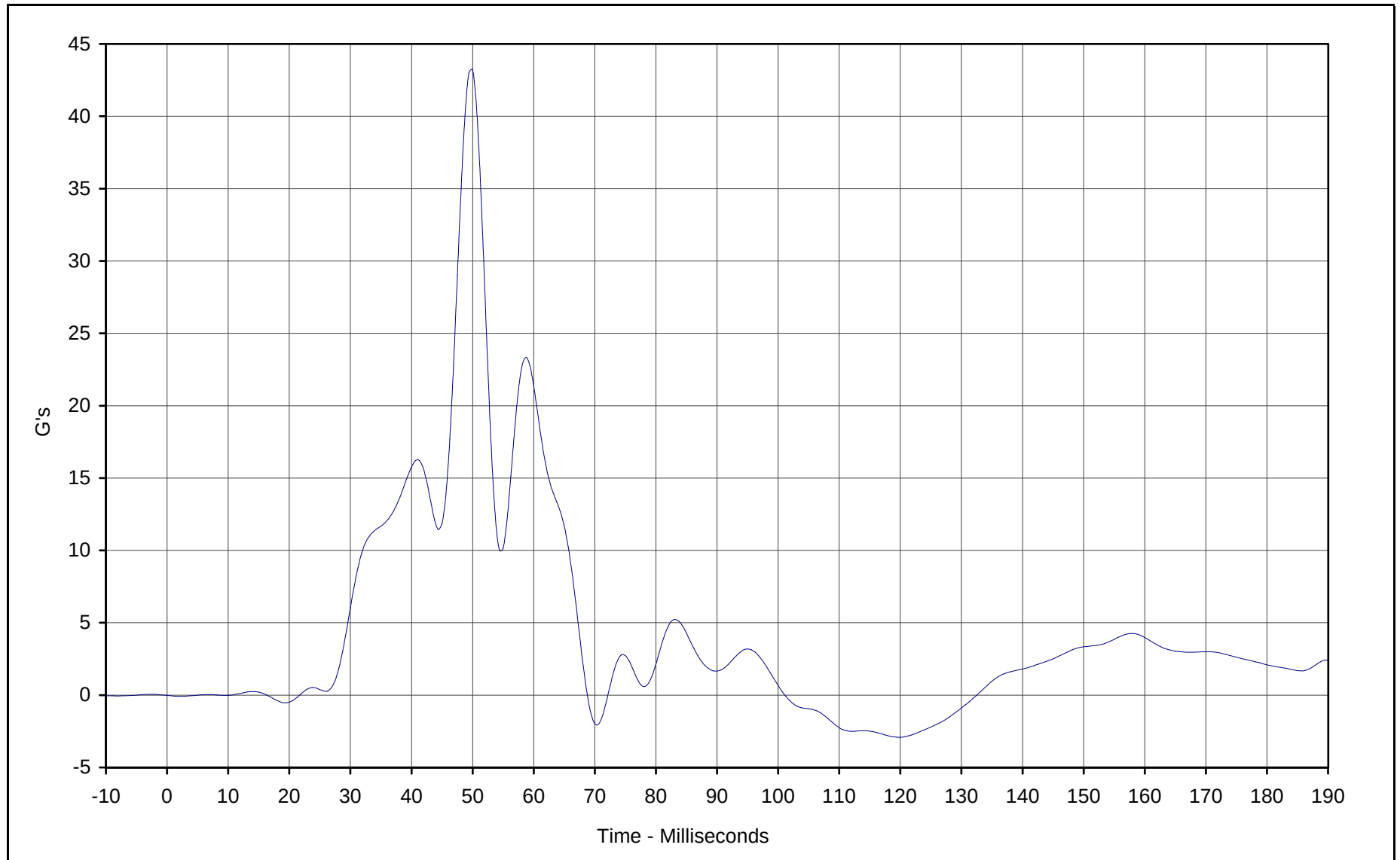




Curve Description: Driver Upper Rib Primary Y
Maximum Value: 36.5 at 50.6 Milliseconds
Minimum Value: -3.6 at 104.4 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-004

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

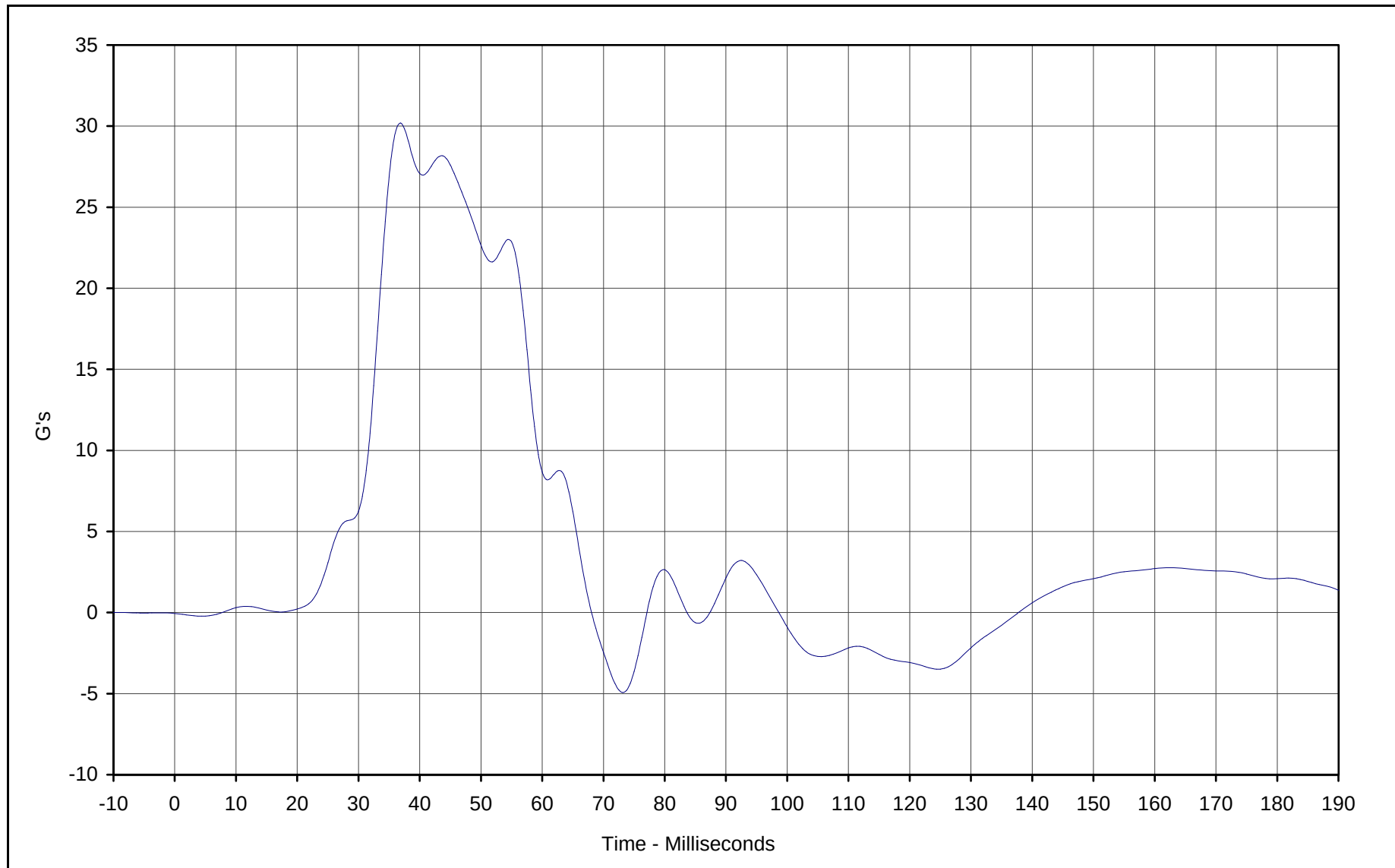




Curve Description: Driver Lower Rib Primary Y
Maximum Value: 43.2 at 50.0 Milliseconds
Minimum Value: -2.9 at 120.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-005

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Driver Lower Spine Primary Y

Maximum Value: 30.2 at 36.9 Milliseconds

Minimum Value: -4.9 at 73.1 Milliseconds

SAE Filter Class: FIR 100

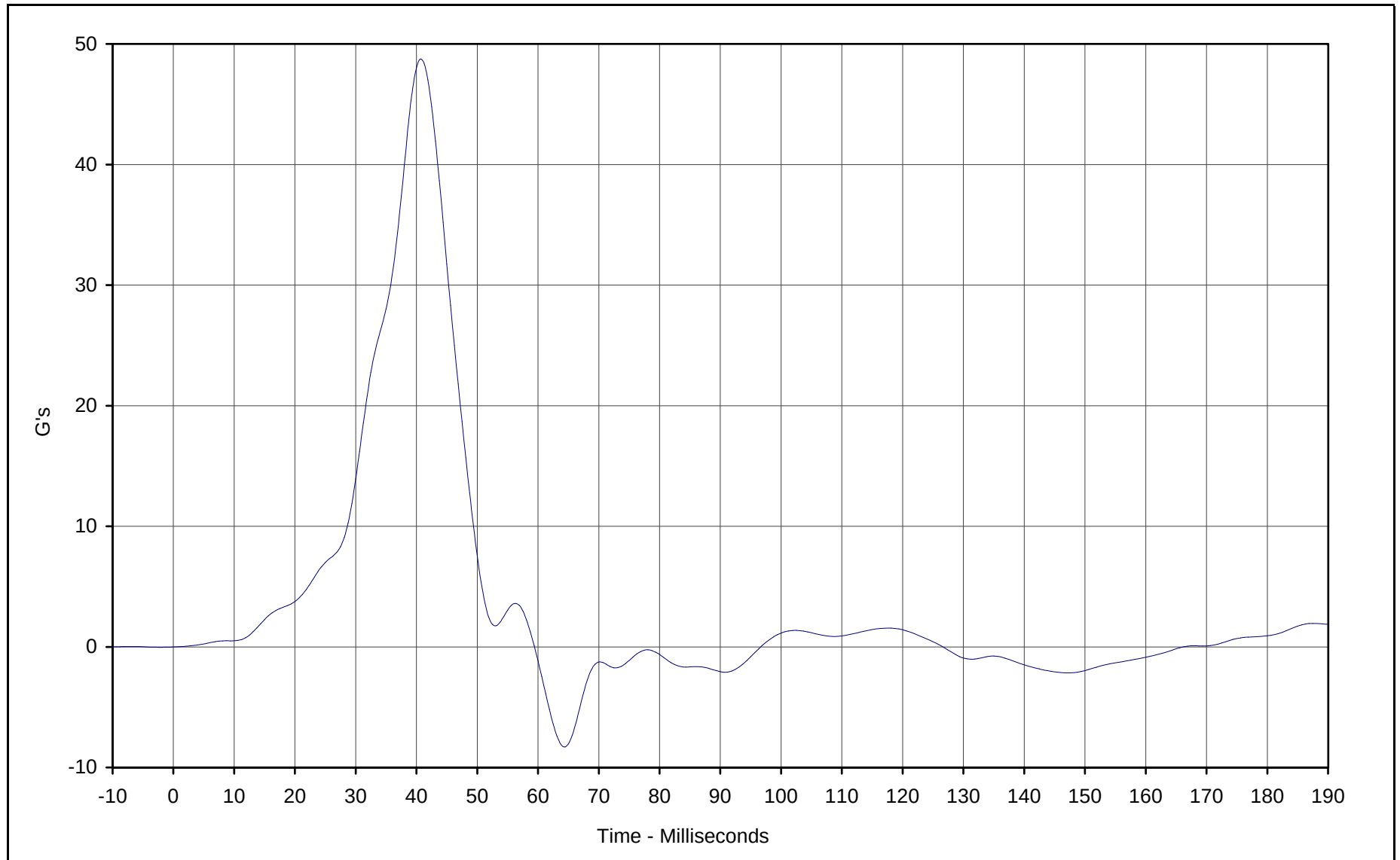
Date of Test: 11/14/01

Curve Number: FIR-006

Test Program: 55/28 km/h Side Impact NCAP No.: M20106

Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

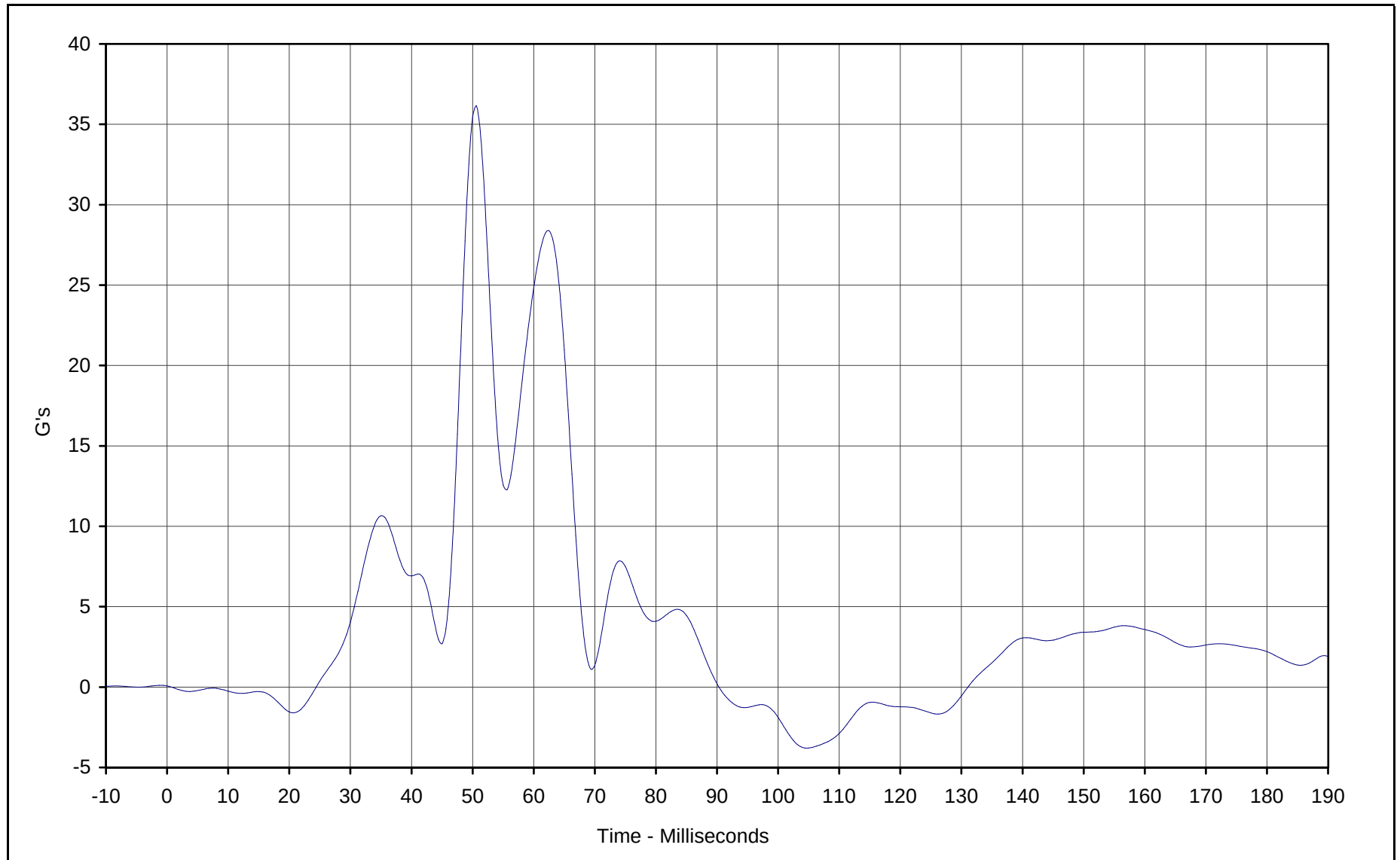




Curve Description: Driver Pelvis Primary Y
Maximum Value: 48.8 at 40.6 Milliseconds
Minimum Value: -8.3 at 64.4 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-007

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

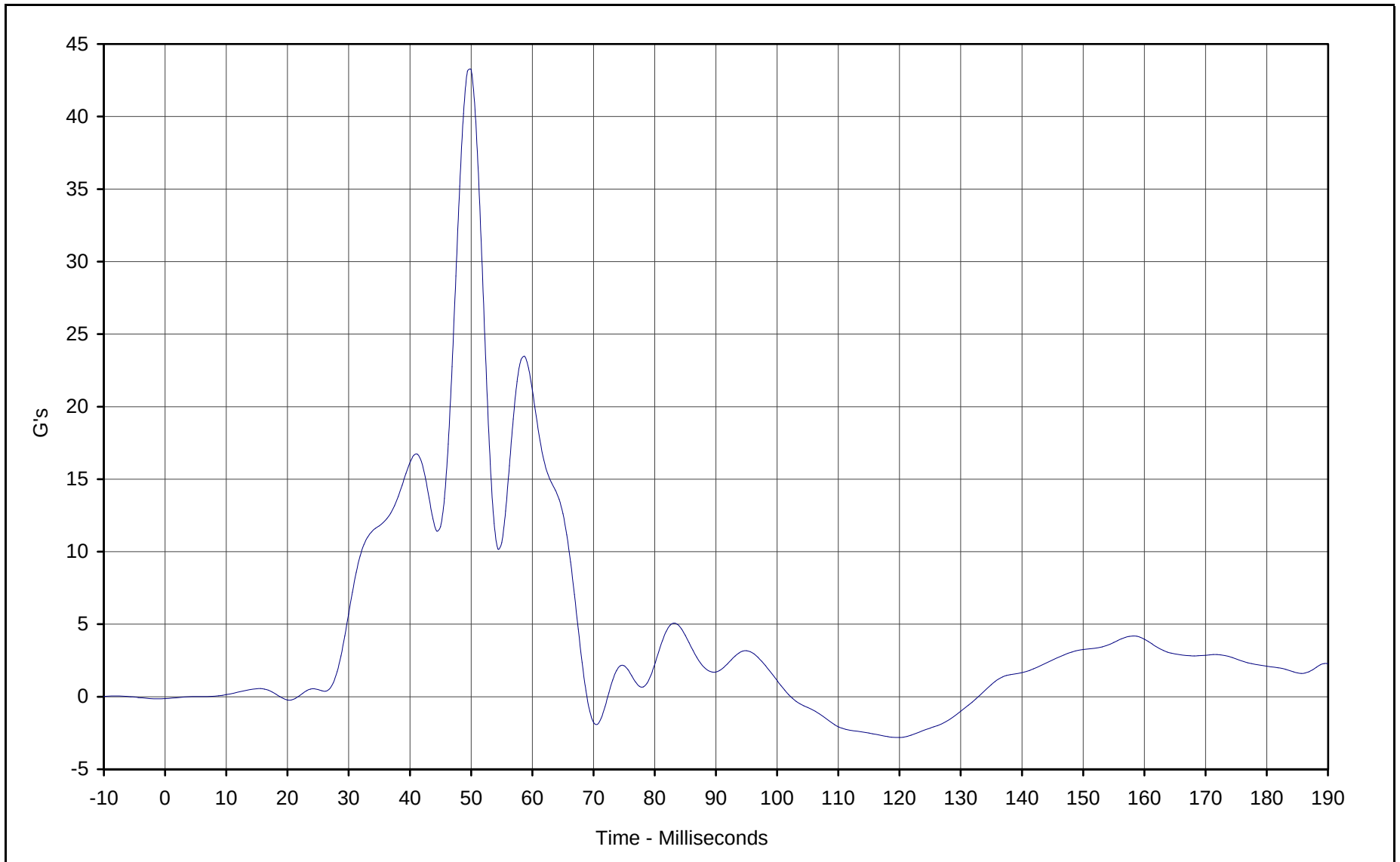




Curve Description: Driver Upper Rib Redundant Y
Maximum Value: 36.1 at 50.6 Milliseconds
Minimum Value: -3.8 at 105.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-008

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

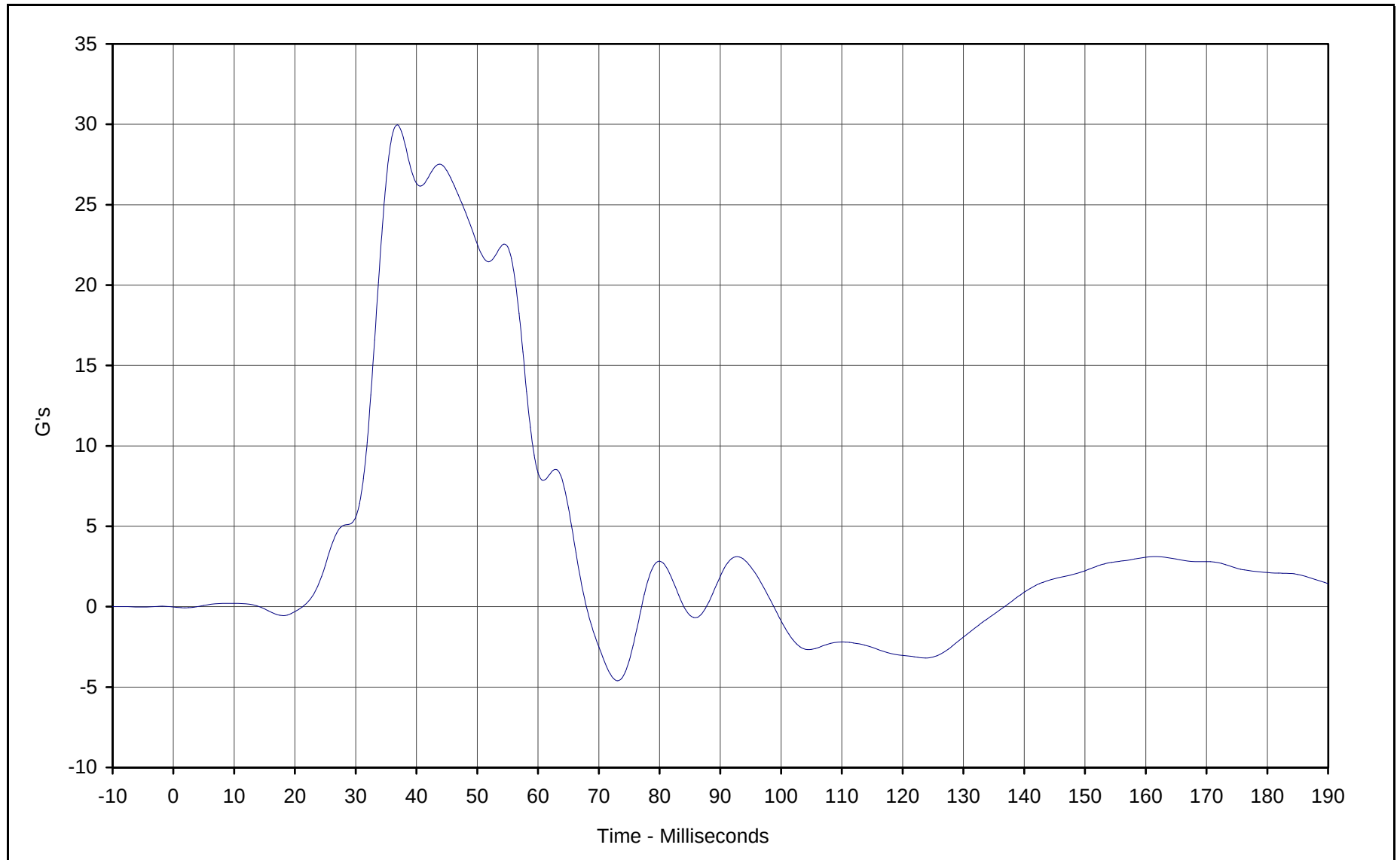




Curve Description: Driver Lower Rib Redundant Y
Maximum Value: 43.2 at 50.0 Milliseconds
Minimum Value: -2.8 at 120.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-009

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

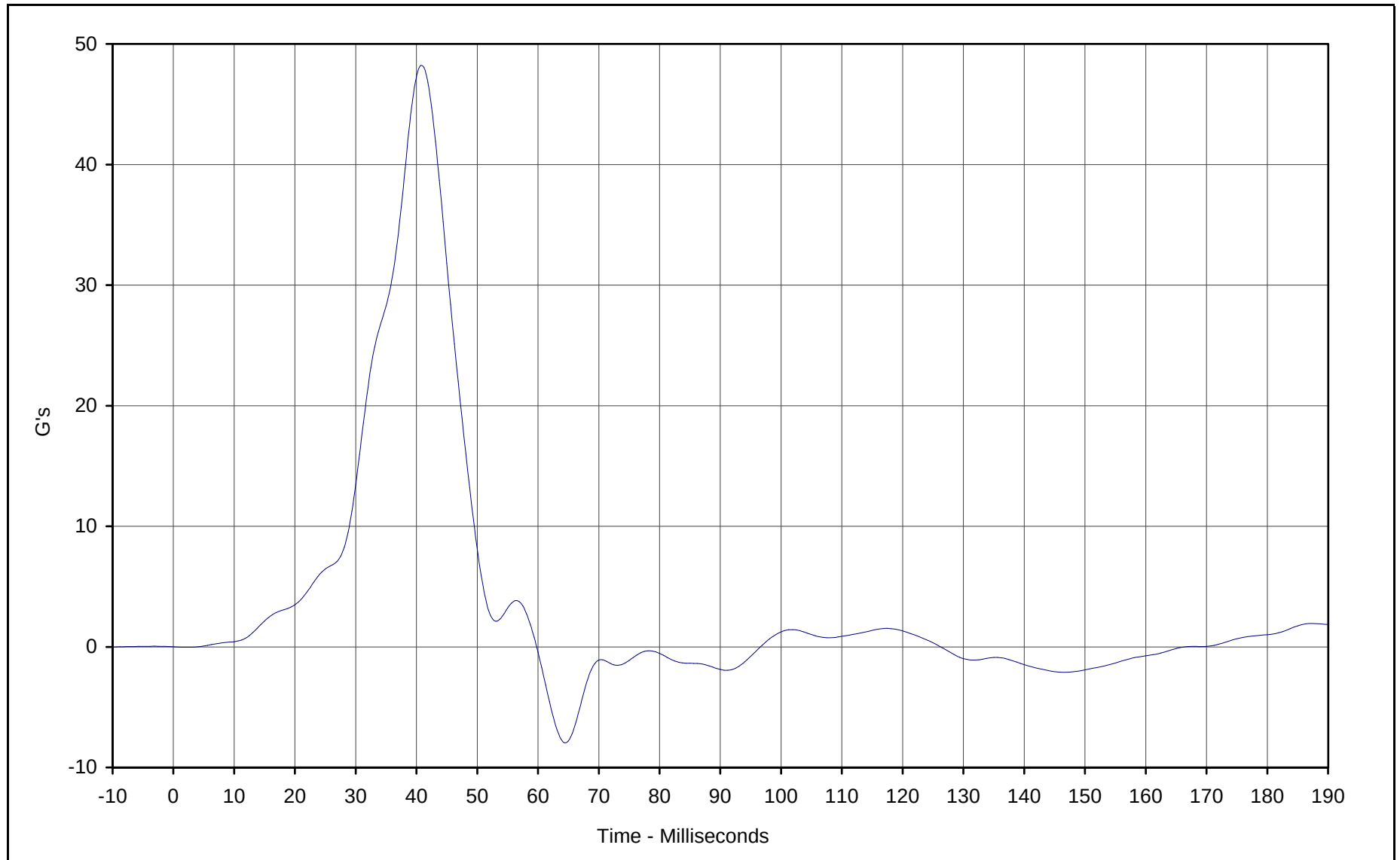




Curve Description: Driver Lower Spine Redundant Y
Maximum Value: 30.0 at 36.9 Milliseconds
Minimum Value: -4.6 at 73.1 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-010

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

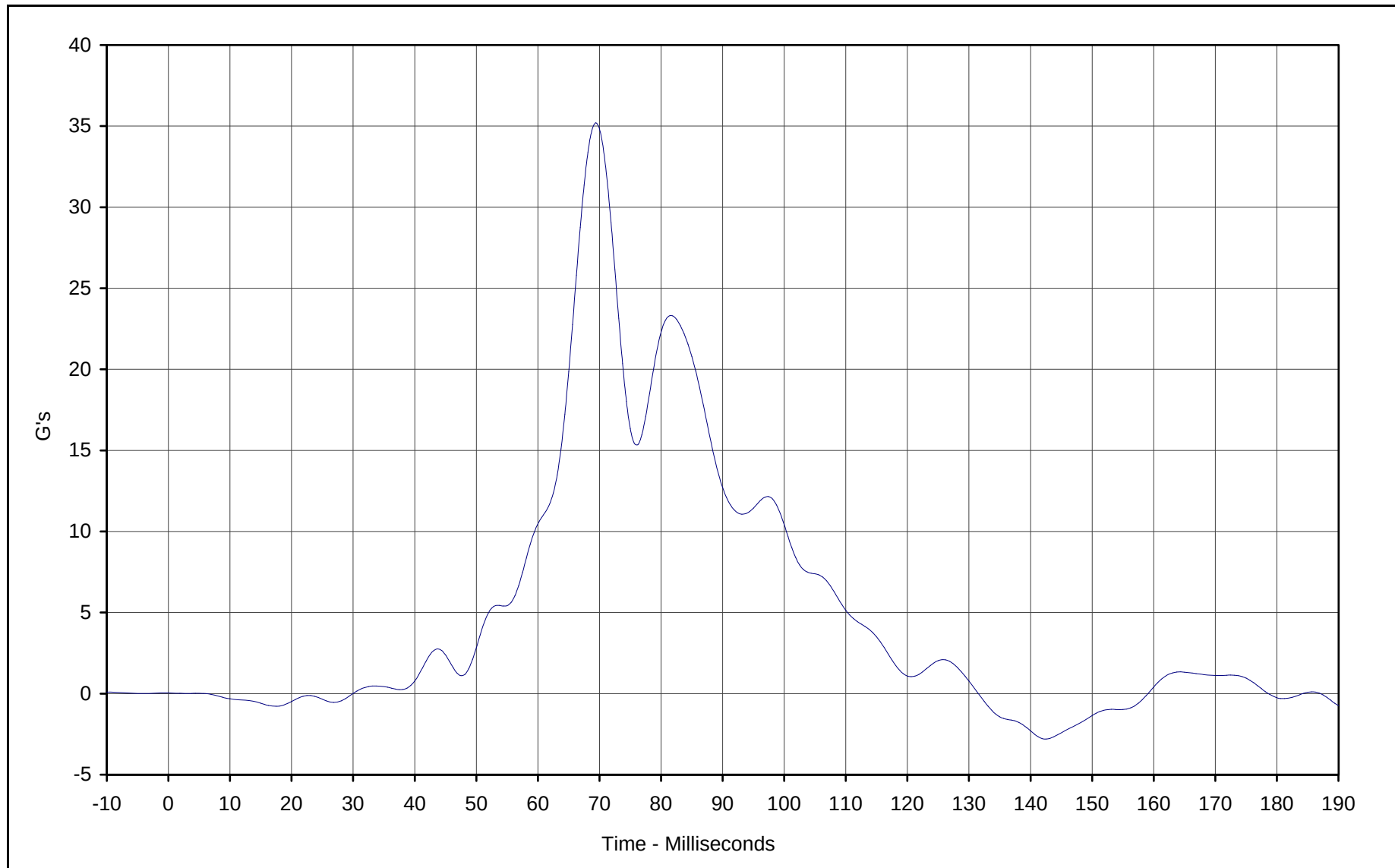




Curve Description: Driver Pelvis Redundant Y
Maximum Value: 48.2 at 40.6 Milliseconds
Minimum Value: -8.0 at 64.4 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-011

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

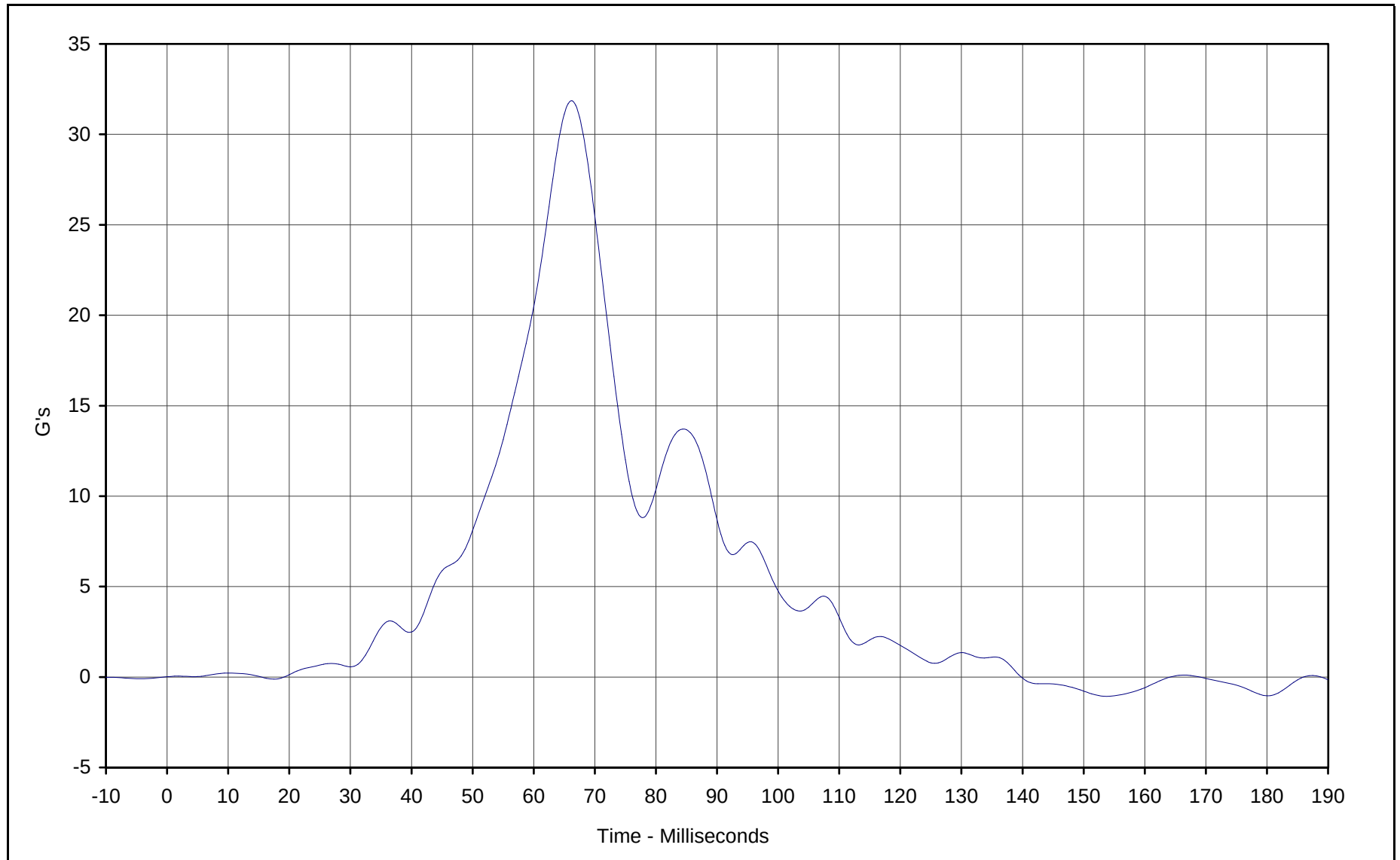




Curve Description: Pass. Upper Rib Primary Y
Maximum Value: 35.2 at 69.4 Milliseconds
Minimum Value: -2.8 at 142.5 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-017

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

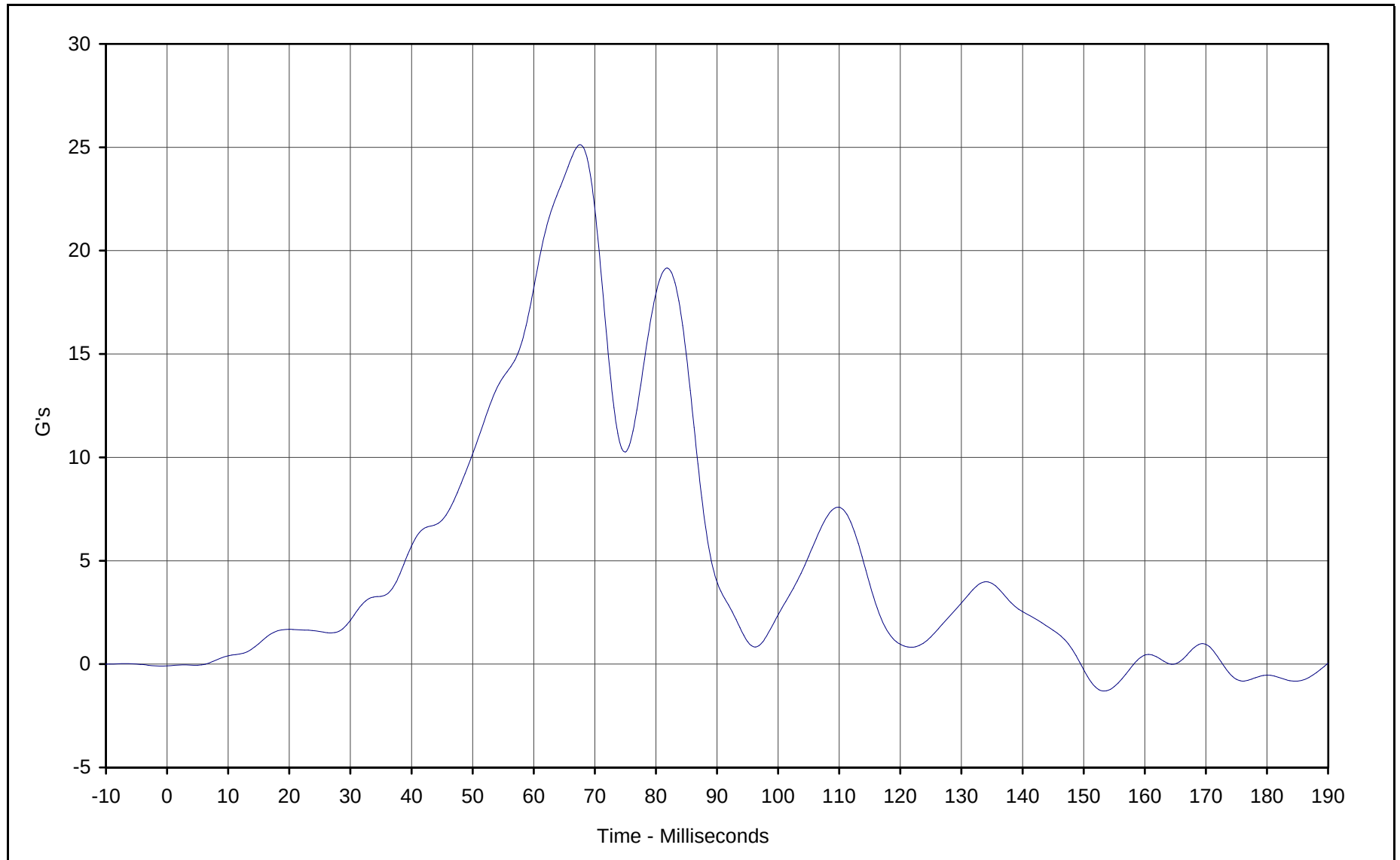




Curve Description: Pass. Lower Rib Primary Y
Maximum Value: 31.9 at 66.3 Milliseconds
Minimum Value: -1.1 at 153.8 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-018

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

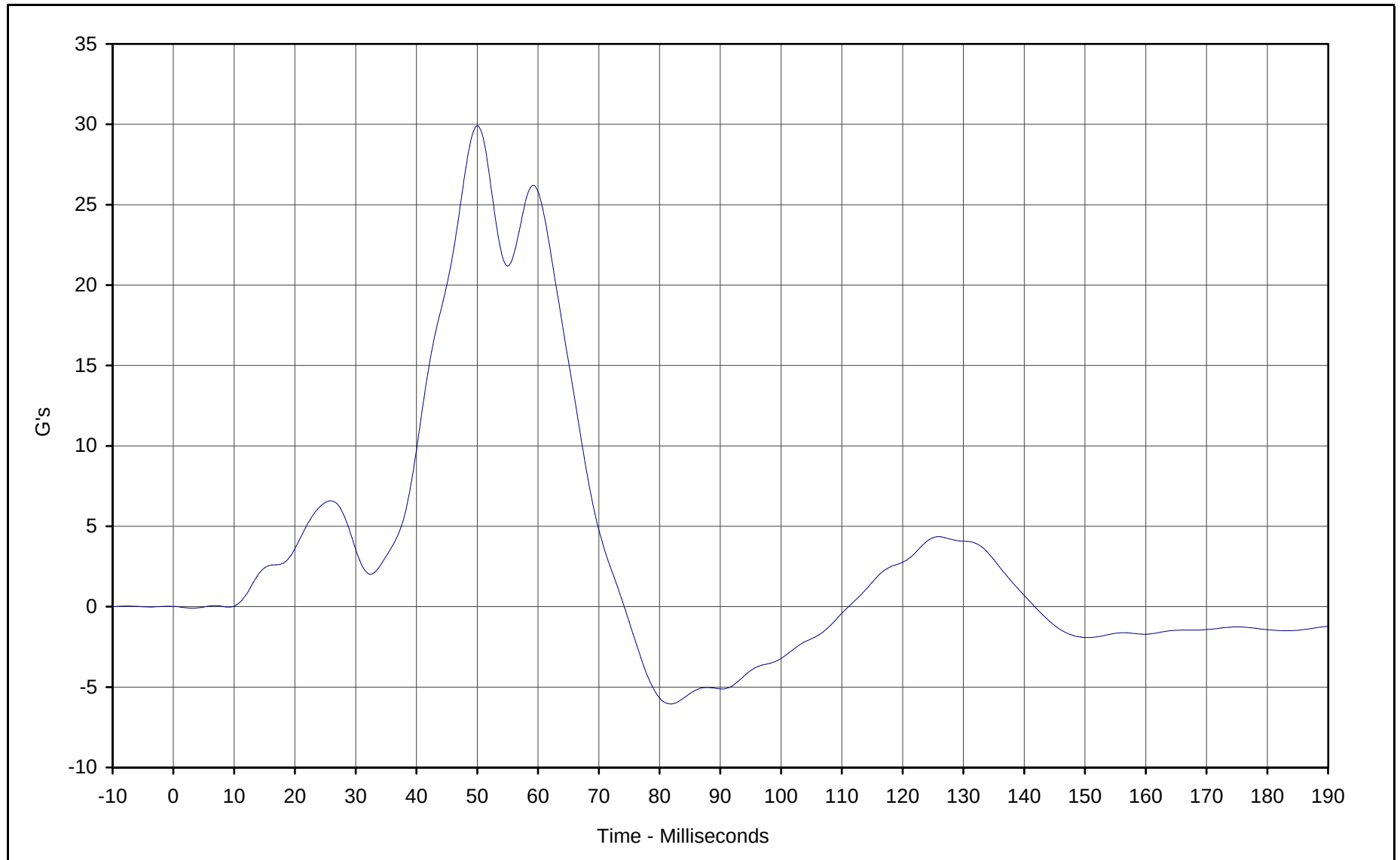




Curve Description: Pass. Lower Spine Primary Y
Maximum Value: 25.1 at 67.5 Milliseconds
Minimum Value: -1.3 at 153.1 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-019

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

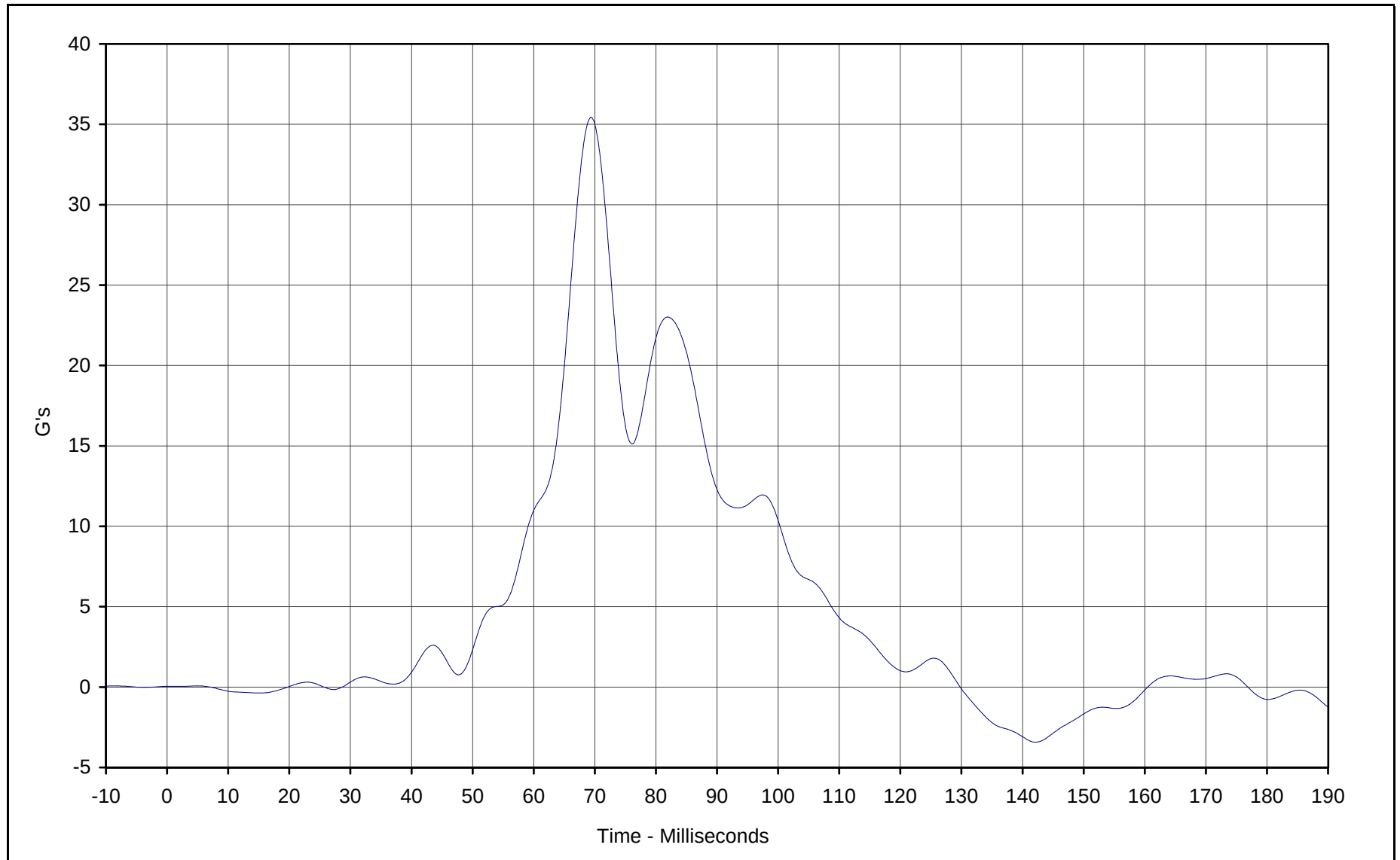




Curve Description: Pass. Pelvis Primary Y
Maximum Value: 29.9 at 50.0 Milliseconds
Minimum Value: -6.0 at 81.9 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-020

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

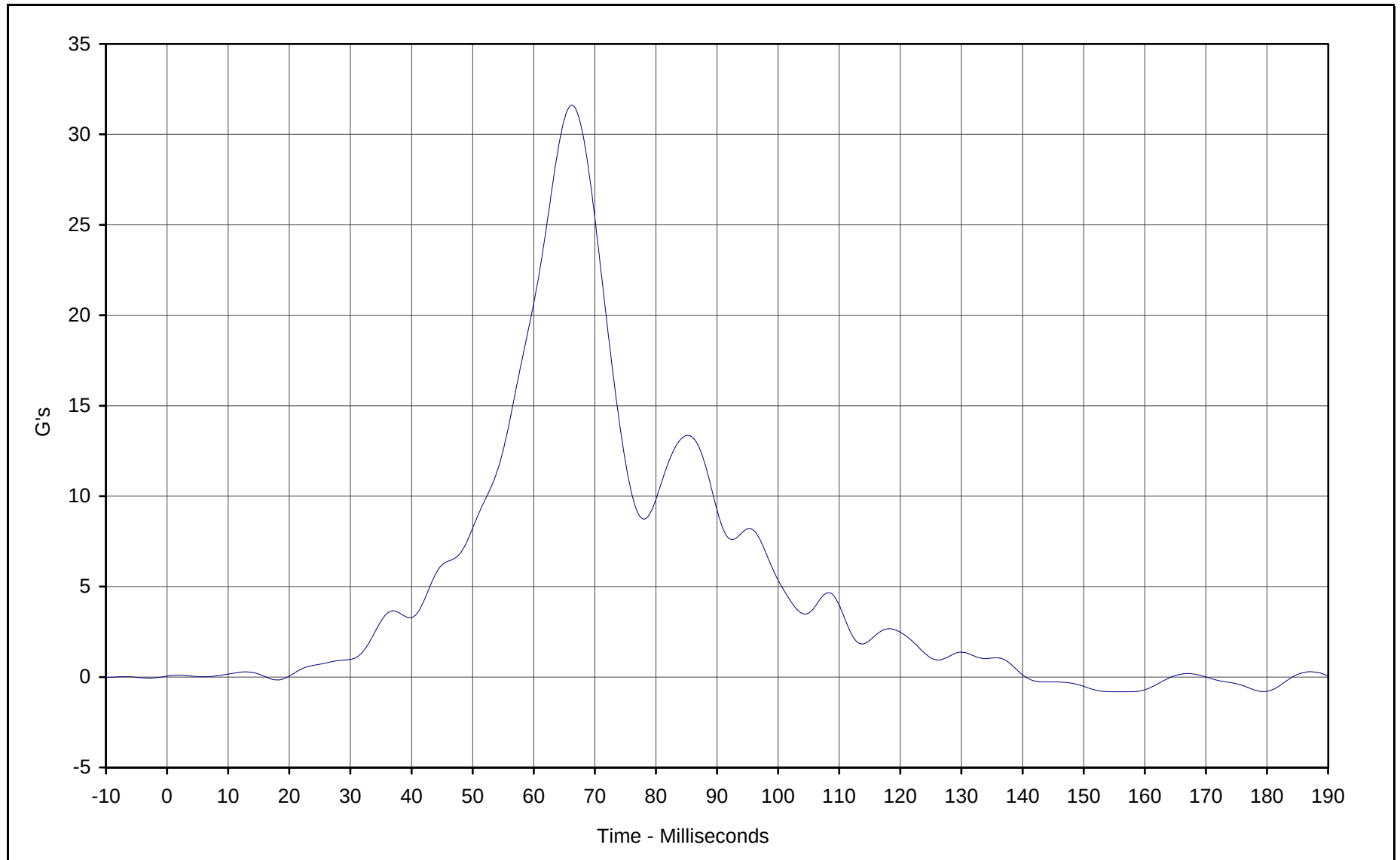




Curve Description: Pass. Upper Rib Redundant Y
Maximum Value: 35.4 at 69.4 Milliseconds
Minimum Value: -3.4 at 141.9 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-021

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

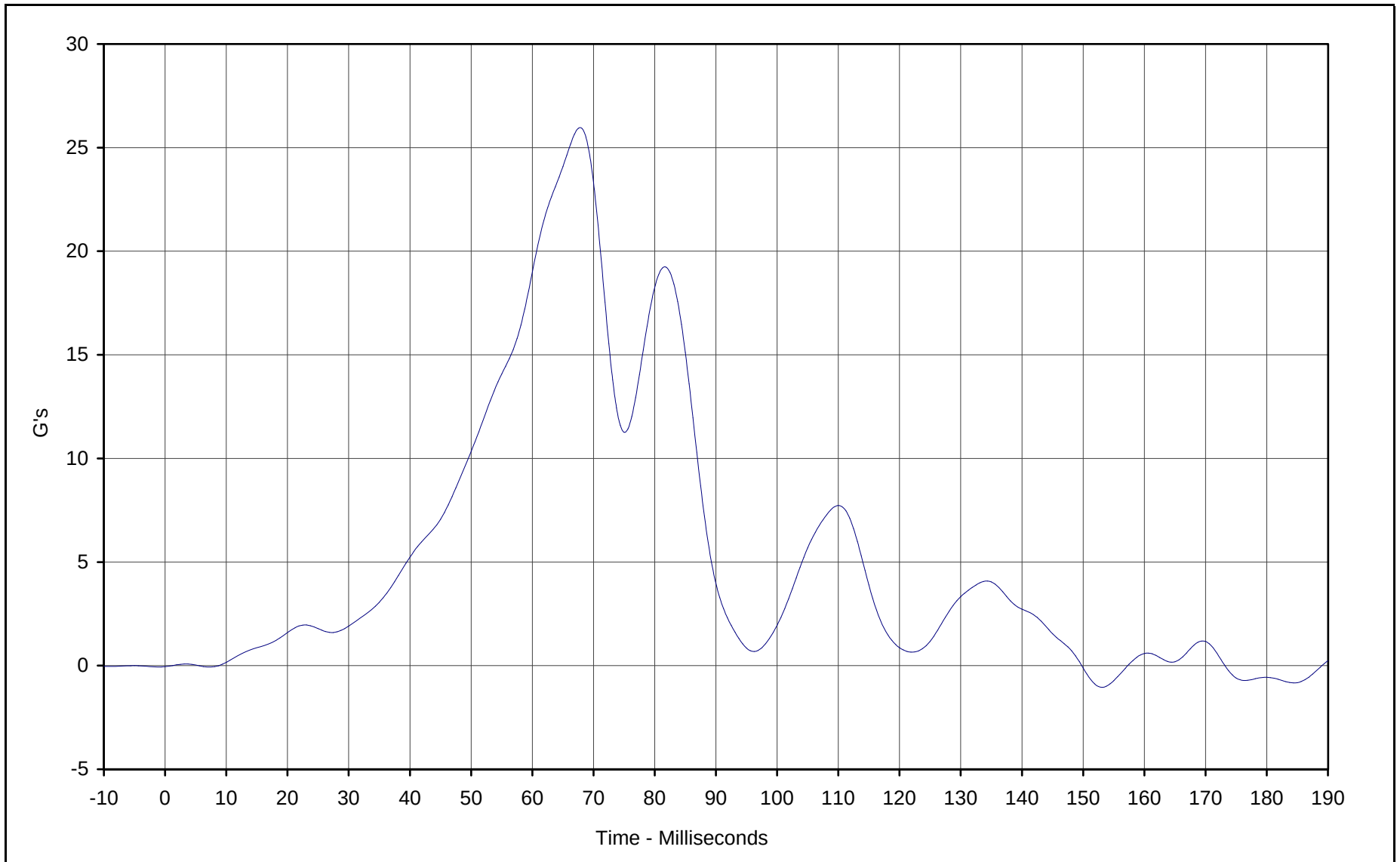




Curve Description: Pass. Lower Rib Redundant Y
Maximum Value: 31.6 at 66.3 Milliseconds
Minimum Value: -0.8 at 155.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-022

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV

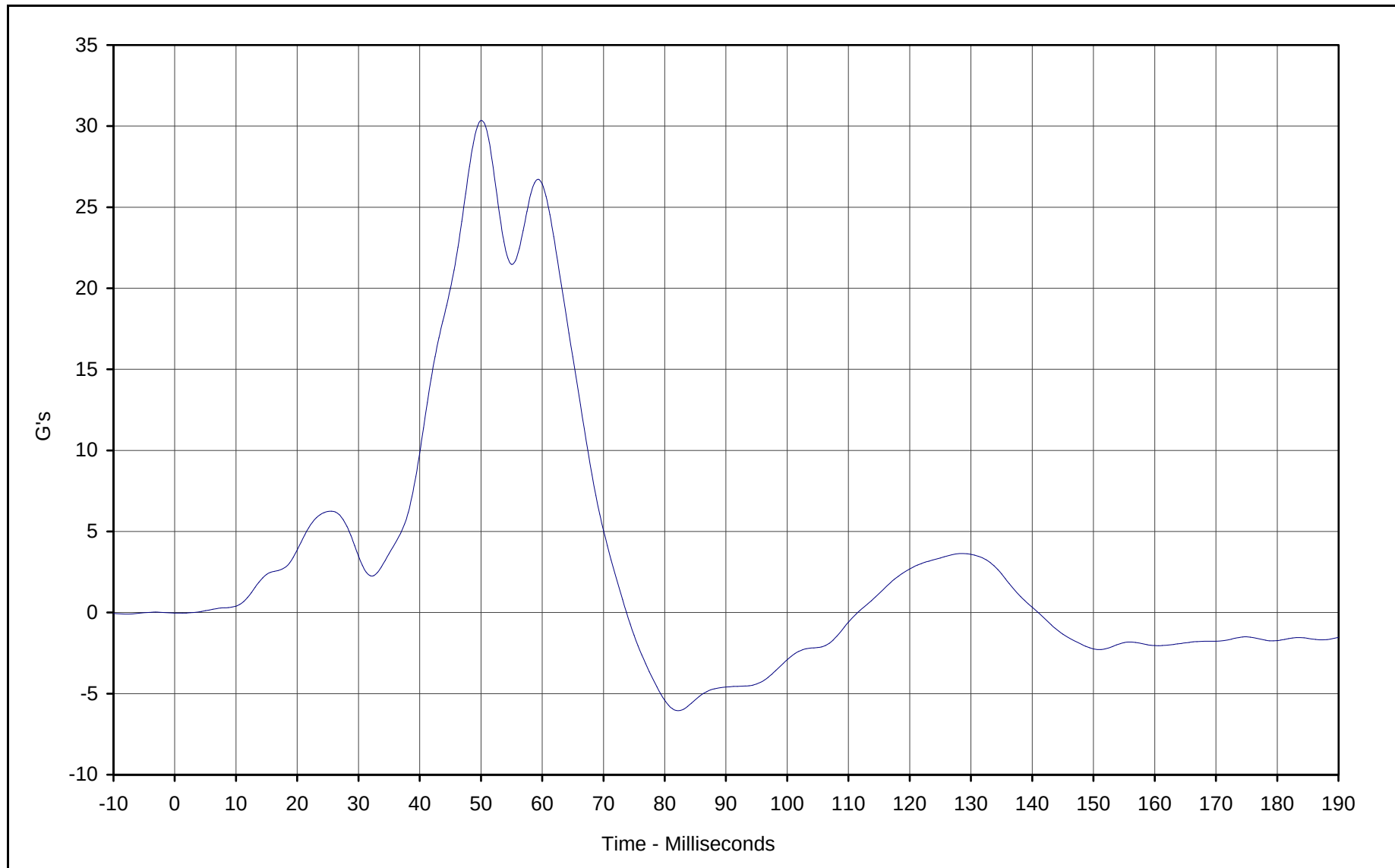




Curve Description: Pass. Lower Spine Redundant Y
Maximum Value: 25.9 at 67.5 Milliseconds
Minimum Value: -1.0 at 153.1 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-023

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV





Curve Description: Pass. Pelvis Redundant Y
Maximum Value: 30.4 at 50.0 Milliseconds
Minimum Value: -6.0 at 82.5 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/14/01
Curve Number: FIR-024

Test Program: 55/28 km/h Side Impact NCAP No.: M20106
Test Vehicle: 2002 Chevrolet Trailblazer LS 4WD SUV



APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA



Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	21.1	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: TI11A

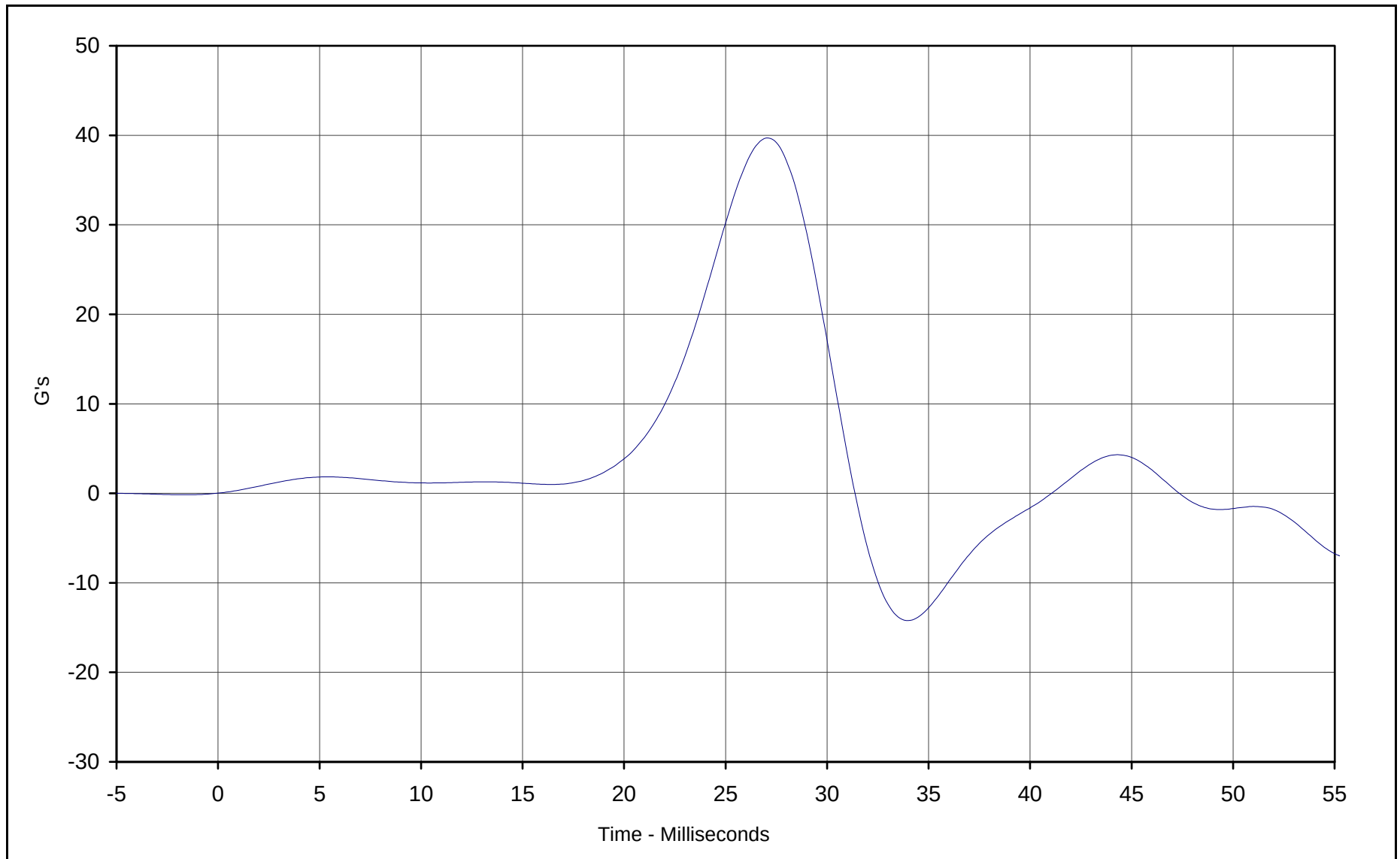
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	39.7	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	39.8	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.9	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date

C-3



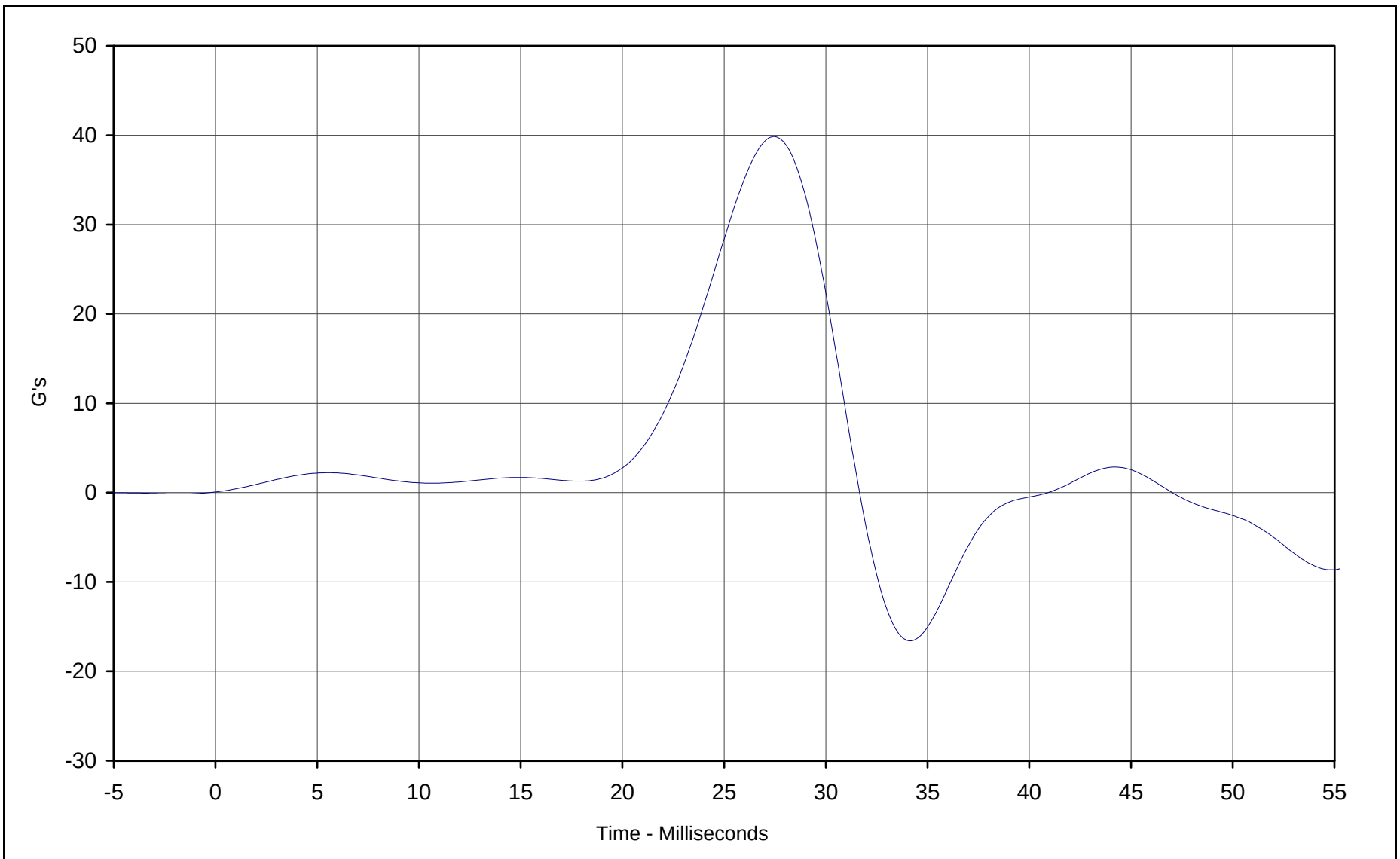
Curve Description: Left Upper Rib Y Acceleration
Maximum Value: 39.7 at 27.1 Milliseconds
Minimum Value: -14.2 at 34.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 274 Test I.D.: TI11A



KAR22003-01

C-4



Curve Description: Left Lower Rib Y Acceleration

Maximum Value: 39.8 at 27.5 Milliseconds

Minimum Value: -16.6 at 34.1 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 11/13/01

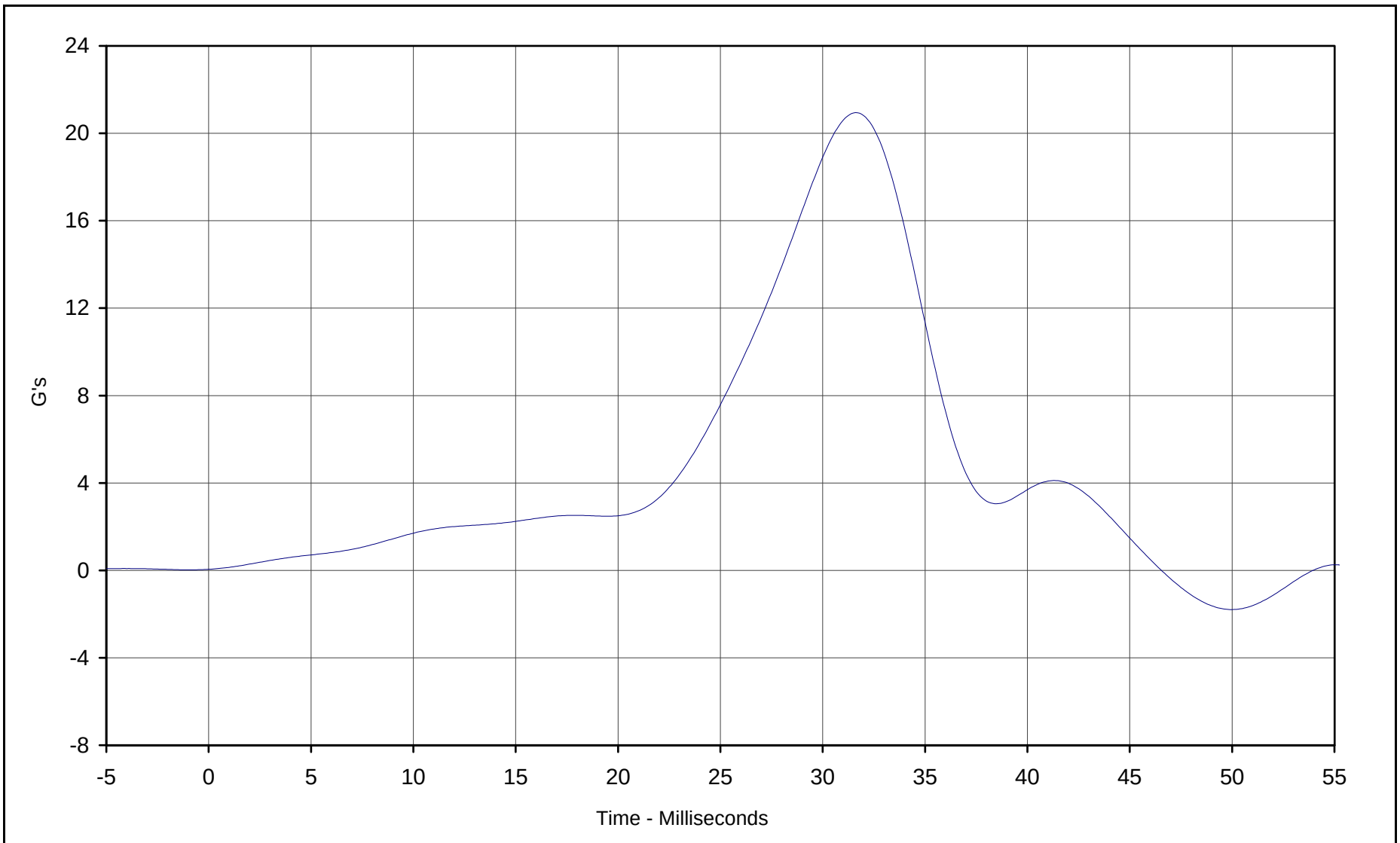
Test Program: SID Thorax Lateral Impact Test

Test Information: SID S/N: 274 Test I.D.: TI11A



KAR22003-01

C-5



Curve Description: Lower Spine Y Acceleration
Maximum Value: 20.9 at 31.6 Milliseconds
Minimum Value: -2.6 at 60.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 274 Test I.D.: TI11A



KAR22003-01



Performance Verification Data Side Impact Dummy (SID) Left Side Pelvis Lateral Impact

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: PI11A

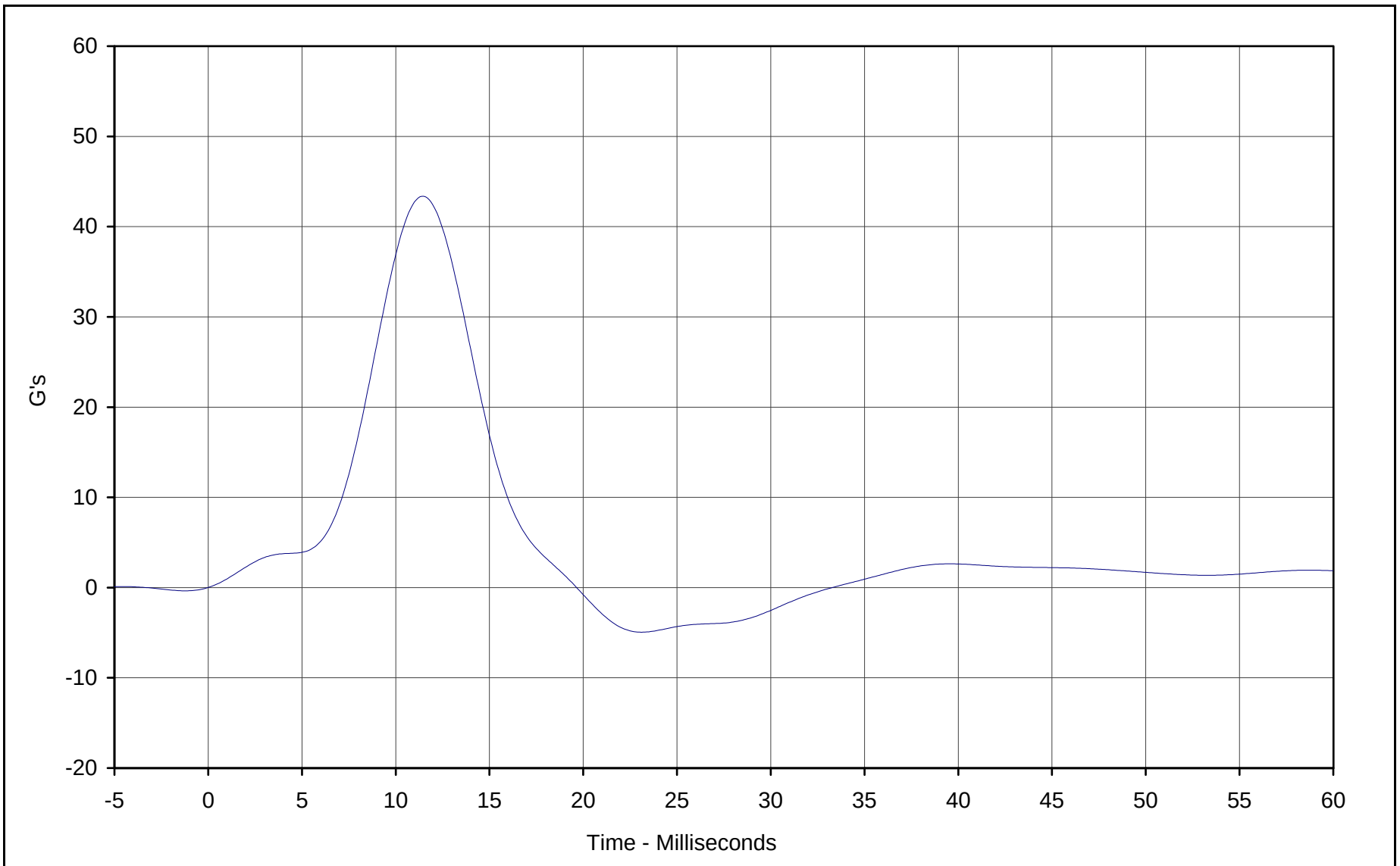
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.24	Pass
Pelvis Acceleration	G's	40.0 to 60.0	43.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.3	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date

C-7



Curve Description: Pelvis Y Axis Acceleration
Maximum Value: 43.4 at 11.4 Milliseconds
Minimum Value: -4.9 at 23.1 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Left Side Pelvis Lateral Impact
Test Information: SID S/N: 274 Test I.D.: PI11A



KAR22003-01



Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: AC11A

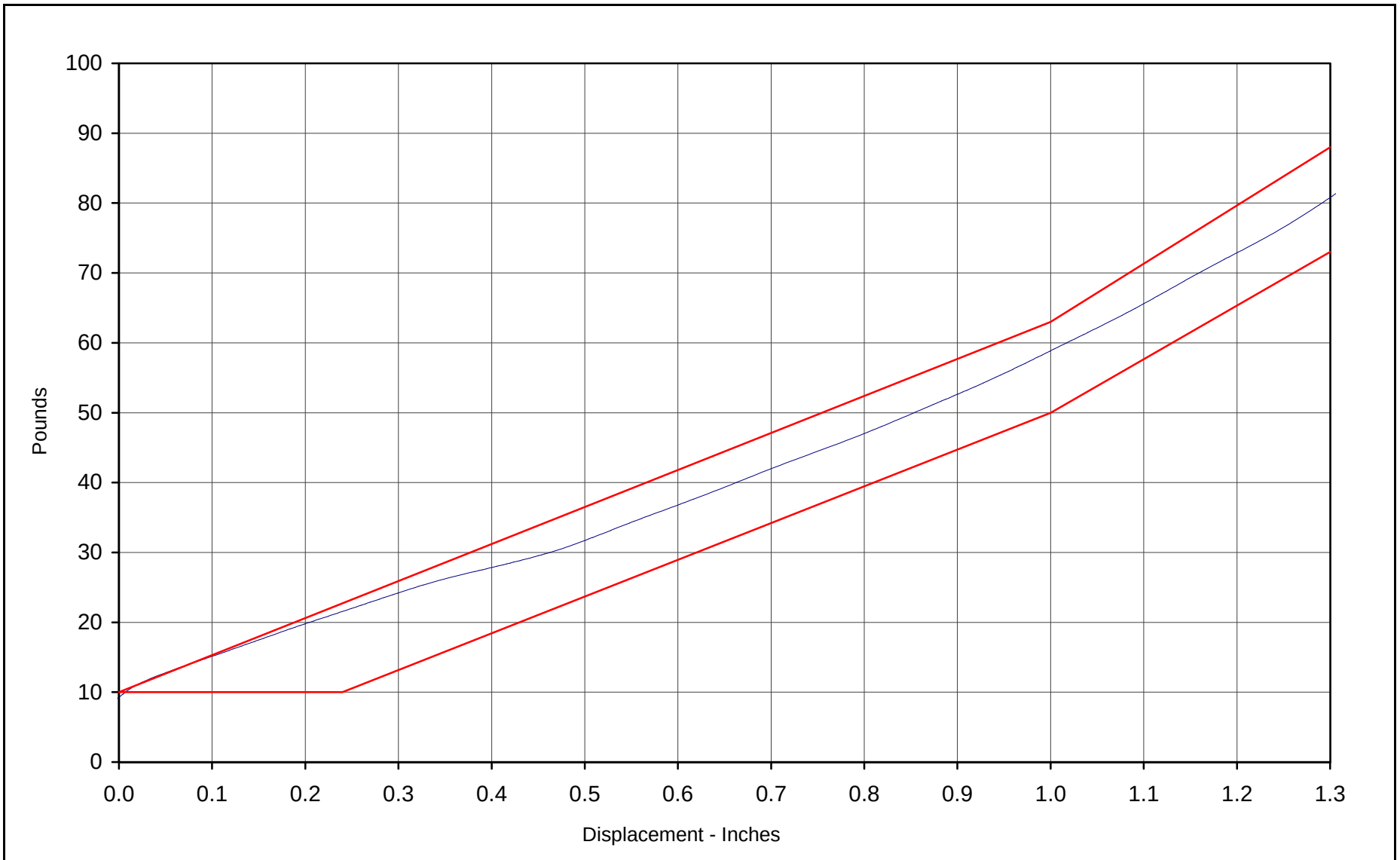
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	31.6	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	44.5	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	58.8	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	80.6	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date

C-9



Curve Description: Abdomen Force vs. Displacement

Force at 0.5 In.: 31.6 Pounds

Force at 0.75 In.: 44.5 Pounds

Force at 1.0 In.: 58.8 Pounds

Force at 1.3 In.: 80.6 Pounds

Date of Test: 11/13/01

Test Program: SID Abdominal Compression

Test Information: SID S/N: 274 Test I.D.: AC11A



KARR22003-01



Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 274

Part Serial No.: N/A

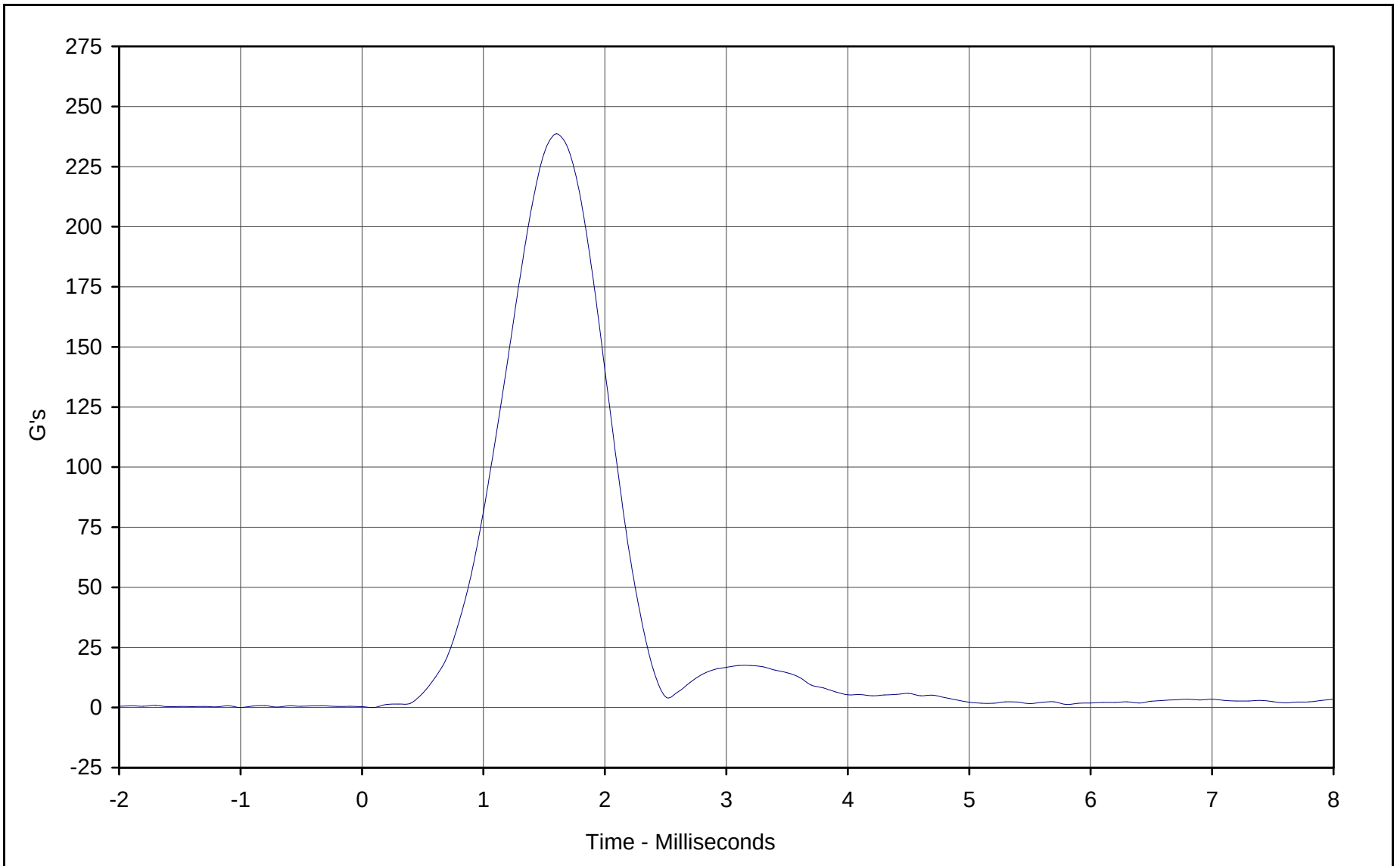
Test I.D.: HD11A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	238.7	Pass
Peak Lateral Acceleration	G's	≤10.0	1.2	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.1	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001
Test Date

C-11



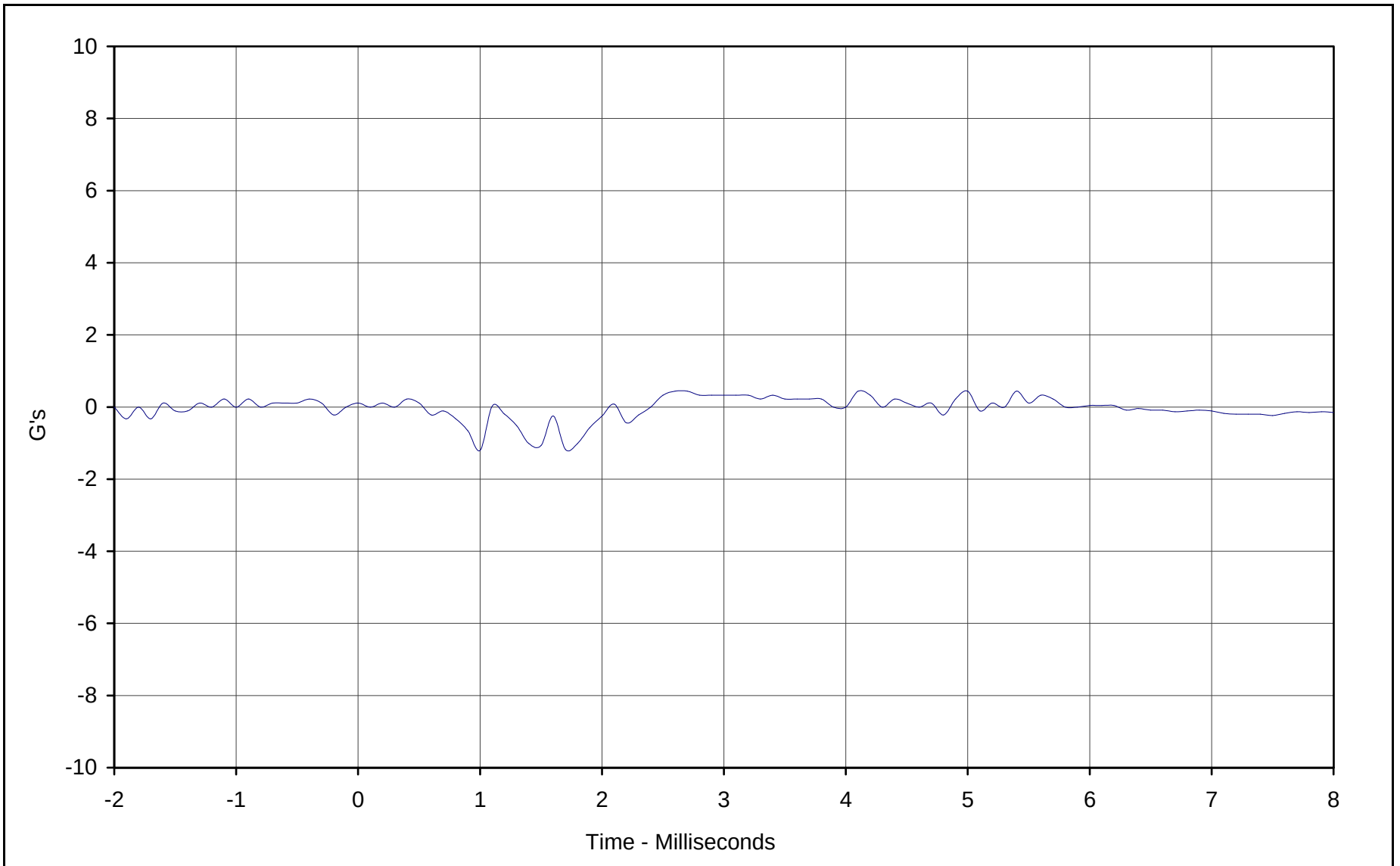
Curve Description: Head Resultant Acceleration
Maximum Value: 238.7 at 1.6 Milliseconds
Minimum Value: 0.0 at 0.1 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/13/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 274 Test I.D.: HD11A



KAR22003-01

C-12



Curve Description: Head Y Axis Acceleration
Maximum Value: 0.4 at 2.6 Milliseconds
Minimum Value: -1.2 at 1 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/13/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 274 Test I.D.: HD11A



KAR22003-01



Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	21.1	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	895	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	380	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001
Test Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: TI11B

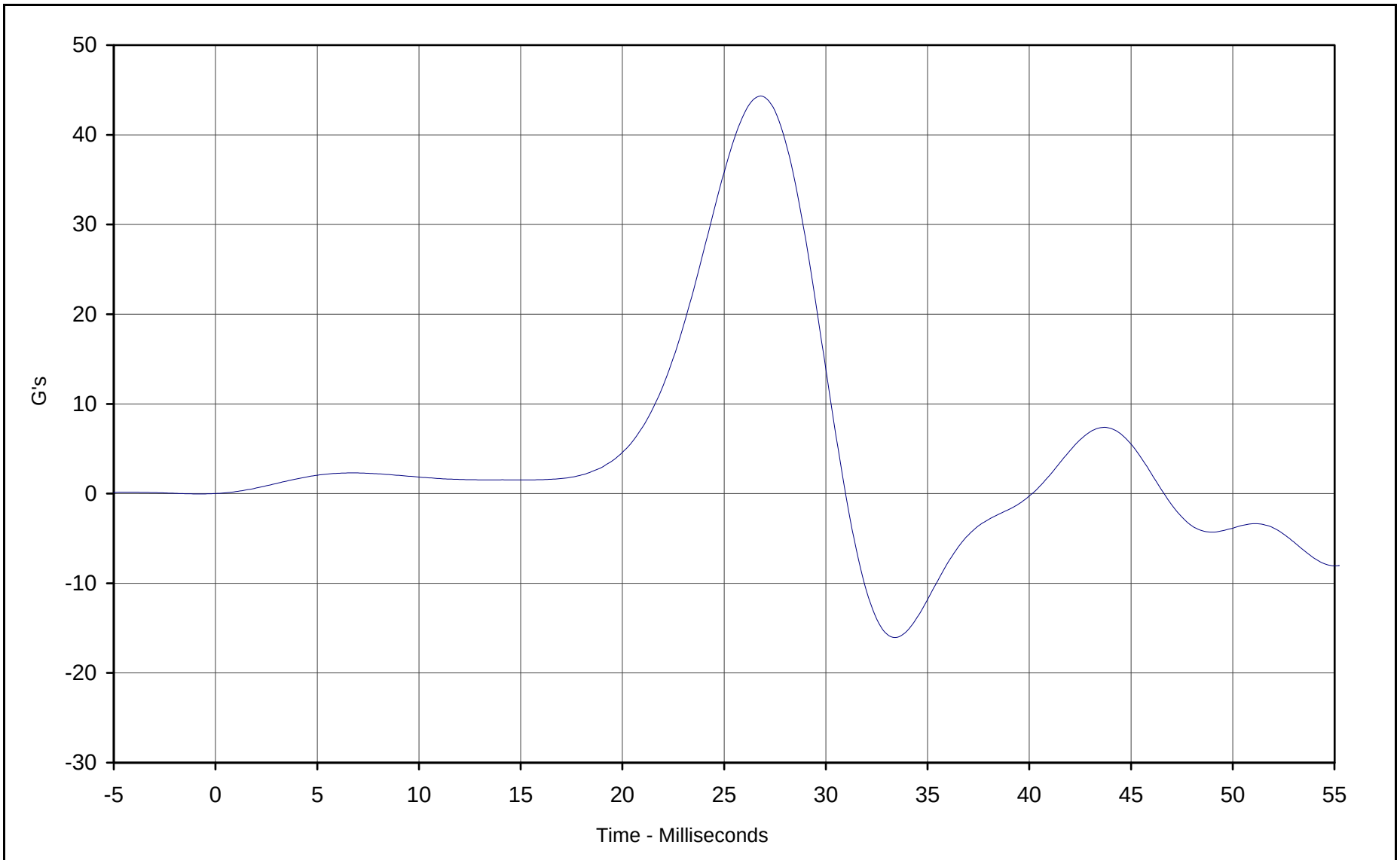
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.29	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	44.3	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	41.8	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	19.4	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date

C-15



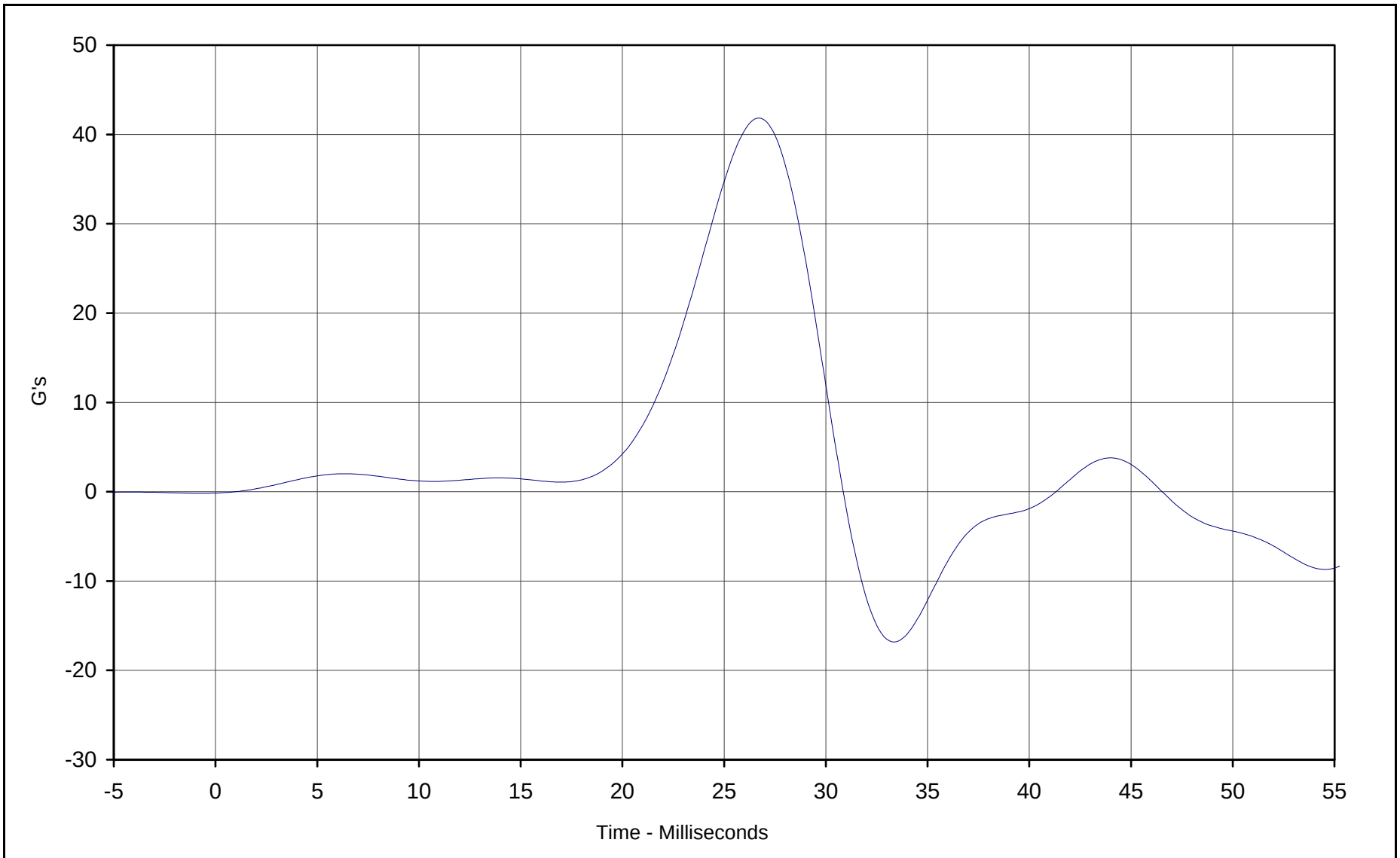
Curve Description: Left Upper Rib Y Acceleration
Maximum Value: 44.3 at 26.8 Milliseconds
Minimum Value: -16.0 at 33.4 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 275 Test I.D.: TI11B



KAR22003-01

C-16



Curve Description: Left Lower Rib Y Acceleration

Maximum Value: 41.8 at 26.7 Milliseconds

Minimum Value: -16.8 at 33.3 Milliseconds

SAE Filter Class: FIR 100

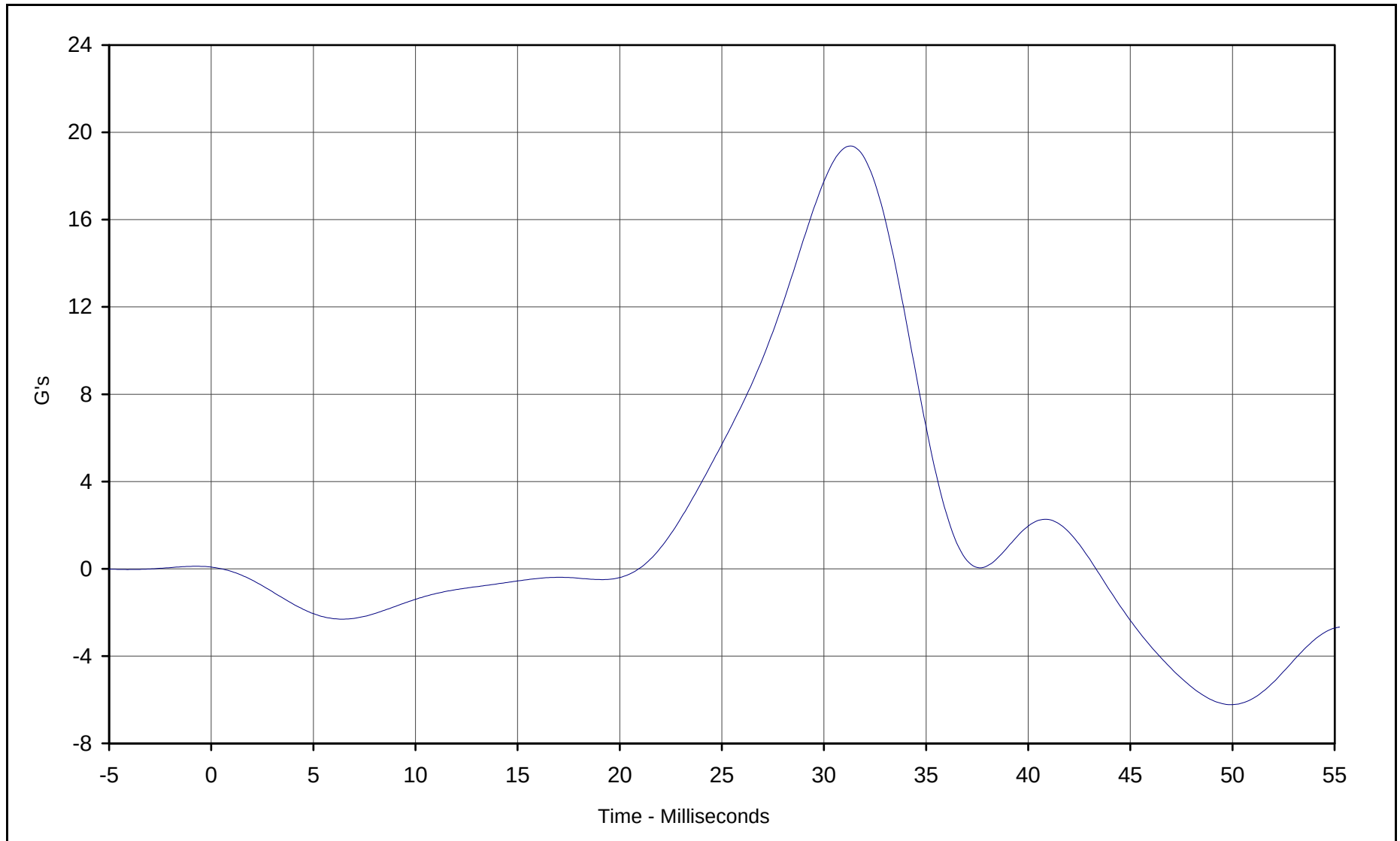
Date of Test: 11/13/01

Test Program: SID Thorax Lateral Impact Test

Test Information: SID S/N: 275 Test I.D.: TI11B



KAR22003-01



Curve Description: Lower Spine Y Acceleration
Maximum Value: 19.4 at 31.3 Milliseconds
Minimum Value: -6.2 at 50.0 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 275 Test I.D.: TI11B





Performance Verification Data Side Impact Dummy (SID) Left Side Pelvis Lateral Impact

ATD Serial No.: 275

Part Serial No.: N/A

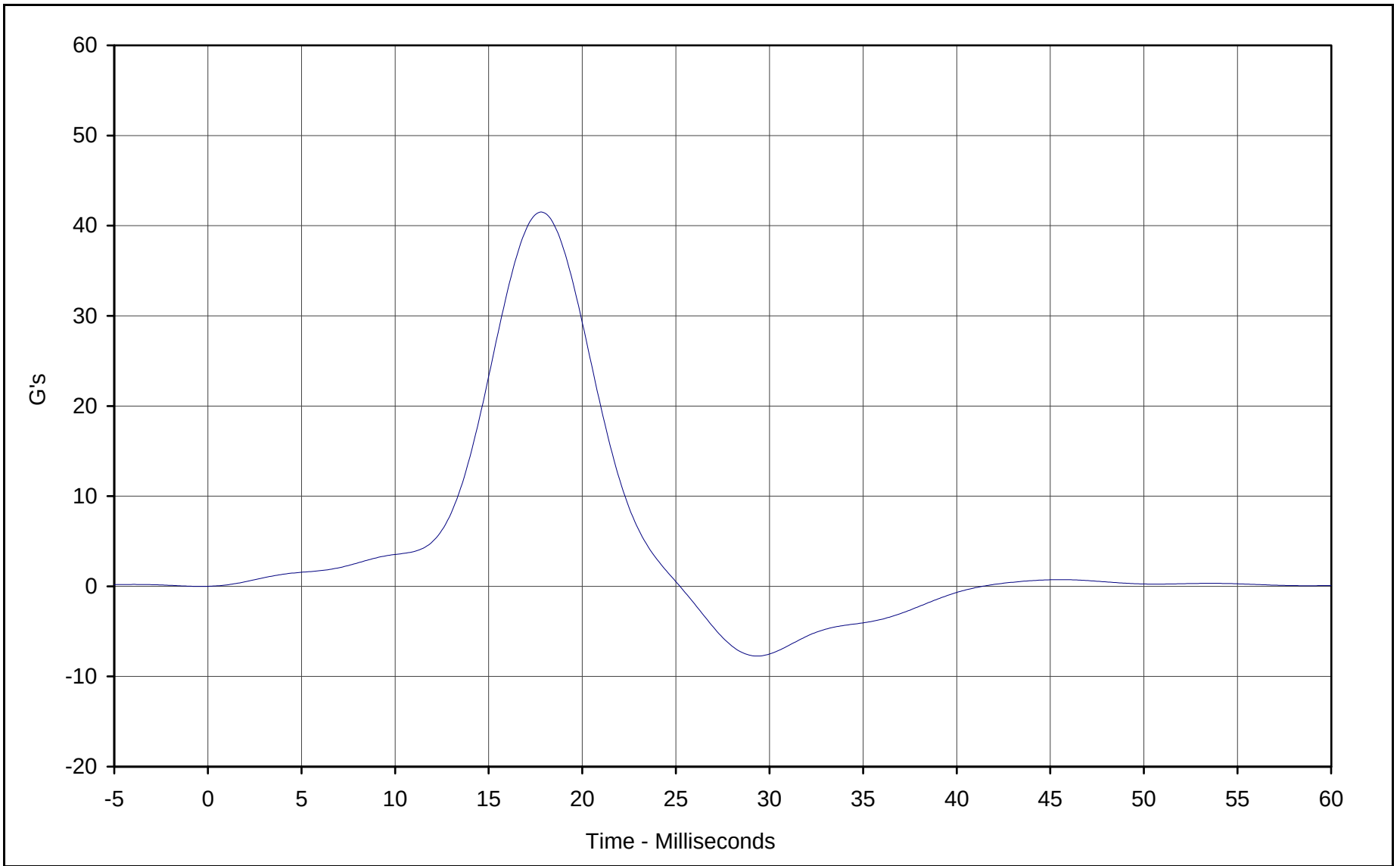
Test I.D.: PI11B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Pelvis Acceleration	G's	40.0 to 60.0	41.5	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.3	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date



Curve Description: Pelvis Y Axis Acceleration
Maximum Value: 41.5 at 17.8 Milliseconds
Minimum Value: -7.7 at 29.3 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/13/01

Test Program: SID Left Side Pelvis Lateral Impact
Test Information: SID S/N: 275 Test I.D.: PI11B





Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 275

Part Serial No.: N/A

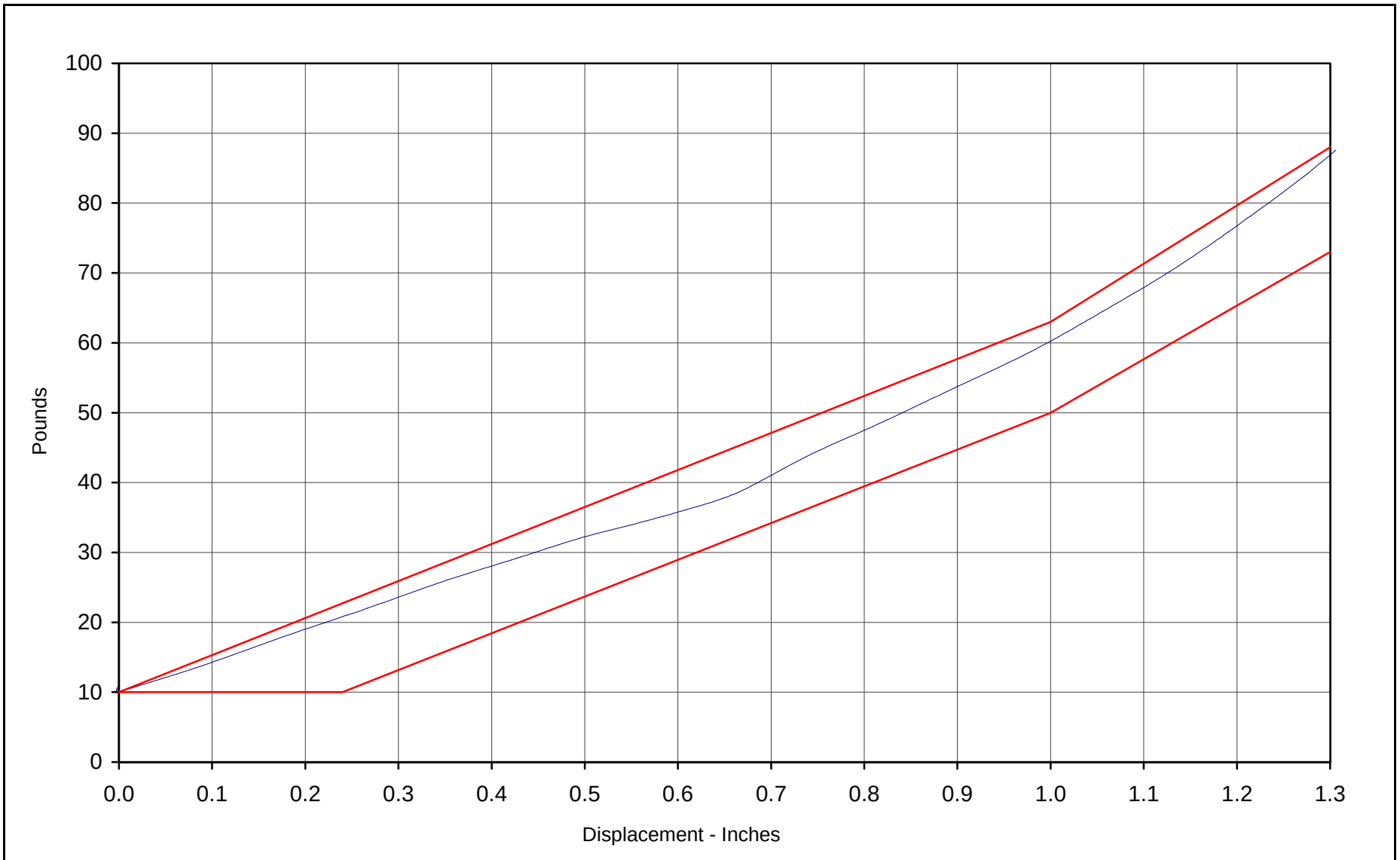
Test I.D.: AC11B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	32.2	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	44.4	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	60.2	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	86.8	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date



Curve Description: Abdomen Force vs. Displacement

Force at 0.5 In.: 32.2 Pounds

Force at 0.75 In.: 44.4 Pounds

Force at 1.0 In.: 60.2 Pounds

Force at 1.3 In.: 86.8 Pounds

Date of Test: 11/13/01

Test Program: SID Abdominal Compression

Test Information: SID S/N: 275 Test I.D.: AC11B





Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: HD11B

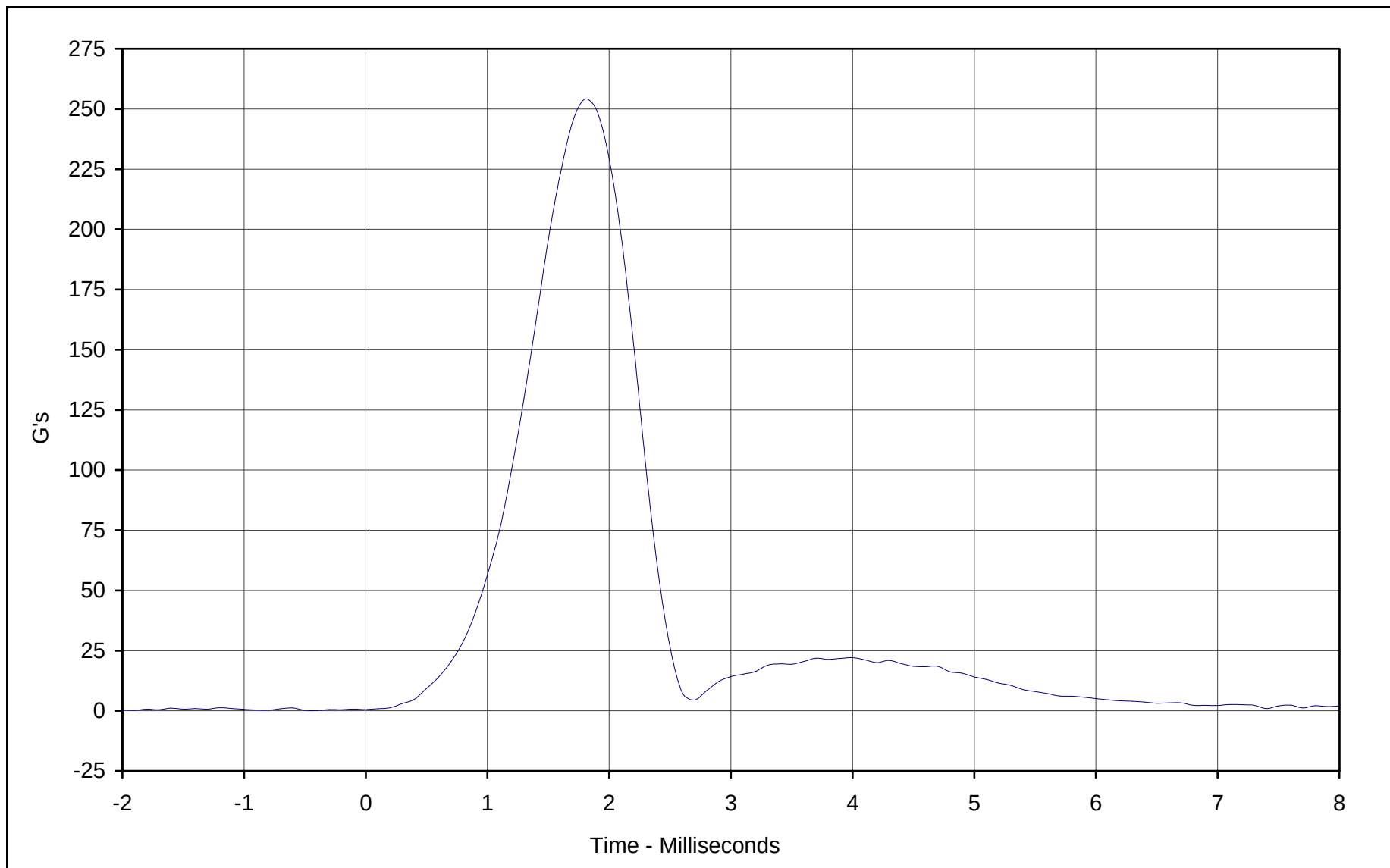
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	254.1	Pass
Peak Lateral Acceleration	G's	≤10.0	3.1	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.2	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 13, 2001

Test Date

C-23



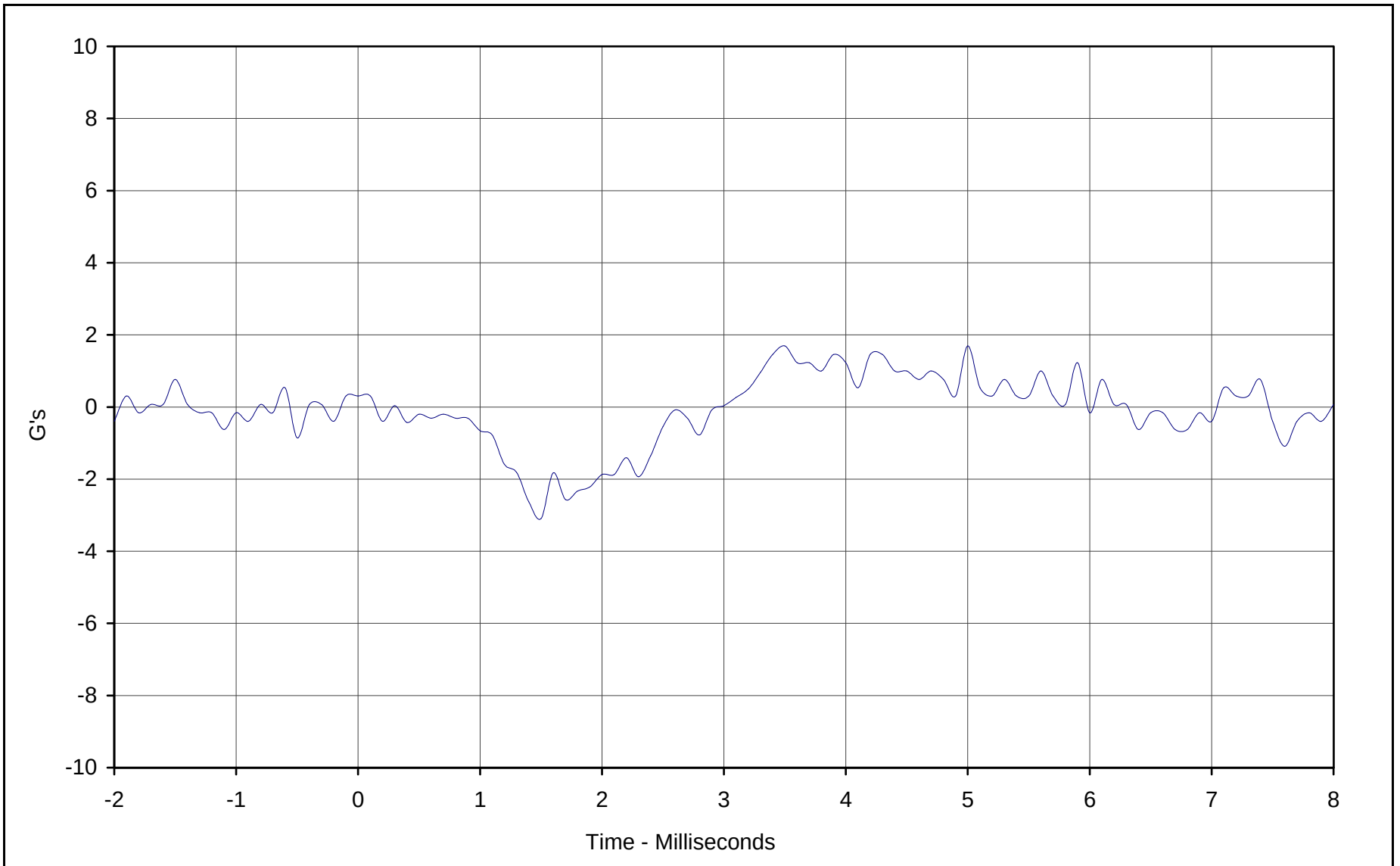
Curve Description: Head Resultant Acceleration
Maximum Value: 254.1 at 1.8 Milliseconds
Minimum Value: 0.6 at 0.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/13/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 275 Test I.D.: HD11B



KAR22003-01

C-24



Curve Description: Head Y Axis Acceleration

Maximum Value: 1.7 at 3.5 Milliseconds

Minimum Value: -3.1 at 1.5 Milliseconds

SAE Filter Class: 1000

Date of Test: 11/13/01

Test Program: SID Head Drop Calibration

Test Information: SID S/N: 275 Test I.D.: HD11B



KAR22003-01

APPENDIX C
POST-TEST SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA



Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	21.1	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	515	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	520	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 274

Part Serial No.: N/A

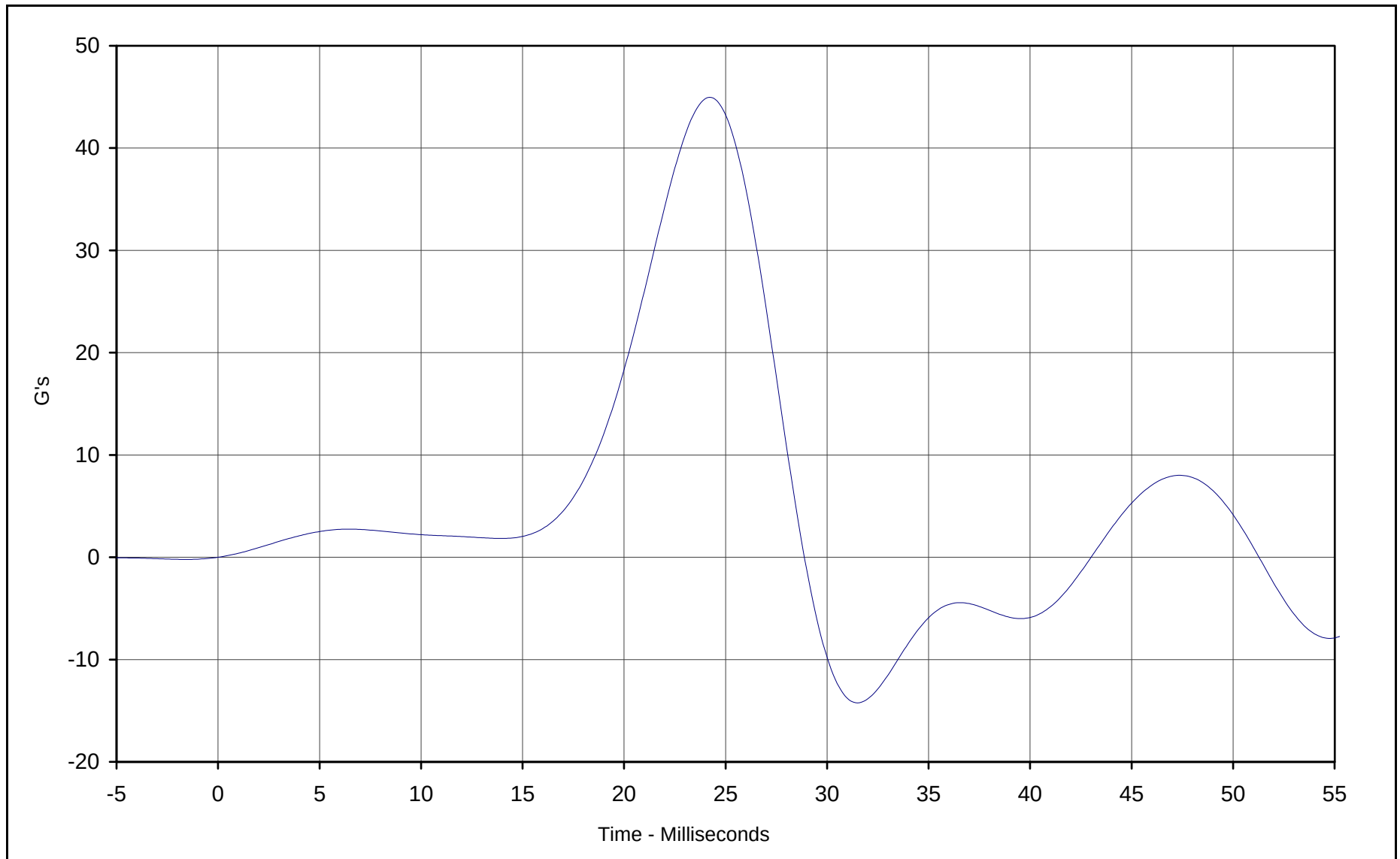
Test I.D.: TI11C

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	45.0	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	40.3	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	17.6	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

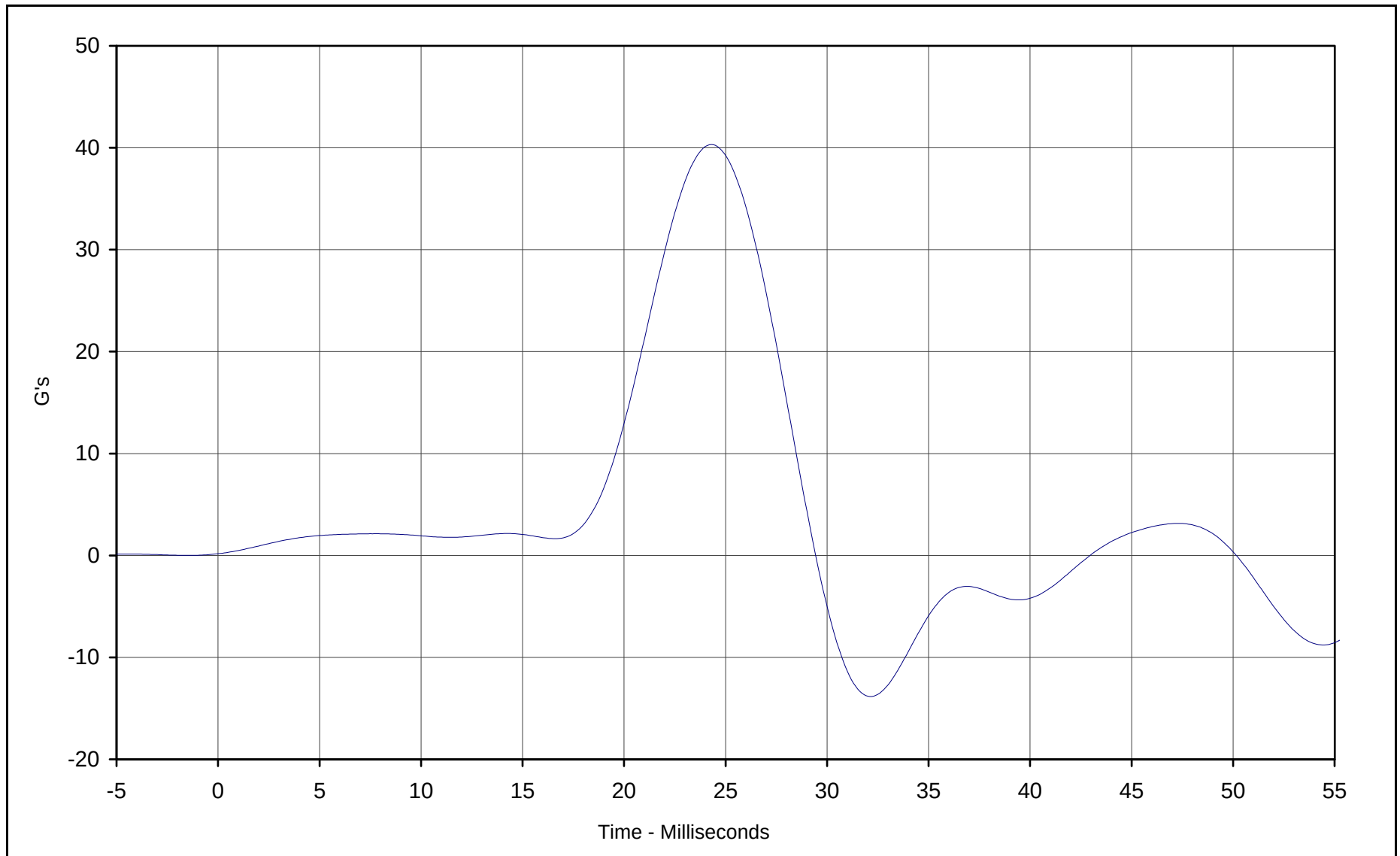


Curve Description: Left Upper Rib Y Acceleration
Maximum Value: 45.0 at 24.2 Milliseconds
Minimum Value: -14.2 at 31.5 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/15/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 274 Test I.D.: TI11C



C-28



Curve Description: Left Lower Rib Y Acceleration

Maximum Value: 40.3 at 24.3 Milliseconds

Minimum Value: -13.8 at 32.1 Milliseconds

SAE Filter Class: FIR 100

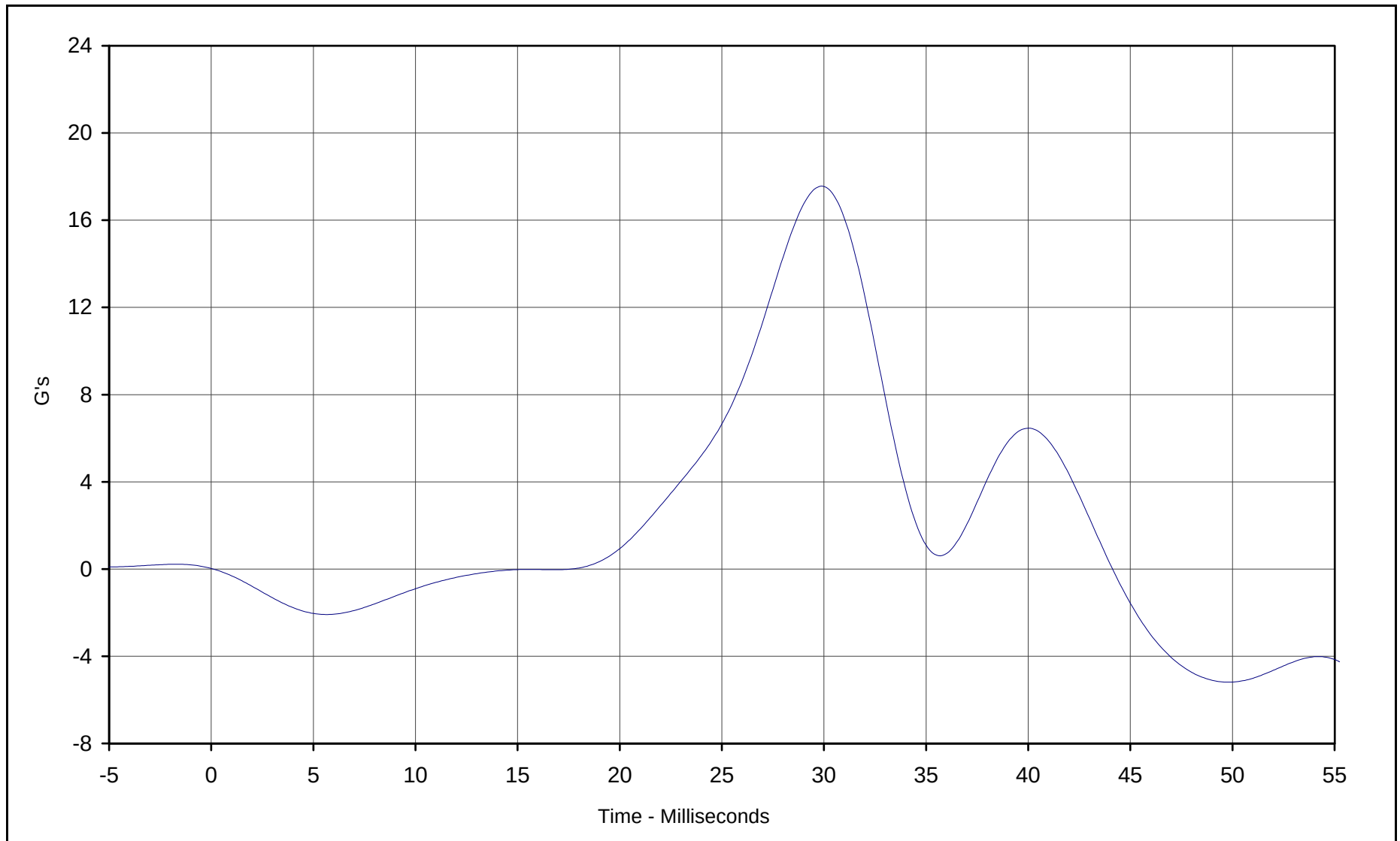
Date of Test: 11/15/01

Test Program: SID Thorax Lateral Impact Test

Test Information: SID S/N: 274 Test I.D.: TI11C



KAR2003-01



Curve Description: Lower Spine Y Acceleration
Maximum Value: 17.6 at 29.9 Milliseconds
Minimum Value: -7.2 at 59.6 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/15/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 274 Test I.D.: TI11C





Performance Verification Data Side Impact Dummy (SID) Left Side Pelvis Lateral Impact

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: PI11C

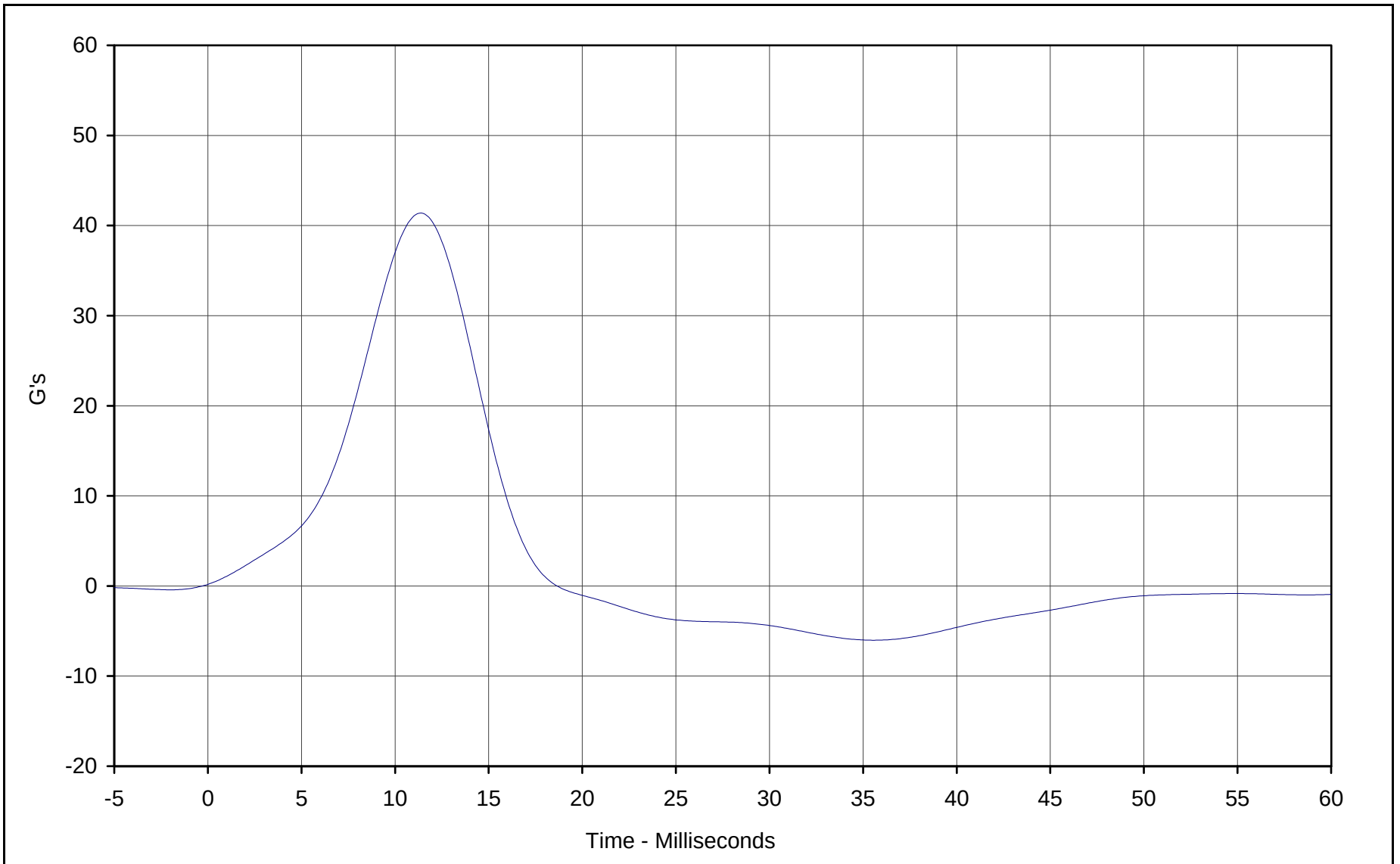
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Pelvis Acceleration	G's	40.0 to 60.0	41.4	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	7.0	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

C-31



Curve Description: Pelvis Y Axis Acceleration
Maximum Value: 41.4 at 11.4 Milliseconds
Minimum Value: -6.0 at 35.6 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/15/01

Test Program: SID Left Side Pelvis Lateral Impact
Test Information: SID S/N: 274 Test I.D.: PI11C



KAR22003-01



Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: AB11C

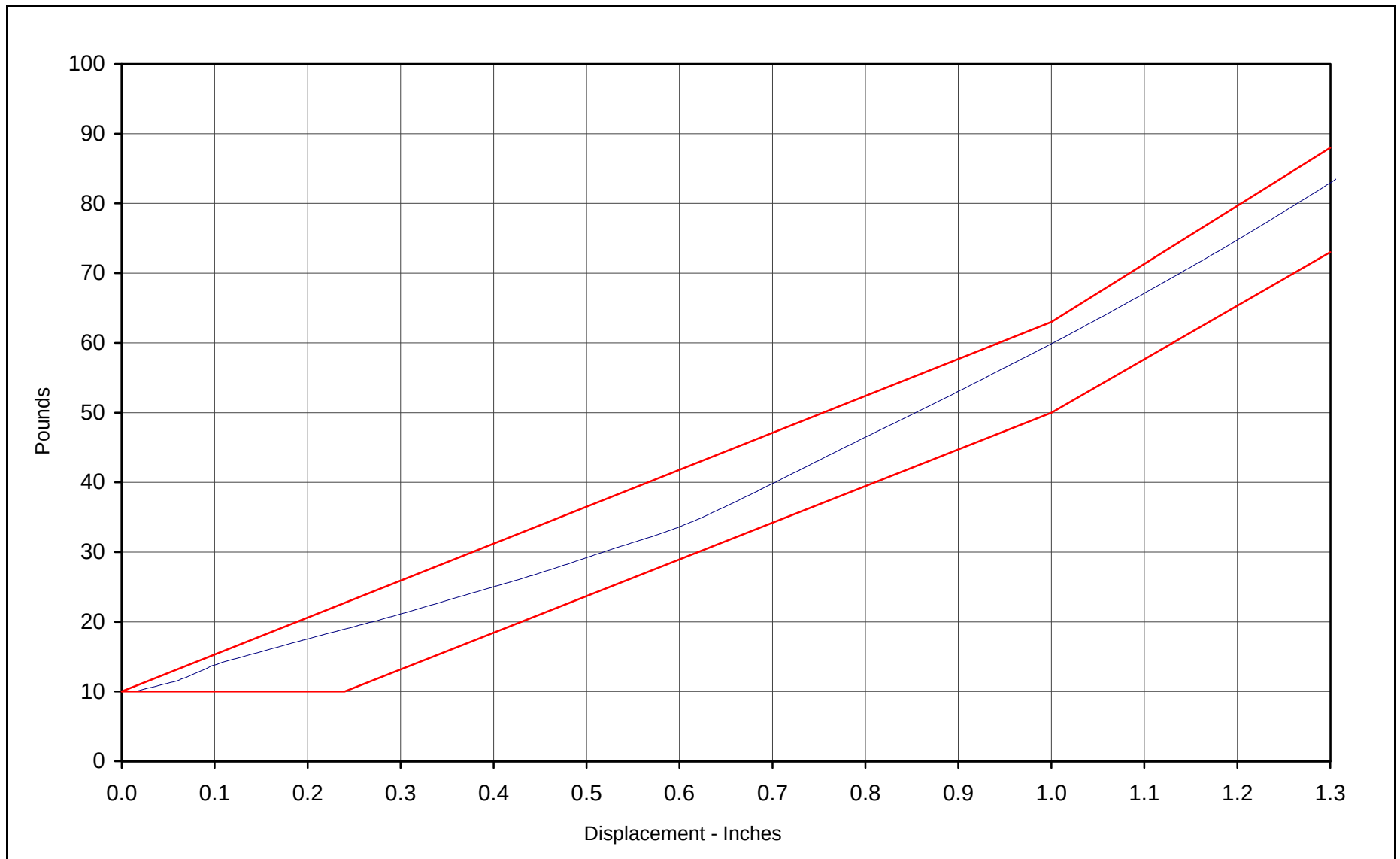
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	29.0	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	43.1	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	59.9	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	82.9	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

C-33

Curve Description: Abdomen Force vs. DisplacementForce at 0.5 In.: 29.0 PoundsForce at 0.75 In.: 43.1 PoundsForce at 1.0 In.: 59.9 PoundsForce at 1.3 In.: 82.9 PoundsDate of Test: 11/15/01Test Program: SID Abdominal CompressionTest Information: SID S/N: 274 Test I.D.: AB11C

KAR2003-01



Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 274

Part Serial No.: N/A

Test I.D.: HD11C

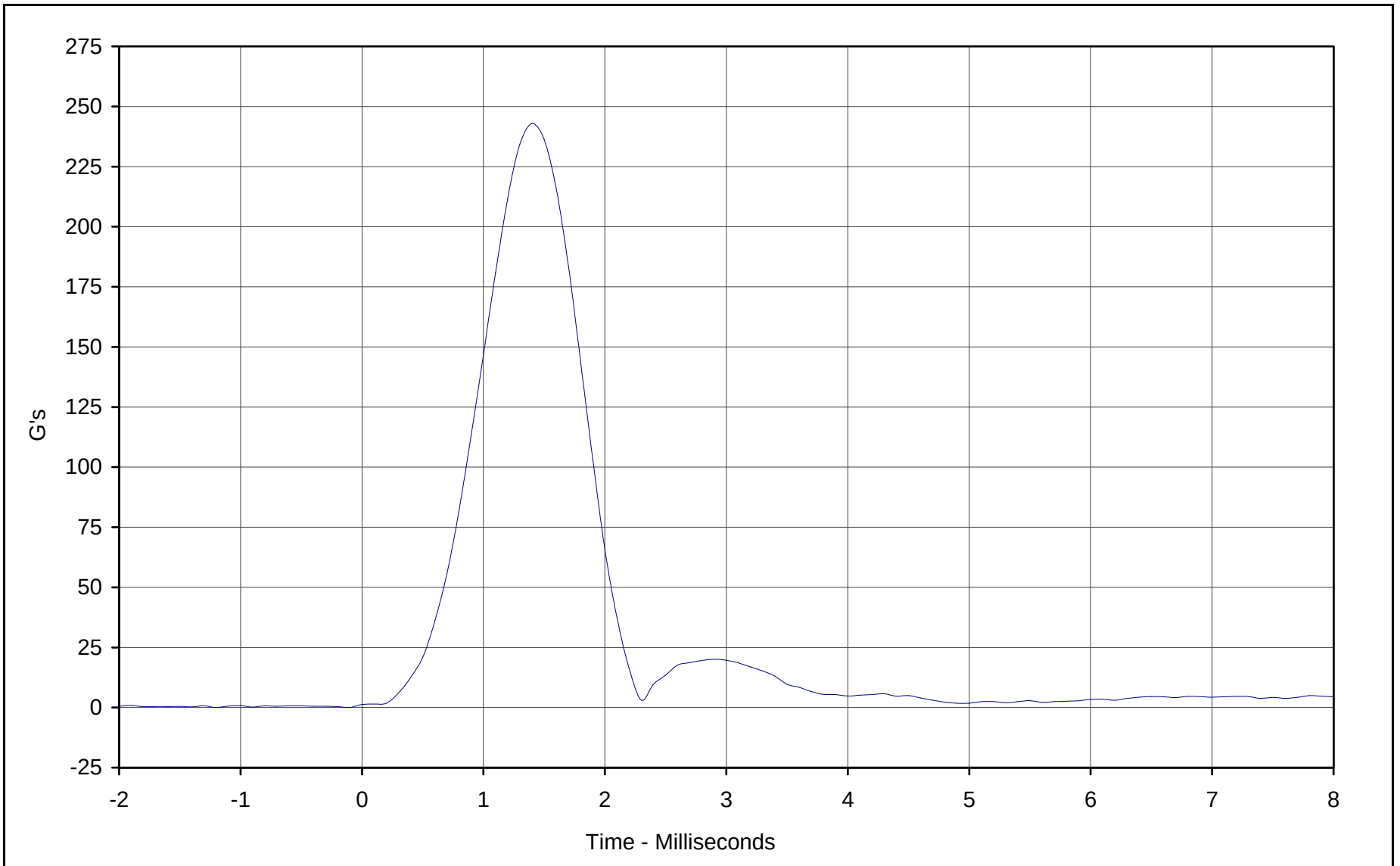
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	242.9	Pass
Peak Lateral Acceleration	G's	≤10.0	4.0	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.1	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

C-35



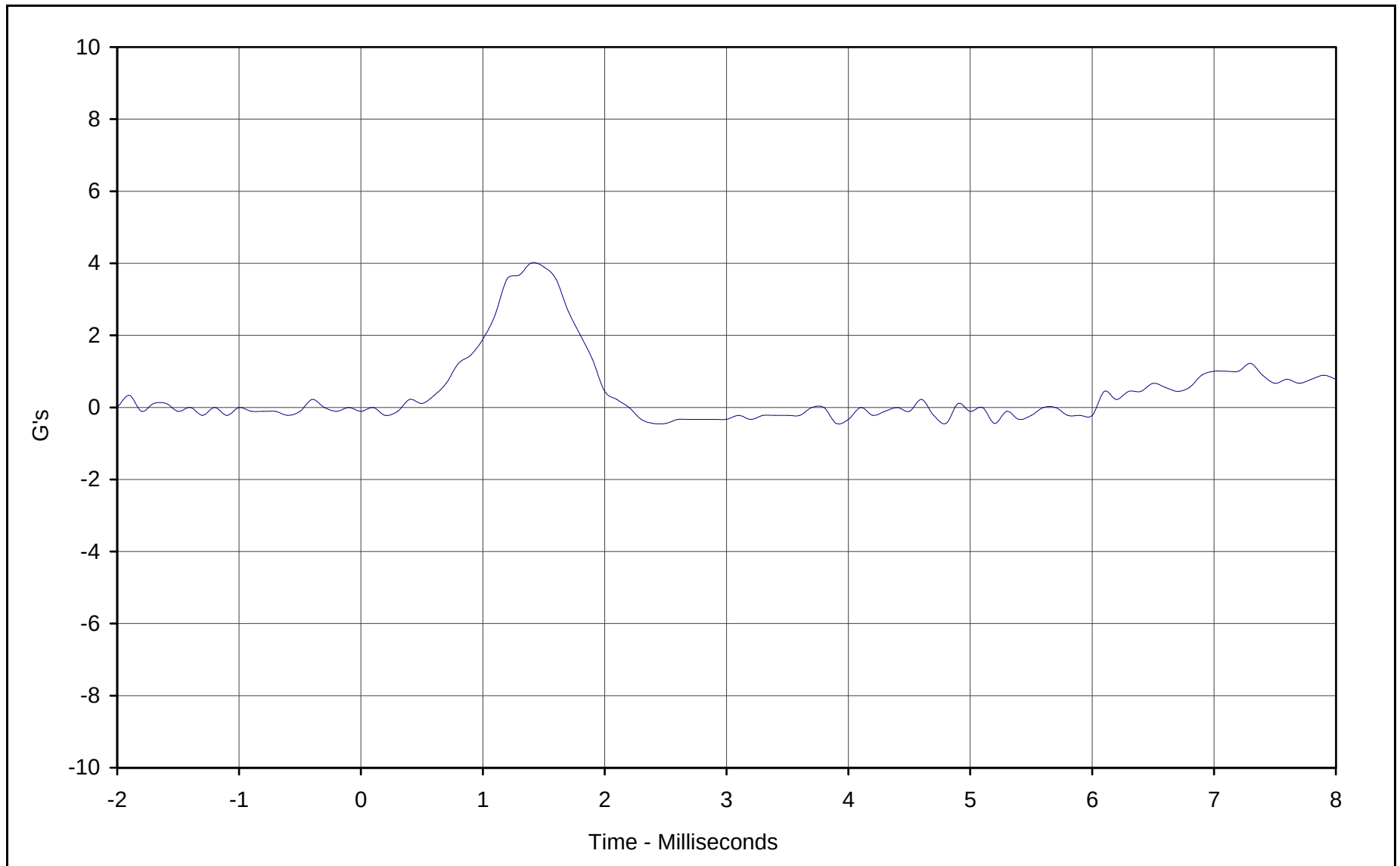
Curve Description: Head Resultant Acceleration
Maximum Value: 242.9 at 1.4 Milliseconds
Minimum Value: 1.3 at 0.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/15/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 274 Test I.D.: HD11C



KAR2003-01

C-36



Curve Description: Head Y Axis Acceleration

Maximum Value:	4.0	at	1.4	Milliseconds
Minimum Value:	-0.4	at	2.4	Milliseconds
SAE Filter Class:	1000			
Date of Test:	11/15/01			

Test Program: SID Head Drop Calibration

Test Information: SID S/N: 274 Test I.D.: HD11C



KAR2003-01



Performance Verification Data Side Impact Dummy (SID) External Dimensions

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: N/A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	21.1	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	895	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	385	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001
Test Date



Performance Verification Data Side Impact Dummy (SID) Thorax Lateral Impact

ATD Serial No.: 275

Part Serial No.: N/A

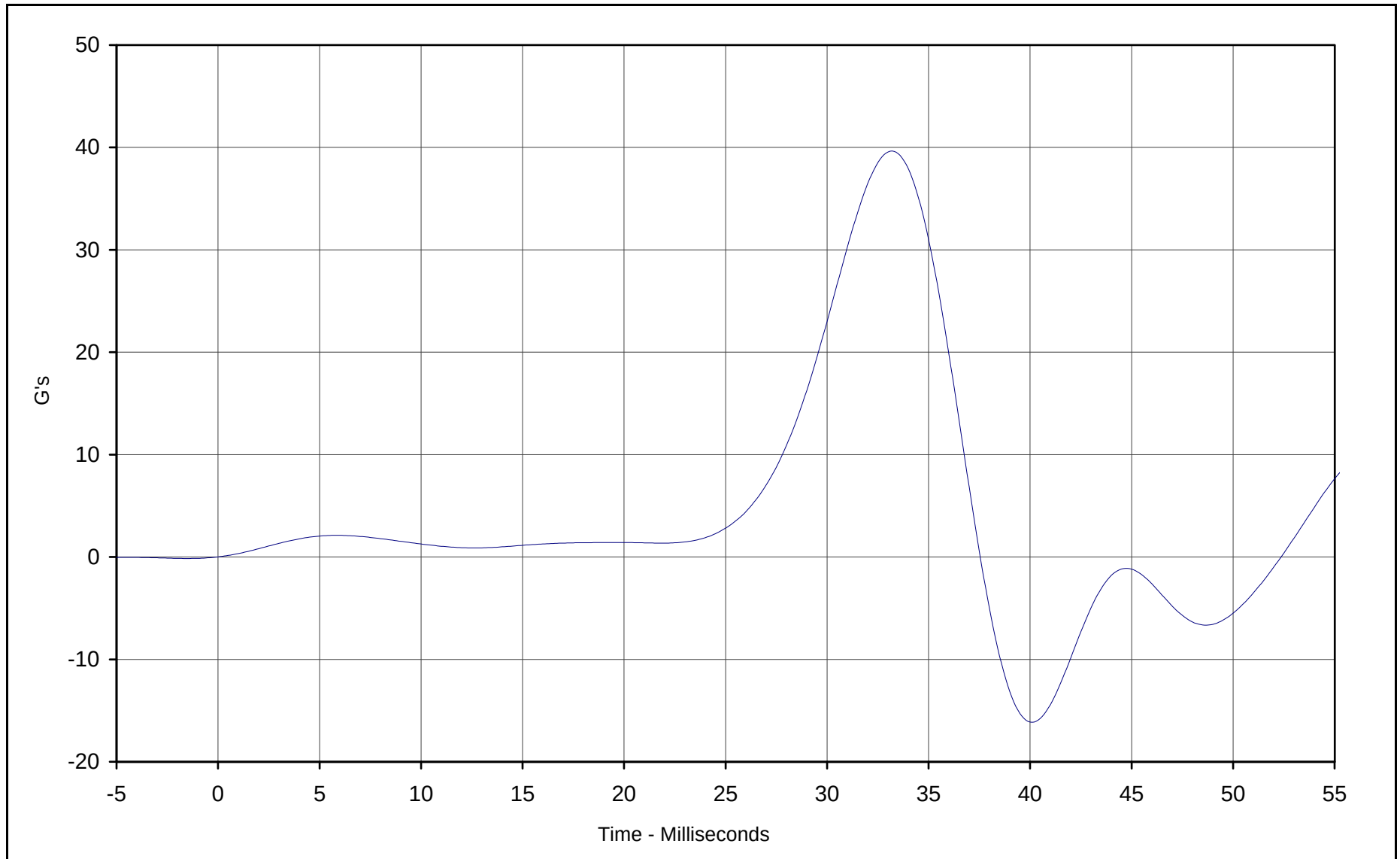
Test I.D.: TI11D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.27	Pass
Left Upper Rib Acceleration	G's	37.0 to 46.0	39.6	Pass
Left Lower Rib Acceleration	G's	37.0 to 46.0	40.6	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.5	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date



Curve Description: Left Upper Rib Y Acceleration

Maximum Value: 39.6 at 33.2 Milliseconds

Minimum Value: -16.1 at 40.1 Milliseconds

SAE Filter Class: FIR 100

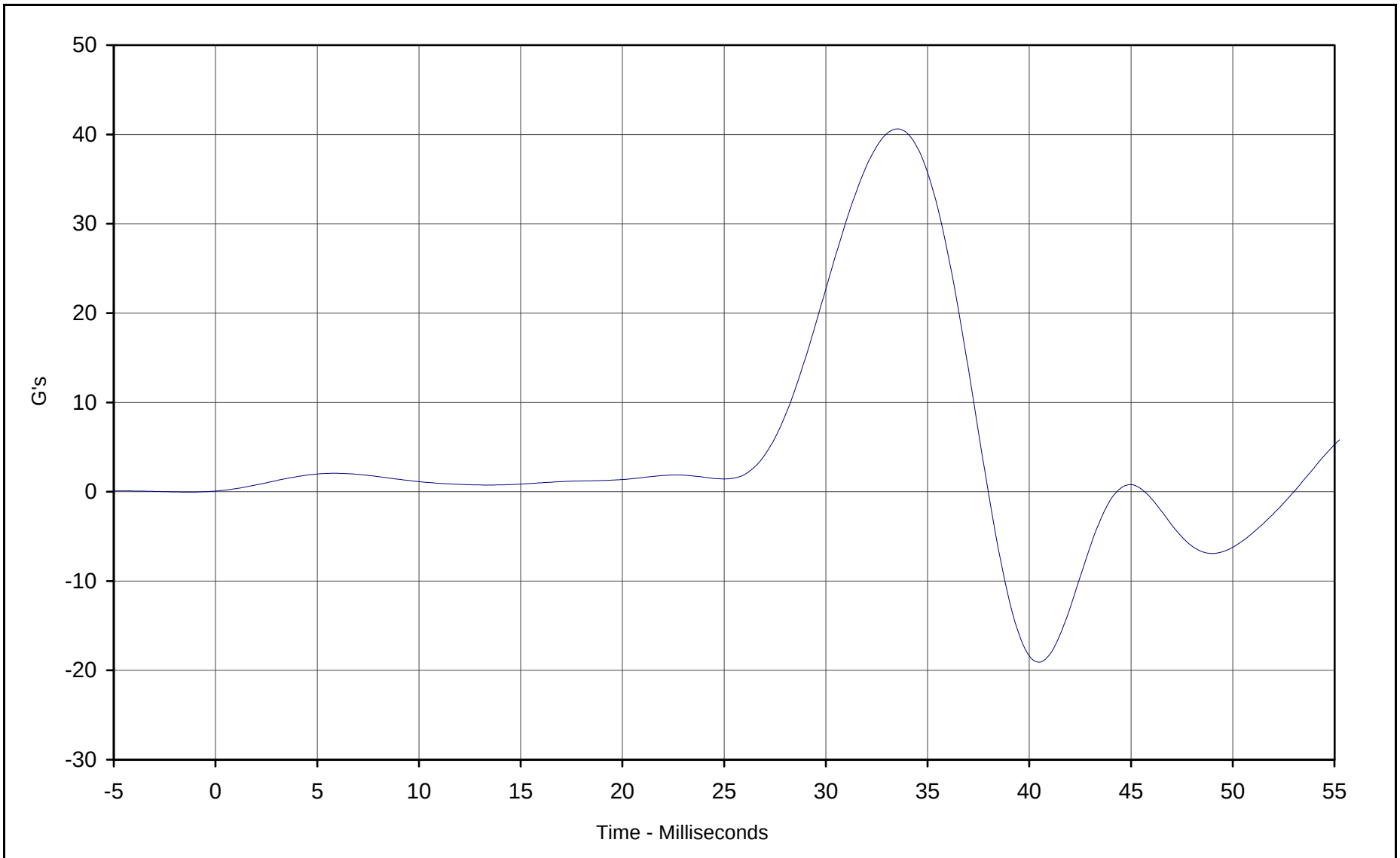
Date of Test: 11/15/01

Test Program: SID Thorax Lateral Impact Test

Test Information: SID S/N: 275 Test I.D.: TI11D



C-40



Curve Description: Left Lower Rib Y Acceleration

Maximum Value: 40.6 at 33.5 Milliseconds

Minimum Value: -19.1 at 40.5 Milliseconds

SAE Filter Class: FIR 100

Date of Test: 11/15/01

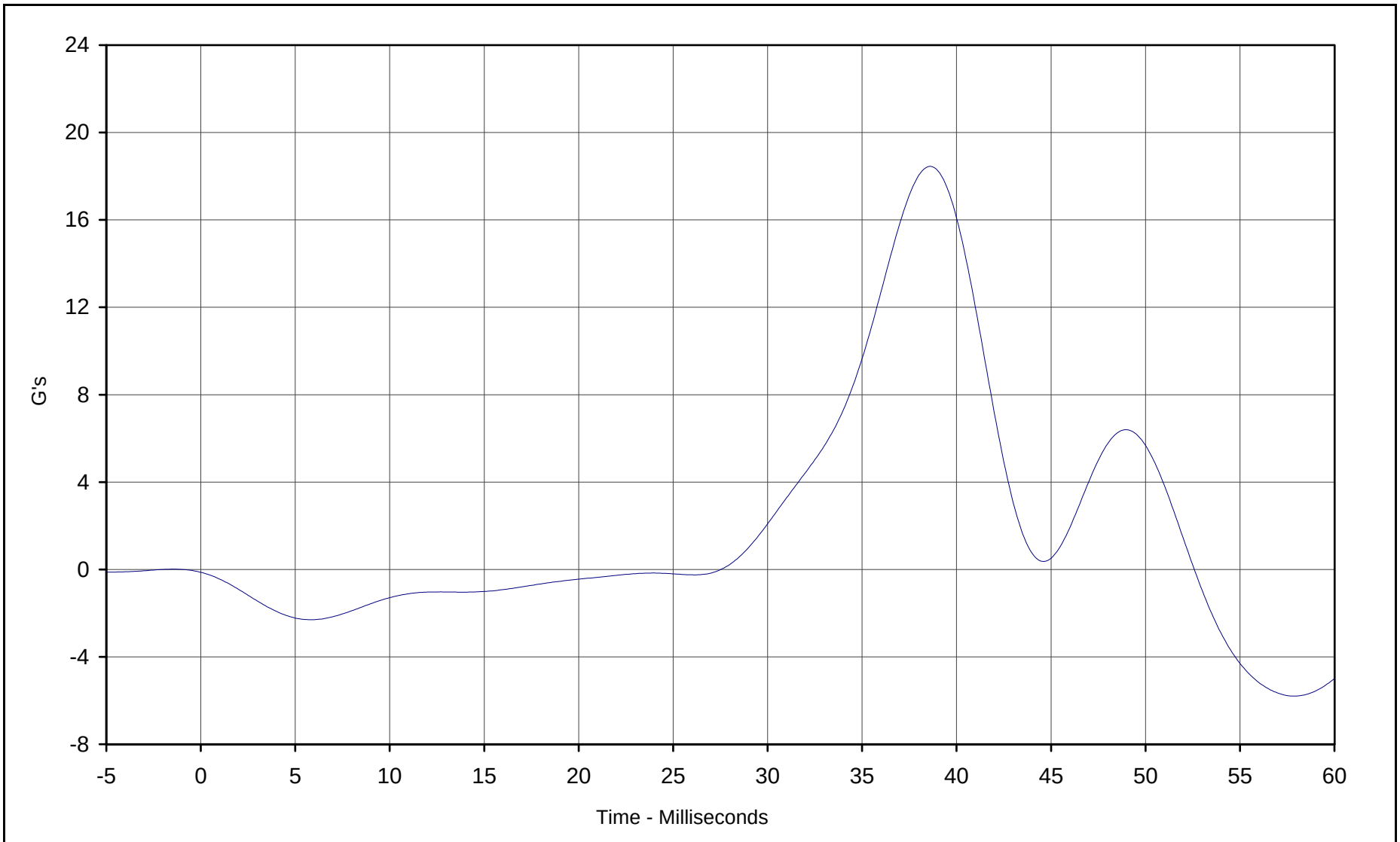
Test Program: SID Thorax Lateral Impact Test

Test Information: SID S/N: 275 Test I.D.: TI11D



KAR2003-01

C-41



Curve Description: Lower Spine Y Acceleration
Maximum Value: 18.5 at 38.6 Milliseconds
Minimum Value: -5.8 at 57.9 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/15/01

Test Program: SID Thorax Lateral Impact Test
Test Information: SID S/N: 275 Test I.D.: TI11D



KAR2003-01



Performance Verification Data Side Impact Dummy (SID) Left Side Pelvis Lateral Impact

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: PI11D

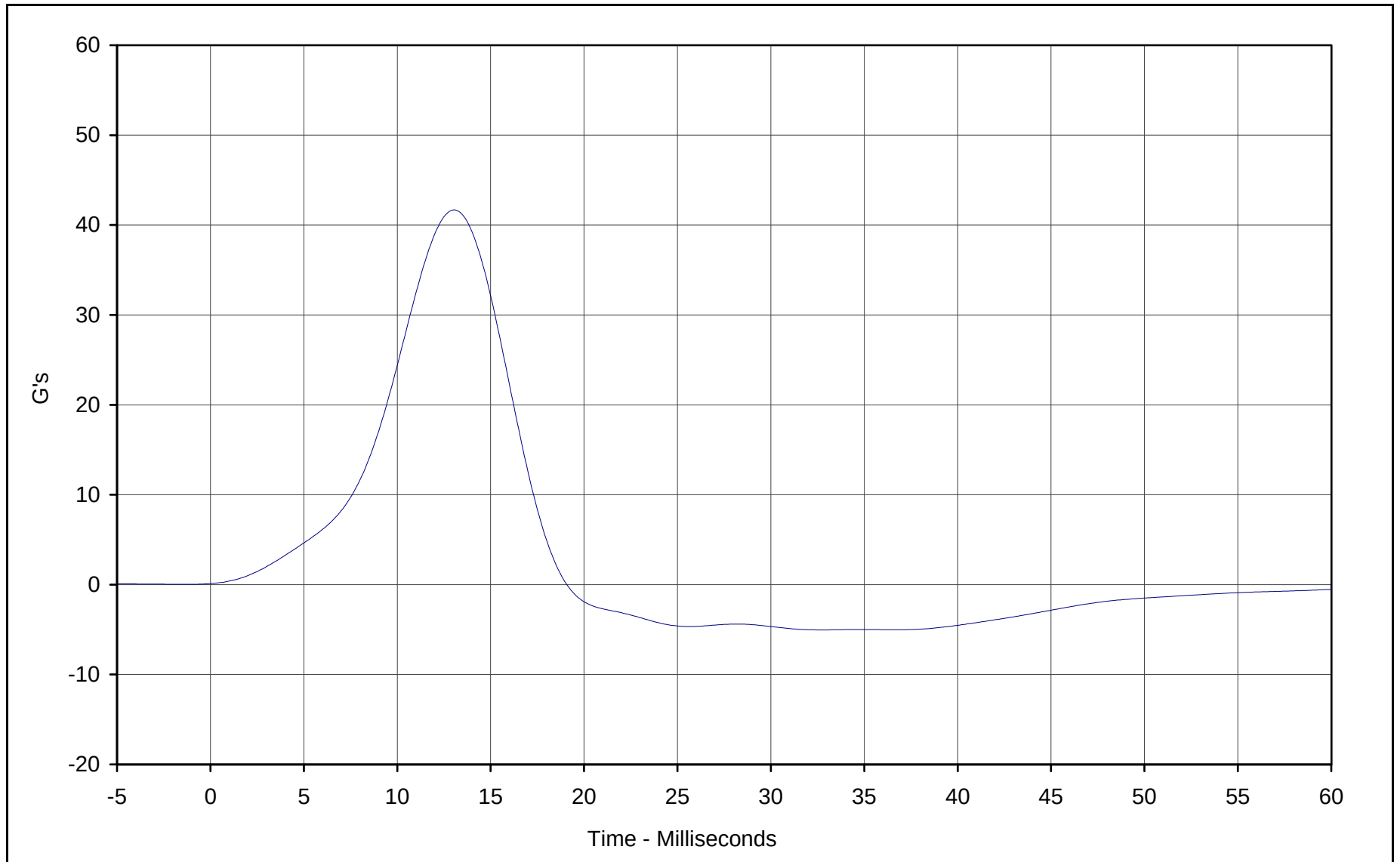
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.33	Pass
Pelvis Acceleration	G's	40.0 to 60.0	41.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0 Msec.	6.8	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

C-43



Curve Description: Pelvis Y Axis Acceleration
Maximum Value: 41.7 at 13.0 Milliseconds
Minimum Value: -5.0 at 32.8 Milliseconds
SAE Filter Class: FIR 100
Date of Test: 11/15/01

Test Program: SID Left Side Pelvis Lateral Impact
Test Information: SID S/N: 275 Test I.D.: PI11D



KAR22003-01



Performance Verification Data Side Impact Dummy (SID) Abdominal Compression Test

ATD Serial No.: 275

Part Serial No.: N/A

Test I.D.: AB11D

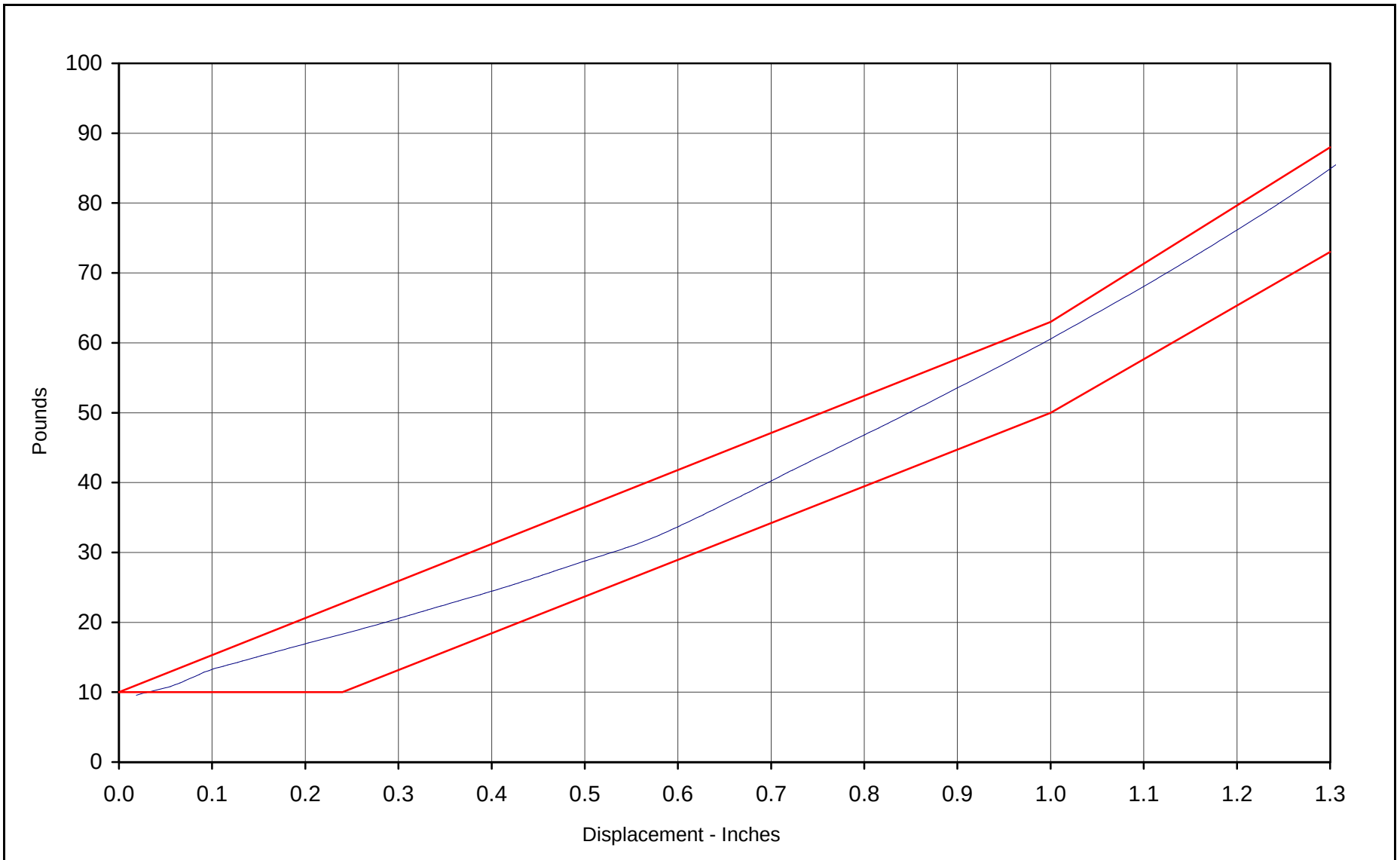
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Force at 0.5 Inches of Displacement	Pounds	23.0 to 36.0	28.7	Pass
Force at 0.75 Inches of Displacement	Pounds	36.0 to 50.0	43.3	Pass
Force at 1.0 Inches of Displacement	Pounds	50.0 to 63.0	60.5	Pass
Force at 1.3 Inches of Displacement	Pounds	73.0 to 88.0	84.6	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001

Test Date

C-45



Curve Description: Abdomen Force vs. Displacement

Force at 0.5 In.: 28.7 Pounds

Force at 0.75 In.: 43.3 Pounds

Force at 1.0 In.: 60.5 Pounds

Force at 1.3 In.: 84.6 Pounds

Date of Test: 11/15/01

Test Program: SID Abdominal Compression

Test Information: SID S/N: 275 Test I.D.: AB11D



KAR2003-01



Performance Verification Data Side Impact Dummy (SID) Head Drop Calibration

ATD Serial No.: 275

Part Serial No.: N/A

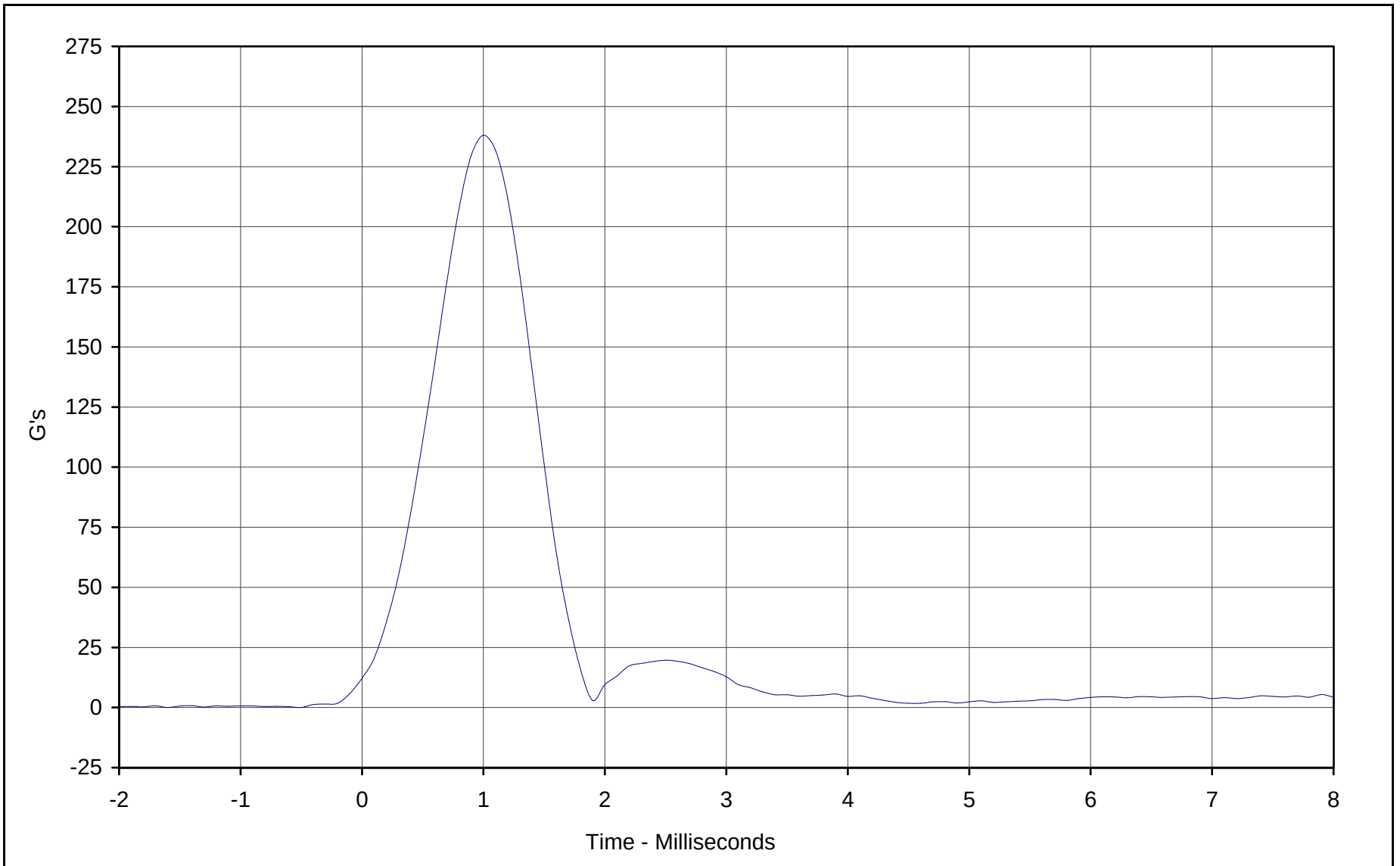
Test I.D.: HD11D

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°F	66 to 78	70	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	210.0 to 260.0	238.1	Pass
Peak Lateral Acceleration	G's	≤10.0	2.0	Pass
Time Above 100 G's	Msec.	0.9 to 1.5	1.1	Pass
Is Resultant Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

November 15, 2001
Test Date

C-47



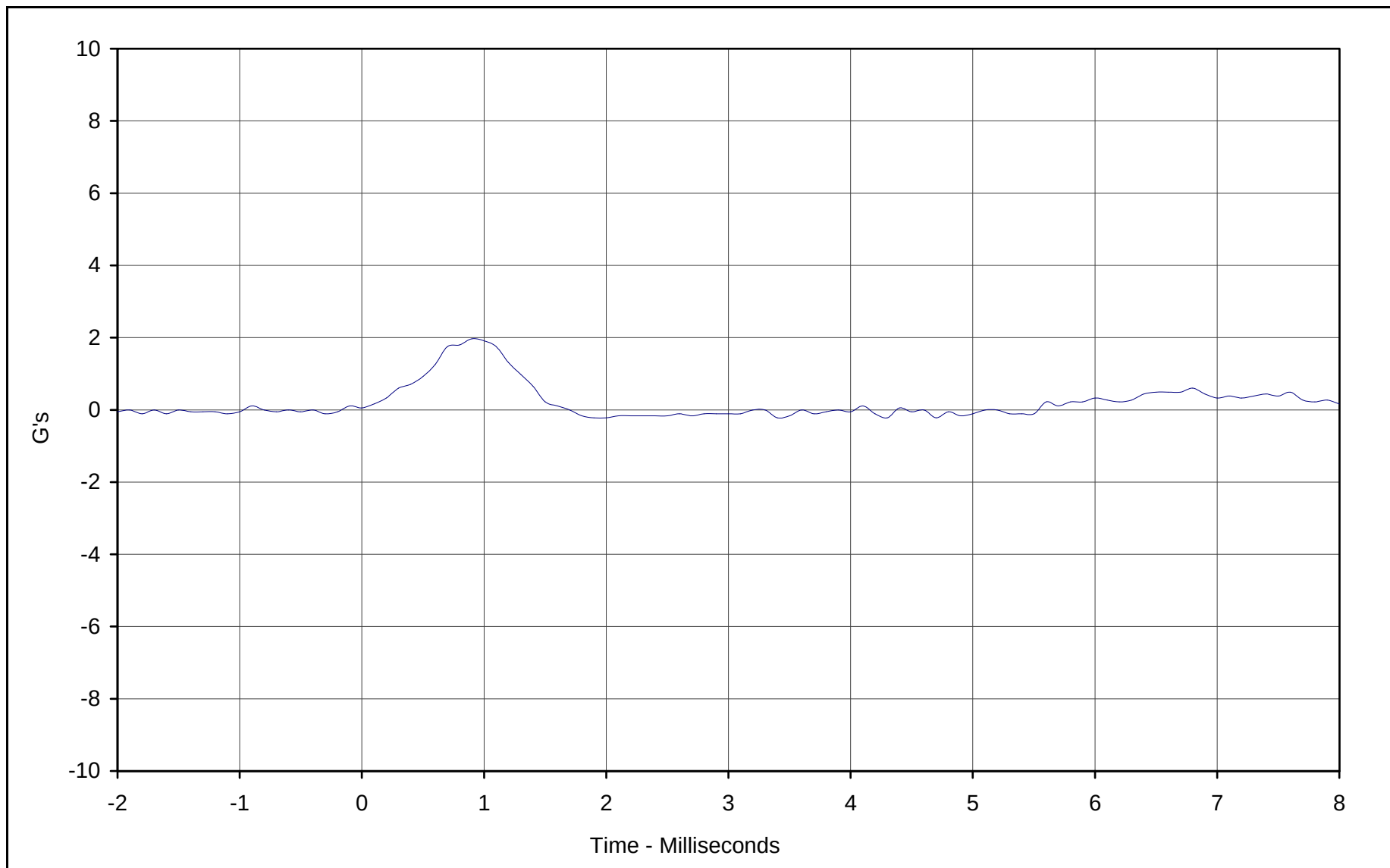
Curve Description: Head Resultant Acceleration
Maximum Value: 238.1 at 1.0 Milliseconds
Minimum Value: 1.8 at 4.5 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/15/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 275 Test I.D.: HD11D



KAR2003-01

C-48



Curve Description: Head Y Axis Acceleration
Maximum Value: 2.0 at 0.9 Milliseconds
Minimum Value: -0.2 at 1.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 11/15/01

Test Program: SID Head Drop Calibration
Test Information: SID S/N: 275 Test I.D.: HD11D



KAR2003-01

APPENDIX D
TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver S.I.D. Serial Number 274
11/14/01
2002 Chevrolet Trailblazer LS 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	Head CG	X	KEAC086	Accel.,1/2 bridge	Endevco	7264-2000X	G
2	Head CG	Y	KEAC087	Accel.,1/2 bridge	Endevco	7264-2000Y	G
3	Head CG	Z	KEAC088	Accel.,1/2 bridge	Endevco	7264-2000Z	G
4	Upper Rib Primary	Y	KEAC070	Accel.,1/2 bridge	Endevco	7264-2000X	G
5	Lower Rib, Primary	Y	KEAC071	Accel.,1/2 bridge	Endevco	7264-2000Y	G
6	Lower Spine, Primary	Y	KEAC072	Accel.,1/2 bridge	Endevco	7264-2000Z	G
7	Pelvis, Primary	Y	KEAC090	Accel.,Full bridge	Endevco	7264-2000X	G
8	Upper Rib Redundant	Y	KEAC076	Accel.,1/2 bridge	Endevco	7264-2000X	G
9	Lower Rib, Redundant	Y	KEAC077	Accel.,1/2 bridge	Endevco	7264-2000Y	G
10	Lower Spine, Redundant	Y	KEAC078	Accel.,1/2 bridge	Endevco	7264-2000Z	G
11	Pelvis, Redundant	Y	KEAC089	Accel.,1/2 bridge	Endevco	7264-2000X	G
12	Thorax Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
13	Pelvis Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Passenger S.I.D. Serial Number 275
11/14/01
2002 Chevrolet Trailblazer LS 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
14	Head CG	X	KEAC069	Accel.,1/2 bridge	Endevco	7264-2000X	G
15	Head CG	Y	KEAC080	Accel.,1/2 bridge	Endevco	7264-2000Y	G
16	Head CG	Z	KEAC082	Accel.,1/2 bridge	Endevco	7264-2000Z	G
17	Upper Rib Primary	Y	KEAC066	Accel.,1/2 bridge	Endevco	7264-2000X	G
18	Lower Rib, Primary	Y	KEAC067	Accel.,1/2 bridge	Endevco	7264-2000Y	G
19	Lower Spine, Primary	Y	KEAC068	Accel.,1/2 bridge	Endevco	7264-2000Z	G
20	Pelvis, Primary	Y	KEAC079	Accel.,1/2 bridge	Endevco	7264-2000X	G
21	Upper Rib Redundant	Y	KEAC073	Accel.,1/2 bridge	Endevco	7264-2000X	G
22	Lower Rib, Redundant	Y	KEAC074	Accel.,1/2 bridge	Endevco	7264-2000Y	G
23	Lower Spine, Redundant	Y	KEAC075	Accel.,1/2 bridge	Endevco	7264-2000Z	G
24	Pelvis, Redundant	Y	KEAC081	Accel.,1/2 bridge	Endevco	7264-2000X	G
25	Thorax Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
26	Pelvis Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers

11/14/01

2002 Chevrolet Trailblazer LS 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
27	Right at Sill Front Seat	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
28	Right at Sill Front Seat	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
29	Right at Sill Front Seat	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G
30	Right at Sill Rear Seat	X	KETX3A	Accel., Triax	I.C. Sensor	3031-500	G
31	Right at Sill Rear Seat	Y	KETX3B	Accel., Triax	I.C. Sensor	3031-500	G
32	Right at Sill Rear Seat	Z	KETX3C	Accel., Triax	I.C. Sensor	3031-500	G
33	Rear Floorpan Above Axle	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
34	Rear Floorpan Above Axle	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
35	Rear Floorpan Above Axle	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
36	Left Sill at Rear Door	Y	KEVA012	Accel., Vehicle block	I.C. Sensor	3031-500	G
37	Left Sill at Front Door	Y	KEVA001	Accel., Vehicle block	I.C. Sensor	3031-500	G
38	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
39	Rear Occupant Compartment	Y	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
40	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
41	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
42	Rear Door Mid-Rear	Y	ICST005X	Accel., Triax	I.C. Sensor	3031-500	G
43	Rear Door Upper Centerline	Y	ICST005Y	Accel., Triax	I.C. Sensor	3031-500	G
44	B-Post Lower	Y	KEBX2A	Accel., Biax	I.C. Sensor	3031-500	G
45	B-Post Middle	Y	KEBX2B	Accel., Biax	I.C. Sensor	3031-500	G
46	A-Post Lower	Y	KEBX1A	Accel., Biax	I.C. Sensor	3031-200	G
47	A-Post Middle	Y	KEBX1B	Accel., Biax	I.C. Sensor	3031-500	G
48	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
49	Rear Seat Structure	Y	N/A	N/A	N/A	N/A	N/A
50	Vehicle CG	X	KETX2A	Accel., Triax	I.C. Sensor	3031-200	G
51	Vehicle CG	Y	KETX2B	Accel., Triax	I.C. Sensor	3031-200	G
52	Vehicle CG	Z	KETX2C	Accel., Triax	I.C. Sensor	3031-200	G

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier
11/14/01
2002 Chevrolet Trailblazer LS 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
53	MDB CG	X	ICST001X	Accel., Triax	I.C. Sensor	3031-100	G
54	MDB CG	Y	ICST001Y	Accel., Triax	I.C. Sensor	3031-100	G
55	MDB CG	Z	ICST001Z	Accel., Triax	I.C. Sensor	3031-100	G
56	MDB Rear Centerline	X	ICST002X	Accel., Biax	I.C. Sensor	3031-100	G
57	MDB Rear Centerline	Y	ICST002Y	Accel., Biax	I.C. Sensor	3031-100	G
58	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	40 oz. Grey	%