

# BLUNT IMPACT PROTECTION

<b>NTS-Chesapeake Testing</b> 4603B Compass Point Road Belcamp, MD 21017	Client: Ganex Limited Project No.: PR251401-1 Test Date: 12/8/2023 Page No.: 1 of 8
Manufacturer: Ganex Limited	Sample ID: Shadow Armor Sys-08

Sample		
Size: Medium Weight: 2.34 lbs. Color: Green	Model: TBH (High cut) Mfg. Date: NA Lot No.: NA	Date Received: 12/6/2023 Via: UPS Returned: UPS

Setup		
Impact Type: Impact Uni-Axial Drop Mass: 6.044 kg Mount Size: D.O.T. C Mount Type: FMVSS218	Time Gate Flag : 25.32 mm Temperature: 67.5 °F Humidity: 49.2 % Conditioning: Ambient	Tester: Johnathan Harris Recorder: Johnathan Harris Filtering: CFC 1000 1650Hz Sensitivity: 10.83 mV/G

## Applicable Standards or Procedures

- (1) AR/PD 10-02 Rev. A
- (2) Customer Request

Requirement Number	Inspection Pass/Fail	Inspection Requirement
1	NA	There shall be no physical damage to the helmet shell such as shell fracture, defined as a separation/split of the ballistic material through the entire thickness of the helmet shell, or indentation depth in excess of 0.2 inches present after impact testing (delamination and ply separation are permitted).
2	Pass	There should be no damage to any part of the retention system or pad system.

Impact Number	Impact Location	Pass/Fail Criteria <150 G	Peak Acc. (G)	Impact Velocity (ft/s)	Drop Height (in)	Strike Energy (J)	Head Injury Criteria (HIC)	Severity Index (SI)	Impact Deformation (in)
1	Crown	Pass	62.0	10.0	19.9	28.2	87.0	115.0	Not Available
2	Crown	Pass	62.4	10.0	19.9	28.1	97.0	121.0	Available
3	Front	Pass	59.1	10.0	19.9	28.2	85.0	107.0	Not Available
4	Front	Pass	83.6	10.0	19.9	28.1	127.0	184.0	Available
5	Rear	Pass	66.3	10.0	19.9	28.3	93.0	127.0	Not Available
6	Rear	Pass	70.1	10.1	19.9	28.4	102.0	135.0	Available
7	L Side	Pass	63.1	10.0	19.9	28.3	90.0	113.0	Not Available
8	L Side	Pass	61.5	10.0	19.9	28.1	101.0	128.0	Available
9	R Side	Pass	63.8	10.1	19.9	28.4	100.0	128.0	Not Available
10	R Side	Pass	74.2	10.1	19.9	28.4	115.0	162.0	Available
11	L Nape	Pass	81.6	10.1	19.9	28.4	131.0	189.0	Not Available
12	L Nape	Pass	78.9	10.0	19.9	28.3	137.0	189.0	Available
13	R Nape	Pass	80.9	10.1	19.9	28.4	137.0	184.0	Not Available
14	R Nape	Pass	75.5	10.0	19.9	28.2	122.0	175.0	Available

**Remarks:**

The Head Positioning Index (H.P.I) was defined at 2.5 inches and measured from the brim of the helmet to the basic plane on the headform for all impacts.

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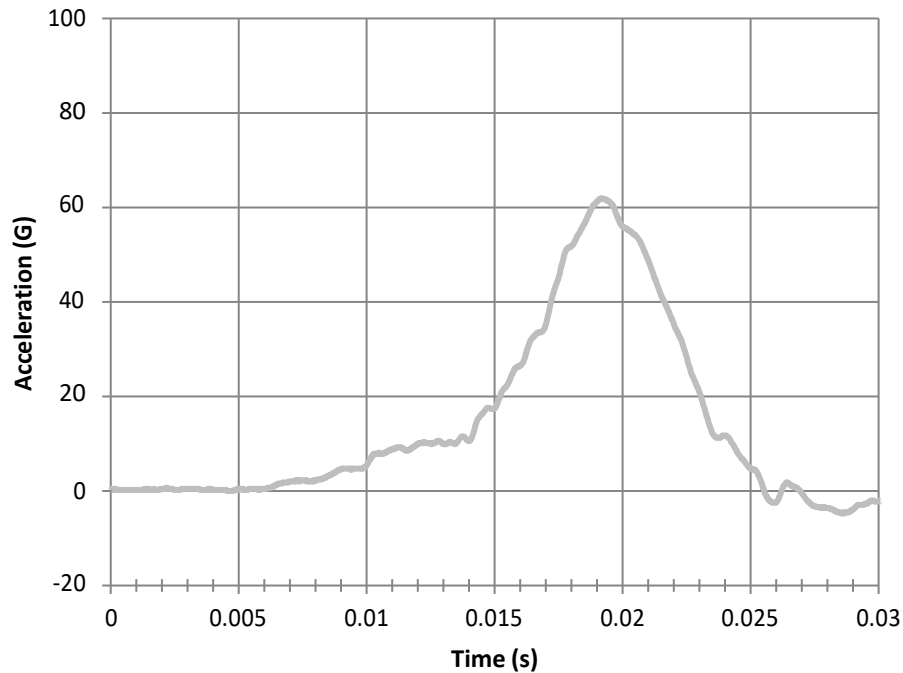
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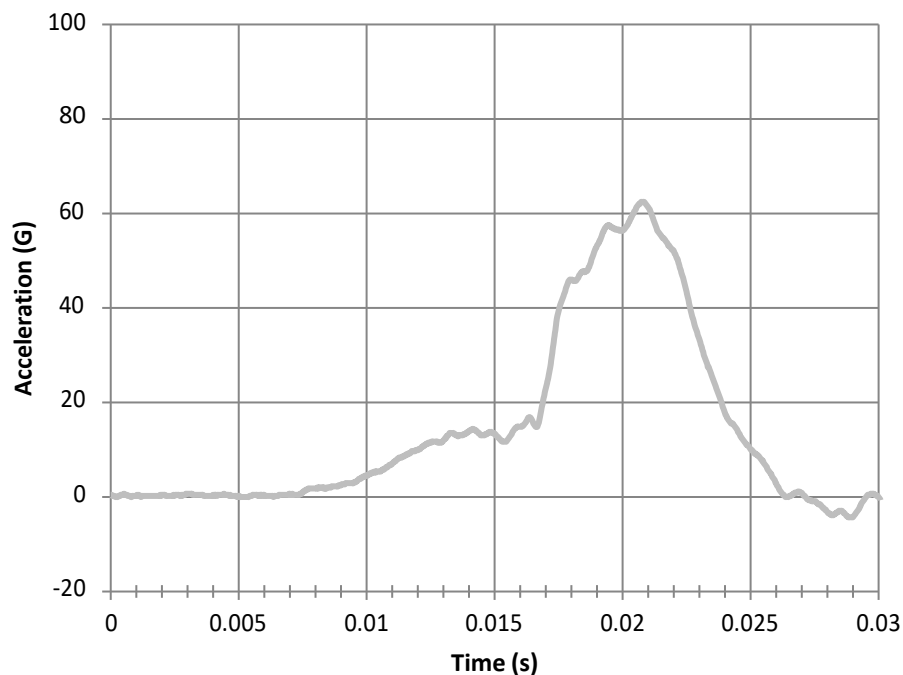
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Impact Number:	1
Impact Time:	01:56 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Crown
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	62.0
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	2
Time:	01:57 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Crown
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	62.4
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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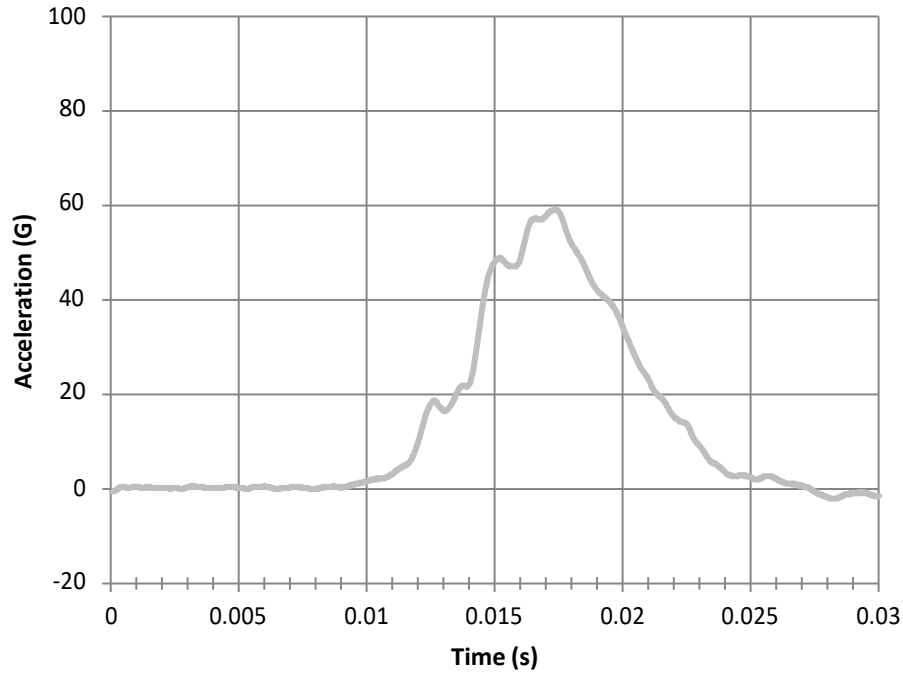
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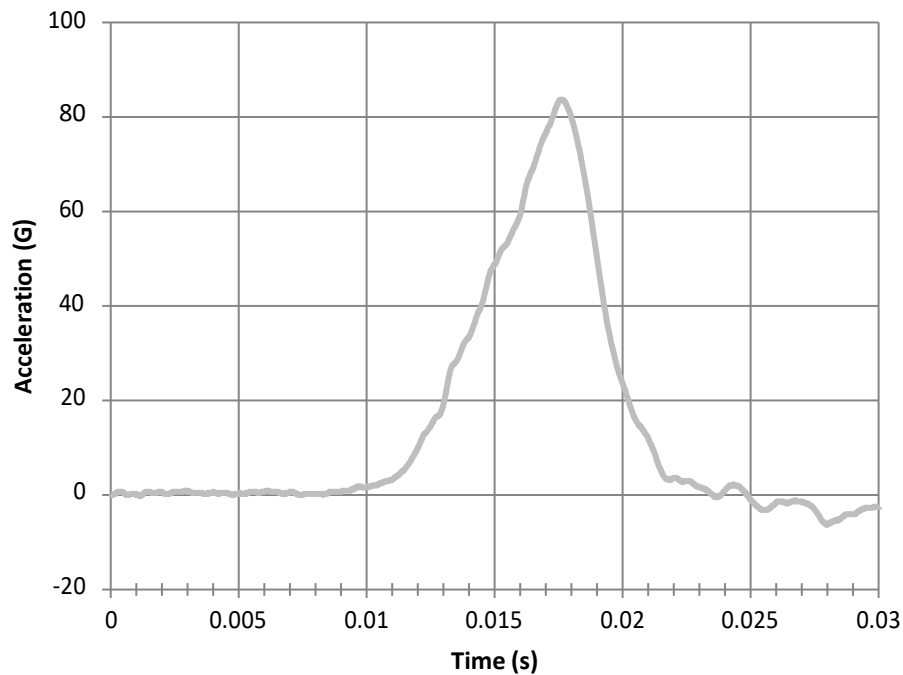
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Impact Number:	3
Impact Time:	02:05 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Front
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	59.1
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	4
Time:	02:06 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Front
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	83.6
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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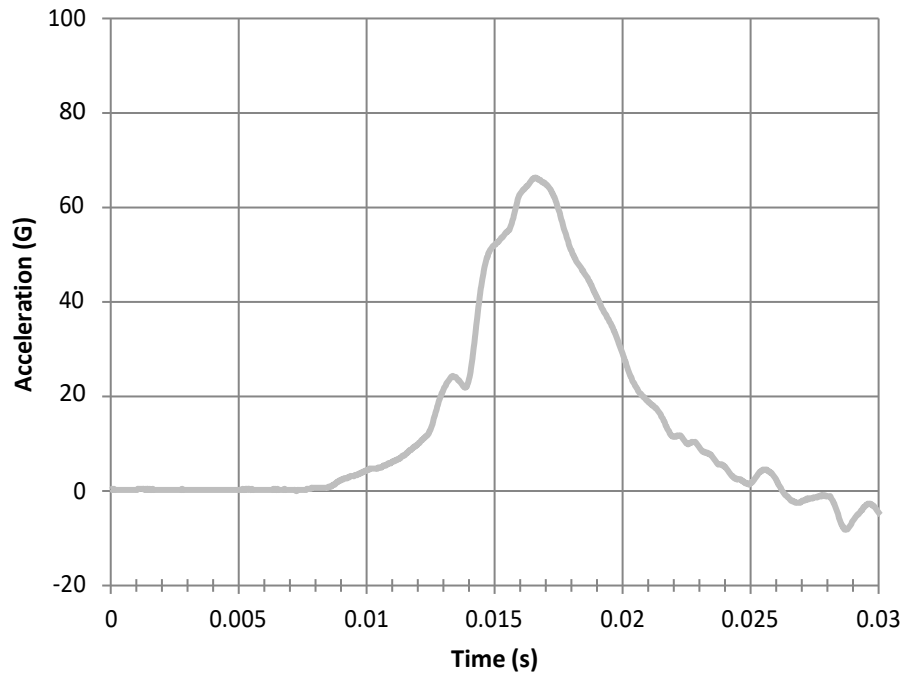
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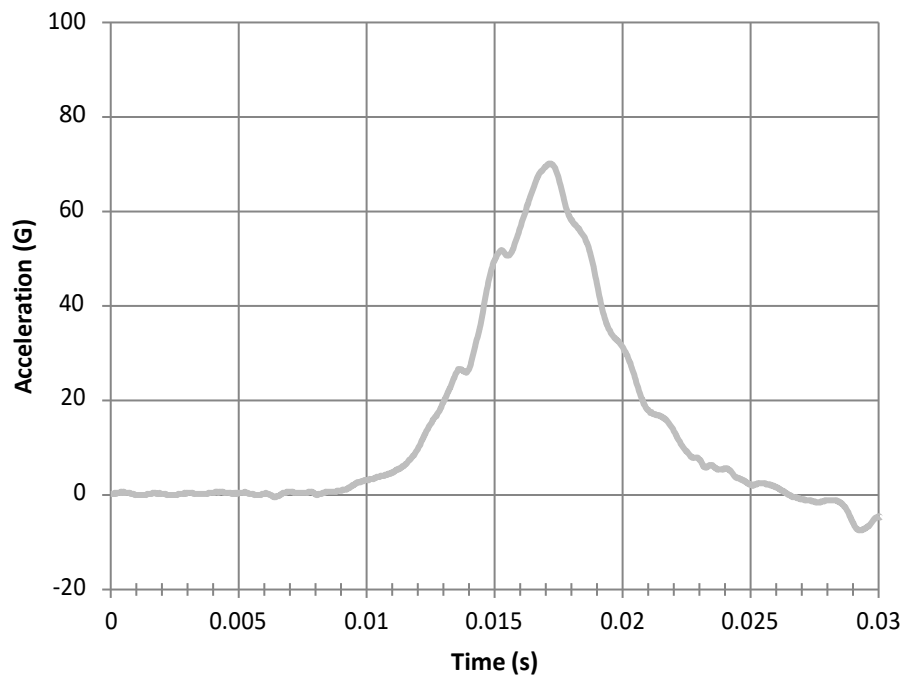
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Impact Number:	5
Impact Time:	02:12 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Rear
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	66.3
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	6
Time:	02:13 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	Rear
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.1
Peak Acc. (G):	70.1
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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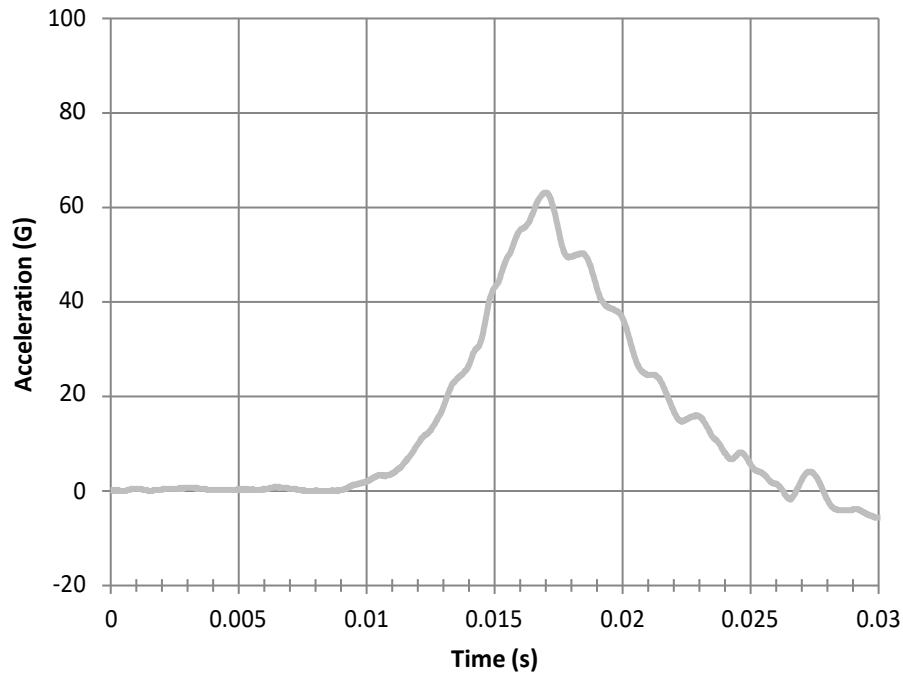
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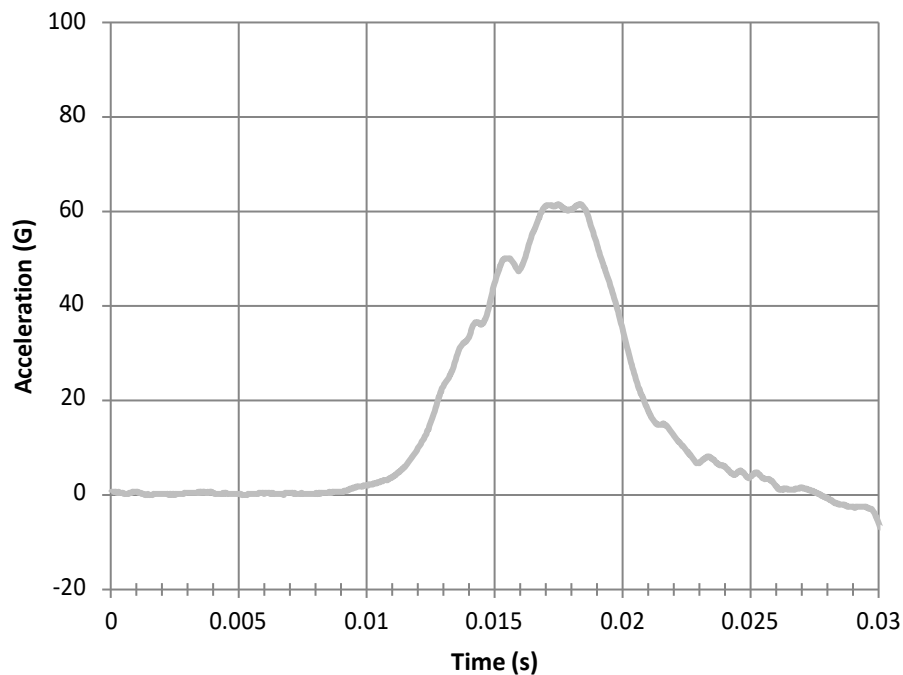
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Impact Number:	7
Impact Time:	02:20 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	L Side
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	63.1
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	8
Time:	02:22 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	L Side
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	61.5
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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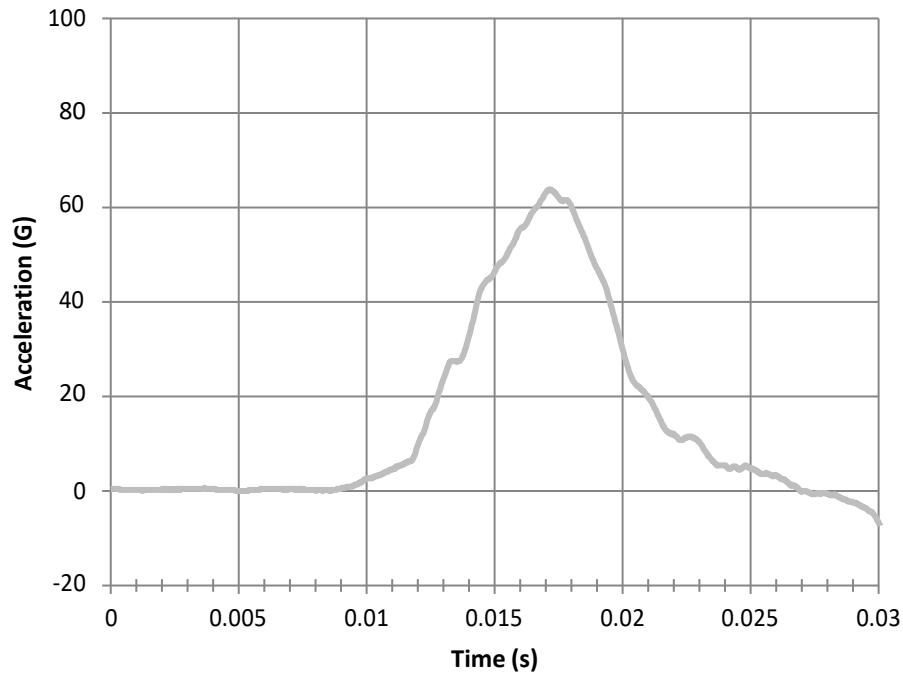
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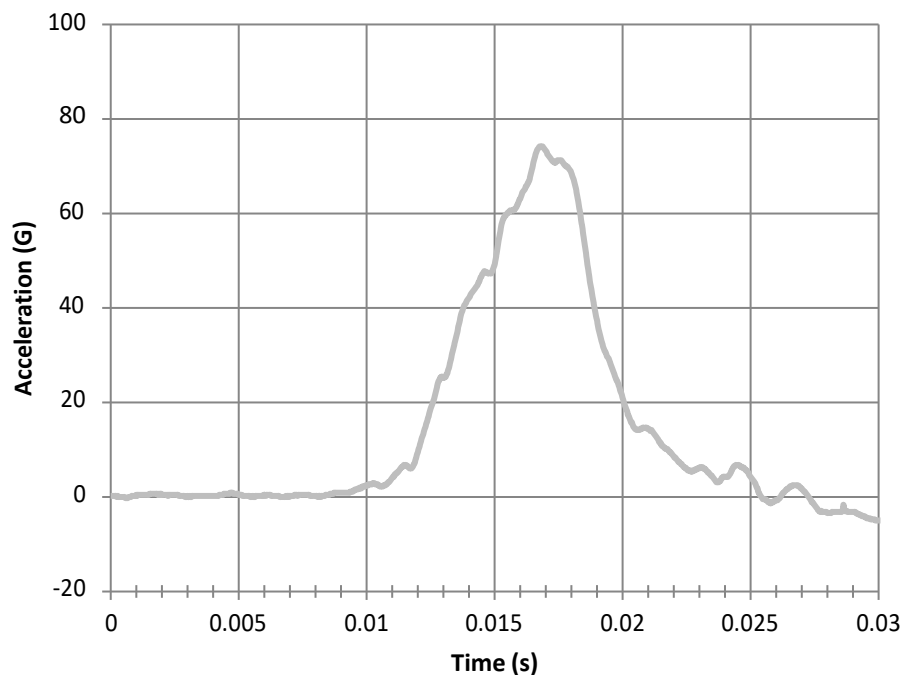
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Impact Number:	9
Impact Time:	02:27 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	R Side
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.1
Peak Acc. (G):	63.8
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	10
Time:	02:29 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	R Side
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.1
Peak Acc. (G):	74.2
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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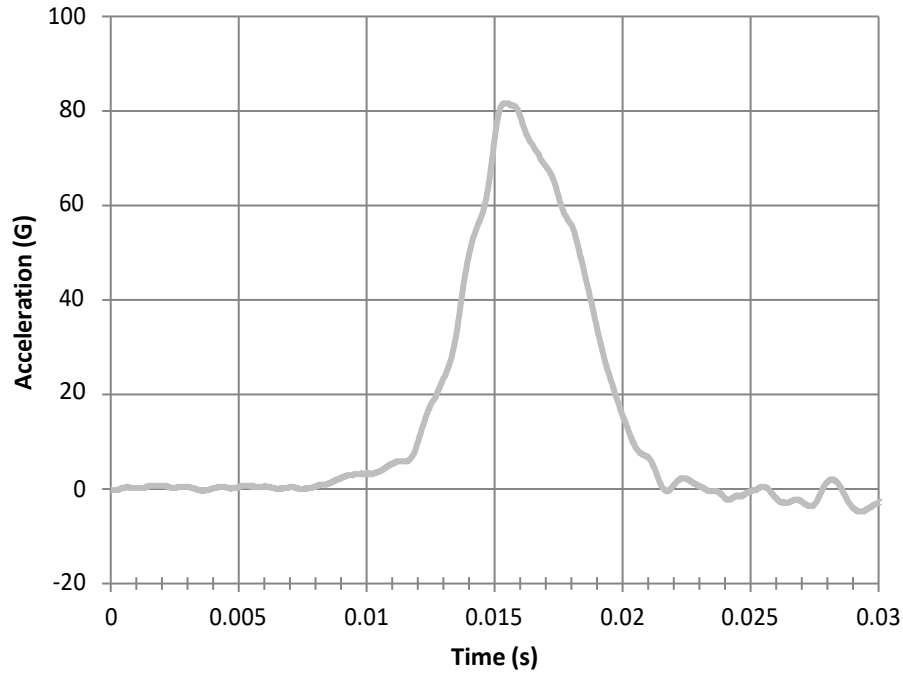
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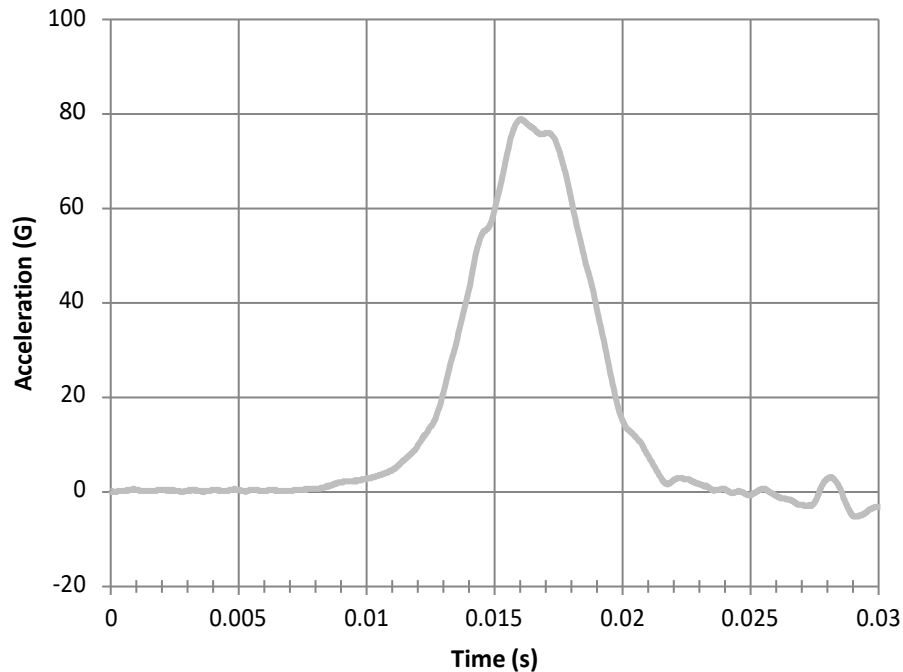
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Impact Number:	11
Impact Time:	02:45 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	L Nape
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.1
Peak Acc. (G):	81.6
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	12
Time:	02:47 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	L Nape
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	78.9
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	

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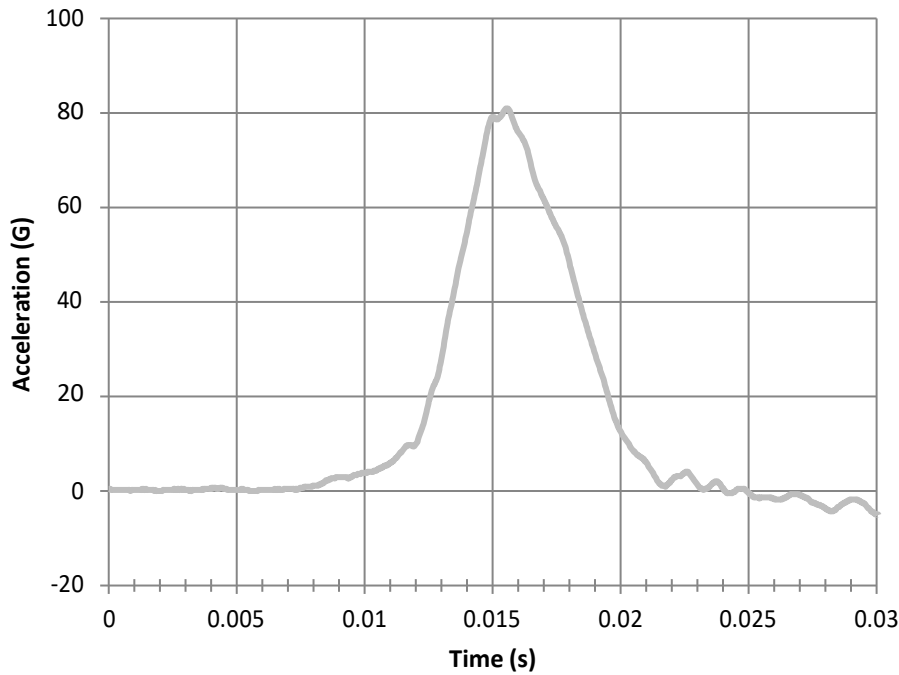
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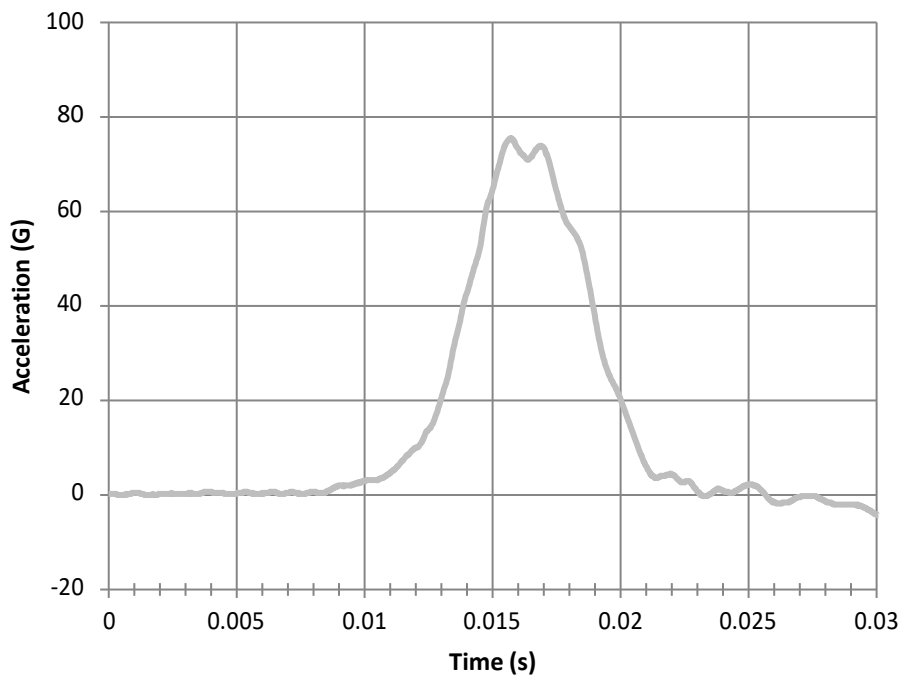
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Impact Number:	13
Impact Time:	02:53 PM
Impact Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	R Nape
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.1
Peak Acc. (G):	80.9
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	



Impact Number:	14
Time:	02:54 PM
Date:	12/8/2023
Conditioning:	Ambient
Impact Location:	R Nape
Anvil Type:	Hemi
Impact Velocity (ft/s):	10.0
Peak Acc. (G):	75.5
Dwell Time over 150 G (ms):	0
Dwell Time over 200 G(ms):	0
Comments:	